

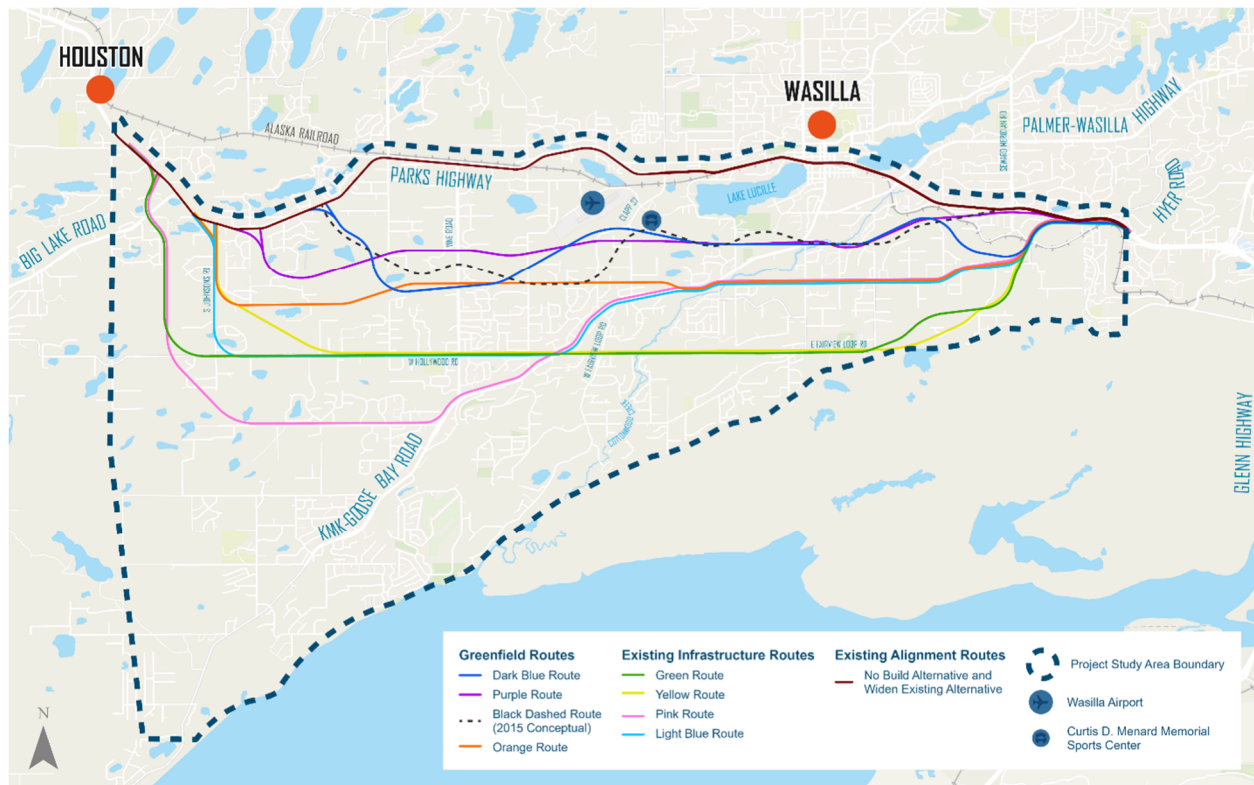


LEVEL 2 SCREENING SUMMARY

This memorandum summarizes the results of the Level 2 Screening to support the identification of alternatives to advance to detailed alternative. The process used to develop and screen alternatives is outlined in the Alternative Development and Screening Process Technical Memorandum dated March 16, 2023: Alternatives Development & Screening Process. The full Level 2 Screening Technical Memorandum is available on the project website at www.parkshighwayalternative.com.

Level 1 Screening was applied as part of the preliminary alternative development process to eliminate alternatives that do not meet the project's purpose and need. Preliminary alignments that passed Level 1 initial screening became the Preliminary Alternatives, which were presented at Open House #2 in December 2022. These preliminary alternatives were evaluated through the Level 2 screening process against a set of qualitative and quantitative criteria to help identify which alternatives should move forward to detailed alternative development.

Figure 1: Preliminary Alternatives





Level 2 Screening Results

Level 2 Screening was applied to the eight preliminary alternative corridors/variants, the Widen Existing Parks Highway alternative, and the No Build Alternative. The following recommendations were used:

- **Advance as Group/Variant:** Used for three preliminary alternatives that are located close together, that perform similar functions and are essentially “variants” of a single alternative. The detailed alternative development process will consider how these variants can be combined as a single alternative.
- **Advance as Alternative:** Used where an alternative is recommended to advance forward to detailed alternative development.
- **Recommend Not Advancing:** Used for an alternative that is not recommended to advance to detailed alternative development. The reasons why this recommendation is made are summarized in each alternative summary.

