



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

Room 160  
411 West First Street  
Duluth, Minnesota 55802



218-730-5580



planning@duluthmn.gov

File Number	PL 20-094	Contact	Kyle Deming	
Type	Special Use Permit for a Sanitary Sewer Lift Station	Planning Commission Date		July 14, 2020
Deadline for Action	Application Date	June 15, 2020	60 Days	August 14, 2020
	Date Extension Letter Mailed	July 2, 2020	120 Days	October 13, 2020
Location of Subject	2114 W. Michigan Street			
Applicant	City of Duluth, Public Works and Utilities Department, Engineering Division	Contact	Aaron Soderlund, Project Engineer	
Agent	N/A	Contact	N/A	
Legal Description	Parcel ID 010-1120-00105			
Site Visit Date	July 1, 2020	Sign Notice Date		June 30, 2020
Neighbor Letter Date	July 2, 2020	Number of Letters Sent		17

**Proposal:**

Applicant is requesting a new sanitary sewer lift station to replace the existing lift station, which will be demolished as part of MnDOT's Twin Ports Interchange Project.

**Recommendation:**

Approval with conditions.

	<b>Current Zoning</b>	<b>Existing Land Use</b>	<b>Future Land Use Map Designation</b>
<b>Subject</b>	MU-C	Undeveloped	Central Business Secondary
<b>North</b>	F-5	Industrial	Central Business Secondary
<b>South</b>	I-G	I-35	Transportation and Utilities
<b>East</b>	MU-C	Commercial	Central Business Secondary
<b>West</b>	I-G	TH 53	Central Business Secondary

**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.

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

Governing Principle #12 – Create efficiencies in delivery of public services. This will replace an existing lift station and serve existing neighborhood infrastructure.

Future Land Use, Central Business Secondary: An area adjacent to and supporting the central business primary area or a stand-alone area providing a similar mix of destination land uses but at a lower intensity than the primary CB area.

**History:** Existing sanitary sewer lift station that the proposed project is replacing is 50 years old and has exceeded its service life.

**Review and Discussion Items:**

- 1)
- 2) Sec. 50-18 (Overlay Districts). No overlay districts on this property.
- 3) Sec. 50-19 (Use Table). Sewer pumping station is a Special Use in MU-C Zone.
- 4) Sec. 50-20 (Use Specific Standards). None for this use.
- 5) Sec. 50-23 (Connectivity). This is a utility maintenance structure not intended to be accessed by the public.
- 6) Sec. 50-24 (Parking and Loading). The UDC does not require parking for this use. However, the site has a paved driveway and space for vehicle parking and a roll up garage door for storage of service equipment inside the structure.
- 7) Sec. 50-25 (Landscaping). A landscape plan has been provided that meets required street frontage landscaping.
- 8) Sec. 50-26 (Screening, Walls and Fences). All equipment related to the lift station is located within the structure except for the electrical transformer and generator. Both are shown with required screening on the landscape plan.
- 9) Sec. 50-28 (Stormwater Drainage and Erosion Control). From City stormwater engineer Tom Johnson: The site will be reducing the overall impervious surface (compared to the existing metal storage building and gravel parking lot currently on the site) once restoration is completed. The project will also include remediation of contaminated soils via removal and capping of those soils, and stormwater basins are not advised in this context. The runoff from the site will be treated with City-owned BMPs (best management practices), which include a pond to treat runoff from W. Michigan St., that will be installed during the Twin Ports Interchange project.
- 10) Sec. 50-29 (Sustainability Standards). Structure is less than 10,000 SF, not applicable.
- 11) Sec. 50-30 (Building Design Standards). Building design complies with applicable Industrial Design standards in Sec. 50-30.4. Façade articulation requirements don't apply due to the length of building walls being shorter than minimum need to incorporate articulation. Entryway design requirements are met by the roof overhang, though emphasizing the entryway is not necessary since this is not a structure open to the public.
- 12) Sec. 50-31 (Exterior Lighting). Design includes downcast building-mounted fixtures compliant with the UDC.
- 13) Sec. 50-37.1.N.4 (Approval lapse). Approved special use permits shall lapse if the project or activity authorized by the permit or variance is not begun within one year of the permit date. The building official may extend this period one time for a period of up to one year if the property owner presents a written request showing the reasons for the delay was outside the owner's control.
- 14) No citizen or City department comments were received at the time that this report was written.

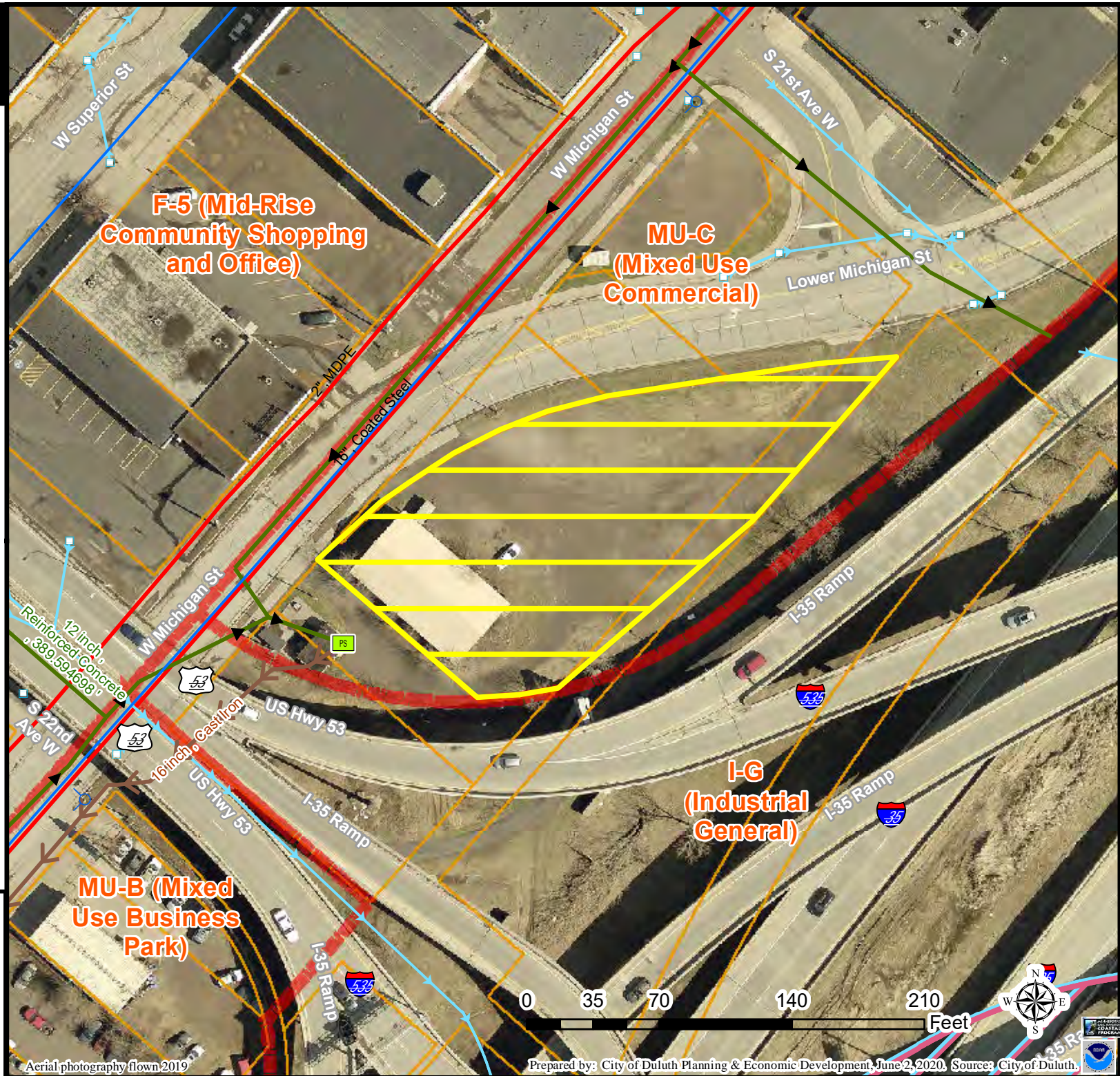
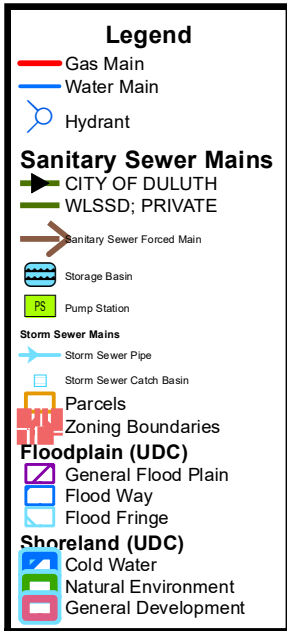
**Staff Recommendation:**

