

MEMORANDUM

Date: June 14, 2019

Project #: 23147

To: Dayna Webb, P.E.
City of Oregon City

From: Fred Wismer, P.E., Kristine Connelly, P.E., and Hermanus Steyn, P.E.

Project: Molalla Avenue Streetscape Project

Subject: Gaffney Lane Neighborhood Association Comment Letter Response

This memorandum is to address the project comments from the Gaffney Lane Neighborhood Association dated April 30, 2019.

PROJECT BACKGROUND/OVERVIEW

Molalla Avenue is a key corridor for all travel modes connecting the Oregon City Regional Center with Clackamas Community College and Clackamas County Red Soils Campus; as well as connecting the residential areas on the west side to the commercial areas on the north and east sides. Currently, the corridor is uncomfortable, unwelcoming and unaccommodating for those walking, bicycling or accessing transit. The project would include continuous buffered bicycle lanes along the entire corridor; 10-foot wide continuous Americans with Disabilities Act (ADA) compliant sidewalks, street trees and pedestrian level street lighting along the west side of this developed corridor; ADA compliant ramps along both the east and west sides of the corridor; transit amenities along both sides of the corridor; street furnishings; improved access management; and more convenient and safer street crossings.

As part of the design of the Molalla Avenue Streetscape project, the design team reviewed existing and future protected traffic volumes, intersection operations, TriMet bus stop locations, and pedestrian crossing locations. Upon reviewing the existing and future projected traffic volumes, the design team identified the opportunity to shift southbound traffic from Molalla Avenue, a collector, to Beaver Creek Road and then Trail End Highway (OR 213) which are both higher functional classification roadways, arterial and highway, respectively. This shift in traffic will be encouraged through striping in a second southbound left-turn lane on Molalla Avenue at the Beaver Creek Road intersection. It is assumed this shift of traffic will reduce the traffic cutting through Molalla Avenue from the Beaver Creek Road intersection to the OR 213 intersection at the south end of the project by approximately 25%. The design team reviewed the proposed traffic signals and enhanced pedestrian crossings (i.e., rectangular rapid flashing beacons [RRFB]) as identified in the Metro Grant Application, as prepared by the City of Oregon City. It was during the review of traffic operations that it became apparent that Fir Street warranted a

traffic signal per the Manual for Uniform Traffic Control Devices (MUTCD). Since a traffic signal provides enhanced pedestrian crossings the proposed enhanced pedestrian crossing locations were reviewed and reassessed to provide safe crossings at equal distances between each enhanced pedestrian crossings where turning vehicle conflicts could be minimized. Minimizing turning vehicle conflicts is a top priority for the corridor given the recent incidents at the intersection of Molalla Avenue and Pearl Street. Additionally, coordination with TriMet has been undertaken to ensure that the enhanced crossings are provided near bus stop locations, refer to the attached Exhibit 1.

