



# Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

June 9, 2014

SUBJECT: FAI Route 90/94/290 (-90/94/290)  
Project ACNHPP-000S(990)  
Section 2013-010R  
Cook County  
Contract No. 60W28  
Item No. 1, July 11, 2014 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 the Table of Contents to the Special Provisions
3. Revised pages 1, 11, 22-35, 50-74, 85, 124, 125, 130, 248, 249, 274-277, 280-282, 284 & 405-408 of the Special Provisions
4. Added pages 459-469 to the Special Provisions
5. Added IEPA Form 663 to the Addendum A folder on the Website
6. Revised sheets 1-8, 10-21, 21A-21G, 22-45, 50, 60-66, 70-73, 75, 79, 81-84, 85A-85C, 87, 90A-90D, 90F-90J, 93-96, 96A, 97, 98, 98AP, 98AQ, 98BB-98BE, 98BO-98BS, 99-103, 109, 117, 119, 120, 131, 133, 134, 162, 175, 220-224, 226, 231, 235, 236, 241, 269, 293, 298-300, 306, 308A, 310-316E, 586A, 645-650, 658, 659, 665, 668, 670, 671, 674, 676-681 & 747 of the Plans
7. Added sheets 87A, 92E-92G, 98BX-98BZ, 281A, 584C, 641A-641C, 644A-644T, 645A & 747A to the Plans
8. Deleted sheets 46, 74, 80, 85, 195, 196, 230, 232, 277 & 542-544 from 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



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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION  
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 CONTRACT  
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60W28

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District - 1 - -

Section Number - 2013-010R

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 FAI 290

\*REVISED: JUNE 02, 2014

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X0301423	NOISE AB WALL GRD MT	SQ FT	6,802.000				
X0322433	LT TOWER SERVICE PAD	EACH	2.000				
X0322441	DIG LOOP DET SEN U 4C	EACH	2.000				
X0322442	TONE EQ 3 FRE REC PRG	EACH	7.000				
X0322443	TONE EQ 3 FREQ TR PRG	EACH	7.000				
X0322444	TONE EQ POWER SUPPLY	EACH	1.000				
X0322445	TONE EQ MOUNT FRAME	EACH	1.000				
X0324013	NOISE AB WALL STR MT	SQ FT	1,456.000				
X0324181	DISCON SN LTG/RM WIRE	EACH	2.000				
*REV X0324345	COMB SEW REM 24	FOOT	140.000				
X0324455	DRILL/SET SOLD P SOIL	CU FT	25,533.000				
X0325003	REM EX VALVE & VAULT	EACH	3.000				
X0325087	VIDEO TAPING MN DRAIN	FOOT	7,320.000				
X0325095	MAIN DRAIN CLEANING	FOOT	2,740.000				
X0325207	TV INSPECT OF SEWER	FOOT	1,180.000				

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X0325318	LT WT CELL CONC FILL	CU YD	17,441.000				
X0325349	TEMP CON BAR (PERM)	FOOT	962.500				
X0325815	REMOVE EXISTING CABLE	FOOT	160.000				
X0326148	TEMP WP 60 CL4 15 MA	EACH	5.000				
X0326935	CROSSHOLE SONIC LOG	EACH	13.000				
X0327117	ATMS SYS INTEGRATION	L SUM	1.000				
X0327124	PRECAST CONC RISER	EACH	2.000				
X0327139	AGG COLUMN GRND IMPRV	L SUM	1.000				
X0327357	CONSTRN VBRN MONITRNG	L SUM	1.000				
X0327374	REM TEMP SOIL RET SYS	SQ FT	555.000				
*REV X0327614	COMB SEW REM 12	FOOT	36.000				
X0327615	COMB SEW REM 8	FOOT	36.000				
X0327616	MAINT ITS DURG CONSTR	CAL MO	22.000				
X0327682	CDWM ENG SERVICES	L SUM	1.000				
X0327750	FOUNDATION REM	CU YD	108.000				

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X0327751	LIGHT PROT IND LOOP D	EACH	7.000				
X0327752	CONDUIT RISER GAL STL	EACH	1.000				
X0327753	REM REINS CAMERA POLE	EACH	1.000				
X0327754	TEMPORARY BULKHEAD	EACH	2.000				
X0327755	CAB HSG EQ ESP 3 CFM	EACH	1.000				
X0327756	SS CABL PLANT SUP SYS	L SUM	1.000				
X0327757	FDN CONSTR EX OBSTRNS	EACH	2.000				
X0327758	REL EX CONDUIT CABLES	FOOT	80.000				
*REV X0327759	DRILL SHAFT TEST HOLE	EACH	3.000				
*REV X0327764	COMM HUT ELECT WORK	L SUM	1.000				
*REV X0370070	COMB SEW WMR 8 CDOT	FOOT	62.000				
*ADD X0370071	COMB SEW WMR 12 CDOT	FOOT	40.000				
*REV X0370072	COMB SEW WMR 24 CDOT	FOOT	75.000				
X0370080	COMB C&G B V.12(CDOT)	FOOT	207.000				
*DEL X0370164	MAN TA 4D T1F CL CHGO	EACH	2.000				

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X2020410	EARTH EXCAVATION SPL	CU YD	76.000				
X2020502	BRACED EXCAVATION	CU YD	1,939.000				
*REV X4060110	BIT MATLS PR CT	POUND	8,310.000				
*REV X4402020	CONC MEDIAN SURF REM	SQ FT	2,257.000				
X5012502	CONC REM SPEC	CU YD	15.000				
X5030260	BR DECK GROOVING SPL	SQ YD	9,304.000				
X5210110	HLMR BRG GUID EXP 200	EACH	18.000				
X5210120	HLMR BRG GUID EXP 250	EACH	21.000				
X5210130	HLMR BRG GUID EXP 300	EACH	12.000				
X5210150	HLMR BRG GUID EXP 400	EACH	6.000				
X5210340	HLMR BRNG FIXED 500K	EACH	6.000				
X5210350	HLMR BRNG FIXED 600K	EACH	6.000				
X5210355	HLMR BRNG FIXED 650K	EACH	8.000				
X5210375	HLMR BRNG FIXED 850K	EACH	6.000				
*REV X550A562	TEMP SS CL A 2 12	FOOT	93.000				

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X5521578	STORM SEW JKD 78 SPL	FOOT	635.000				
X5537700	SS CLEANED 10	FOOT	107.000				
X5537800	SS CLEANED 12	FOOT	213.000				
X5538000	SS CLEANED 18	FOOT	74.000				
X5538100	SS CLEANED 21	FOOT	192.000				
X5538200	SS CLEANED 24	FOOT	436.000				
*ADD X5538400	SS CLEANED 30	FOOT	31.000				
X5610690	WATER MAIN REHAB	FOOT	290.000				
X5610712	WATER MAIN REMOV 12	FOOT	52.000				
*REV X5610716	WATER MAIN REMOV 16	FOOT	199.000				
*ADD X6020270	MAN TB 4D T1F CL CHGO	EACH	1.000				
X6022505	CB TA 4D T1FOL (CHGO)	EACH	3.000				
X6030310	FR & LIDS ADJUST SPL	EACH	1.000				
*ADD X6061305	CONC MEDIAN SURF SPL	SQ FT	8,081.000				
*ADD X6370015	CONC BARRIER SP 32	FOOT	50.000				

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*REV X6370050	CONC BAR WALL SPL	FOOT	166.000				
*ADD X6370159	CONC BAR 1F 32HT SPL	FOOT	15.000				
X6430120	REM IMP ATTEN NO SALV	EACH	1.000				
X6640050	CH LK FENCE 42 ATS SP	FOOT	1,601.000				
X6700410	ENGR FLD OFF A SPL	CAL MO	22.000				
X7010216	TRAF CONT & PROT SPL	L SUM	1.000				
X7010410	SPEED DISPLAY TRAILER	CAL MO	88.000				
X7011015	TR C-PROT EXPRESSWAYS	L SUM	1.000				
X7013820	TR CONT SURVEIL EXPWY	CAL DA	675.000				
*REV X7035100	TEMP EPOXY PVT MK L&S	SQ FT	282.000				
*REV X7035104	TEMP EPOXY PVT MK L4	FOOT	92,598.000				
*REV X7035105	TEMP EPOXY PVT MK L5	FOOT	12,813.000				
*REV X7035108	TEMP EPOXY PVT MK L8	FOOT	31,219.000				
*REV X7035112	TEMP EPOXY PVT MK L12	FOOT	3,651.000				
X7200053	REM STOR RE-E SP SPL	EACH	1.000				



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*REV X7280105	TELES STL SIN SUP SPL	FOOT	16.000				
X8102845	UNDRGRD C PVC 4 S80	FOOT	100.000				
X8420502	REM LT TOWER NO SALV	EACH	3.000				
X8420510	REM TOWER FDN	EACH	3.000				
*REV X8730312	EC C LEAD 18 4C TW SH	FOOT	1,394.000				
*REV X8850109	PREF INDUCTION LOOP	FOOT	787.000				
*REV X8950215	RELOC EXIST HANDHOLE	EACH	1.000				
Z0004552	APPROACH SLAB REM	SQ YD	262.000				
Z0007118	UNTREATED TIMBER LAG	SQ FT	1,000.000				
*REV Z0010614	CLEAN EX MAN/HAND	EACH	3.000				
Z0012754	STR REP CON DP = < 5	SQ FT	25.000				
Z0012755	STR REP CON DP OVER 5	SQ FT	11.000				
Z0013797	STAB CONSTR ENTRANCE	SQ YD	400.000				
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000				
Z0018002	DRAINAGE SCUPPR DS-11	EACH	20.000				

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Z0018800	DRAINAGE SYSTEM	L SUM	1.000				
*ADD Z0019600	DUST CONTROL WATERING	UNIT	50.000				
Z0022800	FENCE REMOVAL	FOOT	2,181.000				
Z0026404	FUR SOLDIER PILES WS	FOOT	2,016.000				
*REV Z0030850	TEMP INFO SIGNING	SQ FT	1,597.000				
Z0033020	LUM SFTY CABLE ASMBLY	EACH	5.000				
Z0033028	MAINTAIN LIGHTING SYS	CAL MO	22.000				
Z0034212	MECH ST EARTH R WL SP	SQ FT	18,969.000				
Z0034806	MODULAR EXP JT-SW 6	FOOT	224.000				
*ADD Z0037300	PAVT GROOVING	SQ YD	5,363.000				
Z0046304	P UNDR FOR STRUCT 4	FOOT	157.000				
Z0048665	RR PROT LIABILITY INS	L SUM	1.000				
Z0056648	SS 1 WAT MN 12	FOOT	95.000				
*REV Z0062456	TEMP PAVEMENT	SQ YD	6,609.000				
Z0065000	SET PILES IN ROCK	EACH	31.000				

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Z0068200	STEEL CASINGS 30	FOOT	76.000				
Z0073002	TEMP SOIL RETEN SYSTM	SQ FT	1,662.000				
Z0076600	TRAINEES	HOUR	2,000.000		0.800		1,600.000
Z0076604	TRAINEES TPG	HOUR	2,000.000		15.000		30,000.000
20100110	TREE REMOV 6-15	UNIT	203.000				
20100210	TREE REMOV OVER 15	UNIT	37.000				
20100500	TREE REMOV ACRES	ACRE	0.750				
20101700	SUPPLE WATERING	UNIT	6.300				
*REV 20200100	EARTH EXCAVATION	CU YD	8,235.000				
*REV 20201200	REM & DISP UNS MATL	CU YD	2,750.000				
*REV 20400800	FURNISHED EXCAVATION	CU YD	9,510.000				
*REV 20700220	POROUS GRAN EMBANK	CU YD	755.000				
*REV 20800150	TRENCH BACKFILL	CU YD	2,600.000				
*REV 21001000	GEOTECH FAB F/GR STAB	SQ YD	15,457.000				
21101615	TOPSOIL F & P 4	SQ YD	23,706.000				

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21301072	EXPLOR TRENCH 72	FOOT	100.000				
25000210	SEEDING CL 2A	ACRE	5.000				
25000400	NITROGEN FERT NUTR	POUND	1,039.000				
25000600	POTASSIUM FERT NUTR	POUND	1,039.000				
25100115	MULCH METHOD 2	ACRE	5.000				
25100135	MULCH METHOD 4	ACRE	6.250				
25100630	EROSION CONTR BLANKET	SQ YD	23,083.000				
25200110	SODDING SALT TOLERANT	SQ YD	623.000				
28000250	TEMP EROS CONTR SEED	POUND	996.000				
28000400	PERIMETER EROS BAR	FOOT	10,218.000				
28000510	INLET FILTERS	EACH	125.000				
*REV 30300112	AGG SUBGRADE IMPR 12	SQ YD	15,457.000				
30300124	AGG SUBGRADE IMPR 24	SQ YD	3,565.000				
*REV 31101200	SUB GRAN MAT B 4	SQ YD	4,220.000				
31101400	SUB GRAN MAT B 6	SQ YD	412.000				

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*REV 31102100	SUB GRAN MAT C 4	SQ YD	1,748.000				
*REV 31200500	STAB SUBBASE HMA 4	SQ YD	5,682.000				
35300400	PCC BSE CSE 9	SQ YD	412.000				
40201000	AGGREGATE-TEMP ACCESS	TON	250.000				
40603085	HMA BC IL-19.0 N70	TON	234.000				
*REV 40603340	HMA SC "D" N70	TON	41.000				
*REV 40603595	P HMA SC "F" N90	TON	198.000				
*DEL 42000504	<del>PCC PVT 10 JOINTED</del>	<del>SQ YD</del>	<del>755.000</del>				
*REV 42000511	PCC PVT 10 1/2 JOINTD	SQ YD	4,895.000				
42001200	PAVEMENT FABRIC	SQ YD	412.000				
*REV 42001300	PROTECTIVE COAT	SQ YD	13,541.000				
42001420	BR APPR PVT CON (PCC)	SQ YD	425.000				
*REV 42300400	PCC DRIVEWAY PAVT 8	SQ YD	39.000				
*ADD 42400200	PC CONC SIDEWALK 5	SQ FT	502.000				
*REV 44000100	PAVEMENT REM	SQ YD	16,781.000				

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*ADD 44000156	HMA SURF REM 1 3/4	SQ YD	1,918.000				
*DEL 44000157	HMA SURF REM 2	SQ YD	1,743.000				
*ADD 44000200	DRIVE PAVEMENT REM	SQ YD	32.000				
*ADD 44000400	GUTTER REM	FOOT	165.000				
*REV 44000500	COMB CURB GUTTER REM	FOOT	1,034.000				
*ADD 44000600	SIDEWALK REM	SQ FT	487.000				
*REV 44001980	CONC BARRIER REMOV	FOOT	8,421.000				
*REV 44004250	PAVED SHLD REMOVAL	SQ YD	5,075.000				
*ADD 44200612	CL A PATCH T3 13	SQ YD	542.000				
*REV 44200614	CL A PATCH T4 13	SQ YD	660.000				
*REV 44201377	CL C PATCH T2 12	SQ YD	515.000				
*REV 44201796	CL D PATCH T4 12	SQ YD	714.000				
*ADD 44201821	CL D PATCH T4 14	SQ YD	605.000				
*REV 44213000	PATCH REINFORCEMENT	SQ YD	702.000				
*REV 44213200	SAW CUTS	FOOT	812.000				

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*REV 44213204	TIE BARS 3/4	EACH	172.000				
*DEL 48300500	<del>PCC SHOULDERS 10</del>	<del>SQ YD</del>	<del>1,400.000</del>				
*REV 48300510	PCC SHOULDERS 10 1/2	SQ YD	1,615.000				
50100300	REM EXIST STRUCT N1	EACH	1.000				
50100400	REM EXIST STRUCT N2	EACH	1.000				
50100500	REM EXIST STRUCT N3	EACH	1.000				
50102400	CONC REM	CU YD	54.000				
50157300	PROTECTIVE SHIELD	SQ YD	2,654.000				
50200100	STRUCTURE EXCAVATION	CU YD	3,354.000				
50300225	CONC STRUCT	CU YD	2,857.000				
50300254	RUBBED FINISH	SQ FT	14,936.000				
50300255	CONC SUP-STR	CU YD	4,025.100				
50300285	FORM LINER TEX SURF	SQ FT	8,844.000				
50300300	PROTECTIVE COAT	SQ YD	13,701.000				
50500105	F & E STRUCT STEEL	L SUM	1.000				

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50500505	STUD SHEAR CONNECTORS	EACH	38,821.000				
50800105	REINFORCEMENT BARS	POUND	707,240.000				
50800205	REINF BARS, EPOXY CTD	POUND	1,809,745.000				
50800515	BAR SPLICERS	EACH	78.000				
50800530	MECHANICAL SPLICERS	EACH	724.000				
51100100	SLOPE WALL 4	SQ YD	48.000				
51201710	FUR STL PILE HP12X84	FOOT	2,967.000				
51500100	NAME PLATES	EACH	5.000				
51602000	PERMANENT CASING	FOOT	178.000				
51603000	DRILLED SHAFT IN SOIL	CU YD	2,708.000				
51604000	DRILLED SHAFT IN ROCK	CU YD	74.000				
52000110	PREF JT STRIP SEAL	FOOT	76.000				
52100010	ELAST BEARING ASSY T1	EACH	18.000				
52100020	ELAST BEARING ASSY T2	EACH	6.000				
52100510	ANCHOR BOLTS 3/4	EACH	72.000				



