



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

October 26, 2009

SUBJECT: FAU 9167 (17th Street)
Project M-HPP-0162(007)
Section 05-00207-00-PV (Belleville)
St. Clair County
Contract No. 97342
Item 191
November 6, 2009 Letting
Addendum (A)

TO PROSPECTIVE BIDDERS:

Due to clarify information necessary to revise the following:

Proposal – Schedule of Prices, Index of Special Provisions, BDE Special Provision Index, added page 60a and 161a thru 161g to the special provisions.

Plans – Sheet 3, 4, 9, 10, 13, 14, 24, 27 & 28.

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,

Charles Ingersoll
Engineer of Design and Environment

A handwritten signature in cursive script, reading "Ted B. Walschleger DE." The signature is written in black ink.

By: Ted B. Walschleger
Engineer of Project Development
and Implementation

STATE JOB #- C-98-376-06
 PPS NBR - 8-11118-0014

COUNTY NAME	CODE	DIST	SECTION NUMBER	PROJECT NUMBER	ROUTE
ST CLAIR	163	08	05-00207-00-PV (BELLEVILLE)	M-HPP-0162/007/000	FAU 9167

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
XX003000	CLASS SI CONC STEPS	CU YD	13.000 X				
XX003164	EM VEH PR SY LI CBL C	FOOT	1,474.000 X				
X0300351	CONC STEP REMOV	EACH	8.000 X				
X0322923	SEGMENT CONC BLK WALL	SQ FT	3,081.000 X				
X8730027	ELCBL C GROUND 6 1C	FOOT	1,083.000 X				
Z0048665	RR PROT LIABILITY INS	L SUM	1.000 X				
Z0067900	STEEL CASINGS 24	FOOT	92.000 X				
20100110	TREE REMOV 6-15	UNIT	74.000 X				
20100210	TREE REMOV OVER 15	UNIT	336.000 X				
20200100	EARTH EXCAVATION	CU YD	4,402.000 X				
20800150	TRENCH BACKFILL	CU YD	1,081.000 X				
25000920	SEEDING CL 1A SPL	ACRE	1.200 X				
28000250	TEMP EROS CONTR SEED	POUND	91.000 X				
28000400	PERIMETER EROS BAR	FOOT	1,681.000 X				
28000500	INLET & PIPE PROTECT	EACH	89.000 X				

Revised 10-26-09

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
28100105	STONE RIPRAP CL A3	SQ YD	70.000 X	=	=	=	=
28200200	FILTER FABRIC	SQ YD	70.000 X	=	=	=	=
30200650	PROCESS MOD SOIL 12	SQ YD	10,774.000 X	=	=	=	=
30201500	LIME	TON	207.000 X	=	=	=	=
35100300	AGG BASE CSE A 4	SQ YD	13,209.000 X	=	=	=	=
35100500	AGG BASE CSE A 6	SQ YD	345.000 X	=	=	=	=
35600722	HMA BC WID 11 1/2	SQ YD	1,362.000 X	=	=	=	=
40200500	AGG SURF CSE A 6	SQ YD	370.000 X	=	=	=	=
40201000	AGGREGATE-TEMP ACCESS	TON	200.000 X	=	=	=	=
40600982	HMA SURF REM BUTT JT	SQ YD	227.000 X	=	=	=	=
40603085	HMA BC IL-19.0 N70	TON	320.000 X	=	=	=	=
40603340	HMA SC "D" N70	TON	685.000 X	=	=	=	=
40800050	INCIDENTAL HMA SURF	TON	227.000 X	=	=	=	=
42000300	PCC PVT 8	SQ YD	8,313.000 X	=	=	=	=
42001300	PROTECTIVE COAT	SQ YD	4,157.000 X	=	=	=	=

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
42300200	PCC DRIVEWAY PAVT 6	SQ YD	228.000 X	=		=	
42300400	PCC DRIVEWAY PAVT 8	SQ YD	320.000 X	=		=	
42400100	PC CONC SIDEWALK 4	SQ FT	22,101.000 X	=		=	
42400800	DETECTABLE WARNINGS	SQ FT	220.000 X	=		=	
44000100	PAVEMENT REM	SQ YD	5,226.000 X	=		=	
44000198	HMA SURF REM VAR DP	SQ YD	2,404.000 X	=		=	
44000200	DRIVE PAVEMENT REM	SQ YD	1,141.000 X	=		=	
44000300	CURB REM	FOOT	4,083.000 X	=		=	
44000600	SIDEWALK REM	SQ FT	17,096.000 X	=		=	
44300200	STRIP REF CR CON TR	FOOT	3,492.000 X	=		=	
48102100	AGG WEDGE SHLD TYPE B	TON	50.000 X	=		=	
48203029	HMA SHOULDERS 8	SQ YD	408.000 X	=		=	
54213657	PRC FLAR END SEC 12	EACH	1.000 X	=		=	
54213660	PRC FLAR END SEC 15	EACH	1.000 X	=		=	
54213693	PRC FLAR END SEC 48	EACH	2.000 X	=		=	

