

April 8th, 2022



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Office of Development Assistance
15151 E. Alameda Parkway
Aurora, Colorado 80012

Re: 56th Avenue Improvements – Responses to Third ISP Submittal Comments

Application Number: DA-2285-00
Case Number: 2021-6037-00

Ms. Bickmire,

Thank you for your notes regarding the third ISP submittal for the 56th Avenue Improvements. The following are staff comments received February 28th, 2022, from the development review team. Olsson Responses are in **GREEN** text.

In addition to addressing City comments, Olsson has made the following changes to the submittal document that are worth noting:

- After additional coordination with the City and the team responsible for the design and construction of the west half of Harvest Road from 56th Avenue to the north, it was determined that a four-lane section for Harvest Road would be sufficient in the ultimate configuration. A traffic memorandum, prepared by FHU, documents the acceptability of this approach. The intersection of 56th Avenue and Harvest Road was re-designed to match the recommendations of the FHU traffic memo. The Windler MTIS will be revised to match those same recommendations.
- The previously deferred auxiliary lanes at 56th Avenue and E-470 were added in following coordination with City staff.
- The display on sheet 30 was revised to enhance the clarity of the information being displayed.
- After coordination with Aurora Water, it was determined that the U-120 outfall would not be allowed beneath the Harvest Road sidewalk running north toward Second Creek. The U-120 outfall was redesigned to run down the Harvest Road median to avoid conflicts with existing utilities, approved utilities, and proposed curbside landscaping / roadway lighting. This approach requires a new connection point for the 24" Aurora Water line going north along Harvest, which is depicted in the ISP but is to be designed by others.
- Significant progress has been made on platting the Windler site south of 56th Avenue. As such, the tracts and easements for the ponds have been revised. Submittal of Windler Subdivision Filing #1 and Windler Subdivision Filing #2 plats will occur concurrently with or shortly following the 56th Avenue ISP fourth submittal. The right-of-way, tract, and easement information in the 56th Avenue ISP will be consistent with the information displayed in both plats. Please refer to these platting documents for additional information on Windler site dedications. Easements being dedicated north of 56th Avenue and east of Harvest Road will be by separate document.

Planning Department Comments

Completeness and Clarity of the Application

1A. Revise the Letter of Introduction to replace “Harvest” Mile references to Fulenwider and address the redline comments.

Letter of introduction revised so that references to “Harvest Mile” were changed to Fulenwider.

1B. Add top and bottom wall elevations for the proposed retaining walls.

Top of wall and bottom of wall elevations added to pond plan sheet.

1C. Add the scale ratio under all bar scales.

Updated on all plan sheets.

1D. Detail linework was moved from Sheet 4 to Sheet 30, however, not all of the previous information is illustrated. Add a Legend to Sheet 30 and make sure all existing/proposed linework for the ISP area, right-of-way, easements, etc. are shown on the plans.

On sheet 30, legend added, ISP boundary added, and rights-of-way / easements shown and annotated.

1E. Start the dedication of easements and right-of-way. The Site Plan will not be approved until all of these items are complete and ready to record.

Noted. 56th Avenue right of way and easements / tracts are intended to be dedicated via plat which is in progress. The easements for the temporary ponds on the north side of 56th Avenue will be dedicated by separate document. Windler Subdivision Filing #1 and Filing #2 plats to be submitted concurrently or shortly following the ISP submittal.

Landscape

2A. Position plants away from the edge of the plant bed (all sheets) so they are not too close to the walkway or street and overlap when fully grown.

Noted and updated.

2B. Add missing plant labels and adjust plant label leaders.

Plant labels and leaders have been adjusted.

2C. Correct all plant counts errors.

Plant counts updated.

2D. Add all hatches used on the plan to the legend with brief description. Then add a reference to page 27 for detailed information.

Hatches and related legends have been updated.

2E. Move plants away from drain inlets.

Noted and updated.

2F. To determine the number of street trees required for every segment, measure the distance between the curb radii tangent points. For example, a segment that measures 526' would require 13 trees. Update the plans and landscape tables as necessary to meet all landscape requirements so you do not need to ask for an Adjustment. Please refer to the curbside landscape requirements in the UDO for additional information.

Street tree calculations have been properly updated to conform to the curbside landscape requirements.

2G. Please don't overlap leaders and labels.

Noted and updated.

2H. Plant labels should only reference what is shown on each sheet. Please update all sheets as necessary.

Noted and updated.

2I. Each plant grouping should have its own label when separated by a different plant type. Update all sheets.

Noted and updated.

