

FCP MN Diversion Phase 4

Fargo-Moorhead Metro Flood Risk Management Project, Feasibility Study, Phase 3, Report for the US Army Corps of Engineers and the cities of Fargo, ND & Moorhead, MN

State Sales Tax Source: MN Department of Revenue Website 2010 sales tax rate 6.875%. City/County sales tax not included. Not assuming all materials are purchased in Clay County.

Sources: U.S. Department of Labor January 2009, MN Department of Revenue June 2010, 2010 RS Means Heavy Construction Cost Data

Contractor assumptions for the MII estimates are coordinated with the USACE. Contractor assumptions are developed in the estimate to reflect one possible scenario by which the work could be constructed. Other scenarios are certainly possible. These contractor assumptions apply to items in estimate groups 09 Channels & Canals and 11 Levees & Floodwalls. These assumptions do not apply to cost estimate group 08 Roads, Railroads and Bridges, as discussed in Section G3.1 and Section G3.2.

The cost estimate assumes the work is performed by a prime general contractor performing management duties, and discipline-specific subcontractors performing work tasks. This arrangement exists once, estimate-wide. However, this arrangement and the estimated contractor costs are assumed to be applicable to each 1-year to 2-year phase of the \$200M/year funding scenario utilized, as discussed during the July 1st, 2010 meeting with USACE. A summary of contractor assumptions is included in Consultant Exhibit G-K.

PRIME CONTRACTOR:

Job Office Overhead (JOOH) costs are those that occur specifically as a result of a particular project and include contractor supervision, field engineering, surveying, quality control, testing, shop drawings, safety and security, temporary offices, permits and fees, travel, vehicles, supplies and other miscellaneous items to run a field office. JOOH rates are individualized by contractor. A JOOH of 5% is assumed for the earthwork prime contractor. This is assumed to cover all estimated costs associated with mobilization/demobilization for the prime contractor. This percentage assumes the prime contractor functions as a management company in this estimate and does not incur significant costs to manage the fleet of equipment (rather, this cost is incurred by the subcontractors). Page 5-8 of EPA/COE guidance document EPA 540-R-00-002 indicates 5% for JOOH is appropriate for large projects over \$500,000. A summary of contractor assumptions is included in Consultant Exhibit G-K1.1.

Home Office Overhead (HOOH) is commonly referred to as general and administrative (G & A) cost. Typical estimated costs associated with HOOH are the contractor's main office, furniture and equipment, equipment yard, management and staff, office utilities, corporate vehicles, business insurance and taxes. A HOOH of 5% was used for the prime contractor. Page 5-8 of EPA/COE guidance document EPA 540-R-00-002 indicates 5% for HOOH is appropriate. A summary of contractor assumptions is included in Consultant Exhibit G-K1.1.

Mobilization/demobilization includes all costs required to furnish construction equipment and supplies at the beginning, during and at the end of the Project. The prime contractor is assumed to have no mobilization/demobilization (0%), as the entity is assumed to be performing a managerial role only. The prime contractor is assumed to not be performing the role of a subcontractor for facilities/components of the Project, and it does not have significant field equipment mobilization needs beyond that covered under JOOH. A summary of contractor assumptions is included in Consultant Exhibit G-K1.1.

Contractor profit is determined using USACE weighted guidelines method (ETL 1110-2-573, Section 5.3.3) to calculate the percentage for prime contractor profit at 9%. Section 5.3 of COE ETL 1110-2-573 identifies a profit range of 3% (for basic work) to 12% (for the most risky work) as appropriate. Exhibit G-K2.1 in Consultant's Appendix G shows weighted guidelines profit calculations performed to help develop the assumed rate.

All government construction contracts require the contractor to provide a Performance and Payment Bond. The assumed percentage rate for Performance and Payment Bond Premium is 1% (running percent) for the prime contractor. All government construction contracts require the contractor to provide a performance and payment bond. Consultant Exhibit G-K2.3 shows a calculation to help develop the assumed percentage rate for Performance and Payment Bond Premium.

Estimated by MRM, RKN, ATS  
SUBCONTRACTOR MARKUPS

Designed by

Prepared by Barr Engineering Company Job # 34/09-1004 400 100

Preparation Date 8/18/2010

Effective Date of Pricing 8/18/2010

Estimated Construction Time Days

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Date	Author	Note
7/7/2010	Index	Historical Cost Reference Data Barr Engineering Company 7/7/2010, Revised 2/20/11 Fargo-Moorhead Metro Flood Risk Management Project Phase 3 Cost Estimate
		INDEX Bonds Mobilization Temporary Flood Protection Temporary Erosion Control Clearing and Grubbing Topsoil Excavation and Embankment - Local Projects Excavation and Embankment - Other Projects Excavation & Haul Steel Sheet Piling Steel Piles Concrete Gates Aggregate and Bit Paving Backfill Aggregate Riprap Site Restoration References
8/18/2010	Bonds	Bonds  Bonds (Bid & Performance Bonds) varied 0.7% to 1.5% of Total for July 2004 - USACE Bid Results Heartsville Coulee Diversion - East Grand Forks, MN DACW37-03-B-0012  Bonds (Bid & Performance Bonds) varied 0.5% to 1.0% of Total for June 2001 - USACE Bid Results Grand Forks Phase 1 Levees - Grand Forks, ND DACW37-01-B-0003
8/18/2010	Mobilization/Indirect Costs	Mobilization  Mobilization & Demobilization varied 1.6% to 4.8% of Total Oct 2009 - USACE Bid Results West Bank and Vicinity, New Orleans LA, WBV 24 Segnette State Park Floodwall, Jefferson Parish LA, W912P8-10-B-0017  Mobilization & Demobilization varied 2.2% to 14.7% of Total Nov 2009 - USACE Bid Results Cross Bayou Drainage Structure Phase II, St Charles Parish LA W912P8-10-B-0020  Mobilization and Demobilization varied 1.4% to 1.5% of Total Aug 1999 - USACE Bid Results SELA Urban Flood Control Project, Jefferson Parish LA Pumping Station #2, Suburban Canal DACW29-99-B-0074
8/18/2010	Temporary Flood Protection	Temporary Flood Protection  Temporary Flood Protection varied 0.6% to 3.4% of Total Oct 2009 - USACE Bid Results West Bank and Vicinity, New Orleans LA, WBV 24 Segnette State Park Floodwall, Jefferson Parish LA, W912P8-10-B-0017

Date	Author	Note
8/18/2010	Temporary Flood Protection	Temporary Flood Protection varied 0.9% to 2.0% of Total Nov 2009 - USACE Bid Results Cross Bayou Drainage Structure Phase II, St Charles Parish LA W912P8-10-B-0020  Traffic Control 0.13% of total April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016
8/18/2010	Temporary Erosion Control	Temporary Erosion Control  Temporary Erosion Control (all items) bid price was approximately 3% of Total project cost June 2006 - Cass County Drain 40 Improvement Phase II - SE Cass Water Resource District  Temporary Erosion Protection 0.60% of total April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016  Stabilized Construction Entrance avg bid price \$2840/Each Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)  Silt Fence avg bid price \$3.06/LF Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)  Flotation Silt Curtain avg bid price \$12.62/LF Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)  Silt Fence avg bid price \$3.88/LF (32,300 LF) Nov 2009 - USACE Bid Results Atchafalaya Basin Protection Levee, Iberville Parish LA W912P8-09-B-0023  Silt Fence avg bid price \$4.06/LF (2300 LF) Nov 2009 - USACE Bid Results Cross Bayou Drainage Structure Phase II, St Charles Parish LA W912P8-10-B-0020
8/18/2010	Clearing and Grubbing	Clearing and Grubbing  Clearing and Grubbing avg bid price \$1690/Acre Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)  31 11 10.10-0150 - Clear and grub site, cut and chip trees up to 6" dia., grub stumps and remove; \$1700/acre @ 2 acre/day(8hr)  31 11 10.10-0250 - Clear and grub site, cut and chip trees up to 12" dia., grub stumps and remove; \$3400/acre @ 1 acre/day(8hr)
8/18/2010	Topsoil	Topsoil  Topsoil Stripping avg bid price (x1.39 time factor \$1.33/CY ) \$0.96/CY (270,000 CY) April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016  Topsoil avg bid price (x1.39 time factor \$1.50/CY) \$1.08/CY (253000 CY) April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016  Haul and Stockpile Excess Topsoil avg bid price (x1.39 time factor \$3.38/CY ) \$2.43/CY (17000 CY) April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016  31 14 13.23-0200 - Topsoil Stripping and Stockpiling; 300HP dozer, ideal conditions, 3000 BCY/Day(8hr) = 375 BCY/HR; \$0.75/BCY  31 14 13.23-0200 - Topsoil Stripping and Stockpiling; 300HP dozer, adverse conditions, 1650 BCY/Day(8hr) = 206 BCY/HR; \$1.37/BCY

