

# CERTIFICATION

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## **FEASIBILITY REPORT** **VILLAGE EAST SANITARY SEWER IMPROVEMENTS: TRUNK HIGHWAY 5** **TO UNION PACIFIC RAILROAD**

**THE CITY OF LAKE ELMO, MINNESOTA**

**JUNE 2014**

***AMENDED JULY 21, 2014***

**Lake Elmo Project No: 2014.127**

I hereby certify that this plan, specification, or report was prepared by me, or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.



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Chad J. Isakson | License No. **49028** | July 21, 2014  
651.300.4283

**FOCUS** Engineering, inc.  
[www.FOCUSengineeringinc.com](http://www.FOCUSengineeringinc.com)

**VILLAGE EAST SANITARY SEWER IMPROVEMENTS: TRUNK  
HIGHWAY 5 TO UNION PACIFIC RAILROAD  
CITY OF LAKE ELMO  
Project No: 2014.127**

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**PROPOSED IMPROVEMENTS AND RECOMMENDATIONS**

This document officially amends the Village East Trunk Sanitary Sewer Extension Feasibility Report dated June 2014 that was adopted by the Lake Elmo City Council on June 17, 2014. On July 14, 2014, contractor bids were received for the improvements with the low bid amount exceeding the estimated construction cost presented in the report. The purpose of this amendment is to revise the preliminary assessment roll to reflect the increased project costs accordingly. The revised assessment roll has been provided to the benefitting property owners by mail and at a stakeholder meeting held by the City. Acceptance of this report will provide the City the option to assess the improvements to the benefitting property owners at the higher cost reflected in contractor bids.

At the request of several property owners in the Village area, the City of Lake Elmo, property owners and developers are working collaboratively to complete the extension of trunk sanitary sewer from the new lift station in Reid Park to the intersection of 39th Street North and Trunk Highway 5, then along 39th Street North to CSAH 17 (Lake Elmo Avenue) with the sanitary sewer stubbed to the west side of the County Road.

To pursue this improvement, the project was split into two separate improvement projects, one to be completed as a public improvement project led by the City (the 39th Street: Street and Sanitary Sewer Improvements) and the other to be constructed privately by developers (the Village East Trunk Sanitary Sewer Improvements). In both cases the City would cover pipe oversize charges funded through the City Sewer Enterprise Fund. The City initiated the 39th Street: Street and Sanitary Sewer Improvements by authorizing the feasibility report on March 18, 2014. A public improvement hearing was then held on May 6, 2014 and the council ordered the preparation of plans and specifications.

Subsequent to the direction to proceed with the 39th Street: Street and Sanitary Sewer Improvements, two of the property owners, representing three parcels, requested to have a portion of the Village East Trunk Sanitary Sewer Improvements, that portion from Trunk Highway 5 to the south side of the Union

Pacific Railroad tracks, to be publicly bid and constructed as a part of the 39th Street North: Street and Sanitary Sewer Improvements with the costs to be assessed to the benefiting properties.

To accommodate this request, this feasibility report was prepared to satisfy the legal requirements of Minnesota State Statute 429. The report identifies the necessary improvements, the estimated project costs, the assessment methodology and preliminary assessment amounts to be levied against properties adjacent to and benefitting from the proposed improvements. The recommended assessment methodology is consistent with the City of Lake Elmo Special Assessment Policies and Procedures for Public Improvements, amended December 17, 2013.

The proposed improvement includes the extension of approximately 2,000 feet of 15-inch diameter trunk sanitary sewer line between the existing Union Pacific railroad tracks and Trunk Highway 5. Three (3) developable properties have been identified that will benefit from these improvements by providing them the opportunity to connect to the municipal sewer system.

The project is necessary, cost-effective, and feasible and will result in a benefit to the properties proposed to be assessed. It is recommended that the City Council accept this Report, hold the public hearing, and order the improvements.

### **RIGHT-OF-WAY AND EASEMENTS**

To implement the proposed improvements permanent roadway and utility easements must be acquired from the adjacent property owners. Temporary construction easements are also needed for the duration of the construction activities and through the project's warranty period. This report assumes that the necessary easements will be dedicated to the City at no cost.

