Spokane International Airport

FROM INTERSTATE TO AIRWAYS:

Airport Drive and Spotted Road Safety and Multimodal Improvements

Spokane International Airport

FY22

USDOT Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant Program

April 14, 2022

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I. CEO Cover Letter To USDOT

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April 14, 2022

The Honorable Pete Buttigieg
Secretary
U.S. Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, DC 20590

Dear Secretary Buttigieg:

I am pleased to submit the attached RAISE discretionary grant application for the ***From Interstate to Airways: Airport Drive and Spotted Road Safety and Multimodal Improvements*** project at Spokane International Airport. The $14.3 Million RAISE grant request is being matched by $9,267,324 in funding from the Airport's annual allocation of Airport Improvement Program funds and general airport revenues.

From Interstate to Airways: Airport Drive and Spotted Road Safety Multimodal Improvement Project Costs						
Project Effort	Agencies				Cost	RAISE % of Total Cost
	WSDOT	FAA	Airport Local Match	USDOT RAISE		
Planning Studies/Mitigation	$150,000		$2,870,000		$3,020,000	0%
Enviro/Prelim Design			$397,324		$397,324	0%
Design			$2,000,000		$2,000,000	0%
Construction		$5,000,000	$4,000,000	$14,300,000	$23,300,000	61%
TOTAL	**$150,000**	**$5,000,000**	**$9,267,324**	**$14,300,000**	**$28,717,324**	**50%**

Spotted Road and Airport Drive are part of the Critical Urban Freight Corridor connecting the Airport's passenger and air cargo facilities with Interstate 90 and the National Highway System. By constructing a grade-separated interchange at Spotted Road over Airport Drive and relocating the roadway outside of the Runway Protection Zone for the Airport's primary instrument runway, this project achieves important safety, mobility and efficiency objectives for both motorized and non-motorized surface transportation modes, as well as air transportation. The project improves commercial, industrial, cargo, passenger and school bus route traffic. It also improves air quality by reducing traffic congestion and idling vehicles at the existing roadway intersections. In addition, this project brings safer and more convenient access to employees working in and around the Airport. **The Airport supports employment for approximately 3,000 people, of which over 60% live in areas of impoverished and historically disadvantaged communities in the Spokane area**.

Most importantly, this project supports our community vision to implement infrastructure projects that develop the Airport Area into a world-class transportation, logistics and advanced manufacturing center that enhances the prosperity of the Spokane region through job creation and improved quality of life.

Best Regards,

Lawrence J. Krauter

Lawrence J. Krauter, A.A.E., AICP
Chief Executive Officer

II. Project Description

Project Overview

Airport Drive is a five-mile-long looping east-west route that serves as the access corridor for traffic to and from the Spokane International Airport (Airport) terminal as well as surrounding manufacturing, technology, aerospace, and commercial businesses. It also serves as a direct connection between the Airport and US Highway 2 (US 2) and Interstate 90 (I-90) for regional and multi-state traffic.

Spotted Road is a north-south collector roadway that begins at US 2, north of Airport Drive, and continues south connecting industrial and manufacturing employment centers between Airport Drive and Flightline Boulevard/ Grove Road providing direct access to I-90.

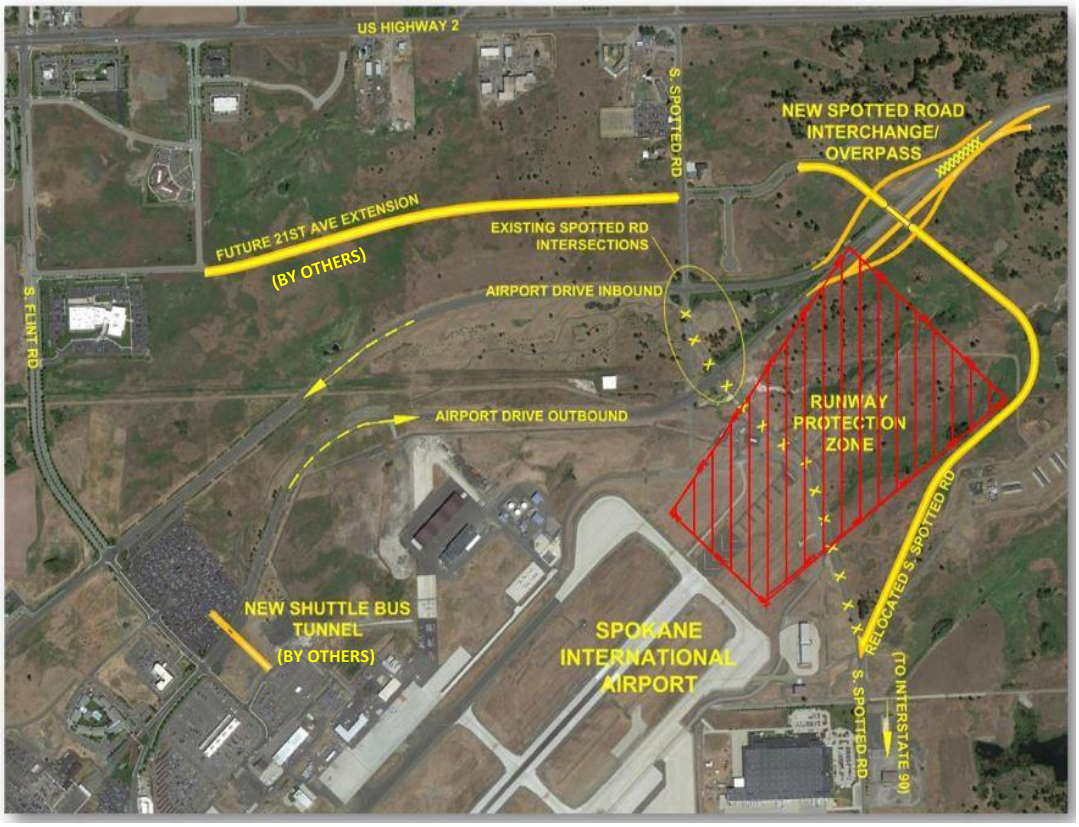


Figure 1. Project Overview Map

As shown by **Figure 1** (above), Spotted Road intersects Airport Drive in two locations: Airport Drive Inbound and Airport Drive Outbound. These intersections are currently stop-sign controlled with Spotted Road traffic stopping for Airport Drive traffic. The current traffic on Spotted Road intersects Airport passenger traffic with public transit, school buses, commercial, industrial, and cargo/freight traffic, and employees and travelers originating west of the Airport. Over the years, the Airport has added overhead flashing beacons, dedicated acceleration/deceleration lanes, pavement rumble strips, guardrails, and signage in an effort to reduce accidents.

Spotted Road is also located within the Airport's Primary Instrument Runway Protection Zone (RPZ) for Runway 3/21. The RPZ is a clear zone designated by the FAA to prevent air navigation hazards and assure safety to people on the ground. The project proposes to relocate Spotted Road outside of the RPZ to remove vehicles and persons from this critical runway safety area.

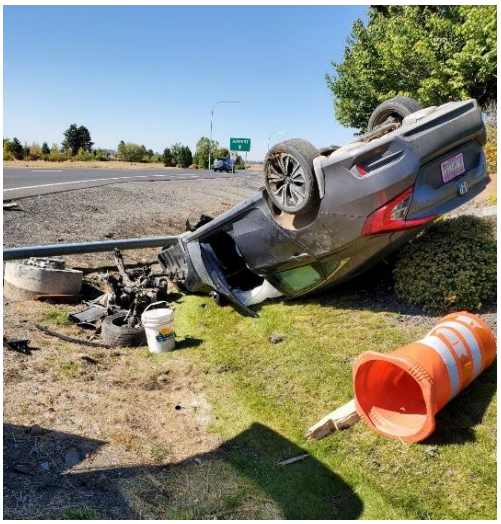
Spotted Road currently accommodates approximately 2,600 vehicles per day and is identified as a **Critical Urban Freight Corridor (CUFC) T-3-level route on the Washington State Freight and Goods Transportation System (FGTS),** designating that annually freight weighing between 300,000 tons to four million tons is transported on the road. Much of this freight is generated by major employers in the region, including the U.S. Postal Service's Regional Processing and Distribution Facility, FedEx, Fairchild Air Force Base, Amazon Air and an Amazon Fulfillment Center GEG1, as well as Cheney School District, restaurants and hotels, manufacturing, industrial, technology, and aerospace employers.

Airport Drive currently accommodates approximately 16,500 vehicles per day during the week and approximately 14,200 vehicles per day on the weekend. Much of this traffic, about 95%, is passenger vehicle traffic going to and from the Airport based on arrival and departing flight schedules. Airport Drive is designed to accommodate traffic traveling at higher posted speeds (50 mph) entering and leaving the Airport**. The curving roadway geometry and closing speeds of the higher speed oncoming traffic with the low-speed crossing traffic has resulted in crashes that have caused two fatalities and more than 76 injuries.**

The areas north and south of Airport Drive are industrial and commercial developments. Planning studies completed for the project estimate that commercial and industrial development growth along this corridor will add an additional 1,000 vehicles per day within the next 10 years. The project corridor is also impacted by US 2 from the north. **US 2 is a principal arterial, and a Primary Highway Freight Network (PHFN) with nearly 30,000 vehicles per day, including 4-10 million tons of freight annually.**

Five people en route to Spokane International Airport involved in serious crash ahead of Flight Home. *October 12, 2020 – KHQ NBC News Affiliate*

Five people en route to Spokane International Airport involved in serious crash ahead of Flight Home. One woman suffered non-life-threatening injuries after a crash shut down Spotted Road at Airport Drive for about an hour, near Spokane International Airport. According to Washington State Patrol, a woman driving a blue vehicle failed to yield at the stop sign and a white SUV hit her vehicle. The woman was the only occupant in the blue vehicle, and she had to extricated with the Jaws of Life. There were five people in the SUV, who were en route to SIA to a flight to Dallas. Due to the accident, they did not make their scheduled flight on time.