Based on the above findings, Staff recommends that Planning Commission approve the special use permit subject to the following conditions:

- 1) The project be limited to, constructed, and maintained in conformity with the following plans by MSA Professional Services titled "Lift Station 15 Relocation" Sheets A-1 (Perspectives), C-1 (Overall Site Plan), C-3 (Proposed Site Grading Plan), Sheet C-4 (Erosion Control Plan), Sheet C-8 (Pavement Restoration Plan, Sheet L-1 (Proposed Landscape Plan) and Sheet L-2 (Landscape Details); and
- 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 20-094  
Special Use Permit  
Lift Station #15



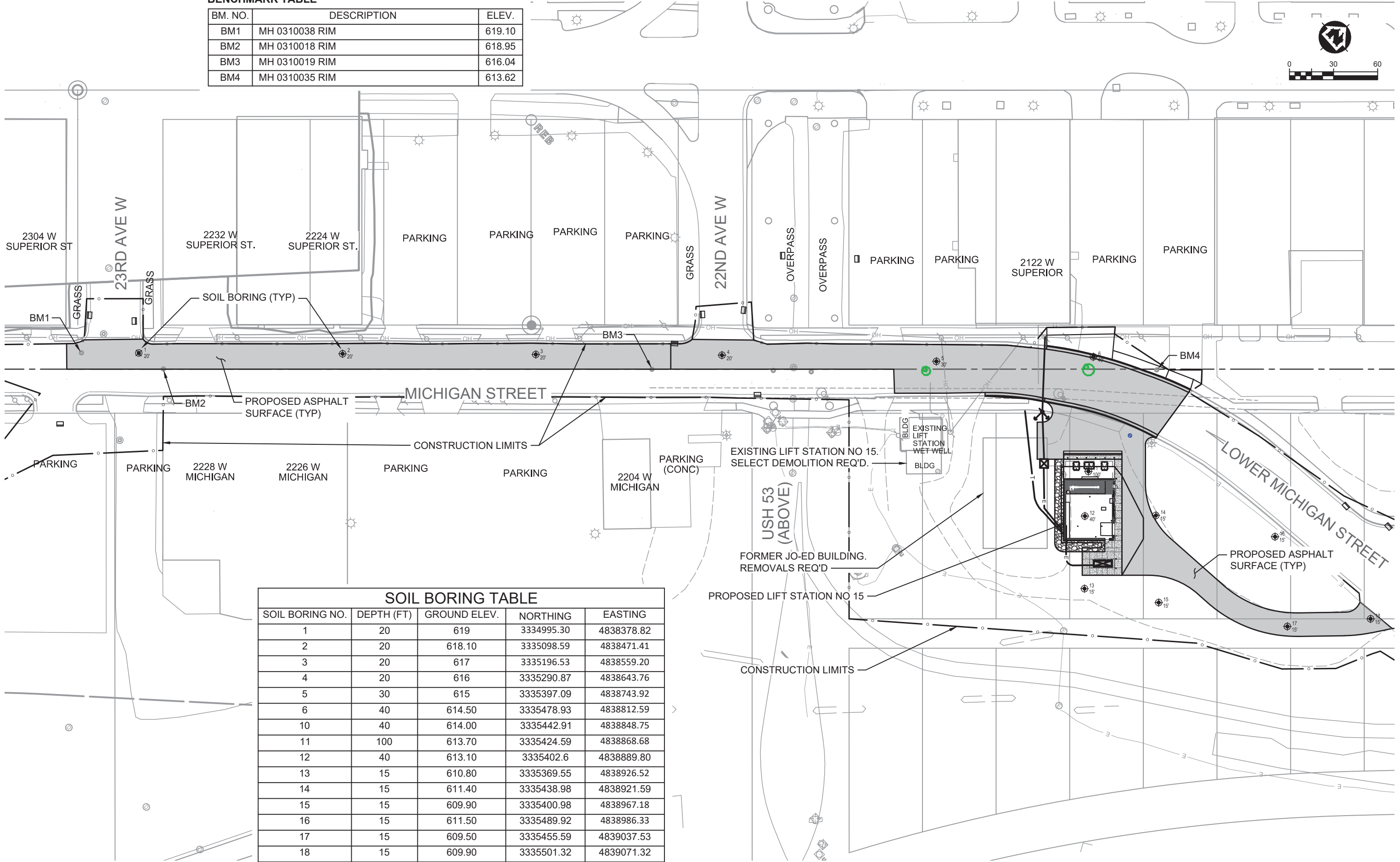
The City of Duluth has tried to ensure that the information contained in this map or electronic document is accurate. The City of Duluth makes no warranty or guarantee concerning the accuracy or reliability. This drawing/data is neither a legally recorded map nor a survey and is not intended to be used 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.

Aerial photograph flown 2019

Prepared by: City of Duluth Planning & Economic Development, June 2, 2020. Source: City of Duluth.

