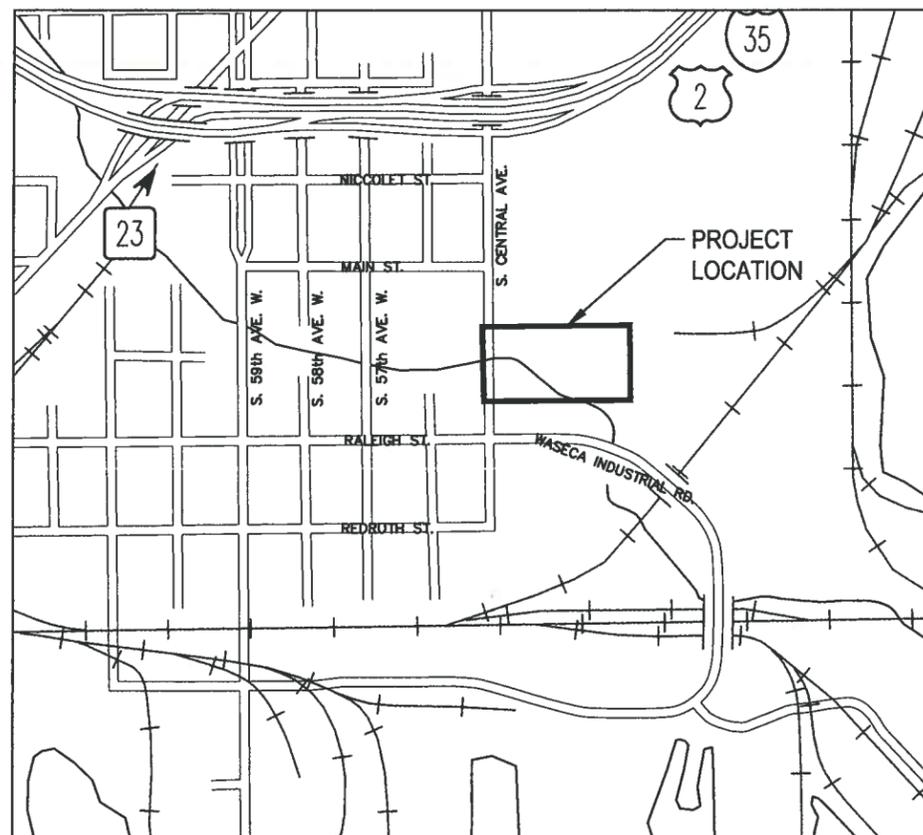


CITY OF DULUTH

DEPARTMENT OF PUBLIC WORKS AND UTILITIES ENGINEERING DIVISION

CONSTRUCTION PLANS FOR:

IRVING PARK BIKE PATH
REPAIR PROJECT
CITY PROJECT NO. 1259



THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".



LEGEND

- — — ROAD CENTERLINE
- < — — SANITARY SEWER
- — — NEW BITUMINOUS
- — — SILT FENCE
- - - -500- EX. MAJOR CONTOURS
- - - -501- EX. MINOR CONTOURS
- XXXXXXXXXX REMOVE BITUMINOUS
- — — SANITARY SEWER
- — — MANHOLE
- — — VEGETATION

GOVERNING SPECIFICATIONS

THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN. (AVAILABLE AT: <http://www.dot.state.mn.us/tecsup/>)

THE 2360 PLANT MIXED ASPHALT PAVEMENT COMBINED 2360/2350 (GYRATORY/MARSHALL DESIGN) SPECIFICATION FOR 2012 CONSTRUCTION SEASON SHALL APPLY.

(AVAILABLE AT: <http://www.mrr.dot.state.mn.us/pavement/bituminous/bituminous.asp>)

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MN MUTCD, INCLUDING THE FIELD MANUAL DATED FEBRUARY 2011.

(AVAILABLE AT: <http://www.dot.state.mn.us/trafficeng/otepubl/fieldmanual2007/index.html>)

THE CURRENT EDITION OF THE CITY OF DULUTH PUBLIC WORKS AND UTILITIES DEPARTMENT STANDARD CONSTRUCTION SPECIFICATIONS AND SUPPLEMENTS OR ADDENDUMS SHALL APPLY.

