

## US 2 FAIRCHILD AIR FORCE BASE TO INTERSTATE 90

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### **CHARACTERISTICS**

#### **Segment Description:**

This route segment's western terminus is the entrance to Fairchild Air Force Base, which also is the transition point from a two lane to a four lane facility as you travel eastbound on US 2 towards Spokane. The eastern endpoint of the route segment is the US 2 interchange with Interstate 90.

**County/Counties:** Spokane

**Cities/Towns Included:** The route segment travels through the City of Airway Heights and ends at the western edge of Spokane City limits.

**Number of lanes in the corridor:** 4 to 4

**Lane width:** 12 to 12 feet.

**Speed limit:** 35 to 55 mph.

**Median width:** 7 to 41 feet.

**Shoulder width:** 4 to 9 feet.

#### **Highway Characteristics:**

This route segment is classified as a Rural-Principal Arterial and an Urban-Principal Arterial. It is a Highway of Statewide Significance (HSS), on the National Highway System (NHS), a Strategic Freight Corridor and it is part of the Strategic Highway Network as it provides access to Fairchild Air Force Base.

#### **Special Use Lane Information (HOV, Bicycle, Climbing):**

There are two-way turn lanes located within the City of Airway Heights.

#### **Access Control Type(s):**

The facility has Class 2, 3 and 4 managed access control, with full access control between MP 281.62 and 283.01.

#### **Terrain Characteristics:**

This route segment traverses level terrain.

#### **Natural Features:**

None Identified.

#### **Adjacent Land Description:**

The route is adjacent to a variety of land uses, including incorporated urban growth areas which contain commercial and residential zoning, light industrial land (which is located mainly in the vicinity of Spokane International Airport), regional commercial, neighborhood commercial, a mixed use designation, and rural traditional lands that are outside urban growth area boundaries, but within the City of Airway Heights.

#### **Environmental Issues:**

Riparian and wetland areas are located within, and adjacent to, the right-of-way. Wildlife travel corridors may be present. Threatened and endangered species use of proximate habitat and rare plant presence may be concerns.

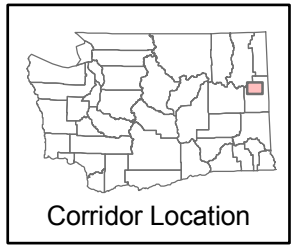
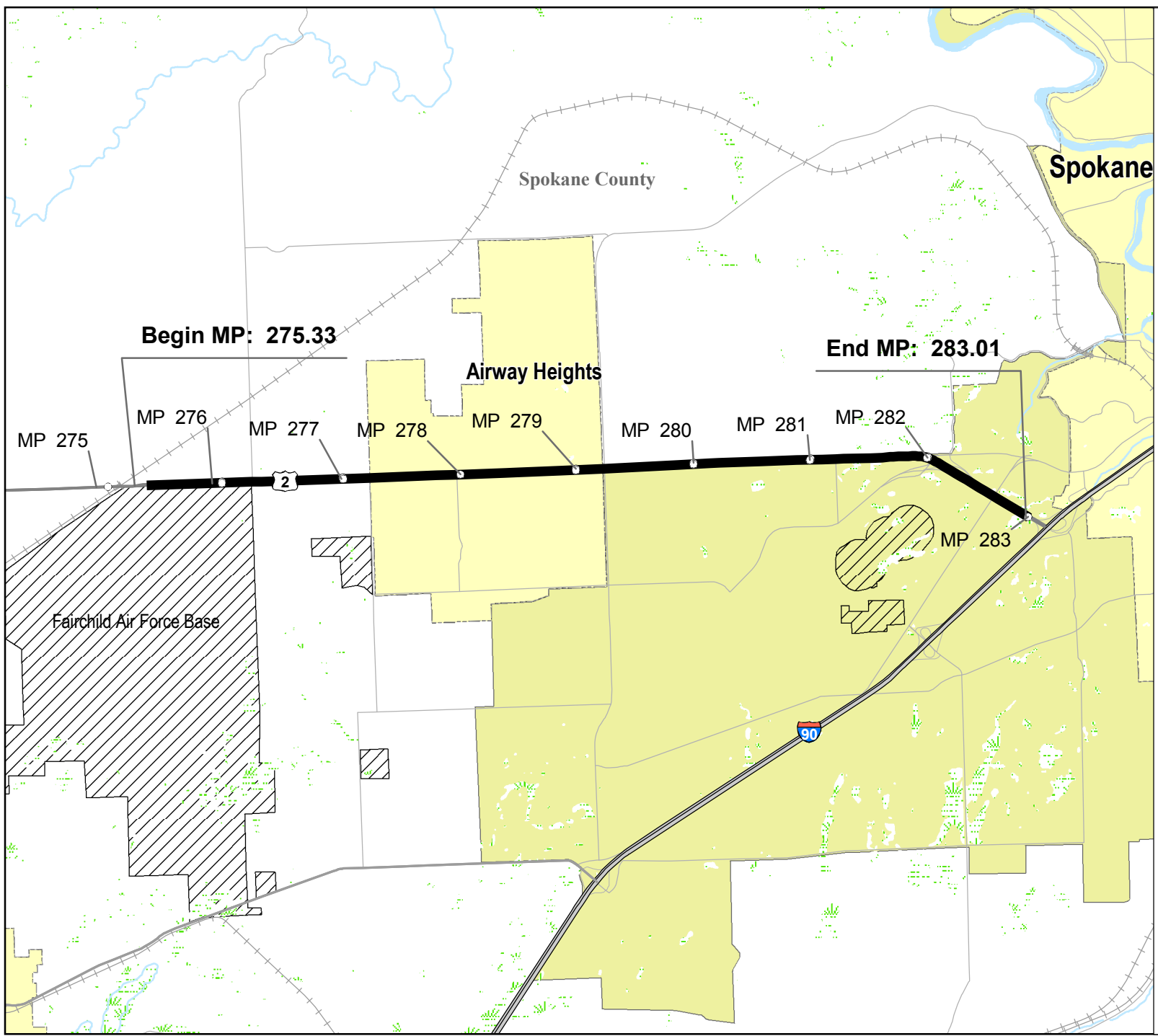
#### **Major Economic Issues:**

