Grants Pass Pedestrian Connectivity Analysis

The Federal Highway Administration (FHWA) recently (2016) published the guidebook *Measuring Multimodal Network Connectivity* and is considered national best practice. The FHWA guide includes recommended pedestrian connectivity, including intersection density, route directness, pedestrian level of traffic stress (PLTS), and network completeness. ODOT’s Analysis Planning Manual (APM) also recommends applied PLTS as part of city transportation planning. The applied FHWA guide is supplemented with additional measures of street lighting coverage, pedestrian crash history (2011-2015) and key destination accessibility metrics (schools, parks, senior housing and public transit) to better quantify and map the walking network in Grants Pass.

Each measure is described below.

The comprehensive connectivity analysis is completed to help better identify pedestrian system gaps in Grants Pass and guide the TSP development process.

- **Intersection Density**

  Fundamental urban design principles emphasize quality transportation network development by minimizing block lengths and dead-ends to achieve multiple, multi-modal connections.

  *Intersection density* is a ratio of the number of street intersections divided by the area of measure, typically per square mile. Intersection density is inversely correlated with block length, thus the measure can indicated the “granularity” of a gridded street network.

  Intersection density was calculated and mapped for the entire Grants Pass urban area.

- **Route Directness**

  Improved street connectivity can provide a variety of benefits through measures to improving accessibility with increased route options, improving walkability and reducing vehicle travel. Improved connectivity tends to increase transportation system performance by increasing route options. It improves emergency response by allowing emergency vehicles more direct access, and reduces the risk that an area will become inaccessible if a particular part of the street network is blocked. A more connected street system allows a fire station to serve about three times as much area as in an area with unconnected streets. Increased street and non-motorized path connectivity reduces per capita vehicle travel and improves overall accessibility, particularly for non-drivers. It can therefore help reduce traffic congestion, accidents and pollution emissions, and improve mobility for non-drivers.
A pedestrian route directness (accessibility) index is calculated by dividing direct travel distances by actual travel distances between individual land uses. If streets are connected in a network of small blocks, and have good sidewalks, people can travel nearly directly to many destinations, resulting in a high index. If the street network has many unconnected dead-ends and blocks are large, people must travel farther to reach destinations, resulting in a lower index. RDI directly measures the transportation network routes and is sensitive to the urban design principle of shorter block length. A pedestrian route directness index of 1.0 is the best possible rating, indicating that pedestrians can walk directly to a destination. An average value of 0.65 is considered acceptable.

A pedestrian route directness index was calculated and mapped for each land use parcel within the Grants Pass urban area, based on the prevailing street network and existing pedestrian pathways.

### Level of Traffic Stress (LTS)

The Pedestrian Level of traffic stress (PLTS) evaluates pedestrian facilities through the perspective of the pedestrian. Pedestrian segment PLTS evaluation, includes: sidewalk condition, physical buffer type, total buffering width, and general land use. For the purposes of the pedestrian connectivity analysis, the PLTS evaluation exclusively references the sidewalk condition PLTS score. Sidewalk condition includes information about the surface conditions and width of sidewalks. Based on a 2018 Google™ Streetview inventory, the study team assumed all sidewalks have surfaces in “fair” condition for collectors, arterials, and state highways within the Grants Pass urban area. Sidewalk widths (or missing sidewalks) vary throughout the city.

PLTS score range from 1 (highest quality) to PLTS 4 (lowest quality) as follows:

- **PLTS 1**: Minimal traffic stress - Easily navigable by cyclists of low skill level - Low traffic speeds - Sidewalk or paths buffered from street
- **PLTS 2**: Little traffic stress but requires paying attention to traffic - Suitable for children 10 years or older, teens, and adults - Sidewalk conditions are fair to good
- **PLTS 3**: Moderate stress - Suitable for most able-bodied adults - Moderate traffic speeds - May require pedestrian to travel on shoulder
- **PLTS 4**: High traffic stress - For able-bodied adults - Higher traffic speeds - Narrow or no pedestrian facilities

### Network Completeness

Network completeness scores the sidewalk network along city’s major street system and state highways. Street and highway segments are scored in three categories: no sidewalks, partial sidewalks, or sidewalks on both sides of each street. Existing sidewalk data is provided by the City of Grants Pass, and supplemented with the PLTS inventory for collector/arterial streets and state highways. The sidewalk network completeness summary statistics are illustrated by street class, for street segments located exclusively within each subarea.

