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January 22, 2024

Andrea Poole
Project Manager, Office of Environmental Analysis
Surface Transportation Board
395 E Street SW
Washington, DC 20024

Re: Green Eagle Railroad, LLC
– Construction and Operation of a Line of Railroad –
In Maverick County, TX
Surface Transportation Board Finance Docket 36652

Evaluation of Route Alternatives

Dear Andrea:

Enclosed please find an evaluation of route alternatives developed by the Green Eagle Railroad ("GER") as part of GER's development of its Proposed Line submitted to the Board in its Petition for Exemption filed on December 14, 2023.

If you have any questions related to the enclosed, please let me know.

Sincerely,

A handwritten signature in blue ink that reads 'Justin J. Marks'.

Justin J. Marks
Counsel to Green Eagle Railroad, LLC

Enclosure

Introduction

The Green Eagle Railroad (GER) is being proposed by Puerto Verde Holdings (PVH, the Applicant) as part of an international commercial transportation corridor, the Puerto Verde Global Trade Bridge (PVGTB), to provide international access between Mexico and the United States (U.S.) via a crossing location on the Rio Grande River north of downtown Eagle Pass in Texas. The proposed PVGTB project includes the rail line, a roadway for commercial trucks, and inspection facilities and a control tower for the rail line and roadway. The project is a public-private partnership between Maverick County, Texas, and PVH. The International Bridge Act and subsequent Texas state law grant Maverick County the authority to establish, maintain, and operate international toll bridges connecting to Mexico within its jurisdiction. Maverick County is also the primary sponsor of the application for a presidential permit for the PVGTB. After construction, PVH may sell the vehicular portion of the crossing and associated connection routes in the U.S. to Maverick County and/or the city of Eagle Pass. PVH would retain ownership of the rail portion in the U.S. with operations over the railroad in the U.S. and Mexico managed by its wholly owned subsidiary, GER.

Background

The Port of Entry (POE) at Eagle Pass was established in 1896, with a carriage system first transporting people and goods across the border. Shortly thereafter, the Eagle Pass-Piedras Negras International Bridge was constructed, connecting the City of Eagle Pass with Piedras Negras, Coahuila, Mexico. Today the Port of Eagle Pass serves as the primary crossing between Texas and Coahuila, Mexico and includes three international structures crossing the Rio Grande River. The Eagle Pass International Bridge structure and the Camino Real International Bridge structure are operated by the City of Eagle Pass in conjunction with Caminos y Puentes Federales de Ingresos y Servicios Conexos, the Mexican federal toll road and bridge authority that connects Eagle Pass and Piedras Negras. The third bridge structure is the Eagle Pass Union Pacific International Railroad Bridge. The U.S. portion is owned and operated by Union Pacific Railroad (UPRR), with BNSF Railway having trackage rights. The Mexican portion is owned by the Mexican federal government, with operation concessioned to Ferromex.

Purpose and Need

Due to the heavily-trafficked border crossings, the U.S. Highway 57 (US-57) corridor is integral to international trade between the U.S. and Mexico. The Eagle Pass POE, served by this corridor, ranked eighth nationally on border crossings by value. In 2021, nearly \$34 billion worth of goods crossed at this border station. The current crossing faces infrastructure constraints, as detailed by the Texas Department of Transportation (TxDOT) Texas-Mexico Border Transportation Master Plan (BTMP) (TxDOT 2021), which estimates that commercial motor vehicle (CMV) and rail traffic will nearly triple by 2050, far exceeding the capacity of existing infrastructure and resulting in vehicular and rail traffic congestion, delays, and increased risks to safety. All three international bridges described above are predicted to experience significant increases in motor vehicle and rail crossings and will require

infrastructure improvements to serve the increasing volumes of vehicles (both CMV and personal) and trains.

For the Eagle Pass International Bridge structure, the volume-to-operational capacity ratio for passenger vehicles is expected to increase significantly to 218% by 2050, demonstrating that the structure needs increased physical capacity to serve the increasing volume of passenger vehicles. For the Camino Real International Bridge structure, the volume-to-operational capacity ratio is anticipated to increase to 714% for CMVs and increase to 132% for personal vehicles by 2050. Without infrastructure upgrades, this is expected to increase crossing times from approximately 30 minutes today, to 9 hours by 2050 (TxDOT 2021).

