

TRR Conceptual Alternative Schedules
April 14, 2014

Alternative/Task	Workforce	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Colstrip Alternative																									
Project Management	25																								
Civil/Grading Full Contractor Workforce	100																								
Civil/Grading Partial Contractor Workforce	25																								
Track/Signal/Telecom Full Workforce	50																								
Track/Signal/Telecom Partial Workforce	25																								
Workforce Totals	225	125	125	125	125	125	125	175	100	75	75														
Tongue River Alternative																									
Project Management	25																								
Civil/Grading Full Contractor Workforce	100																								
Civil/Grading Partial Contractor Workforce	25																								
Track/Signal/Telecom Full Workforce	50																								
Track/Signal/Telecom Partial Workforce	25																								
Workforce Totals	225	125	125	125	125	125	175	175	175	100	75	75													
Tongue River Road Alternative																									
Project Management	25																								
Civil/Grading Full Contractor Workforce	100																								
Civil/Grading Partial Contractor Workforce	25																								
Track/Signal/Telecom Full Workforce	50																								
Track/Signal/Telecom Partial Workforce	25																								
Workforce Totals	225	125	125	125	125	125	125	125	125	125	125	125	125	125	175	175	175	100	75	75	75				
Moon Creek Alternative																									
Project Management	25																								
Civil/Grading Full Contractor Workforce	100																								
Civil/Grading Partial Contractor Workforce	25																								
Track/Signal/Telecom Full Workforce	50																								
Track/Signal/Telecom Partial Workforce	25																								
Workforce Totals	225	125	125	125	125	125	125	125	125	125	125	125	125	125	175	175	175	100	75	75	75				
Revised Decker Alternative																									
Project Management	25																								
Civil/Grading Full Contractor Workforce	100																								
Civil/Grading Partial Contractor Workforce	25																								
Track/Signal/Telecom Full Workforce	50																								
Track/Signal/Telecom Partial Workforce	25																								
Workforce Totals	225	125	125	125	125	125	125	125	125	125	125	125	125	125	175	175	175	100	75	75	75				
Ashland East Variation (Additional Effort)																									
Project Management	25																								
Civil/Grading Full Contractor Workforce	100																								
Civil/Grading Partial Contractor Workforce	25																								
Track/Signal/Telecom Full Workforce	50																								
Track/Signal/Telecom Partial Workforce	25																								
Workforce Totals	225	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	175	175	100	75	75	75
Terminus 1 Variation (Additional Effort)																									
Project Management	25																								
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Civil/Grading Partial Contractor Workforce	25																								
Track/Signal/Telecom Full Workforce	50																								
Track/Signal/Telecom Partial Workforce	25																								
Workforce Totals	225	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	175	175	100	75	75	75
Terminus 1 Variation (Additional Effort)																									
Project Management	25																								
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Civil/Grading Partial Contractor Workforce	25																								
Track/Signal/Telecom Full Workforce	50																								
Track/Signal/Telecom Partial Workforce	25																								
Workforce Totals	225	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	175	175	100	75	75	75

