

OLYMPIA HILLS INFRASTRUCTURE WORKING GROUP MEETING SUMMARY

Date: 5-27-21

Time: 9:00-10:30 am

Attendees: Steven Shields, Sherrie Ohrn, Wendy Thomas Tami Moody, Chase Andrizzi, Blake Thomas, Jonathan Bowers, Anthony Teuscher, Heidi Shegrud, Alan Rae, Jonathan LaFollette, Bryce Terry, Cody Stromberg, Olympia Hills Development Team

The City Engineer and Public Works Director for Herriman City met on May 26th to review technical aspects of the design standards. Comments that were generated in that meeting were presented and discussed at this meeting.

Landscaping

The development team for Olympia Hills has a desire to use landscape standards to help enhance the project. The city has concerns with the potential increase of maintenance costs associated with enhanced, enlarged landscape areas. It was discussed how the city and developer want to manage those costs but still add quality to the community and the project. The developer showed a picture of a residential development near 1300 East in South Jordan that used landscaping principles that they want to borrow from for the Olympia Hills project (see figure 1).



Figure 1. Center Median Landscaping Example

The photos showed a center median in the roadway with a rock garden and trees. This area is also used for stormwater storage as a Low Impact Development (LID) solution, which is mandated to be used by the State of Utah. There was also a photo shared showing the view down the road with the park strip trees. There were concerns noted that the park strips are too narrow and the root systems over time will damage sidewalks (see figure 2).



Figure 2. Park Strip Landscaping Example

The proposal is to complete the landscaping in a way that manages stormwater and gives enough space for tree root systems to not impact the surrounding infrastructure.

The current plan includes constructing a Spine Road that runs through the center of Olympia Hills, the entire length of the project from east to west. It is anticipated that there will be open areas containing enhanced pedestrian and bike trails along the Spine Road. There was discussion as to whether the bike lanes could be constructed in the center median. There may be some concerns where the Spine Road will function much like a major collector road, whereas center running bike/pedestrian paths are typically used for arterial roadways. It is anticipated that the Spine Road will have a speed limit of 30 or 35 miles per hour (mph) and residential driveways will be allowed on this road. The trail along the Spine Road will allow access to three county trails that will flow north-south through the project.

There was discussion about the cost and effort to maintain xeriscape areas. It was noted that these areas can be maintenance-heavy even without grass to maintain. It was pointed out that there is still an underground irrigation system to maintain and that it is not just taking care of trash and weeds. Since maintenance is not as frequently required, it was determined that costs of maintaining grass and xeriscape are expected to be about even. It was noted that the Jordan Valley Water

Conservancy District (JVWCD) has said that it is more cost-heavy up front to do xeriscape, but ultimately more cost-effective to conserve water and that maintenance costs are less over the long-term. Additionally, it was noted that the water efficiency standards are now in effect, so sod isn't an available option for landscaping much of the park strip and center medians in this project. The amount of plant coverage was discussed for xeriscape areas. The current city standard is to require 75% coverage; however, JVWCD suggests that 50% coverage be a minimum requirement. The developer feels that 75% is high and that it will result in unnecessary water usage. It was also noted that the city standard does not allow for tree canopy to be counted. The image provided in Figure 1 does not have 75% coverage and the developer feels that the look is very aesthetic and water wise. The city's landscape architect feels that 75% is desirable and achievable as long as the correct plants are selected for the site. It was noted that the Dansie History Park design is calling out native meadow grass that will eventually provide 100% coverage but require very little water. This type of ground cover is a different look but something to consider. The city mentioned that the landscaped areas along Spring Hill Road in the Cove and Herriman Springs could be used as an example. An image of the landscaping in this area was discussed and it was noted that there is a lot of sod included in the landscaping of this area. It was also noted that this area is maintained by a private HOA. This item will require a follow-up discussion.

Implementing LID stormwater solutions in subdivisions could help the city save costs on long-term maintenance. If the subdivision roads are private where LID is used, the entire system could be considered private, releasing the city from ownership and maintenance responsibilities. The stormwater system becomes public when it ties into the storm drain main in the public road. All improvements upstream of where the connection to the public system is made, including detention basins, are private.

Transportation

The teams reviewed the engineering and public works comments on the Olympia Hills Design Guidelines Manual that was adopted as part of the Master Development Agreement approved by Salt Lake County. The functional classification of the major roads in the development were discussed.

- Major Arterial (public road)
 - Herriman Boulevard/12600 South from where it currently ends to 7300 West
 - The Hales study shows 7 lanes from MVC to 6400 West, 5 lanes from 6400 West to 7300 W/U-111 (realigned), and 3 lanes from 7300 W/U-111 (realigned) to the west end of the project.
 - 120 ft. cross-section including:
 - 4 travel lanes, center turn lane or raised median, 8 ft. park strip, 8 ft. sidewalk, 6' buffered bike lane.
 - No parking allowed along this road
 - The city standard cross section for this road is 116 ft.
- Major collector (public road)
 - Spine Road (~12900 South), 7500 West, 6400 West
 - Spine Road may use up to four roundabouts to help traffic flow but keep speeds at a reduced level.
 - Roundabout design to consider trucks with trailers.
 - Additional bulb-outs would be allowed every 1000 ft to provide traffic calming if necessary.

