



J&T Consulting, Inc.

June 20, 2024

Mr. Rob Zuber
Environmental Protection Specialist
State of Colorado
Division of Reclamation, Mining, and Safety

Physical Address:

1313 Sherman Street, Room 215
Denver, CO 80203

Mailing Address:

Division of Reclamation, Mining and Safety, Room 215
1001 East 62nd Avenue
Denver, CO 80216

RE: Bernhardt Sand and Gravel Pit, File No. M-2023-025,
112c Permit Application, Fourth Adequacy Review and Cost Estimate

Dear Mr. Zuber,

WW Clyde & Co. (WW Clyde) has received the Division's Fourth Adequacy Review letter dated June 20, 2024. Below are the comments and the corresponding responses that we have provided to address the comments.

Comments

1. *Please update the Wildlife Exhibit (Exhibit H). In the last paragraph of this exhibit, you commit to an additional raptor survey. However, you should add additional language stating that, based on the results of this survey, you will coordinate with the Division and Colorado Parks and Wildlife and update the Mining Plan, as appropriate, to limit wildlife impacts.*

Response: *Exhibit H has been updated and is attached. See grey highlighted text. Previous adequacy review updates are in yellow and cyan highlighted text.*

2. *The second item is related to the Division's Reclamation Cost Estimate (RCE). Please add the cost of constructing the riprap rundown to Exhibit L. Also include a discussion of how this cost item was developed, including the volume of rock and source.*

Response: *Exhibit L has been updated to include the cost of constructing the riprap rundown. The cost we have provided is based on bid costs for the Perry Pit Spillway repair that was bid in October 2023 and constructed in February/March 2024. The source of riprap was from Asphalt Paving's Quarry near Golden. The bedding was supplied from another gravel pit north of Fort Lupton. I have also attached part of the bid schedule from Kelly Trucking's bid for these costs for reference. The quantities that we have for the Bernhardt Pit are larger than this project so using the cost from this project is conservative as there would likely be a price reduction because of the larger quantity of riprap and bedding. As far as the slurry wall cost's we were at \$5.50 per face foot which equates to \$198 per lineal foot. This cost we believe is accurate because the average depth of the slurry wall is 36 feet and can be constructed with a PC 490*



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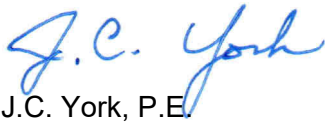
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excavator or equivalent (we just finished a similar wall with a PC 490 that was 30 feet in depth but we didn't bid that project so I don't have their cost information). We also have bid numbers on a slurry wall that was averaging 72 feet deep and was \$6.65 per square foot for the individual item and it is about \$7.50 per sf when you add in the other items for a total cost and this one requires a PC 1250 excavator or equivalent which is much larger and more costly. I have provided the bid from Odin Construction Solutions for the Derr Pit North Slurry Wall bid for reference.

WW Clyde appreciates your consideration of this adequacy review response.

Please feel free to contact me with any questions or comments.

Sincerely,



J.C. York, P.E.

J&T Consulting, Inc.

Attachments:

1. Updated Exhibit H
2. Updated Exhibit L with cost references



Wildlife Information

The project area was surveyed for general wildlife habitat by Ecological Resource Consultants (ERC). The Screening Report for Federal and State Listed Threatened and Endangered Species from ERC is attached which describes the wildlife habitat present on the site and the common species that may be found in the habitat area.

ERC conducted this screening for federal and state threatened, endangered and species of concern for the approximately 134-acre survey area. The following provides key items identified as part of the report:

1. Two primary land use class/vegetation cover type exists within the survey area. Habitat within the survey area is characterized as the Great Plains Ruderal Grassland and Shrubland (98%) and disturbed (2%). Historic land use for agricultural practices has led to degradation of the native vegetation community.
2. Generally, there are features on the survey area and the surrounding area that provide general habitat for local songbirds, raptors, and small to mid-size mammals. However, habitat within the survey area is somewhat degraded and of lower ecological value from a wildlife perspective due to historic and current land use for agriculture, which has restricted overall growth and establishment of vegetation. The South Platte River and adjacent eastern cottonwood floodplain and woodland, provides suitable habitat for wildlife species and MBTA species. The South Platte River and associated vegetative community will not be impacted by the proposed project.

3. Non-raptor birds

No non-raptor migratory bird nests were observed within the survey area. However, prior to vegetation removal a nest survey should be completed to ensure that no nests have become established within the survey area and active nests, if any, are not disturbed.