Dark Blue Route, Black Dashed Route, and Purple Route – ADVANCE AS GROUP/VARIANT

The Dark Blue Route, Black Dashed Route (2015 Conceptual Planning), and Purple Route are recommended to advance to detailed alternative development as a grouping of routes/variants. These three routes will be evaluated in detail to yield a single alternative corridor with potential variants.

The Dark Blue Route parallels the existing Parks Highway at an off-set of approximately one- to one-and-a-half miles south. The route includes numerous curves as it passes through undeveloped land. The eastern terminus is at Parks Highway and N. Hyer Road, and western terminus is at approximately Parks Highway Mile Post (MP) 50.0. The route is approximately 13.3 miles long.

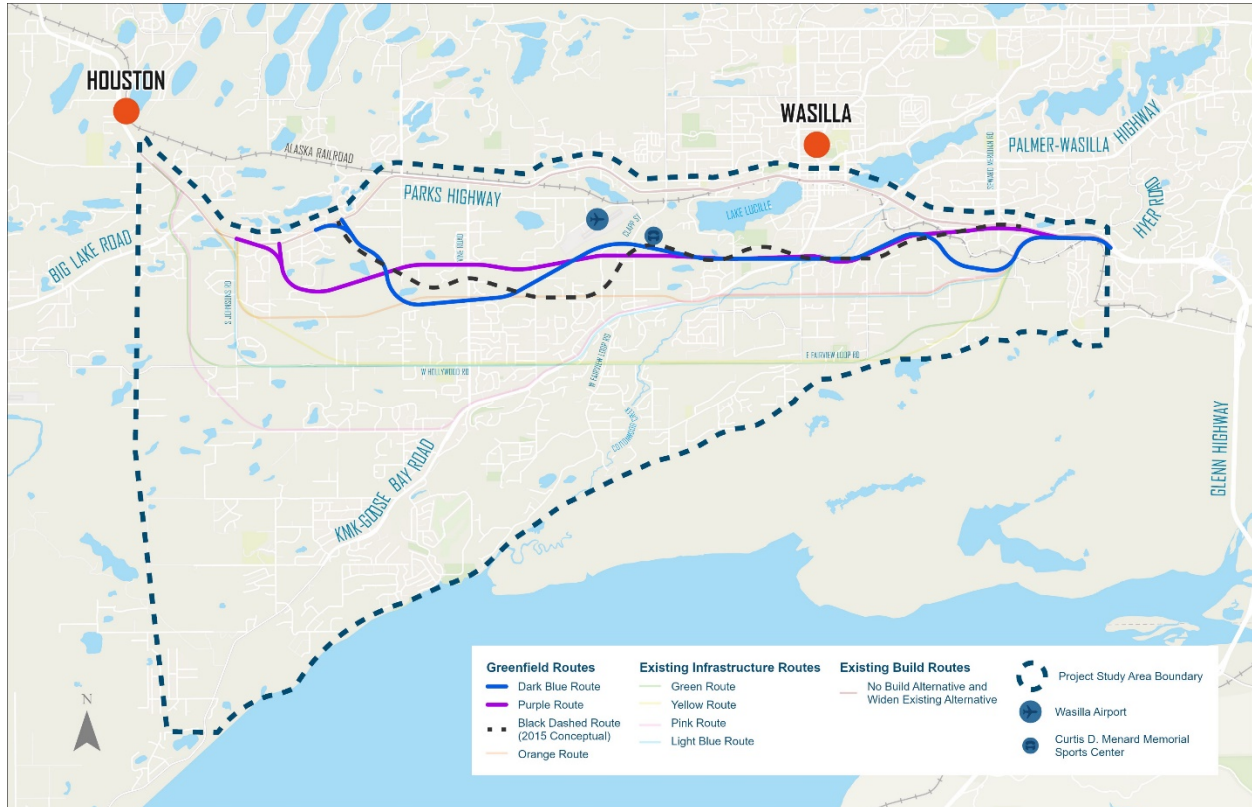
The Black Dashed Route is the 2015 Parks Highway Alternative Corridor Conceptual Planning Report Recommended alignment. This route was selected in 2015 because the analysis concluded that it maximized the use of undeveloped land and minimized impacts to residences, wetlands, and environmentally sensitive areas. However, since this analysis occurred, further development has occurred in the study area. This route parallels the existing Parks Highway at an offset of approximately one- to one-and-a-half miles south and has the most curvature of all the draft alternative corridor alignments. The eastern terminus is the Parks Highway and Seward Meridian Parkway Interchange, and western terminus is at MP 50.00, at Valley Transit Bus Barn Park-and-Ride location. The route is approximately 11.2 miles long.

The Purple Route parallels the existing Parks Highway at an offset of approximately one- to one- and-a-half miles south and closely resembles the Dark Blue Route and the 2015 Conceptual Planning alignment for the eastern segment of the route between S. Knik-Goose Bay Road and east of Church Road. This route has the least curvature of the draft alternative corridor alignments as it passes through undeveloped land. The eastern terminus is at the Parks Highway/S. Seward Meridian Parkway intersection, and the western terminus is at approximately the Parks Highway MP 51.50, which is west of the 2015 Conceptual Planning and Dark Blue routes. The route is approximately 12 miles long.



