SR 538, I-5 TO LAVENTURE ROAD

CHARACTERISTICS

Segment Description:
This segment starts at the interchange with I-5, and continues to the intersection with LaVenture Road.

County/Counties: Skagit
Cities/Towns Included: This segment is located entirely within the City of Mount Vernon.
Number of lanes in the corridor: 3 to 4
Lane width: 11 to 12 feet.
Speed limit: 25 to 35 mph.
Median width: 0 to 0 feet.
Shoulder width: 0 to 13 feet.

Highway Characteristics:
This section of SR 538 is classified as U3 (Urban-Collector) from MP 0.00 to MP 1.27.
This corridor has a freight classification of T-2, with 5,070,000 tons of freight hauled annually.

Special Use Lane Information (HOV, Bicycle, Climbing):
There are two-way turn lanes at several locations along the corridor.

Access Control Type(s):
Access is managed by the City of Mount Vernon.

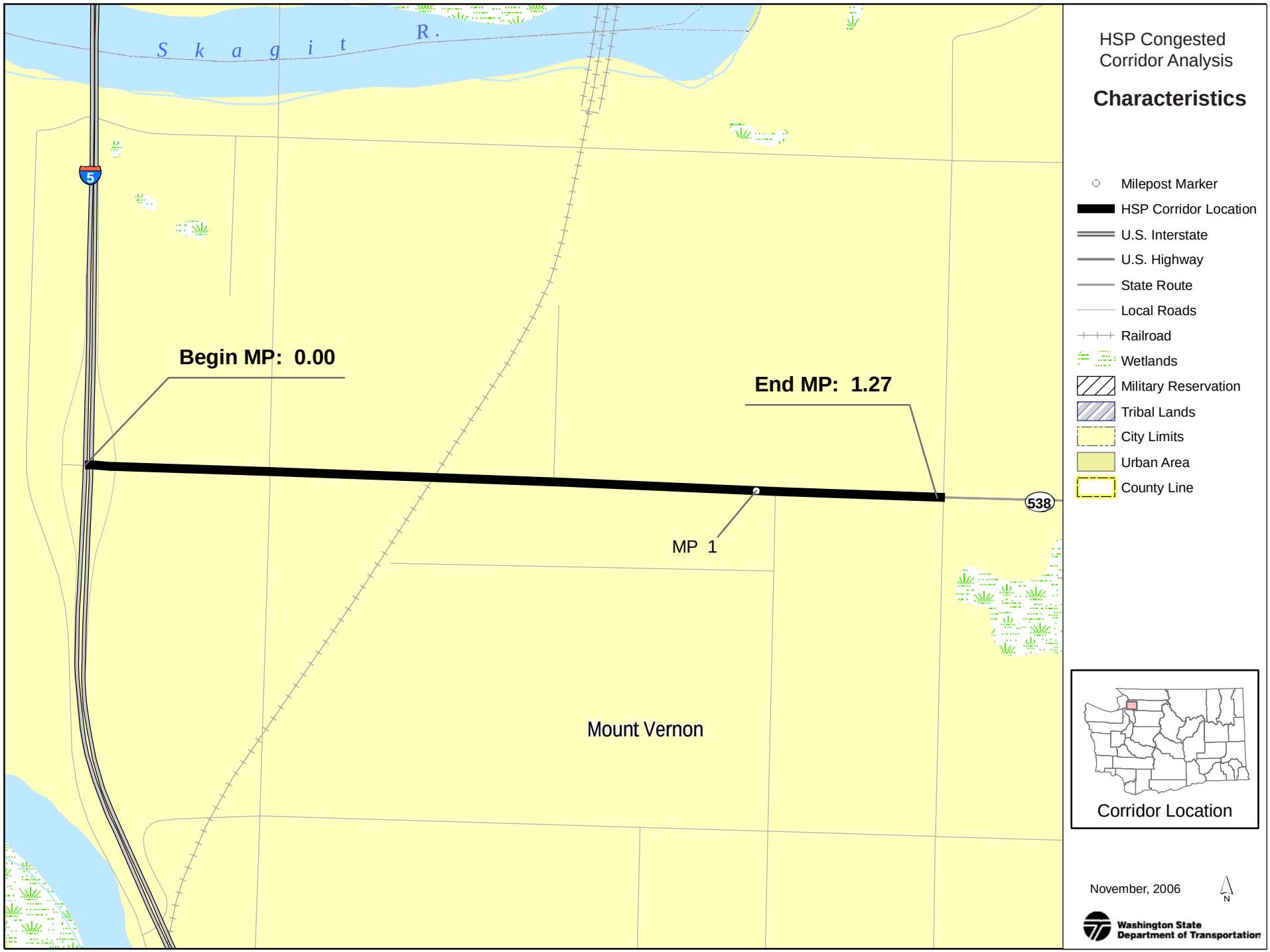
Terrain Characteristics:
This segment is comprised of rolling terrain.

