

September 8, 2015

SUBJECT: FAI Route 90 (I-90) Project ACNHPP-0090(402) Section 1617B(13) Cook County Contract No. 62A64 Item No. 14, September 18, 2015 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. Replaced the Schedule of Prices
- 2. Revised page iv of the Table of Contents to the Special Provisions
- 3. Revised pages 26-47 & 149-150 of the Special Provisions
- 4. Added pages 431 & 432 to the Special Provisions
- 5. Revised sheets 13 & 17 of the Plans

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

Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Very truly yours,

John D. Baranzelli, P.E. Acting Engineer of Design and Environment

Jette abechlyon AE.

By: Ted B. Walschleger, P. E. Engineer of Project Management

cc: John Fortmann, Region 1, District 1; Tim Kell; D. Carl Puzey; Estimates

MS/ck

State Job # - C-91-283-15

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County Name - COOK- -Code - 31 - -District - 1 - -

Section Number - 1617B(13)

Project Number ACNHPP-0090/402/ \*REVISED: SEPTEMBER 9, 2015 Route FAI 90

ltem Unit of Number Measure **Total Price** Pay Item Description Quantity Unit Price Х = X0321963 MICRO-PILES EACH 24.000 EACH **REM TEMP WOOD POLE** X0322141 1.000 EACH X0322400 PILE EXTRACTION 121.000 EACH 1.000 X0322916 PRO SS CONN TO EX SS EACH 1.000 X0323432 MICROPILE LOAD TEST X0323433 MIC-PIL PRF LOAD TEST EACH 1.000 L SUM X0324571 MAINT ST LTG SYS CHGO 1.000 FOOT X0324599 ROD AND CLEAN EX COND 300.000 X0326133 TEMP WD POLE 45FT CL5 EACH 3.000 X0326326 CC TPX 2-1/C6 1-1/CG FOOT 1,395.000 X0326955 **REM REL EX ELECT SERV** EACH 2.000 X0327073 STL CAS P AUG/JKD 42 FOOT 290.000 9.000 WOOD POLE 100 CL 2 EACH X0327393 FOOT 282.000 X0327679 STL CAS P AUG/JKD 30 X0327682 CDWM ENG SERVICES L SUM 1.000

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District -

Section Number - 1617B(13)

**Project Number** ACNHPP-0090/402/ \*REVISED: SEPTEMBER 9, 2015 Route

FAI 90

lter Num		Day Itam Departmention	Unit of Measure	Quantitu		Unit Price		Total Dring
Num		Pay Item Description	Weasure	Quantity	X	Unit Price	=	Total Price
*ADD X	X0327976	TRACK MONITORING	CAL DA	90.000				
X	X1200046	STORM SEW CL B 2 8	FOOT	217.000				
X	X1400116	CONDUIT B&P GAL S 2SP	FOOT	295.000				
Х	X1400117	EC C XLP 3C#2 1C#8 GR	FOOT	400.000				
X	X1400118	CONDUIT SPECIAL	FOOT	300.000				
X	X2020502	BRACED EXCAVATION	CU YD	141.000				
X	X2080250	TRENCH BACKFILL SPL	CU YD	190.000				
X	X5011100	FOUNDATION REM	EACH	3.000				
X	X5030305	CONC WEARING SURF 5	SQ YD	519.000				
X	X5040100	PREC BRIDGE APP SLAB	SQ FT	4,580.000				
X	X5210150	HLMR BRG GUID EXP 400	EACH	11.000				
X	X5610651	ABAN EX WM FILL CLSM	FOOT	791.000				
X	X5860110	GRANULAR BACKFILL STR	CU YD	2,081.000				
X	X6020084	MANHOLE SPECIAL	EACH	2.000				
X	X6022505	CB TA 4D T1FOL (CHGO)	EACH	4.000				

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Section Number - 1617B(13)

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X6700410	ENGR FLD OFF A SPL	CAL MO	13.000				
X7011006	TR CONT-PROT TEMP DET	EACH	1.000				
X7011015	TR C-PROT EXPRESSWAYS	L SUM	1.000				
X7013820	TR CONT SURVEIL EXPWY	CAL DA	365.000				
X7030025	WET REF TEM TP T3 L&S	SQ FT	36.000				
X7030030	WET REF TEM TAPE T3 4	FOOT	6,244.000				
X7030035	WET REF TEM TAPE T3 5	FOOT	2,099.000				
X7030045	WET REF TEM TAPE T3 8	FOOT	705.000				
X7030050	WET REF TEM TPE T3 12	FOOT	56.000				
X7040125	PIN TEMP CONC BARRIER	EACH	60.000				
X7340102	CONC FOUND ST LT CONT	EACH	1.000				
X7830072	GRV RCSD PVT MRKG 6	FOOT	1,552.000				
X7830076	GRV RCSD PVT MRKG 9	FOOT	1,181.000				
X8050095	SERV INSTALL SPL	EACH	1.000				
X8100863	INTERCEPT EX CONDUIT	EACH	2.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
						_	
X8130110	JUNCTION BOX SPL	EACH	3.000				
X8180060	A CBL 3-1C 2 A MES W	FOOT	500.000				
X8250500	LIGHTING UNIT COMP SP	EACH	6.000				
X8250505	LIGHT CONTROLLER SPL	EACH	1.000				
X8251388	LT CT BM 480V200D RS	EACH	1.000				
X8360120	LIGHT POLE FDN SPL	EACH	2.000				
X8410103	REMOVE TEMP LTG SYSTM	L SUM	1.000				
X8420111	REM UNDERPASS LU NS	EACH	8.000				
X8950077	REM REL EXIST LT CONT	EACH	1.000				
X8950085	REMOV EX LTNG CONT SP	EACH	1.000				
Z0004552	APPROACH SLAB REM	SQ YD	228.000				
Z0005216	HMA STAB 6 AT SPBGR	SQ YD	99.000				
Z0007510	ENGINEERED BARRIER	SQ YD	500.000				
Z0013797	STAB CONSTR ENTRANCE	SQ YD	209.000				
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000				

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Project Number ACNHPP-0090/402/ \*REVISED: SEPTEMBER 9, 2015 Route FAI 90

ltem Unit of Number Measure **Unit Price Total Price** Pay Item Description Quantity Х = Z0018002 DRAINAGE SCUPPR DS-11 EACH 10.000 Z0018800 DRAINAGE SYSTEM L SUM 1.000 Z0022800 FENCE REMOVAL FOOT 1,381.000 Z0030850 TEMP INFO SIGNING SQ FT 706.000 Z0033028 MAINTAIN LIGHTING SYS CAL MO 12.000 FOOT 262.000 Z0046304 P UNDR FOR STRUCT 4 Z0048665 L SUM 1.000 **RR PROT LIABILITY INS** Z0062456 TEMP PAVEMENT SQ YD 809.000 SQ FT 1,323.000 Z0073002 TEMP SOIL RETEN SYSTM \*ADD Z0076600 TRAINEES HOUR 500.000 0.800 400.000 HOUR \*ADD Z0076604 TRAINEES TPG 500.000 15.000 7,500.000 UNIT 20100110 TREE REMOV 6-15 102.000 UNIT 20100210 TREE REMOV OVER 15 110.000 CU YD 20200100 EARTH EXCAVATION 9,820.000 20800150 TRENCH BACKFILL CU YD 185.000



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ltem		Unit of					
Number	Pay Item Description	Measure	Quantity	X	Unit Price	=	Total Price
21101505	TOPSOIL EXC & PLAC	CU YD	848.000				
25000210	SEEDING CL 2A	ACRE	2.400				
25000400	NITROGEN FERT NUTR	POUND	208.000				
25000600	POTASSIUM FERT NUTR	POUND	208.000				
25100115	MULCH METHOD 2	ACRE	2.400				
25100630	EROSION CONTR BLANKET	SQ YD	10,810.000				
28000250	TEMP EROS CONTR SEED	POUND	224.000				
28000400	PERIMETER EROS BAR	FOOT	1,768.000				
28000510	INLET FILTERS	EACH	9.000				
28001100	TEMP EROS CONTR BLANK	SQ YD	10,810.000				
30300112	AGG SUBGRADE IMPR 12	SQ YD	1,029.000				
35102000	AGG BASE CSE B 8	SQ YD	941.000				
35501316	HMA BASE CSE 8	SQ YD	13.000				
40600275	BIT MATLS PR CT	POUND	1,591.000				
40603340	HMA SC "D" N70	TON	284.000				



