Anoka County
MINNESOTA
Respectful, Innovative, Fiscally Responsible

ANOKA COUNTY TRANSPORTATION DIVISION
1440 BUNKER LAKE BLVD NW
ANDOVER, MN 55304
763-324-3176
highwaypermits@co.anoka.mn.us

RIGHT OF WAY PERMIT NUMBER

CSAH

CR

APPLICATION FOR PERMIT FOR INSTALLATION OF UTILITIES OR PLACING OBSTRUCTIONS ON THE COUNTY HIGHWAY SYSTEM
ALL APPLICANTS MUST BE REGISTERED PRIOR TO PERMIT APPROVAL

WORK TO START ON 04/10/2023

WORK TO BE COMPLETED ON 12/31/2024

DURATION OF JOB 2 years

ARE YOU BEING ASKED TO RELOCATE DUE TO A COUNTY PROJECT? No

ANOKA COUNTY PROJECT NUMBER

APPLICANT NAME Enebak Construction Company

CONTACT PERSON Jacob Fick

ADDRESS 16972 Brandtjen Farm Dr

CITY Lakeville

PHONE NUMBER 952-479-6700

EMAIL jacobf@enebak.com

COMPANY OR INDIVIDUAL PERFORMING WORK Enebak Construction Company

CONTACT PERSON Jacob Fick

PHONE NUMBER 6123888605

EMAIL jacobf@enebak.com

ADDRESS OF WORK SITE 11967 & 11985 Radisson RD NE

CITY Lakeville

NATURE OF WORK Removal of two private driveways, Construction access to site, minor grading to tie in existing grades in ROW

METHOD OF INSTALLATION/CONSTRUCTION Dozer and back hoe

SURFACE TO BE DISTURBED		SITE PLAN	WILL TRAFFIC BE OBSTRUCTED?	TRAFFIC CONTROL PLAN
X	DITCH		No	
	GRAVEL			
	BITUMINOUS			
	CONCRETE			
	NONE			

DEPTH FROM SURFACE Filling 0'-2' to tie in grades

SIZE AND KIND OF PIPE/CABLE none

NUMBER OF EXCAVATIONS 0

SIZE OF EXCAVATIONS NA

LOCATION OF EXCAVATIONS start filling 3' back of curb to the East, starting at 0' of fill just east of CSAH 52 back of curb and adding fill to regrade properties at 11967 and 11685 Radisson Rd.

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GENERAL INFORMATION
ONE PERMIT MUST BE APPROVED FOR EACH COUNTY ROAD ON WHICH WORK WILL BE PERFORMED PRIOR TO ANY WORK WITHIN THE RIGHT OF WAY BY ANY UTILITY/CONTRACTOR. EMERGENCY CONDITIONS WHICH THREATEN THE SAFETY OF THE PUBLIC AND REQUIRE IMMEDIATE REPAIR ARE EXCEPTIONS TO THIS RULE. UNDER THOSE CIRCUMSTANCES, THE UTILITY/CONTRACTOR, IS PERMITTED TO BEGIN AND/OR COMPLETE THE NECESSARY REPAIRS. ACTD SHALL BE NOTIFIED OF EMERGENCY REPAIRS AS SOON AS FEASIBLE AND A WRITTEN PERMIT IS TO BE COMPLETED WITHIN TWO BUSINESS DAYS OF OCCURRENCE.
A LICENSE-PERMIT BOND IS GENERALLY REQUIRED OF THE CONTRACTOR AS PART OF THE REGISTRATION PROCESS, THE AMOUNT OF WHICH WILL BE DETERMINED BY THE NATURE OF THE UTILITY WORK.
A SKETCH OR DRAWING SHALL ACCOMPANY EACH PERMIT APPLICATION WHICH WILL SHOW THE LOCATION OF THE PROPOSED WORK/UTILITY WITH REFERENCE TO THE COUNTY HIGHWAY CENTER LINE AND RIGHT OF WAY LINE. A COMPLETE SET OF PLANS IS REQUIRED FOR ALL SEWER/WATER PROJECTS.
IT SHALL BE THE RESPONSIBILITY OF THE APPLICANT TO DETERMINE WHICH OF THE SPECIAL CONDITIONS APPLY TO EACH PERMIT.
THE ANOKA COUNTY TRANSPORTATION DIVISION (ACTD) RESERVES THE RIGHT TO REVOKE ANY UTILITY PERMIT AND HALT WORK, IF, UPON INSPECTION OF ANY JOB SITE, THE SPECIAL CONDITIONS ARE NOT MET, AND/OR A HAZARD EXISTS FOR THE APPLICANT OR PUBLIC SAFETY IS THREATENED. **THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF ANY APPLICABLE FEDERAL, STATE, REGIONAL, AND LOCAL LAWS, RULES AND REGULATIONS, INCLUDING ANY PROVISION OF ANOKA COUNTY'S RIGHT-OF-WAY ORDINANCE SHALL BE CAUSE FOR IMMEDIATE REVOCATION OF A PERMIT.**
THE APPLICANT SHALL NOTIFY ACTD IMMEDIATELY UPON COMPLETION OF PROJECT SO THAT THE ACTD CAN INSPECT THE SITE TO DETERMINE WHETHER OR NOT RESTORATION HAS BEEN SATISFACTORILY COMPLETED.
THE UNDERSIGNED, HEREBY ACCEPTS THE TERMS AND CONDITIONS OF THIS PERMIT AND THE REGULATIONS OF ANOKA COUNTY, AND AGREES TO FULLY COMPLY THEREWITH TO THE SATISFACTION OF THE ACTD. THE COUNTY OF ANOKA, ITS OFFICIALS, EMPLOYEES, AND AGENTS, SHALL BE HELD HARMLESS, BY THE APPLICANT/PERMITTEE, FROM ANY DEMANDS, CLAIMS, LAWSUITS, OR DAMAGES RELATING TO THE WORK DESCRIBED IN THIS PERMIT.

APPLICANT'S SIGNATURE DocuSigned by: Jacob Fick 20D0491240AF43C...	**DATE** 4/4/2023

AUTHORIZATION OF PERMIT
IN CONSIDERATION OF THE APPLICANT'S AGREEMENT TO COMPLY IN ALL RESPECTS WITH THE REGULATIONS OF THE ACTD COVERING SUCH OPERATIONS, PERMISSION IS HEREBY GRANTED FOR THE WORK TO BE DONE AS DESCRIBED IN THE ABOVE APPLICATION. SAID WORK TO BE DONE IN ACCORDANCE WITH THE GENERAL CONDITIONS LISTED ABOVE AND THE SPECIAL CONDITIONS REQUIRED AS HEREBY STATED. IT IS EXPRESSLY UNDERSTOOD THAT THIS PERMIT IS CONDITIONED UPON REPLACEMENT OR RESTORATION OF THE COUNTY HIGHWAY AND ITS RIGHT OF WAY TO THEIR ORIGINAL OR TO A SATISFACTORY CONDITION. IT IS FURTHER UNDERSTOOD THAT THIS PERMIT IS ISSUED SUBJECT TO THE APPROVAL OF LOCAL CITY OR TOWNSHIP AUTHORITIES HAVING JOINT SUPERVISION OVER SAID STREET OR HIGHWAY.

APPROVED BY: **TITLE:**	**DATE**

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SPECIAL CONDITIONS

TRAFFIC CONTROL

1) DETOURS
   a) DETAILED DETOUR LAYOUTS SHALL BE SUBMITTED TO THE TRAFFIC ENGINEER FOR APPROVAL.
   b) NO DETOURS SHALL BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ANOKA COUNTY TRAFFIC ENGINEER.
   c) TEN DAYS NOTICE MUST BE GIVEN PRIOR TO THE INSTALLATION OF ANY DETOUR.
   d) IT SHALL BE THE RESPONSIBILITY OF THE APPLICANT TO NOTIFY ANOKA COUNTY CENTRAL COMMUNICATIONS, LOCAL GOVERNMENT BODIES, AND ANY AFFECTED BUS COMPANIES TEN DAYS PRIOR TO ANY ROAD CLOSURES/DETOURS.
   e) IMMEDIATELY UPON COMPLETION OF WORK AND/OR DETOURS, ALL POSTS, BARRICADES, AND SIGNS SHALL BE REMOVED FROM THE RIGHT OF WAY.
2) TRAFFIC CONTROL DEVICES
   a) ALL TRAFFIC CONTROL DEVICES, BARRICADES, FLASHERS, ETC., SHALL BE FURNISHED BY THE APPLICANT AND SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS – FIELD MANUAL OF THE SAME MANUAL.

CONSTRUCTION REQUIREMENTS

1) OPEN CUTTING OF BITUMINOUS OR CONCRETE SURFACED ROADS WILL BE ALLOWED ONLY AT THE DISCRETION OF THE COUNTY ENGINEER.
2) NEITHER SUPPLIES NOR EXCAVATION MATERIALS SHALL BE PLACED ON THE BITUMINOUS OR CONCRETE SURFACE AT ANY TIME.
3) NO TRENCHES WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT.
4) MATERIALS REMOVED FROM THE TRENCH SHALL BE USED AS BACKFILL INSOFAR AS THEY ARE SUITABLE. ALL BACKFILL MATERIAL SHALL CONFORM TO MNDOT SPECIFICATIONS FOR COMPACTION. THE USE OF HEAVY EQUIPMENT ON TOP OF TRENCH, SLAPPING WITH BACKHOE BUCKET AND/OR BACKCASTING TO ACHIEVE COMPACTION IS PROHIBITED. ANY ADDITIONAL MATERIAL REQUIRED TO BACK FILL TO THE ORIGINAL GRADE SHALL BE FURNISHED BY THE APPLICANT AT NO EXPENSE TO THE ACTD. ALL THE BASE AND SURFACE COURSES DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN BEFORE OPERATIONS BEGAN. THE APPLICANT SHALL BE RESPONSIBLE FOR AND RESTORE ANY SETTLEMENT.
5) ALL CULVERTS, DITCHES, SHOULDERS, AND BACKSLOPES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UNLESS OTHERWISE DIRECTED BY THE ACTD. SHOULDERS WHICH HAVE BEEN PREVIOUSLY CONSTRUCTED OR RECONSTRUCTED WITH SPECIAL MATERALS SHALL BE REPLACED IN KIND. RESTORATION OF SIGNS, GUARDRAILS, GUARDPOSTS, ETC., ARE THE SOLE RESPONSIBILITY OF THE APPLICANT AND SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
6) ALL ROADWAY MAINTENANCE REQUIRED WITHIN THE LIMITS OF THE UTILITY PROJECT THAT IS RELATED TO THE APPLICANT'S ACTIVITIES SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT FOR ONE YEAR AFTER COMPLETION OF THE PROJECT. UPON COMPLETION OF THE RESTORATION WORK, THE APPLICANT SHALL REQUEST A FINAL INSPECTION BY THE ACTD. THE ACTD'S APPROVED COMPLETION DATE SHALL BE THE STARTING DATE OF THE APPLICANT'S ONE YEAR RESPONSIBILITY.

HORIZONTAL BORING AND JACKING

1) ALL HARD SURFACE ROADWAYS SHALL BE JACKED OR BORED.
2) ALL CROSSINGS OF ANOKA COUNTY MAINTAINED ROADBEDS SHALL BE MADE BY BORING INSIDE A CASING OR CARRIER PIPE, OR BY JACKING UNLESS OTHERWISE DIRECTED BY THE ANOKA COUNTY ENGINEER. THE AUGER SHALL LEAD THE CASING OR CARRIER PIPE BY AT LEAST SIX INCHES WHENEVER POSSIBLE AND NEVER LEAD THE CARRIER PIPE BY MORE THAN ONE INCH.
3) THE USE OF PNEUMATIC DEVICES TO FACILITATE THE ROADBED CROSSINGS WILL BE ALLOWED IN MOST CASES WITH PRIOR APPROVAL. IN THE EVENT APPROVAL IS NOT GRANTED AND APPLICANT USES A PNEUMATIC DEVICE TO CROSS A ROADBED AND ENCOUNTERS AN OBSTRUCTION AND/OR UNSTABLE SUBBASE MATERIAL WHICH MAKES FORWARD OR REVERSE MOTION OF PNEUMATIC DEVICE IMPOSSIBLE, SAID PNEUMATIC DEVICE THEN BECOMES PART OF THE ROADWAY SUBBASE AND PERMISSION TO EXCAVATE TO RETRIEVE DEVICE WILL NOT BE GRANTED.
4) IF A PNEUMATIC DEVICE IS USED FOR THE WORK PERMITTED HEREIN, THE INSTALLATION MUST BE KEPT TO A MINIMUM OF FOUR FEET BELOW THE SURFACE OF THE ROADWAY IF THE PNEUMATIC DEVICE IS LESS THAN TWO INCHES IN DIAMETER, AND A MINIMUM OF FIVE FEET BELOW THE SURFACE OF THE ROADWAY IF THE PNEUMATIC DEVICE IS TWO INCHES IN DIAMETER OR LARGER.

BITUMINOUS RESTORATION

1) THE LOCATIONS AND DIMENSIONS OF ALL OPENINGS TO BE MADE IN THE BITUMINOUS SUFACE SHALL BE APPROVED BY THE ACTD PRIOR TO ANY CUTTING OR ANY SURFACE OPENING OPERATIONS.
2) ALL OPENINGS IN BITUMINOUS SURFACES SHALL BE CUT IN A STRAIGHT LINE WITH THE SIDES SMOOTH AND VERTICAL. NO RAGGED EDGES WILL BE PERMITTED. CUTTING SHALL BE DONE WITH A CONCRETE SAW.
3) ALL NECESSARY DUST CONTROL OPERATIONS SHALL BE CARRIED OUT BY THE APPLICANT AT NO EXPENSE TO ANOKA COUNTY.
4) THE MINIMUM REQUIREMENT FOR SUBGRADE REPLACEMENT SHALL BE THE UPPER TWELVE INCHES OF MATERIAL AND SHALL MEET MNDOT SPECIFICATIONS FOR CLASS FIVE PLACED IN SIX INCH LAYERS COMPACTED TO ONE HUNDRED PERCENT OF OPTIMUM DENSITY.
5) ALL MANHOLE CASINGS, GATE VALVES, AND OTHER UTILITY STRUCTURES SHALL BE SET ONE QUARTER INCH BELOW THE TOP OF THE FINISHED SURFACE.
6) BITUMINOUS TACK COAT MATERIALS AND APPLICATION THEREOF SHALL CONFORM TO MNDOT SPECIFICATION 2357.
7) ALL BITUMINOUS SURFACING SHALL BE REPLACED AS SOON AS PRACTICABLE AFTER THE BASE CONSTRUCTION. ALL BITUMINOUS SURFACING SHALL BE MACHINE LAID. ANY EXCEPTIONS MUST BE APPROVED BY THE ACTD. BITUMINOUS SURFACING SHALL BE REPLACED TO ORIGINAL PAVEMENT DEPTH OR TO A MINIMUM OF SIX INCHES OF BITUMINOUS MIXTURE (2360), WHICHEVER IS GREATER. BITUMINOUS MIXTURES MUST BE PLACED IN LIFTS NOT EXCEEDING THREE INCHES IN THICKNESS FOR BASE AND BINDER COURSES AND NOT EXCEEDING TWO INCHES FOR THE WEAR COURSE.
8) ALL SURFACE RESTORATION REGARDLESS OF SIZE SHALL CONFORM TO EXISTING GRADES.
9) ANY UNNECESSARY OR NEGLIGENT DAMAGE TO BITUMINOUS SURFACE IN CONJUNCTION WITH THE INSTALLATION AND/OR REPAIR OF A UTILITY SHALL BE CUT OUT AND REPLACED IN KIND AS DIRECTED BY THE ACTD.

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CONCRETE RESTORATION

1) CURB AND GUTTER, SIDEWALKS, AND DRIVEWAYS SHALL BE RESTORED IN ACCORDANCE WITH MNDOT SPECIFICATIONS 2531 AND 2521.

UTILITY LINES

1) THERE SHALL BE ONLY A SINGLE POLE LINE ON THE COUNTY RIGHT OF WAY ON EITHER SIDE OF THE CENTER LINE THEREOF.
2) EXACT LOCATIONS OF LONGITUDINAL INSTALLATIONS ON COUNTY HIGHWAYS SHALL BE LOCATED AS DIRECTED BY THE ACTD.

SECTION CORNER MONUMENTS

1) UTILITY LOCATIONS SHALL NOT INTERFERE WITH THE LOCATION OF ANY SECTION, QUARTER, WITNESS, OR RIGHT OF WAY MONUMENTS. FOR ASSISTANCE IN LOCATIONS, CONTACT THE ANOKA COUNTY SURVEYOR'S OFFICE.
2) THE APPLICANT SHALL BE RESPONSIBLE FOR REPLACEMENT OF ANY EXISTING PROPERTY IRONS DISTURBED DURING CONSTRUCTION.
3) THE APPLICANT SHALL NOTIFY THE ANOKA COUNTY SURVEYOR'S OFFICE THREE WORKING DAYS IN ADVANCE OF ANY ANTICIPATED DISTURBANCE OF ANY SECTION, QUARTER, WITNESS, OR RIGHT OF WAY MONUMENTS.
4) ANY MONUMENT DISTURBED DURING THE COURSE OF CONSTRUCTION SHALL BE RESET BY THE ANOKA COUNTY SURVEYOR'S OFFICE AT THE EXPENSE OF THE APPLICANT.

ATTACHING TO BRIDGES/STRUCTURES

1) NO UTILITY IS PERMITTED TO BE HUNG FROM, OR OTHERWISE ATTACHED TO ANY BRIDGE OR STRUCTURE WITHOUT HAVING DETAILED PLANS APPROVED BY THE ANOKA COUNTY ENGINEER. THESE PLANS ARE TO SHOW APPROACHES TO THE STRUCTURE, METHOD OF INSTALLATION, TYPE, AND DIMENSION OF HOUSING FOR THE UTILITY.

INITIAL DS

RADISSON ROAD TOWNHOMES

BLAINE, MINNESOTA

ISSUED FOR: WATERSHED SUBMITTAL

ARCHITECT:
WHITTEN ASSOCIATES, INC.
4159 HEATHERTON PLACE
MINNETONKA, MN 55345
CONTACT: TIM WHITTEN
TIM@WHITTENASSOCIATES.COM
612-747-0771

DEVELOPER / PROPERTY OWNER:
RON CLARK CONSTRUCTION
7500 WEST 78TH STREET
EDINA, MN 55439
CONTACT: MIKE WALDO
MWALDO@RONCLARK.COM
952-947-3037

ENGINEER / LANDSCAPE ARCHITECT:
CIVIL SITE GROUP
5000 GLENWOOD AVE
GOLDEN VALLEY, MN 55422
CONTACT: DAVID KNABLE
612-615-0060

SURVEYOR:
EG RUD & SONS
6776 LAKE DR
LINO LAKES, MN 55014
CONTACT: JASON E. RUD
651-361-8200

GEOTECHNICAL ENGINEER:
BRAUN INTERTEC
11001 HAMPSHIRE AVE S
MINNEAPOLIS, MN 55438
CONTACT: NATHAN L. MCKINNEY
952-995-2000

Know what's **below.**
Call before you dig.

SHEET INDEX

CivilSite GROUP
4931 W. 35TH ST, SUITE 200
ST. LOUIS PARK, MN 55416
CivilSiteGroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
RADISSON ROAD TOWNHOMES
11967 & 11985 RADISSON RD NE; BLAINE, MN 55449

RON CLARK CONSTRUCTION
7500 WEST 78TH STREET, EDINA, MN 55439

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.

David J. Knable
David J. Knable
DATE 2/9/23 LICENSE NO. 48776

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/9/22	WATERSHED SUBMITTAL
1/31/23	WATERSHED RESUBMITTAL
2/9/23	CITY SUBMITTAL

DRAWN BY: AH REVIEWED BY: DK
PROJECT NUMBER: 2022.01

REVISION SUMMARY

DATE	DESCRIPTION

TITLE SHEET

C0.0

CERTIFICATE OF SURVEY

~for~ UNITED PROPERTIES

~of~ 11967 and 11985 Radisson Road NE

LEGEND

- DENOTES IRON MONUMENT FOUND AS LABELED
- DENOTES IRON MONUMENT SET, MARKED RLS# 41578
- DENOTES CATCH BASIN
- DENOTES CABLE PEDESTAL
- DENOTES ELECTRICAL BOX
- DENOTES ELECTRICAL MANHOLE
- DENOTES EXISTING SPOT ELEVATION
- DENOTES FIBER OPTIC BOX
- DENOTES GAS METER
- DENOTES HYDRANT
- DENOTES MISCELLANEOUS MANHOLE
- DENOTES STORM SEWER MANHOLE
- DENOTES SEPTIC/SANITARY SEWER MANHOLE
- DENOTES STORM SEWER APRON
- DENOTES TELEPHONE PEDESTAL
- DENOTES WATER VALVE
- DENOTES WELL
- DENOTES WET LAND
- DENOTES RETAINING WALL
- DENOTES EXISTING CONTOURS
- DENOTES EXISTING STORM SEWER
- DENOTES WETLAND DELINEATED BY ANDERSON ENGINEERING
- DENOTES EXISTING SANITARY SEWER
- DENOTES EXISTING WATER MAIN
- DENOTES UNDERGROUND ELECTRIC LINE
- DENOTES UNDERGROUND GAS LINE
- DENOTES UNDERGROUND FIBER OPTIC LINE
- DENOTES BITUMINOUS SURFACE
- DENOTES CONCRETE SURFACE
- DENOTES GRAVEL SURFACE

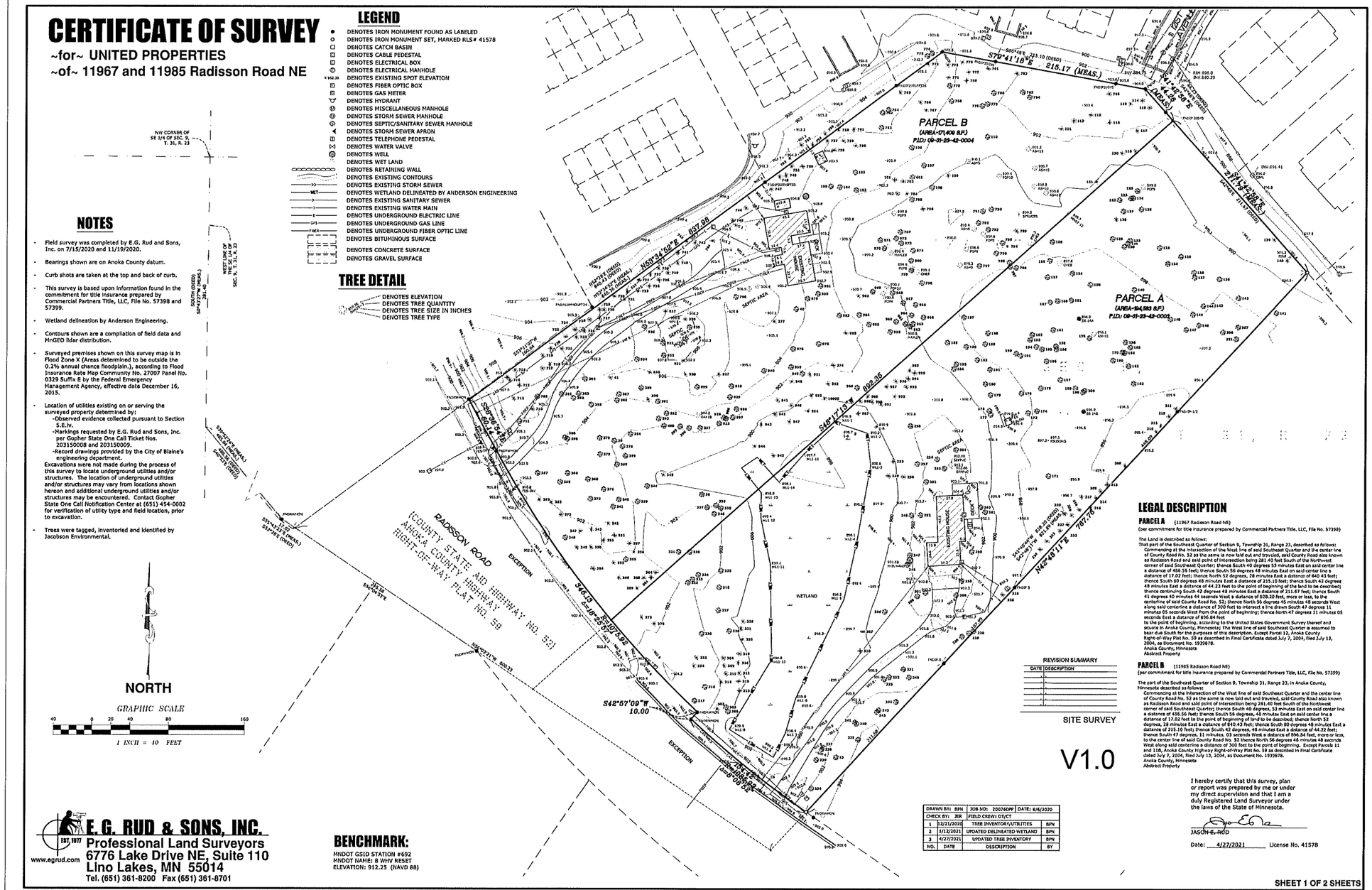
TREE DETAIL

DENOTES ELEVATION
DENOTES TREE QUANTITY
DENOTES TREE SIZE IN INCHES
DENOTES TREE TYPE

NOTES

- Field survey was completed by E.G. Rud and Sons, Inc. on 7/15/2020 and 11/19/2020.
- Bearings shown are on Anoka County datum.
- Curb shots are taken at the top and back of curb.
- This survey is based upon information found in the commitment for title insurance prepared by Commercial Partners Title, LLC, File No. 57398 and 57399.
- Wetland delineation by Anderson Engineering.
- Contours shown are a compilation of field data and MnGEO lidar distribution.
- Surveyed premises shown on this survey map is in Flood Zone X (Areas determined to be outside the 0.2% annual chance floodplain.), according to Flood Insurance Rate Map Community No. 27007 Panel No. 0329 Suffix E by the Federal Emergency Management Agency, effective date December 16, 2015.
- Location of utilities existing on or serving the surveyed property determined by:
  - -Observed evidence collected pursuant to Section 5.E.iv.
  - -Markings requested by E.G. Rud and Sons, Inc. per Gopher State One Call Ticket Nos. 203150008 and 203150009.
  - -Record drawings provided by the City of Blaine's engineering department.

  Excavations were not made during the process of this survey to locate underground utilities and/or structures. The location of underground utilities and/or structures may vary from locations shown hereon and additional underground utilities and/or structures may be encountered. Contact Gopher State One Call Notification Center at (651) 454-0002 for verification of utility type and field location, prior to excavation.
- Trees were tagged, inventoried and identified by Jacobson Environmental.



NORTH

GRAPHIC SCALE

40 0 20 40 80 160

1 INCH = 40 FEET

REVISION SUMMARY

DATE	DESCRIPTION

SITE SURVEY

V1.0

DRAWN BY: BPN	JOB NO: 200760PP	DATE: 8/6/2020	
CHECK BY: JKR	FIELD CREW: DT/CT		
1	12/21/2020	TREE INVENTORY/UTILITIES	BPN
2	1/12/2021	UPDATED DELINEATED WETLAND	BPN
3	4/27/2021	UPDATED TREE INVENTORY	BPN
NO.	DATE	DESCRIPTION	BY

LEGAL DESCRIPTION

PARCEL A (11967 Radisson Road NE)
(per commitment for title insurance prepared by Commercial Partners Title, LLC, File No. 57398)

The Land is described as follows:
That part of the Southeast Quarter of Section 9, Township 31, Range 23, described as follows: Commencing at the intersection of the West line of said Southeast Quarter and the center line of County Road No. 52 as the same is now laid out and traveled, said County Road also known as Radisson Road and said point of intersection being 281.40 feet South of the Northwest corner of said Southeast Quarter; thence South 40 degrees 53 minutes East on said center line a distance of 456.56 feet; thence South 56 degrees 48 minutes East on said center line a distance of 17.02 feet; thence North 52 degrees, 28 minutes East a distance of 640.43 feet; thence South 80 degrees 48 minutes East a distance of 215.10 feet; thence South 42 degrees 48 minutes East a distance of 44.23 feet to the point of beginning of the land to be described; thence continuing South 42 degrees 48 minutes East a distance of 211.67 feet; thence South 41 degrees 42 minutes 44 seconds West a distance of 838.20 feet, more or less, to the centerline of said County Road No. 52; thence North 56 degrees 46 minutes 48 seconds West along said centerline a distance of 300 feet to intersect a line drawn South 47 degrees 11 minutes 05 seconds West from the point of beginning; thence North 47 degrees 11 minutes 05 seconds East a distance of 896.84 feet to the point of beginning, according to the United States Government Survey thereof and situate in Anoka County, Minnesota; The West line of said Southeast Quarter is assumed to bear due South for the purposes of this description. Except Parcel 12, Anoka County Right-of-Way Plat No. 59 as described in Final Certificate dated July 7, 2004, filed July 13, 2004, as Document No. 1939878.
Anoka County, Minnesota
Abstract Property

PARCEL B (11985 Radisson Road NE)
(per commitment for title insurance prepared by Commercial Partners Title, LLC, File No. 57399)

The part of the Southeast Quarter of Section 9, Township 31, Range 23, in Anoka County, Minnesota described as follows:
Commencing at the intersection of the West line of said Southeast Quarter and the center line of County Road No. 52 as the same is now laid out and traveled, said County Road also known as Radisson Road and said point of intersection being 281.40 feet South of the Northwest corner of said Southeast Quarter; thence South 40 degrees, 53 minutes East on said center line a distance of 456.56 feet; thence South 56 degrees, 48 minutes East on said center line a distance of 17.02 feet to the point of beginning of land to be described; thence North 52 degrees, 28 minutes East a distance of 640.43 feet; thence South 80 degrees 48 minutes East a distance of 215.10 feet; thence South 42 degrees, 48 minutes East a distance of 44.32 feet; thence South 47 degrees, 11 minutes, 03 seconds West a distance of 896.84 feet, more or less, to the center line of said County Road No. 52 thence North 56 degrees 46 minutes 48 seconds West along said centerline a distance of 300 feet to the point of beginning. Except Parcels 11 and 11B, Anoka County Highway Right-of-Way Plat No. 59 as described in Final Certificate dated July 7, 2004, filed July 13, 2004, as Document No. 1939878.
Anoka County, Minnesota
Abstract Property

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

JASON E. ROD

Date: 4/27/2021 License No. 41578

E.G. RUD & SONS, INC.
EST. 1977
Professional Land Surveyors
6776 Lake Drive NE, Suite 110
Lino Lakes, MN 55014
Tel. (651) 361-8200 Fax (651) 361-8701
www.egrud.com

BENCHMARK:

MNDOT GSID STATION #692
MNDOT NAME: B WHV RESET
ELEVATION: 912.25 (NAVD 88)

S:\PROJECTS\2007\PP\200760PP.DWG

REMOVAL NOTES:

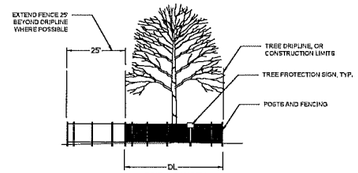
1. SEE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PLAN FOR CONSTRUCTION STORM WATER MANAGEMENT PLAN.
2. REMOVAL OF MATERIALS NOTED ON THE DRAWINGS SHALL BE IN ACCORDANCE WITH MNDOT, STATE AND LOCAL REGULATIONS.
3. REMOVAL OF PRIVATE UTILITIES SHALL BE COORDINATED WITH UTILITY OWNER PRIOR TO CONSTRUCTION ACTIVITIES.
4. EXISTING PAVEMENTS SHALL BE SAWCUT IN LOCATIONS AS SHOWN ON THE DRAWINGS OR THE NEAREST JOINT FOR PROPOSED PAVEMENT CONNECTIONS.
5. REMOVED MATERIALS SHALL BE DISPOSED OF TO A LEGAL OFF-SITE LOCATION AND IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
6. ABANDON, REMOVAL, CONNECTION, AND PROTECTION NOTES SHOWN ON THE DRAWINGS ARE APPROXIMATE, COORDINATE WITH PROPOSED PLANS.
7. EXISTING ON-SITE FEATURES NOT NOTED FOR REMOVAL SHALL BE PROTECTED THROUGHOUT THE DURATION OF THE CONTRACT.
8. PROPERTY LINES SHALL BE CONSIDERED GENERAL CONSTRUCTION LIMITS UNLESS OTHERWISE NOTED ON THE DRAWINGS. WORK WITHIN THE GENERAL CONSTRUCTION LIMITS SHALL INCLUDE STAGING, DEMOLITION AND CLEANUP OPERATIONS AS WELL AS CONSTRUCTION SHOWN ON THE DRAWINGS.
9. MINOR WORK OUTSIDE OF THE GENERAL CONSTRUCTION LIMITS SHALL BE ALLOWED AS SHOWN ON THE PLAN AND PER CITY REQUIREMENTS.
10. DAMAGE BEYOND THE PROPERTY LIMITS CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED IN A MANNER APPROVED BY THE ENGINEER/LANDSCAPE ARCHITECT OR IN ACCORDANCE WITH THE CITY.
11. PROPOSED WORK (BUILDING AND CIVIL) SHALL NOT DISTURB EXISTING UTILITIES UNLESS OTHERWISE SHOWN ON THE DRAWINGS AND APPROVED BY THE CITY PRIOR TO CONSTRUCTION.
12. SITE SECURITY MAY BE NECESSARY AND PROVIDED IN A MANNER TO PROHIBIT VANDALISM, AND THEFT, DURING AND AFTER NORMAL WORK HOURS, THROUGHOUT THE DURATION OF THE CONTRACT. SECURITY MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY.
13. VEHICULAR ACCESS TO THE SITE SHALL BE MAINTAINED FOR DELIVERY AND INSPECTION ACCESS DURING NORMAL OPERATING HOURS. AT NO POINT THROUGHOUT THE DURATION OF THE CONTRACT SHALL CIRCULATION OF ADJACENT STREETS BE BLOCKED WITHOUT APPROVAL BY THE CITY PRIOR TO CONSTRUCTION ACTIVITIES.
14. ALL TRAFFIC CONTROLS SHALL BE PROVIDED AND ESTABLISHED PER THE REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MNUTCD) AND THE CITY. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, SIGNAGE, BARRICADES, FLASHERS, AND FLAGGERS AS NEEDED. ALL PUBLIC STREETS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES. NO ROAD CLOSURES SHALL BE PERMITTED WITHOUT APPROVAL BY THE CITY.
15. SHORING FOR BUILDING EXCAVATION MAY BE USED AT THE DISCRETION OF THE CONTRACTOR AND AS APPROVED BY THE OWNERS REPRESENTATIVE AND THE CITY PRIOR TO CONSTRUCTION ACTIVITIES.
16. STAGING, DEMOLITION, AND CLEAN-UP AREAS SHALL BE WITHIN THE PROPERTY LIMITS AS SHOWN ON THE DRAWINGS AND MAINTAINED IN A MANNER AS REQUIRED BY THE CITY.
17. ALL EXISTING SITE TRAFFIC/REGULATORY SIGNAGE TO BE INVENTORIED AND IF REMOVED FOR CONSTRUCTION SHALL BE RETURNED TO LGU.
18. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (651-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

EROSION CONTROL NOTES:

SEE SWPPP ON SHEETS SW1.0 - SW1.4

CITY OF BLAINE REMOVAL NOTES:

1. RESERVED FOR CITY SPECIFIC REMOVAL NOTES.



FURNISH A AND INSTALL TEMPORARY FENCE AT THE TREE'S DRIP LINE OR CONSTRUCTION LIMITS AS SHOWN ON PLAN, PRIOR TO ANY CONSTRUCTION. WHERE POSSIBLE PLACE FENCE 25' BEYOND DRIP LINE. PLACE TREE PROTECTION SIGN ON POSTS, ONE PER INDIVIDUAL TREE (FACING CONSTRUCTION ACTIVITY), OR ONE EVERY 100' LF ALONG A GROVE OR MULTI-TREE PROTECTION AREA.