### **PERMITS AND APPROVALS**

The following permits will be required to implement the proposed improvements. The UP Railroad utility crossing is a permit that must be acquired due to the added scope of work being requested:

- Union Pacific Railroad Utility Crossing Permit.
- Minnesota NPDES-SDS Construction Stormwater General Permit.
- Valley Branch Watershed District Permit for Erosion Control.
- Minnesota Department of Transportation Right-of-Way Permit.
- Minnesota Pollution Control Agency (MPCA) Permit for sanitary sewer extension.

## **SUMMARY OF ESTIMATED PROJECT COSTS**

The total **amended** estimated project costs for the Trunk Sanitary Sewer Extension Improvements is **\$412,600**. The total project cost is based on contractor bids received and by incorporating engineering, geotechnical investigations, and contingences. Detailed estimates are attached to this report for reference. No allowance has been provided for easement and right-of-way. A 2.5% allowance is included for legal, fiscal and administration costs.

## **FINANCING OF IMPROVEMENTS**

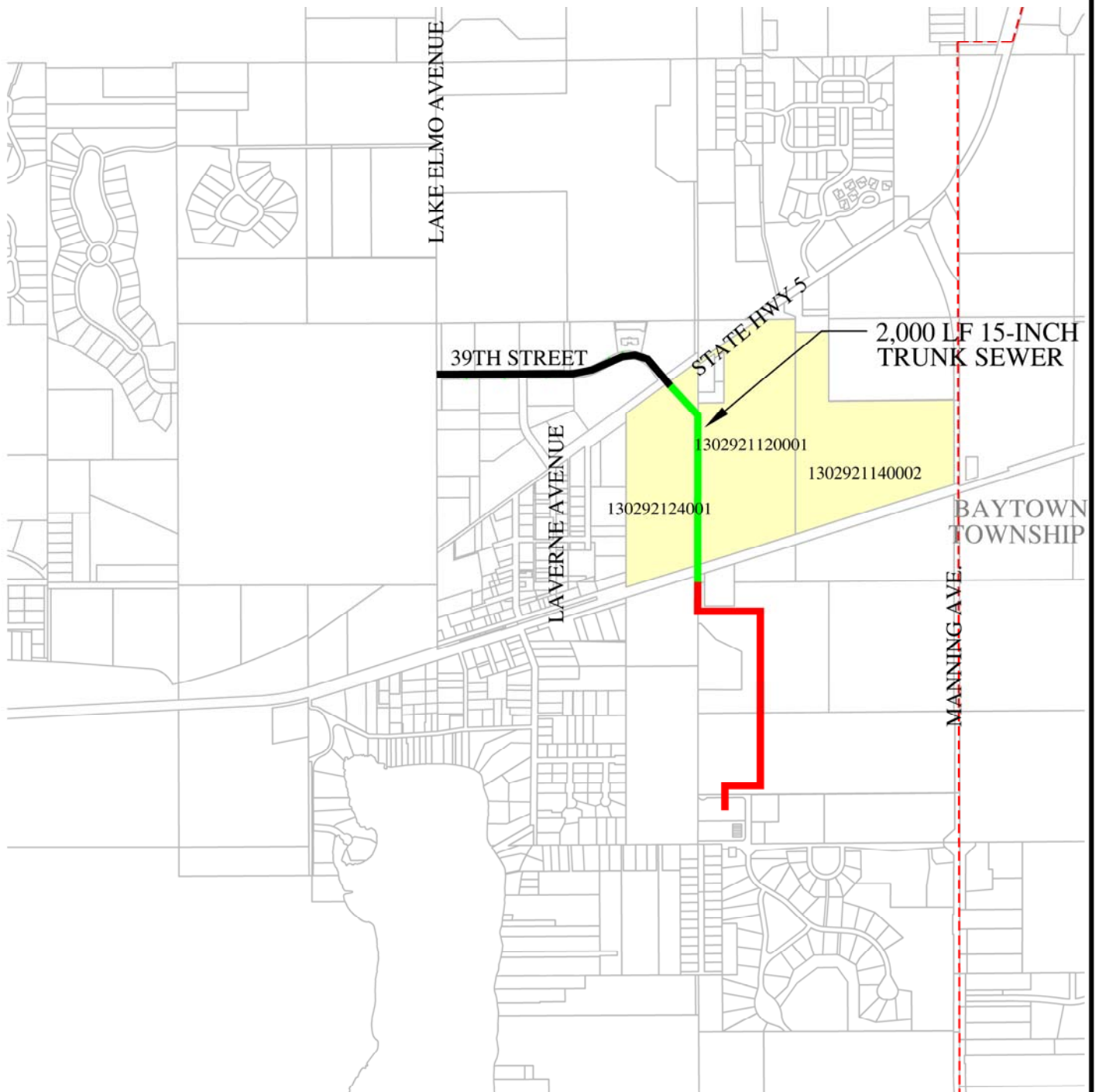
This project will be partially financed by levying special assessments against the benefiting properties. Special assessments are levied in accordance with Minnesota Statutes Chapter 429 and the City of Lake Elmo Special Assessment Policies and Procedures for Public Improvements, amended December 17, 2013. Assessments will be proportioned based upon the projected sewage generation of each property within the trunk sewer service area in relation to the total contributing sewer service capacity. To facilitate this allocation, each property is assigned a Residential Equivalent (REC) unit basis. The total cost for the overall extension of sanitary sewer from the lift station through 39<sup>th</sup> Street North was divided by the total number of RECs connecting to the sewer main. Each benefitting property's assessment was then determined based on how many RECs it contains.

