

January 10, 2023

SUBJECT FAI Route 90/94 (I-90/94) Project NHPP-HIBR-UH3A(902) Section 2020-004-BR Cook County Contract No. 62K74 Item No. 131, January 20, 2023 Letting Addendum A

NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

- 1. Revised the Schedule of Prices
- 2. Revised the Table of Contents to the Special Provisions.
- 3. Revised pages 1, 2, 5-38, 40-43, 60-68, 79-82, 99, 221, 250-253 & 334 of the Special Provisions.
- 4. Deleted pages 100-123 & 125-150 of the Special Provisions.
- 5. Added pages 471-489 to the Special Provisions
- Revised sheets 2, 3, 7-8, 11-13, 15, 22-24, 26-27, 29, 33-38, 75-85, 157, 287 288, 332, 373, 464 -475, 486, 488, 496, 519 522, 537, 566, 623, 663, 701, 724, 773-774, 841, 843-844, 848-849, 851, 862, 930, 965, 978, 981, 1035, 1043, 1046, 1093, 1095, 1198, 1200, 1316-1318, 1320, 1335-1336 of the Plans.
- 7. Added sheets 1478A-1478G to the Plans.

Prime contractors must utilize the enclosed material when preparing their bid and must include any changes to the Schedule of Prices in their bid.

Very truly yours,

CLEG

Jack A. Elston, P.E. Bureau Chief, Design and Environment

MTS

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# STATE OF ILLINOIS

# SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2022, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," and the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein which apply to and govern (1-90/94),NHPP-HIBR-UH3A(902), the construction of FAI Route 90/94 Project Section 2020-004-BR, Cook County, Contract No. 62K74 and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

> FAI Route 90/94 (I-90/94) Project NHPP-HIBR-UH3A(902) Section 2020-004-BR Cook County Contract No. 62K74

## LOCATION OF PROJECT

This project begins on the centerline of Interstate 90 at Station 300+00, at Ohio Street, and extends northerly 40,320 feet to Station 703+20, approximately 1000 feet north of the Interstate 90/94 junction. This project is located solely in the City of Chicago in Cook County, Illinois. This project is located at Townships 39, 40 North; Ranges 13, 14 East. It includes work at the following structures:

- SN 016-0204
- SN 016-2551
- SN 016-0135 SB & REV
- SN 016-0134 SB & REV
- SN 016-0133 SB & REV
- SN 016-0132 SB & REV
- SN 016-0131 SB & REV
- SN 016-0130 SB & REV
- SN 016-0129 SB & REV
- SN 016-0128 SB & REV
- SN 016-2654 SB & REV
- SN 016-0127 SB & REV
- SN 016-1078
- SN 016-1073
- SN 016-2046

- SN 016-0124
- SN 016-1076
- SN 016-0123 SB & REV
- SN 016-0121 SB & REV
- SN 016-0120 SB & REV
- SN 016-0118 SB & REV
- SN 016-0115 SB & REV
- SN 016-0114 SB & REV
- SN 016-2459
- SN 016-0112 SB & REV
- SN 016-0110
- SN 016-2574
- SN 016-2594

- Overhead Sign Structure 1S016I094R050.4
- Overhead Sign Structure 1S016l094R049.6
- Overhead Sign Structure 1S016I094R048.1
- Overhead Sign Structure 1S016l094R047.3
- Overhead Sign Structure 1S016l094R046.4
- Overhead Sign Structure 1S016l094R045.4
- Overhead Sign Structure 1S016l094R044.6
- Overhead Sign Structure 1S016l094R043.8
- Overhead Sign Structure 1S016I094R044.2
- Overhead Sign Structure 1S016I094L048.1
- Overhead Sign Structure 1S016l094L046.8
- Overhead Sign Structure 1S016I094L043.7
- Overhead Sign Structure 1S016l094L047.5

#### **DESCRIPTION OF PROJECT**

This project consists of diamond grinding, bridge deck scarification and overlay, bridge deck repairs, expansion joint reconstruction, joint repairs, parapet reconstruction, substructure repairs, bridge drainage system repairs, adjusting bridge scuppers, structural steel repairs, PPC I-Beam repairs and replacements, FRP strengthening of PPC I-Beams, slope wall repairs, approach slab repairs, pavement patching, pavement milling, concrete curb and gutter, cast in place concrete barriers, sewers, drainage structure adjustments, temporary and permanent pavement markings, erosion control, tree removal and planting, temporary soil retention system, waste testing and disposal, SMA placement on the bridge approaches, overhead sign structure relocation, overhead sign structure foundations, lighting improvements, ITS loop detector replacements, and all incidental and collateral work necessary to complete the project as shown on the plans and as described herein. Traffic will be maintained on I-90/94 using staging.

STATUS OF UTILITIES (D1)

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

Utility companies and/or municipal owners located within the construction limits of this project have provided the following information regarding their facilities and the proposed improvements. The tables below contain a description of specific conflicts to be resolved and/or facilities which 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 below; this work has been deemed necessary to be complete for the Department's contractor to then work in the stage under which the item has been listed.

# Pre-Stage

STAGE / LOCATION	ТҮРЕ	DESCRIPTION	RESPONSIBLE AGENCY	DURATION OF TIME
No adjustments anticipated				

# Stage 1

STAGE / LOCATION	ТҮРЕ	DESCRIPTION	RESPONSIBLE AGENCY	DURATION OF TIME
No adjustments anticipated				

# Stage 2

STAGE / LOCATION	ТҮРЕ	DESCRIPTION	RESPONSIBLE AGENCY	DURATION OF TIME
No adjustments anticipated				

# Stage 3

STAGE / LOCATION	TYPE	DESCRIPTION	RESPONSIBLE AGENCY	DURATION OF TIME
No adjustments				
anticipated				

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

Pre-Stage: _	0_	Days Total Installation
Stage 1:	_0	Days Total Installation
Stage 2:	_0	Days Total Installation
Stage 3:	_0	Days Total Installation

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

Agency/Company Responsible to Resolve Conflict	Name of contact	Phone	E-mail address
AT&T-T	Edward Tilton Jeremy Pendleton	(301) 882-8726 (812) 597-5207	Edward.Tilton@kci.com
AT&T-Local/AT&T Metro/AT&T TCA	Bobby Akhter	(630) 390-0089	Ba3817@att.com
AT&T-Distribution	Janet C. Ahern	(630) 573-6414	G11629@att.com
People's Gas	Eric Stall Aaron Meyer William Charvat	(312) 240-7394 (312) 240-4016	erstall@integrysgroup.com aaron.meyer@peoplesgasdelivery.com William.charvat@peoplesgasdelivery.com
City of Chicago Dept. of Water Mgmt. – Sewer Section	Chuck Mann Brendan Schreiber Bulent Agar Anupam Verma	(312) 744-5070 (312) 744-0344 (312) 742-7226	chuck.mann@cityofchicago.org Brendan.Schreiber@cityofchicago.org Bulent.Agar@cityofchicago.org Anupam.Verma@cityofchicago.org
City of Chicago Dept. of Water Mgmt Water Section	Jason McCubbin John Hart Vito Montana Rolando Villalon Angela Krueger	(312) 217-7928 (312) 742-3619 (312) 744-5070	FACM@ctrwater.net angela.krueger@cityofchicago.org Darren.Ujano@ctrwater.net Jason.McCubbin@ctrwater.net Rolando.villalon@cityofchicago.org
Lumen (CenturyLink/Level 3)	Kimberly Singleton Ben Pacocha Ryan Burgeson	(847)954-8212	Kimberly.Singleton@centurylink.com ben.pacocha@lumen.com ryan.burgeson@centurylink.com NationalRelo@centurylink.com relocations@centurylink.com

			1
Comcast	Bob Sculter	(224) 229-5861	Bob_Schulter@comcast.com
	Robert Stoll	(224) 229-5849	Robert_Stoll@comcast.com
	Martha Gieras		Martha_Gieras@comcast.com
			htinspector@comcast.net
ComEd	Vincent Mazzaferro Jen Maberto (Relocation Representative and MH Frame & Cover Program) Michael Mikaitis (MH Frame &	(779) 231-1027 (872) 395-1872 (312) 758 8838	Vincent.MazzaferroPE@comEd.com Plansubmittalsandmaprequests@exeloncorp .com Jennifer.maberto@comed.com M.Mikaitis@cotterconsulting.com
	Cover Program)		
Zayo	Timothy	(312) 216-0450	timothy.payment@zayo.com
	Payment	(847) 417 9609	john.ferraresi@zayo.com
	John Ferraresi		avillasenor@hbkengineering.com
Adesta	Alex Huml	(630) 636-8987	alex.huml@aus.com
Crown Castle	Joseph Mellenthin	(630) 480-5194	Joseph.mellenthin@crowncastle.com
CTA-Traffic	Joseph Osowski	(312) 681-4151	josowski@transitchicago.com
CTA – Engineering Structure	Stanislaw Zemaitaitis	(312) 681-3948	SZemaitaitis@transitchicago.com

# UTILITIES TO BE WATCHED AND PROTECTED

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

Portions of the existing bridge parapets and concrete median barriers will be removed for bridge joint repairs and overhead sign foundations as shown in the plans or as directed by the Engineer. These parapets and median barriers have utility ducts embedded in the concrete. The exact ownership of the ducts is unknown. The Contractor must exercise extreme caution in removing the parapets and barriers so as not to damage the utility ducts. The parapets and median barriers removal work must be done with careful hand removal operations so as not to damage the utilities. All the exposed utility ducts must remain undamaged and in functional operation during all stages. The Contractor must support and protect the utilities to the satisfaction of the Engineer during construction. These utility ducts will then be embedded in the cast in place concrete of the new parapets and concrete barrier. The Contractor will be responsible for any damage or loss of function of these utilities at any stage.

# Pre-Stage

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
None			

# <u>Stage 1</u>

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
Buried along I-90/94 and CTA corridor from Addison Street to End of Project	Cable	8" F.R.E. with twelve (12) 1.25" P- Ducts. Buried	AT&T-T
Buried Conduit crossing I-90/94 and running along Irving Park Road	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Addison Street	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Kimball Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Sacramento Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 at Schubert Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Western Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Fullerton Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Webster Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Ashland Ave	Cable	Underground Conduit	AT&T-D

Buried Conduit crossing I-90/94 and running along North Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Noble Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Milwaukee Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Ogden Ave	Cable	Underground Conduit	AT&T-D
High Pressure Gas crossing I-90/94 at Albany Ave	HP Gas	36" Steel	People's Gas
High Pressure Gas crossing I-90/94 along Armitage Ave	MP Gas	8" Plastic	People's Gas
Medium Pressure Gas crossing I-90/94 along Kedzie Ave	MP Gas	12" Plastic	People's Gas
Medium Pressure Gas crossing I-90/94 along Division St	MP Gas	18" Plastic	People's Gas
High Pressure Gas crossing I-90/94 along North Ave	HP Gas	36" Steel	People's Gas
Low Pressure Gas crossing I-90/94 along Ashland Ave	LP Gas	6" (Unknown Material)	People's Gas
Medium Pressure Gas crossing I-90/94 at Le Moyne Ave	MP Gas	36" Steel	People's Gas
Low Pressure Gas crossing I-90/94 at Cortland St	LP Gas	16" Steel	People's Gas
Medium Pressure Gas crossing I-90/94 along Damen Ave	MP Gas	6" Plastic	People's Gas
Medium Pressure Gas crossing I-90/94 along Logan Blvd	MP Gas	12" Steel	People's Gas
Medium Pressure Gas crossing I-90/94 at Campbell Ave	MP Gas	16" Steel	People's Gas
Medium Pressure Gas crossing I-90/94 along Irving Park Road	MP Gas	30" Cast Iron	People's Gas
			Revised 1/10/2023

Medium Pressure Gas crossing I-90/94 along Kostner Ave	MP Gas	16" Ductile Iron	People's Gas
Medium Pressure Gas crossing I-90/94 along Pulaski Road	MP Gas	24" Steel	People's Gas
Low Pressure Gas along Sacramento Ave	LP Gas	6" Cast Iron	People's Gas
Various	Storm Sewer	Various	City of Chicago Dept. of Water Mgmt. – Sewer Section
Communications line crossing I-90/94 along Irving Park Road	Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Communications line crossing I-90/94 along Pulaski Road	Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Communications line crossing I-90/94 along California Ave	Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Communications line crossing I-90/94 along Ashland Ave	Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Communications line crossing I-90/94 along Division Road	Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Communications line crossing I-90/94 along Milwaukee Ave	Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Facility crossing I- 90/94 along Sacramento Ave	Telephone	Underground Conduit	Comcast
Facility crossing I- 90/94 along Webster Ave	Telephone	Underground Conduit	Comcast
Facility crossing I- 90/94 along North Ave	Telephone	Underground Conduit	Comcast
44 feet South of Centerline of Belmont Ave and 19 feet East of Centerline of I-90/94	Water	Water Valve for feeder line cannot be adjusted. Access to valve must be maintained throughout construction.	City of Chicago Dept. of Water Mgmt Water Section
Along CTA Tracks from Belmont to Montrose	Communicatio ns	Underground Conduit	Zayo
Communications line crossing I-90/94 along Pulaski Road	Communicatio ns	Underground Conduit	Zayo
Communications line crossing I-90.94 along Kimball Avenue	Communicatio ns	Underground Conduit	Zayo
Electric line crossing I- 90/94 along Grand Ave	Electric	Underground Conduit	ComEd
	•		Bevised 1/10/2023

Electric line crossing I- 90/94 along Ogden Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Milwaukee Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Division St	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along North Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Ashland Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Cortland St	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Damen Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Fullerton Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Western Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 near Logan Blvd	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Diversey Ave	Electric	Underground Conduit	ComEd
Electric line crossing l- 90/94 along California Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Sacramento Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Kedzie Ave	Electric	Underground Conduit	ComEd
Electric line crossing l- 90/94 along Belmont Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Kimball Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Addison St	Electric	Underground Conduit	ComEd
Electric line crossing l- 90/94 along Pulaski Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Byron St	Electric	Underground Conduit	ComEd
			Bevised 1/10/2023

Electric line crossing I- 90/94 at approx. Sta. 620+00	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Irving park Road	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Kostner Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Montrose Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90 along Cicero Ave and I-94	Electric	Underground Conduit	ComEd
Various 3, 6, 12, and 24 ducts	Electric and Communicatio ns	Underground Conduit north of Irving Park Platform	CTA - Traffic

# Stage 2

STAGE / LOCATION	ТҮРЕ	DESCRIPTION	OWNER
Buried along I-90/94 and CTA corridor from Addison Street to End of Project	Cable	8" F.R.E. with twelve (12) 1.25" P- Ducts. Buried	AT&T-T
Buried Conduit crossing I-90/94 and running along Irving Park Road	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Addison Street	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Kimball Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Sacramento Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 at Schubert Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Western Ave	Cable	Underground Conduit	AT&T-D

Buried Conduit crossing I-90/94 and running along Fullerton Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Webster Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Ashland Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along North Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Noble Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Milwaukee Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Ogden Ave	Cable	Underground Conduit	AT&T-D
High Pressure Gas crossing I-90/94 at Albany Ave	HP Gas	36" Steel	People's Gas
High Pressure Gas crossing I-90/94 along Armitage Ave	MP Gas	8" Plastic	People's Gas
Medium Pressure Gas crossing I-90/94 along Kedzie Ave	MP Gas	12" Plastic	People's Gas
Medium Pressure Gas crossing I-90/94 along Division St	MP Gas	18" Plastic	People's Gas
High Pressure Gas crossing I-90/94 along North Ave	HP Gas	36" Steel	People's Gas
Low Pressure Gas crossing I-90/94 along Ashland Ave	LP Gas	6" (Unknown Material)	People's Gas
Medium Pressure Gas crossing I-90/94 at Le Moyne Ave	MP Gas	36" Steel	People's Gas
Low Pressure Gas crossing I-90/94 at Cortland St	LP Gas	16" Steel	People's Gas
			Revised 1/10/2023

