

9/15/2023



**Seattle  
Public  
Utilities**

# **Options Analysis Engagement Findings**

**17th Ave NW Stormwater Improvements**

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## Project Background

Crown Hill often has problems with street flooding, especially near the intersection of 17th Ave NW and NW 87th St. This is because many blocks in Crown Hill drain to this part of 17th Ave NW and the existing drainage pipes do not have enough capacity for all of this water during storms. South of NW 85th St, many homes experience sewer overflows into basements - caused by the same water that floods NW 87th St.

Seattle Public Utilities (SPU) is partnering with Seattle Department of Transportation (SDOT) to make drainage in this area more effective and resilient. The project is also intended to support the community's desire for a great pedestrian and biking street on 17th Ave NW. Based on past community input, SPU developed two possible options for drainage and pedestrian improvements. Both options combine pipe upgrades and natural drainage systems, while also incorporating pedestrian improvements along 17th Ave NW. In 2022, SDOT designated 17th Ave NW as a permanent "[Healthy Street](#)," which allows pedestrians and cyclists in the roadway with vehicles for local access only.

In July 2023, SPU again engaged with the Crown Hill community about the two project options and how the planned improvements can further incorporate community priorities and local insights. Engagement included:

- Project tour of options along 17th Ave NW
- Phone and email communications, including project email updates through the project listserv
- Online survey available in English and Spanish (included as an Appendix) with videos describing the project options and improvements
- Mailed postcards and letters to area residents
- Yard signs placed along 17th Ave NW
- Social media advertising targeted to the project area and posts on Nextdoor

The survey was also organically promoted by a local community blog, [My Ballard](#), which further amplified engagement.

Generally, area residents who engaged in person, by email, and through the survey support the drainage improvements, but also raised strong concerns about impacts to local parking. Existing parking demand ranges from 50-75% utilization, depending on the time of day, and the proposed project options would cut into that, displacing some of the existing parking usage. Greenway/Healthy Street users who use the street for commuting or recreation tended to prioritize complete right-of-way improvements and street trees, with parking as much less of a concern.

The priorities of these two groups are sometimes in conflict with one another, so the project team will need to carefully consider tradeoffs in developing a preferred alternative to move forward.

## Insights from In-Person and Virtual Engagement

On July 8, SPU hosted a site tour for members of the public to hear more about the project and share feedback. This included walking through the project area, talking about the existing drainage and mobility problems on the street, and discussing proposed alternatives. About 50 residents and greenway users attended. Project team participants included SPU, SDOT, and engineering consultants.



During the engagement process, we received hundreds of comments and emails. This report includes excerpts that represent some of the messages we heard several times from different people.

Most of the neighbors or concerned residents within the project area who contacted SPU through email or at the in-person site tour were excited about the drainage and pedestrian improvements.

*"We're thrilled to hear that something will finally be done to address the flooding problem and provide a safe place to walk."*

*"I have owned a home on 18th Ave NW for over 30 years... We started having noticeable water problems soon after we moved in, and despite many efforts have never been able to divert the water effectively, we have installed French drains across the front on the street side of our fence and have sandbagged during rainy season... Aside from mold and damage to my home personally, the lack of proper drainage in the entire Highland View area makes our streets impassable and unsafe."*

*"I bike and use that 17th healthy street almost daily. MANY students and families use that street and all of us would appreciate a more intentional, safe, pleasant, functional street."*

However, most residents also had concerns about parking reductions. They pointed to high existing parking demand, increasing parking demand from nearby apartment developments, and significant barriers to using the alleys for parking access on private property.

*"We have worked with the city to ensure that Seattle's growth is a win-win for all our existing neighbors as well as new ones moving here. We support smart growth for a more livable, vibrant community for all. Part of that... was to include planning and building of necessary infrastructure to accommodate growth... More people moving to the neighborhood, combined with cuts to public transit, requires neighbors to weigh the impact of removing street parking against the needs of drainage and the aesthetics of the neighborhood."*

*“There are several properties that have more than one set of three bins, and with these narrow pathways I can see this becoming a navigation and visibility issue for cars, pedestrians and cyclists.”*

Many advocated for a revised option that would allow parking on both sides of the street. Several emails also echoed the same sentiments about safety, both for children playing in or traveling through the area, as well as bicyclists.