In addition, as part of a TxDOT feasibility study on the expansion of US-57 from Eagle Pass to Interstate Highway 35 (I-35) south of San Antonio, a safety analysis found that two-thirds of all crashes along the US-57 corridor occur in the Eagle Pass segment between the Eagle Pass International Bridge structure and U.S. Highway 277 (US-277). The crash rate in this area is three times higher than the statewide average, with approximately 8% of all crashes involving commercial motor vehicles (TxDOT 2023). Without infrastructure upgrades, accidents are likely to increase with the increased congestion and future projected traffic increases.

The current Eagle Pass Union Pacific International Railroad Bridge structure is consistently one of the busiest U.S.–Mexican rail crossings. Each year since 2009, it has ranked second for the number of rail containers crossing between the U.S. and Mexico according to the Bureau of Transportation Statistics (BTS 2023). The value of cross-border trade through Eagle Pass grew by 154% (or \$13 billion) between 2006 and 2019, and rail tonnage across the Eagle Pass Rail Bridge is forecast to nearly triple between 2019 and 2050 (TxDOT 2021). The TxDOT BTMP found that the Eagle Pass crossing consists of “limited train speeds and limited freight capacity due to need for improved infrastructure and expanded track.” The single-tracking nature of existing border-crossing rail operations at this location means that increased future rail operations will result in longer blockages of vehicular traffic on the Piedras Negras and Eagle Pass downtown at-grade crossings (TxDOT 2021).

PHV has proposed the PVGTB to improve public safety, increase regional mobility, reduce air emissions, and provide needed economic growth for the region. As part of the PVGTB, the GER would establish a safe, commercially viable alternative to the current single-track rail crossing in Eagle Pass and improve the efficiency and safety of train cross-border movements. The GER would also reduce idling, theft, vandalism, and illegal migration. As a key transportation component of the PVGTB, the GER would re-route commercial traffic out of the densely populated urban centers of Eagle Pass and Piedras Negras, minimize rail and vehicular interactions at the at-grade rail crossings in downtown areas, improve safety for residents of both cities, reduce carbon emissions, and provide the necessary capacity to support bi-national trade growth for decades to come.

Route Evaluation Criteria

A number of criteria were considered by PVH to evaluate the feasibility of railway options for the GER. An overarching objective of any feasible route is commercial viability, which requires

compatibility with current and proposed Mexican and U.S. rail and highway infrastructure and border crossing plans as outlined in the Piedras Negras Master Plan (Gobierno Municipal De Piedras Negras, Coahuila De Zaragoza 2021). This plan identifies a right-of-way for rail line and highway corridor development in Mexico to bypass the city of Piedras Negras, and one location for the proposed border crossing for both the rail line and the highway. The proposed border crossing location was chosen based on longstanding regional plans to reroute commercial traffic out of the urban centers of Eagle Pass and Piedras Negras. Located to the north of both cities, the location is outside of the urban center of Eagle Pass and its city limits. It is the only location that provides connectivity to existing and planned regional freight highway and rail trade routes, while alleviating the burdens of commercial traffic on local residents and visitors. The location allows for realization of the Piedras Negras Master Plan to route international commercial CMV and rail traffic to the north of the city and of Maverick County's plans for a new international crossing to the north of Eagle Pass.

Additionally, PVH considered a number of operational criteria to evaluate the feasibility of rail route options. This included the ability for a route option to reduce rail crossing times and avoid the 25 at-grade crossings that are found along the current rail alignment. It also included the ability for a rail route to connect to the existing UPRR mainline south of the Clark's Park railyard, as any connection to the UP north of the yard would require trains entering the U.S. to stop once situated on the existing UPRR line, and reverse south along the UPRR line to reach the inspection facilities at Clark's Park railyard. This would result in congestion and security issues and likely require the construction of additional track around the yard to maintain throughput.