Natural Features:
None Identified.

Adjacent Land Description:
Zoning varies along the corridor. Zoning designations are: retail malls & general commercial, commercial industrial, medium high density multi-family, high density single-family, and, medium density single-family.

Environmental Issues:
The corridor is located within the commercially developed area of Mount Vernon and crosses the BNSF railway. There are no GIS-mapped points of sensitive habitat or species. Need appropriate tribal consultation during planning, design and construction of projects in this corridor.

Major Economic Issues:
This is the main access road for the majority of Mount Vernon's big box retail and other retail in the City. It is a busy truck freight corridor for local deliveries. Skagit Community College staff and students use this corridor as the primary route to the college.


Skagit R.
5
Begin MP: 0.00
End MP: 1.27
538
MP 1
Mount Vernon
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
Corridor Location
November, 2006
N
Washington State
Department of Transportation

SR 538, I-5 TO LAVENTURE ROAD

ASSETS

Pavement:
There are 5.08 lane miles of Hot Mix Asphalt on this segment of SR 538.

Signal:
There are six signalized intersections at the following locations: I-5 NB Ramps, Market Place, Riverside Drive, Continental Place, LaVenture Rd

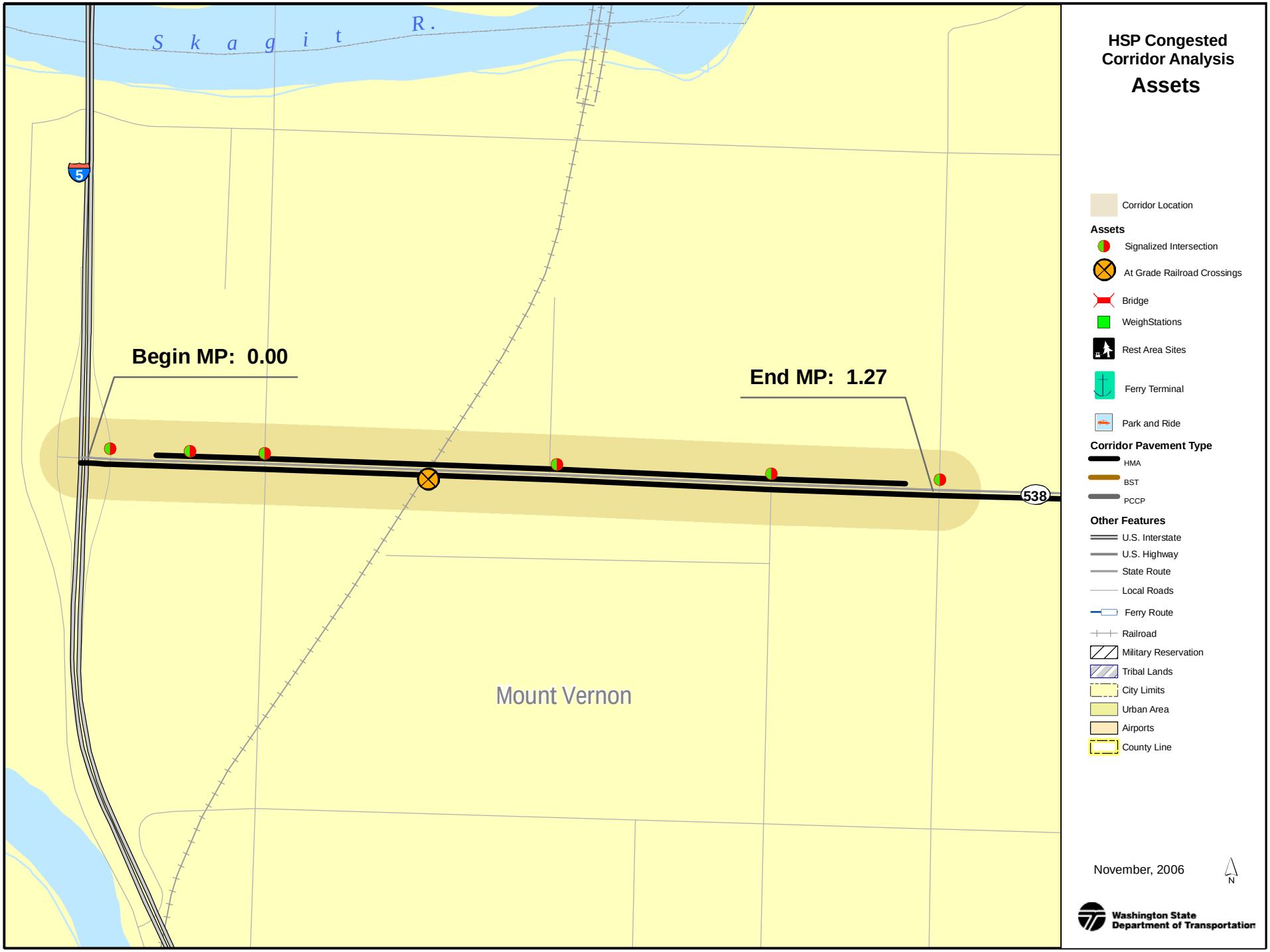
Structures:
There are no structures identified.
(Ramps, and locally owned structures (if any exist) are not identified in this section and may not be reflected on maps.)

