



**Planning & Development Division**  
*Planning & Economic Development Department*

Room 160  
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planning@duluthmn.gov

<b>File Number</b>	PL 23-083	<b>Contact</b>	Kyle Deming	
<b>Type</b>	Special Use Permit – fill in a Floodplain	<b>Planning Commission Date</b>	5/9/2023	
<b>Deadline for Action</b>	<b>Application Date</b>	4/4/2023	<b>60 Days</b>	6/3/2023
	<b>Date Extension Letter Mailed</b>	4/19/2023	<b>120 Days</b>	8/2/2023
<b>Location of Subject</b>	North side of Keene Creek west of 57 <sup>th</sup> Avenue W. (Irving)			
<b>Applicant</b>	City of Duluth	<b>Contact</b>	Patrick Loomis, City Engineering	
<b>Agent</b>	SEH	<b>Contact</b>	Matt Bolf, PE, Project Manager	
<b>Legal Description</b>	Lots 15 & 16, Block 101 and Lots 15 & 16, Block 102, West Duluth 2 <sup>nd</sup> Division			
<b>Site Visit Date</b>	4/28/2023	<b>Sign Notice Date</b>	4/25/2023	
<b>Neighbor Letter Date</b>	4/20/2023	<b>Number of Letters Sent</b>	36	

**Proposal**

Special Use Permit for placement of fill in the Keene Creek floodway for Cross City Trail construction.

**Staff Recommendation**

Staff recommends approval with conditions noted below.

	<b>Current Zoning</b>	<b>Existing Land Use</b>	<b>Future Land Use Map Designation</b>
<b>Subject</b>	R-1	Undeveloped floodplain	Open Space
<b>North</b>	R-1	Undeveloped floodplain	Open Space
<b>South</b>	R-1	Creek and floodplain	Open Space
<b>East</b>	R-1	Park and floodplain	Open Space
<b>West</b>	R-1	Creek and floodplain	Open Space

**Summary of Code Requirements**

UDC Section 50-37.10. Special Use Permits: Planning Commission shall approve the planning review or approve it with modifications, if it is determined that the application complies with all applicable provisions of this Chapter.

- 1) The application is consistent with the Comprehensive Land Use;
- 2) The application complies with all applicable provisions of this Chapter; including without limitations to any use-specific standards applicable to the proposed use, development or redevelopment, and is consistent with any approved district plan for the area.
- 3) Without limiting the previous criteria, the Commission may deny any application that would result in a random pattern of development with little contiguity to existing or programmed development or would cause anticipated negative fiscal or environmental impacts on the community.
- 4) Use Specific Standards – Floodplain Special Use Permits (Section 50-18.1.C(c):

A special use permit for uses and structures listed in subsection (b) above (placement of fill) shall only be issued if the following standards are met:

(i) The proposed use or structure will not cause any increase in the stage of the 100-year or regional flood or cause an increase in flood damages in the reach or reaches affected;

(ii) Any fill deposited in the floodway shall be no more than the minimum amount necessary to grade or landscape, shall not in any way obstruct the flow of flood waters and shall be protected from erosion by the planting of vegetative ground cover, the use of rip rap or other method approved by the city;

### **Comprehensive Plan Governing Principle and/or Policies and Current History (if applicable):**

**Governing Principle #13 – Develop a healthy community** – “The City will actively promote access for all to . . . a clean and secure environment.” The Cross City Trail is available for all to use for both transportation, recreation, and health.

**Economic Development Policy #4** – Embrace the outdoors as an economic engine and source of community wealth. The Cross City Trail expands Duluth’s trail network that improves the city’s attractiveness for visitors and new and future residents.

**Future Land Use – Open Space** - High natural resource or scenic value, with substantial restrictions and development limitations. Primarily public lands but limited private use is anticipated subject to use and design controls. Examples include: city parks and recreation areas, primary viewsheds, shorelands of the lake and streams, wetlands and floodplains, and high-value habitat, low intensity uses such as trails and recreation, viewshed protection and access, water access, with some parking and support facilities.

### **Review and Discussion Items**

Staff finds that:

- 1.) The proposal is to extend the Cross City Trail from Irving Park to 59<sup>th</sup> Ave. W. The 10-foot-wide trail will follow an existing gravel path from 58<sup>th</sup> Ave. W. to 59<sup>th</sup> Ave. W., but from 57<sup>th</sup> Ave. W. to 58<sup>th</sup> Ave. W., fill must be used to raise the grade of the trail to intersect with 57<sup>th</sup> Ave. W.
- 2.) The area for trail construction is both a shoreland and a floodway for Keene Creek. Shoreland standards allow for the construction of trails in proximity to the creek, but floodplain regulations require a Special Use Permit for placement of fill in a floodway.
- 3.) Trail designs show placement of 578 cubic yards of fill to raise the grade for the trail. Offsetting the fill placement, plans show removal of 1,365 cubic yards of material from an existing berm along the creek from a previous trail.
- 4.) A modeling study was conducted by SEH to determine if the trail project would cause a rise in the water surface elevation of Keene Creek in the area of the project, which could impact the current flood stage, or cause damages from flooding to increase. The study found the fill will not impact the floodway width or 100-year flood elevation. The attached Minnesota “No-Rise” Certification has been issued for this project by a credentialed flood plain manager.
- 5.) The trail engineer states “the trail was designed to minimize fill in the floodplain by elevating the trail only the amount needed to match the elevation of 57<sup>th</sup> Ave. W. In addition, slopes of 1:3 were used instead of the standard 1:4 to minimize fill.”
- 6.) The trail design includes two culverts placed at natural grade and at a shallow to flat slope to allow water to flow in either direction under the trail fill in order to equalize water moving through the floodplain.
- 7.) The trail design includes seeding the slope to protect from erosion instead of using rip-rap due to the infrequency of flooding as well as reduction in hazards to trail users who may venture from the pavement.
- 8.) The proposed trail project is consistent with the Comprehensive Plan future land use designation of the site for “open space” uses and policies within the plan calling for recreational trails for resident health, recreational, and transportation purposes.
- 9.) The proposed trail is not expected to cause land use conflicts or negative environmental or fiscal impacts due to the low intensity of the use and limited footprint as well as the design that does not result in a rise if flood elevations.
- 10.) UDC Section 50-37.1.N states that an approved Special Use Permit will expire if the project or activity authorized by the permit has not begun within one year.
- 11.) No public or agency comments have been received as of the publication of this report.