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ltem		Unit of					
Number	Pay Item Description	Measure	Quantity	X	Unit Price	=	Total Price
42000501	PCC PVT 10 JOINTED	SQ YD	684.000				
42001300	PROTECTIVE COAT	SQ YD	865.000				
42001420	BR APPR PVT CON (PCC)	SQ YD	107.000				
44000100	PAVEMENT REM	SQ YD	1,203.000				
44000157	HMA SURF REM 2	SQ YD	2,519.000				
44000500	COMB CURB GUTTER REM	FOOT	573.000				
44001980	CONC BARRIER REMOV	FOOT	416.000				
44003100	MEDIAN REMOVAL	SQ FT	1,038.000				
44004250	PAVED SHLD REMOVAL	SQ YD	718.000				
48101600	AGGREGATE SHLDS B 8	SQ YD	149.000				
48203052	HMA SHOULDERS 13 3/4	SQ YD	208.000				
50100100	REM EXIST STRUCT	EACH	1.000				
50157300	PROTECTIVE SHIELD	SQ YD	1,746.000				
50200100	STRUCTURE EXCAVATION	CU YD	2,496.000				
50300225	CONC STRUCT	CU YD	897.600				

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Project Number ACNHPP-0090/402/ \*REVISED: SEPTEMBER 9, 2015 Route FAI 90

ltem Number	Pow Itom Decorintion	Unit of Measure	Quantity	×	Unit Price		Total Price
NULLING	Pay Item Description	weasure	Quantity	X	Unit Price	=	
50300255	CONC SUP-STR	CU YD	964.300				
50300260	BR DECK GROOVING	SQ YD	2,010.000				
50300300	PROTECTIVE COAT	SQ YD	3,743.000				
50500105	F & E STRUCT STEEL	L SUM	1.000				
50500505	STUD SHEAR CONNECTORS	EACH	10,494.000				
50800205	REINF BARS, EPOXY CTD	POUND	303,562.000				
50901730	BRIDGE FENCE RAILING	FOOT	1,129.000				
51100100	SLOPE WALL 4	SQ YD	441.000				
51200957	FUR M S PILE 12X0.250	FOOT	4,069.000				
51202305	DRIVING PILES	FOOT	4,069.000				
51203200	TEST PILE MET SHELLS	EACH	3.000				
51204650	PILE SHOES	EACH	187.000				
51500100	NAME PLATES	EACH	1.000				
52000110	PREF JT STRIP SEAL	FOOT	158.000				
52100010	ELAST BEARING ASSY T1	EACH	11.000				

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FAI 90

Item		Unit of					
Number	Pay Item Description	Measure	Quantity	X	Unit Price	=	Total Price
52100020	ELAST BEARING ASSY T2	EACH	11.000				
52100520	ANCHOR BOLTS 1	EACH	66.000				
52100530	ANCHOR BOLTS 1 1/4	EACH	22.000				
550A0050	STORM SEW CL A 1 12	FOOT	11.000				
55100400	STORM SEWER REM 10	FOOT	141.000				
55100500	STORM SEWER REM 12	FOOT	202.000				
56103400	D I WATER MAIN 16	FOOT	335.000				
56103520	D I WATER MAIN 24	FOOT	433.000				
56105000	WATER VALVES 8	EACH	1.000				
56105300	WATER VALVES 16	EACH	1.000				
56105420	WATER VALVES 24	EACH	1.000				
58700300	CONCRETE SEALER	SQ FT	1,613.000				
59100100	GEOCOMPOSITE WALL DR	SQ YD	257.000				
60219510	MAN TA 4 DIA T20F&G	EACH	1.000				
60255500	MAN ADJUST	EACH	1.000				

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Item		Unit of					
Number	Pay Item Description	Measure	Quantity	x	Unit Price	=	Total Price
60500040	REMOV MANHOLES	EACH	7.000				
60500050	REMOV CATCH BAS	EACH	5.000				
60605000	COMB CC&G TB6.24	FOOT	297.000				
60619200	CONC MED TSB6.06	SQ FT	591.000				
63000001	SPBGR TY A 6FT POSTS	FOOT	200.000				
63100070	TRAF BAR TERM T5	EACH	2.000				
63100085	TRAF BAR TERM T6	EACH	2.000				
63200310	GUARDRAIL REMOV	FOOT	574.000				
64000120	SIGHT SCRN (CLF) 8	FOOT	296.000				
64300450	IMP ATTEN NRD TL3	EACH	1.000				
66400105	CH LK FENCE 4	FOOT	599.000				
66900200	NON SPL WASTE DISPOSL	CU YD	1,850.000				
66900450	SPL WASTE PLNS/REPORT	L SUM	1.000				
66900530	SOIL DISPOSAL ANALY	EACH	2.000				
67000600	ENGR FIELD LAB	CAL MO	13.000				

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Item		Unit of					
Number	Pay Item Description	Measure	Quantity	X	Unit Price	=	Total Price
67100100	MOBILIZATION	L SUM	1.000				
70106800	CHANGEABLE MESSAGE SN	CAL MO	24.000				
70300240	TEMP PVT MK LINE 6	FOOT	1,030.000				
70301000	WORK ZONE PAVT MK REM	SQ FT	3,499.000				
70400100	TEMP CONC BARRIER	FOOT	1,338.000				
70600250	IMP ATTN TEMP NRD TL3	EACH	3.000				
72000200	SIGN PANEL T2	SQ FT	71.250				
72000300	SIGN PANEL T3	SQ FT	1,123.000				
72400100	REMOV SIN PAN ASSY TA	EACH	1.000				
72400200	REMOV SIN PAN ASSY TB	EACH	1.000				
73000100	WOOD SIN SUPPORT	FOOT	58.000				
73304000	OVHD SIN STR BR MT	FOOT	97.000				
73602000	REM OVHD SN STR-BR MT	EACH	2.000				
78000100	THPL PVT MK LTR & SYM	SQ FT	37.000				
78000200	THPL PVT MK LINE 4	FOOT	6,456.000				

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FAI 90

ltem		Unit of					
Number	Pay Item Description	Measure	Quantity	X	Unit Price	=	Total Price
78000500	THPL PVT MK LINE 8	FOOT	884.000				
78000600	THPL PVT MK LINE 12	FOOT	344.000				
78003120	PREF PL PM TB LINE 5	FOOT	1,552.000				
78003140	PREF PL PM TB LINE 8	FOOT	1,181.000				
78008210	POLYUREA PM T1 LN 4	FOOT	262.000				
78100100	RAISED REFL PAVT MKR	EACH	259.000				
78100105	RAISED REF PVT MKR BR	EACH	20.000				
78100300	REPLACEMENT REFLECTOR	EACH	25.000				
78200530	BAR WALL MKR TYPE C	EACH	108.000				
78300100	PAVT MARKING REMOVAL	SQ FT	4,344.000				
78300200	RAISED REF PVT MK REM	EACH	248.000				
80400100	ELECT SERV INSTALL	EACH	2.000				
80400200	ELECT UTIL SERV CONN	L SUM	1.000				
81028200	UNDRGRD C GALVS 2	FOOT	100.000				
81028220	UNDRGRD C GALVS 3	FOOT	650.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
81100320		FOOT	720.000		011111100		
01100320	CONATSTT FVC 05	FUUI	720.000				
81100605	CON AT ST 2 PVC GALVS	FOOT	980.000				
81100805	CON AT ST 3 PVC GALVS	FOOT	150.000				
81300220	JUN BX SS AS 6X6X4	EACH	10.000				
81300530	JUN BX SS AS 12X10X6	EACH	5.000				
81300915	JUN BX SS AS 20X20X8	EACH	2.000				
81603080	UD 3#2#4GXLPUSE 1 1/4	FOOT	920.000				
81702110	EC C XLP USE 1C 10	FOOT	2,880.000				
81702140	EC C XLP USE 1C 4	FOOT	1,030.000				
81702150	EC C XLP USE 1C 2	FOOT	6,480.000				
81702220	EC C XLP USE 1C 350	FOOT	800.000				
81800300	A CBL 3-1C2 MESS WIRE	FOOT	2,450.000				
82107100	UNDERPAS LUM 70W HPS	EACH	2.000				
82107200	UNDERPAS LUM 100W HPS	EACH	8.000				
84100110	REM TEMP LIGHT UNIT	EACH	9.000				

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 Item Number
 Pay Item Description
 Unit of Measure
 Quantity
 x
 Unit Price
 =
 Total Price

 84500110
 REMOV LIGHTING CONTR
 EACH
 1.000
 1.000
 Image: Control of the second seco

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THIS IS THE TOTAL BID \$

62A64

NOTES:

- 1. Each PAY ITEM should have a UNIT PRICE and a TOTAL PRICE.
- 2. The UNIT PRICE shall govern if no TOTAL PRICE is shown or if there is a discrepancy between the product of the UNIT PRICE multiplied by the QUANTITY.
- 3. If a UNIT PRICE is omitted, the TOTAL PRICE will be divided by the QUANTITY in order to establish a UNIT PRICE.
- 4. A bid may be declared UNACCEPTABLE if neither a unit price nor a total price is shown.

