

Council Communication

June 21, 2016, Business Meeting

Grandview Drive Shared Road Project Proposal

FROM:

Michael R. Faught, Public Works Director, michael.faught@ashland.or.us

SUMMARY

This item is an update to Council regarding the conversion of Grandview Dr. to a shared road and the installation of a non-permitted guardrail barrier. In addition, staff is asking for authorization to spend up to \$240,000 of street funds to convert Grandview Dr. into a shared roadway. If approved staff will finalize engineering plans, hold a second and final public meeting with residents and construct the project.

BACKGROUND AND POLICY IMPLICATIONS:

On March 18, 2010 the Transportation Commission heard testimony from Grandview residents who petitioned the City to install sidewalks. Because of the topography challenges on Grandview, staff estimated the cost of installing sidewalks at \$1.4 million. As a result, the Transportation Commission recommended designating Grandview as a Shared Road where all modes of transportation share the space.

Grandview Drive was designated as a shared road with the adoption of the 2012 Transportation System Plan (TSP). When the City's consultant traffic engineer determined a non-permitted guardrail installed on Grandview Drive represented a vehicular safety improvement, staff hired an engineering firm to develop a shared road solution that includes leaving the guardrail in place while maximizing pedestrian refuge in the adjacent area.

The new street classification was eventually incorporated into the 2012 TSP, where several roads with similar topographic challenges were designated as shared roads (see attached street classification). Following that, a standard shared road cross section was approved and codified during the Normal Neighborhood master planning process. The shared road cross section includes an 18-foot paved travel way that is shared by all modes of travel. The cross section also includes, at a minimum, 3' shoulders adjacent to the travel way as refuges for pedestrians. This refuge creates a safe spot for pedestrians while vehicles pass each other on the road. The most critical aspect of a shared road is a speed limit posting of 15 mph. The reduction in posted speed limit allows all users to safely use and occupy the shared way.

A contractor building a home on Grandview Drive installed a guardrail in the public right of way adjacent to the tax lot boundary in the spring of 2016. The contractor had requested information about the City's guardrail standards prior to the installation of the Guardrail; however no permit was ever submitted. The new house is located at the bottom of a steep drop-off and the contractor installed the



guardrail without a permit to protect the home in the event cars were to drive off the road at that location.

Current language in AMC 13.05.020 exempts guardrail installation to protect a driveway approach even when it extends into the right-of-way. When Public Works staff learned that the guardrail had been installed on the right-of-way without a permit they contacted both the City Attorney and a traffic engineer for guidance. Based on AMC 13.05.020, the City Attorney initially determined the guardrail installation was exempt and did not require a permit. However, after Legal learned the extent of the guardrail, they determined that a case could be made for a code violation. In addition, Kim Parducci, PE PTOE of Southern Oregon Transportation Engineering, determined the guardrail should stay as it would reduce the severity of a vehicular crash and that the road is safer with the guardrail (see attached report).

The installation of the guardrail created several complaints from residents in the Grandview Drive area. Given the findings of the traffic engineer, the Public Works staff hired Construction Engineering Consultants, Inc., to look at shared road engineering solutions. Initially, the engineering firm provided five alternatives, but staff narrowed it down to two options that were presented in a public meeting (see attached engineering drawings).

The primary option:

- uses existing right-of-way,
- provides an 18 foot travel lane as required in the recently adopted shared road cross section,
- provides a five-foot pedestrian refuge on the south side or inside the curve and a six foot refuge area on the north side or by the steep drop-off where the guardrail is,
- cuts into the existing bank,
- constructs a retaining wall and gutter to improve drainage,
- places two new chip seal coats on the 18 foot roadway,
- places gravel in the pedestrian refuge areas (see attached drawings),
- sets the speed at 15 miles per hour, and
- installs two automated speed display signs and two “Shared Road” signs.

The estimated cost for the proposed project is \$240,000 (this cost includes a 30% contingency and some of the work could be completed by staff).

On June 2, 2016, Public Works staff held a Grandview Drive neighborhood group meeting to discuss the proposed project and staff’s recommendation to leave the guardrail in place on Grandview. While not everyone supported the project, a majority of the residents in attendance indicated that they would support the project.

