RETURN WITH BID

Illinois Department of Transportation

Local Public Agency Formal Contract Proposal

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

STATE OF ILLINOIS

COUNTY OF KANE

CITY OF ST. CHARLES

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

FOR THE IMPROVEMENT OF

STREET NAME OR ROUTE NO. Various Locations

SECTION NO. 19-00111-00-RS

TYPES OF FUNDS MFT and Corporate

☒ SPECIFICATIONS (required) ☒ PLANS (required)

For Municipal Projects

Submitted/Approved/Passed

☐ Mayor ☐ President of Board of Trustees ☒ Municipal Official

Date 3/11/19

Department of Transportation

☐ Released for bid based on limited review

Regional Engineer

Date 3/11/2019

For County and Road District Projects

Submitted/Approved

Highway Commissioner

Date

Submitted/Approved

County Engineer/Superintendent of Highways

Date

KENNETH L. JAY
LICENSED
PROFESSIONAL
ENGINEER
062-062261
STATE OF ILLINOIS
EXP. 11/19

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

RETURN WITH BID

NOTICE TO BIDDERS

County Kane
Local Public Agency City of St. Charles
Section Number 19-00111-00-RS
Route Various Locations

Sealed proposals for the improvement described below will be received at the office of The City Clerk,
City of St. Charles, 2 East Main Street, St. Charles, IL 60174 (Address) until 11:00 AM (Time) on March 28, 2019 (Date)

Sealed proposals will be opened and read publicly at the office of The City Clerk
2 East Main Street, St. Charles, IL 60174 (Address) at 11:00 AM (Time) on March 28, 2019 (Date)

DESCRIPTION OF WORK

Name 2019 MFT Street Rehabilitation Project Length: 12376.00 feet (2.34 miles)
Location Various
Proposed Improvement HMA grind and overlay, pavement patching, curb & gutter, sidewalk & driveway apron repairs; sanitary, storm & water utility repairs, replace & adjustment of structure frames; pavement markings; restoration.

1. Plans and proposal forms will be available in the office of City of St. Charles website at no cost at: https://www.stcharlesil.gov/bids-proposals. Contact Chris Gottlieb, Civil Engineer II at 630-377-4408 (Address)
2. ☒ Prequalification
   If checked, the 2 low bidders must file within 24 hours after the letting an "Affidavit of Availability" (Form BC 57), in duplicate, showing all uncompleted contracts awarded to them and all low bids pending award for Federal, State, County, Municipal and private work. One original shall be filed with the Awarding Authority and one original with the IDOT District Office.
3. The Awarding Authority reserves the right to waive technicalities and to reject any or all proposals as provided in BLRS Special Provision for Bidding Requirements and Conditions for Contract Proposals.
4. The following BLR Forms shall be returned by the bidder to the Awarding Authority:
   a. BLR 12200: Local Public Agency Formal Contract Proposal
   b. BLR 12200a Schedule of Prices
   c. BLR 12230: Proposal Bid Bond (if applicable)
   d. BLR 12325: Apprenticeship or Training Program Certification (**do not use for federally funded projects**)
   e. BLR 12326: Affidavit of Illinois Business Office
5. The quantities appearing in the bid schedule are approximate and are prepared for the comparison of bids. Payment to the Contractor will be made only for the actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as hereinafter provided.
6. Submission of a bid shall be conclusive assurance and warranty the bidder has examined the plans and understands all requirements for the performance of work. The bidder will be responsible for all errors in the proposal resulting from failure or neglect to conduct an in depth examination. The Awarding Authority will, in no case be responsible for any costs, expenses, losses or changes in anticipated profits resulting from such failure or neglect of the bidder.
7. The bidder shall take no advantage of any error or omission in the proposal and advertised contract.
8. If a special envelope is supplied by the Awarding Authority, each proposal should be submitted in that envelope furnished by the Awarding Agency and the blank spaces on the envelope shall be filled in correctly to clearly indicate its contents. When an envelope other than the special one furnished by the Awarding Authority is used, it shall be marked to clearly indicate its contents. When sent by mail, the sealed proposal shall be addressed to the Awarding Authority at the address and in care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the Notice to Bidders. Proposals received after the time specified will be returned to the bidder unopened.
9. Permission will be given to a bidder to withdraw a proposal if the bidder makes the request in writing or in person before the time for opening proposals.

RETURN WITH BID

PROPOSAL

County Kane
Local Public Agency City of St. Charles
Section Number 19-00111-00-RS
Route Various

1. Proposal of _____

for the improvement of the above section by the construction of Hot-mix asphalt grind and overlay, pavement patching, curb and gutter, sidewalk and driveway apron repairs; sanitary, storm and water utility repairs; replacement/adjustment of structure frames; pavement markings; restoration.

a total distance of 12376.00 feet, of which a distance of 12376.00 feet, (2.340 miles) are to be improved.

2. The plans for the proposed work are those prepared by City of St. Charles, Public Works - Engineering and approved by the Department of Transportation on 3/11/19
3. The specifications referred to herein are those prepared by the Department of Transportation and designated as "Standard Specifications for Road and Bridge Construction" and the "Supplemental Specifications and Recurring Special Provisions" thereto, adopted and in effect on the date of invitation for bids.
4. The undersigned agrees to accept, as part of the contract, the applicable Special Provisions indicated on the "Check Sheet for Recurring Special Provisions" contained in this proposal.
5. The undersigned agrees to complete the work within _____ working days or by 08/13/2019 unless additional time is granted in accordance with the specifications.
6. A proposal guaranty in the proper amount, as specified in BLRS Special Provision for Bidding Requirements and Conditions for Contract Proposals, will be required. Bid Bonds _____ be allowed as a proposal guaranty. Accompanying this proposal is either a bid bond if allowed, on Department form BLR 12230 or a proposal guaranty check, complying with the specifications, made payable to:

City of St. Charles Treasurer of _____

The amount of the check is 5% of the bid (_____).

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

RETURN WITH BID

Illinois Department of Transportation

SCHEDULE OF PRICES

County Kane
Local Public Agency City of St. Charles
Section 19-00111-00-RS
Route Various

Schedule for Single Bid
(For complete information covering these items, see plans and specifications)

MAIN BID

Item No.	Items	Unit	Quantity	Unit Price	Total
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CY	449		
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SY	720		
21101615	TOPSOIL FURNISH AND PLACE, 4"	SY	5571		
25000100	SEEDING, CLASS 1	AC	1		
25100630	EROSION CONTROL BLANKET	SY	5571		
35101600	AGGREGATE BASE COURSE, TYPE B 4"	SY	302		
35101800	AGGREGATE BASE COURSE, TYPE B 6"	SY	105		
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SY	713		
35102200	AGGREGATE BASE COURSE, TYPE B, 10"	SY	720		
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	62		
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	20730		
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	1235		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SY	956		
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	2057		
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D" N50	TON	4734		
42300200	PCC DRIVEWAY PAVEMENT, 6 INCH	SY	72		
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SF	5801		
42400300	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	SF	1715		
42400800	DETECTABLE WARNINGS	SF	470		
44000100	PAVEMENT REMOVAL	SY	720		
44000156	HOT-MIX ASPHALT SURFACE REMOVAL, 1-3/4"	SY	1389		
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2-1/2"	SY	26787		
44000160	HOT-MIX ASPHALT SURFACE REMOVAL, 2-3/4"	SY	771		
44000163	HOT-MIX ASPHALT SURFACE REMOVAL, 3-1/2"	SY	4523		
44000200	DRIVEWAY PAVEMENT REMOVAL	SY	72		
44000600	SIDEWALK REMOVAL	SF	7654		
44201672	CLASS D PATCHES, TYPE II, 2 INCH	SY	919		
44201692	CLASS D PATCHES, TYPE II, 4 INCH	SY	189		
44201696	CLASS D PATCHES, TYPE IV, 4 INCH	SY	90		
44201705	CLASS D PATCHES, TYPE II, 5 INCH	SY	557		
44201741	CLASS D PATCHES, TYPE II, 8 INCH	SY	92		
44300100	AREA REFLECTIVE CRACK CONTROL TREATMENT	SY	28514		
67100100	MOBILIZATION	LS	1		
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	LS	1		
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LS	1		
70300100	SHORT TERM PAVEMENT MARKING	LF	450		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SF	150		
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS & SYMBOLS	SF	208		
78000200	THERMOPLASTIC PAVEMENT MARKING – LINE 4”	LF	1926		
78000400	THERMOPLASTIC PAVEMENT MARKING – LINE 6”	LF	1947		
				Total from Page 1:	

Illinois Department of Transportation

SCHEDULE OF PRICES

County Kane
Local Public Agency City of St. Charles
Section 19-00111-00-RS
Route Various

Schedule for Single Bid
(For complete information covering these items, see plans and specifications)

MAIN BID (CONTINUED)

Item No.	Items	Unit	Quantity	Unit Price	Total
78000600	THERMOPLASTIC PAVEMENT MARKING – LINE 12”	LF	16		
78000650	THERMOPLASTIC PAVEMENT MARKING – LINE 24”	LF	310		
88600100	DETECTOR LOOP, TYPE I	LF	350		
X0326440	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SY	11878		
X0327611	REMOVE AND REINSTALL BRICK PAVER	SF	177		
X4400220	CURB REMOVAL AND REPLACEMENT	LF	4864		
Z0004510	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3"	SY	1048		
Z0004544	HOT-MIX ASPHALT DRIVEWAY PAVEMENT REMOVAL	SY	1048		
20800150	TRENCH BACKFILL	CY	221		
28000510	INLET FILTERS	EACH	128		
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	1		
55100200	STORM SEWER REMOVAL 6"	LF	22		
55100300	STORM SEWER REMOVAL 8"	LF	45		
55100400	STORM SEWER REMOVAL 10"	LF	134		
55100500	STORM SEWER REMOVAL 12"	LF	78		
55100900	STORM SEWER REMOVAL 18"	LF	8		
60200205	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1		
60206905	CATCH BASINS, TYPE C, TYPE 1 FRAME, OPEN LID	EACH	2		
60207105	CATCH BASINS, TYPE C, TYPE 3 FRAME AND GRATE	EACH	1		
60207705	CATCH BASINS, TYPE C, TYPE 9 FRAME AND GRATE	EACH	1		
60208205	CATCH BASINS, TYPE C, TYPE 15 FRAME AND LID	EACH	1		
60218300	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	2		
60218400	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2		
60221100	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1		
60234200	INLETS, TYPE A, TYPE 1 FRAME AND GRATE	EACH	3		
60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	5		
60236100	INLETS, TYPE A, TYPE 6 FRAME AND GRATE	EACH	1		
60236200	INLETS, TYPE A, TYPE 8 GRATE	EACH	1		
60250400	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 1 FRAME, OPEN LID	EACH	1		
60255800	MANHOLES TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	12		
60260300	INLETS TO BE ADJUSTED WITH NEW TYPE 1 FRAME, OPEN LID	EACH	3		
60265900	VALVE VAULTS TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	2		
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	15		
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	27		
60500040	REMOVING MANHOLES	EACH	10		
60500050	REMOVING CATCH BASINS	EACH	7		
60500060	REMOVING INLETS	EACH	9		
66900200	NON-SPECIAL WASTE DISPOSAL	CY	74		
550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	LF	60		
550A0090	STORM SEWERS, CLASS A, TYPE 1 18"	LF	8		
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	LF	8		
			Carried forward from page 1		
			Total from page 2		
			Bidder's Proposal for making Entire Improvements		

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Illinois Department of Transportation

SCHEDULE OF PRICES

County Kane
Local Public Agency City of St. Charles
Section 19-00111-00-RS
Route Various

Schedule for Single Bid
(For complete information covering these items, see plans and specifications)

MAIN BID (CONTINUED)

Item No.	Items	Unit	Quantity	Unit Price	Total
1	ADJUST WATER SERVICE	EACH	1		
2	FIRE HYDRANT ASSEMBLY - REMOVE & REPLACE	EACH	9		
3	RAISE FIRE HYDRANT 6"	EACH	1		
4	FIRE HYDRANT ASSEMBLY BOLT REPLACEMENT W/ NEW AUX. BOX	EACH	7		
5	REMOVE & REPLACE B-BOX	EACH	22		
6	REMOVE & REPLACE B-BOX & CURB STOP	EACH	9		
7	REPLACE 6" VALVE IN EXISTING VAULT	EACH	11		
8	REPLACE 8" VALVE IN EXISTING VAULT	EACH	2		
9	REMOVE 4" VALVE IN BOX & REPLACE W/ 4" VALVE IN 4' DIA. VAULT	EACH	1		
10	REMOVE 6" VALVE IN BOX & REPLACE W/ 6" VALVE IN 4' DIA. VAULT	EACH	1		
11	SANITARY MANHOLE CHIMNEY SEAL	EACH	7		
12	SANITARY MANHOLE 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	6		
13	SANITARY MANHOLE WITH DROP 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1		
14	SANITARY SEWER PIPE, 8" PVC, SDR 26, TYPE 2	LF	150		
15	SANITARY SEWER PIPE, REMOVE 6" AND REPLACE WITH 8" PVC, C900	LF	90		
16	SANITARY SEWER PIPE, REMOVE 8" VCP AND REPLACE WITH 8" PVC, SDR 26	LF	46		
17	SANITARY SEWER SERVICE, 6" PVC, SDR 26	LF	56		
18	REMOVE & REPLACE SANITARY SEWER SERVICE, 6" PVC, SDR 26	LF	24		
19	INLETS, TYPE A, TYPE 3V FRAME AND GRATE	EACH	1		
20	CATCH BASINS, TYPE C, 3'-DIAMETER, TYPE 15 FRAME AND GRATE	EACH	1		
21	STORM SEWERS 6" PVC, SDR 26, Type 1	LF	22		
22	STORM SEWERS 10" PVC, SDR 21, Type 1	LF	55		
23	STORM SEWERS 10" PVC, SDR 26, Type 1	LF	134		
24	STORM SEWERS 12" PVC, SDR 26, Type 2	LF	10		
			Carried forward from page 1		
			Carried forward from page 2		
				Total from page 3	
				Bidder's Proposal for making Entire Improvements	

CONTRACTOR CERTIFICATIONS

County	Kane
Local Public Agency	City of St. Charles
Section Number	19-00111-00-RS
Route	Various

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

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

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

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

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

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

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

RETURN WITH BID

County Kane
Local Public Agency City of St. Charles
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SIGNATURES

(If an individual)

Signature of Bidder _____

Business Address _____

(If a partnership)

Firm Name _____

Signed By _____

Business Address _____

Inset Names and Addressed of All Partners _____

(If a corporation)

Corporate Name _____

Signed By _____
President

Business Address _____

Insert Names of Officers
President _____
Secretary _____
Treasurer _____

Attest: _____
Secretary

Illinois Department of Transportation

Local Agency Proposal Bid Bond

Route: Various
County: Kane
Local Agency: City of St. Charles
Section: 19-00111-00-RS

RETURN WITH BID

PAPER BID BOND

WE _____ as PRINCIPAL,

and _____ as SURETY,

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

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

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

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

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

Principal

_____ (Company Name) _____ (Company Name)

By: _____ (Signature and Title) By: _____ (Signature and Title)

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

Surety

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

STATE OF ILLINOIS,

COUNTY OF _____

I. _____, a Notary Public in and for said county,

do hereby certify that _____

(Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

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

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

My commission expires _____ _____ (Notary Public)

ELECTRONIC BID BOND

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

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

Electronic Bid Bond ID Code

_____ (Company/Bidder Name)

_____ (Signature and Title) _____ Date

BLR 12230 (Rev. 7/05

ITEMS TO BE RETURNED WITH BID

The following documents shall be included with the submitted bid:

- BLR 12200 – Contract Proposal Cover
- BLR 12200 – Notice to Bidders
- BLR 12200 – Proposal
- BLR 12200a – Schedule of Prices
- BLR 12200 – Contractor Certifications
- BLR 12200 - Signatures
- BLR 12230 – Proposal Bid Bond
- BLR 12325 – Apprenticeship or Training Program Certification
- BLR 12326 - Affidavit of Illinois Business Office
- BC 57 – Affidavit of Availability
- IDOT Certification of Eligibility
- Certification of Compliance
- Special Provision for Best Management Practices

Illinois Department of Transportation

Apprenticeship or Training Program Certification

Return with Bid

Route Various
County Kane
Local Agency City of St. Charles
Section 19-00111-00-RS

All contractors are required to complete the following certification:

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

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

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

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

II. The undersigned bidder further certifies for work to be performed by subcontract that each of its subcontractors submitted for approval either (A) is, at the time of such bid, participating in an approved, applicable apprenticeship or training program; or (B) will, prior to commencement of performance of work pursuant to this contract, establish participation in an approved apprenticeship or training program applicable to the work of the subcontract.

III. The undersigned bidder, by inclusion in the list in the space below, certifies the official name of each program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder's employees. Types of work or craft that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category for which there is no applicable apprenticeship or training program available.

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

_____

_____

_____

_____

_____

The requirements of this certification and disclosure are a material part of the contract, and the contractor shall require this certification provision to be included in all approved subcontracts. The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project is accounted for and listed. The Department at any time before or after award may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. In order to fulfill the participation requirement, it shall not be necessary that any applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this contract or deliver and install proposal.

Bidder: _____ By: _____
(Signature)

Address: _____ Title: _____

RETURN WITH BID

Illinois Department of Transportation

Affidavit of Illinois Business Office

County Kane
Local Public Agency City of St. Charles
Section Number 19-00111-00-RS
Route Various

State of _____)
) ss.
County of _____)

I, _____ (Name of Affiant) of _____ (City of Affiant) , _____ (State of Affiant ,

being first duly sworn upon oath, states as follows:

1. That I am the _____ (officer or position) of _____ (bidder) .
2. That I have personal knowledge of the facts herein stated.
3. That, if selected under this proposal, _____ (bidder) , will maintain a business office in the State of Illinois which will be located in _____ County, Illinois.
4. That this business office will serve as the primary place of employment for any persons employed in the construction contemplated by this proposal.
5. That this Affidavit is given as a requirement of state law as provided in Section 30-22(8) of the Illinois Procurement Code.

_____
(Signature)

_____
(Print Name of Affiant)

This instrument was acknowledged before me on day of _____ , _____ .

(SEAL)

_____
(Signature of Notary Public)

Illinois Department of Transportation

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

Affidavit of Availability
For the Letting of _____

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

Part I. Work Under Contract

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

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

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

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

						Accumulated Totals
Earthwork						
Portland Cement Concrete Paving						
HMA Plant Mix						
HMA Paving						
Clean & Seal Cracks/Joints						
Aggregate Bases & Surfaces						
Highway, R.R. and Waterway Structures						
Drainage						
Electrical						
Cover and Seal Coats						
Concrete Construction						
Landscaping						
Fencing						
Guardrail						
Painting						
Signing						
Cold Milling, Planning & Rotomilling						
Demolition						
Pavement Markings (Paint)						
Other Construction (List)						
						$ 0.00
Totals						

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

Part III. Work Subcontracted to Others.

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

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

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

Subscribed and sworn to before me

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

Officer or Director Title

_____ Signed _____

Notary Public

My commission expires _____

Company _____

(Notary Seal)

Address _____

_____

Certification of Compliance

(A) The undersigned certifies that, pursuant to the **Equal Opportunity Employer** provisions of Section 2000(e) of Chapter 21, Title 42 of the United States Code and Federal Executive Order No. 11246 as amended by Executive Order No. 11375, the bidder is compliant with all Equal Employment Opportunity Commission ("EEOC") requirements.

(B) The undersigned certifies that, pursuant to the **Illinois Human Rights** Act provisions of Section 775 ILCS 5/2-105,the bidder complies with and certifies that it is in compliance with all equal employment practice requirements contained therein, and that it has adopted a written sexual harassment policy that meets the minimum requirements.

(C) The undersigned certifies that, pursuant to the **State of Illinois Law** provisions of Section 720 ILCS 5/33E prohibiting Bid-rigging or Bid-rotating, the bidder is not barred from bidding on this project, or entering into a contract for this project.

(D) The undersigned certifies that, pursuant to the **Illinois Department of Revenue Tax Laws** provisions of Section 65 ILCS 5/11-42.1-1, the bidder is not barred from doing business with any unit of local government in the State of Illinois as a result of a delinquency in payment of any taxes unless the bidder is contesting, in accordance with the procedures established by the appropriate statute, its liability for the tax or the amount of the tax.

(E) The undersigned certifies that, pursuant to the **Illinois Drug Free Workplace Act** provisions of Section 30 ILCS 580/3, the bidder deposes states and certifies that it will provide a drug free workplace, inclusive of all satellite locations as well as the City of St. Charles sites.

(F) The undersigned certifies that, pursuant to the **Illinois Prevailing Wage Act** provisions of Section 820 ILCS 130/0.01 et seq, the bidder, when required, is in compliance with all requirements of, including provisions as to wages, medical and hospitalization insurance and retirement benefits for those trades covered in the Act. Pursuant to **Illinois Public Act** provisions of Section 94-0515 and all provisions of the **Employee Classification Act**, provisions of Section 820 ILCS 185/1 et seq., said bidder agrees to submit certified payroll records as required.

(G) The undersigned certifies that, pursuant to the **Employment of Illinois Workers on Public Works Act** provisions of Section 30 ILCS 570/0.01, et seq., the bidder is in compliance with all requirements. Furthermore, the bidder certifies that it will demonstrate a good faith effort toward providing equal employment opportunities for City of St. Charles residents to work as crafts persons, consistent with the racial, ethnic, and gender demographics of the City's labor force.

(H) The undersigned certifies that, pursuant to the **National Security/USA Patriot Act** as defined in Presidential Executive Order 13224, the bidder and all affiliated parties, are not working for or with, nor acting on behalf of, a Specially Designated National and Blocked Person.

(I) The undersigned certifies that they have not colluded with or participated in any **unethical practices** with any person, firm or employee of the City of St Charles which would in any way be construed as an unethical business practice.

Check One:

☐ **There are no conflicts of interest** and in the event that a conflict of interest is identified anytime during the duration of this award, or reasonable time thereafter, you, your firm or your firm's ownership, management or staff will immediately notify the City of St. Charles in writing.

☐ **There is an affiliation or business relationship** between you, your management or staff, your firm or your firm's ownership, and an employee, officer or elected official of the City of St. Charles who makes recommendations to the City of St. Charles with respect to expenditures of money, employment, and elected or appointed positions. Provide on a separate letter included with your response any and all affiliations or business relationships that might cause a conflict of interest or a ny potential conflict of interest. Include the name of each City of St Charles affiliate with whom you, your firm or your firm's ownership, management or staff has an affiliation or a business relationship.

Company Name _____ **Signature** _____ **Date**_____

SPECIAL PROVISION
FOR
Best Management Practices Training

All general and sub-contractors who manage or carry out routine maintenance or replacement of public surfaces and utilities are required to provide annual training to their employees in current Best Management Practices.

All training shall be in accordance with the current regulations governed by the National Pollution Discharge Elimination System (NPDES) ILR-40 General Permit Section 5, Article D, Paragraph ii.

Contractors shall provide confirmation of training below.

I, _____ (Company Owner or Management Representative) hereby acknowledge that all employees working on this project who will manage or carry out maintenance or replacement of public surfaces have completed the required annual low impact design/green technology training for this permit cycle year (April 1, ____ – March 31, ____).

Signature: _____ Title: _____

Date: _____ Company: _____

Illinois Department of Transportation

Special Provisions

Local Public Agency	County	Section Number
City of St. Charles	Kane	19-00111-00-RS

The following Special Provision supplement the "Standard Specifications for Road and Bridge Construction", adopted April 1, 2016, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures of Materials" in effect on the date of invitation of bids, and the Supplemental Specification and Recurring Special Provisions indicated on the Check Sheet included here in which apply to and govern the construction of the above named section, and in case of conflict with any parts, or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

Maintenance of Roadways

Effective: September 30, 1985 Revised: November 1, 1996

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 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.

STATUS OF UTILITIES (D-1)
Effective: June 1, 2016

Utility companies and/or municipal owners located within the construction limits of this project have provided the following information in regard to their facilities and the proposed improvements. The tables below contain a description of specific conflicts to be resolved and/or facilities which will require some action on the part of the Department's contractor to proceed with work. Each table entry includes an identification of the action necessary and, if applicable, the estimated duration required for the resolution.

UTILITIES TO BE ADJUSTED

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

Pre-Stage

STAGE / LOCATION	TYPE	DESCRIPTION	RESPONSIBLE AGENCY	ACTION
N/A				

Stage 1

STAGE / LOCATION	TYPE	DESCRIPTION	RESPONSIBLE AGENCY	ACTION
N/A				

Stage 2

STAGE / LOCATION	TYPE	DESCRIPTION	RESPONSIBLE AGENCY	ACTION
N/A				

No conflicts to be resolved (or if there are conflicts they are to be listed as noted above)

Pre-Stage: ___0_____ Days Total Installation
Stage 1: ____0____ Days Total Installation
Stage 2: ____0____ Days Total Installation

The following contact information is what was used during the preparation of the plans as provided by the Agency/Company responsible for resolution of the conflict.

Agency/Company Responsible to Resolve Conflict	Name of contact	Address	Phone	e-mail address
N/A				

UTILITIES TO BE WATCHED AND PROTECTED

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

Pre-Stage

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER	ACTION
N/A				

Stage 1

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER	ACTION
N/A				

Stage 2

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER	ACTION
N/A				

The following contact information is what was used during the preparation of the plans as provided by the owner of the facility.

Agency/Company Responsible to Resolve Conflict	Name of contact	Address	Phone	e-mail address
AT&T	Janet Ahern	1000 Commerce Drive Oak Brook, IL 60523	630-573-6414	Ja1763@att.com
Comcast	Robert Stoll	688 Industrial Drive Elmhurst, IL 60126	630-600-6213	
Nicor Gas	Bruce Koppang	1844 Ferry Rd Naperville, IL 60563	630-388-3046	

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

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

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

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2019

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

ERRATA Standard Specifications for Road and Bridge Construction
(Adopted 4-1-16) (Revised 1-1-19)

SUPPLEMENTAL SPECIFICATIONS

RECURRING SPECIAL PROVISIONS

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

Illinois Department of Transportation

Check Sheet For Recurring Special Provisions

The Following Recurring Special Provisions Indicated By An “X” Are Applicable To This Contract And Are Included By Reference:

Recurring Special Provisions

Check Sheet #			Page No.
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6	☐	Asbestos Bearing Pad Removal	100
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The Following Local Roads And Streets Recurring Special Provisions Indicated By An “X” Are Applicable To This Contract And Are Included By Reference:

Local Roads And Streets Recurring Special Provisions

TRAFFIC CONTROL PLAN
Effective: September 30, 1985
Revised: January 1, 2007

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

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

The Contractor shall contact the City of St. Charles at least 72 hours in advance of beginning work.

STANDARDS:

701501-06
701801-06
701901-06
BLR 17-4
BLR 18-6

DETAILS:

TC-10
TC-13

SPECIAL PROVISIONS:

Maintenance of Roadways
Work Zone Traffic Control
Flaggers in Work Zones
Traffic Control and Protection

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 St. Charles, Illinois

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

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

SPECIAL PROVISION FOR CONSTRUCTION AND MAINTENANCE SIGNS

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

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

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

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

SPECIAL PROVISIONS TABLE OF CONTENTS

SECTION ONE – GENERAL SPECIAL PROVISIONS

SECTION TWO – PAY ITEM SPECIAL PROVISIONS

SPECIAL PROVISIONS FOR
CITY OF ST CHARLES
2019 MFT STREET REHABILITATION PROGRAM

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction" adopted April 1, 2016, and the Supplemental Specifications adopted January 1, 2018 (hereafter referred to as the Standard Specifications); the "Manual on Uniform Traffic Control Devices for Streets and Highways" in effect on the date of invitation for bids; the "Supplemental Specifications and Recurring Special Provisions"; adopted January 1, 2017; and the "Standard Specifications for Water and Sewer Construction in Illinois", 7th Edition. In case of conflict with any parts of said specifications, the said Special Provisions shall take precedence and shall govern.

SECTION ONE – GENERAL SPECIAL PROVISIONS

LOCATION OF PROJECT
The proposed project is located at "various locations" in the City of St Charles, Illinois. See location map for specific locations and limits. Net length of improvement is 12,376 feet (2.34 City miles).

DESCRIPTION OF PROJECT
The proposed project consists of the construction of hot-mix asphalt pavement removal and resurfacing, pavement patching, curb and gutter removal and replacement, driveway pavement removal and replacement, sidewalk removal and replacement, the adjustment of utility and drainage structures, and restoration. All other incidental and collateral work necessary to complete the project as described herein will be the responsibility of the Contractor.

CONSTRUCTION SCHEDULE AND COMPLETION DATES
Construction is scheduled to begin as outlined below, and only after the proper execution of the contact documents, which includes the submission of insurance and bonds, or within two weeks of notice to proceed.

At the preconstruction conference, the Contractor shall meet with the City and the Engineer and present, in writing, a detailed construction schedule. Said schedule shall contain such information as the Engineer deems necessary, including sequencing of streets and dates for the starting and completing construction operations, location of off-site disposal areas, access routes to be used and location of equipment and material storage sites. Once approved, the Contractor must adhere to the schedule so that field markings of all items of work may proceed in advance of actual construction.

The Contractor shall confirm with the Engineer the scheduled commencement of each construction activity **at least four days in advance** to allow for proper notification of residents and motorists. The principle activities requiring public notification are commencement of utility repairs, curb and driveway removal and replacement, surface milling, roadway reconstruction, application of prime coat, and HMA paving.

No open excavations shall be permitted on Illinois St., Cedar Ave., or State Ave. on May 25-27, 2019 or July 4, 2019.

- **Start Dates**
  - Contract Execution, Purchase Order and Notice to Proceed anticipated by **May 7, 2019.**
  - Work on S. 11th St. and on Gray St. shall not commence until **June 10, 2019**
  - Work on Deville Ln. shall not commence until **July 1, 2019** unless authorized by the Engineer
- **Completion Dates**
  - The substantial completion of all work, contract terms, and safely opening all roadways to traffic shall be completed by 11:59 PM on **Friday, August 9, 2019.**
  - Final completion for all other ancillary work, including landscaping restoration, shall be completed and ready for final acceptance and payment on or before **September 13, 2019**. Failure to comply with the deadlines for the substantial completion and final completion shall result in the enforcement of liquidated damages in accordance with Sections 108.05 and 108.09 of the Standard Specifications, along with all fees acquired for extended need for resident engineering services.

WAGE RATES
Kane County Prevailing Wages shall be used for all work performed under this contract.

CLEAN CONSTRUCTION OR DEMOLITION DEBRIS (CCDD)
The Contractor is to be aware of and comply with CCDD requirements. The City of St. Charles will provide IEPA form LPC-662, which will be executed by the City and provided to the contractor at the pre-construction meeting. It is our understanding that CCDD sites are accepting the 662 forms for spoil created in residential areas. The majority of the soil spoil material in this contract will be generated in residential areas. The contractor shall make sure that the CCDD site being utilized will accept the material based on the LPC-662 form and the fact that they are in residential areas. If the CCDD site being selected by the Contractor will not accept it, the Contractor will be responsible for the requirements necessary for the completion and execution of the LPC-663 forms for the residential roadway areas at no additional cost to the City.

For non-residential areas, the LPC-663 is provided within these contract documents.

PRE-CONSTRUCTION VIDEOTAPING
The Contractor shall prepare pre-construction video documentation of all features in the areas affected by construction, including areas adjacent to the right-of-way and construction easements. All video cameras, recorders, tapes, accessories and appurtenances shall be high quality CD or DVD format equipment. Pre-construction video documentation shall consist of a series of high-resolution color audio-video tapes showing all areas affected by construction. All pertinent exterior and interior features within the construction's zone of influence shall be shown in sufficient detail to document its pre-construction condition. Features to be shown shall include but not be limited to pavements, curbs, driveways, sidewalks, retaining walls, buildings, landscaping, trees, shrubbery, fences, light posts, signs, interior features and equipment, etc. Viewer orientation shall be maintained by audio commentary on the audio track of each videotape to help explain what is being viewed.

The pre-construction videotaping shall be completed after the initial walkthrough and two copies of the tape(s) submitted to the City of St Charles before commencing with any construction activities, including material delivery. This work shall be included in the cost of the contract.

PROTECTION OF TREES AND SHRUBS
This work shall be in accordance with Section 201 of the Specifications with the addition that damages at the rate of two hundred dollars ($200.00) per inch of trunk diameter shall be charges against the Contractor for unauthorized removal or destruction of any tree four (4) inches in diameter or larger.

USE OF FIRE HYDRANTS
The Contractor shall contact the City of St Charles Water Division to obtain a water meter and for permission to use water from existing fire hydrants. The Water Division reserves the right to restrict which fire hydrant(s) may be used. The Contractor shall use special care in opening and closing of fire hydrants following Water Division guidelines. Repairs caused by failure to comply with proper operating guidelines will be the sole responsibility of the Contractor.

CONCRETE BREAKERS
When removing pavement, curb and gutter, shoulder, and/or other structures, the use of any type of concrete breakers which might damage underground public or private utilities will not be permitted. Under no circumstances will the use of a frost ball be permitted. The Contractor is prohibited from breaking up concrete by dropping it on the pavement or in any other manner which, in the opinion of the Engineer, may damage existing or proposed pavements or other roadway appurtenances

BACKFILLING OF STRUCTURES
This work shall be in accordance with the applicable portions of Article 602.12 of the Standard Specifications except as modified herein

Materials
Structures under pavement or within 2’ of pavement, sidewalk, driveways, etc. shall be backfilled with course aggregate CA-7 (crushed limestone). Structures in parkway shall be backfilled according to the details.

TRENCH BACKFILL
This work shall be in accordance with Section 208 of the Standard Specifications except as noted herein:

Materials
All trench backfill shall be CA-7 (crushed limestone.)

FINAL ADJUSTMENT OF FRAME & COVER
This work shall be in accordance with Sections 602 and 603 of the Standard Specifications except as noted herein:

Materials
All adjusting rings shall be precast concrete.

The type of lid or grate (open, closed, etc.), when being replaced, shall be as indicated on the drawings or as directed by Engineer:

Construction Requirements
For structures located within a paved area, mortar with solid steel shims shall be used between adjusting rings and the top of the structure. Structures located within an unpaved area shall use a preformed HMA joint sealant to be placed between each adjusting ring and the top of the structure.

TEMPORARY PATCH
Where excavations occur within the roadway, this work shall consist of removal of trench backfill material to a depth of 2" below the pavement surface and the placement of a temporary patch. The temporary patch shall consist of asphalt (cold, warm, or hot mix) and shall be compacted to meet the existing asphalt surface elevation and provide for a relatively smooth riding surface.

Temporary patches shall be completed within 72 hours of excavations within the roadway and at the end of the work week. Temporary patches shall be considered included in the associated pay items which may cause excavations within the roadway.

INLET FILTERS
This work shall consist of furnishing, installation, maintenance, and removal of a drainage structure inlet filter assembly. All work shall be in accordance with Section 280 of the Standard Specifications, except as modified herein:

Construction Requirements
The Contractor shall provide maintenance as required by the site conditions and rainfall throughout the entire project duration. Maintenance shall include inspecting the bag at least every two (2) weeks, cleaning if needed; inspecting the bag every time there is rainfall totaling one (1) or more inches, cleaning if needed; and replacing the bag if it is severely worn or torn or if the bag is clean but won't pass water.

Inlet filter assemblies shall be installed on all structures within or immediately downstream of the work zone prior to milling pavement or any excavation.

Any structures which were not properly fitted and maintained with an inlet filter basket during the course of construction will be required to be cleaned by hand or by truck.

SECTION TWO – PAY ITEM SPECIAL PROVISIONS

HOT-MIX ASPHALT SURFACE REMOVAL
This work shall be done in accordance with applicable portions of Section 440 of the Standard Specifications, except as modified herein:

Construction Requirements

The Contractor shall coordinate the work so that the period of time between the milling of the existing HMA surface and the placement of the HMA binder or leveling binder is kept to a minimum. This period shall not exceed 3 calendar days. The Engineer shall determine if an extension of time will be allowed due to weather or other unforeseen circumstances. The Engineer shall assess liquidated damages of $2000 per day for each day after the 3 calendar days has passed without approval for a time extension.

HOT-MIX ASPHALT SURFACE COURSE, MIX "D" N50

This work shall be in accordance with Sections 602 and 603 of the Standard Specifications except as modified herein:

Construction Requirements

The Contractor shall coordinate the work so that the period of time between the placement of the HMA binder course and the placement of the HMA surface is kept to a minimum. This period shall not exceed 14 calendar days. The Engineer shall determine if an extension of time will be allowed due to weather or other unforeseen circumstances. The Engineer shall assess liquidated damages of $2000 per day for each day after the 14 calendar days have passed without approval for a time extension. Restoration and punch list items shall be addressed before the surface course is placed.

DETECTABLE WARNINGS

This work shall be in accordance with Section 424 of the Standard Specifications except as modified herein

Materials

Truncated dome plates conforming to Federal Standard Color 30166 and consisting of vitrified polymer composite detectable tactile warning system in conformance with ADAAG shall be used at all appropriate locations. Plates shall be inserted, no surface mounted plates shall be allowed.

CURB REMOVAL AND REPLACEMENT

The work shall be done in accordance with applicable portions of Sections 440 and 606 of the Standard Specifications, except as modified herein:

Construction Requirements

New concrete curb and gutter shall match the existing curb and gutter or be of the type specified in the plans. The thickness of the proposed gutter flag shall match the thickness of the adjacent pavement but in no case be less than nine (9) inches.

The Engineer must approve forming methods for pouring the curb and gutter. The use of the existing edge of pavement for HMA roadways shall not be considered a proper forming method.

The proposed curb and gutter shall be depressed across all handicapped ramps, driveways and/or directed by the Engineer. Placement of depressed curbing for private walkways or carriage walks shall not be permitted.

