

APPENDIX I

Long Range Estimates of Construction Costs

'Ludlam Trail Corridor (PD&E) 15% Plans

Construction Cost Estimate Summary

SEGMENT	SEGMENT TITLE	SEGMENT COST
1	TYPICAL SECTION 1 (BUFFERED SEPERATION)	\$5,399,406
2	TYPICAL SECTION 2 (NO SEPERATION)	\$1,311,415
3	TYPICAL SECTION 2 (NO SEPERATION) w/GRAVITY WALLS	\$3,492,173
4	TYPICAL SECTION 2 (NO SEPERATION) w/MSE WALLS	\$6,354,940
5	TYPICAL SECTION 3 (DEVELOPMENT ZONES)	\$377,975
6	TYPICAL SECTION 3 (DEVELOPMENT ZONES) w/GRAVITY WALLS	\$555,693
7	TYPICAL SECTION 3 (DEVELOPMENT ZONES) w/MSE WALLS	\$4,469,213
8	TYPICAL SECTION 4 (w/Landscaped Divider)	\$833,829
9	PROJECT EXTRAS (Bicycle items, Fountains, Map Turnout & Overlook)	\$518,000
10	CROSSING TREATMENTS	\$3,050,838
Construction Cost		\$26,363,000
MOT, Mobilization, Contingency		\$13,511,000
CONSTRUCTION TOTAL (Total Project Cost)		\$39,874,000

Ludlam Trail Corridor (PD&E) 15% Plans
TYPICAL SECTION 1 (BUFFERED SEPERATION)
Various segments throughout project

Construction Cost Estimate

URS Corporation /

DESCRIPTION	QUANTITY	UNIT	U.P.	COST
ROADWAY				\$5,399,406
CLEARING & GRUBBING 44130615201	34.49	ac	\$25,000.00	\$862,250
EROSION CONTROL	3.098	mi	\$42,604.65	\$131,986
REGULAR EXCAVATION		cy	\$15.21	
EMBANKMENT (BORROW)(BANK MEAS.)	97,536	cy	\$14.92	\$1,455,237
POND CONSTRUCTION acres each		each	\$481,206.53	
STORM DRAINAGE SYSTEM MIS	3.10	miles		
STABILIZATION TYPE B	21,809	sy	\$2.53	\$55,177
ROADWAY BASE - OPTIONAL BASE, BASE GROUP 04	23,627	sy	\$24.71	\$583,823
ROADWAY ASPHALT - SUPERPAVE ASPH CONC, TRAF C, PG76-22 (1.5 inches)	1,874.0	tons	\$119.21	\$223,405
SHOULDER BASE -		sy		
SHOULDER ASPHALT- (inches)		tons		
		tons		
MILLING / OVERLAY		sy		
		lf		
SIDEWALK CONCRETE, 4" THICK	14,540	sy	\$36.43	\$529,692
MISCELLANEOUS ASPHALT PAVEMENT		tons	\$171.28	
SHOULDER GUTTER- CONCRETE		lf	\$20.00	
PERFORMANCE TURF 10% Sod	130,565	sy	\$2.18	\$284,632
SIGNS (Post & Misc.)	3.10	Miles	\$16,606.22	\$51,445
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES, WHITE, SKIP, 6",10-30	3.000	G.M.	\$1,650.00	\$4,950
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES WHITE, SOLID, 6"		MILE	\$3,884.00	
RETRO-REFLECTIVE PAVEMENT MARKERS	396	ea	\$3.53	\$1,396
TRUSS SIGNS - None		ea		
CANTILEVER SIGNS - None		ea		
LIGHTING		ea		
TRAFFIC SIGNALS (Model 1) None				
TRAFFIC SIGNALS (Model 2) None				
TRAFFIC SIGNALS (Model 3) None				
Extra Items				
TYPE 1 ACCESS CONTROL (WOOD GUARDRAIL)	417	lf	\$25.00	\$10,425
15' Wide Landscape Buffer	1	ls	\$475,947.68	\$475,948
15' Wide Potential Landscaping (Pending Drainage)	1	ls	\$304,598.74	\$304,599
Parking Area #2 (curb at perimeter)	307	sy	\$60.00	\$18,420
CONCRETE CURB & GUTTER, VARIABLE HEIGHT TYPE F	228	lf	\$74.74	\$17,040
SIDEWALK CONCRETE, 4" THICK	3500	sy	\$36.43	\$127,505
2' Soft Natural Jogging Surface	3,631.62	sy	\$72.00	\$261,477
STRUCTURES				
APPROACH SLAB CONCRETE		cy	\$2,100.00	
APPROACH SLAB REINFORCING		lbs	\$0.99	

SUBTOTAL		\$5,399,406
MOT	10.0%	\$539,941
Mobilization	10.0%	\$593,935
SUBTOTAL		\$6,533,281
Contingency	25.0%	\$1,633,320
CONSTRUCTION TOTAL (Rounded)		\$8,167,000

Ludlam Trail Corridor (PD&E) 15% Plans
TYPICAL SECTION 2 (NO SEPERATION)
Various segments throughout project

Construction Cost Estimate

URS Corporation /

DESCRIPTION	QUANTITY	UNIT	U.P.	COST
ROADWAY				\$1,311,415
CLEARING & GRUBBING 44130615201	7.70	ac	\$25,000.00	\$192,500
EROSION CONTROL	0.692	mi	\$42,604.65	\$29,484
REGULAR EXCAVATION		cy	\$15.21	
EMBANKMENT (BORROW)(BANK MEAS.)	17,052	cy	\$14.92	\$254,416
POND CONSTRUCTION acres each		each	\$481,206.53	
STORM DRAINAGE SYSTEM MIS	0.69	miles		
STABILIZATION TYPE B	9,744	sy	\$2.53	\$24,652
ROADWAY BASE - OPTIONAL BASE, BASE GROUP 04	10,150	sy	\$24.71	\$250,807
ROADWAY ASPHALT - SUPERPAVE ASPH CONC, TRAF C, PG76-22 (1.5 inches)	821.0	tons	\$119.21	\$97,874
SHOULDER BASE -		sy		
SHOULDER ASPHALT- (inches)		tons		
		tons		
MILLING / OVERLAY		sy		
		lf		
SIDEWALK CONCRETE, 4" THICK		sy	\$36.43	
MISCELLANEOUS ASPHALT PAVEMENT		tons	\$171.28	
SHOULDER GUTTER- CONCRETE		lf	\$20.00	
PERFORMANCE TURF 10% Sod	27,543	sy	\$2.18	\$60,044
SIGNS (Post & Misc.)	0.69	Miles	\$16,606.22	\$11,492
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES, WHITE, SKIP, 6",10-30	1.000	G.M.	\$1,650.00	\$1,650
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES WHITE, SOLID, 6"	1.000	MILE	\$3,884.00	\$3,884
RETRO-REFLECTIVE PAVEMENT MARKERS	264	ea	\$3.53	\$931
TRUSS SIGNS - None		ea		
CANTILEVER SIGNS - None		ea		
LIGHTING		ea		
TRAFFIC SIGNALS (Model 1) None				
TRAFFIC SIGNALS (Model 2) None				
TRAFFIC SIGNALS (Model 3) None				
Extra Items				
15' Wide Landscape Buffer	1	ls	\$106,322.24	\$106,322
15' Wide Potential Landscaping (Pending Drainage)	1	ls	\$68,044.49	\$68,044
Parking Area #1 (curb at perimeter)	246	sy	\$60.00	\$14,760
CONCRETE CURB & GUTTER, VARIABLE HEIGHT TYPE F	216	lf	\$74.74	\$16,143
REST AREA	6	each	\$20,000.00	\$120,000
2' Soft Natural Jogging Surface	811.2696017	sy	\$72.00	\$58,411

STRUCTURES				
APPROACH SLAB CONCRETE		cy	\$2,100.00	
APPROACH SLAB REINFORCING		lbs	\$0.99	

SUBTOTAL		\$1,311,415
MOT 10.0%		\$131,141
Mobilization 10.0%		\$144,256
SUBTOTAL		\$1,586,812
Contingency 25.0%		\$396,703
CONSTRUCTION TOTAL (Rounded)		\$1,984,000

Ludlam Trail Corridor (PD&E) 15% Plans
TYPICAL SECTION 2 (NO SEPERATION) w/GRAVITY WALLS
Various segments throughout project

Construction Cost Estimate

URS Corporation /

DESCRIPTION	QUANTITY	UNIT	U.P.	COST
ROADWAY				\$1,909,571
CLEARING & GRUBBING 44130615201	1.65	ac	\$25,000.00	\$41,250
EROSION CONTROL	0.148	mi	\$42,604.65	\$6,326
REGULAR EXCAVATION		cy	\$15.21	
EMBANKMENT (BORROW)(BANK MEAS.)	4,011	cy	\$14.92	\$59,844
POND CONSTRUCTION 0.5 acres each	1.00	each	\$231,026.51	\$231,027
STORM DRAINAGE SYSTEM NUU	0.15	miles	\$1,663,334.89	\$246,980
STABILIZATION TYPE B	2,091	sy	\$2.53	\$5,290
ROADWAY BASE - OPTIONAL BASE, BASE GROUP 04	2,178	sy	\$24.71	\$53,818
ROADWAY ASPHALT - SUPERPAVE ASPH CONC, TRAF C, PG76-22 (1.5 inches)	176.0	tons	\$119.21	\$20,981
SHOULDER BASE -		sy		
SHOULDER ASPHALT- (inches)		tons		
		tons		
MILLING / OVERLAY		sy		
		lf		
SIDEWALK CONCRETE, 4" THICK		sy	\$36.43	
MISCELLANEOUS ASPHALT PAVEMENT		tons	\$171.28	
SHOULDER GUTTER- CONCRETE		lf	\$20.00	
PERFORMANCE TURF 10% Sod	5,910	sy	\$2.18	\$12,884
SIGNS (Post & Misc.)	0.15	Miles	\$16,606.22	\$2,466
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES, WHITE, SKIP, 6",10-30		G.M.	\$1,650.00	
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES WHITE, SOLID, 6"		MILE	\$3,884.00	
RETRO-REFLECTIVE PAVEMENT MARKERS		ea	\$3.53	
TRUSS SIGNS - None		ea		
CANTILEVER SIGNS - None		ea		
LIGHTING None		ea		
TRAFFIC SIGNALS (Model 1) None				
TRAFFIC SIGNALS (Model 2) None				
TRAFFIC SIGNALS (Model 3) None				
Extra Items				
CONCRETE CLASS NS, GRAVITY WALL	595.66	C.Y.	\$1,772.50	\$1,055,807
15' Wide Landscape Buffer	1	ls	\$22,812.43	\$22,812
15' Wide Potential Landscaping (Pending Drainage)	1	ls	\$14,599.58	\$14,600
PIPE HANDRAIL, STEEL	2054	L.F.	\$65.96	\$135,485

STRUCTURES				\$1,582,602
APPROACH SLAB CONCRETE	35	cy	\$3,360.00	\$118,449
APPROACH SLAB REINFORCING	7,403	lbs	\$1.58	\$11,706
Bridge Sta. 659+00.00 to 660+00.00 STEEL PLATE GIRDER (SIMPLE SPAN)	2,308.00	sf	\$238.55	\$550,573
Existing Bridge to be Replaced BRIDGE DEMOLITION (ELEVATED ROAD)	2,308.00	sf	\$47.50	\$109,630
Bridge Sta. 776+42.00 to 777+62.00 STEEL PLATE GIRDER (SIMPLE SPAN)	2,769.60	sf	\$238.55	\$660,688
Existing Bridge to be Replaced BRIDGE DEMOLITION (ELEVATED ROAD)	2,769.60	sf	\$47.50	\$131,556

SUBTOTAL		\$3,492,173
MOT 10.0%		\$349,217
Mobilization 10.0%		\$384,139
SUBTOTAL		\$4,225,529
Contingency 25.0%		\$1,056,382
CONSTRUCTION TOTAL (Rounded)		\$5,282,000

Ludlam Trail Corridor (PD&E) 15% Plans
TYPICAL SECTION 2 (NO SEPERATION) w/MSE WALLS
Various segments throughout project

