



# Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

April 17, 2013

SUBJECT: FAI Route 90 (I-90)  
Project ACNHPP-0090(400)  
Section 1616B  
Cook County  
Contract No. 60J14  
Item No. 113, April 26, 2013 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 14-17, 23-33, 38, 39, 45-51, 54-56, and 237-239 of the Special Provisions
4. Added pages 515-519 to the Special Provisions
5. Revised sheets 1, 2, 8, 9, 14, 16-18, 20, 24, 26, 29, 32, 33, 36, 39, 58, 118, 140, 143-149, 199, 209, 218, 221-227, 233, 260, 270, 271, 274, 292, 312, 329, & 334 of the Plans.
6. Added sheets 147A-147J to 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

A handwritten signature in black ink, appearing to read 'Ted B. Walschleger P.E.' with a stylized flourish at the end.

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

cc: John Fortmann, Region 1, District 1; Mike Renner; D. Carl Puzey;  
Estimates

dp

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF PRICES  
 CONTRACT  
 NUMBER -

60J14

State Job # - C-91-186-10

County Name - COOK - -  
 Code - 31 - -  
 District - 1 - -  
 Section Number - 1616B

Project Number  
 ACNHPP-0090/400/  
 \*REVISED: APRIL 11, 2013

Route  
 FAI 90

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
A2000320	T-ACER MIY MOR 2-1/2	EACH	3.000				
A2002920	T-CELTIS OCCID 2-1/2	EACH	3.000				
A2005020	T-GYMNOCLA DIO 2-1/2	EACH	3.000				
A2006520	T-QUERCUS BICOL 2-1/2	EACH	6.000				
A2006572	T-QUERCUS BICL CL 9'	EACH	6.000				
A2012116	T-AESCUL ASP 2 BB	EACH	1.000				
X0322400	PILE EXTRACTION	EACH	96.000				
X0322441	DIG LOOP DET SEN U 4C	EACH	7.000				
X0322442	TONE EQ 3 FRE REC PRG	EACH	32.000				
X0322443	TONE EQ 3 FREQ TR PRG	EACH	32.000				
X0322444	TONE EQ POWER SUPPLY	EACH	8.000				
X0322445	TONE EQ MOUNT FRAME	EACH	4.000				
X0322446	CAB HOUSING EQU TY 3	EACH	4.000				
X0322689	P S AB 10 7G 34'-6"	EACH	3.000				
X0322690	P S AB 10 3G 34'-6"	EACH	3.000				

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X0322713	FL BEACON BRACKET MTD	EACH	2.000				
X0323160	VIDEO INSP OF SS	FOOT	12,221.000				
X0324571	MAINT ST LTG SYS CHGO	L SUM	1.000				
X0326326	CC TPX 2-1/C6 1-1/CG	FOOT	5,266.000				
*REV X0326401	BARRIER WALL REMOVAL	FOOT	96.000				
*REV X0326451	VIDEO SYS DET CAMERA	EACH	13.000				
X0326694	PLUG EX STORM SEWERS	CU YD	1.000				
X0326968	JUN BOX POLE/POST MTD	EACH	33.000				
X0327392	WOOD POLE 60 CL 4	EACH	9.000				
X0327586	REM & REPL FUSE KIT	EACH	92.000				
X0327589	TRAFF CONT LED SH PED	EACH	6.000				
X0370010	COAXIAL JMPR CBL CDOT	EACH	4.000				
X0370013	CON FDN TPBM TSC CDOT	EACH	4.000				
*REV X0370014	CF20 .75A13B CDOT	EACH	18.000				
*REV X0370015	CF30 1.50A16.50B CDOT	EACH	10.000				

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*REV X0370016	CF30 1.25A17.25B CDOT	EACH	2.000				
*REV X0370018	ELCBL C #14 19C CDOT	FOOT	5,320.000				
X0370021	EL HH 30 24 F&L CDOT	EACH	4.000				
X0370022	EL HHHH 36 24F&L CDOT	EACH	9.000				
X0370023	EL MH 3X4X4 24FL CDOT	EACH	3.000				
X0370024	FO ADN LCL CNTLR CDOT	EACH	1.000				
X0370025	FO ADN MSTR CNTR CDOT	EACH	1.000				
X0370026	FO STAR MODEM CDOT	EACH	2.000				
X0370027	FO HYB CBL CON CDOT	FOOT	1,045.000				
X0370028	HRNS CBL 16 8/C CDOT	FOOT	1,824.000				
X0370029	INTFC PANEL 2CMA CDOT	EACH	2.000				
X0370030	PS AB11 3G34.5 CDOT	EACH	2.000				
X0370031	PS AB12.5 3G34.5 CDOT	EACH	10.000				
*REV X0370042	VID CBL HARNESS CDOT	EACH	13.000				
X0370044	VID DET PWR SPLY CDOT	EACH	4.000				

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X0370045	VID PRCSR CRD/RK CDOT	EACH	2.000				
X0370046	ELCBL C #2 3/C CDOT	FOOT	776.000				
X0370047	INST LP MA & LUM CHGO	EACH	7.000				
X0370048	SERV INST 200AMP CDOT	EACH	2.000				
X0370049	UGRD C PVC2SCH80 CDOT	FOOT	96.000				
X0370050	ATC TRAF 16LB PC CDOT	EACH	4.000				
X0370051	CUT POLE INS CAP CDOT	EACH	1.000				
X0370052	ELCBL C # 4 2C CDOT	FOOT	577.000				
*REV X0370053	ELCBL C #14 3C S CDOT	FOOT	2,768.000				
X0370054	INTFC PANEL 4CMA CDOT	EACH	1.000				
X0370055	INTFC PANEL 8CMA CDOT	EACH	1.000				
X0370056	MA STL MONO 16 CDOT	EACH	1.000				
X0370057	MA STL MONO 20 CDOT	EACH	1.000				
X0370058	MA STL MONO 26 CDOT	EACH	2.000				
X0370059	MA STL MONO 30 CDOT	EACH	2.000				

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X0370060	MA STL MONO 35 CDOT	EACH	2.000				
X0370061	MA STL MONO 40 CDOT	EACH	4.000				
X0370062	MA STL MONO 44 CDOT	EACH	4.000				
X0370063	SERV INST 100AMP CDOT	EACH	2.000				
X0370064	UGRD C PVC3SCH80 CDOT	FOOT	4,232.000				
X0370065	VIDEO DET CR 4C CDOT	EACH	1.000				
X0370066	VIDEO DET CR 8C CDOT	EACH	1.000				
X0370067	VIDEO PRCSR CARD CDOT	EACH	2.000				
*REV X0370068	CF24 1.25A15B CDOT	EACH	29.000				
X2020502	BRACED EXCAVATION	CU YD	87.000				
X2070304	POROUS GRAN EMB SPEC	CU YD	1,274.000				
X2130010	EXPLOR TRENCH SPL	FOOT	200.000				
X4021000	TEMP ACCESS- PRIV ENT	EACH	3.000				
X4022000	TEMP ACCESS- COM ENT	EACH	5.000				
X4023000	TEMP ACCESS- ROAD	EACH	1.000				

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X4240430	PC CONC SIDEWALK 5 SP	SQ FT	1,521.000				
X4403700	MEDIAN REM SPL	SQ FT	6,048.000				
X5030272	BR DK SHRNK RED ADMIX	CU YD	966.600				
X6020270	MAN TB 4D T1F CL CHGO	EACH	1.000				
X6030310	FR & LIDS ADJUST SPL	EACH	57.000				
X6370050	CONC BAR WALL SPL	FOOT	47.000				
X6643100	CH LK FEN GATES 28 IN	EACH	2.000				
X6700410	ENGR FLD OFF A SPL	CAL MO	18.000				
X7010216	TRAF CONT & PROT SPL	L SUM	1.000				
X7011015	TR C-PROT EXPRESSWAYS	L SUM	1.000				
X7030025	WET REF TEM TP T3 L&S	SQ FT	1,384.000				
X7030030	WET REF TEM TAPE T3 4	FOOT	75,835.000				
X7030035	WET REF TEM TAPE T3 5	FOOT	2,964.000				
X7030040	WET REF TEM TAPE T3 6	FOOT	8,790.000				
X7030045	WET REF TEM TAPE T3 8	FOOT	3,320.000				

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X7030050	WET REF TEM TPE T3 12	FOOT	943.000				
X7030055	WET REF TEM TPE T3 24	FOOT	758.000				
X7330310	OH S STR-SPN DUAL MON	FOOT	42.000				
X8040100	ELECT CONN TO SIN STR	EACH	1.000				
X8040310	ELECT SERV DISCONNECT	EACH	1.000				
X8130350	JUN BX ES SPL	EACH	6.000				
X8210055	FLUOR LUM FOR SN LTNG	EACH	4.000				
X8251388	LT CT BM 480V200D RS	EACH	1.000				
X8301040	MA ALUM 10FT	EACH	8.000				
X8301042	MA ALUM 12FT	EACH	2.000				
X8440116	RELOC EX LT UNIT SPL	EACH	10.000				
X8570226	FAC T4 CAB SPL	EACH	3.000				
X8570231	FAC T5 CAB SPL	EACH	1.000				
X8620200	UNINTER POWER SUP SPL	EACH	4.000				
X8710024	FOCC62.5/125 MM12SM24	FOOT	6,663.000				



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X8730312	EC C LEAD 18 4C TW SH	FOOT	3,267.000				
X8800101	PED PUSH-BUTTON SPL	EACH	11.000				
X8850102	INDUCTION LOOP	FOOT	468.000				
X8950077	REM REL EXIST LT CONT	EACH	2.000				
X8950425	REMOV TRAF SURV EQUIP	L SUM	1.000				
Z0013797	STAB CONSTR ENTRANCE	SQ YD	436.000				
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000				
Z0018004	DRAINAGE SCUPPR DS-12	EACH	10.000				
Z0018500	DRAINAGE STR CLEANED	EACH	58.000				
Z0018800	DRAINAGE SYSTEM	L SUM	1.000				
Z0021904	SILICONE JT SEAL 1	FOOT	335.000				
Z0026407	TEMP SHT PILING	SQ FT	1,248.000				
Z0030850	TEMP INFO SIGNING	SQ FT	982.000				
Z0033020	LUM SFTY CABLE ASMBLY	EACH	55.000				
Z0033028	MAINTAIN LIGHTING SYS	CAL MO	16.000				