PARKS HIGHWAY

Alternative Corridor PEL Study



These alternatives are recommended to **advance as a group/variant** because:

Although the Dark Blue Route is not one of the highest scoring alternatives, it is recommended to advance as a variant because it is located close to two other routes. The Black Dashed Route received the highest score in the Level 2 screening process but is likely to be able to be improved by evaluating it together with the other routes. The Purple Route is the third-highest scoring route, but considering it together with the other routes also provides the potential to improve the route's performance against the scoring criteria and respond to community feedback.

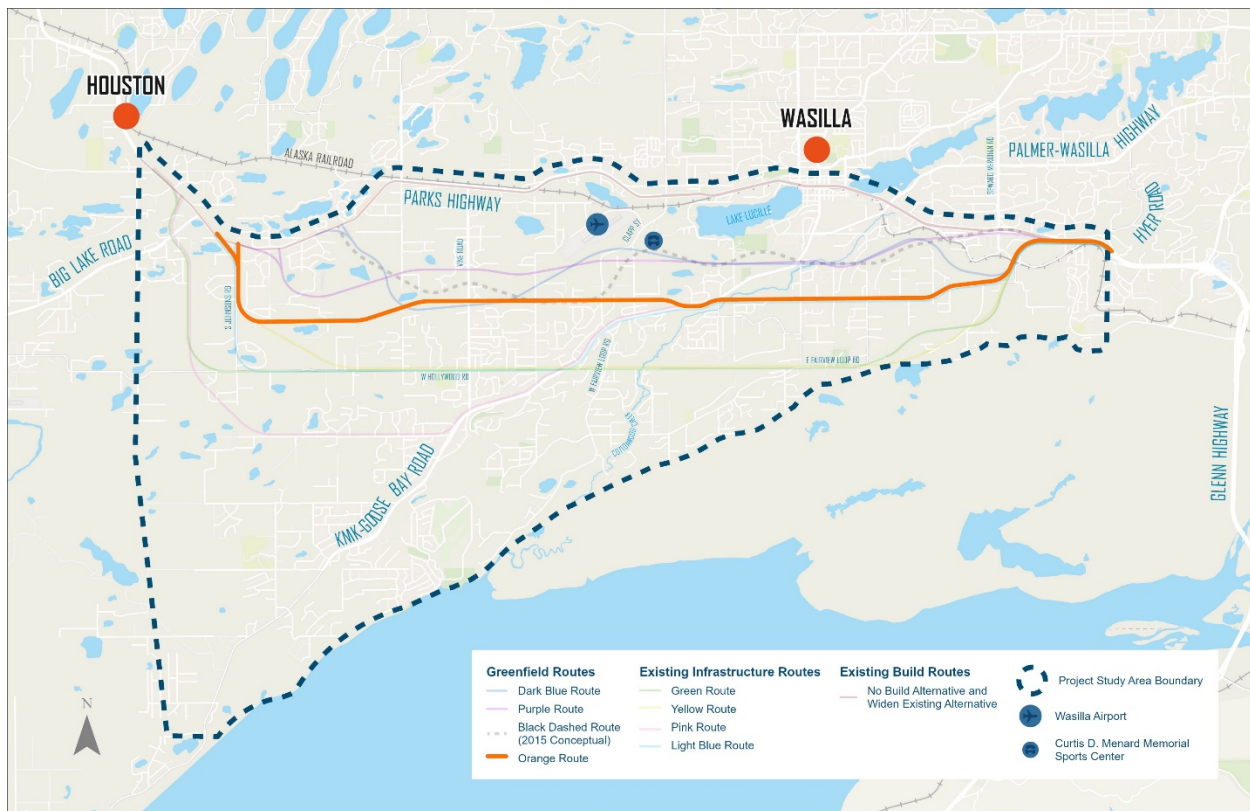
Advancing these routes as a group will provide greater flexibility to support the identification of an alignment that minimizes impacts through the detailed alternative development process.





Orange Route – ADVANCE AS ALTERNATIVE

The Orange Route parallels the existing Parks Highway at an offset of approximately one- to one-and-a-half miles south. This route is a relatively straight alignment with minimal curvature, maximizing the use of E. Fairview Loop and joining Johnson Road with a straight-line connection primarily through undeveloped land. The eastern terminus is at the Parks Highway and Hyer Road intersection, and western terminus is at the Parks Highway MP 51.50. The route is approximately 14.5 miles long.