The Contractor must schedule the removal and replacement of the curb and gutter or the new curb construction such that only one side of a given street will be under construction at any one time unless approved by the Engineer.

All homeowners shall be given a minimum of 24 hours' notice prior to excavation of their driveway. In no case shall an open excavation caused by removal of existing curbing, whether formed or not formed, remain open for more than **3 calendar days** unless approved by the Engineer. The Engineer shall assess liquidated damages of $1000 per day for each day after the 3 calendar days has passed without approval for a time extension.

Disturbed pavement and driveway areas shall be restored immediately following replacement operations, in all cases within **3 calendar days** from the date curb and gutter is cast. The Engineer shall assess liquidated damages of $1000 per day for each day after the 3 calendar days has passed without approval for a time extension.

Where voids occur between the existing pavement and proposed curb, any loose material shall be removed to the satisfaction of the engineer and it shall be backfilled with concrete to above the elevation of the proposed milled surface course and is considered included in the cost of the pay item.

HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT
This work shall be in accordance with applicable potions of Sections 406 and 440 of the Standard Specifications, except as herein modified:

Construction Requirements
This work shall include removal and disposal of excavated material for Hot-Mix Asphalt (HMA) driveways located throughout the project limits.

This work shall include placement of six (6) inches of aggregate base course under three (3) inches of HMA surface course. If the existing base is soft or unsuitable, the Contractor shall remove the existing base and provide compacted granular material (CA-6 or approved equal) as required to provide a stable sub base.

Driveway replacements behind the sidewalk shall consist of saw-cutting, removing and replacing a one foot wide section of the driveway, the full width of the driveway, or as directed by the Engineer.

Basis of Payment
This work shall be paid for at the contract unit price per square yard for HOT-MIX ASPHALT DRIVEWAY PAVEMENT REMOVAL and HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3", which price shall include all labor, material, equipment, and incidentals necessary to complete the work as described above. Base course shall be paid at the contract price per square yard for AGGREGATE BASE COURSE, TYPE B 6". Removal of unsuitable subbase shall be paid for at the contract price per cubic yard for REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL.

REMOVE VALVE IN BOX & REPLACE W/ VALVE IN VAULT
or REMOVE & REPLACE VALVE IN EXISTING VAULT

This work shall include, where specified, the replacement of a right hand closing resilient wedge gate valve conforming to AWWA Standard C-515, and replacement of a valve box with a valve vault at locations as shown on the plans or as directed by the Engineer.

Construction Requirements

The installation of the valve vault shall be in accordance with City of St. Charles Standards and the Standard Specifications for Water and Sewer Main Construction in Illinois, most current edition. Valve vault shall be constructed of 6" wide reinforced concrete sections conforming to ASTM C-478. Butyl rubber strips shall be placed between the tongue and groove sections. The Contractor shall be responsible for measurement of the depth of the new structure sections and pipe sizes required for replacement. The Contractor shall be responsible for verifying in the field the proposed structure's rim and water main elevation before ordering or commencing with the work. Valves shall be centered under the valve vault opening/lid. All valve bolts shall be 304-grade stainless steel. The Contractor shall adhere to guidelines for the final adjustment of the frame and cover based on the location of the structure. Refer to special provision for FINAL ADJUSTMENT OF FRAME & COVER**.**

Basis of Payment

This work shall be paid for at the contract unit price per each for REMOVE VALVE IN BOX & REPLACE W/ VALVE IN VAULT or REPLACE VALVE IN EXISTING VAULT of the sizes specified, which price shall include all labor, equipment, materials, frame and lid, and incidentals necessary to complete the work as described above including, but not limited to pavement removal, excavation, removal and disposal of excavated materials, disposal of removed structure, granular trench backfill and final adjustment of frame and lid and restoration.

FIRE HYDRANT ASSEMBLY - REMOVE & REPLACE

This work shall consist of the removal and replacement of fire hydrants, auxiliary valves and valve boxes at locations as shown on the plans.

Materials

All new fire hydrants shall conform to the following requirements:

Fire Hydrant:

a. Approved Models: (Refer to standard Fire Hydrant Detail)
    i. Waterous Pacer Model WB-67-250
    ii. Mueller Super Centurion 250
    iii. Clow Medallion
    iv. All hydrants shall have:
        1. 6" mechanical joint connection
        2. 5 ¼" valve opening
        3. 5' cover over hydrant lateral
        4. 6" valve on lateral
        5. Valve box shall have a valve box stabilizer installed
b. Fire Hydrant Paint: Safety Red as per detail.

c. Bolts Placed Underground: All below grade factory installed bolts and fasteners shall be 304-grade stainless steel.

The contractors shall consult the City of St. Charles Details for additional information.

Construction Requirements
All fire hydrants shall be equipped with an auxiliary valve and cast iron valve box. The auxiliary valve shall be six-inch (6") ductile iron water pipe conforming to AWWA Standard C151, C111, and C104. The valve boxes shall be of the adjustable type, shall be set at finished grade, and shall have the valve box covers stamped "Water".

Contractor shall verify height of existing fire hydrants prior to ordering material. Any extensions that are required due to failure to verify existing heights will be installed at the contractor's cost.

Existing materials shall be delivered to the Department of Public Works.

Basis of Payment
This item shall be paid at the contract unit price per each for FIRE HYDRANT ASSEMBLY – REMOVE & REPLACE, which price shall include the cost of all labor, materials, and equipment necessary, including excavation and backfill, to install the fire hydrant, auxiliary valve, auxiliary valve box with stabilizer, and line extension as detailed in the Sewer and Water Specifications and restoration, all to the satisfaction of the Engineer.

RAISE FIRE HYDRANT 6"
Work shall consist of excavation of the existing fire hydrant standpipe, installation of a 6" extension pipe, backfilling, and restoration.

Materials
All new bolts shall be 304 Grade Stainless Steel. Hydrant extensions shall be according to the fire hydrant detail and manufacturer's specifications for hydrant extensions. Materials utilized for backfill and restoration shall be as directed by the Engineer.

Basis of Payment
The work will be paid at the contract unit price per each for RAISE FIRE HYDRANT 6"

FIRE HYDRANT ASSEMBLY BOLT REPLACEMENT W/ NEW AUX. BOX
Bolt replacement shall consist of excavation of the existing fire hydrant and auxiliary valve and replacing all bolts around the pipe and fittings. Valve bolts shall include the flange, valve bonnet, stuffing box, and the valve hex cap bolts. Hydrant bolts shall include all standpipe, extensions, flange, hydrant head, and stuffing box bolts. The bolts on the tee on the main shall be included in the proposed work when the auxiliary valve is directly connected to the tee on the main.

Auxiliary valve box replacements shall follow the Fire Hydrant Detail. Valve boxes shall be of the adjustable type, shall be set at finished grade, and shall have the valve box covers stamped "Water". Excavation required to complete this work shall be backfilled as directed by the Engineer.

Materials
All new bolts shall be 304 Grade Stainless Steel. Materials utilized for backfill and restoration shall be as directed by the Engineer.

Basis of Payment
The work will be paid at the contract unit price per each for FIRE HYDRANT ASSEMBLY BOLT REPLACEMENT W/ NEW AUX BOX

REMOVE & REPLACE B-BOX
or REMOVE & REPLACE B-BOX W/ CURB STOP
This work shall consist of the removal and replacement of B-Boxes and Curb Stops at locations as indicated on the plans or as directed by the Engineer.

Materials
Box and curb stop materials shall be in in accordance with the Copper Water Service Connection Detail.

Copper pipe shall be copper water tube, Type K, soft temper, for underground service, conforming to ASTM B-88 and B-251. The pipe shall be marked with the manufacturer's name or trademark and a mark indicative of the type of pipe. The outside diameter of the pipe shall conform to ASTM B-251, Table 2.

Construction Requirements
B-boxes located in driveways and sidewalks shall be adjusted below grade 2" and protected with a valve box. The valve box shall be set to finished grade with "Water" stamped on the cover. The cost of the valve box shall be included in the cost of REMOVE & REPLACE B-BOX.

All boxes shall be properly threaded and secured to the curb stop. Bushings may be required upon determination of existing curb stop type and are included in the cost of the item.

Basis of Payment
This work shall be paid for at the contract unit price each for REMOVE & REPLACE B-BOX or REMOVE & REPLACE B-BOX W/ CURB STOP, which price shall include all labor, material, removal and disposal of excavated materials, backfill or granular trench backfill, and equipment necessary to complete the work specified to comply with the City of St. Charles requirements.

SANITARY MANHOLE CHIMNEY SEAL
Construction Requirements
External chimney seals shall be provided for all sanitary sewer manhole adjustments and rebuilds. Chimney seal installation work shall include furnishing and installing an external chimney seal and any necessary materials to provide a complete and functional chimney seal. Installation shall be in accordance with the City details.

Basis of Payment
This work shall be paid for at the contract unit price each for SANITARY MANHOLE CHIMNEY SEAL.

SANITARY SEWER PIPE REMOVAL & REPLACEMENT
or SANITARY SEWER PIPE or STORM SEWERS (PVC)

This work shall consist of the removal and replacement of existing and/or construction of new sanitary sewer systems in accordance with Sections 542, 550 and 551 of the Standard Specifications, except as herein modified:

Materials

Pipe shall be Plastic Polyvinyl Chloride (PVC) Pressure-Rated pipe, conforming to ASTM D2241, SDR 21 or 26, or C900. Plastic Pressure pipe joints shall be in conformance with ASTM D3139, using Flexible Elastomeric Seals.

Construction Requirements

Pipe installation shall conform to the requirements of the latest edition of the Standard Specifications for Water & Sewer Main Construction in Illinois, Section 31-1.02 to 31-1.10 inclusive, ASTM D 2321 and City of St. Charles' requirements.

Basis of Payment

This work will be paid for at the contract unit price per foot for SANITARY SEWER PIPE REMOVE AND REPLACE, SANITARY SEWER PIPE, or STORM SEWERS of the type and diameter specified.

SANITARY SEWER SERVICE / REMOVE & REPLACE SANITARY SEWER SERVICE

This work shall consist of verifying the elevation/locations and replacing existing sanitary sewer service pipe sections as indicated on drawings and/or as directed by the Engineer.

Material

Plastic Polyvinyl Chloride (PVC) Pressure-rated pipe, conforming to ASTM D 2241, SDR 26. Plastic Pressure pipe joints shall be in conformance with ASTM D3139, using Flexible Elastomeric Seals.

Construction Requirements

Pipe installation shall conform to the requirements of the latest version of the Standard Specification for Water and Sewer Main Construction in Illinois, Section 31-1.02 to 31-1.10 inclusive, ASTM D 2321 and City of St Charles requirements.

It is the Contractor's responsibility to field-verify the exact locations and elevations of existing sewer services before starting mainline construction and to coordinate with the Engineer any changes to the proposed utility layout and/or elevations.

Non-shear couplings shall be used for connections to existing sanitary sewer pipe. Pipe "wye" shall be installed at the main, where necessary, and shall be included in the cost of the associated sanitary sewer pipes to be replaced. The Contractor shall refer to the City of St. Charles Standard Engineering details for all pipe connections, trench backfill and bedding requirements, and service installation requirements.

Basis of Payment
This item shall be paid for at the contract unit price per linear foot of SANITARY SEWER SERVICE or REMOVE & REPLACE SANITARY SEWER SERVICE of the type and size specified, which price shall be payment in full for all labor, material, and equipment necessary for the locating of existing services, pavement removal, excavation, removal and disposal and replacement of existing pipe, fittings, gaskets, connection to existing service, trench backfill, temporary asphalt patches and any incidentals necessary for a complete installation.

ADJUST WATER SERVICE
This work shall consist of the replacement of existing water service pipe sections within the sewer trench where services are in conflict with proposed sewer pipe.

Material
Copper pipe shall be copper water tube, Type K, soft temper, for underground service, conforming to ASTM B-88 and B-251. The pipe shall be marked with the manufacturer's name or trademark and a mark indicative of the type of pipe. The outside diameter of the pipe shall conform to ASTM B-251, Table 2. Compression couplings shall be used for connections to existing water service pipe.

Basis of Payment
This item shall be paid for at the contract unit price per each of ADJUST WATER SERVICE. The cost of which shall include all labor, material, and equipment necessary for removal, disposal and replacement of existing pipe and fittings, connection to existing service, and any incidentals necessary for a complete removal and re-installation.

SANITARY MANHOLE / SANITARY MANHOLE WITH DROP
Work shall include all labor and material required to install new sanitary manholes with frames and lids, perform all applicable connections, and backfill the structures.

Materials
New sanitary manholes are to be precast reinforced concrete eccentric type with a minimum 48" I.D. barrel section; Cone sections shall have a 3 inch integrally cast precast concrete collar; Pipe penetrations are to be sealed via the use of a cast in place flexible synthetic rubber pipe sleeve which is to be fastened to the pipe with two stainless steel bands. Barrel sections shall be sealed using (2) butyl rubber strips per tongue and groove section. Chimney seals are to be external type as per the plan details and are included in the cost of the item. All new or adjusted steps shall be made of plastic meeting ASTM D4101, Type II, Grade 49108 over a #3 Grade 60, ASTM A615, reinforcing bar. A maximum of 8" of adjusting rings shall be used (refer to standard sanitary manhole detail).

Basis of Payment
This work shall be paid for at the contract unit price per each for SANITARY MANHOLES or SANITARY MANHOLE WITH DROP, of the diameter specified.

CATCH BASINS, TYPE C, 3'-DIAMETER, TYPE 15 FRAME AND GRATE
Work shall be in accordance with Section 602 of the Standard Specification except as modified herein

Construction Requirements
Catch basin shall be made of precast concrete in accordance with IDOT Standard 602011-02 except that the interior diameter shall be 3ft.

Basis of Payment
Payment shall be made at the contract unit price per each for CATCH BASINS, TYPE C, 3'-DIAMETER, TYPE 15 FRAME AND GRATE

AGGREGATE SUBGRADE IMPROVEMENT
Work shall be in accordance with Sections 303 and 311 of the Standard Specifications except as modified herein

Materials
Material shall be placed as Subbase Granular Material, Type B. Aggregate shall be CA-6

Method of Measurement
The aggregate shall be measured in place and the area computed in square yards.

Basis of Payment
Work shall be paid for at the contract price per square yard for AGGREGATE SUBGRADE IMPROVEMENT of the depth specified in the plans

INLETS, TYPE A, TYPE 3V FRAME AND GRATE
Work shall be in accordance with Section 302 of the Standard Specifications except as modified herein.

Materials
Frame and grate shall be Type 3V.

Basis of Payment
Work shall be paid for at the contract price per each for INLETS, TYPE A, TYPE 3V FRAME AND GRATE.

REMOVE AND REINSTALL BRICK PAVER
This work shall consist of removing and reinstalling brick paver driveway pavement. Before beginning removal, the contractor shall photograph existing condition. The contractor shall carefully remove all components of brick paver driveway pavement, including the bricks, edge restraint material, and anchors. All removed materials shall be stored on site for until materials are re-installed. Any damage to the pavers or hardware shall be repaired or replaced at the Contractor's expense. Brick pavers shall be reinstalled per Local Roads and Streets Recurring Special Provision Check Sheet No. LRS14 – Paving Brick and Concrete Paver Pavements and Sidewalks. Found in the Supplemental Specifications and Recurring Special Provisions adopted January 1, 2019.

Method of Measurement
Pavers shall be measured in place and the area computed in square feet.

Basis of Payment
This work will be paid for at the contract unit price per square foot for REMOVE AND REINSTALL BRICK PAVER, which price shall include all equipment, materials, and labor required to remove, store and replace existing brick paver driveway pavement.

HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
This work shall be in accordance with Section 440 of the Standard Specifications except as modified herein.

Construction requirements
Work shall include removal of all asphalt pavement and grading subgrade to have a 2% cross slope from centerline to edge of pavement. Upon completion of removal, the Contractor shall proof roll the subgrade in the presence of the Engineer. Proof rolling shall consist of two passes with a fully loaded six-wheel truck. Any failures shall be repaired immediately as directed by the Engineer.

Basis of Payment
Work shall be paid at the contract price per square yard for HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

PAVEMENT REMOVAL
This work shall be in accordance with Section 440 of the Standard Specifications except as modified herein.

Construction requirements
Upon completion of removal, the Contractor shall proof roll the subgrade in the presence of the Engineer. Proof rolling shall consist of two passes with a fully loaded six-wheel truck. Any failures shall be repaired immediately as directed by the Engineer.

BDE SPECIAL PROVISIONS
For the April 26, 2019 and June 14, 2019 Lettings

The following special provisions indicated by a “check mark” are applicable to this contract and will be included by the Project Coordination and Implementation Section of the BD&E. An * indicates a new or revised special provision for the letting.

File Name	#		Special Provision Title	Effective	Revised
80099	1	☐	Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2014
80274	2	☑	Aggregate Subgrade Improvement	April 1, 2012	April 1, 2016
80192	3	☐	Automated Flagger Assistance Device	Jan. 1, 2008	
80173	4	☐	Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2017
80241	5	☐	Bridge Demolition Debris	July 1, 2009	
5026I	6	☐	Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
5048I	7	☐	Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
5049I	8	☐	Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
5053I	9	☐	Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
80404	10	☐	Coarse Aggregate Quality for Micro-Surfacing and Cape Seals	Jan. 1, 2019	
* 80384	11	☑	Compensable Delay Costs	June 2, 2017	April 1, 2019
80198	12	☐	Completion Date (via calendar days)	April 1, 2008	
80199	13	☐	Completion Date (via calendar days) Plus Working Days	April 1, 2008	
80293	14	☐	Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet	April 1, 2012	July 1, 2016
80311	15	☐	Concrete End Sections for Pipe Culverts	Jan. 1, 2013	April 1, 2016
80277	16	☐	Concrete Mix Design – Department Provided	Jan. 1, 2012	April 1, 2016
80261	17	☑	Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
80387	18	☐	Contrast Preformed Plastic Pavement Marking	Nov. 1, 2017	
* 80029	19	☐	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	March 2, 2019
80402	20	☑	Disposal Fees	Nov. 1, 2018	
80378	21	☐	Dowel Bar Inserter	Jan. 1, 2017	Jan. 1, 2018
80405	22	☐	Elastomeric Bearings	Jan. 1, 2019	
80388	23	☑	Equipment Parking and Storage	Nov. 1, 2017	
80229	24	☐	Fuel Cost Adjustment	April 1, 2009	Aug. 1, 2017
80304	25	☐	Grooving for Recessed Pavement Markings	Nov. 1, 2012	Nov. 1, 2017
80246	26	☑	Hot-Mix Asphalt – Density Testing of Longitudinal Joints	Jan. 1, 2010	Aug. 1, 2018
80398	27	☐	Hot-Mix Asphalt – Longitudinal Joint Sealant	Aug. 1, 2018	Jan. 1, 2019
80406	28	☐	Hot-Mix Asphalt – Mixture Design Verification and Production (Modified for I-FIT Projects)	Jan. 1, 2019	
80399	29	☑	Hot-Mix Asphalt – Oscillatory Roller	Aug. 1, 2018	Nov. 1, 2018
80347	30	☐	Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits – Jobsite Sampling	Nov. 1, 2014	Aug. 1, 2018
80383	31	☐	Hot-Mix Asphalt – Quality Control for Performance	April 1, 2017	Jan. 1, 2019
80376	32	☑	Hot-Mix Asphalt – Tack Coat	Nov. 1, 2016	
80392	33	☑	Lights on Barricades	Jan. 1, 2018	
80336	34	☐	Longitudinal Joint and Crack Patching	April 1, 2014	April 1, 2016
* 80411	35	☐	Luminaires, LED	April 1, 2019	
* 80393	36	☐	Manholes, Valve Vaults, and Flat Slab Tops	Jan. 1, 2018	March 1, 2019
80400	37	☐	Mast Arm Assembly and Pole	Aug. 1, 2018	
80045	38	☐	Material Transfer Device	June 15, 1999	Aug. 1, 2014
80394	39	☐	Metal Flared End Section for Pipe Culverts	Jan. 1, 2018	April 1, 2018
80165	40	☐	Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010
80349	41	☐	Pavement Marking Blackout Tape	Nov. 1, 2014	April 1, 2016
80371	42	☐	Pavement Marking Removal	July 1, 2016	
80390	43	☑	Payments to Subcontractors	Nov. 2, 2017	
80389	44	☑	Portland Cement Concrete	Nov. 1, 2017	
80359	45	☐	Portland Cement Concrete Bridge Deck Curing	April 1, 2015	Nov. 1, 2017

	80300	46	☐	Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	April 1, 2016
	80328	47	☐	Progress Payments	Nov. 2, 2013	
	3426I	48	☐	Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
	80157	49	☐	Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
	80306	50	☐	Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Nov. 1, 2012	Jan. 1, 2019
	80407	51	☑	Removal and Disposal of Regulated Substances	Jan. 1, 2019	
	80395	52	☐	Sloped Metal End Section for Pipe Culverts	Jan. 1, 2018	
	80340	53	☐	Speed Display Trailer	April 2, 2014	Jan. 1, 2017
	80127	54	☐	Steel Cost Adjustment	April 2, 2004	Aug. 1, 2017
	80408	55	☐	Steel Plate Beam Guardrail Manufacturing	Jan. 1, 2019	
	80397	56	☐	Subcontractor and DBE Payment Reporting	April 2, 2018	
*	80391	57	☑	Subcontractor Mobilization Payments	Nov. 2, 2017	April 1, 2019
	80317	58	☐	Surface Testing of Hot-Mix Asphalt Overlays	Jan. 1, 2013	April 1, 2016
	80298	59	☐	Temporary Pavement Marking	April 1, 2012	April 1, 2017
	20338	60	☐	Training Special Provisions	Oct. 15, 1975	
	80403	61	☐	Traffic Barrier Terminal, Type 1 Special	Nov. 1, 2018	
	80409	62	☑	Traffic Control Devices - Cones	Jan. 1, 2019	
	80410	63	☐	Traffic Spotters	Jan. 1, 2019	
	80318	64	☐	Traversable Pipe Grate for Concrete End Sections	Jan. 1, 2013	Jan. 1, 2018
	80288	65	☑	Warm Mix Asphalt	Jan. 1, 2012	April 1, 2016
	80302	66	☐	Weekly DBE Trucking Reports	June 2, 2012	April 2, 2015
	80071	67	☐	Working Days	Jan. 1, 2002	

The following special provisions are in the 2019 Supplemental Specifications and Recurring Special Provisions.

File Name	Special Provision Title	New Location(s)	Effective	Revised
80382	Adjusting Frames and Grates	Articles 602.02(s) and (t), 1043.04, and1043.05	April 1, 2017	
80366	Butt Joints	Article 406.08(c)	July 1, 2016	
80386	Calcium Aluminate Cement for Class PP-5 Concrete Patching	Article 1001.01(e)	Nov. 1, 2017	
80396	Class A and B Patching	Articles 442.06(a)(1) and (2)	Jan. 1, 2018	Nov. 1, 2018
80377	Portable Changeable Message Signs	Articles 701.20(h) and 1106.02(i)	Nov. 1, 2016	April 1, 2017
80385	Portland Cement Concrete Sidewalk	Article 424.12	Aug. 1, 2017	

The following special provision has been deleted from use.

File Name	Special Provision Title	Effective	Revised
80401	Portland Cement Concrete Pavement Connector for Bridge Approach Slab	Aug. 1, 2018	

The following special provisions require additional information from the designer. The additional information needs to be submitted as a separate document. The Project Coordination and Implementation section will then include the information in the applicable special provision.

- 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

ADJUSTMENTS AND RECONSTRUCTIONS
Effective: March 15, 2011

Revise the first paragraph of Article 602.04 to read:

"**602.04 Concrete.** Cast-in-place concrete for structures shall be constructed of Class SI concrete according to the applicable portions of Section 503. Cast-in-place concrete for pavement patching around adjustments and reconstructions shall be constructed of Class PP-1 concrete, unless otherwise noted in the plans, according to the applicable portions of Section 1020."

Revise the third, fourth and fifth sentences of the second paragraph of Article 602.11(c) to read:

"Castings shall be set to the finished pavement elevation so that no subsequent adjustment will be necessary, and the space around the casting shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b."

Revise Article 603.05 to read:

"**603.05 Replacement of Existing Flexible Pavement.** After the castings have been adjusted, the surrounding space shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b."

Revise Article 603.06 to read:

"**603.06 Replacement of Existing Rigid Pavement.** After the castings have been adjusted, the pavement and HMA that was removed, shall be replaced with Class PP-1 concrete, unless otherwise noted in the plans, not less than 9 in. (225 mm) thick. The pavement may be opened to traffic according to Article 701.17(e)(3)b.

The surface of the Class PP concrete shall be constructed flush with the adjacent surface."

Revise the first sentence of Article 603.07 to read:

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

GROUND TIRE RUBBER (GTR) MODIFIED ASPHALT BINDER (D-1)
Effective: June 26, 2006
Revised: April 1, 2016

Add the following to the end of article 1032.05 of the Standard Specifications:

"(c) Ground Tire Rubber (GTR) Modified Asphalt Binder. A quantity of 10.0 to 14.0 percent GTR (Note 1) shall be blended by dry unit weight with a PG 64-28 to make a GTR 70-28 or a PG 58-28 to make a GTR 64-28. The base PG 64-28 and PG 58-28 asphalt binders shall meet the requirements of Article 1032.05(a). Compatible polymers may be added during production. The GTR modified asphalt binder shall meet the requirements of the following table.

Test	Asphalt Grade GTR 70-28	Asphalt Grade GTR 64-28
Flash Point (C.O.C.), AASHTO T 48, °F (°C), min.	450 (232)	450 (232)
Rotational Viscosity, AASHTO T 316 @ 275 °F (135 °C), Poises, Pa·s, max.	30 (3)	30 (3)
Softening Point, AASHTO T 53, °F (°C), min.	135 (57)	130 (54)
Elastic Recovery, ASTM D 6084, Procedure A (sieve waived) @ 77 °F, (25 °C), aged, ss, 100 mm elongation, 5 cm/min., cut immediately, %, min.	65	65

Note 1. GTR shall be produced from processing automobile and/or light truck tires by the ambient grinding method. GTR shall not exceed 1/16 in. (2 mm) in any dimension and shall contain no free metal particles or other materials. A mineral powder (such as talc) meeting the requirements of AASHTO M 17 may be added, up to a maximum of four percent by weight of GTR to reduce sticking and caking of the GTR particles. When tested in accordance with Illinois modified AASHTO T 27, *a* 50 g sample of the GTR shall conform to the following gradation requirements:

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

Add the following to the end of Note 1. of article 1030.03 of the Standard Specifications:

"A dedicated storage tank for the Ground Tire Rubber (GTR) modified asphalt binder shall be provided. This tank must be capable of providing continuous mechanical mixing throughout by continuous agitation and recirculation of the asphalt binder to provide a

uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of ± 0.40 percent."

Revise 1030.02(c) of the Standard Specifications to read:

"(c) RAP Materials (Note 5) ……..…..1031"

Add the following note to 1030.02 of the Standard Specifications:

Note 5. When using reclaimed asphalt pavement and/or reclaimed asphalt shingles, the maximum asphalt binder replacement percentage shall be according to the most recent special provision for recycled materials.

HEAT OF HYDRATION CONTROL FOR CONCRETE STRUCTURES (D-1)

Effective: November 1, 2013

Article 1020.15 shall not apply.

COMPENSABLE DELAY COSTS (BDE)

Effective: June 2, 2017
Revised: April 1, 2019

Revise Article 107.40(b) of the Standard Specifications to read:

"(b) Compensation. Compensation will not be allowed for delays, inconveniences, or damages sustained by the Contractor from conflicts with facilities not meeting the above definition; or if a conflict with a utility in an unanticipated location does not cause a shutdown of the work or a documentable reduction in the rate of progress exceeding the limits set herein. The provisions of Article 104.03 notwithstanding, compensation for delays caused by a utility in an unanticipated location will be paid according to the provisions of this Article governing minor and major delays or reduced rate of production which are defined as follows.

(1) Minor Delay. A minor delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two hours, but not to exceed two weeks.

(2) Major Delay. A major delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two weeks.

(3) Reduced Rate of Production Delay. A reduced rate of production delay occurs when the rate of production on the work in conflict with the utility in an unanticipated location decreases by more than 25 percent and lasts longer than seven calendar days."

Revise Article 107.40(c) of the Standard Specifications to read:

"(c) Payment. Payment for Minor, Major, and Reduced Rate of Production Delays will be made as follows.

(1) Minor Delay. Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4).

(2) Major Delay. Labor will be the same as for a minor delay.

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to two weeks plus the cost of move-out to either the

Contractor's yard or another job and the cost to re-mobilize, whichever is less. Rental equipment may be paid for longer than two weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

(3) Reduced Rate of Production Delay. The Contractor will be compensated for the reduced productivity for labor and equipment time in excess of the 25 percent threshold for that portion of the delay in excess of seven calendar days. Determination of compensation will be in accordance with Article 104.02, except labor and material additives will not be permitted.

Payment for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be determined according to Article 109.13."

Revise Article 108.04(b) of the Standard Specifications to read:

"(b) No working day will be charged under the following conditions.

(1) When adverse weather prevents work on the controlling item.

(2) When job conditions due to recent weather prevent work on the controlling item.

(3) When conduct or lack of conduct by the Department or its consultants, representatives, officers, agents, or employees; delay by the Department in making the site available; or delay in furnishing any items required to be furnished to the Contractor by the Department prevents work on the controlling item.

(4) When delays caused by utility or railroad adjustments prevent work on the controlling item.

(5) When strikes, lock-outs, extraordinary delays in transportation, or inability to procure critical materials prevent work on the controlling item, as long as these delays are not due to any fault of the Contractor.

(6) When any condition over which the Contractor has no control prevents work on the controlling item."

Revise Article 109.09(f) of the Standard Specifications to read:

"(f) Basis of Payment. After resolution of a claim in favor of the Contractor, any adjustment in time required for the work will be made according to Section 108. Any adjustment in the costs to be paid will be made for direct labor, direct materials, direct equipment, direct jobsite overhead, direct offsite overhead, and other direct costs allowed by the resolution. Adjustments in costs will not be made for interest charges, loss of anticipated profit, undocumented loss of efficiency, home office overhead and unabsorbed overhead

other than as allowed by Article 109.13, lost opportunity, preparation of claim expenses and other consequential indirect costs regardless of method of calculation.

The above Basis of Payment is an essential element of the contract and the claim cost recovery of the Contractor shall be so limited."

Add the following to Section 109 of the Standard Specifications.

"**109.13 Payment for Contract Delay.** Compensation for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be allowed when such costs result from a delay meeting the criteria in the following table.

Contract Type	Cause of Delay	Length of Delay
Working Days	Article 108.04(b)(3) or Article 108.04(b)(4)	No working days have been charged for two consecutive weeks.
Completion Date	Article 108.08(b)(1) or Article 108.08(b)(7)	The Contractor has been granted a minimum two week extension of contract time, according to Article 108.08.

Payment for each of the various costs will be according to the following.

(a) Escalated Material and/or Labor Costs. When the delay causes work, which would have otherwise been completed, to be done after material and/or labor costs have increased, such increases will be paid. Payment for escalated material costs will be limited to the increased costs substantiated by documentation furnished by the Contractor. Payment for escalated labor costs will be limited to those items in Article 109.04(b)(1) and (2), except the 35 percent and 10 percent additives will not be permitted.

(b) Extended Project Overhead. For the duration of the delay, payment for extended project overhead will be paid as follows.

(1) Direct Jobsite and Offsite Overhead. Payment for documented direct jobsite overhead and documented direct offsite overhead, including onsite supervisory and administrative personnel, will be allowed according to the following table.

Original Contract Amount	Supervisory and Administrative Personnel
Up to $5,000,000	One Project Superintendent
Over $ 5,000,000 - up to $25,000,000	One Project Manager, One Project Superintendent or Engineer, and One Clerk
Over $25,000,000 - up to $50,000,000	One Project Manager, One Project Superintendent, One Engineer, and

	One Clerk
Over $50,000,000	One Project Manager, Two Project Superintendents, One Engineer, and One Clerk

(2) Home Office and Unabsorbed Overhead. Payment for home office and unabsorbed overhead will be calculated as 8 percent of the total delay cost.

(c) Extended Traffic Control. Traffic control required for an extended period of time due to the delay will be paid for according to Article 109.04.

When an extended traffic control adjustment is paid under this provision, an adjusted unit price as provided for in Article 701.20(a) for increase or decrease in the value of work by more than ten percent will not be paid.

Upon payment for a contract delay under this provision, the Contractor shall assign subrogation rights to the Department for the Department's efforts of recovery from any other party for monies paid by the Department as a result of any claim under this provision. The Contractor shall fully cooperate with the Department in its efforts to recover from another party any money paid to the Contractor for delay damages under this provision."

80384

HMA MIXTURE DESIGN REQUIREMENTS (D-1)

Effective: January 1, 2013
Revised: January 1, 2018

1) Design Composition and Volumetric Requirements

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)
SMA-9.5, IL-9.5, IL-9.5L	1 1/2 (38)
SMA-12.5	2 (50)
IL-19.0, IL-19.0L	2 1/4 (57)"

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, CA 13[3/]
HMA Low ESAL	IL-19.0L IL-9.5L Stabilized Subbase or Shoulders	CA 11 [1/] CA 16
SMA[2/]	1/2 in. (12.5mm) Binder & Surface IL 9.5 Surface	CA13[3/], CA14 or CA16 CA16, CA 13[3/]

1/ CA 16 or CA 13 may be blended with the gradations listed.
2/ The coarse aggregates used shall be capable of being combined with stone sand, slag sand, or steel slag sand meeting the FA/FM 20 gradation and mineral filler to meet the approved mix design and the mix requirements noted herein.
3/ CA 13 shall be 100 percent passing the 1/2 in. (12.5mm) sieve.

Revise Article 1004.03(e) of the Supplemental Specifications to read:

"(e) Absorption. For SMA the coarse aggregate shall also have water absorption ≤ 2.0 percent."

Revise the last paragraph of Article 1102.01 (a) (5) of the Standard Specifications to read:

"IL-4.75 and Stone Matrix Asphalt (SMA) mixtures which contain aggregate having absorptions greater than or equal to 2.0 percent, or which contain steal slag sand, shall have minimum surge bin storage plus haul time of 1.5 hours."

Revise the nomenclature table in Article 1030.01 of the Standard Specifications to read:

"High ESAL	IL-19.0 binder; IL-9.5 surface; IL-4.75; SMA-12.5, SMA-9.5
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, except where modified herein. The asphalt binder shall be an Elvaloy or SBS PG 76-22 for IL-4.75, except where modified herein. The elastic recovery shall be a minimum of 80.

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. Reclaimed Asphalt Shingles (RAS) may be used in Stone Matrix Asphalt (SMA) mixtures designed with an SBA polymer modifier as a fiber additive if the mix design with RAS included meets AASHTO T305 requirements. The RAS shall be from a certified source that

produces either Type I or Type 2. Material shall meet requirements noted herein and the actual dosage rate will be determined by the Engineer.

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 [4/] IL-12.5 mm		SMA [4/] IL-9.5 mm		IL-9.5 mm		IL-4.75 mm	
	min	max	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	80	100		100		100		100
3/8 in. (9.5 mm)				65	90	100	90	100		100
#4 (4.75 mm)	40	60	20	30	36	50	34	69	90	100
#8 (2.36 mm)	20	42	16	24 [5/]	16	32 [5/]	34 [6/]	52 [2/]	70	90
#16 (1.18 mm)	15	30					10	32	50	65
#30 (600 μm)			12	16	12	18				
#50 (300 μm)	6	15					4	15	15	30
#100 (150 μm)	4	9					3	10	10	18
#200 (75 μm)	3	6	7.0	9.0 [3/]	7.5	9.5 [3/]	4	6	7	9 [3/]
Ratio Dust/Asphalt Binder		1.0		1.5		1.5		1.0		1.0

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 the percentage stated on the table.

6/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted below 34 percent.

Revise Article 1030.04(b)(1) of the Standard Specifications to read:

"(1) High ESAL Mixtures. The target value for the air voids of the HMA shall be 4.0 percent and for IL-4.75 it shall be 3.5 percent at the design number of gyrations. The VMA and VFA of the HMA design shall be based on the nominal maximum size of the aggregate in the mix, and shall conform to the following requirements.

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 72-85 percent"

Replace Article 1030.04(b)(3) of the Standard Specifications with the following:

"(3) SMA Mixtures.

Volumetric Requirements SMA [1/]			
Ndesign	Design Air Voids Target %	Voids in the Mineral Aggregate (VMA), % min.	Voids Filled with Asphalt (VFA), %
80 [4/]	3.5	17.0 [2/] 16.0 [3/]	75 - 83

1/ Maximum draindown shall be 0.3 percent. The draindown shall be determined at the JMF asphalt binder content at the mixing temperature plus 30 °F.

2/ Applies when specific gravity of coarse aggregate is ≥ 2.760.

3/ Applies when specific gravity of coarse aggregate is < 2.760.

4/ Blending of different types of aggregate will not be permitted.
For surface course, the coarse aggregate can be crushed steel slag, crystalline crushed stone or crushed sandstone. For binder course, coarse aggregate shall be crushed stone (dolomite), crushed gravel, crystalline crushed stone, or crushed sandstone.

Add to the end of Article 1030.05 (d) (2) a. of the Standard Specifications:

"During production, the Contractor shall test SMA mixtures for draindown according to AASHTO T305 at a frequency of 1 per day of production."

Delete last sentence of the second paragraph of Article 1102.01(a) (4) b. 2.

Add to the end of Article 1102.01 (a) (4) b. 2.:

"As an option, collected dust (baghouse) may be used in lieu of manufactured mineral filler according to the following:

(a.) Sufficient collected dust (baghouse) is available for production of the SMA mix for the entire project.

(b.) A mix design was prepared based on collected dust (baghouse).