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52100520	ANCHOR BOLTS 1	EACH	192.000				
52100530	ANCHOR BOLTS 1 1/4	EACH	168.000				
52100540	ANCHOR BOLTS 1 1/2	EACH	24.000				
*REV 550A0050	STORM SEW CL A 1 12	FOOT	292.000				
550A0070	STORM SEW CL A 1 15	FOOT	46.000				
*REV 550A0340	STORM SEW CL A 2 12	FOOT	2,590.000				
*REV 550A0360	STORM SEW CL A 2 15	FOOT	34.000				
550A0380	STORM SEW CL A 2 18	FOOT	183.000				
550A0640	STORM SEW CL A 3 12	FOOT	124.000				
550A0660	STORM SEW CL A 3 15	FOOT	248.000				
550A0680	STORM SEW CL A 3 18	FOOT	87.000				
550A0940	STORM SEW CL A 4 12	FOOT	78.000				
550A1400	STORM SEW CL A 5 78	FOOT	231.000				
55100400	STORM SEWER REM 10	FOOT	89.000				
*REV 55100500	STORM SEWER REM 12	FOOT	819.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF PRICES  
 CONTRACT  
 NUMBER -

60W28

State Job # - C-91-230-13

County Name - COOK- -

Code - 31 - -

District - 1 - -

Section Number - 2013-010R

Project Number

ACNHPP-000S/990/

Route

FAI 90/94

FAI 290

\*REVISED: JUNE 02, 2014

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
55100900	STORM SEWER REM 18	FOOT	327.000				
55101100	STORM SEWER REM 21	FOOT	12.000				
55101200	STORM SEWER REM 24	FOOT	31.000				
55101400	STORM SEWER REM 30	FOOT	272.000				
56103900	D I WATER MAIN MJ 8	FOOT	11.000				
*REV 56104200	D I WATER MAIN MJ 16	FOOT	223.000				
56105000	WATER VALVES 8	EACH	1.000				
56105310	WAT MAIN CTRL VALV 16	EACH	2.000				
56400600	FIRE HYDRANTS	EACH	1.000				
58700300	CONCRETE SEALER	SQ FT	36,816.000				
59000200	EPOXY CRACK INJECTION	FOOT	92.000				
59100100	GEOCOMPOSITE WALL DR	SQ YD	73.000				
*REV 60107700	PIPE UNDERDRAINS 6	FOOT	626.000				
60108200	PIPE UNDERDRAIN 6 SP	FOOT	90.000				
60200105	CB TA 4 DIA T1F OL	EACH	4.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF PRICES  
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*REV 60200205	CB TA 4 DIA T1F CL	EACH	13.000				
*REV 60200805	CB TA 4 DIA T8G	EACH	9.000				
60201310	CB TA 4 DIA T20F&G	EACH	27.000				
60207605	CB TC T8G	EACH	4.000				
60218400	MAN TA 4 DIA T1F CL	EACH	19.000				
60221100	MAN TA 5 DIA T1F CL	EACH	2.000				
60223800	MAN TA 6 DIA T1F CL	EACH	1.000				
60224469	MAN TA 9 DIA T1F CL	EACH	2.000				
*ADD 60234200	INLETS TA T1F OL	EACH	1.000				
60237420	INLETS TA T20F&G	EACH	1.000				
60250200	CB ADJUST	EACH	10.000				
60252800	CB RECONST	EACH	2.000				
*REV 60255500	MAN ADJUST	EACH	6.000				
*REV 60257900	MAN RECONST	EACH	2.000				
60500040	REMOV MANHOLES	EACH	11.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF PRICES  
 CONTRACT  
 NUMBER -

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State Job # - C-91-230-13

County Name - COOK- -

Code - 31 - -

District - 1 - -

Section Number - 2013-010R

Project Number  
 ACNHPP-000S/990/

Route  
 FAI 90/94  
 FAI 290

\*REVISED: JUNE 02, 2014

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*REV 60500050	REMOV CATCH BAS	EACH	28.000				
60500060	REMOV INLETS	EACH	11.000				
*ADD 60600605	CONC CURB TB	FOOT	7.000				
*ADD 60602800	CONC GUTTER TB	FOOT	179.000				
60605000	COMB CC&G TB6.24	FOOT	118.000				
*DEL 60618300	<del>CONC MEDIAN SURF 4</del>	<del>SQ FT</del>	<del>8,186.000</del>				
63000001	SPBGR TY A 6FT POSTS	FOOT	50.000				
63200310	GUARDRAIL REMOV	FOOT	51.000				
*REV 63700175	CONC BAR 1F 42HT	FOOT	3,660.000				
*REV 63700275	CONC BAR 2F 42HT	FOOT	45.000				
*REV 63700805	CONC BAR TRANS	FOOT	271.000				
*REV 63700900	CONC BARRIER BASE	FOOT	4,207.000				
*REV 64200116	SHOULDER RUM STRIP 16	FOOT	2,367.000				
*DEL 64300240	<del>IMP ATTEN FRD NAR TL2</del>	<del>EACH</del>	<del>2.000</del>				
64300260	IMP ATTEN FRD NAR TL3	EACH	2.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF PRICES  
 CONTRACT  
 NUMBER -

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State Job # - C-91-230-13

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Code - 31 - -

District - 1 - -

Section Number - 2013-010R

Project Number  
 ACNHPP-000S/990/

Route  
 FAI 90/94  
 FAI 290

\*REVISED: JUNE 02, 2014

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*REV 66400305	CH LK FENCE 6	FOOT	520.000				
66402900	CH LK GATE 6X6 SINGL	EACH	1.000				
*REV 66407600	CH LK GATES 6X12 DBL	EACH	3.000				
*ADD 66900200	NON SPL WASTE DISPOSL	CU YD	3,100.000				
*ADD 66900450	SPL WASTE PLNS/REPORT	L SUM	1.000				
*ADD 66900530	SOIL DISPOSAL ANALY	EACH	5.000				
67100100	MOBILIZATION	L SUM	1.000				
70103815	TR CONT SURVEILLANCE	CAL DA	675.000				
*ADD 70106800	CHANGEABLE MESSAGE SN	CAL MO	100.000				
*REV 70300100	SHORT TERM PAVT MKING	FOOT	118,448.000				
*ADD 70300240	TEMP PVT MK LINE 6	FOOT	963.000				
70300560	PAVT MARK TAPE T3 12	FOOT	469.000				
*REV 70301000	WORK ZONE PAVT MK REM	SQ FT	89,230.000				
*REV 70400100	TEMP CONC BARRIER	FOOT	8,626.000				
*REV 70400200	REL TEMP CONC BARRIER	FOOT	9,323.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF PRICES  
 CONTRACT  
 NUMBER -

60W28

State Job # - C-91-230-13

County Name - COOK- -

Code - 31 - -

District - 1 - -

Section Number - 2013-010R

Project Number  
 ACNHPP-000S/990/

Route  
 FAI 90/94  
 FAI 290

\*REVISED: JUNE 02, 2014

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*REV 70600260	IMP ATTN TEMP FRN TL3	EACH	18.000				
*REV 70600332	IMP ATTN REL FRN TL3	EACH	28.000				
*REV 72000200	SIGN PANEL T2	SQ FT	56.000				
*REV 72000300	SIGN PANEL T3	SQ FT	384.500				
*REV 72100100	SIGN PANEL OVERLAY	SQ FT	261.000				
72400100	REMOV SIN PAN ASSY TA	EACH	1.000				
72400200	REMOV SIN PAN ASSY TB	EACH	3.000				
72400730	RELOC SIGN PANEL T3	SQ FT	330.000				
73000100	WOOD SIN SUPPORT	FOOT	58.000				
73300100	OVHD SIN STR-SPAN T1A	FOOT	57.000				
73304000	OVHD SIN STR BR MT	FOOT	17.000				
73600100	REMOV OH SIN STR-SPAN	EACH	1.000				
78000200	THPL PVT MK LINE 4	FOOT	1,541.000				
78000500	THPL PVT MK LINE 8	FOOT	719.000				
78000600	THPL PVT MK LINE 12	FOOT	554.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF PRICES  
 CONTRACT  
 NUMBER -

60W28

State Job # - C-91-230-13

County Name - COOK- -

Code - 31 - -

District - 1 - -

Section Number - 2013-010R

Project Number  
 ACNHPP-000S/990/

Route  
 FAI 90/94  
 FAI 290

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78005100	EPOXY PVT MK LTR-SYM	SQ FT	39.000				
78005110	EPOXY PVT MK LINE 4	FOOT	39,127.000				
78005120	EPOXY PVT MK LINE 5	FOOT	6,166.000				
78005130	EPOXY PVT MK LINE 6	FOOT	253.000				
78005140	EPOXY PVT MK LINE 8	FOOT	8,867.000				
78005150	EPOXY PVT MK LINE 12	FOOT	2,485.000				
78008200	POLYUREA PM T1 LTR-SY	SQ FT	25.000				
78008210	POLYUREA PM T1 LN 4	FOOT	4,604.000				
78008220	POLYUREA PM T1 LN 5	FOOT	2,180.000				
78008240	POLYUREA PM T1 LN 8	FOOT	6,565.000				
78008250	POLYUREA PM T1 LN 12	FOOT	320.000				
78100100	RAISED REFL PAVT MKR	EACH	530.000				
78100105	RAISED REF PVT MKR BR	EACH	227.000				
*REV 78200530	BAR WALL MKR TYPE C	EACH	335.000				
*REV 78300100	PAVT MARKING REMOVAL	SQ FT	54,716.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF PRICES  
 CONTRACT  
 NUMBER -

60W28

State Job # - C-91-230-13

County Name - COOK- -

Code - 31 - -

District - 1 - -

Section Number - 2013-010R

Project Number  
 ACNHPP-000S/990/

Route  
 FAI 90/94  
 FAI 290

\*REVISED: JUNE 02, 2014

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78300200	RAISED REF PVT MK REM	EACH	1,089.000				
*REV 81028350	UNDRGRD C PVC 2	FOOT	736.000				
*REV 81100605	CON AT ST 2 PVC GALVS	FOOT	1,020.000				
81100805	CON AT ST 3 PVC GALVS	FOOT	20.000				
*REV 81200230	CON EMB STR 2 PVC	FOOT	10,644.000				
*ADD 81300320	JUN BX SS AS 8X8X6	EACH	4.000				
81300410	JUN BX SS AS 10X8X4	EACH	4.000				
81300530	JUN BX SS AS 12X10X6	EACH	1.000				
81300830	JUN BX SS AS 18X18X8	EACH	1.000				
*REV 81300910	JUN BX SS AS 20X20X6	EACH	6.000				
81301500	JUN BX SS ES 28X12X6	EACH	15.000				
*REV 81400100	HANDHOLE	EACH	6.000				
81400200	HD HANDHOLE	EACH	6.000				
81603050	UD 3#6 #8G XLPUSE 1	FOOT	265.000				
81603070	UD 2#2#4GXLPUSE 1 1/4	FOOT	550.000				



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 CONTRACT  
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 ACNHPP-000S/990/

Route  
 FAI 90/94  
 FAI 290

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*REV 81603081	UD 3#2#4GXLP USE 1.5 P	FOOT	1,890.000				
81702120	EC C XLP USE 1C 8	FOOT	130.000				
81702130	EC C XLP USE 1C 6	FOOT	390.000				
*ADD 81702140	EC C XLP USE 1C 4	FOOT	640.000				
*ADD 81702400	EC C XLP USE 3-1C 2	FOOT	640.000				
81800190	A CBL 2-1C2 MESS WIRE	FOOT	475.000				
82102400	LUM SV HOR MT 400W	EACH	5.000				
82105600	LUM SV HM HOR MT 400W	EACH	20.000				
83505450	LT TOWER 130MH LM 7	EACH	1.000				
83507800	LT TOWER 150MH LM 6	EACH	1.000				
83507850	LT TOWER 150MH LM 7	EACH	1.000				
*REV 83700350	LT TOWER FDN 54D	FOOT	70.000				
*REV 83700400	LT TOWER FDN 60D	FOOT	106.000				
84100110	REM TEMP LIGHT UNIT	EACH	4.000				
84200500	REM LT UNIT SALV	EACH	11.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF PRICES  
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87000885	ECA C XLPTC 2C 6 8	FOOT	170.000				
87900100	DRILL EX FOUNDATION	EACH	4.000				
87900200	DRILL EX HANDHOLE	EACH	3.000				
87900205	DRILL EX HD HANDHOLE	EACH	1.000				

## TABLE OF CONTENTS

LOCATION OF PROJECT .....	1
DESCRIPTION OF PROJECT .....	1
SOILS INFORMATION .....	1
CONTRACTOR COOPERATION .....	3
PROGRESS SCHEDULE .....	4
WINTER WORK.....	10
RESTRICTION ON WORKING DAYS AFTER A COMPLETION DATE .....	10
FAILURE TO COMPLETE THE WORK ON TIME.....	10
COMPLETION DATE PLUS WORKING DAYS.....	11
SUBMITTALS .....	12
STATUS OF UTILITIES TO BE ADJUSTED .....	12
MAINTENANCE OF ROADWAYS.....	22
TRAFFIC CONTROL PLAN.....	22
STAGING AND INTERCHANGE RESTRICTIONS .....	23
KEEPING THE EXPRESSWAY OPEN TO TRAFFIC .....	26
GIRDER ERECTION INFORMATION AND RESTRICTIONS.....	29
PIER CONSTRUCTION INFORMATION AND RESTRICTIONS .....	35
FAILURE TO OPEN TRAFFIC LANES TO TRAFFIC.....	38
TRAFFIC CONTROL SURVEILLANCE, EXPRESSWAYS .....	39
TEMPORARY INFORMATION SIGNING.....	39
TRAFFIC CONTROL FOR WORK ZONE AREAS .....	42
TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).....	42
TRAFFIC CONTROL AND PROTECTION (ARTERIALS).....	47
ROAD CONSTRUCTION REPORTING AND SIGNING FOR VEHICLE WIDTH RESTRICTIONS .....	47
CTA FLAGGING AND COORDINATION.....	50
RAILROAD PROTECTIVE LIABILITY INSURANCE (BDE) .....	72
AGGREGATE FOR CONCRETE BARRIER (D-1) .....	75
AGGREGATE SUBGRADE IMPROVEMENT (D-1) .....	75
COARSE AGGREGATE FOR BACKFILL, TRENCH BACKFILL AND BEDDING (D-1) .....	77
DRAINAGE AND INLET PROTECTION UNDER TRAFFIC (DISTRICT 1).....	78
EMBANKMENT I.....	79
FINE AGGREGATE FOR HOT-MIX ASPHALT (HMA) (D-1) .....	81

FRICITION SURFACE AGGREGATE (D-1).....	81
GROUND TIRE RUBBER (GTR) MODIFIED ASPHALT BINDER (D-1) .....	84
HMA MIXTURE DESIGN REQUIREMENTS (D-1).....	86
PUBLIC CONVENIENCE AND SAFETY (D-1).....	92
RECLAIMED ASPHALT PAVEMENT (RAP) AND RECLAIMED ASPHALT SHINGLES (RAS) (D-1).....	92
RECLAIMED WATER (D-1).....	103
HOT MIX ASPHALT QUALITY CONTROL FOR PERFORMANCE (BMPR) .....	104
HOT-MIX ASPHALT—PRIME COAT (BMPR).....	109
STORM SEWER ADJACENT TO OR CROSSING WATER MAIN .....	113
TELEVISION INSPECTION OF SEWER.....	113
COMBINED SEWER REMOVAL.....	114
COMBINED SEWER ADJACENT TO OR CROSSING WATER MAIN .....	115
MANHOLES (CITY OF CHICAGO) .....	115
CATCH BASINS (CITY OF CHICAGO) .....	116
TEMPORARY STORM SEWERS.....	117
CLEANING EXISTING DRAINAGE STRUCTURES .....	118
STORM SEWERS JACKED IN PLACE 78" (SPECIAL) .....	118
TEMPORARY BULKHEAD.....	119
VIDEO TAPING OF MAIN DRAIN .....	120
MAIN DRAIN CLEANING .....	121
ADJUSTMENTS AND RECONSTRUCTIONS .....	122
FRAMES AND LIDS TO BE ADJUSTED (SPECIAL) .....	123
COMBINATION CURB AND GUTTER TYPE B V.12 (CDOT) .....	123
TEMPORARY CONCRETE BARRIER (TO REMAIN PERMANENTLY).....	124
TEMPORARY EPOXY PAVEMENT MARKING .....	124
CONCRETE BARRIER WALL (SPECIAL) .....	125
CONCRETE BARRIER, SPECIAL, 32" .....	125
CONCRETE BARRIER, SINGLE FACE, 32 INCH HEIGHT (SPECIAL) .....	125
REMOVE IMPACT ATTENUATORS, NO SALVAGE .....	125
APPROACH SLAB REMOVAL .....	126
CONCRETE MEDIAN SURFACE REMOVAL .....	126
FENCE REMOVAL .....	127

