Agenda Item: 9.

# **MEMORANDUM**

TO:

Programs, Projects and Operations Subcommittee

FROM:

Martin P. Cleveland, Construction Engineer

SUBJECT:

Little Papillion Creek Channel Stabilization Project

DATE:

May 26, 2017

The Little Papillion Creek Channel Stabilization Project is located along the Little Papio between Pratt Street and Q Street in Omaha, Nebraska, as shown on the enclosed location map. The project consists of stabilizing nine slough sites on the existing east and west banks of Little Papillion Creek through the placement of rock riprap fill (eight sites) and installation of rock-filled trenches (one site).

On May 25, 2017, the District opened bids for the Little Papillion Creek Channel Stabilization Project. The four bids ranged from \$ 335,470.00 to \$ 418,646.75.

The apparent low bid of \$ 335,470.00 was submitted by Niewohner Construction, Inc. Enclosed is a bid summary.

The Engineer's estimate of the cost of the Little Papillion Creek Channel Stabilization Project, prepared by HDR Engineering, Inc., was \$ 499,055.00. A recommendation letter from HDR Engineering is enclosed.

Management recommends that the Programs, Projects and Operations Subcommittee recommend to the Board of Directors that the General Manager be authorized to execute a contract with Niewohner Construction, Inc. in an amount of \$ 335,470.00 for the construction of the Little Papillion Creek Channel Stabilization Project, subject to changes deemed necessary by the General Manager and approval as to form by District Legal Counsel.

# P-MRNRD LITTLE PAPILLION CREEK CHANNEL STABILIZATION PROJECT SUMMARY OF BID PROPOSALS BID OPENING MAY 25, 2017 AT 10:00 AM

tem No.	Description		Unit	Engineer's Estimate				Upper Missouri River Corp				* Niewohner Construction				PSC				Valley Corp.			
tem No,		Quantity			Unit Price		Amount		Unit Price		Amount		Unit Price		Amount		Unit Price		Amount	Unit Price		Amount	
1	Mobilization/Demobilization	LS	1	\$	45,400.00	\$	45,400.00	\$	18,635.00	\$	18,635.00	\$	20,000.00	\$	20,000.00	\$	25,000.00	\$	25,000.00	\$ 33,156.13	\$	33,156.13	
Riprap	Fill (Sites 1R, 3R, 4L, 5R, 6R, 7	L, 8L, and 1	1R)																				
2	Traffic Control	LS	1	\$	15,000.00	\$	15,000.00	\$	28,000.00	\$	28,000.00	\$	4,500.00	\$	4,500.00	\$	8,000.00	\$	8,000.00	\$ 2,375.36	\$	2,375.36	
3	Site Preparation	SY	3,400	s	12.50	\$	42,500.00	\$	8.40	\$	28,560.00	\$	2.00	\$	6,800.00	\$	12.05	\$	40,970.00	\$ 1.09	\$	3,706.00	
4	Rock Riprap, Type B	TON	100	\$	75.00	\$	7.500.00	\$	75.55	\$	7,555.00	\$	90.00	\$	9,000.00	\$	135.00	\$	13,500.00	\$ 73.45	\$	7,345.00	
5	Rock Riprap, Type C	TON	2,625	\$	87.00	\$	228,375.00	\$	73.50	\$	192,937.50	\$	85.00	\$	223,125.00	\$	72,35	\$	189,918,75	\$ 81.10	\$	212,887.50	
6	Topsoiling	SY	3,400	\$	2.75	\$	9.350.00	\$	6.15		20,910.00	\$			6,800.00	_	14.85	\$	50,490,00	\$ 3.22	\$	10.948.00	
7	Seeding and Matting	SY	4,100	\$	4.00		16,400.00	-	2.20	_	9,020.00				20,500.00	-	4,65		19,065.00		\$	21,115.00	
Rock-F	illed Trenches (Site 9R)																						
8	Traffic Control	LS	1	\$	25,000.00	\$	25,000.00	\$	7,020,00	s	7.020.00	\$	5,000.00	\$	5,000.00	\$	8,000.00	\$	8,000.00	\$ 3,167.15	\$	3,167.15	
9	Site Preparation	SY	675	\$	20.00	_	13,500.00		5.40		3,645.00	\$		-	2,025.00		12.05	\$	8,133.75	\$ 1,29		870.75	
10	Earthwork, Disposal Off-Site	CY	115	\$	17.50	\$	2,012.50	\$	71.60		8,234.00	\$			3,450.00	7		\$	2,731.25	\$ 27.13	\$	3,119.95	
11	Rock-Filled Trenches	CY	140	\$	475.00		66,500.00		395.00		55,300.00				14,000,00	\$		\$	29,421.00	131.86	\$	18,460.40	
12	Rock Riprap, Type C	TON	205	\$	117.00	\$	23,985.00	\$			13,581.25				16,400.00	\$	72.35	\$	14,831.75	\$ 74.75	\$	15,323.75	
13	Topsoiling	SY	420	\$	3.00	s	1,260.00		11.70	_	4,914.00			-	840.00	-	14.85	\$	6,237.00	\$ 3.22	\$	1,352.40	
14	Seeding and Matting	SY	505	\$	4.50		2,272.50		2,80		1,414.00	\$	6.00	\$	3,030.00	\$	4.65	S	2,348.25	\$ 5.15	\$	2,600.75	
	Total					\$	499,055.00			\$	399,725,75		*	\$	335,470.00			\$	418,646.75		\$	336,428.14	
	<u> </u>		P	Attend	ance at Manda	tory	Site Showing		Yes			Ye	es .			Yes		_		Yes			
					Bid	Bon	d (Yes or No)		Yes			Yes				Blank bid bond submitted.				Yes			
					Acknowledge				Yes			Ye	·s			Yes				Yes			