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
54216180	R C PIPE TEE 12P 12R	EACH	11.000 X	=	=	=	=
54216185	R C PIPE TEE 15P 12R	EACH	1.000 X	=	=	=	=
54216190	R C PIPE TEE 18P 12R	EACH	9.000 X	=	=	=	=
54216200	R C PIPE TEE 24P 12R	EACH	3.000 X	=	=	=	=
54216570	R C PIPE TEE 24P 15R	EACH	1.000 X	=	=	=	=
550B0090	STORM SEW CL B 1 18	FOOT	92.000 X	=	=	=	=
55019500	SS 1 RCP CL 4 12	FOOT	1,409.000 X	=	=	=	=
55019600	SS 1 RCP CL 4 15	FOOT	58.000 X	=	=	=	=
55019700	SS 1 RCP CL 4 18	FOOT	167.000 X	=	=	=	=
55019900	SS 1 RCP CL 4 24	FOOT	157.000 X	=	=	=	=
55020500	SS 1 RCP CL 2 48	FOOT	327.000 X	=	=	=	=
55021600	SS 2 RCP CL 3 12	FOOT	909.000 X	=	=	=	=
55021700	SS 2 RCP CL 3 15	FOOT	78.000 X	=	=	=	=
55021800	SS 2 RCP CL 3 18	FOOT	529.000 X	=	=	=	=
55022000	SS 2 RCP CL 3 24	FOOT	58.000 X	=	=	=	=

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
60100905	PIPE DRAINS 4	FOOT	50.000 X	=	=	=	=
60100915	PIPE DRAINS 6	FOOT	50.000 X	=	=	=	=
60218400	MAN TA 4 DIA T1F CL	EACH	12.000 X	=	=	=	=
60219540	MAN TA 4 DIA T24F&G	EACH	3.000 X	=	=	=	=
60223800	MAN TA 6 DIA T1F CL	EACH	2.000 X	=	=	=	=
60235700	INLETS TA T3F&G	EACH	2.000 X	=	=	=	=
60236200	INLETS TA T8G	EACH	3.000 X	=	=	=	=
60236800	INLETS TA T11F&G	EACH	49.000 X	=	=	=	=
60237470	INLETS TA T24F&G	EACH	6.000 X	=	=	=	=
60240220	INLETS TB T3F&G	EACH	1.000 X	=	=	=	=
60240310	INLETS TB T11F&G	EACH	21.000 X	=	=	=	=
60240328	INLETS TB T24F&G	EACH	2.000 X	=	=	=	=
60255500	MAN ADJUST	EACH	14.000 X	=	=	=	=
60260100	INLETS ADJUST	EACH	2.000 X	=	=	=	=
60500040	REMOV MANHOLES	EACH	1.000 X	=	=	=	=

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
60500060	REMOV INLETS	EACH	11.000 X	=	=	=	=
60600605	CONC CURB TB	FOOT	327.000 X	=	=	=	=
60603800	COMB CC&G TB6.12	FOOT	4,172.000 X	=	=	=	=
60605000	COMB CC&G TB6.24	FOOT	776.000 X	=	=	=	=
66400305	CH LK FENCE 6	FOOT	143.000 X	=	=	=	=
66407800	CH LK GATES 6X16 DBL	EACH	1.000 X	=	=	=	=
66410300	CH LK FENCE REMOV	FOOT	231.000 X	=	=	=	=
66410700	CH LK GATES SPL	EACH	1.000 X	=	=	=	=
66410800	CH LK GATES REMOV	EACH	2.000 X	=	=	=	=
67100100	MOBILIZATION	L SUM	1.000 X	=	=	=	=
70101700	TRAF CONT & PROT	L SUM	1.000 X	=	=	=	=
70300100	SHORT-TERM PAVT MKING	FOOT	120.000 X	=	=	=	=
70301000	WORK ZONE PAVT MK REM	SQ FT	40.000 X	=	=	=	=
72000100	SIGN PANEL T1	SQ FT	129.500 X	=	=	=	=
72000105	SIGN PANEL T1 SPL	SQ FT	50.500 X	=	=	=	=

