

Document Information Form

Mine Number: C/007/020

File Name: Incoming

To: DOGM

From:

Person N/A

Company HORIZON COAL CORPORATION

Date Sent: July 10, 1997

Explanation:

JOINT PERMIT APPLICATION FORM

cc:

File in: C/007/020, 1997, Incoming

Refer to:

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Date _____ For additional information

Route to Dept. of Justice
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JUL 10 1997

JOINT PERMIT APPLICATION FORM

U. S. ARMY CORPS OF ENGINEERS - FOR SECTIONS 404 AND 401
UTAH STATE ENGINEER'S OFFICE - FOR NATURAL STREAM CHANNELS

New file # CT/00/000 # 2
91 Area

Application Number _____ 97-91-06
(Assigned by: _____) Corps _____ State Engineer _____ JUL 7 1997

Applicant's Name (Last, First M.I.) Horizon Coal Corporation	Authorized Agent Mike Gipson	Telephone Number and Area Code (801) 472-3994
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Applicant's Address (Street, RFD, Box Number, City, State, Zip)
P.O. Box 599, Helper, Utah 84526

PROJECT LOCATION

Quarter Section(s) NE1/4 SE1/4 SW1/4	Section 17	Township 13S	Range 8E	Base & Meridian Salt Lake
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County Carbon	Watercourse to be altered Jewkes Creek	Check one: <input type="checkbox"/> Within city limits <input checked="" type="checkbox"/> Outside city limits List town or nearest town: Helper, Utah
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Project location or address:
Jewkes Canyon, Adjacent to Consumer's Canyon - 14 Miles Northwest of Price, Utah

Brief description of project:
The project will alter the channel of Jewkes Creek, an intermittent stream. The stream will be transferred from a channel running over mining waste to a riprapped channel. The channel will be moved eastward between 5 and 20 feet. A portion of the channel will be open and a portion culverted (approx. 150 feet). The 48" culverted portion will run under a new realigned piece of the county road. In addition, the 36" culvert currently under the Gordon Creek County Road will be replaced by a 48" culvert.

Purpose (justification) of project:
The purpose for this realignment is to realign the stream to place it in a cleaner and more stable channel. The county is realigning the road and would have to culvert a portion of the existing channel. The movement of the stream would provide a more stable environment than it currently has. This realignment should also help with the current erosion and sediment problems associated with this stream.

Is this a single and complete project or is it part of a larger project, continuing project, or other related activities? If so, please describe the larger project or other related activities.
This is a single project, to be completed as soon as possible.

If project includes the discharge of dredged or fill material: Some fill material may be necessary, but the quantity will have to be determined.

Cubic yards of material: _____

Acreage or square footage of waters of the United States, including wetlands
Less than .3 acres

Source and type of fill material: Native rock and soil.

File in:
 Confidential
 Shelf
 Expandable

Refer to Record No. 0055 Date 7-10-97
In C1007/020, 1997. Incoming

For additional information

Route to Dept. of Justice

RECEIVED
JUL 10 1997
WATER RIGHTS
DALE LAKE
RECEIVED

JOINT PERMIT APPLICATION FORM

U. S. ARMY CORPS OF ENGINEERS - FOR SECTIONS 404 AND 401
UTAH STATE ENGINEER'S OFFICE - FOR NATURAL STREAM CHANNELS

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This is a single project, to be completed as soon as possible.

If project includes the discharge of dredged or fill material: Some fill material may be necessary, but the quantity will have to be determined.
Cubic yards of material:
Acreage or square footage of waters of the United States, including wetlands, affected by the project:
Less than .3 acres
Source and type of fill material: Native rock and soil.

Alternatives (other ways to accomplish the project purpose):

The alternative would be to leave the channel in its current location and condition. A length of culvert could be placed under the proposed county road realignment.

Names and addresses of adjacent property owners or other individuals who may be affected by this project:

The property surrounding the proposed project belongs to Hidden Splendor Resources and is leased to Horizon Coal Corporation. Hidden Splendor Resources has given permission for this project.

Hidden Splendor Resources 50 West Liberty Street, Suite 880, Reno, NV 89501

List other authorizations required by Federal, state or local governments (i.e., National Flood Insurance Program), and the status of those authorizations.