- Traffic circles (not technically roundabouts) may also be used at intersections as a traffic calming measure.
 - 86 ft. cross section including:
 - 2 travel lanes, center turn lane, 8 ft. park strip, 5 ft. sidewalk, 6 ft. buffered bike lane.
 - Shoulder to be used for both parking and bikes.
 - The city standard cross section for this road is 80 ft.
- Minor collector (public road)
 - Silver Sky Drive from 7300 W/U-111 (realigned) to eastern end of project (road to be constructed by developer of Hidden Oaks project near the new elementary school).
 - 68 ft. cross section including:
 - 2 travel lanes, center turn lane, 8 ft. park strip, 5 ft. sidewalk, unbuffered bike lane.
- Major local (public road)
 - Roads in neighborhoods that will carry higher volumes, typically areas where a church, school, or park are located.
 - 65 ft. cross-section including:
 - 2 travel lanes (32 ft. of asphalt), 4 ft. shoulder, 8 ft. park strip, 6 ft. sidewalk
 - Bikes are to share the lane with traffic, max speed is 25 mph.
 - The city standard cross section for this road is 60 ft.
- Minor local (public road)
 - Roads in neighborhoods that will carry lower volumes, typically roads that run in single family residential developments
 - 55 ft. cross-section including:
 - 2 travel lanes (28 ft. asphalt width), 6 ft park strip, 5 ft. sidewalk
 - Bikes are to share the lane with traffic, max speed is 25 mph.
 - The city standard cross section for this road is 53 ft.

The developer used the standard city road sections and expanded them slightly to enhance the look and feel of the project. It was noted that what is being proposed to be the standards in the project's design guidelines will enhance the project visually, help manage stormwater, safely manage bikes, provide extra setbacks for pedestrians.

Private road cross sections were also discussed. One key element that needs to be followed is that the fire marshal requires all residential units to be addressed off a named road that is large enough for a fire truck. One adjustment is to have a lane/apparatus road. The minimum allowable drivable width for a roadway that allows a fire apparatus is 26', which includes the gutter. An acceptable private road cross section to meet this width requirement is a 37' cross-section which would include sidewalks and park strips on both sides of the road.

The developer noted that providing adequate parking is a big deal to them. They generally design for at least a two car driveway plus two car garage as well as some guest stalls in multi-family subdivisions. They do not prefer to have a bunch of no parking signs along the roadway because it is not aesthetically pleasing.

A private road alternative cross-section to the public 55 ft. right-of-way is a 47' cross-section. This would provide 2 travel lanes, 22' asphalt, 5ft park strip, and a 5 ft sidewalk.

Drainage:

The developer has tried to implement LID at all locations that will allow it. LID will not control all stormwater; there will be a need for a typical storm water system to convey flows that are above the required LID volume requirement (80% storm event). These flows in the typical system will need to be conveyed to a stormwater detention pond that may be combined with a park or playground area. Historically, there have been large detention ponds that fill up and become a quagmire and it's a problem (muddy and mosquitos). The developer plans to use an underground infiltration system to avoid nuisance water from remaining at the bottom of the pond. Ponds are intended to be a maximum depth of 3 ft with a 4:1 or 5:1 side slope. The MS4 permit from the State of Utah requires that the 80th percentile storm be retained on-site and infiltrated or evaporated.

The developer noted that their initial geotechnical analysis of the project has shown that there is high-quality gravel (A-1-a AASHTO gradation), sand, rock that has a high infiltration rate. This lends itself to implementing the underground infiltration method to avoid nuisance water in the storm water ponds which makes for better open space areas that the community can use.

Water:

The developer's engineering team feels like they have a good understanding of what the City would like to see as far as peak day demands. Demands are determined using equivalent residential connection (ERC) which is the amount a typical single family home uses in a day. Multi-family units and apartments are typically less than one ERC. They want to work together to determine what will be the requirements for the secondary water needs. The city standard is to not require secondary water service to developments with an average lot size of less than 6500 sq feet. Subdivisions with an average lot size larger than 6500 sq. ft. will require a secondary water system to be installed. Multi-family developments will require secondary water to private open space and park areas. There will also be a need to supply secondary to parks, schools, commercial areas, and along major collectors and arterials. The question was asked why secondary water is not required for developments where the lots are smaller than 6500 sq. ft. It was stated that it is not cost effective to construct and maintain two water systems to developments where the lots are smaller than 6500 sq. ft due to the small demand required to irrigate the reduced amount of landscaping there is on the lots.

The pressure zones in the development were discussed. The elevation across the property is what creates the pressure in the water system (this is the same way as has been done throughout the city). The western half of the project will require a new water tank to be constructed to service the development. The new tank will need to be fed with a new pump station that will pump water from the existing 5 million gallon tank on 11800 South to the new tank location.

The engineer for Olympia Hills stated that they have met with JWCD for years discussing potential development of the Olympia Hills project and have been told the JWCD is confident that they can serve the area.

Secondary water is planned to have a storage facility on southwest corner of the Olympia Hills development. The Olympia Hills engineer has stated that there have been discussions with the South Valley Sewer District about the use of a sewer scalping plant to treat and reuse sewer effluent for

secondary water. It was noted that this process is more expensive than the current way Herriman is producing secondary water.

It was noted that there may be a FEMA mapped floodplain that needs to be corrected along the old Copper Creek. There has been some work being done in the past to correct it but with the new development it should be cleaned up before any new homes are built.