2J. Move the matchline labels to the side of the matchline it is referencing. Correct all sheets.

Noted and updated.

2K. Move proposed plants away from the center of trees. Keep in mind that your proposed design may be modified in the field due to the tree ring required when planting the street trees.

Plants have been relocated to avoid tree centers.

2L. When there is room for a legend, please add one with the important information shown on each sheet: linetypes, hatches, symbols, etc. on all sheets.

Legend added to each sheet where possible.

2M. Please use a gray hatch, not solid black.

Hatch updated.

2N. Double check all scale bars. This does not match Sheet 14 which appears to be the same scale.

Scales updated.

2O. The highlighted area in red on Sheet 23 (+/- 66,000 SF) is required to be included in the total square foot calculation in determining the Detention and Water Quality Pond Landscaping requirement. It is described in code as the area within the tract surrounding a pond above the 100-year water surface elevation. Please recalculate all ponds and add the required landscaping of one tree and 10 shrubs per 4,000 SF in this area.

All pond landscape requirements have been recalculated.

2P. Show tract boundary lines more prominently on all sheets.

Noted and updated.

2Q. Address the following issues on Sheet 27:

- Don't use the same hatch for two different materials.
- Burning Bush is generally classified as a Deciduous Shrub.
- Karl Foerster Feather Reed Grass grows over 4' in height.
- Fix grass label error.
- Blue Avena Grass grows over 2' in height.
- Only show provided trees in the trees provided column. Any trees that cannot be provided must be made up with shrubs at the 12:1 ratio. The extra shrubs can be included in the 'Shrubs Provided' column.
- Add the shrubs requirement where shown.
- Add the type of note shown under the shrubs provided to each applicable column to indicate the number of shrubs used to count as tree equivalents to meet the necessary requirement. In this specific case, you have a total of 46 trees provided plus 7 tree equivalents (12:1 ratio. No rounding up). That is a total of 53, which is 7 short of the 60 required for this segment of the curbside landscaping. Please add the necessary landscape to meet the requirements, or an adjustment is required.
- The Compact Oregon Grape is a Broadleaf Evergreen Shrub.
- The 3,600 SF number is way too small. I calculate that this area should be close to 14,400 SF (1,800' length x 8' wide). Everything under 10' should be included in the calculation. So, all the small transition areas from 10' wide to 8' wide should also be included in the total area calculation.
- If you are short on the tree requirement because of an existing encumbrance, you must use shrubs at a ratio of 12:1 to make up the difference.
- I calculate the 18,390 SF area to be around 19,200 SF (2,400' length x 8' wide)
- The plant schedule shows a total of 198 trees (107+91). The schedule and table must match.
- I did not check all the calculations because your first two were incorrect. Please double check all your calculations prior to your next submittal.
- Add note: "All trees that cannot be provided shall be converted into shrubs at a 12:1 ratio to meet the minimum Curbside Landscape requirements.
- Add missing plant totals to plant schedule.
- The detention pond landscape area numbers are not correct. Please see note on Sheet 23. Update plan and table as required.

Noted and updated.

2R. Repeat comment on Sheet 28: you have just copied the instructions on what statements are required. You must write these statements to specifically address this project.

Notes updated.

2S. Are both statements highlighted on Sheet 28 about the medians? If so, they should read exactly the same.

Notes updated.

2T. Remove the Olsson notes. They are are not required for site plan approval.

Notes updated.

2U. The PROS note states that they will only maintain the medians after the 3 year warranty period, not the street frontage landscaping. Please confirm and update all notes so it is clear.
Notes updated.

2V. Address all comments and notations on the redlines.
Noted and updated.

Referral Comments from Other Departments and Agencies

Civil Engineering

3A. The Site Plan will not be approved by Public Works until the Preliminary Drainage Report is approved. Comments on the PDR were provided on 9/28/21 and no subsequent submittal has been made. Additional comments may result from any changes required as part of the PDR review process especially in regard to the proposed detention ponds. It is recommended that you do not resubmit the site plan until the PDR has been resubmitted to avoid additional review cycles on the site plan.

Noted, the 56th Avenue PDR was resubmitted on February 25th and comments on that submittal were received on March 18th. Feedback from that review pertinent to the site plan incorporated with this resubmittal. The PDR for 56th Avenue will be resubmitted following approval of the Windler site MDR.

3B. The right turn lane and acceleration lane at E-470 should not be deferred.
WB right turn lane and EB acceleration lane at E-470 added to the design.

3C. Why is the curb and gutter stopped short of E-470?
Curb extended to E-470.