CHAIN LINK FENCE, 42" ATTACHED TO STRUCTURE (SPECIAL) .....	127
TEMPORARY PAVEMENT .....	130
REMOVE, STORE, AND RE-ERECT SIGN PANEL (SPECIAL) .....	130
REMOVAL OF EXISTING STRUCTURES NO. 1 .....	131
REMOVAL OF EXISTING STRUCTURES NO. 2.....	132
REMOVAL OF EXISTING STRUCTURES NO. 3.....	134
DRILLED SHAFT TEST HOLE .....	135
CONSTRUCTION VIBRATION MONITORING .....	136
FOUNDATION REMOVAL.....	140
REMOVAL OF TEMPORARY SOIL RETENTION SYSTEM.....	141
TEMPORARY SOIL RETENTION SYSTEM .....	141
CROSSHOLE SONIC LOGGING .....	144
METALLIZING STRUCTURAL STEEL.....	149
ERECTION OF COMPLEX STEEL STRUCTURES.....	155
CHAIN LINK FENCE, 42" ATTACHED TO STRUCTURE (SPECIAL) .....	156
FORM LINER TEXTURED SURFACE .....	157
STAINLESS STEEL CABLE PLANT SUPPORT SYSTEM .....	159
FOUNDATION CONSTRUCTION AT EXISTING OBSTRUCTIONS .....	162
EARTH EXCAVATION (SPECIAL) .....	164
BRIDGE DECK GROOVING (SPECIAL).....	164
PERFORMANCE BASED NOISE ABATEMENT WALL, PRECAST CONCRETE.....	165
MECHANICALLY STABILIZED EARTH RETAINING WALL, SPECIAL.....	175
LIGHTWEIGHT CELLULAR CONCRETE FILL (CLASS II).....	183
TELESCOPING STEEL SIGN SUPPORT (SPECIAL) .....	187
GENERAL ELECTRICAL REQUIREMENTS.....	187
MAINTENANCE OF LIGHTING SYSTEMS.....	191
LUMINAIRE .....	195
EXPOSED RACEWAYS.....	204
UNDERGROUND RACEWAYS.....	207
UNIT DUCT.....	208
WIRE AND CABLE .....	209
LUMINAIRE SAFETY CABLE ASSEMBLY .....	210
LIGHT TOWER.....	211

LIGHT TOWER, SERVICE PAD .....	228
REMOVAL OF LIGHT TOWER, NO SALVAGE .....	228
REMOVAL OF TOWER FOUNDATION .....	229
TEMPORARY WOOD POLE, 60 FT., CLASS 4, 15 FT. MAST ARM .....	229
CLEANING EXISTING MANHOLE OR HANDHOLE.....	230
DISCONNECT SIGN LIGHTING AND REMOVE WIRING TO NEAREST SPLICE .....	230
REMOVE EXISTING CABLE .....	231
WATER MAIN REMOVAL .....	231
REMOVE EXISTING VALVE AND VAULT .....	233
DUCTILE IRON WATER MAIN, MECHANICAL JOINT 8".....	234
DUCTILE IRON WATER MAIN, MECHANICAL JOINT 16".....	234
STEEL CASINGS 30" .....	234
WATER VALVES 8" .....	236
WATER MAIN CONTROL VALVE – 16 INCH .....	236
FIRE HYDRANTS .....	237
CONCRETE REMOVAL (SPECIAL).....	238
PRECAST CONCRETE RISER.....	239
WATER MAIN REHABILITATION .....	244
CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT ENGINEERING SERVICES.....	248
MAINTAINING ITS DURING CONSTRUCTION.....	250
TRAFFIC SURVEILLANCE– GENERAL (TSC T400#02) .....	251
OPERATION OF EXISTING TRAFFIC SURVEILLANCE/SPEED/COUNT STATIONS (TSC T400#03) .....	258
PREFORMED DETECTOR LOOP EMBEDDED IN NEW CONCRETE PAVEMENT (TSC T418#2).....	259
GROUNDING OF ITS SUBSYSTEMS (TSC T420#8).....	263
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 18 4/C, TWISTED, SHIELDED (TSC T421 #14).....	264
LIGHTNING PROTECTION FOR INDUCTION LOOP DETECTORS (TSC T426 #13) .....	267
HANDHOLE (TSC T428 #1) .....	267
TONE EQUIPMENT – PROGRAMMABLE (TSC T454#1) .....	269
TONE EQUIPMENT - POWER SUPPLY (TSC T454#2).....	270

TONE EQUIPMENT - 3 FREQUENCY RECEIVER PROGRAMMABLE (TSC T454#3) .....	271
TONE EQUIPMENT - 3 FREQUENCY TRANSMITTER PROGRAMMABLE (TSC T454#4).....	272
TONE EQUIPMENT-MOUNTING FRAME (TSC T454#7).....	273
CABINET HOUSING EQUIPMENT, MOUNTING AND SIZE AS SPECIFIED .....	274
DIGITAL LOOP DETECTOR SENSOR UNIT(TSC T638#1) .....	277
UNDERGROUND CONDUIT, PVC, 4" DIA., SCHEDULE 80.....	279
CONDUIT RISER, GALVANIZED STEEL .....	280
ATMS SYSTEM INTEGRATION.....	280
REMOVE AND REINSTALL CAMERA POLE .....	282
RELOCATE EXISTING CONDUIT AND CABLES.....	284
APPENDIX A – CHICAGO DEPARTMENT OF WATER MANAGEMENT (CDWM)	
TECHNICAL SPECIFICATIONS FOR WATER MAIN CONSTRUCTION .....	285
DRAINAGE SYSTEM .....	330
HIGH LOAD MULTI-ROTATIONAL BEARINGS.....	331
MODULAR EXPANSION JOINT.....	336
DRILLED SOLDIER PILE RETAINING WALL.....	340
PIPE UNDERDRAINS FOR STRUCTURES .....	346
STRUCTURAL REPAIR OF CONCRETE .....	347
SETTING PILES IN ROCK .....	358
STRUCTURAL ASSESSMENT REPORTS FOR CONTRACTOR’S MEANS AND METHODS .....	359
BRACED EXCAVATION.....	363
AGGREGATE COLUMN GROUND IMPROVEMENT .....	364
BRIDGE DECK CONSTRUCTION .....	369
ABOVE GRADE INLET PROTECTION (BDE) .....	372
COARSE AGGREGATE IN BRIDGE APPROACH SLABS/FOOTINGS (BDE) .....	374
CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE) .....	375
CONTRACT CLAIMS (BDE).....	377
DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE).....	378
GRANULAR MATERIALS (BDE).....	388
LRFD STORM SEWER BURIAL TABLES (BDE) .....	389
PAVED SHOULDER REMOVAL (BDE) .....	398

PAYROLLS AND PAYROLL RECORDS (BDE) .....	399
PORTLAND CEMENT CONCRETE – CURING OF ABUTMENTS AND PIERS (BDE).....	401
PORTLAND CEMENT CONCRETE EQUIPMENT (BDE).....	401
PROGRESS PAYMENTS (BDE) .....	402
QUALITY CONTROL/QUALITY ASSURANCE OF CONCRETE MIXTURES (BDE).....	403
REINFORCEMENT BARS (BDE) .....	403
REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES.....	405
REMOVAL AND DISPOSAL OF SURPLUS MATERIALS (BDE).....	409
SPEED DISPLAY TRAILER (BDE).....	410
STABILIZED SUBBASE (BDE).....	411
TRACKING THE USE OF PESTICIDES (BDE).....	411
TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY (BDE) .....	411
TRAINING SPECIAL PROVISIONS (BDE) .....	412
IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION (TPG) .....	414
WARM MIX ASPHALT (BDE) .....	416
WEEKLY DBE TRUCKING REPORTS (BDE).....	421
STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID).....	421
SWPPP .....	425
PROJECT LABOR AGREEMENT - QUARTERLY EMPLOYMENT REPORT .....	442
PROJECT LABOR AGREEMENT .....	443
ENGINEER’S FIELD OFFICE TYPE A (SPECIAL) .....	459
AIR QUALITY COMPLIANCE.....	461
CONSTRUCTION AIR QUALITY – DUST CONTROL .....	463
PAVEMENT GROOVING .....	466
CONCRETE MEDIAN SURFACE, SPECIAL .....	467
RELOCATE EXISTING HANDHOLE .....	468
COMMUNICATIONS HUT ELECTRICAL WORK.....	468



**STATE OF ILLINOIS**

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**SPECIAL PROVISIONS**

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction" adopted January 1, 2012, the latest edition of the "Manual of Uniform Traffic Control Devices for Streets and Highways, 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 Sheets included herein which apply to and govern the construction of FAI Route 90/94/290 (I-90/94/290), Project ACNHPP-000S(990), Section 2013-010R, in Cook County, Contract 60W28, and in case of conflict with any part or parts of said specifications, the said special provisions shall take precedence and shall govern.

**LOCATION OF PROJECT**

The project is located along FAI Route 90/94/2090 from Roosevelt Road on FAI Route 90/94 to Morgan Street on FAI Route 290. The gross and net length of the project is 3,562.61 Feet (0.675 miles).

**DESCRIPTION OF PROJECT**

The work consists of the construction of a new Ramp NW Flyover Bridge (SN 016-1705) over FAI Route 90/94 from Roosevelt Road to Morgan Street.

Work includes bridge construction, roadway reconstruction, retaining wall construction, bridge removal, erosion control and protection, utility relocation of existing storm sewers and existing water main, special waste excavation, earth excavation and embankment, removal of existing improvements, new storm and combined sewers, pavements, pavement marking and signage, roadway lighting, retaining wall rehabilitation, concrete abutments, steel furnishing and erection, bridge deck and railings, traffic control and protection, urban enhancements and all incidental and collateral work necessary to complete the improvements as shown on the plans and as described herein.

**SOILS INFORMATION**

Soil boring logs and generalized soil profiles are shown in the Plans for Ramp NW Flyover, Retaining Wall #1, Retaining Wall #3, Retaining Wall #4, and Retaining Wall #40.

The reports below are available for inspection at IDOT District 1, 201 W. Center Court, Schaumburg, Illinois.

Revised 6/9/14

In fixing the damages as set out herein, the desire is to establish a certain mode of calculation for the work since the Department's actual loss, in the event of delay, cannot be predetermined, would be difficult of ascertainment, and a matter of argument and unprofitable litigation. This said mode is an equitable rule for measurement of the Department's actual loss and fairly takes into account the loss of use of the roadway if the project is delayed in completion. The Department shall not be required to provide any actual loss in order to recover these liquidated damages provided herein, as said damages are very difficult to ascertain. Furthermore, no provision of this clause shall be construed as a penalty, as such is not the intention of the parties.

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.

### **COMPLETION DATE PLUS WORKING DAYS**

Revise Article 108.05 (b) of the Standard Specifications as follows:

"When a completion date is specified, the Contractor shall complete all contract items and safely open all roadways to traffic by 11:59 PM on July 31, 2016.

The Contractor must not close Ramp NE, or related Ramp NW or Ramp NE auxiliary lanes prior to January 1, 2015.

The Contractor must not add additional lane restrictions on I-290 WB (as shown in Stage 3A of the Maintenance of Traffic Plan Sheets) until the existing lane restrictions established under Contract 60W26 have been removed.

The Contractor must complete installation of Main Drain Sewer Segment "P-MD1A" prior to the construction of Proposed Retaining Wall #3 (SN 016-1722).

I.T.S. Ramp Metering and Detection must be completed prior to the opening of the associated impacted ramps to traffic.

The closure and removal of Existing Ramp NW (as shown in Stage 4 of the Maintenance of Traffic Plan Sheets) must not take place until:

- 1) New Ramp NW Flyover has been completed and opened to traffic, and
- 2) Future Contract 60X61 has been substantially completed including the opening of the Ramp NW Flyover Auxiliary Lanes along I-290 WB.

The Contractor will be allowed to complete all clean-up work and punch list items within 10 working days after the completion date for opening the roadway to traffic. Under extenuating circumstances the Engineer may direct that certain items of work, not affecting the safe opening of the roadway to traffic, may be completed within the working days allowed for cleanup work and punch list items. Temporary lane closures for this work may be allowed at the discretion of the Engineer."

Revised 6/9/14

## **MAINTENANCE OF ROADWAYS**

Effective: September 30, 1985

Revised: November 1, 1996

Beginning on the date that work begins on this project, the Contractor shall assume responsibility for normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Engineer, but shall not include snow removal operations. Traffic control and protection for maintenance of roadways will be provided by the Contractor as required by the Engineer.

If items of work have not been provided in the contract, or otherwise specified for payment, such items, including the accompanying traffic control and protection required by the Engineer, will be paid for in accordance with Article 109.04 of the Standard Specifications.

## **TRAFFIC CONTROL PLAN**

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.

STANDARDS: 701101, 701106, 701301, 701311, 701400, 701401, 701406, 701411, 701421, 701422, 701423, 701426, 701427, 701428, 701446, 701501, 701601, 701901, 704001, and 780001.

DETAILS: Maintenance of Traffic – General Notes, Narrative, Typical Sections, Stages 1, 2, 3A, 3B1, 3B2, 3C and 4 and TC-08, TC-09, TC-10, TC-12, TC-17, TC-18, TC-21, TC-22, TC-24, TC-25 and TC-27.

Revised 6/9/14

**SPECIAL PROVISIONS:**

Traffic Control Plan,  
Traffic Control and Protection (Arterials),  
Keeping the Expressway Open to Traffic,  
Failure to Open Traffic Lanes to Traffic  
Traffic Control Surveillance, Expressways,  
Temporary Information Signing,  
Traffic Control for Work Zone Areas,  
Traffic Control and Protection (Expressways),  
Staging and Interchange Restrictions,  
Public Convenience and Safety (D-1)  
Speed Display Trailer (BDE)  
Girder Erection Information and Restrictions  
Pier Construction Information and Restrictions  
Road Construction Reporting and Signing For Vehicle Width Restrictions  
Temporary Epoxy Pavement Marking  
Temporary Concrete Barrier (To Remain Permanently)

**STAGING AND INTERCHANGE RESTRICTIONS**

Prior to the actual beginning and completion of the various stages of construction and traffic protection, the Contractor will be required to provide lane closures and barricade systems, for preparation work such as pavement marking removal, temporary lane marking, placing temporary concrete barrier, relocating existing guardrail, etc. These lane closures and barricade systems, including barricades, drums, cones, lights, signs, flaggers etc. shall be provided in accordance with details in the plans and these Special Provisions and as approved by the Engineer. The cost of this work will not be paid for separately but shall be considered included in the contract lump sum price for **TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)**.

**LANE AND RAMP CLOSURES**

Prior to and after stage construction, temporary lane closures on I-90/94 and I-290 will only be permitted at night during the allowable hours as listed in the Special Provision "Keeping the Expressway Open to Traffic". These hours also apply to temporary closures of the ramps, which are shown as open on the Maintenance of Traffic plan sheets. The only exception to this requirement will be special restrictions stated herein and restrictions stated in the "Completion Date Plus Working Days", "Girder Erection Information and Restrictions", and "Pier Construction Information and Restrictions" Special Provisions.

Special Ramp Closure Restrictions

The Contractor will be permitted to close the following lanes and/or ramps for extended time periods as noted below:

Revised 6/9/14

### **Ramp SW**

- The Contractor is permitted to close Ramp SW for the extended closures as follows:
  - One (1), 54-hour (maximum) weekend closure to perform necessary water main work near the Green St. corridor.
  - This closure shall not commence before 10 pm on Friday night of said weekend and Ramp SW must be re-opened to traffic no later than 4 AM on Monday morning at the end of same said weekend.
  - Additional closures as outlined in the “Girder Erection Information and Restrictions” Special Provision.
  - No additional system ramps may be closed at the same time as Ramp SW unless approved by the Engineer.

### **Ramp NE (and Ramp NW/Ramp NE C-D Road)**

- The Contractor is permitted to close Ramp NE, the related Ramp NW/Ramp NE C-D Road and the related Roosevelt Road Entrance to the NW/Ramp NE C-D Road beginning on January 1, 2015 to perform the necessary proposed bridge construction and bridge removal work.
- Existing Ramp NW traffic must be maintained via a dedicated auxiliary lane created on I-90/94 WB Mainline.
- Ramp NE is to remain closed beyond Contract completion.

### **Taylor Street Entrance to WB I-90/94**

- The Contractor is permitted to close the entrance ramp from Taylor Street to WB I-90/94 beginning on January 1, 2015 in order to accommodate a dedicated auxiliary lane on WB I-90/94.
- Existing ramp traffic must utilize the proposed detour route in order to maintain access.

### **I-90/94 and I-290 (for Bridge Girder Erection)**

- See the “Girder Erection Information and Restrictions” Special Provision for further detail.

### **Ramp EN (for Bridge Girder Erection)**

- See the “Girder Erection Information and Restrictions” Special Provision for further detail.

### **Ramp SE (for Bridge Girder Erection)**

- See the “Girder Erection Information and Restrictions” Special Provision for further detail.

### **Ramp WS (for Bridge Pier Construction and Bridge Girder Erection)**

- See the “Pier Construction Information and Restrictions” and “Girder Erection Information and Restrictions” Special Provisions for further detail.

Revised 6/9/14

**Ramp NW (for Bridge Girder Erection)**

- See the "Girder Erection Information and Restrictions" Special Provision for further detail.

For all ramp closures the Contractor shall furnish and install signage per District Detail TC-08, as directed by the Engineer.

The Contractor shall coordinate the work such that no two (2) adjacent entrance or exit ramps in one direction of the expressway are closed at the same time. The closing of ramps, which are used as the detour route for other roadways or ramps, is prohibited. 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".

The Contractor shall submit to the Department two (2) weeks ahead of time, in writing, the starting date for each of the extended ramp and/or lane closures. Approval from the Department is required prior to closing the ramp and/or lanes. Should the Contractor fail to complete the work and reopen the ramp to traffic within the allowable time limit, the Contractor shall be liable to the Department for liquidated damages as noted under FAILURE TO OPEN TRAFFIC LANES TO TRAFFIC

**Local Road Closures**

To facilitate the construction of various substructure and superstructure items, the use of local streets for construction staging must be approved by the City of Chicago and the Department in advance of the proposed closure or partial closure.

See the "Pier Construction Information and Restrictions" and "Girder Erection Information and Restrictions" Special Provisions for further detail.