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# CTA FLAGGING AND COORDINATION

All work to be done by the Contractor on, over, or in close proximity of the CTA (Chicago Transit Authority) right-of-way and infrastructure shall be performed according to Article 107.12 of the Standard Specifications and this specification. This specification includes language from CTA Master Specification Section 01 35 15, "Special Project Procedures for Adjacent Construction." No interruption to CTA service will be allowed unless approved in writing by the CTA.

The CTA's Representative for this project will be:

Mr. Abdin Carrillo Project Manager, Construction Oversight (312) 681-3913

## 1.01 SUMMARY

- A. This section includes the requirements for safe construction operations on, above, below and adjacent to operating tracks of the CTA rail system. The Contractor shall be responsible for compliance with the CTA, *Safety Manual for Contract Construction On, Above, or Adjacent to the CTA Rail System* (in effect at such time).
- B. 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.
- C. 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. At least twenty-one (21) calendar days prior to the start of work the Contractor must request CTA to prepare a Right-of-Entry document. The Contractor must also conform to all requirements of the "CTA Requirements for Contractors Working along the Right-of-Way (R.O.W.)", included in Appendix A.
- D. 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.

E. The scope of work under this contract includes construction activities adjacent to and above CTA tunnels. Work activities shall protect the existing CTA infrastructure and allow unimpeded service to CTA customers unless specifically allowed by CTA as identified herein.

## 1.02 PROJECT CONDITIONS

- A. The Chicago Transit Authority (CTA) is an operating transportation agency and must maintain rail operations at all scheduled times for the benefit of the public. The Contractor shall conduct his operations in such a manner as not to cause damage to the CTA equipment, put the public or the CTA personnel in danger, cause inconvenience to the customers, interrupt train service (except as permitted herein) or cause avoidable inconvenience to the public and the surrounding communities.
- B. The CTA will be operating trains during the construction of this project. The rail operations are 24 hours per day, seven days per week.
- C. Certain portions of the project may be performed on, above or adjacent to sections of track where rail service is suspended in order to facilitate the work. For any work occurring within, above or adjacent to a section of track to be taken out of service, the Contractor shall confirm with the CTA that track within the work limits has been taken out of service and the third rail de-energized, as required, prior to beginning the work.
- D. If the CTA deems any of the Contractor's work or operations hazardous to the CTA's operations or to the public, the CTA shall contact the Engineer. The Engineer may elect to order the Contractor to immediately suspend work until reasonable remedial measures are taken satisfactory to the CTA.
- E. The CTA may review any of the Contractor's procedures, methods, temporary structures, tools or equipment that will be utilized within the CTA Right-of-Way. These reviews do not relieve the Contractor of responsibility for the safety, maintenance, and repairs of any temporary structure or work, or for the safety, construction, and maintenance of the work, or from any liability whatsoever on account of any procedure or method employed, or due to any failure or movement of any temporary structure, tools or equipment furnished as necessary to execute work on CTA Right-of-Way.
- F. At least five (5) weeks prior to the start of any work on, above or adjacent to the CTA right-of-way, the Contractor will be required to attend weekly coordination meetings with CTA Operations and other CTA departments to review and coordinate proposed work activities of the Contractor(s). The Contractor will be required to provide a five week look-ahead schedule, in a format acceptable to CTA, reflecting proposed work activities within the CTA Right-of-Way.

- G. The Contractor, through the Engineer, shall submit a Rail Service Bulletin Request form to the CTA at least twenty-one (21) calendar days in advance of the Contractor's proposed scheduled time to enter upon the CTA Right-of-Way for the performance of any work under this Contract. Bulletin requests will be required when performing work which impacts rail operations such as prior to each phase of staged station construction, Track Access Occurrences, track survey, etc.
- H. CTA generally permits only one Track Access Occurrence at a time on any given route. Other work on CTA's system, including required operations and/or maintenance by CTA, or work by other contractors elsewhere on the route, may limit the available dates of track access occurrences for this project. The Contractor is strongly encouraged to submit Rail Service Bulletin requests with more than the twenty-one (21) day minimum required advance notice. The CTA has indicated that they typically will not grant Track Access Occurrences on consecutive weekend periods in order to provide scheduled service to customers.
- I. The Contractor shall at all times observe all rules, safety regulations and other requirements of the CTA, including, but not limited to, the following Standard Operating Procedures (SOP's).

No. 7037, "Flagging on the Right-of-Way".
No. 7038, "Train Operation Through Slow Zones".
No. 7041, "Slow Zones".
No. 8111, "Workers Ahead Warning System".
No. 8130, "Safety on Rapid Transit Tracks".
No. 8212, "Test Train Procedures"
Sketch 2000-SZ-1, Slow Zone Equipment

## 1.03 REIMBURSEMENT OF COSTS

- A. The cost of all flagmen, infrastructure crews, engineering inspection, switchmen, and other workmen furnished by the CTA and authorized by the Engineer shall be paid for directly to the CTA by the Contractor.
- B. The costs associated with Track Access Occurrences granted and established by the CTA shall be paid for directly to the CTA by the Contractor.
- C. 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.

- D. 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.
- E. There are maximum amounts of flagger shifts identified within this specification. If Contractor operations require flagger shifts that are granted by the CTA beyond these limits, the Contractor shall pay for the services, but will receive no reimbursement.
- F. The Department will not be liable for any delays by the CTA in providing flagmen, establishing track closures or other service provided by the CTA and identified within this special provision.

## 1.04 RAIL SAFETY TRAINING

- A. All Contractor and Subcontractor employees assigned to work on, over or near the CTA Right-of-Way shall be required to attend an all-day Rail Right-of-Way Safety Training Session in accordance with the CTA, Safety Manual for Contract Construction On, Above, or Adjacent to the CTA Rail System. The cost of this training is currently \$200.00 per employee, paid by the Contractor in advance. The certification is good for one calendar year from the date of issuance. The Contractor shall coordinate rail safety training with the Engineer. The cost of training shall be paid directly to the CTA by the Contractor.
- B. Rail Right-of-Way Safety Training for Contractor and subcontractor personnel will be scheduled by CTA as training slots become available. The Contractor is advised that the Contractor's failure to request training sufficiently in advance of when the employee is required on the work site shall not be cause for relaxing the requirement for Rail Right-of-Way Safety Training.
- C. The \$200.00 fee is non-refundable. If any individual fails to report for training or is rejected for training and must be rescheduled, an additional \$200.00 will be required. No additional compensation will be made for the rescheduling of any training.
- D. Upon successful completion of CTA Rail Safety Training, each trainee will be issued a non-transferable Rail Safety Tour Identification Card with the trainee's photo and a decal with pressure sensitive adhesive to be affixed on the hard hat. The Rail Safety Tour Identification Card and the decal are valid for one (1) year from the date of issue. The validity of the Card and the decal are in no way related to the length of this Contract.