### Lighting Coverage

Luminance from street lights for sidewalks and crosswalks is essential for better nighttime visibility and pedestrian safety. The city’s GIS inventory of public street lights and lamp type is used to estimate the luminance area and coverage (percentage) along city collector and arterial streets. As a general guide, the city seeks to provide street lights spaced at intersecting streets (block level).

### Access to Destinations

Accessibility measures are used to quantify and map the sidewalk coverage within a five-minute walk to four key pedestrian trip destinations: parks, schools, senior housing, and transit routes/stops.
Safety

Pedestrian crash history records (6-year period, 2010-2015) are used in the TSP safety analysis. The severity of pedestrian crashes are mapped and examined, and the major contributing cause(s) includes: lighting condition, traffic control devices, and whether drugs/alcohol or excessive vehicle speed is involved.

Report Format

For each of the seven subareas the report maps and describes the seven Pedestrian system metrics as follows:
Intersection Density

The historic city settlement and present-day downtown Grants Pass was platted with short block lengths, ranging from 280-350 feet, resulting in a compact grid network. Downtown Grants Pass has the highest concentration of intersections across the urban area. Lower intersection density values near the Rogue River reflect the longer block lengths and some incomplete street links.

Route Directness

The Downtown Grants Pass compact street grid provides multiple routes for vehicle circulation and optimal non-motorized connectivity. Individual tax lots score very high on the Pedestrian Route Directness Index. The Index values decrease significantly nearer the Rogue River due to incomplete street links and the limited number of bridge crossing options.
Network Completeness

Almost all of the downtown Grants Pass streets have sidewalks on one or both sides. Five percent of local streets in downtown lack sidewalks on both sides of the street. Short portions of the city’s arterial streets (F, G and M Streets) are missing sidewalks on one side. Highway 99 (6th and 7th Streets) has sidewalks on both sides throughout downtown Grants Pass.

Level of Traffic Stress

Most highway, arterial and collector streets are scored with low levels of pedestrian traffic stress (PLTS 1 and 2) - conditions that are acceptable to most users of the downtown pedestrian network.

The missing sidewalks along F Street (east of 8th Street) is the key contributing factor behind the high traffic stress (PLTS 4) on city arterial streets.
Lighting Coverage

An estimated 34 percent of the city’s collector and arterial streets are lit by streetlights in the downtown area. Arterial street sections needing additional lighting include A, E, F and M Streets. Portions of 6th and 7th Streets are also not well lit.

Collector streets in need of additional lighting include 3rd Street (north of F Street), D Street and J Street.

Access to Destinations

The area’s street grid and sidewalk network provides good access to all key city parks, senior housing and transit destinations. The sidewalk accessibility scores well for all street classes within the downtown area, exceeding the citywide average.
Safety

Downtown has the highest pedestrian traffic within Grants Pass. Between 2011 and 2015 there were no fatal pedestrian crashes and 33 pedestrian injury crashes. 64% percent of all crashes occurred at controlled intersection, with 45% at traffic signals. The leading causes of these crashes were driver-related, either the driver did not yield (79%), the driver was reckless (6%) or speeding (3%).

27 crashes (82%) occurred within a posted speed limit of 25mph. Only 3% of crashes occurred in twilight or involved drugs and/or alcohol.

Key Findings

To improve pedestrian access and safety, the Grants Pass TSP development process should consider:

+ Improving the pedestrian visibility to on-coming drivers along 6th Street and 7th Street through use of advanced warning signs and possible street corner curb extensions (may require limiting short sections of on-street parking)
+ Enhancing pedestrian crossings and traffic control improvements at the junction of G Street and 3rd Street
+ Refining the land development code to require additional east-west street grid connections near the Rogue River (south of M Street) if/when re-developed
+ Prioritizing new sidewalks with appropriate buffering and new street lighting along:
  - E Street
  - F Street
  - 4th Street
Intersection Density

Older development in the northwest subarea included good, small block spacing from east to west, but much longer blocks from downtown, north to the city limits. In these areas the street grid is fair.

Newer developments in the northwest foothills were built with multiple dead-ends and a series of curvilinear streets due to the prevailing steep hills. The intersection density scores in this area is relatively poor. On the whole, the northwest subarea intersection density score is slightly lower than the city average.