Date	Author	Note
8/18/2010	Topsoil	31 14 13.23-1430 - Topsoil Stripping and Stockpiling; Loam or topsoil, remove and stockpile on site; dozer; 300' haul; 520 BCY/Day(8hr)=65 BCY/HR; \$3.62/BCY
		31 14 13.23-1430 - Topsoil Stripping and Stockpiling; Loam or topsoil, remove and stockpile on site; dozer; 500' haul; 225 BCY/Day(8hr)=28 BCY/HR; \$8.40/BCY
		31 91 19.13-0400 - Topsoil Placement and Grading; Spread from pile to rough finish grade; F.E. loader 1.5 CY; \$5.30/CY @ 200 CY/Day(8hr)
		Topsoil Stripping (x1.62 time factor \$1.22/CY) 9 inches \$0.75/CY July 1997 - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - West Floodway Channel
		Replace Topsoil (x1.62 time factor \$1.62/CY) \$1.00/CY July 1997 - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - West Floodway Channel
		Topsoil avg bid price \$2.85/CY Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)
		Remove and Salvage Topsoil avg bid price \$7.08/CY Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)
		Topsoil Stripping contractor quote 5xCAT-D8's with 1 grader and 2 small dozers for 1000CY/HR 2009 Wanzek Construction
		Topsoil Stripping (x1.13 time factor \$1.15) \$1.02/CY (200,000CY+) May 2006 - USACE Feasibility Report Roseau Flood Control - Cost Estimate
8/18/2010	Excavation Local	Excavation and Embankment - Local Projects
		Common Excavation avg bid price (x1.46 time factor \$4.35/CY) \$2.98/CY (700,000 CY) Dec 2001 - USACE Bid Results English Coulee Diversion - Grand Forks, ND DACW37-00-B-0020
		Common Excavation avg bid price (x1.46 time factor \$3.74/CY) \$2.56/CY (>700,000 CY) Dec 2001 - USACE Bid Results English Coulee Diversion - Grand Forks, ND DACW37-00-B-0020
		Semi-Compacted Fill avg bid price (x1.46 time factor \$1.71/CY) \$1.17/CY (120,000 CY+) Dec 2001 - USACE Bid Results English Coulee Diversion - Grand Forks, ND DACW37-00-B-0020
		Compacted Fill avg bid price (x1.46 time factor \$2.13/CY) \$1.46/CY (50,000 CY+) Dec 2001 - USACE Bid Results English Coulee Diversion - Grand Forks, ND DACW37-00-B-0020
		Select Impervious Fill avg bid price (x1.27 time factor \$5.22/CY) \$4.11/CY July 2004 - USACE Bid Results Heartsville Coulee Diversion - East Grand Forks, MN DACW37-03-B-0012
		Common Excavation avg bid price (x1.39 time factor \$2.92/CY) \$2.10/CY April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016
		Semi-Compacted Fill avg bid price (x1.39 time factor \$2.52 ) \$1.81/CY April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016
		Compacted Fill avg bid price (x1.39 time factor \$2.86 ) \$2.06/CY April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016

Date	Author	Note
8/18/2010	Excavation Local	Ditch Excavation avg bid price (x1.27 time factor \$2.45/CY) \$1.93/CY (81,425 CY) July 2004 - USACE Bid Results Heartsville Coulee Diversion - East Grand Forks, MN DACW37-03-B-0012
		Common Excavation avg bid price (x1.27 time factor \$3.73/CY) \$2.94/CY July 2004 - USACE Bid Results Heartsville Coulee Diversion - East Grand Forks, MN DACW37-03-B-0012
		Impervious Fill Common avg bid price (x1.27 time factor \$3.48/CY) \$2.74/CY (604,600 CY) July 2004 - USACE Bid Results Heartsville Coulee Diversion - East Grand Forks, MN DACW37-03-B-0012
		Impervious Fill avg bid price (x1.27 time factor \$5.98/CY) \$4.71/CY July 2004 - USACE Bid Results Heartsville Coulee Diversion - East Grand Forks, MN DACW37-03-B-0012
		Floodway Channel Excavation (x1.62 time factor \$3.40/CY) \$2.10/CY July 1997 - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - West Floodway Channel
		Floodway Inlet Structure Excavation (x1.62 time factor \$5.67/Cy ) \$3.50/CY July 1997 - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - East Floodway Channel
		Floodway Inlet Structure Backfill (x1.62 time factor \$8.10/Cy ) \$5.00/CY July 1997 - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - West Floodway Channel
		Excavation (Ditch/Channel) avg bid price (x1.13 time factor \$3.78/CY) \$3.35/CY (180,000 CY) June 2006 - Cass County Drain 40 Improvement Phase II - SE Cass Water Resource District
		Spoil Bank Leveling avg bid price (cost/mile) was 11-15% of Excavation cost - June 2006 - Cass County Drain 40 Improvement Phase II - SE Cass Water Resource District
		Channel Excavation (x1.13 time factor \$2.88) \$2.55/CY (1,200,000 CY+) May 2006 - USACE Feasibility Report Roseau Flood Control - Cost Estimate
		Embankment Fill and Earthwork (x1.13 time factor \$5.41/CY) \$4.79/CY (8000+CY) May 2006 - USACE Feasibility Report Roseau Flood Control - Cost Estimate
		Common Excavation - Type A avg bid price \$3.10/CY Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)
		Common Excavation - Type B avg bid price \$1.76/CY Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)
		Common Excavation - Type C avg bid price \$1.71/CY Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)
		Excavation and Embankment avg bid price \$2.02/CY to \$4.99/CY (2010 US dollars) Manitoba Floodway Authority - Red River Floodway Expansion Project - Bid Tenders (14 contracts from 2005-2008)
		Embankment quote - need 1 D8 dozer for every 4 scrapers - 2009 Hugh Munro Construction Canada (worked on Manitoba Floodway)
		Compaction quote - past USACE levees 87% std. proctor unless road traffic, then 95%, CAT627 scraper 190 CY/HR w/ 400' move 2009 Veit Construction
		Levee (x1.46 time factor \$10.00/CY) \$2.92/CY+\$3.93/CY (70,000 CY) June 2001 - USACE Bid Results Grand Forks Phase 1 Levees - Grand Forks,

