Addendum #1

Project Information	
Project Name:	95th Ave. Cache La Poudre Bridge - BID
Bid Number:	F25-04-025
Date:	April 23, 2025
Project Manager:	Dave Wells

Addendum Questions	
Item #1	The Project Description, General Special Provisions, Section 00620 is revised. The sentence "The finish centerline profile matches the existing roadway profile" is replaced with "The new superstructure low chord elevations shall match the existing structure low chord elevations. The finish centerline profile will be approximately 3" above the existing roadway profile".
Question #1	What mix is required for the asphalt item below: Hot Bituminous Pavement (Patching) 7" Thick
Answer	Use HMA (Grading S, (75) 64-22 Binder) 20% RAP
Question #2	Expansion Joint question
Answer	Expansion joints shall be compression seal type joint, in compliance with Section 14.4.3.3 of the CDOT bridge design manual.
Question #3	Is there a bid alternate for concrete pavement as noted in the Bid Proposal Section 00120?
Answer	No: The Bid Proposal, Section 00120 is replaced with the attached Bid Proposal, Section 00120
Question #4	Are there As-builts for the existing bridge
Answer	The answer given at the pre-bid meeting was positive, however we have only found plans for the previous bridge rehabilitation work. These are not noted "As-Built". These plans, printed December 12, 2021, are added to the bid documents for reference. The Contractor must field verify all dimensions.
Question #5	
Answer	

Section 00120

BID PROPOSAL

PROJECT: 95TH AVENUE – CACHE LA POUDRE BRIDGE - BID - #F25-04-025

The Undersigned, having become familiar with the local conditions affecting the cost of the work, plans, drawings, and specifications attached herewith, and with advertisement for bids, the form of bid and proposal, form of bond, all of which are issued and attached and on file in the office of the Project Manager, hereby bid and propose to furnish all the labor, materials, necessary tools, and equipment and all utility and transportation service necessary to perform and complete in a workmanlike manner all of the work required in connection with the construction of the items listed on the bidding schedule in accordance with the plans and specifications as prepared by the City of Greeley, Colorado, for the sums set forth in the Bidding Schedule.

The total bid shall be the basis for establishing the amount of the Performance and Payment Bond for this project. The total bid is based on the quantities shown in the bid proposal form and the dimensions shown on the plans.

The undersigned has carefully checked the Bidding Schedule quantities against the plans and specifications before preparing this proposal and accepts the said quantities as substantially correct, both as to classification and the amounts, and as correctly listing the complete work to be done in accordance with the plans and specifications.

The undersigned, agrees to complete and file a Performance and Payment Bond and further agrees to complete the contract within one hundred twenty (120) Calendar Days from Notice to Proceed. Official notice to proceed will not be issued until adequate Performance and Payment Bonds and other required documents are on file with the City of Greeley.

NOTE: Bidders should not add any conditions or qualifying statements to this bid as otherwise the bid may be declared irregular as being non responsive to the Invitation for bids. The following numbered Addenda have been received and the bid, as submitted, reflects any changes resulting from those Addenda: _____

_____ ATTEST

_____ DATE

_____ COMPANY NAME

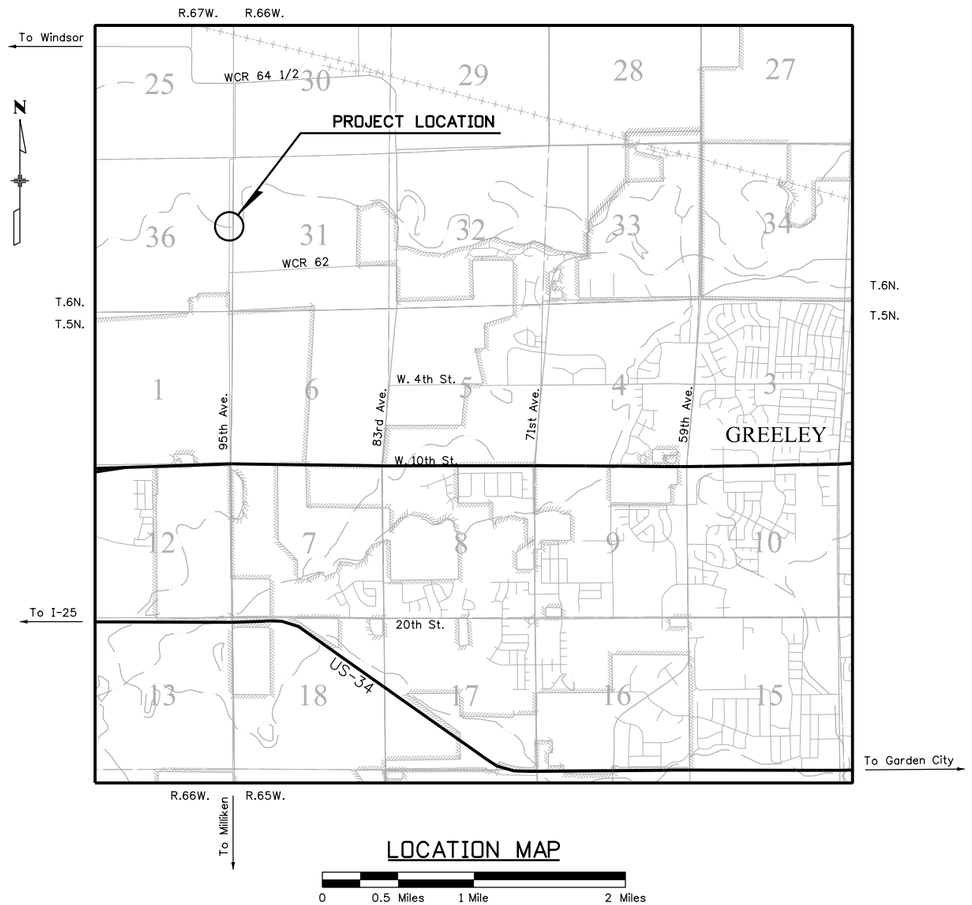
_____ BY

_____ SIGNATURE

_____ TITLE

CITY OF GREELEY, COLORADO

BRIDGE PIER REHABILITATION
95TH AVENUE
OVER CACHE LA POUDRE RIVER



LOCATION MAP

0 0.5 Miles 1 Mile 2 Miles

SHEET NO.	INDEX OF SHEETS
1	TITLE SHEET
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3	GENERAL NOTES
4	SUMMARY OF APPROXIMATE QUANTITIES
5	GENERAL LAYOUT / CONSTRUCTION PLAN
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9	PROJECT IMPACTS
10	EROSION CONTROL PLAN
11-13	STORMWATER MANAGEMENT PLAN

CITY OF GREELEY APPROVALS
THESE PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF PUBLIC WORKS DIRECTOR APPROVAL

Recommend Approval By:

Engineering Division Date

Approved By

City Engineer Date

Print Date: 12/21/2018
File Name: 137210DES_Title.dgn
Horiz. Scale: 1:1 Vert. Scale: As Noted
Unit Information Unit Leader Initials

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Sheet Revisions		
Date:	Comments	Init.

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As Constructed
No Revisions:
Revised:
Void:

Contract Information	
Contractor:	
Resident Engineer:	
Project Engineer:	
PROJECT STARTED: __/__/__	ACCEPTED: __/__/__
Comments:	

Project No./Code
SEH Project Number
137210
Sheet Number 1

PLAN NUMBER	NEW OR REVISED	M STANDARD TITLE	PAGE NUMBER
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M-203-2		DITCH TYPES	9
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M-203-12		SUPERELEVATION STREETS (2 SHEETS)	13-14
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M-606-13	☐	GUARDRAIL TYPE 7 F-SHAPE BARRIER (4 SHEETS) (REVISED ON AUGUST 30, 2013)	~~93-96~~
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COLORADO
DEPARTMENT OF TRANSPORTATION

M&S STANDARDS PLANS LIST

July 04, 2012

Revised on September 4, 2018

ALL OF THE M&S STANDARD PLANS, AS SUPPLEMENTED AND REVISED, APPLY TO THIS PROJECT WHEN USED BY DESIGNATED PAY ITEM OR SUBSIDIARY ITEM.

NEW OR REVISED STANDARD PLAN SHEETS APPLICABLE TO THIS PROJECT, INDICATED BY A MARKED BOX ■, WILL BE ATTACHED TO THE PLANS.

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S-614-4	☐	CLASS III SIGNS (3 SHEETS) (REVISED ON DECEMBER 17, 2014)	~~162-164~~
S-614-5	☐	BREAK-AWAY SIGN SUPPORT DETAILS (REVISED ON FEBRUARY 8, 2017) . FOR GROUND SIGNS (2 SHEETS)	~~165-166~~
S-614-6	☐	CONCRETE FOOTINGS AND SIGN ISLANDS FOR CLASS III SIGNS (2 SHEETS) (REVISED ON SEPTEMBER 16, 2013)	~~167-168~~
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S-614-60	☐	DYNAMIC SIGN MONOTUBE STRUCTURES (14 SHEETS) (REVISED ON JUNE 17, 2016)	~~220-233~~
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R-X

Sheet Revisions		
Date:	Comments	Init.

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As Constructed
No Revisions:
Revised:
Void:

STANDARDS PLANS LIST

Designer: KAA
Detailer: DWS
Sheet Subset: SPL
Structure Numbers:
Subset Sheets: 1 of 1

Project No./Code
SEH Project Number
137210
Sheet Number 2

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GENERAL NOTES

2017 COLORADO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION WITH APPLICABLE STANDARD SPECIAL PROVISIONS SHALL CONTROL FOR CONSTRUCTION OF THIS PROJECT.