The route segment provides access between Airway Heights, Spokane International Airport, Interstate 90 and the City of Spokane. Substantial commercial development in the City of Airway Heights is occurring, with significant proposals recently put forth. Spokane International Airport is considering a new runway. A major concern among stakeholders is congestion and delay on US 2. Further commercial or residential development will require significant improvements in order to maintain safe and efficient traffic operations on the route segment.

# HSP Congested Corridor Analysis

## Characteristics

- Milepost Marker
- ▬ HSP Corridor Location
- ▬ U.S. Interstate
- ▬ U.S. Highway
- ▬ State Route
- ▬ Local Roads
- ▬ Railroad
- ▬ Wetlands
- ▨ Military Reservation
- ▨ Tribal Lands
- ▭ City Limits
- ▭ Urban Area
- ▭ County Line



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### **ASSETS**

#### **Pavement:**

There are 31 lane miles of Hot Mix Asphalt on this segment of US 2.

#### **Signal:**

Signalized intersections are located within the City of Airway Heights, with the exception of one that is located at the entrance to Fairchild Air Force Base.

#### **Structures:**

There are four Pre-tensioned Concrete Beams and two Post Tensioned Box Girder structures along this corridor. (Ramps, and locally owned structures (if any exist) are not identified in this section and may not be reflected on maps.)

#### **Features Crossed:**

There are no features crossed.

#### **ITS Facilities:**

Currently, there are no ITS facilities on US 2. However, under US 2 Congestion and Safety Management, the Eastern Region is planning on extending fiber optic communications out to the US 2 signal at Fairchild Air Force Base, and installing closed circuit television cameras (CCTV) and vehicle detection.