Date	Author	Note
8/18/2010	Excavation Local	ND DACW37-01-B-0003
8/18/2010	Excavation Other	<p>Excavation and Embankment - Other Projects</p> <p>Excavation cost quote to 10-15' depth, 5xCAT627 scrapers 1500 CY/HR, 1 tractor with disc for each 3 scrapers at spoil 2009 Wanzek Construction</p> <p>Grading and Earth Fill avg bid price (x1.08 time factor \$5.94) \$5.50/CY (2,600 CY) May 2007 - USACE Bid Results Flood Control, Mississippi/Atchafalaya/Red/Old River LA channels W912P8-07-B-0039</p> <p>Embankment, Compacted Fill avg bid price \$14.59/CY (65,900 CY) Nov 2009 - USACE Bid Results Lake Pontchartrain and Vicinity, St. Charles Parish St. Rose Drainage Structure &amp; Levee, Ph2 W912P8-09-B-0083</p> <p>Embankment, Compacted Fill avg bid price \$12.22/CY (236,000 CY) Nov 2009 - USACE Bid Results Atchafalaya Basin Protection Levee, Iberville Parish LA W912P8-09-B-0023</p> <p>Embankment, Uncompacted Fill avg bid price \$5.21/CY (183,000 CY) Nov 2009 - USACE Bid Results Atchafalaya Basin Protection Levee, Iberville Parish LA W912P8-09-B-002</p>
8/18/2010	Excavation and Haul	<p>Excavation &amp; Haul</p> <p>Excavation &amp; Spoil cost quote \$3-4/CY for diversion channel 2010 Ames Construction</p> <p>31 23 16.46 5420 - Excavating, Bulk, Dozer 300HP, 300' haul, common earth; 410 BCY/Day = 51 BCY/HR; \$5.50/BCY</p> <p>31 23 16.50 2420 - **modified approximation (see contractor quote)- Excavation, Bulk, Self-Propelled Scraper, 21 C.Y. 1/4 push dozer, **400' haul, sandy clay and loam; 1800 BCY/day(8hr) = 225 BCY/HR</p> <p>31 23 16.50 2420 - Excavation, Bulk, Self-Propelled Scraper, 21 C.Y. 1/4 push dozer, 1500' haul, sandy clay and loam; 1112 BCY/day(8hr) = 139 BCY/HR; \$3.22/BCY</p> <p>31 23 16.50 2500 - Excavation, Bulk, Self-Propelled Scraper, 21 C.Y. 1/4 push dozer, 1500' haul, clay; 645 BCY/day(8hr) = 81 BCY/HR; \$5.15/BCY</p> <p>G1030 125 5700 - Cut and Fill Clay; 21 CY SP scraper &amp; sheepsfoot rollers; 1500' haul; 8" lifts; 2 passes; \$8.87/CY</p> <p>G1030 115 5700 - Cut and Fill Common Earth; 21 CY SP scraper &amp; sheepsfoot rollers; 1500' haul; 8" lifts; 2 passes; \$5.65/CY</p> <p>31 23 16.43-5700 - Excavator, 4.5 CY bucket with truck loading, 80% fill factor, crew B-14A, daily output 2720 LCY (340 LCY/hr for 8 hours) \$1.03/LCY or \$1.18/BCY (no dozers)</p> <p>31 23 16.43-5720 - Excavator, 6.0 CY bucket with truck loading, 80% fill factor, crew B-14B, daily output 4000 LCY (500 LCY/hr for 8 hours) \$1.33/LCY or \$1.53/BCY (no dozers)</p> <p>G1030 130 6200 - Excavate Clay; 3CY pwr shovel; (6) 20CY truck dump trailers; 1 mile round trip; \$5.42/CY</p> <p>G1030 130 6000 - Excavate Clay; 3CY pwr shovel; (9) 16CY truck dump trailers; 2 mile round trip; \$6.80/CY</p> <p>31 23 23.20 3014 - Hauling; 16.5 CY truck, cycle 0.5 mile, 15MPH avg, 15 min. wait ld/unld; 462 LCY/Day(hr)= 58 LCY/HR; \$2.27/LCY</p> <p>31 23 23.20 6090 - Hauling; 34 CY truck, cycle 0.5 mile, 10 MPH avg, 15 min. wait/ld/uld; 884 LCY/Day(8hr) = 110 LCY/HR; \$2.41/LCY</p>

Date	Author	Note
8/18/2010	Excavation and Haul	Haul Excess Fill to Landfill and Stockpile avg bid price (x1.46 time factor ) \$2.12/CY (138,800+CY) Dec 2001 - USACE Bid Results English Coulee Diversion - Grand Forks, ND DACW37-00-B-0020
8/18/2010	Steel Sheet Piling	Steel Sheet Piling Steel Sheet Pile PZC18 cost quote \$19.65/SF Furnish (no install) 2009 LB Foster Bridge Piling avg bid price (x1.39 time factor \$30.30/LF ) \$21.80/LF (7800 LF) April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016 Sheet Piling avg bid price (x1.39 time factor \$18.69/SF ) \$13.45/SF April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016 Steel Sheet Pile Z Type 2 avg bid price \$30.86/SF (5794 SF) Nov 2009 - USACE Bid Results Lake Pontchartrain and Vicinity, St. Charles Parish St. Rose Drainage Structure & Levee, Ph2 W912P8-09-B-0083 Steel Sheet Pile PZC-19 avg bid price \$46.22/SF Dec 2009 - USACE Bid Results LPV 104.02 Lake Pontchartrain and Vicinity, New Orleans LA W912P8-10-B-0029 35 31 16.19-0210 - Steel Sheet Piling Seawalls; 12' high shore driven; \$375/LF @ 27 LF/Day 35 31 16.19-0260 - Steel Sheet Piling Seawalls; 12' high barge driven; \$655/LF @ 15 LF/Day
8/18/2010	Steel Piles	Steel Piles Steel Piles HP 14x73 cost quote \$34.95/LF Furnish 2010 LB Foster Steel H Piling avg bid price \$56.14/LF (37,000+LF) Nov 2009 - USACE Bid Results Lake Pontchartrain and Vicinity, St. Charles Parish St. Rose Drainage Structure & Levee, Ph2 W912P8-09-B-0083 Steel Piling HP 14x73 avg bid price \$71.62/LF (11,940 LF) Oct 2009 - USACE Bid Results West Bank and Vicinity, New Orleans LA, WBV 24 Segnette State Park Floodwall, Jefferson Parish LA, W912P8-10-B-0017 Steel H Piling avg bid price \$53.14/SF (56,321 SF) Nov 2009 - USACE Bid Results Cross Bayou Drainage Structure Phase II, St Charles Parish LA W912P8-10-B-0020 Steel Piling HP 14x102 avg bid price \$66.05/LF Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices) Steel Pile 12" dia Driving cost quote \$3/LF 2009 Lunda Construction
8/18/2010	Concrete	Concrete Concrete (x1.62 time factor \$535/CY) \$330/CY July 1997 (24,000 CY+) - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - West Floodway Channel Reinforced Concrete avg bid price \$321/CY Barr Confidential 22-66-1001 Bid Results Reinforced Concrete avg bid price \$550/CY Barr Confidential 22-52-0088 Bid Results