BENCHMARK TABLE

BM. NO.	DESCRIPTION	ELEV.
BM1	MH 0310038 RIM	619.10
BM2	MH 0310018 RIM	618.95
BM3	MH 0310019 RIM	616.04
BM4	MH 0310035 RIM	613.62



SOIL BORING TABLE				
SOIL BORING NO.	DEPTH (FT)	GROUND ELEV.	NORTHING	EASTING
1	20	619	3334995.30	4838378.82
2	20	618.10	3335098.59	4838471.41
3	20	617	3335196.53	4838559.20
4	20	616	3335290.87	4838643.76
5	30	615	3335397.09	4838743.92
6	40	614.50	3335478.93	4838812.59
10	40	614.00	3335442.91	4838848.75
11	100	613.70	3335424.59	4838868.68
12	40	613.10	3335402.6	4838889.80
13	15	610.80	3335369.55	4838926.52
14	15	611.40	3335438.98	4838921.59
15	15	609.90	3335400.98	4838967.18
16	15	611.50	3335489.92	4838986.33
17	15	609.50	3335455.59	4839037.53
18	15	609.90	3335501.32	4839071.32

PROJECT NO.: 00616135	SCALE: AS SHOWN	NO.	DATE	REVISION	BY
PROJECT DATE: 1-10-2020	DRAWN BY:				
F.B.:	CHECKED BY: SCR				
PLOT DATE: 1/14/20, P:\610a\616\00616135\CADD\Construction Drawings\2-Site Civil\00616135 Overall Plan.dwg					

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1/10/2020


Date

44287

License No.

Scott R. Chilson

SCOTT R. CHILSON

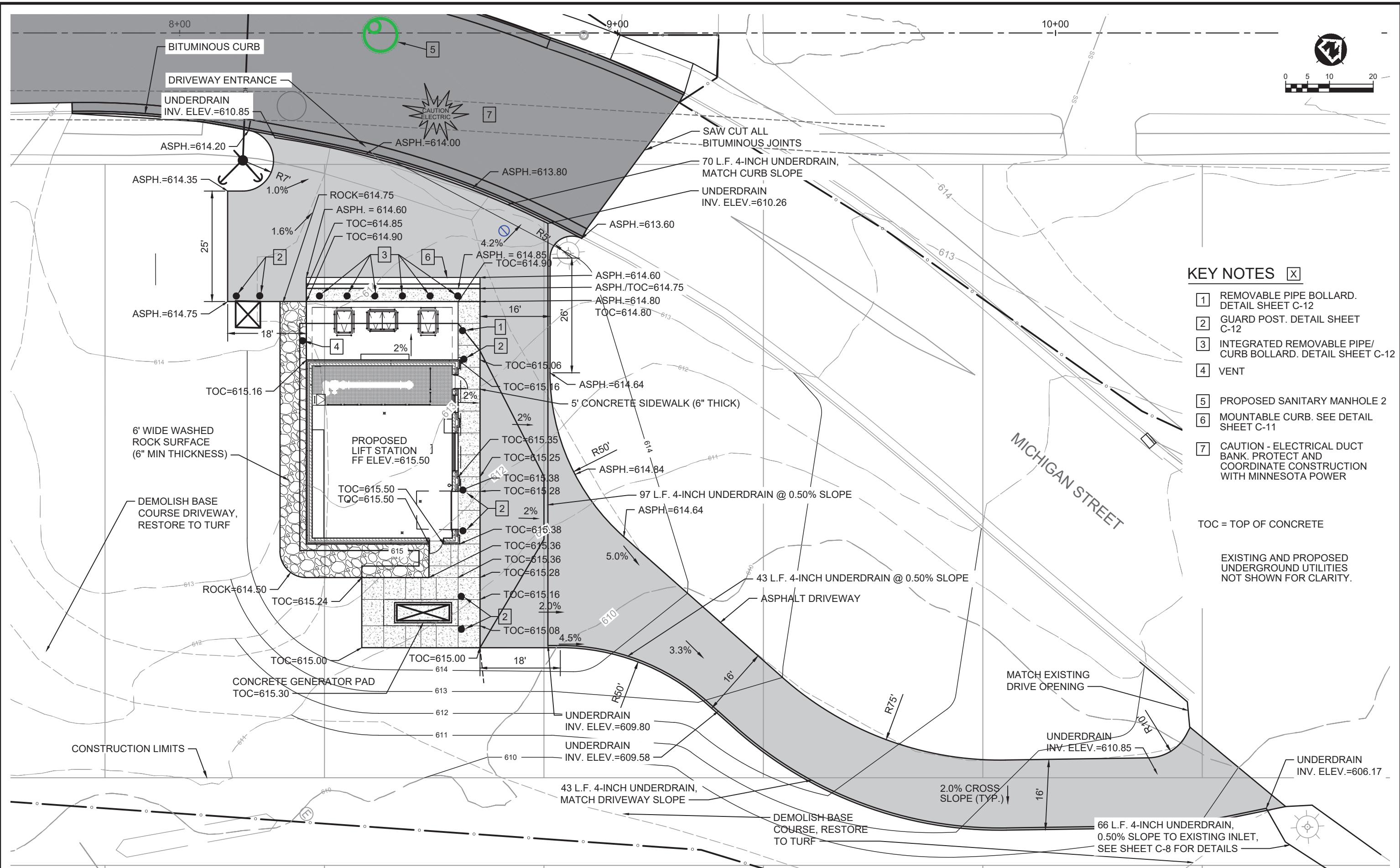
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LIFT STATION 15 RELOCATION  
CITY OF DULUTH, MINNESOTA  
2114 W MICHIGAN STREET