Construction Cost Estimate

URS Corporation /

DESCRIPTION	QUANTITY	UNIT	U.P.	COST
ROADWAY				\$5,188,716
CLEARING & GRUBBING 44130615201	4.92	ac	\$25,000.00	\$123,000
EROSION CONTROL	0.442	mi	\$42,604.65	\$18,841
REGULAR EXCAVATION		cy	\$15.21	
EMBANKMENT (BORROW)(BANK MEAS.)	25,944	cy	\$14.92	\$387,084
POND CONSTRUCTION 1 acres each	1.00	each	\$315,216.45	\$315,216
STORM DRAINAGE SYSTEM NUU	0.44	miles	\$1,663,334.89	\$735,585
STABILIZATION TYPE B	6,227	sy	\$2.53	\$15,754
ROADWAY BASE - OPTIONAL BASE, BASE GROUP 04	6,486	sy	\$24.71	\$160,269
ROADWAY ASPHALT - SUPERPAVE ASPH CONC, TRAF C, PG76-22 (1.5 inches)	524.0	tons	\$119.21	\$62,468
SHOULDER BASE -		sy		
SHOULDER ASPHALT- (inches)		tons		
		tons		
MILLING / OVERLAY		sy		
		lf		
SIDEWALK CONCRETE, 4" THICK		sy	\$36.43	
MISCELLANEOUS ASPHALT PAVEMENT		tons	\$171.28	
SHOULDER GUTTER- CONCRETE		lf	\$20.00	
PERFORMANCE TURF 10% Sod	17,601	sy	\$2.18	\$38,370
SIGNS (Post & Misc.)	0.44	Miles	\$16,606.22	\$7,344
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES, WHITE, SKIP, 6",10-30		G.M.	\$1,650.00	
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES WHITE, SOLID, 6"		MILE	\$3,884.00	
RETRO-REFLECTIVE PAVEMENT MARKERS		ea	\$3.53	
TRUSS SIGNS - None		ea		
CANTILEVER SIGNS - None		ea		
LIGHTING None		ea		
TRAFFIC SIGNALS (Model 1) None				
TRAFFIC SIGNALS (Model 2) None				
TRAFFIC SIGNALS (Model 3) None				
Extra Items				
RETAINING WALL SYSTEM, PERMANANT, EXCLUDING BARRIER	61150	S.F.	\$28.52	\$1,744,012
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED	4892	L.F.	\$234.40	\$1,146,664
15' Wide Landscape Buffer	1	ls	\$67,942.64	\$67,943
15' Wide Potential Landscaping (Pending Drainage)	1	ls	\$43,482.18	\$43,482
PIPE HANDRAIL, STEEL	4892	L.F.	\$65.96	\$322,684

STRUCTURES				\$1,166,224
APPROACH SLAB CONCRETE	18	cy	\$3,360.00	\$59,224
APPROACH SLAB REINFORCING	3,702	lbs	\$1.58	\$5,853
Bridge Sta. 743+36.33 to 744+36.33 STEEL PLATE GIRDER (SIMPLE SPAN)	2,308.00	sf	\$238.55	\$550,573
Bridge Sta. 770+17.00 to 771+17.00 STEEL PLATE GIRDER (SIMPLE SPAN)	2,308.00	sf	\$238.55	\$550,573

SUBTOTAL			\$6,354,940
MOT 10.0%			\$635,494
Mobilization 10.0%			\$699,043
SUBTOTAL			\$7,689,477
Contingency 25.0%			\$1,922,369
CONSTRUCTION TOTAL (Rounded)			\$9,612,000

Ludlam Trail Corridor (PD&E) 15% Plans
TYPICAL SECTION 3 (DEVELOPMENT ZONES)
Various segments throughout project

Construction Cost Estimate

URS Corporation /

DESCRIPTION	QUANTITY	UNIT	U.P.	COST
ROADWAY				\$377,975
CLEARING & GRUBBING 44130615201	1.67	ac	\$25,000.00	\$41,750
EROSION CONTROL	0.491	mi	\$42,604.65	\$20,907
REGULAR EXCAVATION		cy	\$15.21	
EMBANKMENT (BORROW)(BANK MEAS.)	7,389	cy	\$14.92	\$110,244
POND CONSTRUCTION acres each		each	\$481,206.53	
STORM DRAINAGE SYSTEM MIS	0.49	miles		
STABILIZATION TYPE B	4,894	sy	\$2.53	\$12,382
ROADWAY BASE - OPTIONAL BASE, BASE GROUP 04	5,182	sy	\$24.71	\$128,047
ROADWAY ASPHALT - SUPERPAVE ASPH CONC, TRAF C, PG76-22 (1.5 inches)	416.0	tons	\$119.21	\$49,593
SHOULDER BASE -		sy		
SHOULDER ASPHALT- (inches)		tons		
		tons		
MILLING / OVERLAY		sy		
		lf		
SIDEWALK CONCRETE, 4" THICK		sy	\$36.43	
MISCELLANEOUS ASPHALT PAVEMENT		tons	\$171.28	
SHOULDER GUTTER- CONCRETE		lf	\$20.00	
PERFORMANCE TURF 10% Sod	3,167	sy	\$2.18	\$6,904
SIGNS (Post & Misc.)	0.49	Miles	\$16,606.22	\$8,149
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES, WHITE, SKIP, 6",10-30		G.M.	\$1,650.00	
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES WHITE, SOLID, 6"		MILE	\$3,884.00	
RETRO-REFLECTIVE PAVEMENT MARKERS		ea	\$3.53	
TRUSS SIGNS - None		ea		
CANTILEVER SIGNS - None		ea		
LIGHTING		ea		
TRAFFIC SIGNALS (Model 1) None				
TRAFFIC SIGNALS (Model 2) None				
TRAFFIC SIGNALS (Model 3) None				
Extra Items				

STRUCTURES				
APPROACH SLAB CONCRETE		cy	\$2,100.00	
APPROACH SLAB REINFORCING		lbs	\$0.99	

SUBTOTAL			\$377,975
MOT	10.0%		\$37,798
Mobilization	10.0%		\$41,577
SUBTOTAL			\$457,350
Contingency	25.0%		\$114,338
CONSTRUCTION TOTAL (Rounded)			\$572,000

Ludlam Trail Corridor (PD&E) 15% Plans
TYPICAL SECTION 3 (DEVELOPMENT ZONES) w/GRAVITY WALLS
Various segments throughout project

Construction Cost Estimate

URS Corporation /

DESCRIPTION	QUANTITY	UNIT	U.P.	COST
ROADWAY				\$555,693
CLEARING & GRUBBING 44130615201	0.11	ac	\$25,000.00	\$2,750
EROSION CONTROL	0.033	mi	\$42,604.65	\$1,404
REGULAR EXCAVATION	2,836	cy	\$15.21	\$43,129
EMBANKMENT (BORROW)(BANK MEAS.)	466	cy	\$14.92	\$6,953
POND CONSTRUCTION 0.5 acres each	1.00	each	\$231,026.51	\$231,027
STORM DRAINAGE SYSTEM NUU	0.03	miles	\$1,663,334.89	\$54,814
STABILIZATION TYPE B	329	sy	\$2.53	\$832
ROADWAY BASE - OPTIONAL BASE, BASE GROUP 04	348	sy	\$24.71	\$8,599
ROADWAY ASPHALT - SUPERPAVE ASPH CONC, TRAF C, PG76-22 (1.5 inches)	28.0	tons	\$119.21	\$3,338
SHOULDER BASE -		sy		
SHOULDER ASPHALT- (inches)		tons		
		tons		
MILLING / OVERLAY		sy		
		If		
SIDEWALK CONCRETE, 4" THICK		sy	\$36.43	
MISCELLANEOUS ASPHALT PAVEMENT		tons	\$171.28	
SHOULDER GUTTER- CONCRETE		If	\$20.00	
PERFORMANCE TURF 10% Sod	213	sy	\$2.18	\$464
SIGNS (Post & Misc.)	0.03	Miles	\$16,606.22	\$547
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES, WHITE, SKIP, 6",10-30		G.M.	\$1,650.00	
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES WHITE, SOLID, 6"		MILE	\$3,884.00	
RETRO-REFLECTIVE PAVEMENT MARKERS		ea	\$3.53	
TRUSS SIGNS - None		ea		
CANTILEVER SIGNS - None		ea		
LIGHTING None		ea		
TRAFFIC SIGNALS (Model 1) None				
TRAFFIC SIGNALS (Model 2) None				
TRAFFIC SIGNALS (Model 3) None				
Extra Items				
CONCRETE CLASS NS, GRAVITY WALL	100.92	C.Y.	\$1,772.50	\$178,881
PIPE HANDRAIL, STEEL	348	L.F.	\$65.96	\$22,955

STRUCTURES				
APPROACH SLAB CONCRETE		cy	\$2,100.00	
APPROACH SLAB REINFORCING		lbs	\$0.99	

SUBTOTAL			\$555,693
MOT	10.0%		\$55,569
Mobilization	10.0%		\$61,126
SUBTOTAL			\$672,388
Contingency	25.0%		\$168,097
CONSTRUCTION TOTAL (Rounded)			\$840,000

Ludlam Trail Corridor (PD&E) 15% Plans
TYPICAL SECTION 3 (DEVELOPMENT ZONES) w/MSE WALLS
Various segments throughout project

Construction Cost Estimate

URS Corporation /

DESCRIPTION	QUANTITY	UNIT	U.P.	COST
ROADWAY				\$3,413,154
CLEARING & GRUBBING 44130615201	1.08	ac	\$25,000.00	\$27,000
EROSION CONTROL	0.317	mi	\$42,604.65	\$13,516
REGULAR EXCAVATION		cy	\$15.21	
EMBANKMENT (BORROW)(BANK MEAS.)	13,183	cy	\$14.92	\$196,690
POND CONSTRUCTION 1 acres each	1.00	each	\$315,216.45	\$315,216
STORM DRAINAGE SYSTEM NUU	0.32	miles	\$1,663,334.89	\$527,668
STABILIZATION TYPE B	3,164	sy	\$2.53	\$8,005
ROADWAY BASE - OPTIONAL BASE, BASE GROUP 04	3,350	sy	\$24.71	\$82,779
ROADWAY ASPHALT - SUPERPAVE ASPH CONC, TRAF C, PG76-22 (1.5 inches)	269.0	tons	\$119.21	\$32,068
SHOULDER BASE -		sy		
SHOULDER ASPHALT- (inches)		tons		
		tons		
MILLING / OVERLAY		sy		
		lf		
SIDEWALK CONCRETE, 4" THICK		sy	\$36.43	
MISCELLANEOUS ASPHALT PAVEMENT		tons	\$171.28	
SHOULDER GUTTER- CONCRETE		lf	\$20.00	
PERFORMANCE TURF 10% Sod	2,047	sy	\$2.18	\$4,462
SIGNS (Post & Misc.)	0.32	Miles	\$16,606.22	\$5,268
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES, WHITE, SKIP, 6",10-30		G.M.	\$1,650.00	
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES WHITE, SOLID, 6"		MILE	\$3,884.00	
RETRO-REFLECTIVE PAVEMENT MARKERS		ea	\$3.53	
TRUSS SIGNS - None		ea		
CANTILEVER SIGNS - None		ea		
LIGHTING		ea		
TRAFFIC SIGNALS (Model 1) None				
TRAFFIC SIGNALS (Model 2) None				
TRAFFIC SIGNALS (Model 3) None				
Extra Items				
RETAINING WALL SYSTEM, PERMANANT, EXCLUDING BARRIER	41875	S.F.	\$28.52	\$1,194,284
CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED	3350	L.F.	\$234.40	\$785,225
PIPE HANDRAIL, STEEL	3350	L.F.	\$65.96	\$220,971

STRUCTURES				\$1,056,060
APPROACH SLAB CONCRETE	13	cy	\$3,360.00	\$45,111
APPROACH SLAB REINFORCING	2,819	lbs	\$1.58	\$4,458
Bridge Sta. 635+33.00 to 636+53.00 STEEL PLATE GIRDER (SIMPLE SPAN)	2,109.60	sf	\$238.55	\$503,245
Bridge Sta. 689+00.00to 690+20.00 STEEL PLATE GIRDER (SIMPLE SPAN)	2,109.60	sf	\$238.55	\$503,245