This alternative is recommended to **advance as an alternative** because:

- The alternative addresses the project's purpose and need.
- The alternative performs strongly in relation to transportation system performance criteria (particularly improving mobility and safety).
- The alternative performs relatively strongly in relation to land use and transportation criteria. It does have several residential dwellings located within 100' of the alignment, which would need to be considered in further detail as part of the alternative development process. This criterion is



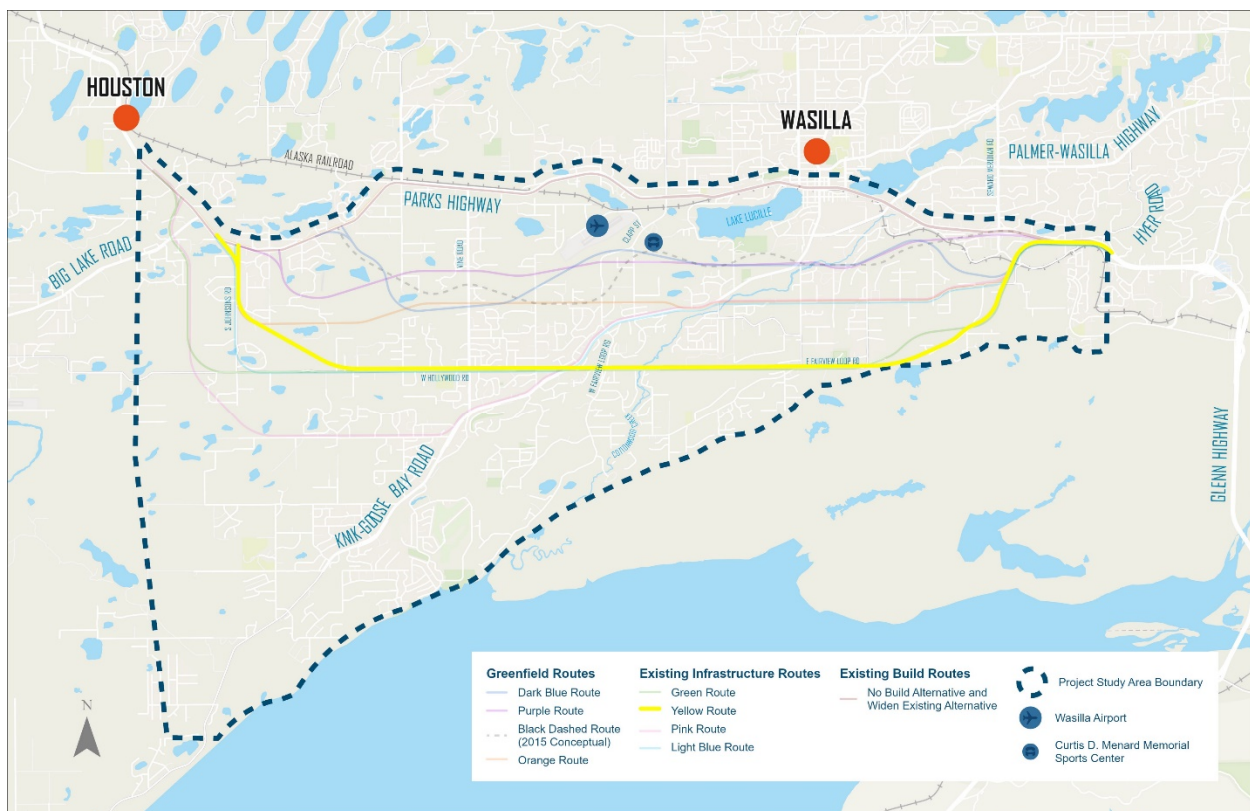


relevant in relation to potential noise impacts, which should be considered in more detail as part of any future project that may move forward after the PEL process.

- The alternative was ranked in the top five of alternatives selected by the public during the online survey.
- The alternative potentially impacts existing property access for several properties. Alternative access will need to be considered as part of the detailed alternative development process.

Yellow Route – ADVANCE AS ALTERNATIVE

The Yellow Route parallels the existing Parks Highway at an off-set of approximately two- and-a-half to three miles south. It uses a combination of undeveloped land and existing roads including E. Fairview Loop Road and W. Hollywood Road. It differs from the green route by departing from the alignment of W. Hollywood Road to shorten the travel distance and smooth the alignment before crossing undeveloped land and connecting with S. Johnson Road, and also at the eastern end where it departs from the existing alignment of Fairview Loop Road to smooth existing curves. The eastern terminus of this route is at the Parks Highway and Hyer Road Interchange, and western terminus is at the Parks Highway MP 52.50. The route is approximately 15.5 miles long.





