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MEMORANDUM

TO: Oregon City Transportation Advisory Committee

Cc: John M. Lewis, P.E., Public Works Director;

Martin Montalvo, Public Works Operations Manager

FROM: Dayna Webb, P.E., Senior Project Engineer

DATE: January 16, 2018

SUBJECT: Central Point Road Corridor Analysis

Background

At the June 2017 Oregon City Traffic Advisory Committee meeting a member requested, on behalf of their Neighborhood Association, that the speed limit be lowered on Central Point Road. Following is the best available data regarding speeds & volumes, corridor conditions, safety and information from outreach to the area related to the speed limit.

Central Point Road is classified as a Minor Arterial. The posted speed limit on Central Point road between Warner Parrot Road & Partlow Road is 35 mph, and the posted speed limit south of Partlow Road to New Era Road is 45 mph. This is based on a speed zone order J490 issued February 23, 2004, which rescinds Joint Speed Order J72 dated November 27, 2000.

The Oregon City Transportation System Plan states Minor Arterial Roadways are intended to serve local traffic traveling to and from major arterial roadways. These roadways provide greater accessibility to neighborhoods, often connecting to major activity generators and provide efficient through movement for local traffic. Posted speeds on minor arterial roadways typically range between 25 and 45 miles per hour.

What happens when a speed zone review is requested?

The Oregon Department of Transportation has the responsibility to investigate most public roads at the request of the road authority. When a city or county asks the Department to review a speed zone, an engineering study is started. The road is surveyed for the following:

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- lane and shoulder widths
- signals and stop signs
- number of intersections and other accesses
- roadside development
- parking and bicycle lanes

Other analysis includes:

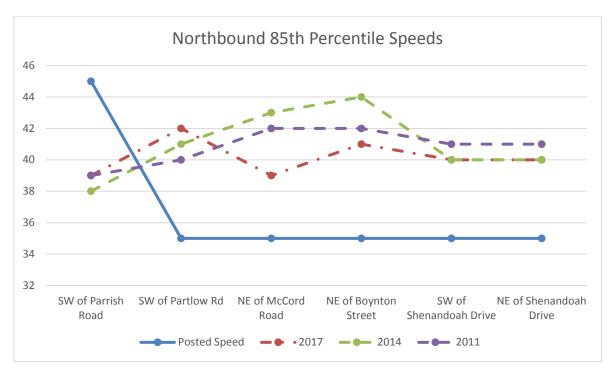
- number and type of vehicles
- number of pedestrians and cyclists
- crash history
- speed checks

Recognizing that most motorists are generally safe, the speed at or below which 85 percent of the drivers travel is one nationally recognized factor proven by repeated studies as a fair and objective indication of safe and reasonable speeds. When the investigation is completed, a report is prepared. All of the above considerations are evaluated in deciding whether to propose a change, or retain the existing posted speed. The report is then sent to the agency with road authority for review.

Speed & Volume Analysis

The 85th percentile speed is typically used as justification to set the posted road speeds based on the concept that the large majority of drivers are reasonable and prudent, do not want to have a crash, and desire to reach their destination in the shortest possible time. The 85th percentile is a statistically supported speed at or below which 85 percent of people drive, at any given location under good weather and visibility conditions, and may be considered as the maximum safe speed for that location.

The City collects traffic data every three years, most recently in 2017. Additionally, we have historic traffic counts in this corridor from 2014, 2011 and limited data from 2008. The following visuals show the posted speed limit and 85th percentile speeds along the corridor for both northbound and southbound traffic. As is shown below, the 85th percentile speeds in both the northbound and southbound directions SW of Parrish Road are travelling less than the posted speed limit of 45 mph. The remainder of the corridor, between Partlow & Shenandoah which is posted 35 mph, sees 85th percentile speeds considerable higher than the posted speed limit, ranging from 4 to 12 mph above the speed limit.