Furthermore, PVH considered the ability of proposed routes to keep the U.S. Customs and Border Protection (CBP) cargo units that process rail and vehicular freight in the same location. Through early coordination with CBP, it was determined that any rail option should avoid the need for a border crossing location separate from the highway crossing location, which would require CBP to engage separate cargo inspection teams: one for a vehicle crossing facility and one for a rail crossing facility. Instead, it was determined that a rail option that crosses the border in the same location as the highway crossing would allow for a single inspection location, resulting in the most efficient use of CBP staffing resources and meeting CBP's need for efficiency.

Environmental objectives were also evaluated including the ability of route options to limit potential adverse impacts by locating the rail outside of urban areas and on previously disturbed lands, reducing emissions by minimizing train idling times, and minimizing impacts on wetlands, floodplains, and surface waters.

Potential Rail Routes Evaluated

PVH initially considered a range of route options to address the growing needs of binational trade via commercial vehicles and freight rail, including options bypassing the urban areas via northern/western routes and southern/eastern routes. However, PVH eventually focused its route evaluation solely on northern/western routes as southern/eastern routes were deemed

infeasible due to the required acquisition of over 10 miles of right-of-way along the existing State Loop 480 (SL-480) in the U.S. and of approximately 10 miles in Mexico from multiple private landowners.

In contrast, northern/western routes would be able to utilize an existing state-owned right-of-way, consistent with existing Piedras Negras master plan, and require only a short distance on the U.S. side of the border to connect with existing infrastructure. This area is also consistent with the feasibility study conducted by Maverick County to the north of Eagle Pass that found no fatal flaws in the vicinity.

The following rail route options were considered by PVH.

GER Preferred Option: The GER Preferred Option would consist of approximately 19.1 miles of new double-tracked freight rail, including approximately 1.3 miles in the U.S. and approximately 17.8 miles in Mexico. The rail would follow a corridor starting from Highway MX57 near the Ferromex Rio Escondido Rail Yard, following the existing Libramiento Norte corridor in Mexico, and terminating in the U.S. at the UPRR approximately 0.5 mile south of the UPRR Clark's Park railyard. The proposed border crossing is located in Maverick County, at the northwest edge of the City of Eagle Pass. The full rail corridor (and highway corridor) comprising the PVGTB Corridor are presented in Figure 1. The GER Preferred Option in the U.S. is presented in Figure 2.