*“I’ve biked up and down 17th Ave NW south of 85th many times. That 25’ width really is the ideal compromise for a mixed-use residential street... Switching from the current street to 25’ curb-to-curb would naturally slow down vehicular traffic.”*

The consensus was that excessive roadway narrowing, combined with loss of parking, would not meet the mobility needs of those in the neighborhood. They also noted an ongoing desire to discourage fast cut-through traffic from NW 85th St and 15th Ave NW.

Another concern brought up via email was the need for the east side of the street to have drainage options. Several neighbors felt that the east side of the street flooded as much as, if not more than, the west side of the street and that this problem should be addressed by one of the options presented.

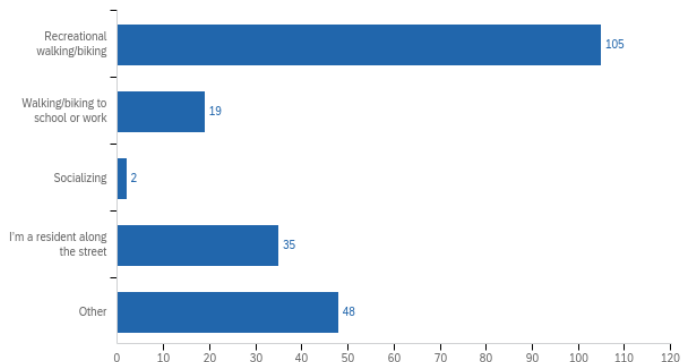
A subgroup of participants emphasized the need for drainage improvements on 18th Ave NW to reduce flooding risk to homes. This group supports whatever improvements are necessary on 17th to allow a drainage extension over to 18th.

## Survey Respondent Information

The online survey elicited 457 total responses, although many of the recorded responses were blank click-throughs of participants viewing the videos describing each project option. There were 250 recorded responses with preference data and write-in comments.

98% of respondents selected English as the primary language spoken in their households. There were 4 other selections: 1 each for Chinese, Korean, Spanish, and German. All surveys were recorded in English, although there was a Spanish option available.

Nearly half of respondents (42%) indicated that they use 17th Ave NW for recreational walking or biking. Thirty-five survey respondents indicated that they lived along this street. Most “other” write-in responses were users selecting a combination of the already available options or writing in other uses such as passing through or living on a nearby street.



# Respondent Sentiment: Project Option 1

Option 1 would add a natural drainage system on the west side of 17th Ave NW and a new sidewalk and street trees on the east side of 17th Ave NW. It would shift the travel lane two feet east to make room for more drainage along the west side of 17th Ave NW. The east side of 17th Ave NW would change from diagonal to parallel parking and most parking on the west side of 17th Ave NW would be removed to make room for drainage features.



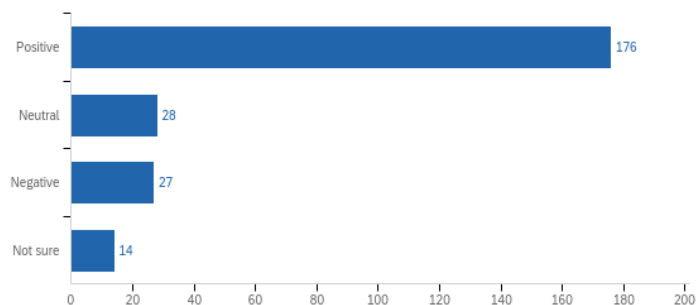
In general, survey respondents had a positive impression of Option 1. 70% of participants viewed this option positively, whereas 10% viewed this option negatively.

When asked which features of Option 1 should be included in the final concept, there was clear consensus for more green spaces, trees and natural drainage, and a sidewalk as depicted in this option.

*"In my ideal world, we could have a climate adaptive street with street trees that provide natural drainage, beautification, and shade, while retaining sidewalks on both the East and West side. I believe this could be achieved through further lane narrowing, and parking reductions."*

A few respondents noted that any added trees should not encroach on driveway access and that this change may impact how garbage and recycling bins are picked up along the street.

