Final Report

Cheyenne Passenger Rail Station Site Selection Study

April 2025

Appendix B.

Railroad Operations, Infrastructure Modifications, and Station Concepts Technical Memorandum

QUANDEL CONSULTANTS

CHEYENNE METROPOLITAN PLANNING ORGANIZATION

Railroad Operations, Infrastructure Modifications, and Station Concepts Technical Memorandum

Cheyenne Passenger Rail Station Site Selection Study

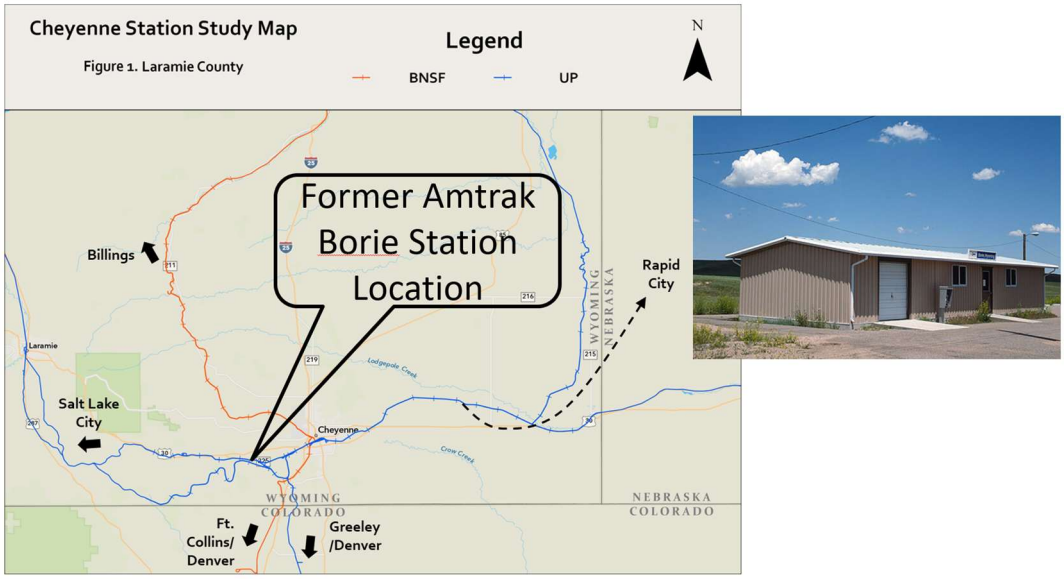
January 2025

1 Introduction and Background

The Cheyenne Metropolitan Planning Organization (MPO) is studying potential locations for a future passenger rail station in Cheyenne. This work is being done in partnership with the City of Cheyenne with funding from the Wyoming Department of Transportation. The study is the next step toward establishing new passenger rail service connecting Cheyenne with Fort Collins, Boulder, Denver, Colorado Springs, and beyond[1].

Cheyenne was last served by passenger rail in 1997 after nearly 130 years of passenger rail service. During this time, Cheyenne was served by two different stations, the Union Pacific (UP) Depot near downtown Cheyenne and the Borie Amtrak Station located 10 miles west of Cheyenne (shown in **Figure 1**). The UP Depot was the original passenger rail station and was in service from 1867 to 1979. For much of this time period, the UP Depot location worked well for picking up and dropping off passengers. But in 1971, after passenger rail service was rerouted through Denver, the UP Depot location became a challenge for passenger rail operations. Passenger trains traveling to or from Denver were required to make a slow and costly 10-mile backing maneuver when accessing the Cheyenne UP Depot. The backing maneuver was eliminated in 1979 by replacing the Cheyenne UP Depot with the Borie Amtrak Station and introducing a shuttle bus that moved passengers between Borie Station and Cheyenne until passenger rail service was terminated in 1997.

Figure 1 Former Amtrak Borie Station Serving Cheyenne, WY



Station image source: Wikipedia

[1] For more information on potential future passenger rail service in Cheyenne see: Front Range Passenger Rail www.ridethefrontrange.com and the Federal Railroad Administration Long Distance Passenger Rail Study www.fralongdistancerailstudy.org

The purpose of this memorandum is to document the process used to identify railroad operations, infrastructure modifications, and station requirements for future passenger rail service into Cheyenne. This memorandum fulfills the deliverables required for Tasks 3, 4, and 6 of the study.

2 Engagement

Stakeholder engagement informed the station concepts. Engaged groups included:

- Project Study Team consisting of senior staff from the MPO, City, and consultant team
- Railroads and operators including BNSF Railway, Union Pacific Railroad (UP), and Amtrak
- Front Range Passenger Rail District staff
- City Planning and Development Director
- City Administration including Public Works Director, City Engineer, Sustainability Specialist, and city staff representative from Mayor's Passenger Rail Coalition

Engagement activities consisted of online meetings with each group. Meeting summaries are available in **Appendix A**.

3 Infrastructure and Station Requirements

To understand the scale of a future passenger rail station project, the study team met with the listed stakeholder groups to identify the required railroad infrastructure and station features. The remainder of this section describes these requirements and preferences.

3.1 Railroad Requirements

The study team shared draft station concept plans with both UP and BNSF railroads for their review and comment. BNSF and UP's comments included:

- BNSF and UP value the opportunity to participate in the station planning and design process.
- Consider the track layout at the Oklahoma City passenger rail station. It includes a layover track that minimizes impacts on freight operations.
- BNSF strongly encourages use of its current Passenger Rail Guidelines (October 2023)
- BNSF confirmed there is currently no Positive Train Control (PTC) on their Front Range Subdivision and it would be required to support passenger rail service.
- Reed Avenue Corridor Comments:
    - UP has operating rights on BNSF's Reed Avenue Corridor bounded by the BNSF/UP wye to the south, and BNSF's yard to the north. Preferably, a Reed Avenue station would include an additional track to separate freight operations from the proposed passenger service.
    - BNSF referenced the city's Reed Avenue Corridor vision, noting that a pedestrian promenade is proposed east of their tracks and a passenger platform likely impacts this plan.

  - BNSF emphasized the importance of preserving their maintenance road (Reed Avenue Corridor Project Diagnostic notes with railroad space requirements are in **Appendix B**, the study assumed a 15-foot-wide maintenance road).
  - All concepts must maintain an effective BNSF/UP wye connection for freight traffic.
  - BNSF has had customers located on the Reed Avenue Corridor in the past and want to preserve their connections to these industry spurs.
- Old Happy Jack Road
  - BNSF would require one additional track at the Old Happy Jack Road station site to prevent passenger trains from stopping on their mainline track.

3.2 Amtrak Requirements

The study team shared draft station concept plans with Amtrak for their review and comment. Amtrak's comments included:

- Amtrak values the opportunity to participate in the station planning and design process.
- Amtrak has station siting criteria that would help this study.
- Amtrak recommends a 600-foot platform length with a 15-foot depth.
- Future studies will need ridership forecasts to more specifically design and size elements of these station concepts.
  - Amtrak confirmed they did not have ridership forecasts for either the Front Range Passenger Rail or the Federal Railroad Administration's (FRA) Long Distance Study routes.
  - Wyoming DOT also confirmed previous WYDOT-sponsored studies did not develop passenger rail ridership forecasts

3.3 Front Range Passenger Rail District Requirements

The study team incorporated guidelines identified in the Front Range Passenger Rail District (FRPR) Station Location Criteria policy. It also met with FRPR staff and discussed the status of FRPR, a future extension to Cheyenne, and potential examples of co-funded state-supported or state-owned passenger rail services and railroads to be explored by attorneys supporting FRPR and Cheyenne efforts.

3.4 City and Project Study Team Preferences

The study team met with the Project Study Team and with city planning and administration to discuss platform and station preferences. Quandel shared a list of platform and station considerations, highlighting topic areas where local preference leads design decisions (see **Appendix C**). The Project Study Team and representatives from city planning and administration described their preferences and rationale. Comments from the meetings are summarized below.

3.4.1 Platform Preferences

- Location, Position, Access – For Reed Avenue, assume the station and platform is located on the west side of Reed Avenue to avoid conflicting with properties such as, the Wyoming Tribue Eagle building and their parking lot, school district facilities, and the pedestrian promenade envisioned as part of the Reed Avenue Corridor Project. Assume it is acceptable for the platform to block Reed Avenue's intersections with 17th and 18th Streets as the City is planning to close those intersections to support redevelopment as part of the Reed Avenue Corridor Project.
- Material
    - At Old Happy Jack Road, assume concrete platforms and industrial-style architecture.
    - On Reed Avenue, assume stone and brick platforms and architecture that echoes the seven (7) warehouses in Cheyenne on the National Register of Historic Places.
- Canopy - assume partial or full canopy with skylights; these could be part of a "Phase 2" if improvements need to be phased to accommodate funding.
- Enclosed shelter – assume one on the platform for storing the Wheelchair ramp only (passengers will likely wait in the enclosed station building)
- Snow removal – assume a heated platform surface will remove snow on the platform
- Security – assume platform security will include cameras monitored by the city dispatch center, if possible

3.4.2 Station Preferences

- Building
    - Assume an enclosed station building that is heated, cooled, and includes space for concession tenants
    - The groups expressed differing opinions about the station building including space for a community meeting room. Some felt a meeting room would not be needed if the city developed a new hotel nearby with a similar feature. At this time, the study team did not assume the station would include a community meeting room.
- Station Ownership
    - At Old Happy Jack Road, assume the station and building would be City-owned, potentially through the local transit system.
    - On Reed Avenue, assume the station and building would be a public-private partnership.
- Staffing and Management – assume that the station would be staffed whenever passenger rail service is operating. The groups expressed an interest in exploring options for managing the station, including City staffing and managing, a care-taking contract, or tenants.
- Aesthetic
    - At Old Happy Jack Road, assume a new building that is aesthetically different from, yet complements, the surrounding industrial uses. The groups thought a multi-level tower would look good.
    - On Reed Avenue, assume the station project would be done in conjunction with rehabilitating an existing building in the corridor, if possible. The group noted if a new building or addition would be needed, assume the aesthetic would complement the elevator structure at Reed/21st Street, Old Steam Plant at Reed/17th Street, planned

replica historic water filling stations at Reed/22nd Street and Reed/16th Street-Lincolnway, and the pedestrian promenade planned on the east side of Reed Avenue.

4 Station Concepts

The study team developed the concepts described below to meet or exceed the requirements and preferences communicated by stakeholders. The text that follows describes each concept as well as any ways the concept addresses stakeholder requirements and preferences.

