

**INTERIM PRELIMINARY ENGINEERING  
SHARED TRACK ALTERNATIVE  
SPOKANE LIGHT RAIL TRANSIT  
Shared Track Alternative**

Summary of Costs for the Shared Track Alternative		
Description	Year 2001\$	Escalated to MPE 2005\$
Shared Track Alternative - Plaza to Liberty Lake (Alignment Stops at Liberty Lake Station)	<b>\$309,913,397</b>	<b>\$362,554,840</b>

## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Consolidated Summary Shared Track

<b>Spokane Regional</b>						
<b>Light Rail Project</b>						
<b>Order of Magnitude</b>						
Drawing	<b>Shared Track Option - Summary of Costs</b>				Length	
	<b>Shared Track Option (Plaza Station to Liberty Lake Station)</b>				81,968 FT	15.5 mile
<b>Description</b>						<b>2001\$</b>
<b>1-Civil Construction</b>						\$43,471,956
<b>3 - Utilities</b>						\$12,616,800
<b>5 - Structures</b>						\$506,250
<b>6 - Stations</b>						\$7,400,000
<b>7 - Park &amp; Rides</b>						\$9,675,000
<b>8 - Operations Facility (Shared Track Option)</b>						\$23,592,331
<b>9 - Traction Power System -Lighting and System Support</b>						\$690,000
<b>10 - Signal System</b>						\$16,233,750
<b>11 - Communications</b>						\$1,770,000
<b>12 - Fare Collection</b>						\$2,450,000
<b>Subtotal - Infrastructure</b>						\$118,406,087
<b>13. Right of Way</b>						\$33,000,000
<b>14. Vehicles</b>						\$63,000,000
<b>15 - Engineering &amp; Administration</b>						\$44,592,130
<b>16 - Contingencies</b>						\$36,924,657
<b>17 - Washington State Sales Tax and Real Estate Tax</b>						\$13,990,522
<b>Total</b>						\$309,913,397
Cost Per mile						20.0 M/Mi

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Summary Shared Track

Spokane Regional						
Light Rail Project		Estimate Basics				
Order of Magnitude		Start Sta	End Sta	Length		
Drawing	Shared Track Option - Summary of Costs			81,968 FT	15.5 mile	
C -3000	Shared Track Option (Plaza Station to Liberty Lake Station)					
	Description	Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>						
1	Site Preparation - Clearing & Grubbing	81,968	LF	\$10	\$819,680	
2	Grade Preparation to Top of subballast.	81,968	LF	\$35	\$2,868,880	
3	Curb & Gutter Allowance	3,400	LF	\$35	\$119,000	
4	Common Excavation	89,500	CY	\$15	\$1,342,500	
6	Common Backfill (From Project Excavation)	41,200	CY	\$4	\$164,800	
9	Chain Link Fencing 4'	6,780	LF	\$16	\$108,480	
10	Chain Link Fencing 6'	40,250	LF	\$22	\$885,500	
11	Ballast Walls (Curb-no drainage)	5,930	LF	\$22	\$130,460	
12	Site Cleanup and Final Grading Allowance	81,968	LF	\$6	\$491,808	
14	Ballasted Track at Grade or Structure	97,556	TF	\$223	\$21,754,988	
15	Ballasted Track with Pave-Over Topping	7,240	TF	\$285	\$2,063,400	
20	#10 Single Crossover	1	EA	\$175,000	\$175,000	
21	#10 Turnout	14	EA	\$75,000	\$1,050,000	
22	#20 Turnout	5	EA	\$100,000	\$500,000	
23	Impact Attenuators	3	EA	\$35,000	\$105,000	
24	Minor Street Closures Allowance	18	EA	\$25,000	\$450,000	
25	Minor Intersection Rebuild (2 Lanes)	17	EA	\$100,000	\$1,700,000	
26	Major Intersection Rebuild (4 Lanes)	17	EA	\$200,000	\$3,400,000	
27	Minor Traffic Signal (2 Lanes)	4	EA	\$100,000	\$400,000	
28	Major Traffic Signal (4 Lanes)	12	EA	\$200,000	\$2,400,000	
29	Complex Major Intersection Rebuild	1	EA	\$300,000	\$300,000	
30	Roadway Construction	57,440	SF	\$9	\$516,960	
31	Sidewalk Construction	14,100	SF	\$6	\$84,600	
32	Off Alignment Signal Modifications	5	EA	\$75,000	\$375,000	
35	Relocate UPRR Yard Lead or Branch Line	6,280	TF	\$100	\$628,000	
36	Remove & Relocate Industrial Spur	2,630	TF	\$130	\$341,900	
37	Remove Industrial Spur		TF	\$50		
39	Construct New Ballasted Industrial Siding Track	1,850	TF	\$160	\$296,000	
50	<b>2 - Insurance - Included other in Items</b>					
57	<b>3 - Utilities</b>					\$12,616,800
59	Utility Allowance - High	3,340	RF	\$600	\$2,004,000	
60	Utility Allowance - Medium	11,000	RF	\$350	\$3,850,000	
61	Utility Allowance - Low	67,628	RF	\$100	\$6,762,800	
70	<b>4 - Track Materials - Included in the Rail Items</b>					
74	<b>5 - Structures</b>					\$506,250
76	Crash Wall (2.5' thick x 12' high)	350	CY	\$300	\$105,000	
77	Retaining Wall to 5'	3,750	SF	\$35	\$131,250	
78	MSE (or Sound) Retaining Wall Allowance	9,000	SF	\$30	\$270,000	
104	<b>6 - Stations</b>					\$7,400,000
105	Stations (Shared Track Option)	14	EA	\$500,000	\$7,000,000	
108	Station Name					
109	Operator Crew Room/Concession Building	2	EA	\$100,000	\$200,000	
110	Bus Turn-around and Canopy Reconstruction	1	LS	\$200,000	\$200,000	
115	<b>7 - Park &amp; Rides</b>					\$9,675,000
116	Park & Ride	2,250	Space	\$4,300	\$9,675,000	
117	Park & Ride Location					
119	<b>8 - Operations Facility (Shared Track Option)</b>					\$23,592,331
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)	1	LS	\$10,163,008	\$10,163,008	
124	Yard Trackwork (Shared Track Option)	1	LS	\$2,565,708	\$2,565,708	
125	Yard Ductbank / Conduit (Shared Track Option)	1	LS	\$300,000	\$300,000	
126	Operations Facility Building (Shared Track Option)	1	LS	\$5,343,000	\$5,343,000	
127	Maintenance Equipment (Shared Track Option)	1	LS	\$3,373,155	\$3,373,155	
128	MOW Vehicles (Shared Track Option)	1	LS	\$1,847,460	\$1,847,460	
133	<b>9 - Traction Power System -Lighting and System Support</b>					\$690,000
141	Alignment Lighting (Shared Track Option)	1	LS	\$600,000	\$600,000	
142	Spare Parts/ System Support (Shared Track Option)	1	LS	\$90,000	\$90,000	
147	<b>10 - Signal System</b>					\$16,233,750
148	Signal (Shared Track Option)	1	LS	\$16,233,750	\$16,233,750	
149						
150						
151	<b>11 - Communications</b>					\$1,770,000
152	Communications (Shared Track Option)	1	LS	\$1,770,000	\$1,770,000	
153						
154						

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Summary Shared Track

Spokane Regional							
		Light Rail Project		Estimate Basics			
		Order of Magnitude		Start Sta	End Sta	Length	
Drawing	Shared Track Option - Summary of Costs					81,968 FT	15.5 mile
C -3000	Shared Track Option (Plaza Station to Liberty Lake Station)						
	Description	Quantity	Unit	Unit Cost	Extension	2001\$	
155							
156							
157	<b>12 - Fare Collection</b>						\$2,450,000
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)	15	LS	\$163,333	\$2,450,000		
159							
160	<b>Subtotal - Infrastructure</b>			Subtotal			\$118,406,087
161							
162	<b>13. Right of Way</b>						\$33,000,000
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)	1	LS	\$28,000,000	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance	1	LS	\$5,000,000	\$5,000,000		
174	<b>14. Vehicles</b>						\$63,000,000
175	DMU Vehicles (Assume New)	15	EA	\$3,500,000	\$52,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles	15	EA	\$700,000	\$10,500,000		
177							
178							
179	<b>15 - Engineering &amp; Administration</b>			Subtotal			\$44,592,130
180	Infrastructure E & A 35.00%				\$41,442,130		
181	Vehicle E & A 5.00%				\$3,150,000		
182							
183							
184							
185	<b>16 - Contingencies</b>			Subtotal			\$36,924,657
187	Vehicles Contingency 5.00%				\$3,150,000		
189	Infrastructure Contingency 20.00%				\$21,157,857		
191	Utilities Contingency 100.00%				\$12,616,800		
192							
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>						\$13,990,522
195	Sales Tax 8.40%				\$13,990,521.69		
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.						
						Total	\$309,913,397
						Cost Per mile	20.0 M/Mi

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-201 Shared Track

Spokane Regional							
		Light Rail Project	Estimate Basics				
		Order of Magnitude	Start Sta	End Sta	Length		
Drawing	Shared Track Downtown Section		8+60	25+00	1,640 FT	0.3 mile	
C -201	Lincoln to Convention Center						
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>							\$2,519,600
1	Site Preparation - Clearing & Grubbing	1,640	LF	\$10	\$16,400		
2	Grade Preparation to Top of subballast.	1,640	LF	\$35	\$57,400		
3	Curb & Gutter Allowance		LF	\$35			
4	Common Excavation	3,000	CY	\$15	\$45,000		
6	Common Backfill (From Project Excavation)		CY	\$4			
9	Chain Link Fencing 4'		LF	\$16			
10	Chain Link Fencing 6'		LF	\$22			
11	Ballast Walls (Curb-no drainage)		LF	\$22			
12	Site Cleanup and Final Grading Allowance	1,640	LF	\$6	\$9,840		
14	Ballasted Track at Grade or Structure		TF	\$223			
15	Ballasted Track with Pave-Over Topping	1,640	TF	\$285	\$467,400		
20	#10 Single Crossover		EA	\$175,000			
21	#10 Turnout		EA	\$75,000			
22	#20 Turnout		EA	\$100,000			
23	Impact Attenuators	1	EA	\$35,000	\$35,000		
24	Minor Street Closures Allowance		EA	\$25,000			
25	Minor Intersection Rebuild (2 Lanes)		EA	\$100,000			
26	Major Intersection Rebuild (4 Lanes)	4	EA	\$200,000	\$800,000		
27	Minor Traffic Signal (2 Lanes)		EA	\$100,000			
28	Major Traffic Signal (4 Lanes)	5	EA	\$200,000	\$1,000,000		
29	Complex Major Intersection Rebuild		EA	\$300,000			
30	Roadway Construction	9,840	SF	\$9	\$88,560		
31	Sidewalk Construction		SF	\$6			
32	Off Alignment Signal Modifications		EA	\$75,000			
35	Relocate UPRR Yard Lead or Branch Line		TF	\$100			
36	Remove & Relocate Industrial Spur		TF	\$130			
37	Remove Industrial Spur		TF	\$50			
39	Construct New Ballasted Industrial Siding Track		TF	\$160			
50	<b>2 - Insurance - Included other in Items</b>						
57	<b>3 - Utilities</b>						\$984,000
59	Utility Allowance - High	1,640	RF	\$600	\$984,000		
60	Utility Allowance - Medium		RF	\$350			
61	Utility Allowance - Low		RF	\$100			
70	<b>4 - Track Materials - Included in the Rail Items</b>						
74	<b>5 - Structures</b>						
76	Crash Wall (2.5' thick x 12' high)		CY	\$300			
77	Retaining Wall to 5'		SF	\$35			
78	MSE (or Sound) Retaining Wall Allowance		SF	\$30			
104	<b>6 - Stations</b>						\$500,000
105	Stations (Shared Track Option)	1	EA	\$500,000	\$500,000		
108	Station Name	Plaza Station					
109	Operator Crew Room/Concession Building		EA	\$100,000			
110	Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115	<b>7 - Park &amp; Rides</b>						
116	Park & Ride		Space	\$4,300			
117	Park & Ride Location						
119	<b>8 - Operations Facility (Shared Track Option)</b>						
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124	Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125	Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126	Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127	Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128	MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133	<b>9 - Traction Power System -Lighting and System Support</b>						
141	Alignment Lighting (Shared Track Option)		LS	\$600,000			
142	Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147	<b>10 - Signal System</b>						
148	Signal (Shared Track Option)		LS	\$16,233,750			
149							
150							
151	<b>11 - Communications</b>						
152	Communications (Shared Track Option)		LS	\$1,770,000			
153							
154							

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-201 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track Downtown Section</b>		8+60	25+00	1,640 FT	0.3 mile
C -201	<b>Lincoln to Convention Center</b>					
		<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>
						<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158		Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333	
159						
160		<b>Subtotal - Infrastructure</b>			Subtotal	\$4,003,600
161						
162	<b>13. Right of Way</b>					
165		Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000	
166		Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000	
174	<b>14. Vehicles</b>					
175		DMU Vehicles (Assume New)		EA	\$3,500,000	
176		DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000	
177						
178						
179	<b>15 - Engineering &amp; Administration</b>				Subtotal	\$1,401,260
180	Infrastructure	E & A 35.00%				\$1,401,260
181	Vehicle	E & A 5.00%				
182						
183						
184						
185	<b>16 - Contingencies</b>				Subtotal	\$1,587,920
187	Vehicles	Contingency 5.00%				
189	Infrastructure	Contingency 20.00%				\$603,920
191	Utilities	Contingency 100.00%				\$984,000
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$313,125
195		Sales Tax 8.40%				\$313,125.12
196		Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.				
					Total	\$7,305,905

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-202 Shared Track

Spokane Regional						
		Light Rail Project	Estimate Basics			
		Order of Magnitude	Start Sta	End Sta	Length	
Drawing	Shared Track Downtown Section		25+00	50+00	2,500 FT	0.5 mile
C -202	Convention Center to Trent Station					
	Description	Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>						
1	Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000	
2	Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500	
3	Curb & Gutter Allowance		LF	\$35		
4	Common Excavation	3,000	CY	\$15	\$45,000	
6	Common Backfill (From Project Excavation)	400	CY	\$4	\$1,600	
9	Chain Link Fencing 4'	200	LF	\$16	\$3,200	
10	Chain Link Fencing 6'		LF	\$22		
11	Ballast Walls (Curb-no drainage)		LF	\$22		
12	Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000	
14	Ballasted Track at Grade or Structure	2,000	TF	\$223	\$446,000	
15	Ballasted Track with Pave-Over Topping	1,500	TF	\$285	\$427,500	
20	#10 Single Crossover		EA	\$175,000		
21	#10 Turnout	1	EA	\$75,000	\$75,000	
22	#20 Turnout		EA	\$100,000		
23	Impact Attenuators		EA	\$35,000		
24	Minor Street Closures Allowance		EA	\$25,000		
25	Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26	Major Intersection Rebuild (4 Lanes)	3	EA	\$200,000	\$600,000	
27	Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28	Major Traffic Signal (4 Lanes)	3	EA	\$200,000	\$600,000	
29	Complex Major Intersection Rebuild		EA	\$300,000		
30	Roadway Construction	9,000	SF	\$9	\$81,000	
31	Sidewalk Construction	3,000	SF	\$6	\$18,000	
32	Off Alignment Signal Modifications		EA	\$75,000		
35	Relocate UPRR Yard Lead or Branch Line		TF	\$100		
36	Remove & Relocate Industrial Spur		TF	\$130		
37	Remove Industrial Spur		TF	\$50		
39	Construct New Ballasted Industrial Siding Track		TF	\$160		
50	<b>2 - Insurance - Included other in Items</b>					
57	<b>3 - Utilities</b>					
59	Utility Allowance - High	1,500	RF	\$600	\$900,000	
60	Utility Allowance - Medium	1,000	RF	\$350	\$350,000	
61	Utility Allowance - Low		RF	\$100		
70	<b>4 - Track Materials - Included in the Rail Items</b>					
74	<b>5 - Structures</b>					
76	Crash Wall (2.5' thick x 12' high)		CY	\$300		
77	Retaining Wall to 5'		SF	\$35		
78	MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104	<b>6 - Stations</b>					
105	Stations (Shared Track Option)	1	EA	\$500,000	\$500,000	
108	Station Name	Convention Center				
109	Operator Crew Room/Concession Building		EA	\$100,000		
110	Bus Turn-around and Canopy Reconstruction		LS	\$200,000		
115	<b>7 - Park &amp; Rides</b>					
116	Park & Ride		Space	\$4,300		
117	Park & Ride Location					
119	<b>8 - Operations Facility (Shared Track Option)</b>					
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008		
124	Yard Trackwork (Shared Track Option)		LS	\$2,565,708		
125	Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000		
126	Operations Facility Building (Shared Track Option)		LS	\$5,343,000		
127	Maintenance Equipment (Shared Track Option)		LS	\$3,373,155		
128	MOW Vehicles (Shared Track Option)		LS	\$1,847,460		
133	<b>9 - Traction Power System -Lighting and System Support</b>					
141	Alignment Lighting (Shared Track Option)		LS	\$600,000		
142	Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147	<b>10 - Signal System</b>					
148	Signal (Shared Track Option)		LS	\$16,233,750		
149						
150						
151	<b>11 - Communications</b>					
152	Communications (Shared Track Option)		LS	\$1,770,000		
153						
154						

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-202 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track Downtown Section</b>		25+00	50+00	2,500 FT	0.5 mile
C -202	<b>Convention Center to Trent Station</b>					
	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$4,174,800
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$1,461,180
180	Infrastructure E & A 35.00%				\$1,461,180	
181	Vehicle E & A 5.00%					
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$1,834,960
187	Vehicles Contingency 5.00%					
189	Infrastructure Contingency 20.00%				\$584,960	
191	Utilities Contingency 100.00%				\$1,250,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$336,547
195	Sales Tax 8.40%				\$336,547	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$7,807,487