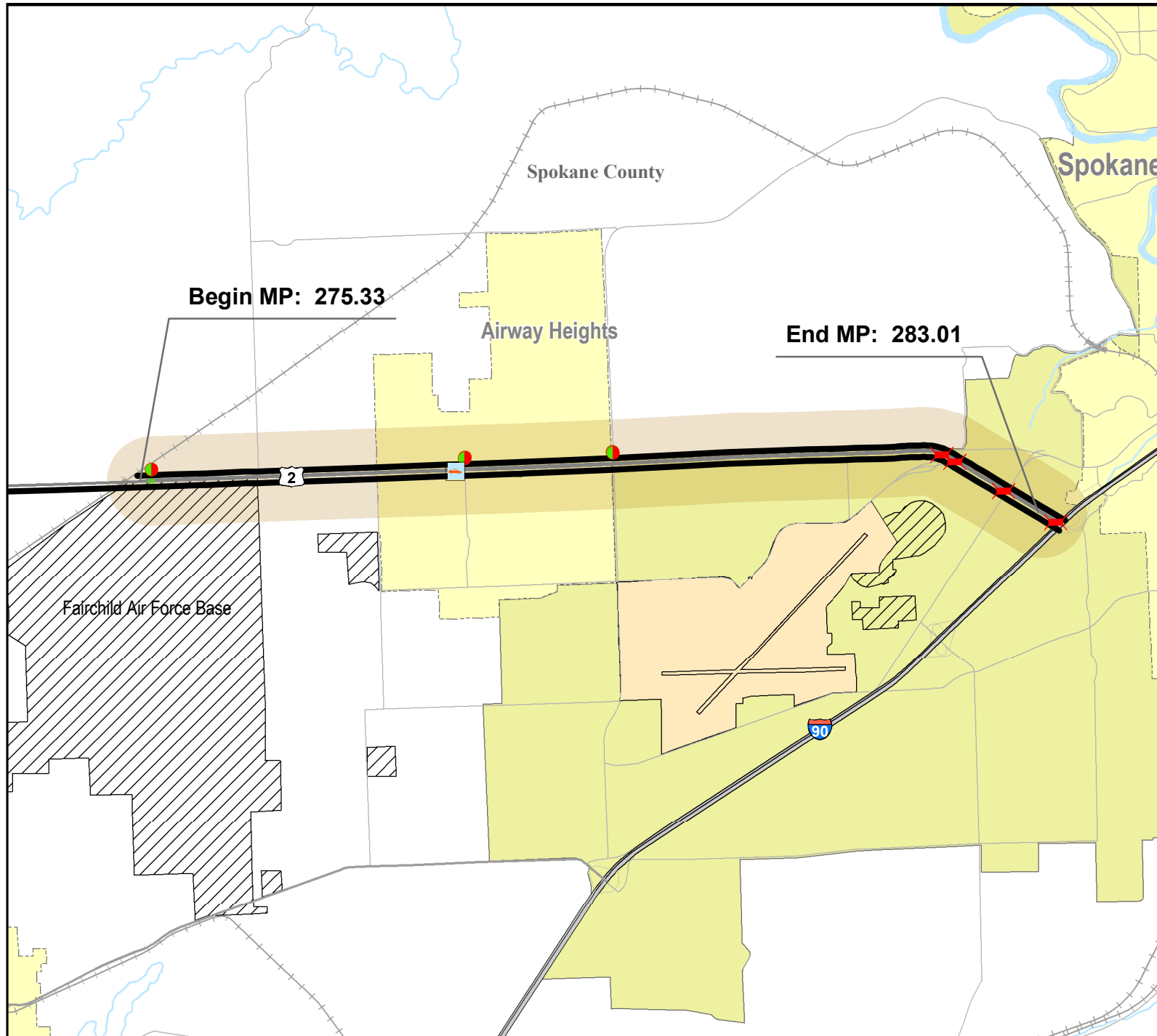
#### **Railroad Crossings:**

There are no at-grade rail crossings within this route segment.

#### **Asset Other:**

**NONE IDENTIFIED.**

# HSP Congested Corridor Analysis Assets



- Corridor Location
- Assets**
- Signalized Intersection
- X At Grade Railroad Crossings
- Bridge
- Weigh Stations
- Rest Area Sites
- Ferry Terminal
- Park and Ride
- Corridor Pavement Type**
- HMA
- BST
- PCCP
- Other Features**
- U.S. Interstate
- U.S. Highway
- State Route
- Local Roads
- Ferry Route
- Railroad
- Military Reservation
- Tribal Lands
- City Limits
- Urban Area
- Airports
- County Line

## US 2 FAIRCHILD AIR FORCE BASE TO INTERSTATE 90

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### *USAGE*

#### **General Origin and Destination Travel Characteristics:**

This route segment is the principal route providing service between the City of Spokane, Spokane International Airport (SIA), Fairchild Air Force Base (FAFB), the City of Airway Heights, and the West Plains. Work commute trips are fairly heavy in both directions as there are numerous employers, especially FAFB, located in the West Plains area. Freight traffic to and from SIA is also significant. The route also serves smaller, rural communities located to the west of Spokane County, providing access for their agricultural commodities.