Date	Author	Note
8/18/2010	Concrete	<p>Concrete Class AAE-3 avg bid price \$609.09/CY Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>Concrete Class AE-3 avg bid price \$565.62/CY Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>Concrete Bridge Slab cost quote \$12-13/SF 2009 Lunda Construction</p> <p>Concrete 1A43 Footing cost quote \$325/CY (\$90/CY material only) 2009 Lunda Construction</p> <p>Concrete 3Y43 Air Entrained (piers) cost quote \$350-400/CY 2009 Lunda Construction</p> <p>Concrete cost quote \$100/CY material only 2010 Strata Corps Ready Mix</p> <p>RSMeans A1010 210 8650 Spread Footing 18' x 18' x 4.3' deep, 51.6CY, \$13750, avg cost \$266.47/CY including forming and reinforcing.</p> <p>RSMeans A2020 110 9220 Wall CIP, pumped, 16' high, 0.397 CY/LF, \$281.50/LF, \$709/CY including forming and reinforcing</p> <p>RSMeans A2020 110 9420 Wall CIP, crane and bucket, 16' high, 0.397 CY/LF, \$290.50/LF, \$732/CY including forming and reinforcing</p> <p>Concrete 4000 psi mix MnDOT 3Y43 cost quote \$90/CY material only 2009 Cemstone (would prefer to set up a batch plant on site for large project)</p> <p>Concrete 4000 psi mix MnDOT 3Y43 cost quote \$90/CY material only, add \$4-5/CY for batch plant, add \$2/CY for MN due to truck wash, winter concrete add \$6/CY. \$100/CY for all these. 2010 Cemstone</p> <p>Concrete Pump Truck cost quote \$3/CY up to \$12/CY (less than \$12/CY due to job size) 2010 Midwest Concrete Pumping</p> <p>Concrete Bucket/Crane cost quote 150-ton crane w/ 7 or 9 CY bucket for placing concrete, batch plant production 100 CY/HR, pump trucks 75-100 CY/HR - 2010 Obayashi/PSM J V</p> <p>Reinforcing Steel cost quote \$0.85/lb Furnish(\$0.40/lb) and Install(\$0.45/lb) 2009 J&amp;L Steel Erectors</p> <p>Reinforcing Steel cost quote \$1.00/LB Furnish and Install 2009 Lunda Construction</p> <p>Reinforcing Steel cost quote \$0.89/LB Furnish and Install 2010 Sioux City Foundry Co</p> <p>Reinforcing Steel Grade 60 avg bid price \$1.14/LBS Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p>
8/18/2010	Gates	<p>Gates</p> <p>Sluice Gates and Hoist \$44,055/Ea Nov 2009 - USACE Bid Results Lake Pontchartrain and Vicinity, St. Charles Parish St. Rose Drainage Structure &amp; Levee, Ph2 W912P8-09-B-0083</p> <p>Sluice Gates and Hoists \$90,000/Ea Nov 2009 - USACE Bid Results Lake Pontchartrain and Vicinity, St. Charles Parish St. Rose Drainage Structure &amp; Levee, Ph2 W912P8-09-B-0083</p> <p>Structural Swing Gates \$318,000/LS Oct 2009 - USACE Bid Results West Bank and Vicinity, New Orleans LA, WBV 24 Segnette State Park Floodwall, Jefferson Parish LA, W912P8-10-B-0017</p>



Date	Author	Note
8/18/2010	Gates	<p>Carbon Steel Tainter Gate cost quote \$340,000 min. for a 30'x20' gate w/ wire rope drum hoist and electric operator 2009 Rodney Hunt</p> <p>Gates \$324.85/SF+ delivered and installed Barr Cost Estimate internal</p> <p>Cost Estimate, Waters Bluff Reservoir, Sabine Watershed TX, Tainter Gate 40'x28' (11), cost \$742,500 each for gate; \$89,000 each for gate anchorage; \$234,000 for gate machinery; 1998</p> <p>Cost estimate, Waters Bluff Reservoir, Sabine Watershed TX, Maintenance Bulkheads, \$4.26/lbs, 1998</p> <p>35 20 16.73-0190 - Slide Gates; 72"x72"; \$20,700/Ea @ 0.36Ea/Day(8hr) = \$575/SF</p>
8/18/2010	Aggregate and Bit Paving	<p>Aggregate and Bit Paving</p> <p>Road Aggregate avg bid price (x1.13 time factor \$16/TON) \$14/TON (2000 TON) June 2006 - Cass County Drain 40 Improvement Phase II - SE Cass Water Resource District</p> <p>Select Granular Borrow avg bid price (x 1.39 time factor \$21.43) \$15.42/CY April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>Aggregate Base Class V avg bid price (x 1.39 time factor \$14.62) \$10.52/TON April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>Bituminous Base Course avg bid price (x1.39 time factor \$59.77/TON ) \$43/TON April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>Bituminous Wear Course avg bid price (x1.39 time factor \$62.55/TON ) \$45/TON April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p>
8/18/2010	Backfill Aggregate	<p>Backfill Aggregate</p> <p>Select Backfill avg bid price \$15.26/TON Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>31 23 23.14 5440 - Backfill, structural, 300 H.P. 300' haul, clay; 1225 LCY/Day(8hr) = 153 LCY/HR; \$1.85/LCY</p> <p>31 23 23.17 0190 - General fill, spread fill from stockpile w/ 300HP dozer, 300' haul; 600 LCY/Day(8hr) = 75 LCY/HR; \$3.77/LCY</p> <p>31 23 23.14-5200 - Backfill, structural, dozer or F.E. loader, from existing stockpile, no compaction; 300HP, 150' haul, sand &amp; gravel; \$1.02/LCY @ 2200 LCY/day(8hr) = 275 LCY/HR</p> <p>31 23 23.23-5600 - Compaction, Riding, vibrating roller, sheepsfoot or wobbly wheel roller, 6" lifts, 2 passes; \$0.81/ECY @ 2400 ECY/Day(8hr) = 300 ECY/HR</p> <p>31 23 23.23 6020 - Compaction, Towed sheepsfoot, 6" lifts, 3 passes; 2000 ECY/day(8hr) = 250 ECY/hr; \$1.20/ECY</p>
8/18/2010	Riprap	<p>Riprap</p> <p>Riprap avg bid price (x1.62 time factor \$49/CY ) \$30/CY July 1997 - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - West Floodway Channel</p>

Date	Author	Note
8/18/2010	Riprap	<p>R6-R12 Riprap avg bid price (x1.39 time factor \$34.11/TON) \$24.54/TON (16,000 TON) April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>B1 Bedding avg bid price (x1.39 time factor \$31.80/TON ) \$22.88/TON April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>Stone Subaqueous Paving Grade B (x1.08 time factor \$32.94/CY ) \$30.50/CY (353,500 CY) May 2007 - USACE Bid Results Flood Control, Mississippi/Atchafalaya/Red/Old River LA channels W912P8-07-B-0039</p> <p>Riprap avg bid price \$73/Ton (1240 ton) Nov 2009 - USACE Bid Results Cross Bayou Drainage Structure Phase II, St Charles Parish LA W912P8-10-B-0020</p> <p>Riprap (x1.13 time factor \$30.33/TON) \$26.84/TON May 2006 - USACE Feasibility Report Roseau Flood Control - Cost Estimate</p> <p>Riprap avg bid price (x1.13 time factor \$75/TON) \$67/TON (800CY) June 2006 - Cass County Drain 40 Improvement Phase II - SE Cass Water Resource District</p> <p>Riprap avg bid price \$51.05/TON Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>Cost quote, Class V Riprap, \$42.50/ton including delivery, large quantity, Aggregate Industries – Moorhead, MN June 30, 2010</p> <p>Cost quote, Granular Bedding Material, \$36.20/ton including delivery, large quantity, Aggregate Industries – Moorhead, MN June 30, 2010</p> <p>31 37 13.10-0370 - Rip-rap and rock lining; 300 lb average; 1 dozer or F.E. loader; \$54.50/Ton @ 600 ton/day(8hr ) = 75 ton/HR</p> <p>31 22 16.10 3300 - Finish Grading slopes, gentle; grader; 8900 BCY/day(8hr) = 1112 BCY/HR; \$0.17/SY or \$822.80/acre</p>
8/18/2010	Site Restoration	<p>Site Restoration</p> <p>Seeding w/ Fert and Mulch avg bid price (x1.39 time factor \$1457/Ac ) \$1048/Ac April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>Seeding and Mulching \$2426/Ac (23 Acres) Oct 2009 - USACE Bid Results West Bank and Vicinity, New Orleans LA, WBV 24 Segnette State Park Floodwall, Jefferson Parish LA, W912P8-10-B-0017</p> <p>Seeding and Mulching avg bid price \$2204/Acre (132 Acre) Nov 2009 - USACE Bid Results Atchafalaya Basin Protection Levee, Iberville Parish LA W912P8-09-B-0023</p> <p>Seeding and Mulching avg bid price \$4268/acre (6 acres) Nov 2009 - USACE Bid Results Cross Bayou Drainage Structure Phase II, St Charles Parish LA W912P8-10-B-0020</p> <p>Seeding avg bid price (x1.13 time factor \$994/Acre) \$879/Acre (30Acres) June 2006 - Cass County Drain 40 Improvement Phase II - SE Cass Water Resource District</p> <p>Seeding-HydroMulch avg bid price \$4100 - 6200/Acre Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>Seeding and Mulching cost quote \$800 - 1200/Acre for 2007 Manitoba Floodway Expansion projects - 2009 Rick Hay - Manitoba Floodway Authority</p>