SUBTOTAL		\$4,469,213
MOT 10.0%		\$446,921
Mobilization 10.0%		\$491,613
SUBTOTAL		\$5,407,748
Contingency 25.0%		\$1,351,937
CONSTRUCTION TOTAL (Rounded)		\$6,760,000

Ludlam Trail Corridor (PD&E) 15% Plans
TYPICAL SECTION 4 (w/Landscaped Divider)
Various segments throughout project

Construction Cost Estimate

URS Corporation /

DESCRIPTION	QUANTITY	UNIT	U.P.	COST
ROADWAY				\$833,829
CLEARING & GRUBBING 44130615201	1.86	ac	\$25,000.00	\$46,500
EROSION CONTROL	0.167	mi	\$42,604.65	\$7,117
REGULAR EXCAVATION		cy	\$15.21	
EMBANKMENT (BORROW)(BANK MEAS.)	5,888	cy	\$14.92	\$87,849
POND CONSTRUCTION 0.5 acres each	1.00	each	\$231,026.51	\$231,027
STORM DRAINAGE SYSTEM NUU	0.17	miles	\$1,663,334.89	\$277,853
STABILIZATION TYPE B	2,417	sy	\$2.53	\$6,115
ROADWAY BASE - OPTIONAL BASE, BASE GROUP 04	2,156	sy	\$24.71	\$53,275
ROADWAY ASPHALT - SUPERPAVE ASPH CONC, TRAF C, PG76-22 (1.5 inches)	174.0	tons	\$119.21	\$20,743
SHOULDER BASE -		sy		
SHOULDER ASPHALT- (inches)		tons		
		tons		
MILLING / OVERLAY		sy		
CURB & GUTTER CONC-TYPE F	1,764	lf	\$18.57	\$32,757
SIDEWALK CONCRETE, 4" THICK	784	sy	\$36.43	\$28,561
MISCELLANEOUS ASPHALT PAVEMENT		tons	\$171.28	
SHOULDER GUTTER- CONCRETE		lf	\$20.00	
PERFORMANCE TURF 10% Sod	5,864	sy	\$2.18	\$12,784
SIGNS (Post & Misc.)	0.17	Miles	\$16,606.22	\$2,774
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES, WHITE, SKIP, 6",10-30		G.M.	\$1,650.00	
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES WHITE, SOLID, 6"		MILE	\$3,884.00	
RETRO-REFLECTIVE PAVEMENT MARKERS		ea	\$3.53	
TRUSS SIGNS - None		ea		
CANTILEVER SIGNS - None		ea		
LIGHTING		ea		
TRAFFIC SIGNALS (Model 1) None				
TRAFFIC SIGNALS (Model 2) None				
TRAFFIC SIGNALS (Model 3) None				
Extra Items				
TYPE 2 WOOD FENCE (2-RAIL)	1765	lf	\$15.00	\$26,475

STRUCTURES				
APPROACH SLAB CONCRETE		cy	\$2,100.00	
APPROACH SLAB REINFORCING		lbs	\$0.99	

SUBTOTAL			\$833,829
MOT	10.0%		\$83,383
Mobilization	10.0%		\$91,721
SUBTOTAL			\$1,008,933
Contingency	25.0%		\$252,233
CONSTRUCTION TOTAL (Rounded)			\$1,261,000

Ludlam Trail Corridor (PD&E) 15% Plans
PROJECT EXTRAS (Bicycle items, Fountains, Map Turnout & Overlook)
Various locations throughout project

Construction Cost Estimate

URS Corporation /

DESCRIPTION	QUANTITY	UNIT	U.P.	COST
ROADWAY				\$518,000
CLEARING & GRUBBING 44130615201		ac	\$25,000.00	
EROSION CONTROL		mi	\$42,604.65	
REGULAR EXCAVATION		cy	\$15.21	
EMBANKMENT (BORROW)(BANK MEAS.)		cy	\$14.92	
POND CONSTRUCTION 1 acres each		each	\$315,216.45	
STORM DRAINAGE SYSTEM MIS		miles		
STABILIZATION TYPE B		sy	\$2.53	
ROADWAY BASE -		sy		
ROADWAY ASPHALT - SUPERPAVE ASPH CONC, TRAF C, PG76-22 (0 inches)		tons	\$119.21	
SHOULDER BASE -		sy		
SHOULDER ASPHALT- (inches)		tons		
		tons		
MILLING / OVERLAY		sy		
		lf		
SIDEWALK CONCRETE, 4" THICK		sy	\$36.43	
MISCELLANEOUS ASPHALT PAVEMENT		tons	\$171.28	
SHOULDER GUTTER- CONCRETE		lf	\$20.00	
PERFORMANCE TURF 0% Sod		sy	\$2.18	
SIGNS (Post & Misc.)		Miles	\$16,606.22	
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES, WHITE, SKIP, 6",10-30		G.M.	\$1,650.00	
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES WHITE, SOLID, 6"		MILE	\$3,884.00	
RETRO-REFLECTIVE PAVEMENT MARKERS		ea	\$3.53	
TRUSS SIGNS - None		ea		
CANTILEVER SIGNS - None		ea		
LIGHTING None		ea		
TRAFFIC SIGNALS (Model 1) None				
TRAFFIC SIGNALS (Model 2) None				
TRAFFIC SIGNALS (Model 3) None				
Extra Items				
BICYCLE RACK, FURNISH & INSTALL, 7-10 BICYCLES	10	EACH	\$1,000.00	\$10,000
DRINKING FOUNTAIN, BOTTLE FILLING, AND PET STATION	10	EACH	\$15,000.00	\$150,000
TRASH RECEPTACLE, PRE-FABRICATED	10	EACH	\$800.00	\$8,000
TRAIL MAP TURNOUT	10	EACH	\$5,000.00	\$50,000
ARCHITECTURAL- SPECIAL, Roofed Overlook with Seating	1	ls	\$300,000.00	\$300,000

STRUCTURES				
APPROACH SLAB CONCRETE		cy	\$2,100.00	
APPROACH SLAB REINFORCING		lbs	\$0.99	

SUBTOTAL		\$518,000
MOT 10.0%		\$51,800
Mobilization 10.0%		\$56,980
SUBTOTAL		\$626,780
Contingency 25.0%		\$156,695
CONSTRUCTION TOTAL (Rounded)		\$783,000

Ludlam Trail Corridor (PD&E) 15% Plans

CROSSING TREATMENTS

Various locations throughout project

Construction Cost Estimate

URS Corporation /

DESCRIPTION	QUANTITY	UNIT	U.P.	COST
ROADWAY				\$3,050,838
CLEARING & GRUBBING 44130615201	2.73	ac	\$25,000.00	\$68,250
EROSION CONTROL	0.450	mi	\$42,604.65	\$19,164
REGULAR EXCAVATION		cy	\$15.21	
EMBANKMENT (BORROW)(BANK MEAS.)	17,856	cy	\$14.92	\$266,412
POND CONSTRUCTION 1 acres each	0.50	each	\$315,216.45	\$157,608
STORM DRAINAGE SYSTEM NUU	0.45	miles	\$1,663,334.89	\$748,186
STABILIZATION TYPE B	8,972	sy	\$2.53	\$22,699
ROADWAY BASE - OPTIONAL BASE, BASE GROUP 04	6,597	sy	\$24.71	\$163,012
ROADWAY ASPHALT - SUPERPAVE ASPH CONC, TRAF C, PG76-22 (2.5 inches)	889.0	tons	\$119.21	\$105,980
SHOULDER BASE -		sy		
SHOULDER ASPHALT- (inches)		tons		
ASPHALT CONCRETE FRICTION COURSE, TRAFFIC C, FC-12.5, PG 76-22	566.0	tons	\$116.64	\$66,019
MILLING / OVERLAY - Mill 2.5" - Overlay 2.5"	6,333	sy	\$17.82	\$112,864
		lf		
SIDEWALK CONCRETE, 4" THICK	3,167	sy	\$36.43	\$115,374
MISCELLANEOUS ASPHALT PAVEMENT		tons	\$171.28	
SHOULDER GUTTER- CONCRETE	9,500	lf	\$20.00	\$190,000
PERFORMANCE TURF 50% Sod	1,583	sy	\$2.18	\$3,451
SIGNS (Post & Misc.)	0.45	Miles	\$16,606.22	\$7,470
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES, WHITE, SKIP, 6",10-30		G.M.	\$1,650.00	
THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES WHITE, SOLID, 6"	1.000	MILE	\$3,884.00	\$3,884
RETRO-REFLECTIVE PAVEMENT MARKERS	132	ea	\$3.53	\$465
TRUSS SIGNS - None		ea		
CANTILEVER SIGNS - None		ea		
LIGHTING None		ea		
TRAFFIC SIGNALS (Model 1) None				
TRAFFIC SIGNALS (Model 2) None				
TRAFFIC SIGNALS (Model 3) None				
Extra Items				
PEDESTRIAN HYBRID BEACON	6	EACH	\$100,000.00	\$600,000
CROSSWALK	4	EACH	\$50,000.00	\$200,000
GRADE SEPARATED	4	EACH	\$25,000.00	\$100,000
RECTANGULAR RAPID FLASHING BEACON	1	EACH	\$100,000.00	\$100,000

STRUCTURES				
APPROACH SLAB CONCRETE		cy	\$2,100.00	
APPROACH SLAB REINFORCING		lbs	\$0.99	

SUBTOTAL			\$3,050,838
MOT 10.0%			\$305,084
Mobilization 10.0%			\$335,592
SUBTOTAL			\$3,691,514
Contingency 25.0%			\$922,879
CONSTRUCTION TOTAL (Rounded)			\$4,614,000

Header Info and Factor Data	FDOT FPN				Current Sequence Total		\$8,167,000			
	Project Title		Ludlam Trail Corridor (PD&E) 15% Plans							
	Secondary Title Line		TYPICAL SECTION 1 (BUFFERED SEPERATION)							
	Sequence Description		Various segments throughout project							
	Section Type		NUU		MOT %		10.0%			
	Road Length (lf)		16357		Mobilization %		10.0%			
Earthwork Data	English Project		3.098		Miles		Contingency %		25.0%	
	Clearing Width		92		ft		DRAINAGE Factor		1.00	
	Median Width		12.00		ft		System # of Ponds			
	Excavation Cross Sect. Area				sf		MIS		Pond Size	
	Fill Volume Calculations									
	Algmt. Lngth'		# of Side Slopes		Slope (X:1)		Sect. Hght		Top Width	
	16357		2		4		3.5		39	
									53	
									39	
	16357								39	
Roadway Data	# Lanes		1		lanes		Paved Shldr W'(Inside)			
	Lane Width		12.00		ft		Paved Shldr W'(Outside)			
	Roadway Base		Base Group 04				# of Shldrs (Inside)			
	Superpave		Traf C(Pg76-22)		1.5		# of Shldrs (Outside)			
	Friction Course						Shldr. Base			
	Curb (Type/#)						Sh.Pvmt.			
	Sidewalk Width'(both sides)		8		ft		Unpaved Shldr (sum 2 sides)		6	
	Shldr Gutter (# of sides)						Width' to Top of Bank		1	
	Misc. Asphalt Width (2 sides)				ft		Milling			
	Grassing Mix (Enter % of sod, rest is seed & mulch)		10		%		Overlay			
Signs & Pv.Mrk.	# Center Stripes		1		each		Truss			
	# Edge Stripes				each		Cantilever			
Lighting	Rural				Poles					
Traffic Signals	Model 1									
	Model 2									
	Model 3									
Additional Items	Description		Description Value		SIDEWALK		Quantity		Unit	
			TYPE 1 ACCESS CONTROL (WOOD GUARDRAIL)				417		lf	
			15' Wide Landscape Buffer				1		ls	
			15' Wide Potential Landscaping (Pending Drainage)				1		ls	
			Parking Area #2 (curb at perimeter)				307		sy	
	CONCRETE		CONCRETE CURB & GUTTER, VARIABLE HEIGHT TYPE F				228		lf	
	SIDEWALK		SIDEWALK CONCRETE, 4" THICK				3,500		sy	
			2' Soft Natural Jogging Surface				3,632		sy	
Structures Table	ID		Type		Description		Lgth (ft)		Width (ft)	
					APPROACH SLAB CONCRETE				1.00	
					APPROACH SLAB REINFORCING		lbs/cy		1.00	
									1.06	
									1.00	
									1.00	
									1.00	
									1.00	
									1.00	
									1.00	

