

**Engineer's Estimate of Probable Construction Costs**  
**For**  
**Waterbury Active Transportation & Economic Resurgence Project**  
**Waterbury, Connecticut**

4/25/2014

**ENGINEER'S ESTIMATE OF PROBABLE CONSTRUCTION COSTS**  
**for**  
**WATERBURY ACTIVE TRANSPORTATION & ECONOMIC RESURGENCE PROJECT**  
**WATERBURY, CONNECTICUT**

4/25/2014

Component	DESCRIPTION	Sub-Component Construction Cost	Preliminary Construction Cost
<b>1</b>	<b>Naugatuck River Greenway Trail</b>		<b>\$ 8,600,000.00</b>
	Path and Appurtenances	\$ 6,300,000.00	
	Landscaping	\$ 650,000.00	
	Drainage Improvements	\$ 150,000.00	
	Utility Relocations	\$ 100,000.00	
	Site Remediation & Restoration	\$ 1,150,000.00	
	Pedestrian Bridge over the Mad River	\$ 250,000.00	
<b>2</b>	<b>Freight Street Reconstruction</b>		<b>\$ 5,000,000.00</b>
	Roadway Construction	\$ 3,000,000.00	
	Sidewalk	\$ 300,000.00	
	Utility Improvements	\$ 1,400,000.00	
	Traffic Signals	\$ 300,000.00	
<b>3A &amp; 3B</b>	<b>Jackson Street</b>		<b>\$ 5,300,000.00</b>
	Roadway Construction	\$ 3,400,000.00	
	Sidewalk	\$ 200,000.00	
	Utility Improvements	\$ 1,300,000.00	
	Drainage Improvements	\$ 400,000.00	
<b>4</b>	<b>Library Park Connector</b>		<b>\$ 2,600,000.00</b>
	Pedestrian Bridge over Meadow Street	\$ 2,250,000.00	
	Site Improvements	\$ 350,000.00	
<b>5</b>	<b>Meadow Street Improvements</b>		<b>\$ 1,500,000.00</b>
	Roadway and Sidewalk Improvements	1,500,000.00	
	<b>Total</b>	<b>\$ 23,000,000.00</b>	<b>\$ 23,000,000.00</b>