Coldstrip Alternative			Tongue River Alternative			Tongue River Road Alternative			Moon Creek Alternative			Revised Decker Alternative		
Site Post	Size	Stream	Site Post	Size	Stream	Site Post	Size	Stream	Site Post	Size	Stream	Site Post	Size	Stream
0.62	84 SPP		1.21	36 CMP		11.60	78 SPP		2.07	BRIDGE		0.48	114 SSP	
0.84	78 SPP		1.73	36 CMP		11.71	84 SPP		2.58	96 SPP	Moon Creek	0.64	72 CMP	
1.24	84 SPP		1.81	36 CMP		12.18	BRIDGE	Tongue River	3.27	78 SPP		1.65	114 SSP	
1.41	78 SPP		1.86	54 CMP		13.42	90 SPP		3.84	102 SPP		2.2	150 SPP	
1.63	78 SPP		2.28	36 CMP		14.02	90 SPP		4.5	108 SPP		2.45	150 SPP	South Fork Monument Creek
2.33	90 SPP		2.73	48 CMP		15.27	144 SPP	Dry Creek	4.86	90 SPP		2.79	84 SPP	
2.66	84 SPP		3.38	48 CMP		15.37	60 CMP		5.11	BRIDGE	Moon Creek	3.27	48 CMP	
2.84	84 SPP		4.14	108 SPP		15.38	54 CMP		5.46	78 SPP		3.55	150 SPP	Leal Rock Creek
3.34	84 SPP		4.55	84 SPP		16.01	156 SPP	Prat Creek	5.71	90 SPP		4.04	48 CMP	
3.53	54 CMP		4.95	72 CMP		17.05	84 SPP		5.97	72 CMP		4.3	48 CMP	
3.76	66 CMP		5.88	48 CMP		17.36	102 SPP		6.1	54 CMP		4.43	48 CMP	
3.91	54 CMP		5.97	120 SPP	Paddy Fay Creek	18.27	156 SPP	Nelson Creek	6.31	66 CMP		4.71	96 SPP	
4.22	102 SPP		6.41	36 CMP		18.73	96 SPP		6.6	96 SPP		4.85	48 CMP	
4.59	96 SPP		6.56	36 CMP		19.06	78 SPP		6.96	78 SPP		5.02	54 CMP	
5.78	78 SPP		7.00	36 CMP		19.50	108 SPP		7.13	60 CMP		5.39	54 CMP	
6.43	72 CMP	Rosebud Creek	7.70	36 SPP		20.46	108 SPP		7.48	102 SPP		5.65	66 CMP	
7.43	BRIDGE		8.63	48 CMP		21.27	BRIDGE	Ash Creek	7.85	78 SPP		6.08	54 CMP	
7.87	72 CMP		9.06	48 CMP		22.31	84 SPP		8.29	72 CMP		6.4	138 SPP	Post Creek
8.01	60 CMP		9.48	96 SPP		22.72	90 SPP		8.55	102 SPP		6.96	48 CMP	
8.3	60 CMP		9.82	36 CMP		22.99	90 SPP		8.76	72 CMP		7.31	78 SPP	
8.57	90 SPP		9.97	36 CMP		23.57	114 SPP	Dry Creek	8.16	126 SPP		7.7	66 CMP	
8.96	90 SPP		10.71	36 CMP		23.75	96 SPP		8.65	84 SPP		8.18	60 CMP	
9.42	96 SPP		11.05	108 SPP		24.67	138 SPP	Jack Creek	10.26	72 CMP		8.45	66 CMP	
10.21	90 SPP		11.52	48 CMP		25.16	108 SPP		10.49	96 SPP		8.66	48 CMP	
10.92	96 SPP		11.73	36 CMP		25.37	96 SPP		10.76	72 CMP		8.84	54 CMP	
11.24	96 SPP		12.02	36 CMP		26.38	84 SPP		11.27	72 CMP		8.93	54 CMP	
11.49	90 SPP		12.20	36 CMP		26.73	150 SPP	Brown Creek	11.54	78 SPP		9.22	132 SPP	Fourmile Creek
11.86	48 CMP		12.28	48 CMP		27.37	96 SPP		11.94	90 SPP		10.8	60 CMP	
12.45	102 SPP		12.43	36 CMP		28.09	156 SPP	Haddow Creek	12.12	60 CMP		10.89	48 CMP	
12.67	102 SPP	Greenleaf Creek	12.60	36 CMP		28.48	78 SPP		12.2	60 CMP		11.49	90 SPP	
12.29	96 SPP		12.71	54 CMP		28.78	96 SPP		12.51	126 SPP		11.9	60 CMP	
12.49	84 SPP		12.94	36 CMP		29.48	102 SPP	Cheever Creek	13.01	66 CMP		12.38	54 CMP	
12.85	90 SPP		13.55	96 SPP		29.86	60 CMP		13.18	66 CMP		12.92	72 CMP	
15.32	60 CMP		13.81	48 CMP		30.11	126 SPP	Sand Creek	13.58	72 CMP		13.05	156 SSP	Canyon Creek
15.65	60 CMP		14.23	42 CMP		30.68	BRIDGE	Foster Creek	14.1	90 SPP		13.45	54 CMP	
15.72	60 CMP		14.65	120 SPP	Wolf Creek	31.66	60 CMP		14.5	72 CMP		13.8	60 CMP	Spring Creek
15.96	BRIDGE	Lay Creek	15.10	54 CMP		31.83	66 CMP		15.08	66 CMP		14.91	48 CMP	
16.69	78 SPP		15.63	72 CMP		31.93	72 CMP		15.65	60 CMP		15.06	78 SPP	
17.14	84 SPP		15.77	36 CMP		32.24	78 SPP		15.98	84 SPP		15.3	54 CMP	
17.61	66 CMP		16.30	36 CMP		32.74	90 SPP		16.39	54 CMP		15.47	78 SPP	
17.71	66 CMP		16.56	108 SPP	Circle L Creek	33.10	84 SPP		16.62	60 CMP		15.85	60 CMP	
17.89	54 CMP		17.02	36 CMP		33.37	84 SPP		16.84	60 CMP		16.39	144 CMP	Prairie Dog Creek
18	60 CMP		17.09	60 CMP		33.51	102 SPP	Stoney Creek	17.14	60 CMP		16.85	72 CMP	
18.26	60 CMP		17.32	72 CMP		34.49	96 SPP		17.36	66 CMP		17.18	54 CMP	
18.6	72 CMP		18.0	48 CMP		34.77	90 SPP		18.07	102 SPP		17.33	48 CMP	
18.88	72 CMP		18.49	108 SPP	Thorpe Creek	35.37	102 SPP		18.41	150 SPP	Thorpe Creek	18.1	60 CMP	
19.21	BRIDGE	Tongue River	18.89	36 CMP		35.79	144 SPP	Elk Creek	18.44	150 SPP	Thorpe Creek	18.54	156 SSP	Bull Creek
19.69	60 CMP		19.10	48 CMP		36.16	96 SPP		18.48	150 SPP	Thorpe Creek	18.94	54 CMP	