OVERALL SITE PLAN

FILE NO. 00616135  
SHEET C-1



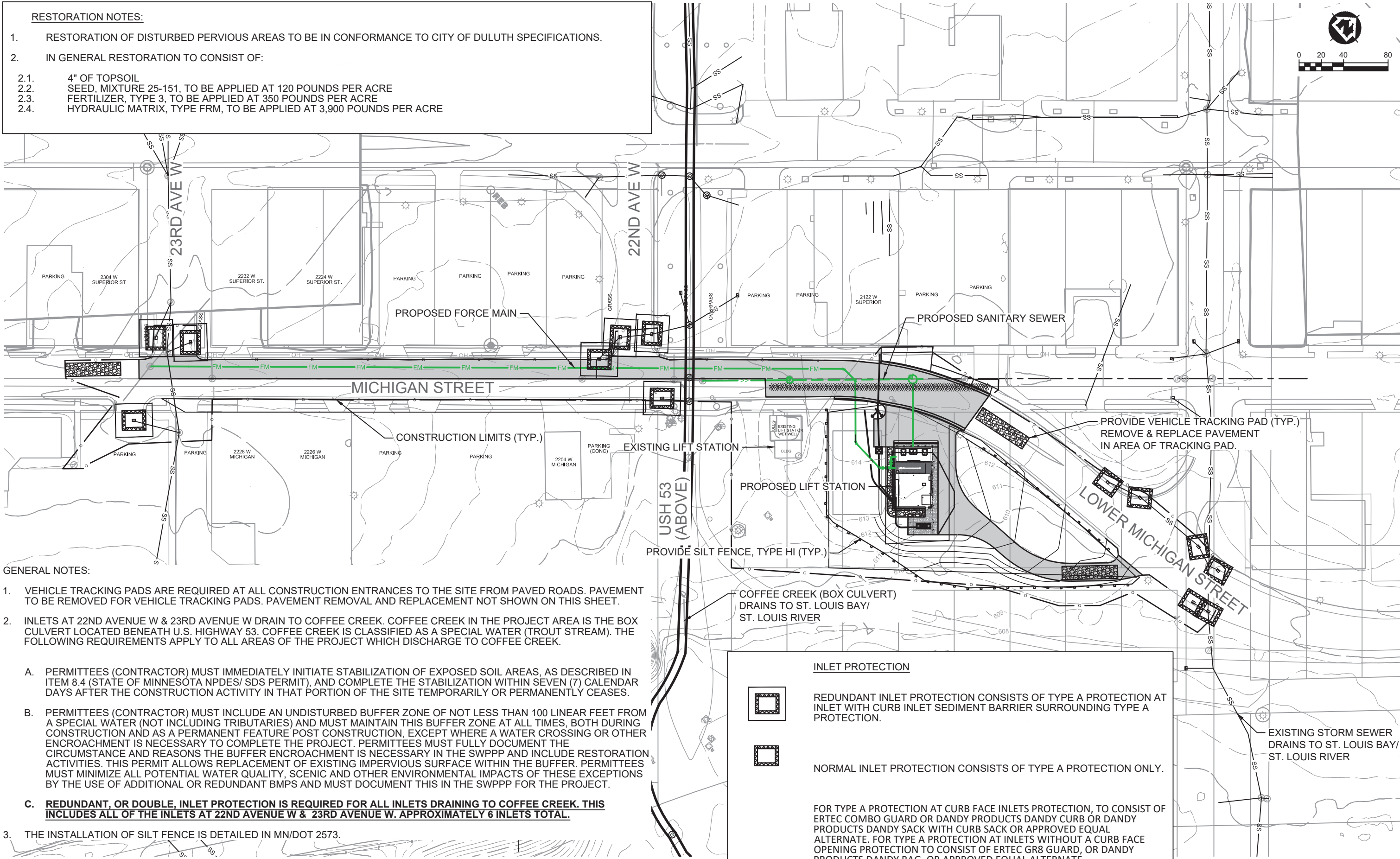
- KEY NOTES** [X]
- 1 REMOVABLE PIPE BOLLARD. DETAIL SHEET C-12
  - 2 GUARD POST. DETAIL SHEET C-12
  - 3 INTEGRATED REMOVABLE PIPE/ CURB BOLLARD. DETAIL SHEET C-12
  - 4 VENT
  - 5 PROPOSED SANITARY MANHOLE 2
  - 6 MOUNTABLE CURB. SEE DETAIL SHEET C-11
  - 7 CAUTION - ELECTRICAL DUCT BANK. PROTECT AND COORDINATE CONSTRUCTION WITH MINNESOTA POWER

TOC = TOP OF CONCRETE

EXISTING AND PROPOSED UNDERGROUND UTILITIES NOT SHOWN FOR CLARITY.

RESTORATION NOTES:

- RESTORATION OF DISTURBED PERVIOUS AREAS TO BE IN CONFORMANCE TO CITY OF DULUTH SPECIFICATIONS.
- IN GENERAL RESTORATION TO CONSIST OF:
  - 4" OF TOPSOIL
  - SEED, MIXTURE 25-151, TO BE APPLIED AT 120 POUNDS PER ACRE
  - FERTILIZER, TYPE 3, TO BE APPLIED AT 350 POUNDS PER ACRE
  - HYDRAULIC MATRIX, TYPE FRM, TO BE APPLIED AT 3,900 POUNDS PER ACRE



GENERAL NOTES:

- VEHICLE TRACKING PADS ARE REQUIRED AT ALL CONSTRUCTION ENTRANCES TO THE SITE FROM PAVED ROADS. PAVEMENT TO BE REMOVED FOR VEHICLE TRACKING PADS. PAVEMENT REMOVAL AND REPLACEMENT NOT SHOWN ON THIS SHEET.
- INLETS AT 22ND AVENUE W & 23RD AVENUE W DRAIN TO COFFEE CREEK. COFFEE CREEK IN THE PROJECT AREA IS THE BOX CULVERT LOCATED BENEATH U.S. HIGHWAY 53. COFFEE CREEK IS CLASSIFIED AS A SPECIAL WATER (TROUT STREAM). THE FOLLOWING REQUIREMENTS APPLY TO ALL AREAS OF THE PROJECT WHICH DISCHARGE TO COFFEE CREEK.
  - PERMITTEES (CONTRACTOR) MUST IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS, AS DESCRIBED IN ITEM 8.4 (STATE OF MINNESOTA NPDES/ SDS PERMIT), AND COMPLETE THE STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES.
  - PERMITTEES (CONTRACTOR) MUST INCLUDE AN UNDISTURBED BUFFER ZONE OF NOT LESS THAN 100 LINEAR FEET FROM A SPECIAL WATER (NOT INCLUDING TRIBUTARIES) AND MUST MAINTAIN THIS BUFFER ZONE AT ALL TIMES, BOTH DURING CONSTRUCTION AND AS A PERMANENT FEATURE POST CONSTRUCTION, EXCEPT WHERE A WATER CROSSING OR OTHER ENCROACHMENT IS NECESSARY TO COMPLETE THE PROJECT. PERMITTEES MUST FULLY DOCUMENT THE CIRCUMSTANCE AND REASONS THE BUFFER ENCROACHMENT IS NECESSARY IN THE SWPPP AND INCLUDE RESTORATION ACTIVITIES. THIS PERMIT ALLOWS REPLACEMENT OF EXISTING IMPERVIOUS SURFACE WITHIN THE BUFFER. PERMITTEES MUST MINIMIZE ALL POTENTIAL WATER QUALITY, SCENIC AND OTHER ENVIRONMENTAL IMPACTS OF THESE EXCEPTIONS BY THE USE OF ADDITIONAL OR REDUNDANT BMPS AND MUST DOCUMENT THIS IN THE SWPPP FOR THE PROJECT.
  - REDUNDANT, OR DOUBLE, INLET PROTECTION IS REQUIRED FOR ALL INLETS DRAINING TO COFFEE CREEK. THIS INCLUDES ALL OF THE INLETS AT 22ND AVENUE W & 23RD AVENUE W. APPROXIMATELY 6 INLETS TOTAL.**
- THE INSTALLATION OF SILT FENCE IS DETAILED IN MN/DOT 2573.