Non-eagle Raptors

No non-eagle raptor nests were observed and no CPW mapped non-eagle raptor nest protection zones are located within the survey area (CPW 2023a). However, nest activity status can vary seasonally and from year-to-year. Future land use changes may require additional nest surveys (generally between February 1 and September 15 (CPW 2020)) to determine activity status within ½ to ¼ mile of the survey area to ensure compliance with CPW recommendations.

Eagles

CPW SAM data identifies a bald eagle nest listed as “destroyed” being directly northeast of the survey area. Per CPW monitoring logs, the eagle nest has been inactive from 2019-2021, and destroyed in 2022. A field visit by ERC on January 25, 2023 confirmed the identified nest no longer exists and the nest area is no longer being utilized with no efforts by eagles to rebuild the nest. Therefore, the nest site and the survey area is not subject to any restriction per CPW protective buffer zone recommendations or USFWS Bald Eagle Protection Act.

4. No federally listed threatened and endangered species and/or habitat protected under the ESA were identified within the survey area. The survey area is not within designated critical habitat of any federally listed species. The vegetation community and features

within the survey area were investigated as potential habitat for federally listed species. Any future land use changes will result in No Take on any federal listed species, their habitats, or proposed or designated critical habitat.

5. No State listed threatened or endangered species and/or habitat protected by CPW under Colorado Statute Title 33 were identified within the survey area. The vegetation communities within the survey area were investigated as potential habitat for state listed species. Any future land use changes will have no effect on any state listed species, their habitats, or proposed or designated critical habitat.

ERC 2023 provided a detailed evaluation of potential critical wildlife habitat and use within the Permit Area. The Permit Area was determined to be comprised of 100% ruderal grassland and disturbed lands which is generally considered low-value wildlife habitat. No federal or state listed threatened and endangered species/habitat were identified.

Following the preparation of ERC 2023, CPW issued (~March 2023) new wildlife Species Activity Mapping (polygons) that depict the Permit Area within Mule Deer High Priority Habitat (HPH). This CPW polygon encompasses more than 955 square miles (~611,000 acres) along the South Platte and Big Thompson Rivers (refer to Figure 1 in ERC's Adequacy Review Responses to CPW below). The Permit Area represents less than 0.02 % of this entire HPH polygon. In order to minimize potential disturbances to the HPH, the project will implement CPW recommendations addressed in Item 10 of their comment e-mail to DRMS also attached below.

No other critical habitat or seasonal wildlife use has been identified within the Permit Area. It is not anticipated that operations (increased traffic, noise, light) will have a significant effect on wildlife in the area.

Refer to ERC 2023 for further explanation.

Attached are ERC's Adequacy Review Responses to CPW's comments and the Screening Report for Federal and State Listed Threatened and Endangered Species.

W.W. Clyde & Co. commits to conducting a raptor survey prior to mobilization of earth-moving equipment or excavation at the site. The survey will be conducted and results submitted to the DRMS as a technical revision 30 days prior to mobilization of earth-moving equipment or excavation. Based on the results of the raptor survey W.W. Clyde & Co. will coordinate with CPW and update the Mining Plan as appropriate to comply with recommendations to limit wildlife impacts.



Reclamation Bond Quantities and Costs
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Summary of Unit Costs

Direct costs

Re-applying topsoil 6" thick	\$1,800.00	/ acre
Revegetating disturbed area	\$1,000.00	/ acre
Dewatering full pit	\$200.00	/ million gallons
Slurry Wall Cost (36 foot average depth @ \$5.50/ft)	\$198	/ linear foot
Perimeter Drain	\$20	/ linear foot
Scarifying Ground	\$200	/ acre
Grading and Backfill of Reclamation Slopes	\$2.00	/ cy
Spillway Riprap Slope Protection	\$110	/ cy
Spillway Slope Protection Bedding	\$80	/ cy
Mobilization	\$2,500	lump sum

Overhead and Profit Costs

Liability insurance	1.55%	of direct cost
Performance bond	1.05%	of direct cost
Profit	10.00%	of direct cost

Total Overhead Cost 12.60% of direct cost

Project Management

Engineering and bidding	4.25%	of direct cost
Management and administration	5.00%	of direct cost