INDEX

SHEET NO.	DESCRIPTION
C1.0	TITLE SHEET
C2.0	STATEMENT OF ESTIMATED QUANTITIES
C3.0	DETAILS
C4.0	EXISTING CONDITIONS & REMOVALS
C5.0	SITE LAYOUT

THIS PLAN SET CONTAINS 5 SHEETS

APPROVALS

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

[Signature]
DAVID G. BOLF - PROJECT ENGINEER 40926 8/5/13
REG. NO. DATE

CITY APPROVALS

APPROVED *[Signature]* CHIEF ENGINEER - TRANSPORTATION 8/28/13 DATE

APPROVED *[Signature]* CHIEF ENGINEER - UTILITIES 8/20/13 DATE

APPROVED *[Signature]* CITY ENGINEER 8/20/13 DATE

CITY OF DULUTH PROJECT NO. 1259



MN. TOLL FREE 1-800-252-1166



Structural, Civil and Forensic Engineering Services
www.nce-engineers.com

Voice: (218) 727-5995

Project Name:
CITY OF DULUTH
Irving Park Bike
Trail Repair
Irving Park, Duluth, MN

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[Signature]
Date: 8/5/13
Reg. #: 40926

NCE Proj. #: 12-463.3-C
Date: 8/5/13
Drawn By: ARZ
Checked By: DGB

Revisions:

TITLE SHEET

sheet
title
sheet
number

C1.0

City of Duluth Project No. 1259

LINE NO.	NOTE NO.	SPEC. NO.	ITEM DESCRIPTION	UNIT OF MEASURE	TOTAL QUANTITIES
1		2021.501	MOBILIZATION	LUMP SUM	1.00
2	1	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	300.00
3		2105.501	COMMON EXCAVATION (P)	CU YD	80.00
4		2105.522	SELECT GRANULAR BORROW MOD 7% (CV)	CU YD	120.00
5		2105.604	GEOTEXTILE FABRIC TYPE V	SQ YD	350.00
6		2211.503	AGGREGATE BASE (CV), CLASS 5	CU YD	70.00
7	2	2360.501	TYPE SP 9.5 WEARING COURSE MIX (4,C)	TON	40.00
8		2573.502	SILT FENCE, TYPE HEAVY DUTY	LIN FT	350.00
9	3	2575.605	TURF ESTABLISHMENT	ACRE	0.50

CONSTRUCTION NOTES:

- ITEM INCLUDES REMOVAL OF 300' OF DAMAGED EXISTING BITUMINOUS TRAIL SECTION. APPROXIMATELY 50 SQ. YDS. ARE DEPOSITED OUTSIDE OF TRAIL & SHOULD BE PLANNED TO BE REMOVED BY HAND.
- ITEM INCLUDES 300' OF 9' WIDE BITUMINOUS PAVEMENT.
- TURF ESTABLISHMENT INCLUDES MnDOT SEED MIXTURE 150, AT 100 #/ACRE AND TYPE 2 MULCH AT 2 TONS/ACRE.

1
C2.0 STATEMENT OF ESTIMATED QUANTITIES
NOT TO SCALE



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 Date 8/5/13
 Reg. # 40926
 David G. Bolf

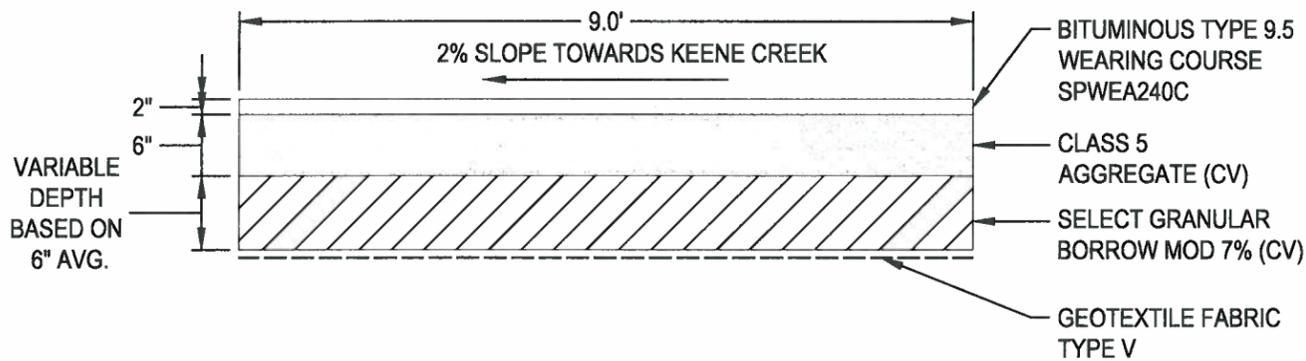
NCE Proj. #: 12-463.3-C
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Checked By: DGB