**TRAFFIC STAGING**

The Plans indicate a brief description of the traffic staging, which will be required from the Contractor during the construction of the Project. This suggested sequence of operations and summary for Traffic Staging does not, nor is it intended to, depict all the work that will be required by the Contractor for the maintenance of traffic during this Contract. This summary is given as an aid and guide for the Contractor's use to establish the necessary guidelines to insure a safe and as smooth as possible traffic operation during the duration of the Contract.

Additionally, it shall be noted that the requirements under Contract 60W71 require the removal of the existing superstructure of the Harrison St. Bridge over I-90/94 WB no later than December 31, 2014. Similarly, the proposed pier construction, beam erection, and superstructure construction for the proposed Harrison St. Bridge will not commence prior to April 1, 2015. This time period has been established to assist with proposed Pier #4 construction for SN 016-1705.

Revised 6/9/14

**KEEPING THE EXPRESSWAY OPEN TO TRAFFIC**

Effective: March 22, 1996

Revised: February 13, 2014

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](http://www.idotlcs.com) twenty-four (24) hours in advance of all daily lane, ramp and shoulder closures and one week 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.

**LOCATION: I-90/94 Dan Ryan: Roosevelt to I-290**

WEEK NIGHT	TYPE OF CLOSURE	ALLOWABLE LANE CLOSURE HOURS		
Sunday-Thursday	1-Lane	10:00 PM	to	5:00 AM
	2-Lane	11:59 PM	to	5:00 AM
Friday	1-Lane	11:00 PM (Fri)	to	6:00 AM (Sat)
	2-Lane	11:59 PM (Fri)	to	6:00 AM (Sat)
Saturday	1-Lane	10:00 PM (Sat)	to	9:00 AM (Sun)
	2-Lane	11:59 PM (Sat)	to	9:00 AM (Sun)

**LOCATION: I-90/94 Dan Ryan: 18<sup>th</sup> St. to Roosevelt**

WEEK NIGHT	TYPE OF CLOSURE	ALLOWABLE LANE CLOSURE HOURS		
Sunday-Thursday	1-Lane	9:00 PM	to	5:00 AM
	2-Lane	11:59 PM	to	5:00 AM
	3-Lane*	1:00 AM	to	5:00 AM
Friday	1-Lane	11:00 PM (Fri)	to	6:00 AM (Sat)
	2-Lane	11:59 PM (Fri)	to	6:00 AM (Sat)
	3-Lane*	1:00 AM (Sat)	to	6:00 AM (Sat)
Saturday	1-Lane	9:00 PM (Sat)	to	9:00 AM (Sun)
	2-Lane	11:59 PM (Sat)	to	9:00 AM (Sun)
	3-Lane*	1:00 AM (Sun)	to	7:00 AM (Sun)

\* 3 lane closures will only be approved for specific operations.

Revised 6/9/14

**LOCATION: I-290: Racine to Wells (4-Lane Section)**

WEEK NIGHT	TYPE OF CLOSURE	ALLOWABLE LANE CLOSURE HOURS		
Sunday - Thursday	1-Lane	8:00 PM	to	5:00 AM
	2-Lane	11:00 PM	to	5:00 AM
	3-Lane*	1:00 AM	to	5:00 AM
Friday	1-Lane	10:00 PM (Fri)	to	8:00 AM (Sat)
	2-Lane	11:59 PM (Fri)	to	6:00 AM (Sat)
	3-Lane*	NOT		ALLOWED
Saturday	1-Lane	10:00 PM (Sat)	to	10:00 AM (Sun)
	2-Lane	11:59 PM (Sat)	to	8:00 AM (Sun)
	3-Lane	1:00 AM (Sun)	to	7:00 AM (Sun)

\*3 Lane closures will only be allowed from the left and are approved for specific operations only. Allowable hours are for a 4 lane cross section. Hours may be more restrictive if lanes are reduced long term.

In addition to the hours noted above, temporary shoulder and 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.

Narrow Lanes and permanent shoulder closures will not be allowed between Dec. 1<sup>st</sup> and April 1<sup>st</sup>.

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 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 Traffic Operations Department **shall be** notified (847-705-4151) 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.

Temporary ramp closures for service interchanges will only be permitted at night during the restricted hours listed for temporary one-lane closures within the project limits. However, no two (2) adjacent entrance and exit ramps in one direction of the expressway shall be closed at the same time.

Revised 6/9/14



Freeway to freeway (system interchange) full ramp closures for two lane ramps will not be permitted. Partial ramp closures of system ramps may be allowed during the 1-lane closure hours above. Unless otherwise noted in the "Staging and Interchange Restrictions", "Girder Erection Information and Restrictions", and "Pier Construction Information and Restrictions" Special Provisions, 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".

All daily lane closures shall be removed during adverse weather conditions such as rain, snow, and/or fog and as determined by the Engineer.

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 half (1/2) mile or less gap between the end of one work zone and the start of taper of next work zone should be connected. The maximum length of any lane closure on the project and combined with any adjacent projects shall be three (3) miles. 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.

Revised 6/9/14

All full closure time periods that exceed those described herein shall require the advance notice periods identified within the relevant Special Provision. The Engineer shall always determine if the closure request advance notice meets the Department intentions and needs for notice to the public.

## **GIRDER ERECTION INFORMATION AND RESTRICTIONS**

This Special Provision defines available areas and lane and ramp closures allowed for the girder erection of SN 016-1705. The closures noted herein are **one time** exceptions, unless noted otherwise herein. Additional closures to facilitate pier construction are identified within the "Pier Construction Information and Restrictions" Special Provision. Closures needed to perform additional Work other than described within this Special Provision or in "Pier Construction Information and Restrictions" will be governed by the "Staging and Interchange Restrictions" and "Keeping the Expressway Open to Traffic" Special Provisions.

### **AVAILABLE AREAS**

Several suggested available areas for Contractor use have been shown in the Suggested Stages of Construction and Traffic Control Plan sheets. These suggested available areas have been shown to assist the Contractor in performing his/her Work, staging his/her operations, and/or storing his/her material and/or equipment. The Contractor must submit an Erection Plan to the Engineer for approval as outlined in the "Erection of Complex Steel Structures" Special Provision. This Work Plan shall also include an outline and schedule of lane, ramp and full expressway closures requested before, after and during girder erection as well as the possible use of proposed Staging Areas.

Additional signing, site grading, excavation, removals, placement of concrete, aggregate, asphalt, pavement markings, temporary concrete barriers, pads and/or mats for equipment, removal of temporary items, restoration and repair to pre-existing condition and any other items related to the Contractor's preparation and use of work areas on or around the project location will not be paid for separately, but will be included in the cost of TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS) or FURNISHING AND ERECTING STRUCTURAL STEEL.

### **LANE AND RAMP CLOSURES**

To facilitate erection of the superstructure elements of SN 016-1705 over I-290, I-90/94, various ramps, Harrison Street, and Halsted Street, suggested lane restrictions and work areas have been indicated in the Suggested Stages of Construction and Traffic Control Plan sheets.

Additional restrictions have been established as a part of this Contract. Unless noted herein, these restrictions are **one time** exceptions given only for girder erection of SN 016-1705 directly over otherwise active roadways. All other necessary closures will be governed by the "Staging and Interchange Restrictions" and "Keeping the Expressway Open to Traffic" Special Provisions.

Revised 6/9/14

Special Interstate Closure Restrictions for Unit #4 Girder Erection

For girder erection of Unit #4 (from Pier #6 to Pier #8) of SN 016-1705, during permitted weekends and as approved by the Engineer, the Contractor will be allowed to close the following lanes and/or ramps for extended time periods as follows:

- 1) One (1), 10-hour Maximum Continuous Weekend Full Closure of I-90/94 EB.
  - a. This closure shall not commence before 10 PM Saturday Night of said weekend and I-90/94 must be re-opened to three (3) lanes of traffic in each direction no later than 8 AM Sunday Morning of the same said weekend.
  - b. The Contractor may use this closure at his/her discretion. However the closure cannot be used in conjunction or in subsequent combination with any Full Closure of I-90/94 WB stated herein.
  - c. Any partial or intermittent closures of I-90/94 WB used in combination with this I-90/94 EB Full Closure shall follow the requirements outlined in the "Keeping Expressways Open to Traffic" Special Provision.
  
- 2) One (1), 10-hour Maximum Continuous Weekend Full Closure of I-90/94 WB.
  - a. This closure shall not commence before 10 PM Saturday Night of said weekend and I-90/94 must be re-opened to three (3) lanes of traffic in each direction no later than 8 AM Sunday Morning of the same said weekend.
  - b. The Contractor may use this closure at his/her discretion. However the closure cannot be used in conjunction or in subsequent combination with any Full Closure of I-90/94 EB stated herein.
  - c. Any partial or intermittent closures of I-90/94 EB used in combination with this I-90/94 WB Full Closure shall follow the requirements outlined in the "Keeping Expressways Open to Traffic" Special Provision.
  
- 3) One (1), 54-hour Maximum Continuous Weekend Full Closure of I-290 WB Only.
  - a. This closure shall not commence before 10 PM Friday Night of said weekend and I-290 WB must be re-opened to two (2) lanes of traffic no later than 4 AM Monday Morning of the same said weekend.
  - b. The Contractor may use this closure at his/her discretion and the closure **can be** combined with only one of the I-90/94 closures stated herein. However the closure cannot be used in conjunction with any Full Closure of I-290 EB.
  - c. Any partial or intermittent closures of I-290 EB used in combination with this I-290 WB Full Closure shall follow the requirements outlined in the "Keeping Expressways Open to Traffic" Special Provision.
  
- 4) One (1), 54-hour Maximum Continuous Weekend Full Closure of I-290 EB Only.
  - a. This closure shall not commence before 10 PM Friday Night of said weekend and I-290 EB must be re-opened to two (2) lanes of traffic no later than 4 AM Monday Morning of the same said weekend.
  - b. The Contractor may use this closure at his/her discretion and the closure **can be** combined with only one of the I-90/94 closures stated herein. However the closure cannot be used in conjunction with any Full Closure of I-290 WB.
  - c. Any partial or intermittent closures of I-290 WB used in combination with this I-290 EB Full Closure shall follow the requirements outlined in the "Keeping Expressways Open to Traffic" Special Provision.

Special Ramp Closure Restrictions for Girder Erection

For girder erection of SN 016-1705, the Contractor will be permitted to close the following ramps for maximum time periods as noted below:

- 1) One (1), twenty-eight (28) Consecutive Calendar Day Continuous Full Closure of Ramp SE.
  - a. The Contractor may use this closure at his discretion to further facilitate girder erection activities.
  - b. Additional lane and ramp closures will be allowed per the Keeping the Expressway Open to Traffic special provision.

For girder erection of Unit #3 (from Pier #4 to Pier #6) of SN 016-1705, the Contractor will be permitted to close the following ramps for extended time periods as noted below:

- 1) One (1), 8-hour Maximum Continuous Full Closure of Ramp NW Only.
  - a. This closure shall not commence before 11:59 PM Saturday Night of said weekend and the Ramp NW must be re-opened to traffic no later than 8 AM Sunday Morning of the same said weekend.
  - b. This closure shall not be used on the same weekend of any other Full Closure of I-90/94 WB or I-90/94 EB stated herein.
  - c. No portion of this closure shall be concurrent with any closure of other ramps stated herein except Ramp SE.
  - d. The temporary detour for this closure shall follow the route outlined in the Plans.
  - e. Additional lane and ramp closures will be allowed per the Keeping the Expressway Open to Traffic special provision.
- 2) One (1), 8-hour Maximum Continuous Full Closure of Ramp EN Only.
  - a. This closure shall not commence before 11:59 PM Saturday Night of said weekend and the Ramp EN must be re-opened to traffic no later than 8 AM Sunday Morning of the same said weekend.
  - b. This closure shall not be used on the same weekend of any other Full Closure of I-90/94 WB stated herein.
  - c. No portion of this closure shall be concurrent with any closure of other ramps stated herein except Ramp SE.
  - d. The temporary detour for this closure shall follow the route outlined in the Plans.
  - e. Additional lane and ramp closures will be allowed per the Keeping the Expressway Open to Traffic special provision.

For girder erection of Unit #5 (from Pier #8 to Pier #10) of SN 016-1705, the Contractor will be permitted to close the following ramp for extended time periods as noted below:

- 1) One (1), 8-hour Maximum Continuous Full Closure of Ramp WS Only.
  - a. This closure shall not commence before 11:59 PM Saturday Night of said weekend and the Ramp WS must be re-opened to traffic no later than 8 AM Sunday Morning of the same said weekend.

Revised 6/9/14

- b. This closure shall not be used on the same weekend of any other Full Closure of I-90/94 WB or I-90/94 EB stated herein.
- c. Any partial or intermittent closures of I-290 WB or I-290 EB used in combination with this Full Closure shall follow the requirements outlined in the "Keeping Expressways Open to Traffic" Special Provision.
- d. No portion of this closure shall be concurrent with any closure of other ramps stated herein except Ramp SE.
- e. The temporary detour for this closure shall follow the route outlined in the Plans.
- f. Additional lane and ramp closures will be allowed per the Keeping the Expressway Open to Traffic special provision.

For girder erection of Unit #6 (from Pier #10 to West Abutment) of SN 016-1705, the Contractor will be permitted to close the following ramps for extended time periods as noted below:

- 1) One (1), 8-hour Maximum Continuous Full Closure of Ramp NW Only.
  - a. This closure is in addition to the Full Closure stated for Unit #3 above.
  - b. This closure shall not commence before 11:59 PM Saturday Night of said weekend and the Ramp NW must be re-opened to traffic no later than 8 AM Sunday Morning of the same said weekend.
  - c. This closure shall not be used on the same weekend of any other Full Closure of I-90/94 WB or I-90/94 EB stated herein.
  - d. Any partial or intermittent closures of I-290 WB used in combination with this Full Closure shall follow the requirements outlined in the "Keeping Expressways Open to Traffic" Special Provision.
  - e. The Contractor may use this closure at his/her discretion and the closure **can be** combined with only one of the Ramp SW closures and the closure of Ramp SE stated herein. No additional ramp closures described herein shall be concurrent except Ramp SE.
  - f. The temporary detour for this closure shall follow the route outlined in the Plans.
  - g. Additional lane and ramp closures will be allowed per the Keeping the Expressway Open to Traffic special provision.
  
- 2) Two (2), 8-hour Maximum Continuous Full Closures of Ramp SW Only.
  - a. These closures shall not commence before 11:59 PM Saturday Night of said weekend and the Ramp SW must be re-opened to traffic no later than 8 AM Sunday Morning of the same said weekend.
  - b. These closures shall not be used on the same weekend of any other Full Closure of I-90/94 WB or I-90/94 EB stated herein.
  - c. The Contractor may use this closure at his/her discretion and the closure **can be** combined with only one of the Ramp NW closures stated herein. However the closure cannot be used in conjunction with any Full Closure of I-290 WB. No additional ramp closures described herein shall be concurrent except Ramp SE.

Revised 6/9/14

- d. Any partial or intermittent closures of I-290 WB used in combination with this Full Closure shall follow the requirements outlined in the "Keeping Expressways Open to Traffic" Special Provision.
- e. The temporary detour for this closure shall follow the route outlined in the Plans.
- f. Additional lane and ramp closures will be allowed per the Keeping the Expressway Open to Traffic special provision.

#### Special Local Road Restrictions

All local road closures or restrictions requested by the Contractor are subject to approval by the City of Chicago and the Department as identified in "Staging and Interchange Restrictions". Any maintenance of traffic required on local roads, if required for the Contractor's means and methods for girder erection, is included in the cost of TRAFFIC CONTROL AND PROTECTION (SPECIAL).

Any restriction along Harrison Street shall ensure that:

- a. City of Chicago Department of Water Management employees, contractors or suppliers will have unimpeded access to the Cermak Pumping Station.
- b. CTA buses will have full use of the existing bus driveway on Harrison Street to the east of the project area and Harrison Street between the driveway and Des Plaines Street.

#### Non-Permitted Weekends

Special interstate closures and Ramp SW, Ramp NW, and Ramp EN closures will not be allowed during the holiday periods stated in Article 107.09 and amended by PUBLIC CONVENIENCE AND SAFETY (D-1) and the weekends containing the additional following events or holidays:

- a. Taste of Chicago
- b. Chicago Air and Water Show
- c. Chicago Marathon
- d. Chicago Jazz Festival
- e. Chicago Blues Festival
- f. Chicago St. Patrick's Day Parade
- g. Gospel Fest
- h. Chicago Bears Home Games
- i. Lollapalooza
- j. Pride Parade
- k. Other events as dictated by the Engineer, local agencies or the City of Chicago

During periods of full closure of I-90/94 EB & WB and I-290 EB & WB, through traffic shall be routed on the detour routes shown in the Plans. The Contractor shall make provisions during girder erection operation for emergency vehicle access on all closed interstates by maintaining one fifteen (15) foot wide lane. The Contractor shall make the lane safe and passable to emergency responders as soon as notified by the Engineer.

Revised 6/9/14

Additional signing, site grading, excavation, removals, placement of concrete, aggregate, asphalt, pavement markings, temporary concrete barriers, pads and/or mats for equipment, removal of temporary items, restoration and repair to pre-condition condition and any other incidental items related to the Contractor's preparation and use of work areas on or around the project location will not be paid for separately, but will be included in the cost of TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS) or FURNISHING AND ERECTING STRUCTURAL STEEL.

The Contractor must submit an Erection Plan to the Engineer for approval as outlined in the "Erection of Complex Steel Structures" Special Provision. This Work Plan shall also include an outline and schedule of lane, ramp and full expressway closures requested before, after and during girder erection as well as the possible use of proposed Staging Areas.