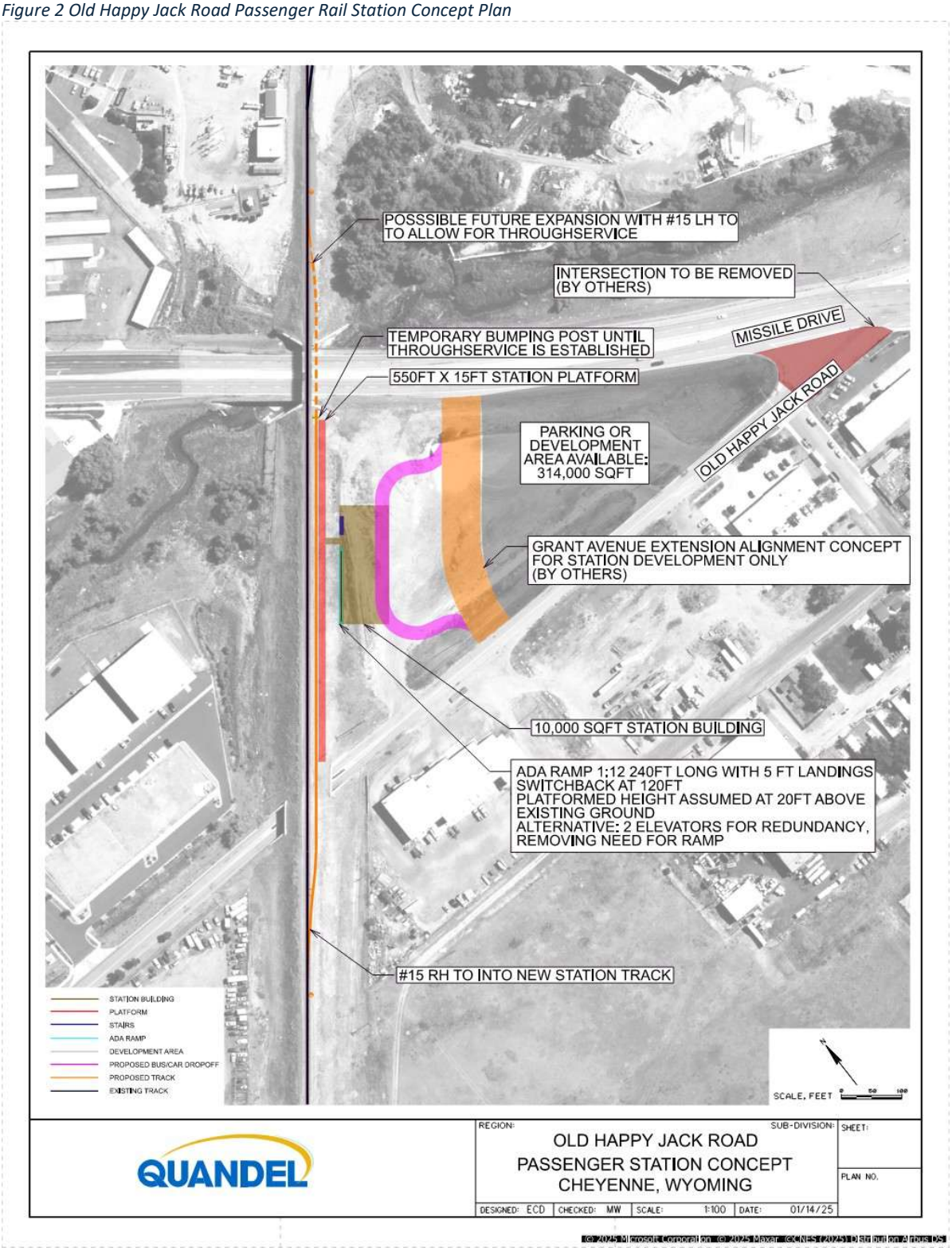
Several assumptions apply to each concept. The study team sized the building and parking lot based on daily level of magnitude ridership estimates provided by Amtrak for similar, existing services. The study team developed capital cost estimates for the station areas using a national database of unit costs from construction bids for similar projects; the unit costs were not adjusted to Wyoming prices. The estimates include a 20- to 30% contingency within each capital cost category and results are reported in 2023 dollars. The cost estimate assumes a publicly funded and delivered project.

4.1 Old Happy Jack Road

Figure 2 shows the Old Happy Jack Road station concept plan. The Old Happy Jack Road station concept plan considers the railroad and operator requirements along with the city and Project Study Team preferences, while also acknowledging or leveraging the strengths of the site identified during the October 2024 public comment period. These strengths include:

- Potential to create a west Cheyenne gateway with new passenger rail station, visitor center, and entertainment district connected by a reconfigured road network that links the area to the city's ice rink/event center, the hotels along Lincolnway, and car rental offices.
- Proximity to a public park and natural waterway offer potential to create a welcoming arrival experience in Cheyenne.
- Room for parking, including an overnight lot for people taking longer trips. Parking at this site would not impact spaces currently used by small businesses.
- Near downtown but outside the most congested areas.
- Easily accessible to the greater Cheyenne metropolitan area, including the Air Force Base and the region's Interstate highways.
- This land is already owned by the city and there is a possibility of expanding station facilities onto property south of Old Happy Jack Road, if needed
- Located along BNSF's mainline, which minimizes slow speeds through wye tracks and avoids reverse moves.
- Easy access for Frontier Days transportation
- Possible to walk downtown
- Close to current transit routes making connections to downtown and to other destinations in Cheyenne convenient.

Figure 2 Old Happy Jack Road Passenger Rail Station Concept Plan



The station area is in the southeast quadrant of where the BNSF railroad passes over Missile Drive. The site is about 0.5 miles east of Interstate 25, 0.5 miles west of the Reed Avenue corridor, and about 0.8 miles west of downtown Cheyenne. It also sits one block north of Cheyenne's Hitching Post Urban Renewal Plan area. The road network in the station area is planned to be reconfigured to better support the Hitching Post Urban Renewal Plan; this includes the Grant Avenue extension to Missile Drive and closing the Missile Drive/Old Happy Jack Road intersection. The site is currently undeveloped, owned by the City of Cheyenne, and used to store public works materials, including snow. The site has ready access to utilities (power, water, sewer) and could be easily accessed by intercity bus services, local bus services, streets, and bicycle and pedestrian travel including by the non-motorized trail planned for Old Happy Jack Road. According to USGS topographic maps, the site sits about 20- to 30-feet below the existing BNSF railroad tracks.

The station area concept includes a parking lot, building access driveway, station building, and platform. Station parking is assumed in the uncovered surface lot that would be accessed from a new intersection at Missile Drive and the future extension of Grant Avenue. The Grant Avenue extension would separate the station parking lot from the building access driveway, building, and platform. The parking lot would be staffed onsite to limit access to customers traveling by rail, people meeting customers traveling by rail, or staff working in the station, and provide security for vehicles parked for a few days while people travel. The Missile Drive/Grant Avenue extension intersection may require a variance from the City's intersection access spacing guidelines.

The building access driveway is assumed to intersect the Grant Avenue extension. It would allow for one way traffic and be wide enough to allow large vehicles to pass other vehicles waiting at the driveway curb. The access driveway would include covered platforms for intercity and local bus services and would allow customer drop-off/pick-up by private vehicles. The Grant Avenue extension/building access driveway intersection would be a minimum of 300-feet south of Missile Drive, per the City's access spacing guidelines.

A 10,000 square foot (sf) station building would accommodate a rail ticketing/baggage, passenger waiting area, concession area, restrooms, elevator, stairs, ADA accessible ramp, and pedestrian bridge connecting the station building to the train platform area. In addition to the characteristics described in the "City and Project Study Team Preferences" section, the pedestrian bridge connecting the station building and train platform would be anticipated to have a canopy and walls (but not be fully enclosed). The passenger waiting area would accommodate ticket vending machines. **Figure 3** shows a multi-level station serving elevated railroad tracks in Champaign-Urbana, IL. If desired and capital and operating funding is available, the Old Happy Jack Road station building could accommodate two elevators instead of one elevator and the ADA ramp for accessing the train platform.

Figure 3 Champaign-Urbana, IL Passenger Rail Station

Source: smilepolitely.com (8/23/2017)

The Old Happy Jack Road station area train platform would be located on a new station track branching off BNSF's mainline with a #15 turnout south of the station area. The platform would be located at the existing track elevation, which USGS maps show is 20- to 30-feet above the Old Happy Jack Road site. The platform is assumed to be 550 feet long, 15 feet wide, and includes a windscreen along the east side of the platform where the station building does not block the wind. The concept assumes that FRPR is the first to serve Cheyenne, the station track would end with a bumping post, and this initial phase of operation would not require rebuilding the BNSF bridge over Missile Drive. If and when the future FRA long distance service would anticipate serving Cheyenne to and from points north of the station area, the project supporting this later service would need to rebuild the BNSF bridge over Missile Drive and remove the bumping post to accommodate a northern connection between the station track and BNSF mainline.

The construction cost estimate for the Old Happy Jack Road station and facilities is estimated at approximately $30.9 million (2023 dollars). This estimate does not include the Grant Avenue extension nor closing the Missile Drive/Old Happy Jack Road intersection. **Table 1** summarizes the capital cost by category and identifies typical funding strategies for the cost categories. Track, communication, and signal work would typically be included in an FRA-funded rail project. Station property acquisition, parking, and the building would typically be funded through a locally initiated project that often includes FRA grant funding. The study team noted that while the Old Happy Jack Road station area may be more expensive to construct, it will likely have lower operating costs as compared to a station on the Reed Avenue Corridor.