Route Directness

Individual parcel scores of connectivity range significantly in northwest Grants Pass, from good near the city center, to poor in the north foothills and north end of the city near I-5. The subarea connectivity is about the same as the citywide average.
Network Completeness

Missing sidewalks along Highland Avenue constitute the significant gaps in network on city arterial streets. Gaps in the collector street network are found on Manzanita Avenue and Savage Street.

Level of Traffic Stress

Sidewalk conditions along 6th Street (OR 99) and the limited sidewalk network along Highland Avenue are fairly good (PLTS 2).

There are missing sidewalks along Manzanita Avenue and Savage Street, contributing to high traffic stress (PLTS 4) scores.
Lighting Coverage

Only 12 percent of the city’s collector and arterial streets are lit by streetlights in the northwest subarea, a coverage rate considerably lower than the city average.

Highland Avenue is in need of infill lighting, as are other city collector streets, including: Hawthorne Avenue, Midland Avenue, Savage Street and Morgan Lane (east of Highland Avenue).

Access to Destinations

With one exception, the northwest subarea provides fair to good sidewalk coverage along all street classes with access to many key destinations. Sidewalk coverage along older, local streets is poor within the Highland Elementary and North Middle School walksheds.

Sidewalk Coverage within Walkshed by Street Class

<table>
<thead>
<tr>
<th>Street Class</th>
<th>Local Streets</th>
<th>Collectors</th>
<th>Arterials</th>
<th>State Highways</th>
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</thead>
<tbody>
<tr>
<td>Sidewalk Coverage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100-86%</td>
<td>85-60%</td>
<td>&lt;60%</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>Fair</td>
<td>Poor</td>
<td></td>
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</tbody>
</table>

Compared to City (Grants Pass) Average

+ better than

O equal to

− worse than
Safety

Within this subarea, there were no fatal crashes and 16 non-fatall injury crashes. Four primary causes were identified for these crashes: driver did not yield, vehicle improperly parked, pedestrian illegally in roadway, and other. 44% percent of crashes occurred at locations with no traffic control, 25% at stop signs, and 19% at traffic signals. Eight crashes (50% of all crashes) occurred in areas with a posted speed limit of 25 mph. 13% of crashes occurred during twilight. None of the crashes involved drugs and/or alcohol.

Key Findings

To improve pedestrian access and safety, the Grants Pass TSP development process should consider:

- Refining the land development code to require additional east-west street grid connections near the I-5 interchange if/when re-developed
- Prioritizing new sidewalk improvements with appropriate buffering along:
  - Highland Avenue
  - Manzanita Avenue
  - Savage Street
Intersection Density

Similar to the northwest subarea, older development in the northeast subarea included good, small block spacing from east to west, but much longer blocks from downtown, north to the city limits. In these areas the street grid is fair.

North of Savage Street, the original street plat and development is structured around significantly long, north-south blocks with very little opportunity for connections. The intersection density scores in this area is relatively poor. On the whole, the northwest subarea intersection density score is lower than the city average.

Route Directness

Individual parcel connectivity is good along 7th Street, Madrone and Savage Streets. Poor connectivity pockets are found between the collector street grid and near the I-5 interchange – indicating a poor development of local streets. Similar to northwest, the northeast subarea has a route directness index value similar to the city average.
Network Completeness

A plan for and the eventual construction of sidewalks along Hillcrest Drive, portions of 10th Street and Madrone Street, and along Beacon Drive will help fill the gaps in the city’s collector street network in the area.

Level of Traffic Stress

Sidewalk widths along 7th Street (OR 99) are less than 5 feet, resulting in moderate stress levels to the typical pedestrian. Installing buffers and widening the 7th Street sidewalks will improve pedestrian comfort and safety.

Missing sidewalks along Hillcrest Drive, portions of 10th Street and Madrone Street, and along Beacon Drive contribute to the low PLTS comfort ratings (PLTS 3 and 4).
Lighting Coverage

The northeast subarea arterial and collector streetlight coverage is only 11 percent, well below the average, citywide coverage rate.

Portions of A Street, Madrone Street, Savage Street, Hillcrest Drive, 10th Street and Beacon Drive are all in need of additional in-fill street lighting.