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COMPONENT 1: NAUGATUCK RIVER GREENWAY TRAIL

DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	EXTENDED COST
UNCLASSIFIED EXCAVATION	CY	\$ 25.00	10,150	\$ 253,750.00
REMOVAL OF TREES	EA	\$ 500.00	35	\$ 17,500.00
REMOVE CABLE GUIDE RAIL	LF	\$ 4.00	650	\$ 2,600.00
REMOVE CHAIN LINK FENCE	LF	\$ 4.00	3,275	\$ 13,100.00
REMOVAL OF PAVEMENT MARKINGS	LF	\$ 1.00	8,525	\$ 8,525.00
CUT BITUMINOUS CONCRETE PAVEMENT (ASPHALT)	LF	\$ 2.00	5,375	\$ 10,750.00
GRANULAR FILL	CY	\$ 34.00	825	\$ 28,050.00
BORROW	CY	\$ 22.00	30,225	\$ 664,950.00
2" CRUSHED STONE	CY	\$ 40.00	475	\$ 19,000.00
PROCESSED AGGREGATE SUBBASE	CY	\$ 35.00	5,900	\$ 206,500.00
TYPE "C" CATCH BASIN	EA	\$ 3,000.00	2	\$ 6,000.00
MANHOLE - 5' DIAMETER	EA	\$ 3,500.00	1	\$ 3,500.00
18" RCP CLASS V	LF	\$ 65.00	50	\$ 3,250.00
CONNECT TO EXISTING DRAINAGE SYSTEM	EA	\$ 1,000.00	3	\$ 3,000.00
NYLOPLAST YARD INLET	EA	\$ 3,000.00	6	\$ 18,000.00
NYLOPLAST 8" DOME INLET	EA	\$ 1,000.00	6	\$ 6,000.00
FILTER FABRIC (GEOTEXTILE) FOR DRAINAGE	SY	\$ 1.00	2,675	\$ 2,675.00
8" HDPE	LF	\$ 20.00	1,450	\$ 29,000.00
6" X 18" GRANITE STONE CURBING	LF	\$ 38.00	950	\$ 36,100.00
CONCRETE CURB	LF	\$ 24.00	9,500	\$ 228,000.00
CONCRETE SIDEWALK	SF	\$ 10.00	9,450	\$ 94,500.00
MATERIAL FOR TACK COAT	GAL	\$ 2.00	1,125	\$ 2,250.00
HMA S1	TON	\$ 95.00	675	\$ 64,125.00
HMA S0.375	TON	\$ 100.00	2,100	\$ 210,000.00
HMA S0.25	TON	\$ 90.00	1,850	\$ 166,500.00
PAINTED PAVEMENT MARKINGS WHITE	LF	\$ 1.00	5,900	\$ 5,900.00
PAINTED PAVEMENT MARKINGS YELLOW	LF	\$ 1.00	4,600	\$ 4,600.00
THERMOPLASTIC PAVEMENT LINE - 12" WHITE	LF	\$ 2.00	132	\$ 264.00
THERMOPLASTIC LEGENDS, ARROWS, & MARKINGS	SF	\$ 3.00	441	\$ 1,323.00
TIMBER BEAM RAIL	LF	\$ 40.00	2,925	\$ 117,000.00
PEDESTRIAN FENCE TYPE 1	LF	\$ 100.00	4,025	\$ 402,500.00
PEDESTRIAN FENCE TYPE 2	LF	\$ 150.00	2,550	\$ 382,500.00
PEDESTRIAN FENCE TYPE 3	LF	\$ 125.00	1,450	\$ 181,250.00
PEDESTRIAN FENCE TYPE 4	LF	\$ 50.00	375	\$ 18,750.00
FURNISHING AND PLACING TOPSOIL	SY	\$ 5.00	69,000	\$ 345,000.00
TURF ESTABLISHMENT	SY	\$ 1.50	46,300	\$ 69,450.00
LANDSCAPING & PLANTINGS	UNIT	\$ 50,000.00	13.00	\$ 650,000.00
MODULAR BLOCK RETAINING WALL	SF	\$ 60.00	7,600	\$ 456,000.00
DEMOLITION - STRUCTURAL	UNIT	\$ 50,000.00	4	\$ 200,000.00
PEDESTRIAN BRIDGE OVER MAD RIVER	UNIT	\$ 250,000.00	1	\$ 250,000.00
MISCELLANEOUS ANEMITY ENHANCEMENTS	UNIT	\$ 50,000.00	10	\$ 500,000.00
MISCELLANEOUS UTILITY & POLE RELOCATIONS	UNIT	\$ 50,000.00	2.00	\$ 100,000.00
SIGNAL MODIFICATIONS	EA	\$ 60,000.00	2	\$ 120,000.00
SOIL REMEDIATION	UNIT	\$ 50,000.00	1.50	\$ 75,000.00
OFFICE TRAILER - LARGE	MO	\$ 3,000.00	9	\$ 27,000.00

SUBTOTAL **\$6,004,162.00**

CLEARING & GRUBBING (AS % OF CONTRACT ITEMS) 3% \$180,124.86

M.P.T. (AS % OF CONTRACT ITEMS) 4% \$240,166.48

CONSTRUCTION STAKING (AS % OF CONTRACT ITEMS) 1% \$60,041.62

MOBILIZATION (AS % OF CONTRACT ITEMS) 7% \$420,291.34

MINOR ITEM ALLOWANCE (AS % OF CONTRACT ITEMS) 10% \$600,416.20

**BASETOTAL \$7,505,202.50**

CONTINGENCY (15%) \$1,125,780.38

**TOTAL ENGINEER'S ESTIMATE OF PROBABLE CONSTRUCTION COSTS \$8,630,982.88**

ENGINEER'S ESTIMATE OF PROBABLE CONSTRUCTION COSTS  
for  
WATERBURY ACTIVE TRANSPORTATION & ECONOMIC RESURGENCE PROJECT  
WATERBURY, CONNECTICUT