3D. Minimum slope in the bottom of ponds is 2%.
Pond bottoms revised for a 2% minimum slope.

3E. Please see Section 3.62.3 regarding maintenance path requirements. The max slope is 10%.
Maintenance access is shown with 10% maximum slope.

3F. Per Roadway Manual Section 4.02.6, a railing is required along sidewalks where adjacent to 3:1 slopes.
Railing added to the design and annotated, in the event grading is changed to be flatter than a 3:1 the railing will be removed.

3G. Show grading tie-ins.
Grading tie ins cleaned up.

3H. If ponds are all private, as was commented by Aurora Water on the previous submittal, they are required to be in drainage easements. As clarification ponds are regional when they are MEP eligible and maintained by the City of Aurora. If these ponds meet those requirements, then tracts are appropriate.
Maintenance eligible regional public ponds are in tracts (detention portion of CTR-1 and U-115, U-120). All other ponds are in easements and are private.

3I. Include a detail/section for the proposed retaining wall and identify the wall material.
Section has been added.

3J. Access to the top of the outlet structure needs to be out of the bottom of the pond. See location on Sheet 16.

Access has been added.

3K. Maximum 4:1 slopes in the ponds.

Pond side slopes revised to 4:1 max.

3L. Remove "permanent" from the drainage easement and access easement labels on all sheets.

Removed.

3M. The grading in Temp Pond B is in conflict with the proposed bike path/pedestrian walk. If there is a wall proposed, please label and call out the maximum height and pedestrian railing for walls over 30".

Grading revised, no wall is proposed.

3N. Ensure there is a separation of 10' between trees and storm sewer.

Noted and updated.

3O. Advisory comment: when landscaping the detention pond, please ensure planting will not interfere with maintenance paths or emergency overflow functions.

Noted.

Traffic Engineering

4A. Windler and Fulenwider Traffic Studies are currently under review. Changes may necessary pending future review comments.

Noted, additional revisions to the Windler master study are expected and auxiliary lane quantities and lengths were confirmed with the current version of that study prior to submittal. Roadway design is also consistent with a traffic memo prepared by FHU regarding a four-lane Harvest Road section based on expected Harvest Road traffic volumes. The next resubmittal of the Windler MTIS will be consistent with the design depicted in this submittal.

4B. Auxiliary lane lengths not consistent with latest MTIS.

Auxiliary lane lengths verified with Windler MTIS. The ISP resubmittal is consistent with the latest version of the Windler MTIS.

Aurora Water

5A. Access is required to the top of all outlet structures and forebays for all public and private ponds.

Access provided.

5B. Is the pond noted on Sheet 9 a part of a regional plan by MHFD? What is making this pond public? Please contact Casey Ballard to discuss further prior to resubmittal.

Yes, ponds CTR-1 and U-115 are regional ponds. Pond U-120 is subregional.

5C. Ensure that hydrants are at least 3.5-feet and a maximum of 8-feet away from the back of curb. Typical for all hydrants on the south side of the road.

Hydrant placements verified to required offsets are met.

5D. Hydrant laterals should be perpendicular to the main.

Laterals revised to be perpendicular to the main.

5E. Storm is not to be under the sidewalk.

Storm relocated, see narrative on page 1 of this response letter.

5F. Temp Pond B is to be private.

Pond B will be private

5G. Confirm that no signal is planned at the Harvest Road intersection. If signal is planned in the future, utilities need to be adjusted to avoid future conflict.

Signals will likely be required in the future. Conceptual signal pole locations added to the ISP to illustrate that they will not be in conflict with existing and proposed utilities.

5H. Manholes are needed for all deflections in storm and sanitary mains.

Noted, manholes present at all storm and sanitary deflections.

5I. Access is needed to all manholes.

Noted, access to manholes added.

5J. The minimum turning radius for all maintenance access is 50-feet.

50 foot centerline radius is provided.

Parks, Recreation, and Open Spaces (PROS)

6A. Please refer to page 70 of the PROS Dedication and Development Criteria Manual for the material requirements. You are currently proposing rip rap which is not an allowable material. River rock and cobble must be sized 1 ½" or less per the manual.

Noted and updated.

6B. Large open areas should be designed with a rock cobble base versus open native seed. See median design within areas such as Arapahoe Road near the intersection with Southlands Parkway.

Noted and updated.

6C. See all comments and notations on the redlines.

Noted and updated.

Real Property

9A. Continue to work with Andy Niquette on the recordation of easements

Noted.

Regards,



Chris Rolling
Project Manager - Olsson