Estimated starting date of project

June 24, 1997

Estimated completion date

July 5, 1997

(If project has already been partially or totally completed, indicate date of work. Indicate existing work on drawings).

Application is hereby made for a permit or permits to authorize the activities described herein. I certify that I am familiar with the information contained in the application, and that to the best of my knowledge and belief such information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities or am acting as the duly authorized agent of the applicant.

Signature of applicant

Date

Mark A. Simon 6/19/97

I hereby certify that _____ is acting as my agent for this project.

Agent's address and telephone number

INSTRUCTIONS

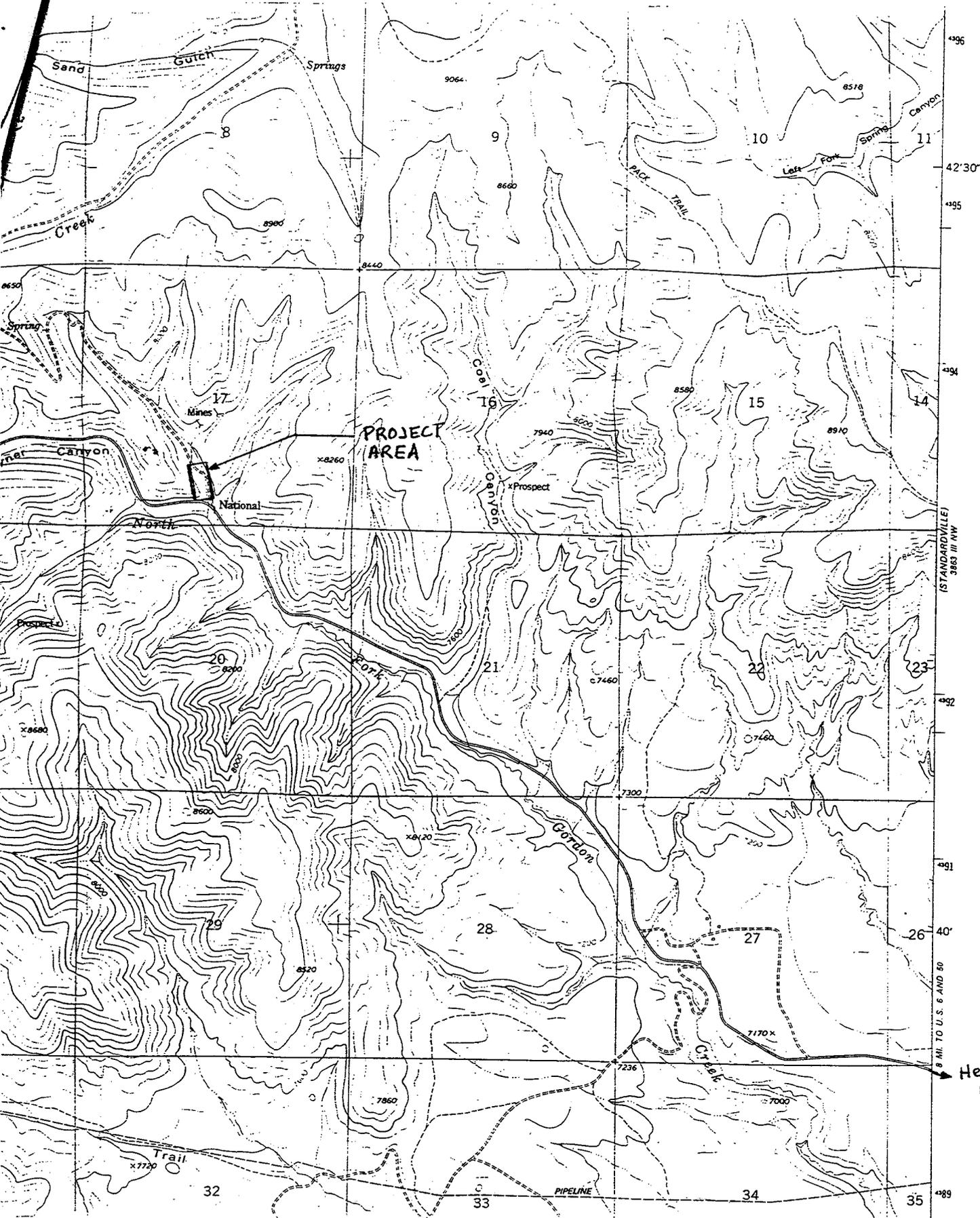
Applications which do not include the following will not be processed.