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Z0033046	RE-OPTIMIZE SIG SYS 2	EACH	2.000				
*REV Z0033050	COAXIAL CABLE IN CON	FOOT	2,768.000				
Z0042300	PC CONC SIDEWALK CURB	FOOT	762.000				
Z0046304	P UNDR FOR STRUCT 4	FOOT	1,050.000				
Z0048665	RR PROT LIABILITY INS	L SUM	1.000				
Z0056606	STORM SEW WM REQ 10	FOOT	26.000				
Z0056608	STORM SEW WM REQ 12	FOOT	157.000				
Z0062456	TEMP PAVEMENT	SQ YD	3,150.000				
Z0073002	TEMP SOIL RETEN SYSTM	SQ FT	1,908.000				
Z0073510	TEMP TR SIGNAL TIMING	EACH	3.000				
Z0076600	TRAINEES	HOUR	2,500.000		0.800		2,000.000
Z0076604	TRAINEES TPG	HOUR	2,500.000		10.000		25,000.000
Z0077800	WOOD POST	EACH	3.000				
20100110	TREE REMOV 6-15	UNIT	643.000				
20100210	TREE REMOV OVER 15	UNIT	193.000				

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20200100	EARTH EXCAVATION	CU YD	17,360.000				
20201200	REM & DISP UNS MATL	CU YD	4,580.000				
20400800	FURNISHED EXCAVATION	CU YD	475.000				
20800150	TRENCH BACKFILL	CU YD	1,353.000				
21101505	TOPSOIL EXC & PLAC	CU YD	1,915.000				
21101615	TOPSOIL F & P 4	SQ YD	47,110.000				
21101805	COMPOST F & P 2	SQ YD	5,011.000				
25000312	SEEDING CL 4A	ACRE	1.100				
25000400	NITROGEN FERT NUTR	POUND	877.000				
25000500	PHOSPHORUS FERT NUTR	POUND	877.000				
25000600	POTASSIUM FERT NUTR	POUND	877.000				
25100115	MULCH METHOD 2	ACRE	9.900				
25100630	EROSION CONTR BLANKET	SQ YD	348.000				
25200110	SODDING SALT TOLERANT	SQ YD	47,110.000				
25200200	SUPPLE WATERING	UNIT	707.000				

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28000250	TEMP EROS CONTR SEED	POUND	24,516.000				
28000305	TEMP DITCH CHECKS	FOOT	370.000				
28000400	PERIMETER EROS BAR	FOOT	6,356.000				
28000510	INLET FILTERS	EACH	114.000				
28100107	STONE RIPRAP CL A4	SQ YD	34.000				
28200200	FILTER FABRIC	SQ YD	34.000				
30300112	AGG SUBGRADE IMPR 12	SQ YD	23,901.000				
31200502	STAB SUBBASE HMA 4.5	SQ YD	4,081.000				
35300410	PCC BSE CSE 9 1/2	SQ YD	4,010.000				
35501316	HMA BASE CSE 8	SQ YD	174.000				
40600100	BIT MATLS PR CT	GALLON	9,308.000				
40600300	AGG PR CT	TON	178.000				
40600400	MIX CR JTS FLANGEWYS	TON	134.000				
40600827	P LB MM IL-4.75 N50	TON	1,840.000				
40600895	CONSTRUC TEST STRIP	EACH	2.000				

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40600982	HMA SURF REM BUTT JT	SQ YD	229.000				
40603335	HMA SC "D" N50	TON	252.000				
40603595	P HMA SC "F" N90	TON	4,942.000				
42000411	PCC PVT 9 1/2 JOINTD	SQ YD	14,586.000				
42001300	PROTECTIVE COAT	SQ YD	23,769.000				
42300400	PCC DRIVEWAY PAVT 8	SQ YD	174.000				
42400200	PC CONC SIDEWALK 5	SQ FT	37,376.000				
42400800	DETECTABLE WARNINGS	SQ FT	746.000				
44000100	PAVEMENT REM	SQ YD	15,032.000				
44000157	HMA SURF REM 2	SQ YD	5,184.000				
44000159	HMA SURF REM 2 1/2	SQ YD	41,574.000				
44000200	DRIVE PAVEMENT REM	SQ YD	196.000				
44000500	COMB CURB GUTTER REM	FOOT	8,548.000				
44000600	SIDEWALK REM	SQ FT	25,405.000				
44003100	MEDIAN REMOVAL	SQ FT	22,839.000				

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44003510	MEDIAN REMOVAL (PD)	SQ FT	815.000				
44004000	PAVED DITCH REMOVAL	FOOT	665.000				
44004250	PAVED SHLD REMOVAL	SQ YD	1,943.000				
44201771	CL D PATCH T4 10	SQ YD	114.000				
48203021	HMA SHOULDERS 6	SQ YD	2,063.000				
50100100	REM EXIST STRUCT	EACH	2.000				
50104650	SLOPE WALL REMOV	SQ YD	831.000				
50157300	PROTECTIVE SHIELD	SQ YD	2,530.000				
50200100	STRUCTURE EXCAVATION	CU YD	5,295.000				
*REV 50300225	CONC STRUCT	CU YD	2,164.400				
50300255	CONC SUP-STR	CU YD	660.300				
50300260	BR DECK GROOVING	SQ YD	4,176.000				
50300280	CONCRETE ENCASMENT	CU YD	14.000				
50300300	PROTECTIVE COAT	SQ YD	5,641.000				
50500105	F & E STRUCT STEEL	L SUM	1.000				

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50500505	STUD SHEAR CONNECTORS	EACH	22,500.000				
*REV 50800205	REINF BARS, EPOXY CTD	POUND	658,060.000				
50800515	BAR SPLICERS	EACH	2,834.000				
50800530	MECHANICAL SPLICERS	EACH	504.000				
50901730	BRIDGE FENCE RAILING	FOOT	645.000				
51100100	SLOPE WALL 4	SQ YD	562.000				
51201600	FUR STL PILE HP12X53	FOOT	7,308.000				
51202305	DRIVING PILES	FOOT	7,308.000				
51203600	TEST PILE ST HP12X53	EACH	4.000				
51500100	NAME PLATES	EACH	1.000				
51602000	PERMANENT CASING	FOOT	1,093.000				
51603000	DRILLED SHAFT IN SOIL	CU YD	389.500				
51604000	DRILLED SHAFT IN ROCK	CU YD	44.000				
52000110	PREF JT STRIP SEAL	FOOT	282.000				
52100010	ELAST BEARING ASSY T1	EACH	40.000				

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52100520	ANCHOR BOLTS 1	EACH	80.000				
52100540	ANCHOR BOLTS 1 1/2	EACH	40.000				
550A0330	STORM SEW CL A 2 10	FOOT	5.000				
550A0340	STORM SEW CL A 2 12	FOOT	2,521.000				
550A0360	STORM SEW CL A 2 15	FOOT	31.000				
550A0410	STORM SEW CL A 2 24	FOOT	89.000				
55100500	STORM SEWER REM 12	FOOT	1,209.000				
55200200	STORM SEWERS JKD 12	FOOT	87.000				
56400100	FIRE HYDNTS TO BE MVD	EACH	1.000				
58700300	CONCRETE SEALER	SQ FT	12,025.000				
59100100	GEOCOMPOSITE WALL DR	SQ YD	1,182.000				
59300100	CONTR LOW-STRENG MATL	CU YD	4.000				
60100060	CONC HDWL FOR P DRAIN	EACH	1.000				
60107700	PIPE UNDERDRAINS 6	FOOT	448.000				
60107800	PIPE UNDERDRAINS 8	FOOT	213.000				



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60108200	PIPE UNDERDRAIN 6 SP	FOOT	77.000				
60200105	CB TA 4 DIA T1F OL	EACH	3.000				
60200805	CB TA 4 DIA T8G	EACH	1.000				
60201340	CB TA 4 DIA T24F&G	EACH	16.000				
60203905	CB TA 5 DIA T1F CL	EACH	1.000				
60207805	CB TC T10F&G	EACH	19.000				
60208240	CB TC T24F&G	EACH	4.000				
60218400	MAN TA 4 DIA T1F CL	EACH	4.000				
60234200	INLETS TA T1F OL	EACH	2.000				
60236200	INLETS TA T8G	EACH	1.000				
60236700	INLETS TA T10F&G	EACH	1.000				
60237470	INLETS TA T24F&G	EACH	15.000				
60250200	CB ADJUST	EACH	16.000				
60250400	CB ADJ NEW T1F OL	EACH	1.000				
60252800	CB RECONST	EACH	5.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
60255500	MAN ADJUST	EACH	29.000				
60258200	MAN RECON NEW T1F CL	EACH	6.000				
60260100	INLETS ADJUST	EACH	4.000				
60265700	VV ADJUST	EACH	4.000				
60404950	FR & GRATES T24	EACH	4.000				
60406000	FR & LIDS T1 OL	EACH	6.000				
60406100	FR & LIDS T1 CL	EACH	24.000				
60500040	REMOV MANHOLES	EACH	29.000				
60500060	REMOV INLETS	EACH	5.000				
60500070	REMOV MAN - MAIN FLOW	EACH	12.000				
60500090	REM INLET- MAIN FLOW	EACH	5.000				
60602800	CONC GUTTER TB	FOOT	610.000				
60603800	COMB CC&G TB6.12	FOOT	4,371.000				
60605000	COMB CC&G TB6.24	FOOT	5,092.000				
60608600	COMB CC&G TM6.06	FOOT	73.000				

