

RED RIVER DIVERSION

FARGO – MOORHEAD METRO FLOOD RISK MANAGEMENT PROJECT, FEASIBILITY STUDY, PHASE 4

APPENDIX G – COST ESTIMATES EXHIBIT F – SUPPORTING DATA AND DOCUMENTATION – CONTRACTOR OPINIONS OF COST

**Report for the US Army Corps of Engineers, and the cities of Fargo, ND &
Moorhead, MN**

By: Barr Engineering Co.

FINAL – February 28, 2011

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**APPENDIX G
COST ESTIMATES**

**EXHIBIT G – SUPPORTING DATA AND DOCUMENTATION –
CONTRACTOR OPINIONS OF COST**

G-F1.0 CONTRACTOR OPINIONS OF COST

Attachments G-F1.1 through G-F1.27 of this Exhibit F present the email, phone and fax communication between Barr Engineering and contractors that provide preliminary opinions of costs for materials and work related to the Red River Diversion Project. Labor estimates and cost estimates shown were in some cases discussed with suppliers and contractors without significant project details on hand, and therefore shall be considered for reference only.



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Memorandum

To: Project File
From: Paul Nielsen
Subject: E-mail correspondence regarding cost estimates
Date: December 8, 2009
Project: 34/09-1004 Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study

Price Quote – Hydraulic Gates

From: Pete Billiel [peteb@rodneyhunt.com]
Sent: Tuesday, December 08, 2009 10:53 AM
To: Paul Nielsen
Subject: RE: Red River Flood Control Project (Fargo, ND)_Barr Eng'g)_Rodney Hunt Company Tainter Gates Paul,
The Budget pricing for one 30' X 20' carbon steel Tainter Gate is \$240,000.00. Please add \$100,000.00 as a Budgetary price Cable (wire rope) Drum hoist w/an electric operator. I hope this helps.

Regards,
Pete

From: Paul Nielsen [mailto:PNielsen@barr.com]
Sent: Monday, December 07, 2009 10:39 AM
To: Pete Billiel
Subject: RE: Red River Flood Control Project (Fargo, ND)_Barr Eng'g)_Rodney Hunt Company Tainter Gates

Pete:
NO!

This is a new future project, where a new control structure would be built across the Red River and divert flow into a new diversion channel to prevent flooding. Similar to the Winnipeg project. There are several options that are being looked at. Some options also include additional control structures along tributary streams. We are still doing feasibility cost estimating. The spread sheet is only for getting a feel for weights of gates based on Area, Span, Aspect ratios, and Gate Type (Navigation vs. Flood). These gates were listed in a COE EM manual.

On the Red River Control structure, we are looking at possibly 3 tainter gates, 30' wide x 40' high, or more gates with smaller sizes. Other options include a multiple piece bulkhead type gate for center of control structure (only closed after 5 yr event otherwise open for recreational boats) with 2 tainter gates for controlling flows. Numerous options are available from a hydraulic point of view.

On the the structures at the streams we would need smaller gates to control flow.

I am ultimately trying to get an idea for cost of tainter or slide gates for various sizes (small 12'x12' vs. 30'x40' ect). From the spreadsheet it seems that the tainter gates we are looking at weigh approx. 100 psf. I realize

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material cost, length of welding, bending plate all are unique for any given gate. Is there some ballpark value for cost, lb/sf for various gate sizes along with hoisting cost (mechanical quip)? I am familiar with cost for bridges and have obtained updated cost for plate girders at about \$1.50/lb (4 fillet welds) with material at about \$0.55/ lb. I would assume that there is at least a 2.5 to 3 times the labor due to rolling & welding.

Any insight would be valuable. Please feel free to call me.

Thank you,

Paul

952-832-2753

From: Pete Billiel [mailto:peteb@rodneyhunt.com]
Sent: Monday, December 07, 2009 9:02 AM
To: Paul Nielsen
Subject: FW: Red River Flood Control Project (Fargo, ND)_Barr Eng'g)_Rodney Hunt Company Tainter Gates
Importance: High

Good morning Paul,
Are you looking for budget pricing for all the gates listed on the attached schedule? Are you looking to replace the hoisting systems also? If so, please let us know what you have in mind for the hoisting system.

Thanks,
Pete

From: Gary Metzler [mailto:gary@vbminc.com]
Sent: Wednesday, November 25, 2009 5:56 PM
To: 'Paul Nielsen'
Cc: Dean Breiwick
Subject: Red River Flood Control Project (Fargo, ND)_Barr Eng'g)_Rodney Hunt Company Tainter Gates
Importance: High

Paul,

We appreciate you contacting us regarding the subject project. I don't know that we can give you pricing on a per pound basis. However, I'm forwarding your e-mail to Dean Breiwick of RHC for his input. There have been a # of large bids RHC has been consumed w/lately but Dean will do his best to get a response to you by the end of next week (11/30 – 12/4).

I recently talked to Moore Eng's V.P. Jeff Volk who manages their Flood Control Group about the project you're working on. He estimates this project will total over \$1 Billion between construction, engineering, etc. I also talked to Brian LeMon of your office @ the annual AWWA Conference (9/09) in Duluth about flood control in the Fargo area. I know Barr & Moore have joint ventured on some flood control projects for a # of years now.

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From: Paul Nielsen
Subject: Email correspondence regarding cost estimates
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Project: 34/09-1004 Fargo Moorhead Metro Flood Risk Management Project , Feasibility Study
c:

Should you have any questions or comments prior to our response please feel free to contact me. Thank you for your consideration of Rodney Hunt Company - the leader in water control gate technology,

GARY
Sales Engineer

Van Bergen & Markson, Inc.
8814 Seventh Avenue North
Minneapolis, MN 55427

(763) 546-4340 PHONE
(612) 325-6652 CELL
(763) 546-0973 FAX

<gary@vbminc.com> E-MAIL

From: Paul Nielsen [mailto:PNielsen@barr.com]
Sent: Monday, November 23, 2009 12:24 PM
To: 's.dyrod@vbminc.com'
Subject: RE: Tainter Gates

Sam:

We are doing some cost estimates for a Flood Control Project in Fargo area. We are looking at placing control structure(s) on the Red River and/or Diversion channels. We are in the second phase of the project and are now dealing with more regulatory agencies. Options for gates sizes and types are still being tossed around by the hydraulic engineers. I have attached some historic tainter sizes obtained from the Corps EM Manuals. This info should help us establish a total gate weight base on similar gate properties. What I would like from you, is to let me know what a unit cost per pound (\$/lb) might be for fabrication.

Also, as far as shipping goes, I would assume from the size of the preliminary gate (30' x 20') that the whole gate would be assembled in the field with a bolted or welded splice. Is there a size of gate where fabrication cost may jump dramatically? If smaller gate were used, 12'x12' is there a similar fabrication cost per pound?

This is all very preliminary and will not make or break the project.

Thank you,

Paul

RED RIVER FLOODWAY EXPANSION PROJECT - EXCAVATION AND DISPOSAL PRICES

Contract Number	Tender Award Date	Tender Excavation Quantity (m3)	Actual Quantity Excavated (m3)	Percent of Estimated Design Volume	Tender Price (per m3)	Total Cost
C2	2005-11-03	830,000.00	829,405.00	99.93%	\$4.06	\$3,367,384.30
C4	2006-08-09	985,000.00	955,467.00	97.00%	\$6.05	\$5,780,575.35
C3A	2006-09-06	2,700,000.00	2,615,817.00	96.88%	\$5.75	\$15,040,947.75
C3B	2006-09-06	2,425,000.00	2,429,233.00	100.17%	\$5.22	\$12,680,596.26
C5	2006-09-21	1,180,000.00	1,151,596.00	97.59%	\$5.40	\$6,218,618.40
C6A	2006-09-21	767,000.00	755,240.00	98.47%	\$5.20	\$3,927,248.00
C4A	2006-11-09	588,722.00	593,238.00	100.77%	\$5.75	\$3,411,118.50
C7B	2007-04-26	2,350,000	2,270,720.00	96.63%	\$4.47	\$10,150,118.40
C8A	2007-05-04	1,725,000	1,623,918.00	94.14%	\$4.33	\$7,031,564.94
C8B	2007-05-10	4,200,000	3,796,311.00	90.39%	\$4.00	\$15,185,244.00
C3C	2007-05-30	475,000	439,884.00	92.61%	\$3.25	\$1,429,623.00
C7A	2007-05-30	1,425,000	1,349,202.00	94.68%	\$3.20	\$4,317,446.40
C6B	2007-07-19	400,000	415,200.90	103.80%	\$4.16	\$1,727,235.74
C6C	2008-06-19	700,000	575,726.00	82.25%	\$3.85	\$2,216,545.10
Total		20,750,722	19,800,957.90	96.09%		\$92,484,266.14