INLET PROTECTION



REDUNDANT INLET PROTECTION CONSISTS OF TYPE A PROTECTION AT INLET WITH CURB INLET SEDIMENT BARRIER SURROUNDING TYPE A PROTECTION.



NORMAL INLET PROTECTION CONSISTS OF TYPE A PROTECTION ONLY.

FOR TYPE A PROTECTION AT CURB FACE INLETS PROTECTION, TO CONSIST OF ERTEC COMBO GUARD OR DANDY PRODUCTS DANDY CURB OR DANDY PRODUCTS DANDY SACK WITH CURB SACK OR APPROVED EQUAL ALTERNATE. FOR TYPE A PROTECTION AT INLETS WITHOUT A CURB FACE OPENING PROTECTION TO CONSIST OF ERTEC GR8 GUARD, OR DANDY PRODUCTS DANDY BAG, OR APPROVED EQUAL ALTERNATE.

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PROJECT DATE:	1-10-2020	DRAWN BY:				
F.B.:		CHECKED BY:	SCR			
PLOT DATE:	1/14/20	P:\610s\616\00616135\CADD\Construction Drawings\2-Site Civil\00616135 Erosion Control Plan.dwg				

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1/10/2020  
Date  
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ANDREW K BARNEBEY

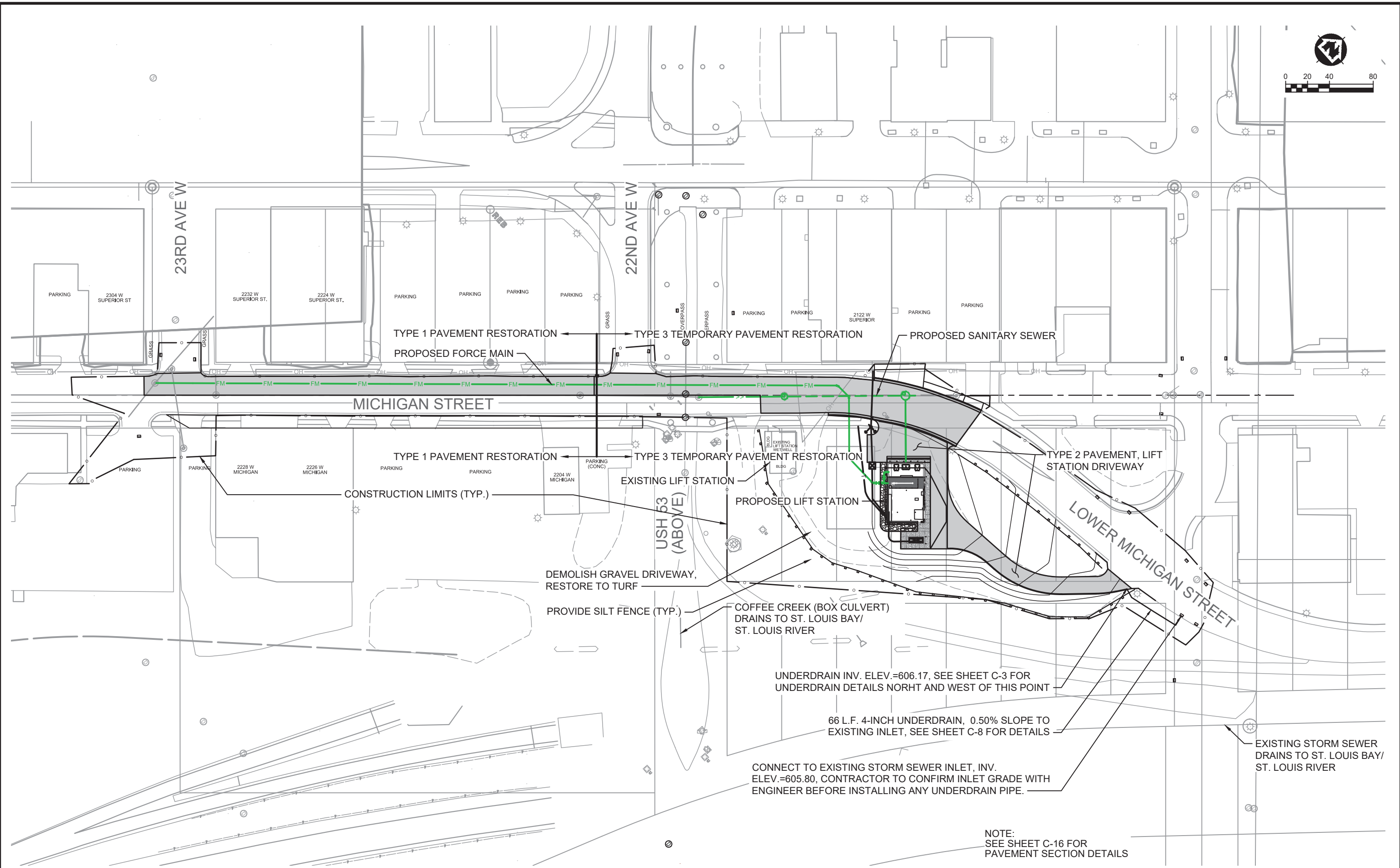


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LIFT STATION 15 RELOCATION  
CITY OF DULUTH, MINNESOTA  
2114 W MICHIGAN STREET

EROSION CONTROL PLAN

FILE NO.  
00616135  
SHEET  
C-4



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PLOT DATE: 1/14/20, P:\610a\616\00616135\CADD\Construction Drawings\2-Site Civil\00616135 Pavement Restoration Plan.dwg													



NOTES:  
1. THESE IMAGES ARE CONCEPTUAL AND FOR GENERAL REFERENCE - SEE DRAWINGS FOR ALL DESIGN AND DETAILING.  
2. FINAL COLOR SELECTIONS TO BE DETERMINED.

PROJECT NO.:	00616135	SCALE:	AS SHOWN	NO.	DATE	REVISION	BY
PROJECT DATE:	1-10-2020	DRAWN BY:	JFB	-	-	-	-
F.B.:	-	CHECKED BY:	AJS	-	-	-	-
PLOT DATE:	1/14/20	P:\610a\616\00616135\CADD\Construction Drawings\4-Architectural\A1.0 PERSPECTIVES.dwg	-	-	-	-	-