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-203 Shared Track

Spokane Regional							
		Light Rail Project	Estimate Basics				
		Order of Magnitude	Start Sta	End Sta	Length		
Drawing	Shared Track BN Section		50+00	75+00	2,500 FT	0.5 mile	
C -203	Trent Station to Hamilton St Bridge Area						
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>							
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000	
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500	
3		Curb & Gutter Allowance		LF	\$35		
4		Common Excavation	11,000	CY	\$15	\$165,000	
6		Common Backfill (From Project Excavation)	2,600	CY	\$4	\$10,400	
9		Chain Link Fencing 4'		LF	\$16		
10		Chain Link Fencing 6'		LF	\$22		
11		Ballast Walls (Curb-no drainage)		LF	\$22		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000	
14		Ballasted Track at Grade or Structure	2,800	TF	\$223	\$624,400	
15		Ballasted Track with Pave-Over Topping		TF	\$285		
20		#10 Single Crossover		EA	\$175,000		
21		#10 Turnout	1	EA	\$75,000	\$75,000	
22		#20 Turnout		EA	\$100,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9		
31		Sidewalk Construction		SF	\$6		
32		Off Alignment Signal Modifications		EA	\$75,000		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100		
36		Remove & Relocate Industrial Spur		TF	\$130		
37		Remove Industrial Spur		TF	\$50		
39		Construct New Ballasted Industrial Siding Track		TF	\$160		
50		<b>2 - Insurance - Included other in Items</b>					
57		<b>3 - Utilities</b>					\$250,000
59		Utility Allowance - High		RF	\$600		
60		Utility Allowance - Medium		RF	\$350		
61		Utility Allowance - Low	2,500	RF	\$100	\$250,000	
70		<b>4 - Track Materials - Included in the Rail Items</b>					
74		<b>5 - Structures</b>					
76		Crash Wall (2.5' thick x 12' high)		CY	\$300		
77		Retaining Wall to 5'		SF	\$35		
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104		<b>6 - Stations</b>					\$500,000
105		Stations (Shared Track Option)	1	EA	\$500,000	\$500,000	
108		Station Name	Trent Station				
109		Operator Crew Room/Concession Building		EA	\$100,000		
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000		
115		<b>7 - Park &amp; Rides</b>					
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119		<b>8 - Operations Facility (Shared Track Option)</b>					
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008		
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708		
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000		
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000		
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155		
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460		
133		<b>9 - Traction Power System -Lighting and System Support</b>					
141		Alignment Lighting (Shared Track Option)		LS	\$600,000		
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147		<b>10 - Signal System</b>					
148		Signal (Shared Track Option)		LS	\$16,233,750		
149							
150							
151		<b>11 - Communications</b>					
152		Communications (Shared Track Option)		LS	\$1,770,000		
153							
154							

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-203 Shared Track

Spokane Regional		Light Rail Project		Estimate Basics			
Order of Magnitude		Start Sta	End Sta	Length			
Drawing	Shared Track BN Section	50+00	75+00	2,500 FT	0.5 mile		
C -203	Trent Station to Hamilton St Bridge Area						
Description		Quantity	Unit	Unit Cost	Extension	2001\$	
155							
156							
157	<b>12 - Fare Collection</b>						
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333			
159							
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$1,752,300	
161							
162	<b>13. Right of Way</b>						
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000			
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000			
174	<b>14. Vehicles</b>						
175	DMU Vehicles (Assume New)		EA	\$3,500,000			
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000			
177							
178							
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$613,305	
180	Infrastructure E & A 35.00%				\$613,305		
181	Vehicle E & A 5.00%						
182							
183							
184							
185	<b>16 - Contingencies</b>			Subtotal		\$550,460	
187	Vehicles Contingency 5.00%						
189	Infrastructure Contingency 20.00%				\$300,460		
191	Utilities Contingency 100.00%				\$250,000		
192							
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$128,955	
195	Sales Tax 8.40%				\$128,955		
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.						
					Total	\$3,045,020	

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-204 Shared Track

Spokane Regional						
Light Rail Project		Estimate Basics				
Order of Magnitude		Start Sta	End Sta	Length		
Drawing	Shared Track BN Section	75+00	100+00	2,500 FT	0.5 mile	
C -204	Hamilton St Bridge Area to Helena Street					
Description		Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>						
1	Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000	
2	Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500	
3	Curb & Gutter Allowance		LF	\$35		
4	Common Excavation	38,000	CY	\$15	\$570,000	
6	Common Backfill (From Project Excavation)	200	CY	\$4	\$800	
9	Chain Link Fencing 4'		LF	\$16		
10	Chain Link Fencing 6'		LF	\$22		
11	Ballast Walls (Curb-no drainage)		LF	\$22		
12	Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000	
14	Ballasted Track at Grade or Structure	4,300	TF	\$223	\$958,900	
15	Ballasted Track with Pave-Over Topping		TF	\$285		
20	#10 Single Crossover		EA	\$175,000		
21	#10 Turnout	1	EA	\$75,000	\$75,000	
22	#20 Turnout	1	EA	\$100,000	\$100,000	
23	Impact Attenuators		EA	\$35,000		
24	Minor Street Closures Allowance		EA	\$25,000		
25	Minor Intersection Rebuild (2 Lanes)	2	EA	\$100,000	\$200,000	
26	Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27	Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28	Major Traffic Signal (4 Lanes)		EA	\$200,000		
29	Complex Major Intersection Rebuild		EA	\$300,000		
30	Roadway Construction		SF	\$9		
31	Sidewalk Construction		SF	\$6		
32	Off Alignment Signal Modifications		EA	\$75,000		
35	Relocate UPRR Yard Lead or Branch Line		TF	\$100		
36	Remove & Relocate Industrial Spur	1,400	TF	\$130	\$182,000	
37	Remove Industrial Spur		TF	\$50		
39	Construct New Ballasted Industrial Siding Track		TF	\$160		
50	<b>2 - Insurance - Included other in Items</b>					
57	<b>3 - Utilities</b>					\$250,000
59	Utility Allowance - High		RF	\$600		
60	Utility Allowance - Medium		RF	\$350		
61	Utility Allowance - Low	2,500	RF	\$100	\$250,000	
70	<b>4 - Track Materials - Included in the Rail Items</b>					
74	<b>5 - Structures</b>					
76	Crash Wall (2.5' thick x 12' high)		CY	\$300		
77	Retaining Wall to 5'		SF	\$35		
78	MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104	<b>6 - Stations</b>					
105	Stations (Shared Track Option)		EA	\$500,000		
108	Station Name					
109	Operator Crew Room/Concession Building		EA	\$100,000		
110	Bus Turn-around and Canopy Reconstruction		LS	\$200,000		
115	<b>7 - Park &amp; Rides</b>					
116	Park & Ride		Space	\$4,300		
117	Park & Ride Location					
119	<b>8 - Operations Facility (Shared Track Option)</b>					
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008		
124	Yard Trackwork (Shared Track Option)		LS	\$2,565,708		
125	Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000		
126	Operations Facility Building (Shared Track Option)		LS	\$5,343,000		
127	Maintenance Equipment (Shared Track Option)		LS	\$3,373,155		
128	MOW Vehicles (Shared Track Option)		LS	\$1,847,460		
133	<b>9 - Traction Power System -Lighting and System Support</b>					
141	Alignment Lighting (Shared Track Option)		LS	\$600,000		
142	Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147	<b>10 - Signal System</b>					
148	Signal (Shared Track Option)		LS	\$16,233,750		
149						
150						
151	<b>11 - Communications</b>					
152	Communications (Shared Track Option)		LS	\$1,770,000		
153						
154						

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-204 Shared Track

Spokane Regional		Light Rail Project		Estimate Basics			
		Order of Magnitude		Start Sta	End Sta	Length	
Drawing	Shared Track BN Section			75+00	100+00	2,500 FT	0.5 mile
C -204	Hamilton St Bridge Area to Helena Street						
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
155							
156							
157	<b>12 - Fare Collection</b>						
158		Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159							
160		<b>Subtotal - Infrastructure</b>			Subtotal		\$2,464,200
161							
162	<b>13. Right of Way</b>						
165		Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166		Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>						
175		DMU Vehicles (Assume New)		EA	\$3,500,000		
176		DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177							
178							
179	<b>15 - Engineering &amp; Administration</b>				Subtotal		\$862,470
180	Infrastructure	E & A 35.00%				\$862,470	
181	Vehicle	E & A 5.00%					
182							
183							
184							
185	<b>16 - Contingencies</b>				Subtotal		\$692,840
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$442,840	
191	Utilities	Contingency 100.00%				\$250,000	
192							
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>						\$176,794
195		Sales Tax 8.40%				\$176,794	
196		Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
						Total	\$4,196,304

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# INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-205 Shared Track

Spokane Regional								
		Light Rail Project	Estimate Basics					
		Order of Magnitude	Start Sta	End Sta	Length			
Drawing	Shared Track BN Section		100+00	125+00	2,500 FT	0.5 mile		
C -205	Helena Street to New BN Yard Bridge							
		Description	Quantity	Unit	Unit Cost	Extension	2001\$	
		<b>1-Civil Construction</b>						\$1,535,200
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000		
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500		
3		Curb & Gutter Allowance		LF	\$35			
4		Common Excavation	3,000	CY	\$15	\$45,000		
6		Common Backfill (From Project Excavation)		CY	\$4			
9		Chain Link Fencing 4'		LF	\$16			
10		Chain Link Fencing 6'		LF	\$22			
11		Ballast Walls (Curb-no drainage)		LF	\$22			
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000		
14		Ballasted Track at Grade or Structure	400	TF	\$223	\$89,200		
15		Ballasted Track with Pave-Over Topping	2,100	TF	\$285	\$598,500		
20		#10 Single Crossover		EA	\$175,000			
21		#10 Turnout		EA	\$75,000			
22		#20 Turnout		EA	\$100,000			
23		Impact Attenuators		EA	\$35,000			
24		Minor Street Closures Allowance	3	EA	\$25,000	\$75,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000		
27		Minor Traffic Signal (2 Lanes)	1	EA	\$100,000	\$100,000		
28		Major Traffic Signal (4 Lanes)	1	EA	\$200,000	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000			
30		Roadway Construction		SF	\$9			
31		Sidewalk Construction		SF	\$6			
32		Off Alignment Signal Modifications		EA	\$75,000			
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100			
36		Remove & Relocate Industrial Spur		TF	\$130			
37		Remove Industrial Spur		TF	\$50			
39		Construct New Ballasted Industrial Siding Track		TF	\$160			
50		<b>2 - Insurance - Included other in Items</b>						
57		<b>3 - Utilities</b>						\$875,000
59		Utility Allowance - High		RF	\$600			
60		Utility Allowance - Medium	2,500	RF	\$350	\$875,000		
61		Utility Allowance - Low		RF	\$100			
70		<b>4 - Track Materials - Included in the Rail Items</b>						
74		<b>5 - Structures</b>						\$105,000
76		Crash Wall (2.5' thick x 12' high)	350	CY	\$300	\$105,000		
77		Retaining Wall to 5'		SF	\$35			
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30			
104		<b>6 - Stations</b>						\$500,000
105		Stations (Shared Track Option)	1	EA	\$500,000	\$500,000		
108		Station Name	NAPA Station					
109		Operator Crew Room/Concession Building		EA	\$100,000			
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115		<b>7 - Park &amp; Rides</b>						
116		Park & Ride		Space	\$4,300			
117		Park & Ride Location						
119		<b>8 - Operations Facility (Shared Track Option)</b>						
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133		<b>9 - Traction Power System -Lighting and System Support</b>						
141		Alignment Lighting (Shared Track Option)		LS	\$600,000			
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147		<b>10 - Signal System</b>						
148		Signal (Shared Track Option)		LS	\$16,233,750			
149								
150								
151		<b>11 - Communications</b>						
152		Communications (Shared Track Option)		LS	\$1,770,000			
153								
154								

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-205 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track BN Section</b>		100+00	125+00	2,500 FT	0.5 mile
C -205	<b>Helena Street to New BN Yard Bridge</b>					
	Description	Quantity	Unit	Unit Cost	Extension	2001\$
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$3,015,200
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$1,055,320
180	Infrastructure	E & A 35.00%			\$1,055,320	
181	Vehicle	E & A 5.00%				
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$1,303,040
187	Vehicles	Contingency 5.00%				
189	Infrastructure	Contingency 20.00%			\$428,040	
191	Utilities	Contingency 100.00%			\$875,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$241,821
195		Sales Tax 8.40%			\$241,821	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$5,615,381

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-206 Shared Track

Spokane Regional								
		Light Rail Project	Estimate Basics					
		Order of Magnitude	Start Sta	End Sta	Length			
Drawing	Shared Track UP Section		125+00	150+00	2,500 FT	0.5 mile		
C -206	New BN Yard Bridge to Regal Street							
		Description	Quantity	Unit	Unit Cost	Extension	2001\$	
		<b>1-Civil Construction</b>						\$1,667,400
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000		
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500		
3		Curb & Gutter Allowance	1,300	LF	\$35	\$45,500		
4		Common Excavation	4,500	CY	\$15	\$67,500		
6		Common Backfill (From Project Excavation)	500	CY	\$4	\$2,000		
9		Chain Link Fencing 4'		LF	\$16			
10		Chain Link Fencing 6'	600	LF	\$22	\$13,200		
11		Ballast Walls (Curb-no drainage)		LF	\$22			
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000		
14		Ballasted Track at Grade or Structure	500	TF	\$223	\$111,500		
15		Ballasted Track with Pave-Over Topping	2,000	TF	\$285	\$570,000		
20		#10 Single Crossover		EA	\$175,000			
21		#10 Turnout		EA	\$75,000			
22		#20 Turnout		EA	\$100,000			
23		Impact Attenuators		EA	\$35,000			
24		Minor Street Closures Allowance	2	EA	\$25,000	\$50,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000			
27		Minor Traffic Signal (2 Lanes)	1	EA	\$100,000	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000			
29		Complex Major Intersection Rebuild		EA	\$300,000			
30		Roadway Construction	38,600	SF	\$9	\$347,400		
31		Sidewalk Construction	10,800	SF	\$6	\$64,800		
32		Off Alignment Signal Modifications		EA	\$75,000			
35		Relocate UPRR Yard Lead or Branch Line	680	TF	\$100	\$68,000		
36		Remove & Relocate Industrial Spur		TF	\$130			
37		Remove Industrial Spur		TF	\$50			
39		Construct New Ballasted Industrial Siding Track		TF	\$160			
50	<b>2 - Insurance - Included other in Items</b>							
57	<b>3 - Utilities</b>						\$875,000	
59		Utility Allowance - High		RF	\$600			
60		Utility Allowance - Medium	2,500	RF	\$350	\$875,000		
61		Utility Allowance - Low		RF	\$100			
70	<b>4 - Track Materials - Included in the Rail Items</b>							
74	<b>5 - Structures</b>							
76		Crash Wall (2.5' thick x 12' high)		CY	\$300			
77		Retaining Wall to 5'		SF	\$35			
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30			
104	<b>6 - Stations</b>							
105		Stations (Shared Track Option)		EA	\$500,000			
108		Station Name						
109		Operator Crew Room/Concession Building		EA	\$100,000			
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115	<b>7 - Park &amp; Rides</b>							
116		Park & Ride		Space	\$4,300			
117		Park & Ride Location						
119	<b>8 - Operations Facility (Shared Track Option)</b>							
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133	<b>9 - Traction Power System -Lighting and System Support</b>							
141		Alignment Lighting (Shared Track Option)		LS	\$600,000			
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147	<b>10 - Signal System</b>							
148		Signal (Shared Track Option)		LS	\$16,233,750			
149								
150								
151	<b>11 - Communications</b>							
152		Communications (Shared Track Option)		LS	\$1,770,000			
153								
154								

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-206 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track UP Section</b>		125+00	150+00	2,500 FT	0.5 mile
C -206	<b>New BN Yard Bridge to Regal Street</b>					
	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$2,542,400
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$889,840
180	Infrastructure E & A 35.00%				\$889,840	
181	Vehicle E & A 5.00%					
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$1,208,480
187	Vehicles Contingency 5.00%					
189	Infrastructure Contingency 20.00%				\$333,480	
191	Utilities Contingency 100.00%				\$875,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$210,049
195	Sales Tax 8.40%				\$210,049	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$4,850,769

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-207 Shared Track

Spokane Regional						
Light Rail Project		Estimate Basics				
Order of Magnitude		Start Sta	End Sta	Length		
Drawing	Shared Track UP Section	150+00	175+00	2,500 FT	0.5 mile	
C -207	Regal Street to Freya Street					
Description		Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>						
1	Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000	
2	Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500	
3	Curb & Gutter Allowance		LF	\$35		
4	Common Excavation		CY	\$15		
6	Common Backfill (From Project Excavation)	500	CY	\$4	\$2,000	
9	Chain Link Fencing 4'	3,760	LF	\$16	\$60,160	
10	Chain Link Fencing 6'	1,000	LF	\$22	\$22,000	
11	Ballast Walls (Curb-no drainage)	3,760	LF	\$22	\$82,720	
12	Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000	
14	Ballasted Track at Grade or Structure	2,500	TF	\$223	\$557,500	
15	Ballasted Track with Pave-Over Topping		TF	\$285		
20	#10 Single Crossover		EA	\$175,000		
21	#10 Turnout	1	EA	\$75,000	\$75,000	
22	#20 Turnout		EA	\$100,000		
23	Impact Attenuators		EA	\$35,000		
24	Minor Street Closures Allowance	3	EA	\$25,000	\$75,000	
25	Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26	Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27	Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28	Major Traffic Signal (4 Lanes)		EA	\$200,000		
29	Complex Major Intersection Rebuild		EA	\$300,000		
30	Roadway Construction		SF	\$9		
31	Sidewalk Construction		SF	\$6		
32	Off Alignment Signal Modifications		EA	\$75,000		
35	Relocate UPRR Yard Lead or Branch Line	2,500	TF	\$100	\$250,000	
36	Remove & Relocate Industrial Spur	230	TF	\$130	\$29,900	
37	Remove Industrial Spur		TF	\$50		
39	Construct New Ballasted Industrial Siding Track		TF	\$160		
50	<b>2 - Insurance - Included other in Items</b>					
57	<b>3 - Utilities</b>					\$250,000
59	Utility Allowance - High		RF	\$600		
60	Utility Allowance - Medium		RF	\$350		
61	Utility Allowance - Low	2,500	RF	\$100	\$250,000	
70	<b>4 - Track Materials - Included in the Rail Items</b>					
74	<b>5 - Structures</b>					
76	Crash Wall (2.5' thick x 12' high)		CY	\$300		
77	Retaining Wall to 5'		SF	\$35		
78	MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104	<b>6 - Stations</b>					
105	Stations (Shared Track Option)		EA	\$500,000		
108	Station Name					
109	Operator Crew Room/Concession Building		EA	\$100,000		
110	Bus Turn-around and Canopy Reconstruction		LS	\$200,000		
115	<b>7 - Park &amp; Rides</b>					
116	Park & Ride		Space	\$4,300		
117	Park & Ride Location					
119	<b>8 - Operations Facility (Shared Track Option)</b>					
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008		
124	Yard Trackwork (Shared Track Option)		LS	\$2,565,708		
125	Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000		
126	Operations Facility Building (Shared Track Option)		LS	\$5,343,000		
127	Maintenance Equipment (Shared Track Option)		LS	\$3,373,155		
128	MOW Vehicles (Shared Track Option)		LS	\$1,847,460		
133	<b>9 - Traction Power System -Lighting and System Support</b>					
141	Alignment Lighting (Shared Track Option)		LS	\$600,000		
142	Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147	<b>10 - Signal System</b>					
148	Signal (Shared Track Option)		LS	\$16,233,750		
149						
150						
151	<b>11 - Communications</b>					
152	Communications (Shared Track Option)		LS	\$1,770,000		
153						
154						