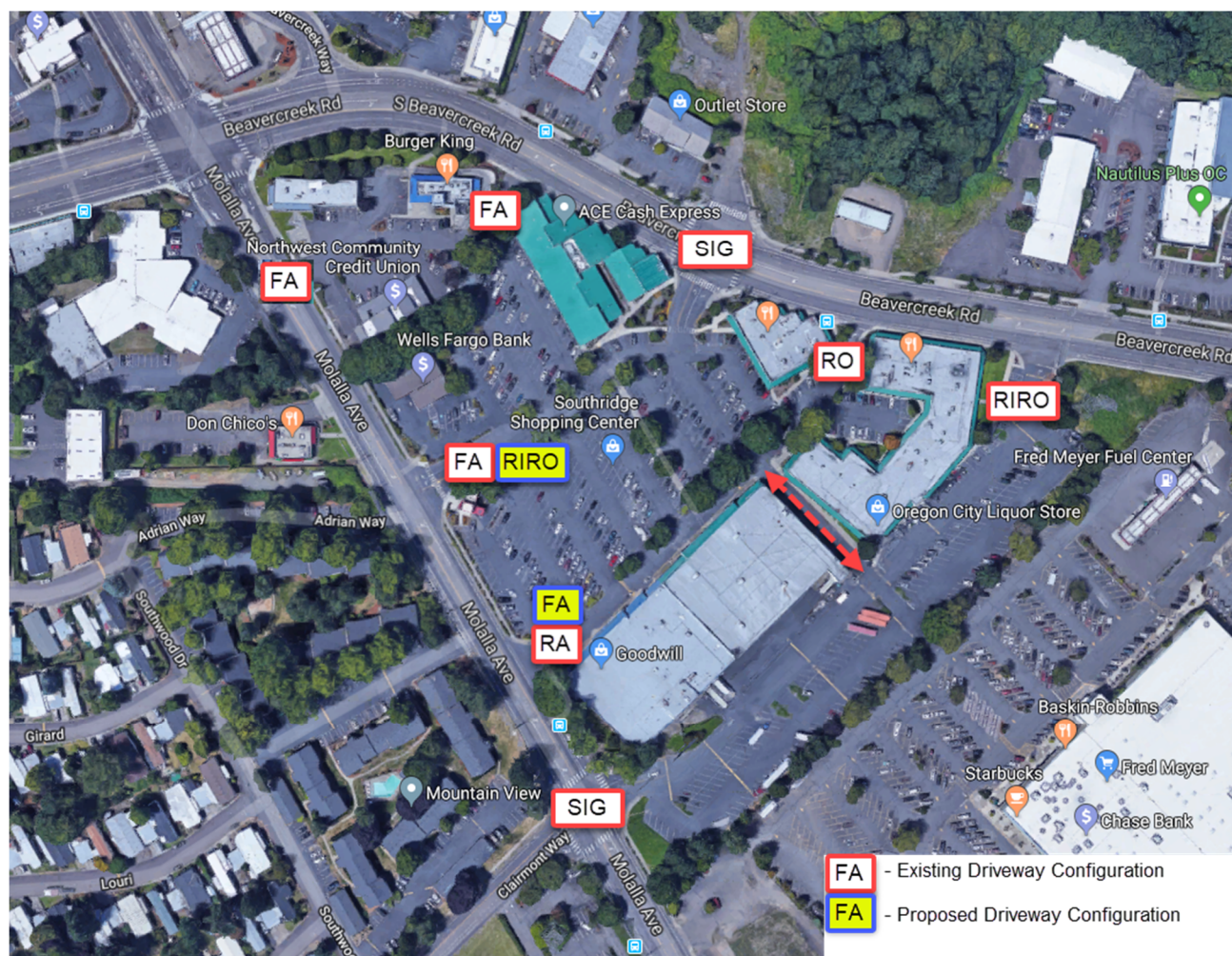
COMMENT RESPONSES

Comment 1 – Bullet 1: Wells Fargo/Black Rock

We would like clarification on the proposed traffic flow in and out of this business development. Current plans only indicate access either from Beavercreek or the intersection at Clairmont for south bound traffic.

Response: The challenge with allowing the southbound left-in at the proposed right-in/right-out driveway is that the anticipated northbound left-turn queues from the signal at Beavercreek Road will likely extend beyond this driveway. There is also insufficient space to accommodate back-to-back left-turns (i.e., northbound for Beavercreek Road signal and southbound into driveway) under existing and future traffic volume conditions. This will result in southbound left-turns stopping in the through lane introducing other safety issues along Molalla Avenue. The developments in the southeast quadrant of the Beavercreek Road/Molalla Avenue intersection will continue to have several opportunities to complete all movements with limited additional travel distance via an existing signal on Beavercreek Road, two right-in/right-out accesses (including proposal), and two full access driveways, refer to **Figure 1**.

Figure 1 - Southridge Shopping Center Access Points



Abbreviation Legend: FA = Full Access Driveway; SIG = Traffic Signal; RIRO = Right In/Right Out Only Driveway; RO = Right Out Only Driveway RA = Restricted Access (Left & Right In/Right Out) Driveway (*Image Source: Google Maps*)

Comment 1 – Bullet 2: Wells Fargo/Black Rock

The same reasoning you are using to propose putting in a signal at Fir Street, due to traffic volume applies here. However, you stated that you were not interested in putting in a signal as it would only benefit private property. Not putting a signal here would be wrong, similar to John's statement regarding Fir Street. "Given the focus and effort that is going into the project, I think you would agree that I would be crucified if we had justification for a signal and not deal with it now vs tearing up a new project to install a signal later." We would like to see the study/report showing the warrant of a signal at Wells Fargo/Black Rock.

Response: Having a signal at this location will impact traffic operations at the Beaver Creek Road signal, making this key intersection not able to function as efficiently as possible. As stated above, the anticipated northbound left turn queues will extend through this location and introduce additional safety

issues along this corridor. There will be minor signal modifications at the existing Beaver Creek Road/Molalla Avenue intersection to address operational needs to some extent, but unfortunately queuing will continue to extend beyond this location.

Comment 2 – Bullet 1: Clairmont

We would like to see designated turn lanes and signals at this intersection, similar to the ones proposed at Gaffney and Molalla. The pedestrian crossing at this intersection currently impedes left turns and we would recommend designated left turn signals that do not coincide with pedestrian crossing. We believe we were told the study warranted designated turn lanes here.