- E. Contractor and Subcontractor personnel must renew their Rail Safety Tour Identification Cards annually by successfully completing Rail Safety Training again. Contractor or Subcontractor personnel who fail to maintain a valid Rail Safety Tour Identification Card are not permitted to work on, above or adjacent to the CTA Rail Right of Way and CTA reserves the right to remove such personnel from the work site.
- F. The costs incurred by the Contractor for CTA Rail Safety Training will not be reimbursed.
- 1.05 MANDATORY ITEMS FOR EMPLOYEES ON CTA RIGHT-OF-WAY
  - A. Contractor's and Subcontractor's employees assigned to work on the CTA Rightof-Way:
    - 1. Contractor's and Subcontractor's employees will be given individual property permits. These permits shall be carried by each employee at all times while on CTA property. All permits issued shall be returned to CTA at the completion of the project, if the employee no longer works on this project, or on the date of expiration.
    - 2. Each employee shall carry a valid Rail Safety Tour Identification Card at all times while on CTA right-of-way in accordance with Article 2-2 of the CTA Safety Manual.
    - 3. All employees shall wear an undamaged hard hat with current rail safety sticker affixed, CTA standard safety vest and eye protection at 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.
    - 4. Contractor personnel shall wear suitable work shoes with defined heel and non-slip soles. Steel toes or metal cleats on the sole or heel of shoes are prohibited. Shoelaces are to be kept short so they do not pose a tripping hazard. Athletic shoes, sandals, open-toed shoes, moccasins and/or shoes with heels higher than 1" are not permitted.
    - 5. Contractor personnel shall have a non-metallic, working flashlight after dark or when working in the subway.
  - B. Contractor and Subcontractor employees assigned to work <u>adjacent to or above</u> the CTA right-of-way shall wear a CTA standard safety vest at all times. Personnel without current Rail Safety Training and a valid property permit shall not enter onto any CTA Right-of-Way.

## 1.06 WORK AREA AVAILABILITY

- A. DEFINITIONS
  - 1. <u>RIGHT-OF-WAY WORK:</u> Any work performed at, above, or below track level within the CTA Right-of-Way.
  - 2. <u>IN-SERVICE TRACK:</u> All CTA tracks are in service seven days a week, 24 hours a day, unless specifically removed from service for specific times by a Rail Service Bulletin issued by the Vice President, Rail Operations. Copies of the CTA's current train schedule for the lines affected by this project is available on the CTA's website and are subject to changes at any time, before or during, the Contract.
  - 3. <u>OUT-OF-SERVICE TRACK:</u> The CTA tracks within limits defined by CTA that are temporarily removed from service for the purpose of completing specific work. Traction power will remain on at all times unless power removal is requested by the Contractor and approved by the CTA. In such cases, traction power must be removed and restored by CTA personnel. The Contractor may request the CTA to de-energize portions of the CTA right-of-way to perform work on, or near an Out-of-Service Track when no revenue service is scheduled, or as specified under a Rail Service Bulletin. Upon completion of the Out-of-Service Work, the Contractor shall maintain sufficient personnel on-site to correct any deficiencies in the Contractor's Work discovered by the CTA during power and service restoration and testing.
  - 4. <u>TRACK ACCESS OCCURRENCE:</u> A condition(s) which provides a modification to the normal operation of CTA service to facilitate access for a Contractor(s) to perform work on or near the CTA Right-of-Way as defined and limited herein.
  - 5. <u>RE-ROUTE:</u> Modification to the normal routing of trains in order to remove rail traffic from a section of track to facilitate access for a Contractor(s) to perform work on or near the CTA Right-of-Way as defined and limited herein.
  - 6. <u>LINE CUT:</u> A temporary cessation of all service on a transit line; meaning total stoppage of transit service on all tracks and at all stations within the closure zone to facilitate access for a contractor(s) to perform work on or near the CTA Right-of-Way as defined and limited herein.

- 7. <u>SINGLE-TRACK:</u> A temporary operation established by operating trains bi-directionally on one track while the adjacent track is taken out-ofservice as defined in paragraph 1.05.a.4, above. Only one single-track at a time can be set up on a line and only for very limited time periods. If CTA or a separate contractor(s) request single track operations along the same line concurrently with the Contractor for this contract, CTA shall have the exclusive authority to determine which request shall be granted.
- 8. <u>RUSH HOURS</u>: Monday through Friday, from 0500 to 0900 hours and from 1500 to 1900 hours.
- 9. <u>FLAGGER SHIFT:</u> A flagger shift is defined as the services of a CTA Flagman up to, but no more than eight (8) hours including travel and required breaks. For example:
  - a. A Contractor five hour work shift which requires 3 flaggers will use 3 flagger shifts.
  - b. A Contractor eight hour work shift requiring 3 flaggers shall use 6 flagger shifts (because travel & break time will increase the flaggers work hours beyond eight).
  - c. A Contractor ten hour work shift requiring 3 flaggers will use 6 flagger shifts.
- 10. <u>INFRASTRUCTURE SHIFT:</u> An infrastructure shift is defined as up to, but no more than eight (8) hours worked per CTA Infrastructure employee. For example:
  - a. A Contractor five hour work shift requiring 2 signal maintainers will use 2 infrastructure shifts.
  - b. A Contractor eight hour work shift requiring 2 towermen shall use 2 infrastructure shifts.
  - c. A ten hour work shift requiring 2 lineman will use 4 infrastructure shifts.
- 11. <u>PERSON-IN-CHARGE (PIC):</u> A person or persons, specified in a CTA Rail Service Bulletin, who is solely in charge of a work zone and is the single point contact between CTA and all persons (Contractor's, CTA and others) working in a work zone. The Rail Service Bulletin may identify the PIC by name or by radio call number. The Engineer or the Engineer's designee shall serve as PIC.
- 12. <u>POWER & WAY SERVICE BULLETIN (PWS Bulletin)</u>: A document authorized by the CTA Infrastructure Division intended to supplement a CTA Rail Service Bulletin by defining power/signal removal and restoration procedures and other work zone protection measures required to safely perform construction and/or maintenance work on or adjacent to the CTA Right-of-Way (ROW).

B. No service disruptions will be allowed for the completion of this work, except as noted herein. If the CTA deems it necessary, the CTA will impact operations to avoid a hazardous condition to either the passengers or employees and charge the Contractor for all associated costs and damages incurred. No compensation will be made for CTA charges to the Contractor due to unauthorized Contractor access or other unapproved impacts to CTA operations.

# 1.07 CTA OPERATING REQUIREMENTS

- A. Strictly comply with operating requirements of the Chicago Transit Authority while construction work is in progress, specifically as follows:
  - 1. All work performed on the CTA Right-of-Way will be allowed during the Construction Period only in accordance with the Article 1.08 "ALLOWABLE HOURS OF CONSTRUCTION". During most periods of construction, a "slow zone" shall be established at the work site and flagging personnel shall be deployed to facilitate safe and continuous train operations and to protect Contractor, CTA employees, passengers, the general public and property in the vicinity.
  - 2. No one is permitted to enter the CTA Right-of-Way during Rush Hours. Access to the underside of the existing or proposed bridge structure within the limits of the CTA Right-of-Way will not be permitted.
- 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. No interruption to CTA service will be allowed unless approved in writing by the CTA. The CTA has indicated during overnight periods, train headways are between fifteen (15) and thirty (30) minutes.
- C. Pedestrian traffic access to CTA station facilities, shall be maintained at all times. Barricades and signage for sidewalk closures as well as all details for pedestrian crossings of street intersections at the entrance of the station must be coordinated with the CTA at least twenty-eight (28) days prior to modifications to staging.
- D. Bus traffic access to CTA station facilities must be maintained. Any proposed changes to bus routes or normal access by pedestrians will need to be coordinated and approved by CTA (and Pace where applicable).

E. Access control of the CTA Right-of-Way must be maintained at all times. This includes eliminating openings directly to the Right-of-Way where existing median barriers are to be removed. All planned removals of existing access control must be coordinated with the CTA, with plans for counter measures provided to the CTA at least three (3) weeks prior to removals. If the CTA grants the removal of a portion of the existing access control, the Contractor shall provide a fence system to enclose the Contractor's work area and provide a visual separation between the Contractor's work area and the CTA operating track(s). The fence shall be designed and installed to meet all CTA requirements, including, but not limited to, horizontal clearance requirements, minimum wind and vertical loading, foundation embedment. screening, fencing connections, installation requirements, maintenance of the fence throughout the installed period, removal of the fence at the completion of the period for the fence need and restoration of the CTA Right-of-Way. The Engineer and CTA shall approve all fence designs, components and installation procedures prior to the start of fence installation. The cost to design, install, maintain and remove the fence shall be considered included in the work required to be performed within the CTA Right-of-Way and will not be paid for separately.