Given the amount of concern about the limited space for pedestrians with the guardrail in the street’s current configuration, staff recommends constructing the project this summer.

As to the guardrail, staff has informed both the property owner and the contractor we will likely require some modifications to the existing guardrail. The two options our engineering firm is evaluating require the installation of either a cable or wood guardrail (see photos). In addition, there are areas where staff will require the contractor (subject to geotechnical review) to relocate the



guardrail closer to the edge of the bank. The contractor has indicated a willingness to comply with the City's final guardrail placement requirement.

COUNCIL GOALS SUPPORTED:

N/A

FISCAL IMPLICATIONS:

The engineer's estimate, which includes a 30% contingency is \$240,000. This project could be funded this year as proposed in the Street fund budget by reducing planned slurry seals by \$160,000 and delaying the \$112,000 A Street sidewalk improvement project.

The Street Fund budget allocated \$400,000 for slurry seal in the 2016/17 biennium budget. The 2016 slurry seal project is only \$140,000 and the 2017 slurry seal project can be reduced to \$100,000. Final design of the A Street project needs to wait until the Downtown Parking and Multi-modal committee completes their work which will push this project out to the 2017/2018 biennium budget.

STAFF RECOMMENDATION AND REQUESTED ACTION:

Staff recommends the Council authorize staff to construct the shared road project once final engineering occurs and require the contractor who installed the non-permitted guardrail to either install a cable or wood guardrail as specified by the City's contract engineer.

SUGGESTED MOTION:

Move to approve the reallocation of funding for improving Grandview Dr. to the shared road standard with final approved engineering drawings.

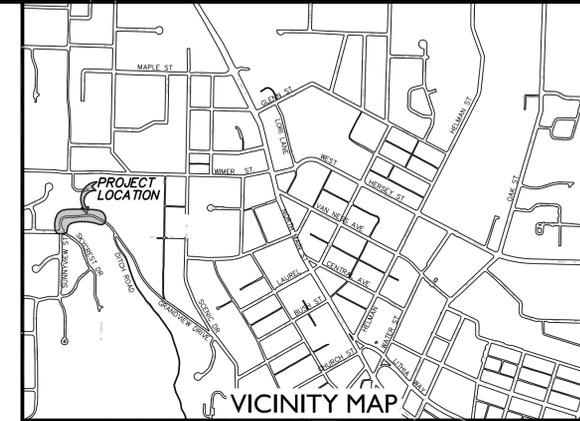
ATTACHMENTS:

CEC Engineering Drawings
Traffic Engineering Memo
Street Classification-Shared Roadway
Guardrail figures (Timber & Cable)