		Bevised 1/10/2023
Telephone	Underground Conduit	Comcast
Telephone	Underground Conduit	Comcast
Telephone	Underground Conduit	Comcast
Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Storm Sewer	Various	City of Chicago Dept. of Water Mgmt. – Sewer Section
LP Gas	6" Cast Iron	People's Gas
MP Gas	24" Steel	People's Gas
MP Gas	16" Ductile Iron	People's Gas
MP Gas	30" Cast Iron	People's Gas
MP Gas	16" Steel	People's Gas
MP Gas	12" Steel	People's Gas
MP Gas	6" Plastic	People's Gas
	MP Gas MP Gas MP Gas MP Gas MP Gas MP Gas LP Gas LP Gas Storm Sewer Communicatio ns Communicatio ns Communicatio ns Communicatio ns Communicatio ns Communicatio ns	MP Gas12" SteelMP Gas16" SteelMP Gas30" Cast IronMP Gas16" Ductile IronMP Gas24" SteelLP Gas6" Cast IronStorm SewerVariousCommunicatio nsUnderground ConduitCommunicatio nsUnderground ConduitTelephoneUnderground ConduitTelephoneUnderground Conduit

Water	Water Valve for feeder line cannot be adjusted. Access to valve must be maintained throughout construction.	City of Chicago Dept. of Water Mgmt Water Section
Communicatio ns	Underground Conduit	Zayo
Communicatio ns	Underground Conduit	Zayo
Communicatio ns	Underground Conduit	Zayo
Electric	Underground Conduit	ComEd
	Communicatio ns Communicatio S Communicatio S Electric Electric Electric Electric Electric Electric Electric Electric Electric Electric Electric	Wateradjusted. Access to valve must be maintained throughout construction.Communicatio nsUnderground ConduitCommunicatio nsUnderground ConduitElectricUnderground Conduit

Electric line crossing I- 90/94 along Sacramento Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Kedzie Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Belmont Ave	Electric	Underground Conduit	ComEd
Electric line crossing l- 90/94 along Kimball Ave	Electric	Underground Conduit	ComEd
Electric line crossing l- 90/94 along Addison St	Electric	Underground Conduit	ComEd
Electric line crossing l- 90/94 along Pulaski Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Byron St	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 at approx. Sta. 620+00	Electric	Underground Conduit	ComEd
Electric line crossing l- 90/94 along Irving park Road	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Kostner Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Montrose Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90 along Cicero Ave and I-94	Electric	Underground Conduit	ComEd
Various 3, 6, 12 and 24 ducts	Electric and Communicatio ns	Underground Conduit north of Irving Park Platform	CTA - Traffic

# Stage 3

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
Buried along I-90/94 and CTA corridor from Addison Street to End of Project	Cable	8" F.R.E. with twelve (12) 1.25" P- Ducts. Buried	AT&T-T
Buried Conduit crossing I-90/94 and running along Irving Park Road	Cable	Underground Conduit	AT&T-D

Buried Conduit crossing I-90/94 and running along Addison Street	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Kimball Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Sacramento Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 at Schubert Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Western Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Fullerton Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Webster Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Ashland Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along North Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Noble Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Milwaukee Ave	Cable	Underground Conduit	AT&T-D
Buried Conduit crossing I-90/94 and running along Ogden Ave	Cable	Underground Conduit	AT&T-D
High Pressure Gas crossing I-90/94 at Albany Ave	HP Gas	36" Steel	People's Gas
High Pressure Gas crossing I-90/94 along Armitage Ave	MP Gas	8" Plastic	People's Gas
			Bevised 1/10/2023

	1		,
Medium Pressure Gas crossing I-90/94 along Kedzie Ave	MP Gas	12" Plastic	People's Gas
Medium Pressure Gas crossing I-90/94 along Division St	MP Gas	18" Plastic	People's Gas
High Pressure Gas crossing I-90/94 along North Ave	HP Gas	36" Steel	People's Gas
Low Pressure Gas crossing I-90/94 along Ashland Ave	LP Gas	6" (Unknown Material)	People's Gas
Medium Pressure Gas crossing I-90/94 at Le Moyne Ave	MP Gas	36" Steel	People's Gas
Low Pressure Gas crossing I-90/94 at Cortland St	LP Gas	16" Steel	People's Gas
Medium Pressure Gas crossing I-90/94 along Damen Ave	MP Gas	6" Plastic	People's Gas
Medium Pressure Gas crossing I-90/94 along Logan Blvd	MP Gas	12" Steel	People's Gas
Medium Pressure Gas crossing I-90/94 at Campbell Ave	MP Gas	16" Steel	People's Gas
Medium Pressure Gas crossing I-90/94 along Irving Park Road	MP Gas	30" Cast Iron	People's Gas
Medium Pressure Gas crossing I-90/94 along Kostner Ave	MP Gas	16" Ductile Iron	People's Gas
Medium Pressure Gas crossing I-90/94 along Pulaski Road	MP Gas	24" Steel	People's Gas
Low Pressure Gas along Sacramento Ave	LP Gas	6" Cast Iron	People's Gas
Various	Storm Sewer	Various	City of Chicago Dept. of Water Mgmt. – Sewer Section
44 feet South of the Centerline of W Belmont Ave and 19 feet East of the Centerline of Interstate 90/94 (Kennedy Expressway)	Water Main – Feeder Main Isolation Valve	Feeder Main Isolation Valve City of Chicago Dept of Water Management must have unrestricted access.	City of Chicago Dept. of Water Mgmt. – Water Section
Communications line crossing I-90/94 along Irving Park Road	Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
			Revised 1/10/2023

Communications line crossing I-90/94 along Pulaski Road	Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Communications line crossing I-90/94 along California Ave	Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Communications line crossing I-90/94 along Ashland Ave	Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Communications line crossing I-90/94 along Division Road	Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Communications line crossing I-90/94 along Milwaukee Ave	Communicatio ns	Underground Conduit	Lumen (CenturyLink/Level 3)
Facility crossing I- 90/94 along Sacramento Ave	Telephone	Underground Conduit	Comcast
Facility crossing I- 90/94 along Webster Ave	Telephone	Underground Conduit	Comcast
Facility crossing I- 90/94 along North Ave	Telephone	Underground Conduit	Comcast
44 feet South of Centerline of Belmont Ave and 19 feet East of Centerline of I- 90/94	Water	Water Valve for feeder line cannot be adjusted. Access to valve must be maintained throughout construction.	City of Chicago Dept. of Water Mgmt Water Section
Along CTA Tracks from Belmont to Montrose	Communicatio ns	Underground Conduit	Zayo
Communications line crossing I-90/94 along Pulaski Road	Communicatio ns	Underground Conduit	Zayo
Communications line crossing I-90.94 along Kimball Avenue	Communicatio ns	Underground Conduit	Zayo
Electric line crossing I- 90/94 along Grand Ave	Electric	Underground Conduit	ComEd
Electric line crossing l- 90/94 along Ogden Ave	Electric	Underground Conduit	ComEd
Electric line crossing l- 90/94 along Milwaukee Ave	Electric	Underground Conduit	ComEd
Electric line crossing l- 90/94 along Division St	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along North Ave	Electric	Underground Conduit	ComEd Bevised 1/10/2023

Electric line crossing I- 90/94 along Ashland Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Cortland St	Electric	Underground Conduit	ComEd
Electric line crossing l- 90/94 along Damen Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Fullerton Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Western Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 near Logan Blvd	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Diversey Ave	Electric	Underground Conduit	ComEd
Electric line crossing l- 90/94 along California Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Sacramento Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Kedzie Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Belmont Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Kimball Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Addison St	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Pulaski Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Byron St	Electric	Underground Conduit	ComEd
Electric line crossing l- 90/94 at approx. Sta. 620+00	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Irving park Road	Electric	Underground Conduit	ComEd
Electric line crossing I- 90/94 along Kostner Ave	Electric	Underground Conduit	ComEd
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Electric line crossing I- 90/94 along Montrose Ave	Electric	Underground Conduit	ComEd
Electric line crossing I- 90 along Cicero Ave and I-94	Electric	Underground Conduit	ComEd
Various 3, 6, 12 and 24 ducts	Electric and Communicatio ns	Underground Conduit north of Irving Park Platform	CTA - Traffic

Crown Castle does not have utility atlases or field marked locations. They have provided the following general statement: Existing Crown Castle Facilities are in the area; use extreme caution. Hand trench within 3' of Crown Castle facilities to visually locate, and a minimum of 12" clearance (vertical & horizontal) from existing Crown Castle facilities is required. Contact Digger for locates a minimum of 48 hours before beginning construction.

The following facilities are outside of apparent work zones; however the Contractor must provide unrestricted access to the CDWM for access to the feeder main isolation valves at the following locations:

(Note: NSL = north of the south property line)

- 16 feet SNL of W Chicago Avenue and 62 feet EEL of N Elizabeth Street
- 505 feet NNL of N Kennedy Western Avenue and 41 feet EWL of N Western Avenue
- 280 feet SCL of Interstate 90/94 (Kennedy Expressway) and 11 feet ECL of N Avondale Avenue
- 44 feet SCL of W Belmont Avenue and 19 feet ECL of Interstate 90/94 (Kennedy Expressway)
- 20 feet NSL of W Addison Street and 354 feet WWL of N Central Park Avenue
- 5 feet SNL of W Montrose Avenue and 25 feet EWL of Interstate 90/94 (Kennedy Expressway)

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	Name of contact	Phone	E-mail address
Resolve Conflict			
AT&T-T	Edward Tilton	(301) 882-8726	Edward.Tilton@kci.com
	Jeremy Pendleton	(812) 597-5207	Edward.Tilton@kci.com
	Rich Meyers		Ken.Caudill@kci.com
	Ken Caudill		
AT&T-Local/AT&T	Bobby Akhter	(630) 390-0089	Ba3817@att.com
Metro/AT&T TCA			
AT&T-Distribution	Janet C. Ahern	(630) 573-6414	G11629@att.com
	(New Plans)	(630) 408-7267	G05256@att.com
	Stan Plodzein	(630) 573-5453	Sp3264@att.com
	(AT&T-D)	(630) 573-5423	Jg8128@att.com
	Jamie Gwin	(630) 573-6496	Ja1763@att.com
	(AT&T-D)		

People's Gas	Eric Stall		erstall@integrysgroup.com
reopie's Gas	Aaron Meyer	(312) 240-7394	aaron.meyer@peoplesgasdelivery.com
	William Charvat	(312) 240-4016	William.charvat@peoplesgasdelivery.com
City of Chicago	Chuck Mann	(012) 240 4010	chuck.mann@cityofchicago.org
Dept. of Water	Brendan Schreiber	(312) 744-5070	Brendan.Schreiber@cityofchicago.org
Mgmt. – Sewer	Pablo Martinez	(312) 744-0344	Pablo.Martinez@cityofchicago.org
Section	Jason McCubbin	(312) 742-7226	Jason.McCubbin@ctrwater.net
Section	Patrik Maloney	(312) 742-7220	Patrick.Maloney@cityofchicago.org
	Anupam Verma		Anupam.Verma@cityofchicago.org
City of Chicago	Jason McCubbin	(312) 217-7928	IDOT Construction or the IDOT Contractor should send
Dept. of Water	Vito Montana	(312) 742-3619	an e-mail to the CDWM - Water CTR general
Mgmt Water	Rolando Villalon	(312) 744-5070	email <u>FACM@ctrwater.net</u> and carbon copy Jason
Section	Angela Krueger	(012) 744 0070	
Occlion	Angela Nueger		McCubbin at <u>Jason.McCubbin@ctrwater.net</u> at
			least a couple of days prior to needing a CDWM- Water
			inspector on site. Jason McCubbin can be contacted
			directly by telephone at (312) 217-7928.
			FACM@ctrwater.net
			angela.krueger@cityofchicago.org,
			Darren.Ujano@ctrwater.net,
			Jason.McCubbin@ctrwater.net, &
			Rolando.villalon@cityofchicago.org
Lumen	Kimberly Singleton	(847) 954-8212	Kimberly.Singleton@centurylink.com
	Ben Pacocha	(047) 954-0212	ben.pacocha@lumen.com
(CenturyLink/Level			
3)	Ryan Burgeson		ryan.burgeson@centurylink.com
			NationalRelo@centurylink.com
0	Dala Caultan	(004) 000 5004	relocations@centurylink.com
Comcast	Bob Sculter	(224) 229-5861	Bob_Schulter@comcast.com
	Robert Stoll	(224) 229-5849	Robert_Stoll@comcast.com
	Martha Gieras		Martha_Gieras@comcast.com
			htinspector@comcast.net
ComEd	Vincent	(779) 231-1027	Vincent.MazzaferroPE@comEd.com
	Mazzaferro	(872) 395-1872	Plansubmittalsandmaprequests@exeloncorp.com
	Jen Maberto	(312) 758 8838	Jennifer.maberto@comed.com
	(Relocation		M.Mikaitis@cotterconsulting.com
	Representative		
	and MH Frame &		
	Cover Program)		
	Michael Mikaitis		
	(MH Frame &		
	Cover Program)		
Zayo	Timothy Payment	(312) 216-0450	timothy.payment@zayo.com
	John Ferraresi	(847) 417 9609	john.ferraresi@zayo.com
			avillasenor@hbkengineering.com
Adesta	Alex Huml	(630) 636-	alex.huml@aus.com
		8987	
Crown Castle	Joseph	(630) 480-	Joseph.mellenthin@crowncastle.com
	Mellenthin	5194	
CTA - Traffic	Joseph Osowski	(312) 681-	josowski@transitchicago.com
		4151	Josowakie transitaniougo.com
			Rovicod 1/10/2023

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

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

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

# CTA REQUIREMENTS FOR CONTRACTORS WORKING ALONG THE RIGHT-OF-WAY (R.O.W)

## MANDATORY ITEMS FOR EMPLOYEES ON CTA RIGHT-OF-WAY

A. Contractor's and Subcontractor's employees assigned to work on the CTA Right-of-Way:

- a. All employees shall wear an undamaged hard hat with current rail safety sticker affixed, CTA standard safety vest, eye protection and face-mask / face-covering performing work all times while on CTA right-of-way. Noise protection shall be used when necessary. The Contractor must also comply with all OSHA requirements as required for the work. The CTA shall provide the rail safety sticker to each Contractor employee upon successful completion of the Rail Right-of-Way Safety Training.
- b. Contractor and Subcontractor employees assigned to work adjacent to or above the CTA right-of-way shall wear a face-mask / face-covering while performing work on CTA property.

#### General Comments:

Contractor performing construction work adjacent to the CTA Right-of-Way (R.O.W.) can present hazards to CTA's property. The contractor shall have CTA flagmen present to assist them on the R.O.W. The CTA may also require inspectors and infrastructure trades (Linemen, Signal Maintainers, etc.). The cost of these services is the responsibility of the contractor and the must be prepaid.

Prior to the start of any work in close proximity of the CTA's R.O.W. the contractor shall meet with a CTA representative to determine the requirements for the flagmen and other trades, if required and other necessary items related to the work activities next to the CTA facilities and to receive CTA's approval for the contractor's proposed operations.

All Contractor and Subcontractor employees assigned to work on, over or near the CTA R.O.W. shall be required to attend an all-day Rail Right-of-Way Safety Training Session. The cost of this training is currently \$200 per employee, paid by the Contractor in advance.

The contractor shall notify the CTA representative at least 30 days prior to the performance of any work. The CTA's representative for this project will be:

### David Heard Manager, Construction Management Oversight (312) 681-3862

#### Will Moppins wmoppins@transitchicago.com (312) 681-2759

The Chicago Transit Authority reserves the right to restrict or prohibit work in or adjacent to the R.O.W. in an emergency and to the extent the Chicago Transit Authority determines that such work has adverse impacts on CTA Transit Operations. NO work may be performed during "Rush Hour" periods (Monday through Friday, from 0500 to 0900 and from 1500 to 1900 hours).

Workers from adjacent construction projects are prohibited to enter the CTA's R.O.W, unless CTA permission has been granted and workers have completed the Rail Right-of-Way Safety Training Session (no workers are allowed on the CTA R.O.W. without the presence of CTA Flaggers). Use of cranes or other equipment directly above the CTA's R.O.W. is also prohibited.

