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Letting November 9, 2018

Notice to Bidders, Specifications and Proposal

Contract No. 61F16
COOK County
Section 12-00195-00-PV (Wilmette)
Route FAU 1076 (Locust Road)
Project DAE4-736 ()
District 1 Construction Funds

Prepared by

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Checked by

(Printed by authority of the State of Illinois)

Illinois Department of Transportation

NOTICE TO BIDDERS

1. **TIME AND PLACE OF OPENING BIDS.** Electronic bids are to be submitted to the electronic bidding system (iCX-Integrated Contractors Exchange). All bids must be submitted to the iCX system prior to 10:00 a.m. November 9, 2018 at which time the bids will be publicly opened from the iCX SecureVault.

2. **DESCRIPTION OF WORK**. The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

   Contract No. 61F16
   COOK County
   Section 12-00195-00-PV (Wilmette)
   Project DAE4-736 ()
   Route FAU 1076 (Locust Road)
   District 1 Construction Funds

Roadway reconstruction on FAU Route 1076 (Locust Road) from Lake Avenue to Wilmette Avenue in the Village of Wilmette.

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

   (b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.

4. **AWARD CRITERIA AND REJECTION OF BIDS**. This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the
Illinois Department of Transportation

Randall S. Blankenhorn,
Secretary

CONTRACT 61F16

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2018

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 1-1-18)

SUPPLEMENTAL SPECIFICATIONS

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
FOR
LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

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

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BDE SPECIAL PROVISIONS

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

	File Name	Pg.		Special Provision Title	Effective	Revised
	80099			Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2014
	80382	174	X	Adjusting Frames and Grates	April 1, 2017	
	80274			Aggregate Subgrade Improvement	April 1, 2012	April 1, 2016
	80192			Automated Flagger Assistance Device	Jan. 1, 2008	
	80173	176	X	Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2017
	80241			Bridge Demolition Debris	July 1, 2009	
	5026I			Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5048I			Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5049I			Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5053I			Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
	80366	178	X	Butt Joints	July 1, 2016	
	80386			Calcium Aluminate Cement for Class PP-5 Concrete Patching	Nov. 1, 2017	
*	80396	179	X	Class A and B Patching	Jan. 1, 2018	Nov. 1, 2018
	80384	180	X	Compensable Delay Costs	June 2, 2017	
	80198			Completion Date (via calendar days)	April 1, 2008	
	80199			Completion Date (via calendar days) Plus Working Days	April 1, 2008	
	80293			Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet	April 1, 2012	July 1, 2016
	80311			Concrete End Sections for Pipe Culverts	Jan. 1, 2013	April 1, 2016
	80277			Concrete Mix Design – Department Provided	Jan. 1, 2012	April 1, 2016
	80261	184	X	Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
	80387			Contrast Preformed Plastic Pavement Marking	Nov. 1, 2017	
	80029	187	X	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	April 2, 2018
*	80402	198	X	Disposal Fees	Nov. 1, 2018	
	80378			Dowel Bar Inserter	Jan. 1, 2017	Jan. 1, 2018
	80388	200	X	Equipment Parking and Storage	Nov. 1, 2017	
	80229			Fuel Cost Adjustment	April 1, 2009	Aug. 1, 2017
	80304			Grooving for Recessed Pavement Markings	Nov. 1, 2012	Nov. 1, 2017
	80246	201	X	Hot-Mix Asphalt – Density Testing of Longitudinal Joints	Jan. 1, 2010	Aug. 1, 2018
	80398			Hot-Mix Asphalt – Longitudinal Joint Sealant	Aug. 1, 2018	
*	80399	203	X	Hot-Mix Asphalt – Oscillatory Roller	Aug. 1, 2018	Nov. 1, 2018
	80347			Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits - Jobsite Sampling	Nov. 1, 2014	Aug. 1, 2018
	80383			Hot-Mix Asphalt – Quality Control for Performance	April 1, 2017	Nov. 1, 2017
	80376	205	X	Hot-Mix Asphalt – Tack Coat	Nov. 1, 2016	
	80392	206	X	Lights on Barricades	Jan. 1, 2018	
	80336			Longitudinal Joint and Crack Patching	April 1, 2014	April 1, 2016
	80393	208	X	Manholes, Valve Vaults, and Flat Slab Tops	Jan. 1, 2018	March 2, 2018
	80400			Mast Arm Assembly and Pole	Aug. 1, 2018	
	80045			Material Transfer Device	June 15, 1999	Aug. 1, 2014
	80394			Metal Flared End Section for Pipe Culverts	Jan. 1, 2018	April 1, 2018
	80165			Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010
	80349			Pavement Marking Blackout Tape	Nov. 1, 2014	April 1, 2016
	80371	210	X	Pavement Marking Removal	July 1, 2016	
	80390	211	X	Payments to Subcontractors	Nov. 2, 2017	
	80377	212	X	Portable Changeable Message Signs	Nov. 1, 2016	April 1, 2017
	80389	213	X	Portland Cement Concrete	Nov. 1, 2017	
	80359			Portland Cement Concrete Bridge Deck Curing	April 1, 2015	Nov. 1, 2017

	File Name	Pg.		Special Provision Title	Effective	Revised
	80401			Portland Cement Concrete Pavement Connector for Bridge Approach Slab	Aug. 1, 2018	
	80385	214	X	Portland Cement Concrete Sidewalk	Aug. 1, 2017	
	80300			Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	April 1, 2016
	80328	215	X	Progress Payments	Nov. 2, 2013	
	3426I			Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
	80157			Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
	80306			Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Nov. 1, 2012	Jan. 1, 2018
	80395			Sloped Metal End Section for Pipe Culverts	Jan. 1, 2018	
	80340			Speed Display Trailer	April 2, 2014	Jan. 1, 2017
	80127			Steel Cost Adjustment	April 2, 2014	Aug. 1, 2017
	80397	216	X	Subcontractor and DBE Payment Reporting	April 2, 2018	
	80391	217	X	Subcontractor Mobilization Payments	Nov. 2, 2017	
	80317			Surface Testing of Hot-Mix Asphalt Overlays	Jan. 1, 2013	April 1, 2016
	80298	218	X	Temporary Pavement Marking (NOTE: This special provision was previously named *"Pavement Marking Tape Type IV"*.)	April 1, 2012	April 1, 2017
	20338	221	X	Training Special Provision	Oct. 15, 1975	
*	80403			Traffic Barrier Terminal, Type 1 Special	Nov. 1, 2018	
	80318			Traversable Pipe Grate for Concrete End Sections (Note: This special provision was previously named "*Traversable Pipe Grate*".)	Jan. 1, 2013	Jan. 1, 2018
	80288	224	X	Warm Mix Asphalt	Jan. 1, 2012	April 1, 2016
	80302	226	X	Weekly DBE Trucking Reports	June 2, 2012	April 2, 2015
	80071			Working Days	Jan. 1, 2002	

The following special provisions are in the 2018 Supplemental Specifications and Recurring Special Provisions.

File Name	Special Provision Title	New Location	Effective	Revised
80368	Light Tower	Article 1069.08	July 1, 2016	
80369	Mast Arm Assembly and Pole	Article 1077.03(a)(1)	July 1, 2016	
80338	Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	Recurring CS #35	April 1, 2014	April 1, 2016
80379	Steel Plate Beam Guardrail	Articles 630.02, 630.05, 630.06, and 630.08	Jan. 1, 2017	
80381	Traffic Barrier Terminal, Type 1 Special	Article 631.04	Jan. 1, 2017	
80380	Tubular Markers	Articles 701.03, 701.15, 701.18, and 1106.02	Jan. 1, 2017	

STATE OF ILLINOIS

SPECIAL PROVISIONS

The "Standard Specifications for Road and Bridge Construction" adopted April 1, 2016, as amended by the Supplemental Specifications and Recurring Special Provisions, adopted January 1, 2018; the Bureau of Design and Environment (BDE) Special Provisions indicated on the respective Check Sheets herein, the latest edition of the "Manual on Uniform Traffic Control Devices", "Manual of Test Procedures", and the "Manual for Materials Inspection," adopted January 1, 2006, all issued by the State of Illinois Department of Transportation, hereinafter referred to as the "Standard Specifications", and the "Standard Specification for Water & Sewer Main Construction in Illinois", Seventh Edition, June 2014 are hereby incorporated by reference and shall apply to and govern the construction of the Locust Road Reconstruction, Section No. 12-00195-00-PV, in Wilmette, Cook County, Illinois.

The following SPECIAL PROVISIONS supplement the STANDARD SPECIFICATIONS shall apply to and govern the construction of Locust Road Reconstruction in Wilmette, Cook County, Illinois. In case of conflict with any part or parts of said specifications, said SPECIAL PROVISIONS shall take precedence and shall govern.

LOCATION OF WORK

The project is located on Locust Road (FAU 1076) from Lake Avenue (FAU 1292) to Wilmette Avenue (FAU 1298) in the County of Cook, Illinois. The gross and net length of the project is 2,600.77 feet (0.50 miles).

DESCRIPTION OF WORK

The work consists of pavement reconstruction with full curb and gutter removal and replacement, installation of new 6", 8" and 12" ductile iron water main, valve vaults, fire hydrants, and new water service connections, as well as storm sewer improvements, sidewalk removal and replacement with widening, traffic signal maintenance, and ADA upgrades in the Village of Wilmette, Cook County, Illinois.

FINAL COMPLETION DATE

The CONTRACTOR shall complete all work, by November 15, 2019, plus five (5) additional Working Days. Per Article 108.09 of the Standard Specifications, failure to meet this completion date requirement shall result in a penalty of $1,425 per calendar day that this requirement is not met.

INTERIM COMPLETION DATES

The CONTRACTOR shall complete all Stage 1 work, including punchlist items, by June 15, 2019; all Stage 2 work by August 31, 2019; all Stage 3 work by October 15, 2019. Article 108.09 of the Standard Specifications shall be revised to state the following: Failure to meet these completion date requirements shall result in a penalty of $1,425 per calendar day per Stage that these requirements are not met.

USE OF FIRE HYDRANTS

Add the following to Article 107.18 of the Standard Specifications:
The CONTRACTOR may use Village fire hydrants under the following conditions:
The CONTRACTOR must pick-up a Village issued water meter and RPZ device at the Village Yard located at 711 Laramie Avenue (847.853.7500). The Village has a limited number of meters and RPZ devices and if none are available the CONTRACTOR will be responsible for supplying its own meter and RPZ device certified in the past year. A refundable $1,500 deposit (cash, check, Visa, MC) and a meter loan permit are required before a Village meter and RPZ device will be issued. The permits are obtained through the Village of Wilmette Engineering Department at 1200 Wilmette Ave. (847.853.7660).

CONSTRUCTION NOISE RESTRICTIONS

Add the following to Article 107.35 of the Standard Specifications:
In accordance with the Village Noise Ordinance 20-13.7, all Work shall be performed between the hours of 7:00 AM and 7:00 PM, Monday through Friday, and between 9:00 AM and 5:00 PM on Saturday, except in the case of urgent necessity as determined by the Director of Engineering. No work shall be performed on Sundays.

(D-1) STATUS OF UTILITIES
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

NO CONFLICTS ANTICIPATED

Stage 1

NO CONFLICTS ANTICIPATED

Stage 2

STAGE / LOCATION	TYPE	DESCRIPTION	RESPONSIBLE AGENCY	ACTION
24+83.13, 19.94' RT	Underground Electric MH	MH frame and lid to be adjusted to finished grade	ComEd	MH frame and lid to be adjusted to finished grade by ComEd (1 Day)
24+93.10, 35.43' RT	Underground Telephone MH	MH frame and lid to be adjusted to finished grade	AT&T	MH frame and lid to be adjusted to finished grade by AT&T (0.5 Days)
36+76.31, 31.00' RT	Underground Telephone MH	MH frame and lid to be adjusted to finished grade	AT&T	MH frame and lid to be adjusted to finished grade by AT&T (0.5 Days)

Stage 3

NO CONFLICTS ANTICIPATED

Pre-Stage: 0 Days Total Installation
Stage 1: 0 Days Total Installation
Stage 2: 2 Days Total Installation
Stage 3: 0 Days Total Installation

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 1 / Stage 2 / Stage 3

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER	ACTION
All Stages -Running N/S under E Sidewalk/Parkway -Crossing at 9+61 -Crossing at 18+09 -Crossing at 24+91 -Crossing at 36+80	Underground Telephone Line	Watch and Protect	AT&T	No Conflicts – Watch and Protect
All Stages -Underground in E Park 10+30 to 12+05 -Aerial on Poles from 12+05 to 30+45 -Underground crossing at 9+55 -Underground crossing at 22+92	Underground Cable Line; Aerial on ComEd Poles	Watch and Protect; Brace poles as needed per Engineer	Comcast	No Conflicts – Watch and Protect
All Stages -Underground in E Park 10+40 to 12+05 -Aerial on Poles from 12+05 to 30+45 -Underground crossing at 18+35 -Underground crossing at 22+96 -Underground crossing at 34+41 -Underground crossing at 36+10	Underground Electric Line; Aerial on Poles	Watch and Protect; Brace poles as needed per Engineer	Commonwealth Edison	No Conflicts – Watch and Protect
All Stages -Running N/S near W EOP -Crossing at 9+77 -Crossing at 13+44 -Crossing at 36+55	Underground Gas Line	Watch and Protect	Nicor	No Conflicts – Watch and Protect

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 (Distribution) Local	Steve Larson	1000 Commerce Drive, Oak Brook, IL 60523	(630) 573-5450	g11629@att.com
Comcast	Martha Gieras	688 Industrial Drive, Elmhurst, IL 60126	(630) 600-6352	martha_gieras@cable.comcast.com
Commonwealth Edison	Lisa Argast	Electronic Plan Submittal	(630) 576-7094	PlanSubmittalsAndMapRequests@exeloncorp.com Lisa.mavity@comed.com
Nicor Gas	Bruce Koppang	1844 Ferry Road, Naperville, IL 60563	(630) 388-3046	bkoppan@aglresources.com

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.

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.

TREE ROOT PRUNING

Description. This work consists of root pruning using an approved mechanical root pruning saw prior to excavating around the tree and where indicated on the drawings or as directed by the ENGINEER or the Village Forester; and in such a manner as to preserve the natural growth habit of each tree complete including an equivalent amount of the top vegetative growth of the plant material within one week following root damage, the application of fertilizer nutrients, and supplemental watering. Root pruning depth to be 12" minimum and per the ENGINEER. Root pruning will be required wherever the ground is disturbed within the drip line of the tree and shall be completed both parallel and perpendicular to the roadway for locations where any water main service work is being completed.

Method of Measurement and Basis of Payment. The work will be paid for at the contract unit price per EACH for TREE ROOT PRUNING, which price shall include all equipment, labor, and material as specified herein to complete this work.

DETECTABLE WARNINGS

Description. This work shall consist of installing detectable warnings at locations shown on the plans or as directed by the ENGINEER.

Detectable warnings shall consist of a surface of truncated domes aligned in a square pattern (parallel alignment) or triangular pattern. Dome spacing, dome size, and detectable warning locations are shown in Highway Standard 424001 "Curb Ramps for Sidewalks". Detectable warning surfaces shall contrast visually with the adjacent walking surfaces by having light on dark, or dark on light; and, shall extend 24 inches in the direction of travel and the full width of the curb ramp, landing, or sidewalk (IDOT Memo 2004-18).

The CONTRACTOR shall provide and install bright yellow, pre-stamped, fiberglass reinforced plastic panels with reinforced truncated domes on all curb ramps or as mandated by the ADAAG, or as determined by the ENGINEER. These ramp panels shall comply with Highway Standard 424001 "Curb Ramps for Sidewalks". Any ramp panel substitutions must be submitted in writing to ENGINEER for approval.

Articles 424.08 – 424.12 of the Standard Specifications shall be replaced with the following:

424.08 Curb Ramps. Curb ramps shall be constructed according to the Americans with Disabilities Act Accessibility Guidelines (ADAAG), the Illinois Accessibility Code, and as shown on the plans. Curb ramps shall be constructed to the same thickness as the adjacent sidewalk with a minimum thickness of 100 mm (5 in.).

424.09 Detectable Warnings. The detectable warning shall be installed during the construction of the PCC sidewalk, with the top of the detectable warning flush with the surface of the sidewalk. All PCC sidewalk and aggregate subbase installed below the detectable warning shall be considered incidental to the DETECTABLE WARNINGS. The detectable warning shall be installed according to the manufacturer's specifications.

The detectable warnings shall be installed at curb ramps, medians and pedestrian refuge islands, at-grade railroad crossings, transit platform edges, and other locations where pedestrians are required to cross a hazardous vehicular way. Detectable warnings shall also be installed at alleys and commercial entrances when permanent traffic control devices are present (IDOT Memo 2004-18). The installation shall be an integral part of the walking surface and only the actual domes shall project above the walking surface.

424.10 Backfill. After the concrete has been cured, the spaces along the edges of the sidewalk and ramps shall be backfilled with approved material. The material shall be compacted until firm and the surface neatly graded.

424.11 Disposal of Surplus Material. Surplus or waste material shall be disposed of according to Article 202.03.

Method of Measurement and Basis of Payment. This work will be measured and paid for at the contract unit price per SQUARE FOOT for DETECTABLE WARNINGS, which price shall include all materials, labor, and equipment necessary to perform the work as shown in the construction detail and specified herein. Each detectable warning shall be considered the full 2' x 5' detectable warning area.

PAVEMENT REMOVAL

Description. This work shall consist of the removal and satisfactory disposal of the existing pavement, including all bituminous material and existing granular subbase, to a depth of 17 inches. This work shall be in conformance with applicable provisions of Section 440 of the STANDARD SPECIFICATIONS and as specified herein. All necessary sawcutting shall be incidental to this work.

Construction Requirements. The depth of existing pavement (including all asphalt and aggregate base or other material) to be removed shall be considered to be 17 inches. Any earth excavation required to remove 17 inches of pavement and/or subbase/subgrade material shall be included in this item.

Method of Measurement and Basis of Payment. This work will be measured and paid at the contract unit price per SQUARE YARD for PAVEMENT REMOVAL, which price shall include all pavement removal and earth excavation, labor, material, and equipment necessary to complete this work.

DUCTILE IRON WATER MAIN

General. This work shall include the furnishing of all labor and materials required for the construction of a water main of the required inside diameter constructed as specified herein and in the standard specifications, and conforming in all respects to the lines, grades, and locations shown on the plans or furnished by the ENGINEER.

Materials. Ductile iron water mains shall conform to ANSI specifications A21.51, thickness Class 52, with cement lining conforming to specification A21.4 and shall be coated on the outside with coal tar or asphalt one mil in thickness. Joints shall be push-on conforming to ANSI specification A21.11. All gaskets for push-on and mechanical joints must be lubricated prior to installation. Also included shall be a polyethylene tube to encase the entire water main conforming to ASTM A 21.5. Conductivity will be maintained by installing bronze wedges into the push joints.

Installation. Excavation of water mains shall conform to the provisions of Section 20, 21 and 22 of the "Standard Specifications for Water and Sewer Main Construction" and as specified herein. The water main shall be laid with the minimum cover of five feet six inches (5'- 6") measured from the top of the pipe to finished grade or as indicated on the plans. The trench width shall be ample to permit the pipe to be laid and jointed properly and the backfill to be placed and compacted.

Whenever the term "granular" materials is used in the context of this article, it shall imply coarse aggregate, CA-6, meeting the requirements of the "Standard Specifications for Road and Bridge Construction", as prepared by the State of Illinois, Department of Transportation.

All backfill of water mains within two (2) feet of curb lines and under sidewalks, driveways, and pavement shall be done using granular materials in accordance with Section 20-2.21 B (3) and shall be compacted in accordance with Section 20-2.21 B (2) except to a density of 95% standard proctor. Granular backfill shall be measured for payment according to standard drawing #2 of the standard specifications and paid for at the contract unit price per cubic yard for "selected granular backfill, compacted", except as modified herein. Backfill of water mains shall otherwise be governed by section 20-2.21B (1) of the "Standard Specifications for Water and Sewer Main Construction".

No clamps are allowed on the new water main, only cut-ins.

Testing. A two- hour test combining the pressure test and leakage test shall be made in accordance with sections 41-2.13A, 41-2.13B, 41-213B, AND 41-2.13C of the "Standard specifications for water and sewer main construction". The test pressure shall be 150 psi for a minimum of two (2) hours.

In addition, the CONTRACTOR shall conduct a system pressure leakage test after the two (2) hour test is completed. A twenty-four (24) hour metered leakage test shall be performed. The Village of Wilmette shall provide the meter and double check valve, and the CONTRACTOR shall provide the connection to the new main. The leakage test shall be performed at system pressure, and a maximum allowable leakage of four (4) gallons per inch diameter per 1,000 feet of pipe per twenty-four (24) hours shall be allowed as recorded on

the meter. If excessive leakage is encountered, the location of the leak shall be located and repaired, and the twenty-four (24) hour system leakage test shall be repeated at no additional cost until the leakage is within the specified allowance.

No bell clamps are allowed during pressure testing.

Final Connections to Existing Mains. Water mains and appurtenances must be completely installed, flushed, disinfected, and satisfactory bacteriological sample results received prior to permanent connections being made to the active distribution system. Sanitary construction practices must be followed during installation of the final connection, so that there is no contamination of the new or existing water main with foreign material or groundwater.

a. *Connections equal to or less than one pipe length (<18 ft)*: New pipe, fittings, and valve(s) required for the connection may be spray-disinfected or swabbed with a minimum 1-5% solution of chlorine just prior to being installed, if the total length of the connection from the end of a new main to the existing main is equal to or less than 18 ft.
b. *Connections greater than one pipe length (>18 ft):* Pipe required for the connection must be set up aboveground, disinfected, and bacteriological samples taken, as described in Section 5 of AWWA C651-99 if the total length of the connection from the end of a new main to the existing main is greater than 18 ft. after satisfactory bacteriological sample results have been received for the "predisinfected" pipe, the pipe can be used in connecting the new main to the active distribution system. Between the time the satisfactory bacteriological sample results are received and the time that the connection piping is installed, the ends of the piping must be sealed with plastic wraps, watertight plugs, or caps.

Chlorination. Before being placed into service, all new water mains shall be chlorinated in accordance with Sections 41-2.14B, 41-2.14C, 41-2.14C(1), 41-2.14C(2), and 41-2.14D of the "Standard specifications for water and sewer main construction".

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price per FOOT for DUCTILE IRON WATER MAIN of the size indicated on the plans and as specified herein, constructed as required, including polyethylene tube encasement, and granular bedding and cradle, all in accordance with the requirements and provisions as outlined above and in the Standard Specifications.

WATER VALVES

Description. This work shall consist of furnishing and installing gate valves of the size and type specified at the locations indicated on the plans or directed by the ENGINEER in accordance with the following provisions and the standard specifications.

Materials. All gate valves shall be resilient wedge type. Water gate valve shall be iron body, fully bronze mounted, and of ample strength to withstand and operate satisfactorily under 200 psi cold water working pressure, and shall be subjected to a 300 psi by hydrostatic test pressure, made in the shop. Water gate valves shall be mechanical joint and shall equal or exceed the requirements of the American Water Works Association. All valves shall be of non-rising stem type and shall be equipped with two-inch (2") square operating nuts. All valves shall open to the left or counterclockwise and shall conform to AWWA C-515 series 2500 Waterous or Mueller A-2360 with stainless steel trim bolts, and ASTM D-429 for the rubber to metal bond on the cast iron wedge. Gates will be epoxy impregnated in accordance with AWWA C550. Cathodic anodes shall be included for all valves.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price per EACH for WATER VALVES of the respective size listed in the "bidding schedule", which price shall be payment in full for all work as specified.

FIRE HYDRANTS TO BE REMOVED

Description. This work shall consist of the removal of existing fire hydrants, including auxiliary valves, and plugging and blocking of abandoned watermain as indicated on the plans or required by the ENGINEER. With Village's approval, the auxiliary valve can be left in place, closed, blocked, restrained, and used as a plug, but the Village/ENGINEER must witness they have been properly closed. The existing fire hydrants are not to be removed until after the new fire hydrants have been installed and satisfactorily tested. The fire hydrants to be removed shall become the property of the Village and shall be delivered to the Public Works Facility. The hole shall be backfilled with TRENCH BACKFILL, SPECIAL, which shall be incidental to this pay item.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per EACH for FIRE HYDRANTS TO BE REMOVED, which price shall be payment in full for all labor, equipment, and material, including backfill, necessary to complete the work as specified herein.

FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX

Description. This work shall consist of furnishing new fire hydrants of the type and size specified herein below at the locations indicated on the plans or otherwise directed by the ENGINEER.

Materials. Hydrants shall be of the compression or gate type conforming to the latest specifications of the American Water Works Association, C502, and shall be of a make that has been adopted by the owner as standard. Hydrants shall be designed for a 150 -pound working pressure. Hydrants shall be finished with two (2), two and one-half inch (2-1/2") hose nozzles, and one (1) four and one-half (4-1/2") steamer connection. Threads on nozzles and caps shall be national standard thread and shall conform to the standard adopted by the owner. Hydrants shall open by turning to the left or counter-clockwise and shall be so marked. All new fire hydrants furnished under this contract shall be made by a Factory Painted "Safety Red" color 5-1/4 Waterous Pacer Traffic Model WB67-250 with 5" Storz Nozzle and shall have traffic flange construction design with a break way flange and mechanism at the ground line. A detail of this hydrant is provided within this booklet.

Hydrants shall have a six-inch (6") pipe connection, shall be equipped with a (6") auxiliary valve, and shall have a five and one-quarter inch (5-1/4") valve opening. The auxiliary valve shall be attached to the hydrant by means of an 18" to 24" long, 6" spool piece with wedge type mechanical joint couplings. The joint for joining the auxiliary valve shall be fitted with a cast iron valve box of the same type as specified under standard drawing #14 of the Standard Specifications for Water and Sewer Main Construction in Illinois. The word "WATER" shall be on all valve boxes. A valve box stabilizer shall be rubber of the type Adapter Inc. Stabilizer and shall be installed between the valve box and the auxiliary valve.

A hydrant and valve box grip shall be furnished and installed to hold the valve box in place during the backfilling operation.

Installation. Hydrants shall be set at the locations indicated on the plans and shall be such length that with the frost ring nearly at the ground level, there will be five and one-half feet (5-1/2') of cover over the connecting pipe and the height of the nut on the cap is 18"-24" above the ground. At least four feet (4') of cover will be provided across ditches. Hydrants shall be placed on a large, flat stone, and shall have a minimum of one-half cubic yard (1/2cy.) of gravel or porous stone around the base to provide drainage for the hydrant drip. This shall include a 3-4 mil. plastic barrier, between the gravel drain field and the earth cover. All hydrants shall be properly braced to prevent movement. Any mechanical joint glands required on any mechanical joint fittings necessary for the installation of the hydrants shall be retainer-type glands. All hydrants shall be placed so that the steamer connection is facing the existing roadway.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per EACH for FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX, which price for all work as specified herein, and shall include up to five feet (5') of six inch (6") diameter pipe between the auxiliary valve and the water main.

CATCH BASINS, MANHOLES, OR INLETS

Description. This work shall consist of constructing catch basins, manholes or inlets, of the type, size, and depth specified (20-foot maximum), together with the necessary cast iron frames and lids, in accordance with Section 602 of the "Standard Specifications for Road and Bridge Construction" and the latest IDOT Highway Standards, except as specified herein.