This alternative is recommended to **advance** because:

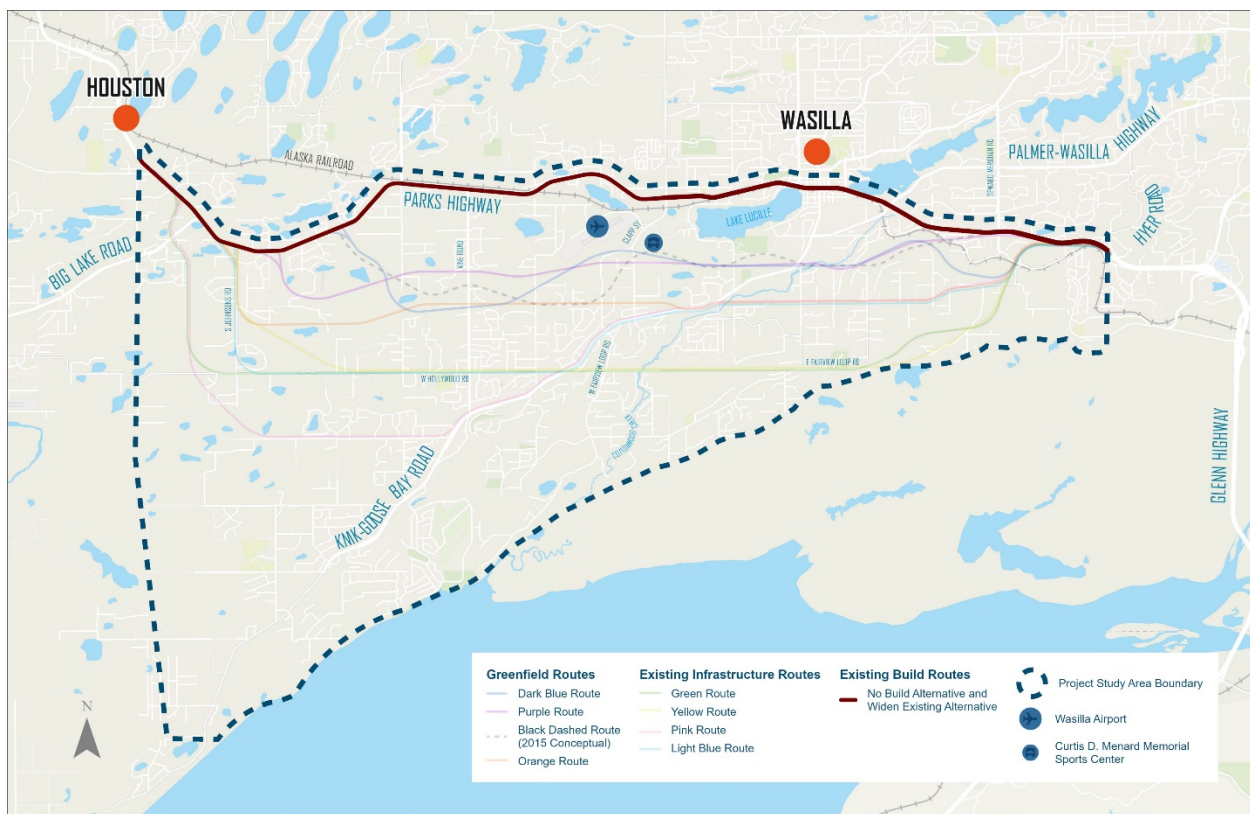
- The alternative addresses the project's purpose and need.
- The alternative has the fewest waterbody crossings and impacts the fewest wetland resources of all the alternative corridors.
- The alternative does not appear to impact any contaminated sites.
- The alternative performs strongly in relation to land use and transportation plans.
- The alternative performs strongly in relation to transportation system performance criteria (particularly improving mobility and safety).
- The alternative impacts two schools and several neighborhoods. It also impacts several public properties and has a direct impact on farmland administered by the Alaska Farmland Trust. Additional engineering and environmental impact analysis is needed to try to minimize these impacts through alignment adjustments and other refinements as part of the detailed alternative development process.
- The alignment uses existing roadways the function as major collectors or principal arterial roads. Using existing roads will result in the need to replace accesses to properties and recreate the arterial and collector roadway network in locations where it is disrupted. The impacts of recreating the roadway network were not evaluated as part of the screening process, but is likely to result in further additional environmental, social, and property impacts. These impacts will need to be carefully evaluated as part of the detailed alternative development process.





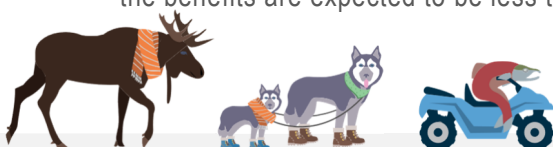
Widen Parks Highway – RECOMMEND NOT ADVANCING

A widen existing Parks Highway alternative would add lanes in each direction to the existing facility. These additional lanes would add capacity to the system and may relieve future congestion through parts of the study area. Areas anticipated to benefit from additional lanes of through-traffic capacity include from the east end from Hyer Road to about Seward Meridian Parkway, and on the west end from the Meadow Lakes area west to Hawk Lane. This alternative uses the existing Parks Highway corridor. Although the Level 1 screening identified that this alternative did not meet the project's purpose and need (refer to Level 1 screening memo), it advanced as a preliminary alternative as this was specifically sought by DOT&PF.



