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MEMORANDUM

Date: February 12, 2018

Project #: 21266

To: Gerald Fisher and Dan Huff, City of Molalla
Gail Curtis, Oregon Department of Transportation, Region 1

From: Matt Bell and Nick Gross, Kittelson & Associates, Inc.

Project: Molalla Transportation System Plan (TSP) Update

Subject: Final Tech Memo 4: Existing Transportation System (Subtask 3.6)

This memorandum assesses existing conditions and planned improvements for all transportation systems and services within the City of Molalla. Figure 1 illustrates the city boundary. The information presented in this memorandum will serve as a baseline for evaluating transportation system needs and identifying potential solutions for the Transportation System Plan (TSP) update. The information is based on an inventory of existing transportation facilities and services and discussions with City and Oregon Department of Transportation (ODOT) staff. The information will be updated based on input from the project advisory committee (PAC), technical advisory committee (TAC) and the general public.

This memorandum includes information on the existing public transit, pedestrian, bicycle, motor vehicle, and other travel modes within the city. This memorandum also includes information on existing Transportation System Management and Operations (TSMO) and Transportation Demand Management (TDM) programs within the city and the region. The following sections describe the characteristics, usage, performance, gaps, and deficiencies of the existing transportation system within Molalla.

PUBLIC TRANSPORTATION SYSTEM

The public transit system within Molalla consists of fixed-route and paratransit service as well as school and shuttle bus service. Morning and evening peak hour service along OR 213 and OR 211 provides residents with the ability to use public transit for daily commuting, while mid-day service provides residents with the ability to use public transit to access retail/commercial centers, recreational areas, and other essential destinations located throughout Molalla, Clackamas County and the region.

Transit Service Providers

Transit service is provided in Molalla by the South Clackamas Transit District (SCTD), the Molalla Adult Community Center, Molalla River School District (MRSD), Clackamas County Social Services, and several local retirement communities.

Transit Facilities and Services

Fixed-Route Service

SCTD operates three fixed-route bus lines in Molalla, including Molalla City Bus (City), Molalla to Clackamas Community College (CCC), and Molalla to Canby (Canby); the Canby line provides connections to Canby Area Transit (CAT) and South Metro Area Regional Transit (SMART) at the Canby Transit Center.

- Molalla City Bus (CITY) provides weekday loop service within the City limits from 7:30 a.m. to 5:35 p.m. on approximately one hour headways. Timed transfers to the CCC bus are possible at the Ross Street Transit Stop between 8:00 a.m. and 3:00 p.m. With advance notice, the City bus will deviate up to one-quarter mile from any designated route serviced by SCTD for all passengers.
- Molalla to Clackamas Community College (CCC) provides weekday service between Downtown Molalla and CCC via OR 213. Service is provided Monday through Friday from 5:06 a.m. to 8:25 p.m. on approximately 25-45 minute headways. Service is also provided on Saturdays from 7:09 a.m. to 4:55 p.m. on approximately one hour headways.
- Molalla to Canby (Canby) provides weekday loop service that connects Downtown Molalla with Liberal, Mulino, Canby Transit Center, and Willamette Egg Farm via OR 213, Mulino Road, 1st Avenue, OR 170, and OR 211. Service is provided Monday through Friday from 7:30 a.m. to 5:15 p.m. on approximately one hour headways.

All SCTD buses are Americans with Disability Act (ADA) accessible and come equipped with wheelchair lifts. All SCTD buses are also equipped with bike racks that hold two bikes. The SCTD transit routes and stops are illustrated on Figure 2. As shown, fixed-route transit service is provided along several major roadways throughout the city with stops located near or at major intersections. Most Molalla residents live within a ¼ to ½ mile of at least one of these routes.

Study Area
Molalla, Oregon

Figure
1

Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Metro Data Resource Center, City of Molalla

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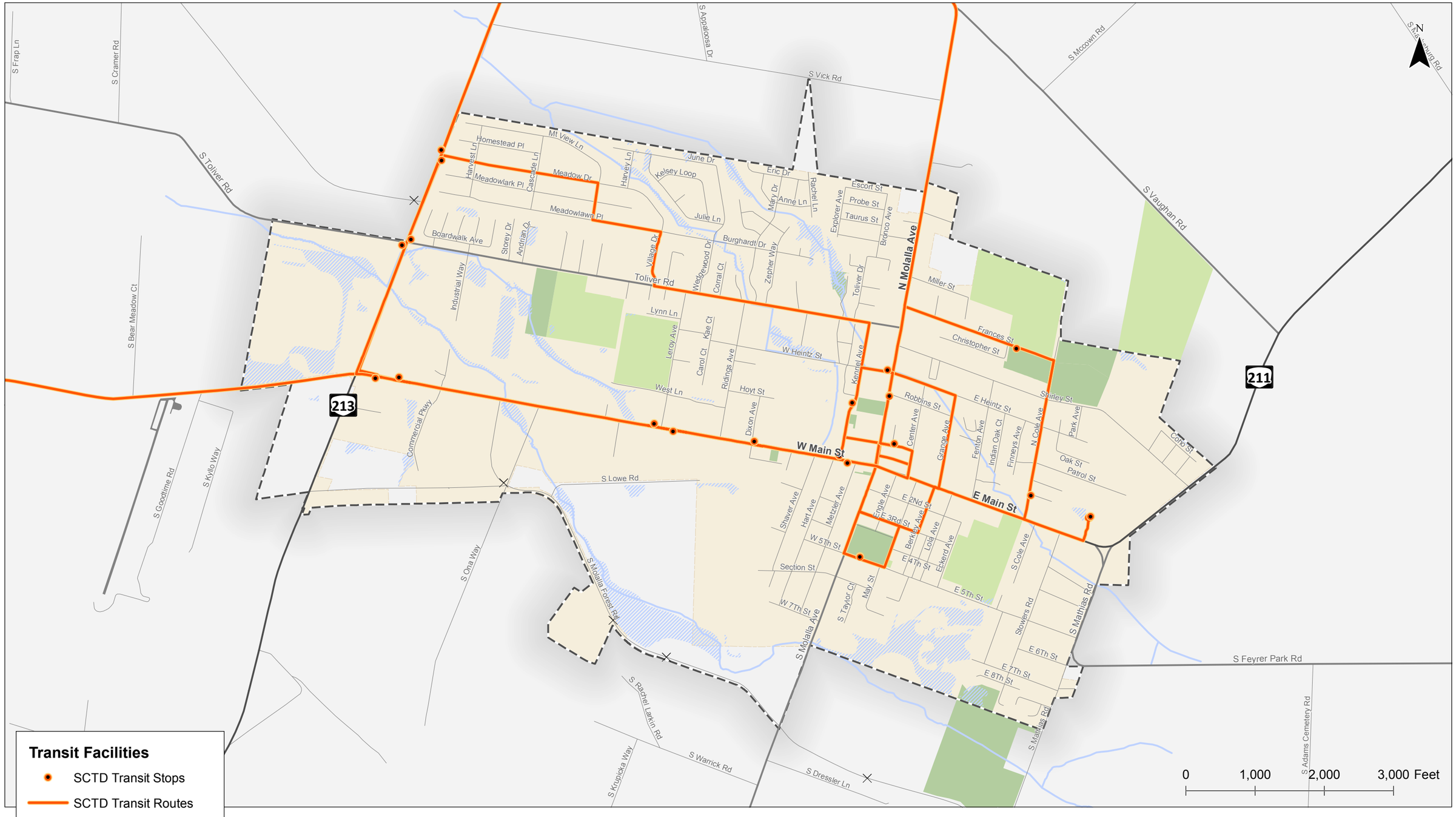

Transit Facilities

- SCTD Transit Stops
- SCTD Transit Routes
- Molalla City Limits
- Urban Growth Boundary

Existing Transit Facilites and Services
Molalla, Oregon

Figure **2**

Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Oregon Department of Transportation

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Fixed-Route Ridership

Ridership data was obtained from SCTD for each of the fixed-route services in Molalla. The data includes ridership information for each of the fixed-route services provided including the CITY, CCC, and Canby. Based on the data, ridership on the CCC bus has increased over the last several years while ridership on the City bus and the Canby bus has remained relatively flat or has gone down over the last several years. Given that the CCC bus has the highest level of ridership (followed by the Canby bus and the City bus), overall ridership has also increased over the last several years.

Paratransit Service

The Molalla Adult Community Center provides a van service Monday through Friday from 9:30 a.m. to 2:00 p.m. The service includes scheduled trips to local retail/commercial centers and to recreational areas. Passengers can meet at the adult community center or can be picked-up/dropped-off at their homes, including retirement communities, within the Molalla and Colton areas. The service is open to everyone and the vans are ADA accessible. The Molalla Adult Community Center coordinates the service with SCTD, who does not provide paratransit service.

School Bus Service

School bus service is provided within the Molalla area by the Molalla River School District (MRSD). The MRSD contracts out school bus service to First Student Transportation for all student transportation needs including athletic events, field trips, and daily bus routes to and from school. School bus service is offered to students living within the City's urban growth boundary (UGB). School buses operate on all minor arterials, collectors, and many local streets. Safe bus stop approaches and waiting areas are a concern, as are walkways to schools within the radii not served by buses.

Shuttle Service

Pheasant Point is an assisted living and memory care facility located within Molalla that provides a shuttle service for residents of Pheasant Point. The shuttle service provides residents with access to medical centers and local retail/commercial centers by appointment. Other independent, assisted, and memory care facilities located within Molalla also provide shuttle service for residents and/or rely on the Molalla Adult Community Center's van service for local trips.

Clackamas County Social Services

Clackamas County Social Services has several transportation programs that provide service to people unable to access other transportation options. Transportation Reaching People (TRP) provides transportation for elderly, disabled, or rural County residents to medical appointments, shopping and errands. TPR relies on volunteers with personal cars to provide the service. Ride Together provides a similar service, with the exception that the volunteer drivers are recruited by the riders and consist of family members, friends, and neighbors. Vets Driving Vets provides services for veterans with volunteer veteran drivers. All Clackamas County services are available from 8:00 a.m. to 5:00 p.m. on weekdays, excluding holidays.

Park-and-Rides

There are no park-and-rides located within Molalla. The closest park-and-ride is located in Wilsonville at the Wilsonville Transit Center. The park-and-ride provides 388 regular and 14 ADA parking stalls to transit riders. The park-and-ride is served by all SMART bus lines and TriMet's Westside Express Service (WES) Commuter Rail line. The park-and-ride is free for up to 24-hours (unless otherwise posted). Overnight parking is permitted, as long as it does not exceed 24-hours.

Transit Stops

Transit stops serve as designated places for transit riders to board and alight transit service vehicles. Enhanced transit stops typically provide a form of shelter to protect transit riders from inclement weather when waiting for transit service. Enhanced transit stops may also provide amenities such as schedules, route signage, benches, and lighting. The majority of existing transit stops in Molalla have limited amenities and primarily consist of a "bus stop" sign, commonly mounted to a utility pole adjacent to the transit stop location. In some cases, transit stops are located along roadway shoulders without any amenities or designated waiting space. A number of enhanced transit stops exists within the downtown area. These transit stops provide typically provide shelters, schedules, route signage, benches, and lighting amenities and are frequently located in close proximity to essential destinations such as Molalla City Hall, Molalla Public Library, Molalla High School.

Existing Gaps and Deficiencies

The following provides a summary of the existing gaps and deficiencies in the public transit system. Additional gaps and deficiencies will identified based on input from the PAC, TAC, and general public.

- Marketing and awareness of existing public transit facilities and services should be improved to attract higher levels of ridership.
- More frequent transit service should be provided to improve the viability of using public transit for daily commuting and for making local trips.
- More direct service should be provided to regional centers such as Woodburn, Salem, and Estacada in order to improve access in the region.
- Transit signage visibility should be enhanced to provide consistent and easily recognizable transit stop locations including transit schedules.
- Transit shelters should be installed at stops with high levels of ridership to improve comfort and to increase awareness of public transit.
- Gaps and deficiencies in the pedestrian and bicycle systems that provide access to public transit facilities as well as other key destinations are identified below.

PEDESTRIAN SYSTEM

The pedestrian system within Molalla consists of sidewalks, shared-use paths, off street trails, as well as marked and unmarked, signalized and unsignalized pedestrian crossings. These facilities provide

residents with the ability to access local retail/commercial centers, recreational areas, and other land uses by foot. A safe, convenient, and continuous network of pedestrian facilities is essential to establishing a vibrant and healthy community while supporting the local economy within the City.

Pedestrian Facilities

The City of Molalla Comprehensive Plan, adopted in June of 2014, recognized the need to provide safe pedestrian access to schools, parks, and shopping to make walking a realistic alternative to driving within the city. In order to assess the adequacy of pedestrian facilities, Geographic Information System (GIS) data was obtained from Metro's Regional Land Information System (RLIS). The GIS data was updated to reflect recent aerial imagery of sidewalks and other pedestrian facilities along city arterial and collector streets. The data includes the location of existing sidewalks, crosswalks, mixed use paths, off street trails along with the location of essential destinations such as schools, parks, churches, retail/commercial centers, the Adult Community Center, library, and City Hall. These essential destinations were identified to determine possible pedestrian trip generators and to help prioritize potential improvements to the pedestrian system. Figure 3 shows the existing pedestrian facilities within Molalla and the location of essential destinations. The following provides a summary of the facilities, including existing gaps and deficiencies.

Sidewalks

Sidewalks are provided along at least one side of most arterial and collector streets within the city. Sidewalks are also provided along at least one side of most neighborhood route and local streets, particularly in the northwest quadrant of the City. There are several streets within the southeast quadrant of the city that lack sidewalks on both sides, including segments of 5th Street, Mathias Road, Stowers Road, 7th Street, and others. OR 211 east of Mathias Road also lacks sidewalks on both sides. The sidewalk gaps along the city's arterial and collector streets limit pedestrian access to schools, parks, churches, and other essential destinations.

Crosswalks

Marked crosswalks are provided at several major intersections throughout the city, particularly within the downtown area along Main Street (OR 211) and Molalla Avenue. However, many of the crosswalks have faded and lack enhanced visibility and signage. There are several areas currently lack enhanced crossings, particularly along streets that provide transit service (i.e. OR 213 and OR 211 west of downtown), as well as the northwest and southeast parts of the city.

Pedestian Facilities

- Traffic Signal
- Marked Crosswalk
- Partial Sidewalk
- Sidewalk
- Trail
- Shared-use Path
- Principle Active Transportation Route
- Ideal Principle Active Transportation Route
- Urban Growth Boundary
- Molalla City Limits

Existing Pedestrian Facilities
Molalla, Oregon

Figure **3**

Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Metro Data Resource Center, City of Molalla

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Shared-use Paths and Trails

There are three designated shared-use paths and trails located throughout the city. These paths and trails include the Ivor Davies Park trail, the Molalla Forest Road shared-use path, and the Molalla Western Railway spur shared-use path.

- The Ivor Davies Park trail is located in the southeast corner of the City within Ivor Davies Park. The trail provides access to and from the park from 5th Street, 7th Street, and Mathias Road. Ivor Davies Park was deeded to the City by Clackamas County in September of 2002 and the City has since constructed several paved walking/biking trails that pass around, through, and over the wetland/nature area.
- An unimproved shared-use path is provided along the segment of the former historic Molalla Forest Road between Toliver Road and OR 211. The path continues along the south side of Toliver Road providing a westbound continuous connection to OR 213. The path is part of a larger conceptual path that will follow the historic Molalla Forest Road right-of-way in the future.
- An unimproved trail connection is provided along the segment of the former Molalla Western Railway spur line between Toliver Road and Heintz Street. This trail is part of a larger conceptual trail that will follow the historic Western Railway spur line in the future.
- Several other formal and informal shared-use paths and trails are located in areas throughout the city. These paths and trails augment and support the sidewalk network.

Safe Routes to School

Molalla does not have a Safe Route to School (SRTS) program; however, the Molalla River School District is currently coordinating with Clackamas County on developing a template for a SRTS program. The Molalla TSP Update will monitor the development of the County's SRTS program and work to integrate the policies and recommendations to increase traffic safety for students walking and biking to school.

Clackamas County Active Transportation Routes

The Clackamas County Active Transportation Plan (ATP) identifies two active transportation routes within Molalla. Route P1 (Canby to Molalla) is identified as a Principal Active Transportation Route (PAT). This route is planned to extend from the Canby Ferry to downtown Molalla along a series of low volume, low speed roadways, including Toliver Road. The route will consist of sidewalks, shared-use paths, shoulder bikeways, and on-street bike lanes. Route I-13 (Molalla Forest Road) is identified as an *Ideal* Principal Active Transportation Route (I-PAT). This route is also planned to extend from Canby to Molalla along Molalla Forest Road west of OR 213 eventually tying into OR 213 and extending south to Toliver Road. Molalla Forest Road west of OR 213 is gated with limited access prohibiting use by motorized vehicles.

Pedestrian Activity

Pedestrian counts were conducted at the study intersections in April 2017. All of the counts were conducted on a typical mid-weekday during the evening (4:00 to 6:00 p.m.) peak time period while Molalla schools were in session. All of the counts include the total number of pedestrians that entered the intersection in 15-minute intervals. It should be noted that while the peak hour for vehicular traffic typically occurs between 4:00 and 6:00 p.m., the peak hour for pedestrian activity near schools and other activity centers typically occurs earlier in the day. The pedestrian count data is shown in Table 1.

Table 1: PM Peak Hour Pedestrian Crossing Volumes at Study Intersections

Map ID	Intersection	North/South Pedestrian Volume	East/West Pedestrian Volume	Pedestrian Peak Hour
1	OR 213/Vick Road	2	0	4:15 to 5:15 p.m.
2	OR 213/Meadow Drive	2	0	4:25 to 5:25 p.m.
3	OR 213/Toliver Road	1	1	4:05 to 5:05 p.m.
4	OR 213/OR 211	1	0	4:35 to 5:35 p.m.
5	OR 211/Ona Way	0	2	5:00 to 6:00 p.m.
6	OR 211/Leroy Avenue	0	3	4:40 to 5:40 p.m.
7	OR 211/Ridings Avenue	0	0	N/A[1]
8	OR 211/Molalla Avenue	21	9	4:55 to 5:55 p.m.
9	OR 211/Mathias Road	1	2	4:50 to 5:50 p.m.
10	OR 211/Shirley Street	0	0	N/A[1]
11	N Molalla Avenue/Vick Road	1	0	5:00 to 6:00 p.m.
12	N Molalla Avenue/Toliver Road	8	5	4:00 to 5:00 p.m.
13	N Molalla Avenue/Shirley Street	12	1	5:00 to 6:00 p.m.
14	N Molalla Avenue/Heintz Street	9	10	4:10 to 5:10 p.m.
15	Molalla Avenue/5th Street	2	6	4:55 to 5:55 p.m.
16	5th Street/Mathias Road	4	4	5:00 to 6:00 p.m.

1. No pedestrian activity occurred at the intersection during the time period of 4:00 to 6:00 p.m.

As shown in Table 1, the highest pedestrian crossing volumes were observed at intersections located along N and S Molalla Avenue near the downtown area where retail and commercial land uses are most common. Potential pedestrian crossing improvements should be prioritized at these locations to ensure safe and convenient access for pedestrians.

Existing Gaps and Deficiencies

Streets with no sidewalks or intermittent sidewalks force pedestrians to walk along the edge of the travel lane, use the shoulder if available, or simply not make their intended trip by walking. In many cases, the absences of sidewalks or intermittent sidewalk facilities increase the number of vehicles on the roadway by forcing pedestrians to drive in order to accomplish often short distance trips due to the increased safety risk. Similarly, streets with no crosswalks or limited crosswalks force pedestrians to make unsafe or illegal crossings. Adequate pedestrian facilities should be provided to allow for continuous, safe travel between neighborhoods, schools, parks, churches, and other essential destinations. The following provides a summary of the existing gaps and deficiencies in the pedestrian

system. This summary will be updated based on input from the advisory committees and the general public.

- There are several arterials and collector streets that currently do not provide sidewalks along one or two sides of the roadway. These streets include:
  - OR 211 between OR 213 and N Molalla Avenue –gaps on both sides
  - OR 211 between Mathias Road and Shirley Street – gaps on both sides
  - OR 213 between southern City limit to northern City limit – gaps on both sides
  - Toliver Road between western City limits to OR 213 – gaps on both sides
  - Toliver Road between OR 213 and N Molalla Avenue – gaps on north sides
  - Shirley Street between N Molalla Avenue and OR 211 – gaps on both sides
  - Frances Street between N Molalla Avenue and Cole Avenue – gaps on south side
  - Ridings Avenue between OR 211 and Toliver Road – gaps on both sides
  - Leroy Avenue between Toliver Road and West Lane – gaps on east side
  - Cole Avenue between OR 211 and Frances Street – gaps on east side
  - N Molalla Avenue between Miller Street and north city limits – gaps on both sides
  - S Molalla Avenue between Section Street and south city limits – gaps on both sides
- There are also several local streets that currently do not provide sidewalks along one or two sides of the roadways. A few key local streets include:
  - 2nd Street between S Molalla Avenue and Eckerd Avenue – gaps on both sides
  - 3rd Street between Swiegle Avenue and Eckerd Avenue – gaps on both sides
  - 4th Street between S Swiegle Avenue and Eckerd Avenue – gaps on both sides
  - Stowers Road between OR 211 and 7th Street – gaps on west side
  - Metzler Street between OR 211 and 7th Street – gaps on both sides
  - Fenton Street between Kimberly Circuit and Shirley Street – gaps on both sides
  - Grange Avenue between OR 211 and Robbins Street – gaps on east side
- Many sidewalks do not provide sufficient width to accommodate pedestrian activity or are in disrepair.
- Many sidewalks and pedestrian ramps are not ADA compliant.
- Several major intersections do not provide marked crosswalks; many of the existing marked crosswalks have faded and lack enhanced visibility and signage.
- There are a few locations where new pedestrian accessways could be provided and others where existing accessways could be improved.

BICYCLE SYSTEM

The bicycle system within Molalla consists of on-street bike lanes, shoulder bikeways, and shared roadways as well as off-street bicycle facilities, such as bicycle parking. These facilities provide local residents with the ability to access local retail/commercial centers, recreational areas, and other land uses within Molalla and neighboring areas by bicycle. A safe, convenient, and continuous network of bicycle facilities is essential to establishing a vibrant and healthy community while supporting the local economy within the City.

Bicycle Facilities

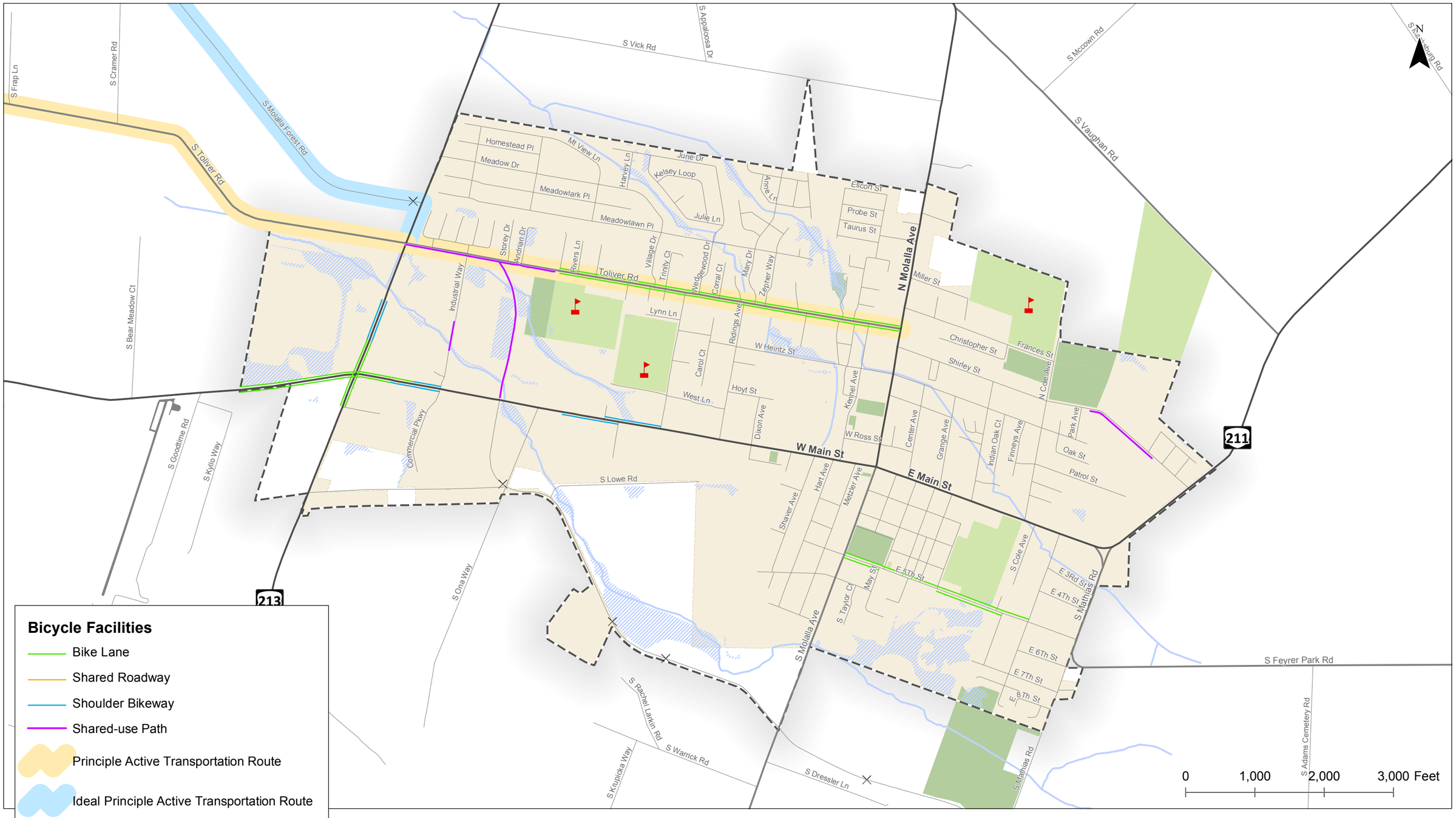
In order to assess the adequacy of bicycle facilities in Molalla, GIS data was obtained from the City. The data was updated to reflect recent aerial imagery of bike lanes and other bicycle facilities along the city's arterial and collector streets. The data includes the location of existing bike lanes along with the location of essential destinations such as schools, parks, churches, retail/commercial centers, the Adult Community Center, library, and City Hall. These essential destinations were identified to determine possible bicycle trip generators and to help prioritize potential improvements to the bicycle system. Figure 4 shows the existing bicycle facilities within Molalla as well as the location of essential destinations. The following provides a summary of the facilities, including existing gaps and deficiencies.

Bike Lanes

On-street bike lanes are currently provided along only a few arterial and collector streets within the city, including Toliver Road from N Molalla Avenue to Zimmerman Lane, 5th Street from S Molalla Avenue to Stowers Road, and along each leg of the OR 213/OR 211 intersection for approximately 1500'.

Shared Roadways

There are no shared roadways within Molalla; however, the current TSP includes a cross section for the downtown area that encourages shared-use of the roadway. Per the current TSP, the cross section applies to the segment of Molalla Avenue from Heintz Street to 5th Street and the segment of OR 211 (Main Street) from Shaver Street to Fenton Street. In addition, roadway segments with a posted speed equal to or less than 25 mph or along roadway segments with a posted speed equal to or less than 30 mph with an unmarked centerline are also considered shared roadways.



Bicycle Facilities

- Bike Lane
- Shared Roadway
- Shoulder Bikeway
- Shared-use Path
- Principle Active Transportation Route
- Ideal Principle Active Transportation Route
- Molalla City Limits
- Urban Growth Boundary

Existing Bicycle Facilities Molalla, Oregon

Figure **4**

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Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Metro Data Resource Center, City of Molalla

Shoulder Bikeways

A majority of streets within Molalla have striped shoulders; however, the width of the shoulder varies from less than 3-feet in most areas to up to more than 5-feet in others. Shoulder bikeways of at least 5-feet are currently located along segments of OR 211 and OR 213.

Bicycle Crossings

There are several intersections along OR 211 and OR 213 where there are enhanced bicycle treatments at the intersection approach; however, there are no enhanced bicycle crossing treatments within Molalla, such as skip striping through the intersection, bike boxes, two-stage left-turn bike boxes, etc.

Clackamas County Active Transportation Routes

As indicated above, the Clackamas County Active Transportation Plan (ATP) identifies two active transportation routes within Molalla. Route P1 (Canby to Molalla) is identified as a Principal Active Transportation Route (PAT). This route is planned to extend from the Canby Ferry to downtown Molalla along a series of low volume, low speed roadways, including Toliver Road. The route will consist of sidewalks, shared-use paths, shoulder bikeways, and on-street bike lanes. Route I-13 (Molalla Forest Road) is identified as an *Ideal* Principal Active Transportation Route (I-PAT). This route is also planned to extend from Canby to Molalla along Molalla Forest Road west of OR 213 eventually tying into OR 213 and extending south to Toliver Road. Molalla Forest Road west of OR 213 is gated with limited access prohibiting use by motorized vehicles.

Bicycle Activity

Bicycle counts were conducted at the study intersections in April 2017. All of the counts were conducted on a typical mid-week day during the evening (4:00 to 6:00 p.m.) peak time period while Molalla schools were in session. All of the counts include the total number of bicyclists that entered the intersection in 15-minute intervals. It should be noted that while the peak hour for vehicular traffic typically occurs between 4:00 and 6:00 p.m., the peak hour for bicycle activity near schools and other activity centers typically occurs earlier in the day. The bicycle count data is shown in Table 2.

Table 2: Bicycle Crossing Volumes at Study Intersections

Map ID	Intersection	North/South Bicycle Volume	East/West Bicycle Volume	Bicycle Peak Hour
1	OR 213/Vick Road	0	0	N/A[1]
2	OR 213/Meadow Drive	0	0	N/A[1]
3	OR 213/Toliver Road	0	0	N/A[1]
4	OR 213/OR 211	0	0	N/A[1]
5	OR 211/Ona Way	1	2	5:00 to 6:00 p.m.
6	OR 211/Leroy Avenue	0	1	5:00 to 6:00 p.m.
7	OR 211/Ridings Avenue	0	1	5:00 to 6:00 p.m.
8	OR 211/Molalla Avenue	0	1	5:00 to 6:00 p.m.
9	OR 211/Mathias Road	1	0	5:00 to 6:00 p.m.

10	OR 211/Shirley Street	0	0	N/A[1]
11	N Molalla Avenue/Vick Road	0	0	N/A[1]
12	N Molalla Avenue/Toliver Road	2	0	4:10 to 5:10 p.m.
13	N Molalla Avenue/Shirley Street	3	0	4:10 to 5:10 p.m.
14	N Molalla Avenue/Heintz Street	3	0	4:10 to 5:10 p.m.
15	S Molalla Avenue/5th Street	0	0	N/A[1]
16	5th Street/Mathias Road	0	0	N/A[1]

1. No pedestrian activity occurred at the intersection during the time period of 4:00 to 6:00 p.m.

As shown in Table 2, the highest bicycle crossing volumes were observed at intersections located along N Molalla Avenue near the downtown area where retail and commercial land uses are most common. Potential bicycle improvements should be prioritized at these locations to ensure safe and convenient access for bicyclists.

Existing Gaps and Deficiencies

Streets with no bike lanes or intermittent bike lanes force bicyclists to share the travel lane with motor vehicles, use the shoulder, if available, or ride on the sidewalks. In many cases, this is not a desirable option for bicyclists due to narrow lane widths, uneven pavement conditions, and proximity to vehicular traffic. Adequate bicycle facilities should be provided to allow for safe travel between neighborhoods and essential destinations. The following provides a summary of the existing gaps and deficiencies in the bicycle system. This summary will be updated based on input from the advisory committees and the general public.

- There are several arterial and collector streets that currently do not provide on-street bike lanes. These streets include:
  - OR 213 from OR 211 to north city limits – gaps on both sides
  - OR 213 from OR 211 to south city limits – gaps on both sides
  - OR 211 from Industrial Way to Shaver Avenue – gaps on both sides
  - OR 211 from Fenton Avenue to east city limits – gaps on both sides
  - N Molalla Avenue from north city limits to Heintz Street – gaps on both sides
  - S Molalla Avenue from 5th Street to south city limits – gaps on both sides
  - Toliver Road from OR 213 to Zimmerman Lane – gaps on both sides
  - Leroy Avenue from Toliver Road to OR 211 – gaps on both sides
  - Shirley Street from N Molalla Avenue to OR 211 – gaps on both sides
  - Mathias Road from OR 211 to south city limits – gaps on both sides
- Shared lane pavement markings and signs should be provided along roadways were bicycles are encouraged to share the roadway with vehicles, including:
  - S Molalla Avenue from OR 211 to 5th Street

    - OR 211 from Shaver Avenue to Fenton Avenue
- Several of the gaps and deficiencies limit connectivity between residential areas and bicycle destinations throughout the City, including schools, parks, churches, and other essential destinations.

It should be noted that the gaps and deficiencies identified above reflect the roadway standards, street classifications, and bicycle plan included in the current TSP. Per the current TSP, arterials and major collectors within the downtown area, minor collectors, and neighborhood streets are not intended to have on-street bike lanes.

MOTOR VEHICLE SYSTEM

The motor vehicle system within Molalla includes private streets, city streets, County roads, and state highways. These facilities provide residents with the ability to access retail, commercial, recreational, and other land uses within Molalla and neighborhood cities by vehicle. This section describes how the system has been developed to date and provides a more detailed review of how it is used and operated.

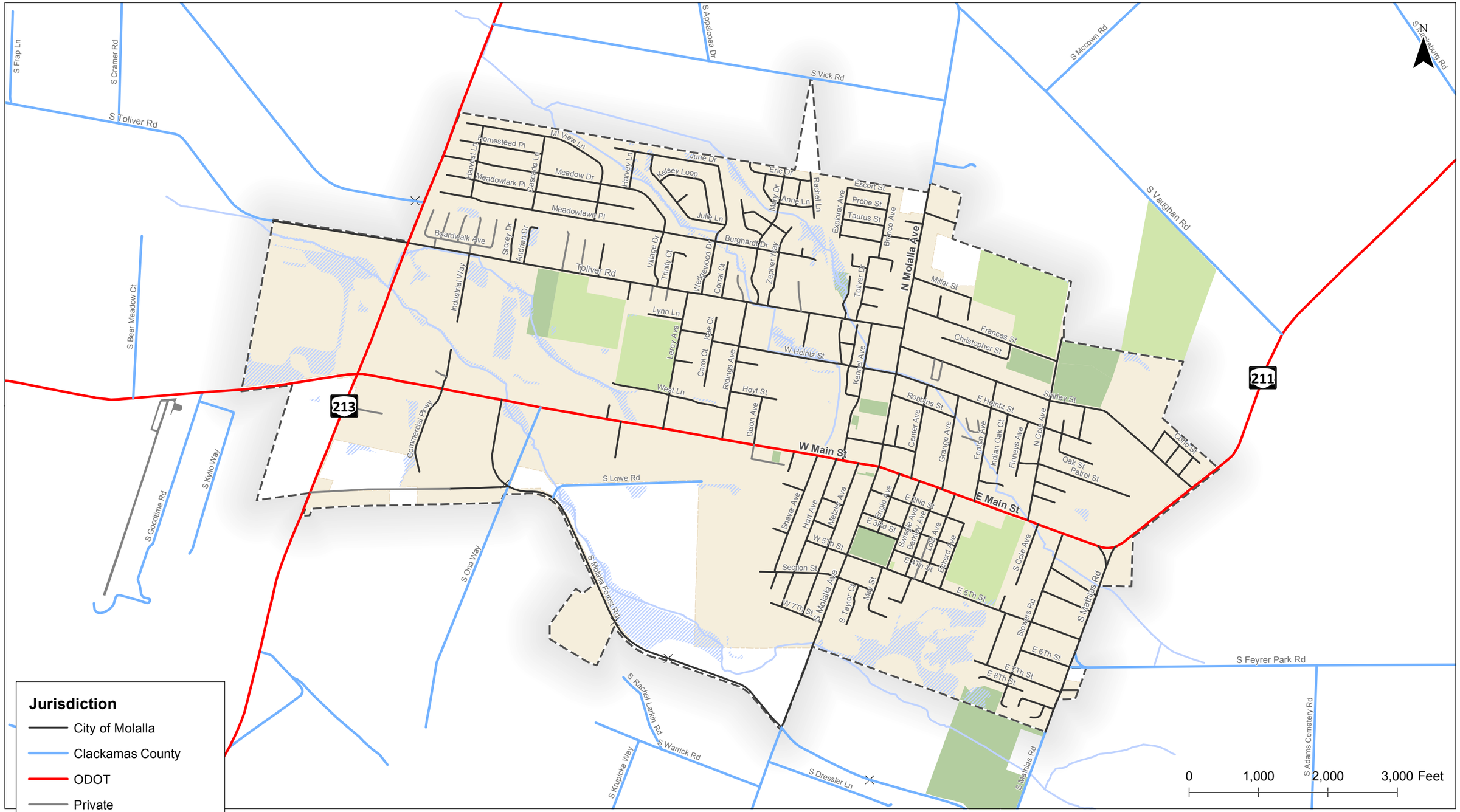
Jurisdiction

Streets within Molalla are owned and operated by the City of Molalla, the Oregon Department of Transportation (ODOT), and Clackamas County. Each jurisdiction is responsible for determining the functional classification of the streets, defining major design and multimodal features, and approving construction and access permits. Coordination is required among the jurisdictions to ensure that the streets are planned, operated, maintained, and improved to safely meet public needs. Figure 5 illustrates the jurisdiction (ownership and maintenance responsibilities) of streets within Molalla.

The Oregon Department of Transportation owns the two highest-volume roadways within the City: OR 213 and OR 211. Clackamas County owns a majority of the public roads outside the City, as well as two roadways within the City: Ona Avenue and Lowe Road. The City owns the remaining public roads within the city limits, including Molalla Forest Road.

Functional Classification

A street's functional classification defines its role in the transportation system and reflects desired operational and design characteristics such as right-of-way requirements, pavement widths, pedestrian and bicycle features, and driveway (access) spacing standards. Figure 6 illustrates the functional classification of streets within Molalla. The following provides a description of each functional classification per the current TSP.