19.79	54 CMP		19.38	54 CMP		37.24	96 SPP					19.63	78 SPP	
19.97	84 SPP		19.61	36 CMP		37.89	84 SPP					19.92	48 CMP	
20.03	96 SPP		19.82	54 CMP		38.03	114 SPP					20.26	48 CMP	
20.22	54 CMP		20.12	36 CMP		38.98	96 SPP					20.67	48 CMP	
20.33	54 CMP		20.58	108 SPP	Kennedy Creek	39.25	BRIDGE	Lay Creek				20.9	60 CMP	
20.42	36 CMP		20.80	36 CMP		39.52	102 SPP					21.13	72 CMP	
21.06	72 CMP	Colbert Coulee	21.13	48 CMP		39.74	60 CMP					21.46	60 CMP	
21.25	36 CMP		21.38	60 CMP		39.74	60 CMP					22.09	60 CMP	
21.38	54 CMP		21.69	36 CMP		40.01	78 SPP					22.21	60 CMP	
21.86	54 CMP		22.11	72 CMP	Plunkett Creek	40.63	72 CMP					22.35	54 CMP	
22.08	36 CMP		22.81	48 CMP		40.78	72 CMP					22.93	96 SPP	
22.48	36 CMP		23.04	72 CMP		41.42	108 SPP					23.26	48 CMP	
22.73	36 CMP		23.45	36 CMP		42.35	150 SPP	Coon Creek				23.8	60 CMP	
22.94	72 CMP		23.89	42 CMP		43.51	84 SPP					24.93	BRIDGE	Tongue River
23.15	36 CMP		24.08	72 CMP	Goddess Creek	43.89	66 CMP	Garden Creek				25.42	54 CMP	
23.33	36 CMP		24.65	42 CMP		44.31	144 SPP					25.72	60 CMP	
23.75	38 CMP		25.03	72 CMP	Yank Creek	44.44	78 SPP					25.88	60 CMP	
24.57	120 SPP	Double E Coulee	25.69	36 CMP		44.99	BRIDGE	Liscom Creek				26.11	60 CMP	
24.76	36 CMP		25.88	36 CMP		45.66	78 SPP					26.5	84 SPP	
24.96	36 CMP		26.13	48 CMP		45.86	72 CMP					26.99	108 SPP	
25.19	36 CMP		26.43	48 CMP		46.20	96 SPP					27.37	84 SPP	
25.51	36 CMP		25.79	120 SPP	Mills Creek	46.91	102 SPP					27.72	90 SPP	
25.8	96 SPP	Cook Creek	27.13	54 CMP		47.25	66 CMP					27.81	60 CMP	
26.25	36 CMP		27.49	36 CMP		47.38	78 SPP					28.13	54 CMP	
26.5	36 CMP		27.77	36 CMP		47.52	90 SPP					28.49	54 CMP	
26.82	48 CMP		28.08	60 CMP		47.73	108 SPP	Big John Creek				28.76	60 CMP	
27.07	36 CMP		28.66	36 CMP		48.22	114 SPP	Freda Creek				28.9	48 CMP	
27.16	36 CMP		28.87	120 SPP	Forest Creek	48.48	60 CMP					29.19	78 SPP	
27.31	36 CMP		29.1	48 CMP		48.78	126 SPP	Goodale Creek				29.51	60 CMP	
27.54	36 CMP		29.56	48 CMP		49.25	72 CMP					29.66	54 CMP	
27.71	36 CMP		30.03	72 CMP		49.64	120 SPP					29.87	66 CMP	
27.94	48 CMP		30.33	114 SPP	Horse Creek	49.80	72 CMP					30.01	60 CMP	
28.45	BRIDGE	Otter Creek	30.52	36 CMP		49.96	78 SPP					30.34	48 CMP	
29.4	48 CMP		30.65	36 CMP		50.19	66 CMP					30.69	126 SPP	Poker Jim Creek
30.54	36 CMP		31.03	72 CMP		50.51	84 SPP					31.13	48 CMP	
30.9	48 CMP		31.33	42 CMP		50.70	78 SPP					31.52	78 SPP	
31.16	36 CMP		31.54	48 CMP		51.15	114 SPP	Straight Creek				31.56	78 SPP	
31.34	96 SPP		31.98	36 CMP		52.03	138 SPP	Diamond R Creek				31.78	48 CMP	
31.58	36 CMP		32.09	42 CMP	Six-Mile Creek	52.68	BRIDGE	Beaver Creek				31.96	96 SPP	
32	36 CMP		32.45	120 SPP		53.51	66 CMP					32.44	66 CMP	
32.26	96 SPP	Sawmill Creek	33.00	48 CMP		53.73	90 SPP					32.9	60 CMP	
32.57	36 CMP		33.30	36 CMP		54.27	90 SPP					33.26	48 CMP	
32.84	48 CMP		33.47	36 CMP		54.75	96 SPP					33.54	84 SPP	
33.19	36 CMP		33.61	36 CMP		55.23	84 SPP					34.11	54 CMP	
33.31	96 SPP		34.08	36 CMP		55.60	90 SPP					34.51	90 SPP	Gale Creek
33.35	84 SPP		34.40	180 SPP	Miller Creek	57.06	96 SPP					34.89	72 CMP	
33.66	36 CMP		34.61	36 CMP		57.33	90 SPP					35.19	48 CMP	
33.83	36 CMP		34.69	36 CMP		57.77	156 SPP	Brincoff Creek				35.39	48 CMP	
34.19	36 CMP		34.84	36 CMP		58.60	96 SPP					35.79	144 SPP	O'Dell Creek
34.48	120 SPP	McIntosh Creek	35.03	36 CMP		58.84	96 SPP					36.19	60 CMP	
34.8	48 CMP		35.25	36 CMP		59.16	138 SPP					37.33	72 CMP	
		Spur to TP1	35.48	48 CMP		59.89	36 CMP					37.76	66 CMP	
0.58	54 CMP		35.78	48 CMP								38.14	48 CMP	
1.32	60 CMP		36.20	108 SPP								38.27	90 SPP	
1.68	48 CMP		36.52	108 SPP	Pump Creek							38.57	90 SPP	
2.13	36 CMP		36.86	36 CMP								38.8	114 SPP	Dry Creek
2.49	120 SPP	Spring Creek	37.02	36 CMP										
2.53	54 CMP		37.19	36 CMP										
2.7	36 CMP		37.26	54 CMP										
2.8	36 CMP		37.43	96 SPP	Cow Creek									
2.89	48 CMP		38.17	42 CMP										
3.17	120 SPP	Bridge Creek	38.57	54 CMP										
4.05	42 CMP		38.70	48 CMP										
4.39	3													