2) Design Verification and Production

Revise Article 1030.04 (d) of the Standard Specifications to read:

"(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 (IL mod AASHTO T-324) and the Tensile Strength Test (IL mod 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 the necessary changes to the mix and resubmit compacted specimens to the Department for verification. If the mix fails again, the mix design will be rejected.

All new and renewal mix designs will be required to be tested, prior to submittal for Department verification and shall meet the following requirements:

(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/]

Asphalt Binder Grade	# Repetitions	Max Rut Depth (mm)
PG 70 -XX (or higher)	20,000	12.5
PG 64 -XX (or lower)	10,000	12.5

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.

Note: For SMA Designs (N-80) the maximum rut depth is 6.0 mm at 20,000 repetitions.
For IL 4.75mm Designs (N-50) the maximum rut depth is 9.0mm at 15,000 repetitions.

(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 80 psi (550 kPa) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 200 psi (1380 kPa)."

Production Testing. Revise first paragraph of 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, except for SMA mixtures it will be 400 ton (363 metric ton), will be required at the beginning of HMA production for each mixture at the beginning of each construction year according to the Manual of Test Procedures for Materials "Hot Mix Asphalt Test Strip Procedures". At the request of the Producer, the Engineer may waive the test strip if previous construction during the current construction year has demonstrated the constructability of the mix using Department test results."

Add the following after the sixth paragraph in Article 1030.06 (a) of the Standard Specifications:

"The Hamburg Wheel test shall also be conducted on all HMA mixtures from a sample taken within the first 500 tons (450 metric tons) on the first day of production or during start up with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day's production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture demonstrates conformance prior to start of mix production for a contract.
If the mixture fails to meet the Hamburg Wheel criteria, no further mixture will be accepted until the Contractor takes such action as is necessary to furnish a mixture meeting the criteria"

Method of Measurement:

Add the following after the fourth paragraph of Article 406.13 (b):

“The plan quantities of SMA mixtures shall be adjusted using the actual approved binder and surface Mix Design’s G_{mb}.”

Basis of Payment.

Replace the fourth paragraph of Article 406.14 of the Standard Specifications with the following:

“Stone matrix asphalt will be paid for at the contract unit price per ton (metric ton) for POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, of the mixture composition and Ndesign specified; and POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, of the mixture composition and Ndesign specified.”

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (D-1)

Effective: November 1, 2012
Revise: January 1, 2018

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 resulting from cold milling or crushing an existing hot-mix asphalt (HMA) pavement. RAP will be considered processed FRAP after completion of both crushing and screening to size. 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 Central Bureau of Materials Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Central Bureau of Materials approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 90 percent passing the #4 (4.75 mm) sieve. RAS 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. Additional processed RAP (FRAP) shall be stockpiled in a separate working pile, as designated in the QC Plan, and only added to the sealed stockpile when test results for the working pile are complete and are found to meet tolerances specified herein for the original sealed FRAP stockpile. Stockpiles shall be sufficiently separated to prevent intermingling at the base. All stockpiles (including unprocessed RAP and FRAP) shall be identified by signs indicating the type as listed below (i.e. "Non- Quality, FRAP -#4 or Type 2 RAS", etc…).

(1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, HMA (High and Low ESAL) or equivalent 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 processed prior to testing and sized into 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 in the coarse fraction shall pass the maximum sieve size specified for the mix the FRAP will be used in.

(2) Restricted FRAP (B quality) stockpiles shall consist of RAP from Class I, HMA (High ESAL), or HMA (High ESAL). If approved by the Engineer, the aggregate from a maximum 3.0 in. (75 mm) single combined pass of surface/binder milling will be classified as B quality. All millings from this application will be processed into FRAP as described previously.

(3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) or equivalent 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 (FRAP) prior to testing. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

(4) Conglomerate “D” Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from HMA shoulders, bituminous stabilized subbases or HMA (Low ESAL)/HMA (Low ESAL) IL-19.0L binder mixture. 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 or other expansive material as determined by the Department.

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

RAP or FRAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, plant cleanout 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 be sufficiently separated to prevent intermingling at the base. Each stockpile shall be signed indicating what type of RAS is present.

However, a RAS source may submit a written request to the Department for approval to blend mechanically a specified ratio of Type 1 RAS with Type 2 RAS. The source will not be permitted to change the ratio of the blend without the Department prior written

approval. The Engineer's written approval will be required, to mechanically blend RAS with any fine aggregate produced under the AGCS, up to an equal weight of RAS, to improve workability. The fine aggregate shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The fine aggregate shall be one that is approved for use in the HMA mixture and 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. FRAP and RAS testing shall be according to the following.

(a) FRAP Testing. When used in HMA, the FRAP shall be sampled and tested either during processing or after stockpiling. It shall also be sampled during HMA production.

(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) Incoming Material. For testing as incoming material, washed extraction samples shall be run at a minimum frequency of one sample per 2000 tons (1800 metric tons) or once per week, whichever comes first.

(3) 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.

Before extraction, each field sample of FRAP, shall be split to obtain two 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 shall be sampled and tested during stockpiling according to Central Bureau of Materials Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Sources". The Contractor shall also sample as incoming material at the HMA plant.

(1) During Stockpiling. Washed extraction and testing for unacceptable materials shall be run 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 1000 tons (900 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 shall be 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.

(2) Incoming Material. For testing as incoming material at the HMA plant, washed extraction shall be run at the minimum frequency of one sample per 250 tons (227 metric tons). A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). The incoming material test results shall meet the tolerances specified herein.

The Contractor shall obtain and make available all test results from start of the initial stockpile sampled and tested at the shingle processing facility in accordance with the facility's QC Plan.

Before extraction, each field sample shall be split to obtain two 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 procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

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

(a) Evaluation of FRAP Test Results. All test results shall be compiled to include asphalt binder content, gradation and, when applicable (for slag), G_{mm}. A five test average of results from the original pile will be used in the mix designs. Individual extraction test results run thereafter, shall be compared to the average used for the mix design, and will be accepted if within the tolerances listed below.

Parameter	FRAP
No. 4 (4.75 mm)	± 6 %
No. 8 (2.36 mm)	± 5 %
No. 30 (600 μm)	± 5 %
No. 200 (75 μm)	± 2.0 %
Asphalt Binder	± 0.3 %
G_{mm}	± 0.03 1/

1/ For stockpile with slag or steel slag present as determined in the current Manual of Test Procedures Appendix B 21, "Determination of Reclaimed Asphalt Pavement Aggregate Bulk Specific Gravity".

If any individual sieve and/or asphalt binder content tests are out of the above tolerances when compared to the average used for the mix design, the FRAP stockpile shall not be

used in Hot-Mix Asphalt unless the FRAP representing those tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

The Contractor shall maintain a representative moving average of five tests to be used for Hot-Mix Asphalt production.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the ITP, "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)" or Illinois Modified AASHTO T-164-11, Test Method A.

(b) Evaluation of RAS 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. A five test average of results from the original pile will be used in the mix designs. Individual test results run thereafter, when compared to the average used for the mix design, 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)	± 2.5 %
Asphalt Binder Content	± 2.0 %

If any individual sieve and/or asphalt binder content tests are out of the above tolerances when compared to the average used for the mix design, the RAS shall not be used in Hot-Mix Asphalt unless the RAS representing those tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

(c) Quality Assurance by the Engineer. The Engineer may witness the sampling and splitting conduct assurance tests on split samples taken by the Contractor for quality control testing a minimum of once a month.

The overall testing frequency will be performed over the entire range of Contractor samples for asphalt binder content and gradation. The Engineer may select any or all split samples for assurance testing. The test results will be made available to the Contractor as soon as they become available.

The Engineer will notify the Contractor of observed deficiencies.

Differences between the Contractor's and the Engineer's split sample test results will be considered acceptable if within the following limits.

Test Parameter	Acceptable Limits of Precision

% Passing:[1/]	FRAP	RAS
1/2 in.	5.0%	
No. 4	5.0%	
No. 8	3.0%	4.0%
No. 30	2.0%	4.0%
No. 200	2.2%	4.0%
Asphalt Binder Content	0.3%	3.0%
G_{mm}	0.030	

1/ Based on washed extraction.

In the event comparisons are outside the above acceptable limits of precision, the Engineer will immediately investigate.

(d) Acceptance by the Engineer. Acceptable of the material will be based on the validation of the Contractor's quality control by the assurance process.

1031.05 Quality Designation of Aggregate in RAP and FRAP.

(a) RAP. The aggregate quality of the RAP for homogeneous, 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, HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.

(2) RAP from HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.

(3) RAP from Class I, 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. Fractionated RAP 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 laboratory prequalified by the Department for the specified testing. The consultant laboratory shall submit the test results along with the recovered aggregate to

the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the Central Bureau of Materials Aggregate Lab for MicroDeval Testing, according to ITP 327. A maximum loss of 15.0 percent will be applied for all HMA applications. The fine aggregate portion of the fractionated RAP shall not be used in any HMA mixtures that require a minimum of "B" quality aggregate or better, until the coarse aggregate fraction has been determined to be acceptable thru a MicroDeval Testing.

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

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

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

(2) Steel Slag Stockpiles. FRAP stockpiles containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in HMA (High ESAL and Low ESAL) mixtures regardless of lift or mix type.

(3) Use in HMA Surface Mixtures (High and Low ESAL). FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall have coarse aggregate that is Class B quality or better. FRAP shall be considered equivalent to limestone for frictional considerations unless produced/screened to minus 3/8 inch.

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

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

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

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

When FRAP is used alone or FRAP is used in conjunction with RAS, the percent of virgin asphalt binder replacement (ABR) shall not exceed the amounts indicated in the table below for a given N Design.

Max Asphalt Binder Replacement for FRAP with RAS Combination

HMA Mixtures [1/ 2/ 4/]	Maximum % ABR		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified [3/]
30L	50	40	30
50	40	35	30
70	40	30	30
90	40	30	30
4.75 mm N-50			40
SMA N-80			30

1/ For Low ESAL HMA shoulder and stabilized subbase, the percent asphalt binder replacement shall not exceed 50 % of the total asphalt binder in the mixture.

2/ When the binder replacement exceeds 15 % for all mixes, except for SMA and IL-4.75, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 % binder replacement using a virgin asphalt binder grade of PG64-22 will be reduced to a PG58-28). When constructing full depth HMA and the ABR is less than 15 %, the required virgin asphalt binder grade shall be PG64-28.

3/ When the ABR for SMA or IL-4.75 is 15 % or less, the required virgin asphalt binder shall be SBS PG76-22 and the elastic recovery shall be a minimum of 80. When the ABR for SMA or IL-4.75 exceeds 15%, the virgin asphalt binder grade shall be SBS PG70-28 and the elastic recovery shall be a minimum of 80.

4/ When FRAP or RAS is used alone, the maximum percent asphalt binder replacement designated on the table shall be reduced by 10 %.

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) FRAP and/or RAS. FRAP and /or RAS mix designs shall be submitted for verification. If additional FRAP or RAS stockpiles are tested and found to be within tolerance, as defined under "Evaluation of Tests" herein, and meet all requirements herein, the additional FRAP or RAS stockpiles may be used in the original design at the percent previously verified.

(b) RAS. Type 1 and Type 2 RAS are not interchangeable in a mix design.

The RAP, FRAP and RAS stone specific gravities (G_{sb}) shall be according to the "Determination of Aggregate Bulk (Dry) Specific Gravity (G_{sb}) or Reclaimed Asphalt Pavement (RAP) and

Reclaimed Asphalt Shingles (RAS)" procedure in the Department's Manual of Test Procedures for Materials.

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

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 RAS and FRAP feed system to remove or reduce oversized material. .

If during mix production, corrective actions fail to maintain FRAP, RAS or QC/QA test results within control tolerances or the requirements listed herein the Contractor shall cease production of the mixture containing FRAP or RAS and conduct an investigation that may require a new mix design.

(a) 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.

(b) HMA Plant Requirements. HMA plants utilizing 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 RAS and FRAP 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 RAS and FRAP material as a percent of the total mix to the nearest 0.1 percent.

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

i. When producing mixtures with FRAP and/or RAS, a positive dust control system shall be utilized.

j. Accumulated mixture tonnage.

k. Dust Removed (accumulated to the nearest 0.1 ton (0.1 metric ton))

(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).

f. RAS and FRAP weight to the nearest pound (kilogram).

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

h. Residual asphalt binder in the RAS and FRAP material as a percent of the total mix to the nearest 0.1 percent.

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

1031.09 RAP in Aggregate Surface Course and Aggregate Wedge Shoulders, Type B. The use of RAP or FRAP in aggregate surface course and aggregate shoulders shall be as follows.

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

(b) Gradation. The RAP material shall meet the gradation requirements for CA 6 according to Article 1004.01(c), except the requirements for the minus No. 200 (75 µm) sieve shall not apply. The sample for the RAP material shall be air dried to constant weight prior to being tested for gradation.”

AGGREGATE SUBGRADE IMPROVEMENT (BDE)

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

Add the following Section to the Standard Specifications:

"SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT

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

303.02 Materials. Materials shall be according to the following.

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

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

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

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

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

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

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

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

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

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

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

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

Add the following to Section 1004 of the Standard Specifications:

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

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

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

(c) Gradation.

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

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

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

	COARSE AGGREGATE SUBGRADE GRADATIONS (Metric)

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

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

80274

CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Diesel Retrofit Deficiency Deduction

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

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

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

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

80261

DISPOSAL FEES (BDE)

Effective: November 1, 2018

Replace Articles 109.04(b)(5) – 109.04(b)(8) of the Standard Specifications with the following:

"(5) Disposal Fees. When the extra work performed includes paying for disposal fees at a clean construction and demolition debris facility, an uncontaminated soil fill operation or a landfill, the Contractor shall receive, as administrative costs, an amount equal to five percent of the first $10,000 and one percent of any amount over $10,000 of the total approved costs of such fees.

(6) Miscellaneous. No additional allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.

(7) Statements. No payment will be made for work performed on a force account basis until the Contractor has furnished the Engineer with itemized statements of the cost of such force account work. Statements shall be accompanied and supported by invoices for all materials used and transportation charges. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices, the Contractor shall furnish an affidavit certifying that such materials were taken from his/her stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor.

Itemized statements at the cost of force account work shall be detailed as follows.

a. Name, classification, date, daily hours, total hours, rate, and extension for each laborer and foreman. Payrolls shall be submitted to substantiate actual wages paid if so requested by the Engineer.

b. Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.

c. Quantities of materials, prices and extensions.

d. Transportation of materials.

e. Cost of property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions, and social security tax.

(8) Work Performed by an Approved Subcontractor. When extra work is performed by an approved subcontractor, the Contractor shall receive, as administrative costs, an amount equal to five percent of the total approved costs of such work with the minimum payment being $100.

(9) All statements of the cost of force account work shall be furnished to the Engineer not later than 60 days after receipt of the Central Bureau of Construction form “Extra Work Daily Report”. If the statement is not received within the specified time frame, all demands for payment for the extra work are waived and the Department is released from any and all such demands. It is the responsibility of the Contractor to ensure that all statements are received within the specified time regardless of the manner or method of delivery.”

80402

EQUIPMENT PARKING AND STORAGE (BDE)

Effective: November 1, 2017

Replace the first paragraph of Article 701.11 of the Standard Specifications with the following.

"**701.11 Equipment Parking and Storage.** During working hours, all vehicles and/or nonoperating equipment which are parked, two hours or less, shall be parked at least 8 ft (2.5 m) from the open traffic lane. For other periods of time during working and for all nonworking hours, all vehicles, materials, and equipment shall be parked or stored as follows.

(a) When the project has adequate right-of-way, vehicles, materials, and equipment shall be located a minimum of 30 ft (9 m) from the pavement.

(b) When adequate right-of-way does not exist, vehicles, materials, and equipment shall be located a minimum of 15 ft (4.5 m) from the edge of any pavement open to traffic.

(c) Behind temporary concrete barrier, vehicles, materials, and equipment shall be located a minimum of 24 in. (600 mm) behind free standing barrier or a minimum of 6 in. (150 mm) behind barrier that is either pinned or restrained according to Article 704.04. The 24 in. or 6 in. measurement shall be from the base of the non-traffic side of the barrier.

(d) Behind other man-made or natural barriers meeting the approval of the Engineer."

80388

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

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

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

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

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

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

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

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

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

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

HOT-MIX ASPHALT – OSCILLATORY ROLLER (BDE)

Effective: August 1, 2018
Revised: November 1, 2018

Add the following to Article 406.03 of the Standard Specifications:

"(j) Oscillatory Roller .....1101.01"

Revise Table 1 and Note 3/ of Table 1 in Article 406.07(a) of the Standard Specifications to read:

"TABLE 1 - MINIMUM ROLLER REQUIREMENTS FOR HMA				
	Breakdown Roller (one of the following)	Intermediate Roller	Final Roller (one or more of the following)	Density Requirement
Level Binder: (When the density requirements of Article 406.05(c) do not apply.)	P 3/	- -	V_S, P 3/, T_B, T_F, 3W, O_T	To the satisfaction of the Engineer.
Binder and Surface 1/ Level Binder 1/: (When the density requirements of Article 406.05(c) apply.)	V_D, P 3/, T_B, 3W, O_T, O_B	P 3/, O_T, O_B	V_S, T_B, T_F, O_T	As specified in Articles: 1030.05(d)(3), (d)(4), and (d)(7).
IL-4.75 and SMA 4/ 5/	T_B, 3W, O_T	- -	T_F, 3W, O_T	
Bridge Decks 2/	T_B	- -	T_F	As specified in Articles 582.05 and 582.06.

3/ A vibratory roller (V_D) or oscillatory roller (O_T or O_B) may be used in lieu of the pneumatic-tired roller on mixtures containing polymer modified asphalt binder."

Add the following to EQUIPMENT DEFINITION in Article 406.07(a) contained in the Errata of the Supplemental Specifications:

"O_T - Oscillatory roller, tangential impact mode. Maximum speed is 3.0 mph (4.8 km/h) or 264 ft/min (80 m/min).

O_B - Oscillatory roller, tangential and vertical impact mode, operated at a speed to produce not less than 10 vertical impacts/ft (30 impacts/m)."

Add the following to Article 1101.01 of the Standard Specifications:

"(h) Oscillatory Roller. The oscillatory roller shall be self-propelled and provide a smooth operation when starting, stopping, or reversing directions. The oscillatory roller shall be able to operate in a mode that will provide tangential impact force with or without vertical impact force by using at least one drum. The oscillatory roller shall be equipped with water tanks and sprinkling devices, or other approved methods, which shall be used to wet the drums to prevent material pickup. The drum(s) amplitude and frequency of the tangential and vertical impact force shall be approximately the same in each direction and meet the following requirements:

(1) The minimum diameter of the drum(s) shall be 42 in. (1070 mm)48 in. (1200 mm);

(2) The minimum length of the drum(s) shall be 57 in. (1480 mm)66 in. (1650 mm);

(3) The minimum unit static force on the drum(s) shall be 125 lb/in. (22 N/m); and

(4) The minimum force on the oscillatory drum shall be 18,000 lb (80 kN)."; and

(5) Self-adjusting eccentrics, and reversible eccentrics on non-driven drum(s)."

80399

HOT-MIX ASPHALT – TACK COAT (BDE)

Effective: November 1, 2016

Revise Article 1032.06(a) of the Standard Specifications to read:

"(a) Anionic Emulsified Asphalt. Anionic emulsified asphalts shall be according to AASHTO M 140. SS-1h emulsions used as a tack coat shall have the cement mixing test waived."

80376

LIGHTS ON BARRICADES (BDE)

Effective: January 1, 2018

Revise Article 701.16 of the Standard Specifications to read:

"**701.16 Lights.** Lights shall be used on devices as required in the plans, the traffic control plan, and the following table.

Circumstance	Lights Required
Daylight operations	None
First two warning signs on each approach to the work involving a nighttime lane closure and "ROUGH GROOVED SURFACE" (W8-I107) signs	Flashing mono-directional lights
Devices delineating isolated obstacles, excavations, or hazards at night (Does not apply to patching)	Flashing bi-directional lights
Devices delineating obstacles, excavations, or hazards exceeding 100 ft (30 m) in length at night (Does not apply to widening)	Steady burn bi-directional lights
Channelizing devices for nighttime lane closures on two-lane roads	None
Channelizing devices for nighttime lane closures on multi-lane roads	None
Channelizing devices for nighttime lane closures on multi-lane roads separating opposing directions of traffic	None
Channelizing devices for nighttime along lane shifts on multilane roads	Steady burn mono-directional lights
Channelizing devices for night time along lane shifts on two lane roads	Steady burn bi-directional lights
Devices in nighttime lane closure tapers on Standards 701316 and 701321	Steady burn bi-directional lights
Devices in nighttime lane closure tapers	Steady burn mono-directional lights
Devices delineating a widening trench	None
Devices delineating patches at night on roadways with an ADT less than 25,000	None
Devices delineating patches at night on roadways with an ADT of 25,000 or more	None

Batteries for the lights shall be replaced on a group basis at such times as may be specified by the Engineer."

Delete the fourth sentence of the first paragraph of Article 701.17(c)(2) of the Standard Specifications.

Revise the first paragraph of Article 603.07 of the Standard Specifications to read:

"**603.07 Protection Under Traffic.** After the casting has been adjusted and Class SI concrete has been placed, the work shall be protected by a barricade for at least 72 hours."

80392

PAYMENTS TO SUBCONTRACTORS (BDE)

Effective: November 2, 2017

Add the following to the end of the fourth paragraph of Article 109.11 of the Standard Specifications:

"If reasonable cause is asserted, written notice shall be provided to the applicable subcontractor and/or material supplier and the Engineer within five days of the Contractor receiving payment. The written notice shall identify the contract number, the subcontract or material purchase agreement, a detailed reason for refusal, the value of payment being withheld, and the specific remedial actions required of the subcontractor and/or material supplier so that payment can be made."

80390

PORTLAND CEMENT CONCRETE (BDE)

Effective: November 1, 2017

Revise the Air Content % of Class PP Concrete in Table 1 Classes of Concrete and Mix Design Criteria in Article 1020.04 of the Standard Specifications to read:

"TABLE 1. CLASSES OF CONCRETE AND MIX DESIGN CRITERIA		
Class of Conc.	Use	Air Content %
PP	Pavement Patching Bridge Deck Patching (10)	
	PP-1	4.0 - 8.0"
	PP-2	
	PP-3	
	PP-4	
	PP-5	

Revise Note (4) at the end of Table 1 Classes of Concrete and Mix Design Criteria in Article 1020.04 of the Standard Specifications to read:

"(4) For all classes of concrete, the maximum slump may be increased to 7 in (175 mm) when a high range water-reducing admixture is used. For Class SC, the maximum slump may be increased to 8 in. (200 mm). For Class PS, the maximum slump may be increased to 8 1/2 in. (215 mm) if the high range water-reducing admixture is the polycarboxylate type."

80389

SUBCONTRACTOR MOBILILATION PAYMENTS (BDE)

Effective: November 2, 2017

Replace the second paragraph of Article 109.12 of the Standard Specifications with the following:

"This mobilization payment shall be made at least 14 days prior to the subcontractor starting work. The amount paid shall be at the following percentage of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor's work.

Value of Subcontract Reported on Form BC 260A	Mobilization Percentage
Less than $10,000	25%
$10,000 to less than $20,000	20%
$20,000 to less than $40,000	18%
$40,000 to less than $60,000	16%
$60,000 to less than $80,000	14%
$80,000 to less than $100,000	12%
$100,000 to less than $250,000	10%
$250,000 to less than $500,000	9%
$500,000 to $750,000	8%
Over $750,000	7%"

80391

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)

Effective: January 1, 2019

Revise Section 669 of the Standard Specifications to read:

"**SECTION 669. REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES**

669.01 Description. This work shall consist of the transportation and proper disposal of contaminated soil and groundwater. This work shall also consist of the removal, transportation, and proper disposal of underground storage tanks (UST), their content and associated underground piping to the point where the piping is above the ground, including determining the content types and estimated quantities.

669.02 Equipment. The Contractor shall notify the Engineer of the delivery of all excavation, storage, and transportation equipment to a work area location. The equipment shall comply with OSHA and American Petroleum Institute (API) guidelines and shall be furnished in a clean condition. Clean condition means the equipment does not contain any residual material classified as a non-special waste, non-hazardous special waste, or hazardous waste. Residual materials include, but are not limited to, petroleum products, chemical products, sludges, or any other material present in or on equipment.

Before beginning any associated soil or groundwater management activity, the Contractor shall provide the Engineer with the opportunity to visually inspect and approve the equipment. If the equipment contains any contaminated residual material, decontamination shall be performed on the equipment as appropriate to the regulated substance and degree of contamination present according to OSHA and API guidelines. All cleaning fluids used shall be treated as the contaminant unless laboratory testing proves otherwise.

669.03 Pre-construction Submittals. Prior to beginning this work, or working in areas with regulated substances, the Contractor shall submit a Regulated Substance Pre-Construction Plan (RSPCP) to the Engineer for review and approval using form BDE 2730. The form shall be signed by an Illinois licensed Professional Engineer or Professional Geologist.

As part of the RSPCP, the qualifications of Contractor(s) or firm(s) performing the following work shall be listed.

(a) On-Site Monitoring. Qualification for on-site monitoring of regulated substance work and on-site monitoring of UST removal requires either pre-qualification in Hazardous Waste by the Department or demonstration of acceptable project experience in remediation and special waste operations for contaminated sites in accordance with applicable Federal, State, or local regulatory requirements.

Qualification for each individual performing on-site monitoring requires a minimum of one-year of experience in similar activities as those required for the project.

(b) Underground Storage Tank. Qualification for underground storage tank (UST) work requires licensing and certification with the Office of the State Fire Marshall (OSFM) and possession of all permits required to perform the work. A copy of the permit shall be provided to the Engineer prior to tank removal.

The qualified Contractor(s) or firm(s) shall also document it does not have any current or former ties with any of the properties contained within, adjoining, or potentially affecting the work.

The Engineer will require up to 30 calendar days for review of the RSPCP. The review may involve rejection or revision and resubmittal; in which case, an additional 30 days will be required for each subsequent review. Work shall not commence until the RSPCP has been approved by the Engineer. After approval, the RSPCP shall be revised as necessary to reflect changed conditions in the field.

CONSTRUCTION REQUIREMENTS

669.04 Contaminated Soil and/or Groundwater Monitoring. Prior to beginning excavation, the Contractor shall mark the limits of removal for approval by the Engineer. Once excavation begins, the work and work area involving regulated substances shall be monitored by qualified personnel. The qualified personnel shall be on-site continuously during excavation and loading of material containing regulated substances. The qualified personnel shall be equipped with either a photoionization detector (PID) (minimum 10.6eV lamp), or a flame ionization detector (FID), and other equipment, as appropriate, to monitor for potential contaminants associated with volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCs). The PID or FID meter shall be calibrated on-site and background level readings taken and recorded daily, and as field and weather conditions change. Any field screen reading on the PID or FID in excess of background levels indicates the potential presence of contaminated material requiring handling as a non-special waste, special waste, or hazardous waste. PID or FID readings may be used as the basis of increasing the limits of removal with the approval of the Engineer but shall in no case be used to decrease the limits.

The qualified personnel shall document field activities using form BDE 2732 (Regulated Substances Monitoring Daily Record) including the name(s) of personnel conducting the monitoring, weather conditions, PID or FID calibration records, a list of equipment used on-site, a narrative of activities completed, photo log sheets, manifests and landfill tickets, monitoring results, how regulated substances were managed and other pertinent information.

Samples will be collected in accordance with the RSPCP. Samples shall be analyzed for the contaminants of concern (COCs), including pH, based on the property's land use history, the encountered abnormality and/or the parameters listed in the maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Ill. Adm. Code 1100.605. The analytical results shall serve to document the level of contamination.

Samples shall be grab samples (not combined with other locations). The samples shall be taken with decontaminated or disposable instruments. The samples shall be placed in sealed containers and transported in an insulated container to the laboratory. The container shall maintain a temperature of 39 °F (4 °C). All samples shall be clearly labeled. The labels shall indicate the sample number, date sampled, collection location and depth, and any other relevant observations.

The laboratory shall use analytical methods which are able to meet the lowest appropriate practical quantitation limits (PQL) or estimated quantitation limit (EQL) specified in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", EPA Publication No. SW-846; "Methods for the Determination of Organic Compounds in Drinking Water", EPA, EMSL, EPA-600/4-88/039; and “Methods for the Determination of Organic Compounds in Drinking Water, Supplement III”, EPA 600/R-95/131, August 1995. For parameters where the specified cleanup objective is below the acceptable detection limit (ADL), the ADL shall serve as the cleanup objective. For other parameters the ADL shall be equal to or below the specified cleanup objective.

669.05 Contaminated Soil and/or Groundwater Management and Disposal. The management and disposal of contaminated soil and/or groundwater shall be according to the following:

(a) Soil Analytical Results Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels exceed the most stringent maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605, the soil shall be managed as follows:

(1) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC but they are still considered within area background levels by the Engineer, the excavated soil can be utilized within the construction limits as fill, when suitable. If the soils cannot be utilized within the construction limits, they shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.

(2) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as “uncontaminated soil” at a clean construction and demolition debris (CCDD) facility or an uncontaminated soil fill operation (USFO) within an MSA County provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

(3) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, or the MAC within the Chicago corporate limits, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as “uncontaminated soil” at a CCDD facility or an USFO within an MSA County excluding Chicago or within

the Chicago corporate limits provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

(4) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an USFO within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

(5) When the Engineer determines soil cannot be managed according to Articles 669.05(a)(1) through (a)(4) above, the soil shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.

(b) Soil Analytical Results Do Not Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels do not exceed the most stringent MAC, the excavated soil can be utilized within the construction limits or managed and disposed off-site as "uncontaminated soil" according to Article 202.03. However, the excavated soil cannot be taken to a CCDD facility or an USFO for any of the following reasons.

(1) The pH of the soil is less than 6.25 or greater than 9.0.

(2) The soil exhibited PID or FID readings in excess of background levels.

(c) Soil Analytical Results Exceed Most Stringent MAC but Do Not Exceed Tiered Approach to Corrective Action Objectives (TACO) Residential. When the soil analytical results indicate that detected levels exceed the most stringent MAC but do not exceed TACO Tier 1 Soil Remediation Objectives for Residential Properties pursuant to 35 IAC 742 Appendix B Table A, the excavated soil can be utilized within the right-of-way or managed and disposed off-site as "uncontaminated soil" according to Article 202.03. However, the excavated soil cannot be taken to a CCDD facility or an USFO.

(d) Groundwater. When groundwater analytical results indicate the detected levels are above Appendix B, Table E of 35 Illinois Administrative Code 742, the most stringent Tier 1 Groundwater Remediation Objectives for Groundwater Component of the Groundwater Ingestion Route for Class 1 groundwater, the groundwater shall be managed off-site as a special waste. The groundwater shall be containerized and trucked to an off-site treatment facility or may be discharged to a sanitary sewer or combined sewer when permitted by the local sewer authority. Groundwater discharged to a sewer shall be pre-treated to remove particulates and measured with a calibrated flow meter to comply with applicable discharge limits. A copy of the permit shall be provided to the Engineer prior to discharging groundwater to the sewer.

All groundwater encountered within trenches may be managed within the trench and allowed to infiltrate back into the ground. If the groundwater cannot be managed within the trench it must be removed as a special or hazardous waste. The Contractor is

prohibited from managing groundwater within the trench by discharging it through any existing or new storm sewer. The Contractor shall install backfill plugs within the area of groundwater contamination.

One backfill plug shall be placed down gradient to the area of groundwater contamination. Backfill plugs shall be installed at intervals not to exceed 50 ft (15 m). Backfill plugs are to be 4 ft (1.2 m) long, measured parallel to the trench, full trench width and depth. Backfill plugs shall not have any fine aggregate bedding or backfill, but shall be entirely cohesive soil or any class of concrete. The Contractor shall provide test data that the material has a permeability of less than 10^{-7} cm/sec according to ASTM D 5084, Method A or per another test method approved by the Engineer.

The Contractor shall use due care when transferring contaminated material from the area of origin to the transporter. Should releases of contaminated material to the environment occur (i.e., spillage onto the ground, etc.), the Contractor shall clean-up spilled material and place in the appropriate storage containers as previously specified. Clean-up shall include, but not be limited to, sampling beneath the material staging area to determine complete removal of the spilled material.

The Contractor shall be responsible for transporting and disposing all material classified as a non-special waste, special waste, or hazardous waste from the job site to an appropriately permitted landfill facility. The transporter and the vehicles used for transportation shall comply with all federal, state, and local rules and regulations governing the transportation of non-special waste, special waste, or hazardous waste.

All equipment used by the Contractor to haul contaminated material to the landfill facility shall be lined with a 6 mil (150 micron) polyethylene liner and securely covered during transportation. The Contractor shall obtain all documentation including any permits and/or licenses required to transport the contaminated material to the disposal facility.

The Contractor shall provide engineered barriers, when required, and shall include materials sufficient to completely line excavation surfaces, including sloped surfaces, bottoms, and sidewall faces, within the areas designated for protection.

The Engineer shall coordinate with the Contractor on the completion of all documentation. The Contractor shall make all arrangements for collection and analysis of landfill acceptance testing. The Contractor shall coordinate for waste disposal approval with the disposal facility. After the Contractor completes these activities and upon receipt of authorization from the Engineer, the Contractor shall initiate the disposal process.

The Contractor shall provide the Engineer with all transport-related documentation within two days of transport or receipt of said document(s). The Engineer shall maintain the file for all such documentation. For management of special or hazardous waste, the Contractor shall provide the Engineer with documentation the Contractor (or subcontractor, if a subcontractor is used for transportation) is operating with a valid Illinois special waste transporter permit at least two weeks before transporting the first load of contaminated material.

The Contractor shall schedule and arrange the transport and disposal of each load of contaminated material produced. The Contractor shall make all transport and disposal arrangements so no contaminated material remains within the project area at the close of business each day. Exceptions to this specification require prior approval from the Engineer within 24 hours of close of business. The Contractor shall be responsible for all other pre-disposal/transport preparations necessary daily to accomplish management activities.

Any waste generated as a special or hazardous waste from a non-fixed facility shall be manifested off-site using the Department's county generator number. An authorized representative of the Department shall sign all manifests for the disposal of the contaminated material and confirm the Contractor's transported volume. Any waste generated as a non-special waste may be managed off-site without a manifest, a special waste transporter, or a generator number.

The Contractor shall select a landfill mandated by definition of the contaminant within the State of Illinois. The Department will review and approve or reject the facility proposed by the Contractor to use as a landfill. The Contractor shall verify whether the selected disposal facility is compliant with those applicable standards as mandated by definition of the contaminant and whether the disposal facility is presently, has previously been, or has never been, on the United States Environmental Protection Agency (U.S. EPA) National Priorities List or the Resource Conservation and Recovery Act (RCRA) List of Violating Facilities. The Contractor shall be responsible for coordinating permits with the IEPA. The use of a Contractor selected landfill shall in no manner delay the construction schedule or alter the Contractor's responsibilities as set forth.

669.06 Non-Special Waste Certification. An authorized representative of the Department shall sign and date all non-special waste certifications. The Contractor shall be responsible for providing the Engineer with the required information that will allow the Engineer to certify the waste is not a special waste.

(a) Definition. A waste is considered a non-special waste as long as it is not:

(1) a potentially infectious medical waste;

(2) a hazardous waste as defined in 35 IAC 721;

(3) an industrial process waste or pollution control waste that contains liquids, as determined using the paint filter test set forth in subdivision (3)(A) of subsection (m) of 35 IAC 811.107;

(4) a regulated asbestos-containing waste material, as defined under the National Emission Standards for Hazardous Air Pollutants in 40 CFR 61.141;

(5) a material containing polychlorinated biphenyls (PCB's) regulated pursuant to 40 CFR Part 761;

(6) a material subject to the waste analysis and recordkeeping requirements of 35 IAC 728.107 under land disposal restrictions of 35 IAC 728;

(7) a waste material generated by processing recyclable metals by shredding and required to be managed as a special waste under Section 22.29 of the Environmental Protection Act; or

(8) an empty portable device or container in which a special or hazardous waste has been stored, transported, treated, disposed of, or otherwise handled.

(b) Certification Information. All information used to determine the waste is not a special waste shall be attached to the certification. The information shall include but not be limited to:

(1) the means by which the generator has determined the waste is not a hazardous waste;

(2) the means by which the generator has determined the waste is not a liquid;

(3) if the waste undergoes testing, the analytic results obtained from testing, signed and dated by the person responsible for completing the analysis;

(4) if the waste does not undergo testing, an explanation as to why no testing is needed;

(5) a description of the process generating the waste; and

(6) relevant material safety data sheets.

669.07 Temporary Staging. The Contractor shall excavate and dispose of all waste material as mandated by the contaminants without temporary staging. If circumstances require temporary staging, he/she shall request in writing, approval from the Engineer.

When approved, the Contractor shall prepare a secure location within the project area capable of housing containerized waste materials. The Contractor shall contain all waste material in leak-proof storage containers such as lined roll-off boxes or 55 gal (208 L) drums, or stored in bulk fashion on storage pads. The design and construction of such storage pad(s) for bulk materials shall be subject to approval by the Engineer. The Contractor shall place the staged storage containers on an all-weather gravel-packed, asphalt, or concrete surface. The Contractor shall maintain a clearance both above and beside the storage units to provide maneuverability during loading and unloading. The Contractor shall provide any assistance or equipment requested by the Engineer for authorized personnel to inspect and/or sample contents of each storage container. All containers and their contents shall remain intact and undisturbed by unauthorized persons until the manner of disposal is determined. The Contractor shall keep the storage containers covered, except when access is requested by authorized personnel of the Department. The Engineer shall authorize any additional material added to the contents of any storage container before being filled.