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
72900100	METAL POST TY A	FOOT	26.000 X	=			
72900200	METAL POST TY B	FOOT	157.000 X	=			
78000100	THPL PVT MK LTR & SYM	SQ FT	136.000 X	=			
78000200	THPL PVT MK LINE 4	FOOT	13,673.000 X	=			
78000400	THPL PVT MK LINE 6	FOOT	604.000 X	=			
78000600	THPL PVT MK LINE 12	FOOT	975.000 X	=			
78008200	POLYUREA PM T1 LTR-SY	SQ FT	495.000 X	=			
78008210	POLYUREA PM T1 LN 4	FOOT	4,298.000 X	=			
78008230	POLYUREA PM T1 LN 6	FOOT	1,022.000 X	=			
78008250	POLYUREA PM T1 LN 12	FOOT	188.000 X	=			
78008270	POLYUREA PM T1 LN 24	FOOT	96.000 X	=			
78100100	RAISED REFL PAVT MKR	EACH	61.000 X	=			
78300100	PAVT MARKING REMOVAL	SQ FT	2,192.000 X	=			
78300200	RAISED REF PVT MK REM	EACH	15.000 X	=			
80300100	LOCATE UNDERGR CABLE	FOOT	100.000 X	=			

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
80500100	SERV INSTALL TY A	EACH	2.000 X	=	=	=	=
81000300	CON T 1 GALVS	FOOT	25.000 X	=	=	=	=
81000500	CON T 1 1/2 GALVS	FOOT	25.000 X	=	=	=	=
81012300	CON T 1 PVC	FOOT	193.000 X	=	=	=	=
81012700	CON T 2 1/2 PVC	FOOT	55.000 X	=	=	=	=
81012800	CON T 3 PVC	FOOT	12.000 X	=	=	=	=
81013100	CON T 5 PVC	FOOT	4.000 X	=	=	=	=
81013200	CON T 6 PVC	FOOT	5.000 X	=	=	=	=
81028070	CON B&P CNC 2 1/2	FOOT	186.000 X	=	=	=	=
81028080	CON B&P CNC 3	FOOT	212.000 X	=	=	=	=
81028090	CON B&P CNC 3 1/2	FOOT	76.000 X	=	=	=	=
81028100	CON B&P CNC 4	FOOT	77.000 X	=	=	=	=
81400100	HANDHOLE	EACH	6.000 X	=	=	=	=
81400300	DBL HANDHOLE	EACH	2.000 X	=	=	=	=
81900200	TR & BKFIL F ELECT WK	FOOT	319.000 X	=	=	=	=

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
85000300	MAIN EX TR SIG INSTAL	L SUM	1.000 X	=			
85700200	FAC T4 CAB	EACH	2.000 X	=			
87300305	ELCBL T LEAD 14 1PR	FOOT	2,009.000 X	=			
87301215	ELCBL C SIGNAL 14 2C	FOOT	1,603.000 X	=			
87301225	ELCBL C SIGNAL 14 3C	FOOT	3,180.000 X	=			
87301245	ELCBL C SIGNAL 14 5C	FOOT	2,851.000 X	=			
87301255	ELCBL C SIGNAL 14 7C	FOOT	2,089.000 X	=			
87700260	S MAA & P 44	EACH	3.000 X	=			
87700270	S MAA & P 46	EACH	3.000 X	=			
87700290	S MAA & P 50	EACH	2.000 X	=			
87800200	CONC FDN TY D	FOOT	6.000 X	=			
87800415	CONC FDN TY E 36D	FOOT	104.000 X	=			
88040070	SH P LED 1F 3S BM	EACH	9.000 X	=			
88040090	SH P LED 1F 3S MAM	EACH	8.000 X	=			
88040160	SH P LED 1F 5S MAM	EACH	16.000 X	=			

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
88102710	PED SH LED 1F BM	EACH	14.000	X	=		
88200100	TS BACKPLATE	EACH	33.000	X	=		
88500100	INDUCTIVE LOOP DETECT	EACH	17.000	X	=		
88600100	DET LOOP T1	FOOT	3,235.000	X	=		
88700200	LIGHT DETECTOR	EACH	8.000	X	=		
88700300	LIGHT DETECTOR AMP	EACH	8.000	X	=		
88800100	PED PUSH-BUTTON	EACH	14.000	X	=		
89502375	REMOV EX TS EQUIP	EACH	1.000	X	=		
89502380	REMOV EX HANDHOLE	EACH	4.000	X	=		
89502385	REMOV EX CONC FDN	EACH	4.000	X	=		