This alternative is recommended to **not advance** because:

- It does not address the purpose and need.
- It demonstrates weak performance against land use and transportation criteria, particularly in relation to potential property impacts, impacts on commercial and industrial land uses, and impacts on existing property access.
- Although widening the existing Parks Highway may have result in some improvements to mobility, the benefits are expected to be less than an alternative corridor.

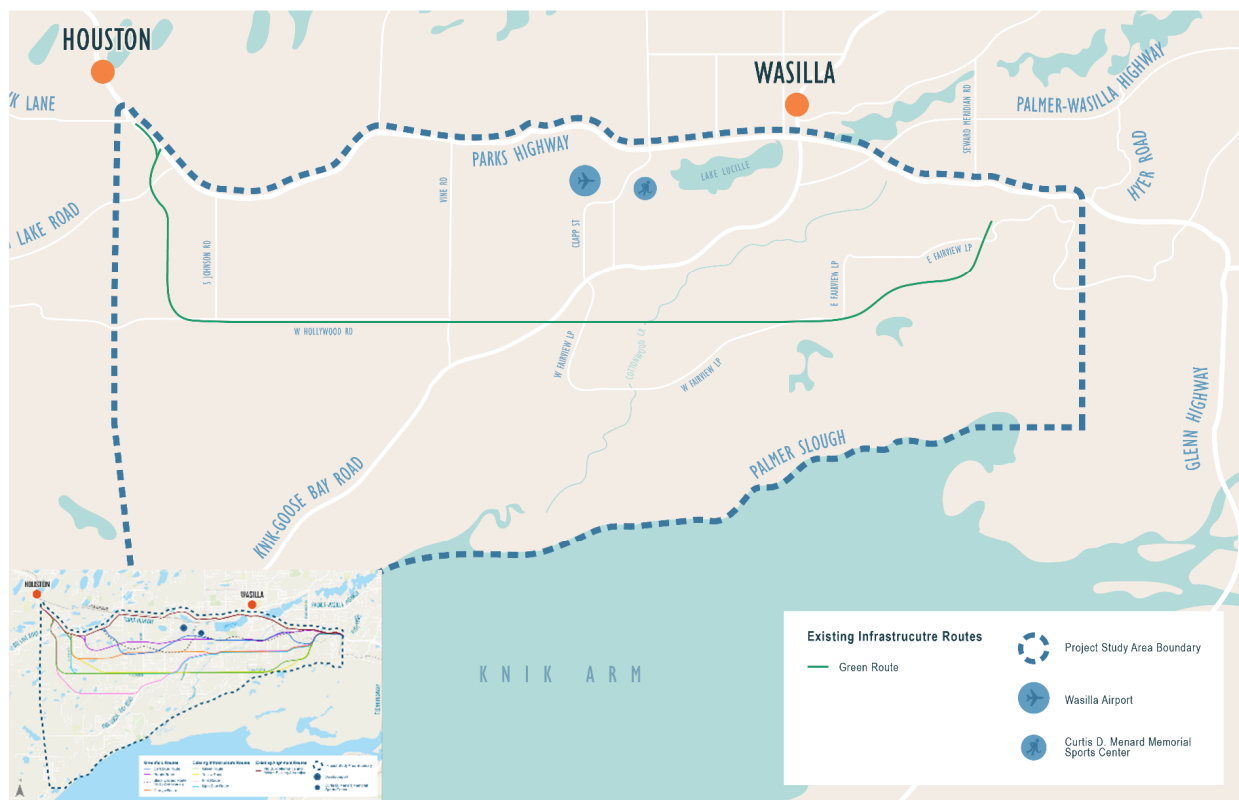




- The alternative potentially creates additional safety concerns, particularly for non-motorized users and at intersections owing to additional lanes needing to be crossed and the creation of additional conflict points.
- The alternative has the highest estimated costs owing to the need to acquire significant right-of-way to widen the existing Parks Highway.

Green Route – RECOMMEND NOT ADVANCING

The Green Route parallels the existing Parks Highway at an off-set of approximately two- and-a-half to three miles south. It uses a combination of undeveloped land and existing roads including E. Fairview Loop Road and W. Hollywood Road. The eastern terminus of this route is at the Parks Highway and Hyer Road Interchange, and western terminus is at the Parks Highway MP 52.50. The route is approximately 17.2 miles long.



This alternative is recommended to **not advance** because:

- The alternative demonstrates the weakest performance in relation to natural environmental and social criteria. It has a higher level of potential impacts in relation to waterbodies and wetlands than some other alternatives, and a greater number of potentially impacted residential properties and neighborhoods.