### **Staff Recommendation**

Based on the above findings, Staff recommends that Planning Commission approve the Special Use Permit, subject to the following requirements:

- 1.) The project shall be limited to, constructed, and maintained according to plans by SEH entitled Cross City Trail – Phase 3, 59<sup>th</sup> Ave. West to Irving Park.
- 2.) Any alterations to the approved plans that do not alter major elements of the plan may be approved by the Land Use Supervisor without further Planning Commission review; however, no such administrative approval shall constitute a variance from the provisions of Chapter 50.



PL 23-083

Special Use Permit  
Floodway Fill

Applicant: City Engineering Division

### Area Map

#### Legend

##### Floodplain (Preliminary)

- AE, FLOOD FRINGE
- AE, FLOODWAY

##### Streams

- Trout Stream (GPS)

##### Floodplain (UDC)

- Flood Way
- Flood Fringe

##### Park Lands

- Recreation
- Parks

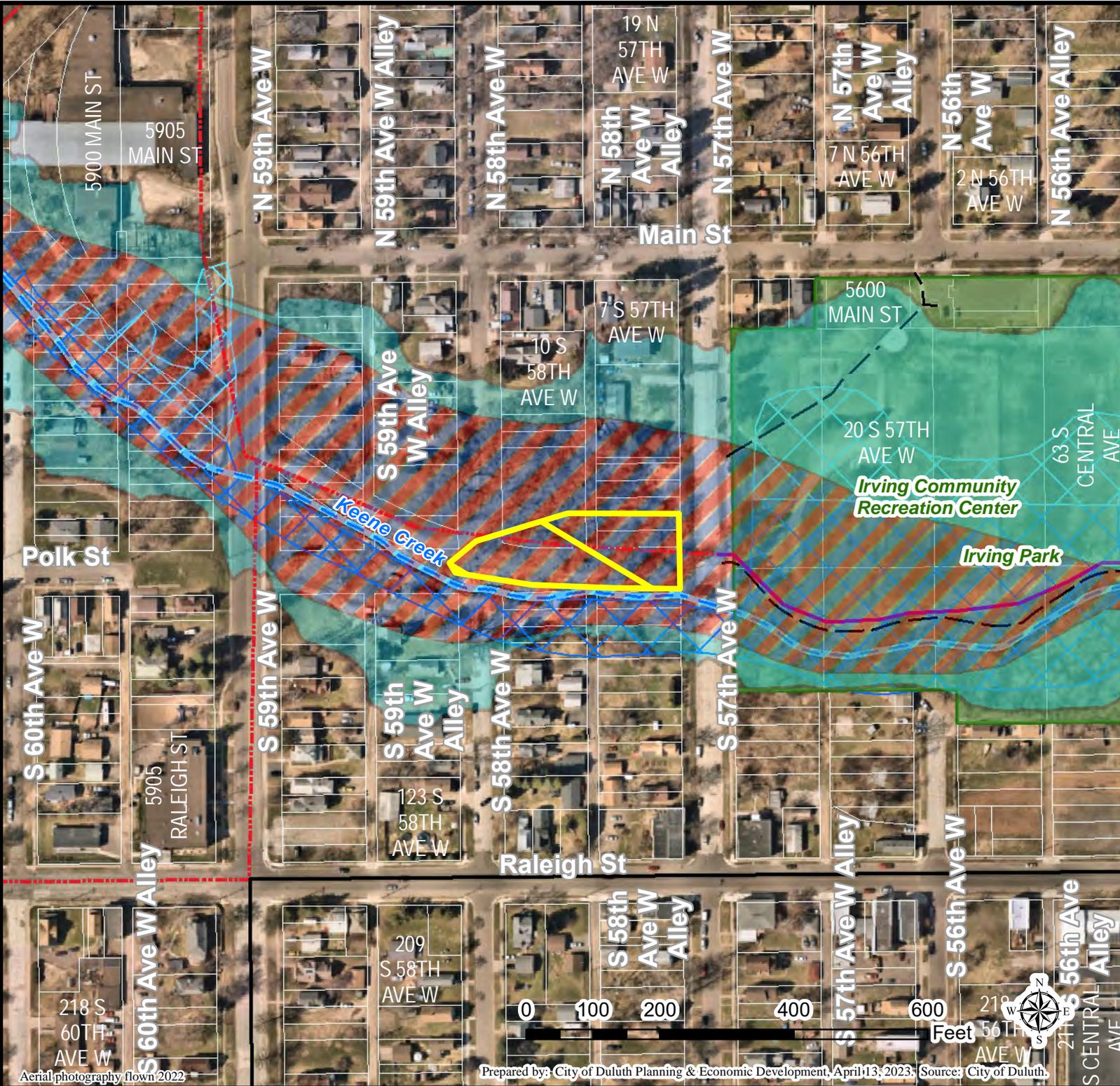
##### Trails

- Multi-Use - Paved

##### Bikeways Plan

- Future Bike Facility
- Multi-Use Path
- Signed Shared Lane