TOTAL \$

NOTE:

1. EACH PAY ITEM SHOULD HAVE A UNIT PRICE AND A TOTAL PRICE.
2. THE UNIT PRICE SHALL GOVERN IF NO TOTAL PRICE IS SHOWN OR IF THERE IS A DISCREPANCY BETWEEN THE PRODUCT OF THE UNIT PRICE MULTIPLIED BY THE QUANTITY.
3. IF A UNIT PRICE IS OMITTED, THE TOTAL PRICE WILL BE DIVIDED BY THE QUANTITY IN ORDER TO ESTABLISH A UNIT PRICE.
4. A BID MAY BE DECLARED UNACCEPTABLE IF NEITHER A UNIT PRICE NOR A TOTAL PRICE IS SHOWN.

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FAU ROUTE 9167 (SOUTH 17TH STREET)
SECTION: 05-00207-00-PV
PROJECT: HPP-0162(007)
BELLEVILLE, ILLINOIS

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File Name	Pg#		Special Provision Title	Effective	Revised
* 80180	117	X	National Pollutant Discharge Elimination System / Erosion and Sediment Control Deficiency Deduction (NOTE: This special provision was previously named "Erosion and Sediment Control Deficiency Deduction".)	April 1, 2007	Nov. 1, 2009
80208			Nighttime Work Zone Lighting	Nov. 1, 2008	
80129			Notched Wedge Longitudinal Joint	July 1, 2004	Jan. 1, 2007
80182			Notification of Reduced Width	April 1, 2007	
80069			Organic Zinc-Rich Paint System	Nov. 1, 2001	Jan. 1, 2008
80216			Partial Exit Ramp Closure for Freeway/Expressway	Jan. 1, 2009	
80231			Pavement Marking Removal	April 1, 2009	
80022	119	X	Payments to Subcontractors	June 1, 2000	Jan. 1, 2006
80235	121	X	Payrolls and Payroll Records	March 1, 2009	July 1, 2009
80209	123	X	Personal Protective Equipment	Nov. 1, 2008	
80232			Pipe Culverts	April 1, 2009	
80134			Plastic Blockouts for Guardrail	Nov. 1, 2004	Jan. 1, 2007
80119	124	X	Polyurea Pavement Marking	April 1, 2004	Jan. 1, 2009
80210			Portland Cement Concrete Inlay or Overlay	Nov. 1, 2008	
80170			Portland Cement Concrete Plants	Jan. 1, 2007	
80217			Post Clips for Extruded Aluminum Signs	Jan. 1, 2009	
80171	131	X	Precast Handling Holes	Jan. 1, 2007	
80218			Preventive Maintenance – Bituminous Surface Treatment	Jan. 1, 2009	April 1, 2009
80219			Preventive Maintenance – Cape Seal	Jan. 1, 2009	April 1, 2009
80220			Preventive Maintenance – Micro-Surfacing	Jan. 1, 2009	
80221			Preventive Maintenance – Slurry Seal	Jan. 1, 2009	
80211			Prismatic Curb Reflectors	Nov. 1, 2008	
80015			Public Convenience and Safety	Jan. 1, 2000	
34261			Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
80157	133	X	Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
* 80247			Raised Reflective Pavement Markers	Nov. 1, 2009	
80223			Ramp Closure for Freeway/Expressway	Jan. 1, 2009	
80172			Reclaimed Asphalt Pavement (RAP)	Jan. 1, 2007	April 1, 2009
80183	142	X	Reflective Sheeting on Channelizing Devices	April 1, 2007	Nov. 1, 2008
80151	143	X	Reinforcement Bars	Nov. 1, 2005	April 1, 2009
80206			Reinforcement Bars – Storage and Protection	Aug. 1, 2008	April 1, 2009
80224			Restoring Bridge Approach Pavements Using High-Density Foam	Jan. 1, 2009	
80184	145	X	Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay Film for Highway Signs	April 1, 2007	
80131	151	X	Seeding	July 1, 2004	July 1, 2009
80152			Self-Consolidating Concrete for Cast-In-Place Construction	Nov. 1, 2005	Jan. 1, 2009
80132	154	X	Self-Consolidating Concrete for Precast Products	July 1, 2004	Jan. 1, 2007
80212	156	X	Sign Panels and Sign Panel Overlays	Nov. 1, 2008	
80197	157	X	Silt Filter Fence	Jan. 1, 2008	
80127	158	X	Steel Cost Adjustment	April 2, 2004	April 1, 2009
80153			Steel Plate Beam Guardrail	Nov. 1, 2005	Aug. 1, 2007
80191			Stone Gradation Testing	Nov. 1, 2007	
80234	161a	X	Storm Sewers	April 1, 2009	
80143	162	X	Subcontractor Mobilization Payments	April 2, 2005	
80075			Surface Testing of Pavements	April 1, 2002	Jan. 1, 2007
* 80087	163	X	Temporary Erosion Control	Nov. 1, 2002	Nov. 1, 2009
80225			Temporary Raised Pavement Marker	Jan. 1, 2009	
80176	164	X	Thermoplastic Pavement Markings	Jan. 1, 2007	
20338			Training Special Provisions	Oct. 15, 1975	
80185			Type ZZ Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay Film for Highway Signs	April 1, 2007	
80149			Variable Spaced Tining	Aug. 1, 2005	Jan. 1, 2007
80071	166	X	Working Days	Jan. 1, 2002	
80204			Woven Wire Fence	April 1, 2008	