Jurisdiction

- City of Molalla
- Clackamas County
- ODOT
- Private
- Urban Growth Boundary
- Molalla City Limits

RoadwayJurisdiction
Molalla, Oregon

Figure **5**

Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Metro Data Resource Center, City of Molalla

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Functional Classification

- Arterial
- Local Street
- Major Collector
- Minor Collector
- Neighborhood Street
- Urban Growth Boundary
- Wetland
- Park
- School Site
- Molalla City Limits

Functional Classification
Molalla, Oregon

Figure **6**

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Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Metro Data Resource Center, City of Molalla

Arterials

Arterials are roadways that are primarily intended to serve traffic entering and leaving the urban area. While arterials may provide access to adjacent land, that function is subordinate to the travel service provided to major traffic movements. Arterials are the longest-distance, highest-volume roadways within the urban growth boundary. Although the streets focus on serving longer distance trips, pedestrian and/or bicycle activities often are also associated with the arterial streetscape.

Collectors

Collector streets facilitate the movement of city traffic within the urban growth boundary of the city. Collectors provide some degree of access to adjacent properties, while maintaining circulation and mobility for all users. Major collectors are distinguished by their connectivity and higher traffic volumes, although they are designed to carry lower traffic volumes at slower speeds than arterials. Major collectors are characterized by two or three-lane facilities. Minor collectors carry lower volumes than major collectors and have two-lane cross-sections.

Neighborhood Streets

The primary function of neighborhood streets is to connect neighborhoods with the collector and arterial street system, facilitate the movement of local traffic, and provide access to abutting land uses. Speeds on these facilities should remain low to ensure community livability and safety for pedestrians and bicyclists of all ages. On-street parking is more prevalent and pedestrian amenities are typically provided. Striped bike lanes are unnecessary for most neighborhood streets because the traffic volumes and speeds should allow cyclists to share the road with motorists.

Local Streets

Local streets are primarily intended to provide access to abutting land uses. Local street facilities offer the lowest level of mobility and consequently tend to be short, low-speed facilities. As such, local streets should primarily serve passenger cars, pedestrians, and bicyclists; heavy truck traffic should be discouraged. On-street parking is common and sidewalks are typically present.

Special Transportation Area

In additional to the functional classifications identified above, the segment of OR 211 from Hart Avenue to Grange Avenue (mile point 12.64 to 12.94), is designated as a Special Transportation Area (STA). An STA is a designated district of compact development located on state highways within an urban growth boundary in which the need for appropriate local access outweighs the considerations of highway mobility except on designated OHP Freight Routes where through highway mobility has greater importance.

Table 3 summarizes the functional classification of the arterial and collector streets within Molalla and identifies the overlapping ownership/maintenance and jurisdictional relationships that exist. As shown in Table 3, there are several inconsistencies in how the jurisdictions classify streets within Molalla.

Table 3: Functional Classification Comparison of Collector and Higher Streets by Jurisdiction

Roadway	Jurisdiction	Functional Classification		
		Molalla	Clackamas County	ODOT
OR 213	ODOT	Arterial	Major Arterial	Minor Arterial
OR 211	ODOT	Arterial	Minor Arterial[1]	Minor Arterial
N Molalla Avenue	City	Arterial	Major Arterial[2]	Major Collector
Meadow Drive	City	Major Collector	Minor Arterial	Major Collector
Toliver Road	City	Major Collector	Minor Arterial	Major Collector
Shirley Street	City	Major Collector	Minor Arterial	Major Collector
Leroy Avenue	City	Major Collector	Minor Arterial	Major Collector
5th Street	City	Major Collector	Minor Arterial	Major Collector
S Mathias Road	City	Major Collector	Major Arterial[3]	Major Collector[4]
Ridings Avenue	City	Minor Collector	Collector	Major Collector
Frances Street	City	Minor Collector	Collector	Major Collector
Cole Avenue	City	Minor Collector	Collector	Major Collector

1. OR 211 is designated as a Major Arterial outside the Molalla UGB.
2. Molalla Avenue is designated as a Minor Arterial outside the Molalla UGB.
3. S Mathias Road is designated as a Collector south of Feyrer Park Road
4. Mathias Road designated as Local Road south of Feyrer Park Road.

Roadway Characteristics

The characteristics of arterial and collector streets are summarized in Table 4. The data includes posted speed limits, street widths, number of lanes, lane widths, on-street bike lanes, and on-street parking. These characteristics define roadway capacity and operating speeds through the street system, which affects travel path choices for drivers in Molalla. Figure 7 illustrates the posted speed along arterial and collectors roadways within the City.

Table 4: Roadway Characteristics by Functional Classification

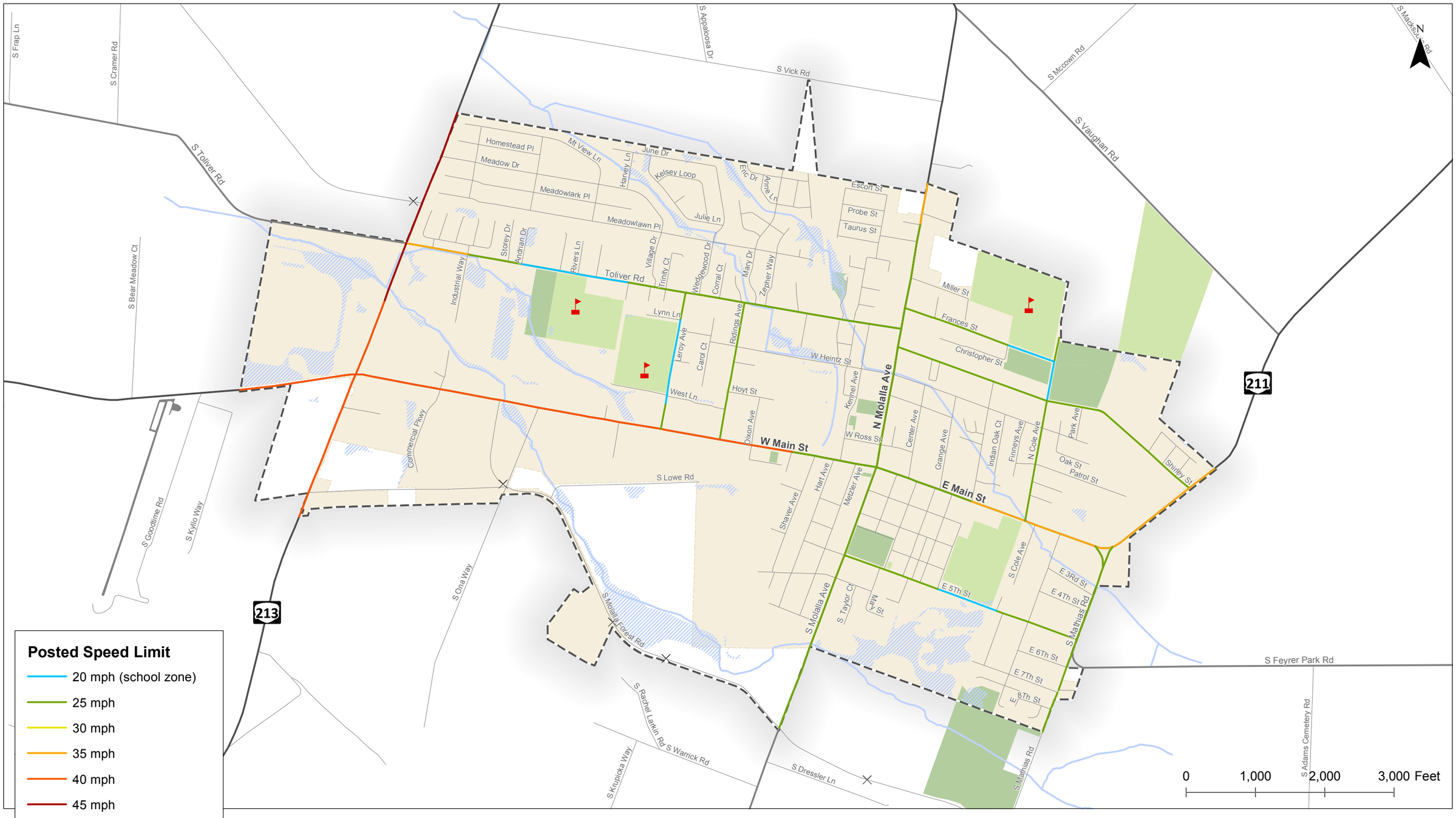
Corridor	Posted Speed [MPH]	Street Width [ft]	Number of Lanes	Lane Width [ft]	On-street Bike Lanes	On-street Parking
Arterial						
OR 213	40 - 45	30-50	2	12	Partial	No
OR 211	25 - 45	25-50	2	12	Partial	Partial[3]
Major Collectors						
N Molalla Avenue	25 - 35	40	2	12	No	Yes
S Molalla Avenue	25	41-46	2	12	No	Yes
Toliver Road	25 - 35	24-34	2	12	Partial	No
Shirley Street	25	24-35	2	12	No	Yes
Leroy Avenue	25[1]	29-40	2	12	No	Yes
5th Street	25[2]	24-45	2	12	Partial	Yes
Mathias Road	30	24	2	12	No	No
Minor Collectors						
Ridings Avenue	25	24-30	2	12	No	No
Frances Street	25	37	2	12	No	Yes
Cole Avenue	25	40	2	12	No	Yes

1. Leroy Avenue is not posted except within the school zone where it is posted as 20 mph.
2. 5th Streets is posted as 25 mph except within the school zone where it is posted as 20 mph.
3. On-street parking is allowed within the Special Transportation Area (STA).

Per the City's current TSP, arterials and major collectors outside the downtown area are required to have a minimum pavement width of 50 feet while arterials and collectors within the downtown area as well as minor collectors and neighborhood streets are required to have a minimum pavement width of 40 feet. As shown in Table 4, few of the city's arterial and collector streets meet the city's minimum pavement widths, including:

- OR 213 has 30 to 50 foot cross section within the city limits – at a minimum, OR 213 should have a 50-foot cross section per the current TSP.
- OR 211 has a 25 to 50-foot cross section within the city limits – at a minimum, OR 211 should have a 50-foot cross section per the current TSP.
- N Molalla Avenue has a 40-foot cross section north of Heintz Street –this segment of N Molalla Avenue should have a 50-foot cross section per the current TSP.
- S Molalla Avenue has a 41-foot cross section south of 5th Street –this segment of S Molalla Avenue should have a 50-foot cross section per the current TSP.
- Toliver Road has a 24-foot cross section from the east city limits to Zimmerman lane and a 34-foot cross section from Zimmerman lane to N Molalla Avenue –Toliver road should have a 50-foot cross section per the current TSP.
- Shirley Street has a 30-foot cross section from N Molalla Avenue to Cole Street and a 29 to 35-foot cross section east of Cole Street – Shirley Street should have a 50-foot cross section per the current TSP.
- Leroy Avenue has a 40-foot cross section from OR 211 to West Lane and a 29-foot cross section from West Lane to Toliver Road – Leroy Avenue should have a 50-foot cross section per the current TSP.
- 5th Street has a 37 to 38-foot cross section from S Molalla Avenue to Stowers Road and a 24-foot cross section from Stowers Road to S Mathias Road – E 5th Street should have a 50-foot cross section per the current TSP.
- Mathias Road has a 24-foot cross section from the south city limits to OR 211 –Mathias Road should have a 50-foot cross section per the current TSP.
- Ridings Avenue has a 24 to 30-foot cross section from OR 211 to Toliver Road – Ridings Avenue should have a 40-foot cross section per the current TSP.
- Frances Street has a 37-foot cross section from N Molalla Avenue to Cole Avenue – Frances Street should have a 40-foot cross section per the current TSP.

It should be noted that if the 14-foot median/center turn lane shown in the arterial/major collector cross section is optional or limited to major intersections, then several of the roadways listed above have sufficient width to accommodate two 12-foot travel lanes and two 6-foot bike lanes.



Posted Speed Limit

- 20 mph (school zone)
- 25 mph
- 30 mph
- 35 mph
- 40 mph
- 45 mph
- Urban Growth Boundary
- Molalla City Limits

Posted Speeds
Molalla, Oregon

Figure **7**

Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Metro Data Resource Center, City of Molalla

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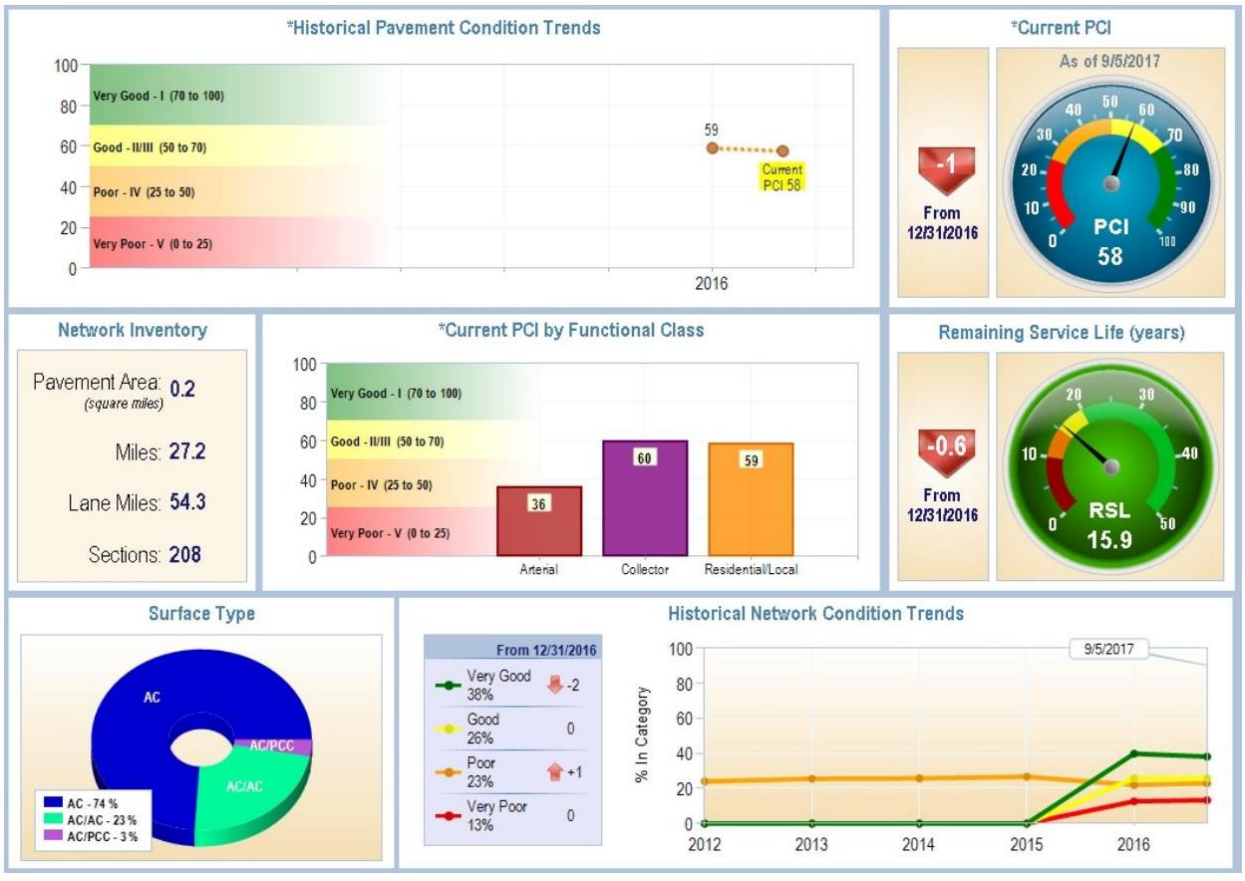
Pavement Condition

Capitol Assets & Pavement Services, Inc. (Capitol) was contracted by the City of Molalla to evaluate pavement conditions on all City maintained streets. A total of 27.16 miles were evaluated by Capitol in April 2016 and assigned a Pavement Condition Index (PCI) value of 0 to 100 based on the pavement condition. A higher PCI value allows for more cost-effective treatments, such as slurry seals and thin overlays while a lower PCI value (<50) may require more expensive treatments, such as thick overlays and full reconstruction.

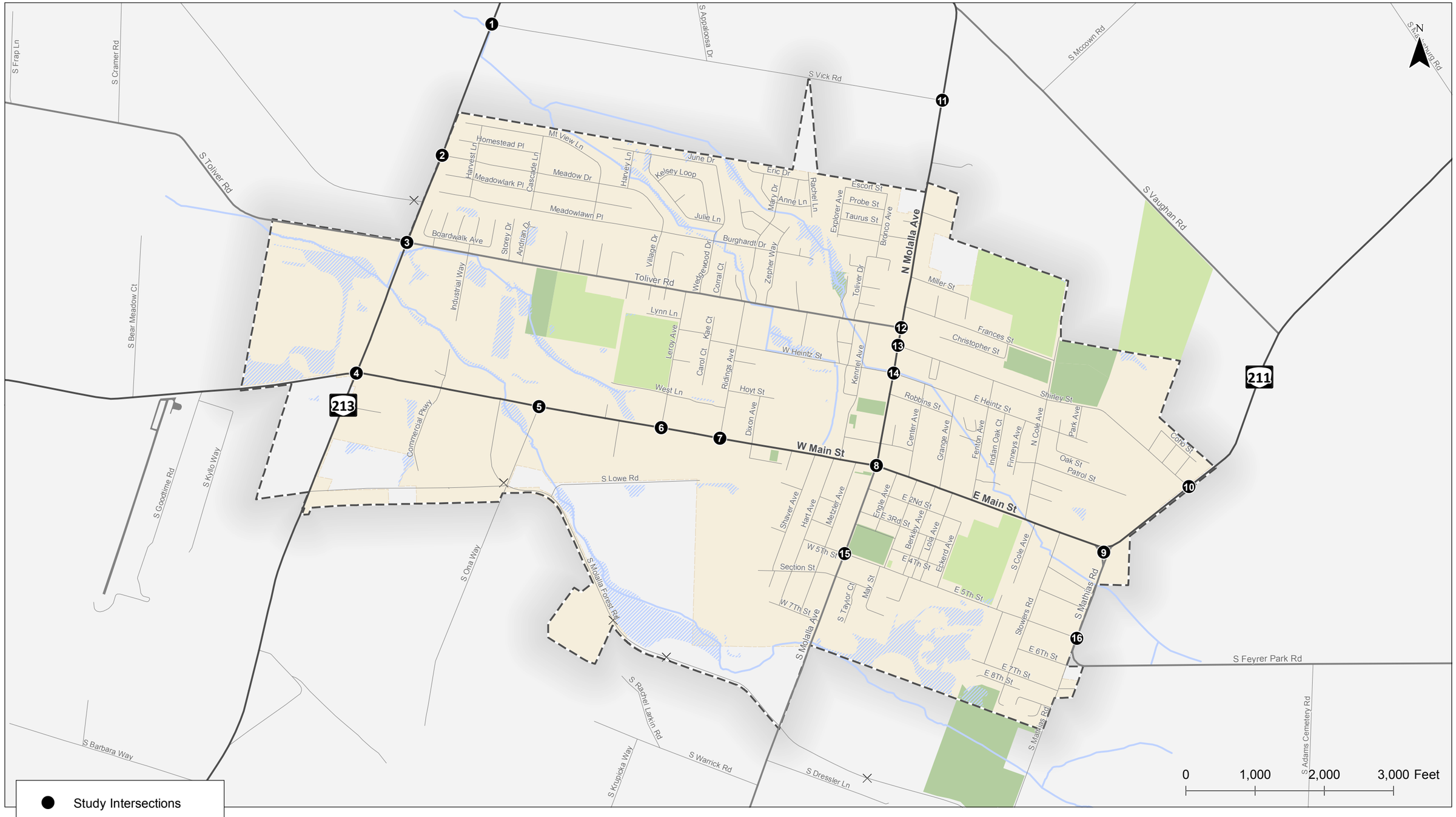
Capitol prepared a report that summarizes the current state of the City's street network, the likely state of the street network over the next five years, and what steps can be taken to improve the overall condition of the street network. Based on the report, the City's overall street network has a current PCI of 61, which places the city's street network in "fair" conditions. Exhibit 1 illustrates additional information related to pavement conditions within the City.

Exhibit 1: Pavement Conditions Index



Traffic Operations

Traffic operations were evaluated at 16 study intersections in accordance with the assumptions and methodologies identified in Tech Memo 2A. Figure 8 illustrates the locations of the study intersections.



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Study Intersections
Molalla, Oregon

Figure
8

KITTELSON & ASSOCIATES

Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Metro Data Resource Center, City of Molalla

Traffic Volumes

Manual turning movement counts were conducted at the study intersections in April 2017. The counts were conducted on a typical mid-weekday during the evening (4:00 to 6:00 p.m.) peak time period while Molalla schools were in session. The system-wide peak hour for the study intersections was identified as 4:00 to 5:00 p.m.; however, individual intersection peak hours were selected to complete the operational analyses. *Attachment "A" contains the traffic counts worksheets.*

Peak Hour Operations

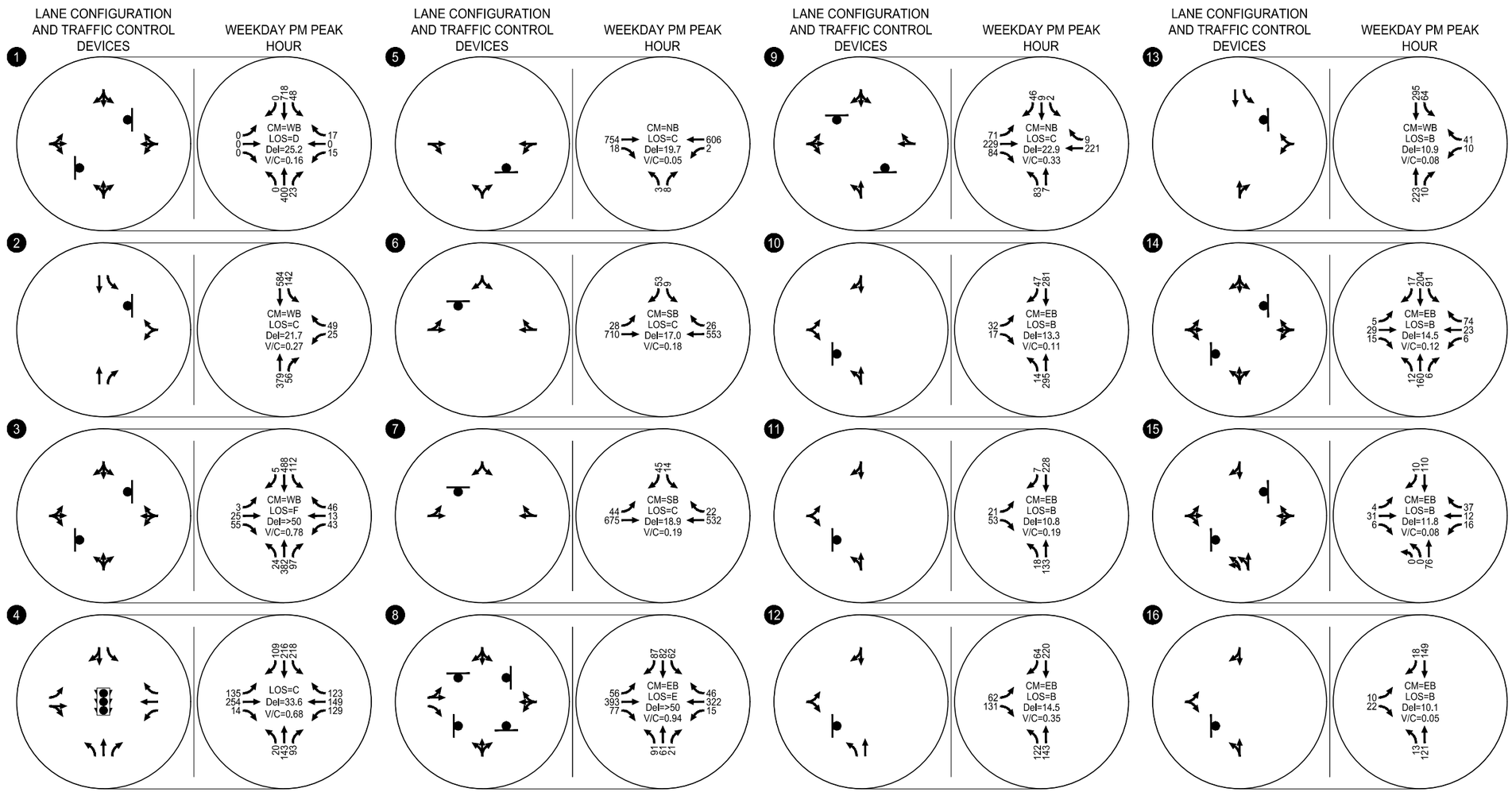
Figure 9 summarizes the turning movement counts at the study intersections under existing traffic conditions. The turning movement counts shown in Figure 9 along OR 213 and OR 211 were seasonally adjusted to 30th highest hour volumes (30HV) in accordance with the ATR Characteristics Table methodology identified in the ODOT *Analysis Procedures Manual.* Table 5 summarizes the results of the traffic operations analysis at the study intersection under existing traffic conditions. *Attachment "B" contains the year 2017 existing traffic conditions worksheets.*

Table 5: Weekday PM Peak Hour Intersection Operations

Map ID	Intersection	Level of Service (LOS)	Delay (Sec)	Volume/ Capacity (V/C)	Measure of Effectiveness (MOE)		MOE Met?
					Agency	Maximum	
1	OR 213/Vick Road	D	25.2	0.16	ODOT	v/c 0.80	Yes
2	OR 213/Meadow Drive	C	21.7	0.27	ODOT	v/c 0.90	Yes
3	OR 213/Toliver Road	F	86.1	0.78	ODOT	v/c 0.90	Yes
4	OR 213/OR 211	C	33.6	0.68	ODOT	v/c 0.90	Yes
5	OR 211/Ona Way	C	19.7	0.05	ODOT	v/c 0.90	Yes
6	OR 211/Leroy Avenue	C	17.0	0.18	ODOT	v/c 0.90	Yes
7	OR 211/Ridings Avenue	C	18.9	0.19	ODOT	v/c 0.90	Yes
8	OR 211/Molalla Avenue	F	54.3	0.94	ODOT	v/c 1.00[1]	Yes
9	OR 211/Mathias Road[2]	C	22.9	0.33	ODOT	v/c 0.95	Yes
10	OR 211/Shirley Street	B	13.3	0.11	ODOT	v/c 0.90	Yes
11	N Molalla Avenue/Vick Road	B	10.8	0.19	City	LOS E	Yes
12	N Molalla Avenue/Toliver Road	B	14.5	0.35	City	LOS E	Yes
13	N Molalla Avenue/Shirley Street	B	10.9	0.08	City	LOS E	Yes
14	N Molalla Avenue/Heintz Street	B	14.5	0.12	City	LOS E	Yes
15	S Molalla Avenue/5th Street	B	11.8	0.08	City	LOS E	Yes
16	5th Street/Mathias Road	B	10.1	0.05	City	LOS E	Yes

Note:
LOS = Intersection Level of Service (Signal), Critical Movement Level of Service (TWSC).
Delay = Intersection Average vehicle delay (Signal), critical movement vehicle delay (TWSC).
V/C = Intersection V/C (Signal) critical movement V/C (TWSC).
MOE = Measure of Effectiveness

1 The OR 211/Molalla Avenue intersection is located within a Special Transportation Area (STA). STA's are designed to allow for higher levels of congestion, and therefore, have higher mobility targets.
2. The OR 211/Mathias Road intersection was evaluated as three separate intersections due to its unique configuration and functionality. The most critical movement of the three intersections was used to represent the intersection operations.



CM = CRITICAL MOVEMENT (TWSC)
LOS = INTERSECTION LEVEL OF SERVICE (SIGNALIZED/AWSC) / CRITICAL MOVEMENT LEVEL OF SERVICE (TWSC)
Del = INTERSECTION AVERAGE CONTROL DELAY (SIGNALIZED/AWSC) / CRITICAL MOVEMENT CONTROL DELAY (TWSC)
V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

Year 2017 Existing Traffic Operations
Weekday PM Peak Hour
Molalla, Oregon

Figure 9

KITTELSON & ASSOCIATES

As shown in Table 5, all of the study intersections currently operate acceptably per their applicable mobility standards. However, the OR 213/Toliver Road and OR 211/Molalla Avenue intersections currently operate at level-of-service (LOS) F. Additional information on the operations at these intersections is provided below.

OR 213/Toliver Road

The westbound approach to the OR 213/Toliver Road intersection currently operates at LOS F, but below capacity during the weekday PM peak hour. This is primarily due to the relatively high westbound left-turn volume at the shared approach conflicting with volumes along OR 213. Preliminary signal warrants indicate that a traffic signal is not warranted under existing conditions. *Attachment "C" contains the traffic signal warrant worksheets.*

OR 211/Molalla Avenue

The eastbound through/left-turn movement at the OR 211/Molalla Avenue intersection currently operates at LOS F, but below capacity during the weekday PM peak hour. This is primarily due to the relatively high volume of the shared through/left-turn movement conflicting with other movements at the intersection. Preliminary signal warrants indicate that a traffic signal is not warranted under existing conditions. *Attachment "C" contains the traffic signal warrant worksheets.*

Queueing

A queueing analysis was conducted at the signalized study intersections. Table 6 summarizes the 95th percentile queues during the weekday p.m. peak hours under year 2017 existing traffic conditions. The storage lengths reflect the striped storage for each movement at the intersections.

Table 6: Weekday PM Peak Hour Queuing

Intersection	Movement	95th Percentile Queue	Storage Length (feet)	Adequate?
OR 213/OR 211	EBL	109	275	Yes
	WBL	106	230	Yes
	NBL	19	250	Yes
	SBL	175	200	Yes

Where WB = Westbound, SB = Southbound, EB = Eastbound, NB = Northbound, L = Left, R = Right
#: 95th percentile volume exceeds capacity, queue may be longer.
m: Volume for 95th percentile queue is metered by upstream signal.

As shown in Table 6, 95th percentile queues at the OR 213/OR 211 intersection do not exceed the stripped storage for any turning movement.

Traffic Safety

The crash history of the study intersections was reviewed in an effort to identify potential safety issues within the study area. ODOT provided crash records for the five-year period from January 1, 2011 through December 31, 2015 for the 16 study intersections. Table 7 summarizes the data provided by ODOT for the study intersection by crash type and severity. Figure 10 illustrates additional city-wide data obtained from ODOT by crash type and severity.

Table 7: Intersection Crash Summary (January 1, 2011 to December 31, 2015)

Location	Crash Type					Severity			Total	90th % Rate	Crash Rate
	Angle	Turn	Rear-End	Side Swipe	Ped/ Bike	PDO	Injury	Fatal			
OR 213/Vick Road	1	1	6	0	0	1	7	0	8	1.080	0.36
OR 213/Meadow Drive	0	1	0	0	0	1	0	0	1	0.293	0.04
OR 213/Toliver Road	4	4	4	0	0	2	10	0	12	0.408	**0.51**
OR 213/OR 211	4	9	3	0	0	8	8	0	16	0.860	0.55
OR 211/Ona Way	0	0	4	0	0	0	4	0	4	0.293	0.16
OR 211/Leroy Avenue	0	1	6	1	0	3	5	0	8	0.293	**0.32**
OR 211/Ridings Avenue	0	3	0	0	0	2	1	0	3	0.408	0.12
OR 211/Molalla Avenue	2	4	3	0	0	4	5	0	9	0.408	0.38
OR 211/Mathias Road	1	4	0	0	0	2	3	0	5	0.293	**0.31**
OR 211/Shirley Street	0	0	0	0	0	0	0	0	0	0.293	0.00
N Molalla Avenue/Vick Road	0	0	0	0	0	0	0	0	0	0.475	0.00
N Molalla Avenue/Toliver Road	0	0	1	0	0	0	1	0	1	0.293	0.07
N Molalla Avenue/Shirley Street	0	1	0	0	0	0	1	0	1	0.293	0.08
N Molalla Avenue/Heintz Street	1	1	0	0	0	2	0	0	2	0.408	0.17
S Molalla Avenue/5th Street	0	2	0	0	0	2	0	0	2	0.408	0.29
5th Street/Mathias Road	0	1	0	0	0	0	1	0	1	0.293	0.16

1. Property Damage Only

The crash rates shown in Table 7 were compared to the 90th percentile rates for similar facilities shown in Table 4-1 of the ODOT APM. Per the APM, any intersection that has a crash rate equal to or greater than the corresponding 90th percentile rate is considered a high-risk intersection and is recommended for further review. Based on these criteria, three intersections are recommended for further review as described below. *Attachment "D" contains the crash data provided by ODOT.*

OR 213/Toliver Road

The crash data summarized in Table 7 shows an evenly distributed proportion of rear-end, turning and angle crashes at the intersection. Of the four rear-end crashes, three occurred on the north leg of the intersection when a southbound vehicle was traveling too closely and failed to avoid another stopped vehicle waiting to execute a turn. Of the four angle crashes, all four occurred on the east leg of the intersection when a westbound vehicle disregarded or proceeded after stopping at a stop sign and did not have the right-of-way. Of the four turning crashes, two occurred on the north leg of the intersection when a southbound traveling vehicle attempted to make a left-turn and did not have the right-of-way; one of which involved a school bus.

Crash Severity

- Fatal Crash Ped Involved
- Fatal Crash Bike Involved
- Fatal Crash
- Injury Crash Ped Involved
- Injury Crash Bike Involved
- Injury Crash
- PDO Ped Involved
- PDO Bike Involved
- PDO
- Molalla City Limits
- Urban Growth Boundary

Reported Crashes from 2011 to 2015 and Fatal or Serious from 2016 Molalla, Oregon

Figure **10**

Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Oregon Department of Transportation

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OR 211/Leroy Avenue

The crash data summarized in Table 7 shows a high proportion of rear-end crashes at the intersection. Of the six rear-end crashes, all six occurred on the west leg of the intersections when an eastbound vehicle was traveling too closely and failed to avoid another stopped vehicle waiting to execute a turn.

OR 211/Mathias Road

The crash data summarized in Table 7 shows a high proportion of turn movement crashes at the intersection. Of the four turn movement crashes, three occurred on the east leg of the intersections when a westbound vehicle attempted to make a left-turn and did not have the right-of-way.

Critical crash rates were also calculated for each of the study intersections following the methodology presented in ODOT's *SPR 667 Assessment of Statewide Intersection Safety Performance* (Reference 3). SPR 667 provides average crash rates at a variety of intersection configurations in Oregon based on number of approaches and traffic control types. The average crash rate represents the approximate number of crashes that are "expected" to occur at a study intersection. The intersection critical crash rate assessment for the study intersections is summarized in Table 8.

Table 8: Intersection Critical Crash Rate Assessment

Intersection	Total Crashes	Critical Crash Rate by Intersection	Critical Crash Rate by Volume	Observed Crash Rate at Intersection	Observed Crash Rate>Critical Crash Rate?
OR 213/Vick Road	8	0.74	0.45	0.36	No
OR 213/Meadow Drive	1	0.50	0.38	0.04	No
OR 213/Toliver Road	12	0.65	0.38	0.51	***Yes***
OR 213/OR 211	16	1.16	0.46	0.55	***Yes***
OR 211/Ona Way	4	0.49	0.37	0.16	No
OR 211/Leroy Avenue	8	0.49	0.37	0.16	No
OR 211/Ridings Avenue	3	0.64	0.38	0.12	No
OR 211/Molalla Avenue	9	0.64	0.38	0.38	***Yes***
OR 211/Mathias Road	5	0.55	0.42	0.31	No
OR 211/Shirley Street	0	0.58	0.36	0.00	No
N Molalla Avenue/Vick Road	0	0.93	0.65	0.00	No
N Molalla Avenue/Toliver Road	1	0.57	0.35	0.07	No
N Molalla Avenue/Shirley Street	1	0.59	0.36	0.08	No
N Molalla Avenue/Heintz Street	2	0.76	0.36	0.17	No
S Molalla Avenue/5th Street	2	0.88	0.45	0.29	No
5th Street/Mathias Road	1	0.74	0.47	0.16	No

As shown in Table 8, the observed crash rates at the OR 213/Toliver Road, OR 213/OR 211, and OR 211/Molalla Avenue intersections exceed the critical crash rate by intersection volume.

OR 213/OR 211

The crash data summarized in Table 7 shows a high proportion of turn movement crashes at the intersection. Of the nine turn movement crashes, six occurred on the east leg and three occurred on the south leg of the intersection. All nine involved a vehicle turning left in front of oncoming traffic without yielding the right-of-way.

OR 211/Molalla Avenue

The crash data summarized in Table 7 shows a high proportion of angle, turn movement, and rear-end crashes at the intersection. Of the two angle crashes, one occurred on the west leg and one occurred on the north leg. Both crashes involved a vehicle that failed to yield the right-of-way to another vehicle. Of the four turn movement crashes, three occurred on the west leg and involved westbound through and westbound right or northbound left-turning vehicles; one occurred on the north leg and involved a southbound right and northbound left-turning vehicle. Of the three rear end crashes, two occurred on the east leg and one occurred on the west leg. All three crashes involved a vehicle traveling too closely and failing to avoid another stopped vehicle.

Safety Priority Index System

The ODOT Statewide Priority Index System (SPIS) identifies sites along state highways where safety issues warrant further investigation. The SPIS is a method developed by ODOT for identifying hazardous locations on state highways through consideration of crash frequency, crash rate, and crash severity. Sites identified within the top 5 percent are investigated by ODOT staff and reported to the Federal Highway Administration (FHWA). Per the most recent SPIS list, the OR 211/Toliver Road intersection is identified by ODOT as within the top 10% of statewide SPIS sites over the last five-year period.

Evacuation Routes

There are currently no designated evacuation routes within the city; however, earthquakes, flooding, landslides, wild fires, and other natural and man-made disasters may destroy or block key access routes to emergency facilities and create episodic demand for highway routes into and out of a stricken area. ODOT's investment strategy recognizes the critical role that some highway facilities, particularly bridges, play in emergency response and evacuation. In some cases, the most cost-effective solution to maintaining security in these lifeline routes involves investment in roads or bridges owned by local jurisdictions. To the extent feasible, investments are made without regard to roadway jurisdiction in order to provide the greatest degree of lifeline security for the available resources. ODOT works with local governments to further define and map a network of lifeline routes. The lifeline network will focus on serving those communities which are particularly susceptible to isolation by virtue of their limited highway access.