1 TREE PROTECTION
NTS

REMOVALS LEGEND:

- 1125 — EX. 1' CONTOUR ELEVATION INTERVAL
- REMOVAL OF PAVEMENT AND ALL BASE MATERIAL, INCLUDING BIT., CONC., AND GRAVEL PVMTS.
- REMOVAL OF STRUCTURE INCLUDING ALL FOOTINGS AND FOUNDATIONS.
- REMOVE CURB AND GUTTER. IF IN RIGHT-OF-WAY, COORDINATE WITH LOCAL GOVERNING UNIT.
- TREE PROTECTION
- TREE REMOVAL - INCLUDING ROOTS AND STUMPS

Know what's below. Call before you dig.

N

1" = 30'-0"
15'-0" 0 30'-0"

CivilSite GROUP
4931 W. 35TH ST, SUITE 200
ST. LOUIS PARK, MN 55416
CivilSiteGroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT:
RADISSON ROAD TOWNHOMES
11957 & 11985 RADISSON RD NE, BLAINE, MN 55449

RON CLARK CONSTRUCTION
7500 WEST 78TH STREET, EDINA, MN 55439

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.

David J. Knoble
DATE 2/9/23 LICENSE NO. 48716

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/3/22	EXTENDED SUBMITTAL
1/3/23	EXTENDED RESUBMITTAL
2/3/23	CITY SUBMITTAL

DRAWN BY: AM REVIEWED BY: DK
PROJECT NUMBER: 2022-C1

REVISION SUMMARY

DATE	DESCRIPTION

REMOVALS PLAN

C1.0

TREE TAG NO.	CAL. INCH SIZE	SPECIES	TREE CATEGORY	REMOVED	CONDITION
23	20	Red oak	S	X	5
38	11	Sugar maple	C	X	5
101	16	Red pine	S	X	5
102	11	Red oak	C	X	5
103	25	White oak	S	X	6
104	22	White oak	S	X	5
105	14	White oak	S	X	5
106	30	Red oak	H	X	3
107	8	Quaking aspen	C	X	5
108	9	Quaking aspen	C	X	5
109	19	White spruce	S	X	4
110	15	Red oak	S	X	5
111	19	Red pine	S	X	5
112	18	Red pine	S	X	5
113	28	White pine	H	X	5
114	16	Red cedar	S	X	4
115	17	Red pine	S	X	4
116	21	Red pine	S	X	3
117	16	Red pine	S	X	5
118	15	Scotch pine	S	X	5
119	16	Red pine	S	X	5
120	20	Red pine	S	X	5
121	20	Red pine	S	X	4
122	9	Quakng aspen	C	X	4
123	8	Quakng aspen	C	X	4
124	9	Quakng aspen	C	X	5
125	8	Black cherry	C	X	4
126	8	Quakng aspen	C	X	5
127	8	Quakng aspen	C	X	4
128	26	Scotch pine	S	X	5
129	9	Quakng aspen	C	X	4
130	8	Quakng aspen	C	X	4
131	8	Quakng aspen	C	X	4
132	8	Quakng aspen	C	X	5
133	8	Quakng aspen	C	X	5
134	8	Quakng aspen	C	X	4
135	11	Quakng aspen	C	X	5
136	10	Quakng aspen	C	X	5
137	8	Quakng aspen	C	X	5
138	8	Quakng aspen	C	X	4
139	16	Red pine	S		5
140	16	Red pine	S		5
141	8	Black cherry	E		4
142	8	Quakng aspen	C	X	5
143	9	Quakng aspen	C	X	4
144	10	Quakng aspen	C	X	5
145	9	Quakng aspen	C	X	5
146	11	Quakng aspen	C	X	5
147	8	Quakng aspen	C	X	5
148	9	Quakng aspen	C	X	5
149	8	Quakng aspen	C	X	5
150	9	Quakng aspen	C	X	5
151	11	Quakng aspen	C	X	4
154	9	Quakng aspen	C	X	5
155	11	Black cherry	C	X	4
156	10	Black cherry	C	X	5
157	8	Quakng aspen	C	X	5
158	9	Quakng aspen	C	X	3
159	8	Quakng aspen	C	X	4
160	9	Quakng aspen	C	X	4
161	9	Black cherry	C	X	4
162	8	Quakng aspen	C	X	5
163	8	Quakng aspen	C	X	5
164	8	Quakng aspen	C	X	5
165	8	Quakng aspen	C	X	3
166	9	Box elder	C	X	5
167	8	Quakng aspen	C	X	5
168	8	Quakng aspen	C	X	4
169	8	Black cherry	C	X	4
170	8	Quakng aspen	C	X	3
171	20	Elm	S	X	3
172	10	Sugar maple	C	X	5
173	10	Quakng aspen	C	X	5
174	8	Apple	C	X	4
175	9	Quakng aspen	C	X	4
176	11	Sugar maple	C	X	5
177	9	Red oak	C	X	5
178	11	Red oak	C	X	5
179	12	Quakng aspen	S	X	4
180	9	Quakng aspen	C	X	5
181	8	Quakng aspen	C	X	5
182	9		C	X	4
183	8	Quakng aspen	C	X	4
184	16	Black cherry	S	X	3
185	14	Green ash	S	X	3
186	8	Quakng aspen	C	X	4
187	8	Quakng aspen	C	X	5
188	8	Quakng aspen	C	X	5
189	9	Quakng aspen	C	X	5
190	8	Quakng aspen	C	X	5
191	9	Quakng aspen	C	X	3
192	10	Quakng aspen	C	X	5
193	11	Quakng aspen	C	X	4
194	10	Quakng aspen	C	X	5
195	8	Quakng aspen	C	X	4
196	11	Quakng aspen	C	X	4
197	9	Quakng aspen	C	X	5
198	8	Quakng aspen	C	X	4
199	8	Quakng aspen	C	X	4
200	8	Quakng aspen	C	X	5
206	12	Quakng aspen	S	X	3
207	8	Quakng aspen	C	X	5
208	17	Blue spruce	S	X	5
209	13	Blue spruce	S	X	4
210	15	Blue spruce	S	X	4
211	14	Blue spruce	S	X	4
212	13	Blue spruce	S	X	4
213	16	Blue spruce	S	X	4
214	20	Blue spruce	S	X	5
215	16	Blue spruce	S	X	5
216	13	Blue spruce	E		4
217	19	Blue spruce	S	X	4
218	18	Blue spruce	S	X	5
219	15	Blue spruce	S	X	5
220	15	Blue spruce	S	X	5
221	8	Quakng aspen	C	X	5
222	20	Blue spruce	S	X	5
223	14	Blue spruce	S	X	4
224	14	Blue spruce	S	X	3
225	15	Red oak	S	X	5
226	14	Red pine	S	X	4
227	14	Blue spruce	S	X	5
228	13	Red oak	S	X	3
229	25	Red oak	S	X	5
230	17	Red oak	S		4
231	18	Red oak	S	X	4
232	8	White oak	C	X	5
233	16	White oak	S	X	4
234	15	Red oak	S	X	5
235	23	Red oak	S	X	4
237	10	White oak	C	X	4

TREE TAG NO.	CAL. INCH SIZE	SPECIES	TREE CATEGORY	REMOVED	CONDITION
238	16	Red oak	S	X	3
239	18	Red oak	S	X	5
240	13	Red oak	S	X	5
241	12	White oak	S	X	4
242	16	Red oak	S	X	5
243	17	Red oak	S	X	4
244	12	Red oak	S	X	5
245	14	Red oak	S	X	5
246	22	Red oak	S	X	5
247	23	Red oak	S	X	5
248	21	Red oak	S	X	2
249	18	Red pine	S	X	5
250	18	Red pine	S	X	5
251	13	Red oak	S	X	4
252	17	Red oak	S	X	4
253	18	Red pine	S	X	5
254	18	Red oak	S	X	4
255	21	Red oak	S	X	5
256	17	Red oak	S	X	4
257	8	Paper birch	C	X	4
258	8	Paper birch	C	X	5
259	15	Red oak	S	X	5
260	19	Red oak	S	X	5
261	8	Paper birch	C	X	5
262	13	Paper birch	S	X	5
301	26	Red oak	S	X	5
302	30	Scotch pine	H	X	3
303	8	Red oak	C	X	5
304	21	Blue spruce	S	X	5
305	15	Blue spruce	S	X	5
306	9	Green ash	C	X	5
307	22	Red pine	S	X	5
308	16	Sugar maple	S	X	4
309	9	Red oak	C	X	5
310	18	Red pine	S	X	4
311	12	Blue spruce	S	X	5
312	25	Red pine	S	X	5
313	22	Red pine	S	X	5
314	12	Blue spruce	S	X	6
315	25	Red pine	S	X	5
316	16	White oak	S	X	5
317	19	White oak	S	X	5
318	24	Red pine	S	X	5
319	20	White oak	S	X	7
320	18	White oak	S	X	4
321	19	White oak	S	X	4
322	18	Red oak	S	X	5
323	20	Red oak	S	X	4
324	21	Red oak	S	X	3
325	18	White oak	S	X	5
326	23	Red pine	S	X	5
327	9	Red oak	C	X	4
328	12	Red oak	S	X	5
329	20	Red pine	S	X	5
330	27	Red oak	H	X	3
331	20	Red pine	S	X	5
332	24	Red pine	S	X	5
333	22	Red pine	S	X	5
334	20	Red pine	S	X	5
335	17	White oak	S	X	4
336	20	Red oak	S	X	4
337	17	Red oak	S	X	4
339	28	Red oak	H	X	5
340	14	White oak	S	X	5
341	15	Sugar maple	S	X	3
342	23	Red pine	S	X	5
343	24	Red pine	S	X	5
344	10	Sugar maple	C	X	5
345	25	Red pine	S	X	5
346	20	Red oak	S	X	4
347	23	Red pine	S	X	5
348	11	Red oak	C	X	0
349	27	Blue spruce	H	X	5
350	21	Red pine	S	X	5
351	21	Red pine	S	X	5
352	22	Blue spruce	S	X	6
353	24	Red pine	S	X	5
354	21	Red pine	S	X	5
355	9	Quaking aspen	C	X	5
356	22	Red pine	S	X	5
357	21	Balsam fir	S	X	5
358	22	Red pine	S	X	4
359	23	Red pine	S	X	5
360	21	White spruce	S	X	5
361	21	Scotch pine	S	X	3
362	19	Red pine	S	X	5
363	22	Red pine	S	X	5
364	15	Red pine	S	X	5
365	13	Red oak	S	X	5
366	15	Red oak	S	X	5
367	28	Red oak	H	X	3
368	15	Red oak	S	X	4
369	14	White oak	S	X	5
370	19	Scotch pine	S	X	5
371	15	Red oak	S	X	5
372	19	Red oak	S	X	5
373	25	Red pine	S	X	5
374	18	Red pine	S	X	5
375	19	Red cedar	S	X	4
376	13	Red oak	S	X	4
377	12	White oak	S	X	5
377	17	Red pine	S	X	5
378	16	Red oak	S	X	3
378	21	White oak	S	X	6
379	14	Red oak	S	X	4
380	8	White oak	C	X	5
381	13	Red oak	S	X	4
382	17	Red oak	S	X	3
383	18	Red oak	S	X	5
384	30	White oak	H	X	6
385	11	White oak	C	X	5
386	11	White oak	C	X	5
387	19	Red oak	S	X	3
388	13	Red pine	S	X	5
388	17	Red oak	S	X	4
389	19	Red oak	S	X	4
390	12	Red cedar	S	X	5
391	20	Red oak	S	X	4
392	12	White oak	S	X	4
393	8	White oak	C	X	4
394	21	Red oak	S	X	5
395	18	Red oak	S	X	5
396	18	Red oak	S	X	5
397	20	Red oak	S	X	5
398	13	White oak	S	X	4
399	14	White oak	S	X	4
400	15	Red oak	S	X	5
601	10	Red oak	C	X	5
702	15	White spruce	S	X	5
703	18	White spruce	S	X	5
704	15	White spruce	S	X	5

TREE TAG NO	CAL. INCH SIZE	SPECIES	TREE CATEGORY	REMOVED	CONDITION
705	10	Quaking aspen	C	X	5
706	15	White spruce	S	X	5
707	12	Green ash	S	X	5
708	24	White oak	S	X	7
709	15	White oak	S	X	5
710	14	Red pine	S	X	5
711	20	White oak	S	X	5
712	13	Red cedar	S	X	4
713	16	Red pine	S	X	5
714	17	Red pine	S		5
715	18	Red pine	S		5
716	17	Red pine	S		5
717	17	Red cedar	S	X	4
718	19	Red pine	S	X	5
719	18	Red pine	S		5
720	18	Red pine	S		5
721	19	Red pine	S	X	5
722	16	Red pine	S		5
723	16	Red pine	S	X	5
724	18	Red pine	S		5
725	20	Red pine	S	X	5
726	18	Red pine	S		5
727	17	Red pine	S	X	5
728	18	Red pine	S		5
729	21	Red pine	S		5
730	15	Red pine	S		5
731	16	Red pine	S	X	5
732	16	Red pine	S		5
733	18	Red pine	S	X	5
734	8	Red pine	C		5
735	16	Red pine	S	X	5
736	18	Red pine	S	X	5
737	15	Red pine	S		5
738	17	Red pine	S		4
739	17	Red pine	S	X	5
740	25	Red pine	S	X	5
741	18	Scotch pine	S		4
742	20	Red pine	S		5
743	18	Red pine	S		5
744	21	Red pine	S	X	5
745	18	Blue spruce	S	X	5
746	17	Red pine	S		5
747	20	Red pine	S		5
748	18	Red pine	S		5
749	16	Scotch pine	S		4
750	20	Red pine	S		5
751	18	Red pine	S		5
752	16	Red pine	E		5
753	16	Red pine	E		5
754	17	Red pine	E		5
755	19	Red pine	S	X	5
756	20	Red pine	E		5
757	18	Red pine	S		5
758	19	Red pine	S		5
759	19	Red pine	S	X	5
760	18	Red pine	S	X	5
761	17	Red pine	S		4
762	16	White oak	S	X	5
763	27	White oak	H	X	5
764	16	White oak	S	X	4
765	18	Red pine	S		5
766	17	White spruce	S	X	4
767	22	Red pine	S	X	5
768	10	Red oak	C	X	5
769	25	Red pine	S	X	5
770	15	Red oak	S	X	5
771	20	Red pine	S	X	5
772	15	Scotch pine	S		3
773	15	Cottonwood	E		5
774	13	Cottonwood	E		5
775	21	Red pine	S		5
776	19	Red pine	S		5
777	20	Red pine	S	X	5
778	10	Red oak	C	X	5
779	9	Red oak	C	X	5
780	31	Red oak	H	X	4
781	18	Red pine	S		5
782	18	Red pine	S		5
783	14	Red oak	S	X	2
784	31	Red oak	H	X	5
785	17	Red pine	S	X	5
786	8	Quaking aspen	C	X	5
787	8	Quaking aspen	C	X	5
788	8	Quaking aspen	C	X	5
789	17	Red pine	S	X	5
790	10	Quaking aspen	C	X	4
791	8	Quaking aspen	C	X	3
792	8	Quaking aspen	C	X	4
793	9	Quaking aspen	C	X	5
794	16	Balsam fir	S	X	5
795	8	Quaking aspen	C	X	5
796	9	Quaking aspen	C	X	5
797	9	Red oak	C	X	6
798	12	Quaking aspen	S	X	2
799	9	Quaking aspen	C	X	5
800	12	Quaking aspen	S	X	5
925	19	Red oak	S	X	4
926	8	White oak	C	X	5
927	15	Red pine	S	X	5
928	8	Sugar maple	C	X	5
929	14	White oak	S	X	5
930	14	Red pine	S	X	5
931	16	Red pine	S	X	5
932	20	Red oak	S	X	5
933	16	Red oak	S	X	5
934	18	White oak	S	X	4
935	14	Red pine	S	X	5
936	16	White oak	S	X	6
937	29	Red pine	H	X	5
938	25	Red pine	S	X	5
939	10	Red oak	C	X	5
940	17	White oak	S	X	5
941	17	Red pine	S	X	5
942	19	Red pine	S	X	5
943	18	Red pine	S	X	5
944	19	Red pine	S	X	5
945	32	White pine	H	X	7
946	18	Red pine	S	X	5
947	18	Red pine	S	X	5
948	12	Red cedar	S	X	5
949	8	Black cherry	C	X	4
950	12	White oak	S	X	5
951	16	Red cedar	S	X	5
952	19	Red pine	S	X	5
953	16	Red pine	S	X	5
954	22	Red pine	S	X	5
955	16	Red pine	S	X	3
956	16	Red pine	S	X	4
957	18	Blue spruce	S	X	3
958	9	Black cherry	C	X	4
959	9	Black cherry	C	X	3
960	8	Sugar maple	C	X	5

TREE TAG NO.	CAL. INCH SIZE	SPECIES	TREE CATEGORY	REMOVED	CONDITION
961	10	Quaking aspen	C	X	5
962	8	Quaking aspen	C	X	5
963	10	Quaking aspen	C	X	4
964	8	Quaking aspen	C	X	5
965	8	Quaking aspen	C	X	3
966	13	American elm	S	X	4
967	10	Black cherry	C	X	5
968	9	Quaking aspen	C	X	4
969	9	Paper birch	C	X	5
970	9	Quaking aspen	C	X	5
971	9	Quaking aspen	C	X	5
972	9	Quaking aspen	C	X	2
973	9	Quaking aspen	C	X	5
974	9	Quaking aspen	C	X	5
975	14	White oak	S	X	5
976	11	White oak	C	X	5
979	10	White oak	C	X	5
980	24	Red oak	S	X	3
981	20	White oak	S	X	5
982	15	Balsam fir	S	X	5
983	24	Sugar maple	S	X	4
984	10	Black cherry	C	X	3
985	14	Red pine	S	X	4
986	9	Red oak	C	X	5
987	16	Blue spruce	S	X	5
988	16	Blue spruce	S	X	4
989	16	Blue spruce	S	X	3
990	17	Blue spruce	S	X	4
991	16	Blue spruce	S	X	4
992	16	Blue spruce	S	X	5
993	21	Red pine	S	X	4
994	19	Red pine	S	X	5
995	18	Red pine	S	X	4
996	14	Red oak	S	X	5
997	13	White oak	S	X	5
998	10	White oak	C	X	5
999	20	White oak	S	X	4
1000	19	Red pine	S	X	4

Max replacement trees 8/acre of upland area				
	SF	Acre	Trees Req. (*8)	
Upland Area	349216	8.02	64.1	65

On Residentially Zoned Lots. On public right-of-way in residential zoning districts and on residentially zoned lots exceeding one (1) acre in size the total number of replacement trees shall not exceed eight (8) trees per acre of upland. On residentially zoned lots less than one (1) acre in size a one (1) to one (1) replacement of all trees will be required for the first seven trees removed from the lot.

SUMMARY TABLE (01-111-2023):

	ON-SITE NUMBER OF TREES	ON-SITE NUMBER OF DBH	PROPOSED NUMBER OF TREE REMOVALS	PROPOSED REMOVALS IN DBH	PERCENT WE ARE REMOVING (BY DBH)
HERITAGE (27"+)	13	378	13	378	100.0%
SIGNIFICANT (12-26.9")	278	4910	243	4291	87.4%
COMMON (6-11.9")	133	1187	132	1179	99.3%
EXEMPT**	8	118	0	0	0.0%
Total	432	6,593	388	5848	

CONDITION KEY
1=dead
2=very poor
3=poor
4=fair
5=average
6=good
7=very good
8=excellent
9=outstanding

Know what's below. Call before you dig.

CivilSite GROUP
4931 W. 35TH ST, SUITE 200
ST. LOUIS PARK, MN 55416
CivilSiteGroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
RADISSON ROAD TOWNHOMES
11967 & 11985 RADISSON RD NE; BLAINE, MN 55449

RON CLARK CONSTRUCTION
7500 WEST 78TH STREET, EDINA, MN 55439

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.

David J. Knaeble
DATE 2/9/23 LICENSE NO. 48776

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/9/22	WATERSHED SUBMITTAL
1/12/23	WATERSHED RESUBMITTAL
2/2/23	CITY SUBMITTAL

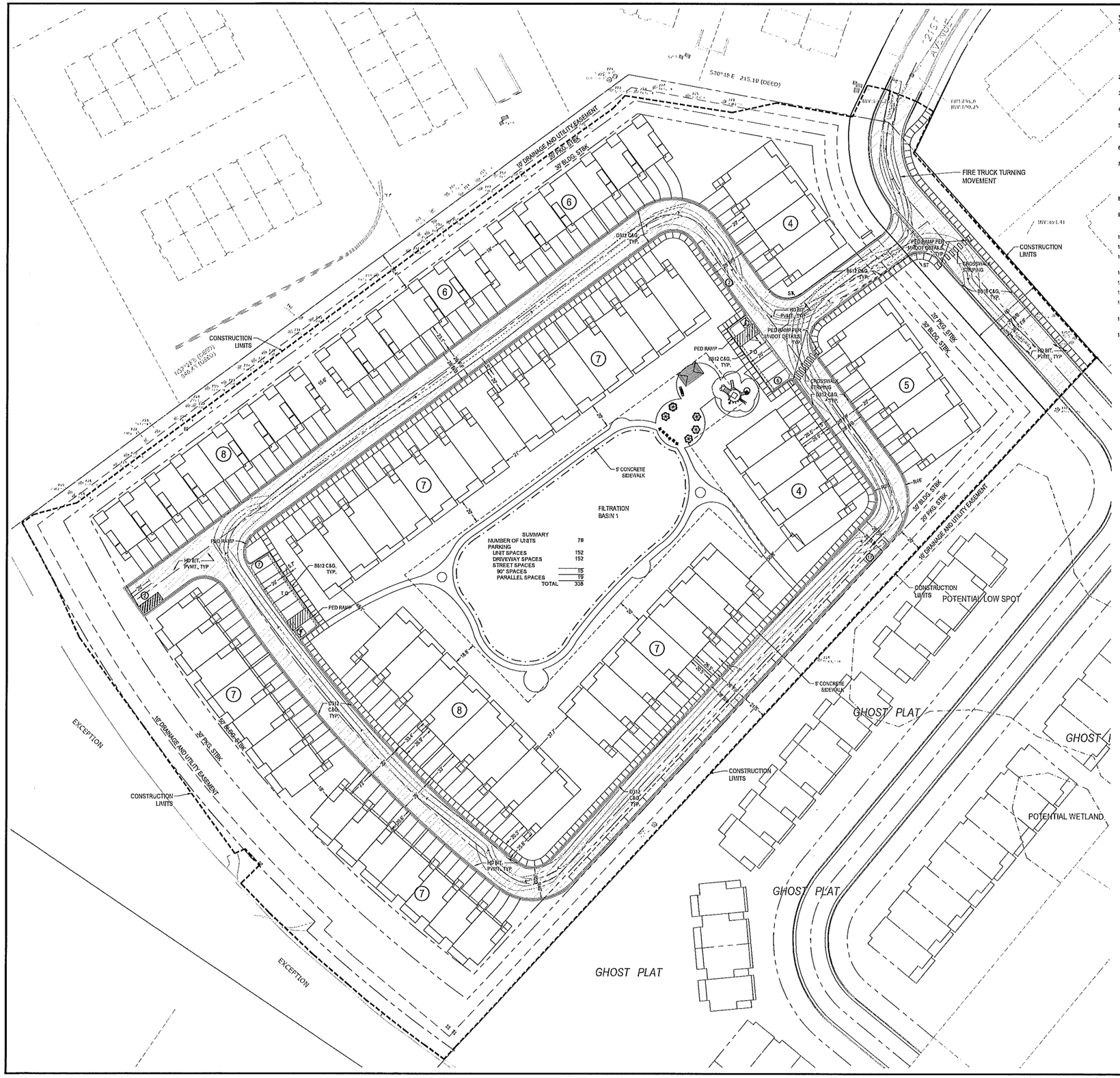
DRAWN BY: AM REVIEWED BY: DK
PROJECT NUMBER: 20352.01

REVISION SUMMARY

DATE	DESCRIPTION

TREE PRESERVATION PLAN

C1.1



SITE LAYOUT NOTES:

1. CONTRACTOR SHALL VERIFY LOCATIONS AND LAYOUT OF ALL SITE ELEMENTS PRIOR TO BEGINNING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, LOCATIONS OF EXISTING AND PROPOSED PROPERTY LINES, EASEMENTS, SETBACKS, UTILITIES, BUILDINGS AND PAVEMENTS. CONTRACTOR IS RESPONSIBLE FOR FINAL LOCATIONS OF ALL ELEMENTS FOR THE SITE. ANY REVISIONS REQUIRED AFTER COMMENCEMENT OF CONSTRUCTION, DUE TO LOCATIONAL ADJUSTMENTS SHALL BE CORRECTED AT NO ADDITIONAL COST TO OWNER. ADJUSTMENTS TO THE LAYOUT SHALL BE APPROVED BY THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF MATERIALS. STAKE LAYOUT FOR APPROVAL.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, INCLUDING A RIGHT-OF-WAY AND STREET OPENING PERMIT.
3. THE CONTRACTOR SHALL VERIFY RECOMMENDATIONS NOTED IN THE GEO TECHNICAL REPORT PRIOR TO INSTALLATION OF SITE IMPROVEMENT MATERIALS.
4. CONTRACTOR SHALL FIELD VERIFY COORDINATES AND LOCATION DIMENSIONS OF THE BUILDING AND STAKE FOR REVIEW AND APPROVAL BY THE OWNERS REPRESENTATIVE PRIOR TO INSTALLATION OF FOOTING MATERIALS.
5. LOCATIONS OF STRUCTURES, ROADWAY PAVEMENTS, CURBS AND GUTTERS, BOLLARDS, AND WALKS ARE APPROXIMATE AND SHALL BE STAKED IN THE FIELD, PRIOR TO INSTALLATION, FOR REVIEW AND APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT.
6. CURB DIMENSIONS SHOWN ARE TO FACE OF CURB. BUILDING DIMENSIONS ARE TO FACE OF CONCRETE FOUNDATION. LOCATION OF BUILDING IS TO BUILDING FOUNDATION AND SHALL BE AS SHOWN ON THE DRAWINGS.
7. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR SAMPLES AS SPECIFIED FOR REVIEW AND APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO FABRICATION FOR ALL PREFABRICATED SITE IMPROVEMENT MATERIALS SUCH AS, BUT NOT LIMITED TO THE FOLLOWING, FURNISHINGS, PAVEMENTS, WALLS, RAILINGS, BENCHES, FLAGPOLES, LANDING PADS FOR CURB RAMPS, AND LIGHT AND POLES. THE OWNER RESERVES THE RIGHT TO REJECT INSTALLED MATERIALS NOT PREVIOUSLY APPROVED.
8. PEDESTRIAN CURB RAMPS SHALL BE CONSTRUCTED WITH TRUNCATED DOME LANDING AREAS IN ACCORDANCE WITH A.D.A. REQUIREMENTS-SEE DETAIL.
9. CROSSWALK STRIPING SHALL BE 24" WIDE WHITE PAINTED LINE, SPACED 48" ON CENTER PERPENDICULAR TO THE FLOW OF TRAFFIC. WIDTH OF CROSSWALK SHALL BE 9' WIDE. ALL OTHER PAVEMENT MARKINGS SHALL BE WHITE IN COLOR UNLESS OTHERWISE NOTED OR REQUIRED BY ADA OR LOCAL GOVERNING BODIES.
10. SEE SITE PLAN FOR CURB AND GUTTER TYPE. TAPER BETWEEN CURB TYPES-SEE DETAIL.
11. ALL CURB RADII ARE MINIMUM 3' UNLESS OTHERWISE NOTED.
12. CONTRACTOR SHALL REFER TO FINAL PLAT FOR LOT BOUNDARIES, NUMBERS, AREAS AND DIMENSIONS PRIOR TO SITE IMPROVEMENTS.
13. FIELD VERIFY ALL EXISTING SITE CONDITIONS, DIMENSIONS.
14. PARKING IS TO BE SET PARALLEL OR PERPENDICULAR TO EXISTING BUILDING UNLESS NOTED OTHERWISE.
15. ALL PARKING LOT PAINT STRIPPING TO BE WHITE, 4" WIDE TYP.
16. BITUMINOUS PAVING TO BE "LIGHT DUTY" UNLESS OTHERWISE NOTED, SEE DETAIL SHEETS FOR PAVEMENT SECTIONS.
17. ALL TREES THAT ARE TO REMAIN ARE TO BE PROTECTED FROM DAMAGE WITH A CONSTRUCTION FENCE AT THE DRIP LINE. SEE LANDSCAPE DOCUMENTS.
18. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (651-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

CITY OF BLAINE SITE SPECIFIC NOTES:

1. RESERVED FOR CITY SPECIFIC NOTES.

OPERATIONAL NOTES:

SNOW REMOVAL:
ALL SNOW SHALL BE PLOWED TO LANDSCAPE OR REMOVED OFFSITE.

TRASH REMOVAL:
TRASH REMOVAL SHALL OCCUR IN GARAGE.

DELIVERIES:
DELIVERIES SHALL OCCUR AT FRONT DOOR.

SITE PLAN LEGEND:

- LIGHT DUTY BITUMINOUS PAVEMENT (IF APPLICABLE). SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & WEAR COURSE DEPTH, SEE DEATIL.
- HEAVY DUTY BITUMINOUS PAVEMENT (IF APPLICABLE). SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & WEAR COURSE DEPTH, SEE DETAIL.
- CONCRETE PAVEMENT (IF APPLICABLE) AS SPECIFIED (PAD OR WALK) SEE GEOTECHNICAL REPORT FOR AGGREGATE BASE & CONCRETE DEPTHS, SEE DETAIL.
- PROPERTY LINE
- CONSTRUCTION LIMITS
- CURB AND GUTTER-SEE NOTES (T.O.) TIP OUT GUTTER WHERE APPLICABLE-SEE PLAN
- TRAFFIC DIRECTIONAL ARROW PAVEMENT MARKINGS
- SIGN AND POST ASSEMBLY. SHOP DRAWINGS REQUIRED. HC = ACCESSIBLE SIGN NP = NO PARKING FIRE LANE ST = STOP CP = COMPACT CAR PARKING ONLY
- ACCESSIBILITY ARROW (IF APPLICABLE) DO NOT PAINT.

SITE AREA TABLE:

SITE AREA CALCULATIONS	EXISTING CONDITION		PROPOSED CONDITION	
BUILDING COVERAGE	6,261 SF	1.7%	89,961 SF	24.6%
ALL PAVEMENTS (SITE)	9,552 SF	2.6%	104,571 SF	28.5%
ALL PAVEMENTS (ROW)	0 SF	0.0%	8,415 SF	2.3%
ALL NON-PAVEMENTS	350,557 SF	95.7%	163,423 SF	44.6%
TOTAL SITE AREA	366,370 SF	100.0%	366,370 SF	100.0%

IMPERVIOUS SURFACE		
EXISTING CONDITION	15,813 SF	4.3%
PROPOSED CONDITION	202,947 SF	55.4%
DIFFERENCE (EX. VS PROP.)	187,134 SF	51.1%

Know what's below. Call before you dig.