Access to Destinations

Northeast Grants Pass enjoys good sidewalk coverage to all destinations along 7th Street (OR 99) and city arterial streets. There is good sidewalk to all destinations along collector streets except near city parks, which has fair sidewalk coverage. Sidewalk coverage along the local street network is mostly fair to poor within the key destination walksheds. Sidewalk coverage to schools and transit stops/routes along 7th Street is higher than Grants Pass average.
Safety

Within the northeast subarea there were no fatal crashes and six non-fatal injury crashes. Five primary causes were identified: driver did not yield, driver inattentive, improper overtaking, pedestrian illegally in roadway and other. About 33% of all crashes occurred at controlled intersections and 17% occurred at locations with no traffic control. Three crashes (50%) occurred in areas with a posted speed limit of 25 mph. Half of crashes occurred in darkness—the largest rate of any subarea. None of the crashes involved drugs and/or alcohol.

Key Findings

To improve pedestrian access and safety, the Grants Pass TSP development process should consider:

+ Refining the land development code to require additional east-west street grid connections near the I-5 interchange if/when re-developed
+ Installing new (in-fill) street lighting along portions of A Street
+ Prioritizing new sidewalk improvements with appropriate buffering along:
  - Hillcrest Drive
  - Savage Street
  - 10th Street
  - Beacon Street
  - Madrone Street
  - A Street
Intersection Density

Much of the central eastside development is a mix of newer commercial and industrial lands structures around a limited network of collector/arterial streets and state highways. The network provides very limited connectivity and thus the intersection density is quite poor. Periphery edges of the subarea north and west near the city center are structured around a more gridded street network. South of M Street, the prevailing street network is dotted with dead-end streets and cul-de-sacs. On whole, the subarea network density score is lower than the city average.

Route Directness

The western portion of the central east subarea (close to downtown) and along A and D Street provides good parcel-level connectivity. Elsewhere the sparse street work results is poor parcel-level connectivity.
Network Completeness

A plan for and the eventual construction of sidewalks along US 199, M Street and Foothills Boulevard will help fill the gaps in the city’s collector/arterial street and state highway network.

Level of Traffic Stress

Missing sidewalks along US 199 result in poor pedestrian comfort ratings (PLTS 4). Other important streets with missing sidewalks and poor PLTS scores include several segments of M Street and Foothills Boulevard (between US 199 and D Street, and east of Agness Avenue).
Lighting Coverage

One-third of the city’s arterial/collector street network is covered by street lighting in Central East Grants Pass, higher than the citywide coverage rate. Newer commercial development along E and F Streets included installation of regularly-spaced street lights. M Street, A Street, D Street, Beacon Drive and Agness Avenue are in need of additional in-fill street lighting.

Access to Destinations

Sidewalk coverage along arterial streets within key destination walksheds is good in the central east subarea of Grants Pass. Missing sidewalks along collector streets (Mill Street and J Street) results in poorer coverage within parks and senior housing walksheds. Missing sidewalks along multiple local streets resulting in poor to fair coverage with all walksheds in the subarea, especially near the George H. Eckstein and Grants Pass Skate parks and Riverside Elementary School. Sidewalk coverage is higher for transit stops and routes than citywide average.

Sidewalk Coverage within Walkshed by Street Class
Safety

There were two fatal crashes and 11 non-fatal injury crashes. Five primary causes were identified for these crashes: driver did not yield, pedestrian illegally in road, driver did not stop, pedestrian wearing dark clothing, and traffic light violation. One fatal crash occurred on US 199 (45 mph posted speed limit) and the other on 9th Street (25 mph posted speed limit). Both occurred in darkness with the driver not yielding right of way as the primary cause. Additional causes include pedestrian illegally in roadway (often wearing dark clothing). About 33% of all crashes occurred at locations with no traffic control. An additional 15% occurred at traffic signals and 31% at stop signs. Non-fatal injury crashes occurred mostly within the posted speed limit of 25 mph. 8% of crashes involved drugs and/or alcohol.

Key Findings

To improve pedestrian access and safety, the Grants Pass TSP development process should consider:

+ Installing new (in-fill) street lighting along portions of D Street, M Street, 9th Street and Portola Drive
+ Evaluating and identifying east-west street corridor with pedestrian pathway/cycle track connection between eastern city boundary and central city (with cross-river links to Baker Park)
+ Prioritizing new sidewalks with appropriate buffering along:
  - US 199
  - M Street
  - Foothills Boulevard
Intersection Density

The southeast Grants Pass street network is dominated by a series of largely-spaced, connected streets and multiple dead-ends. This subarea has a lower concentration of intersections than Grants Pass as a whole (294 intersections per square mile) and much lower concentration than the Downtown subarea (708 intersections per square mile).