**Cost Per Cubic Meter -
Based on Actual**

Excavation Volume **19,800,957.90** **\$4.62**

**1962-1968 Original
Floodway Construction-
Average Excavation
Contract Unit Price**

**\$0.31 per cubic yard
(\$0.40 per cubic meter)**



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Memorandum

To: Project File
From: Paul Nielsen
Subject: E-mail correspondence regarding cost estimates
Date: December 11, 2009
Project: 34/09-1004 Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study

E-mail Correspondence with Rick Hay of the Manitoba Floodway Authority regarding costs

From: Hay, Rick (WSD) [Rick.Hay@gov.mb.ca]
Sent: Friday, December 11, 2009 1:50 PM
To: Paul Nielsen
Subject: RE: Cost of Manitoba Floodway
Attachments: Aver Exc price.pdf

Paul,

I am not in a position to release actual contract bid tabulations at this time but attached is a small spreadsheet detailing our average excavation unit prices (\$CAN) for the recent Floodway Expansion Project channel work.

A few things to note relative to potential differences to the proposed Fargo Diversion project:

- 1) these Contract unit prices included the effect of a Project Management Agreement (Union labor rates, etc.)
- 2) our contract specifications included provisions for variable fuel pricing, so Bidders did not have to lock in a price for what in many cases was a two year contract
- 3) these prices reflected relatively long hauls and relatively high elevation differences from the bottom of the channel to overtop of the adjacent pre-existing spoil embankments
- 4) for the most part the Floodway Expansion channel excavation was not hampered by excessive moisture content as the groundwater levels had long ago receded due to the original 100,000,000 cubic yard channel excavation in the 1960's. The Fargo Diversion may indeed however, encounter high moisture content material at depth since it will entail virgin deep excavation.
- 5) Much of the excavation was conducted during winter months since our project did not involve the construction of compacted earthen dikes (levees), which of course cannot be built with frozen or freezing material. Our Contracts specified simple spoil disposal, although it was in the Contractor's interest to minimize voids in the disposal areas (if he left large voids in the frozen embankments, final trimming was hampered as the spoil piles settled unevenly over the course of the following summer) I

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From: Paul Nielsen
Subject: Cost Estimate Price Quotes
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c:

presume the Fargo Diversion project will entail construction of some levees, which of course would have to be undertaken in non-freezing conditions.

6) These unit prices do not include the re-vegetation and erosion control work on the disturbed surfaces, (ie, seeding, straw mulch/crimping, etc were all extra at their own respective unit prices, these work items averaged \$800 to \$1200 per acre)

7) We included construction of the many appurtenant small drainage structures in our major earthwork contracts, all as separate bid items.

In terms of likely methodologies and equipment types, you are probably looking at large hydraulic excavators and rock-trucks (articulated 6 wheel drive bulk haulers) for the straight excavation/waste and motor scrapers for the compacted embankments (levees).

Local earthwork Contractors, I would recommend contacting:

Hugh Munro Construction (Bill Fisher at 204-981-1146)

Sigfusson Northern Ltd. (Warren Sigfusson at 204-762-5500)

Erickson Construction (Craig Erickson at 204-378-5101)

Rick Hay, P. Eng.

Manager, Floodway Channel

Manitoba Floodway Authority

Unit 7 - 1333 Niakwa Road E

Winnipeg, MB R2J 3T5

Tel: (204) 945-4215

Cell: (204) 346-4532

Fax: (204) 945-7599

From: Paul Nielsen [<mailto:PNielsen@barr.com>]

Sent: Thursday, December 10, 2009 12:26 PM

To: Hay, Rick (WSD)

Cc: Miguel Wong

Subject: FW: Cost of Manitoba Floodway

Rick:

To: Project File
From: Paul Nielsen
Subject: Cost Estimate Price Quotes
Date: December 11, 2009
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c:

Thank you for returning my call. If you could provide us with a spreadsheet of any bid tabs that would be very valuable in helping us with our cost, especially earthwork. We still have several options for the diversion locations with up to 43,000,000 cy of earth to cut & use as embankment.

Our soil profiles appear similar in nature with the clay layers. Based on a geotechnical papers we found on the Manitoba Floodway Project, it appears that you also had to deal with high artesian pressures in the bedrock below the floodway invert, on the original channel construction. The ground water may not be a big issue during the current Manitoba expansion.

Photos on your web site show crawler rigs (bulldozer) pushing scrapers around. If you have contacts with any large Canadian earth contractors that have experience working in the clay during both dry and rainy weather, I would like to call them directly and discuss what types of equipment can be expected to be used and any lesson learned.

Thank you for your help,

Paul

From: Miguel Wong
Sent: Tuesday, December 01, 2009 7:39 PM
To: Paul Nielsen; Matthew R. Metzger
Subject: FW: Cost of Manitoba Floodway

This is my "quick and dirty" summary (in July) of costs associated with the Manitoba Floodway.

Below is the contact information for the Manager (Technical Lead) of the Manitoba Floodway. As suggested by Paul, it could be a good idea to contact him to get more detailed information on costs for construction of the Diversion Channel – however, I would recommend to first run this suggestion through Jeff Hansen, Corps of Engineers.

Rick Hay, P. Eng.

Manager, Floodway Channel

Manitoba Floodway Authority

Unit 7 - 1333 Niakwa Road E

Winnipeg, MB R2J 3T5

Tel: (204) 945-4215

Cell: (204) 346-4532

Fax: (204) 945-7599

To: Project File
From: Paul Nielsen
Subject: Cost Estimate Price Quotes
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Project: 34/09-1004 Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study
c:

Miguel

From: Miguel Wong

Sent: Sunday, July 19, 2009 6:42 PM

To: Stuart Dobberpuhl

Cc: Brian K. LeMon; Lee Beauvais; Jeff Volk; Greg Williams; Matthew R. Metzger; Brandon J. Barnes

Subject: Cost of Manitoba Floodway

Stu,

Using one of the metrics by Engineering News Record - ENR (e.g., construction cost index), the ratio of 2009 to 1968 construction cost is between 7 and 8. According to the Floodway Magazine Fall 2008, the original floodway cost was \$63 millions, which would be equivalent to approx. \$400 to \$500 millions at today's dollars. *{It is not clear to me if the \$63 millions included or not: 1) construction of the Shellmouth Reservoir in the Assiniboine River; 2) construction of the Assiniboine River - Portage Diversion to Lake Manitoba; and 3) construction of the first part of the West Dike}* The length of the Floodway is approx. 30 miles, so the cost would have been \$13 to \$17 millions per mile. If the cross sections of the original Manitoba Floodway and the Fargo Moorhead diversion would be similar (gross approximation - probably an upper bound, as the original Manitoba Floodway had a design flow of 60,000 cfs but the channel capacity was close to 90,000 cfs), then the cost for the MN alignments (27 miles) would be between \$350 and \$460 millions, whereas the cost for the ND alignments (37 miles) would be between \$480 and \$630 millions (not including structures at tributaries). So the "math" that some people was making in the bus (conversation with Jeff Volk) about the cost of the Fargo Moorhead diversion in the order of \$200 million is not necessarily correct.