The City of Duluth has tried to ensure that the information contained in this map or electronic document is accurate. The City of Duluth makes no warranty or guarantee concerning the accuracy or reliability. This drawing/data is neither a legally recorded map nor a survey and is not intended to be used as one. The drawing/data is a compilation of records, information and data located in various City, County and State offices and other sources affecting the area shown and is to be used for reference purposes only. The City of Duluth shall not be liable for errors contained within this data provided or for any damages in connection with the use of this information contained within.



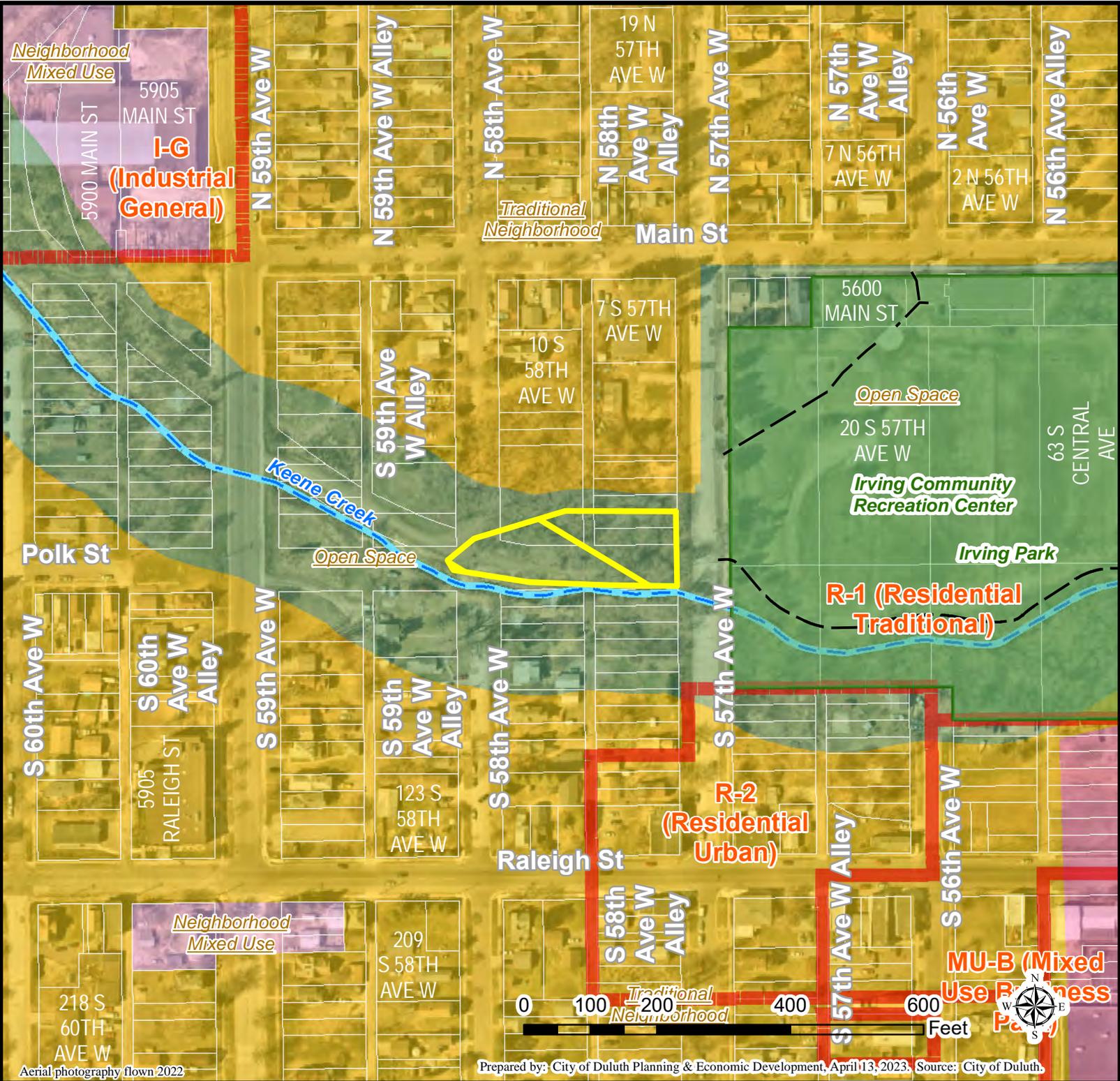


PL 23-083

Special Use Permit  
Floodway Fill

Applicant: City Engineering Division

### Future Land Use Map



**Legend**

- Zoning Boundaries
- Streams**
  - Trout Stream (GPS)
- Future Land Use**
  - Open Space
  - Traditional Neighborhood
  - General Mixed Use
  - Neighborhood Mixed Use
- Park Lands**
  - Recreation
  - Parks
- Trails**
  - Multi-Use - Paved

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Aerial photography flown 2022

Prepared by: City of Duluth Planning & Economic Development, April 13, 2023. Source: City of Duluth.