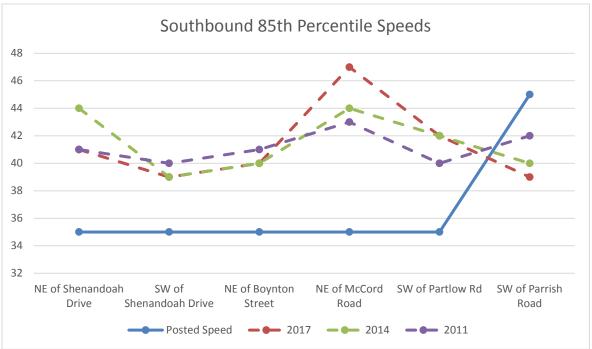
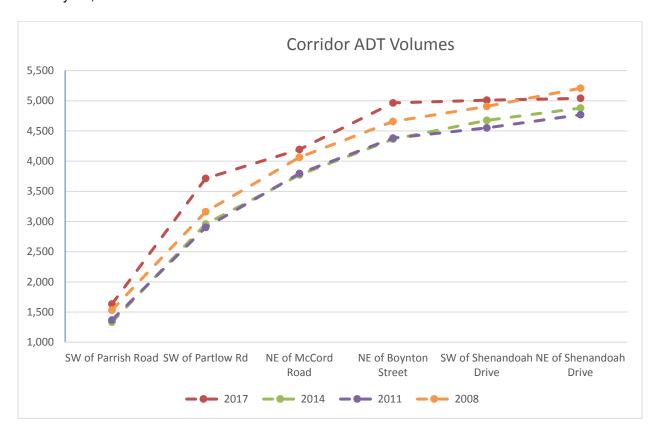


Exhibit 2 shows a more comprehensive data set for speeds along the Central Point Road Corridor for 2011, 2014 & 2107.

Another metric used by ODOT is Average Daily Traffic (ADT). The following visual shows the ADT at specific locations along the corridor. As can be seen the volume are higher at the north end of the corridor, this is due to the majority of the corridor users coming from the adjacent neighborhoods and heading into Oregon City.



Corridor Conditions

The corridor is straight and largely flat, with no horizontal or vertical curves until the south end as you leave the city limits. Marked lane widths through the corridor are generally consistent, and contain one northbound and one southbound lane, no center turn lanes exist except at the north end as you reach Warner Parrott Road. The width of the shoulder varies from nothing adjacent to open ditches, to paved bike lane, and occasionally enough to provide paved on-street parking.

There are no stop signs along the Central Point Road corridor except at the north end where traffic is stop controlled as it intersects with Warner Parrott Road.

Central Point Road functions as a minor arterial, it is intended to serve local traffic traveling to and from major arterial roadways. These roadways provide greater accessibility to neighborhoods, often connecting to major activity generators and provide efficient through movement for local traffic. As noted in the traffic volumes, which increase as you proceed north, Central Point indeed functions as a minor arterial, collecting traffic from approximately 18 local side streets & around 60 residential driveways that access directly onto Central Point Road.

The corridor is transitioning from rural under-developed to urban developed neighborhoods, and has a continuously changing roadside nature as development

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continues. As shown in Exhibit 1, the area has seen a large change between 1999 & 2016, with new housing developments going in regularly. As such the corridor provides intermittent & sporadic bike lanes, generally adjacent to the developed parcels. Additionally, some areas include on-street parking.

Based on vehicle classification data collected in 20917, the corridor is around 70% passenger cars. The next highest grouping is pick-up & vans which have a longer axle length, at ~ 15-20% of the trips. The corridor does not appear to have a high volume of oversize vehicles.

Safety

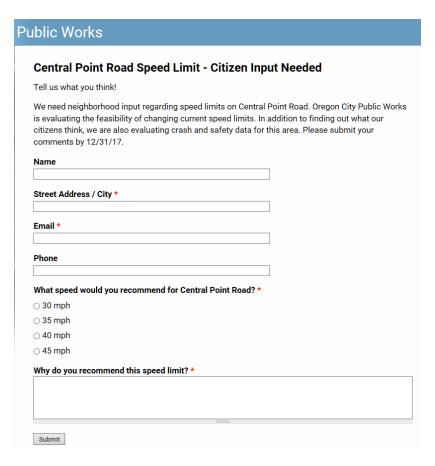
The Police Department provided the following list of accidents on Central Point Road that occurred in 2017. I have requested the accident data for 2016 & 2015, but have not yet received it. ODOT typically looks at 3 full calendar years when reviewing crash data.