The Airport's growth correlates to additional traffic, including personal vehicles, school buses serving the growing residential developments, disadvantaged communities north of US 2 and south of I-90, shuttles, ride-share, and taxis, as well as truck and freight traffic transiting on the Airport's inbound/outbound roadways and crossing Spotted Road to access US 2 and I-90. Employment in the West Plains area is growing rapidly creating good paying, sustainable jobs with ample entry-level positions that offer long-term career advancement. Preserving and enhancing the safety and mobility of populations that are seeking better employment opportunities in the West Plains from distressed areas of our community is an important objective of this project. The Airport could achieve its aviation and traffic safety goals by closing Spotted Road, but that would be catastrophic for freight movement and commuting patterns to job centers in the West Plains and at the Airport.

The proposed solution to resolve the traffic safety component of this multimodal safety project is to construct a new grade-separated interchange that enhances both safety and mobility in the region and promotes economic growth within the S3R3 Solutions Public Development Authority (PDA), formerly known as the West Plains/Airport Public Development Authority.

The project is on the MPO's Regional Unified List for priority projects and supported by jurisdictional agencies and major employment centers around the Airport.

The project is also the Airport's highest roadway safety improvement priority.

The RAISE grant will be utilized to fund final construction and construction management services for the proposed project improvements. Planning and formulation services have been previously completed for the project with funding provided by the Airport as well as project partners and stakeholders. The Airport will be submitting a Documented Categorical Exclusion (CatEx) document to the FAA in April 2022 for NEPA review and approval. Originally, the Airport and FAA were working on an Environmental Assessment (EA). However, after review of the research and technical memos, the FAA determined the project did not warrant an EA and identified the project could undergo a CatEx. The Airport is drafting the request for qualifications (RFQ) to engage a consultant to provide preliminary engineering design services for the project and anticipating the RFQ to be released upon approval of the CatEx later this summer.

The project will utilize an innovative design by constructing the first grade-separated interchange at the Airport for separation between the multiple modes of transportation operating around the Airport. The project will relocate the Spotted Road and Airport Drive Inbound and Outbound intersections to the east with a new grade-separated overpass interchange above and across Airport

Drive. This shift to the east will result in significant safety improvements with the realigned Spotted Road situated outside of the Airport's RPZ.

The project interchange will incorporate a traditional diamond configuration with on- and off-ramps connecting Airport Drive to Spotted Road. The off-ramps will provide diverge movements for mainline Airport Drive traffic to exit onto Spotted Road. The on-ramps from Spotted Road to Airport Drive allow for merging traffic to enter the traffic flow at the prevailing speeds, thereby reducing emissions and significantly improving safety. The interchange will also maintain access to the nearby Sunset Highway, an important regional connection into downtown Spokane. The new interchange will function as a key collector-distributor system providing access to the region's principal arterials to the north and south along US 2 and I-90.

Key Challenges Addressed

Improves Surface and Aviation Safety

The primary objective of this project is to **improve multimodal safety**. The project will construct the first interchange at the Airport to provide grade separation between multiple modes of transportation operating in and around the Airport and will also realign the roadway outside the RPZ of the Airport's primary Runway 3/21. The project will relocate the Airport Drive/Spotted Road intersections to the east with a new grade-separated overpass interchange above and across Airport Drive. The grade separation will reduce conflict points that exist at the two at-grade intersections – Spotted Road with Inbound Airport Drive and Outbound Airport Drive from 26 conflict points to 18 at the stop-controlled intersections.

Reduces Greenhouse Emissions

The Airport recognizes the importance of utilizing sustainable practices during the development of transportation infrastructure that will protect the environment and ecosystems impacted by the project. These improvements will reduce traffic congestion at the critical intersections, improve air quality, and reduce greenhouse gas emissions at each intersection location compared to existing conditions by eliminating stop conditions. The improvements will also reduce travel times through the corridor.

Enhances Freight Traffic Mobility

Adding an overpass interchange on Spotted Road will separate the CUFC route from commuter and passenger traffic connecting the PHFN. The project will also enhance freight and cargo traffic in and around the Airport by improving connectivity. North of Airport Drive, Spotted Road is identified as a CUFC T-3 facility on the FGTS designating that freight weighing 300,000- to 4-million tons is transported annually.

Improves Multimodal Access

This project addresses a well-documented need for multimodal improvements, including pedestrian, bicycle, motorist, shuttle, ride-share, taxi, regional transit, school bus, and freight accessing the Airport and the surrounding region. For the past 14 years, multiple planning formulation and preliminary design studies have been conducted to address the development of the transportation corridor around the Airport. Each study has concluded that providing safe and efficient access on this

corridor is vital to the region's economic success and development. This project provides connectivity to key bicycle and pedestrian facilities that completes and enhances crucial and equitable access for non-motorized traffic and connections to transit and employment centers.

Accommodates Traffic Growth and Promotes Economic Development

Due to planned future development and an anticipated increase in air traffic at the Airport, which is projected to exceed 5.2 million passengers by 2025, vehicle traffic volumes along this corridor are expected to grow by more than 20% over the next decade. This airside and landside growth has led the Airport to initiate terminal area roadway and building improvements slated in 2022 through 2025, valued at approximately $250 million to accommodate the demand placed on the transportation corridor. In addition to the Airport, this transportation system is utilized by several other major employers in the region, including the Spokane Transit Authority (public transit), the U.S. Postal Service's Regional Processing and Distribution Facility, United Parcel Service and FedEx, Fairchild Air Force Base, Amazon, Cheney School District (school buses), several rental car agencies, ride-shares and taxis, multiple restaurants and hotels, and manufacturing, industrial, and aerospace employers.

Shown in **Figure 2** (below), the PDA continues to attract industrial, manufacturing, and aerospace employers to the Spokane area by providing access to multiple forms of transportation, including air, rail, and roadway. In addition to land ready for development, the area is attracting key employers to the region, including Amazon, for which the PDA has recently constructed an air cargo facility with access to Spotted Road south of Airport Drive.

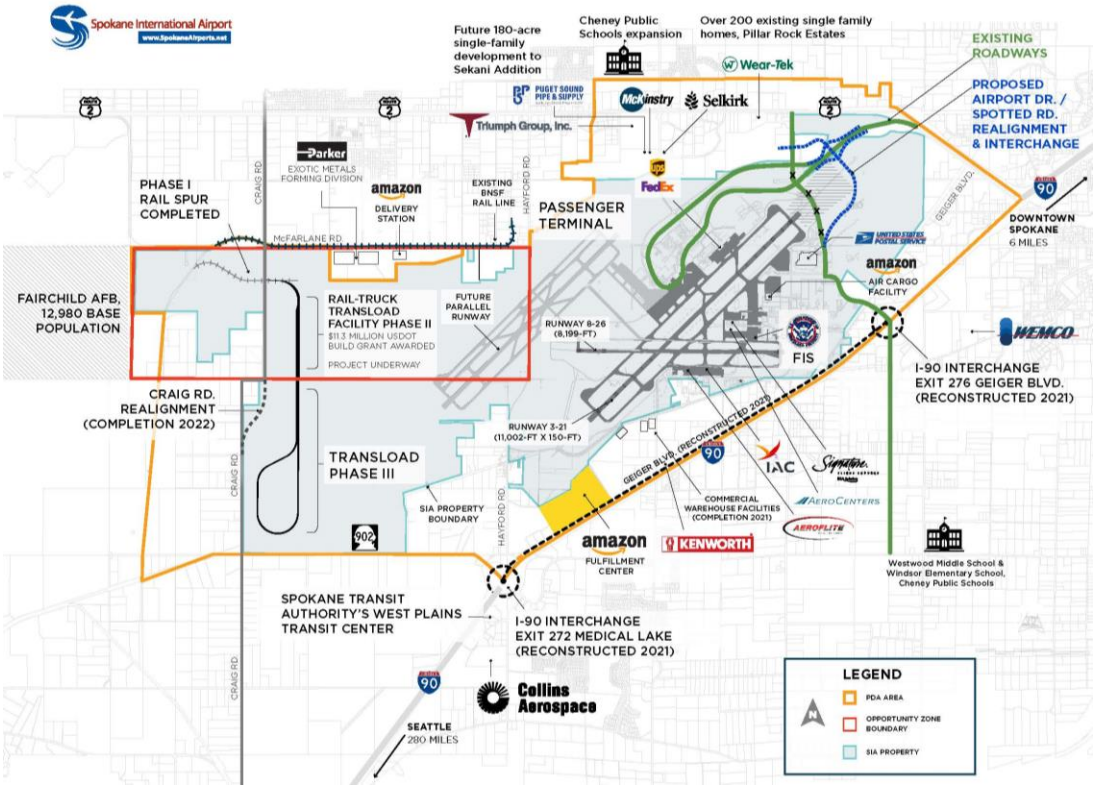


Figure 2. Recent Development Near Spokane International Airport

This infrastructure project is imperative to improving access and providing safe and efficient travel to and from the Airport, one of the Inland Northwest's busiest transportation hubs, as well as the surrounding industrial and business developments. This project also addresses the current and future demands of a multimodal transportation network that supports employment, freight, manufacturing industries, and tourism, as well as supporting the overall economic development of the region.

Project History

The Airport Drive and Spotted Road Safety and Multimodal Improvements project has already been developed and refined through multiple planning studies over the past 14 years. Additionally, this project has been studied regionally since 2004, and incremental improvements to enhance the traffic operations and safety of the existing intersections have been ongoing and included public and stakeholder involvement.

The improvements described in **Figure 3** (below) had incremental yet minimal success in reducing collisions at the intersections. All the studies indicated a grade-separated interchange at the project location would reduce collisions by about 80%, resulting in reduced fatalities and injuries, and property damage. The history of the project leading to the current proposed improvement is detailed below and the most recent studies can be found here.

Figure 3. Summary of Spotted Road/Airport Drive Improvements

Year	Project Investment	Data-Driven Result	Outcome
2004	Traffic Impact Analysis	Spotted Rd & Airport Drive found to be LOS B. Spotted Rd & US2 found to be LOS F during peak hours. Accident Safety Rates for Airport Drive: 1.91–Inbound, 4.4-Outbound.	Labeled high accident location; planned for design of 2005 project
2005	Spotted Road Safety Improvement	Constructed wide-solid stop bars; painted islands to designate turn lanes, through & turn-lane arrows; installed yield, wrong way & one-way signs, and rumble strips.	Enhanced safety at intersections
2006	Spotted Rd & Airport Drive Safety Improvement Study	Provided grade-separated crossing to reduce conflict points and increase safety. FAA Planning guide recommended that airports serving more than 2.5M passengers should have "full control of access with no crossings at grade". Performed Sight Distance Analysis.	Sight distance issues at the at-grade intersections were improved; potential benefit from turn lanes.
2008	Spotted Rd Lane Reconstruction	Constructed turn lanes and acceleration /deceleration lanes with dedicated turn lanes to separate through traffic.	Enhanced safety at intersections.
2013	Spotted Rd Lane Reconstruction	Installed overhead flashing red lights and illuminated "STOP" signage at the Spotted Road and Airport Drive Inbound and Outbound intersections to enhance safety	Enhanced safety at high-crash intersections.
2013	Spokane MPO Horizon 2040 Master Plan	Identified needs-based improvements and fiscally constrained transportation improvements	Plan can be found here.