Contractors performing work within 50 feet of the CTA R.O.W. and/or property are required to obtain Railroad Protective Insurance coverage.

When installing deep foundations (or Jacking under the CTA R.O.W.) the contractor shall continuously monitor the existing CTA's at-grade track and elevated structure footing for movement or other signs of distress. Appropriate remedial measures must be approved by CTA.

Once the excavation for any caissons that progress deeper than 8 feet, or to the water table, whichever is smallest, the work on that caisson shall be carried on continuously, 24 hours a day, including Saturday's, Sunday's, and holiday's until the caisson has been completed.

If at any time, work on any caisson is not continuous, for any reason, and not approved by the CTA, all caissons, which have been installed, shall be filled with sand or slurry at the contractor's expense.

Should any of the proposed work require the contractor to enter upon, or perform work above Chicago Transit Authority property, the contractor must first provide payment of \$1,000; this payment is the fee for the CTA to process a Right of Entry document; this fee is non-refundable.

In order for CTA to process the Right of Entry document, the contractor must furnish scope of work, insurance, Letter of Commitment, and deposit for Flagger/Inspector charges (all of these requirement are covered in this R.O.W. requirements document).

Please include a property plat or site plan that is the subject of your request, which identifies your client's property and CTA's property.

Five (5) weeks prior to the start of any work that may impact CTA Rail Operations (work in close proximity to CTA tracks that may cause service disruptions, etc.), the Contractor is required to attend a weekly Rail Operations meeting at the CTA Headquarters (date/time to be furnished); the Contractor is to bring a -week look-ahead schedule detailing dates/times of work, # of CTA Flaggers required, direction of track affected by work, whether track needs to be closed and/or whether power needs to be shut off (all of the aforementioned are contingent upon the prior approval of CTA).

Further, any work that affects the safety or causes disruptions of service or inconvenience to transit users, CTA Operations or impacts CTA Right-of-Way requires a "Construction Process Plan" Twenty-One (21) days PRIOR to work. A Construction Process Plan contains scope of work, timing of work (days and hours), impacts to CTA operations (and/or how you will mitigate impacts), contingency plans, weather limitations, contact info, Drawings/Sketches of work and relation to CTA tracks, Job Hazard Analysis, Hospital route map, equipment specs, lift plan, etc.

Respectfully,

bain / anill

Abdin Carrillo Project Manager, Construction Oversight

copies: C. Bushell

R. Wittmann S. Mascheri J. Harper File: Right of Way Requirements-Revised 10082013a REV E 10-20-14

#### CHICAGO TRANSIT AUTHORITY **INSURANCE AND BOND REQUIREMENTS** [Short Form – General Right of Entry]

#### ROE DESCRIPTION: SAMPLE

#### PART I. **REQUIRED INSURANCE COVERAGES** A. WORKERS COMPENSATION

- **STATUTORY** in form and in accordance with the laws of the State Coverage A: of Illinois.
- Coverage B: **Employers Liability:**

\$1.000.000 Bodily Injury by Accident \$1,000,000 Bodily Injury by Disease, Policy Limit

## B. COMPREHENSIVE OR COMMERCIAL GENERAL LIABILITY:

- \$2.000.000 General Aggregate (Per Location)
- \$2,000,000 Products/Completed Operations Aggregate
- \$1,000,000 Personal Injury and Advertising Injury
- Per Occurrence \$1,000,000

The Commercial General Liability policy shall include, without limitation: (i) Broad Form Contractual Liability, (ii) Products/Completed Operations to be maintained in full force and effect for a period of two (2) years following final completion of the work under the Contract,

(iii) Independent Contractors' Protective Liability, (iv) Premises/Operations, including deletion of explosion, collapse and underground (XCU) exclusions, (v) Broad Form Property Damage, including Products/Completed Operations, (vi) Personal Injury Liability,

(vii) Severability of Interest and Cross Liability endorsement and (viii) Contractor expressly agrees to waive, and will require its insurer to waive, its rights, benefits and entitlement under the "Other Insurance" clause of its Commercial General Liability policy, with respect to the CTA.

# If any work is to be performed within fifty (50) feet of rail right-of- way Contractor must:

1. Provide Railroad Protective Liability Insurance policy in the amount of \$2,000,000 per occurrence / \$6,000,000 aggregate

## A. AUTOMOBILE LIABILITY

\$1,000,000 Combined Single Limit (Bodily Injury and Property Damage)

#### PART II. GENERAL INSTRUCTIONS AND REQUIREMENTS A. WAYS TO COMPLY WITH CTA INSURANCE REQUIREMENTS.

1. HOW TO COMPLY IF CGL, OWNERS PROTECTIVE LIABILITY, BUILDER'S RISK INSURANCE AND/OR PROFESSIONAL LIABILITYARE REQUIRED BY PART III OF THIS DOCUMENT.

There are three ways to satisfy the CTA's insurance requirements for Comprehensive General Liability, Owners Protective Liability, Builder's Risk and Professional Liability. For Comprehensive General Liability, Owners Protective Liability, Builder's Risk and Professional Liability the Contractor must provide the CTA with one of the following insurance documents:

- a) Certified copy of the insurance policy,
- b) An insurance binder, or
- c) The CTA Certificate of Coverage on the CTA approved form. The CTA Certificate of Coverage may be completed only by an authorized representative of the insurance company, an agent, broker, or underwriter.
- 2. HOW TO COMPLY IF **RAILROAD PROTECTIVE INSURANCE** IS REQUIRED BY PART III OF THIS DOCUMENT.

There are two ways to satisfy the CTA's insurance requirements for Railroad Protective. The Contractor must provide the CTA with one of the following insurance documents:

- a) Certified copy of the insurance policy or
- b) An insurance binder

Method b) is a temporary method that is valid only for 90 days. A certified copy of the railroad protective insurance policy must be furnished prior to the expiration of this 90-day period.

3. HOW TO COMPLY FOR ALL OTHER TYPES OF REQUIRED INSURANCE.

For all other insurance required by Part III of this document, an ACORD<sup>D</sup> certificate is acceptable.

### **B. DEADLINE FOR INITIAL SUBMITTAL OF CONTRACTOR'S INSURANCE AND BOND DOCUMENTS.**

The Contractor must furnish all required insurance, performance, and payment bond documents within fourteen days of the date that the Contractor receives a letter (the "Insurance Submittal Letter") from the CTA's General Manager of Purchasing requesting the Contractor to submit the documents required by these Insurance and Bond Requirements. CTA will not execute the Contract until the required insurance and bond documents are delivered to CTA and approved by CTA. Failure to deliver the required documents within fourteen days of receipt of the Insurance Submittal Letter is a material failure to comply with the specifications and may result in any or all of the following at the CTA's sole discretion:

- 1) Debarment or suspension, and
- 2) Determination of Contractor non-responsibility.

# C. CTA ADDRESS.

All notices and documents must be mailed to

the CTA at: Tamika Press Insurance Coordinator Risk Management Department 567 W. Lake Street Chicago, IL. 60661-1498

## D. OBLIGATION TO MAINTAIN CONTINUOUS COMPLIANCE

- 1. The Contractor expressly agrees that failure to comply and maintain compliance with all insurance and bond requirements shall constitute a material breach of the Contract which may result in default and, if uncured, termination for default under the contract. In addition, such failure, if uncured, may result in debarment and suspension.
- 2. The Contractor is prohibited from performing any work if Contractor has allowed any of the required insurance policies to expire.

## PART III. MISCELLANEOUS INSURANCE REQUIREMENTS

- **A.** The CTA must be named as an Additional Insured and Certificate Holder. When the CTA is an additional insured, the coverage shall be primary.
- **B.** The CTA must be the Named Insured on the Owners Protective Liability, Railroad Protective Liability, or Builders Risk Insurance policies.
- **C.** The Commercial General Liability and Owners Protective Liability, General Aggregate Limit of Liability, if any, must apply on a per location, per project basis by endorsement to the policy.

- D. All insurance carriers must be acceptable to the CTA. All insurance companies shall have at least a B+ VII POLICY HOLDER RATING, or better, by the A.M. Best Co., Inc. Insurance companies with lower ratings will not be accepted. Carriers licensed to do business in the State of Illinois must issue all insurance, with the exception of Railroad Protective.
- **E.** To the extent permitted by the Contractor's insurance policies required by the CTA, the Contractor and its insurers waive all rights of subrogation against the CTA.
- **F.** The insurance to be carried shall in no way be subject to limitations, if any, expressed in the indemnity section of the General Conditions (or any statutory, judicial or common law limitations).
- **G.** CTA MUST BE ADDITIONAL INSURED ON GENERAL LIABILITY.

# **INSURANCE CERTIFICATE OF COVERAGE**

Named		Specific	eation #:	
			#:	
Address:(NUMBER & STREET)		_ Contrac	t#:	
(CITY) (STATE) (ZIP)		-		
Description of Operation/Location				
The insurance policies and endorsements indicated below have been issued t described within the contract involving the named insured and the Chicago Trr material change involving the indicated policies, the Suser will provide at least address shown on this Certificate. This certificate is issued to the Chicago Tra mutually understood that the Chicago Transit Authority relies on this certificate	ansit Authority. The Certificate issu t sixty (60) days prior written notice nsit Authority in consideration of th	er agrees that in the eve of such change to the C ne contract entered into w	nt of cancellation, non-renewal or hicago Transit Authority at the ith the named insured, and it is	
Type of insurance Insurer Name	Policy Number	Policy Period	Limits of Liability All Limits in Thousands	
Commercial General Liability Occurrence Olaims made			Each Occurrence <u>\$</u>	
Premise-Operations Explosion/Collapse Underground Products/Completed Operations Blanket Contractual			General Aggregate <u>\$</u>	
⊟Broad Form Property Damage ⊟ndependent Contractors ⊡Personal Injury			Products/Completed Operations Aggregate <u>\$</u>	
Pollution Commercial General Liability Form #: CG 00 01				
Automobile Liability (Any Auto)			Each Occurrence	
Excess Liability Umbrella Liability			S Each Occurrence	
Workers' Compensation and Employer's Liability			\$ Statutory/Illinois Employers Liability \$	
Builders' Risk/Course of Construction			Amount of Contract \$	
Professional Liability			\$	
Owner Contractors Protective			\$	
Other				
<ul> <li>a) Each insurance policy required by this agreement, except policies for workers' compensation and professional liability, will read:         <ul> <li>"The Chicago Transit Authority is an additional insured as respects to operations and activities of, or on behalf of the named insured, performed under contract with or permit from the Chicago Transit Authority".</li> <li>The Ceneral, Automobile and Excess/Umbrell Lability Policies described provide for separation of insureds applicable to the named insured and the CTA.</li> <li>Workers Compensation and Property insurer shall wake all rights of subrogation against the Chicago Transit Authority.</li> <li>The receipt of this certificate by the CTA does not constitute agreement by the CTA that the insurance requirements in the contract have been fully met, or that the insurance companies indicated by this certificate are in compliance with all contract requirements.</li> </ul> </li> </ul>				
Name and Address of Certificate Holder and Receipt of Notice	Signature of Authorized F	- C1	FA RISK MANAGEMENT 12/05	
nume and numero of certificate model and receipt of notice	Signature of Authorized P	opresentative		
Certificate Holder/Additional Insured	Agent/Company Address			
Chicago Transit Authority Risk Management	Agent/Company Address			
P.O. Box 7564	Telephone			
Chicago, IL 60680	Telephone			

# Letter of Commitment

A Signed Contractual Agreement or Written Letter of Commitment serves as a formal agreement between the company and the CTA for the work to be performed. The following Information should be included in your Letter:

- 1. Company's name, address, phone, and fax number
- 2. Company's contact person/project manager
- 3. Scope, Location, and Duration of the Project
- 4. Authorization to employ our service and bill your company
- 5. Authorized signature from project manager or officer of company

# SAMPLE: Letter of Commitment

Chicago Transit Authority 567 W. Lake Chicago, IL 60661

Contractor: Company Name Address City, State, Zip Code Phone: Fax: (XXX) XXX-XXXX (XXX) XXX-XXXX

Contact person/Project Manager:

Work Location: Address City, State, Zip Code Scope of Work: Duration of Project: XXXX

To Whom It May Concern:

(*Insert company name*) is the Contractor for the building at (*insert address/project location*), and intends to (*insert type of work to be performed*) at the said location. The property is adjacent to the CTA's (*i.e. Red, Brown, Purple, Blue, Orange, Yellow, or Pink*) line. The work will be completed in (*insert number*) days.

If any of CTA's services are required, I authorize the employment of and payment for such services.

Sincerely,

XXXXX

(Company Name to be billed for services)

# CTA Deposit Requirements

All Contractors performing work on or near the Chicago\_Transit Authority's (CTA) property will be required to provide a deposit in advance equal to CTA's estimate. No contractor will be permitted to work prior to submission of the deposit. The estimated amount includes, but is not limited to the following CTA services: Flagging Charges, Slow Zone Charges (signage and initial supplies), Inspector Charges, and other services as required (i.e. electricians, signal maintainers, switch persons, etc.)

#### Flagging Charges

The Contractor must provide CTA with a minimum of seventy-two (72) week day hours to schedule flagmen for a project (this means that flagmen required for the following Monday must be requested by 12:00PM (Noon) the previous Wednesday). Flagmen are scheduled for a minimum of eight (8) hours. Cancellations of flagmen orders require a twenty-four (24) hour advance notice, otherwise, the Contractor will be charged for the scheduled workers. Slow Zones and Supplies

If a project requires the use of slow zones (work that is in close proximity to CTA tracks that requires Trains to reduce speeds), CTA will supply the signage for a fee. The contractor will be charged a fee of \$1,600.00 for each set of slow zone signage and associated equipment issued. The initial set of batteries for the lighting supplies will be provided by the CTA; however the contractor will need to supply any subsequent batteries/bulbs. Additionally, the contractor will be responsible for setting up, maintaining, removing, and securing the slow zones (Note: Contractor workers must have completed the Rail Right-of- Way Safety Training Session). The contractor will be refunded the balance remaining from the slow zone charge, less \$200.00 per ninety (9) days of usage and the cost of unreturned equipment.

# Inspector Charges

Projects scheduled during weekend hours count as overtime for CTA inspectors. Weekend hours begin\_Saturday at 5:00 AM and end Monday at 5:00 AM. CTA requires a five (5) day advance notice from\_Contractors to schedule inspectors for weekend projects. If the Contractor's initial deposit amount is\_expended prior to the completion of the project, CTA will require an additional deposit to cover the\_remaining work for the project. CTA will not provide services if additional funds are not provided. official project completion, all unused funds will be returned to the contractor.

All checks must be payable to the: Chicago Transit Authority 567 West Lake Street Chicago, IL. 60661 To ensure prompt service, please include the estimate sheet, your Commitment Letter, and address it to the attention of Abdin Carrillo. If you have any questions, please contact me at (312) 681.3913 Sincercly

Sincerely

Itain Carrillo

Abdin Carrillo Manager, Construction Management Oversight Rail Safety Training
All Contractor/Subcontractor/Consultant personnel assigned to work on, under, above, or adjacent to the CTA Right-Of-Way (R.O.W) and inside Rail Maintenance Facilities adjacent to sixhundred (600) VDC, are required to successfully complete a one-day (8-hour) Rail Safety Training (R.S.T.) Course administered by CTA in order to qualify for a Rail Right-Of- Way Safety Card. The course identifies the dangers that exist on the Rail System, including moving trains and the 600-volt DC Traction Power Distribution System. T h e C T A Representative (Abdin Carrillo) will determine if specific situations may not require R.S. T. (e.g.,all work will be outside CTA 's R . O. W . and there is NO chance that personnel, material or equipment will penetrate C TA R. O. or impact Rail Operations).