#### **Snow/ice Issues:**

There are no sections within this corridor which present a problem for normal snow/ice control.

#### **Annual Average Daily Traffic:**

Ranges from 21,000 to 25,500.

#### **Significant Seasonal Average Annual Daily Traffic Changes:**

None identified.

#### **General Description of Major Average Annual Daily Traffic Locations:**

Annual average daily traffic (AADT) on this route segment is between 21,000 and 25,500 between I-90 and Fairchild Air Force Base (FAFB). AADT is heaviest between Hayford Rd. and Spotted Rd. AADT drops off significantly on US 2 west of the FAFB entrance.

#### **Freight:**

**Freight Classification:** T2

**Yearly Tonnage:** 4.8M

**Truck Percentage of Annual Average Daily Traffic:** 7.00%

#### **Additional Usage Comments:**

There are no additional comments.

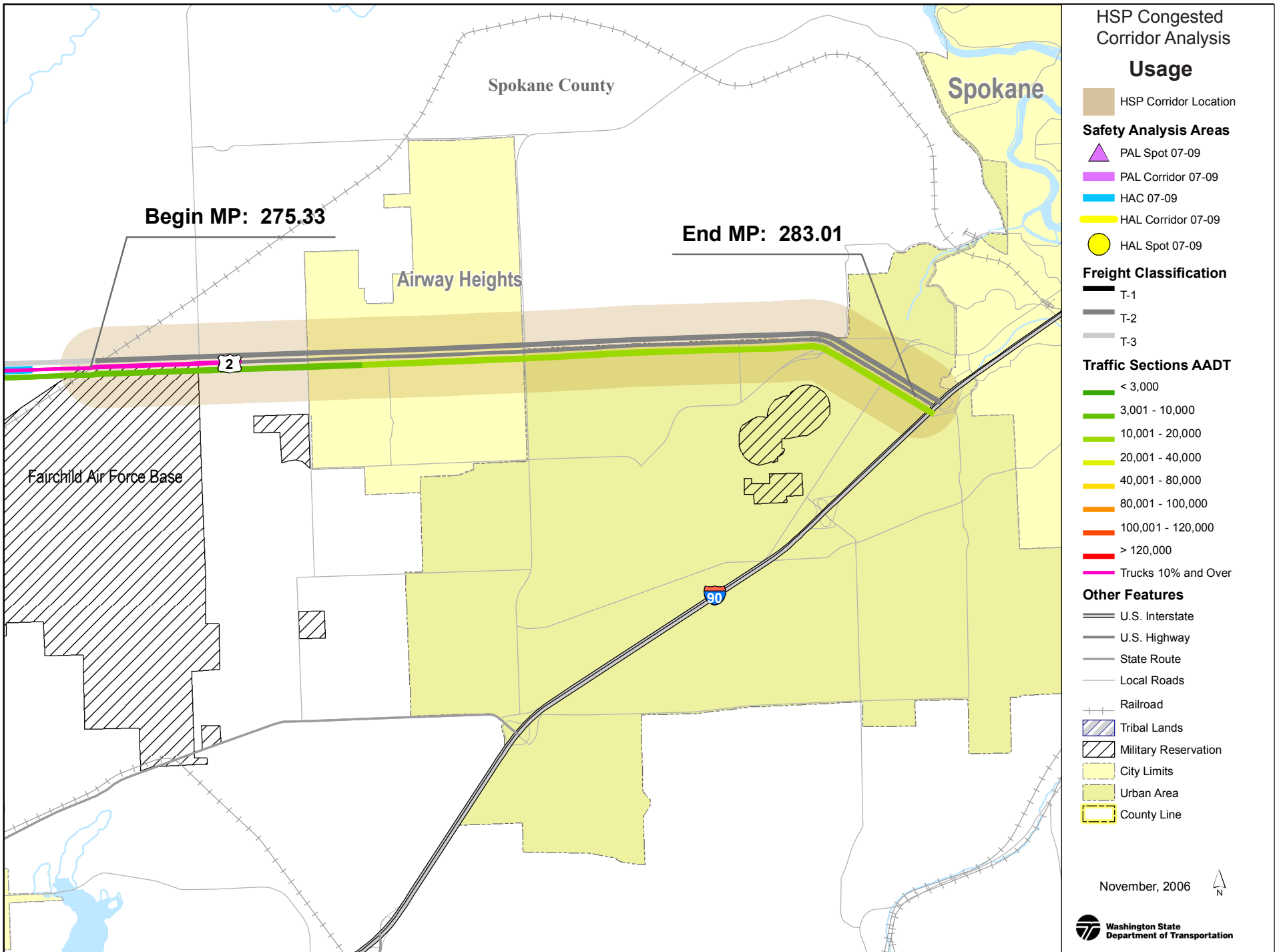
**Average Annual Societal Cost of All Collisions:** Approximately \$2.49M