# 1.08 ALLOWABLE HOURS OF CONSTRUCTION

- A. Construction activities within CTA Right-of-Way are not permitted during Rush Hours. Access to the underside of the existing or proposed bridge structure within the limits of the CTA Right-of-Way will not be permitted during Rush Hours.
- B. Construction activities within CTA Right-of-Way may be permitted during non-Rush Hour periods under flagging protection with the advance concurrence of the CTA as follows:
  - 1. Monday thru Friday: From 0900 to 1500 and 1900 hours to 0500 hours the next day (the power shall remain on for these hours unless allowed via specific Track Access Occurrence).
  - 2. Weekends: 1900 hours Friday to 0500 hours Monday
- C. Track Access Occurrences:
  - 1. The total number of Track Access Occurrences shall be as specified below:
    - a. Overnight Single Tracks: A maximum of (TBD) Overnight Single-Track Track Access Occurrences will be permitted. Construction activities within the CTA Right-of-Way may be permitted between the hours of 22:00 and 04:00 the following morning, including any time required for test trains stipulated in the Rail Service Bulletin.

- b. Weekend Single Tracks: A maximum of (TBD) Weekend Single-Track Track Access Occurrences will be permitted. Construction activities within the CTA Right-of-Way may be permitted between the hours of 22:00 Friday night and 04:00 the following Monday morning, including any time required for test trains stipulated in the Rail Service Bulletin.
- c. If proposed work requires that CTA operations be suspended due to any circumstance, the Engineer must be informed immediately to coordinate the service suspension with the CTA. Any reimbursement to the CTA for the granting of a Track Access Occurrence must be approved by the Engineer.
- 2. The exact dates and hours for all Track Access Occurrences are subject to change by the CTA depending on the nature of the work, access requirements of CTA personnel, work performed under separate contract or operational requirements of the CTA. The approval of specific dates and times for Track Access Occurrences on this Contract may be affected by major events or by a Track Access Occurrence scheduled elsewhere on that route or the CTA System. The CTA has indicated that they typically will not grant Track Access Occurrences on consecutive weekend periods in order to provide scheduled service to customers.
- 3. Contractors completing other Department projects may also request Track Access Occurrences along the same section of track as described herein. These projects are identified in CONTRACTOR COOPERATION. Provided these Track Access Occurrences are approved, scheduled and initiated by the CTA, the Contractor shall be able to access CTA Right-of-Way with no impact to the total count of Track Access Occurrences attributed to this Contract.
- D. The CTA reserves the right to modify the allowable dates or hours of track access occurrences based on service requirements for the subject route and manpower availability for the date and location requested.
- E. The CTA reserves the right to deny or to cancel a previously approved request for a Track Access Occurrence based on service requirements for the time period requested. The CTA may notify the Contractor of such denial or cancellation no later than 1 day prior to a Track Access Occurrence. Service requirements may be affected by major events (e.g., festivals, White Sox and Cubs games, concerts), or by a Track Access Occurrence scheduled elsewhere on that route or the CTA System.

- F. The Contractor will not be permitted to perform work requiring a Track Access Occurrence or Flagging during the following special events:
  - 1. Taste of Chicago
  - 2. Independence Day
  - 3. Chicago Air and Water Show
  - 4. Chicago Marathon
  - 5. Chicago Jazz Festival
  - 6. Chicago Blues Festival
  - 7. Chicago St. Patrick's Day Parade
  - 8. The Saturday before Thanksgiving Day through the Monday following Thanksgiving
  - 9. New Year's Eve and New Year's Day
  - 10. Easter Sunday
  - 11. Gospel Fest
  - 12. Chicago White Sox Home Games
  - 13. Chicago Cubs Home Games
  - 14. Chicago Bears Home Games
  - 15. Lollapalooza
  - 16. Pride Parade

In addition, CTA reserves the right to limit or deny access to the system during other major special events that may develop and that may impact service needs, during emergencies, and during severe weather conditions.

The CTA, at their discretion, may provide a Track Access Occurrence or Flagging during a time period identified above provided the request is made in conformance with this specification and is properly scheduled with the CTA as required.

## 1.09 CONSTRUCTION PROCESS PLAN

A. CTA will require the Contractor to submit a Construction Process Plan whenever any work, in the opinion of the CTA, affects the safety or causes disruption of service or inconvenience to transit users, CTA Operations or impacts CTA Rightof-Way including, but not limited to: protection of CTA tracks/ CTA Right-of-Way, demolition, temporary shoring installation, drilled shaft installation, pier construction, structural steel erection over CTA tracks/ CTA Right-of-Way, temporary pedestrian bridge to CTA's station entrance, and any other necessary temporary construction related to the above listed items. At a minimum, an individual Construction Process Plan shall be required for each instance the Contractor requests a Track Access Occurrence from CTA and for any work that requires flagging protection from CTA.

- B. A draft Construction Process Plan must be submitted to CTA by such method as the CTA may direct, at least twenty-one (21) calendar days in advance of work and at least fourteen (14) calendar days prior to a pre-activity meeting. The plan shall include/address the following:
  - 1. Applicable Contract Documents
  - 2. Options
  - 3. Possible conflicts
  - 4. Compatibility problems
  - 5. Time schedules
  - 6. Weather limitations
  - 7. Temporary facilities & signage
  - 8. Space and access limitations
  - 9. Governing regulations
  - 10. Safe Work Plans (including Hazard Analysis)
  - 11. CTA Operations Impact
  - 12. Proposed Traffic Control & Staging Areas
  - 13. Lift Plan
  - 14. For construction processes where failure of temporary structures will result in service interruptions and/or damage to CTA infrastructure CTA will require calculations and drawings signed and sealed by an Illinois SE. These processes include but are not limited to temporary Earth Retention Structures, formwork, lift plans and demolition. CTA also reserves the right to require a 3<sup>rd</sup> party SE review of the calculations, drawings and installation.
- C. The draft plan must also include reference to all Contractor Requests for Information (RFI's) and submittals that pertain to work identified in the plan.
- D. In addition, for any work to be performed during a Track Access Occurrence, the Contractor shall provide the following to the CTA:
  - 1. A track access plan submitted to and approved by the CTA specifically identifying the area(s) of power removal and work zone protection methods being requested by the Contractor.
  - 2. Work zone protection methods to be performed by the Contractor
  - 3. Name, title, contact information, and work hours for Contractor's on-site supervision
  - 4. Work zone protection requested by the Contractor for implementation by the CTA (subject to CTA approval).

- 5. Pre-approved Safety and Quality Control Checklists, applicable to the work elements being performed during the specific track(s) outage request for completion by the Contractor and submission to the Person-In-Charge during Track Access Occurrence.
- 6. A general schedule reflecting proposed work to be performed within the requested Track Access Occurrence.
- E. After pre-activity meeting minutes have been agreed to, all comments from the meeting must be incorporated into a final Construction Process Plan. This plan must be submitted and approved by the Engineer and CTA prior to the start of related work.
- F. Prior to the CTA implementing an authorized Track Access Occurrence, the Contractor must provide, at least 48 hours in advance, an hourly schedule broken into tasks with a defined critical path that clearly establishes milestones that may be monitored. The hourly schedule shall also include, but not be limited to:
  - 1. Name, title, contact information, and work hours for Contractor's on-site supervision.
  - 2. Power removal (min 1 hour)
  - 3. Proposed work activities.
  - 4. Activities for inspection and completion of safety & quality checklists by Contractor.
  - 5. Submission of safety & quality checklists to the CTA's Person-In-Charge (PIC) during Track Access Occurrence. The checklists shall be submitted to the PIC prior to commencing power restoration activities.
  - 6. Power, Signal Restoration (min 1 hour).
  - 7. Test train (min  $\frac{1}{2}$  hour).
- G. The CTA intends to issue Power & Way Service Bulletins to supplement CTA Rail Service Bulletins. The Power & Way Service Bulletins are intended to provide procedural guidelines for safely removing and restoring the CTA's power & way systems (primarily traction power & signal) within the limits defined by the contract and Contractors specific track outage plan(s).

