

Project Preliminary Design Estimate

Measure System: E

Date: Friday, July 23, 2021

Description: SPRINGFIELD- MCKNIGHT COMMUNITY TRAIL CONSTRUCTION, FROM ARMORY STREET TO HAYDEN AVENUE (1.5 MILES)

District: 2

Extended Description: The proposed project consists of the construction of 1.5 miles of multi-use trail starting at the intersection with Armory Street, traveling easterly on the abandoned Pan Am rail bed, and ending at the intersection with Hayden Avenue near the Rebecca M. Johnson School. The proposed path will range from 10 to 12 feet in width and consist of an asphalt mix riding surface. In addition, the proposed project will include the construction of parking, trail heads, and the installation of wood safety rail, safety signing, pavement markings, and other incidental work.

Project: 608157

Item #	Description	Units	Type	Unit Price	NFA - Site Specific	Total
100.	SCHEDULE OF OPERATIONS - FIXED PRICE \$ _____	LS		\$60,000.000	1.000	\$60,000.00
101.	CLEARING AND GRUBBING	A		\$40,000.000	3.000	\$120,000.00
102.1	TREE TRIMMING	FT		\$17.000	500.000	\$8,500.00
102.511	TREE PROTECTION - ARMORING & PRUNING	EA	*	\$250.000	30.000	\$7,500.00
102.521	TREE AND PLANT PROTECTION FENCE	FT	*	\$8.000	700.000	\$5,600.00
103.	TREE REMOVED - DIAMETER UNDER 24 INCHES	EA		\$1,000.000	40.000	\$40,000.00
104.	TREE REMOVED - DIAMETER 24 INCHES AND OVER	EA		\$2,300.000	12.000	\$27,600.00
115.1	DEMOLITION OF BRIDGE NO. _____	LS		\$8,000.000	1.000	\$8,000.00
120.1	UNCLASSIFIED EXCAVATION	CY		\$50.000	2250.000	\$112,500.00
121.	CLASS A ROCK EXCAVATION	CY		\$130.000	20.000	\$2,600.00
123.	MUCK EXCAVATION	CY		\$70.000	300.000	\$21,000.00
127.1	REINFORCED CONCRETE EXCAVATION	CY	*	\$1,500.000	10.000	\$15,000.00
140.	BRIDGE EXCAVATION	CY		\$50.000	25.000	\$1,250.00

Include the Bridge Number

How is the excavation accounted for for the 2 culverts?

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141.1	TEST PIT FOR EXPLORATION	CY		\$110.000	80.000	\$8,800.00
146.	DRAINAGE STRUCTURE REMOVED	EA		\$750.000	1.000	\$750.00
150.	ORDINARY BORROW	CY		\$35.000	500.000	\$17,500.00
150.1	SPECIAL BORROW	CY		\$45.000	500.000	\$22,500.00
151.	GRAVEL BORROW	CY		\$55.000	2250.000	\$123,750.00
151.2	GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES	CY		\$50.000	10.000	\$500.00
170.	FINE GRADING AND COMPACTING - SUBGRADE AREA	SY		\$7.000	10000.000	\$70,000.00
180.01	ENVIRONMENTAL HEALTH AND SAFETY PROGRAM	LS	*	\$6,000.000	1.000	\$6,000.00
180.02	PERSONAL PROTECTION LEVEL C UPGRADE	HR	*	\$11.000	200.000	\$2,200.00
180.03	LICENSED SITE PROFESSIONAL SERVICES	HR	*	\$140.000	200.000	\$28,000.00
181.11	DISPOSAL OF UNREGULATED SOIL	TON	*	\$55.000	100.000	\$5,500.00
181.12	DISPOSAL OF REGULATED SOIL - IN-STATE FACILITY	TON	*	\$90.000	100.000	\$9,000.00
181.13	DISPOSAL OF REGULATED SOIL - OUT-OF-STATE FACILITY	TON	*	\$140.000	50.000	\$7,000.00
181.14	DISPOSAL OF HAZARDOUS WASTE	TON	*	\$500.000	50.000	\$25,000.00
201.	CATCH BASIN	EA		\$4,500.000	2.000	\$9,000.00
220.	DRAINAGE STRUCTURE ADJUSTED	EA		\$500.000	12.000	\$6,000.00
220.5	DRAINAGE STRUCTURE REMODELED	EA		\$1,000.000	1.000	\$1,000.00