PL 23-083

Special Use Permit  
Floodway Fill

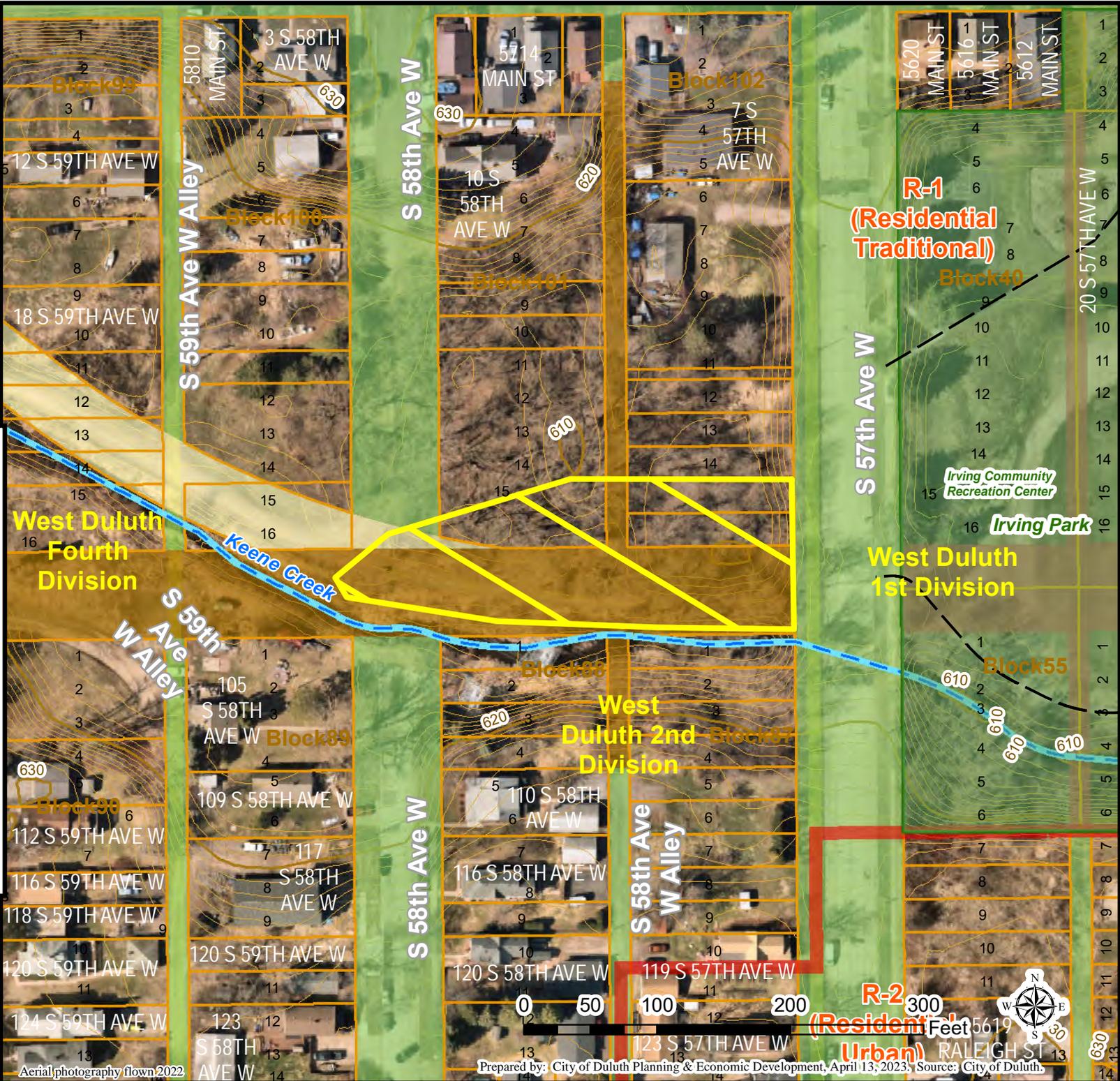
Applicant: City Engineering Division

### Site Map

### Legend

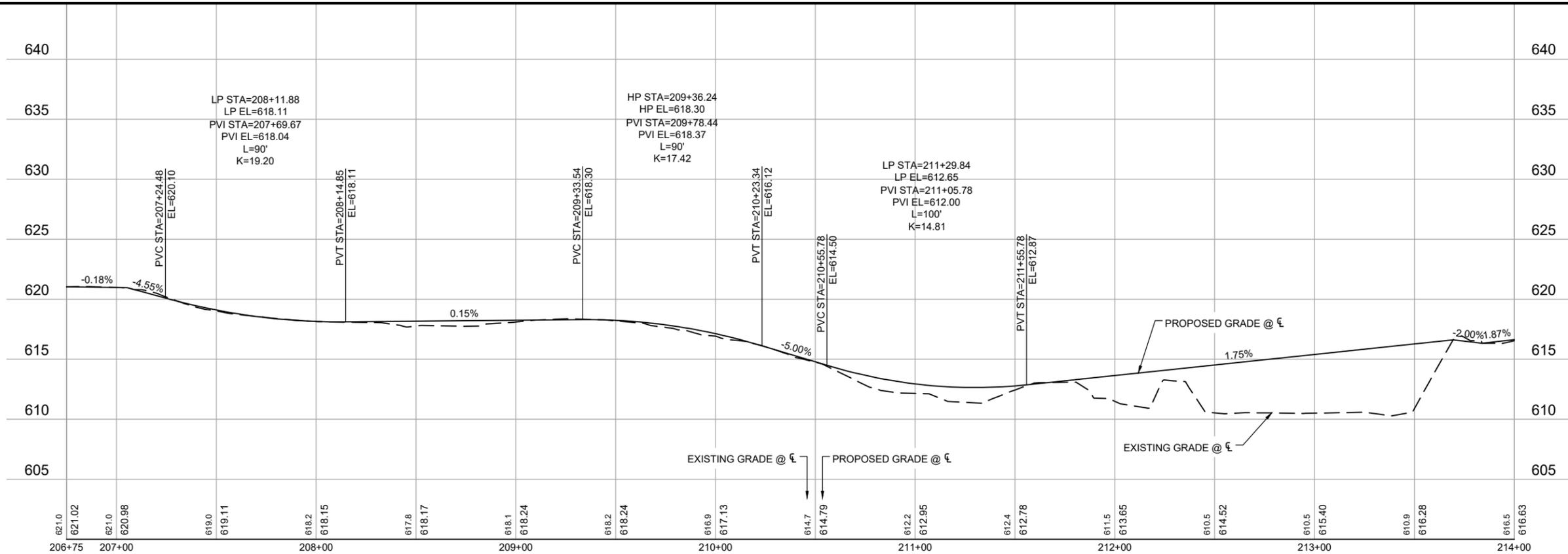
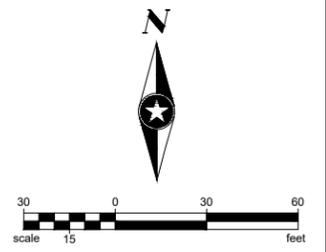
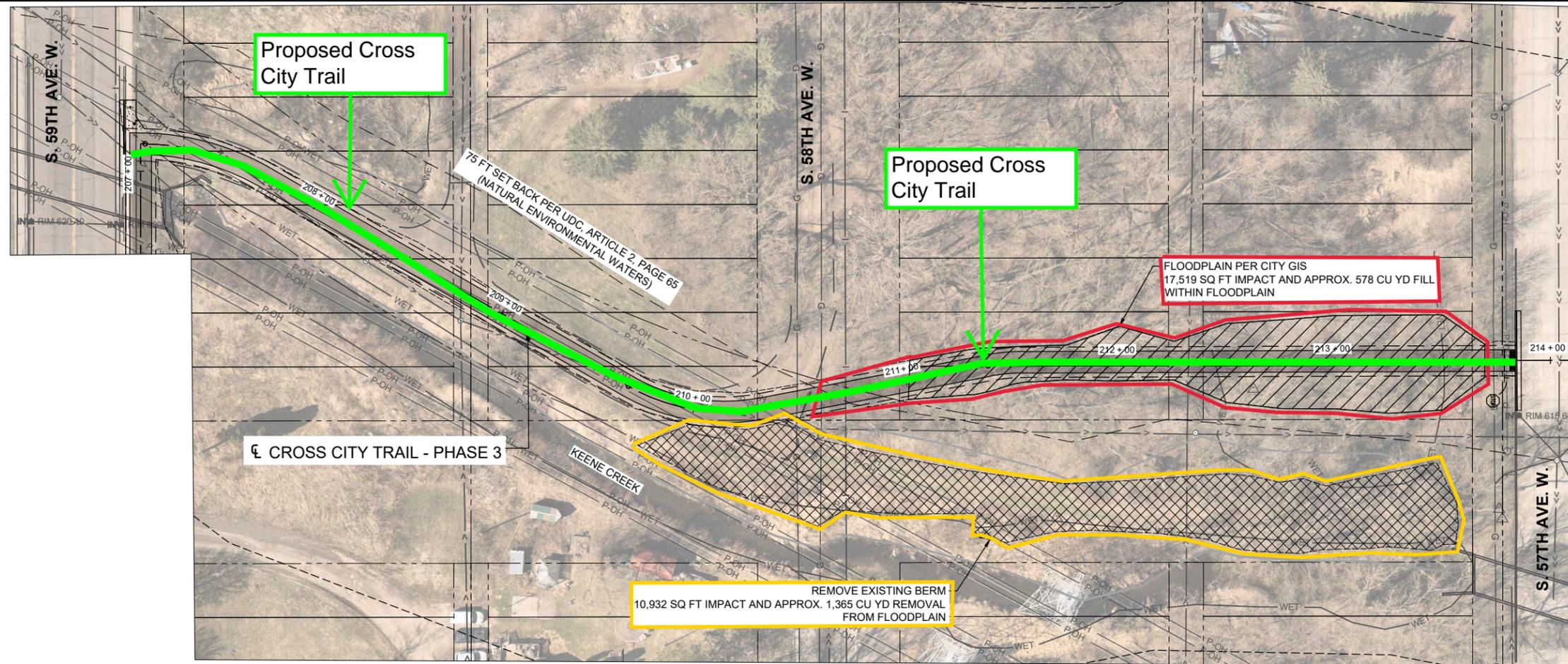
- Zoning Boundaries
- Streams**
- Trout Stream (GPS)
- Parcels**
- Lots
- Blocks
- Park Lands**
- Recreation
- Parks
- Trails**
- Multi-Use - Paved
- Elevation**
- 1 Ft contour
- 10 Ft contour
- Undefined ROW Status
- ROW Status**
- Utility, Active
- Road, Active - currently in use
- Road, Vacated - vacated
- Railroad, Inactive - Ded., not built
- Subdivision Boundaries