The General Contractor is responsible for requesting Rail Safety Training for Contractor/Subcontractor employees by either calling or providing an email to Ora Hardaway, CTA (contact info below). The General Contractor (no Subcontractors are to contact CTA) shall give the full names and the last 4 digits of the social security numbers for each individual proposed for the training. The Contractor shall include a check payable to the "Chicago Transit Authority", for the individual charges of the "Rail Safety Training Fee" multiplied by the number of individuals proposed for training. The "Rail Safety Training Fee" is currently \$200.00 (payable in advance) and is non- refundable. Individuals that fail to report for training or are rejected for training must reschedule (additional training fees will apply).

**Scheduling Procedures** 

- 1. Contact: Ora Hardaway, ohardaway@transitchicago.com, (312) 681-3951 to register for class at least two (2) weeks in advance (it is recommended that Contractors schedule even further in advance due to high volume of work).
- 2. Once approved, you will receive a faxed or email confirmation and information packet.

## CTA FLAGGING AND COORDINATION

Effective: May 14, 1998 Revised: August 27, 2009

All work to be done by the Contractor on, over, or in close proximity of the CTA (Chicago Transit Authority) right-of-way shall be performed according to Article 107.12 of the Standard Specifications and the following additional CTA requirements:

1. The CTA's Representative or this project will be:

Mr. David Heard Manager, Construction Management Oversight (312) 681-3862

Mr. Will Moppins <u>wmoppins@transitchicago.com</u> (312) 681-2759

## 2. NOTIFICATION TO CTA

- A. After the letting of the contract and prior to performing any work, the CTA Representative shall be notified by the Department to attend the preconstruction meeting. In this meeting, the Contractor shall confer with the CTA's Representative regarding the CTA's requirements for the protection of clearances, operations and safety.
- B. Prior to the start of any work on or over the CTA's right-of-way, the Contractor shall meet with the CTA Representative to determine his requirements for flagmen and all other necessary items related to the work activities on, over and next to the CTA facilities and to receive CTA's approval for the Contractor's proposed operations.
- C. The Contractor shall notify the CTA Representative 72-hours in advance of the time he intends to enter upon the CTA right-of-way for the performance of any work.
- 3. PROTECTION OF THE CTA TRAFFIC:
  - A. The CTA will be operating trains during the construction of this project. The rail yard operations are 24 hours per day, seven days per week.
  - B. The Contractor shall, at all times, take special care to conduct his operations over, under, adjacent to, or adjoining the CTA facilities in such a manner as to prevent settlement, damage or displacement or damage to any CTA structures, equipment, tracks or portions thereof, and to prevent interruption of train service.
  - C. Any damage to the tracks or other CTA facilities caused by the Contractor's operations shall be replaced or repaired by the CTA at the Contractor's expense. Repair costs paid by the Contractor will not be reimbursed.
- 4. REIMBURSEMENT OF COSTS:
  - A. The cost of all flagmen, engineering inspection, switchmen, and other workmen furnished by the CTA and authorized by the Resident Engineer shall be paid for directly to the CTA by the contractor.
  - B. The amount paid to the Contractor shall be the amount charged to the Contractor for all authorized CTA charges including CTA additive rates audited and accepted by the Department, according to Article 107.12 and Article 109.05 of the Standard Specifications.
  - C. Following approval of the CTA invoices by the Department, the Contractor shall pay all monies to the CTA as invoiced and shall submit to the Department certified and notarized evidence of the amount of payments. No overhead or profit will be allowed on these payments.

- D. The Department will not be liable for any delays by the CTA in providing flagmen or other service required by this special provision.
- 5. Whenever any work, such as temporary shoring and erection procedures for spans over the CTA track, in the opinion of the CTA's inspector, may affect the safety of the trains and the continuity of the CTA's operations, the methods of performing such work shall first be submitted to the CTA for approval. If operations by the Contractor during construction are determined by the CTA's inspector to be hazardous to the CTA's operations, the Contractor shall suspend such work until reasonable remedial measures, and / or alternate methods, satisfactory to the CTA, are taken. Such remedial measures may include obtaining the services of the CTA personnel so that adequate protection may be provided.
- CTA OPERATING REQUIREMENTS: Operating requirements of the CTA, while work on this project is in progress, are as follows:
  - A. Work that is adjacent to or over the CTA operating tracks, requiring CTA flagmen, is to be done during the following hours:

Monday through Saturday, inclusive – 7:00 p.m. to 5:00 a.m. Sunday 12:00 a.m. to Monday 5:00 a.m.

- B. As much work as possible is to be done under normal CTA operating conditions (under traffic) without disruption of train movements. A maximum interruption of service to the CTA traffic of 15 minutes or as agreed upon with the CTA will be allowed.
- C. In order to request for single track (taking one track out of service), the Contractor, through the Resident Engineer, shall notify the CTA Representative twenty eight (28) working days in advance of the proposed interruptions.
- D. Interruptions will be provided solely at the CTA discretion, depending upon the transit service demands for special events and possible conflicts with prior commitments to other work scheduled on the same route.
- E. No more than one service interruption will be allowed simultaneously on this CTA line
- F. If the Contractor is unable to return the CTA track to normal operation on time, liquidated damages of at least \$100.00 per minute of delay shall be paid directly to the CTA by the Contractor.
- 7. Pedestrian traffic to the CTA facilities shall be maintained at all times.

- 8. A notice of at least seventy two (72) hours shall be given to the CTA prior to any beam removal or replacement which will cause interruption to the CTA facilities and service.
- 9. Simultaneous work on two piers that will require flagmen and affect the train operation shall not be allowed. Work, which will require flagmen, shall be limited to only <u>one side of the track</u> at a time.
- 10. Two flagmen will be required for each direction of train traffic for any work within the CTA facilities.
- 11. CTA shall have access to all storage tracks and unrestricted train operation over special holidays and events as indicated below:

One of the special holidays is the "Fourth of July". Please visit the City of Chicago web site at <u>http://cityofchicago.org</u> for complete information and times.

One of the special holidays is the "Taste of Chicago". Please visit the Taste of Chicago web site at <u>http://www.tasteofchicago.us</u> for complete information and times.

Dates for other special holidays and events such as conventions, auto shows, World Series, etc. if and when it happens, will be given to the Department whenever CTA finds out about it, during the preconstruction meeting or 30 days in advance of the construction, if possible, as requested by the Department.

- 12. The Contractor will be required to take all precautions to avoid debris, concrete and other materials falling over the tracks.
- 13. OTHER SPECIAL CONDITIONS:
  - A. The contractor is warned of the presence of an electrified third rail (600 volts DC) and moving trains on the CTA tracks and shall take all the necessary precautions to prevent damage to life or property through contact with the electrical or operating system.
  - B. The Contractor is also warned that any contact with the electrified third rail may result in a severe burn or death. Safety precautions such as insulating hoods or covers, approved by CTA, shall be provided by the Contractor to cover that section of the third live rail adjacent to the work.
  - C. Safety Training: All employees of the Contractor or his Subcontractors who are required to work upon or adjacent to the CTA's operating tracks shall be required to attend and provide evidence of completion of a right-of-way safety training course administered by the CTA.
  - D. Arrangements for the safety training course shall be the Contractor's responsibility. Contact the CTA representative to arrange for the safety course.

- E. The cost of the course is \$200.00 per person, payable to the CTA prior to taking the course. The cost of this course and the employee's time for the course shall be considered incidental to the cost of the contract. The course is one day long, from 8:00 a.m. to 4:00 p.m.
- F. The Contractor, his Subcontractors, and all of his employees who are required to work on or around the CTA's operating tracks shall wear CTA type safety vest.
- 14. Rapid Transit Clearances:

The Contractor shall perform his work in a manner that provides adequate clearance to the CTA tracks. The clearances shall not be less than the following for safe passage of trains.

7'-2" (2.18 m) horizontal to the center line of the nearest track 6'-1" (1.85 m) horizontal to the center line of the nearest track for short distances. 14'-6" (4.42 m) vertical from the top of the high running rail.

- 15. Protective Shield
  - A. The Contractor shall furnish, install, and later remover a protective shield to protect the CTA traffic from damage due to falling material and objects during construction.

The protective shield may be a platform, a net, or any other Department approved structure.

- B. A minimum vertical clearance of 14'-6" (4.42 m) above the high running rail the CTA tracks shall be provided at all times.
- C. Any protective shield required, as indicated on the plans and the supporting members shall be designed to sustain a load of 200 pounds per square foot in addition to its own weight.

Drawings and design calculations for the protective shield shall be stamped by an Illinois Licensed Structural Engineer and shall be submitted to the Department for approval. The protective shield shall be constructed only after the Department has approved the drawings and the design.

16. The contractor shall be required to provide a schedule for material removal, delivery of new material, crane operation over and around the tracks and a schedule for access of workmen to the construction site.

A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends at the following 12:00 midnight, twenty-four hours later.

## CONTRACTOR COOPERATION

It is anticipated that this contract will be constructed concurrently with other roadway projects within or at the project's improvement limits. These projects may under contract concurrent with this project as follows:

**IDOT Contract No. 60T46: FAI Route 90/94 (Kennedy Expressway) REVLAC Rehabilitation** Contract 60T46 has an anticipated start date of April 1, 2023 with work taking place in 2023 and 2024.

Between April 1, 2023 and October 31, 2024, the maintenance of traffic under Contract 62K74 will be coordinated with Contract 60T46 as follows.

- 60T46 Responsible for traffic control to close reversible lanes starting April 1, 2023 through the duration of both contracts 60T46 and 62K74. Traffic control must remain in place until both Contracts 60T46 and 62K74 have been completed and directed by the Engineer. Traffic control must be removed within 48 hours of the completion of both projects.
- 60T46 Responsible for the traffic control associated with lane and shoulder closures associated with advance work, foundation work, barrier wall repairs, and the installation of ITS devices as shown in Contract 60T46. No lane or shoulder closures will be allowed concurrent with bridge overlay lane and shoulder closures associated with Contract 62K74.
- 62K74 Responsible for any lane or shoulder closures for sign structures, including foundations, or barrier wall work associated with bridge overlay and sign structure work as shown in Contract 62K74 plans.
- 62K74 Traffic control within the work zone related to bridge overlay work to alert contractors to hazards within the work zone related to 62K74.
- 62K74 Responsible for traffic mitigation strategy and implementation throughout work zone limits.
- 62K74 Install smart traffic monitoring system in stage 1 and maintain throughout the project.

Weekly coordination calls between the two projects are suggested to coordinate construction schedules and phase shifts.

	62K74 Work Effort to be Coordinated	Suggested Coordination
Overhead Sign Structure Number 3	Stamped Concrete Installation	60T46 work near this sign must be completed prior to placing stamped concrete.

Area of Overlappin Work area	g60T46 Work Effort to be Coordinated	Suggested Coordination
Sta 298+00	REVLAC DMS on sign structure to be replaced.	60T46 Work must be completed before local and systemwide testing.
Sta 344+00 - 345+00	<ul> <li>CCTV 50' Camera installed near sign structure to be replaced.</li> </ul>	Install CCTV prior to overlay work. Provide as-builts to 62K74 contractor.
Sta 385+00		Install conduit prior to overlay work. Provide as-builts to 62K74 contractor.
Sta 438+00	ITS Conduit and new camera to be installed adjacent to Webster Ave.	Install CCTV and conduit prior to overlay work. Provide as-builts to 62K74 contractor.
496+50		60T46 - Remove gates and cables. Proof conduits. 62K74 to complete foundation work. Complete sign structure foundation work.
Sta 501+00 - 502+00	- Gate replacement near Diversey bridge overlay	Coordinate installation schedules to avoid work area conflicts.
Sta 526+00- 527+00	REVLAC Gate replacement on Sacramento bridge overlay.	Coordinate installation schedules to avoid work area conflicts.
Sta 541+00	ITS Camera to be installed adjacent to Kedzie Ave.	Install CCTV prior to overlay work. Provide as-builts to 62K74 contractor.
Sta 619+50	ITS Camera to be installed adjacent to Pulaski Road	Install CCTV prior to overlay work. Provide as-builts to 62K74 contractor.

The Contractor shall schedule his/her work in order to minimize any conflicts that may arise between contracts as specified in Article 105.08 of the Standard Specifications. No additional compensation will be allowed for delays or inconveniences resulting from activities of other contractors.

# IDOT Contract No. 62U24: FAI Route 90/94 (Kennedy Expressway) Bridge Painting, Southbound (Inbound) Lanes

Contract 62U24 consists of painting bridges that span southbound I-90/94 between Hubbard Street and Wayman Street. The work will coincide with Stage 2 and Stage 3 construction on contract 62K74. Stage 1 of Contract 62U24 will include painting bridges over lanes 3, 4, and 5 of southbound I-90/94 while Stage 2 of the same contract will include painting bridges over lanes 1, 2, and 3 of southbound I-90/94.

During the duration of Stage 2 of Contract 62K74 and Stage 1 of Contract 62U24 the maintenance of traffic under Contract 62K74 will be coordinated with Contract 62U24 as follows.

- 62K74 Responsible for traffic control to close the outside lane (lane 5) as shown in the plans
- 62U24 Responsible for installing and maintaining concrete barrier from crash investigation site exit (approximately station 309+00) to south limits of contract 62K74.
- 62U24 Responsible for traffic control south of 62K74 Stage 2 limits
- 62U24 Responsible for closing ramp from westbound Ohio Street to southbound I-90/94 and signing associated detour route
- 62U24 Responsible for short-term closures of lanes 3 and 4 including moving MOT devices as needed to extend or adjust entrance and exit gores. 62U24 contractor will also be responsible for moving MOT devices to their original position when the closures for lanes 3 and 4 are removed.

During the duration of Stage 3 of Contract 62K74 and Stage 2 of Contract 62U24 the maintenance of traffic under Contract 62K74 will be coordinated with Contract 62U24 as follows.

- 62K74 Responsible for traffic control on southbound I-90/94 ending at station 342+14 as shown in the plans.
- 62U24 Responsible for traffic control south of 62K74 Stage 3 limits
- 62U24 Responsible for any long-term and short-term closures of SB lanes 1, 2, and 3

# IDOT Contract No. 62U36: FAI Route 90/94 (Kennedy Expressway) Bridge Painting, Northbound (Outbound) Lanes

This contract consists of painting bridges that span northbound I-90/94 between Hubbard Street and Wayman Street. The work will coincide with Stage 3 construction on contract 62K74. Stage 1 of contract 62U36 will include painting bridges over lanes 1 and 2 of northbound I-90/94 while Stage 2 of the same contract will include painting bridges over lanes 3, 4, and 5 of northbound I-90/94.

During the duration of Stage 3 of Contract 62K74 and Stage 1 of contract 62U36, the maintenance of traffic under Contract 62K74 will be coordinated as follows.

- 62K74 Responsible for traffic control on southbound I-90/94 ending at station 342+14 as shown in the plans.
- 62K74 Responsible for traffic control on northbound I-90/94 for overhead sign foundation work as shown in the 62K74 plans.
- 62U36 Responsible for traffic control south of 62K74 Stage 3 limits and on northbound lanes
- 62U36 Responsible for any long-term and short-term closures of lanes 1 and 2

# IDOT Contract No. 62L31: Ohio Street Bridge over the North Branch Chicago River Rehabilitation

This contract consists of repair work for SNs 016-0202 (the Ohio Street bascule bridge over the North Branch of the Chicago River), SN 016-1061 (the approach bridge west of the bascule), and SN 016-1053 (the approach bridge east of the bascule). The work includes structural repairs, substructure repairs, removal and replacement of the deck expansion joints and overlays, deck and parapet repairs, and lighting.

The contractor for 62K74 should coordinate with the contractor for 62L31 to ensure that MOT on both projects does not conflict.

## Chicago Department of Transportation Projects

IDOT Contract 62K74 shall coordinate with the City of Chicago Department of Transportation (CDOT) to ensure that construction activities including detour routes will not be impacted by CDOT projects. Known CDOT projects near the 62K74 corridor are listed below however this is not an exhaustive list. Information on City of Chicago projects can also be found online on chistreetwork.chicago.gov/map

- Project Number: 87822 Division Street Improvements near Halsted Street
- B-9-404 Kedzie/Belmont Traffic Signal Modernization
- Lincoln Yards Project
- Diversey/Kimball reconstruction
- Information on City of Chicago projects can also be found on ChiStreetWork (chicago.gov)

## Illinois State Toll Highway Authority (ISTHA)

Contractor shall coordinate with ISTHA for any ongoing or proposed projects as well as for the implementation of the Smart Traffic Monitoring System.