The Red River Floodway Expansion Project will cost \$665 million when completed in 2010. When looking at the typical cross sections in pages 182-184 of the "Flood Protection Studies for Winnipeg - **Appendix B Floodway Expansion**" by the KGS Group (November 2001) *{this report is in the project website, under Data/Reference/Red River Floodway-Winnipeg/}*, you will realize that the volume of excavation of the expansion is **considerably smaller** than that of the original floodway (I don't think my eyes are playing me a trick, and there is no need to double the floodway channel cross section to handle an increase in the design flow of 60,000 to 140,000 cfs). *{Construction of the second part of the West Dike is included in the cost estimate}* The Floodway Magazine Fall 2008 refers to 21 million cubic meters of excavation for the expansion, or equivalently 28.8 million cubic yards of excavation for the expansion. The estimated direct cost for this construction item has been \$168 million (see Table B-13 below from page 111 of Appendix B Floodway Expansion), which results in near \$6 per cubic yard of excavation. However, this cost is somewhat of a lower bound, as the excavation takes place on the existing channel + my understanding is that for most of the Manitoba Floodway the water table is not as high as the one expected for the MN Short alignment. But let's use the \$6 per cubic yard of excavation in your new estimates for the MN alignment (in blue below):

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From: Paul Nielsen
Subject: Cost Estimate Price Quotes
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☐ 45,000 cfs - 500' bottom width - 72 million cubic yards (your Figure 6) = \$432 millions - direct cost of excavation

☐ 35,000 cfs - Bottom Width to be determined between 225' and 500' - 52 to 60 million cubic yards (your Figure 10) = \$312 to 360 millions - direct cost of excavation

☐ 25,000 cfs - 225' bottom width - 42 million cubic yards (your Figure 14) = \$252 millions - direct cost of excavation

If the direct cost of excavation represents less than 50% of the total cost (using Table B-13 below), then we could be talking of a total cost for any of the Fargo Moorhead diversion alignments that would be closer to \$1 billion than to \$500 millions. Any thoughts?

Miguel

TABLE B-13

Summary of Estimated Costs for 1 in 700 Year Floodway Expansion

ITEM ESTIMATED COST

(\$MILLIONS)

Floodway Expansion

Earthworks 168.0

Highway Bridges 36.3

Railway Bridges 45.6

Roadworks 1.7

Hydraulic Structures 19.9

Manitoba Hydro 5.0

Winnipeg Hydro 1.3

Centra Gas Manitoba 1.2

Manitoba Telecom Services 0.3

Winnipeg Pipeline Co. 1.2

Inlet Control Structure 30.1

Sub-Total 310.6

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Owner's Cost, Engineering & Site Supervision (15%) 46.6

Contingency (20%) 62.1

Interest During Construction (16%) 49.7

Escalation During Construction (5%) 15.5

Sub-Total 484.4

Upgrades to Flood Protection Infrastructure in Winnipeg (1,2) 110.0

Raise Crest of West Dike (1,3) 63.4

TOTAL \$657.8

Note: 1. Costs include, engineering, site supervision, owner's cost, contingency, interest and escalation during 4 year construction period.

2. Refer to Table B-10 for detailed breakdown of costs. Interest and escalation have been added.

3. Refer to Appendix D for detailed breakdown of costs. Price escalation of 2.5% per year has been added.

<<Aver Exc price.pdf>>



Telephone Memo

Date: 12/11/09

Time:

Paul Nielsen of Barr Engineering Company

placed a call to received a call from received a voice mail from left message/voice mail to

Name	Position	Company	Telephone
Bart Anderson	VP Speical Projects	Veit Construction	763-428-6739
			- -
			- -
			- -

Re: **Project Name:** **Project Number:**
 Fargo Moorhead Feasibility Study 34 / 09 - 1004 . 00 Job: 200 Task:600

Notes: Bart came to Barr Office to discuss project on 12/11/09 at 3:00 pm.

Bart is former Fargo native who worked for St. Paul COE on the English Coulee levees in Fargo.

He indicated that COE has new standard for dam construction which the Devils Lake Dikes fell under and this drove costs way up. Was wondering if this project may fall under similar design criteria.

Compaction requirements on past levees - 87% std proctor on levees unless traffic road then 95% required.

No special rollers/ sheeps foot required to get 95%.

if blow counts, N < 5 Scrapers won't work in clay

haul lengths:

- a) 1/2 mi Scrapers OK
- b) 3/4 mi Off-Road Dump Trucks
- c) >3/4 mi use side/belly dumps

N>6 self loading push/pull Cat 627 Scapers w/ 400 ft move:

20 cy Bulk volume w/ 12-13 cy actual compacted

3 to 4 min Roundtrip....15 lds/hr x 10 hr/day = 150 lds * 13 cy/ld = 1900 cy/day

For Wet condition:

Use Cat 365 (hydraulic excavator) w/ off-road dump trucks

Cat 385 is a larger excavator w/ 7cy bucket

Trucks = 40 ton haul capacity.....40 * 2000 lb/ton = 80,000 # / 110 pcf (material) = 27 cy compacted soil

size number of trucks to match excavator bucket



Telephone Memo

Date: 12/11/09

Time:

Paul Nielsen of Barr Engineering Company

placed a call to received a call from received a voice mail from left message/voice mail to

Name	Position	Company	Telephone
Brian Johnston	Project Manager	Wanzek Construction	701-281-6406
			- -
			- -
			- -

Re: **Project Name:** **Project Number:**
 Fargo Moorhead Feasibility Study 34 / 09 - 1004 . 00 Job: 200 Task:600

Notes: Originally called Dave Knain of Wanzek and he said Brian would be the one to talk to.

Top soil stripping of top 8" - Use 5 - D8's (Cat 305 HP Dozers) supported by 1-Grader & 2 smaller dozers
to get about 1000 CY/hr production

Dry channel excavation (10-15 ft deep) using 4-5 Cat 627 Scrapers you could get 1500 CY/HR

If clay MC > 45% then use pans w/ tractor

In Breckenridge MC = 60% and Wanzek used tractors w/pans, they were able to achieve 92-93% compaction with equipment wt only, no rollers

Use one tractor with disk for every 3 scapers at embankment.

For labor use ND Davis Bacon rates on ND side and MN on MN side, workers will be the same though. Will need to pay work force per diem since local area can not supply pool. He says they use \$60/day and I asked if \$75/day maybe more realistic he said OK but is on high side

He said 1:20 ratio of mechanics to pcs of equipment was used on a previous job where they had 40 pcs of equipment and 2 FT mechanics & 1 FT fuel person servicing the equipment

Brian also e-mailed budget numbers he had sent to Ron Bergan.



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Memorandum

To: Project File
From: Paul Nielsen
Subject: E-mail correspondence regarding cost estimates
Date: December 11, 2009
Project: 34/09-1004 Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study

Contractor Cost Discussion – Channel Construction

From: Brian Johnston [bjohnston@wanzek.com]
Sent: Friday, December 11, 2009 1:05 PM
To: Paul Nielsen
Subject: FW: Budget numbers

BRIAN JOHNSTON
Project Manager

WANZEK

Heavy/Industrial Constructors
701.281.6406 direct
701.212.7235 cell
701.282.6166 fax

From: Brian Johnston
Sent: Friday, November 20, 2009 10:03 AM
To: Ron Bergan
Cc: Gary Beeter; Rush Waite
Subject: Budget numbers

Ron, below is a list of unit rates based on the operations listed. I didn't include any incidental items such as snow removal, dewatering, slower productions for frost or sand seams. The numbers include a high end overhead / indirect cost without mobilization. I estimated fuel at \$3.25 / gallon. Taking a quick look through the numbers, I think the seeding price can be greatly reduced, but if more importantly, if designed properly most of the spoils pile can be returned to farmable land, reducing the seeding quantity by as much as 1500 – 2000 AC. Without a rough sketch of the river crossings, it is hard to tell their intentions, but I do not see how they can spend \$64 million to cross the Wild Rice. I have a couple more ideas, and we would be more than happy to sit down with you and spend some time a page turn through the preliminary ideas to see where the costs could be reduced.

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Strip Topsoil – Channel and Berm - \$1.75 / CY
Excavation – Dry - \$1.85 / CY
Excavation – Wet - \$2.50 / CY
Replace Topsoil – Channel and Berm - \$2.00 / CY
Seeding - \$1750 / AC

BRIAN JOHNSTON
Project Manager

WANZEK

Heavy/Industrial Constructors
701.281.6406 direct
701.212.7235 cell
701.282.6166 fax

From: Ron Bergan [mailto:ronb@facnd.com]
Sent: Thursday, November 19, 2009 9:36 AM
To: Brian Johnston
Subject: very quick visual model of a diversion channel

Brian,

Here is a rough model of what the diversion channel could look like. It is important to get a rough estimate quickly as there are meetings Monday and Tuesday.