#### **Collisions:**

**Severe No of Collisions:** 3

**Less Severe No of Collisions:** 192

**List Data Years:** 2003 to 2005



HSP Congested Corridor Analysis

Usage

HSP Corridor Location

Safety Analysis Areas

- PAL Spot 07-09
- PAL Corridor 07-09
- HAC 07-09
- HAL Corridor 07-09
- HAL Spot 07-09

Freight Classification

- T-1
- T-2
- T-3

Traffic Sections AADT

- < 3,000
- 3,001 - 10,000
- 10,001 - 20,000
- 20,001 - 40,000
- 40,001 - 80,000
- 80,001 - 100,000
- 100,001 - 120,000
- > 120,000
- Trucks 10% and Over

Other Features

- U.S. Interstate
- U.S. Highway
- State Route
- Local Roads
- Railroad
- Tribal Lands
- Military Reservation
- City Limits
- Urban Area
- County Line

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## ***NEEDS AND STRATEGIES***

### **Preservation**

#### **Pavement Condition and Needs:**

The route segment received full and partial rehab in 1996 and 1997.

#### **Pavement Management Strategies:**

The route segment is scheduled for rehab due to structural and rutting failures beginning in 2009 and ending in 2012.

#### **Structures Condition and Needs:**

There are none described. (This may include ramps and locally owned structures if any exist.)

#### **Structures Management Strategies:**

There are none identified.

#### **Additional Condition and Needs:**

There are none identified.

#### **Additional Management Strategies:**

There are none identified.

### **Improvement**

#### **Mobility Condition and Needs:**

The route segment is currently operating at an acceptable level-of-service. Signalized intersections on the route are operating at LOS D or better, meeting WSDOT minimum standards. However, with build-out of proposed near-term commercial and residential development, travel speed on the route segment decreases by about 25% according to travel demand modeling. Additionally, several intersections will have failing LOS.

#### **Mobility Management Strategies:**

Various improvement strategies have been developed over the last several years to alleviate growing congestion on the route segment. In the near-term, improvements to existing intersections, including the addition of signalization, will be required to maintain adequate LOS as new developments are completed. Channelization will also be needed to address traffic flow disruptions. In the longer term, the construction of additional lanes, frontage/backage roads, and possibly an alternate route will need to be examined to determine the appropriate strategy for accommodating future traffic.

#### **Safety Condition and Needs:**

There is a HAC located just outside the limits of the route segment at MP 274.78. This is immediately to the west of the Fairchild Air Force Base main entrance on US 2.

#### **Safety Management Strategies:**

There are none identified.

#### **Environmental Condition and Needs:**

There are none identified.