Any necessary permits or additional costs associated with the proposed request for closures for girder erection shall be at the Contractor's expense. The preparation, maintenance and restoration of the closure is at the Contractor's expense.

The scheduled dates for all requested local street, ramp and expressway closures will be subject to Department approval. A thirty (30) day advance notice is required prior to the requested closure date. Scheduled closures shall be planned as far in advance as possible. The Department makes no guarantees that the requested dates can be granted.

#### CTA Tunnels

The Contractor is advised that existing CTA Tunnels appear near or under the project area. Refer to Section 1.09.L of the "CTA Flagging and Coordination" Special Provision for further work requirements and loading restrictions near the CTA Tunnels.

The Department has not evaluated the staging of equipment or materials above the CTA tunnels and cannot provide any details about the feasibility of utilizing CTA infrastructure during construction.

The CTA has offered to make available relevant existing plans for review. This date will be announced at the Pre-Bid meeting.

#### **WORK AND STAGING AREA PLAN**

The Contractor must submit an Erection Plan to the Engineer for approval as outlined in the "Erection of Complex Steel Structures" Special Provision. Additionally, the Contractor must prepare a detailed plan that describes the anticipated operation to execute the girder erection in the areas described above. The plan shall include, but is not limited to, the following:

- a. Site preparation plan
- b. Material delivery schedule and sequence
- c. Material storage requirements and locations
- d. Equipment to be used during the girder erection operations
- e. Equipment storage and staging requirements and locations

Revised 6/9/14

- f. Schedule for lane restrictions, ramp restrictions Interstate and Ramp closures and other major traffic control as described above
- g. Detailed erection schedule
- h. Risk assessment and mitigation strategies
- i. Communications plan

Basis of Payment. This work will not be paid for separately. All temporary and permanent work described herein and associated with the erection of the girders will be paid for within the applicable pay items according to Article 505.13 of the Standard Specifications.

### **PIER CONSTRUCTION INFORMATION AND RESTRICTIONS**

This Special Provision defines available areas and ramp closures allowed for pier construction in confined areas for various portions of SN 016-1705. The closures noted herein are **one time** exceptions. Additional closures for girder erection are identified within the "Girder Erection Information and Restrictions" Special Provision. Closures needed to perform additional Work other than described within this Special Provision or "Girder Erection Information and Restrictions" will be governed by the "Staging and Interchange Restrictions" and "Keeping the Expressway Open to Traffic" Special Provisions.

### **AVAILABLE AREAS**

Several suggested available areas for Contractor use have been shown in the Suggested Stages of Construction and Traffic Control Plan sheets. These suggested available areas have been shown to assist the Contractor in performing his/her Work, staging his/her operations, and/or storing his/her material and/or equipment. A minimum of five (5) weeks prior to mobilization activities for pier construction at confined areas described herein, the Contractor shall submit a Work and Staging Area Plan to the Engineer for approval.

Additional signing, site grading, excavation, removals, placement of concrete, aggregate, asphalt, pavement markings, temporary concrete barriers, pads and/or mats for equipment, removal of temporary items, restoration and repair to pre-condition condition and any other incidental items related to the Contractor's preparation and use of work areas on or around the project location will not be paid for separately, but will be included in the cost of TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).

Revised 6/9/14



## 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 complete a CTA 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.)", latest revision,
- 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.

Revised 6/9/14

## 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.

Revised 6/9/14

- 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).
  - 1. **No. 7037, "Flagging on the Right-of-Way".**
  - 2. **No. 7038, "Train Operation Through Slow Zones".**
  - 3. **No. 7041, "Slow Zones".**
  - 4. **No. 8111, "Workers Ahead Warning System".**
  - 5. **No. 8130, "Safety on Rapid Transit Tracks".**
  - 6. **No. 8212, "Test Train Procedures"**
  - 7. **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.

Revised 6/9/14

- 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.

Revised 6/9/14

- 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 Right-of-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 adjacent to or above 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.

Revised 6/9/14

## 1.06 WORK AREA AVAILABILITY

### A. DEFINITIONS

1. RIGHT-OF-WAY WORK: Any work performed at, above, or below track level within the CTA Right-of-Way.
2. IN-SERVICE TRACK: 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. OUT-OF-SERVICE TRACK: 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. TRACK ACCESS OCCURRENCE: 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. RE-ROUTE: 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. LINE CUT: 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.

Revised 6/9/14

7. SINGLE-TRACK: A temporary operation established by operating trains bi-directionally on one track while the adjacent track is taken out-of-service 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. RUSH HOURS: Monday through Friday, from 0500 to 0900 hours and from 1500 to 1900 hours.
9. FLAGGER SHIFT: 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. INFRASTRUCTURE SHIFT: 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 linemen will use 4 infrastructure shifts.
11. PERSON-IN-CHARGE (PIC): 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. POWER & WAY SERVICE BULLETIN (PWS Bulletin): 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).

Revised 6/9/14

- 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

- 1. 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.
- 2. 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.
- 3. Pedestrian traffic to the CTA facility entrance at Halsted Street shall be maintained at all times. Barricades and signage for sidewalk closures as well as all details for pedestrian crossings of Halsted Street at the entrance of the station must be coordinated with the CTA at least twenty-eight (28) days prior to modifications to staging.

Revised 6/9/14



4. 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 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 zero (0) 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.

Revised 6/9/14

- b. Weekend Single Tracks: A maximum of zero (0) 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.

Revised 6/9/14

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 Right-of-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.

Revised 6/9/14

- 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
- 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.

Revised 6/9/14

- 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 ½ 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.

Revised 6/9/14

- 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. The 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:

- i. The scope and sequence of work near the CTA tunnel
- ii. The type of equipment to be used adjacent to the tunnel
- iii. Equipment to be operated, stored or serviced within the limits of the projected edges of the CTA tunnels up to ground
- iv. Specialized pads, racks, mats or other supports for any equipment to be operated or stored or materials to be stored over CTA tunnels
- v. 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
- vi. Materials and activities to protect the CTA tunnels during excavations and proposed construction near the CTA tunnels
- vii. A provision to immediately repair or replace the waterproofing membrane(s) on the existing tunnel structure where excavation activities may damage the existing membrane(s).

Revised 6/9/14

- viii. Emergency plan and communication protocol in the event there is confirmed damage to the CTA tunnels due to Contractor activities
  - ix. 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.
- i. 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.
  - ii. At its discretion, the CTA will provide available relevant existing plans for the Contractor's use.
  - iii. 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.
  - iv. 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.
  - v. 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.

Revised 6/9/14

#### 1.10 HAZARDOUS WORKING CONDITIONS

- A. The Contractor shall caution all employees of the presence of electric third rail (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. The Contractor shall suspend such work until reasonable remedial measures, satisfactory to the Engineer and CTA, have been taken.
- 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.

Revised 6/9/14



- 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. 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.
- F. 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.
- G. A minimum vertical clearance of 14'-6" (4.42 m) above the high running rail the CTA tracks must be provided at all times.
- H. Protective Shield
1. The Contractor shall furnish, install, and later remove a protective shield to protect the CTA traffic from damage due to falling material and objects during construction.

Revised 6/9/14

2. Protective shield will be necessary for any demolition activities during the removal of the existing structure as well as superstructure construction of the proposed structure.
  3. The protective shield may be a platform, a net, or any other Department approved structure.
  4. 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.
  5. 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.
- I. 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 or Near 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 CTA 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.

Revised 6/9/14

2. Current Standard Operating Procedures require Slow Zone with flagging protection whenever three or more workers are scheduled to work on, across or near a section of track for one half hour or more. 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.
  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 fifteen (15) flagger shifts will be reimbursed as part of the Contract. Flagger shifts will be accompanied by concurrent infrastructure shifts as required by the CTA. 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.

Revised 6/9/14

- 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 1.11I 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.

Revised 6/9/14

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 Right-of-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.

Revised 6/9/14

- 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.

Revised 6/9/14

**RAILROAD PROTECTIVE LIABILITY INSURANCE (BDE)**

Effective: December 1, 1986

Revised: January 1, 2006

Description. Railroad Protective Liability and Property Damage Liability Insurance shall be carried according to Article 107.11 of the Standard Specifications. A separate policy is required for each railroad unless otherwise noted.

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NAMED INSURED & ADDRESS	NUMBER & SPEED OF PASSENGER TRAINS	NUMBER & SPEED OF FREIGHT TRAINS
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Chicago Transit Authority (CTA)  
567 West Lake Street  
P.O.Box 7598  
Chicago IL 60680-7598

Blue Line  
382 trains/day@55mph.

-0-

DOT/AAR No.: N/A  
RR Division: CTA

RR Mile Post: N/A  
RR Sub-Division: Blue Line

For Freight/Passenger Information Contact: Mr. Abdin Carrillo Phone: 312/681-3913  
For Insurance Information Contact: Judith Tancula Phone: 312/681-2724

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Approval of Insurance. The original and one certified copy of each required policy shall be submitted to the following address for approval:

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

The Contractor will be advised when the Department has received approval of the insurance from the railroad(s). Before any work begins on railroad right-of-way, the Contractor shall submit to the Engineer evidence that the required insurance has been approved by the railroad(s). The Contractor shall also provide the Engineer with the expiration date of each required policy.

Basis of Payment. Providing Railroad Protective Liability and Property Damage Liability Insurance will be paid for at the contract unit price per Lump Sum for RAILROAD PROTECTIVE LIABILITY INSURANCE.

Revised 6/9/14

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Revised 6/9/14



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Revised 6/9/14

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

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

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

“A dedicated storage tank for the Ground Tire Rubber (GTR) modified asphalt binder shall be provided. This tank must be capable of providing continuous mechanical mixing throughout by continuous agitation and recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of ± 0.40 percent.”

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

“(c) RAP Materials (Note 3) .....1031”

Add the following note to 1030.02 of the Standard Specifications:

Note 3. When using reclaimed asphalt pavement and/or reclaimed asphalt shingles, the maximum asphalt binder replacement percentage shall be according to the most recent special provision for recycled materials.

Revised 6/9/14

Materials: Materials shall meet the applicable requirements of Division 1000 of the Standard Specifications.

Construction Requirements: Meet applicable requirements of Section 606 of the Standard Specifications. Construct combination concrete curb and gutter, type B (special) at the locations, widths and thickness shown on the Plans.

Method of Measurement: COMBINATION CURB AND GUTTER TYPE B V.12 (CDOT) will be measured for payment in feet along the flow line of the gutter and along the face of the concrete curb, which measurement will include drainage castings incorporated in various curbs and curbs and gutters.

Basis of Payment: This work will be paid for at the contract unit price per foot for COMBINATION CURB AND GUTTER TYPE B V.12 (CDOT).

### **TEMPORARY CONCRETE BARRIER (TO REMAIN PERMANENTLY)**

Description. This work shall consist of furnishing, placing, and maintaining precast concrete barrier at locations specified in the Plans. This work shall be completed in accordance with the applicable portions of Section 704 of the Standard Specifications and as noted herein. This work shall also include anchor and connection pins, where required.

Installation. The precast concrete barrier shall be installed according to Section 704.04 of the Standard Specifications except that each barrier unit shall be secured to the pavement or shoulder using six anchoring pins. The precast concrete barrier shall not be removed at the end of the contract. After the Contract is closed, the Contractor shall leave the existing barrier in place and ownership and maintenance of barrier shall be transferred over to the Department.

Prismatic barrier wall reflectors shall be installed on both the face of the wall next to traffic, and the top of sections of the temporary concrete barrier wall as shown in Standard 704001. The color of these reflectors shall match the color of the edgelines (yellow on the left and crystal or white on the right). If the base of the temporary concrete barrier wall is 12 inches or less from the travel lane, then the lower slope of the wall shall also have a 6 inch wide temporary pavement marking edgeline (yellow on the left and white on the right).

Temporary pavement marking on the lower slope of the temporary concrete barrier wall will be measured and paid for as TEMPORARY PAVEMENT MARKING, 6".

All prismatic barrier wall reflectors will be measured and paid for according to the Recurring Special Provision Guardrail and Barrier Wall Delineation.

Method of Measurement. TEMPORARY CONCRETE BARRIER (TO REMAIN PERMANENTLY) shall be measured for payment per foot.

Basis of Payment. This work shall be paid for at the contract unit price per foot for TEMPORARY CONCRETE BARRIER (TO REMAIN PERMANENTLY), which price shall include all labor, equipment, and materials necessary to furnish and place precast concrete barrier, including anchoring as required.

### **TEMPORARY EPOXY PAVEMENT MARKING**

Description. This work shall consist of furnishing, installing, and maintaining Temporary Epoxy Pavement Markings.

Material. Materials shall be according to Article 1095.04 of the Standard Specifications.

Equipment. Equipment shall be according to Article 1105.02.

Construction Requirements. Prior to application a surface preparation adhesive shall be applied to a clean, dry road surface. The pavement shall be cleaned by a method of approved by the Engineer to remove all dirt, grease, glaze, or other material that would reduce the adhesion of the markings with minimum or no damage to the pavement surface. No markings shall be placed until the Engineer approves the cleaning. The Temporary Epoxy Pavement Marking shall be placed according to the applicable portions of Article 780.09.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per foot for TEMPORARY EPOXY PAVEMENT MARKING of the line width specified; and/or per square foot (square meters) for TEMPORARY EPOXY PAVEMENT MARKING – LETTERS AND SYMBOLS.

Removal will be paid at the contract unit price per square foot (square meter) for WORK ZONE PAVEMENT MARKING REMOVAL.

When temporary pavement marking is shown on the Standard, the cost of the temporary pavement marking will be included in the cost of the Standard.

**CONCRETE BARRIER WALL (SPECIAL)**  
**CONCRETE BARRIER, SPECIAL, 32"**  
**CONCRETE BARRIER, SINGLE FACE, 32 INCH HEIGHT (SPECIAL)**

Description. This work shall consist of constructing concrete barrier walls with reinforcement bars on a concrete barrier base, as detailed in the plans.

Construction Requirements. This work shall be done in accordance with the applicable portions of Section 637 of the Standard Specifications. The concrete barrier walls shall be constructed on a concrete barrier bases as detailed in the plans. The concrete barrier walls shall be constructed separately and not poured monolithically with the concrete barrier bases.

Method of Measurement. CONCRETE BARRIER WALL (SPECIAL), CONCRETE BARRIER, SPECIAL, 32" and CONCRETE BARRIER, SINGLE FACE, 32 INCH HEIGHT (SPECIAL) shall be measured for payment in feet along the centerline of the barrier. Concrete barrier bases shall be measured separately. All transitions to connect to segments of existing concrete barrier walls will be measured separately.

Basis of Payment. This work will be paid for at the contract unit price per foot for CONCRETE BARRIER WALL (SPECIAL), CONCRETE BARRIER, SPECIAL, 32" and CONCRETE BARRIER, SINGLE FACE, 32 INCH HEIGHT (SPECIAL), which price shall include all equipment, labor, and materials necessary to construct the concrete barrier wall including all reinforcement bars in the concrete barrier wall.

**REMOVE IMPACT ATTENUATORS, NO SALVAGE**

Description. This work shall consist of removing existing impact attenuators at locations as specified in the Plans.

Revised 6/9/14

## **TEMPORARY PAVEMENT**

Description. This work shall consist of constructing a temporary pavement at the locations shown on the Plans or as directed by the Engineer.

The Contractor shall use either Portland cement concrete (PCC) according to Sections 353 and 354 of the Standard Specifications or hot-mix asphalt (HMA) according to Sections 355, 356, 406 of the Standard Specifications, and other applicable PCC and HMA special provisions as contained herein. The HMA mixtures to be used shall be specified in the Plans. The thickness of the Temporary Pavement shall be as described in the Plans. The Contractor shall have the option of constructing either material type if both Portland cement concrete and HMA are shown in the Plans, unless the Plans specify a specific material type. The Contractor shall furnish and construct Subbase Granular Material, Type B 4" under the temporary pavement in accordance with the Standard Specifications.

Articles 355.08 and 406.11 of the Standard Specifications shall not apply.

The Temporary Pavement shall remain in place unless otherwise noted on the Plans, and if so, the removal shall conform to Section 440 of the Standard Specification.

Method of Measurement. TEMPORARY PAVEMENT and SUBBASE GRANULAR MATERIAL, TYPE B 4" will be measured in place and the area computed in square yards.

Basis of Payment. This work will be paid for at the contract unit price per square yard for TEMPORARY PAVEMENT and SUBBASE GRANULAR MATERIAL, TYPE B 4".

Removal of temporary pavement will be paid for at the contract unit price per square yard for PAVEMENT REMOVAL.

## **REMOVE, STORE, AND RE-ERECT SIGN PANEL (SPECIAL)**

Description. Work under this item shall consist of removing, storing, and re-erecting existing ground mounted sign panels with their supports as directed by the Engineer.

The Contractor shall inventory and tag the location and orientation of each sign panel removed prior to removal. Existing sign panels will be stored off the job site and public right-of-way in a dry facility until reinstallation per Engineer's direction. The existing sign panels will be reinstalled to the original location. The dates for reinstallation of sign panels will be coordinated with the Engineer. Sign panels shall be removed according to Section 724 of the Standard Specifications. The re-installation of the signs must be performed in accordance with the requirements of Section 723 of the Standard Specifications.

Any damage to the existing signs and existing posts during the removal, storage and re-installation shall be replaced by the Contractor at no additional cost to the Department. Replacement of damaged sign panels and/or posts shall be according to Sections 720 and 729 of the Standard Specifications.