For a complete application, you **MUST** include the following on 8 1/2 by 11 paper (for large projects, multiple sheets with a key may be used). Clear, hand-drawn plans approximately to scale are acceptable.

1. An accurate location map (USGS quadrangle map preferred)
2. A plan view of the proposed activity (as seen from above) including dimensions of work.
3. A cross-section view of the proposed activity (may use typical cross-section for large projects) including dimensions.
4. For projects which include wetlands, an accurate wetland delineation must be prepared in accordance with the current method required by the Corps.

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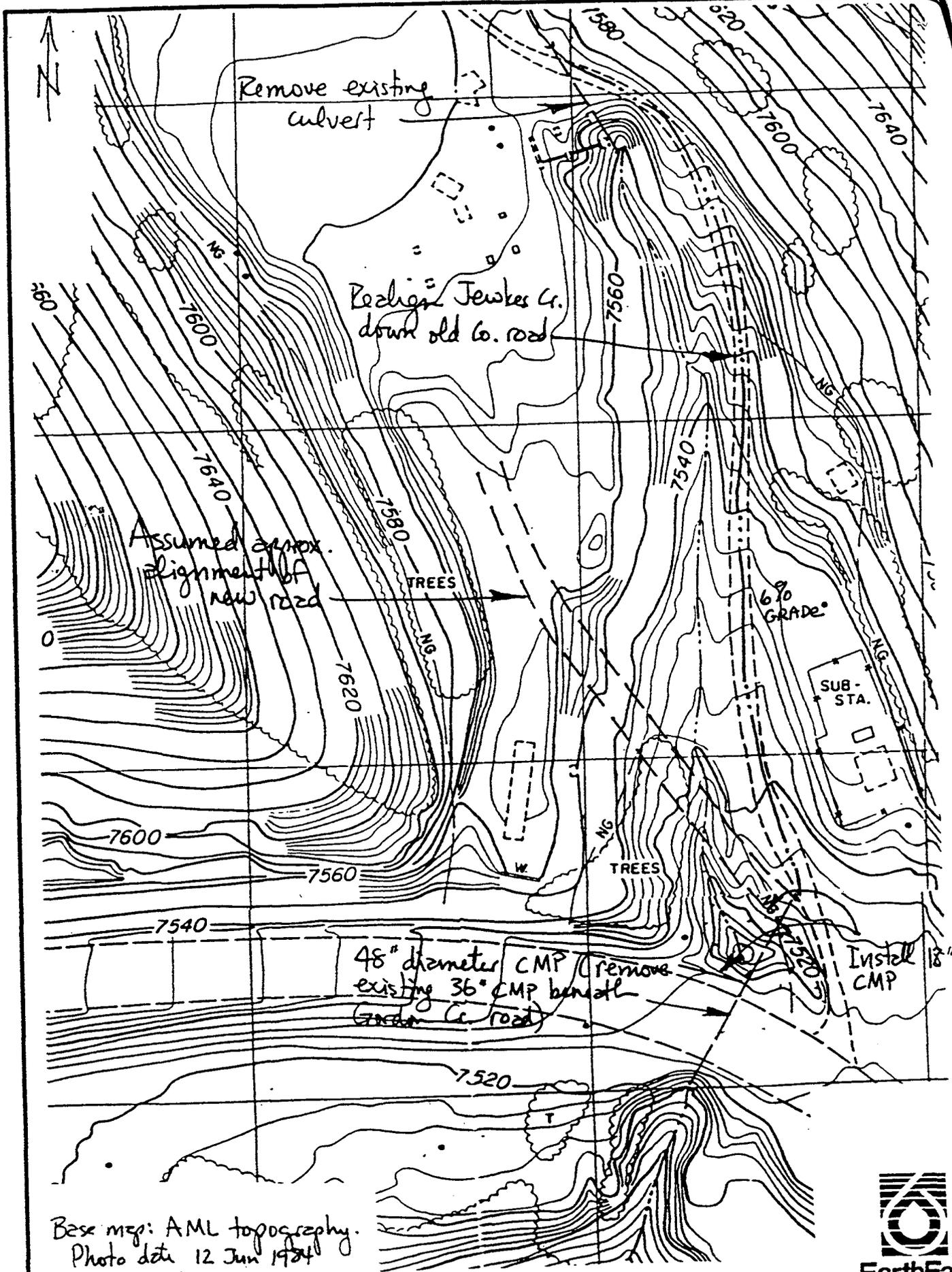