#### **Environmental Management Strategies:**

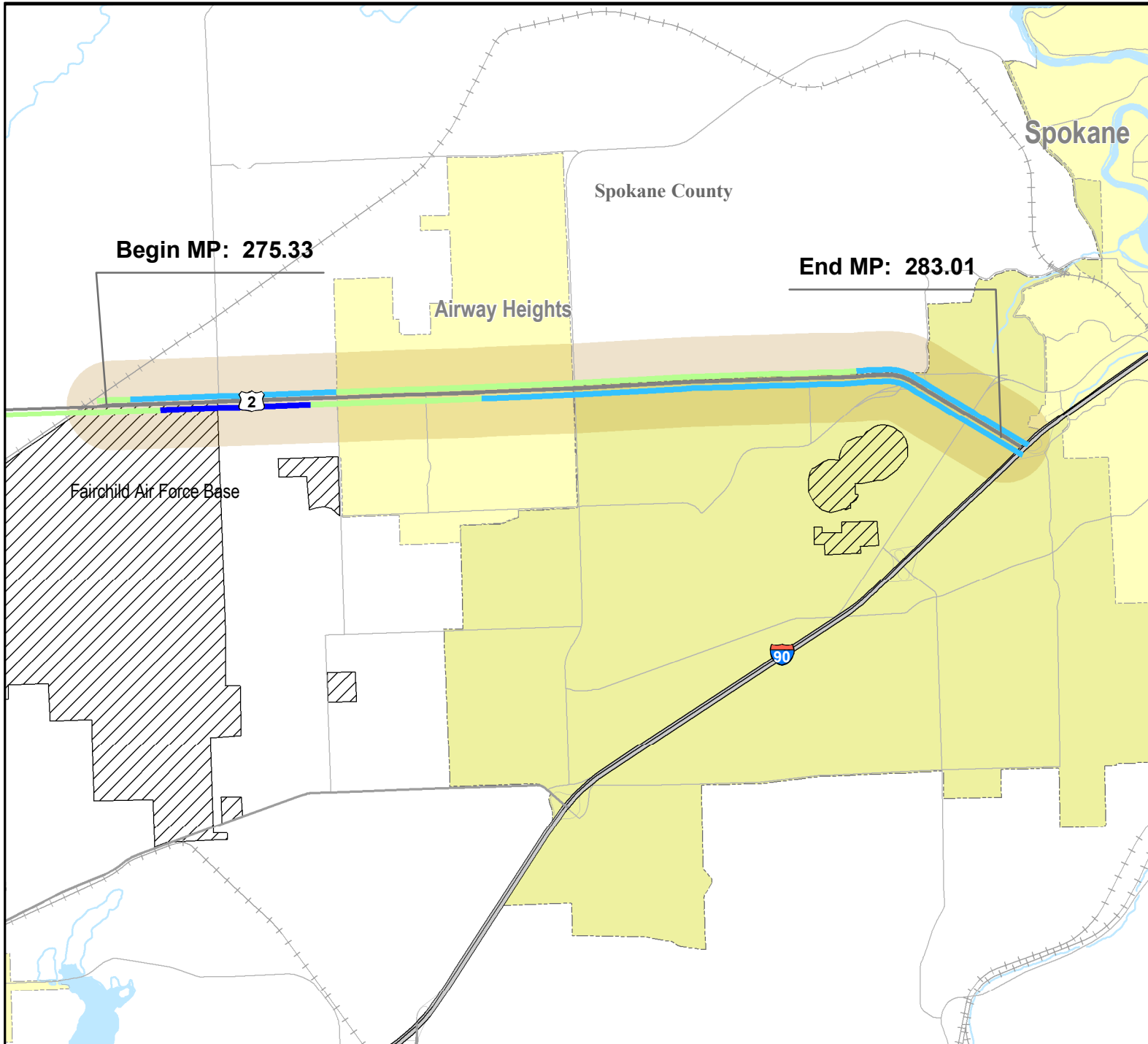
There are none identified.

#### **Restrictions:**

Commercial development adjacent to US2 will make R-O-W acquisition expensive.

#### **50-Year Configuration:**

The long-range configuration for this segment of US 2 is for it to be a seven lane managed and limited access facility that provides convenient and efficient access to a rapidly growing commercial and residential area of Spokane County. Additional lanes and intersection improvements will be needed to handle the substantial increase in traffic that is expected to occur in the near future as large commercial and residential developments are finalized and approved.