Revisions:

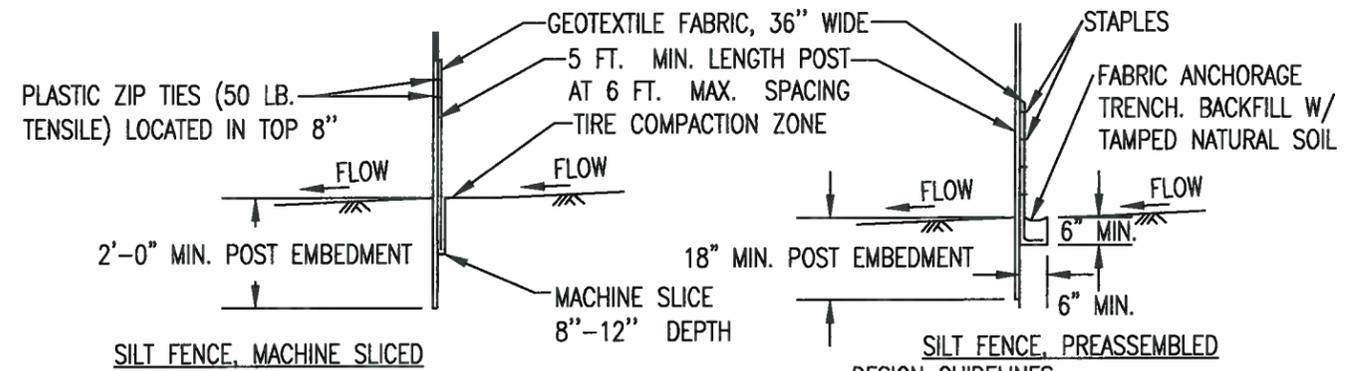
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C2.0