Thanks,

Ron

Confidentiality Notice: The information contained in this transmittal, including any attachment, is privileged and confidential information and is intended only for the person or entity to which it is addressed. If you are neither the intended recipient nor the employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any disclosure, copying or distribution or the taking of any action in reliance on the contents of this transmittal is strictly prohibited. If you have received this transmittal in error, please contact the sender immediately and delete this transmittal from any computer or other data bank.



Telephone Memo

Date: 12/15/09

Time:

Paul Nielsen of Barr Engineering Company

placed a call to received a call from received a voice mail from left message/voice mail to

Name	Position	Company	Telephone
Terry Starks cell (612) 845-2233	Civil/Engineering Sales	Cemstone	651-905-1500
			- -
			- -
			- -

Re: **Project Name:** **Project Number:**
 Fargo Moorhead Feasibility Study 34 / 09 - 1004 . 00 Job: 200 Task:600

Notes: Concrete Supplier

They would set up portable batch plants on-site for large volumes

Typical 4000psi mix like MnDOT 3Y43 = \$90 / cy + tax



Telephone Memo

Date: 12/15/09

Time: 1:00 - 1:15

Paul Nielsen of Barr Engineering Company

placed a call to received a call from received a voice mail from left message/voice mail to

Name	Position	Company	Telephone
Bill Fisher		Hugh Munro Construction Canada	204-981-1146 - - - - - -

Re: **Project Name:** **Project Number:**
 Fargo Moorhead Feasibility Study 34 / 09 - 1004 . 00 Job: 200 Task:600

Notes: Obtained Bill's name from Ray Hay of Manitoba Floodway.

Bill worked on the original Winnipeg Diversion Channel and is working on Current channel expansion.

-indicated that a construction ditch with sump is a necessity to capture any surface water

-Rain days are complete wash out days

- snow during winter is a real issue during winter construction, they work year round at all temps, some contractors don't work at -30 deg C. (-22 deg F). Problem with constructing embankments during winter and need to come back in summer with dozers to reshape.

-They use 6 wheel off-road dump trucks with large hydraulic excavators (this equipment was unavailable during original diversion project).

-groundwater was an issue during original channel construction but not on current expansion.

- for embankment construction you would need 1-D8 for every 4 scrapers

-Canadian operators w/benefits make about \$35/hr at most



Telephone Memo

Date: 12/15/09

Time:

Paul Nielsen of Barr Engineering Company

placed a call to received a call from received a voice mail from left message/voice mail to

Name	Position	Company	Telephone
Ron	Estimator	J & L Steel Erectors	715-808-0463
			- -
			- -
			- -

Re: **Project Name:** **Project Number:**
 Fargo Moorhead Feasibility Study 34 / 09 - 1004 . 00 Job: 200 Task:600

Notes: Rebar Installation:

Install rebar: \$0.40 / LB
Material: \$0.40 - 0.45 /LB add \$0.10 epoxy

Total F&I = \$0.85 /lb



Telephone Memo

Date: 12/15/09

Time:

Paul Nielsen of Barr Engineering Company

placed a call to received a call from received a voice mail from left message/voice mail to

Name	Position	Company	Telephone
Roger Toenies	Estimator	Lunda Construction	651-437-9666
			- -
			- -
			- -

Re: **Project Name:** **Project Number:**
 Fargo Moorhead Feasibility Study 34 / 09 - 1004 . 00 Job: 200 Task:600

Notes: Roger A. Toenies, P.E. Lunda Construction Company 15601 Clayton Ave. S. Rosemount, MN 55068 Ph: 651-437-9666 Fax: 651-437-1035

asked for following standard "bid" unit prices on typical MnDOT Bridges:

- 1) Furnishing 12" dia piling x 0.25" wall (60 ton) - \$20.00 / LF
- 2) Driving 12" dia Piling = \$3.00 /LF
- 3) Concrete 1A43 (footing) = \$325 / CY Basic Concrete Material = \$90/CY+ tx
- 4) Concrete 3Y43 (air-entrained, abuts, piers) = \$350 - \$400 / CY
- 5) Black Rebar (F & I) = \$1.00/ LB
- 6) Epoxy Rebar = \$1.10 /LB

12/22/09 called for additional "Bid prices"

- Bridge Approach Panels - \$70/sy
- Bridge Slab Concrete - \$12 - \$13 /sf
- Type F rail (slip formed) - \$50 /lf
- Type F Rail (formed) - \$65 / lf
- Expansion Jt. Device - \$40/ lf
- Concrete Wearing Course - \$ 2 - \$ 3 / Sf
- 54" Prestressed beam - \$120 /lf (guess,varies with materail quote)
- Diaphragms for 54" - \$50/lf (guess)
- Driven 12" C-I-P Piles- \$3/lf
- Furnish 12" C-I-P Piles - \$24/ lf

Overall bridge cost has seen \$120/sf but price goes down with deck size , multiple spans could be \$100/sf



Telephone Memo

Date: 12/17/09

Time:

Paul Nielsen of Barr Engineering Company

placed a call to received a call from received a voice mail from left message/voice mail to

Name	Position	Company	Telephone
Ruth	Sales	Sioux City Foundry Co.	800-831-0874
			- -
			- -
			- -

Re: **Project Name:** **Project Number:**
 Fargo Moorhead Feasibility Study 34 / 09 - 1004 . 00 Job: 200 Task:600

Notes: Rebar Suppliers Sioux City Foundry Co. 800-831-0874 Ruth

Rebar Material

Black rebar: \$41 /100 = \$0.41 / LB max seen \$0.56/lb

Epoxy rebar: \$48 /100 = \$0.48 / LB max seen \$0.65/lb



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Minneapolis, MN • Hibbing, MN • Duluth, MN • Ann Arbor, MI • Jefferson City, MO • Bismarck, ND

Memorandum

To: Project File
From: Paul Nielsen
Subject: E-mail correspondence regarding cost estimates
Date: December 18, 2009
Project: 34/09-1004 Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study

Price Quote – Cretex Concrete Products

From: Joel Mich [jmich@cretexnorth.com]

Sent: Friday, December 18, 2009 2:41 PM

To: Paul Nielsen

Subject: RE: Fargo Moorhead

Paul:

Jason Klein told me you called him regarding this as well.

For estimating purposes, use the following, delivered to Fargo (tax applies now to the whole price with current tax laws so add on top of these numbers:

MN45 130/ft

MN54 145/ft

MN63 155/ft

72 162/ft

I would be more than happy to meet in person to discuss this project when the appropriate time comes

Joel Mich

Cretex Concrete Products

"The Shape of Solutions"

P:\Mpls\34 ND\09\34091004 Fargo Moorhead Metropolitan Feas. Study\WorkFiles\Project Data\Phase3\700_Cost_Est\Work_Analysis\Price Quotes\2009_12_18_Cretex_PrecastBeam.doc

To: Project File
From: Paul Nielsen
Subject: Cost Estimate Price Quotes
Date: December 18, 2009
Page: 2
Project: 34/09-1004 Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study
c:

jmich@cretexnorth.com

cell: 763-370-3712

From: Paul Nielsen [mailto:PNielsen@barr.com]

Sent: Thursday, December 17, 2009 9:29 AM

To: Joel Mich

Subject: Fargo Moorhead

Joel:

The attached pdf contains preliminary bridge sizes for the Fargo/ Moorhead Diversion Channel Bridges. Note there are still several options (6) on the Table. Three option goes thru Minnesota with 3 different flow rates and there are still 3 North Dakota options. We have no idea on number of bridges that we be included in each contract.

Could you provide us with some preliminary numbers for Precast Beams for M45, M54, M63, M72.....FOB Fargo? If I remember right, shipping does not get taxed.

If we know material vs shipping or all together we will add sales tax, this is prelim so some extra tax wwill have little impact. Overall project is hundreds of millions.