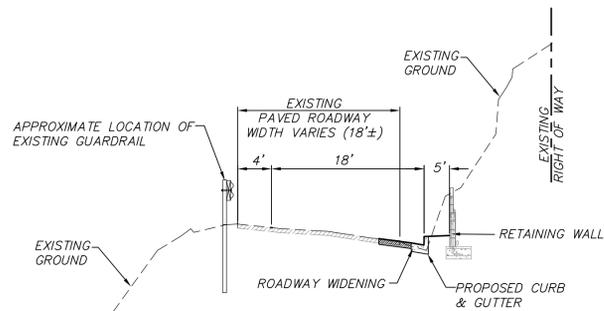
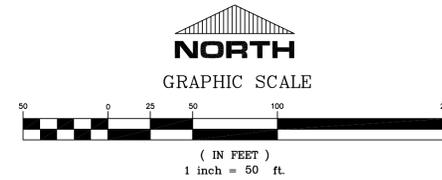
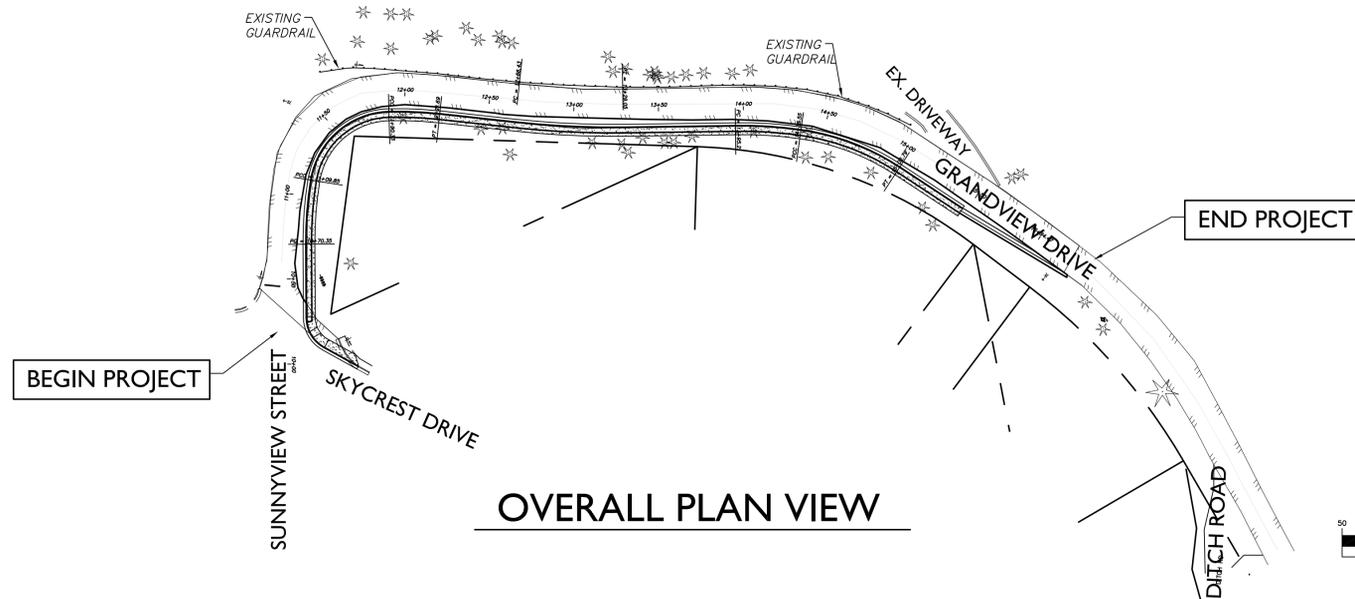


CONCEPTUAL ROAD IMPROVEMENT PLANS FOR GRANDVIEW AVENUE

LOCATED IN
CITY OF ASHLAND
JACKSON COUNTY, OREGON

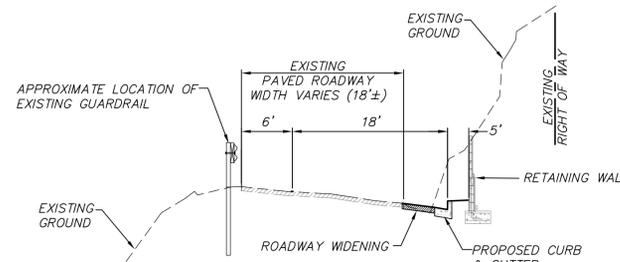


P.O. BOX 1724 • MEDFORD, OREGON 97501
PH. (541) 779-5268 • FAX (541) 779-3139



**GRANDVIEW DRIVE
CONCEPTUAL ROADWAY SECTION
OPTION A**

NOTE: THE GRADING AND RETAINING WALL IMPACTS FOR OPTION A ARE SIMILAR TO THOSE FOR OPTION B. CROSS SECTIONS FOR OPTION A HAVE NOT BEEN GENERATED, SEE OPTION B SECTIONS.