All catch basins, manholes, or inlets shall be provided with flexible rubber boots for all pipes (both existing and proposed) to ensure a watertight seal between the pipe and catch basin, manhole, or inlet. The flexible rubber boots shall be Kor-N-Seal by National Pollution Control Systems and conform to ASTM Specification C-923. Each boot shall be included in the cost of CATCH BASINS, MANHOLES, or INLETS and will not be paid for separately. Sanitary manholes shall receive an external chimney seal and flexible rubber boot, which shall be included in the cost of SANITARY MANHOLE, SPECIAL.

Catch basins, manholes, or inlets constructed in a location where an existing structure was removed shall include five feet of pipe for each existing pipe location. Sewer pipe shall be PVC SDR-26, RCCP, or ductile iron in accordance with the Standard Specifications, and connections to the existing sewer shall be made using couplings with stainless steel shear rings. The pipe, couplings, and trench backfill shall be included in the cost of CATCH BASINS, MANHOLES, or INLETS and will not be paid for separately. All half-trap pipes installed inside Catch Basins, Manholes, or Inlets shall be considered incidental to this pay item.

All closed lids shall have the words "COMBINED", "STORM", or "SANITARY" cast into them, and all frames and lids shall be Neenah R-1713.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per EACH for CATCH BASINS, MANHOLES, or INLETS, of the type, size, and depth specified, with the specified frame and grates or lids, which price shall include all labor, material, and equipment necessary to complete the work as specified herein.

VALVE VAULTS, TYPE A, TYPE 1 FRAME, CLOSED LID

Description. This work shall consist of constructing valve vaults for water mains and water services in accordance with Section 44 of the latest edition of the "Standard Specifications for Water Construction in Illinois" and Section 602 of the latest edition of the "Standard Specifications for Road and Bridge Construction" except as modified herein.

In addition to the requirements of Sections 44-2.02, 44-301 and 602, valve vaults shall be constructed in accordance with IDOT Highway Standard 602501, Value Vault Type A. All lids for valve vaults shall be Neenah R-1713 and have the word "WATER" cast into them.

All valve vaults must include a minimum of 4-inches of adjusting rings, rubber boots and Mac Wrap.

When valve vaults are constructed over existing valve boxes and water main, the work shall include removing existing valve boxes and making any adjustments necessary to the existing water main and appurtenances to allow for the construction of the valve vault. This work shall be incidental to the price of constructing VALVE VAULTS, TYPE A, TYPE 1 FRAME, CLOSED LID.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per EACH for VALVE VAULTS, TYPE A, TYPE 1 FRAME, CLOSED LID, of the type and diameter specified, together with the specified frames, grates and lids, which price shall include all frames, grates, lids, rubber boots, Mac Wrap, concrete and reinforcement for median inlets, adjusting rings, bedding stone, steps, flat slab tops, and all excavation and backfill.

TEMPORARY CONCRETE WASHOUT FACILITY

Description. This work shall consist of constructing a barrier wall, earthen type, or straw bale temporary concrete washout facility at the locations shown on the plans or as determined in the field by the ENGINEER per the details shown in the plans.

Method of Measurement and Basis of Payment. This work will not be paid for separately but shall be included in the cost of MOBILIZATION.

SUMP PIT

Description. This work shall consist of constructing a sump pit as determined in the field by the ENGINEER per the details shown in the plans.

Method of Measurement and Basis of Payment. This work will not be paid for separately but shall be included in the cost of MOBILIZATION.

TRAFFIC CONTROL PLAN (DISTRICT 1)

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

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

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

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

STANDARDS: 701006-05, 701101-05, 701301-03, 701311-03, 701427-05, 701501-06, 701601-09, 701606-10, 701611-01, 701701-10, 701801-06, 701901-07

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

SPECIAL PROVISIONS:
Maintenance of Roadways
Changeable Message Sign, Special
Public Convenience and Safety (D-1)
Equipment Parking and Storage (BDE)
Temporary Pavement Marking (BDE)
Lights on Barricades (BDE)
Pavement Marking Removal (BDE)

TRAFFIC CONTROL AND PROTECTION (ARTERIALS)
Effective: February 1, 1996
Revised: March 1, 2011

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

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

Method of Measurement: All traffic control (except "Traffic Control and Protection (Expressways)" and temporary pavement markings) indicated on the traffic control plan details and specified in the Special Provisions will be measured for payment on a lump sum basis.

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

Temporary pavement markings will be paid for separately unless shown on a Standard.

FRAMES AND LIDS

Description. This work shall consist of furnishing and installing structure frame and grates of the types specified as shown on the plans, in accordance with Sections 602 and 604 of the Standard Specifications, and as determined by the ENGINEER. Type 1 frames and lids shall be Neenah R-1713 and shall be of a 'heavy duty' type and consist of the following:

Curb Inlets or Catch Basins

Frame & Open Lid: Shall read 'drains to waterways, dump no waste' including symbols.

For Sewer Manholes and Valve Vaults

Frame & Closed Lid: Shall be 'self-sealing' with neoprene gasket and 2 concealed pick holes.

All closed lids shall have the words "SANITARY", "STORM", "COMBINED", or "WATER" cast into them.

Method of Measurement and Basis of Payment. This work will not be paid for separately, but shall be included in the cost of the proposed structure.

MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION

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

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

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

Seven days prior to assuming maintenance of the existing traffic signal installation(s) under this contract, the CONTRACTOR shall request that the Resident ENGINEER contact the Cook County Design ENGINEER at (312) 603-1730 for an inspection of the installation(s). The Design ENGINEER shall establish a date and time of inspection and at this time shall check the installation to determine if any corrective work should be done by the State, the County, or the Municipalities Electrical Maintenance CONTRACTOR prior to the CONTRACTOR taking over the maintenance of the installation(s). The Resident ENGINEER, the Design ENGINEER, and the State, County, or Municipality Maintenance CONTRACTOR and the CONTRACTOR shall mutually agree on the date of maintenance transfer to the CONTRACTOR for this contract.

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

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

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

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

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

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

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

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

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

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

- Respond to all emergency calls from the Department or others within one hour after notification and provide immediate corrective action. When equipment has been damaged or becomes faulty beyond repair, the CONTRACTOR shall replace it with new and identical equipment. The cost of furnishing and installing the replaced equipment shall be borne by the CONTRACTOR at no additional charge to the State or County. The CONTRACTOR may institute action to recover damages from a responsible third party. If at any time the CONTRACTOR fails to perform all work as specified herein to keep the traffic signal installation in proper operating condition or if the ENGINEER cannot contact the CONTRACTOR's designated personnel, the ENGINEER shall have the State's or the County's Electrical Maintenance CONTRACTOR perform the maintenance work required. The State's or County's Electrical Maintenance CONTRACTOR shall bill the CONTRACTOR for the total cost of the work. The CONTRACTOR shall be responsible for all of the Electrical Maintenance CONTRACTOR's cost and liquidated damages of $1000 per day per occurrence. The CONTRACTOR shall pay this bill within thirty (30) days of the date of receipt of the invoice or the cost of such work will be deducted from the amount due the CONTRACTOR. The CONTRACTOR shall allow the Electrical Maintenance CONTRACTOR to make reviews of the Existing Traffic Signal Installation that has been transferred to the CONTRACTOR for Maintenance.

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

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

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

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

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

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

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

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

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per EACH for MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION, which price shall be payment in full for all materials, equipment, and labor necessary to maintain the existing traffic signals. Each intersection shall be paid for separately. Following the completion of the traffic signal maintenance transfer to the CONTRACTOR, 30 percent of the bid price will be paid. Following the traffic signal maintenance transfer to County, state and/or local agency, 30 percent of the bid price will be paid. The remaining 40 percent will be paid when all items on the punch list are done to the satisfaction of the ENGINEER.

ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR

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

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

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

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

Electric cable sized No. 12 AWG and smaller shall be solid.

The length of cable slack shall be in accordance with the District One Standard Traffic Signal Design Details (TS-05).

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

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

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

DETECTOR LOOP, TYPE 1

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

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

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

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

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

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

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

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

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

Type I:

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

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

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

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

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

COILABLE NON-METALLIC CONDUIT

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

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

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

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

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

RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON

Description. All existing signal items shall be removed and relocated per the ENGINEER. The installation shall be done according to the specifications for the specific item. Any damage done to the existing signal items or appurtenances shall be repaired or replaced by the CONTRACTOR and as directed by the ENGINEER.

When relocating an existing pedestrian push-button, the related sign shall be removed and installed at the new location. The push-button shall be installed according to Article 888.03. Mounting / extension brackets shall be used to assure that the push button is accessible from a paved or concrete surface and is in full compliance with ADA. The existing push-button hole shall be plugged. Mounting / extension brackets shall not be paid for separately, but shall be included in the cost of this work.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per EACH for RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON, which price shall be payment in full for disconnecting the existing Pedestrian Push-Button, relocating and connecting to the cable complete and operating to the satisfaction of the ENGINEER. The relocating and connecting the existing confirmation beacon shall be included in this work.

TELEVISION INSPECTION OF SEWER

Description. This work shall consist of full line video of all sanitary and storm sewer mains (MH to MH) within the projects scope, both preconstruction and postconstruction, for existing and proposed pipes.

Certification
NASSCO-certified televising is required.
All manhole inspections shall meet Level 1 NASSCO specifications.

CCTV Equipment
The CONTRACTOR shall provide a closed-circuit television (CCTV) and audio-video recording system for internal inspection of mainline sewers capable of producing picture quality to the satisfaction of the Village.

Preparatory Cleaning
The CONTRACTOR shall provide preparatory cleaning of the sewer section to permit unobstructed passage of the television camera and clean enough for the camera to discern structural defects, misalignment, and service lateral connections, points of infiltration and to the satisfaction of the ENGINEER.

Inspection Report
The CONTRACTOR shall ensure that a minimum of 90% of the internal pipe diameter is viewable for inspection and:

1) Move the camera at a speed no greater than 30 feet per minute and stopping at all defects and points of infiltration and pan as necessary to permit proper documentation of the sewer's condition.

2) When encountered the CONTRACTOR shall stop and thoroughly inspect each of the following:
    - Change in pipe material and/or sewer repair locations
    - Collapsed pipe, obstructions
    - Stop at all service connections
    - Missing portion of pipe wall
    - Sag, excessively deflected joint
    - Missing, damaged pipe
    - Protruding and break-in connections, and manufactured wyes or tees.

3) Stop televising if the camera becomes submerged and use high-pressure jetting or other means to lower water level within the sewer to a point below camera or provide temporary plugs or by-pass pumping as directed by the Village.

4) If the camera is unable to pass an obstruction even though flow is unobstructed, the CONTRACTOR shall also approach the obstruction from the other direction in order to obtain complete video on both sides of the obstruction. The CONTRACTOR shall

notify the ENGINEER whenever an obstruction is encountered. The ENGINEER will determine if the obstruction must be removed.

The CONTRACTOR shall:

1) Begin each recording with the current date and project name followed by general locations, manhole basin and number, manhole invert depth, direction of viewing and beginning footage count superimposed on the video signal. The recording shall also provide a continuous footage counter and manhole segment identifier on all video recordings.

2) Label all disks with the date, basin number, manhole number, and type of sewer. The digital files shall be labeled accordingly.

3) Provide inspection logs with:
   a. CONTRACTOR's name
   b. Inspector's name
   c. Date
   d. Basin #
   e. From MH #___
   f. To MH #_____
   g. Direction of flow
   h. Type of pipe material
   i. Joint spacing
   j. Manhole conditions
   k. Section length
   l. Diameter Pipe size
   m. Depth of upstream and downstream invert
   n. Direction of inspection (camera movement)
   o. Surface conditions (parkway or street)

4) Document the footage and clock orientation of all pipe defects, change in pipe material, infiltration, building service connections and any other abnormal conditions

5) Use terminology generally accepted by the industry

6) Provide computer generated entries on inspection logs

7) Complete inspection log in the field

8) Provide audio track describing all information documented in the inspection log.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price per FOOT for TELEVISION INSPECTION OF SEWER, which price shall be full compensation for all labor, equipment, and material to complete the work as specified in these special provisions.

FLASHING BEACON, POST MOUNTED, SOLAR POWERED INSTALLATION

Description. This item shall consist of installing a new post mounted, solar powered flashing beacon installation as shown on the plans and as described herein. The installation of a new post mounted, solar powered flashing beacon shall conform to divisions 800 and 1000 of the Standard Specifications for Road and Bridge Construction except as revised herein.

The Flashing Beacon, Post Mounted, Solar Power Installation shall be a fully compliant with all of the latest FHWA and MUTCD guidelines and consist of a redundant and secure System Server, Controller, Flashing Beacon, Activation Device, Post and Base.

1. System Server

The System Server shall be housed in one or more independent facilities with on-premises 24/7 security staff and Uninterruptible Power Supply ("UPS").

2. Controller

The Controller shall be the equipped with a GPRS/EDGE modem and GPS receiver attached to its antenna unit, and the system shall not require the installation or alteration of any other equipment or associated hardware, such as traffic signal controllers, Ethernet connections, local radios, local wireless connections or local networks.

3. Flashing Beacons

The flashing beacons shall be Rectangular Rapid Flash Beacons (RRFB) as shown on the plans.

Rectangular Rapid Flash Beacons

The RRFB housing shall contain two primary light bars mounted in compliance with Interim Approval IA-21 requirements, but exceeding the minimum 5" W x 2" H size and Interim Approval IA-21 total light emission requirements. In addition to the primary light bars, the housing shall have smaller secondary light bars mounted on each end for pedestrian notification, arrayed in a 0.4" W x 2" H rectangle. The secondary light bars shall have optional opaque covers if pedestrian notification from either or both ends of the housing is not desired. The overall dimensions of the RRFB unit shall be 29"W x 4"H x 1.5"D. The LEDs used in both the primary and secondary light bars shall be rated for a minimum 15-year life, and the light bars shall not protrude beyond the surface of the housing, shall not be mounted to the housing with exposed screws, and shall be covered with polycarbonate windows for durability and vandal resistance. The RRFB shall draw attention at distances greater than 1000 feet during the day and over 1 mile at night.

The RRFB housing shall be made of powder-coated aluminum with a minimum thickness of 0.125", and shall provide a mounting mechanism allowing for directional rotation of the primary light bars toward oncoming traffic at curves, corners, and roundabouts.

The Controller shall adjust RRFB brightness as outside light levels change between day and night, being brighter during the day and less bright at night.

4. Activation Device

The Controller shall be activated by a pushbutton mounted to the pole meeting the requirement of the MUTCD and Interim Approval IA-21.

5. Communication Protocols

Each Controller shall be equipped with a GPRS/EDGE modem and GPS receiver attached to its antenna unit.

For security and reliability purposes, communication between the System Server and the Controller shall utilize the closed-loop Transmission Control Protocol/Internet Protocol ("TCP/IP") over a highly secure Virtual Private Network ("VPN") in addition to the intrinsic security provided by the cell network encryption. Communication between the System Server and any desktop, notebook, netbook, tablet or smartphone running a mainstream browser, such as Internet Explorer, Firefox, Chrome or Safari ("Capable Device"), shall be via a secure (https) website and shall also use TCP/IP protocol, in this case encrypted using the same machinery employed in electronic funds transfer.

6. No Local Software

No local host or client software and its associated maintenance updates shall be required.

7. Remote Management

The Controller shall be remotely managed for purposes of activation duration setting and maintenance. Remote management shall be performed over a cellular M2M network and the internet, from anywhere an internet connection can be made by a Capable Device. Multiple users from any locations with internet access shall be able to perform system management operations simultaneously.

7. Intuitive User Interface

Using unique user names and passwords, users shall be able to access the graphical, browser-based User Interface ("UI").

For ease of system management, the UI shall use intuitive graphics, and the UI shall display an icon representing each Controller with its name and exact location on a Google Map.

Security access shall be hierarchical, and allow system administrators to assign system administrator, scheduler/editor or viewer-only permission to individual users.

9. On-Demand Activation, Test and

Reports

Each system shall provide on-demand activation of RRFBs for emergency or any other purposes; on-demand test of communication interruption (knockdown), battery health (solar only), Beacon outage, and activation reports through the user interface.

10. Proactive Diagnostics

Each system shall generate proactive daily RRFB outage, battery health and communication interruption (knockdown) diagnostics delivered by email to a configurable set of recipients.

11. Post and Base

The post shall be a 4-inch schedule 40 pipe 13 ft. long. One end of the pipe shall be threaded. The base shall be a Traffic Signal Post – Mounting Base – Type A as described in the "District One Standard Traffic Signal Design Details." Both the post and the base shall be hot-dipped galvanized with a black powder coated finish.

Mechanical and Electrical Specifications.

1. Enclosure

The Controller shall be housed in a vandal-resistant, aluminum, NEMA 3R pole-mounted cabinet with a lockable, hinged door.

2. Power

The Controller unit shall be available in solar 12 VDC, 35 AHr versions, each equipped with a 40W solar panel. Solar-powered systems shall provide a minimum of 15 days of back-up battery power in the absence of sunlight while operating at full brightness and at standard usage levels. The battery shall have a life span of a minimum of 5 years and be field replaceable.

Warranty. The Controller and RRFB Crosswalk Lighting System shall be supported by a two-year warranty.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price each for FLASHING BEACON, POST MOUNTED, SOLAR POWERED INSTALLATION. The price shall be payment in full for all labor and material necessary to complete the work described above.

STRUCTURES TO BE ADJUSTED

Description. This work shall consist of adjusting structures as noted below. All structures shall be adjusted to finished grade. This pay item shall be for adjusting valve vaults, which shall not be plated.

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."

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price per EACH for STRUCTURES TO BE ADJUSTED in accordance with the details, which shall include all labor, material, and equipment necessary to complete the above work as specified herein.

TEMPORARY PATCHING

Description. This work shall include the construction and removal of temporary pavement and necessary aggregate at locations shown in Stage 3 or as directed by the ENGINEER.

Temporary patching shall consist of 2 inches of Hot-Mix Asphalt Binder Course, IL-19.0, N70, and any necessary aggregate, constructed and compacted in accordance with Section 406 of the Standard Specifications. The temporary pavement shall be constructed at the same cross slope as the existing adjacent pavement. The temporary pavement may be placed and compacted in one lift.

Measurement and Payment. This work will be paid for at the contract unit price per SQUARE YARD for TEMPORARY PATCHING, which price shall be payment in full for labor, equipment, and material for the work as specified herein, which includes both the construction and removal of the temporary patching.

REMOVE AND REINSTALL BRICK PAVER

Description. This work shall consist of the removal, temporary storage, and security of existing brick/concrete pavers or stone sidewalk and reinstallation. Pavers deemed unsuitable shall be replaced with the same material in kind to the same or better condition as was prior to the removal at locations and to the limits as directed by the ENGINEER. Pavers shall be in accordance with Article 1041.03 of the Standard Specifications.

The CONTRACTOR will be required to furnish materials damaged during construction, surplus material for cutting, or needed to replace sidewalk surfaces to the same dimensions. It is the sole responsibility of the CONTRACTOR to determine the extent of work necessary prior to contract bidding and no additional compensation shall be provided. Brick/Concrete pavers or stone sidewalk that is to be reinstalled shall not be removed from the project limits.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price per SQUARE FOOT for REMOVE AND REINSTALL BRICK PAVER. Replacement of specialty sidewalk will be measured for payment in place, and the area computed in square feet. Furnishing and placing sand and replacement materials matching the existing surface type will not be measured for payment but shall be considered as included in the unit price bid.

LUMINAIRE (SPECIAL)

Description. This item shall consist of removing the existing luminaire and returning it to the Village and installing a proposed LED cobra head type luminaire on an existing light pole. The luminaire will be furnished by the Village, the contractor shall coordinate and pickup fixture at Public Works, located at 711 Laramie Avenue.

Materials and Construction Requirements. This work shall consist of electrically connecting a proposed Led luminaire with integral multi-volt electronic driver to a 120V, single phase, lighting system. Connection shall be made as indicated on the contract plan drawings and shall be in conformance with the Standard Specifications, NEC and local ordinances. Contractor to furnish and install splicing material, fuse holders, fusing, and pole wiring as shown on the drawings.

Measurement and Basis of Payment. This work shall be paid for at the contract unit price per EACH for LUMINAIRE (SPECIAL), which shall be payment in full for all work listed herein or as directed by the Engineer and coordinated with the Owner.

BRICK PAVER REMOVAL AND REINSTALLATION, SPECIAL

Description. This work shall consist of removing, temporary storage, and security of the existing brick pavers and base material and placing the brick pavers as described below upon replacement of the existing base. Pavers shall be in accordance with Article 1041.03 of the Standard Specifications. This item includes removing and properly disposing of failed sand, aggregate, bituminous, or concrete base material after the bricks have been removed. The ENGINEER shall determine the thickness of base course to be removed and replaced in the field after the bricks have been removed. The maximum thickness of the existing base course to be removed shall be considered to be 9 inches.

Brick pavers that are to be reinstalled shall not be removed from the project limits. Cleaning shall consist of removing all debris, mud, markings, etc. with water and a brush. In accordance with the typical sections, a three-quarter inch (3/4") layer of sand, gradation FA-2, shall be constructed and compacted with a hand compactor so that the finish is free of all undulations, ruts, tire mark and depressions. Prior to the placement of the brick pavers the ENGINEER shall visual inspect the driveway to receive the brick pavers. The CONTRACTOR shall repair any area deemed necessary by the ENGINEER by adding additional sand and compacting the area. The pattern of the brick pavers shall be identical to the existing driveway pattern prior to construction. Any damaged brick pavers or non-brick pavement shall be disposed of offsite.

Any brick pavers deemed unsuitable for installation shall be properly disposed of offsite by the CONTRACTOR at no additional expense to the VILLAGE. No additional compensation will be made for transporting and installing additional brick pavers required, but it shall be included in the unit cost for BRICK PAVER REMOVAL AND REINSTALLATION, SPECIAL.

If base course removal is required by the ENGINEER, the depth of CA-6 shall be determined by the ENGINEER and placed in two lifts, or as directed by the ENGINEER, and compacted with a hand compactor so that the finish is free of all undulations, ruts, tire mark and depressions. Upon completion of the stone base layer, a three-quarter inch (3/4") layer of sand, gradation FA-2 shall be placed and compacted with a hand compactor so that the finish is free of all undulations, ruts, tire mark and depressions. Prior to the placement of the brick pavers the ENGINEER shall visually inspect the portion of driveway to receive the brick pavers. The CONTRACTOR shall repair any area deemed necessary by the ENGINEER by adding additional sand and compacting the area.

The pattern of the brick pavers shall be identical to the pre-existing condition of the driveway prior to construction. The CONTRACTOR shall take a minimum of two photographs of each driveway prior to removing the brick pavers. Any damaged brick pavers shall be disposed of and will not be permitted to be installed. If a shortfall of brick pavers is encountered, the CONTRACTOR shall provide additional material as necessary and install any additional required brick pavers to complete the limits as noted on the plans. The additional brick pavers must match the existing material and be approved by the ENGINEER before installation. No additional compensation will be made for supplying and installing additional brick pavers

required, but it shall be included in the unit cost for BRICK PAVER REMOVAL AND REINSTALLATION, SPECIAL.

After the brick pavers have been removed, the driveway shall remain accessible at all time. Access to the existing driveways shall be maintained for the duration of the contract. The pay item TEMPORARY ACCESS, of the applicable type, has been included in the contract and shall be used for maintaining access to the existing driveways.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per SQUARE FEET for BRICK PAVER REMOVAL AND REINSTALLATION, SPECIAL, which price shall be payment in full for removing, cleaning, stacking, saw-cutting, and installing the brick pavers; supplying, transporting, and installing additional brick pavers supplied by the CONTRACTOR, if required, removing and disposing of base material, furnishing and installing the bedding layers of stone and sand, and all labor and all equipment and materials necessary to complete the work as specified herein. The payment area shall be the final installed width of only the driveway area where work was performed.

TRENCH BACKFILL, SPECIAL

Description. This work shall consist of furnishing, transporting, and installing aggregate for use as backfilling material for all trenches made in the sub-grade of the proposed improvement, and all trenches outside of the sub-grade where the inner edge of the trench is closer than two feet to the edge of the proposed pavement, curb, or sidewalk. This work shall be done in accordance with Section 208 of the Standard Specifications, except as modified herein.

Water Main:
Material used for water main trench backfill shall be of CA-7 or CA-11 gradation from the bottom of the bedding material to one-foot above the proposed water main pipe; additional backfill material shall be CA-6 from one-foot above the proposed water main pipe to finished grade. All trench backfill material shall meet the requirements of Article 1004.04 of the Standard Specifications, except crushed concrete and slag will not be allowed. The trench backfill shall be compacted in accordance with Method 1 described in Article 550.07 of the Standard Specifications. Method 2 (ponding) and Method 3 (jetting) will not be allowed.

Storm Sewer:
Material used for storm sewer trench backfill shall be of CA-7 or CA-11 gradation from the bottom of the bedding material to the springline of the proposed storm sewer pipe; additional backfill material shall be CA-6 from the springline of the proposed storm sewer pipe to finished grade. All trench backfill material shall meet the requirements of Article 1004.04 of the Standard Specifications, except crushed concrete and slag will not be allowed. The trench backfill shall be compacted in accordance with Method 1 described in Article 550.07 of the Standard Specifications. Method 2 (ponding) and Method 3 (jetting) will not be allowed.

All TRENCH BACKFILL, SPECIAL shall be paid for installation of aggregate to the pavement finished grade. This work shall also include the excavation and proper disposal of trench backfill material as needed to construct the proposed pavement.

Method of Measurement and Basis of Payment. This work shall be measured and paid for in accordance with Article 208.03 of the Standard Specifications at the contract unit price per CUBIC YARD for TRENCH BACKFILL, SPECIAL, which price shall include all labor, material, and equipment necessary to complete the work as specified herein, including all installation and any removal required to construct the proposed pavement.

DUCTILE IRON WATER MAIN FITTINGS

Description. This item shall include the furnishing and complete installation of "compact" ductile iron fittings with EBAA kit shown or indicated on the contract drawings, or required by constructing this improvement. The unit price bid shall include the fittings, the required jointing materials, and the cost of any cutting. Where fittings are called for on the contract plans, and the ENGINEER directs another fitting to be used, the weight of the actual fitting used shall be the basis of the theoretical weight of the body casting only, as set forth in the material suppliers published weights for ductile fittings. All such fittings furnished shall be "compact", mechanical joint, unless otherwise approved by the ENGINEER. All glands furnished shall be MEGA LUGS or TufGrips (Clow) retainer glands as described elsewhere in these specifications.

All ductile iron fittings shall conform in accordance with ANSI/AWWA C153/A21.53 for the mechanical joint, suitable for a maximum working pressure of three hundred fifty pounds (350lbs) per square inch.

Mechanical Joint Bolts. All bolts and nuts used on this project shall be 316 S.S. T- Head bolt and nut and no substitutes will be accepted.

