

## US 2 DEER RD. TO PEND OREILLE COUNTY LINE

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### **CHARACTERISTICS**

#### **Segment Description:**

This segment of US 2 begins in suburbs located just north of the City of Spokane and ends at the Pend Oreille County line.

**County/Counties:** Spokane

**Cities/Towns Included:** US 2 serves the City of Spokane and passes through, or in the immediate vicinity of, the communities of Mead, Colbert, Chattaroy, Riverside and Elk on its way to Pend Oreille County and the City of Newport.

**Number of lanes in the corridor:** 2 to 4

**Lane width:** 12 to 15 feet.

**Speed limit:** 40 to 60 mph.

**Median width:** 15 to 77 feet.

**Shoulder width:** 3 to 10 feet.

#### **Highway Characteristics:**

US 2 is designated as a National Highway System (NHS) facility as well as a Highway of Statewide Significance (HSS). It is functionally classified as a Principal Arterial, with Urban Principal Arterial ( 297.00 to 299.79) and Rural Principal Arterial (299.79 to 315.47) sub-classifications.

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

There are several two-way turn lanes and climbing lanes.

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

There is modified access from milepost 297.00 to 298.48, Partial Access from milepost 298.48 to 306.11 and from milepost 306.11 to 315.47 is Class 2.

#### **Terrain Characteristics:**

The US 2 route consists of a combination of rolling and flat terrain.

#### **Natural Features:**

US 2 provides access to SR 206 and Mt. Spokane State Park. It also is the only route to Bear Lake County Park, located at Milepost 306.74. The route traverses suburban, rural and forested areas.

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

US 2 is adjacent to rural and forested lands according to the Roadside Classification Plan.

#### **Environmental Issues:**

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

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

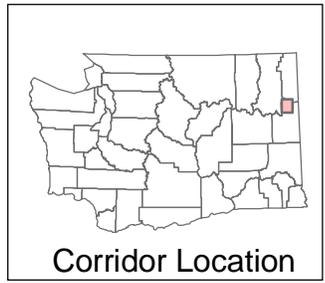
This segment of US 2 serves forestry interests. Primary commodities hauled on US 2 are wood products, agricultural products, and food. Its Freight and Goods Transportation System classification varies between T2 (5 million to 10 million annual gross tonnage) to T4 (100,000 to 300,000 annual gross tonnage).

HSP Congested  
Corridor Analysis

Characteristics



- Milepost Markes
- █ 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 68.54 lane miles of Hot Mix Asphalt on this segment of US 2.

#### **Signal:**

There are three signalized intersections within this corridor. At the SR 206 intersection, Mt. Spokane Rd., and in the Riverside community - Deer Park - Milan Rd.

#### **Structures:**

There are four structures in this corridor that consist of: one Concrete T-Beam, one Pre-Tensioned Concrete Beam, one Pre-Tensioned Concrete T-Beam and one Steel Culvert.

(Ramps, and locally owned structures (if any exist) are not identified in this section and may not be reflected on maps.)

#### **Features Crossed:**

US 2 crosses the Little Spokane River and the West Branch of the Little Spokane River.