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220.7	SANITARY STRUCTURE ADJUSTED	EA		\$500.000	3.000	\$1,500.00
222.1	FRAME AND GRATE - MASSDOT CASCADE TYPE	EA		\$975.000	1.000	\$975.00
223.1	FRAME AND GRATE (OR COVER) REMOVED AND STACKED	EA	*	\$100.000	2.000	\$200.00
252.112	12 INCH CORRUGATED PLASTIC PIPE FLARED END	EA		\$1,000.000	1.000	\$1,000.00
252.12	12 INCH CORRUGATED PLASTIC PIPE	FT		\$95.000	20.000	\$1,900.00
258.	STONE FOR PIPE ENDS	SY		\$80.000	15.000	\$1,200.00
269.06	6 INCH SLOT-PERFORATED CORRUGATED PLASTIC PIPE (SUBDRAIN)	FT		\$80.000	190.000	\$15,200.00
358.	GATE BOX ADJUSTED	EA		\$275.000	6.000	\$1,650.00
415.3	PAVEMENT MICRO MILLING	SY		\$9.500	1300.000	\$12,350.00
431.1	HIGH EARLY STRENGTH CEMENT CONCRETE BASE COURSE	CY	*	\$245.000	10.000	\$2,450.00
440.	CALCIUM CHLORIDE FOR ROADWAY DUST CONTROL	LB		\$0.450	18000.000	\$8,100.00
443.	WATER FOR ROADWAY DUST CONTROL	MGL		\$58.000	70.000	\$4,060.00
450.23	SUPERPAVE SURFACE COURSE - 12.5 (SSC - 12.5)	TON		\$120.000	900.000	\$108,000.00
450.32	SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC - 19.0)	TON		\$120.000	1300.000	\$156,000.00
450.42	SUPERPAVE BASE COURSE - 37.5 (SBC - 37.5)	TON		\$120.000	220.000	\$26,400.00

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452.	ASPHALT EMULSION FOR TACK COAT	GAL		\$10.000	1100.000	\$11,000.00
453.	HMA JOINT SEALANT	FT		\$1.450	2000.000	\$2,900.00
470.	HOT MIX ASPHALT BERM	TON		\$250.000	10.000	\$2,500.00
472.	TEMPORARY ASPHALT PATCHING	TON		\$250.000	40.000	\$10,000.00
501.	GRANITE CURB TYPE VA1 - STRAIGHT	FT		\$60.000	50.000	\$3,000.00
504.	GRANITE CURB TYPE VA4 - STRAIGHT	FT		\$50.000	1500.000	\$75,000.00
504.1	GRANITE CURB TYPE VA4 - CURVED	FT		\$57.000	200.000	\$11,400.00
509.	GRANITE TRANSITION CURB FOR PEDESTRIAN CURB RAMPS - STRAIGHT	FT		\$55.000	200.000	\$11,000.00
580.	CURB REMOVED AND RESET	FT		\$40.000	50.000	\$2,000.00
590.	CURB REMOVED AND STACKED	FT	*	\$15.000	1500.000	\$22,500.00
655.001	TIMBER FENCE	FT	*	\$55.000	1850.000	\$101,750.00
656.	HELICAL PILES	FT	*	\$105.000	7155.000	\$751,275.00
697.1	SILT SACK	EA	*	\$155.000	17.000	\$2,635.00
698.5	PERMEABLE PAVING UNIT	SY	*	\$200.000	90.000	\$18,000.00
701.	CEMENT CONCRETE SIDEWALK	SY		\$80.000	500.000	\$40,000.00
701.2	CEMENT CONCRETE PEDESTRIAN CURB RAMP	SY		\$110.000	100.000	\$11,000.00
707.1	PARK BENCH	EA	*	\$1,750.000	8.000	\$14,000.00
707.11	TRAILHEAD GRANITE BLOCKS	EA	*	\$2,000.000	12.000	\$24,000.00
707.12	BOULDERS	EA	*	\$500.000	30.000	\$15,000.00
707.2	TRASH RECEPTACLE	EA	*	\$1,250.000	4.000	\$5,000.00