Retainer Glands. Whenever any type of gland for making up a mechanical joint connection is required or specified under this contract, MEGA LUGS or TufGrips (Clow) retainer glands shall be furnished. No additional compensation will be allowed for furnishing and installing MEGA LUGS or TufGrips (Clow) retainer glands. Thrust blocks shall also be required at all mechanical joint fittings in addition to retainer glands.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price per POUND for DUCTILE IRON WATER MAIN FITTINGS, for which the weight of

the joint accessories will be included for payment. In any case, the weight per fitting allowable for payment shall not exceed the following:

Bends	Tees / Crosses	Miscellaneous
90° bend, 6" – 83 lbs	Tee, 6" x 6" – 125 lbs	Cut-In-Sleeve, 6" – 112 lbs
90° bend, 8" – 106 lbs	Tee, 8" x 6" – 175 lbs	Cut-In-Sleeve, 8" – 142 lbs
90° bend, 10" – 190 lbs	Tee, 8" x 8" – 185 lbs	Cut-In-Sleeve, 10" – 204 lbs
90° bend, 12" – 255 lbs	Tee, 10" x 6" – 250 lbs	Cut-In-Sleeve, 12" – 253 lbs
45° bend, 6" – 71 lbs	Tee, 10" x 8" – 260 lbs	Reducer, 8" x 6" – 95 lbs
45° bend, 8" – 105 lbs	Tee, 10" x 10" – 310 lbs	Reducer, 10" x 6" – 115 lbs
45° bend, 10" – 155 lbs	Tee, 12" x 6" – 325 lbs	Reducer, 10" x 8" – 130 lbs
45° bend, 12" – 215 lbs	Tee, 12" x 8" – 340 lbs	Reducer, 12" x 8" – 165 lbs
22.5° bend, 6" – 66 lbs	Tee, 12" x 10" – 390 lbs	Plug, 6" – 16 lbs
22.5° bend, 8" – 105 lbs	Tee, 12" x 12" – 410 lbs	Plug, 8" – 26 lbs
22.5° bend, 10" – 160 lbs		Plug, 10" – 36 lbs
22.5° bend, 12" – 220 lbs	Cross, 12" x 6" – 360 lbs	Plug, 12" – 46 lbs
11.25° bend, 6" – 63 lbs	Cross, 12" x 8" – 385 lbs	Cap, 6" – 15 lbs
11.25° bend, 8" – 110 lbs	Cross, 12" x 10" – 460 lbs	Cap, 8" – 25 lbs
11.25° bend, 10" – 160 lbs	Cross, 12" x 12" – 495 lbs	Cap, 10" – 35 lbs
11.25° bend, 12" – 220 lbs		Cap, 12" – 45 lbs

WATER MAIN REMOVAL

Description. This work shall consist of the removal of portions of the existing water main and capping of the portions that are to remain in place. This work shall be performed at locations shown on the plans and/or subject to the review of the ENGINEER.

Excavation required for water main removal shall be performed in accordance with the applicable portion of the Special Provision "Water Main in Trench, Ductile Iron" included herein. Water main removal shall end either at a joint or at a location where the existing pipe has been saw-cut so as to provide a smooth, even surface so as to allow a watertight joint. After removal of the existing pipe, the integrity of that portion which is to remain in place shall be checked by the ENGINEER to ensure that the pipe end has not been damaged. Additional removal required by non-compliance with this Special Provision will be performed at the CONTRACTOR's expense and no additional compensation will be allowed. The existing water main shall be capped at all locations where removal is specified. The valves that control the existing water distribution system may not be adequate to completely shut down the system and the CONTRACTOR should expect some residual pressure to be preset when the cap is installed.

If the excavation required for the removal operation falls within a paved area (existing or proposed), it shall be backfilled with TRENCH BACKFILL, SPECIAL in accordance with the applicable requirements of the Special Provision included herein. Backfill will not be measured for payment but shall be considered incidental to the contract unit price per lineal foot for water main removal of the diameter specified.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per FOOT for WATER MAIN REMOVAL, of the diameter specified, measured as removed. This price shall include excavation, capping of existing water mains that remain in place, and backfill as herein specified.

WATER MAIN LINE STOP

Description. This work shall consist of the placement of a self-contained unit as indicated on the plans for the purpose of installation of a valve and/or other connection with the existing water distribution system without interruption of service. This work shall be performed at the locations shown on the plans and as directed by the ENGINEER.

The line stop unit shall be a self-contained hydraulic (hand pump operated) ram. The line stopping device shall be of such a design, that when hydraulic pressure is applied, the rubber will expand and conform to the inside diameter of the pipe and tuberculation inside the main (if any) will be moved outside of the sealing area. The line stop shall be of the 'Short Stop' variety which will require removing only the top of the pipe during operation. All fittings shall employ an inside diameter thread, screw-type connection. After insertion of the plug, a screw-on cap shall be used and bolted down. The system shall be capable of containing a water pressure of 150 psi. Shop drawings for line stop sleeves shall be submitted for approval by the ENGINEER prior to delivery to the job site.

Basis of Payment. This work will be paid for at the contract unit price per EACH for WATER MAIN LINE STOP of the diameter specified, which price shall be payment in full for all excavation, saw cutting, legal disposal off-site of all excess material, trench backfill, labor, materials and equipment necessary to perform the work as herein specified.

WATER SERVICE REPLACEMENT

Description. This work consists of water service connection in accordance with Section 562 of Standard Specifications for Road and Bridge Construction (latest edition), except as revised herein.

The Contractor shall be required to have a licensed plumber make the tap into the water main. The Contractor shall also be required to provide an independent third party inspection by a licensed plumber with inspection report/documentation.

Any water service lines that are less than 5-foot in depth shall be insulated with minimum 2-foot wide by 4-inch thick insulation board meeting ASTM 578, Type VI, 40 PSI compressive strength per ASTM D1621, with 0.1% maximum water absorption per ASTM C272. All insulation board joints shall be overlapped. Backfill material around the insulation boards shall be fine sand (FA-7), free from roots, organic matter, leaves, and all other injurious materials.

Any adjustment to the installed water service lines due to proposed storm sewer construction shall be included in the cost of this item.

Water service 2" diameter and less:
Work shall consist of the disconnection of the existing water services from the existing water main, to and including the existing service box and curb stop, tapping the new water main, and extending new copper services perpendicularly from the new water main to the new service box to be installed in the parkway, as close to the old service box as possible, as shown on the Drawings and/or as directed by the ENGINEER.

All existing water services which are 3-inch in diameter will be changed to 4-inch services and reduced to 3-inch at the point of connection to the existing service.

Water service 4" or greater in diameter:
Work shall consist of the disconnection of the existing water service from the existing water main, installing appropriately sized tee fittings with an attached valve(s), and extending the new ductile iron service from the new water main to the new service box to be installed in the parkway, as close to the old service box as possible, as shown on the drawings and/or as directed by the ENGINEER.

All services 1" in diameter or less shall be tapped at a 1.5" diameter with a 1.5" diameter K Copper water service line installed to the roadway edge, at which point the water service line shall be reduced to the actual service diameter.

Ductile Iron Pipe Water Service:
All ductile iron pipe shall be thickness class 52 in accordance with AWWA Standard Specifications for Ductile Iron Pipe, centrifugally cast in Metal Molds for water or other Liquids - AWWA -C151 latest revision. The whole of the above Specifications shall apply. The pipe shall be furnished with push-on joints. All pipe shall be cement-mortar lined inside and bituminous-coated outside, in accordance with Sec. 51-8 - ANSI A21.51 (AWWA C104 and C151). All ductile iron pipe must be clearly marked by the manufacturer to indicate pipe classification or pipe thickness. Unmarked pipe will not be accepted.

Copper Pipe:
Copper pipe shall be copper water tube, Type K with Ford packs, soft temper, for underground service, conforming to ASTM-B88 and ASTM-B251 of the inside diameter indicated on the Drawings. 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 and minimum weight per foot of the pipe shall not be less than that listed in ASTM B251, Table 11.

For existing lead water service only, provide a minimum of 5 feet of straight copper water tube, potable water service tubing (CTS) to be included in the cost of the WATER SERVICE REPLACEMENT WITH NEW BUFFALO BOX, of the short/long side and diameter specified.

Stops and Fittings:
All corporation stops, curb stops, and connection couplings shall be fabricated of bronze alloy and shall be provided with outlets suitable for connections. All connections shall be made with flare-type couplings. Stops and fittings shall be as manufactured by Ford Co. and shall be in accordance with AWWA Specifications. The curb stops shall be Mueller No-Lead (Village of Wilmette Standard). Corporation stops and curb stops shall be the non-restricting ball valve type.

Curb Boxes:
The curb boxes shall be cast iron TYLER Curb Boxes, for rigid assembly, extension-type for 5'-6" bury or as required to make flush with the existing ground elevation. The boxes shall be complete with a lid marked 'WATER' and pentagon brass plug. Curb boxes shall be as manufactured by Mueller Co.

Shop Drawings for water system components shall be submitted for approval as soon as possible, but not less than thirty (30) calendar days prior to the time when the components are intended to be installed.

Care should be taken in installing new water services so as to have the least interruption of service to the water customer. This work will require disruptions of water service. The CONTRACTOR shall notify the ENGINEER not less than 48-hours in advance of planned disruptions. It should be noted that the water main will not be turned off for the installation of water services. It should also be noted that the Village of Wilmette Public Works personnel are the only persons authorized to turn on and off water main valves.

All water service lines shall be augered in place and shall be a minimum of five (5) feet in depth. Provide pipe insulation if cover is less than 5-feet (included in the cost of various pay Items). The CONTRACTOR may select a boring tool, mechanical drill or jack, at his option, to form the passage through the soil for insertion of water services under existing pavements. The size of the passage shall be just large enough to accommodate the service, but not so large to cause post-construction subsidence of the pavement. The service line shall be capped or plugged during the insertion process to prevent the entrance of soil. The insertion and receiving pits shall be backfilled in accordance with Section 208.

The replacement service line shall be one continuous length (no couplings in the new copper tubing will be allowed) and be of sufficient length to allow for some movement for trench settling after placement of the backfill material. CONTRACTOR shall keep the existing and new water service line clean during installation. Following installation, the service pipe shall be flushed clean prior to disconnecting the existing service. The connection of the new copper service to the existing service shall be completed at a point at least eighteen inches (18") from the new curb stop. The old curb stop shall be closed and disconnected from the new service line. After each service is reconnected, the CONTRACTOR shall verify that the water service is supplying adequate water. The CONTRACTOR will be charged for any labor and materials used by the Village of Wilmette Public Works to correct any problems that arise due to CONTRACTOR's efforts.

Method of Measurement. This work shall be measured per EACH for WATER SERVICE REPLACEMENT, of the type and diameter specified.

Basis of Payment. Water Service work will be paid for at the Contract unit price per EACH service connection for WATER SERVICE REPLACEMENT, 1.5" – SHORT, up to 2 inches in diameter, less than 40 LF in length, counted in place.

Water Service work will be paid for at the Contract unit price per EACH service connection for ATER SERVICE REPLACEMENT, 1.5" – LONG, up to 2 inches in diameter, 40 LF to 80 LF in length, counted in place.

The Contract unit price WATER SERVICE REPLACEMENT, of the short/long side and diameter specified, shall be payment in full for all materials, labor, and equipment required for: site preparation, including removal, replacement and/or repair of fences and other site objects; excavation, including removal and disposal of existing pipes, structures, and excess excavated materials; protection, support and repair of damage to existing utilities; support of installation pit walls; shoring and bracing; dewatering of installation pits; augering/boring/jacking of new service line, disconnection of existing water services from existing water main and extending new services from the new water main to the new service box to be installed in the parkway; new curb boxes, couplings, fittings, joint materials, corporation stops, tapping saddles, curb stops, service piping, and buffalo boxes; machine tapping of holes into new watermain; supply backfill material, backfill placement, compaction and compaction testing; disinfection; testing; correction of defects; any required adjustments per the ENGINEER; furnishing and installation insulation board; and other related work required to complete the installation which is not included under other Payment Items. Additionally, for WATER SERVICE 4 inches or greater, the price shall also include all tees (no tapping saddles allowed) and two (2) 4-inch or greater resilient wedge type valves and valve boxes per each long service, and one (1) 4-inch or greater resilient wedge type valve and valve box per each short service to match the diameter of the new service. Services less than or equal to 1 inch shall be replaced with a 1-inch diameter minimum service. Services less than or equal to 2 inches and greater than or equal to 4 inches shall be replaced with the same diameter as the existing service. Existing services greater than 2 inches and less than 4 inches shall be replaced with 4-inch services.

SANITARY MANHOLE, SPECIAL

Description. This work shall consist of all necessary measures, including wall coating, external or internal grouting, and reconstruction of bench and trough, to establish structural integrity and to eliminate the potential for inflow and infiltration to Sanitary Manholes.

Materials.

Patching Material. The following are approved for patching material: Strong Seal QSR; Quadex Hyperform.

Cementitious Coat. The following are approved for cementitious coat: Strong Seal MS-2A.

Visible Infiltration. Approved materials to stop visible infiltration are the following: Strong-Plug; Quadex Quad-Plug.

Severe Active Infiltration. Approved materials to stop severe active infiltration are the following: Hydrostop-Flex 40/500; Avanti AV-100; Deneef Denepox 40.

Grout. Grouting installation shall conform to ASTM F2414-04. Grout shall be Avanti AV-100 .

Manhole Casting. All closed lids shall have the word "SANITARY" cast into them as applicable. Casting shall be Neenah R-1713 frame and lid with seal.

Internal Chimney Seal. Sherwin Williams. Envirolastic AR530.

External Chimney Seal. Shall conform to ASTM C923 and shall be Cretex Classic.

Adjustment Rings. Shall be precast concrete. Adjustment rings of uniform thickness shall be at least two inches thick. The replacement precast grade adjustment shall provide a structural capacity equal to or greater than the existing specified manhole frame, and shall not affect the opening size or surface appearance.

Bitumastic Gasket Material shall meet or exceed Federal Specification SS-S-210A. Material shall be EZ-STIK.

Cover Insert (Inflow Dish). Shall be Cretex Inflow Dish or Rainstopper, made of HDPE conforming to ASTM D-1248, installed per manufacturer's recommendations.

Submittals. All materials sheets are to be submitted and approved before rehabilitation can proceed.

CEMENTITIOUS MANHOLE SEALING

Manhole sealing shall consist of all necessary measures to internally seal the manhole including cementitious wall coating, external or internal grouting, and reconstruction of bench/trough and shall establish structural integrity for the manhole and shall eliminate inflow and infiltration.

This work shall provide for a monolithic fiber-reinforced structural cementitious spray liner applied in two ½ inch lifts intended to seal the entire manhole structure. The spray liner shall be a complete manhole reconstruction that stops inflow and infiltration, providing a leak free structure, restoring structural integrity and providing protection against corrosion.

This specification shall govern all work, materials, and equipment required for manhole rehabilitation for the purpose of eliminating infiltration, exfiltration, providing corrosion protection, repair of voids, and restoration of the structural integrity of the manhole as a result of applying a monolithic fiber-reinforced structural cementitious liner to the adjustment, cone, wall and bench surfaces of brick, block, pre-cast or poured concrete, or other masonry construction material.

Described are procedures for cleaning, preparation, application and testing. The applicator, approved and trained by the manufacturer, shall furnish all labor, equipment and materials for applying a cementitious mix to form two coats of a structural monolithic liner of a minimum ½ inch thickness, with machinery specially designed for the application. All aspects of the installations shall be in accordance with the manufacturer's recommendation and per the following specifications which includes:

A. Remove loose and unsound material
B. Clean area to be sprayed
C. Eliminate infiltration
D. Repair and fill voids
E. Repair and seal bench trough/inverts
F. Spraying the cementitious monolithic liner

A. Remove loose and unsound material:

Loose and protruding brick, mortar and concrete shall be removed using a mason's hammer and chisel and/or a scraper. Any loose debris on the benches, inverts or walls of the manhole shall be removed by means of a scraper and vacuum machine or other approved method as long as it is taken from the manhole and not caused to go into the sewer. Any manhole steps shall be removed prior to cleaning the interior of the manhole. Place covers over invert to prevent extraneous material from entering the sewer lines before cleaning.

B. Clean area to be sprayed:

The CONTRACTOR shall clean the interior surfaces of manhole removing all debris, dirt, oil, grease, remains of old coating materials, and any other extraneous materials. The CONTRACTOR shall then pressure wash (minimum 3,000 psi) the manhole walls to remove loose mortar, concrete, roots, and debris. Heavy grease build-up or unusual conditions may require hydro-blasting or chemical cleaning. Loose and protruding brick, mortar and concrete shall be removed using a mason's hammer and chisel and or scraper.

C. Eliminate infiltration:
The following are approved for patching material: Strong Seal QSR; Quadex Hyperform. This quick setting fiber reinforced calcium aluminate corrosion resistant cementitious material, shall be used as a patching material and is to be mixed and applied according to manufacturer's recommendations and shall have the following minimum requirements:

Compressive Strength	ASTM C109	1400 psi, 6 hrs.
Bond	ASTM C882	>1600 psi, 28 days
Calcium Aluminate Cement		Sulfate resistant
Applied Density		105 lbs/ft3 ± 5
Shrinkage	ASTM C490	0% at 90% R.H.
Placement Time		5 to 10 minutes
Set Time		15 to 30 minutes

Approved materials to stop visible infiltration are the following: Strong-Plug; Quadex Quad-Plug. This rapid setting cementitious product specifically formulated for leak control, shall be used to stop minor water infiltration and shall be mixed and applied according to manufacturer's recommendations and shall have the following minimum requirements:

Compressive Strength	ASTM C109	>400 psi, 1hr.>1000 psi, 24 hrs.
Sulfate Resistance	ASTM C267	No wt loss, 15 cycles @2000 ppm
Freeze/Thaw	ASTM C666, Method A	100 cycles
Pull Out Strength	ASTM C234	14,000 lbs.
Set Time		<1.0 minute

Approved materials to stop severe active infiltration are the following: Hydrostop-Flex 40/500; Avanti AV-100; Deneef Denepox 40. Grouting installation shall conform to ASTM F2414-04. Grouting shall be performed anywhere where active infiltration cannot be stopped with the cementitious grout. All grouting work shall be considered included in the unit price bid payment item for SANITARY MANHOLE, SPECIAL.

D. Repair and fill voids:
The CONTRACTOR shall fill any large voids using one of the approved patching materials. Active Leaks shall be stopped using quick-setting, specially formulated mixes, according to manufacturer's recommendations. Some leaks may require weep holes to localize infiltration during the application. After application the weep holes shall be plugged with quick setting material. After repairing and filling voids and preparations are complete, remove all loose material and wash again. Any bench or invert repairs shall be made at this time using the quick-setting patching mix.

E. Repair and seal bench trough/inverts:
Invert repair shall be performed on all inverts with visible damage or where infiltration is present or when vacuum testing is specified. After blocking the flow through the manhole and thoroughly cleaning the invert, a quick-setting patch material shall be applied in an expeditious manner. The material shall be troweled uniformly onto the damaged invert at a minimum thickness of ½ inch at the invert extending out onto the bench of the manhole

sufficiently to tie into the structural monolithic liner to be spray applied. The finished invert shall be smooth and free of ridges. The flow may be re-established in the manhole within 30 minutes after placement of the material.

F. Spraying the cementitious monolithic liner:
Liner Material shall be Strong-Seal MS2-A and shall be made with a type I Portland cement base mix with alkaline resistant fiberglass reinforcement and shall be used according to manufacturer's recommendations. The cementitious liner shall be used to form a structural monolithic liner covering all interior manhole surfaces and shall have the following minimum requirements:

Compressive Strength	ASTM C109 28 days	>9000 psi
Tensile Strength	ASTM C496 28 days	>800 psi
Flexural Strength	ASTM C293 28 days	>1200 psi
Shrinkage @90% R.H.	ASTM C596 28 days	0%
Bond	ASTM C882 28 days	>2000 psi
Density, When Applied		134 ± 5lbs/ft3
Freeze/Thaw	ASTM C666	300 cycles no vis. damage

During application the surface shall be clean and free of all foreign material and shall be damp without noticeable free water droplets or running water, but totally saturated just prior to application of material. Materials shall be spray applied in two lifts, at least 24 hours apart. Minimum total thickness for each pass shall not be less than ½ inch and shall be from the bottom of the frame to the invert of the manhole. The surface shall then be troweled to a relatively smooth finish being careful not to over trowel. A brush finish shall be applied to the trowel-finished surface. Manufacturer's recommendations shall be followed whenever more than 24 hours have elapsed between applications.

After the walls are coated, the invert covers shall be removed and the bench sprayed with excess materials applied in such a manner that a gradual slope is produced from the walls to the invert with the thickness at the invert to be no less than ½ inch. The wall/bench intersection shall be rounded to a uniform radius the full circumference of the intersection. Trough area shall be coated as required to seal all cracks and to provide a smooth surface.

The material shall have minimum of four (4) hours cure time before being subjected to active flow. Ambient conditions in the manhole are adequate for curing as long as the manhole is covered. Traffic shall not be allowed over manholes for 12 hours after reconstruction is complete. Caution shall be taken to minimize exposure of applied product to sunlight, quick surface drying and air movement. At no time should the finished product be exposed to sunlight or air movement for longer than 15 minutes before replacing the cover. In extremely hot and arid climates, the manhole should be shaded while reconstruction is in process.

No application shall be made if ambient temperature is below 40 degrees Fahrenheit. No application shall be made to frozen surfaces or if freezing is expected to occur within the substrate within 24 hours after application. If the ambient temperatures are in excess of 95 degrees Fahrenheit, precautions shall be taken to keep the mix temperatures at time of

application below 90 degrees Fahrenheit. Water temperature shall not exceed 80 degrees Fahrenheit. Chill with ice if necessary. Final acceptance shall be made upon successfully passing a vacuum test ensuring that no leaks are present.

G. Testing:
Four two-inch cubes shall be cast each day from material used during the Manhole Sealing Cementitious installation process. Cubes shall be sprayed from the nozzle, properly packaged and labeled with the date made. One 2 X 2 inch cube from each batch of four shall be sent to an independent test laboratory for compression strength testing per ASTM C109 procedure. The cost for testing the two-inch cubes shall be considered incidental to the Contract.

The CONTRACTOR shall provide a wet film thickness gauge, with a minimum of ¼ inch graduated demarcations to provide for depth measurements anywhere on the interior surface of the manhole as indicated by the ENGINEER during the Manhole Sealing Cementitious installation process. The ENGINEER may even periodically perform a confined space entry to verify the depth of thickness separately from the CONTRACTOR measurements. There shall be no additional compensation to the CONTRACTOR for performing these depth measurements.

Method of Measurement and Basis of Payment. This work shall be considered included in the unit price per EACH for SANITARY MANHOLE, SPECIAL and shall include all labor and materials to rehabilitate the manhole as described in the above provisions (including bench and trough repairs).

CURTAIN GROUT MANHOLE, GROUT WALL JOINT, & CURTAIN GROUT BOTTOM 18"
This work shall govern all work, materials and testing required for chemical pressure grouting of manhole defects. Manhole structure grouting includes the sealing or plugging of the manhole base, walls, corbel/cone and chimney using chemical grout sealants to eliminate leakage. Chemical grout shall be injected into the soil surrounding the manhole as needed for complete sealing resulting in a grout curtain.

Curtain Grout Manhole: CONTRACTOR shall furnish all labor, supervision, materials, equipment and testing if required for the completion of chemical grout sealing of manhole defects in accordance with the Contract Documents. Manhole grouting shall not be performed until sealing of manhole frame and grade adjustments is complete.

> Equipment: The basic equipment shall consist of chemical pumps, chemical containers, injection packers, hoses, valves, and all necessary equipment and tools required to seal manholes by chemical pressure grouting. The chemical injection pumps shall be equipped with pressure meters that will provide for monitoring pressure during the injection of the chemical sealants. When necessary, liquid bypass lines equipped with pressure-regulating bypass valves will be incorporated into the pumping station.

Chemical Sealing Materials: The chemical grout shall be Avanti AV-100 which has a documented record of satisfactory performance in sewer usage. All grouting materials shall be delivered to the job site in the original, labeled, and unopened containers. The CONTRACTOR shall submit with his bid, the brand name manufacturer of the chemical grout(s) he intends to use. The chemical grout(s) selected by the CONTRACTOR is subject to approval of the ENGINEER.

Mixing and handling of chemical grout, which may be toxic under certain conditions, shall be in accordance with the recommendations of the manufacturer and in such manner to minimize hazard to personnel. It is the responsibility of the CONTRACTOR to provide appropriate protective measures to ensure that chemicals or gels are handled by authorized personnel in the proper manner. All equipment shall be subjected to the approval of the ENGINEER. Only personnel thoroughly familiar with the handling of the grout material and additives shall perform the grouting operations.

Preliminary repairs: All cracked or deteriorated material shall be removed from the manhole and the CONTRACTOR shall cut and trim all roots within the manhole. The CONTRACTOR shall seal all unsealed lifting holes, unsealed step holes, pre-cast manhole section joints, and voids larger than approximately ½" in thickness with a waterproof quick-setting mortar, Strong Seal QSR; Quadex Hyperform in accordance with the manufacturer's specifications.

Drilling and Injection: Injection holes shall be drilled through the manhole at 120-degree angles from each other at the same plane of elevation. Rows shall be separated no more than three vertical feet, and the holes shall be staggered with the holes in the rows above and below. Provide additional injection holes near observed defects, bench and trough and at pipe seals. At all visible leaks and areas with evidence of leaks within the manhole structure, a hole shall be carefully drilled from within the manhole and shall extend through the entire manhole wall. A minimum of 6 injection holes shall be provided in the walls/cone and three injection holes at each pipe seal and at the bench/trough.

Manholes shall be grouted completely from the top of the corbel or bottom of flattop to the pipe invert. Grout shall be injected through the holes under pressure with a suitable probe. Grout ports or sealant injection devices shall be placed in these previously drilled holes in such a way as to provide a watertight seal between the holes and the injection device. A hose, or hoses, shall be attached to the injection device from an injection pump. Grouting from the ground surface shall not be allowed. Grout travel shall be verified by observation of grout to defects or adjacent injection holes. Provide additional injection holes, if necessary to ensure grout travel. Care shall be taken during the pumping operation to ensure that excessive pressures do not develop and cause damage to the manhole structure or surrounding surface features. Grout shall be injected through the lowest holes first. The procedure shall be completed until the manhole is externally sealed with grout, resulting in a chemical grout curtain.

Sealing after grouting: Upon completion of the injection, all chemical grout material shall be removed from interior surfaces of the manhole. After grouting is completed, the grout ports shall be removed and the remaining holes shall be cleaned with a drill and filled with quick-setting hydraulic mortar and troweled flush with the surface of the manhole walls or other surfaces. The mortar used shall be a non-shrink patching mortar such as Strong Seal QSR; Quadex Hyperform. In addition to filling the holes the interior surface of the manhole shall be patched with a ½" thick quick setting mortar such as Strong Seal QSR; Quadex Hyperform. This coating shall cover at least 6" either side of the joint sealed or where injection holes were drilled.

Grout Wall Joint: The procedures for Grout Wall Joint shall be the same as listed above for a complete curtain grout manhole, but shall be limited to wall joints and/or areas with evidence of infiltration for each manhole indicated on the plans. Holes shall be carefully drilled from within the manhole and shall extend through the entire manhole wall. In cases where there are multiple leaks around the circumference of the manhole, fewer holes may be drilled, providing all leakage is stopped from these holes. Grout ports or sealant injection devices shall be placed in these previously drilled holes in such a way as to provide a watertight seal between the holes and the injection device. A hose, or hoses, shall be attached to the injection device from an injection pump. Grout travel shall be verified by observation of grout to defects or adjacent injection holes. Provide additional injection holes, if necessary to ensure grout travel.

Sealing after grouting wall joints shall be the same as above and shall include patching with a ½" thick quick setting mortar such as Strong Seal QSR; Quadex Hyperform and shall cover at least 6" either side of the joint sealed or where injection holes were drilled.

Curtain Grout Bottom 18": The procedures for Curtain Grout Bottom, 18" shall be the same as indicated above, but shall be limited to the bottom portion of the manhole. Pipe seal grouting shall include all pipe seals in the specified manhole and grouting of the bench/trough, wall/bench joint and walls to the maximum height of 18" from the crown of the pipe. Provide additional injection holes near observed defects, bench and trough and at pipe seals. At all visible leaks, a hole shall be carefully drilled from within the manhole and shall extend through the entire manhole wall. A minimum of three injection holes at each pipe seal and at the bench/trough shall be required.