Freight

There are no state designated freight routes within Molalla; ODOT's Motor Carrier Transportation Division (MCTD) identifies OR 213 and OR 211 as Blue Routes, or routes that are unrestricted to standard freight truck traffic, but are either weight or width restricted for non-divisible and/or heavy haul loads. The Clackamas County TSP identifies OR 213 and OR 211 as truck freight routes and the current Molalla TSP identifies OR 213 and OR 211 along with Molalla Avenue, Mathias Road, and Feyrer Road as the main truck freight routes within the city. Per the current TSP, the volume of trucks passing through downtown Molalla, as well as the difficulty some trucks experience making turns at the Molalla Avenue/OR 211 intersection, have been raised as issues in the past. Figure 11 illustrates the freight routes within Molalla.

Traffic counts conducted at the study intersections in 2017 include the total number of trucks that entered the intersections as a percentage of total vehicles. Truck percentages at study intersections are listed in Table 9.

Table 9: PM Peak Hour Truck Volumes at Study Intersections

Map ID	Intersection	Intersection Truck Volume	Truck % of All Vehicular Traffic
1	OR 213/Vick Road	139	6.0
2	OR 213/Meadow Drive	133	5.6
3	OR 213/Toliver Road	156	6.4
4	OR 213/OR 211	211	7.1
5	OR 211/Ona Way	135	5.5
6	OR 211/Leroy Avenue	144	5.9
7	OR 211/Ridings Avenue	147	6.2
8	OR 211/Molalla Avenue	107	4.4
9	OR 211/Mathias Road	87	5.5
10	OR 211/Shirley Street	50	4.2
11	N Molalla Avenue/Vick Road	27	3.0
12	N Molalla Avenue/Toliver Road	42	3.0
13	N Molalla Avenue/Shirley Street	46	3.9
14	N Molalla Avenue/Heintz Street	33	2.8
15	S Molalla Avenue/5th Street	37	5.1
16	5th Street/Mathias Road	29	4.7

As shown in Table 9, the highest volumes of truck traffic is located along OR 213 and OR 211 with more than 200 trucks (or 7.1 percent of all vehicular traffic) at the OR 213/OR 211 intersection during the PM peak hour.

Freight Routes

- Molalla Major Truck Freight Routes
- Clackamas County Freight Routes
- Molalla City Limits
- Urban Growth Boundary

Freight Routes
Molalla, Oregon

Figure
11

Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: Metro Data Resource Center, City of Molalla

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Existing Gaps and Deficiencies

- There are several inconsistencies in how the jurisdictions (ODOT, Clackamas County, and City of Molalla) classify streets within Molalla.
- There are several arterial and collector streets that currently do not meet the city's pavement width standard.
- The OR 213/Toliver Road and OR 211/Molalla Road intersections currently operate at LOS F, but below capacity during the PM peak hour. Traffic signals are not warranted at either intersection.
- The OR 213/Toliver Road, OR 211/Leroy Avenue, and OR 211/Mathias Road intersections currently exceed the 90th percentile crash rates for similar facilities.
- The OR 213/Toliver Road, OR 213/OR 211, and OR 211/Molalla Avenue intersections currently exceed the critical crash rate by volume for similar facilities within the city.
- The OR 213/Toliver Road intersection is identified in the top 10% of statewide SPIS sites.
- There are no designated emergency or evacuation routes with the city.

OTHER TRAVEL MODES

There are no other modes of transportation within Molalla. All major rail, air, water, and natural gas pipelines are located in neighboring cities.

Rail

There are currently no rail lines within Molalla. Oregon Pacific Railroad (formerly Molalla Western Railroad) removed the rail lines because they were not serving any customers and the railroad wanted to eliminate the cost of maintaining the rail lines and rail crossings. Per the previous TSP, the railroad would be willing to replace the tracks and crossings if a customer were found in the area.

Freight Rail

There are currently no freight rail terminals within Molalla. The closest freight rail terminal is located in Oregon City.

Passenger Rail

There are currently no passenger rail terminals within Molalla. The closest passenger rail terminal is located in Oregon City and is served by Amtrak. Amtrak provides service between Oregon City (ORC) and downtown Portland (PDX) Monday through Friday at 7:24 a.m., 11:15 a.m., and 5:54 p.m. and between PDX and ORC at 6:00 a.m., 6:05 p.m., and 9:30 p.m. Travel times vary from 21 to 41 minutes depending on time of day and direction. From the ORC stop, the Amtrak Cascades rail line also provides passenger service north to Vancouver, British Columbia and south to Eugene.

Air

There are no airports located within the City of Molalla; however, a general aviation airport is located approximately five miles to the north along OR 213 in Mulino, OR. The Mulino Airport is owned by the Oregon Department of Aviation and is open to the general public. The airport has one paved 3,425 x 100-foot runway and services an average of 58 aircraft operations (takeoffs or landings) per day. A fixed-base operator is located at the airport to provide services for general aviation aircraft. Approximately 59 aircrafts are based at the airport.

A second airport is located approximately half a mile west of the OR 213/OR 211 intersection, outside the Molalla UGB. The Skydive Oregon Airport is owned and operated by Skydive Oregon, a parachute jumping operation. The airport has one paved 2,900 x 32-foot runway and services an average of 50 aircraft operations (takeoffs or landings) per month. Approximately 50 percent of the operations are skydive-related. Approximately 20 aircrafts are based at the airport.

The closest airport with scheduled passenger service is Portland International Airport (PDX), located approximately 35 miles north of Molalla.

Water

No navigable waterways are located within the City of Molalla; however, the Molalla River runs south to north along the eastern boundary of the city. The Molalla River is not used for transportation, per se; however, it is used for recreational purposes. In addition to several single-family homes with private access to the river, Feyrer Park, located approximately three miles southeast of Molalla, provides public access to the river. Several additional formal and informal accesses are located along OR 211 and the Molalla Forest Road, which travels along the western boundary of the river. These river accesses are used year-round; however, they experience the highest volume of visitors in the summer months.

Pipeline and Transmission System

Power Transmission System

Portland General Electric (PGE) provides electric power to the Portland metropolitan area from eight hydroelectric plants (on the Willamette, Clackamas, Deschutes, and Bull Run Rivers) and six thermal plants (in Oregon, Washington, and Montana) with a total power generation capacity of 2,022 megawatts. Its service area covers 3,170 square miles and 45 percent of Oregon's population. As of December 1998, PGE system reliability is calculated to be 99.98 percent. In Molalla, a PGE transmission line runs south along OR 213 into the Molalla substation – from which distribution lines radiate out into the city – and then to Mount Angel. The substation is located southwest of the city along OR 213.

Natural Gas

Northwest Natural Gas provides natural gas to the City of Molalla. Northwest obtains its natural gas from the Northwest Pipeline via Northwest gate stations and high-pressure transmission lines located

outside the City. No gate stations, high-pressure transmission lines, or storage facilities are currently located within Molalla nor are new ones planned for the area. The nearest high-pressure transmission line runs between Oregon City and Salem. Natural gas is transmitted to Molalla from the high-pressure line via smaller mains. There are no natural gas supply restrictions in Molalla because the compressibility of natural gas means that pipeline capacities are highly variable. Molalla residents who live on a street where natural gas distribution line already exists can be easily connected to that distribution line.

Water

Molalla operates its own water system and treatment plant. The water source for the city is the Molalla River. Two reservoirs are located at the treatment plant southeast of the city and one main line carries treated water to the city along Adam Cemetery Road, Freyrer Park Road, and 5th Street to the athletic fields. The city is preparing to expand the capacity of its entire distribution system from two million gallons per day to four million gallons per day to accommodate increased demand.

TRANSPORTATION SYSTEM MANAGEMENT OPERATIONS

Transportation System Management and Operations (TSMO) measures are designed to increase the efficiency and safety of the transportation system without physically increasing roadway capacity. Typical TSMO measures include Intelligent Transportation System (ITS) solutions, real-time traveler information, and services that respond quickly to traffic incidents. Based on discussions with City staff, there are no TSMO measures currently being employed in Molalla.

TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) programs and strategies are used to encourage alternative transportation modes and achieve higher vehicle occupancy targets. TDM measures are designed to change travel behavior in order to reduce the need for more road capacity and improve performance of the road system. The TDM programs and strategies in Molalla are primarily implemented though City Municipal Code Chapter 17-3.5 Parking and Loading and include parking minimums, maximums, and incentives for reducing off-street parking requirements.

ENVIRONMENTAL JUSTICE

The socio-economically sensitive populations within Molalla consist of minorities, elderly people (people 65 years of age or older), youth (people 17 years of age or younger), and people who live below the poverty line. 2010 census data was collected at the census block group level and shows the concentrations of these populations as a percentage of the overall population. The data was combined with a general understanding of local conditions to ensure that the existing transportation system meets the needs of these individuals. Figure 12 through 15 illustrate the populations within Molalla.

Percentage of Non-White People by Block Group

- 3% - 9%
- 10% - 15%
- 16% - 21%
- Urban Growth Boundary
- Molalla City Limits

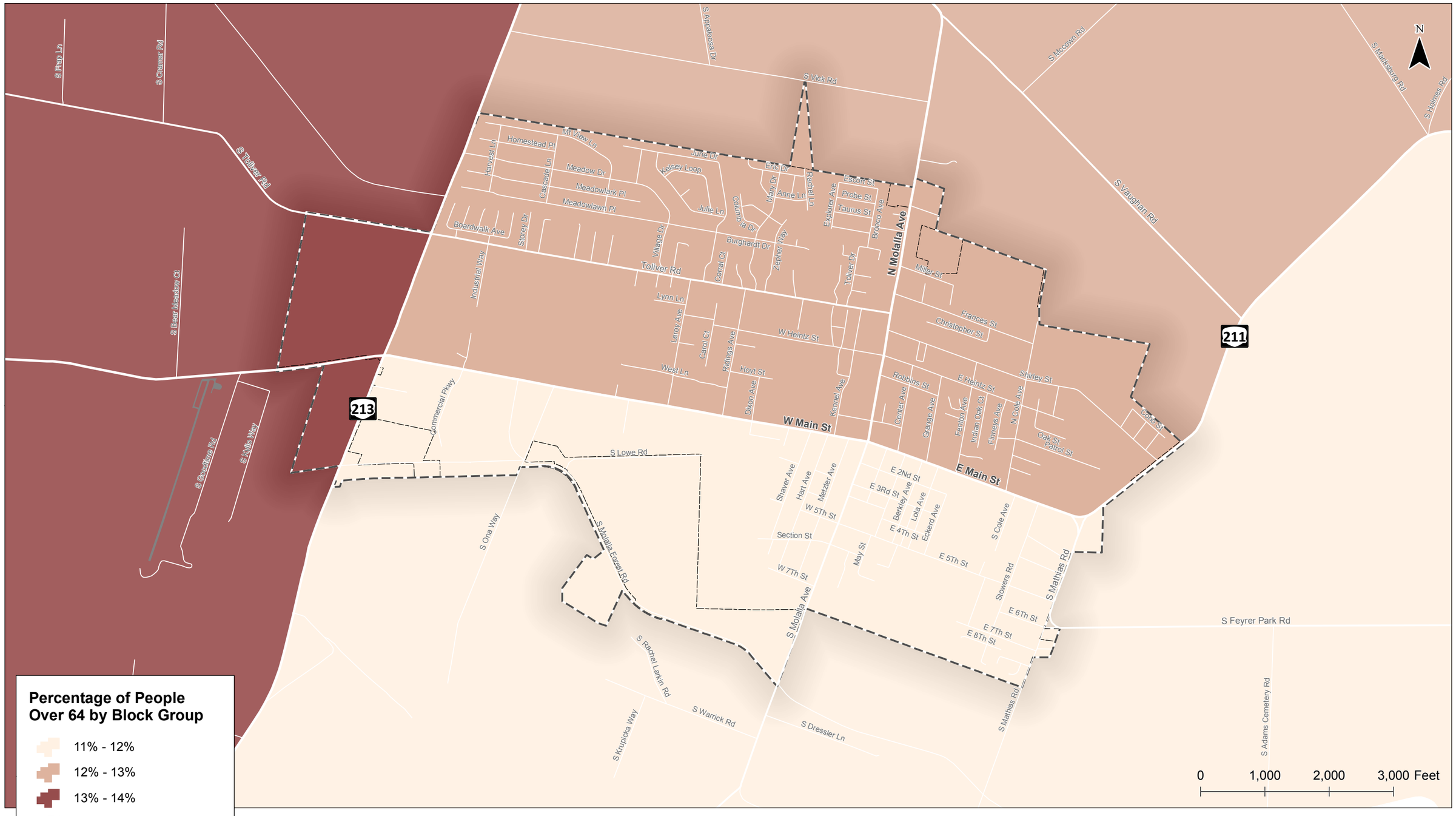
Minority Population
Molalla, Oregon

Figure **12**

Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: US Census Table Data ACS_15_5YR_B02001

KITTELSON & ASSOCIATES

H:\21\21266 - Molalla TSP Update\gis\TM412_Minority Population.mxd - mbell - 10:07 AM 3/26/2018



Percentage of People Over 64 by Block Group

- 11% - 12%
- 12% - 13%
- 13% - 14%
- Urban Growth Boundary
- Molalla City Limits

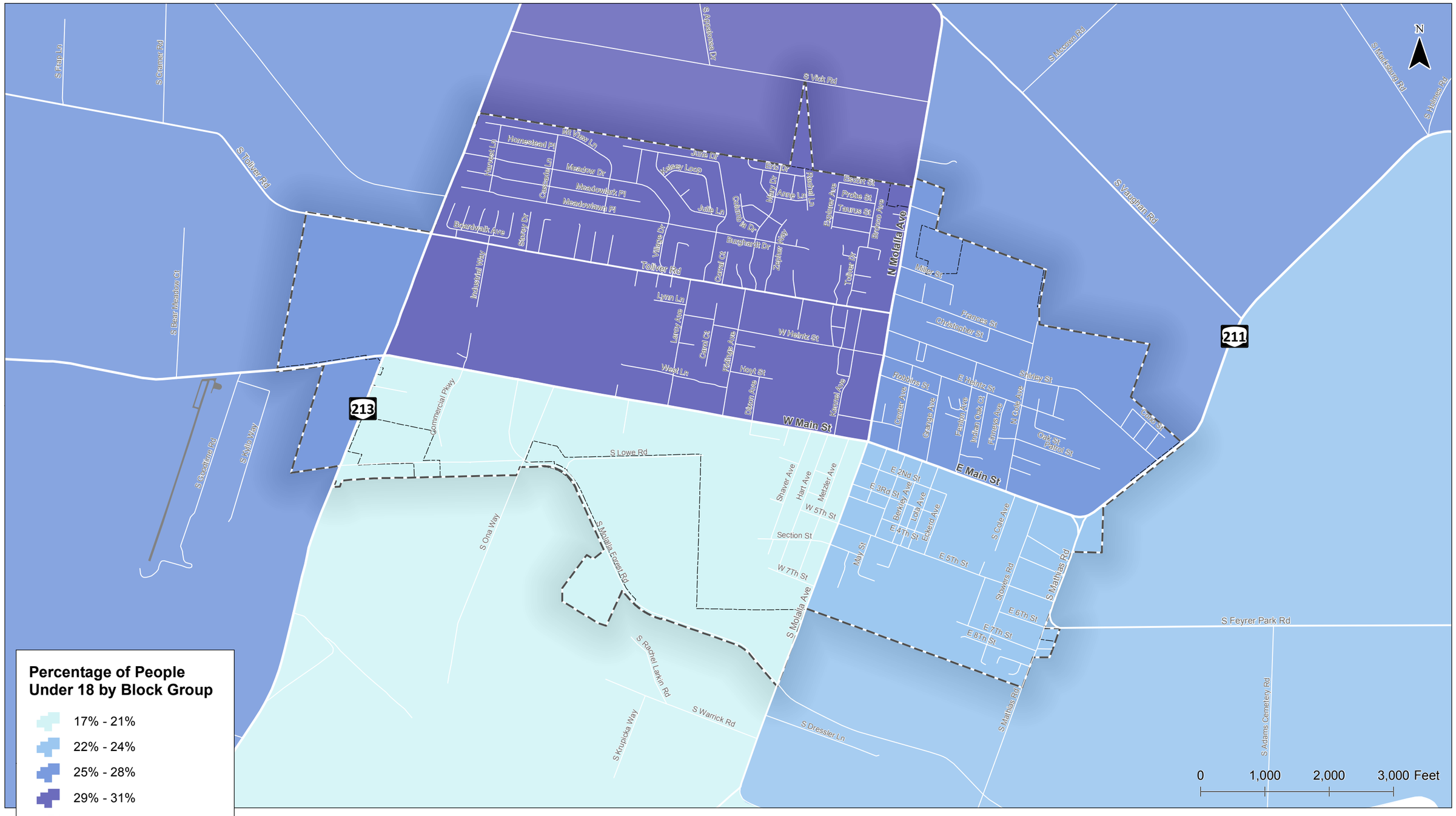
Elderly Population
Molalla, Oregon

Figure **13**

H:\21\21266 - Molalla TSP Update\gis\TM4\13_Population Over 64.mxd - mbell - 10:07 AM 3/26/2018

KITTELSON & ASSOCIATES

Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: US Census Table Data ACS_15_5YR_B01001



Percentage of People Under 18 by Block Group

- 17% - 21%
- 22% - 24%
- 25% - 28%
- 29% - 31%
- Urban Growth Boundary
- Molalla City Limits

Population Under 18
Molalla, Oregon

Figure **14**

Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: US Census Table Data ACS_15_5YR_B01001

KITTELSON & ASSOCIATES

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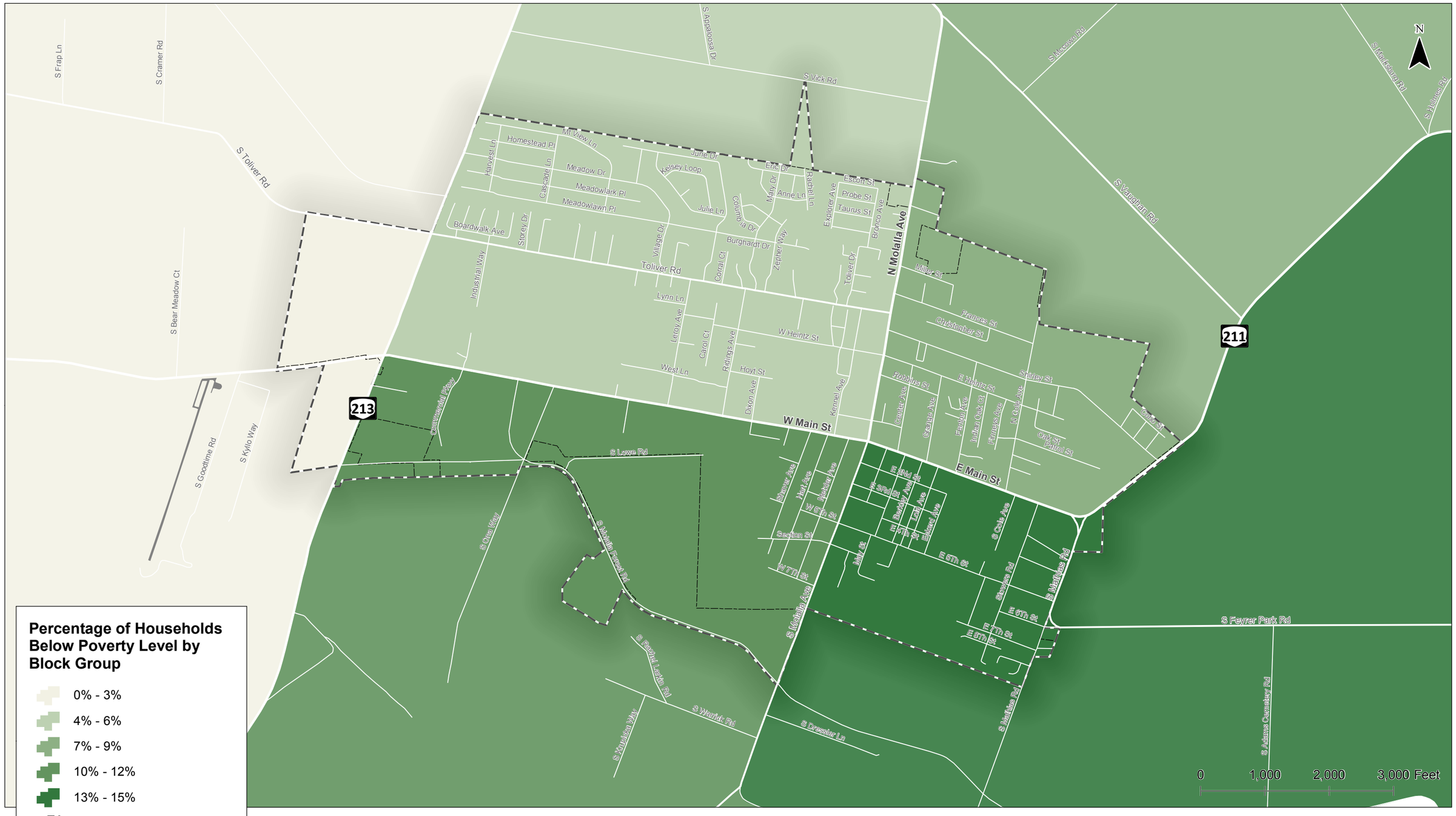


Percentage of Households Below Poverty Level by Block Group

- 0% - 3%
- 4% - 6%
- 7% - 9%
- 10% - 12%
- 13% - 15%
- Urban Growth Boundary
- Molalla City Limits

Population In Poverty
Molalla, Oregon

Figure **15**

Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl
Data Source: US Census Table Data ACS_15_5YR_B17017

KITTELSON & ASSOCIATES

H:\21\21266 - Molalla TSP Update\gis\TM4\15_Population In Poverty.mxd - mbell - 10:08 AM 3/26/2018

- Minorities – As shown in Figure 12, the southwest quadrant of the city has the highest concentration of minorities at approximately 16-21 percent of the population. The northeast quadrant also has a relatively high concentration of minorities at 10-15 percent of the population, while the remaining quadrants have a relatively low percent of minorities.
- Elderly People – As shown in Figure 13, the western quadrant of the City has the highest concentration of elderly people at 13-14 percent of the population. However, based on the data, there appears to be a relatively even distribution of elderly people city-wide.
- Youth – As shown in Figure 14, the northern quadrant of the city has the highest concentration of youth at 29-31 percent of the population; this area corresponds with many of the newer developments within the city. However, based on the data, there appears to be a relatively even distribution of youth city-wide.
- People with Low Income – As shown in Figure 15, the south and southeast quadrants of the city have the highest concentrations of people with low income at 10-12 and 13-15 percent of the population. The northeast quadrant also has a relatively high concentration of people with low include at 7-9 percent of the population, while the remaining quadrants have a relatively low percent of people with low income.

The socioeconomic conditions within the city will be considered in the development of the TSP update to ensure that the future transportation system meets the needs of the entire population while not creating adverse conditions for select segments of the population.

Attachment A Traffic Count Worksheets

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

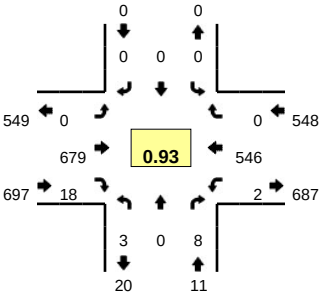
LOCATION: S Ona Way -- OR-211

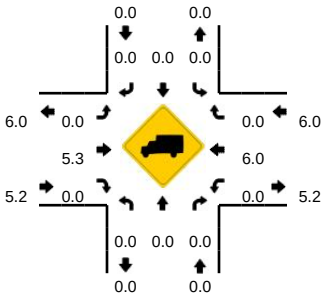
QC JOB #: 14397601

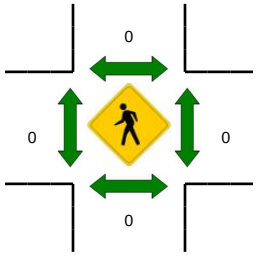
CITY/STATE: Molalla, OR

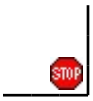
DATE: Thu, Apr 27 2017

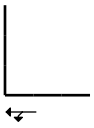
Peak-Hour: 4:20 PM -- 5:20 PM
Peak 15-Min: 4:40 PM -- 4:55 PM

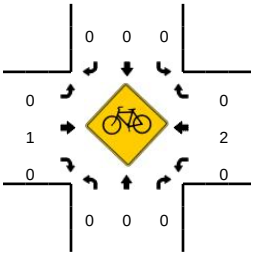


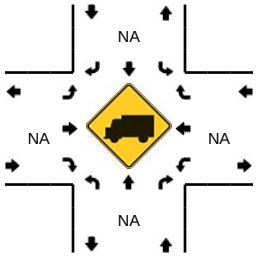


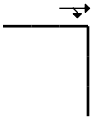


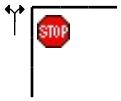


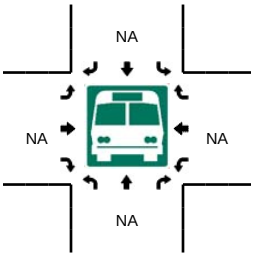












5-Min Count Period Beginning At	S Ona Way (Northbound)				S Ona Way (Southbound)				OR-211 (Eastbound)				OR-211 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	0	0	0	72	2	0	0	39	0	0	113	
4:05 PM	1	0	0	0	0	0	0	0	0	46	0	0	0	51	0	0	98	
4:10 PM	1	0	2	0	0	0	0	0	0	58	1	0	1	38	0	0	101	
4:15 PM	0	0	0	0	0	0	0	0	0	47	0	0	1	44	0	0	92	
4:20 PM	0	0	1	0	0	0	0	0	0	65	2	0	1	44	0	0	113	
4:25 PM	0	0	0	0	0	0	0	0	0	55	1	0	0	43	0	0	99	
4:30 PM	0	0	1	0	0	0	0	0	0	44	0	0	0	51	0	0	96	
4:35 PM	0	0	0	0	0	0	0	0	0	51	0	0	0	44	0	0	95	
4:40 PM	2	0	0	0	0	0	0	0	0	52	1	0	0	49	0	0	104	
4:45 PM	0	0	0	0	0	0	0	0	0	73	1	0	0	46	0	0	120	
4:50 PM	0	0	2	0	0	0	0	0	0	64	1	0	0	47	0	0	114	
4:55 PM	0	0	1	0	0	0	0	0	0	54	2	0	0	33	0	0	90	1235
5:00 PM	0	0	0	0	0	0	0	0	0	63	2	0	0	34	0	0	99	1221
5:05 PM	1	0	1	0	0	0	0	0	0	52	3	0	0	44	0	0	101	1224
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5:25 PM	1	0	2	0	0	0	0	0	0	49	1	0	0	30	0	0	83	1240
5:30 PM	0	0	0	0	0	0	0	0	0	61	0	0	1	43	0	0	105	1249
5:35 PM	0	0	0	0	0	0	0	0	0	42	3	0	0	45	0	0	90	1244
5:40 PM	0	0	0	0	0	0	0	0	0	56	0	0	1	44	0	0	101	1241
5:45 PM	1	0	0	0	0	0	0	0	0	61	0	0	2	35	0	0	99	1220
5:50 PM	1	0	0	0	0	0	0	0	0	65	0	0	0	45	0	0	111	1217
5:55 PM	1	0	1	0	0	0	0	0	0	44	2	0	0	37	0	0	85	1212

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	0	8	0	0	0	0	0	0	756	12	0	0	568	0	0	1352
Heavy Trucks	0	0	0		0	0	0		0	36	0		0	28	0		64
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 8/3/2017 6:02 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

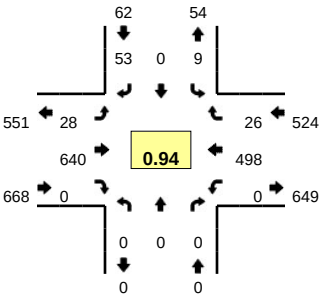
Type of peak hour being reported: Intersection Peak

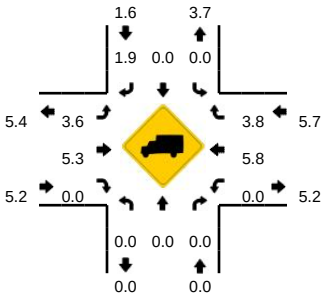
Method for determining peak hour: Total Entering Volume

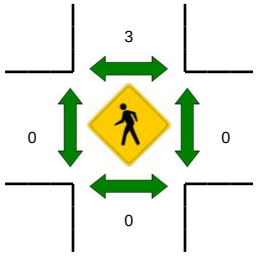
LOCATION: Leroy Ave -- OR-211
CITY/STATE: Molalla, OR

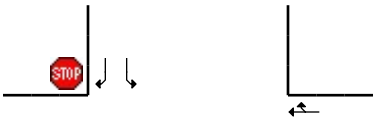
QC JOB #: 14397602
DATE: Thu, Apr 27 2017

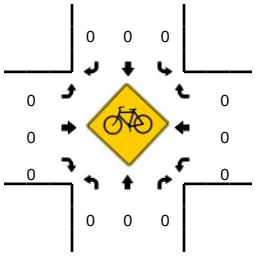
Peak-Hour: 4:25 PM -- 5:25 PM
Peak 15-Min: 5:10 PM -- 5:25 PM

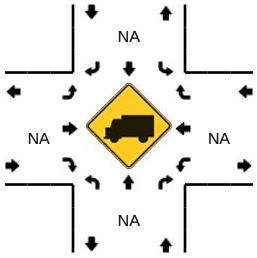


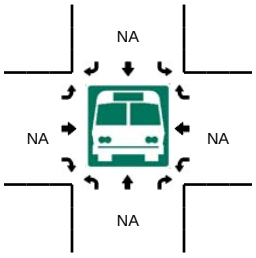












5-Min Count Period Beginning At	Leroy Ave (Northbound)				Leroy Ave (Southbound)				OR-211 (Eastbound)				OR-211 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	1	0	2	0	3	62	0	0	0	33	1	0	102	
4:05 PM	0	0	0	0	1	0	3	0	2	47	0	0	0	45	2	0	100	
4:10 PM	0	0	0	0	1	0	3	0	1	52	0	0	0	29	2	0	88	
4:15 PM	0	0	0	0	0	0	2	0	5	42	0	0	0	48	0	0	97	
4:20 PM	0	0	0	0	0	0	3	0	6	57	0	0	0	37	3	0	106	
4:25 PM	0	0	0	0	2	0	2	0	4	45	0	0	0	45	2	0	100	
4:30 PM	0	0	0	0	1	0	6	0	2	40	0	0	0	38	6	0	93	
4:35 PM	0	0	0	0	2	0	2	0	2	55	0	0	0	46	1	0	108	
4:40 PM	0	0	0	0	1	0	5	0	3	50	0	0	0	42	1	0	102	
4:45 PM	0	0	0	0	0	0	4	0	5	56	0	0	0	43	2	0	110	
4:50 PM	0	0	0	0	0	0	5	0	0	67	0	0	0	37	3	0	112	
4:55 PM	0	0	0	0	1	0	2	0	2	55	0	0	0	33	1	0	94	1212
5:00 PM	0	0	0	0	0	0	1	0	2	58	0	0	0	34	5	0	100	1210
5:05 PM	0	0	0	0	0	0	6	0	2	54	0	0	0	41	0	0	103	1213
5:10 PM	0	0	0	0	1	0	11	0	1	47	0	0	0	49	1	0	110	1235
5:15 PM	0	0	0	0	0	0	5	0	2	54	0	0	0	50	1	0	112	1250
5:20 PM	0	0	0	0	1	0	4	0	3	59	0	0	0	40	3	0	110	1254
5:25 PM	0	0	0	0	5	0	4	0	2	45	0	0	0	32	1	0	89	1243
5:30 PM	0	0	0	0	1	0	2	0	4	45	0	0	0	36	4	0	92	1242
5:35 PM	0	0	0	0	2	0	4	0	4	45	0	0	0	51	6	0	112	1246
5:40 PM	0	0	0	0	0	0	5	0	1	48	0	0	0	37	1	0	92	1236
5:45 PM	0	0	0	0	1	0	1	0	4	53	0	0	0	33	5	0	97	1223
5:50 PM	0	0	0	0	1	0	8	0	4	59	0	0	0	41	2	0	115	1226
5:55 PM	0	0	0	0	3	0	6	0	3	38	0	0	0	33	2	0	85	1217

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	8	0	80	0	24	640	0	0	0	556	20	0	1328
Heavy Trucks	0	0	0		0	0	0		4	36	0		0	24	4		68
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 8/3/2017 6:02 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

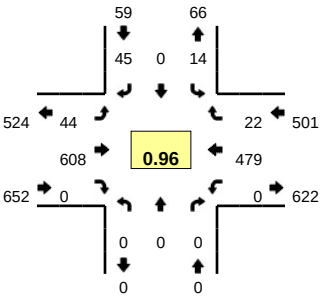
Type of peak hour being reported: Intersection Peak

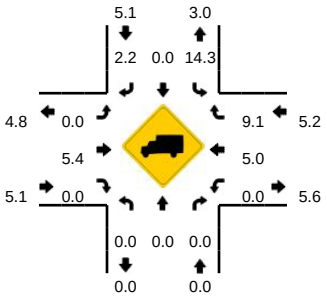
Method for determining peak hour: Total Entering Volume

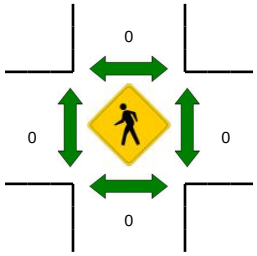
LOCATION: Ridings Ave -- OR-211
CITY/STATE: Molalla, OR

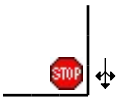
QC JOB #: 14397603
DATE: Thu, Apr 27 2017

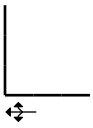
Peak-Hour: 4:25 PM -- 5:25 PM
Peak 15-Min: 5:10 PM -- 5:25 PM

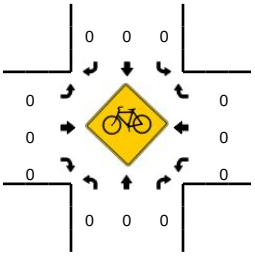


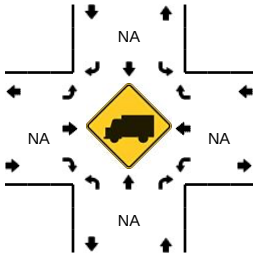


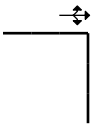


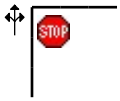


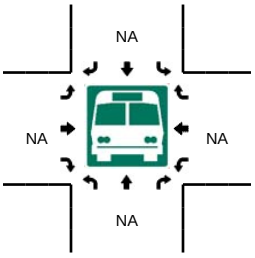












5-Min Count Period Beginning At	Ridings Ave (Northbound)				Ridings Ave (Southbound)				OR-211 (Eastbound)				OR-211 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	0	0	0	0	0	3	0	6	58	0	0	0	31	4	0	103	
4:05 PM	0	0	0	0	0	0	4	0	2	47	0	0	0	45	1	0	99	
4:10 PM	0	0	0	0	1	0	2	0	4	40	0	0	0	30	0	0	77	
4:15 PM	0	0	0	0	1	0	3	0	5	47	0	0	0	47	5	0	108	
4:20 PM	0	0	0	0	1	0	3	0	6	53	0	0	0	38	3	0	104	
4:25 PM	0	0	0	0	1	0	5	0	3	43	0	0	0	43	5	0	100	
4:30 PM	0	0	0	0	3	0	2	0	0	46	0	0	0	43	1	0	95	
4:35 PM	0	0	0	0	1	0	2	0	4	50	0	0	0	49	0	0	106	
4:40 PM	0	0	0	0	1	0	9	0	6	42	0	0	0	33	2	0	93	
4:45 PM	0	0	0	0	0	0	3	0	2	54	0	0	0	42	2	0	103	
4:50 PM	0	0	0	0	2	0	1	0	3	71	0	0	0	35	3	0	115	
4:55 PM	0	0	0	0	1	0	3	0	5	50	0	0	0	33	2	0	94	1197
5:00 PM	0	0	0	0	0	0	4	0	0	52	0	0	0	34	1	0	91	1185
5:05 PM	0	0	0	0	1	0	4	0	5	52	0	0	0	37	0	0	99	1185
5:10 PM	0	0	0	0	1	0	6	0	3	43	0	0	0	47	0	0	100	1208
5:15 PM	0	0	0	0	0	0	5	0	4	50	0	0	0	43	3	0	105	1205
5:20 PM	0	0	0	0	3	0	1	0	9	55	0	0	0	40	3	0	111	1212
5:25 PM	0	0	0	0	1	0	6	0	1	49	0	0	0	28	2	0	87	1199
5:30 PM	0	0	0	0	1	0	2	0	4	43	0	0	0	41	2	0	93	1197
5:35 PM	0	0	0	0	3	1	7	0	2	45	0	0	0	47	2	0	107	1198
5:40 PM	0	0	0	0	0	0	1	0	3	43	0	0	0	36	0	0	83	1188
5:45 PM	0	0	1	0	2	0	5	0	7	50	0	0	0	38	2	0	105	1190
5:50 PM	0	0	0	0	0	0	1	0	6	52	0	0	0	40	7	0	106	1181
5:55 PM	0	0	0	0	1	0	2	0	2	40	0	0	0	28	1	0	74	1161

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	16	0	48	0	64	592	0	0	0	520	24	0	1264
Heavy Trucks	0	0	0		8	0	4		0	36	0		0	16	0		64
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 8/3/2017 6:02 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Molalla Ave -- OR-211

