

Stormwater Management Memorandum

TO: Walnut Township Trustees
ATTN: Terry Horn
FROM: Monica Backs, PE
ms consultants, inc.
DATE: July 28, 2025
RE: **North Walnut Township – Stormwater Conveyance Project
Lakeside Phases 2-4**



The Lakeside Stormwater Conveyance Project will address flooding concerns within the Lakeside neighborhood in Walnut Township, Ohio. While adequate storm drainage is currently lacking throughout the project area, flooding in the area is exacerbated during extreme events from the backwater of South Fork Licking River (SFLR) and its tributaries. The proposed improvements will mitigate flooding in the area through the installation of storm sewers.

This memo accompanies the Stage 3 plan set deliverable for Phases 2-4 of the project and aims to provide Walnut Township with an overview of the storm sewer design and the supporting hydraulic calculations. Design includes storm sewer installation and any minor grading revisions necessary to facilitate drainage to the proposed structures. Phase 1 Design was completed by EMH&T and submitted independently to Walnut Township. The information outlined in this document is only applicable to Phases 2-4 of the proposed storm sewer improvements.



Figure 1: Overview of Project Area

Existing Conditions

The project area is in the northeastern corner of Fairfield County, Ohio on the county line with Licking County to the north. The project area is bounded by Shepard Avenue to the South, Clark Street to the west, North Bank Road to the east, and Lakeside Road to the north. The project area is flat with little topographic relief and is completely located within the South Fork Licking River 100-year and 500-year floodplains. The area has historically experienced chronic flooding that has increased in recent years due to increased extreme rainfall events and lack of a comprehensive stormwater drainage system.

Proposed Conditions – Design Parameters

The objective of the storm sewer design is to achieve a 25-year level of service, ensuring that the hydraulic grade line for the 25-year event remains below the existing grade. The proposed outlet for the storm sewer network is Lateral A, which is the lowest available gravity outfall. The storm sewer design disregards any tailwater effects from the South Fork Licking River. The primary goal is to effectively drain the area during intense local rainfall events; however, the system is not designed to counteract any backwater effects from the South Fork.

The rational method was employed to design the storm sewer system, with associated calculations included as Attachment A. The pipe size was initially designed for the 5-year event peak intensity and subsequently verified for the 25-year event. A rational method runoff coefficient or “C” value of 0.70 was utilized for the area to account for future development. The outlet to Lateral A was determined to be a 36-inch storm sewer, with the network serving a tributary area of just over 17 acres. It shall be noted that the proposed storm sewer alignments were adjusted to minimize the need for permanent easements for proposed structures.

Proposed Conditions – Easement Acquisitions

The extents of the proposed storm sewer are primarily contained to existing right-of-way, but 18 of the 32 proposed structures included in Phases 2-4 require easements from adjacent property owner(s). The primary objective was to minimize the need for takes where possible. The affected properties within the extents of Phases 2-4 at the time of the Stage 3 submission include:

Table 1: List of Required Easements

Address	Parcel Number	Easement Type	Structure Number
3194 Lakeside Road NE	0460029800	Permanent	39
13568 Clark Street NE	0460123500	Temporary	40
3240 Lakeside Road NE	0460210000	Permanent	42
13546 Hamilton Street NE	0460126600	Temporary	47
13594 Hamilton Street NE	0460127500	Temporary	48
13582 Hamilton Street NE	0460127000	Temporary	50
13583 Gearhart Street NE	0460130100	Temporary	64
13565 Gearhart Street NE	0460030100	Temporary	66

Shepard Avenue NE	0460067510	Temporary	67
3345 Shepard Avenue NE	0460067400	Permanent	67
3325 Shepard Ave NE	0460067500	Permanent	69
3280 Shepard Avenue NE	0460128500	Permanent	71
3291 Shepard Avenue NE	0460067800	Temporary	72
3273 Shepard Avenue NE	0460068000	Permanent	73
Lakeside Road NE	0460130700	Permanent	75
13591 Holtsberry Street NE	0460030000	Permanent	76
13591 Holtsberry Street NE	0460030000	Temporary	78
13591 Holtsberry Street NE	0460030000	Temporary	79
3361 Shepard Avenue NE	0460067200	Permanent	81

The total number of permanent easements at the time of Stage 3 design is nine (9). Structure 67 is proposed within an existing low spot that is located on the boundary of two parcels, with the takes being both permanent and temporary. The total number of temporary easements, 10, remains after investigating takes that could be eliminated through contractor methods such as the use of trench boxes or other means. The current encroachment extents for each proposed structure are modeled as a 10' by 10' square centered on the structure, resulting in the conservative scenario reflected in the **Table 1** above.