**GRANDVIEW DRIVE
CONCEPTUAL ROADWAY SECTION
OPTION B**

GENERAL NOTES

1. THESE PLANS ARE CONCEPTUAL AND ARE NOT INTENDED TO DEPICT ALL OF THE DETAILS OF THE WORK REQUIRED.
2. DAYLIGHT SLOPES SHOWN ARE BASED ON EXISTING SLOPES IN THE AREA AND PRELIMINARY INFORMATION PROVIDED BY THE PROJECT GEOTECHNICAL ENGINEER. A GEOTECHNICAL EVALUATION WILL NEED TO BE COMPLETED PRIOR TO FINAL DESIGN CONSTRUCTION DRAWING APPROVALS.
3. RETAINING WALLS OR SLOPE EASEMENTS MAY BE REQUIRED FOR ANY OF THE THREE WIDENING OPTIONS PROVIDED WITHIN THESE PLANS.
4. BENCHMARK: AS PROVIDED BY CITY ASHLAND TOPOGRAPHIC SURVEY

**NOT FOR
CONSTRUCTION**

VERIFY SCALES!!!
BAR IS ONE INCH ON ORIGINAL DWG.
IF NOT ONE INCH ON THIS SHEET
ADJUST SCALES ACCORDINGLY

LINES		SYMBOLS	
	PROPOSED PVMNT		MANHOLE
	PROPOSED SIDEWALK		CLEAN-OUT
	PROPOSED STORM		SERVICE WYE
	PROPOSED SEWER		WATER SERVICE
	PROPOSED WATER		FIRE HYDRANT
	R/W		WATER VALVE
	PROPERTY LINE		FITTING & T.B.
	CENTER LINE		CUT-IN SLEEVE
	PUE		AIR VALVE
	PROPOSED C & G		CURB INLET
	PROPOSED DITCH		EXISTING STORM
	EXISTING STORM		EXISTING SEWER
	EXISTING SEWER		EXISTING WATER
	EXISTING WATER		EXISTING GAS
	EXISTING GAS		EXISTING POWER
	EXISTING POWER		EXISTING PHONE
	EXISTING PHONE		EXISTING TV
	EXISTING TV		EXISTING PVMNT
	EXISTING PVMNT		EXISTING C & G
	EXISTING C & G		EXISTING SIDEWALK
	EXISTING SIDEWALK		EXISTING DITCH
	EXISTING DITCH		EXISTING FENCE
	EXISTING FENCE		

SHEET INDEX

TITLE	SHT #	DATE
COVER SHEET	1	
OPTION B-CONCEPTUAL ROAD IMPROVEMENT PLAN	2	
OPTION B-CONCEPTUAL ROAD IMPROVEMENT SECTIONS	3	

CITY OF ASHLAND	
GRANDVIEW DRIVE CONCEPTUAL ROAD IMPROVEMENT OPTIONS A & B	PROJECT NO.
COVER SHEET	DRAWING NO.
	1 OF 7

Memorandum

To: Mike Faught, Ashland Public Works Director

Date: 06/14/2016

Subject: Grandview Drive Guardrail Review

Southern Oregon Transportation Engineering, LLC evaluated a guardrail that was installed on Grandview Drive along the upper section of roadway north of its intersection with Skycrest Drive. The analysis was prepared to address citizen concerns and determine whether it would be safer to remove it or leave it.

Background

Grandview Drive is a two-lane Neighborhood Collector under existing conditions, which means it distributes traffic from higher order streets such as Boulevards and Avenues to neighborhood streets. It has a posted speed of 25 miles per hour (mph) with a warning sign within the curves of 15 mph. The City's Transportation System Plan (TSP) recommends changing the functional classification of Grandview Drive to a Shared Street, which is a classification designated for streets with right-of-way constraints by topography. The constrained right-of-way prevents typical bicycle and pedestrian facilities such as sidewalks and bike lanes. The entire width of the street, therefore, is collectively shared by pedestrians, cyclists, and vehicles. The recommended speed of a Shared Street in the TSP is 15 mph.

Field Data

Grandview Drive was measured in the field to be approximately 19 feet in paved width with sections through the curve as narrow as 17 feet. There is a consistent gravel shoulder of at least 2 feet the entire length of the guardrail, which widens out at the upper portion to over 4 feet. There's a steep drop off along the north side of Grandview Drive.



Other field observations included low vehicular volumes and speeds. The pedestrian activity was also fairly low while out there with only one jogger observed in the hour. There were no cyclists observed. We were out taking field measurements in late September on a weekday between 1:00-2:15 pm. Grandview Drive may get more pedestrian and bicycle activity later in the day after work.