Revised 6/9/14

After the two hour test, the quantified make up water shall be extrapolated to the 24-hour rate for comparison purposes. Any visible leakage at termination points shall be eliminated. If not feasible or possible at the time of the test, the termination point leakage shall be kept to a minimum, collected and then deducted from the actual make up water rate. If the loss at test pressure exceeds the allowable, the Contractor shall endeavor to identify the source of the loss and minimize it in a manner acceptable to the Engineer and CDWM. Trapped air can significantly affect internal pressure and may require extensive continued testing until stabilization occurs. The pressure test for water tightness shall be deemed acceptable if that actually measured during the two hour test (which has been extrapolated to a 24-hour day rate) is equal to or less than the allowable make up water rate of 20 GIDMD.

Any required adjustment to existing water services in preparation of, during or after the completion of pressure tests shall be coordinated with the CTA. The CTA shall receive notice of a minimum of two (2) weeks prior to any disruption to their facilities.

Disinfection. Disinfection of the lined pipe and CTA water services as required by CDWM and in conformance with Section 33 13 00 Hydrostatic Testing and Disinfection Water Mains, included within Appendix A, is included under this item. The disinfection work shall be coordinated with the disinfection of the new 16" ductile iron water main installed for this project.

Method of Measurement: WATER MAIN REHABILITATION shall be measured for payment in feet for the total length of pipe receiving a lining system.

Basis of Payment: This work will be paid for at the contract unit price per foot for WATER MAIN REHABILITATION, which price includes all labor, material and equipment for the cleaning, inspection, lining, pressure testing, disinfection and televising of the rehabilitated water main and includes the reinstatement of water services and other associated work as described herein and as required by the manufacturer and installer of the selected lining system. Excavation and other required work to access the limits of water main rehabilitation is considered included within this item unless paid for separately as part of BRACED EXCAVATION, WATER MAIN REMOVAL or DUCTILE IRON WATER MAIN, MECHANICAL JOINT 16". Backfilling the excavation required under this item is included within the cost of this item and will not be paid for separately.

## **CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT ENGINEERING SERVICES**

Description. This item shall consist of payment for work performed by the City of Chicago Department of Water Management (CDWM) related to engineering services in support of this contract. These services include operations related to the shutting down and startup of the existing 16" water main, testing and inspection during the installation of the proposed water main relocation and rehabilitation, water quality testing, field supervision, technical assistance, reviews and other required services.

Revised 6/9/14

General. 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 cleaning operations and other roles as desired by CDWM and required in these special provisions.

Method of Payment. The Contractor will make payments to CDWM based upon the following schedule agreed to with CDWM:

- 80% of initial estimate of costs by CDWM. CDWM has identified to the Department that services are estimated at \$60,800.00. This payment shall be made to CDWM within ten (10) days of contract award using certified check, certified mail and receipt notification. The receipt is to be provided to the Engineer for records.
- Remaining balance at the completion of services by CDWM as invoiced including back up information.
- The estimated cost of services is an assumption subject to the receipt of the actual final estimate from CDWM. The initial estimate of costs subject to the first payment to CDWM will be based upon the actual estimate from CDWM. The initial assumption identified above is for bidding purposes only. The amount necessary for the first payment may exceed the amount calculated above.

CDWM will invoice the final amount based upon current rates for labor (straight time), material, equipment, overhead charges and other costs incurred.

The Contractor will be reimbursed based upon the requirements identified in Section 109.05, including administrative costs. The Contractor shall secure invoices from CDWM for work performed by CDWM. These invoices shall be submitted as documentation to the Department prior to or with any Contractor payment request for the remaining balance at the completion of work related to CDWM facilities.

For bidding purposes, this item shall be estimated as \$62,818, which includes the estimated cost by CDWM with additional administrative costs per Section 109.05.

Basis of Payment. This work will be paid for at the contract lump sum price for CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT ENGINEERING SERVICES which shall be reimbursement in full, and with administrative costs as described in Section 109.05, for services provided by CDWM.

Revised 6/9/14

The bracket cradle shall have three (3) position stops: horizontal, 45 degree and vertical.

The bracket cradles shall be constructed of 1/4" (6.35mm) steel, cadmium plated with an irridite finish, as shown on plan for cradle assembly drawing #TY-1TSC 400#7.

**BASIS OF PAYMENT**

This work shall be paid at the contract unit price each for TONE EQUIPMENT MOUNTING FRAME, which shall be payment in full for all work as described herein and as directed by the Engineer.

**CABINET HOUSING EQUIPMENT, MOUNTING AND SIZE AS SPECIFIED**

**DESCRIPTION**

This item shall consist of furnishing and installing cabinets of the type and size specified in place including anchor bolts, bases, pedestals, posts, fans, cable harnesses, ground rods, terminal boards, shelves, mounting hardware, and all miscellaneous items at locations as directed by the Engineer.

**MATERIALS**

Cabinets shall be of fabricated aluminum supplied in sizes with minimum inside dimensions as listed below.

<u>TYPE</u>	<u>HEIGHT</u>	<u>WIDTH</u>	<u>DEPTH</u>	<u>THICKNESS</u>	<u>OPENING</u>
E.S.P. 1	22-1/2"	14-1/4"	9-3/4"	3/16"	18" x 11"
E.S.P. 2	36"	20"	15"	3/16"	28" x 17-1/2"
E.S.P. 3	49-1/2"	30"	17"	3/16"	38" x 27-11/2"
E.S.P. 4	55"	44"	26"	3/16"	2-1/2" x 41-1/2"
E.S.P. 1	571.5mm	362mm	248mm	4.7mm	457mm x 279mm
E.S.P. 2	914.4mm	508mm	381mm	4.7mm	711mm x 444.5mm
E.S.P. 3	1257.3mm	762mm	432mm	4.7mm	965mm x 698.5mm
E.S.P. 4	1397mm	1117.6mm	660.4mm	4.7mm	1079.5mm x 1054.1mm

Cabinets shall be watertight. Doors shall be gasketed to provide a waterproof seal. Bases shall be caulked to obtain a moisture-proof bond. All cabinet types shall have a minimum of two (2) shelves for setting detectors and other equipment on, and Type 2 Corbin brass locks or equal.

E.S.P. Type 3 and Type 4 cabinets shall be fitted with a thermostatically controlled fan. It shall be mounted at the top of the cabinet for a forced air fan system that has a screened air exhaust opening under roof overhang and no opening in top of cabinetry. The fan shall be capable of operating at 130C.F.M. (3.68m<sup>3</sup>/min) at .160" (4.1mm) of water static pressure.

Revised 6/9/14



Where the E.S.P. Type 3 cabinet is used to house equipment controlling ramp metering signals, the E.S.P. Type 3 cabinet shall have a signal load relay installed. The signal load relay shall consist of two components, a base which is mounted on the E.S.P. Type 3 cabinet wall and a locking screw. The coil of this relay shall be connected to the mark output of the signal change tone receiver. The one set contacts of the load relay shall be used to change the ramp signals and one set of contacts shall be used to key the mark input to the signal change transmitter. This relay shall be incidental to the cost of the cabinet when used.

Materials shall conform to controller cabinets as listed in the Standard Specifications 1074.03 except that the door shall not have any outside designation nor shall the cabinet door be equipped with a police door or louvers. Post top mounted cabinets, shall have a ¼" (6.4mm) bottom of cabinet welded.

Each Induction loop shall have lightning protection. The Contractor shall furnish and install stud-mounted lightning protection devices. The device shall have three-terminals, two of which are connected across the loop input of the detector for differential mode protection and the third terminal grounded to protect against common mode damage. Differential mode surge shall be clamped by the semi-conductor array instantly and common mode surge shall be handled by three element gas discharge tube which fires at 400VDC and thereafter clamps the two loop leads to 30 volts in respect to ground. The device shall be installed in close proximity to the loop input. Extension of the factory leads of the device shall not be allowed.

Each Cabinet shall have a Corbin # 2 lock.

### INSTALLATION DETAILS

Installation shall conform to applicable portions of Section 863 of the Standard Specifications.

Cabinets, cabinet posts, and cabinet pedestals shall be primed and painted in accordance with TSC Specification T712#1. The final coat color shall be specified by the T.S.C. at the time of the pre-construction meeting. Interior of all cabinets shall be painted high gloss white.

CMS/DMS Type 4 cabinets shall be serviced by 117 volts AC power with a 60 amp circuit breaker minimum.

All cabinets shall be serviced by 117 volts AC power and a telecommunication system. Each cabinet shall be equipped with a 10 ampere circuit breaker, ground rod, 115 VAC RFI filtering surge protector (ACD-340 surrestor), 130 volt, 70 joules, 10 amp varistor, lightning protection for each loop (SRA-6LC surrestor), data line protection for each leg of the four (4) wire telecommunication system (SRA 64C surrestor), a pull chain porcelain base light fixture with a 3 prong 110 volt outlet. The porcelain fixture shall be mounted on metal plate, that shall be mounted on the cabinet ceiling. No holes shall be drilled thru the cabinet exterior for internal equipment mounting.

Each wire entering a cabinet shall be trained in a workmanlike manner and lugged at each terminal strip or switch. If more than one wire has a common terminal on a terminal strip, the adjacent strip shall be used and an appropriate jumpered connection shall be made.

Revised 6/9/14

All cables and wiring entering a cabinet shall be dressed, harnessed, tied, laced, and clamped to produce a workmanlike wiring installation.

All cables (loop wires, power, phone) shall be labeled with a panduit type cable tag. The tag will identify the type of cable and the cable destination.

A copper grounding bus shall be mounted on the rear wall of the cabinets.

Each cabinet shall contain a wiring diagram of the installation in addition to the diagrams which are to be submitted to the Engineer.

Prior to the wiring of the cabinet, the contractor shall submit box print for approval before cabinet wiring shall begin.

The Contractor shall furnish three (3) diagrams of the internal and external connections of the equipment in each Traffic Systems Center cabinet. He shall also furnish the operating and maintenance instructions for all equipment supplied. One copy of the wiring diagrams for each cabinet shall be retained in each field cabinet. Wiring diagram shall be contained in a plastic pouch that shall be permanently mounted to the door of each cabinet. Contractor shall permanently mark the cabinet for each termination and each terminal connection as to loop, tone, closure, phone, and lane function of each termination in the cabinet.

Incidental to the cost of each cabinet, the Contractor shall construct 5" (127mm) P.C.C. sidewalk of a rectangular area 3' x 4' (1 meter by 1.2m) immediately adjacent to the cabinet foundation on the same side of the foundation as the cabinet door, with the 4' (1.2m) dimension of the rectangle parallel to the cabinet door when closed. If the width of the required cabinet foundation is greater than the 3 feet (1 meter) width of the standard concrete foundation. Type D, the 4' (1.2m) dimension of the sidewalk area shall be increased to equal the width of the foundation plus 1ft (30 cm), the area to extend 6" (15cm) beyond each side of the foundation. This paragraph shall be applicable at all cabinet locations included in this Section. The only situations where this paragraph shall not apply are as follows: When the foundation is immediately adjacent to or within a paved sidewalk or shoulder area and no further surfacing is required. The Engineer shall be the sole judge as to the applicability of this paragraph in all questions arising therefrom.

The raceways for power and communication shall be allowed to enter cabinet through the top.

Anchor bolts shall be installed for pedestal and base mounted cabinets. These shall be considered as incidental to the cost of the cabinets. The cabinet shall be mounted to the existing floor of the Communications Hut.

Cable harnesses, terminal boards, and mounting hardware shall be installed as needed. These items shall be considered as incidental to the cost of the contract.

Terminal blocks provided in field cabinets shall be the heavy duty barrier type. The terminal block shall be a minimum of 2" (50.8mm) wide and 1-3/16" (30.2mm) deep. Center to center of the terminal screws or studs shall be a minimum of 21/32" (16 mm) with barriers in-between. Terminal blocks shall be rated at 45 amps 600 volts breakdown RMS line to line 11,000 V. and breakdown RMS line to ground 13,800 V. A marking strip shall be provided with each terminal block.

Revised 6/9/14

## METHOD OF MEASUREMENT

Cabinets will be accepted as concrete foundation mounted, pole mounted, pedestal mounted, or attached to structure. Each cabinet installed complete and in place will be counted as a single unit.

## BASIS OF PAYMENT

This work will be paid for at the contract price each for CABINET HOUSING EQUIPMENT, mounting and size specified, installed complete and in place.

## **DIGITAL LOOP DETECTOR SENSOR UNIT(TSC T638#1)**

Effective: June 1, 1994 Revised: May 19, 2009

### 1.0 Scope

- 1.1 This item shall consist of furnishing digital four or two channel loop detector sensor units complete with associated enclosures, cable harness, quick disconnect plugs, and operation manuals in strict accordance with these specifications.

### 2.0 Functional Requirements

- 2.1 The sensor unit shall operate on a regulated 117 VAC. The sensor unit shall be of solid state design throughout. Each sensor unit shall include four or two complete loop detector channels in the space that is normally occupied by an INDUCTION LOOP DETECTOR SENSOR UNIT.
- 2.2 The loop connected to each of the four channels or two shall be sequentially scanned at a rate of not less than 148 times per second. Only one loop shall operate at a time in the system to eliminate cross-talk.
- 2.3 The digital loop sensor unit shall be automatically and instantaneously self-tuning requiring no burn-in or warm-up time. Then it shall also track environmental changes.
- 2.4 The digital loop sensor unit shall be self-tracking and fully automatic in its recovery from power failure.
- 2.5 The digital loop sensor unit shall be of sufficient sensitivity to detect the smallest licenseable motor vehicle, including motorbikes. The sensor unit shall detect a Honda CT-170 and hold the detection for minimum of four minutes.
- 2.6 The sensor unit shall be designed to operate in conjunction with three turns of a loop of wire embedded up to 3" (76.2mm) deep in a reinforced concrete roadway. The loop and lead-ins will measure at least 100 megohms above ground and have a minimum inductance of 50 microhenries and a continuity resistance of not more than 2 ohms. Digital sensor unit shall be capable of tuning to an inductance range of 0 to 2000 microhenries.

Revised 6/9/14

Installation

Installation methods and equipment shall conform to section 810, Underground Raceways.

Method of Measurement

The conduit shall be measured for payment in linear foot in place. Measurements shall be made in straight lines between hand holes.

Basis of Payment

This work shall be paid at the Contract unit price per linear foot, furnished and installed for UNDERGROUND CONDUIT, PVC, 4" DIA., SCHEDULE 80

**CONDUIT RISER, GALVANIZED STEEL**

Description:

This item includes labor, material, and equipment necessary to install a 24" section of 4" diameter galvanized steel conduit riser in the existing IDOT Communications Hut. The riser shall be attached to an existing conduit in the hut from the hand hole to the South of the shelter. The riser shall be threaded to attach to the existing conduit in the hut.

Method of Measurement:

The method of measurement shall be EACH.

Basis of Payment

This work shall be paid for at the contract unit price each for CONDUIT RISER, GALVANIZED STEEL that shall be payment in full for the work complete, as specified herein and as directed by the Engineer.

**ATMS SYSTEM INTEGRATION**

Description:

This item includes integrating all loop detector count and speed stations shown on the plans into the IDOT Advanced Traffic Management System (ATMS). Data from the loop detector stations will be collected and integrated via the existing Dan Ryan NTCIP interface to the ATMS. This item includes all software, programming, miscellaneous devices, cabinets, racks, and cables necessary to provide the successful integration of the new stations in the NW Flyover to the existing expressway traffic monitoring system.

Revised 6/9/14

Work as necessary will be performed at the:

Illinois Department of Transportation  
Bureau of Traffic Operations/Electrical Field Office  
445 W. Harrison Street  
Oak Park, Illinois 60304

Integration:

The Contractor shall subcontract with the development and maintenance contractor for the ATMS to perform all ATMS software and hardware modifications. Contact information is:

Delcan Corporation  
Project manager  
650 E Algonquin Rd, Suite 104  
Schaumburg, IL 60173

Phone: (847) 925-0120

The ATMS system shall be upgraded and expanded to add all loop detector stations shown on the plans. The integration must be made to make this expansion a seamless transition, and function in an identical manner as the existing expressway surveillance. Work under this item includes but is not limited to the following:

- Integrate data from the additional loop detector stations thru the existing NTCIP interface at the existing rate of once every 20 seconds.
- Create new Vehicle Detection Station (VDS) display, data table, description and control panel display, and travel time tables.
- Modify the existing graphic user interface, report generators, data bases, broadcast feeds (both subscriber and internal), data tables for the dynamic message sign control,
- Display on the Traffic Systems Center ATMS maps, and all user interfaces the new loop detector stations data (as applicable) including Volume, Occupancy, Speed, Vehicle Classification (length), and operational status.
- Create new segments and groupings used to display travel time and congestion data to the Dynamic Message Signs.
- Update the Lake Michigan Interstate Gateway Alliance (LMIGA) data feeds for presentation of the additional data to the web page and user interfaces.
- Develop an integration acceptance test plan and conduct said test to verify that all loop detector stations have been properly integrated according to the requirements. This acceptance plan shall conclude with a 30 day burn-in period. During the burn-in period, the subcontractor shall identify and resolve any problems identified with the integration.

Method of Measurement:

The ATMS System integration shall be measured as lump sum.

Revised 6/9/14

### Basis of Payment

This item shall be paid for at the contract lump sum price for ATMS SYSTEM INTEGRATION, which price shall be payment in full for the work described for a complete seamless integration of the new loop detector stations into the existing IDOT ATMS System. Acceptance shall be granted after integration and after passing an acceptance test proposed by the Subcontractor, and agreed upon by the Engineer.

### **REMOVE AND REINSTALL CAMERA POLE**

**Description:** This work will consist of the removing, storing, protecting and reinstalling an existing CCTV camera 100 foot pole with cameras on an existing foundation as described herein, as shown on the plans, and as directed by the Engineer.