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-207 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track UP Section</b>		150+00	175+00	2,500 FT	0.5 mile
C -207	<b>Regal Street to Freya Street</b>					
	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$1,631,780
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$571,123
180	Infrastructure E & A 35.00%				\$571,123	
181	Vehicle E & A 5.00%					
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$526,356
187	Vehicles Contingency 5.00%					
189	Infrastructure Contingency 20.00%				\$276,356	
191	Utilities Contingency 100.00%				\$250,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$120,856
195	Sales Tax 8.40%				\$120,856	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$2,850,115

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-208 Shared Track

Spokane Regional						
Light Rail Project		Estimate Basics				
Order of Magnitude		Start Sta	End Sta	Length		
Drawing	Shared Track UP Section	175+00	200+00	2,500 FT	0.5 mile	
C -208	Freya Street to Havana Street Area					
	Description	Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>						
1	Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000	\$1,893,660
2	Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500	
3	Curb & Gutter Allowance		LF	\$35		
4	Common Excavation		CY	\$15		
6	Common Backfill (From Project Excavation)	1,500	CY	\$4	\$6,000	
9	Chain Link Fencing 4'	2,820	LF	\$16	\$45,120	
10	Chain Link Fencing 6'	900	LF	\$22	\$19,800	
11	Ballast Walls (Curb-no drainage)	2,170	LF	\$22	\$47,740	
12	Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000	
14	Ballasted Track at Grade or Structure	2,500	TF	\$223	\$557,500	
15	Ballasted Track with Pave-Over Topping		TF	\$285		
20	#10 Single Crossover		EA	\$175,000		
21	#10 Turnout	3	EA	\$75,000	\$225,000	
22	#20 Turnout		EA	\$100,000		
23	Impact Attenuators		EA	\$35,000		
24	Minor Street Closures Allowance	2	EA	\$25,000	\$50,000	
25	Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26	Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27	Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28	Major Traffic Signal (4 Lanes)		EA	\$200,000		
29	Complex Major Intersection Rebuild		EA	\$300,000		
30	Roadway Construction		SF	\$9		
31	Sidewalk Construction		SF	\$6		
32	Off Alignment Signal Modifications	1	EA	\$75,000	\$75,000	
35	Relocate UPRR Yard Lead or Branch Line	2,500	TF	\$100	\$250,000	
36	Remove & Relocate Industrial Spur	200	TF	\$130	\$26,000	
37	Remove Industrial Spur		TF	\$50		
39	Construct New Ballasted Industrial Siding Track	1,650	TF	\$160	\$264,000	
50	<b>2 - Insurance - Included other in Items</b>					
57	<b>3 - Utilities</b>					\$250,000
59	Utility Allowance - High		RF	\$600		
60	Utility Allowance - Medium		RF	\$350		
61	Utility Allowance - Low	2,500	RF	\$100	\$250,000	
70	<b>4 - Track Materials - Included in the Rail Items</b>					
74	<b>5 - Structures</b>					\$122,500
76	Crash Wall (2.5' thick x 12' high)		CY	\$300		
77	Retaining Wall to 5'	3,500	SF	\$35	\$122,500	
78	MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104	<b>6 - Stations</b>					\$500,000
105	Stations (Shared Track Option)	1	EA	\$500,000	\$500,000	
108	Station Name	East Central Station				
109	Operator Crew Room/Concession Building		EA	\$100,000		
110	Bus Turn-around and Canopy Reconstruction		LS	\$200,000		
115	<b>7 - Park &amp; Rides</b>					
116	Park & Ride		Space	\$4,300		
117	Park & Ride Location					
119	<b>8 - Operations Facility (Shared Track Option)</b>					
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008		
124	Yard Trackwork (Shared Track Option)		LS	\$2,565,708		
125	Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000		
126	Operations Facility Building (Shared Track Option)		LS	\$5,343,000		
127	Maintenance Equipment (Shared Track Option)		LS	\$3,373,155		
128	MOW Vehicles (Shared Track Option)		LS	\$1,847,460		
133	<b>9 - Traction Power System -Lighting and System Support</b>					
141	Alignment Lighting (Shared Track Option)		LS	\$600,000		
142	Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147	<b>10 - Signal System</b>					
148	Signal (Shared Track Option)		LS	\$16,233,750		
149						
150						
151	<b>11 - Communications</b>					
152	Communications (Shared Track Option)		LS	\$1,770,000		
153						
154						

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-208 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track UP Section</b>		175+00	200+00	2,500 FT	0.5 mile
C -208	<b>Freya Street to Havana Street Area</b>					
	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$2,766,160
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$968,156
180	Infrastructure	E & A 35.00%			\$968,156	
181	Vehicle	E & A 5.00%				
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$753,232
187	Vehicles	Contingency 5.00%				
189	Infrastructure	Contingency 20.00%			\$503,232	
191	Utilities	Contingency 100.00%			\$250,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$197,086
195		Sales Tax 8.40%			\$197,086	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$4,684,634

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-209 Shared Track

Spokane Regional						
Light Rail Project		Estimate Basics				
Order of Magnitude		Start Sta	End Sta	Length		
Drawing	Shared Track UP Section	200+00	225+00	2,500 FT	0.5 mile	
C -209	Havana Street Area to UPRR Spokane Yard Area					
Description		Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>						\$1,767,500
1	Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000	
2	Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500	
3	Curb & Gutter Allowance		LF	\$35		
4	Common Excavation	500	CY	\$15	\$7,500	
6	Common Backfill (From Project Excavation)	500	CY	\$4	\$2,000	
9	Chain Link Fencing 4'		LF	\$16		
10	Chain Link Fencing 6'	5,000	LF	\$22	\$110,000	
11	Ballast Walls (Curb-no drainage)		LF	\$22		
12	Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000	
14	Ballasted Track at Grade or Structure	4,500	TF	\$223	\$1,003,500	
15	Ballasted Track with Pave-Over Topping		TF	\$285		
20	#10 Single Crossover		EA	\$175,000		
21	#10 Turnout	2	EA	\$75,000	\$150,000	
22	#20 Turnout		EA	\$100,000		
23	Impact Attenuators		EA	\$35,000		
24	Minor Street Closures Allowance		EA	\$25,000		
25	Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26	Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27	Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28	Major Traffic Signal (4 Lanes)		EA	\$200,000		
29	Complex Major Intersection Rebuild		EA	\$300,000		
30	Roadway Construction		SF	\$9		
31	Sidewalk Construction		SF	\$6		
32	Off Alignment Signal Modifications	1	EA	\$75,000	\$75,000	
35	Relocate UPRR Yard Lead or Branch Line	600	TF	\$100	\$60,000	
36	Remove & Relocate Industrial Spur		TF	\$130		
37	Remove Industrial Spur		TF	\$50		
39	Construct New Ballasted Industrial Siding Track	200	TF	\$160	\$32,000	
50	<b>2 - Insurance - Included other in Items</b>					
57	<b>3 - Utilities</b>					\$250,000
59	Utility Allowance - High		RF	\$600		
60	Utility Allowance - Medium		RF	\$350		
61	Utility Allowance - Low	2,500	RF	\$100	\$250,000	
70	<b>4 - Track Materials - Included in the Rail Items</b>					
74	<b>5 - Structures</b>					\$8,750
76	Crash Wall (2.5' thick x 12' high)		CY	\$300		
77	Retaining Wall to 5'	250	SF	\$35	\$8,750	
78	MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104	<b>6 - Stations</b>					\$600,000
105	Stations (Shared Track Option)	1	EA	\$500,000	\$500,000	
108	Station Name	Fairground Station				
109	Operator Crew Room/Concession Building	1	EA	\$100,000	\$100,000	
110	Bus Turn-around and Canopy Reconstruction		LS	\$200,000		
115	<b>7 - Park &amp; Rides</b>					\$860,000
116	Park & Ride	200	Space	\$4,300	\$860,000	
117	Park & Ride Location	Fairground Station				
119	<b>8 - Operations Facility (Shared Track Option)</b>					
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008		
124	Yard Trackwork (Shared Track Option)		LS	\$2,565,708		
125	Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000		
126	Operations Facility Building (Shared Track Option)		LS	\$5,343,000		
127	Maintenance Equipment (Shared Track Option)		LS	\$3,373,155		
128	MOW Vehicles (Shared Track Option)		LS	\$1,847,460		
133	<b>9 - Traction Power System -Lighting and System Support</b>					
141	Alignment Lighting (Shared Track Option)		LS	\$600,000		
142	Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147	<b>10 - Signal System</b>					
148	Signal (Shared Track Option)		LS	\$16,233,750		
149						
150						
151	<b>11 - Communications</b>					
152	Communications (Shared Track Option)		LS	\$1,770,000		
153						
154						

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-209 Shared Track

Spokane Regional		Light Rail Project		Estimate Basics			
Order of Magnitude		Start Sta	End Sta	Length			
Drawing	Shared Track UP Section	200+00	225+00	2,500 FT	0.5 mile		
C -209	Havana Street Area to UPRR Spokane Yard Area						
Description		Quantity	Unit	Unit Cost	Extension	2001\$	
155							
156							
157	<b>12 - Fare Collection</b>						
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333			
159							
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$3,486,250	
161							
162	<b>13. Right of Way</b>						
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000			
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000			
174	<b>14. Vehicles</b>						
175	DMU Vehicles (Assume New)		EA	\$3,500,000			
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000			
177							
178							
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$1,220,188	
180	Infrastructure E & A 35.00%				\$1,220,188		
181	Vehicle E & A 5.00%						
182							
183							
184							
185	<b>16 - Contingencies</b>			Subtotal		\$897,250	
187	Vehicles Contingency 5.00%						
189	Infrastructure Contingency 20.00%				\$647,250		
191	Utilities Contingency 100.00%				\$250,000		
192							
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$245,476	
195	Sales Tax 8.40%				\$245,476		
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.						
					Total	\$5,849,164	

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-210 Shared Track

Spokane Regional							
		Light Rail Project	Estimate Basics				
		Order of Magnitude	Start Sta	End Sta	Length		
Drawing	Shared Track UP Section		225+00	250+00	2,500 FT	0.5 mile	
C -210	UPRR Spokane Yard Area						
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>							\$1,379,300
1	Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000		
2	Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500		
3	Curb & Gutter Allowance		LF	\$35			
4	Common Excavation	8,500	CY	\$15	\$127,500		
6	Common Backfill (From Project Excavation)		CY	\$4			
9	Chain Link Fencing 4'		LF	\$16			
10	Chain Link Fencing 6'	5,000	LF	\$22	\$110,000		
11	Ballast Walls (Curb-no drainage)		LF	\$22			
12	Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000		
14	Ballasted Track at Grade or Structure	4,100	TF	\$223	\$914,300		
15	Ballasted Track with Pave-Over Topping		TF	\$285			
20	#10 Single Crossover		EA	\$175,000			
21	#10 Turnout		EA	\$75,000			
22	#20 Turnout	1	EA	\$100,000	\$100,000		
23	Impact Attenuators		EA	\$35,000			
24	Minor Street Closures Allowance		EA	\$25,000			
25	Minor Intersection Rebuild (2 Lanes)		EA	\$100,000			
26	Major Intersection Rebuild (4 Lanes)		EA	\$200,000			
27	Minor Traffic Signal (2 Lanes)		EA	\$100,000			
28	Major Traffic Signal (4 Lanes)		EA	\$200,000			
29	Complex Major Intersection Rebuild		EA	\$300,000			
30	Roadway Construction		SF	\$9			
31	Sidewalk Construction		SF	\$6			
32	Off Alignment Signal Modifications		EA	\$75,000			
35	Relocate UPRR Yard Lead or Branch Line		TF	\$100			
36	Remove & Relocate Industrial Spur		TF	\$130			
37	Remove Industrial Spur		TF	\$50			
39	Construct New Ballasted Industrial Siding Track		TF	\$160			
50	<b>2 - Insurance - Included other in Items</b>						
57	<b>3 - Utilities</b>						\$250,000
59	Utility Allowance - High		RF	\$600			
60	Utility Allowance - Medium		RF	\$350			
61	Utility Allowance - Low	2,500	RF	\$100	\$250,000		
70	<b>4 - Track Materials - Included in the Rail Items</b>						
74	<b>5 - Structures</b>						
76	Crash Wall (2.5' thick x 12' high)		CY	\$300			
77	Retaining Wall to 5'		SF	\$35			
78	MSE (or Sound) Retaining Wall Allowance		SF	\$30			
104	<b>6 - Stations</b>						
105	Stations (Shared Track Option)		EA	\$500,000			
108	Station Name						
109	Operator Crew Room/Concession Building		EA	\$100,000			
110	Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115	<b>7 - Park &amp; Rides</b>						
116	Park & Ride		Space	\$4,300			
117	Park & Ride Location						
119	<b>8 - Operations Facility (Shared Track Option)</b>						
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124	Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125	Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126	Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127	Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128	MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133	<b>9 - Traction Power System -Lighting and System Support</b>						
141	Alignment Lighting (Shared Track Option)		LS	\$600,000			
142	Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147	<b>10 - Signal System</b>						
148	Signal (Shared Track Option)		LS	\$16,233,750			
149							
150							
151	<b>11 - Communications</b>						
152	Communications (Shared Track Option)		LS	\$1,770,000			
153							
154							

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-210 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track UP Section</b>		225+00	250+00	2,500 FT	0.5 mile
C -210	<b>UPRR Spokane Yard Area</b>					
	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$1,629,300
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$570,255
180	Infrastructure	E & A 35.00%			\$570,255	
181	Vehicle	E & A 5.00%				
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$525,860
187	Vehicles	Contingency 5.00%				
189	Infrastructure	Contingency 20.00%			\$275,860	
191	Utilities	Contingency 100.00%			\$250,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$120,689
195		Sales Tax 8.40%			\$120,689	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$2,846,104

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-211 Shared Track

Spokane Regional						
Light Rail Project		Estimate Basics				
Order of Magnitude		Start Sta	End Sta	Length		
Drawing	Shared Track UP Section	250+00	275+00	2,500 FT	0.5 mile	
C -211	UPRR Spokane Yard Area to Interstate 90					
Description		Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>						
1	Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000	
2	Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500	
3	Curb & Gutter Allowance		LF	\$35		
4	Common Excavation	1,500	CY	\$15	\$22,500	
6	Common Backfill (From Project Excavation)	500	CY	\$4	\$2,000	
9	Chain Link Fencing 4'		LF	\$16		
10	Chain Link Fencing 6'	5,000	LF	\$22	\$110,000	
11	Ballast Walls (Curb-no drainage)		LF	\$22		
12	Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000	
14	Ballasted Track at Grade or Structure	2,500	TF	\$223	\$557,500	
15	Ballasted Track with Pave-Over Topping		TF	\$285		
20	#10 Single Crossover		EA	\$175,000		
21	#10 Turnout	2	EA	\$75,000	\$150,000	
22	#20 Turnout		EA	\$100,000		
23	Impact Attenuators		EA	\$35,000		
24	Minor Street Closures Allowance		EA	\$25,000		
25	Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26	Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27	Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28	Major Traffic Signal (4 Lanes)		EA	\$200,000		
29	Complex Major Intersection Rebuild		EA	\$300,000		
30	Roadway Construction		SF	\$9		
31	Sidewalk Construction		SF	\$6		
32	Off Alignment Signal Modifications		EA	\$75,000		
35	Relocate UPRR Yard Lead or Branch Line		TF	\$100		
36	Remove & Relocate Industrial Spur	700	TF	\$130	\$91,000	
37	Remove Industrial Spur		TF	\$50		
39	Construct New Ballasted Industrial Siding Track		TF	\$160		
50	<b>2 - Insurance - Included other in Items</b>					
57	<b>3 - Utilities</b>					\$250,000
59	Utility Allowance - High		RF	\$600		
60	Utility Allowance - Medium		RF	\$350		
61	Utility Allowance - Low	2,500	RF	\$100	\$250,000	
70	<b>4 - Track Materials - Included in the Rail Items</b>					
74	<b>5 - Structures</b>					
76	Crash Wall (2.5' thick x 12' high)		CY	\$300		
77	Retaining Wall to 5'		SF	\$35		
78	MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104	<b>6 - Stations</b>					
105	Stations (Shared Track Option)		EA	\$500,000		
108	Station Name					
109	Operator Crew Room/Concession Building		EA	\$100,000		
110	Bus Turn-around and Canopy Reconstruction		LS	\$200,000		
115	<b>7 - Park &amp; Rides</b>					
116	Park & Ride		Space	\$4,300		
117	Park & Ride Location					
119	<b>8 - Operations Facility (Shared Track Option)</b>					
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008		
124	Yard Trackwork (Shared Track Option)		LS	\$2,565,708		
125	Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000		
126	Operations Facility Building (Shared Track Option)		LS	\$5,343,000		
127	Maintenance Equipment (Shared Track Option)		LS	\$3,373,155		
128	MOW Vehicles (Shared Track Option)		LS	\$1,847,460		
133	<b>9 - Traction Power System -Lighting and System Support</b>					
141	Alignment Lighting (Shared Track Option)		LS	\$600,000		
142	Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147	<b>10 - Signal System</b>					
148	Signal (Shared Track Option)		LS	\$16,233,750		
149						
150						
151	<b>11 - Communications</b>					
152	Communications (Shared Track Option)		LS	\$1,770,000		
153						
154						

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-211 Shared Track

Spokane Regional							
		Light Rail Project		Estimate Basics			
		Order of Magnitude		Start Sta	End Sta	Length	
Drawing	Shared Track UP Section			250+00	275+00	2,500 FT	0.5 mile
C -211	UPRR Spokane Yard Area to Interstate 90						
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
155							
156							
157	<b>12 - Fare Collection</b>						
158		Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159							
160		<b>Subtotal - Infrastructure</b>			Subtotal		\$1,510,500
161							
162	<b>13. Right of Way</b>						
165		Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166		Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>						
175		DMU Vehicles (Assume New)		EA	\$3,500,000		
176		DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177							
178							
179	<b>15 - Engineering &amp; Administration</b>				Subtotal		\$528,675
180	Infrastructure	E & A 35.00%				\$528,675	
181	Vehicle	E & A 5.00%					
182							
183							
184							
185	<b>16 - Contingencies</b>				Subtotal		\$502,100
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$252,100	
191	Utilities	Contingency 100.00%				\$250,000	
192							
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>						\$112,706
195		Sales Tax 8.40%				\$112,706	
196		Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
						Total	\$2,653,981

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# INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-212 Shared Track