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HELPER,
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T135, R8E, SEC. 17

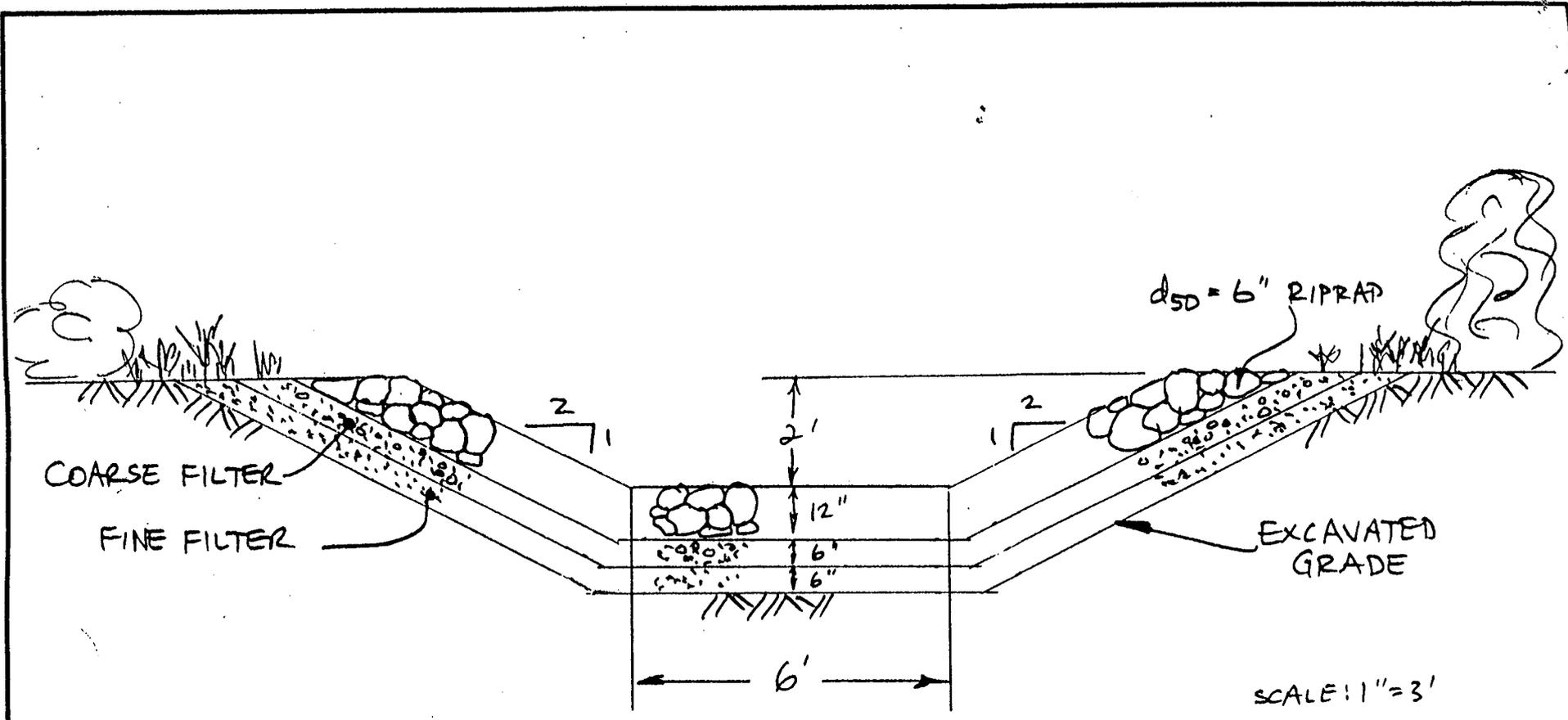
JUMP CREEK
7.5 MIN. USGS QUAD



Base map: AML topography.
 Photo date 12 Jun 1984
 Scale: 1" = 80'