Figure 1. Puerto Verde Global Trade Bridge Corridor

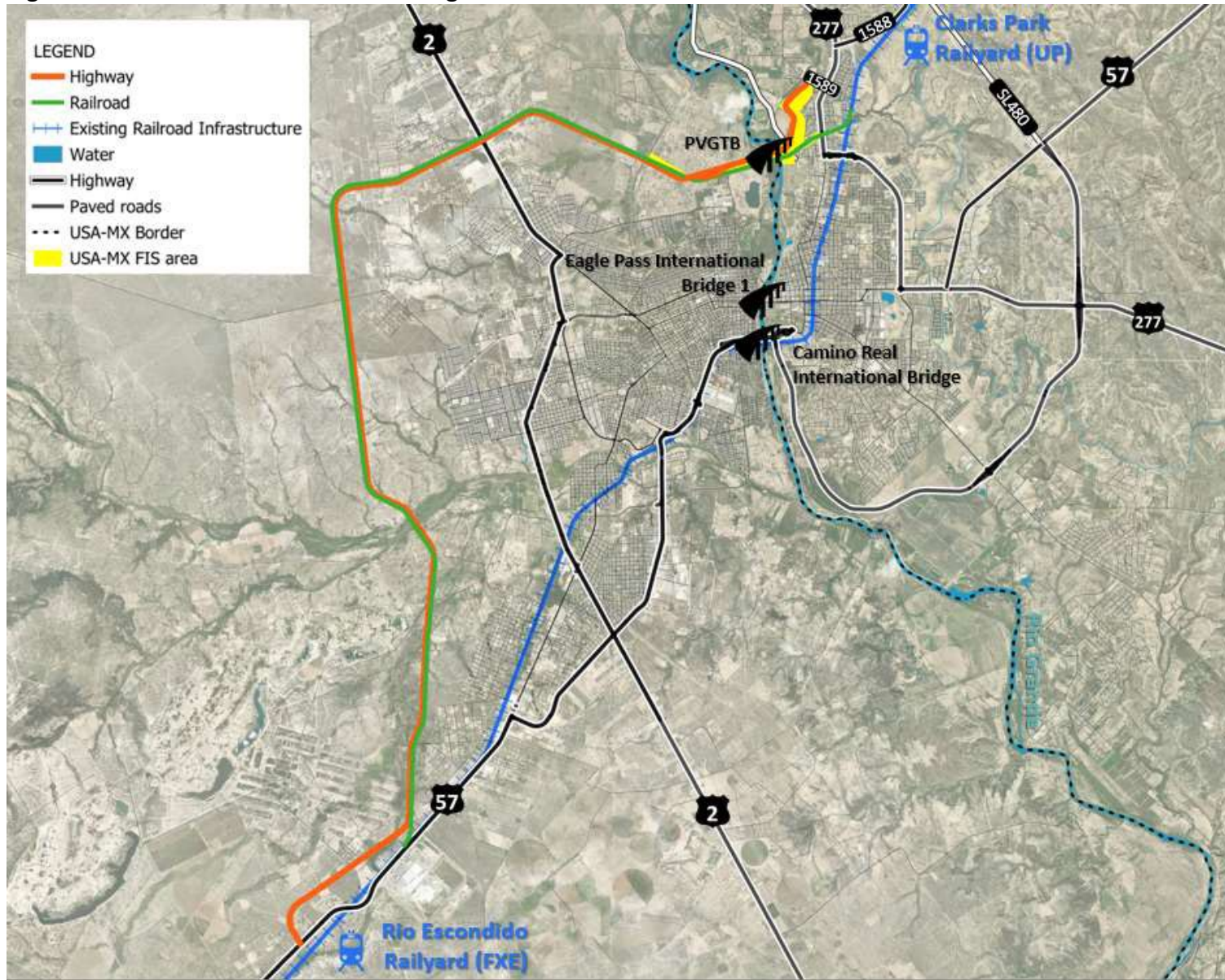
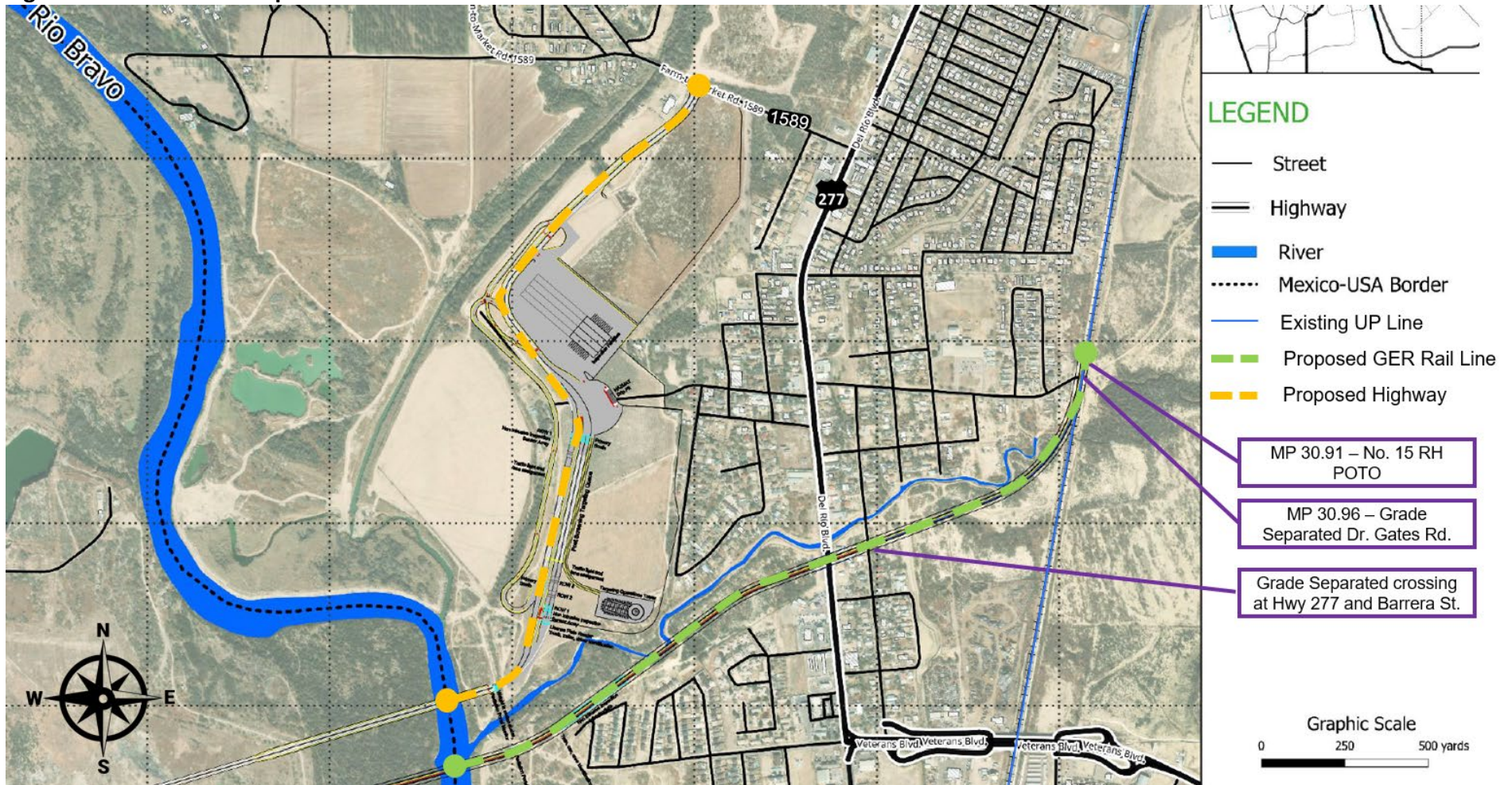