Spokane Regional								
		Light Rail Project	Estimate Basics					
		Order of Magnitude	Start Sta	End Sta	Length			
Drawing	Shared Track UP Section		275+00	300+00	2,500 FT	0.5 mile		
C -212	Interstate 90 to Approx Station 300+00							
		Description	Quantity	Unit	Unit Cost	Extension	2001\$	
		<b>1-Civil Construction</b>						\$822,000
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000		
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500		
3		Curb & Gutter Allowance		LF	\$35			
4		Common Excavation		CY	\$15			
6		Common Backfill (From Project Excavation)	500	CY	\$4	\$2,000		
9		Chain Link Fencing 4'		LF	\$16			
10		Chain Link Fencing 6'	5,000	LF	\$22	\$110,000		
11		Ballast Walls (Curb-no drainage)		LF	\$22			
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000		
14		Ballasted Track at Grade or Structure	2,500	TF	\$223	\$557,500		
15		Ballasted Track with Pave-Over Topping		TF	\$285			
20		#10 Single Crossover		EA	\$175,000			
21		#10 Turnout		EA	\$75,000			
22		#20 Turnout		EA	\$100,000			
23		Impact Attenuators		EA	\$35,000			
24		Minor Street Closures Allowance	1	EA	\$25,000	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000			
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000			
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000			
28		Major Traffic Signal (4 Lanes)		EA	\$200,000			
29		Complex Major Intersection Rebuild		EA	\$300,000			
30		Roadway Construction		SF	\$9			
31		Sidewalk Construction		SF	\$6			
32		Off Alignment Signal Modifications		EA	\$75,000			
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100			
36		Remove & Relocate Industrial Spur		TF	\$130			
37		Remove Industrial Spur		TF	\$50			
39		Construct New Ballasted Industrial Siding Track		TF	\$160			
50		<b>2 - Insurance - Included other in Items</b>						
57		<b>3 - Utilities</b>						\$250,000
59		Utility Allowance - High		RF	\$600			
60		Utility Allowance - Medium		RF	\$350			
61		Utility Allowance - Low	2,500	RF	\$100	\$250,000		
70		<b>4 - Track Materials - Included in the Rail Items</b>						
74		<b>5 - Structures</b>						
76		Crash Wall (2.5' thick x 12' high)		CY	\$300			
77		Retaining Wall to 5'		SF	\$35			
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30			
104		<b>6 - Stations</b>						
105		Stations (Shared Track Option)		EA	\$500,000			
108		Station Name						
109		Operator Crew Room/Concession Building		EA	\$100,000			
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115		<b>7 - Park &amp; Rides</b>						
116		Park & Ride		Space	\$4,300			
117		Park & Ride Location						
119		<b>8 - Operations Facility (Shared Track Option)</b>						
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133		<b>9 - Traction Power System -Lighting and System Support</b>						
141		Alignment Lighting (Shared Track Option)		LS	\$600,000			
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147		<b>10 - Signal System</b>						
148		Signal (Shared Track Option)		LS	\$16,233,750			
149								
150								
151		<b>11 - Communications</b>						
152		Communications (Shared Track Option)		LS	\$1,770,000			
153								
154								

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-212 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track UP Section</b>		275+00	300+00	2,500 FT	0.5 mile
C -212	<b>Interstate 90 to Approx Station 300+00</b>					
	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$1,072,000
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$375,200
180	Infrastructure E & A 35.00%				\$375,200	
181	Vehicle E & A 5.00%					
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$414,400
187	Vehicles Contingency 5.00%					
189	Infrastructure Contingency 20.00%				\$164,400	
191	Utilities Contingency 100.00%				\$250,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$83,238
195	Sales Tax 8.40%				\$83,238	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$1,944,838

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# INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-213 Shared Track

Spokane Regional							
		Light Rail Project	Estimate Basics				
		Order of Magnitude	Start Sta	End Sta	Length		
Drawing	Shared Track UP Section		300+00	325+00	2,500 FT	0.5 mile	
C -213	Park Road & Spear Ave Area						
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>							\$795,000
1	Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000		
2	Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500		
3	Curb & Gutter Allowance		LF	\$35			
4	Common Excavation		CY	\$15			
6	Common Backfill (From Project Excavation)		CY	\$4			
9	Chain Link Fencing 4'		LF	\$16			
10	Chain Link Fencing 6'	5,000	LF	\$22	\$110,000		
11	Ballast Walls (Curb-no drainage)		LF	\$22			
12	Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000		
14	Ballasted Track at Grade or Structure	2,500	TF	\$223	\$557,500		
15	Ballasted Track with Pave-Over Topping		TF	\$285			
20	#10 Single Crossover		EA	\$175,000			
21	#10 Turnout		EA	\$75,000			
22	#20 Turnout		EA	\$100,000			
23	Impact Attenuators		EA	\$35,000			
24	Minor Street Closures Allowance		EA	\$25,000			
25	Minor Intersection Rebuild (2 Lanes)		EA	\$100,000			
26	Major Intersection Rebuild (4 Lanes)		EA	\$200,000			
27	Minor Traffic Signal (2 Lanes)		EA	\$100,000			
28	Major Traffic Signal (4 Lanes)		EA	\$200,000			
29	Complex Major Intersection Rebuild		EA	\$300,000			
30	Roadway Construction		SF	\$9			
31	Sidewalk Construction		SF	\$6			
32	Off Alignment Signal Modifications		EA	\$75,000			
35	Relocate UPRR Yard Lead or Branch Line		TF	\$100			
36	Remove & Relocate Industrial Spur		TF	\$130			
37	Remove Industrial Spur		TF	\$50			
39	Construct New Ballasted Industrial Siding Track		TF	\$160			
50	<b>2 - Insurance - Included other in Items</b>						
57	<b>3 - Utilities</b>						\$250,000
59	Utility Allowance - High		RF	\$600			
60	Utility Allowance - Medium		RF	\$350			
61	Utility Allowance - Low	2,500	RF	\$100	\$250,000		
70	<b>4 - Track Materials - Included in the Rail Items</b>						
74	<b>5 - Structures</b>						
76	Crash Wall (2.5' thick x 12' high)		CY	\$300			
77	Retaining Wall to 5'		SF	\$35			
78	MSE (or Sound) Retaining Wall Allowance		SF	\$30			
104	<b>6 - Stations</b>						\$500,000
105	Stations (Shared Track Option)	1	EA	\$500,000	\$500,000		
108	Station Name	Park Street Station					
109	Operator Crew Room/Concession Building		EA	\$100,000			
110	Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115	<b>7 - Park &amp; Rides</b>						
116	Park & Ride		Space	\$4,300			
117	Park & Ride Location						
119	<b>8 - Operations Facility (Shared Track Option)</b>						
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124	Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125	Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126	Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127	Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128	MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133	<b>9 - Traction Power System -Lighting and System Support</b>						
141	Alignment Lighting (Shared Track Option)		LS	\$600,000			
142	Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147	<b>10 - Signal System</b>						
148	Signal (Shared Track Option)		LS	\$16,233,750			
149							
150							
151	<b>11 - Communications</b>						
152	Communications (Shared Track Option)		LS	\$1,770,000			
153							
154							

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-213 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track UP Section</b>		300+00	325+00	2,500 FT	0.5 mile
C -213	<b>Park Road &amp; Spear Ave Area</b>					
	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$1,545,000
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$540,750
180	Infrastructure	E & A 35.00%			\$540,750	
181	Vehicle	E & A 5.00%				
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$509,000
187	Vehicles	Contingency 5.00%				
189	Infrastructure	Contingency 20.00%			\$259,000	
191	Utilities	Contingency 100.00%			\$250,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$115,024
195		Sales Tax 8.40%			\$115,024	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$2,709,774

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-214 Shared Track

Spokane Regional						
Light Rail Project		Estimate Basics				
Order of Magnitude		Start Sta	End Sta	Length		
Drawing	Shared Track UP Section	325+00	350+00	2,500 FT	0.5 mile	
C -214	Vista Road Area					
Description		Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>		\$870,000				
1	Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000	
2	Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500	
3	Curb & Gutter Allowance		LF	\$35		
4	Common Excavation		CY	\$15		
6	Common Backfill (From Project Excavation)		CY	\$4		
9	Chain Link Fencing 4'		LF	\$16		
10	Chain Link Fencing 6'	5,000	LF	\$22	\$110,000	
11	Ballast Walls (Curb-no drainage)		LF	\$22		
12	Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000	
14	Ballasted Track at Grade or Structure	2,500	TF	\$223	\$557,500	
15	Ballasted Track with Pave-Over Topping		TF	\$285		
20	#10 Single Crossover		EA	\$175,000		
21	#10 Turnout		EA	\$75,000		
22	#20 Turnout		EA	\$100,000		
23	Impact Attenuators		EA	\$35,000		
24	Minor Street Closures Allowance		EA	\$25,000		
25	Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26	Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27	Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28	Major Traffic Signal (4 Lanes)		EA	\$200,000		
29	Complex Major Intersection Rebuild		EA	\$300,000		
30	Roadway Construction		SF	\$9		
31	Sidewalk Construction		SF	\$6		
32	Off Alignment Signal Modifications	1	EA	\$75,000	\$75,000	
35	Relocate UPRR Yard Lead or Branch Line		TF	\$100		
36	Remove & Relocate Industrial Spur		TF	\$130		
37	Remove Industrial Spur		TF	\$50		
39	Construct New Ballasted Industrial Siding Track		TF	\$160		
50	<b>2 - Insurance - Included other in Items</b>					
57	<b>3 - Utilities</b>	\$250,000				
59	Utility Allowance - High		RF	\$600		
60	Utility Allowance - Medium		RF	\$350		
61	Utility Allowance - Low	2,500	RF	\$100	\$250,000	
70	<b>4 - Track Materials - Included in the Rail Items</b>					
74	<b>5 - Structures</b>					
76	Crash Wall (2.5' thick x 12' high)		CY	\$300		
77	Retaining Wall to 5'		SF	\$35		
78	MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104	<b>6 - Stations</b>					
105	Stations (Shared Track Option)		EA	\$500,000		
108	Station Name					
109	Operator Crew Room/Concession Building		EA	\$100,000		
110	Bus Turn-around and Canopy Reconstruction		LS	\$200,000		
115	<b>7 - Park &amp; Rides</b>					
116	Park & Ride		Space	\$4,300		
117	Park & Ride Location					
119	<b>8 - Operations Facility (Shared Track Option)</b>					
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008		
124	Yard Trackwork (Shared Track Option)		LS	\$2,565,708		
125	Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000		
126	Operations Facility Building (Shared Track Option)		LS	\$5,343,000		
127	Maintenance Equipment (Shared Track Option)		LS	\$3,373,155		
128	MOW Vehicles (Shared Track Option)		LS	\$1,847,460		
133	<b>9 - Traction Power System -Lighting and System Support</b>					
141	Alignment Lighting (Shared Track Option)		LS	\$600,000		
142	Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147	<b>10 - Signal System</b>					
148	Signal (Shared Track Option)		LS	\$16,233,750		
149						
150						
151	<b>11 - Communications</b>					
152	Communications (Shared Track Option)		LS	\$1,770,000		
153						
154						

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-214 Shared Track**

<b>Spokane Regional</b>							
		<b>Light Rail Project</b>		<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>		Start Sta	End Sta	Length	
	Drawing C -214	<b>Shared Track UP Section Vista Road Area</b>		325+00	350+00	2,500 FT	0.5 mile
		<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155							
156							
157		<b>12 - Fare Collection</b>					
158		Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159							
160		<b>Subtotal - Infrastructure</b>			Subtotal		\$1,120,000
161							
162		<b>13. Right of Way</b>					
165		Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166		Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174		<b>14. Vehicles</b>					
175		DMU Vehicles (Assume New)		EA	\$3,500,000		
176		DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177							
178							
179		<b>15 - Engineering &amp; Administration</b>			Subtotal		\$392,000
180		Infrastructure E & A 35.00%				\$392,000	
181		Vehicle E & A 5.00%					
182							
183							
184							
185		<b>16 - Contingencies</b>			Subtotal		\$424,000
187		Vehicles Contingency 5.00%					
189		Infrastructure Contingency 20.00%				\$174,000	
191		Utilities Contingency 100.00%				\$250,000	
192							
194		<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$86,464
195		Sales Tax 8.40%				\$86,464	
196		Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
						Total	\$2,022,464

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-215 Shared Track

Spokane Regional								
		Light Rail Project	Estimate Basics					
		Order of Magnitude	Start Sta	End Sta	Length			
Drawing	Shared Track UP Section		350+00	375+00	2,500 FT	0.5 mile		
C -215	Sargent Road to Argonne Station							
		Description	Quantity	Unit	Unit Cost	Extension	2001\$	
		<b>1-Civil Construction</b>						\$1,381,300
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000		
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500		
3		Curb & Gutter Allowance		LF	\$35			
4		Common Excavation	500	CY	\$15	\$7,500		
6		Common Backfill (From Project Excavation)		CY	\$4			
9		Chain Link Fencing 4'		LF	\$16			
10		Chain Link Fencing 6'	4,500	LF	\$22	\$99,000		
11		Ballast Walls (Curb-no drainage)		LF	\$22			
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000		
14		Ballasted Track at Grade or Structure	2,500	TF	\$223	\$557,500		
15		Ballasted Track with Pave-Over Topping		TF	\$285			
20		#10 Single Crossover		EA	\$175,000			
21		#10 Turnout	1	EA	\$75,000	\$75,000		
22		#20 Turnout		EA	\$100,000			
23		Impact Attenuators		EA	\$35,000			
24		Minor Street Closures Allowance		EA	\$25,000			
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000			
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000			
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000			
28		Major Traffic Signal (4 Lanes)	1	EA	\$200,000	\$200,000		
29		Complex Major Intersection Rebuild	1	EA	\$300,000	\$300,000		
30		Roadway Construction		SF	\$9			
31		Sidewalk Construction	300	SF	\$6	\$1,800		
32		Off Alignment Signal Modifications		EA	\$75,000			
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100			
36		Remove & Relocate Industrial Spur	100	TF	\$130	\$13,000		
37		Remove Industrial Spur		TF	\$50			
39		Construct New Ballasted Industrial Siding Track		TF	\$160			
50	<b>2 - Insurance - Included other in Items</b>							
57	<b>3 - Utilities</b>						\$350,000	
59		Utility Allowance - High	200	RF	\$600	\$120,000		
60		Utility Allowance - Medium		RF	\$350			
61		Utility Allowance - Low	2,300	RF	\$100	\$230,000		
70	<b>4 - Track Materials - Included in the Rail Items</b>							
74	<b>5 - Structures</b>							
76		Crash Wall (2.5' thick x 12' high)		CY	\$300			
77		Retaining Wall to 5'		SF	\$35			
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30			
104	<b>6 - Stations</b>						\$500,000	
105		Stations (Shared Track Option)	1	EA	\$500,000	\$500,000		
108		Station Name	Argonne Station					
109		Operator Crew Room/Concession Building		EA	\$100,000			
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115	<b>7 - Park &amp; Rides</b>						\$1,075,000	
116		Park & Ride	250	Space	\$4,300	\$1,075,000		
117		Park & Ride Location	Argonne Station					
119	<b>8 - Operations Facility (Shared Track Option)</b>							
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133	<b>9 - Traction Power System -Lighting and System Support</b>							
141		Alignment Lighting (Shared Track Option)		LS	\$600,000			
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147	<b>10 - Signal System</b>							
148		Signal (Shared Track Option)		LS	\$16,233,750			
149								
150								
151	<b>11 - Communications</b>							
152		Communications (Shared Track Option)		LS	\$1,770,000			
153								
154								

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-215 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track UP Section</b>		350+00	375+00	2,500 FT	0.5 mile
C -215	<b>Sargent Road to Argonne Station</b>					
	Description	Quantity	Unit	Unit Cost	Extension	2001\$
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$3,306,300
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$1,157,205
180	Infrastructure	E & A 35.00%			\$1,157,205	
181	Vehicle	E & A 5.00%				
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$941,260
187	Vehicles	Contingency 5.00%				
189	Infrastructure	Contingency 20.00%			\$591,260	
191	Utilities	Contingency 100.00%			\$350,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$237,863
195		Sales Tax 8.40%			\$237,863	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$5,642,628

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-216 Shared Track

Spokane Regional								
		Light Rail Project	Estimate Basics					
		Order of Magnitude	Start Sta	End Sta	Length			
Drawing	Shared Track UP Section		375+00	400+00	2,500 FT	0.5 mile		
C -216	Willow Road to Dartmouth Rd Area							
		Description	Quantity	Unit	Unit Cost	Extension	2001\$	
		<b>1-Civil Construction</b>						\$1,364,000
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000		
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500		
3		Curb & Gutter Allowance	2,100	LF	\$35	\$73,500		
4		Common Excavation	5,500	CY	\$15	\$82,500		
6		Common Backfill (From Project Excavation)		CY	\$4			
9		Chain Link Fencing 4'		LF	\$16			
10		Chain Link Fencing 6'		LF	\$22			
11		Ballast Walls (Curb-no drainage)		LF	\$22			
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000		
14		Ballasted Track at Grade or Structure	3,500	TF	\$223	\$780,500		
15		Ballasted Track with Pave-Over Topping		TF	\$285			
20		#10 Single Crossover		EA	\$175,000			
21		#10 Turnout		EA	\$75,000			
22		#20 Turnout	1	EA	\$100,000	\$100,000		
23		Impact Attenuators		EA	\$35,000			
24		Minor Street Closures Allowance		EA	\$25,000			
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000			
27		Minor Traffic Signal (2 Lanes)	1	EA	\$100,000	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000			
29		Complex Major Intersection Rebuild		EA	\$300,000			
30		Roadway Construction		SF	\$9			
31		Sidewalk Construction		SF	\$6			
32		Off Alignment Signal Modifications		EA	\$75,000			
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100			
36		Remove & Relocate Industrial Spur		TF	\$130			
37		Remove Industrial Spur		TF	\$50			
39		Construct New Ballasted Industrial Siding Track		TF	\$160			
50	<b>2 - Insurance - Included other in Items</b>							
57	<b>3 - Utilities</b>						\$875,000	
59		Utility Allowance - High		RF	\$600			
60		Utility Allowance - Medium	2,500	RF	\$350	\$875,000		
61		Utility Allowance - Low		RF	\$100			
70	<b>4 - Track Materials - Included in the Rail Items</b>							
74	<b>5 - Structures</b>						\$270,000	
76		Crash Wall (2.5' thick x 12' high)		CY	\$300			
77		Retaining Wall to 5'		SF	\$35			
78		MSE (or Sound) Retaining Wall Allowance	9,000	SF	\$30	\$270,000		
104	<b>6 - Stations</b>							
105		Stations (Shared Track Option)		EA	\$500,000			
108		Station Name						
109		Operator Crew Room/Concession Building		EA	\$100,000			
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115	<b>7 - Park &amp; Rides</b>							
116		Park & Ride		Space	\$4,300			
117		Park & Ride Location						
119	<b>8 - Operations Facility (Shared Track Option)</b>							
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133	<b>9 - Traction Power System -Lighting and System Support</b>							
141		Alignment Lighting (Shared Track Option)		LS	\$600,000			
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147	<b>10 - Signal System</b>							
148		Signal (Shared Track Option)		LS	\$16,233,750			
149								
150								
151	<b>11 - Communications</b>							
152		Communications (Shared Track Option)		LS	\$1,770,000			
153								
154								