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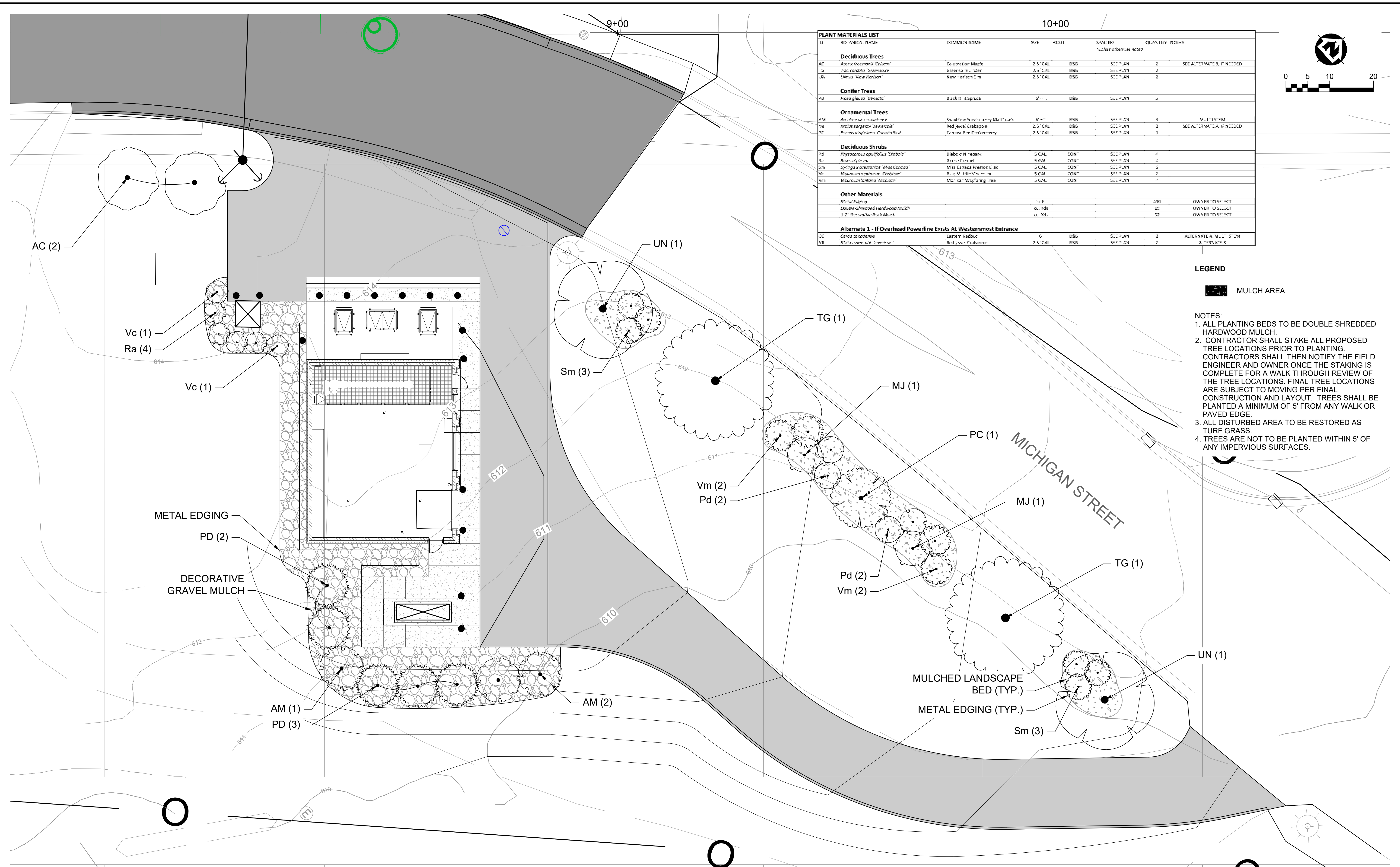


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LIFT STATION 15 RELOCATION  
CITY OF DULUTH, MINNESOTA  
2114 W MICHIGAN STREET

PERSPECTIVES

FILE NO.  
00616135  
SHEET  
A-1



PLANT MATERIALS LIST						
D	BOTANICAL NAME	COMMON NAME	SIZE	NOTES	SPACING	QUANTITY
Deciduous Trees						
AC	Acer freemanii 'Cedron'	Cedron Maple	2.5' CAL	B&B	SEE PLAN	2
TG	Tilia cordata 'Greenspire'	Greenspire Linden	2.5' CAL	B&B	SEE PLAN	2
UN	Ulmus 'New Horizon'	New Horizon Elm	2.5' CAL	B&B	SEE PLAN	2
Conifer Trees						
PD	Picea glauca 'Dorsette'	Black Hills Spruce	6' H	B&B	SEE PLAN	5
Ornamental Trees						
AM	Amelanchier canadensis	Shadblow Serviceberry	8' H	B&B	SEE PLAN	3
VM	Malus serrata 'Javertop'	Red Jewel Crabapple	2.5' CAL	B&B	SEE PLAN	2
PC	Prunella virginiana 'Carolee Red'	Carolee Red Chickadee	2.5' CAL	B&B	SEE PLAN	1
Deciduous Shrubs						
Pd	Physocarpus opulifolius 'Diabolo'	Diabolo N. Sea Buckthorn	5 GAL.	CON	SEE PLAN	4
Ra	Ribes alpinum	Alpine Currant	5 GAL.	CON	SEE PLAN	4
Sm	Syringa x prestoniae 'Miss Canada'	Miss Canada Preston L. ac.	5 GAL.	CON	SEE PLAN	5
Vc	Viburnum cederstroemi 'Krispian'	Blue Viburnum	5 GAL.	CON	SEE PLAN	2
Vm	Viburnum lentago 'Molten'	Molten Waxleaf Tree	5 GAL.	CON	SEE PLAN	4
Other Materials						
Metal Edging			1" F.			400
Double-Shredded Hardwood Mulch			cu. Yds			10
1-2" Decorative Rock Mulch			cu. Yds			32
Alternate 1 - If Overhead Powerline Exists At Westernmost Entrance						
CC	Cercis canadensis	Eastern Redbud	6	B&B	SEE PLAN	2
VM	Malus serrata 'Javertop'	Red Jewel Crabapple	2.5' CAL	B&B	SEE PLAN	2

LEGEND

MULCH AREA

NOTES:

1. ALL PLANTING BEDS TO BE DOUBLE SHREDDED HARDWOOD MULCH.
2. CONTRACTOR SHALL STAKE ALL PROPOSED TREE LOCATIONS PRIOR TO PLANTING. CONTRACTORS SHALL THEN NOTIFY THE FIELD ENGINEER AND OWNER ONCE THE STAKING IS COMPLETE FOR A WALK THROUGH REVIEW OF THE TREE LOCATIONS. FINAL TREE LOCATIONS ARE SUBJECT TO MOVING PER FINAL CONSTRUCTION AND LAYOUT. TREES SHALL BE PLANTED A MINIMUM OF 5' FROM ANY WALK OR PAVED EDGE.
3. ALL DISTURBED AREA TO BE RESTORED AS TURF GRASS.
4. TREES ARE NOT TO BE PLANTED WITHIN 5' OF ANY IMPERVIOUS SURFACES.

NOTE:

1. REMOVE AND PROPERLY DISPOSE OF ANY EXCESS EXCAVATED MATERIAL.
2. WRAP TRUNK WITH APPROVED TREE WRAP UP TO FIRST BRANCH. (FALL PLANTING REQUIREMENT).