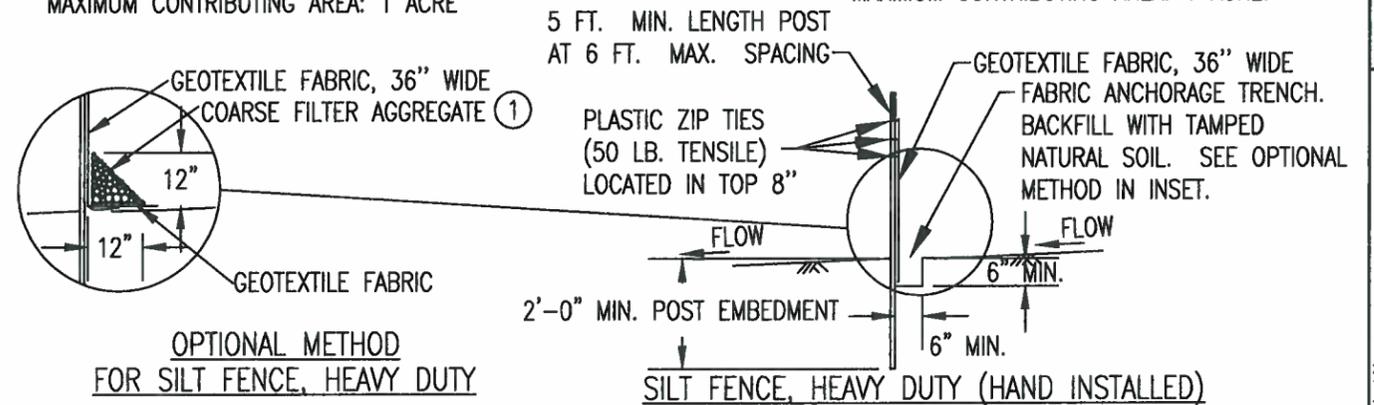


1 TYPICAL TRAIL SECTION
C3.0 NTS



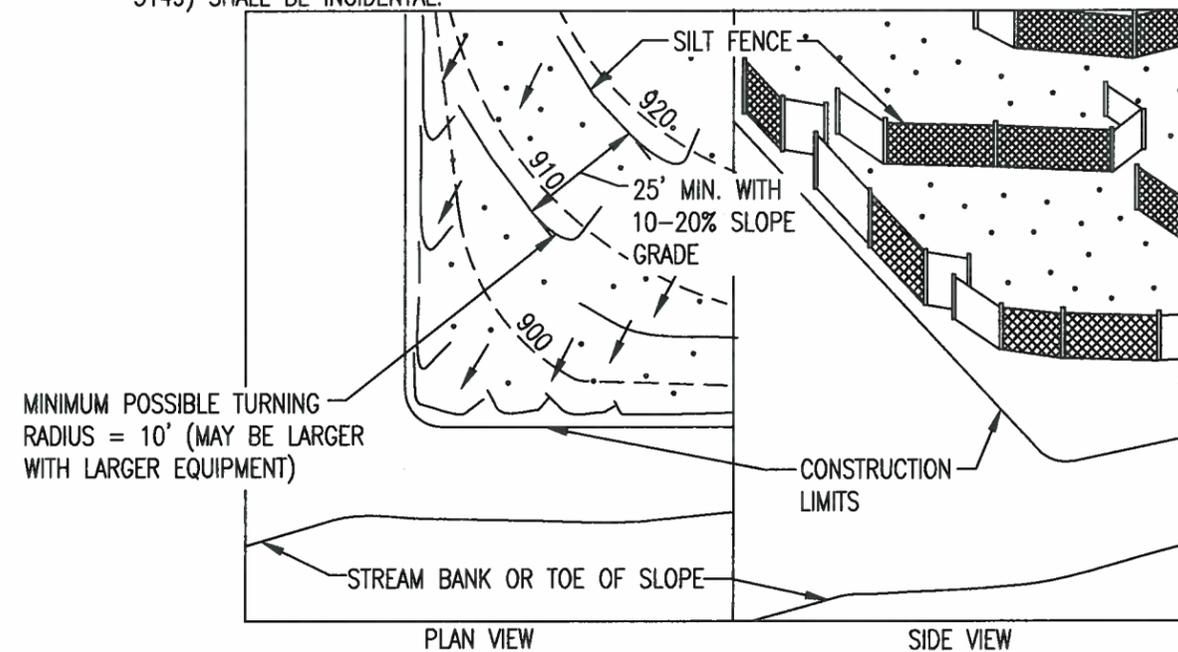
SILT FENCE, MACHINE SLICED
DESIGN GUIDELINES:
TO PROTECT AREAS FROM SHEET FLOW.
MAXIMUM CONTRIBUTING AREA: 1 ACRE

SILT FENCE, PREASSEMBLED
DESIGN GUIDELINES:
TO PROTECT AREAS FROM SHEET FLOW.
MAXIMUM CONTRIBUTING AREA: 1 ACRE.