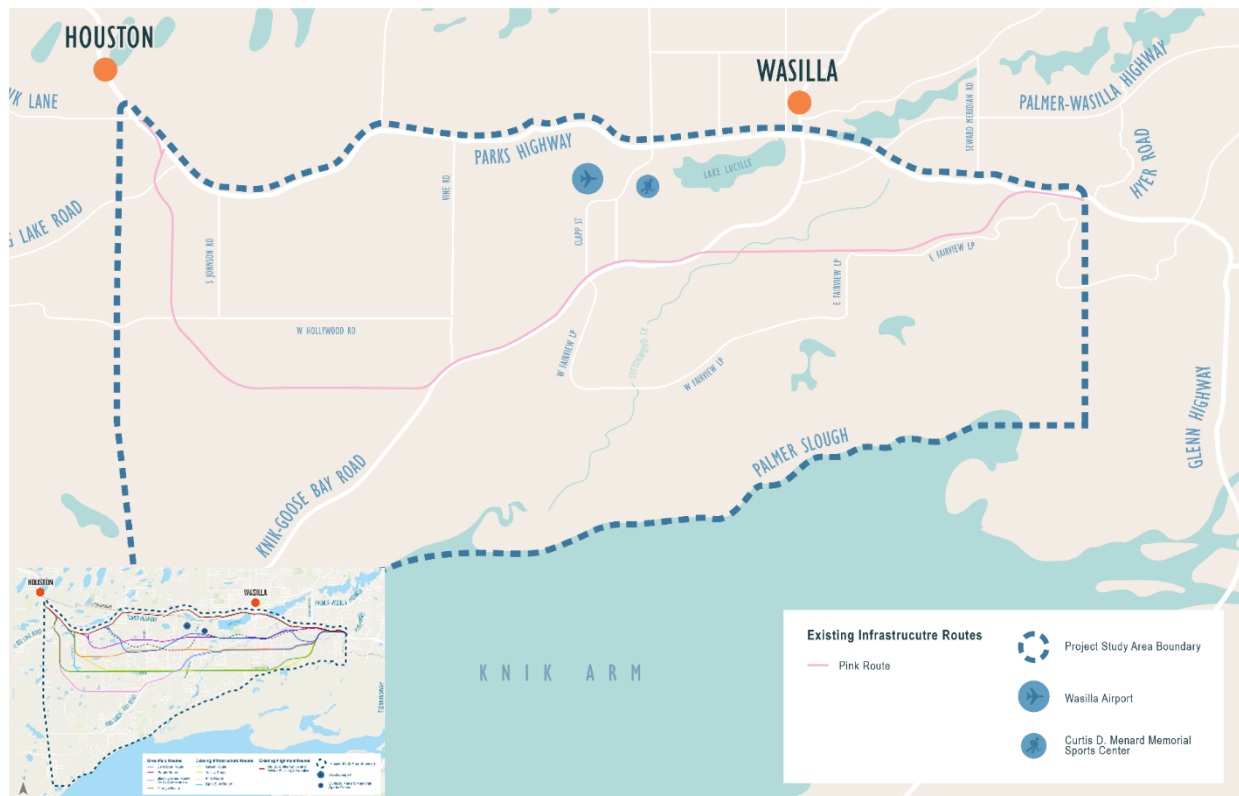




- The alternative has a higher number of direct impacts on residential properties, schools/educational facilities, and other community facilities and lands.
- The alternative directly impacts farmland administered by the Alaska Farmland Trust.
- The alignment uses existing roadways the function as major collectors or principal arterial roads. Using existing roads will result in the need to replace accesses to properties and recreate the arterial and collector roadway network in locations where it is disrupted. The impacts of recreating the roadway network were not evaluated as part of the screening process, but is likely to result in further additional environmental, social, and property impacts.

Pink Route – RECOMMEND NOT ADVANCING

The Pink Route is another variation on the Green Route, which differs by using S. Knik-Goose Bay Road south and west to Sunset Avenue, and then continuing west along Sunset Avenue. This route parallels the existing Parks Highway at an offset of approximately two- and-a-half to three miles south. The eastern terminus is at the Parks Highway/S. Hyer Road Interchange, and western terminus is at the Parks Highway MP 52. 50. The route is approximately 18 miles long.





This alternative is recommended to **not advance** because:

- The alternative demonstrates relatively weak performance in relation to natural environmental and social criteria. It has the highest level of potential impacts in relation to wetlands and some waterbody impacts, and a greater number of potentially impacted residential properties and neighborhoods.
- The alternative has a higher number of direct impacts on residential properties, schools/educational facilities, and other community facilities.
- This corridor alternative has the most expensive estimated right-of-way acquisition cost for a new build alternative.
- This corridor alternative has a lower level of public support than several of the other corridor alternatives and was the second least selected alternative during the online survey.
- The alignment uses existing roadways the function as major collectors or principal arterial roads. Using existing roads will result in the need to replace accesses to properties and recreate the arterial and collector roadway network in locations where it is disrupted. The impacts of recreating the roadway network were not evaluated as part of the screening process, but is likely to result in further additional environmental, social, and property impacts.