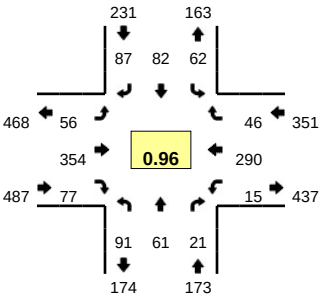
CITY/STATE: Molalla, OR

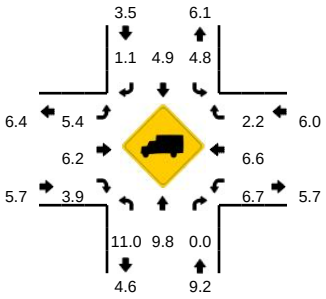
QC JOB #: 14397604

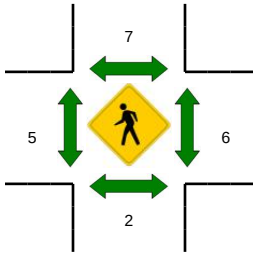
DATE: Thu, Apr 27 2017

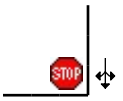
Peak-Hour: 4:00 PM -- 5:00 PM

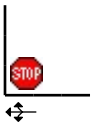
Peak 15-Min: 4:15 PM -- 4:30 PM

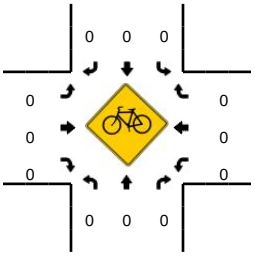


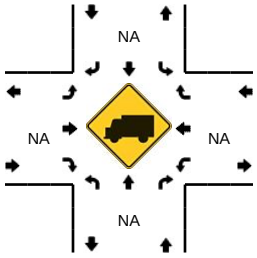


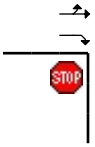


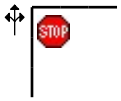


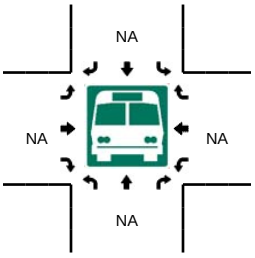












5-Min Count Period Beginning At	Molalla Ave (Northbound)				Molalla Ave (Southbound)				OR-211 (Eastbound)				OR-211 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	5	5	1	0	3	6	11	0	2	37	13	0	0	20	6	0	109	
4:05 PM	9	7	4	0	3	2	4	0	6	28	5	0	3	23	5	0	99	
4:10 PM	11	2	0	0	3	7	7	0	3	29	4	0	2	27	5	0	100	
4:15 PM	12	2	1	0	10	8	8	0	8	22	2	0	2	24	6	0	105	
4:20 PM	11	6	2	0	6	13	3	0	4	27	4	0	0	23	4	0	103	
4:25 PM	6	6	4	0	5	9	12	0	5	28	10	0	0	26	3	0	114	
4:30 PM	5	4	2	0	4	1	7	0	2	38	7	0	2	28	2	0	102	
4:35 PM	10	8	0	0	4	5	10	0	4	29	10	0	2	19	2	0	103	
4:40 PM	5	6	2	0	6	10	3	0	5	27	6	0	2	24	3	0	99	
4:45 PM	6	3	2	0	8	7	5	0	5	28	6	0	1	30	3	0	104	
4:50 PM	5	7	1	0	4	7	8	0	4	34	3	0	1	28	4	0	106	
4:55 PM	6	5	2	0	6	7	9	0	8	27	7	0	0	18	3	0	98	1242
5:00 PM	4	4	2	0	3	7	4	0	6	34	4	0	1	20	2	0	91	1224
5:05 PM	7	3	0	0	4	6	5	0	9	32	11	0	1	24	7	0	109	1234
5:10 PM	4	6	3	0	5	10	8	0	2	22	4	0	1	30	2	0	97	1231
5:15 PM	6	2	1	0	7	3	6	0	2	35	5	0	5	27	5	0	104	1230
5:20 PM	5	6	1	0	4	10	0	0	4	21	9	0	4	26	1	0	91	1218
5:25 PM	3	5	4	0	8	11	3	0	5	31	6	0	2	20	1	0	99	1203
5:30 PM	7	5	1	0	4	8	8	0	5	24	6	0	2	28	5	0	103	1204
5:35 PM	6	4	0	0	4	6	6	0	8	25	10	0	2	34	1	0	106	1207
5:40 PM	5	10	0	0	3	5	3	0	3	19	8	0	2	23	3	0	84	1192
5:45 PM	7	6	2	0	8	9	5	0	3	30	6	0	0	24	2	0	102	1190
5:50 PM	7	3	1	0	0	5	6	0	9	28	11	0	2	20	3	0	95	1179
5:55 PM	5	7	0	0	7	4	5	0	9	24	7	0	2	15	2	0	87	1168

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	116	56	28	0	84	120	92	0	68	308	64	0	8	292	52	0	1288
Heavy Trucks	16	12	0		4	8	0		4	16	0		0	28	0		88
Pedestrians		8				0				0				8			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 8/3/2017 6:02 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

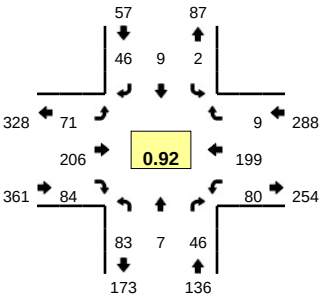
Type of peak hour being reported: Intersection Peak

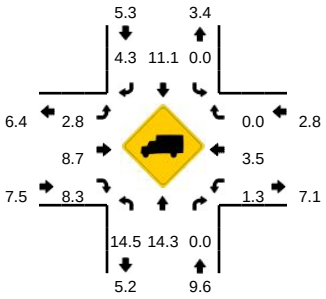
Method for determining peak hour: Total Entering Volume

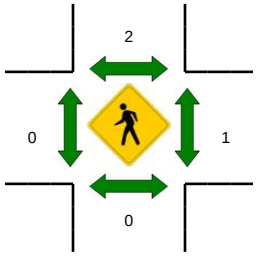
LOCATION: Mathias Rd -- OR-211
CITY/STATE: Molalla, OR

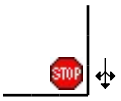
QC JOB #: 14397605
DATE: Thu, Apr 27 2017

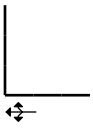
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:20 PM -- 4:35 PM

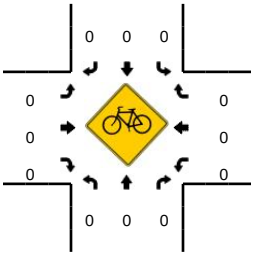


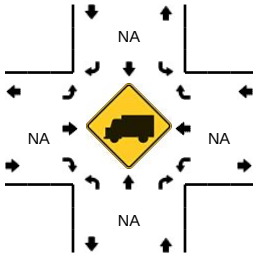


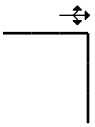


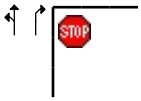


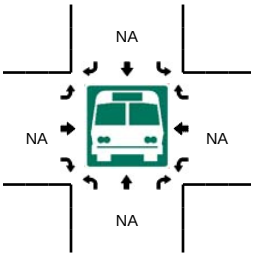












5-Min Count Period Beginning At	Mathias Rd (Northbound)				Mathias Rd (Southbound)				OR-211 (Eastbound)				OR-211 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	5	0	4	0	1	0	2	0	2	26	9	0	7	16	0	0	72	
4:05 PM	6	0	2	0	0	0	6	0	2	24	6	0	3	13	1	0	63	
4:10 PM	6	0	6	0	0	0	1	0	4	18	8	0	5	11	0	0	59	
4:15 PM	9	0	4	0	0	0	1	0	6	17	6	0	7	19	2	0	71	
4:20 PM	9	1	8	0	0	0	2	0	2	19	10	0	8	20	1	0	80	
4:25 PM	8	0	3	0	1	0	5	0	4	13	6	0	9	18	1	0	68	
4:30 PM	7	0	4	0	0	2	6	0	8	20	9	0	6	16	2	0	80	
4:35 PM	6	0	2	0	0	2	5	0	7	18	6	0	4	13	0	0	63	
4:40 PM	2	1	2	0	0	3	7	0	11	15	7	0	3	29	1	0	81	
4:45 PM	7	3	5	0	0	1	4	0	2	18	6	0	11	15	0	0	72	
4:50 PM	6	1	3	0	1	0	3	0	10	21	8	0	8	10	0	0	71	
4:55 PM	6	0	5	0	0	0	5	0	5	16	5	0	3	13	0	0	58	838
5:00 PM	7	0	3	0	0	0	2	0	6	17	4	0	5	16	1	0	61	827
5:05 PM	8	0	4	0	0	1	4	0	5	14	9	0	7	12	1	0	65	829
5:10 PM	8	1	3	0	0	0	2	0	5	18	8	0	9	18	0	0	72	842
5:15 PM	3	1	6	0	0	1	4	0	6	16	4	0	6	18	2	0	67	838
5:20 PM	6	4	3	0	1	1	3	0	6	13	4	0	7	14	0	0	62	820
5:25 PM	2	1	1	0	0	0	3	0	2	21	4	0	6	16	0	0	56	808
5:30 PM	8	0	4	0	1	1	8	0	5	17	2	0	4	14	0	0	64	792
5:35 PM	6	0	7	0	0	0	2	0	2	13	5	0	6	13	0	0	54	783
5:40 PM	6	0	7	0	0	4	2	0	6	5	8	0	0	13	1	0	52	754
5:45 PM	3	1	2	0	1	1	0	0	4	16	10	0	9	24	0	0	71	753
5:50 PM	2	0	3	0	0	1	6	0	4	16	7	0	7	13	1	0	60	742
5:55 PM	3	0	1	0	0	1	4	0	4	18	4	0	5	13	0	0	53	737

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	96	4	60	0	4	8	52	0	56	208	100	0	92	216	16	0	912
Heavy Trucks	20	0	0		0	0	4		8	16	16		4	4	0		72
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 8/3/2017 6:02 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

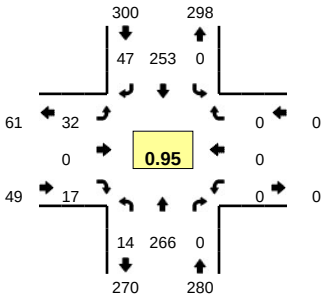
Type of peak hour being reported: Intersection Peak

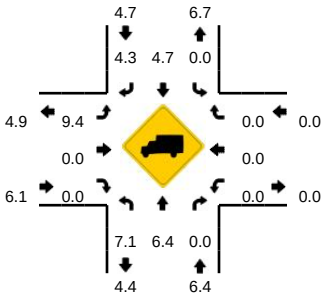
Method for determining peak hour: Total Entering Volume

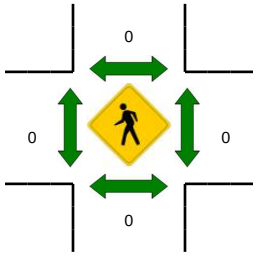
LOCATION: OR-211 -- Shirley St
CITY/STATE: Molalla, OR

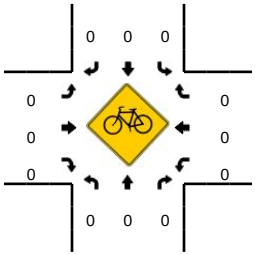
QC JOB #: 14397606
DATE: Thu, Apr 27 2017

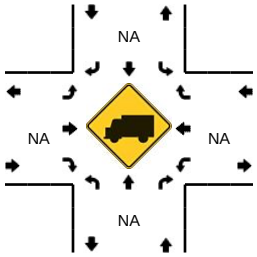
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:35 PM -- 4:50 PM

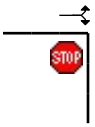


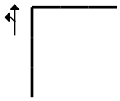


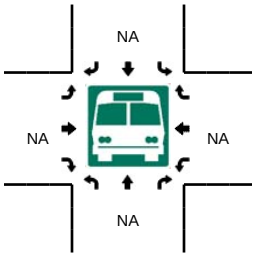












5-Min Count Period Beginning At	OR-211 (Northbound)				OR-211 (Southbound)				Shirley St (Eastbound)				Shirley St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	30	0	0	0	20	3	0	6	0	2	0	0	0	0	0	64	
4:05 PM	0	27	0	0	0	18	4	0	0	0	1	0	0	0	0	0	50	
4:10 PM	1	18	0	0	0	17	6	0	2	0	2	0	0	0	0	0	46	
4:15 PM	1	20	0	0	0	23	2	0	3	0	2	0	0	0	0	0	51	
4:20 PM	3	24	0	0	0	28	5	0	0	0	1	0	0	0	0	0	61	
4:25 PM	0	20	0	0	0	25	1	0	1	0	0	0	0	0	0	0	47	
4:30 PM	3	20	0	0	0	19	1	0	4	0	2	0	0	0	0	0	49	
4:35 PM	1	18	0	0	0	16	8	0	7	0	2	0	0	0	0	0	52	
4:40 PM	0	15	0	0	0	33	5	0	3	0	0	0	0	0	0	0	56	
4:45 PM	0	25	0	0	0	24	4	0	3	0	1	0	0	0	0	0	57	
4:50 PM	0	27	0	0	0	15	5	0	2	0	1	0	0	0	0	0	50	
4:55 PM	2	22	0	0	0	15	3	0	1	0	3	0	0	0	0	0	46	629
5:00 PM	1	20	0	0	0	17	4	0	2	0	3	0	0	0	0	0	47	612
5:05 PM	0	18	0	0	0	14	1	0	4	0	0	0	0	0	0	0	37	599
5:10 PM	0	20	0	0	0	25	1	0	8	0	3	0	0	0	0	0	57	610
5:15 PM	0	24	0	0	0	24	1	0	3	0	1	0	0	0	0	0	53	612
5:20 PM	1	19	0	0	0	17	0	0	0	0	0	0	0	0	0	0	37	588
5:25 PM	0	26	0	0	0	23	2	0	1	0	0	0	0	0	0	0	52	593
5:30 PM	0	22	0	0	0	17	1	0	0	0	1	0	0	0	0	0	41	585
5:35 PM	1	21	0	0	0	21	2	0	0	0	0	0	0	0	0	0	45	578
5:40 PM	0	12	0	0	0	15	3	0	1	0	2	0	0	0	0	0	33	555
5:45 PM	1	17	0	0	0	30	2	0	2	0	1	0	0	0	0	0	53	551
5:50 PM	0	20	0	0	0	18	3	0	1	0	0	0	0	0	0	0	42	543
5:55 PM	3	16	0	0	0	24	3	0	2	0	0	0	0	0	0	0	48	545

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	232	0	0	0	292	68	0	52	0	12	0	0	0	0	0	660
Heavy Trucks	0	8	0		0	12	0		8	0	0		0	0	0		28
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 8/3/2017 6:02 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

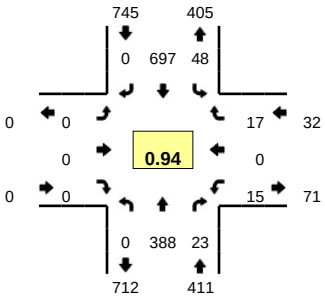
Type of peak hour being reported: Intersection Peak

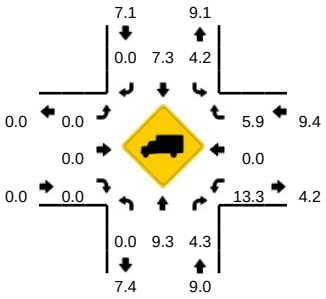
Method for determining peak hour: Total Entering Volume

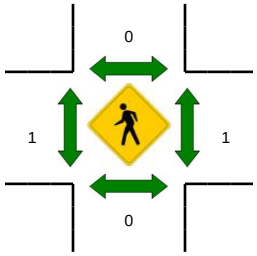
LOCATION: OR-213 -- S Vick Rd
CITY/STATE: Clackamas, OR

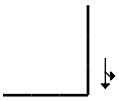
QC JOB #: 14397607
DATE: Thu, Apr 27 2017

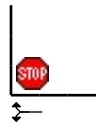
Peak-Hour: 4:05 PM -- 5:05 PM
Peak 15-Min: 4:05 PM -- 4:20 PM

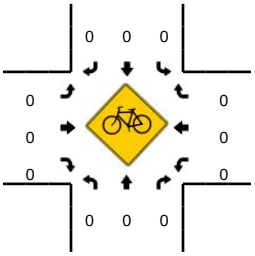


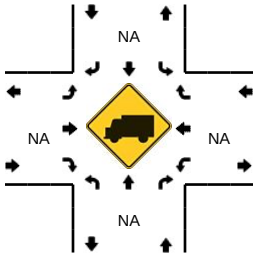


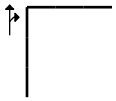


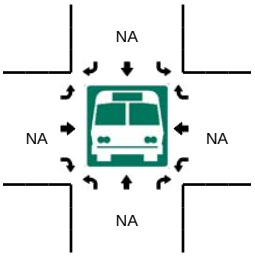












5-Min Count Period Beginning At	OR-213 (Northbound)				OR-213 (Southbound)				S Vick Rd (Eastbound)				S Vick Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	37	2	0	5	47	0	0	0	0	0	0	2	0	2	0	95	
4:05 PM	0	39	3	0	2	67	0	0	0	0	0	0	3	0	2	0	116	
4:10 PM	0	38	0	0	2	60	0	0	0	0	0	0	2	0	6	0	108	
4:15 PM	0	30	1	0	3	55	0	0	0	0	0	0	2	0	1	0	92	
4:20 PM	0	23	1	0	5	64	0	0	0	0	0	0	1	0	2	0	96	
4:25 PM	0	26	2	0	4	53	0	0	0	0	0	0	0	0	0	0	85	
4:30 PM	0	29	2	0	7	54	0	0	0	0	0	0	1	0	0	0	93	
4:35 PM	0	38	4	0	0	70	0	0	0	0	0	0	1	0	1	0	114	
4:40 PM	0	35	0	0	2	42	0	0	0	0	0	0	3	0	1	0	83	
4:45 PM	0	32	2	0	4	66	0	0	0	0	0	0	0	0	1	0	105	
4:50 PM	0	28	2	0	3	61	0	0	0	0	0	0	1	0	0	0	95	
4:55 PM	0	35	4	0	9	55	0	0	0	0	0	0	0	0	1	0	104	1186
5:00 PM	0	35	2	0	7	50	0	0	0	0	0	0	1	0	2	0	97	1188
5:05 PM	0	22	1	0	4	61	0	0	0	0	0	0	1	0	0	0	89	1161
5:10 PM	0	27	4	0	6	50	0	0	0	0	0	0	1	0	1	0	89	1142
5:15 PM	0	41	2	0	3	57	0	0	0	0	0	0	1	0	4	0	108	1158
5:20 PM	0	34	1	0	4	49	0	0	0	0	0	0	1	0	2	0	91	1153
5:25 PM	0	34	1	0	3	56	0	0	0	0	0	0	1	0	0	0	95	1163
5:30 PM	0	30	2	0	7	54	0	0	0	0	0	0	1	0	1	0	95	1165
5:35 PM	0	36	1	0	3	57	0	0	0	0	0	0	0	0	0	0	97	1148
5:40 PM	0	36	3	0	3	55	0	0	0	0	0	0	0	0	0	0	97	1162
5:45 PM	0	30	2	0	2	49	0	0	0	0	0	0	0	0	4	0	87	1144
5:50 PM	0	31	4	0	4	49	0	0	0	0	0	0	0	0	1	0	89	1138
5:55 PM	0	35	0	0	2	50	0	0	0	0	0	0	0	0	0	0	87	1121

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	428	16	0	28	728	0	0	0	0	0	0	28	0	36	0	1264
Heavy Trucks	0	48	4		4	44	0		0	0	0		0	0	4		104
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 8/3/2017 6:02 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

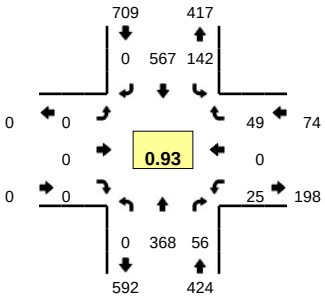
Type of peak hour being reported: Intersection Peak

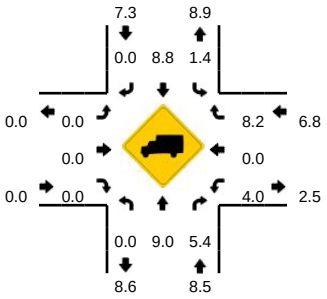
Method for determining peak hour: Total Entering Volume

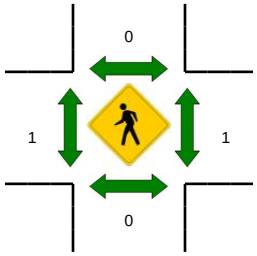
LOCATION: OR-213 -- Meadow Dr
CITY/STATE: Clackamas, OR

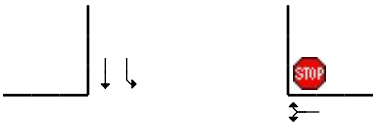
QC JOB #: 14397608
DATE: Thu, Apr 27 2017

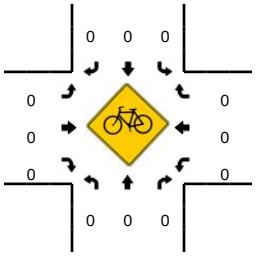
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:05 PM -- 4:20 PM

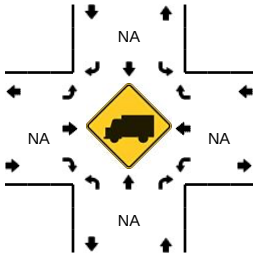


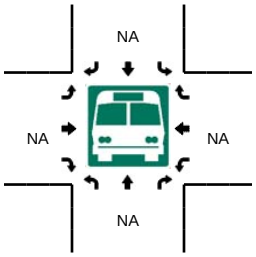












5-Min Count Period Beginning At	OR-213 (Northbound)				OR-213 (Southbound)				Meadow Dr (Eastbound)				Meadow Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	35	4	0	7	43	0	0	0	0	0	0	1	0	5	0	95	
4:05 PM	0	36	4	0	16	51	0	0	0	0	0	0	3	0	8	0	118	
4:10 PM	0	32	4	0	15	50	0	0	0	0	0	0	1	0	3	0	105	
4:15 PM	0	31	3	0	13	46	0	0	0	0	0	0	4	0	5	0	102	
4:20 PM	0	18	9	0	12	53	0	0	0	0	0	0	2	0	1	0	95	
4:25 PM	0	30	4	0	11	38	0	0	0	0	0	0	4	0	2	0	89	
4:30 PM	0	29	2	0	8	45	0	0	0	0	0	0	2	0	2	0	88	
4:35 PM	0	39	8	0	10	62	0	0	0	0	0	0	2	0	4	0	125	
4:40 PM	0	27	6	0	11	30	0	0	0	0	0	0	1	0	5	0	80	
4:45 PM	0	31	4	0	11	57	0	0	0	0	0	0	0	0	3	0	106	
4:50 PM	0	32	3	0	9	44	0	0	0	0	0	0	2	0	4	0	94	
4:55 PM	0	28	5	0	19	48	0	0	0	0	0	0	3	0	7	0	110	1207
5:00 PM	0	30	4	0	14	29	0	0	0	0	0	0	3	0	4	0	84	1196
5:05 PM	0	18	3	0	16	52	0	0	0	0	0	0	2	0	8	0	99	1177
5:10 PM	0	29	3	0	9	41	0	0	0	0	0	0	2	0	5	0	89	1161
5:15 PM	0	33	5	0	17	45	0	0	0	0	0	0	2	0	5	0	107	1166
5:20 PM	0	38	8	0	12	34	0	0	0	0	0	0	0	0	1	0	93	1164
5:25 PM	0	29	9	0	11	49	0	0	0	0	0	0	4	0	3	0	105	1180
5:30 PM	0	26	7	0	12	42	0	0	0	0	0	0	3	0	5	0	95	1187
5:35 PM	0	32	5	0	14	42	0	0	0	0	0	0	3	0	3	0	99	1161
5:40 PM	0	36	6	0	16	37	0	0	0	0	0	0	0	0	7	0	102	1183
5:45 PM	0	21	5	0	15	33	0	0	0	0	0	0	3	0	9	0	86	1163
5:50 PM	0	28	9	0	11	43	0	0	0	0	0	0	4	0	5	0	100	1169
5:55 PM	0	32	5	0	15	33	0	0	0	0	0	0	3	0	6	0	94	1153

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	396	44	0	176	588	0	0	0	0	0	0	32	0	64	0	1300
Heavy Trucks	0	44	4		4	40	0		0	0	0		4	0	8		104
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 8/3/2017 6:02 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

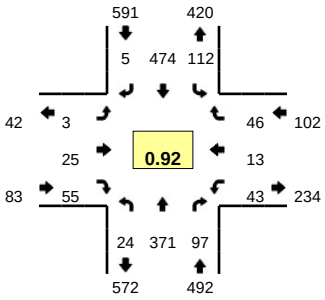
Type of peak hour being reported: Intersection Peak

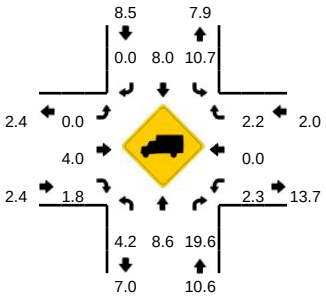
Method for determining peak hour: Total Entering Volume

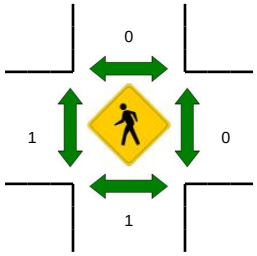
LOCATION: OR-213 -- Toliver Rd
CITY/STATE: Clackamas, OR

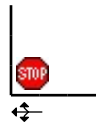
QC JOB #: 14397609
DATE: Thu, Apr 27 2017

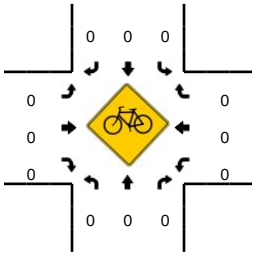
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:35 PM -- 4:50 PM

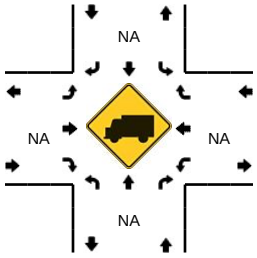


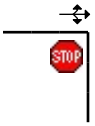


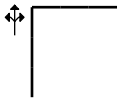


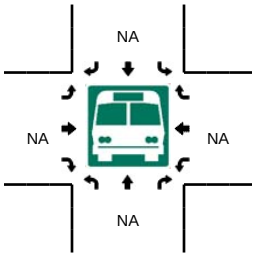












5-Min Count Period Beginning At	OR-213 (Northbound)				OR-213 (Southbound)				Toliver Rd (Eastbound)				Toliver Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	34	4	0	5	35	1	0	0	3	2	0	6	0	5	0	97	
4:05 PM	1	39	4	0	14	40	1	0	1	2	7	0	2	0	1	0	112	
4:10 PM	3	30	7	0	14	40	0	0	0	2	2	0	0	0	7	0	105	
4:15 PM	1	27	10	0	7	42	0	0	0	1	4	0	6	1	3	0	102	
4:20 PM	4	24	9	0	7	43	1	0	0	1	6	0	3	2	4	0	104	
4:25 PM	4	33	6	0	8	39	0	0	1	1	4	0	1	1	5	0	103	
4:30 PM	3	24	7	0	9	38	0	0	0	2	3	0	6	2	3	0	97	
4:35 PM	1	36	12	0	5	54	0	0	0	4	7	0	1	2	7	0	129	
4:40 PM	2	31	8	0	10	25	0	0	1	1	4	0	9	2	4	0	97	
4:45 PM	0	29	13	0	12	48	1	0	0	1	8	0	1	0	4	0	117	
4:50 PM	2	33	11	0	12	33	0	0	0	4	6	0	3	1	1	0	106	
4:55 PM	1	31	6	0	9	37	1	0	0	3	2	0	5	2	2	0	99	1268
5:00 PM	1	30	5	0	2	29	0	0	0	4	7	0	9	2	4	0	93	1264
5:05 PM	1	16	9	0	10	47	0	0	1	1	7	0	10	0	4	0	106	1258
5:10 PM	3	30	3	0	6	35	0	0	0	0	3	0	7	2	4	0	93	1246
5:15 PM	2	32	4	0	7	35	1	0	0	4	7	0	1	2	5	0	100	1244
5:20 PM	3	37	6	0	4	32	1	0	0	2	4	0	5	1	10	0	105	1245
5:25 PM	0	36	7	0	5	53	1	0	2	0	5	0	2	0	3	0	114	1256
5:30 PM	1	26	5	0	4	39	0	0	0	5	3	0	4	0	2	0	89	1248
5:35 PM	3	32	5	0	6	42	0	0	0	1	4	0	0	1	6	0	100	1219
5:40 PM	3	38	6	0	3	32	0	0	0	0	2	0	5	2	2	0	93	1215
5:45 PM	1	26	4	0	3	41	0	0	0	2	5	0	3	2	2	0	89	1187
5:50 PM	5	33	7	0	5	38	0	0	0	1	2	0	5	2	5	0	103	1184
5:55 PM	3	32	8	0	3	38	0	0	0	0	3	0	1	2	4	0	94	1179

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	384	132	0	108	508	4	0	4	24	76	0	44	16	60	0	1372
Heavy Trucks	0	40	12		8	52	0		0	0	4		4	0	0		120
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 8/3/2017 6:02 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

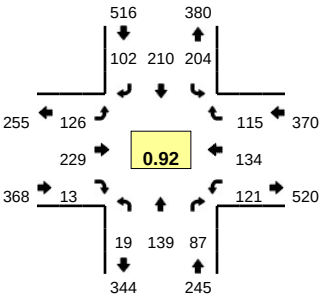
Type of peak hour being reported: Intersection Peak

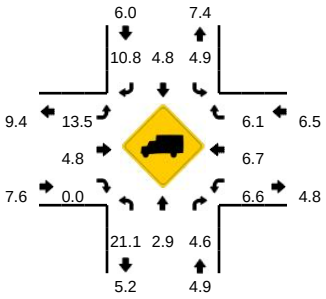
Method for determining peak hour: Total Entering Volume

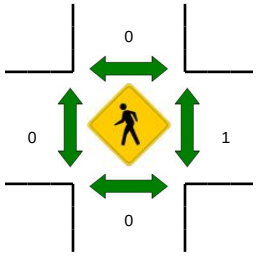
LOCATION: OR-213 -- OR-211
CITY/STATE: Clackamas, OR

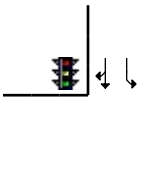
QC JOB #: 14397610
DATE: Thu, Apr 27 2017

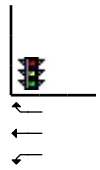
Peak-Hour: 4:35 PM -- 5:35 PM
Peak 15-Min: 4:40 PM -- 4:55 PM

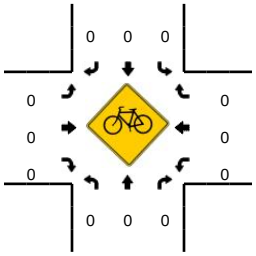


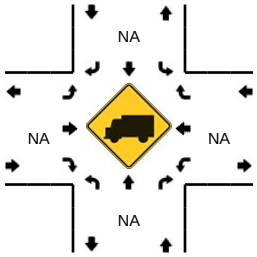


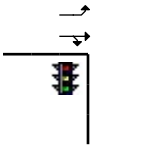


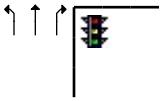


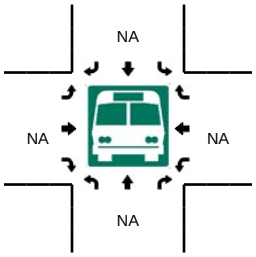












5-Min Count Period Beginning At	OR-213 (Northbound)				OR-213 (Southbound)				OR-211 (Eastbound)				OR-211 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	12	6	0	12	12	9	0	10	32	1	0	11	11	9	0	125	
4:05 PM	1	15	13	0	16	22	7	0	3	11	5	0	6	17	12	0	128	
4:10 PM	1	13	8	0	16	20	7	0	6	20	0	0	5	16	13	0	125	
4:15 PM	2	12	3	0	16	13	9	0	5	20	1	0	5	16	7	0	109	
4:20 PM	2	11	11	0	15	15	5	0	8	23	0	0	4	20	12	0	126	
4:25 PM	3	16	6	0	15	11	11	0	14	15	3	0	9	15	8	0	126	
4:30 PM	1	11	9	0	16	9	8	0	10	21	1	0	12	8	10	0	116	
4:35 PM	1	6	4	0	14	28	6	0	20	14	1	0	13	6	8	0	121	
4:40 PM	2	10	4	0	20	13	7	0	8	22	0	0	7	16	8	0	117	
4:45 PM	2	14	7	0	16	21	14	0	19	26	2	0	16	17	6	0	160	
4:50 PM	2	22	8	0	20	17	7	0	6	17	2	0	10	10	11	0	132	
4:55 PM	4	12	15	0	19	14	5	0	8	7	1	0	7	8	7	0	107	1492
5:00 PM	1	10	6	0	16	14	10	0	9	19	1	0	6	11	6	0	109	1476
5:05 PM	1	13	4	0	17	18	15	0	3	14	0	0	13	15	9	0	122	1470
5:10 PM	0	6	7	0	16	14	10	0	11	28	2	0	10	14	13	0	131	1476
5:15 PM	1	7	6	0	16	13	3	0	14	14	2	0	16	11	11	0	114	1481
5:20 PM	0	13	6	0	20	16	10	0	11	22	1	0	10	10	15	0	134	1489
5:25 PM	3	14	12	0	17	22	10	0	9	24	0	0	6	5	10	0	132	1495
5:30 PM	2	12	8	0	13	20	5	0	8	22	1	0	7	11	11	0	120	1499
5:35 PM	2	9	7	0	15	15	7	0	9	13	2	0	13	11	4	0	107	1485
5:40 PM	2	14	8	0	16	8	9	0	12	15	0	0	16	10	13	0	123	1491
5:45 PM	2	2	9	0	18	15	5	0	9	20	3	0	6	15	9	0	113	1444
5:50 PM	1	18	10	0	15	14	6	0	12	23	0	0	10	19	5	0	133	1445
5:55 PM	0	10	6	0	17	21	8	0	9	16	3	0	4	17	12	0	123	1461

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	184	76	0	224	204	112	0	132	260	16	0	132	172	100	0	1636
Heavy Trucks	8	8	0		8	12	12		24	20	0		8	12	8		120
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 8/3/2017 6:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

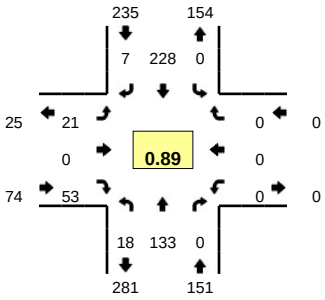
LOCATION: N Molalla Ave -- S Vick Rd

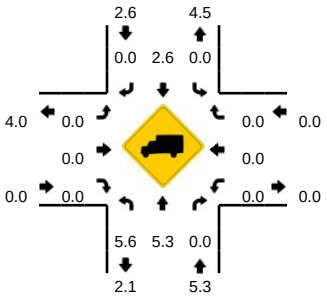
QC JOB #: 14397611

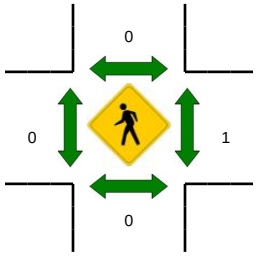
CITY/STATE: Clackamas, OR

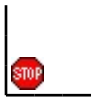
DATE: Thu, Apr 27 2017

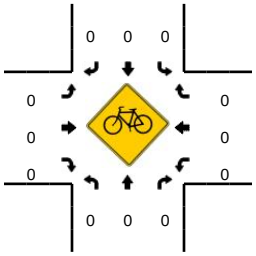
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

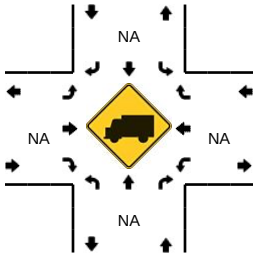


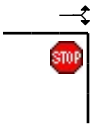


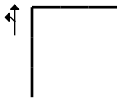


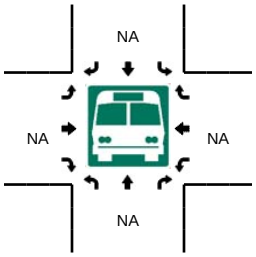












5-Min Count Period Beginning At	N Molalla Ave (Northbound)				N Molalla Ave (Southbound)				S Vick Rd (Eastbound)				S Vick Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	14	0	0	0	16	3	0	1	0	3	0	0	0	0	0	38	
4:05 PM	3	17	0	0	0	17	2	0	4	0	4	0	0	0	0	0	47	
4:10 PM	4	13	0	0	0	16	3	0	0	0	2	0	0	0	0	0	38	
4:15 PM	3	7	0	0	0	25	0	0	1	0	3	0	0	0	0	0	39	
4:20 PM	0	13	0	0	0	20	1	0	1	0	4	0	0	0	0	0	39	
4:25 PM	0	9	0	0	0	16	1	0	1	0	5	0	0	0	0	0	32	
4:30 PM	0	17	0	0	0	12	0	0	2	0	6	0	0	0	0	0	37	
4:35 PM	1	9	0	0	0	17	4	0	4	0	1	0	0	0	0	0	36	
4:40 PM	0	10	0	0	0	15	1	0	1	0	1	0	0	0	0	0	28	
4:45 PM	1	11	0	0	0	28	0	0	2	0	3	0	0	0	0	0	45	
4:50 PM	2	7	0	0	0	15	0	0	0	0	4	0	0	0	0	0	28	
4:55 PM	2	13	0	0	0	24	0	0	4	0	7	0	0	0	0	0	50	457
5:00 PM	1	6	0	0	0	17	1	0	2	0	6	0	0	0	0	0	33	452
5:05 PM	0	14	0	0	0	21	1	0	0	0	6	0	0	0	0	0	42	447
5:10 PM	1	15	0	0	0	16	1	0	1	0	3	0	0	0	0	0	37	446
5:15 PM	3	18	0	0	0	18	0	0	4	0	7	0	0	0	0	0	50	457
5:20 PM	3	13	0	0	0	16	1	0	2	0	2	0	0	0	0	0	37	455
5:25 PM	0	7	0	0	0	18	0	0	0	0	4	0	0	0	0	0	29	452
5:30 PM	0	4	0	0	0	22	2	0	2	0	4	0	0	0	0	0	34	449
5:35 PM	1	7	0	0	0	16	0	0	0	0	3	0	0	0	0	0	27	440
5:40 PM	2	14	0	0	0	15	0	0	1	0	4	0	0	0	0	0	36	448
5:45 PM	3	12	0	0	0	34	1	0	2	0	1	0	0	0	0	0	53	456
5:50 PM	2	10	0	0	0	11	0	0	3	0	6	0	0	0	0	0	32	460
5:55 PM	0	11	0	0	0	22	2	0	2	0	1	0	0	0	0	0	38	448