Thank you,

Paul Nielsen

952-832-2753

Quote #: RPIS00E59P-1

LBFoster

Construction Products

To: Barr Engineering Company4700 77th St.
Suite 200
Minneapolis, MN 55435**Attention:** Paul Nielsen**Phone:** (952) 832-2829**Fax:** (952) 832-2601**Mailing Address:**L. B. Foster Company
125 Windsor Drive
Suite 122
Oak Brook, IL 60523**Phone:** (630) 954-1450 x 110**Mobile:** (773) 519-1768**Fax:** (630) 954-1429**Date:** 12/18/2009**Re:** Flood Diversion**Shipping Location:** Fargo, ND**We are pleased to quote as follows:**

	<u>Qty.</u>	<u>Description</u>	<u>Price / UOM</u>
1.	1,400.00 / FT	New Domestic 12" OD x .250 (31.40#) ERW Pipe Piling ASTM A252 GR 3 with square cut ends. Lengths, 30'-50' in 5' increments.	\$14.3000 / FT
2.	620.00 / FT	New Domestic HP 14X73# A57250. Steel H-Pile, Lengths 30'-50' in 5' increments.	\$31.7500 / FT
3.	2,075.00 / SF	New Domestic PZC 13 A57250. Steel Sheet Pile, Lengths 35'-50' in 5' increments.	\$17.6000 / SF
4.	1,860.00 / SF	New Domestic PZC 18 A57250. Steel Sheet Pile, Lengths 35'-50' in 5' increments.	\$19.6500 / SF
5.	1,640.00 / SF	New Domestic PS27.5 A57250. Steel Flat Sheet Pile, Lengths 25'-50' in 5' increments.	\$24.1500 / SF


FOB: Shipping point, full freight allowed via truck to Fargo, ND.**Terms:** Net 30 with Credit Approval.**Shipment:** Quoted from stock or next available mill rolling(s). Subject to prior sale.**Notes:** Retainage in any manner is not permitted. Prices quoted do not include sales tax. This quote is for budget pricing only. Prices based on shipping in full truck load quantities only.Please visit our website at www.lbfoster.com and www.sheet-piling.com

This quotation is subject to the conditions on the attached sheet and the terms hereof shall constitute the exclusive agreement of the parties and all conflicting or additional terms in Buyer's purchase order or any other such documents of Buyer shall have no force or effect.

Accepted this _____ day of _____ 20 _____

By: _____ (Customer Name)

(Signed)**L.B. FOSTER COMPANY**

By: 
Richard Mpistolarides
Sales Representative
rpistol@lbfosterco.com

TERMS AND CONDITIONS

1. Prior Sale, Mill Rollings --- All material is offered subject to prior sale and/or availability of current mill rollings and Seller shall have no liability whatsoever from a failure to provide goods because of prior sale or unavailability of current mill rollings.
2. Prices --- Unless otherwise specified herein, prices noted on the face of this document are firm for thirty (30) days; subject, however, to the provision that, if, before shipment of this order, Seller should receive increases from its manufacturers or suppliers, the right is reserved to adjust the above price to those in effect at time of shipment without notice.
3. Delays --- Seller shall not be responsible for any failure or delay in delivery due to fires, floods, labor troubles, whether or not due to fault of the Seller, breakdowns, delay of carriers, mill delay, total or partial failure for any reason of the usual sources of supply or transportation, requirements or request of any government or subdivision thereof, or any similar or dissimilar cause beyond the Seller's direct control. In the event of inability of the Seller, for any cause beyond Seller's control, to supply the total demands for any materials specified in this order, Seller may allocate its available supply among any or all Buyers on such basis as Seller at its sole discretion may decide without liability for any failure to perform the contract which may be of consequence thereof. SELLER SHALL IN NO EVENT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES WHATSOEVER RESULTING FROM ANY FAILURE OR DELAY IN DELIVERY WHETHER FROM CAUSES BEYOND SELLER'S CONTROL OR NOT.
4. Payments and Credit --- Shipments, deliveries and performance of work shall at all times be subject to the approval of the Seller's credit department. Invoices submitted by Seller under this order are payable at par in legal tender of the United States of America in the city designated in the remittance address, upon the payment terms and in the amounts set forth hereon. Discount is applicable only to the amount shown on the face of the invoice as "Discount Amount". Whenever reasonable grounds for insecurity should arise with respect to due performance by the Buyer, Seller may demand different terms of payment from those specified on the face of this order and may demand satisfactory security for the performance of Buyer obligation. Any such demand shall be in writing and Seller may, upon making such demand, suspend shipments hereunder. If, within the period stated in such demand, Buyer fails or refuses to agree to such different terms of payment, or fails or refuses to give adequate security for due performance, Seller may at its option treat such failure or refusal as a repudiation of a portion of order which has not been fully performed or may resume shipments under reservation of possession or of a security interest and may demand payment against tender of documents of title. AS LIQUIDATED DAMAGES AND NOT AS A PENALTY BUYER SHALL BE OBLIGATED TO PAY ON ALL ACCOUNTS NOT PAID ON THE DUE DATE THEREOF, THE LOWER OF (I) 1 1/2% PER MONTH ON THE OUTSTANDING ACCOUNT BALANCE OR (II) THE HIGHEST RATE PERMITTED BY LAW TOGETHER WITH ALL ATTORNEY'S FEES INCURRED BY SELLER TO COLLECT ANY DELINQUENT ACCOUNTS. Buyer agrees that notwithstanding any endorsements or legend appearing on Buyer's checks, drafts or other orders for payment of money they do not, solely because of such endorsement of legend or otherwise, constitute payment in full or settlement of the account. No failure of the Seller to exercise any right accruing from any default of the Buyer shall impair Seller's right in case of any subsequent default of the Buyer.
5. Standard Tolerances --- Except in particulars specified by the Buyer expressly agreed to in writing by Seller, the materials furnished hereunder are produced in accordance with standard manufacturing practices at the country of origin. All materials are subject to mill tolerances and variations consistent with normal manufacturing practice with respect to dimension, weight, straightness, section, composition and mechanical properties, normal variations in surface and internal conditions and in quality, to deviations in tolerances and variations consistent with practical testing and inspection methods and to regular mill practices of Seller's suppliers of over and under shipments. The Seller is not responsible for any deterioration in quality which may result from processing operations or improper use by the Buyer.
6. Changes --- Order or specifications may not be cancelled or changed except upon terms that will indemnify the Seller against all loss. Postponement of delivery at Buyer's request, if for a period of more than thirty days, will not be made without Seller's approval first being obtained. Seller assumes no responsibility for any changes in specifications unless such changes are confirmed in writing by Buyer and accepted in writing by Seller. Any price variation resulting from such changes shall become effective immediately upon the acceptance of such changes.
7. Delivery and Transportation --- Delivery terms are as stated on the face of this document. Terms are subject to change without notice to those in effect at time of shipment.
 - A. Shipments F.O.B. Destination --- Unless indicated otherwise on the face of this document, all shipments made F.O.B. destination at Buyer's plant or such other place served by common carrier at which Buyer or his representative takes custody of the product, when custody is taken at a point within the United States, are based upon prevailing freight rates. Freight will be allowed on delivered prices only to the extent set forth on the face of the invoice. Cash discounts provided for in this order shall apply only to the discount value as indicated on the face of the invoice. In the case of pickup by the Buyer, Buyer's truck is destination and Seller will not deliver or bear any cost of shipment or transportation or make any allowance with respect thereto. Seller will in no event be responsible for spotting, switching, drayage, or other local charges at destination.
 - B. Deliveries F.O.B. Shipping Point --- Unless indicated otherwise on the face of this document, when the order is sold F.O.B. shipping point, whether the same be premises of Seller or its supplier, the cost of transportation thereof shall be borne by the Buyer.
8. Inspection --- Where Buyer is to inspect, inspection and acceptance must be made before shipment.
9. Warranty and Limitation of Remedies --- Seller undertakes that the products sold hereunder shall conform to specifications on the face hereof. Upon receipt of definite shipping instructions from Seller, Buyer shall return all defective material or material not conforming to such specifications to Seller after inspection by Seller, or at Seller's election subject to inspection by Seller's representative. The material returned must be returned in the same condition as when received by the Buyer. Defective material or material not conforming to specification so returned shall be replaced or repaired by the Seller without an additional charge or, in lieu of such replacement or repair, Seller may at its option, refund the purchase price applicable to such material. Seller agrees to pay return transportation charges not exceeding those which would apply from original destination on all defective material or material not meeting specification. However, Seller shall not be obligated for such charges when material returned proves to be free from defect and to meet specifications. Material which proves to be free from defect and to meet specifications shall be held by Seller for shipping instructions. Buyer shall furnish such instructions promptly upon request. SELLER'S LIABILITY SHALL BE LIMITED SOLELY TO REPLACEMENT OR REPAIR, OR, AT SELLER'S OPTION TO REFUNDING THE PURCHASE PRICE APPLICABLE TO DEFECTIVE MATERIAL OR MATERIAL NOT MEETING SPECIFICATIONS. SELLER SHALL IN NO EVENT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES OR FOR LOSS, DAMAGES OR EXPENSES DIRECTLY OR INDIRECTLY ARISING FROM THE USE OF THE MATERIAL INCLUDING, WITHOUT LIMITATION, WAREHOUSING, LABOR HANDLING AND SERVICE CHARGES NOT EXPRESSLY AUTHORIZED BY SELLER. THIS WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES (except for any warranty furnished by any supplier which runs directly in favor of the Buyer) GUARANTEES OR REPRESENTATIONS, EXPRESS OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE.
10. Claims --- Any course of dealings between the parties to the contrary notwithstanding, at Seller's election any claim for breach of warranty, failure or delay in delivery or otherwise, shall be deemed waived by the Buyer unless presented in writing to the Seller within ten days after receipt of material. No inspection or investigation of claims by the Seller even though occurring after the period above specified, shall be deemed a waiver of this provision. Carriers are responsible for goods lost or damaged in transit and Buyer must immediately notify the carrier in writing of such loss or damage.
11. Taxes --- All taxes of any sort now or hereafter imposed by any federal, state, municipal or other governmental agency that may be levied against this transaction at any time now or in the future are for the Buyer's account.
12. Source of Materials --- Unless otherwise expressly agreed upon, Seller has the right to obtain the material ordered from any source at its discretion.
13. Patents --- If any material shall be sold by Seller to meet Buyer's specifications or requirements and is not a part of Seller's standard line offered by it to the trade generally in the usual course of Seller's business, Buyer agrees to defend, protect and save harmless Seller against all suits at law or in equity and from all damage, claims and demands for actual or alleged infringement of any United States or foreign patent and to defend any suits or action which may be brought against Seller for any alleged infringement because of the sale of any such material.
14. Waivers --- No waivers by the Seller of any breach of any provisions hereof shall constitute a waiver of any other breach of such provision. Seller's failure to object to provisions contained in any communication from the Buyer shall not be deemed an acceptance of such provisions or as a waiver of the provisions of this contract.
15. Compliance With Laws, Rules and Regulations --- In the performance of its obligations hereunder, Seller shall comply with all applicable laws, ordinances, rules and regulations including, without limitation: Executive Order 11246 (Equal Employment Opportunity); Executive Order 11625 (Minority Business Enterprises); Vocational Rehabilitation Act of 1973 and Executive Order 11758 (Employment of Handicapped Persons); Veterans Employment and Readjustment Act of 1972 and Executive Order 11701 (Disabled Veterans and Vietnam Veterans); Executive Order 11141 (Age Discrimination in Employment); and Fair Labor Standards Act of 1938.
16. Timing of Billing to Buyer - Seller will invoice Buyer upon shipment from its supplier or facility, unless otherwise indicated on the face of this document.
17. Storage of Material For Buyer - If, at Buyer's request, goods covered by this document are held at Seller's facility or service provider for more than 21 days after they are available for shipment, Buyer shall accept Seller's invoice and pay said invoice based on payment terms set forth herein.
18. Material Reservation - Seller will only reserve material for 30 days with receipt of an executed purchase order, quote or order acknowledgement acceptable to Seller. After that time, material availability, price and shipment date may be adjusted, at Seller's option.