Figure 2. GER Preferred Option in the U.S.



PVH also considered six route options that would generally follow the same route as the Preferred GER Option from Mexico towards the U.S., until reaching a location near the intersection of Libramiento Norte and COAH/El Centinela, west of Los Rosales. There, the six options would follow different routes to a border crossing location approximately 1 mile north of the border crossing for the Preferred GER Option and would connect to the UPRR approximately 1.0 mile north of where the GER Preferred Option would connect.

Option A would travel northeast for approximately 1.9 miles after splitting off the GER Preferred Option, and would cross the Rio Grande River near the old aggregate extraction area in Elm Creek, Texas. From there, Option A would travel east for approximately 0.8 mile before curving northeast to cross Farm Road 1589 (FM 1589). After crossing FM 1589, it would travel approximately 0.1 mile before curving east and travelling approximately 0.25 mile to pass under US-277. It would then travel through the neighborhood east of US-277, entering near Rivera Drive and crossing the residential area from west to east. After exiting the residential area, it would curve northeast and would connect to the UPRR mainline approximately 0.2 mile northeast of Hector Munoz Jr. Recreational Park. This connection is approximately 0.75 miles north of where the GER Preferred Option would connect to the UPRR.

Option B would follow the same path as Option A; however, after crossing Elm Creek it would travel approximately 0.1 mile farther northeast before curving to the southeast and crossing through the residential area south of and parallel to Mariana Drive. After exiting the residential area, it would turn to the northeast, cross through the northwest corner of the Hector Munoz Jr. Recreational Park, and would connect to the UPRR mainline at the same location as Option A.

Option C would follow the same path as Option A up to US-277. However, instead of crossing the residential area from west to east, it would curve to the southeast and cross the residential area north of and parallel to Erline Drive. At Siesta Drive it would curve northeast and would cross through the northwest corner of Hector Munoz Jr. Recreational Park before connecting to the UPRR mainline at the same location as Option A.