Response: The signal phasing and project design has been updated to provide separated and protected left-turn movements, this also removes the pedestrian walk conflict from the left turn movements. The lane assignments are shown in Exhibit 1.

Comment 2 – Bullet 2: Clairmont

We would like to see the bus stops remain at this intersection. The residents of the apartments use these stops regularly.

Response: Bus stops will remain at the intersection and be located downstream of the signal in each direction, refer to Exhibit 1.

Comment 3 – Bullet 1: Gaffney Lane

We are in support of the proposed change to signal phasing and lane reconfiguration, to create designated left turn lanes that would not conflict with the straight and right turn movements. (since at least 2013 we have been asking for this light to be adjusted. It is unsafe to have the cars coming from Gaffney turning left and going straight at the same time as the cars coming from Fred Meyer are going left and straight. We have asked to have a designated turn signal here and have been assured that this was in the works. We realize things change but in an email from John dated February 10, 2013 he stated changes to this signal would be made in that budget cycle as it was agreed it was a safety concern. It's been over six years and it has only gotten worse.)

Response: The signal phasing and project design has been updated to provide separated and permissive/protected left-turn movements; this also removes the pedestrian walk conflict from the left-turn movements. The lane assignments are as shown in Exhibit 1.

Comment 3 – Bullet 2: Gaffney Lane

We would like to see the bus stops remain at this intersection as they are heavily used by patrons of Fred Meyer.

Response: Bus stops will remain at the intersection and be located downstream of the signal in each direction, refer to Exhibit 1.

Comment 4 – Bullet 1: Fir Street

John stated that "in my mind the signal at Fir Street has been on the table for years." We have gone back through our meeting minutes and documents and have not been able to locate mention of this signal at any time in our conversations and presentations regarding this project and corridor until November 2018 when Dayna state in an email that a traffic study would be done. At our January 2019 meeting we were told that while it was showing as proposed due to an ongoing study, it was not likely to happen.

Response: Fir Street is a public road that provides access to and serves numerous land uses and property owners within the OR 213/Beavercreek Road/Molalla Avenue triangle. The function of Fir Street as a Collector Street (as designated in the Transportation System Plan) is to collect and distribute traffic to arterial roadways. Having a signal at this location will address the needs for many being served by Fir Street.

Comment 4 – Bullet 2: Fir Street

We understand that according to your research this intersection warrants a signal. We would like to see a copy of the reports and studies recommending this and how they compare to the Wells Fargo/Black Rock entrance.

Response: The Fir Street intersection meets traffic signal warrants per the Manual for Uniform Traffic Control Devices (MUTCD) 2009 edition based on existing traffic movement counts collected at this intersection prior to the Oregon City Public Works facility relocation. As traffic is predicted to grow along Molalla Avenue, the need for a signal at this location continues to be warranted.

The Molalla Avenue/Fir Street signal was not reviewed in the recent Transportation System Plan. As part of the Molalla Avenue traffic review, a signal warrant analysis was performed. Only one signal warrant is typically required to install a signal. The signal warrant analysis shows that under the 2018 existing conditions, the intersection meets two signal warrants (# 1 & #2). In 2040 the signal meets three warrants (#1, #2 & #3). The signal warrants applicable at this intersection are:

- Warrant #1 (the eight-hour vehicular volume) states that either the minor street traffic volumes are high enough (Condition A), or the traffic volume on the major street is so heavy (Condition B) that minor streets suffer excessive delay. Condition B was met for Molalla Ave/Fir Street. In particular, the major street volumes (Molalla Ave) are so large that the minor street (Fir Street) experiences significant delay.
- Warrant #2 (the four-hour vehicular volume) states that for any four hours of an average day, the plotted points representing vehicles per hour on the major street and the corresponding vehicles per hour on the higher-volume minor-street approach all fall above the applicable curve. The volume threshold is higher than Warrant #1, but fewer hours are required to meet Warrant #2.

- Warrant #3 (the peak hour vehicular volume) is intended for use at a location where traffic conditions are such that for a minimum of one hour on an average day, the minor street suffers undue delay when entering or crossing the major street. Projected 2040 Fir Street volumes and delay are large enough that this warrant was met.

The project team understands the desire of a signal at the Wells Fargo/Black Rock entrance/Adrian Way intersection; however the two locations (compared to Fir Street) are in two different contexts and not comparable. As described above, the anticipated operations and queuing at the Molalla Avenue/Beavercreek Road intersection make it infeasible to accommodate a full access (or with a signal), because it may likely introduce other safety issues impacting the entire corridor.