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-216 Shared Track

Spokane Regional							
		Light Rail Project		Estimate Basics			
		Order of Magnitude		Start Sta	End Sta	Length	
Drawing	Shared Track UP Section			375+00	400+00	2,500 FT	0.5 mile
C -216	Willow Road to Dartmouth Rd Area						
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
155							
156							
157	<b>12 - Fare Collection</b>						
158		Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159							
160		<b>Subtotal - Infrastructure</b>			Subtotal		\$2,509,000
161							
162	<b>13. Right of Way</b>						
165		Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166		Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>						
175		DMU Vehicles (Assume New)		EA	\$3,500,000		
176		DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177							
178							
179	<b>15 - Engineering &amp; Administration</b>				Subtotal		\$878,150
180	Infrastructure	E & A 35.00%				\$878,150	
181	Vehicle	E & A 5.00%					
182							
183							
184							
185	<b>16 - Contingencies</b>				Subtotal		\$1,201,800
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$326,800	
191	Utilities	Contingency 100.00%				\$875,000	
192							
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>						\$207,805
195		Sales Tax 8.40%				\$207,805	
196		Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
						Total	\$4,796,755

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-217 Shared Track

Spokane Regional						
		Light Rail Project	Estimate Basics			
		Order of Magnitude	Start Sta	End Sta	Length	
Drawing	Shared Track East Valley Section		400+00	425+00	2,500 FT	0.5 mile
C -217	Dartmouth Road Area to University Rd					
	Description	Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>						
1	Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000	\$1,665,500
2	Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500	
3	Curb & Gutter Allowance		LF	\$35		
4	Common Excavation	1,000	CY	\$15	\$15,000	
6	Common Backfill (From Project Excavation)	2,000	CY	\$4	\$8,000	
9	Chain Link Fencing 4'		LF	\$16		
10	Chain Link Fencing 6'		LF	\$22		
11	Ballast Walls (Curb-no drainage)		LF	\$22		
12	Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000	
14	Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15	Ballasted Track with Pave-Over Topping		TF	\$285		
20	#10 Single Crossover		EA	\$175,000		
21	#10 Turnout		EA	\$75,000		
22	#20 Turnout		EA	\$100,000		
23	Impact Attenuators		EA	\$35,000		
24	Minor Street Closures Allowance		EA	\$25,000		
25	Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26	Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27	Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28	Major Traffic Signal (4 Lanes)	1	EA	\$200,000	\$200,000	
29	Complex Major Intersection Rebuild		EA	\$300,000		
30	Roadway Construction		SF	\$9		
31	Sidewalk Construction		SF	\$6		
32	Off Alignment Signal Modifications		EA	\$75,000		
35	Relocate UPRR Yard Lead or Branch Line		TF	\$100		
36	Remove & Relocate Industrial Spur		TF	\$130		
37	Remove Industrial Spur		TF	\$50		
39	Construct New Ballasted Industrial Siding Track		TF	\$160		
50	<b>2 - Insurance - Included other in Items</b>					
57	<b>3 - Utilities</b>					
59	Utility Allowance - High		RF	\$600		\$875,000
60	Utility Allowance - Medium	2,500	RF	\$350	\$875,000	
61	Utility Allowance - Low		RF	\$100		
70	<b>4 - Track Materials - Included in the Rail Items</b>					
74	<b>5 - Structures</b>					
76	Crash Wall (2.5' thick x 12' high)		CY	\$300		
77	Retaining Wall to 5'		SF	\$35		
78	MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104	<b>6 - Stations</b>					
105	Stations (Shared Track Option)	1	EA	\$500,000	\$500,000	\$700,000
108	Station Name	University City Station				
109	Operator Crew Room/Concession Building		EA	\$100,000		
110	Bus Turn-around and Canopy Reconstruction	1	LS	\$200,000	\$200,000	
115	<b>7 - Park &amp; Rides</b>					
116	Park & Ride		Space	\$4,300		
117	Park & Ride Location					
119	<b>8 - Operations Facility (Shared Track Option)</b>					
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008		
124	Yard Trackwork (Shared Track Option)		LS	\$2,565,708		
125	Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000		
126	Operations Facility Building (Shared Track Option)		LS	\$5,343,000		
127	Maintenance Equipment (Shared Track Option)		LS	\$3,373,155		
128	MOW Vehicles (Shared Track Option)		LS	\$1,847,460		
133	<b>9 - Traction Power System -Lighting and System Support</b>					
141	Alignment Lighting (Shared Track Option)		LS	\$600,000		
142	Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147	<b>10 - Signal System</b>					
148	Signal (Shared Track Option)		LS	\$16,233,750		
149						
150						
151	<b>11 - Communications</b>					
152	Communications (Shared Track Option)		LS	\$1,770,000		
153						
154						

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-217 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track East Valley Section</b>		400+00	425+00	2,500 FT	0.5 mile
C -217	<b>Dartmouth Road Area to University Rd</b>					
	Description	Quantity	Unit	Unit Cost	Extension	2001\$
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$3,240,500
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$1,134,175
180	Infrastructure	E & A 35.00%			\$1,134,175	
181	Vehicle	E & A 5.00%				
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$1,348,100
187	Vehicles	Contingency 5.00%				
189	Infrastructure	Contingency 20.00%			\$473,100	
191	Utilities	Contingency 100.00%			\$875,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$256,962
195		Sales Tax 8.40%			\$256,962	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$5,979,737

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-218 Shared Track

Spokane Regional								
		Light Rail Project	Estimate Basics					
		Order of Magnitude	Start Sta	End Sta	Length			
Drawing	Shared Track East Valley Section		425+00	450+00	2,500 FT	0.5 mile		
C -218	University Road to Bodish Road Area							
		Description	Quantity	Unit	Unit Cost	Extension	2001\$	
		<b>1-Civil Construction</b>						\$974,350
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000		
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500		
3		Curb & Gutter Allowance		LF	\$35			
4		Common Excavation		CY	\$15			
6		Common Backfill (From Project Excavation)	3,500	CY	\$4	\$14,000		
9		Chain Link Fencing 4'		LF	\$16			
10		Chain Link Fencing 6'		LF	\$22			
11		Ballast Walls (Curb-no drainage)		LF	\$22			
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000		
14		Ballasted Track at Grade or Structure	2,950	TF	\$223	\$657,850		
15		Ballasted Track with Pave-Over Topping		TF	\$285			
20		#10 Single Crossover		EA	\$175,000			
21		#10 Turnout	1	EA	\$75,000	\$75,000		
22		#20 Turnout		EA	\$100,000			
23		Impact Attenuators		EA	\$35,000			
24		Minor Street Closures Allowance		EA	\$25,000			
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000			
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000			
28		Major Traffic Signal (4 Lanes)		EA	\$200,000			
29		Complex Major Intersection Rebuild		EA	\$300,000			
30		Roadway Construction		SF	\$9			
31		Sidewalk Construction		SF	\$6			
32		Off Alignment Signal Modifications		EA	\$75,000			
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100			
36		Remove & Relocate Industrial Spur		TF	\$130			
37		Remove Industrial Spur		TF	\$50			
39		Construct New Ballasted Industrial Siding Track		TF	\$160			
50		<b>2 - Insurance - Included other in Items</b>						
57		<b>3 - Utilities</b>						\$250,000
59		Utility Allowance - High		RF	\$600			
60		Utility Allowance - Medium		RF	\$350			
61		Utility Allowance - Low	2,500	RF	\$100	\$250,000		
70		<b>4 - Track Materials - Included in the Rail Items</b>						
74		<b>5 - Structures</b>						
76		Crash Wall (2.5' thick x 12' high)		CY	\$300			
77		Retaining Wall to 5'		SF	\$35			
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30			
104		<b>6 - Stations</b>						
105		Stations (Shared Track Option)		EA	\$500,000			
108		Station Name						
109		Operator Crew Room/Concession Building		EA	\$100,000			
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115		<b>7 - Park &amp; Rides</b>						
116		Park & Ride		Space	\$4,300			
117		Park & Ride Location						
119		<b>8 - Operations Facility (Shared Track Option)</b>						
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133		<b>9 - Traction Power System -Lighting and System Support</b>						
141		Alignment Lighting (Shared Track Option)		LS	\$600,000			
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147		<b>10 - Signal System</b>						
148		Signal (Shared Track Option)		LS	\$16,233,750			
149								
150								
151		<b>11 - Communications</b>						
152		Communications (Shared Track Option)		LS	\$1,770,000			
153								
154								

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-218 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track East Valley Section</b>		425+00	450+00	2,500 FT	0.5 mile
C -218	<b>University Road to Bodish Road Area</b>					
	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$1,224,350
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$428,523
180	Infrastructure E & A 35.00%				\$428,523	
181	Vehicle E & A 5.00%					
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$444,870
187	Vehicles Contingency 5.00%					
189	Infrastructure Contingency 20.00%				\$194,870	
191	Utilities Contingency 100.00%				\$250,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$93,476
195	Sales Tax 8.40%				\$93,476	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$2,191,219

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-219 Shared Track

Spokane Regional								
		Light Rail Project	Estimate Basics					
		Order of Magnitude	Start Sta	End Sta	Length			
Drawing	Shared Track East Valley Section		450+00	475+00	2,500 FT	0.5 mile		
C -219	Bodish Road to Pines Road (At Grade) Area							
		Description	Quantity	Unit	Unit Cost	Extension	2001\$	
		<b>1-Civil Construction</b>						\$770,000
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000		
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500		
3		Curb & Gutter Allowance		LF	\$35			
4		Common Excavation	1,000	CY	\$15	\$15,000		
6		Common Backfill (From Project Excavation)	5,000	CY	\$4	\$20,000		
9		Chain Link Fencing 4'		LF	\$16			
10		Chain Link Fencing 6'		LF	\$22			
11		Ballast Walls (Curb-no drainage)		LF	\$22			
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000		
14		Ballasted Track at Grade or Structure	2,500	TF	\$223	\$557,500		
15		Ballasted Track with Pave-Over Topping		TF	\$285			
20		#10 Single Crossover		EA	\$175,000			
21		#10 Turnout		EA	\$75,000			
22		#20 Turnout		EA	\$100,000			
23		Impact Attenuators		EA	\$35,000			
24		Minor Street Closures Allowance	2	EA	\$25,000	\$50,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000			
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000			
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000			
28		Major Traffic Signal (4 Lanes)		EA	\$200,000			
29		Complex Major Intersection Rebuild		EA	\$300,000			
30		Roadway Construction		SF	\$9			
31		Sidewalk Construction		SF	\$6			
32		Off Alignment Signal Modifications		EA	\$75,000			
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100			
36		Remove & Relocate Industrial Spur		TF	\$130			
37		Remove Industrial Spur		TF	\$50			
39		Construct New Ballasted Industrial Siding Track		TF	\$160			
50	<b>2 - Insurance - Included other in Items</b>							
57	<b>3 - Utilities</b>							\$250,000
59		Utility Allowance - High		RF	\$600			
60		Utility Allowance - Medium		RF	\$350			
61		Utility Allowance - Low	2,500	RF	\$100	\$250,000		
70	<b>4 - Track Materials - Included in the Rail Items</b>							
74	<b>5 - Structures</b>							
76		Crash Wall (2.5' thick x 12' high)		CY	\$300			
77		Retaining Wall to 5'		SF	\$35			
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30			
104	<b>6 - Stations</b>							
105		Stations (Shared Track Option)		EA	\$500,000			
108		Station Name						
109		Operator Crew Room/Concession Building		EA	\$100,000			
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115	<b>7 - Park &amp; Rides</b>							
116		Park & Ride		Space	\$4,300			
117		Park & Ride Location						
119	<b>8 - Operations Facility (Shared Track Option)</b>							
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133	<b>9 - Traction Power System -Lighting and System Support</b>							
141		Alignment Lighting (Shared Track Option)		LS	\$600,000			
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147	<b>10 - Signal System</b>							
148		Signal (Shared Track Option)		LS	\$16,233,750			
149								
150								
151	<b>11 - Communications</b>							
152		Communications (Shared Track Option)		LS	\$1,770,000			
153								
154								

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-219 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track East Valley Section</b>		450+00	475+00	2,500 FT	0.5 mile
C -219	<b>Bodish Road to Pines Road (At Grade) Area</b>					
	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$1,020,000
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$357,000
180	Infrastructure E & A 35.00%				\$357,000	
181	Vehicle E & A 5.00%					
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$404,000
187	Vehicles Contingency 5.00%					
189	Infrastructure Contingency 20.00%				\$154,000	
191	Utilities Contingency 100.00%				\$250,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$79,744
195	Sales Tax 8.40%				\$79,744	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$1,860,744

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-220 Shared Track

Spokane Regional								
		Light Rail Project	Estimate Basics					
		Order of Magnitude	Start Sta	End Sta	Length			
Drawing	Shared Track East Valley Section		475+00	500+00	2,500 FT	0.5 mile		
C -220	Pines Road (At Grade) to McDonald Road Area							
		Description	Quantity	Unit	Unit Cost	Extension	2001\$	
		<b>1-Civil Construction</b>						\$897,000
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000		
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500		
3		Curb & Gutter Allowance		LF	\$35			
4		Common Excavation		CY	\$15			
6		Common Backfill (From Project Excavation)	3,000	CY	\$4	\$12,000		
9		Chain Link Fencing 4'		LF	\$16			
10		Chain Link Fencing 6'		LF	\$22			
11		Ballast Walls (Curb-no drainage)		LF	\$22			
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000		
14		Ballasted Track at Grade or Structure	2,500	TF	\$223	\$557,500		
15		Ballasted Track with Pave-Over Topping		TF	\$285			
20		#10 Single Crossover		EA	\$175,000			
21		#10 Turnout		EA	\$75,000			
22		#20 Turnout		EA	\$100,000			
23		Impact Attenuators		EA	\$35,000			
24		Minor Street Closures Allowance		EA	\$25,000			
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000			
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000			
28		Major Traffic Signal (4 Lanes)		EA	\$200,000			
29		Complex Major Intersection Rebuild		EA	\$300,000			
30		Roadway Construction		SF	\$9			
31		Sidewalk Construction		SF	\$6			
32		Off Alignment Signal Modifications		EA	\$75,000			
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100			
36		Remove & Relocate Industrial Spur		TF	\$130			
37		Remove Industrial Spur		TF	\$50			
39		Construct New Ballasted Industrial Siding Track		TF	\$160			
50		<b>2 - Insurance - Included other in Items</b>						
57		<b>3 - Utilities</b>						\$250,000
59		Utility Allowance - High		RF	\$600			
60		Utility Allowance - Medium		RF	\$350			
61		Utility Allowance - Low	2,500	RF	\$100	\$250,000		
70		<b>4 - Track Materials - Included in the Rail Items</b>						
74		<b>5 - Structures</b>						
76		Crash Wall (2.5' thick x 12' high)		CY	\$300			
77		Retaining Wall to 5'		SF	\$35			
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30			
104		<b>6 - Stations</b>						\$500,000
105		Stations (Shared Track Option)	1	EA	\$500,000	\$500,000		
108		Station Name	Pines Station					
109		Operator Crew Room/Concession Building		EA	\$100,000			
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115		<b>7 - Park &amp; Rides</b>						\$860,000
116		Park & Ride	200	Space	\$4,300	\$860,000		
117		Park & Ride Location	Pines Station					
119		<b>8 - Operations Facility (Shared Track Option)</b>						
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133		<b>9 - Traction Power System -Lighting and System Support</b>						
141		Alignment Lighting (Shared Track Option)		LS	\$600,000			
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147		<b>10 - Signal System</b>						
148		Signal (Shared Track Option)		LS	\$16,233,750			
149								
150								
151		<b>11 - Communications</b>						
152		Communications (Shared Track Option)		LS	\$1,770,000			
153								
154								

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-220 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track East Valley Section</b>		475+00	500+00	2,500 FT	0.5 mile
C -220	<b>Pines Road (At Grade) to McDonald Road Area</b>					
		<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>
						<b>2001\$</b>
155						
156						
157		<b>12 - Fare Collection</b>				
158		Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333	
159						
160		<b>Subtotal - Infrastructure</b>			Subtotal	\$2,507,000
161						
162		<b>13. Right of Way</b>				
165		Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000	
166		Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000	
174		<b>14. Vehicles</b>				
175		DMU Vehicles (Assume New)		EA	\$3,500,000	
176		DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000	
177						
178						
179		<b>15 - Engineering &amp; Administration</b>			Subtotal	\$877,450
180		Infrastructure E & A 35.00%				\$877,450
181		Vehicle E & A 5.00%				
182						
183						
184						
185		<b>16 - Contingencies</b>			Subtotal	\$701,400
187		Vehicles Contingency 5.00%				
189		Infrastructure Contingency 20.00%				\$451,400
191		Utilities Contingency 100.00%				\$250,000
192						
194		<b>17 - Washington State Sales Tax and Real Estate Tax</b>				\$179,670
195		Sales Tax 8.40%				\$179,670
196		Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.				
					Total	\$4,265,520

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-221 Shared Track

Spokane Regional							
		Light Rail Project	Estimate Basics				
		Order of Magnitude	Start Sta	End Sta	Length		
Drawing	Shared Track East Valley Section		500+00	525+00	2,500 FT	0.5 mile	
C -221	McDonald Road to Evergreen Road Area						
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
		<b>1-Civil Construction</b>					\$912,000
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000	
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500	
3		Curb & Gutter Allowance		LF	\$35		
4		Common Excavation	1,000	CY	\$15	\$15,000	
6		Common Backfill (From Project Excavation)	3,000	CY	\$4	\$12,000	
9		Chain Link Fencing 4'		LF	\$16		
10		Chain Link Fencing 6'		LF	\$22		
11		Ballast Walls (Curb-no drainage)		LF	\$22		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000	
14		Ballasted Track at Grade or Structure	2,500	TF	\$223	\$557,500	
15		Ballasted Track with Pave-Over Topping		TF	\$285		
20		#10 Single Crossover		EA	\$175,000		
21		#10 Turnout		EA	\$75,000		
22		#20 Turnout		EA	\$100,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	2	EA	\$100,000	\$200,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9		
31		Sidewalk Construction		SF	\$6		
32		Off Alignment Signal Modifications		EA	\$75,000		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100		
36		Remove & Relocate Industrial Spur		TF	\$130		
37		Remove Industrial Spur		TF	\$50		
39		Construct New Ballasted Industrial Siding Track		TF	\$160		
50		<b>2 - Insurance - Included other in Items</b>					
57		<b>3 - Utilities</b>					\$250,000
59		Utility Allowance - High		RF	\$600		
60		Utility Allowance - Medium		RF	\$350		
61		Utility Allowance - Low	2,500	RF	\$100	\$250,000	
70		<b>4 - Track Materials - Included in the Rail Items</b>					
74		<b>5 - Structures</b>					
76		Crash Wall (2.5' thick x 12' high)		CY	\$300		
77		Retaining Wall to 5'		SF	\$35		
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104		<b>6 - Stations</b>					
105		Stations (Shared Track Option)		EA	\$500,000		
108		Station Name					
109		Operator Crew Room/Concession Building		EA	\$100,000		
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000		
115		<b>7 - Park &amp; Rides</b>					
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119		<b>8 - Operations Facility (Shared Track Option)</b>					
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008		
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708		
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000		
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000		
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155		
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460		
133		<b>9 - Traction Power System -Lighting and System Support</b>					
141		Alignment Lighting (Shared Track Option)		LS	\$600,000		
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147		<b>10 - Signal System</b>					
148		Signal (Shared Track Option)		LS	\$16,233,750		
149							
150							
151		<b>11 - Communications</b>					
152		Communications (Shared Track Option)		LS	\$1,770,000		
153							
154							