Sealing after grouting manhole bottoms shall be the same as above and shall include patching with a ½" thick quick setting mortar such as Strong Seal QSR; Quadex Hyperform and shall cover at least 6" either side of each location sealed or where injection holes were drilled.

Final Acceptance: After the specified sealing work has been completed, the manholes shall be visually inspected by the CONTRACTOR (as required) in the presence of the Owner and ENGINEER and found to be acceptable.

Method of Measurement and Basis of Payment. The CONTRACTOR shall provide the necessary tools and equipment to complete all work as described above. This work shall be considered included in the unit price per EACH for SANITARY MANHOLE, SPECIAL.

REPAIR BENCH AND TROUGH

Invert repair shall be performed on all inverts with visible damage or where infiltration is present or when vacuum testing is specified. After blocking the flow through the manhole and thoroughly cleaning the invert, a quick-setting patch material shall be applied in an expeditious manner. The material shall be troweled uniformly onto the damaged invert at a minimum thickness of ½ inch at the invert extending out onto the bench of the manhole sufficiently to tie into the structural monolithic liner to be spray applied. The finished invert shall be smooth and free of ridges. The flow may be re-established in the manhole within 30 minutes after placement of the material.

The trough shall then be coated with a cementitious product such as Strong Seal MS2-A in the manner specified in Manhole Sealing (Cementitious).

Method of Measurement and Basis of Payment. This work shall be considered included in the unit price per EACH for SANITARY MANHOLE, SPECIAL. The Contract Unit Price shall be payment in full for performing the work and for furnishing all labor, supervision, materials, equipment, and testing necessary to complete the work.

REPLACE BENCH AND TROUGH

This item is for reconstruction beyond the standard rehabilitation provided under the cementitious wall coating.

This work item shall consist of the complete removal and reconstruction of the entire manhole bench and trough. The existing deteriorated bench and trough area shall be completely removed to a minimum depth of 12 inches below the existing invert. Care must be taken to avoid damaging other areas of the manhole structure. Loose and broken concrete shall be routinely removed from the manhole to eliminate the possibility of pieces entering the sewer lines. After removal of loose and broken concrete, CA-7, (¾-inch - 1-inch) washed limestone with no fines shall be installed to a depth of (8) eight inches as a base for the new bench and trough to be formed using Portland Cement Concrete, (PCC). Sanitary sewer service shall be maintained during bench and trough replacement. Minimum bench and trough thickness shall be 4 inches in depth.

All inverts shall be formed to the diameter of the incoming and outgoing pipe diameter up to the pipe centerline and vertical beyond that point. The invert shall be formed to a depth of one-half to two-thirds the pipe diameter. Inverts shall be formed with a PCC mortar material and steel-trowel to produce a dense, smooth finish and shape to form a "U"- shaped channel connecting the pipelines. The new invert shall provide smooth transitions for pipes of different sizes, different elevations, and/or at different angles. The CONTRACTOR shall form benches to provide self-cleaning by sloping normally two (2) inches from manhole wall to edge of "U" channel with a smooth finish. The trough shall be troweled so that the wetted surface is smooth. The invert of the trough shall form a continuous conduit with the sewer pipe entering and leaving the manhole provided that the pipe was originally constructed or intended to be constructed in this manner. Care shall be taken to prevent the degradation of freshly poured benches and troughs.

The bench and trough shall be furnished in such a manner so that a watertight seal exists between the manhole walls, pipe, and bench/trough area. The finished bench and trough shall be cleaned of silt, debris or foreign matter of any kind.

Method of Measurement and Basis of Payment. This work shall be measured and paid for at the contract unit price per EACH for SANITARY MANHOLE, SPECIAL, and shall include furnishing all labor, supervision, materials, equipment, and testing necessary to complete the work including removal of the existing defective bench and trough, and installation and sealing of the replacement bench and trough.

CONCRETE CURB, TYPE B (SPECIAL)

Description. This work shall consist of the construction of new Combination Concrete Curb and Gutter, Type B-4.12, including all necessary embankment and subbase granular material per the detail as shown in the plans and in accordance with Sections 311 and 606 of the Standard Specifications and as specified herein.

Construction Requirements. In addition to the requirements of Article 606.06 of the Standard Specifications the Contractor shall excavate all material necessary to build the proposed curb and gutter and proposed subbase in accordance with Section 202 of the Standard Specifications. The proposed subbase shall be subbase granular material, Type B of the thickness shown on the plans in accordance with Section 311 of the Standard Specifications. Backfill behind the proposed back of curb shall be in accordance with Section 205 of the Standard Specifications. Any existing pavement removed adjacent to the new curb and gutter shall be replaced with Class SI concrete to match the existing milled surface. Wood form boards must be a minimum of 2" x 10" for the front of curb and minimum 2" x 12" or double 2" x 6" for the back of curb. All replacement curb shall have a minimum flag thickness of 9" or meet existing thickness, whichever is greater. On streets that are grind and overlay, the pavement shall be saw cut 6" from the new gutter face to allow space for framing of new curb and gutter and a clean joint for Class SI Concrete fill.

Expansion joints shall be placed at a maximum spacing of 45 feet.
Contraction joints shall be placed at a maximum spacing of 15 feet.

The following items are to be considered incidental to the proposed Concrete Curb, Type B (Special):

- Class SI concrete fill for gap between pavement and proposed curb.
- Temporary aggregate fill for gap between pavement and proposed curb.
- Excavation to 6" behind the proposed Back of Curb.
- Suitable backfill materials, CA-6 if beneath driveway or sidewalk.
- Proposed ¾" preformed expansion joint at concrete sidewalks or driveways.
- 4" earth excavation and replacement with Subbase Granular Material, Type B 4".
- Longitudinal bars, if encountered in the existing curb or curb and gutter, are not to be replaced. Cutting and removing longitudinal bars shall be incidental to this pay item.
- Drill and grout 2 #6 epoxy coated dowel bars into the existing curb and gutter.
- Full-depth sawcutting of the curb as marked by the ENGINEER.

- Doweled expansion joints six foot on center on either side of structures within the section of curb being removed and replaced.

- Curb flares at drainage structures within proposed curb.

Method of Measurement and Basis of Payment. Combination Concrete Curb and Gutter, Type B-4.12, subbase material, Class SI concrete, incidental items listed above, and backfill, to construct the work as shown on the plans and as specified herein shall be measured and paid for at the contract unit price per foot for CONCRETE CURB, TYPE B (SPECIAL).

CHANGEABLE MESSAGE SIGN, SPECIAL

Description. This work shall consist of furnishing, installing, and removing off-site an Advanced Changeable Message Board in accordance Sections 701 and 1106 of the Standard Specifications. The Message Signs shall be placed at both ends of the project location, per the Detour Route shown in the plans, two weeks prior to construction commencing.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per CALENDAR MONTH for CHANGEABLE MESSAGE SIGN, SPECIAL, and shall include all materials, labor, and equipment to complete the work as specified herein.

CONCRETE FOUNDATION, STREET LIGHTING CONTROLLER

Description. This work shall consist of constructing and installing a 24-inch diameter concrete controller foundation where shown on the contract drawings.

Materials and Construction Requirements. The concrete foundation shall be constructed and installed per the details in the Contract Drawings, and in conformance with Section 836 of the Standard Specifications. Where soil conditions require support to prevent caving in of the shaft sidewall, the CONTRACTOR shall be responsible for furnishing and installing a full depth form liner at no additional cost.

Method of Measurement and Basis of Payment. Concrete foundation shall be measured for payment per each, along the vertical centerline of the foundation. This work shall be paid for at the contract unit price per EACH for CONCRETE FOUNDATION, STREET LIGHTING CONTROLLER which shall include all labor, materials, and equipment to complete the work specified herein.

ELECTRICAL SERVICE CONNECTION

Description. This item shall consist of providing all electrical connections within the relocated light pole including splice kits, fuse holders, new pole wiring and all connections.

Requirements. After the lighting has been relocated, the contractor shall route all new conduit/wire into the relocated light pole base utilizing the existing slots. The branch wiring shall be connected to the new branch circuit wiring. Work to be performed is shown in the contract plan drawings and shall be in conformance with the NEC and local ordinances.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price per EACH for ELECTRICAL SERVICE CONNECTION, which shall be payment in full for all work listed herein or as directed by the Engineer and coordinated with the Owner.

RELOCATE EXISTING LIGHTING UNIT, SPECIAL

Description. This item shall consist of providing all electrical connections within the relocated light pole including splice kits, fuse holders, new pole wiring and all connections.

Requirements. After the lighting has been relocated, the CONTRACTOR shall route all new conduit/wire into the relocated light pole base utilizing the existing slots. The branch wiring shall be connected to the new branch circuit wiring. Work to be performed is shown in the contract plan drawings and shall be in conformance with the NEC and local ordinances.

Method of Measurement and Basis of Payment. This work shall be include all labor and materials listed herein and as shown on the contract drawings and shall be paid for at the unit price per EACH for RELOCATE EXISTING LIGHTING UNIT, SPECIAL, to provide a complete and operational Relocated Lighting Unit.

CONTROLLER (SPECIAL)

Description: This item shall consist of installing a new 120/240V, 1Ø, 100 amp, pedestal mounted lighting controller. The lighting controller will be furnished by the Village, the CONTRACTOR shall coordinate and pickup controller at Public Works, located at 711 Laramie Avenue.

Materials and Construction Requirements: This work shall consist of installing the lighting controller on a proposed concrete foundation. The controller shall be electrically connected to the existing 120/240V, single phase electric service. Connection shall be made as indicated on the contract plan drawings and shall be in conformance with the Standard Specifications, NEC and local ordinances. CONTRACTOR to furnish all required materials for a complete and operational lighting controller which includes all material, fuse holders, fusing, and pole wiring as shown on the drawings.

Measurement and Basis of Payment: This work shall be paid for at the contract unit price per EACH for CONTROLLER (SPECIAL), which shall be payment in full for all work listed herein or as directed by the Owner.

HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3"

Description. This item of work shall comply with the applicable portions of Sections 406 and 440 of the Standard Specifications except as follows:

This work shall occur at locations shown on the plans and as specified by the ENGINEER and shall consist of grading and compacting the proposed 6" Aggregate Base Course, Type B, using extra aggregate fill as needed (no pavement grindings allowed), and paving with three inches (3") of HMA Surface Course, Mix "D", N50. The surface shall be installed in two lifts with each lift not less than 1.5". This item shall occur within ten days of the stripping of the concrete curb or sidewalk forms.

Where the asphalt driveway is an overlay of a concrete driveway, no extra compensation will be given for removal of the concrete base or placement of CA-6 aggregate to bring up to proper elevation 3" below proposed surface.

Saw cutting is the only permitted method for cutting butt joints in existing or new pavement. All butt joints shall be cut vertically, straight, and shall be free of debris. Jack hammering of butt joints is not permitted.

Where new driveway will be wider than existing driveway, CONTRACTOR shall excavate existing topsoil to provide 4" of compacted CA-6 prior to placing Driveway Pavement. Payment for this work shall be included in the unit price for this pay item.

This item of work shall comply with the applicable portions of Sections 406 and 440 of the Standard Specifications except as follows:

Prior to placing the driveway pavement, the CONTRACTOR will remove unsuitable sub-grade material and place any additional compacted CA-6 material, conforming to grade 8 or grade 9, to bring the sub-grade to proper elevation. The bituminous driveway pavement, of the specified thickness, shall be N50, Mix "D", meeting the requirements in Section 406 of the Standard Specifications. The surface shall be installed in two lifts with each lift not less than 1.5".

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per SQUARE YARD for HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3" of the thickness specified, which price shall be payment in full for constructing this item as specified herein, including any additional excavation and all saw cutting, as well as all labor, material, and equipment necessary to complete this work as specified herein. The payment area shall be the final installed width of only the driveway area where work was performed.

TEMPORARY SIDEWALK

Description. Where a known pedestrian generator, such as a school, neighborhood shopping center, downtown business district, church, or a known handicapped facility such as a nursing home exists, the ENGINEER may direct the CONTRACTOR to provide Temporary Sidewalk for overnight or weekend access.

Temporary Sidewalk shall be a minimum of 3 feet in width. Wider sidewalks may be needed where high pedestrian or handicapped movement exists. If the Temporary Sidewalk is to remain in place for more than four weeks, it shall be constructed with a minimum of 2 inches of Portland Cement Concrete or Hot-Mix Asphalt at the CONTRACTOR's option. Otherwise, the CONTRACTOR has the following options:

1. 2 inches of Portland Cement Concrete
2. 2 inches of Hot-Mix Asphalt
3. 3 inches minimum compacted aggregate (CA-6 gradation or other similar locally available aggregate approved by the ENGINEER)

Method of Measurement and Basis of Payment. All labor, equipment, and material necessary to complete this work as specified herein shall be paid for at the contract unit price per SQUARE FOOT for TEMPORARY SIDEWALK. This price shall include all labor, material, and equipment necessary for constructing, maintaining, and removing the temporary sidewalk per the ENGINEER.

DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED

Description. This work shall consist of adjusting structures as noted below. All structures shall be adjusted to finished grade, with all pavement structures being (steel) plated. This pay item shall be for adjusting all structures, excluding valve vaults. All sanitary manholes to be adjusted shall receive a new external chimney seal and flexible rubber boot.

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."

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price per EACH for DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED in accordance with the details, which shall include all labor, material, and equipment necessary to complete the above work as specified herein.

DRAINAGE & UTILITY STRUCTURES TO BE RECONSTRUCTED

Description. This work shall consist of replacing the existing (brick or block) cone and barrel sections on mainline storm sewers with concrete cone and barrel sections, per the ENGINEER. All manholes shall be provided with flexible rubber boots for all pipes to ensure a watertight seal between the pipe and catch basin or manhole. The flexible rubber boots shall be Kor-N-Seal by National Pollution Control Systems and conform to ASTM Specification C-923. . Each boot shall be included in the cost of this pay item and will not be paid for separately. This work shall be in accordance with Sections 503, 602, and 603 of the Standard Specifications.

Connections to the existing sewer shall be made using non-shear, flexible couplings with stainless steel shear rings. Couplings and pipe shall be included in the cost of this pay item and will not be paid for separately.

The space between the sides of the excavation and the outer surfaces of the catch basin, manhole, inlet or valve vault shall be backfilled with coarse aggregate.

Method of Measurement and Basis of Payment. This work shall be measured and paid for at the contract unit price per EACH for DRAINAGE & UTILITY STRUCTURES TO BE RECONSTRUCTED, which price shall include all labor, materials, and equipment necessary to complete this work as specified herein.

DRAINAGE STRUCTURE TO BE REMOVED

Description. This item shall be performed in accordance with applicable provision of Section 605 of the STANDARD SPECIFICATIONS. The word DRAINAGE shall be understood to mean catch basin, manhole, inlet, valve vault, and valve box inclusive.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per EACH for DRAINAGE STRUCTURE TO BE REMOVED, which price shall include all labor, material, and equipment necessary to complete this work as specified herein.

TEMPORARY SIGNING

Description. This work shall be performed in accordance with Section 720 and 729 of the Standard Specifications and per the ENGINEER.

This item is for additional traffic control and safety signage, such as pedestrian crossing signs, requested by the ENGINEER for use in the field that as shown on the Detour Route or Maintenance of Traffic plan sheets, such as "Sidewalk Closed Ahead" and "Sidewalk Closed – Use Other Side" signage.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per EACH for TEMPORARY SIGNING, which price shall include all labor, material, and equipment necessary to complete this work as specified herein, including the furnishing, installation, and removal of the sign panels and posts.

MAINTENANCE EXISTING LIGHTING SYSTEM COMPLETE

Description. Effective the date the CONTRACTOR's activities (electrical or otherwise) at the job site begin, the CONTRACTOR shall be responsible for the proper operation and maintenance of all existing and proposed lighting systems which are part of, or which may be affected by the work until final acceptance or as otherwise determined by the ENGINEER.

At least one week prior to the beginning of construction of the proposed street lighting system, the CONTRACTOR shall conduct an inspection of the existing lighting units with a representative of the agency responsible for maintenance. The inspection shall reveal defective lighting items such as cable, mast arms, luminaries, poles, and all other appurtenances that combine for a complete operating unit. The CONTRACTOR shall not be responsible for these items. The CONTRACTOR shall be held responsible for all items remaining defective at the completion of the contract that were not noted in the initial inspection report. Failure to coordinate or perform the initial inspection does not relieve the CONTRACTOR from this responsibility.

The CONTRACTOR shall become responsible for the maintenance of the existing lighting units on a date mutually agreed upon between the CONTRACTOR and the maintaining agency representative but no later than the beginning of any construction within the limits of this project. If any mobilization or any type of work begins on this project, the CONTRACTOR shall assume complete maintenance at that point and assume all deficiencies at their own expense. This maintenance shall remain in effect until written notice of final acceptance of the proposed lighting system is issued by the ENGINEER. Only after this requirement has been satisfied may the CONTRACTOR begin work on any existing lighting systems.

Maintenance of Existing Lighting Systems:

Existing lighting systems. Existing lighting systems shall be defined as any lighting system or part of a lighting system in service prior to this contract. The contract drawings indicate the general extent of any existing lighting, but whether indicated or not, it remains the CONTRACTOR's responsibility to ascertain the extent of effort required for compliance with these specifications and failure to do so will not be justification for extra payment or reduced responsibilities.

Existing Lighting Systems Requiring Maintenance.

Village of Wilmette – Locust Road Lighting System – Full Maintenance:
- Lighting Controller at west side of Locust Road south of Birchwood
- 22 light poles along Locust Road from Wilmette Avenue to Lake Avenue

Extent of Maintenance.

Partial Maintenance. Unless otherwise indicated, if the number of circuits affected by the contract is equal to or less than 40% of the total number of circuits in a given controller and the controller is not part of the contract work,

the CONTRACTOR needs only to maintain the affected circuits. The affected circuits shall be isolated by means of in-line waterproof fuse holders as specified elsewhere and as approved by the ENGINEER.

Full Maintenance. If the number of circuits affected by the contract is greater than 40% of the total number of circuits in a given controller, or if the controller is modified in any way under the contract work, the CONTRACTOR shall maintain the entire controller and all associated circuits (including sign lights).

Maintenance of Proposed Lighting Systems:

Proposed Lighting Systems. Proposed lighting systems shall be defined as any lighting system or part of a lighting system which is to be constructed under this contract.

The CONTRACTOR shall be fully responsible for maintenance of all items installed under this contract. Maintenance shall include, but not be limited to, any equipment failures or malfunctions as well as equipment damage either by the motoring public, CONTRACTOR operations, or other means. The potential cost of replacing or repairing any malfunctioning or damaged equipment shall be included in the bid price of this item and will not be paid for separately.

Lighting System Maintenance Operations:

The CONTRACTOR's responsibility shall include the maintenance of all lighting units (including sign lighting), cable runs, lighting controls and service. In the case of a pole knockdown or sign light damage caused by normal vehicular traffic, the CONTRACTOR shall promptly clear the lighting unit and circuit discontinuity and restore the system to service.

If the equipment damaged by normal vehicular traffic, not CONTRACTOR operations, is beyond repair and cannot be re-set, the CONTRACTOR shall replace the equipment in kind with payment made for such equipment under Article 109.04. If the equipment damaged by any construction operations, not normal vehicular traffic, is beyond repair and cannot be re-set, the CONTRACTOR shall replace the equipment in kind and the cost of the equipment shall be included in the cost of this pay item and shall not be paid for separately.

Responsibilities shall also include weekly night-time patrol of the lighting system, with patrol reports filed immediately with the ENGINEER and with deficiencies corrected within 24 hours of the patrol. Patrol reports shall be presented on standard forms as designated by the ENGINEER. Uncorrected deficiencies may be designated by the ENGINEER as necessitating emergency repairs as described elsewhere herein.

The following chart lists the maximum response, service restoration, and permanent repair time the CONTRACTOR will be allowed to perform corrective action on specific lighting system equipment.

INCIDENT OR PROBLEM	SERVICE RESPONSE TIME	SERVICE RESTORATION TIME	PERMANENT REPAIR TIME
Control cabinet out	1 hour	4 hours	7 Calendar days
Hanging mast arm	1 hour to clear	n/a	7 Calendar days
Radio problem	1 hour	4 hours	7 Calendar days
Motorist caused damage or leaning light pole 10 degrees or more	1 hour to clear	4 hours	7 Calendar days
Circuit out – Needs to reset breaker	1 hour	4 hours	n/a
Circuit out – Cable trouble	1 hour	24 hours	21 Calendar days
Outage of 3 or more successive lights	1 hour	4 hours	n/a
INCIDENT OR PROBLEM	**SERVICE RESPONSE TIME**	**SERVICE RESTORATION TIME**	**PERMANENT REPAIR TIME**
Outage of 75% of lights on one tower	1 hour	4 hours	n/a
Outage of light nearest RR crossing approach, Islands and gores	1 hour	4 hours	n/a
Outage (single or multiple) found on night outage survey or reported to EMC	n/a	n/a	7 Calendar days
Navigation light outage	n/a	n/a	24 hours

- **Service Response Time** -- amount of time from the initial notification to the CONTRACTOR until a patrolman physically arrives at the location.

- **Service Restoration Time** – amount of time from the initial notification to the CONTRACTOR until the time the system is fully operational again (In cases of motorist caused damage the undamaged portions of the system are operational.)

- **Permanent Repair Time** – amount of time from initial notification to the CONTRACTOR until the time permanent repairs are made if the CONTRACTOR was required to make temporary repairs to meet the service restoration requirement.

Failure to provide this service will result in liquidated damages of $500 per day per occurrence. In addition, the Department reserves the right to assign any work not completed within this timeframe to their Electrical Maintenance CONTRACTOR. All costs associated to repair this uncompleted work shall be deducted from the cost of the Contract.

Operation of Lighting

The lighting shall be operational every night, dusk to dawn. Duplicate lighting systems (such as temporary lighting and proposed new lighting) shall not be operated simultaneously. Lighting systems shall not be kept in operation during long daytime periods. The CONTRACTOR shall demonstrate to the satisfaction of the ENGINEER that the lighting system is fully operational prior to submitting a pay request. Failure to do so will be grounds for denying the pay request.

Measurement and Basis of Payment. This work shall be paid for at the contract LUMP SUM price for MAINTENACE EXISTING LIGHTING SYSTEM COMPLETE, which shall be payment in full for all work listed herein.

TEMPORARY CONSTRUCTION FENCE

Description. This work shall consist of furnishing and installing TEMPORARY CONSTRUCTION FENCE at the locations shown on the plans and per the ENGINEER in accordance with Section 201 of the Standard Specifications. TEMPORARY CONSTRUCTION FENCE shall be orange in color, and all limits shall be approved by the ENGINEER. The CONTRACTOR shall submit a material sample of the fencing to the ENGINEER for approval.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per FOOT for TEMPORARY CONSTRUCTION FENCE, which price shall include all labor, material, and equipment necessary to complete this work as specified herein.

STORM SEWERS, TYPE 1, WATER MAIN QUALITY PIPE

Description. This work consists of removing and constructing storm sewer of the specified diameter adjacent to or crossing water main, at the locations shown on the plans, meeting the material and installation requirements of the latest edition of the "Standard Specifications for Water and Sewer Main Construction in Illinois", and the applicable portions of Section 550 of the Standard Specifications.

Pipe materials shall meet the requirements of Section 40 and 41-2.01 of the "Standard Specifications for Water and Sewer Main Construction in Illinois". Ductile-Iron pipe shall meet the minimum requirements for Thickness Class 50. PVC pipe shall be SDR 26. All Water Main Quality pipe shall be PVC SDR 26 as shown on the plans unless otherwise stated by the ENGINEER in the field.

Rubber couplings will be required to join pipes of dissimilar materials and when a bell and spigot joint cannot be constructed.

Encasing of standard type storm sewer, in accordance with the details for "Water and Sewer Separation Requirements (Vertical Separation)" (DIV. V/STANDARD DRAWINGS) in the "Standard Specifications for Water and Sewer Main Construction in Illinois", may be used for storm sewers crossing water mains.

Method of Measurement and Basis of Payment. This work will be paid for in accordance with Article 550.09 of the Standard Specifications, except the pay item shall be STORM SEWERS, TYPE 1, WATER MAIN QUALITY PIPE, of the material and diameter specified, and shall be paid for at the contract unit price per FOOT, and shall include all materials, labor, equipment, rubber couplings, and encasing pipe with seals.

TRAFFIC SIGNAL WORK

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

The following Special Provisions supplement the above specifications, manuals, and code. The intent of these Special Provisions is to prescribe the materials and construction methods commonly used for traffic signal installations. All material furnished shall be new unless otherwise noted herein. The locations and the details of all installations shall be as indicated on the Plans or as directed by the ENGINEER. Traffic signal construction and maintenance work shall be performed by personnel holding IMSA Traffic Signal Technician Level II certification. The work to be done under this contract consists of furnishing and installing all traffic signal work as specified in the Plans and as specified herein in a manner acceptable and approved by the ENGINEER. In case of conflict with any part or parts of said documents, these Special Provisions shall take precedence and shall govern.

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

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

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

Control of Traffic Signal Materials.

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

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

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

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

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

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

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

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

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

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

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

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

The CONTRACTOR must submit the following for approval by the ENGINEER:

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

- Partial or incomplete submittal will be returned without review.

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

- Seven (7) complete shop drawings of the mast arm assemblies and poles including combination mast arm poles are required, showing in detail the fabrication, anchor bolts, reinforcing materials, design material, thickness of sections and weld sizes. These drawing shall be approved by IDOT at least 11" x 17" (275mm x 425mm) in size and adequate quality for microfilming.

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

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

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

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

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

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

- Exceptions, Deviations and Substitutions. In general, exceptions to and deviations from the requirements of the Contract Documents will not be allowed. It is the CONTRACTOR's responsibility to note any deviations from Contract requirements at the time of submittal and to make any requests for deviations in writing to the ENGINEER. In general, substitutions will not be acceptable. Requests for substitutions must demonstrate that the proposed substitution is superior to the material or equipment required by the Contract Documents. No exceptions, deviations or substitutions will be permitted without the approval of the ENGINEER.

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

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

Marking Proposed Locations.

Revise the following to Article 801.09 of the Standard Specifications:

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

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

Maintenance and Responsibility.

Revise Article 801.11 to read as follows.

Existing traffic signal installations and/or any electrical facilities at all or various locations may be altered or reconstructed totally or partially as part of the work on this Contract. The CONTRACTOR is hereby advised that all traffic control equipment, presently installed at these locations, may be the property of the State of Illinois, Department of Transportation, Division of Highways, Cook County Highway Department, Private Developer, or the Municipality in which they are located. Once the CONTRACTOR has begun any work on any portion of the project all traffic signals within the limits of this contract or those which have the item "Maintenance of Existing Traffic Signal Installation", "Temporary Traffic Signal Installation(s)" and/or "Maintenance of Existing Flashing Beacon Installation", shall become the full responsibility of the CONTRACTOR. Automatic Traffic Enforcement equipment is not owned by the County and the CONTRACTOR shall not be responsible for maintaining it during construction. The CONTRACTOR shall supply the ENGINEER and the Department's Electrical Maintenance CONTRACTOR a 24-hour emergency contact name and telephone number.