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	188	0	0	0	220	8	0	20	0	64	0	0	0	0	0	516
Heavy Trucks	0	8	0		0	12	0		0	0	0		0	0	0		20
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 8/3/2017 6:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

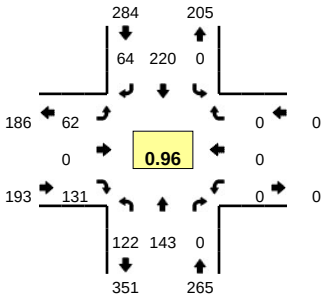
Method for determining peak hour: Total Entering Volume

LOCATION: N Molalla Ave -- Toliver Rd

QC JOB #: 14397612

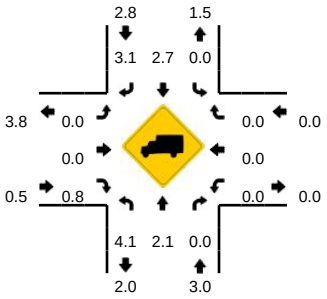
CITY/STATE: Clackamas, OR

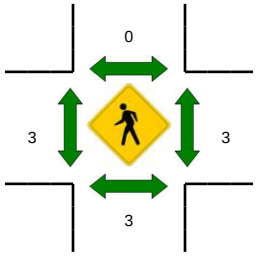
DATE: Thu, Apr 27 2017

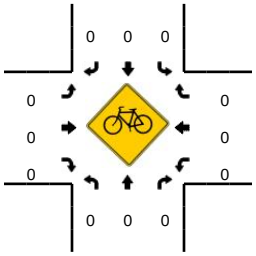


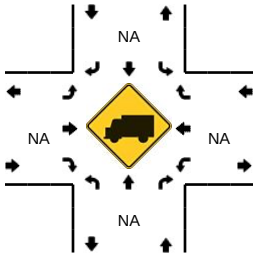
Peak-Hour: 4:15 PM -- 5:15 PM

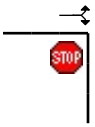
Peak 15-Min: 4:20 PM -- 4:35 PM

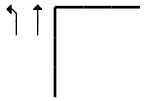


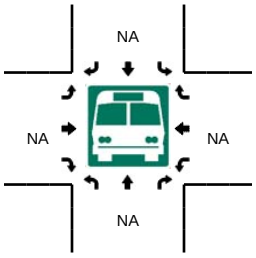












5-Min Count Period Beginning At	N Molalla Ave (Northbound)				N Molalla Ave (Southbound)				Toliver Rd (Eastbound)				Toliver Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	5	13	0	0	0	17	7	0	6	0	8	0	0	0	0	0	56	
4:05 PM	8	18	0	0	0	17	4	0	2	0	10	0	0	0	0	0	59	
4:10 PM	9	8	0	0	0	19	5	0	2	0	12	0	0	0	0	0	55	
4:15 PM	5	15	0	0	0	21	7	0	6	0	9	0	0	0	0	0	63	
4:20 PM	10	9	0	0	0	18	3	0	6	0	11	0	0	0	0	0	57	
4:25 PM	10	13	0	0	0	26	8	0	5	0	7	0	0	0	0	0	69	
4:30 PM	15	9	0	0	0	15	3	0	9	0	16	0	0	0	0	0	67	
4:35 PM	10	10	0	0	0	14	5	0	6	0	12	0	0	0	0	0	57	
4:40 PM	14	11	0	0	0	14	4	0	2	0	15	0	0	0	0	0	60	
4:45 PM	11	11	0	0	0	20	4	0	3	0	12	0	0	0	0	0	61	
4:50 PM	9	11	0	0	0	17	3	0	7	0	11	0	0	0	0	0	58	
4:55 PM	12	15	0	0	0	20	5	0	10	0	6	0	0	0	0	0	68	730
5:00 PM	7	8	0	0	0	13	10	0	3	0	8	0	0	0	0	0	49	723
5:05 PM	11	14	0	0	0	24	8	0	2	0	14	0	0	0	0	0	73	737
5:10 PM	8	17	0	0	0	18	4	0	3	0	10	0	0	0	0	0	60	742
5:15 PM	7	15	0	0	0	17	2	0	0	0	8	0	0	0	0	0	49	728
5:20 PM	7	16	0	0	0	18	4	0	4	0	7	0	0	0	0	0	56	727
5:25 PM	5	5	0	0	0	16	2	0	6	0	9	0	0	0	0	0	43	701
5:30 PM	6	8	0	0	0	24	5	0	3	0	5	0	0	0	0	0	51	685
5:35 PM	11	7	0	0	0	14	1	0	3	0	12	0	0	0	0	0	48	676
5:40 PM	5	15	0	0	0	15	2	0	2	0	13	0	0	0	0	0	52	668
5:45 PM	5	17	0	0	0	24	3	0	5	0	5	0	0	0	0	0	59	666
5:50 PM	4	13	0	0	0	12	4	0	6	0	9	0	0	0	0	0	48	656
5:55 PM	5	9	0	0	0	17	4	0	13	0	18	0	0	0	0	0	66	654

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	140	124	0	0	0	236	56	0	80	0	136	0	0	0	0	0	772
Heavy Trucks	12	8	0		0	12	4		0	0	0		0	0	0		36
Pedestrians		0				0				0				8			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 8/3/2017 6:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

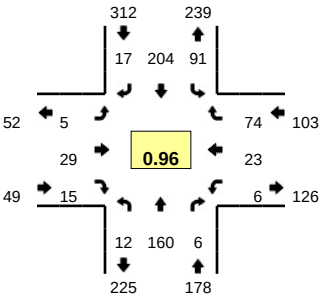
LOCATION: N Molalla Ave -- Heintz St

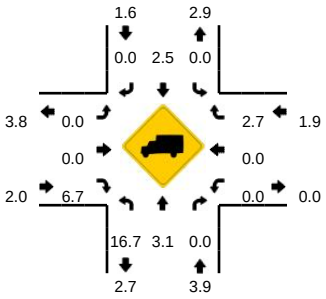
QC JOB #: 14397613

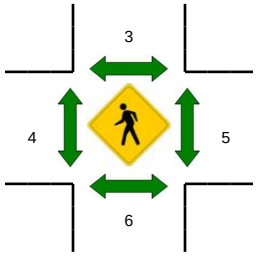
CITY/STATE: Clackamas, OR

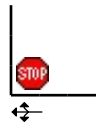
DATE: Thu, Apr 27 2017

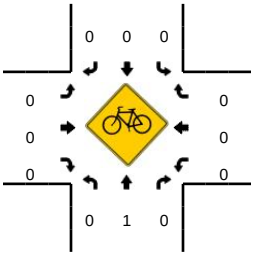
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:25 PM -- 4:40 PM

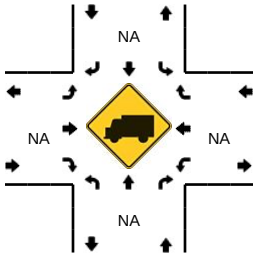


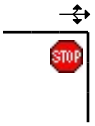


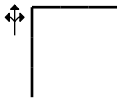


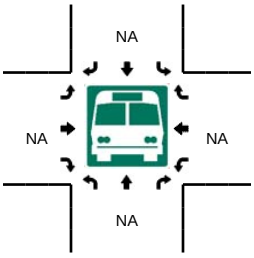












5-Min Count Period Beginning At	N Molalla Ave (Northbound)				N Molalla Ave (Southbound)				Heintz St (Eastbound)				Heintz St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	13	0	0	7	15	1	0	0	2	1	0	0	2	4	0	48	
4:05 PM	0	21	0	0	8	11	1	0	1	4	2	0	1	1	4	0	54	
4:10 PM	1	10	0	0	4	21	1	0	0	1	0	0	1	2	3	0	44	
4:15 PM	0	19	2	0	6	19	2	0	0	2	1	0	0	3	3	0	57	
4:20 PM	2	8	0	0	4	18	0	0	1	4	2	0	0	2	4	0	45	
4:25 PM	3	10	0	0	10	18	0	0	1	1	2	0	1	2	8	0	56	
4:30 PM	0	16	0	0	10	13	3	0	0	2	0	0	0	1	6	0	51	
4:35 PM	3	8	1	0	6	21	2	0	1	6	1	0	0	2	10	0	61	
4:40 PM	0	13	1	0	5	19	2	0	0	1	1	0	1	2	7	0	52	
4:45 PM	1	15	0	0	13	14	1	0	0	0	1	0	0	2	4	0	51	
4:50 PM	1	17	1	0	11	13	1	0	1	2	4	0	1	2	1	0	55	
4:55 PM	0	16	0	0	8	18	3	0	1	5	2	0	0	0	7	0	60	634
5:00 PM	1	9	0	0	5	10	1	0	0	3	0	0	1	3	7	0	40	626
5:05 PM	1	15	1	0	9	22	1	0	0	2	1	0	1	2	4	0	59	631
5:10 PM	0	14	0	0	4	19	1	0	0	1	0	0	1	2	13	0	55	642
5:15 PM	0	13	0	0	8	13	3	0	0	1	2	0	0	3	8	0	51	636
5:20 PM	0	8	1	0	7	14	0	0	3	2	1	0	1	2	2	0	41	632
5:25 PM	0	6	0	0	5	11	1	0	0	0	1	0	0	2	2	0	28	604
5:30 PM	3	10	0	0	7	17	1	0	0	2	0	0	1	1	5	0	47	600
5:35 PM	0	12	1	0	12	13	0	0	0	1	0	0	0	1	5	0	45	584
5:40 PM	1	8	0	0	6	19	1	0	1	1	2	0	1	2	10	0	52	584
5:45 PM	1	13	0	0	8	17	3	0	0	3	2	0	0	3	6	0	56	589
5:50 PM	1	10	0	0	5	14	1	0	0	0	2	0	1	0	8	0	42	576
5:55 PM	0	6	0	0	6	22	0	0	0	4	3	0	0	0	6	0	47	563

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	136	4	0	104	208	20	0	8	36	12	0	4	20	96	0	672
Heavy Trucks	0	12	0		0	4	0		0	0	0		0	0	0		16
Pedestrians		8				0				4				0			12
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 8/3/2017 6:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

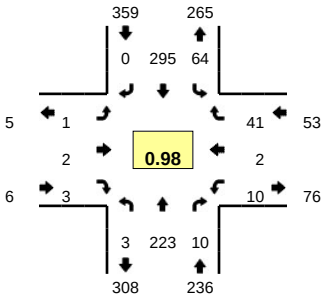
LOCATION: N Molalla Ave -- Shirley St

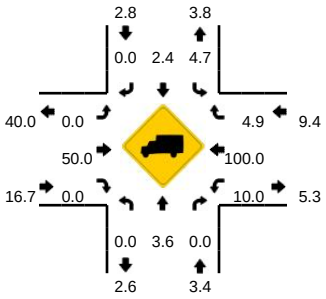
QC JOB #: 14397614

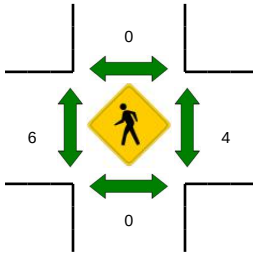
CITY/STATE: Molalla, OR

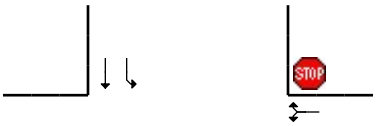
DATE: Thu, Apr 27 2017

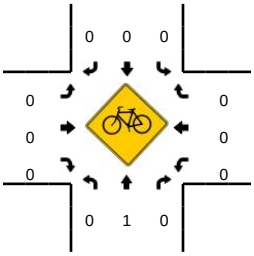
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:25 PM -- 4:40 PM

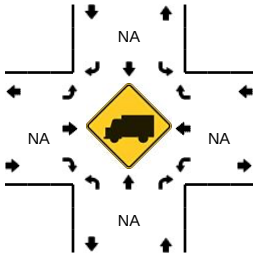


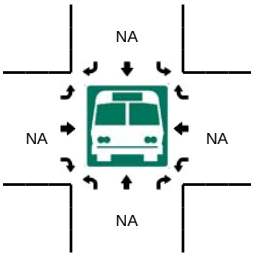












5-Min Count Period Beginning At	N Molalla Ave (Northbound)				N Molalla Ave (Southbound)				Shirley St (Eastbound)				Shirley St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	16	0	0	6	21	0	0	0	0	0	0	1	0	1	0	45	
4:05 PM	0	23	1	0	4	22	0	0	0	0	0	0	2	1	3	0	56	
4:10 PM	0	13	0	0	6	23	1	0	0	0	0	0	0	0	4	0	47	
4:15 PM	0	20	0	0	7	25	0	0	0	2	0	0	1	2	0	0	57	
4:20 PM	0	13	0	0	5	24	0	0	1	0	0	0	0	0	7	0	50	
4:25 PM	1	18	0	0	6	27	0	0	0	0	2	0	1	0	3	0	58	
4:30 PM	0	21	0	0	6	24	0	0	0	0	0	0	2	0	4	0	57	
4:35 PM	1	17	1	0	5	23	0	0	0	0	0	0	1	0	3	0	51	
4:40 PM	0	21	1	0	3	28	0	0	0	0	0	0	0	0	4	0	57	
4:45 PM	0	18	1	0	6	26	0	0	0	0	0	0	1	0	4	0	56	
4:50 PM	0	18	1	0	4	24	0	0	0	0	0	0	1	0	1	0	49	
4:55 PM	0	22	2	0	3	24	0	0	0	0	0	0	1	0	4	0	56	639
5:00 PM	0	15	1	0	4	17	0	0	0	0	0	0	0	0	1	0	38	632
5:05 PM	0	18	0	0	10	29	0	0	0	0	1	0	2	0	6	0	66	642
5:10 PM	1	22	3	0	5	24	0	0	0	0	0	0	0	0	4	0	59	654
5:15 PM	0	21	0	0	2	23	0	0	0	0	0	0	1	0	0	0	47	644
5:20 PM	0	13	1	0	2	22	0	0	0	0	0	0	0	0	9	0	47	641
5:25 PM	0	9	0	0	6	19	0	0	0	0	0	0	0	0	1	0	35	618
5:30 PM	0	12	0	0	6	23	0	0	0	0	0	0	0	0	2	0	43	604
5:35 PM	0	17	2	0	1	25	0	0	0	0	0	0	0	0	2	0	47	600
5:40 PM	0	19	0	0	3	26	0	0	0	0	0	0	1	0	0	0	49	592
5:45 PM	0	20	0	0	4	25	0	0	0	0	0	0	2	0	3	0	54	590
5:50 PM	0	15	3	0	2	18	0	0	0	0	0	0	1	0	1	0	40	581
5:55 PM	0	11	0	0	4	29	0	0	0	0	0	0	0	0	3	0	47	572

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	224	4	0	68	296	0	0	0	0	8	0	16	0	40	0	664
Heavy Trucks	0	12	0		8	4	0		0	0	0		0	0	0		24
Pedestrians		0				0				12				0			12
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 8/3/2017 6:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

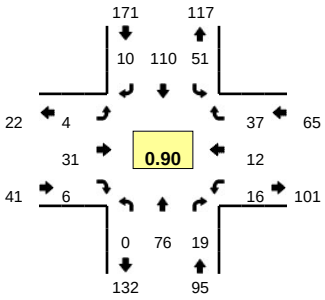
LOCATION: S Molalla Ave -- 5th St

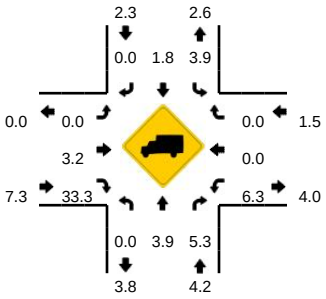
QC JOB #: 14397615

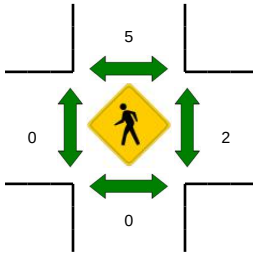
CITY/STATE: Clackamas, OR

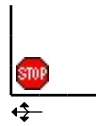
DATE: Thu, Apr 27 2017

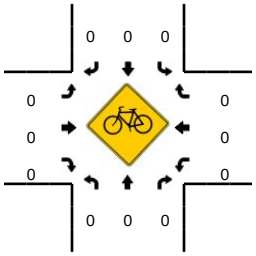
Peak-Hour: 4:40 PM -- 5:40 PM
Peak 15-Min: 5:20 PM -- 5:35 PM

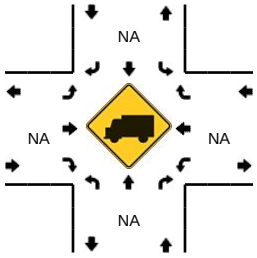


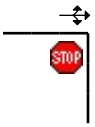


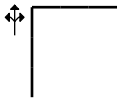


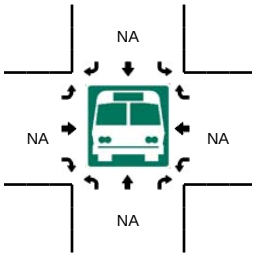












5-Min Count Period Beginning At	S Molalla Ave (Northbound)				S Molalla Ave (Southbound)				5th St (Eastbound)				5th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	8	1	0	3	10	0	0	1	4	1	0	3	2	2	0	35	
4:05 PM	0	7	0	0	5	6	1	0	0	1	1	0	5	1	4	0	31	
4:10 PM	0	7	2	0	5	5	0	0	1	2	0	0	2	1	5	0	30	
4:15 PM	0	4	3	0	3	6	0	0	0	0	1	0	3	2	5	0	27	
4:20 PM	0	11	1	0	3	7	0	0	1	3	1	0	0	2	6	0	35	
4:25 PM	0	12	0	0	4	6	0	0	0	1	0	0	0	0	3	0	26	
4:30 PM	0	8	2	0	3	7	1	0	0	3	2	0	3	0	2	0	31	
4:35 PM	0	9	0	0	5	6	0	0	0	2	2	0	2	0	2	0	28	
4:40 PM	0	11	1	0	6	9	1	0	1	1	1	0	1	1	2	0	35	
4:45 PM	0	7	2	0	6	4	1	0	0	2	1	0	2	1	2	0	28	
4:50 PM	0	8	2	0	4	5	3	0	0	8	1	0	1	0	2	0	34	
4:55 PM	0	6	4	0	3	5	2	0	0	4	0	0	2	1	3	0	30	370
5:00 PM	0	5	2	0	3	8	0	0	0	4	1	0	0	0	6	0	29	364
5:05 PM	0	5	2	0	2	12	0	0	0	3	1	0	2	1	1	0	29	362
5:10 PM	0	9	1	0	6	12	0	0	0	0	0	0	0	0	1	0	29	361
5:15 PM	0	6	0	0	5	5	0	0	0	3	0	0	2	0	3	0	24	358
5:20 PM	0	3	1	0	4	14	0	0	0	3	0	0	3	1	7	0	36	359
5:25 PM	0	3	0	0	3	17	0	0	3	0	1	0	0	3	4	0	34	367
5:30 PM	0	7	3	0	2	9	2	0	0	3	0	0	3	1	3	0	33	369
5:35 PM	0	6	1	0	7	10	1	0	0	0	0	0	0	3	3	0	31	372
5:40 PM	0	12	1	0	2	7	0	0	1	0	0	0	2	1	1	0	27	364
5:45 PM	0	9	1	0	5	8	0	0	0	1	0	0	0	2	3	0	29	365
5:50 PM	0	8	0	0	5	12	0	0	0	2	2	0	0	1	2	0	32	363
5:55 PM	0	9	2	0	4	6	0	0	1	1	0	0	0	0	2	0	25	358

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	52	16	0	36	160	8	0	12	24	4	0	24	20	56	0	412
Heavy Trucks	0	0	0		0	4	0		0	0	0		4	0	0		8
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 8/3/2017 6:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

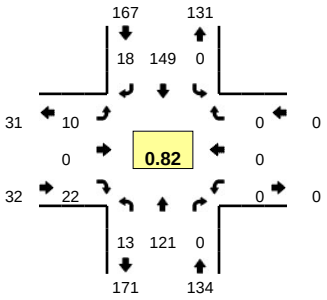
Method for determining peak hour: Total Entering Volume

LOCATION: Mathias Rd -- 5th St

CITY/STATE: Clackamas, OR

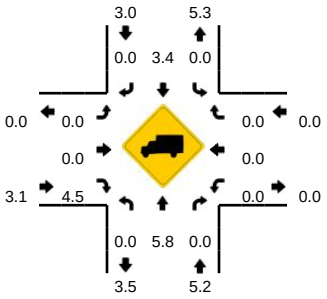
QC JOB #: 14397616

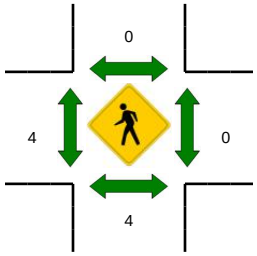
DATE: Thu, Apr 27 2017

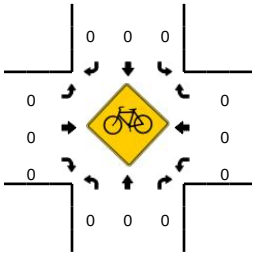


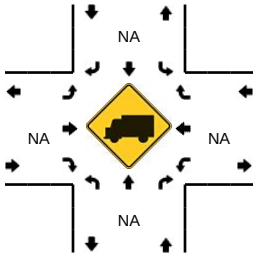
Peak-Hour: 4:20 PM -- 5:20 PM

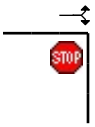
Peak 15-Min: 4:20 PM -- 4:35 PM

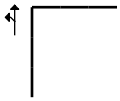


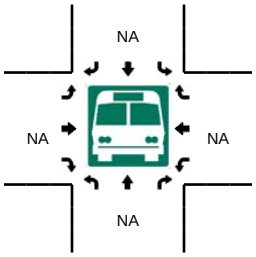












5-Min Count Period Beginning At	Mathias Rd (Northbound)				Mathias Rd (Southbound)				5th St (Eastbound)				5th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	6	0	0	0	12	1	0	2	0	4	0	0	0	0	0	27	
4:05 PM	0	6	0	0	0	8	3	0	2	0	3	0	0	0	0	0	22	
4:10 PM	1	14	0	0	0	14	0	0	0	0	0	0	0	0	0	0	29	
4:15 PM	2	7	0	0	0	9	1	0	0	0	0	0	0	0	0	0	19	
4:20 PM	5	18	0	0	0	13	1	0	1	0	1	0	0	0	0	0	39	
4:25 PM	3	11	0	0	0	16	3	0	1	0	3	0	0	0	0	0	37	
4:30 PM	0	10	0	0	0	10	3	0	0	0	2	0	0	0	0	0	25	
4:35 PM	1	8	0	0	0	11	1	0	0	0	2	0	0	0	0	0	23	
4:40 PM	1	4	0	0	0	13	0	0	1	0	1	0	0	0	0	0	20	
4:45 PM	1	12	0	0	0	17	3	0	2	0	2	0	0	0	0	0	37	
4:50 PM	0	13	0	0	0	11	2	0	0	0	3	0	0	0	0	0	29	
4:55 PM	2	4	0	0	0	9	2	0	2	0	6	0	0	0	0	0	25	332
5:00 PM	0	9	0	0	0	9	0	0	1	0	0	0	0	0	0	0	19	324
5:05 PM	0	11	0	0	0	14	0	0	0	0	1	0	0	0	0	0	26	328
5:10 PM	0	8	0	0	0	14	2	0	1	0	0	0	0	0	0	0	25	324
5:15 PM	0	13	0	0	0	12	1	0	1	0	1	0	0	0	0	0	28	333
5:20 PM	1	9	0	0	0	13	0	0	2	0	2	0	0	0	0	0	27	321
5:25 PM	0	5	0	0	0	10	0	0	0	0	1	0	0	0	0	0	16	300
5:30 PM	1	10	0	0	0	8	1	0	1	0	1	0	0	0	0	0	22	297
5:35 PM	1	12	0	0	0	7	0	0	3	0	2	0	0	0	0	0	25	299
5:40 PM	0	9	0	0	0	14	1	0	3	0	1	0	0	0	0	0	28	307
5:45 PM	1	4	0	0	0	20	0	0	0	0	2	0	0	0	0	0	27	297
5:50 PM	4	6	0	0	0	11	2	0	0	0	3	0	0	0	0	0	26	294
5:55 PM	1	5	0	0	0	7	1	0	0	0	1	0	0	0	0	0	15	284

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	156	0	0	0	156	28	0	8	0	24	0	0	0	0	0	404
Heavy Trucks	0	12	0		0	12	0		0	0	0		0	0	0		24
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 8/3/2017 6:03 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment B Existing Traffic Conditions Worksheets

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	15	0	17	0	400	23	48	718	0
Future Vol, veh/h	0	0	0	15	0	17	0	400	23	48	718	0
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	13	0	6	0	9	4	4	7	0
Mvmt Flow	0	0	0	16	0	18	0	426	24	51	764	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1314	1318	765	1305	1306	439	765	0	0	451	0	0
Stage 1	867	867	-	439	439	-	-	-	-	-	-	-
Stage 2	447	451	-	866	867	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.23	6.5	6.26	4.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.23	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.23	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.617	4	3.354	2.2	-	-	2.236	-	-
Pot Cap-1 Maneuver	136	159	406	130	161	610	857	-	-	1099	-	-
Stage 1	350	373	-	576	582	-	-	-	-	-	-	-
Stage 2	595	574	-	333	373	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	124	146	406	122	148	609	857	-	-	1099	-	-
Mov Cap-2 Maneuver	124	146	-	122	148	-	-	-	-	-	-	-
Stage 1	350	342	-	575	581	-	-	-	-	-	-	-
Stage 2	577	573	-	306	342	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	25.2	0	0.5
HCM LOS	A	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	857	-	-	-	212	1099	-	-
HCM Lane V/C Ratio	-	-	-	-	0.161	0.046	-	-
HCM Control Delay (s)	0	-	-	0	25.2	8.4	0	-
HCM Lane LOS	A	-	-	A	D	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.6	0.1	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	49	379	56	142	584
Future Vol, veh/h	25	49	379	56	142	584
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	100	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	8	9	5	1	9
Mvmt Flow	27	53	408	60	153	628

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1342	409	0	0	409	0
Stage 1	409	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Critical Hdwy	6.44	6.28	-	-	4.11	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.372	-	-	2.209	-
Pot Cap-1 Maneuver	166	630	-	-	1155	-
Stage 1	666	-	-	-	-	-
Stage 2	380	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	144	629	-	-	1155	-
Mov Cap-2 Maneuver	144	-	-	-	-	-
Stage 1	665	-	-	-	-	-
Stage 2	330	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.7	0	1.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	294	1155	-
HCM Lane V/C Ratio	-	-	0.271	0.132	-
HCM Control Delay (s)	-	-	21.7	8.6	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1.1	0.5	-

Intersection	
Int Delay, s/veh	9.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	25	55	43	13	46	24	382	97	112	488	5
Future Vol, veh/h	3	25	55	43	13	46	24	382	97	112	488	5
Conflicting Peds, #/hr	0	0	1	1	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	4	2	2	0	2	4	9	20	11	8	0
Mvmt Flow	3	27	60	47	14	50	26	415	105	122	530	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1330	1351	535	1341	1300	468	537	0	0	521	0	0
Stage 1	778	778	-	520	520	-	-	-	-	-	-	-
Stage 2	552	573	-	821	780	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.54	6.22	7.12	6.5	6.22	4.14	-	-	4.21	-	-
Critical Hdwy Stg 1	6.1	5.54	-	6.12	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.54	-	6.12	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.036	3.318	3.518	4	3.318	2.236	-	-	2.299	-	-
Pot Cap-1 Maneuver	133	149	545	129	163	595	1021	-	-	1001	-	-
Stage 1	392	404	-	539	535	-	-	-	-	-	-	-
Stage 2	522	501	-	369	409	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	94	119	544	80	130	595	1020	-	-	1001	-	-
Mov Cap-2 Maneuver	94	119	-	80	130	-	-	-	-	-	-	-
Stage 1	378	333	-	520	516	-	-	-	-	-	-	-
Stage 2	448	483	-	249	338	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	28.5	86.1	0.4	1.7
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1020	-	-	242	143	1001	-	-
HCM Lane V/C Ratio	0.026	-	-	0.373	0.775	0.122	-	-
HCM Control Delay (s)	8.6	0	-	28.5	86.1	9.1	0	-
HCM Lane LOS	A	A	-	D	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.6	4.7	0.4	-	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	147	291	140	162	134	22	155	101	237	353
v/c Ratio	0.56	0.63	0.56	0.37	0.28	0.20	0.49	0.30	0.77	0.57
Control Delay	47.0	36.4	47.5	30.8	6.9	48.7	39.0	9.3	56.4	29.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.0	36.4	47.5	30.8	6.9	48.7	39.0	9.3	56.4	29.0
Queue Length 50th (ft)	70	133	67	69	0	11	77	0	119	133
Queue Length 95th (ft)	#198	268	#171	151	45	43	153	43	#352	318
Internal Link Dist (ft)		1906		2602			1480			1933
Turn Bay Length (ft)	275		230		230	250		250	200	
Base Capacity (vph)	285	1073	301	1069	970	266	1099	937	307	1013
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.27	0.47	0.15	0.14	0.08	0.14	0.11	0.77	0.35

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	254	14	129	149	123	20	143	93	218	216	109
Future Volume (vph)	135	254	14	129	149	123	20	143	93	218	216	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	5.3		5.0	5.3	5.3	5.0	5.3	5.3	5.0	5.3	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1597	1800		1687	1776	1524	1492	1845	1505	1719	1687	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1597	1800		1687	1776	1524	1492	1845	1505	1719	1687	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	147	276	15	140	162	134	22	155	101	237	235	118
RTOR Reduction (vph)	0	2	0	0	0	102	0	0	80	0	12	0
Lane Group Flow (vph)	147	289	0	140	162	32	22	155	21	237	341	0
Confl. Peds. (#/hr)									1	1		
Heavy Vehicles (%)	13%	5%	0%	7%	7%	6%	21%	3%	5%	5%	5%	11%
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases						4			6			
Actuated Green, G (s)	14.4	22.3		13.0	21.4	21.4	2.7	18.4	18.4	15.6	31.3	
Effective Green, g (s)	14.4	22.3		13.0	21.4	21.4	2.7	18.4	18.4	15.6	31.3	
Actuated g/C Ratio	0.16	0.25		0.14	0.24	0.24	0.03	0.20	0.20	0.17	0.35	
Clearance Time (s)	4.5	5.3		5.0	5.3	5.3	5.0	5.3	5.3	5.0	5.3	
Vehicle Extension (s)	2.3	5.0		2.3	5.0	5.0	2.3	2.0	2.0	2.3	2.0	
Lane Grp Cap (vph)	255	446		243	422	362	44	377	308	298	587	
v/s Ratio Prot	c0.09	c0.16		0.08	0.09		0.01	0.08		c0.14	c0.20	
v/s Ratio Perm						0.02			0.01			
v/c Ratio	0.58	0.65		0.58	0.38	0.09	0.50	0.41	0.07	0.80	0.58	
Uniform Delay, d1	34.9	30.3		35.9	28.7	26.7	42.9	31.0	28.8	35.6	23.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.3	4.4		2.4	1.2	0.2	5.1	0.3	0.0	13.0	0.9	
Delay (s)	37.3	34.7		38.3	29.9	26.9	48.1	31.3	28.9	48.7	24.9	
Level of Service	D	C		D	C	C	D	C	C	D	C	
Approach Delay (s)		35.6			31.7			31.7			34.4	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	33.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	89.9	Sum of lost time (s)	20.6
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	754	18	2	606	3	8
Future Vol, veh/h	754	18	2	606	3	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	5	0	0	6	0	0
Mvmt Flow	811	19	2	652	3	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	830	0	1476	820
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	656	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	811	-	140	378
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	520	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	811	-	139	378
Mov Cap-2 Maneuver	-	-	-	-	139	-
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	518	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	257	-	-	811	-
HCM Lane V/C Ratio	0.046	-	-	0.003	-
HCM Control Delay (s)	19.7	-	-	9.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	28	710	553	26	9	53
Future Vol, veh/h	28	710	553	26	9	53
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	5	6	4	0	2
Mvmt Flow	30	755	588	28	10	56

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	619	0	-	0	1420	605
Stage 1	-	-	-	-	605	-
Stage 2	-	-	-	-	815	-
Critical Hdwy	4.14	-	-	-	6.4	6.22
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.236	-	-	-	3.5	3.318
Pot Cap-1 Maneuver	952	-	-	-	152	498
Stage 1	-	-	-	-	549	-
Stage 2	-	-	-	-	439	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	952	-	-	-	143	497
Mov Cap-2 Maneuver	-	-	-	-	143	-
Stage 1	-	-	-	-	547	-
Stage 2	-	-	-	-	414	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	17
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	952	-	-	-	366
HCM Lane V/C Ratio	0.031	-	-	-	0.18
HCM Control Delay (s)	8.9	0	-	-	17
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	675	532	22	14	45
Future Vol, veh/h	44	675	532	22	14	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	5	5	9	14	2
Mvmt Flow	46	703	554	23	15	47

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	577	0	-	0	1361	566
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	795	-
Critical Hdwy	4.1	-	-	-	6.54	6.22
Critical Hdwy Stg 1	-	-	-	-	5.54	-
Critical Hdwy Stg 2	-	-	-	-	5.54	-
Follow-up Hdwy	2.2	-	-	-	3.626	3.318
Pot Cap-1 Maneuver	1006	-	-	-	154	524
Stage 1	-	-	-	-	545	-
Stage 2	-	-	-	-	425	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1006	-	-	-	142	524
Mov Cap-2 Maneuver	-	-	-	-	142	-
Stage 1	-	-	-	-	545	-
Stage 2	-	-	-	-	393	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	18.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1006	-	-	-	320
HCM Lane V/C Ratio	0.046	-	-	-	0.192
HCM Control Delay (s)	8.7	0	-	-	18.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

Intersection	
Intersection Delay, s/veh	33.5
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	56	393	77	15	322	46	91	61	21	62	82	87
Future Vol, veh/h	56	393	77	15	322	46	91	61	21	62	82	87
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	5	6	4	7	7	2	11	10	0	5	5	1
Mvmt Flow	58	409	80	16	335	48	95	64	22	65	85	91
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	47.9	30.5	16.6	18.1
HCM LOS	E	D	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	53%	12%	0%	4%	27%
Vol Thru, %	35%	88%	0%	84%	35%
Vol Right, %	12%	0%	100%	12%	38%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	173	449	77	383	231
LT Vol	91	56	0	15	62
Through Vol	61	393	0	322	82
RT Vol	21	0	77	46	87
Lane Flow Rate	180	468	80	399	241
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.405	0.944	0.145	0.777	0.504
Departure Headway (Hd)	8.087	7.266	6.501	7.007	7.546
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	443	500	555	515	476
Service Time	6.163	4.966	4.201	5.068	5.616
HCM Lane V/C Ratio	0.406	0.936	0.144	0.775	0.506
HCM Control Delay	16.6	54.3	10.3	30.5	18.1
HCM Lane LOS	C	F	B	D	C
HCM 95th-tile Q	1.9	11.6	0.5	7	2.8

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	71	229	84	0	221	9	83	7	0	2	9	46
Future Vol, veh/h	71	229	84	0	221	9	83	7	0	2	9	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	77	249	91	0	240	10	90	8	0	2	10	50

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	250	0	0	-	-	0	724	699	-	698	740	245
Stage 1	-	-	-	-	-	-	449	449	-	245	245	-
Stage 2	-	-	-	-	-	-	275	250	-	453	495	-
Critical Hdwy	4.12	-	-	-	-	-	7.12	6.52	-	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1316	-	-	0	-	-	341	364	0	355	345	794
Stage 1	-	-	-	0	-	-	589	572	0	759	703	-
Stage 2	-	-	-	0	-	-	731	700	0	586	546	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1316	-	-	-	-	-	295	337	-	329	320	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	295	337	-	329	320	-
Stage 1	-	-	-	-	-	-	546	530	-	704	703	-
Stage 2	-	-	-	-	-	-	675	700	-	535	506	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0	22.9	11.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	298	1316	-	-	-	-	619
HCM Lane V/C Ratio	0.328	0.059	-	-	-	-	0.1
HCM Control Delay (s)	22.9	7.9	0	-	-	-	11.5
HCM Lane LOS	C	A	A	-	-	-	B
HCM 95th %tile Q(veh)	1.4	0.2	-	-	-	-	0.3

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	32	17	14	295	281	47
Future Vol, veh/h	32	17	14	295	281	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	9	0	7	6	5	4
Mvmt Flow	34	18	15	311	296	49