Calculated Data

Road Width'	12.0 ft
Stabil. Width'	12.0 ft
Sod Width'	71.8 ft

Header Info and Factor Data	FDOT FPN				Current Sequence Total		\$1,984,000			
	Project Title		Ludlam Trail Corridor (PD&E) 15% Plans							
	Secondary Title Line		TYPICAL SECTION 2 (NO SEPERATION)							
	Sequence Description		Various segments throughout project							
	Section Type		NUU		MOT %		10.0%			
Earthwork Data	Road Length (lf)		3654		lf		Mobilization %		10.0%	
	English Project		0.692		Miles		Contingency %		25.0%	
	Clearing Width		92		ft		DRAINAGE Factor		1.00	
	Median Width				ft		System # of Ponds		each	
	Excavation Cross Sect. Area				sf		MIS		Pond Size	
	Fill Volume Calculations									
	Algmt. Lngth'		# of Side Slopes		Slope (X:1)		Sect. Hght		Top Width	
	3654		2		4		3.5		29	
									29	
									29	
3654								TOTAL		17,052
Roadway Data	# Lanes		1		lanes		Paved Shldr W'(Inside)		ft	
	Lane Width		24.00		ft		Paved Shldr W'(Outside)		ft	
	Roadway Base		Base Group 04				# of Shldrs (Inside)		each	
	Superpave		Traf C(Pg76-22)		1.5		# of Shldrs (Outside)		each	
	Friction Course						Shldr. Base		inches	
	Curb (Type/#)						Sh.Pvmt.		inches	
	Sidewalk Width'(both sides)				ft		Unpaved Shldr (sum 2 sides)		4	
	Shldr Gutter (# of sides)				sides		Width' to Top of Bank		1	
	Misc. Asphalt Width (2 sides)				ft		Milling		ft	
	Grassing Mix (Enter % of sod, rest is seed & mulch)		10		%		Overlay		ft	
Signs & Pv.Mrk.	# Center Stripes		1		each		Truss		each	
	# Edge Stripes		1		each		Cantilever		each	
Lighting	Rural				Poles					
Traffic Signals	Model 1									
	Model 2									
	Model 3									
Additional Items	Description		Description Value		COCNRETE		Quantity		Unit	
			15' Wide Landscape Buffer				1		ls	
			15' Wide Potential Landscaping (Pending Drainage)				1		ls	
			Parking Area #1 (curb at perimeter)				246		sy	
	COCNRETE		CONCRETE CURB & GUTTER, VARIABLE HEIGHT TYPE F				216		lf	
			REST AREA				6		each	
			2' Soft Natural Jogging Surface				811		sy	
Structures Table	ID		Type		Description		Lgth (ft)		Width (ft)	
					APPROACH SLAB CONCRETE				1.00	
					APPROACH SLAB REINFORCING		lbs/cy		1.00	
									1.06	
									1.00	
									1.00	
									1.00	
									1.00	

Calculated Data

Road Width'	24.0 ft
Stabil. Width'	24.0 ft
Sod Width'	67.8 ft

Header Info and Factor Data	FDOT FPN				Current Sequence Total		\$5,282,000			
	Project Title		Ludlam Trail Corridor (PD&E) 15% Plans							
	Secondary Title Line		TYPICAL SECTION 2 (NO SEPERATION) w/GRAVITY WALLS							
	Sequence Description		Various segments throughout project							
	Section Type		NUU		MOT %		10.0%			
Earthwork Data	Road Length (lf)		784		lf		Mobilization %		10.0%	
	English Project		0.148		Miles		Contingency %		25.0%	
	Clearing Width		92		ft		DRAINAGE Factor		1.00	
	Median Width				ft		System # of Ponds		1	
	Excavation Cross Sect. Area				sf		NUU		Pond Size 0.5	
	Fill Volume Calculations									
	Algmt. Lngth'		# of Side Slopes		Slope (X:1)		Sect. Hght		Top Width	
	784		2		4		4.25		24	
									24	
									24	
784								TOTAL		4,011
Roadway Data	# Lanes		1		lanes		Paved Shldr W'(Inside)			
	Lane Width		24.00		ft		Paved Shldr W'(Outside)			
	Roadway Base		Base Group 04				# of Shldrs (Inside)			
	Superpave		Traf C(Pg76-22)		1.5		# of Shldrs (Outside)			
	Friction Course						Shldr. Base			
	Curb (Type/#)						Sh.Pvmt.			
	Sidewalk Width'(both sides)				ft		Unpaved Shldr (sum 2 sides)			
	Shldr Gutter (# of sides)				sides		Width' to Top of Bank			
	Misc. Asphalt Width (2 sides)				ft		Milling			
	Grassing Mix (Enter % of sod, rest is seed & mulch)		10		%		Overlay			
Signs & Pv.Mrk.	# Center Stripes		1		each		Truss			
	# Edge Stripes		1		each		Cantilever			
Lighting	Rural				Poles					
Traffic Signals	Model 1									
	Model 2									
	Model 3									
Additional Items	Description		Description Value		pipe		Quantity		Unit	
	CONCRETE		CONCRETE CLASS NS, GRAVITY WALL				596		C.Y.	
			15' Wide Landscape Buffer				1		ls	
			15' Wide Potential Landscaping (Pending Drainage)				1		ls	
			PIPE HANDRAIL, STEEL				2,054		L.F.	
Structures Table	ID		Type		Description		Lgth (ft)		Width (ft)	
					APPROACH SLAB CONCRETE		5.00		184.64	
					APPROACH SLAB REINFORCING		200.00		lbs/cy	
			STEEL PLATE GIRDER (SIMPLE SPAN)		Bridge Sta. 659+00.00 to 660+00.00		100.00		23.08	
			BRIDGE DEMOLITION (ELEVATED ROA		Existing Bridge to be Replaced		100.00		23.08	
			STEEL PLATE GIRDER (SIMPLE SPAN)		Bridge Sta. 776+42.00 to 777+62.00		120.00		23.08	
			BRIDGE DEMOLITION (ELEVATED ROA		Existing Bridge to be Replaced		120.00		23.08	
									1.00	
									1.00	
									1.00	

Calculated Data

Road Width'	24.0 ft
Stabil. Width'	24.0 ft
Sod Width'	67.8 ft

Header Info and Factor Data	FDOT FPN				Current Sequence Total		\$9,612,000			
	Project Title		Ludlam Trail Corridor (PD&E) 15% Plans							
	Secondary Title Line		TYPICAL SECTION 2 (NO SEPERATION) w/MSE WALLS							
	Sequence Description		Various segments throughout project							
	Section Type		NUU		MOT %		10.0%			
Earthwork Data	Road Length (lf)		2335		lf		Mobilization %		10.0%	
	English Project		0.442		Miles		Contingency %		25.0%	
	Clearing Width		92		ft		DRAINAGE Factor		1.00	
	Median Width				ft		System # of Ponds		1	
	Excavation Cross Sect. Area				sf		NUU		Pond Size 1	
	Fill Volume Calculations									
	Algmt. Lngth'		# of Side Slopes		Slope (X:1)		Sect. Hght		Top Width	
	2335						12.5		24	
									24	
	2335								24	
Roadway Data	# Lanes		1		lanes		Paved Shldr W'(Inside)			
	Lane Width		24.00		ft		Paved Shldr W'(Outside)			
	Roadway Base		Base Group 04				# of Shldrs (Inside)			
	Superpave		Traf C(Pg76-22)		1.5		# of Shldrs (Outside)			
	Friction Course						Shldr. Base			
	Curb (Type/#)						Sh.Pvmt.			
	Sidewalk Width'(both sides)				ft		Unpaved Shldr (sum 2 sides)			
	Shldr Gutter (# of sides)				sides		Width' to Top of Bank			
	Misc. Asphalt Width (2 sides)				ft		Milling			
	Grassing Mix (Enter % of sod, rest is seed & mulch)		10		%		Overlay			
Signs & Pv.Mrk.	# Center Stripes		1		each		Truss			
	# Edge Stripes		1		each		Cantilever			
Lighting	Rural						Poles			
Traffic Signals	Model 1									
	Model 2									
	Model 3									
Additional Items	Description		Description Value				Quantity		Unit	
	RETAIN		RETAINING WALL SYSTEM, PERMANANT, EXCLUDING BARRIER				61,150		S.F.	
	CONCRETE		CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED				4,892		L.F.	
			15' Wide Landscape Buffer				1		ls	
			15' Wide Potential Landscaping (Pending Drainage)				1		ls	
	pipe		PIPE HANDRAIL, STEEL				4,892		L.F.	
Structures Table	ID		Type		Description		Lgth (ft)		Width (ft)	
					APPROACH SLAB CONCRETE		5.00		92.32	
					APPROACH SLAB REINFORCING		200.00		lbs/cy	
			STEEL PLATE GIRDER (SIMPLE SPAN)		Bridge Sta. 743+36.33 to 744+36.33		100.00		23.08	
			STEEL PLATE GIRDER (SIMPLE SPAN)		Bridge Sta. 770+17.00 to 771+17.00		100.00		23.08	
									1.00	
									1.00	
									1.00	
									1.00	
									1.00	

Calculated Data

Road Width'	24.0 ft
Stabil. Width'	24.0 ft
Sod Width'	67.8 ft

Header Info and Factor Data	FDOT FPN				Current Sequence Total		\$572,000					
	Project Title		Ludlam Trail Corridor (PD&E) 15% Plans									
	Secondary Title Line		TYPICAL SECTION 3 (DEVELOPMENT ZONES)									
	Sequence Description		Various segments throughout project									
	Section Type		NUU		MOT %		10.0%					
	Road Length (lf)		2591		Mobilization %		10.0%					
English Project		0.491		Miles		Contingency %		25.0%				
Earthwork Data	Clearing Width		28		ft		DRAINAGE Factor		1.00			
	Median Width				ft		System # of Ponds				each	
	Excavation Cross Sect. Area				sf		MIS		Pond Size		acres	
	Fill Volume Calculations											
	Algmt. Lngth'		# of Side Slopes		Slope (X:1)		Sect. Hght		Top Width		Bott. Width	
									Avg. Width		Volume	
	2591						3.5		22		22	
									22		22	
									22		22	
	2591								TOTAL		7,389	
Roadway Data	# Lanes		1		lanes		Paved Shldr W'(Inside)				ft	
	Lane Width		17.00		ft		Paved Shldr W'(Outside)				ft	
	Roadway Base		Base Group 04				# of Shldrs (Inside)				each	
	Superpave		Traf C(Pg76-22)		1.5		# of Shldrs (Outside)				each	
	Friction Course						Shldr. Base				inches	
	Curb (Type/#)						Sh.Pvmt.				inches	
	Sidewalk Width'(both sides)				ft		Unpaved Shldr (sum 2 sides)		4		ft	
	Shldr Gutter (# of sides)				sides		Width' to Top of Bank		1		ft	
	Misc. Asphalt Width (2 sides)				ft		Milling				ft	
	Grassing Mix (Enter % of sod, rest is seed & mulch)		10		%		Overlay				ft	
Signs & Pv.Mrk.	# Center Stripes		1		each		Truss				each	
	# Edge Stripes		1		each		Cantilever				each	
Lighting	Rural				Poles							
Traffic Signals	Model 1											
	Model 2											
	Model 3											
Additional Items	Description		Description Value		Bridge		Quantity		Unit			
Structures Table	ID		Type		Description		Lgth (ft)		Width (ft)		Factor	
					APPROACH SLAB CONCRETE						1.00	
					APPROACH SLAB REINFORCING				lbs/cy		1.00	
											1.06	
											1.00	
											1.00	
											1.00	
											1.00	
											1.00	
											1.00	