When the project has a pay item for "Maintenance of Existing Traffic Signal Installation", "Temporary Traffic Signal Installation(s)" and/or "Maintenance of Existing Flashing Beacon Installation", the CONTRACTOR must notify both the Design ENGINEER at (312) 603-1730 and the Department's Electrical Maintenance CONTRACTOR, of their intent to begin any physical construction work on the Contract or any portion thereof. This notification must be made a minimum of seven (7) working days prior to the start of construction to allow sufficient time for inspection of the existing traffic signal installation(s) and transfer of maintenance to the CONTRACTOR. If work is started prior to an inspection, maintenance of the traffic signal installation(s) will be transferred to the CONTRACTOR without an inspection. The CONTRACTOR will become responsible for repairing or replacing all equipment that is not operating properly or is damaged at no cost to the owner of the traffic signal. Final repairs or replacement of damaged equipment must meet the approval of the ENGINEER prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted.

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

Contracts such as pavement grinding or patching which result in the destruction of traffic signal loops may not require maintenance transfer, unless a pay item of "Maintenance of Existing Traffic Signal Installation" is included in the project. When the pay item of "Maintenance of Existing Traffic Signal Installation" is not included, the CONTRACTOR is required to notify of intent to work and an inspection. A minimum of seven (7) working days prior to the loop removal, the CONTRACTOR shall notify the Design ENGINEER at (312) 603-1730, the Department's Electrical Maintenance

CONTRACTOR and the owner of automatic traffic enforcement prior to the loop removal, at which time arrangements will be made to adjust the traffic controller timing to compensate for the absence of detection. Damaged Automatic Traffic Enforcement equipment, including cameras, detectors, or other peripheral equipment, shall be replaced by others, per Permit agreements or other agreements., at no cost to the contract except for City of Chicago projects in which the detectors shall be replaced. See additional requirements in these specifications under Inductive Loop Detector.

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

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

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

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

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

Damage to Traffic Signal System.

Add the following to Article 801.12(b).

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

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

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

Traffic Signal Inspection (Turn – On).

Revise Article 801.15b to read as follows.

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

b) When the road is open to traffic, except as otherwise provided in Section 850 of the Standard Specification, the CONTRACTOR may request a turn-on and inspection of the completed traffic signal installation at each separate location. This request must be made to the Design ENGINEER at (312) 603-1730 a minimum of seven (7) working days prior to the time of the requested inspection. The Department will not grant a field inspection until notification is provided from the CONTRACTOR that the equipment has been field tested and the intersection is operating according to Contract requirements. The CONTRACTOR must invite local fire department personnel to the turn-on when Emergency Vehicle Pre-emption (EVP) is included in the project. When the contract includes the item RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, OPTIMIZE TRAFFIC SIGNAL SYSTEM, or TEMPORARY TRAFFIC SIGNAL TIMINGS, the CONTRACTOR must notify the SCAT Consultant of the turn-on schedule, as well as stage changes and phase changes during construction.

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

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

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

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

g) All punch list work shall be completed within two (2) weeks after the final inspection. The CONTRACTOR shall notify the Design ENGINEER at (312) 603-1730 to inspect all punch list work. Failure to meet these time constraints shall result in liquidated damage charges of $500 per month per incident.

h) All cost of work and materials required to comply with the above requirements shall be included in the pay item bid prices under which the subject materials and signal equipment are paid and no additional compensation will be allowed. Materials and

signal equipment not complying with the above requirements that have been installed on the job will be at the CONTRACTOR's own risk and shall be subject to removal and disposal at the CONTRACTOR's expense.

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

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

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

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

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

At the final inspection it will be required that the CONTRACTOR will have submitted to the ENGINEER all necessary inspection tickets for all new equipment and materials installed under this Contract. If the CONTRACTOR has not obtained the inspection tickets on any portion of the new equipment and materials, the representative of this Department will have the authority to postpone the final inspection until the above has been satisfied. Any postponement of the final inspection for this reason shall not relieve the CONTRACTOR of his full maintenance responsibilities until such time as the installation is re-inspected and accepted by the County.

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

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

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

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

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

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

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

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

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

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

4) All Manufacturer and CONTRACTOR warranties and guaranties required by Article 801.14.

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

RECORD DRAWINGS

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

a. When the work is complete, and seven days before the request for a final inspection, the full-size set of contract drawings. Stamped "RECORD DRAWINGS", shall be submitted to the ENGINEER for review and approval and shall be stamped with the date and the signature of the CONTRACTOR's supervising ENGINEER or electrician. The record drawings shall be submitted in PDF format on CDROM as well as hardcopy for review and approval. If the contract consists of multiple intersections, each intersection shall be saved as an individual PDF file with TS# and location name in its file name.

b. In addition to the record drawings, copies of the final catalog cuts which have been Approved or Approved as Noted shall be submitted in PDF format along with the record drawings. The PDF files shall clearly indicate the pay item either by filename or PDF Table of Contents referencing the respective pay item number for multi-item PDF files. Specific part or model numbers of items which have been selected shall be clearly visible."

Add the following to Article 801.16 of the Standard Specifications:

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

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

Datum to be used shall be North American 1983.

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

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

Examples:

Date	Item	Description	Latitude	Longitude
01/01/2015	MP (Mast Arm Pole)	NEQ, NB, Dual, Combination Pole	41.580493	-87.793378
01/01/2015	HH (Handhole)	Heavy Duty, Fiber, Intersection, Double	41.558532	-87.792571
01/01/2015	ES (Electrical Service)	Ground mount, Pole mount	41.765532	-87.543571
01/01/2015	CC (Controller Cabinet)		41.602248	-87.794053
01/01/2015	RSC (Rigid Steel Crossing)	IL 31 east side crossing south leg to center HH at Klausen	41.611111	-87.790222
01/01/2015	PTZ (PTZ)	NEQ extension pole	41.593434	-87.769876
01/01/2015	POST (Post)		41.651848	-87.762053
01/01/2015	MCC (Master Controller Cabinet)		41.584593	-87.793378
01/01/2015	COMC (Communication Cabinet)		41.584600	-87.793432
01/01/2015	BBS (Battery Backup System)		41.558532	-87.792571

Prior to the collection of data, the CONTRACTOR shall provide a sample data collection of at least six data points of known locations to be reviewed and verified by the ENGINEER to be accurate within 1 feet. Upon verification, data collection can begin. Data collection can be

made as construction progresses, or can be collected after all items are installed. If the data is unacceptable the CONTRACTOR shall make corrections to the data collection equipment and or process and submit the data for review and approval as specified.

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

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

Location of Underground State and County Maintained Facilities.

Revise Article 803 to read as follows.

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

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

Restoration. All areas and plant material damaged by the installation of Traffic Signal posts, mast arm poles, underground cables or conduits, handholes and control cabinets shall be replaced as follows:

- Grass Areas: Replace top soil to a depth of four (4) inches (100 mm), re-grade shoulders, ditch slopes, and open areas back to former existing grades, fertilize, seed and mulch all damaged areas.

- Sod Areas (areas adjacent to residential, commercial and industrial properties and any other areas as directed by the ENGINEER): Fertilize and re-sod damaged areas.
- Plant Materials: Remove and replace damaged trees, shrubs and vines with the same varieties that existed prior to damage.

- Shoulders other than Stabilized and Backslopes, medians, sidewalks, pavement, etc.: Replace shoulder to original condition and restore edge of backslope to original lines and grades. Medians, sidewalks and pavement shall be replaced in kind.
- All brick pavers disturbed in the work area shall be restored to their original configuration or as directed by the ENGINEER. All damaged brick pavers shall be replaced with a comparable material approved by the ENGINEER

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

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

Bagging Signal Heads.

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

TEMPORARY TRAFFIC SIGNAL TIMING

Description. This work shall consist of developing and maintaining appropriate traffic signal timings for the specified intersection for the duration of the temporary signalized condition, as well as impact to existing traffic signal timings caused by detours or other temporary conditions.

All timings and adjustments necessary for this work shall be performed by an approved Consultant who has previous experience in optimizing Closed Loop Traffic signal Systems for the County. The CONTRACTOR shall contact the Traffic Signal ENGINEER at (312) 603-1730 for a listing of approved Consultants.

The following tasks are associated with TEMPORARY TRAFFIC SIGNAL TIMINGS.

(a) Consultant shall attend temporary traffic signal inspection (turn-on) and/or detour meeting, if needed and conduct on-site implementation of the traffic signal timings.

(b) Make fine-turning adjustments to the timings in the field to alleviate observed adverse operating conditions and to enhance operations.

(c) Consultant shall provide monthly observation of traffic signal operations in the field.

(d) Consultant shall provide on-site consultation and adjust timings as necessary for construction stage changes, temporary traffic signal phase changes, and any other conditions affecting timing and phasing, including lane closures, detours, and other construction activities.

(e) Consultant shall make timing adjustments and prepare comment responses as directed by the Traffic Signal ENGINEER.

(f) Return original timing plan once construction is complete.

Method of Measurement and Basis of Payment. The work shall be paid for at the contract unit price EACH for TEMPORARY TRAFFIC SIGNAL TIMING, which price shall be payment in full for performing all work described herein per intersection. When the temporary traffic signal installation is turned on and/or detour implemented, 50 percent of the bid price will be paid. The remaining 50 percent of the bid price will be paid following the removal of the temporary traffic signal installation and/or detour.

PRECONSTRUCTION VIDEO TAPING

Description. This work consists of providing high quality color video and audio recording of construction areas prior to the start of construction, including coverage of all areas that will be affected by the construction or installation of pipelines such as streets, driveways, sidewalks, fences, trees or plantings, or other items that may be damaged or have to be removed and replaced as part of the construction.

The CONTRACTOR shall provide high energy, high quality, color videos on DVD format. Each video shall begin with current date, project name, and Owner, followed by descriptions of the general location, street names, addresses, and data that describes location and subject of viewing. The video shall be taped at a rate of speed not exceeding 48 feet per minute and panning rates and zoom-in or zoom-out rates shall be controlled to provide clarity of object during playback. The finished product shall be provided with bright, sharp, clear pictures and accurate colors free from distortion, tearing, rolls, or other forms of picture imperfection. The audio shall have proper volume and clarity. All recording shall be done at good times of visibility, and when no more than 10 percent of snow or fallen leaf cover is present. The areas shall not be recorded earlier than 6 months prior to the start of construction.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract LUMP SUM price for PRECONSTRUCTION VIDEO TAPING.

SANITARY SERVICE TO BE ADJUSTED

Description. The work of this pay item consists of the removal, replacement, and relocation of sanitary sewer service lines above the water main at the crossing location complete in place, including connections to the existing service lines; couplings; excavation; bracing; bedding and covering of pipe; trench dewatering, including erosion and sedimentation control methods and devices to provide protection to environment from all pumping operations; finish grading; removal and disposal of waste excavated materials; protection, replacement, or repairs of utilities; and backfilling with granular backfill materials. The CONTRACTOR shall hand-dig at all locations where the sanitary service crosses proposed water main or storm sewer.

Method of Measurement and Basis of Payment. The work will be paid for at the contract unit price per EACH for SANITARY SERVICE TO BE ADJUSTED, regardless of the depth, length, size, or pipe material of the sanitary sewer service.

TEMPORARY FIRE HYDRANT

Description. This work shall consist of installing temporary fire hydrants at the locations designated on the plans for the purpose of flushing the newly installed water main clean at a velocity of 2.5 feet/second. The temporary fire hydrants shall be installed in accordance with the specification included in this booklet for FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX, which shall consist of installing the hydrant, flushing the new water main in accordance with the specifications herein to the approval of the ENGINEER, removing and salvaging the hydrant, and capping the end of the tee.

Prior to the final water main interconnections, the CONTRACTOR shall remove the temporary fire hydrant, store it in a safe location, and contact the Village for pick up.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per EACH for TEMPORARY FIRE HYDRANT, which price shall include all labor, material, and equipment necessary to complete the work as specified herein.

ROOT BARRIER

Description. This shall consist of installing tree root barrier/root deflector at the locations determined by the ENGINEER. The Root Inhibitor Fabric shall be 24" long x 12" deep x 0.80" thick, and shall be recyclable, black, injection molded panels, manufactured with 75% reprocessed polypropylene with added ultraviolet inhibitors.

The ENGINEER shall approve all materials prior to installation.

Method of Measurement and Basis of Payment. This work shall be measured and paid for at the contract unit price per EACH for ROOT BARRIER, which price shall include all labor, materials, and equipment necessary to complete this work as specified herein.

AS-BUILT DRAWINGS

Description. At the completion and acceptance of the work, the CONTRACTOR shall perform an 'as-built' survey of the newly installed water main and storm sewer, as well as the proposed roadway.

The survey shall provide, a minimum, the following information:

1. Locations and elevations of all storm structures, hydrants, valves, tees, bends, b-boxes, curb stops, addresses, roads labeled, and reducers tied into the right-of-way.
2. The base sheets should be the design drawings.
3. The storm sewer and water main sizes should be clearly labeled.
4. The proposed alignment of the storm sewer and water main should be turned off.
5. If any repairs or solid sleeves are needed shall be located.
6. Roadway cross sections in 50-foot intervals from back of curb to back of curb.

The CONTRACTOR will turn over 5 paper copies of a full size (24"x36") plan set to the Village. The minimum scale will be 1"=20". Two copies of the digital files in MicroStation, GIS, and PDFs on a CD are also required.

Method of Measurement and Basis of Payment. This item will be included in the cost of CONSTRUCTION LAYOUT, which price shall be payment in full for all services, materials, labor and other items to complete the work.

NON-PRESSURE CONNECTION

Description. This work shall consist of the furnishing of all labor, tools, and equipment necessary to affect a connection to the existing water main and/or the disconnection of an existing water main, intended to be otherwise abandoned, or taken out of service upon completion of this project. All work shall be in accordance with the Standard Specifications.

Construction Requirements. The CONTRACTOR shall coordinate a minimum of 48 hours in advance with the Village Water Superintendent for a shutdown connection of the existing water main within the area affected by this work. All materials shall be on hand before work is undertaken so a minimum of time is necessary to complete the work required. **Only** unit price per EACH **Village Water Department Personnel** will be in charge of closing system valves, but the CONTRACTOR will lend assistance necessary to expedite the shutdown. When it becomes necessary for a system shutdown, the ENGINEER may direct the CONTRACTOR to distribute "**NOTICES**" door to door.

The CONTRACTOR shall furnish all pipe fittings, required jointing materials, and all labor necessary to complete the connection as specified. This includes, but is not limited to, necessary plugs and corporation stops. An MJ x MJ ductile long solid sleeve shall be used as a cut-in-sleeve. All fittings and pipe that are installed under this item shall be placed on a granular bedding a minimum of six inches (6") in thickness. Pipe fittings shall also be paid for under a separate item in the contract. Whenever a connection is made and a portion of the existing system will not be subject to the chlorination procedure for the new main, the CONTRACTOR shall provide tablet disinfection procedures as described in Section 41-2.14C (3) of the Water and Sewer Specifications. Any granular backfill will be paid for under a separate item in the Contract. All other items required for restoration (i.e. pavement patches, sodding, etc.) will be paid for under the specific pay item in the Contract. After the connection has been made, a visual inspection shall be made for leaks under system pressure, irrespective of the pressure test that may be required under other provisions in the Contract. If no visual leaks are detected, the excavation shall be backfilled with materials as directed by the ENGINEER.

Method of Measurement and Basis of Payment. The work shall be paid for at the contract unit price per EACH for NON-PRESSURE CONNECTION, which price shall be payment in full for all work as specified. Any water main removed to cut and/or cap an existing water main shall be incidental to this item. Payment shall only be made once per location for this; cutting and capping does not constitute separate payments per each but constitutes one payment. As an example, the act of cutting and capping the existing water main shall be one payment.

WATER MAIN TO BE ABANDONED

Description. This work shall consist of abandoning the existing water main and all corresponding appurtenances as shown on the plans. Existing valves and valve boxes to be abandoned shall have the top section of the valve box and cover removed and the valve closed. The Village/ENGINEER must witness they have been properly closed prior to abandonment of existing water main. Existing valve vaults to be abandoned shall have the frame and lid removed (salvage to Public Works) and the cone section removed. The vault is to be backfilled with granular materials.

Method of Measurement and Basis of Payment. The work will be paid for at the contract LUMP SUM price for WATER MAIN TO BE ABANDONED, regardless of the depth, length, size, or pipe material of the existing water main and all appurtenances.

MAST ARM AND INSTALLATION TYPE 1

Description. This item shall consist of removing the existing lighting mast arm and returning it to the Village and installing a new mast arm on an existing light pole. The lighting mast arm will be furnished by the Village, the CONTRACTOR shall coordinate and pickup fixture at Public Works, located at 711 Laramie Avenue.

Materials and Construction Requirements. This work shall consist of mechanically connecting a proposed Lighting mast arm to the existing concrete pole that is to be relocated. Connection shall be made as indicated on the contract plan drawings and shall be in conformance with the Standard Specifications, NEC and local ordinances. CONTRACTOR to furnish all labor to wire proposed luminaire as specified elsewhere thru the new mast arm.

Measurement and Basis of Payment. This work shall be paid for at the contract unit price per EACH for MAST ARM INSTALLATION TYPE 1, which shall be payment in full for all work listed herein or as directed by the ENGINEER.

SPRINKLER SYSTEM REPAIR

Description. This work shall consist of repairing lawn sprinkler systems damaged by construction operations to the full extent. The CONTRACTOR shall remove and properly dispose of damaged system materials and furnish and install sprinkler system replacement lines, fittings, and heads of the same or better quality as approved by the ENGINEER.

Sprinkler system repairs shall be made by an experienced CONTRACTOR specializing in lawn sprinkler system installation, maintenance, and repair. The CONTRACTOR shall coordinate all repairs with the Village to obtain the contact information for the individual sprinkler system owners to obtain access to control for flushing and testing; under no circumstance shall the Village or ENGINEER take responsibility for scheduling repairs. The Department will not make payment for system repairs until after individual system owners have indicated in writing that their system has been satisfactorily repaired.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per EACH for SPRINKLER SYSTEM HEAD and at the contract unit price per FOOT for SPRINKLER SYSTEM LINE.

This work will only be paid for when the damaged materials are within 1-foot of a proposed improvement. Damages that occur outside of 1-foot from proposed improvements shall be replaced by the CONTRACTOR at his/her own expense.

Payment shall include all types and sizes of sprinkler system materials. Fittings and all other components necessary to make system repairs to the full extent will not be paid for separately, but shall be considered as included in the contract unit prices for SPINKLER SYSTEM HEAD and SPRINKLER SYSTEM LINE, including all labor, material, and equipment necessary to complete this work as specified herein.

(D-1) AGGREGATE SUBGRADE IMPROVEMENT
Effective: February 22, 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 gradation CS 01 but shall not exceed 40 percent by weight of the total product. The top size of the Coarse 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 gradation CS 01 is used in lower lifts. When RAP is blended with any of the coarse aggregates, the blending shall be done with mechanically calibrated feeders. The final product shall not contain more than 40 percent by weight of RAP.

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. The calibration for the mechanical feeders shall have an accuracy of ± 2.0 percent of the actual quantity of material delivered.

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 gradation CS 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 Reclaimed Asphalt Pavement (RAP) is used, it shall be crushed and screened where 100 percent is passing the 1 1/2 in. (37.5 mm) sieve and being well graded. RAP that has been fractionated to size will not be permitted for use in capping. Capping aggregate will not be required when the aggregate subgrade improvement is used as a cubic yard pay item for undercut applications. When RAP is

blended with any of the coarse aggregates, the blending shall be done with mechanically calibrated feeders.

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) 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. The top 12 inches of the aggregate subgrade improvement shall be 3 inches of capping material and 9 inches of crushed gravel, crushed stone or crushed concrete. In applications where greater than 36 inches of subgrade material is required, rounded gravel, meeting the CS01 gradation, may be used beginning at a depth of 12 inches below the bottom of pavement.

(b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials. Non-mechanically blended RAP may be allowed up to a maximum of 5.0 percent.

(c) Gradation.

(1) The coarse aggregate gradation for total subgrade thicknesses of 12 in. (300 mm) or greater shall be CS 01.

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

Grad No.	COARSE AGGREGATE SUBGRADE GRADATIONS (Metric) 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

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

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

Revise Article 402.10 of the Standard Specifications to read:

"**402.10 For Temporary Access.** The CONTRACTOR shall construct and maintain aggregate surface course for temporary access to private entrances, commercial entrances and roads according to Article 402.07 and as directed by the ENGINEER. The CONTRACTOR shall provide access to abutting property at all times during the construction of this project, except for periods of short duration.

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

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

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

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

Maintaining the temporary access shall include relocating and/or regrading the aggregate surface coarse for any operation that may disturb or remove the temporary access. The same type and gradation of material used to construct the temporary access shall be used to maintain it.

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

Add the following to Article 402.12 of the Standard Specifications:

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

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

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

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

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

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

(D-1) COARSE AGGREGATE FOR BACKFILL, TRENCH BACKFILL AND BEDDING

Effective: November 1, 2011
Revised: November 1, 2013

This work shall be according to Section 1004.05 of the Standard Specifications except for the following:

Reclaimed Asphalt Pavement (RAP) maybe blended with gravel, crushed gravel, crushed stone crushed concrete, crushed slag, chats, crushed sand stone or wet bottom boiler slag. The RAP used shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications". The RAP shall be uniformly graded and shall pass the 1.0 in. (25 mm) screen. When RAP is blended with any of the coarse aggregate listed above, the blending shall be done mechanically with calibrated feeders. The feeders shall have an accuracy of $\pm$ 2.0 percent of the actual quantity of material delivered. The final blended product shall not contain more than 40 percent by weight RAP.

The coarse aggregate listed above shall meet CA 6 and CA 10 gradations prior to being blended with the processed and uniformly graded RAP. Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

(D-1) DRAINAGE AND INLET PROTECTION UNDER TRAFFIC
Effective: April 1, 2011
Revised: April 2, 2011

Add the following to Article 603.02 of the Standard Specifications:

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

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

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

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

Revise Article 603.07 of the Standard Specifications to read:

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

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

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

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

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

Placement shall be according to the manufacturer's specifications.

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

(D-1) FRICTION AGGREGATE

Effective: January 1, 2011
Revised: April 29, 2016

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

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

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

Use	Mixture	Aggregates Allowed
Class A	Seal or Cover	Allowed Alone or in Combination [5/]: Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete
HMA Low ESAL	Stabilized Subbase or Shoulders	Allowed Alone or in Combination [5/]: Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag[1/] Crushed Concrete
HMA High ESAL Low ESAL	Binder IL-19.0 or IL-19.0L SMA Binder	Allowed Alone or in Combination [5/ 6/]: Crushed Gravel Carbonate Crushed Stone[2/] Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Concrete[3/]

Use	Mixture	Aggregates Allowed
HMA High ESAL Low ESAL	C Surface and Leveling Binder IL-9.5 or IL-9.5L SMA Ndesign 50 Surface	Allowed Alone or in Combination [5/]: Crushed Gravel Carbonate Crushed Stone[2/] Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag[4/] Crushed Concrete[3/]
HMA High ESAL	D Surface and Leveling Binder IL-9.5 SMA Ndesign 50 Surface	Allowed Alone or in Combination [5/]: Crushed Gravel Carbonate Crushed Stone (other than Limestone)[2/] Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag[4/] Crushed Concrete[3/]
		Other Combinations Allowed: *Up to...* / *With...* 25% Limestone / Dolomite 50% Limestone / Any Mixture D aggregate other than Dolomite 75% Limestone / Crushed Slag (ACBF) or Crushed Sandstone
HMA High ESAL	E Surface IL-9.5 SMA Ndesign 80 Surface	Allowed Alone or in Combination [5/ 6/]: Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag No Limestone.
		Other Combinations Allowed: *Up to...* / *With...*

<table>
<tr><td>Use</td><td>Mixture</td><td colspan="2">Aggregates Allowed</td></tr>
<tr><td rowspan="3"></td><td rowspan="3"></td><td>50% Dolomite[2/]</td><td>Any Mixture E aggregate</td></tr>
<tr><td>75% Dolomite[2/]</td><td>Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone</td></tr>
<tr><td>75% Crushed Gravel[2/] or Crushed Concrete[3/]</td><td>Crushed Sandstone, Crystalline Crushed Stone, Crushed Slag (ACBF), or Crushed Steel Slag</td></tr>
<tr><td rowspan="5">HMA
High ESAL</td><td rowspan="5">F Surface
IL-9.5

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

Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF)
Crushed Steel Slag
No Limestone.</td></tr>
<tr><td colspan="2"><u>Other Combinations Allowed</u>:</td></tr>
<tr><td>Up to...</td><td>With...</td></tr>
<tr><td>50% Crushed Gravel[2/], Crushed Concrete[3/], or Dolomite[2/]</td><td>Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone</td></tr>
</table>

1/ Crushed steel slag allowed in shoulder surface only.
2/ Carbonate crushed stone (limestone) and/or crushed gravel shall not be used in SMA Ndesign 80. In SMA Ndesign 50, carbonate crushed stone shall not be blended with any of the other aggregates allowed alone in Ndesign 50 SMA binder or Ndesign 50 SMA surface.
3/ Crushed concrete will not be permitted in SMA mixes.
4/ Crushed steel slag shall not be used as leveling binder.
5/ When combinations of aggregates are used, the blend percent measurements shall be by volume."
6/ Combining different types of aggregate will not be permitted in SMA Ndesign 80."

(D-1) GROUND TIRE RUBBER (GTR) MODIFIED ASPHALT BINDER

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.

(D-1) HMA MIXTURE DESIGN REQUIREMENTS

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 Shoulders2/

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/]	75 - 83
		16.0 [3/]	

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."

(D-1) PUBLIC CONVENIENCE AND SAFETY

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

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

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

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

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

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

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

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

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."

IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION (TPG)

Effective: August 1, 2012 Revised: February 1, 2014

In addition to the Contractor's equal employment opportunity affirmative action efforts undertaken as elsewhere required by this Contract, the Contractor is encouraged to participate in the incentive program to provide additional on-the-job training to certified graduates of IDOT funded pre-apprenticeship training programs outlined by this Special Provision.

It is the policy of IDOT to fund IDOT pre-apprenticeship training programs throughout Illinois to provide training and skill-improvement opportunities to assure the increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The intent of this IDOT Training Program Graduate (TPG) Special Provision is to place certified graduates of these IDOT funded pre-apprentice training programs on IDOT project sites when feasible, and provide the graduates with meaningful on-the-job training intended to lead to journey-level employment. IDOT and its sub-recipients, in carrying out the responsibilities of a state contract, shall determine which construction contracts shall include "Training Program Graduate Special Provisions." To benefit from the incentives to encourage the participation in the additional on-the-job training under this Training Program Graduate Special Provision, the Contractor shall make every reasonable effort to employ certified graduates of IDOT funded Pre-apprenticeship Training Programs to the extent such persons are available within a reasonable recruitment area.

Participation pursuant to IDOT's requirements by the Contractor or subcontractor in this Training Program Graduate (TPG) Special Provision entitles the Contractor or subcontractor to be reimbursed at $15.00 per hour for training given a certified TPG on this contract. As approved by the Department, reimbursement will be made for training persons as specified herein. This reimbursement will be made even though the Contractor or subcontractor may receive additional training program funds from other sources for other trainees, provided such other source does not specifically prohibit the Contractor or subcontractor from receiving other reimbursement. For purposes of this Special Provision the Contractor is not relieved of requirements under applicable federal law, the Illinois Prevailing Wage Act, and is not eligible for other training fund reimbursements in addition to the Training Program Graduate (TPG) Special Provision reimbursement.