## HSP Congested Corridor Analysis Needs

- HSP Corridor Location
- Bridge Replacement Priority**
- Replacement
- Seismic
- Special
- Scour
- Painting
- Miscellaneous
- Bridge Deck
- Other Bridge Issues**
- 2 Lane BW Narrow Bridge
- Restricted Bridge
- Posted Bridge
- Vert. Clearance 15.5' Or Less
- Fish Barriers**
- Require Repair
- Little Gain
- Undetermined
- Unstable Slope**
- Debris Flow
- Erosion
- Landslide
- Rockfall
- Settlement
- Paving Due**
- Past Due
- 2005 - 2007
- 2008 - 2009
- 2010 - 2011
- 2012 - 2026
- U.S. Interstate
- U.S. Highway
- State Route
- Local Roads
- Railroad
- Railroad
- Military Reservation
- Tribal Lands
- City Limits
- Urban Area
- County Line

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***TIERED PROPOSED SOLUTIONS***

**Minimum Fix**

**Description:**

Signals and roundabouts are currently being studied at several intersections within the route segment in order to handle increased trip generation due to new developments. Raised median channelization has also been proposed as a measure to reduce conflicts and delay.

**Delay Reduction:** None identified.

**Collision Reduction:** None identified.

**Deficient Concrete Lane Miles:** None identified.

**Total Estimate Cost:** \$5.5 M

**Cost Estimate Explanation:**

Preliminary estimate based on signalization and roundabout improvement costs, as well as costs for construction of raised channelization.

**Minimum Fix Benefits:**

Intersection improvements will alleviate substantial delay currently experienced on minor streets while improving the safety of mainline operations. Raised median channelization will improve operating speeds by eliminating conflicting movements while also improving safety.

**Moderate Fix**

**Description:**

The construction of frontage and backage roads to remove traffic from US 2 has been proposed. These roads would be located between large trip generators and provide opportunity for motorists to avoid US 2 in traveling between various shopping, employment and recreational destinations. Purchase of access control has also been proposed as a longer-term solution to improve traffic flow by reducing conflict. ITS infrastructure is planned for this route.

**Delay Reduction:** None identified.

**Collisions Reduction:** None identified.

**Deficient Concrete Lane Miles:** None identified.

**Total Estimate Cost:** None identified.

**Cost Estimate Explanation:**

None identified.

**Moderate Fix Benefits:**

The construction of frontage and backage roads will separate traffic accessing local businesses and employers from vehicle trips traveling through the Airway Heights commercial area.

**Maximum Fix**

**Description:**

The maximum fix for this route segment may be the construction of additional lanes.

Other potential solutions have been proposed, such as an alternate route (bypass) and the construction of a new facility by Spokane County that may reduce traffic on the most heavily congested portions of this route segment.

However, much further study is needed in order to determine improvements in congestion and delay accruing from these concepts. Further study is needed to identify long-term improvements.

**Delays Reduction:** None identified.

**Collisions Reduction:** None identified.

**Deficient Concrete Lane Miles:** None identified.

**Total Estimate Cost:** None identified.

**Cost Estimate Explanation:**

None identified.

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### **Maximum Fix Benefits:**

The construction of additional lanes will improve operating speeds and travel times through the City of Airway Heights.

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### Off-System Solutions:

Spokane County has proposed the construction of a facility, called the Northwest Urban Connector, which may provide some benefit to congestion at the east end of the US 2 route segment, according to very preliminary analysis. Much additional study is needed to fully determine the impact of the connector on US 2 operations.

### Special Studies/Reports:

West Plains Growth & Traffic Impacts to US 2; A Preliminary Assessment.

### Required Studies

The "Minimum Fix" solutions identified above are largely being generated throughout the Development Review process and its attendant traffic impact studies. Much further study is needed to develop improvements identified within the "Moderate Fix" and "Maximum Fix" tiered solution categories.

### Start/Completion Date of Study:

None identified.

### Expected Results

The expected results from such a study would include detailed analysis of route segment improvement alternatives that address severe LOS deficiencies as created by substantial commercial and residential development in the corridor. Intersection capacity improvements, roundabouts, access consolidation, frontage/backage roads, additional lanes, would all be analyzed to determine costs and development sector responsibilities, in order to identify the solutions that most effectively address mobility, safety and community needs.

### Funded Projects within Corridor Limits

Project No	Title
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None identified.