## REMOVE AND REPLACE IMPACT ATTENUATOR SAND MODULE

<u>Description.</u> This work shall consist of removing and replacing existing sand module (or barrel) arrays. The intent of this work is to allow for SMA overlay of pavement below the sand module array. Once the overlay work is complete the array shall be replaced.

<u>Materials.</u> Materials shall be according to the existing manufacturer's specifications for the type of impact attenuator being repaired and according to the Section 643 of the Standard Specifications for Road and Bridge Construction.

<u>Requirements.</u> The sand module shall be installed according to the Section 643 of the Standard Specifications for Road and Bridge Construction. Removal items shall be disposed of by the Contractor off the jobsite.

<u>Method of Measurement.</u> This work will be measured for payment as each, where each is defined as a barrel array.

<u>Basis of Payment.</u> This work will be paid for at the contract unit price per EACH for REMOVE AND REPLACE IMPACT ATTENUATOR SAND MODULE. Each array will be measured for payment separately but shall include the sand inside. The sand required to fill each barrel to the appropriate weight shall be considered included in the cost per array.

FAI Route 90/94 (I-90/94) Project NHPP-HIBR-UH3A(902) Section 2020-004-BR Cook County Contract No. 62K74

Revise subparagraph (k) of Article 670.02 to read:

(k) One plain paper fax machine including maintenance and supplies.

Revise subparagraph (I) of Article 670.02 to read:

(I) Six four-line telephones, with touch tone, where available, and two digital answering machines, for exclusive use by the Engineer.

Revise subparagraph (m) of Article 670.02 to read:

(m) One electric water cooler dispenser including water service.

Add the following subparagraphs to Article 670.02:

- (s) One 4 foot x 6 foot chalkboard or dry erase board.
- (t) One 4 foot x 6 foot framed cork board.

Add the following to Article 670.07 Basis of Payment.

The building or buildings, fully equipped, will be paid for at the contract unit price per calendar month or fraction thereof for ENGINEER'S FIELD OFFICE, TYPE A (SPECIAL).

FAI Route 90/94 (I-90/94) Project NHPP-HIBR-UH3A(902) Section 2020-004-BR Cook County Contract No. 62K74

## TRAFFIC CONTROL PLAN (D1)

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

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

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

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

<u>STANDARDS</u>: 701201, 701206, 701400, 701401, 701402, 701411, 701428, 701446, 701451, 701501, 701601, 701606, 701611, 701701, 701801, 701901, 704001, 780001, 782006

## DETAILS:

Entrance and Exit Ramp Closure Details (TC-08) Traffic Control Details for Freeway Single & Multi-Lane Weave (TC-09) Typical Applications Raised Reflective Pavement Markers (Snowplow Resistant) (TC-11) Multi-Lane Freeway Pavement Marking Details (TC-12) District One Typical Pavement Markings (TC-13) Traffic Control Details for Freeway Shoulder Closures and Partial Ramp Closures (TC-17) Freeway/Expressway Signing for Flagging Operations at Work Zone Openings on Freeways/Expressways (TC-18) Detour Signing for Closing State Highways (TC-21) Arterial Road Information Signing (TC-22)

## SPECIAL PROVISIONS:

Traffic Control and Protection Arterials) (D1) Keeping the Expressway Open to Traffic Failure to Open Traffic Lanes to Traffic Traffic Control and Protection (Expressways) Traffic Control Surveillance (Expressways) Temporary Information Signing Traffic Control for Work Zone Areas Keeping Arterial Roadways Open to Traffic (With 15 Min Full Stops) Speed Display Trailer (D1) Smart Traffic Monitoring System Temporary Traffic Signal Timing Traffic Spotters (BDE) Vehicle and Equipment Warning Lights (BDE) Work Zone Traffic Control Devices (BDE)

# **KEEPING THE EXPRESSWAY OPEN TO TRAFFIC**

Whenever work is in progress on or adjacent to an expressway, the Contractor shall provide the necessary traffic control devices to warn the public and to delineate the work zone as required in these Special Provisions, the Standard Specifications, the State Standards and the District Freeway details. All Contractors' personnel shall be limited to these barricaded work zones and shall not cross the expressway.

The Contractor shall request and gain approval from the Illinois Department of Transportation's Expressway Traffic Operations Engineer at www.idotlcs.com twenty-four (24) hours in advance of all daily lane, ramp and shoulder closures and 7 days in advance of all permanent and weekend closures on all Freeways and/or Expressways in District One. This advance notification is calculated based on workweek of Monday through Friday and shall not include weekends or Holidays.

## Pre-Stage

- Install Portable Changeable Message Signs according to highway standard 701400 as directed by the engineer
- Implement the Smart Traffic Monitoring System
- Utilize IDOT highway standard 701426 to remove permanent markings and raised reflective pavement markers that will conflict with temporary traffic control
- Tack weld drainage structure frames in inside and outside shoulder that will be under live traffic. Remove welds once traffic is shifted off shoulder at the conclusion of Stage 3. Check and maintain as required throughout project duration.

FAI Route 90/94 (I-90/94) Project NHPP-HIBR-UH3A(902) Section 2020-004-BR Cook County Contract No. 62K74

## Stage 1 – Stage 1 shall be completed by July 15, 2023

- Reversible Lanes shall be open to southbound (inbound) traffic throughout the duration of this stage
- Southbound traffic will be on outside southbound lanes (lanes 3 and 4) while work on inside southbound lanes (1 and 2) is completed.
- Work is to include bridge deck overlays, bridge approach overlay, drainage structure adjustments and cleaning, mainline pavement patches, overhead sign structure foundation construction, lighting maintenance, and ITS work.
- One additional lane may be closed for patching operations. The closure shall be completed in accordance with IDOT standard 701401 and is limited to one (1) weekend closure between the hours of 9:00 pm Friday night and 5:00 am Monday morning.

# <u>Stage 1. Substage A</u>– Stage 1, Substage A shall be completed in conjunction with Stage 1 and shall take no longer than one month.

- Reversible Lanes shall be open to southbound (inbound) traffic throughout the duration of this stage
- Southbound traffic will be on outside southbound lanes (lanes 3 and 4) while work on inside southbound lanes (1 and 2) is completed.
- Work is to include patching and overhead sign structure foundations.
- One additional lane may be closed for patching operations. The closure shall be completed in accordance with IDOT standard 701401 and is limited to one (1) weekend closure between the hours of 9:00 pm Friday night and 5:00 am Monday morning.

## Stage 2 – Stage 2 work shall be completed by October 31, 2023

- Reversible Lanes shall be open to southbound traffic throughout the duration of this stage
- Southbound traffic will be on inside southbound lanes (Lanes 1 and 2) while work on outside southbound lanes (3 and 4) is completed.
- Work is to include bridge deck overlays, bridge approach overlay, drainage structure adjustments and cleaning, mainline pavement patches, ramp pavement patches, overhead sign structure foundation construction, lighting maintenance, and ITS work.
- Ramps listed in the table below may be closed as necessary to complete patching and bridge work. Detour routes shall be provided during these closures as shown in the plans.
- No two (2) consecutive exit ramps may be closed at the same time.
- No two (2) consecutive entrance ramps may be closed at the same time.
- Ramps are to be opened immediately upon completion of work necessitating the ramp closure.
- One additional lane may be closed for patching operations as shown in the Stage 1 Maintenance of Traffic plans. The closure shall be completed in accordance with IDOT standard 701401 and is limited to one (1) weekend closure between the hours of 9:00 pm Friday night and 5:00 am Monday morning.

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Ramp Closure	Maximum Allowable Closure
Division Entrance	1 Week
Division Exit	1 Week
North Ave Entrance	1 Week
North Ave Exit	8 Weeks
Armitage Entrance	8 Weeks
Armitage Exit	1 Week
Webster Entrance	1 Week
Fullerton Entrance	1 Week
Fullerton Exit	6 Weeks
Diversey Entrance	1 Week
California Exit	6 Weeks
Sacramento Entrance	6 Weeks
Kedzie Entrance	6 Weeks
Kimball Entrance	6 Weeks
Addison Entrance	1 Week
Addison Exit	1 Week
Pulaski Entrance	1 Week
Irving Park Entrance	6 Weeks
Irving Park Exit	1 Week
Montrose Entrance	6 Weeks
Wilson Entrance	6 Weeks

The contractor will be charged \$10,000/ day for each day a ramp is closed beyond the maximum allowable closure listed in the table above.

The contractor is required to submit notice of ramp closure to the Chicago Department of Transportation (CDOT) a minimum of two (2) weeks prior to closing any ramps. The CDOT contact is as shown below.

David Miller, Coordination Engineer City of Chicago Department of Transportation David.Miller2@cityofchicago.org

# <u>Stage 3</u> – Work shall not start until April 1, 2024 to coincide with Contract 60T46 and all work shall be complete by October 31, 2024

- Reversible Lanes shall be closed throughout the duration of this stage
- Reversible Lanes will be closed by Contract 60T46 contractor. MOT in southbound (inbound) and northbound (outbound) lanes shall be the responsibility of the Contract 62K74 contractor.
- All southbound traffic will be on southbound (inbound) lanes and all northbound traffic will be on northbound (outbound) lanes while the reversible lanes are closed and work is completed.
- Work is to include bridge deck overlays, bridge approach overlay, drainage structure adjustments and cleaning, reversible lane pavement patches, overhead sign structure foundation construction, overhead sign structure erection and sign panel installation, lighting maintenance, and ITS work.

Crash investigation sites are to remain open whenever possible. A temporary crash investigation site shall be provided whenever an existing site is inaccessible due to lane or ramp closures.

In addition to the hours noted above, temporary shoulder and non-system interchange partial ramp closures are allowed weekdays between 9:00 A.M. and 3:00 P.M. and between 7:00 P.M. and 5:00 A.M or as approved by the Expressway Traffic Operations Engineer.

Narrow Lanes, lane closures, and permanent shoulder closures will not be allowed between Nov. 1<sup>st</sup> 2023 and March 31<sup>st</sup>, 2024. Permanent shoulder closures per District Detail TC-17 will only be permitted if called for in the plans or as approved by the Expressway Traffic Operations Engineer.

Full Expressway Closures will only be permitted for a maximum of 15 minutes at a time during the low traffic volume hours of 1:00 A.M. to 5:00 A.M. Monday thru Friday and from 1:00 A.M. to 7:00 A.M. on Saturday and Sunday. During Full Expressway Closures, the Contractor will be required to close off all lanes except one, using Freeway Standard Closures. Police forces should be notified and requested to close off the remaining lane at which time the work item may be removed or set in place. The District One Expressway Traffic Control Supervisor (847-705-4151) **shall be** notified at least 3 working days (weekends and holidays DO NOT count into this 72 hours notification) in advance of the proposed road closure and will coordinate the closure operations with police forces. Liquidated Damages as specified in the Failure to Open Traffic Lanes to Traffic for One lane or ramp blocked shall be assessed to the Contract for every 15 minutes beyond the initial 15 minutes all lanes are blocked.

All stage changes requiring the stopping and/or the pacing of traffic shall take place during the allowable hours for Full Expressway Closures and shall be approved by the Department. The Contractor shall notify the District One Expressway Traffic Control Supervisor at least 3 working days (weekends and holidays DO NOT count into this 72 hours notification) in advance of any proposed stage change.

A Maintenance of Traffic Plan shall be submitted to the District One Expressway Traffic Control Supervisor 14 days in advance of any stage changes or full expressway closures. The Maintenance of Traffic Plan shall include, but not be limited to: lane and ramp closures, existing geometrics, and equipment and material location.

All daily lane closures shall be removed during adverse weather conditions such as rain, snow, and/or fog and as determined by the Engineer. Also, the contractor shall promptly remove their lane closures when Maintenance forces are out for snow and ice removal.

Additional lane closure hour restrictions may have to be imposed to facilitate the flow of traffic to and from major sporting events and/or other events.

All lane closure signs shall not be erected any earlier than one-half (1/2) hour before the starting hours listed above. Also, these signs should be taken down within one-half (1/2) hour after the closure is removed.

The Contractor will be required to cooperate with all other contractors when erecting lane closures on the expressway. All lane closures (includes the taper lengths) without a three (3) mile gap between each other, in one direction of the expressway, shall be on the same side of the pavement. Lane closures on the same side of the pavement with a one (1) mile or less gap between the end of one work zone and the start of taper of next work zone should be connected. Gaps between successive permanent lane closures shall be no less than two (2) miles in length.

Private vehicles shall not be parked in the work zone. Contractor's equipment and/or vehicles shall not be parked on the shoulders or in the median during non-working hours. The parking of equipment and/or vehicles on State right-of-way will only be permitted at the locations approved by the Engineer.

Check barricades shall be placed every 1000' within a lane closure to prevent vehicles from driving through closed lanes.

No two (2) adjacent entrance and exit ramps in one direction of the expressway shall be closed at the same time.

Freeway to freeway (system interchange) full ramp closures for two lane ramps will not be permitted. System ramp full closures for single lane ramps are only permitted for a maximum of four (4) hours

- between the hours of 1:00 a.m. and 5:00 a.m. on Monday thru Friday
- between the hours of 1:00 a.m. and 6:00 a.m. on Saturday, and
- between the hours of 1:00 a.m. and 7:00 a.m. on Sunday.

The Contractor shall furnish and install large (48" X 48") "DETOUR with arrow" signs as directed by the Engineer for all system ramp closures. In addition, one portable changeable message sign will be required to be placed in advance of the ramp closure. The cost of these signs and PCMS board shall be included in the cost of traffic control and protection (6 static signs maximum per closure).

Should the Contractor fail to completely open, and keep open, the ramps to traffic in accordance with the above limitations, the Contractor shall be liable to the Department for liquidated damages as noted under the Special Provision, "Failure to Open Traffic Lanes to Traffic".

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The speed indicator display shall be equipped with a violation alert that flashes the displayed detected speed when the posted limit is exceeded. The speed indicator shall have a maximum speed cutoff. On roadway facilities with a normal posted speed limit greater than or equal to 45 mph, the detected speeds of vehicles traveling more than 25mph over the work zone speed limit shall not be displayed. On facilities with normal posted speed limit of less than 45 mph, the detected speeds of vehicles traveling more than 15 mph over the work zone speed limit shall not be displayed. On any roadway facility if detected speeds are less than 25 mph, speed shall not be displayed. The display shall include automatic dimming for nighttime operation.

The speed indicator measurement and display functions shall be equipped with the power supply capable of providing 24 hours of uninterrupted service."

## SMART TRAFFIC MONITORING SYSTEM

Effective: September 1, 2021 701.16T

<u>Description:</u> This work shall consist of furnishing, installing, maintaining, removing, and programming various components of an automated Smart Traffic Monitoring (STM) System. The STM System shall cover IDOT Contract 62K74. This work shall be done according to Section 701 of the Standard Specification, described herein, and as directed by the Engineer.

<u>Lane Closures:</u> the STM System shall display messages from the System for southbound and reversible lane closures in place on the I-90/94 Kennedy Expressway on the following Contract:

#### ROUTE: F.A.I. Route 90/94 (Kennedy Expressway) SECTION: 2020-004-BR COUNTY: Cook DESCRIPTION OF WORK: Bridge Deck Overlay, Bridge Joint Repair, Patching

<u>Schedule:</u> The STM System shall be 100% operable prior to southbound and reversible lane closures for I-90/94. The STM System shall be in operation 24 hours a day and 7 days per week until Contract 62K74 is complete and all lanes are opened to traffic.

<u>Function</u>: The components include Smart Traffic Monitoring Devices (SMD), portable changeable message signs (PCMS), PCMS control software, and communications system.