THE CONTRACTOR SHOULD NOTE THAT A TOPOGRAPHIC SURVEY WAS NOT DONE FOR THIS PROJECT. QUANTITIES WERE ESTIMATED BASED ON A SITE VISIT AND PREVIOUS FIELD INSPECTION REPORTS. ACTUAL FIELD CONDITIONS MAY VARY. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD.

STRUCTURE EXCAVATION SHALL BE TAKEN TO BOTTOM OF PLANNED CONCRETE ADDITIONS, OUT TO RIPRAP LIMITS, AND UP TO GRADE AT 1:1 SLOPES.

ALL EXPOSED CORNERS ON CONCRETE ADDITIONS ARE TO BE CHAMFERED 3/4".

GRADE 60 REINFORCING STEEL IS REQUIRED.

ALL REINFORCING STEEL SHALL BE EPOXY COATED UNLESS OTHERWISE NOTED.

ALL DIMENSIONS FOR BENT BARS ARE OUT TO OUT.

IT IS ESTIMATED THAT (3) GATES WILL NEED TO BE REMOVED AND RESET. LENGTH OF REMOVAL SHALL BE AS REQUIRED TO PLACE RIPRAP.

WASTE MATERIALS GENERATED BY THE CONTRACTOR SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A DISPOSAL SITE FOR ALL UNUSABLE MATERIALS.

THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AT 1-800-922-1987 AT LEAST 3 DAYS (NOT INCLUDING THE DAY OF NOTIFICATION) PRIOR TO ANY EXCAVATION OR OTHER EARTHWORK.

THE CONTRACTOR SHALL REMOVE DEBRIS AS NEEDED FOR CONSTRUCTION OF THE PROJECT. ALL WORK ASSOCIATED WITH THIS CONSTRUCTION ACTIVITY SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN CLEARING AND GRUBBING.

ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH ARMY CORPS PERMIT: CORPS FILE NO. NWO-2016-02452-DEN, OCTOBER 2018 AND THE CITY GRADING PERMIT.

DEWATERING SHALL BE PER CDOT SPECIFICATION 107. UNDER NO CIRCUMSTANCE IS RIPRAP OR CONCRETE TO BE PLACED UNTIL LOCATIONS HAVE BEEN FULLY DEWATERED.

DEWATERING PERMIT SHALL BE OBTAINED PER CDOT SPECIFICATION 107.25.

THE CONTRACTOR SHALL OBTAIN A CITY PERMIT FOR "CONSTRUCTION IN PUBLIC RIGHT-OF-WAY/EASEMENTS". COSTS FOR THIS PERMIT SHALL BE INCLUDED IN THE WORK. THE CITY WILL WAIVE FEES FOR THIS PERMIT.

TRAFFIC CONTROL SHALL BE PER CDOT SPECIFICATION 630. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED PER CDOT SPECIFICATION 630.10. UNLESS OTHERWISE APPROVED BY THE ENGINEER, 95TH AVENUE IS TO REMAIN CLOSED DURING CONSTRUCTION. TRAFFIC TO THE NORTH SHALL BE DETOURED TO WELD COUNTY ROAD 64½ AND TRAFFIC TO THE SOUTH SHALL BE DETOURED TO WELD COUNTY ROAD 62. IT IS ESTIMATED THAT THE FOLLOWING TRAFFIC CONTROL ITEMS WILL BE REQUIRED:

(4) TYPE III BARRICADES
(4) M4-9R DETOUR SIGNS
(4) M4-9L DETOUR SIGNS
(6) M4-9 DETOUR SIGNS
(2) R11-4 CLOSURE SIGNS
(2) M4-8A END DETOUR SIGNS
(2) R11-2 CLOSURE SIGNS
(3) VARIABLE MESSAGE SIGNS

ALL WORK RELATED TO TRAFFIC CONTROL SHALL BE INCLUDED IN ITEM 630, TRAFFIC CONTROL.

IT IS ESTIMATED THAT 200 LIN. FT. OF BARBED WIRE FENCE WILL NEED TO BE REPLACED AND/OR ADDED TO THE SITE. THE ACTUAL AMOUNT OF FENCING SHALL COORDINATED WITH THE CITY OF GREELEY AND PROPERTY OWNERS.

A CMP DRAINAGE PIPE EXISTS OFF OF THE SOUTHWEST WINGWALL. THIS PIPE IS TO REMAIN IN PLACE AND BE PROTECTED DURING CONSTRUCTION. ANY DAMAGE TO PIPE SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.

GENERAL NOTES (CON'T.)

REINFORCING CONNECTIONS TO EXISTING COLUMNS SHALL BE DRILLED AND EPOXIED IN USING HILTI HY 200 OR ENGINEER APPROVED EQUAL. PAYMENT FOR DRILLING AND EPOXY SHALL NOT BE MADE SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK FOR ITEM 601, CONCRETE CLASS D (BRIDGE).

ALL EXPOSED STEEL BOTH ABOVE AND BELOW CONCRETE COLUMNS SHALL BE CLEANED PER SPECIFICATION 509.29. THIS INCLUDES STEEL PILING AT PIERS, STEEL GIRDERS AND DIAPHRAGMS, AND BRIDGE RAIL POSTS. STEEL ABOVE CONCRETE PIER ENCASEMENTS IS TO BE REPAINTED PER SPECIFICATION 509.29. STEEL TO BE ENCASED IN NEW CONCRETE SHALL BE COATED WITH SIKADUR 32 HI-MOD BONDING AGENT OR ENGINEER APPROVED EQUAL. BONDING AGENT SHALL BE APPLIED PER MANUFACTURER'S RECOMMENDATIONS. ALL WORK TO CLEAN AND COAT STEEL SHALL BE INCLUDED IN ITEM 509, CLEAN AND PAINT STRUCTURAL STEEL.

AFTER CLEANING IS COMPLETED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER (WITH AT LEAST 48 HOURS NOTICE) TO OBSERVE THE CONDITION OF THE REMAINING, EXISTING ELEMENTS. IF ANY REPAIRS ARE DETERMINED NECESSARY BY THE ENGINEER, THEY WILL BE PAID FOR UNDER FORCE ACCOUNT ITEM STRUCTURAL REPAIRS (AS NEEDED). STEEL AND WOOD REPAIR FOR THIS ITEM SHALL ONLY BE PERFORMED WITH APPROVAL FROM THE CITY OR THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF ALL ELEMENTS OF THE STRUCTURE THROUGHOUT THE DURATION OF CONSTRUCTION. TO PERFORM THE PIER CAP REPAIRS, ALL GRAVITY LOADS FROM THE SUPERSTRUCTURE ABOVE AND INCLUDING THE MAIN STRUCTURAL GIRDERS SHALL BE REMOVED FROM THE PIER CAP BY A MEANS AND METHODS TO BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT A TEMPORARY SHORING/JACKING PLAN, STAMPED BY A COLORADO LICENSED ENGINEER THAT DESCRIBES THE MEANS AND METHODS FOR PERFORMING THIS WORK AND SHALL INCLUDE CALCULATIONS, DRAWINGS, AND ANY OTHER INFORMATION NECESSARY TO ADEQUATELY DESCRIBE THE WORK. THE PLAN SHALL BE SUBMITTED TWO WEEKS PRIOR TO INSTALLATION AND MUST BE APPROVED BY THE CITY OF GREELEY (OR APPROVED REPRESENTATIVE) PRIOR TO INSTALLATION. ALL WORK FOR THIS ITEM SHALL BE PAID FOR UNDER ITEM 600, TEMPORARY BRIDGE SHORING/JACKING.

HOLLOW STRUCTURAL SECTION (HSS) PIER CAPS SHALL HAVE END CAP PLATES INSTALLED IN THE SHOP AND A NOTCHED CORNER FOR DRAINAGE SHALL BE PROVIDED.

BASED ON FIELD OBSERVATIONS, THE STRUCTURAL STEEL AND TIMBER PORTIONS OF THE EXISTING BRIDGE (EXCEPT FOR PIER CAP) WHICH ARE TO REMAIN, APPEAR TO BE IN REASONABLY GOOD CONDITION. ALL ELEMENTS WHICH ARE TO REMAIN, SHALL BE PROTECTED DURING DEMOLITION AND ANY ELEMENTS THAT ARE DAMAGED DURING DEMOLITION SHALL BE REPLACED OR REPAIRED AT NO ADDITIONAL COST TO THE PROJECT.

CONTRACTOR SHALL USE BRIDGE APPROACH ON THE NORTH SIDE OF THE BRIDGE FOR EQUIPMENT AND MATERIAL STAGING. THE CONTRACTOR SHALL USE THE NORTHWEST CORNER OF THE BRIDGE FOR ACCESS TO PERFORM WORK IN THE CHANNEL. THIS ACCESS WILL BE ON PRIVATE PROPERTY AND WILL BE COORDINATED BY THE CITY. SEE EROSION CONTROL PLAN FOR DETAILS.

WATER DIVERSION AND DEWATERING SHALL BE PERFORMED FOR ALL PIER AND ABUTMENT BASE AND PIER CAP CONSTRUCTION. SEE EROSION CONTROL PLAN FOR DETAILS.

DESIGN DATA FOR ADDITIONAL CONCRETE:

DESIGN: AASHTO 8TH EDITION, LRFD BRIDGE DESIGN SPECIFICATIONS.