<sup>\*</sup> Management Recommendation



May 30, 2017

Mr. Martin Cleveland, PE Papio-Missouri River Natural Resources District 8901 South 154th Street Omaha, NE 68138-3621

RE:

Little Papillion Creek Channel Stabilization

Bid Recommendation

Dear Mr. Cleveland,

Bids were received for the construction of the Little Papillion Creek Channel Stabilization Project on May 25, 2017. Per the attached bid tabulation, four (4) bidders submitted bids which ranged from \$335,470 to \$418,646. In accordance with Specification Section 00020 Invitation for Bids, all bidders attended the mandatory pre-bid site showing. The Engineer's opinion of probable construction cost totaled \$499,055.

Bids were evaluated based on the lowest and responsive bidder. The low bid of \$335,470 was submitted by Niewohner Construction, Inc. This bid was \$958.14 lower than the next lowest bidder. Niewohner Construction has demonstrated through past successful projects for the P-MRNRD that they have the qualifications to perform this work.

Based on the available information, we recommend a construction contract be awarded to Niewohner Construction in the total amount of \$335,470 for construction for the Little Papillion Creek Channel Stabilization Project. If you have any questions, please contact me at (402) 399-4917.

Sincerely, HDR ENGINEERING, INC.

Patrick J. Engelbert, PE

Project Manager



hdrinc.com

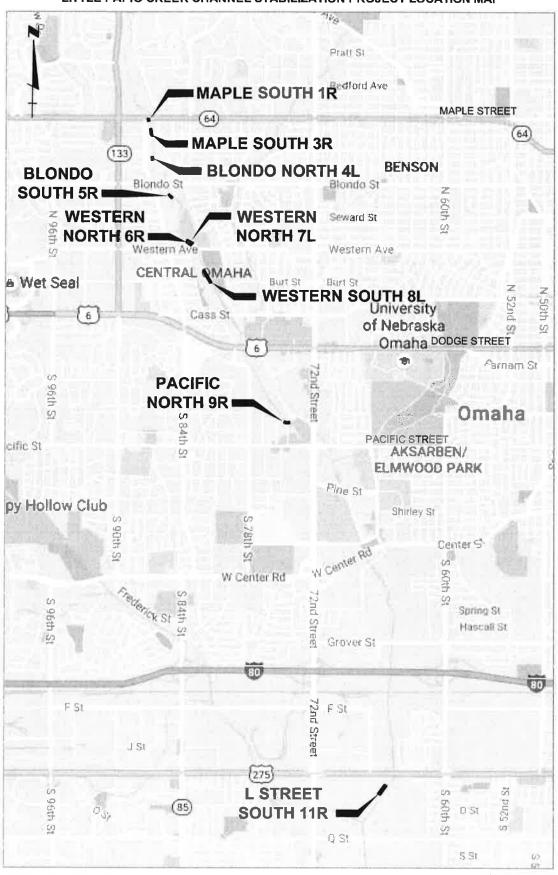
# P-MRNRD LITTLE PAPILLION CREEK CHANNEL STABILIZATION PROJECT SUMMARY OF BID PROPOSALS BID OPENING MAY 25, 2017 AT 10:00 AM