The Contractor shall ensure the staging area is enclosed (by a fence or other structure) to ensure direct access to the area is restricted, and he/she shall procure and place all required regulatory identification signs applicable to an area containing the waste material. The Contractor shall be responsible for all activities associated with the storage containers including, but not limited to, the procurement, transport, and labeling of the containers. The Contractor shall clearly mark all containers in permanent marker or paint with the date of waste generation, location and/or area of waste generation, and type of waste (e.g., decontamination water, contaminated clothing, etc.). The Contractor shall place these identifying markings on an exterior side surface of the container. The Contractor shall separately containerize each contaminated medium, i.e. contaminated clothing is placed in a separate container from decontamination water. Containers used to store liquids shall not be filled in excess of 80 percent of the rated capacity. The Contractor shall not use a storage container if visual inspection of the container reveals the presence of free liquids or other substances that could classify the material as a hazardous waste in the container.

The Department will not be responsible for any additional costs incurred, if mismanagement of the staging area, storage containers, or their contents by the Contractor results in excess cost expenditure for disposal or other material management requirements.

669.08 Underground Storage Tank Removal. For the purposes of this section, an underground storage tank (UST) includes the underground storage tank, piping, electrical controls, pump island, vent pipes and appurtenances.

Prior to removing an UST, the Engineer shall determine whether the Department is considered an "owner" or "operator" of the UST as defined by the UST regulations (41 Ill. Adm. Code Part 176). Ownership of the UST refers to the Department's owning title to the UST during storage, use or dispensing of regulated substances. The Department may be considered an "operator" of the UST if it has control of, or has responsibility for, the daily operation of the UST. The Department may however voluntarily undertake actions to remove an UST from the ground without being deemed an "operator" of the UST.

In the event the Department is deemed not to be the "owner" or "operator" of the UST, the OSFM removal permit shall reflect who was the past "owner" or "operator" of the UST. If the "owner" or "operator" cannot be determined from past UST registration documents from OSFM, then the OSFM removal permit will state the "owner" or "operator" of the UST is the Department. The Department’s Office of Chief Counsel (OCC) will review all UST removal permits prior to submitting any removal permit to the OSFM. If the Department is not the “owner” or “operator” of the UST then it will not register the UST or pay any registration fee.

The Contractor shall be responsible for obtaining all permits required for removing the UST, notification to the OSFM, using an OSFM certified tank contractor, removal and disposal of the UST and its contents, and preparation and submittal of the OSFM Site Assessment Report in accordance with 41 Ill. Adm. Code Part 176.330.

The Contractor shall contact the Engineer and the OSFM's office at least 72 hours prior to removal to confirm the OSFM inspector's presence during the UST removal. Removal, transport,

and disposal of the UST shall be according to the applicable portions of the latest revision of the "American Petroleum Institute (API) Recommended Practice 1604".

The Contractor shall collect and analyze tank content (sludge) for disposal purposes. The Contractor shall remove as much of the regulated substance from the UST system as necessary to prevent further release into the environment. All contents within the tank shall be removed, transported and disposed of, or recycled. The tank shall be removed and rendered empty according to IEPA definition.

The Contractor shall collect soil samples from the bottom and sidewalls of the excavated area in accordance with 35 Ill. Adm. Code Part 734.210(h) after the required backfill has been removed during the initial response action, to determine the level of contamination remaining in the ground, regardless if a release is confirmed or not by the OSFM on-site inspector.

In the event the UST is designated a leaking underground storage tank (LUST) by the OSFM's inspector, or confirmation by analytical results, the Contractor shall notify the Engineer and the DESU. Upon confirmation of a release of contaminants from the UST and notifications to the Engineer and DESU, the Contractor shall report the release to the Illinois Emergency Management Agency (IEMA) (e.g., by telephone or electronic mail) and provide them with whatever information is available ("owner" or "operator" shall be stated as the past registered "owner" or "operator", or the IDOT District in which the UST is located and the DESU Manager);

The Contractor shall perform the following initial response actions if a release is indicated by the OSFM inspector:

(a) Take immediate action to prevent any further release of the regulated substance to the environment, which may include removing, at the Engineer's discretion, and disposing of up to 4 ft (1.2 m) of the contaminated material, as measured from the outside dimension of the tank

(b) Identify and mitigate fire, explosion and vapor hazards;

(c) Visually inspect any above ground releases or exposed below ground releases and prevent further migration of the released substance into surrounding soils and groundwater; and

(d) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors and free product that have migrated from the UST excavation zone and entered into subsurface structures (such as sewers or basements).

The UST excavation shall be backfilled according to applicable portions of Sections 205, 208, and 550 with a material that will compact and develop stability. The material shall be approved prior to placement. All uncontaminated concrete and soil removed during tank extraction may be used to backfill the excavation, at the discretion of the Engineer.

After backfilling the excavation, the site shall be graded and cleaned.

669.09 Regulated Substance Final Construction Report. Not later than 90 days after completing this work, the Contractor shall submit a Regulated Substance Final Construction Report (RSFCR) to the Engineer using form BDE 2733 and required attachments. The form shall be signed by an Illinois licensed Professional Engineer or Professional Geologist.

669.10 Method of Measurement. Non-special waste, special waste, and hazardous waste soil will be measured for payment according to Article 202.07(b) when performing earth excavation, Article 502.12(b) when excavating for structures, or by computing the volume of the trench using the maximum trench width permitted and the actual depth of the trench.

Groundwater containerized and transported off-site for management, storage, and disposal will be measured for payment in gallons (liters).

Backfill plugs will be measured in cubic yards (cubic meters) in place, except the quantity for which payment will be made shall not exceed the volume of the trench, as computed by using the maximum width of trench permitted by the Specifications and the actual depth of the trench, with a deduction for the volume of the pipe.

Engineered Barriers will be measured for payment in square yards (square meters).

669.11 Basis of Payment. The work of preparing, submitting and administering a Regulated Substances Pre-Construction Plan will be paid for at the contract lump sum price for REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN.

On-site monitoring of regulated substances, including completion of form BDE 2732 for each day of work, will be paid for at the contract unit price per calendar day, or faction thereof, for ON-SITE MONITORING OF REGULATED SUBSTANCES.

The installation of engineered barriers will be paid for at the contract unit price per square yard (square meter) for ENGINEERED BARRIER.

The work of removing a UST, soil excavation, soil and content sampling, and the excavated soil, UST content, and UST disposal will be paid for at the contract unit price per each for UNDERGROUND STORAGE TANK REMOVAL.

The transportation and disposal of soil and other materials from an excavation determined to be contaminated will be paid for at the contract unit price per cubic yard (cubic meter) for NON-SPECIAL WASTE DISPOSAL, SPECIAL WASTE DISPOSAL, or HAZARDOUS WASTE DISPOSAL.

The transportation and disposal of groundwater from an excavation determined to be contaminated will be paid for at the contract unit price per gallon (liter) for SPECIAL WASTE GROUNDWATER DISPOSAL or HAZARDOUS WASTE GROUNDWATER DISPOSAL. When groundwater is discharged to a sanitary or combined sewer by permit, the cost will be paid for according to Article 109.05.

Backfill plugs will be paid for at the contract unit price per cubic yard (cubic meter) for BACKFILL PLUGS.

Payment for temporary staging, if required, will be paid for according to Article 109.04.

Payment for accumulated stormwater removal and disposal will be according to Article 109.04. Payment will only be allowed if appropriate stormwater and erosion control methods were used.

Payment for decontamination, labor, material, and equipment for monitoring areas beyond the specified areas, with the Engineer's prior written approval, will be according to Article 109.04.

The sampling and testing associated with this work will be paid for as follows.

(a) BETX Soil/Groundwater Analysis. When the contaminants of concern are gasoline only, soil or groundwater samples shall be analyzed for benzene, ethylbenzene, toluene, and xylenes (BETX). The analysis will be paid for at the contract unit price per each for BETX SOIL ANALYSIS and/or BETX GROUNDWATER ANALYSIS using EPA Method 8021B.

(b) BETX-PNAS Soil/Groundwater Analysis. When the contaminants of concern are middle distillate and heavy ends, soil or groundwater samples shall be analyzed for BETX and polynuclear aromatics (PNAS). The analysis will be paid for at the contract unit price per each for BETX-PNAS SOIL ANALYSIS and/or BETX-PNAS GROUNDWATER ANALYSIS using EPA Method 8021B for BETX and EPA Method 8310 for PNAs.

(c) Priority Pollutants Soil Analysis. When the contaminants of concern are used oils, soil samples shall be analyzed for priority pollutant VOCs, priority pollutants SVOCs, and priority pollutants metals. The analysis will be paid for at the contract unit price per each for PRIORITY POLLUTANTS SOIL ANALYSIS using EPA Method 8260B for VOCs, EPA Method 8270C for SVOCs, and using an ICP instrument and EPA Methods 6010B and 7471A for metals.

(d) Priority Pollutant Groundwater Analysis. When the contaminants of concern are used oils, non-petroleum material, or unknowns, groundwater samples shall be analyzed for priority pollutant VOCs, priority pollutants SVOCs, and priority pollutants metals. The analysis will be paid for at the contract unit price per each for PRIORITY POLLUTANTS GROUNDWATER ANALYSIS using EPA Method 8260B for VOCs, EPA Method 8270C for SVOCs, and EPA Methods 6010B and 7470A for metals.

(e) Target Compound List (TCL) Soil Analysis. When the contaminants of concern are unknowns or non-petroleum material, soil samples shall be analyzed for priority pollutant VOCs, priority pollutants SVOCS, priority pollutants metals, pesticides, and Resource Conservation and Recovery Act (RCRA) metals by the toxicity characteristic leaching procedure (TCLP). The analysis will be paid for at the contract unit price per each for TCL SOIL ANALYSIS using EPA Method 8260B for VOCs, EPA Method 8270C for SVOCs,

EPA Method 8081 for pesticides, and ICP instrument and EPA Methods 6010B, 7471A, 1311 (extraction), 6010B, and 7470A for metals.

(f) Soil Disposal Analysis. When the waste material for disposal requires sampling for disposal acceptance, the samples shall be analyzed for TCLP VOCs, SVOCs, RCRA metals, pH, ignitability, and paint filter test. The analysis will be paid for at the contract unit price per each for SOIL DISPOSAL ANALYSIS using EPA Methods 1311 (extraction), 8260B for VOCs, 8270C for SVOCs, 6010B and 7470A for RCRA metals, 9045C for pH, 1030 for ignitability, and 9095A for paint filter.

The work of preparing, submitting and administering a Regulated Substances Final Construction Report will be paid for at the contract lump sum price REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT."

80407

TRAFFIC CONTROL DEVICES - CONES (BDE)

Effective: January 1, 2019

Revise Article 701.15(a) of the Standard Specifications to read:

"(a) Cones. Cones are used to channelize traffic. Cones used to channelize traffic at night shall be reflectorized; however, cones shall not be used in nighttime lane closure tapers or nighttime lane shifts."

Revise Article 1106.02(b) of the Standard Specifications to read:

"(b) Cones. Cones shall be predominantly orange. Cones used at night that are 28 to 36 in. (700 to 900 mm) in height shall have two white circumferential stripes. If non-reflective spaces are left between the stripes, the spaces shall be no more than 2 in. (50mm) in width. Cones used at night that are taller than 36 in. (900 mm) shall have a minimum of two white and two fluorescent orange alternating, circumferential stripes with the top stripe being fluorescent orange. If non-reflective spaces are left between the stripes, the spaces shall be no more than 3 in. (75 mm) in width.

The minimum weights for the various cone heights shall be 4 lb for 18 in. (2 kg for 450 mm), 7 lb for 28 in. (3 kg for 700 mm), and 10 lb for 36 in. (5 kg for 900 mm) with a minimum of 60 percent of the total weight in the base. Cones taller than 36 in. shall be weighted per the manufacturer's specifications such that they are not moved by wind or passing traffic."

80409

WARM MIX ASPHALT (BDE)

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

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

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

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

Equipment.

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

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

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

"(11) Equipment for Warm Mix Technologies.

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

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

Mix Design Verification.

Add the following to Article 1030.04 of the Standard Specifications.

"(e) Warm Mix Technologies.

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

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

Construction Requirements.

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

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

Basis of Payment.

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

80288

Effective Kane County Prevailing Wage Rates

Effective Date	County	Trade Title	Region	Type	Class	Base Wage	Foreman Wage	OT M-F	OT Sa	OT Su	OT Hol	H/W	Pension	Vacation	Training	Other Fringe Benefit
10/26/2018	Kane	ASBESTOS ABT-GEN	All	ALL		42.72	43.72	1.5	1.5	2	2	13.77	13.7	0	0.72	0
11/5/2018	Kane	ASBESTOS ABT-MEC	All	BLD		37.88	40.38	1.5	1.5	2	2	12.92	11.82	0	0.72	0
8/15/2018	Kane	BOILERMAKER	All	BLD		49.46	53.91	2	2	2	2	6.97	20.41	0	0.4	0
8/15/2018	Kane	BRICK MASON	All	BLD		46.19	50.81	1.5	1.5	2	2	10.65	17.92	0	0.92	0
12/14/2018	Kane	CARPENTER	All	ALL		47.35	49.35	1.5	1.5	2	2	11.79	20.42	0	0.63	0
2/8/2019	Kane	CEMENT MASON	All	ALL		45.89	47.89	2	1.5	2	2	10.25	22.01	0	0.5	0
8/15/2018	Kane	CERAMIC TILE FNSHER	All	BLD		39.56	39.56	1.5	1.5	2	2	10.75	12.02	0	0.77	0
11/5/2018	Kane	COMMUNICATION TECH	N	BLD		39.24	41.64	1.5	1.5	2	2	13.03	12.71	0	0.69	0
8/15/2018	Kane	COMMUNICATION TECH	S	BLD		40.15		1.5	1.5	2	2	4.42	1.21	3.1	4.35	11.08
10/26/2018	Kane	ELECTRIC PWR EQMT OP	All	ALL		42.59	57.95	1.5	1.5	2	2	5.75	13.21	0	0.75	0
8/15/2018	Kane	ELECTRIC PWR EQMT OP	ALL	HWY		41.45	56.38	1.5	1.5	2	2	5.5	12.87	0	0.73	
10/26/2018	Kane	ELECTRIC PWR GRNDMAN	All	ALL		32.86	57.95	1.5	1.5	2	2	5.75	15.85	0	0.9	0
8/15/2018	Kane	ELECTRIC PWR GRNDMAN	ALL	HWY		32	56.38	1.5	1.5	2	2	5.5	9.92	0	0.66	
12/21/2018	Kane	ELECTRIC PWR LINEMAN	All	ALL		51.06	57.95	1.5	1.5	2	2	5.75	15.85	0	0.9	0
8/15/2018	Kane	ELECTRIC PWR LINEMAN	ALL	HWY		49.67	56.38	1.5	1.5	2	2	5.5	15.4	0	0.88	
8/15/2018	Kane	ELECTRIC PWR TRK DRV	All	ALL		34.03	57.95	1.5	1.5	2	2	5.75	10.55	0	0.6	0
8/15/2018	Kane	ELECTRIC PWR TRK DRV	ALL	HWY		33.14	56.38	1.5	1.5	2	2	5.5	10.29	0	0.59	
11/5/2018	Kane	ELECTRICIAN	N	ALL		48.64	53.04	1.5	1.5	2	2	14.94	16.69	0	0.97	0
10/26/2018	Kane	ELECTRICIAN	S	BLD		47.72	51.97	1.5	1.5	2	2	17.36	14.55	0	1.67	0
8/15/2018	Kane	ELEVATOR CONSTRUCTOR	All	BLD		54.85	61.71	2	2	2	2	15.43	16.61	4.38	0.61	0
8/15/2018	Kane	FENCE ERECTOR	All	ALL		45.56		2	2	2	2	11.02	21.51	0	0.7	0
2/8/2019	Kane	GLAZIER	All	BLD		43.85	45.35	1.5	2	2	2	14.17	21.11	0	0.94	0
11/5/2018	Kane	HT/FROST INSULATOR	All	BLD		50.5	53	1.5	1.5	2	2	12.92	13.16	0	0.72	0
8/15/2018	Kane	IRON WORKER	All	ALL		45.84	50	2	2	2	2	11.77	22.9	0	0.83	0
8/15/2018	Kane	LABORER	All	ALL		42.72	44.72	1.5	1.5	2	2	14.9	12.57	0	0.72	0.24
8/15/2018	Kane	LATHER	All	ALL		47.35	49.35	1.5	1.5	2	2	11.79	20.42	0	0.63	0
8/15/2018	Kane	MACHINIST	All	BLD		48.38	50.88	1.5	1.5	2	2	7.23	8.95	1.85	1.47	0
8/15/2018	Kane	MARBLE FINISHERS	All	ALL		34.65	47.7	1.5	1.5	2	2	10.65	16.46	0	0.49	0
8/15/2018	Kane	MARBLE MASON	All	BLD		45.43	49.97	1.5	1.5	2	2	10.65	17.39	0	0.61	0
8/15/2018	Kane	MATERIAL TESTER I	All	ALL		32.72		1.5	1.5	2	2	14.9	12.57	0	0.72	0
11/9/2018	Kane	MATERIALS TESTER II	ALL	ALL		37.72	37.72	1.5	1.5	2	2	13.77	13.7	0	0.72	0
8/15/2018	Kane	MILLWRIGHT	All	ALL		46.35	47.35	1.5	1.5	2	2	1.56	0.68	1.29	0.64	27.13
10/26/2018	Kane	OPERATING ENGINEER	All	BLD	1	51.1	55.1	2	2	2	2	19.65	15.1	2	1.4	0
8/15/2018	Kane	OPERATING ENGINEER	All	BLD	2	49.8	55.1	2	2	2	2	19.65	15.1	2	1.4	0
8/15/2018	Kane	OPERATING ENGINEER	All	BLD	3	46.25		1.5	2	2	2	18.8	14.35	2	1.3	0
10/26/2018	Kane	OPERATING ENGINEER	All	BLD	4	45.5	55.1	2	2	2	2	19.65	15.1	2	1.4	0
8/15/2018	Kane	OPERATING ENGINEER	All	BLD	5	54.85	55.1	2	2	2	2	19.65	15.1	2	1.4	0
8/15/2018	Kane	OPERATING ENGINEER	All	BLD	6	52.1	55.1	2	2	2	2	19.65	15.1	2	1.4	0
8/15/2018	Kane	OPERATING ENGINEER	All	BLD	7	54.1	55.1	2	2	2	2	19.65	15.1	2	1.4	0
8/15/2018	Kane	OPERATING ENGINEER	All	FLT		38	38	1.5	1.5	2	2	18.8	14.35	2	1.3	0
10/26/2018	Kane	OPERATING ENGINEER	All	HWY	1	49.3	53.3	1.5	1.5	2	2	19.65	15.1	2	1.4	0
10/26/2018	Kane	OPERATING ENGINEER	All	HWY	2	48.75	53.3	1.5	1.5	2	2	19.65	15.1	2	1.4	0
8/15/2018	Kane	OPERATING ENGINEER	All	HWY	3	46.7	53.3	1.5	1.5	2	2	19.65	15.1	2	1.4	0
8/15/2018	Kane	OPERATING ENGINEER	All	HWY	4	45.3	53.3	1.5	1.5	2	2	19.65	15.1	2	1.4	0
8/15/2018	Kane	OPERATING ENGINEER	All	HWY	5	43.1	43.1	1.5	1.5	2	2	13.75	9.85	3.8	0.35	8.7
8/15/2018	Kane	OPERATING ENGINEER	All	HWY	6	52.3	53.3	1.5	1.5	2	2	19.65	15.1	2	1.4	0
11/9/2018	Kane	OPERATING ENGINEER	All	HWY	7	50.3	53.3	1.5	1.5	2	2	19.65	15.1	2	1.4	0
8/15/2018	Kane	ORNAMNTL IRON WORKER	ALL	ALL		45.06	48.66	2	2	2	2	10.52	20.76	0	0.7	
8/15/2018	Kane	PAINTER	All	ALL		44.18		1.5	1.5	1.5	1.5	0	0	0	0	19.95
8/15/2018	Kane	PAINTER SIGNS	All	BLD		38.2	43.25	1.5	1.5	2	2	2.6	3.25	0	0	0
8/15/2018	Kane	PILEDRIVER	All	ALL		47.35	49.35	1.5	1.5	2	2	11.79	20.42	0	0.63	0
11/16/2018	Kane	PIPEFITTER	All	BLD		48.5	51.5	1.5	1.5	2	2	10.05	18.85	0	2.54	0
8/15/2018	Kane	PLASTERER	All	BLD		43.25	45.85	1.5	1.5	2	2	14.25	16.69	0	1.35	0
10/26/2018	Kane	PLUMBER	All	BLD		50.25	53.25	1.5	1.5	2	2	14.34	14.42	0	1.31	0
11/30/2018	Kane	ROOFER	All	BLD		43.65	47.65	1.5	1.5	2	2	9.73	12.44	0	0.53	0
8/15/2018	Kane	SHEETMETAL WORKER	All	BLD		48.02	51.02	1.5	1.5	2	2	10.75	16.19	0	1.03	0
8/15/2018	Kane	SIGN HANGER	ALL	BLD		26.07	27.57	1.5	1.5	2	2	3.8	3.55	0	0	
8/15/2018	Kane	SPRINKLER FITTER	All	BLD		48.1	50.6	1.5	1.5	2	2	12.75	13.45	0	0	1
8/15/2018	Kane	STEEL ERECTOR	ALL	ALL		45.56	49.2	2	2	2	2	11.02	21.51	0	0.7	
8/15/2018	Kane	STONE MASON	All	BLD		46.19	50.81	1.5	1.5	2	2	10.65	17.92	0	0.92	0
11/16/2018	Kane	TERRAZZO FINISHER	All	BLD		41.54	44.54	1.5	1.5	2	2	10.75	13.71	0	0.86	0
11/16/2018	Kane	TERRAZZO MASON	All	BLD		45.38	48.88	1.5	1.5	2	2	10.75	15.17	0	0.89	0
8/15/2018	Kane	TILE MASON	All	BLD		46.49	50.49	1.5	1.5	2	2	10.75	14.99	0	0.9	0
8/15/2018	Kane	TRAFFIC SAFETY WRKR	All	HWY		37	38.6	1.5	1.5	2	1.5	8.9	8.66	0	0.25	0
8/15/2018	Kane	TRUCK DRIVER	All	ALL	1	37.69		1.5	1.5	2	2	10.5	8.5	0	0.15	0
8/15/2018	Kane	TRUCK DRIVER	All	ALL	2	37.76	38.16	1.5	1.5	2	2	9.08	11.36	0	0.15	0
8/15/2018	Kane	TRUCK DRIVER	All	ALL	3	36.65		1.5	1.5	1.5	1.5	0	0	0	0	18.01
8/15/2018	Kane	TRUCK DRIVER	All	ALL	4	38.16		1.5	1.5	2	2	8.9	11.16	0	0.5	0
8/15/2018	Kane	TUCKPOINTER	All	BLD		46	47	1.5	1.5	2	2	8.34	16.81	0	0.93	0

Illinois Environmental Protection Agency

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

Source Site Certification by Owner or Operator for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-662 Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by source site owners and operators to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(A), that soil (i) was removed from a site that is not potentially impacted property and is presumed to be uncontaminated soil and (ii) is within a pH range of 6.25 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: 2019 Streets Program Office Phone Number, if available: N/A

Physical Site Location (Street, Road): Various Alignments

City: St. Charles State: IL Zip Code: 60174

County: Kane Township: St. Charles

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.91323 (Decimal Degrees) Longitude: -88.308480 (-Decimal Degrees)

Identify how the lat/long data were determined:

☐ GPS ☒ Map Interpolation ☐ Photo Interpolation ☐ Survey ☐ Other

IEPA Site Number(s), if assigned: BOL: BOW: BOA:

II. Owner/Operator Information for Source Site

Site Owner		Site Operator	
Name:	City of St. Charles	Name:	
Street Address:	2 East Main Street	Street Address:	
PO Box:		PO Box:	
City:	St. Charles State: IL	City:	State:
Zip Code:	60174 Phone: 630-377-4418	Zip Code:	Phone:
Contact:	Ken Jay	Contact:	
Email, if available:	kjay@stcharlesil.gov	Email, if available:	

Project Name: 2019 Streets Program

Latitude: 41.91323 (Decimal Degrees) Longitude: -88.308480 (-Decimal Degrees)

Source Site Certification

III. Descriptions of Current and Past Uses of Source Site

Describe the current and past uses of the site and nearby properties.* Attach additional information as needed. The description must take into account, at a minimum, the following for the source site and for nearby property: (1) use of the properties for commercial or industrial purposes; (2) the use, storage or disposal of chemical or petroleum products in individual containers greater than 5 gallons or collectively more than 50 gallons; (3) the current or past presence of any storage tanks (above ground or underground); (4) any waste storage, treatment or disposal at the properties; (5) any reported releases or any environmental cleanup or removal of contaminants; (6) any environmental liens or governmental notification of environmental violations; (7) any contamination in a well that exceeds the Board's groundwater quality standards; (8) the use, storage, or disposal of transformers or capacitors manufactured before 1979; and (9) any fill dirt brought to the properties from an unknown source or site.

Number of pages attached: 7

The project site is located across various alignments within the city limits. Reference the attached Core Location Maps. The alignments are generally comprised of 2 lane residential roadways. No contaminants were encountered during the design phase from soil borings. Should any contaminants be encountered during construction, the City should be notified immediately.

*The description must be sufficient to demonstrate that the source site is not potentially impacted property, thereby allowing the source site owner or operator to provide this certification.

IV. Soil pH Testing Results

Describe the results of soil pH testing showing that the soil pH is within the range of 6.25 to 9.0 and attach any supporting documentation.

Number of pages attached: 3

See attached pH laboratory data sheets. Results at probes P-1, P-2 and P-9 on Gray Street and Meadow View Drive had pH results exceeding 9.0 and are excluded from this certification.

V. Source Site Owner, Operator or Authorized Representative's Certification Statement and Signature

In accordance with the Illinois Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I Michael H. Prigge (owner, operator or authorized representataive of source site) certify that this site is not a potentially impacted property and the soil is presumed to be uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. I further certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. Additionally, I certify that I am either the site owner or operator or a duly authorized representative of the site owner or site operator and am authorized to sign this form. Furthermore, I certify that all information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete.

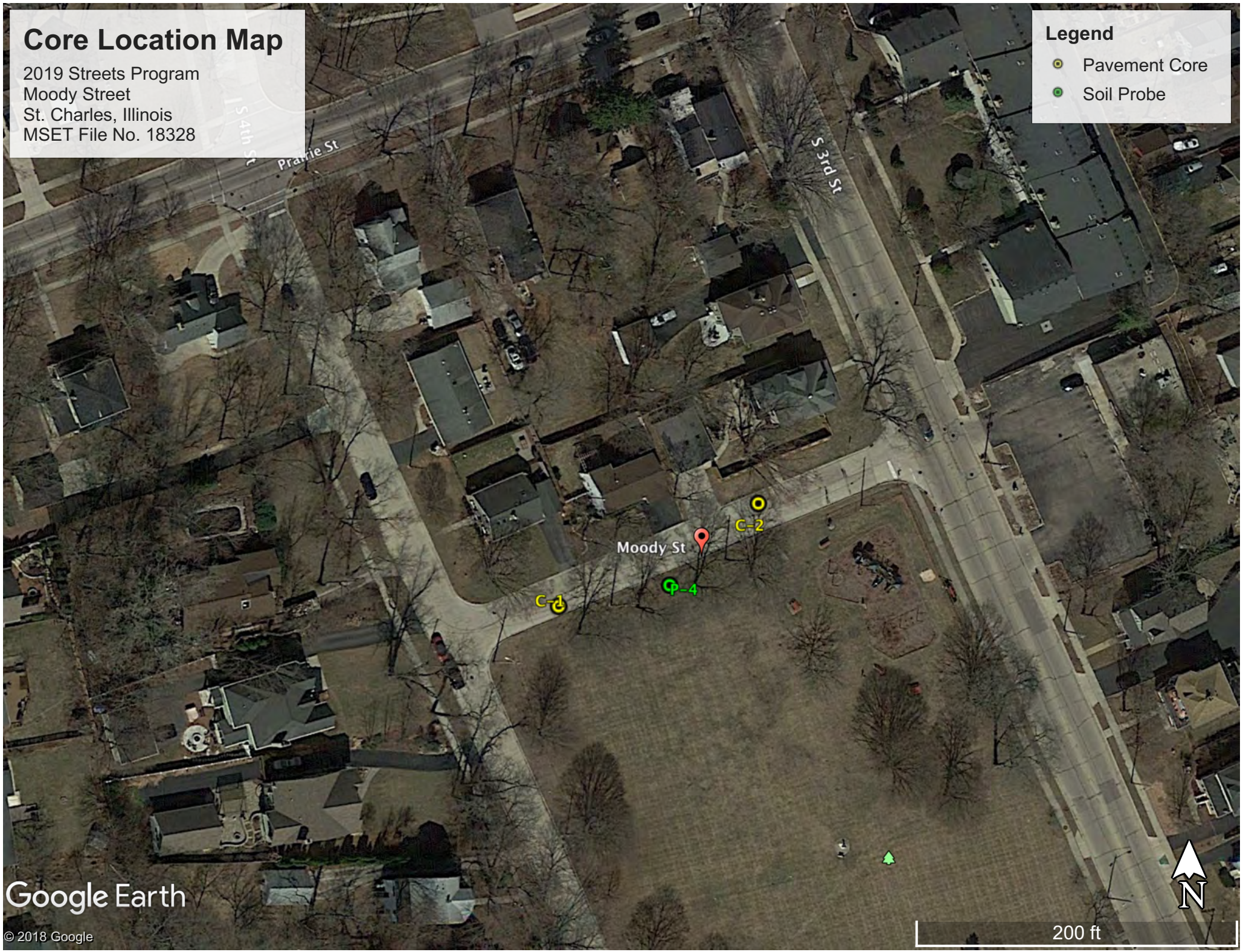
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

- ○ Owner
- ○ Operator
- ◉ Owner's Duly Authorized Representative
- ○ Operator's Duly Authorized Representative

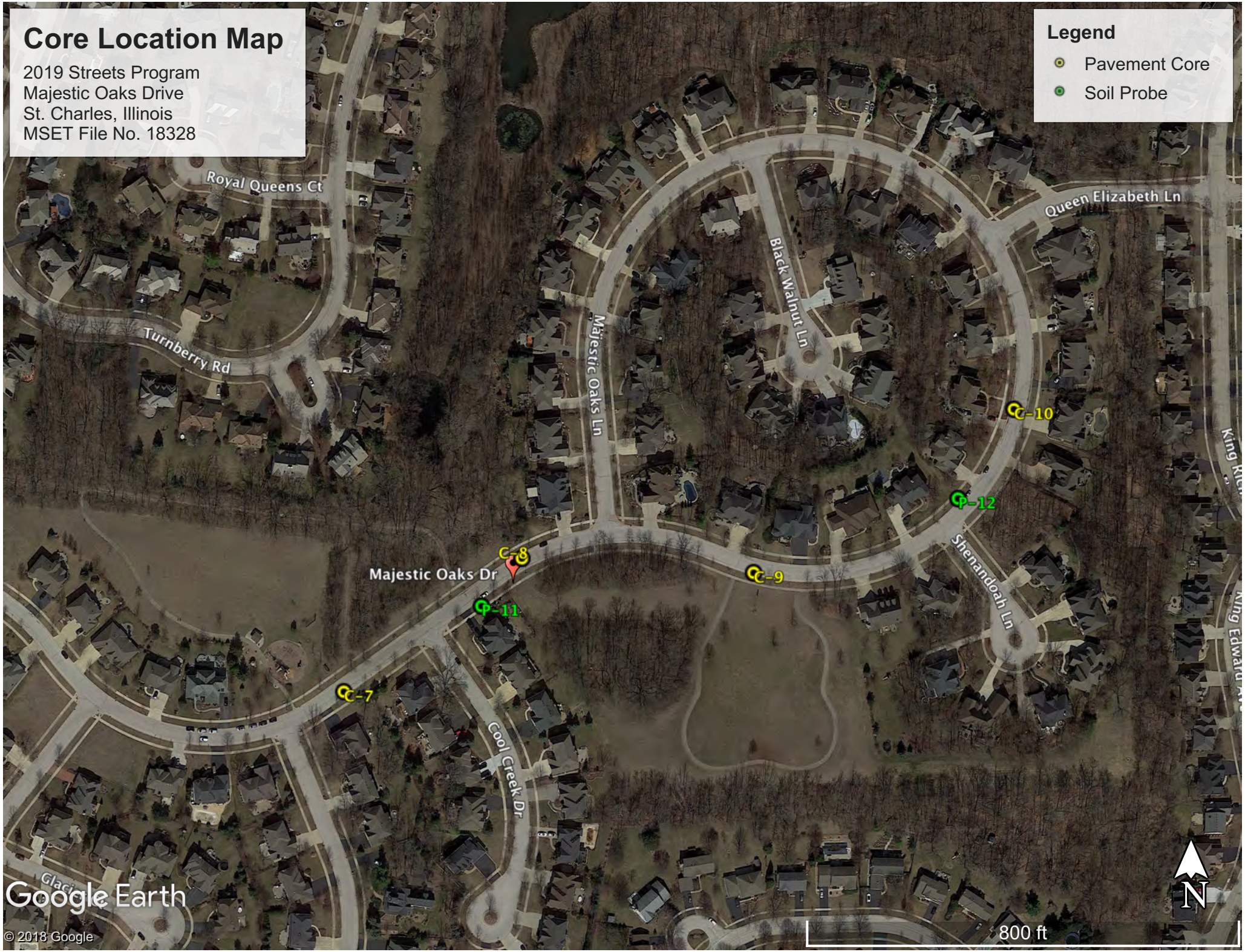
Michael H. Prigge
Printed Name

Signature

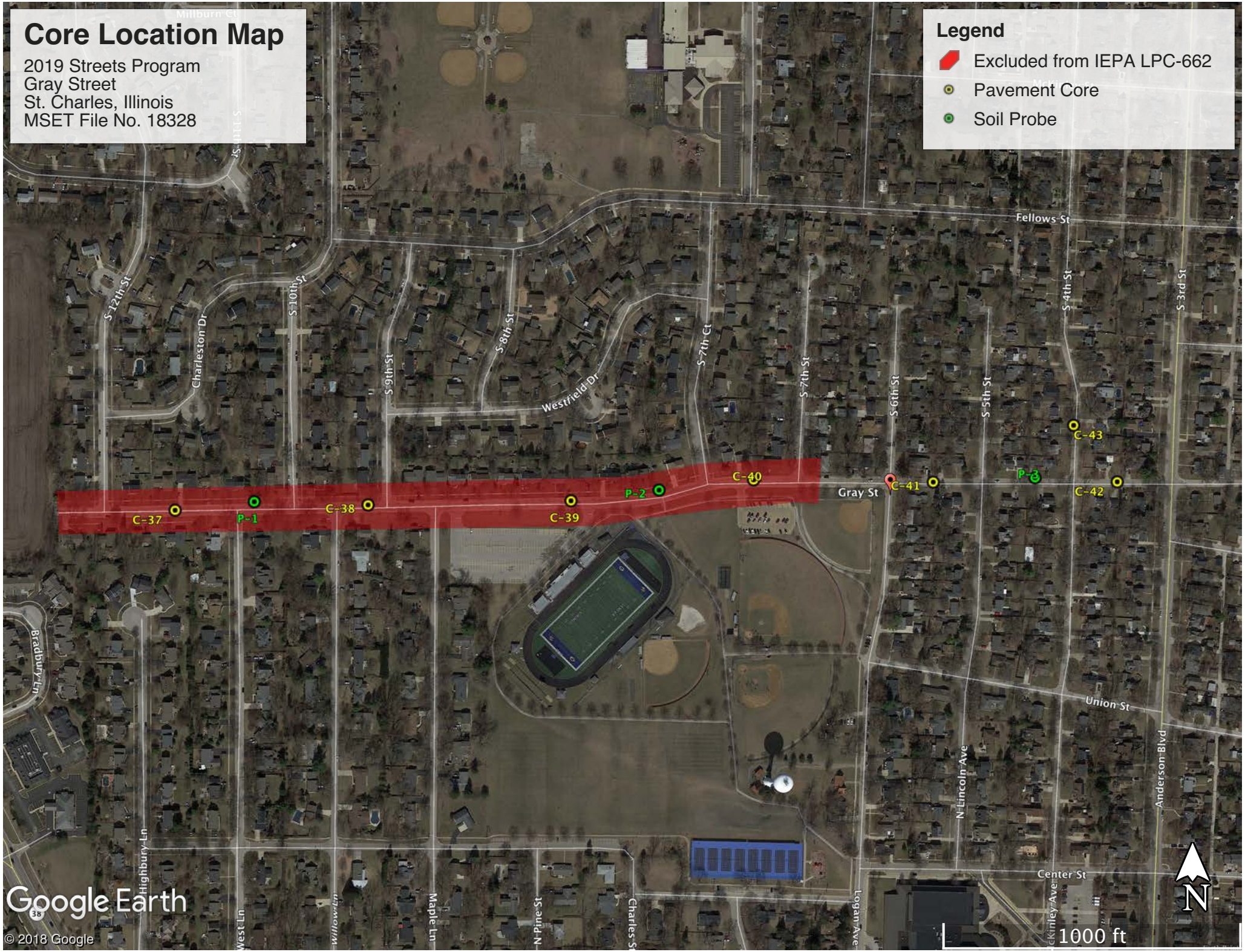
7/25/2018
Date


Core Location Map
2019 Streets Program
Moody Street
St. Charles, Illinois
MSET File No. 18328
Legend
Pavement Core
Soil Probe
Prairie St
S 3rd St
Moody St
C-2
C-1
P-4
N
200 ft
Google Earth
© 2018 Google