Date	Time	Cross Street	Injury	Reason	Veh 1 Speed	Veh 2 Speed
2/11/2017	11:06 AM	McCord Rd	Yes	Veh 1 turned left in front of veh 2 / Veh 2 EB Central Point Veh 1 turning WB	< 25	35-40
3/30/2017	1:57 PM	McCord Rd	No	Veh 1 and Veh 2 WB Central Point Rd / Veh 2 slowing to turn onto McCord / Veh 1 rear ended Veh 2 / Driver 1 stated inattentive	10	0
5/19/2017	6:11 AM	Tradewind St	Yes	Veh 1 and Veh 2 EB Central Point Rd / Veh 2 stopped quickly / Veh 1 following too closely / Veh 1 rear ended Veh 2	35	0
9/1/2017	4:43 PM	Shenandoah Dr	Yes	Veh 1 WB on Central Point Rd / Veh 1 pulled out of a driveway to cross Central Point Rd. onto Shenandoah / Veh 1 T-boned Veh 2	10	35

All the 2017 reported crashes occurred in the segment posted 35 mph. Two are rearend crashes, where a vehicle was either identified as inattentive or following too closely. The other two crashes were angle crashes, where a vehicles was turning in front of an oncoming vehicle or crossing Central Point Road. None of these accidents appear to be speed related.

Neighborhood Feedback

Staff created a Webform on the city webpage and accepted submissions from December 4th to December 31st.



The Webform asked for name, address, phone, recommendation for speed limit (30 mph, 35 mph, 40 mph, or 45 mph). We also asked 'Why do you recommend this speed limit?'

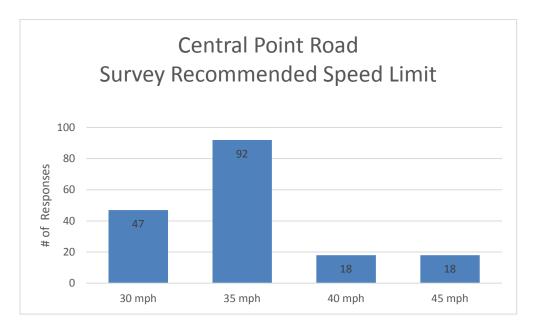
The Webform was advertised as follows:

- CIC meeting: December 4, 2017
- City Webpage News: December 5, 2017
- Facebook & Twitter:
 - City Hall: December 5, 2017
 - Library: December 5, 2017 (shared City Hall post)
 - o PD: December 5, 2017 (shared City Hall post)
 - Oregon City Chit Chat: December 5, 2017 (shared via member)
- Weekly Subscription Email: December 10, 2017 to South End, Tower Vista & Hazel Grove/Westling Farm NA's
- Email to TAC, CIC & South End, Tower Vista & Hazel Grove/Westling Farm NA's Leadership with request to share with their networks: December 20, 2017

- Clackamas Review News Article: December 22, 2017
- Reposted to City Hall Facebook: December 27, 2017

We received 175 unique submissions. Exhibit 3 includes a map of the suggested speeds submitted through the Webform, based on address. We received the most feedback via Facebook posts based on the dates and time of the submittals. The majority of the respondents recommend the speed limit of the corridor be 35 mph.

Based on the mapped Webform speed study results, it can be seen that the majority of the submittals were from the immediate area, and are likely users of Central Point Road.



Following is a summary of the reasons provided in the 'Why do you recommend this speed limit?' section of the Webform:

- Increase in development along the corridor, more homes & traffic.
- Increase in pedestrians in the corridor as the area has developed, and safety of children waiting for school buses.
- Number of side streets & driveways along corridor.
- Long straight corridor is often used as a drag strip.
- Difficulty in getting out of driveways on Central Point Road.
- Narrow pavement in areas.
- Limited sidewalks and some intermittent paved shoulders, requires pedestrians & bicycles to use vehicle travel lanes.
- Safety of bicyclists along the corridor as there is not a consistent bike lane.
- Lack of street lighting along entire corridor.
- Safety concerns at Partlow/McCord offset intersection.

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- Safety concerns for vehicles being rear-ended when slowing to turn into adjacent neighborhoods.
- Sight distance pulling out from side streets, especially in areas with on-street parking.
- Poor pavement conditions.
- A few requests for 25 mph, which was not an option in the survey.

Conclusions

The 85th percentile speed is the maximum speed in which it is considered to be safe and reasonable. The study found that the 85th percentile speed within the Central Point Road Corridor was between 39 mph and 47 mph. Based on the 85th percentile speeds, we may see ODOT recommend a speed limit other than 35 mph.

Next Steps

If requested, staff will prepare a submittal of a Speed Zone Request to the State, likely in February. This will initiate a Speed Zone Investigation by ODOT personnel. Staff requests that TAC provide a formal recommendation on the requested speed limit for the Central Point Corridor, on behalf of the local residents. A draft letter from TAC is attached for your review and comment.