The STM System shall collect real time vehicle travel data at strategic locations prior to and within the work zones to provide drivers with advance information about travel time and delay through the work zone and stopped traffic ahead. The real time vehicle travel data shall be automatically transmitted and processed by control software which remotely commands PCMS to display programmed messages based on the travel data.

The STM System shall be capable of providing dynamic lane merging by use of pre-programmed conditions to allow the system to determine when early merging should be required (generally low volumes and high speed), and when late merging should be required (generally high volumes and low speeds). The STM System components shall have the capacity and the accuracy to determine to implement the specific messages for each type of merging and to prevent frequent and unnecessary changes in merge type. Dynamic lane merging will require PCMS throughout the expected queue area, as well as advance warning signing.

The messages shall be in real time and dynamically based on the data collected by SMD. In addition, the STM System shall also have the capability to inform the District Office of traffic delays via the internet or through the District' Operations and Communications Center.

The STM System shall calculate and notify drivers via PCMS of the actual traffic backup delay time for the entire work zone. The calculation method of the backup delay time shall be submitted to the Engineer for approval. The STM System shall notify drivers of multiple levels of travel time delay based on user-definable speed thresholds (e.g. speeds less than 30 mph) and shall be capable of displaying the distance to slow or stopped traffic with an accuracy of a half mile a minimum of two miles in advance of slowed or stopped traffic by displaying messages on PCMS located on mainline I-90/94, I-90, I-94, I-55, I-290, I-294, and US 41 as show herein and directed by the Engineer. The message library and number of PCMS displaying travel time delay related messages will be determined by the Engineer.

<u>Smart Monitoring Devices:</u> The Contractor shall provide a device that is MUTCD compliant consistent with the work zone channelizing devices used throughout the regular construction work zone. The SMD shall be crashworthy as defined by NCHRP 350 or MASH, easy to carry and deploy, and lightweight so that it can be positioned by any one member of a construction crew with no special skill requirements or lifting machinery. The SMD shall be independent of all local or regional power and communications networks to provide continuous, uninterrupted, data collection even during power or communication interruptions. The SMD shall gather real-time data, provide 95% accuracy on all vehicle detection, have GPS functionality, transfer data to web-based communications for monitoring, and communicate with the PCMS 24 hours per day 7 days per week. The web-based interface shall provide vehicle speed, volume, and queue at each device location and maintain data history for a minimum of 12 months. The number and proper location of SMD needed to provide dynamic, travel time messages from the System shall be recommend by the manufacturer and approved by the Engineer. The limit of this systems detection is intended to extend beyond the limits of queueing from the project and suggest using an alternate route.

Portable Changeable Message Signs shall cover a distance along:

- WB I-90/94 from Garfield Avenue to Ohio Street
- EB I-90 from Arlington Heights Road to IL50/Cicero Avenue
- EB I-94 from IL60 to IL50/Cicero Avenue
- SB I-55 from US 41/Lake Shore Drive to State Street
- NB I-55 from California Avenue to I-90
- NB US 41/Lake Shore Drive from Pershing Road to Ontario Street
- SB US 41/Lake Shore Drive from IL 64/North Avenue to Ida B Wells Drive
- EB I-290 from IL83 to I-90/94
- SB I-294 from I-94 to I-90
- NB I-294 from I-55 to I-90

Portable Changeable Message Signs and traffic detectors shall be strategically placed in sufficient quantity and frequency to provide travel time delay and queue length data within 0.5 mile accuracy. PCMS shall be placed at minimum 1 mile increments with additional locations to be determined by Engineer with Contractor's input.

Traffic monitoring and messaging is required at the above locations which include Illinois State Toll Highway Authority (ISTHA) roads. Cooperation and coordination with ISTHA will be required and are included in this pay item.

<u>Control Software</u>: The control software shall be web-based. Authorized IDOT personnel shall be enabled to view all devices via the Internet. The software shall be configurable to meet project requirements. The software shall offer both a public information side and a password protected agency-only side.

The control software shall include a map feature showing real time traffic conditions. This shall be offered in an easy to understand visual format via the Internet, such as color coding. It shall also display the devices on the project. By "clicking" on any device, the user shall be able to learn its current condition and operating properties. SMD shall display current speeds and/or volumes and changeable message sins shall display current message(s). The device information will also include a data and time stamp showing when they last reported to the control software. The software shall include user-settable parameters to dynamically trigger in real time new messages to be displayed on the roadside changeable message signs. The software shall also make it easy for authorized personnel to override the current message with a new one in emergencies or when conditions warrant it.

The software shall provide email and/or text alerts to specified IDOT personnel when speeds or queue lengths exceed IDOT defined parameters.

The software shall provide an XML data feed to IDOT on request and shall hold an archive or data for a period of not less than 1 year in a manner that is readily accessible to IDOT personnel with no additional assistance and at no additional cost.

All public agencies authorized by IDOT shall be granted user accounts at no additional cost to IDOT or the agencies.

<u>Portable Changeable Message Signs:</u> The PCMS shall meet the requirements of Article 701 of the Standard Specifications. The signs shall be equipped with communications equipment fully compatible with the STM System and shall wirelessly communicate with the SMDs and control software independent of the PCMS manufacturer. PCMS shall be provided in sufficient quantity and strategic placement to cover the variable level conditions approaching and within the work zone. The placement plan shall include advance PCMS located two miles in advance of the work zone on each approach. Preferred locations of PCMS may be suggested by the Engineer. The final number and location off the PCMS shall be recommended by the Contractor and approved by the Engineer. The trailer shall be installed beyond the edge of shoulder and shall not block any part of a lane or shoulder. The Contractor may have to temporarily widen embankments with sandbags or other temporary material to properly install the trailer. The costs associated with temporarily widening embankments and restoring the embankment upon completion shall be according to Section 109 of the Standard Specifications.

<u>Protection:</u> All communications in the STM System shall be protected to prevent unauthorized personnel from accessing the data or changing the displays on the PCMS.

<u>Performance Requirements:</u> Device shall gather and report real-time data during the work zone hours or as required as a single unit or as a system. Website shall report data overlaying work zones onto an interactive map. Work zones shall be represented by a single symbol and present data in a pop-up window when selected. Data shall include the data, time, and average speed through the work zone. Symbols shall also be color coded to represent general speed conditions. Website shall have web access granted accounts for all public-sector entities. For strategic speed enforcement, law enforcement agencies shall be granted an account in their jurisdiction at their request at no additional cost. Web access shall allow stakeholders to download archive data such as counts, travel time, speed bin, and speed history.

<u>System Communications:</u> All communication networks used in the STM System shall be provided by the Contractor. When any part of the STM System has not been functions for ten minutes, the System shall notify the Engineer of the malfunction. Upon direction of the Engineer, the System shall also notify the Contractor and/or the District's Operations and Communications Center.

<u>Penalties:</u> The Engineer shall notify the Contractor when any components of the STM System is not functions properly at any time 24 hours a day and 7 days per week. Once the Contractor has been notified that the STM System is not functioning properly, the Contractor shall have four hours to repair the System. After four hours a monetary penalty shall be assessed to the Contractor. The penalty shall be \$2,000 for each hour or portion thereof until the System is functioning properly.

Method of Measurement: This work will be measured for payment on a lump sum basis.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price per lump sum for SMART TRAFFIC MONITORING SYSTEM.

- (a) After the STM System is set up and 100% operable, 25% of the pay item will be paid.
- (b) After each month of use, 65% of the pay item will be paid on a prorated monthly basis.
- (c) After the STM System is completely removed, 10% of the pay item will be paid.

## FRICTION AGGREGATE (D1)

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

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

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

(8) Acceptance Samples and Certification One quart (liter) component samples of each lot of paint produced for use on state or local agency projects shall be submitted to the Department for testing, together with a manufacturers certification. Their certification shall state that the formulation for the lot represented is essentially identical to that used for qualification testing. All acceptance samples shall be taken by a representative of the Illinois Department of Transportation. The aluminum epoxy mastic paint shall not be used until all tests are completed and they have met the requirements as set forth herein.

<u>Method of Measurement</u>: Limits of the area to be painted are determined by the exposed reinforcement after the loose concrete has been removed. The limits of the area to be painted and measured for payment shall be 3 inches (75 mm.) beyond the exposed reinforcement in all directions.

<u>Basis of Payment</u>: This work shall be paid for at the contract unit price per square foot (square meter) for CLEANING AND PAINTING EXPOSED REBAR. This shall include all equipment and labor necessary to remove loose concrete.

Pages 100-123 have been deleted The next page is page 124

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Pages 125-150 have been deleted The next page is page 151

<u>General</u>: All accumulated foreign material and debris shall be removed from the area around the proposed door openings and immediate surroundings. Concrete removal shall be performed in accordance with Section 501 of the Standard Specifications. Anchor bolts shall be installed in accordance with Section 521 of the Standard Specifications.

The Contractor shall be responsible for the proper removal and disposal of the existing deck concrete to be removed for the proposed door openings.

The cost of the concrete removal and anchor bolts installation shall be included in the cost of Access Door.

Method of Measurement: This work will be measured per each at the locations specified.

<u>Basis of Payment</u>: This work shall be paid for at the contract unit price per each for ACCESS DOOR at the locations specified.

## DEBRIS REMOVAL

#### Description:

This work shall consist of the removal and disposal of accumulated debris located under the bridge carrying I-90 over Ashland Ave (S.N. 016-0133) and inside the vaulted areas of I-90/94 (Rev) ramp to Ohio St over I-90/94 NB (S.N. 016-2551) in accordance with this special provision, Standard Specifications, as shown on the plans or directed by the Engineer. This debris consists of but is not limited to broken concrete pieces and refuse, construction materials.

Method of Measurement:

DEBRIS REMOVAL will be measured for payment on a lump sum basis.

#### Basis of Payment:

This work will be paid for at the contract lump sum price for DEBRIS REMOVAL which price shall include all labor, equipment and materials required to complete this item as specified herein.

## MAINTENANCE OF LIGHTING SYSTEMS

Replace Article 801.11 and 801.12 of the Standard Specifications with the following:

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.

Before performing any excavation, removal, or installation work (electrical or otherwise) at the site, the Contractor shall initiate a request for a maintenance transfer and preconstruction inspection, as specified elsewhere herein, to be held in the presence of the Engineer and a representative of the party or parties responsible for maintenance of any lighting systems which may be affected by the work. During the maintenance preconstruction inspection, the party responsible for existing maintenance shall perform testing of the existing system in accordance with Article 801.13a. The Contractor shall request a date for the preconstruction inspection no less than fourteen (14) days prior to the desired date of the inspection.

The Engineer will document all test results and note deficiencies. All substandard equipment will be repaired or replaced by the existing maintenance contractor, or the Engineer can direct the Contractor to make the necessary repairs under Section109.04.

Existing lighting systems, when depicted on the plans, are intended only to indicate the general equipment installation of the systems involved and shall not be construed as an exact representation of the field conditions. It remains the Contractor's responsibility to visit the site to confirm and ascertain the exact condition of the electrical equipment and systems to be maintained. Contract documents shall indicate the circuit limits.

## 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 at the time of contract Letting, including underpass lighting at each bridge location part of the 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.

#### 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 within the project limits. The project limits are defined as those limits indicated in the contract plans. Equipment outside of the project limits, on the affected circuits shall be maintained and paid for under Article 109.04. The affected circuits shall be isolated by means of in-line waterproof fuse holders as specified elsewhere and as approved by the Engineer. The unaffected circuits and the controller will remain under the maintenance of the State.

**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 within the project limits. Equipment outside of the project limits shall be maintained and paid for under Article 109.04.

If the existing equipment is 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.

#### Maintenance of Proposed Lighting Systems

**Proposed Lighting Systems**. Proposed lighting systems shall be defined as any lighting system or part of a lighting system, temporary or permanent, which is to be constructed under this contract regardless of the project limits indicated in the plans.

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, vandalism, or other means. The potential cost of replacing or repairing any malfunctioning, damaged, or vandalized 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 all applicable responsibilities of the Electrical Maintenance Contract, State of Illinois, Department of Transportation, Division of Highways, District One. These responsibilities shall include the maintenance of lighting units (including sign lighting), cable runs and lighting controls. In the case of a pole knockdown or sign light damage, the Contractor shall promptly clear the lighting unit and circuit discontinuity and restore the system to service. The equipment shall then be re-set by the contractor within the time limits specified herein.

If the existing equipment is 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	na	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	na
Circuit out – Cable trouble	1 hour	24 hours	21 Calendar days
Outage of 3 or more successive lights	1 hour	4 hours	na
Outage of 75% of lights on one tower	1 hour	4 hours	na
Outage of light nearest RR crossing approach, Islands and gores	1 hour	4 hours	na
Outage (single or multiple) found on night outage survey or reported to EMC	na	na	7 Calendar days
Navigation light outage	na	na	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 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 \$500 per month per occurrence. Unpaid bills will be deducted from any monies owed to the Contractor. Repeated failures and/or a gross failure of maintenance shall result in the State's Electrical Maintenance Contractor being directed to correct all deficiencies and the resulting costs deducted from any monies owed the contractor.

Damage caused by the Contractor's operations shall be repaired at no additional cost to 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.

#### Method of Measurement

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. Months in which the lighting systems are not maintained and not operational will not be paid. Payment shall not be made retroactively for months in which lighting systems were not operational.

**Basis of Payment.** Maintenance of lighting systems shall be paid for at the contract unit price per calendar month for **MAINTENANCE OF LIGHTING SYSTEM**.

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## JUNCTION BOX, TYPE J

<u>Description.</u> This work will consist of furnishing and installing a stainless steel, Type "J" junction box with cover embedded in concrete as described herein, as shown on the plans and as directed by the Engineer. When used in a median barrier or parapet wall with a sloped face, the front of the junction box shall be sloped to match the barrier wall as depicted in Standard Drawings TY-ITSC-663#3 and 400#30. The depth indicated in the dimensions shall be the bottom depth.

<u>Construction Requirements.</u> Furnishing and installing the junction box shall meet the requirements according to Section 813 of the Standard Specifications, unless modified in this special provision.

<u>Materials.</u> The junction box shall meet the requirements according to Section 1088.04 of the Standard Specifications, unless modified in this special provision.

The junction box shall be continuously welded and consist of 1/4" thick, Type 316 stainless steel with a stainless steel 1/4" Type 316 cover, neoprene gasket and a minimum of ten 3/8" X 3/4" 16 threads/inch flat-head stainless steel slotted screws.

<u>Installation.</u> All junction boxes shall be water tight. Predrilled holes shall be provided for the applicable conduit size and location. Unless otherwise specified, conduits terminating at stainless steel boxes shall be terminated in conduit hubs.

The cover shall be recessed within an outside frame, having a water-tight gasket mounted flush with the surface of this frame. Recessed stainless steel slot head screws shall secure the cover.

## TRAFFIC CONTROL AND PROTECTION (ARTERIALS)

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.

Cortland Street will require short term closures to accommodate concrete beam replacement on I-90/94 bridge 016-0133 (over Ashland Avenue and Cortland Street). The closure will impact pedestrians, bicyclists, and vehicular traffic on Cortland Street. The closure is anticipated to be limited to a maximum of three nighttime closures. The Contractor shall work with IDOT and CDOT to determine the date and duration of the closure.

The table below shows anticipated construction activities along with anticipated lane impacts to the local road under I-90/94. This table does not constitute an exhaustive list of construction activities or lane impacts and should only be used as a guide. Exact lane impacts will be determined by the contractor's construction means and methods.