Features Crossed:
There are no features crossed.

ITS Facilities:
There are no intelligent Transportation systems on this corridor.

Railroad Crossings:
This segment of SR 538 crosses the BNSF mainline at MP 0.51, at-grade with lights & gates.

Asset Other:
None Identified.



HSP Congested Corridor Analysis

Assets

Corridor Location

Assets

- Signalized Intersection
- At Grade Railroad Crossings
- Bridge
- WeighStations
- 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

November, 2006

N

Washington State Department of Transportation

SR 538, I-5 TO LAVENTURE ROAD

USAGE

General Origin and Destination Travel Characteristics:
None Identified.

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 19,000 to 28,000.

Significant Seasonal Average Annual Daily Traffic Changes:
None identified.

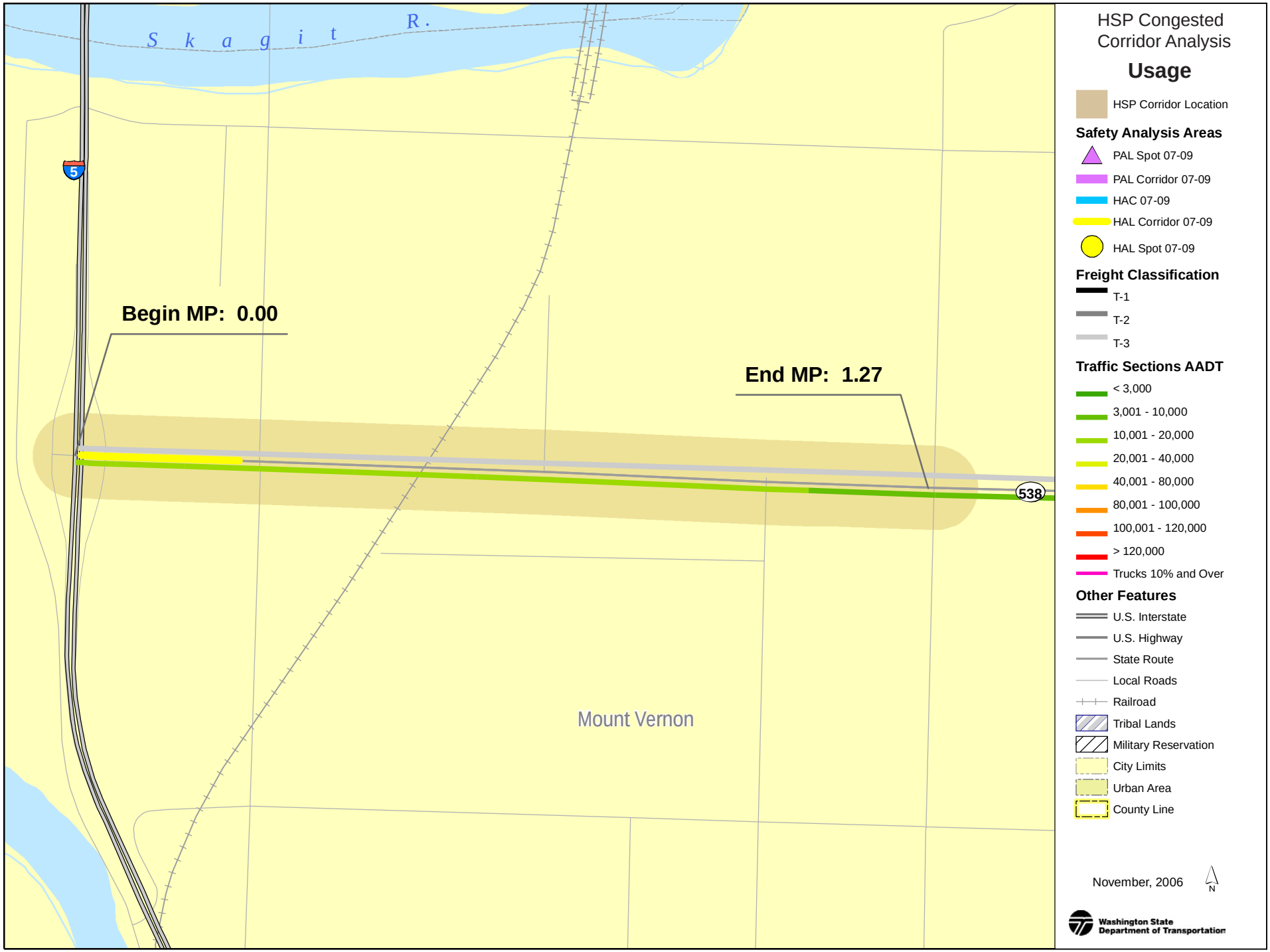
General Description of Major Average Annual Daily Traffic Locations:
None identified.

Freight:
- **Freight Classification:** T2
- **Yearly Tonnage:** 5.1M
- **Truck Percentage of Annual Average Daily Traffic:** None Identified

Additional Usage Comments:
There are no additional comments.

Average Annual Societal Cost of All Collisions: None Identified

Collisions:
- **Severe No of Collisions:** 0
- **Less Severe No of Collisions:** 90
- **List Data Years:** None identified


Skagit R.
5
Begin MP: 0.00
End MP: 1.27
538
Mount Vernon
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
November, 2006
N
Washington State Department of Transportation

SR 538, I-5 TO LAVENTURE ROAD

NEEDS AND STRATEGIES

Preservation

Pavement Condition and Needs:

This corridor section's pavement type is hot mix asphalt. From the I-5 interchange to Urban Ave the current pavement condition is poor and is 30 or more years old. This is the area of the highest volume of daily traffic and represents 32% of the corridor distance. The remaining section of this corridor was last paved in 1993.

Pavement Management Strategies:

Pavement is expected to remain HMA for the next 20 years with the exception of the intersection at Riverside Rd (SRMP 0.27) which may be resurfaced as Portland Cement Concrete Pavement if funding can be secured. The corridor is programmed for resurfacing in 2008. It may require another resurfacing near the end of the 20-year plan period.

Structures Condition and Needs:

There are none identified. (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:

Chokepoint at westbound NB on-ramp, lane drops. Riverside intersection is busiest in Skagit County.

Mobility Management Strategies:

Widening to add lanes on 538 at interchange. Access Management. Add capacity at Riverside intersection.

Safety Condition and Needs:

HAC on east end. There are 3 HAL's from I-5 to LaVenture

Safety Management Strategies:

Access Management.

Environmental Condition and Needs:

There are none identified.