Comment 5 – Bullet 1: Garden Meadows Drive

We have been recommending since January 23, 2014 that a signalized pedestrian crossing be added to this intersection. As John Stated, "Pedestrian safety and convenience remains top project goal". A presentation was made by our neighborhood to the Transportation Advisory Committee on February 18, 2014 and support was given for improving this crossing. Due to budget restraints new lighting, signage and repainting was done as we awaited the time when a new crossing signal could be installed.

Response: The original grant application map showed an enhanced crossing at this location. Once it was determined that a traffic signal was necessary at Fir Street which includes an enhanced pedestrian crossing location, the placement of the enhanced pedestrian crossing was re-evaluated. The goal of marked pedestrian crossings is to provide clear and well-spaced crossing opportunities along the corridor. An enhanced pedestrian crossing is not recommended at this intersection, due to the proximity of the proposed signalized crossing at the Fir Street intersection and the existing Wilco driveway. The median (for existing crossing) between the Wilco driveway and Garden Meadow Drive limits the opportunity for left-turning movements from the side-streets to complete a two-stage maneuver (not having to find a gap in both directions along Molalla Avenue). With the proposed configuration and the signal at Fir Street, the improvements address multiple issues.

Comment 5 – Bullet 2: Garden Meadows Drive

You have stated that a crossing at Garden Meadows would be too close to the proposed intersection at Fir St and that you are now proposing the crossing be moved to the Post Office. The current signalized crossing at the Library is similar distance from the 7th & Washington St signal so this reasoning does not hold water with us. As we have stated, pedestrians are going to use this intersection as a crossing and we do not feel moving it is justified. Putting the crosswalk at the Post Office will require pedestrian to cross even more driveway. While we are not engineers or experts, we do use this corridor daily and feel we have had your support since 2014 to put the signalized crossing at Garden Meadows.

Response: The distance between the proposed Fir Street signal and the existing marked crossing at Garden Meadow Drive is similar to the spacing between the existing 7th Avenue/Washington Street signal

and the RRFB near the Library. The differences between these areas are as follows: 1) the pedestrian volumes at the Library are higher, 2) the 7th Avenue/Washington Street signal is generally isolated from other traffic signals, and as such runs as a single traffic signal. The proposed signal at Fir Street, the existing Gaffney signal, and the existing Clairmont will be more or less equally spaced, as such these signals will need to work together during peak hours to keep traffic moving. Placement of a pedestrian activated crossing in this location, approximately 250 feet from the signalized intersection will not allow the signalized corridor to function effectively. Although the project is focused on pedestrian and bicycle safety, we are able to make the corridor more efficient and safer for vehicles as well.

Comment 6 – Bullet 1: Char Diaz

Similar to the Garden Meadows intersection we have been recommending, and have had support from Public Works since at least July 13, 2017, to add a signalized pedestrian crossing here. In fact, as recently as our January 10, 2019 meeting this was still supported as proposed. This intersection is heavily used by pedestrians as Char Diaz is used as an access point to Molalla Ave from the nearby neighborhoods. Google Maps recommends it when plugging in directions. The same arguments apply here in that pedestrians are going to use this intersection and not want to walk further for a signalized crossing. If moved closer to Lazy Creek the distance between pedestrian crossing is excessive.

Response: The RRFB was located to be between the intersections of Char Diaz Drive and Lazy Creek Lane to provide a safe crossing with minimal conflict with turning vehicles at the intersections. Additionally, TriMet intends to combine the two bus stops along this segment due to low ridership (as described in detail below in bullet 2), refer to Exhibit 1 for the proposed bus stop location. Further, based on field observations, most pedestrians travelling to OC Point as a destination help justify the relocation of the crossing.

Comment 6 – Bullet 2: Char Diaz

We would like to see the bus stops remain at this intersection as they are used by citizens in the adjacent neighborhood.

Response: Based on feedback from TriMet during a site walk of the corridor with the project team, TriMet intends to combine the bus stops near Lazy Creek Lane and Char Diaz Drive intersections into a single stop due to low ridership. The project team has used this feedback to inform our work to identify locations for pedestrian crossings, as shown on Exhibit 1. The consolidation of low use stops along a frequent service route allows TriMet to more accurately maintain transit stop schedules and limits the number of stops which impact the flow of traffic.