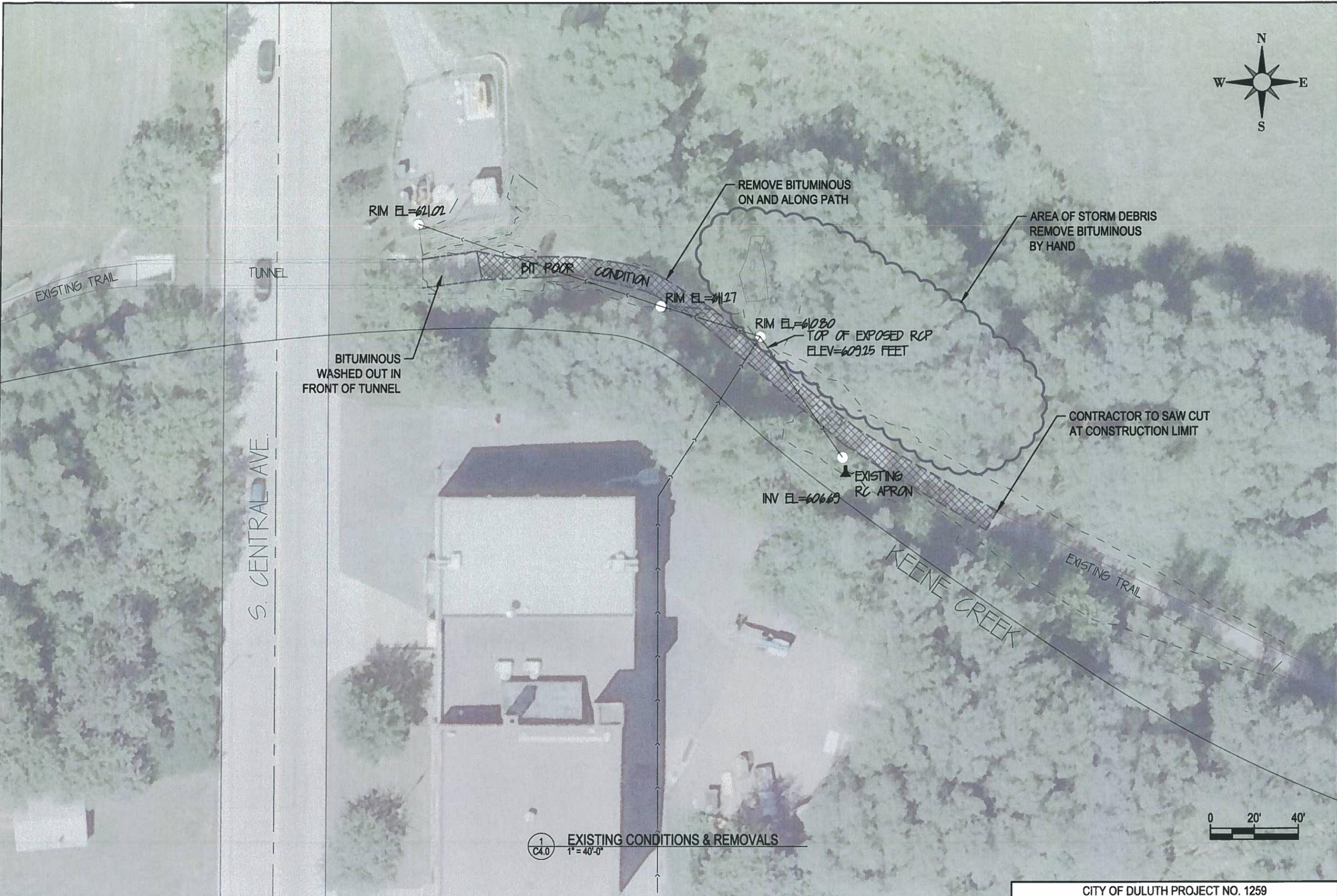
NOTES: SEE SPECS. 2573, 3149 & 3886.
① COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.

DESIGN GUIDELINES:
TO PROTECT AREAS FROM SHEET FLOW.
MAXIMUM CONTRIBUTING AREA: 1 ACRE.



PLAN VIEW SIDE VIEW
DISTURBED SOIL, WORK AREA DRAINS TO STREAM

2 SILT FENCE, J-HOOK INSTALLATION - ER-4
C3.0 NTS REVIEWED/APPROVED 3/11/09



Northland
 Consulting Engineers L.L.P.
 Structural, Civil and Forensic Engineering Services
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Project Name:
CITY OF DULUTH
 Irving Park Bike
 Trail Repair
 Irving Park, Duluth, MN

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 David G. Bolf
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 Reg. # 49926