The diagram illustrates a tree planting pit with a tree and its root ball. The root ball is shown with a cross-hatched pattern. The pit is filled with amended topsoil, and the surrounding area is backfilled with excavated material. The diagram includes several callouts with arrows pointing to specific parts of the tree and the pit, providing detailed instructions for proper planting technique.

- DO NOT REMOVE CENTRAL LEADER. PRUNE ONLY TO ENCOURAGE GROWTH OF CENTRAL LEADER.
- REMOVE BROKEN BRANCHES, TREE TAGS AND/OR RIBBONS, UPON PLANT APPROVAL.
- MAINTAIN ROOT FLARE EXPOSURE, DO NOT PLACE TOPSOIL ON TOP OF ROOTBALL. IF ROOT FLARE IS NOT EXPOSED, REMOVE EXCESS SOIL CAREFULLY. SET ROOT FLARE 2" ABOVE LEVEL OF FINISHED GRADE.
- 3" MINIMUM MULCH THICKNESS, HOLD BACK 3" MIN, 6" MAX FROM TRUNK.
- CUT AND REMOVE ALL CORDS AROUND ROOT BALL AND TREE TRUNK. REMOVE ENTIRE WIRE BASKET AND ALL BURLAP.
- 3" MINIMUM HEIGHT OF SAUCER AROUND TREE PIT FOR WATERING.
- PLANTING PIT SIZE SHALL BE TWICE AS WIDE AS THE ROOTBALL. BACKFILL PIT WITH 1/3 AMENDED TOPSOIL AND 2/3 EXCAVATED MATERIAL.
- FINISHED GRADE
- PLACE ROOTBALL ON UNDISTURBED OR PROPERLY COMPACTED SUBGRADE. ADD AND COMPACT ADDITIONAL FILL IN THE EVENT THE HOLE IS TOO DEEP.
- SUBGRADE
- 2X BALL WIDTH, MIN.

## 1 DECIDUOUS PLANTING DETAIL

NOTE:  
REMOVE AND PROPERLY DISPOSE OF ANY  
EXCESS EXCAVATED MATERIAL

DO NOT REMOVE CENTRAL LEADER. PRUNE  
ONLY TO ENCOURAGE GROWTH OF CENTRAL  
LEADER.

REMOVE BROKEN BRANCHES, TREE TAGS  
AND/OR RIBBONS, UPON PLANT APPROVAL.

MAINTAIN ROOT FLARE EXPOSURE. DO NOT  
PLACE TOPSOIL ON TOP OF ROOTBALL. IF  
ROOT FLARE IS NOT EXPOSED, REMOVE  
EXCESS SOIL CAREFULLY. SET ROOT 2"  
ABOVE LEVEL OF FINISHED GRADE.

3" MIN. MULCH, HOLD BACK 3" MIN, 6" MAX  
FROM TRUNK.

3" MINIMUM HEIGHT OF SAUCER AROUND  
TREE PIT FOR WATERING.

PLANTING PIT SIZE SHALL BE TWICE AS WIDE  
AS THE ROOTBALL. BACKFILL PIT WITH 1/3  
AMENDED TOPSOIL AND 2/3 EXCAVATED  
MATERIAL.

FINISHED GRADE

CUT AND REMOVE ALL CORDS AROUND  
ROOT BALL AND TREE TRUNK. REMOVE  
ENTIRE WIRE BASKET AND ALL BURLAP.

SUBGRADE

2X BALL WIDTH, MIN.

PLACE ROOTBALL ON UNDISTURBED OR  
PROPERLY COMPACTED SUBGRADE. ADD  
AND COMPACT ADDITIONAL FILL IN THE  
EVENT THE HOLE IS TOO DEEP.

## 2 CONIFER PLANTING DETAIL

**NOTE:**

1. REMOVE AND PROPERLY DISPOSE OF ANY EXCESS EXCAVATED MATERIAL
2. WRAP TRUNK WITH APPROVED TREE WRAP UP TO FIRST BRANCH. (FALL PLANTING REQUIREMENT).

The diagram shows a cross-section of a tree being planted in a pit. The tree has a central leader and several lateral branches. The root ball is shown as a rectangular area at the base of the trunk. The pit is filled with amended topsoil, and the surrounding area is backfilled with excavated material. Labels point to various parts of the tree and the pit, providing specific instructions for each.

- DO NOT REMOVE CENTRAL LEADER. PRUNE ONLY TO ENCOURAGE GROWTH OF CENTRAL LEADER.
- REMOVE BROKEN BRANCHES, TREE TAGS AND/OR RIBBONS, UPON PLANT APPROVAL.
- MAINTAIN ROOT FLARE EXPOSURE, DO NOT PLACE TOPSOIL ON TOP OF ROOTBALL. IF ROOT FLARE IS NOT EXPOSED, REMOVE EXCESS SOIL CAREFULLY. SET ROOT BALL 2" ABOVE LEVEL OF FINISHED GRADE.
- 3" MIN. MULCH, HOLD BACK 3" MIN, 6" MAX FROM TRUNK.
- CUT AND REMOVE ALL CORDS AROUND ROOT BALL AND TREE TRUNK. REMOVE ENTIRE WIRE BASKET AND ALL BURLAP.
- 3" MINIMUM HEIGHT OF SAUCER AROUND TREE PIT FOR WATERING.
- PLANTING PIT SIZE SHALL BE TWICE AS WIDE AS THE ROOTBALL. BACKFILL PIT WITH 1/3 AMENDED TOPSOIL AND 2/3 EXCAVATED MATERIAL.
- FINISHED GRADE
- PLACE ROOTBALL ON UNDISTURBED OR PROPERLY COMPACTED SUBGRADE. ADD AND COMPACT ADDITIONAL FILL IN THE EVENT THE HOLE IS TOO DEEP.
- SUBGRADE

2X BALL WIDTH, MIN.

3 ORNAMENTAL PLANTING DETAIL  
NTS

**NOTE:**

1. REMOVE AND PROPERLY DISPOSE OF ANY EXCESS EXCAVATED MATERIAL.
2. WRAP TRUNK WITH APPROVED TREE WRAP UP TO FIRST BRANCH. (FALL PLANTING REQUIREMENT).