1" = 30'-0"

CivilSite GROUP
4931 W. 35TH ST, SUITE 200
ST. LOUIS PARK, MN 55416
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

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David J. Knabb
DATE 2/2/23 LICENSE NO. 49776

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/22	PATENTHELD SUBMITTAL
1/2023	PATENTHELD RESUBMITTAL
2/23	SITE SUBMITTAL

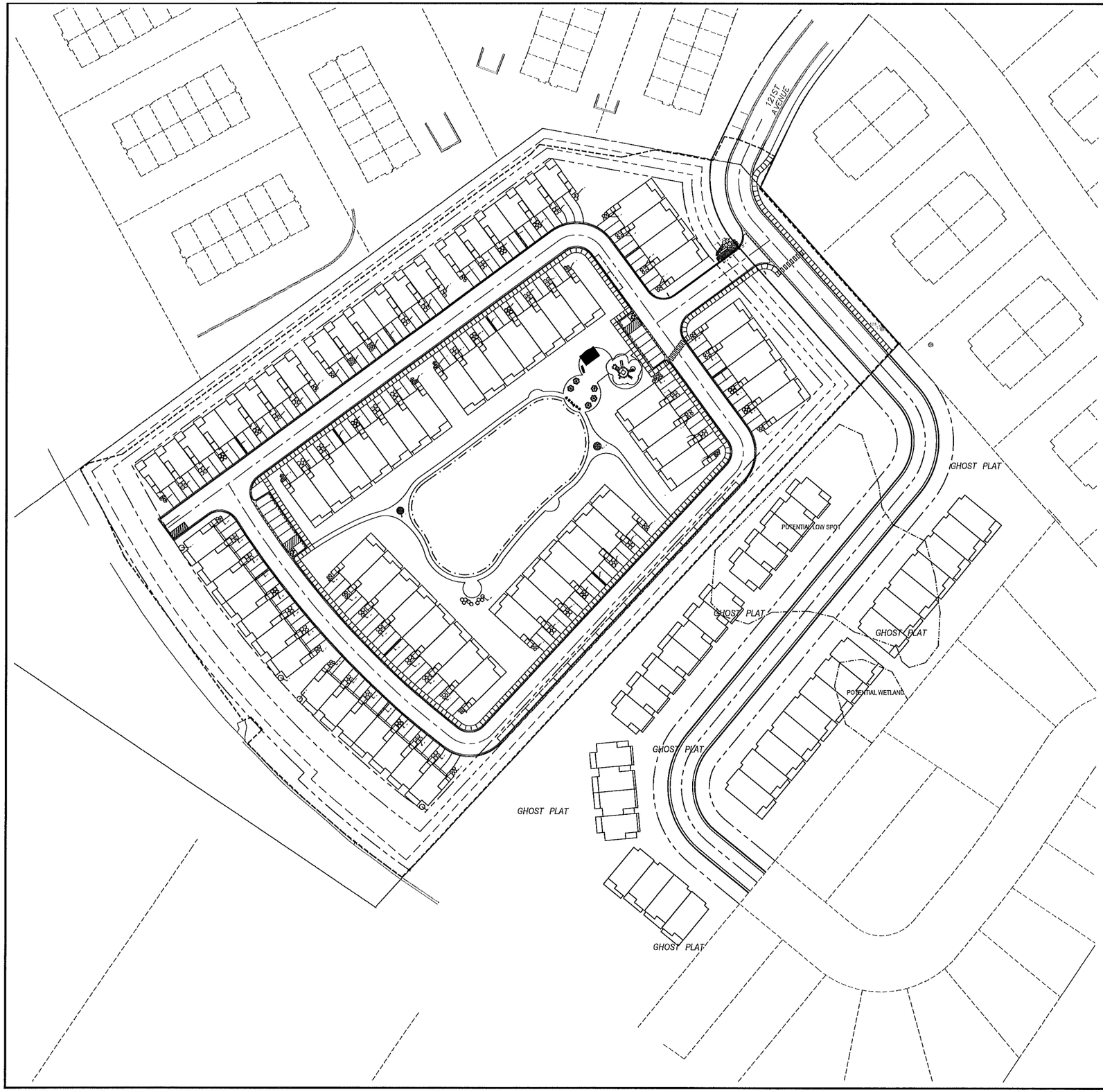
DRAWN BY: AJS REVIEWED BY: DK
PROJECT NUMBER: 20252.01

REVISION SUMMARY

DATE	DESCRIPTION

SITE PLAN

C2.0



GHOST PLAT:
ZONED MEDIUM DENSITY / MULTI-FAMILY
6-10 UNITS PER ACRE

PARCEL AREA: 4.32
PROPOSED UNITS: 21
UNITS PER ACRE: 4.86

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20'-0" 0 40'-0"

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David J. Knaeble
DATE 2/9/23 LICENSE NO. 49776

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/02	PATERSON PRELIM'L
1/27	PATERSON RESUBMITTAL
2/23	CITY ELEMENTS

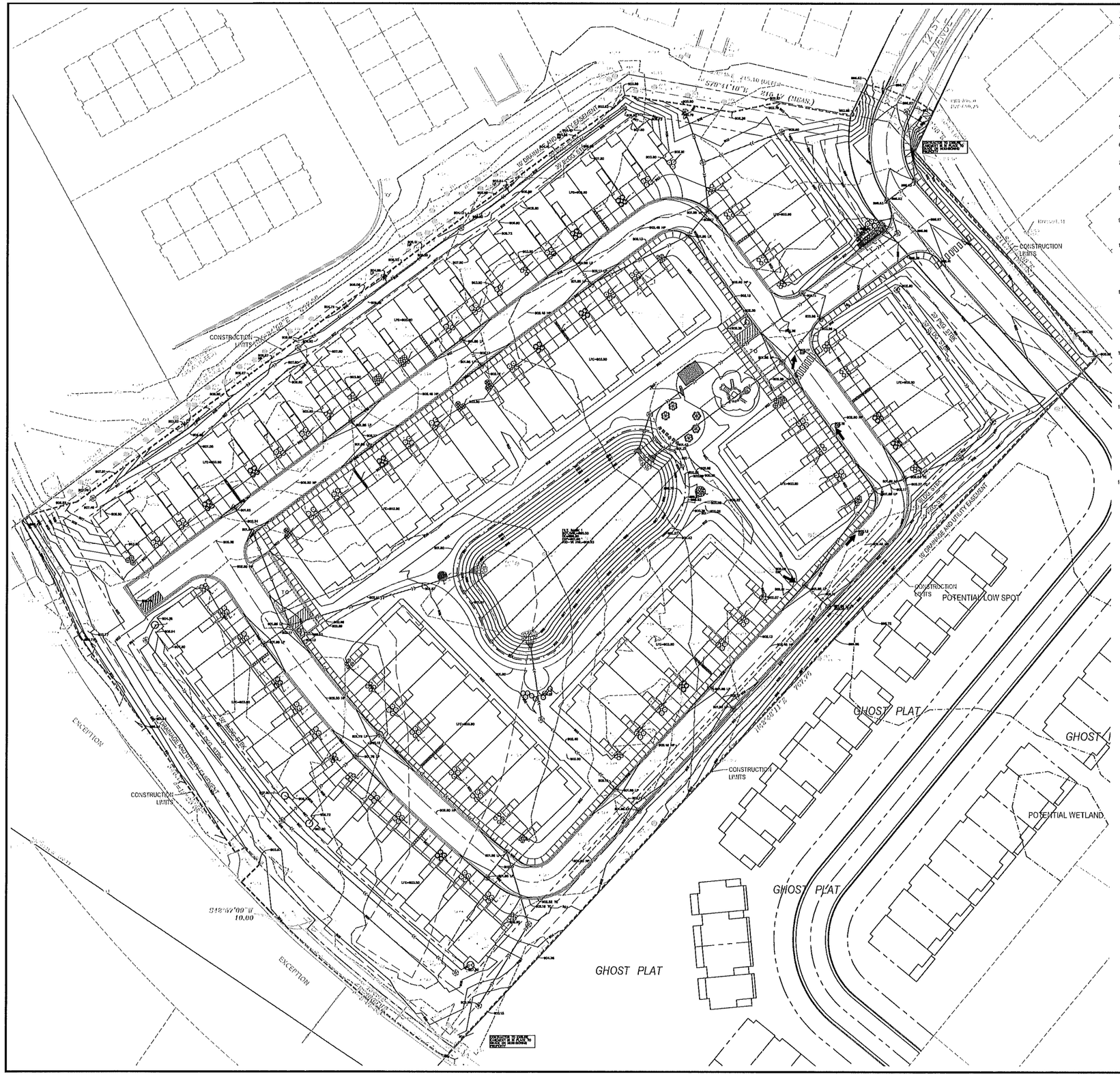
DRAWN BY: AM REVIEWED BY: DK
PROJECT NUMBER: 20352.01

REVISION SUMMARY

DATE	DESCRIPTION

OVERALL SITE DEVELOPMENT

C2.1



GENERAL GRADING NOTES:

1. SEE SITE PLAN FOR HORIZONTAL LAYOUT & GENERAL GRADING NOTES.
2. THE CONTRACTOR SHALL COMPLETE THE SITE GRADING CONSTRUCTION (INCLUDING BUT NOT LIMITED TO SITE PREPARATION, SOIL CORRECTION, EXCAVATION, EMBANKMENT, ETC.) IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER'S SOILS ENGINEER. ALL SOIL TESTING SHALL BE COMPLETED BY THE OWNER'S SOILS ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED SOIL TESTS AND INSPECTIONS WITH THE SOILS ENGINEER.
3. GRADING AND EXCAVATION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS & PERMIT REQUIREMENTS OF THE CITY. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (651-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.
4. PROPOSED SPOT GRADES ARE FLOW-LINE FINISHED GRADE ELEVATIONS, UNLESS OTHERWISE NOTED.
5. GRADES OF WALKS SHALL BE INSTALLED WITH 6% MAX. LONGITUDINAL SLOPE AND 1% MIN. AND 2% MAX. CROSS SLOPE, UNLESS OTHERWISE NOTED.
6. PROPOSED SLOPES SHALL NOT EXCEED 3:1 UNLESS INDICATED OTHERWISE ON THE DRAWINGS. MAXIMUM SLOPES IN MAINTAINED AREAS IS 4:1
7. PROPOSED RETAINING WALLS, FREESTANDING WALLS, OR COMBINATION OF WALL TYPES GREATER THAN 4' IN HEIGHT SHALL BE DESIGNED AND ENGINEERED BY A REGISTERED RETAINING WALL ENGINEER. DESIGN DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF GRADE STAKES THROUGHOUT THE DURATION OF CONSTRUCTION TO ESTABLISH PROPER GRADES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR A FINAL FIELD CHECK OF FINISHED GRADES ACCEPTABLE TO THE ENGINEER/LANDSCAPE ARCHITECT PRIOR TO TOPSOIL AND SODDING ACTIVITIES.
9. IF EXCESS OR SHORTAGE OF SOIL MATERIAL EXISTS, THE CONTRACTOR SHALL TRANSPORT ALL EXCESS SOIL MATERIAL OFF THE SITE TO AN AREA SELECTED BY THE CONTRACTOR, OR IMPORT SUITABLE MATERIAL TO THE SITE.
10. EXCAVATE TOPSOIL FROM AREAS TO BE FURTHER EXCAVATED OR REGRADED AND STOCKPILE IN AREAS DESIGNATED ON THE SITE. THE CONTRACTOR SHALL SALVAGE ENOUGH TOPSOIL FOR RESPREADING ON THE SITE AS SPECIFIED. EXCESS TOPSOIL SHALL BE PLACED IN EMBANKMENT AREAS, OUTSIDE OF BUILDING PADS, ROADWAYS AND PARKING AREAS. THE CONTRACTOR SHALL SUBCUT CUT AREAS, WHERE TURF IS TO BE ESTABLISHED, TO A DEPTH OF 8 INCHES. RESPREAD TOPSOIL IN AREAS WHERE TURF IS TO BE ESTABLISHED TO A MINIMUM DEPTH OF 6 INCHES.
11. FINISHED GRADING SHALL BE COMPLETED. THE CONTRACTOR SHALL UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING, INCLUDING ADJACENT TRANSITION AREAS. PROVIDE A SMOOTH FINISHED SURFACE WITHIN SPECIFIED TOLERANCES, WITH UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN, OR BETWEEN SUCH POINTS AND EXISTING GRADES. AREAS THAT HAVE BEEN FINISH GRADED SHALL BE PROTECTED FROM SUBSEQUENT CONSTRUCTION OPERATIONS, TRAFFIC AND EROSION. REPAIR ALL AREAS THAT HAVE BECOME RUTTED BY TRAFFIC OR ERODED BY WATER OR HAS SETTLED BELOW THE CORRECT GRADE. ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO EQUAL OR BETTER THAN ORIGINAL CONDITION OR TO THE REQUIREMENTS OF THE NEW WORK.
12. PRIOR TO PLACEMENT OF THE AGGREGATE BASE, A TEST ROLL WILL BE REQUIRED ON THE STREET AND/OR PARKING AREA SUBGRADE. THE CONTRACTOR SHALL PROVIDE A LOADED TANDEM AXLE TRUCK WITH A GROSS WEIGHT OF 25 TONS. THE TEST ROLLING SHALL BE AT THE DIRECTION OF THE SOILS ENGINEER AND SHALL BE COMPLETED IN AREAS AS DIRECTED BY THE SOILS ENGINEER. THE SOILS ENGINEER SHALL DETERMINE WHICH SECTIONS OF THE STREET OR PARKING AREA ARE UNSTABLE. CORRECTION OF THE SUBGRADE SOILS SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SOILS ENGINEER. NO TEST ROLL SHALL OCCUR WITHIN 10' OF ANY UNDERGROUND STORM RETENTION DETENTION SYSTEMS.
13. TOLERANCES
    - 13.1. THE BUILDING SUBGRADE FINISHED SURFACE ELEVATION SHALL NOT VARY BY MORE THAN 0.30 FOOT ABOVE, OR 0.30 FOOT BELOW, THE PRESCRIBED ELEVATION AT ANY POINT WHERE MEASUREMENT IS MADE.
    - 13.2. THE STREET OR PARKING AREA SUBGRADE FINISHED SURFACE ELEVATION SHALL NOT VARY BY MORE THAN 0.05 FOOT ABOVE, OR 0.10 FOOT BELOW, THE PRESCRIBED ELEVATION OF ANY POINT WHERE MEASUREMENT IS MADE.
    - 13.3. AREAS WHICH ARE TO RECEIVE TOPSOIL SHALL BE GRADED TO WITHIN 0.30 FOOT ABOVE OR BELOW THE REQUIRED ELEVATION, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
    - 13.4. TOPSOIL SHALL BE GRADED TO PLUS OR MINUS 1/2 INCH OF THE SPECIFIED THICKNESS.
14. MAINTENANCE
    - 14.1. THE CONTRACTOR SHALL PROTECT NEWLY GRADED AREAS FROM TRAFFIC AND EROSION, AND KEEP AREA FREE OF TRASH AND DEBRIS.
    - 14.2. CONTRACTOR SHALL REPAIR AND REESTABLISH GRADES IN SETTLED, ERODED AND RUTTED AREAS TO SPECIFIED TOLERANCES, DURING THE CONSTRUCTION, IF REQUIRED, AND DURING THE WARRANTY PERIOD, ERODED AREAS WHERE TURF IS TO BE ESTABLISHED SHALL BE RESEEDED AND MULCHED.
    - 14.3. WHERE COMPLETED COMPACTED AREAS ARE DISTURBED BY SUBSEQUENT CONSTRUCTION OPERATIONS OR ADVERSE WEATHER, CONTRACTOR SHALL SCARIFY, SURFACE, RESHAPE, AND COMPACT TO REQUIRED DENSITY PRIOR TO FURTHER CONSTRUCTION.

CITY OF BLAINE GRADING NOTES:

1. RESERVED FOR CITY SPECIFIC GRADING NOTES.

COON CREEK WATERSHED DISTRICT GRADING NOTES:

1. DE-COMPACT ALL PERVIOUS AREAS.

EROSION CONTROL NOTES:

SEE SWPPP ON SHEETS SW1.0 - SW1.5

GROUNDWATER INFORMATION:

PER GEOTECHNICAL REPORT BY BRAUN INTERTEC, DATED 12-09-20 GROUNDWATER WAS OBSERVED AT ELEVATIONS RANGING FROM 887.83 TO 892.00

THE BORINGS & GROUNDWATER ARE AS FOLLOWS:

ST-1	892.00	ST-6	890.40	ST-10	889.00
ST-2	890.80	ST-7	888.10	ST-12	889.40
ST-4	888.50	ST-8	888.70	ST-14	891.00
ST-5	890.80	ST-9	888.50	ST-15	887.80
				ST-16	888.20

GRADING PLAN LEGEND:

1125	EX. 1' CONTOUR ELEVATION INTERVAL
1137	1.0' CONTOUR ELEVATION INTERVAL
41.28	SPOT GRADE ELEVATION (GUTTER/FLOW LINE UNLESS OTHERWISE NOTED)
891.00 G	SPOT GRADE ELEVATION GUTTER
891.00 TC	SPOT GRADE ELEVATION TOP OF CURB
891.00 BS/TS	SPOT GRADE ELEVATION BOTTOM OF STAIRS/TOP OF STAIRS
891.00 ME	SPOT GRADE ELEVATION MATCH EXISTING
	GRADE BREAK - HIGH POINTS
	CURB AND GUTTER (T.O = TIP OUT)
EOF=1135.52	EMERGENCY OVERFLOW

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4931 W. 35TH ST. SUITE 200
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612-615-0060

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David J. Knuble
DATE 2/9/23 LICENSE NO. 48776

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/22	RATERSHED SUBMITTAL
1/2/23	RATERSHED RESUBMITTAL
2/23	CITY SUBMITTAL

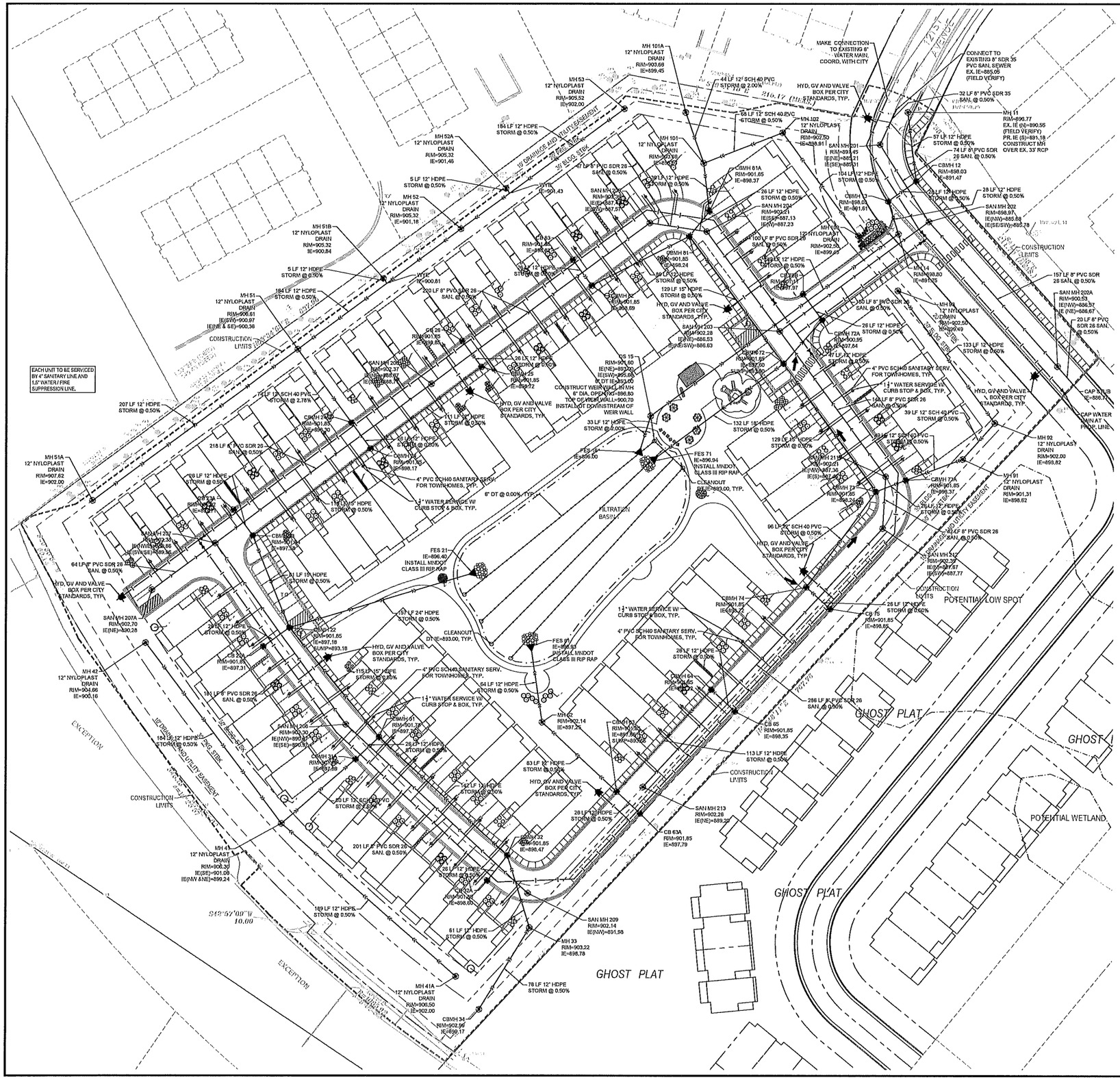
DRAWN BY: AM REVIEWED BY: DK
PROJECT NUMBER: 20202.01

REVISION SUMMARY

DATE	DESCRIPTION

GRADING PLAN

C3.0



GENERAL UTILITY NOTES:

1. SEE SITE PLAN FOR HORIZONTAL DIMENSIONS AND LAYOUT.
2. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF DISCREPANCIES OR VARIATIONS FROM THE PLANS.
3. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "GOPHER STATE ONE CALL" (651-454-0002 OR 800-252-1166) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.
4. UTILITY INSTALLATION SHALL CONFORM TO THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR WATER MAIN AND SERVICE LINE INSTALLATION" AND "SANITARY SEWER AND STORM SEWER INSTALLATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM), AND SHALL CONFORM WITH THE REQUIREMENTS OF THE CITY AND THE PROJECT SPECIFICATIONS.
5. CASTINGS SHALL BE SALVAGED FROM STRUCTURE REMOVALS AND RE-USED OR PLACED AT THE DIRECTION OF THE OWNER.
6. ALL WATER PIPE SHALL BE CLASS 52 DUCTILE IRON PIPE (DIP) AWWA C151, ASME B16.4, AWWA C110, AWWA C153 UNLESS OTHERWISE NOTED.
7. ALL SANITARY SEWER SHALL BE SDR 26 POLYVINYL CHLORIDE (PVC) ASTM D3034 & F679, OR SCH 40 ASTM D1785, 2665, ASTM F794, 1668 UNLESS OTHERWISE NOTED.
8. ALL STORM SEWER PIPE SHALL BE HDPE ASTM F714 & F2306 WITH ASTM D3212 SPEC FITTINGS UNLESS OTHERWISE NOTED.
9. PIPE LENGTHS SHOWN ARE FROM CENTER TO CENTER OF STRUCTURE OR TO END OF FLARED END SECTION.
10. UTILITIES ON THE PLAN ARE SHOWN TO WITHIN 5' OF THE BUILDING FOOTPRINT. THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR THE FINAL CONNECTION TO BUILDING LINES. COORDINATE WITH ARCHITECTURAL AND MECHANICAL PLANS.
11. CATCH BASINS AND MANHOLES IN PAVED AREAS SHALL BE SUMPED 0.04 FEET. ALL CATCH BASINS IN GUTTERS SHALL BE SUMPED 0.15 FEET PER DETAILS. RIM ELEVATIONS SHOWN ON THIS PLAN DO NOT REFLECT SUMPED ELEVATIONS.
12. ALL FIRE HYDRANTS SHALL BE LOCATED 5 FEET BEHIND BACK OF CURB UNLESS OTHERWISE NOTED.
13. HYDRANT TYPE, VALVE, AND CONNECTION SHALL BE IN ACCORDANCE WITH CITY REQUIREMENTS. HYDRANT EXTENSIONS ARE INCIDENTAL.
14. A MINIMUM OF 8 FEET OF COVER IS REQUIRED OVER ALL WATERMAIN, UNLESS OTHERWISE NOTED. EXTRA DEPTH MAY BE REQUIRED TO MAINTAIN A MINIMUM OF 18" VERTICAL SEPARATION TO SANITARY OR STORM SEWER LINES. EXTRA DEPTH WATERMAIN IS INCIDENTAL.
15. A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION AND 10 FEET OF HORIZONTAL SEPARATION IS REQUIRED FOR ALL UTILITIES, UNLESS OTHERWISE NOTED.
16. ALL CONNECTIONS TO EXISTING UTILITIES SHALL BE IN ACCORDANCE WITH CITY STANDARDS AND COORDINATED WITH THE CITY PRIOR TO CONSTRUCTION.
17. CONNECTIONS TO EXISTING STRUCTURES SHALL BE CORE-DRILLED.
18. COORDINATE LOCATIONS AND SIZES OF SERVICE CONNECTIONS WITH THE MECHANICAL DRAWINGS.
19. COORDINATE INSTALLATION AND SCHEDULING OF THE INSTALLATION OF UTILITIES WITH ADJACENT CONTRACTORS AND CITY STAFF.
20. ALL STREET REPAIRS AND PATCHING SHALL BE PERFORMED PER THE REQUIREMENTS OF THE CITY. ALL PAVEMENT CONNECTIONS SHALL BE SAWCUT. ALL TRAFFIC CONTROLS SHALL BE PROVIDED BY THE CONTRACTOR AND SHALL BE ESTABLISHED PER THE REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND THE CITY. THIS SHALL INCLUDE BUT NOT BE LIMITED TO SIGNAGE, BARRICADES, FLASHERS, AND FLAGGERS AS NEEDED. ALL PUBLIC STREETS SHALL BE OPEN TO TRAFFIC AT ALL TIMES. NO ROAD CLOSURES SHALL BE PERMITTED WITHOUT APPROVAL BY THE CITY.
21. ALL STRUCTURES, PUBLIC AND PRIVATE, SHALL BE ADJUSTED TO PROPOSED GRADES WHERE REQUIRED. THE REQUIREMENTS OF ALL OWNERS MUST BE COMPLIED WITH. STRUCTURES BEING RESET TO PAVED AREAS MUST MEET OWNERS REQUIREMENTS FOR TRAFFIC LOADING.
22. CONTRACTOR SHALL COORDINATE ALL WORK WITH PRIVATE UTILITY COMPANIES.
23. CONTRACTOR SHALL COORDINATE CONNECTION OF IRRIGATION SERVICE TO UTILITIES. COORDINATE THE INSTALLATION OF IRRIGATION SLEEVES NECESSARY AS TO NOT IMPACT INSTALLATION OF UTILITIES.
24. CONTRACTOR SHALL MAINTAIN AS-BUILT PLANS THROUGHOUT CONSTRUCTION AND SUBMIT THESE PLANS TO ENGINEER UPON COMPLETION OF WORK.
25. ALL JOINTS AND CONNECTIONS IN STORM SEWER SYSTEM SHALL BE GASTIGHT OR WATERTIGHT. APPROVED RESILIENT RUBBER JOINTS MUST BE USED TO MAKE WATERTIGHT CONNECTIONS TO MANHOLES, CATCHBASINS, OR OTHER STRUCTURES.
26. ALL PORTIONS OF THE STORM SEWER SYSTEM LOCATED WITHIN 10 FEET OF THE BUILDING OR WATER SERVICE LINE MUST BE TESTED IN ACCORDANCE WITH MN RULES, CHAPTER 4714, SECTION 1109.0.
27. FOR ALL SITES LOCATED IN CLAY SOIL AREAS, DRAIN TILE MUST BE INSTALLED AT ALL LOW POINT CATCH BASINS 22' IN EACH DIRECTION. SEE PLAN AND DETAIL. INSTALL LOW POINT DRAIN TILE PER PLANS AND GEOTECHNICAL REPORT RECOMMENDATIONS AND REQUIREMENTS.

CITY OF BLAINE UTILITY NOTES:

1. RESERVED FOR CITY SPECIFIC UTILITY NOTES.

UTILITY LEGEND:

- CATCH BASIN
- MANHOLE
- GATE VALVE AND VALVE BOX
- PROPOSED FIRE HYDRANT
- WATER MAIN
- SANITARY SEWER
- STORM SEWER
- FES AND RIP RAP

811 Know what's below. Call before you dig.

N

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15'-0" 0 30'-0"

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David J. Knoble
DATE 2/9/23 LICENSE NO. 48776

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
1/3/23	PRELIMINARY PLAN SET
1/9/23	WATERSHED RESUBMITTAL
2/9/23	CITY SUBMITTAL

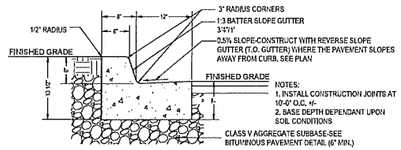
DRAWN BY: AM REVIEWED BY: DK
PROJECT NUMBER 20352.01

REVISION SUMMARY

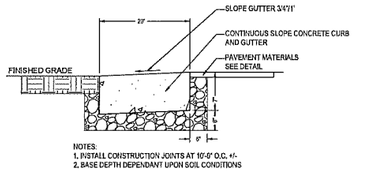
DATE	DESCRIPTION

UTILITY PLAN

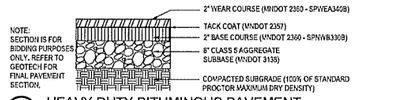
C4.0



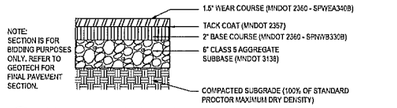
1 B-612 CONCRETE CURB AND GUTTER
NTS



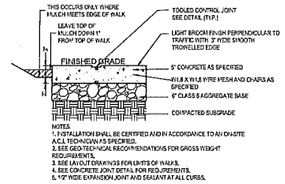
2 RIBBON CURB
NTS



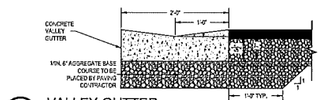
5 HEAVY DUTY BITUMINOUS PAVEMENT
NTS



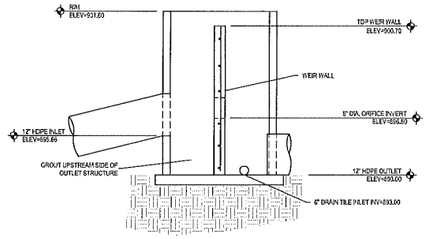
6 LIGHT DUTY BITUMINOUS PAVEMENT
NTS



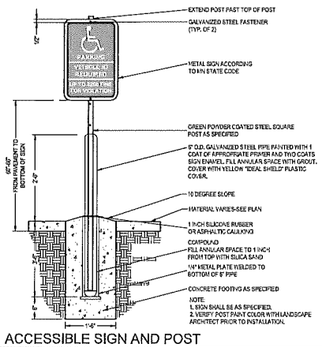
7 CONCRETE WALK/PAD
NTS (PRIVATE PROPERTY)



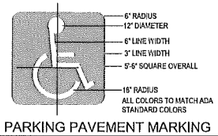
9 VALLEY GUTTER
NTS



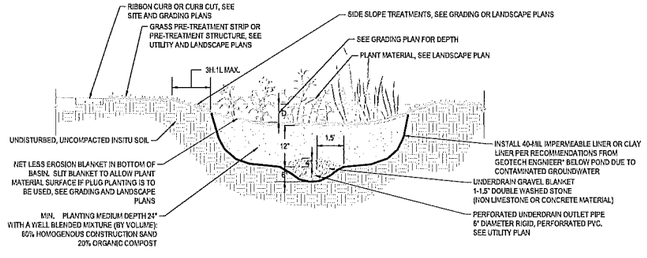
10 CONCRETE OUTLET STRUCTURE - OS 15
NTS



3 ACCESSIBLE SIGN AND POST
NTS



4 ACCESSIBLE PARKING PAVEMENT MARKING
NTS



TYPICAL SECTION VIEW

CONSTRUCTION SEQUENCING

1. INSTALL SILT FENCE AND/OR OR OTHER APPROPRIATE TEMPORARY EROSION CONTROL DEVICES TO PREVENT SEDIMENT FROM LEAVING OR ENTERING THE PRACTICE DURING CONSTRUCTION.
2. ALL DOWN-GRADIENT PERIMETER SEDIMENT CONTROL BMPS MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITY BEGINS.
3. PERFORM CONTINUOUS INSPECTIONS OF EROSION CONTROL PRACTICES.
4. INSTALL UTILITIES (WATER, SANITARY SEWER, ELECTRIC, PHONE, FIBER OPTIC, ETC) PRIOR TO SETTING FINAL GRADE OF BIORETENTION DEVICE.
5. ROUGH GRADE THE SITE. IF BIORETENTION AREAS ARE BEING USED AS TEMPORARY SEDIMENT BASINS LEAVE A MINIMUM OF 3 FEET OF COVER OVER THE PRACTICE TO PROTECT THE UNDERLYING SOILS FROM CLOGGING.
6. PERFORM ALL OTHER SITE IMPROVEMENTS.
7. PLANT ALL AREAS AFTER DISTURBANCE.
8. CONSTRUCT BIORETENTION DEVICE UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA.
9. IMPLEMENT TEMPORARY AND PERMANENT EROSION CONTROL PRACTICES.
10. PLANT AND/OR ROCK MULCH BIORETENTION DEVICE.
11. REMOVE TEMPORARY EROSION CONTROL DEVICES AFTER THE CONTRIBUTING DRAINAGE AREA IS ADEQUATELY VEGETATED.

GENERAL NOTES

1. IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE BMP DURING OR IMMEDIATELY FOLLOWING EXCAVATION, THIS MATERIAL SHALL BE REMOVED FROM THE PRACTICE PRIOR TO CONTINUING CONSTRUCTION.
2. GRADING OF BIORETENTION DEVICES SHALL BE ACCOMPLISHED USING LOW-COMPACTION EARTH-MOVING EQUIPMENT TO PREVENT COMPACTION OF UNDERLYING SOILS.
3. ALL SUB MATERIALS BELOW THE SPECIFIED BIORETENTION DEPTH (ELEVATION) SHALL BE UNDISTURBED, UNLESS OTHERWISE NOTED.

8 BIO-FILTRATION BASIN (RAIN GARDEN - TYP.)
NTS

CivilSite GROUP
4931 W. 35TH ST, SUITE 200
ST. LOUIS PARK, MN 55416
CivilSiteGroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
RADISSON ROAD TOWNHOMES
11967 & 11985 RADISSON RD NE, BLAINE, MN 55449

RON CLARK CONSTRUCTION
7500 WEST 78TH STREET, EDINA, MN 55439

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.

David J. Knaeble
DATE 2/9/23 LICENSE NO. 49776

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/1/22	WATERSHED SUBMITTAL
1/9/23	WATERSHED RESUBMITTAL
2/9/23	CITY SUBMITTAL

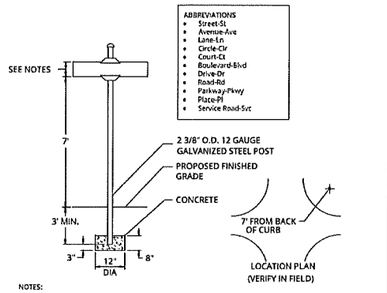
DRAWN BY: AH REVIEWED BY: DK
PROJECT NUMBER: 2022.021

REVISION SUMMARY

DATE	DESCRIPTION

CIVIL DETAILS

C5.0

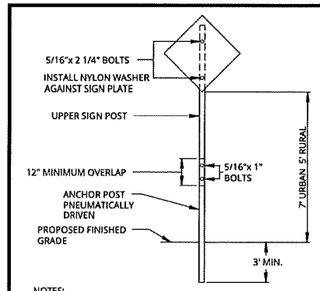


NOTES:

1. BLADE HEIGHT SHALL BE 9".
2. BLADE LENGTH SHALL BE AS NECESSARY.
3. LETTER SIZE - 40 MPH AND LESS: 6"UPPER CASE 4.5" LOWER CASE - 40 MPH AND GREATER: 8"UPPER CASE 6" LOWER CASE.
4. DIAMOND GRADE, WHITE ON GREEN BACKGROUND FOR PUBLIC STREETS WHITE ON BROWN BACKGROUND FOR PRIVATE STREETS, SEE CITY SPECIFICATIONS FOR MATERIALS.
5. STREET NAMES SHALL BE SPELLED COMPLETELY EXCEPT FOR SUFFIXES WHICH MAY BE ABBREVIATED ON LONGER STREET NAMES.
6. SIGNS SHALL NOT HAVE BORDERS.
7. SIGN BRACKETS SHALL BE "LYLE SIGNS" NO. E-450 OR APPROVED EQUAL.
8. A SIGN PLAN SHOWING SIGN COLORS, SIZES AND LETTERING MUST BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO SIGN INSTALLATION.
9. FIRST LETTER OF EACH WORD TO BE UPPER CASE; REMAINING LETTERS OF EACH WORD TO BE LOWER CASE

STREET SIGN INSTALLATION

Plate No. ST-1

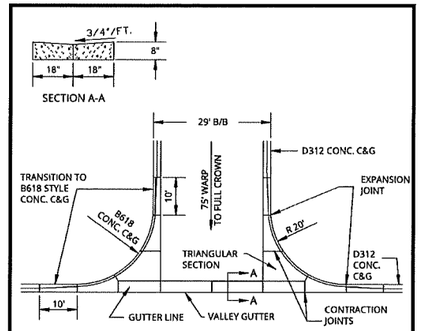


NOTES:

1. MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH CITY SPECIFICATIONS FOR MNDOT 2564 TYPE C TRAFFIC SIGNS.
2. SIGN PANELS-REFLECTIVE SHEETING, VIP DIAMOND GRADE.
3. BOLTS SHALL BE STAINLESS STEEL.
4. FLANGED CHANNEL SIGN POSTS SHALL BE GALVANIZED STEEL, 7' LONG 3LB/LF BOTTOM POST, AND 7'LONG 2LB/LF TOP POST.
5. SIGNS INSTALLED IN CONCRETE SHALL HAVE AN APPROVED BREAK-AWAY DEVICE. SEE DETAIL ST-18.
6. EDGE OF SIGN SHALL BE 2' FROM FACE OF CURB AND/OR 5' FROM EDGE OF SHOULDER.