Opinion of Probable Construction Costs

At the time of the Stage 3 Design submission, the proposed project construction cost is approximately \$1,693,399.50. A 20% contingency has been included. An OPCC for an option that includes Mill and Overlay for roadway repairs has also been included, with a final cost of approximately \$1,819,420.50. Detailed Opinions of Probable Construction Costs are included as **Attachment B**.

Conclusion

The Lakeside Stormwater Conveyance Project aims to reduce flooding from local rainfall events within the Lakeside Neighborhood. The proposed improvements meet the project goal of providing a 25-year level of service during the free outfall condition for all roads within the project area. The total length of proposed storm sewer for the Lakeside Phases 2-4 is 3,243 feet, and 32 catch basins are proposed throughout the area to capture stormwater runoff. The storm sewer ranges in size from 12-inch to 36-inch diameter.

Attachment A

Storm Sewer Sizing Calculations

Storm Sewer Calculations

Prepared by:

MS CONSULTANTS
 2221 Schrock Road
 Columbus, Ohio 43229
 (614) 898-7100

Design Criteria:

Design Storm= 5 -yr.
 Check Storm= 25 -yr.
 Min. Velocity = 3 fps
 Manning's n = 0.012

Site: North Walnut Stormwater Conveyance Project
 Date: 07/28/25
 By: ACH

Sheet Number: 2 of 6

Str. No.	Str. Type	Str. Station	Trib Area (acres)	Sum Area (acres)	C	C * A (acres)	Sum C * A (acres)	Tc (min)	Delta Tc (min)	Rainfall I (in/hr)	Flow Q (cfs)	Length (ft)	Size (In)	Slope (ft/ft)	Vel. (fps)	Cap. (cfs)	Up Inv. Elev	Dwn Inv. Elev	TC	Grate/SideInlet
79	CB	17.00	0.35		0.7	0.25		10.00		4.69									888.09	888.09
		Side Run->	0.0	0.35		0.00	0.25		0.09		1.2	17.00	12	0.0045	3.3	2.6	885.01	884.93		
35	MH	0.00						10.09											888.36	888.36
78	CB	15.00	0.20		0.7	0.14		10.00		4.69									888.33	888.33
		Side Run->	0.0	0.20		0.00	0.14		0.08		0.7	15.00	12	0.0045	3.3	2.6	885.00	884.93		
34	MH	0.00						10.08											888.58	888.58
77	CB	15.00	0.66		0.7	0.48		10.00		4.69									888.28	888.28
		Side Run->	0.0	0.66		0.00	0.48		0.08		2.2	15.00	12	0.0045	3.3	2.6	884.53	884.46		
33	MH	0.00						10.08											889.05	889.05
76	CB	25.00	0.38		0.7	0.27		10.00		4.69									888.91	888.91
		Side Run->	0.0	0.38		0.00	0.27		0.13		1.3	25.00	12	0.0045	3.3	2.6	885.00	884.89		
33	MH	0.00						10.13											889.05	889.05
75	CB	184.00	0.67		0.7	0.48		10.00		4.69									888.81	888.81
		Side Run->	0.0	0.67		0.00	0.48		0.16		2.3	32.00	12	0.0045	3.3	2.6	885.00	884.85		
74	MH	152.00	0.00		0.7	0.00		10.16		4.67									889.24	889.24
		Side Run->	0.0	0.67		0.00	0.48		0.77		2.3	152.00	12	0.0045	3.3	2.6	884.85	884.17		
32	MH	0.00						10.93											890.11	890.11

Storm Sewer Calculations

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Site: North Walnut Stormwater Conveyance Project