A preliminary assessment roll has been prepared for the sanitary sewer improvements and is attached to this report. There are three properties comprising of 326 RECs that directly benefit from the proposed improvements, however there are an additional 833 RECs sharing in the total project costs for the combined trunk sewer extension, but paying their proportionate cost directly or assessed as a part of the 39<sup>th</sup> Street North Improvement project.

The City may use fund reserves or bonds for the improvements to pay the up-front project costs and to cover City cost participation. Special assessments would be levied against the benefiting properties with payment terms structured so that the City receives funds to meet debt obligations. Consistent with the City's adopted Special Assessment Policy, it is recommended that the sanitary sewer improvements be levied over a 15-year period. Assessments would be assigned an interest rate of 2% over the bond rate for the project. This will address the internal costs the City will incur associated with the bonding, documentation of the assessments, and dealing with delinquent assessment payments.

## **ATTACHMENTS**

- Project Location Map – Scope of Proposed Improvements.
- Project Schedule.
- Preliminary Assessment Roll.
- Village East Trunk Sanitary Sewer Improvements – Summary of Total Project Costs.
- Detailed Estimated Project Costs – Trunk Sanitary Sewer Improvements.



#### LEGEND

- VILLAGE EASTERN TRUNK SEWER IMPROVEMENTS (PUBLIC)
- VILLAGE EASTERN TRUNK SEWER IMPROVEMENTS (PRIVATE)
- 39TH STREET - SANITARY SEWER IMPROVEMENTS (PUBLIC)



FIGURE NO. 1

#### LOCATION MAP

VILLAGE EAST TRUNK SANITARY  
SEWER IMPROVEMENTS

**FOCUS**  
ENGINEERING

VILLAGE EAST SANITARY SEWER  
IMPROVEMENTS: TRUNK HIGHWAY  
5 TO UNION PACIFIC RAILROAD

PROJECT NO. 2014.127

JUNE, 2014

PROJECT SCHEDULE  
CITY OF LAKE ELMO

**FOCUS** ENGINEERING, inc.

Cara Geheren, P.E. 651.300.4261  
Jack Griffin, P.E. 651.300.4264  
Ryan Stempski, P.E. 651.300.4267  
Chad Isakson, P.E. 651.300.4283

VILLAGE EAST TRUNK SANITARY SEWER IMPROVEMENTS  
PROJECT NO. 2014.131

JULY 2014

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June 17, 2014	Council Orders Preparation of Feasibility Report. Presentation of Feasibility Report. Council accepts Report and Calls Hearing. Council approves Plans and Specifications; Orders Advertisement for Bids. (project is added to the 39 <sup>th</sup> Street: Street and Sanitary Sewer Improvements as an add alternate bid).
July 10, 2014	Receive Contractor Bids
August 5, 2014	Public Improvement Hearing. Council Orders the Improvement, accepts bids and awards Contract.
August 12, 2014	Conduct Pre-construction Meeting and Issue Notice to Proceed.
November 28, 2014	Substantial completion (estimated 15 weeks).
June 5, 2015	Final Completion.

PRELIMINARY ASSESSMENTS - SANITARY SEWER IMPROVEMENTS

VILLAGE EAST SANITARY SEWER COSTS: TRUNK HIGHWAY 5 TO UP RAILROAD  
PROJECT NO. 2014.131  
CITY OF LAKE ELMO, MN.