Calculated Data

Road Width'	17.0 ft
Stabil. Width'	17.0 ft
Sod Width'	11.0 ft

Header Info and Factor Data	FDOT FPN				Current Sequence Total		\$840,000			
	Project Title		Ludlam Trail Corridor (PD&E) 15% Plans							
	Secondary Title Line		TYPICAL SECTION 3 (DEVELOPMENT ZONES) w/ GRAVITY WALLS							
	Sequence Description		Various segments throughout project							
	Section Type		NUU		MOT %		10.0%			
Earthwork Data	Road Length (lf)		174		lf		Mobilization %		10.0%	
	English Project		0.033		Miles		Contingency %		25.0%	
	Clearing Width		28		ft		DRAINAGE Factor		1.00	
	Median Width				ft		System # of Ponds		1	
	Excavation Cross Sect. Area		440		sf		NUU		Pond Size 0.5	
	Fill Volume Calculations									
	Algmt. Lngth'		# of Side Slopes		Slope (X:1)		Sect. Hght		Top Width	
	174						4.25		17	
									17	
									17	
174								TOTAL		466
Roadway Data	# Lanes		1		lanes		Paved Shldr W'(Inside)			
	Lane Width		17.00		ft		Paved Shldr W'(Outside)			
	Roadway Base		Base Group 04				# of Shldrs (Inside)			
	Superpave		Traf C(Pg76-22)		1.5		inches		# of Shldrs (Outside)	
	Friction Course						inches		Shldr. Base	
	Curb (Type/#)						each		Sh.Pvmt.	
	Sidewalk Width'(both sides)						ft		Unpaved Shldr (sum 2 sides)	
	Shldr Gutter (# of sides)						sides		Width' to Top of Bank	
	Misc. Asphalt Width (2 sides)						ft		Milling	
	Grassing Mix (Enter % of sod, rest is seed & mulch)				10		%		Overlay	
Signs & Pv.Mrk.	# Center Stripes		1		each		Truss			
	# Edge Stripes		1		each		Cantilever			
Lighting	Rural						Poles			
Traffic Signals	Model 1									
	Model 2									
	Model 3									
Additional Items	Description		Description Value		pipe		Quantity		Unit	
	CONCRETE		CONCRETE CLASS NS, GRAVITY WALL				101		C.Y.	
			PIPE HANDRAIL, STEEL				348		L.F.	
Structures Table	ID		Type		Description		Lgth (ft)		Width (ft)	
					APPROACH SLAB CONCRETE				1.00	
					APPROACH SLAB REINFORCING		lbs/cy		1.00	
									1.06	
									1.00	
									1.00	
									1.00	
									1.00	
									1.00	

Calculated Data

Road Width'	17.0 ft
Stabil. Width'	17.0 ft
Sod Width'	11.0 ft

Header Info and Factor Data	FDOT FPN				Current Sequence Total		\$6,760,000				
	Project Title		Ludlam Trail Corridor (PD&E) 15% Plans								
	Secondary Title Line		TYPICAL SECTION 3 (DEVELOPMENT ZONES) w/MSE WALLS								
	Sequence Description		Various segments throughout project								
	Section Type		NUU		MOT %		10.0%				
	Road Length (lf)		1675		lf		Mobilization %		10.0%		
Earthwork Data	English Project		0.317		Miles		Contingency %		25.0%		
	Clearing Width		28		ft		DRAINAGE Factor		1.00		
	Median Width				ft		System # of Ponds		1		
	Excavation Cross Sect. Area				sf		NUU		Pond Size 1		
	Fill Volume Calculations										
	Algmt. Lngth'		# of Side Slopes		Slope (X:1)		Sect. Hght		Top Width		
	1675						12.5		17		
									17		
	1675								17		
Roadway Data	# Lanes		1		lanes		Paved Shldr W'(Inside)				
	Lane Width		17.00		ft		Paved Shldr W'(Outside)				
	Roadway Base		Base Group 04				# of Shldrs (Inside)				
	Superpave		Traf C(Pg76-22)		1.5		# of Shldrs (Outside)				
	Friction Course						Shldr. Base				
	Curb (Type/#)						Sh.Pvmt.				
	Sidewalk Width'(both sides)				ft		Unpaved Shldr (sum 2 sides)				
	Shldr Gutter (# of sides)				sides		Width' to Top of Bank				
	Misc. Asphalt Width (2 sides)				ft		Milling				
	Grassing Mix (Enter % of sod, rest is seed & mulch)		10		%		Overlay				
	Signs & Pv.Mrk.	# Center Stripes		1		each		Truss			
		# Edge Stripes		1		each		Cantilever			
Lighting	Rural						Poles				
Traffic Signals	Model 1										
	Model 2										
	Model 3										
Additional Items	Description		Description Value		pipe		Quantity		Unit		
	RETAIN		RETAINING WALL SYSTEM, PERMANANT, EXCLUDING BARRIER				41,875		S.F.		
	CONCRETE		CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED				3,350		L.F.		
	pipe		PIPE HANDRAIL, STEEL				3,350		L.F.		
Structures Table	ID		Type		Description		Lgth (ft)		Width (ft)		
					APPROACH SLAB CONCRETE		5.00		70.32		
					APPROACH SLAB REINFORCING		200.00		lbs/cy		
			STEEL PLATE GIRDER (SIMPLE SPAN)		Bridge Sta. 635+33.00 to 636+53.00		120.00		17.58		
			STEEL PLATE GIRDER (SIMPLE SPAN)		Bridge Sta. 689+00.00to 690+20.00		120.00		17.58		
									1.00		
									1.00		
									1.00		
									1.00		
									1.00		

Calculated Data

Road Width'	17.0 ft
Stabil. Width'	17.0 ft
Sod Width'	11.0 ft

Header Info and Factor Data	FDOT FPN				Current Sequence Total		\$1,261,000			
	Project Title		Ludlam Trail Corridor (PD&E) 15% Plans							
	Secondary Title Line		TYPICAL SECTION 4 (w/Landscaped Divider)							
	Sequence Description		Various segments throughout project							
	Section Type		NUU		MOT %		10.0%			
Earthwork Data	Road Length (lf)		882		lf		Mobilization %		10.0%	
	English Project		0.167		Miles		Contingency %		25.0%	
	Clearing Width		92		ft		DRAINAGE Factor		1.00	
	Median Width		4.00		ft		System # of Ponds		1	
	Excavation Cross Sect. Area				sf		NUU		Pond Size 0.5	
	Fill Volume Calculations									
	Algmt. Lngth'		# of Side Slopes		Slope (X:1)		Sect. Hght		Top Width	
	882		2		6		3.5		41	
									41	
									41	
882								TOTAL		5,888
Roadway Data	# Lanes		2		lanes		Paved Shldr W'(Inside)			
	Lane Width		10.50		ft		Paved Shldr W'(Outside)			
	Roadway Base		Base Group 04				# of Shldrs (Inside)			
	Superpave		Traf C(Pg76-22)		1.5		inches		# of Shldrs (Outside)	
	Friction Course						inches		Shldr. Base	
	Curb (Type/#)		CURB & GUTTER CONC-TYPE F		2		each		Sh.Pvmt.	
	Sidewalk Width'(both sides)		8		ft		Unpaved Shldr (sum 2 sides)		4	
	Shldr Gutter (# of sides)						sides		Width' to Top of Bank	
	Misc. Asphalt Width (2 sides)						ft		Milling	
	Grassing Mix (Enter % of sod, rest is seed & mulch)		10		%				Overlay	
Signs & Pv.Mrk.	# Center Stripes		1		each		Truss			
	# Edge Stripes				each		Cantilever			
Lighting	Rural						Poles			
Traffic Signals	Model 1									
	Model 2									
	Model 3									
Additional Items	Description		Description Value		landscape		Quantity		Unit	
	FENCING		TYPE 2 WOOD FENCE (2-RAIL)				1,765		lf	
Structures Table	ID		Type		Description		Lgth (ft)		Width (ft)	
					APPROACH SLAB CONCRETE				1.00	
					APPROACH SLAB REINFORCING		lbs/cy		1.00	
									1.06	
									1.00	
									1.00	
									1.00	
									1.00	
									1.00	
									1.00	

Calculated Data

Road Width'	21.0 ft
Stabil. Width'	24.7 ft
Sod Width'	59.8 ft

Header Info and Factor Data	FDOT FPN				Current Sequence Total		\$783,000					
	Project Title		Ludlam Trail Corridor (PD&E) 15% Plans									
	Secondary Title Line		PROJECT EXTRAS (Bicycle items, Fountains, Map Turnout & Overlook)									
	Sequence Description		Various locations throughout project									
	Section Type		NUU ▼		MOT %		10.0%					
	Road Length (lf)				lf		Mobilization %		10.0%			
English Project				Miles		Contingency %		25.0%				
Earthwork Data	Clearing Width				ft		DRAINAGE Factor		1.00			
	Median Width				ft		System # of Ponds		each			
	Excavation Cross Sect. Area				sf		MIS ▼ Pond Size 1		acres			
	Fill Volume Calculations											
	Algmt. Lngth'	# of Side Slopes	Slope (X:1)	Sect. Hght	Top Width	Bott. Width	Avg. Width	Volume				
								cy				
								cy				
								cy				
								TOTAL				
								cy				
Roadway Data	# Lanes				lanes		Paved Shldr W'(Inside)		ft			
	Lane Width				ft		Paved Shldr W'(Outside)		ft			
	Roadway Base		▼				# of Shldrs (Inside)		each			
	Superpave		Traf C(Pg76-22) ▼		inches		# of Shldrs (Outside)		each			
	Friction Course		▼		inches		Shldr. Base		▼			
	Curb (Type/#)		▼		each		Sh.Pvmt.		inches			
	Sidewalk Width'(both sides)				ft		Unpaved Shldr (sum 2 sides)		ft			
	Shldr Gutter (# of sides)				sides		Width' to Top of Bank		ft			
	Misc. Asphalt Width (2 sides)				ft		Milling		▼			
	Grassing Mix (Enter % of sod, rest is seed & mulch)				%		Overlay		▼			
Signs & Pv.Mrk.	# Center Stripes		each	Truss					▼			
	# Edge Stripes		each	Cantilever					▼			
Lighting	Rural	▼		Poles								
Traffic Signals	Model 1	▼				Description						
	Model 2	▼										
	Model 3	▼										
		▼										
Additional Items	Description		Description Value				TRASH		Quantity		Unit	
	BICYCLE	BICYCLE RACK, FURNISH & INSTALL, 7-10 BICYCLES						10		EACH		
		DRINKING FOUNTAIN, BOTTLE FILLING, AND PET STATION						10		EACH		
	TRASH	TRASH RECEPTACLE, PRE-FABRICATED						10		EACH		
		TRAIL MAP TURNOUT						10		EACH		
		ARCHITECTURAL- SPECIAL,						3,500		sf		
Structures Table	ID	Type	Description		Lgth (ft)		Width (ft)		Factor			
			APPROACH SLAB CONCRETE						1.00			
			APPROACH SLAB REINFORCING				lbs/cy		1.00			
			▼						1.06			
			▼						1.00			
			▼						1.00			
			▼						1.00			
			▼						1.00			
			▼						1.00			
			▼						1.00			