#### **ITS Facilities:**

**THERE ARE NO INTELLIGENT TRANSPORTATION SYSTEMS ON THIS CORRIDOR.**

#### **Railroad Crossings:**

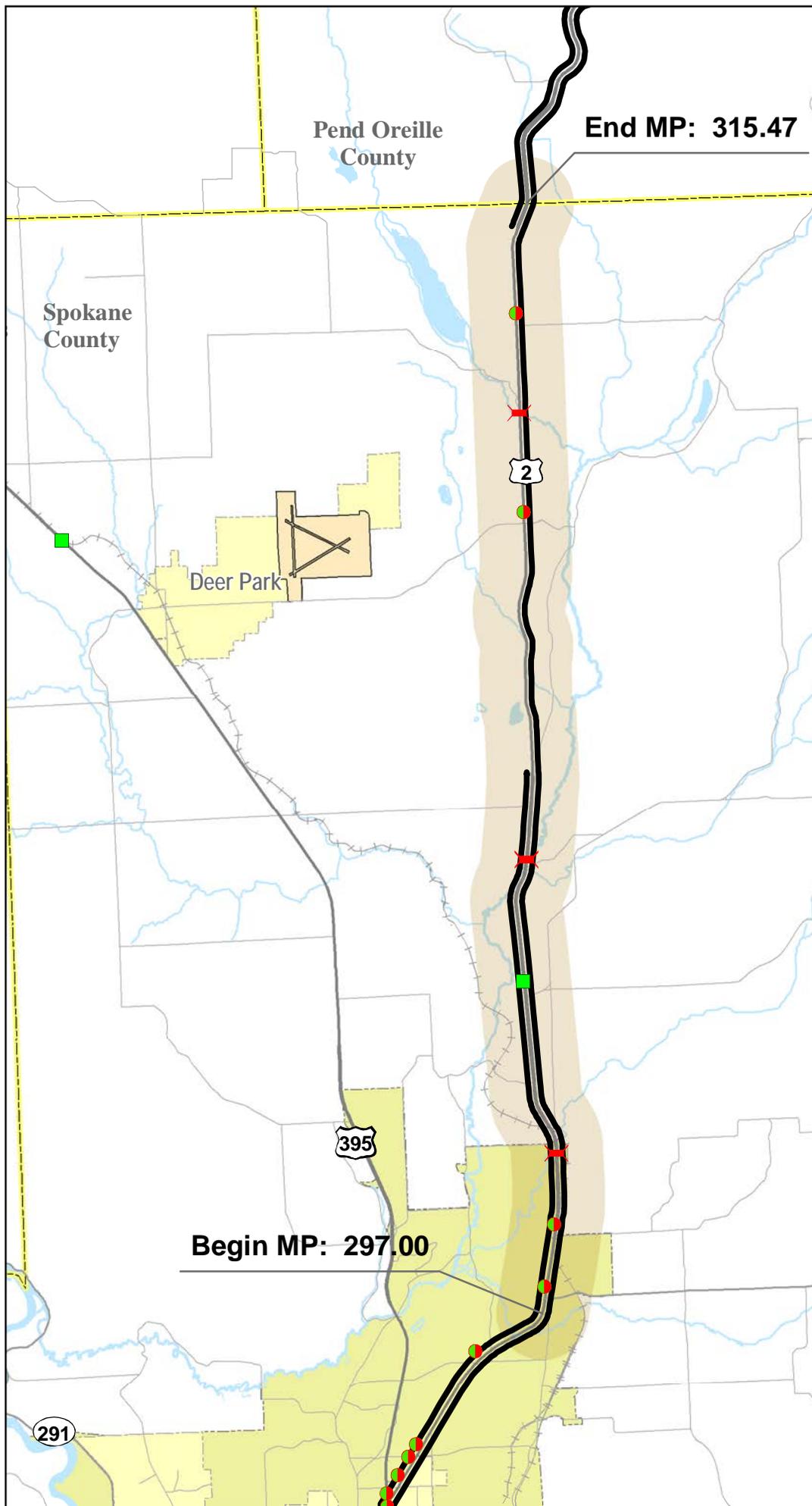
None identified.

#### **Asset Other:**

Portable weigh station site at MP 302.57 and a Private airport at MP 297.25.

# HSP Congested Corridor Analysis

## Assets



HSP Corridor Location

### Assets

- Signalized Intersection
- At Grade Railroad Crossings
- Bridge
- Ferry Terminals
- Park and Ride
- Weigh Stations
- Rest Area Sites

### 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
- Airport
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Washington State  
Department of Transportation

## US 2 DEER RD. TO PEND OREILLE COUNTY LINE

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### **USAGE**

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

US 2 serves substantial commuter traffic between the City of Spokane and residential areas located in northern Spokane County as well as points in Pend Oreille County. There is significant commercial and recreational traffic between the Spokane urban area and northeast Washington and northern Idaho. During the past 10 years a steady increase in the population of the northern communities of Mead, Elk-Chattaroy and Colbert has precipitated rapid commercial development north of the Spokane City limits. In the summer, a significant amount of recreational traffic uses the facility to access lakes located in northern Idaho and northeast Washington. In the winter, recreational traffic uses SR 206 to access Mt. Spokane State Park.