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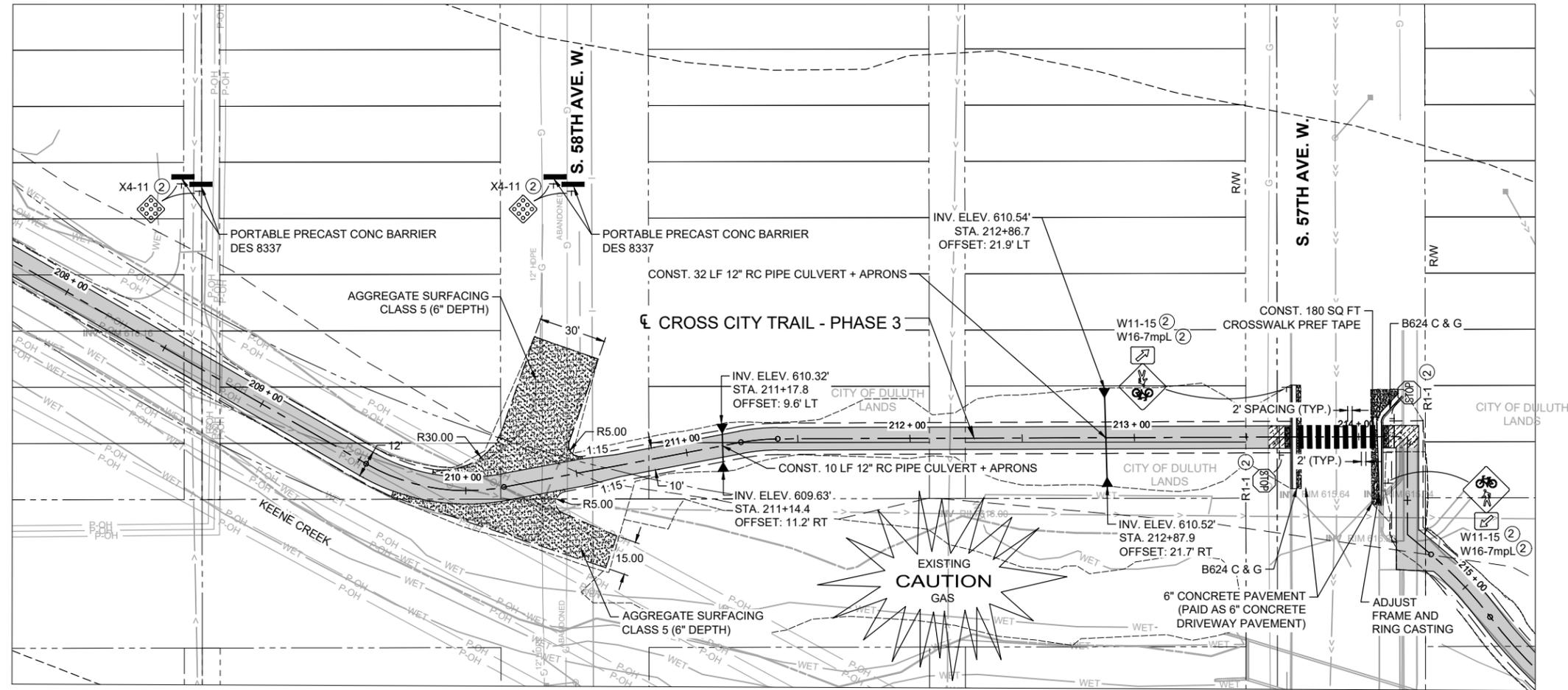
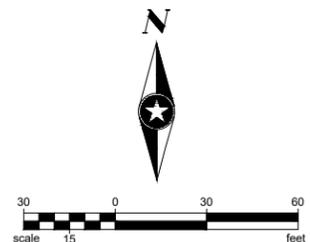
SEH Project	DULUT 159621	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	ACO						
Designed By	ACO						
Checked By	MJB						

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Matthew J. Boff  
DATE XX-XX-XX LICENSE NO. 43913

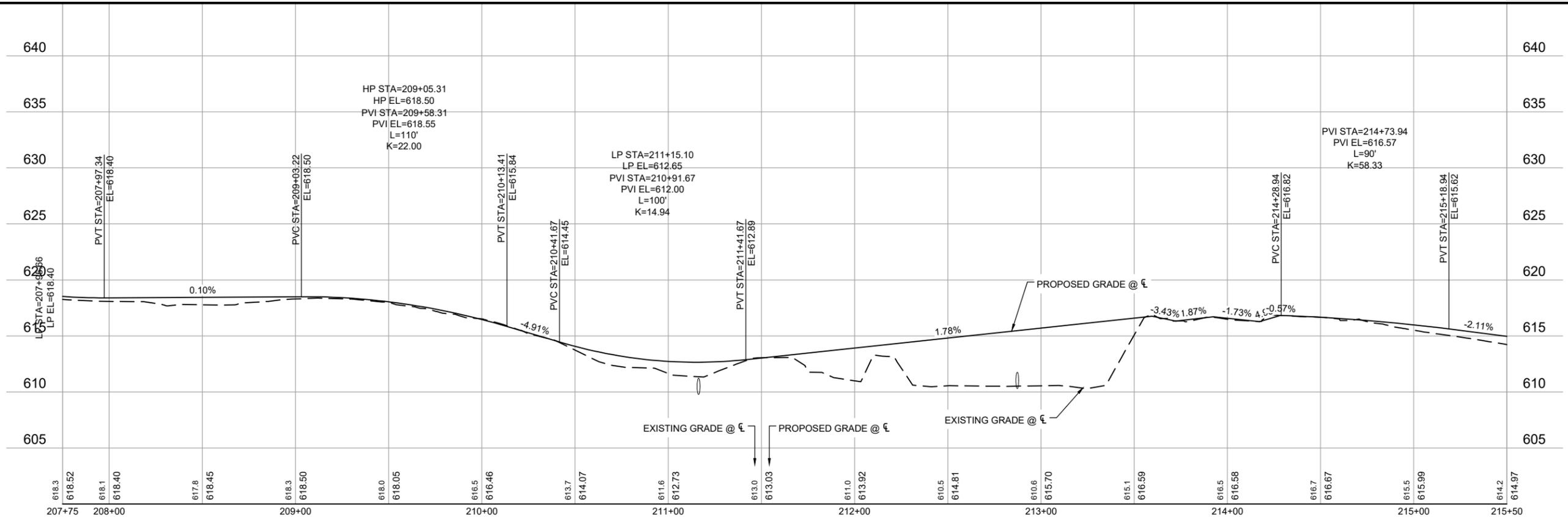
**CROSS CITY TRAIL - PHASE 3**  
DULUTH, MINNESOTA