REINFORCED CONCRETE:

CLASS D CONCRETE: f'c = 4,500 psi, PER CDOT SPECIFICATIONS

REINFORCING STEEL: fy = 60,000 psi

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File Name: 137210DES_GenNotes.dgn		Date:	Comments	Init.
Horiz. Scale: 1:1	Vert. Scale: As Noted			
Unit Information	Unit Leader Initials			
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City of Greeley Colorado — Great. From the Ground Up.
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As Constructed	GENERAL NOTES			Project No./Code
No Revisions:				SEH Project Number
Revised:	Designer: KAA	Structure Numbers		137210
Void:	Detailer: DWS			
	Sheet Subset: NOTES	Subset Sheets: 1 of 1		Sheet Number 3

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			202-01000	Remove and Reset Fence / Gate	L S	1										1	
			203-00000	Unclassified Excavation (Sand Bar)	CY	90										90	
			206-00000	Structure Excavation	CY	661										661	
			206-00050	Structure Backfill (On-Site)	CY	153										153	
			206-00510	Filter Material (Class A)	CY	73										73	
			208-00000	Erosion Control	LF	1										1	
			211-03005	Dewatering / Water Control	L S	1										1	
			420-00102	Geotextile (Erosion Control) (Class 1)	SY	359										359	
			506-00218	Riprap (18 Inch)	CY	418										418	
			509-00000	Structural Steel	LB	5,164										5,164	
			509-90003	Clean and Paint Structural Steel	L S	1										1	
			600-00000	Temporary Bridge Shoring/Jacking	L S	1										1	
			601-03040	Concrete Class D (Bridge)	CY	55										55	
			602-00020	Reinforcing Steel (Epoxy Coated)	LB	3,072										3,072	
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			626-00000	Mobilization	L S	1										1	
			630-00000	Traffic Control	L S	1										1	
			F/A	Structural Repairs (As Needed)	F A	1										1	
			F/A	Minor Contract Revisions	F A	1										1	

Print Date: 12/21/2018
File Name: 137210DES_SDAQ.dgn
Horiz. Scale: 1:1 Vert. Scale: As Noted
Unit Information Unit Leader Initials

Short Elliott Hendrickson Inc.
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Date:	Comments	Init.

City of Greeley Colorado
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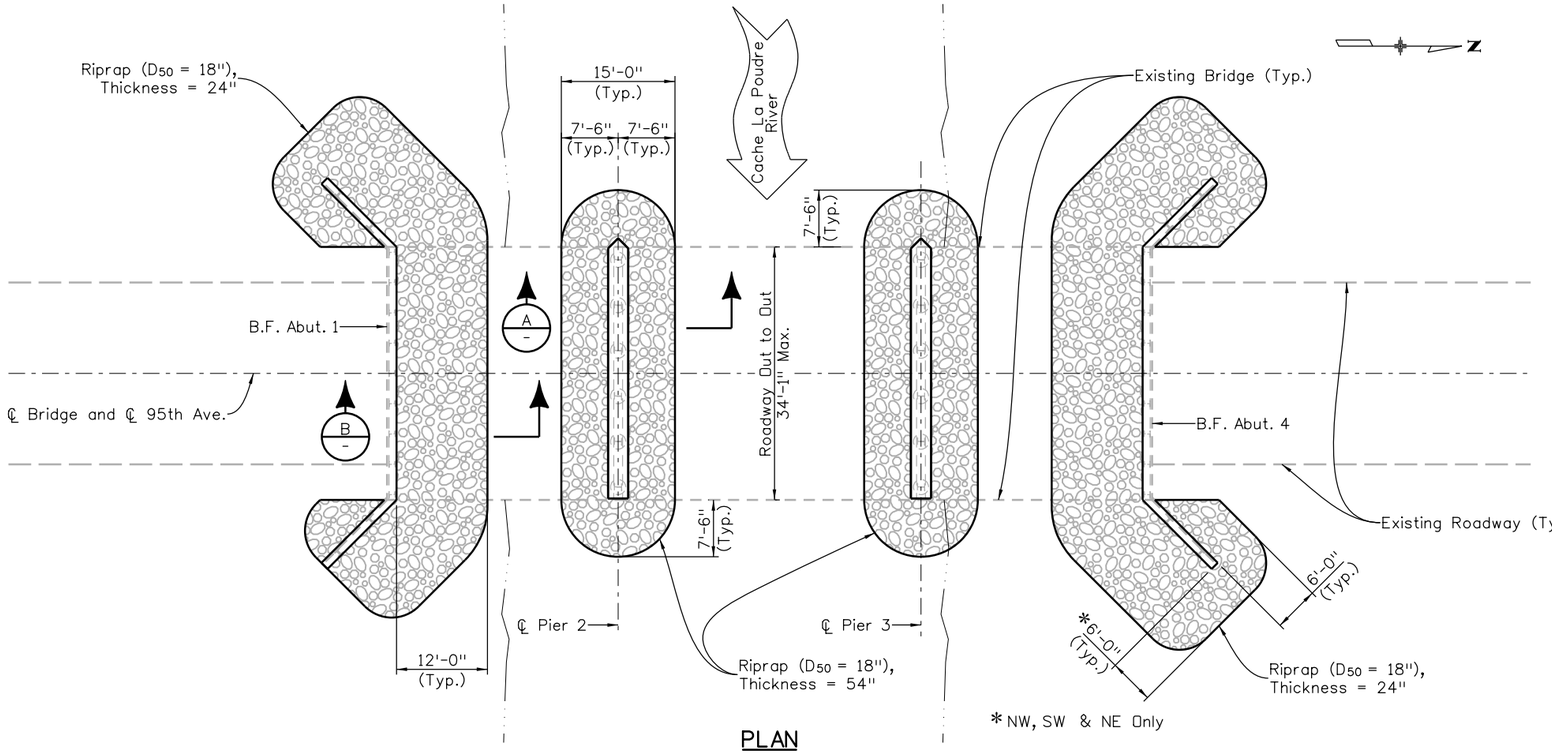
Public Works
1001 9th Ave
Greeley, CO 80631
Telephone: 970.350.9881
Fax: 970.336.4142

As Constructed
No Revisions:
Revised:
Void:

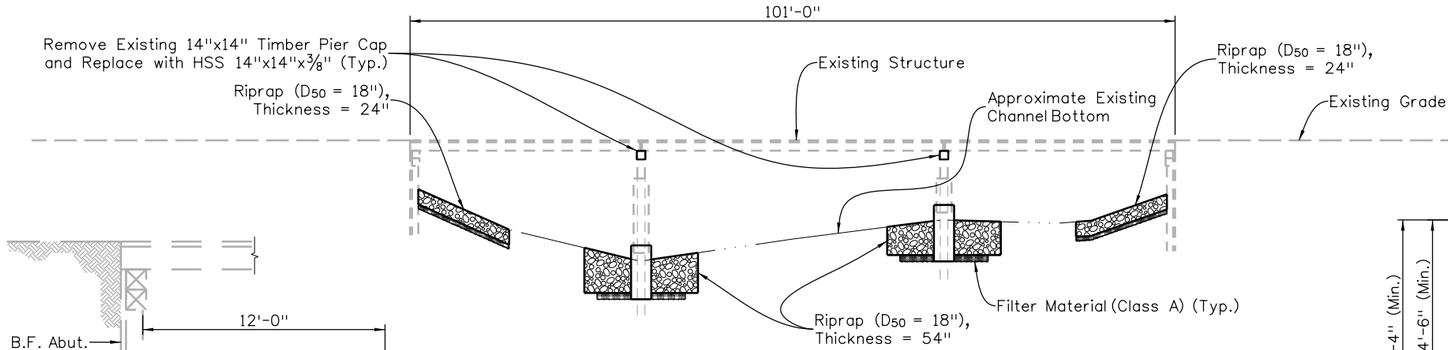
SUMMARY OF APPROXIMATE QUANTITIES

Designer: KAA
Detailer: DWS
Sheet Subset: SDAQ
Structure Numbers:
Subset Sheets: 1 of 1

Project No./Code
SEH Project Number
137210
Sheet Number 4



PLAN



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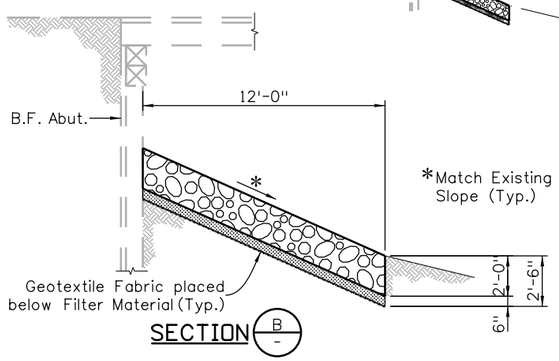

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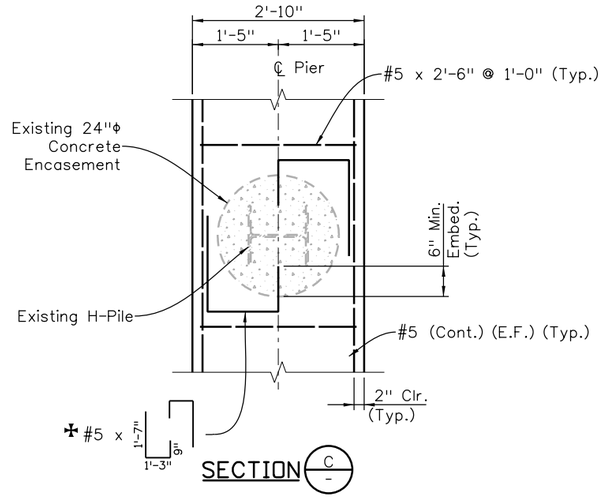