Option D would follow the same path as the GER Preferred Option to a point approximately 0.75 mile southeast of COAH/El Centinela, where it would curve northeast and then east to cross the Rio Grande River approximately 0.25 mile south of where Options A, B, and C would cross. From there, Option D would travel east until crossing Elm Creek, then curve to the northeast until crossing US-277 and traveling parallel to Thompson Road until joining with the UPRR approximately 0.5 mile northeast of where Option A would connect.

Option E would split off the GER Preferred Option at approximately the same location as Options A, B, and C before travelling northeast and crossing the Rio Grande River approximately 0.15 mile south of where those options would cross. After crossing the Rio Grande, it would travel east until crossing Elm Creek, then northeast to FM-1589. From there, Option E would following the a similar path as option A to connect to the UPRR.

Option F would split off the GER Preferred Option at approximately the same location as Options A, B, and C before travelling northeast for approximately 1.0 mile along COAH/El Centinela, before curving to the east to the crossing of the Rio Grande River. After crossing the Rio Grande River, it would run southeast to Elm Creek, then run curve to the northeast and travel approximately 0.25 mile past FM-1589 before curving to the southeast to cross the residential area and connect to the UPRR following the same path as Option A.

Options A, B, and C are presented in Figure 3 and Options D, E, and F are presented in Figure 4 below.