tem No.	o. Description Quantity Unit Engineer's Estimate				Niew	ohner			Valley				Upper Missouri River Corps				PSC					
		Guominy		Unit Pr	rice	Amou	t	Unit Price		Amount		Unit Price		Amount		Unit Price		Amount		Unit Price		Amount
1	Mobilization/Demobilization	LS	1	\$ 45.	400.00	\$ 45.4	00.00	\$ 20,000.00	\$	20,000.00	\$	33,156.13	\$	33,156.13	s	18,635.00	s	18,635.00	s	25,000.00	s	25,000.00
Riprap I	Fill (Sites 1R, 3R, 4L, 5R, 6R, 7)	., 8L, and 11	IR)	mess. — ~x					the second				-		-	10,000,00		19,000.00		20,000.00		25,000.00
2	Traffic Control	LS	1	\$ 15,0	,000.00	\$ 15,0	00.00	\$ 4,500.00	s	4,500.00	s	2,375.36	s	2,375,36	s	28,000.00	s	28,000.00	5	8,000.00	s	8,000.00
3	Site Preparation	SY	3,400	\$	12,50	\$ 42.5	00.00		_	6.800.00	-	1,09		3,706,00	_	8.40	S	28,560.00		12.05		40,970.00
4	Rock Riprap, Type B	TON	100	s	75,00		00.00	\$ 90.00	s	9.000.00		73.45	s	7.345.00	-	75.55	6	7,555.00		135.00		13,500.00
5	Rock Riprap, Type C	TON	2,625	s	87.00		75.00		-	223,125.00	_	81.10	6		\$	73.50	9	192,937.50			_	
6	Topsoiling	SY	3,400	s	2.75		50.00		_	6,800,00		3.22	s	10,948.00	_	6.15	S	20,910.00		72.35		189,918.75
7	Seeding and Matting	SY	4,100	S	4.00		00.00			20,500.00	_	5.15	-	21,115.00		2.20	_	9.020.00	_	14.85		50,490,00
Rock-Fi	lled Trenches (Site 9R)	-		1	1100 1	10.	70.00	0.00	1 4	20,000.00	Ψ	5,15	ų.	21,115.00	Ϋ́D	2.20	Φ	9,020,00	Ф	4.65	\$	19,065.00
8	Traffic Control	LS	1	S 25.0	000.00	S 25.0	00.00	\$ 5,000.00	s	5,000.00	•	3,167,15	•	3,167.15	s	7,020.00	\$	7,020.00	s	9 000 00	•	0.000.00
9	Site Preparation	SY	675	S	20.00		00.00			2,025.00		1.29		870.75	-	5.40	·		_	8,000.00		8,000.00
10	Earthwork, Disposal Off-Site	CY	115	s	17.50		2.50		s		S	27.13	S	3,119.95		71.60	\$	3,645.00 8,234.00		12.05		8,133,75
11	Rock-Filled Trenches	CY	140		475.00			\$ 100.00	-		S	131.86	s	18,460.40	S	395.00	Ф			23.75		2,731.25
12	Rock Riprap, Type C	TON	205				35.00		s		S	74.75	_				2		\$	210.15	-	29,421.00
13	Topsoiling	SY	420	¢			0.00		+		9		\$	15,323.75		66.25	\$	13,581,25	_	72.35		14,831.75
14	Seeding and Matting	SY	505	e	4.50					840.00	D.	3.22	\$	1,352.40		11,70	\$	1,011100	_	14.85		6,237,00
				Ψ			2.50	\$ 6.00		3,030.00	<b>3</b>	5.15	5	2,600.75	5	2.80	\$	1,414.00	\$	4.65	\$	2.348.25
	Total					\$ 499,0	55.00		\$	335,470.00			S	336,428.14			\$	399,725.75			\$	418,646,75