Revised 10-26-09

STORM SEWER, CLASS B, TYPE 1, 18"

This work shall consist of constructing storm sewers at the locations shown on the plans, according to Section 550 of the "Standard Specifications for Road and Bridge Construction".

The materials shall be according to Article 1040.03(a) Polyvinyl Chloride (PVC) Pipe in the "Standard Specifications for Road and Bridge Construction. No other material type will be allowed.

This work will be paid for at the contract unit price per foot for STORM SEWER, CLASS B, TYPE 1, 18", and no additional compensation will be allowed. Steel casing pipe, including insulators for the storm sewer pipe and end seals, will be measured separately for payment.

STEEL CASINGS, 24"

This work shall consist of constructing a 24 inch steel casing pipe at the location shown on the plans according to Section 23 of the "Standard Specifications for Water and Sewer Main Construction in Illinois, 6th Edition". Minimum wall thickness shall be 3/8 in.

The Contractor shall install the steel casing by boring under the CN Railroad. If the bore diameter is larger than the casing pipe diameter, the void around the casing shall be backfilled using controlled low strength material (CLSM) as directed by the Engineer. The bore pit shall be enclosed by fences or protected by barricades and proper lighting.

A minimum of three casing insulators shall be provided per length of carrier pipe installed. Casing end seals shall be provided and be a seamless pull-on-type synthetic rubber. End seals shall be secured to the casing and carrier pipe with Type-304 stainless steel banding strips.

This work will be paid for a the contract unit price per foot for STEEL CASINGS, 24", which price shall be payment in full for all work specified herein and no additional compensation will be allowed. The carrier pipe will be measured separately for payment.

Added 10.26.09

60a.

STORM SEWERS (BDE)

Effective: April 1, 2009

Add the following to Article 550.02 of the Standard Specifications:

- “(p) Polyvinyl Chloride (PVC) Profile Wall Pipe-304 1040.03
- “(q) Polyethylene (PE) Pipe with a Smooth Interior 1040.04
- “(r) Corrugated Polyethylene (PE) Pipe with a Smooth Interior 1040.04
- “(s) Polyethylene (PE) Profile Wall Pipe 1040.04”

Add the following to the list of flexible pipes under Class B storm sewers in the first table of Article 550.03 of the Standard Specifications:

- “Polyvinyl Chloride (PVC) Profile Wall Pipe-304
- Polyethylene (PE) Pipe with a Smooth Interior
- Corrugated Polyethylene (PE) Pipe with a Smooth Interior
- Polyethylene (PE) Profile Wall Pipe”

Revise the 2nd - 7th tables of Article 550.03 of the Standard Specifications to read:

"STORM SEWERS KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE																				
Nom. Dia. in.	Type 1 Fill Height: 3' and less with 1' minimum cover										Type 2 Fill Height: Greater than 3', not exceeding 10'									
	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	CPE	PEPW	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	CPE	PEPW
10	NA	3	X	X	NA	NA	NA	X	NA	NA	NA	1	*X	X	**	NA	NA	X	NA	NA
12	IV	NA	NA	X	X	X	X	X	X	NA	III	1	*X	X	X	X	X	X	X	NA
15	IV	NA	NA	X	X	X	X	NA	X	NA	III	2	X	X	X	X	X	NA	X	NA
18	IV	NA	NA	X	X	X	X	X	X	X	III	2	X	X	X	X	X	X	X	X
21	IV	NA	NA	X	X	X	X	NA	NA	X	III	2	X	X	X	X	X	NA	NA	X
24	IV	NA	NA	X	X	X	X	X	X	X	III	2	X	X	X	X	X	X	X	X
27	IV	NA	NA	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
30	III	NA	X	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
33	III	NA	X	X	NA	X	X	X	X	X	III	NA	X	X	NA	X	X	X	X	X
36	III	NA	X	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
42	II	NA	NA	NA	NA	X	X	X	X	X	III	NA	NA	NA	NA	X	X	X	X	X
48	II	NA	NA	NA	NA	X	X	X	X	X	III	NA	NA	NA	NA	X	X	X	X	X
54	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA	NA	NA
60	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
66	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
72	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
78	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
84	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
90	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
96	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
102	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
108	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA

- RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- CSP Concrete Sewer, Storm Drain, and Culvert Pipe
- ESCP Extra Strength Clay Pipe
- PVC Polyvinyl Chloride (PVC) Pipe
- CPVC Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior
- PVCPW-794 Polyvinyl Chloride (PVC) Profile Wall Pipe-794
- PVCPW-304 Polyvinyl Chloride (PVC) Profile Wall Pipe-304

Added 10-26-09

16/a.

- PE Polyethylene (PE) Pipe with a Smooth Interior
- CPE Corrugated Polyethylene (PE) Pipe with a Smooth Interior
- PEPW Polyethylene (PE) Profile Wall Pipe
- X This material may be used for the given pipe diameter and fill height.
- NA This material is Not Acceptable for the given pipe diameter and fill height.
- * May also use standard strength Clay Sewer Pipe
- ** May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.

STORM SEWERS KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE														
Nom. Dia. in.	Type 3 Fill Height: Greater than 10', not exceeding 15'									Type 4 Fill Height: Greater than 15', not exceeding 20'				
	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	PEPW	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304
10	NA	3	X	X	**	NA	NA	X	NA	NA	X	**	NA	NA
12	IV	NA	X	X	X	X	X	X	NA	V	X	X	X	X
15	IV	NA	NA	X	X	X	X	NA	NA	V	X	X	X	X
18	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
21	IV	NA	NA	X	X	X	X	NA	X	V	X	X	X	X
24	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
27	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
30	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
33	IV	NA	NA	X	NA	X	X	X	X	IV	X	NA	X	X
36	IV	NA	NA	X	X	X	X	X	X	IV	X	X	X	X
42	IV	NA	NA	NA	NA	X	X	X	X	IV	NA	NA	X	X
48	IV	NA	NA	NA	NA	X	X	X	X	IV	NA	NA	X	X
54	IV	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
60	IV	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
66	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
72	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
78	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
84	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
90	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
96	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
102	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
108	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA

- RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- CSP Concrete Sewer, Storm Drain, and Culvert Pipe
- ESCP Extra Strength Clay Pipe
- PVC Polyvinyl Chloride (PVC) Pipe
- CPVC Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior
- PVCPW-794 Polyvinyl Chloride (PVC) Profile Wall Pipe-794
- PVCPW-304 Polyvinyl Chloride (PVC) Profile Wall Pipe-304
- PE Polyethylene (PE) Pipe with a Smooth Interior
- PEPW Polyethylene (PE) Profile Wall Pipe
- X This material may be used for the given pipe diameter and fill height.
- NA This material is Not Acceptable for the given pipe diameter and fill height.
- ** May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.

Added 10-26-09

1616.

STORM SEWERS
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

Nom. Dia. in.	Type 5 Fill Height: Greater than 20', not exceeding 25'					Type 6 Fill Height: Greater than 25', not exceeding 30'					Type 7 Fill Height: Greater than 30', not exceeding 35'	
	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304	RCCP Class	PVC
10	NA	X	**	NA	NA	NA	X	**	NA	NA	NA	X
12	V-3160D	X	X	X	X	V-3790D	X	X	X	X	V-4000D	X
15	V-3080D	X	X	X	X	V-3390D	X	NA	NA	NA	V-3575D	X
18	V	X	X	X	X	V-3115D	X	NA	NA	NA	V-3300D	X
21	V	X	X	X	X	V	X	NA	NA	NA	V-3110D	X
24	V	X	X	X	X	V	X	NA	NA	NA	V	X
27	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
30	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
33	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
36	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
42	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
48	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
54	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
60	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
66	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
72	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
78	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
84	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
90	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
96	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
102	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
108	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA

- RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- PVC Polyvinyl Chloride (PVC) Pipe
- CPVC Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior
- PVCPW-794 Polyvinyl Chloride (PVC) Profile Wall Pipe-794
- PVCPW-304 Polyvinyl Chloride (PVC) Profile Wall Pipe-304
- X This material may be used for the given pipe diameter and fill height.
- NA This material is Not Acceptable for the given pipe diameter and fill height.
- ** May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.
- Note RCCP Class V - 3160D, etc. shall be furnished according to AASHTO M 170 Section 6.
 These loads are D loads to produce a 0.01 in. crack.