Table 1 Old Happy Jack Road Station Conceptual Capital Cost Estimate (2023 dollars)

Capital Cost Category	Cost (Million$)	Typical Funding
Track Work	$6.0	Rail Project
Comms & Signal Work	$0.8	Rail Project
Property Acquisition	None (City Owned Parcel)	Local
Parking	$0.4	Local + Federal
Station Building	$18.8	Local + Federal
Prof. Services	$4.9	Shared
Total	$30.9	Shared

4.2 Reed Avenue Corridor

Figures 4 and 5 show the Reed Avenue Corridor station concept plans. When developing the Reed Avenue Corridor station concept plans, the study team incorporated the railroad and operator requirements and city and Project Study Team preferences while also acknowledging or leveraging the strengths of the site identified by the October 2024 public comment period. These strengths include:

Figure 4 Reed Avenue Corridor Passenger Rail Station and Steam Plant Integration Concept Plan

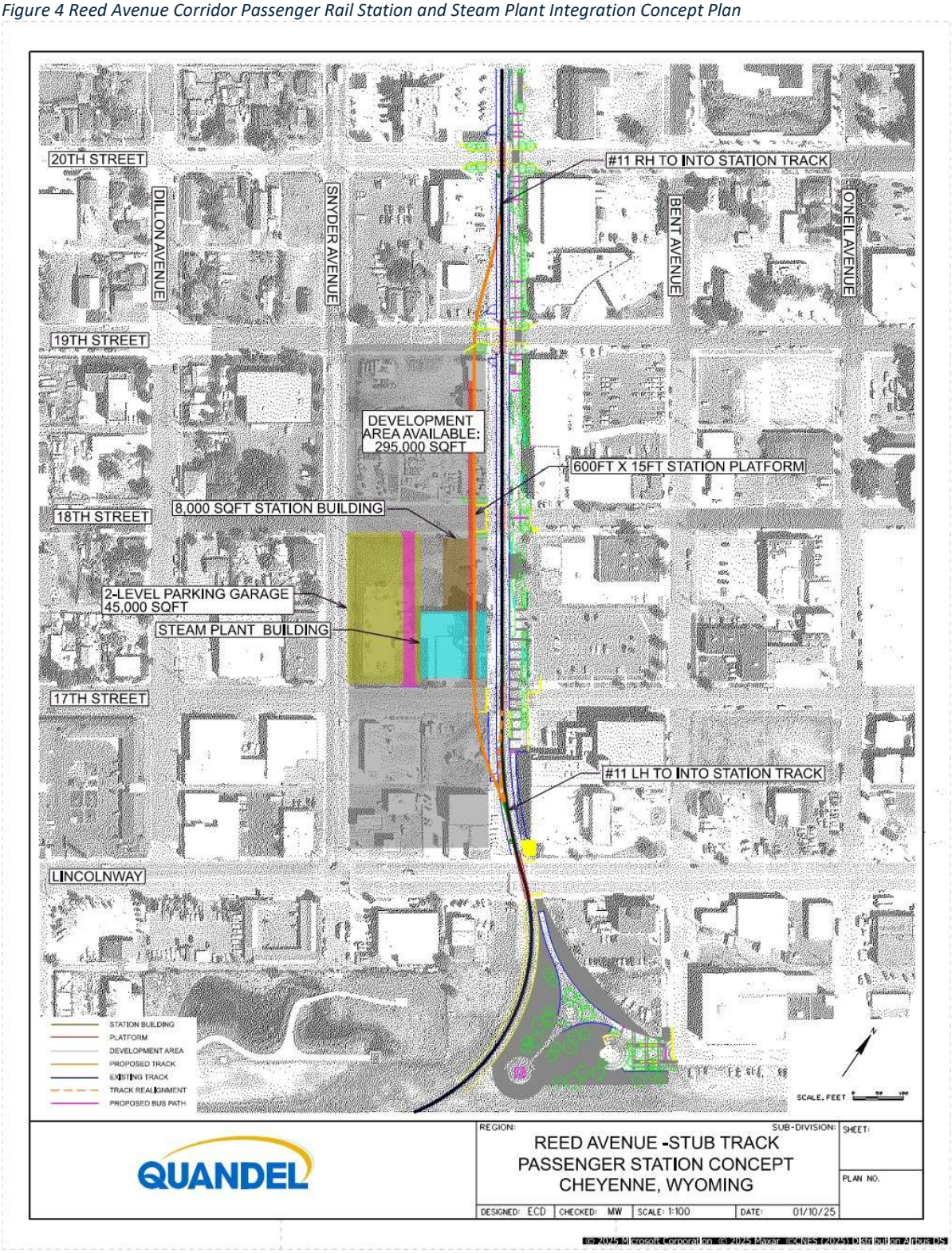
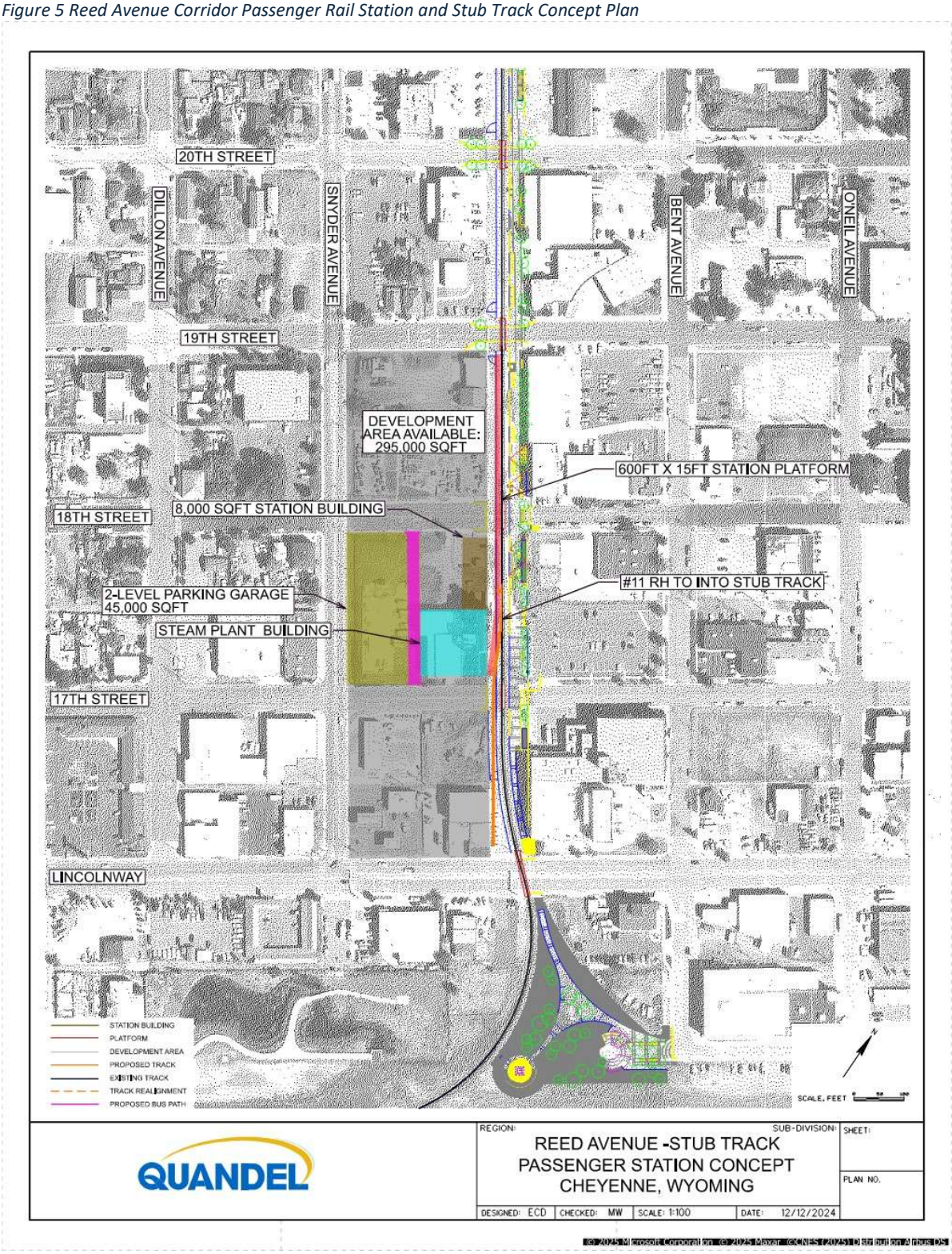


Figure 5 Reed Avenue Corridor Passenger Rail Station and Stub Track Concept Plan



- Pedestrian-friendly, central location within Cheyenne
- Offers potential to highlight cultural preservation and the historic character of Cheyenne
- Offers potential for revitalization and invigorating the local economy, including alignment with tourism plans
- Supports potential for high-density development, changing the urban landscape of Cheyenne, and accommodating population growth
- Offers potential for future expansion

Figure 6 Cheyenne Steam Plant Building

Source: Wyoming Tribune Eagle (1/24/2016)

Figures 4 and 5 show concepts on the west side of Reed Avenue complementing the existing Steam Plant building shown in **Figure 6**. The station area covers part of three or four blocks between Lincolnway and 20th Street. The site is about 1 mile east of Interstate 25 and 0.25 miles west of downtown Cheyenne. It sits on the opposite side of Reed Avenue from the pedestrian promenade planned as part of the Reed Avenue Corridor Project. The road network in the station area is planned to be reconfigured to better support redevelopment planned as part of the Reed Avenue Corridor Project. This includes closing the Reed Avenue/17th Street and Reed Avenue/18th Street intersections. The blocks where the station area is shown are privately owned. The site has ready access to utilities (power, water, sewer) and could be easily accessed by intercity bus services, local bus services, streets, and bicycle and pedestrian travel.

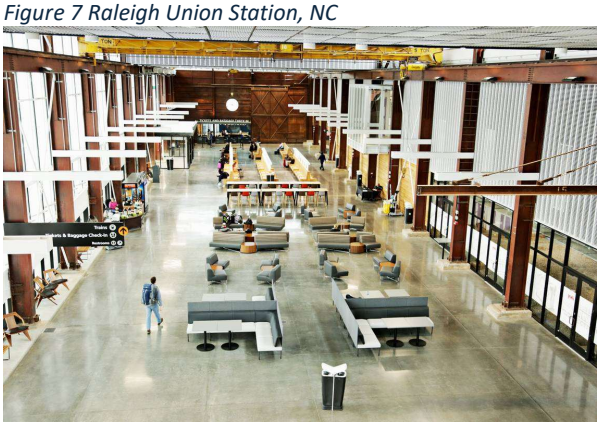
The station area concept includes a two-level parking structure with two elevators, a building access driveway on the second level, station building, and platform. The station parking structure would provide covered parking for vehicles on the first level and uncovered parking on the second level. Parking would be accessed from Snyder Avenue (first level parking) or 17th Street and 18th Street (second level). The parking structure would be staffed onsite to limit lot access to customers traveling by rail, people meeting customers traveling by rail, or staff working in the station, and to provide security for vehicles parked for a few days while people travel.

The building access driveway would allow for one way traffic and be wide enough to allow large vehicles to pass other vehicles waiting at the driveway curb. The access driveway would include covered platforms for intercity and local bus services and would allow customer drop-off/pick-up by private vehicles.

An 8,000 square foot (sf) station building could be constructed within or next to a restored Steam Plant building. The station facility would accommodate rail ticketing/baggage, passenger waiting area, concession area, restrooms, and access to the train platform area. The passenger waiting area would accommodate ticket vending machines.

Figure 4 shows the Reed Avenue Steam Plant Integration station concept could include the station, platform, and tracks inside the restored Steam Plant building similar to the building restored for Union Station in Raleigh, NC shown in **Figure 7**. The train platform would be located on a new station track branching off the BNSF tracks at #11 turnouts north and south of the station area. The platform is assumed to be 600 feet long and 15 feet wide.