The Light Blue Route maximizes the use of existing roadways and follows the Orange and Green Routes in some segments. This route parallels the existing Parks Highway at an off-set of approximately two- and-a-half to three miles south. The eastern terminus is at the Parks Highway/Hyer Road interchange, and western terminus is at the Parks Highway MP 51.50. The route is approximately 15.6 miles long.



- The alternative demonstrates relatively weak performance in relation to property impacts. It has a greater number of potentially impacted residential properties and neighborhoods, and also impacts two schools and two churches.
- This corridor alternative has the second most expensive estimated right-of-way acquisition cost for a new build alternative.
- This corridor alternative has the lowest level of public support, demonstrated by it being the least selected alternative during the online survey.
- The alignment uses existing roadways the function as major collectors or principal arterial roads. Using existing roads will result in the need to replace accesses to properties and recreate the

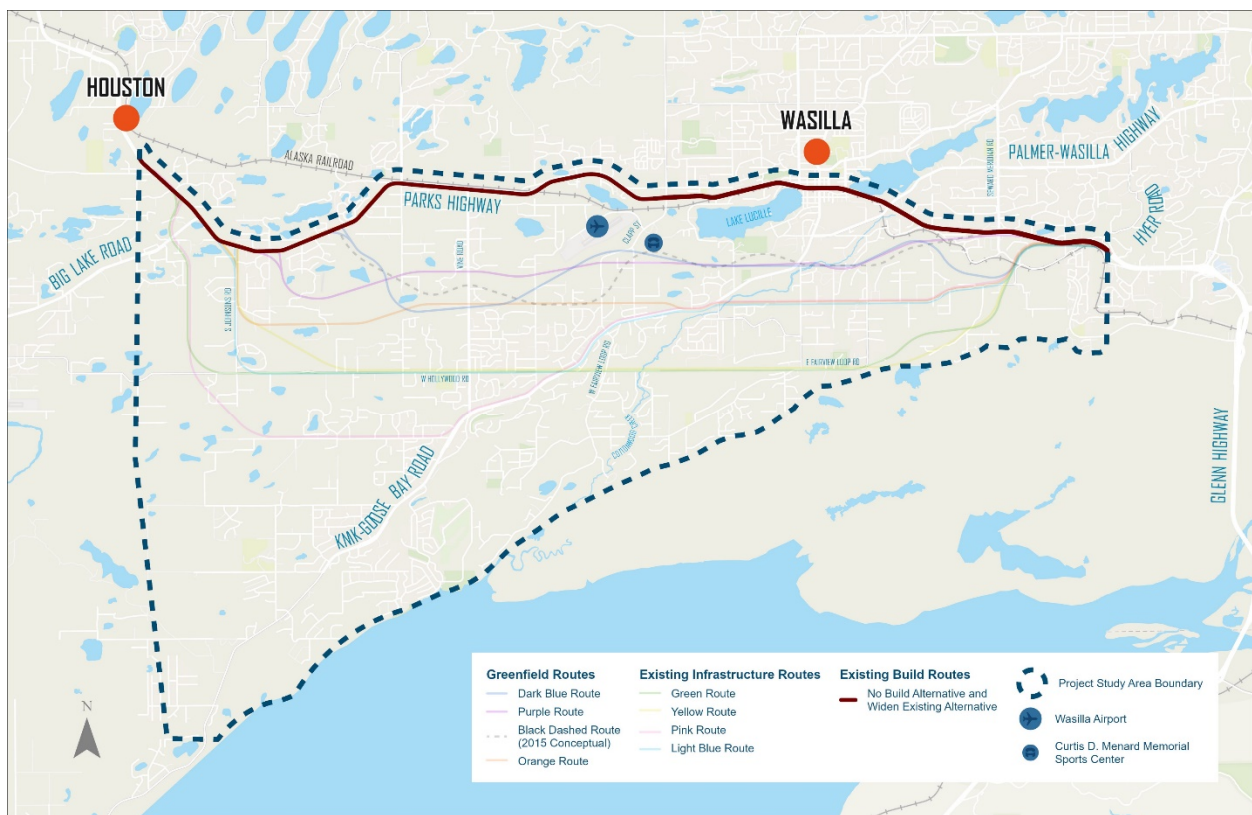




arterial and collector roadway network in locations where it is disrupted. The impacts of recreating the roadway network were not evaluated as part of the screening process, but is likely to result in further additional environmental, social, and property impacts.

No Build – EXISTING CONDITIONS BASELINE

No changes to the Parks Highway. All transportation users continue to use the existing facilities within the study area with no proposed improvements. This alternative is carried through the analysis as a baseline of existing conditions. This alternative does not meet the P&N of the study.



This alternative is recommended to **advance** because:

- The No Build alternative creates a benchmark against which to evaluate other alternatives, and therefore it will continue to move forward to detailed alternative development and screening.