Evaluation and Recommendations

The goal of roadside safety devices is to protect motorists from potentially serious hazards located near the travel way. Severe embankments are a hazard that, if encountered, can be deadly, and this is one of the reasons that guardrails are used. In looking at the guardrail on Grandview Drive, it meets design requirements and was installed correctly. There is no official crash history to date, but City staff remember one vehicular crash in the area of the guardrail many years ago when a vehicle went over the edge. From our standpoint, many factors contribute to this not having a high crash occurrence, which include low traffic volumes, low traffic speeds through the curve, and limited sight distance which makes drivers and pedestrians more cautious when on Grandview Drive, but this doesn't mean that a crash won't ever occur. In the event of a crash, the guardrail reduces the severity. If a vehicle or pedestrian is forced over the edge then the result is severe. It is our opinion that Grandview Drive is safer with the guardrail than without it based on these reasons.

We hope this addresses citizen concerns and provides the background necessary for the City to move forward. Please feel free to contact us with any further questions or concerns.

Southern Oregon Transportation Engineering, LLC



Kimberly Parducci, PE PTOE
Firm Principal



Shared Street

Provides access to residential uses in an area in which right-of-way is constrained by natural features, topography or historically significant structures. Shared Streets may additionally be used in circumstances where a slower speed street, collectively shared by pedestrians, bicycles, and autos, is a functional and preferred design alternative. The design of the street should emphasize a slower speed environment and provide clear physical and visual indications the space is shared across modes. See Figure 18.4.6.040.G.8.

Prototypical Section: Shared Street

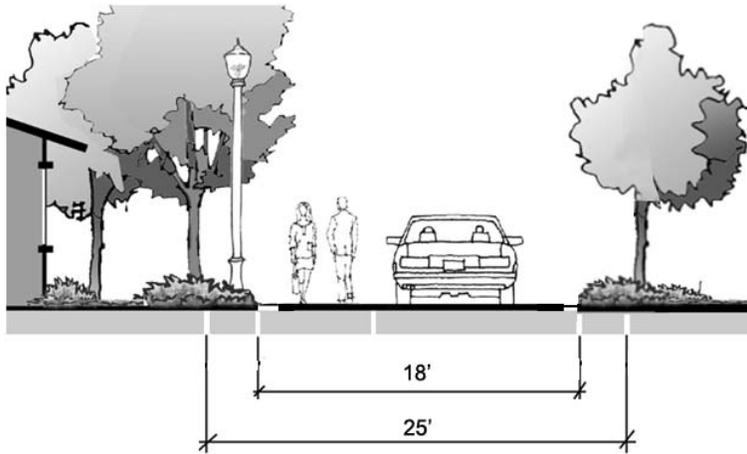


Figure 18.4.6.040.G.8
Shared Street

<i>Street Function:</i>	Provide vehicular, pedestrian, and bicycle neighborhood circulation and access to individual residential and commercial properties designed to encourage socializing with neighbors, outdoor play for children, and creating comfortable spaces for walking and biking.
<i>Connectivity:</i>	Connects to all types of streets.
<i>Average Daily Traffic:</i>	1,500 or less motor vehicle trips per day.
<i>Managed Speed:</i>	Motor vehicle travel speeds should be below 15 mph.
<i>Right-of-Way Width:</i>	25'
<i>Pavement width:</i>	18' minimum, maintaining full fire truck access and minimum turning paths at all changes in alignment and intersections.
<i>Motor Vehicle Travel Lanes:</i>	Minimum 12' clear width.
<i>Bike Lanes:</i>	Not applicable. Bicyclists can share the travel lane and easily negotiate these low use areas.

Parking: Parking and loading areas may be provided within the right of way with careful consideration to ensure parked vehicles do not obstruct pedestrian, bicycles, or emergency vehicle access.

Parkrow: Not applicable.

Sidewalks: Not applicable. Pedestrians can share the travel lane and easily negotiate these low use areas. Refuge areas are to be provided within the right of way to allow pedestrians to step out of the travel lane when necessary.

Figure 1: Steel backed timber guardrail



Figure 2: Cable barrier