Barr Engineering Company
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Memorandum

To: Project File
From: Paul Nielsen
Subject: E-mail correspondence regarding cost estimates
Date: December 18, 2009
Project: 34/09-1004 Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study

Price Quote – Sheet Pile and Pipe Pile

From: SSwiech@skylinesteel.com
Sent: Friday, December 18, 2009 10:19 AM
To: Paul Nielsen
Subject: Red River Budget

Paul

I am sorry about the delay.

I wanted to work a nice summary for you on past market trends current market trends and what we anticipate for the near future on Sheet Pile & Pipe Pile.

But for the time being here are some prices you can plug which is the current market estimates thru the 1ST QRT 2010 delivered to ND & MN

PZ27 Paired approximately 50,000 SF

\$69.00/cwt (\$18.63/sf)

12"od x .250" wall Spiralweld Pipe A252 Gr.3

\$46.50/cwt (\$14.60/ft)

12-1/2" x .750" end plates attached \$52.00/ea

16"od x .250" wall Spiralweld Pipe A252 Gr.3

\$47.50/cwt (\$19.99/ft)

16-1/2" x .750" end plates attached \$79.30/ea

To: Project File
From: Paul Nielsen
Subject: Cost Estimate Price Quotes
Date: December 18, 2009
Page: 2
Project: 34/09-1004 Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study
c:

Kind Regards,

Steve Swiech

Skyline Steel

Phone: 708-444-0999

Fax: 708-444-0990

www.skylinesteel.com



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Memorandum

To: Project File
From: Matt Metzger
Subject: E-mail correspondence regarding cost estimates
Date: January 22, 2010
Project: 34/09-1004 Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study

Cost Conversation – Site Restoration

1-22-2010 around 11 am.

Matt Metzger and Jeff Lee contacted Mike at Prairie Restorations

Their input on our costs:

Assuming \$2400/acre is more than OK for seeding/mulching 6,000 acres.

Likely 15-20 species seeded at a total of 15-20 lbs/acre (9-10 lbs/acre of which is native grasses)

Would need cover crop seed in addition to that.

We asked "can you get that much seed?". Since the work would be known in advance, and occurs over the course of perhaps 4 years, he thought yes.

A rough cost of 3-years maintenance/establishment of \$40/acre+ was discussed.

With some contingency, this cost could be \$700,000 for the 6,000 acres, or \$115/acre for 3 years of maintenance/establishment.

MRM



Telephone Memo

Date: 5/1/10

Time:

Paul Nielsen of Barr Engineering Company

placed a call to received a call from received a voice mail from left message/voice mail to

Name	Position	Company	Telephone
Wes Pollnow, PE	Construction Manager	Obayashi/PSM JV	702-293-4924
			- -
			- -
			- -

Re:	Project Name: Fargo Moorhead Feasibility Study	Project Number: 34 / 09 - 1004 . 00 Job: 300 Task:700
------------	--	---

Notes: Pumping Concrete:

Wes is currently working on Hoover Bypass Project, Colorado River Bridge

Installed 50 ton cableway to facilitate construction of bridge adjacent to Hoover Dam

batch plant should be able to produce 100 cy/hr

- in order to make pumping efficient you want to be able to place 75 - 100 cy/hr

- typically he has seen 3/4" max aggregate used for pumping

- suggested that a 150 ton crane would not have a problem using a 7 or 9 cy bucket for placing concrete

- on Hoover Dam Bypass, they use a slick line to pump concrete out to another pump for placement



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Memorandum

To: Project File
From: Paul Nielsen
Subject: E-mail correspondence regarding cost estimates
Date: May 5, 2010
Project: 34/09-1004 Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study

Price Quote – Aggregate Industries, Inc. - Concrete

Mix	Rock	cement/void	Strength	Cement Content	Sack Content	Price
1A43	CA50	0.56	4500	590	6.28	\$106.40
3A32	CA50	0.5	3900	560	5.96	\$104.30
3X33	CA50	0.58	4700	665	7.07	\$111.65
3X33A	Granite	0.58	4700	665	7.07	\$136.65
3Y33	CA50	0.54	4300	605	6.44	\$107.45
3A43	CA50	0.5	3900	590	6.28	\$106.40
3Y43	CA50	0.54	4300	640	6.81	\$109.90
1C62	CA50	0.44	3200	470	5.00	\$98.00
1X62	CA50	0.58	4700	700	7.45	\$114.10
3X43	CA50	0.58	4700	700	7.45	\$114.10
3Y46	CA50	0.54	4300	640	6.81	\$109.90
Base price						
1C62				470	5	\$98.00

Minnesota Mix Calculator

2010 comparison by cement content

Prices are for comparison only not firm bidding numbers.