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Item #	Description	Units	Type	Unit Price	NFA - Site Specific	Total
707.21	DOG WASTE STATION	EA	*	\$800.000	4.000	\$3,200.00
707.9	BICYCLE RACK	EA	*	\$1,000.000	8.000	\$8,000.00
708.1	TRAILHEAD KIOSK	LS	*	\$5,000.000	1.000	\$5,000.00
711.	BOUND REMOVED AND RESET	EA		\$550.000	4.000	\$2,200.00
715.	RURAL MAIL BOX REMOVED AND RESET	EA		\$275.000	4.000	\$1,100.00
740.	ENGINEERS FIELD OFFICE AND EQUIPMENT (TYPE A)	MO	*	\$3,800.000	22.000	\$83,600.00
748.	MOBILIZATION	LS		\$225,000.00	1.000	\$225,000.00
751.	LOAM BORROW	CY		\$65.000	1700.000	\$110,500.00
755.44	INLAND WETLAND REPLICATION AREA	SY	*	\$60.000	2400.000	\$144,000.00
755.45	WETLAND RESTORATION	SY	*	\$55.000	600.000	\$33,000.00
756.	NPDES STORMWATER POLLUTION PREVENTION PLAN	LS	*	\$4,000.000	1.000	\$4,000.00
765.	SEEDING	SY		\$1.990	15000.000	\$29,850.00
765.421	SEEDING - MID-HEIGHT UPLAND MIX	SY	*	\$4.000	1000.000	\$4,000.00
767.121	SEDIMENT CONTROL BARRIER	FT	*	\$7.000	6000.000	\$42,000.00
774.642	SPRUCE - WHITE 7-8 FEET	EA		\$600.000	8.000	\$4,800.00
776.538	MAPLE - RED - 'OCTOBER GLORY' 8-10 FEET	EA		\$850.000	21.000	\$17,850.00
778.161	BIRCH - RIVER 'HERITAGE' 8-10 FOOT CLUMP	EA		\$650.000	17.000	\$11,050.00
786.475	JUNIPER - 'SEA GREEN' 2.5-3 FEET	EA		\$85.000	165.000	\$14,025.00

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Item #	Description	Units	Type	Unit Price	NFA - Site Specific	Total
804.3	3 INCH ELECTRICAL CONDUIT TYPE NM - PLASTIC - (UL)	FT		\$45.000	150.000	\$6,750.00
811.31	PULL BOX 12 X 12 INCHES - SD2.031	EA		\$1,050.000	5.000	\$5,250.00
815.	TRAFFIC CONTROL SIGNAL	LS		\$120,000.00	1.000	\$120,000.00
832.	WARNING- REGULATORY AND ROUTE MARKER - ALUMINUM PANEL (TYPE A)	SF		\$14.000	250.000	\$3,500.00
847.1	SIGN SUP (N/GUIDE)+RTE MKR W/1 BRKWAY POST ASSEMBLY - STEEL	EA		\$150.000	50.000	\$7,500.00
852.	SAFETY SIGNING FOR TRAFFIC MANAGEMENT	SF		\$22.000	400.000	\$8,800.00
852.11	TEMPORARY PEDESTRIAN BARRICADE	FT	*	\$20.000	100.000	\$2,000.00
852.12	TEMPORARY PEDESTRIAN CURB RAMP	EA	*	\$100.000	4.000	\$400.00
853.1	PORTABLE BREAKAWAY BARRICADE TYPE III	EA		\$145.000	4.000	\$580.00
856.	ARROW BOARD	DAY		\$15.000	90.000	\$1,350.00
856.12	PORTABLE CHANGEABLE MESSAGE SIGN	DAY		\$30.000	90.000	\$2,700.00
859.	REFLECTORIZED DRUM	DAY		\$0.400	16500.000	\$6,600.00
864.04	PAVEMENT ARROWS AND LEGENDS REFLECTORIZED WHITE (THERMOPLASTIC)	SF		\$10.000	300.000	\$3,000.00
866.106	6 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)	FT		\$1.150	700.000	\$805.00

Consider including items for temporary pavement markings for when the Bay St area is resurfaced.

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866.112	12 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)	FT		\$4.000	800.000	\$3,200.00
867.106	6 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC)	FT		\$1.150	3000.000	\$3,450.00
874.	STREET NAME SIGN	EA		\$130.000	6.000	\$780.00
903.	3000 PSI, 1.5 INCH, 470 CEMENT CONCRETE	CY		\$365.000	20.000	\$7,300.00
912.	DRILLING AND GROUTING DOWELS	EA	*	\$85.000	64.000	\$5,440.00
991.1	CONTROL OF WATER - STRUCTURE NO.	LS	*	\$60,000.00 0	1.000	\$60,000.00
995.01	BRIDGE STRUCTURE, BRIDGE NO.	LS		\$97,000.00 0	1.000	\$97,000.00
995.011	CULVERT STRUCTURE, CULVERT NO.	LS	*	\$350,000.0 00	1.000	\$350,000.00
995.02	BRIDGE STRUCTURE, BRIDGE NO.	LS		\$2,061,000 .000	1.000	\$2,061,000.00
995.021	CULVERT STRUCTURE, CULVERT NO.	LS	*	\$350,000.0 00	1.000	\$350,000.00
Total Amount					\$6,097,575.00	\$6,097,575.00

I don't recall seeing any street name signs on the plans. Be sure to label proposed locations.

Include the bridge numbers and/or bridge numbers when they become available.