No payment shall be made to the Contractor if the Contractor or subcontractor fails to provide the required training. It is normally expected that a TPG will begin training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project through completion of the contract, so long as training opportunities exist in his work classification or until he has completed his training program. Should the TPG's employment end in advance of the completion of the contract, the Contractor shall promptly notify the designated IDOT staff member under this Special Provision that the TPG's involvement in the contract has ended and supply a written report of the reason for the end of the involvement, the hours completed by the TPG under the Contract and the number of hours for which the incentive payment provided under this Special Provision will be or has been claimed for the TPG.

The Contractor will provide for the maintenance of records and furnish periodic reports documenting its performance under this Special Provision.

METHOD OF MEASUREMENT: The unit of measurement is in hours.

BASIS OF PAYMENT: This work will be paid for at the contract unit price of $15.00 per hour for certified TRAINEES TRAINING PROGRAM GRADUATE. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

The Contractor shall provide training opportunities aimed at developing full journeyworker in the type of trade or job classification involved. The initial number of TPGs for which the incentive is available under this contract is 2. During the course of performance of the Contract the Contractor may seek approval from the Department for additional incentive eligible TPGs. In the event the Contractor subcontracts a portion of the contract work, it shall determine how many, if any, of the TPGs are to be trained by the subcontractor, provided however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this Special Provision. The Contractor shall also insure that this Training Program Graduate Special Provision is made applicable to such subcontract if the TPGs are to be trained by a subcontractor and that the incentive payment is passed on to each subcontractor.

For the Contractor to meet the obligations for participation in this TPG incentive program under this Special Provision, the Department has contracted with several entities to provide screening, tutoring and pre-training to individuals interested in working in the applicable construction classification and has certified those students who have successfully completed the program and are eligible to be TPGs. A designated IDOT staff member, the Director of the Office of Business and Workforce Diversity (OBWD), will be responsible for providing assistance and referrals to the Contractor for the applicable TPGs. For this contract, the Director of OBWD is designated as the responsible IDOT staff member to provide the assistance and referral services related to the placement for this Special Provision. For purposes of this Contract, contacting the Director of OBWD and interviewing each candidate he/she recommends constitutes reasonable recruitment.

Prior to commencing construction, the Contractor shall submit to the Department for approval the TPGs to be trained in each selected classification. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. No employee shall be employed as a TPG in any classification in which he/she has successfully completed a training course leading to journeyman status or in which he/she has been employed as a journeyman. Notwithstanding the on-the-job training purpose of this TPG Special Provision, some offsite training is permissible as long as the offsite training is an integral part of the work of the contract and does not comprise a significant part of the overall training.

Training and upgrading of TPGs of IDOT pre-apprentice training programs is intended to move said TPGs toward journeyman status and is the primary objective of this Training Program Graduate Special Provision. Accordingly, the Contractor shall make every effort to enroll TPGs by recruitment through the IDOT funded TPG programs to the extent such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps that it has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance and entitled to the Training Program Graduate Special Provision $15.00 an hour incentive.

The Contractor or subcontractor shall provide each TPG with a certificate showing the type and length of training satisfactorily completed.

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

SPECIAL PROVISION FOR INSURANCE

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

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

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

Village of Wilmette

Cook County

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

AVAILABLE REPORTS

☐ No project specific reports were prepared.

When applicable, the following checked reports and record information is available for Bidders' reference upon request:

☐ Record structural plans

☐ Preliminary Site Investigation (PSI)

☐ Preliminary Environmental Site Assessment (PESA)

☒ **Soils/Geotechnical Report**

☒ **Boring Logs**

☒ **Pavement Cores**

☐ Location Drainage Study (LDS)

☐ Hydraulic Report

☐ Noise Analysis

☒ **Other: SWPPP and NOI (full binder)**

Those seeking these reports should request access from:

The FTP site login below will allow access to the above checked reports; the directions are also included at the end of this booklet.

Website: www.cbbelftp.com
Login: wilmettelocustrd2
Password: 6xM8yc7v

PERMIT: IEPA SWPPP

Illinois Department of Transportation

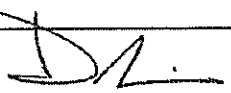
Storm Water Pollution Prevention Plan

Route	Marked Route	Section
FAU ROUTE 1076 (LOCUST RD)	FAU 1292 to FAU 1298	12-00195-00-PV
Project Number	**County**	**Contract Number**
DAE4(736)	COOK	C-91-224-13

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

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

Print Name	Title	Agency
Dan Manis, PE	Village Engineer	Village of Wilmette

Signature: 

Date: 9/11/18

I. Site Description

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

East Lake Ave and Locust Ave: 42.079003, - 87.724569

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

The project consists of pavement, curb and gutter removal and reconstruction

C. Provide the estimated duration of this project:

~10 months: 03/01/2019 to 12/31/2019

D. The total area of the construction site is estimated to be 5.37 acres.

The total area of the site estimated to be disturbed by excavation, grading or other activities is 5.37 acres.

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

Runoff coefficient has not been calculated, the project will not result in an increase in impervious surface.

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

533 Urban land - gently sloping;
571A Whitaker loam - 0 to 2 percent slopes, Low susceptibility to water and wind erosion
2571A Orthents, loamy-Urban land-Whitaker complex - 0 to 2 percent slopes, Low susceptibility to water and wind erosion

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

0

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

Project will take place within existing streets and established ROW. Only areas disturbed during construction will be locations for potential erosion.

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

Install temporary erosion and sediment control measures; Silt fence installation; Installation of stabilized construction entrance (as necessary); Vegetation clearing (as necessary); Pavement removal; Install storm sewer; Concrete & paving; Topsoiling; Landscape; Remove BMPs & stabilize.

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

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

Storm water discharges drain to the Village of Wilmette Municipal Separate Storm Sewer System (MS4)

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

Wilmette

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

The ultimate receiving body of water is Unnamed Tributary to North Branch of Chicago River.

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

The existing established ROW will be preserved where practicable.

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

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

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

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

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

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

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

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

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

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

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

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

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

II. Controls

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

A. **Erosion and Sediment Controls:** At a minimum, controls must be coordinated, installed, and maintained to:
   1. Minimize the amount of soil exposed during construction activity;
   2. Minimize the disturbance of steep slopes;
   3. Maintain natural buffers around surface waters, direct storm water to vegetated areas to increase sediment removal and maximize storm water infiltration, unless infeasible;
   4. Minimize soil compaction and, unless infeasible, preserve topsoil.

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

   1. Where the initiation of stabilization measures is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.
   2. On areas where construction activity has temporarily ceased and will resume after fourteen (14) days, a temporary stabilization method can be used.

   The following stabilization practices will be used for this project:

   ☒ Preservation of Mature Vegetation ☒ Erosion Control Blanket / Mulching

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

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

On areas where construction activity ceased and will resume after 14 days, a temporary stabilization method can be used.

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

Topsoiling, install permanent or temporary soil stabilization, landscaping, and vegetative enhancements within 7 days of topsoil re-spread. Remove all temporary soil erosion and sediment control measures after the site is stabilized with vegetation. Areas requiring permanent stabilization will be sodded.

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

The following stabilization practices will be used for this project:

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

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

Perimeter erosion control barrier will be installed along the perimeter where sediment may leave the site, inlet protection will be installed in existing and newly installed stormwater inlet. Stabilized construction entrances will be built where necessary.

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

Structural BMPs will be removed and disturbance from removal will be rectified.

D. **Treatment Chemicals**

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

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

Not anticipated.

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

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

   The practices selected for implementation were determined on the basis of the technical guidance in Chapter 41 (Construction Site Storm Water Pollution Control) of the IDOT Bureau of Design & Environment Manual. If practices other than those discussed in Chapter 41 are selected for implementation or if practices are applied to situations different from those covered in Chapter 41, the technical basis for such decisions will be explained below.
2. Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g. maintenance of hydrologic conditions such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Description of permanent storm water management controls:

Not applicable.

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

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

The soil erosion and sediment control measures for this site should meet the requirements of the following agencies:
Village of Wilmette
North Cook County SWCD
Illinois Environmental Protection Agency

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

1. The Contractor shall provide a construction schedule containing an adequate level of detail to show major activities with implementation of pollution prevention BMPs, including the following items:
   - Approximate duration of the project, including each stage of the project
   - Rainy season, dry season, and winter shutdown dates
   - Temporary stabilization measures to be employed by contract phases
   - Mobilization time frame
   - Mass clearing and grubbing/roadside clearing dates
   - Deployment of Erosion Control Practices
   - Deployment of Sediment Control Practices (including stabilized construction entrances/exits)
   - Deployment of Construction Site Management Practices (including concrete washout facilities, chemical storage, refueling locations, etc.)
   - Paving, saw-cutting, and any other pavement related operations
   - Major planned stockpiling operations
   - Time frame for other significant long-term operations or activities that may plan non-storm water discharges such as dewatering, grinding, etc.
   - Permanent stabilization activities for each area of the project

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

III. Maintenance

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

Maintenance of the BMPs incorporated into this project should be performed as needed to assure their continued effectiveness. This includes prompt and effective repair and/or replacement of deficient BMPs. Measures identified in the Plan and the Standard Specifications should be used to maintain, in good and effective operating conditions, erosion and sediment control measures and other protective measures.

IV. Inspections

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

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

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

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

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

Additional Inspections Required:

V. Failure to Comply

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

Illinois Department of Transportation

Contractor Certification Statement

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

Route	Marked Route	Section
FAU ROUTE 1076 (LOCUST RD)	FAU 1292 to FAU 1298	12-00195-00-PV
Project Number	**County**	**Contract Number**
DAE4(736)	Cook	C-91-224-13

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

I certify under penalty of law that I understand the terms of the Permit No. ILR10 that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

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

☐ Contractor

☐ Sub-Contractor

Print Name	Signature
Title	**Date**
Name of Firm	**Telephone**
Street Address	**City/State/Zip**

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

PERMIT: IEPA NOI

Back To Permit Mainetenance *use browser print option to print

Contact Information

Owner Name:	Village of Wilmette
Mailing Address:	711 Laramie Ave
City:	Wilmette
State:	IL
Zip:	60091
Contact Person:	Brigitte Ann Berger-Raish, PE
Owner Type:	City
Area Code:	847
Phone #:	853-7627
Extension	
MS4 Community:	☑ Yes
Contractor Name:	TO BE DETERMINED LATER
Area Code:	
Phone #:	
Ext.	
Mailing Address:	
City:	
State:	
Zip:	
Location of SWPPP:	Lake Ave and Locust Rd
Location City:	Wilmette
Contact First Name:	Brigitte
Contact Last Name:	Berger-Raish
Contact Phone #:	847-853-7627-
Contact FAX #:	--
Contact Inspector Qualifications	P.E.
Other Description	
Inspector First Name:	
Inspector Last Name:	
Inspector Phone #:	--
Inspector FAX #:	--
Inspector Qualifications:	NONE
Other Description	

Site/Compliance/Misc. Information

Facility Name:	FAU Route 1076 (Locust Road) Lake Ave to Wilmette Ave
Facility Location:	East Lake Ave and Locust Ave
City:	Wilmette
State:	IL
Zip:	60091
Latitude Degrees:	42.079003
Longitude Degrees:	-87.724569
County:	COOK
Section:	32
Township:	42N
Range:	13E
Construction Type:	Transportation
SIC:	
Constr. Start Date:	03/01/2019
Constr. End Date:	12/31/2019
Site Size(In Acres):	5.3700
If less than 1 acre, is the site part of a larger common plan of development?:	☐ Yes
Project Brief Description:	The project consists of pavement removal and reconstruction, curb and gutter removal and reconstruction, sidewalk removal and replacement with widening, and final landscaping.
Historic Preservation:	Yes
Endangered Species:	Yes
Impaired Water:	
Discharge Type:	Storm Sewer
Storm Sewer Owner:	Village of Wilmette
Closest Receiving Water:	Unnamed Tributary to North Br
NPDES Permit Number:	ILR10AH01
Permit Id:	35822
Received Date:	08/08/2018
Approved Date:	
Permit Issue Date	
Permit Coverage Date:	
Termination Date:	
Stabilization Date	
Expiration Date:	
Modification Submittal Date:	

I certify under penalty of law that information and files uploaded to this website were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the

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information submitted. Based on my inquiry of the person or person(s) who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the permit, including the development and implementation of a storm water pollution prevention plan and a monitoring program plan, will be complied with. I also certify that, to the best of my knowledge, the storm water which is discharged from this facility\site does not contain process wastewater, domestic wastewater, domestic wastewater, or cooling water.
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally, via information submitted from this website, 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))

Submitted By:

Registered User Name:	**Casey Dean Perry**
Title:	**Environmental Resource Specialist III**
Id:	**cperry@cbbel.com**
Submitted On:	**08/07/2018**

Submitted For The Following Permit Owner:

Owner Name:	**Village of Wilmette**

☑ **I accept these terms and conditions**

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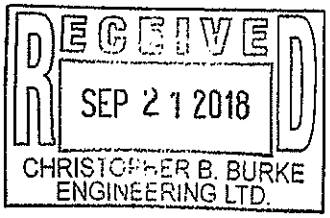
PERMIT: IEPA WATER MAIN CONSTRUCTION

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 North Grand Avenue, East; Post Office Box 19276; Springfield, IL 62794-9276

Division of Public Water Supplies Telephone 217/782-1724

PUBLIC WATER SUPPLY CONSTRUCTION PERMIT

SUBJECT: WILMETTE (0313300)



Permit Issued to:
Village of Wilmette
1200 Wilmette Avenue
Wilmette, IL 60091

PERMIT NUMBER: 1300-FY2018

DATE ISSUED: September 19, 2018
PERMIT TYPE: Water Main

The issuance of this permit is based on plans and specifications prepared by the engineers/architects indicated, and are identified as follows. This permit is issued for the construction and/or installation of the public water supply improvements described in this document, in accordance with the provisions of the "Environmental Protection Act", Title IV, Sections 14 through 17, and Title X, Sections 39 and 40, and is subject to the conditions printed on the last page of this permit and the ADDITIONAL CONDITIONS listed below.

FIRM: Christopher B. Burke Engineering, Ltd.
NUMBER OF PLAN SHEETS: 94
TITLE OF PLANS: "Locust Road Reconstruction Project (Wilmette Ave. to Lake Ave.)"

PROPOSED IMPROVEMENTS:

*** Installation of approximately 20 lineal feet of 12 inch diameter, 3,195 lineal feet of eight (8) inch diameter, 160 lineal feet of six (6) inch diameter and 35 lineal feet of four (4) inch diameter water main.***

ADDITIONAL CONDITIONS:

1. A lead informational notice must be given to each potentially affected residence at least 14 days prior to the permitted water main work. The notification must satisfy the requirements of Section 17.11 of the Environmental Protection Act. If notification is required to a residence that is a multi-dwelling building, posting at the primary entrance way to the building shall be sufficient. If the community water supply serves a population less than 3,301, alternative notification means may be utilized in lieu of an individual written notification. Refer to Section 17.11 of the Act for alternative notification requirements. Enclosed is suggested language for the notice. If this project involves water service to a significant proportion of non-English speaking consumers, the notification must contain information in the appropriate language regarding the importance and how to obtain a translated copy. The Responsible Operator in Charge of the community water system is responsible for preparing the notice. A copy of the notice used must be submitted to the Agency with the Application for Operating Permit.

2. All water mains shall be satisfactorily disinfected prior to use. In accordance with the requirements of AWWA C651-05, at least one set of samples shall be collected from every 1,200 feet of new water main, plus one set from the end of the line and at least on set from each branch. Satisfactory disinfection shall be demonstrated in accordance with the requirements of 35 Ill. Adm. Code Section 652.203.

3. There are no further conditions to this permit.

DCC:CLK

cc: Christopher B. Burke Engineering, Ltd.
Cook County Health Department
Elgin Regional Office
IDPH/DEH – Plumbing and Water Quality Program

David C. Cook, P.E.
Acting Manager Permit Section
Division of Public Water Supplies

STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS
ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

The Illinois Environmental Protection Agency Act (Illinois Compiled Statutes, Chapter 111-1/2, Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

These standard conditions shall apply to all permits which the Agency issues for construction or development projects which require permits under the Division of Water Pollution Control, Air Pollution Control, Public Water Supplies and Land and Noise Pollution Control. Special conditions may also be imposed by the separate divisions in addition to these standard conditions.

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year after this date of issuance unless construction or development on this project has started on or prior to that date.

2. The construction or development of facilities covered by this permit shall be done in compliance with applicable provisions of Federal laws and regulations, the Illinois Environmental Protection Act, and Rules and Regulations adopted the Illinois Pollution Control Board.

3. There shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.

4. The permittee shall allow any agent duly authorized by the Agency upon the presentation of credentials:

a. to enter at reasonable times the permittee's premises where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit.

b. to have access to and copy at reasonable times any records required be kept under the terms and conditions of this permit.

c. to inspect at reasonable times, including during any hours or operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit.

d. to obtain and remove at reasonable times samples of any discharge or emission of pollutants.

e. to enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

5. The issuance of this permit:

a. shall not be considered as in any manner affecting the title of the permits upon which the permitted facilities are to be located;

b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities;

c. does not release the permittee from compliance with the other applicable statues and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations;

d. does not take into consideration or attest to the structural stability of any units or parts of the project;

e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability directly or indirectly for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.

6. These standard conditions shall prevail unless modified by special conditions.

7. The Agency may file a complaint with Board of modification, suspension or revocation of a permit:

a. upon discovery that the permit application misrepresentation or false statements or that all relevant facts were not disclosed; or

b. upon finding that any standard or special conditions have been violated; or

c. upon any violation of the Environmental Protection Act or any Rules or Regulation effective thereunder as a result of the construction or development authorized by this permit.

Lead Informational Notice

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Dear Water Customer: Today's Date:_____

Our water system will soon begin a water line maintenance and/or construction project that may affect the lead content of your potable water supply. Lead, a metal found in natural deposits, is harmful to human health, especially young children. The most common exposure to lead is swallowing or breathing in lead paint chips and dust. However, lead in drinking water can also be a source of lead exposure. In the past, lead was used in some water service lines and household plumbing materials. Lead in water usually occurs through corrosion of plumbing products containing lead; however, disruption (construction or maintenance) of lead service lines may also temporarily increase lead levels in the water supply. This disruption may be sometimes caused by water main maintenance/replacement. As of June 19, 1986, new or replaced water serviced lines and new household plumbing materials could not contain more than 8% lead. Lead content was further reduced on January 4, 2014, when plumbing materials must now be certified as "lead-free" to be used (weighted average of wetted surface cannot be more than 0.25% lead).

The purpose of this notice is for informational purposes only. While it's not known for certain whether or not this particular construction project will adversely affect the lead (if present) plumbing in and outside your home, below describes some information about the project and some preventative measures you can take to help reduce the amount of lead in drinking water.

Project Start Date:_____ Project expected to be completed by:_____

Project location and description:

_____

_____

_____

What you can do to reduce lead exposure in drinking water during this construction project:

Run your water to flush out lead. If the plumbing in your home is accessible; you may be able to inspect your own plumbing to determine whether or not you have a lead service line. Otherwise, you will most likely have to hire a plumber.

- If you do not have a lead service line, running the water for 1 – 2 minutes at the kitchen tap should clear the lead from your household plumbing to the kitchen tap. Once you have done this, fill a container with water and store it in the refrigerator for drinking, cooking, and preparing baby formula throughout the day.
- If you do have a lead service line, flushing times can vary based on the length of your lead service line and the plumbing configuration in your home. The length of lead service lines varies considerably. Flushing for at least 3 – 5 minutes is recommended.

Use cold water for drinking, cooking, and preparing baby formula. Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.

Look for alternative sources or treatment of water. You may want to consider purchasing bottled water or a water filter that is certified to remove "total lead".

Clean and remove any debris from faucet aerators on a regular basis.

Do not boil water to remove lead. Boiling water will not reduce lead.

Purchase lead-free faucets and plumbing components.

Remove the entire lead service line.

Test your water for lead. Call us at: _____to find out how to get your water tested for lead. While we do not do the testing, we can provide a list of laboratories certified to do the testing. Laboratories will send you the bottles for sample collection. Please note that we are not affiliated with the laboratories and they will charge you a fee.

- If test results indicate a lead level above 15 ug/L, bottled water should be used by pregnant women, breast-feeding women, young children, and formula-fed infants.

IEPA LPC-663

TESTING SERVICE CORPORATION

Corporate Office

360 South Main Place, Carol Stream, IL 60188-2404
630.462.2600 • Fax 630.653.2988

April 30, 2018

Mr. Jason G. Souden
Christopher B. Burke Engineering, Ltd.
9575 West Higgins Road, Suite 600
Rosemont, IL 60018-4920

RE: L - 88,075
Potentially Impacted Property Evaluation for LPC-663 Form
Locust Road Reconstruction
Cook County
Wilmette, IL

Dear Mr. Souden:

Testing Service Corporation (TSC) has completed a Potentially Impacted Property (PIP) Evaluation, soil sampling, and laboratory analyses for the above captioned project. The general scope of work was outlined in TSC Proposal 53,963A dated July 12, 2017. TSC was requested to evaluate site soil conditions for the disposal of construction spoils at a Clean Construction & Demolition Debris (CCDD) or Uncontaminated Soil Fill Operation (USFO) facility.

Uncontaminated soil including uncontaminated soil mixed with clean construction or demolition debris (CCDD) accepted at a CCDD fill operation must be certified to be uncontaminated soil in accordance with Section 22.51(f)(2)(B) of the Environmental Protection Act [415 ILCS 5/22.51(f)(2)(B)]. Uncontaminated soil accepted at an uncontaminated soil fill operation (USFO) must be certified to be uncontaminated soil in accordance with Section 22.51a(d)(2)(B) of the Environmental Protection Act [415 ILCS 5/22.51a(d)(2)(B). These certifications must be made by a licensed professional engineer or geologist (PE/PG) using the Form LPC-663 when the soil is removed from a site which is determined by the PE/PG to be a "Potentially Impacted Property" (PIP) based on review of readily ascertainable property history, environmental databases and site reconnaissance. Uncontaminated soil from a site which is not identified as a PIP by the PE/PG may be certified by either the source site owner or operator using LPC-662 with pH analysis only.

Source Site

The source site ("Site") is a paved road in a residential area. The Site area covered by this report is Locust Road from Lake Avenue to Wilmette Avenue. The activity generating the soil for disposal is rehabilitation and reconstruction of the road pavement.

Records Review

In accordance with Illinois Administrative Code 35 Part 1100, on behalf of the Site owner, TSC evaluated the historical uses of the Site to identify potential contamination sources, both from the Site and adjoining properties, which may cause the Site to be considered a PIP.

TSC researched the history of the property by reviewing historical topographic maps dating back to 1899 and aerial photographs dating back to 1938. Based on this information, the Site and surrounding area was used for agricultural purposes since before that time, with Locust Road in place since at least after 1912 and some associated residences along it. Residential subdivision construction began to the north after 1938. Subdivision construction began along Locust Road and to the south after 1951. This included the construction of a church on the northwest of Locust Road and a school complex on the middle west, with sports fields dominating the central eastern portion of the road. Buildings were added to the north of that school after 1962 and another school was constructed to the east of the road, south of the sports fields. Another building was added to the school complex on the west after 1963. The Site and adjacent properties then remain as described into the present day.

TSC evaluated current Federal and State environmental agency records for the Site and vicinity by obtaining information from an EDR First Report from Environmental Data Resources, Inc. (EDR). The EDR First Report identifies listings on reviewed environmental databases within one quarter mile of the Site address and is utilized in identifying potential contamination sources, both at the Site and from adjoining properties, which may cause the Site to be considered a PIP.

The EDR First Report does not identify the Site address on the various reviewed environmental databases.

The EDR First Report information does identify properties adjacent or nearby to the Site on the various reviewed environmental databases.

Church of Jesus Christ Latter Day Saints, adjacent on the northwest of the Site at 2727 West Lake Street, is on Underground Storage Tank (UST) for having removed a heating oil tank.

Regina Dominican High School, adjacent on the middle east of the Site at 701 Locust Road, is on RCRA-SQG for being a small quantity generator of D001 ignitable waste with no violations found. It is also on UST for having removed two heating oil tanks.

Wilmette Junior High School, adjacent on the middle west of the Site at 620 Locust Road, is on Leaking Underground Storage Tank (LUST) for other petroleum with a No Further Remediation (NFR) letter dated February 5, 2010. It is also on RCRA-CESQG for being a conditionally exempt small quantity generator of D000 not defined and D009 mercury wastes with no violations found. It is also on UST for having removed a heating oil tank.

No other facilities are listed.

The EDR First Report information Orphan Summary does not identify any properties.

Site Reconnaissance

On March 28, 2018, a TSC Professional Geologist conducted a reconnaissance of the Site for the purpose of identifying indications of the use or disposal of hazardous substances or petroleum products. The Site is a portion of a road in a residential area consistent with information reviewed on topographic maps, aerial photographs, and the EDR environmental reports. The current status of the surrounding properties is also consistent with the information reviewed and none of the above or

following conditions were noted at their locations within a likely zone of influence to the Site. No indications of staining, unnaturally stressed vegetation or areas conspicuously absent of vegetation were noted at the Site. No evidence of aboveground storage tanks or of vent or fill pipes suggesting the presence of underground storage tanks were identified on the Site. No indication of petroleum sheen was identified. No indications of solid waste or drum storage were noted at the Site. No suspect PCB containing equipment or hazardous waste generation was identified on the Site. No evidence of the use or release of hazardous substances or petroleum products was identified at the Site. No additional sources of potential impact from the Site or adjacent properties were identified.

Based on properties nearby to the Site appearing on the environmental database search, the Site was identified as a Potentially Impacted Property. The collection of soil samples and analysis were performed to evaluate the soil for contaminants of concern.

Soil Sampling & Analytical Testing

On April 19, 2018, TSC, in conjunction with additional geotechnical exploration work, performed nine soil borings (B-1 through B-9) on the section of road described as the Site. Those nine soil borings are representative of soil that is to be potentially excavated and disposed off-site from the rehabilitated/ reconstructed activities. The sample locations are indicated on the attached Boring Location Plan.

The soil consists generally of silty clay with little sand and gravel. The samples were screened using a Mini-RAE 2000 photo-ionization detector (PID), which did not detect any readings exceeding background conditions. No visual or odorous signs of impact were noted in the sample locations. Three samples (B-3/S-1, B-5/S-2, and B-8/S-3) were selected as being representative of the soil to be potentially excavated and disposed of from the Site. The samples were placed in laboratory supplied jars and 5035 preserved vials. The samples were then placed in a cooler on ice and transported to the analytical laboratory using standard chain of custody procedures. Based on the findings of the environmental database review described above, TSC's Professional Geologist determined that analysis for Volatile Organic Compounds (VOCs), Polynuclear Aromatic compounds (PNAs), mercury, and pH are appropriate indicator parameters of the potential impact to the Site for B-3/S-1 and B-5/S-2. Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX); Polynuclear Aromatic compounds (PNAs); and pH are appropriate indicator parameters of the potential impact to the Site for B-8/S-3.

The analytical results are presented in the First Environmental Laboratories, Inc. analytical report dated April 27, 2018. The analytical report indicates that no BTEX, VOCs, or mercury were detected in the samples at the laboratory reporting limits. PNAs were not detected in B-5/S-2 or B-8/S-3 at the laboratory reporting limits, but several PNAs were detected in B-3/S-1. The pH values of 8.68 for B-3/S-1, 8.77 for B-5/S-2, and 7.87 for B-8/S-3 are within the required range of 6.25-9.0 units.