The sidewalk was especially viewed as favorable due to the volume of school-aged street users traveling to and from Whitman Middle School. However, some respondents indicated that the narrow width of the added sidewalk might feel cramped especially during busy times or for wheelchair or walker users.



When asked which features of Option 1 sparked concerns, the overwhelming majority of respondents were concerned about the loss of parking. Respondents largely noted that parking availability has been a historical issue in the area and that it has become worse in recent years with the construction of new



apartments and condominiums nearby. This was coupled with concerns about a perceived loss of public transit opportunities in the area.

Many respondents indicated that homes in this area do not feature adequate driveway space, or do not have garage options, so cars must be parked on the street. There were also concerns amongst those in the area with disabilities, who need to be able to park close to their homes.

*"Many on 17th do not have parking off of the alley, nor are they equipped to spend the money to install it."*

Some respondents noted that the tension of excitement about adding trees and sidewalks at the expense of reducing parking may present challenges in the future. This stretch of 17th Ave NW has been designated as a Healthy Street by SDOT. There were concerns noted about cars maneuvering in a narrower street without hitting bikers, runners, or other pedestrians using the space. Some respondents expressed a desire for additional traffic calming features to help improve pedestrian safety, including speed bumps and curb bulbs.

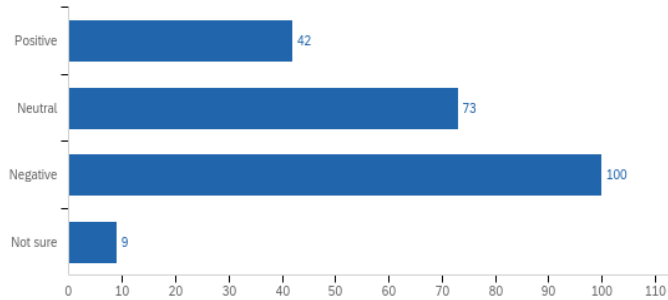
## Respondent Sentiment: Project Option 2

Option 2 would also manage water through a natural drainage system on the west side of 17th Ave NW. It would stack a new sidewalk on top of the natural drainage system and would leave the east side of 17th Ave NW mostly unimproved, with the existing gravel shoulder, which would continue to allow angled parking along that side of the street in most areas.



In general, survey respondents had a negative to neutral impression of Option 2. 40% of respondents had a negative response and 29% had a neutral response, whereas only 17% of respondents had a positive impression of Option 2.

When asked which features of Option 2 should be included in the final concept, many respondents indicated that the natural drainage and sidewalks depicted in this option were favorable, as was the case with Option 1. Overall, respondents were excited about the prospects of these two street improvements regardless of the design option.



However, nearly all respondents felt that Option 2 was an “incomplete” street project by leaving the east side unimproved and for future development. Several participants expressed concern that both options presented reduce parking by the same amount (50%), but Option 2 leaves open the possibility of losing more parking in the future as the east side of the street is developed. Respondents were generally unhappy about the parking reductions in both options, but the ambiguity of Option 2 was less favorable than the fully designed street in Option 1.

Many participants believed that leaving the gravel section of 17th Ave NW would still allow for diagonal parking, which would present parking confusion and safety issues given the Healthy Street designation and more people using the street for walking or recreating. Overall, most participants preferred Option 1’s planned parking scheme over the additional flexibility of the gravel section in Option 2. The width of the street after improvements also brought up safety concerns for bicyclists using the Healthy Street and for school-aged users walking the path to NW 90th St.

*“The reduction in parking spaces could be problematic for residents of 17th. I walk the street frequently, and there are always cars along both sides.”*

*“I would like to see the city attempt to make our blocks similar to the ones on 17th south of 85th, where rain gardens are incorporated and parking is not eliminated.”*

Respondents also expressed dissatisfaction at the lack of trees in Option 2. The inclusion of trees along 17th Ave NW was widely considered a major project benefit in addition to the planned natural drainage systems. Some respondents indicated that all other benefits and impacts held constant, they would prefer an option with guaranteed street trees instead of relying on future development to add them.

