

November 5<sup>th</sup>, 2022

Mr. Brian Martin, P.E.  
City Engineer  
City of Salem  
Department of Public Works  
555 Liberty Street SE  
Salem, Oregon 97301

RE: Doakes Ferry Subdivision  
"A" Street  
Design Exception Requests

Dear Brian:

In keeping with the prior discussions that we have had, we are making the following request for exception to the present design standards that were put into effect January 1<sup>st</sup>, 2014.

We are requesting a design exception approval for a subdivision west off of Doaks Ferry Road, north of Orchard Heights Road in West Salem. There are two specific design exceptions being required related to the proposed "A" Street improvements.

The first is the request to allow the sag vertical curve proposed at Station 0+70 to have a K value that is less than 8.

Second is the request to allow the centerline radius designs to be based on 25 miles per hour design speed for either a local or a collector street. (There is a request to have "A" Street designated a collector in the City's TSP).

The challenge for the development of a east/west street off of Doaks Ferry is the extensive topographic features on the west side. As you know, the City's development code dictates the need to create at least one roadway to the west off of Doaks Ferry, north of Orchard Heights. As such we selected the point for the connection to Doaks Ferry with suitable grades to facilitate that connection.

The next goal was to find the best alignment of the proposed "A" street to get the roadway up on the site and limit the extent of extreme cut needed for the design.

The alignment selected utilizes 200-foot reversing centerline curves as shown on the attached drawing Sheet 401. This allowed the roadway to transition northerly to a somewhat lower set of contour lines, reducing the excessive cuts that would be required if the alignment flatter. As we have currently proposed, we have a cut of up to 20 feet in the slope to get up the hill. Using a larger horizontal curve would result in even larger cuts given the existing site topography.

The grading proposed along the roadway will facilitate good sight distance through the curves.

In addition, the intersection with "A" Street and Doaks Ferry will be a stop intersection, requiring reduced approach speeds. The use of the 25 MPH design speed, with speed signs posted will allow the proposed design and facilitate the safe approach to the intersection.

### **Conclusions:**

We are making these requests to comply with the City of Salem Development requirements for the east/west street alignment and to aid in limiting the extent of excessive grading and roadway construction costs.

The proposed street system will be in substantial conformance with the intent of the design standards if the design exceptions are granted.

We believe that granting the design exceptions under the described conditions does not create any major problems for operation and maintenance of the system.

***Based on the above information, we are requesting that we be granted an exception to the requirement of the City of Salem Design Standards as presented above.***

Thanks for your consideration of these issues.

Sincerely,

Mark D. Grenz, P.E., IC., E.N., G.E.