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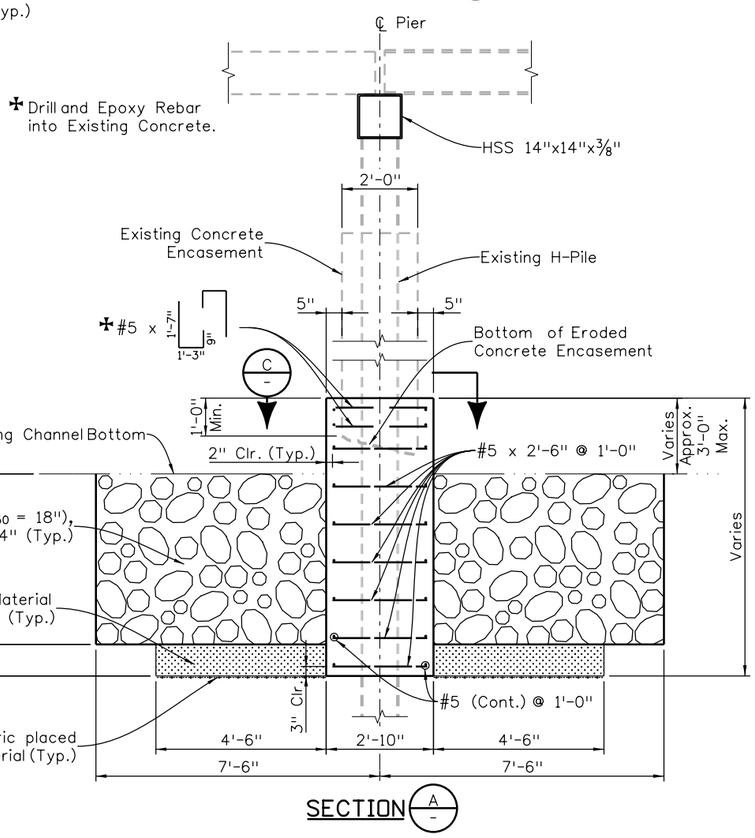

SECTION A

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Unit Information	Unit Leader Initials		

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Fax: 970.336.4142

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No Revisions:	
Revised:	
Void:	

GENERAL LAYOUT / CONSTRUCTION PLAN

Designer:	KAA	Structure Numbers	
Detailer:	DWS		
Sheet Subset:	BRIDGE	Subset Sheets:	1 of 2

Project No./Code	
SEH Project Number	
137210	
Sheet Number	5

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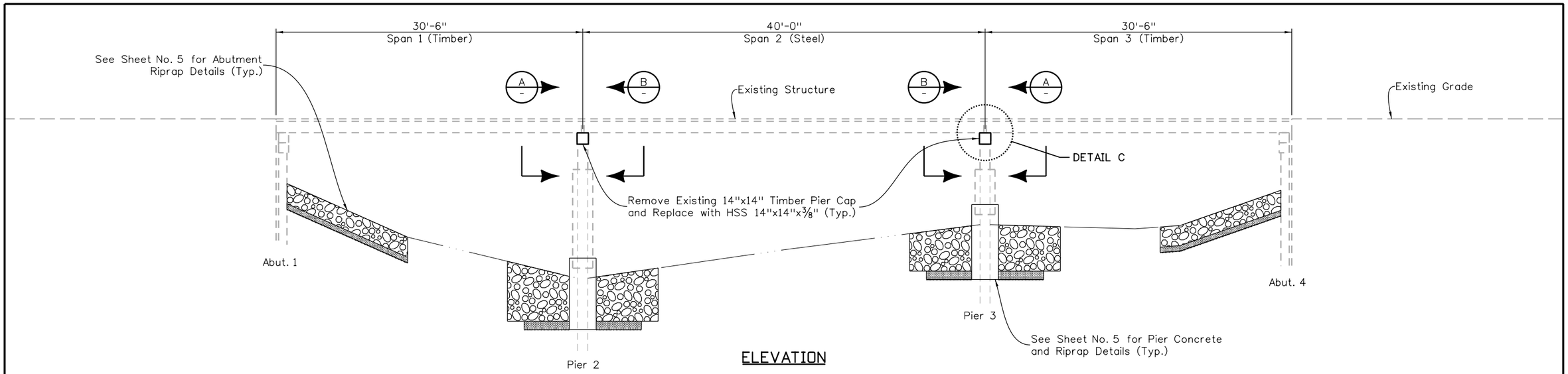

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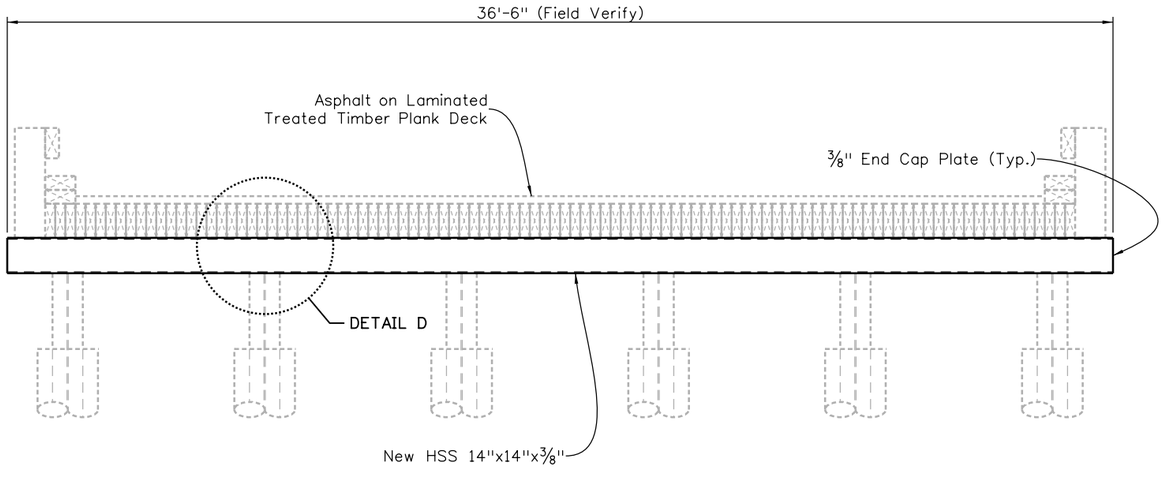

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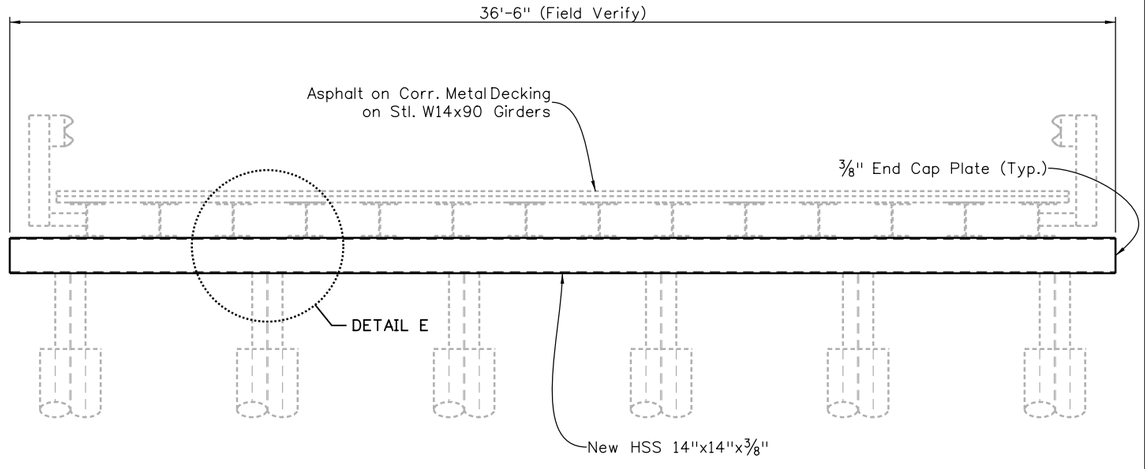

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File Name: 137210DES_PierRepair-01.dgn		Date:	Comments	Init.	No Revisions:
Horiz. Scale: 1:10 Vert. Scale: As Noted	R-X				Revised:
Unit Information Unit Leader Initials					Void:
Short Elliott Hendrickson Inc. Colorado Center Tower One Suite 6000 2000 South Colorado Boulevard Denver, CO 80222-7900 Tele. (720) 540-6800 (800) 490-4966 Fax (888) 908-8166					

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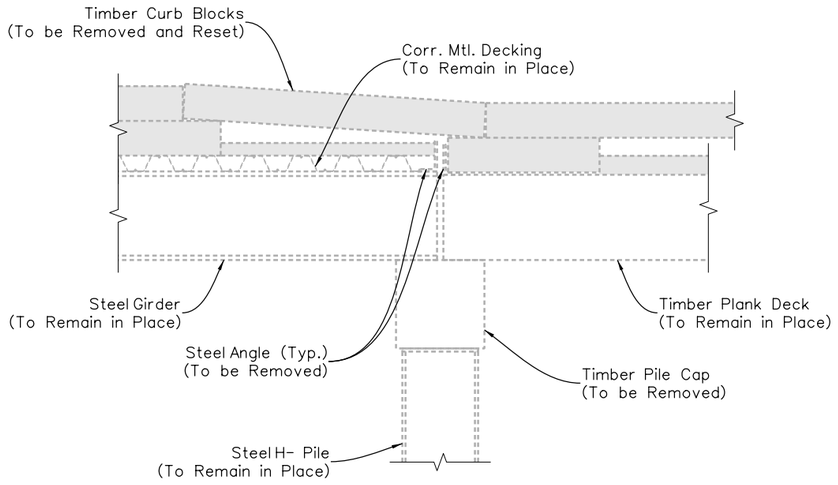
PIER REPAIR DETAILS