4/25/2014

COMPONENT 2: FREIGHT STREET RECONSTRUCTION

DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	EXTENDED COST
UNCLASSIFIED EXCAVATION	CY	\$ 25.00	7,400	\$ 185,000.00
TRENCH & CULVERT (0'-10')	CY	\$ 10.00	3,275	\$ 32,750.00
TRENCH & CULVERT (10'-15')	CY	\$ 15.00	3,625	\$ 54,375.00
REMOVAL OF TREES	EA	\$ 500.00	33	\$ 16,500.00
CUT BITUMINOUS CONCRETE PAVEMENT (ASPHALT)	LF	\$ 2.00	275	\$ 550.00
GRANULAR FILL	CY	\$ 34.00	1,500	\$ 51,000.00
2" CRUSHED STONE	CY	\$ 40.00	800	\$ 32,000.00
PROCESSED AGGREGATE SUBBASE	CY	\$ 35.00	2,900	\$ 101,500.00
TYPE "C" CATCH BASIN	EA	\$ 3,000.00	14	\$ 42,000.00
MANHOLE - 5' DIAMETER	EA	\$ 3,500.00	1	\$ 3,500.00
15" RCP CLASS V	LF	\$ 55.00	225	\$ 12,375.00
18" RCP CLASS V	LF	\$ 65.00	1,125	\$ 73,125.00
24" RCP CLASS V	LF	\$ 75.00	450	\$ 33,750.00
CONNECT TO EXISTING DRAINAGE SYSTEM	EA	\$ 1,000.00	3	\$ 3,000.00
MANHOLE (SANITARY SEWER)	EA	\$ 3,500.00	9	\$ 31,500.00
15" P.V.C. (SANITARY SEWER)	LF	\$ 50.00	1,950	\$ 97,500.00
16" D.I.P. (WATERMAIN)	LF	\$ 120.00	1,950	\$ 234,000.00
INSTALL FIRE HYDRANT	EA	\$ 5,000.00	8	\$ 40,000.00
NYLOPLAST YARD INLET	EA	\$ 3,000.00	8	\$ 24,000.00
NYLOPLAST 8" DOME INLET	EA	\$ 1,000.00	8	\$ 8,000.00
FILTER FABRIC (GEOTEXTILE) FOR DRAINAGE	SY	\$ 1.00	4,450	\$ 4,450.00
8" HDPE	LF	\$ 20.00	1,950	\$ 39,000.00
CONCRETE CURB	LF	\$ 24.00	9,750	\$ 234,000.00
CONCRETE SIDEWALK	SF	\$ 10.00	27,300	\$ 273,000.00
CONCRETE DRIVEWAY APRON	SF	\$ 14.00	4,775	\$ 66,850.00
COLD MILLING REMOVAL OF BITUMINOUS CONCRETE	SY	\$ 7.50	1,075	\$ 8,062.50
MATERIAL FOR TACK COAT	GAL	\$ 2.00	550	\$ 1,100.00
HMA S1	TON	\$ 95.00	2,775	\$ 263,625.00
HMA S0.375	TON	\$ 100.00	2,050	\$ 205,000.00
HMA S0.25	TON	\$ 90.00	350	\$ 31,500.00
PAINTED PAVEMENT MARKINGS WHITE	LF	\$ 1.00	4,500	\$ 4,500.00
PAINTED PAVEMENT MARKINGS YELLOW	LF	\$ 1.00	4,500	\$ 4,500.00
METAL BRIDGE RAIL (PEDESTRIAN)	LF	\$ 350.00	250	\$ 87,500.00
LIGHTING	LF	\$ 55.00	1,950	\$ 107,250.00
LIGHTING - SINGLE LIGHT	EA	\$ 9,500.00	21	\$ 199,500.00
LIGHTING - DOUBLE LIGHT	EA	\$ 11,000.00	21	\$ 231,000.00
FURNISHING AND PLACING TOPSOIL	SY	\$ 5.00	3,600	\$ 18,000.00
TURF ESTABLISHMENT	SY	\$ 1.50	2,400	\$ 3,600.00
LANDSCAPING & PLANTINGS	UNIT	\$ 50,000.00	2	\$ 100,000.00
MISCELLANEOUS ANEMITY ENHANCEMENTS	UNIT	\$ 50,000.00	2	\$ 100,000.00
MISCELLANEOUS UTILITY & POLE RELOCATIONS	UNIT	\$ 50,000.00	2.00	\$ 100,000.00
TRAFFIC SIGNAL INSTALLATIONS (GENERAL)	EA	\$ 200,000.00	1	\$ 200,000.00
SIGNAL MODIFICATIONS	EA	\$ 60,000.00	2	\$ 120,000.00
OFFICE TRAILER - LARGE	MO	\$ 3,000.00	9	\$ 27,000.00