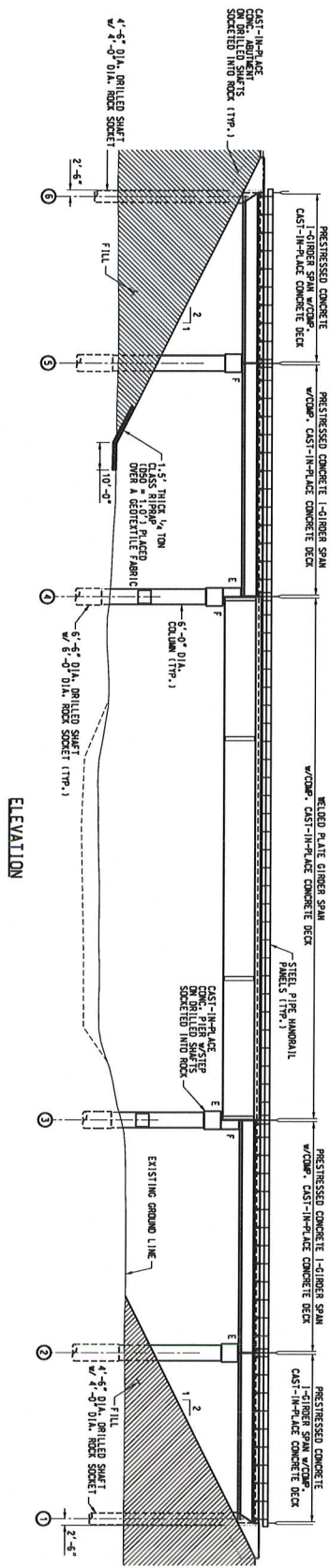
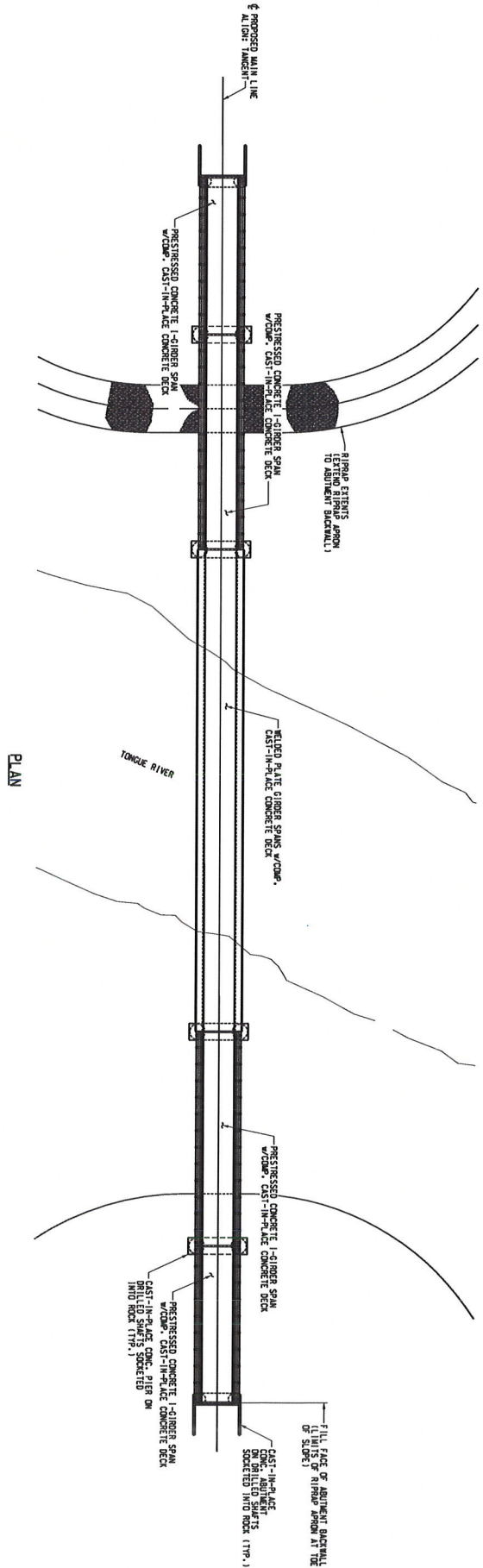
TRR Alternatives - Concept Bridge Locations and Culvert Locations/Sizes
SPP denotes Structural Plate Pipe and CMP denotes Corrugated Metal Pipe (dimensions in inches)