Year	Project Investment	Data-Driven Result	Outcome
2014	SIA Master Plan	Determined a compounded annual growth rate of 3.42% and increased enplanements from 1.6 to 2.6M by 2025. Recommended a single grade-separated intersection for Spotted Road and Airport Drive.	Confirmed priority to route public roadway outside the RPZ.
2014	West Plains/ Spokane International Airport Transportation Study	Forecasted development in the study area that exceeded historic growth rates. Considered official actions taken such as platting, permitting, transportation impact analyses, environmental impact studies, property purchases, and groundbreaking.	Updated the SRTC regional model demographics and tested benefits of several developed alternatives.
2015	Pavement Management Plan	Determined Spotted Rd within the project limits as having a Pavement Condition Index (PCI) ranging from 25 - 85.	Pavement in failing condition.
2015	Airport Drive Couplet Traffic Study	Interchange was selected as the preferred safety improvement to separate multimode traffic by Airport, WSDOT, City, County, Fire Department and MPO. I will forward study prepared by JUB.	Improve safety at the intersection with interchange/overpass.
2019	West Plains Transportation Subarea Plan	Identified safety improvements, transit, and non-motorized improvements needed at Spotted Road and Airport Drive intersections. Noted the lack of north-south and east-west arterial roadways in the study area.	New 3-lane, minor arterial proposed to parallel US 2 along 21st Ave and connect to Spotted Rd; reserved right-of way for 5-lane facility for future expansion; add Airport Drive overpass at Spotted Rd to the Spokane Regional TIP and Statewide TIP
2020	SIA Traffic Study	Performed traffic counts in August, October, and December 2019.	Continue to pursue safety countermeasures at Airport Drive and Spotted Rd to enhance the roadway network safety.
2021	West Plains Subarea Transportation Management Plan	Evaluation of multiple corridors on US-2. Additionally, study discusses intersection configurations and traffic operations at US 2 and Airport Drive/Sunset Highway.	Continued inclusion of the Spotted Rd Interchange to benefit traffic operations in the subarea.
2022	West Plains Transportation Network Study	Evaluation of all commercial/industrial businesses within the project area.	Spotted Rd to provide access to 21st Ave and relieve commercial/ industrial traffic to I-90 & US-2.

Statement of Work

Spotted Road will be realigned to the east and located outside the Runway 3/21 RPZ. By moving Spotted Road to the east, the existing Spotted Road intersections with Airport Drive Inbound and Outbound will be relocated to a grade-separated structure east of the current location and along the new Spotted Road alignment. Spotted Road will be elevated over Airport Drive allowing adequate height for large vehicles to safely pass under the bridge, with lighting for the roadway, pedestrians, and landscaping. The off-ramp intersections with Spotted Road will be stop-controlled with provisions for future improvements, including traffic signals providing forward compatibility to accommodate future growth in the area. The bridge supporting structures, and streetlights will remain under the Part 77 FAA height limitations.

Spotted Road over Airport Drive will provide for one lane in each direction with shoulders and bicycle and pedestrian facilities. The design will include turn lanes to remove traffic from the throughput and enhance the safety of the project which allows for Spotted Road traffic to travel unimpeded and reduces emissions from the current stop-controlled configurations.

Airport Drive will remain as two lanes in each direction with designated shared use for bicycle and traffic lanes. Changes to Airport Drive will be minimal as the Spotted Road bridge will span Airport Drive, resulting in cost savings through innovative accelerated bridge construction. Streetlighting at the on- and off-ramps will occur to signify merge and diverge locations, adding extra safety in the area. Signage and striping changes on Airport Drive will also be implemented to effectively guide travelers through the interchange and provide a better traveling experience for Airport traffic.

II. Project Location

The project is located within Spokane County and in the Spokane City limits. The project is within Foreign Trade Zone 224 and provides a vital connection to major regional employment centers in Spokane County, shown in **Figure 4** (below).

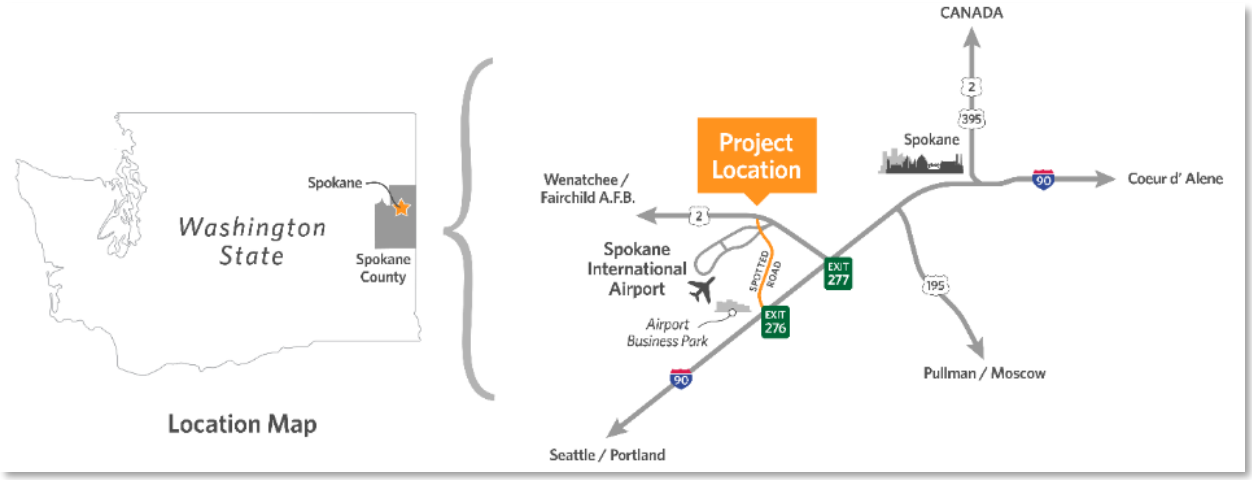


Figure 4. Project Location Map

Over 60% of Airport employees live in areas of persistent poverty or historically disadvantaged communities and have a median household annual income of approximately $45,000.

Spokane County has 24 census tracks that meet the definition of persistent poverty. The census tracks are 31, 32, 35, 35, 36, 140.02, 108, 142, 123, 111.01, 145, 11, 16, 18, 19, 2, 20, 112.02, 23, 24, 25, 26, 140.01, 3, 30. Additionally, there are 24 census tracks that meet the definition of historically disadvantaged communities. The census tracks are 112.01, 117.02, 35, 122, 123, 118, 4, 40, 45, 111.01, 16, 125, 104.01, 2, 20, 21, 23, 24, 14, 26, 127.01, 7, 3, 30.

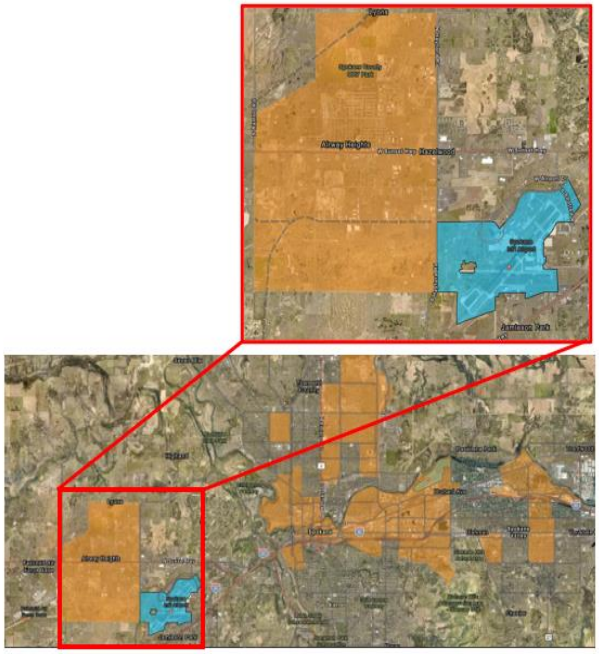


Figure 5. Census Tracts

These tracks can be seen in the figures above from the data on the Airport Data and Information Portal. The orange areas are the disadvantaged tracks, and the blue area is the Spokane Regional Airport. Spokane/Coeur d'Alene metro area has a population of 609,000 and is listed as an urbanized area per the RAISE Grant Urbanized Area website. The project is also directly adjacent to Airway Heights which is identified as a disadvantaged community and an Opportunity Zone per Housing and Urban Development.

The Airport has examined employee residency by ZIP codes from Spokane International Airport badges, including a major employer, Trego-Dugan, which is Amazon Air's ground handlers, and identified that more than **60% of employees live in areas of persistent poverty or in historically disadvantaged communities**, as shown in **Figure 6** (below).