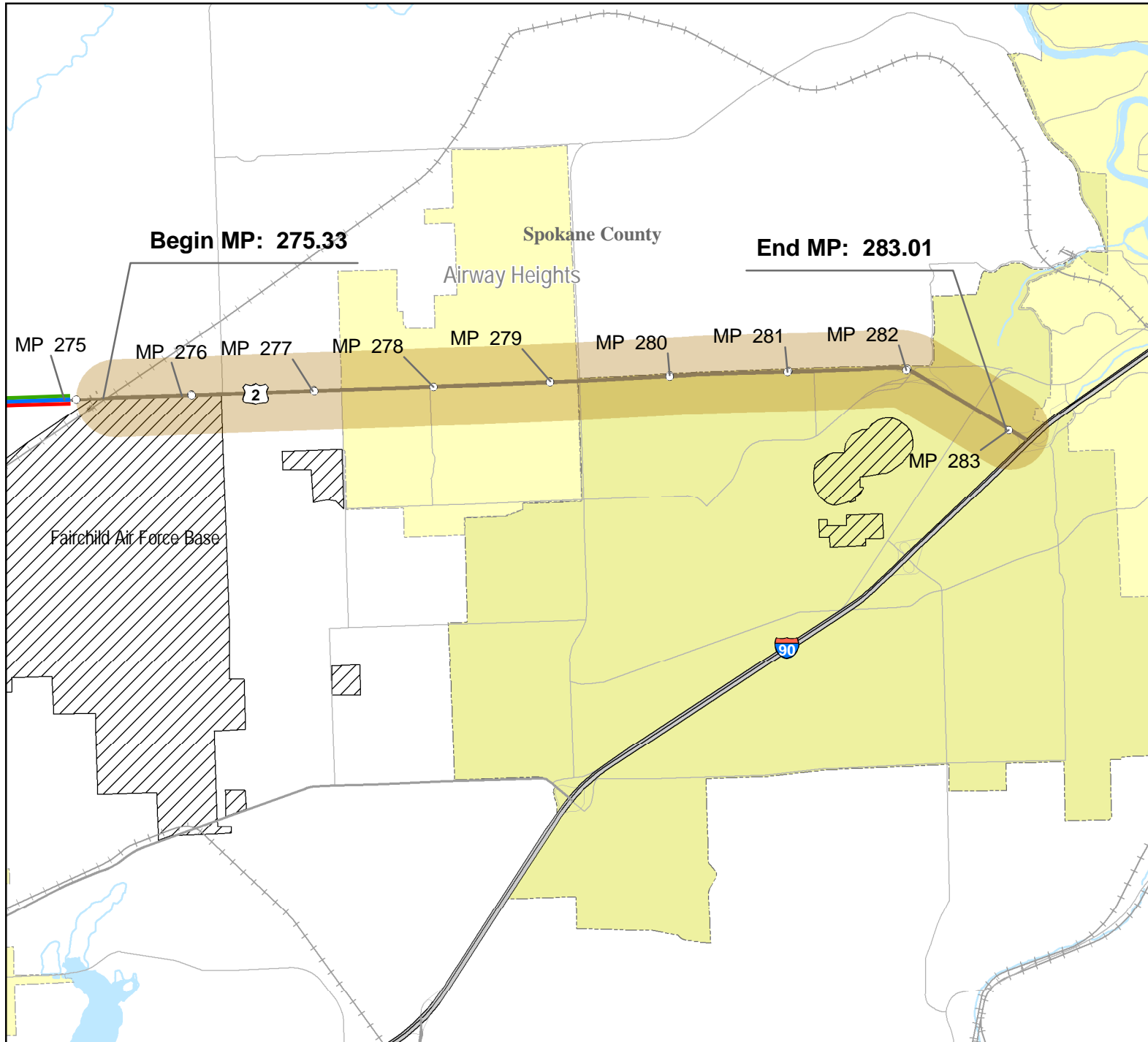
### Additional Comments:

None identified.

### Data Sources and Contacts used:

Environmental Workbench, LeeAnn Hancock, Eastern Region Environmental Office  
ITS Data, Larry Frostad, Eastern Region Traffic Engineering  
Preservation Data; Mike Melvin, Eastern Region Program Management

# HSP Congested Corridor Analysis Solutions



- HSP Corridor Location
- Solutions**
- Tier 1
- Tier 2
- Tier 3
- Other Features**
- U.S. Interstate
- U.S. Highway
- State Route
- Milepost Marker
- Local Roads
- Railroad
- Tribal Lands
- Military Reservation
- City Limits
- Urban Area
- COUNTY

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