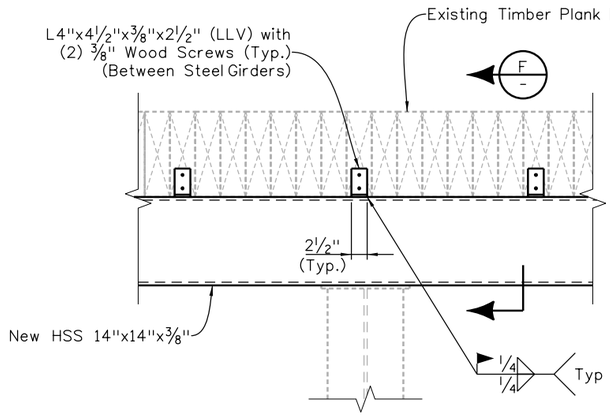
Designer:	KAA	Structure Numbers	
Detailer:	DWS		
Sheet Subset:	BRIDGE	Subset Sheets:	2 of 3

Project No./Code	
SEH Project Number	137210
Sheet Number	6



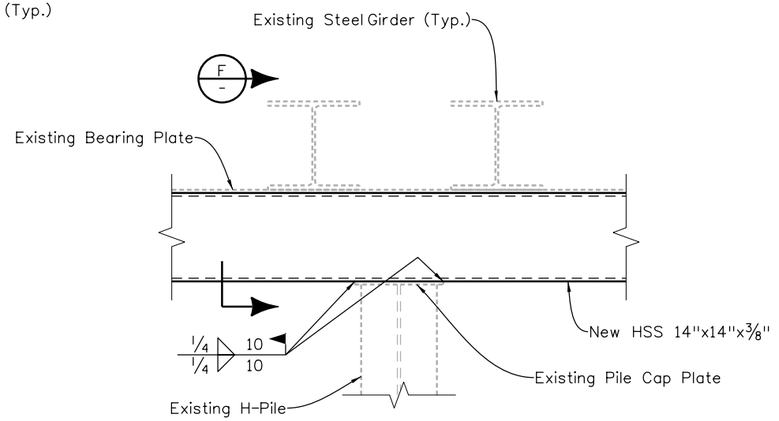
DETAIL C/6

(Pier 2 is opposite hand)



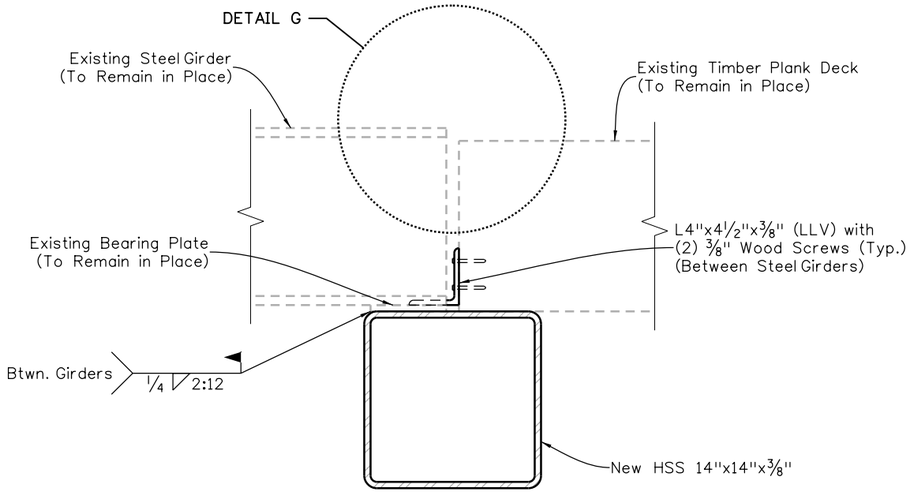
DETAIL D/6

(At Timber Girders)



DETAIL E/6

(At Steel Girders)



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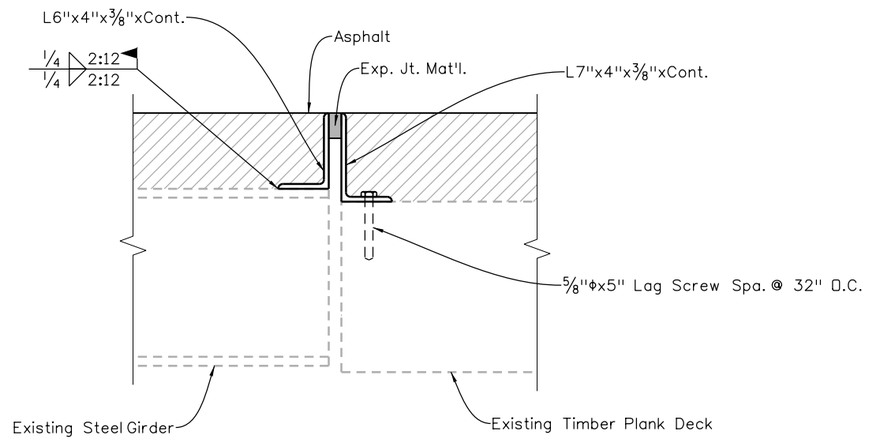

DETAIL G/-

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File Name: 137210DES_PierRepair-02.dgn			
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Unit Information	Unit Leader Initials		

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Sheet Revisions

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PIER REPAIR DETAILS

Designer:	KAA	Structure Numbers	
Detailer:	DWS		
Sheet Subset:	BRIDGE	Subset Sheets:	3 of 3

Project No./Code

SEH Project Number

137210

Sheet Number 7

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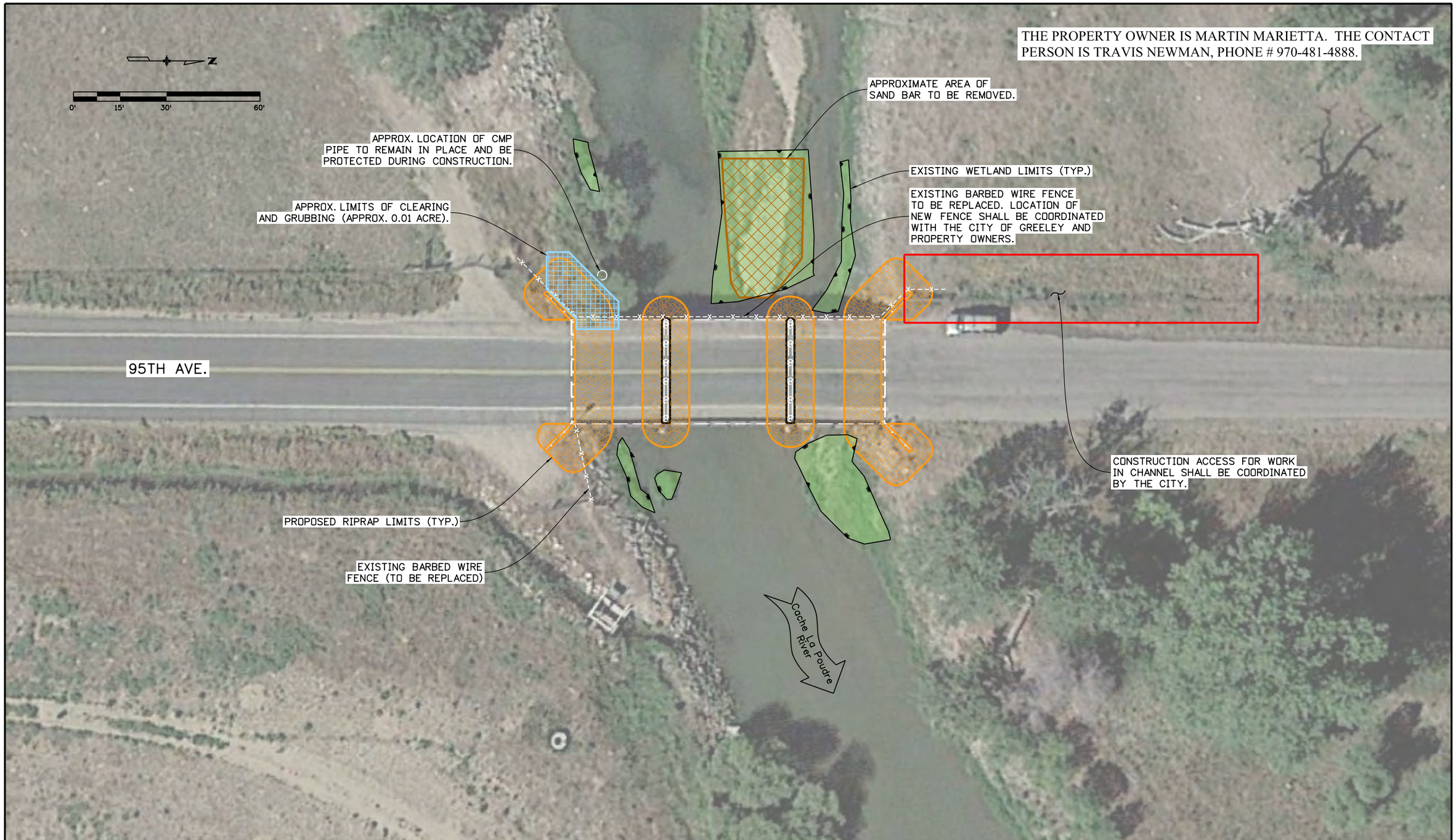

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File Name:	137210DES_SitePlan.dgn
Horiz. Scale: 1:30	Vert. Scale: As Noted
Unit Information	Unit Leader Initials