Local Road	Bridge Number	Anticipated Construction Activities	Anticipated Lane Impacts
Division	016-0135	Bridge Deck Repair, Abutment Repair, Joint Repair, Slope Wall Repairs	EB and WB outside lanes for pier work
North	016-0134	Bridge Deck Repair, Abutment Repair, Joint Repair, Slope Wall Repairs	EB and WB outside lanes for pier work
Ashland	016-0133	Bridge Deck Repair, Abutment Repair, Joint Repair, Concrete Beam Replacements	All lanes for concrete beam replacements
Cortland	016-0133	Bridge Deck Repair, Abutment Repair, Joint Repair, Concrete Beam Replacements	All lanes for concrete beam replacements
Armitage	016-0132	none	none
Webster	016-0131	none	none

Kostner	016-0112	none	none
Keeler	016-0114	none	none
Irving Park	016-0115	Bridge Deck Repair, Abutment Repair, Joint Repair, Slope Wall Repairs	WB RT lane and WB and EB shoulder for pier work
Pulaski	016-0118	Bridge Deck Rapair, Abutment Repair, Joint Repair	NB and SB outside lanes and auxiliary lanes for pier work
Kimball	016-0120	Bridge Deck Repair, Abutment Repair, Joint Repair, Slope Wall Repairs	NB and SB outside lanes for pier work
Belmont	016-0121	Bridge Deck Repair, Abutment Repair, Joint Repair	EB and WB outside lanes for pier work and abutment work
Kedzie	016-0121	Bridge Deck Repair, Abutment Repair, Joint Repair	NB Kedzie to EB Belmont RT Lane for Abut Wall work NB Kedzie to WB Belmont LT Lane for Pier work SB Kedzie LT Lane to I- 90/94 On-Ramp for Pier work
Sacramento	016-0123	none	none
California	016-0124 (SB) 016-1076 (REV)	Bridge Deck Repair, Abutment Repair, Joint Repair	NB and SB outside lanes for pier work
Diversey	016-1078 (SB) 016-1073 (REV)	Bridge Deck Repair, Abutment Repair, Joint Repair, Slope Wall Repairs	EB and WB outside lanes for pier work
Logan	016-0127	none	none
Western	016-0128	Bridge Deck Repair, Abutment Repair, Joint Repair, Slope Wall Repairs	SB Western outside lane (to I-90/94 On Ramp) for W Abut work NB and SB Western outside lanes pier work
Fullerton	016-0129	Bridge Deck Repair, Abutment Repair, Joint Repair	EB and WB outside lanes for pier work
Damen	016-0130	Bridge Deck Repair, Abutment Repair, Joint Repair, Slope Wall Repairs	SB Outside lane during pier work

<u>Method of Measuremen</u>t: 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. This item includes all detour work.

<u>Basis of Payment</u>: 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.

## **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 traffic signal systems in the City of Chicago. The Contractor shall contact the City of Chicago – Division of Electrical Operations (DEO) and the Chicago Department of Transportation (CDOT) – Division of Traffic Safety (Yadollah Montazery at (312) 744-6541) for a listing of approved Consultants.

The contractor shall coordinate with CDOT – DEO and CDOT – Division of Traffic Safety and shall follow all procedures per their directives.

This item shall include all maintenance of existing traffic signal installation provisions as per section 850 of the SSRBC except as herein modified. The maintenance of existing traffic signal installation shall not be paid separately but shall be included in this pay item, TEMPORARY TRAFFIC SIGNAL TIMING.

The following tasks are associated with TEMPORARY TRAFFIC SIGNAL TIMING.

- (a) Consultant shall attend temporary traffic signal inspection (turn-on) and/or detour meeting and conduct on-site implementation of the traffic signal timings.
- (b) Consultant shall be responsible for making fine-tuning 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 Engineer, CDOT-DEO and CDOT-Division of Traffic Safety.
- (f) Return original timing plan once construction affecting the intersection is completed. The intent is to return each intersection to permanent timing and returned to CDOT control as soon as possible rather than waiting until all stage work is complete.

Temporary traffic signal timing shall be required at the following intersections:

- 1. EB I-90/94 Kedzie Entrance Ramp, Kedzie Avenue, and Avondale Avenue
- 2. Kedzie Avenue and Wellington Avenue
- 3. Diversey Avenue and Kedzie Avenue
- 4. Sacramento Avenue and Diversey Avenue
- 5. EB I-90/94 Sacramento Entrance Ramp, Wellington Avenue, and Sacramento Avenue
- 6. EB I-90/94 Kimball Avenue Entrance Ramp and Kimball Avenue
- 7. Kimball Avenue and Belmont Avenue
- 8. EB I-90/94 Irving Park Entrance Ramp and Irving Park Road
- 9. WB I-90/94 Irving Park Exit Ramp, Irving Park Road, and Keystone Avenue
- 10. Irving Park Road and Pulaski Road
- 11. Pulaski Road and WB I-90/94 Irving Park Exit Ramp
- 12. EB I-90/94 Pulaski Road Entrance Ramp and Pulaski Road
- 13. Montrose Avenue and Knox Avenue
- 14. Montrose Avenue and Cicero Avenue
- 15. Cicero Avenue and Berteau Avenue
- 16. Cicero Avenue and Belle Plaine Avenue
- 17. Cicero Avenue, Irving Park Avenue, and Milwaukee Avenue
- 18. Irving Park Avenue and Kilpatrick Avenue
- 19. Irving Park Avenue and Kostner Avenue
- 20. Irving Park Avenue and Kildare Avenue
- 21. Irving Park Avenue and Keeler Avenue
- 22. Irving Park Avenue and EB I-90/94 Irving Park Avenue Entrance Ramp
- 23. Ashland Avenue and North Avenue
- 24. California Avenue and I-90/94 EB Exit Ramp (two detour routes)
- 25. California Avenue and Diversey Avenue (two detour routes)
- 26. Damen Avenue and Armitage Avenue
- 27. Damen Avenue, North Avenue, and Milwaukee Avenue
- 28. EB I-90/94 Ramps and Fullerton Avenue
- 29. EB I-90/94 Ramps and North Avenue
- 30. Kimball Avenue, Diversey Avenue, and Milwaukee Avenue
- 31. Kedzie Avenue and Diversey Avenue
- 32. Western Avenue and Fullerton Avenue
- 33. Western Avenue and EB Frontage Road/I-90/94 Entrance Ramp

## 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.

## **REMOVAL OF EXISTING PROTECTIVE NETTING**

## Description:

This work shall consist of removing and disposal of all material constituting the existing bird control netting from the project by the Contractor underneath the SB and Rev bridges carrying I-90/94 SB and Rev over Irving Park Road (S.N. 016-0115). Any loose debris of concrete encountered over the existing protective shielding shall be disposed of accordingly and shall be considered as part of the removal pay item.

#### Method of Measurement:

Removal of Existing Protective Netting will be measured in square yards. Areas not meeting the satisfaction of the Engineer shall not be measured for payment. Plan quantities are estimates only. Actual quantities will be measured in place. Agreement to plan quantities will not be allowed.

#### Basis of Payment:

This work specified herein, as shown on the plans and as directed by the Engineer, will be paid for at the contract unit price per square yards for REMOVAL OF EXISTING PROTECTIVE NETTING.

## PROTECTIVE NETTING

#### Description:

This work shall consist of installing bird control netting underneath the SB and Rev bridges carrying I-90/94 SB and Rev over Irving Park Road (S.N. 016-0115). The bird netting shall stop pigeons from roosting/nesting on the bridge structures to prevent damage from droppings and nesting materials.

#### Installation:

Before installing netting, the surface should be thoroughly cleaned and free of bird droppings, nesting materials, rust peeling paint or other debris where netting will be attached.

Install protective netting as recommended by the manufacturer. Netting shall fit the area to be protected perfectly so pest birds cannot enter the protected area, and so the netting blends perfectly with the architecture. Correct mesh sized shall be specified to insure exclusion of the correct pest bird. 2-inch mesh size shall be used for Pigeon Abatement.

Netting shall be installed "tight-as-a-drum" to insure a secure, long-lasting installation that is very hard to see. The color of the mesh shall be black to blend in. Loose installations will not stand the test of time, will look unsightly and may entrap birds.

## Materials:

Netting/Mesh shall be made of Ultra-violet stabilized polyethylene plastic with a breaking strength of Std. 40 lbs - HD 50 lbs per strand.

Hardware shall be galvanized or stainless steel.

#### Method of Measurement:

Protective Netting will be measured in square yards. Areas not meeting the satisfaction of the Engineer shall not be measured for payment. Plan quantities are estimates only. Actual quantities will be measured in place. Agreement to plan quantities will not be allowed.

All hardware such as but not limited to, supports, fittings, connections which are required for mounting will be included as part of this pay item.

#### Basis of Payment:

This work will be paid for at the contract unit price per square yards for PROTECTIVE NETTING.

#### SIDE SLOPE

#### Description:

This work shall consist of installing bird side slopes on the fascia beams on the outer flange on the SB and Rev bridges carrying I-90/94 SB and Rev over Irving Park Road (S.N. 016-0115). The side slope shall stop sparrow, starlings and pigeons from roosting/nesting on the bridge structures to prevent damage from droppings and nesting materials.

#### Installation:

Before side slope are installed, the surface should be thoroughly cleaned, dry and free of bird droppings, nesting materials, rust peeling paint or other debris where side slope will be attached.

Install side slope as recommended by the manufacturer. Side slope shall fit the area to be protected perfectly so pest birds cannot roost or nest on protected area, and so the side slope blends perfectly with the architecture.

End caps shall be installed to prevent pest or birds from getting behind the side slope.

#### Materials:

Side slope and installation materials shall be outdoor grade (sun and weather resistant).

Hardware shall be galvanized or stainless steel.
### Method of Measurement:

Side slope will not be measured separately but shall be included in the cost of PROTECTIVE NETTING.

All hardware such as but not limited to, supports, fittings, connections which are required for mounting will be included as part of this pay item.

#### Basis of Payment:

This work will be paid for at the contract unit price per square yards for PROTECTIVE NETTING.

### REMOVAL OF FIBER OPTIC CABLE

<u>Description</u>. This work shall consist of removing a portion of the existing fiber optic interconnect cable from conduit as shown on the plans.

Materials. None.

<u>Construction.</u> The existing fiber optic cable shall be disconnected from the communications end equipment and fiber enclosures, and removed from the existing conduits. Removal of the fiber optic cable shall prevent damage to end equipment from the cable being tugged. The existing fiber optic cable shall not be disconnected and removed until the temporary equipment and communications are installed in advance and operating to the satisfaction of the Engineer. Cables shall be taken off site for proper disposal.

<u>Basis of Payment.</u> This work will be paid for at the contract unit price per foot for REMOVAL OF FIBER OPTIC CABLE which price shall be payment in full for disconnecting the existing fiber optic cable from the end locations and removing the existing fiber optic cable from the existing conduits.

#### CLEANING AND PAINTING BEARINGS

<u>Description</u>: This work shall consist of the satisfactory cleaning and painting of the steel materials on the existing bridge bearings as indicated on the plans and to the satisfaction of the Engineer. This work also includes cleaning and painting all appurtenances associated with the bearings including retainer angles or plates and anchors at the bridge seats, if present.

The work also includes the satisfactory collection and disposal of paint cleaning residues and all debris generated by the cleaning process in accordance with the specifications. Containment of paint cleaning residues per IDOT GBSP 26 or 60 will not be required, but manual tools with vacuum systems shall be utilized to complete the work.

<u>Materials</u>: Paint materials shall be according to the following special provision:

1) GBSP 25, "Cleaning and Painting Existing Steel Structures"

<u>Construction Requirements</u>: The existing bridge bearings shall be cleaned and painted in accordance with the following special provision:

1) GBSP 25, "Cleaning and Painting Existing Steel Structures"

<u>Method of Measurement</u>: This work will be measured for payment per Each completed and accepted.

<u>Basis of Payment</u>: This work will be paid for at the contract unit price per each for CLEANING AND PAINTING BEARINGS, which price shall include all material, equipment, and labor to satisfactorily complete the work.

# UNDERPASS LUMINAIRE, LED, REPLACEMENT

Effective: January 1, 2023

#### Description.

This work shall consist of furnishing and installing a replacement underpass LED luminaire as shown on the plans, as specified herein. The luminaires to be replaced are for Grand Avenue over the Southeast bound lanes of the Kennedy Expressway. The existing luminaires are LPS and are suspended with two threaded rods. The replacement luminaires shall include and adapted plate if needed and all other materials to install the proposed luminaries on the existing threaded rods. The existing shall be re-used.

#### General.

The luminaire including the housing, driver and optical assembly shall be assembled in the U.S.A. The luminaire shall be assembled by and manufactured by the same manufacturer. The luminaire shall be mechanically strong and easy to maintain. All electrical and electronic components of the luminaire shall comply with the requirements of Restriction of Hazardous Materials (RoHS) regulations. The luminaire shall be listed for wet locations by an NRTL and shall meet the requirements of UL 1598 and UL 8750

#### Submittal Requirements.

The Contractor shall also the following manufacturer's product data for each type of luminaire:

- 1. Descriptive literature and catalogue cuts for luminaire, LED driver, and surge protection device. Completed manufacturer's luminaire ordering form with the full catalog number provided
- 2. LED drive current, total luminaire input wattage and total luminaire current at the system operating voltage or voltage range and ambient temperature of 25 C.

- 3. LED efficacy per luminaire expressed in lumens per watt (l/w).
- 4. Initial delivered lumens at the specified color temperature, drive current, and ambient temperature.
- 5. IES file associated with each submitted luminaire in the IES LM-63 format.
- 6. Computer photometric calculation reports as specified and in the luminaire performance table.
- 7. TM-15 BUG rating report.
- 8. Isofootcandle chart with max candela point and half candela trace indicated.
- 9. Documentation of manufacturers experience and verification that luminaires were assembled in the U.S.A. as specified.
- 10. Written warranty.

Upon request by the Engineer, submittals shall also include any or all the following:

- a. TM-21 calculator spreadsheet (XLSX or PDF format) and if available, TM-28 report for the specified luminaire or luminaire family. Both reports shall be for 50,000 hours at an ambient temperature of 77 °F (25 °C).
- b. LM-79 report with National Voluntary Laboratory Accreditation Program (NVLAP) current at the time of testing in PDF format inclusive of the following: isofootcandle diagram with half candela contour and maximum candela point; polar plots through maximum plane and maximum cone; coefficient of utilization graph; candela table; and spectral distribution graph and chromaticity diagram.
- c. LM-80 report for the specified LED package in PDF format and if available, LM-84 report for the specified luminaire or luminaire family in PDF format. Both reports shall be conducted by a laboratory with NVLAP certification current at the time of testing.
- d. AGi32 calculation file matching the submittal package.
- e. In Situ Temperature Measurement Test (ISTMT) report for the specified luminaire or luminaire family in PDF format.
- f. Vibration test report in accordance with ANSI C136.31 in PDF format.
- g. ASTM B117/ASTM D1654 (neutral salt spray) test and sample evaluation report in PDF format.

- h. ASTM G154 (ASTM D523) gloss test report in PDF format.
- i. LED drive current, total luminaire input wattage, and current over the operating voltage range at an ambient temperature of 77 °F (25 °C).
- j. Power factor (pf) and total harmonic distortion (THD) at maximum and minimum supply and at nominal voltage for the dimmed states of 70%, 50%, and 30% full power.
- k. Ingress protection (IP) test reports, conducted according to ANSI C136.25 requirements, for the driver and optical assembly in PDF format.
- I. Installation, maintenance, and cleaning instructions in PDF format, including recommendations on periodic cleaning methods.
- m. Documentation in PDF format that the reporting laboratory is certified to perform the required tests.

A sample luminaire shall also be provided upon request of the Engineer. The sample shall be as proposed for the contract and shall be delivered by the Contractor to the District Headquarters. After review, the Contractor shall retrieve the luminaire.

#### Manufacturer Experience.

The luminaire shall be designed to be incorporated into a lighting system with an expected 20year lifetime. The luminaire manufacturer shall have a minimum of 33 years' experience manufacturing HID roadway luminaires and shall have a minimum of seven (7) years' experience manufacturing LED roadway luminaires. The manufacturer shall have a minimum of 25,000 total LED roadway luminaires installed on a minimum of 100 separate installations, all within the U.S.A.

#### Housing.

Material. The luminaire shall be a single device not requiring onsite assembly for installation. The power supply for the luminaire shall be integral to the unit. The housing shall be either stainless-steel or cast aluminum.