## Respondent Sentiment: Work on NW 87th St and NW 90th St

Both Option 1 and Option 2 would add a natural drainage system on the north side of NW 87th St, between 17th and 18th Aves NW. Excess water would drain through the new storm drains on 17th Ave NW. Like Option 2, the NW 87th St natural drainage system would have a sidewalk stacked on top of natural drainage systems. These improvements would extend drainage west on NW 87th St, pulling stormwater runoff away from 18th Ave NW to reduce flooding risk on that street.



### NW 87th St



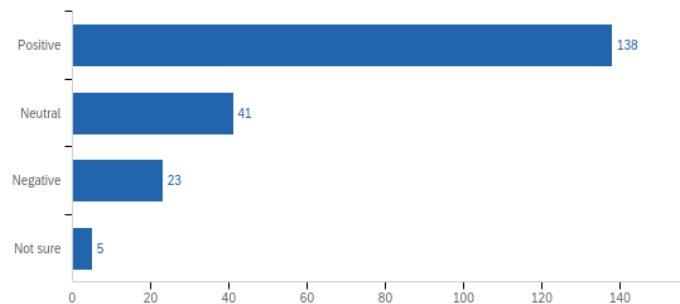
At NW 90th St, the crossing from the alley pedestrian path to the Soundview Playfield would be shortened by adding a natural drainage system curb bulb on the south side of the street.

### NW 90th St



In general, survey respondents had a positive impression of the proposed improvements on NW 87th St and NW 90th St. 55% of participants viewed this work positively, whereas 9% viewed this option negatively. Many respondents were neutral about these proposed improvements (16%).

Respondents generally appreciated the sidewalk and the addition of natural drainage elements. The natural drainage installations along NW 87th St were viewed as overwhelmingly popular due to longstanding drainage issues near NW 87th St and 17th Ave NW.



The curb bulb addition at NW 90th St was also viewed positively due to its ability to reduce speeding and improve pedestrian safety through this popular walkway.

*“Take the opportunity to improve the connection for pedestrians and cyclists to the Soundview sidewalk.”*

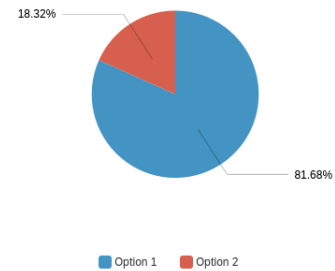
Some respondents expressed concern that any plantings at this curb bulb might limit visibility near the crosswalk. Other respondents suggested raising this crosswalk or adding flashing lights to create additional traffic calming.

The reduction in parking along these stretches of the street were not viewed favorably. Respondents brought up that a lack of parking along NW 87th St and NW 90th St might spur drivers to park their cars in other parts of the neighborhood, thus extending the parking availability issue to the broader community. Some respondents felt that additional traffic calming measures could be helpful for deterring through traffic, especially on NW 87th St. Many respondents mentioned that the neighborhood is often used by drivers avoiding the light at 15th Ave NW and NW 85th St, just southeast of the project area, which has become a bottleneck due to an ongoing increase in neighborhood density.

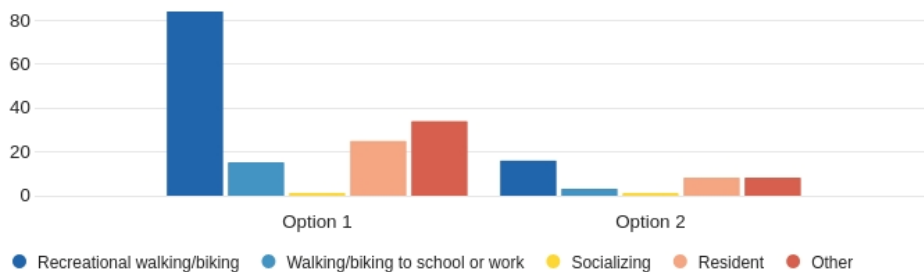
*“How is SDOT going to address the ongoing problem with high-speed overflow traffic on 87th St and 17th Ave NW?”*

## Overall Project Preferences

When asked if respondents preferred Option 1 or Option 2, nearly 82% of all respondents selected Option 1. This preference was largely attributed to the completeness of Option 1’s plan to improve both sides of 17th Ave NW and provide better parking control, whereas Option 2 left the east side of 17th Ave NW unimproved with a gravel strip for angled parking.