The analytical results were compared to the Maximum Allowable Concentrations of Chemical Constituents (MACs) listed in 35 IAC 1100 Subpart F. *The analytical results obtained from the soil samples tested indicate that all analyzed parameters meet their respective MACs for disposal at a non-rural CCDD/USFO facility.*

The IEPA LPC-663 Form, Uncontaminated Soil Certification, signed by a Licensed Professional Geologist, along with the analytical report and chain of custody, has been completed for disposal of soil from the Site road project consisting of Locust Road from Lake Avenue to Wilmette Avenue in Wilmette, IL.

Please note that CCDD/USFO facilities screen each load with a PID, which will determine the final acceptance of individual loads, regardless of the analytical results.

We appreciate the opportunity to be of service to you. Please contact us with any questions.

Respectfully,

TESTING SERVICE CORPORATION

David L. Hurst
Vice President
Environmental Services

Prepared by:

Aaron J. Ulrey, P.G. #196.001390
Project Geologist

DLH:AJU:ljm

Enc: LPC-663 Form
Boring Location Plan
Analytical Report and Chain of Custody
EDR First Report Information
General Conditions

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: Locust Road Reconstruction Office Phone Number, if available: 847-823-0500

Physical Site Location (address, incldluding number and street):
Locust Road from Lake Avenue to Wilmette Avenue

City: Wilmette State: IL Zip Code: 60091

County: Cook Township: New Trier

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

Latitude: 42.07564 (Decimal Degrees) Longitude: -87.74199 (-Decimal Degrees)

Identify how the lat/long data were determined:

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

EDR First Report

IEPA Site Number(s), if assigned: BOL: None BOW: None BOA: None

II. Owner/Operator Information for Source Site

	Site Owner	Site Operator
Name:	Village of Wilmette	
Street Address:	1200 Wilmette Avenue	
PO Box:		
City:	Wilmette	State: IL
Zip Code:	60091	Phone: (847) 853-7602
Contact:	Dan Manis, PE	
Email, if available:	manisd@wilmette.com	

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

L-88,075

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Project Name: Locust Road Reconstruction

Latitude: 42.07564 Longitude: -87.74199

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)]:

See attached report. Site agricultural since before 1899. Developed with residential subdivision after 1951, completing after 1963. Nine borings performed and soils screened with a PID, which did not identify readings exceeding background conditions. Nearby properties to Site identified on EDR databases.

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]:

Soil samples tested for VOCs or BTEX, PNAs, mercury or no metals, & pH. Analytical results meet MACs. pH 8.68 for B-3/S-1, 8.77 for B-5/S-2, and 7.87 for B-8/S-3 between 6.25 and 9.0, therefore, soil is uncontaminated.

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

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

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

Company Name: Testing Service Corporation

Street Address: 360 S. Main Place

City: Carol Stream State: IL Zip Code: 60188

Phone: 630-462-2600

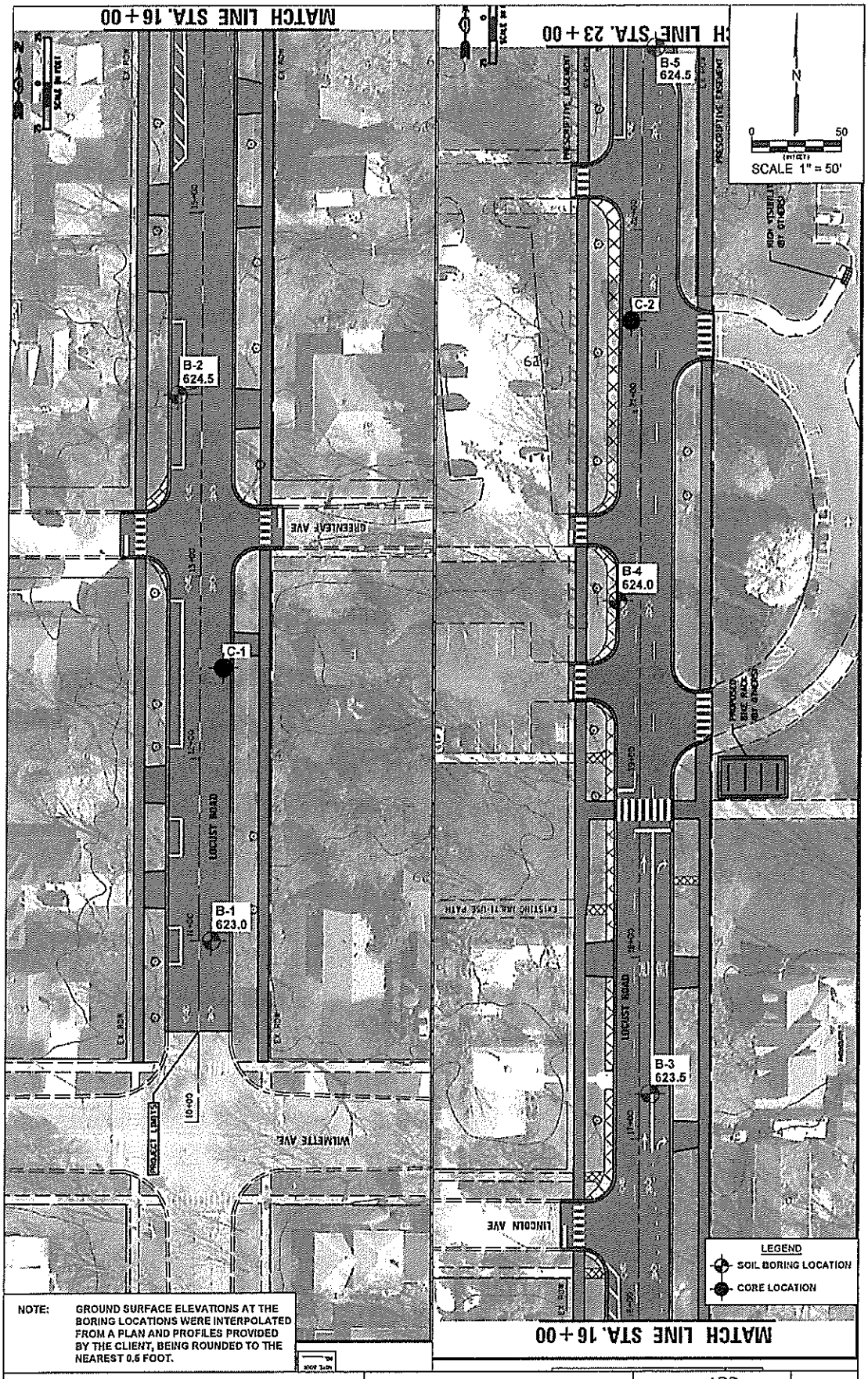
Aaron J. Ulrey
Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

4-30-18
Date:

AARON JON ULREY
196.001390
REGISTERED
PROFESSIONAL
GEOLOGIST
STATE OF ILLINOIS

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



NOTE: GROUND SURFACE ELEVATIONS AT THE BORING LOCATIONS WERE INTERPOLATED FROM A PLAN AND PROFILES PROVIDED BY THE CLIENT, BEING ROUNDED TO THE NEAREST 0.5 FOOT.

BORING LOCATION PLAN
LOCUST ROAD RECONSTRUCTION
STATION 10+50 TO 36+90
WILMETTE, ILLINOIS

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188

DRAWN BY:	APP
CHECKED BY:	TRP
JOB NO.:	L - 88, 075
DATE:	04-24-18

PAGE NO. 1 OF 2

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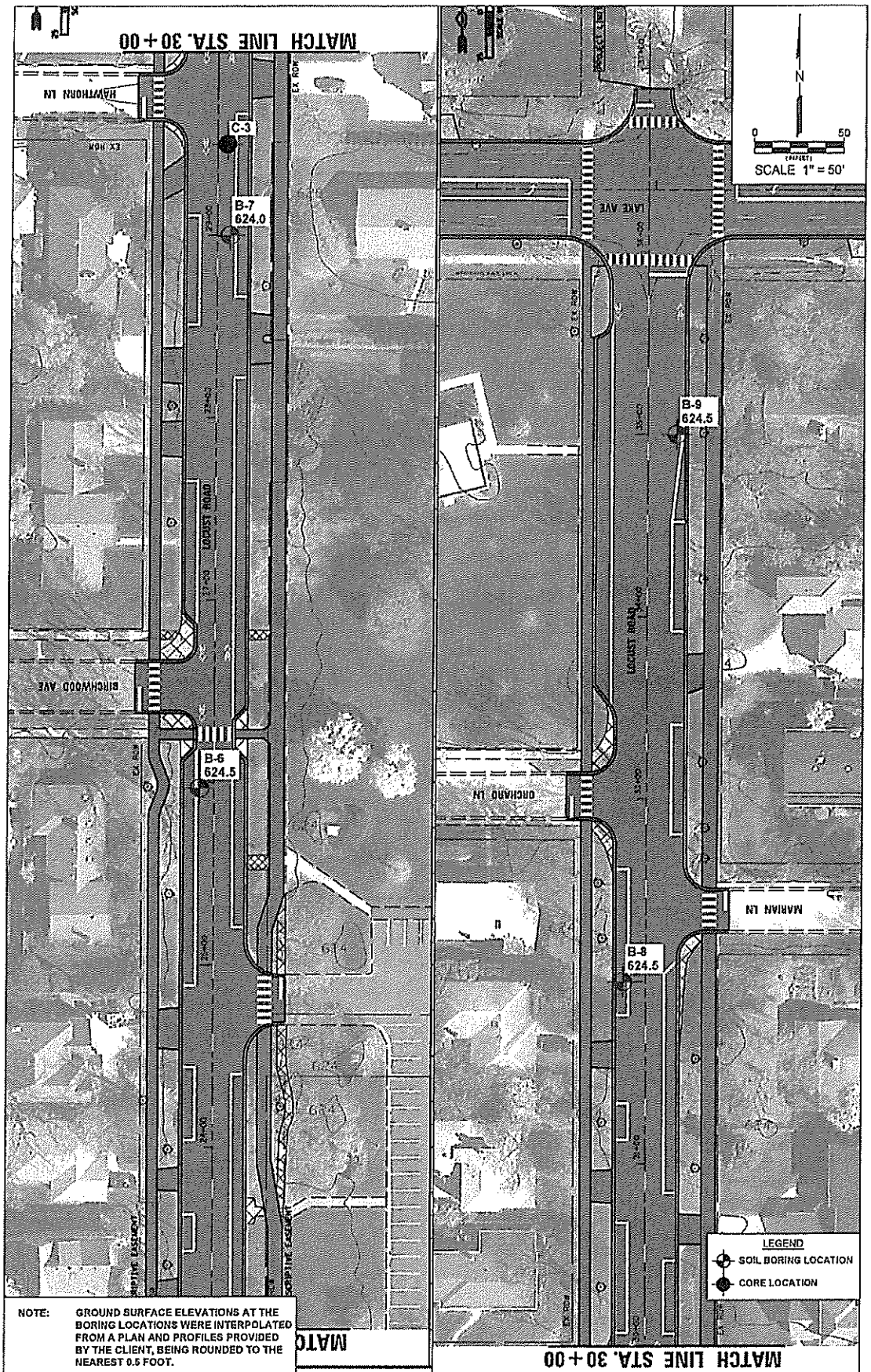

NOTE: GROUND SURFACE ELEVATIONS AT THE BORING LOCATIONS WERE INTERPOLATED FROM A PLAN AND PROFILES PROVIDED BY THE CLIENT, BEING ROUNDED TO THE NEAREST 0.5 FOOT.

BORING LOCATION PLAN
LOCUST ROAD RECONSTRUCTION
STATION 10+50 TO 36+90
WILMETTE, ILLINOIS

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188

DRAWN BY: APP	PAGE NO.
CHECKED BY: TRP	
JOB NO.: L - 88,075	2 OF 2
DATE: 04-24-18	

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PERMIT: COOK COUNTY HIGHWAY DEPARTMENT OF TRANSPORTATION

Office Use Only:	Permit No.:		Opened By:	

COOK COUNTY HIGHWAY DEPARTMENT PERMIT APPLICATION

Cook County Department of Transportation and Highways Permits Office
George W. Dunne Cook County Office Building
69 W. Washington, 24th Floor, Chicago, Illinois 60602

312.603.1670
312.603.9943

Print clearly or Type all information requested. Incomplete applications will NOT be accepted.

Application Fee:		Fee Receipt #:	

Owner:

Name: Village of Wilmette (Legal Name of Company/Owner) Daniel Manis, PE (Contact Name) Village Engineer (Title)

Mailing Address,City,State,Zip: 1200 Wilmette Avenue, Wilmette, IL 60091

Phone No. 847-853-7602 Fax No. 847-853-7700 Email manisd@wilmette.com

Engineer/Architect: (Primary Firm Assigned to prepare Civil Engineering Plans)

Name: Christopher B. Burke Engineering, Ltd. (Name of Company) Lee M. Fell, PE (Contact Name) Assistant Department Head, Civil Engineering Design (Title)

Mailing Address,City,State,Zip: 9575 W. Higgins Road, Suite 600, Rosemont, IL 60018

Phone No. 847-823-0500 Fax No. 847-823-0520 Email lfell@cbbel.com

General Contractor: (Contractor assigned to oversee all the work requested in this permit)

Name: (Name of Company) (Contact Name) (Title)

Mailing Address,City,State,Zip:

Phone No. Fax No. Email

Owner of Existing Water Main: (Required if proposing water connection)

Name: Village of Wilmette (Local Govt. Agency/Private (Public) Utility Company Name) Daniel Manis, PE (Contact Name) Village Engineer (Title)

Mailing Address,City,State,Zip: 1200 Wilmette Avenue, Wilmette, IL 60091

Phone No. 847-853-7602 Fax No. 847-853-7700 Email manisd@wilmette.com

Owner of Existing Sanitary Sewer: (Required if proposing sanitary connection)

Name: (Local Govt. Agency/Private (Public) Utility Company Name) (Contact Name) (Title)

Mailing Address,City,State,Zip:

Phone No. Fax No. Email

Office Use Only:	Permit No.:		Opened By:	

COOK COUNTY HIGHWAY DEPARTMENT PERMIT APPLICATION

Cook County Department of Transportation and Highways Permits Office
George W. Dunne Cook County Office Building
69 W. Washington, 24th Floor, Chicago, Illinois 60602

312.603.1670
312.603.9943

Project Location: (Complete all information. Print or type clearly.)

Property Address,City,State,Zip: Locust Road and Lake Avenue intersection, Wilmette, IL 60091

Site City: Village of Wilmette

County Route Name(s): Lake Avenue

Hwy Section #(s): A59

See Cook County jurisdiction map for County Route Name(s) and Hwy Section #(s). Note, Cook County Jurisdiction Routes are solid red on the jurisdiction Map. Click Here For Map.

Locations to nearest cross street: Locust Road

Description of Work:
-Within Cook County ROW
-Attach sheet if need room

Water main replacement; resurfacing; pavement patching; detectable warning and ADA upgrades; sidewalk replacement

Proposed Work: (Check all items that apply within Cook County ROW only)

Entrance/Access
- ☐ Entrance Commercial New,Modify,Rem and/or Repl
- ☐ Entrance Residential New,Modify,Rem and/or Repl
- ☐ Entrance Street New,Modify,Rem and/or Repl
- ☐ Entrance Temp Construction, Temp Access
- ☐ Curb and Gutter New,Modify, Rem and/or Repl
- ☐ Storm Sewer/Pipe Culvert and Appurtenances New, Modify, Rem and/or Repl

Utilities
- ☒ Water Main and Appurtenances New, Modify, Rem and/or Repl
- ☐ Water Service New, Modify, Rem and/ or Repl
- ☐ Sanitary Sewer and Appurtenances New, Modify, Rem and/or Repl
- ☐ Sanitary Sewer Force Main and Appurtenances New, Modify, Remand/or Repl
- ☐ Sanitary Service New, Modify, Remand/or Repl

Landscaping (Municipal Only)
- ☐ Parkway/Median Trees New, Rem and/or Repl
- ☐ Parkway/Median Plantings New, Rem and/or Repl

Landscaping
- ☒ Grading/Restoration

Roadway Improvements
- ☐ Roadway Reconstruction
- ☐ Roadway Widening
- ☐ Roadway Modification

Paths/Walks
- ☒ Sidewalk New, Modify, Rem and/or Repl
- ☐ Bike Paths New, Modify, Rem and/or Repl
- ☐ Multiuse Paths New, Modify, Rem and/or Repl

Traffic Control/Signage
- ☒ Lane Closure
- ☐ Road Closure
- ☒ Detour
- ☒ Signage Construction
- ☐ Signage Permanent New, Modify, Rem and/or Repl
- ☒ Pavement Marking New, Modify, Rem and/or Repl
- ☐ Reflective Pavement Markers New, Modify, Rem and/or Repl

Utility Companies Only
- ☐ Power Pole New, Modify, Rem and/or Repl
- ☐ Cable/Fiber New, Modify, Rem and/or Repl
- ☐ Cable/Fiber and Conduit New, Modify, Rem and/or Repl
- ☐ Gas Main New, Modify, Rem and/or Repl
- ☐ Gas Service New, Modify, Rem and/or Repl
- ☐ Tree Trimming
- ☐ Maintenance Individual
- ☐ Maintenance Annual

Signals/Lighting
- ☐ Traffic Signal New, Modify, Rem and/or Repl
- ☐ Traffic Signal Interconnection New, Modify, Rem and/or Repl
- ☐ Flashing Beacon New, Modify, Rem and/or Repl
- ☒ Traffic Signal Loops New, Modify, Rem and/or Repl
- ☐ Temporary Traffic Signal New, Modify, Rem
- ☐ Street Lighting New, Modify, Rem and/ or Repl

Miscellaneous
- ☒ Pavement open-cut
- ☐ Soil borings
- ☐ Monitor wells
- ☐ Pavement Cores
- ☐ Parade/Festival/Race/Event

Other
1: _____
2: _____
3: _____

* Parkway Excavation, Pavement Cut and/or Lane Closure are not permitted under Maintenance and Repair permit.

I declare that I have prepared or examined this Application and it is true and correct to the best of my knowledge and belief. I agree to perform all permitted work according to and with all provisions of the Ordinances of the COUNTY OF COOK and any/all local, state and federal statutes and/or codes. I realize that the Highway Department is relying on the information that I have provided in this application in the issuance of the Highway Construction Permit and approval of plans and specifications without variations. The permit issued pursuant to this application shall not be construed to permit any construction upon or within said right of way or use thereof in violation of any provision of any Ordinance of COOK COUNTY or to excuse the owner or the owner's successors and assigns from complying therewith.

NOTICE: THIS APPLICATION FORM IS NOT A PERMIT AND IN NO WAY AUTHORIZES THE APPLICANT OR CONTRACTOR TO CONSTRUCT/PERFORM ANY WORK OR HOLD AN EVENT WITHIN THE COUNTY'S RIGHTS-OF- WAY WITHOUT THE ISSUANCE OF COUNTY HIGHWAY PERMIT.

Owner Name: DAN HANLIS _____ Date: 6/19/18
(Print)

Applicant Name: DAN HANLIS _____ Date: 6/19/18
(Print)

Before filling out the next form "Cook County Affidavit of Child Support Obligations", please read the following notes.

1. This form is not for contractors or consultants. It is for owners only.

2. If the owner meets the requirements on the form, please have each owner that meets the requirements fill out the form.

3. If the owner is a corporation or a government agency and does not meet individual owner requirements, please type in the company name on the "Last Name" line and check box "D".

4. All forms need to be notarized.

Cook County
Affidavit of Child Support Obligations

Effective July 1, 1998, every applicant for a County Privilege shall be in full compliance with any Child Support order before such Applicant is entitled to receive or renew a County Privilege. When Delinquent Child Support exists, the County shall not issue or renew any county Privilege, and may revoke any County Privilege.

"Applicant" means any person or business entity, including all Substantial Owners, seeking issuance of a County Privilege or renewal of an existing County Privilege from the County. This term shall not include any political subdivision of the federal or state government, including units of local government, and not-for-profit organizations.

"County Privilege" means any business license, including but not limited to liquor dealer's licenses, packaged goods licenses, tavern licenses, restaurant licenses, and gun licenses; real property licenses or lease; permit, including but not limited to building permits, zoning permits or approvals; environmental certificate; County HOME Loan; and contracts exceeding the value of $10,000.

"Substantial Owner" means any person or persons who own or hold a twenty-five percent (25%) or more percentage of interest in any business entity seeking a County Privilege, including those shareholders, general or limited partners, beneficiaries and principals; except where a business entity is an individual or sole proprietorship, Substantial owner means that individual or sole proprietor.

All Applicants/Substantial Owners are required to complete this affidavit and comply with the Child Support Enforcement Ordinance before any privilege is granted. Signature of this form constitutes a certification that the information provided below is correct and complete, and that the individual(s) signing this form has/have personal knowledge of such information.

Applicant Information

Last Name:_____ First Name:_____ MI:_____

SS# (last four digits):_____ Date of Birth:_____

Street Address:_____

City:_____ State:_____ Zipcode:_____

Home Phone #: (___)_____ Driver's License #:_____

Child Support Obligation Information

The undersigned Applicant, being duly sworn on oath or affirmation hereby states that, "To the best of my knowledge": (place an "X" next to "A", "B", "C", or "D" as is appropriate)

☐ A. I, the Applicant, has no judicially or administratively ordered child support obligations.

☐ B. I, the Applicant, has an outstanding judicially or administratively ordered obligation, but is paying it in accordance with the terms of the order.

☐ C. I, the Applicant, is delinquent in paying judicially or administratively ordered child support obligations.

☐ D. I, the Applicant, is not a Substantial Owner as defined above.

The undersigned Applicant understands that failure to disclose any judicially or administratively ordered child support debt will be grounds for revoking the privilege.

Signature:_____ Date:_____

Subscribed and sworn to before me this _____ day of _____, 20____

_____, *Notary Public*

Note: The above information is subject to verification prior to the award of the contract.

For Internal Office Use Only: County Privilege Information

County Privilege #:_____ County Department:_____

County Requester Name:_____

County Requester Email:_____ Phone #:_____

Cook County Department of Transportation and Highways Permits Office
George W. Dunne Cook County Office Building
69 W. Washington, 24th Floor, Chicago, Illinois 60602

P: 312.603.1670
F: 312.603.9943
hwy.permits@cookcountyil.gov

CONSTRUCTION / MAINTENANCE PERMIT APPLICATION FEE INSTRUCTIONS

The Cook County Department of Transportation and Highways, Permit Office requires a non-refundable Construction/Maintenance Permit application fee in order to process a Construction/Maintenance Permit request.

Make your payment as instructed below and place the payment order no. / receipt no. on the top of your Construction / Maintenance Permit Application Form in the space provided in order to further process the permit.

Permit: "App Fee" **Allocation Code:** 4416 **Permit Application Fee:** $ 100.00

Make a payment as follows:

1. **Credit Card Options**
   Online at Click Here to go to the Permits web site and then go to the bottom of the page and click on the button that says "Please Make an Online Payment". Select "Highway Construction-Application Fee".

   Call (LexisNexis) at (888) 497-8701
   The CCDOTH provider ID No. is 80972, Provide Company name, Vendor ID No., Vendor Contact Name, Contact Phone, Contact Fax No., County Highway(s), and Credit Card Information

2. **Cash, Certified Check, or Cashier's Check**
   Make payment in person or by mail. Whichever option is chosen, this form will need to be filled out with one of the above payment options attached.
   Address: Cook County Department of Revenue
   118 N. Clark Street, 11th Floor Chicago, Illinois 60602
   (312) 603-6870

Date June 20, 2018

Name of Owner/Legal name of Company Christopher B. Burke Engineering, Ltd.

Present Mailing Address 9575 W. Higgins Road, Suite 600, Rosemont, IL

Contact Name Lee M. Fell, PE

Contact Phone 847-823-0500 Contact Fax No. 847-823-0520

County Route Name(s) Lake Avenue

Hwy Section #(s) A59
Cook County Jurisdiction Routes are solid red. Click Here for Map

Location of Site Locust Road and Lake Avenue intersection

Applicant's Project No. or Ref. No. 17-0224

After completing payment process, submit Plans and Construction/Maintenance Permit Application with Payment Receipt Number per General Requirements on CCDOTH Permit Division Website.

Form Revised 2018/01

ADJUSTING FRAMES AND GRATES (BDE)

Effective: April 1, 2017

Add the following to Article 602.02 of the Standard Specifications:

"(s) High Density Expanded Polystyrene Adjusting Rings with Polyurea Coating (Note 4) 1043.04

(t) Expanded Polypropylene (EPP) Adjusting Rings (Note 5) 1043.05

Note 4. High density expanded polystyrene adjusting rings with polyurea coating shall meet the design load requirements of AASHTO HS20/25. The rings may be used to adjust the frames and grates of drainage and utility structures up to a maximum of 6 in. (150 mm). They shall be installed and sealed underneath the frames according to the manufacturer's specifications.

Note 5. Riser rings fabricated from EPP may be used to adjust the frames and grates of drainage and utility structures up to a maximum of 6 in. (150 mm). An adhesive meeting ASTM C 920, Type S, Grade N5, Class 25 shall be used with EPP adjustment rings. The top ring of the adjustment stack shall be a finish ring with grooves on the lower surface and flat upper surface. The joints between all manhole adjustment rings and the frame and cover shall be sealed using the approved adhesive. In lieu of the use of an adhesive, an internal or external mechanical frame-chimney seal may be used for watertight installation. EPP adjustment rings shall not be used with heat shrinkable infiltration barriers."

Add the following to Section 1043 of the Standard Specifications:

"**1043.04 High Density Expanded Polystyrene Adjusting Rings with Polyurea Coating.** High density expanded polystyrene adjustment rings with polyurea coating shall be designed and tested to meet or exceed an HS25 wheel load according to the AASHTO Standard Specifications for Highway Bridges (AASHTO M306 HS-25). The raw material suppliers shall provide certifications of quality or testing using the following ASTM standards, and upon request, certify that only virgin material was used in the manufacturing of the expanded polystyrene rings.

Physical Property	Test Standard	Value	
		3.0 lb/cu ft	4.5 lb/cu ft
Compression Resistance at 10% deformation at 5% deformation at 2% deformation	ASTM D 1621	 50 - 70 45 - 60 15 - 20	 70 - 90 60 - 80 20 - 40
Flexural Strength	ASTM D 790	90 - 120	130 - 200
Water Absorption	ASTM D 570	2.0%	1.7%
Coefficient of Linear Expansion	ASTM D 696	2.70E-06 in./in./°F	2.80E-06 in./in./°F
Sheer Strength	ASTM D 732	55	80

Tensile Strength	ASTM D 1623	70 - 90	130 - 140
Water Vapor Transmission	ASTM C 355	0.82 – 0.86 perm – in.	

High density expanded polystyrene adjustment rings with polyurea coating shall have no void areas, cracks, or tears. The actual diameter or length shall not vary more than 0.125 in. (3 mm) from the specified diameter or length. Variations in height are limited to ± 0.063 in. (± 1.6 mm). Variations shall not exceed 0.25 in. (6 mm) from flat (dish, bow, or convoluting edge) or 0.125 in. (3 mm) for bulges or dips in the surface.

1043.05 Expanded Polypropylene (EPP) Adjusting Rings. The EPP adjusting rings shall be manufactured using a high compression molding process to produce a minimum finished density of 7.5 lb/cu ft (120 g/l). The EPP rings shall be made of materials meeting ASTM D 3575 and ASTM D 4819-13. The grade adjustments shall be designed and tested according to the AASHTO Standard Specifications for Highway Bridges (AASHTO M 306 HS-25).

Grade rings shall contain upper and lower keyways (tongue and groove) for proper vertical alignment and sealing. The top ring, for use directly beneath the cast iron frame, shall have keyways (grooves) on the lower surface with a flat upper surface.