VILLAGE EAST TRUNK SANITARY SEWER COSTS - TOTAL PROJECT	\$1,577,600
TRUNK OVERSIZE COSTS - CITY ENTERPRISE FUNDS	\$310,160
TOTAL SANITARY SEWER EXTENSION COSTS LESS TRUNK OVERSIZE	\$1,267,440
TOTAL NUMBER OF RECS (INCLUDES 833 RECS FROM GREATER PROJECT EXTENTS)	1159
COST PER REC	\$1,094
VILLAGE EAST SANITARY SEWER COSTS: TRUNK HIGHWAY 5 TO UP RAILROAD	\$412,600

JULY, 2014

NO.	PIN	OWNER	REC	FEASIBILITY COST PER REC	FEASIBILITY ASSESSMENT AMOUNT	POST BID COST PER REC	POST BID ASSESSMENT AMOUNT	DIFFERENCE IN ASSESSMENT
1	13.029.21.12.0001	EASTON VILLAGE LLC	128	\$835	\$107,000.00	\$1,094	\$141,000.00	\$34,000.00
2	13.029.21.14.0002	EASTON VILLAGE LLC	8	\$835	\$7,000.00	\$1,094	\$9,000.00	\$2,000.00
3	13.029.21.24.0001	SCHILTGEN PETER J	190	\$835	\$159,000.00	\$1,094	\$208,000.00	\$49,000.00
TOTALS			326		\$273,000		\$358,000	\$85,000



**CITY OF LAKE ELMO**  
**VILLAGE EAST TRUNK SEWER IMPROVEMENTS**

PROJECT SEGMENT	Village East Trunk Sewer		Village East Trunk Sewer		39th Street: Trunk Sewer		TOTALS	
	LS to RR		RR to TH 5		TH 5 to CSAH 17			
To Parcel E	\$30,393.20						\$30,393.20	
Parcel E	\$140,605.90						\$140,605.90	
Easton Village	\$247,454.60						\$247,454.60	
RR to Stillwater Blvd			\$345,597.00				\$345,597.00	
Stillwater Blvd along 39th Street across CR17					\$514,411.00		\$514,411.00	
39th Street to Parcel B	\$50,331.00						\$50,331.00	
Total Construction Cost	\$468,784.70		\$345,597.00		\$514,411.00		\$1,328,792.70	
Contingencies	\$18,000.00	3.8%	\$	13,500.00	3.9%	\$29,400.00	5.7%	\$60,900.00
Engineering Services	\$25,000.00	5.3%	\$	31,500.00	9.1%	\$48,600.00	9.4%	\$105,100.00
Full Time Construction Observation	\$10,000.00	2.1%	\$	6,000.00	1.7%	\$6,800.00	1.3%	\$22,800.00
Geotechnical Engineering	\$11,000.00	2.3%	\$	10,000.00	2.9%	\$24,000.00	4.7%	\$45,000.00
Legal, Fiscal and Administration	\$0.00	0.0%	\$	6,000.00	1.7%	\$9,000.00	1.7%	\$15,000.00
		13.7%			19.4%		22.9%	
Subtotal Project Cost	\$532,800		\$412,600		\$632,200			\$1,578,000
Less Private Service Stubs for Easton Village								(\$22,000)
Total Project Cost								\$1,556,000
Village East Trunk Sewer Improvements: Lift Station to RR		PRIVATE						
Village East Trunk Sewer Improvements: RR to TH5		PUBLIC						
39th Street: Street and Sanitary Sewer Improvements:		PUBLIC						