Calculated Data

Road Width'	ft
Stabil. Width'	ft
Sod Width'	ft

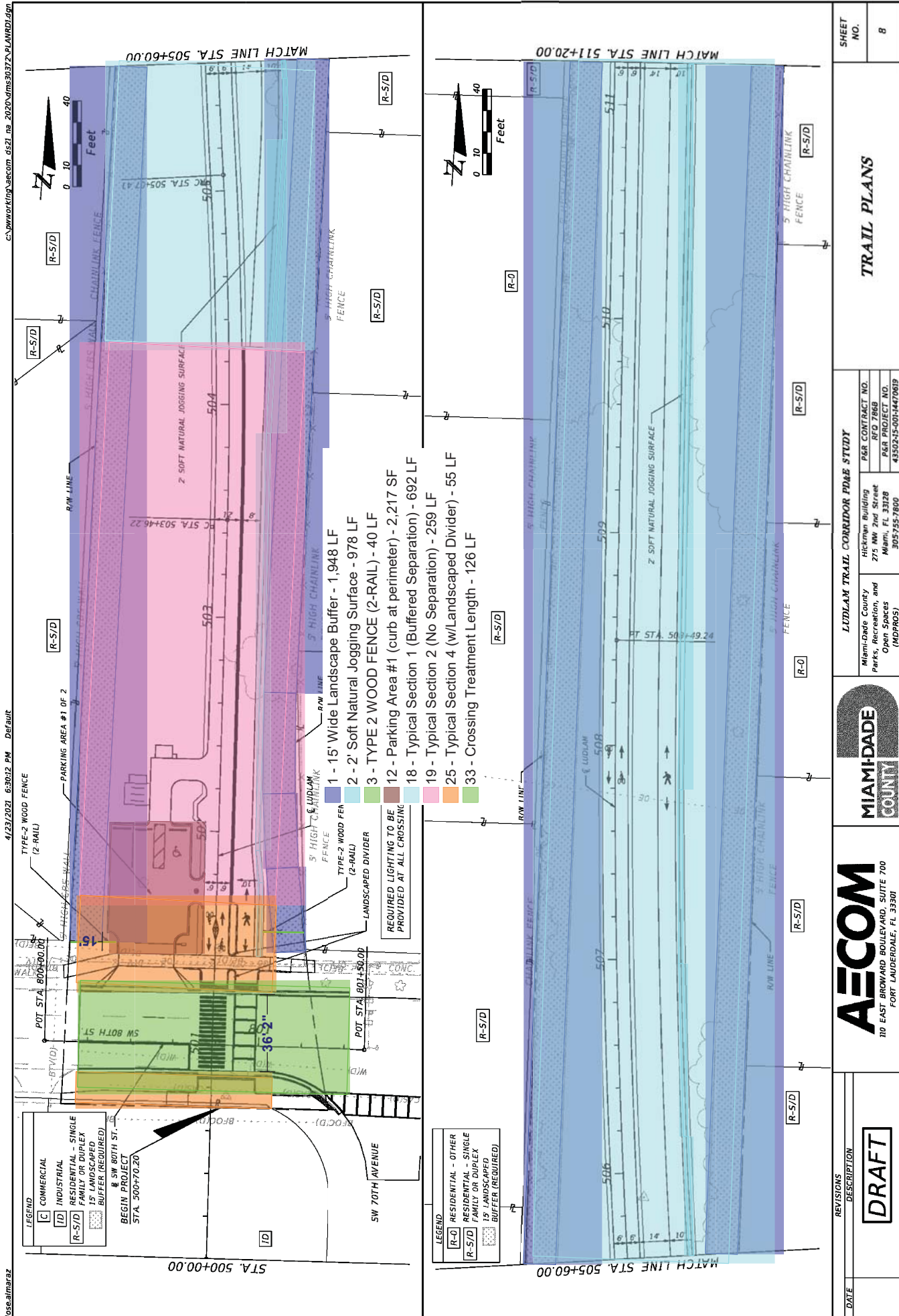
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	Project Title		Ludlam Trail Corridor (PD&E) 15% Plans								
	Secondary Title Line		CROSSING TREATMENTS								
	Sequence Description		Various locations throughout project								
	Section Type		NUU		MOT %		10.0%				
	Road Length (lf)		2375		Mobilization %		10.0%				
Earthwork Data	English Project		0.450		Miles		Contingency %		25.0%		
	Clearing Width		50		ft		DRAINAGE Factor		1.00		
	Median Width		5.00		ft		# of Ponds		0.5		
	Excavation Cross Sect. Area				sf		NUU		Pond Size 1		
	Fill Volume Calculations										
	Algmnt. Lngth'		# of Side Slopes		Slope (X:1)		Sect. Hght		Top Width		
	2375		2		4		3.5		51		
									51		
									51		
2375								TOTAL		17,856	
Roadway Data	# Lanes		2		lanes		Paved Shldr W'(Inside)				
	Lane Width		12.00		ft		Paved Shldr W'(Outside)				
	Roadway Base		Base Group 04				# of Shldrs (Inside)				
	Superpave		Traf C(Pg76-22)		2.5		# of Shldrs (Outside)				
	Friction Course		FC-12.5(Pg76-22)(Traf C)		1.5		Shldr. Base				
	Curb (Type/#)						Sh.Pvmt.				
	Sidewalk Width'(both sides)		12		ft		Unpaved Shldr (sum 2 sides)				
	Shldr Gutter (# of sides)		4		sides		Width' to Top of Bank				
	Misc. Asphalt Width (2 sides)				ft		Milling 2 1/2" Avg Depth				
	Grassing Mix (Enter % of sod, rest is seed & mulch)		50		%		Overlay 2 1/2" Avg Depth		24		
Signs & Pv.Mrk.	# Center Stripes				each		Truss				
	# Edge Stripes		2		each		Cantilever				
Lighting	Rural						Poles				
Traffic Signals	Model 1										
	Model 2										
	Model 3										
Additional Items	Description		Description Value		TRASH		Quantity		Unit		
			PEDESTRIAN HYBRID BEACON				6		EACH		
			CROSSWALK				4		EACH		
			GRADE SEPARATED				4		EACH		
			RECTANGULAR RAPID FLASHING BEACON				1		EACH		
Structures Table	ID		Type		Description		Lgth (ft)		Width (ft)		
					APPROACH SLAB CONCRETE				1.00		
					APPROACH SLAB REINFORCING		lbs/cy		1.00		
									1.06		
									1.00		
									1.00		
									1.00		
									1.00		
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									1.00		