Environmental Management Strategies:

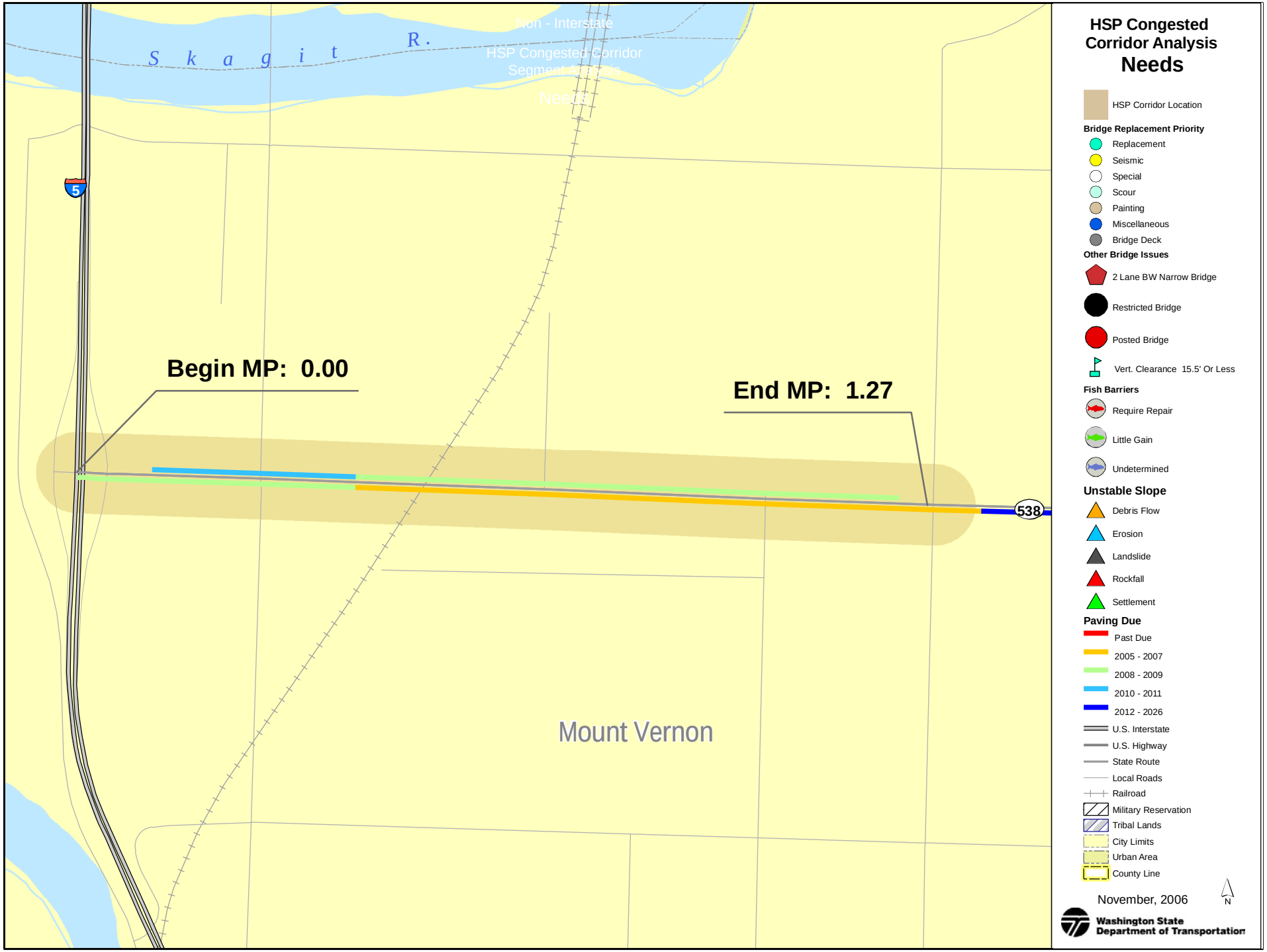
There are none identified.

Restrictions:

There are none identified.

50-Year Configuration:

Significant residential development ongoing (800 new homes) in east Mount Vernon in the next 3 years. Other communities accessible from the east side of the corridor are expected to see significant residential development over the next 50 years. The SR 538 corridor will be the primary route to employment centers and services for most of the new trips. Capacity improvements will be necessary.