**59TH AVE. WEST TO IRVING PARK**  
**PLAN AND PROFILE**



**LEGEND:**

- 4" CONCRETE WALK
- 6" CONCRETE WALK
- TRUNCATED DOMES
- BITUMINOUS TRAIL
- FURNISH & INSTALL SIGN



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Designed By	ACO						
Checked By	MJB						

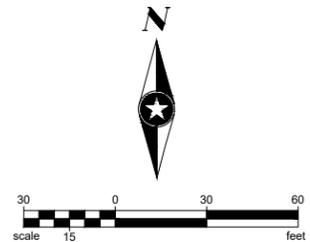
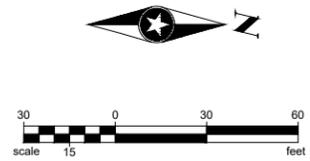
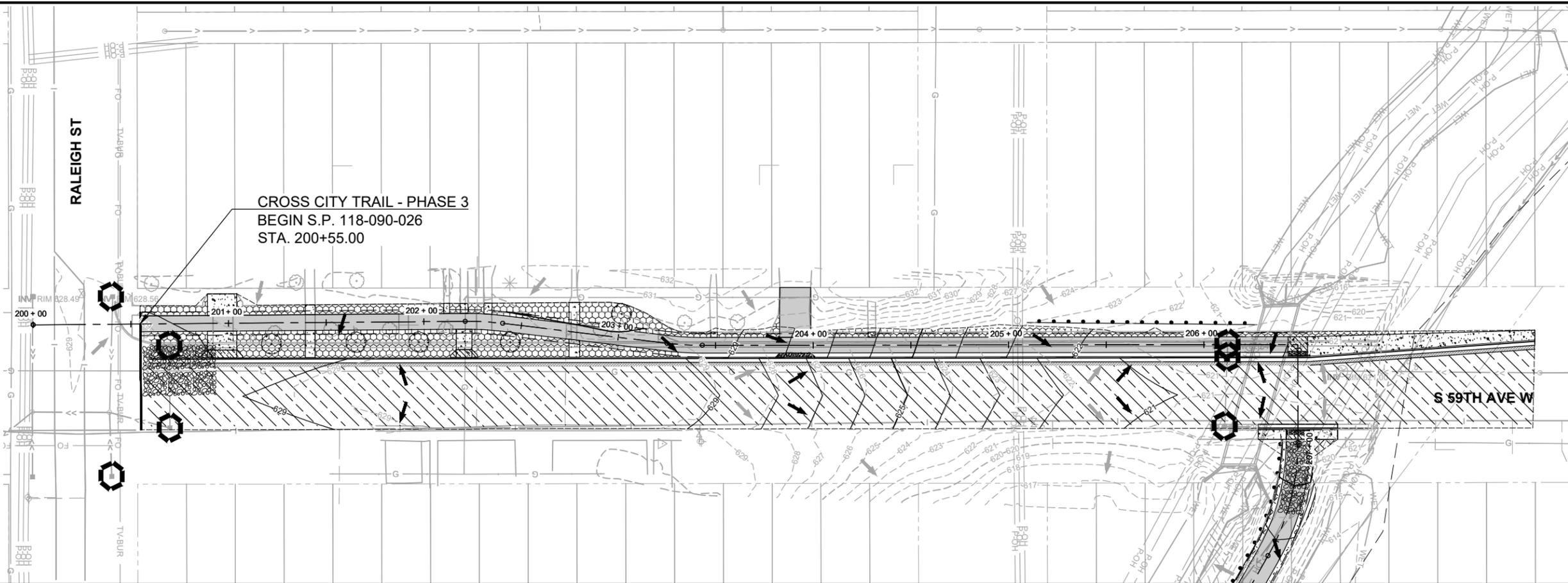
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**CROSS CITY TRAIL - PHASE 3**  
DULUTH, MINNESOTA  
S.P. 118-090-026 / C.P. 1510

**59TH AVE. WEST TO IRVING PARK**  
**PLAN AND PROFILE**

37  
of 64



- EROSION CONTROL**
-  EXISTING DRAINAGE DIRECTIONAL FLOW ARROW
  -  PROPOSED DRAINAGE DIRECTIONAL FLOW ARROW
  -  TEMPORARY ROCK CONSTRUCTION ENTRANCE
  -  STORM DRAIN INLET PROTECTION
  -  SILT FENCE
  -  CONTROL LOG TYPE WOOD FIBER
  -  4" TOPSOIL, SEED (MIX 25-141), FERTILIZER, TYPE 3 (22-5-10), AND EROSION CONTROL BLANKET - CATEGORY 3
  -  4" TOPSOIL, SOD, FERTILIZER TYPE 3 (22-5-10)

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SEH Project	DULUT 159621	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
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Designed By	ACO	.			.		
Checked By	MJB	.			.		