Route Directness

Individual land parcels along the city collector streets are fairly well connected. Land parcels in between are poorly connected indicating a poor level of local street connectivity. The average route directness index for the subarea is lower than the city average.
Network Completeness

Missing sidewalks along highways US 199 and OR 99 constitute significant gaps in highway network. Gaps in the collector street network are found on Fruitdale Drive, Cloverlawn Drive and Hamilton Lane.

Level of Traffic Stress

Portions of US 199 and OR 99 have missing sidewalks and thus poor pedestrian comfort ratings (PLTS 4). Other important city streets with similar conditions include Fruitdale Drive, Cloverlawn Drive and Hamilton Lane.

The city recently completed new sidewalk construction along Drury Lane, and these new facilities were not captured in the original inventory and initial PLTS scoring. Drury Lane is now rated at PLTS 2.
**Lighting Coverage**

Lighting coverage in southeast Grants Pass is 27%. Fruitdale Drive, Cloverlawn Drive and Hamilton Lane are in need of additional in-fill street lighting.

**Access to Destinations**

Sidewalk coverage within the southeast subarea is generally very low across all street classes. Low sidewalk coverage along Fruitdale Drive results in poor coverage within the Morrison Centennial Park and Fruitdale Elementary walksheds. Good sidewalk coverage along Parkdale Drive provides good connectivity to The Suites Assisted Living facility. Poor sidewalk coverage along Highway 99 east of Hamilton Lane results in poor accessibility to transit. Sidewalk coverage and access to all destinations along local and collector streets is lower than the Grants Pass average.
Safety

There was one fatal crash and ten non-fatal injury crashes in southeast Grants Pass. Four primary causes were identified for these crashes: pedestrian illegally in road, driver did not yield, driver ran traffic light, and other. For non-fatal injury crashes, seven occurred on state highways and three on local streets. The one fatal crash occurred on OR 99 (35mph posted speed limit), drugs and alcohol were involved in this crash, though the pedestrian was illegally in road. 27% of the crashes occurred at controlled intersections. This subarea experienced a higher percentage of crashes involving drugs and/or alcohol (14%) than the city average.

Key Findings

To improve pedestrian access and safety, the Grants Pass TSP development process should consider:

+ Installing new (in-fill) street lighting along portions of Fruitdale Drive, Hamilton Lane, Grandview Avenue.
+ Prioritizing new sidewalks with appropriate buffering along:
  - US 199
  - Hamilton Lane
  - Fruitdale Drive
  - OR 99
  - Cloverlawn Drive
Intersection Density

Southwest Grants Pass is similar to southeast, however, the newer residential subdivisions along Redwood Avenue and Willow Lane have significantly higher grid connectivity. This area has a total of 1,100 intersections, with 263 intersections per square mile. Southwest has a slightly lower concentration of intersections than Grants Pass as a whole.

Route Directness

Southeast Grants Pass has mixed, parcel-level connectivity, with pockets of good connectivity along Redwood Avenue and Harbeck Road. Elsewhere the existing subdivision local street network is not as connected as the more traditional grid system. Overall, the area’s composite route directness index is lower than the city average.
Network Completeness

Missing sidewalks along US 199 and OR 99 constitute a significant gap in the highway network. Gaps in the arterial/collector street network are found on Allan Creek Road, Harbeck Road and Willow Lane.

Level of Traffic Stress

Though there is a separate pathway along the south side of US 199, the absence of sidewalks along the north side results in poor comfort ratings and low PLTS scoring (PLTS 4). Relative narrow sidewalks along OR 238 result in poor comfort ratings. Missing sidewalks along Allan Creek Road, Harbeck Road and Willow Lane result in poor pedestrian comfort ratings (PLTS 4).
Lighting Coverage

As a result of recent development and new street construction, the arterial and collector street lighting coverage in southwest Grants Pass is the highest of the city subareas, almost 50%. Allen Creek Road and Harbeck Road (near South Middle School) are in need of additional in-fill street lighting.