Prepared by Dave Sogn, Aggregate Industries, 5/25/2010 (701-361-2024)



Telephone Memo

Date: 5/25/10

Time: 9:30

Paul Nielsen of Barr Engineering Company

placed a call to received a call from received a voice mail from left message/voice mail to

Name	Position	Company	Telephone
Duane Dummas	Sales	Strata Corp. Ready Mix	701-277-9655
			- -
			- -
			- -

Re: **Project Name:** **Project Number:**
 Fargo Moorhead Feasibility Study 34 / 09 - 1004 . 00 Job: 300 Task:700

Notes: Local Concrete Supplier (West Fargo)

Said that \$100/cy would cover you



Telephone Memo

Date: 5/13/10

Time:

Paul Nielsen of Barr Engineering Company

placed a call to received a call from received a voice mail from left message/voice mail to

Name	Position	Company	Telephone
Ruth	Sales	Sioux City Foundry Co.	800-831-0874
			- -
			- -
			- -

Re: **Project Name:** **Project Number:**
 Fargo Moorhead Feasibility Study 34 / 09 - 1004 . 00 Job: 300 Task:700

Notes: Rebar Suppliers Sioux City Foundry Co. 800-831-0874 Ruth

Rebar Material

Black rebar: \$41 /100 = \$0.41 / LB max seen \$0.56/lb

Epoxy rebar: \$48 /100 = \$0.48 / LB max seen \$0.65/lb

Numbers above were from 12/17/09 call, Ruth indicated prices were still good



Telephone Memo

Date: 5/25/10

Time: 9:30

Paul Nielsen of Barr Engineering Company

placed a call to received a call from received a voice mail from left message/voice mail to

Name	Position	Company	Telephone
Dave Sogn	Sales	Aggregate Industries	218-291-4451
			- -
			- -
			- -

Re: **Project Name:** **Project Number:**
 Fargo Moorhead Feasibility Study 34 / 09 - 1004 . 00 Job: 300 Task:700

Notes: Local Concrete Supplier (Moorhead)

Will send a spreadsheet which will give costs in todays dollars

spreadsheet based on MN/DOT 1C62 mix as base (470# cementitious mat/CY)

volume of cement controls price

mass concrete is typically lower due to amount of fly ash



Telephone Memo

Date: 5/25/10

Time: 8:30

Paul Nielsen of Barr Engineering Company

placed a call to received a call from received a voice mail from left message/voice mail to

Name	Position	Company	Telephone
John Lee	Civil/Engineering Sales	Cemstone	651-688-9292
cell (651)775-0433			- -
jlee@cemstone.com			- -

Re: **Project Name:** **Project Number:**
 Fargo Moorhead Feasibility Study 34 / 09 - 1004 . 00 Job: 300 Task:700

Notes: Concrete Supplier

They would set up portable batch plants on-site for large volumes, they do not have plant near by: add \$4/cy

-On a 34,000 cy wind farm in ND, 2-3 month job the portable batch plant added \$5/ cy

Price used in Dec 2009: Typical 4000psi mix like MnDOT 3Y43 = \$90 / cy + tax
This price would still be good for all mixes plus \$4/cy for cost of plant set-up

For mass concrete and all other mixes (footings, pile fill...) average price would still be valid, mass concrete requires more fly ash & additives

For work in Minnesota ONLY, environmental laws mandate that trucks can not wash out on site and must go back to batch plant...add \$2/cy for MN concrete (\$20 per truck / 10 cy truck = \$2/cy)

For MN/DOT bridges need to pay for concrete inspection fee, add \$3/cy for bridges on Minnesota side

For winter concrete would need to add \$6/ cy above \$94/cy = \$100/cy

Aggregate Industries & Strata have batch plants in area, suggested I also contact them.



Telephone Memo

Date: 5/26/10

Time: 1:30

Paul Nielsen of Barr Engineering Company

placed a call to received a call from received a voice mail from left message/voice mail to

Name	Position	Company	Telephone
Chris Bourassa	Sales	Midwest Concrete Pumping	701-218-1802
			- -
			- -
			- -

Re: **Project Name:** **Project Number:**
 Fargo Moorhead Feasibility Study 34 / 09 - 1004 . 00 Job: 300 Task:700

Notes: Local Concrete Supplier (Fargo/Moorhead)

small pumps: \$155/hr + \$3/cy

Large Pumps: \$200/hr + \$3/cy

probably use average of the two \$175/hr + \$3/cy

said that over course of year that cost works out to about \$12/cy said on large job like this that this \$/cy price would decrease

Quote #: RPIS00E59P-1

LBFoster

Construction Products

Mailing Address:
 L. B. Foster Company
 125 Windsor Drive
 Suite 122
 Oak Brook, IL 60523

To: Barr Engineering Company
 4700 77th St.
 Suite 200
 Minneapolis, MN 55435

Phone: (630) 954-1450 x 110
Mobile: (773) 519-1768
Fax: (630) 954-1429
Date: 12/18/2009

Attention: Paul Nielsen
Phone: (952) 832-2829
Fax: (952) 832-2601

Re: Flood Diversion

Shipping Location: Fargo, ND

We are pleased to quote as follows:

	<u>Qty.</u>	<u>Description</u>	<u>Price / UOM</u>
1.	1,400.00 / FT	New Domestic 12" OD x .250 (31.40#) ERW Pipe Piling ASTM A252 GR 3 with square cut ends. Lengths, 30'-50' in 5' increments.	\$14.3000/FT \$17.30/FT
2.	620.00 / FT	New Domestic HP 14X73# A57250. Steel H-Pile, Lengths 30'-50' in 5' increments.	\$31.7500/FT \$34.95/FT
3.	2,075.00 / SF	New Domestic PZC 13 A57250. Steel Sheet Pile, Lengths 35'-50' in 5' increments.	\$17.6000/ SF
4.	1,860.00 / SF	New Domestic PZC 18 A57250. Steel Sheet Pile, Lengths 35'-50' in 5' increments.	\$19.6500/ SF
5.	1,640.00 / SF	New Domestic PS27.5 A57250. Steel Flat Sheet Pile, Lengths 25'-50' in 5' increments.	\$24.1500/ SF \$24.55/SF

FOB: Shipping point, full freight allowed via truck to Fargo, ND.
Terms: Net 30 with Credit Approval.
Shipment: Quoted from stock or next available mill rolling(s). Subject to prior sale.
Notes: Retainage in any manner is not permitted. Prices quoted do not include sales tax. This quote is for budget pricing only. Prices based on shipping in full truck load quantities only.

Please visit our website at www.lbfoster.com and www.sheet-piling.com

This quotation is subject to the conditions on the attached sheet and the terms hereof shall constitute the exclusive agreement of the parties and all conflicting or additional terms in Buyer's purchase order or any other such documents of Buyer shall have no force or effect.