<b>Project: Lake Elmo - Village Planning Area</b>					
Project No. 3120-047					
Prepared For: GW Land Development					
Prepared By: Sathre- Bergquist, Inc.					
Date: February 26, 2014					
Revised(5): April 21, 2014					
<b>Subject: Lake Elmo Trunk Sanitary Sewer Proposal</b>					
<b>To Parcel E</b>					
<b>Estimated</b>					
<b>SANITARY SEWER</b>	<b>Units</b>	<b>Quantity</b>	<b>Unit Price</b>	<b>Amount</b>	<b>Unit Price</b>
Mobilization - Utility	L.S.	1.0	\$5,000.00	\$5,000.00	
Connect to Existing	L.S.	1.0	\$5,600.00	\$5,600.00	
Clearing & Grubbing	AC	0.4	\$6,500.00	\$2,600.00	
18" PVC SDR 35	L.F.	195.0	\$57.00	\$11,115.00	
Manhole 0-8'	EACH	1.0	\$1,880.00	\$1,880.00	
Manhole Extra Depth	L.F.	9.4	\$113.00	\$1,062.20	
Manhole Seal Wrap	EACH	1.0	\$150.00	\$150.00	
Furnish & Install Castings	EACH	1.0	\$450.00	\$450.00	
Improved Pipe Fndtn	L.F.	195.0	\$7.00	\$1,365.00	
Televise	L.F.	195.0	\$3.00	\$585.00	
Restoration	L.F.	195.0	\$3.00	\$585.00	
Dewatering	L.S.	1.0	\$1.00	\$1.00	
(No Dewatering Included)		<b>To Parcel E</b>		<b>\$30,393.20</b>	
<b>Parcel E</b>					
<b>Estimated</b>					
<b>SANITARY SEWER</b>	<b>Units</b>	<b>Quantity</b>	<b>Unit Price</b>	<b>Amount</b>	
Mobilization - Utility	L.S.	1.0	\$3,000.00	\$3,000.00	
Connect to Existing	L.S.	1.0	\$2,000.00	\$2,000.00	
Traffic Control (w/plan) (jersey barriers)	L.S.	0.0	\$0.00	\$0.00	
Clearing & Grubbing	AC	1.4	\$6,500.00	\$9,100.00	
8" PVC	L.F.	0.0	\$0.00	\$0.00	
18" PVC SDR 35	L.F.	225.0	\$57.00	\$12,825.00	
18" PVC SDR 26	L.F.	1,026.0	\$75.00	\$76,950.00	
30" Casing Pipe	L.F.	0.0	\$0.00	\$0.00	
Manhole 0-8'	EACH	4.0	\$1,880.00	\$7,520.00	
Manhole Extra Depth	L.F.	51.3	\$113.00	\$5,796.90	
Manhole Seal Wrap	EACH	4.0	\$150.00	\$600.00	
Furnish & Install Castings	EACH	4.0	\$450.00	\$1,800.00	
8" Plug	EACH	0.0	\$0.00	\$0.00	
18"x4" Wyes	EACH	0.0	\$0.00	\$0.00	
4" PVC Risers	L.F.	0.0	\$0.00	\$0.00	
Improved Pipe Fndtn	L.F.	1,251.0	\$7.00	\$8,757.00	
Televise	L.F.	1,251.0	\$3.00	\$3,753.00	
Restoration	L.F.	1,251.0	\$4.00	\$5,004.00	
Dewatering	L.S.	1.0	\$3,500.00	\$3,500.00	
(No Dewatering Included)		<b>Parcel E</b>		<b>\$140,605.90</b>	

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<b>Subject: Lake Elmo Trunk Sanitary Sewer Proposal</b>						
		<b>Easton Village</b>				
		<b>Estimated</b>				
<b>SANITARY SEWER</b>	<b>Units</b>	<b>Quantity</b>	<b>Unit Price</b>	<b>Amount</b>		
Mobilization - Utility	L.S.	1.0	\$3,000.00	\$3,000.00		
Connect to Existing	L.S.	0.0	\$0.00	\$0.00		
Traffic Control (w/plan) (jersey barriers)	L.S.	0.0	\$0.00	\$0.00		
Clearing & Grubbing	AC	0.6	\$6,500.00	\$3,900.00		
8" PVC	L.F.	160.0	\$35.00	\$5,600.00		
15" PVC (0-15 ft)	L.F.	0.0	\$0.00	\$0.00		
15" PVC SDR 26	L.F.	1,652.1	\$71.00	\$117,299.10		
18" PVC SDR 26	L.F.	174.9	\$75.00	\$13,117.50		
30" Casing Pipe	EACH	0.0	\$0.00	\$0.00		
Manhole 0-8'	EACH	12.0	\$1,880.00	\$22,560.00		
Manhole Extra Depth	L.F.	205.0	\$113.00	\$23,165.00		
Manhole Seal Wrap	EACH	12.0	\$150.00	\$1,800.00		
Furnish & Install Castings	EACH	12.0	\$450.00	\$5,400.00		
8" Plug	EACH	4.0	\$50.00	\$200.00		
18" or 15"x4" Wyes	EACH	27.0	\$485.00	\$13,095.00		
4" PVC Risers	L.F.	500.0	\$14.00	\$7,000.00		
Improved Pipe Fndtn	L.F.	1,987.0	\$7.00	\$13,909.00		
Televise	L.F.	1,987.0	\$3.00	\$5,961.00		
Restoration	L.F.	1,987.0	\$4.00	\$7,948.00		
Dewatering	L.S.	1.0	\$3,500.00	\$3,500.00		
(No Gravel Road Repair)						
		<b>Easton Village</b>		<b>\$247,454.60</b>		
		<b>RR to Stillwater Blvd</b>				
		<b>Estimated</b>				
<b>SANITARY SEWER</b>	<b>Units</b>	<b>Quantity</b>	<b>Unit Price</b>	<b>Amount</b>		
		<b>RR to Stillwater Blvd</b>		<b>\$345,597.00</b>	Total construction costs base	