- H. CTA labor shall be required to de-energize and re-energize traction power and perform such other work as may be deemed by the CTA to be required pursuant to the Contractor's work activities and authorized Track Access Occurrences, etc. CTA Signal Maintainer shall also be required to observe and witness the Contractor disconnection and reconnection of temporary signal work at each location where modifications are performed to support construction activities. One Signal Maintainer will be required to witness testing at each location or housing where it is taking place. CTA Signal Maintainer shall also be required to witness the Contractor restoration safety testing, prior to the line being returned to the CTA.
- I. Two Linemen will be required at each location where traction power is energized or de-energized. The Contractor's schedule must include travel time for the CTA Electrician's (min ½ hour) if they are to energize or de-energize traction power at more than one location.
- J. Failure of the Contractor to provide the CTA the minimum specified time required for the removal and restoration of all Power & Way systems within an authorized Track Access Occurrence will result in specified liquidated damages for failure to return track(s) to service in accordance with the contract requirements. There will be no reimbursement for liquidated damages charged to the Contractor by CTA. The following schedule for liquidated damages has been established by the CTA:

From 1 minute through 29 minutes delay - \$5,000.00

From 30 minutes through 59 minutes delay – an additional \$5,000.00

For each additional hour or fraction thereof - \$30,000.00 per hour

- K. When scope of work under this Contract includes construction activities adjacent to the existing CTA tunnels. The construction process plan shall identify the following items to be approved by the CTA prior to all construction near the CTA tunnels:
  - 1. The scope and sequence of work near the CTA tunnel
  - 2. The type of equipment to be used adjacent to the tunnel
  - 3. Equipment to be operated, stored or serviced within the limits of the projected edges of the CTA tunnels up to ground
  - 4. Specialized pads, racks, mats or other supports for any equipment to be operated or stored or materials to be stored over CTA tunnels

- 5. Excavation limits in the area of the CTA tunnels, braced excavation or temporary earth retention system designs to be used (if applicable), excavation procedures (including hand, vacuum, hydro and other non-mechanical techniques), and other elements related to the excavations near the CTA tunnels
- 6. Materials and activities to protect the CTA tunnels during excavations and proposed construction near the CTA tunnels
- 7. Emergency plan and communication protocol in the event there is confirmed damage to the CTA tunnels due to Contractor activities
- 8. Restoration plan and construction techniques to restore the soil fill around and over the CTA tunnels
- L. Placing equipment and materials in the area above the CTA tunnels is at the discretion of the CTA, and must be authorized prior to the start of any activities above and around the tunnel. In order for the CTA to evaluate the impact due to Contractor activities, a Structural Assessment Report shall be prepared concerning the CTA tunnel structures.
  - 1. The Contractor shall retain the services of an engineering firm, prequalified in the IDOT consultant selection category of Highway Bridge (Advance Typical / Complex), for preparation of the Structural Assessment Report(s). Contractor's pre-approval shall not be applicable for this project. Preparation of the Structural Assessment Report(s) shall be at the Contractor's expense.
  - 2. The Contractor is advised that the existing structures most likely contain elements that are in deteriorated conditions with reduced load carrying capacities. It is the Contractor's responsibility to account for the condition of existing structures when developing construction procedures for using them to support construction loads.
  - 3. The Contractor shall verify that the structural demands of the applied loads due to the Contractor's means and methods will not exceed the available capacity of the structure at the time loads are applied nor will any overstress to the tunnel structure occur. The Contractor may need to provide modifications to the existing tunnels (or other methods of retrofitting) to support construction loads. Locations and design of such modifications system will be the responsibility of the Contractor, will not be paid for separately, and will be subject to the review and approval of the CTA.

4. The modifications may include constructing elements adjacent to the CTA tunnels to reduce the load transfer to the tunnel structures. Any proposed improvements within the area of the tunnel to support Contractor operations will not be paid for separately, but will be included in the cost of other items.

# 1.10 HAZARDOUS WORKING CONDITIONS

- A. <u>The Contractor shall caution all employees of the presence of electric third rail</u> (600 volts DC), live cables and moving trains on CTA tracks. The Contractor shall take all necessary precautions to prevent damage to life or property through contact with the electrical or operations systems. The Contractor shall caution all employees that any contact with live electric third rail or "live" portions of train undercarriage may result in a severe burn or death.
- B. The Contractor shall establish third-rail safety precautions in accordance with CTA regulations, such as using insulating hoods or covers for live third rail or cables adjacent to the work. On every day and at every work site where a live third rail hazard exists, the Contractor shall instruct all employees of the emergency procedures. Knowledge of the disconnect switch locations or manner of disconnection shall be available at all times to the personnel on the job. Unless otherwise noted, only CTA Electricians are allowed to disconnect power.
- C. The third rail may be de-energized during authorized Track Access Occurrences. The planning and implementation of the de-energizing shall be listed in the Contractor's process plan and include documenting checklist requirements.

# 1.11 TRACK SAFETY

- A. The Contractor shall, at all times, take special care to conduct operations over, on, under, adjacent to, or adjoining, the CTA Right-of-Way in such a manner as not to cause damage, settlement or displacement of any structures, tracks or any portion thereof. Contractor will monitor CTA tracks for vertical and horizontal movements. Contractor to refer to the requirements as identified under the Special Provision, "Track Monitoring".
- B. Any damages to the CTA tracks, supporting structures or other existing facilities and properties caused by the Contractor's operations shall be replaced or repaired by the Contractor to the satisfaction of the CTA without reimbursement. Contractor shall obtain photo documentation of damaged property to the CTA prior to performing any repair or replacement work.

- C. The CTA shall have the right to perform any work it deems to be of an emergency nature and/or necessary to permit normal train operations during construction operations by the Contractor. The work to be completed by the CTA may impact the ongoing Contractor operations. If the emergency work is required due to Contractor actions, the cost of such service or emergency work provided by the CTA shall be borne by the Contractor with no reimbursement by the Department.
- D. All work shall comply with the CTA, Safety Manual for Contract Construction On, Above, or Adjacent to the CTA Rail System and CTA Standard Operating Procedures.
- E. Train Clearances
  - 1. Minimum 7'-2" Horizontal Clearance:

The Contractor shall take such precautions as are necessary to ensure the safety and continuity of the CTA operations and passengers. The Contractor shall provide a minimum horizontal clearance of 7'-2" from the centerline of the nearest tangent track to any falsework, bracing and forms or other temporary obstruction during the work under this Contract. The clearance requirements for curved track sections must be calculated by the Contractor to ensure encroachment into the clearance envelope will not occur. Prepare, submit and obtain approval of detailed drawings prepared and sealed by a licensed structural engineer in the state of Illinois for all falsework, sheeting and construction procedures adjacent to and under the tracks before doing any work on same. After obtaining approval of such plans, said falsework, sheeting and construction procedures shall be constructed strictly in accordance with the approved drawings and specifications. All submittals must be submitted to the Engineer to be provided to the CTA In case of any settlement or displacement of structures or tracks, the Contractor shall immediately proceed with all shoring or other work necessary to maintain the CTA property in a safe condition for the operation of train service. If the Contractor fails to undertake this work within 24 hours after notice by the Engineer in writing, the CTA may proceed to repair or shore any such structure or tracks; and the cost thereof shall be billed to the Contractor with no compensation. If the settlement or displacement is severe enough to limit train service, the repairs shall be made immediately. All costs of any disruption to the CTA service due to the Contractor's operations or negligence shall be at the Contractor's expense with no compensation.

2. Limited minimum 6'-1" Horizontal Clearance:

In limited cases and with advance authorization by the CTA, a minimum horizontal clearance of 6'-1" between the centerline of the nearest tangent track and an obstruction may be allowed. This clearance does not allow CTA or Contractor personnel to safely stand between the obstruction and an operating train. In addition, an obstruction at this clearance is a hazard to motormen with a cab window open. Any required flagging by the CTA will need to be requested as described herein.