Date	Author	Note
8/18/2010	Site Restoration	<p>Mulching avg bid price \$246/Acre Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>Vegetation Establishment and Maintenance \$50/ac/yr spraying Barr Engineering Hibbing Taconite restoration JTL2 23-69-0887.</p> <p>Seeding, Mulching, Vegetation Establishment and Maintenance including 15-20 types of upland seed, disk-anchored straw mulch, 3-4 years of establishment/maintenance (spraying and mowing) \$4000/acre Barr Engineering internal estimate MRM/JTL2.</p> <p>50 17 00 97.0010 - Warehouses and Storage Buildings; Total Project Costs; \$60/S.F.</p>
8/18/2010	References	<p>References - These projects were referenced in developing estimated costs.</p> <p>2008-2010 Barr Engineering conversations with contractors and distributors (various), cost quotes and productivity estimates</p> <p>2008 - Manitoba Floodway Authority - Red River Floodway Expansion Project - Bid Tenders (14 contracts from 2005-2008)</p> <p>July 1997 - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - West Floodway Channel</p> <p>July 1997 - USACE Grand Forks Red River Floodway Pre-Feasibility Study - Cost Estimate - East Floodway Channel</p> <p>July 2004 - USACE Bid Results Heartsville Coulee Diversion - East Grand Forks, MN DACW37-03-B-0012</p> <p>Dec 2001 - USACE Bid Results English Coulee Diversion - Grand Forks, ND DACW37-00-B-0020</p> <p>June 2001 - USACE Bid Results Grand Forks Phase 1 Levees - Grand Forks, ND DACW37-01-B-0003</p> <p>April 2003 - USACE Bid Results Breckenridge Flood Control Project - Breckenridge, ND DACW37-02-B-0016</p> <p>May 2007 - USACE Bid Results Flood Control, Mississippi/Atchafalaya/Red/Old River LA channels W912P8-07-B-0039</p> <p>April 2009 - USACE Bid Results Atchafalaya River and Bayous Chene, Boeuf and Black Channel Maintenance Dredging, St. Mary's Parish, LA W912P8-09-B-0039</p> <p>Nov 2009 - USACE Bid Results Lake Pontchartrain and Vicinity, Louisiana Project North of Airline Highway St. Charles Parish St. Rose Drainage Structure &amp; Levee, Ph2 W912P8-09-B-0083</p> <p>Oct 2009 - USACE Bid Results West Bank and Vicinity, New Orleans LA, WBV 24 Segnette State Park Floodwall, Jefferson Parish LA, W912P8-10-B-0017</p> <p>Nov 2009 - USACE Bid Results Atchafalaya Basin Protection Levee, Iberville Parish LA W912P8-09-B-0023</p> <p>Dec 2009 - USACE Bid Results LPV 104.02 Lake Pontchartrain and Vicinity, New Orleans LA W912P8-10-B-0029</p> <p>Nov 2009 - USACE Bid Results Cross Bayou Drainage Structure Phase II, St Charles Parish LA W912P8-10-B-0020</p> <p>Aug 1999 - USACE Bid Results SELA Urban Flood Control Project, Jefferson Parish LA Pumping Station #2, Suburban Canal DACW29-99-B-0074</p>

Date	Author	Note
8/18/2010	References	<p>May 2006 - USACE Feasibility Report Roseau Flood Control - Cost Estimate</p> <p>June 2006 - Cass County Drain 40 Improvement Phase II - SE Cass Water Resource District</p> <p>May 2006 - Maple River Dam Phase IV Part 2 - Cass County Joint Water Resource District</p> <p>June 2006 - Harwood Township Improvement Dist. #65 SE Cass - Rush River Joint Water Resource District</p> <p>December 19, 1998 – Waters Bluff Reservoir, Opinion of Probable Construction Cost, Sabine Watershed, Sabine River Authority (TX)</p> <p>March 2004 – Final Indian River Lagoon, South Project Implementation Report and EIS – Appendix D Cost Estimates (USACE)</p> <p>July 2009 – Spreader Canal Western Project Final EIS – Appendix B Cost Estimates (USACE)</p> <p>November 2008 – Canonsburg Lake, Washington County, PA, Final Draft Feasibility Study and Environmental Assessment – Appendix H Selected Plan (USACE)</p> <p>December 28, 2009 – Hydraulic Analysis, Conceptual Design and Preliminary Cost Estimate for Kopta Slough Flood Reduction and Habitat Restoration Study on the Sacramento River, RM 216 to RM 224, Tehama County, CA (CA Dept. of Water Resources)</p> <p>Dec 2009 - North Dakota DOT Price Sheet List for 2009 (average bid prices)</p> <p>May 2010 - North Dakota DOT Price Sheet List for 2010 (average bid prices)</p> <p>RS Means 2010 Heavy Construction Cost Data, 23rd Edition</p>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>FCP MN Diversion Phase 4 with Notes</b>				<b>80,743,100.00</b>	<b>83,294,453.75</b>	<b>84,078,511.75</b>	<b>84,956,364.47</b>	<b>0.00</b>	<b>84,956,364.47</b>
<b>02 Relocations</b>	<b>1.00</b>	<b>LS</b>	<b>Prime - Management (Excavation - Earth) MN</b>	<b>80,743,100.00</b>	<b>83,294,453.75</b>	<b>84,078,511.75</b>	<b>84,956,364.47</b>	<b>0.00</b>	<b>84,956,364.47</b>
<b>201 Utilities Relocations</b>	<b>1.00</b>	<b>LS</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>3,563,900.00</b>	<b>3,563,900.00</b>	<b>4,347,958.00</b>	<b>5,225,810.72</b>	<b>0.00</b>	<b>5,225,810.72</b>
<b>Electric Power</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>2,037,500.00</b>	<b>2,037,500.00</b>	<b>2,485,750.00</b>	<b>2,987,622.93</b>	<b>0.00</b>	<b>2,987,622.93</b>
USR 80+00 Minnkota Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
USR 100+00 RRV COOP Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating overhead power lines to a conduit attached to a bridge (110th Ave NW).)									
USR 202+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									
USR 304+00 RRV COOP Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating overhead power lines to a conduit attached to a bridge (90th Ave N).)									
USR 308+00 RRV COOP Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating overhead power lines to a conduit attached to a bridge (90th Ave N).)									
USR 378+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR 385+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									
USR 448+00 Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Used same pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating overhead power lines to a conduit attached to a bridge (Cty Road 14).)									
USR 410+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									
USR 640+00 RRV COOP Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating overhead power lines to a conduit attached to a bridge (28th Ave N).)									
USR 690+00 Moorhead Public Service buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Used same pricing info as from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									
USR 699+00 RRV COOP Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									
USR 730+00 Moorhead Public Service buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Used same pricing info as from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									
USR 750+00 Xcel Buried & Overhead Power Lines	1.00	LS	Subcontractor - Excavation - Earth MN	550,000.00	550,000.00	671,000.00	806,474.90	0.00	806,474.90