FIGURE 1. PROJECT LAYOUT



TYPICAL CROSS SECTION
 JEWKES CR. REALIGNMENT

FIGURE 2. CHANNEL CROSS SECTION



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DESIGN OF JEWKES CREEK CHANNEL REALIGNMENT

INTRODUCTION

This document describes a design for the realignment of Jewkes Creek downstream from the Horizon No. 1 Mine. This realignment, which will be performed by Carbon County in support of the realignment of the county road, is necessary because the channel at the outlet of the existing culvert beneath the Beaver Creek county road has experienced significant erosion, creating a vertical cut of approximately 15 feet at the outfall. This cut requires backfilling for stabilization. Reconstruction of the channel on the backfill is not desirable.

The Beaver Creek county road is being realigned by Carbon County to provide better access to areas along the road. This road realignment will cross the existing channel downstream from the abovementioned fill. As a result, the existing road alignment will no longer be used for transportation. This road provides a stable surface for realignment of Jewkes Creek. Hence, the new channel will be constructed at the location of the existing road.

DESIGN METHODOLOGY

The realigned stream channel and associated structures were designed to safely convey the peak flow resulting from the 100-year, 6-hour precipitation event. Peak flows were calculated using the curve-number methodology of the U.S. Soil Conservation Service (1972). A computer program developed by Hawkins and Marshall (1979) was used for this calculation.

Channel hydraulics were evaluated using FlowMaster (Haestad Methods, 1996). Required riprap sizing was determined using procedures presented by Searcy (1967). Culve sizing was evaluated using nomographs prepared by Herr and Bossy (1965).

RESULTS

Calculations supporting the design of the realignment are on file with Earth Engineering, Inc. in Midvale, Utah. These calculations can be provided if needed.

Realignment of Jewkes Creek will begin at the point where the existing channel carried beneath the existing Beaver Creek county road by a 36-inch diameter CMP culvert. This existing culvert will be removed and the channel will be constructed within the existing Beaver Creek county road alignment. The general layout of the project is indicated in Figure 1.

The realigned portion of Jewkes Creek will have a bottom width of 6 feet and slopes of 2H:1V (see Figure 2). The channel will be lined with riprap with a median diameter of 6 inches. This riprap will be installed to a depth of 12 inches, with two 6-inch thick

Bas
Ph
Scale

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layers underlying the riprap. The upper filter blanket will consist of 1-inch minus material (similar to the standard Utah Department of Transportation 1-inch mix). The lower layer of filter material will consist of very-fine to medium-grained sand. The purpose of the filter blankets will be to prevent piping of the soil beneath the riprap.

The realigned channel will convey the water in Jewkes Creek to a 48-inch diameter CMP which will be installed beneath the realigned Beaver Creek county road. This culvert will extend beneath the Gordon Creek county road, with the existing 36-inch diameter culvert beneath the Gordon Creek road being removed. Extension of the 48-inch diameter culvert beneath the Gordon Creek road is considered necessary since the distance between the existing Gordon Creek road culvert inlet and the toe of the realigned Beaver Creek road will be minimal. Extending the culvert beneath the Gordon Creek road will minimize the potential for erosion of the Beaver Creek road outslope.

Runoff which flows to the east in the ditch on the north side of the Gordon Creek county road will be conveyed to the new 48-inch diameter culvert via an 18-inch diameter CMP. This 18-inch culvert will be welded to the 48-inch culvert. Similarly, runoff which flows along the new Beaver Creek county road will be conveyed to the new 48-inch culvert via an 18-inch diameter culvert.

All culverts will be installed with projecting or mitered inlets. The headwall at the inlet to the 48-inch diameter culvert will be reinforced with riprap that has a median diameter of 6 inches. Each culvert inlet will be protected with a trash rack. Culverts will be installed in accordance with manufacturer's recommendations.

The channel downstream from the outlet of the 48-inch culvert will be lined with riprap that has a median diameter of 12 inches. This riprap will be installed to a depth of 24 inches, with two 6-inch thick filter layers underlying the riprap, as described above. The riprapped section will extend a distance of 20 feet downstream from the culvert outlet. The purpose of this riprap will be to dissipate the energy of the water flowing from the culvert, thereby controlling erosion at the culvert outlet.