47.56	96 SPP	Trail Creek
47.85	96 SPP	Alfalfa Creek
48.47	54 CMP	
49.29	96 SPP	Hart Creek
49.88	36 CMP	
50.46	36 CMP	
50.86	36 CMP	
51.05	48 CMP	
51.37	36 CMP	
51.71	48 CMP	
52.02	108 SPP	Joe Leg Creek
52.43	36 CMP	
52.94	42 CMP (POND)	
53.23	36 CMP	
Tongue River Alternative		
Mile Post	Size	Stream
53.42	36 CMP	
53.55	36 CMP	
53.85	36 CMP	
54.57	60 CMP	Hammond Draw
54.84	36 CMP	
55.42	36 CMP	
55.84	36 CMP	
56.05	36 CMP	
56.35	48 CMP	
56.54	96 SPP	Hoe and Cooper Creek
56.86	36 CMP	
57.17	54 CMP	
57.58	36 CMP	
57.73	48 CMP	
58.09	36 CMP	
58.30	48 CMP	
58.57	36 CMP	
58.72	36 CMP	
58.91	36 CMP	
59.06	BRIDGE	Tongue River
59.65	36 CMP	
59.82	48 CMP	
59.89	36 CMP	
60.23	36 CMP	
60.42	36 CMP	