When this data is viewed through the lens of how respondents use the street, it becomes apparent that recreational walkers and bikers overwhelmingly preferred Option 1 vs. Option 2. The preference data largely followed the same pattern when broken down by street use otherwise. Based on the survey data, residents along 17th Ave NW also generally preferred Option 1 vs. Option 2, though the results are more balanced.



Other factors that made Option 1 more favorable included:

- The addition of street trees in Option 1 versus the lack of street trees in Option 2.
- A sidewalk on the east side of 17th Ave NW in Option 1 versus the west side of 17th Ave NW in Option 2. Most respondents favored the addition of a sidewalk in both options, but many felt that the sidewalk made the most sense on the east side of the street to better connect to the trail to NW 90th St.
- The inclusion of more traffic calming features in Option 1 versus the lack of street structure in Option 2.
- Improving this section of the street all at once as in Option 1 versus leaving the east side of the street unimproved as in Option 2.

While Option 1 was perceived as more favorable by the data, there was a tension in how respondents perceived the two options. While many felt that Option 1 was a more complete project, there was a sentiment that Option 2's layout provided a better use of space given all the constraints present.

*"Option 1 feels like a missed opportunity to have sidewalks on both sides of the street in the future. Option 2 is a smarter use of space."*

*"I prefer Option 1 because the entire street gets done instead of the east side being done in iterations in upcoming years. Adding the trees to the neighborhood will also introduce greenery and overtime shade."*

There was a clear negative sentiment about the reduction in parking presented in both options. Some respondents stated they would rather have no improvements at all if it meant keeping parking availability. Other residents suggested compromises that would incorporate more parking and less natural drainage. Still other respondents made the concession that if parking would be reduced equally in both options, the improvements as outlined in Option 1 would be a better consolation than the improvements as outlined in Option 2. Overall, it was clear that parking availability will be a major factor for community sentiment about this project.

## Next Steps

After reviewing comments from the community, SPU is working with transportation planners to come up with a revised alternative that addresses many of the specific concerns that were heard. SPU will share this preferred alternative once it is approved and gather more feedback from the community as the design proceeds.

SPU will continue to engage with the Crown Hill community as the project progresses. Tactics that have worked well include in-person drop-in sessions, project area tours, and surveys to elicit feedback. Updates should also be available in multiple formats, including maintaining a project website, sending project emails and letters to residents, and continuing to host or attend drop-in sessions, briefings, public meetings or events in the project area.

## Questions for SPU and Project Team

Several respondents had questions for the project team, either about the project broadly or about the options presented in this survey. The main recurring questions from emails and survey responses are summarized below, with brief responses from SPU:

### Natural drainage and sewer questions

- **Why is SPU pursuing this natural drainage approach?** After considering multiple alternatives, we found that natural drainage systems are our most effective option to reduce local flooding without creating new downstream problems.
- **How does the new storage tunnel in Ballard influence sewer capacity in Crown Hill?** Although about half the water from this project area will end up passing through Ballard, the new storage tunnel (known as the [Ship Canal Water Quality Project](#)) doesn't have any direct effect on capacity in Crown Hill. Other pipes between Crown Hill and the storage tunnel are small enough to constrict flows, so solving Crown Hill's problems by increasing pipe sizes alone would require 1 to 2 miles of road work!
- **Can street trees be planted in the natural drainage systems?** Yes. Street trees can be part of natural drainage systems, but usually only on the sloped sides away from the road (the bottom area is too wet, and sloped side adjacent to the road is too close to traffic). This is one reason that Option 1 provides more street trees than Option 2; the wider natural drainage system would have two sloped sides, including one that can accommodate trees. However, Option 2 would also allow some street trees on the west side in the areas that aren't suitable for natural drainage systems.
- **Who maintains the natural drainage plantings?** SPU is responsible for maintaining the pipes and structures in natural drainage systems, as well as basic landscape maintenance. Residents will not be asked to perform any maintenance of the natural drainage systems. Maintenance of the planting strip that is not part of SPU's natural drainage system remains the responsibility of the adjacent property owner.
- **Will the change in groundwater flows create more potential for sinkholes?** No. SPU doesn't install natural drainage systems if groundwater is close to the ground surface. In this part of Crown Hill, groundwater is 50-100 feet deep. Therefore, even if infiltration increases the groundwater depth in the wettest part of winter, that groundwater will still be far away from the roadway, basements, etc. If anything, improved drainage could reduce pothole formation by decreasing freeze/thaw cycles on the roadway surface.
- **Why is drainage only being added to the west side of the street? Aren't the issues worse on the east side?** The west side of the street presents fewer engineering constraints and will be more effective at draining the largest flooding areas. The project will include new drains on the east side of the street, so both sides of the street will have good drainage.
- **How will the street improvements impact space for garbage/recycling cans?** Each parcel will have a trash staging area, either in driveways (where applicable) or in the path from the street to the parcel. When/if larger redevelopments occur, the developers will likely be required to make alley improvements and provide trash staging in the alley.
- **Can sediment build-up in the natural drainage systems? How will this be managed?** In project design, SPU plans to replace soil in the natural drainage system every 20 years to address sediment build-up. In practice, soil replacement has only been necessary for one project in the densest, most urban context, where an area more than 10 times the size of this project basin flowed to the natural drainage systems.