TRAFFIC SIGN INSTALLATION

Plate No. ST-2

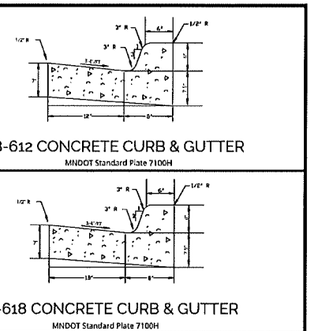


NOTE:

1. CURB IN RADIUS SHALL BE FORMED AND POURED AS ONE UNIT WITH TRIANGULAR SECTION AND VALLEY GUTTER. CURB IS CONSIDERED PART OF TRIANGULAR SECTION FOR PAYMENT PURPOSES.
2. SQUARE FOOT PAYMENT OF VALLEY GUTTER INCLUDES ALL CONCRETE SURFACE BETWEEN EXPANSION JOINTS.

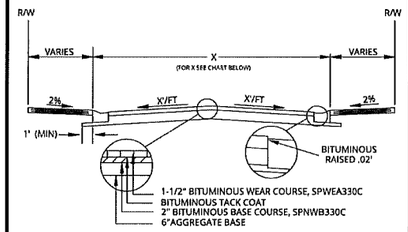
CONCRETE VALLEY GUTTER

Plate No. ST-4



CONCRETE CURB & GUTTER

Plate No. ST-6

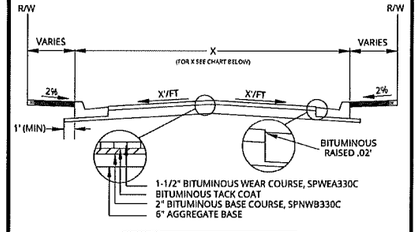


ROAD WIDTH AT 2% SLOPE	31'	29'	24'	22'
WEAR CL+TC	+.12'	+.15'	+.10'	+.08'
BASE CL+TC	+.05'	+.03'	-.03	-.05'
CL 5 CL+TC	-.12'	-.14'	-.20'	-.22'
SUBGRADE CL+TC	-.62'	-.64'	-.69'	-.71'

ROAD WIDTH AT 3% SLOPE	31'	29'	24'	22'
WEAR CL+TC	+.31'	+.28'	+.20'	+.17'
BASE CL+TC	+.13'	+.10'	+.03	+.05'
CL 5 CL+TC	+.02'	-.01'	-.09'	-.12'
SUBGRADE CL+TC	-.48	-.51'	-.59'	-.62

TYPICAL STREET SECTION WITH D312 CURBING

Plate No. ST-7

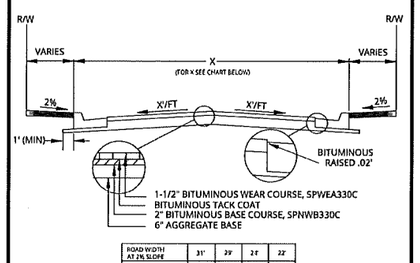


ROAD WIDTH AT 2% SLOPE	31'	29'	24'	22'
WEAR CL+TC	-.14'	-.16'	-.21'	-.23'
BASE CL+TC	-.27'	-.29'	-.34	-.36'
CL 5 CL+TC	-.68'	-.69'	-.51'	-.53'
SUBGRADE CL+TC	-.93'	-.95'	-1.0'	-1.02'

ROAD WIDTH AT 3% SLOPE	31'	29'	24'	22'
WEAR CL+TC	-.01'	-.04'	-.11'	-.14'
BASE CL+TC	-.14'	-.17'	-.24'	-.27'
CL 5 CL+TC	.31'	.34'	-.41'	-.44'
SUBGRADE CL+TC	-.80'	-.83'	-.90'	-.93'

TYPICAL STREET SECTION WITH B612 CURBING

Plate No. ST-8

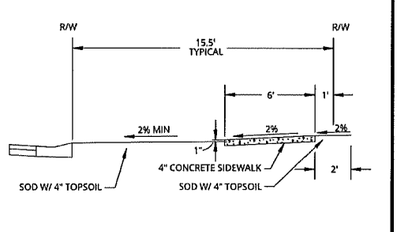


ROAD WIDTH AT 2% SLOPE	31'	29'	24'	22'
WEAR CL+TC	-.12'	-.14'	-.19'	-.21'
BASE CL+TC	-.24'	-.26'	-.31'	-.33'
CL 5 CL+TC	-.41'	-.43'	-.48'	-.50'
SUBGRADE CL+TC	-.91'	-.93'	-.98'	-1.0'

ROAD WIDTH AT 3% SLOPE	31'	29'	24'	22'
WEAR CL+TC	+.01'	-.02'	-.10	-.13'
BASE CL+TC	-.11'	-.14'	-.22'	-.25'
CL 5 CL+TC	-.28'	-.31'	-.39'	-.42'
SUBGRADE CL+TC	-.88'	-.91'	-.99'	-.92'

TYPICAL STREET SECTION WITH B618 CURBING

Plate No. ST-9



NOTES:

1. INCREASE SIDEWALK THICKNESS THROUGH EXISTING DRIVEWAYS TO 6" MINIMUM.
2. SEE MNDOT STANDARD SPECIFICATIONS 2521.3 D.2 JOINT CONSTRUCTION.
3. SEE DETAIL ST-14 FOR PEDESTRIAN RAMP.

TYPICAL SIDEWALK

Plate No. ST-12

CivilSite GROUP
4931 W. 35TH ST. SUITE 200
ST. LOUIS PARK, MN 55416
CivilSiteGroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
RADISSON ROAD TOWNHOMES
11967 & 11985 RADISSON RD NE, BLAINE, MN 55449

RON CLARK CONSTRUCTION
7500 WEST 78TH STREET, EDINA, MN 55439

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.

David J. Kraebe
DATE 2/9/23 LICENSE NO. 48778

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/9/22	PRELIMINARY PLAT SET
12/9/22	PRELIMINARY PLAT SET
2/9/23	CITY SUBMITTAL

DRAWN BY: AM REVIEWED BY: DK
PROJECT NUMBER: 2022.021

REVISION SUMMARY

DATE	DESCRIPTION

CIVIL DETAILS

C5.1

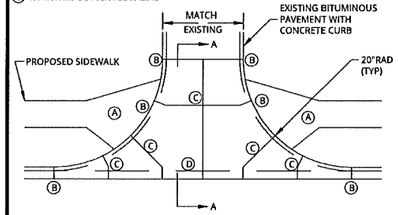
THE CITY OF BLAINE WILL USE MNDOT STANDARD PLAN SHEETS 5-297.250 (1-6) FOR THE CONSTRUCTION OF RAMPS, EXCEPT AS MODIFIED BELOW:

1. TRUNCATED DOME PANELS SHALL BE GRAY EPOXY COATED PER CURRENT MNDOT APPROVED PRODUCTS LIST.
2. THE PANELS SHALL BE INSTALLED IN WET MORTAR BASE OVER A 6" CONCRETE SLAB.

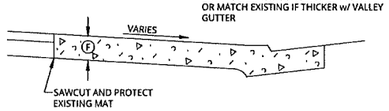
PEDESTRIAN RAMP REQUIREMENTS Plate No. ST-14

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763.785.6172 Fax 763.785.6139

NOTES:
(A)-PEDESTRIAN CURB RAMP (FULL WIDTH OF SIDE WALK)
(B)-EXPANSION JOINT
(C)-FORMED CONTRACTION JOINT
(D)-MAINTAIN GUTTER FLOW LINE
(E)-DRIVEWAY MUST BE PLACED 1/2 AT A TIME TO ALLOW ACCESS TO SITE



PLAN VIEW

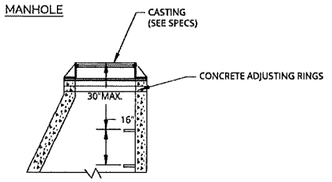


SECTION A-A

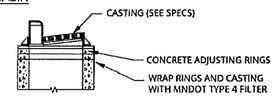
COMMERCIAL/INDUSTRIAL DRIVEWAY Plate No MI-1

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763.785.6172 Fax 763.785.6139

MANHOLE



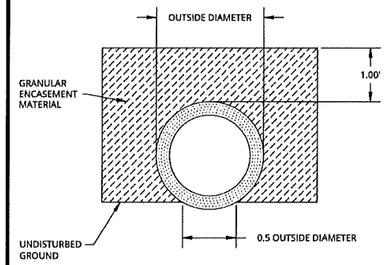
CATCHBASIN



NOTES:
1. USE MINIMUM OF 2-0.2' ADJUSTING RINGS, MAXIMUM OF 5-0.2' ADJUSTING RINGS, ALL SET IN MORTAR.
2. MANHOLE STEPS SHALL BE PER MNDOT PLATE 4180, TYPE W. STEPS SHALL BE LOCATED ON UPSTREAM WALL FOR PIPE SIZES UP TO AND INCLUDING 15" AND ON SIDE WALL FOR GREATER THAN 15".
3. LIDS FOR SANITARY SEWER SHALL BE MARKED "SANITARY" AND LIDS FOR STORM SEWERS SHALL BE MARKED "STORM".
4. NO WOOD SHIMS WILL BE ALLOWED.

ADJUSTING RINGS & STEPS Plate No. MI-3

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763.785.6172 Fax 763.785.6139

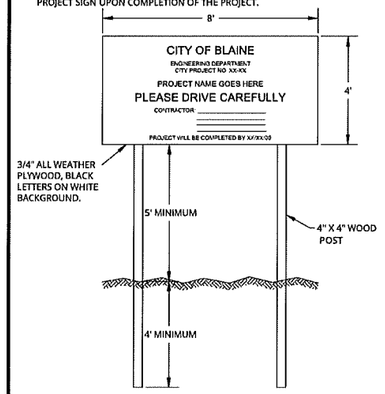


NOTES:
1. THIS IS THE STANDARD PIPE BEDDING APPLICATION UNLESS OTHER BEDDING IS SPECIFIED.
2. THE BOTTOM OF THE TRENCH SHALL BE SHAPED TO FIT THE BARREL OF THE PIPE FOR AT LEAST 50% OF THE OUTSIDE DIAMETER OF THE PIPE. THE REMAINDER OF THE PIPE IS TO BE SURROUNDED TO A HEIGHT OF AT LEAST 1' ABOVE ITS TOP.
3. GRANULAR ENCASEMENT MATERIAL SHALL MEET THE REQUIREMENTS OF THE SPECIFICATIONS.
4. NATIVE BLAINE GRANULAR MATERIAL IS CONSIDERED TO MEET THE INTENT OF THIS DETAIL.

CLASS C PIPE BEDDING Plate No. MI-4

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763.785.6172 Fax 763.785.6139

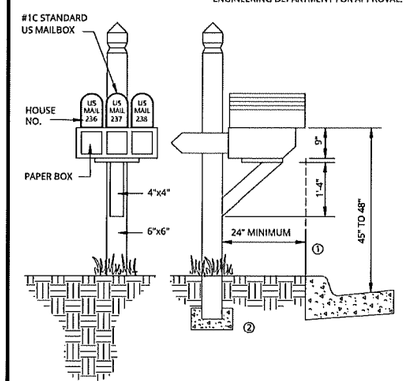
NOTES:
PROJECT SIGN SHALL BE LOCATED AS NOT TO IMPAIR THE VISION OF MOTORISTS. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE PROJECT SIGN UPON COMPLETION OF THE PROJECT.



PROJECT SIGN Plate No. MI-6

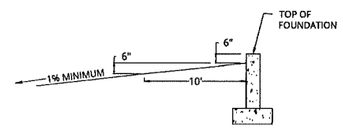
2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763.785.6172 Fax 763.785.6139

① FRONT OF MAILBOX SHALL BE PLACED EVEN WITH BACK OF CURB.
② BOX, POST, FOUNDATION AND LAYOUT DESIGN MUST BE SUBMITTED TO ENGINEERING DEPARTMENT FOR APPROVAL.

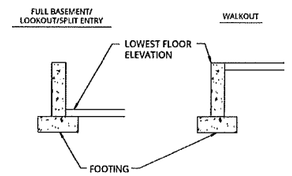


TYPICAL MAILBOX FOR NEW DEVELOPMENTS Plate No. MI-8

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763.785.6172 Fax 763.785.6139



TYPICAL SURFACE DRAINAGE AT HOUSE



LOCATION OF LOWEST FLOOR AS-BUILT ELEVATION

NOTE: LOWEST FLOOR ELEVATION MUST BE AFTER FOUNDATION IS CONSTRUCTED. CALCULATED ELEVATIONS ARE NOT ACCEPTABLE.

GRADING DETAIL Plate No. MI-10

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763.785.6172 Fax 763.785.6139

CivilSite GROUP
4931 W. 35TH ST, SUITE 200
ST. LOUIS PARK, MN 55416
CivilSiteGroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
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11967 & 11985 RADISSON RD NE, BLAINE, MN 55449

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David J. Knoble
DATE 2/9/23 LICENSE NO. 48778

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/9/22	PRELIMINARY SUBMITTAL
1/9/23	REVISED PRELIMINARY SUBMITTAL
2/9/23	CITY SUBMITTAL

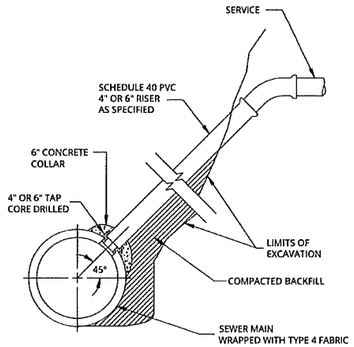
DRAWN BY AM REVIEWED BY DK
PROJECT NUMBER 20053.01

REVISION SUMMARY

DATE	DESCRIPTION

CIVIL DETAILS

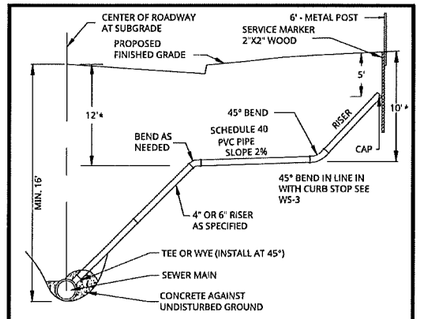
C5.2



NOTE: PVC SEWER MAIN USE NEW GASKETED PVC WYE AND SLEEVE
VCP OR RCP USE A FURNCO TSPK-46 TAP SADDLE
NEW PIPE OR COLLAR CAN NOT PROTRUDE INTO MAIN

SERVICE TAP CONNECTION
EXISTING PIPE Plate No. SSS-1

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763.785.6172 Fax 763.785.6139



NOTE: WHEN SANITARY SERVICE IS NOT ACCOMPANIED BY A WATER SERVICE IN THE SAME TRENCH, INSTALL A 6' POST NEXT TO THE 2"x2" MARKER AND PAINT THE TOP 6" GREEN, FOR VACANT LOTS, USE 6' STEEL FENCE POST.

- UNLESS OTHERWISE INDICATED ON PLANS

NO BEND MAY BE USED OTHER THAN THOSE SHOWN ON DETAIL

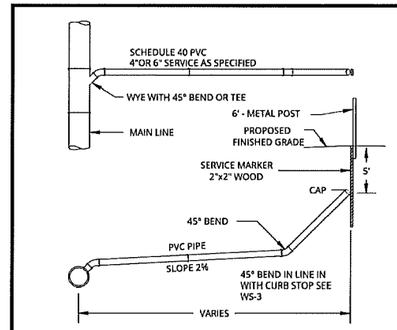
SOLVENT WELD ALL JOINTS

* WILL BE ADJUSTED IN FIELD BY ENGINEER TO SERVE EXISTING STRUCTURES

IF DISTANCE FROM MAIN TO STRUCTURE IS GREATER THAN 100', A CLEAN OUT MUST BE INSTALLED AT 100' INTERVALS, SEE DETAIL SSS-4.

SERVICE RISER SECTION Plate No. SSS-2

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763.785.6172 Fax 763.785.6139



NOTE: WHEN SANITARY SERVICE IS NOT ACCOMPANIED BY A WATER SERVICE IN THE SAME TRENCH, INSTALL A 6' POST NEXT TO THE 2"x2" MARKER AND PAINT THE TOP 6" GREEN, FOR VACANT LOTS, USE 6' STEEL FENCE POST.

- UNLESS OTHERWISE INDICATED ON PLANS

NO BEND MAY BE USED OTHER THAN THOSE SHOWN ON DETAIL

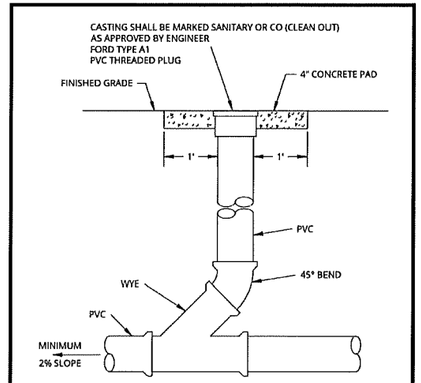
SOLVENT WELD ALL JOINTS

ON EXISTING MAINS, SEE DETAIL SSS-1

IF DISTANCE FROM MAIN TO STRUCTURE IS GREATER THAN 100', A CLEAN OUT MUST BE INSTALLED AT 100' INTERVALS, SEE DETAIL SSS-4.

SERVICE CONNECTION Plate No. SSS-3

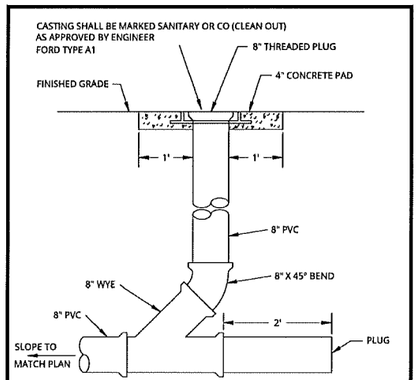
2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763.785.6172 Fax 763.785.6139



NOTES:
- ALL JOINTS SHALL BE SOLVENT WELD EXCEPT AS NOTED.
- SIZES: RESIDENTIAL = 4" DIAMETER
  COMMERCIAL/INDUSTRIAL = 6" DIAMETER
- ALL PIPE TO BE SCHEDULE 40 PVC
- CLEAN OUTS ARE REQUIRED AT 100' SPACING AND AT CHANGE OF DIRECTION.

SERVICE CLEAN OUT Plate No. SSS-4

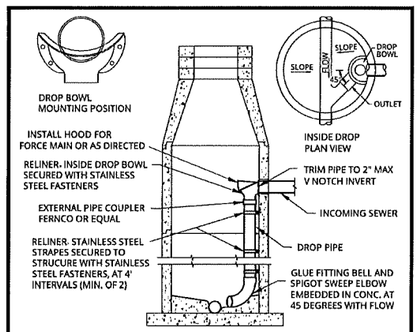
2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763.785.6172 Fax 763.785.6139



NOTES:
- ALL JOINTS SHALL BE SOLVENT WELD EXCEPT AS NOTED.
- 8" SLIP JOINT PLUG SHALL BE BLOCKED SUFFICIENTLY TO WITHSTAND AIR PRESSURE TESTING.

TEMPORARY CLEAN OUT Plate No. SSS-5

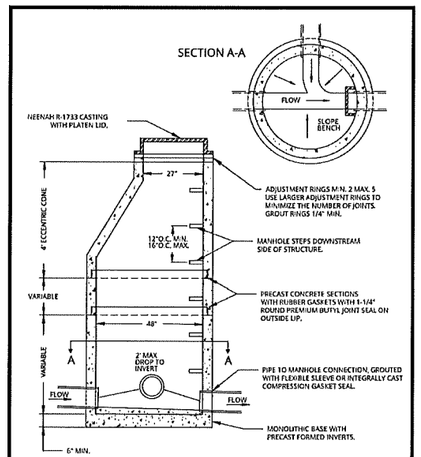
2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763.785.6172 Fax 763.785.6139



NOTES:
1. INCREASE MANHOLE SIZE 6" IN DIAMETER FOR 2 CONNECTIONS
2. INSTALL DIP TO UNDISTURBED SOIL
3. INSTALL PER MANUFACTURERS RECOMMENDATIONS.
4. SECURE DROP PIPE TO MANHOLE WITH RELINER-DURAN, INC STAINLESS STEEL ADJUSTABLE CLAMPING BRACKETS.
5. ALL INSIDE DROP CONNECTIONS FOR SERVICES AND COLLECTOR SEWERS SHALL USE THE DROP BOWL AS PRODUCED BY:
   RELINER-DURAN, INC.
   53 MT. ARCHER RD,
   LYME, CT 06371
   (860)434-0277 FAX:(877)434-3197

INSIDE DROP MANHOLE Plate No. SSS-6

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763.785.6172 Fax 763.785.6139



STANDARD SANITARY
MANHOLE Plate No. SSS-7

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763.785.6172 Fax 763.785.6139

CivilSite GROUP
4931 W. 35TH ST, SUITE 200
ST. LOUIS PARK, MN 55416
CivilSiteGroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
RADISSON ROAD TOWNHOMES
11967 & 11985 RADISSON RD NE, BLAINE, MN 55449

RON CLARK CONSTRUCTION
7500 WEST 78TH STREET, EDINA, MN 55439

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.

David J. Knabe
DATE 2/2/23 LICENSE NO. 48778

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/22	PRELIMINARY SUBMITTAL
1/23	AMENDED PRELIMINARY
2/23	CITY SUBMITTAL

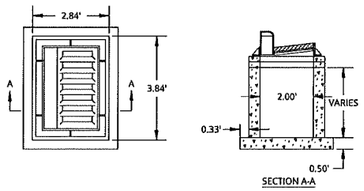
DRAWN BY AM REVIEWED BY DK
PROJECT NUMBER 2022-01

REVISION SUMMARY

DATE	DESCRIPTION

CIVIL DETAILS

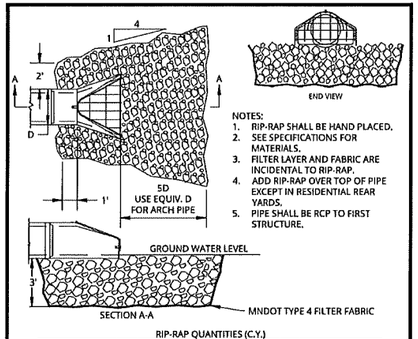
C5.3



NOTES:
1. INSIDE DIMENSIONS 2.00' X 3.00'
2. BASE TO BE GROUTED TO FORM A SMOOTH INVERT TO OUTLET.
3. PIPE CUT OUTS TO BE LOCATED WHERE REQUIRED.
4. STRENGTH DESIGN OF BASE SLAB AND STRUCTURE PER MANUFACTURER.
5. SEE DETAIL MI-3 FOR ADJUSTING RING CONSTRUCTION
6. SEE SD-5 FOR CASTING SCHEDULE

24" x 36" CATCH BASIN — Plate No. SD-1

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6139



NOTES:
1. RIP-RAP SHALL BE HAND PLACED.
2. SEE SPECIFICATIONS FOR MATERIALS.
3. FILTER LAYER AND FABRIC ARE INCIDENTAL TO RIP-RAP.
4. ADD RIP-RAP OVER TOP OF PIPE EXCEPT IN RESIDENTIAL REAR YARDS.
5. PIPE SHALL BE RCP TO FIRST STRUCTURE.

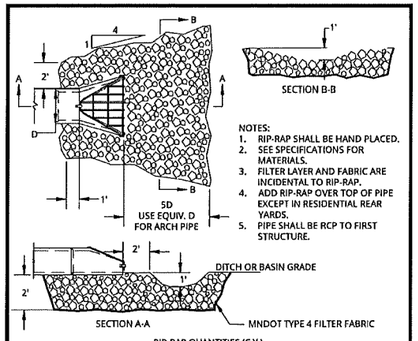
RIP-RAP QUANTITIES (C.Y.)

PIPE DIA.	RIP-RAP	PIPE DIA.	RIP-RAP	PIPE DIA.	RIP-RAP
12"	6	24"	14	42"	35
15"	8	27"	17	48"	43
18"	9	30"	21	54"	50
21"	12	36"	28	60"	58

HEAVY DUTY TRASH GUARD REQUIRED ON:
- UPSTREAM APRONS
-DOWNSTREAM APRONS 27" OR LARGER IN MAINTAINED RESIDENTIAL AREAS
-NO TRASH GUARD ON DITCH CROSSINGS UNLESS OTHERWISE DIRECTED

RIP-RAP FOR OUTLET TO WET DITCH OR BASIN — Plate No. SD-3

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6139



NOTES:
1. RIP-RAP SHALL BE HAND PLACED.
2. SEE SPECIFICATIONS FOR MATERIALS.
3. FILTER LAYER AND FABRIC ARE INCIDENTAL TO RIP-RAP.
4. ADD RIP-RAP OVER TOP OF PIPE EXCEPT IN RESIDENTIAL REAR YARDS.
5. PIPE SHALL BE RCP TO FIRST STRUCTURE.

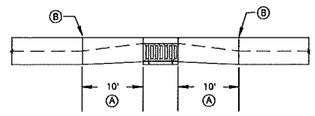
RIP-RAP QUANTITIES (C.Y.)

PIPE DIA.	RIP-RAP	PIPE DIA.	RIP-RAP	PIPE DIA.	RIP-RAP
12"	4	24"	10	42"	23
15"	5	27"	12	48"	29
18"	6	30"	14	54"	34
21"	8	36"	19	60"	39

HEAVY DUTY TRASH GUARD REQUIRED ON:
- UPSTREAM APRONS
-DOWNSTREAM APRONS 27" OR LARGER IN MAINTAINED RESIDENTIAL AREAS
-NO TRASH GUARD ON DITCH CROSSINGS UNLESS OTHERWISE DIRECTED

RIP-RAP FOR OUTLET TO DRY DITCH OR BASIN — Plate No SD-4

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6139



Ⓐ - 10' TRANSITION FROM CASTING OPENING TO D312 CURBING.
Ⓑ - EXPANSION JOINT.

CASTING SCHEDULE

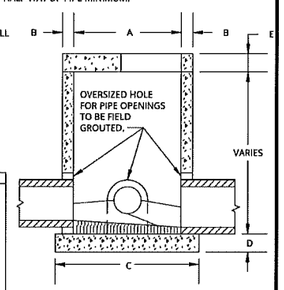
STRUCTURE TYPE	NEENAH CASTING TYPE
MANHOLE (DIA. VARIES)	R-1733 W/ PLATEN LID
CATCH BASIN (DIA. VARIES)	R-3067-V (SEE BLAINE PLATE SD-2)
24" X 36"	R-3067-V (SEE BLAINE PLATE SD-1)
24" X 36"	R-3290-A (DRIVEWAYS)
MNDOT TYPE "H"	R-3250-1 (B STYLE CURBING)
MNDOT TYPE "H"	R-3508-A2 (D312 STYLE CURBING)
MNDOT TYPE "H"	R-2577-1 TYPE C GRATE (OPEN SPACES)

NOTES:
1. IF CATCHBASIN IS NOT LOCATED ON PROPERTY LINE, DO NOT USE 24" X 36" STRUCTURE.
2. CATCH BASIN CASTINGS SHALL BE R-3067-V VANE GRATE FOR FLOW THRU AND BI-DIRECTIONAL R-3067-VB VANE GRATE IN SAG LOCATIONS.

CATCH BASIN/CURBING & CASTING SCHEDULE — Plate No. SD-5

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6139

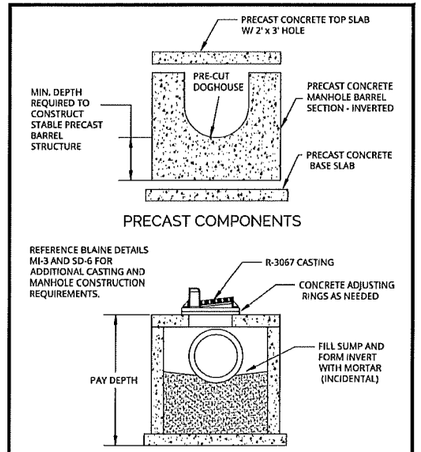
NOTES:
1. 54" THRU 120" DIA. STRUCTURES ARE MANUFACTURED WITH BELL END FACING DOWN.
2. STRUCTURES ARE MANUFACTURED IN ACCORDANCE WITH ASTM C-478 AND MNDOT STANDARD PLATE 4005 WITH RUBBER GASKET JOINTS.
3. REFER TO BLAINE DETAIL MI-3 FOR CASTING, ADJUSTING RINGS, AND STEPS.
4. PROVIDE MORTAR FILLETS TO FIT THE BOTTOM PORTION OF PIPE TO DIRECT FLOW TO OUTLET HALF-WAY UP PIPE MINIMUM.
5. COVER SLAB DESIGN VARIES WITH CASTING.
6. REINFORCING STEEL SHALL BE PER ASTM C-478 AND MNDOT PLATE 4005.



A	B	C	D	E
48"	5"	64"	6"	6"
54"	5.5"	72"	8"	8"
60"	6"	78"	8"	8"
66"	6.5"	85"	8"	8"
72"	7"	92"	8"	8"
78"	7.5"	100"	8"	8"
84"	8"	106"	8"	8"
90"	8.5"	114"	8"	8"
96"	9"	120"	8"	8"
102"	9.5"	127"	12"	8"
108"	10"	132"	12"	12"
120"	10"	146"	12"	12"

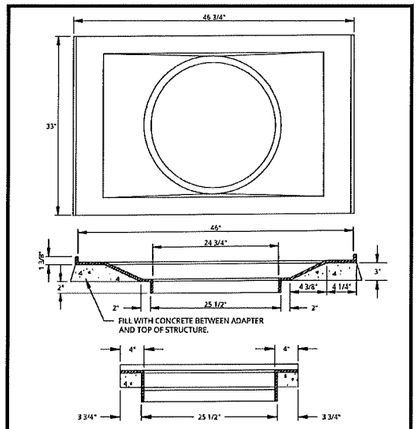
STANDARD STORM SEWER CATCH BASIN/MANHOLE & MANHOLE — Plate No. SD-6

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6139



SHALLOW DEPTH BASIN MANHOLE — Plate No. SD-7

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6139



NOTE: INSTALL ADAPTER PLATE ON TO STRUCTURE FIRST. THEN INSTALL 2" X 3" RINGS ON TOP OF ADAPTER PLATE FOR PROPER HEIGHT. RINGS ARE TO BE WRAPPED IN FABRIC AND 1/4 INCH OF GROUT BETWEEN RINGS.

R-3067-27 ADAPTER PLATE — Plate No. SD-8

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6139

CivilSite GROUP
4931 W. 35TH ST, SUITE 200
ST. LOUIS PARK, MN 55416
CivilSiteGroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
RADISSON ROAD TOWNHOMES
11967 & 11985 RADISSON RD NE, BLAINE, MN 55449

RON CLARK CONSTRUCTION
7500 WEST 78TH STREET, EDINA, MN 55439

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.

David J. Knaeble
DATE 2/3/23 LICENSE NO. 48776

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/22	PRELIMINARY PLAT/ZTEL
1/23	REVISED PRELIM PLAT/ZTEL
2/23	CITY SUBMITTAL

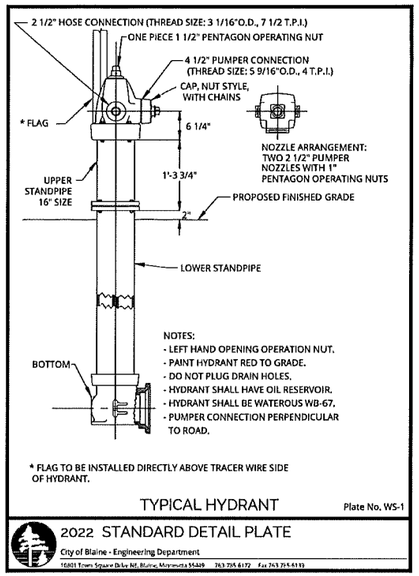
DRAWN BY: AH REVIEWED BY: DK
PROJECT NUMBER 20353.01

REVISION SUMMARY

DATE	DESCRIPTION

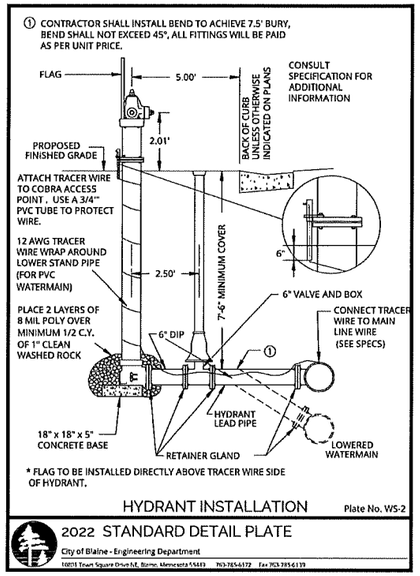
CIVIL DETAILS

C5.4



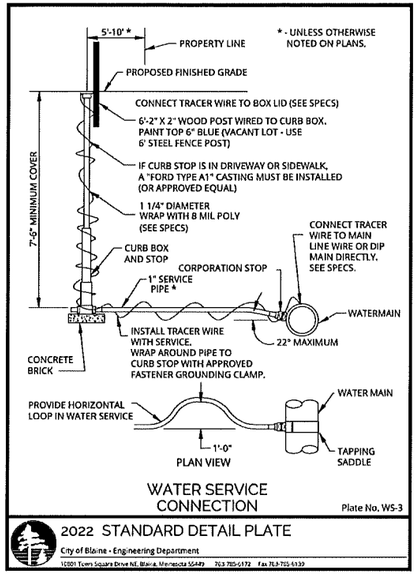
TYPICAL HYDRANT Plate No. WS-1

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763.784.6172 Fax 763.784.6133



HYDRANT INSTALLATION Plate No. WS-2

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763-784-6172 Fax 763-784-6133



WATER SERVICE CONNECTION Plate No. WS-3

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6133

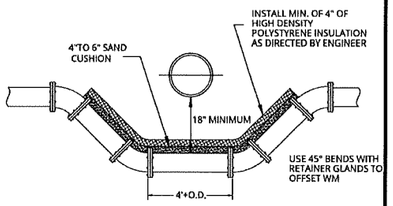
BENDS	PIPE SIZE 6"	8"	10"	12"	14"	16"	18"	20"	24"
90°	39	57	89	108	210	264	335	400	565
45°	32	46	70	86	164	202	250	305	405
22 1/2°	32	46	64	84	148	178	255	310	412
11 1/4°	30	42	58	74	130	158	205	245	315
SLEEVES									
SHORT	28	38	49	56	111	130	160	195	255
LONG	36	46	62	76	140	172	225	255	335
PLUG	18	26	36	46	85	93	130	153	202
CAP	17	25	35	44	79	100	122	202	214
TEES									
RUN									
6"	68								
8"	56								
8"	72	86							
10"	90	105	120						
12"	110	125	140	160					
14"	182	206	228	234	280				
16"	228	248	264	280	316	322			
18"	275	295	315	335	380	405	435		
20"	315	325	370	395	440	465	505	535	
24"	415	445	470	500	550	580	625	660	720
CROSS									
6"	80								
8"	56	105							
10"	90	105	145						
12"	110	125	140	215					
14"	182	206	228	234	335				
16"	228	248	264	280	316	385			
18"	275	295	315	335	380	405	XXX		
20"	315	325	370	395	440	465	505	XXX	
24"	415	445	470	500	550	580	625	660	XXX
REDUCERS									
6"	36								
10"	47	50							
12"	60	60	64						
14"	100	100	100	100	100				
16"	124	124	124	124	124	140			
18"	190	190	195	195	180	190	195		
20"			220	205	200	200	225		
24"				305	310	320	305	300	

WEIGHTS TAKEN FROM AWWA C153; XXX BASED ON C110
WEIGHT DOES NOT INCLUDE GLANDS, GASKETS, BOLTS AND RESTRAINING DEVICES

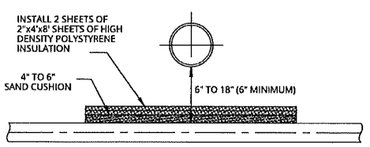
WATERMAIN FITTINGS Plate No. WS-4

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763 784 6172 Fax 763 784 6133

WATERMAIN OFFSET DETAIL

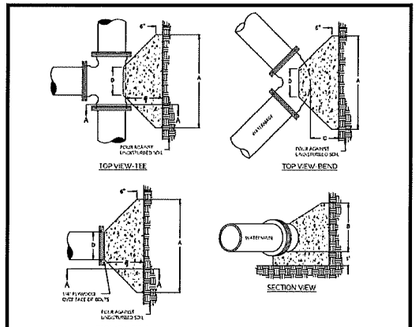


WATERMAIN INSULATION DETAIL



WATERMAIN OFFSET AND INSULATION DETAIL Plate No. WS-5

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763 784 6172 Fax 763 784 6133



PIPE SIZE	22 ½ BEND			45% BEND			90% BEND		
	A	B	C	A	B	C	A	B	C
12"	11'-0"	1'-10"	2'-0"	8'-4"	2'-0"	2'-0"	6'-9"	2'-5"	2'-0"
16"	3'-0"	2'-3"	2'-0"	9'-10"	2'-0"	2'-0"	6'-2"	3'-6"	2'-0"
20"	11'-5"	2'-3"	3'-0"	5'-6"	5'-6"	3'-0"	8'-4"	4'-0"	
24"	4'-4"	3'-0"	3'-0"	6'-10"	5'-10"	3'-0"	9'-8"	5'-0"	
30"	—	—	3'-6"	9'-3"	6'-0"	3'-6"	12'-2"	5'-0"	3'-6"

D MEASSON D SHALL BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH MJ BOLTS.