Figure 7 Raleigh Union Station, NC



Source: The News & Observer (12/10/2018)

The construction cost estimate for the Reed Avenue Steam Plant station and facilities is estimated at more than $25.7 million (2023 dollars) which increases to a range of $26 million to over $28 million when including approximated property acquisition costs (2023$). This cost estimate does not include restoration of the Steam Plant building; a Steam Plant restoration concept and cost could be developed through a separate study. **Table 2** summarizes the passenger rail station capital cost by category and identifies typical funding strategies for the cost categories. Track, communication, and signal work would typically be included in an FRA-funded rail project. Station property acquisition is typically locally funded. Parking and the station building would typically be funded through a locally initiated project that often includes FRA grant funding. The study team noted that while the Old Happy Jack Road station area may be more expensive to construct, the Reed Avenue station will likely have higher operating costs as compared to a station at Old Happy Jack Road.

Table 2 Reed Avenue Corridor Passenger Rail Station and Steam Plant Integration Conceptual Capital Cost Estimate (2023 dollars)

Capital Cost Category	Cost (Million$)	Typical Funding
Track Work	$1.4	Rail Project
Comms & Signal Work	$4.0	Rail Project
Property Acquisition	$1* to $2.5*	Local
Parking	$6.9	Local + Federal
Station Building	$9.4	Local + Federal
Prof. Services	$4.0	Shared
Total	+$26.7* to +$28.2*	Shared

Notes: *Capital cost does not include Steam Plant restoration to accommodate a passenger rail station. A Steam Plant restoration concept and cost could be developed through a separate study.

Figure 5 shows the Reed Avenue station building, platform, and tracks next to a restored Steam Plant building. This configuration would allow developers to have full use of a restored Steam Plant building. The train platform would be located on the BNSF track and then a train storage study track would branch off at a #11 turnout next to the Steam Plant building would allow trains to pull off the BNSF track while waiting, for example, to make a return trip to Denver. The train storage stub track would end at a bumping post on the north side of Lincolnway. The platform is assumed to be 600 feet long and 15 feet

wide. This station track configuration will be referred to as a Stub Track.

The construction cost estimate for the Reed Avenue Stub Track station and facilities is estimated at $23.6 million (2023 dollars) which increases to a range of $24 million to over $25 million when including approximated property acquisition costs (2023$). This estimate assumes no use of the Steam Plant building. **Table 3** summarizes the capital cost by category and identifies typical funding strategies for the cost categories. Track, communication, and signal work would typically be included in an FRA-funded rail project. Station property acquisition is typically locally funded. Parking and the station building would typically be funded through a locally initiated project that often includes FRA grant funding. The study team noted that while the Old Happy Jack Road station area may be more expensive to construct, the Reed Avenue station will likely have higher operating costs as compared to a station at Old Happy Jack Road.

Table 3 Reed Avenue Stub Track Station Conceptual Capital Cost Estimate (2023 dollars)

Capital Cost Category	Cost (Million$)	Typical Funding
Track Work	$0.6	Rail Project
Comms & Signal Work	$3.0	Rail Project
Property Acquisition	$0.5 to $1.5	Local
Parking	$6.9	Local + Federal
Station Building	$9.4	Local + Federal
Prof. Services	$3.7	Shared
Total	$24.1 to $25.1	Shared

5 Other Related Work

Prior to completion of the work documented in this technical memorandum, the study team completed a station site identification process that narrowed the range of station sites to Old Happy Jack Road and the Reed Avenue Corridor. The study team also completed additional analysis of the Reed Avenue Corridor and Old Happy Jack Road sites to complement the work documented in this technical memorandum. Additional study activities included completing a review of economic benefits and anticipated environmental impacts. The study team also considered all study findings and translated them into draft recommendations and a final report for review and discussion by the Cheyenne Metropolitan Planning Organization committees, and for review and acceptance by the Cheyenne City Council and Laramie County Board of Commissioners.

Railroad Operations, Infrastructure Modifications, and Station Concepts Technical Memorandum

Cheyenne Passenger Rail Station Site Selection Study

January 2025

Appendix A

Station Concept Meeting Summaries

CHEYENNE METROPOLITAN PLANNING ORGANIZATION

Railroad Owner BNSF Meeting Notes

August 6th, 2024, 11 am MT – MS Teams meeting

Participants:

- John Caufield (Kansas City – Manager of Passenger Rail) – BNSF
- Mary Ann Monaldi (Manager of Public Projects for MT, WY, ID) - BNSF
- Charles Hoppesch (Chicago) – Quandel Consultants
- Randy Grauberger (Denver) – Quandel Consultants
- Mary Karlsson (Minneapolis) – Quandel Consultants

Meeting Notes:

- The City of Cheyenne initiated this station site study to prepare for the proposed passenger rail services that may operate through the city. These services include Front Range Passenger Rail (FRPR) and the FRA's Long Distance Service Study.
- This study only considers one future Cheyenne passenger station.
- Mary Ann referenced the Reed Ave promenade proposal on the east of the track and questioned the availability of space to construct a station here along with its potential impact on the city's proposal.
- BNSF referenced their customers on the Reed Ave Corridor; although they are not currently being served, they still have leases.
- BNSF operates a rock train over the Reed Ave Corridor and needs to understand the station's potential impact to its operations. The train primarily operates during the summer construction season along the connection with UP and cannot be impeded by passenger trains.
- Randy added that the Reed Ave design team designated the Steam Plant on the west side of Reed Ave Corridor as a future passenger station site.
- BNSF asked if the Cheyenne could provide information on property ownership and where they are planning to grow.
    - Randy said the city is planning to grow along Reed Ave Corridor and all adjacent property owners have been made aware.
- Cheyenne submitted a Rail Crossing elimination grant application to FRA in 2023 for the closure of up to 3 crossings in the Reed Avenue Corridor. The application was not approved by the FRA but they were encouraged to re-submit an updated application in this current cycle (applications due in late September).
- Quandel asked if BNSF has considered moving its traffic off the Reed Avenue corridor?
    - This was studied several years ago, and it was determined that its cost outweighed the benefits. Design alternatives included a direct connection between UP and BNSF south of Cheyenne. This connection may also allow the wye track at the south of the Reed Avenue Corridor to be eliminated.

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- Wyoming has applied for FRA funding (Special Transportation Circumstances Grant) to grade separate College Drive from BNSF. There is a good chance this project will be selected. (College Drive is located south of I-80)
- Quandel asked about the BNSF yard site.
    - This is not a preferred location due to the amount of yard activity and its need to occupy the mainline.
    - BNSF leases space in this yard to their customers so the study team should be aware that switching is more than just BNSF.
    - It was noted that people work at this site. It is a mechanical, transportation, and engineering office.
    - BNSF also uses this site for storage.
    - If this site was selected, the city would also need to relocate Mead Lumber.
    - BNSF suggested contacting Mead Lumber about the project.
- The Old Happy Jack Road location was discussed. Although this is an elevated site it is still a possible station location.
- The team will keep communications flowing through Mary Ann and she will coordinate with John.
- John will contact BNSF Passenger Rail group to see if they have thoughts on a passenger station location in Cheyenne

Next Steps:

- Quandel will forward BNSF information on the upcoming meeting with Mayor's Passenger Rail Coalition and public likely 10/8 or 10/10.
- Quandel will check in with BNSF again in November, after the October workshop.
- The study is planned to wrap up in late February or March 2025.

CHEYENNE METROPOLITAN PLANNING ORGANIZATION

Railroad Owner Meeting Notes

August 9th, 2024, 2 pm MT – MS Teams Meeting

Participants:

- Amber Stoffels (Denver - Regional Manager of Public Projects) - Union Pacific
- Katie Novak (Omaha – General Director of Interline Operations, Amtrak Contract Manager) – Union Pacific
- Charles Hoppesch (Chicago) – Quandel Consultants
- Randy Grauberger (Denver) – Quandel Consultants
- Mary Karlsson (Minneapolis) – Quandel Consultants

Meeting Notes:

- Mark Bristol is retiring from UP and Katie will be taking over his position.
- The City of Cheyenne initiated this station site study to prepare for the proposed passenger rail services that may operate through the city. These services include Front Range Passenger Rail (FRPR) and the FRA's Long Distance Service Study.
- Katie shared Mark Bristol's 8/5 email response to Quandel, stating that UP prefers not to host passenger trains through Cheyenne.
- UP's understanding is that FRPR would operate on BNSF's Front Range Subdivision north of Denver; therefore, the station should be located along BNSF's tracks.
- Katie suggested Vic Stone from UP be included in these conversations because he has been involved in planning FRPR.
- Mary noted the Study is expected to be completed in February or March.
- UP asked if operators other than Amtrak would be considered.
    - Randy stated that FRPR has not selected an operator. The FRA's long distance study is being conducted in partnership with Amtrak, so it is likely that they will be the operator of any service resulting from that Study.
- If the Reed Ave corridor was selected, UP asked if push-pull equipment would be used.
    - Randy answered that they have not discussed operations in this detail.
- UP noted that they have operating rights on the Reed Ave Corridor and UP's Joint Facilities will need to be involved.
- Charles highlighted the historic passenger depot as a potential station site and asked what potential issues it would create.
    - UP does not recommend this site; it is located on their mainline and is near an active rail yard. Using the depot would require a new passenger track to separate freight and passenger operations.

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  - It was noted that an additional track between the existing rail and the station would be difficult to fit.
  - If this site was selected, UP would need to understand how their service would be impacted and answer the question of how they are made whole from the potential disruption caused by passenger trains.
  - The city is constructing a fence between UP's tracks and the historic depot site.
- Quandel asked roughly how many trains per day operate on the line.
  - Katie and Amber did not know off hand and noted that they would likely need an NDA agreement to share these details.
  - UP recommended checking the FRA's highway-rail at-grade crossing database for Southwest Drive (west of downtown Cheyenne) for an estimate.
- As the project develops, the Quandel team will communicate with Katie and Amber, Vic Stone may be added to the conversation as well.

Next Steps

- Quandel will send the October Rail Passenger Station Study workshop meeting notice to UP. Potential dates are 10/8 or 10/10.
- Quandel will share the workshop outcomes with UP.
- Quandel will schedule a follow-up conversation with UP in November/December to review the workshop's outcomes, initial evaluation outcomes, and gather additional UP input.
- UP to provide mainline daily train count data if possible.