Attendance at Mandatory Site Showing	Yes	Yes	Yes
Bid Bond (Yes or No)	Yes	Yes	Blank bid bond submitted.
Acknowledge Addendum No. 1	Yes		Yes

Total on Bid Form was \$403,686.45, however, the Bid Form contained an arithmetic error for Bid item 7 seeding and matting. The bid amount on this bid tab reflects the corrected amount.

# LITTLE PAPIO CREEK CHANNEL STABILIZATION PROJECT LOCATION MAP



NOT TO SCALE STABILIZATION SITES ARE 1R, 3R, 4L, 5R, 6R, 7L, 8L, 9R, & 11R MAPLE SOUTH 2L AND MERCY ROAD 10R SITES ARE NOT INCLUDED IN THIS CONTRACT.

5/5/2017

### MATERIALS

- GEOTEXTILE CLASS 1 NON-WOVEN GEOTEXTILE IN ACCORDANCE WITH AASHTO M288, THE APPARENT OPENING SIZE (AOS) OF THE GEOTEXTILE SHALL BE BETWEEN 70 AND 100.
- ROCK RIPRAP NDOR TYPE C RIPRAP IN ACCORDANCE WITH THE DETAIL ON THIS SHEET, SECTION 905 OF THE LATEST NDOR STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, AND THE FOLLOWING TESTING REQUIREMENTS:

PARAMETER	VALUE	TEST METHOD
BULK SPECIFIC GRAVITY	NOT LESS THAN 2.55	ASTM C127
SOUNDNESS IN MAGNESIUM SULFATE	NOT MORE THAN 8 PERCENT COMBINED LOSS AFTER 5 CYCLES	ASTM C88
SOUNDNESS IN FREEZING AND THAWING	NOT MORE THAN 25 PERCENT AFTER 20 CYCLES	COE CRD-C 144

OWNER APPROVED SOURCES (QUARRIES) ARE: FT. CALHOUN STONE (FT. CALHOUN, NE), KERFORD STONE AND MARTIN MARIETTA AGGREGATES (WEEPING WATER, NE), AND L.G. EVERIST STONE (DELL RAPIDS, SD).

- 3. EROSION CONTROL FABRIC NORTH AMERICAN GREEN ERONET S150 OR APPROVED EQUAL
- 4. SEEDING- DISTURBED AREAS SHALL BE SEEDED WITH UNITED SEEDS NRD NATIVE GRASS MIX OR APPROVED EQUAL
- 5 NEBRASKA DEPARTMENT OF ROADS 47B FINE AGGREGATE FOR CONCRETE (NDOR 47B FA)