NOTES:
1 BLOCKING TO BE POURED CONCRETE, MINIMUM 3 MIX DESIGN 3302
2 FITTINGS MUST BE COVERED WITH 6 MIL POLY PRIOR TO POURING CONCRETE
3 KEEP CONCRETE CLEAR OF BOLTS, JOINTS AND SET SCREWS

THRUST BLOCK DETAIL Plate No. WS-6

2022 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763.785.6172 Fax 763.785.6133

CivilSite GROUP
4931 W. 35TH ST, SUITE 200
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CivilSiteGroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
RADISSON ROAD TOWNHOMES
11967 & 11985 RADISSON RD NE, BLAINE, MN 55449

RON CLARK CONSTRUCTION
7500 WEST 78TH STREET, EDINA, MN 55439

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David J. Kroeble
DATE 2/9/23 LICENSE NO. 48716

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/9/22	WATERSHED SUBMITTAL
1/12/23	WATERSHED RESUBMITTAL
2/2/23	CITY SUBMITTAL

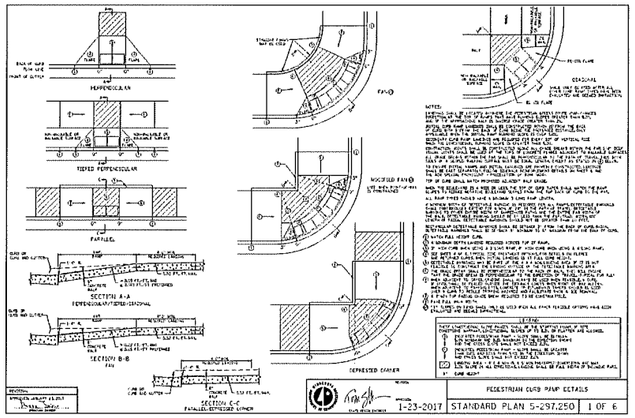
DRAWN BY: AM REVIEWED BY: DK
PROJECT NUMBER: 20055.01

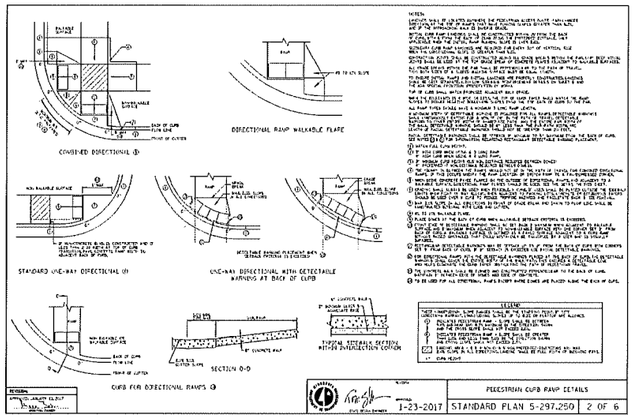
REVISION SUMMARY

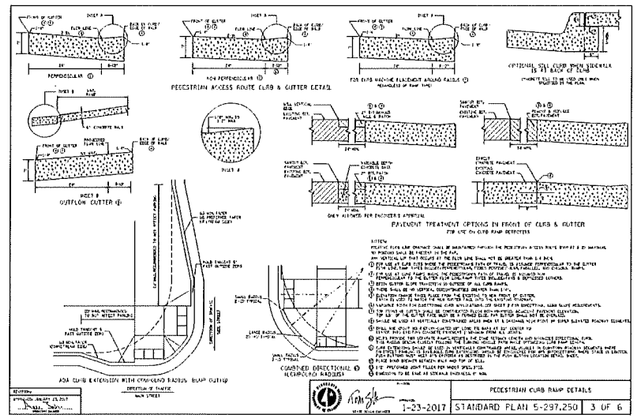
DATE	DESCRIPTION

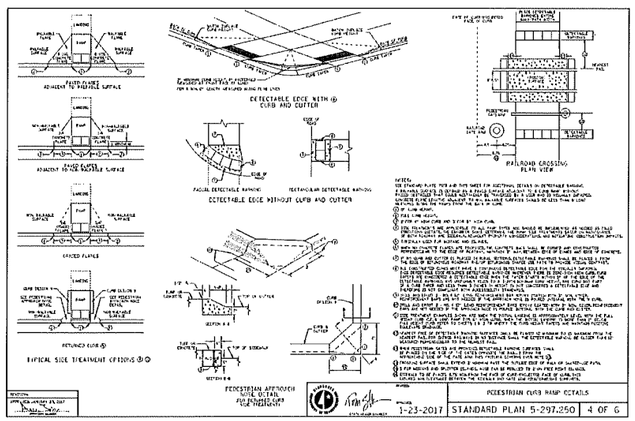
CIVIL DETAILS

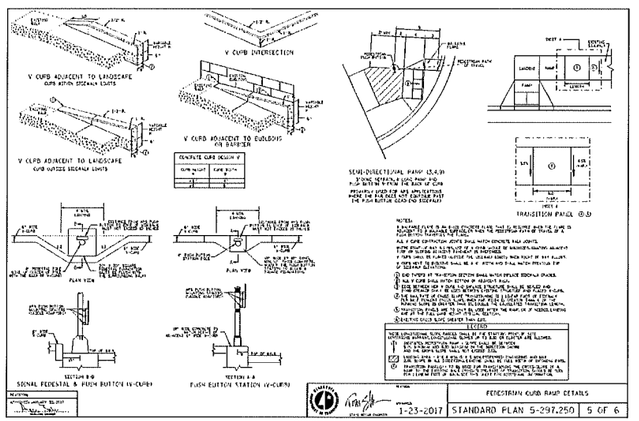
C5.5

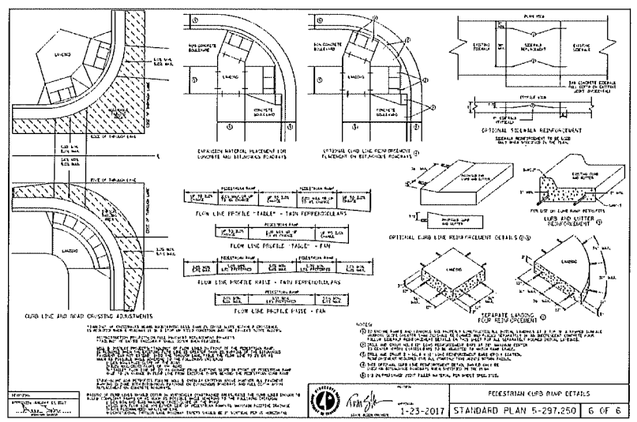












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4931 W. 35TH ST. SUITE 200
ST. LOUIS PARK, MN 55416
CivilSiteGroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
RADISSON ROAD TOWNHOMES
11967 & 11985 RADISSON RD NE, BLAINE, MN 55449

RON CLARK CONSTRUCTION
7500 WEST 78TH STREET, EDINA, MN 55439

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.

David J. Knaeble
DATE 2/9/23 LICENSE NO. 48776

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/9/22	PATRON REVIEW
12/9/22	PATRON RESUBMITTAL
2/9/23	CITY SUBMITTAL

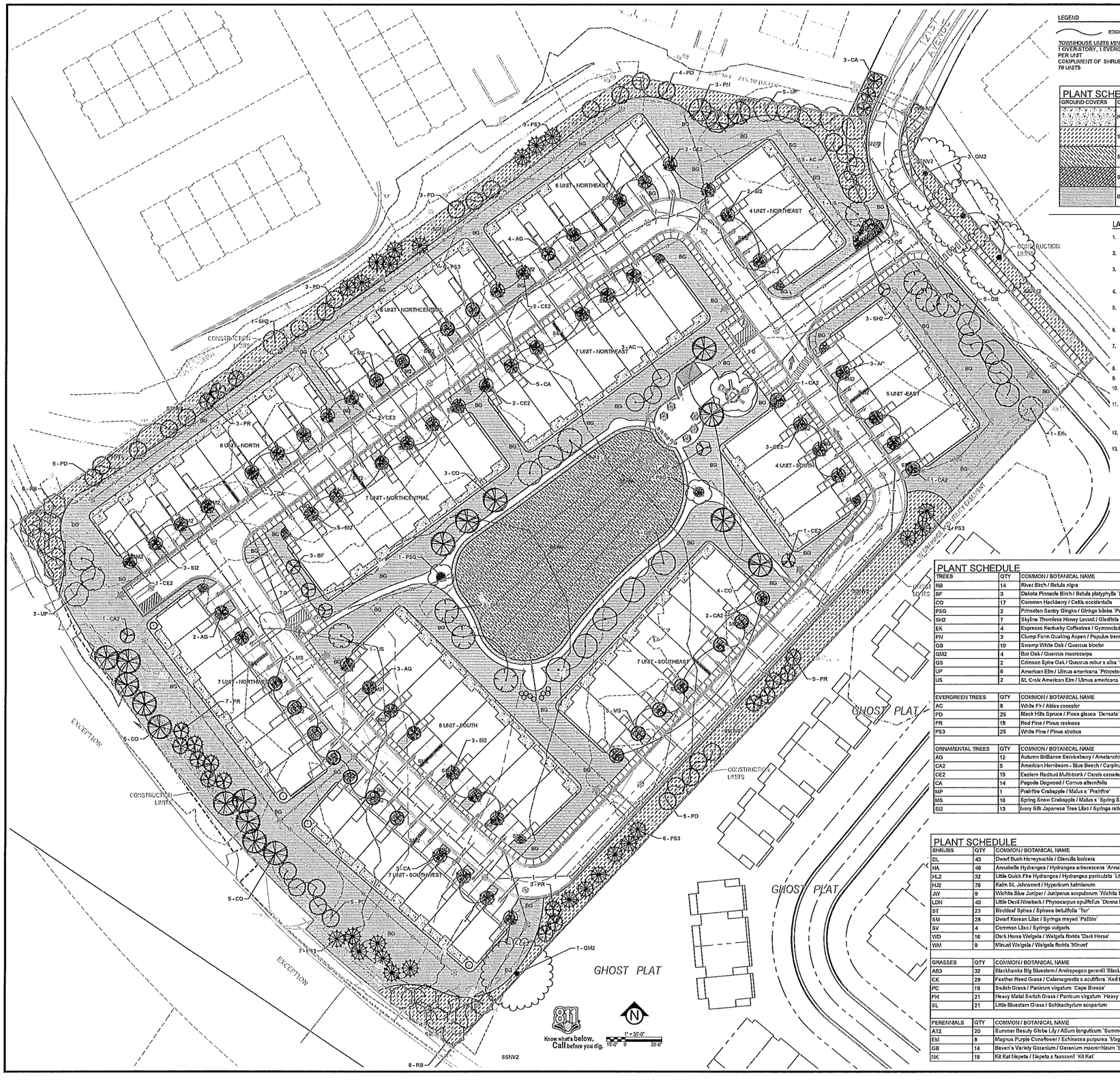
DRAWN BY: AM REVIEWED BY: DK
PROJECT NUMBER 2205301

REVISION SUMMARY

DATE	DESCRIPTION

CIVIL DETAILS

C5.6



LEGEND

EDGING

TOWNHOUSE UNITS MINIMUM LANDSCAPE REQ.
1 OVERSTORY, 1 EVERGREEN, 1 ORNAMENTAL PER UNIT
COMPLIMENT OF SHRUBS ARE REQUIRED
78 UNITS

PROVIDED
OVERSTORY TREES = 78 TREES PROVIDED
EVERGREEN TREES = 78 TREES PROVIDED
ORNAMENTAL TREES = 78 TREES PROVIDED
SHRUBS = 328 (4.3/UNIT) PROVIDED
PERENNIALS = 183 (2.4/UNIT) PROVIDED

PLANT SCHEDULE

GROUND COVERS	CODE	COMMON / BOTANICAL NAME	SIZE
	RM2	Decorative Rock Mulch / Decorative Rock Mulch 2"-4" decorative, provide samples	Mulch
	SSNV2	Shooting Star Dry Short Prairie Mix / Dry Short Prairie Seed Mix Shooting Star Native Seed: Dry Short Prairie Seed Mix.	Seed Mix
	SSNV	Lower Basin Native Seed Mix MNDOT 34-262 WET PRAIRIE, PER MNDOT SEEDING MANUAL SPECIFICATIONS (2014)	Seed Mix
	SM2	Shredded Cedar Mulch / Shredded Hardwood Mulch	Mulch
	BG	Blue Grass Based / Sod Commercial grade, locally grown, "Big Roll" preferred	Sod

LANDSCAPE NOTES:

1. WHERE SHOWN, SHRUB & PERENNIAL BEDS SHALL BE MULCHED WITH 4" DEPTH (MINIMUM AFTER INSTALLATION AND/OR TOP DRESSING OPERATIONS) OF SHREDDED CEDAR MULCH.
2. ALL TREES SHALL BE MULCHED WITH SHREDDED CEDAR MULCH TO OUTER EDGE OF SAUCER OR TO EDGE OF PLANTING BED, IF APPLICABLE. ALL MULCH SHALL BE KEPT WITHIN A MINIMUM OF 2" FROM TREE TRUNK.
3. PLANT MATERIALS SHALL CONFORM WITH THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS AND SHALL BE OF HARDY STOCK, FREE FROM DISEASE, DAMAGE AND DISFIGURATION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PLUMPNESS OF PLANT MATERIAL FOR DURATION OF ACCEPTANCE PERIOD.
4. UPON DISCOVERY OF A DISCREPANCY BETWEEN THE QUANTITY OF PLANTS SHOWN ON THE SCHEDULE AND THE QUANTITY SHOWN ON THE PLAN, THE PLAN SHALL GOVERN.
5. CONDITION OF VEGETATION SHALL BE MONITORED BY THE LANDSCAPE ARCHITECT THROUGHOUT THE DURATION OF THE CONTRACT. LANDSCAPE MATERIALS PART OF THE CONTRACT SHALL BE WARRANTED FOR ONE (1) FULL GROWING SEASONS FROM SUBSTANTIAL COMPLETION DATE.
6. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL RECEIVE 4" LAYER TOPSOIL AND SOD AS SPECIFIED UNLESS OTHERWISE NOTED ON THE DRAWINGS.
7. COORDINATE LOCATION OF VEGETATION WITH UNDERGROUND AND OVERHEAD UTILITIES, LIGHTING FIXTURES, DOORS AND WINDOWS. CONTRACTOR SHALL STAKE IN THE FIELD FINAL LOCATION OF TREES AND SHRUBS FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
8. ALL PLANT MATERIALS SHALL BE WATERED AND MAINTAINED UNTIL ACCEPTANCE.
9. REPAIR AT NO COST TO OWNER ALL DAMAGE RESULTING FROM LANDSCAPE CONTRACTOR'S ACTIVITIES.
10. SWEEP AND MAINTAIN ALL PAVED SURFACES FREE OF DEBRIS GENERATED FROM LANDSCAPE CONTRACTOR'S ACTIVITIES.
11. PROVIDE SITE WIDE IRRIGATION SYSTEM DESIGN AND INSTALLATION. SYSTEM SHALL BE FULLY PROGRAMMABLE AND CAPABLE OF ALTERNATE DATE WATERING. THE SYSTEM SHALL PROVIDE HEAD TO HEAD OR DRIP COVERAGE AND BE CAPABLE OF DELIVERING ONE INCH OF PRECIPITATION PER WEEK. SYSTEM SHALL EXTEND INTO THE PUBLIC RIGHT-OF-WAY TO THE EDGE OF PAVEMENT/BACK OF CURB.
12. CONTRACTOR SHALL SECURE APPROVAL OF PROPOSED IRRIGATION SYSTEM INCLUDING PRICING FROM OWNER, PRIOR TO INSTALLATION.
13. SEE SHEET L1.0 FOR TREES AND GROUND COVERS & FOR PERENNIALS/SHRUBS SEE DETAIL SHEETS L1.1 & L1.2.

PLANT SCHEDULE

TREES	QTY	COMMON / BOTANICAL NAME	CONT	NATIVE PLANTS	POLLINATOR FRIENDLY
RB	14	River Birch / Betula nigra	2.5" Cal, B&B	NATIVE	N
BF	3	Dakota Pinnacle Birch / Betula platyphylla "Fargo" TM	1.75" Cal B&B	NOT NATIVE	N
CO	17	Common Hackberry / Celtis occidentalis	2.5" Cal, B&B		
PSG	2	Princeton Sentry Gingko / Ginkgo biloba 'Princeton Sentry'	2.5" Cal, B&B	NOT NATIVE	N
SH2	7	Skyline Thornless Honey Locust / Gleditsia triacanthos inermis 'Skycole' TM	2.5" Cal, B&B	NATIVE CULTIVAR	N
EK	4	Espresso Kentucky Coffeetree / Gymnocladus dioica 'Espresso'	2.5" Cal, B&B	B&B	
PN	3	Clump Form Quaking Aspen / Populus tremuloides 'Clump Form'	8' CLUMP	NATIVE CULTIVAR	N
QB	10	Swamp White Oak / Quercus bicolor	2.5" Cal, B&B	B&B	
QM2	4	Bur Oak / Quercus macrocarpa	2.5" Cal, B&B	NATIVE	
QS	2	Crimson Spire Oak / Quercus robur x alba 'Crimschmidt' TM	2.5" Cal, B&B	NOT NATIVE	Y
UP	8	American Elm / Ulmus americana 'Princeton'	2.5" Cal, B&B	NATIVE CULTIVAR	Y
US	2	St. Croix American Elm / Ulmus americana 'St. Croix'	2.5" Cal, B&B	NATIVE CULTIVAR	Y
EVERGREEN TREES	**QTY**	**COMMON / BOTANICAL NAME**	**CONT**	**NATIVE PLANTS**	**POLLINATOR FRIENDLY**
AC	5	White Fir / Abies concolor	6' B&B	B&B	
PD	25	Black Hills Spruce / Picea glauca 'Densata'	6' B&B	B&B	
PR	18	Red Pine / Pinus resinosa	6' B&B		
PS3	25	White Pine / Pinus strobus	6' B&B	B&B	
ORNAMENTAL TREES	**QTY**	**COMMON / BOTANICAL NAME**	**CONT**	**NATIVE PLANTS**	**POLLINATOR FRIENDLY**
AG	12	Autumn Brilliance Serviceberry / Amelanchier x grandiflora 'Autumn Brilliance'	1.5" Cal, B&B	B&B	
CA2	5	American Hornbeam - Blue Beech / Carpinus caroliniana	2" Cal, B&B	NATIVE	Y
CE2	15	Eastern Redbud Multi-trunk / Cercis canadensis	6' B&B	NOT NATIVE	Y
CA	14	Pagoda Dogwood / Cornus alternifolia	1.5" Cal, B&B	NATIVE	Y
MP	1	Prairifire Crabapple / Malus x 'Prairifire'	1.5" Cal, B&B	B&B	
MS	16	Spring Snow Crabapple / Malus x 'Spring Snow'	1.5" Cal, B&B		
SI2	13	Ivory Silk Japanese Tree Lilac / Syringa reticulata 'Ivory Silk'	6' CLUMP	NOT NATIVE	Y

PLANT SCHEDULE

SHRUBS	QTY	COMMON / BOTANICAL NAME	SIZE	NATIVE PLANTS	POLLINATOR FRIENDLY
DL	43	Dwarf Bush Honeysuckle / Diervilla lonicera	#5 CONT	NATIVE	Y
HA	48	Annabelle Hydrangea / Hydrangea arborescens 'Annabelle'	#5 CONT	Pot	
HL2	32	Little Quick Fire Hydrangea / Hydrangea paniculata 'Little Quick Fire'	#5 CONT	NOT NATIVE	Y
HJ2	76	Kalm St. Johnswort / Hypericum kalmianum	#2 CONT	NATIVE	Y
JW	9	Wichita Blue Juniper / Juniperus scopulorum 'Wichita Blue'	#5 CONT	NOT NATIVE	N
LDN	40	Little Devil Ninebark / Physocarpus opulifolius 'Donna May' TM	#5 CONT	NATIVE CULTIVAR	Y
BT	23	Blotched Spirea / Spiraea betulifolia 'Tor'	#5 CONT	NOT NATIVE	Y
SM	28	Dwarf Korean Lilac / Syringa meyeri 'Palibin'	#7 CONT		
SV	4	Common Lilac / Syringa vulgaris	#5 CONT		
WD	16	Dark Horse Weigela / Weigela florida 'Dark Horse'	#5 CONT	NOT NATIVE	Y
WM	9	Minuet Weigela / Weigela florida 'Minuet'	#5 CONT	NOT NATIVE	Y
GRASSES	**QTY**	**COMMON / BOTANICAL NAME**	**SIZE**	**NATIVE PLANTS**	**POLLINATOR FRIENDLY**
AB3	32	Blackhawks Big Bluestem / Andropogon gerardii 'Blackhawks'	#1 CONT	NATIVE CULTIVAR	Y
CK	29	Feather Reed Grass / Calamagrostis x acutiflora 'Karl Foerster'	#1 CONT	Pot	
PC	19	Switch Grass / Panicum virgatum 'Cape Breeze'	#1 CONT	NATIVE CULTIVAR	Y
PH	21	Heavy Metal Switch Grass / Panicum virgatum 'Heavy Metal'	#1 CONT	NATIVE CULTIVAR	Y
SL	21	Little Bluestem Grass / Schizachyrium scoparium	#1 CONT	NATIVE	Y
PERENNIALS	**QTY**	**COMMON / BOTANICAL NAME**	**SIZE**	**NATIVE PLANTS**	**POLLINATOR FRIENDLY**
AT2	20	Summer Beauty Globe Lily / Allium tanguticum 'Summer Beauty'	#1 CONT	NOT NATIVE	Y
EM	8	Magnus Purple Coneflower / Echinacea purpurea 'Magnus'	#1 CONT	NATIVE CULTIVAR	Y
GB	14	Bevan's Variety Geranium / Geranium macrorrhizum 'Bevan's Variety'	#1 CONT	NOT NATIVE	Y
NK	19	Kit Kat Nepeta / Nepeta x faassenii 'Kit Kat'	#1 CONT	NOT NATIVE	Y

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JORDAN M. LOCKMAN
DATE 2/9/23 LICENSE NO. 45023

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/22	WATERSHED SUBMITTAL
12/22	WATERSHED RESUBMITTAL
2/23	CITY SUBMITTAL

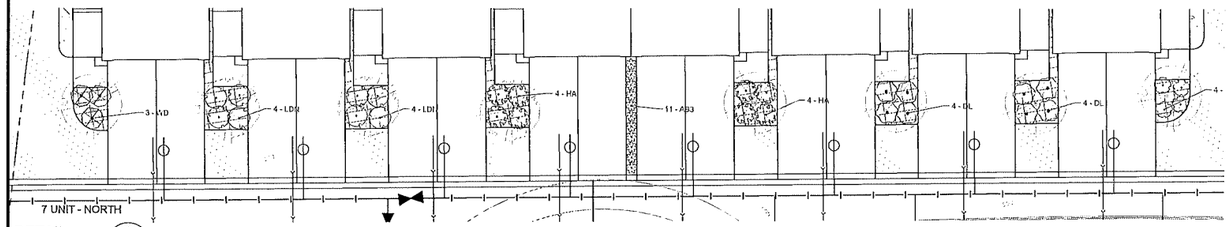
DRAWN BY: AM REVIEWED BY: DK
PROJECT NUMBER: 20252.01

REVISION SUMMARY

DATE	DESCRIPTION

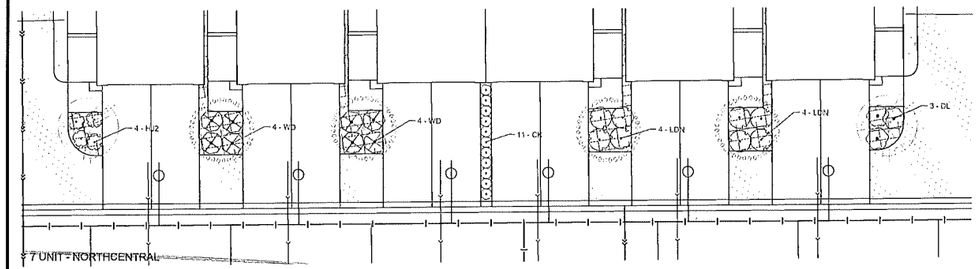
LANDSCAPE PLAN

L1.0



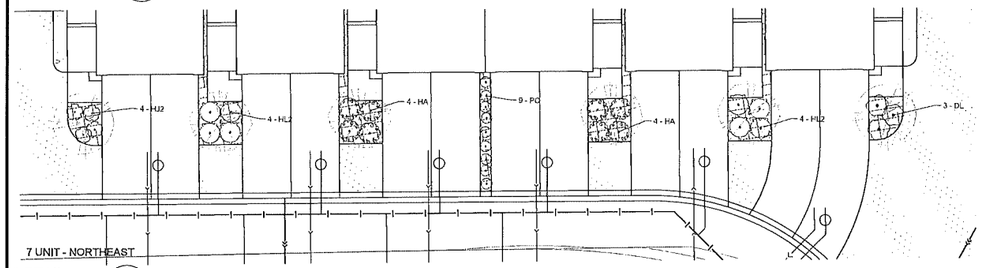
7 UNIT - NORTH

DETAIL A L1.1 1"=10'



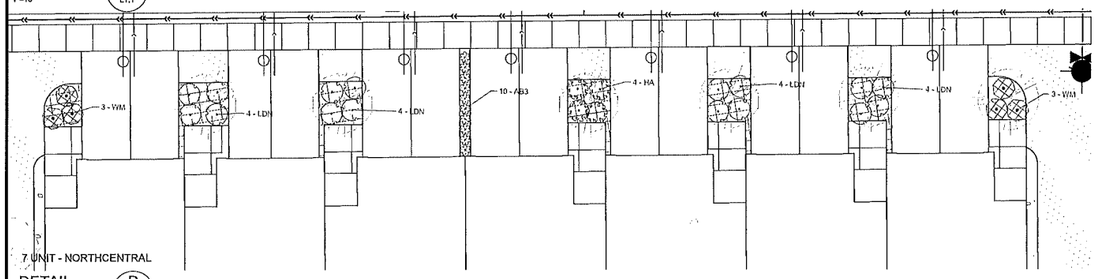
7 UNIT - NORTHCENTRAL

DETAIL B L1.1 1"=10'



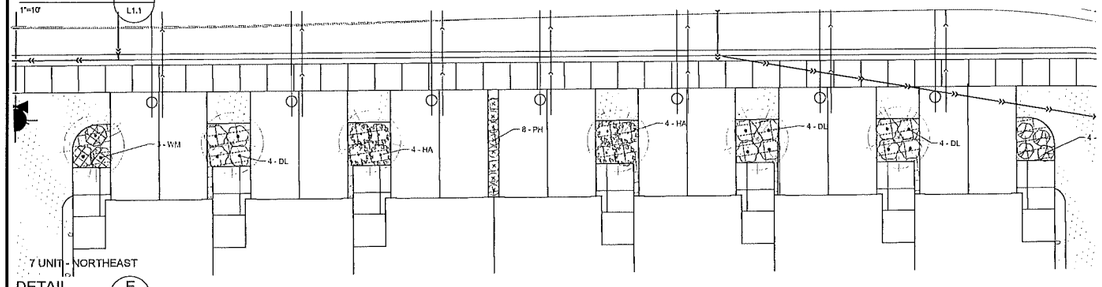
7 UNIT - NORTHEAST

DETAIL C L1.1 1"=10'



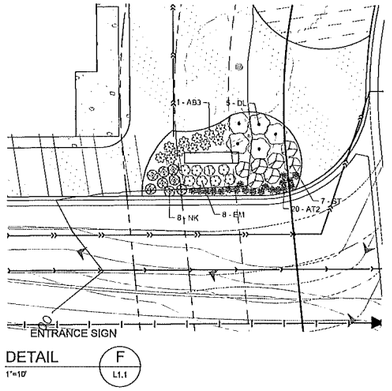
7 UNIT - NORTHCENTRAL

DETAIL D L1.1 1"=10'

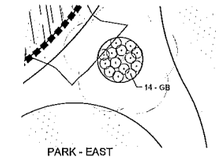


7 UNIT - NORTHEAST

DETAIL E L1.1 1"=10'

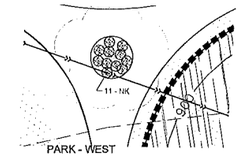


DETAIL F L1.1 1"=10'



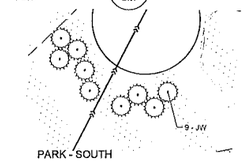
PARK - EAST

DETAIL G L1.1 1"=10'



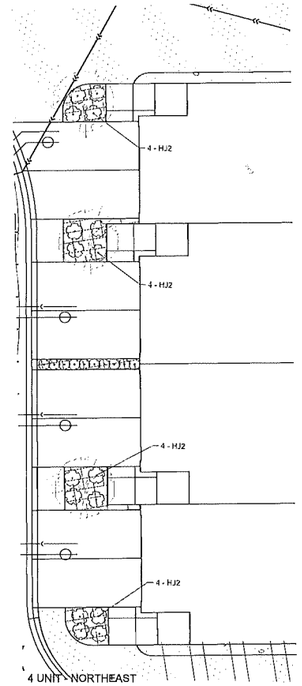
PARK - WEST

DETAIL H L1.1 1"=10'



PARK - SOUTH

DETAIL I L1.1 1"=10'



4 UNIT - NORTHEAST

DETAIL K L1.1 1"=10'

4 UNIT - SOUTH

DETAIL J L1.1 1"=10'

5 UNIT - EAST

DETAIL L L1.1 1"=10'

Know what's below. Call before you dig.