CHEYENNE METROPOLITAN PLANNING ORGANIZATION

Railroad Owner Amtrak Meeting Notes

August 29, 2024 11 am MT – MS Teams Meeting

Participants

- Alexander Khalfin – Amtrak Government Affairs for the West Region
- John Bender – Amtrak Director of Stations and Facilities Development
- Charles Hoppesch (Chicago) – Quandel Consultants
- Randy Grauberger (Denver) – Quandel Consultants
- Mary Karlsson (Minneapolis) – Quandel Consultants

Meeting Notes

- Alexander noted that Front Range Passenger Rail (FRPR) is being implemented in phases with Denver to Fort Collins in phase one, and an extension to Cheyenne in a future phase
- Alexander clarified that the FRA's Long-Distance Study is not being driven by Amtrak. This is an FRA study intended to inform Congress' long-distance passenger route funding.
- Alexander recommended that the City of Cheyenne send a letter of support to congress for the Long-Distance Study.
- Charles reviewed the four sites (existing station, Reed Ave corridor, BNSF yard, and the Missile Dr property) that have been initially identified. Issues with these proposed station locations were discussed:
    - FRPR is anticipated on BNSF north of Denver so the existing station on the UP's track will be a challenge because the east leg of the Reed Avenue/UP line wye has been removed.
    - John recommended including the historic depot in the study and added that this location presents challenges coordinating between UP and BNSF dispatchers.
- John offered to provide Amtrak's criteria for selecting station site locations to assist with the study. John also recommended considering the number of at-grade crossings, and whether the station tracks are shared with freight trains.
- Amtrak is more concerned about the station location selection methodology than the actual location.
- Alex recommended contacting FRPR to identify their needs. Randy informed the group that Cheyenne has coordinated with them in the past.
- Mary informed Amtrak that a workshop and public open house is planned for October 8th with the Mayor's Passenger Rail Coalition.
- Although Wyoming has not submitted a Corridor ID extension application, they intend to submit one for the next cycle.
- The group reviewed the study schedule and anticipated additional coordination with Amtrak.

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Next Steps

- Quandel will send open house information to Amtrak.
- Quandel will provide a map of potential sites.
    - Amtrak will provide initial thoughts about the sites
- Quandel will see if the former TranSystems Long Distance Study or other studies containing Cheyenne ridership data are available and, if available, will share with Amtrak.
- John/Amtrak will send their site location evaluation criteria.

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CHEYENNE PASSENGER RAIL STATION SITE SELECTION STUDY – MEETING AGENDA

Subject: Project Study Team Meeting #6

Date and Time: November 7, 2024 from 10 to 11 am MDT

Location: MS Teams Meeting, Meeting ID: 259 950 311 919, Passcode: qzPRWJ

Attendees:

Christopher Yaney	Cheyenne MPO	Project Manager
Jennifer Corso	Cheyenne MPO	City Engineer
Cassie Pickett	City of Cheyenne	Engineering Manager
Wesley Bay	City of Cheyenne	Drainage Engineer
Bruce Horowitz	ESH Consult	Economic Development
Randy Grauberger	Quandel Consultants	Local Consultant Lead
Mark Walbrun	Quandel Consultants	Station Concepts
Charles Hoppesch	Quandel Consultants	Railroad Operations
Mary Karlsson	Quandel Consultants	Consultant Project Manager

Purpose: Study team meeting to discuss approach and results.

Discussion Items

1. **Welcome, Review and Finalize Agenda**
    a. No changes
    b. Reviewed engagement results and two sites advancing for more analysis
2. **Economic Analysis**
    a. Cassie – is the study considering how a passenger rail station will interact with the existing public transit system?
        i. Christopher – Yes and future efforts would work with the transit provider to identify how they could modify a route to serve the site. Will also want intercity bus service stop at the station.
        ii. Reed Avenue Corridor would be a strong site for rail and local bus
        iii. Old Happy Jack would also be a strong site for intercity bus (with extension of Grant Avenue) and provide good pedestrian access to hotels
    b. Christopher - Old Happy Jack will not connect to Missile Drive in future and underpass tunnel will be converted to bicycle, pedestrian
    c. Contacts – Christopher will provide a list of names, contact information, and title/description of their area of expertise, including Mayor's Passenger Rail Coalition
    d. Bruce Horowitz suggests that based on his experience, analysis of both sites will likely show positive economic benefits.
3. **Station Concept Development**
    a. Platform
        i. Length – examples 300 ft, 500 ft, or even 1,000 ft
        ii. Width – 10 to 20 ft is typical
        iii. Height – USDOT prefers level boarding which is difficult to achieve given no standard railcar design; FRA accepts 8-inch at top of rail (ATR) if the station is on the railroad mainline, FRA does not accept 8-inch ATR if on a station track
    b. Christopher
        i. What is the preferred side where people enter/exit the train? Trains have doors

on both sides of the vehicle.

ii. Initial thoughts on preferences
    1. Material – poured & pre-cast concrete at Old Happy Jack Road, brick and stone on Reed Avenue Corridor
    2. Full canopy with skylights
    3. Heated platform surface
    4. Building – Reed – rehab existing building. Both sites - include space for other businesses (restaurant, souvenir store, rest area for passengers)
    5. Yes HVAC for heat and cool
    6. Yes to conference room
    7. City would likely own and operate the building
    8. Parking – Old Happy Jack Road has adjacent parcel that is one city block long and may be used for parking; free parking would be ok at Old Happy Jack Road and fee-based would likely be helpful in Reed Ave Corridor
    9. Security – would need to explore if police can accept the responsibility; Charles mentions FRA has grant funding available for police/security to prevent railroad trespassing

c. Next steps: discuss these topics at same time as conducting the economic development interviews and include Paul Bellotti/Mayor's office and Charles Bloom/City Planning Director – Christopher will provide contact information

4. **Engagement**
    a. Consultant team is working to schedule meetings with Front Range Passenger Rail, BNSF, and Amtrak
5. **Station Location Alternatives Analysis Technical Memorandum**
    a. Files were received and can be accessed; Jennifer reviewed and indicated Tech Memo looks good. Christopher will provide comments as soon as he can
6. **Other** - None
7. **Next Steps**

- MPO provide sketch of street reconfiguration for Old Happy Jack Road site
- MPO provide list of names, contact information, and role/area of expertise for invitation to economic development/station concept interviews
- Consultant team schedule joint economic development & station concept meetings with contacts provided by MPO
- PST provide comments on Station Alternatives Technical Memorandum
- Next PST Meeting – December 5, 2024 10-11am MDT

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Station Site Concepts BNSF Meeting Notes

November 14, 2024 – 10 am MT – MS Teams meeting

Participants:

- John Caufield (Kansas City – Manager of Engineering, Passenger Rail) – BNSF
- Mary Ann Monaldi (Denver - Manager of Public Projects for MT, WY, ID) - BNSF
- Charles Hoppesch (Chicago) – Quandel Consultants
- Mark Walbrun (Chicago) – Quandel Consultants
- Randy Grauberger (Denver) – Quandel Consultants
- Mary Karlsson (Minneapolis) – Quandel Consultants

Meeting Notes:

- Mary summarized the public meeting:
  - Two meetings were held on October 8, 2024, one with the Mayor's Passenger Rail Coalition and a second Public Open House meeting.
  - Roughly 50 people attended the meetings and over 170 written comments were received over the 1-and-a-half-week comment period regarding the six potential sites.
  - The comments received, paired with the technical analysis, led the Study Team to recommended advancing the Old Happy Jack Road and Reed Avenue Corridor sites for further study.
  - John asked about the Terry Ranch Road station site option. Mary noted that the site had advantages including available land and synergy with the existing Wyoming Welcome Center; however, this site was not advanced due to the lack of existing infrastructure in the area. The lack of infrastructure is expected to lengthen the station site development timeline significantly more than the other station site options.
- The station sites selected for additional study were shared with BNSF on a Google Earth Map with blue polygons shown in Figure 1.

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Figure 1 - Station Sites for Additional Study

- Charles noted that this study assumes Cheyenne would be the terminal point for the future Front Range Passenger Rail service.
- Randy added that Front Range Passenger Rail has not completed any terminal planning for Cheyenne, so it is not known if trains will remain overnight at the station.

- Charles asked BNSF about their station requirements
  - It was indicated that Reed Avenue would be more complicated due to UP's operating rights.
  - BNSF referred to their most current Passenger Rail Guidelines (October 2023). Quandel confirmed that they had this document.
  - John added that the guidelines show canopy spacing at 15-ft from rail centerline to the edge of the structure.
  - John recommended using the Oklahoma City passenger station as an example. This is a terminal station with a layover track and the layout minimizes impacts on freight operations.
  - John asked how many trains per day would be anticipated?
    - Randy explained that he had heard the Front Range Passenger Rail planners mentioned two round trips per day (4 total trains) to Cheyenne and six round trips to Ft. Collins. This is the best guess as passenger operations to Cheyenne are not currently being planned.
  - Mark stated that the study team will assume a 600-foot platform
- Charles asked for any additional comments and suggestions from BNSF.
  - Mary Ann noted that the City's promenade is planned on the east side of Reed Avenue and suggested integrating the future passenger rail platform into the promenade, allowing freight operations on the western most track.

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- BNSF needs to retain space in the Reed Avenue corridor for maintenance and requested that Quandel review the final Reed Avenue corridor diagnostic notes to confirm the space requirements (for example, 15 feet from outer rail to edge)
    - Randy offered to share the final diagnostic notes with the study team.
    - John added that BNSF requires a minimum 15 ft track spacing to the passenger track.
- Mary Ann informed the group that the City of Cheyenne submitted a 2024 CRISI grant application to fund the closing of 17th and 18th Street rail-roadway at-grade crossings in the Reed Avenue Corridor.
- John highlighted concerns moving BNSF's tracks to the west and the impact it would have on the BNSF/UP wye connection.
- Mary Ann and Randy added that the city is exploring the addition of a pedestrian underpass near the W. Lincolnway rail-road crossing.
- Charles asked if UP should also be connected to discuss this station stie.
    - Mary Ann recommended that the study team contact UP.
    - John added that UP has trackage rights extending from the UP/BNSF wye to BNSF's yard.

- The Old Happy Jack Road station site was discussed.
    - Charles noted that like Reed Avenue, the study assumes a dedicated station track.
    - John noted that level boarding platforms are typically 14 or 16-inchs high to support ADA accessibility, if local site conditions allow.
    - Mark asked if the BNSF mainline was double tracked in the past and if the existing embankment would support two tracks.
    - Further study is needed to determine the ideal location of a switch from the main line to the station track.
        a. Mark assumed the switch would be located about 120 feet south of Old Happy Jack Road.
    - John observed that the Old Happy Jack Road site appears to provide a configuration similar to the Oklahoma City station.
- Mary Ann confirmed there is no PTC today on BNSF's Front Range Subdivision.

- Next Steps
    - The study team will develop concepts/schematics of the station site plans. The study team will share these with BNSF once developed (December/January timeframe) for feedback.