Total Additional Cost 9.25% of direct cost

Phase 1

Reclamation Operation	Quantity	Unit	Unit Cost	Cost
Active Mining Area				
Scarifying Disturbed Area	15.07	ac	\$200	\$3,014
Topsoil Placement Disturbed Area	15.07	ac	\$1,800	\$27,126
Revegetate Disturbed Area	15.07	ac	\$1,000	\$15,070
Reclaimed Slope Grading and Backfill	351,950	cy	\$2.00	\$703,900
Slurry Wall	7,723	lf	\$198	\$1,529,154
Perimeter Drain	3,890	lf	\$20	\$77,800
Spillway Riprap Slope Protection with bedding	2,965	cy	\$110	\$326,150
Spillway Slope Protection Bedding	1,485	cy	\$80	\$118,800
Dewatering of Phase 1 Area	684.2	Mil. Gal.	\$200	\$136,840
Mobilization	1.00	ls	\$2,500	\$2,500
Total Direct Cost				\$2,895,144
Overhead and Profit Cost (12.60%)				\$364,788
Contract Cost				\$3,259,932
Project Management (9.25%)				\$301,544
Cummulative Financial Warranty Required For Phase 1				\$3,561,476



J&T Consulting, Inc.

The Consolidated Mutual Water Company

Perry Pit Reservoir Repairs

10/9/2023

Bid Schedule

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Item Number	Description	Quantity	Unit	Unit Price	Total Price
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General Items

1	Project Mobilization/Demobilization	1	LS	\$93,000.00	\$93,000.00
2	Erosion Control	1	LS	\$11,500.00	\$11,500.00
3	Traffic Control	1	LS	\$12,000.00	\$12,000.00
4	Construction Staking	1	LS	\$25,000.00	\$25,000.00
5	Clearing, Grubbing, Striping/Stockpiling/Replacing Topsoil	1	LS	\$40,000.00	\$40,000.00
6	Site Restoration of all Disturbed Areas (misc grading, seeding, mulching)	1	LS	\$15,000.00	\$15,000.00

General Items Subtotal

\$196,500.00

Reservoir Repair Items

7	West Berm Grading Area - FILL, Complete in Place	280	CY	\$26.50	\$7,240.00
8	West Grading Area - FILL, Complete in Place	1,550	CY	\$17.60	\$27,280.00
9	North Grading Area - FILL, Complete in Place	1,120	CY	\$7.50	\$8,400.00
10	North Grading Area - CUT, Complete in Place	1,980	CY	\$5.15	\$10,197.00
11	North Flow Through Spillway Slope Riprap, Complete in Place	660	CY	\$105.00	\$69,300.00
12	North Flow Through Spillway Slope Riprap Bedding, Complete in Place	330	CY	\$73.50	\$24,255.00
13	North Flow Through Spillway Soil Riprap, Complete in Place	590	CY	\$90.00	\$53,100.00
14	Remove Existing 2x18 in DIP Culverts and install 36 in Class IV RCP Culvert with 2 Flared End Sections at Oil/Gas Access Road, Complete in Place	30	LF	\$630.00	\$18,900.00
15	Remove and Replace Chain Link Fence Along CR 6 with 4-Wire Barbed Wire Fence, Complete in Place	1,120	LF	\$22.00	\$24,640.00
16	Removal of Temporary Spillway Berm - CUT, Complete in Place	795	CY	\$5.50	\$4,372.50
17	Side Channel Spillway Repair Area Grading - FILL, Complete in Place	2,250	CY	\$4.95	\$11,137.50
18	Side Channel Spillway Repair Area Grading - CUT, Complete in Place	1,120	CY	\$4.50	\$5,040.00
19	Impervious Clay Slurry Wall Cap, Complete in Place	80	CY	\$70.00	\$5,600.00
20	Side Channel Spillway Slope Riprap, Complete in Place	380	CY	\$110.00	\$41,800.00
21	Side Channel Spillway Slope Riprap Bedding, Complete in Place	190	CY	\$80.00	\$15,200.00
22	Side Channel Spillway Soil Riprap, Complete in Place	2,060	CY	\$80.00	\$164,800.00



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Perry Pit Reservoir Repairs

10/9/2023

Bid Schedule

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Item Number	Description	Quantity	Unit	Unit Price	Total Price
23	Intake Structure Flowfill Backfill, Complete in Place	15	CY	\$585.00	\$8,775.00
24	Install Sump Pump Discharge Piping From Meter Vault to Intake Structure, Complete in Place	1	LS	\$1,250.00	\$1,250.00
25	Reset Leaning Intake Structure to Level, Complete in Place	1	LS	\$2,750.00	\$2,750.00
26	Video Inspection of Intake Structure Piping, Complete in Place	1	LS	\$2,700.00	\$2,700.00
27	Removal of Settled Concrete Cutoff Wall and Installation of Reinforced Concrete to Raise Cutoff Walls, Complete in Place	1	LS	\$85,000.00	\$85,000.00
Reservoir Repair Items Subtotal					\$591,917.00

Project Total **\$788,417.00**

Total Price in Words Seven Hundred Eighty Eight Thousand Four Hundred Seventeen Dollars and Zero Cents

This bid schedule is understood to be all inclusive of the work shown on the contract documents. Items that are not specifically indicated by an individual bid item are understood to be incidental and included in the lump sum cost of a related bid item.