1" = 10'-0"
5'-0" 0 10'-0"

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JORDAN M. LOCKMAN
DATE 2/9/23 LICENSE NO. 45523

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/9/22	WATERSHED SUBMITTAL
1/31/23	WATERSHED RESUBMITTAL
2/9/23	CITY SUBMITTAL

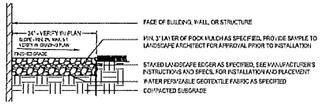
DRAWN BY: AM REVIEWED BY: DK
PROJECT NUMBER: 20252.01

REVISION SUMMARY

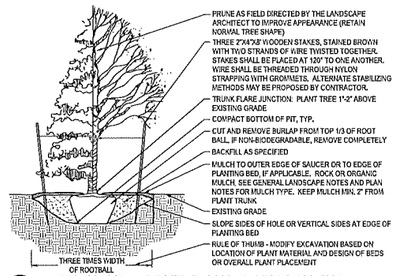
DATE	DESCRIPTION

LANDSCAPE PLAN NOTES & DETAILS

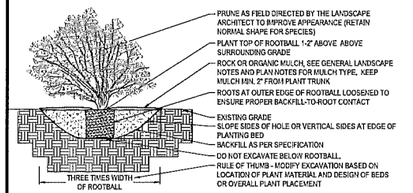
L1.1



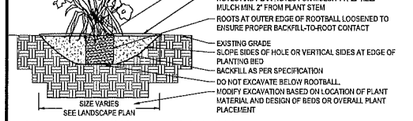
1 AGGREGATE MAINTANENCE STRIP
NTS



2 DECIDUOUS & CONIFEROUS TREE PLANTING
NTS



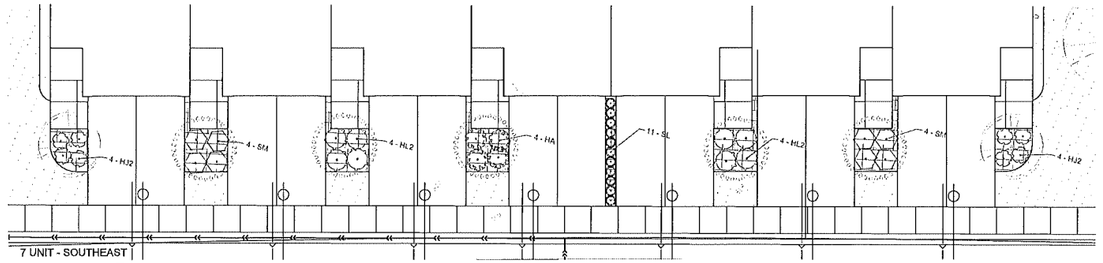
3 DECIDUOUS & CONIFEROUS SHRUB PLANTING
NTS



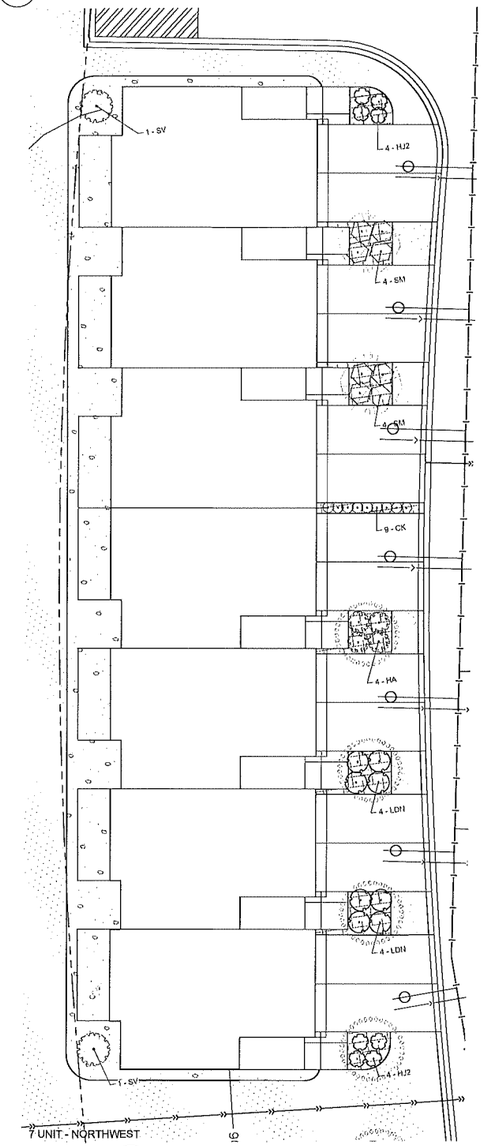
4 PERENNIAL BED PLANTING
NTS

IRRIGATION NOTES:

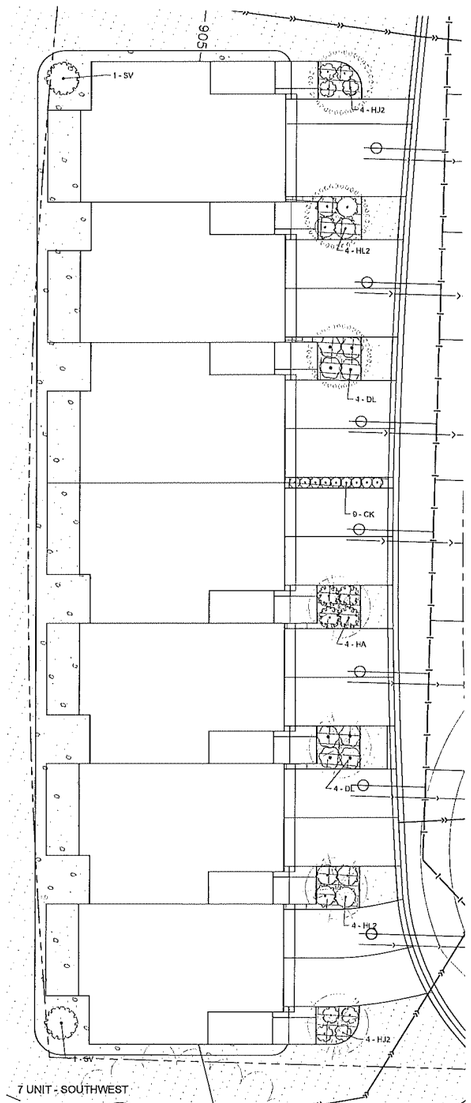
1. ENTIRE SITE SHALL BE FULLY IRRIGATED. THE CONTRACTOR SHALL SUBMIT IRRIGATION SHOP DRAWINGS FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
2. SEE MECHANICAL AND ELECTRICAL PLANS AND SPECIFICATIONS FOR IRRIGATION WATER, METER, AND POWER CONNECTIONS.
3. CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND/ABOVE GROUND FACILITIES PRIOR TO ANY EXCAVATION/INSTALLATION. ANY DAMAGE TO UNDERGROUND/ABOVE GROUND FACILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND COSTS ASSOCIATED WITH CORRECTING DAMAGES SHALL BE BORNE ENTIRELY BY THE CONTRACTOR.
4. SERVICE EQUIPMENT AND INSTALLATION SHALL BE PER LOCAL UTILITY COMPANY STANDARDS AND SHALL BE PER NATIONAL AND LOCAL CODES. EXACT LOCATION OF SERVICE EQUIPMENT SHALL BE COORDINATED WITH THE LANDSCAPE ARCHITECT OR EQUIVALENT AT THE JOB SITE.
5. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANY FOR THE PROPOSED ELECTRICAL SERVICE AND METERING FACILITIES.
6. IRRIGATION WATER LINE CONNECTION SIZE IS 1½" AT BUILDING. VERIFY WITH MECHANICAL PLANS.COVAGE.
7. ALL MAIN LINES SHALL BE 18" BELOW FINISHED GRADE.
8. ALL LATERAL LINES SHALL BE 12" BELLOW FINISHED GRADE.
9. ALL EXPOSED PVC RISERS, IF ANY, SHALL BE GRAY IN COLOR.
10. CONTRACTOR SHALL LAY ALL SLEEVES AND CONDUIT AT 2'-0" BELOW THE FINISHED GRADE OF THE TOP OF PAVEMENT. EXTEND SLEEVES TO 2'-0" BEYOND PAVEMENT.
11. CONTRACTOR SHALL MARK THE LOCATION OF ALL SLEEVES AND CONDUIT WITH THE SLEEVING MATERIAL "ELLED" TO 2'-0" ABOVE FINISHED GRADE AND CAPPED.
12. FABRICATE ALL PIPE TO MANUFACTURER'S SPECIFICATIONS WITH CLEAN AND SQUARE CUT JOINTS, USE QUALITY GRADE PRIMER AND SOLVENT CEMENT FORMULATED FOR INTENDED TYPE OF CONNECTION.
13. BACKFILL ALL TRENCHES WITH SOIL FREE OF SHARP OBJECTS AND DEBRIS.
14. ALL VALVE BOXES AND COVERS SHALL BE BLACK IN COLOR.
15. GROUP VALVE BOXES TOGETHER FOR EASE WHEN SERVICE IS REQUIRED. LOCATE IN PLANT BED AREAS WHENEVER POSSIBLE.
16. IRRIGATION CONTROLLER LOCATION SHALL BE VERIFIED ON-SITE WITH OWNER'S REPRESENTATIVE.
17. CONTROL WIRES: 14 GAUGE DIRECT BURIAL, SOLID COPPER IRRIGATION WIRE. RUN UNDER MAIN LINE. USE MOISTURE-PROOF SPLICES AND SPLICE ONLY AT VALVES OR PULL BOXES. RUN SEPARATE HOT AND COMMON WIRE TO EACH VALVE AND ONE (1) SPARE WIRE AND GROUND TO FURTHEST VALVE FROM CONTROLLER. LABEL OR COLOR CODE ALL WIRES.
18. AVOID OVER-SPRAY ON BUILDINGS, PAVEMENT, WALLS AND ROADWAYS BY INDIVIDUALLY ADJUSTING RADIUS OR ARC ON SPRINKLER HEADS AND FLOW CONTROL ON AUTOMATIC VALVE.
19. ADJUST PRESSURE REGULATING VALVES FOR OPTIMUM PRESSURE ON SITE.
20. USE SCREENS ON ALL HEADS.
21. A SET OF AS-BUILT DRAWINGS SHALL BE MAINTAINED ON-SITE AT ALL TIMES IN AN UPDATED CONDITION.
22. ALL PIPE 3" AND OVER SHALL HAVE THRUST BLOCKING AT EACH TURN.
23. ALL AUTOMATIC REMOTE CONTROL VALVES WILL HAVE 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL UNDERNEATH VALVE AND VALVE BOX. GRAVEL SHALL EXTENT 3" BEYOND PERIMETER OF VALVE BOX.
24. THERE SHALL BE 3" MINIMUM SPACE BETWEEN BOTTOM OF VALVE BOX COVER AND TOP OF VALVE STRUCTURE.



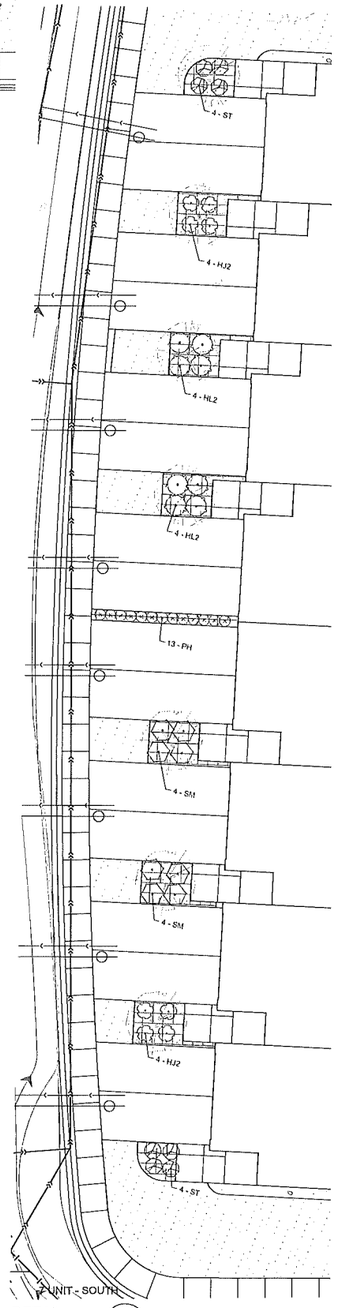
7 UNIT - SOUTHEAST
DETAIL A L1.2
1"=10'



7 UNIT - NORTHWEST
DETAIL B L1.2
1"=10'



7 UNIT - SOUTHWEST
DETAIL C L1.2
1"=10'



7 UNIT - SOUTH
DETAIL D L1.2
1"=10'

Know what's below. Call before you dig.

CivilSite GROUP
4931 W. 35TH ST, SUITE 200
ST. LOUIS PARK, MN 55416
CivilSiteGroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
RADISSON ROAD TOWNHOMES
11967 & 11985 RADISSON RD NE; BLAINE, MN 55449

RON CLARK CONSTRUCTION
7500 WEST 78TH STREET; EDINA, MN 55439

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 LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

JORDAN M. LOCKMAN
DATE 2/2/23 LICENSE NO. 45523

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
1/3/23	PLANNING SUBMITTAL
1/31/23	PLANNING RESUBMITTAL
2/2/23	CITY SUBMITTAL

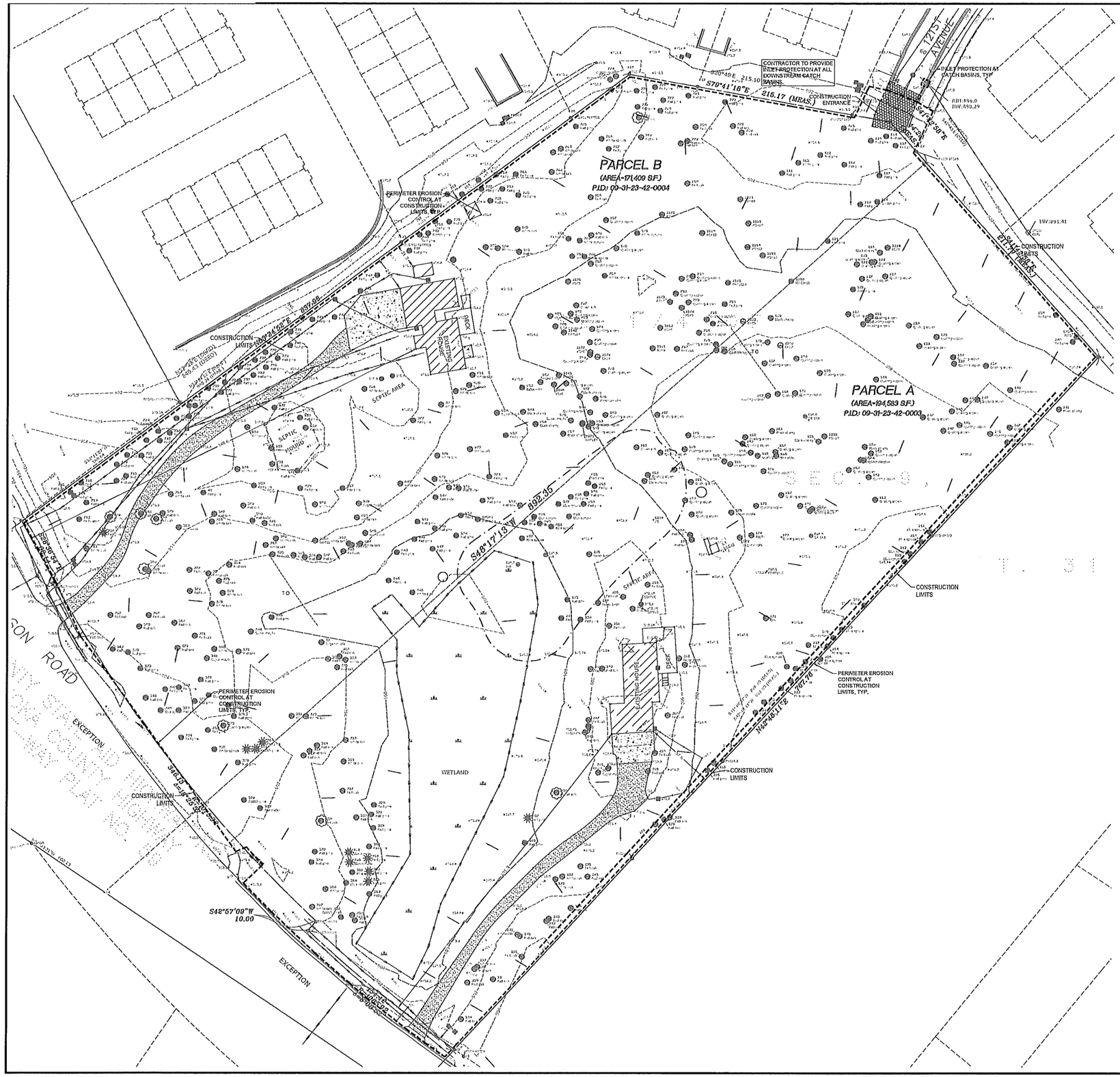
DRAWN BY: AM REVIEWED BY: DK
PROJECT NUMBER: 20352.01

REVISION SUMMARY

DATE	DESCRIPTION

LANDSCAPE PLAN NOTES & DETAILS

L1.2



CITY OF BLAINE EROSION CONTROL NOTES:

1. RESERVED FOR CITY SPECIFIC EROSION CONTROL NOTES.

ALL SPECIFIED EROSION AND SEDIMENT CONTROL PRACTICES, AND MEASURES CONTAINED IN THIS SWPPP ARE THE MINIMUM REQUIREMENTS. ADDITIONAL PRACTICES MAY BE REQUIRED DURING THE COURSE OF CONSTRUCTION.

SWPPP NOTES:

1. THIS PROJECT IS GREATER THAN ONE ACRE AND WILL REQUIRE AN MPCA NPDES PERMIT. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY EROSION CONTROL PERMITS REQUIRED BY THE CITY.

2. SEE SHEETS SW1.0 - SW1.5 FOR ALL EROSION CONTROL NOTES, DESCRIPTIONS, AND PRACTICES.

3. SEE GRADING PLAN FOR ADDITIONAL GRADING AND EROSION CONTROL NOTES.

4. CONTRACTOR IS RESPONSIBLE FOR SWPPP IMPLEMENTATION, INSPECTIONS, AND COMPLIANCE WITH NPDES PERMIT.

LEGEND:

- 1125 — EX. 1' CONTOUR ELEVATION INTERVAL
- 1137 — 1.0' CONTOUR ELEVATION INTERVAL
- DRAINAGE ARROW
- SILT FENCE / BIOROLL - GRADING LIMIT
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE

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1" = 30'-0"

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612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
RADISSON ROAD TOWNHOMES
11957 & 11985 RADISSON RD NE; BLAINE, MN 55449

RON CLARK CONSTRUCTION
7500 WEST 78TH STREET, EDINA, MN 55439

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David J. Knoble
DATE 2/6/23 LICENSE NO. 48776

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/30	WATERSHED SUBMITTAL
1/27	WATERSHED RESUBMITTAL
2/23	CITY SUBMITTAL

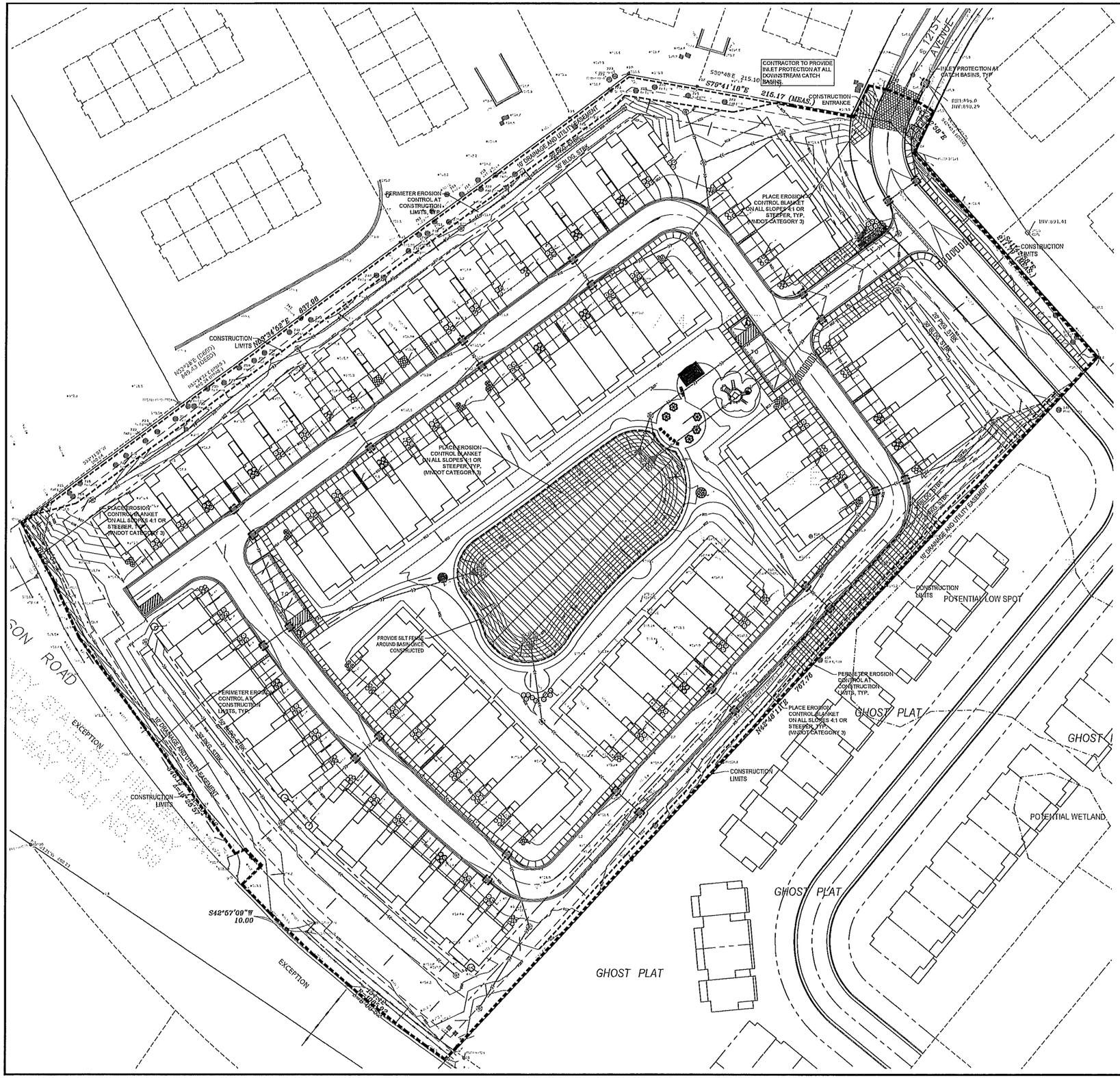
DRAWN BY: AM REVIEWED BY: DK
PROJECT NUMBER: 2022.01

REVISION SUMMARY

DATE	DESCRIPTION

SWPPP - EXISTING CONDITIONS

SW1.0



CITY OF BLAINE EROSION CONTROL NOTES:

1. RESERVED FOR CITY SPECIFIC EROSION CONTROL NOTES.

COON CREEK WATERSHED DISTRICT NOTES:

1. DE-COMPACT ALL PERVIOUS AREAS.

ALL SPECIFIED EROSION AND SEDIMENT CONTROL PRACTICES, AND MEASURES CONTAINED IN THIS SWPPP ARE THE MINIMUM REQUIREMENTS. ADDITIONAL PRACTICES MAY BE REQUIRED DURING THE COURSE OF CONSTRUCTION.

SWPPP NOTES:

1. THIS PROJECT IS GREATER THAN ONE ACRE AND WILL REQUIRE AN MPCA NPDES PERMIT. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY EROSION CONTROL PERMITS REQUIRED BY THE CITY.
2. SEE SHEETS SW1.0 - SW1.5 FOR ALL EROSION CONTROL NOTES, DESCRIPTIONS, AND PRACTICES.
3. SEE GRADING PLAN FOR ADDITIONAL GRADING AND EROSION CONTROL NOTES.
4. CONTRACTOR IS RESPONSIBLE FOR SWPPP IMPLEMENTATION, INSPECTIONS, AND COMPLIANCE WITH NPDES PERMIT.

LEGEND:

- 1125 — EX. 1' CONTOUR ELEVATION INTERVAL
- 1137 — 1.0' CONTOUR ELEVATION INTERVAL
- DRAINAGE ARROW
- SILT FENCE / BIOROLL - GRADING LIMIT
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- EROSION CONTROL BLANKET

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612-615-0060

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David J. Knaeble
DATE 2/9/23 LICENSE NO. 48776

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/21	WATERSHED SUBMITTAL
12/22	WATERSHED RESUBMITTAL
2/9/23	CITY SUBMITTAL

DRAWN BY: AM REVIEWED BY: DK
PROJECT NUMBER: 20352.01

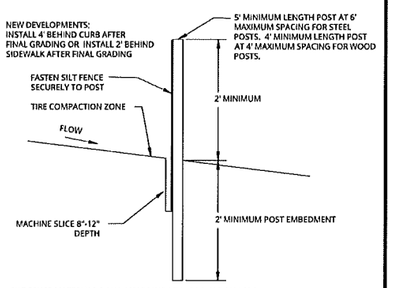
REVISION SUMMARY

DATE	DESCRIPTION

SWPPP - PROPOSED CONDITIONS

SW1.1

- USE PROPER EQUIPMENT SUCH THAT THE SOIL IS SLICED, NOT TURNED OVER.
- GEOTEXTILE FABRIC EMBEDDED 8" TO 12" IN THE SOIL SLIT, LEAVING ABOUT 2' OF FABRIC ABOVE GROUND.
- COMPACT THE SOIL IMMEDIATELY NEXT TO THE GEOTEXTILE BY DRIVING OVER IT WITH A TRACTOR TIRE AT LEAST TWICE.
- STEEL T-POSTS PLACED ON DOWNSTREAM SIDE OF WATER FLOW EMBEDDED AT LEAST 2' INTO THE GROUND. MAXIMUM SPACING 6'. NIPPLES ON POST FACE AWAY FROM THE GEOTEXTILE TO KEEP TIES FROM SLIPPING ON POST.
- FOR STEEL POSTS USE 3 PLASTIC ZIP TIES (50 LB TENSILE) AT LEAST 1" APART TO SECURE THE GEOTEXTILE TO EACH POST WITHIN THE TOP 8".
- FENCE SHALL BE HEAVY DUTY TYPE.
- USE WOOD LATHE AND STAPLES ON FACE OF SILT FENCE TO SECURE TO WOOD POSTS.
- CONTRACTOR SHALL REMOVE FENCE AND POSTS PER SPECIFICATIONS.



SILT FENCE MATERIALS SHALL MEET MNDOT SPECIFICATION 3886
CONTRACTOR SHALL REMOVE FENCE AND POSTS PER SPECIFICATIONS.

MACHINE SLICED
SILT FENCE

Plate No. EC-1

2020 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763 785 6172 Fax 763 785 6139

- USE PROPER EQUIPMENT SUCH THAT THE SOIL IS SLICED, NOT TURNED OVER.
- GEOTEXTILE FABRIC EMBEDDED 8" TO 12" IN THE SOIL SLIT, LEAVING ABOUT 2' OF FABRIC ABOVE GROUND.
- COMPACT THE SOIL IMMEDIATELY NEXT TO THE GEOTEXTILE BY DRIVING OVER IT WITH A TRACTOR TIRE AT LEAST TWICE.
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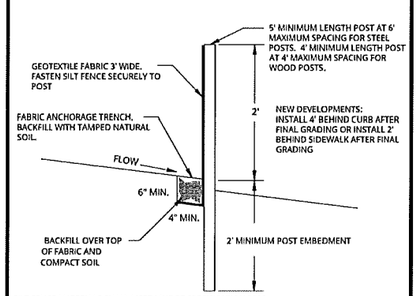
- CONTRACTOR SHALL REMOVE FENCE AND POSTS PER SPECIFICATIONS.

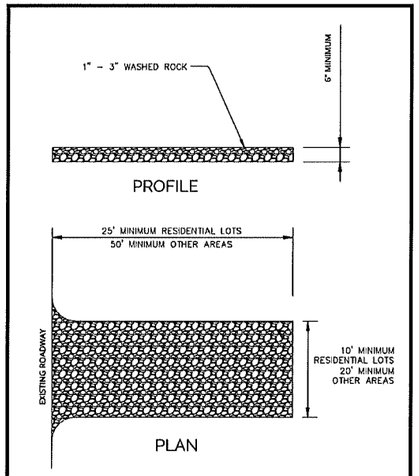


SILT FENCE MATERIALS SHALL MEET MNDOT SPECIFICATION 3886
CONTRACTOR SHALL REMOVE FENCE AND POSTS PER SPECIFICATIONS.

HEAVY DUTY
SILT FENCE

Plate No. EC-2

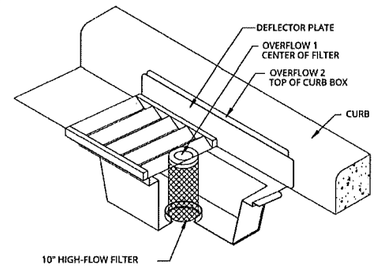
2020 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763 785 6172 Fax 763 785 6139



ROCK CONSTRUCTION
ENTRANCE

Plate No. EC-3

2020 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763 785 6172 Fax 763 785 6139

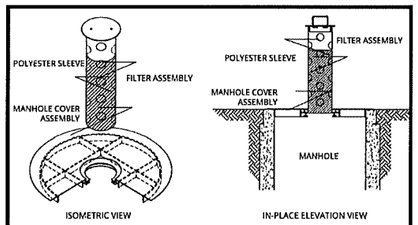


NOTES:
- WIMCO CG MODEL OR APPROVED EQUAL TO MATCH CASTING
- SILT FENCE/FABRIC NOT ALLOWED TO BE USED AS INLET PROTECTION

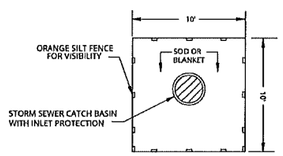
INLET PROTECTION
FOR CURB AND GUTTER

Plate No. EC-4

2020 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763 785 6172 Fax 763 785 6139



WIMCO RD 27 OR OTHER APPROVED DEVICE

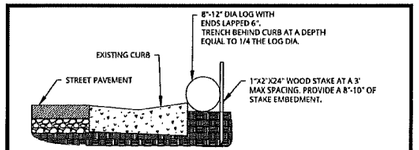


TYPICAL SODDING DETAIL
FOR YARD CATCH BASIN

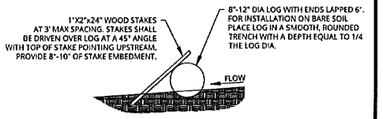
BACK YARD CATCH BASIN
INLET PROTECTION

Plate No. EC-5

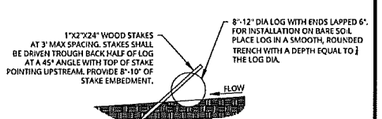
2020 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763 785 6172 Fax 763 785 6139



CURB INSTALLATION



FIELD INSTALLATION USING MULCH OR COMPOST

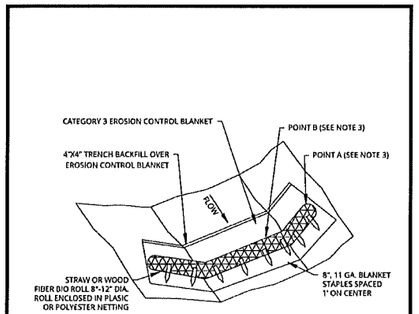


FIELD INSTALLATION USING STRAW OR WOOD FIBER

SEDIMENT CONTROL LOG INSTALLATION

Plate No. EC-8

2020 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763 785 6172 Fax 763 785 6139



NOTES;
1. SEE DETAIL EC-8 FOR BIOROLL STAKE INSTALLATION.
2. APPROXIMATE SPACING OF DITCH CHECH $(FT) = \frac{\text{DITCH CHECK HEIGHT(IFT)}}{\text{\% CHANNEL SLOPE}} \times 100$
3. POINT "A" MUST BE A MINIMUM OF 6 INCHES HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DITCH CHECK AND NOT AROUND THE ENDS..

BIOROLL BLANKET SYSTEM DITCH CHECK

Plate No. EC-9

2020 STANDARD DETAIL PLATE
City of Blaine - Engineering Department
10801 Town Square Drive NE, Blaine, Minnesota 55449 763-785-6172 Fax 763-785-6139

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ST. LOUIS PARK, MN 55416
CivilSiteGroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
RADISSON ROAD TOWNHOMES
11967 & 11985 RADISSON RD NE, BLAINE, MN 55449

RON CLARK CONSTRUCTION
7500 WEST 78TH STREET, EDINA, MN 55439

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David J. Knaeble
DATE 2/5/23 LICENSE NO. 49776

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/22	RESUBMITTAL
12/22	RESUBMITTAL
2/23	CITY SUBMITTAL

DRAWN BY: AH REVIEWED BY: DK
PROJECT NUMBER 20552.01

REVISION SUMMARY

DATE	DESCRIPTION

SWPPP - DETAILS

SW1.2

THE CONTRACTOR AND ALL SUBCONTRACTORS INVOLVED WITH A CONSTRUCTION ACTIVITY THAT DISTURBS SITE SOIL OR WHO IMPLEMENT A POLLUTANT CONTROL MEASURE IDENTIFIED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MUST COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT (DATED AUGUST 1, 2018 # MNR100001) AND ANY LOCAL GOVERNING AGENCY HAVING JURISDICTION CONCERNING EROSION AND SEDIMENTATION CONTROL.

STORMWATER DISCHARGE DESIGN REQUIREMENTS

SWPPP

THE NATURE OF THIS PROJECT WILL BE CONSISTENT WITH WHAT IS REPRESENTED IN THIS SET OF CONSTRUCTION PLANS AND SPECIFICATIONS. SEE THE SWPPP PLAN SHEETS AND SWPPP NARRATIVE (ATTACHMENT A: CONSTRUCTION SWPPP TEMPLATE) FOR ADDITIONAL SITE SPECIFIC SWPPP INFORMATION. THE PLANS SHOW LOCATIONS AND TYPES OF ALL TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMP'S. STANDARD DETAILS ARE ATTACHED TO THIS SWPPP DOCUMENT.

THE INTENDED SEQUENCING OF MAJOR CONSTRUCTION ACTIVITIES IS AS FOLLOWS:
1. INSTALL STABILIZED ROCK CONSTRUCTION ENTRANCE
2. INSTALLATION OF SILT FENCE AROUND SITE
3. INSTALL ORANGE CONSTRUCTION FENCING AROUND INFILTRATION AREAS
4. INSTALL INLET PROTECTION AT ALL ADJACENT AND DOWNSTREAM CATCH BASINS
5. CLEAR AND GRUB FOR TEMPORARY SEDIMENT BASIN / POND INSTALL
6. CONSTRUCT TEMPORARY SEDIMENT BASIN / POND (SECTION 14)
7. CLEAR AND GRUB REMAINDER OF SITE
8. STRIP AND STOCKPILE TOPSOIL
9. ROUGH GRADING OF SITE
10. STABILIZE DENUDED AREAS AND STOCKPILES
11. INSTALL SANITARY SEWER, WATER MAIN STORM SEWER AND SERVICES
12. INSTALL SILT FENCE / INLET PROTECTION AROUND CB'S
13. INSTALL STREET SECTION
14. INSTALL CURB AND GUTTER
15. BITUMINOUS ON STREETS
16. FINAL GRADE BOULEVARD, INSTALL SEED AND MULCH
17. REMOVE ACCUMULATED SEDIMENT FROM BASIN / POND
18. FINAL GRADE POND / INFILTRATION BASINS (DO NOT COMPACT SOILS IN INFILTRATION AREAS.)
19. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED BY EITHER SEED OR SOD/LANDSCAPING, REMOVE SILT FENCE AND RESEED ANY AREAS DISTURBED BY THE REMOVAL.

RECORDS RETENTION:

THE SWPPP (ORIGINAL OR COPIES) INCLUDING, ALL CHANGES TO IT, AND INSPECTIONS AND MAINTENANCE RECORDS MUST BE KEPT AT THE SITE DURING CONSTRUCTION BY THE PERMITTEE WHO HAS OPERATIONAL CONTROL OF THAT PORTION OF THE SITE. THE SWPPP CAN BE KEPT IN EITHER THE FIELD OFFICE OR IN AN ON SITE VEHICLE DURING NORMAL WORKING HOURS.

ALL OWNER(S) MUST KEEP THE SWPPP, ALONG WITH THE FOLLOWING ADDITIONAL RECORDS, ON FILE FOR THREE (3) YEARS AFTER SUBMITTAL OF THE NOT AS OUTLINED IN SECTION 4. THIS DOES NOT INCLUDE ANY RECORDS AFTER SUBMITTAL OF THE NOT.

1. THE FINAL SWPPP,
2. ANY OTHER STORMWATER RELATED PERMITS REQUIRED FOR THE PROJECT;
3. RECORDS OF ALL INSPECTION AND MAINTENANCE CONDUCTED DURING CONSTRUCTION (SEE SECTION 11, INSPECTIONS AND MAINTENANCE);
4. ALL PERMANENT OPERATION AND MAINTENANCE AGREEMENTS THAT HAVE BEEN IMPLEMENTED, INCLUDING ALL RIGHT OF WAY, CONTRACTS, COVENANTS AND OTHER BINDING REQUIREMENTS REGARDING PERPETUAL MAINTENANCE, AND
5. ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORMWATER MANAGEMENT SYSTEMS.

SWPPP IMPLEMENTATION RESPONSIBILITIES:

1. THE OWNER AND CONTRACTOR ARE PERMITTEE(S) AS IDENTIFIED BY THE NPDES PERMIT.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE IMPLEMENTATION OF THE SWPPP, INCLUDING THE ACTIVITIES OF ALL OF THE CONTRACTOR'S SUBCONTRACTORS.
3. CONTRACTOR SHALL PROVIDE A PERSON(S) KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPS TO OVERSEE ALL INSTALLATION AND MAINTENANCE OF BMPS AND IMPLEMENTATION OF THE SWPPP.
4. CONTRACTOR SHALL PROVIDE PERSON(S) MEETING THE TRAINING REQUIREMENTS OF THE NPDES PERMIT TO CONDUCT INSPECTION AND MAINTENANCE OF ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMIT. ONE OF THESE INDIVIDUAL(S) MUST BE AVAILABLE FOR AN ONSITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY MPCA. CONTRACTOR SHALL PROVIDE TRAINING DOCUMENTATION FOR THESE INDIVIDUAL(S) AS REQUIRED BY THE NPDES PERMIT. THIS TRAINING DOCUMENTATION SHALL BE RECORDED IN OR WITH THE SWPPP BEFORE THE START OF CONSTRUCTION OR AS SOON AS THE PERSONNEL FOR THE PROJECT HAVE BEEN DETERMINED. DOCUMENTATION SHALL INCLUDE:
   - 4.1. NAMES OF THE PERSONNEL ASSOCIATED WITH THE PROJECT THAT ARE REQUIRED TO BE TRAINED PER SECTION 21 OF THE PERMIT.
   - 4.2. DATES OF TRAINING AND NAME OF INSTRUCTOR AND ENTITY PROVIDING TRAINING.
   - 4.3. CONTENT OF TRAINING COURSE OR WORKSHOP INCLUDING THE NUMBER OF HOURS OF TRAINING.
5. FOLLOWING FINAL STABILIZATION AND THE TERMINATION OF COVERAGE FOR THE NPDES PERMIT, THE OWNER IS EXPECTED TO FURNISH LONG TERM OPERATION AND MAINTENANCE (O & M) OF THE PERMANENT STORM WATER MANAGEMENT SYSTEM.