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-221 Shared Track

Spokane Regional							
		Light Rail Project		Estimate Basics			
		Order of Magnitude		Start Sta	End Sta	Length	
Drawing	Shared Track East Valley Section			500+00	525+00	2,500 FT	0.5 mile
C -221	McDonald Road to Evergreen Road Area						
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
155							
156							
157	<b>12 - Fare Collection</b>						
158		Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159							
160		<b>Subtotal - Infrastructure</b>			Subtotal		\$1,162,000
161							
162	<b>13. Right of Way</b>						
165		Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166		Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>						
175		DMU Vehicles (Assume New)		EA	\$3,500,000		
176		DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177							
178							
179	<b>15 - Engineering &amp; Administration</b>				Subtotal		\$406,700
180	Infrastructure	E & A 35.00%				\$406,700	
181	Vehicle	E & A 5.00%					
182							
183							
184							
185	<b>16 - Contingencies</b>				Subtotal		\$432,400
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$182,400	
191	Utilities	Contingency 100.00%				\$250,000	
192							
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>						\$89,286
195		Sales Tax 8.40%				\$89,286	
196		Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
						Total	\$2,090,386

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-222 Shared Track

Spokane Regional								
		Light Rail Project	Estimate Basics					
		Order of Magnitude	Start Sta	End Sta	Length			
Drawing	Shared Track East Valley Section		525+00	550+00	2,500 FT	0.5 mile		
C -222	Evergreen Road Area to Adams Road Area							
		Description	Quantity	Unit	Unit Cost	Extension	2001\$	
<b>1-Civil Construction</b>								
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000		
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500		
3		Curb & Gutter Allowance		LF	\$35			
4		Common Excavation	2,000	CY	\$15	\$30,000		
6		Common Backfill (From Project Excavation)	2,000	CY	\$4	\$8,000		
9		Chain Link Fencing 4'		LF	\$16			
10		Chain Link Fencing 6'		LF	\$22			
11		Ballast Walls (Curb-no drainage)		LF	\$22			
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000		
14		Ballasted Track at Grade or Structure	3,800	TF	\$223	\$847,400		
15		Ballasted Track with Pave-Over Topping		TF	\$285			
20		#10 Single Crossover		EA	\$175,000			
21		#10 Turnout	1	EA	\$75,000	\$75,000		
22		#20 Turnout		EA	\$100,000			
23		Impact Attenuators		EA	\$35,000			
24		Minor Street Closures Allowance		EA	\$25,000			
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000			
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000			
28		Major Traffic Signal (4 Lanes)		EA	\$200,000			
29		Complex Major Intersection Rebuild		EA	\$300,000			
30		Roadway Construction		SF	\$9			
31		Sidewalk Construction		SF	\$6			
32		Off Alignment Signal Modifications		EA	\$75,000			
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100			
36		Remove & Relocate Industrial Spur		TF	\$130			
37		Remove Industrial Spur		TF	\$50			
39		Construct New Ballasted Industrial Siding Track		TF	\$160			
50	<b>2 - Insurance - Included other in Items</b>							
57	<b>3 - Utilities</b>							
59		Utility Allowance - High		RF	\$600		\$250,000	
60		Utility Allowance - Medium		RF	\$350			
61		Utility Allowance - Low	2,500	RF	\$100	\$250,000		
70	<b>4 - Track Materials - Included in the Rail Items</b>							
74	<b>5 - Structures</b>							
76		Crash Wall (2.5' thick x 12' high)		CY	\$300			
77		Retaining Wall to 5'		SF	\$35			
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30			
104	<b>6 - Stations</b>							
105		Stations (Shared Track Option)	1	EA	\$500,000	\$500,000		
108		Station Name	Evergreen Station					
109		Operator Crew Room/Concession Building		EA	\$100,000			
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115	<b>7 - Park &amp; Rides</b>							
116		Park & Ride		Space	\$4,300			
117		Park & Ride Location						
119	<b>8 - Operations Facility (Shared Track Option)</b>							
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133	<b>9 - Traction Power System -Lighting and System Support</b>							
141		Alignment Lighting (Shared Track Option)		LS	\$600,000			
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147	<b>10 - Signal System</b>							
148		Signal (Shared Track Option)		LS	\$16,233,750			
149								
150								
151	<b>11 - Communications</b>							
152		Communications (Shared Track Option)		LS	\$1,770,000			
153								
154								

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-222 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track East Valley Section</b>		525+00	550+00	2,500 FT	0.5 mile
C -222	<b>Evergreen Road Area to Adams Road Area</b>					
		<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>
						<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158		Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333	
159						
160		<b>Subtotal - Infrastructure</b>			Subtotal	\$2,037,900
161						
162	<b>13. Right of Way</b>					
165		Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000	
166		Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000	
174	<b>14. Vehicles</b>					
175		DMU Vehicles (Assume New)		EA	\$3,500,000	
176		DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000	
177						
178						
179	<b>15 - Engineering &amp; Administration</b>				Subtotal	\$713,265
180	Infrastructure	E & A 35.00%				\$713,265
181	Vehicle	E & A 5.00%				
182						
183						
184						
185	<b>16 - Contingencies</b>				Subtotal	\$607,580
187	Vehicles	Contingency 5.00%				
189	Infrastructure	Contingency 20.00%				\$357,580
191	Utilities	Contingency 100.00%				\$250,000
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$148,147
195		Sales Tax 8.40%				\$148,147
196		Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.				
					Total	\$3,506,892

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# INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-223 Shared Track

Spokane Regional								
		Light Rail Project	Estimate Basics					
		Order of Magnitude	Start Sta	End Sta	Length			
Drawing	Shared Track East Valley Section		550+00	575+00	2,500 FT	0.5 mile		
C -223	Adams Road Area to Sullivan Road Area							
		Description	Quantity	Unit	Unit Cost	Extension	2001\$	
		<b>1-Civil Construction</b>						\$1,478,000
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000		
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500		
3		Curb & Gutter Allowance		LF	\$35			
4		Common Excavation	500	CY	\$15	\$7,500		
6		Common Backfill (From Project Excavation)	7,000	CY	\$4	\$28,000		
9		Chain Link Fencing 4'		LF	\$16			
10		Chain Link Fencing 6'		LF	\$22			
11		Ballast Walls (Curb-no drainage)		LF	\$22			
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000		
15		Ballasted Track with Pave-Over Topping		TF	\$285			
20		#10 Single Crossover		EA	\$175,000			
21		#10 Turnout		EA	\$75,000			
22		#20 Turnout		EA	\$100,000			
23		Impact Attenuators		EA	\$35,000			
24		Minor Street Closures Allowance		EA	\$25,000			
25		Minor Intersection Rebuild (2 Lanes)	2	EA	\$100,000	\$200,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000			
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000			
28		Major Traffic Signal (4 Lanes)		EA	\$200,000			
29		Complex Major Intersection Rebuild		EA	\$300,000			
30		Roadway Construction		SF	\$9			
31		Sidewalk Construction		SF	\$6			
32		Off Alignment Signal Modifications		EA	\$75,000			
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100			
36		Remove & Relocate Industrial Spur		TF	\$130			
37		Remove Industrial Spur		TF	\$50			
39		Construct New Ballasted Industrial Siding Track		TF	\$160			
50		<b>2 - Insurance - Included other in Items</b>						
57		<b>3 - Utilities</b>						\$250,000
59		Utility Allowance - High		RF	\$600			
60		Utility Allowance - Medium		RF	\$350			
61		Utility Allowance - Low	2,500	RF	\$100	\$250,000		
70		<b>4 - Track Materials - Included in the Rail Items</b>						
74		<b>5 - Structures</b>						
76		Crash Wall (2.5' thick x 12' high)		CY	\$300			
77		Retaining Wall to 5'		SF	\$35			
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30			
104		<b>6 - Stations</b>						
105		Stations (Shared Track Option)		EA	\$500,000			
108		Station Name						
109		Operator Crew Room/Concession Building		EA	\$100,000			
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115		<b>7 - Park &amp; Rides</b>						
116		Park & Ride		Space	\$4,300			
117		Park & Ride Location						
119		<b>8 - Operations Facility (Shared Track Option)</b>						
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133		<b>9 - Traction Power System -Lighting and System Support</b>						
141		Alignment Lighting (Shared Track Option)		LS	\$600,000			
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147		<b>10 - Signal System</b>						
148		Signal (Shared Track Option)		LS	\$16,233,750			
149								
150								
151		<b>11 - Communications</b>						
152		Communications (Shared Track Option)		LS	\$1,770,000			
153								
154								

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-223 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track East Valley Section</b>		550+00	575+00	2,500 FT	0.5 mile
C -223	<b>Adams Road Area to Sullivan Road Area</b>					
	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$1,728,000
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$604,800
180	Infrastructure E & A 35.00%				\$604,800	
181	Vehicle E & A 5.00%					
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$545,600
187	Vehicles Contingency 5.00%					
189	Infrastructure Contingency 20.00%				\$295,600	
191	Utilities Contingency 100.00%				\$250,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$127,322
195	Sales Tax 8.40%				\$127,322	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$3,005,722

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-224 Shared Track

Spokane Regional						
Light Rail Project		Estimate Basics				
Order of Magnitude		Start Sta	End Sta	Length		
Drawing	Shared Track East Valley Section	575+00	600+00	2,500 FT	0.5 mile	
C -224	Sullivan Road Area to Cannery Street Area					
Description		Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>						
1	Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000	
2	Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500	
3	Curb & Gutter Allowance		LF	\$35		
4	Common Excavation	1,000	CY	\$15	\$15,000	
6	Common Backfill (From Project Excavation)		CY	\$4		
9	Chain Link Fencing 4'		LF	\$16		
10	Chain Link Fencing 6'		LF	\$22		
11	Ballast Walls (Curb-no drainage)		LF	\$22		
12	Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000	
14	Ballasted Track at Grade or Structure	4,800	TF	\$223	\$1,070,400	
15	Ballasted Track with Pave-Over Topping		TF	\$285		
20	#10 Single Crossover		EA	\$175,000		
21	#10 Turnout		EA	\$75,000		
22	#20 Turnout	1	EA	\$100,000	\$100,000	
23	Impact Attenuators		EA	\$35,000		
24	Minor Street Closures Allowance		EA	\$25,000		
25	Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26	Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27	Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28	Major Traffic Signal (4 Lanes)		EA	\$200,000		
29	Complex Major Intersection Rebuild		EA	\$300,000		
30	Roadway Construction		SF	\$9		
31	Sidewalk Construction		SF	\$6		
32	Off Alignment Signal Modifications		EA	\$75,000		
35	Relocate UPRR Yard Lead or Branch Line		TF	\$100		
36	Remove & Relocate Industrial Spur		TF	\$130		
37	Remove Industrial Spur		TF	\$50		
39	Construct New Ballasted Industrial Siding Track		TF	\$160		
50	<b>2 - Insurance - Included other in Items</b>					
57	<b>3 - Utilities</b>					\$250,000
59	Utility Allowance - High		RF	\$600		
60	Utility Allowance - Medium		RF	\$350		
61	Utility Allowance - Low	2,500	RF	\$100	\$250,000	
70	<b>4 - Track Materials - Included in the Rail Items</b>					
74	<b>5 - Structures</b>					
76	Crash Wall (2.5' thick x 12' high)		CY	\$300		
77	Retaining Wall to 5'		SF	\$35		
78	MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104	<b>6 - Stations</b>					\$500,000
105	Stations (Shared Track Option)	1	EA	\$500,000	\$500,000	
108	Station Name	Sullivan Station				
109	Operator Crew Room/Concession Building		EA	\$100,000		
110	Bus Turn-around and Canopy Reconstruction		LS	\$200,000		
115	<b>7 - Park &amp; Rides</b>					\$1,720,000
116	Park & Ride	400	Space	\$4,300	\$1,720,000	
117	Park & Ride Location	Sullivan Station				
119	<b>8 - Operations Facility (Shared Track Option)</b>					
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008		
124	Yard Trackwork (Shared Track Option)		LS	\$2,565,708		
125	Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000		
126	Operations Facility Building (Shared Track Option)		LS	\$5,343,000		
127	Maintenance Equipment (Shared Track Option)		LS	\$3,373,155		
128	MOW Vehicles (Shared Track Option)		LS	\$1,847,460		
133	<b>9 - Traction Power System -Lighting and System Support</b>					
141	Alignment Lighting (Shared Track Option)		LS	\$600,000		
142	Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147	<b>10 - Signal System</b>					
148	Signal (Shared Track Option)		LS	\$16,233,750		
149						
150						
151	<b>11 - Communications</b>					
152	Communications (Shared Track Option)		LS	\$1,770,000		
153						
154						

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-224 Shared Track

Spokane Regional								
		Light Rail Project		Estimate Basics				
		Order of Magnitude		Start Sta	End Sta	Length		
Drawing	C -224	Shared Track East Valley Section Sullivan Road Area to Cannery Street Area		575+00	600+00	2,500 FT	0.5 mile	
		Description	Quantity	Unit	Unit Cost	Extension	2001\$	
155								
156								
157		<b>12 - Fare Collection</b>						
158		Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333			
159								
160		<b>Subtotal - Infrastructure</b>			Subtotal		\$3,982,900	
161								
162		<b>13. Right of Way</b>						
165		Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000			
166		Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000			
174		<b>14. Vehicles</b>						
175		DMU Vehicles (Assume New)		EA	\$3,500,000			
176		DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000			
177								
178								
179		<b>15 - Engineering &amp; Administration</b>						
180		E & A 35.00%				\$1,394,015		
181		E & A 5.00%						
182								
183								
184								
185		<b>16 - Contingencies</b>						
187		Contingency 5.00%						
189		Contingency 20.00%				\$746,580		
191		Contingency 100.00%				\$250,000		
192								
194		<b>17 - Washington State Sales Tax and Real Estate Tax</b>						
195		Sales Tax 8.40%				\$278,851		
196		Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.						
						Total	\$6,652,346	

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-225 Shared Track

Spokane Regional						
Light Rail Project		Estimate Basics				
Order of Magnitude		Start Sta	End Sta	Length		
Drawing	Shared Track East Valley Section	600+00	625+00	2,500 FT	0.5 mile	
C -225	Cannery Street Area to Steen Road Area					
Description		Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>						\$794,500
1	Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000	
2	Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500	
3	Curb & Gutter Allowance		LF	\$35		
4	Common Excavation	500	CY	\$15	\$7,500	
6	Common Backfill (From Project Excavation)	500	CY	\$4	\$2,000	
9	Chain Link Fencing 4'		LF	\$16		
10	Chain Link Fencing 6'		LF	\$22		
11	Ballast Walls (Curb-no drainage)		LF	\$22		
12	Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000	
14	Ballasted Track at Grade or Structure	2,500	TF	\$223	\$557,500	
15	Ballasted Track with Pave-Over Topping		TF	\$285		
20	#10 Single Crossover		EA	\$175,000		
21	#10 Turnout		EA	\$75,000		
22	#20 Turnout		EA	\$100,000		
23	Impact Attenuators		EA	\$35,000		
24	Minor Street Closures Allowance		EA	\$25,000		
25	Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26	Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27	Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28	Major Traffic Signal (4 Lanes)		EA	\$200,000		
29	Complex Major Intersection Rebuild		EA	\$300,000		
30	Roadway Construction		SF	\$9		
31	Sidewalk Construction		SF	\$6		
32	Off Alignment Signal Modifications		EA	\$75,000		
35	Relocate UPRR Yard Lead or Branch Line		TF	\$100		
36	Remove & Relocate Industrial Spur		TF	\$130		
37	Remove Industrial Spur		TF	\$50		
39	Construct New Ballasted Industrial Siding Track		TF	\$160		
50	<b>2 - Insurance - Included other in Items</b>					
57	<b>3 - Utilities</b>					\$250,000
59	Utility Allowance - High		RF	\$600		
60	Utility Allowance - Medium		RF	\$350		
61	Utility Allowance - Low	2,500	RF	\$100	\$250,000	
70	<b>4 - Track Materials - Included in the Rail Items</b>					
74	<b>5 - Structures</b>					
76	Crash Wall (2.5' thick x 12' high)		CY	\$300		
77	Retaining Wall to 5'		SF	\$35		
78	MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104	<b>6 - Stations</b>					
105	Stations (Shared Track Option)		EA	\$500,000		
108	Station Name					
109	Operator Crew Room/Concession Building		EA	\$100,000		
110	Bus Turn-around and Canopy Reconstruction		LS	\$200,000		
115	<b>7 - Park &amp; Rides</b>					
116	Park & Ride		Space	\$4,300		
117	Park & Ride Location					
119	<b>8 - Operations Facility (Shared Track Option)</b>					
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008		
124	Yard Trackwork (Shared Track Option)		LS	\$2,565,708		
125	Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000		
126	Operations Facility Building (Shared Track Option)		LS	\$5,343,000		
127	Maintenance Equipment (Shared Track Option)		LS	\$3,373,155		
128	MOW Vehicles (Shared Track Option)		LS	\$1,847,460		
133	<b>9 - Traction Power System -Lighting and System Support</b>					
141	Alignment Lighting (Shared Track Option)		LS	\$600,000		
142	Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147	<b>10 - Signal System</b>					
148	Signal (Shared Track Option)		LS	\$16,233,750		
149						
150						
151	<b>11 - Communications</b>					
152	Communications (Shared Track Option)		LS	\$1,770,000		
153						
154						

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-225 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track East Valley Section</b>		600+00	625+00	2,500 FT	0.5 mile
C -225	<b>Cannery Street Area to Steen Road Area</b>					
	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$1,044,500
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$365,575
180	Infrastructure E & A 35.00%				\$365,575	
181	Vehicle E & A 5.00%					
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$408,900
187	Vehicles Contingency 5.00%					
189	Infrastructure Contingency 20.00%				\$158,900	
191	Utilities Contingency 100.00%				\$250,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$81,390
195	Sales Tax 8.40%				\$81,390	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$1,900,365