TRR Alternative Variations - Concept Bridge Locations and Culvert Locations/Sizes

SPP denotes Structural Plate Pipe and CMP denotes Corrugated Metal Pipe (dimensions in inches)

Ashland East Variation			TP#1 Variation		
Mile Post	Size	Stream	MilePost	Size	Stream
19.08	Bridge	Tongue River	0.05	72 CMP	
20.27	72 CMP		0.69	48 CMP	
20.53	48 CMP		0.00	54 CMP	
20.88	84 SPP		1.01	78 SPP	
21.27	66 CMP		1.78	60 CMP	
21.8	84 SPP		2.26	54 CMP	
22.03	66 CMP		2.79	90 SPP	Spring Creek
22.36	84 SPP		3.01	48 CMP	
22.95	60 CMP		3.43	78 SPP	
23.08	108 SPP		3.74	120 SPP	Bridge Creek
23.56	78 SPP		4.28	48 CMP	
23.9	72 CMP		4.88	66 CMP	
24.24	66 CMP		5.13	102 SPP	Bowman Creek
24.79	48 CMP		5.23	78 SPP	
25.12	66 CMP		5.49	48 CMP	
26.03	108 SPP		5.88	60 CMP	
26.3	60 CMP		6.02	66 CMP	
26.43	60 CMP		6.60	138 SPP	King Creek
26.73	60 CMP		7.28	60 CMP	
26.89	54 CMP		7.45	48 CMP	
27.14	66 CMP		8.00	96 SPP	Cedar Creek
27.51	78 SPP		8.15	54 CMP	
28.2	48 CMP				
28.39	78 SPP				
28.59	48 CMP				
29	108 SPP				
29.2	126 SPP				
29.3	114 SPP				
29.38	66 CMP				
30.28	120 SPP				
30.7	84 SPP				
31.22	36 CMP				
31.23	48 CMP				
31.93	36 CMP				
32.27	48 CMP				
32.86	Bridge	Otter Creek			
33.37	48 CMP				
33.66	36 CMP				
33.75	66 CMP				
34.23	48 CMP				