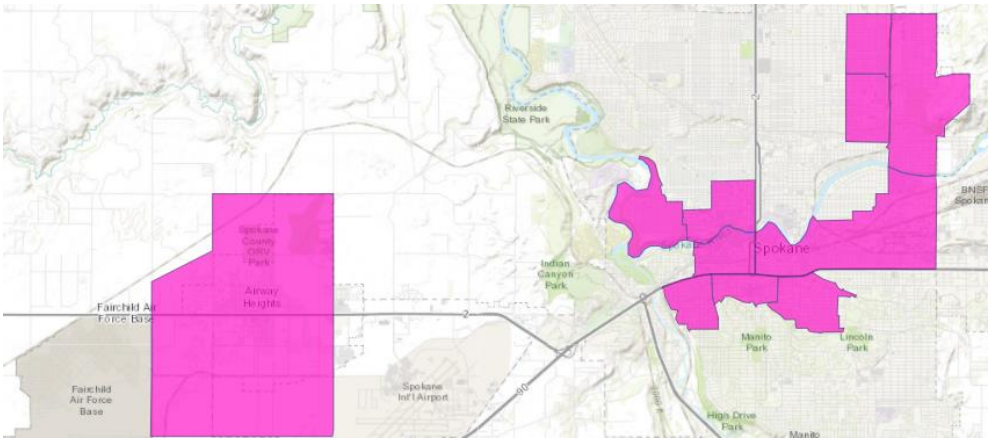
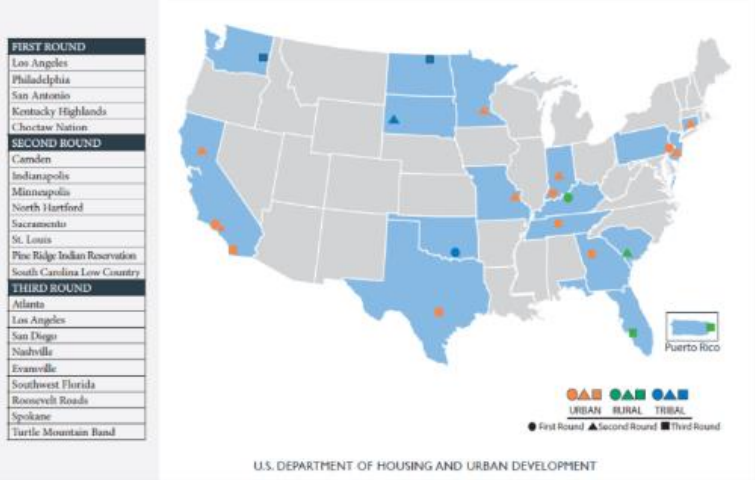


Figure 6. HUD Identified Disadvantaged Communities

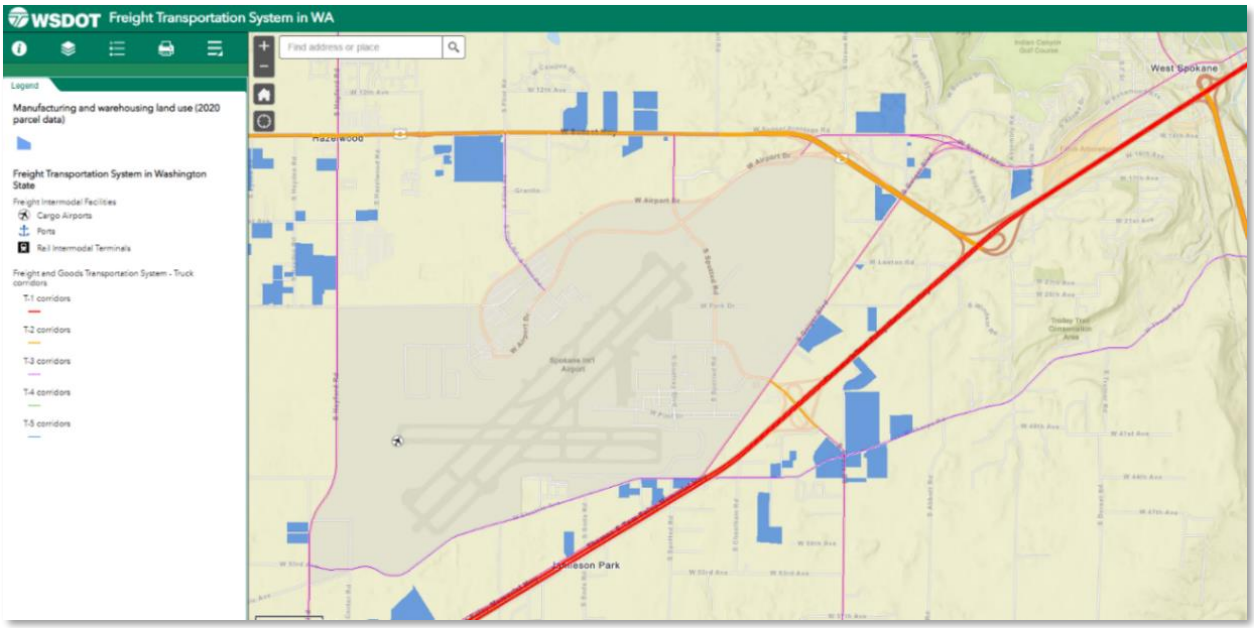
Figure 7. HUD Promise Zone Communities



Shown by **Figure 7** (left), the Spokane Tribe of Indians was identified as a Promise Zone with high poverty and receives direct benefit from the project connecting residents to good paying jobs, improved educational access and opportunities, and improved quality of life in this vulnerable area. By improving the safety for a working class living in equitable neighborhoods is foundational to this project as is creating good paying jobs.

Spotted Road north of Airport Drive has been designated a CUFC T-3 level route with freight weighing between 300,000- and 4-million tons annually transported on the road. Spotted Road and Airport Drive both connect into US 2, a T-2 level CUFC (4- to 10-million tons of freight transported annually) and a National Highway System (NHS) route that connects to I-90, itself an NHS route and a T-1 level CUFC (more than 10-million tons of freight transported annually), shown in **Figure 8** (below). The project also connects to Sunset Highway, a T-3 level CUFC that leads to downtown Spokane.

Figure 8. Spokane Freight Transportation System



The project is situated within the S3R3 Solutions public development authority (PDA) area of influence. S3R3 Solutions was created in 2017 through an interlocal agreement between the City of Spokane, Spokane County, and the Airport to provide physical infrastructure and a financing model mechanism to foster this development.

Approximately 75% of local government tax revenue generated within the PDA's 9,000-acre boundary stays within the PDA for investment in infrastructure development and other related initiatives to retain and expand commerce in the immediate vicinity of the Airport. Spotted Road is entirely within the PDA boundary limits and enhances the safety for the movement of manufacturing and industrial goods throughout the area. In addition, the project is located within U.S. Census Tract 137 and is adjacent to Opportunity Zone 53063010401 west of the Airport. The Spotted Road corridor is also used by the Cheney School District as a primary bus route to nearby residential neighborhoods. The school district operates bus routes passing through the Spotted Road intersections four times a day. The project reduces conflict points between school buses and vehicles entering and exiting the Airport thereby improving safety.

III. Grants, Funds, Sources, and Uses of Project Funding

Project Costs

The estimated total project cost for construction of the Airport Drive and Spotted Road Safety and Multimodal Improvements project is $28.7 million. The Airport has already incurred $3.4 million in costs to advance this priority safety project over the last decade through planning studies, environmental evaluations, and construction of mitigation measures to date, including the CatEx that will be submitted to FAA for NEPA review the summer of 2022. **Figure 9** (below) summarizes the previous mitigation costs incurred for this project.

Figure 9. Previous Mitigation Costs

Project Effort	Previous Mitigation Costs		Cost
	WSDOT	Local Match/Airport	
Planning Studies/Mitigation	$150,000	$2,870,000	$3,020,000
Environmental/Preliminary Design		$397,324	$397,324
Total	**$150,000**	**$3,267,324**	**$3,417,324**

In addition, the Airport will be releasing an RFQ to complete the preliminary engineering upon FAA's approval of the CatEx. The preliminary engineering expenses are estimated to be about $2 million, which will be funded by the Airport. **Figure 10** (below) summarizes project costs.

Figure 10. Project Costs

Project Effort	Total Project Costs					
	Agencies				Cost	RAISE % of Total Cost
	WSDOT	AIP[3]	Airport Local Match	USDOT RAISE		
Planning Studies and Mitigation[1]	$150,000		$2,870,000		$3,020,000	0%
Environmental/ Preliminary Design[1]			$397,324		$397,324	0%
Design[2]			$2,000,000		$2,000,000	0%
Construction[2]		$5,000,000	$4,000,000	$14,300,000	$23,300,000	61%
Total	**$150,000**	**$5,000,000**	**$9,267,324**	**$14,300,000**	**$28,717,324**	**50%**

1. Previously Incurred Costs
2. Future Eligible Costs
3. 7.5% ticket fee collected on each airline ticket and dispensed by the FAA through Congress Appropriations

Source and Amounts of Funds

Funds for future eligible costs consist of secured and unsecured sources. The secured sources account for 43.5% ($11.0 million) of the total future eligible costs from non-RAISE sources. The Airport is requesting $14.3 million in RAISE grant funding which accounts for 50% of the total project costs and 56.5% of total future eligible costs. **Figure 11** (below) summarizes the funding sources and amounts.

Figure 11. Funding Sources and Amounts

Future Eligible Costs Funding Sources				
Funding Category	**Funding Source**	**Status**	**Total (millions)**	**%**
Non-Federal	Spokane International Airport	Secured	$6.0	23.7%
Non-Federal	Federal Aviation Administration	Secured	$5.0	19.8%
RAISE	FY2021	Requested	$14.3	56.5%
Total			**$25.3**	**100%**

Uses of Funds

Most of future eligible funds will be utilized for constructing the project. Preliminary engineering (design) is expected to start Summer 2022. The Airport owns the surrounding property around the project and no property acquisition is required. **Figure 12** (on page 14) summarizes the funds being utilized and how they will be utilized on this project.

Figure 12. Utilization of Funds

Project Component	Secured Federal Funds (millions)	Secured Non-Federal Funds (millions)	RAISE Funds (millions)	Total Future Project Costs (millions)
Preliminary Engineering	$0	$2.0	$0	$2.0
Construction	$0	$9.0	$14.3	$23.3
Total	**$0**	**$11.0**	**$14.3**	**$25.3**

Secured Funding Conditions

The funding secured from FAA and SIA will not be impacted by any RAISE grant award.

IV. Merit Criteria

Improving Safety

The primary objective of this project is to improve multimodal (air and ground transportation) safety.

First and foremost, the primary responsibility of the Airport is to provide the safest possible environment for aircraft operations, which includes assuring that FAA airfield standards are met or exceeded. The RPZ, a trapezoid-shaped area, is developed by the FAA based on aircraft accident data and must be kept clear of roadways, places of public assembly, vertical and horizontal objects and any other non-aeronautical functions. Relocating Spotted Road outside of the RPZ not only meets FAA safety criteria, but it also protects people in vehicles by rerouting their transit through the area to a point outside of the RPZ.