Adhesive or sealant used for watertight installation of the manhole grade adjustment rings shall meet ASTM C 920, Type S, Grade NS, Class 25, Uses NT, T, M, G, A, and O.

EPP adjustment rings shall have no void areas, cracks, or tears. The actual diameter or length shall not vary more than 0.125 in. (3 mm) from the specified diameter or length. Variations in height are limited to ± 0.063 in. (± 1.6 mm). Variations shall not exceed 0.25 in. (6 mm) from flat (dish, bow, or convoluting edge) or 0.125 in. (3 mm) for bulges or dips in the surface."

80382

BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE)

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

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

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

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

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

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

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

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

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

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

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

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

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

80173

BUTT JOINTS (BDE)

Effective: July 1, 2016

Add the following to Article 406.08 of the Standard Specifications.

"(c) Temporary Plastic Ramps. Temporary plastic ramps shall be made of high density polyethylene meeting the properties listed below. Temporary plastic ramps shall only be used on roadways with permanent posted speeds of 55 mph or less. The ramps shall have a minimum taper rate of 1:30 (V:H). The leading edge of the plastic ramp shall have a maximum thickness of 1/4 in. (6 mm) and the trailing edge shall match the height of the adjacent pavement ± 1/4 in. (± 6 mm).

The ramp will be accepted by certification. The Contractor shall furnish a certification from the manufacturer stating the temporary plastic ramp meets the following requirements.

Physical Property	Test Method	Requirement
Melt Index	ASTM D 1238	8.2 g/10 minutes
Density	ASTM D 1505	0.965 g/cc
Tensile Strength @ Break	ASTM D 638	2223 psi (15 MPa)
Tensile Strength @ Yield	ASTM D 638	4110 psi (28 MPa)
Elongation @ Yield [1/], percent	ASTM D 638	7.3 min.
Durometer Hardness, Shore D	ASTM D 2240	65
Heat Deflection Temperature, 66 psi	ASTM D 648	176 ºF (80 ºC)
Low Temperature Brittleness, F_{50}	ASTM D 746	<-105 ºF (<-76 ºC)

1/ Crosshead speed -2 in./minute

The temporary plastic ramps shall be installed according to the manufacturer's specifications and fastened with anchors meeting the manufacturer's recommendations. Temporary plastic ramps that fail to stay in place or create a traffic hazard shall be replaced immediately with temporary HMA ramps at the Contractor's expense."

80366

CLASS A AND B PATCHING (BDE)

Effective: January 1, 2018
Revised: November 1, 2018

Revise the second sentence of the first paragraph of Article 442.06(a)(1) of the Standard Specifications to read:

"Patches more than 20 ft (6 m) in length, including half-lane patches, shall be tied to the adjacent pavement, portland cement concrete shoulders, and curb and gutter with No. 6 (No. 19) transverse tie bars, 24 in. (600 mm) long, embedded 8 in. (200 mm) at 36 in. (600 900 mm) centers according to Article 420.05(b)."

Revise the sixth paragraph of Article 442.06(a)(2) of the Standard Specifications to read:

"Patches more than 20 ft (6 m) in length shall be tied to the adjacent lane of pavement, portland cement concrete shoulders, and curb and gutter with No. 6 (No. 19) transverse tie bars, 24 in. (600 mm) long, embedded 8 in. (200 mm) at 36 in. (600 900 mm) centers according to Article 420.05(b)."

80396

COMPENSABLE DELAY COSTS (BDE)

Effective: June 2, 2017

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 working day contracts the payment will be made according to Article 109.04. For completion date contracts, an adjustment will be determined as follows.

Extended Traffic Control occurs between April 1 and November 30:

ETCP Adjustment ($) = TE x (%/100 x CUP / OCT)

Extended Traffic Control occurs between December 1 and March 31:

ETCP Adjustment ($) = TE x 1.5 (%/100 x CUP / OCT)

Where: TE = Duration of approved time extension in calendar days.
% = Percent maintenance for the traffic control, % (see table below).
CUP = Contract unit price for the traffic control pay item in place during the delay.
OCT = Original contract time in calendar days.

Original Contract Amount	Percent Maintenance
Up to $2,000,000	65%
$2,000,000 to $10,000,000	75%
$10,000,000 to $20,000,000	85%
Over $20,000,000	90%

When an ETCP 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

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

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000
Revised: April 2, 2018

FEDERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR Part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR Part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory.

STATE OBLIGATION. This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. When this Special Provision is used to satisfy state law requirements on 100 percent state-funded contracts, the federal government has no involvement in such contracts (not a federal-aid contract) and no responsibility to oversee the implementation of this Special Provision by the Department on those contracts. DBE participation on 100 percent state-funded contracts will not be credited toward fulfilling the Department's annual overall DBE goal required by the US Department of Transportation to comply with the federal DBE program requirements.

CONTRACTOR ASSURANCE. The Contractor makes the following assurance and agrees to include the assurance in each subcontract that the Contractor signs with a subcontractor.

> The Contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of contracts funded in whole or in part with federal or state funds. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
>
> (a) Withholding progress payments;
>
> (b) Assessing sanctions;
>
> (c) Liquidated damages; and/or
>
> (d) Disqualifying the Contractor from future bidding as non-responsible.

OVERALL GOAL SET FOR THE DEPARTMENT. As a requirement of compliance with 49 CFR Part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a

good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE companies performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. The determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform 20.00 % of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set for in this Special Provision:

(a) The bidder documents that enough DBE participation has been obtained to meet the goal or,

(b) The bidder documents that a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

DBE LOCATOR REFERENCES. Bidders shall consult the IL UCP DBE Directory as a reference source for DBE-certified companies. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217) 785-4611, or by visiting the Department's website at:
http://www.idot.illinois.gov/doing-business/certifications/disadvantaged-business-enterprise-certification/il-ucp-directory/index.

BIDDING PROCEDURES. Compliance with this Special Provision is required prior to the award of the contract and the failure of the low bidder to comply will render the bid not responsive.

In order to assure the timely award of the contract, the low bidder shall submit:

(a) The bidder shall submit a DBE Utilization Plan on completed Department forms SBE 2025 and 2026.

(1) The final Utilization Plan must be submitted within five calendar days after the date of the letting in accordance with subsection (a)(2) of Bidding Procedures herein.

(2) To meet the five day requirement, the bidder may send the Utilization Plan electronically by scanning and sending to **DOT.DBE.UP@illinois.gov** or faxing to (217) 785-1524. The subject line must include the bid Item Number and the Letting date. The Utilization Plan should be sent as one .pdf file, rather than multiple files and emails for the same Item Number. It is the responsibility of the bidder to obtain confirmation of email or fax delivery.

Alternatively, the Utilization Plan may be sent by certified mail or delivery service within the five calendar day period. If a question arises concerning the mailing date of a Utilization Plan, the mailing date will be established by the U.S. Postal Service postmark on the certified mail receipt from the U.S. Postal Service or the receipt issued by a delivery service when the Utilization Plan is received by the Department. It is the responsibility of the bidder to ensure the postmark or receipt date is affixed within the five days if the bidder intends to rely upon mailing or delivery to satisfy the submission day requirement. The Utilization Plan is to be submitted to:

Illinois Department of Transportation
Bureau of Small Business Enterprises
Contract Compliance Section
2300 South Dirksen Parkway, Room 319
Springfield, Illinois 62764

The Department will not accept a Utilization Plan if it does not meet the five day submittal requirement and the bid will be declared not responsive. In the event the bid is declared not responsive due to a failure to submit a Utilization Plan or failure to comply with the bidding procedures set forth herein, the Department may elect to cause the forfeiture of the penal sum of the bidder's proposal guaranty, and may deny authorization to bid the project if re-advertised for bids. The Department reserves the right to invite any other bidder to submit a Utilization Plan at any time for award consideration.

(b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of Utilization Plan approval or disapproval under the procedures of this Special Provision.

(c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and scanned or faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:

(1) The names and addresses of DBE firms that will participate in the contract;

(2) A description, including pay item numbers, of the work each DBE will perform;

(3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;

(4) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;

(5) If the bidder is a joint venture comprised of DBE companies and non-DBE companies, the Utilization Plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,

(6) If the contract goal is not met, evidence of good faith efforts; the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor is selected over a DBE for work on the contract.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document that enough DBE participation has been obtained or document that good faith efforts of the bidder, in the event enough DBE participation has not been obtained, before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A. The Utilization Plan will not be approved by the Department if the Utilization Plan does not document sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere *pro forma* efforts, in other words, efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

(a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors

are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.

(1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.

(2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.

(3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

(4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.

b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable. In accordance with subsection (c)(6) of the above Bidding Procedures, the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.

(5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.

(6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.

(7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.

(8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.

(b) If the Department determines that the apparent successful bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that the bidder has failed to meet the requirements of this Special Provision or that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification shall include a statement of reasons for the determination. If the Utilization Plan is not approved because it is deficient as a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no more than a five calendar day period in order to cure the deficiency.

(c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after the receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217) 785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The determination shall become final if a request is not made and delivered. A request may provide additional written documentation or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of documentation and whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the

Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR Part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR Part 26.55, the provisions of which govern over the summary contained herein.

(a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.

(b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.

(c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.

(d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the following:

    (1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.

    (2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission is receives as a result of the lease arrangement.

(e) DBE as a material supplier:

(1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.

(2) 100 percent goal credit for the cost of materials of supplies obtained from a DBE manufacturer.

(3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a DBE regular dealer or DBE manufacturer.

CONTRACT COMPLIANCE. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Utilization Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements become part of the contract. If the Contractor did not succeed in obtaining enough DBE participation to achieve the advertised contract goal, and the Utilization Plan was approved and contract awarded based upon a determination of good faith, the total dollar value of DBE work calculated in the approved Utilization Plan as a percentage of the awarded contract value shall become the amended contract goal. All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the DBE Participation Commitment Statement.

(a) NO AMENDMENT. No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.

(b) CHANGES TO WORK. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A or AER 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, than a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.

(c) SUBCONTRACT. The Contractor must provide DBE subcontracts to IDOT upon request. Subcontractors shall ensure that all lower tier subcontracts or agreements with DBEs to supply labor or materials be performed in accordance with this Special Provision.

(d) ALTERNATIVE WORK METHODS. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:

(1) That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or

(2) That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or

(3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonable competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.

(e) TERMINATION AND REPLACEMENT PROCEDURES. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in this Special Provision. The Contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the Contractor obtains the Department's written consent as provided in subsection (a) of this part. Unless Department consent is provided for termination of a DBE subcontractor, the Contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the DBE in the Utilization Plan.

As stated above, the Contractor shall not terminate or replace a DBE subcontractor listed in the approved Utilization Plan without prior written consent. This includes, but is not limited to, instances in which the Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Written consent will be granted only if the Bureau of Small Business Enterprises agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate or replace the DBE firm. Before transmitting to the Bureau of Small Business Enterprises any request to terminate and/or substitute a DBE subcontractor, the Contractor shall give notice in writing to the DBE subcontractor,

with a copy to the Bureau, of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor shall give the DBE five days to respond to the Contractor's notice. The DBE so notified shall advise the Bureau and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Bureau should not approve the Contractor's action. If required in a particular case as a matter of public necessity, the Bureau may provide a response period shorter than five days.

For purposes of this paragraph, good cause includes the following circumstances:

(1) The listed DBE subcontractor fails or refuses to execute a written contract;

(2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;

(3) The listed DBE subcontractor fails or refuses to meet the prime Contractor's reasonable, nondiscriminatory bond requirements;

(4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;

(5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1200 or applicable state law.

(6) You have determined that the listed DBE subcontractor is not a responsible contractor;

(7) The listed DBE subcontractor voluntarily withdraws from the projects and provides to you written notice of its withdrawal;

(8) The listed DBE is ineligible to receive DBE credit for the type of work required;

(9) A DBE owner dies or becomes disabled with the result that the listed DBE subcontractor is unable to complete its work on the contract;

(10) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the prime Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the prime Contractor can self-perform the work for which the DBE contractor was engaged or so that the prime Contractor can substitute another DBE or non-DBE contractor after contract award.

When a DBE is terminated, or fails to complete its work on the Contract for any reason the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established Contract goal. The good faith efforts shall be documented by the Contractor. If the Department requests documentation under this provision, the Contractor shall submit the documentation within seven days, which may be extended for an additional seven days if necessary at the request of the Contractor. The Department shall provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated.

(f) FINAL PAYMENT. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than thirty calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Resident Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.

(g) ENFORCEMENT. The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.

(h) RECONSIDERATION. Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor my request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of “Good Faith Effort Procedures” of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department. The result of the reconsideration process is not administratively appealable to the U.S. Department of Transportation.

80029

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: August 1, 2018

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.

When a longitudinal joint sealant (LJS) is applied, longitudinal joint density testing will not be required on the joint(s) sealed."

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%”

80246

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

MANHOLES, VALVE VAULTS, AND FLAT SLAB TOPS (BDE)

Effective: January 1, 2018
Revised: March 2, 2018

Description. Manholes, valve vaults, and flat slab tops manufactured according to the current or previous Highway Standards listed below will be accepted on this contract:

Product	Current Standard	Previous Standard
Precast Manhole Type A, 4' (1.22 m) Diameter	602401-04	602401-03
Precast Manhole Type A, 5' (1.52 m) Diameter	602402	602401-03
Precast Manhole Type A, 6' (1.83 m) Diameter	602406-08	602406-07
Precast Manhole Type A, 7' (2.13 m) Diameter	602411-06	602411-05
Precast Manhole Type A, 8' (2.44 m) Diameter	602416-06	602416-05
Precast Manhole Type A, 9' (2.74 m) Diameter	602421-06	602421-05
Precast Manhole Type A, 10' (3.05 m) Diameter	602426	n/a
Precast Valve Vault Type A, 4' (1.22 m) Diameter	602501-03	602501-02
Precast Valve Vault Type A, 5' (1.52 m) Diameter	602506	602501-02
Precast Reinforced Concrete Flat Slab Top	602601-05	602601-04

When manufacturing to the current standards, the following revisions to the Standard Specifications shall apply:

Revise Article 602.02(g) of the Standard Specifications to read:

"(g) Structural Steel (Note 4) 1006.04

Note 4. All components of the manhole joint splice shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable."

Add the following to Article 602.02 of the Standard Specifications:

"(s) Anchor Bolts and Rods (Note 5) 1006.09

Note 5. The threaded rods for the manhole joint splice shall be according to the requirements of ASTM F 1554, Grade 55, (Grade 380)."

Add the following paragraph after the first paragraph of Article 602.07 of the Standard Specifications:

"Threaded rods connecting precast sections shall be brought to a snug tight condition."

Revise the second paragraph of Article 1042.10 of the Standard Specifications to read:

"Catch basin Types A, B, C, and D; Manhole Type A; Inlet Types A and B; Drainage Structures Types 1, 2, 3, 4, 5, and 6; Valve Vault Type A; and reinforced concrete flat slab top

(Highway Standard 602601) shall be according to AASHTO M 199 (M 199M), except the minimum wall thickness shall be 3 in. (75 mm). Additionally, catch basins, inlets, and drainage structures shall have a minimum concrete compressive strength of 4500 psi (31,000 kPa) at 28 days and manholes, valve vaults, and reinforced concrete flat slab tops shall have a minimum concrete compressive strength of 5000 psi (34,500 kPa) at 28 days."

80393

PAVEMENT MARKING REMOVAL (BDE)

Effective: July 1, 2016

Revise Article 783.02 of the Standard Specifications to read:

"**783.02 Equipment.** Equipment shall be according to the following.

Item	Article/Section
(a) Grinders (Note 1)	
(b) Water Blaster with Vacuum Recovery	1101.12

Note 1. Grinding equipment shall be approved by the Engineer."

Revise the first paragraph of Article 783.03 of the Standard Specifications to read:

"**783.03 Removal of Conflicting Markings.** Existing pavement markings that conflict with revised traffic patterns shall be removed. If darkness or inclement weather prohibits the removal operations, such operations shall be resumed the next morning or when weather permits. In the event of removal equipment failure, such equipment shall be repaired, replaced, or leased so removal operations can be resumed within 24 hours."

Revise the first and second sentences of the first paragraph of Article 783.03(a) of the Standard Specifications to read:

"The existing pavement markings shall be removed by the method specified and in a manner that does not materially damage the surface or texture of the pavement or surfacing. Small particles of tightly adhering existing markings may remain in place, if in the opinion of the Engineer, complete removal of the small particles will result in pavement surface damage."

Revise the first paragraph of Article 783.04 of the Standard Specifications to read:

"**783.04 Cleaning.** The roadway surface shall be cleaned of debris or any other deleterious material by the use of compressed air or water blast."

Revise the first paragraph of Article 783.06 of the Standard Specifications to read:

"**783.06 Basis of Payment.** This work will be paid for at the contract unit price per each for RAISED REFLECTIVE PAVEMENT MARKER REMOVAL, or at the contract unit price per square foot (square meter) for PAVEMENT MARKING REMOVAL – GRINDING and/or PAVEMENT MARKING REMOVAL – WATER BLASTING."

Delete Article 1101.13 from the Standard Specifications.

80371

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

PORTABLE CHANGEABLE MESSAGE SIGNS (BDE)

Effective: November 1, 2016
Revised: April 1, 2017

Revise the second paragraph of Article 701.20(h) of the Standard Specifications to read:

"For all other portable changeable message signs, this work will be paid for at the contract unit price per calendar day for each sign as CHANGEABLE MESSAGE SIGN."

Revise this second sentence of the first paragraph of Article 1106.02(i) of the Standard Specifications to read:

"The message panel shall be a minimum of 7 ft (2.1 m) above the edge of pavement in urban areas and a minimum of 5 ft (1.5 m) above the edge of pavement in rural areas, present a level appearance, and be capable of displaying up to eight characters in each of three lines at a time."

80377

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

PORTLAND CEMENT CONCRETE SIDEWALK (BDE)

Effective: August 1, 2017

Revise the first paragraph of Article 424.12 of the Standard Specifications to read:

"**424.12 Method of Measurement.** This work will be measured for payment in place and the area computed in square feet (square meters). Curb ramps, including side curbs and side flares, will be measured for payment as sidewalk. No deduction will be made for detectable warnings located within the ramp."

80385

PROGRESS PAYMENTS (BDE)

Effective: November 2, 2013

Revise Article 109.07(a) of the Standard Specifications to read:

"(a) Progress Payments. At least once each month, the Engineer will make a written estimate of the quantity of work performed in accordance with the contract, and the value thereof at the contract unit prices. The amount of the estimate approved as due for payment will be vouchered by the Department and presented to the State Comptroller for payment. No amount less than $1000.00 will be approved for payment other than the final payment.

Progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics' Lien Act, 770 ILCS 60/23(c).

If a Contractor or subcontractor has defaulted on a loan issued under the Department's Disadvantaged Business Revolving Loan Program (20 ILCS 2705/2705-610), progress payments may be reduced pursuant to the terms of that loan agreement. In such cases, the amount of the estimate related to the work performed by the Contractor or subcontractor, in default of the loan agreement, will be offset, in whole or in part, and vouchered by the Department to the Working Capital Revolving Fund or designated escrow account. Payment for the work shall be considered as issued and received by the Contractor or subcontractor on the date of the offset voucher. Further, the amount of the offset voucher shall be a credit against the Department's obligation to pay the Contractor, the Contractor's obligation to pay the subcontractor, and the Contractor's or subcontractor's total loan indebtedness to the Department. The offset shall continue until such time as the entire loan indebtedness is satisfied. The Department will notify the Contractor and Fund Control Agent in a timely manner of such offset. The Contractor or subcontractor shall not be entitled to additional payment in consideration of the offset.

The failure to perform any requirement, obligation, or term of the contract by the Contractor shall be reason for withholding any progress payments until the Department determines that compliance has been achieved."

80328

SUBCONTRACTOR AND DBE PAYMENT REPORTING (BDE)

Effective: April 2, 2018

Add the following to Section 109 of the Standard Specifications.

"**109.14 Subcontractor and Disadvantaged Business Enterprise Payment Reporting.** The Contractor shall report all payments made to the following parties:

(a) first tier subcontractors;

(b) lower tier subcontractors affecting disadvantaged business enterprise (DBE) goal credit;

(c) material suppliers or trucking firms that are part of the Contractor's submitted DBE utilization plan.

The report shall be made through the Department's on-line subcontractor payment reporting system within 21 days of making the payment."

80397

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

TEMPORARY PAVEMENT MARKING (BDE)

Effective: April 1, 2012
Revised: April 1, 2017

Revise Article 703.02 of the Standard Specifications to read:

"**703.02 Materials.** Materials shall be according to the following.

(a) Pavement Marking Tape, Type I and Type III 1095.06
(b) Paint Pavement Markings 1095.02
(c) Pavement Marking Tape, Type IV ..... 1095.11"

Revise the second paragraph of Article 703.05 of the Standard Specifications to read:

"Type I marking tape or paint shall be used at the option of the Contractor, except paint shall not be applied to the final wearing surface unless authorized by the Engineer for late season applications where tape adhesion would be a problem. Type III or Type IV marking tape shall be used on the final wearing surface when the temporary pavement marking will conflict with the permanent pavement marking such as on tapers, crossovers and lane shifts."

Revise Article 703.07 of the Standard Specifications to read:

"**703.07 Basis of Payment.** This work will be paid for as follows.

a) Short Term Pavement Marking. Short term pavement marking will be paid for at the contract unit price per foot (meter) for SHORT TERM PAVEMENT MARKING. Removal of short term pavement markings will be paid for at the contract unit price per square foot (square meter) for SHORT TERM PAVEMENT MARKING REMOVAL.

b) Temporary Pavement Marking. Where the Contractor has the option of material type, temporary pavement marking will be paid for at the contract unit price per foot (meter) for TEMPORARY PAVEMENT MARKING of the line width specified, and at the contract unit price per square foot (square meter) for TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS.

Where the Department specifies the use of pavement marking tape, the Type III or Type IV temporary pavement marking will be paid for at the contract unit price per foot (meter) for PAVEMENT MARKING TAPE, TYPE III or PAVEMENT MARKING TAPE, TYPE IV of the line width specified and at the contract unit price per square feet (square meter) for PAVEMENT MARKING TAPE, TYPE III - LETTERS AND SYMBOLS or PAVEMENT MARKING TAPE, TYPE IV – LETTERS AND SYMBOLS.

Removal of temporary pavement markings will be paid for at the contract unit price per square foot (square meter) for TEMPORARY PAVEMENT MARKING REMOVAL.

When temporary pavement marking is shown on the Standard, the cost of the temporary pavement marking and its removal will be included in the cost of the Standard."

Add the following to Section 1095 of the Standard Specifications:

"**1095.11 Pavement Marking Tape, Type IV.** The temporary, preformed, patterned markings shall consist of a white or yellow tape with wet retroreflective media incorporated to provide immediate and continuing retroreflection during both wet and dry conditions. The tape shall be manufactured without the use of heavy metals including lead chromate pigments or other similar, lead-containing chemicals.

The white and yellow Type IV marking tape shall meet the Type III requirements of Article 1095.06 and the following.

(a) Composition. The retroreflective pliant polymer pavement markings shall consist of a mixture of high-quality polymeric materials, pigments and glass beads distributed throughout its base cross-sectional area, with a layer of wet retroreflective media bonded to a durable polyurethane topcoat surface. The patterned surface shall have approximately 40% ± 10% of the surface area raised and presenting a near vertical face to traffic from any direction. The channels between the raised areas shall be substantially free of exposed beads or particles.

(b) Retroreflectance. The white and yellow markings shall meet the following for initial dry and wet retroreflectance.

(1) Dry Retroreflectance. Dry retroreflectance shall be measured under dry conditions according to ASTM D 4061 and meet the values described in Article 1095.06 for Type III tape.

(2) Wet Retroreflectance. Wet retroreflectance shall be measured under wet conditions according to ASTM E 2177 and meet the values shown in the following table.

Wet Retroreflectance, Initial R_L

Color	R_L 1.05/88.76
White	300
Yellow	200

(c) Color. The material shall meet the following requirements for daylight reflectance and color, when tested, using a color spectrophotometer with 45 degrees circumferential/zero degree geometry, illuminant D65, and a two degree observer angle. The color instrument shall measure the visible spectrum from 380 to 720 nm with a wavelength measurement interval and spectral bandpass of 10 nm.

Color	Daylight Reflectance %Y
White	65 minimum
*Yellow	36-59

*Shall match Federal 595 Color No. 33538 and the chromaticity limits as follows.

x	0.490	0.475	0.485	0.530
y	0.470	0.438	0.425	0.456

(d) Skid Resistance. The surface of the markings shall provide an average minimum skid resistance of 50 BPN when tested according to ASTM E 303.

(e) Sampling, Testing, Acceptance, and Certification. Prior to approval and use of the wet reflective, temporary, removable pavement marking tape, the manufacturer shall submit a notarized certification from an independent laboratory, together with the results of all tests, stating that the material meets the requirements as set forth herein. The certification test report shall state the lot tested, manufacturer's name, and date of manufacture.

After approval by the Department, samples and certification by the manufacturer shall be submitted for each batch used. The manufacturer shall submit a certification stating that the material meets the requirements as set forth herein and is essentially identical to the material sent for qualification. The certification shall state the lot tested, manufacturer's name, and date of manufacture.

All costs of testing (other than tests conducted by the Department) shall be borne by the manufacturer."

80298

TRAINING SPECIAL PROVISIONS (BDE) This Training Special Provision supersedes Section 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract will be 2 . In the event the contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within the reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather then clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

METHOD OF MEASUREMENT The unit of measurement is in hours.

BASIS OF PAYMENT This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

20338

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

WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012
Revised: April 2, 2015

The Contractor shall submit a weekly report of Disadvantaged Business Enterprise (DBE) trucks hired by the Contractor or subcontractors (i.e. not owned by the Contractor or subcontractors) that are used for DBE goal credit.

The report shall be submitted to the Engineer on Department form "SBE 723" within ten business days following the reporting period. The reporting period shall be Monday through Sunday for each week reportable trucking activities occur.

Any costs associated with providing weekly DBE trucking reports shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed.

80302

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection

for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each

classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of

Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Contract Provision - Cargo Preference Requirements

In accordance with Title 46 CFR § 381.7 (b), the contractor agrees—

"(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract."

Provisions (1) and (2) apply to materials or equipment that are acquired solely for the project. The two provisions do not apply to goods or materials that come into inventories independent of the project, such as shipments of Portland cement, asphalt cement, or aggregates, when industry suppliers and contractors use these materials to replenish existing inventories.

MINIMUM WAGES FOR FEDERAL AND FEDERALLY ASSISTED CONSTRUCTION CONTRACTS

This project is funded, in part, with Federal-aid funds and, as such, is subject to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Sta. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in a 29 CFR Part 1, Appendix A, as well as such additional statutes as may from time to time be enacted containing provisions for the payment of wages determined to be prevailing by the Secretary of Labor in accordance with the Davis-Bacon Act and pursuant to the provisions of 29 CFR Part 1. The prevailing rates and fringe benefits shown in the General Wage Determination Decisions issued by the U.S. Department of Labor shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

General Wage Determination Decisions, modifications and supersedes decisions thereto are to be used in accordance with the provisions of 29 CFR Parts 1 and 5. Accordingly, the applicable decision, together with any modifications issued, must be made a part of every contract for performance of the described work within the geographic area indicated as required by an applicable DBRA Federal prevailing wage law and 29 CFR Part 5. The wage rates and fringe benefits contained in the General Wage Determination Decision shall be the minimum paid by contractors and subcontractors to laborers and mechanics.