#### EXECUTION

## 1. SITE PREPARATION

- A. CLEARING SHALL BE LIMITED TO THE ABSOLUTE MINIMUM NECESSARY FOR CONSTRUCTION OF THE WORK. CLEARING BELOW WATER-LEVEL WILL NOT BE REQUIRED. THE BANKS WITHIN THE PROJECT LIMITS SHALL BE CLEARED OF ALL GRASS, BRUSH, AND DRIFT, EXISTING RIPRAP, AND MISCELLANEOUS DEBRIS OR OTHER OBSTRUCTIONS THAT WOULD HINDER EXCAVATION, FILL PLACEMENT, AND SUBSEQUENT CONSTRUCTION OPERATIONS.
- B. IT IS THE INTENT OF THESE SPECIFICATIONS THAT VEGETATION AROUND THE WORK AREA BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE, ALL MATERIALS CLEARED SHALL BE DISPOSED OF OFF-SITE.
- C. EROSION CONTROL BMP'S SHALL BE IN PLACE PRIOR TO ANY CONSTRUCTION ON THE SLOPE,
- D. ALL TOPSOIL THAT IS EXCAVATED AT EACH SITE SHALL BE STOCKPILED SEPARATE FROM EXCAVATED SLOUGHED MATERIAL. THE TOPSOIL SHALL BE REUSED AND PLACED ON TOP OF THE RIPRAP FILL AS SHOWN ON THE DRAWINGS. THE SLOUGHED SOIL REMOVED AT EACH SITE SHALL BE DISPOSED OF OFF-SITE. NO MATERIAL WILL BE ALLOWED TO BE STOCKPILED ON, OR WITHIN 8 FEET OF THE TOP OF, THE CHANNEL BANKS.

## 2. RIPRAP FILL

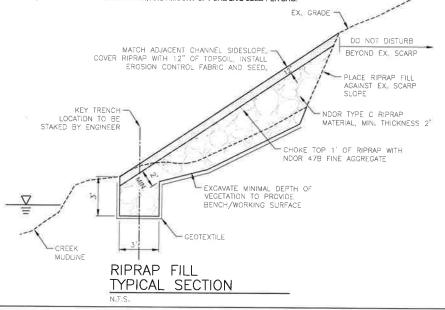
- A. ALL EXCAVATION AND PLACEMENT OF RIPRAP FILL SHALL BE COMPLETED FROM THE TOP OF THE SLOPE USING A LONG-REACH BACKHOE. THE USE OF EXCAVATION EQUIPMENT WORKING ON THE SLOPE WILL NOT BE PERMITTED.
- B. REMOVE SLOUGHED MATERIAL ON THE SLOPE AS SHOWN ON THE DRAWINGS UNTIL UNDISTURBED MATERIAL IS ENCOUNTERED AND VERIFIED BY THE ENGINEER.
- C. EXCAVATE THE KEY TRENCH AT THE BASE OF THE SLOPE.
- LINE THE KEY TRENCH AND SLOPE WITH GEOTEXTILE TO THE LIMITS SHOWN ON THE DRAWINGS. PLACE RIPRAP WITHIN THE KEY TRENCH AND ON THE SLOPE. MAXIMUM DROP HEIGHT OF RIPRAP SHALL BE LIMITED TO NO MORE THAN 3 FEET. PLACEMENT OF RIPRAP WITH A BULL DOZER WILL NOT BE PERMITTED.
- E. THE ENDS OF THE RIPRAP FILL (UPSTREAM, DOWNSTREAM, AND TOP OF SLOPE) MUST MAINTAIN THE FULL THICKNESS OF RIPRAP FILL SECTION TO THE GREATEST EXTENT PRACTICAL AND TIE-IN TO EXISTING GRADE WITH A SLOPE BETWEEN THI TV AND 1.5-HIV, REDUCED THICKNESS RIPRAP SECTIONS ARE NOT ACCEPTABLE. IRREGULAR SHAPE AREAS MAY REQUIRE FIELD ADJUSTMENT TO FIT THE SITE CONDITIONS, EXCAVATION EXTENTS MUST BE APPROVED BY THE ENGINEER PRIOR TO PLACING RIPRAP FILL.
- F. PLACE NDOR 47B FA AND TOPSOIL TO CHOKE OFF THE VOIDS IN THE RIPRAP (12" DEPTH). WATER FLUSHING OF THE 47B FA TO FACILITATE THE CHOKING OF THE RIPRAP MAY BE PERMITTED AND MUST BE PERFORMED IN THE PRESENCE OF THE ENGINEER INSTALL EROSION CONTROL FABRIC AND SEED SLOPE.