Figure 3. Route Options A, B, and C

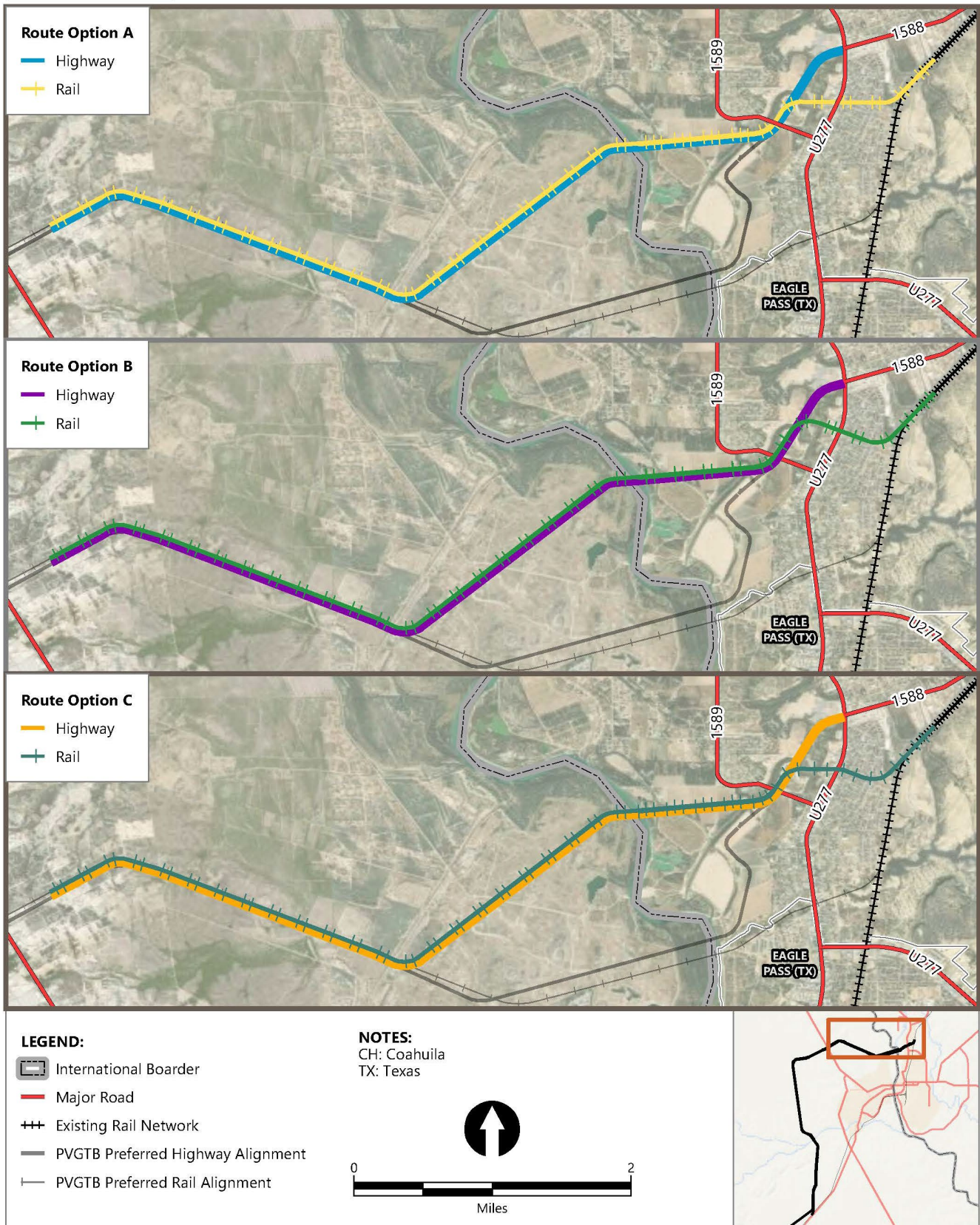
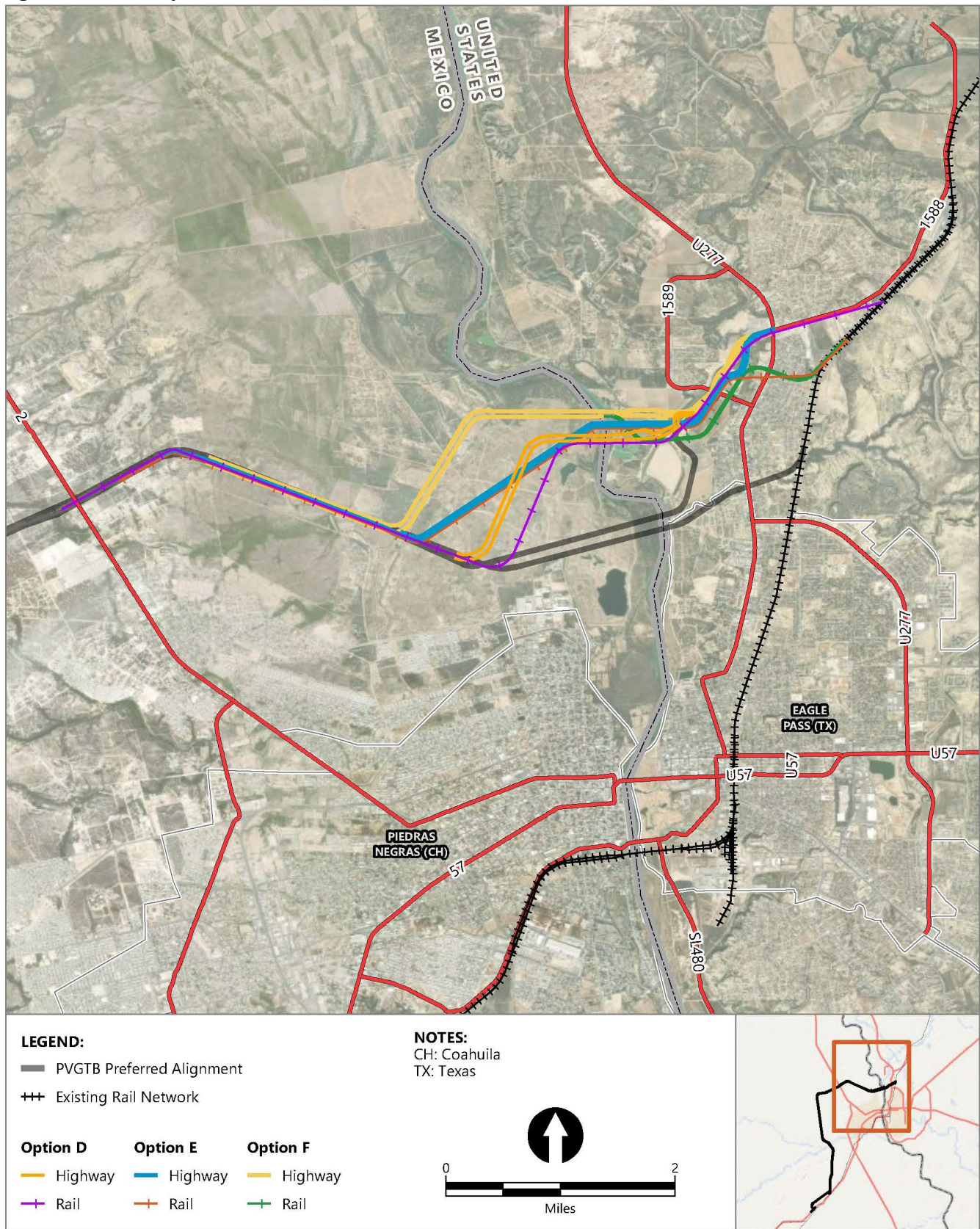