Second, the project eliminates the potential for any further at-grade vehicle accidents. As shown to the right, from 2009-2020, traffic incidents at the Spotted Road and Airport Drive Inbound and Outbound intersections collected 76 collisions involving more than 130 vehicles, resulted in two fatalities and more than 70 injuries, 30 of which were serious or potentially disabling. Despite recent infrastructure and safety mitigation improvements, collisions continue to occur at these intersections. This project aims to improve safety and reduce future collisions.

2009-2021:
2 Fatalities

More than:
70 Injured
30 Serious Injuries
130 Vehicles Involved

Beginning in 1939, Spokane International Airport was originally known as Geiger Field, where it served as a World War II facility. In the late 1940s, commercial service was transferred from Felts Field to Geiger Field, solidifying the Airport as GEG. Geiger Field was renamed to Spokane International Airport in the late 1950s, when the population of Spokane was about 122,000. Today, the current metro area population of Spokane and Coeur d'Alene area exceeds 609,000 and pre-COVID19, the Airport experienced an annual air traffic growth of approximately 10% (commercial) and 8% (cargo).

The original infrastructure in the area around the Airport cannot safely support this increase in traffic volumes and future development. The area north of Airport Drive has developed significantly with industrial, light industrial, as well as manufacturing businesses in this area, making Spotted Road part of the CUFC. This has resulted in an increase of traffic through the area, particularly using Spotted Road to connect the businesses around the Airport with the regional transportation infrastructure. Vehicle traffic volumes along this corridor are expected to grow by more than 20% over the next decade because of future development and an increase in air traffic at the Airport.

The current intersection layouts allow for Airport Drive traffic to remain unimpeded, making a simplified and efficient access for Airport travelers. Spotted Road crosses both Inbound and Outbound Airport Drive with a short segment in between. Numerous collisions at these intersections over the years have prompted several studies, including a Traffic Impact Analysis, a Sight Distance Analysis, Posted Speed Limit Considerations, and subsequent planning and feasibility studies.

To improve safety in the short term, additional infrastructure and safety measures have been added to the intersections such as yield signage, wide solid stop bars, painted islands to designate turn lanes, through and turn-lane arrows, wrong way and one-way signage, rumble strips, Stop Ahead signs with flashing lights, overhead flashing beacons, and real-time speed notification signs. Landscaping was also removed to improve intersection sight distances. Despite these efforts to improve safety and reduce collisions, there has been a minimal decrease in the number of collisions at the intersections. There have been 130 vehicle collisions at these intersections since 2009, resulting in more than 70 injuries and two fatalities. Studies show that a grade-separated interchange at this location would reduce collisions by 80%. To keep people safe, the grade-separated interchange between Spotted Road and Airport Drive must be constructed.

Airport Drive is the only access route to and from the Airport terminal. The current alignment of Airport Drive east of Spotted Road includes a superelevation along a horizontal curve. This extreme curvature ahead of the Spotted Road intersection reduces sight distance for inbound Airport traffic making it difficult for motorists to judge vehicle closing speeds at the intersection. This geometric problem is exacerbated in times of low-visibility conditions attributed to dense fog or heavy or blowing snow. The current alignment of Spotted Road crosses Airport Drive twice – once crossing inbound traffic to the Airport and again crossing outbound traffic from the Airport. Crossing Airport Drive near the Airport presents unique risks with respect to traffic.

Inbound Airport travelers present specific risks that can often lead to increased travel speeds despite radar speed feedback devices. Travelers tend to rush to catch a plane or pick up a loved one and can be distracted by their upcoming tasks, such as determining specific or correct airport entrances, dropping off a rental car, parking, or arriving at work. In addition, out-of-town travelers not familiar with the road or correct route can be disoriented and distracted, and travelers also have misinterpreted the flashing beacon as a stopping requirement within the at-grade intersection.

Outbound Airport travelers present specific risks, such as travelers fatigued from trip; relieved to be home and anxious to leave the Airport leading to increased travel speeds despite speed feedback devices; emotional distraction from having just picked up or dropped off a loved one; being unfamiliar with the road or correct route to take; nervous about driving an unfamiliar vehicle, like a rental car in an unfamiliar setting (for out-of-towners); thinking about the next steps of their journey, such as upcoming business meeting, wedding, funeral, or vacation.

Traffic on Spotted Road largely consists of commercial and industrial traffic, and these travelers present specific risks, including carrying heavy loads, accelerating slowly to cross the roadways; stopping and starting to cross both segments of Airport Drive, leading to excessively slow speeds crossing each section of Airport Drive; not familiar with the road or correct route to take; didn't consider unique risks that inbound and outbound Airport travelers when making driving decisions

By realigning the crossing of Spotted Road and Airport Drive Inbound and Outbound, and constructing a grade-separated interchange, we are protecting the safety of local business and Airport agency employee traffic; local school bus and student traffic and freight traffic; and passengers traveling to/from Airport: Out of town visitors, including US citizens and international travelers.

The new interchange improves safety by eliminating the two intersection points of Spotted Road with Airport Drive and replacing with a single overpass with on- and off-ramps. Vehicle traffic on Spotted Road will cross Airport Drive via a grade-separated overpass with the new design, eliminating the risk of bisecting traffic flows. The intersections of the ramps with Spotted Road will be designed to meet current American Association of State Highway Transportation Officials (AASHTO) criteria and will provide adequate sight distance to enhance the interchange safety. The interchange design will consider freight, passenger, shuttle, bus, bicycle, and pedestrian traffic to and from the Airport, supporting a safe multimodal transportation network. The crash reductions by converting an at-grade intersections into a grade-separated interchange is 42% (CMF ID 459).

The project will also include roadway lighting to illuminate vehicle conflict points, and bicycle and pedestrian facilities. The installation of lighting will help to reduce crashes that occur during nighttime

hours. The crash reductions of nighttime crashes by installing street lighting at the new interchange is 69% (CMF ID 191). Additionally, the project will provide dedicated pedestrian facilities along Spotted Road that meet the Americans with Disabilities Act (ADA) criteria, providing an accessible route for all pedestrian traffic.

As the development of the West Plains area progresses, Spotted Road will continue to experience an increase in traffic. As the region's general population increases, there will also be a correlated rise in Airport use and an increase in traffic along Airport Drive. As traffic increases along both roadways, there will naturally be an increased risk of collision. Given that this is already a high-risk intersection of roads, inaction to mitigate that risk will most certainly result in more serious collisions resulting in injury or death. To protect the safety of all road-users, action must be taken to reduce the risk at the intersections of these two roads.

Numerous studies have been conducted to determine the most feasible option for addressing the safety concerns at these intersections. Nine alternatives were developed and studied, with further evaluation being conducted on five alternatives to determine the most viable alternative. It was determined that grade-separating Spotted Road from Airport Drive through installation of a new interchange is the most effective alternative for reducing traffic accidents and enhancing safety along these vital corridors.

Latest Traffic Study Information

The Airport conducted a year-long traffic count data collection effort and performed a traffic study of key intersections within the Airport property between 2019 and 2020. The traffic counts were collected for one week in August, October, and December of 2019, prior to the COVID-19 pandemic stalling Airport and employment travel in Washington with the final analyses completed in 2020.Traffic counts in August were completed between Sunday, August 4 through Sunday, August 11, 2019. These counts are estimated to reflect the high peak enplanements as documented through historical Airport data. The peak ADT occurred on Thursday and Friday with speeds increased from 4-16 MPH over the posted speed limit. The conclusions of this in-depth traffic study included monitoring the speeds along Airport Drive and continue to pursue safety countermeasures at Airport Drive and Spotted Road to enhance the roadway network safety. While neither of the roads involved are part of a Hazardous Goods Route, vehicle fluids such as oil and fuel are often released to the environment in the event of a collision. Preventing collisions protects against the unnecessary release of vehicle fluids into the environment, protecting the entire ecosystem.

As summarized by **Figure 13** (on page 18), the improvement of the interchange between Spotted Road and Airport Drive Inbound and Outbound will protect the environment and safety of all travelers who use these roads while improving efficiency for visitors, commuters, transit users, and freight traffic along these critical travel routes.

Figure 13. Project Alignment with Merit Criteria

Evaluation Question	Evaluation Response
Protecting Non-motorized travelers and communities from health and safety risks	The current 20% design provides shoulder on the realigned portion of Spotted Road that will accommodate pedestrian and bicycles for a multimodal corridor. Spotted Road is currently designated as a moderate traffic bicycle route in the City of Spokane. The connection of the shoulders to the interchange ramps and associated pedestrian crossings will also connect to Airport Drive that currently provides multimodal facilities. Airport Drive is currently designated as a high-traffic bicycle lane. The project will also provide connection to a one-mile-long share-use path that connects directly to the Airport and provides a dedicated multimodal facility separated from vehicular traffic.
Reducing fatalities or serious injuries for underserved, overburdened, or disadvantaged communities	The grade-separated facility will eliminate bicycle and pedestrian conflict points from two at-grade intersections with a high-speed roadway (Airport Drive) that has had a history of crashes. As noted within the grant narrative, the facility serves and connects disadvantaged communities and areas of persistent poverty within the Spokane area to employment.
Mitigating systemic safety issues	Spotted Road is currently within the RPZ for Runway 3/21. Realigning the roadway outside the RPZ will provide increased safety for the movement of people and goods from an aviation and ground transportation perspective and bring the Airport into conformance with applicable FAA standards. The couplet intersections of Spotted Road and Airport Drive Inbound and Outbound have had a considerable history of crashes, including property damage and three fatalities.

Improving Environmental Sustainability

The Airport and all project partners understand the value and importance of incorporating environmentally sustainable designs and practices into a project. While the primary driver of this project is improving safety, environmental stewardship and sustainability have also been considered and are at the forefront through the design phase, as described in **Figure 14,** below and on page 19.

Figure 14. Environmental Sustainability Evaluation

Evaluation Question	Evaluation Response
Reduce air pollution	The project will eliminate Spotted Road traffic, including school buses, business and local traffic, and freight movements from sitting at two stop-controlled intersections. Traffic will now be able to flow freely over Airport Drive which has a posted speed of 50 miles per hour ceasing emissions associated with idling. This roadway experiences much faster speeds due to travelers rushing to the Airport to make their flight. The interchange off-ramps will have stop signs, and the low volume of traffic will significantly reduce air pollution. Refer to Figure 25.
Promote Energy Efficiencies	Eliminating the two intersections will increase energy efficiency for all vehicles. The relocation of Spotted Road outside the RPZ will increase maintenance efficiency as workers will not need to leave a controlled access and secure facility to maintain the runway lighting system.