## 3: SEEDING

- A. INSTALL PER CITY OF OMAHA STANDARD SPECIFICATIONS SECTION 802.03 AND MANUFACTURER'S RECOMMENDATIONS. FERTILIZER AND MULCH IS NOT REQUIRED, AND DORMANT SEEDING IS ACCEPTABLE.
- 4. ALLOWABLE WORK PERIOD
- A. AT EACH RIPRAP FILL SITE, THE CONTRACTOR SHALL COMPLETE THE WORK, INCLUDING SEEDING, SITE RESTORATION, AND REMOVAL OF EQUIPMENT, WITHIN ONE CALENDAR WEEK OF COMMENCEMENT.

#### SUBMITTALS

- 1, THE CONTRACTOR SHALL SUBMIT A WORK PLAN AT LEAST 7 DAYS BEFORE MOBILIZATION TO THE SITE, THE WORK PLAN SHALL INCLUDE:
- A. THE SEQUENCE OF CONSTRUCTION FOR ALL PORTIONS OF THE WORK, INCLUDING THE DURATION OF EACH ACTIVITY.
- B. A LIST OF ALL CONSTRUCTION EQUIPMENT, INCLUDING MANUFACTURER, MODEL NUMBER, TOTAL WEIGHT, AND GROUND PRESSURE DURING OPERATION.
- C. PROPOSED METHOD TO CLEAR WORK AREA AND PLACE GEOTEXTILE AND RIPRAP, INCLUDING NUMBER OF PERSONNEL TO INSTALL THE GEOTEXTILE, AND LOCATIONS AND DETAILS OF ANY MATERIAL STOCKPILES.
- D. TRAFFIC CONTROL PLAN FOR ALLTIMES DURING CONSTRUCTION AND AT THE END OF EACH WORK DAY, SEE SPECIFICATIONS SECTION 01050 SPECIAL CONDITIONS.
- THE CONTRACTOR SHALL SUBMIT AN EMERGENCY ACTION PLAN IN ACCORDANCE WITH SPECIAL PROVISION EMERGENCY ACTION PLAN AS PROVIDED IN SPECIFICATION SECTION 01560.
- 3. GRADATION CURVES, SOURCE(S) OF, AND CERTIFICATION THAT THE RIPRAP MEETS THE MATERIAL SPECIFICATION.
- 4. CERTIFIED TEST RESULTS FOR THE RIPRAP SHALL BE PROVIDED INCLUDING THE NAME AND LOCATIONS OF EACH QUARRY PROPOSED FOR USE ALONG WITH A GEOLOGIC SECTION OF EACH QUARRY INDICATING THE VARIOUS ROCK UNITS IDENTIFIED BY GEOLOGIC NAME OF THE FORMATION AND MEMBER AND INDICATION FROM WHAT LEDGE THE SAMPLES WERE OBTAINED. THE TESTS SHALL BE PERFORMED NOT LONGER THAN 6 MONTHS PRIOR TO DELIVERY TO THE PROJECT SITE.
- 5. GRADATION CURVES, SOURCE(S) AND CERTIFICATION THAT THE NDOR 47B F.A. MEETS THE MATERIAL SPECIFICATIONS.
- A SAMPLE OF THE GEOTEXTILE AND MANUFACTURER'S CERTIFICATION THAT THE GEOTEXTILE MEETS THE REQUIREMENTS OF CLASS 1 NON-WOVEN GEOTEXTILE (AASHTO M 288).
- 7. A SAMPLE AND MANUFACTURER'S PRODUCT TECHNICAL DATA FOR THE EROSION CONTROL FABRIC.
- SEED MIXTURE VENDOR'S STATEMENT, STATING BOTANICAL AND COMMON NAME, PLACE OR ORIGIN, STRAIN, PERCENTAGE OF PURITY, PERCENTAGE OF GERMINATION, AND AMOUNT OF PURE LIVE SEED PER BAG.