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By: ACH

Sheet Number: 3 of 6

Str. No.	Str. Type	Str. Station	Trib Area (acres)	Sum Area (acres)	C	C * A (acres)	Sum C * A (acres)	Tc (min)	Delta Tc (min)	Rainfall I (in/hr)	Flow Q (cfs)	Length (ft)	Size (In)	Slope (ft/ft)	Vel. (fps)	Cap. (cfs)	Up Inv. Elev	Dwn Inv. Elev	TC	Grate/SideInlet
63	CB	752.00	0.15		0.7	0.11		10.00		4.69									889.64	889.64
		Side Run->	0.0	0.2		0.00	0.11		0.11		0.5	22.00	12	0.0045	3.3	2.6	885.99	885.89		
62	CB	730.00	0.20		0.7	0.14		10.11		4.67									889.44	889.44
		Side Run->	0.0	0.4		0.00	0.25		0.49		1.1	97.00	12	0.0045	3.3	2.6	885.89	885.45		
61	MH	633.00	0.0		0.7	0.00		10.60		4.59									889.11	889.11
		Side Run->	0.33	0.7	0.7	0.23	0.48		0.35		2.2	70.00	12	0.0045	3.3	2.6	885.45	885.14		
60	MH	563.00	0.0		0.7	0.00		10.96		4.54									889.55	889.55
		Side Run->	0.28	1.0	0.7	0.20	0.67		0.72		3.0	139.00	18	0.0025	3.2	5.7	884.64	884.29		
59	MH	424.00	0.0		0.7	0.00		11.67		4.42									889.24	889.24
		Side Run->	0.46	1.4	0.7	0.32	0.99		0.26		4.4	51.00	18	0.0025	3.2	5.7	884.29	884.16		
58	MH	373.00	0.0		0.7	0.00		11.94		4.37									888.99	888.99
		Side Run->	0.20	1.6	0.7	0.14	1.13		0.29		5.0	57.00	18	0.0025	3.2	5.7	884.16	884.02		
57	MH	316.00	0.0		0.7	0.00		12.23		4.32									889.02	889.02
		Side Run->	0.47	2.1	0.7	0.33	1.46		0.14		6.3	33.00	18	0.0035	3.8	6.7	884.02	883.90		
56	MH	283.00	0.0		0.7	0.00		12.38		4.30									889.11	889.11
		Side Run->	0.55	2.6	0.7	0.39	1.85		0.23		7.9	64.00	18	0.0050	4.6	8.1	883.90	883.58		
55	MH	219.00	0.0		0.7	0.00		12.61		4.25									889.78	889.78
		Side Run->	0.25	2.9	0.7	0.18	2.02		0.73		8.6	219.00	18	0.0060	5.0	8.8	883.58	882.27		
31	MH	0.00						13.34											888.74	888.74
73	CB	7.00	0.33		0.7	0.23		10.00		4.69									888.53	888.53
		Side Run->	0.0	0.3		0.00	0.23		0.04		1.1	7.00	12	0.0045	3.3	2.6	885.50	885.47		
61	MH	0.00						10.04											889.11	889.11
72	CB	7.00	0.10		0.7	0.07		10.00		4.69									889.65	889.65
		Side Run->	0.0	0.1		0.00	0.07		0.04		0.3	7.00	12	0.0045	3.3	2.6	886.00	885.97		
60	MH	0.00						10.04											889.55	889.55
71	CB	57.00	0.09		0.7	0.06		10.00		4.69									889.04	889.04
		Side Run->	0.0	0.1		0.00	0.06		0.15		0.3	29.00	12	0.0045	3.3	2.6	886.08	885.95		
70	CB	28.00	0.09		0.7	0.06		10.15		4.67									889.28	889.28
		Side Run->	0.0	0.2		0.00	0.13		0.14		0.6	28.00	12	0.0045	3.3	2.6	885.95	885.82		
60	MH	0.00						10.29											889.55	889.55