Core Location Map
2019 Streets Program
Meadow View Drive
St. Charles, Illinois
MSET File No. 18328
Legend
Excluded from IEPA LPC-662
Pavement Core
Soil Probe
Rosebud Dr
Reserve Dr
Meadow View Dr
Prairie Crossing Dr
River View Dr
River Ridge Dr
P-9
C-4
C-3
C-5
P-10
C-6
31
Google Earth
© 2018 Google
N
900 ft


Core Location Map
2019 Streets Program
Majestic Oaks Drive
St. Charles, Illinois
MSET File No. 18328
Legend
Pavement Core
Soil Probe
Royal Queens Ct
Turnberry Rd
Majestic Oaks Ln
Black Walnut Ln
Queen Elizabeth Ln
Majestic Oaks Dr
Shenandoah Ln
Cool Creek Dr
C-7
C-8
C-9
C-10
P-11
P-12
N
800 ft
Google Earth
© 2018 Google


Core Location Map
2019 Streets Program
S. 11th Street & S. 12th Street
St. Charles, Illinois
MSET File No. 18328
Legend
Pavement Core
Soil Probe
C-24
C-26
P-7
C-27
P-8
C-25
S 12th St
Howard St
S 13th St
S 14th St
S 12th St
S 11th St
S 10th St
S 10th Ct
Prairie St
Katherine St
Kehoe Dr
Alice Ct
N
700 ft
Google Earth
© 2018 Google


Core Location Map
2019 Streets Program
Gray Street
St. Charles, Illinois
MSET File No. 18328
Legend
Excluded from IEPA LPC-662
Pavement Core
Soil Probe
C-37
P-1
C-38
C-39
P-2
C-40
C-41
P-3
C-42
C-43
Gray St
Fellows St
Westfield Dr
Union St
Center St
S 12th St
S 10th St
S 9th St
S 8th St
S 7th Ct
S 7th St
S 6th St
S 5th St
S 4th St
S 3rd St
Charleston Dr
Bradbury Ln
Highbury Ln
N Lincoln Ave
Anderson Blvd
Maple Ln
N Pine St
Logan Ave
Google Earth
© 2018 Google
1000 ft
N

MIDLAND STANDARD ENGINEERING TESTING, INC.
558 PLATE DRIVE, UNIT 6, EAST DUNDEE, IL 60118 (847) 844-1895 F(847) 844-3875

pH of Soil
ASTM D 4972 / AASHTO T289

Project # 18328
Project Name: 2019 Street Program
Client: City of St. Charles
Location: St. Charles, Illinois

Date Received: 6/27/18
Date Tested: 6/29/18
Tested by: JDS

Sample #	P-1: Gray Street Brown, Grey & Black CLAY, A-6	9.26	pH in distilled water
Sample #	P-2: Gray Street Brown CLAY, A-6	9.18	pH in distilled water
Sample #	P-3: Gray Street Dark Grey & Black CLAY, A-7-6	8.73	pH in distilled water
Sample #	P-4: Moody Street Brownish-Grey CLAY, A-6	8.15	pH in distilled water
Sample #	P-7: S. 12th Street Dark Grey and Black CLAY, A-7-6	7.65	pH in distilled water
Sample #	P-8: S. 11th Street Brown and Grey CLAY, A-6	7.46	pH in distilled water

MIDLAND STANDARD ENGINEERING TESTING, INC.
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pH of Soil
ASTM D 4972 / AASHTO T289

Project # 18328
Project Name: 2019 Street Program
Client: City of St. Charles
Location: St. Charles, Illinois

Date Received: 6/27/18
Date Tested: 6/29/18
Tested by: JDS

Sample #			
Sample #	P-9: Meadow View Dr. Brown CLAY, A-6	9.64	pH in distilled water
Sample #	P-10: Meadow View Dr. Dark Brown Clay LOAM, A-6	8.63	pH in distilled water
Sample #	P-11: Majestic Oaks Dr. Grey CLAY, A-6	7.01	pH in distilled water
Sample #	P-12: Majestic Oaks Dr. Brown and Grey CLAY, A-6	7.52	pH in distilled water
Sample #	P-21: Edwards Ave Black CLAY, A-7-6	7.63	pH in distilled water
Sample #	P-22: Nicholas Ave Brown, Grey & Black CLAY, A-6	8.24	pH in distilled water


Probe Location Map
2018 Streets Program
Renaux Blvd, Deville Ln, St. Germain Pl
St. Charles, Illinois
MSET File No. 17379
Legend
Soil Probe
Hilltop Dr
Oakwood
Provence Dr
Voltaire Ln
Picasso Dr
Monet Pl
Matisse Dr
Sunset Dr
Deville Ln
W Main
64
Lynn Dr
Toms Trail Dr
Bernice Dr
Joan Dr
Joan Ct
Peck Rd
Renard Ln
P-14
P-15
P-16
P-17
P-18
Google Earth
© 2017 Google
1000 ft
N

MIDLAND STANDARD ENGINEERING TESTING, INC.
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pH of Soil
ASTM D 4972 / AASHTO T289

Project # 17379
Project Name: 2018 Streets Program
Client: City of St. Charles
Location: St. Charles

Date Received: 9/7/17
Date Tested: 9/8/17
Tested by: JDS

Sample #	P-13 Dark Brown CLAY LOAM	7.70	pH in distilled water
Sample #	P-14 Dark Brown CLAY LOAM	7.80	pH in distilled water
Sample #	P-15 Dark Brown CLAY LOAM	8.05	pH in distilled water
Sample #	P-16 Dark Brown CLAY LOAM	7.67	pH in distilled water
Sample #	P-17 Dark Brown CLAY LOAM	7.76	pH in distilled water
Sample #	P-18 Dark Brown CLAY LOAM	7.64	pH in distilled water

APPENDIX F

IEPA LPC-663 DOCUMENTATION
CORE LOCATION MAP
FIRST ENVIRONMENTAL ANALYTICAL LABORATORY REPORT

Illinois Environmental Protection Agency

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

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: 2019 Streets Program Office Phone Number, if available: N/A

Physical Site Location (address, inclduding number and street):

State Ave, Cedar Ave, N 2nd Ave, N 3rd Ave, Foxfield Rd, Fieldgate Dr

City: St. Charles State: IL Zip Code: 60174

County: Kane Township: St. Charles

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.91505 (Decimal Degrees) Longitude: -88.31175 (-Decimal Degrees)

Identify how the lat/long data were determined:

☐ GPS ☒ Map Interpolation ☐ Photo Interpolation ☐ Survey ☐ Other

IEPA Site Number(s), if assigned: BOL: BOW: BOA:

II. Owner/Operator Information for Source Site

Site Owner		Site Operator	
Name:	City of St. Charles	Name:	
Street Address:	2 East Main Street	Street Address:	
PO Box:		PO Box:	
City:	St. Charles State: IL	City:	State:
Zip Code:	60174 Phone: 630-377-4486	Zip Code:	Phone:
Contact:	Ken Jay	Contact:	
Email, if available:	kjay@stcharlesil.gov	Email, if available:	

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: 2019 Streets Program

Latitude: 41.91505 Longitude: -88.31175

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Hand Auger borings were performed along the alignment, reference attached Google Earth Location Map. Samples were screened in the field and a discrete sample was selected for analytical testing.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See First Environmental Laboratories Report dated 7/17/2018.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Michael H. Prigge (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Midland Standard Engineering & Testing, Inc.

Street Address: 558 Plate Drive, Unit 6

City: East Dundee State: IL Zip Code: 60118

Phone: 847-844-1895

Michael H. Prigge
Printed Name:

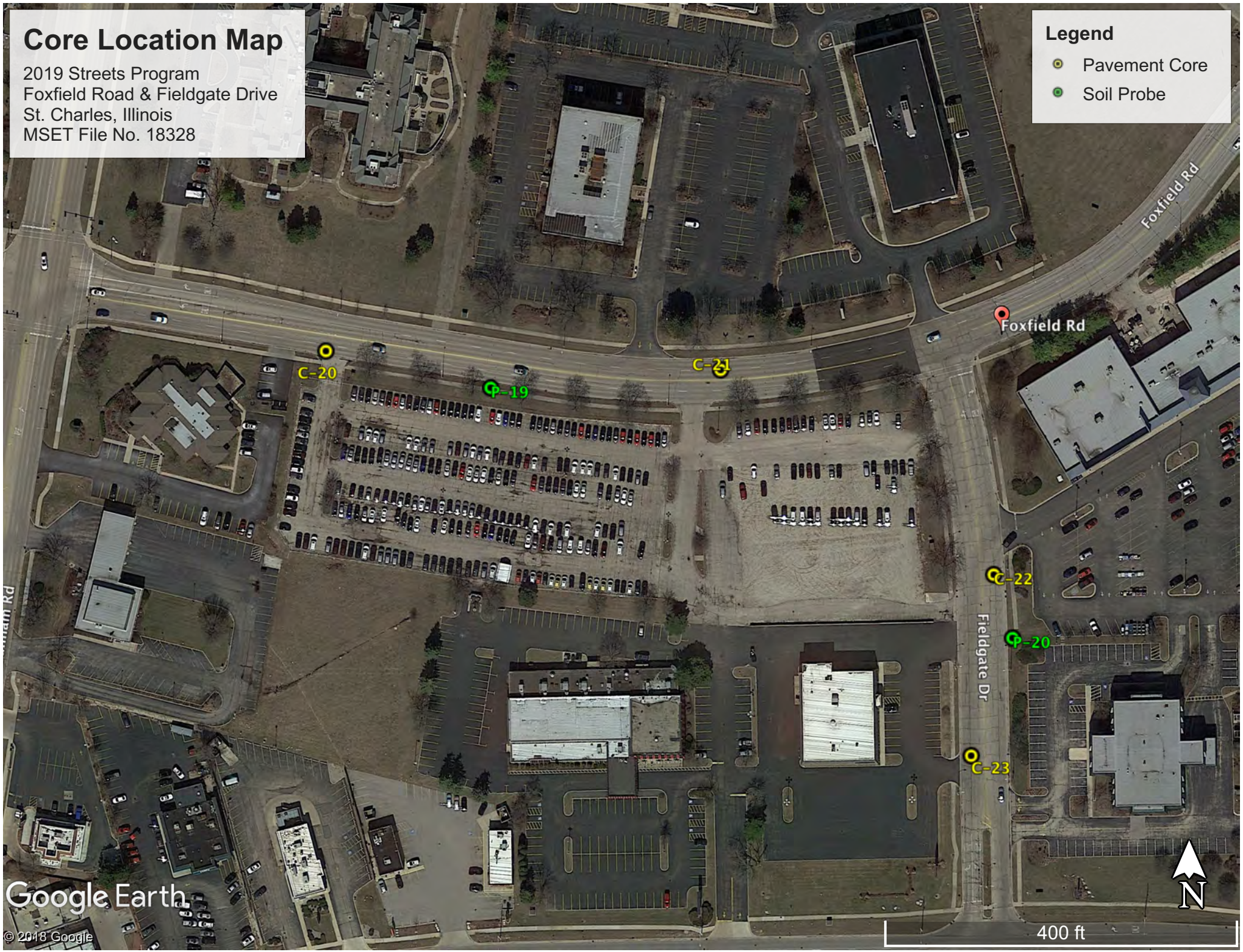
Licensed Professional Engineer or
Licensed Professional Geologist Signature:

7/24/2018
Date:

MICHAEL H. PRIGGE
062-066611
LICENSED
PROFESSIONAL
ENGINEER
STATE OF ILLINOIS

P.E. or L.P.G. Seal:


Core Location Map
2019 Streets Program
Downtown Streets
St. Charles, Illinois
MSET File No. 18328
Legend
Pavement Core
Soil Probe
C-16
P-14
C-11
C-17
P-15
C-12
C-18
P-16
C-13
C-14
C-19
P-18
C-15
P-17
State Ave
N 2nd Ave
N Riverside Ave
N 3rd Ave
N 4th Ave
N 5th Ave
E Main St
S 4th Ave
25
64
Google Earth
© 2018 Google
400 ft
N


Core Location Map
2019 Streets Program
Foxfield Road & Fieldgate Drive
St. Charles, Illinois
MSET File No. 18328
Legend
Pavement Core
Soil Probe
Foxfield Rd
C-20
C-21
P-19
C-22
P-20
C-23
Fieldgate Dr
Google Earth
© 2018 Google
N
400 ft

First Environmental Laboratories, Inc.
IL ELAP / NELAC Accreditation # 100292
1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

July 17, 2018

Mr. Michael Prigge
MIDLAND STANDARD ENG. & TESTING, INC.
558 Plate Drive
Unit 6
East Dundee, IL 60118

Project ID: 2019 MFT Streets MSET #18328
First Environmental File ID: 18-3790
Date Received: July 05, 2018

Dear Mr. Michael Prigge:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 004324: effective 02/27/2018 through 02/28/2019.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Bill Mottashed
Project Manager

First Environmental Laboratories, Inc.
IL ELAP / NELAC Accreditation # 100292
1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

MIDLAND STANDARD ENG. & TESTING, INC. Lab File ID: **18-3790**

Project ID: **2019 MFT Streets MSET #18328** Date Received: **July 05, 2018**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time Collected	
18-3790-001	P-14, Dk Brown + Dk grey clay loam	6/27/2018	9:00
18-3790-002	P-15, Dk Brown + Dk grey clay loam	6/27/2018	9:30
18-3790-003	P-16, Fill: Dk Brown sandy loam	6/27/2018	10:00
18-3790-004	P-18, Reddish Br. + Dk grey sandy loa	6/27/2018	10:30
18-3790-005	P-19, Bk, Gr + Dk Gr Clay	6/27/2018	11:00
18-3790-006	P-20, Olive - Brown Clay	6/27/2018	11:30

Sample Batch Comments:

Sample acceptance criteria were met.

Method Comments

Lab Number	Sample ID	Comments:
18-3790-002	P-15, Dk Brown + D	*Pesticides/PCBs* 1 of 2 surrogate recoveries outside control limits; low bias due to matrix
18-3790-005	P-19, Bk, Gr + Dk Gr	*Pesticides/PCBs* 1 of 2 surrogate recoveries outside control limits; low bias due to matrix

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Case Narrative

MIDLAND STANDARD ENG. & TESTING, INC. Lab File ID: **18-3790**

Project ID: **2019 MFT Streets MSET #18328** Date Received: **July 05, 2018**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
A	Method holding time is 15 minutes from collection. Lab analysis was performed as soon as possible.		
B	Analyte was found in the method blank.	L	LCS recovery outside control limits.
<	Analyte not detected at or above the reporting limit.	M	MS recovery outside control limits; LCS acceptable.
C	Sample received in an improper container for this test.	P	Chemical preservation pH adjusted in lab.
D	Surrogates diluted out; recovery not available.	Q	Result was determined by a GC/MS database search.
E	Estimated result; concentration exceeds calibration range.	S	Analysis was subcontracted to another laboratory.
G	Surrogate recovery outside control limits.	T	Result is less than three times the MDL value.
H	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
J	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-14, Dk Brown + Dk grey clay loam
Sample No: 18-3790-001

Date Collected: 06/27/18
Time Collected: 9:00
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540B**				
Analysis Date: 07/06/18 16:30				
Total Solids	85.58		%	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 07/10/18				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	6.5	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-14, Dk Brown + Dk grey clay loam
Sample No: 18-3790-001

Date Collected: 06/27/18
Time Collected: 9:00
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 07/10/18				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 07/12/18		Preparation Date: 07/11/18		
Acenaphthene	< 330	330	ug/kg	
Acenaphthylene	< 330	330	ug/kg	
Anthracene	< 330	330	ug/kg	
Benzidine	< 330	330	ug/kg	
Benzo(a)anthracene	< 330	330	ug/kg	
Benzo(a)pyrene	< 90	90	ug/kg	
Benzo(b)fluoranthene	< 330	330	ug/kg	
Benzo(k)fluoranthene	< 330	330	ug/kg	
Benzo(ghi)perylene	< 330	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Benzyl alcohol	< 330	330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
bis(2-Chloroisopropyl)ether	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	330	ug/kg	
4-Bromophenyl phenyl ether	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
4-Chloro-3-methylphenol	< 330	330	ug/kg	
2-Chloronaphthalene	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
4-Chlorophenyl phenyl ether	< 330	330	ug/kg	
Chrysene	< 330	330	ug/kg	
Dibenzo(a,h)anthracene	< 90	90	ug/kg	
Dibenzofuran	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,3-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-14, Dk Brown + Dk grey clay loam
Sample No: 18-3790-001

Date Collected: 06/27/18
Time Collected: 9:00
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C** Analysis Date: 07/12/18		**Preparation Method 3540C** Preparation Date: 07/11/18		
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
Dimethyl phthalate	< 330	330	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	1600	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
Fluoranthene	< 330	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorobutadiene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	< 330	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylnaphthalene	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
3 & 4-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
2-Nitroaniline	< 1,600	1600	ug/kg	
3-Nitroaniline	< 1,600	1600	ug/kg	
4-Nitroaniline	< 1,600	1600	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
2-Nitrophenol	< 1,600	1600	ug/kg	
4-Nitrophenol	< 1,600	1600	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
n-Nitrosodimethylamine	< 330	330	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
Pentachlorophenol	< 330	330	ug/kg	
Phenanthrene	< 330	330	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	< 330	330	ug/kg	
Pyridine	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-14, Dk Brown + Dk grey clay loam
Sample No: 18-3790-001

Date Collected: 06/27/18
Time Collected: 9:00
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 07/12/18		Preparation Date: 07/11/18		
2,4,5-Trichlorophenol	< 330	330	ug/kg	
2,4,6-Trichlorophenol	< 330	330	ug/kg	
Pesticides/PCBs **Method: 8081A/8082**		**Preparation Method 3546**		
Analysis Date: 07/09/18		Preparation Date: 07/08/18		
Aldrin	< 8.0	8.0	ug/kg	
Aroclor 1016	< 80.0	80.0	ug/kg	
Aroclor 1221	< 80.0	80.0	ug/kg	
Aroclor 1232	< 80.0	80.0	ug/kg	
Aroclor 1242	< 80.0	80.0	ug/kg	
Aroclor 1248	< 80.0	80.0	ug/kg	
Aroclor 1254	< 160	160	ug/kg	
Aroclor 1260	< 160	160	ug/kg	
alpha-BHC	< 2.0	2.0	ug/kg	
beta-BHC	< 8.0	8.0	ug/kg	
delta-BHC	< 8.0	8.0	ug/kg	
gamma-BHC (Lindane)	< 8.0	8.0	ug/kg	
alpha-Chlordane	< 80.0	80.0	ug/kg	
gamma-Chlordane	< 80.0	80.0	ug/kg	
4,4'-DDD	< 16.0	16.0	ug/kg	
4,4'-DDE	< 16.0	16.0	ug/kg	
4,4'-DDT	< 16.0	16.0	ug/kg	
Dieldrin	< 16.0	16.0	ug/kg	
Endosulfan I	< 8.0	8.0	ug/kg	
Endosulfan II	< 16.0	16.0	ug/kg	
Endosulfan sulfate	< 16.0	16.0	ug/kg	
Endrin	< 16.0	16.0	ug/kg	
Endrin aldehyde	< 16.0	16.0	ug/kg	
Endrin ketone	< 16.0	16.0	ug/kg	
Heptachlor	< 8.0	8.0	ug/kg	
Heptachlor epoxide	< 8.0	8.0	ug/kg	
Methoxychlor	< 80.0	80.0	ug/kg	
Toxaphene	< 160	160	ug/kg	
Total Metals **Method: 6010C**		**Preparation Method 3050B**		
Analysis Date: 07/11/18		Preparation Date: 07/11/18		
Arsenic	6.9	1.0	mg/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-14, Dk Brown + Dk grey clay loam
Sample No: 18-3790-001

Date Collected: 06/27/18
Time Collected: 9:00
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte		Result	R.L.	Units	Flags
Total Metals	**Method: 6010C**		**Preparation Method 3050B**		
Analysis Date: 07/11/18			Preparation Date: 07/11/18		
Barium		55.8	0.5	mg/kg	
Cadmium		< 0.5	0.5	mg/kg	
Chromium		12.3	0.5	mg/kg	
Lead		241	0.5	mg/kg	
Selenium		< 1.0	1.0	mg/kg	
Silver		< 0.2	0.2	mg/kg	
Total Mercury	**Method: 7471B**				
Analysis Date: 07/11/18					
Mercury		0.08	0.05	mg/kg	
SPLP Metals Method 1312	**Method: 6010C**		**Preparation Method 3010A**		
Analysis Date: 07/09/18			Preparation Date: 07/09/18		
Lead		< 0.005	0.005	mg/L	
SPLP Extraction	**Method: 1312**				
Analysis Date: 07/08/18					
SPLP Metals Extraction		Complete			
pH @ 25°C, 1:2	**Method: 9045D 2004**				
Analysis Date: 07/06/18 10:00					
pH @ 25°C, 1:2		8.96		Units	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-15, Dk Brown + Dk grey clay loam
Sample No: 18-3790-002

Date Collected: 06/27/18
Time Collected: 9:30
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540B**				
Analysis Date: 07/06/18 16:30				
Total Solids	84.84		%	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 07/10/18				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-15, Dk Brown + Dk grey clay loam
Sample No: 18-3790-002

Date Collected: 06/27/18
Time Collected: 9:30
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 07/10/18				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 07/12/18		Preparation Date: 07/11/18		
Acenaphthene	< 330	330	ug/kg	
Acenaphthylene	< 330	330	ug/kg	
Anthracene	< 330	330	ug/kg	
Benzidine	< 330	330	ug/kg	
Benzo(a)anthracene	< 330	330	ug/kg	
Benzo(a)pyrene	149	90	ug/kg	
Benzo(b)fluoranthene	< 330	330	ug/kg	
Benzo(k)fluoranthene	< 330	330	ug/kg	
Benzo(ghi)perylene	< 330	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Benzyl alcohol	< 330	330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
bis(2-Chloroisopropyl)ether	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	330	ug/kg	
4-Bromophenyl phenyl ether	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
4-Chloro-3-methylphenol	< 330	330	ug/kg	
2-Chloronaphthalene	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
4-Chlorophenyl phenyl ether	< 330	330	ug/kg	
Chrysene	< 330	330	ug/kg	
Dibenzo(a,h)anthracene	< 90	90	ug/kg	
Dibenzofuran	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,3-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-15, Dk Brown + Dk grey clay loam
Sample No: 18-3790-002

Date Collected: 06/27/18
Time Collected: 9:30
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 07/12/18		Preparation Date: 07/11/18		
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
Dimethyl phthalate	< 330	330	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	1600	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
Fluoranthene	< 330	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorobutadiene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	< 330	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylnaphthalene	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
3 & 4-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
2-Nitroaniline	< 1,600	1600	ug/kg	
3-Nitroaniline	< 1,600	1600	ug/kg	
4-Nitroaniline	< 1,600	1600	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
2-Nitrophenol	< 1,600	1600	ug/kg	
4-Nitrophenol	< 1,600	1600	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
n-Nitrosodimethylamine	< 330	330	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
Pentachlorophenol	< 330	330	ug/kg	
Phenanthrene	< 330	330	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	< 330	330	ug/kg	
Pyridine	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-15, Dk Brown + Dk grey clay loam
Sample No: 18-3790-002

Date Collected: 06/27/18
Time Collected: 9:30
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C** **Preparation Method 3540C**				
Analysis Date: 07/12/18 Preparation Date: 07/11/18				
2,4,5-Trichlorophenol	< 330	330	ug/kg	
2,4,6-Trichlorophenol	< 330	330	ug/kg	
Pesticides/PCBs **Method: 8081A/8082** **Preparation Method 3546**				
Analysis Date: 07/17/18 Preparation Date: 07/08/18				
Aldrin	< 8.0	8.0	ug/kg	
Aroclor 1016	< 80.0	80.0	ug/kg	
Aroclor 1221	< 80.0	80.0	ug/kg	
Aroclor 1232	< 80.0	80.0	ug/kg	
Aroclor 1242	< 80.0	80.0	ug/kg	
Aroclor 1248	< 80.0	80.0	ug/kg	
Aroclor 1254	< 160	160	ug/kg	
Aroclor 1260	< 160	160	ug/kg	
alpha-BHC	< 2.0	2.0	ug/kg	
beta-BHC	< 8.0	8.0	ug/kg	
delta-BHC	< 8.0	8.0	ug/kg	
gamma-BHC (Lindane)	< 8.0	8.0	ug/kg	
alpha-Chlordane	< 80.0	80.0	ug/kg	
gamma-Chlordane	< 80.0	80.0	ug/kg	
4,4'-DDD	< 16.0	16.0	ug/kg	
4,4'-DDE	24.9	16.0	ug/kg	
4,4'-DDT	< 16.0	16.0	ug/kg	
Dieldrin	< 16.0	16.0	ug/kg	
Endosulfan I	< 8.0	8.0	ug/kg	
Endosulfan II	< 16.0	16.0	ug/kg	
Endosulfan sulfate	< 16.0	16.0	ug/kg	
Endrin	< 16.0	16.0	ug/kg	
Endrin aldehyde	< 16.0	16.0	ug/kg	
Endrin ketone	< 16.0	16.0	ug/kg	
Heptachlor	< 8.0	8.0	ug/kg	
Heptachlor epoxide	< 8.0	8.0	ug/kg	
Methoxychlor	< 80.0	80.0	ug/kg	
Toxaphene	< 160	160	ug/kg	
Total Metals **Method: 6010C** **Preparation Method 3050B**				
Analysis Date: 07/11/18 Preparation Date: 07/11/18				
Arsenic	8.7	1.0	mg/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-15, Dk Brown + Dk grey clay loam
Sample No: 18-3790-002

Date Collected: 06/27/18
Time Collected: 9:30
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte		Result	R.L.	Units	Flags
Total Metals	**Method: 6010C**		**Preparation Method 3050B**		
Analysis Date: 07/11/18			Preparation Date: 07/11/18		
Barium		61.8	0.5	mg/kg	
Cadmium		< 0.5	0.5	mg/kg	
Chromium		15.2	0.5	mg/kg	
Lead		32.1	0.5	mg/kg	
Selenium		< 1.0	1.0	mg/kg	
Silver		< 0.2	0.2	mg/kg	
Total Mercury	**Method: 7471B**				
Analysis Date: 07/11/18					
Mercury		< 0.05	0.05	mg/kg	
SPLP Metals Method 1312	**Method: 6010C**		**Preparation Method 3010A**		
Analysis Date: 07/09/18			Preparation Date: 07/09/18		
Lead		0.134	0.005	mg/L	
SPLP Extraction	**Method: 1312**				
Analysis Date: 07/08/18					
SPLP Metals Extraction		Complete			
pH @ 25°C, 1:2	**Method: 9045D 2004**				
Analysis Date: 07/06/18 10:00					
pH @ 25°C, 1:2		8.62		Units	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-16, Fill: Dk Brown sandy loam
Sample No: 18-3790-003

Date Collected: 06/27/18
Time Collected: 10:00
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540B**				
Analysis Date: 07/06/18 16:30				
Total Solids	90.62		%	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 07/10/18				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	5.7	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-16, Fill: Dk Brown sandy loam
Sample No: 18-3790-003

Date Collected: 06/27/18
Time Collected: 10:00
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 07/10/18				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 07/12/18		Preparation Date: 07/11/18		
Acenaphthene	< 330	330	ug/kg	
Acenaphthylene	< 330	330	ug/kg	
Anthracene	< 330	330	ug/kg	
Benzidine	< 330	330	ug/kg	
Benzo(a)anthracene	363	330	ug/kg	
Benzo(a)pyrene	379	90	ug/kg	
Benzo(b)fluoranthene	< 330	330	ug/kg	
Benzo(k)fluoranthene	346	330	ug/kg	
Benzo(ghi)perylene	< 330	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Benzyl alcohol	< 330	330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
bis(2-Chloroisopropyl)ether	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	330	ug/kg	
4-Bromophenyl phenyl ether	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
4-Chloro-3-methylphenol	< 330	330	ug/kg	
2-Chloronaphthalene	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
4-Chlorophenyl phenyl ether	< 330	330	ug/kg	
Chrysene	363	330	ug/kg	
Dibenzo(a,h)anthracene	< 90	90	ug/kg	
Dibenzofuran	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,3-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-16, Fill: Dk Brown sandy loam
Sample No: 18-3790-003

Date Collected: 06/27/18
Time Collected: 10:00
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C** Analysis Date: 07/12/18		**Preparation Method 3540C** Preparation Date: 07/11/18		
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
Dimethyl phthalate	< 330	330	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	1600	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
Fluoranthene	726	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorobutadiene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	< 330	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylnaphthalene	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
3 & 4-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
2-Nitroaniline	< 1,600	1600	ug/kg	
3-Nitroaniline	< 1,600	1600	ug/kg	
4-Nitroaniline	< 1,600	1600	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
2-Nitrophenol	< 1,600	1600	ug/kg	
4-Nitrophenol	< 1,600	1600	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
n-Nitrosodimethylamine	< 330	330	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
Pentachlorophenol	< 330	330	ug/kg	
Phenanthrene	475	330	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	693	330	ug/kg	
Pyridine	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-16, Fill: Dk Brown sandy loam
Sample No: 18-3790-003

Date Collected: 06/27/18
Time Collected: 10:00
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C** **Preparation Method 3540C**				
Analysis Date: 07/12/18 Preparation Date: 07/11/18				
2,4,5-Trichlorophenol	< 330	330	ug/kg	
2,4,6-Trichlorophenol	< 330	330	ug/kg	
Pesticides/PCBs **Method: 8081A/8082** **Preparation Method 3546**				
Analysis Date: 07/17/18 Preparation Date: 07/08/18				
Aldrin	< 8.0	8.0	ug/kg	
Aroclor 1016	< 80.0	80.0	ug/kg	
Aroclor 1221	< 80.0	80.0	ug/kg	
Aroclor 1232	< 80.0	80.0	ug/kg	
Aroclor 1242	< 80.0	80.0	ug/kg	
Aroclor 1248	< 80.0	80.0	ug/kg	
Aroclor 1254	< 160	160	ug/kg	
Aroclor 1260	< 160	160	ug/kg	
alpha-BHC	< 2.0	2.0	ug/kg	
beta-BHC	< 8.0	8.0	ug/kg	
delta-BHC	< 8.0	8.0	ug/kg	
gamma-BHC (Lindane)	< 8.0	8.0	ug/kg	
alpha-Chlordane	< 80.0	80.0	ug/kg	
gamma-Chlordane	< 80.0	80.0	ug/kg	
4,4'-DDD	< 16.0	16.0	ug/kg	
4,4'-DDE	56.0	16.0	ug/kg	
4,4'-DDT	50.2	16.0	ug/kg	
Dieldrin	< 16.0	16.0	ug/kg	
Endosulfan I	< 8.0	8.0	ug/kg	
Endosulfan II	< 16.0	16.0	ug/kg	
Endosulfan sulfate	< 16.0	16.0	ug/kg	
Endrin	< 16.0	16.0	ug/kg	
Endrin aldehyde	< 16.0	16.0	ug/kg	
Endrin ketone	< 16.0	16.0	ug/kg	
Heptachlor	< 8.0	8.0	ug/kg	
Heptachlor epoxide	< 8.0	8.0	ug/kg	
Methoxychlor	< 80.0	80.0	ug/kg	
Toxaphene	< 160	160	ug/kg	
Total Metals **Method: 6010C** **Preparation Method 3050B**				
Analysis Date: 07/11/18 Preparation Date: 07/11/18				
Arsenic	7.5	1.0	mg/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-16, Fill: Dk Brown sandy loam
Sample No: 18-3790-003

Date Collected: 06/27/18
Time Collected: 10:00
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte		Result	R.L.	Units	Flags
Total Metals	**Method: 6010C**		**Preparation Method 3050B**		
Analysis Date: 07/11/18			Preparation Date: 07/11/18		
Barium		32.2	0.5	mg/kg	
Cadmium		< 0.5	0.5	mg/kg	
Chromium		8.9	0.5	mg/kg	
Lead		46.0	0.5	mg/kg	
Selenium		< 1.0	1.0	mg/kg	
Silver		< 0.2	0.2	mg/kg	
Total Mercury	**Method: 7471B**				
Analysis Date: 07/11/18					
Mercury		0.06	0.05	mg/kg	
SPLP Metals Method 1312	**Method: 6010C**		**Preparation Method 3010A**		
Analysis Date: 07/09/18			Preparation Date: 07/09/18		
Lead		0.069	0.005	mg/L	
SPLP Extraction	**Method: 1312**				
Analysis Date: 07/08/18					
SPLP Metals Extraction		Complete			
pH @ 25°C, 1:2	**Method: 9045D 2004**				
Analysis Date: 07/06/18 10:00					
pH @ 25°C, 1:2		8.55		Units	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-18, Reddish Br. + Dk grey sandy loam
Sample No: 18-3790-004

Date Collected: 06/27/18
Time Collected: 10:30
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540B**				
Analysis Date: 07/06/18 16:30				
Total Solids	87.67		%	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 07/10/18				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-18, Reddish Br. + Dk grey sandy loam
Sample No: 18-3790-004

Date Collected: 06/27/18
Time Collected: 10:30
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 07/10/18				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 07/12/18		Preparation Date: 07/11/18		
Acenaphthene	< 330	330	ug/kg	
Acenaphthylene	< 330	330	ug/kg	
Anthracene	< 330	330	ug/kg	
Benzidine	< 330	330	ug/kg	
Benzo(a)anthracene	< 330	330	ug/kg	
Benzo(a)pyrene	< 90	90	ug/kg	
Benzo(b)fluoranthene	< 330	330	ug/kg	
Benzo(k)fluoranthene	< 330	330	ug/kg	
Benzo(ghi)perylene	< 330	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Benzyl alcohol	< 330	330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
bis(2-Chloroisopropyl)ether	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	330	ug/kg	
4-Bromophenyl phenyl ether	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
4-Chloro-3-methylphenol	< 330	330	ug/kg	
2-Chloronaphthalene	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
4-Chlorophenyl phenyl ether	< 330	330	ug/kg	
Chrysene	< 330	330	ug/kg	
Dibenzo(a,h)anthracene	< 90	90	ug/kg	
Dibenzofuran	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,3-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-18, Reddish Br. + Dk grey sandy loam
Sample No: 18-3790-004

Date Collected: 06/27/18
Time Collected: 10:30
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 07/12/18		Preparation Date: 07/11/18		
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
Dimethyl phthalate	< 330	330	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	1600	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
Fluoranthene	< 330	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorobutadiene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	< 330	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylnaphthalene	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
3 & 4-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
2-Nitroaniline	< 1,600	1600	ug/kg	
3-Nitroaniline	< 1,600	1600	ug/kg	
4-Nitroaniline	< 1,600	1600	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
2-Nitrophenol	< 1,600	1600	ug/kg	
4-Nitrophenol	< 1,600	1600	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
n-Nitrosodimethylamine	< 330	330	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
Pentachlorophenol	< 330	330	ug/kg	
Phenanthrene	< 330	330	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	< 330	330	ug/kg	
Pyridine	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-18, Reddish Br. + Dk grey sandy loam
Sample No: 18-3790-004

Date Collected: 06/27/18
Time Collected: 10:30
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C** **Preparation Method 3540C** Analysis Date: 07/12/18 Preparation Date: 07/11/18				
2,4,5-Trichlorophenol	< 330	330	ug/kg	
2,4,6-Trichlorophenol	< 330	330	ug/kg	
Pesticides/PCBs **Method: 8081A/8082** **Preparation Method 3546** Analysis Date: 07/11/18 Preparation Date: 07/08/18				
Aldrin	< 8.0	8.0	ug/kg	
Aroclor 1016	< 80.0	80.0	ug/kg	
Aroclor 1221	< 80.0	80.0	ug/kg	
Aroclor 1232	< 80.0	80.0	ug/kg	
Aroclor 1242	< 80.0	80.0	ug/kg	
Aroclor 1248	< 80.0	80.0	ug/kg	
Aroclor 1254	< 160	160	ug/kg	
Aroclor 1260	< 160	160	ug/kg	
alpha-BHC	< 2.0	2.0	ug/kg	
beta-BHC	< 8.0	8.0	ug/kg	
delta-BHC	< 8.0	8.0	ug/kg	
gamma-BHC (Lindane)	< 8.0	8.0	ug/kg	
alpha-Chlordane	< 80.0	80.0	ug/kg	
gamma-Chlordane	< 80.0	80.0	ug/kg	
4,4'-DDD	< 16.0	16.0	ug/kg	
4,4'-DDE	< 16.0	16.0	ug/kg	
4,4'-DDT	< 16.0	16.0	ug/kg	
Dieldrin	< 16.0	16.0	ug/kg	
Endosulfan I	< 8.0	8.0	ug/kg	
Endosulfan II	< 16.0	16.0	ug/kg	
Endosulfan sulfate	< 16.0	16.0	ug/kg	
Endrin	< 16.0	16.0	ug/kg	
Endrin aldehyde	< 16.0	16.0	ug/kg	
Endrin ketone	< 16.0	16.0	ug/kg	
Heptachlor	< 8.0	8.0	ug/kg	
Heptachlor epoxide	< 8.0	8.0	ug/kg	
Methoxychlor	< 80.0	80.0	ug/kg	
Toxaphene	< 160	160	ug/kg	
Total Metals **Method: 6010C** **Preparation Method 3050B** Analysis Date: 07/11/18 Preparation Date: 07/11/18				
Arsenic	3.0	1.0	mg/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-18, Reddish Br. + Dk grey sandy loam
Sample No: 18-3790-004