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-226 Shared Track

Spokane Regional								
		Light Rail Project	Estimate Basics					
		Order of Magnitude	Start Sta	End Sta	Length			
Drawing	Shared Track East Valley Section		625+00	650+00	2,500 FT	0.5 mile		
C -226	Steen Road Area to Sprague Ave Crossing							
		Description	Quantity	Unit	Unit Cost	Extension	2001\$	
		<b>1-Civil Construction</b>						\$917,500
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000		
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500		
3		Curb & Gutter Allowance		LF	\$35			
4		Common Excavation	500	CY	\$15	\$7,500		
6		Common Backfill (From Project Excavation)		CY	\$4			
9		Chain Link Fencing 4'		LF	\$16			
10		Chain Link Fencing 6'		LF	\$22			
11		Ballast Walls (Curb-no drainage)		LF	\$22			
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000		
14		Ballasted Track at Grade or Structure	2,500	TF	\$223	\$557,500		
15		Ballasted Track with Pave-Over Topping		TF	\$285			
20		#10 Single Crossover		EA	\$175,000			
21		#10 Turnout		EA	\$75,000			
22		#20 Turnout		EA	\$100,000			
23		Impact Attenuators		EA	\$35,000			
24		Minor Street Closures Allowance	1	EA	\$25,000	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	2	EA	\$100,000	\$200,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000			
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000			
28		Major Traffic Signal (4 Lanes)		EA	\$200,000			
29		Complex Major Intersection Rebuild		EA	\$300,000			
30		Roadway Construction		SF	\$9			
31		Sidewalk Construction		SF	\$6			
32		Off Alignment Signal Modifications		EA	\$75,000			
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100			
36		Remove & Relocate Industrial Spur		TF	\$130			
37		Remove Industrial Spur		TF	\$50			
39		Construct New Ballasted Industrial Siding Track		TF	\$160			
50	<b>2 - Insurance - Included other in Items</b>							
57	<b>3 - Utilities</b>							\$250,000
59		Utility Allowance - High		RF	\$600			
60		Utility Allowance - Medium		RF	\$350			
61		Utility Allowance - Low	2,500	RF	\$100	\$250,000		
70	<b>4 - Track Materials - Included in the Rail Items</b>							
74	<b>5 - Structures</b>							
76		Crash Wall (2.5' thick x 12' high)		CY	\$300			
77		Retaining Wall to 5'		SF	\$35			
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30			
104	<b>6 - Stations</b>							
105		Stations (Shared Track Option)		EA	\$500,000			
108		Station Name						
109		Operator Crew Room/Concession Building		EA	\$100,000			
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115	<b>7 - Park &amp; Rides</b>							
116		Park & Ride		Space	\$4,300			
117		Park & Ride Location						
119	<b>8 - Operations Facility (Shared Track Option)</b>							
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133	<b>9 - Traction Power System -Lighting and System Support</b>							
141		Alignment Lighting (Shared Track Option)		LS	\$600,000			
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147	<b>10 - Signal System</b>							
148		Signal (Shared Track Option)		LS	\$16,233,750			
149								
150								
151	<b>11 - Communications</b>							
152		Communications (Shared Track Option)		LS	\$1,770,000			
153								
154								

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-226 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track East Valley Section</b>		625+00	650+00	2,500 FT	0.5 mile
C -226	<b>Steen Road Area to Sprague Ave Crossing</b>					
	Description	Quantity	Unit	Unit Cost	Extension	2001\$
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$1,167,500
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$408,625
180	Infrastructure	E & A 35.00%			\$408,625	
181	Vehicle	E & A 5.00%				
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$433,500
187	Vehicles	Contingency 5.00%				
189	Infrastructure	Contingency 20.00%			\$183,500	
191	Utilities	Contingency 100.00%			\$250,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$89,656
195		Sales Tax 8.40%			\$89,656	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$2,099,281

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-227 Shared Track

Spokane Regional								
		Light Rail Project	Estimate Basics					
		Order of Magnitude	Start Sta	End Sta	Length			
Drawing	Shared Track East Valley Section		650+00	675+00	2,500 FT	0.5 mile		
C -227	Sprague Ave Crossing to Greenacres Road							
		Description	Quantity	Unit	Unit Cost	Extension	2001\$	
		<b>1-Civil Construction</b>						\$966,000
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000		
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500		
3		Curb & Gutter Allowance		LF	\$35			
4		Common Excavation		CY	\$15			
6		Common Backfill (From Project Excavation)	1,500	CY	\$4	\$6,000		
9		Chain Link Fencing 4'		LF	\$16			
10		Chain Link Fencing 6'		LF	\$22			
11		Ballast Walls (Curb-no drainage)		LF	\$22			
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000		
14		Ballasted Track at Grade or Structure	2,500	TF	\$223	\$557,500		
15		Ballasted Track with Pave-Over Topping		TF	\$285			
20		#10 Single Crossover		EA	\$175,000			
21		#10 Turnout		EA	\$75,000			
22		#20 Turnout		EA	\$100,000			
23		Impact Attenuators		EA	\$35,000			
24		Minor Street Closures Allowance		EA	\$25,000			
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000			
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000			
28		Major Traffic Signal (4 Lanes)		EA	\$200,000			
29		Complex Major Intersection Rebuild		EA	\$300,000			
30		Roadway Construction		SF	\$9			
31		Sidewalk Construction		SF	\$6			
32		Off Alignment Signal Modifications	1	EA	\$75,000	\$75,000		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100			
36		Remove & Relocate Industrial Spur		TF	\$130			
37		Remove Industrial Spur		TF	\$50			
39		Construct New Ballasted Industrial Siding Track		TF	\$160			
50	<b>2 - Insurance - Included other in Items</b>							
57	<b>3 - Utilities</b>							\$250,000
59		Utility Allowance - High		RF	\$600			
60		Utility Allowance - Medium		RF	\$350			
61		Utility Allowance - Low	2,500	RF	\$100	\$250,000		
70	<b>4 - Track Materials - Included in the Rail Items</b>							
74	<b>5 - Structures</b>							
76		Crash Wall (2.5' thick x 12' high)		CY	\$300			
77		Retaining Wall to 5'		SF	\$35			
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30			
104	<b>6 - Stations</b>							
105		Stations (Shared Track Option)		EA	\$500,000			
108		Station Name						
109		Operator Crew Room/Concession Building		EA	\$100,000			
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115	<b>7 - Park &amp; Rides</b>							
116		Park & Ride		Space	\$4,300			
117		Park & Ride Location						
119	<b>8 - Operations Facility (Shared Track Option)</b>							
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133	<b>9 - Traction Power System -Lighting and System Support</b>							
141		Alignment Lighting (Shared Track Option)		LS	\$600,000			
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147	<b>10 - Signal System</b>							
148		Signal (Shared Track Option)		LS	\$16,233,750			
149								
150								
151	<b>11 - Communications</b>							
152		Communications (Shared Track Option)		LS	\$1,770,000			
153								
154								

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-227 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track East Valley Section</b>		650+00	675+00	2,500 FT	0.5 mile
C -227	<b>Sprague Ave Crossing to Greenacres Road</b>					
		<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>
						<b>2001\$</b>
155						
156						
157		<b>12 - Fare Collection</b>				
158		Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333	
159						
160		<b>Subtotal - Infrastructure</b>			Subtotal	\$1,216,000
161						
162		<b>13. Right of Way</b>				
165		Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000	
166		Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000	
174		<b>14. Vehicles</b>				
175		DMU Vehicles (Assume New)		EA	\$3,500,000	
176		DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000	
177						
178						
179		<b>15 - Engineering &amp; Administration</b>			Subtotal	\$425,600
180		Infrastructure E & A 35.00%				\$425,600
181		Vehicle E & A 5.00%				
182						
183						
184						
185		<b>16 - Contingencies</b>			Subtotal	\$443,200
187		Vehicles Contingency 5.00%				
189		Infrastructure Contingency 20.00%				\$193,200
191		Utilities Contingency 100.00%				\$250,000
192						
194		<b>17 - Washington State Sales Tax and Real Estate Tax</b>				\$92,915
195		Sales Tax 8.40%				\$92,915
196		Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.				
					Total	\$2,177,715

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# INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-228 Shared Track

Spokane Regional							
		Light Rail Project	Estimate Basics				
		Order of Magnitude	Start Sta	End Sta	Length		
Drawing	Shared Track East Valley Section		675+00	700+00	2,500 FT	0.5 mile	
C -228	Greenacres Road to Barker Road Area						
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>							
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000	
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500	
3		Curb & Gutter Allowance		LF	\$35		
4		Common Excavation		CY	\$15		
6		Common Backfill (From Project Excavation)	1,500	CY	\$4	\$6,000	
9		Chain Link Fencing 4'		LF	\$16		
10		Chain Link Fencing 6'		LF	\$22		
11		Ballast Walls (Curb-no drainage)		LF	\$22		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000	
14		Ballasted Track at Grade or Structure	2,500	TF	\$223	\$557,500	
15		Ballasted Track with Pave-Over Topping		TF	\$285		
20		#10 Single Crossover		EA	\$175,000		
21		#10 Turnout		EA	\$75,000		
22		#20 Turnout		EA	\$100,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	2	EA	\$100,000	\$200,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)	1	EA	\$100,000	\$100,000	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9		
31		Sidewalk Construction		SF	\$6		
32		Off Alignment Signal Modifications	1	EA	\$75,000	\$75,000	
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100		
36		Remove & Relocate Industrial Spur		TF	\$130		
37		Remove Industrial Spur		TF	\$50		
39		Construct New Ballasted Industrial Siding Track		TF	\$160		
50	<b>2 - Insurance - Included other in Items</b>						
57	<b>3 - Utilities</b>						
59		Utility Allowance - High		RF	\$600		\$250,000
60		Utility Allowance - Medium		RF	\$350		
61		Utility Allowance - Low	2,500	RF	\$100	\$250,000	
70	<b>4 - Track Materials - Included in the Rail Items</b>						
74	<b>5 - Structures</b>						
76		Crash Wall (2.5' thick x 12' high)		CY	\$300		
77		Retaining Wall to 5'		SF	\$35		
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104	<b>6 - Stations</b>						
105		Stations (Shared Track Option)		EA	\$500,000		
108		Station Name					
109		Operator Crew Room/Concession Building		EA	\$100,000		
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000		
115	<b>7 - Park &amp; Rides</b>						
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119	<b>8 - Operations Facility (Shared Track Option)</b>						
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008		
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708		
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000		
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000		
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155		
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460		
133	<b>9 - Traction Power System -Lighting and System Support</b>						
141		Alignment Lighting (Shared Track Option)		LS	\$600,000		
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147	<b>10 - Signal System</b>						
148		Signal (Shared Track Option)		LS	\$16,233,750		
149							
150							
151	<b>11 - Communications</b>						
152		Communications (Shared Track Option)		LS	\$1,770,000		
153							
154							

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-228 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track East Valley Section</b>		675+00	700+00	2,500 FT	0.5 mile
C -228	<b>Greenacres Road to Barker Road Area</b>					
	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$1,316,000
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$460,600
180	Infrastructure	E & A 35.00%			\$460,600	
181	Vehicle	E & A 5.00%				
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$463,200
187	Vehicles	Contingency 5.00%				
189	Infrastructure	Contingency 20.00%			\$213,200	
191	Utilities	Contingency 100.00%			\$250,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$99,635
195		Sales Tax 8.40%			\$99,635	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$2,339,435

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-229 Shared Track

Spokane Regional								
		Light Rail Project	Estimate Basics					
		Order of Magnitude	Start Sta	End Sta	Length			
Drawing	Shared Track Liberty Lake Section		700+00	725+00	2,500 FT	0.5 mile		
C -229	Barker Road Area to Appleway Station Area							
		Description	Quantity	Unit	Unit Cost	Extension	2001\$	
		<b>1-Civil Construction</b>						\$696,500
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000		
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500		
3		Curb & Gutter Allowance		LF	\$35			
4		Common Excavation	500	CY	\$15	\$7,500		
6		Common Backfill (From Project Excavation)	1,000	CY	\$4	\$4,000		
9		Chain Link Fencing 4'		LF	\$16			
10		Chain Link Fencing 6'		LF	\$22			
11		Ballast Walls (Curb-no drainage)		LF	\$22			
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000		
14		Ballasted Track at Grade or Structure	2,500	TF	\$223	\$557,500		
15		Ballasted Track with Pave-Over Topping		TF	\$285			
20		#10 Single Crossover		EA	\$175,000			
21		#10 Turnout		EA	\$75,000			
22		#20 Turnout		EA	\$100,000			
23		Impact Attenuators		EA	\$35,000			
24		Minor Street Closures Allowance		EA	\$25,000			
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000			
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000			
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000			
28		Major Traffic Signal (4 Lanes)		EA	\$200,000			
29		Complex Major Intersection Rebuild		EA	\$300,000			
30		Roadway Construction		SF	\$9			
31		Sidewalk Construction		SF	\$6			
32		Off Alignment Signal Modifications		EA	\$75,000			
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100			
36		Remove & Relocate Industrial Spur		TF	\$130			
37		Remove Industrial Spur		TF	\$50			
39		Construct New Ballasted Industrial Siding Track		TF	\$160			
50		<b>2 - Insurance - Included other in Items</b>						
57		<b>3 - Utilities</b>						\$250,000
59		Utility Allowance - High		RF	\$600			
60		Utility Allowance - Medium		RF	\$350			
61		Utility Allowance - Low	2,500	RF	\$100	\$250,000		
70		<b>4 - Track Materials - Included in the Rail Items</b>						
74		<b>5 - Structures</b>						
76		Crash Wall (2.5' thick x 12' high)		CY	\$300			
77		Retaining Wall to 5'		SF	\$35			
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30			
104		<b>6 - Stations</b>						
105		Stations (Shared Track Option)		EA	\$500,000			
108		Station Name						
109		Operator Crew Room/Concession Building		EA	\$100,000			
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115		<b>7 - Park &amp; Rides</b>						
116		Park & Ride		Space	\$4,300			
117		Park & Ride Location						
119		<b>8 - Operations Facility (Shared Track Option)</b>						
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133		<b>9 - Traction Power System -Lighting and System Support</b>						
141		Alignment Lighting (Shared Track Option)		LS	\$600,000			
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147		<b>10 - Signal System</b>						
148		Signal (Shared Track Option)		LS	\$16,233,750			
149								
150								
151		<b>11 - Communications</b>						
152		Communications (Shared Track Option)		LS	\$1,770,000			
153								
154								

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-229 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track Liberty Lake Section</b>		700+00	725+00	2,500 FT	0.5 mile
C -229	<b>Barker Road Area to Appleway Station Area</b>					
	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$946,500
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$331,275
180	Infrastructure	E & A 35.00%			\$331,275	
181	Vehicle	E & A 5.00%				
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$389,300
187	Vehicles	Contingency 5.00%				
189	Infrastructure	Contingency 20.00%			\$139,300	
191	Utilities	Contingency 100.00%			\$250,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$74,805
195		Sales Tax 8.40%			\$74,805	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$1,741,880

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# INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-230 Shared Track

Spokane Regional						
Light Rail Project		Estimate Basics				
Order of Magnitude		Start Sta	End Sta	Length		
Drawing	Shared Track Liberty Lake Section	725+00	750+00	2,500 FT	0.5 mile	
C -230	Appleway Station Area to Country Vista Road Area					
Description		Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>						\$836,500
1	Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000	
2	Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500	
3	Curb & Gutter Allowance		LF	\$35		
4	Common Excavation		CY	\$15		
6	Common Backfill (From Project Excavation)	500	CY	\$4	\$2,000	
9	Chain Link Fencing 4'		LF	\$16		
10	Chain Link Fencing 6'	2,250	LF	\$22	\$49,500	
11	Ballast Walls (Curb-no drainage)		LF	\$22		
12	Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000	
14	Ballasted Track at Grade or Structure	2,500	TF	\$223	\$557,500	
15	Ballasted Track with Pave-Over Topping		TF	\$285		
20	#10 Single Crossover		EA	\$175,000		
21	#10 Turnout		EA	\$75,000		
22	#20 Turnout		EA	\$100,000		
23	Impact Attenuators		EA	\$35,000		
24	Minor Street Closures Allowance		EA	\$25,000		
25	Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26	Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27	Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28	Major Traffic Signal (4 Lanes)		EA	\$200,000		
29	Complex Major Intersection Rebuild		EA	\$300,000		
30	Roadway Construction		SF	\$9		
31	Sidewalk Construction		SF	\$6		
32	Off Alignment Signal Modifications		EA	\$75,000		
35	Relocate UPRR Yard Lead or Branch Line		TF	\$100		
36	Remove & Relocate Industrial Spur		TF	\$130		
37	Remove Industrial Spur		TF	\$50		
39	Construct New Ballasted Industrial Siding Track		TF	\$160		
50	<b>2 - Insurance - Included other in Items</b>					
57	<b>3 - Utilities</b>					\$250,000
59	Utility Allowance - High		RF	\$600		
60	Utility Allowance - Medium		RF	\$350		
61	Utility Allowance - Low	2,500	RF	\$100	\$250,000	
70	<b>4 - Track Materials - Included in the Rail Items</b>					
74	<b>5 - Structures</b>					
76	Crash Wall (2.5' thick x 12' high)		CY	\$300		
77	Retaining Wall to 5'		SF	\$35		
78	MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104	<b>6 - Stations</b>					\$500,000
105	Stations (Shared Track Option)	1	EA	\$500,000	\$500,000	
108	Station Name	Appleway Station				
109	Operator Crew Room/Concession Building		EA	\$100,000		
110	Bus Turn-around and Canopy Reconstruction		LS	\$200,000		
115	<b>7 - Park &amp; Rides</b>					\$4,300,000
116	Park & Ride	1,000	Space	\$4,300	\$4,300,000	
117	Park & Ride Location	Appleway Station				
119	<b>8 - Operations Facility (Shared Track Option)</b>					
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008		
124	Yard Trackwork (Shared Track Option)		LS	\$2,565,708		
125	Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000		
126	Operations Facility Building (Shared Track Option)		LS	\$5,343,000		
127	Maintenance Equipment (Shared Track Option)		LS	\$3,373,155		
128	MOW Vehicles (Shared Track Option)		LS	\$1,847,460		
133	<b>9 - Traction Power System -Lighting and System Support</b>					
141	Alignment Lighting (Shared Track Option)		LS	\$600,000		
142	Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147	<b>10 - Signal System</b>					
148	Signal (Shared Track Option)		LS	\$16,233,750		
149						
150						
151	<b>11 - Communications</b>					
152	Communications (Shared Track Option)		LS	\$1,770,000		
153						
154						

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-230 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track Liberty Lake Section</b>		725+00	750+00	2,500 FT	0.5 mile
C -230	<b>Appleway Station Area to Country Vista Road Area</b>					
	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$5,886,500
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$2,060,275
180	Infrastructure E & A 35.00%				\$2,060,275	
181	Vehicle E & A 5.00%					
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$1,377,300
187	Vehicles Contingency 5.00%					
189	Infrastructure Contingency 20.00%				\$1,127,300	
191	Utilities Contingency 100.00%				\$250,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$406,773
195	Sales Tax 8.40%				\$406,773	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$9,730,848