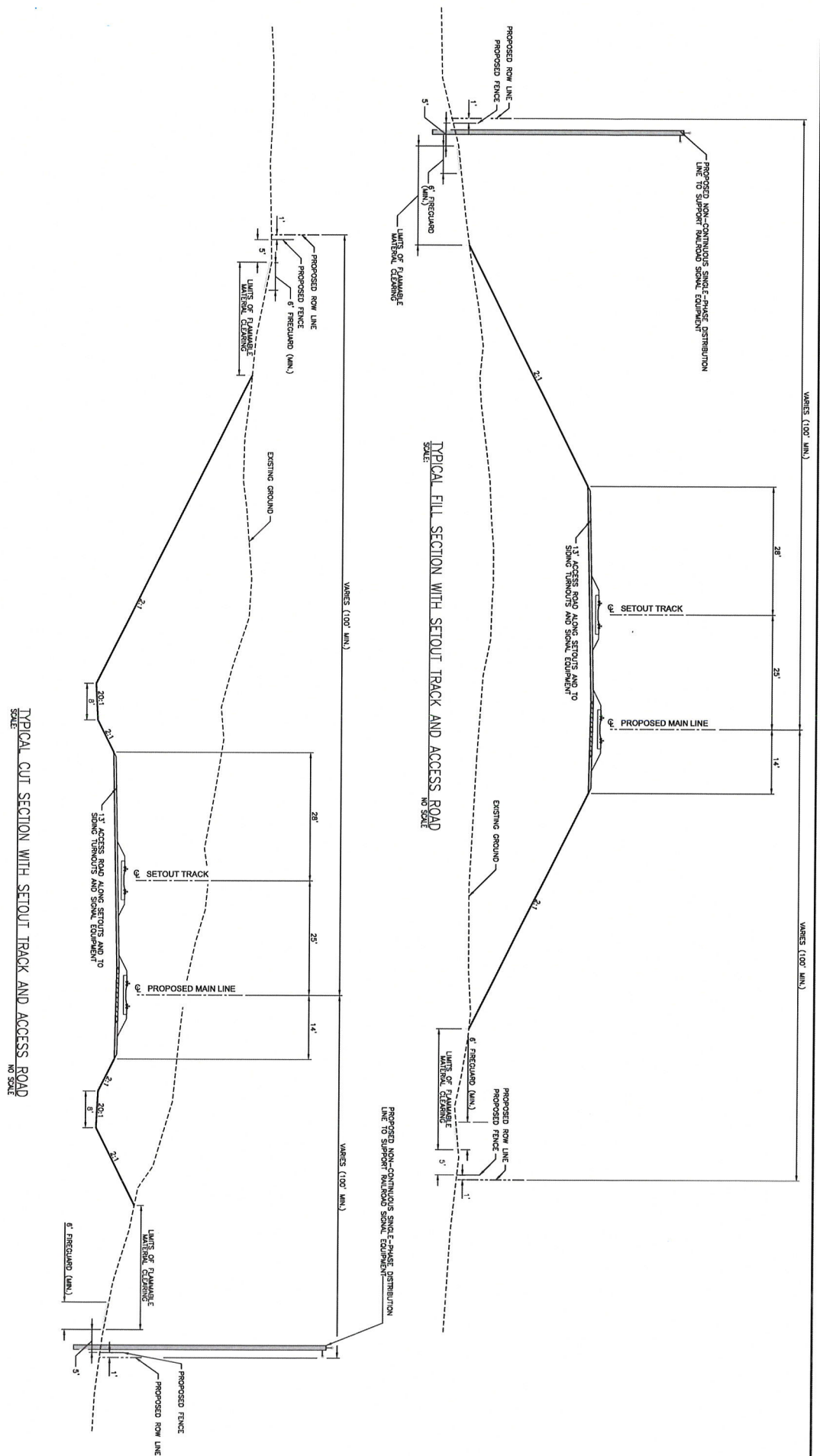


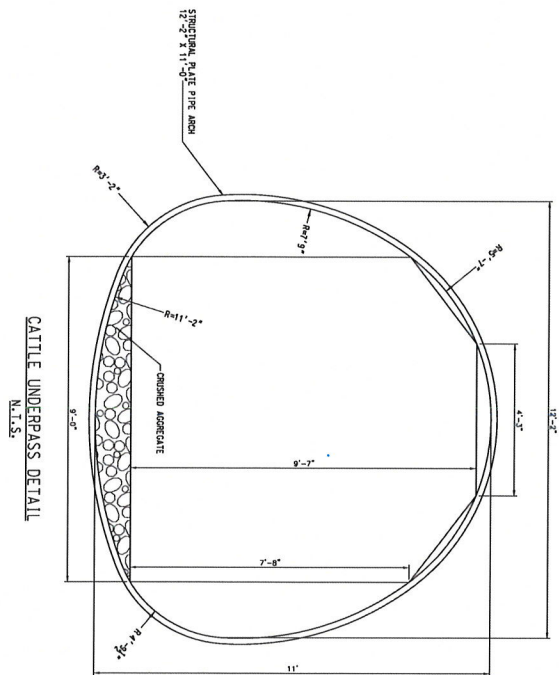
TRANS SYSTEMS

GENERAL NOTES:
DESIGN LOADING: 7 COOPER E60 WITH DIESEL IMPACT.

DESIGN: JMW	DATE: AUGUST 2013	PROJECT: TONGUE RIVER BRIDGE CONCEPT
DRAWN: TAW	AUTHOR: JMW	PROPOSED TONGUE RIVER RAILROAD
CHECKED: JPH		
DATE: AUGUST 2013		
AUTHOR: JMW		
LINE SECT: X		
PLAN NO: X-15-15-001		
		SHEET: 1 OF 1



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