Added 10-26-09

16/c.

STORM SEWERS (metric)
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

Nom. Dia. mm	Type 1 Fill Height: 1 m and less with 0.3 m minimum cover										Type 2 Fill Height: Greater than 1 m, not exceeding 3 m									
	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	CPE	PEPW	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	CPE	PEPW
250	NA	3	X	X	NA	NA	NA	X	NA	NA	NA	1	*X	X	**	NA	NA	X	NA	NA
300	IV	NA	NA	X	X	X	X	X	X	NA	III	1	*X	X	X	X	X	X	X	NA
375	IV	NA	NA	X	X	X	X	NA	X	NA	III	2	X	X	X	X	X	NA	X	NA
450	IV	NA	NA	X	X	X	X	X	X	X	III	2	X	X	X	X	X	X	X	X
525	IV	NA	NA	X	X	X	X	NA	NA	X	III	2	X	X	X	X	X	NA	NA	X
600	IV	NA	NA	X	X	X	X	X	X	X	III	2	X	X	X	X	X	X	X	X
675	IV	NA	NA	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
750	III	NA	X	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
825	III	NA	X	X	NA	X	X	X	X	X	III	NA	X	X	NA	X	X	X	X	X
900	III	NA	X	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
1050	II	NA	NA	NA	NA	X	X	X	X	X	III	NA	NA	NA	NA	X	X	X	X	X
1200	II	NA	NA	NA	NA	X	X	X	X	X	III	NA	NA	NA	NA	X	X	X	X	X
1350	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA	NA	NA
1500	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
1650	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
1800	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
1950	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
2100	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
2250	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
2400	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
2550	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
2700	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA

- RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
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- ESCP Extra Strength Clay Pipe
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- CPVC Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior
- PVCPW-794 Polyvinyl Chloride (PVC) Profile Wall Pipe-794
- PVCPW-304 Polyvinyl Chloride (PVC) Profile Wall Pipe-304
- PE Polyethylene (PE) Pipe with a Smooth Interior
- CPE Corrugated Polyethylene (PE) Pipe with a Smooth Interior
- PEPW Polyethylene (PE) Profile Wall Pipe
- X This material may be used for the given pipe diameter and fill height.
- NA This material is Not Acceptable for the given pipe diameter and fill height.
- * May also use standard strength Clay Sewer Pipe
- ** May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.

Added 10-26-09

16/d.

**STORM SEWERS (metric)
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE**

Nom. Dia. mm	Type 3 Fill Height: Greater than 3 m, not exceeding 4.5 m									Type 4 Fill Height: Greater than 4.5 m, not exceeding 6 m				
	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	PEPW	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304
250	NA	3	X	X	**	NA	NA	X	NA	NA	X	**	NA	NA
300	IV	NA	X	X	X	X	X	X	NA	V	X	X	X	X
375	IV	NA	NA	X	X	X	X	NA	NA	V	X	X	X	X
450	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
525	IV	NA	NA	X	X	X	X	NA	X	V	X	X	X	X
600	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
675	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
750	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
825	IV	NA	NA	X	NA	X	X	X	X	IV	X	NA	X	X
900	IV	NA	NA	X	X	X	X	X	X	IV	X	X	X	X
1050	IV	NA	NA	NA	NA	X	X	X	X	IV	NA	NA	X	X
1200	IV	NA	NA	NA	NA	X	X	X	X	IV	NA	NA	X	X
1350	IV	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
1500	IV	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
1650	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
1800	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
1950	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
2100	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
2250	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
2400	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
2550	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
2700	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA

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- PVCPW-794 Polyvinyl Chloride (PVC) Profile Wall Pipe-794
- PVCPW-304 Polyvinyl Chloride (PVC) Profile Wall Pipe-304
- PE Polyethylene (PE) Pipe with a Smooth Interior
- PEPW Polyethylene (PE) Profile Wall Pipe
- X This material may be used for the given pipe diameter and fill height.
- NA This material is Not Acceptable for the given pipe diameter and fill height.
- ** May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.

Added 10-26-09

16le.