- **What about the natural drainage systems that caused problems in Ballard 10 years ago and had to be rebuilt?** The Crown Hill project is different from that Ballard project in two important ways. First, the Ballard project was built on an accelerated timeline that used a shorter soils analysis. 17th Ave NW has had complete soil testing, which indicated good potential for both shallow and deep infiltration. Second, the 17th Ave NW project includes underdrains beneath each natural drainage system. If the water coming into a natural drainage system exceeds the rate of infiltration to the soil underneath, underdrains will pick up that extra water and route it to the 17th Ave NW storm drain. The Ballard project did not have these underdrains when the problems occurred.
- **What are the plans for the roundabout? Could plantings be incorporated there as well?** The traffic circle is not a good location for natural drainage, because it sits higher than the road edges where water goes, and it is not as safe for crews conducting routine maintenance.

#### Parking questions

- **Is there any possibility of incorporating natural drainage and parking in such a way so that parking is not reduced by 50%? Something like the rain gardens on 17th Ave NW south of NW 85th St?** After engaging with the community and hearing residents' thoughts on the proposed alternatives, the project team is working on a revised alternative that will have less of an impact on parking. This is challenging for two reasons: the right-of-way is about 10' narrower north of NW 85th St, so there's less space to work with; also, there's much more water to manage here, so the drainage facilities need to be bigger. However, developing a revised alternative seems possible, and we will report back to the community when we have new information to share.
- **Could the City create zoned parking or permit parking to hold the limited spaces for residents?** Crown Hill does not currently qualify for a restricted parking zone under SDOT criteria; the parking demand is not high enough or widespread enough. As the commercial district grows, this area may become eligible in the future. In any case, restricted parking zones would allow apartment residents to park on all streets in the area, so this kind of restriction wouldn't address residents' concern about "spillover parking" on 17th.
- **With parking such an issue in the area, why are there no options considering a sewer line replacement with a bigger sewer pipe, not adding natural drainage, and keeping the street level parking the same?** There are downstream capacity problems. If we solved the flooding at NW 87th St with bigger pipes alone, we would cause more sewer backups for residents south of NW 85th St., potentially causing new street flooding in the North Beach neighborhood.
- **Would all parking be on paved surfaces or will some still be owner-maintained gravel? How much property will homeowners lose from front yards?** None of the improvements will be on private property. There may be homes that have plantings, fences, or other items in the right-of-way – these encroachments will likely need to be removed prior to construction. The flex zone parking would be on asphalt. In Option 2, there would continue to be a gravel shoulder on the east side 17th Ave NW, beyond the designated parking area.
- **Is there a possibility of clearing the alley east of 17th Ave NW as part of this work? It is overgrown but might help with construction impacts/parking reductions.** City policy is to avoid working in alleys unless we have critical infrastructure there. This project will not be making alley improvements. Future development may be required to improve alleys, or neighbors may choose to organize and fund alley improvements themselves.