Date Collected: 06/27/18
Time Collected: 10:30
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte		Result	R.L.	Units	Flags
Total Metals	**Method: 6010C**		**Preparation Method 3050B**		
Analysis Date: 07/11/18			Preparation Date: 07/11/18		
Barium		41.8	0.5	mg/kg	
Cadmium		< 0.5	0.5	mg/kg	
Chromium		10.3	0.5	mg/kg	
Lead		8.7	0.5	mg/kg	
Selenium		< 1.0	1.0	mg/kg	
Silver		< 0.2	0.2	mg/kg	
Total Mercury	**Method: 7471B**				
Analysis Date: 07/11/18					
Mercury		< 0.05	0.05	mg/kg	
SPLP Metals Method 1312	**Method: 6010C**		**Preparation Method 3010A**		
Analysis Date: 07/09/18			Preparation Date: 07/09/18		
Lead		0.098	0.005	mg/L	
SPLP Extraction	**Method: 1312**				
Analysis Date: 07/08/18					
SPLP Metals Extraction		Complete			
pH @ 25°C, 1:2	**Method: 9045D 2004**				
Analysis Date: 07/06/18 10:00					
pH @ 25°C, 1:2		8.69		Units	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-19, Bk, Gr + Dk Gr Clay
Sample No: 18-3790-005

Date Collected: 06/27/18
Time Collected: 11:00
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540B**				
Analysis Date: 07/06/18 16:30				
Total Solids	80.86		%	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 07/10/18				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-19, Bk, Gr + Dk Gr Clay
Sample No: 18-3790-005

Date Collected: 06/27/18
Time Collected: 11:00
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 07/10/18				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 07/12/18		Preparation Date: 07/11/18		
Acenaphthene	< 330	330	ug/kg	
Acenaphthylene	< 330	330	ug/kg	
Anthracene	< 330	330	ug/kg	
Benzidine	< 330	330	ug/kg	
Benzo(a)anthracene	< 330	330	ug/kg	
Benzo(a)pyrene	157	90	ug/kg	
Benzo(b)fluoranthene	< 330	330	ug/kg	
Benzo(k)fluoranthene	< 330	330	ug/kg	
Benzo(ghi)perylene	< 330	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Benzyl alcohol	< 330	330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
bis(2-Chloroisopropyl)ether	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	330	ug/kg	
4-Bromophenyl phenyl ether	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
4-Chloro-3-methylphenol	< 330	330	ug/kg	
2-Chloronaphthalene	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
4-Chlorophenyl phenyl ether	< 330	330	ug/kg	
Chrysene	< 330	330	ug/kg	
Dibenzo(a,h)anthracene	< 90	90	ug/kg	
Dibenzofuran	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,3-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-19, Bk, Gr + Dk Gr Clay
Sample No: 18-3790-005

Date Collected: 06/27/18
Time Collected: 11:00
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C** Analysis Date: 07/12/18		**Preparation Method 3540C** Preparation Date: 07/11/18		
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
Dimethyl phthalate	< 330	330	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	1600	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
Fluoranthene	< 330	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorobutadiene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	< 330	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylnaphthalene	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
3 & 4-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
2-Nitroaniline	< 1,600	1600	ug/kg	
3-Nitroaniline	< 1,600	1600	ug/kg	
4-Nitroaniline	< 1,600	1600	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
2-Nitrophenol	< 1,600	1600	ug/kg	
4-Nitrophenol	< 1,600	1600	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
n-Nitrosodimethylamine	< 330	330	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
Pentachlorophenol	< 330	330	ug/kg	
Phenanthrene	< 330	330	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	< 330	330	ug/kg	
Pyridine	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-19, Bk, Gr + Dk Gr Clay
Sample No: 18-3790-005

Date Collected: 06/27/18
Time Collected: 11:00
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C** Analysis Date: 07/12/18		**Preparation Method 3540C** Preparation Date: 07/11/18		
2,4,5-Trichlorophenol	< 330	330	ug/kg	
2,4,6-Trichlorophenol	< 330	330	ug/kg	
Pesticides/PCBs **Method: 8081A/8082** Analysis Date: 07/09/18		**Preparation Method 3546** Preparation Date: 07/08/18		
Aldrin	< 8.0	8.0	ug/kg	
Aroclor 1016	< 80.0	80.0	ug/kg	
Aroclor 1221	< 80.0	80.0	ug/kg	
Aroclor 1232	< 80.0	80.0	ug/kg	
Aroclor 1242	< 80.0	80.0	ug/kg	
Aroclor 1248	< 80.0	80.0	ug/kg	
Aroclor 1254	< 160	160	ug/kg	
Aroclor 1260	< 160	160	ug/kg	
alpha-BHC	< 2.0	2.0	ug/kg	
beta-BHC	< 8.0	8.0	ug/kg	
delta-BHC	< 8.0	8.0	ug/kg	
gamma-BHC (Lindane)	< 8.0	8.0	ug/kg	
alpha-Chlordane	< 80.0	80.0	ug/kg	
gamma-Chlordane	< 80.0	80.0	ug/kg	
4,4'-DDD	< 16.0	16.0	ug/kg	
4,4'-DDE	< 16.0	16.0	ug/kg	
4,4'-DDT	< 16.0	16.0	ug/kg	
Dieldrin	< 16.0	16.0	ug/kg	
Endosulfan I	< 8.0	8.0	ug/kg	
Endosulfan II	< 16.0	16.0	ug/kg	
Endosulfan sulfate	< 16.0	16.0	ug/kg	
Endrin	< 16.0	16.0	ug/kg	
Endrin aldehyde	< 16.0	16.0	ug/kg	
Endrin ketone	< 16.0	16.0	ug/kg	
Heptachlor	< 8.0	8.0	ug/kg	
Heptachlor epoxide	< 8.0	8.0	ug/kg	
Methoxychlor	< 80.0	80.0	ug/kg	
Toxaphene	< 160	160	ug/kg	
Total Metals **Method: 6010C** Analysis Date: 07/11/18		**Preparation Method 3050B** Preparation Date: 07/11/18		
Arsenic	6.7	1.0	mg/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-19, Bk, Gr + Dk Gr Clay
Sample No: 18-3790-005

Date Collected: 06/27/18
Time Collected: 11:00
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte		Result	R.L.	Units	Flags
Total Metals	**Method: 6010C**		**Preparation Method 3050B**		
Analysis Date: 07/11/18			Preparation Date: 07/11/18		
Barium		88.6	0.5	mg/kg	
Cadmium		< 0.5	0.5	mg/kg	
Chromium		18.0	0.5	mg/kg	
Lead		8.9	0.5	mg/kg	
Selenium		< 1.0	1.0	mg/kg	
Silver		< 0.2	0.2	mg/kg	
Total Mercury	**Method: 7471B**				
Analysis Date: 07/11/18					
Mercury		< 0.05	0.05	mg/kg	
SPLP Metals Method 1312	**Method: 6010C**		**Preparation Method 3010A**		
Analysis Date: 07/09/18			Preparation Date: 07/09/18		
Lead		0.065	0.005	mg/L	
SPLP Extraction	**Method: 1312**				
Analysis Date: 07/08/18					
SPLP Metals Extraction		Complete			
pH @ 25°C, 1:2	**Method: 9045D 2004**				
Analysis Date: 07/06/18 10:00					
pH @ 25°C, 1:2		8.45		Units	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-20, Olive - Brown Clay
Sample No: 18-3790-006

Date Collected: 06/27/18
Time Collected: 11:30
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540B**				
Analysis Date: 07/06/18 16:30				
Total Solids	83.84		%	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 07/10/18				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-20, Olive - Brown Clay
Sample No: 18-3790-006

Date Collected: 06/27/18
Time Collected: 11:30
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B** Analysis Date: 07/10/18				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds **Method: 8270C** **Preparation Method 3540C** Analysis Date: 07/12/18 Preparation Date: 07/11/18				
Acenaphthene	< 330	330	ug/kg	
Acenaphthylene	< 330	330	ug/kg	
Anthracene	< 330	330	ug/kg	
Benzidine	< 330	330	ug/kg	
Benzo(a)anthracene	< 330	330	ug/kg	
Benzo(a)pyrene	< 90	90	ug/kg	
Benzo(b)fluoranthene	< 330	330	ug/kg	
Benzo(k)fluoranthene	< 330	330	ug/kg	
Benzo(ghi)perylene	< 330	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Benzyl alcohol	< 330	330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
bis(2-Chloroisopropyl)ether	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	330	ug/kg	
4-Bromophenyl phenyl ether	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
4-Chloro-3-methylphenol	< 330	330	ug/kg	
2-Chloronaphthalene	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
4-Chlorophenyl phenyl ether	< 330	330	ug/kg	
Chrysene	< 330	330	ug/kg	
Dibenzo(a,h)anthracene	< 90	90	ug/kg	
Dibenzofuran	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,3-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-20, Olive - Brown Clay
Sample No: 18-3790-006

Date Collected: 06/27/18
Time Collected: 11:30
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C** Analysis Date: 07/12/18		**Preparation Method 3540C** Preparation Date: 07/11/18		
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
Dimethyl phthalate	< 330	330	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	1600	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
Fluoranthene	< 330	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorobutadiene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	< 330	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylnaphthalene	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
3 & 4-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
2-Nitroaniline	< 1,600	1600	ug/kg	
3-Nitroaniline	< 1,600	1600	ug/kg	
4-Nitroaniline	< 1,600	1600	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
2-Nitrophenol	< 1,600	1600	ug/kg	
4-Nitrophenol	< 1,600	1600	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
n-Nitrosodimethylamine	< 330	330	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
Pentachlorophenol	< 330	330	ug/kg	
Phenanthrene	< 330	330	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	< 330	330	ug/kg	
Pyridine	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-20, Olive - Brown Clay
Sample No: 18-3790-006

Date Collected: 06/27/18
Time Collected: 11:30
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C** **Preparation Method 3540C**				
Analysis Date: 07/12/18 Preparation Date: 07/11/18				
2,4,5-Trichlorophenol	< 330	330	ug/kg	
2,4,6-Trichlorophenol	< 330	330	ug/kg	
Pesticides/PCBs **Method: 8081A/8082** **Preparation Method 3546**				
Analysis Date: 07/09/18 Preparation Date: 07/08/18				
Aldrin	< 8.0	8.0	ug/kg	
Aroclor 1016	< 80.0	80.0	ug/kg	
Aroclor 1221	< 80.0	80.0	ug/kg	
Aroclor 1232	< 80.0	80.0	ug/kg	
Aroclor 1242	< 80.0	80.0	ug/kg	
Aroclor 1248	< 80.0	80.0	ug/kg	
Aroclor 1254	< 160	160	ug/kg	
Aroclor 1260	< 160	160	ug/kg	
alpha-BHC	< 2.0	2.0	ug/kg	
beta-BHC	< 8.0	8.0	ug/kg	
delta-BHC	< 8.0	8.0	ug/kg	
gamma-BHC (Lindane)	< 8.0	8.0	ug/kg	
alpha-Chlordane	< 80.0	80.0	ug/kg	
gamma-Chlordane	< 80.0	80.0	ug/kg	
4,4'-DDD	< 16.0	16.0	ug/kg	
4,4'-DDE	< 16.0	16.0	ug/kg	
4,4'-DDT	< 16.0	16.0	ug/kg	
Dieldrin	< 16.0	16.0	ug/kg	
Endosulfan I	< 8.0	8.0	ug/kg	
Endosulfan II	< 16.0	16.0	ug/kg	
Endosulfan sulfate	< 16.0	16.0	ug/kg	
Endrin	< 16.0	16.0	ug/kg	
Endrin aldehyde	< 16.0	16.0	ug/kg	
Endrin ketone	< 16.0	16.0	ug/kg	
Heptachlor	< 8.0	8.0	ug/kg	
Heptachlor epoxide	< 8.0	8.0	ug/kg	
Methoxychlor	< 80.0	80.0	ug/kg	
Toxaphene	< 160	160	ug/kg	
Total Metals **Method: 6010C** **Preparation Method 3050B**				
Analysis Date: 07/11/18 Preparation Date: 07/11/18				
Arsenic	5.2	1.0	mg/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: 2019 MFT Streets MSET #18328
Sample ID: P-20, Olive - Brown Clay
Sample No: 18-3790-006

Date Collected: 06/27/18
Time Collected: 11:30
Date Received: 07/05/18
Date Reported: 07/17/18

Results are reported on a dry weight basis.

Analyte		Result	R.L.	Units	Flags
Total Metals	**Method: 6010C**		**Preparation Method 3050B**		
Analysis Date: 07/11/18			Preparation Date: 07/11/18		
Barium		53.4	0.5	mg/kg	
Cadmium		< 0.5	0.5	mg/kg	
Chromium		13.8	0.5	mg/kg	
Lead		10.5	0.5	mg/kg	
Selenium		< 1.0	1.0	mg/kg	
Silver		< 0.2	0.2	mg/kg	
Total Mercury	**Method: 7471B**				
Analysis Date: 07/11/18					
Mercury		< 0.05	0.05	mg/kg	
SPLP Metals Method 1312	**Method: 6010C**		**Preparation Method 3010A**		
Analysis Date: 07/09/18			Preparation Date: 07/09/18		
Lead		0.017	0.005	mg/L	
SPLP Extraction	**Method: 1312**				
Analysis Date: 07/08/18					
SPLP Metals Extraction		Complete			
pH @ 25°C, 1:2	**Method: 9045D 2004**				
Analysis Date: 07/06/18 10:00					
pH @ 25°C, 1:2		8.33		Units	

CHAIN OF CUSTODY RECORD

First Environmental Laboratories, Inc.

1600 Shore Road, Suite D
Naperville, IL 60563
Phone: (630)778-1200 * Fax (630)778-1233
E-Mail: info@firstenv.com
IEPA Accreditation #100292

Company Name: Midland Standard Engineering and Testing, Inc.			
Street Address: 558 Plate Drive, Unit 6			
City: East Dundee		State: IL	Zip: 60118
Phone: 847-844-1895	Fax: 847-844-3875	e-Mail: mprigge@msetinc.com	
Send Report To: Michael Prigge		Via Fax: ☐	Via e-Mail: ☒
Sampled By: Greg Ford			

Project I.D.: 2019 MFT Streets
P.O #: MSET File No. 18328

Enter analyses required on the lines to the left. Place an "X" in the box below to indicate which samples require what analysis.

Date/Time Taken	Sample Description	Matrix	VOC	SVOC	Pesticides/PCBs	RCRA Metals	SPLP Lead	pH			Comments	Lab I.D.
6/27/18 / 9:00a	P-14, DK Brown - DK Grey Clay Loam	SOIL	X	X	X	X	X	X				18-3790-001
6/27/18 / 9:30a	P-15, DK Brown + DK Grey Clay Loam	SOIL	X	X	X	X	X	X				002
6/27/18 / 10:00a	P-16, Fill: DK Brown Sandy Loam	SOIL	X	X	X	X	X	X				003
6/27/18 / 10:30a	P-18, Reddish-BR + DK Grey Sandy Loam	SOIL	X	X	X	X	Y	X				004
6/27/18 / 11:00a	P-19, BR, GR + DK Gr Clay	SOIL	X	X	X	X	X	X				005
6/27/18 / 11:30a	P-20, Olive-Brown Clay	SOIL	X	X	X	X	X	X				006

FOR LAB USE ONLY: Cooler Temperature:0.1-6°C Yes ✓ No ___ 4 °C
Received within 6 hrs of collection: ___
Ice Present: Yes ✓ No ___

Sample Refrigerated: Yes ___ No ___
Refrigerator Temperature: ___ °C

Containers Received Preserved: Yes ___ No ___
5035 Vials Frozen: Yes ___ No ___
Freezer Temperature: ___ °C

Notes and Special Instructions:

Relinquished By: [signature]	Date/Time: 7/5/18 1617	Received By: [signature]	Date/Time: 7/5/18 1617
Relinquished By:	Date/Time:	Received By:	Date/Time:

Rev 1/07

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March 01, 2019

Mr. William Prigge
MIDLAND STANDARD ENG. & TESTING, INC.
558 Plate Drive
Unit 6
East Dundee, IL 60118

Project ID: Illinois Street LPC 663 MSET File 19207
First Environmental File ID: 19-0876
Date Received: February 22, 2019

Dear Mr. William Prigge:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 004324: effective 02/27/2018 through 02/28/2019.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Stan Zaworski
Project Manager

First Environmental Laboratories, Inc.
IL ELAP / NELAC Accreditation # 100292
1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

MIDLAND STANDARD ENG. & TESTING, INC. Lab File ID: **19-0876**

Project ID: **Illinois Street LPC 663 MSET File 19207** Date Received: **February 22, 2019**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time Collected
19-0876-001	Black and Dark Grey Clay	02/21/19 9:00

Sample Batch Comments:

Sample acceptance criteria were met.

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Case Narrative

MIDLAND STANDARD ENG. & TESTING, INC. Lab File ID: **19-0876**

Project ID: **Illinois Street LPC 663 MSET File 19207** Date Received: **February 22, 2019**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
A	Method holding time is 15 minutes from collection. Lab analysis was performed as soon as possible.		
B	Analyte was found in the method blank.	L	LCS recovery outside control limits.
<	Analyte not detected at or above the reporting limit.	M	MS recovery outside control limits; LCS acceptable.
C	Sample received in an improper container for this test.	P	Chemical preservation pH adjusted in lab.
D	Surrogates diluted out; recovery not available.	Q	Result was determined by a GC/MS database search.
E	Estimated result; concentration exceeds calibration range.	S	Analysis was subcontracted to another laboratory.
G	Surrogate recovery outside control limits.	T	Result is less than three times the MDL value.
H	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
J	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: Illinois Street LPC 663 MSET File 19207
Sample ID: Black and Dark Grey Clay
Sample No: 19-0876-001

Date Collected: 02/21/19
Time Collected: 9:00
Date Received: 02/22/19
Date Reported: 03/01/19

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540B**				
Analysis Date: 02/25/19				
Total Solids	73.58		%	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 02/26/19				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	

First Environmental Laboratories, Inc.
IL ELAP / NELAC Accreditation # 100292
1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: Illinois Street LPC 663 MSET File 19207
Sample ID: Black and Dark Grey Clay
Sample No: 19-0876-001

Date Collected: 02/21/19
Time Collected: 9:00
Date Received: 02/22/19
Date Reported: 03/01/19

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 02/26/19				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 02/26/19		Preparation Date: 02/25/19		
Acenaphthene	< 330	330	ug/kg	
Acenaphthylene	< 330	330	ug/kg	
Anthracene	386	330	ug/kg	
Benzidine	< 330	330	ug/kg	
Benzo(a)anthracene	971	330	ug/kg	
Benzo(a)pyrene	934	90	ug/kg	
Benzo(b)fluoranthene	932	330	ug/kg	
Benzo(k)fluoranthene	837	330	ug/kg	
Benzo(ghi)perylene	597	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Benzyl alcohol	< 330	330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
bis(2-Chloroisopropyl)ether	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	330	ug/kg	
4-Bromophenyl phenyl ether	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
4-Chloro-3-methylphenol	< 330	330	ug/kg	
2-Chloronaphthalene	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
4-Chlorophenyl phenyl ether	< 330	330	ug/kg	
Chrysene	947	330	ug/kg	
Dibenzo(a,h)anthracene	157	90	ug/kg	
Dibenzofuran	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,3-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: Illinois Street LPC 663 MSET File 19207
Sample ID: Black and Dark Grey Clay
Sample No: 19-0876-001

Date Collected: 02/21/19
Time Collected: 9:00
Date Received: 02/22/19
Date Reported: 03/01/19

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C** Analysis Date: 02/26/19		**Preparation Method 3540C** Preparation Date: 02/25/19		
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
Dimethyl phthalate	< 330	330	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	1600	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
Fluoranthene	2,660	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorobutadiene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	631	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylnaphthalene	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
3 & 4-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
2-Nitroaniline	< 1,600	1600	ug/kg	
3-Nitroaniline	< 1,600	1600	ug/kg	
4-Nitroaniline	< 1,600	1600	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
2-Nitrophenol	< 1,600	1600	ug/kg	
4-Nitrophenol	< 1,600	1600	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
n-Nitrosodimethylamine	< 330	330	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
Pentachlorophenol	< 330	330	ug/kg	
Phenanthrene	1,790	330	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	2,100	330	ug/kg	
Pyridine	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: Illinois Street LPC 663 MSET File 19207
Sample ID: Black and Dark Grey Clay
Sample No: 19-0876-001

Date Collected: 02/21/19
Time Collected: 9:00
Date Received: 02/22/19
Date Reported: 03/01/19

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C** **Preparation Method 3540C**				
Analysis Date: 02/26/19 Preparation Date: 02/25/19				
2,4,5-Trichlorophenol	< 330	330	ug/kg	
2,4,6-Trichlorophenol	< 330	330	ug/kg	
Pesticides/PCBs **Method: 8081A/8082** **Preparation Method 3546**				
Analysis Date: 02/26/19 Preparation Date: 02/25/19				
Aldrin	< 8.0	8.0	ug/kg	
Aroclor 1016	< 80.0	80.0	ug/kg	
Aroclor 1221	< 80.0	80.0	ug/kg	
Aroclor 1232	< 80.0	80.0	ug/kg	
Aroclor 1242	< 80.0	80.0	ug/kg	
Aroclor 1248	< 80.0	80.0	ug/kg	
Aroclor 1254	< 160	160	ug/kg	
Aroclor 1260	< 160	160	ug/kg	
alpha-BHC	< 2.0	2.0	ug/kg	
beta-BHC	< 8.0	8.0	ug/kg	
delta-BHC	< 8.0	8.0	ug/kg	
gamma-BHC (Lindane)	< 8.0	8.0	ug/kg	
alpha-Chlordane	< 80.0	80.0	ug/kg	
gamma-Chlordane	< 80.0	80.0	ug/kg	
4,4'-DDD	< 16.0	16.0	ug/kg	
4,4'-DDE	< 16.0	16.0	ug/kg	
4,4'-DDT	< 16.0	16.0	ug/kg	
Dieldrin	< 16.0	16.0	ug/kg	
Endosulfan I	< 8.0	8.0	ug/kg	
Endosulfan II	< 16.0	16.0	ug/kg	
Endosulfan sulfate	< 16.0	16.0	ug/kg	
Endrin	< 16.0	16.0	ug/kg	
Endrin aldehyde	< 16.0	16.0	ug/kg	
Endrin ketone	< 16.0	16.0	ug/kg	
Heptachlor	< 8.0	8.0	ug/kg	
Heptachlor epoxide	< 8.0	8.0	ug/kg	
Methoxychlor	< 80.0	80.0	ug/kg	
Toxaphene	< 160	160	ug/kg	
Total Metals **Method: 6010C** **Preparation Method 3050B**				
Analysis Date: 02/26/19 Preparation Date: 02/25/19				
Arsenic	9.3	1.0	mg/kg	

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Analytical Report

Client: MIDLAND STANDARD ENG. & TESTING, INC.
Project ID: Illinois Street LPC 663 MSET File 19207
Sample ID: Black and Dark Grey Clay
Sample No: 19-0876-001

Date Collected: 02/21/19
Time Collected: 9:00
Date Received: 02/22/19
Date Reported: 03/01/19

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Total Metals **Method: 6010C**		**Preparation Method 3050B**		
Analysis Date: 02/26/19		Preparation Date: 02/25/19		
Barium	95.9	0.5	mg/kg	
Cadmium	< 0.5	0.5	mg/kg	
Chromium	68.2	0.5	mg/kg	
Lead	48.5	0.5	mg/kg	
Selenium	< 1.0	1.0	mg/kg	
Silver	0.6	0.2	mg/kg	
Total Mercury **Method: 7471B**				
Analysis Date: 02/28/19				
Mercury	< 0.05	0.05	mg/kg	
pH @ 25°C, 1:2 **Method: 9045D 2004**				
Analysis Date: 02/25/19 15:35				
pH @ 25°C, 1:2	7.58		Units	

CHAIN OF CUSTODY RECORD

First Environmental Laboratories, Inc.

1600 Shore Road, Suite D
Naperville, IL 60563
Phone: (630)778-1200 * Fax (630)778-1233
E-Mail: info@firstenv.com
IEPA Accreditation #100292

Company Name: Midland Standard Engineering and Testing, Inc.			
Street Address: 410 Nolen Dr			
City: South Elgin		State: IL	Zip: 60177
Phone: 847-844-1895	Fax: 847-844-3875	e-Mail: mprigge@msetinc.com	
Send Report To: Michael Prigge		Via Fax: ☐	Via e-Mail: ☒
Sampled By: MSET			

Project I.D.: Illinois Street LPC 663
P.O. #: MSET File No. 19207

Enter analyses required on the lines to the left. Place an "X" in the box below to indicate which samples require what analysis.

Date/Time Taken	Sample Description	Matrix	VOC	SVOC	PESTICIDES / PCBS	RCRA METALS	pH				Comments	Lab I.D.
2-21-19 / 9:00 a	Black and Dark Grey CLAY	SOIL	X	X	X	X	X					19-0876-001

FOR LAB USE ONLY: Cooler Temperature:0.1-6°C Yes✓ No___ 4 °C
Received within 6 hrs of collection:_____
Ice Present: Yes✓ No_____

Sample Refrigerated: Yes___ No___
Refrigerator Temperature:_____°C

Containers Received Preserved: Yes___ No___
5035 Vials Frozen: Yes___ No___
Freezer Temperature:_____°C

Notes and Special Instructions:

Relinquished By:	Date/Time: 1634 2/22/19	Received By:	Date/Time: 2/22/19 16:37
Relinquished By:	Date/Time:	Received By:	Date/Time:

Rev 1/07

CLEAN CONSTRUCTION OR DEMOLITION DEBRIS (CCDD)
Please attach to LPC-662

SOURCE LOCATION INFORMATION

Project Name: 2019 MFT Program, Section: 19-00111-00-RS

Physical Site Location (Street, Road): Various Locations

City: St. Charles State: IL Zip Code: 60174

OWNER INFORMATION FOR SOURCE SITE

Name: City of St. Charles

Address: 2 East Main Street

City: St. Charles State: IL Zip Code: 60174

Contact Name: Chris Gottlieb Phone #: 630-377-4408

CONTRACTOR INFORMATION FOR SOURCE SITE

Name:

Address:

City: State: Zip Code:

Contact Name: _____ Title: _____

Signature: _____ Date: _____

COMPANY INFORMATION FOR RECEIVING SITE

Name: _____

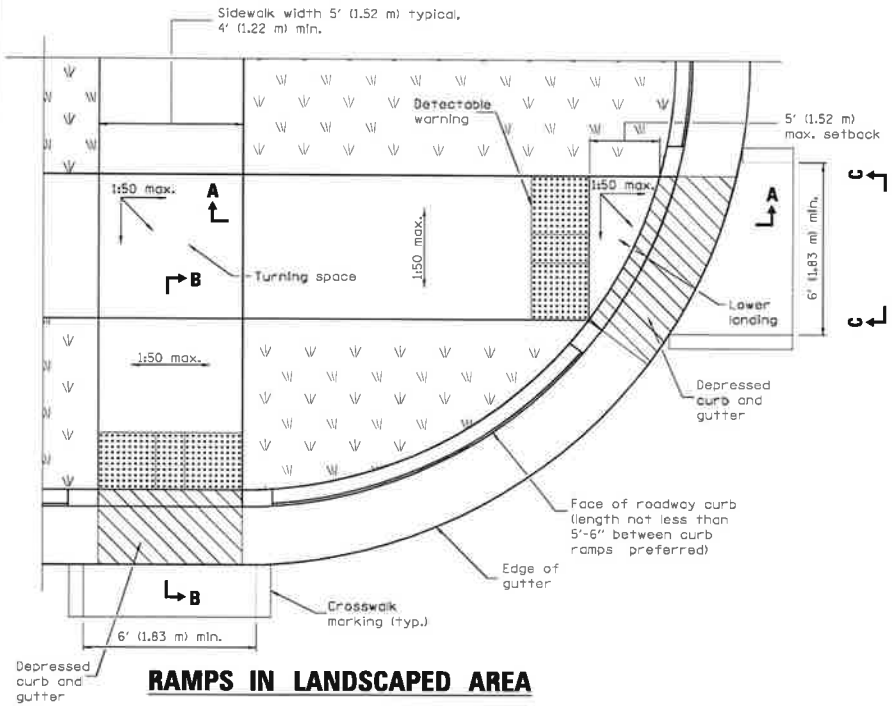
Address: _____

City: _____ State: _____ Zip Code: _____

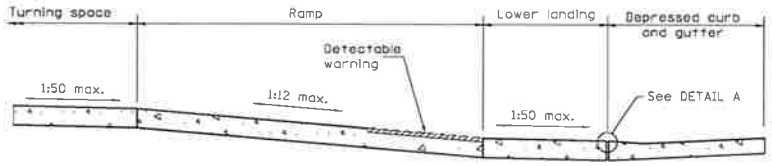
Contact Name: _____ Title: _____

Signature: _____ Date: _____

A copy of this form signed and dated by representatives of both the Contractor and Receiving Site needs to be provided to the City of St. Charles before work commences on the project.

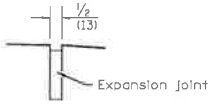


RAMPS IN LANDSCAPED AREA
SETBACK ≤ 5'

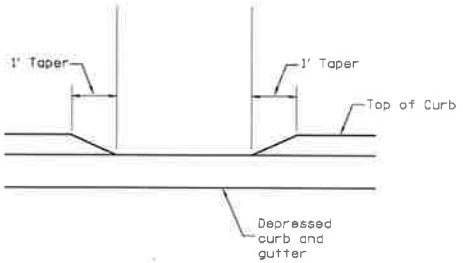


SECTION A–A

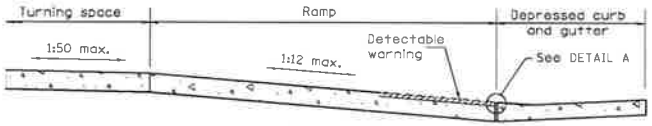
② The running slope of the curb ramp shall not require the ramp length to exceed 15' (4.5 m).



DETAIL A



SECTION C–C



SECTION B–B

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

GENERAL NOTES

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

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

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

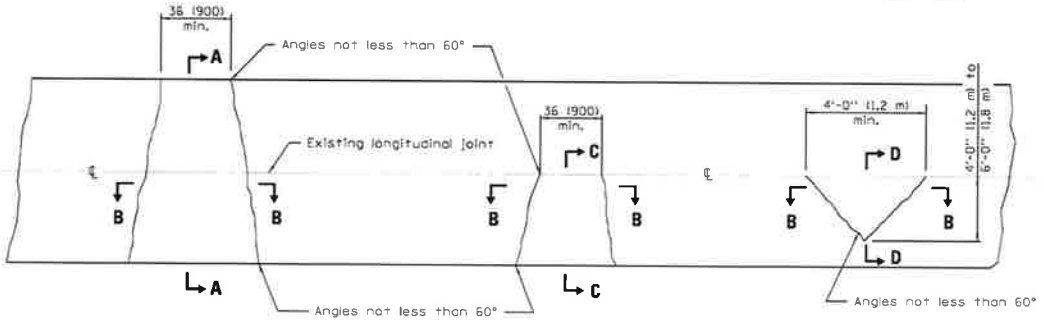
See Standard 606001 for details of depressed curb adjacent to curb ramp.

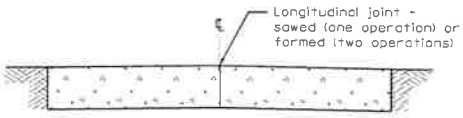
All dimensions are in inches (millimeters) unless otherwise shown.

PERPENDICULAR CURB RAMPS FOR SIDEWALKS

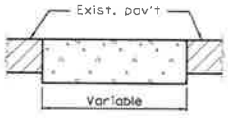
Date: February 8, 2016

CLASS C

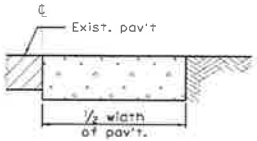




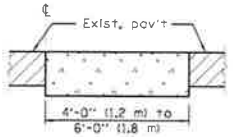
SECTION A–A



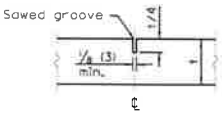
SECTION B–B



SECTION C–C



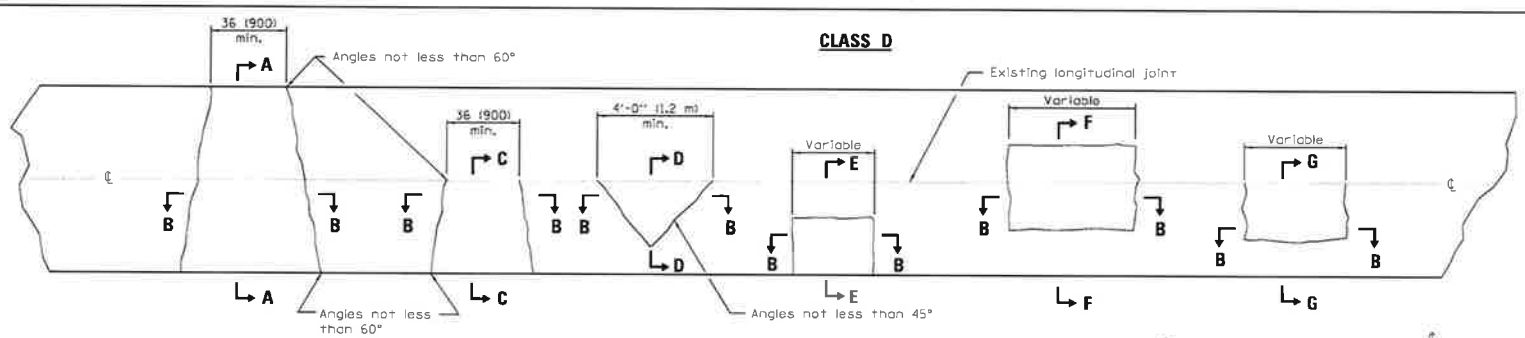
SECTION D–D

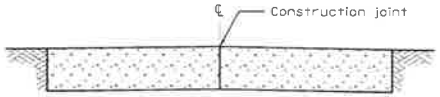


DETAIL OF SAWED CONTRACTION JOINT

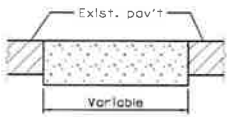
Note:
Longitudinal joints shall be as detailed on Standard 420001, except tie bars are not required for patches 20'-0" (6.0 m) or less in length.

CLASS D

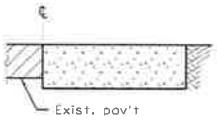




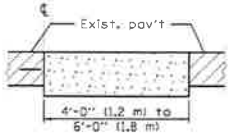
SECTION A–A
(Built in two operations)



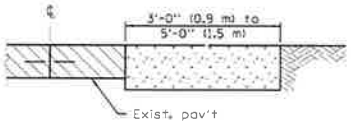
SECTION B–B



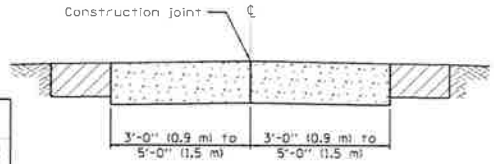
SECTION C–C



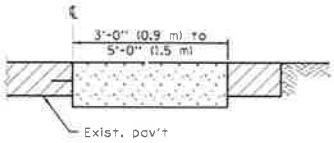
SECTION D–D



SECTION E–E



SECTION F–F
(Built in two operations)



SECTION G–G

GENERAL NOTES

Existing tie bars shall be either cut or removed. Marginal bars shall be cut.