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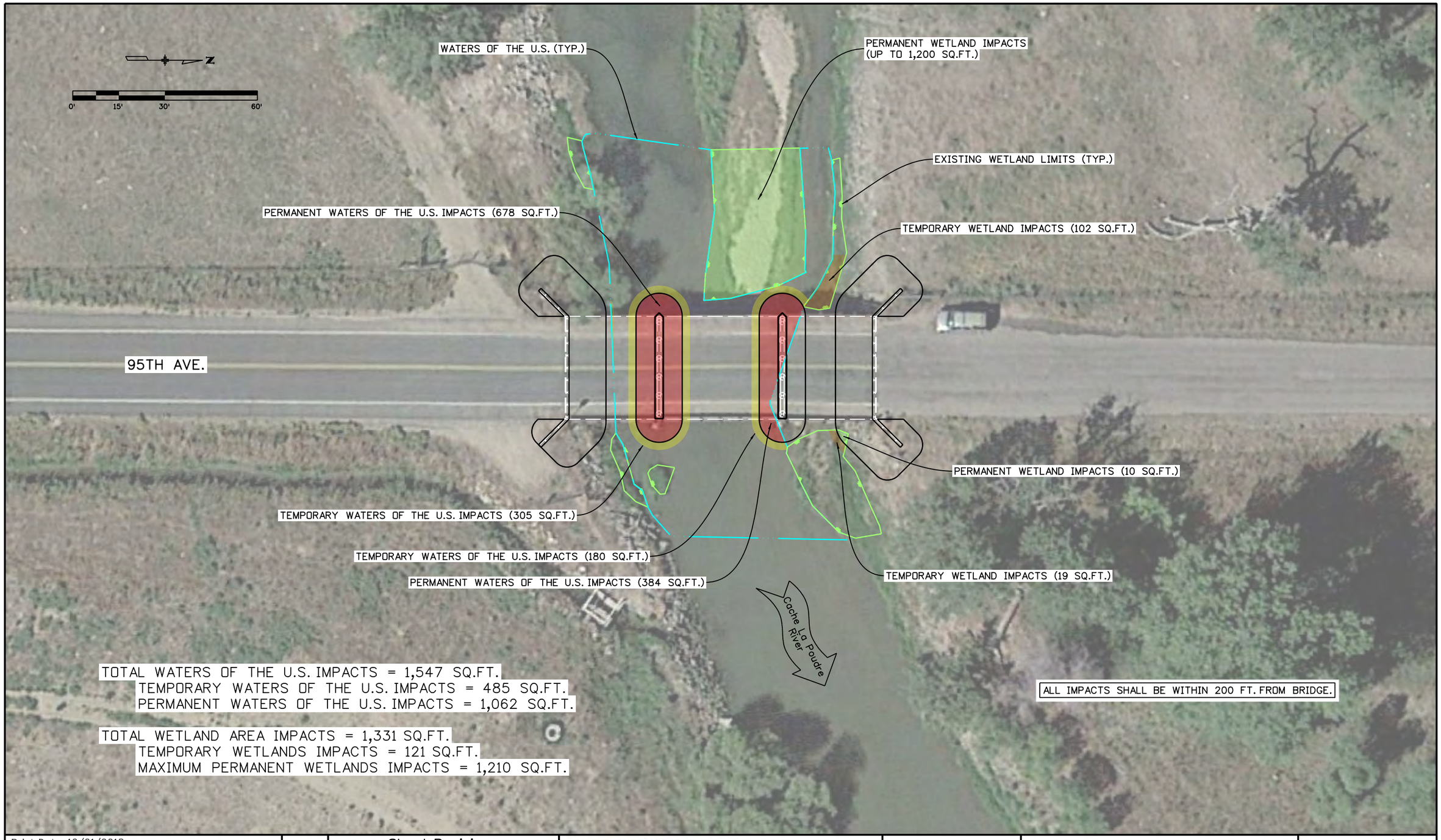
SITE PLAN

Designer:	KAA	Structure Numbers	
Detailer:	DWS		
Sheet Subset:	SITE	Subset Sheets:	1 of 1

Project No./Code	
SEH Project Number	
137210	
Sheet Number	8



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Print Date: 12/21/2018
File Name: 137210DES_ProjectImpacts.dgn
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Unit Information Unit Leader Initials

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PROJECT IMPACTS

Designer:	KAA	Structure Numbers	
Detailer:	DWS		
Sheet Subset:	SITE	Subset Sheets:	1 of 1

Project No./Code
SEH Project Number
137210
Sheet Number 9

DIVERSION / WATER CONTROL NOTES:

Item 211 Dewatering/Water Control includes all the work require for controlling, handling, disposing and treating groundwater, river diversions and surface water that may be needed to construct the project, including all equipment, tools, materials and labor required for constructing, operating, and maintaining water control systems such as the pumps, diversions, phasing, disposals; and work necessary to repair or replace property damaged due to construction work related to this item.

Dewatering shall include lowering the groundwater table and intercepting seepage which may be present during excavations for placing of rip rap, rip rap subgrade, and pier base concrete.

Water Control shall include diverting Poudre River flows away from excavations for rip rap and concrete installation and whatever means is being used to support the bridge superstructure while the pier caps are being replaced.

The Contractor is responsible for the continuous control of water at all times during the course of construction, and shall provide adequate backup systems to accomplish control of water. The method of control, handling, and disposal of groundwater and surface water shall be by whatever means are necessary and in conformance with this Section to obtain satisfactory working conditions and to maintain the progress of the work. Handling and disposal shall include the treatment of water in conformance with the provisions of this Section and the disposal of sludge from settling basins.

All required drainage, pumping, treatment, and disposal shall be done without damage to adjacent property or structures and without interference with the operations of other contractors, or the rights of public and private owners, or pedestrian and vehicular traffic. Immediately repair any structure damaged as a result of the dewatering/water control operations at no additional costs to the Owner.

The Contractor shall modify the water control system at Contractor's expense if, after installation and while in operation, it causes or threatens to cause damage to adjacent property or to existing buildings, structures, or utilities; or if water control is not performing as needed for construction activities.

Localized dewatering and lowering of the groundwater table inside of excavation to 1 foot below bottom of concrete, rip rap and filter material is required; however, the groundwater table shall not be lowered by more than 1 foot below the bottom of the excavation.

The Contractor is responsible for the design of all water control systems. The contractor shall obtain all necessary permits for the control of water as required, including CDPHE Construction Stormwater Discharge and Construction Dewatering Permit and perform all work in accordance with these permits. Should requirements of any permit be different than requirements herein, the more stringent requirements shall control.

Means, methods, materials, and equipment to adequately divert river flows and dewater excavation areas are the responsibility of the Contractor. Water to be controlled includes groundwater, contaminated groundwater; surface water (precipitation and run-off), contractor service water; and streamflow.

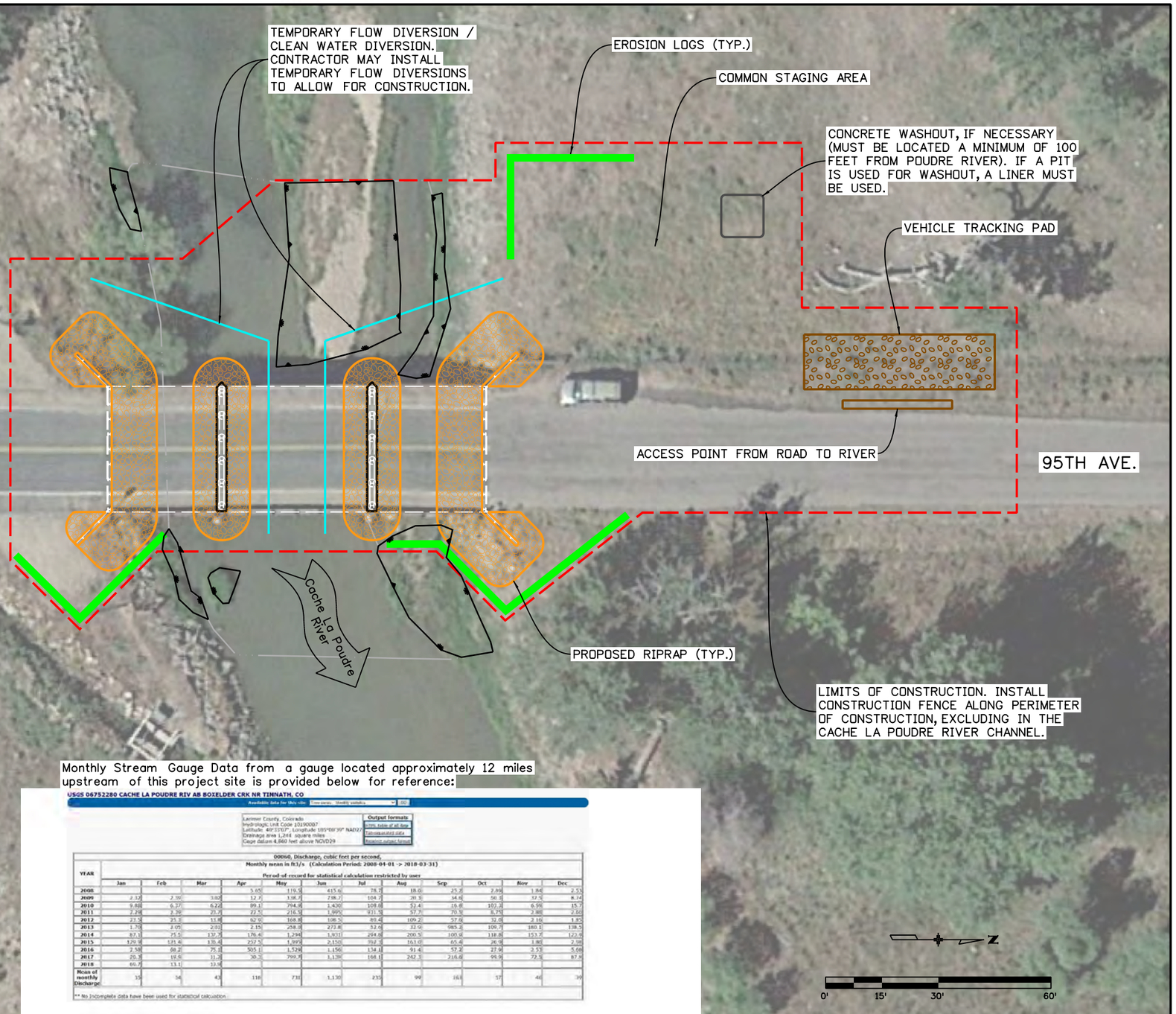
The Contractor shall be responsible for the stability of all excavations for the entire duration of dewatering and river diversion activities.