CONSTRUCTION ACTIVITY REQUIREMENTS

SWPPP AMENDMENTS (SECTION 6):

1. ONE OF THE INDIVIDUALS DESCRIBED IN ITEM 21.2.A OR ITEM 21.2.B OR ANOTHER QUALIFIED INDIVIDUAL MUST COMPLETE ALL SWPPP CHANGES. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS.
2. PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPS AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER.
3. PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPS AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER OR OPERATOR, USEPA OR MPCA OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER OR THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCES (E.G., NUISANCE CONDITIONS AS DEFINED IN MINN. R. 7050.0210, SUBP. 2) OR THE SWPPP IS NOT CONSISTENT WITH THE OBJECTIVES OF A USEPA APPROVED TMDL.

BMP SELECTION AND INSTALLATION (SECTION 7):

1. PERMITTEES MUST SELECT, INSTALL, AND MAINTAIN THE BMPS IDENTIFIED IN THE SWPPP AND IN THIS PERMIT IN AN APPROPRIATE AND FUNCTIONAL MANNER AND IN ACCORDANCE WITH RELEVANT MANUFACTURER SPECIFICATIONS AND ACCEPTED ENGINEERING PRACTICES.

EROSION PREVENTION (SECTION 8):

1. BEFORE WORK BEGINS, PERMITTEES MUST DELINEATE THE LOCATION OF AREAS NOT TO BE DISTURBED.
2. PERMITTEES MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES. WHEN STEEP SLOPES MUST BE DISTURBED, PERMITTEES MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES (E.G., SLOPE DRAINING AND TERRACING).
3. PERMITTEES MUST STABILIZE ALL EXPOSED SOIL AREAS, INCLUDING STOCKPILES. STABILIZATION MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHEN CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 14 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY HAS CEASED. STABILIZATION IS NOT REQUIRED ON CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS AND SIMILAR SURFACES. STABILIZATION IS NOT REQUIRED ON TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) BUT PERMITTEES MUST PROVIDE SEDIMENT CONTROLS AT THE BASE OF THE STOCKPILE.
4. FOR PUBLIC WATERS THAT THE MINNESOTA DNR HAS PROMULGATED "WORK IN WATER RESTRICTIONS" DURING SPECIFIED FISH SPAWNING TIME FRAMES, PERMITTEES MUST COMPLETE STABILIZATION OF ALL EXPOSED SOIL AREAS WITHIN 200 FEET OF THE WATER'S EDGE, AND THAT DRAIN TO THESE WATERS, WITHIN 24 HOURS DURING THE RESTRICTION PERIOD.
5. PERMITTEES MUST STABILIZE THE NORMAL WETTED PERIMETER OF THE LAST 200 LINEAR FEET OF TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES THAT DRAIN WATER FROM THE SITE WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE. PERMITTEES MUST COMPLETE STABILIZATION OF REMAINING PORTIONS OF TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 14 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH TEMPORARILY OR PERMANENTLY CEASES.
6. TEMPORARY OR PERMANENT DITCHES OR SWALES BEING USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION (WITH PROPERLY DESIGNED ROCK-DITCH CHECKS, BIO ROLLS, SILT DIKES, ETC.) DO NOT NEED TO BE STABILIZED. PERMITTEES MUST STABILIZE THESE AREAS WITHIN 24 HOURS AFTER THEIR USE AS A SEDIMENT CONTAINMENT SYSTEM CEASES
7. PERMITTEES MUST NOT USE MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION PREVENTION PRACTICES WITHIN ANY PORTION OF THE NORMAL WETTED PERIMETER OF A TEMPORARY OR PERMANENT DRAINAGE DITCH OR SWALE SECTION WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT.
8. PERMITTEES MUST PROVIDE TEMPORARY OR PERMANENT ENERGY DISSIPATION AT ALL PIPE OUTLETS WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER OR PERMANENT STORMWATER TREATMENT SYSTEM.
9. PERMITTEES MUST NOT DISTURB MORE LAND (I.E., PHASING) THAN CAN BE EFFECTIVELY INSPECTED AND MAINTAINED IN ACCORDANCE WITH SECTION 11.

SEDIMENT CONTROL (SECTION 9):

1. PERMITTEES MUST ESTABLISH SEDIMENT CONTROL BMPS ON ALL DOWNGRADIENT PERIMETERS OF THE SITE AND DOWNGRADIENT AREAS OF THE SITE THAT DRAIN TO ANY SURFACE WATER, INCLUDING CURB AND GUTTER SYSTEMS. PERMITTEES MUST LOCATE SEDIMENT CONTROL PRACTICES UPGRADIENT OF ANY BUFFER ZONES. PERMITTEES MUST INSTALL SEDIMENT CONTROL PRACTICES BEFORE ANY UPGRADIENT LAND-DISTURBING ACTIVITIES BEGIN AND MUST KEEP THE SEDIMENT CONTROL PRACTICES IN PLACE UNTIL THEY ESTABLISH PERMANENT COVER.
2. IF DOWNGRADIENT SEDIMENT CONTROLS ARE OVERLOADED, BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENTS, PERMITTEES MUST INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPS TO ELIMINATE THE OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES AS REQUIRED IN ITEM 6.3.
3. TEMPORARY OR PERMANENT DRAINAGE DITCHES AND SEDIMENT BASINS DESIGNED AS PART OF A SEDIMENT CONTAINMENT SYSTEM (E.G., DITCHES WITH ROCK-CHECK DAMS) REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR SITE CONDITIONS.
4. A FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP TO SATISFY ITEM 9.2 EXCEPT WHEN WORKING ON A SHORELINE OR BELOW THE WATERLINE. IMMEDIATELY AFTER THE SHORT TERM CONSTRUCTION ACTIVITY (E.G., INSTALLATION OF RIP RAP ALONG THE SHORELINE) IN THAT AREA IS COMPLETE, PERMITTEES MUST INSTALL AN UPLAND PERIMETER CONTROL PRACTICE IF EXPOSED SOILS STILL DRAIN TO A SURFACE WATER.
5. PERMITTEES MUST RE-INSTALL ALL SEDIMENT CONTROL PRACTICES ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES, IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY IS COMPLETED. PERMITTEES MUST RE-INSTALL SEDIMENT CONTROL PRACTICES BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.
6. PERMITTEES MUST PROTECT ALL STORM DRAIN INLETS USING APPROPRIATE BMPS DURING CONSTRUCTION UNTIL THEY ESTABLISH PERMANENT COVER ON ALL AREAS WITH POTENTIAL FOR DISCHARGING TO THE INLET.
7. PERMITTEES MAY REMOVE INLET PROTECTION FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (E.G. STREET FLOODING/FREEZING) IS IDENTIFIED BY THE PERMITTEES OR THE JURISDICTIONAL AUTHORITY (E.G., CITY/COUNTY/TOWNSHIP/MINNESOTA DEPARTMENT OF TRANSPORTATION ENGINEER). PERMITTEES MUST DOCUMENT THE NEED FOR REMOVAL IN THE SWPPP.
8. PERMITTEES MUST PROVIDE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AT THE BASE OF STOCKPILES ON THE DOWNGRADIENT PERIMETER.
9. PERMITTEES MUST LOCATE STOCKPILES OUTSIDE OF NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER.
10. PERMITTEES MUST INSTALL A VEHICLE TRACKING BMP TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE OR ONTO PAVED ROADS WITHIN THE SITE.
11. PERMITTEES MUST USE STREET SWEEPING IF VEHICLE TRACKING BMPS ARE NOT ADEQUATE TO PREVENT SEDIMENT TRACKING ONTO THE STREET.
12. PERMITTEES MUST INSTALL TEMPORARY SEDIMENT BASINS AS REQUIRED IN SECTION 14.
13. IN ANY AREAS OF THE SITE WHERE FINAL VEGETATIVE STABILIZATION WILL OCCUR, PERMITTEES MUST RESTRICT VEHICLE AND EQUIPMENT USE TO MINIMIZE SOIL COMPACTION.
14. PERMITTEES MUST PRESERVE TOPSOIL ON THE SITE, UNLESS INFEASIBLE.
15. PERMITTEES MUST DIRECT DISCHARGES FROM BMPS TO VEGETATED AREAS UNLESS INFEASIBLE.
16. PERMITTEES MUST PRESERVE A 50 FOOT NATURAL BUFFER OR, IF A BUFFER IS INFEASIBLE ON THE SITE, PROVIDE REDUNDANT (DOUBLE) PERIMETER SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER. PERMITTEES MUST INSTALL PERIMETER SEDIMENT CONTROLS AT LEAST 5 FEET APART UNLESS LIMITED BY LACK OF AVAILABLE SPACE. NATURAL BUFFERS ARE NOT REQUIRED ADJACENT TO ROAD DITCHES, JUDICIAL DITCHES, COUNTY DITCHES, STORMWATER CONVEYANCE CHANNELS, STORM DRAIN INLETS, AND SEDIMENT BASINS. IF PRESERVING THE BUFFER IS INFEASIBLE, PERMITTEES MUST DOCUMENT THE REASONS IN THE SWPPP. SHEET PILING IS A REDUNDANT PERIMETER CONTROL IF INSTALLED IN A MANNER THAT RETAINS ALL STORMWATER.
17. PERMITTEES MUST USE POLYMERS, FLOCCULANTS, OR OTHER SEDIMENTATION TREATMENT CHEMICALS IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES, DOSING SPECIFICATIONS AND SEDIMENT REMOVAL DESIGN SPECIFICATIONS PROVIDED BY THE MANUFACTURER OR SUPPLIER. THE PERMITTEES MUST USE CONVENTIONAL EROSION AND SEDIMENT CONTROLS PRIOR TO CHEMICAL ADDITION AND MUST DIRECT TREATED STORMWATER TO A SEDIMENT CONTROL SYSTEM FOR FILTRATION OR SETTLEMENT OF THE FLOC PRIOR TO DISCHARGE.

DEWATERING AND BASIN DRAINING (SECTION 10):

1. PERMITTEES MUST DISCHARGE TURBID OR SEDIMENT-LADEN WATERS RELATED TO DEWATERING OR BASIN DRAINING (E.G., PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENT BASIN ON THE PROJECT SITE UNLESS INFEASIBLE. PERMITTEES MAY DEWATER TO SURFACE WATERS IF THEY VISUALLY CHECK TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED AND NUISANCE CONDITIONS (SEE MINN. R. 7050.0210, SUBP. 2) WILL NOT RESULT FROM THE DISCHARGE. IF PERMITTEES CANNOT DISCHARGE THE WATER TO A SEDIMENTATION BASIN PRIOR TO ENTERING A SURFACE WATER, PERMITTEES MUST TREAT IT WITH APPROPRIATE BMPS SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE SURFACE WATER OR DOWNSTREAM PROPERTIES.
2. IF PERMITTEES MUST DISCHARGE WATER CONTAINING OIL OR GREASE, THEY MUST USE AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE (E.G., CARTRIDGE FILTERS, ABSORBENTS PADS) PRIOR TO DISCHARGE.
3. PERMITTEES MUST DISCHARGE ALL WATER FROM DEWATERING OR BASIN-DRAINING ACTIVITIES IN A MANNER THAT DOES NOT CAUSE EROSION OR SCOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS OR INUNDATION OF WETLANDS IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS THAT CAUSES SIGNIFICANT ADVERSE IMPACT TO THE WETLAND.
4. IF PERMITTEES USE FILTERS WITH BACKWASH WATER, THEY MUST HAUL THE BACKWASH WATER AWAY FOR DISPOSAL, RETURN THE BACKWASH WATER TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION.

INSPECTIONS AND MAINTENANCE (SECTION 11):

1. PERMITTEES MUST ENSURE A TRAINED PERSON, AS IDENTIFIED IN ITEM 21.2.B, WILL INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 1/2 INCH IN 24 HOURS.
2. PERMITTEES MUST INSPECT AND MAINTAIN ALL PERMANENT STORMWATER TREATMENT BMPS.
3. PERMITTEES MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS AND POLLUTION PREVENTION MANAGEMENT MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS. PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL NONFUNCTIONAL BMPS WITH FUNCTIONAL BMPS BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY UNLESS ANOTHER TIME FRAME IS SPECIFIED IN ITEM 11.5 OR 11.6. PERMITTEES MAY TAKE ADDITIONAL TIME IF FIELD CONDITIONS PREVENT ACCESS TO THE AREA.
4. DURING EACH INSPECTION, PERMITTEES MUST INSPECT SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS BUT NOT CURB AND GUTTER SYSTEMS, FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. PERMITTEES MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. PERMITTEES MUST COMPLETE REMOVAL AND STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. PERMITTEES MUST USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS. IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF OBTAINING ACCESS. PERMITTEES ARE RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS.
5. PERMITTEES MUST INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS, STREETS AND CURB AND GUTTER SYSTEMS WITHIN AND ADJACENT TO THE PROJECT FOR SEDIMENTATION FROM EROSION OR TRACKED SEDIMENT FROM VEHICLES. PERMITTEES MUST REMOVE SEDIMENT FROM ALL PAVED SURFACES WITHIN ONE (1) CALENDAR DAY OF DISCOVERY OR, IF APPLICABLE, WITHIN A SHORTER TIME TO AVOID A SAFETY HAZARD TO USERS OF PUBLIC STREETS.
6. PERMITTEES MUST REPAIR, REPLACE OR SUPPLEMENT ALL PERIMETER CONTROL DEVICES WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE.
7. PERMITTEES MUST DRAIN TEMPORARY AND PERMANENT SEDIMENTATION BASINS AND REMOVE THE SEDIMENT WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME.
8. PERMITTEES MUST ENSURE THAT AT LEAST ONE INDIVIDUAL PRESENT ON THE SITE (OR AVAILABLE TO THE PROJECT SITE IN THREE (3) CALENDAR DAYS) IS TRAINED IN THE JOB DUTIES DESCRIBED IN ITEM 21.2.B.
9. PERMITTEES MAY ADJUST THE INSPECTION SCHEDULE DESCRIBED IN ITEM 11.2 AS FOLLOWS:
   - a. INSPECTIONS OF AREAS WITH PERMANENT COVER CAN BE REDUCED TO ONCE PER MONTH, EVEN IF CONSTRUCTION ACTIVITY CONTINUES ON OTHER PORTIONS OF THE SITE; OR
   - b. WHERE SITES HAVE PERMANENT COVER ON ALL EXPOSED SOIL AND NO CONSTRUCTION ACTIVITY IS OCCURRING ANYWHERE ON THE SITE, INSPECTIONS CAN BE REDUCED TO ONCE PER MONTH AND, AFTER 12 MONTHS, MAY BE SUSPENDED COMPLETELY UNTIL CONSTRUCTION ACTIVITY RESUMES. THE MPCA MAY REQUIRE INSPECTIONS TO RESUME IF CONDITIONS WARRANT; OR
   - c. WHERE CONSTRUCTION ACTIVITY HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, INSPECTIONS MAY BE SUSPENDED. INSPECTIONS MUST RESUME WITHIN 24 HOURS OF RUNOFF OCCURRING, OR UPON RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.
10. PERMITTEES MUST RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES WITHIN 24 HOURS OF BEING CONDUCTED AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP. THESE RECORDS MUST INCLUDE:
   - a. DATE AND TIME OF INSPECTIONS, AND
   - b. NAME OF PERSONS CONDUCTING INSPECTIONS; AND
   - c. ACCURATE FINDINGS OF INSPECTIONS, INCLUDING THE SPECIFIC LOCATION WHERE CORRECTIVE ACTIONS ARE NEEDED, AND
   - d. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES), AND
   - e. DATE OF ALL RAINFALL EVENTS GREATER THAN 1/2 INCHES IN 24 HOURS, AND THE AMOUNT OF RAINFALL FOR EACH EVENT. PERMITTEES MUST OBTAIN RAINFALL AMOUNTS BY EITHER A PROPERLY MAINTAINED RAIN GAUGE INSTALLED ONSITE, A WEATHER STATION THAT IS WITHIN ONE (1) MILE OF YOUR LOCATION, OR A WEATHER REPORTING SYSTEM THAT PROVIDES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES, AND
   - f. IF PERMITTEES OBSERVE A DISCHARGE DURING THE INSPECTION, THEY MUST RECORD AND SHOULD PHOTOGRAPH AND DESCRIBE THE LOCATION OF THE DISCHARGE (I.E., COLOR, ODOR, SETTLED OR SUSPENDED SOLIDS, OIL SHEEN, AND OTHER OBVIOUS INDICATORS OF POLLUTANTS) AND
   - g. ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION MUST BE DOCUMENTED AS REQUIRED IN SECTION 6 WITHIN SEVEN (7) CALENDAR DAYS.

POLLUTION PREVENTION MANAGEMENT (SECTION 12):

1. PERMITTEES MUST PLACE BUILDING PRODUCTS AND LANDSCAPE MATERIALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER. PERMITTEES ARE NOT REQUIRED TO COVER OR PROTECT PRODUCTS WHICH ARE EITHER NOT A SOURCE OF CONTAMINATION TO STORMWATER OR ARE DESIGNED TO BE EXPOSED TO STORMWATER.
2. PERMITTEES MUST PLACE PESTICIDES, FERTILIZERS AND TREATMENT CHEMICALS UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) OR PROTECT THEM BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER.
3. PERMITTEES MUST STORE HAZARDOUS MATERIALS AND TOXIC WASTE, (INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE.
4. PERMITTEES MUST PROPERLY STORE, COLLECT AND DISPOSE SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035.
5. PERMITTEES MUST POSITION PORTABLE TOILETS SO THEY ARE SECURE AND WILL NOT TIP OR BE KNOCKED OVER. PERMITTEES MUST PROPERLY DISPOSE SANITARY WASTE IN ACCORDANCE WITH MINN. R. CH. 7041.
6. PERMITTEES MUST TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE. PERMITTEES MUST ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND THAT AN APPROPRIATE DISPOSAL METHOD IS AVAILABLE FOR RECOVERED SPILLED MATERIALS. PERMITTEES MUST REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. 115.061, USING DRY CLEAN UP MEASURES WHERE POSSIBLE.
7. PERMITTEES MUST LIMIT VEHICLE EXTERIOR WASHING AND EQUIPMENT TO A DEFINED AREA OF THE SITE. PERMITTEES MUST CONTAIN RUNOFF FROM THE WASHING AREA IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND MUST DISPOSE WASTE FROM THE WASHING ACTIVITY PROPERLY. PERMITTEES MUST PROPERLY USE AND STORE SOAPS, DETERGENTS, OR SOLVENTS.
8. PERMITTEES MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (E.G., CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO THE CONSTRUCTION ACTIVITY. PERMITTEES MUST PREVENT LIQUID AND SOLID WASHOUT WASTES FROM CONTACTING THE GROUND AND MUST DESIGN THE CONTAINMENT SO IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. PERMITTEES MUST PROPERLY DISPOSE LIQUID AND SOLID WASTES IN COMPLIANCE WITH MPCA RULES. PERMITTEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY.

PERMIT TERMINATION (SECTION 4 AND SECTION 13):

1. PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER ALL TERMINATION CONDITIONS LISTED IN SECTION 13 ARE COMPLETE.
2. PERMITTEES MUST SUBMIT A NOT WITHIN 30 DAYS AFTER SELLING OR OTHERWISE LEGALLY TRANSFERRING THE ENTIRE SITE, INCLUDING PERMIT RESPONSIBILITY FOR ROADS (E.G., STREET SWEEPING) AND STORMWATER INFRASTRUCTURE FINAL CLEAN OUT, OR TRANSFERRING PORTIONS OF A SITE TO ANOTHER PARTY. THE PERMITTEES' COVERAGE UNDER THIS PERMIT TERMINATES AT MIDNIGHT ON THE SUBMISSION DATE OF THE NOT.
3. PERMITTEES MUST COMPLETE ALL CONSTRUCTION ACTIVITY AND MUST INSTALL PERMANENT COVER OVER ALL AREAS PRIOR TO SUBMITTING THE NOT. VEGETATIVE COVER MUST CONSIST OF A UNIFORM PERENNIAL VEGETATION WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH. VEGETATION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA DICTATES NO VEGETATION, SUCH AS IMPERVIOUS SURFACES OR THE BASE OF A SAND FILTER.
4. PERMITTEES MUST CLEAN THE PERMANENT STORMWATER TREATMENT SYSTEM OF ANY ACCUMULATED SEDIMENT AND MUST ENSURE THE SYSTEM MEETS ALL APPLICABLE REQUIREMENTS IN SECTION 15 THROUGH 19 AND IS OPERATING AS DESIGNED.
5. PERMITTEES MUST REMOVE ALL SEDIMENT FROM CONVEYANCE SYSTEMS PRIOR TO SUBMITTING THE NOT.
6. PERMITTEES MUST REMOVE ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPS PRIOR TO SUBMITTING THE NOT. PERMITTEES MAY LEAVE BMPS DESIGNED TO DECOMPOSE ON-SITE IN PLACE.
7. FOR RESIDENTIAL CONSTRUCTION ONLY, PERMIT COVERAGE TERMINATES ON INDIVIDUAL LOTS IF THE STRUCTURES ARE FINISHED AND TEMPORARY EROSION PREVENTION AND DOWNGRADIENT PERIMETER CONTROL IS COMPLETE, THE RESIDENCE SELLS TO THE HOMEOWNER, AND THE PERMITTEE DISTRIBUTES THE MPCA'S "HOMEOWNER FACT SHEET" TO THE HOMEOWNER.
8. FOR CONSTRUCTION PROJECTS ON AGRICULTURAL LAND (E.G., PIPELINES ACROSS CROPLAND) PERMITTEES MUST RETURN THE DISTURBED LAND TO ITS PRECONSTRUCTION AGRICULTURAL USE PRIOR TO SUBMITTING THE NOT.

SEED NOTES:

ALL SEED MIXES AND APPLICATION SHALL BE IN ACCORDANCE WITH THE MNDOT SEEDING MANUAL.

GENERAL RECOMMENDATIONS:
THE CONTRACTOR IS RESPONSIBLE TO SALVAGE AND PRESERVE EXISTING TOPSOIL NECESSARY FOR FINAL STABILIZATION AND TO ALSO MINIMIZE COMPACTION IN ALL LANDSCAPE AREAS. IMMEDIATELY BEFORE SEEDING THE SOIL SHALL BE TILLED TO A MINIMUM DEPTH OF 3 INCHES.

TEMPORARY EROSION CONTROL SEEDING, MULCHING & BLANKET.

SEED
- TEMPORARY SEED SHALL BE MNDOT SEED MIX 21-112 (WINTER WHEAT COVER CROP) FOR WINTER AND 21-111 (OATS COVER CROP) FOR SPRING/SUMMER APPLICATIONS. BOTH SEED MIXES SHALL BE APPLIED AT A SEEDING RATE OF 100 LBS/ACRE.

MULCH
- IMMEDIATELY AFTER SEEDING, WITHIN 24 HOURS, MNDOT TYPE 1 MULCH SHOULD BE APPLIED TO PROTECT AND ENHANCE SEED GERMINATION. MULCH SHALL BE APPLIED AT 90% COVERAGE (2 TONS PER ACRE OF STRAW MULCH)

SLOPES
- 3:1 (HORIZ/VERT.) OR FLATTER MUCH SHALL BE COVERED WITH MULCH
- SLOPES STEEPER THAN 3:1 OR DITCH BOTTOMS SHALL BE COVERED WITH EROSION CONTROL BLANKET.
- SEE PLAN FOR MORE DETAILED DITCH AND STEEP SLOPE EROSION CONTROL TREATMENTS.

TRAINING SECTION 21

DESIGN ENGINEER: DAVID J. KNAEBLE P.E.
TRAINING COURSE: DESIGN OF SWPPP
TRAINING ENTITY: UNIVERSITY OF MINNESOTA
INSTRUCTOR: JOHN CHAPMAN
DATES OF TRAINING COURSE: 8/22/2012- 8/23/2012
TOTAL TRAINING HOURS: 12
DATE OF RECERTIFICATION: 4/22/22
EXPIRATION: 5/31/2025

OWNER INFORMATION

OWNER:
RON CLARK CONSTRUCTION
7500 WEST 78TH STREET
EDINA, MN 55439
CONTACT: MIKE WALDO
MWALDO@RONCLARK.COM
952-947-3037

AREAS AND QUANTITIES:

SITE AREA CALCULATIONS	EXISTING CONDITION		PROPOSED CONDITION	
BUILDING COVERAGE	6,261 SF	1.7%	89,961 SF	24.6%
ALL PAVEMENTS (SITE)	9,552 SF	2.6%	104,571 SF	28.5%
ALL PAVEMENTS (ROW)	0 SF	0.0%	8,415 SF	2.3%
ALL NON-PAVEMENTS	350,557 SF	95.7%	163,423 SF	44.6%
TOTAL SITE AREA	366,370 SF	100.0%	366,370 SF	100.0%

IMPERVIOUS SURFACE		
EXISTING CONDITION	15,813 SF	4.3%
PROPOSED CONDITION	202,947 SF	55.4%
DIFFERENCE (EX. VS PROP.)	187,134 SF	51.1%

EROSION CONTROL QUANTITIES	
DISTURBED AREA	369,917 SF
SILT FENCE/BIO-ROLL	±3,680 LF
EROSION CONTROL BLANKET	28,880 SF
INLET PROTECTION DEVICES	27 EA

NOTE: QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY, CONTRACTOR SHALL DETERMINE FOR THEMSELVES THE EXACT QUANTITIES FOR BIDDING AND CONSTRUCTION.

SWPPP CONTACT PERSON

CONTRACTOR:

SWPPP INSPECTOR TRAINING:
ALL SWPPP INSPECTIONS MUST BE PERFORMED BY A PERSON THAT MEETS THE TRAINING REQUIREMENTS OF THE NPDES CONSTRUCTION SITE PERMIT.
TRAINING CREDENTIALS SHALL BE PROVIDED BY THE CONTRACTOR AND KEPT ON SITE WITH THE SWPPP

PARTY RESPONSIBLE FOR LONG TERM OPERATION AND MAINTENANCE OF PERMANENT STORM WATER MANAGEMENT SYSTEM

PERMANENT STORMWATER MANAGEMENT IS REQUIRED AS PART OF THIS PROJECT TO MEET NPDES PERMIT REQUIREMENTS. THE PROPERTY OWNER IS RESPONSIBLE FOR THE LONG TERM OPERATION AND MAINTENANCE OF THE PROPOSED STORMWATER SYSTEM.

SWPPP ATTACHMENTS (ONLY APPLICABLE IF SITE IS 1 ACRE OR GREATER):

CONTRACTOR SHALL OBTAIN A COPY OF THE FOLLOWING SWPPP ATTACHMENTS WHICH ARE A PART OF THE OVERALL SWPPP PACKAGE:
ATTACHMENT A. CONSTRUCTION SWPPP TEMPLATE - SITE SPECIFIC SWPPP DOCUMENT
ATTACHMENT B. CONSTRUCTION STORMWATER INSPECTION CHECKLIST
ATTACHMENT C. MAINTENANCE PLAN FOR PERMANENT STORM WATER TREATMENT SYSTEMS
ATTACHMENT D: STORMWATER MANAGEMENT REPORT - ON FILE AT THE OFFICE OF PROJECT ENGINEER. AVAILABLE UPON REQUEST.
ATTACHMENT E. GEOTECHNICAL EVALUATION REPORT - ON FILE AT THE OFFICE OF PROJECT ENGINEER. AVAILABLE UPON REQUEST.

SUPPLEMENTARY SITE SPECIFIC EROSION CONTROL NOTES:

THESE NOTES SUPERCEDE ANY GENERAL SWPPP NOTES.

THIS PROJECT IS GREATER THAN 1.0 ACRES SO AN NPDES PERMIT IS REQUIRED AND NEEDS TO BE SUBMITTED TO THE MPCA. THE CONTRACTOR IS REQUIRED TO FOLLOW THE GUIDELINES IN THE NPDES PERMIT THROUGHOUT CONSTRUCTION.

PROJECT NARRATIVE:

PROJECT IS A REDEVELOPMENT OF TWO LOTS BEING COMBINED INTO ONE TO BUILD AN APARTMENT BUILDING. SITE AND LANDSCAPE IMPROVEMENTS WILL OCCUR.

NATIVE BUFFER NARRATIVE:

PRESERVING A 50' NATURAL BUFFER AROUND WATER BODIES IS NOT REQUIRED AS PART OF THIS PROJECT BECAUSE WATER BODIES ARE NOT LOCATED ON SITE.

INFILTRATION NARRATIVE:

INFILTRATION IS NOT PROVIDED AS PART OF THE PROJECT'S PERMANENT STORM WATER MANAGEMENT SYSTEM DUE TO THE PRESENCE OF HIGH GROUND WATER. FILTRATION WILL BE PROVIDED IN LIEU OF INFILTRATION.

SOIL CONTAMINATION NARRATIVE:

SOILS ONSITE HAVE NOT BEEN IDENTIFIED AS CONTAMINATED. AN MPCA SOILS ASSESSMENT WAS COMPLETED AND IT WAS DETERMINED THAT THIS SITE IS APPROPRIATE FOR INFILTRATION.

SPECIAL TMDL BMP REQUIREMENTS SITE SPECIFIC (IF REQUIRED):

THIS PROJECT IS WITHIN ONE MILE OF AND DISCHARGES TO SUNRISE LAKE. THIS WATER IS NOT IDENTIFIED AS AN IMPAIRED WATER ON THE MPCA'S 303(D) IMPAIRED WATERS LIST.

1. DURING CONSTRUCTION:
   A. STABILIZATION OF ALL EXPOSED SOIL AREAS MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION BUT IN NO CASE COMPLETED LATER THAN SEVEN (7) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
   B. TEMPORARY SEDIMENT BASIN REQUIREMENTS DESCRIBED IN SECTION 14, MUST BE USED FOR COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH FIVE (5) OR MORE ACRES DISTURBED AT ONE TIME.

PERMANENT STABILIZATION NOTES SITE SPECIFIC:

PERMANENT SEED MIX
- FOR THIS PROJECT ALL AREAS THAT ARE NOT TO BE SODDED OR LANDSCAPED SHALL RECEIVE A NATIVE PERMANENT SEED MIX.
  - •• AREAS IN BUFFERS AND ADJACENT TO OR IN WET AREAS MNDOT SEED MIX 33-261 (STORMWATER SOUTH AND WEST) AT 35 LBS PER ACRE.
  - •• DRY AREAS MNDOT SEED MIX 35-221 (DRY PRAIRIE GENERAL) AT 40 LBS PER ACRE.
- MAINTENANCE SHALL BE IN ACCORDANCE TO THE MNDOT SEEDING MANUAL.

CivilSite GROUP
4931 W. 35TH ST, SUITE 200
ST. LOUIS PARK, MN 55416
CivilSiteGroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
RADISSON ROAD TOWNHOMES
11967 & 11985 RADISSON RD NE; BLAINE, MN 55449

RON CLARK CONSTRUCTION
7500 WEST 78TH STREET, EDINA, MN 55439

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.

David J. Knaeble
DATE 2/9/23 LICENSE NO. 48776

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/6/22	WATERSHED SUBMITTAL
1/10/23	WATERSHED RESUBMITTAL
2/9/23	CITY SUBMITTAL

DRAWN BY: AM REVIEWED BY: DK
PROJECT NUMBER: 20352.01

REVISION SUMMARY

DATE	DESCRIPTION

SWPPP - NARRATIVE

SW1.3

ATTACHMENT A: SITE SPECIFIC SWPPP DOCUMENT

PROJECT NAME APPLEWOOD OF BLAINE
PROJECT LOCATION (BRIEFLY DESCRIBE WHERE CONSTRUCTION ACTIVITY OCCURS. INCLUDE ADDRESS IF AVAILABLE.)
ADDRESS 11967 & 11985 RADISSON RD NE
CITY OR TOWNSHIP BLAINE
STATE MN
ZIP CODE 55449
LATITUDE/LONGITUDE OF APPROXIMATE CENTROID OF PROJECT 45.18812 N, -93.21259 E
METHOD OF LAT/LONG COLLECTION (CIRCLE ONE) GPS (ONLINE TOOL) USGS TOPOGRAPHIC
ALL CITIES WHERE CONSTRUCTION WILL OCCUR BLAINE
ALL COUNTIES WHERE CONSTRUCTION WILL OCCUR ANOKA
ALL TOWNSHIPS WHERE CONSTRUCTION WILL OCCUR BLAINE

PROJECT SIZE (NUMBER OF ACRES TO BE DISTURBED) 8.41

PROJECT TYPE (CIRCLE ONE) (RESIDENTIAL) COMMERCIAL/INDUSTRIAL ROAD CONSTRUCTION
RESIDENTIAL & RD CONSTRUCTION OTHER (DESCRIBE) XXXXX

CUMULATIVE IMPERVIOUS SURFACE (TO THE NEAREST TENTH ACRE)
EXISTING AREA OF IMPERVIOUS SURFACE 0.36
POST CONSTRUCTION AREA OF IMPERVIOUS SURFACE 3.25
TOTAL NEW AREA OF IMPERVIOUS SURFACE 2.89

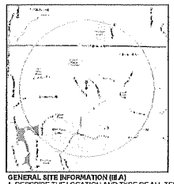
RECEIVING WATERS

WATER BODY ID	NAME OF WATER BODY	WATER BODY TYPE	SPECIAL WATER? (Y/N)	IMPAIRED WATER (Y/N)
-	SUNRISE LAKE	LAKE	N	N
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

DATES OF CONSTRUCTION
CONSTRUCTION START DATE XX/XX
ESTIMATED COMPLETION DATE XX/XX

GENERAL CONSTRUCTION PROJECT INFORMATION
DESCRIBE THE CONSTRUCTION ACTIVITY. DEMOLITION, GRADING, SITE WORK, UTILITIES
DESCRIBE SOIL TYPES FOUND AT THE PROJECT. MEDIUM GRAINED SAND

SITE LOCATION MAP



GENERAL SITE INFORMATION (II.A)
1. DESCRIBE THE LOCATION AND TYPE OF ALL TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPS). INCLUDE THE TIMING FOR INSTALLATION AND PROCEDURES USED TO ESTABLISH ADDITIONAL TEMPORARY BMPS AS NECESSARY. (II.A.4.A)
THE PROJECT IS PROTECTED BY ONE MAIN BMP, SILT FENCE AND INLET PROTECTION DEVICES. THE SILT FENCE WILL BE INSTALLED AT THE DOWNHILL LOCATIONS OF THE SITE AND MONITORED AS NECESSARY. INLET PROTECTION DEVICES WILL BE INSTALLED AT ALL CATCH BASINS ON THE SITE AND ANY OFF SITE THAT WILL RECEIVE STORMWATER RUNOFF FROM THIS SITE, AS THE PROJECT PROGRESSES ADDITIONAL BMP'S SUCH AS EROSION CONTROL BLANKET MAY BE UTILIZED.
2. ATTACH TO THIS SWPPP A TABLE WITH THE ANTICIPATED QUANTITIES FOR THE LIFE OF THE PROJECT FOR ALL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S (II.A.4.B) SEE PAGE SW1.3
3. ATTACH TO THIS SWPPP A SITE MAP THAT INCLUDES THE FOLLOWING FEATURES (II.A.3.B-F)
EXIST AND FINAL GRADES, INCLUDING DIVIDING LINES AND DIRECTION OF FLOW FOR ALL PRE AND POST-CONSTRUCTION STORMWATER RUNOFF DRAINAGE AREAS LOCATED WITHIN THE PROJECT LIMITS.