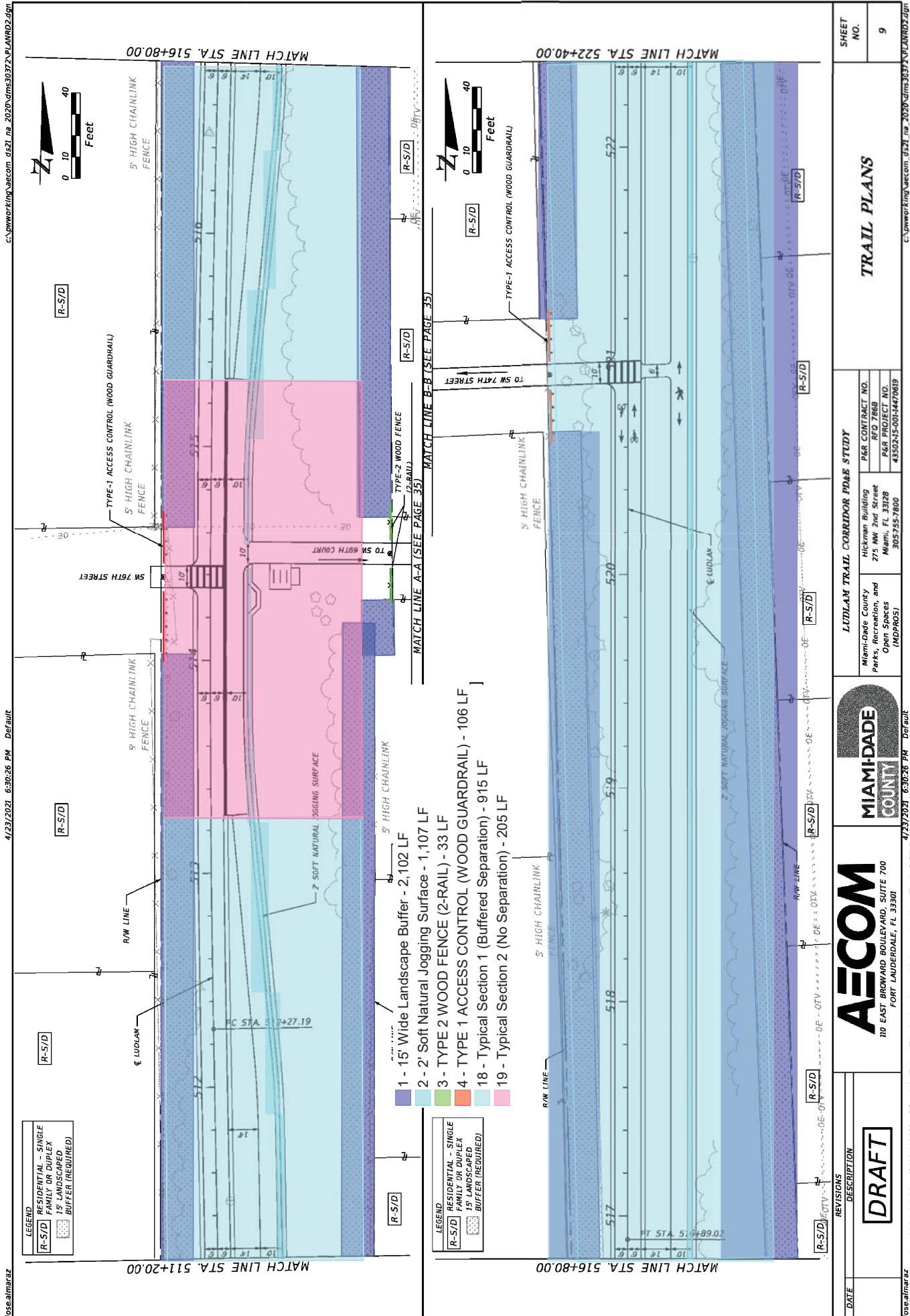
Calculated Data

Road Width'	24.0 ft
Stabil. Width'	34.0 ft
Sod Width'	6.0 ft

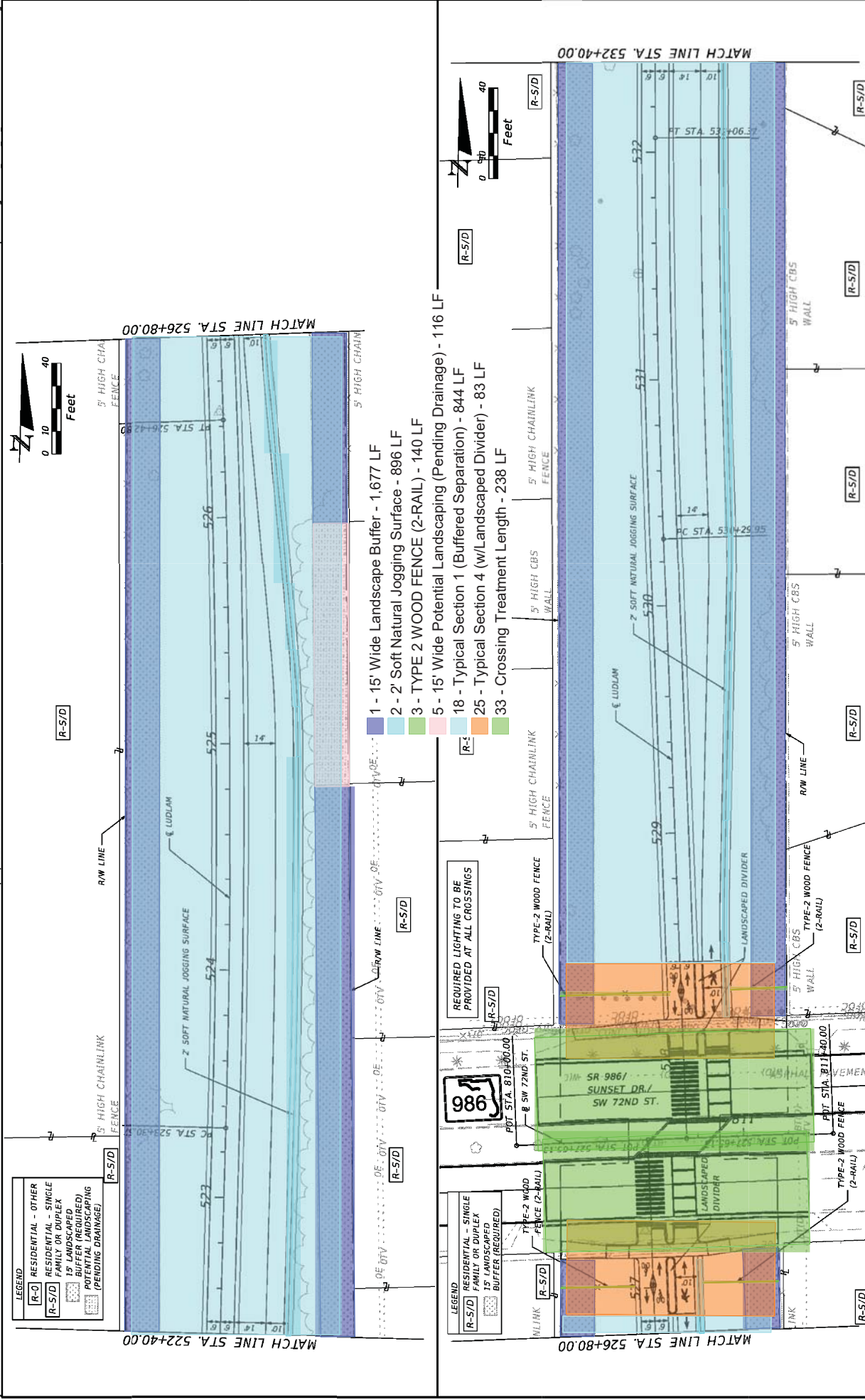
'Ludlam Trail Corridor (PD&E) 15% Plans

Item	Takeoff Name	QTY 1	UOM1	QTY 2	UOM2	QTY 3	UOM3
18	Typical Section 1 (Buffered Separation)	16,357	LF				
19	Typical Section 2 (No Separation)	3,654	LF				
24	Typical Section 2 (No Separation) Gravity Walls	784	LF				
23	Typical Section 2 (No Separation) MSE Walls	2,335	LF				
20	Typical Section 3 (Development Zones)	2,591	LF				
21	Typical Section 3 (Development Zones) Gravity Walls	174	LF				
22	Typical Section 3 (Development Zones) MSE Walls	1,675	LF				
25	Typical Section 4 (w/Landscaped Divider)	882	LF				
1	15' Wide Landscape Buffer	26,921	LF	403,812	SF		
5	15' Wide Potential Landscaping (Pending Drainage)	17,229	LF	258,431	SF		
2	2' Soft Natural Jogging Surface	19,993	LF	39,985	SF	4,443	SY
14	Bridge Sta. 635+33.00 to 636+53.00	2,161	SF	276	LF		
16	Bridge Sta. 659+00.00 to 660+00.00	2,409	SF	249	LF		
15	Bridge Sta. 689+00.00to 690+20.00	2,154	SF	277	LF		
26	Bridge Sta. 743+36.33 to 744+36.33	1,618	SF	231	LF		
17	Bridge Sta. 770+17.00 to 771+17.00	2,377	SF	247	LF		
27	Bridge Sta. 776+42.00 to 777+62.00	2,803	SF	290	LF		
33	Crossing Treatment Length	2,375	LF				
30	Outside 10' Sidewalk	3,131	LF	3,479	SY		
31	Outside 10' Sidewalk (Gravity Wall)	486	LF	108	SY		
32	Outside 10' Sidewalk (MSE Wall)	222	LF	49	SY		
12	Parking Area #1 (curb at perimeter)	2,217	SF	216	LF	246	SY
13	Parking Area #2 (curb at perimeter)	2,764	SF	228	LF	307	SY
11	Rest Area #1 (20'x20") Sta 567	1	EA	400	SF	44	SY
10	Rest Area #2 (20'x20") Sta 591	1	EA	400	SF	44	SY
9	Rest Area #3 (20'x20") Sta 608	1	EA	400	SF	44	SY
8	Rest Area #4 (20'x20") Sta 730	1	EA	400	SF	44	SY
7	Rest Area #5 (20'x20") Sta 783	1	EA	400	SF	44	SY
6	Rest Area #6 (20'x20") Sta 795	1	EA	400	SF	44	SY
28	Roofed Overlook with Seating	3,421	SF				
4	TYPE 1 ACCESS CONTROL (WOOD GUARDRAIL)	417	LF	174	SF		
3	TYPE 2 WOOD FENCE (2-RAIL)	1,765	LF	735	SF		
29	Typical Approach Slab Length	5	LF				

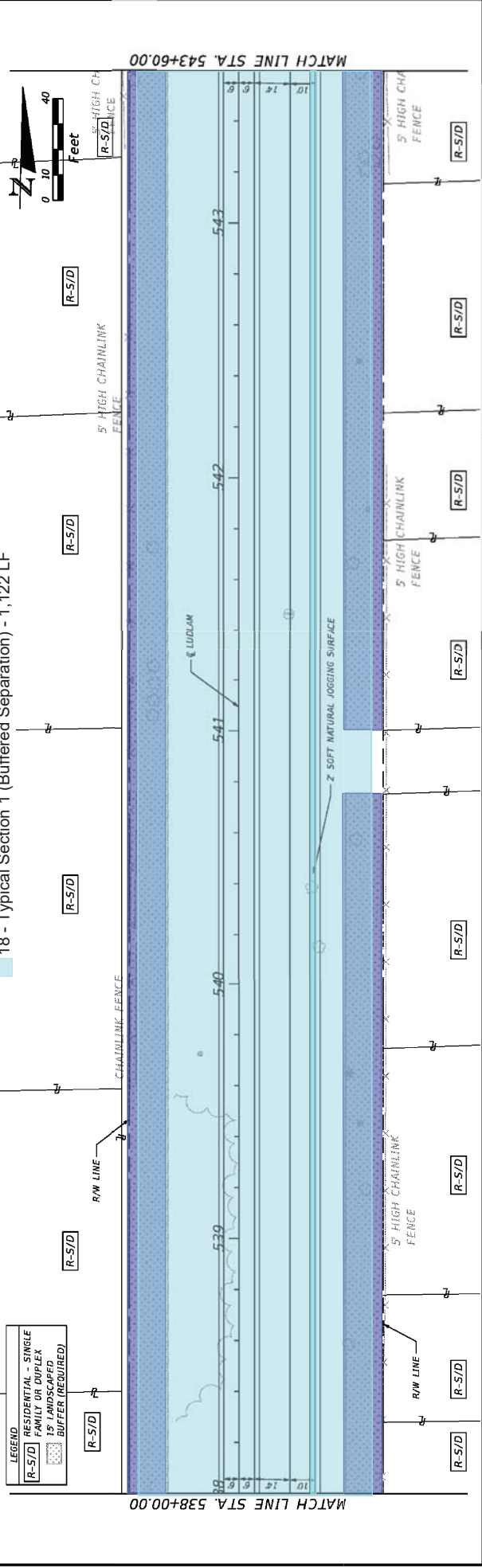
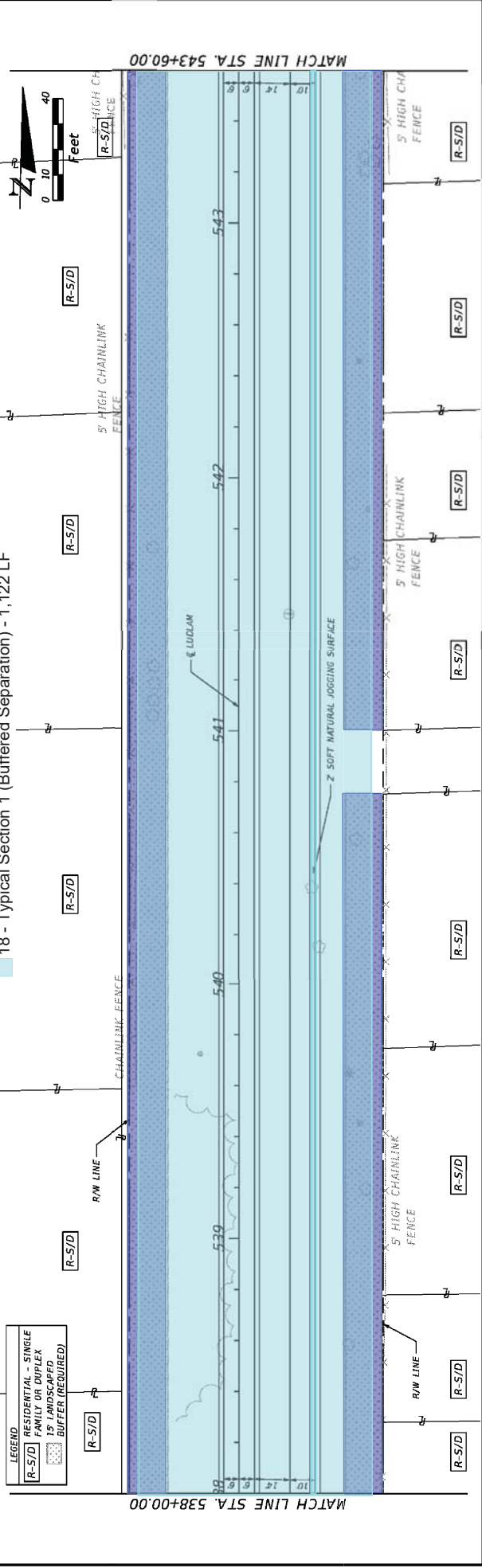




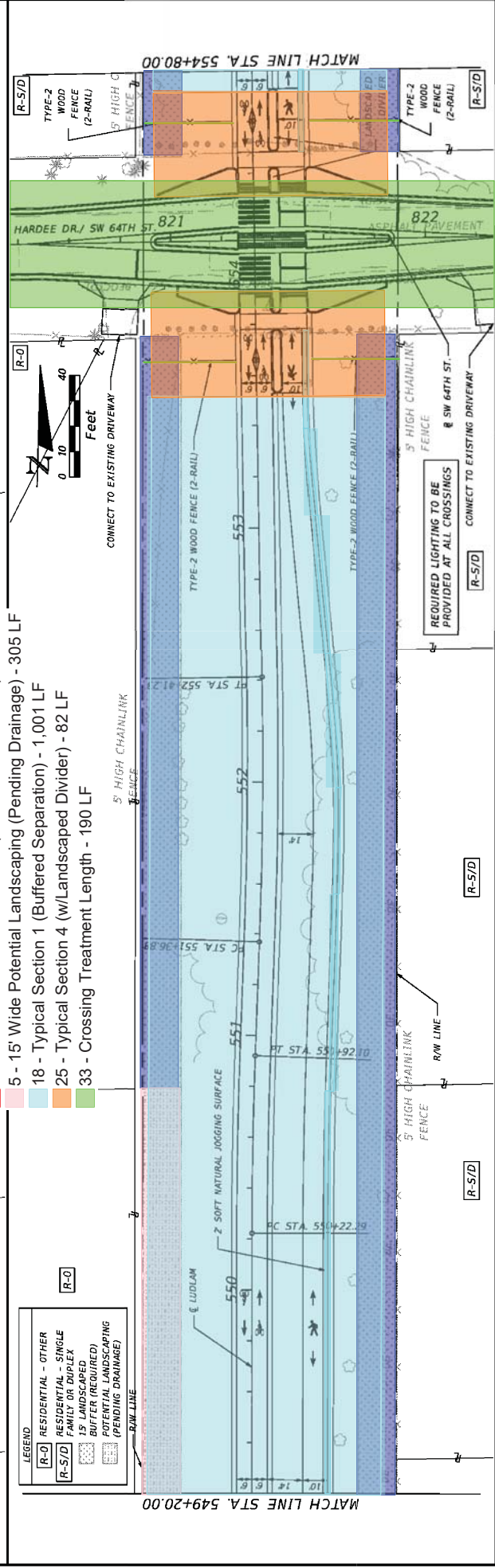
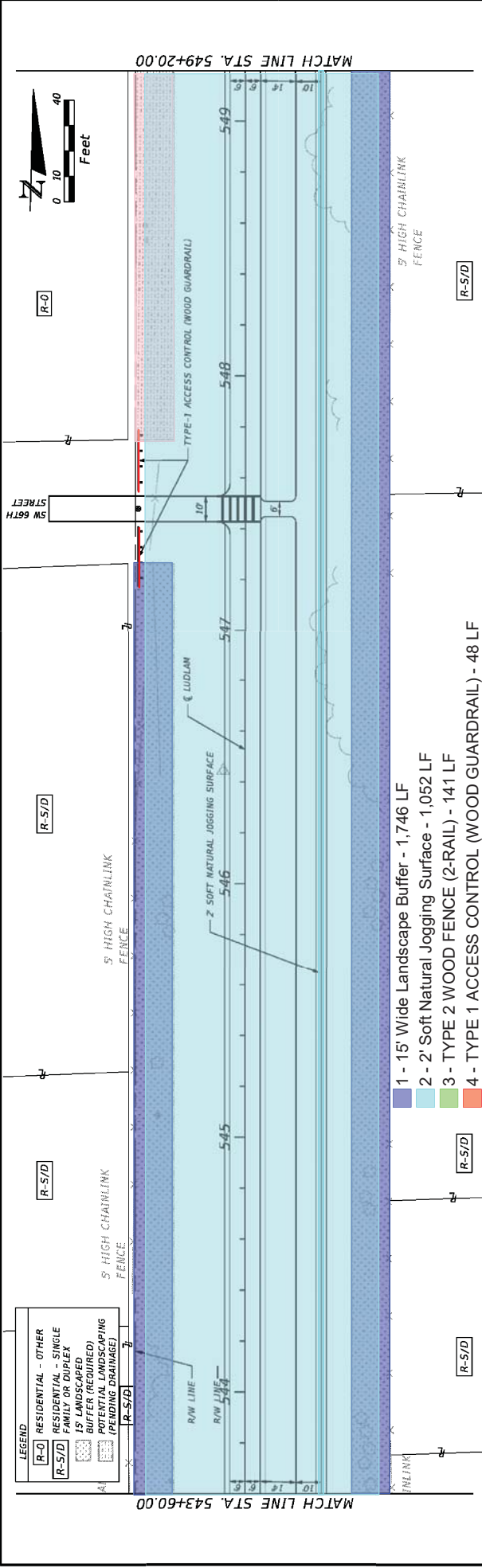
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						Miami-Dade County Parks, Recreation, and Open Spaces (MDPROS)	Hickman Building 275 NW 2nd Street Miami, FL 33128 305-755-7800	P&R CONTRACT NO. RFO 7868 P&R PROJECT NO. 43502-15-001-14470619			