### Safety questions

- **Can more traffic calming elements be incorporated? Narrowing the street feels unsafe without also deterring traffic bypassing the NW 85th St/15th Ave NW intersection.** 17th Ave NW will be narrowed to the standard width for neighborhood yield street and continue to have speed humps. As a Healthy Street, it will have narrowed intersection openings to discourage cut-through traffic and slow cars. The project team will explore further limiting left-turn movements off of NW 85th St; feasibility will depend on traffic engineer input and further community engagement.
- **By adding sidewalks to the north side of NW 87th, will there be enough room for two cars to pass safely with cars already parked along that stretch of street? There are hazards now with people parking too close to the roundabout.** Yes, cars will still be able to pass each other in the two 11' travel lanes on NW 87th St. The narrowed roadway on 17th Ave NW will require one car to yield to the other car passing by, as is typical for "Neighborhood Yield" streets throughout Seattle neighborhoods.
- **How is eliminating space and narrowing the street making things safer? How will cars maneuver for oncoming traffic or pedestrians?** Residential streets all over Seattle use "Neighborhood Yield" treatments effectively to slow traffic and discourage cut-through routes. Drivers go slower in an 11' travel lane with parking on both sides and, given multiple driveways and fire hydrant "no parking" spots on each block, there are plenty of locations for drivers to yield and pass one another.
- **Once we get to construction, will the street be closed to drivers and cyclists? For the whole construction duration or just during work hours?** It will depend on the phase of construction. Generally, the closures will be during work hours but there may be stages of pipe replacement or repaving where the street is fully closed for a period of time.
- **Is it safe to have a sidewalk stacked with natural drainage? Could children fall in? Could the sidewalk sink?** SPU has used this approach on several projects without problems. A curb or low rail will help pedestrians avoid accidentally falling into the natural drainage systems. The sidewalk is held up by "structural soil cells," a technology that allows root growth and water storage under sidewalks, while giving the sidewalk a sturdy foundation.

### Sidewalk questions

- **Is a sidewalk necessary if the street is a Healthy Street and intended for walking? Can the drainage system be implemented without adding sidewalks?** SDOT standards require at least one sidewalk for this kind of project, to maintain compliance with the Americans with Disabilities Act.
- **Can the sidewalk be made wider if there is only one sidewalk going in along 17th Ave NW? This would also help with accessibility concerns or for people using walkers, scooters, or strollers.** Whether it's one or two sidewalks, they would likely each be 6' wide to balance accessibility concerns with other competing uses in the right-of-way.
- **Did SPU look at adding sidewalks on both sides of 17th Ave NW?** Sidewalks are feasible on both sides of the street in a scenario like Option 2 – however, building two sidewalks would depend on funding availability. As a drainage and wastewater utility, SPU can pay for one required sidewalk, but not for extra street improvements. SDOT does not currently have funding for a second sidewalk on this street, as all past levy dollars and grant funds are allocated to pedestrian safety projects elsewhere. SPU and SDOT could partner on two sidewalks if new funding became available.
- **From the second option, it sounds like the long-term plan is to eventually build a sidewalk and plant more trees on the east side anyway, so why wait?** See the answers



above. Since the City can't pay for both sidewalks in the near term, but it's a priority to move ahead with a solution to the flooding problem, the second sidewalk will depend on improvements by future development. SPU and SDOT will explore the feasibility of planting street trees on the east side of the street in anticipation of future frontage improvements.

#### Other questions

- **Is there a cost difference between the two designs?** There is likely not a major cost difference between Options 1 and 2. SPU's project team will develop a detailed cost estimate for the new preferred alternative that results from this process.
- **How is SPU working with SDOT to incorporate permanent Healthy Street infrastructure into this design?** SPU will continue to coordinate with Healthy Street planners and SDOT traffic engineers to make sure that our design is consistent with the Healthy Street vision and safety best practices.
- **How did SPU consider houses that are lower than street level into this design? Could there be impacts to these yards and/or properties?** The project team has checked to make sure that any houses with basements are far enough from the street that they won't have infiltration into their structures. Based on preliminary engineering, this doesn't appear to be a risk. If any lots appear to have a higher risk in the next stage of the design process, SPU can line the natural drainage system facilities abutting those properties.
- **How will these improvements impact electric charging abilities on the west side of the street in the future?** No electric charging stations are currently planned for 17th Ave NW, but as this becomes a more widespread improvement, charging stations could be retrofitted into the right-of-way adjacent to flex zone parking areas.

