

## Crosslake WWTF Improvements

**Date:** December 11, 2017  
**To:** Public Works Committee/City Council  
**From:** John Graupman, Mike Rardin, Phil Martin  
**Cc:** Ted Strand - Public Works Director  
**Subject:** Project Update

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The following is intended to provide an update for WWTF improvements.

### Project Update

1. Contractor started to mobilize equipment to site on October 5, 2017
2. Progress to date has been directed at constructing the concrete tanks
  - a. The Water Storage Tank bottom slab and walls have been poured.
  - b. The EQ Basin bottom and intermediate slabs have been poured; the walls are being formed and that concrete may be placed this week.
  - c. The 12" EQ basin pipe to the south oxidation ditch has been started with a wall penetration completed into the south oxidation ditch.
  - d. The 6" drain pipe and slab penetration has been completed on the south oxidation ditch.

### Planned Work

1. Continue construction of walls, high slab, and top slab on EQ Basin.
2. Continue construction of top slab on Water Storage Tank
3. Install 12" EQ basin pipe into north oxidation ditch.
4. Install 6" drain pipe and slab penetration in north oxidation ditch.

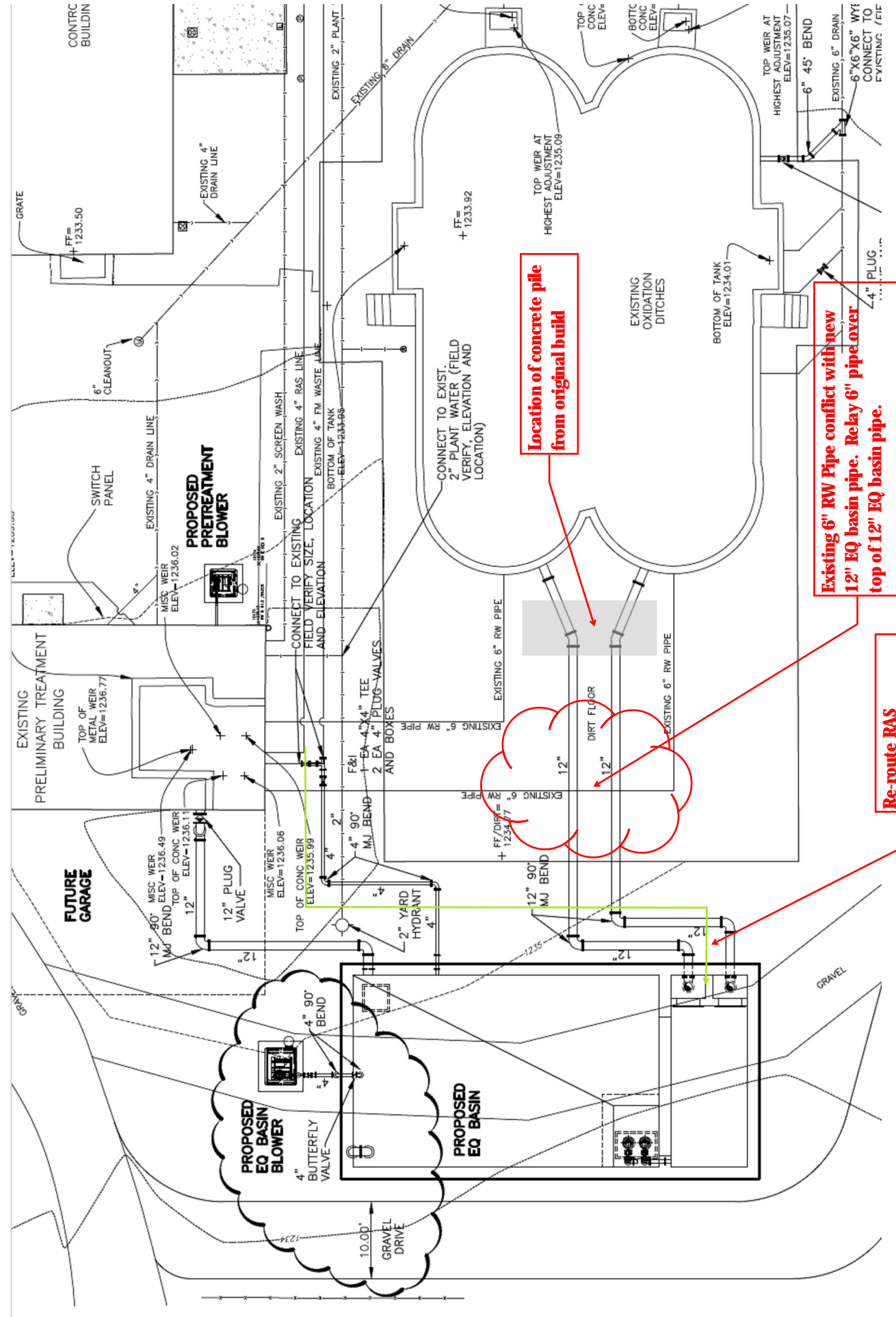
### Issues/Challenges

Existing WWTF record plans were incomplete with regard to pipe installations. As a result, unforeseen conflicts with buried materials and other piping has been identified. The items identified to date are listed below and some depicted in the attached exhibit:

1. Install of the 12" EQ basin pipe encountered a pile of concrete from the original build adjacent to the oxidation ditch foundation. This condition has required additional time for the contractor to break up the concrete to get the pipe properly installed. Extra costs for this remain to be determined.
2. The new 12" EQ basin pipe conflicts with the existing 6" pipe to the south oxidation ditch. No records from the original construction plan were found during design or by City staff that show the pipe elevation. During investigation of the 6" pipe by City staff, it was found to be full of solids and installed with a pipe backslope (i.e. pipe slope away from the oxidation ditch rather than to the oxidation ditch as would be expected). The 6" pipe will be temporarily raised to avoid a conflict and the RAS piping will be relocated - cost estimated at \$11,923.13.
3. The oxidation ditch drains are being relocated to a location which avoids a building conflict - contractor has offered a credit (deduct) of \$4,221.27 for this change.
4. RAS pump inlet isolation valves (3) have been identified by staff as failing. These can be replaced as a part of the project. Pricing remains to be determined.

### Schedule

Project work began in earnest in late October when dewatering efforts lowered the groundwater table to an acceptable level. Since that time, the contractor has progressed with tank work. Site piping for the water tank storage and filter back wash will be completed in spring 2018. Contractor's goal is to have the EQ basin in operation for the St. Patrick's Day weekend in the City.



Location of concrete pile from original build

Existing 6" RW Pipe conflict with new 12" EQ basin pipe. Relay 6" pipe over top of 12" EQ basin pipe.

Re-route RAS forccmain line to EQ Basin splitter box

**PROPOSAL**  
**PR #1**



**EAGLE**  
**CONSTRUCTION COMPANY**

Eagle Construction Company, Inc.  
515 9th Ave NW  
Little Falls, MN 56345

ATTN: John Graupman - BMI  
1960 Premier Drive  
Mankato, MN 56001

Project: Crosslake WWTF Improvements  
Date: 12/6/17

**Description:** Per request to provide pricing for additional 4" RAS pipe to the equalization tank splitter box with the addition of 2 valves.

DESCRIPTION	Qty	Units	RATE	TOTAL
Labor to Install Additional 4" DIP	32	MHS	\$75.00	\$2,400.00
JD 270 Backhoe	8	HRS	\$133.00	\$1,064.00
4" DIP	141	LF	\$24.00	\$3,384.00
4" Bends & Fittings	1	LS	\$315.00	\$315.00
4" Plug Valves w/ Box	2	EA	\$1,126.00	\$2,252.00
4" Restraints, Bolts & Nuts	21	EA	\$35.00	\$735.00
4" Link Seal	1	EA	\$95.00	\$95.00
			Mark- up 15%	\$1,536.75
			Bond 1.2%	\$141.38

**TOTAL AMOUNT** **\$11,923.13**

Thank you for the opportunity to Quote this work for you.

Regards,

Jayd Newman  
Eagle Construction Company, Inc.  
320-632-5429

**PROPOSAL**  
**PR #2**



**EAGLE**  
**CONSTRUCTION COMPANY**

Eagle Construction Company, Inc.  
515 9th Ave NW  
Little Falls, MN 56345

ATTN: John Graupman - BMI  
1960 Premier Drive  
Mankato, MN 56001

Project: Crosslake WWTF Improvements  
Date: 12/6/17

**Description:** Credit to relocate the 6" Drain line from the South end of the Oxidation Ditch to the East End of the Oxidation Ditch.

CREDIT ITEMS				
DESCRIPTION	Qty	Units	RATE	TOTAL
4" Plug Valve Materials	1	EA	(\$1,308.00)	(\$1,308.00)
Installation Labor	56	MHS	(\$75.00)	(\$4,200.00)
JD 270 Backhoe	16	HRS	(\$133.00)	(\$2,128.00)
Shoring Support	1	LS	(\$1,500.00)	(\$1,500.00)
Credit Subtotal				(\$9,136.00)

ADDITIONAL ITEMS				
DESCRIPTION	Qty	Units	RATE	TOTAL
Labor to Install Additional 6" DIP	12	MHS	\$75.00	\$900.00
JD 270 Backhoe	4	HRS	\$133.00	\$532.00
6" Plug Valve & Box	1	EA	\$1,466.00	\$1,466.00
6" Link Seal	1	EA	\$133.00	\$133.00
6" DIP	45	LF	\$16.00	\$720.00
6" Tee	1	EA	\$90.00	\$90.00
6" MJ Long Sleeve	2	EA	\$56.00	\$112.00
6" Restraints, Bolts & Nuts	6	EA	\$45.00	\$270.00
			Mark- up 15%	\$633.45
			Bond 1.2%	\$58.28
			Subtotal	\$4,914.73

Credit Amount	(\$9,136)
Additional Items	\$4,914.73
<b>TOTAL CREDIT AMOUNT</b>	<b>(\$4,221.27)</b>

Thank you for the opportunity to complete this work for you.

Regards,

Jayd Newman  
Eagle Construction Company, Inc.  
320-632-5429