- REMOVE BROKEN BRANCHES, TREE TAGS AND/OR RIBBONS, UPON PLANT APPROVAL.
- MAINTAIN ROOT FLARE EXPOSURE, DO NOT PLACE TOPSOIL ON TOP OF ROOTBALL. IF ROOT FLARE IS NOT EXPOSED, REMOVE EXCESS SOIL CAREFULLY. SET ROOT FLARE 2" ABOVE LEVEL OF FINISHED GRADE.
- 3" MINIMUM MULCH THICKNESS, HOLD BACK 3" MIN, 6" MAX FROM TRUNK.
- CUT AND REMOVE ALL CORDS AROUND ROOT BALL AND TREE TRUNK. REMOVE ENTIRE WIRE BASKET AND ALL BURLAP.
- 3" MINIMUM HEIGHT OF SAUCER AROUND TREE PIT FOR WATERING.
- PLANTING PIT SIZE SHALL BE TWICE AS WIDE AS THE ROOTBALL. BACKFILL PIT WITH 1/3 AMENDED TOPSOIL AND 2/3 EXCAVATED MATERIAL.
- FINISHED GRADE
- PLACE ROOTBALL ON UNDISTURBED OR PROPERLY COMPACTED SUBGRADE. ADD AND COMPACT ADDITIONAL FILL IN THE EVENT THE HOLE IS TOO DEEP.
- SUBGRADE
- 2X BALL WIDTH, MIN.

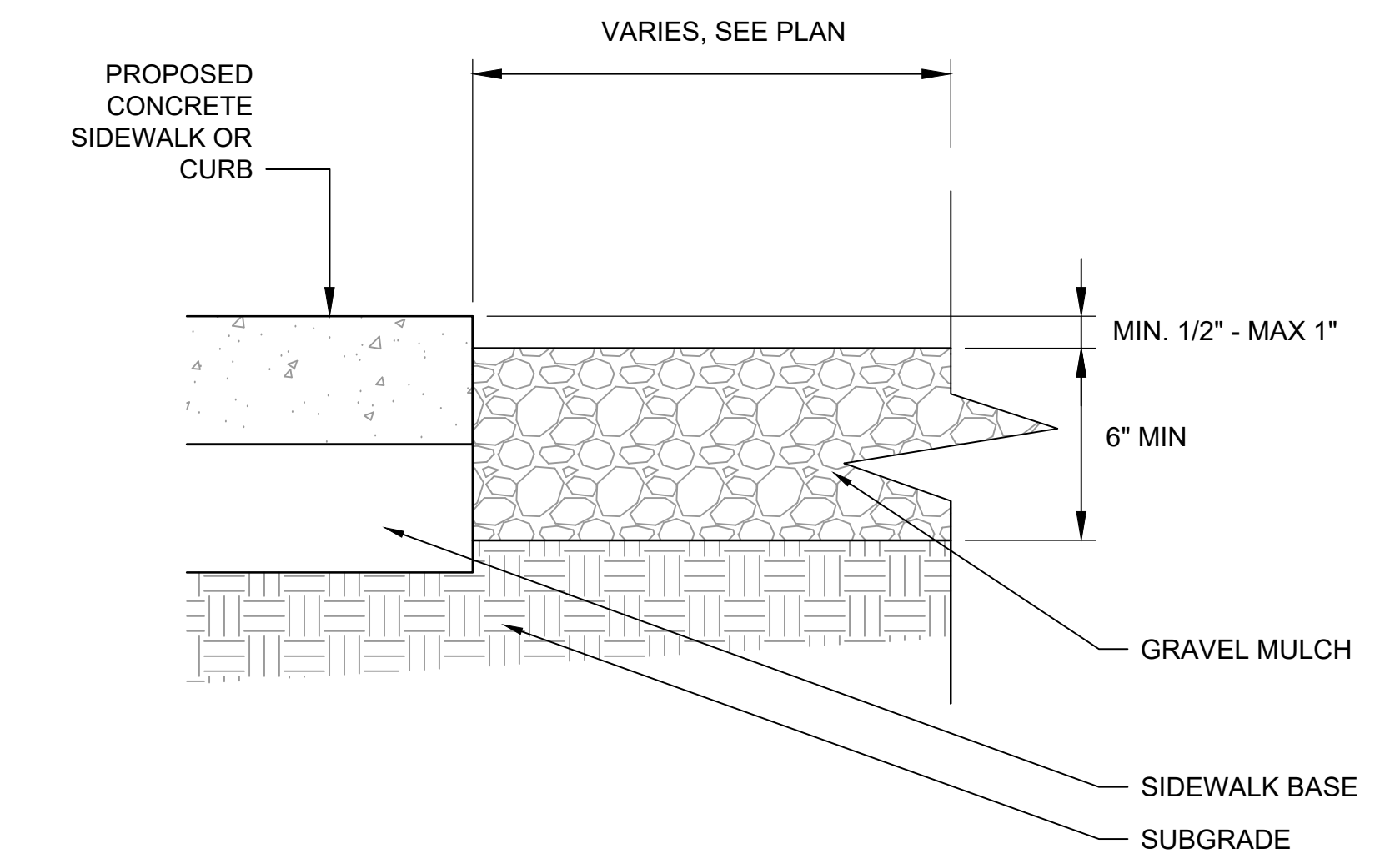
4 MULTI-STEM PLANTING DETAIL  
NTS

NOTE:  
REMOVE AND PROPERLY DISPOSE OF ANY EXCESS EXCAVATED MATERIAL

Diagram illustrating the planting pit preparation and installation instructions for a shrub:

- LIMIT PRUNING TO DEAD AND BROKEN BRANCHES.
- CROWN OF PLANT IS AT OR SLIGHTLY ABOVE FINISHED GRADE.
- MULCH, 3" DEEP, TYP.
- PLANTING PIT SIZE SHALL BE TWICE AS WIDE AS THE ROOTBALL. BACKFILL PIT WITH 1/3 AMENDED TOPSOIL AND 2/3 EXCAVATED MATERIAL.
- PREPARE A 3" SAUCER AROUND PIT IF SHRUB IS PLANTED ALONE. FOR MULTIPLE PLANTINGS IN THE SAME BED, PROVIDE POSITIVE DRAINAGE.
- FINISHED GRADE
- SOIL FROM CONTAINER, GENTLY LOOSEN BOTTOM FOR ROOT GROWTH.
- SUBGRADE
- 2X CONTAINER WIDTH, MIN.

5 SHRUB CONTAINER PLANTING DETAIL



6 WOOD MULCH AT SIDEWALK DETAIL  
NTS

PROJECT NO.:	00616135	SCALE: AS SHOWN	NO.	DATE	REVISION	BY
PROJECT DATE:	1-10-2020	DRAWN BY: LJG	-	-	-	-
F.B.:	-	CHECKED BY: SCR	-	-	-	-
PLOT DATE: 6/14/20 P:\610s\610\00616135\CADD\Construction Drawings\2-Site Civil\00616135 Landscaping Sheets.dwg						

I HEREBY CERTIFY THAT THIS PLAN, REPORT, OR SPECIFICATION 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

1/10/2020 44287  
Date License No  
*Scott R. Chilson*  
SCOTT R CHILSON



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LIFT STATION 15 RELOCATION  
CITY OF DULUTH, MINNESOTA  
2114 W MICHIGAN STREET

LANDSCAPE DETAILS

FILE NO.  
00616135  
SHEET  
L-2

## EXISTING LIFT STATION 15



City Project # 1803