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Station Site Evaluation Meeting Notes

November 18, 2024 – 2 pm MT – MS Teams meeting

Participants

- Charles Bloom – Director of Community Development
- Bruce Horowitz (Virginia) – ESH Consult
- Mark Walbrun (Chicago) – Quandel Consultants
- Mary Karlsson (Minneapolis) – Quandel Consultants

Meeting Agenda and Notes

1. Welcome and Introductions
2. Schedule (Mary)
3. Economic Evaluation (Bruce)
    a. How much or how little positive impact do you think a passenger rail station would have?
        i. Old Happy Jack Road
            1. Charles
                a. One benefit is this site is under City control and space for parking on other underutilized lot to the south
                b. Today, the area is not great for walkability and for getting places; a station may encourage redevelopment
                c. There has been discussion of housing on the west side of Grant by the Railroad, but not too much discussion to-date
            2. How would you envision a station incorporating with local transit service?
                a. Cheyenne Public Transit garage is on Old Happy Jack Road between the BNSF tracks and Westland Road, making it easy to get a bus route to a station
                b. But asking visitors who are new to the community to use public transit to get other places in Cheyenne may feel like a complication
        ii. Reed Ave Corridor
            1. Charles
                a. Lends itself better to a station than Old Happy Jack Road given that it would be on the edge of downtown Cheyenne
                b. City just closed on site on south side of lot at 18th & Snyder (NE quadrant of intersection)
                c. 17th and Oneil – New Children's museum opening
                d. 101 residential units going in at 19th/Oneil
                e. City would probably run the parking at this location (e.g., TIF or special purpose tax)

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2. Do you envision net new or reuse of smaller retail spaces? (3-4 car trains?2-2.5 hours Chey><Denver)
    a. Charles - Looking for something attractive to region rather than site-specific
        i. New mixed use on IHOP website – IHOP now co-branding with Applebees
        ii. Coffee/sandwich shop
        iii. Small footprint grocery
        iv. Mixed front – store-front during sometimes with main business catering
        v. Meeting space w/hotel at/near the rail station (700-1,000 people easily)

4. Station Concept Plan (Mark)
    a. Length – minimum of 360 ft (Amtrak trains are longer: 620-900 ft)
    b. BNSF wants station to have its own track since trains may have a longer layover in Cheyenne
    c. Materials/Aesthetics
        i. Reed Ave – stone, brick, architecture that echoes 7 warehouses in area on National Register of Historic Places (Library is a good example, LEED Silver)
            1. Tribune Eagle – blank wall along Reed – become local transit hub?
        ii. Old Happy Jack – need to go vertical, lends itself to more industrial-style architecture
    d. Management of station – agrees re: value of concession tenant, including providing 24-hour security
    e. Canopy – yes, the canopy is a defining element to show people where they want to be to board the train – could be for future expansion/Phase II; not a fan of a full canopy nor enclosure (enclosure for wheelchair lift only, not for passengers)
    f. Snow Removal – agrees with heated platform surface
    g. Security – City has some security cameras in parking garage (not sure if they are monitored, will ask Christopher) and in City building (monitored during the day). Likes the idea of having the feed into the dispatch center
    h. Staffing of building – explore possibility of concession tenant providing support (e.g., baggage check)
    i. Ownership of Station – City would own through its transit system
    j. Programming
        i. Not sure how much the City would want to get into 24-hour staffing; keep it staffed by City as minimal as possible, especially if City would develop an adjacent meeting space w/hotel
        ii. Old Happy Jack Road – would need architecture to differentiate it from the industrial uses; multi-level tower would look good

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iii. Reed – building should complement elevator structure (Reed/21st) and Old Steam Plant as well as water filling stations at 22nd/Reed and 16th/Lincolnway and not take away from them; City plan shows a plaza on east side at Reed/17th with water features or play place for kids

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Station Site Concepts Amtrak Meeting Notes

December 4, 2024 – 11:00 am MT - MS Teams Meeting

Participants

- Alexander Khalfin – Amtrak Government Affairs for the West Region
- John Bender – Amtrak Director of Stations and Facilities Development
- Charles Hoppesch (Chicago) – Quandel Consultants
- Mark Walbrun (Chicago) – Quandel Consultants
- Mary Karlsson (Minneapolis) – Quandel Consultants

Meeting Notes

- Mary summarized the public meeting
    - Two meetings were held on October 8, 2024, one with the Mayor's Passenger Rail Coalition and a second Public Open House meeting.
    - Roughly 50 people attended the meetings and over 170 written comments were received over the 1-and-a-half-week comment period regarding the six potential sites.
    - The comments received, paired with the technical analysis, led the Study Team to recommended advancing the Old Happy Jack Road and Reed Avenue Corridor sites for further study.
    - John asked about the Historic UP Depot site and if the public expressed concern about recommending the site not advance for further study. Mary said the public expressed desire to re-use the building, but during conversations at the meeting also accepted it would be very expensive and complex to reconfigure the UP yard to allow for a new track serving the historic station.
    - John asked that the study team provide the materials shared at the public meeting (note: see link under "Next Steps" at the end of this summary)
- Amtrak asked if the Project Study Team (MPO, City, and consultant team) has a preference between the Old Happy Jack Road or Reed Avenue Corridor sites
    - Mark reported that both sites have advantages and they present contrasting options
- Mark and Charles asked about Amtrak station requirements and helpful features
    - Platform height
        - For Reed Avenue Corridor, the study team is assuming platform height at 8-inch from top of rail

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        - For Old Happy Jack Road, the study team will say platform height would be determined at a future date given that we do not know what equipment FRPR and Amtrak will be operating.
        - John states the law for new platforms requires level boarding. If the Project cannot achieve level boarding, the project team would need to submit justification to the FRA Office of Civil Rights for why level boarding cannot be achieved and FRA would need to consent to the justification.
        - John states that when more than one set of equipment is used level boarding is defined as the lowest platform height.
    - Platform length – Mark notes the study team will assume 600-feet. Amtrak confirms that 600-feet will serve Front Range Passenger Rail and CA Zephyr, and notes that in the future the length may require long distance trains to make two stops.
- Mark noted City staff are thinking the City would own the station and contract for maintenance
    - The consultant team has mentioned three maintenance contracting options to the Project Study Team: Contracted care-taker, City, tenant
    - Amtrak noted the three options sound fine for now. Amtrak recommended Quandel mention to the Project Study Team and document in deliverables that it can be a challenge to have a tenant responsible for maintenance, especially platform maintenance. When having a tenant do maintenance, it is really important to have a great tenant as well as a lease allowing the City to enforce the maintenance requirement if the tenant falls behind on maintenance.
- Ridership Estimates - After the August meeting with Amtrak, the study team asked WYDOT if previous studies had developed ridership data. WYDOT confirmed its previous studies did not develop ridership data. The study team also confirmed that Front Range Passenger Rail is not at this point producing ridership estimates for a connection to Cheyenne.
    - Amtrak mentioned Omaha would be a similar passenger rail market and it sees 23,000 trips per year from 2 long-distance trains each day, 7 days per week and connecting inter-city bus
- Mark and John discussed other relevant station examples, including:
    - Grand Rapids, MI – Amtrak noted the project team struggled with how to size station because the station was initially unstaffed and they wanted to the ability to later add ticket agent office and baggage storage areas. The architecture team designed an expansion along with the initial station project so the expansion can be added later relatively easily.
    - Illinois High Speed Rail stations built 4-5 years ago: Pontiac, IL; Joliet, IL; Dwight, IL; Normal, IL
    - Kirkwood, MO – Amtrak reported it is putting in a platform and the City is doing parking lot and site improvements to address drainage. The City owns and maintains building. Amtrak noted that Kirkwood has the premier volunteer station maintenance program in the USA.

- Amtrak recommends planning for a station that starts smaller and will be expanded in the future. The managing entity (e.g., Front Range Passenger Rail District) may later want terminal stations to be staffed to support positive customer experience.
    - At Old Happy Jack Road, plan for a ramp and an elevator to allow for the elevator being out-of-service. Also mention a need for the ability for passengers to easily and quickly alert someone about elevator issues if the station is not staffed.

Next Steps

- Mary reported that the study team is working to review draft station concept plans in December, complete economic benefit and environmental screening analyses in January, and present draft study recommendations to the MPO committees, City Council, and County Board of Commissioners in February with the study wrapping up in Mary 2025
- The materials shared at the public meeting are available on the Cheyenne MPO website: https://www.plancheyenne.org/project/cheyenne-passenger-rail-station-site-selection-study/

CHEYENNE METROPOLITAN PLANNING ORGANIZATION

Station Concept - City Administration Meeting Notes

December 4, 2024 – 3 pm MT – MS Teams meeting

Participants

- Vicki Nemecek – Public Works Director
- Tom Cobb – City Engineer, Member of Project Study Team
- Sophia Maes – City Sustainability Specialist
- Renee Smith – Representative from Mayor's Passenger Rail Coalition
- Mark Walbrun (Chicago) – Quandel Consultants
- Randy Grauberger (Denver) – Quandel Consultants
- Mary Karlsson (Minneapolis) – Quandel Consultants

Meeting Agenda and Notes

1. Welcome and Background
    a. Ridership – estimating 60 to 80 trips per day for Amtrak only, Front Range would be additional
2. Station Concept Plan
    a. Tom
        i. Reed Avenue
            - Quandel showed concepts with the station on both the east and west side of the tracks. The concepts with the station and platform on the east side were developed to help stakeholders, including BNSF, understand the station and platform need to be on the west side so it does not interfere with the pedestrian promenade. Moving forward, Quandel will focus on a station and platform concept on the west side of Reed Avenue.
            - Tom noted the Steam Plant is not a functional building right now (no roof). Could part of the train go inside the building since will need to substantially rebuild the building?
            - Ownership of Station – shared in public-private partnership
            - City got permission to remove track serving printing plant when City does Reed Avenue Corridor redevelopment project
        ii. Old Happy Jack Road – Show Grant Avenue extending to Missile Drive
        iii. Both sites - Yes to heated platform surface for snow removal

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b. Vicki
    i. Cleaning of facility – strong tenant contract would be a good thing, including random inspection system with penalty for not passing inspection OR a cleaning contract
    ii. This could be the project that helps revitalize Reed Avenue corridor like Union Station in Denver. This kind of revitalization will not happen at Old Happy Jack Road.
    iii. Yes to heated surface for snow removal, including connection to storm drain at Reed Avenue
c. Sophia
    i. Want to make sure the economic benefit of the project would balance the capital and operating cost of project
d. Renee
    i. Where would commuters park? Are we factoring in security for longer-term parking?
    ii. Really important to have a joint use that is active throughout the day to discourage unintended uses

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Station Site Concepts UP Meeting Notes

January 22, 2025, 8:30 am MT – MS Teams Meeting

Participants:

- Amber Stoffels (Denver - Regional Manager of Public Projects) - Union Pacific
- Katie Novak (Omaha – General Director of Interline Operations, Amtrak Contract Manager) – Union Pacific
- Charles Hoppesch (Chicago) – Quandel Consultants
- Mark Walbrun (Chicago) – Quandel Consultants
- Randy Grauberger (Denver) – Quandel Consultants
- Mary Karlsson (Minneapolis) – Quandel Consultants

Meeting Notes:

- Mary reviewed the study progress from 2024, including the October 2024 public comment period that presented the six sites considered: Air Force Base, BNSF Yard, Historic UP Station, Old Happy Jack Road, Reed Avenue Corridor, and Terry Ranch Road.
    - Mary noted that the Terry Ranch Road site and the site near the Air Force Base were suggested after the August 2024 meeting with UP.
    - Mary reported that based on results from the technical analysis and public comments, the study team advanced the Old Happy Jack Road and Reed Avenue sites for more study, including development of more specific design concepts.
- Charles reviewed the design concept for the Old Happy Jack Road site.
    - Amber asked if the station's location would increase auto traffic over any of UP's at-grade roadway crossings. Charles noted the site would be accessed from Missile Drive, Lincolnway, and I-25, which would not impact existing UP crossings.
- Charles reviewed the Reed Avenue Steam Plant concept.
    - Amber asked if BNSF had provided input on the track design. Highlighting that a #10 turnout isn't typically used by them.
    - Amber expressed concerns with the track geometry, noting that modifications to BNSF's alignment may have a domino effect that could alter the remaining leg of their wye connection to UP's tracks.
        - Mark clarified that the southern turnout is only needed to accommodate services proposed in the FRA's Long Distance Passenger Study. A stub-track station option would be suitable for Front Range Passenger Service.
    - Amber noticed the track curve through 19th Street, explaining that this is potentially problematic because it would require BNSF to order non-standard specialty crossing panels.

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- Charles reviewed the Reed Avenue Stub-Track concept.
    - Mark confirmed that the plan employs 15' track centers.
        - Amber noted the right-of-way width is set by ordinance.
    - Mark explained that this plan would use the BNSF's existing track to board an alight customers, and the stub-track would allow trains to clear the mainline while not in service.
    - Amber explained that this plan is problematic because it has potential to hinder the rock trains. These trains are unscheduled and needed for critical railroad repairs.
- UP asked for copies of the concepts presented today.
- Mary reviewed next steps, including:
    - Quandel will share the refined concepts with UP and BNSF (Quandel will send the updated versions shown during the meeting).
    - The Metropolitan Planning Organization (MPO) intends to host a public comment on the recommendations and final report, including these concepts in February and March.

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Station Site Concepts BNSF Meeting Notes

January 22, 2025 – 10 am MT – MS Teams meeting

Participants:

- John Caufield (Kansas City – Manager of Engineering, Passenger Rail) – BNSF
- Mary Ann Monaldi (Denver - Manager of Public Projects for MT, WY, ID) - BNSF
- Charles Hoppesch (Chicago) – Quandel Consultants
- Mark Walbrun (Chicago) – Quandel Consultants
- Randy Grauberger (Denver) – Quandel Consultants
- Mary Karlsson (Minneapolis) – Quandel Consultants

Meeting Notes:

- Since the last meeting (November 2024) between the project team and BNSF, concepts for the Old Happy Jack Road and Reed Avenue Corridor sites were advanced, and their economic and environmental impacts were studied.
- Charles reviewed the Old Happy Jack Road concept.
  - John agreed with the decision to implement a stub end station track with a bumping post. In general, BNSF prefers options that have the fewest modifications to their mainline track, adding that this option could help streamline BNSF approvals.
- Mary reported that the study team evaluated a station option on the east side of Reed Avenue to honor the space allocation previously discussed with BNSF as part of the Reed Avenue Corridor Project (pedestrian promenade - east, BNSF - west). Mary reported that a station on the east side of Reed Avenue was deemed not feasible by the project team due to the planned Reed Ave Corridor development plan.
- Charles reviewed the Reed Avenue Stub Track concept, highlighting the 600-foot platform.
  - Mark described the proposed passenger operations stating that trains would use the existing Reed Ave track to board and alight passengers. The stub-track would be used to store trains while they wait to make their return trip to Denver, minimizing track occupancy.
  - Mary Ann asked that the concept be revised to show #11 turnouts as BNSF does not have the means to maintain #10s.
  - Mary Ann asked if this concept left space for BNSF's access road and fence that are planned on the west side of BNSF's tracks. Charles confirmed the study team accounted for the road; however, it is possibly obstructed near 17th St.
- Charles reviewed the Reed Avenue Steam Plant concept
  - Charles reported that UP expressed concern with the curved track proposed through 19th Street. Adding that this design would require BNSF to order non-standard specialty crossing panels.
  - This concept also needs the #10 turnouts to be replaced with #11s to be consistent with BNSF's earlier comments.

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        - John pointed out the geometric constraints near the Lincolnway at-grade crossing and cautioned that the change from a #10 to #11 would further complicate this alignment.
    - John noted how this concept created more space to allow for the platform, fence, and access road
    - Mary Ann prefers this concept as it more directly honors the Reed Avenue Corridor Project's space allocation agreement better than the Stub Track concept.
    - Mary Ann confirmed that these tracks do not yet have a PTC signal overlay.
- The group acknowledged that FRA awarded a rail crossing elimination grant to the City of Cheyenne for the 17th and 18th Street intersections with Reed Avenue/BNSF tracks (Reed Avenue/BNSF will continue to stay open) as well as closing the northern Dillion Avenue crossing.
- Mary reviewed next steps, including:
    - Quandel will share the refined concepts with UP and BNSF (Quandel will send the updated versions shown during the meeting)
    - The Metropolitan Planning Organization (MPO) intends to host a public comment on the recommendations and final report, including these concepts in February and March.
        - The study team is working to finalize their recommendations; however, they have already agreed that they will recommend advancing both sites for further study and design since neither site is clearly better than the other based on what is known.

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Railroad Operations, Infrastructure Modifications, and Station Concepts Technical Memorandum

Cheyenne Passenger Rail Station Site Selection Study

January 2025

Appendix B

Reed Avenue Corridor Project Railroad Diagnostic Meeting Summaries

Reed Avenue Diagnostics Team Meeting
Cheyenne, Wyoming
April 30, 2024
Weather: Clear/Very Windy

Team Participants: BNSF Railway, UP Railroad, City of Cheyenne, Wyoming DOT, Olsson Asssociates; DHM Design, GLM Design, Quandel Consultants

Discussion of proposed improvements within the Reed Avenue Corridor took place in a Conference Room in the Cheyenne Municipal Building at 8:00 a.m.

23rd Street – 22nd Street:	City property and a city park are on the east side of the tracks. Nothing is proposed on the west side.
22nd Street:	Will remain open with no improvements on the north side of the street. All proposed improvements will be south side of the street.
22nd Street – 21st Street:	Pedestrian way will be located on the east side of the tracks with fence at 12' from centerline of tracks. West side of tracks will be for railroad maintenance. All fencing on the west side of the entire Project will be "removable", fencing posts and panels will be constructed in a manner allowing non-destructive temporary removal for railroad operations, and allowing for scheduled railroad maintenance forces to do their work.
21st Street – 20th Street:	Pedestrian way will be located on the east side of the tracks with fence at 12' from centerline of tracks. Access to businesses has been maintained along the west side for decades. West side of tracks will also be for railroad maintenance.
20th Street – 19th Street:	Pedestrian way will be located on the east side of the tracks with fence at 12' from centerline of tracks. Access to State Office building at southwest corner of 20th Street & Reed Avenue will be maintained with bollards past the parking to prohibit through traffic. BNSF stated that this should be swing gates so they can access as needed for maintenance. West side of tracks will also be for railroad maintenance.
19th Street - 18th Street:	Pedestrian way will be located on the east side of the tracks with fence at 12' from centerline of tracks. West side of tracks will be for railroad maintenance.
18th Street – 17th Street:	Pedestrian way will be located on the east side of the tracks with fence at 12' from centerline of tracks. West side of tracks will be for railroad maintenance.
17th Street - Lincolnway:	Pedestrian way with ramp down to pedestrian tunnel will be located on the east side of the tracks. West side of tracks will be for railroad maintenance only. Business at northwest quadrant of Lincolnway and Reed Avenue has access from railroad maintenance path.
Lincolnway:	Pedestrian tunnel is proposed east of the tracks under Lincolnway.

18th Street at Reed Avenue is proposed to be a full closure with pedestrian way and railroad maintenance path proposed to continue across the current crossing.

Dillon Street crossing is proposed to be a full crossing closure.

Design team needs to submit any studies or alternatives for pedestrian tunnel at Lincolnway for consideration and for project continuity. Any preliminary (or final) plans for underpass at Lincolnway (16th Street) need to be coordinatied with Wyoming DOT and BNSF.

BNSF is open to the retirement of industrial lead tracks into various commercial facilities, but decisions to remove tracks are customer dependent, subject to what tracks are still in use. Further talks with BNSF personnel who can speak to the matter of permanently removing industry track will be necessary. Coordination with BNSF will start this process, however some of the owners may require the spur lines to remain. The Diagnostic Team agreed.

UP has franchise rights along the Reed Avenue corridor, and approval will also be required from UP.

The following are general topics that were discussed for the corridor:

1. The Design Team will draft, and provide to BNSF, a report explaining the history of the redevelopment project that is currently underway, the project funding, etc. and that the redevelopment will bring people to the corridor. The project is designed to, and is necessary to, separate people and railroad operations, assuring the safety of both.

2. The City should consider completing a Pedestrian Study to determine the number of pedestrians that will be in Reed Avenue Corridor when the proposed development is in place.

3. The City should remove all permanent signs facilitating the movement of motorists along the Reed Avenue railroad corridor. The City will assure that all remaining permanent signage are not in conflict with railroad operations.

4. A lighting analysis must be completed for all street crossings. With respect to all lighting analyses, designs should be completed to direct light away from the train crew in the cab of the locomotive.

5. With respect to parking, no parking should obstruct the view of the grade crossing warning devices, and parking should be prohibited within 100' of any grade crossing.

6. At 23rd street, make sure fence with access protects the Automatic Car Identification (ACI) equipment. BNSF will still need access to ACI and will not allow this area to be completely fenced off.

7. BNSF will do signal design work and undertake all signal and grade crossing warning device work. Discuss the steps to secure a BNSF cost estimate.

8. The Diagnostic Team agreed that the parties would work together to seek the closure of additional streets beyond 18th Street and Dillon Street which were previously identified. BNSF noted that a minimum of 2 closures is required, however more would be better. Consideration should be given to closing 21st Street and 17th Street at Reed Avenue.

9. The city will modify grade crossing approach signs and highway/street markings to be consistent with applicable standards.