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	661	321	345	0	-	0
Stage 1	321	-	-	-	-	-
Stage 2	340	-	-	-	-	-
Critical Hdwy	6.49	6.2	4.17	-	-	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.3	2.263	-	-	-
Pot Cap-1 Maneuver	417	724	1187	-	-	-
Stage 1	720	-	-	-	-	-
Stage 2	705	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	411	724	1187	-	-	-
Mov Cap-2 Maneuver	411	-	-	-	-	-
Stage 1	720	-	-	-	-	-
Stage 2	694	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.3	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1187	-	484	-	-
HCM Lane V/C Ratio	0.012	-	0.107	-	-
HCM Control Delay (s)	8.1	0	13.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	53	18	133	228	7
Future Vol, veh/h	21	53	18	133	228	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	6	5	3	0
Mvmt Flow	24	60	20	149	256	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	450	260	264	0	-	0
Stage 1	260	-	-	-	-	-
Stage 2	190	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.16	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.254	-	-	-
Pot Cap-1 Maneuver	571	784	1277	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	847	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	561	784	1277	-	-	-
Mov Cap-2 Maneuver	561	-	-	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	833	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1277	-	705	-	-
HCM Lane V/C Ratio	0.016	-	0.118	-	-
HCM Control Delay (s)	7.9	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	62	131	122	143	220	64
Future Vol, veh/h	62	131	122	143	220	64
Conflicting Peds, #/hr	0	3	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	25	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	1	4	2	3	3
Mvmt Flow	65	136	127	149	229	67

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	669	269	299	0	-	0
Stage 1	266	-	-	-	-	-
Stage 2	403	-	-	-	-	-
Critical Hdwy	6.4	6.21	4.14	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	2.236	-	-	-
Pot Cap-1 Maneuver	426	772	1251	-	-	-
Stage 1	783	-	-	-	-	-
Stage 2	679	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	380	768	1247	-	-	-
Mov Cap-2 Maneuver	380	-	-	-	-	-
Stage 1	781	-	-	-	-	-
Stage 2	608	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	3.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1247	-	578	-	-
HCM Lane V/C Ratio	0.102	-	0.348	-	-
HCM Control Delay (s)	8.2	-	14.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1.5	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	41	223	10	64	295
Future Vol, veh/h	10	41	223	10	64	295
Conflicting Peds, #/hr	0	0	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	25	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	10	5	4	0	5	2
Mvmt Flow	10	42	228	10	65	301

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	669	237	0	0	242	0
Stage 1	237	-	-	-	-	-
Stage 2	432	-	-	-	-	-
Critical Hdwy	6.5	6.25	-	-	4.15	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.345	-	-	2.245	-
Pot Cap-1 Maneuver	411	795	-	-	1307	-
Stage 1	784	-	-	-	-	-
Stage 2	638	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	389	792	-	-	1307	-
Mov Cap-2 Maneuver	389	-	-	-	-	-
Stage 1	781	-	-	-	-	-
Stage 2	606	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	1.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	658	1307	-
HCM Lane V/C Ratio	-	-	0.079	0.05	-
HCM Control Delay (s)	-	-	10.9	7.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.2	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	29	15	6	23	74	12	160	6	91	204	17
Future Vol, veh/h	5	29	15	6	23	74	12	160	6	91	204	17
Conflicting Peds, #/hr	3	0	6	6	0	3	4	0	5	5	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	7	0	0	3	17	3	0	0	2	0
Mvmt Flow	5	30	16	6	24	77	13	167	6	95	213	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	663	618	231	640	624	178	234	0	0	178	0	0
Stage 1	415	415	-	200	200	-	-	-	-	-	-	-
Stage 2	248	203	-	440	424	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.27	7.1	6.5	6.23	4.27	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.363	3.5	4	3.327	2.353	-	-	2.2	-	-
Pot Cap-1 Maneuver	377	408	796	391	404	862	1250	-	-	1410	-	-
Stage 1	619	596	-	806	739	-	-	-	-	-	-	-
Stage 2	760	737	-	600	590	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	302	368	788	332	365	855	1243	-	-	1406	-	-
Mov Cap-2 Maneuver	302	368	-	332	365	-	-	-	-	-	-	-
Stage 1	609	547	-	793	727	-	-	-	-	-	-	-
Stage 2	659	725	-	509	542	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.5	12.1	0.5	2.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1243	-	-	428	614	1406	-	-
HCM Lane V/C Ratio	0.01	-	-	0.119	0.175	0.067	-	-
HCM Control Delay (s)	7.9	0	-	14.5	12.1	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.6	0.2	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	31	6	16	12	37	0	76	19	51	110	10
Future Vol, veh/h	4	31	6	16	12	37	0	76	19	51	110	10
Conflicting Peds, #/hr	5	0	0	0	0	5	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	3	33	6	0	0	0	4	5	4	2	0
Mvmt Flow	4	34	7	18	13	41	0	84	21	57	122	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	368	349	128	359	344	102	133	0	0	108	0	0
Stage 1	241	241	-	97	97	-	-	-	-	-	-	-
Stage 2	127	108	-	262	247	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.53	6.53	7.16	6.5	6.2	4.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.1	5.53	-	6.16	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.53	-	6.16	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.027	3.597	3.554	4	3.3	2.2	-	-	2.236	-	-
Pot Cap-1 Maneuver	592	573	845	589	582	959	1464	-	-	1470	-	-
Stage 1	767	704	-	900	819	-	-	-	-	-	-	-
Stage 2	882	804	-	734	706	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	536	548	845	538	556	953	1464	-	-	1463	-	-
Mov Cap-2 Maneuver	536	548	-	538	556	-	-	-	-	-	-	-
Stage 1	767	674	-	898	817	-	-	-	-	-	-	-
Stage 2	826	802	-	662	676	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	10.5	0	2.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1464	-	-	576	721	1463	-	-
HCM Lane V/C Ratio	-	-	-	0.079	0.1	0.039	-	-
HCM Control Delay (s)	0	-	-	11.8	10.5	7.6	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	22	13	121	149	18
Future Vol, veh/h	10	22	13	121	149	18
Conflicting Peds, #/hr	0	4	4	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	5	0	6	3	0
Mvmt Flow	12	27	16	148	182	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	376	201	208	0	-	0
Stage 1	197	-	-	-	-	-
Stage 2	179	-	-	-	-	-
Critical Hdwy	6.4	6.25	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.345	2.2	-	-	-
Pot Cap-1 Maneuver	629	832	1375	-	-	-
Stage 1	841	-	-	-	-	-
Stage 2	857	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	616	826	1370	-	-	-
Mov Cap-2 Maneuver	616	-	-	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	843	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1370	-	746	-	-
HCM Lane V/C Ratio	0.012	-	0.052	-	-
HCM Control Delay (s)	7.7	0	10.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Attachment C Traffic Signal Warrant Worksheets

KITTELSON & ASSOCIATES, INC.
610 SW Alder, Suite 700
Portland, Oregon 97205
(503) 228-5230
Fax: (503) 273-8169

Project #: 21266
Project Name: Molalla TSP Update
Analyst: KAI
Date: 3/26/2018
File: H:\21\21266 - Molalla TSP Update\excel\[Signal Warrant Analysis_213_Toliver_EXPM.xls]Data Input
Intersection: OR 213/Toliver Road
Scenario: 2017 Existing Traffic Conditions

Warrant Summary

Warrant	Name	Analyzed?	Met?
#1	Eight-Hour Vehicular Volume	Yes	No
#2	Four-Hour Vehicular volume	Yes	No
#3	Peak Hour	Yes	No
#4	Pedestrian Volume	No	.
#5	School Crossing	No	-
#6	Coordinated Signal System	No	-
#7	Crash Experience	No	-
#8	Roadway Network	No	-

Analysis Traffic Volumes

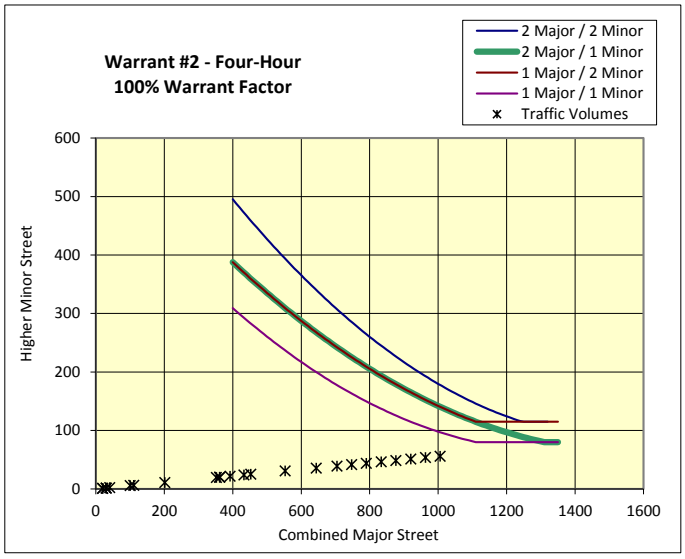
Hour		Major Street		Minor Street	
Begin	End	NB	SB	EB	WB
5:00 PM	6:00 PM	406	600	28	56
2nd	Highest Hour	389	574	27	54
3rd	Highest Hour	371	549	26	51
4th	Highest Hour	354	523	24	49
5th	Highest Hour	336	497	23	46
6th	Highest Hour	319	471	22	44
7th	Highest Hour	302	446	21	42
8th	Highest Hour	284	420	20	39
9th	Highest Hour	260	384	18	36
10th	Highest Hour	223	330	15	31
11th	Highest Hour	183	270	13	25
12th	Highest Hour	175	258	12	24
13th	Highest Hour	158	234	11	22
14th	Highest Hour	146	216	10	20
15th	Highest Hour	146	216	10	20
16th	Highest Hour	142	210	10	20
17th	Highest Hour	81	120	6	11
18th	Highest Hour	45	66	3	6
19th	Highest Hour	41	60	3	6
20th	Highest Hour	16	24	1	2
21st	Highest Hour	12	18	1	2
22nd	Highest Hour	12	18	1	2
23rd	Highest Hour	8	12	1	1
24th	Highest Hour	8	12	1	1

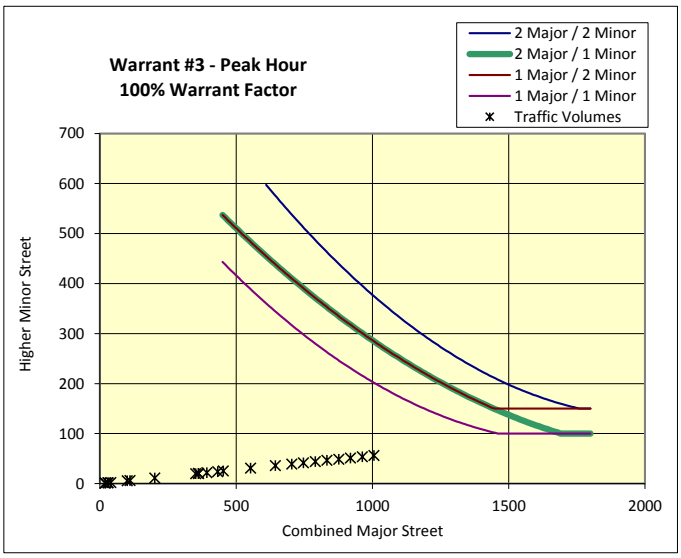
Input Parameters

Volume Adjustment Factor =	1.0
North-South Approach =	Major
East-West Approach =	Minor
Major Street Thru Lanes =	1
Minor Street Thru Lanes =	1
Speed > 40 mph?	No
Population < 10,000?	No
Warrant Factor	100%
Peak Hour or Daily Count?	Peak Hour
Major Street: 4th-Highest Hour / Peak Hour	87%
Major Street: 8th-Highest Hour / Peak Hour	70%
Minor Street: 4th-Highest Hour / Peak Hour	87%
Minor Street: 8th-Highest Hour / Peak Hour	70%

Warrant #1 - Eight Hour

Warrant Factor	Condition	Major Street Requirement	Minor Street Requirement	Hours That Condition Is Met	Condition for Warrant Factor Met?	Signal Warrant Met?
100%	A	500	150	0	No	**No**
	B	750	75	0	No	
80%	A	400	120	0	No	**No**
	B	600	60	0	No	
70%	A	350	105	0	No	**No**
	B	525	53	2	No	





KITTELSON & ASSOCIATES, INC.
610 SW Alder, Suite 700
Portland, Oregon 97205
(503) 228-5230
Fax: (503) 273-8169

Project #: 21266
Project Name: Molalla TSP Update
Analyst: KAI
Date: 3/26/2018
File: H:\21\21266 - Molalla TSP Update\excel\[Signal Warrant Analysis_211_Molalla_EXPM.xls]Warrant Summary
Intersection: OR 211/Molalla Avenue
Scenario: 2017 Existing Traffic Conditions

Analysis Traffic Volumes

Hour		Major Street		Minor Street	
Begin	End	EB	WB	NB	SB
5:00 PM	6:00 PM	449	337	152	144
2nd	Highest Hour	430	323	145	138
3rd	Highest Hour	411	308	139	132
4th	Highest Hour	391	294	132	125
5th	Highest Hour	372	279	126	119
6th	Highest Hour	353	265	119	113
7th	Highest Hour	334	250	113	107
8th	Highest Hour	314	236	106	101
9th	Highest Hour	287	216	97	92
10th	Highest Hour	247	185	84	79
11th	Highest Hour	202	152	68	65
12th	Highest Hour	193	145	65	62
13th	Highest Hour	175	131	59	56
14th	Highest Hour	162	121	55	52
15th	Highest Hour	162	121	55	52
16th	Highest Hour	157	118	53	50
17th	Highest Hour	90	67	30	29
18th	Highest Hour	49	37	17	16
19th	Highest Hour	45	34	15	14
20th	Highest Hour	18	13	6	6
21st	Highest Hour	13	10	5	4
22nd	Highest Hour	13	10	5	4
23rd	Highest Hour	9	7	3	3
24th	Highest Hour	9	7	3	3

Warrant Summary

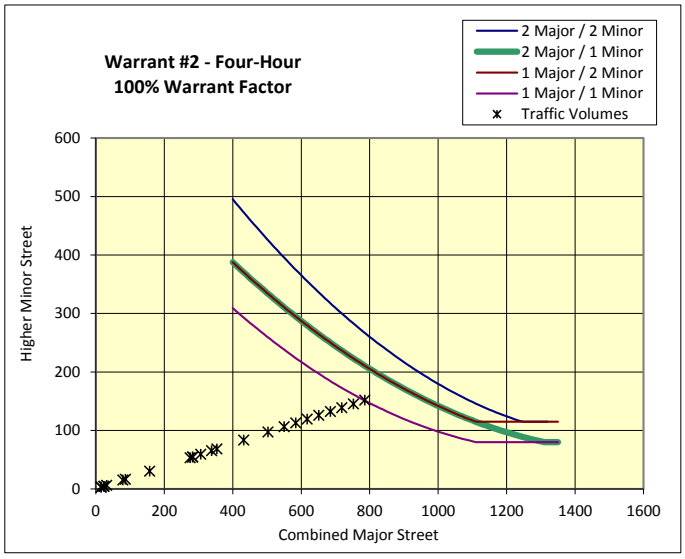
Warrant	Name	Analyzed?	Met?
#1	Eight-Hour Vehicular Volume	Yes	No
#2	Four-Hour Vehicular volume	Yes	No
#3	Peak Hour	Yes	No
#4	Pedestrian Volume	No	.
#5	School Crossing	No	-
#6	Coordinated Signal System	No	-
#7	Crash Experience	No	-
#8	Roadway Network	No	-

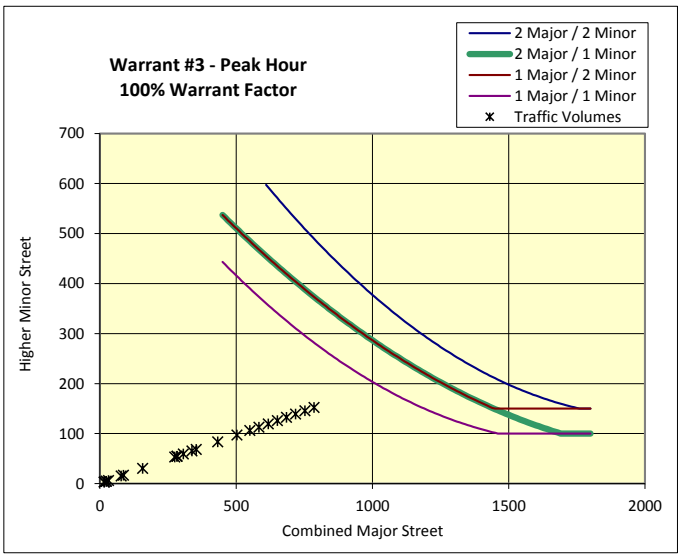
Input Parameters

Volume Adjustment Factor =	1.0
North-South Approach =	Minor
East-West Approach =	Major
Major Street Thru Lanes =	1
Minor Street Thru Lanes =	1
Speed > 40 mph?	No
Population < 10,000?	No
Warrant Factor	100%
Peak Hour or Daily Count?	Peak Hour
Major Street: 4th-Highest Hour / Peak Hour	87%
Major Street: 8th-Highest Hour / Peak Hour	70%
Minor Street: 4th-Highest Hour / Peak Hour	87%
Minor Street: 8th-Highest Hour / Peak Hour	70%

Warrant #1 - Eight Hour

Warrant Factor	Condition	Major Street Requirement	Minor Street Requirement	Hours That Condition Is Met	Condition for Warrant Factor Met?	Signal Warrant Met?
100%	A	500	150	1	No	**No**
	B	750	75	2	No	
80%	A	400	120	6	No	**No**
	B	600	60	6	No	
70%	A	350	105	8	Yes	**Yes**
	B	525	53	8	Yes	





Attachment D ODOT Crash Data

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

OR 213 & S Vick Rd

January 1, 2011 through December 31, 2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
REAR-END	0	1	1	2	0	1	0	2	0	2	0	2	0	0
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	1	0	1	0	0
2015 TOTAL	0	2	1	3	0	2	0	3	0	3	0	3	0	0
YEAR: 2014														
REAR-END	0	2	0	2	0	3	0	1	1	2	0	2	0	0
2014 TOTAL	0	2	0	2	0	3	0	1	1	2	0	2	0	0
YEAR: 2012														
REAR-END	0	2	0	2	0	4	0	2	0	1	1	2	0	0
2012 TOTAL	0	2	0	2	0	4	0	2	0	1	1	2	0	0
YEAR: 2011														
ANGLE	0	1	0	1	0	4	0	0	1	0	1	1	0	0
2011 TOTAL	0	1	0	1	0	4	0	0	1	0	1	1	0	0
FINAL TOTAL	0	7	1	8	0	13	0	6	2	6	2	8	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

160 CASCADE HWY SOUTH

OR 213 & S Vick Rd
January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	DRUG	ALC	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	FC / CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
03340	N	N	N	N	N	09/07/2012	CLACKAMAS	1 06		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07,16,32
STATE						Fri 9P		MN 0		N		UNKNOWN	N	DRY	REAR		PRVTE	N S										000		00
								15.08		06	0		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	43	M	OR-Y		026,052	025		07,16,32
No	*45 9 52.75*					*-122 35 57.45*		016000100S00																OR<25					
																02	NONE 0	STOP											
																	PRVTE	N S									012		00
																	PSNGR CAR		01	DRVR	INJC	18	M	OR-Y		000	000		00
																								OR<25					
																			02	PSNG	INJC	18	F			000	000		00
03644	N	N	N	N	N	10/01/2012	CLACKAMAS	1 06		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
STATE						Mon 5P		MN 0		N		UNKNOWN	N	DRY	REAR		PRVTE	N S										000		00
								15.08		06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	19	F	OR-Y		026	000		07
No	*45 9 52.75*					*-122 35 57.45*		016000100S00																OR<25					
																02	NONE 0	STOP											
																	PRVTE	N S									012		00
																	PSNGR CAR		01	DRVR	INJB	43	M	OR-Y		000	000		00
																								OR<25					
02295	Y	N	N	N	N	06/15/2014	CLACKAMAS	1 06		INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										013	01,07
STATE						Sun 12P		MN 0		N		UNKNOWN	N	WET	REAR		PRVTE	N S										000		00
								15.08		06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	59	M	OR-Y		047,043,026	000		01,07
No	*45 9 52.75*					*-122 35 57.45*		016000100S00																OR<25					
																02	NONE 0	STOP											
																	PRVTE	N S									011	013	00
																	PSNGR CAR		01	DRVR	NONE	49	F	OR-Y		000	000		00
																								OR<25					
																			02	PSNG	INJB	12	F			000	000		00
																03	NONE 0	STOP											
																	PRVTE	N S									022		00
																	PSNGR CAR		01	DRVR	NONE	30	F	OR-Y		000	000		00
																								OR<25					
04165	N	N	N	N	N	10/19/2014	CLACKAMAS	1 06		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
STATE						Sun 4P		MN 0		N		UNKNOWN	N	DRY	REAR		PRVTE	N S										000		00
								15.08		06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	26	F	OR-Y		026	000		29
No	*45 9 52.75*					*-122 35 57.45*		016000100S00																OR<25					
																02	NONE 0	STOP											
																	PRVTE	N S									012		00
																	PSNGR CAR		01	DRVR	INJC	31	F	OR-Y		000	000		00
																								OR<25					
																			02	PSNG	INJC	16	F			000	000		00
02398	N	N	N			06/17/2015	CLACKAMAS	1 16		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NO RPT						Wed 5P		MN 0		NE		UNKNOWN	N	DRY	REAR		PRVTE	NE SW										000		00
							MOLALLA UA	15.08		06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	41	M	OR-Y		026	000		29
No	*45 9 52.75*					*-122 35 57.45*		016000100S00																OR<25					

160 CASCADE HWY SOUTH — OR 213 & S Vick Rd

January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALCHL	DRUGS	SCHL WORK	DATE / DAY/TIME / *LAT/LONG*	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / LRS	FC / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	CONN #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / WTHR / RNDBT / SURF / DRVWY / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN EVENT	CAUSE
															02	NONE 0 PRVTE	STOP NE SW									012	00
																PSNGR CAR		01	DRVR	INJC	22	M	OR-Y OR<25		000	000	00
04927 STATE	Y	N	N	N N	12/22/2011 Thu 6A	CLACKAMAS	1 06 MN 0			INTER CN	3-LEG	N STOP SIGN	N N	FOG ICE	ANGL-OTH ANGL	01	NONE 0 PRVTE	STRGHT S N									000	02,01 00
							15.08			02	0		N	DARK	INJ		PSNGR CAR		01	DRVR	INJC	52	M	OR-Y OR<25		000	000	00
No	*45 9 52.75*				*-122 35 57.45*		016000100S00												02	PSNG	INJB	12	M			000	000	00
																			03	PSNG	INJA	43	F			000	000	00
															02	NONE 0 PRVTE	STRGHT E W									000	00
																PSNGR CAR		01	DRVR	INJA	51	M	OR-Y OR<25	021,047	000	02,01
03777 NONE	N	N	N		09/15/2015 Tue 7A	CLACKAMAS	1 16 MN 0			INTER CN	3-LEG	N STOP SIGN	N N	CLR DRY	ANGL-OTH TURN	01	NONE 0 PRVTE	STRGHT S N									000	02 00
						MOLALLA UA	15.08			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	38	M	OR-Y OR<25	000	000	000	00
No	*45 9 52.75*				*-122 35 57.45*		016000100S00																					
															02	NONE 0 PRVTE	TURN-L E S									015	00
																PSNGR CAR		01	DRVR	NONE	77	M	OR-Y OR<25	028	000	02	
01554 NO RPT	N	N	N		04/26/2015 Sun 2P	CLACKAMAS	1 16 MN 0			INTER N	3-LEG	N UNKNOWN	N N	CLR DRY	S-1STOP REAR	01	NONE 0 PRVTE	STRGHT N S									000	29,11 00
						MOLALLA UA	15.09			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	25	M	OR-Y OR<25	026	000	29	
No	*45 9 52.27*				*-122 35 57.69*		016000100S00																					
															02	NONE 1 PRVTE	STOP N S									012	11
																PSNGR CAR		01	DRVR	NONE	61	M	OR-Y OR<25	015	000	00	

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

OR 213 & Meadow Dr
January 1, 2011 through December 31, 2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	0	1	1	0	0
2015 TOTAL	0	0	1	1	0	0	0	1	0	0	1	1	0	0
FINAL TOTAL	0	0	1	1	0	0	0	1	0	0	1	1	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

160 CASCADE HWY SOUTH

OR 213 & Meadow Dr
January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	COUNTY / CITY / URBAN AREA	RD# FC CMPT/MLG MILEPNT LRS	CONN # FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
04342	N	N	N			10/21/2015	CLACKAMAS	1 16		INTER	3-LEG	N		N FOG	ANGL-OTH	01	NONE 0	TURN-L											02
NONE						Wed 6A	MOLALLA	MN 0	CASCADE HY SOUTH	CN		STOP SIGN		N DRY	TURN		PRVTE	SE SW									015		00
							MOLALLA UA	15.47	MEADOW DR	02	0			N DAWN	PDO		PSNGR CAR		01	DRVR	NONE	58	M	OR-Y		028	000		02
No						*45 9 33.84 -122 36 6.78*		016000100	S00 1																OR<25					
																02	NONE 0	STRGHT											
																	PRVTE	NE SW									000		00
																	PSNGR CAR		01	DRVR	NONE	00	U	UNK		000	000		00
																								OR<25					

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

OR 213 & Toliver Rd

January 1, 2011 through December 31, 2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
ANGLE	0	2	0	2	0	4	0	1	1	1	1	2	0	0
2015 TOTAL	0	2	0	2	0	4	0	1	1	1	1	2	0	0
YEAR: 2014														
ANGLE	0	1	0	1	0	1	0	1	0	1	0	1	0	0
REAR-END	0	1	1	2	0	1	0	1	1	2	0	2	0	0
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	0	1	1	0	0
2014 TOTAL	0	3	1	4	0	3	0	3	1	3	1	4	0	0
YEAR: 2013														
ANGLE	0	1	0	1	0	2	1	1	0	1	0	1	0	0
REAR-END	0	2	0	2	0	3	0	0	2	1	1	2	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	1	0	1	0	0
2013 TOTAL	0	3	1	4	0	5	1	1	3	3	1	4	0	0
YEAR: 2012														
TURNING MOVEMENTS	0	1	0	1	0	4	0	1	0	1	0	1	0	0
2012 TOTAL	0	1	0	1	0	4	0	1	0	1	0	1	0	0
YEAR: 2011														
TURNING MOVEMENTS	0	1	0	1	0	2	0	1	0	1	0	1	0	0
2011 TOTAL	0	1	0	1	0	2	0	1	0	1	0	1	0	0
FINAL TOTAL	0	10	2	12	0	18	1	7	5	9	3	12	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

160 CASCADE HWY SOUTH

OR 213 & Toliver Rd
January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	FC / CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS / RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
04086	N	N	N	N	N	10/25/2013	CLACKAMAS	1 16		INTER	CROSS	N	N	FOG	S-1STOP	01	NONE 0	STRGHT											07
CITY						Fri 7A	MOLALLA	MN 0	CASCADE HY SOUTH	N		FLASHBCN-A	N	WET	REAR		PRVTE	NE SW									000		00
							MOLALLA UA	15.71	TOLIVER RD	06	0		N	DARK	INJ		PSNGR CAR		01	DRVR	INJB	23	F	OTH-Y		043,026	000		07
No	*45 9 21.32*		*-122 36 13.41*					016000100S00	1															OR<25					
																02	NONE 0	STOP											
																	PRVTE	NE SW									012		00
																	PSNGR CAR		01	DRVR	INJB	28	F	OR-Y		000	000		00
																								OR<25					
04841	N	N	N	N	N	12/14/2013	CLACKAMAS	1 16		INTER	CROSS	N	N	FOG	S-1STOP	01	NONE 0	STRGHT											07
CITY						Sat 11A	MOLALLA	MN 0	CASCADE HY SOUTH	NE		NONE	N	WET	REAR		PRVTE	NE SW									000		00
							MOLALLA UA	15.71	TOLIVER RD	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	F	OR-Y		026	000		07
No	*45 9 21.32*		*-122 36 13.41*					016000100S00	1															OR<25					
																02	NONE 0	STOP											
																	PRVTE	NE SW									012		00
																	PSNGR CAR		01	DRVR	INJC	56	F	OR-Y		000	000		00
																								OR<25					
01222	N	N	N	N	N	03/28/2014	CLACKAMAS	1 16		INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE						Fri 3P	MOLALLA	MN 0	CASCADE HY SOUTH	NE		STOP SIGN	N	WET	REAR		PRVTE	NE SW									000		00
							MOLALLA UA	15.71	TOLIVER RD	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	20	M	OR-Y		043,026	000		07
No	*45 9 21.32*		*-122 36 13.41*					016000100S00	1															OR<25					
																02	NONE 0	STOP											
																	PRVTE	NE SW									012		00
																	PSNGR CAR		01	DRVR	NONE	21	F	OR-Y		000	000		00
																								OR<25					
03575	N	N	N	N	N	09/12/2014	CLACKAMAS	1 16		INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	07
CITY						Fri 11A	MOLALLA	MN 0	CASCADE HY SOUTH	SW		NONE	N	DRY	REAR		PRVTE	SW NE									000		00
							MOLALLA UA	15.71	TOLIVER RD	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	M	OR-Y		043,026	000		07
No	*45 9 21.32*		*-122 36 13.41*					016000100S00	1															OR<25					
																02	NONE 0	STOP											
																	PRVTE	SW NE									012	013	00
																	PSNGR CAR		01	DRVR	NONE	80	F	OR-Y		000	000		00
																								OR<25					
																03	NONE 0	STRGHT											
																	PRVTE	NE SW									022		00
																	PSNGR CAR		01	DRVR	NONE	78	F	OR-Y		000	000		00
																								OR<25					
																			02	PSNG	INJC	87	F			000	000		00
04062	N	N	N	N	N	10/13/2014	CLACKAMAS	1 16		INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT										082	02
CITY						Mon 7A	MOLALLA	MN 0	CASCADE HY SOUTH	CN		FLASHBCN-R	N	DRY	ANGL		PRVTE	SE NW									015		00
							MOLALLA UA	15.71	TOLIVER RD	01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	25	M	OR-Y		028	000	082	02
No	*45 9 21.32*		*-122 36 13.41*					016000100S00	1															OR<25					

160 CASCADE HWY SOUTH — OR 213 & Toliver Rd

January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	FC	CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN EVENT	CAUSE
																	02	NONE 0 PRVTE	STRGHT NE SW									000	00
																		PSNGR CAR		01	DRVR	INJC	54	F	OR-Y OR<25		000	000	00
00663 CITY	N	N	N	N	N	02/20/2015 Fri 1P	CLACKAMAS MOLALLA MOLALLA UA	1 16 MN 0 15.71		CASCADE HY SOUTH TOLIVER RD	INTER CN 01	3-LEG 0	N STOP SIGN 	N N N	CLR DRY DAY	ANGL-OTH ANGL INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT SE NW	01	DRVR	NONE	35	M	OR-Y UNK	021		000 000	03 00 03
No	*45 9 21.32*					*-122 36 13.41*		016000100S00		1										02	PSNG	INJC	27	F			000	000	00
																	02	NONE 0 PRVTE	STRGHT NE SW									000	00
																		PSNGR CAR		01	DRVR	INJC	23	F	OR-Y OR<25		000	000	00
01566 COUNTY	N	N	N	N	N	04/28/2015 Tue 7P	CLACKAMAS MOLALLA MOLALLA UA	1 16 MN 0 15.71		CASCADE HY SOUTH TOLIVER RD	INTER CN 01	CROSS 0	N STOP SIGN 	N N N	RAIN WET DUSK	ANGL-OTH ANGL INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT NE SW	01	DRVR	INJB	21	M	OR-Y OR<25	000		000 000	02 00 00
No	*45 9 21.32*					*-122 36 13.41*		016000100S00		1										02	PSNG	INJB	20	F			000	000	00
																	02	NONE 0 PRVTE	STRGHT SE NW									015	00
																		PSNGR CAR		01	DRVR	NONE	17	F	OR-Y OR<25	028		000	02
01169 NONE	N	N	N			04/06/2013 Sat 3P	CLACKAMAS MOLALLA MOLALLA UA	1 16 MN 0 15.71		CASCADE HY SOUTH TOLIVER RD	INTER CN 02	CROSS 0	N STOP SIGN 	N N N	RAIN WET DAY	ANGL-OTH TURN PDO	01	NONE 0 PRVTE PSNGR CAR	TURN-L SE SW	01	DRVR	NONE	63	M	OR-Y OR<25	028		015 000	02 00 02
No	*45 9 21.32*					*-122 36 13.41*		016000100S00		1										02	NONE 0 PRVTE	TURN-L NE SE									000	00
																		PSNGR CAR		01	DRVR	NONE	48	F	OR-Y OR<25		000	000	00
02513 NONE	N	N	N			07/13/2013 Sat 7P	CLACKAMAS MOLALLA MOLALLA UA	1 16 MN 0 15.71		CASCADE HY SOUTH TOLIVER RD	INTER CN 02	CROSS 0	N STOP SIGN 	N N N	CLR DRY DAY	ANGL-OTH ANGL INJ	01	NONE 1 PRVTE SEMI TOW	STRGHT S N	01	DRVR	NONE	29	M	OTH-Y N-RES	000		000 000	02 00 00
No	*45 9 21.32*					*-122 36 13.41*		016000100S00		1										02	NONE 0 PRVTE	STRGHT E W									015	00
																		PSNGR CAR		01	DRVR	INJA	18	F	OR-Y OR<25	028		000	02
																				02	PSNG	INJB	16	F			000	000	00
02199 CITY	N	N	N	N	N	06/21/2011 Tue 1P	CLACKAMAS MOLALLA MOLALLA UA	1 16 MN 0 15.71		CASCADE HY SOUTH TOLIVER RD	INTER CN 04	CROSS 0	N FLASHBCN-R 	N N N	CLR DRY DAY	O-1 L-TURN TURN INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT SW NE	01	DRVR	INJB	27	F	OR-Y OR<25	000		000 000	02 00 00
No	*45 9 21.32*					*-122 36 13.41*		016000100S00		1																			

160 CASCADE HWY SOUTH

OR 213 & Toliver Rd
January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	FC / CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
																02	NONE 0 / PRVTE	TURN-L / NE SE										000	00
																	PSNGR CAR		01	DRVR	INJB	29	M	OR-Y / OR<25		028,004	026		02
02773	N	N	N	N	N	07/29/2012	CLACKAMAS	1	16																				
NONE						Sun 7P	MOLALLA	MN 0	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02
										CN		FLASHBCN-A	N	DRY	TURN		PRVTE	SW NE									000	00
							MOLALLA UA	15.71	TOLIVER RD	04	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	17	M	OR-Y / OR<25		000	000		00
No						*45 9 21.32 -122 36 13.41*		016000100S00	1											02	PSNG	INJC	15	M			000	000		00
																				03	PSNG	INJC	15	M			000	000		00
																02	NONE 0 / PRVTE	TURN-L / NE SE										000	00
																	PSNGR CAR		01	DRVR	INJB	59	M	OR-Y / OR<25		028,004	000		02

CITY OF MOLALLA, CLACKAMAS COUNTY

OR 213 & Toliver Rd

January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
04546	N	N	N			11/10/2014	17	CASCADE HY SOUTH	INTER	CROSS	N	N	CLR	ANGL-STP	01	NONE 0	TURN-L											08
NONE						Mon 8P	0	TOLIVER RD	NW		STOP SIGN	N	DRY	TURN		PRVTE	SW NW									000		00
No	*45*	*9 21.32*	*-122*	*36 13.41*				1	06	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y OR<25		002	000		08
															02	NONE 0	STOP											
																PRVTE	NW SE									011		00
																PSNGR CAR		01	DRVR	INJC	18	F	OR-Y OR<25		000	000		00

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

OR 213 & OR 211

January 1, 2011 through December 31, 2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
ANGLE	0	0	1	1	0	0	0	1	0	1	0	1	0	0
2015 TOTAL	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR: 2014														
ANGLE	0	1	1	2	0	1	0	2	0	2	0	2	0	0
REAR-END	0	0	1	1	0	0	0	1	0	0	1	1	0	0
TURNING MOVEMENTS	0	2	1	3	0	3	0	2	1	1	2	3	0	0
2014 TOTAL	0	3	3	6	0	4	0	5	1	3	3	6	0	0
YEAR: 2013														
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
2013 TOTAL	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR: 2012														
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	2	1	3	0	4	0	2	1	3	0	3	0	0
2012 TOTAL	0	3	1	4	0	5	0	3	1	4	0	4	0	0
YEAR: 2011														
ANGLE	0	0	1	1	0	0	0	1	0	0	1	1	0	0
TURNING MOVEMENTS	0	1	2	3	0	3	0	3	0	1	2	3	0	0
2011 TOTAL	0	1	3	4	0	3	0	4	0	1	3	4	0	0
FINAL TOTAL	0	8	8	16	0	13	0	14	2	10	6	16	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

160 CASCADE HWY SOUTH

OR 213 & OR 211
January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALC	DRUG	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	COUNTY / CITY / URBAN AREA	RD# / CMPT/MILEPNT / LRS	FC / MLG / CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
02061	N	N	N	N	N	06/11/2013	CLACKAMAS	1	16	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	0	STRGHT										07
COUNTY						Tue 11A		MN	0	N		L-GRN-SIG	N	DRY	REAR		PRVTE	N S										000		00
							MOLALLA UA	16.10		06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	23	M	OR-Y		043,026	000		07
No	*45*	*9*	*2.53*	*-122*	*36 22.92*			016000100S00																OR<25					
																02	NONE	0	STOP										
																	PRVTE	N S									012		00
																	PSNGR CAR		01	DRVR	INJC	61	F	OR-Y		000	000		00
																								OR<25					
05335	N	N	N			12/31/2014	CLACKAMAS	1	16	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	0	STRGHT										29
NONE						Wed 5P		MN	0	N		TRF SIGNAL	N	DRY	REAR		PRVTE	N S									000		00
							MOLALLA UA	16.10		06	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	51	F	OR-Y		026	000		29
No	*45*	*9*	*2.53*	*-122*	*36 22.92*			016000100S00																OR<25					
																02	NONE	0	STOP										
																	UNKN	N S									011		00
																	PSNGR CAR		01	DRVR	NONE	00	M	UNK		000	000		00
																								UNK					
02845	N	N	N			08/03/2012	CLACKAMAS	1	16	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	0	STRGHT										07
NONE						Fri 7A		MN	0	E		TRF SIGNAL	N	DRY	REAR		UNKN	E W									000		00
							MOLALLA UA	16.10		06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	00	M	OR-Y		026	000		07
No	*45*	*9*	*2.53*	*-122*	*36 22.92*			016000100S00																UNK					
																02	NONE	0	STOP										
																	PRVTE	E W									011		00
																	PSNGR CAR		01	DRVR	INJC	38	F	OR-Y		000	000		00
																								OR<25					
02891	N	N	N			08/06/2012	CLACKAMAS	1	16	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE	0	STRGHT										02
NONE						Mon 6P		MN	0	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	N S									000		00
							MOLALLA UA	16.10		01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	52	M	OR-Y		000	000		00
No	*45*	*9*	*2.53*	*-122*	*36 22.92*			016000100S00																OR<25					
																02	NONE	0	TURN-L										
																	PRVTE	S W									000		00
																	PSNGR CAR		01	DRVR	INJC	26	F	OR-Y		028,004	000		02
																								OR<25					
																			02	PSNG	INJC	13	F			000	000		00
																			03	PSNG	NO<5	04	M			000	000		00
																			04	PSNG	NO<5	02	M			000	000		00
02238	N	N	N	N	N	06/11/2014	CLACKAMAS	1	16	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE	0	STRGHT										04
CITY						Wed 1P		MN	0	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	E W									000		00
							MOLALLA UA	16.10		01	9		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	63	M	OR-Y		097	000		00
No	*45*	*9*	*2.53*	*-122*	*36 22.92*			016000100S00																OR<25					
																02	NONE	0	STRGHT										
																	PRVTE	N S									000		00
																	PSNGR CAR		01	DRVR	NONE	53	M	OTH-Y		097	000		00
																								N-RES					

