



Department Source: Public Works

To: City Council

From: City Manager & Staff

Council Meeting Date: January 17, 2023

Re: Report: Summary of Steps for the Design and Construction of the Ash Street Improvements

Executive Summary

Staff has prepared for Council information a report outlining the steps for the design and construction of the Ash Street improvements. This information was requested at the December 19, 2022 council meeting.

Discussion

It has been requested to provide information on the steps related to the design and construction of the Ash Street improvements and when are the best times to meet with the neighborhood group to update them and obtain their input on the project.

The following summarizes the steps for the design and construction.

1: Topographic Land Survey

This task includes the land surveyors using LiDAR, GPS, and physical land survey to determine the topographic contours and locations of existing pavement edges, drainage structures, utilities, buildings, sidewalks, trees/vegetation, fences, driveways, property pins, and many other existing features. Once this information is gathered, it is downloaded into design software to develop a base map depicting the topography, location of existing physical features, right of way/easements/property line, etc.

The consultant anticipates beginning the topographic land survey in late January with the field work done sometime in March and the base map completed in April.

At the December 19th council meeting, staff was asked what was generated from the topographic land survey. A points list is generated from the land survey. The points list includes a point number, northing, easting, elevation, and description. An example points list for a sidewalk project is included with this report. The points list is then downloaded into engineering design software, such as Autocad, to generate the base map. The base map consist of line work to represent topographic contours and physical locations and elevations of existing features. An example of a base map generated for a sidewalk project is also included with this report.

2: Preliminary Plans

The base map generated from the topographic land survey is used by the consultant to design the preliminary layout for the project. The preliminary layout will reflect what



was directed by Council at the public hearing on October 17, 2022. It will include a layout of the proposed sidewalks, bike lanes, and pedestrian crossings. With the base mapping, as the consultant lays out the sidewalks/bike lane locations, they will be able to better determine the impacts with the utilities, fences, trees/gardens/vegetation, walks/driveways, retaining walls, stormwater inlets, etc. In addition, they will be able to layout the new curb locations where the roadway will be narrowed and generate profiles of the proposed sidewalk throughout the corridor so that they can determine the grading needs. The consultant will also be working with each of the utility companies to determine impacts to their utilities. Finally, the consultant will look at the stormwater structures and develop a preliminary plan for stormwater improvements.

This work will be completed during the summer and fall of 2023 and can be started once the topographic survey is completed.

3: Right of Way Plans

Once the preliminary plans have been developed, the locations and sizes of the permanent sidewalk easements and temporary construction easements needed for construction of the project can be finalized. These easements will be based on the sidewalk locations and construction needs. The easements will be described by a professional land surveyor and then the described easements are taken to Council for approval to acquire the easements. Finally, the easements are appraised by a licensed appraiser and the city makes offers to each of the property owners based on the information provided by the appraisals.

Easement acquisition usually takes 6 to 8 months to complete.

4: Final Design Plans

The final plans and specifications are developed to bid the project for construction. Basically, the preliminary plans are revised based on negotiations with property owners, working with utility companies, and other design factors. The final plans are much more in depth and have additional information including details, construction traffic control, erosion control, etc. These plans are what the contractors will use to bid on the project and construct the project. In addition, the specifications are written and provide additional requirements for construction of the project.

Ideally, the City would like to put the project out to bid in early 2024 and start construction in late spring of 2024. This timeline could change if it takes longer to develop the plans and acquire the easement than anticipated; thus the bid and construction may be in 2025 instead of 2024.



5: Construction

For construction of the project, a contractor is selected through the competitive bid process and a start date for the construction is determined. The City issues a press release with the start date of construction to notify residents, motorists, etc. to be aware of and use caution in the construction area. The contractor also works with the individual property owners to notify them when they will be planning to work in their yards, reconstruct their driveway approaches, etc. Public Works keeps the website updated with construction updates for the public, as well.

For each of the steps in the design and construction process, staff can meet with the neighborhood group. First, once the base map has been drafted, staff can meet with the group to discuss the information developed from the topographic land survey if they still believe they would benefit from this meeting. Second, when the preliminary plans have been drafted, staff can meet with the group to share the proposed layout of sidewalks, bike lanes, curb and discuss impacts to properties. This would be staff's recommended first meeting. Third, staff can meet with the group during the easement acquisition process to give them an update of how the acquisition process is proceeding. The individual negotiations with the property owners are private. Fourth, once final plans have been developed, staff can meet with the group to discuss any revisions to the layout of sidewalks, bike lanes, curbs, etc. based on property owner discussions. Finally, when the final plans have been bid and the contractor has been determined, staff can meet with the group to share the anticipated construction timeline.

Fiscal Impact

Short-Term Impact: For information purposes.

Long-Term Impact: for information purposes.

Strategic & Comprehensive Plan Impact

Strategic Plan Impacts:

Primary Impact: Reliable Infrastructure, Secondary Impact: Secondary, Tertiary Impact: Tertiary

Comprehensive Plan Impacts:

Primary Impact: Infrastructure, Secondary Impact: Mobility, Connectivity, and Accessibility, Tertiary Impact: Livable & Sustainable Communities



City of Columbia

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Legislative History

Date	Action
12/19/2022	R200-22 Authorizing Amendment No. 1 to the agreement for professional engineering services with Bartlett & West, Inc. for Phase 2 design services relating to nonmotorized/pedestrian and intersection improvements along Ash Street, between Providence Road and Clinkscates Road.
10/17/2022	PH32-22 Proposed construction of improvements on Ash Street between Providence Road and Clinkscates Road.
09/19/2022	R133-22 Setting a public hearing: proposed construction of improvements on Ash Street between Providence Road and Clinkscates Road.
11/01/2021	R172-21 Authorizing an agreement for professional services with Barlett & West, Inc. for design services relating to nonmotorized/pedestrian and intersection improvements along Ash Street, between Providence Road and Clinkscates Road.

Suggested Council Action

For information only.