The Contractor shall submit a Dewatering/Water Control Plan that includes a description of all the work related to this item to the City for review prior to beginning of the work related to this item. The submittal shall include names of equipment suppliers, installation subcontractors, proposed dewatering methods and details, proposed water diversion methods, details, and phasing configuration, materials, river diversion flow capacities, and locations and dimensions of all proposed elements.

The Contractor shall also submit a contingency plan describing how to continue dewatering in the event of a failure of the primary dewatering system, and how they will accommodate failure of the river water diversion system.

River water diversion shall be designed and constructed to accommodate the 2-yr flow, which has been estimated at 2410 cfs, using USGS Streamstats. Contractor can accommodate larger flows at their discretion. For reference estimated flows for the Cache La Poudre are:

2 YR	2410 cfs	25 YR	5200 cfs
5 YR	3590 cfs	50 YR	6420 cfs
10 YR	4580 cfs	100 YR	7480 cfs



Monthly Stream Gauge Data from a gauge located approximately 12 miles upstream of this project site is provided below for reference:

USGS 06752280 CACHE LA POUDRE RIV AB BOXELDER CRK NR TIMNATH, CO

Larimer County, Colorado
Hydrologic Unit Code 10190007
Latitude 40°31'07", Longitude 105°08'39" NAD27
Drainage area 1,244 square miles
Gage datum 4,960 feet above NGVD29

Output formats

00060, Discharge, cubic feet per second,
Monthly mean in ft3/s (Calculation Period: 2008-04-01 -> 2018-03-31)
Period-of-record for statistical calculation restricted by user

YEAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008				5.65	119.5	415.6	78.7	18.6	25.3	2.86	1.84	2.53
2009	2.32	2.39	3.02	12.7	138.7	738.7	104.7	29.3	34.6	50.3	37.5	8.74
2010	9.88	6.37	6.22	99.1	794.9	1,430	108.8	52.4	16.9	102.2	6.95	15.7
2011	2.29	2.39	23.2	22.5	216.5	1,995	931.5	57.7	70.5	8.75	2.88	2.60
2012	23.5	25.3	13.8	62.9	168.8	108.5	80.4	109.2	57.9	32.0	2.16	1.85
2013	1.70	2.05	2.01	2.15	258.0	273.8	52.6	32.9	985.2	109.7	180.1	138.5
2014	87.1	75.5	137.5	176.4	1,294	1,931	294.8	200.5	100.4	118.8	153.7	123.8
2015	129.8	121.4	135.4	257.5	1,899	2,150	952.3	163.0	65.4	26.9	1.80	2.38
2016	2.58	68.2	75.1	505.1	1,529	1,156	134.1	91.4	57.2	27.9	2.53	5.60
2017	20.3	19.6	11.2	30.3	799.3	1,139	168.1	242.3	216.6	99.5	72.5	87.8
2018	66.7	13.1	13.9									
Mean of monthly Discharge	33	34	43	118	731	1,130	233	99	161	57	46	39

** No incomplete data have been used for statistical calculation

Print Date: 12/26/2018												
File Name: 137210DES_ErosionControl.dgn												
Horiz. Scale: 1:30	Vert. Scale: As Noted											
Unit Information	Unit Leader Initials											

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Sheet Revisions

Date:	Comments	Init.

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Fax: 970.336.4142

As Constructed

No Revisions:

Revised:

Void:

EROSION CONTROL PLAN

Designer:	KAA	Structure Numbers	
Detailer:	DWS		
Sheet Subset:	EROSION	Subset Sheets:	1 of 1

Project No./Code

SEH Project Number 137210

Sheet Number 10

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1. SITE DESCRIPTION

A. PROJECT SITE LOCATION: The 95th Ave. Bridge is located in the northwest corner of the incorporated City of Greeley, and bordered by unincorporated Weld County. It is 1.7 miles north of the intersection of BUS 34/W 10th street and 95th Ave. and 0.9 miles south of the intersection of Weld County Road 64 1/2 and 95th Ave.

B. PROJECT SITE DESCRIPTION: The project includes bridge repairs to both interior pier supports and rip rap scour countermeasures to both piers and abutments. Pier repairs include the lowering of concrete encasement of steel pier columns and replacement of timber pier caps. Excavation will be performed to remove material that will be replaced with rip rap for scour protection. Other than the removal of a small portion of an upstream sand bar, no other permanent grading.

C. ACRES OF DISTURBANCE:

1. Total area of construction site (LOC AREA): 0.55 acres
2. Total area of proposed disturbance (LDA): 0.10 acres
3. Total area of seeding: 0.20 acres

E. EXISTING SOIL DATA: A detailed soil investigation was not performed for this site. The site is contained within the Cache La Poudre Floodplain. Soils are assumed to be riverine and riparian in nature consisting of aeolian and alluvial ceposits.

F. EXISTING VEGETATION, INCLUDING PERCENT COVER:
Vegetative transects are not required, by permit, on projects with under an acre of disturbance. However, it is advised that transects be completed prior to construction, as a quality control for post construction revegetation assessment. If transects are not completed on a project, at a minimum describe the quality of the existing vegetation.

2. STORMWATER MANAGEMENT CONTROLS FIRST CONSTRUCTION ACTIVITIES

THE CONTRACTOR SHALL PERFORM THE FOLLOWING:

A. POTENTIAL POLLUTANT SOURCES

1. Evaluate, identify and describe all potential sources of pollutants at the site in accordance with subsection 107.25 and place any BMPs/Control Measures required to contain potential pollutants.

B. OFFSITE DRAINAGE (RUN ON WATER)

1. Place BMPs/Control Measures to address run-on water in accordance with subsection 208.03.

C. CONSTRUCTION DEWATERING:

1. Obtain a dewatering permit from CDPHE if conditions of their low risk guidance for Discharges of Uncontaminated Groundwater to Land are not met; see subsection 107.25(b) 8.

D. VEHICLE TRACKING PAD

1. BMPs/Control Measures shall be implemented in accordance with subsection 208.04.

E. PERIMETER CONTROL

1. Perimeter control shall be established as the first item on the SWMP to prevent the potential for pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters.
2. Perimeter control may consist of vegetation buffers, berms, silt fence, erosion logs, existing landforms, or other BMPs/Control Measures as approved.
3. Perimeter control shall be in accordance with subsection 208.04.

3. SWMP ADMINISTRATOR:

A. SWMP ADMINISTRATOR FOR DESIGN:

Name/Title	Contact Information
Joe Foley / Project Engineer	402-513-8201 jfoley@sehinc.com

B. SWMP ADMINISTRATOR FOR CONSTRUCTION: (As defined in Subsection 208) The Contractor shall designate a SWMP Administrator for Construction upon ownership of the SWMP. The SWMP Administrator shall become the owner/operator and assume responsibility for all design changes to the SWMP implementation and maintenance in accordance to 208.03. The SWMP Administrator shall be responsible for implementing, maintaining and revising SWMP, including the title and contact information. The activities and responsibilities of the SWMP Administrator shall address all aspects of the projects SWMP. (Update the information below for each new SWMP Administrator) (Copy of TECS Certification must also be included in the SWMP Notebook.)
The SWMP Administration for construction is not a separate pay item but is included in the cost of the work.

Name/Title	Contact Information	Certification #	Start Date	Engineer Approval

4. DURING CONSTRUCTION

The SWMP should be considered a "living document" that is continuously reviewed and modified. During construction, the following items shall be added, updated, or amended as needed by the Contractor in accordance with Section 208

A. MATERIALS HANDLING AND SPILL PREVENTION: prior to construction commencing the Contractor shall submit a Spill Prevention, Control and Countermeasure Plan, see subsection 208.06. Materials handling shall be in accordance with subsection 208.06.

B. STOCKPILE MANAGEMENT: shall be done in accordance with subsection 107.25 and 208.07

C. CONCRETE WASHOUT: Concrete wash out water or waste from field laboratories and paving equipment shall be contained in accordance with subsection 208.05.

