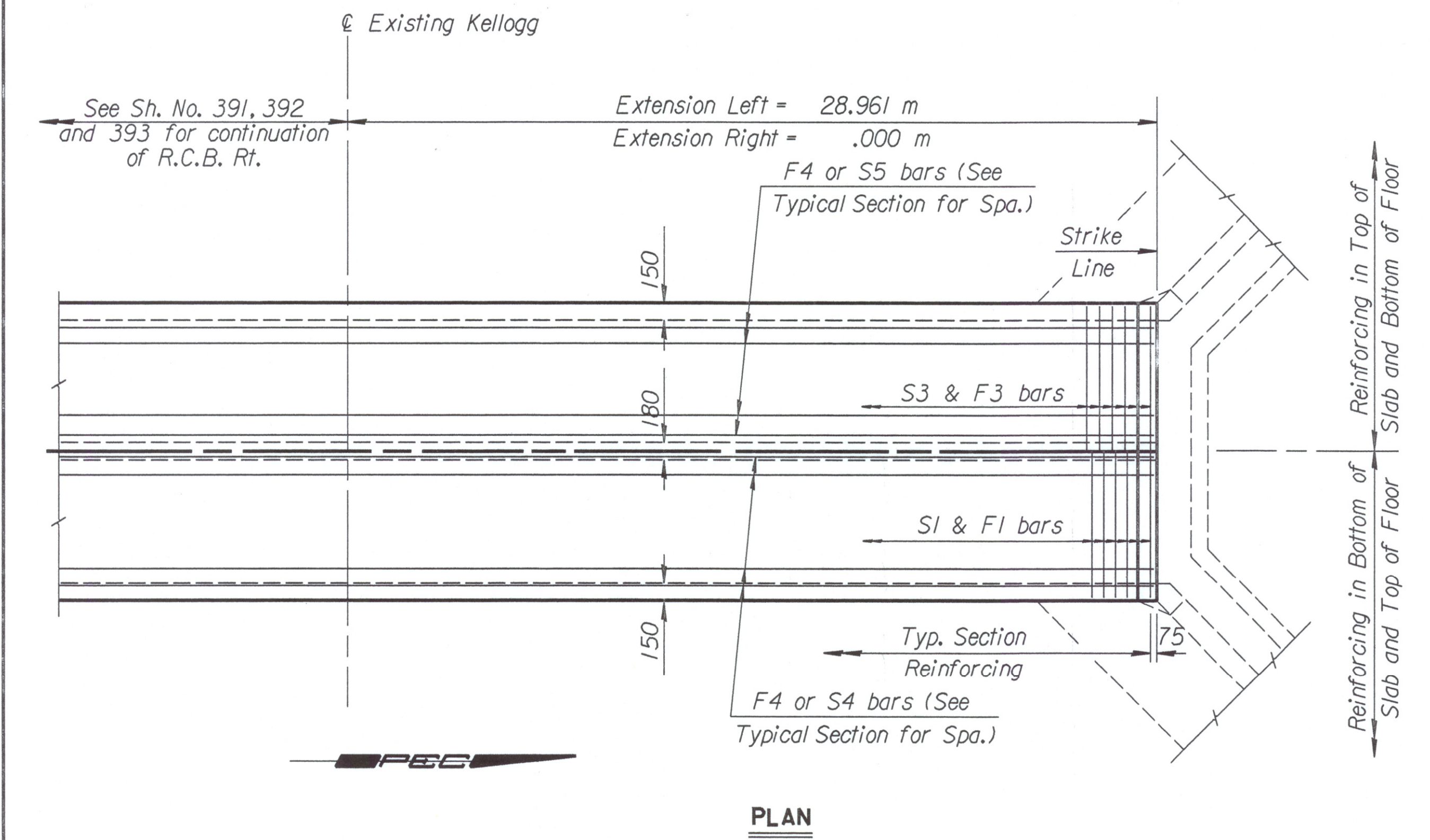
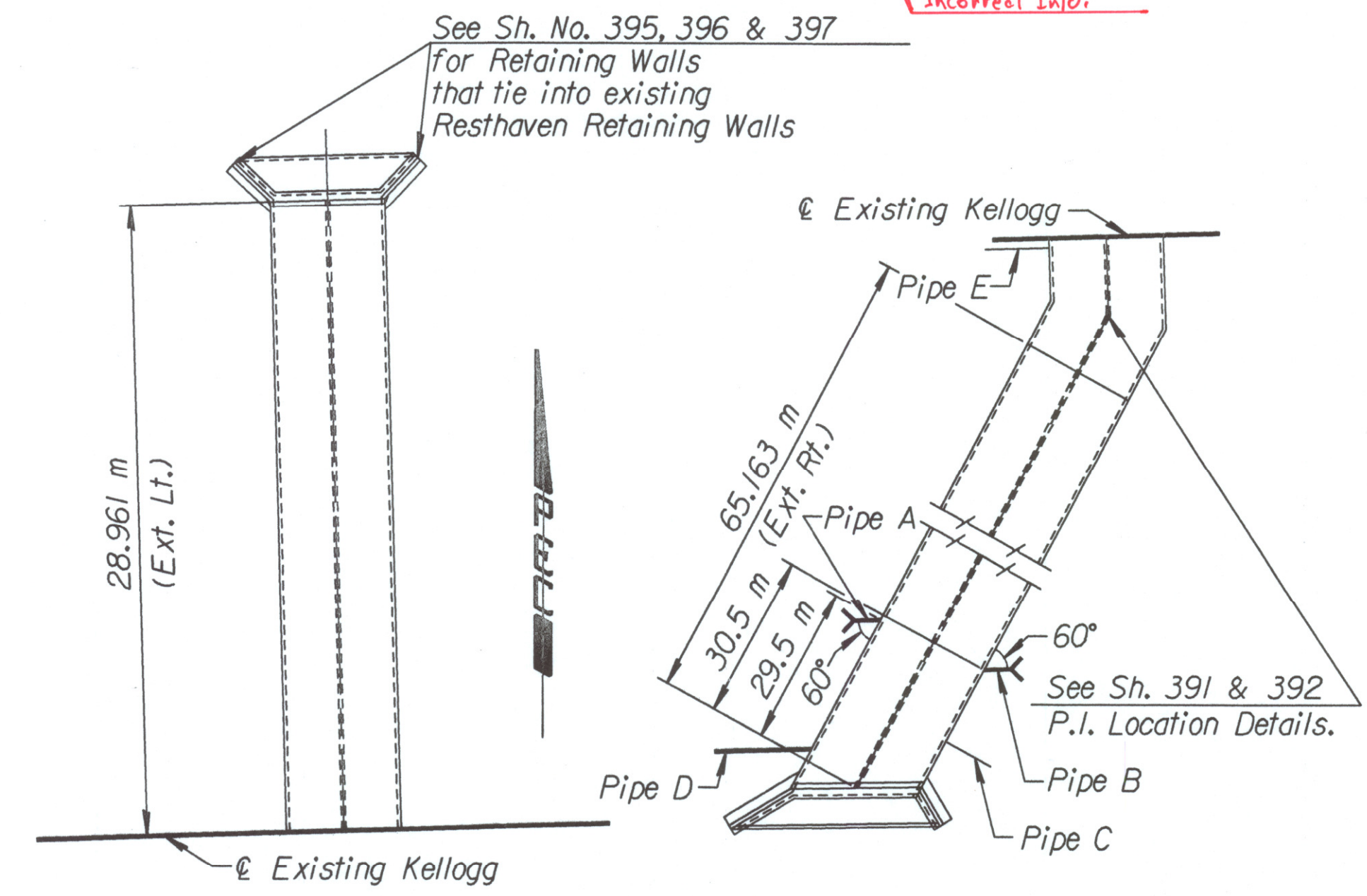