Project: Lake Elmo - Village Planning Area					
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Prepared For: GW Land Development					
Prepared By: Sathre- Bergquist, Inc.					
Date: February 26, 2014					
Revised(5): April 21, 2014					
Subject: Lake Elmo Trunk Sanitary Sewer Proposal					
Stillwater Blvd along 39th Street across CR17					
SANITARY SEWER					
Units	Estimated Quantity	Unit Price	Amount		
Stillwater Blvd along 39th Street across CR17				\$514,411.00	Total construction costs base
39th Street to Parcel B					
250					
SANITARY SEWER					
Units	Quantity	Unit Price	Amount		
Mobilization - Utility	L.S. 1.0	\$3,000.00	\$3,000.00		
Connect to Existing	L.S. 0.0	\$0.00	\$0.00		
Traffic Control (w/plan) (jersey barriers)	L.S. 0.0	\$0.00	\$0.00		
8" PVC	L.F. 40.0	\$35.00	\$1,400.00		
10" PVC (15-25 ft)	L.F. 690.0	\$40.00	\$27,600.00		
Manhole 0-8'	EACH 2.0	\$1,880.00	\$3,760.00		
Manhole Extra Depth	L.F. 27.0	\$113.00	\$3,051.00		
Manhole Seal Wrap	EACH 2.0	\$150.00	\$300.00		
Furnish & Install Castings	EACH 2.0	\$450.00	\$900.00		
8" Plug	EACH 2.0	\$50.00	\$100.00		
8"x4" Wyes	EACH 0.0	\$250.00	\$0.00		
4" PVC Risers	L.F. 0.0	\$14.00	\$0.00		
Improved Pipe Fndtn	L.F. 730.0	\$7.00	\$5,110.00		
Televise	L.F. 730.0	\$3.00	\$2,190.00		
Restoration	L.F. 730.0	\$4.00	\$2,920.00		
(No Dewatering Included)					
39th Street to Parcel B				\$50,331.00	
Summary:				To Parcel E :	\$30,393.20
				Parcel E :	\$140,605.90
				Easton Village :	\$247,454.60
				RR to Stillwater Blvd :	\$345,597.00
Stillwater Blvd along 39th Street across CR17 :				\$514,411.00	
39th Street to Parcel B :				\$50,331.00	
Construction Cost :				\$1,328,792.70	
Total Length of Pipe:				8,979.0	
Cost per Foot:				\$147.99	

<b>Project: Lake Elmo - Village Planning Area</b>							
Project No. 3120-047							
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Date: February 26, 2014							
Revised(5): April 21, 2014							
<b>Subject: Lake Elmo Trunk Sanitary Sewer Proposal</b>							
						Oversizing Cos	Oversizing
<b>Total Pipe Quantity</b>		<b>Quantity</b>		<b>Unit Price</b>	<b>8" Unit Price</b>	<b>Difference</b>	<b>Cost</b>
8" PVC		262.0		\$30.00	\$30.00	\$0.00	\$0.00
10" PVC (15-25 ft)		2,130.0		\$88.00	\$70.00	\$18.00	\$38,340.00
12" PVC (15-25 ft)		1,250.0		\$95.00	\$70.00	\$25.00	\$31,250.00
15" PVC (15-25 ft)		3,716.1		\$86.00	\$35.00	\$51.00	\$189,521.10
18" PVC (0-15 ft)		594.9		\$57.00	\$35.00	\$22.00	\$13,087.80
18" PVC (15-25 ft)		1,026.0		\$75.00	\$38.00	\$37.00	\$37,962.00
<b>Total:</b>		<b>8,979.0</b>					<b>\$ 310,160.90</b>