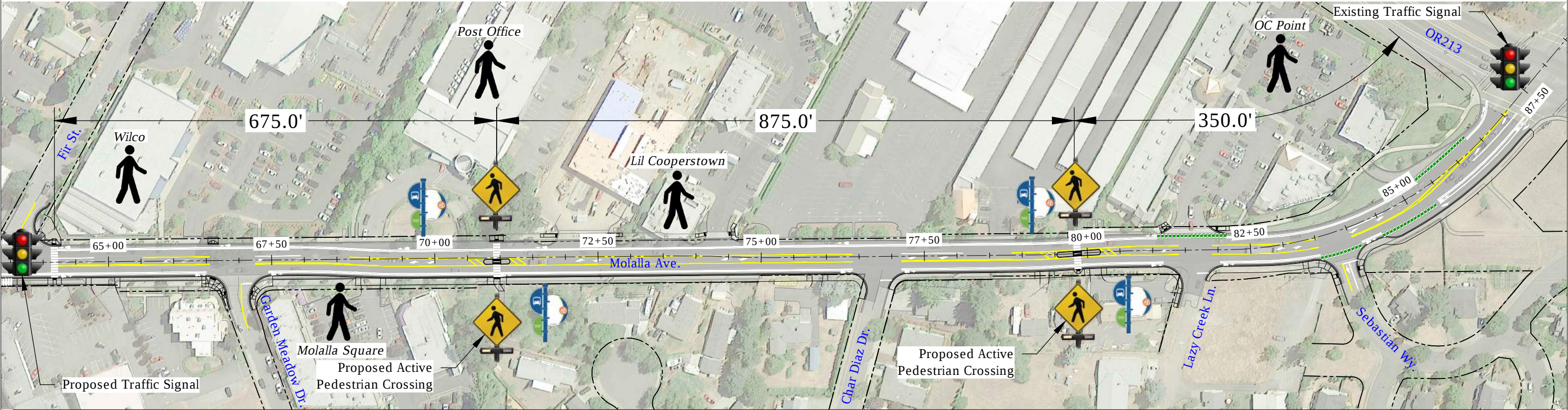
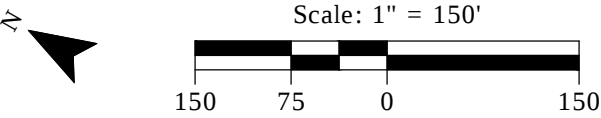
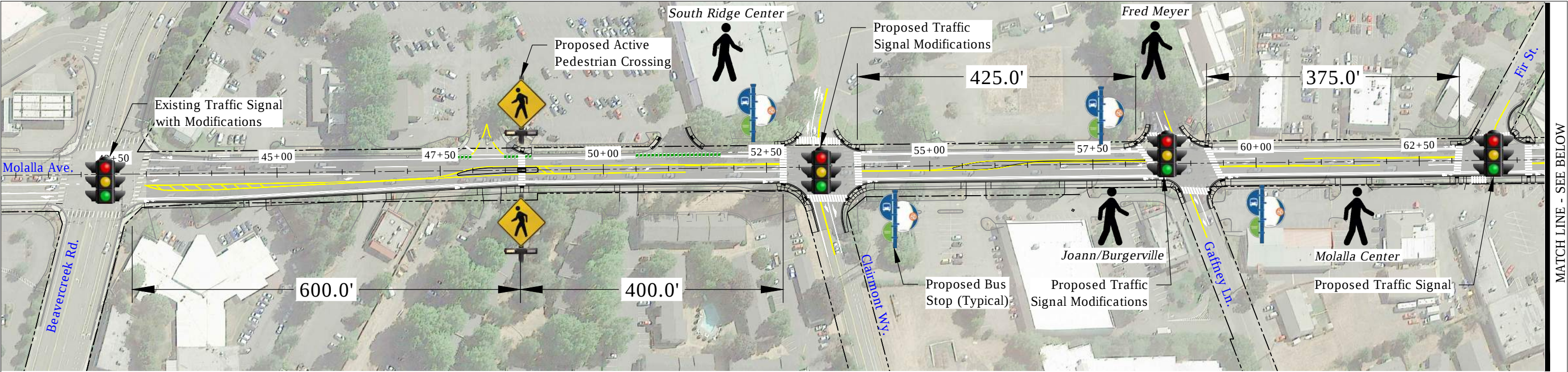
The combination of the Char Diaz & OC Point Stops results in the following:

- Northbound: The Char Diaz bus stop is moving ~275 feet to the south and the OC Point stop is moving ~315 to the north to create the set of stops.

- Southbound: The Char Diaz stop is moving ~200 feet to the south and the OC Point stop is moving ~330 feet to the north.

ATTACHMENTS

Exhibit 1 – Molalla Streetscape Project Overall Project Map



Overall Project Map
City of Oregon City

Exhibit
1