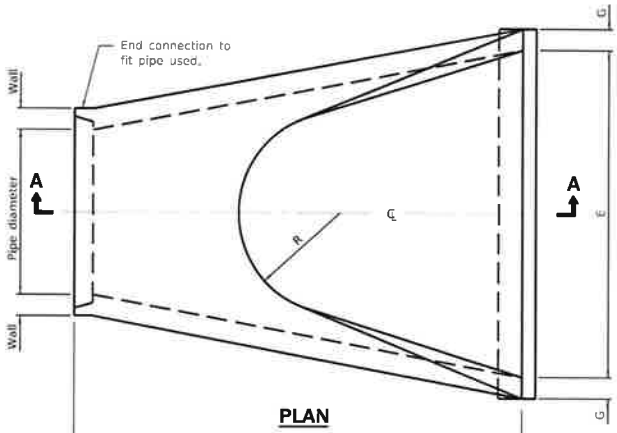
All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS
1 1 08	Switched units to English (metric)
1 1 07	Revised Note for Class C Patches

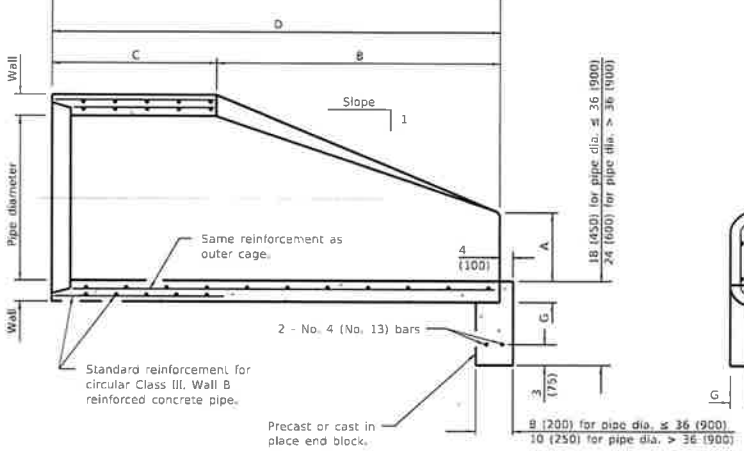
CLASS C and D PATCHES

STANDARD 442201–03

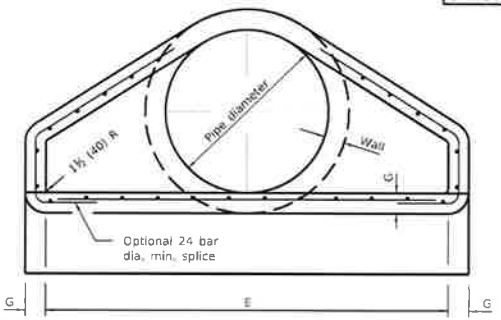
Illinois Department of Transportation
PASSED _____ 2008
ENGINEER OF POLICY AND PROCEDURES
APPROVED _____ 2008
ENGINEER OF BUREAU OF LOCAL ROADS AND STREETS



PLAN



SECTION A-A



END VIEW

PIPE DIA.	APPROX. QTY. lbs. (kg)	WALL	A	B	C	D	E	G	R	APPROX. SLOPE
12 (300)	530 (240)	2 (51)	4 (102)	24 (610)	4'-0⅞" (1,241 m)	6'-0⅞" (1,851 m)	24 (610)	2 (51)	9 (229)	1:2,4
15 (375)	740 (335)	2¼ (57)	6 (152)	27 (686)	3'-10" (1,168 m)	6'-1" (1,854 m)	30 (762)	2¼ (57)	11 (280)	1:2,4
18 (450)	990 (450)	2½ (64)	9 (229)	27 (686)	3'-10" (1,168 m)	6'-1" (1,854 m)	36 (914)	2½ (64)	12 (305)	1:2,4
21 (525)	1280 (580)	2¾ (70)	9 (229)	35 (889)	38 (965)	6'-1" (1,854 m)	3'-6" (1,067 m)	2¾ (70)	13 (330)	1:2,4
24 (600)	1520 (690)	3 (76)	9½ (241)	3'-7½" (1,105 m)	30 (762)	6'-1½" (1,867 m)	4'-0" (1,219 m)	3 (76)	14 (356)	1:2,5
27 (675)	1930 (875)	3¼ (83)	10½ (267)	4'-0" (1,219 m)	25½ (648)	6'-1½" (1,867 m)	4'-6" (1,372 m)	3¼ (83)	14½ (368)	1:2,4
30 (750)	2190 (995)	3½ (89)	12 (305)	4'-6" (1,375 m)	19¾ (502)	6'-1¾" (1,874 m)	5'-0" (1,524 m)	3½ (89)	15 (381)	1:2,5
33 (825)	3200 (1450)	3¾ (95)	13½ (343)	4'-10½" (1,486 m)	39¼ (997)	8'-1¾" (2,483 m)	5'-6" (1,676 m)	3¾ (95)	17½ (445)	1:2,5
36 (900)	4100 (1860)	4 (102)	15 (381)	5'-3" (1,6 m)	34⅝ (883)	8'-1¾" (2,483 m)	6'-0" (1,829 m)	4 (102)	20 (508)	1:2,5
42 (1050)	5380 (2440)	4½ (114)	21 (533)	5'-3" (1,6 m)	35 (889)	8'-2" (2,489 m)	6'-6" (1,981 m)	4½ (114)	22 (559)	1:2,5
48 (1200)	6550 (2970)	5 (127)	24 (610)	6'-0" (1,829 m)	26 (660)	8'-2" (2,489 m)	7'-0" (2,134 m)	5 (127)	22 (559)	1:2,5
54 (1350)	8240 (3740)	5½ (140)	27 (686)	5'-5" (1,651 m)	35 (889)	8'-4" (2,54 m)	7'-6" (2,286 m)	5½ (140)	24 (610)	1:2,0
60 (1500)	8730 (3960)	6 (152)	35 (889)	5'-0" (1,524 m)	39 (991)	8'-3" (2,515 m)	8'-0" (2,438 m)	5 (127)	*	1:1,9
66 (1650)	10710 (4860)	6½ (165)	30 (762)	6'-0" (1,829 m)	27 (686)	8'-3" (2,515 m)	8'-6" (2,591 m)	5½ (140)	*	1:1,7
72 (1800)	12520 (5680)	7 (178)	36 (914)	6'-6" (1,981 m)	21 (533)	8'-3" (2,514 m)	9'-0" (2,743 m)	6 (152	*	1:1,8
78 (1950)	14770 (6700)	7½ (191)	36 (914)	7'-6" (2,286 m)	21 (533)	9'-3" (2,819 m)	9'-6" (2,896 m)	6½ (165)	*	1:1,8
84 (2100)	18160 (8240)	8 (203)	36 (914)	7'-6½" (2,299 m)	21 (533)	9'-3½" (2,832 m)	10'-0" (3,048 m)	6½ (165)	*	1:1,6

* Radius as furnished by manufacturer

GENERAL NOTES

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

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

Illinois Department of Transportation

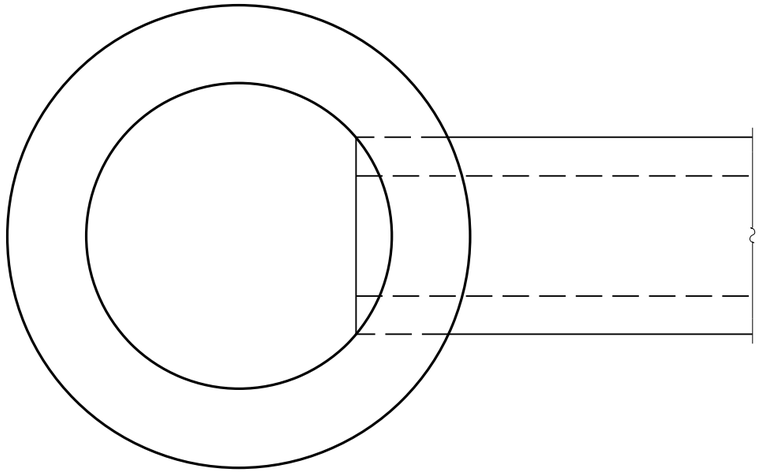
APPROVED January 1, 2011
ENGINEER OF BRIDGES AND STRUCTURES

APPROVED January 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
1-1-11	Clarified ref. to pipe dia. on Section A-A. Changed 'inner' to 'outer' cage ref.
1-1-09	Switched units to English (metric).

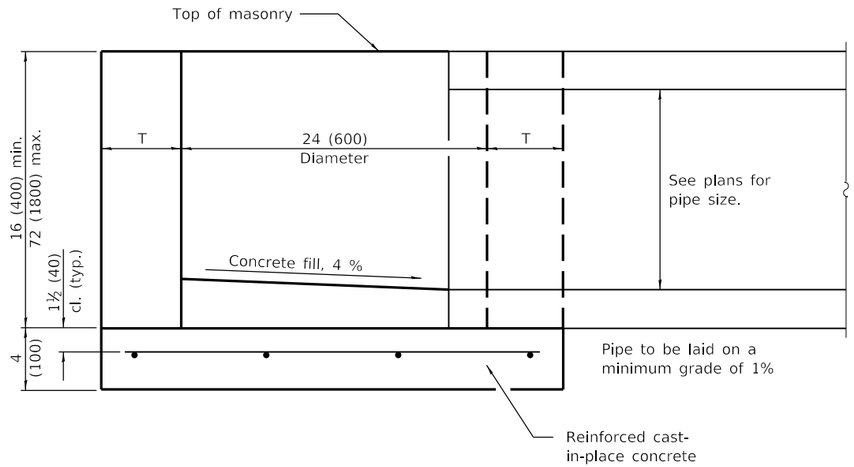
PRECAST REINFORCED CONCRETE FLARED END SECTION

STANDARD 542301-03

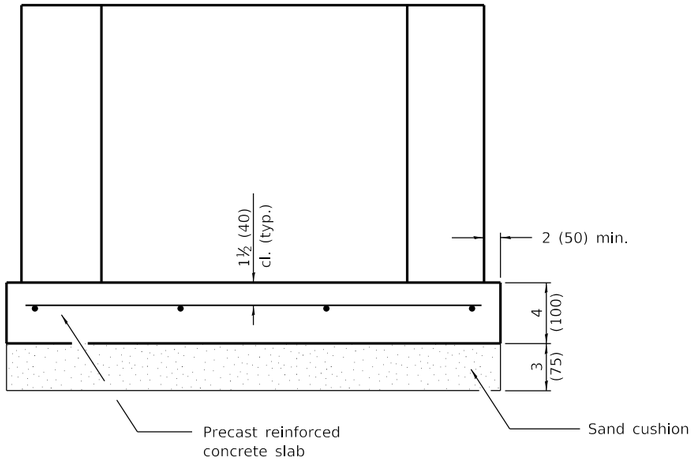


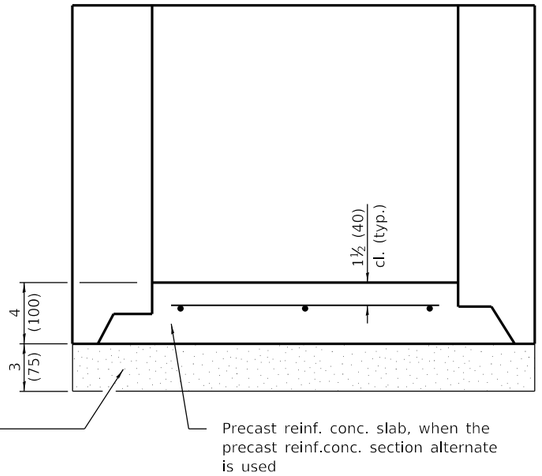
PLAN

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



ELEVATION





ALTERNATE METHODS

GENERAL NOTES

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

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

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

Illinois Department of Transportation

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

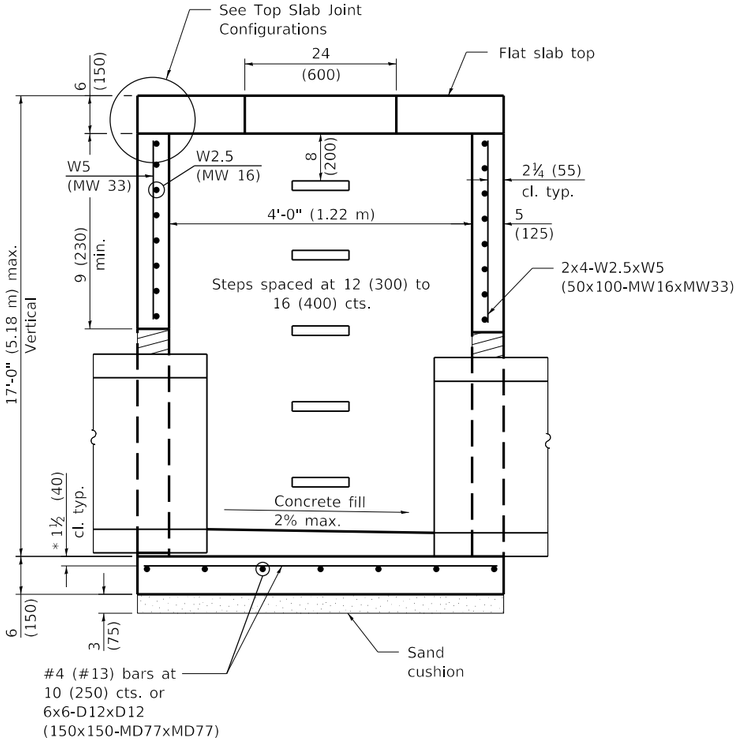
APPROVED January 1, 2014
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

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

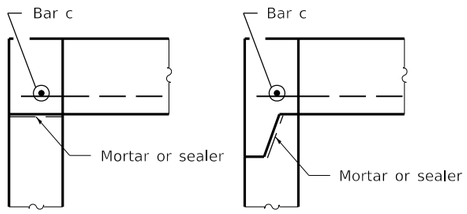
INLET - TYPE A

STANDARD 602301-04

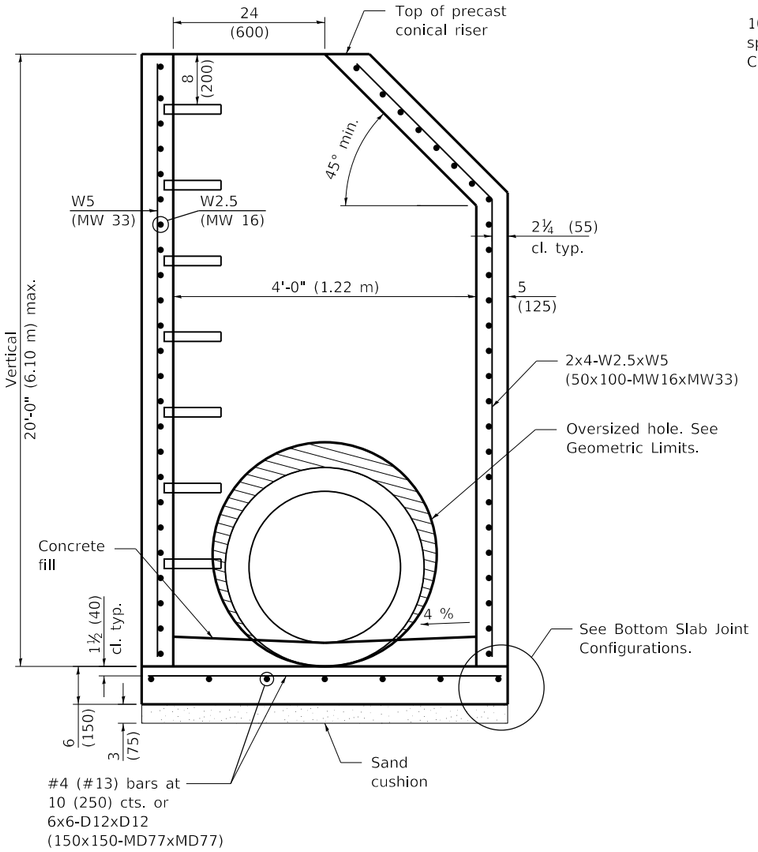


SECTION THRU MANHOLE
(With flat slab top only)

* Typical for top and bottom slabs.



TOP SLAB JOINT CONFIGURATIONS
(Shown at access hole)

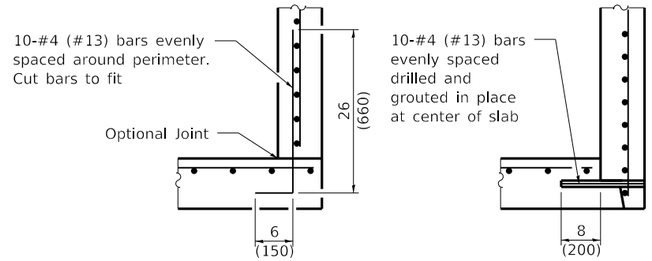


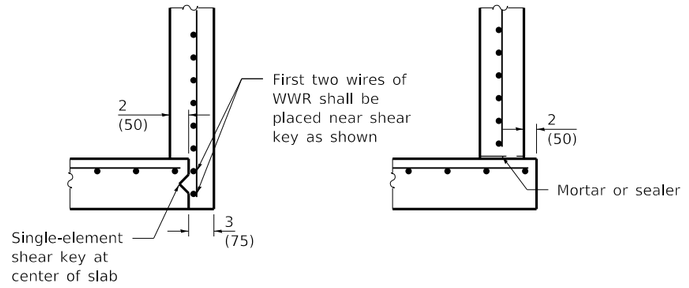
SECTION THRU MANHOLE
(With riser)

GEOMETRIC LIMITS

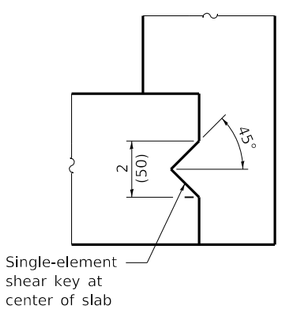
Oversized holes, as necessary for constructability, shall satisfy the following requirements:

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





BOTTOM SLAB JOINT CONFIGURATIONS



SHEAR KEY GEOMETRY
(Reinforcement not Shown for Clarity)

See Sheet 2 for General Notes.

Illinois Department of Transportation

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

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

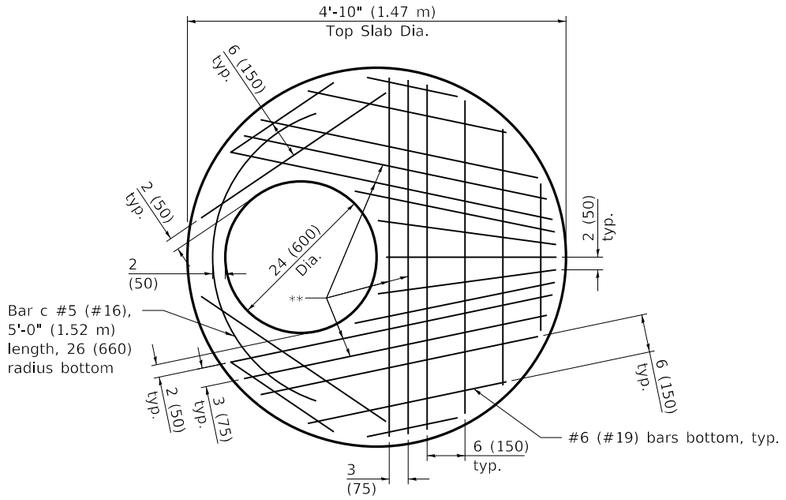
ISSUED 1-1-97

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

PRECAST MANHOLE TYPE A 4' (1.22 m) DIAMETER

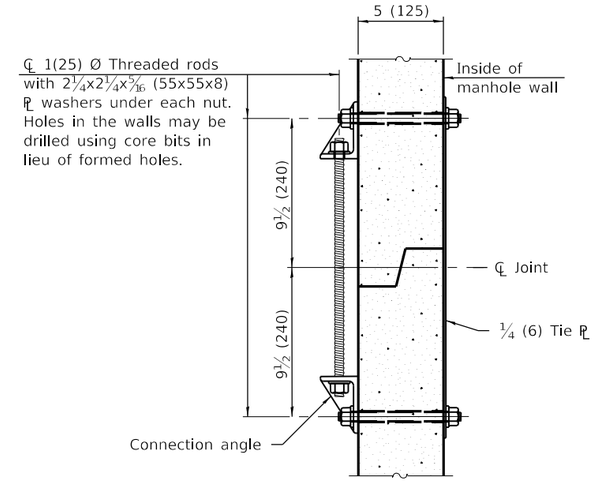
(Sheet 1 of 2)

STANDARD 602401-04

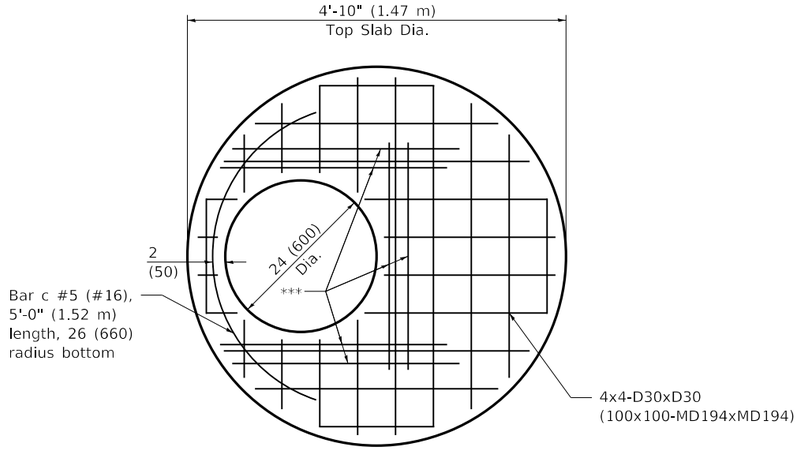


PLAN

(Showing Layout of Reinforcement Bars)

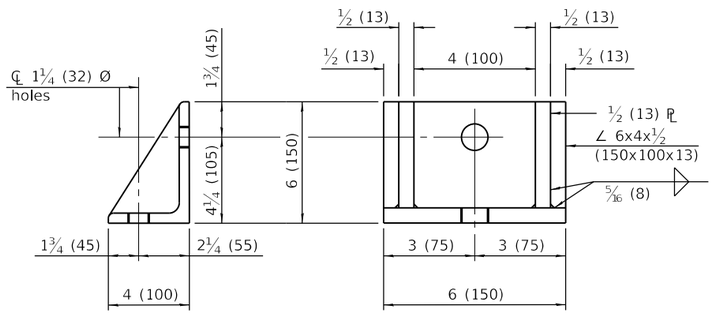


JOINT SPLICE

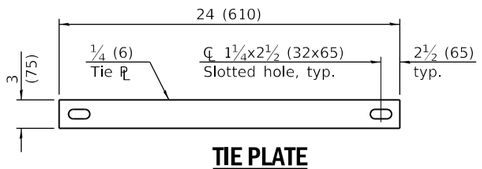


PLAN

(Showing Layout of Welded Wire Reinforcement)



CONNECTION ANGLE



TIE PLATE

GENERAL NOTES

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

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

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

See Standard 602701 for details of manhole steps.

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

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

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

Illinois Department of Transportation

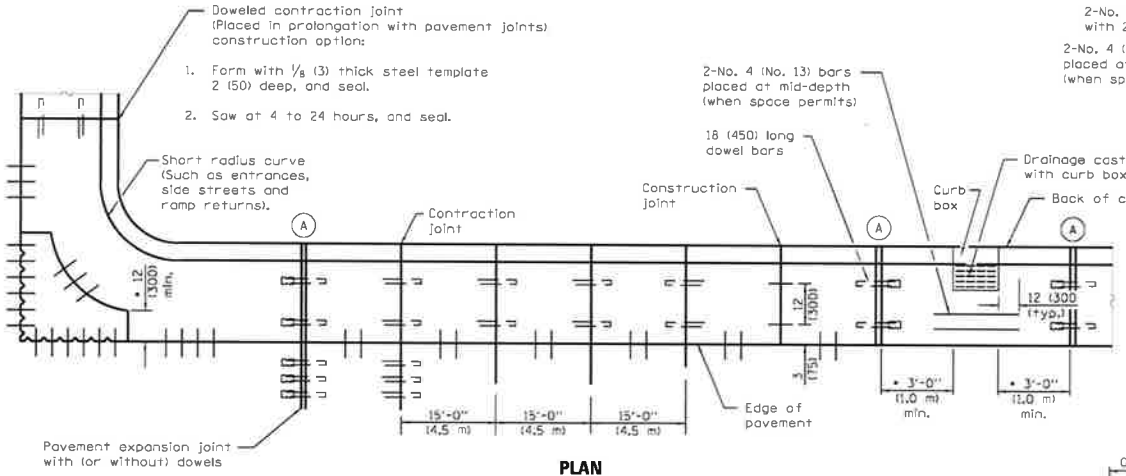
PASSED January 1, 2018
Michael Brand
ENGINEER OF POLICY AND PROCEDURES

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

ISSUED 1-1-97

PRECAST MANHOLE TYPE A 4' (1.22 m) DIAMETER

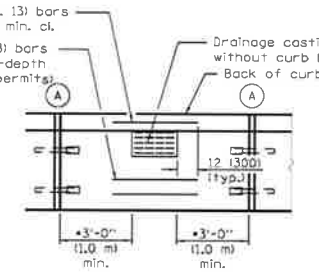
STANDARD 602401-04

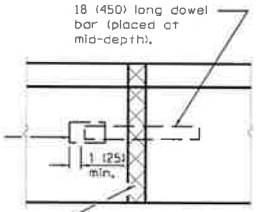


PLAN

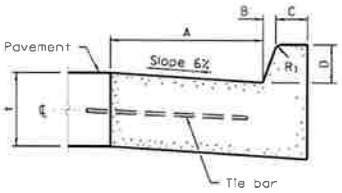
ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE

• This dimension shall be adjusted to align with joint on the adjacent pavement

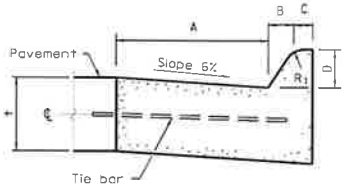




DETAIL (A)
EXPANSION JOINT



BARRIER CURB



MOUNTABLE CURB

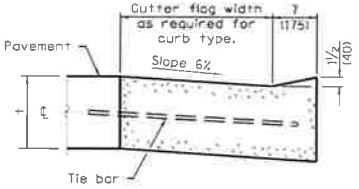
TABLE OF DIMENSIONS
BARRIER CURB

TYPE	A	B	C	D	R_1
B-6.06 * (B-15.15)	6 (150)	1 (25)	6 (150)	6 (150)	1 (25)
B-6.12 (B-15.3)	12 (300)	1 (25)	6 (150)	6 (150)	1 (25)
B-6.18 (B-15.45)	18 (450)	1 (25)	6 (150)	6 (150)	1 (25)
B-6.24 (B-15.60)	24 (600)	1 (25)	6 (150)	6 (150)	1 (25)
B-9.12 (B-22.30)	12 (300)	2 (50)	5 (125)	9 (225)	1 (25)
B-9.18 (B-22.45)	18 (450)	2 (50)	5 (125)	9 (225)	1 (25)
B-9.24 (B-22.60)	24 (600)	2 (50)	5 (125)	9 (225)	1 (25)

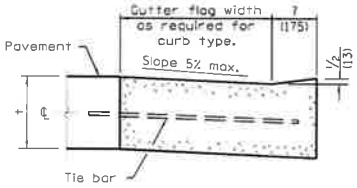
* For corner islands only.

TABLE OF DIMENSIONS
MOUNTABLE CURB

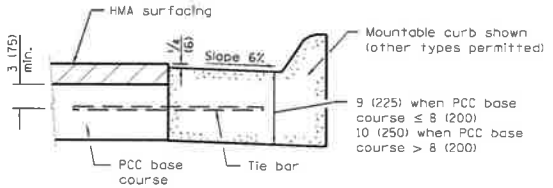
TYPE	A	B	C	D	R_1	R_2
M-2.06 (M-5.15)	6 (150)	2 (50)	4 (100)	2 (50)	3 (75)	2 (50)
M-2.12 (M-5.30)	12 (300)	2 (50)	4 (100)	2 (50)	3 (75)	2 (50)
M-4.06 (M-10.15)	6 (150)	4 (100)	3 (75)	4 (100)	3 (75)	NA
M-4.12 (M-10.30)	12 (300)	4 (100)	3 (75)	4 (100)	3 (75)	NA
M-4.18 (M-10.45)	18 (450)	4 (100)	3 (75)	4 (100)	3 (75)	NA
M-4.24 (M-10.60)	24 (600)	4 (100)	3 (75)	4 (100)	3 (75)	NA
M-6.06 (M-15.15)	6 (150)	6 (150)	2 (50)	6 (150)	2 (50)	NA
M-6.12 (M-15.30)	12 (300)	6 (150)	2 (50)	6 (150)	2 (50)	NA
M-6.18 (M-15.45)	18 (450)	6 (150)	2 (50)	6 (150)	2 (50)	NA
M-6.24 (M-15.60)	24 (600)	6 (150)	2 (50)	6 (150)	2 (50)	NA



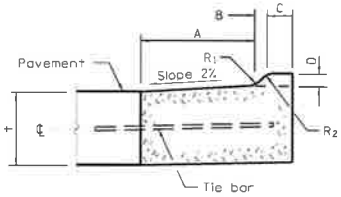
DEPRESSED CURB (TYPICAL)



DEPRESSED CURB ADJACENT TO CURB RAMP ACCESSIBLE TO THE DISABLED



ADJACENT TO PCC BASE COURSE WITH HMA SURFACING



M–2.06 (M–5.15) and M–2.12 (M–5.30)

GENERAL NOTES

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

t = Thickness of pavement.

Longitudinal joint tie bars shall be No. 6 (No. 19) at 24 (600) centers in accordance with details for longitudinal construction joint shown on Standard 420001.

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

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

See Standard 606301 for details of corner islands.

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

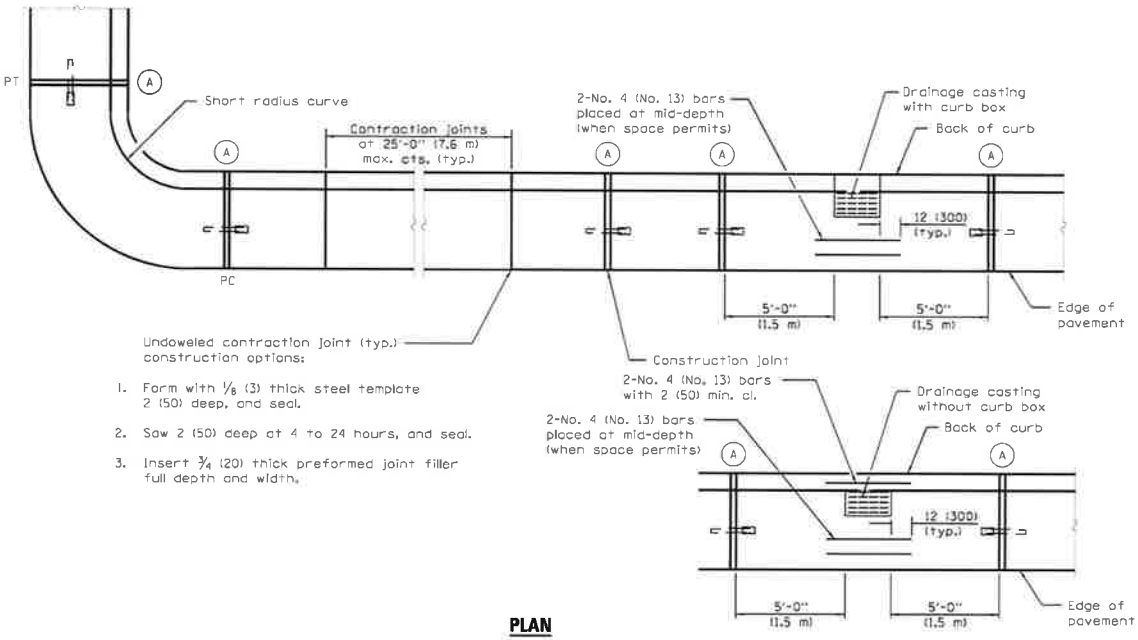
Illinois Department of Transportation
PASSED January 1, 2006
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2015

DATE	REVISIONS
1-1-15	Added B 6.06 (B 15.15) barrier curb and gutter to table (corner islands only).
1-1-15	Added general note regarding requirement for dowel bars.

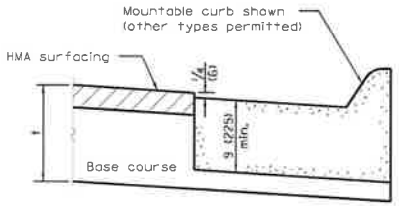
CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

(Sheet 1 of 2)

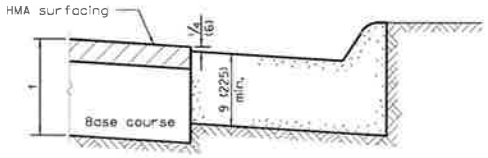
STANDARD 606001-06



PLAN

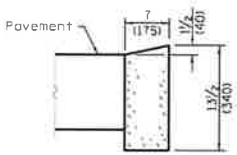


ON DISTURBED SUBGRADE

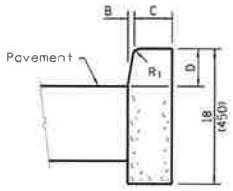


ON UNDISTURBED SUBGRADE

ADJACENT TO FLEXIBLE PAVEMENT

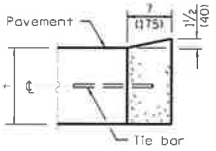


DEPRESSED CURB

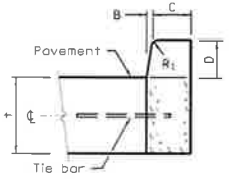


BARRIER CURB

ADJACENT TO FLEXIBLE PAVEMENT



DEPRESSED CURB



BARRIER CURB

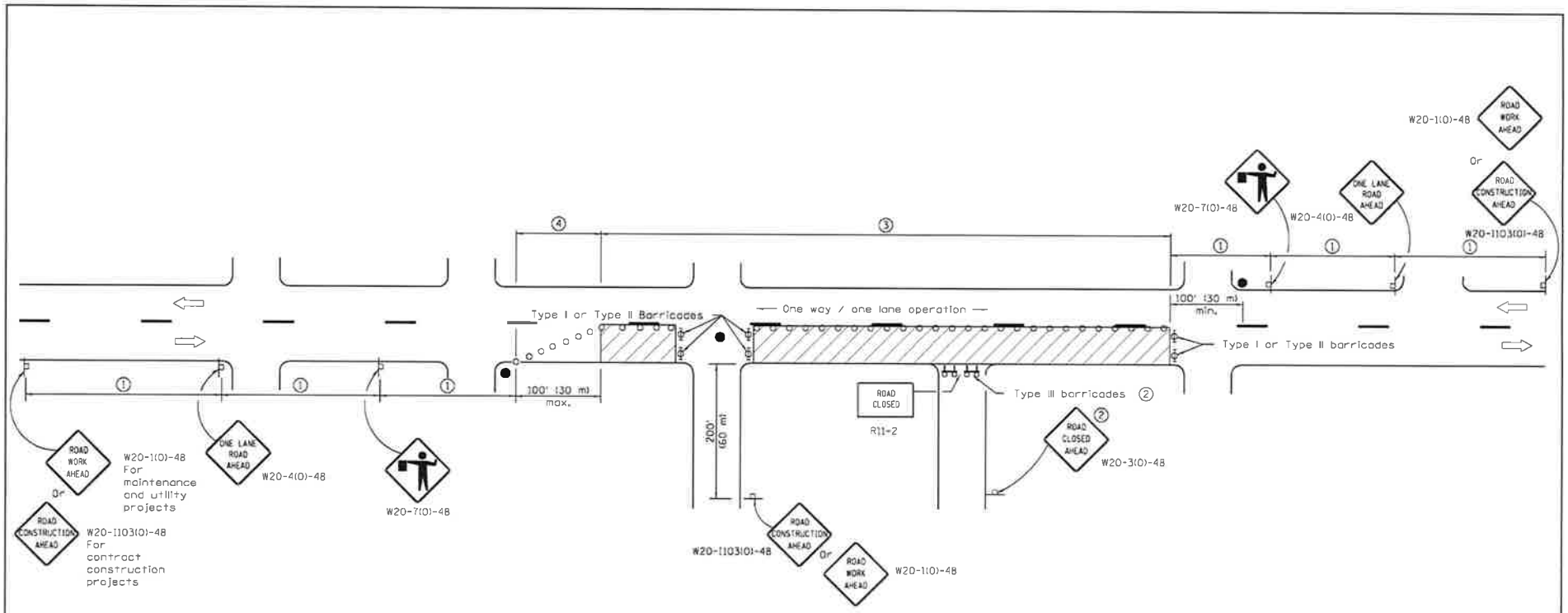
ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE

CONCRETE CURB TYPE B

CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

(Sheet 2 of 2)

STANDARD 606001-06



SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

SYMBOLS

- Work area
- Cone, drum or barricade (not required for moving operations)
- Sign on portable or permanent support
- Flagger with traffic control sign
- Barricade or drum with flashing light
- Type III barricade with flashing lights

(1) Refer to SIGN SPACING TABLE for distances.

(2) For approved sideroad closures.

(3) Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.

(4) Cones, drums or barricades at 20' (6 m) centers.

GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an urban area.

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

Illinois Department of Transportation

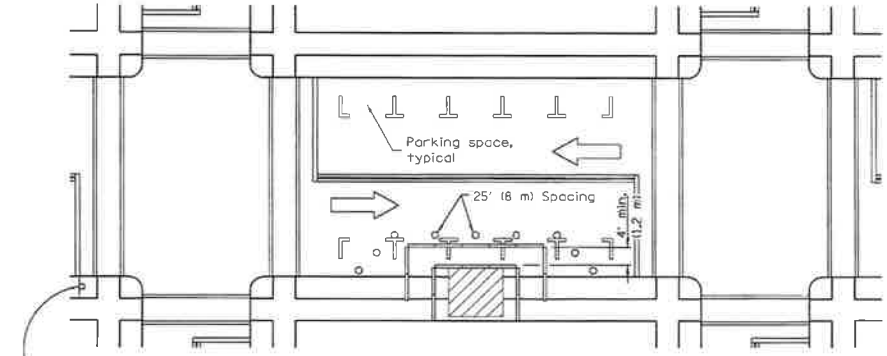
_____ 2011
ENGINEER OF SAFETY ENGINEERING

APPROVED _____ 2011
ENGINEER OF BUREAU OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to English (metric).
	Corrected sign No.'s.

URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED

STANDARD 701501-06



① ROAD CONSTRUCTION AHEAD W20-1103(0)-48 for contract construction projects

Or

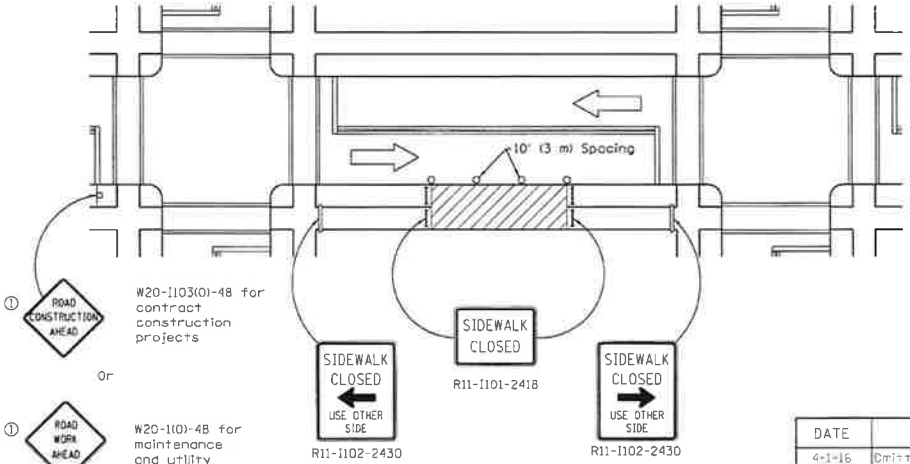
① ROAD WORK AHEAD W20-1(0)-48 for maintenance and utility projects

SIDEWALK DIVERSION

① Omit whenever duplicated by road work traffic control.