#### **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 15,359 to 28,998.

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

Increases in recreational traffic during the summer months results in higher seasonal ADT for the facility.

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

Annual average daily traffic increases at the US 2/SR 206 Intersection to Milepost 297.25 Vicinity of Dennison-Chattaroy to Milepost 305.50.

#### **Freight:**

**Freight Classification:** T2

**Yearly Tonnage:** 4.6M

**Truck Percentage of Annual Average Daily Traffic:** 8%

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

There are no additional comments.

**Average Annual Societal Cost of All Collisions:** Approximately \$1.17M

#### **Collisions:**

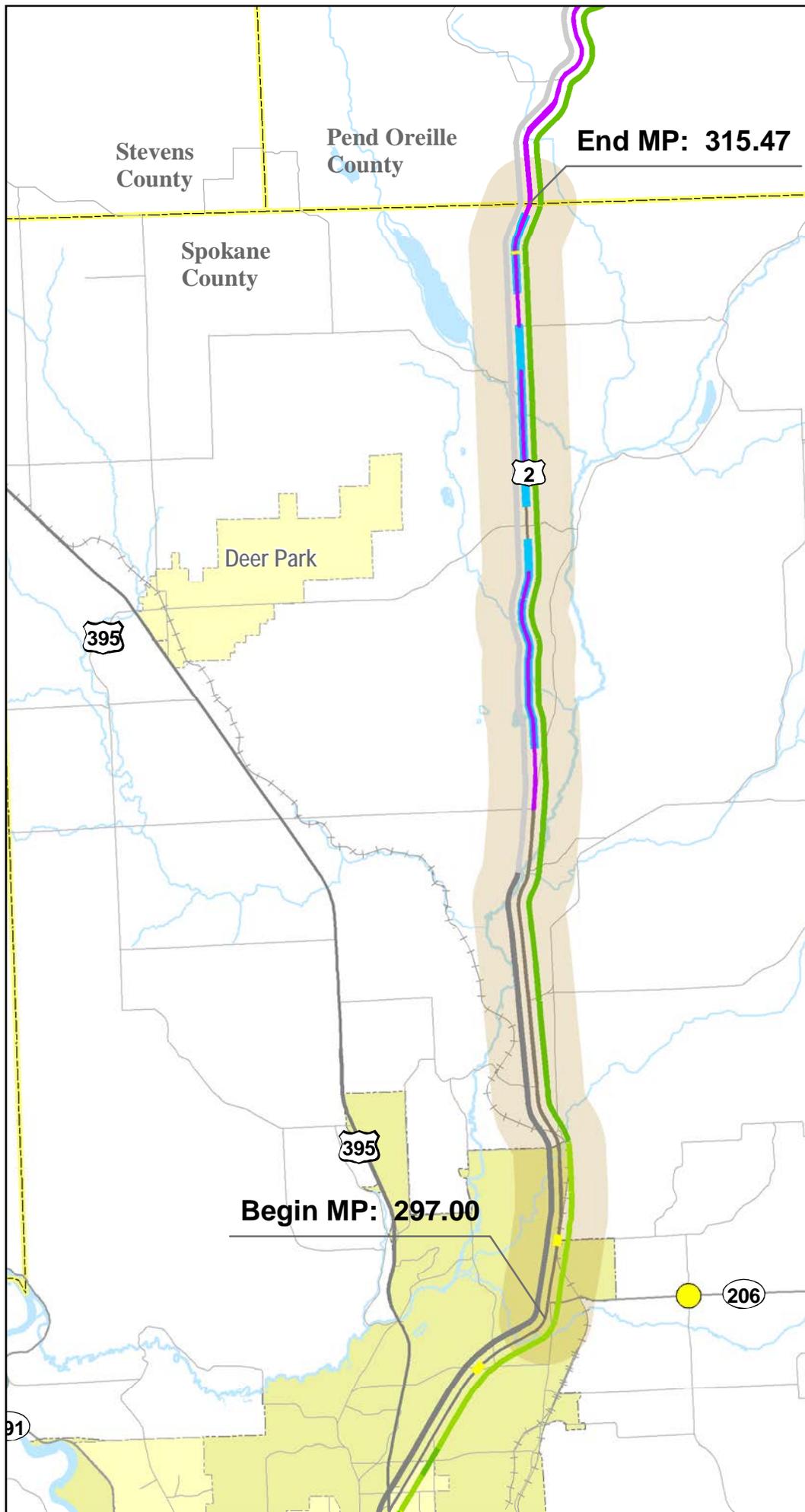
**Severe No of Collisions:** 8

**Less Severe No of Collisions:** 113

**List Data Years:** 2000 to 2002

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
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## US 2 DEER RD. TO PEND OREILLE COUNTY LINE

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### *NEEDS AND STRATEGIES*

#### **Preservation**

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

Between 1997 and 2002, full or partial rehabilitation of the route segment was completed.

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

Beginning in 2011, and ending in 2013, the facility is due for rehabilitation due to structural deterioration.

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

There are none defined. (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 defined.

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

There are none defined.

#### **Improvement**

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

Various portions of the US 2 route segment currently operate at failing or near failing level-of-service (LOS). There are also several intersections that experience failing LOS. With substantial growth anticipated for the communities of Colbert, Mead, Chattaroy and Riverside, operating conditions along US 2 will continue to deteriorate.

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

In the short range, improvement strategies include the use of raised channelization, acceleration/deceleration lanes, approach consolidation, right-in/right-out only, and additional signage to alleviate congestion and preserve operating speeds. Mid-range improvements designed to preserve capacity include the construction of frontage roads, the purchase of access control and the purchase of right-of-way for interchanges. Long range improvements include interchange construction, purchase of full access control and construction of additional frontage roads. The construction of a four lane divided facility from Chattaroy to the Pend Oreille County line is also included as a long range improvement needed for this route segment.

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

There are three High Accident Corridors (HAC) located completely within the US 2 route segment limits, and one HAC that is partially within the route segment. There are also two High Accident Locations (HAL) within the route segment, one at Milepost 298.20 and the other at 314.60. All four HAC locations have accident histories suggesting that access and intersection related incidents are the primary causes of the HAC designation.

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

Improvement strategies intended to address accident issues at several intersections on the route segment include the construction of raised channelization, turning lanes, advanced warning "signal ahead" signs, and the consolidation of approaches in conjunction with the construction of frontage roads.

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

There are none identified.

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

There are none identified.