Signature

C. M. Kelly V.P.

Company Kelley Trucking Inc.

****See attached for Bid Clarifications.****



6201 McIntyre Street • Golden, Colorado 80403
(303) 279-4150 Fax (303) 279-4799

**PERRY PIT RESERVIOR REPAIRS
CR 6 AND GRACE AVE
WATTENBERG, CO
11/16/2023**

Bid Clarifications

1. Proposal assumes dewatering permit will not be required and any dewatering operations shall discharge into Perry Pit Reservoir.
2. Proposal assumes reservoir shall be drained, by others, to acceptable levels to allow contract completion.
3. Proposal assumes work in South Platte River shall be allowed, as needed, and as necessary.
4. Proposal assumes project shall be complete by 3/15/24.
5. Proposal assumes Rip Rap shall be available from aggregate quarry at time of construction.
6. KTI shall take care to prevent damage to intake structure during leveling but shall not be liable for any damage to intake structure.
7. Proposal assumes Sump Pump Discharge piping is 2" SCH. 40 PVC.
8. Final payment quantities will be based upon pre and post survey.
9. All grading shall be one time only to +/- 0.20 foot.
10. Importing of soils is contingent upon materials being available and accepted by Owner and Geotechnical Engineer for all required geo-technical and environmental considerations.
11. The work is based on current fuel rates. Fuel price increases may result in a price adjustment. The work is based on non-restricted market availability of fuel and DEF. If supply of fuel or DEF becomes restricted and / or released on an allocated basis, schedule impacts and repricing may become necessary.
12. This proposal is contingent upon Kelley Trucking Inc's. equipment availability at the time of the work
13. Proposal is based upon obtaining adequate supply of construction water from hydrants located on the project site.
14. Proposal assumes heavy equipment will be allowed to cross over and under existing utility lines.
15. The items within the proposal are tied, if the Owner desires to breakout any items contact us for review and potential price adjustments.
16. KTI will insure, indemnify and defend Ownership and/or Indemnities only to the degree or percentage of negligence or fault attributable to KTI that caused the claim, damage or loss consistent with C.R.S. 13-21-111.5.
17. If Payment and Performance bonds are required please add 1.0% to total proposal price.
18. Proposal is contingent upon a mutually agreeable Contract.
19. This proposal shall be valid for a period of 30 days.
20. **The following work items are excluded from the proposal:** Survey control, permits, flaggers, pedestrian control, engineering, barricades, lights, testing, environmental testing, patching, soil gradation or classification, hazardous materials, special waste, crushing or screening, utilities, removal or protection or support of utilities, utility relocation, utility adjustments, utility spoils, underground facilities, potholing, shoring, bracing, winter protection, snow or frost removal or protection, landscaping, muck excavation, subgrade stabilization, soil treatment, rock excavation, blasting, retaining wall construction, topsoil import, export, subgrade prep prior to paving or flatwork, fine grading, grading for curb and gutter and sidewalk, grading more than one time, Textura fees, and bonds.



		J&T Consulting, Inc.		W.W. Clyde & Co.	
Bid Schedule		Derr Pit North Slurry Wall			
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BASE BID					
Item Number	Description	Quantity	Unit	Unit Price	Total Price
1	Project Mobilization/Demobilization	1	LS	\$300,000.00	\$300,000.00
2	Payment and Performance Bonds	1	LS	\$42,000.00	\$42,000.00
3	Slurry Wall Mix Design	1	LS	\$50,000.00	\$50,000.00
4	Slurry Source Water Treatment	1	LS	\$50,000.00	\$50,000.00
5	Slurry Wall - Soil/Bentonite Slurry Wall Installation, Including 1% Dry Bentonite Addition, Complete in Place	493,910	SF	\$6.65	\$3,284,501.50
BASE BID TOTAL					\$3,726,501.50