SYMBOLS

- Work area
- Sign on portable or permanent support
- Barricade or drum
- Cone, drum or barricade
- Type III barricade
- Detectable pedestrian channelizing barricade



① ROAD CONSTRUCTION AHEAD W20-1103(0)-48 for contract construction projects

Or

① ROAD WORK AHEAD W20-1(0)-48 for maintenance and utility projects

SIDEWALK CLOSURE

GENERAL NOTES

This Standard is used where, at any time, pedestrian traffic must be rerouted due to work being performed.

This Standard must be used in conjunction with other Traffic Control & Protection Standards when roadway traffic is affected.

Temporary facilities shall be detectable and accessible.

The temporary pedestrian facilities shall be provided on the same side of the closed facilities whenever possible.

The SIDEWALK CLOSED / USE OTHER SIDE sign shall be placed at the nearest crosswalk or intersection to each end of the closure. Where the closure occurs at a corner, the signs shall be erected on the corners across the street from the closure. The SIDEWALK CLOSED signs shall be used at the ends of the actual closures.

Type III barricades and R11-2-4830 signs shall be positioned as shown in "ROAD CLOSED TO ALL TRAFFIC" detail on Standard 701901.

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

Illinois Department of Transportation

APPROVED Apr 8 16 2016
ENGINEER OF SAFETY ENGINEERING

APPROVED Apr 8 16 2016
ENGINEER OF DESIGN AND ENVIRONMENT

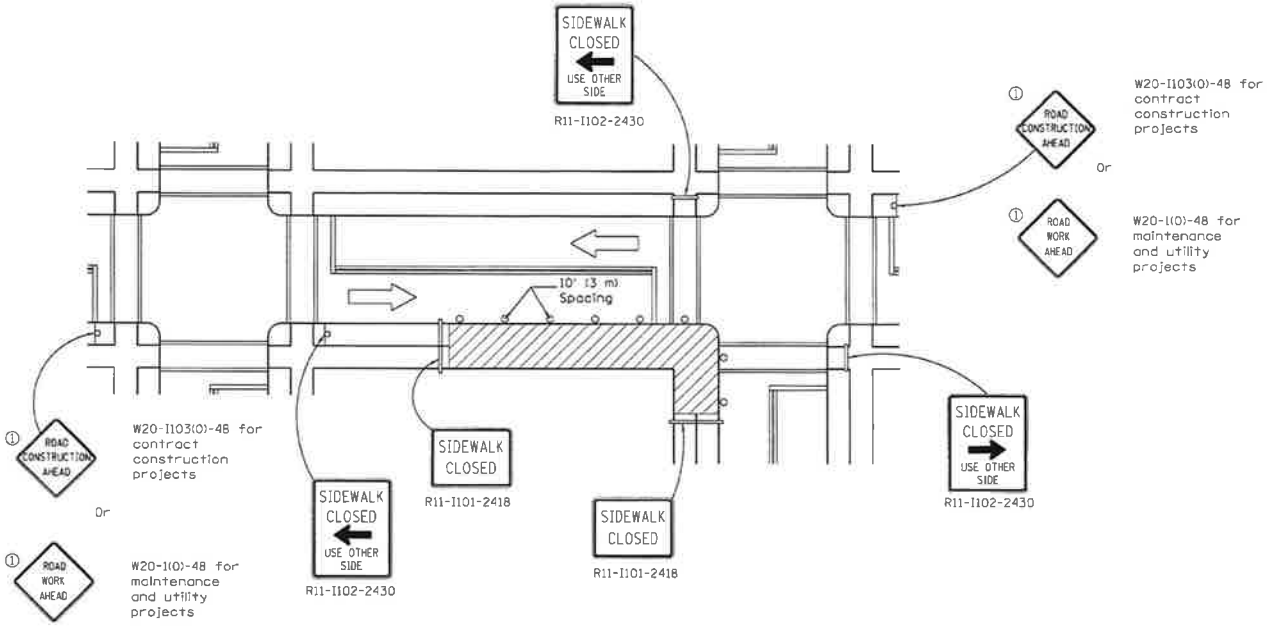
ISSUED 4-1-16

DATE	REVISIONS
4-1-16	Omitted orange safety fence
	from standard as this is
	covered in the sta. spec.
1-1-12	Added SIDEWALK DIVERSION.
	Modified appearance of
	plan views. Renamed Std.

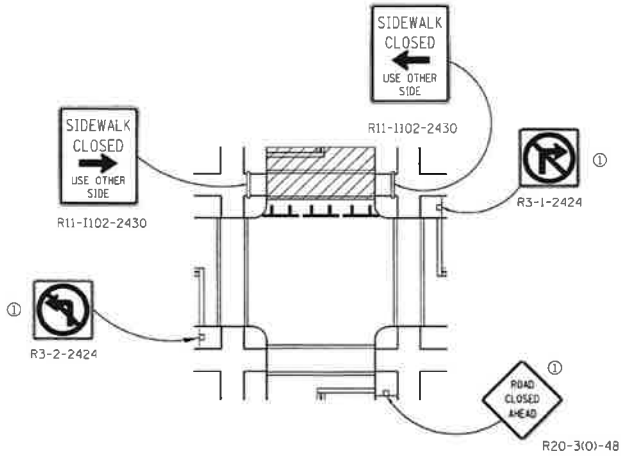
SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 1 of 2)

STANDARD 701801-06



CORNER CLOSURE



CROSSWALK CLOSURE

Illinois Department of Transportation

APPROVED April 1, 2016
ENGINEER OF SAFETY ENGINEERING

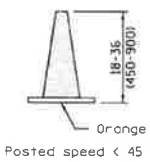
APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-17

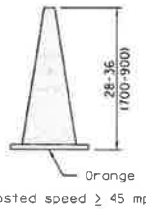
SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 2 of 2)

STANDARD 701801-06

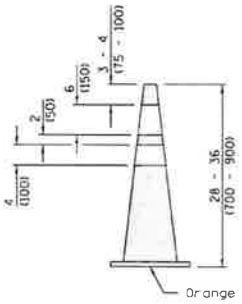


Posted speed < 45 mph

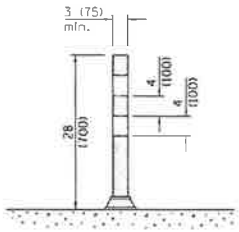


Posted speed ≥ 45 mph

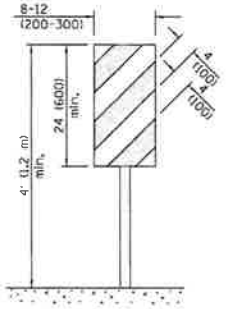
CONE FOR DAYTIME



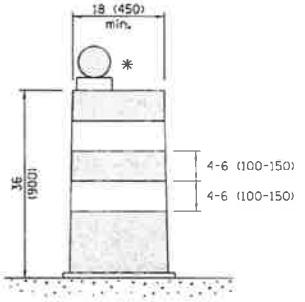
REFLECTORIZED CONE FOR NIGHTTIME



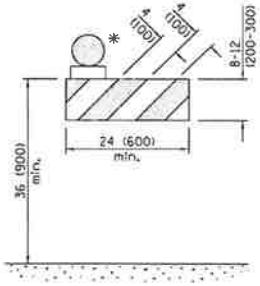
FLEXIBLE DELINEATOR



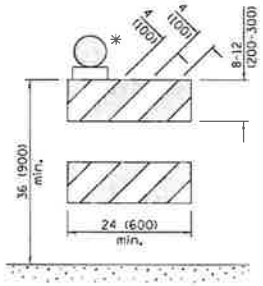
VERTICAL PANEL
POST MOUNTED



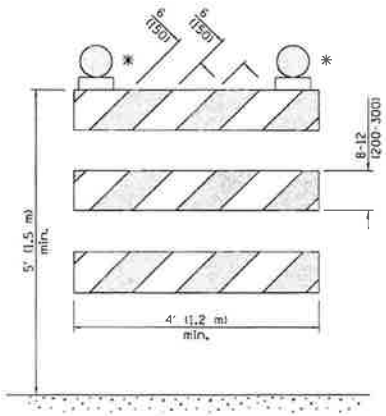
DRUM



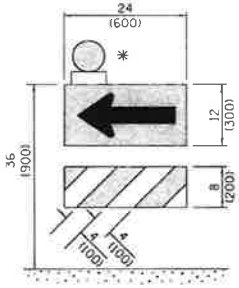
TYPE I BARRICADE



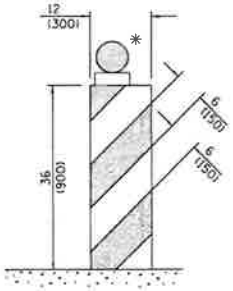
TYPE II BARRICADE



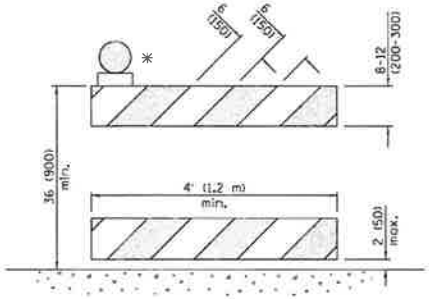
TYPE III BARRICADE



DIRECTION INDICATOR BARRICADE



VERTICAL BARRICADE



DETECTABLE PEDESTRIAN CHANNELIZING BARRICADE

* Warning lights (If required)

GENERAL NOTES

All heights shown shall be measured above the pavement surface.

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

Illinois Department of Transportation

APPROVED April 1, 2016
ENGINEER OF OPERATIONS

APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

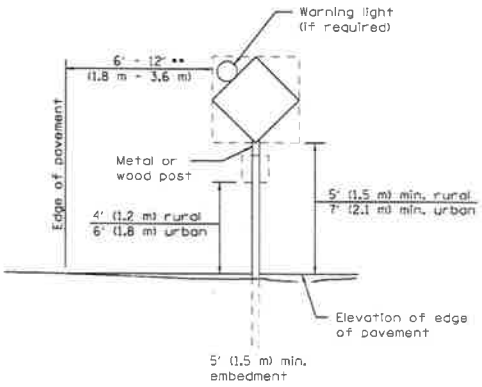
ISSUED 1-1-97

DATE	REVISIONS
4-1-16	Add dim's to barricades. Rev.
	note for post mnt. signs.
	Rev. cone dtls. Add W12-1103.
1-1-15	Revised two sign numbers on
	sheet 2. Added note reg.
	PHOTO ENFORCED plaque.

TRAFFIC CONTROL DEVICES

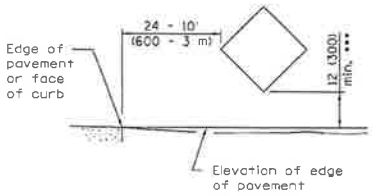
(Sheet 1 of 3)

STANDARD 701901-05



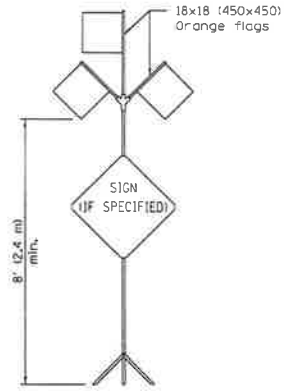
POST MOUNTED SIGNS

** When curb or paved shoulder are present this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.



SIGNS ON TEMPORARY SUPPORTS

*** When work operations exceed four days, this dimension shall be 5' (1.5 m) min. If located behind other devices, the height shall be sufficient to be seen completely above the devices.

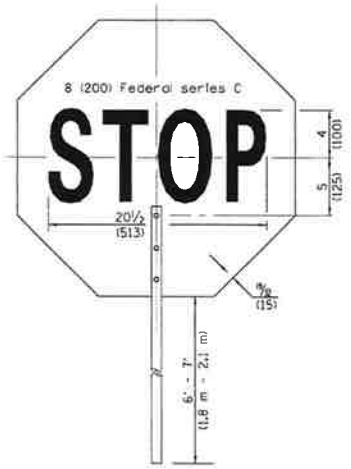


HIGH LEVEL WARNING DEVICE

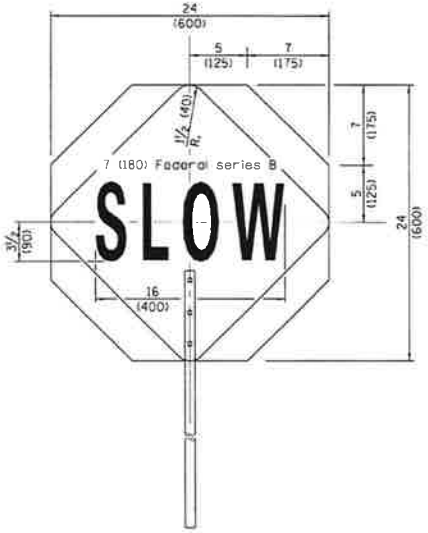
W12-1103-4848

WIDTH RESTRICTION SIGN

XX'-XX" width and X miles are variable.



FRONT SIDE



REVERSE SIDE

FLAGGER TRAFFIC CONTROL SIGN

ROAD CONSTRUCTION NEXT X MILES	END CONSTRUCTION
G20-1104(0)-6036	G20-1105(0)-6024

This signing is required for all projects 2 miles (3200 m) or more in length.

ROAD CONSTRUCTION NEXT X MILES sign shall be placed 500' (150 m) in advance of project limits.

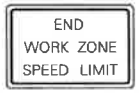
END CONSTRUCTION sign shall be erected at the end of the job unless another job is within 2 miles (3200 m).

Dual sign displays shall be utilized on multi-lane highways.

WORK LIMIT SIGNING

W21-1115(0)-3618
R2-1-3648
R10-1108p-3618 ••••
R2-1106p-3618

Sign assembly as shown on Standards or as allowed by District Operations.



G20-1103(0)-6036

This sign shall be used when the above sign assembly is used.

HIGHWAY CONSTRUCTION SPEED ZONE SIGNS

•••• R10-1108p shall only be used along roadways under the juristiction of the State.

Illinois Department of Transportation

APPROVED April 1, 2016
ENGINEER OF OPERATIONS

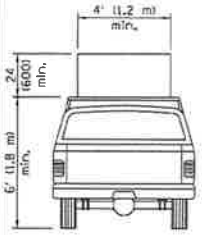
APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

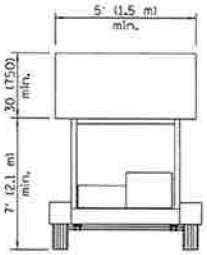
TRAFFIC CONTROL DEVICES

(Sheet 2 of 3)

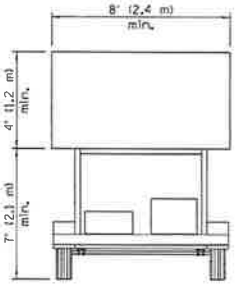
STANDARD 701901-05



TYPE A ROOF MOUNTED

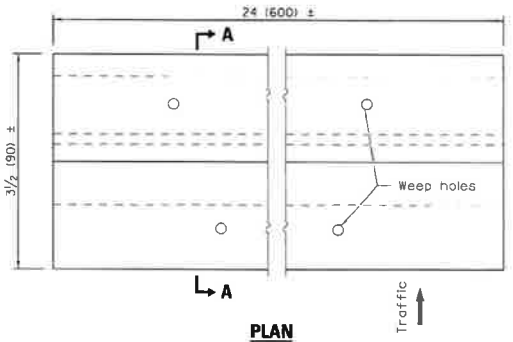


TYPE B ROOF OR TRAILER MOUNTED

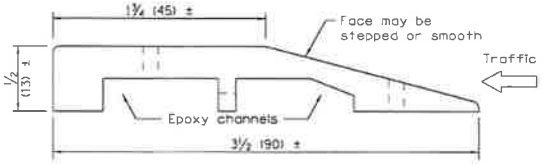


TYPE C TRAILER MOUNTED

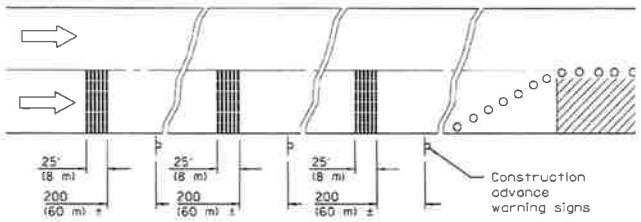
ARROW BOARDS

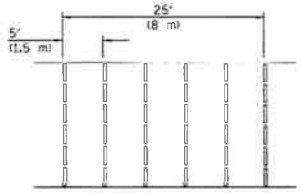


PLAN



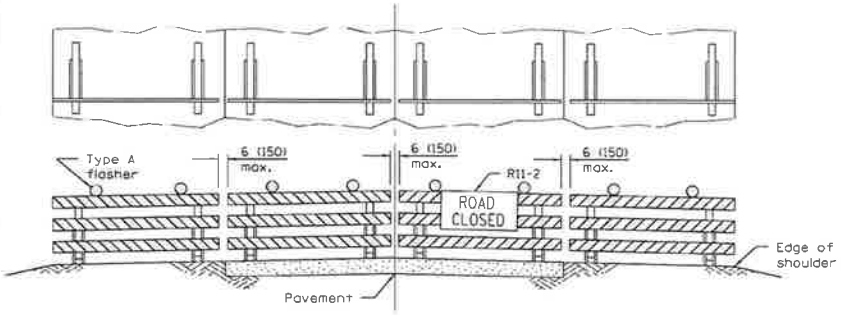
SECTION A–A





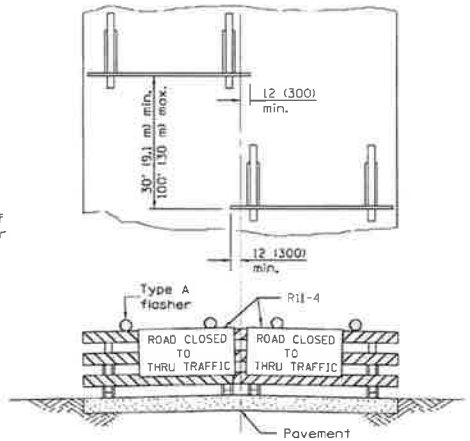
TYPICAL INSTALLATION

TEMPORARY RUMBLE STRIPS



ROAD CLOSED TO ALL TRAFFIC

Reflectorized striping may be omitted on the back side of the barricades. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the sign may be mounted on an NCHRP 350 temporary sign support directly in front of the barricade.



ROAD CLOSED TO THRU TRAFFIC

Reflectorized striping shall appear on both sides of the barricades. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the signs may be mounted on NCHRP 350 temporary sign supports directly in front of the barricade.

TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD

Illinois Department of Transportation

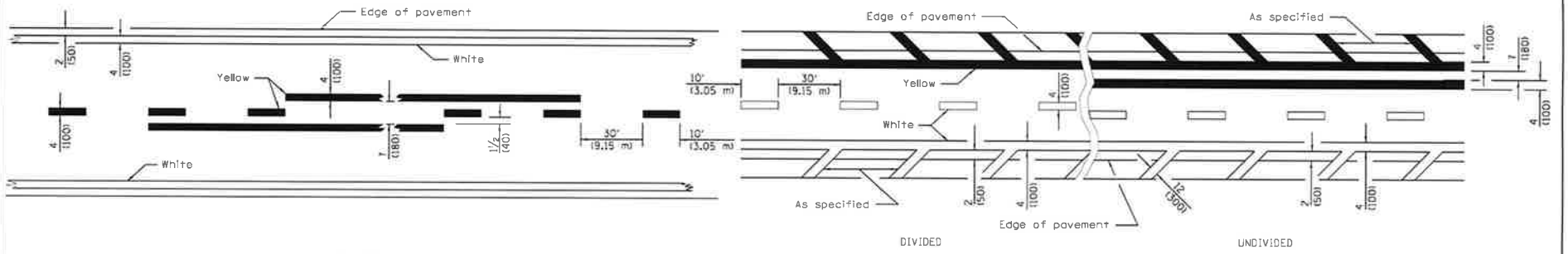
APPROVED April 1, 2016
ENGINEER OF OPERATIONS

APPROVED April 1, 2016
ENGINEER OF BUREAU OF ENVIRONMENT

TRAFFIC CONTROL DEVICES

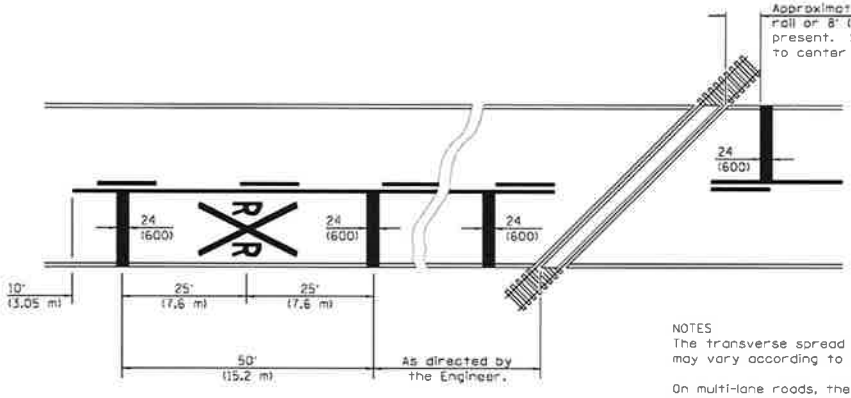
(Sheet 3 of 3)

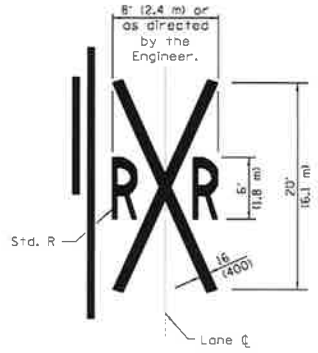
STANDARD 701901-05



2 LANE **MULTI LANE**

LANE AND EDGE LINES





NOTES
The transverse spread of the "X" may vary according to lane width.

On multi-lane roads, the stop lines shall extend across all approach lanes and separate RXR symbols shall be placed adjacent to each other in each lane.

When the pavement marking symbol is used, a portion of the symbol should be located directly adjacent to the Advance Warning Sign (W10-1) as placed by Table 2C-4, Condition B of the MUTCD.

PAVEMENT MARKINGS AT RAILROAD–HIGHWAY GRADE CROSSING

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

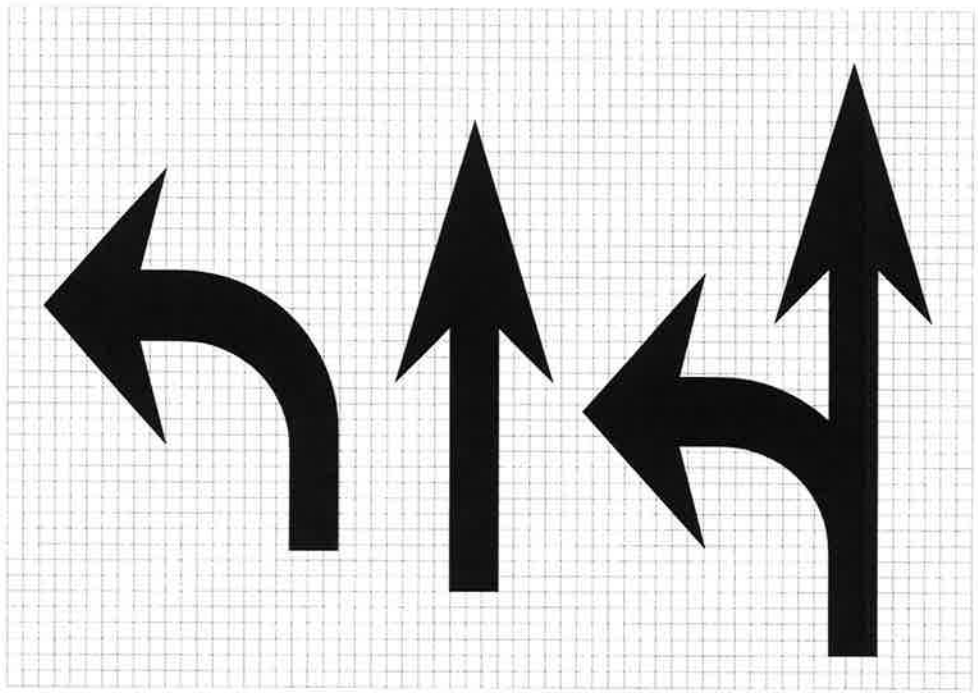
Illinois Department of Transportation

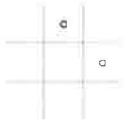
DATE	REVISIONS
1 1 15	Added symbols. Revised
	bike symbol. Revised note
	for stop line at RR crossing.
1 1 14	Added bike symbol. Renamed
	"LANE DROP ARROW" detail to
	"LANE REDUCTION ARROW".

TYPICAL PAVEMENT MARKINGS

(Sheet 1 of 4)

STANDARD 780001–05





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

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

LETTER AND ARROW GRID SCALE

Illinois Department of Transportation

APPROVED _____ 2015

ENGINEER OF OPERATIONS

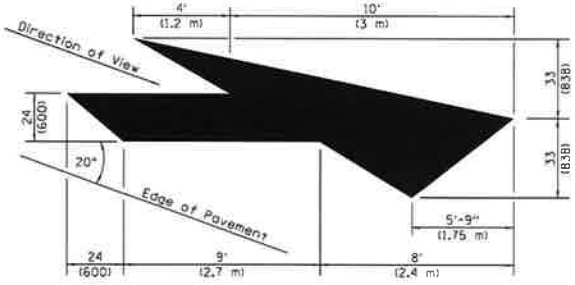
APPROVED _____ 2015

ENGINEER OF BUREAU OF TRAFFIC

TYPICAL PAVEMENT MARKINGS

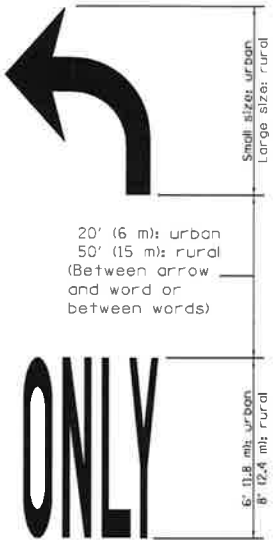
(Sheet 2 of 3)

STANDARD 780001-05

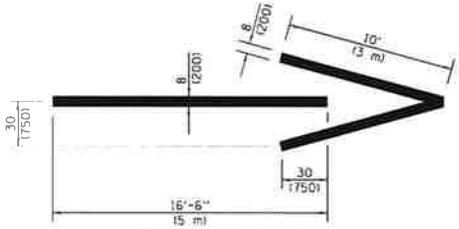


LANE-REDUCTION ARROW

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

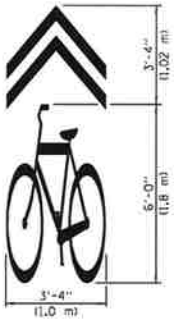


WORD AND ARROW LAYOUT

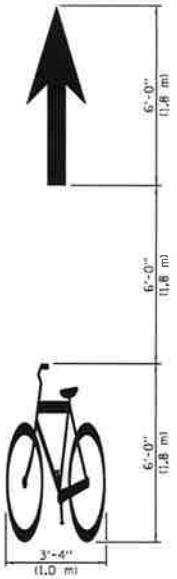


WRONG WAY ARROW

INTERNATIONAL SYMBOL OF ACCESSILITY



SHARED LANE SYMBOL



BIKE SYMBOL

(Arrow is optional)

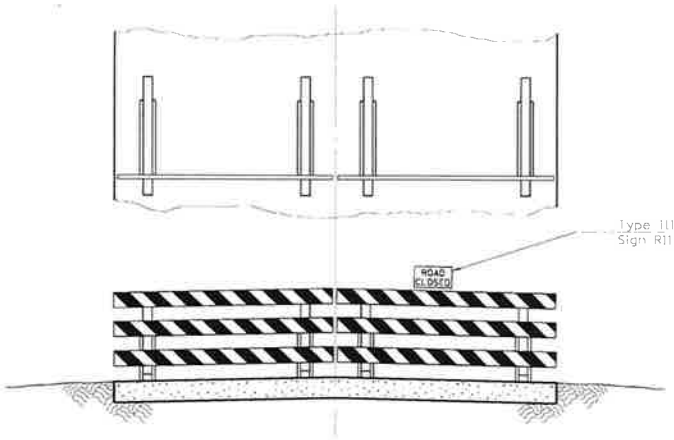
Illinois Department of Transportation

APPROVED	AUGUST 11	2015
ENGINEER OF DEVELOPMENT		
APPROVED	AUGUST 11	2015
ENGINEER OF POLICY AND PROCEDURES		

TYPICAL PAVEMENT MARKINGS

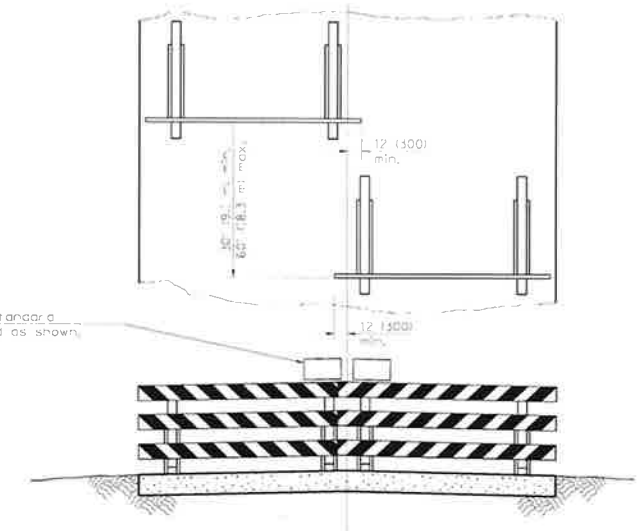
(Sheet 5 of 5)

STANDARD 780001-05

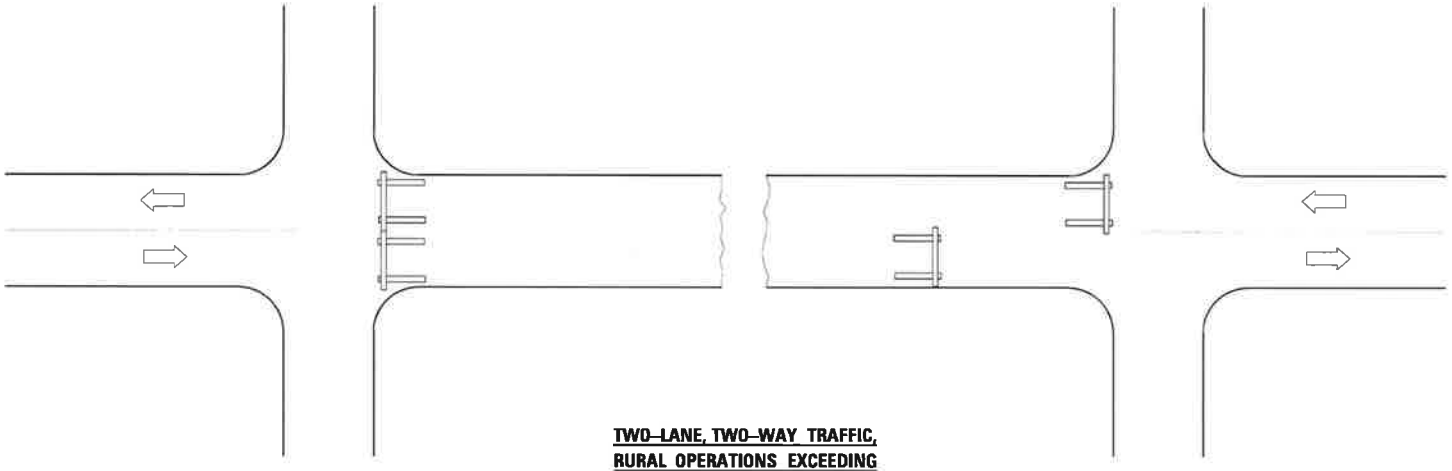


Type III Barricades with Standard Sign R11-2 or R11-4 mounted as shown.

Resident traffic and day labor force's equipment to use road shoulder for passing barricade.



Use when shoulders are too narrow for passage of traffic.



TWO-LANE, TWO-WAY TRAFFIC, RURAL OPERATIONS EXCEEDING ONE DAYLIGHT PERIOD

GENERAL NOTES

Type III barricades to be width of pavement only.

Reflectorized striping shall appear on both sides of barricades. Barricades shall be positioned so that stripes slope downward toward the side on which traffic is to pass.

Although not shown, advance warning signs with minimum dimensions of 36x36 (900x900) and black legends on orange reflectorized backgrounds shall be utilized where needed.

This case is for use on rural local roads where the local authority considers this protection to be appropriate for the specific job conditions.

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

Illinois Department of Transportation

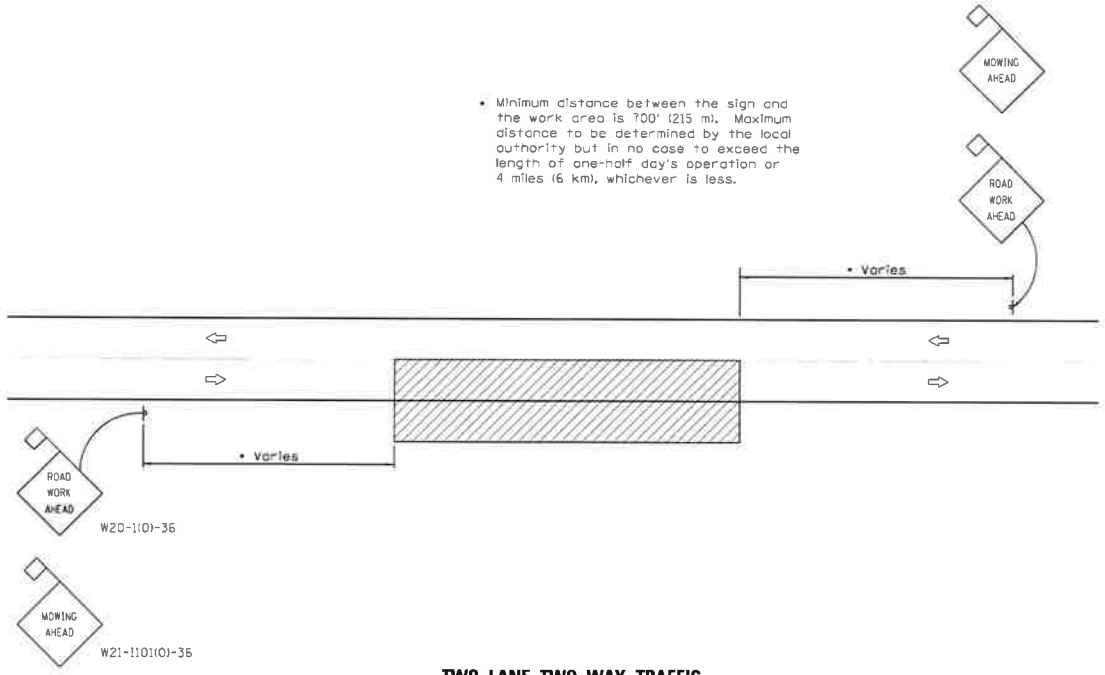
APPROVED _____ 2009
ENGINEER OF BRIDGES AND STRUCTURES

APPROVED January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
1-1-09	Switched units to English (metric).
1-1-98	Rev. "R11-1" to "R11-4".
	Rev. 4th General Note.

TRAFFIC CONTROL DEVICES – DAY LABOR CONSTRUCTION

STANDARD B.L.R. 17-4



• Minimum distance between the sign and the work area is 700' (215 m). Maximum distance to be determined by the local authority but in no case to exceed the length of one-half day's operation or 4 miles (6 km), whichever is less.

TWO-LANE, TWO-WAY TRAFFIC
RURAL OPERATIONS
DAY OPERATIONS ONLY

SYMBOLS

Work area

Sign with 18x18 (450x450) min. orange flag attached.

TYPICAL APPLICATIONS

MOWING
SPREADING AGGREGATE
WEED SPRAYING
SURFACE MAINTENANCE
BITUMINOUS RESURFACING
CRACK POURING
SHOULDER REPAIR
CLEANING DITCHES

GENERAL NOTES

Maintenance operations shall be confined to one traffic lane, leaving the opposite lane open to traffic. At least 500' (150 m) of both traffic lanes shall be available for traffic movement between work areas at intervals not greater than 1000' (300 m).

When operations are on the pavement and stationary or moving at a speed less than 4 mph (6 kph), a ONE LANE AHEAD, or other appropriate sign, shall be installed in each direction between the ROAD WORK AHEAD sign and the work area. The distance between this sign and the work area shall be a minimum of 400' (120 m) but in no case to exceed the length of one-half day's operation or 4 miles (6 km), whichever is less. The distance between the two signs shall be approximately 400' (120 m).

All signs are to be removed at completion of the day's operation.

Any unattended obstacle, excavation, or pavement drop off greater than 3 (75) in the work area shall be protected by Type I or Type II barricades with flashing lights.

Longitudinal dimensions may be adjusted slightly to fit field conditions.

All vehicles, equipment, men, and their activities are restricted at all times to one side of the pavment.

Flashing lights or rotating beacons are required for all maintenance vehicles while in operation.

Applicable operations illustrated in Standard 701301 may be used when operations do not exceed 15 minutes on the pavement or 60 minutes on the shoulder respectively.

All warning signs shall have minimum dimensions of 36x36 (900x900) and have black legend on an orange reflectorized background.

When fluorescent signs are used, orange flags are not required.

This case is for use on rural local roads where the local authority considers this protection to be appropriate for the specific job conditions.

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

Illinois Department of Transportation

APPROVED _____ 2005
ENGINEER OF LOCAL ROADS AND STREETS
APPROVED _____ 2005
ENGINEER OF SPECIAL AND ENVIRONMENTAL

DATE	REVISIONS
1.1.15	Corrected RWA sign numbers
1.1.09	Switched units to
	English (metric). Moved
	one General Note.

TRAFFIC CONTROL DEVICES– DAY LABOR MAINTENANCE

STANDARD B.L.R. 18-6