SUBTOTAL **\$3,505,862.50**

CLEARING & GRUBBING (AS % OF CONTRACT ITEMS) 3% \$105,175.88

M.P.T. (AS % OF CONTRACT ITEMS) 4% \$140,234.50

CONSTRUCTION STAKING (AS % OF CONTRACT ITEMS) 1% \$35,058.63

MOBILIZATION (AS % OF CONTRACT ITEMS) 7% \$245,410.38

MINOR ITEM ALLOWANCE (AS % OF CONTRACT ITEMS) 10% \$350,586.25

**BASETOTAL \$4,382,328.13**

CONTINGENCY (15%) \$657,349.22

**TOTAL ENGINEER'S ESTIMATE OF PROBABLE CONSTRUCTION COSTS \$5,039,677.34**

ENGINEER'S ESTIMATE OF PROBABLE CONSTRUCTION COSTS  
for  
WATERBURY ACTIVE TRANSPORTATION & ECONOMIC RESURGENCE PROJECT  
WATERBURY, CONNECTICUT

4/25/2014

COMPONENT 3: JACKSON STREET

DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	EXTENDED COST
UNCLASSIFIED EXCAVATION	CY	\$ 25.00	8,600	\$ 215,000.00
TRENCH & CULVERT (0'-10')	CY	\$ 10.00	11,500	\$ 115,000.00
REMOVAL OF TREES	EA	\$ 500.00	41	\$ 20,500.00
REMOVE CHAIN LINK FENCE	LF	\$ 4.00	2,800	\$ 11,200.00
PROCESSED AGGREGATE SUBBASE	CY	\$ 35.00	5,825	\$ 203,875.00
TYPE "C" CATCH BASIN	EA	\$ 3,000.00	33	\$ 99,000.00
MANHOLE - 5' DIAMETER	EA	\$ 3,500.00	3	\$ 10,500.00
15" RCP CLASS V	LF	\$ 55.00	450	\$ 24,750.00
18" RCP CLASS V	LF	\$ 65.00	3,750	\$ 243,750.00
MANHOLE (SANITARY SEWER)	EA	\$ 3,500.00	21	\$ 73,500.00
8" P.V.C. (SANITARY SEWER)	LF	\$ 30.00	4,550	\$ 136,500.00
8" D.I.P. (WATERMAIN)	LF	\$ 60.00	4,550	\$ 273,000.00
INSTALL FIRE HYDRANT	EA	\$ 5,000.00	21	\$ 105,000.00
CONCRETE CURB	LF	\$ 24.00	9,025	\$ 216,600.00
CONCRETE SIDEWALK	SF	\$ 10.00	15,975	\$ 159,750.00
MATERIAL FOR TACK COAT	GAL	\$ 2.00	875	\$ 1,750.00
HMA S1	TON	\$ 95.00	4,225	\$ 401,375.00
HMA S0.375	TON	\$ 100.00	2,175	\$ 217,500.00
HMA S0.25	TON	\$ 90.00	50	\$ 4,500.00
PAINTED PAVEMENT MARKINGS WHITE	LF	\$ 1.00	9,600	\$ 9,600.00
PAINTED PAVEMENT MARKINGS YELLOW	LF	\$ 1.00	8,000	\$ 8,000.00
LIGHTING	LF	\$ 55.00	3,900	\$ 214,500.00
LIGHTING - SINGLE LIGHT	EA	\$ 9,500.00	42	\$ 399,000.00
FURNISHING AND PLACING TOPSOIL	SY	\$ 5.00	3,650	\$ 18,250.00
TURF ESTABLISHMENT	SY	\$ 1.50	2,500	\$ 3,750.00
LANDSCAPING & PLANTINGS	UNIT	\$ 50,000.00	1.00	\$ 50,000.00
MISCELLANEOUS UTILITY & POLE RELOCATIONS	UNIT	\$ 50,000.00	1.00	\$ 50,000.00
TRAFFIC SIGNAL INSTALLATIONS (GENERAL)	EA	\$ 200,000.00	1	\$ 200,000.00
SOIL REMEDIATION	UNIT	\$ 50,000.00	2.50	\$ 125,000.00
OFFICE TRAILER - LARGE	MO	\$ 3,000.00	9	\$ 27,000.00