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Quote from Scott Ladwig of XcelEnergy (701) 241-8663, 21 Dec 2009 to relocate and bury 2 circuit feeder lines under the proposed diversion channel and relocate an affected distribution line &amp; re-route some primary cable serving Dilworth)</b>									
USR 865+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating buried power line to a conduit attached to a bridge (Interstate 94).)									
USR 916+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									
USR 955+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating buried power line to a conduit attached to a bridge (50th Ave S).)									
USR 1002+00 Ottertail Power Overhead High Voltage Lines	1.00	LS	Subcontractor - Excavation - Earth MN	300,000.00	300,000.00	366,000.00	439,895.40	0.00	439,895.40
USR 1040+00 RRV COOP Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating overhead power lines to a conduit attached to a bridge (60th Ave S).)									
USR 1056+00 RRV COOP Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating overhead power lines to a conduit attached to a bridge (60th Ave S).)									
USR 1074+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating a buried power line by boring under the proposed diversion channel location.)									
USR 1160+00 RRV COOP Buried Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating buried power line to a conduit attached to a bridge (Interstate 94).)</b>									
USR 1214+00 Western Area Power Administration (WAPA) Overhead High Voltage Line	1.00	LS	Subcontractor - Excavation - Earth MN	275,000.00	275,000.00	335,500.00	403,237.45	0.00	403,237.45
(Note: Quote from Jerry Paulson at WAPA (701) 221-4531 (2 Feb 2010) to relocate high voltage power line tower structures.)									
USR 1288+00 RRV COOP Overhead Power Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	37,500.00	37,500.00	45,750.00	54,986.93	0.00	54,986.93
(Note: Pricing Info from Gary Shulstad (800) 788-7784 at Red River Valley Electric Cooperative (Dec 2009) for relocating overhead power lines to a conduit attached to a bridge (Hwy 75 South).)									
<b>Natural Gas Pipeline</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>270,000.00</b>	<b>270,000.00</b>	<b>329,400.00</b>	<b>395,905.86</b>	<b>0.00</b>	<b>395,905.86</b>
USR 745+00 Xcel Natural Gas Line	1.00	LS	Subcontractor - Excavation - Earth MN	270,000.00	270,000.00	329,400.00	395,905.86	0.00	395,905.86
(Note: Quote from Susan Balkovatz at XcelEnergy (701) 241-8610 (6 Jan 2010) to relocate 6-inch natural gas line and other misc nearby service lines.)									
<b>Petroleum Pipeline</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>825,000.00</b>	<b>825,000.00</b>	<b>1,006,500.00</b>	<b>1,209,712.35</b>	<b>0.00</b>	<b>1,209,712.35</b>
USR 525+00 Viking Gas Transmission Petro Line	1.00	LS	Subcontractor - Excavation - Earth MN	275,000.00	275,000.00	335,500.00	403,237.45	0.00	403,237.45
USR 994+00 Nustar Energy Petro Pipeline	1.00	LS	Subcontractor - Excavation - Earth MN	275,000.00	275,000.00	335,500.00	403,237.45	0.00	403,237.45
USR 1059+00 Magellan Midstream Partners 6-inch Petro Line	1.00	LS	Subcontractor - Excavation - Earth MN	275,000.00	275,000.00	335,500.00	403,237.45	0.00	403,237.45
(Note: Pricing from Bret Ropper at Megellan in Tulsa, OK (918) 574-7490 (16 Dec 2009) to relocate petro line = \$175,000 to 225,000 construction + \$25,000 to \$50,000 admin.)									
<b>Fiber Optic</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>300,000.00</b>	<b>300,000.00</b>	<b>366,000.00</b>	<b>439,895.40</b>	<b>0.00</b>	<b>439,895.40</b>
USR 683+00 702 Communications Fiber Optic	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Used same pricing info as from Dakota Carrier Network of approximately \$20.00/LF to bore under proposed diversion channel location.)									



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
USR 736+00 702 Communications Fiber Optic	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Used same pricing info as from Dakota Carrier Network of approximately \$20.00/LF to bore under proposed diversion channel location.)									
USR 694+00 Dakota Carrier Network Fiber Optic	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Pricing info from Dakota Carrier Network of approximately \$20.00/LF to bore under proposed diversion channel location.)									
USR 850+00 702 Communications Fiber Optic	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Used same pricing info as from Dakota Carrier Network of approximately \$20.00/LF to bore under proposed diversion channel location.)									
USR 988+00 AT&T Fiber Optic	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Used same pricing info as from Dakota Carrier Network of approximately \$20.00/LF to bore under proposed diversion channel location.)									
USR 1090+00 SHAL Network Fiber Optic Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	50,000.00	50,000.00	61,000.00	73,315.90	0.00	73,315.90
(Note: Used same pricing info as from Dakota Carrier Network of approximately \$20.00/LF to bore under proposed diversion channel location.)									
<b>Water Utilities</b>	<b>1.00</b>	<b>EA</b>	<b>Subcontractor - Excavation - Earth MN</b>	<b>131,400.00</b>	<b>131,400.00</b>	<b>160,308.00</b>	<b>192,674.19</b>	<b>0.00</b>	<b>192,674.19</b>
USR 725+00 Moorhead Public Service Water Line	2,500.00	LF	Subcontractor - Excavation - Earth MN	125,000.00	125,000.00	152,500.00	183,289.75	0.00	183,289.75
(Note: Used the same cost info from Gregg Christensen at Cass County Rural Water District (701) 428-3139 (27 July 2010) to bore under the proposed channel diversion location.)									
USR 725+00 Moorhead Public Service Water Line Tie-in	2.00	EA	Subcontractor - Excavation - Earth MN	6,400.00	6,400.00	7,808.00	9,384.44	0.00	9,384.44
(Note: Used the same cost info from Gregg Christensen at Cass County Rural Water District (701) 428-3139 (27 July 2010) to Tie-in water lines at each end of the bore.)									
<b>202 Roads, Railroads and Bridges</b>	<b>1.00</b>	<b>LS</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>77,179,200.00</b>	<b>79,730,553.75</b>	<b>79,730,553.75</b>	<b>79,730,553.75</b>	<b>0.00</b>	<b>79,730,553.75</b>

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<p>(Note: Assumptions for Bridge Cost Summary: - The superstructures for all bridges are of prestressed concrete girders with cast in place concrete decks. - Pile termination to be 100 feet below existing grade (consistent w/ bridge in the area) - Channel has 7:1 slopes with a 250' channel bottom - Freeboard to be 3'-0" above 500-year water surface - Superstructure depth of approximately 5'-5" (54" prestressed girders w/ 11" deck/risers) - Bridge lengths for bridges with a deck elevation lower than the existing ground were based on matching the bridge deck to the existing ground elevations - Bridge lengths rounded to the nearest 20' - Pier heights for each bridge were assumed to be the same independent of channel slope to be conservative for estimating - Cost estimates include cost to construct a temporary bypass or crossover - Cost estimates include cost for grade raises for bridge sites that require building a bridge above existing ground elevations. Maximum grade assumed to be 2.5% for highways. - Approach costs for each bridge were included in the estimate. These costs include pavement, guardrail, aggregate base, embankment, and other misc. costs. )</p>									
20201 Roadway Bridges	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	77,179,200.00	79,730,553.75	79,730,553.75	79,730,553.75	0.00	79,730,553.75
<p>(Note: Road bridge costs are estimated for each alternative. Costs are used in the range of \$105/SF to \$125/SF. Conversations with contractors indicate that an estimated cost (before contingency) of \$120/SF is in the upper range of typical bridge costs. A review of historical bridge costs (see Exhibit G-G1.1) and MNDOT State Aid Bridge Office - Bridge Cost Reports from 2008 and 2009 calendar years (see Consultant Exhibit G-G1.3-G-G1.6) indicated that construction costs are typically below \$120/SF. Given this fact, a 10% contingency was used for these estimated costs. Preliminary work analysis was performed (outside of MII) on a typical roadway bridge for this estimate, and the split was 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other). A summary of this preliminary work analysis is in Consultant Exhibit G-G1.2. Estimated roadway bridge quantities and costs are in Consultant Exhibit G-I. Although hydraulic modeling performed assumed 7H:1V channel slopes at bridge crossings, cost estimates assume bridge crossings for the full width of the channel cross section (i.e. non 7H:1V slopes and longer length) for both ND and MN alternatives. This assumption is conservative cost-wise, and any surplus cost is intended to cover costs of potential slope stabilizations at these locations, if side slopes steeper than the benched diversion cross section are desired in subsequent stages of design. Estimated costs developed for road bridges include all costs for contractor direct costs, indirect costs and markups and are therefore included in the estimate under a no-markup contractor in the MII estimate. Roadway reconstruction costs and road raises due to levee construction are estimated. A summary of quantities is presented in Consultant Appendix G, Exhibit G-I. For additional bridge information see Consultant Appendix E. )</p>									
2020101 Interstate 29 (SB-South)	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	2,570,000.00	2,654,810.00	2,654,810.00	2,654,810.00	0.00	2,654,810.00
<p>(Note: Roadway bridge construction at diversion channel; Bridge Length 300 LF, Bridge Deck Area 13350 SF, \$125/SF deck, includes \$670,000 Approach Road Cost and \$230,000 Temporary Bypass Cost. Demolition not included. (HEI).)</p>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	1,670,000.00	1,725,110.00	1,725,110.00	1,725,110.00	0.00	1,725,110.00