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Sheet Number: 5 of 6

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52	CB	20.00	0.67		0.7	0.47		10.00		4.69									888.29	888.29
		Side Run->	0.0	0.7		0.00	0.47		0.10		2.2	20.00	12	0.0045	3.3	2.6	884.50	884.41		
30	MH	0.00						10.10											888.30	888.30
51	CB	21.00	0.93		0.7	0.65		10.00		4.69									886.22	886.22
		Side Run->	0.0	0.9		0.00	0.65		0.09		3.1	21.00	12	0.0065	4.0	3.1	883.05	882.91		
29	MH	0.00						10.09											887.64	887.64
47	CB	315.00	0.11		0.7	0.08		10.00		4.69									889.59	889.59
		Side Run->	0.0	0.1		0.00	0.08		0.10		0.4	19.00	12	0.0045	3.3	2.6	885.00	884.91		
46	MH	296.00	0.0		0.7	0.00		10.10		4.69									889.43	889.43
		Side Run->	0.0	0.1		0.00	0.08		0.62		0.4	122.00	12	0.0045	3.3	2.6	884.91	884.36		
45	MH	174.00	0.0		0.7	0.00		10.71		4.57									889.19	889.19
		Side Run->	0.20	0.3		0.14	0.22		0.43		1.0	85.00	12	0.0045	3.3	2.6	884.36	883.98		
44	MH	89.00	0.0		0.7	0.00		11.14		4.50									888.63	888.63
		Side Run->	0.14	0.5		0.10	0.32		0.32		1.4	63.00	12	0.0045	3.3	2.6	883.34	883.06		
43	MH	26.00	0.0		0.7	0.00		11.46		4.45									887.19	887.19
		Side Run->	0.25	0.7		0.18	0.49		0.13		2.2	26.00	12	0.0045	3.3	2.6	883.06	882.94		
28	MH	0.00						11.59											886.81	886.81
50	CB	17.00	0.20		0.7	0.14		10.00		4.69									888.61	888.61
		Side Run->	0.0	0.2		0.00	0.14		0.09		0.7	17.00	12	0.0045	3.3	2.6	885.39	885.31		
45	MH	0.00						10.09											889.19	889.19
49	CB	8.00	0.14		0.7	0.10		10.00		4.69									888.57	888.57
		Side Run->	0.0	0.1		0.00	0.10		0.04		0.5	8.00	12	0.0045	3.3	2.6	885.25	885.21		
44	MH	0.00						10.04											888.63	888.63
48	CB	15.00	0.25		0.7	0.18		10.00		4.69									887.40	887.40
		Side Run->	0.0	0.3		0.00	0.18		0.08		0.8	15.00	12	0.0045	3.3	2.6	884.38	884.31		
43	MH	0.00						10.08											887.19	887.19

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42	CB	22.00	0.13		0.7	0.09		10.00		4.69											
		Side Run->	0.0	0.1		0.00	0.09		0.11		0.4	22.00	12	0.0045	3.3	2.6	881.00	880.90	885.12	885.12	
28	MH	0.00						10.11												886.81	886.81
41	CB	30.00	0.56		0.7	0.39		10.00		4.69											
		Side Run->	0.0	0.6		0.00	0.39		0.15		1.8	30.00	12	0.0045	3.3	2.6	881.51	881.37	884.64	884.64	
27	MH	0.00						10.15												885.48	885.48
40	CB	26.00	0.50		0.7	0.35		10.00		4.69											
		Side Run->	0.0	0.5		0.00	0.35		0.13		1.6	26.00	12	0.0045	3.3	2.6	881.50	881.38	884.78	884.78	
27	MH	0.00						10.13												885.48	885.48
39	CB	18.00	0.36		0.7	0.25		10.00		4.69											
		Side Run->	0.0	0.4		0.00	0.25		0.09		1.2	18.00	12	0.0045	3.3	2.6	882.00	881.92	885.15	885.15	
27	MH	0.00						10.09												885.48	885.48