Evaluation Question	Evaluation Response
Support Fiscally responsible land use and transportation efficient design	The proposed roadway improvements route traffic near vacant land that will become prime real estate for industrial and commercial businesses.
Improve resilience of at-risk infrastructure	The realignment of Spotted Road outside the RPZ protects Runway 3/21 and its associated lighting and flight paths from potential conflicts with over-height vehicles crossing the RPZ.
Recycle of redevelop brownfield sites	The proposed alignment of Spotted Road utilizes an existing service roadway that accesses an Airport Mini Storage facility that is being demolished. Utilizing this existing roadway and improving it to current roadway standards will reduce excavation costs and the import or export of earthwork and reduce air pollution. Additionally, the existing roadbed will be used in the proposed pavement section as part of Recycled Asphalt Pavement (RAP) to reduce the use of additional oil and carbon products. Refer to Figure 25.

Improving Quality of Life

Improved safety and job creation resulting from this project will enhance the quality of life for residents and who works on and around the Airport. In addition to reducing vehicle collisions, improved pavement conditions will ultimately reduce the cost of vehicle repairs for businesses and the public, improving quality of life.

*This project will protect the safety of more than **4 million people each year**.* The Airport has a total economic impact of more than 11,500 jobs, $0.5B in labor income, $0.9B in value added, and $1.5B in business revenues.

Source: Washington Aviation Economic Impact Study, WSDOT, 2020

The Airport provides competitive transportation options for more than 4 million people each year. These people are traveling for business or personal reasons trust that the infrastructure and transportation options are safe. Industrial/cargo carrier drivers who use Spotted Road are primarily employees, and these employees expect to work in a safe environment. Since 2009, two fatalities and more than 70 injuries have occurred at the existing intersections of Spotted Road and Airport Drive Inbound and Outbound. These people and their families have been adversely affected by the tragedy of vehicle collisions, and there are associated financial, physical, emotional, and mental impacts resulting from these collisions. By rebuilding a safer roadway system, we are protecting the lives of everyone who uses these two roadways. Separating this CUFC route from the commuter and passenger vehicles traveling to and from the Airport will protect traveler safety. Bicycle routes and walkways have been incorporated along Airport Drive and are being included in the Spotted Road design, allowing for safe intermodal connectivity for bicyclists, pedestrians, motorists, and air travelers. The design also allows for public transit to move safely along these routes.

As safety is improved around the Spotted Road and Airport Drive Inbound and Outbound intersections, a positive travel experience will enhance tourism and further support commercial and industrial development in the West Plains area. Development is further supported by efficiency introduced by the new interchange design, ultimately creating more employment opportunities in

this area. Additionally, industrial expansion could provide employment opportunities in the construction sector as new facilities are built and generate permanent jobs for residents at companies that have come to the Spokane region. The new overpass design provides workers in this region with improved safety by removing the risk associated with the dangerous intersections.

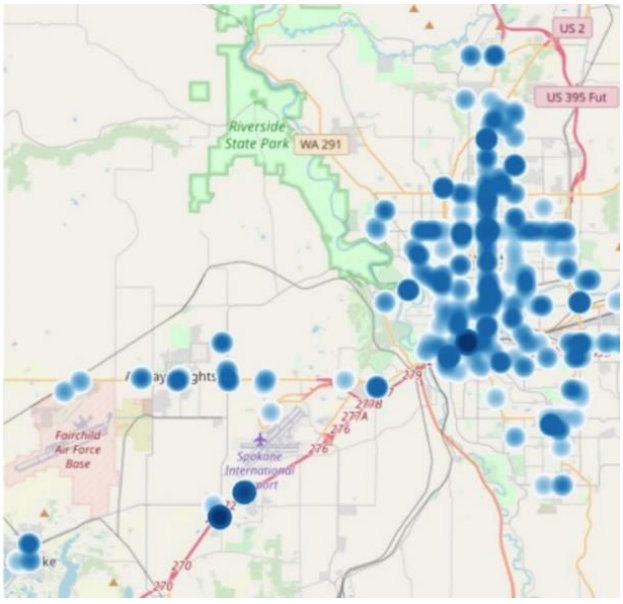
The airport and related businesses is a major source of employment in the region and provides employment to many residents from areas of persistent poverty or in historically disadvantaged communities. As shown in **Figure 15** (below), we have examined the residency of Spokane International Airport badges employees and a major employer, Trego-Dugan, Amazon Air's ground handlers and found that about 60% of employees live in areas of persistent poverty or in historically disadvantaged communities.

Figure 15. Quality of Life Evaluation

Evaluation Question	Evaluation Response
Increases transportation choices and affordability, proactively address equity for individuals and removed barriers	This project provides an improved and safer connection for residents in areas of persistent poverty or historically disadvantaged communities to employment. Most Airport and other area employers' employees reside in these areas. Improving the connection of these residents proactively addresses equity for individuals.

Improving Mobility & Community Connectivity

Figure 16. Passenger Origins



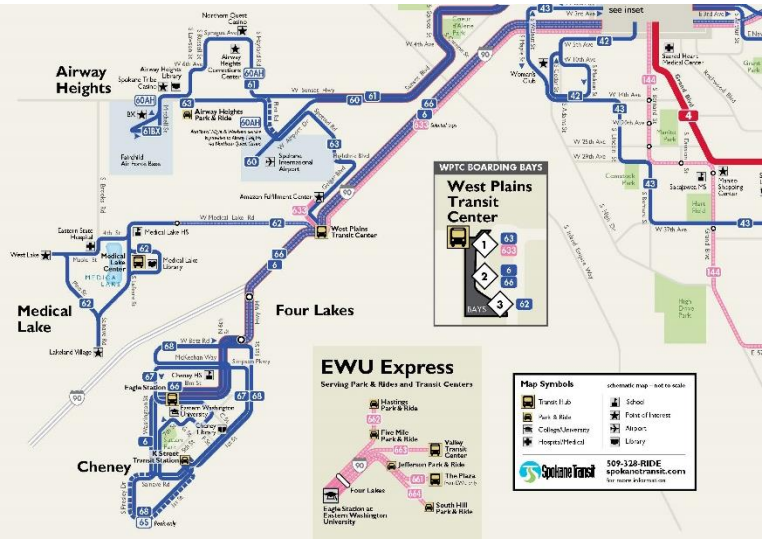
The realignment of Spotted Road outside Runway 3/21's RPZ and the new interchange facility will improve mobility and community connectivity for the disadvantaged communities of Airway Heights and the surrounding areas in Spokane County. Spokane Transit Authority current has Route 63 that provides access to and from Airway Heights Park and Ride to the West Plains Transit center where other routes provide access to well-paying jobs on the west plains of Spokane, like the recently completed Amazon Fulfillment Center (Route 633), and jobs in downtown Spokane.

Figure 16 (right) illustrates a heatmap of passenger's origins using Route 633 that are working at the Amazon Fulfillment Center, directly correlating connection of the disadvantaged communities of Airway Heights and downtown Spokane that would directly benefit from this new connection.

Travel times for STA Transit and school bus routes to Westwood Elementary and Middle School will be reduced, have more reliable schedules, and be safer by not having to cross the two, high-speed, roadways of Airport Drive Inbound and Outbound. The project will also enhance community

connections for walkability and other modes of transportation with dedicated facilities on Spotted Road that provide connection to identified bike routes and shared-use pathways providing safe and direct access to the airport, shown in **Figure 17**, below.

Figure 17. STA System Map



In addition, the project increases mobility for freight movement and improves supply chains. Recent growth in the area has centered around freight mobility including the development of two new Amazon Fullfillment Centers (GEG 1 & GEG 2) and the initiation of Amazon Air's air-cargo hub at the Airport in October 2021. These types of activities highlight the economic footprint of the Airport in the region with more than 11,000 jobs, $0.5B in labor income, $0.9B in value added, and $1.5B in business revenues. **Figure 18** (below) summarizes our evaluation of mobility and community connectivity.

Figure 18. Mobility and Community Connectivity Evaluation

Evaluation Question	Evaluation Response
Increase accessibility for travelers specifically underserved, overburdened, or disadvantaged communities	Airway Heights is identified as a disadvantaged community and is directly adjacent to the Airport and provides safe connections to the other disadvantaged communities in the urban areas surrounding Spokane. SIA serves 41 census-tracked disadvantaged populations in the Spokane region.
Increases mobility for freight movement and improves supply chain	The Project increases mobility for freight movement and improves supply chains. Recent growth in the Area has centered around freight mobility including the development of two new Amazon Fullfillment Centers (GEG 1 & GEG 2) and the initiation of Amazon Air's air-cargo hub at the Airport in October 2021.

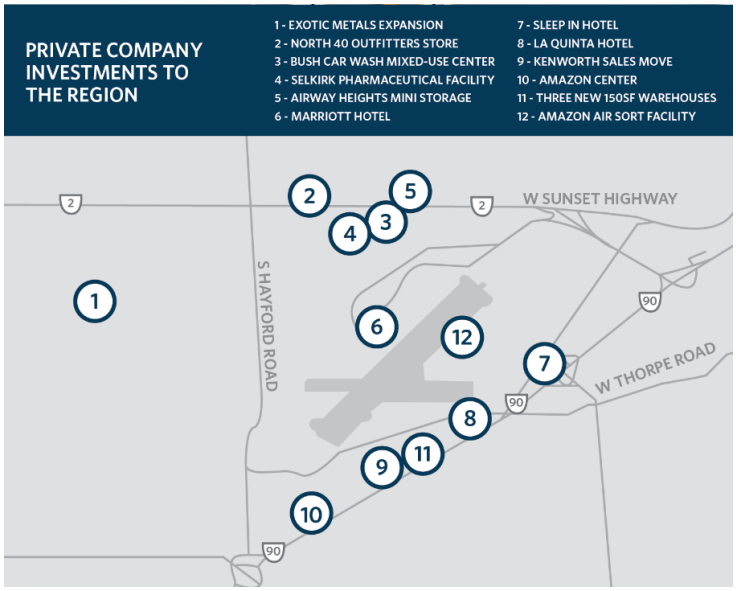
Improving Economic Competitiveness and Opportunity

The Airport and industrial area are poised to support and enhance the regional economy with an annual economic impact of $3 billion and supporting 11,000 jobs. The West Plains is expected to add approximately 5,000 sustainable, good paying jobs to the region and these jobs include entry points into the quickly advancing industrial, aerospace and technology, logistics, and manufacturing positions in the Spokane region. Investing in improved traffic safety and efficiency will improve accessibility to Airport travel and support continued tourism, freight, aerospace and technology, industrial, and manufacturing growth in the regional economy. The project will also improve long-term efficiency in traffic patterns by providing a safe, alternative route for Spotted Road travelers to

cross Airport Drive. Improving safety reduces costs associated with collisions at these intersections and ultimately reduces costs associated with transportation of goods thereby improving the fluidity of supply chains.