This work shall also include protecting the existing camera pole and cameras from damage during the entire removal/transportation/storage/reinstallation process.

The existing foundation shall be protected from damage from the time the camera pole is removed until such time that the camera pole is reinstalled on the same existing foundation and accepted by IDOT.

**General Requirements.** General requirements must be in accordance with Section 801 of the Standard Specifications, except as herein modified.

Removal: The existing camera pole shall be removed from the existing foundation completely without disassembling the individual pole sections. The pole sections shall not be disconnected or separated at any time during this work. Removal will include all incidental work and items associated with the camera pole, cameras and camera lowering system as directed by IDOT.

The Contractor shall submit detailed documents to IDOT describing the procedures for removing, transporting to the storage site(s), storing and protecting the pole and cameras for review and approval by IDOT two weeks prior to beginning any removal work. No removal work shall be permitted without approval from the Engineer. Prior to removal, the pole and all its components will be inspected by the Engineer and the Contractor to establish the existing condition of the equipment. Any parts found to be damaged or defective shall be identified and documented prior to removal.

The camera pole, cameras, bracket arms and all associated hardware and appurtenances shall be removed and stored. The pole and associated equipment shall be loaded onto a flatbed truck and transported to a storage site of the contractor's choosing. Wood blocking, banding, or other appurtenant items required for proper stacking and to protect all surfaces from being damaged in any way during transportation to and from the storage site shall be included.

The cameras shall be disconnected and removed from the pole, boxed in new containers, approved by the Engineer, and delivered to a heated indoor storage site of the contractor's choosing with approval by IDOT.

Revised 6/9/14

## **RELOCATE EXISTING CONDUIT AND CABLES**

### **Description:**

This work shall consist of relocating existing conduit where noted in the plans. The existing conduit shall be removed to allow installation through a new retaining wall, at the elevation specified in the plans. Existing cables in the conduit shall be removed from the existing conduit, coiling in the nearest junction box, hand hole, or cabinet, and reinstalled in the relocated conduit.

### **General:**

Where new construction of retaining walls require relocation of existing conduit to go through the Retaining Wall 40, a sleeve will be provided in the wall at an elevation specified in the plans. The conduit shall be reinstalled using the sleeve located in the wall to pass through the wall.

The existing hand hole located at the base of the wall shall be relocated to intercept the reinstalled conduit at the new ground elevation.

If existing conduit length requires adjustment to attain the specified elevation, such adjustment shall be done at no additional cost.

The existing cables will be removed from the existing conduit and pulled back to the nearest junction box, hand hole, or cabinet unaffected by new construction and shall remain and coiled for reuse.

Typical cables to be removed and reinstalled are energized power cables and copper telephone/communication cables. Existing power service cable shall be de-energized prior to removal and reinstallation.

The cable shall be protected during this entire process and any damage to the cable will be replaced in-kind at no additional expense.

**Method of Measurement:** Will be measured per foot of conduit installed.

**Basis of Payment:** This work will be paid for at the contract unit price per foot for RELOCATE EXISTING CONDUIT AND CABLES which price shall include all necessary labor, equipment, and materials.

## REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

Revise Article 669.01 of the Standard Specifications to read:

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

Revise Article 669.08 of the Standard Specifications to read:

**“669.08 Contaminated Soil and/or Groundwater Monitoring.** The Contractor shall hire a qualified environmental firm to monitor the area containing the regulated substances. The affected area shall be monitored with a photoionization detector (PID) utilizing a lamp of 10.6eV or greater or a flame ionization detector (FID). Any field screen reading on the PID or FID in excess of background levels indicates the potential presence of contaminated material requiring handling as a non-special waste, special waste, or hazardous waste. No excavated soils can be taken to a clean construction and demolition debris (CCDD) facility or an uncontaminated soil fill operation with detectable PID or FID meter readings that are above background. The PID or FID meter shall be calibrated on-site and background level readings taken and recorded daily. All testing shall be done by a qualified engineer/technician. Such testing and monitoring shall be included in the work. The Contractor shall identify the exact limits of removal of non-special waste, special waste, or hazardous waste. All limits shall be approved by the Engineer prior to excavation. The Contractor shall take all necessary precautions.

Based upon the land use history of the subject property and/or PID or FID readings indicating contamination, a soil or groundwater sample shall be taken from the same location and submitted to an approved laboratory. Soil or groundwater samples shall be analyzed for the contaminants of concern, including pH, based on the property's land use history or the parameters listed in the maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605. The analytical results shall serve to document the level of soil contamination. Soil and groundwater samples may be required at the discretion of the Engineer to verify the level of soil and groundwater contamination.

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

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

Replace the first two paragraphs of Article 669.09 of the Standard Specifications with the following:

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

- (a) Soil Analytical Results Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels exceed the most stringent maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605, the soil shall be managed as follows:
  - (1) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC but they are still considered within area background levels by the Engineer, the excavated soil can be utilized within the construction limits as fill, when suitable. Such soil excavated for storm sewers can be placed back into the excavated trench as backfill, when suitable, unless trench backfill is specified. If the soils cannot be utilized within the construction limits, they shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.



- (2) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
  - (3) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, or the MAC within the Chicago corporate limits, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago or within the Chicago corporate limits provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
  - (4) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
  - (5) When the Engineer determines soil cannot be managed according to Articles 669.09(a)(1) through (a)(4) above, the soil shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.
- (b) Soil Analytical Results Do Not Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels do not exceed the most stringent MAC, the excavated soil can be utilized within the construction limits or managed and disposed of off-site as "uncontaminated soil" according to Article 202.03. However the excavated soil cannot be taken to a CCDD facility or an uncontaminated soil fill operation for the following reason.
- (1) The pH of the soil is less than 6.25 or greater than 9.0.
  - (2) The soil exhibited elevated photoionization detector (PID) utilizing a lamp of 10.6eV or greater or a flame ionization detector (FID) readings.
- (c) Soil Analytical Results Exceed Most Stringent MAC but Do Not Exceed TACO Residential. When the soil analytical results indicate that detected levels exceed the most stringent MAC but do not exceed TACO Tier 1 Soil Remediation Objectives for Residential Properties pursuant to 35 IAC 742 Appendix B Table A, the excavated soil can be utilized within the right-of-way or managed and disposed of off-site as "uncontaminated soil" according to Article 202.03. However the excavated soil cannot be taken to a CCDD facility or an uncontaminated soil fill operation.
- (d) Groundwater. When groundwater analytical results indicate the detected levels are above Appendix B, Table E of 35 Illinois Administrative Code 742, the most stringent Tier 1 Groundwater Remediation Objectives for Groundwater Component of the Groundwater Ingestion Route for Class 1 groundwater, the groundwater shall be managed off-site as a special waste.

All groundwater encountered within lateral trenches may be managed within the trench and allowed to infiltrate back into the ground. If the groundwater cannot be managed within the trench it must be removed as a special or hazardous waste. The Contractor is prohibited from managing groundwater within the trench by discharging it through any existing or new storm sewer. The Contractor shall install backfill plugs within the area of groundwater contamination.

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

Revise Article 669.14 of the Standard Specifications to read:

**“669.14 Final Environmental Construction Report.** At the end of the project, the Contractor will prepare and submit three copies of the Environmental Construction Report on the activities conducted during the life of the project, one copy shall be submitted to the Resident Engineer, one copy shall be submitted to the District’s Environmental Studies Unit, and one copy shall be submitted with an electronic copy in Adode.pdf format to the Geologic and Waste Assessment Unit, Bureau of Design and Environment, IDOT, 2300 South Dirksen Parkway, Springfield, Illinois 62764. The technical report shall include all pertinent information regarding the project including, but not limited to:

- (a) Measures taken to identify, monitor, handle, and dispose of soil or groundwater containing regulated substances, to prevent further migration of regulated substances, and to protect workers,
- (b) Cost of identifying, monitoring, handling, and disposing of soil or groundwater containing regulated substances, the cost of preventing further migration of regulated substances, and the cost for worker protection from the regulated substances. All cost should be in the format of the contract pay items listed in the contract plans (identified by the preliminary environmental site assessment (PESA) site number),
- (c) Plan sheets showing the areas containing the regulated substances,
- (d) Field sampling and testing results used to identify the nature and extent of the regulated substances,
- (e) Waste manifests (identified by the preliminary environmental site assessment (PESA) site number) for special or hazardous waste disposal, and
- (f) Landfill tickets (identified by the preliminary environmental site assessment (PESA) site number) for non-special waste disposal.”

Revise the second paragraph of Article 669.16 of the Standard Specifications to read:

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

Qualifications. The term environmental firm shall mean an environmental firm with at least five (5) documented leaking underground storage tank (LUST) cleanups or that is pre-qualified in hazardous waste by the Department. Documentation includes but not limited to verifying remediation and special waste operations for sites contaminated with gasoline, diesel, or waste oil in accordance with all Federal, State, or local regulatory requirements and shall be provided to the Engineer for approval. The environmental firm selected shall not be a former or current consultant or have any ties with any of the properties contained within and/or adjacent to this construction project.

General. This Special Provision will likely require the Contractor to subcontract for the execution of certain activities.

All contaminated materials shall be managed as either “uncontaminated soil” or non-special waste. This work shall include monitoring and potential sampling, analytical testing, and management of a material contaminated by regulated substances. The Environmental Firm shall continuously monitor all soil excavation for worker protection and soil contamination. **Phase I Preliminary Engineering information is available through the District’s Environmental Studies Unit.** Soil samples or analysis without the approval of the Engineer will be at no additional cost to the Department. The lateral distance is measured from centerline and the farthest distance is the offset distance or construction limit whichever is less.

The Contractor shall manage any excavated soils and sediment within the following areas:

- Station 10+50 to Station 11+70 (Baseline Exit Ramp NW) 0 to 100 feet LT/RT (IDOT ROW, PESA Site 2615-1, I-90/I-94 between Grand Avenue and West 14<sup>th</sup> Street). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Anthracene, Benzo(a)Pyrene, Benzo(b)Fluoranthene, Carbazole, Dibenzo(a,h)Anthracene, Indeno(1,2,3-cd)Pyrene, Naphthalene, Lead, and Manganese.

- Station 1832+00 to Station 1834+40 (Baseline Ramp NW) 0 to 70 feet LT/RT (IDOT ROW, PESA Site 2615-219, I-290 between Throop Street and the Chicago River). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzene, Benzo(a)Anthracene, Benzo(a)Pyrene, Benzo(b)Fluoranthene, Carbazole, Dibenzo(a,h)Anthracene, Indeno(1,2,3-cd)Pyrene, Arsenic, and Lead.
- Station 1839+50 to Station 1841+00 (Baseline Ramp NW) 0 to 60 feet LT/RT (Mixed-Use Building, PESA Site 2615-211, 833-843 Van Buren Street and 400-418 South Green Street). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzene, Trichloroethene, Benzo(a)Anthracene, Benzo(a)Pyrene, Benzo(b)Fluoranthene, Carbazole, Dibenzo(a,h)Anthracene, Indeno(1,2,3-cd)Pyrene, and Lead.
- Station 1841+00 to Station 1842+00 (Baseline Ramp NW) 0 to 60 feet LT/RT (Mixed-Use Building, PESA Site 2615-211, 833-843 Van Buren Street and 400-418 South Green Street). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Manganese.
- Station 1805+70 to Station 1809+00 (Baseline Ramp NW) 0 to 50 feet LT/RT (CITGO, PESA Site 2615-258, 1004 South Des Plaines Street). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 1813+50 to Station 1815+50 (Baseline Ramp NW) 0 to 50 feet LT/RT (Chicago Maxwell Street Permit Center, PESA Site 2615-248, 800 South Des Plaines Street). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 1834+40 to Station 1839+50 (Baseline Ramp NW) 0 to 80 feet LT (IDOT ROW, PESA Site 2615-219, I-290 between Throop Street and the Chicago River). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 1825+50 to Station 1827+00 (Baseline Ramp NW) 0 to 70 feet LT/RT (IDOT ROW, PESA Site 2615-1, I-90/I-94 between Grand Avenue and West 14<sup>th</sup> Street). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene, Lead, Manganese.
- Station 11+70 to Station 14+70 (Baseline Exit Ramp NW) 0 to 40 feet LT/RT (IDOT ROW, PESA Site 2615-1, I-90/I-94 between Grand Avenue and West 14<sup>th</sup> Street). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Anthracene, Benzo(a)Pyrene, and Dibenzo(a,h)Anthracene.
- Station 19+50 to Station 21+30 (Baseline Ramp SW) 0 to 100 feet LT (The Rice Building, PESA Site 2615-212, 815-821 West Van Buren and 405 Green Street). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene.
- Station 19+50 to Station 21+30 (Baseline Ramp SW) 0 to 30 feet LT (The Rice Building, PESA Site 2615-212, 815-821 West Van Buren and 405 Green Street). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene.
- Station 1836+00 to Station 1837+00 (Baseline Ramp NW) 0 to 100 feet LT (The Rice Building, PESA Site 2615-212, 815-821 West Van Buren and 405 Green Street). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene.
- Station 1837+00 to Station 1838+50 (Baseline Ramp NW) 0 to 100 feet LT (The Rice Building, PESA Site 2615-212, 815-821 West Van Buren and 405 Green Street). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene.
- Station 1838+50 to Station 1839+50 (Baseline Ramp NW) 0 to 70 feet RT (Mixed-Use Building, PESA Site 2615-211, 833-843 Van Buren Street and 400-418 South Green Street). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Dibenzo(a,h)Anthracene.
- Station 20+50 to Station 24+00 (Baseline Exit Ramp NW) 0 to 30 feet LT/RT (IDOT ROW, PESA Site 2615-219, I-290 between Throop Street and the Chicago River). This material meets the criteria of Article 669.09(a)(4) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Anthracene, Benzo(a)Pyrene, Benzo(b)Fluoranthene, and Diabbenzo(a,h)Anthracene.

## **ENGINEER'S FIELD OFFICE TYPE A (SPECIAL)**

670.02 Engineer's Field Office Type A. Revise the first paragraph of this Article to read:

**Engineer's Field Office Type A (Special)**. Type A (Special) field offices shall have a ceiling height of not less than 2 m (7 ft.) and a floor space of not less than 371 m<sup>2</sup> (4000 sq. ft.) with a minimum of three separate offices. The office shall also have a separate storage room capable of being locked for the storage of the nuclear measuring devices. The office shall be provided with sufficient heat, natural and artificial light, and air conditioning. Doors and windows shall be equipped with locks approved by the Engineer.

Revise the first sentence of the second paragraph of this Article to read:

The office shall have an electronic security system that will respond to any breach of exterior doors and windows with an on-site alarm shall be provided.

Revise the second sentence of the third paragraph of this Article to read:

Adequate all-weather parking space shall be available to accommodate a minimum of 25 vehicles in a fenced area with a secure, lockable gate. The parking space is to have at least 3 Handicap spaces, marked properly per City of Chicago standards. Parking space is to be within 100 feet maximum of actual front door entrance. The maintenance of the parking space is included, and will include all needed repairs, snow and ice melting applications, snow removal, ice removal and any landscaping maintenance.

Revise the second sentence of the fourth paragraph of this Article to read:

Solid waste disposal consisting of twenty waste baskets and an outside trash container of sufficient size to accommodate a weekly provided pick-up service.

Add the following to the fourth paragraph of this Article:

A weekly cleaning service for the office shall be provided. The service interval shall be increased as determined by the Engineer. All office building maintenance, including necessary repairs shall be included.

Revise subparagraph (a) of this Article to read:

(a) Twenty desks with minimum working surface (60 in. x 30 in.) each and twelve non-folding chairs with upholstered seats and backs.

Revise subparagraph (b) of this Article to read:

(a) Two desks with minimum working surface 1.1m x 750mm (42 in. x 30 in) each with height adjustment of 23 in. to 30 in. for computer use.

Added 6/9/14

Revise the first sentence of subparagraph (c) of this Article to read:

(c) Two four-post drafting table with minimum top size of 950 mm x 1.2 m (37-1/2 in. x 48 in.).

Revise subparagraph (d) of this Article to read:

(d) Six free standing four drawer legal size file cabinet with lock and and three (3) underwriters' laboratories insulated file device 350 degrees one hour rating.

Revise subparagraph (e) of this Article to read:

(e) Ten folding tables (8 foot) and Twenty four (24) folding chairs.

Revise subparagraph (f) of this Article to read:

(f) Two equipment cabinets of minimum inside dimension of 44 in. high x 24 in. wide x 30 in. deep with lock. The walls shall be of steel with a 3/32 in. minimum thickness with concealed hinges and enclosed lock constructed in such a manner as to prevent entry by force. The cabinet assembly shall be permanently attached to a structural element of the field office in a manner to prevent theft of the entire cabinet.

Revise subparagraph (g) of this Article to read:

(g) Two refrigerators with a minimum size of 16 cu. Ft. with a freezer unit.

Revise subparagraph (h) of this Article to read:

(h) Two electric desk type tape printing calculator and two pocket scientific notation calculators with a 1000 hour battery life or with a portable recharger.

Revise subparagraph (i) of this Article to read:

- 1) Internet Connection. An high speed internet service connection using telephone DSL, cable broadband, or CDMA wireless technology meeting a minimum speed of 25 Mbps. Additionally, an 802.11b/N wireless router shall be provided, which will allow connection by the Engineer and up to four Department staff.
- 2) Six telephone lines including one line for the fax machine, and two lines for the exclusive use of the Engineer.