- 3. 14'-6" Vertical Clearance: Vertical clearance A minimum vertical clearance of 14'-6" (4.42 m) above the high running rail the CTA tracks must be provided at all times.
- F. Protective Shield
  - 1. The Contractor shall furnish, install, and later remove protective shields to protect the CTA traffic from damage due to (a) falling material and (b) work on bridge piers.
  - 2. Protective shields will be necessary for any demolition/repair/new construction activities.
  - 3. The protective shield may be a platform, a net, or any other Department approved structure that can support the construction debris <u>and satisfy train</u> <u>clearance requirements</u>.
  - 4. Required protective shield for falling material, 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.
  - 5. Required protective shield for work on bridge piers shall be designed for a 30 psf minimum wind load pressure or greater as determined by Contractor's engineer for site specific conditions. Any other loads that can be imposed by Contractor's construction activities shall also be included. Preferred material for shield is wood.
  - 6. Drawings and design calculations for the protective shields 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.

G. Work adjacent and above the CTA tunnels must consider the protection of the tunnel structures in addition to items described above related to open track conditions. The protection of the tunnel structure is critical to maintain continuous transit operations. Section 1.09K describes the required items as part of the Construction Process near the tunnel structures. The CTA, at their discretion, may place inspectors, or other personnel, within adjacent tunnel sections during Contractor operations. The CTA personnel will alert the Engineer if the Contractor actions appear to be damaging the CTA tunnel structure(s).

# 1.12 TRACK FLAGGING OPERATIONS

- A. Temporary Track Flagging slow zones per CTA SOP 7041 and CTA, Safety Manual for Contract Construction On, Above or Adjacent to the CTA Rail System are restricted in the following manner:
  - 1. Temporary track flagging slow zones can only be mobilized, utilized and demobilized in non-rush hour time periods and no more than one (1) Track Flagging Operation zone will be permitted at any given time. The Contractor will be the responsible party responsible to furnish and install the required slow zone signage and equipment. A Track Flagging Operation zone is defined as a contiguous work zone, of no more than 600 feet in length, regardless of the number of tracks fouled. The costs for all manpower, signage and equipment for flagging operations will be billed by the CTA to the Contractor with reimbursement as defined herein.
  - 2. Current Standard Operating Procedures require Slow Zone with flagging protection whenever any workers are scheduled to work on, across or near a section of track. Flagging protection shall be ordered and assigned according to the CTA Flagmen Requirements Manual. These standards must be adhered to and the number of flagmen assigned to a work location shall be as required by the CTA Flagmen Requirements Manual that is available for public viewing at CTA Headquarters upon request. If the work will take place in an area of restricted visibility then flagmen must be assigned (for any number of workers/duration of work) and a slow zone must be established.
  - 3. Temporary Track Flagging slow zone signs will be placed, removed or turned by the CTA so the sign cannot be read from the motor cab or hooded to cover the sign so it may not be read from the motor cab when the work crew clears the Right-of-Way.
  - 4. The Contractor shall provide the Engineer with a written request for flagmen and other personnel at least seventy two (72) hours (two normal working days and before noon) prior to the date, and time the work will be performed and the CTA personnel are requested. The Engineer or the Engineer's designee will coordinate all flagmen requests with the CTA.

- 5. A maximum of zero (0) flagger shifts will be reimbursed as part of the Contract. The costs for additional flagger shifts required for the Contractor's operations that are requested and granted by the CTA will be reviewed after the flagger shift request has been made to the Engineer.
- B. The providing of such personnel and any other safety precautions taken by the CTA shall not relieve the Contractor of any liability for death, injury or damage arising in connection with the construction operations. See CTA SOP No. 7037, "Flagging on the right-of-way", for a description of flagging personnel duties.
- C. To minimize flagmen usage, the Contractor shall use approved barricades, barricaded scaffolds and/or safety railings. Barricades and safety railing arrangements shall be in accordance with Section 4-5.3 of the CTA, Safety Manual for Contract Construction On, Above, or Adjacent to the CTA Rail System.
- D. The CTA does not guarantee that flagging or other personnel will always be available when requested. The Contractor shall be advised that requests for flagging manpower must conform to the CTA Flagman Requirements Manual, and certain work locations require multiple flagging personnel when only one track is fouled by the work.
- E. The Contractor shall pay for all flagging and other personnel costs incurred and charged by the CTA. The cost for the each flagger shift shall be approximately \$900.00 per flagger shift (exact cost will be based on actual wage rates, fringes and overhead). The Contractor shall also be responsible to reimburse the CTA for all costs associated with the use of other personnel for infrastructure shifts throughout the duration of the contract. The cost for any other CTA personnel (signalmen, linemen, towermen, inspectors, etc.) shall be approximately \$1,100.00 per infrastructure shift (exact cost will be based on actual wage rates, fringes and overhead). CTA personnel assigned to monitor CTA tunnels during Contractor operations identified within Section 1.111 are considered as infrastructure shifts.
- F. By labor contract, CTA flagging personnel are entitled to a 30-minute break after a continuous 5-1/2 hour work period, including report and travel time. The 5-1/2 hour period begins when the person reports to work at his or her home terminal. Additionally, flagging personnel are entitled to occasional personal breaks (to use the washroom facilities) during the normal course of work. When flagging personnel leave the work site, work must cease unless provision is made for a relief flagger. The Contractor shall coordinate the Project work schedule with the flagging personnel break periods.

- G. All employees of the Contractor and subcontractors shall report any actions of perceived CTA employee misconduct, or if any CTA employee does not provide a full level of cooperation in support of the contract; immediately and directly to the Engineer. The Engineer will provide written correspondence to the CTA Project Manager, as well as CTA Operations. Only with timely, written documentation will CTA be enabled to resolve work site personnel issues and take appropriate disciplinary action, when necessary.
- H. If the Contractor, Engineer, CTA Construction or Safety Inspector believes that the Flagman is unable to perform his/her duties responsibly, work shall be stopped immediately, ensure that the Right-of-Way is safe for train operations, and the Work Crew shall exit, without delay, the Rail System Right-of-Way. The Contractor must contribute incident information to the Engineer to that a written report can be submitted to the CTA prior to the end of the workday.
  - 1. In addition, all employees of the Contractor and subcontractors must report any actions of perceived CTA employee misconduct, or if any CTA employee does not provide a full level of cooperation in support of the contract immediately to the Engineer. The Engineer will then contact the CTA's Control Center and/or CTA Rail Operations Route Manager. Within 24 hours of alleged incident, the Engineer must provide a written report to the CTA including detailed explanation of incident, employee badge numbers, location of incident, etc. The Contractor must contribute incident information to the Engineer.
  - 2. Failure to make the proper notification in writing may adversely affect any claim that the Department may file with respect to CTA employee performance or lack thereof.
- I. CTA Flaggers only provide flagging protection for the CTA Right-of-Way, and only CTA Flaggers are permitted to provide flagging protection for the CTA Rightof-Way. Flaggers for streets, highways or other railroads are solely the responsibility of the Contractor, and will not be permitted to provide flagging protection for the CTA Right-of-Way. Any additional flagging required by other agencies or railroads is the responsibility of the Contractor.

# 1.13 TRACK ACCESS OCCURRENCES

A. The entire system must be fully operational when the tracks are put back into service after a Track Access Occurrence. The track where work was conducted must be returned to the CTA in revenue condition; all stations must be open, fully functional and properly cleaned. The Contractor shall be immediately available with sufficient staff for up to one hour after revenue operation begins to ensure that all systems are functioning properly.

- B. The Contractor shall allow enough time prior to putting the tracks back into service to make sure the line can be fully operational. A test train shall be required after any construction activity, determined by the Engineer or CTA, to require a test train. The scheduling of test trains must include travel time to and from the location being tested. Additional time should also be allowed for any possible remedial work required before the system can be made fully operational.
- C. All components of the system, including, but not limited to, tracks, signals, stations, entrances, etc. must be fully and properly operational prior to putting the tracks and facilities back into service. Any facilities under demolition or construction and any temporary facilities must be safe and secure so they do not impact revenue service operations.
- D. The Contractor shall be subject to fines if any station, facility, yard, structure, track, or component is not fully operational and useable at the prescribed predetermined time; including all planned staging of construction sites. The CTA will identify appropriate fines at the time of the incident. No compensation will be made for fines levied by the CTA due to Contractor actions or delays in providing CTA facilities at prescribed times.
- E. The Contractor shall clean all debris and equipment from the work or staging areas after work has been completed after each work day. In the event the Contractor fails to so clean to the CTA's satisfaction, the CTA may perform any necessary cleaning and fine the Contractor the cost of such cleaning. No compensation will be made for fines levied by the CTA due to delays and cleaning costs.

# CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT ENGINEERING SERVICES

<u>Description:</u> This item shall consist of payment for work performed by the City of Chicago Department of Water Management (CDWM) related to engineering, valve operation and water quality services in support of this contract. These services include operations related to the shutting down and startup of the existing water mains, testing and inspection during the installation of the proposed water main relocations, water quality testing, field supervision, technical assistance, reviews and other required services.

<u>General:</u> It shall be the Contractor's responsibility to arrange and coordinate all required services by CDWM. All necessary field work, including valve operations, shall be scheduled with CDWM in advance of the time period required. All work to be performed by CDWM is subject to CDWM work schedules and availability. Acceptance of complete water main by CDWM is based upon CDWM review of installation, presence during testing and disinfection operations and other roles as desired by CDWM and required in these special provisions.

Concrete Foundation. The Contractor shall confirm the orientation of the lighting controller, and its door side, with the Engineer, prior to installing the foundation. A portland cement concrete foundation shall be constructed to the details shown on the plans and is included as a part of this pay items and shall not be paid for separately. The top of the foundation shall be 12-inches above grade.

The lighting controller enclosure shall be set plumb and level on the foundation. It shall be fastened to the anchor rods with hot-dipped galvanized or stainless steel nuts and washers. Foundation mounted lighting controllers shall be caulked at the base with silicone.

Where the controller has a metal bottom plate, the plate shall be sealed with a rodent and dust/moisture barrier.

## <u>Grounding.</u>

Grounding shall be as shown on the lighting controller detail drawings. Ground rods, ground wells, connections, ground wire and other associated items shall be included in the cost the lighting controller and shall not be paid for separately."

Method Of Measurement. Each lighting controller shall be counted each for payment.

Basis Of Payment. This item shall be paid for at the contract unit price each for **LIGHTING CONTROLLER, BASE MOUNTED, 480VOLT, 200AMP (DUAL), RADIO SCADA**, which shall be payment in full for the work, complete, as specified herein.

# REMOVE AND RELOCATE EXISTING ELECTRICAL SERVICE

**Description.** This special provision describes the relocation of an existing ComEd power service from an existing street lighting controller to the same street light controller relocated for temporary lighting. (Note the relocation of the existing street light controller is covered under a separate special provision.)

**Materials.** All materials are to be provided by ComEd. ComEd shall install new conduit as necessary to route service entrance conductors to the new controller location. New termination lugs shall be installed at the end of the service entrance conductors. The existing service entrance conductors may be re-used or replaced at ComEd's discretion.

**Installation.** Utility coordination shall be according to Article 804.03 of Standard Specifications for Road and Bridge construction, adopted January 1, 2012.

**Basis of Payment.** This work will be paid for at the contract unit price each for REMOVE AND RELOCATE EXISTING ELECTRICAL SERVICE and according to Article 109.05 of Standard Specifications for Road and Bridge Construction, adopted January 1, 2012.

# TEMPORARY WOOD POLE

<u>Description</u>. This special provision describes the installation of wooden poles in support of temporary lighting design of the heights identified and at the locations identified in the plans.

<u>Materials.</u> Materials shall be according to Article 1069.04 of Standard Specifications for Road and Bridge Construction, adopted January 1, 2012.

Installation. Install shall be according to Article 830.0 of Standard Specifications for Road and Bridge construction, adopted January 1, 2012 and in accordance to IDOT District 1 standard detail BE-800.

<u>Basis of Payment.</u> This work will be paid for according to Article 830.05 of Standard Specifications for Road and Bridge Construction, adopted January 1, 2012 with the exception that these poles shall be paid for without mast arms. Payment shall be at the contract unit price each for WOOD POLE, 100 FT, CLASS 2 installed at the location and depth indicated on plan and details.

# REMOVAL OF UNDERPASS LIGHTING UNIT, NO SALVAGE

<u>Description</u>. This special provision describes the removal of existing underpass lighting units no salvage.

## Materials. Not applicable.

<u>Installation.</u> Removal shall be according to Article 842 of Standard Specifications for Road and Bridge Construction, adopted January 1, 2012, as modified for underpass lighting units as follows: removal shall include lamps, luminaires, mounting rings, conduits, and all associated hardware and appurtenances.

<u>Basis of Payment.</u> This work will be paid for according to the contract unit price each for REMOVAL OF UNDERPASS LIGHTING UNIT, NO SALVAGE at the locations indicated on plan and details.

## REMOVE AND RELOCATE EXISTING LIGHTING CONTROLLER

<u>Description.</u> This special provision describes the relocation of an existing roadway lighting controller to support temporary lighting. (Note the relocation of the existing ComEd service entrance to the existing street light controller is covered under a separate special provision.)

# TRACK MONITORING

Description.

This work shall consist of providing pre-construction and post-construction track surveys and daily monitoring of the CTA tracks for vertical and horizontal movements during operations associated with the removal of existing Pier 2 and 3, construction of proposed Pier 2, and jacking of steel casing pipes. These operations include, but not limited to:

- 1. Installation of braced excavation to top of existing pier footing (to remain in place on north side of the northern most track only)
- 2. Excavation of soils as braced excavation for substructure construction during the entire duration that these excavations are open, up to and including backfilling
- 3. Removal of existing pier stem to top of existing pier footing
- 4. Installation of micropile load test
- 5. Installation of production micropiles
- 6. Place new pier footing
- 7. Place new pier stem
- 8. Backfill with flowable fill to top of railroad tie (north side of northern most track only)
- 9. Cut off any remaining braced excavation above railroad tie
- 10. Jacking of 30" steel casing pipe up to and including backfilling
- 11. Jacking of 42" steel casing pipe up to and including backfilling

A pre-construction track survey and inspection shall be performed prior to any construction operations taking place which shall consist of the Contractor establishing a horizontal baseline and track elevations with shots taken on top of the railroad tie at the edge closest to the operation and at the centerline of the tracks closest to the operation with measurements at approximately 10' centers within the construction zone and 50' beyond the identified construction limits for a period of fourteen (14) consecutive calendar days prior to the start of the operation. The survey shall be coordinated with CTA (Abdin Carrillo, Project Manager, Construction Oversight (312) 681-3913) at least twenty-one (21) calendar days prior to any activity that precedes construction. If multiple operations are on-going concurrently, the baseline elevations shall be based off the operation that was initially started and with the furthest construction limit.

Daily monitoring shall consist of the Contractor surveying the same points taken during the preconstruction track survey, taking horizontal and vertical measurements. Daily monitoring shall only occur when the Contractor is working.

Track conditions shall be documented and tabulated for weekly submittal to Abdin Carrillo, Project Manager, Construction Oversight (312) 681-3913 for review. Any measurements exceeding ¼" of the pre-construction track survey, the Contractor must discontinue construction operations immediately and notify IDOT and CTA to evaluate the track condition. Contractor shall perform any restorative work at his/her expense prior to resuming construction operations. If track repairs are required, the Contractor shall use a qualified contractor experienced in CTA track work, and approved by CTA, to perform corrective track repair to the satisfaction of CTA.

Added 09/08/15

The Contractor shall complete a post-construction track survey and inspection after completion of the operation. The post-construction track survey shall consist of the Contractor surveying the same points taken during the pre-construction track survey, taking horizontal and vertical measurements, for a period of fourteen (14) consecutive calendar days and as accepted by the Resident Engineer. If multiple operations are on-going concurrently, the post-construction track survey shall be performed based off the operation that is completed last and with the furthest construction limit.

All pre-construction and post-construction track survey work shall be incidental and included in the cost of the daily track monitoring.

### Basis of Payment.

This work will be paid for at the contract unit price per CALENDAR DAY for TRACK MONITORING.

Added 09/08/15