##### **Restrictions:**

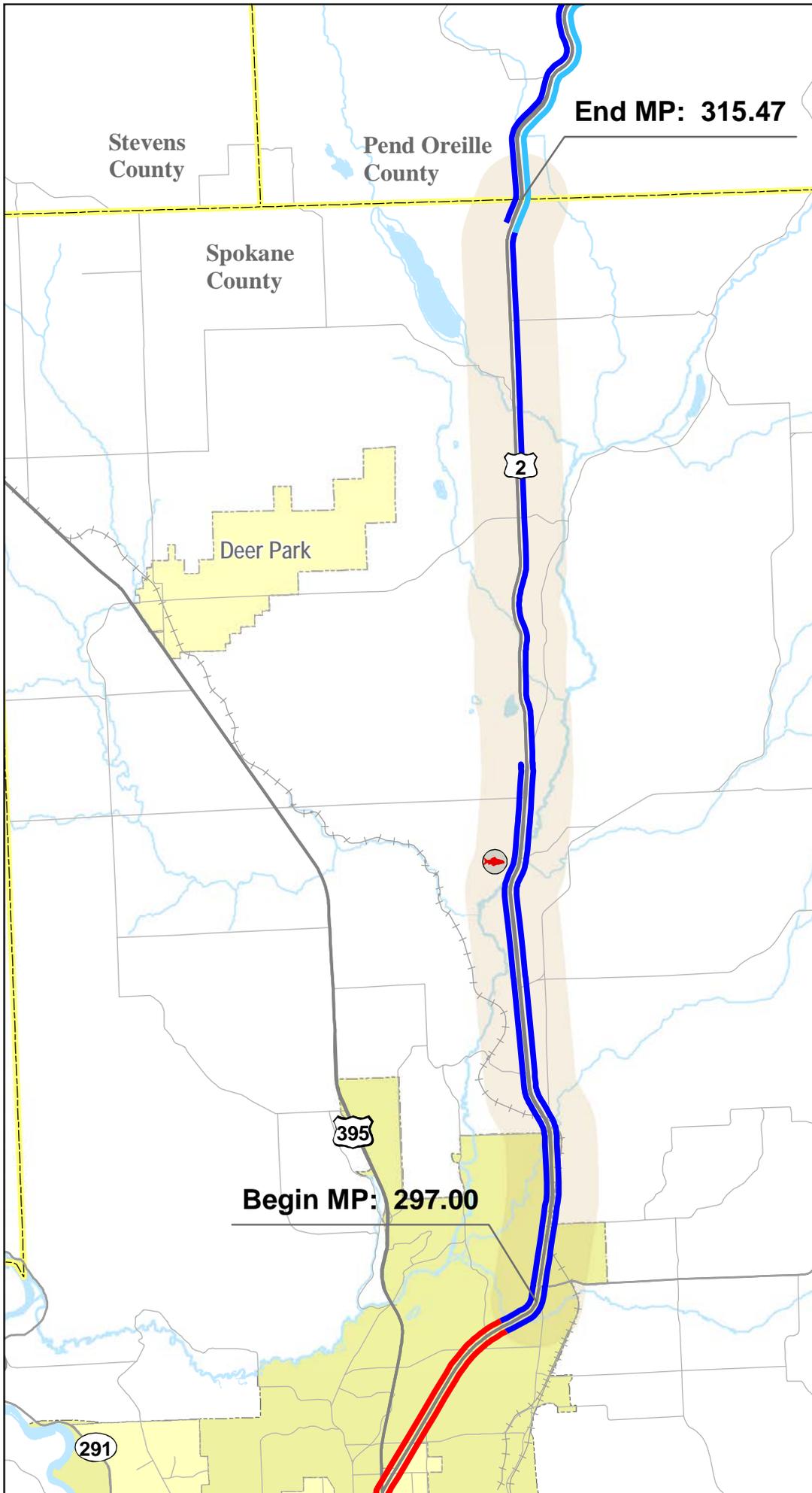
There are none identified.

## US 2 DEER RD. TO PEND OREILLE COUNTY LINE

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

This segment of US 2 is envisioned as a free-flow facility with four lanes to the Pend Oreille County line, with interchanges constructed at rural activity centers. At the County line, the four lane facility will join up with an existing four lane segment of US 2.



## HSP Congested Corridor Analysis Needs

- HSP Corridor Location
- Bridge Priorities**
  - Replacement
  - Special
  - Seismic
  - Scour
  - Painting
  - Miscellaneous
  - Bridge Deck
- Other Bridge Issues**
  - 2 Lane BW Narrow Bridge
  - Restricted Bridge
  - Posted Bridge
  - Vert. Clearance < 15.5'
- Unstable Slope**
  - Debris Flow
  - Erosion
  - Landslide
  - Rockfall
  - Settlement
- Fish Passage Barriers**
  - Require Repair
  - Little Gain
  - Undetermined
- Paving Due**
  - Past Due
  - 2005 - 2007
  - 2008 - 2009
  - 2010 - 2011
  - 2012 - 2026
- Other Features**
  - U.S. Interstate
  - U.S. Highway
  - State Route
  - Local Roads
  - Railroad
  - Military Reservation
  - Tribal Lands
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## US 2 DEER RD. TO PEND OREILLE COUNTY LINE

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### ***TIERED PROPOSED SOLUTIONS***

#### **Minimum Fix**

**Description:**

MP 297 to 298.28

Mitigate congestion by utilizing raised channelization and combining approaches, right-in/right-out only approaches and additional signing. Construct Freya Rd. extension and realignment of Market St. to the east.