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Matthew J. Boff  
DATE XX-XX-XX LICENSE NO. 43913

**CROSS CITY TRAIL - PHASE 3**  
DULUTH, MINNESOTA  
S.P. 118-090-026 / C.P. 1510

**EROSION CONTROL AND TURF ESTABLISHMENT PLAN**



Building a Better World  
for All of Us®

## MEMORANDUM

TO: Kyle Deming, City of Duluth

FROM: Matt Bolf, PE (Lic. MN, WI)

DATE: March 25, 2023

RE: Cross City Trail Phase 3 Floodplain Impacts  
SEH No. DULUT 159621 14.00

The purpose of this memorandum is to describe the proposed floodplain impacts related to the planned construction of Cross City Trail Phase 3. This City of Duluth is planning to construct this trail in late 2023.

### Background

The City of Duluth is planning to construct Phase 3 of the Cross City Trail between Central Avenue and 59<sup>th</sup> Avenue West. There is an existing gravel path between 57<sup>th</sup> and 59<sup>th</sup> Avenue West which is located in a floodplain. The City is planning to construct a new 10' trail north of the existing path between 57<sup>th</sup> and 59<sup>th</sup>. This will keep the floodplain impacts a minimum of 50' away from Keene Creek and allow the existing gravel path to be removed.

### Special Use Permit Requirements

According to the City of Duluth UDC, 50.18.1 Natural Resources Overlay (NR-O), a Special Use Permit is required for placement of fill in a floodway. The proposed project would place 820 c.y. of fill into the floodway and remove 1,365 c.y. of fill from the floodplain.

### Impacts and Mitigation

Standard 50.18.1.C.2.c.i – A floodplain analysis was performed on the proposed trail and fill volume in this area. The analysis showed the proposed fill will not raise or lower the 100-year flood elevation on Keene Creek. The “No-Rise” certificate is attached.

Standard 50.18.1.C.2.c.ii – The trail was designed to minimize fill in the floodplain by elevating the trail only the amount needed to match the elevation of 57<sup>th</sup> Avenue West. In addition, slopes of 1:3 were used instead of the standard 1:4 to minimize fill. This resulted in 820 c.y. of fill to be placed in the floodplain while 1,365 c.y. will be removed. The trail slopes will be seeded with a native seed mix to permanently stabilize and protect them from erosion. Due to the infrequency of the 100 year flood, the use of rip-rap was not selected for stabilization. A copy of the Erosion Control and Stabilization plan is attached.

Standard 50.18.1.C.2.c.vi – Two new floodplain culverts will be installed under this trail segment to allow water to equalize in the Keene Creek floodplain during flood events. These culverts will be placed at a shallow-to-flat slope to allow water to flow in either direction. With these culverts in place, there will be no change in the flow direction or current of the water through the floodplain. The culverts will allow trapped water to flow back to Keene Creek which is not currently possible with the existing gravel trail. The culverts are shown in the attached Plan Sheet.

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 418 West Superior Street, Suite 200, P.O. Box 229, Duluth, MN 55801-0229

218.279.3000 | 888.722.0547 | 888.908.8166 fax | [sehinc.com](http://sehinc.com)

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Memorandum  
March 25, 2023  
Page 2

Standard 50.18.1.C.2.c.vii – As stated above, with the two new floodplain culverts being installed and the removal of the existing dike (gravel trail), there will be no increase to the 100- year flood elevation.

Wetlands – The City performed a wetland delineation in the fall of 2022. Based on that delineation, there will be 0.1 acres of permanent wetland impact associated with the filling in the Floodplain. The City of Duluth is proposing to purchase credits to satisfy the compensatory mitigation requirements of both the USACE and the WCA. Review and approval of the wetland delineation and replacement plan by the City will commence in the spring when field conditions allow.

mb

Attachments – Plan sheets of area (3 sheets), Erosion Control and Stabilization Plan (2 sheets), Hydraulic Design and Analysis with Floodplain Assessment Worksheet and No-Rise Certificates (39 pages)

c: Patrick Loomis – City of Duluth

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## MINNESOTA "NO-RISE" CERTIFICATION

This is to certify that I am a duly qualified professional engineer licensed to practice in the State of Minnesota.

It is further to certify that the attached technical data supports the fact that the proposal to remove the existing trail and construct a new piece of trail between

S 59th Ave. W and S 57th Ave. W

\_\_\_\_\_ (development name / short project description)

will not impact the floodway width or 100-year flood elevation (will not raise or lower by more than 0.00 feet) on Keene Creek (Name of stream) at published sections in the Flood Insurance Study for the City of Duluth (Name of Community) dated April 2, 1982 (Study Date) and will not impact the 100-year flood elevation (will not raise or lower by more than 0.00 feet) at unpublished cross-sections in the vicinity of the proposed development / project.

Attached are the following documents that support my findings:

Attachment 4 Keene Creek Modeling Results

Date: 3/17/2023

Signature: Jeremy Welgram

{SEAL}

Title: Water Resources Engineer, CFM