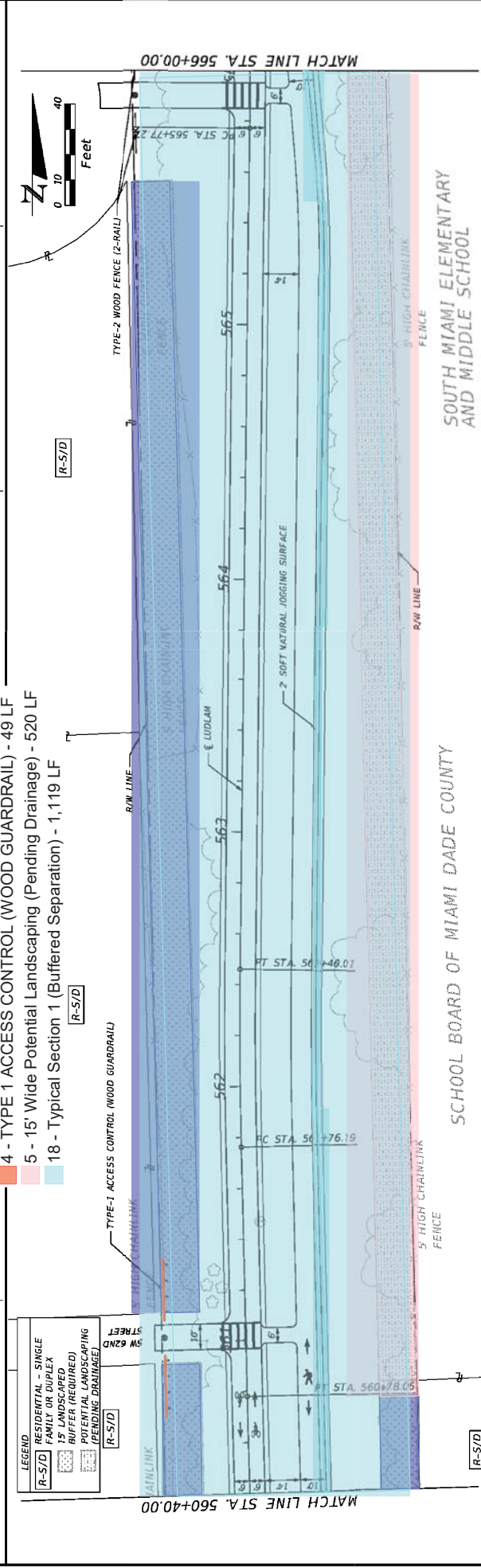
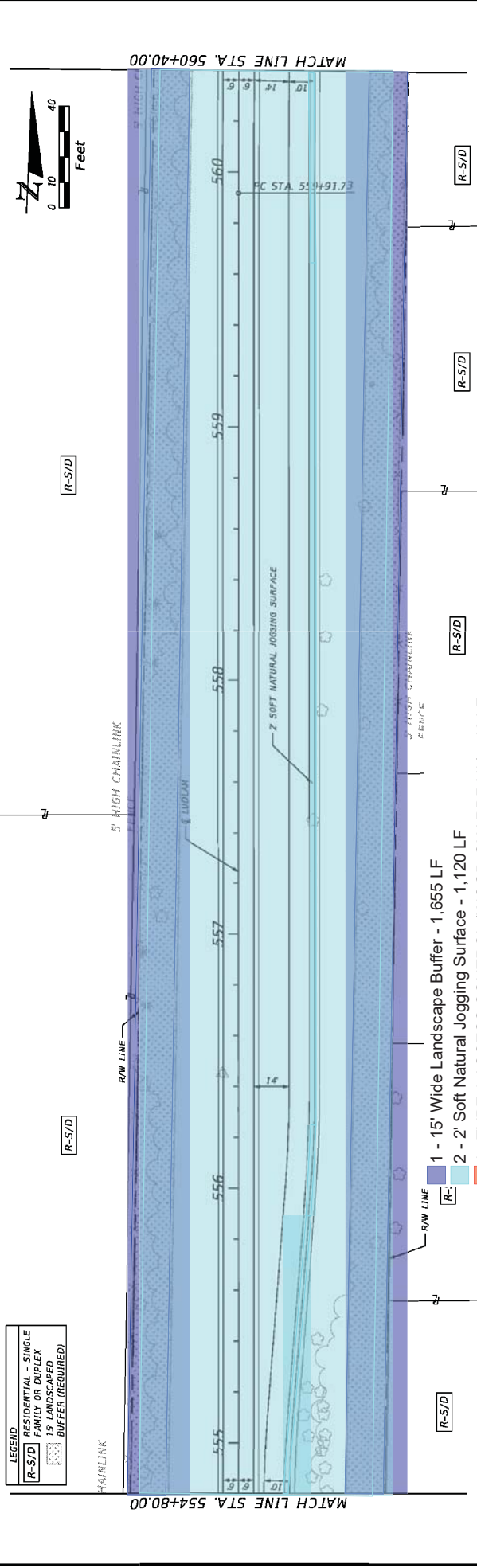


DATE REVISIONS DESCRIPTION		AECOM 110 EAST BROWARD BOULEVARD, SUITE 700 FORT LAUDERDALE, FL 33301		MIAMI-DADE COUNTY		LUDLAM TRAIL CORRIDOR PDAE STUDY Miami-Dade County Parks, Recreation, and Open Spaces (MDPROS) Hickman Building 275 NW 2nd Street Miami, FL 33128 305-755-7800 P&R PROJECT NO. 43502-15-001-14470619 P&R CONTRACT NO. RFO 7868		TRAIL PLANS		SHEET NO. 10	
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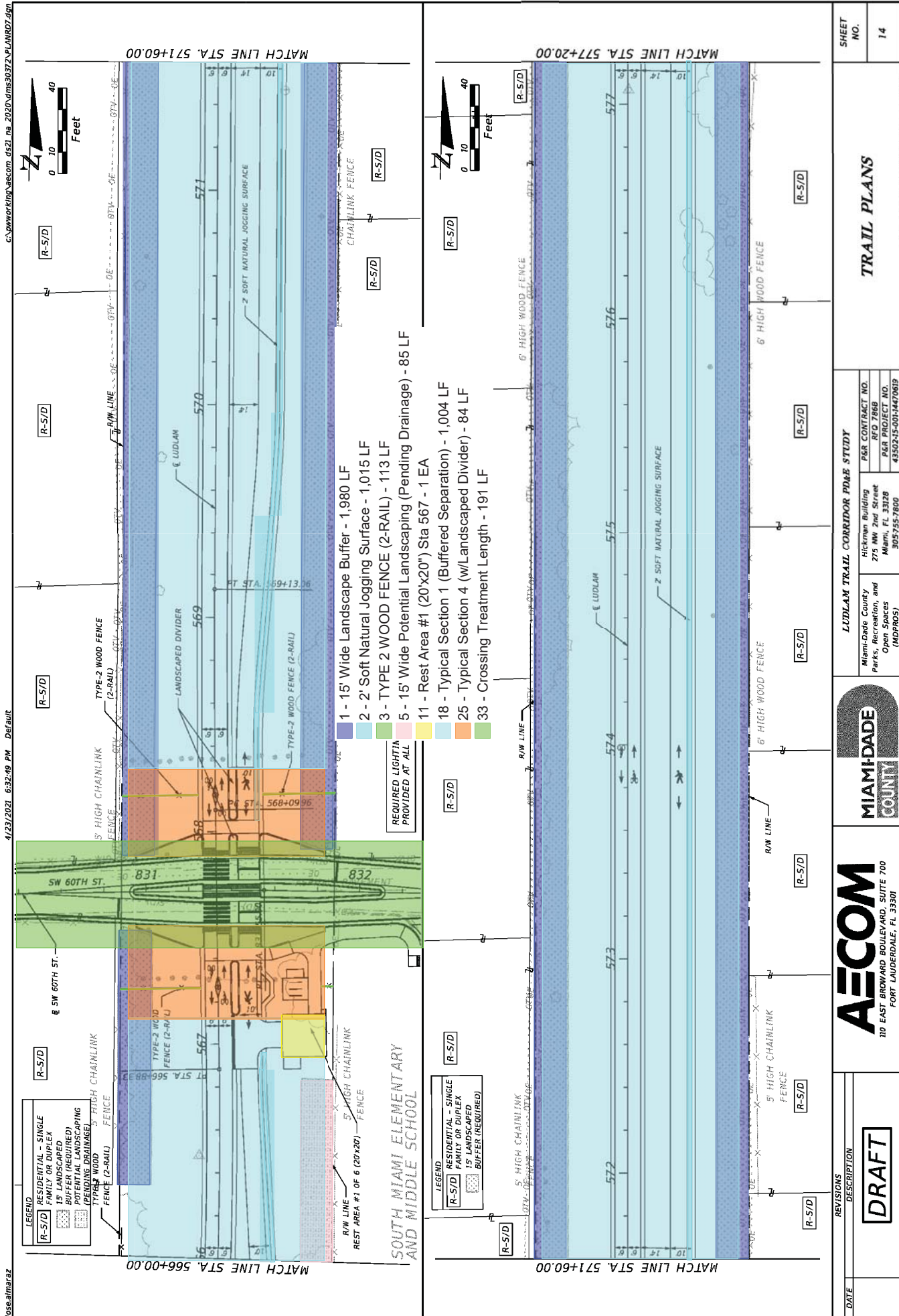


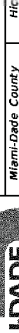
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jose.almaraz						4/23/2021 6:30:53 PM Default								

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DATE		REVISIONS		DESCRIPTION		AECOM 110 EAST BROWARD BOULEVARD, SUITE 700 FORT LAUDERDALE, FL 33301		MIAMI-DADE COUNTY		LUDLAM TRAIL CORRIDOR PD&E STUDY Miami-Dade County Parks, Recreation, and Open Spaces (MDPROS) Hickman Building 275 NW 2nd Street Miami, FL 33128 305-755-7800 4350245-001-14470619		TRAIL PLANS		SHEET NO.	
												13			



REVISIONS		DESCRIPTION	DATE	AECOM	110 EAST BROWARD BOULEVARD, SUITE 700 FORT LAUDERDALE, FL 33301		LUDLAM TRAIL CORRIDOR PHASE STUDY	TRAIL PLANS		SHEET NO. 14
DRAFT										
								Miami-Dade County Parks, Recreation, and Open Spaces (MDPROS)	Hickman Building 275 NW 2nd Street Miami, FL 33128 P&R PROJECT NO. 4350245-001-44470619 P&R CONTRACT NO. RFO 7868	