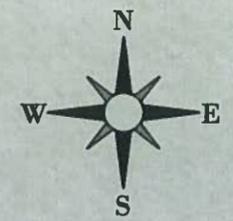
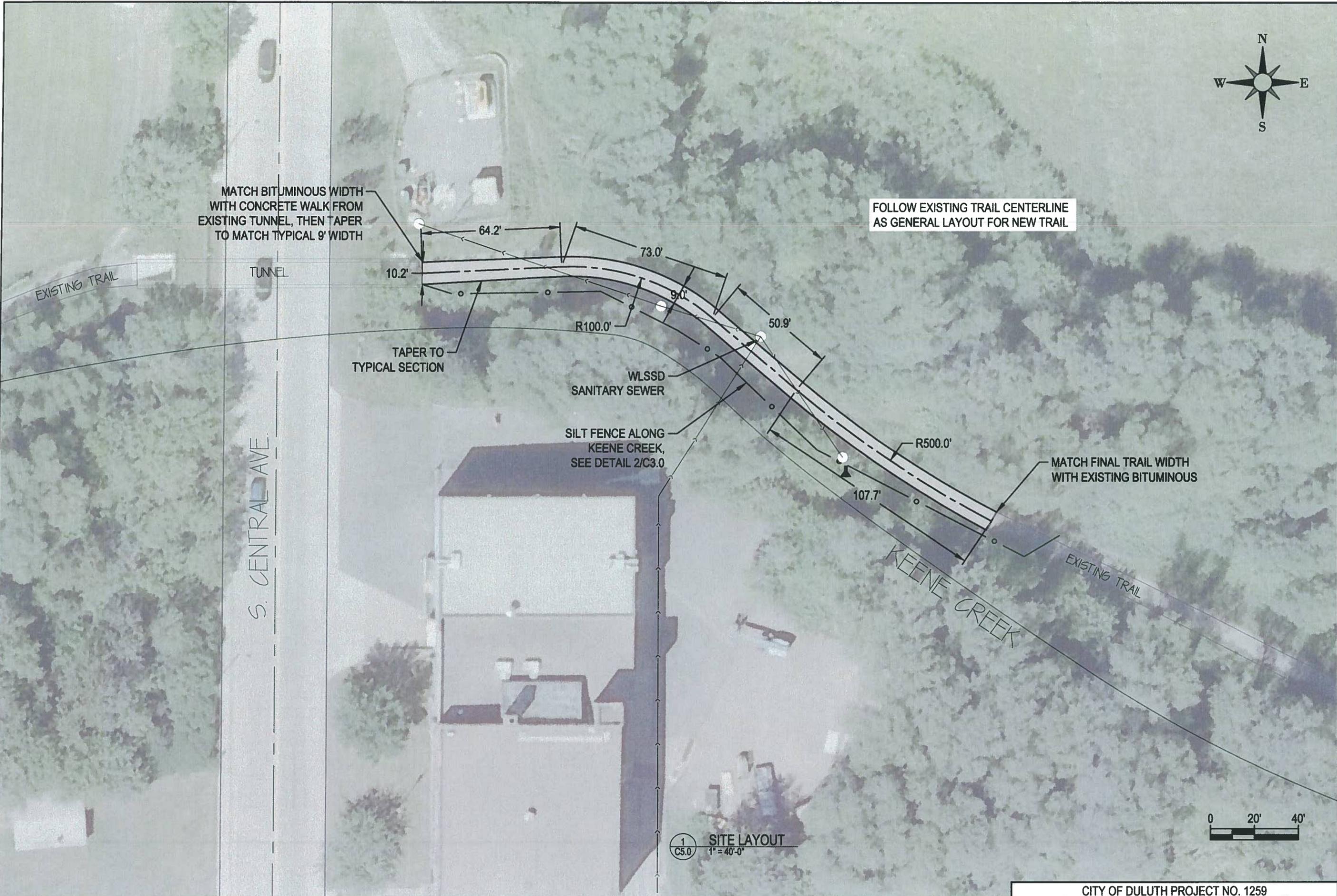
NCE Proj. #: 12-483.3-C
 Date: 8/5/13
 Drawn By: ARZ
 Checked By: DGB

Revisions:

EXISTING CONDITIONS & REMOVALS
 sheet title
 sheet number

C4.0

1
 C4.0
 EXISTING CONDITIONS & REMOVALS
 1" = 40'-0"



FOLLOW EXISTING TRAIL CENTERLINE AS GENERAL LAYOUT FOR NEW TRAIL

MATCH BITUMINOUS WIDTH WITH CONCRETE WALK FROM EXISTING TUNNEL, THEN TAPER TO MATCH TYPICAL 9' WIDTH

TAPER TO TYPICAL SECTION

WLSST SANITARY SEWER

SILT FENCE ALONG KEENE CREEK, SEE DETAIL 2/C3.0

MATCH FINAL TRAIL WIDTH WITH EXISTING BITUMINOUS

S. CENTRAL AVE.

KEENE CREEK

1 SITE LAYOUT
C5.0 1" = 40'-0"



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Project Name:
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Irving Park, Duluth, MN

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Revisions:

SITE LAYOUT

sheet title
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C5.0