MP 298.28 to MP 306.11

Construct rumble strips Lengthen existing or construct new right and left turn lanes at higher volume intersections. Improve North Glen/Elk-Chattaroy intersection with an eastbound to southbound right turn acceleration lane.

MP 306.11 to MP 315.47

Left turn channelization improvements.

**Delay Reduction:** None identified.

**Collision Reduction:** None identified.

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

**Total Estimate Cost:** \$3.5 M

**Cost Estimate Explanation:**

Preliminary estimates provided by Eastern Region Project Engineer's Office.

**Minimum Fix Benefits:**

These projects will serve to maintain an acceptable level-of-service on the facility and to enhance safe operations in areas where turning movements into residential and commercial are creating congestion and delay.

#### **Moderate Fix**

**Description:**

Milepost 297 to 298.28.

Purchase partial access control and construct frontage roads adjacent to US 2 and improve Freya and Yale roads as frontage roads.

**Delay Reduction:** None identified.

**Collisions Reduction:** None identified.

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

**Total Estimate Cost:** \$3 M

**Cost Estimate Explanation:**

Preliminary estimates provided by Eastern Region Project Engineer's Office.

**Moderate Fix Benefits:**

These projects are proposed to help maintain US 2 as a free-flow higher speed facility by reducing congestion and delay at at-grade intersections.

#### **Maximum Fix**

**Description:**

Milepost 297 to 298.28

Replace existing US 2/SR 206/Market St. at-grade intersections with a diamond, single point urban interchange, or roundabout, possibly entailing realignment of the US 2 facility in this vicinity.

Milepost 298.28 to Milepost 306.11

Construct grade separated interchanges at Woolard Rd., North Glen/Elk-Chattaroy Rd. and Dennison-Chattaroy Rd. with implementation of full access control with a frontage road system.

Milepost 306.11 to Milepost 315.47

Purchase partial access control and construct four lane divided highway.

## US 2 DEER RD. TO PEND OREILLE COUNTY LINE

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**Delays Reduction:** None identified.

**Collisions Reduction:** None identified.

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

**Total Estimate Cost:** \$136M

### **Cost Estimate Explanation:**

Preliminary estimates provided by Eastern Region Project Engineer's Office. This estimate is based on assumptions regarding what the maximum fix may be in various portions of the route segment. Much further study is needed to determine what the maximum fix is.

### **Maximum Fix Benefits:**

These solutions do the most to ensure that US 2 will remain a high speed free flow facility by reducing delay at a major intersection (SR 206), constructing grade separated interchanges, and by extending the existing two-lane divided facility further north to Pend Oreille County. There is an existing four lane divided segment of US 2 that begins at the County line that the new four lane section would connect to.

### **Off-System Solutions:**

One of the potential short-range (10 year horizon) solutions for addressing congestion and safety deficiencies on the southern portion of the route segment includes partnering with Spokane County to construct a new county road, known as Freya Rd. extension. This road would allow for residential traffic to access US 2 at a signalized intersection, eliminating the need for access at two uncontrolled intersections where there is significant delay as well as safety concerns.

### **Special Studies/Reports:**

US 2, Deer Rd. to Pend Oreille County Line RDP, December 2004.

### **Required Studies**

Additional studies will be required to determine the best "maximum fix" solution from alternatives identified in the US 2 Route Development Plan.

### **Start/Completion Date of Study:**

None identified.

### **Expected Results**

None identified.

### **Funded Projects within Corridor Limits**

<b>Project No</b>	<b>Title</b>
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None identified.

### **Additional Comments:**

None identified.