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost	
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>										
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	670,000.00	692,110.00	692,110.00	692,110.00	0.00	692,110.00	
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>										
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	230,000.00	237,590.00	237,590.00	237,590.00	0.00	237,590.00	
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>										
<b>2020102 Interstate 29 (NB-South)</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>2,400,000.00</b>	<b>2,479,200.00</b>	<b>2,479,200.00</b>	<b>2,479,200.00</b>	<b>0.00</b>	<b>2,479,200.00</b>	
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 300 LF, Bridge Deck Area 13350 SF, \$125/SF deck, includes \$500,000 Approach Road Cost and \$230,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>										
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	1,670,000.00	1,725,110.00	1,725,110.00	1,725,110.00	0.00	1,725,110.00	
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>										
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	500,000.00	516,500.00	516,500.00	516,500.00	0.00	516,500.00	
Labor ID: LNS2009	EQ ID: EP07R04	Currency in US dollars						TRACES MII Version 3.01		

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	230,000.00	237,590.00	237,590.00	237,590.00	0.00	237,590.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
<b>2020103 110th Avenue S</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>2,230,000.00</b>	<b>2,303,590.00</b>	<b>2,303,590.00</b>	<b>2,303,590.00</b>	<b>0.00</b>	<b>2,303,590.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 420 LF, Bridge Deck Area 14490 SF, \$115/SF deck, includes \$290,000 Approach Road Cost and \$270,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	1,670,000.00	1,725,110.00	1,725,110.00	1,725,110.00	0.00	1,725,110.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	290,000.00	299,570.00	299,570.00	299,570.00	0.00	299,570.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	270,000.00	278,910.00	278,910.00	278,910.00	0.00	278,910.00

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
2020104 US Highway 75 (South)	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	4,480,000.00	4,627,840.00	4,627,840.00	4,627,840.00	0.00	4,627,840.00
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 680 LF, Bridge Deck Area 34340 SF, \$110/SF deck, includes \$390,000 Approach Road Cost and \$310,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,780,000.00	3,904,740.00	3,904,740.00	3,904,740.00	0.00	3,904,740.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	390,000.00	402,870.00	402,870.00	402,870.00	0.00	402,870.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	310,000.00	320,230.00	320,230.00	320,230.00	0.00	320,230.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
2020105 80th Avenue S	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,600,000.00	3,718,800.00	3,718,800.00	3,718,800.00	0.00	3,718,800.00

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 800 LF, Bridge Deck Area 27600 SF, \$110/SF deck, includes \$260,000 Approach Road Cost and \$300,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,040,000.00	3,140,320.00	3,140,320.00	3,140,320.00	0.00	3,140,320.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	260,000.00	268,580.00	268,580.00	268,580.00	0.00	268,580.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	300,000.00	309,900.00	309,900.00	309,900.00	0.00	309,900.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
<b>2020106 60th Avenue S</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>3,490,000.00</b>	<b>3,605,170.00</b>	<b>3,605,170.00</b>	<b>3,605,170.00</b>	<b>0.00</b>	<b>3,605,170.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 800 LF, Bridge Deck Area 27600 SF, \$110/SF deck, includes \$70,000 Approach Road Cost and \$250,000 Temporary Bypass Cost. Demolition not included. (HEI). )</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,170,000.00	3,274,610.00	3,274,610.00	3,274,610.00	0.00	3,274,610.00

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	70,000.00	72,310.00	72,310.00	72,310.00	0.00	72,310.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	250,000.00	258,250.00	258,250.00	258,250.00	0.00	258,250.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
<b>2020107 Clay County Highway 52</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>3,570,000.00</b>	<b>3,687,810.00</b>	<b>3,687,810.00</b>	<b>3,687,810.00</b>	<b>0.00</b>	<b>3,687,810.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 820 LF, Bridge Deck Area 28290 SF, \$115/SF deck, includes \$70,000 Approach Road Cost and \$250,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,250,000.00	3,357,250.00	3,357,250.00	3,357,250.00	0.00	3,357,250.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	70,000.00	72,310.00	72,310.00	72,310.00	0.00	72,310.00

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	250,000.00	258,250.00	258,250.00	258,250.00	0.00	258,250.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
<b>2020108 50th Avenue S</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>3,530,000.00</b>	<b>3,646,490.00</b>	<b>3,646,490.00</b>	<b>3,646,490.00</b>	<b>0.00</b>	<b>3,646,490.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 820 LF, Bridge Deck Area 28290 SF, \$115/SF deck, includes \$50,000 Approach Road Cost and \$230,000 Temporary Bypass Cost. Demolition not included. (HEI). )</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,250,000.00	3,357,250.00	3,357,250.00	3,357,250.00	0.00	3,357,250.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	50,000.00	51,650.00	51,650.00	51,650.00	0.00	51,650.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	230,000.00	237,590.00	237,590.00	237,590.00	0.00	237,590.00



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
2020109 Interstate 94 (EB)	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	4,790,000.00	4,948,070.00	4,948,070.00	4,948,070.00	0.00	4,948,070.00
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 860 LF, Bridge Deck Area 38270 SF, \$115/SF deck, includes \$160,000 Approach Road Cost and \$230,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	4,400,000.00	4,545,200.00	4,545,200.00	4,545,200.00	0.00	4,545,200.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	160,000.00	165,280.00	165,280.00	165,280.00	0.00	165,280.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	230,000.00	237,590.00	237,590.00	237,590.00	0.00	237,590.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
2020110 Interstate 94 (WB)	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	4,790,000.00	4,948,070.00	4,948,070.00	4,948,070.00	0.00	4,948,070.00

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 860 LF, Bridge Deck Area 38270 SF, \$115/SF deck, includes \$160,000 Approach Road Cost and \$230,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	4,400,000.00	4,545,200.00	4,545,200.00	4,545,200.00	0.00	4,545,200.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	160,000.00	165,280.00	165,280.00	165,280.00	0.00	165,280.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	230,000.00	237,590.00	237,590.00	237,590.00	0.00	237,590.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
<b>2020111 US Highway 10 (EB)</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>4,950,000.00</b>	<b>5,113,350.00</b>	<b>5,113,350.00</b>	<b>5,113,350.00</b>	<b>0.00</b>	<b>5,113,350.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 900 LF, Bridge Deck Area 40050 SF, \$115/SF deck, includes \$80,000 Approach Road Cost and \$260,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	4,610,000.00	4,762,130.00	4,762,130.00	4,762,130.00	0.00	4,762,130.00