DESIGN	DATE	CHECK	DATE
DETAIL	DATE	DATE	DATE
QUANTITIES	DATE	DATE	DATE
TRACKING	DATE	DATE	DATE
RETRACTED	DATE	DATE	DATE



See Standard No. RD 510 SI for additional details.

ITEM	STATION	OFFSET	SIZE	E IN
Pipe A	14+422.10	35.47 m Rt.	600 mm	403.80
Pipe B	14+426.76	37.00 m Rt.	600 mm	403.53
Pipe C	<del>14+397.35</del>	<del>54.78 m Rt.</del>	.35 m <sup>2</sup>	403.402
Pipe D	<del>14+389.794</del>	<del>53.41 m Rt.</del>	.45 m <sup>2</sup>	403.409
Pipe E	14+411.08	0.000 m Rt.	375 mm	403.460



**GENERAL NOTES**

**DESIGN SPECIFICATION:** AASHTO Specifications, 1983 Edition  
**DESIGN LOADING:** MS18-44  
**UNIT STRESSES:** Class AAA Concrete  $f'c = 28 \text{ MPa}$   
 Reinforcing Steel  $f_y = 420 \text{ MPa}$

**FILL HEIGHT:** Unless otherwise noted, the Design Fill Height is measured from the riding surface at the culvert and includes the surfacing.