### **Data Sources and Contacts used:**

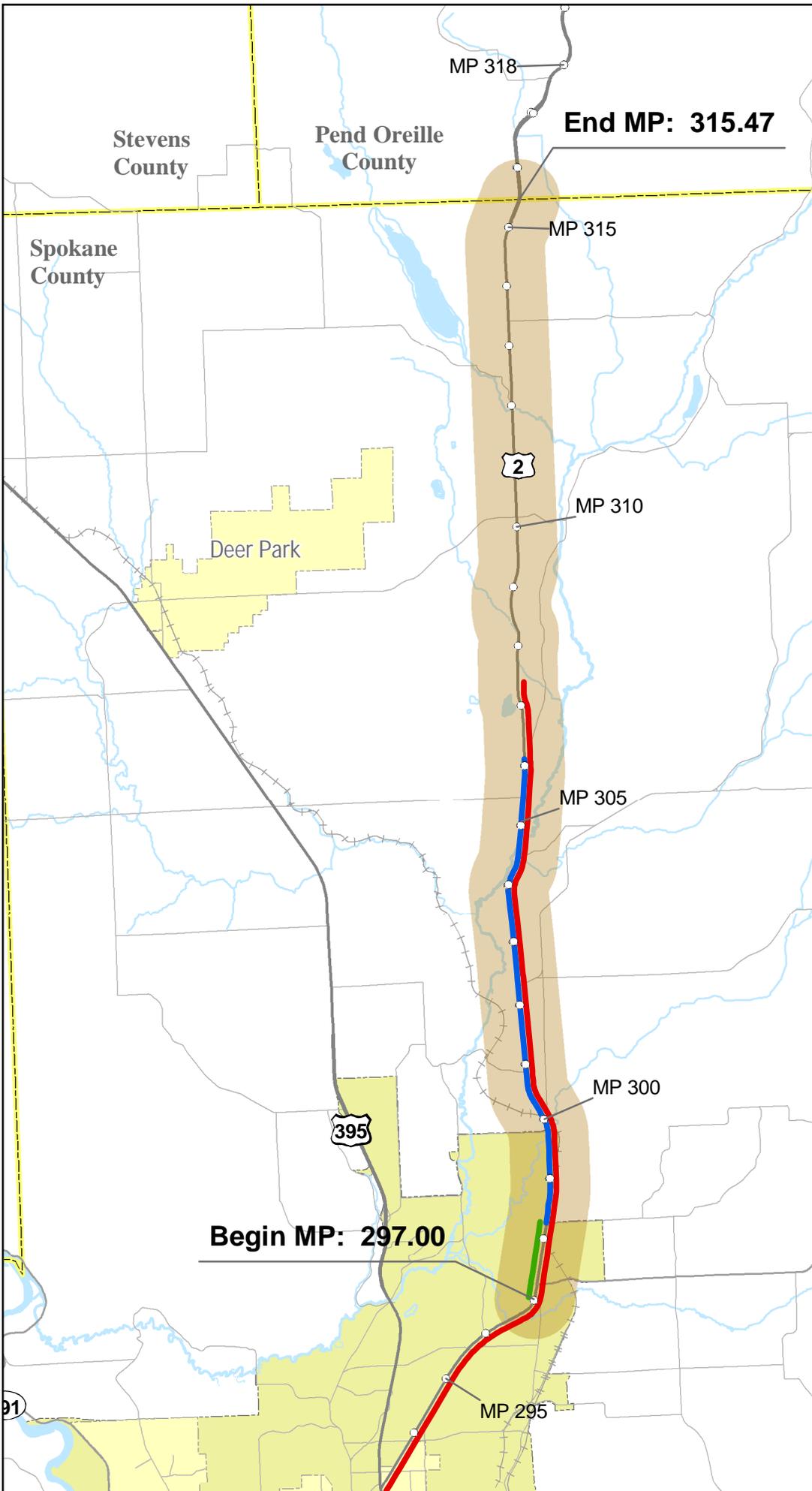
US 2, Deer Rd. to Pend Oreille County Line Route Development Plan, December, 2004

Freight and Goods Transportation System Update 2003

Environmental Workbench, LeeAnn Hancock, Eastern Region Environmental Office

Preservation Data; Mike Melvin, Eastern Region Program Management

# HSP Congested Corridor Analysis Solutions



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

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