Skagit R.
Non - Interstate
HSP Congested Corridor
Segment Analysis
Needs
5
Begin MP: 0.00
End MP: 1.27
538
Mount Vernon
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
Military Reservation
Tribal Lands
City Limits
Urban Area
County Line
November, 2006
N
Washington State Department of Transportation

TIERED PROPOSED SOLUTIONS

Minimum Fix

Description:

Incorporating access management strategies in the corridor will help to reduce accidents and delays caused by the many driveways which exist here. Intelligent Transportation Systems (ITS) strategies will help to make the corridor more efficient by providing real-time information to drivers, as well as the traffic operations staff. Transportation Demand Management will help to reduce the demand of vehicles using the corridor. The pavement in this corridor will need to be rehabilitated, based on data from the Washington State Pavement Management System. Some intersection and spot capacity improvements will be needed to address congestion/delay issues. These improvements could include signals, roundabouts, turn lanes, and auxiliary lanes. Some local street enhancements will be needed to address traffic operation problems which will arise in the future. These enhancements will allow drivers to have a choice of routes, and will reduce the demand on the State Route.

Delay Reduction: None identified.
Collision Reduction: 30%
Deficient Concrete Lane Miles: None identified.
Total Estimate Cost: $62 M

Cost Estimate Explanation:

Access Management Strategies ~ $5M, ITS approximately $5M, TDM approximately $10M (incl. 1 P&R), Pavement Rehab approximately $2M, Int Improvement 4 @ $5M ea. approximately $20M, and Local Street Enhancements approximately $20M.

Minimum Fix Benefits:

Keep traffic flowing using by maximizing the existing roadway as much as possible.

Moderate Fix

Description:

Incorporating access management strategies in the corridor will help to reduce collisions and delays caused by the many driveways which exist here. Intelligent Transportation Systems (ITS) strategies will help to make the corridor more efficient by providing real-time information to drivers, as well as the traffic operations staff. Transportation Demand Management will help to reduce the demand of vehicles using the corridor. The pavement in this corridor will need to be rehabilitated, based on data from the WSPMS. Some intersection and spot capacity improvements will be needed to address congestion/delay issues. These improvements could include signals, roundabouts, turn lanes, and auxiliary lanes. Some local street enhancements will be needed to address traffic operation problems which will arise in the future. These enhancements will allow drivers to have a choice of routes, and will reduce the demand on the State Route. The interchange of SR 538 and I-5 will need to be improved in order to improve the efficiency of vehicle movement and processing.

Delay Reduction: None identified.
Collisions Reduction: 30%
Deficient Concrete Lane Miles: None identified.
Total Estimate Cost: $82 M

Cost Estimate Explanation:

Access Management Strategies approximately $5M, ITS approximately $5M, TDM approximately $10M (incl. 1 P&R), Pavement Rehab approximately $2M, Int Improvement 4 @ $5M ea. approximately $20M, Interchange Improvements approximately $20M, and Local Street Enhancements approximately $20.

Moderate Fix Benefits:

Keep traffic flowing using by maximizing the existing roadway as much as possible. Improve the interchange to eliminate the existing bottleneck (widen college to 6-lanes underneath I-5)

Maximum Fix

Description:

Intelligent Transportation Systems (ITS) strategies will help to make the corridor more efficient by providing real-time information to drivers, as well as the traffic operations staff. Transportation Demand Management will help to reduce the demand of vehicles using the corridor. The interchange of SR 538 and I-5 will need to be reconstructed in order to improve the efficiency of vehicle

movement and processing. A change to a limited access facility will be needed in order to alleviate mobility and safety concerns. Capacity improvements throughout the corridor will be needed to adequately serve the demand on the facility.

Delays Reduction: None identified.
Collisions Reduction: 30%
Deficient Concrete Lane Miles: None identified.
Total Estimate Cost: $110 M

Cost Estimate Explanation:
Access Management Strategies approximately $5M, ITS approximately $5M, TDM approximately $10M (incl. 1 P&R), New Interchange approximately $40M, and change to Limited access facility approximately $50M.

Maximum Fix Benefits:
Re-build interchange to a SPUI, make SR 538 limited access to beyond RR tracks at MP 0.51. This will create a free-flow traffic situation to get cars away from the interstate as efficiently as possible.

Off-System Solutions:

None identified.

Special Studies/Reports:

SR 538 RDP.
I-5 Master Plan-IJR.

Required Studies

None identified.

Start/Completion Date of Study:

None identified.

ExpectedResults

None identified.

Funded Projects within Corridor Limits

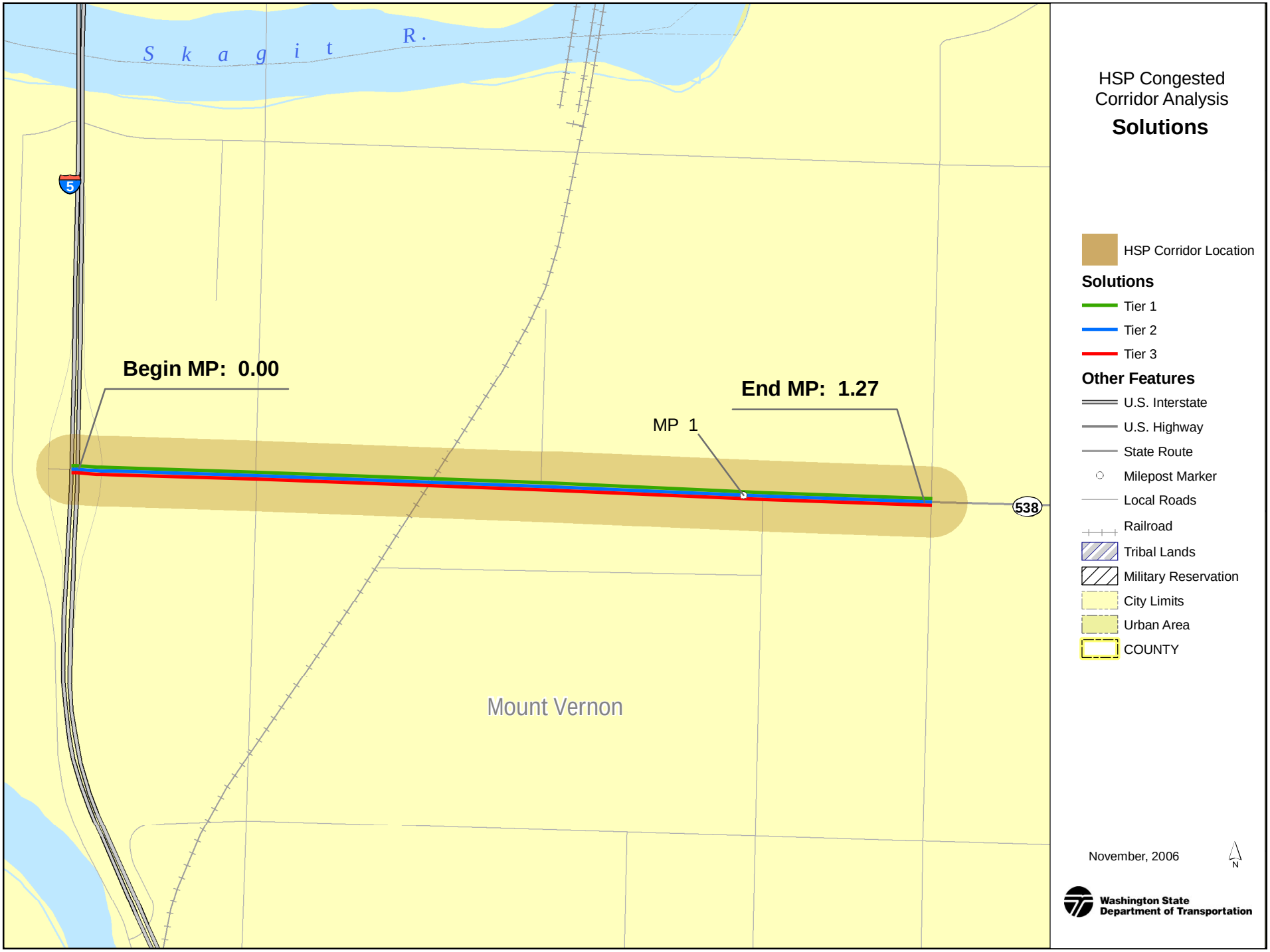
Project No	Title
A53800P	SR I-5 to LaVenture Road Paving

Additional Comments:

None identified.

Data Sources and Contacts used:

None identified.


Skagit R.
5
Begin MP: 0.00
End MP: 1.27
MP 1
538
Mount Vernon
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
November, 2006
N
Washington State Department of Transportation