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost	
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>										
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	80,000.00	82,640.00	82,640.00	82,640.00	0.00	82,640.00	
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>										
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	260,000.00	268,580.00	268,580.00	268,580.00	0.00	268,580.00	
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>										
<b>2020112 US Highway 10 (WB)</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>4,950,000.00</b>	<b>5,113,350.00</b>	<b>5,113,350.00</b>	<b>5,113,350.00</b>	<b>0.00</b>	<b>5,113,350.00</b>	
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 900 LF, Bridge Deck Area 40050 SF, \$115/SF deck, includes \$80,000 Approach Road Cost and \$260,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>										
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	4,610,000.00	4,762,130.00	4,762,130.00	4,762,130.00	0.00	4,762,130.00	
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>										
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	80,000.00	82,640.00	82,640.00	82,640.00	0.00	82,640.00	
Labor ID: LNS2009	EQ ID: EP07R04	Currency in US dollars						TRACES MII Version 3.01		

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	260,000.00	268,580.00	268,580.00	268,580.00	0.00	268,580.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
<b>2020113 28th Avenue N</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>3,970,000.00</b>	<b>4,101,010.00</b>	<b>4,101,010.00</b>	<b>4,101,010.00</b>	<b>0.00</b>	<b>4,101,010.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 880 LF, Bridge Deck Area 30360 SF, \$120/SF deck, includes \$70,000 Approach Road Cost and \$260,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,640,000.00	3,760,120.00	3,760,120.00	3,760,120.00	0.00	3,760,120.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	70,000.00	72,310.00	72,310.00	72,310.00	0.00	72,310.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	260,000.00	268,580.00	268,580.00	268,580.00	0.00	268,580.00

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
2020114 57th Avenue N	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,380,000.00	3,491,540.00	3,491,540.00	3,491,540.00	0.00	3,491,540.00
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 700 LF, Bridge Deck Area 24150 SF, \$115/SF deck, includes \$300,000 Approach Road Cost and \$300,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	2,780,000.00	2,871,740.00	2,871,740.00	2,871,740.00	0.00	2,871,740.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	300,000.00	309,900.00	309,900.00	309,900.00	0.00	309,900.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	300,000.00	309,900.00	309,900.00	309,900.00	0.00	309,900.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
2020115 40th Street North	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,280,000.00	3,388,240.00	3,388,240.00	3,388,240.00	0.00	3,388,240.00

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 700 LF, Bridge Deck Area 24150 SF, \$115/SF deck, includes \$220,000 Approach Road Cost and \$280,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	2,780,000.00	2,871,740.00	2,871,740.00	2,871,740.00	0.00	2,871,740.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	220,000.00	227,260.00	227,260.00	227,260.00	0.00	227,260.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	280,000.00	289,240.00	289,240.00	289,240.00	0.00	289,240.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
<b>2020116 90th Avenue N</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>3,300,000.00</b>	<b>3,408,900.00</b>	<b>3,408,900.00</b>	<b>3,408,900.00</b>	<b>0.00</b>	<b>3,408,900.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 680 LF, Bridge Deck Area 23460 SF, \$110/SF deck, includes \$400,000 Approach Road Cost and \$320,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	2,580,000.00	2,665,140.00	2,665,140.00	2,665,140.00	0.00	2,665,140.00

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost	
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>										
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	400,000.00	413,200.00	413,200.00	413,200.00	0.00	413,200.00	
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>										
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	320,000.00	330,560.00	330,560.00	330,560.00	0.00	330,560.00	
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>										
<b>2020117 100th Avenue N</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>3,400,000.00</b>	<b>3,512,200.00</b>	<b>3,512,200.00</b>	<b>3,512,200.00</b>	<b>0.00</b>	<b>3,512,200.00</b>	
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 680 LF, Bridge Deck Area 23460 SF, \$110/SF deck, includes \$480,000 Approach Road Cost and \$340,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>										
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	2,580,000.00	2,665,140.00	2,665,140.00	2,665,140.00	0.00	2,665,140.00	
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>										
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	480,000.00	495,840.00	495,840.00	495,840.00	0.00	495,840.00	
Labor ID: LNS2009	EQ ID: EP07R04	Currency in US dollars						TRACES MII Version 3.01		

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	340,000.00	351,220.00	351,220.00	351,220.00	0.00	351,220.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
<b>2020118 US Highway 75 (North)</b>	<b>1.00</b>	<b>EA</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>4,690,000.00</b>	<b>4,844,770.00</b>	<b>4,844,770.00</b>	<b>4,844,770.00</b>	<b>0.00</b>	<b>4,844,770.00</b>
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 680 LF, Bridge Deck Area 34340 SF, \$110/SF deck, includes \$560,000 Approach Road Cost and \$350,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,780,000.00	3,904,740.00	3,904,740.00	3,904,740.00	0.00	3,904,740.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	560,000.00	578,480.00	578,480.00	578,480.00	0.00	578,480.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	350,000.00	361,550.00	361,550.00	361,550.00	0.00	361,550.00



Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
2020119 110th Avenue NW	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,340,000.00	3,450,220.00	3,450,220.00	3,450,220.00	0.00	3,450,220.00
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 660 LF, Bridge Deck Area 22770 SF, \$110/SF deck, includes \$500,000 Approach Road Cost and \$340,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	2,500,000.00	2,582,500.00	2,582,500.00	2,582,500.00	0.00	2,582,500.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	500,000.00	516,500.00	516,500.00	516,500.00	0.00	516,500.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	340,000.00	351,220.00	351,220.00	351,220.00	0.00	351,220.00
<b>(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)</b>									
2020120 15 Street NW	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	3,240,000.00	3,346,920.00	3,346,920.00	3,346,920.00	0.00	3,346,920.00

Description	Quantity	UOM	Contractor	BareCost	DirectCost	CostToPrime	ContractCost	Contingency	ProjectCost
<b>(Note: Roadway bridge construction at diversion channel; Bridge Length 640 LF, Bridge Deck Area 22080 SF, \$110/SF deck, includes \$480,000 Approach Road Cost and \$330,000 Temporary Bypass Cost. Demolition not included. (HEI).)</b>									
USR HOUSTON Bridge Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	2,430,000.00	2,510,190.00	2,510,190.00	2,510,190.00	0.00	2,510,190.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
USR HOUSTON Approach Road Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	480,000.00	495,840.00	495,840.00	495,840.00	0.00	495,840.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
USR HOUSTON Temporary Bypass Cost	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	330,000.00	340,890.00	340,890.00	340,890.00	0.00	340,890.00
(Note: Assume 48% material, 25% labor plus burden, 6% equipment and 21% other costs (6% construction expenses, 10% subcontracting expenses and 5% other).)									
<b>2020121 Local Road Construction</b>	<b>1.00</b>	<b>LS</b>	<b>Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)</b>	<b>1,240,000.00</b>	<b>1,282,625.00</b>	<b>1,282,625.00</b>	<b>1,282,625.00</b>	<b>0.00</b>	<b>1,282,625.00</b>
USR BARR Local Road Construction	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	1,240,000.00	1,282,625.00	1,282,625.00	1,282,625.00	0.00	1,282,625.00

<u>Description</u>	<u>Quantity</u>	<u>UOM</u>	<u>Contractor</u>	<u>BareCost</u>	<u>DirectCost</u>	<u>CostToPrime</u>	<u>ContractCost</u>	<u>Contingency</u>	<u>ProjectCost</u>
<b>(Note: Reconstruct rural roadways cut off by the diversion channel. (6.2 miles) Allowance)</b>									
2020122 Levee Road Raise	1.00	EA	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	1,989,200.00	2,057,578.75	2,057,578.75	2,057,578.75	0.00	2,057,578.75
USR BARR Levee Road Raise	1.00	LS	Prime - Roads, Railroads and Bridges  Note   (Note: No markup contractor. Markups are included in the unit prices.)	1,989,200.00	2,057,578.75	2,057,578.75	2,057,578.75	0.00	2,057,578.75

(Note: 11 road raises due to levees (9 section line and 2 interstate crossings))

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