160 CASCADE HWY SOUTH — OR 213 & OR 211
January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	FC / CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN EVENT	CAUSE
04924	N	N	N	N	N	12/05/2014	CLACKAMAS	1 16		INTER	CROSS	N	N	FOG	O-1 L-TURN	01	NONE 0	STRGHT									02,08
CITY						Fri 5P		MN 0		CN		TRF SIGNAL	N	WET	TURN		PRVTE	N S									000	00
							MOLALLA UA	16.10		01	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	29	M	OR-Y		000	000	00
No	*45*	*9*	*2.53*	*-122*	*36 22.92*			016000100S00																OR<25				
																02	NONE 0	TURN-L										
																	PRVTE	S W									000	00
																	PSNGR CAR		01	DRVR	INJC	24	F	OR-Y		028,004	000	02,08
																								OR<25				
																			02	PSNG	INJC	07	M			000	000	00
04937	N	N	N			12/05/2014	CLACKAMAS	1 16		INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT									02
NONE						Fri 5P		MN 0		CN		TRF SIGNAL	N	DRY	TURN		PRVTE	N S									000	00
							MOLALLA UA	16.10		01	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	24	M	UNK		000	000	00
No	*45*	*9*	*2.53*	*-122*	*36 22.92*			016000100S00																OR<25				
																02	NONE 0	TURN-L										
																	PRVTE	S W									000	00
																	PSNGR CAR		01	DRVR	NONE	21	F	OR-Y		028,004	000	02
																								OR<25				
02898	N	N	N			08/12/2011	CLACKAMAS	1 16		INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT									04
NO RPT						Fri 8P		MN 0		CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	N S									000	00
							MOLALLA UA	16.10		03	0		N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	79	M	OR-Y		097	000	00
No	*45*	*9*	*2.53*	*-122*	*36 22.92*			016000100S00																OR<25				
																02	NONE 1	STRGHT										
																	PRVTE	W E									000	00
																	PSNGR CAR		01	DRVR	NONE	43	M	OR-Y		097	000	00
																								OR<25				
84282	N	N	N			08/12/2011	CLACKAMAS	1 16		INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	TURN-L									02
NO RPT						Fri 8P		MN 0		CN		TRF SIGNAL	N	DRY	TURN		PRVTE	E S									000	00
							MOLALLA UA	16.10		03	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	79	M	OR-Y		028	000	02
No	*45*	*9*	*2.53*	*-122*	*36 22.92*			016000100S00																OR<25				
																02	NONE 1	STRGHT										
																	PRVTE	W E									000	00
																	PSNGR CAR		01	DRVR	NONE	48	M	OR-Y		000	000	00
																								OR<25				
02424	N	N	N			07/06/2012	CLACKAMAS	1 16		INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	TURN-L									02
CITY						Fri 8P		MN 0		CN		TRF SIGNAL	N	DRY	TURN		PRVTE	E S									000	00
							MOLALLA UA	16.10		03	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	19	M	OR-Y		028,004	000	02
No	*45*	*9*	*2.53*	*-122*	*36 22.92*			016000100S00																OR<25				
																02	NONE 0	STRGHT										
																	PRVTE	W E									000	00
																	PSNGR CAR		01	DRVR	NONE	18	M	OR-Y		000	000	00
																								OR<25				

160 CASCADE HWY SOUTH — OR 213 & OR 211
January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	FC / CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN EVENT	CAUSE
04026	N	N	N	N	N	10/27/2012	CLACKAMAS	1 16		INTER	CROSS	N	N	RAIN	O-1 L-TURN	01	NONE 0	STRGHT										02
CITY						Sat 7A		MN 0		CN		TRF SIGNAL	N	WET	TURN		PRVTE	W E								000	00
							MOLALLA UA	16.10		03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	29	M	SUSP		000	000	00
No	*45*	*9*	*2.53*	*-122*	*36 22.92*			016000100S00																OR<25				
																02	NONE 0	TURN-L										
																	PRVTE	E S								000	00
																	PSNGR CAR		01	DRVR	INJC	31	M	OR-Y		028,004	000	02
																								OR<25				
																			02	PSNG	INJB	11	U			000	000	00
00851	N	N	N			02/28/2014	CLACKAMAS	1 16		INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT										02
NONE						Fri 3P		MN 0		CN		TRF SIGNAL	N	DRY	TURN		PRVTE	W E								000	00
							MOLALLA UA	16.10		03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	25	M	OR-Y		000	000	00
No	*45*	*9*	*2.53*	*-122*	*36 22.92*			016000100S00																OR<25				
																02	NONE 0	TURN-L										
																	PRVTE	E S								000	00
																	PSNGR CAR		01	DRVR	NONE	72	M	OR-Y		028,004	000	02
																								OR<25				
02542	N	N	N			06/30/2014	CLACKAMAS	1 16		INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT										04
CITY						Mon 2P		MN 0		CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	N S								000	00
							MOLALLA UA	16.10		03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	17	M	OR-Y		020	000	04
No	*45*	*9*	*2.53*	*-122*	*36 22.92*			016000100S00																OR<25				
																			02	PSNG	INJC	36	F			000	000	00
																			03	PSNG	NONE	05	M			000	000	00
																02	NONE 0	STRGHT										
																	PRVTE	W E								000	00
																	PSNGR CAR		01	DRVR	NONE	24	M	OR-Y		000	000	00
																								OR>25				
05191	N	N	N	N	N	12/06/2015	CLACKAMAS	1 16		INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT										04
CITY						Sun 10A		MN 0		CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	W E								000	00
							MOLALLA UA	16.10		03	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	39	F	OR-Y		020	000	04
No	*45*	*9*	*2.53*	*-122*	*36 22.92*			016000100S00																OR<25				
																02	NONE 0	STRGHT										
																	PRVTE	N S								000	00
																	PSNGR CAR		01	DRVR	NONE	62	F	OR-Y		000	000	00
																								OR<25				
03207	N	N	N	N	N	08/30/2011	CLACKAMAS	1 16		INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT										02
STATE						Tue 9P		MN 0		CN		TRF SIGNAL	N	DRY	TURN		PRVTE	W E								000	00
							MOLALLA UA	16.10		04	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	INJC	20	F	OR-Y		000	000	00
No	*45*	*9*	*2.53*	*-122*	*36 22.92*			016000100S00																OR<25				
																			02	PSNG	INJC	20	M			000	000	00
																			03	PSNG	INJC	20	F			000	000	00

160 CASCADE HWY SOUTH

OR 213 & OR 211
January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	FC / CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
																02	NONE 0 PRVTE	TURN-L E S										000	00
																	PSNGR CAR		01	DRVR	NONE	19	M	UNK N-RES		004,028	000		02
03307	N	N	N			09/07/2011 Wed 5A	CLACKAMAS	1 16 MN 0		INTER CN	CROSS	N TRF SIGNAL	N	CLR DRY	O-1 L-TURN TURN	01	NONE 0 PRVTE	TURN-L N E												02
NONE													N	DLIT	PDO												000	00
							MOLALLA UA	16.10		04	0						PSNGR CAR		01	DRVR	NONE	17	F	UNK OR<25		004,028	000		02
No	*45*	*9*	*2.53*	*-122*	*36 22.92*			016000100S00																					
																02	NONE 0 PRVTE	STRGHT S N										000	00
																	PSNGR CAR		01	DRVR	NONE	37	M	OR-Y OR>25		000	000		00

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

OR 211 & Ona Way
January 1, 2011 through December 31, 2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
REAR-END	0	1	0	1	0	1	0	1	0	0	1	1	0	0
2015 TOTAL	0	1	0	1	0	1	0	1	0	0	1	1	0	0
YEAR: 2014														
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
2014 TOTAL	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR: 2013														
REAR-END	0	1	0	1	0	1	0	1	0	0	1	1	0	0
2013 TOTAL	0	1	0	1	0	1	0	1	0	0	1	1	0	0
YEAR: 2011														
REAR-END	0	1	0	1	0	6	0	1	0	1	0	1	0	0
2011 TOTAL	0	1	0	1	0	6	0	1	0	1	0	1	0	0
FINAL TOTAL	0	4	0	4	0	9	0	4	0	2	2	4	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

161 WOODBURN-ESTACADA

OR 211 & Ona Way
January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	FC / CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
00321	N	N	N			01/27/2011	CLACKAMAS	1 16		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										010,079	32,07
CITY						Thu 3P	MOLALLA	MN 0	MAIN ST	SE		NONE	N	DRY	REAR		PRVTE	SE NW									000		00
							MOLALLA UA	11.81	ONA WAY	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	27	M	OR-Y		052,043,026	000		32,07
No						*45 8 58.40*	*-122 35 45.95*	016100100S00	1																OR<25				
																			02	PSNG	INJC	02	F			000	000		00
																			03	PSNG	INJC	04	F			000	000		00
																02	NONE 0	STOP											
																	PRVTE	SE NW									012	010,079	00
																	PSNGR CAR		01	DRVR	INJC	16	M	OR-Y		000	000		00
																								OR<25					
																			02	PSNG	INJC	43	M			000	000		00
																03	NONE 0	STRGHT											
																	PRVTE	NW SE									022		00
																	PSNGR CAR		01	DRVR	INJA	54	F	OR-Y		000	000		00
																								OR<25					
04607	N	N	N			11/27/2013	CLACKAMAS	1 16		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE						Wed 7P	MOLALLA	MN 0	MAIN ST	SE		UNKNOWN	N	DRY	REAR		PRVTE	SE NW									000		00
							MOLALLA UA	11.81	ONA WAY	06	0		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	64	M	OR-Y		026	000		07
No						*45 8 58.40*	*-122 35 45.95*	016100100S00	1																OR<25				
																02	NONE 0	STOP											
																	PRVTE	SE NW									012		00
																	PSNGR CAR		01	DRVR	INJC	26	M	OR-Y		000	000		00
																								OR<25					
00653	N	N	N	N	N	02/19/2015	CLACKAMAS	1 16		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
CITY						Thu 6A	MOLALLA	MN 0	MAIN ST	SE		UNKNOWN	N	DRY	REAR		PRVTE	SE NW									000		00
							MOLALLA UA	11.81	ONA WAY	06	0		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	26	M	OR-Y		043,026	000		07
No						*45 8 58.40*	*-122 35 45.95*	016100100S00	1																OR<25				
																02	NONE 0	STOP											
																	PRVTE	SE NW									011		00
																	PSNGR CAR		01	DRVR	INJC	37	M	OR-Y		000	000		00
																								OR<25					
03594	N	N	N			09/14/2014	CLACKAMAS	1 16		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
CITY						Sun 12P	MOLALLA	MN 0	MAIN ST	SW		UNKNOWN	N	DRY	REAR		PRVTE	SE NW									000		00
							MOLALLA UA	11.81	ONA WAY	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	29	F	OR-Y		026	000		29
No						*45 8 58.40*	*-122 35 45.95*	016100100S00	1																OR<25				
																02	NONE 0	STOP											
																	PRVTE	SE NW									012		00
																	PSNGR CAR		01	DRVR	INJC	45	F	OR-Y		000	000		00
																								OR<25					

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

OR 211 & Leroy Ave

January 1, 2011 through December 31, 2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
REAR-END	0	1	0	1	0	3	0	1	0	0	1	1	0	0
2015 TOTAL	0	1	0	1	0	3	0	1	0	0	1	1	0	0
YEAR: 2014														
SIDESWIPE - MEETING	0	1	0	1	0	1	0	1	0	1	0	1	0	0
2014 TOTAL	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR: 2013														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	1	0	1	0	2	1	0	1	1	0	1	0	0
2013 TOTAL	0	1	1	2	0	2	1	1	1	2	0	2	0	0
YEAR: 2012														
REAR-END	0	1	2	3	0	1	0	2	1	3	0	3	0	0
2012 TOTAL	0	1	2	3	0	1	0	2	1	3	0	3	0	0
YEAR: 2011														
REAR-END	0	1	0	1	0	1	0	0	0	0	1	1	0	0
2011 TOTAL	0	1	0	1	0	1	0	0	0	0	1	1	0	0
FINAL TOTAL	0	5	3	8	0	8	1	5	2	6	2	8	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

161 WOODBURN-ESTACADA

OR 211 & Leroy Ave
January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALCHL	DRUGS	SCHWK	DATE / DAY / TIME / *LAT/LONG*	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	FC / CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
00856	N	N	N		03/10/2011	CLACKAMAS	1 16		INTER	3-LEG	N	N	UNK	S-1STOP	01	NONE 0	STRGHT											27,07
NO RPT					Thu 8A	MOLALLA	MN 0	LEROY AVE	W		UNKNOWN	N	UNK	REAR		PRVTE	W E									000		00
						MOLALLA UA	12.16	MAIN ST	06	0		N	DAWN	INJ		PSNGR CAR		01	DRVR	INJC	58	M	OR-Y		016,026	000		27,07
No					*45 8 55.77 -122 35 21.09*		016100100S00	1																OR<25					
															02	NONE 0	STOP											
																PRVTE	W E									012		00
																PSNGR CAR		01	DRVR	NONE	47	F	OR-Y		000	000		00
																							OR<25					
02968	N	N	N		07/25/2012	CLACKAMAS	1 16		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE					Wed 5P	MOLALLA	MN 0	LEROY AVE	W		UNKNOWN	N	DRY	REAR		PRVTE	W E									000		00
						MOLALLA UA	12.16	MAIN ST	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	20	M	OR-Y		026	000		07
No					*45 8 55.77 -122 35 21.09*		016100100S00	1																OR<25					
															02	NONE 0	STOP											
																PRVTE	W E									012		00
																PSNGR CAR		01	DRVR	NONE	40	M	OR-Y		000	000		00
																							OR<25					
02996	N	N	N		08/14/2012	CLACKAMAS	1 16		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NO RPT					Tue 12P	MOLALLA	MN 0	LEROY AVE	W		UNKNOWN	N	DRY	REAR		PRVTE	W E									000		00
						MOLALLA UA	12.16	MAIN ST	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	21	M	OR-Y		026	000		07
No					*45 8 55.77 -122 35 21.09*		016100100S00	1																OR<25					
															02	NONE 0	STOP											
																PRVTE	W E									012		00
																PSNGR CAR		01	DRVR	INJC	37	F	OR-Y		000	000		00
																							OR<25					
02379	N	N	N		07/03/2013	CLACKAMAS	1 16		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											07
NONE					Wed 7P	MOLALLA	MN 0	LEROY AVE	W		UNKNOWN	N	DRY	REAR		PRVTE	W E									000		00
						MOLALLA UA	12.16	MAIN ST	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	22	M	OR-Y		026	000		07
No					*45 8 55.77 -122 35 21.09*		016100100S00	1																OR<25					
															02	NONE 0	STOP											
																PRVTE	W E									012		00
																PSNGR CAR		01	DRVR	NONE	22	M	OR-Y		000	000		00
																							OR<25					
00645	Y	N	N	N	N 02/19/2015	CLACKAMAS	1 16		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										013	01,07,29
CITY					Thu 6P	MOLALLA	MN 0	LEROY AVE	W		NONE	N	DRY	REAR		PRVTE	W E									000		00
						MOLALLA UA	12.16	MAIN ST	06	0		N	DARK	INJ		PSNGR CAR		01	DRVR	INJC	18	M	OR-Y		047,043,026	038		01,07,29
No					*45 8 55.77 -122 35 21.09*		016100100S00	1																OR<25					
															02	NONE 0	STOP											
																PRVTE	W E									011	013	00
																PSNGR CAR		01	DRVR	INJC	40	F	OR-Y		000	000		00
																							OR>25					

161 WOODBURN-ESTACADA OR 211 & Leroy Ave
January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / LRS	FC / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	CONN # / RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
																03	NONE 0 PRVTE	STOP W E									022	00
																	PSNGR CAR		01	DRVR	INJC	32	F	OR-Y OR<25		000	000	00
																			02	PSNG	NO<5	01	F			000	000	00
00603	N	N	N	N	N	02/21/2013	CLACKAMAS	1 16		INTER	3-LEG	N	N	RAIN	O-1 L-TURN	01	NONE 0	STRGHT										02
CITY						Thu 1P	MOLALLA	MN 0	LEROY AVE	CN		NONE	N	WET	TURN		PRVTE	E W									000	00
							MOLALLA UA	12.16	MAIN ST	02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	23	M	OR-Y OR<25		000	000	00
No	*45 8 55.77*					*-122 35 21.09*		016100100S00	1																			
																			02	PSNG	INJC	18	M			000	000	00
																02	NONE 0 PRVTE	TURN-L W N									000	00
																	TRUCK		01	DRVR	NONE	58	M	OR-Y OR<25		028,004	000	02
03095	N	N	N	N	N	08/09/2014	CLACKAMAS	1 16		INTER	3-LEG	N	N	CLR	O-STRGHT	01	NONE 0	STRGHT										27,05
COUNTY						Sat 6P	MOLALLA	MN 0	LEROY AVE	CN		UNKNOWN	N	DRY	SS-M		PRVTE	W E									000	00
							MOLALLA UA	12.16	MAIN ST	02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	59	M	OR-Y OR<25		016,080	038	27,05
No	*45 8 55.77*					*-122 35 21.09*		016100100S00	1																			
																02	NONE 0 PRVTE	STRGHT E W									000	00
																	PSNGR CAR		01	DRVR	INJB	19	F	OR-Y OR<25		000	000	00
00673	N	N	N			02/21/2012	CLACKAMAS	1 16		INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										07
NO RPT						Tue 4P	MOLALLA	MN 0	LEROY AVE	CN		UNKNOWN	N	WET	REAR		PRVTE	W E									000	00
							MOLALLA UA	12.16	MAIN ST	03	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	18	M	OR-Y OR<25		026	000	07
No	*45 8 55.77*					*-122 35 21.09*		016100100S00	1																			
																02	NONE 0 PRVTE	STOP W E									012	00
																	PSNGR CAR		01	DRVR	NONE	21	M	OR-Y OR<25		000	000	00
																			02	PSNG	NO<5	02	M			000	000	00

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

OR 211 & Ridings Ave

January 1, 2011 through December 31, 2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
TURNING MOVEMENTS	0	1	0	1	0	3	0	1	0	1	0	1	0	0
2015 TOTAL	0	1	0	1	0	3	0	1	0	1	0	1	0	0
YEAR: 2012														
TURNING MOVEMENTS	0	0	2	2	0	0	1	2	0	1	1	2	0	0
2012 TOTAL	0	0	2	2	0	0	1	2	0	1	1	2	0	0
FINAL TOTAL	0	1	2	3	0	3	1	3	0	2	1	3	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

161 WOODBURN-ESTACADA

OR 211 & Ridings Ave
January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALCOHOL	DRUGS	SCHL ZONE	WORK ZONE	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	FC / CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
04645	N	N	N			12/03/2012	CLACKAMAS	1 16		INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											02
NO RPT						Mon 6P	MOLALLA	MN 0	MAIN ST	CN		STOP SIGN	N	DRY	TURN		PRVTE	E W									000		00
							MOLALLA UA	12.31	RIDINGS AVE	01	0		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	66	M	OR-Y		000	000		00
No	*45 8 54.48*		*-122 35 9.19*					016100100S00	1															OR<25					
																02	NONE 0	TURN-L											
																	PRVTE	N E									015		00
																	PSNGR CAR		01	DRVR	NONE	23	M	OR-Y		028	000		02
																								OR<25					
02567	N	N	N			06/26/2015	CLACKAMAS	1 16		INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L											02
NONE						Fri 5P	MOLALLA	MN 0	MAIN ST	CN		STOP SIGN	N	DRY	TURN		PRVTE	NE SE									015		00
							MOLALLA UA	12.31	RIDINGS AVE	01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	50	F	OR-Y		028	000		02
No	*45 8 54.48*		*-122 35 9.19*					016100100S00	1															OR<25					
																02	NONE 0	STRGHT											
																	PRVTE	E W									000		00
																	PSNGR CAR		01	DRVR	INJC	47	F	OR-Y		000	000		00
																								OR<25					
																			02	PSNG	INJC	37	M			000	000		00
																			03	PSNG	INJB	08	M			000	000		00
00024	N	N	N	N	N	01/04/2012	CLACKAMAS	1 16		INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L										088	02
CITY						Wed 7A	MOLALLA	MN 0	MAIN ST	CN		STOP SIGN	N	DRY	TURN		PRVTE	N E									015	088	00
							MOLALLA UA	12.31	RIDINGS AVE	03	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	58	F	OR-Y		028	000		02
No	*45 8 54.48*		*-122 35 9.19*					016100100S00	1															OR<25					
																02	NONE 1	STRGHT											
																	PRVTE	W E									000		00
																	SEMI TOW		01	DRVR	NONE	42	M	OR-Y		000	000		00
																								OR<25					

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

OR 211 & Molalla Ave
January 1, 2011 through December 31, 2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2013														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	0	3	3	0	0	1	3	0	3	0	3	0	0
2013 TOTAL	0	0	4	4	0	0	1	4	0	4	0	4	0	0
YEAR: 2012														
ANGLE	0	1	0	1	0	1	0	0	1	0	1	1	0	0
2012 TOTAL	0	1	0	1	0	1	0	0	1	0	1	1	0	0
YEAR: 2011														
ANGLE	0	1	0	1	0	1	0	1	0	1	0	1	0	0
REAR-END	0	2	0	2	0	3	0	1	1	1	1	2	0	0
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	1	0	1	0	0
2011 TOTAL	0	4	0	4	0	5	0	3	1	3	1	4	0	0
FINAL TOTAL	0	5	4	9	0	6	1	7	2	7	2	9	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

161 WOODBURN-ESTACADA

OR 211 & Molalla Ave
January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALCHL	DRUGS	SCHL	WORK	DAY/TIME / LAT/LONG	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	FC / CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
01001	N	N	N	N	N	03/22/2011	CLACKAMAS	1 16		INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 0	STRGHT										013	07
CITY						Tue 5P	MOLALLA	MN 0	MAIN ST	SE		FLASHBCN-R	N	DRY	REAR		PRVTE	SE NW									000		00
							MOLALLA UA	12.76	MOLALLA AVE	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	70	F	OR-Y		026	000		07
No	*45 8 51.09*					*-122 34 37.54*		016100100S00	1															OR<25					
																02	NONE 0	STOP											
																	PRVTE	SE NW									011	013	00
																	PSNGR CAR		01	DRVR	INJB	33	M	OR-Y		000	000		00
																								OR<25					
																			02	PSNG	NO<5	04	M			000	000		00
																03	NONE 0	STOP											
																	PRVTE	SE NW									022		00
																	PSNGR CAR		01	DRVR	NONE	35	F	OR-Y		000	000		00
																								OR<25					
02772	N	N	N	N	N	08/02/2011	CLACKAMAS	1 16		INTER	CROSS	N	N	CLR	BIKE													110	02
CITY						Tue 6P	MOLALLA	MN 0	MAIN ST	SE		UNKNOWN	N	DRY	ANGL														
							MOLALLA UA	12.76	MOLALLA AVE	06	0		N	DAY	INJ			STRGHT	01	BIKE	INJB	47	M		01	028,054	034		02
No	*45 8 51.09*					*-122 34 37.54*		016100100S00	1									NE SW											
																01	NONE 0	STRGHT											
																	PRVTE	SE NW									015	110	00
																	PSNGR CAR		01	DRVR	NONE	19	M	OR-Y		000	000		00
																								OR<25					
04388	N	N	N			11/18/2011	CLACKAMAS	1 16		INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT											07
NONE						Fri 5P	MOLALLA	MN 0	MAIN ST	SE		STOP SIGN	N	WET	REAR		UNKN	SE NW									000		00
							MOLALLA UA	12.76	MOLALLA AVE	06	2		N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	00	M	UNK		026	000		07
No	*45 8 51.09*					*-122 34 37.54*		016100100S00	1															N-RES					
																02	NONE 0	STOP											
																	PRVTE	SE NW									011		00
																	PSNGR CAR		01	DRVR	NONE	18	F	OR-Y		000	000		00
																								OR<25					
																			02	PSNG	INJC	20	M			000	000		00
00674	N	N	N	N	N	02/26/2013	CLACKAMAS	1 16		INTER	CROSS	N	N	CLD	O-OTHER	01	NONE 0	TURN-L										013	08,02
CITY						Tue 3P	MOLALLA	MN 0	MAIN ST	NW		FLASHBCN-R	N	DRY	TURN		PRVTE	SW NW									015		00
							MOLALLA UA	12.76	MOLALLA AVE	05	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	34	F	OR-Y		028,004	000		08,02
No	*45 8 51.09*					*-122 34 37.54*		016100100S00	1															OR<25					
																02	NONE 0	TURN-R											
																	PRVTE	NE NW									015	013	00
																	PSNGR CAR		01	DRVR	NONE	84	M	OR-Y		000	000		00
																								OR<25					
																03	NONE 0	PRKD-P											
																	PRVTE	SE NW									008		00
																	PSNGR CAR												

161 WOODBURN-ESTACADA

OR 211 & Molalla Ave
January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALC	DRUG	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	FC	CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN EVENT	CAUSE
03966	N	N	N			10/17/2013	CLACKAMAS	1	16		INTER	CROSS	N	N	FOG	S-1STOP	01	NONE 0	STRGHT									07
NO RPT						Thu 8A	MOLALLA	MN 0		MAIN ST	NW		STOP SIGN	N	DRY	REAR		PRVTE	NW SE									000	00
							MOLALLA UA	12.76		MOLALLA AVE	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	71	F	OR-Y		026	000	07
No	*45 8 51.09*		*-122 34 37.54*					016100100S00		1															OR<25				
																	02	NONE 0	STOP										
																		PRVTE	NW SE									012	00
																		PSNGR CAR		01	DRVR	NONE	64	F	OR-Y		000	000	00
																									OR<25				
00342	N	N	N			01/25/2012	CLACKAMAS	1	16		INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT									02
NONE						Wed 7P	MOLALLA	MN 0		MAIN ST	CN		FLASHBCN-R	N	WET	ANGL		PRVTE	W E									000	00
							MOLALLA UA	12.76		MOLALLA AVE	03	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	00	U	OR-Y		028	000	02
No	*45 8 51.09*		*-122 34 37.54*					016100100S00		1															OR<25				
																	02	NONE 0	STRGHT										
																		PRVTE	N S									015	00
																		PSNGR CAR		01	DRVR	INJC	48	F	OR-Y		000	000	00
																									OR<25				
04041	N	N	N			10/22/2013	CLACKAMAS	1	16		INTER	CROSS	N	N	CLR	S-1TURN	01	NONE 0	TURN-R									08
NO RPT						Tue 10A	MOLALLA	MN 0		MAIN ST	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	NW SW									000	00
							MOLALLA UA	12.76		MOLALLA AVE	03	0		N	DAY	PDO		TRUCK		01	DRVR	NONE	29	M	OR-Y		006,001	000	08
No	*45 8 51.09*		*-122 34 37.54*					016100100S00		1															OR<25				
																	02	NONE 0	TURN-R										
																		PRVTE	NW SW									000	00
																		PSNGR CAR		01	DRVR	NONE	31	M	OR-Y		000	000	00
																									OR<25				
																				02	PSNG	NO<5	01	F			000	000	00
02714	N	N	N	N	N	07/29/2011	CLACKAMAS	1	16		INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT									03
CITY						Fri 12P	MOLALLA	MN 0		MAIN ST	CN		FLASHBCN-R	N	DRY	TURN		PRVTE	NW SE									000	00
							MOLALLA UA	12.76		MOLALLA AVE	04	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	70	F	OTH-Y		021	000	03
No	*45 8 51.09*		*-122 34 37.54*					016100100S00		1															OR<25				
																	02	NONE 0	TURN-L										
																		PRVTE	SW NW									015	00
																		PSNGR CAR		01	DRVR	INJC	30	F	OR-Y		000	000	00
																									OR<25				
01579	N	N	N			05/07/2013	CLACKAMAS	1	16		INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT									04
NONE						Tue 11A	MOLALLA	MN 0		MAIN ST	CN		FLASHBCN-R	N	DRY	TURN		PRVTE	W E									015	00
							MOLALLA UA	12.76		METZLER AVE	04	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	M	UNK		003	000	04
No	*45 8 51.09*		*-122 34 37.54*					016100100S00		1															OR<25				
																	02	NONE 0	TURN-L										
																		PRVTE	S W									015	00
																		PSNGR CAR		01	DRVR	NONE	30	M	OR-Y		000	000	00
																									OR<25				

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

OR 211 & Mathias Ave
January 1, 2011 through December 31, 2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2014														
ANGLE	0	0	1	1	0	0	0	1	0	0	1	1	0	0
TURNING MOVEMENTS	0	1	0	1	0	1	0	0	1	1	0	1	0	0
2014 TOTAL	0	1	1	2	0	1	0	1	1	1	1	2	0	0
YEAR: 2012														
TURNING MOVEMENTS	0	2	0	2	0	4	0	1	1	2	0	2	0	0
2012 TOTAL	0	2	0	2	0	4	0	1	1	2	0	2	0	0
YEAR: 2011														
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	1	0	1	0	0
2011 TOTAL	0	0	1	1	0	0	0	0	1	1	0	1	0	0
FINAL TOTAL	0	3	2	5	0	5	0	2	3	4	1	5	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

161 WOODBURN-ESTACADA

OR 211 & Mathias Ave
January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALCHL	DRUGS	WORK	DATE / DAY / TIME	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	FC / CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
02310	N	N	N	N	06/16/2014	CLACKAMAS	1 16		INTER	3-LEG	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT										083	02
CITY					Mon 5P	MOLALLA	MN 0	MAIN ST	CN		STOP SIGN	N	WET	TURN		PRVTE	E W								000		00
						MOLALLA UA	13.39	MATHIAS RD	01	0		Y	DAY	INJ		PSNGR CAR		01	DRVR	INJC	21	M	OR-Y		000	000		00
No	*45 8 40.56*				*-122 33 53.11*		016100100S00	1									OR<25											
															02	NONE 0	TURN-L											
																PRVTE	N SE									018		00
																PSNGR CAR		01	DRVR	NONE	27	M	OTH-Y		028	000	083	02
																	OR<25											
03826	N	N	N		10/10/2011	CLACKAMAS	1 16		INTER	3-LEG	N	N	UNK	ANGL-OTH	01	NONE 0	TURN-L											02
NONE					Mon 11A	MOLALLA	MN 0	MAIN ST	CN		STOP SIGN	N	WET	TURN		PRVTE	SE SW								015		00
						MOLALLA UA	13.39	MATHIAS RD	02	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		028	000		02
No	*45 8 40.56*				*-122 33 53.11*		016100100S00	1									OR<25											
															02	NONE 1	STRGHT											
																PRVTE	SW NE									000		00
																PSNGR CAR		01	DRVR	NONE	46	M	OR-Y		000	000		00
																	OR<25											
05021	N	N	N		12/07/2014	CLACKAMAS	1 16		INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											02
NONE					Sun 5P	MOLALLA	MN 0	MAIN ST	CN		UNKNOWN	N	DRY	ANGL		PRVTE	W E								000		00
						MOLALLA UA	13.39	MATHIAS RD	03	0		Y	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	67	M	OR-Y		000	000		00
No	*45 8 40.56*				*-122 33 53.11*		016100100S00	1									OR<25											
															02	NONE 0	STRGHT											
																PRVTE	N S									018		00
																PSNGR CAR		01	DRVR	NONE	00	F	OR-Y		028	000		02
																	OR<25											
01186	N	N	N	N	03/30/2012	CLACKAMAS	1 16		INTER	3-LEG	N	N	RAIN	O-1 L-TURN	01	NONE 0	TURN-L											02,08
CITY					Fri 4P	MOLALLA	MN 0	MAIN ST	CN		NONE	N	WET	TURN		PRVTE	NE S								000		00
						MOLALLA UA	13.43	MATHIAS RD	03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	65	M	OR-Y		028,004	000		02,08
No	*45 8 40.57*				*-122 33 49.61*		016100100S00	1									OR<25											
															02	NONE 0	STRGHT											
																PRVTE	SW NE									000		00
																PSNGR CAR		01	DRVR	INJC	45	F	OR-Y		000	000		00
																	OR<25											

CITY OF MOLALLA, CLACKAMAS COUNTY

OR 211 & Mathias Ave

January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPED	ALC	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
02644	N	N	N			07/20/2012	17	MAIN ST	INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L											02
CITY						Fri 7P	0	MATHIAS RD	CN		STOP SIGN	N	DRY	TURN		PRVTE	SW NW											00
No						*45 8 37.91 -122 33 51.40*		1	01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	18	F	OR-Y OR<25		000	000		00
																		02	PSNG	INJC	19	M			000	000		00
															02	NONE 0	STRGHT											
																PRVTE	NE SW									015		00
																PSNGR CAR		01	DRVR	INJB	25	M	OR-Y OR<25		028	000		02

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

OR 211 & Shirley St
January 1, 2011 through December 31, 2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR:														
TOTAL														
FINAL TOTAL														

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

N Molalla Rd & Vick Rd
January 1, 2011 through December 31, 2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR:														
TOTAL														
FINAL TOTAL														

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

N Molalla Rd & Toliver Rd
January 1, 2011 through December 31, 2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2014														
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
2014 TOTAL	0	1	0	1	0	1	0	1	0	1	0	1	0	0
FINAL TOTAL	0	1	0	1	0	1	0	1	0	1	0	1	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

CITY OF MOLALLA, CLACKAMAS COUNTY

N Molalla Rd & Toliver Rd

January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
04308	N	N	N			10/27/2014	07	MOLALLA AVE	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE						Mon 2P	0	TOLIVER RD	NW		STOP SIGN	N	DRY	REAR		PRVTE	NW SE									000		00
No	*45*	*9*	*10.96*	*-122*	*34*	*33.31*	1		06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	62	M	OR-Y OR<25		026	000		29
															02	NONE 0	STOP											
																PRVTE	NW SE									011		00
																PSNGR CAR		01	DRVR	INJC	45	M	OR-Y OR<25		000	000		00

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

N Molalla Rd & Shirley St
January 1, 2011 through December 31, 2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2014														
TURNING MOVEMENTS	0	1	0	1	0	1	0	0	1	1	0	1	0	0
2014 TOTAL	0	1	0	1	0	1	0	0	1	1	0	1	0	0
FINAL TOTAL	0	1	0	1	0	1	0	0	1	1	0	1	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF MOLALLA, CLACKAMAS COUNTY

N Molalla Rd & Shirley St

January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
00641	N	N	N			02/12/2014	17	MOLALLA AVE	INTER	3-LEG	N	N	RAIN	ANGL-OTH	01	NONE 0	TURN-R											32,02
CITY						Wed 7A	0	SHIRLEY ST	CN		STOP SIGN	N	WET	TURN		PUBLC	SE NE									015		00
No	*45*	*9*	*8.38*			*-122 34 33.84*		1	02	0		N	DAY	INJ		OTH BUS		01	DRVR	NONE	63	M	OR-Y OR<25		052,028	000		32,02
															02	NONE 0	STRGHT											
																PRVTE	SW NE									000		00
																PSNGR CAR		01	DRVR	INJC	40	F	OR-Y OR<25		000	000		00

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

N Molalla Rd & Heintz St
January 1, 2011 through December 31, 2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2013														
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
2013 TOTAL	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR: 2012														
ANGLE	0	0	1	1	0	0	0	1	0	1	0	1	0	0
2012 TOTAL	0	0	1	1	0	0	0	1	0	1	0	1	0	0
FINAL TOTAL	0	0	2	2	0	0	0	2	0	2	0	2	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF MOLALLA, CLACKAMAS COUNTY

N Molalla Rd & Heintz St

January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
02036	N	N	N			06/04/2012	17	HEINTZ ST	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											02
NONE						Mon 2P	0	MOLALLA AVE	CN		STOP SIGN	N	DRY	ANGL		PRVTE	E W										015	00
No	*45*	*9*	*4.45*			*-122 34 34.58*		1	01	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	85	M	OR-Y OR<25		028	000		02
															02	NONE 0	STRGHT											
																PRVTE	N S									000		00
																PSNGR CAR		01	DRVR	NONE	35	F	OR-Y OR<25		000	000		00
01664	N	N	N			05/14/2013	17	HEINTZ ST	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L											02
NO RPT						Tue 12P	0	MOLALLA AVE	CN		STOP SIGN	N	DRY	TURN		PRVTE	SE SW									015		00
No	*45*	*9*	*4.45*			*-122 34 34.58*		1	01	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	58	M	OR-Y OR<25		028	000		02
															02	NONE 0	TURN-L											
																PRVTE	NE SE									000		00
																PSNGR CAR		01	DRVR	NONE	46	F	OR-Y OR<25		000	000		00