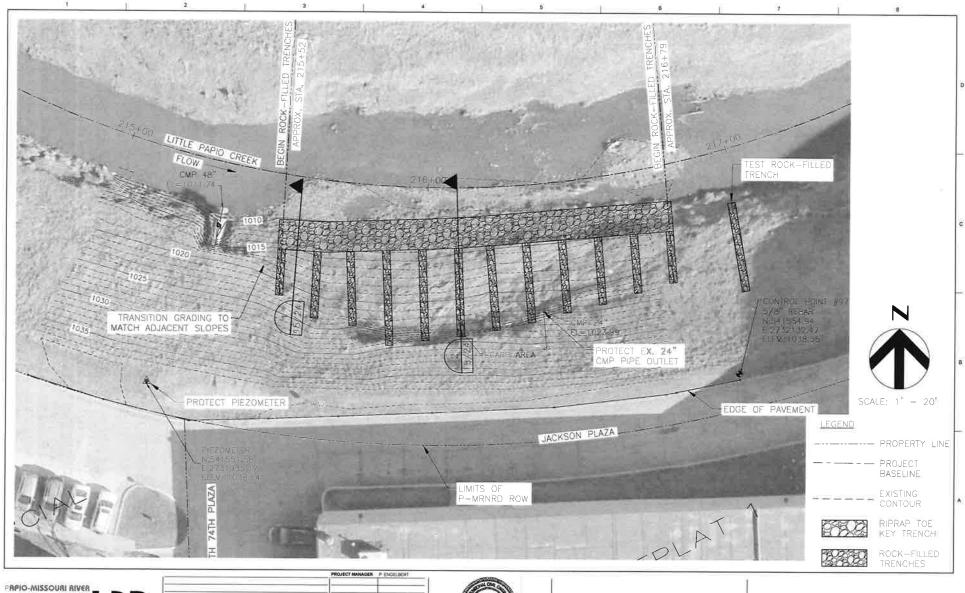




RIPRAP FILL CONSTRUCTION NOTES AND DETAIL LITTLE PAPILLION CREEK CHANNEL STABILIZATION

FILENAME

2 OF 24





		PHODECT MANAGER	P. STAGELINGAT
1 56/2217	Drawings for But		
ISSUE DATE	DESCRIPTION	PROJECT NUMBER	10545301

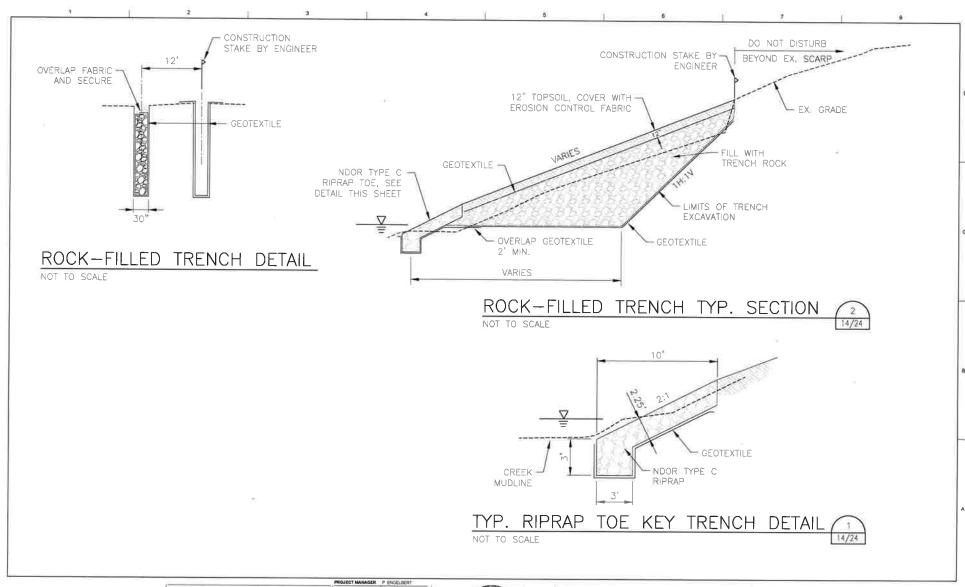


PACIFIC NORTH 9R PLAN LITTLE PAPILLION CREEK CHANNEL STABILIZATION

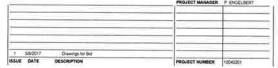


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PACIFIC NORTH 9R DETAILS LITTLE PAPILLION CREEK CHANNEL STABILIZATION



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