The submittal will include the following:

- Recommendation from Engineering Department: 35 mph based on the items identified in the Corridor Conditions.
- Recommendation from local residents: 35 mph based on the items identified in the Neighborhood Feedback.

Attachments (4)

Draft TAC Letter of Recommendation on Speed Limit to ODOT

Exhibit 1: Aerial Photos of Central Point Road Corridor

Exhibit 2: Central Point Road Corridor Speed Survey Results

Exhibit 3: Webform Reccommended Speed Results Map

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Exhibit 1: Aerial Photos of Central Point Road Corridor

1999 Aerial Photo 2016 Aerial Photo



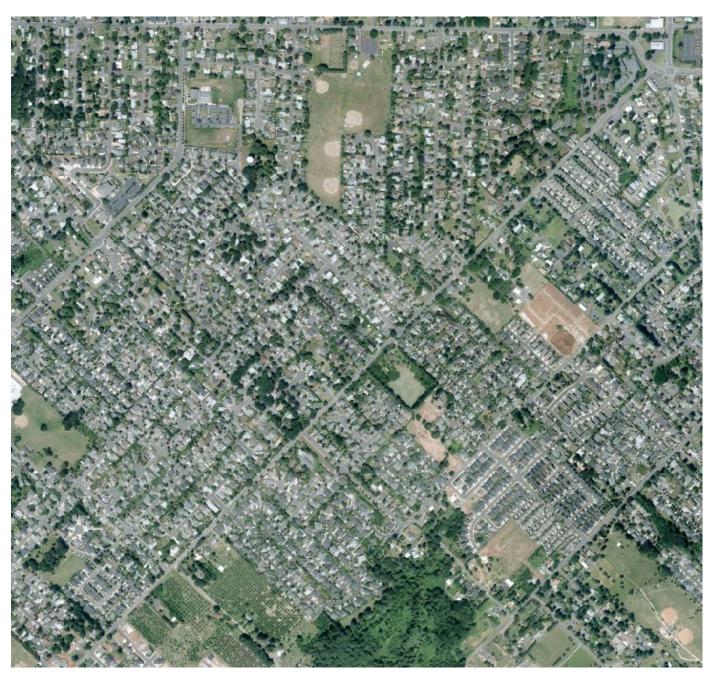


Exhibit 2: Central Point Road Corridor Speed Survey Results 11/1/2017

2017 Speed Survey Results

Posted Speed	35		35		35		35		35		45	
	NE of Shenandoah Drive		SW of Shenandoah Drive		NE of Boynton Street		NE of McCord Road		SW of Partlow Rd		SW of Parrish Road	
	Eastbound	Westbound	Eastbound	Westbound	Eastbound	Westbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
85th Percentile (MPH)	40	41	40	39	41	40	39	47	42	42	39	39
Mean Speed (MPH)	35	35	35	34	34	35	34	42	36	36	34	34

2014 Speed Survey Results

Posted Speed	35		35		35		35		35		45	
	NE of Shenandoah Drive		SW of Shenandoah Drive		NE of Boynton Street		NE of McCord Road		SW of Partlow Rd		SW of Parrish Road	
	Eastbound	Westbound	Eastbound	Westbound	Eastbound	Westbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
15th Percentile (MPH)	30	32	30	30	25	24	32	35	28	27	29	30
50th Percentile (MPH) Median	36	38	35	35	38	35	37	39	35	35	34	36
85th Percentile (MPH)	40	44	40	39	44	40	43	44	41	42	38	40
95th Percentile (MPH)	43	48	44	42	48	43	47	47	44	45	41	43
Mean Speed (MPH)	36	38	36	35	37	34	38	40	36	36	34	36

2011 Speed Survey Results

Posted Speed	35 NE of Shenandoah Drive		35 SW of Shenandoah Drive		35 NE of Boynton Street		35 NE of McCord Road		35 SW of Partlow Rd		45 SW of Parrish Road	
	Eastbound	Westbound	Eastbound	Westbound	Eastbound	Westbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
15th Percentile (MPH)	30	28	30	30	23	24	30	33	26	24	30	31
50th Percentile (MPH) Median	36	35	36	36	36	35	36	37	34	34	35	37
85th Percentile (MPH)	41	41	41	40	42	41	42	43	40	40	39	42
95th Percentile (MPH)	45	44	45	44	46	44	45	46	44	44	43	45
Mean Speed (MPH)	36	35	36	36	35	34	37	38	34	33	35	37

Exhibit 3: Webform Reccommended Speed Results Map