L.B. FOSTER COMPANY

 By _____
 Richard Mpistolarides
 Sales Representative
rpistol@lbfosterco.com

Accepted this _____ day of _____ 20____

By: _____ (Customer Name)

_____ (Signed)



Telephone Memo

Date: 6/4/10
Time: 9:00-10:00

Paul Nielsen of Barr Engineering Company

- placed a call to
- received a call from
- received a voice mail from
- left message/voice mail to

Name	Position	Company	Telephone
Butch Trebesch		Ames Construction	952-435-7106
butcht@amesco.com			- -
			- -
			- -

Re: **Project Name:** Fargo Moorhead Feasibility Study **Project Number:** 34 / 09 - 1004 . 00 Job: 300 Task:700

Notes: Earth Work:

- Ames has bid several projects in Fargo/Moorhead area....generally projects have been to small for them to be competitive
- In general COE work involves much tighter specs than typical non governmental jobs, therefore cost for COE construction work runs higher

Wages:

- Union rates from Minneapolis would allow for good productive crews
- Main production people are from w/in Ames, so you will be paying higher rates
- \$75/day pier diem is good

Earth Work:

- indicated that a excavator would most likely be a 385C w/ 12 CY (? 2*6???)bucket in lieu of 365C w/5cy bucket
- at end of day, excavator would average about 2 cycles/min
- he expected that we should see a average excavation cost of \$3 - \$4 /cy
- cost should include a mini excavator to clean haul truck beds, due to clay sticking to bed-
- Ames uses "Heavy Bid" software for estimating
- For equipment cost for excavation, Ownership & Operating cost are included directly into the unit cost calculation. For structures, cranes...Ownership is broken out by weeks or months on job separate from FOG used in unit costs

Bridges:

- I indicated we were using \$120/sf for bridges based on MN/DOT State Aide cost history, Butch said these were on the high side for the current economic conditions.

Concrete pices, siad Aggregate Industries would be good source, expected we would see \$100/cy





Barr Engineering Company
4700 West 77th Street • Minneapolis, MN 55435-4803
Phone: 952-832-2600 • Fax: 952-832-2601 • www.barr.com *An EEO Employer*

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Memorandum

To: Project File
From: Paul Nielsen
Subject: E-mail correspondence regarding cost estimates
Date: June 15, 2010
Project: 34/09-1004 Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study

Price Quote – Skyline Steel – Piles

From: SSwiech@skylinesteel.com
Sent: Friday, May 14, 2010 2:46 PM
To: Paul Nielsen
Subject: RE: Red River Budget
Attachments: New HP Sections.pdf

Paul-
Here is an update on market prices delivered per your request.

HP14 sections from 73#-117#
\$0.41/lbs

On our new HP16 & HP18 sections
\$0.45/lbs

These HPile prices should be good thru the end of 3rd Qrt

PZ27 has actually moved down due to the market and competition.
Currently pricing out near **\$17.50/sf** delivered

Our cold rolled equivalent SKZ24 is approximately **\$16.45/sf** delivered
Again these prices should hold you thru the end of the 3rd Qrt.

On the pipe. We are still seeing increases. The prices below should hold you thru July of 2010
12"od x .250"
\$17.90/ft

16"od x .250"
\$23.99/ft

To: Project File
From: Paul Nielsen
Subject: Cost Estimate Price Quotes
Date: June 15, 2010
Page: 2
Project: 34/09-1004 Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study
c:

I have attached a list of the new H-Pile Sections for your reference.

Have a great weekend and let me know if there is anything else I can do for you.

Kind Regards,

Steve Swiech
Outside Sales

Skyline Steel LLC
16335 S Harlem Ave
Suite 150
Tinley Park, IL 60477
Main Phone: (708)-444-0999
Fax: (708)-444-0990

www.skylinesteel.com

Paul Nielsen <PNielsen@barr.com>
05/13/2010 04:00 PM

To "'SSwiech@skylinesteel.com"'
<SSwiech@skylinesteel.com>

cc

Subject RE: Red River Budget

Steve:

We are in updating cost for the Fargo Moorhead Diversion feasibility report. Have any of these numbers changed since 12/09?

Can you also give material cost for some H-pile, including HP14's, 16's & 18's? Are H-piles basically the same price per pound for the different sizes?

Paul

From: SSwiech@skylinesteel.com [<mailto:SSwiech@skylinesteel.com>]
Sent: Friday, December 18, 2009 10:19 AM
To: Paul Nielsen
Subject: Red River Budget

Paul

To: Project File
From: Paul Nielsen
Subject: Cost Estimate Price Quotes
Date: June 15, 2010
Page: 3
Project: 34/09-1004 Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study
c:

I am sorry about the delay.

I wanted to work a nice summary for you on past market trends current market trends and what we anticipate for the near future on Sheet Pile & Pipe Pile.

But for the time being here are some prices you can plug which is the current market estimates thru the 1ST QRT 2010 delivered to ND & MN

PZ27 Paired approximately 50,000 SF
\$69.00/cwt (\$18.63/sf)

12"od x .250" wall Spiralweld Pipe A252 Gr.3
\$46.50/cwt (\$14.60/ft)
12-1/2" x .750" end plates attached \$52.00/ea

16"od x .250" wall Spiralweld Pipe A252 Gr.3
\$47.50/cwt (\$19.99/ft)
16-1/2" x .750" end plates attached \$79.30/ea

Kind Regards,

Steve Swiech
Skyline Steel
Phone: 708-444-0999
Fax: 708-444-0990

www.skylinesteel.com



PRICE Estimate

Date: 6/30/2010

Matthew Metzger: Below is our estimate of prices for the named project:

Project Name: Fargo Flood Diversion

Project Address: West Fargo, ND

Quantity 50000 ton + or - Rip-Rap, 10,000 Ton Granular Bedding Material + or -

Product	Price FOB Ortonville MN	Delivery	Total
Class III Rip-Rap	\$12.50 per ton	\$26.00 per ton	\$38.50 per ton
Class IV Rip-Rap	\$12.50 per ton	\$26.00 per ton	\$38.50 per ton
Class V Rip-Rap	\$12.50 per ton	\$30.00 per ton	\$42.50 per ton
Granular Bedding Material	\$10.20 per ton	\$26.00 per ton	\$36.20 per ton

- **Assumptions**
- **Prices are based on current market conditions. Add 3-5% per year for inflation.**
- **No fuel escalation is figured in.**
- **Prices are based on delivery with full truck trailer conditions. The cost would be higher for single unit delivery.**
- **No prevailing wage is included.**
- **No DBE participation is included.**
- **If Corps of Engineer Specs are used instead of MNDOT the cost may rise.**

Terms: All prices are net plus sales tax, **where applicable**. A copy of this quote must be signed and returned within 30 calendar days after award of job to contractor. **The terms and conditions for this quote is valid provided customer's account is in good standing at the time of the order.**

, Dave Sogn (701)-361-2024.

AGGREGATE INDUSTRIES

North Central Region
PO Box 1036
Moorhead, MN. 56561-1036
Telephone: 218-236-9640
Fax: 218-236-5660
www.aggregate-us.com

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Memorandum

To: Project File
From: Matt Metzger
Subject: Phone correspondence regarding cost estimates
Date: July 9, 2010
Project: 34/09-1004 Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study

Cost Quote – Shooting Star Native Seed – Site Restoration Costs

JTL2 of Barr Engineering contacted Shooting Star Native Seed (certified distributor) regarding site restoration/seeding costs. The cost quote for Dry Prairie Northwest (modified) native prairie seed mix was \$37.50/lbs for seed, or about \$412.50/acre assuming 11 lbs/acre (including cover crop at 3 lbs/acre).

At the same time, maintenance costs were developed referencing ongoing Barr Engineering work at several mining operation site restoration projects in northern Minnesota, on which the Phase 3 estimate maintenance costs are based.



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Memorandum

To: Project File
From: Matt Metzger
Subject: Phone correspondence regarding cost estimates
Date: July 14, 2010
Project: 34/09-1004 Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study

Cost Quote – Aggregate Industries, Moorhead, MN – Class V Aggregate Base

The cost of doing it today would be \$10.75 per ton. We convert from tons to yards at 1.4 tons per yard loose and 1.8675 tons per yard compacted volume. I would add 5% per year for inflation.

Thanks

Dave

David Sogn

Senior Sales Representative

Aggregate/Ready Mix

Aggregate Industries North Central Region

800 Holiday Drive, Unit 240, Moorhead, MN 56561

Phone: 218-291-4451 , Cell 701-361-2024

Fax: 218-236-5660

E-mail: david.sogn@aggregate-us.com

Dave,

Could I please obtain a price quote for 100,000 CY Class V Aggregate Base, delivered to Harwood, ND?

Thank you.

Matthew R. Metzger, PE

Civil Engineer
Minneapolis office: 952.832.2830