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

N Molalla Rd & 5th St
January 1, 2011 through December 31, 2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2013														
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
2013 TOTAL	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR: 2012														
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
2012 TOTAL	0	0	1	1	0	0	0	1	0	1	0	1	0	0
FINAL TOTAL	0	0	2	2	0	0	0	2	0	2	0	2	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF MOLALLA, CLACKAMAS COUNTY

N Molalla Rd & 5th St

January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
03372	N	N	N			08/23/2012	17	MOLALLA AVE	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	TURN-L											02
NONE						Thu 6P	0	5TH ST	CN		UNKNOWN	N	DRY	TURN		PRVTE	SE SW									000		00
No	*45*	*8*	*38.52*	*-122*	*34*	*43.55*	1	02	0			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	32	F	OR-Y OR<25		028	026		02
															02	NONE	TURN-L											
																UNKN	NE SE									000		00
																UNKNOWN		01	DRVR	NONE	00	U	UNK UNK		000	000		00
01907	N	N	N			06/01/2013	17	MOLALLA AVE	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02
NONE						Sat 1P	0	5TH ST	CN		NONE	N	DRY	TURN		PRVTE	SE NW									000		00
No	*45*	*8*	*38.52*	*-122*	*34*	*43.55*	1	04	0			N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	68	M	OR-Y OR<25		000	000		00
															02	NONE 0	TURN-L											
																PRVTE	NE SE									000		00
																PSNGR CAR		01	DRVR	NONE	68	M	OR-Y OR<25		028,004	000		02

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Mathias Rd & 5th St
January 1, 2011 through December 31, 2015

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2014														
TURNING MOVEMENTS	0	1	0	1	0	1	0	0	1	1	0	1	0	0
2014 TOTAL	0	1	0	1	0	1	0	0	1	1	0	1	0	0
FINAL TOTAL	0	1	0	1	0	1	0	0	1	1	0	1	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

URBAN NON-SYSTEM CRASH LISTING

CITY OF MOLALLA, CLACKAMAS COUNTY

Mathias Rd & 5th St

January 1, 2011 through December 31, 2015

SER# / INVEST / UNLOC?	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
04343	N	N	N			10/29/2014	17	MATHIAS RD	INTER	CROSS	N	N	CLD	ANGL-OTH	01	NONE 0	TURN-L											02
CITY						Wed 11A	0	E 5TH ST	CN		STOP SIGN	N	WET	TURN		PRVTE	NW NE										015	00
No	*45*	*8*	*27.34*	*-122*	*33*	*56.32*	1	1	03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	17	F	NONE OR<25		028	000		02
															02	NONE 0	STRGHT											
																PRVTE	NE SW										000	00
																PSNGR CAR		01	DRVR	INJC	52	F	OR-Y OR<25		000	000		00

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
000	NONE	NO ACTION OR NON-WARRANTED
001	SKIDDED	SKIDDED
002	ON/OFF V	GETTING ON OR OFF STOPPED OR PARKED VEHICLE
003	LOAD OVR	OVERHANGING LOAD STRUCK ANOTHER VEHICLE, ETC.
006	SLOW DN	SLOWED DOWN
007	AVOIDING	AVOIDING MANEUVER
008	PAR PARK	PARALLEL PARKING
009	ANG PARK	ANGLE PARKING
010	INTERFERE	PASSENGER INTERFERING WITH DRIVER
011	STOPPED	STOPPED IN TRAFFIC NOT WAITING TO MAKE A LEFT TURN
012	STP/L TRN	STOPPED BECAUSE OF LEFT TURN SIGNAL OR WAITING, ETC.
013	STP TURN	STOPPED WHILE EXECUTING A TURN
014	EMR V PKD	EMERGENCY VEHICLE LEGALLY PARKED IN THE ROADWAY
015	GO A/STOP	PROCEED AFTER STOPPING FOR A STOP SIGN/FLASHING RED.
016	TRN A/RED	TURNED ON RED AFTER STOPPING
017	LOSTCTRL	LOST CONTROL OF VEHICLE
018	EXIT DWY	ENTERING STREET OR HIGHWAY FROM ALLEY OR DRIVEWAY
019	ENTR DWY	ENTERING ALLEY OR DRIVEWAY FROM STREET OR HIGHWAY
020	STR ENTR	BEFORE ENTERING ROADWAY, STRUCK PEDESTRIAN, ETC. ON SIDEWALK OR SHOULDER
021	NO DRVR	CAR RAN AWAY - NO DRIVER
022	PREV COL	STRUCK, OR WAS STRUCK BY, VEHICLE OR PEDESTRIAN IN PRIOR COLLISION BEFORE ACC. STABILIZED
023	STALLED	VEHICLE STALLED OR DISABLED
024	DRVR DEAD	DEAD BY UNASSOCIATED CAUSE
025	FATIGUE	FATIGUED, SLEEPY, ASLEEP
026	SUN	DRIVER BLINDED BY SUN
027	HDLGHTS	DRIVER BLINDED BY HEADLIGHTS
028	ILLNESS	PHYSICALLY ILL
029	THRU MED	VEHICLE CROSSED, PLUNGED OVER, OR THROUGH MEDIAN BARRIER
030	PURSUIT	PURSUING OR ATTEMPTING TO STOP A VEHICLE
031	PASSING	PASSING SITUATION
032	PRKOFFRD	VEHICLE PARKED BEYOND CURB OR SHOULDER
033	CROS MED	VEHICLE CROSSED EARTH OR GRASS MEDIAN
034	X N/SGNL	CROSSING AT INTERSECTION - NO TRAFFIC SIGNAL PRESENT
035	X W/ SGNL	CROSSING AT INTERSECTION - TRAFFIC SIGNAL PRESENT
036	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
037	BTWN INT	CROSSING BETWEEN INTERSECTIONS
038	DISTRACT	DRIVER'S ATTENTION DISTRACTED
039	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
040	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
041	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
042	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
043	PLAYINRD	PLAYING IN STREET OR ROAD
044	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
045	WORK ON	WORKING IN ROADWAY OR ALONG SHOULDER
046	W/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. WITH TRAFFIC
047	A/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. FACING TRAFFIC
050	LAY ON RD	STANDING OR LYING IN ROADWAY
051	ENT OFFRD	ENTERING / STARTING IN TRAFFIC LANE FROM OFF ROAD
052	MERGING	MERGING
055	SPRAY	BLINDED BY WATER SPRAY

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
088	OTHER	OTHER ACTION
099	UNK	UNKNOWN ACTION

CAUSE CODE TRANSLATION LIST

CAUSE CODE	SHORT DESCRIPTION	LONG DESCRIPTION
00	NO CODE	NO CAUSE ASSOCIATED AT THIS LEVEL
01	TOO-FAST	TOO FAST FOR CONDITIONS (NOT EXCEED POSTED SPEED
02	NO-YIELD	DID NOT YIELD RIGHT-OF-WAY
03	PAS-STOP	PASSED STOP SIGN OR RED FLASHER
04	DIS SIG	DISREGARDED TRAFFIC SIGNAL
05	LEFT-CTR	DROVE LEFT OF CENTER ON TWO-WAY ROAD; STRADDLING
06	IMP-OVER	IMPROPER OVERTAKING
07	TOO-CLOS	FOLLOWED TOO CLOSELY
08	IMP-TURN	MADE IMPROPER TURN
09	DRINKING	ALCOHOL OR DRUG INVOLVED
10	OTHR-IMP	OTHER IMPROPER DRIVING
11	MECH-DEF	MECHANICAL DEFECT
12	OTHER	OTHER (NOT IMPROPER DRIVING)
13	IMP LN C	IMPROPER CHANGE OF TRAFFIC LANES
14	DIS TCD	DISREGARDED OTHER TRAFFIC CONTROL DEVICE
15	WRNG WAY	WRONG WAY ON ONE-WAY ROAD; WRONG SIDE DIVIDED RO
16	FATIGUE	DRIVER DROWSY/FATIGUED/SLEEPY
17	ILLNESS	PHYSICAL ILLNESS
18	IN RDWY	NON-MOTORIST ILLEGALLY IN ROADWAY
19	NT VISBL	NON-MOTORIST NOT VISIBLE; NON-REFLECTIVE CLOTHIN
20	IMP PKNG	VEHICLE IMPROPERLY PARKED
21	DEF STER	DEFECTIVE STEERING MECHANISM
22	DEF BRKE	INADEQUATE OR NO BRAKES
24	LOADSHFT	VEHICLE LOST LOAD OR LOAD SHIFTED
25	TIREFAIL	TIRE FAILURE
26	PHANTOM	PHANTOM / NON-CONTACT VEHICLE
27	INATTENT	INATTENTION
28	NM INATT	NON-MOTORIST INATTENTION
29	F AVOID	FAILED TO AVOID VEHICLE AHEAD
30	SPEED	DRIVING IN EXCESS OF POSTED SPEED
31	RACING	SPEED RACING (PER PAR)
32	CARELESS	CARELESS DRIVING (PER PAR)
33	RECKLESS	RECKLESS DRIVING (PER PAR)
34	AGGRESV	AGGRESSIVE DRIVING (PER PAR)
35	RD RAGE	ROAD RAGE (PER PAR)
40	VIEW OBS	VIEW OBSCURED
50	USED MDN	IMPROPER USE OF MEDIAN OR SHOULDER
51	FAIL LN	FAILED TO MAINTAIN LANE
52	OFF RD	RAN OFF ROAD

COLLISION TYPE CODE TRANSLATION LIST

COLL CODE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OTH	MISCELLANEOUS
-	BACK	BACKING
0	PED	PEDESTRIAN
1	ANGL	ANGLE
2	HEAD	HEAD-ON
3	REAR	REAR-END
4	SS-M	SIDESWIPE - MEETING
5	SS-O	SIDESWIPE - OVERTAKING
6	TURN	TURNING MOVEMENT
7	PARK	PARKING MANEUVER
8	NCOL	NON-COLLISION
9	FIX	FIXED OBJECT OR OTHER OBJECT

CRASH TYPE CODE TRANSLATION LIST

CRASH TYPE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OVERTURN	OVERTURNED
0	NON-COLL	OTHER NON-COLLISION
1	OTH RDWY	MOTOR VEHICLE ON OTHER ROADWAY
2	PRKD MV	PARKED MOTOR VEHICLE
3	PED	PEDESTRIAN
4	TRAIN	RAILWAY TRAIN
6	BIKE	PEDALCYCLIST
7	ANIMAL	ANIMAL
8	FIX OBJ	FIXED OBJECT
9	OTH OBJ	OTHER OBJECT
A	ANGL-STP	ENTERING AT ANGLE - ONE VEHICLE STOPPED
B	ANGL-OTH	ENTERING AT ANGLE - ALL OTHERS
C	S-STRGHT	FROM SAME DIRECTION - BOTH GOING STRAIGHT
D	S-1TURN	FROM SAME DIRECTION - ONE TURN, ONE STRAIGHT
E	S-1STOP	FROM SAME DIRECTION - ONE STOPPED
F	S-OTHER	FROM SAME DIRECTION-ALL OTHERS, INCLUDING PARKING
G	O-STRGHT	FROM OPPOSITE DIRECTION - BOTH GOING STRAIGHT
H	O-1 L-TURN	FROM OPPOSITE DIRECTION-ONE LEFT TURN,ONE STRAIGHT
I	O-1STOP	FROM OPPOSITE DIRECTION - ONE STOPPED
J	O-OTHER	FROM OPPOSITE DIRECTION-ALL OTHERS INCL. PARKING

DRIVER LICENSE CODE TRANSLATION LIST

LIC CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NOT LICENSED (HAD NEVER BEEN LICENSED)
1	OR-Y	VALID OREGON LICENSE
2	OTH-Y	VALID LICENSE, OTHER STATE OR COUNTRY
3	SUSP	SUSPENDED/REVOKED

DRIVER RESIDENCE CODE TRANSLATION LIST

RES CODE	SHORT DESC	LONG DESCRIPTION
1	OR<25	OREGON RESIDENT WITHIN 25 MILE OF HOME
2	OR>25	OREGON RESIDENT 25 OR MORE MILES FROM HOME
3	OR-?	OREGON RESIDENT - UNKNOWN DISTANCE FROM HOME
4	N-RES	NON-RESIDENT
9	UNK	UNKNOWN IF OREGON RESIDENT

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
000	NONE	NO ERROR
001	WIDE TRN	WIDE TURN
002	CUT CORN	CUT CORNER ON TURN
003	FAIL TRN	FAILED TO OBEY MANDATORY TRAFFIC TURN SIGNAL, SIGN OR LANE MARKINGS
004	L IN TRF	LEFT TURN IN FRONT OF ONCOMING TRAFFIC
005	L PROHIB	LEFT TURN WHERE PROHIBITED
006	FRM WRNG	TURNED FROM WRONG LANE
007	TO WRONG	TURNED INTO WRONG LANE
008	ILLEG U	U-TURNED ILLEGALLY
009	IMP STOP	IMPROPERLY STOPPED IN TRAFFIC LANE
010	IMP SIG	IMPROPER SIGNAL OR FAILURE TO SIGNAL
011	IMP BACK	BACKING IMPROPERLY (NOT PARKING)
012	IMP PARK	IMPROPERLY PARKED
013	UNPARK	IMPROPER START LEAVING PARKED POSITION
014	IMP STRT	IMPROPER START FROM STOPPED POSITION
015	IMP LGHT	IMPROPER OR NO LIGHTS (VEHICLE IN TRAFFIC)
016	INATTENT	INATTENTION (FAILURE TO DIM LIGHTS PRIOR TO 4/1/97)
017	UNSF VEH	DRIVING UNSAFE VEHICLE (NO OTHER ERROR APPARENT)
018	OTH PARK	ENTERING/EXITING PARKED POSITION W/ INSUFFICIENT CLEARANCE; OTHER IMPROPER PARKING MANEUVER
019	DIS DRIV	DISREGARDED OTHER DRIVER'S SIGNAL
020	DIS SGNL	DISREGARDED TRAFFIC SIGNAL
021	RAN STOP	DISREGARDED STOP SIGN OR FLASHING RED
022	DIS SIGN	DISREGARDED WARNING SIGN, FLARES OR FLASHING AMBER
023	DIS OFCR	DISREGARDED POLICE OFFICER OR FLAGMAN
024	DIS EMER	DISREGARDED SIREN OR WARNING OF EMERGENCY VEHICLE
025	DIS RR	DISREGARDED RR SIGNAL, RR SIGN, OR RR FLAGMAN
026	REAR-END	FAILED TO AVOID STOPPED OR PARKED VEHICLE AHEAD OTHER THAN SCHOOL BUS
027	BIKE ROW	DID NOT HAVE RIGHT-OF-WAY OVER PEDALCYCLIST
028	NO ROW	DID NOT HAVE RIGHT-OF-WAY
029	PED ROW	FAILED TO YIELD RIGHT-OF-WAY TO PEDESTRIAN
030	PAS CURV	PASSING ON A CURVE
031	PAS WRNG	PASSING ON THE WRONG SIDE
032	PAS TANG	PASSING ON STRAIGHT ROAD UNDER UNSAFE CONDITIONS
033	PAS X-WK	PASSED VEHICLE STOPPED AT CROSSWALK FOR PEDESTRIAN
034	PAS INTR	PASSING AT INTERSECTION
035	PAS HILL	PASSING ON CREST OF HILL
036	N/PAS ZN	PASSING IN "NO PASSING" ZONE
037	PAS TRAF	PASSING IN FRONT OF ONCOMING TRAFFIC
038	CUT-IN	CUTTING IN (TWO LANES - TWO WAY ONLY)
039	WRNGSIDE	DRIVING ON WRONG SIDE OF THE ROAD (2-WAY UNDIVIDED ROADWAYS)
040	THRU MED	DRIVING THROUGH SAFETY ZONE OR OVER ISLAND
041	F/ST BUS	FAILED TO STOP FOR SCHOOL BUS

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
042	F/SLO MV	FAILED TO DECREASE SPEED FOR SLOWER MOVING VEHICLE
043	TOO CLOSE	FOLLOWING TOO CLOSELY (MUST BE ON OFFICER'S REPORT)
044	STRDL LN	STRADDLING OR DRIVING ON WRONG LANES
045	IMP CHG	IMPROPER CHANGE OF TRAFFIC LANES
046	WRNG WAY	WRONG WAY ON ONE-WAY ROADWAY; WRONG SIDE DIVIDED ROAD
047	BASCRULE	DRIVING TOO FAST FOR CONDITIONS (NOT EXCEEDING POSTED SPEED)
048	OPN DOOR	OPENED DOOR INTO ADJACENT TRAFFIC LANE
049	IMPEDING	IMPEDING TRAFFIC
050	SPEED	DRIVING IN EXCESS OF POSTED SPEED
051	RECKLESS	RECKLESS DRIVING (PER PAR)
052	CARELESS	CARELESS DRIVING (PER PAR)
053	RACING	SPEED RACING (PER PAR)
054	X N/SGNL	CROSSING AT INTERSECTION, NO TRAFFIC SIGNAL PRESENT
055	X W/SGNL	CROSSING AT INTERSECTION, TRAFFIC SIGNAL PRESENT
056	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
057	BTWN INT	CROSSING BETWEEN INTERSECTIONS
059	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
060	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
061	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
062	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
063	PLAYINRD	PLAYING IN STREET OR ROAD
064	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
065	WORK IN RD	WORKING IN ROADWAY OR ALONG SHOULDER
070	LAY ON RD	STANDING OR LYING IN ROADWAY
071	NM IMP USE	IMPROPER USE OF TRAFFIC LANE BY NON-MOTORIST
073	ELUDING	ELUDING / ATTEMPT TO ELUDE
079	F NEG CURV	FAILED TO NEGOTIATE A CURVE
080	FAIL LN	FAILED TO MAINTAIN LANE
081	OFF RD	RAN OFF ROAD
082	NO CLEAR	DRIVER MISJUDGED CLEARANCE
083	OVRSTEER	OVER-CORRECTING
084	NOT USED	CODE NOT IN USE
085	OVRLOAD	OVERLOADING OR IMPROPER LOADING OF VEHICLE WITH CARGO OR PASSENGERS
097	UNA DIS TC	UNABLE TO DETERMINE WHICH DRIVER DISREGARDED TRAFFIC CONTROL DEVICE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
001	FEL/JUMP	OCCUPANT FELL, JUMPED OR WAS EJECTED FROM MOVING VEHICLE
002	INTERFER	PASSENGER INTERFERED WITH DRIVER
003	BUG INTF	ANIMAL OR INSECT IN VEHICLE INTERFERED WITH DRIVER
004	INDRCT PED	PEDESTRIAN INDIRECTLY INVOLVED (NOT STRUCK)
005	SUB-PED	"SUB-PED": PEDESTRIAN INJURED SUBSEQUENT TO COLLISION, ETC.
006	INDRCT BIK	PEDALCYCLIST INDIRECTLY INVOLVED (NOT STRUCK)
007	HITCHIKR	HITCHHIKER (SOLICITING A RIDE)
008	PSNGR TOW	PASSENGER OR NON-MOTORIST BEING TOWED OR PUSHED ON CONVEYANCE
009	ON/OFF V	GETTING ON/OFF STOPPED/PARKED VEHICLE (OCCUPANTS ONLY; MUST HAVE PHYSICAL CONTACT W/ VEHIC
010	SUB OTRN	OVERTURNED AFTER FIRST HARMFUL EVENT
011	MV PUSHD	VEHICLE BEING PUSHED
012	MV TOWED	VEHICLE TOWED OR HAD BEEN TOWING ANOTHER VEHICLE
013	FORCED	VEHICLE FORCED BY IMPACT INTO ANOTHER VEHICLE, PEDALCYCLIST OR PEDESTRIAN
014	SET MOTN	VEHICLE SET IN MOTION BY NON-DRIVER (CHILD RELEASED BRAKES, ETC.)
015	RR ROW	AT OR ON RAILROAD RIGHT-OF-WAY (NOT LIGHT RAIL)
016	LT RL ROW	AT OR ON LIGHT-RAIL RIGHT-OF-WAY
017	RR HIT V	TRAIN STRUCK VEHICLE
018	V HIT RR	VEHICLE STRUCK TRAIN
019	HIT RR CAR	VEHICLE STRUCK RAILROAD CAR ON ROADWAY
020	JACKNIFE	JACKKNIFE; TRAILER OR TOWED VEHICLE STRUCK TOWING VEHICLE
021	TRL OTRN	TRAILER OR TOWED VEHICLE OVERTURNED
022	CN BROKE	TRAILER CONNECTION BROKE
023	DETACH TRL	DETACHED TRAILING OBJECT STRUCK OTHER VEHICLE, NON-MOTORIST, OR OBJECT
024	V DOOR OPN	VEHICLE DOOR OPENED INTO ADJACENT TRAFFIC LANE
025	WHEELOFF	WHEEL CAME OFF
026	HOOD UP	HOOD FLEW UP
028	LOAD SHIFT	LOST LOAD, LOAD MOVED OR SHIFTED
029	TIREFAIL	TIRE FAILURE
030	PET	PET: CAT, DOG AND SIMILAR
031	LVSTOCK	STOCK: COW, CALF, BULL, STEER, SHEEP, ETC.
032	HORSE	HORSE, MULE, OR DONKEY
033	HRSE&RID	HORSE AND RIDER
034	GAME	WILD ANIMAL, GAME (INCLUDES BIRDS; NOT DEER OR ELK)
035	DEER ELK	DEER OR ELK, WAPITI
036	ANML VEH	ANIMAL-DRAWN VEHICLE
037	CULVERT	CULVERT, OPEN LOW OR HIGH MANHOLE
038	ATENUATN	IMPACT ATTENUATOR
039	PK METER	PARKING METER
040	CURB	CURB (ALSO NARROW SIDEWALKS ON BRIDGES)
041	JIGGLE	JIGGLE BAR OR TRAFFIC SNAKE FOR CHANNELIZATION
042	GDRL END	LEADING EDGE OF GUARDRAIL
043	GARDRAIL	GUARD RAIL (NOT METAL MEDIAN BARRIER)
044	BARRIER	MEDIAN BARRIER (RAISED OR METAL)
045	WALL	RETAINING WALL OR TUNNEL WALL
046	BR RAIL	BRIDGE RAILING OR PARAPET (ON BRIDGE OR APPROACH)
047	BR ABUTMNT	BRIDGE ABUTMENT (INCLUDED "APPROACH END" THRU 2013)
048	BR COLMN	BRIDGE PILLAR OR COLUMN
049	BR GIRDR	BRIDGE GIRDER (HORIZONTAL BRIDGE STRUCTURE OVERHEAD)
050	ISLAND	TRAFFIC RAISED ISLAND
051	GORE	GORE
052	POLE UNK	POLE - TYPE UNKNOWN
053	POLE UTL	POLE - POWER OR TELEPHONE
054	ST LIGHT	POLE - STREET LIGHT ONLY
055	TRF SGNL	POLE - TRAFFIC SIGNAL AND PED SIGNAL ONLY
056	SGN BRDG	POLE - SIGN BRIDGE
057	STOPSIGN	STOP OR YIELD SIGN
058	OTH SIGN	OTHER SIGN, INCLUDING STREET SIGNS
059	HYDRANT	HYDRANT

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
060	MARKER	DELINEATOR OR MARKER (REFLECTOR POSTS)
061	MAILBOX	MAILBOX
062	TREE	TREE, STUMP OR SHRUBS
063	VEG OHED	TREE BRANCH OR OTHER VEGETATION OVERHEAD, ETC.
064	WIRE/CBL	WIRE OR CABLE ACROSS OR OVER THE ROAD
065	TEMP SGN	TEMPORARY SIGN OR BARRICADE IN ROAD, ETC.
066	PERM SGN	PERMANENT SIGN OR BARRICADE IN/OFF ROAD
067	SLIDE	SLIDES, FALLEN OR FALLING ROCKS
068	FRGN OBJ	FOREIGN OBSTRUCTION/DEBRIS IN ROAD (NOT GRAVEL)
069	EQP WORK	EQUIPMENT WORKING IN/OFF ROAD
070	OTH EQP	OTHER EQUIPMENT IN OR OFF ROAD (INCLUDES PARKED TRAILER, BOAT)
071	MAIN EQP	WRECKER, STREET SWEEPER, SNOW PLOW OR SANDING EQUIPMENT
072	OTHER WALL	ROCK, BRICK OR OTHER SOLID WALL
073	IRRGL PVMT	OTHER BUMP (NOT SPEED BUMP), POTHOLE OR PAVEMENT IRREGULARITY (PER PAR)
074	OVERHD OBJ	OTHER OVERHEAD OBJECT (HIGHWAY SIGN, SIGNAL HEAD, ETC.); NOT BRIDGE
075	CAVE IN	BRIDGE OR ROAD CAVE IN
076	HI WATER	HIGH WATER
077	SNO BANK	SNOW BANK
078	LO-HI EDGE	LOW OR HIGH SHOULDER AT PAVEMENT EDGE
079	DITCH	CUT SLOPE OR DITCH EMBANKMENT
080	OBJ FRM MV	STRUCK BY ROCK OR OTHER OBJECT SET IN MOTION BY OTHER VEHICLE (INCL. LOST LOADS)
081	FLY-OBJ	STRUCK BY ROCK OR OTHER MOVING OR FLYING OBJECT (NOT SET IN MOTION BY VEHICLE)
082	VEH HID	VEHICLE OBSCURED VIEW
083	VEG HID	VEGETATION OBSCURED VIEW
084	BLDG HID	VIEW OBSCURED BY FENCE, SIGN, PHONE BOOTH, ETC.
085	WIND GUST	WIND GUST
086	IMMERSED	VEHICLE IMMERSED IN BODY OF WATER
087	FIRE/EXP	FIRE OR EXPLOSION
088	FENC/BLD	FENCE OR BUILDING, ETC.
089	OTHR CRASH	CRASH RELATED TO ANOTHER SEPARATE CRASH
090	TO 1 SIDE	TWO-WAY TRAFFIC ON DIVIDED ROADWAY ALL ROUTED TO ONE SIDE
091	BUILDING	BUILDING OR OTHER STRUCTURE
092	PHANTOM	OTHER (PHANTOM) NON-CONTACT VEHICLE
093	CELL PHONE	CELL PHONE (ON PAR OR DRIVER IN USE)
094	VIOL GDL	TEENAGE DRIVER IN VIOLATION OF GRADUATED LICENSE PGM
095	GUY WIRE	GUY WIRE
096	BERM	BERM (EARTHEN OR GRAVEL MOUND)
097	GRAVEL	GRAVEL IN ROADWAY
098	ABR EDGE	ABRUPT EDGE
099	CELL WTNSD	CELL PHONE USE WITNESSED BY OTHER PARTICIPANT
100	UNK FIXD	FIXED OBJECT, UNKNOWN TYPE.
101	OTHER OBJ	NON-FIXED OBJECT, OTHER OR UNKNOWN TYPE
102	TEXTING	TEXTING
103	WZ WORKER	WORK ZONE WORKER
104	ON VEHICLE	PASSENGER RIDING ON VEHICLE EXTERIOR
105	PEDAL PSGR	PASSENGER RIDING ON PEDALCYCLE
106	MAN WHLCHR	PEDESTRIAN IN NON-MOTORIZED WHEELCHAIR
107	MTR WHLCHR	PEDESTRIAN IN MOTORIZED WHEELCHAIR
108	OFFICER	LAW ENFORCEMENT / POLICE OFFICER
109	SUB-BIKE	"SUB-BIKE": PEDALCYCLIST INJURED SUBSEQUENT TO COLLISION, ETC.
110	N-MTR	NON-MOTORIST STRUCK VEHICLE
111	S CAR VS V	STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM) STRUCK VEHICLE
112	V VS S CAR	VEHICLE STRUCK STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM)
113	S CAR ROW	AT OR ON STREET CAR OR TROLLEY RIGHT-OF-WAY
114	RR EQUIP	VEHICLE STRUCK RAILROAD EQUIPMENT (NOT TRAIN) ON TRACKS
115	DSTRCT GPS	DISTRACTED BY NAVIGATION SYSTEM OR GPS DEVICE
116	DSTRCT OTH	DISTRACTED BY OTHER ELECTRONIC DEVICE
117	RR GATE	RAIL CROSSING DROP-ARM GATE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
118	EXPNSN JNT	EXPANSION JOINT
119	JERSEY BAR	JERSEY BARRIER
120	WIRE BAR	WIRE OR CABLE MEDIAN BARRIER
121	FENCE	FENCE
123	OBJ IN VEH	LOOSE OBJECT IN VEHICLE STRUCK OCCUPANT
124	SLIPPERY	SLIDING OR SWERVING DUE TO WET, ICY, SLIPPERY OR LOOSE SURFACE (NOT GRAVEL)
125	SHLDR	SHOULDER GAVE WAY
126	BOULDER	ROCK(S), BOULDER (NOT GRAVEL; NOT ROCK SLIDE)
127	LAND SLIDE	ROCK SLIDE OR LAND SLIDE
128	CURVE INV	CURVE PRESENT AT CRASH LOCATION
129	HILL INV	VERTICAL GRADE / HILL PRESENT AT CRASH LOCATION
130	CURVE HID	VIEW OBSCURED BY CURVE
131	HILL HID	VIEW OBSCURED BY VERTICAL GRADE / HILL
132	WINDOW HID	VIEW OBSCURED BY VEHICLE WINDOW CONDITIONS
133	SPRAY HID	VIEW OBSCURED BY WATER SPRAY

FUNCTIONAL CLASSIFICATION TRANSLATION LIST

FUNC CLASS	DESCRIPTION
01	RURAL PRINCIPAL ARTERIAL - INTERSTATE
02	RURAL PRINCIPAL ARTERIAL - OTHER
06	RURAL MINOR ARTERIAL
07	RURAL MAJOR COLLECTOR
08	RURAL MINOR COLLECTOR
09	RURAL LOCAL
11	URBAN PRINCIPAL ARTERIAL - INTERSTATE
12	URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXP
14	URBAN PRINCIPAL ARTERIAL - OTHER
16	URBAN MINOR ARTERIAL
17	URBAN MAJOR COLLECTOR
18	URBAN MINOR COLLECTOR
19	URBAN LOCAL
78	UNKNOWN RURAL SYSTEM
79	UNKNOWN RURAL NON-SYSTEM
98	UNKNOWN URBAN SYSTEM
99	UNKNOWN URBAN NON-SYSTEM

HIGHWAY COMPONENT TRANSLATION LIST

CODE	DESCRIPTION
0	MAINLINE STATE HIGHWAY
1	COUPLET
3	FRONTAGE ROAD
6	CONNECTION
8	HIGHWAY - OTHER

INJURY SEVERITY CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
1	KILL	FATAL INJURY
2	INJA	INCAPACITATING INJURY - BLEEDING, BROKEN BONES
3	INJB	NON-INCAPACITATING INJURY
4	INJC	POSSIBLE INJURY - COMPLAINT OF PAIN
5	PRI	DIED PRIOR TO CRASH
7	NO<5	NO INJURY - 0 TO 4 YEARS OF AGE

LIGHT CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	DAY	DAYLIGHT
2	DLIT	DARKNESS - WITH STREET LIGHTS
3	DARK	DARKNESS - NO STREET LIGHTS
4	DAWN	DAWN (TWILIGHT)
5	DUSK	DUSK (TWILIGHT)

MEDIAN TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NO MEDIAN
1	RSDMD	SOLID MEDIAN BARRIER
2	DIVMD	EARTH, GRASS OR PAVED MEDIAN

MILEAGE TYPE CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
0	REGULAR MILEAGE
T	TEMPORARY
Y	SPUR
Z	OVERLAPPING

MOVEMENT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	STRGHT	STRAIGHT AHEAD
2	TURN-R	TURNING RIGHT
3	TURN-L	TURNING LEFT
4	U-TURN	MAKING A U-TURN
5	BACK	BACKING
6	STOP	STOPPED IN TRAFFIC
7	PRKD-P	PARKED - PROPERLY
8	PRKD-I	PARKED - IMPROPERLY

PEDESTRIAN LOCATION CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
00	AT INTERSECTION - NOT IN ROADWAY
01	AT INTERSECTION - INSIDE CROSSWALK
02	AT INTERSECTION - IN ROADWAY, OUTSIDE CROSSWALK
03	AT INTERSECTION - IN ROADWAY, XWALK AVAIL UNKNWN
04	NOT AT INTERSECTION - IN ROADWAY
05	NOT AT INTERSECTION - ON SHOULDER
06	NOT AT INTERSECTION - ON MEDIAN
07	NOT AT INTERSECTION - WITHIN TRAFFIC RIGHT-OF-WAY
08	NOT AT INTERSECTION - IN BIKE PATH OR PARKING LANE
09	NOT-AT INTERSECTION - ON SIDEWALK
10	OUTSIDE TRAFFICWAY BOUNDARIES
13	AT INTERSECTION - IN BIKE LANE
14	NOT AT INTERSECTION - IN BIKE LANE
15	NOT AT INTERSECTION - INSIDE MID-BLOCK CROSSWALK
16	NOT AT INTERSECTION - IN PARKING LANE

ROAD CHARACTER CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	INTER	INTERSECTION
2	ALLEY	DRIVEWAY OR ALLEY
3	STRGHT	STRAIGHT ROADWAY
4	TRANS	TRANSITION
5	CURVE	CURVE (HORIZONTAL CURVE)
6	OPENAC	OPEN ACCESS OR TURNOUT
7	GRADE	GRADE (VERTICAL CURVE)
8	BRIDGE	BRIDGE STRUCTURE
9	TUNNEL	TUNNEL

PARTICIPANT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	OCC	UNKNOWN OCCUPANT TYPE
1	DRVR	DRIVER
2	PSNG	PASSENGER
3	PED	PEDESTRIAN
4	CONV	PEDESTRIAN USING A PEDESTRIAN CONVEYA
5	PTOW	PEDESTRIAN TOWING OR TRAILERING AN OB
6	BIKE	PEDALCYCLIST
7	BTOW	PEDALCYCLIST TOWING OR TRAILERING AN
8	PRKD	OCCUPANT OF A PARKED MOTOR VEHICLE
9	UNK	UNKNOWN TYPE OF NON-MOTORIST

TRAFFIC CONTROL DEVICE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
000	NONE	NO CONTROL
001	TRF SIGNAL	TRAFFIC SIGNALS
002	FLASHBCN-R	FLASHING BEACON - RED (STOP)
003	FLASHBCN-A	FLASHING BEACON - AMBER (SLOW)
004	STOP SIGN	STOP SIGN
005	SLOW SIGN	SLOW SIGN
006	REG-SIGN	REGULATORY SIGN
007	YIELD	YIELD SIGN
008	WARNING	WARNING SIGN
009	CURVE	CURVE SIGN
010	SCHL X-ING	SCHOOL CROSSING SIGN OR SPECIAL SIGNAL
011	OFCR/FLAG	POLICE OFFICER, FLAGMAN - SCHOOL PATROL
012	BRDG-GATE	BRIDGE GATE - BARRIER
013	TEMP-BARR	TEMPORARY BARRIER
014	NO-PASS-ZN	NO PASSING ZONE
015	ONE-WAY	ONE-WAY STREET
016	CHANNEL	CHANNELIZATION
017	MEDIAN BAR	MEDIAN BARRIER
018	PILOT CAR	PILOT CAR
019	SP PED SIG	SPECIAL PEDESTRIAN SIGNAL
020	X-BUCK	CROSSBUCK
021	THR-GN-SIG	THROUGH GREEN ARROW OR SIGNAL
022	L-GRN-SIG	LEFT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
023	R-GRN-SIG	RIGHT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
024	WIGWAG	WIGWAG OR FLASHING LIGHTS W/O DROP-ARM GATE
025	X-BUCK WRN	CROSSBUCK AND ADVANCE WARNING
026	WW W/ GATE	FLASHING LIGHTS WITH DROP-ARM GATES
027	OVRHD SGNL	SUPPLEMENTAL OVERHEAD SIGNAL (RR XING ONLY)
028	SP RR STOP	SPECIAL RR STOP SIGN
029	ILUM GRD X	ILLUMINATED GRADE CROSSING
037	RAMP METER	METERED RAMPS
038	RUMBLE STR	RUMBLE STRIP
090	L-TURN REF	LEFT TURN REFUGE (WHEN REFUGE IS INVOLVED)
091	R-TURN ALL	RIGHT TURN AT ALL TIMES SIGN, ETC.
092	EMR SGN/FL	EMERGENCY SIGNS OR FLARES
093	ACCEL LANE	ACCELERATION OR DECELERATION LANES
094	R-TURN PRO	RIGHT TURN PROHIBITED ON RED AFTER STOPPING

095	BUS STPSGN	BUS STOP SIGN AND RED LIGHTS
099	UNKNOWN	UNKNOWN OR NOT DEFINITE

VEHICLE TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
00	PDO	NOT COLLECTED FOR PDO CRASHES
01	PSNGR CAR	PASSENGER CAR, PICKUP, LIGHT DELIVERY, ETC.
02	BOBTAIL	TRUCK TRACTOR WITH NO TRAILERS (BOBTAIL)
03	FARM TRCTR	FARM TRACTOR OR SELF-PROPELLED FARM EQUIPMENT
04	SEMI TOW	TRUCK TRACTOR WITH TRAILER/MOBILE HOME IN TOW
05	TRUCK	TRUCK WITH NON-DETACHABLE BED, PANEL, ETC.
06	MOPED	MOPED, MINIBIKE, SEATED MOTOR SCOOTER, MOTOR BIKE
07	SCHL BUS	SCHOOL BUS (INCLUDES VAN)
08	OTH BUS	OTHER BUS
09	MTRCYCLE	MOTORCYCLE, DIRT BIKE
10	OTHER	OTHER: FORKLIFT, BACKHOE, ETC.
11	MOTRHOME	MOTORHOME
12	TROLLEY	MOTORIZED STREET CAR/TROLLEY (NO RAILS/WIRES)
13	ATV	ATV
14	MTRSCTR	MOTORIZED SCOOTER (STANDING)
15	SNOWMOBILE	SNOWMOBILE
99	UNKNOWN	UNKNOWN VEHICLE TYPE

WEATHER CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	CLR	CLEAR
2	CLD	CLOUDY
3	RAIN	RAIN
4	SLT	SLEET
5	FOG	FOG
6	SNOW	SNOW
7	DUST	DUST
8	SMOK	SMOKE
9	ASH	ASH