Attachment B

Opinion of Probable Construction Costs

Opinion of Probable Construction Cost - Stage 3

**Project: Walnut Township - Lakeside Stormwater Coveyance (Phases 2-4)
Stage 3 Submittal**



Date: 7/25/25

ITEM NO.	ITEM DESCRIPTION	EST. QNTY.	UNIT of MEAS.	UNIT PRICE	ITEM PRICE
201	CLEARING & GRUBBING	1.00	LS	\$ 35,000.00	\$ 35,000.00
202	PAVEMENT REMOVED	1,314.00	SY	\$ 20.00	\$ 26,280.00
202	CATCH BASIN OR INLET REMOVED	4.00	EA	\$ 400.00	\$ 1,600.00
304	AGGREGATE BASE (T=8")	293.00	CY	\$ 160.00	\$ 46,880.00
407	NON-TRACKING TACK COAT (0.06 GAL/SY)	158.00	GAL	\$ 6.00	\$ 948.00
409	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS - JOINT SEAL	5,831.00	LF	\$ 0.50	\$ 2,915.50
441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22 (T=1.5")	56.00	CY	\$ 390.00	\$ 21,840.00
441	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449), PG64-22 (T=1.5")	56.00	CY	\$ 340.00	\$ 19,040.00
611	MANHOLES, NO. 3, 48" BASE ID	20.00	EA	\$ 6,500.00	\$ 130,000.00
611	MANHOLES NO. 3, 60" BASE ID	3.00	EA	\$ 8,000.00	\$ 24,000.00
611	CATCH BASINS, NO 2-2B	32.00	EA	\$ 4,000.00	\$ 128,000.00
611	12" CONDUIT, TYPE B	1,355.00	LF	\$ 150.00	\$ 203,250.00
611	18" CONDUIT, TYPE B	630.00	LF	\$ 220.00	\$ 138,600.00
611	24" CONDUIT, TYPE B	316.00	LF	\$ 250.00	\$ 79,000.00
611	30" CONDUIT, TYPE B	421.00	LF	\$ 300.00	\$ 126,300.00
611	36" CONDUIT, TYPE B	521.00	LF	\$ 350.00	\$ 182,350.00
614	MAINTENANCE OF TRAFFIC	1.00	LS	\$ 40,000.00	\$ 40,000.00
616	DUST CONTROL - WATER	2.00	MGAL	\$ 10.00	\$ 20.00
616	CALCIUM CHLORIDE	0.20	TON	\$ 735.00	\$ 147.00
653	TOPSOIL FURNISHED AND PLACED	47.00	CY	\$ 30.00	\$ 1,410.00
659	SEEDING AND MULCHING	411.00	SY	\$ 5.00	\$ 2,055.00
659	REPAIR SEEDING AND MULCHING	42.00	SY	\$ 5.00	\$ 210.00
659	SOIL ANALYSIS TEST	1.00	EA	\$ 150.00	\$ 150.00
659	COMMERCIAL FERTILIZER	0.10	TON	\$ 1,000.00	\$ 100.00
659	LIME	0.50	TON	\$ 1,500.00	\$ 750.00
659	WATER	6.00	MGAL	\$ 10.00	\$ 60.00
690	SPECIAL - MAILBOX REMOVED AND RESET	4.00	EA	\$ 275.00	\$ 1,100.00
832	STORMWATER POLLUTION PREVENTION PLAN	32.00	EA	\$ 130.00	\$ 4,160.00
SPEC	ESTIMATED WATERLINE LOWERINGS	8.00	EA	\$ 15,000.00	\$ 120,000.00
SPEC	ESTIMATED WATER SERVICES LOWERINGS	30.00	EA	\$ 2,500.00	\$ 75,000.00
	Subtotal				\$ 1,411,165.50
	Contingency (20%)				\$ 282,234.00
	Total				\$ 1,693,399.50

Note- The opinion of probable construction cost do not include costs for right-of-way or easement acquisition, private utility relocation/permit costs including gas, electric and telecommunications, traffic signals and signal interconnect, environmental remediation, rock excavation, unsuitable material and soil stabilization, waterline relocation and demolition of existing buildings. Costs should be adjusted for work performed beyond this time.

This Estimate of Probable Project Costs is based on available information and the Engineer's experience and qualifications and represents the Engineer's best judgement as an experienced and qualified professional engineer. Since the Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, or over competitive bidding or market conditions, the Engineer can not and does not guarantee that the actual total project cost will not exceed the above Estimate of Probable Project Costs.

