Background

Beacon Light and Purple Sage Roads are minor arterial streets north of the cities of Notus, Middleton, Star, and Eagle. They run east-west and are parallel to State Highway 44. The streets do not meet; a two-mile gap exists between them.

State Highway 44 is the only continuous east-west route between Ada and Canyon Counties north of the Boise River. Growth in Middleton, Star, and Eagle has resulted in greater demand on the streets and highways in this area. Terrain in the foothills acts as a barrier to road connectivity. If a connection between Beacon Light Road and Purple Sage Roads can be created north of Star, the two roads can serve as an alternate east-west route for northern Ada and Canyon Counties.

The Corridor at a Glance

- Both roads are two-lane, rural/minor arterials with narrow shoulders in most places
- Purple Sage Road extends 16 miles from US Highway 20/26 near Notus to Can-Ada Road north of Star
- Beacon Light Road runs for over eight miles, from Wing Road in Star to State Highway 55 in Eagle
- There is a gap of approximately two miles between the east end of Purple Sage Road and the west end of Beacon Light Road
- There are no bike lanes on either road; a few sidewalks adjacent to recent developments exist in the Eagle area
- There are no transit services or park-and-ride lots in the corridor
- Points of interest (west to east) on Purple Sage Road
  - US 20/26 intersection west of Notus
  - Notus Elementary School and Notus Jr./Sr. High School
  - I-84 underpass, Old US Highway 30 intersection
  - Purple Sage Golf Course
  - Willow Creek drainage
- Points of interest (west to east) on Beacon Light Road
  - River Birch Golf Course and Woodriver Cellars
  - State Highway 16 intersection
  - Dry Creek drainage
  - State Highway 55 intersection
Problem
Traffic conditions will deteriorate on State Highway 44 as development continues in the Middleton, Star, and Eagle areas. Congestion on State Highway 44 will force residents to seek alternate routes for short local trips to school, work, and shopping. Beacon Light Road, Purple Sage Road, and other east-west streets will see an increase in traffic. More development activity also highlights the need for an alternate east-west route for emergency response and access.

- Traffic on State Highway 44 east of State Highway 16 ranges from 15,000 to 34,000 vehicles per day, and is projected to increase to 55,000 in 2040.

- A Beacon Light-Purple Sage connection would have a capacity of about 15,000 vehicles per day, similar to other two-lane roads.
  - The connection is expected to experience a little more than its capacity—16,000 vehicles per day, and some of that traffic would be drawn from State Highway 44.
  - If Beacon Light and Purple Sage Roads were connected and funding became available for the other improvements listed in CIM 2040 (Chapter 6, Table 6.5), demand on State Highway 44 would be reduced by about 5,000 vehicles a day.

- Because no direct connection exists between the two roads, it is currently a 13-minute drive between the Beacon Light/State Highway 16 intersection to Purple Sage Road. By 2040 the same trip is expected to take 30 minutes.

Drive Times, 2013 vs. 2040, Purple Sage Road to Beacon Light/State Highway 16
Each pie chart represents one hour. Drive times are in dark brown.

<table>
<thead>
<tr>
<th>Current and Future</th>
<th>2013</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>1,499</td>
<td>13,468</td>
</tr>
<tr>
<td>Households</td>
<td>511</td>
<td>4,629</td>
</tr>
<tr>
<td>Employment</td>
<td>68</td>
<td>590</td>
</tr>
</tbody>
</table>

* 2040 Funded reflects the 2013 regional transportation system and all the expansion/improvement projects that are funded in agencies’ approved budgets or capital improvement plans, listed in CIM 2040 (Chapter 6, Tables 6.2 and 6.3).

** Unfunded projects/improvements includes all the unfunded needs discussed in this summary and listed in CIM 2040 (Chapter 6, Table 6.5).

1 Population, housing, and employment in the corridor are based on neighborhoods and other developments near the road.
When a road, transit line, bikeway, or other part of the transportation system is improved, it can accommodate more traffic and, therefore, it attracts more users. Even with more traffic, traveling conditions will be better with the improvements.

**Other Considerations**

**Roadway Users**
Most of the analysis to identify the increased traffic issue is based on cars, the main mode of transportation on streets and highways. Pedestrians, bicycles, and vehicles such as freight trucks, farm equipment, and buses may also share the road.

**Environmental Issues**
Increased traffic on a road can impact the surrounding environment as well as the people who live nearby. Before major road projects are built, their potential effects are analyzed to make sure they meet environmental regulations as well as provide for “environmental justice,” ensuring all people can be involved and are treated fairly.²

There are three sensitive issues/areas to consider:
- the slope of the foothills
- several existing residential neighborhoods and a private airstrip, both of which limit the potential alignments
- a small area with minority population concentrations on the western end of the corridor, some distance from this potential project

**Budgeted Projects**
There are no pathway/bike lane or park-and-ride construction projects, or any new bus services, in approved budgets for Beacon Light Road and Purple Sage Road.

**Roadway**: The widening of State Highway 44 from State Highway 16 to Linder Road is in the Idaho Transportation Department’s long-range budget. Also, ACHD’s Capital Improvement Plan³ includes projects on Beacon Light Road. There are no budgeted projects on Purple Sage Road, which is managed by Canyon Highway District.

**Unfunded Future Needs**

**Roadway**: To alleviate congestion and improve safety in northern Ada and Canyon Counties, several projects have been identified but are not yet funded:
- widening State Highway 16 from two to four lanes from the Gem County line to State Highway 44
- constructing the State Highway 16 Expressway south to I-84
- widening State Highway 44 from State Highway 16 westward
- build a road connecting Purple Sage Road and Beacon Light Road

In January 2014 the estimated cost to rebuild existing road sections, and construct new two-lane road sections to connect Purple Sage Road and Beacon Light Road, was $38 million.

**Bus Service/Park and Ride**: There are no regular fixed bus routes proposed in the regional transit services plan, valleyconnect, for Purple Sage Road or Beacon Light Road. Valleyconnect does propose services along State Highway 44 and State Highway 16 as well as flex bus routes throughout Middleton,

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² See federal environmental justice definitions at [www.epa.gov/region07/ej/definitions.htm](http://www.epa.gov/region07/ej/definitions.htm).
³ [www.achidaho.org/Departments/ROWDS/CIP.aspx](http://www.achidaho.org/Departments/ROWDS/CIP.aspx)
Star, and Eagle. Valleyconnect also proposes a new park-and-ride lot for State Highway 16 north of the City of Star, which could serve this corridor.

**Walking/Biking:** The City of Middleton’s pathways plan includes routes along canals/waterways in the general vicinity of Purple Sage Road. There are no current plans showing this connection as a bike path, and no plans to add bike lanes to Purple Sage Road or Beacon Light Road.

*Updated July 2014*