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-231 Shared Track

Spokane Regional						
Light Rail Project		Estimate Basics				
Order of Magnitude		Start Sta	End Sta	Length		
Drawing	Shared Track Liberty Lake Section	750+00	775+00	2,500 FT	0.5 mile	
C -231	Country Vista Road - Next to Interstate 90					
Description		Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>						
1	Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000	
2	Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500	
3	Curb & Gutter Allowance		LF	\$35		
4	Common Excavation	2,000	CY	\$15	\$30,000	
6	Common Backfill (From Project Excavation)		CY	\$4		
9	Chain Link Fencing 4'		LF	\$16		
10	Chain Link Fencing 6'	1,000	LF	\$22	\$22,000	
11	Ballast Walls (Curb-no drainage)		LF	\$22		
12	Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000	
14	Ballasted Track at Grade or Structure	3,250	TF	\$223	\$724,750	
15	Ballasted Track with Pave-Over Topping		TF	\$285		
20	#10 Single Crossover		EA	\$175,000		
21	#10 Turnout		EA	\$75,000		
22	#20 Turnout	1	EA	\$100,000	\$100,000	
23	Impact Attenuators		EA	\$35,000		
24	Minor Street Closures Allowance		EA	\$25,000		
25	Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26	Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27	Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28	Major Traffic Signal (4 Lanes)		EA	\$200,000		
29	Complex Major Intersection Rebuild		EA	\$300,000		
30	Roadway Construction		SF	\$9		
31	Sidewalk Construction		SF	\$6		
32	Off Alignment Signal Modifications		EA	\$75,000		
35	Relocate UPRR Yard Lead or Branch Line		TF	\$100		
36	Remove & Relocate Industrial Spur		TF	\$130		
37	Remove Industrial Spur		TF	\$50		
39	Construct New Ballasted Industrial Siding Track		TF	\$160		
50	<b>2 - Insurance - Included other in Items</b>					
57	<b>3 - Utilities</b>					\$250,000
59	Utility Allowance - High		RF	\$600		
60	Utility Allowance - Medium		RF	\$350		
61	Utility Allowance - Low	2,500	RF	\$100	\$250,000	
70	<b>4 - Track Materials - Included in the Rail Items</b>					
74	<b>5 - Structures</b>					
76	Crash Wall (2.5' thick x 12' high)		CY	\$300		
77	Retaining Wall to 5'		SF	\$35		
78	MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104	<b>6 - Stations</b>					
105	Stations (Shared Track Option)		EA	\$500,000		
108	Station Name					
109	Operator Crew Room/Concession Building		EA	\$100,000		
110	Bus Turn-around and Canopy Reconstruction		LS	\$200,000		
115	<b>7 - Park &amp; Rides</b>					
116	Park & Ride		Space	\$4,300		
117	Park & Ride Location					
119	<b>8 - Operations Facility (Shared Track Option)</b>					
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008		
124	Yard Trackwork (Shared Track Option)		LS	\$2,565,708		
125	Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000		
126	Operations Facility Building (Shared Track Option)		LS	\$5,343,000		
127	Maintenance Equipment (Shared Track Option)		LS	\$3,373,155		
128	MOW Vehicles (Shared Track Option)		LS	\$1,847,460		
133	<b>9 - Traction Power System -Lighting and System Support</b>					
141	Alignment Lighting (Shared Track Option)		LS	\$600,000		
142	Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147	<b>10 - Signal System</b>					
148	Signal (Shared Track Option)		LS	\$16,233,750		
149						
150						
151	<b>11 - Communications</b>					
152	Communications (Shared Track Option)		LS	\$1,770,000		
153						
154						

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-231 Shared Track

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing		<b>Shared Track Liberty Lake Section</b>	750+00	775+00	2,500 FT	0.5 mile
C -231		<b>Country Vista Road - Next to Interstate 90</b>				
		Description	Quantity	Unit	Unit Cost	Extension
		<b>2001\$</b>				
155						
156						
157		<b>12 - Fare Collection</b>				
158		Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333	
159						
160		<b>Subtotal - Infrastructure</b>			Subtotal	\$1,254,250
161						
162		<b>13. Right of Way</b>				
165		Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000	
166		Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000	
174		<b>14. Vehicles</b>				
175		DMU Vehicles (Assume New)		EA	\$3,500,000	
176		DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000	
177						
178						
179		<b>15 - Engineering &amp; Administration</b>			Subtotal	\$438,988
180		Infrastructure	E & A 35.00%			\$438,988
181		Vehicle	E & A 5.00%			
182						
183						
184						
185		<b>16 - Contingencies</b>			Subtotal	\$450,850
187		Vehicles	Contingency 5.00%			
189		Infrastructure	Contingency 20.00%			\$200,850
191		Utilities	Contingency 100.00%			\$250,000
192						
194		<b>17 - Washington State Sales Tax and Real Estate Tax</b>				\$95,486
195		Sales Tax 8.40%				\$95,486
196		Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.				
					Total	\$2,239,573

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-232 Shared Track

Spokane Regional								
		Light Rail Project	Estimate Basics					
		Order of Magnitude	Start Sta	End Sta	Length			
Drawing	Shared Track Liberty Lake Section		775+00	800+00	2,500 FT	0.5 mile		
C -232	Liberty Lake Area - Next to Interstate 90							
		Description	Quantity	Unit	Unit Cost	Extension	2001\$	
<b>1-Civil Construction</b>								
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10	\$25,000		
2		Grade Preparation to Top of subballast.	2,500	LF	\$35	\$87,500		
3		Curb & Gutter Allowance		LF	\$35			
4		Common Excavation	500	CY	\$15	\$7,500		
6		Common Backfill (From Project Excavation)	1,000	CY	\$4	\$4,000		
9		Chain Link Fencing 4'		LF	\$16			
10		Chain Link Fencing 6'		LF	\$22			
11		Ballast Walls (Curb-no drainage)		LF	\$22			
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6	\$15,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000		
15		Ballasted Track with Pave-Over Topping		TF	\$285			
20		#10 Single Crossover		EA	\$175,000			
21		#10 Turnout		EA	\$75,000			
22		#20 Turnout		EA	\$100,000			
23		Impact Attenuators		EA	\$35,000			
24		Minor Street Closures Allowance		EA	\$25,000			
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000			
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000			
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000			
28		Major Traffic Signal (4 Lanes)		EA	\$200,000			
29		Complex Major Intersection Rebuild		EA	\$300,000			
30		Roadway Construction		SF	\$9			
31		Sidewalk Construction		SF	\$6			
32		Off Alignment Signal Modifications		EA	\$75,000			
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100			
36		Remove & Relocate Industrial Spur		TF	\$130			
37		Remove Industrial Spur		TF	\$50			
39		Construct New Ballasted Industrial Siding Track		TF	\$160			
50	<b>2 - Insurance - Included other in Items</b>							
57	<b>3 - Utilities</b>							\$250,000
59		Utility Allowance - High		RF	\$600			
60		Utility Allowance - Medium		RF	\$350			
61		Utility Allowance - Low	2,500	RF	\$100	\$250,000		
70	<b>4 - Track Materials - Included in the Rail Items</b>							
74	<b>5 - Structures</b>							
76		Crash Wall (2.5' thick x 12' high)		CY	\$300			
77		Retaining Wall to 5'		SF	\$35			
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30			
104	<b>6 - Stations</b>							
105		Stations (Shared Track Option)		EA	\$500,000			
108		Station Name						
109		Operator Crew Room/Concession Building		EA	\$100,000			
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000			
115	<b>7 - Park &amp; Rides</b>							
116		Park & Ride		Space	\$4,300			
117		Park & Ride Location						
119	<b>8 - Operations Facility (Shared Track Option)</b>							
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008			
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708			
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000			
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000			
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155			
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460			
133	<b>9 - Traction Power System -Lighting and System Support</b>							
141		Alignment Lighting (Shared Track Option)		LS	\$600,000			
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000			
147	<b>10 - Signal System</b>							
148		Signal (Shared Track Option)		LS	\$16,233,750			
149								
150								
151	<b>11 - Communications</b>							
152		Communications (Shared Track Option)		LS	\$1,770,000			
153								
154								

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-232 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track Liberty Lake Section</b>		775+00	800+00	2,500 FT	0.5 mile
C -232	<b>Liberty Lake Area - Next to Interstate 90</b>					
	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$1,504,000
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$526,400
180	Infrastructure	E & A 35.00%			\$526,400	
181	Vehicle	E & A 5.00%				
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$500,800
187	Vehicles	Contingency 5.00%				
189	Infrastructure	Contingency 20.00%			\$250,800	
191	Utilities	Contingency 100.00%			\$250,000	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$112,269
195		Sales Tax 8.40%			\$112,269	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$2,643,469

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-233 Shared Track

Spokane Regional							
		Light Rail Project	Estimate Basics				
		Order of Magnitude	Start Sta	End Sta	Length		
Drawing	Shared Track Liberty Lake Section		800+00	828+28	2,828 FT	0.5 mile	
C -233	Liberty Lake Road Area to Signal Road/ Liberty Lake Station						
		Description	Quantity	Unit	Unit Cost	Extension	
							2001\$
<b>1-Civil Construction</b>							
1		Site Preparation - Clearing & Grubbing	2,828	LF	\$10	\$28,280	
2		Grade Preparation to Top of subballast.	2,828	LF	\$35	\$98,980	
3		Curb & Gutter Allowance		LF	\$35		
4		Common Excavation		CY	\$15		
6		Common Backfill (From Project Excavation)	2,500	CY	\$4	\$10,000	
9		Chain Link Fencing 4'		LF	\$16		
10		Chain Link Fencing 6'		LF	\$22		
11		Ballast Walls (Curb-no drainage)		LF	\$22		
12		Site Cleanup and Final Grading Allowance	2,828	LF	\$6	\$16,968	
14		Ballasted Track at Grade or Structure	5,656	TF	\$223	\$1,261,288	
15		Ballasted Track with Pave-Over Topping		TF	\$285		
20		#10 Single Crossover	1	EA	\$175,000	\$175,000	
21		#10 Turnout		EA	\$75,000		
22		#20 Turnout		EA	\$100,000		
23		Impact Attenuators	2	EA	\$35,000	\$70,000	
24		Minor Street Closures Allowance	4	EA	\$25,000	\$100,000	
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)	1	EA	\$200,000	\$200,000	
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9		
31		Sidewalk Construction		SF	\$6		
32		Off Alignment Signal Modifications		EA	\$75,000		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100		
36		Remove & Relocate Industrial Spur		TF	\$130		
37		Remove Industrial Spur		TF	\$50		
39		Construct New Ballasted Industrial Siding Track		TF	\$160		
50	<b>2 - Insurance - Included other in Items</b>						
57	<b>3 - Utilities</b>						
59		Utility Allowance - High		RF	\$600		
60		Utility Allowance - Medium		RF	\$350		
61		Utility Allowance - Low	2,828	RF	\$100	\$282,800	
70	<b>4 - Track Materials - Included in the Rail Items</b>						
74	<b>5 - Structures</b>						
76		Crash Wall (2.5' thick x 12' high)		CY	\$300		
77		Retaining Wall to 5'		SF	\$35		
78		MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104	<b>6 - Stations</b>						
105		Stations (Shared Track Option)	1	EA	\$500,000	\$500,000	
108		Station Name	Liberty Lake Station				
109		Operator Crew Room/Concession Building	1	EA	\$100,000	\$100,000	
110		Bus Turn-around and Canopy Reconstruction		LS	\$200,000		
115	<b>7 - Park &amp; Rides</b>						
116		Park & Ride	200	Space	\$4,300	\$860,000	
117		Park & Ride Location	Liberty Lake Station				
119	<b>8 - Operations Facility (Shared Track Option)</b>						
123		Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)		LS	\$10,163,008		
124		Yard Trackwork (Shared Track Option)		LS	\$2,565,708		
125		Yard Ductbank / Conduit (Shared Track Option)		LS	\$300,000		
126		Operations Facility Building (Shared Track Option)		LS	\$5,343,000		
127		Maintenance Equipment (Shared Track Option)		LS	\$3,373,155		
128		MOW Vehicles (Shared Track Option)		LS	\$1,847,460		
133	<b>9 - Traction Power System -Lighting and System Support</b>						
141		Alignment Lighting (Shared Track Option)		LS	\$600,000		
142		Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147	<b>10 - Signal System</b>						
148		Signal (Shared Track Option)		LS	\$16,233,750		
149							
150							
151	<b>11 - Communications</b>						
152		Communications (Shared Track Option)		LS	\$1,770,000		
153							
154							

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-233 Shared Track**

<b>Spokane Regional</b>						
		<b>Light Rail Project</b>	<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>	Start Sta	End Sta	Length	
Drawing	<b>Shared Track Liberty Lake Section</b>		800+00	828+28	2,828 FT	0.5 mile
C -233	<b>Liberty Lake Road Area to Signal Road/ Liberty Lake Station</b>					
	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155						
156						
157	<b>12 - Fare Collection</b>					
158	Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159						
160	<b>Subtotal - Infrastructure</b>			Subtotal		\$3,903,316
161						
162	<b>13. Right of Way</b>					
165	Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166	Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174	<b>14. Vehicles</b>					
175	DMU Vehicles (Assume New)		EA	\$3,500,000		
176	DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177						
178						
179	<b>15 - Engineering &amp; Administration</b>			Subtotal		\$1,366,161
180	Infrastructure E & A 35.00%				\$1,366,161	
181	Vehicle E & A 5.00%					
182						
183						
184						
185	<b>16 - Contingencies</b>			Subtotal		\$1,006,903
187	Vehicles Contingency 5.00%					
189	Infrastructure Contingency 20.00%				\$724,103	
191	Utilities Contingency 100.00%				\$282,800	
192						
194	<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$274,972
195	Sales Tax 8.40%				\$274,972	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
					Total	\$6,551,352

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## INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION SPOKANE LIGHT RAIL TRANSIT Drawing # C-300 Shared Track

Spokane Regional						
		Light Rail Project	Estimate Basics			
		Order of Magnitude	Start Sta	End Sta	Length	
Drawing	Shared Track - Maintenance Facility Site					
C -300	Located near the Fairground Station Area					
	Description	Quantity	Unit	Unit Cost	Extension	2001\$
<b>1-Civil Construction</b>						
1	Site Preparation - Clearing & Grubbing		LF	\$10		
2	Grade Preparation to Top of subballast.		LF	\$35		
3	Curb & Gutter Allowance		LF	\$35		
4	Common Excavation		CY	\$15		
6	Common Backfill (From Project Excavation)		CY	\$4		
9	Chain Link Fencing 4'		LF	\$16		
10	Chain Link Fencing 6'		LF	\$22		
11	Ballast Walls (Curb-no drainage)		LF	\$22		
12	Site Cleanup and Final Grading Allowance		LF	\$6		
14	Ballasted Track at Grade or Structure		TF	\$223		
15	Ballasted Track with Pave-Over Topping		TF	\$285		
20	#10 Single Crossover		EA	\$175,000		
21	#10 Turnout		EA	\$75,000		
22	#20 Turnout		EA	\$100,000		
23	Impact Attenuators		EA	\$35,000		
24	Minor Street Closures Allowance		EA	\$25,000		
25	Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26	Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27	Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28	Major Traffic Signal (4 Lanes)		EA	\$200,000		
29	Complex Major Intersection Rebuild		EA	\$300,000		
30	Roadway Construction		SF	\$9		
31	Sidewalk Construction		SF	\$6		
32	Off Alignment Signal Modifications		EA	\$75,000		
35	Relocate UPRR Yard Lead or Branch Line		TF	\$100		
36	Remove & Relocate Industrial Spur		TF	\$130		
37	Remove Industrial Spur		TF	\$50		
39	Construct New Ballasted Industrial Siding Track		TF	\$160		
50	<b>2 - Insurance - Included other in Items</b>					
57	<b>3 - Utilities</b>					
59	Utility Allowance - High		RF	\$600		
60	Utility Allowance - Medium		RF	\$350		
61	Utility Allowance - Low		RF	\$100		
70	<b>4 - Track Materials - Included in the Rail Items</b>					
74	<b>5 - Structures</b>					
76	Crash Wall (2.5' thick x 12' high)		CY	\$300		
77	Retaining Wall to 5'		SF	\$35		
78	MSE (or Sound) Retaining Wall Allowance		SF	\$30		
104	<b>6 - Stations</b>					
105	Stations (Shared Track Option)		EA	\$500,000		
108	Station Name					
109	Operator Crew Room/Concession Building		EA	\$100,000		
110	Bus Turn-around and Canopy Reconstruction		LS	\$200,000		
115	<b>7 - Park &amp; Rides</b>					
116	Park & Ride		Space	\$4,300		
117	Park & Ride Location					
119	<b>8 - Operations Facility (Shared Track Option)</b>					\$23,592,331
123	Bldg & Yard Site Prep, Grading & Utilities (Shared Track Option)	1	LS	\$10,163,008	\$10,163,008	
124	Yard Trackwork (Shared Track Option)	1	LS	\$2,565,708	\$2,565,708	
125	Yard Ductbank / Conduit (Shared Track Option)	1	LS	\$300,000	\$300,000	
126	Operations Facility Building (Shared Track Option)	1	LS	\$5,343,000	\$5,343,000	
127	Maintenance Equipment (Shared Track Option)	1	LS	\$3,373,155	\$3,373,155	
128	MOW Vehicles (Shared Track Option)	1	LS	\$1,847,460	\$1,847,460	
133	<b>9 - Traction Power System -Lighting and System Support</b>					
141	Alignment Lighting (Shared Track Option)		LS	\$600,000		
142	Spare Parts/ System Support (Shared Track Option)		LS	\$90,000		
147	<b>10 - Signal System</b>					
148	Signal (Shared Track Option)		LS	\$16,233,750		
149						
150						
151	<b>11 - Communications</b>					
152	Communications (Shared Track Option)		LS	\$1,770,000		
153						
154						

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**INTERIM PRELIMINARY ENGINEERING SHARED TRACK OPTION  
SPOKANE LIGHT RAIL TRANSIT  
Drawing # C-300 Shared Track**

<b>Spokane Regional</b>							
		<b>Light Rail Project</b>		<b>Estimate Basics</b>			
		<b>Order of Magnitude</b>		Start Sta	End Sta	Length	
Drawing	C -300	<b>Shared Track - Maintenance Facility Site Located near the Fairground Station Area</b>					
		<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>2001\$</b>
155							
156							
157		<b>12 - Fare Collection</b>					
158		Fare Collection Vending/ Validator & Spares (Shared Track Option)		LS	\$163,333		
159							
160		<b>Subtotal - Infrastructure</b>			Subtotal		\$23,592,331
161							
162		<b>13. Right of Way</b>					
165		Shared Track Option DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		LS	\$28,000,000		
166		Shared Track Option HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance		LS	\$5,000,000		
174		<b>14. Vehicles</b>					
175		DMU Vehicles (Assume New)		EA	\$3,500,000		
176		DMU Vehicles Spare Parts for 15 Vehicles		EA	\$700,000		
177							
178							
179		<b>15 - Engineering &amp; Administration</b>			Subtotal		\$8,257,316
180		Infrastructure E & A 35.00%				\$8,257,316	
181		Vehicle E & A 5.00%					
182							
183							
184							
185		<b>16 - Contingencies</b>			Subtotal		\$4,718,466
187		Vehicles Contingency 5.00%					
189		Infrastructure Contingency 20.00%				\$4,718,466	
191		Utilities Contingency 100.00%					
192							
194		<b>17 - Washington State Sales Tax and Real Estate Tax</b>					\$1,585,405
195		Sales Tax 8.40%				\$1,585,405	
196		Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
						Total	\$38,153,518

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