**CONSTRUCTION:** R.C.B.'s shown are for cast-in-place construction. The Contractor has the option of constructing either cast-in-place or precast R.C.B.'s. Payment for the structure will be the same regardless of which option is used for construction. See Sheet No. 432 for Precast Concrete Box Culvert Details.

**CONCRETE:** Use concrete conforming to Class AAA Concrete. Bevel all exposed edges with a 20 mm triangular molding. Where Class AAA(AE) is specified, place this concrete in the top slab above the Construction Joint.

**REINFORCING:** Use reinforcing steel conforming to ASTM A615M, Grade 420. All dimensions relative to reinforcing steel are to the centerline of the bar unless otherwise noted.

**EXCAVATION:** Excavation for culverts less than bridge length shall not be paid for directly but shall be subsidiary to Class AAA Concrete. Excavation for RCB bridges shall be paid for as Class III Excavation.

**SEAL COURSE:** The Engineer may require a seal course. The seal course shall be unreinforced Concrete (Commercial Grade) with a minimum depth of 75 mm or as determined by the Engineer. Concrete for the seal course shall be paid for at the unit price set for Concrete for Seal Course.

**FOUNDATION STABILIZATION:** The Engineer may require Foundation Stabilization. The Engineer shall determine the depth of Foundation Stabilization. Foundation Stabilization shall be paid for at the unit price set for Foundation Stabilization. See the "Auxiliary Details" sheet.

**QUANTITIES:** The quantities shown in the Culvert Summary include apron and/or soil saver quantities when they are required by the plans. Payment for additional quantities that result from including a seal course and/or a floating apron, as a change in the original plans, shall be made at the unit price bid for the various items involved.

**GRANULAR BACKFILL (WINGWALLS):** The Engineer may require special backfill procedures. See the "Auxiliary Details" sheet.

**STRIKE LINE:** Construct the wingwalls and that portion of the RCB outside the Strike Line level. Construct the wingwall footings with the culvert floor. See the wingwall detail sheets.

CULVERT SUMMARY													
Flow Line Elev. (m)	Crown Gr. Elev. (m)	Design Fill Ht. (m)	Skew N/A	Wings	Scour Apron	Soil Saver	Granular Backfill	Concrete			Reinf. Steel (Gr. 420)		
								Barrel (m <sup>3</sup> )	Wings & Apron (m <sup>3</sup> )	Total (m <sup>3</sup> )	Barrel (kg)	Wings & Apron (kg)	Total (kg)
Ext.Lt. 403.311	405.663	0.61	0	FLARED	YES	NO	NO	82.1	6.4	88.5	10 236.0	217.0	10 453.0
Ext.Rt. 403.412				NONE				0.0	0.0	0.0	0.0	0.0	0.0

BAR SCHEDULE																																
F1				F3				F4				S1				S3				S4				S5								
Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length					
Ext.Lt.	20	165	176	5	260	15	140	207	5	260	12	84	9	890	20	165	176	5	260	15	140	207	5	260	15	24	14	680	12	36	9	890
Ext.Rt.																																
K1				K2				W1				W3				W4				G1				G2								
Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length					
Ext.Lt.								12	230	252	1	250	12	24	9	890	12	230	126	1	250	15	2	5	260							
Ext.Rt.																																

Minimum Splice Lengths	
#12	405
#15	510
#20	610

* SUMMARY OF QUANTITIES	
Class AAA Concrete	303.0 m <sup>3</sup>
Class AAA Concrete (AE)	5.1 m <sup>3</sup>
Reinforcing Steel (Gr. 420)	36 480 kg
Reinforcing Steel (Epoxy Coated)	N/A kg
Class III Excavation	--- m <sup>3</sup>
Foundation Stabilization (Set)	1 m <sup>3</sup>
Concrete for Seal Course (Set)	--- m <sup>3</sup>
Granular Backfill (Wingwalls) (Set)	--- m <sup>3</sup>

KANSAS DEPARTMENT OF TRANSPORTATION  
 Sta. 14+443.483  
 2-2.440 m x 0.915 m RCB  
 EXT. LT.

BR-2.8.3-P-SI Sedgwick

NO.	DATE	REVISIONS	BY	APP'D

DESIGNED: [ ] QUANTITIES: [ ]  
 DETAIL CK.: [ ] TRACE CK.: [ ]