In addition to benefiting this critical regional economic engine, the planned infrastructure improvements will provide economic benefits through reductions in traffic congestion and travel time. New infrastructure costs less to maintain allowing the Airport to allocate these savings to other needed development and infrastructure, shown in **Figure 19** (right). Additionally, the new infrastructure will improve the long-term efficiency, reliability, and economic competitiveness of the transportation system as it continues to support additional traffic due to regional growth. These improvements will support multiple modes of transportation including freight, commuter, and active and public transit.

Figure 19. Private Development in the Region



As described in **Figure 20** (below and on page 23), reducing risks to Airport employees and users as well as workers in the industrial region will make this area more accessible to industries and commercial businesses, thereby enhancing the economic strength of this region. Residents of Spokane County and the City of Spokane will benefit from economic growth which will create opportunities and increase property values in the region while improving safety.

Figure 20. Economic Competitiveness and Opportunity Evaluation

Evaluation Question	Evaluation Response
Improve system operations to increase travel time reliability, velocity of good movement and multimodal freight mobility, especially for supply chain bottlenecks. Improve long-term efficiency, travel time reliability or affordability in the movement of workers or goods, especially for supply chain bottle necks.	The project will increase reliability and the delivery speed of goods. With this project and the recent completion of the Amazon and other industrial and commercial businesses on Spokane's West Plains, freight movements will continue to improve. Safe and reliable transportation infrastructure is critical to reduce future costs and delays. The project will improve the reliability and travel times for workers. Refer to 2015 and 2020 Traffic Study.
Offer significant regional and national improvements in economic strength and opportunity by increasing the economic productivity of land, capital, or labor; creating or expanding high-quality, good	This highway connection provides safe routes to new and existing industries that are developing and starting on the south side of the Airport. The project will literally bridge and connect the communities with a safe multimodal route reducing a barrier for commuters that will benefit and promote economic growth

Evaluation Question	Evaluation Response
paying jobs; and improving the economic strength of regions and cities.	in the immediate area and throughout region while also addressing equity issues.
Increase transportation options and system connectivity to revitalize underserved, overburdened, or disadvantaged communities; increase access to jobs and location-efficient affordable housing or facilitate tourism opportunities. Increase affordable transportation options and system connectivity to revitalize communities.	As people leave large cities and search for affordable housing, Spokane has continued to grow in both population and in visitors to the region. Spokane International Airport provides regional and international access to eastern Washington and Idaho. The West Plains/Airport area was the fastest growing light industrial region in the state. The project improves the connection to employment in a fast-growing industrial area for residents of areas of persistent poverty and historically disadvantaged communities. More than half of Airport employees reside in these areas.

State of Good Repair

Spotted Road is part of Washington's CUFC. Critical access through the corridor will be maintained throughout the construction phase of the project and overall efficiency will be enhanced by the new interchange design. Overall, this new infrastructure will require additional maintenance to the existing infrastructure but will have reduced repair costs for the next 20 years. The existing infrastructure is aging and will require further maintenance and upgrades, eventually leading to complete rebuilds.

The project includes leaving much of the existing infrastructure in-place, reducing the amount of waste generated by the project. The existing roadways may still be used by maintenance vehicles and emergency vehicles, serving a continued purpose. The roadways are currently in moderate condition and would need significant maintenance and/or reconstruction, according to the 2015 Airport Pavement Management Plan. It is anticipated that, with minimal use for maintenance and emergencies, the infrastructure will stay in working-order for about four years.

Sustainability will be top of mind in the design of the new infrastructure associated with the realignment of Spotted Road. New pavement and infrastructure will improve the pavement condition to enhance freight travel through this corridor. Preventative maintenance would be required for approximately 15 to 20 years, and the Airport would incur reduced maintenance costs when compared against the option of maintaining the current roadway. The Airport is committed to the long-term maintenance of the new infrastructure technically and financially.

By improving efficiency in the transport of goods, this project will help to support sustainable revenue for businesses that use this corridor to move goods, leading to regional sustainable revenue. If no action is taken to significantly change the infrastructure at this intersection, the current infrastructure will continue to threaten public safety and inhibit transportation and economic growth. The overall cost to protect safety in our society is negligible compared to the potential cost of inaction, as summarized in **Figure 21** (below and on Page 24).

Figure 21. State of Good Repair Evaluation

Evaluation Question	Evaluation Response
Restores and modernizes core infrastructure assets?	Yes. Restores and widens roadway along Spotted Road alignment and adjacent stormwater conveyance and treatment; modernizes design to include pedestrian and bus route access for employment centers.
Evaluation Question	**Evaluation Response**
Addresses current or projected system vulnerabilities for underserved, overburdened, or disadvantaged communities?	Relocating Spotted Road outside the RPZ increases reliability and reduces vulnerability to the runway and roadway safety for employees coming to work (Over 60% of Airport employees live in areas of persistent poverty or historically disadvantaged communities and have a median household annual income of approximately $45,000.)
Maintains assets in a state of good repair?	Maintains and protects Runway 3/21 pavement condition index. Constructing the new roadway increases the state of good repair for access to the Airport and surrounding areas providing a benefit to disadvantaged communities.

Partnership

Collaboration between several government entities and stakeholders have contributed to the vision and current design of the project, including the City of Spokane, Spokane County, WSDOT, Fairchild Air Force Base, the SRTC, the FAA, and Spokane International Airport, summarized in **Figure 22** (below and on page 25). These long-standing partners have worked together to address this public safety issue by performing multiple studies and conducting the planning and preliminary design of the project. These partners continue to work together to support the final design and the construction phase through to completion. Each of the partners is committed to providing safe and effective transportation infrastructure to one of the region's key transportation hubs. In addition to the stakeholder partners, the S3R3 Solutions PDA, Cheney Public School District, Greater Spokane Inc. (chamber of commerce) are supportive of the project as well as numerous existing industrial, aerospace and technology, and manufacturing businesses, including Amazon, Triumph, Parker Aerospace Exotic Metals Division, Kenworth, McKinstry, UPS and FedEx.

Figure 22. Partnership Evaluation

Evaluation Question	Evaluation Response
Collaborates with other public and private entities?	Yes. Stakeholders (private commercial/industrial business and public entities) are identified above and are in support of the project.

Evaluation Question	Evaluation Response
Ensures the equity considerations for underserved, overburdened, or disadvantaged communities are meaningfully integrated into planning, development, and implementation of transportation investment?	Yes. The project addresses equity issues by connecting residents of areas of persistent poverty and historically disadvantage communities to employment. Approximately 60% of Airport employees, including major airport contractor live in these areas.
Incorporates private sector entities, particularly DBEs, in transportation infrastructure planning, designing, or building?	Yes. DBEs will be invited to participate during design and construction. DBE traffic control companies are in the region for use during geotechnical investigations and construction.
Supports the creation or expansion of high-quality, good-paying jobs through workforce development programs that incorporate worker representatives and workforce strategy into project development?	Yes. The West Plains/Airport Area is the fifth fastest growing area in the state due to the development within the light industrial areas. The project helps facilitate the creation and expansion of good-paying jobs with 5,000 new jobs during construction and through existing and new major and minor employee centers as expansion and further development occurs.

Innovation

Innovative Technologies

The project itself is quite innovative and unique in that it addresses both landside and airside safety issues. The Spotted Road overpass will be the first and only overpass constructed at the Airport. Most of the construction work can be completed by effectively managing impacts for traffic flows, and a new road alignment can occur once the project construction is complete, protecting safety of the construction workers and motorists traveling in the area during the construction phase. Smart work-zone Intelligent Transportation System (ITS) devices will be deployed during construction, including connected speed management systems. Low impact, green infrastructure construction techniques will be incorporated. Re-use of existing roadways will allow recycling of construction materials and minimizing the ecological footprint of the new design. Stormwater design will minimize adverse impacts to wildlife and birds by eliminating standing water that might attract wildlife or birds.

Innovative Project Delivery

An innovative approach has been used in the design by eliminating two hazardous intersections and realigning the roadway to allow vertical separation between the bisecting traffic flows. The project's conceptual design is well underway with the CatEx and NEPA approvals through the FAA anticipated this summer, which will expedite the schedule of the project. To reduce the cost of the project and expedite delivery, proven design approaches will be implemented, and standard construction processes will be followed, including using pre-cast concrete to accelerate bridge construction. Also, Accelerated Bridge Construction (ABC) will be used to reduce the construction duration and limit impacts to the traveling public. Innovations for this project are summarized in **Figure 23** (below and on page 26).

Figure 23. Innovative Project Delivery Evaluation

Evaluation Question	Evaluation Response
Deploying technologies and other practices that drive safety, equity,	The project's inherent components increase safety and reduce the production of greenhouse gases and improve air quality. This

Evaluation Question	Evaluation Response
climate resilience, or economic outcomes for underserved, overburdened, or disadvantaged communities or augment workers	directly benefits employees at the airport, business travelers and tourists. Approximately 60% of the employees at the airport are from disadvantaged communities and directly benefit from the safer and improved multimodal facilities.
Using practices that facilitate improved project delivery	Phased approach to initial concept approval with WSDOT during environmental study, followed by formal approval.

V. Project Readiness: Environmental Risk

Environmental Risk

All Federal, state, and local environmental approvals will be obtained prior to commencement of construction. This project is expected to obtain all environmental approvals through the CatEx currently underway and expected to be completed and approved in May 2022 by the FAA to comply with NEPA. This project will not impact any wetlands or other Section 4(f) lands and **all land is currently owned and managed by the Airport.** All environmental approvals are scheduled to be approved in the summer 2022 prior to beginning design phases.