STORM SEWERS (metric) KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE												
Nom. Dia. mm	Type 5 Fill Height: Greater than 6 m, not exceeding 7.5 m					Type 6 Fill Height: Greater than 7.5 m, not exceeding 9 m					Type 7 Fill Height: Greater than 9 m, not exceeding 10.5 m	
	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304	RCCP Class	PVC
250	NA	X	**	NA	NA	NA	X	**	NA	NA	NA	X
300	V-150D	X	X	X	X	V-180D	X	X	X	X	V-190D	X
375	V-145D	X	X	X	X	V-160D	X	NA	NA	NA	V-170D	X
450	V	X	X	X	X	V-150D	X	NA	NA	NA	V-160D	X
525	V	X	X	X	X	V	X	NA	NA	NA	V-150D	X
600	V	X	X	X	X	V	X	NA	NA	NA	V	X
675	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
750	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
825	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
900	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
1050	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1200	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1350	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1500	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1650	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1800	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1950	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
2100	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
2250	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
2400	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
2550	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
2700	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA

- RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- PVC Polyvinyl Chloride (PVC) Pipe
- CPVC Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior
- PVCPW-794 Polyvinyl Chloride (PVC) Profile Wall Pipe-794
- PVCPW-304 Polyvinyl Chloride (PVC) Profile Wall Pipe-304
- X This material may be used for the given pipe diameter and fill height.
- NA This material is Not Acceptable for the given pipe diameter and fill height.
- ** May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.
- Note RCCP Class V - 150D, etc. shall be furnished according to AASHTO M 170M Section 6. These loads are D loads to produce a 0.3 mm crack."

Revise the last paragraph of Article 550.06 of the Standard Specifications to read:

"PVC and PE pipes shall be joined according to the manufacturer's specifications."

Revise the second paragraph of Article 550.07 of the Standard Specifications to read:

"When using flexible pipe, as listed in the first table of Article 550.03, the aggregate shall be continued to a height of at least 1 ft (300 mm) above the top of the pipe and compacted to a minimum of 95 percent of standard lab density by mechanical means."

Revise Article 550.08 of the Standard Specifications to read:

550.08 Deflection Testing for Storm Sewers. All PVC and PE storm sewers shall be tested for deflection not less than 30 days after the pipe is installed and the backfill compacted. The testing shall be performed in the presence of the Engineer.

Added 10-26-09

161 P.

For PVC and PE storm sewers with diameters 24 in. (600 mm) or smaller, a mandrel drag shall be used for deflection testing. For PVC and PE storm sewers with diameters over 24 in. (600 mm), deflection measurements other than by a mandrel drag shall be used.

Where the mandrel is used, the mandrel shall be furnished by the Contractor and pulled by hand through the pipeline with a suitable rope or cable connected to each end. Winching or other means of forcing the deflection gauge through the pipeline will not be allowed.

The mandrel shall be of a shape similar to that of a true circle enabling the gauge to pass through a satisfactory pipeline with little or no resistance. The mandrel shall be of a design to prevent it from tipping from side to side and to prevent debris build-up from occurring between the channels of the adjacent fins or legs during operation. Each end of the core of the mandrel shall have fasteners to which the pulling cables can be attached. The mandrel shall have nine, various sized fins or legs of appropriate dimension for various diameter pipes. Each fin or leg shall have a permanent marking that states its designated pipe size and percent of deflection allowable.

The outside diameter of the mandrel shall be 95 percent of the base inside diameter. For all PVC pipe and PE Profile Wall pipe, the base inside diameter shall be defined using ASTM D 3034 methodology. For all other PE pipe, the base inside diameter shall be defined as the average inside diameter based on the minimum and maximum tolerances specified in the corresponding ASTM or AASHTO material specifications.

If the pipe is found to have a deflection greater than that specified, that pipe section shall be removed, replaced, and retested."

Revise Article 1040.04(b) of the Standard Specifications to read:

"(b) Corrugated PE Pipe with a Smooth Interior. The pipe shall be according to AASHTO M 294 (nominal size – 12 to 48 in. (300 to 1200 mm)). The pipe shall be Type S or D."

Revised the first and second paragraphs of Article 1040.04(c) to read:

"(c) PE Profile Wall Pipe. The pipe shall be according to ASTM F 894 and shall have a minimum ring stiffness constant of 160. The pipe shall also have a minimum cell classification of PE 334433C as defined in ASTM D 3350.

(1) Pipe Culverts and Storm Sewers. When used for pipe culverts and storm sewers, the section properties shall be according to AASHTO's Section 17. The manufacturer shall submit written certification that the material meets AASHTO's Section 17 properties."

80234

Added 10-26-09

161g.