Safety Briefing

Diagnostic review of each crossing (by quadrant) performed at each crossing as follows.

23rd Street at Snyder Avenue, M.P. 118.93 (DOT 245689M):

- Improvements will need to be coordinated with BNSF.

Immediate Recommendations:

- Bells should be added to all signal devices.
- Northeast Quadrant
  - Restrict parking within 100' of signals
  - Realign existing W10-1 advance warning sign with bottom portion of "X" on railroad pavement marking according to MUTCD standards.
- Newer traffic counts and school bus movements should be marked up on inventory forms for Wyoming DOT to update.
- Extend the crossing panel on Northwest quadrant to accommodate sidewalk width
- Add stop bar 8' in advance of crossing flashing light signal for Northbound approach
- (Southeast) have City check with owner of building to remove signs (arrows) which may be directing traffic onto BNSF ROW

Project Recommendations:

- Do not block signals with any landscaping and signing.
- (Southeast) Make sure fencing with access surrounds the Automatic car identification (ACI) equipment
- Show all utilities on the plans

22nd Street, M.P. 118.92 (DOT 245690G):

- Improvements will need to be coordinated with BNSF.

Immediate Recommendations:

- (Northwest) Add signing for "Sidewalk Ends" on Pedestrian Promenade Design Plan.
- (East & West) Add striping for edgeline and double yellow centerline through crossing (but not on crossing panels)
- Bells should be added per BNSF/MUTCD standards.
- Remove trailers and storage of private materials in the Northwest Quadrant.
- Realign existing W10-1 advance warning sign with bottom portion of "X" on railroad pavement marking according to MUTCD standards.

Project Recommendations:

- New signal crossing locations should be: (This is standard for all crossings)
  - 15' from Centerline of Track.
  - 5.25' from Curb or 9.25' from Edge of travel way if there is no curb.
- Add curb to protect crossing signals (standard for all crossings)
- (Southeast) perform a queuing analysis with the design vehicle as WB-50
- Consider pedestrian crossing signals across 22nd Street that are interconnected to the crossing signals to eliminate potential of traffic queuing across crossing
- Show all utilities on the plans

21st Street, M.P. 118.85 (DOT 245691N): (This should be re-considered for a closure candidate)

- Improvements will need to be coordinated with BNSF.

Immediate Recommendations:

- (Southwest) Remove parking for 100' from the Railroad crossing.
- Realign existing W10-1 advance warning sign with bottom portion of "X" on railroad pavement marking according to MUTCD standards. (East & West) Add striping for edgeline and double yellow centerline through crossing (but not on crossing panels)
- Add "BNSF Property - No Trespassing" sign to Reed Avenue to prohibit motorists from driving on RR property. Signs may be removed as part of the proposed project improvements.

Project Recommendations:

- (Southwest) Crosswalk should be placed outside of gates on pedestrian promenade design plans.
- (Southwest) Fencing at crossings should be no higher than 42"
- A lighting analysis must be completed for all street crossings. All lighting designs in the corridor should be completed to direct light away from the train crew in the cab of the locomotive.
- (Northwest & Southeast) Consider a Pedestrian crossing device for quadrants without signals and gates.
- Proposed vegetation should not block railroad warning devices.
- Columns will need to be reviewed by BNSF engineering. BNSF must provide engineering standards that will govern.
- Drainage will be a part of the project
- Consider pedestrian crossing signals across 22nd Street that are interconnected to the crossing signals to eliminate potential of traffic queuing across crossing
- Show all utilities on the plans

20th Street, M.P. 118.77 (DOT 245692V):

- Improvements will need to be coordinated with BNSF.

Immediate Recommendations:

- (Southeast) Remove stop sign on Reed Avenue (Keep the One Way sign)
- (Southeast) Remove vegetation around signals on pedestrian promenade design plans.
- (Southeast) Refresh "RXR" pavement marking and W10-1 sign
- (Southeast) Add sign to Reed Avenue "BNSF Property – No Trespassing" to prohibit motorists from driving on RR property.
- (Northeast) Add sign to Reed Avenue "BNSF Property – No Trespassing" to prohibit motorists from driving on RR property.
- (East) Extend striping for edgeline and lane line through crossing (but not on crossing panels)
- (Northwest) Remove Stop Sign on Reed Avenue
- (Northwest) Proposed vegetation should not block warning devices.
- State office parking needs to be removed from Railroad Right of Way or obtain an encroachment permit from the railroad.

Project Recommendations:

- Install pedestrian flashing signals along 20th Street (opposing quadrants to crossing signals)
- A lighting analysis must be completed for all street crossings. All lighting designs in the corridor should be completed to direct light away from the train crew in the cab of the locomotive.
- Show all utilities on the plans

19th Street, M.P. 118.71, (DOT 245693C):

- Improvements will need to be coordinated with BNSF.

Immediate Recommendations:

- (Northwest) Remove Stop Sign (R1-1) on Reed Avenue
- (West) Add striping for edgeline and lane line through crossing (but not on crossing panels)
- (West) Realign existing W10-1 advance warning sign with bottom portion of "X" on railroad pavement marking according to MUTCD standards.
- (West) Restrict parking for 100' in advance of grade crossing warning devices.
- (Southeast & Northeast) Add pedestrian flashing signals along 20th Street (opposing quadrants to crossing signals)
- (East & West) Add striping for edgeline and lane line through crossing (but not on crossing panels)

Project Recommendations:

- (East) Perform queuing analysis for pedestrians crossing 19th Street and add pedestrian crossing interconnected to Crossing Signals to eliminate potential of traffic queuing across crossing
- (Southeast) Move bungalow to Northwest quadrant
- A lighting analysis must be completed for all street crossings. All lighting designs in the corridor should be completed to direct light away from the train crew in the cab of the locomotive.
- Show all utilities on the plans

18th Street, M.P. 118.63 (DOT 245694J): (Proposed crossing closure)

- Closures will need to be coordinated with WYDOT, BNSF, and the City.

Immediate Recommendations:

- Interim improvement shall include:
  - Stop bar location to remain until inactive track is potentially removed.
  - Realign existing W10-1 advance warning sign with bottom portion of "X" on railroad pavement marking according to MUTCD standards.

Project Recommendations:

- Closure must include:
  - Must remove existing signals & signs, crossing panels, pavement, and pavement marking.
  - Install barricades.
  - Must include street signing (W14-1) "No Outlet" advance warning sign.
- Show all utilities on the plans

17th Street, M.P. 118.57 (DOT 245695R): (Potential closure candidate)

- Improvements will need to be coordinated with BNSF. Closures will need to be coordinated with WYDOT, BNSF, and the City.

Immediate Recommendations:

- (East) Restrict parking for 100' in advance of crossing signals and gates
- (West) Realign existing W10-1 advance warning sign with bottom portion of "X" on railroad pavement marking according to MUTCD standards
- (East) Realign existing W10-1 advance warning sign with bottom portion of "X" on railroad pavement marking according to MUTCD standards
- (Southwest) Restrict parking at least 100' from grade crossing.

Project Recommendations:

- If project includes closure:
  - Must remove crossbuck signs, crossing panels, and pavement as part of closure.
  - Install barricades.
  - Must include street signing (W14-1) "No Outlet" advance warning sign as part of closure.
- Show all utilities on the plans

LincolnWay, M.P. 118.50 (DOT245696X):

- Improvements will need to be coordinated with BNSF and WYDOT.

Immediate Recommendations:

- (East & West) Eliminate Left-Turns from Center Lane
- Improvements will need to be coordinated with BNSF and WYDOT.
- Refresh all existing striping at crossing.

Project Recommendations:

- If the (East) Pedestrian Crossing tunnel is not found to be constructable, other options should be looked at and reviewed by all diagnostic parties for connectivity to the corridor. City to also follow up with the ability to obtain property from the newspaper.
- Show all utilities on the plans.

Dillon Street, M.P. 119.07 (DOT245687Y):

- Proposed crossing closure. Closures will need to be coordinated with WYDOT, BNSF, and the City.

Immediate Recommendations: (none discussed)

Project Recommendations:

- Must remove crossbuck signs, crossing panels, and pavement as part of closure.
- Must include new curb lines at 24th Street as part of closure.
- Must include street signing (W14-1) "No Outlet" advance warning sign as part of closure.
- Show all utilities on the plans

Railroad Operations, Infrastructure Modifications, and Station Concepts Technical Memorandum

Cheyenne Passenger Rail Station Site Selection Study

January 2025

Appendix C

List of Platform and Station Considerations highlighting Topic Areas where Local Preference Leads Design

QUANDEL CONSULTANTS

CHEYENNE METROPOLITAN PLANNING ORGANIZATION

TASK 6 STATION CONCEPT PLAN

Platform Considerations

- Length (Single or Double Stop)
- Width (ADA Clearance, Need for Platform Access, or Specialized Objects)
- Height (***8" ATR***, 15" ATR, ***17" ATR***, 25" ATR, ***48" ATR***, 53" ATR)
- Location (Flat Gradient, Limited Curvature, Minimal Obstructions, Parking Access)
- Position (Relative to Grade Crossings, Signals, Sidings, and Delayed in Block issues)
- Material (Poured Concrete, Precast Concrete, Asphalt, Wood, Stone, Brick, Tile) [Preferences?]
- ADA Tactile Edge Strips (Color, Position Relative to "Stay Back" line)
- Canopy (Partial or Full with/without Skylights) [Preferences?]
- Lighting (Type, Luminescence)
- Shelter (Wheelchair Only, Passenger: Seating, Enclosed, Heated) [Preferences?]
- Information (Timetables, Audio Speakers, Signage, Digital Train Status, Advertisements)
- Access (Walkway, Ramp, Stairs, Elevator, Escalator)
- Drainage (Open, French Drain, Tiled Drain, Closed)
- Snow Removal (Heated Surface, Plowing Local, Plowing Contracted – flagging issue) [Preferences?]
- Security (CCTV, Webcam, Fencing, Panic Alarm) [To where?]

Station Considerations

- Building Size (Waiting Area, Washrooms, Vending, Ticketing, Baggage, Concessions)
- Orientation (Access to Platform, Parking, Transit, and Support Facilities)
- Staffed (Most are not, Ticket Machines, Baggage Room, Employee Support) [Discuss options, caretaker, tenant]
- Security (Automatic Door Locks, Security Systems, Seating Type, Washrooms)
- Components (HVAC Range, Fire Protection, Lighting, Finish Materials) [Discuss options]
- Aesthetic (Community Compatible Design, Clock Tower, Patio, Meeting Room) [Preferences?]
- Management of station by concession tenant, or City, or Front Range, or Amtrak [Previous discussions?]

QUANDEL CONSULTANTS

CHEYENNE MPO