Opinion of Probable Construction Cost - Stage 3

Project: Walnut Township - Lakeside Stormwater Coveyance (Phases 2-4)
Stage 3 Submittal
Mill and Overlay Alternative Pricing



Date: 7/25/25

ITEM NO.	ITEM DESCRIPTION	EST. QNTY.	UNIT of MEAS.	UNIT PRICE	ITEM PRICE
201	CLEARING & GRUBBING	1.00	LS	\$ 35,000.00	\$ 35,000.00
202	PAVEMENT REMOVED	1,314.00	SY	\$ 20.00	\$ 26,280.00
202	CATCH BASIN OR INLET REMOVED	4.00	EA	\$ 400.00	\$ 1,600.00
254	PAVEMENT PLANING, ASPHALT CONCRETE, 1.25"	5,241.00	SY	\$ 6.00	\$ 31,446.00
304	AGGREGATE BASE (T=8")	293.00	CY	\$ 160.00	\$ 46,880.00
407	NON-TRACKING TACK COAT (0.10 GAL/SY)	525.00	GAL	\$ 6.00	\$ 3,150.00
409	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS - JOINT SEAL	5,831.00	LF	\$ 0.50	\$ 2,915.50
441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22 (T=1.25")	183.00	CY	\$ 390.00	\$ 71,370.00
441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22 (T=1.50")	56.00	CY	\$ 390.00	\$ 21,840.00
441	ASPHALT CONCRETE SURFACE COURSE, TYPE 2, (449), PG64-22 (T=1.50")	56.00	CY	\$ 340.00	\$ 19,040.00
611	MANHOLE NO. 3, 48" BASE ID	20.00	EA	\$ 6,500.00	\$ 130,000.00
611	MANHOLE NO. 3, 60" BASE ID	3.00	EA	\$ 8,000.00	\$ 24,000.00
611	CATCH BASIN NO 2-2B	32.00	EA	\$ 4,000.00	\$ 128,000.00
611	12" CONDUIT, TYPE B	1,355.00	LF	\$ 150.00	\$ 203,250.00
611	18" CONDUIT, TYPE B	630.00	LF	\$ 220.00	\$ 138,600.00
611	24" CONDUIT, TYPE B	316.00	LF	\$ 250.00	\$ 79,000.00
611	30" CONDUIT, TYPE B	421.00	LF	\$ 300.00	\$ 126,300.00
611	36" CONDUIT, TYPE B	521.00	LF	\$ 350.00	\$ 182,350.00
614	MAINTENANCE OF TRAFFIC	1.00	LS	\$ 40,000.00	\$ 40,000.00
616	DUST CONTROL - WATER	2.00	MGAL	\$ 10.00	\$ 20.00
616	CALCIUM CHLORIDE	0.20	TON	\$ 735.00	\$ 147.00
653	TOPSOIL FURNISHED AND PLACED	47.00	CY	\$ 30.00	\$ 1,410.00
659	SEEDING AND MULCHING	411.00	SY	\$ 5.00	\$ 2,055.00
659	REPAIR SEEDING AND MULCHING	42.00	SY	\$ 5.00	\$ 210.00
659	SOIL ANALYSIS TEST	1.00	EA	\$ 150.00	\$ 150.00
659	COMMERCIAL FERTILIZER	0.10	TON	\$ 1,000.00	\$ 100.00
659	AGRICULTURAL LIME	0.50	TON	\$ 1,500.00	\$ 750.00
659	WATER	6.00	MGAL	\$ 10.00	\$ 60.00
690	SPECIAL - MAILBOX REMOVED AND RESET	4.00	EA	\$ 275.00	\$ 1,100.00
832	STORMWATER POLLUTION PREVENTION PLAN - INLET PROTECTION	32.00	EA	\$ 130.00	\$ 4,160.00
SPEC	ESTIMATED WATERLINE LOWERINGS	8.00	EA	\$ 15,000.00	\$ 120,000.00
SPEC	ESTIMATED WATER SERVICE LOWERINGS	30.00	EA	\$ 2,500.00	\$ 75,000.00
	Subtotal				\$ 1,516,183.50
	Contingency (20%)				\$ 303,237.00
	Total				\$ 1,819,420.50

Note- The opinion of probable construction cost do not include costs for right-of-way or easement acquisition, private utility relocation/permit costs including gas, electric and telecommunications, traffic signals and signal interconnect, environmental remediation, rock excavation, unsuitable material and soil stabilization, waterline relocation and demolition of existing buildings. Costs should be adjusted for work performed beyond this time.

This Estimate of Probable Project Costs is based on available information and the Engineer's experience and qualifications and represents the Engineer's best judgement as an experienced and qualified professional engineer. Since the Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, or over competitive bidding or market conditions, the Engineer can not and does not guarantee that the actual total project cost will not exceed the above Estimate of Probable Project Costs.