Added 6/9/14

Revise subparagraph (j) of this Article to read:

(j) One (1) office copier black and white/color that has full network connectivity for all multifunction such as print, copy, scan and fax. The printer will have the capability of printing and scanning high quality documents including 8.5 X 11, 8.5 X 14 and 11X17 size papers. The copier shall be complete with automatic document feeder and sorter. The unit shall have the ability to perform scanning over the network with the ability to generate files in JPEG, TIFF and PDF formats. Also included is the maintenance (servicing and repair as required) and operating supplies (paper supply of required sizes, ink and toner).

Revise subparagraph (k) of this Article to read:

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

Revise subparagraph (l) of this Article to read:

(l) Six telephones, with touch tone, where available, two digital telephone answering machines. Telephones shall have the capability to allow conference calls and to utilize speakerphone. One telephone shall be placed in the room with the large conference table and provide microphone capabilities for large gatherings.

(s) One electric water cooler dispenser, including weekly water service of a minimum of three (3) units per week.

(t) Four (4) 1.2m x 1.8m (4 ft. x 6 ft.) chalkboard or dry erase board.

(u) One office type conference table with a minimum size of 5 foot x 16 foot (or approved equivalent)

(v) Two plan racks capable of holding multiple sets of full size plans.

670.07 Basis of Payment. Revise the fourth sentence of the first paragraph of this Article to read:

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), ENGINEER'S FIELD OFFICE TYPE B or ENGINEER'S FIELD LABORATORY.

## **AIR QUALITY COMPLIANCE**

Description. This work includes meeting or exceeding air quality requirements described herein, other Special Provision sections and the Standard Specifications.

General. The Contractor shall meet standards established to minimize air quality impacts due to construction activities. The obligations by the Contractor include the following:

Added 6/9/14

Air Quality Plan – Prior to the start of construction activities, the Contractor will be supplied an Air Quality Plan developed by the Engineer. The Plan will serve as a guidance document for the duration of construction activities. The Air Quality Plan is intended to identify maximum thresholds of dust levels, particulate matter and diesel components in the air in and around the project site and will incorporate requirements identified within the Special Provisions. Baseline sampling in nearby areas without construction activity will be performed by the IEPA. Real-time monitoring will be conducted at the two locations adjacent to Circle Interchange. If during real-time monitoring there are exceedances of the screening standards, the Engineer will contact the Contractor and activities will cease and corrective actions will be developed.

Dust Control Plan – The Contractor shall comply with the requirements of CONSTRUCTION AIR QUALITY – DUST CONTROL in addition to Article 107.36 of the Standard Specifications.

Diesel Emissions – The maximum concentration of Diesel Components (PAHs) in sampled air shall not exceed  $1 \mu\text{g}/\text{m}^3$ , which is above the Chicago background level according to the IEPA. Following receipt of laboratory data that indicate exceedances of screening standards for diesel components as PAHs, IDOT will investigate the activity that was being performed at the time of the exceedance. IDOT will document the exceedance in the monthly report. Observations of consistent patterns in exceedances and potential corresponding work activities will assist in developing measures to manage the activity that caused the exceedance. Factors that will be evaluated include the activity being performed, the equipment being used for the activity, weather conditions, and general air quality at the time of the exceedance.

Construction Requirements. To ensure a prompt response to incidents involving the integrity of work zone Air Quality, the Contractor shall provide a telephone number where a responsible individual can be contacted on a 24 hour a day basis.

When the Engineer is notified, or determines, that an environmental control deficiency exists, he/she will notify the Contractor in writing, and direct the Contractor to correct the deficiency within a specified time frame. The specified time frame, which begins upon Contractor notification, will be from 1/2 hour to 24 hours long, and is based on the urgency of the situation and the nature of the deficiency. The Contractor may appeal the indicated deficiency to the Engineer on the grounds that the deficiency was caused by actions by a separate contractor, agency or public entity. The Engineer shall be the sole judge of these conditions and any appeal by the Contractor.

The deficiency may include lack of repair, maintenance or non-compliance with the related Articles of the Standard Specifications, the CONSTRUCTION AIR QUALITY – DUST CONTROL Special Provision and this Special Provision.

If the Contractor fails to respond within the allotted time frame, the Engineer may take action to correct the deficiency, or may cause the correction of the deficiency to be made by others, the cost thereof being deducted from monies due or which may become due the Contractor. This corrective action will in no way relieve the Contractor of his/her contractual requirements or responsibilities, and shall not be grounds for any claim.

Added 6/9/14

If the Contractor accumulates three (3) environmental deficiency deductions for the same deficiency, all related Contractor activities will be shut down until the deficiency is corrected. Such a shut down will not be grounds for any extension of the completion date, waiver of penalties, or be grounds for any claim.

Basis of Payment. This work will not be paid for separately. All obligations described herein are included associated pay items. No extension of the completion date, waiver of penalties or claims shall arise from any Contractor activity shut down enacted due to deficiencies described herein.

**CONSTRUCTION AIR QUALITY – DUST CONTROL**

Description. This work shall consist of developing and implementing a detailed Dust Control Plan (DCP) in accordance with Article 107.36 of the Standard Specifications. Development of a DCP is required. All construction activities shall be governed by the DCP. The nature and extent of dust generating activities, and specific control techniques appropriate to specific situations shall be discussed at the pre-construction meeting, with subsequent development of the DCP to include but not be limited to the requirements below.

General Requirements. The Contractor is responsible for the control of dust at all times during the duration of the contract, 24 hours per day, 7 days per week, including non-working hours, weekends, and holidays. This work shall be considered complete after the completion of all permanent erosion control measures required for the contract, and after all temporary and permanent seeding is established.

Work on this contract shall be conducted in a manner that will not result in generating excessive total nuisance dust conditions or air borne particulate matter (PM<sub>2.5</sub>). The IEPA will provide the Baseline Air Sampling in areas where there is no construction on the Circle Interchange. Two air quality monitoring locations have been identified; the UIC Student Recreational Building and IDOT Pump Station No. 5.

Following the baseline establishment, air quality will be monitored for total nuisance dust and air borne particulate matter (PM<sub>2.5</sub>) as shown in the table below. Real-time monitoring will be conducted at the two locations adjacent to Circle Interchange. If during real-time monitoring there are exceedances of the screening standards, the Engineer will contact the Contractor and activities will cease and corrective actions will be developed.

<b>Air Sample/Screening Standards</b>			
<b>Parameter</b>		<b>Concentration</b>	<b>Basis</b>
Total Dust	Nuisance	335 µg/m <sup>3</sup>	IEPA/IDPH
PM <sub>2.5</sub>		35 µg/m <sup>3</sup>	24 hours NAAQS

Notes: NAAQS = National Ambient Air Quality Standards  
 IEPA = Illinois Environmental Protection Agency  
 IDPH = Illinois Department of Public Health

Added 6/9/14



The DCP shall describe the plan for the implementation of control measures before, during and after conducting any dust generating operation. These controls must be in place on non-working days and after working hours, not just while work is being done on the site. The DCP must contain information specific to the project site, proposed work, and dust control measures to be implemented. A copy of the DCP must be available on the project site at all times.

The DCP must contain, at a minimum, all of the following information:

1. Name, address and phone number of the person(s) responsible for the dust generating operation and for the submittal and implementation of the DCP.
2. A drawing specifying the site boundaries of the project with the areas to be disturbed, the locations of the nearest public roads, and all planned exit and entrance locations to the site from any paved public roadways.
3. Control measures to be applied to all actual and potential fugitive dust sources before, during and after conducting any dust generating operation, including non-work hours and non-work days.
4. A contingency plan consisting of at least one contingency measure for each activity occurring on the site in case the primary control measure proves inadequate.

The Contractor shall submit two copies of the DCP that outlines in detail the measures to be implemented by the Contractor complying with this section, including prevention, cleanup, and other measures at least 14 days before beginning any dust generating activity. The Contractor shall not begin any dust generating activities until the Engineer approves the DCP in writing.

#### Materials.

1. Dust Suppression Agents: Water shall meet the requirements of Section 1002 of the Standard Specifications.
2. Soil stabilizers shall consist of seed and mulch meeting the requirements of Article 1081.06 (a) (2) and (3).
3. Covers for stockpiles shall be commercially available plastic tarps, or other materials approved by the Engineer.

Construction Methods. Water shall be used to provide temporary control of dust on entrances/exits to the job site, haul roads and other active work areas. Several applications per day may be necessary to control dust depending upon meteorological conditions and work activity. The Contractor shall apply water on a routine basis as necessary or as directed by the Engineer to control dust. Wet suppression consists of the application of water. Wet suppression equipment shall consist of sprinkler pipelines, tanks, tank trucks or other devices approved by the Engineer, capable of providing a regulated flow, uniform spray and positive shut off.

Haul truck cargo areas shall be securely covered during the transport of materials on public roadways that are prone to cause dust.

Added 6/9/14

Public Roadway Dust Control. Trackout, including carryout and spillage of material that adheres to the exterior surfaces of or are spilled from motor vehicles and/or equipment and subsequently fall onto a paved public roadway must be controlled at all times. Clean up of carryout and spillage is required immediately if it extends a cumulative distance of 50 feet or more on a paved public roadway. If the extent of carryout is less than 50 feet, clean up at the end of the day is permissible. Clean up of paved surfaces shall be by wet spray power vacuum street sweeper. Dry power sweeping is prohibited.

Control of Earthwork Dust. During batch drop operations (i.e. earthwork with a front-end loader, clamshell bucket, or backhoe), the free drop height of excavated or aggregate material shall be reduced to minimum heights as necessary to perform the specified task, and to minimize the generation of dust. To prevent spills during transport, a minimum of 2 inches of freeboard space shall be maintained between the material load and the top of the truck cargo bed rail. A maximum drop height of two feet (or minimum height allowed by equipment) will be allowed, or to heights as directed by the Engineer.

Control of Dust on Stockpiles and Inactive Work Areas. The Contractor shall use the following methods to control dust and wind erosion of stockpiles and inactive areas of disturbed soil:

1. Water shall be used during active stockpile load-in, load-out, and maintenance activities.
2. Soil stabilizers (hydraulic or chemical mulch) may be applied to the surface of inactive stockpiles and other inactive areas of disturbed soil. Final grading and seeding of inactive areas shall occur immediately after construction activity is completed in an area and as directed by the Engineer.
3. Plastic tarps may be used on small stockpiles, secured with sandbags or an equivalent method approved by the Engineer, to prevent the cover from being dislodged by the wind. The Contractor shall repair or replace the covers whenever damaged or dislodged at no additional cost.

Method of Measurement. Water used as a dust suppression measure shall be measured for payment in units of 1000 Gallons of water applied. All measuring devices shall be furnished by the Contractor and approved by the Engineer. All other dust control measures will not be measured for payment.

Basis of Payment. The application of water as a dust suppression agent will be paid for at the contract unit price per unit for DUST CONTROL WATERING.

All other dust control measures, along with preparation of the DCP, will not be paid for directly but shall be considered as included in the various items involved and no additional compensation will be allowed.

Added 6/9/14

## **PAVEMENT GROOVING**

Description. This item shall consist of furnishing all labor, material and equipment necessary to provide longitudinal deck grooves parallel to the centerline of the roadway. The work shall be done in accordance with the applicable portions of Section 420 of the Standard Specifications, related portions of Section 503 of the Standard Specifications, as described herein and as directed by the Engineer.

Materials. The grooving machine shall contain diamond blades mounted on a multi-blade arbor on a self-propelled machine built for grooving hardened concrete surfaces. The grooving machine shall have a depth control device that detects variations in the deck surface and adjusts the cutting head height to maintain a specified depth of groove. The grooving machine shall have a guide device to control multi-pass alignment.

Construction. Longitudinal grooving operation shall not be started until after the expiration of the required curing or protection period and after correcting excessive variations by grinding or cutting has been completed.

The grooves shall be cut into the hardened concrete, parallel to the centerline, using a mechanical saw device equipped with diamond blades that will leave grooves 1/8 inch wide and 3/16 inch  $\pm$  1/16 inch deep. The longitudinal groove shall be spaced at 3/4 inch  $\pm$  1/16 inch center-to-center. The grooving shall be stopped 1.5 ft. from the faces of curbs or parapets and 6 inch  $\pm$  1 inch from deck drains and expansion joints. If grooving must be performed as part of stage construction, the grooving may be deferred until at least two adjacent lanes have been poured.

The removal of slurry shall be continuous throughout the grooving operations. The grooving equipment shall be equipped with vacuum slurry pickup equipment which shall continuously pick up water and sawing dust, and pump the slurry to a collection tank. The slurry shall be disposed of off-site according to Article 202.03 of the Standard Specifications. Cleanup shall be continuous throughout the grooving operation. All grooved areas of the deck shall be flushed with water as soon as possible to remove any slurry material not collected by the vacuum pickup. Flushing shall be continued until all surfaces are clean.

Method of Measurement. Pavement grooving will be measured for payment in place and the area computed in square yards.

Basis of Payment. Texturing of concrete pavement by longitudinal saw cut grooving will be paid for at the contract unit price per square yard for PAVEMENT GROOVING.

Added 6/9/14

## **CONCRETE MEDIAN SURFACE, SPECIAL**

Description: This item of work shall consist of constructing CONCRETE MEDIAN SURFACE, SPECIAL in areas between concrete barrier walls and between concrete barrier walls and existing or proposed retaining walls, bridge piers and abutments as shown in the Plans. Work shall be in accordance with Section 606 of the Standard Specifications, details in the Plans and as directed by the Engineer.

The concrete median surface color and texture shall closely match the existing concrete median surface used between existing NB I-90/94 and Ramp NW/NE. The median surfaces shall be textured with a stamping tool capable of producing a "brick paver-like" effect on its surface and utilize integrally colored concrete materials.

Materials: Materials shall meet the applicable requirements of Division 1000 of the Standard Specifications.

The Contractor shall submit a mock-up of the concrete median under this item for review by the Engineer a minimum of three (3) weeks prior to installation. The mock-up shall be a minimum of two feet by two feet and shall include the proposed coloring and stamping pattern.

Construction Requirements: Meet applicable requirements of Section 606 of the Standard Specifications. Concrete median shall be constructed after all concrete barrier walls and proposed retaining walls are complete.

Welded wire fabric reinforcement shall be used. Welded wire fabric may be smooth or deformed and shall be equal to or better than 6" x 6" D8.0/D8.0 and meet the requirements of Article 1006.10 of the Standard Specifications.

Prior to stamping, a clear release shall be used to form a moisture barrier between the stamping tool and wet concrete, which facilitates the release of the tool. A clear seal to prevent discoloration and to protect the concrete shall be applied.

Method of Measurement: CONCRETE MEDIAN SURFACE, SPECIAL will be measured for payment in place per square foot.

Basis of Payment: This work will be paid for at the contract unit price per square foot for CONCRETE MEDIAN SURFACE, SPECIAL which price will be payment in full for all labor, equipment, coloring agents, reinforcement and other materials necessary to complete the work as described.

Added 6/9/14

## **RELOCATE EXISTING HANDHOLE**

### Description

This work shall consist of removing, salvaging and relocating an existing handhole where noted in the plans. The handhole is planned to be installed under Contract 60W29. The existing handhole shall be relocated, to allow installation of relocated conduit through a new retaining wall, at the elevation specified in the plans. Existing cables in the handhole shall be removed from the existing conduit, coiling in the nearest junction box, hand hole, or cabinet, and reinstalled in the relocated conduit.

### General

The existing hand hole located at the base of the wall shall be relocated to intercept the reinstalled conduit at the new ground elevation.

Method of Measurement The work under this item will be measured per each handhole removed, salvaged and reinstalled.

### Basis of Payment

This work will be paid for at the contract unit price per foot for RELOCATE EXISTING HANDHOLE which price shall include all necessary labor, equipment, and materials to remove, salvage and reinstall an existing handhole. If necessary, any replacement handhole will be paid for as HANDHOLE.

## **COMMUNICATIONS HUT ELECTRICAL WORK**

### Description

This work shall consist of furnishing all labor and materials required to provide new loop telecommunication and power feeds from the Communications Hut to a new ESP 3 cabinet installed in the Communications Hut.

### General

An ESP 3 cabinet and cabinet equipment will be installed and mounted to the floor of the Communications Hut under separate pay items. The cabinet will be required to be connected to the existing power service panel in the Communications Hut. This work must include cables and connectors from the power service to the cabinet. Entry to the cabinet shall be through the top using the existing cable/conduit hanger system. Electrical cables shall conform to the power service requirements for the cabinet.

The ESP 3 cabinet will have loop detection equipment. The work must include appropriate wiring/cables from the transmitter modules in the cabinet to the existing T1 Channel Bank in the Communications Hut.

Added 6/9/14

All work, conduits, cable, connectors, and terminations to provide power and telecommunications between the ESP 3 cabinet and the services in the Communications Hut shall be included in this pay item.

IDOT will specify the location in the electrical service panel to be used for the cabinet. IDOT will provide 4-wire T&M cards for the T1 Channel Bank and will specify the circuit for the telecommunications termination from the cabinet.

#### Materials

Materials must be according to all applicable Articles of the Standard Specifications Division 1000 – Materials.

#### General Requirements

General requirements must be in accordance with Section 801 of the Standard Specifications.

All work shall be coordinated with, and approved by, IDOT Communications Hut maintenance personnel and with the ATMS Systems Integrator.

Method of Measurement: COMMUNICATIONS HUT ELECTRICAL WORK shall be measured as lump sum.

Basis of Payment: This work will be paid for at the contract lump sum price for COMMUNICATIONS HUT ELECTRICAL WORK which will be payment in full for providing all electrical work necessary for a complete installation to install the permanent power and telecommunications feeds as described herein.

Added 6/9/14