#### Aluminum Housing.

The housing shall be extruded or cast aluminum; or a combination of both and shall have a copper content of less than 1.0%.

The housing shall be painted grey or silver unless specified otherwise. A epoxy base coat shall applied to the aluminum after the aluminum is properly treated with a conversion coating. The finish coat shall be polyester powder coat with a minimum thickness of 2.0 mil.

The luminaire surfaces exposed to the environment shall exceed a rating of six, according to ASTM D1654, after 1000 hours of ASTM B117 testing. The coating shall exhibit no greater than 30% reduction of gloss, according to ASTM D523, after 500 hours of ASTM G154 Cycle 6 QUV® accelerated weathering testing.

Stainless-Steel Housing.

The housing shall be constructed from 16-gauge minimum, 304 stainless steel.

The stainless-steel housing does not need to be painted. The manufacturer may paint the luminaire at no additional cost.

The luminaire shall be optically sealed, mechanically strong and easy to maintain. The luminaire shall be designed for wall mounting to a pier or abutment. It shall be provided with a suitable mounting bracket which allows for +90° adjustment from horizontal in 5° increments.

The luminaire shall be gasketed and sealed and shall be UL listed for wet locations. The luminaire optical assembly shall have a minimum IEC ingress penetration rating of IP66. When furnished with a lens and frame, the lens shall be made of crystal clear, impact and heat resistant flat glass. The lens and frame shall be securely attached to the main housing and be readily removable for servicing the LED optical assembly.

All external surfaces shall be cleaned in accordance with the manufacturer's recommendations and be constructed in such a way as to discourage the accumulation of water, ice, and debris.

The total weight including accessories, shall not exceed 75 lbs.

A passive cooling method with no moving, rotating parts, or liquids shall be employed for heat management.

Vibration Testing. All luminaires shall be subjected to and pass vibration testing requirements at "3G" minimum zero to peak acceleration in accordance with ANSI C136.31 requirements using the same luminaire. To be accepted, the luminaire housing, hardware, and each individual component shall pass this test with no noticeable damage and the luminaire must remain fully operational after testing.

Labels. An internal label shall be provided indicating the luminaire is suitable for wet locations and indicating the luminaire is an NRTL listed product to UL1598 and UL8750. The internal label shall also comply with the requirements of ANSI C136.22.

An external label consisting of two black characters on a white background with the dimensions of the label and the characters as specified in ANSI C136.15 for HPS luminaires. The first character shall be the alphabetical character representing the initial lumen output as specified in Table 1 of Article 1067.06(c). The second character shall be the numerical character representing the transverse light distribution type as specified in IES RP-8 (i.e. Types 1, 2, 3, 4, or 5).

Hardware. All hardware shall be stainless steel or of other corrosion resistant material approved by the Engineer.

Luminaires shall be designed to be easily serviced, having fasteners such as quarter-turn clips of the heavy spring-loaded type with large, deep straight slot heads, complete with a receptacle and shall be according to military specification MIL-f-5591.

All hardware shall be captive and not susceptible to falling from the luminaire during maintenance operations. This shall include lens/lens frame fasteners as well hardware holding the removable driver and electronic components in place.

Circuiting shall be designed to minimize the impact of individual LED failures on the operation of the other LED's.

Wiring. Wiring within the electrical enclosure shall be rated at 600v, 105 ℃ or higher.

The power connection to the luminaire shall be via liquid tight metallic conduit or an armored flexible cable assembly. The power connection, including any external shielding, must be secured to the luminaire and connected source. The location of the opening shall be coordinated with the installation to minimize the length of flexible conduit required. The length of the cable or flexible conduit shall not exceed six (6) feet.

#### Mounting Brackets.

The brackets shall be properly sized to accommodate the weight of the luminaire with calculations or other suitable reference documentation submitted to support the material choice. The brackets shall be constructed of 304 stainless steel

The mounting brackets shall be fully coordinated with the luminaire mounting method indicated in plans.

#### Driver.

The driver shall be integral to the luminaire shall be capable of receiving an indefinite open and short circuit output conditions without damage.

The driver shall incorporate the use of thermal foldback circuitry to reduce output current under abnormal driver case temperature conditions and shall be rated for a lifetime of 100,000 hours at an ambient temperature exposure of 77 °F (25 °C) to the luminaire. If the driver has a thermal shut down feature, it shall not turn off the LEDs when operated at 104 °F (40 °C) or less.

The driver shall have an input voltage range of 120 to 277 volts ( $\pm$  10%) or 347 to 480 volts ( $\pm$  10%) according to the contract documents. When the driver is operating within the rated input voltage range and in an un-dimmed state, the power factor measurement shall be not less than 0.9 and the THD measurement shall be no greater than 20%.

The driver shall meet the requirements of the FCC Rules and Regulations, Title 47, Part 15 for Class A devices with regard to electromagnetic compatibility. This shall be confirmed through the testing methods in accordance with ANSI C63.4 for electromagnetic interference.

The driver shall be dimmable using the protocol listed in the Luminaire Performance Table shown in the contract.

Surge Protection. The luminaire shall comply the requirements of ANSI C136.2 for electrical transient immunity at the "Extreme" level (20KV/10KA) and shall be equipped with a surge protective device (SPD) that is UL1449 compliant with indicator light. An SPD failure shall open the circuit to protect the driver.

#### LED Optical Assembly

The optical assembly shall have an IP66 or higher rating in accordance with ANSI C136.25. The circuiting of the LED array shall be designed to minimize the effect of individual LED failures on the operation of other LEDs. All optical components shall be made of glass or a UV stabilized, non-yellowing material.

The optical assembly shall utilize high brightness, long life, minimum 70 CRI, 4,000K color temperature (+/-300K) LEDs binned in accordance with ANSI C78.377. Lenses shall be UV-stabilized acrylic or glass.

Lumen depreciation at 50,000 hours of operation shall not exceed 15% of initial lumen output at the specified LED drive current and an ambient temperature of 25°C.

The luminaire may or may not have a glass lens over the LED modules. If a glass lens is used, it must be a flat lens. Material other than glass will not be acceptable. If a glass lens is not used, the LED modules may not protrude lower than the luminaire housing.

The assembly shall have individual serial numbers or other means for manufacturer tracking.

#### Photometric Performance.

Luminaires shall be tested according to IESNA LM-79. This testing shall be performed by a test laboratory holding accreditation from the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) for the IESNA LM-79 test procedure.

Data reports as a minimum shall yield an isofootcandle chart, with max candela point and half candela trace indicated, maximum plane and maximum cone plots of candela, a candlepower table (house and street side), a coefficient of utilization chart, a luminous flux distribution table, spectral distribution plots, chromaticity plots, and other standard report outputs of the above-mentioned tests.

The luminaire shall have a BUG rating of Back Light B3 or less, Up Light rating of U0, and a Glare rating of G3 or less unless otherwise indicated in the luminaire performance table.

### Photometric Calculations.

Calculations. Submitted report shall include a luminaire classification system graph with both the recorded lumen value and percent lumens by zone along with the BUG rating according to IESNA TM-15.

Complete point-by-point luminance and veiling luminance calculations as well as listings of all indicated averages and ratios as applicable shall be provided in accordance with IESNA RP-8 recommendations. Lighting calculations shall be performed using AGi32 software with all luminance calculations performed to one decimal place (i.e. x.x cd/m2). Uniformity ratios shall also be calculated to one decimal place (i.e. x.x:1). Calculation results shall demonstrate that the submitted luminaire meets the lighting metrics specified in the project Luminaire Performance Table(s). Values shall be rounded to the number of significant digits indicated in the luminaire performance table(s).

All photometry must be **photopic**. Scotopic or mesopic factors will not be allowed. The AGi32 file shall be submitted at the request of the Engineer.

The luminaire may have an initial lumen value lower that the specified lumen range in the performance tables provided that the resulting calculations demonstrate that the performance requirements are being met.

FAI Route 90/94 (I-90/94) Project NHPP-HIBR-UH3A(902) Section 2020-004-BR Cook County Contract No. 62K74

0 EARE				
GIVEN CONDITIONS				
ROADWAY DATA	Pavement Width	60	(ft)	
	Number of Lanes	5		
	I.E.S. Surface Classification	R	3	
	Q-Zero Value	.07	7	
MOUNTING DATA	Mounting Height	15	(ft)	
	Tilt	0	(degrees)	
	Orientation	Perpendicular to roadway		
	Set-Back from Edge Of Pavement	12	(ft)	
LUMINAIRE DATA	Lumens	10,000 - 13,500		
	Total Light Loss Factor	0.65		
<b>LAYOUT DATA</b>	Spacing	40	(ft)	
	Configuration	uration Opposite		
	Luminaire Overhang over EOP	-12	(ft)	

# IDOT DISTRICT 1 LUMINAIRE PERFORMANCE TABLE 5 ROADWAY UNDERPASS LIGHTING 5 LANE

**NOTE**: Variations from the above specified I.E.S. distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

#### **PERFORMANCE REQUIREMENTS**

**NOTE**: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

Roadway	Average Luminance, LAVE	1.6	Cd/m² (Max)
		1.2	Cd/m <sup>2</sup> (Min)
LUMINANCE	Uniformity Ratio, Lave/Lmin	3:1	(Max)
	Uniformity Ratio, L <sub>MAX</sub> /L <sub>MIN</sub>	5:1	(Max)
	Veiling Luminance Ratio, Lv/Lave	0.30:1	(Max)

## Independent Testing

When a contract has 30 or more luminaires of the same type (distribution type and lumen output/wattage), that luminaire type shall be independently tested, unless otherwise noted. The quantity of luminaires to be tested shall be as specified in the following table.

Contract Quantity	Luminaires to be Tested
1-49	0 (unless otherwise noted)
50-100	2
101-150	3
151-200	4
201-250	5
251-300	6
301-350	7

Testing is not required for temporary lighting luminaires.

The Contractor shall coordinate the testing with the contract schedule considering submittal, manufacturing, testing, and installation lead-times and deadlines.

The Electrical Engineer shall select from all the project luminaires at the Contractor's or distributor's storage facility, within District 1, the luminaires for testing. In all cases, the selection of luminaires shall be a random selection from the entire completed lot of luminaires required for the contract. Selections from partial lots will not be allowed. An additional luminaire shall also be selected for physical inspection by the Engineer at the District Headquarters. This luminaire will be available for the Contractor to pick up at a later date to be installed under this contract. This luminaire is in addition to the luminaire required as a part of the submittal process specified elsewhere.

Alternative selection process. With the Engineer's prior approval, the Contractor shall provide a list of luminaire serial numbers for all the luminaires. The Engineer shall make a random selection of the required number of luminaires for testing from the serial numbers. That luminaire must then be photographed clearly showing the serial number prior to shipment to the selected and approved testing laboratory. The testing laboratory shall include a photograph of the luminaire along with the test results directly to the Engineer.

Luminaires shall be tested at a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory approved for each of the required tests. The testing facility shall not be associated in any way, subsidiary or otherwise, with the luminaire manufacturer. All costs associated with luminaire testing shall be included in the bid price of the luminaire.

The selection of the proposed independent laboratory shall be presented with the information submitted for review and approval.

The testing performed shall include photometric and electrical testing.

# All tests shall be conducted at the luminaire system operating voltage of 240 volts unless specified differently in the contract plans.

Photometric testing shall be according to IES recommendations, performed with a goniophotometer and as a minimum, shall yield an isofootcandle chart, with max candela point and half candela trace indicated, an isocandela diagram, maximum planned and maximum cone plots of candela, a candlepower table (House and street side), a coefficient of utilization chart, a luminous flux distribution table, BUG rating report, and complete calculations based on specified requirements and test results.

Electrical testing shall conform to NEMA and ANSI standards and, as a minimum shall include a complete check of wiring connections and a table of characteristics showing input amperes, watts, power factor, total harmonic distortion and LED drive current.

Two copies of the summary report and the test results including IES photometric files (including CDROM) shall be certified by the test laboratory and shall be sent by certified mail directly to the Engineer.

To: District Engineer Attn: Bureau Chief of Traffic Operations Illinois Department of transportation 201 West center Ct. Schaumburg, IL 60196

The package shall state "luminaire test reports" and the contract number clearly.

A copy of this material shall be sent to the Contractor and the Resident Engineer at the same time.

Photometric performance shall meet or exceed that of the specified values. If the luminaire does not meet the specified photometric values, the luminaire has failed regardless of whether the test results meet the submitted factory data.

Should any of the tested luminaires of a given type, and distribution fail to satisfy the specifications and perform according to approved submittal information, the luminaire type of that distribution type and wattage shall be unacceptable and be replaced by alternate equipment meeting the specifications with the submittal and testing process repeated in their entirety; or corrections made to achieve required performance.

In the case of corrections, the Contractor shall advise the Engineer of the proposed corrections and shall request a repeat of the specified testing and, if the corrections are deemed reasonable by the Engineer, the testing process shall be repeated in its entirety.

The number of luminaires to be tested shall be the same quantity as originally tested as required in the above table.

Retesting, should it become necessary, shall not be grounds for additional compensation or extension of time

Submittal information shall include a statement of intent to provide the testing as well as a request for approval of the chosen laboratory.

### Installation.

Each luminaire shall be installed according to the luminaire manufacturer's recommendations.

Underpass luminaires shall be either attached to structures (such as piers, etc.) or suspended from structures (such as bridge decks) as indicated or implied by the configuration on the Plans. Mounting, including all hardware and appurtenant items, shall be included as part of this item. Luminaires shall be configured with the luminaire tilt as identified in the submitted documents.

Unless otherwise indicated, suspended underpass luminaires shall be installed one-inch above the lowest underpass beam and shall be mounted using vibration dampening assemblies. All mounting hardware shall be corrosion resistant and shall be stainless steel unless otherwise indicated.

No luminaire shall be installed prior to approval. Where independent testing is required, full approval will not be given until complete test results, demonstrating compliance with the specifications, have been reviewed and accepted by the Engineer.

Luminaire wiring shall be provided with the luminaire. The wiring shall run from the junction box to the luminaire.

Luminaire wire shall be sized No. 10, rated 600 V, RHW/USE-2, and have copper conductors, stranded in conformance with ASTM B 8. Luminaire wire shall be insulated with cross-linked polyethylene (XLP) insulation. The wire shall include a phase, neutral, and green ground wire. Wires shall be trained within any raceways so as to avoid abrasion or damage to the insulation.

Included with the luminaire wiring shall be fusing located in the handhole or primary junction box. Fusing shall be according to Article 1065.01 with the exception that fuses shall be 6 amperes.

Each luminaire and optical assembly shall be free of all dirt, smudges, etc. Should the optical assembly require cleaning, a luminaire manufacturer approved cleaning procedure shall be used.

### Warranty.

The entire luminaire and all of its component parts shall be covered by a 10-year warranty. Failure is when one or more of the following occur:

- 1) Negligible light output from more than 10 percent of the discrete LEDs.
- 2) Significant moisture that deteriorates performance of the luminaire.
- 3) Driver that continues to operate at a reduced output due to overheating.

The warranty period shall begin on the date of luminaire delivery. The Contractor shall verify that the Resident Engineer has noted the delivery date in the daily diary. Copy of the shipment and delivery documentation shall be submitted.

The replacement luminaire shall be of the same manufacturer, model, and photometric distribution as the original.

#### Method of Measurement.

The rated initial minimum luminous flux (lumen output) of the light source, as installed in the luminaire, shall be according to the following table for each specified output designation.

Designation Type	Minimum Initial Luminous Flux
A	2,200
В	3,150
С	4,400
D	6,300
E	9,450
F	12,500
G	15,500
Н	25,200
I	47,250

Where delivered lumens is defined as the minimum initial delivered lumens at the specified color temperature. Luminaires with an initial luminous flux less than the values listed in the above table will not be acceptable even if they meet the requirements given in the Luminaire Performance table shown in the contract.

#### Basis of Payment.

This work will be paid for at the contract unit price per each for **LUMINAIRE, LED**, **UNDERPASS**, **REPLACEMENT**, of the mount type and output designation specified.