Access to Destinations

A mix of sidewalk coverage prevails in the southwest subarea of Grants Pass. Missing sidewalks along Willow Lane and Allen Creek Road result in poor accessibility for arterials within the parks and transit walksheds. There is poor accessibility along local streets within the parks walksheds. Similarly, there is poor accessibility along local streets within the Allan Park Elementary School walkshed. The senior housing walksheds generally have good sidewalk coverage and accessibility. Access to transit along OR 199 is poor due to the lack of sidewalks on the north side of the highway.
Safety

In southwest Grants Pass there were four fatal crashes and eleven non-fatal injury crashes. Four primary causes were identified for these crashes: pedestrian illegally in roadway, driver did not yield, driver ran traffic light, and reckless driving. Two fatal crashes occurred on US 199 and two on Redwood Avenue. Redwood Avenue has recently been reconstructed with new sidewalks since the crash reporting period. All four fatal crashes occurred in darkness, within 35 or 45 mph speed zones, and three involved alcohol and/or drugs. Three had pedestrian illegally in roadway as the primary cause. Only one occurred at a control intersection. Among all crashes, 40% occurred at controlled intersections. 27% of crashes occurred in darkness with no streetlights. This subarea experienced the highest percentage of crashes involving drugs and/or alcohol at 17%.

Key Findings

To improve pedestrian access and safety, the Grants Pass TSP development process should consider:

+ Installing new (in-fill) street lighting along portions of Allan Creek Road and Harbeck Road (especially near South Middle School)
+ Evaluating and identifying new, east-west street corridor options with pedestrian pathway/cycle track connection between the western and eastern city boundaries, south of US 199 and OR 99
+ Prioritizing new sidewalks with appropriate buffering along:
  o US 199
  o Harbeck Road
  o OR 238
  o Willow Lane
Intersection Density

The original street platting in the central west subarea is quite similar to the small block, tight grid of downtown Grants Pass. In this area the intersection density is fairly high. In the northwest hills and near the Rogue River the street system is more sporadic, with poorer intersection density scores. This subarea has a total of 808 intersections, with 447 intersections per square mile. This subarea has a higher concentration of intersections than the Grants Pass average.

Route Directness

Central west Grants Pass has a small gridded street network and route directness index to downtown, except for those sparsely connected neighborhoods near the Rogue River and into the northwest hills. Overall, the area’s composite route directness index is higher than the city average.
Network Completeness

A plan for and the eventual construction of sidewalks along Lincoln Road, Booth Street, F Street, B Street and portions of Bridge Street will help fill the gaps in the city’s collector/arterial street network.

Level of Traffic Stress

Missing sidewalks along Lincoln Road, Booth Street, F Street, B Street and portions of Bridge Street result in poor pedestrian comfort ratings (PLTS 3 and 4).
Lighting Coverage

The central west subarea includes some of Grants Pass’ older neighborhoods and industrial development where street light installation was limited. Only 16% of the city arterial and collector streets are lit, well below the citywide coverage rate.

Portions of Bridge Street, G Street, Pine Street and Booth Street are all in need of additional in-fill street lighting.

Access to Destinations

This subarea provides fair and good sidewalk coverage and accessibility within the parks, schools, and senior housing walksheds. Access to transit is poor along local street connections to existing transit streets, and missing sidewalks along G Street and Bridge Street result in poor arterial street access within the transit walksheds. Missing sidewalks along B Street, F Street and Booth Street result in the poor access scores within park walksheds. Sidewalk coverage is generally higher than Grants Pass average within Parkside Elementary School walkshed.
Safety

Within this subarea, there was one fatal crash and seven non-fatal injury crashes. Three primary causes were identified for these crashes, as seen in the pie chart below. For crashes resulting in an injury, three occurred on arterials, one on collector, and three on local streets. The fatal crash occurred on G Street (25 MPH posted speed limit) at dusk. The primary cause was the driver failing to yielding right of way.

The primary crash causes of pedestrian crashes were the pedestrian was illegally in roadway or the driver failed to yield the right-of-way. 63% of all crashes occurred at locations with no traffic control. The remaining crashes occurred at stop signs (25%) and unknown or not definite locations (13%). 50% of the pedestrian crashes occurred at twilight or at darkness without streetlights—the largest of any subarea. 13% of the crashes involved drugs and/or alcohol.

Key Findings

To improve pedestrian access and safety, the Grants Pass TSP development process should consider:

- Installing new (in-fill) street lighting along portions of Bridge Street, G Street, Pine Street and Booth Street
- Evaluating and identifying new non-motorized bridge connection to southwest Grants Pass (ultimately Rogue Community College)
- Prioritizing new sidewalks with appropriate buffering along:
  - Lincoln Road
  - B Street
  - Booth Street
  - Bridge Street
  - F Street