**WYOMING DEPARTMENT OF TRANSPORTATION**

**GRADING PLANS INSPECTION REPORT**

FOR

Project No. N212121

Casper Streets

Poplar Street & West 1st Street

Natrona County

Prepared by: (Designer or Consultant)

Date of Inspection: October 21, 2019

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Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

An office review of the Grading Plans for Casper Streets, Poplar Street & West 1st Street, was held at the District Office in Casper on October 21, 2019.

PROPOSED CONSTRUCTION

This project is located at the intersection of Poplar Street and West 1st Street. It includes the full reconstruction of approximately 0.53 miles of Poplar Street and 0.25 miles of West 1st Street, widening of the existing bridge over the North Platte River, upgraded traffic signals, reconstruction of approaches throughout the project, new ADA ramps, and upgraded storm drain. The proposed reconstruction will be 10” of concrete pavement over 4” of crushed base, with four-12’ lanes, dedicated left and right turn lanes, center islands, and widened sidewalks. The center islands will be 6” of stamped concrete over 14” of crushed base, and will vary in width to accommodate the left turn lane tapers and traffic signal structures. The sidewalk will be 10’ wide on the east and west sides of the south section of Poplar Street, 10’ wide on the west side of the north section of Poplar Street, and all other sidewalk will be replaced at locations and widths specified in the Grading Plans. The sidewalk on the southwest corner of the intersection will tie into the sidewalk branch surrounding the Casper derrick sculpture south of 1st Street, and the sidewalk on the southeast corner of the intersection will tie into the Platte River Trail.

APPROACHES

There are many approaches within the limits of the project, and the treatment of each approach varies depending on the existing conditions. For Poplar Street, all approaches that are to remain in place and that are not city streets will be given curb cuts and double gutter according to WYDOT’s standard plans. Approaches will be constructed with 8” hot plant mix and 4” crushed base only if there is existing pavement; existing gravel approaches will be given an overlay of crushed base to tie into the new typical section of Poplar Street. Yellowstone Highway and King Boulevard will be left in place with minimal impacts except those required to tie into the proposed construction, and any construction of Midwest Avenue will match the provided city plans. For 1st Street, there are four existing approaches within the limits of the project, and all of these approaches will be constructed with 8” hot plant mix, 4” crushed base, and curb radii.

BRIDGE

The WYDOT bridge department will design the widening section of the bridge over the North Platte River. The new bridge will be wide enough for the full width of the roadway including a 10’ sidewalk on both the east and west sides of Poplar Street. Due to concerns about contaminates in the North Platte River, the bridge will use piles instead of drilled shafts in the river. Any dewatering done for construction of the bridge must be quantified, and the water must be treated before being returned to the river. Any excavated materials from the river may also be contaminated and may need to be treated.

The city of Casper has requested bulb-outs be placed on the bridge to provide resting areas for pedestrians, and the bridge department will evaluate the feasibility of this during their design.

TRAFFIC

The proposed layout of the intersection will provide dedicated turn lanes on both Popular and 1st Street. 1st Street will have dual left turn lanes on the west leg of the intersection (heading north on Poplar Street) as well as a dedicated right turn lane (heading south on Poplar Street), and dual left turn lanes on the east leg of the intersection (heading south on Poplar Street.) Poplar Street will have dual left turn lanes on the south leg of the intersection (heading west on 1st Street) and a single left turn lane on the north leg of the intersection (heading east on 1st Street.)

New traffic signals for the intersection will require a minimum of 4’ x 4’ of flat area within the islands to be installed, with a 6’ x 6’ area being preferred. Depressed curb ramps may be required to accommodate both the signals and pedestrian access, and this will be evaluated further upon receiving the final traffic layout.

HYDRAULICS

Due to concerns about contaminated soil and impacts to the existing Amoco structures, the proposed storm drain system on the west side of Poplar Street will be modified to remain within WYDOT right-of-way. The proposed storm drain system on the east side of Poplar Street will be modified to require fewer property acquisitions for the tie-in to the existing storm vault at Collins Drive, and the inlet at 121+25 RT will tie into the manhole at 121+54 RT. The storm drain layout at the intersection of Poplar and 1st Street will be modified to include the inlet ground location at 128+75 LT.

MATERIALS

The concrete, plant mix aggregate, and crushed base on this project will be contractor furnished. If borrow is needed for the project, material should meet the requirements specified in the geology special for the I254160 Casper Marginal project.

GEOLOGY

Any materials collected from Amoco property during the construction of Poplar Street’s storm drain system may be reused, but all excess material from this excavation will remain property of Amoco. Any excavated material removed from below an elevation of 5,103 feet must be separated for testing and treatment of hydrocarbons that may be present in the soil; this material will be removed to a separate testing site maintained by Amoco.

RIGHT-OF-WAY

Right-of-way impacts shown in the Grading Plans will be reduced due to the realignment of the proposed storm drain layouts, and the right-of-way department will be purchasing a piece of property at the northeast corner of Poplar Street and Collins Drive from Amoco for the east storm drain layout. Property not used for the storm drain layout will be used by the city of Casper for enhancements in a future project.

Additional construction permits will be required for proposed staging areas, and easements will be required for the new layout of the storm drain systems.

ENVIRONMENTAL SERVICES

Detail sheets for the proposed staging areas will be sent to Environmental Services so that they can be cleared for use. Environmental Services will also clear the proposed right-of-way purchase, the pathway under the bridge, and the material waste area at the tank farm off of English Avenue.

A 4F clearance letter will be sent to the city once clearances are completed.

UTILITIES

The existing waterline will be impacted by the proposed storm drain systems, and elevations for this waterline need to be provided to avoid conflicts. Further information will be required after the storm drain layout has been revised.

Rocky Mountain Power has requested permission to place a conduit around the location of the bridge, and more information is needed for other utilities that may be present on the bridge. Water and sewer lines will be attached to new girders.

AMOCO

Due to the potential impacts of this project on Amoco property, Project Development will show Amoco utilities and retaining walls that must be avoided on the project plan sheets. Further information is needed from Amoco to determine what additional details must be shown, and no vertical information is currently known.

MISCELLANEOUS

The marathon trail has been measured and certified by USATF, and the pathway must be returned to its original alignment. A temporary pathway and fence will be installed around the staging area where the trail will be blocked. Additional retaining walls may be need to protect the Platte River Trail from the North Platte River as a result of construction on the bridge; constructed retaining walls will be modular against the abutments and will be gabion against the river bank.

Traffic will continue to use this intersection during construction, and no detour will be required.

Due to the layout of the east storm drain system, the newly constructed island on Yellowstone Highway will need to be replaced.

COST ESTIMATE

The Grading Plans cost estimate is $\_\_\_\_\_\_\_\_.

PROJECT SCHEDULE

This project is scheduled for a PS&E of November 2020 and a letting of January 2021.

NEEDED INFORMATION

* Letter concerning bulb out constructability on the bridge to the city of Casper (Bridge)
* Quantity of dewatering for treatment by Amoco (Bridge)
* Layout of the island on Yellowstone Highway (City of Casper)
* Elevations of existing waterline at storm drain conflict points (City of Casper)
* Alignment of the pathways (Project Development)
* Grading Plans cost estimate (Project Development & Costs & Estimates)
* Staging area detail to right-of-way and environmental services (Project Development)
* New storm drain layouts (Hydraulics & Project Development)
* Survey information to tie Amoco file to coordinate system (Resident Engineer)
* Additional information about Amoco files (Sovereign Consulting Inc.)
* Column locations to the bridge department (Traffic)

COMMENTS

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