Figure 4. Route Options D, E, and F



Taking into account the purpose and need and evaluation criteria, PVH made the following determinations regarding the route options:

- **Route Options A, B, and C:** These options are not preferable due to technical challenges that would arise from intersecting the UPRR mainline within the existing rail switching infrastructure at the UPRR Clark's Park railyard. This would result in inefficient rail movements and interference with existing rail operations. In comparison to the GER Preferred Option, Options A, B, and C would also require an increased length of bridge to cross the Rio Grande River and would traverse more densely populated residential areas, resulting in impacts on and displacement of more residents than the proposed route and more impacts on adjacent residences. These options would also travel close to an existing recreational field and would require the construction of a tunnel to lead to the connection with the UPRR infrastructure.
- **Route Option D:** In comparison to the GER Preferred Option, this option would require an increased length of bridges to cross the Rio Grande River. It would also require the purchase of industrial lands in the area adjacent to Clark's Park railyard. It would connect to the UPRR north of the Clark's Park railyard, which would not allow a direct connection to the Clark's Park railyard infrastructure and would require trains entering the U.S. to back up into the rail yard after they connect to the mainline in order to reach the customs inspection facilities built for CBP and Mexican authorities at Clark's Park railyard. This would result in security issues and inefficient rail movements.
- **Route Options E and F:** These options would require an increased length of bridges to cross the Rio Grande River. In addition, they would require the relocation of a large number of residents to achieve the construction of a tunnel that leads to the connection with the UPRR infrastructure. The position and geometry would make it impossible for Option E and difficult for Option F to connect to the UPRR infrastructure at Clark's Park railyard.
- **The GER Preferred Option:** The route was chosen based on longstanding regional plans to reroute commercial traffic out of the urban centers of Eagle Pass and Piedras Negras. Located to the north of both cities, the location is outside of the urban center of Eagle Pass and its city limits. It is the only route option that provides connectivity to existing and planned regional freight rail trade routes while alleviating the burdens of commercial rail traffic on local residents and visitors. The route option allows for realization of Piedras Negras' Master Plan to route commercial traffic to the north of the city and of Maverick County's plans for a new international crossing to the north of Eagle Pass. The GER Preferred Option would connect to the UPRR line south of Clark's Park Rail Yard. This is preferable because a connection to the UPRR north of the rail yard would require trains entering the U.S. to back into the rail yard after they connect to the mainline in order to reach the customs inspection facilities built for CBP and Mexican authorities at Clark's Park railyard. This would result in security issues and inefficient rail movements. The proposed crossing location is also the only option that avoids the 25 at-grade rail crossings found along the existing rail between Eagle Pass and Piedras Negras.

The GER Preferred Option would have no at-grade crossings and would allow for more fluid movement of goods across the border and between rail yards. In addition, it would avoid more properties, a school, and a recreational field that the other options would affect.

After careful consideration, PVH concluded that the GER Preferred Option represents the route with limited environmental impacts and significant benefits over the other route options evaluated, while being both technically and economically feasible and meeting PVH's purpose and need for the project.

References

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