In general, there are no complications anticipated to arise during the scheduling or permitting process of the project. The design and construction of the new interchange is straightforward and there are no anticipated significant environmental concerns or risks associated with the project footprint. All Federal, state, and local approvals will be obtained prior to construction.

Public engagement is the cornerstone of every Airport project. This project has undergone 17 years of public engagement, and stakeholder and business owner coordination will occur through both the design and construction phases. Public notices for timelines and updates of activity will occur throughout the construction process through public engagement and key stakeholder coordination.

Technical Capacity

The Airport has been managing a multimodal transportation system efficiently and effectively by providing a gateway from the Inland Northwest to the world. The Airport has a team of design professionals with the design and management experience and expertise to complete the improvements on time and within budget. The Airport's Planning & Engineering department personally directs and oversees all planning, engineering, construction, and operations at the facility. Formulation studies previously completed have concluded that all aspects of the project are technically feasible.

As planning and environmental studies have largely been completed for the project, and with preliminary engineering soon to be underway beginning in the summer of 2022, this project is on schedule and ready to complete all pre-construction services and obligate all grant funding well before September 30, 2026. The Airport Board has mechanisms in-place to allow the project to proceed immediately and expeditiously to complete all phases of the project.

The Airport has been successful in implementing multimodal and safety projects using local and FAA funds, including maintenance activities of the owned and operated facilities. The Airport continues

to deliver airside projects that are funded by federal sources. The Airport is successfully delivering the Rail-Truck Transload Facility design using BUILD grant funds through the U.S. Department of Transportation and is meeting all reporting requirements.

Financial Capacity

The Airport has a vast amount of experience in efficiently administering Federal funds for infrastructure projects as well as managing cash flow and reporting on federally funded projects. Given the project status with the CatEx anticipated to be approved in May 2022 leading to the initiation of the preliminary engineering/design shortly thereafter, the design is anticipated to be complete by spring of 2024 with obligation of construction funding in the summer of 2024, well ahead of the September 30, 2026, obligation deadline.

The Airport local funding is secured and there are no known financial risks. The preliminary engineering/design will be completed using Airport funding with no financial risk. FAA funding is secured with no financial risk and will be used for construction activities.

The Airport is completely aware of the need to expend all grant funding by 2031 and currently has the project scheduled to complete construction by 2026, a full five years prior to the deadline. There are no legal, technical, or financial issues with the Airport that would make this a high-risk project. The estimates completed to date for the project were created by local engineering professionals with a substantial amount of experience in the industry, who utilized recent and local unit pricing to provide an accurate, confident assessment of anticipated project costs. In addition, sufficient contingencies were added to each element along with estimates for industry inflation to coincide with the project schedule.

Project Schedule

The project schedule **Figure 24** (below) illustrates key project milestones:

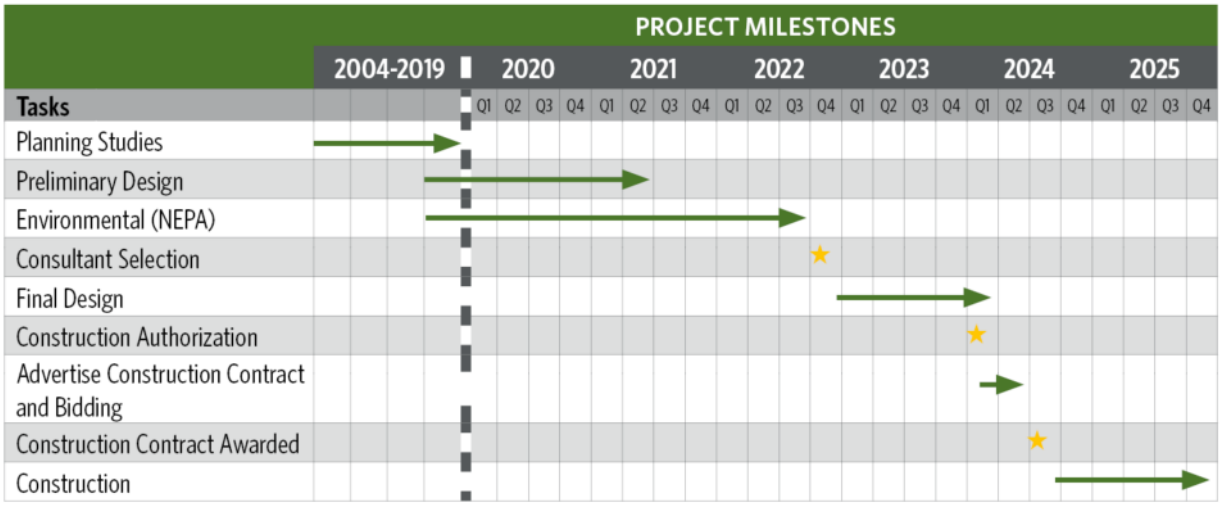


Figure 24. Project Schedule

Key project milestones include:

- Approved NEPA: **Q4 2022**
- Design Consultant Selection: **Q4 2022**
- RAISE Construction Funding Authorization: **Q1 2024**
- Construction Contract Advertised: **Q1 2024**
- Construction Bidding Closed: **Q2 2024**
- Project Construction Contract Award: **Q3 2024**
- Construction Complete: **Q4 2025**

It is anticipated that all project funds will be obligated by Q2 2023 and will be expended by Q3 2029.

Required Approvals

Environmental Permits and Reviews

This project will obtain all environmental approvals from the FAA to comply with NEPA.

The CatEx for this project is anticipated to be completed and approved in the summer of 2022. The project does not impact any wetlands or other Section 4(f) lands (publicly owned parks, recreation areas, public or private historic sites, wildlife and waterfowl refuges, and other similar resources). All State Environmental Policy Act (SEPA) approvals will be completed through the design of the project, expected to begin after the NEPA approval in the summer of 2024. Environmental approval applications are underway and are not anticipated to cause any impacts to the proposed design or schedule of the project.

State and Local Approvals

All state and local environmental approvals will be obtained prior to construction of the project. US 2 is located approximately 0.5 miles northeast of the new interchange, with interchange ramps located less than 100 yards from the project footprint. As a result, WSDOT is engaged in the approval process, although the project falls under FAA's jurisdiction. The Airport will coordinate with WSDOT, as well as the City of Spokane, during the design process where necessary, and will obtain necessary approvals for traffic control plans and other approvals as necessary.

The Airport does not anticipate any significant impacts to be identified under the SEPA process, as it intends to adopt the NEPA document for the SEPA review process.

Projects obligating federal or state transportation funding are required to be included in the Washington State Transportation Improvement Program (STIP). To do this, the Airport must submit the project through the local Metropolitan Planning Organization (MPO), which is the SRTC for Spokane County, for inclusion into the regional Transportation Improvement Program (TIP). Once accepted into the SRTC TIP, the project can then be included within the STIP. The Airport will coordinate with SRTC upon receiving federal transportation funding to get this project into the regional TIP and into the STIP for obligation of the federal funds. This process will not cause delays to the locally funded design and will be completed well in advance of obligation of construction funds.

Federal Transportation Requirements Affecting State and Local Planning

All federal environmental approvals will be obtained prior to construction of the project. Environmental approvals will comply with SEPA, NEPA and FAA requirements. At this point, there are no anticipated complications associated with obtaining approvals based on the region and nature of the project. The project does not impact any wetlands or other Section 4(f) lands.

Assessment of Project Risks and Mitigation Strategies

There is no risk associated with obtaining land or authorizations from landowners. Land acquisition is not required for this project and all land for the interchange is owned and controlled by the Airport. WSDOT will continue to be involved to assure their requirements are met during the project design since two of the ramps merge into state-controlled roadways.

We do not anticipate complicated environmental risks associated with the project. The scope, schedule, and budget risks for this project are low to moderate as the design will be underway upon the RAISE grant award. The primary project risks are related to health and safety and these risks will be managed by the construction contractor as with any construction project. Strategies will include maintaining a safe traffic flow for all travelers on both roadways during the construction of the new interchange. Through these strategies, and with the completion of the project, the new interchange will mitigate 244 vehicle collisions and injuries and five fatalities. Refer to **Figure 25** (below).

Figure 25. Key Quantifiable Results

Statistic	Total	Annual Average (Over 30 years)
Fatalities Avoided	5	0.17
Injuries Avoided	244	8
Personal Hours Saved (hours)	653,464	21,782
Motor Oil Avoided (quarts)	3,498	117
Gasoline Avoided (gallons)	-76,563	-2,552
Diesel Fuel (gallons)	-344,285	-11,476
Green House Gas Avoided (tons)	-2,572	-86
Critical Air Contaminants Avoided (tons)	-0.29	-0.01

VI. Benefit Cost Analysis

The cost effectiveness of the project was measured through a Benefit Cost Analysis (BCA) to monetize social benefits associated with the project as thoroughly as possible. The BCA in support of the project demonstrates a sound analysis in compliance with the USDOT Benefit-Cost Analysis Guidance for Discretionary Applications (March 2022). Annual costs and benefits are computed over the lifecycle of the project, which corresponds to 37 years, including seven years of project planning and construction (2019-2025) and 30 years of operation (2026-2055). Benefits start accruing in the first year of operation in 2026. The project is predicted to generate a Benefit Cost Ratio (BCR) of 1.7 with

a 3% discount rate applied for benefits from the reduction of CO_2 emissions and a 7% discount rate applied for all other benefits.

Appendix B contains a detailed description of the project's BCA, including methodology and assumptions. Considering all monetized benefits and costs, the estimated internal rate of return of the project is 11.4%. With the discount rates applied, the $21.7 million investment would result in $36.5 million in total benefits for a Net Present Value of $14.8 million.

A summary of the key quantifiable results and the BCA findings and are shown in **Figure 26** (below).

Figure 26. BCA Findings Summary

Measurement	Result @ 7% Discount Rate*
Total Benefits (M, 2020$)	$36.5
Total Costs (M, $2020)	$21.7
Net Present Value (M, $2020)	$14.8
BCR	1.7
Return on Investment	68%
Payback Period	13.8 years
Internal Rate of Return	11.4%

Note: 3% discount rate was applied for monetization of CO_2 emission reductions.

DEPARTMENT OF TRANSPORTATION
UNITED STATES OF AMERICA

Spokane International Airport