During installation of the channel, some soil will be worked into the top of the riprap to serve as a base for revegetation of the site. Following construction of the project, the affected area will be planted with the seed mix indicated in Table 1. The various species will be planted in the locations indicated in the table. Planting will be performed in the autumn following construction of the channel.

REFERENCES

- Haestad Methods, Inc. 1996. FlowMaster for Windows - Professional Edition. Waterbury, CT.
- Hawkins, R.H. and K.A. Marshall. 1979. Storm Hydrograph Program. Final report to the Utah Division of Oil, Gas, and Mining. Utah State University Foundation. Logan, Utah.

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TABLE 1
Revegetation Seed Mix

SPECIES	PLANT/ACRE
<u>CONTAINERIZED/ROOT CUTTING STOCK</u>	
Wood Rose (<i>Rosa woodsii</i>)	300
Willow (<i>Salix</i>)	1,100
Nebraska Sedge (<i>Carex nevrascensis</i>)	200
Beaked Sedge (<i>Carex rostrata</i>)	200
TOTAL	1,800

POUNDS/PLS PER ACRE

<u>GRASSES</u>	
Streamband Wheatgrass (<i>Agropyron riparium</i>)	8.0
Bluebunch Wheatgrass (<i>Agropyron spicatum</i>)	4.0
Slender Wheatgrass (<i>Agropyron trachycaulum</i>)	8.0
Pubescent Wheatgrass (<i>Agropyron trichophorum</i>)	6.0
Indian Ricegrass (<i>Oryzopsis hymenoides</i>)	4.0
Idaho Fescue (<i>Festica idahoensis</i>)	4.0
TOTAL	34.0

Planting Locations:

Willow and Wood Rose
Sedges and Grasses

Channel banks
Channel banks, inslopes, and bottom

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Herr, L.A. and H.G. Bossy. 1965. Hydraulic Charts for the Selection of Highway Culverts. Hydraulic Engineering Circular No. 11. U.S. Department of Transportation. Washington, D.C.

Searcy, J.K. 1967. Use of Riprap for Bank Protection. Hydraulic Engineering Circular No. 11. U.S. Department of Transportation. Washington, D.C.

U.S. Soil Conservation Service. 1972. National Engineering Handbook: Section 4 - Hydrology. Washington, D.C.

RECEIVED

JUL 16 1997

JOINT PERMIT APPLICATION FORM

WATER RIGHTS

U. S. ARMY CORPS OF ENGINEERS - FOR SECTIONS 404 AND 102

UTAH STATE ENGINEER'S OFFICE - FOR NATURAL STREAM CHANNELS

93 Area

Application Number _____ / _____
(Assigned by:) Corps

97-93-16
State Engineer

Applicant's Name (Last, First M.I.) Cottonwood Creek Consolidated Irrig. Co.	Authorized Agent Eugene Johansen	Telephone Number and Area Code (801) 381-2363
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Applicant's Address (Street, RFD, Box Number, City, State, Zip)

P.O. Box 678 Orangeville, Utah 84537

PROJECT LOCATION

Quarter Section(s) NW 1/4 NW 1/4 SW 1/4 NW 1/4	Section Section 7	Township T. 18 S.	Range R. 7 E.	Base & Meridian SLM
County Emery	Watercourse to be altered Cottonwood Creek	Check one: <input type="checkbox"/> Within city limits <input checked="" type="checkbox"/> Outside city limits List town or nearest town: Orangeville		

Project location or address:

Existing Peacock Diversion Site

Brief description of project:

This project consists of installation of the proposed diversion located at the existing diversion site.

Purpose (justification) of project:

This project will divert water into a 15-inch pvc waterline. This diverted water will be used for two purposes: 1. a source for a new culinary water treatment plant serving Orangeville and Castle Dale, and 2. a source for a new stock water system serving the agricultural area around Orangeville and Castle Dale.

Is this a single and complete project or is it part of a larger project, continuing project, or other related activities? If so, please describe the larger project or other related activities.

This diversion is part of two projects. The projects are the Castle Valley Special Service District Phase III and IV Water Projects and the Cottonwood Creek Consolidated Irrigation Company Stock Water Project.

If project includes the discharge of dredged or fill material:

None

Cubic yards of material:

Acreage or square footage of waters of the United States, including wetlands, affected by the project:

Source and type of fill material: