

Wayland, Joshua

From: Keller, Kevin <Kevin.Keller@hdrinc.com>
Sent: Monday, September 9, 2019 9:39 AM
To: Wayland, Joshua; Moelter, Chris; Rogers, Debra
Cc: 10145616_7CountyCoalitionUBR TO1; Klaumann, Anthony; Robe, Kyle; 'Mike Mckee'; Floyd, Kathryn K.; Brian Barton
Subject: FW: UBRY - Updated STB Response Table
Attachments: 2019-09-06 - UBRY - STB Response Table.xlsx

Josh,

Attached are the remaining responses to your Information Request #1. Let us know if you need any further information on these items

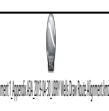
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Item No.	Date Requested By STB	Date Required By STB	How Requested By STB	STB Heading	STB Review Comment	STB Review Sub-Comment	STB Requested Format for Comment	Response
1	12-Apr-19		Letter of April 12, 2019	Right-of-Way Information	· Description of physical structures that would be installed in the footprint of the right-of-way, including the number and location. Examples may include: - o Access roads, staging areas. - o Facilities like communication towers, siding tracks, set-out tracks, power distribution lines.		Description	At the moment we estimate 6 sidings and/or sections of double track railroad and 1 or more set-out tracks for either route. Their locations will be distributed along the route. A siding before and after the 3 mile tunnel will be needed and is included in the siding tracks. A siding track adds 15 to 20' more horizontally to the track structure. No access roads are anticipated at this time. Communications towers will be located strategically to reduce any need for access roads. Communication towers size, number and location are still to be determined. Signals will also still need to be determined based on amount of trains and location. Power distribution lines will be needed for signals and communications, and power for railroad activities. Exact type, location or amount of physical structures at this time will be fully designed during detailed design, however, within the future acquired right-of-way will include rail, ties and ballast, siding tracks, set-out tracks, facilities, bridges, culverts. Exact number of these will be determined once detailed design is complete.
2	12-Apr-19		Letter of April 12, 2019	Right-of-Way Information	· Description of temporary uses or disturbances outside of the proposed footprint (e.g., staging areas).		Description	There will be staging areas for tunnel and bridge construction. There will be laydown yards for construction equipment and storage of construction materials. Location of these will be near the tunnel portals and one or both sides of proposed bridge crossings. Where possible right-of-way will be purchased for bridge and tunnel sites. Staging of construction material and construction equipment locations will be determined with help of a contractor and will be in large and flat areas, ideally they would be in strategic spacing for multiple work fronts and on both ends of the project vicinity. Unable to determine exact temporary disturbance locations. Some easements outside of yet to be determined right-of-way may be needed. Item 6 contains KMZs that show anticipated bridge locations.
3	12-Apr-19		Letter of April 12, 2019	Right-of-Way Information	· Cross-sections of the typical right-of-way at representative locations, including features such as access roads, power lines, and set-out tracks.		Drawing	C:\Users\Kroben\Desktop\Attachment C:\Users\Kroben\Desktop\Attachment See attached preliminary typical cross sections for track and rail bridge over roads and road bridge over rail. These cross sections currently do not include any transmission lines but they may be needed for railroad activities. Detailed cross-sections will be developed based on topography and will vary due to the varying of topography for the project. More detailed cross sections can be delivered once detailed design begins.
4	12-Apr-19		Letter of April 12, 2019	Right-of-Way Information	· Description of fencing of the right-of-way, if anticipated.		Description	Fences may be minimal unless required by private land owners as requested, snow fences or for wildlife crossings. - o Typical right-of-way fence details will likely be simple four- or five-strand barbed wire fence, or hog tight fence. Wooden stays are preferred in areas of deep snow or where snow may damage the fence, which is the majority of the routes. - o Fence details will be developed as landowner, roadway authority and environmental process continue in detailed design. No determination has been made for fencing along the right-of-way. This will be studied further • Snow Fence - A barrier placed along the right of way to prevent blowing snow from drifting onto the track. • Type of fence will be as negotiated with landowners, states, and counties. • Fencing for antelope, deer, elk, etc. will also be developed, as needed.

5	12-Apr-19		Letter of April 12, 2019	Right-of-Way Information	Engineering information, including:	- o Daylight lines illustrating the grading and excavation locations. - o Plan and profile sheets showing cut/fill depths.	Drawing	 Initial cut fill lines for both routes can be seen in corresponding KMZ files and existing profiles that accompany these. Plan and profile sheets can be determined from the aforementioned files. These will be refined potentially during detailed design.
6	12-Apr-19		Letter of April 12, 2019	Rail Line Access Roads	o Description of how the proposed rail line would be accessed during construction and operation, including:	- o Existing road crossings of the alignments. - o New access roads (include number and location of new roads planned).	Description	 Roads to access rail alignment will be, but not limited to, existing roads such as Emma park road, Hwy 191, Argyle Canyon road and Hwy 40 in Duchesne. Access roads during operation are not known at this time. During construction, access roads will be local roads as described above and the railroad right-of-way will be accessed from those roads and then construction teams will follow on the track embankment that will act as the construction access roads. See links to KMZ files that show road crossings for Indian Canyon and Wells Draw above.
7	12-Apr-19		Letter of April 12, 2019	Railbed Construction	o Description of railbed construction including railbed width (feet).		Description	For the railbed standard typical please see item 3 for PDF of these sections. The track will be built on timber, steel or concrete ties and a competent nominal 8" deep ballast rock and that will be built on a nominal 12" depth subballast layer per required gradation and that will be built on a compacted ground layer. The width from centerline and the edge of subballast will be 10' so 20' total. Depending on if it is a cut or fill location ditches may be required and these distances will vary. This will be finalized during detailed design.
8	12-Apr-19		Letter of April 12, 2019	Railbed Construction	o Description of project-related construction for each alternative, including:	- o List of anticipated construction equipment and vehicles. - o Anticipated uses of construction equipment and vehicles, including distances travelled and number of shifts. - o Anticipated uses of shuttles for construction workers, if appropriate.	Description	 An estimated construction equipment spreadsheet is attached. It is important to note that this is an estimate created by the engineer and that the contractors maens and methods vary from this and this answer will not be fully determined until a contractor is selected. There may be more or less than 6 work fronts and 5 tunnel crews. Overall typical equipment used in construction is likely to be used for this project. Exact uses of equipment , vehicles and shuttles won't be known until contractors are selected.
9	12-Apr-19		Letter of April 12, 2019	Railbed Construction	o Description of rock quarry and borrow locations/size, footprint, quantity of material extracted, etc., if relevant.		Description	The material may be local or shipped in on train to nearby location to the project. (IPossibly from UT and/or CO) Exact quantities will be determined during the detail design phase.
10	12-Apr-19		Letter of April 12, 2019	Railbed Construction	o Location/extent of disposal sites for excess cut material not used in the construction of the rail bed or as fill material.		Description	Overall the intent is to balance the cut and fill material. Excess material will be planned to be placed on proposed railroad right-of-way depending on topography. During the detail design phase areas may be shown for areas that could be used for excess material.
11	12-Apr-19		Letter of April 12, 2019	Track Construction	o Description of ballast and sub-ballast layers:	- o Example: Track built on 12 inches of compacted granite ballast. Sub-ballast of 12+ inches of graded rock with a max allowable size of 2 inches. 2–6 inches of hot-mix asphalt track bed. - o Gross car weight the railbed could support (pounds).	Description	While we are preliminarily developing plans with 12 inches of subballast and 8 inches of ballast this is only to prepare a basic design concept until the detail design is complete. Hot-mix asphalt is not being considered at this time but not excluded. Gross car weight allowable on the railbed will be determined during the detail design phase but for now a 315,000 lb. per car weight will be used for the preliminary max weight on the rail line per car. The railroad will be designed to accommodate loading requirements.

12	12-Apr-19		Letter of April 12, 2019	Material Acquisition for Construction	· Description of material required for construction of the proposed rail line, including:	- o If site-specific cut volumes are insufficient, where would the fill come from? - o Where would sub-ballast material be obtained? What quarries are nearby? - o Where would ballast material be obtained? - o Will water be required for dust suppression and soil compaction? If so, where would this water come from?	Description	Balancing the Cut and Fill material is the goal for the design of the railroad. Ballast and subballast material may be local or shipped in on train to nearby location to the project. Water will be required for both suppression and soil compaction, and the water will likely be trucked in from approved locations. The material will be required to meet all specifications and if water is extracted it will have to be done following all rules and regulations.
13	12-Apr-19		Letter of April 12, 2019	Bridges, Culverts, and Other Surface Water Crossings	· Description of location and types of bridges, culverts, or other undesignated drainage structures used to cross streams, rivers, or ditches. Would there be any in-water structures associated with bridges? If so, please describe in detail.		Description	 C:\Users\Krobel\Desktop\New Desktop2019-20  C:\Users\Krobel\Desktop\UBRY\REPORT Attached is the current preliminary list for both routes for bridges. Culverts have not been detailed at this time. All bridges and culverts will be designed to appropriate means for railroad loading.
14	12-Apr-19		Letter of April 12, 2019	Construction Schedule	· Description of construction schedule, for example:	o How many months would it take to construct and what is the overall time period? Consider weather restrictions in the project area.	Description	24 month or less construction time is the current estimation taking on weather considerations.
15	12-Apr-19		Letter of April 12, 2019	Grade Crossings	· Planned (including voluntary mitigation) safety protection at new at-grade crossings.		Description	See item 6 for both route features KMZ that shows locations of grade crossings. Grade crossings will be protected in accordance with all rules and requirements. Each crossing will be looked at and designed based on the established criteria for which type of protection will be used.
16	12-Apr-19		Letter of April 12, 2019	Grade Crossings	· Description of grade crossing construction (including voluntary mitigation) sufficient to evaluate potential vehicle safety and delay impacts during construction.		Description	Grade crossing construction will be done with the MUTCD on road crossings to allow for full signage during crossing construction that will comply with applicable safety regulations. Both routes are in a rural area and at-grade road crossings will be minimal for major road crossings.
17	12-Apr-19		Letter of April 12, 2019	Grade Crossings	· Possible origins, destinations, and routes of anticipated project-related rail traffic.		Description	The project goal is to bring rail service from the Uinta basin to a common carrier. We are not able to determine where the rail service will go once it is on the common carrier rail line.
18	12-Apr-19		Letter of April 12, 2019	Road Relocations	· Description of any road relocations, including:	- o Would any public or private roads need to be relocated to accommodate the proposed rail line? - o If so, provide design drawings and GIS for each planned relocation.	Description, Drawings and GIS	Item 6 includes a KMZ for both routes for preliminary road relocations.
19	12-Apr-19		Letter of April 12, 2019	Associated Facilities	· Description of any permanent facilities that would be constructed in connection with the proposed rail line, such as:	- o Support facilities and maintenance facilities, including location. - o Communication towers, including the number needed, locations, and height range. - o Track siding: if siding is anticipated, describe the location, number, and length. - o Set-out tracks: if set-out tracks for temporary storage, repair, and maintenance would be needed, describe how long (feet) and how many would be required for each alternative. - o Power distribution lines: would power distribution lines be needed for the signal system and detectors?	Description	Support facilities, communication towers, track sidings, set-out tracks, and power distribution lines will be determined during detail design. Each of the above items in question will vary based on which route is selected. See item 1 above for additional information to this item as well.

20	12-Apr-19		Letter of April 12, 2019	Proposed Rail Line Operation	Description of proposed operations, including:	- o Number of days per week and year that trains would operate. - o Number of locomotives used to move the unit trains and horsepower. - o Maximum and average length of trains. - o Average operating speeds including speed at each new at-grade crossing. - o Description of proposed maintenance. - o Specific information on rail route and length (for operations, not just what would be built), intended track class, any additional speed restrictions beyond those for the track class (such as on steep inclines). - o Number of anticipated rail cars by commodity or group of like commodities.	Description	Anticipated volumes range from 2 to 7 trains per day each way, dependent on market conditions and shipper acceptance of the railway. Maximum train length will vary and may be up to 10,000 feet long or 150 60' cars with locomotives and buffer cars. Railroad operations will be anticipated at all hours of the day and over the entire year. Locomotives per train will vary from 1 to 12 locomotives per train depending on length, load and operations. Types of cars are potentially the following: open and covered hopper, well cars, flat cars, plain and equipped box cars, any typical car carried by a north American railroad, open and covered gondola, refrigerator car, tank car train can are possibly be anticipated for this area. Operating maximum speed is 40 mph and average speed for a loaded train up the may roughly average between 10 to 20 MPH. Commodities will include energy fuels, bulk refined and unrefined commodities, manufactured goods, animal products and agriculture products, consumer goods, building materials, industrial materials, autos and trucks, machinery, other mobile machinery, chemicals, forest products, etc. Speed restrictions on curves and descending grades will be based on typical north America railroad standards. The item 1 above includes KMZ for both routes for the lengths of track. Locomotive and their horsepower will be similar to north American fleet averages for tiers and types. Proposed maintenance may include activities on the tracks, such as surfacing the rail, cleaning the ballast, tamping the ballast, checking gauge, rail grinding, fixing rail pull apart and rail kinks. Maintaing signals. Maintaing rail sensors and rail lubrication. Replacing rail, ties and ballast over time. Maintaing tunnels and regularly inspecting tunnels. Regular track inspection. Various other maintenance items needed to operate a railroad.
21	12-Apr-19		Letter of April 12, 2019	Proposed Rail Line Operation	Train operations for each alternative, including:	- o EPA Tier emissions ratings of locomotives to be used. - o Amount of diesel fuel to be used.	Description	Locomotives will be similar to north American fleet averages for tiers. A preliminary estimation of diesel fuel to be used may be between 40 - 70 gallons per car cycle which is a full cycle of a loaded and unloaded train trip.
22	12-Apr-19		Letter of April 12, 2019	Employment	Estimated construction expenditures.		Description	Currently construction expenditures are based on estimates with 25% contingency. For the Indian Canyon Route the Cost is currently estimated around \$1.2 to \$1.5 Billion. For the Wells Draw route the Cost to construct is roughly \$2.5 to \$2.8 Billion.
23	12-Apr-19		Letter of April 12, 2019	Employment	Estimated employment in full time equivalent (FTE) employees during construction.		Description	5000 to 7000 person years is the rough estimate for construction at this time. Over a 2 year period this is roughly 2500 people.
24	12-Apr-19		Letter of April 12, 2019	Employment	Number and characteristics of property acquisitions and displacements.		Description	On Indian Canyon and Wells Draw around 100 property owners could be impacted. Property will be acquired and displacements determined if necessary. Standard steps will be followed for this process. The detailed design to be completed in the future will allow for exact dimensions for each right-of-way acquisition.
25	12-Apr-19		Letter of April 12, 2019	Employment	Description of construction camps (if needed). If not needed, where is it assumed construction workers would reside?		Description	Likely Helper/Price and Duchesne/Myton will host a number of the construction teams. Man camps may be used at certain remote areas and will provide all necessary requirements for suitable services such as catering and washroom facilities that will be properly maintained. If the contractor selects to use man camps, detailed camp information will be produced once a contractor is selected.
26	12-Apr-19		Letter of April 12, 2019	Employment	Description of staffing:	- o Number of FTE employees necessary to operate the proposed alternative and their positions. - o Number of FTE supervising trainmasters, train crew members, section gangs, track inspectors, carman/inspectors, signal technicians, communication technicians, etc.	Description	Total estimated is 50 to 100 FTE including management. No detailed breakdown for supervisors, inspectors, etc available at this time.
27	12-Apr-19		Letter of April 12, 2019	Water Use	Water use reports, data, maps, aerial photographs, and ground-based photographs if available.		Report	Water use reports will be determined during the detail design. Aerial photography is currently based on Google Earth imagery. Detailed aerial imagery is being developed now.
28	12-Apr-19		Letter of April 12, 2019	Water Use	Hydrologic and hydraulic model results, including identification of surface water crossing locations (i.e., streams, rivers, etc.) specific for each alternative and type of structure (bridge or culvert) to be built (e.g., bridge and culvert specifications, including number, location, size, and type).		HEC Model	These will be determined once detailed mapping is received and allows for proper hydrologic basins and to model the channels properly.

HEADING	COMMENT	SUB-COMMENT
Right-of-Way Information	• Description of physical structures that would be installed in the footprint of the right-of-way, including the number and location. Examples may include: • Description of temporary uses or disturbances outside of the proposed footprint (e.g., staging areas). • Cross-sections of the typical right-of-way at representative locations, including features such as access roads, power lines, and set-out tracks. • Description of fencing of the right-of-way, if anticipated. • Engineering information, including:	- o Access roads, staging areas. - o Facilities like communication towers, siding tracks, set-out tracks, power distribution lines. - o Daylight lines illustrating the grading and excavation locations. - o Plan and profile sheets showing cut/fill depths.
Rail Line Access Roads	• Description of how the proposed rail line would be accessed during construction and operation, including:	- o Existing road crossings of the alignments. - o New access roads (include number and location of new roads planned).
Railbed Construction	• Description of railbed construction including railbed width (feet). • Description of project-related construction for each alternative, including: • Description of rock quarry and borrow locations/size, footprint, quantity of material extracted, etc., if relevant. • Location/extent of disposal sites for excess cut material not used in the construction of the rail bed or as fill material.	- o List of anticipated construction equipment and vehicles. - o Anticipated uses of construction equipment and vehicles, including distances travelled and number of shifts. - o Anticipated uses of shuttles for construction workers, if appropriate.
Track Construction	• Description of ballast and sub-ballast layers:	- o Example: Track built on 12 inches of compacted granite ballast. Sub-ballast of 12+ inches of graded rock with a max allowable size of inches. 2–6 inches of hot-mix asphalt track bed. - o Gross car weight the railbed could support (pounds).
Material Acquisition for Construction	• Description of material required for construction of the proposed rail line, including:	- o If site-specific cut volumes are insufficient, where would the fill come from? - o Where would sub-ballast material be obtained? What quarries are nearby? - o Where would ballast material be obtained? - o Will water be required for dust suppression and soil compaction? If so, where would this water come from?
Bridges, Culverts, and Other Surface Water Crossings	• Description of location and types of bridges, culverts, or other undesignated drainage structures used to cross streams, rivers, or ditches. Would there be any in-water structures associated with bridges? If so, please describe in detail.	
Construction Schedule	• Description of construction schedule, for example:	o How many months would it take to construct and what is the overall time period? Consider weather restrictions in the project area.
Grade Crossings	• Description of all grade crossings, including any safety measures proposed. • New at-grade crossing locations in GIS. • Planned (including voluntary mitigation) safety protection at new at-grade crossings. • Description of grade crossing construction (including voluntary mitigation) sufficient to evaluate potential vehicle safety and delay impacts during construction. • Possible origins, destinations, and routes of anticipated project-related rail traffic. • Anticipated origin, destination, and quantity (carloads/year) of existing truck cargo that would be diverted from truck to rail.	
Road Relocations	• Description of any road relocations, including:	- o Would any public or private roads need to be relocated to accommodate the proposed rail line? - o If so, provide design drawings and GIS for each planned relocation.
Associated Facilities	• Description of any permanent facilities that would be constructed in connection with the proposed rail line, such as:	- o Support facilities and maintenance facilities, including location. - o Communication towers, including the number needed, locations, and height range. - o Track siding: if siding is anticipated, describe the location, number, and length. - o Set-out tracks: if set-out tracks for temporary storage, repair, and maintenance would be needed, describe how long (feet) and how many would be required for each alternative. - o Power distribution lines: would power distribution lines be needed for the signal system and detectors?
Proposed Rail Line Operation	• Description of proposed operations, including: • Train operations for each alternative, including:	- o Number of days per week and year that trains would operate. - o Number of locomotives used to move the unit trains and horsepower. - o Maximum and average length of trains. - o Average operating speeds including speed at each new at-grade crossing. - o Description of proposed maintenance. - o Specific information on rail route and length (for operations, not just what would be built), intended track class, any additional speed restrictions beyond those for the track class (such as on steep inclines). - o Number of anticipated rail cars by commodity or group of like commodities. - o EPA Tier emissions ratings of locomotives to be used. - o Amount of diesel fuel to be used.
Employment	• Estimated construction expenditures. • Estimated employment in full time equivalent (FTE) employees during construction. • Number and characteristics of property acquisitions and displacements. • Description of construction camps (if needed). If not needed, where is it assumed construction workers would reside? • Description of staffing:	- o Number of FTE employees necessary to operate the proposed alternative and their positions. - o Number of FTE supervising trainmasters, train crew members, section gangs, track inspectors, carman/inspectors, signal technicians, communication technicians, etc.
Water Use	• Water use reports, data, maps, aerial photographs, and ground-based photographs if available. • Hydrologic and hydraulic model results, including identification of surface water crossing locations (i.e., streams, rivers, etc.) specific for each alternative and type of structure (bridge or culvert) to be built (e.g., bridge and culvert specifications, including number, location, size, and type).	