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60610400	COMB CC&G TM6.24	FOOT	112.000				
60618300	CONC MEDIAN SURF 4	SQ FT	7,947.000				
60619200	CONC MED TSB6.06	SQ FT	34.000				
*REV 60619600	CONC MED TSB6.12	SQ FT	10,692.000				
60624600	CORRUGATED MED	SQ FT	590.000				
63000001	SPBGR TY A 6FT POSTS	FOOT	1,212.500				
63100045	TRAF BAR TERM T2	EACH	4.000				
63100070	TRAF BAR TERM T5	EACH	2.000				
63100085	TRAF BAR TERM T6	EACH	2.000				
63100167	TR BAR TRM T1 SPL TAN	EACH	4.000				
63200310	GUARDRAIL REMOV	FOOT	1,057.000				
66400505	CH LK FENCE 8	FOOT	165.000				
66900200	NON SPL WASTE DISPOSL	CU YD	20.000				
66900450	SPL WASTE PLNS/REPORT	L SUM	1.000				
66900530	SOIL DISPOSAL ANALY	EACH	2.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
67100100	MOBILIZATION	L SUM	1.000				
70103815	TR CONT SURVEILLANCE	CAL DA	487.000				
70106800	CHANGEABLE MESSAGE SN	CAL MO	112.000				
70300100	SHORT TERM PAVT MKING	FOOT	28,131.000				
70300210	TEMP PVT MK LTR & SYM	SQ FT	1,384.000				
70300220	TEMP PVT MK LINE 4	FOOT	42,860.000				
70300240	TEMP PVT MK LINE 6	FOOT	10,512.000				
70300260	TEMP PVT MK LINE 12	FOOT	341.000				
70300280	TEMP PVT MK LINE 24	FOOT	1,233.000				
70301000	WORK ZONE PAVT MK REM	SQ FT	57,250.000				
70400100	TEMP CONC BARRIER	FOOT	3,475.000				
70400200	REL TEMP CONC BARRIER	FOOT	6,237.500				
70600260	IMP ATTN TEMP FRN TL3	EACH	5.000				
70600332	IMP ATTN REL FRN TL3	EACH	8.000				
*REV 72000100	SIGN PANEL T1	SQ FT	617.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
*REV 72000200	SIGN PANEL T2	SQ FT	187.000				
72000300	SIGN PANEL T3	SQ FT	1,245.000				
*ADD 72700100	STR STL SIN SUP BA	POUND	2,370.000				
*REV 72800100	TELES STL SIN SUPPORT	FOOT	862.000				
73000100	WOOD SIN SUPPORT	FOOT	32.000				
*REV 73100100	BASE TEL STL SIN SUPP	EACH	75.000				
*ADD 73302210	OSS CANT 3CA 3-0X7-0	FOOT	40.000				
73304000	OVHD SIN STR BR MT	FOOT	62.000				
*REV 73400200	DRILL SHAFT CONC FDN	CU YD	17.300				
73602000	REM OVHD SN STR-BR MT	EACH	3.000				
*REV 78000100	THPL PVT MK LTR & SYM	SQ FT	2,645.000				
*REV 78000200	THPL PVT MK LINE 4	FOOT	28,203.000				
78000300	THPL PVT MK LINE 5	FOOT	3,398.000				
78000400	THPL PVT MK LINE 6	FOOT	14,117.000				

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*REV 78000500	THPL PVT MK LINE 8	FOOT	5,238.000				
*REV 78000600	THPL PVT MK LINE 12	FOOT	1,982.000				
78000650	THPL PVT MK LINE 24	FOOT	1,304.000				
78005100	EPOXY PVT MK LTR-SYM	SQ FT	1,456.000				
78005110	EPOXY PVT MK LINE 4	FOOT	15,275.000				
78005130	EPOXY PVT MK LINE 6	FOOT	8,855.000				
78005150	EPOXY PVT MK LINE 12	FOOT	1,090.000				
78005180	EPOXY PVT MK LINE 24	FOOT	772.000				
78008200	POLYUREA PM T1 LTR-SY	SQ FT	474.000				
78008210	POLYUREA PM T1 LN 4	FOOT	982.000				
78008230	POLYUREA PM T1 LN 6	FOOT	2,445.000				
78100100	RAISED REFL PAVT MKR	EACH	847.000				
78100105	RAISED REF PVT MKR BR	EACH	30.000				
78200410	GUARDRAIL MKR TYPE A	EACH	25.000				
78200530	BAR WALL MKR TYPE C	EACH	278.000				

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78201000	TERMINAL MARKER - DA	EACH	4.000				
78300100	PAVT MARKING REMOVAL	SQ FT	41,879.000				
78300200	RAISED REF PVT MK REM	EACH	877.000				
80500010	SERV INSTALL GRND MT	EACH	1.000				
80500020	SERV INSTALL POLE MT	EACH	3.000				
81028200	UNDRGRD C GALVS 2	FOOT	11,700.000				
81028210	UNDRGRD C GALVS 2 1/2	FOOT	357.000				
81028220	UNDRGRD C GALVS 3	FOOT	4,618.000				
81028240	UNDRGRD C GALVS 4	FOOT	2,016.000				
*REV 81028350	UNDRGRD C PVC 2	FOOT	252.000				
*REV 81028370	UNDRGRD C PVC 3	FOOT	1,804.000				
81028730	UNDRGRD C CNC 1 1/4	FOOT	355.000				
81100320	CON AT ST 1 PVC GS	FOOT	1,350.000				
81100605	CON AT ST 2 PVC GALVS	FOOT	1,112.000				
81100705	CON AT ST 2.5 PVC GS	FOOT	1,335.000				

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81100805	CON AT ST 3 PVC GALVS	FOOT	30.000				
81101005	CON AT ST 4 PVC GALVS	FOOT	267.000				
81200230	CON EMB STR 2 PVC	FOOT	1,185.000				
81300220	JUN BX SS AS 6X6X4	EACH	16.000				
81300530	JUN BX SS AS 12X10X6	EACH	20.000				
81300550	JUN BX SS AS 12X12X6	EACH	4.000				
81300730	JUN BX SS AS 16X14X6	EACH	2.000				
81400100	HANDHOLE	EACH	26.000				
81400200	HD HANDHOLE	EACH	43.000				
81400300	DBL HANDHOLE	EACH	7.000				
81603080	UD 3#2#4GXLP USE 1 1/4	FOOT	28,828.000				
81702110	EC C XLP USE 1C 10	FOOT	5,341.000				
81702140	EC C XLP USE 1C 4	FOOT	1,074.000				
81702150	EC C XLP USE 1C 2	FOOT	3,222.000				
81702220	EC C XLP USE 1C 350	FOOT	1,275.000				



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81800300	A CBL 3-1C2 MESS WIRE	FOOT	6,663.000				
82102250	LUM SV HOR MT 250W	EACH	7.000				
82102400	LUM SV HOR MT 400W	EACH	48.000				
82107200	UNDERPAS LUM 100W HPS	EACH	16.000				
83050760	LT P A 47.5MH 8MA	EACH	23.000				
83050770	LT P A 47.5MH 10MA	EACH	11.000				
83057355	LT P WD 60 CL4 15MA	EACH	7.000				
83057475	LT P WD 90 CL3 15MA	EACH	4.000				
83600200	LIGHT POLE FDN 24D	FOOT	352.000				
83800205	BKWY DEV TR B 15BC	EACH	25.000				
84100110	REM TEMP LIGHT UNIT	EACH	18.000				
84200600	REM LT U NO SALV	EACH	34.000				
84200804	REM POLE FDN	EACH	37.000				
84400105	RELOC EX LT UNIT	EACH	19.000				
84500110	REMOV LIGHTING CONTR	EACH	1.000				

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84500130	REMOV LTG CONTR FDN	EACH	2.000				
85000200	MAIN EX TR SIG INSTAL	EACH	1.000				
85800100	FL CONT	EACH	6.000				
86000300	MASTER CONT IN T5 CAB	EACH	1.000				
86400100	TRANSCEIVER - FIB OPT	EACH	4.000				
87000885	ECA C XLPTC 2C 6 8	FOOT	4,096.000				
87300925	ELCBL C TRACER 14 1C	FOOT	7,639.000				
87301125	ELCBL C SIGNAL 12 3C	FOOT	80.000				
87301215	ELCBL C SIGNAL 14 2C	FOOT	3,401.000				
87301225	ELCBL C SIGNAL 14 3C	FOOT	3,402.000				
87301245	ELCBL C SIGNAL 14 5C	FOOT	9,319.000				
87301255	ELCBL C SIGNAL 14 7C	FOOT	4,637.000				
87301305	ELCBL C LEAD 14 1PR	FOOT	14,605.000				
87301727	ELCBL C COMM 19 6C	FOOT	3,566.000				
87301805	ELCBL C SERV 6 2C	FOOT	329.000				

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87301900	ELCBL C EGRDC 6 1C	FOOT	3,443.000				
87502440	TS POST GALVS 10	EACH	2.000				
87502480	TS POST GALVS 14	EACH	10.000				
87502500	TS POST GALVS 16	EACH	4.000				
*REV 87502710	TS POST A 17	EACH	16.000				
87700130	S MAA & P 18	EACH	1.000				
87700160	S MAA & P 24	EACH	2.000				
87700180	S MAA & P 28	EACH	1.000				
87700220	S MAA & P 36	EACH	2.000				
87700230	S MAA & P 38	EACH	1.000				
87700250	S MAA & P 42	EACH	1.000				
87700280	S MAA & P 48	EACH	1.000				
87702850	STL COMB MAA&P 24	EACH	2.000				
87702880	STL COMB MAA&P 30	EACH	1.000				
87702890	STL COMB MAA&P 32	EACH	1.000				

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87702910	STL COMB MAA&P 36	EACH	1.000				
87702960	STL COMB MAA&P 46	EACH	1.000				
87703040	STL COMB MAA&P 62	EACH	1.000				
87703080	STL COMB MAA&P 68	EACH	1.000				
87800100	CONC FDN TY A	FOOT	74.000				
87800150	CONC FDN TY C	FOOT	16.000				
87800200	CONC FDN TY D	FOOT	12.000				
87800400	CONC FDN TY E 30D	FOOT	40.000				
87800415	CONC FDN TY E 36D	FOOT	127.000				
87800420	CONC FDN TY E 42D	FOOT	46.000				
87900200	DRILL EX HANDHOLE	EACH	28.000				
88000105	FLASH BEACON INSTALL	EACH	6.000				
88030020	SH LED 1F 3S MAM	EACH	29.000				
88030050	SH LED 1F 3S BM	EACH	11.000				
88030100	SH LED 1F 5S BM	EACH	4.000				

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88030110	SH LED 1F 5S MAM	EACH	15.000				
88030240	SH LED 2F 1-3 1-5 BM	EACH	1.000				
88030310	SH LED 3F 3S BM	EACH	1.000				
*REV 88040070	SH P LED 1F 3S BM	EACH	17.000				
88040090	SH P LED 1F 3S MAM	EACH	24.000				
88040110	SH P LED 1F 4S BM	EACH	3.000				
88040120	SH P LED 1F 4S MAM	EACH	3.000				
88040150	SH P LED 1F 5S BM	EACH	7.000				
88040160	SH P LED 1F 5S MAM	EACH	4.000				
88055160	OPSH LED 1F 3S MAM	EACH	2.000				
88055165	OPSH LED 1F 4S BM	EACH	2.000				
88055170	OPSH LED 1F 4S MAM	EACH	2.000				
88102717	PED SH LED 1F BM CDT	EACH	12.000				
88102757	PED SH LED 3F BM CDT	EACH	2.000				
88102825	PED SH P LED 1F BM CT	EACH	28.000				

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88200210	TS BACKPLATE LOU ALUM	EACH	44.000				
88500100	INDUCTIVE LOOP DETECT	EACH	50.000				
88600100	DET LOOP T1	FOOT	2,717.000				
88800100	PED PUSH-BUTTON	EACH	18.000				
89000100	TEMP TR SIG INSTALL	EACH	6.000				
89502300	REM ELCBL FR CON	FOOT	22,164.000				
89502375	REMOV EX TS EQUIP	EACH	3.000				
89502380	REMOV EX HANDHOLE	EACH	43.000				

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**FAILURE TO OPEN TRAFFIC LANES TO TRAFFIC**

Effective: March 22, 1996

Revised: February 9, 2005

Should the Contractor fail to completely open and keep open all the traffic lanes to traffic in accordance with the limitations specified under the Special Provisions for "Keeping the Expressway Open to Traffic", the Contractor shall be liable to the Department for the amount of:

One lane or ramp blocked = **\$ 3,000.00 / 15 minutes**

Two lanes blocked = **\$ 6,000 / 15 minutes**

Not as a penalty but as liquidated and ascertained damages for each and every 15 minute interval or a portion thereof that a lane is blocked outside the allowable time limitations. Such damages may be deducted by the Department from any monies due the Contractor. These damages shall apply during the contract time and during any extensions of the contract time.

**TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)**

Effective: 3/8/96

Revised: 2/20/13

Description. This work shall include furnishing, installing, maintaining, replacing, relocating, and removing all traffic control devices used for the purpose of regulating, warning, or directing traffic. Traffic control and protection shall be provided as called for in the plans, applicable Highway Standards, District One Expressway details, Standards and Supplemental Specifications, these Special Provisions, or as directed by the Engineer.

General. The governing factor in the execution and staging of work for this project is to provide the motoring public with the safest possible travel conditions on the expressway through the construction zone. The Contractor shall arrange his operations to keep the closing of lanes and/or ramps to a minimum.

The Contractor shall be responsible for the proper location, installation, and arrangement of all traffic control devices. Special attention shall be given to existing warning signs and overhead guide signs during all construction operations. Warning signs and existing guide signs with down arrows shall be kept consistent with the barricade placement at all times. The Contractor shall immediately remove, completely cover, or turn from the motorist's view all signs which are inconsistent with lane assignment patterns.

The Contractor shall coordinate all traffic control work on this project with adjoining or overlapping projects, including barricade placement necessary to provide a uniform traffic detour pattern. When directed by the Engineer, the Contractor shall remove all traffic control devices that were furnished, installed, or maintained by him under this contract, and such devices shall remain the property of the Contractor. All traffic control devices shall remain in place until specific authorization for relocation or removal is received from the Engineer.

Additional requirements for traffic control devices shall be as follows.

Revised 4-16-2013



(a) Traffic Control Setup and Removal. The setting and removal of barricades for the taper portion of a lane closure shall be done under the protection of a vehicle with a crash attenuator and arrow board. The attenuator vehicle shall be positioned in the live lane that is being closed or opened in advance of the workers and shall have the arrow panel directing traffic to the adjacent open lane. Failure to meet this requirement will subject to a Traffic Control Deficiency charge. The deficiency will be calculated as outlined in Article 105.03 of the Standard Specifications. Truck/trailer mounted attenuators shall comply with Article 1106.02(g) or shall meet the requirements of NCHRP 350 Test Level 3 with vehicles used in accordance with manufacturer's recommendations and requirements.

(b) Sign Requirements

(1) Sign Maintenance. Prior to the beginning of construction operations, the Contractor will be provided a sign log of all existing signs within the limits of the construction zone. The Contractor is responsible for verifying the accuracy of the sign log. Throughout the duration of this project, all existing traffic signs shall be maintained by the Contractor. All provisions of Article 107.25 of the Standard Specifications shall apply except the third paragraph shall be revised to read: "The Contractor shall maintain, furnish, and replace at his own expense, any traffic sign or post which has been damaged or lost by the Contractor or a third party. The Contractor will not be held liable for third party damage to large freeway guide signs".

(2) Work Zone Speed Limit Signs. Work zone speed limit signs shall be installed as required in Article 701.14(b) and as shown in the plans and Highway Standards. Based upon the existing posted speed limit, work zone speed limits shall be established and signed as follows.

a. Existing Speed Limit of 55mph or higher. The initial work zone speed limit assembly, located approximately 3200' before the closure, shall be 55mph as shown in 701400. Additional work zone 45mph assemblies shall be used as required according to Article 701.14(b) and as shown in the Highway Standards and plans. WORK ZONE SPEED LIMIT 55 PHOTO ENFORCED assemblies may be omitted when this assembly would normally be placed within 1500 feet of the END WORK ZONE SPEED LIMIT sign.

b. Existing Speed Limit of 45mph. The advance 55mph work zone speed limit assembly shown in 701400 shall be replaced with a 45mph assembly. Additional work zone 45mph assemblies shall be used as required according to Article 701.14(b) and as shown in the Highway Standards and plans. WORK ZONE SPEED LIMIT 55 PHOTO ENFORCED assemblies shall be eliminated in all cases. END WORK ZONE SPEED LIMIT signs are required.

(3) Exit Signs. The exit gore signs as shown in Standard 701411 shall be a minimum size of 48 inch by 48 inch with 12 inch capital letters and a 20 inch arrow. EXIT OPEN AHEAD signs shown in Standard 701411 shall be a minimum size of 48 inch by 48 inch with 8 inch capital letters.

Revised 4-16-2013

- (4) Uneven Lanes Signs. The Contractor shall furnish and erect "UNEVEN LANES" signs (W8-11) on both sides of the expressway, at any time when the elevation difference between adjacent lanes open to traffic equals or exceeds one inch. Signs shall be placed 500' in advance of the drop-off, within 500' of every entrance, and a minimum of every mile.
- (c) Drums/Barricades. Check barricades shall be placed in work areas perpendicular to traffic every 1000', one per lane and per shoulder, to prevent motorists from using work areas as a traveled way. Check barricades shall also be placed in advance of each open patch, or excavation, or any other hazard in the work area, the first at the edge of the open traffic lane and the second centered in the closed lane. Check barricades, either Type I or II, or drums shall be equipped with a flashing light.
- To provide sufficient lane widths (10' minimum) for traffic and also working room, the Contractor shall furnish and install vertical barricades with steady burn lights, in lieu of Type II or drums, along the cold milling and asphalt paving operations. The vertical barricades shall be placed at the same spacing as the drums.
- (d) Vertical Barricades. Vertical barricades shall not be used in lane closure tapers, lane shifts, and exit ramp gores. Also, vertical barricades shall not be used as patch barricades or check barricades. Special attention shall be given, and ballast provided per manufacture's specification, to maintain the vertical barricades in an upright position and in proper alignment.
- (e) Temporary Concrete Barrier Wall. 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).

Method of Measurement. This item of work will be measured on a lump sum basis for furnishing, installing, maintaining, replacing, relocating, and removing traffic control devices required in the plans and these Special Provisions. Traffic control and protection required under Standards 701101, 701400, 701401, 701402, 701406, 701411, 701416, 701426, 701446, 701901 and District details TC-8, TC-9, TC-17, TC-18 and TC-25 will be included with this item.

Basis of Payment.

- (a) This work will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS). This price shall be payment in full for all labor, materials, transportation, handling, and incidental work necessary to furnish, install, maintain, replace, relocate, and remove all Expressway traffic control devices required in the plans and specifications.

In the event the sum total value of all the work items for which traffic control and protection is required is increased or decreased by more than ten percent (10%), the contract bid price for TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS) will be adjusted as follows:

Revised 4-16-2013

Adjusted contract price =  $.25P + .75P [1 \pm (X-0.1)]$

Where: "P" is the bid unit price for Traffic Control and Protection

Where: "X" = 
$$\frac{\text{Difference between original and final sum total value of all work items for which traffic control and protection is required}}{\text{Original sum total value of all work items for which traffic control and protection is required.}}$$

The value of the work items used in calculating the increase and decrease will include only items that have been added to or deducted from the contract under Article 104.02 of the Standard Specifications and only items which require use of Traffic Control and Protection.

- (b) The Engineer may require additional traffic control be installed in accordance with standards and/or designs other than those included in the plans. In such cases, the standards and/or designs will be made available to the Contractor at least one week in advance of the change in traffic control. Payment for any additional traffic control required will be in accordance with Article 109.04 of the Standard Specifications.
- (c) Revisions in the phasing of construction or maintenance operations, requested by the Contractor, may require traffic control to be installed in accordance with standards and/or designs other than those included in the plans. Revisions or modifications to the traffic control shown in the contract shall be submitted by the Contractor for approval by the Engineer. No additional payment will be made for a Contractor requested modification.
- (d) Temporary concrete barrier wall will be measured and paid for according to Section 704.
- (e) Impact attenuators, temporary bridge rail, and temporary rumble strips will be paid for separately.
- (f) Temporary pavement markings shown not shown on the Standard will be measured and paid for according to Section 703 and Section 780.
- (g) All pavement marking removal will be measured and paid for according to Section 703 or Section 783.
- (h) Temporary pavement marking on the lower slope of the temporary concrete barrier wall will be measured and paid for as TEMPORARY PAVEMENT MARKING, 6".
- (i) All prismatic barrier wall reflectors will be measured and paid for according to the Recurring Special Provision Guardrail and Barrier Wall Delineation.

Revised 4-16-2013

Control Charts/Limits.

Add the following to Control Limits table in Article 1030.04(d)(4) of the Standard Specifications:

Parameter	Individual Test	Moving Average
% Passing		
No. 16 (1.18 mm)	± 4%	± 3%
No. 200 (75 µm)	± 1.5%	± 1.0%
Asphalt Binder Content	± 0.3%	± 0.2%
Air Voids	± 1.2% (of design)	± 1.0% (of design)
No. 200 (75 µm)	± 1.5%	± 1.0%

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

Effective: November 1, 2012

Revise: January 2, 2013

Revise Section 1031 of the Standard Specifications to read:

**“SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES**

**1031.01 Description.** Reclaimed asphalt pavement and reclaimed asphalt shingles shall be according to the following.

- (a) Reclaimed Asphalt Pavement (RAP). RAP is the material resulting by cold milling or crushing an existing hot-mix asphalt (HMA) pavement. RAP will be considered processed FRAP after completion of both crushing and screening to size. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.
- (b) Reclaimed Asphalt Shingles (RAS). Reclaimed asphalt shingles (RAS). RAS is from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material, as defined in Bureau of Materials and Physical Research Policy Memorandum “Reclaimed Asphalt Shingle (RAS) Sources”, by weight of RAS. All RAS used shall come from a Bureau of Materials and Physical Research approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 90 percent passing the #4 (4.75 mm) sieve . RAS shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.
  - (1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.
  - (2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP). **Revised 4-16-2013**

**1031.02 Stockpiles.** RAP and RAS stockpiles shall be according to the following.

(a) RAP Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP shall be added to the pile after the pile has been sealed. Stockpiles shall be sufficiently separated to prevent intermingling at the base. All stockpiles (including unprocessed RAP and Processed FRAP) shall be identified by signs indicating the type as listed below (i.e. "Non- Quality, FRAP -#4 or Type 2 RAS", etc...).

- (1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, Superpave HMA (High and Low ESAL) or equivalent mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. All FRAP shall be processed prior to testing sized into fractions with the separation occurring on or between the #4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP in the coarse fraction shall pass the maximum sieve size specified for the mix the RAP will be used in.
- (2) Restricted FRAP (B quality) stockpiles shall consist of RAP from Class I, Superpave (High ESAL), or HMA (High ESAL). If approved by the Engineer, the aggregate from a maximum 3.0 inch single combined pass of surface/binder milling will be classified as B quality. All millings from this application will be processed into FRAP as described previously.
- (3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, Superpave HMA (High and Low ESAL) or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate RAP shall be processed (FRAP) prior to testing. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (4) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from HMA shoulders, bituminous stabilized subbases or Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder mixture. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an inconsistent gradation and/or asphalt binder content. Conglomerate DQ RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (5) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP/FRAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, plant cleanout etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

**Revised 4-16-2013**

- (b) RAS Stockpiles. The Contractor shall construct individual, sealed RAS stockpiles meeting one of the following definitions. No additional RAS shall be added to the pile after the pile has been sealed. Type 1 and Type 2 RAS shall be stockpiled separately and shall be sufficiently separated to prevent intermingling at the base. Each stockpile shall be signed indicating what type of RAS is present.

However, a RAS source may submit a written request to the Department for approval to blend mechanically a specified ratio of type 1 RAS with type 2 RAS. The source will not be permitted to change the ratio of the blend without the Department prior written approval. The Engineer's written approval will be required, to mechanically blend RAS with any fine aggregate produced under the AGCS, up to an equal weight of RAS, to improve workability. The fine aggregate shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The fine aggregate shall be one that is approved for use in the HMA mixture and accounted for in the mix design and during HMA production.

Records identifying the shingle processing facility supplying the RAS, RAS type and lot number shall be maintained by project contract number and kept for a minimum of three years.

**1031.03 Testing.** RAP/FRAP and RAS testing shall be according to the following.

- (a) RAP/FRAP Testing. When used in HMA, the RAP/FRAP shall be sampled and tested either during processing or after stockpiling.

(1) During Stockpiling. For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).

(2) After Stockpiling. For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP/FRAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Before extraction, each field sample whether RAP or FRAP, shall be split to obtain two samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedure. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

- (b) RAS Testing. RAS shall be sampled and tested either during or after stockpiling.

During stockpiling, washed extraction, and testing for unacceptable materials shall be run at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1000 tons (900 metric tons) and one sample per 1000 tons (900 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). Once a  $\leq 1000$  ton (900 metric ton), five-sample/test stockpile has been established it shall be sealed. Additional incoming RAS shall be stockpiled in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.

Before extraction, each field sample shall be split to obtain two samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

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

- (a) Evaluation of RAP/FRAP Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation and, when applicable (for slag)  $G_{mm}$ . Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	RAP or FRAP	Conglomerate "D" Quality RAP
1 in. (25 mm)		$\pm 5 \%$
1/2 in. (12.5 mm)	$\pm 8 \%$	$\pm 15 \%$
No. 4 (4.75 mm)	$\pm 6 \%$	$\pm 13 \%$
No. 8 (2.36 mm)	$\pm 5 \%$	
No. 16 (1.18 mm)		$\pm 15 \%$
No. 30 (600 $\mu$ m)	$\pm 5 \%$	
No. 200 (75 $\mu$ m)	$\pm 2.0 \%$	$\pm 4.0 \%$
Asphalt Binder	$\pm 0.4 \%$ <sup>1/</sup>	$\pm 0.5 \%$
$G_{mm}$	$\pm 0.03$ <sup>2/</sup>	

1/ The tolerance for FRAP shall be  $\pm 0.3 \%$ .

2/ For slag and steel slag

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, the RAP/FRAP shall not be used in HMA unless the RAP/FRAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the Illinois Test Procedure, "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)". **Revised 4-16-2013**

- (b) Evaluation of RAS Test Results. All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content and gradation. Individual test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	RAS
No. 8 (2.36 mm)	± 5 %
No. 16 (1.18 mm)	± 5 %
No. 30 (600 µm)	± 4 %
No. 200 (75 µm)	± 2.0 %
Asphalt Binder Content	± 1.5 %

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, the RAS shall not be used in Department projects unless the RAS, RAP or FRAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

**1031.05 Quality Designation of Aggregate in RAP/FRAP.**

- (a) RAP. The aggregate quality of the RAP for homogenous, conglomerate, and conglomerate "D" quality stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.
- (1) RAP from Class I, Superpave (High ESAL)/HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.
  - (2) RAP from Superpave (High ESAL)/HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.
  - (3) RAP from Class I, Superpave (High ESAL)/HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.
  - (4) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.
- (b) FRAP. If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.



If the quality is not known, the quality shall be determined as follows. Fractionated RAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant prequalified by the Department for the specified testing. The consultant shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the BMR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications. The fine aggregate portion of the fractionated RAP shall not be used in any HMA mixtures that require a minimum of "B" quality aggregate or better, until the coarse aggregate fraction has been determined to be acceptable thru a MicroDeval Testing.

**1031.06 Use of RAS, RAP or FRAP in HMA.** The use of RAS, RAP or FRAP shall be a Contractor's option when constructing HMA in all contracts.

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

- (1) Coarse Aggregate Size (after extraction). The coarse aggregate in all RAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.
- (2) Steel Slag Stockpiles. RAP/FRAP stockpiles containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in HMA (High ESAL and Low ESAL) mixtures regardless of lift or mix type.
- (3) Use in HMA Surface Mixtures (High and Low ESAL). RAP/FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall have coarse aggregate that is Class B quality or better. RAP/FRAP shall be considered equivalent to limestone for frictional considerations unless produced/screened to minus 3/8 inch.
- (4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP/FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP in which the coarse aggregate is Class C quality or better.
- (5) Use in Shoulders and Subbase. RAP/FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be RAP, Restricted FRAP, conglomerate, or conglomerate DQ.

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

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

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When the Contractor chooses the RAP option, the percentage of the percentage of virgin asphalt binder replaced by the asphalt binder from the RAP shall not exceed the percentages indicated in the table below for a given N Design:

**Max Asphalt Binder Replacement RAP Only**  
 Table 1

HMA Mixtures <sup>1/, 2/</sup>	Maximum % Asphalt Binder replacement (ABR)		
	Ndesign	Binder/Leveling Binder	Surface
30L	25	15	10
50	25	15	10
70	15	10	10
90	10	10	10
105	10	10	10
4.75 mm N-50			15
SMA N-80			10

- 1/ For HMA “All Other” (shoulder and stabilized subbase) N-30, the percent asphalt binder replacement shall not exceed 50% of the total asphalt binder in the mixture.
- 2/ When the asphalt binder replacement exceeds 15 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent binder replacement would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). When constructing full depth HMA and the ABR is less than 15 percent, the required virgin asphalt binder grade shall be PG64-28.

When the Contractor chooses either the RAS or FRAP option, the percent binder replacement shall not exceed the amounts indicated in the tables below for a given N Design.

**Max Asphalt Binder Replacement RAS or FRAP**  
 Table 2

HMA Mixtures <sup>1/, 2/</sup>	Maximum % ABR		
	Ndesign	Binder/Leveling Binder	Surface
30L	35	30	15
50	30	25	15
70	30	20	15
90	20	15	15
105	20	15	15
4.75 mm N-50			25
SMA N-80			15

- 1/ For HMA “All Other” (shoulder and stabilized subbase) N-30, the percent asphalt binder replacement shall not exceed 50% of the total asphalt binder in the mixture.

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

3/ When the ABR for SMA is 15 percent or less, the required virgin asphalt binder grade shall be SBS PG76-22.

4/ When the ABR for IL-4.75 mix is 15 percent or less, the required virgin asphalt binder grade shall be SBS PG76-22. When the ABR for the IL-4.75 mix exceeds 15 percent, the virgin asphalt binder grade shall be SBS PG70-28.

When the Contractor chooses the RAS with FRAP combination, the percent asphalt binder replacement shall split equally between the RAS and the FRAP, and the total replacement shall not exceed the amounts indicated in the tables below for a given N Design.

Max Asphalt Binder Replacement RAS and FRAP Combination  
 Table 3

HMA Mixtures <sup>1/, 2/</sup>	Maximum % ABR		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified <sup>3/, 4/</sup>
30L	50	40	30
50	40	35	30
70	40	30	30
90	40	30	30
105	40	30	30
4.75 mm N-50			40
SMA N-80			30

1/ For HMA "All Other" (shoulder and stabilized subbase) N-30, the percent asphalt binder replacement shall not exceed 50% of the total asphalt binder in the mixture.

2/ When the binder replacement exceeds 15 percent for all mixes, except for SMA and IL-4.75, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent binder replacement will require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

3/ When the ABR for SMA is 15 percent or less, the required virgin asphalt binder shall be SBS PG76-22. When the ABR for SMA exceeds 15%, the virgin asphalt binder grade shall be SBS PG70-28.

4/ When the ABR for IL-4.75 mix is 15 percent or less, the required virgin asphalt binder grade shall be SBS PG76-22. When the ABR for the IL-4.75 mix exceeds 15 percent, the virgin asphalt binder grade shall be SBS PG70-28.

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**1031.07 HMA Mix Designs.** At the Contractor's option, HMA mixtures may be constructed utilizing RAP/FRAP and/or RAS material meeting the above detailed requirements.

All HMA mixtures will be required to be tested, prior to submittal for Department verification, according to Illinois Modified AASHTO T324 (Hamburg Wheel) and shall meet the following requirements:

Asphalt Binder Grade	# Repetitions	Max Rut Depth (mm)
PG76-XX	20,000	12.5
PG70-XX	20,000	12.5
PG64-XX	10,000	12.5
PG58-XX	10,000	12.5
PG52-XX	10,000	12.5
PG46-XX	10,000	12.5

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

**1031.08 HMA Production.** All HMA mixtures shall be sampled within the first 500 tons (450 metric tons) on the first day of production or during start up with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day's production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture demonstrates conformance prior to start of mix production for a contract.

To remove or reduce agglomerated material, a scalping screen, gator, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAS, RAP and FRAP feed system to remove or reduce oversized material. If material passing the sizing device adversely affects the mix production or quality of the mix, the sizing device shall be set at a size specified by the Engineer.

If the RAS, RAP and FRAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAS, RAP or FRAP and either switch to the virgin aggregate design or submit a new RAS, RAP or FRAP design.

- (a) RAP/FRAP. The coarse aggregate in all RAP/FRAP used shall be equal to or less than the maximum size requirement for the HMA mixture being produced.
- (b) RAS. RAS shall be incorporated into the HMA mixture either by a separate weight depletion system or by using the RAP weigh belt. Either feed system shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. The portion of RAS shall be controlled accurately to within  $\pm 0.5$  percent of the amount of RAS utilized. When using the weight depletion system, flow indicators or sensing devices shall be provided and interlocked with the plant controls such that the mixture production is halted when RAS flow is interrupted.

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(c) RAS, RAP and FRAP. HMA plants utilizing RAS, RAP and FRAP shall be capable of automatically recording and printing the following information.

(1) Dryer Drum Plants.

- a. Date, month, year, and time to the nearest minute for each print.
- b. HMA mix number assigned by the Department.
- c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
- d. Accumulated dry weight of RAS, RAP and FRAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
- e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
- f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.
- g. Residual asphalt binder in the RAS, RAP and FRAP material as a percent of the total mix to the nearest 0.1 percent.
- h. Aggregate RAS, RAP and FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAS, RAP and FRAP are printed in wet condition.)
- i. When producing mixtures with FRAP and/or RAS, a positive dust control system shall be utilized.
- j. Accumulated mixture tonnage.
- k. Dust Removed (accumulated to the nearest 0.1 ton)

(2) Batch Plants.

- a. Date, month, year, and time to the nearest minute for each print.
- b. HMA mix number assigned by the Department.
- c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).
- d. Mineral filler weight to the nearest pound (kilogram).
- f. RAS, RAP and FRAP weight to the nearest pound (kilogram).
- g. Virgin asphalt binder weight to the nearest pound (kilogram).
- h. Residual asphalt binder in the RAS, RAP and FRAP material as a percent of the total mix to the nearest 0.1 percent.

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

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

- (a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Non-Quality" and "FRAP". The testing requirements of Article 1031.03 shall not apply.
- (b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded, FRAP, or single sized will not be accepted for use as Aggregate Surface Course and Aggregate Shoulders."

### **TEMPORARY PAVEMENT**

Effective: March 1, 2003

Revised: April 10, 2008

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 according to Sections 353 and 354 of the Standard Specifications or HMA according to Sections 355, 356, 406 of the Standard Specifications, and other applicable 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.

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

The removal of the Temporary Pavement, if required, shall conform to Section 440 of the Standard Specification.

Method of Measurement. Temporary pavement will be measured in place and the area computed in square yards (square meters).

Basis of Payment. This work will be paid for at the contract unit price per square yard (square meter) for TEMPORARY PAVEMENT.

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

Revised 4-16-2013

Revise the second paragraph of Article 407.12 of the Standard Specifications to read:

“Prime Coat will be paid for at the contract unit price per gallon (liter) or per ton (metric ton) for BITUMINOUS MATERIALS (PRIME COAT).”

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

Effective: January 1, 2002

Revised: January 1, 2004

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 115 m<sup>2</sup> (1240 sq. ft.) with a minimum of two 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 second sentence of the fourth paragraph of this Article to read:

Solid waste disposal consisting of seven 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.

Revise the fifth paragraph of this Article to read:

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

Revise subparagraph (a) of this Article to read:

(a) Twelve desks with minimum working surface 1.1 m x 750 mm (42 in. x 30 in.) each and twelve non-folding chairs with upholstered seats and backs.

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 ½ in. x 48 in.).

Revise subparagraph (d) of this Article to read:

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

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Revise subparagraph (e) of this Article to read:

(e) Eight folding chairs.

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:

(i) Four telephones, with touch tone, where available, two telephone answering machines, and five telephone lines including one line for the fax machine, and two lines for the exclusive use of the Engineer.

Revise subparagraph (j) of this Article to read:

(j) 1 dry process copy machine capable of reproducing prints up to 280 mm x 430 mm (11 in. x 17 in.) from nontransparent master sheets, as black or blue lines on white paper, including maintenance, reproduction paper, activating agent and power source.

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) One electric water cooler dispenser including water service.

Add the following subparagraphs to this Article:

(n) One 1.2m x 1.8m (4 ft. x 6 ft.) chalkboard or dry erase board.

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.

## **SUPPLEMENTAL WATERING**

Scope: This work will include watering turf, trees, shrubs, vines and perennial plants at the rates specified and as directed by the Engineer.

Schedule: See the plans for supplemental watering dates. Watering will only begin after the successful completion of all period of establishment requirements.

Watering must be completed in a timely manner. When the Engineer directs the Contractor to do supplemental watering, the Contractor must begin the watering operation within 24 hours of notice. A minimum of 10 units of water per day must be applied until the work is complete. Damage to plant material that is a result of the Contractor's failure to water in a timely way must be repaired or replaced at the Contractor's expense.

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Method of Measurement. STABILIZED CONSTRUCTION ENTRANCE will be measured for payment and the area calculated in square yards. Aggregate used for maintenance of the entrance shall be considered as included in the contract unit price for STABILIZED CONSTRUCTION ENTRANCE.

Basis of Payment. Payment for STABILIZED CONSTRUCTION ENTRANCE will be made at the Contract unit price per square yard, measured as specified, which payment shall constitute full compensation for furnishing, transporting and placing the materials specified, including all overhangs, cutting and trimming.

## **TEST HOLES**

### Description.

This item shall consist of excavation for the purpose of locating existing utilities at locations where conflict is possible with the proposed construction.

### Construction Requirements

Test holes will be dug at locations authorized by the Engineer. The Contractor shall be responsible for notifying the utility concerned.

After the Engineer has verified the location of the utility, the test hole shall be backfilled with either the excavated material or crushed limestone with CA-7 gradation, as directed by the Engineer. Any excess material shall be disposed of in accordance with Article 202.03.

### Basis of Payment.

This item shall not be paid for separately, but shall be included in the contract unit price for STORM SEWERS of the type and diameter specified. No separate payment will be made for stone used to backfill the test holes.

## **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 shall be performed according to Article 107.12 of the Standard Specifications and the following additional CTA requirements:

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

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

2. NOTIFICATION TO CTA

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- A. After the letting of the contract and prior to performing any work, the CTA Representative shall be notified by the Department to attend the preconstruction meeting. In this meeting, the Contractor shall confer with the CTA's Representative regarding the CTA's requirements for the protection of clearances, operations and safety.
- B. Prior to the start of any work on or over the CTA's right-of-way, the Contractor shall meet with the CTA Representative to determine his requirements for flagmen and all other necessary items related to the work activities on, over and next to the CTA facilities and to receive CTA's approval for the Contractor's proposed operations.
- C. The Contractor shall notify the CTA Representative 72-hours in advance of the time he intends to enter upon the CTA right-of-way for the performance of any work.

3. PROTECTION OF THE CTA TRAFFIC:

- A. The CTA will be operating trains during the construction of this project. The rail yard operations are 24 hours per day, seven days per week.
- B. The Contractor shall, at all times, take special care to conduct his operations over, under, adjacent to, or adjoining the CTA facilities in such a manner as to prevent settlement, damage or displacement or damage to any CTA structures, equipment, tracks or portions thereof, and to prevent interruption of train service.
- C. Any damage to the tracks or other CTA facilities caused by the Contractor's operations shall be replaced or repaired by the CTA at the Contractor's expense. Repair costs paid by the Contractor will not be reimbursed.

4. REIMBURSEMENT OF COSTS:

- A. The cost of all flagmen, engineering inspection, switchmen, and other workmen furnished by the CTA and authorized by the Resident Engineer shall be paid for directly to the CTA by the contractor.
- B. The amount paid to the Contractor shall be the amount charged to the Contractor for all authorized CTA charges including CTA additive rates audited and accepted by the Department, according to Article 107.12 and Article 109.05 of the Standard Specifications.
- C. Following approval of the CTA invoices by the Department, the Contractor shall pay all monies to the CTA as invoiced and shall submit to the Department certified and notarized evidence of the amount of payments. No overhead or profit will be allowed on these payments.
- D. The Department will not be liable for any delays by the CTA in providing flagmen or other service required by this special provision.

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5. Whenever any work, such as temporary shoring and erection procedures for spans over the CTA track, in the opinion of the CTA's inspector, may affect the safety of the trains and the continuity of the CTA's operations, the methods of performing such work shall first be submitted to the CTA for approval. If operations by the Contractor during construction are determined by the CTA's inspector to be hazardous to the CTA's operations, the Contractor shall suspend such work until reasonable remedial measures, and / or alternate methods, satisfactory to the CTA, are taken. Such remedial measures may include obtaining the services of the CTA personnel so that adequate protection may be provided.
6. CTA OPERATING REQUIREMENTS:  
Operating requirements of the CTA, while work on this project is in progress, are as follows:
  - A. Work that is adjacent to or over the CTA operating tracks, requiring CTA flagmen, is to be done during the following hours:  
  
Monday through Saturday, inclusive – 7:00 p.m. to 5:00 a.m.  
Sunday 12:00 a.m. to Monday 5:00 a.m.
  - B. As much work as possible is to be done under normal CTA operating conditions (under traffic) without disruption of train movements. A maximum interruption of service to the CTA traffic of 15 minutes or as agreed upon with the CTA will be allowed. No interruption to CTA service will be allowed unless approved in writing by the CTA.
  - C. In order to request for single track (taking one track out of service), the Contractor, through the Resident Engineer, shall notify the CTA Representative twenty eight (28) working days in advance of the proposed interruptions.
  - D. Interruptions will be provided solely at the CTA discretion, depending upon the transit service demands for special events and possible conflicts with prior commitments to other work scheduled on the same route.
  - E. No more than one service interruption will be allowed simultaneously on this CTA line
  - F. If the Contractor is unable to return the CTA track to normal operation on time, liquidated damages shall be paid directly to the CTA by the Contractor as noted below:  
  
From 1 Minute to 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
7. Pedestrian traffic to the CTA facilities shall be maintained at all times.
8. A notice of at least three (3) weeks shall be given to the CTA prior to any beam removal or replacement which will cause interruption to the CTA facilities and service.

9. Simultaneous work on two piers that will require flagmen and affect the train operation shall not be allowed. Work, which will require flagmen, shall be limited to only one side of the track at a time.
10. Two flagmen will be required for each direction of train traffic for any work within the CTA facilities.
11. CTA shall have access to all storage tracks and unrestricted train operation over special holidays and events as indicated below:

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

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

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

12. The Contractor will be required to take all precautions to avoid debris, concrete and other materials falling onto the CTA right-of-way.
13. OTHER SPECIAL CONDITIONS:
  - A. **The contractor is warned of the presence of an electrified third rail (600 volts DC) and moving trains on the CTA tracks and shall take all the necessary precautions to prevent damage to life or property through contact with the electrical or operating system.**
  - B. **The Contractor is also warned that any contact with the electrified third rail may result in a severe burn or death. Safety precautions such as insulating hoods or covers, approved by CTA, shall be provided by the Contractor to cover that section of the third live rail adjacent to the work.**
  - C. Safety Training: All employees of the Contractor or his Subcontractors who are required to work upon or adjacent to the CTA's operating tracks shall be required to attend and provide evidence of completion of a right-of-way safety training course administered by the CTA.
  - D. Arrangements for the safety training course shall be the Contractor's responsibility. Contact the CTA representative to arrange for the safety course.
  - E. The cost of the course is \$200.00 per person, payable to the CTA prior to taking the course. The cost of this course and the employee's time for the course shall be considered incidental to the cost of the contract. The course is one day long, from 8:00 a.m. to 4:00 p.m.

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- F. The Contractor, his Subcontractors, and all of his employees who are required to work on or around the CTA's operating tracks shall wear CTA type safety vest.

14. Rapid Transit Clearances:

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

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

15. Protective Shield

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

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

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

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

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

### **BARRIER WALL REMOVAL**

Description: Work under this item shall consist of the removal of existing concrete barrier wall as indicated on the drawings. The work shall be according to Section 501 of the standard specifications and the Special Provision for Braced Excavation unless noted otherwise on the plans or in this specification. Also to be included shall be all additional work necessary to complete the removal of the existing barrier wall and existing barrier caissons. This work includes, but is not limited to caissons, reinforcement, shoring, braced excavation, etc. necessary to complete the work according to the approved plans and specifications.

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Method of Measurement: All work required to complete the work in this location shall be measured for payment in place in feet.

The Contractor shall examine the location carefully as no additional compensation will be allowed due to unforeseen circumstances.

Basis of Payment: This work shall be paid for at the contract unit price per foot for BARRIER WALL REMOVAL.

### **CONCRETE BARRIER WALL (SPECIAL)**

Description: Work under this item shall consist of the replacement of existing concrete barrier wall as indicated on the drawings. The work shall be according to Sections 503 and 637 of the standard specifications unless noted otherwise on the plans or in this specification. Also to be included shall be all additional work necessary to complete the replacement. This work includes, but is not limited to caissons, reinforcement, backfill, concrete etc. necessary to complete the work according to the approved plans and specifications.

Method of Measurement: All work required to complete the work in this location shall be measured for payment in place in feet.

The Contractor shall examine the location carefully as no additional compensation will be allowed due to unforeseen circumstances.

Basis of Payment: This work shall be paid for at the contract unit price per foot for CONCRETE BARRIER WALL (SPECIAL).

## **STORM SEWERS JACKED IN PLACE**

Description. This work shall consist of furnishing and installing, by jacking, storm sewers of the required inside diameter at locations shown on the plans. This work shall be according to Section 552 of the Standard Specifications except as modified herein.

General. Any sheeting, shoring, or bracing shall be designed by the Contractor and shall be of sufficient strength to support the loads that are imposed on them. Open cutting for the receiving pit shall be permitted inside the shoulder lines as shown on the plans.

The design calculations and details for the sheeting, shoring, or bracing proposed by the Contractor shall be submitted to the Engineer for approval. The calculations shall be prepared and sealed by an Illinois Licensed Structural Engineer. This approval will not relieve the Contractor of responsibility for the safety of the excavation. Approval shall be contingent upon acceptance by all involved utilities and the Chicago Transit Authority (CTA).

Construction. The Contractor shall submit complete design calculations and shop drawings prepared and sealed by an Illinois Licensed Structural Engineer no later than 90 days prior to beginning construction. Shop drawings shall show all necessary details for construction. The design calculations and shop drawings shall be submitted to the Engineer for review and approval.

This work shall not proceed without the approval and authorization of the Engineer. However, in any event, the Contractor shall be fully responsible for the safety, stability and adequacy of the sheeting, shoring, or bracing and shall be solely responsible and liable for all damages resulting from his construction operations or from failure or inadequacy of the bracing system. Please refer to the WORK RESTRICTION ON I-90 RECEIVING PIT FOR PIPE JACKING OPERATIONS special provision and the Maintenance of Traffic Plans for information on lane and shoulder closure for the receiving pit.

In the event the sheeting, shoring, or bracing protecting the existing embankment fails or is otherwise inadequate, in the judgment of the Engineer, the Contractor shall, at his own expense, take all necessary steps to restore the area to a safe operating condition to the satisfaction of the Engineer.

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**AGGREGATE FOR CONCRETE BARRIER (D-1)**

Effective: February 11, 2004

Revised: January 24, 2008

Add the following paragraph to Article 637.02 of the Standard Specifications:

“The coarse aggregate to be used in the concrete barrier walls shall conform to the requirement for coarse aggregate used in Class BS concrete according to Article 1004.01(b), paragraph 2.”

**FRICTION SURFACE AGGREGATE (D1)**

Effective: January 1, 2011

Revised: February 26, 2013

Revise Article 1004.01(a)(4) of the Standard Specifications to read:

- “(4) Crushed Stone. Crushed stone shall be the angular fragments resulting from crushing undisturbed, consolidated deposits of rock by mechanical means. Crushed stone shall be divided into the following, when specified.
- a. Carbonate Crushed Stone. Carbonate crushed stone shall be either dolomite or limestone. Dolomite shall contain 11.0 percent or more magnesium oxide (MgO). Limestone shall contain less than 11.0 percent magnesium oxide (MgO).
  - b. Crystalline Crushed Stone. Crystalline crushed stone shall be either metamorphic or igneous stone, including but is not limited to, quartzite, granite, rhyolite and diabase.”

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

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

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

Use	Mixture	Aggregates Allowed
Class A	Seal or Cover	<u>Allowed Alone or in Combination:</u> Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete  <p style="text-align: right;"><b>Revised 4-16-2013</b></p>



Use	Mixture	Aggregates Allowed	
HMA All Other	Shoulders	<u>Allowed Alone or in Combination:</u> Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) <sup>1/</sup> Crushed Steel Slag <sup>1/</sup> Crushed Concrete	
HMA High ESAL Low ESAL	C Surface IL-12.5,IL-9.5, or IL-9.5L	<u>Allowed Alone or in Combination:</u> Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) <sup>1/</sup> Crushed Steel Slag <sup>1/</sup> Crushed Concrete	
HMA High ESAL	D Surface IL-12.5 or IL-9.5	<u>Allowed Alone or in Combination:</u> Crushed Gravel Carbonate Crushed Stone (other than Limestone) Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) <sup>1/</sup> Crushed Steel Slag <sup>1/</sup> Crushed Concrete	
		<u>Other Combinations Allowed:</u>	
		<i>Up to...</i> 25% Limestone	<i>With...</i> Dolomite
		50% Limestone	Any Mixture D aggregate other than Dolomite
		75% Limestone	Crushed Slag (ACBF) <sup>1/</sup> or Crushed Sandstone <b>Revised 4-16-2013</b>

Use	Mixture	Aggregates Allowed		
HMA High ESAL	F Surface IL-12.5 or IL-9.5	<u>Allowed Alone or in Combination:</u>  Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) <sup>1/</sup> Crushed Steel Slag <sup>1/</sup>  No Limestone or no Crushed Gravel alone.		
		<u>Other Combinations Allowed:</u>		
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"><i>Up to...</i></th> <th style="width: 50%;"><i>With...</i></th> </tr> </thead> <tbody> <tr> <td>50% Crushed Gravel, or Dolomite</td> <td>Crushed Sandstone, Crushed Slag (ACBF)<sup>1/</sup>, Crushed Steel Slag<sup>1/</sup>, or Crystalline Crushed Stone</td> </tr> </tbody> </table>	<i>Up to...</i>	<i>With...</i>
<i>Up to...</i>	<i>With...</i>			
50% Crushed Gravel, or Dolomite	Crushed Sandstone, Crushed Slag (ACBF) <sup>1/</sup> , Crushed Steel Slag <sup>1/</sup> , or Crystalline Crushed Stone			
HMA High ESAL	SMA Ndesign 80 Surface	Crystalline Crushed Stone Crushed Sandstone Crushed Steel Slag		

1/ When either slag is used, the blend percentages listed shall be by volume.

Add to Article 1004.03 (b) of the Standard Specifications to read:

“ When using Crushed Concrete, the quality shall be determined as follows. The Contractor shall obtain a representative sample from the stockpile, witnessed by the Engineer, at a frequency of 2500 tons (2300 metric tons). The sample shall be a minimum of 50 lb (25 kg). The Contractor shall submit the sample to the District Office. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent by weight will be applied for acceptance. The stockpile shall be sealed until test results are complete and found to meet the specifications above.”

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5. **BASIS OF PAYMENT.** Unit price will include cost of all material and labor required to install this foundation, as per applicable construction plans and these specifications. The conduit elbows will be considered as part of the foundation and will not be paid for as a separate item or as part of the conduit laterals leading to the foundation. All necessary excavation and restoration of parkway to the original condition will be included in the unit price. Any sidewalk removal will be paid for as a separate pay item. However, any restoration of sidewalk will be considered as part of this item, including any expansion joint between the sidewalk and the foundation. This work will be paid for at the Contract Unit Price per EACH for CONCRETE FOUNDATION FOR TYPE "P" BASE MOUNTED TRAFFIC SIGNAL CONTROLLER.

**CONCRETE FOUNDATION, 20" DIAMETER, 3/4" ANCHOR RODS, 13" BOLT CIRCLE (CDOT)**

1. **DESCRIPTION.** This foundation will be for structural support of a traffic signal post, or other pedestal mounted equipment. The foundation must be poured in place and must be 20" in diameter, with a 13" bolt circle, 3/4" diameter anchor rods, and must be 5 feet in depth.
2. **MATERIAL.** Concrete must be Portland cement concrete meeting the requirements of Article 1020 of the Standard Specifications for SI Class concrete. Anchor rods must meet the requirements of Material Specification 1467 and the ground rod must meet the requirements of Material Specification 1465. Conduit must be PVC meeting the requirements of Material Specification 1533.
3. **CONSTRUCTION.** Foundations must conform to Drawing Number 709. Top surface of these foundations will be at an elevation of two inches (2") above grade or as required by the Resident Engineer. Care must be taken to install a level foundation and to ensure adequate anchor rod projections for double-nut installation. The foundation top must be chamfered 3/4 of an inch. The foundation must be centered back from the face of the curb in accordance with dimensions shown on the construction plans. When the foundation is in a solid sidewalk area, the foundation must be installed level, with the height of the foundation as close to the height of the sidewalk as possible, or as directed by the Engineer. A proper expansion joint must be installed between the sidewalk and the foundation.  
Foundation raceways must consist of large radius conduit elbow(s) in quantity, size and type specified on Drawing 709 or as indicated on the construction plans. Elbows, in excess of those shown on Drawing 709, will be paid for separately under an additional pay item. The elbow ends above ground must be capped with standard conduit bushings. The Contractor must furnish anchor rods, hardware, conduit elbow(s) and all other material shown on applicable foundation construction drawings. Depth of foundation will be as noted on Drawing 709.  
The anchor rods will be set by means of a metal template which must be submitted for approval before any foundation work is begun. The template must hold the rods vertical, and in proper position.  
All excavation and restoration of parkway will be considered as part of this item. If the foundation is in sidewalk, an expansion joint will be required between the sidewalk and the foundation.

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4. **METHOD OF MEASUREMENT.** The measurement will be per each of foundation installed complete.
5. **BASIS OF PAYMENT.** Payment will be made for foundations installed in place including an elbow in accordance with construction plans and these specifications. All necessary excavation and restoration of parkway, or sidewalk and expansion joint will be included in the unit price. This work will be paid for at the contract unit price per each, as designated in the contract, for CONCRETE FOUNDATION, 20" DIAMETER, 3/4" ANCHOR RODS, 13" BOLT CIRCLE (CDOT).

**CONCRETE FOUNDATION, 24" DIAMETER, 1 1/4" ANCHOR RODS, 15" BOLT CIRCLE**  
**CONCRETE FOUNDATION, 30" DIAMETER, 1 1/4" ANCHOR RODS, 17 1/4" BOLT CIRCLE**  
**(CDOT)**  
**CONCRETE FOUNDATION, 30" DIAMETER, 1 1/2" ANCHOR RODS, 16 1/2" BOLT CIRCLE**  
**(CDOT)**

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1. **DESCRIPTION.** The foundation will be a poured in place concrete structure used for structurally supporting street light poles or traffic signal poles.
2. **MATERIAL.** Concrete must be Portland cement concrete meeting the requirements of Article 1020 of the Standard Specifications for SI Class concrete. Reinforcement bars must meet the requirements of Section 1006.10 of the Standard Specifications. Anchor rods must meet the requirements of Material Specification 1467 and the ground rod must meet the requirements of Material Specification 1465. Conduit elbows must be PVC conduit meeting the requirements of Material Specification 1533.
3. **CONSTRUCTION.** Every foundation will be installed at the location designated and in the manner herein specified or in special cases as specifically directed. The contractor will locate foundations as per plan or as directed by the Resident Engineer. A hole must be augered for placement of the concrete form.

Top surface of these foundations in parkway will be at an elevation of two inches (2") above grade or as required by the Engineer. Care must be taken to install a level foundation and to ensure adequate anchor rod projections for double-nut installation. The foundations must be centered back from the face of the curb in accordance with dimensions shown on the construction plans. Foundation raceways must consist of large radius conduit elbow(s) in quantity, size and type as specified on the corresponding standard drawing or in the construction plans. Any number of elbows in excess of the number shown on the standard drawing must be paid for under a separate pay item. The elbow ends above ground will be capped with standard conduit bushings. The Contractor must furnish anchor rods, a ground rod, hardware, conduit elbow(s) and all other material shown on applicable foundation construction drawings. Depth of foundation will be as shown on the appropriate drawing. The foundation top must be chamfered 3/4 of an inch. When the foundation is installed in a sidewalk, the foundation must be installed level, with the height of the foundation as close to the height of the sidewalk as possible, or as directed by the Engineer. A proper expansion joint will be installed between the sidewalk and the foundation.

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Anchor rods must be set in accordance with applicable construction plans so that when poles are mounted on the foundations, the street lighting mast arm will be properly oriented as indicated on the construction plans. The anchor rods will be set by means of a metal template which shall be submitted for approval before any foundation work is begun. The template must hold the rods vertical, and in proper position. Anchor rods must conform in all respects to the appropriate City drawing.

4. **METHOD OF MEASUREMENT.** This item will be measured per each.
5. **BASIS OF PAYMENT.** Payment will be made for foundations installed in place, including elbows, in accordance with construction drawings, construction plans and these specifications. All necessary excavation and restoration of pavement, sidewalk and fill to their original conditions will be included in the unit price. This work will be paid for at the contract unit price per each, as specified in the contract, for CONCRETE FOUNDATION of the diameter and size specified.

**POLE, STEEL, ANCHOR BASE, 10" DIA., 7-GAUGE, 34'-6"**

**POLE, STEEL, ANCHOR BASE, 10" DIA., 3-GAUGE, 34'-6"**

**POLE, STEEL, ANCHOR BASE, 11" DIA., 3-GAUGE, 34'-6"**

**POLE, STEEL, ANCHOR BASE, 12 1/2" DIA., 3-GAUGE, 34'-6"**

1. **DESCRIPTION.** This item will consist of furnishing, installing, and setting plumb a steel anchor base pole to which equipment may be attached for the extension of the City street light and traffic signal systems.
2. **MATERIAL.** The material of the pole must meet the requirements of Material Specification 1447.
3. **INSTALLATION.** The pole must be installed on the concrete foundation designed for the particular pole usage as indicated on the plans or as directed by the Engineer. Double nut construction must be used as shown on Drawing 837. Double nut construction provides the proper ventilation, as well as providing a way to plumb the pole. Any exposed portions of anchor rods extending above the nuts which interfere with the installation of the bolt covers must be cut off to provide the necessary clearance. The excess must not be burned off. The pole must be set secure, properly orientated, and plumb using the nuts and washers provided with the anchor bolts. The bolt covers, handhole cover, and pole cap must be securely attached.

The contractor will utilize non-abrasive slinging materials and will otherwise exercise due care in erecting the pole and mast arm to minimize any possible damage to the finish. When necessary, the contractor will utilize, at his own expense, factory approved touch-up materials and methods to restore the finish to like new appearance and durability.

Revised 4-16-2013

## **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.

Added 4/16/2013

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.

Added 4/16/2013

- (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 but the pH of the soil is less than 6.25 or greater than 9.0, 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.
- (c) 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:

Added 4/16/2013



- (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 investigation (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 investigation (PESA) site number) for special or hazardous waste disposal, and
- (f) Landfill tickets (identified by the preliminary environmental site investigation (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.

Added 4/16/2013

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

- Station 17+70 to Station 19+80 (Ramp 6) 0 to 70 feet RT (Citicorp Plaza Office Complex, Site 1104V-13, 8410-8430 West Bryn Mawr Avenue). 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: PNAs.
- Station 125+00 to Station 126+00 0 to 150 feet RT (7-Eleven Gasoline Station, Site 1104V-4, 814 West Higgins Road). 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: PNAs.

Added 4/16/2013