D. SAW CUTTING: shall be done in accordance with subsection 107.25, 208.04, 208.05

E. STREET SWEEPING: shall be done in accordance with subsection 208.04

5. BMP/CONTROL MEASURE MAINTENANCE

A. Maintenance shall be in accordance with subsection 208.04 (f).

6. INTERIM AND PERMANENT STABILIZATON

A. SEEDING PLAN
Soil preparation, soil conditioning or topsoil, seeding (native), mulching (weed free) and mulch tackifier will be required for an estimated 0.20 acres of disturbed area within the right-of-way limits which are not surfaced. The following types and rates shall be used:

COMMON NAME	BOTANICAL NAME	LBS. PLS PER ACRE
Side Oats Gramma		4.0
Blue Gramma		4.0
Little Bluestem		4.0
Sand Dropseed		0.12
Stream Bank Grass		8.0
TOTAL		20.12

B. SEEDING APPLICATION: Drill seed 0.25 inch to 0.5 inch into the soil. In small areas not accessible to a drill, hand broadcast or hydroseed at double the rate and rake 0.25 inch to 0.5 inch into the soil per subsection 212.

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STORMWATER MANAGEMENT PLAN

Designer: KAA
Detailer: DWS
Sheet Subset: SWMP
Structure Numbers:
Subset Sheets: 1 of 3

Project No./Code
SEH Project Number
137210
Sheet Number 11

C. MULCHING APPLICATION: Apply a minimum of 2 tons of certified weed free hay or 2 1/2 tons of certified weed free straw per acre and in accordance with Section 213, and mechanically crimp it into the soil in combination with an organic mulch tackifier.

1. Prior to winter shutdown or the summer seeding window closure: Uncompleted slopes shall be mulched with 2 tons of mulching (weed free) per acre, mechanically crimped into the topsoil in combination with an organic mulch tackifier per subsections 208 and 213.

D. SPECIAL REQUIREMENTS:

1. Due to steep slopes (>2:1), hydroseeding will be allowed on this project for permanent stabilization. Hydroseeding rate shall be at double the seeding rate. Hydroseed shall be applied in two applications. The first application is a slurry which contains seed, organic amendment and fertilizer. The second application is a slurry of mulch and tackifier. Both slurry applications shall be applied from top of slope downward, in 50' vertical lifts, unless otherwise approved by the Engineer.

E. SOIL CONDITIONING AND FERTILIZER REQUIREMENTS: Minimum amendment material requirements for all disturbances to receive seeding (native).

Soil conditioners paid for as Item 212- Soil Conditioning (Acre)		
Biological nutrient organic based fertilizer (lbs./acre)*	Humate (lbs./acre)	Spray-on Amendment (lbs./acre) **>2:1 slopes only**
300	200	3500

*Biological nutrient organic based fertilizer shall not exceed 8-8-8 (N-P-K).

Humate shall be in accordance to 212.02.

F. SOIL RETENTION COVERING: On slopes and ditches requiring a blanket or turf reinforcement mat (trm), the blanket/trm shall be placed in lieu of mulch and mulch tackifier and placed after seeding (native). See SWMP Site Map for blanket/trm locations.

G. Permanent Stabilization Application Under Structures: Under structures shade patterns should be considered and the use of Median Cover Material (Stone) or other stabilized options with an approved Project Special Provision should be used. See SWMP Site Map for locations.

H. RESEEDING OPERATIONS/CORRECTIVE STABILIZATION:
Prior to partial acceptance.

1. All seeded areas shall be reviewed during the 7 day inspections by the SWMP Administrator for Construction and or Erosion Control Inspector for bare soils caused by surface or wind erosion. Bare areas caused by surface or gully erosion, blown away mulch, etc. shall be re-graded, seeded, and have the designated mulching applied as necessary, at no additional cost to the project.
2. The Contractor shall maintain seeding/mulch/tackifier/blanket/TRM, mow to control weeds or apply herbicide to control weeds in the seeded areas until Partial Acceptance of the stormwater construction work.

7. PRIOR TO PROJECT FINAL ACCEPTANCE

A. Partial Acceptance shall be in accordance with subsection 107.25 (d), 208.10 and 214.04 at the Partial Acceptance of the project, it shall be determined by the SWMP Administrator for Construction and the Engineer which temporary BMPs/Control Measures shall remain until 70% revegetation is established or which shall be removed.

B. At the end of the project, all ditch checks shall either consist of temporary erosion logs (or equivalent) or permanent riprap.

C. All storm drains shall be cleaned prior to the Final Acceptance of the project. Work shall be included in 202 Clean Culvert.

8. NARRATIVES:

A. ADDITIONAL BMPS/CONTROL MEASURES AND NARRATIVES:
BMP/Control Measure details and narratives not covered by the SWMP or Standard Plan M-208, M-216 shall be added to the SWMP notebook by the SWMP Administrator.

9. TABULATION OF STORMWATER QUANTITIES

A. It is estimated that 30 hours of labor may be required for miscellaneous erosion control work as directed by the Engineer. Work shall be paid for as: 208 Erosion Control.

B. Establishment of seeded areas shall be paid for as: 208 Erosion Control. This shall include mowing, weed control, reseeding/mulch/tackifier.

	CDOT Item	Description	Pay Unit	Initial Const.	Interim Const.	Permanent Stabilization	*Total Quantity
	203-02330	Laborer	Hour	10	10	10	30
	208-00002	Erosion Log Type 1 (12 inch)	LF	200			200
	208-00045	Concrete Washout Structure	Each	1			1
	208-00070	Vehicle Tracking Pad	Each	1			1
	212-00006	Seeding (Native)	Acre			0.20	0.20
	212-00032	Soil Conditioning	Acre			0.20	0.20
	213-00002	Mulching (Weed Free Hay)	Acre			0.20	0.20

	CDOT Item	Description	Pay Unit	Initial Const.	Interim Const.	Permanent Stabilization	*Total Quantity
	213-00061	Mulch Tackifier	LB			20	20
	607-11525	Fence (Plastic)	LF	690			690

All items in Stormwater Tabulation shall be paid for under Bid Item 208 Erosion Control.

*It is anticipated that additional BMPs/Control Measures and BMP/Control Measure quantities not shown on the SWMP Site Maps shall be required on the project for unforeseen conditions and replacement of items that are beyond their useful service life, see subsection 208.03 and 208.04. **Quantities for all BMPs/Control Measures shown above are estimated, and have been increased for unforeseen conditions and normal BMP/Control Measure life expectancy.** Quantities shall be adjusted according to the conditions encountered in the field as directed and approved by the Engineer. Payment shall be for the actual work completed and material used.

**Pay Item 208-00071 is included for anticipated maintenance of vehicle tracking pads based on the service life of the BMP in the field. The use of the material shall be directed and approved by the Engineer.

10. BIOLOGIC IMPACTS and DEWATERING

A. ENVIRONMENTAL IMPACTS:

1. Wetland Impacts: Refer to other environmental permits in accordance with subsection 107.02 and the permits contained in the SWMP Notebook.
2. Stream Impacts: Refer to other environmental permits in accordance with subsection 107.02 and the permits contained in the SWMP Notebook.
3. DEWATERING: Dewatering: Refer to other environmental permits in accordance with subsection 107.02 and the permits contained in the SWMP Notebook.

11. Notes

EMC (or SWMP Administrator for Construction or Erosion Control Inspector) is included in the cost of the work.

Print Date: 12/21/2018
File Name: 137210DES_SWMP.dgn
Horiz. Scale: 1:1 Vert. Scale: As Noted
Unit Information Unit Leader Initials

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R-X

Sheet Revisions

Date:	Comments	Init.

City of Greeley Colorado
Great. From the Ground Up.
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Greeley, CO 80631
Telephone: 970.350.9881
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As Constructed
No Revisions:
Revised:
Void:

STORMWATER MANAGEMENT PLAN

Designer: KAA
Detailer: DWS
Sheet Subset: SWMP
Structure Numbers:
Subset Sheets: 3 of 3

Project No./Code
SEH Project Number
137210
Sheet Number 13

Building a Better World for All of Us®

MEMORANDUM

TO: Diana Aungst, Weld County

FROM: Steve Kaye, PE - SEH, Inc.

DATE: January 7, 2019

RE: City of Greeley - 95th Ave. Bridge Rehabilitation Project: Description of Proposed Development and No Rise Condition
SEH No. 147729 14.00

Ms. Aungst,

The purpose of this memorandum is to describe the scope of improvement work included with the 95th Avenue Bridge Repair project and the impact the bridge improvements will have on water surface elevations of the Cache La Poudre River. The bridge carries 95th Avenue over the Cache La Poudre River north of the intersection of 95th Avenue and Weld County Road 62. On Flood Insurance Rate Map (FIRM) Number 08123C1504E, dated 01/20/2016, the Cache La Poudre River, through the segment of the 95th Ave. Bridge is categorized as a Zone AE Special Flood Hazard Area, meaning base flood elevations have been determined.

The bridge improvement scope includes:

1. Extension/lowering of the concrete encasement of exposed steel bent columns, with minimal to no change of hydraulic opening.
2. Removing existing soil around base of both bents and both abutments and replacing to the current elevation with rip rap for scour protection.
3. In-kind replacement of deteriorated timber bent caps at top of bents.
4. Removal of 1200 square feet, to a depth of 1 foot, of aggraded sand bar immediately upstream of the bridge.

The hydraulic opening of the bridge will not change as a result of the proposed bridge improvements. The locations and member sizes of the piers and abutments will not change. The low chord elevation and superstructure depth of the bridge will not change. The ground surface elevations at the locations of the channel armoring will not change. Pre and post construction cross section survey is scheduled to be completed by SEH to verify ground surface elevations have not changed between existing and proposed conditions.

Detailed hydraulic modeling and topographic survey was not performed as part of the improvement design, because no changes in bridge size or final grading within the bridge opening are proposed.

The scope of the bridge improvements is not intended to change the hydraulic capacity of the improved structure and will result in a “no rise” condition when compared with the hydraulic configuration of the existing structure.

Steve Kaye, PE