SUBTOTAL **\$3,638,150.00**

CLEARING & GRUBBING (AS % OF CONTRACT ITEMS) 3% \$109,144.50

M.P.T. (AS % OF CONTRACT ITEMS) 4% \$145,526.00

CONSTRUCTION STAKING (AS % OF CONTRACT ITEMS) 1% \$36,381.50

MOBILIZATION (AS % OF CONTRACT ITEMS) 7% \$254,670.50

MINOR ITEM ALLOWANCE (AS % OF CONTRACT ITEMS) 10% \$363,815.00

**BASETOTAL \$4,547,687.50**

CONTINGENCY (15%) \$682,153.13

**TOTAL ENGINEER'S ESTIMATE OF PROBABLE CONSTRUCTION COSTS \$5,229,840.63**

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WATERBURY, CONNECTICUT

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COMPONENT 4: LIBRARY PARK CONNECTOR

DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	TOTAL
LIBRARY PARK SITE IMPROVEMENTS	LS	\$ 50,000.00	1	\$ 50,000.00
LIBRARY PARK CONNECTOR - PEDESTRIAN BRIDGE OVER MEADOW STREET	LS	\$ 1,800,000.00	1	\$ 1,800,000.00

**SUBTOTAL \$1,850,000.00**

CLEARING & GRUBBING (AS % OF CONTRACT ITEMS) 3% \$55,500.00

M.P.T. (AS % OF CONTRACT ITEMS) 4% \$74,000.00

CONSTRUCTION STAKING (AS % OF CONTRACT ITEMS) 1% \$18,500.00

MOBILIZATION (AS % OF CONTRACT ITEMS) 7% \$129,500.00

MINOR ITEM ALLOWANCE (AS % OF CONTRACT ITEMS) 10% \$185,000.00

**BASOTAL \$2,312,500.00**

CONTINGENCY (15%) \$346,875.00

**TOTAL ENGINEER'S ESTIMATE OF PROBABLE CONSTRUCTION COSTS \$2,659,375.00**

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4/25/2014

COMPONENT 5: MEADOW STREET IMPROVEMENTS

DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	TOTAL
UNCLASSIFIED EXCAVATION	CY	\$ 25.00	1,575	\$ 39,375.00
CUT BITUMINOUS CONCRETE PAVEMENT (ASPHALT)	LF	\$ 2.00	975	\$ 1,950.00
PROCESSED AGGREGATE SUBBASE	CY	\$ 35.00	500	\$ 17,500.00
6" X 18" GRANITE STONE CURBING	LF	\$ 38.00	2,875	\$ 109,250.00
CONCRETE CURB	LF	\$ 24.00	800	\$ 19,200.00
CONCRETE SIDEWALK	SF	\$ 10.00	375	\$ 3,750.00
COLD MILLING REMOVAL OF BITUMINOUS CONCRETE	SY	\$ 7.50	7,425	\$ 55,687.50
MATERIAL FOR TACK COAT	GAL	\$ 2.00	500	\$ 1,000.00
HMA S1	TON	\$ 95.00	600	\$ 57,000.00
HMA S0.375	TON	\$ 100.00	75	\$ 7,500.00
HMA S0.25	TON	\$ 90.00	1,200	\$ 108,000.00
PAINTED PAVEMENT MARKINGS WHITE	LF	\$ 1.00	4,400	\$ 4,400.00
PAINTED PAVEMENT MARKINGS YELLOW	LF	\$ 1.00	4,200	\$ 4,200.00
FURNISHING AND PLACING TOPSOIL	SY	\$ 5.00	2,000	\$ 10,000.00
TURF ESTABLISHMENT	SY	\$ 1.50	1,400	\$ 2,100.00
LANDSCAPING & PLANTINGS	UNIT	\$ 50,000.00	3	\$ 150,000.00
TRAFFIC SIGNAL INSTALLATIONS (GENERAL)	EA	\$ 200,000.00	2	\$ 400,000.00
OFFICE TRAILER - LARGE	MO	\$ 3,000.00	9	\$ 27,000.00

SUBTOTAL **\$1,017,912.50**

CLEARING & GRUBBING (AS % OF CONTRACT ITEMS) 3% \$30,537.38

M.P.T. (AS % OF CONTRACT ITEMS) 4% \$40,716.50

CONSTRUCTION STAKING (AS % OF CONTRACT ITEMS) 1% \$10,179.13

MOBILIZATION (AS % OF CONTRACT ITEMS) 7% \$71,253.88

MINOR ITEM ALLOWANCE (AS % OF CONTRACT ITEMS) 10% \$101,791.25

**BASETOTAL \$1,272,390.63**

CONTINGENCY (15%) \$190,858.59

**TOTAL ENGINEER'S ESTIMATE OF PROBABLE CONSTRUCTION COSTS \$1,463,249.22**