## Appendix: Project Options Survey

Crown Hill often has problems with street flooding, especially near the intersection of 17th Ave NW and NW 87th Street. Sometimes stormwater can overload sewer pipes in the area, causing sewage overflows into basements south of NW 85th St. Responding to the community's requests for help, Seattle Public Utilities is partnering with Seattle Department of Transportation to make drainage in this area more effective and resilient. The flooding and sewer problems happen because many blocks in north Crown Hill drain to 17th Ave NW. Existing drainage pipes are too small and flat to handle anything more than a small rainstorm.

Based on community input, SPU developed two possible options for drainage and pedestrian improvements. Both options combine pipe upgrades and natural drainage systems. Natural drainage systems are shallow depressions along the edge of a street. They use special soil and deep-rooted plants to slow stormwater and filter out pollutants – like rain gardens, but on a larger scale. Together, these improvements will help reduce street flooding by an estimated 95% in large storms.

The Crown Hill community has long identified 17th Ave NW as a key route for pedestrians and cyclists. Based on public input in 2022, SDOT designated 17th Ave NW as a permanent "Healthy Street." This allows pedestrians and cyclists in the roadway, with vehicles for local access only. Both stormwater design options help achieve this vision.

The videos below describe each option, followed by a questionnaire. You may also review the design options in more detail with this link. SPU will use your feedback to inform which street design features should be considered in the project's design. It should take you roughly 10 minutes to complete the questionnaire. Please share your thoughts by July 26. Thank you for your participation and interest in the project!

If you would like to talk to someone at SPU about the project, please contact project manager Dave LaClergue (dave.laclergue@seattle.gov, or 206-256-5573)

Information provided in this survey is considered a public record and may be subject to public disclosure. For more information, see the Public Records Act, RCW Chapter 42.56. To learn more about how we manage your information, see our Privacy Statement.

### Option 1

[Video description of Option 1]

By imagining these changes to 17th Ave NW, what is your impression of Option 1?

- Positive
- Neutral
- Negative
- Not sure

Which of these features would you like to see in the final concept?

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Which features do you have concerns about, or think need more work?

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## Option 2

[Video description of Option 2]

By imagining these changes to 17th Ave NW, what is your impression of Option 2?

- Positive
- Neutral
- Negative
- Not sure

Which of these features would you like to see in the final concept?

---

Which features do you have concerns about, or think need more work?

---

## NW 87th St and NW 90th St

[Video description of work at NW 87th St and NW 90th St]

By imagining these changes to NW 87th St and NW 90th St, what is your impression?

- Positive
- Neutral
- Negative
- Not sure

Which of these features would you like to see in the final concept?

---

Which features do you have concerns about, or think need more work?

---

Between Option 1 (sidewalk on the east side) and Option 2 (sidewalk stacked on top of natural drainage), which do you prefer?

- Option 1
- Option 2

Why do you prefer that option?

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What additional questions or comments do you have for SPU or SDOT about this project?

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## Next Steps

Based on public feedback and the results of our analysis of the options, SPU will select a preferred option in summer 2023. That concept will then go into design and permitting, with construction tentatively planned for 2025. During the design process, we'll continue to provide updates to the community as well as opportunities for engagement.

Are you interested in signing up for our email list to receive project updates?

- Yes
- No

### **Demographic Questions**

Please tell us a little bit about yourself. This will help SPU improve our future outreach efforts and provide context to your responses above.

What is the primary language spoken in your household?

- Amharic
- Chinese - Cantonese
- Chinese - Mandarin
- English
- Korean
- Somali
- Spanish
- Tagalog
- Vietnamese
- Other

How do you use 17th Ave NW? Choose all that apply:

- Recreational walking/biking
- Walking/biking to school or work
- Socializing
- I'm a resident along the street
- Other

Thank you for your participation and your interest in the project. For more information about this project, visit our website.