LOCATIONS OF IMPERVIOUS SURFACES AND SOIL TYPES,
- EXISTING AND FINAL GRADES, INCLUDING DIVIDING LINES AND DIRECTION OF FLOW FOR ALL PRE AND POST-CONSTRUCTION STORMWATER RUNOFF DRAINAGE AREAS LOCATED WITHIN PROJECT LIMITS,
- LOCATION'S OF AREAS NOT TO BE DISTRUBED,
- LOCATION OF AREAS OF PHASED CONSTRUCTION,
- ALL SURFACE WATERS AND EXISTING WETLANDS WITHIN ONE MILE FROM THE PROJECT BOUNDARIES THAT WILL RECEIVE STORMWATER RUNOFF FROM THE SITE (IDENTIFIABLE ON MAPS SUCH AS USGS 7.5 MINUTE QUADRANGLE MAPS OR EQUIVALENT. WHERE SURFACE WATERS RECEIVING RUNOFF ASSOCIATED WITH CONSTRUCTION ACTIVITY WILL NOT FIT ON THE PLAN SHEET, THEY MUST BE IDENTIFIED WITH AN ARROW, INDICATING BOTH DIRECTION AND DISTANCE TO THE SURFACE WATER,
- METHODS TO BE USED FOR FINAL STABILIZATION OF ALL EXPOSED SOIL AREA

4. WERE STORMWATER MITIGATION MEASURES REQUIRED AS THE RESULT OF AN ENVIRONMENTAL ARCHAEOLOGICAL, OR OTHER REQUIRED LOCAL, STATE OR FEDERAL REVIEW OF THE PROJECT? NO
IF YES, DESCRIBE HOW THESE MEASURES WERE ADDRESSED IN THE SWPPP. (II.A.6)
N/A
5. IS THE PROJECT LOCATED IN A KARST AREA SUCH THAT ADDITIONAL MEASURES WOULD BE NECESSARY TO PROJECT DRINKING WATER SUPPLY MANAGEMENT AREAS AS DESCRIBED IN MINN. R. CHAPTERS 7050 AND 7060? NO
IF YES, DESCRIBE THE ADDITIONAL MEASURES TO BE USED. (II.A.7)
N/A
6. DOES THE SITE DISCHARGE TO A CALCAREOUS FEN LISTED IN MINN. R. 7050.0180, SUBP. 6 B? NO
IF YES, A LETTER OF APPROVAL FROM THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES MUST BE OBTAINED PRIOR TO APPLICATION FOR THIS PERMIT. (PART I.B.6 AND PART III.A.8)
7. DOES THE SITE DISCHARGE TO A WATER THAT IS LISTED AS IMPAIRED FOR THE FOLLOWING POLLUTANT(S) OR STRESSOR(S). PHOSPHORUS, TURBIDITY, DISSOLVED OXYGEN OR BIOTIC IMPAIRMENT? USE THE SPECIAL AND IMPAIRED WATERS SEARCH TOOL AT WWW.PCA.STATE.MN.US/WATER/STORMWATER/STORMWATER-C.HTML.
N/A
IF NO, SKIP TO TRAINING
DOES THE IMPAIRED WATER HAVE AN APPROVED TOTAL MAXIMUM DAILY LOADS (TMDL) WITH AN APPROVED WASTE LOAD ALLOCATION FOR CONSTRUCTION ACTIVITY? NO
IF YES
A. LIST THE RECEIVING WATER, THE AREAS OF THE SITE DISCHARGING TO IT, AND THE POLLUTANT(S) IDENTIFIED IN THE TMDL.
B. LIST THE BMP'S AND ANY OTHER SPECIFIC CONSTRUCTION STORMWATER RELATED IMPLEMENTATION ACTIVITIES IDENTIFIED IN THE TMDL.
IF THE SITE HAS A DISCHARGE POINT WITHIN ONE MILE OF THE IMPAIRED WATER AND THE WATER FLOWS TO THE IMPAIRED WATER BUT NO SPECIFIC BMPS FOR CONSTRUCTION ARE IDENTIFIED IN THE TMDL. THE ADDITIONAL BMPS IN APPENDIX A (C-1, C-2, C-3 & (C-4-TROUT STREAM)) MUST BE ADDED TO THE SWPPP AND IMPLEMENTED. (III.A.7). THE ADDITIONAL BMPS ONLY APPLY TO THOSE PORTIONS OF THE PROJECT THAT DRAIN TO ONE OF THE IDENTIFIED DISCHARGE POINTS.
N/A
8. IDENTIFY ADJACENT PUBLIC WATERS WHERE THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES (DNR) HAS DECLARED 'WORK IN WATER RESTRICTIONS' DURING FISH SPAWNING TIME FRAMES
N/A

SELECTION OF A PERMANENT STORMWATER MANAGEMENT SYSTEM (II.D.)
1. WILL THE PROJECT CREATE A NEW CUMULATIVE IMPERVIOUS SURFACE GREATER THAN OR EQUAL TO ONE ACRE? YES
IF YES, A WATER QUALITY VOLUME OF ONE INCH OF RUNOFF FROM THE CUMULATIVE NEW IMPERVIOUS SURFACES MUST BE RETAINED ON SITE (SEE PART II.D OF THE PERMIT) THROUGH INFILTRATION UNLESS PROHIBITED DUE TO ONE OF THE REASONS IN PART II.D.1.J. IF INFILTRATION IS PROHIBITED IDENTIFY OTHER METHOD OF MEETING WATER QUALITY REQUIREMENTS (E.G., FILTRATION SYSTEM, WET SEDIMENTATION BASIN, REGIONAL PONDING OR EQUIVALENT METHOD

2. DESCRIBE WHICH METHOD WILL BE USED TO TREAT RUNOFF FROM THE NEW IMPERVIOUS SURFACES CREATED BY THE PROJECT (II.D)
- WET SEDIMENTATION BASIN
- INFILTRATION/FILTRATION
- REGIONAL PONDS
- COMBINATION OF PRACTICES

INCLUDE ALL CALCULATIONS AND DESIGN INFORMATION FOR THE METHOD SELECTED. SEE PART II.D OF THE PERMIT FOR SPECIFIC REQUIREMENTS ASSOCIATED WITH EACH METHOD.

FILTRATION

CALCULATIONS ARE WITHIN THE SITE STORM WATER MANAGEMENT REPORT AND PART OF THIS SWPPP AS ATTACHMENT D.

3. IF IT IS NOT FEASIBLE TO MEET THE TREATMENT REQUIREMENT FOR THE WATER QUALITY VOLUME, DESCRIBE WHY, THIS CAN INCLUDE PROXIMITY TO BEDROCK OR ROAD PROJECTS WHERE THE LACK OF RIGHT OF WAY PRECLUDES THE INSTALLATION OF ANY PERMANENT STORMWATER MANAGEMENT PRACTICES. DESCRIBE WHAT OTHER TREATMENT, SUCH AS GRASS SWALES, SMALLER PONDS, OR GRIT CHAMBERS, WILL BE IMPLEMENTED TO TREAT RUNOFF PRIOR TO DISCHARGE TO SURFACE WATERS. (II.C)

IT IS FEASIBLE TO MEET REQUIREMENT FOR WATER QUALITY VOLUME.

4. FOR PROJECTS THAT DISCHARGE TO TROUT STREAMS, INCLUDING TRIBUTARIES TO TROUT STREAMS, IDENTIFY METHOD OF INCORPORATING TEMPERATURE CONTROLS INTO THE PERMANENT STORMWATER MANAGEMENT SYSTEM.

N/A

SOILS INFORMATION

MAP UNIT SYMBOL	MAP UNIT NAME
Iw	ISANTI FINE SAND OF LOAM
LnA	LINO LOAMY FINE SAND
Ma	MARKEY MUCK OCCASIONALLY PONDED
ZmB	ZIMMERMAN FINE SAND

EROSION PREVENTION PRACTICES (IV.B)
DESCRIBE THE TYPES OF TEMPORARY EROSION PREVENTION BMP'S EXPECTED TO BE IMPLEMENTED ON THIS SITE DURING CONSTRUCTION
1. DESCRIBE CONSTRUCTION PHASING, VEGETATIVE BUFFER STRIPS, HORIZONTAL SLOPE GRADING, AND OTHER CONSTRUCTION PRACTICES TO MINIMIZE EROSION. DELINEATE AREAS NOT TO BE DISTURBED (E.G., WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC.) BEFORE WORK BEGINS.
SILT FENCE WILL BE INSTALLED AT THE DOWNHILL LOCATIONS OF THE SITE.
2. DESCRIBE METHODS OF TEMPORARILY STABILIZING SOILS AND SOIL STOCKPILES (E.G., MULCHES, HYDRAULIC TACKIFIERS, EROSION BLANKETS, ETC.)
TEMPORARY EROSION PROTECTION WILL BE SEED AND MULCH AND EROSION BLANKETS WHERE REQUIRED, WITH PERMANENT COVER BEING EITHER SOD OR LANDSCAPE FEATURES.
3. DESCRIBE METHODS OF DISSIPATING VELOCITY ALONG STORMWATER CONVEYANCE CHANNELS AND AT CHANNEL OUTLETS (E.G., CHECK DAMS, SEDIMENT TRAPS, RIP RAP, ETC.)
SOD WILL BE UTILIZED ALONG CHANNELS AND RIP RAP AT CHANNEL.
4. DESCRIBE METHODS TO BE USED FOR STABILIZATION OF DITCH AND SWALE WETTED PERIMETERS (NOTE THAT MULCH, HYDRAULIC SOIL TACKIFIERS, HYDROMULCHES, ETC. ARE NOT ACCEPTABLE SOIL STABILIZATION METHODS FOR ANY PART OF A DRAINAGE DITCH OR SWALE)
FINAL STABILIZATION OF SWALES WILL BE SOD
5. DESCRIBE METHODS TO BE USED FOR ENERGY DISSIPATION AT PIPE OUTLETS (E.G., RIP RAP, SPLASH PADS, GABIONS, ETC.)
RIP RAP WILL BE UTILIZED AT PIPE OUTLETS
6. DESCRIBE METHODS TO BE USED TO PROMOTE INFILTRATION AND SEDIMENT REMOVAL ON THE SITE PRIOR TO OFFSITE DISCHARGE, UNLESS INFEASIBLE (E.G., DIRECT STORMWATER FLOW TO VEGETATED AREAS)
FILTRATION WILL BE USED, INFILTRATION INFEASIBLE ON THIS SITE DUE TO HIGH GROUNDWATER.
7. FOR DRAINAGE OR DIVERSION DITCHES, DESCRIBE PRACTICES TO STABILIZE THE NORMAL WETTED PERIMETER WITHIN 200 LINEAL FEET OF THE PROPERTY EDGE OR POINT OF DISCHARGE TO SURFACE WATER. THE LAST 200 LINEAL FEET MUST BE STABILIZED WITHIN **24 HOURS** AFTER CONNECTING TO SURFACE WATERS AND CONSTRUCTION IN THAT PORTION OF THE DITCH HAS TEMPORARILY OR PERMANENTLY CEASED FOR ALL DISCHARGES TO SPECIAL, IMPAIRED OR 'WORK IN WATER RESTRICTION'. ALL OTHER REMAINING PORTIONS OF THE TEMPORARY OR PERMANENT DITCHES OR SWALES WITHIN 14 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER, PROPERTY EDGE AND CONSTRUCTION IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED.
N/A, NO DITCHES ON SITE
8. DESCRIBE ADDITIONAL EROSION PREVENTION MEASURES THAT WILL BE IMPLEMENTED AT THE SITE DURING CONSTRUCTION (E.G., CONSTRUCTION PHASING, MINIMIZING SOIL DISTURBANCE, VEGETATIVE BUFFERS, HORIZONTAL SLOPE GRADING, SLOPE DRAINAGE/TERRACING, ETC.)
OTHER EROSION CONTROL PRACTICES INCLUDE BUT ARE NOT LIMITED TO, MINIMIZING SITE EXPOSURE WHEN POSSIBLE.
9. IF APPLICABLE, INCLUDE ADDITIONAL REQUIREMENTS IN APPENDIX A PART C.3 REGARDING MAINTAINING A 100-FOOT BUFFER ZONE OR INSTALLING REDUNDANT BMPS FOR PORTIONS OF THE SITE THAT DRAIN TO SPECIAL WATERS).
N/A
10. IF APPLICABLE, DESCRIBE ADDITIONAL EROSION PREVENTION BMPS TO BE IMPLEMENTED AT THE SITE TO PROTECT PLANNED INFILTRATION AREAS
MINIMIZE SITE EXPOSURE IN AREAS ADJACENT TO INFILTRATION AREAS.

SEDIMENT CONTROL PRACTICES (IV.C)
DESCRIBE THE METHODS OF SEDIMENT CONTROL BMPS TO BE IMPLEMENTED AT THIS SITE DURING CONSTRUCTION TO MINIMIZE SEDIMENT IMPACTS TO SURFACE WATERS, INCLUDING CURB AND GUTTER SYSTEMS
1. DESCRIBE METHODS TO BE USED FOR DOWN GRADIENT PERIMETER CONTROL:
SILT FENCE WILL BE INSTALLED AROUND THE ENTIRE PERIMETER OF THE SITE
2. DESCRIBE METHODS TO BE USED TO CONTAIN SOIL STOCKPILES:
SEED AND MULCH AS WELL AS EROSION CONTROL BLANKETS WILL BE UTILIZED AS NECESSARY
3. DESCRIBE METHODS TO BE USED FOR STORM DRAIN INLET PROTECTION
SEE INLET PROTECTION DETAILS
4. DESCRIBE METHODS TO MINIMIZE VEHICLE TRACKING AT CONSTRUCTION EXITS AND STREET SWEEPING ACTIVITIES:
THE PROJECT WILL UTILIZE A ROCK CONSTRUCTION ENTRANCE.
5. DESCRIBE METHODS, IF APPLICABLE, ADDITIONAL SEDIMENT CONTROLS (E.G., DIVERSION BERMS) TO BE INSTALLED TO KEEP RUNOFF AWAY FROM PLANNED INFILTRATION AREAS WHEN EXCAVATED PRIOR TO FINAL STABILIZATION OF THE CONTRIBUTING DRAINAGE AREA:
SILT FENCE TO BE INSTALLED IMMEDIATELY AFTER GRADING TO PROTECT FILTRATION AREAS.
6. DESCRIBE METHODS TO BE USED TO MINIMIZE SOIL COMPACTION AND PRESERVE TOP SOIL (UNLESS INFEASIBLE) AT THIS SITE.
LIGHT TRACKED EQUIPMENT WILL BE USED, TOP SOIL WILL BE STRIPPED AND STOCKPILED
7. DESCRIBE PLANS TO PRESERVE A 50-FOOT NATURAL BUFFER BETWEEN THE PROJECT'S SOIL DISTURBANCE AND A SURFACE WATER OR PLANS FOR REDUNDANT SEDIMENT CONTROLS IF A BUFFER IS INFEASIBLE
DOUBLE ROW OF SILT FENCE WILL BE INSTALLED ALONG EAST PROPERTY LINE JUST UPSTREAM OF LOW AREA ON ADJACENT PROPERTY. PROJECT WILL NOT DISTURB WITHIN 200 FEET OF WETLAND.
8. DESCRIBE PLANS FOR USE OF SEDIMENTATION TREATMENT CHEMICALS (E.G., POLYMERS, FLOCCULANTS, ETC.) SEE PART IV.C.10 OF THE PERMIT.
N/A
9. IS THE PROJECT REQUIRED TO INSTALL A TEMPORARY SEDIMENT BASIN DUE TO 10 OR MORE ACRES DRAINING TO A COMMON LOCATION OR 5 ACRES OR MORE IF THE SITE IS WITHIN 1 MILE OF A SPECIAL OR IMPAIRED WATER?
NO
IF YES, DESCRIBE (OR ATTACH PLANS) SHOWING HOW THE BASIN WILL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH PART III.C OF THE PERMIT.
N/A

DEWATERING AND BASIN DRAINING (IV.D)
1. WILL THE PROJECT INCLUDE DEWATERING OR BASIN DRAINING? NO
IF YES, DESCRIBE MEASURES TO BE USED TO TREAT/DISPOSE OF TURBID OR SEDIMENT-LADEN WATER AND METHOD TO PREVENT EROSION OR SCOUR OF DISCHARGE POINTS (SEE PART IV. D OF THE PERMIT)
N/A
2. WILL THE PROJECT INCLUDE USE OF FILTERS FOR BACKWASH WATER? NO
IF YES, DESCRIBE HOW FILTER BACKWASH WATER WILL BE MANAGED ON THE SITE OR PROPERLY DISPOSED (SEE PART III.D.3. OF THE PERMIT)
N/A

ADDITIONAL BMP'S FOR SPECIAL WATERS AND DISCHARGES TO WETLANDS (APPENDIX A, PARTS C AND D)
1. SPECIAL WATERS. DOES YOUR PROJECT DISCHARGE TO SPECIAL WATERS? NO
2. IF PROXIMITY TO BEDROCK OR ROAD PROJECTS WHERE THE LACK OF RIGHT OF WAY PRECLUDES THE INSTALLATION OF ANY OF THE PERMANENT STORMWATER MANAGEMENT PRACTICES, THEN OTHER TREATMENT SUCH AS GRASSED SWALES, SMALLER PONDS, OR GRIT CHAMBERS IS REQUIRED PRIOR TO DISCHARGE TO SURFACE WATERS. DESCRIBE WHAT OTHER TREATMENT WILL BE PROVIDED.
N/A
3. DESCRIBE EROSION AND SEDIMENT CONTROLS FOR EXPOSED SOIL AREAS WITH A CONTINUOUS POSITIVE SLOPE TO A SPECIAL WATERS, AND TEMPORARY SEDIMENT BASINS FOR AREAS THAT DRAIN FIVE OR MORE ACRES DISTURBED AT ONE TIME.
N/A
4. DESCRIBE THE UNDISTURBED BUFFER ZONE TO BE USED (NOT LESS THAN 100 LINEAR FEET FROM THE SPECIAL WATER).
N/A
5. DESCRIBE HOW THE PERMANENT STORMWATER MANAGEMENT SYSTEM WILL ENSURE THAT THE PRE AND POST PROJECT RUNOFF RATE AND VOLUME FROM THE 1, AND 2-YEAR 24-HOUR PRECIPITATION EVENTS REMAINS THE SAME.
N/A
6. DESCRIBE HOW THE PERMANENT STORMWATER MANAGEMENT SYSTEM WILL MINIMIZE ANY INCREASE IN THE TEMPERATURE OF TROUT STREAM RECEIVING WATERS RESULTING IN THE 1, AND 2-YEAR 24-HOUR PRECIPITATION EVENTS.
N/A
7. **WETLANDS.** DOES YOUR PROJECT DISCHARGE STORMWATER WITH THE POTENTIAL FOR SIGNIFICANT ADVERSE IMPACTS TO A WETLAND (E.G., CONVERSION OF A NATURAL WETLAND TO A STORMWATER POND)? NO
IF YES, DESCRIBE THE WETLAND MITIGATION SEQUENCE THAT WILL BE FOLLOWED IN ACCORDANCE WITH PART D OF APPENDIX A.
N/A

INSPECTIONS AND MAINTENANCE (IV.E)
DESCRIBE PROCEDURES TO ROUTINELY INSPECT THE CONSTRUCTION SITE:
- ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND
- WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS, AND WITHIN (7) DAYS AFTER THAT

INSPECTIONS MUST INCLUDE STABILIZED AREAS, EROSION PREVENTION AND SEDIMENT CONTROL BMPS AND INFILTRATION AREAS.
INSPECTOR WILL FOLLOW REQUIREMENTS SPECIFIED ABOVE AND FILL OUT "ATTACHMENT B - CONSTRUCTION STORMWATER INSPECTION CHECKLIST"
1. DESCRIBE PRACTICES FOR STORAGE OF BUILDING PRODUCTS WITH A POTENTIAL TO LEACH POLLUTANTS TO MINIMIZE EXPOSURE TO STORMWATER.
ALL BUILDING PRODUCTS WILL BE SEALED AND STORED IN A MANNER TO MINIMIZE EXPOSURE
2. DESCRIBE PRACTICES FOR STORAGE OF PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICAL AND LANDSCAPE MATERIALS.
ALL LANDSCAPE TREATMENT CHEMICALS WILL BE SEALED AND STORED IN A MANNER TO MINIMIZED EXPOSURE
3. DESCRIBE PRACTICES FOR STORAGE AND DISPOSAL OF HAZARDOUS MATERIALS OR TOXIC WASTE (E.G., OIL, FUEL, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVE, ADDITIVES, CURING COMPOUNDS, AND ACIDS) ACCORDING TO MINN. R. CH. 7045, INCLUDING RESTRICTED ACCESS AND SECONDARY CONTAINMENT:
ALL HAZARDOUS WASTE WILL BE APPROPRIATELY DISPOSED OF OFF SITE ACCORDING TO LOCAL AND STATE LAWS.
4. DESCRIBE COLLECTION, STORAGE AND DISPOSAL OF SOLID WASTE IN COMPLIANCE WITH MINN. R. CH. 7035
ALL CONSTRUCTION DEBRIS AND SOLID WASTER WILL BE APPROPRIATELY DISPOSED OF OFF SITE ACCORDING TO LOCAL AND STATE LAWS
5. DESCRIBE MANAGEMENT OF PORTABLE TOILETS TO PREVENT TIPPING AND DISPOSAL OF SANITARY WASTES IN ACCORDANCE WITH MINN. R. CH. 7040
SANITARY AND SEPTIC SERVICES WILL BE PROVIDED TO WORKERS WITH PORTABLE FACILITIES MAINTAINED AS NEEDED BY THE PROVIDER.
6. DESCRIBE SPILL PREVENTION AND RESPONSE FOR FUELING AND EQUIPMENT OR VEHICLE MAINTENANCE
EMPLOYEES WILL BE TRAINED IN TECHNIQUES DESIGNED TO MINIMIZE SPILLS, VEHICLES AND EQUIPMENT SHALL BE CHECKED FOR LEAKS.
7. DESCRIBE CONTAINMENT AND DISPOSAL OF VEHICLE AND EQUIPMENT WASH WATER AND PROHIBITING ENGINE DEGREASING ON THE SITE:
ALL CONSTRUCTION VEHICLES SHALL BE WASHED OFF SITE
8. DESCRIBE STORAGE AND DISPOSAL OF CONCRETE AND OTHER WASHOUT WASTES SO THAT WASTES DO NOT CONTACT THE GROUND.
ALL CONCRETE WASHOUT SHALL OCCUR OFF SITE.

FINAL STABILIZATION (IV.G)
1. DESCRIBE METHOD OF FINAL STABILIZATION (PERMANENT COVER) OF ALL DISTURBED AREAS.
FINAL STABILIZATION WILL BE ACCOMPLISHED WITH PAVEMENT, SOD AND LANDSCAPE MATERIALS.
2. DESCRIBE PROCEDURES FOR COMPLETING FINAL STABILIZATION AND TERMINATING PERMIT COVERAGE (SEE PART IV.G.1-5)
UPON STABILIZATION DESCRIBED ABOVE, THE CONTRACTOR AND OWNER SHALL MUTUALLY TRANSFER THE NPDES PERMIT TO THE NEXT OWNER WITH DOCUMENTS DESCRIBING THE NATURE OF TERMINATION PROCEDURE.

DOCUMENTATION OF INFEASIBILITY: (IF APPLICABLE)

CivilSite GROUP
4931 W. 35TH ST, SUITE 200
ST. LOUIS PARK, MN 55416
CivilSiteGroup.com
612-615-0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
RADISSON ROAD TOWNHOMES
11967 & 11985 RADISSON RD NE; BLAINE, MN 55449

RON CLARK CONSTRUCTION
7500 WEST 78TH STREET; EDINA, MN 55439

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.
David J. Knoble
DATE 2/5/23 LICENSE NO. 48776

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/8/21	PATRON REVIEW SUBMITTAL
1/9/23	PATRON REVISED RESUBMITTAL
2/5/23	CITY SUBMITTAL

DRAWN BY: AH REVIEWED BY: DK
PROJECT NUMBER 20322.01

REVISION SUMMARY

DATE	DESCRIPTION

SWPPP - ATTACHMENTS

SW1.4

ATTACHMENT B: SWPPP INSPECTION FORM

NOTE: THIS INSPECTION REPORT DOES NOT ADDRESS ALL ASPECTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM (NPDES/SDS) CONSTRUCTION STORMWATER PERMIT (PERMIT) ISSUED ON AUGUST 1, 2018. THE COMPLETION OF THIS CHECKLIST DOES NOT GUARANTEE THAT ALL PERMIT REQUIREMENTS ARE IN COMPLIANCE. IT IS THE RESPONSIBILITY OF THE PERMITTEE(S) TO READ AND UNDERSTAND THE PERMIT REQUIREMENTS.

FACILITY INFORMATION
SITE NAME:
SITE ADDRESS: PERMIT NUMBER
CITY: STATE ZIP CODE:

INSPECTION INFORMATION
INSPECTOR NAME: _____ PHONE NUMBER _____
ORGANIZATION/COMPANY NAME _____
DATE (MM/DD/YYYY) _____ TIME _____ AM / PM

	Y	N
IS THE INSPECTOR CERTIFIED IN SEDIMENT AND EROSION CONTROL AND IS IT DOCUMENTED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP)?	☐	☐

IS THIS INSPECTION ROUTINE OR IN RESPONSE TO A STORM EVENT:

7 DAY	RAIN
☐	☐

	Y	N
RAINFALL AMOUNT (IF APPLICABLE) _____ IS SITE WITHIN ONE AERIAL MILE OF SPECIAL OR IMPAIRED WATER THAT CAN POTENTIALLY RECEIVE DISCHARGE FROM THE SITE?	☐	☐

IF YES, FOLLOW SECTION 23 AND OTHER APPLICABLE PERMIT REQUIREMENTS

NOTE: IF N/A IS SELECTED AT ANY TIME, SPECIFY WHY IN THE COMMENT AREA FOR THAT SECTION.

EROSION CONTROL REQUIREMENT (SECTION 8.1)

	Y	N	N/A
1. ARE SOILS STABILIZED WHERE NO CONSTRUCTION ACTIVITY HAS OCCURRED FOR 14 DAYS (INCLUDING STOCKPILES)? (7 DAYS WHERE APPLICABLE, OR 24 HOURS DURING MINNESOTA DEPARTMENT OF NATURAL RESOURCES (DNR) FISH SPAWNING RESTRICTIONS)	☐	☐	☐
2. HAS THE NEED TO DISTURB STEEP SLOPES BEEN MINIMIZED?	☐	☐	☐
3. IF STEEP SLOPES ARE DISTURBED, ARE STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES USED?	☐	☐	☐
4. ALL DITCHES/SWALES STABILIZED 200 BACK FROM POINT OF DISCHARGE OR PROPERTY EDGE WITHIN 24 HOURS? (MULCH, HYDROMULCH, TACIFIER, OR SIMILAR BEST MANAGEMENT PRACTICES (BMPS) ARE NOT ACCEPTABLE IN DITCHES/SWALES IF THE SLOPE IS GREATER THAN 2%)ARE APPROPRIATE BMPS INSTALLED PROTECTING INLETS/OUTLETS?	☐	☐	☐
5. DO PIPE OUTLETS HAVE ENERGY DISSIPATION (WITHIN 24 HOURS OF CONNECTION)?	☐	☐	☐
6. IS CONSTRUCTION PHASING BEING FOLLOWED IN ACCORDANCE WITH THE SWPPP?	☐	☐	☐
7. ARE AREAS NOT TO BE DISTURBED MARKED OFF (FLAGS, SIGNS, ETC.)?	☐	☐	☐

COMMENTS:

SEDIMENT CONTROL REQUIREMENTS (SECTION 8.1)

	Y	N	N/A
1. ARE PERIMETER SEDIMENT CONTROLS INSTALLED PROPERLY ON ALL DOWN GRADIENT PERIMETERS?	☐	☐	☐
2. ARE APPROPRIATE BMPS INSTALLED PROTECTING INLETS, CATCHBASINS, AND CULVERT INLETS?	☐	☐	☐
3. IS A 50 FOOT NATURAL BUFFER PRESERVED AROUND ALL SURFACE WATERS DURING CONSTRUCTION?	☐	☐	☐
3.1. IF NO, HAVE REDUNDANT SEDIMENT CONTROLS BEEN INSTALLED?	☐	☐	☐
4. DO ALL ERODIBLE STOCKPILES HAVE PERIMETER CONTROL IN PLACE?	☐	☐	☐
5. IS THERE A TEMPORARY SEDIMENT BASIN ON SITE, AND IS IT BUILT AS REQUIRED IN SECTION 14 OF THE PERMIT?	☐	☐	☐
6. IS SOIL COMPACTION BEING MINIMIZED WHERE NOT DESIGNED FOR COMPACTION?	☐	☐	☐
7. IS TOPSOIL BEING PRESERVED UNLESS INFEASIBLE?	☐	☐	☐
8. IF CHEMICAL FLOCCULANTS ARE USED, IS THERE A CHEMICAL FLOCCULANT PLAN IN PLACE?	☐	☐	☐

COMMENTS:

MAINTENANCE AND INSPECTIONS (SECTION 11)

	Y	N	N/A
1. ARE ALL PREVIOUSLY STABILIZED AREAS MAINTAINING GROUND COVER?	☐	☐	☐
2. ARE PERIMETER CONTROLS MAINTAINED AND FUNCTIONING PROPERLY, SEDIMENT REMOVED WHEN ONE-HALF FULL?	☐	☐	☐
3. ARE INLET PROTECTION DEVICES MAINTAINED AND ADEQUATELY PROTECTING INLETS?	☐	☐	☐
4. ARE THE TEMPORARY SEDIMENT BASINS BEING MAINTAINED AND FUNCTIONING PROPERLY?	☐	☐	☐
5. ARE VEHICLE TRACKING BMPS AT SITE EXISTS IN PLACE AND MAINTAINED AND FUNCTIONING PROPERLY?	☐	☐	☐
6. IS ALL TRACKED SEDIMENT BEING REMOVED WITHIN 24 HOURS?	☐	☐	☐
7. HAVE ALL SURFACE WATERS, DITCHES, CONVEYANCES, AND DISCHARGE POINTS BEEN INSPECTED?	☐	☐	☐
8. WERE ANY DISCHARGES SEEN DURING THIS INSPECTION (I.E., SEDIMENT, TURBID WATER, OR OTHERWISE)?	☐	☐	☐

IF YES, RECORD THE LOCATION OF ALL POINTS OF DISCHARGE, PHOTOGRAPH AND DESCRIBE THE DISCHARGE (SIZE, COLOR, ODOR, FOAM, OIL SHEEN, TIME, ETC.). DESCRIBE HOW THE DISCHARGE WILL BE ADDRESSED. WAS THE DISCHARGE A SEDIMENT DELTA? IF YES, WILL THE DELTA BE RECOVERED WITHIN SEVEN DAYS AND IN ACCORDANCE WITH ITEM 11.5 OF THE PERMIT?

COMMENTS:

POLLUTION PREVENTION (SECTION 12)

	Y	N	N/A
1. ARE ALL CONSTRUCTION MATERIALS THAT CAN LEACH POLLUTANTS UNDER COVER OR PROTECTED?	☐	☐	☐
2. ARE HAZARDOUS MATERIALS BEING PROPERLY STORED?	☐	☐	☐
3. ARE APPROPRIATE BMPS BEING USED TO PREVENT DISCHARGES ASSOCIATED WITH FUELING AND MAINTENANCE OF EQUIPMENT OR VEHICLES?	☐	☐	☐
4. ARE ALL SOLID WASTES BEING PROPERLY CONTAINED AND DISPOSED OF?	☐	☐	☐
5. IS THERE A CONCRETE/OTHER MATERIAL WASHOUT AREA ON SITE AND IS IT BEING USED?	☐	☐	☐
6. IS THE CONCRETE WASHOUT AREA MARKED WITH A SIGN?	☐	☐	☐
7. ARE THE CONCRETE/OTHER MATERIAL WASHOUT AREAS PROPERLY MAINTAINED?	☐	☐	☐

COMMENTS:

OTHER

	Y	N	N/A
1. IS A COPY OF THE SWPPP, INSPECTION RECORDS, AND TRAINING DOCUMENTATION LOCATED ON THE CONSTRUCTION SITE, OR CAN IT BE MADE AVAILABLE WITHIN 72 HOURS?	☐	☐	☐
2. HAS THE SWPPP BEEN FOLLOWED AND IMPLEMENTED ON SITE, AND AMENDED AS NEEDED?	☐	☐	☐
3. IS ANY DEWATERING OCCURRING ON SITE? IF YES, WHAT BMPS ARE BEING USED TO ENSURE THAT CLEAN WATER IS LEAVING THE SITE AND THE DISCHARGE IS NOT CAUSING EROSION OR SCOUR?	☐	☐	☐
4. WILL A PERMANENT STORMWATER MANAGEMENT SYSTEM BE CREATED FOR THIS PROJECT IF REQUIRED AND IN ACCORDANCE WITH SECTION 15 OF THE PERMIT (IF ADDING AN ACRE OR MORE OF NEW IMPERVIOUS SURFACE)? IF YES, DESCRIBE:	☐	☐	☐
5. IF INFILTRATION/FILTRATION SYSTEMS ARE BEING CONSTRUCTED, ARE THEY MARKED AND PROTECTED FROM COMPACTION AND SEDIMENTATION?	☐	☐	☐

6. DESCRIPTION OF AREAS OF NON-COMPLIANCE NOTED DURING THE INSPECTION, REQUIRED CORRECTIVE ACTIONS, AND RECOMMENDED DATE OF COMPLETION OF CORRECTIVE ACTIONS

7. PROPOSED AMENDMENTS TO THE SWPPP:

8. POTENTIAL AREAS OF FUTURE CONCERN:

9. ADDITIONAL COMMENTS

DISCLOSURES:

- AFTER DISCOVERY, THE PERMIT REQUIRES MANY OF THE DEFICIENCIES THAT MAY BE FOUND ON SITE BE CORRECTED WITHIN A SPECIFIED PERIOD OF TIME. SEE PERMIT FOR MORE DETAILS.
- THE PERMITTEE(S) IS/ARE RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT BMPS AS WELL AS EROSION PREVENTION AND SEDIMENT CONTROL BMPS UNTIL ANOTHER PERMITTEE HAS OBTAINED COVERAGE UNDER THIS PERMIT ACCORDING TO SECTION 3, OR THE PROJECT HAS MET THE TERMINATION CONDITIONS OF THE PERMIT AND A NOTICE OF TERMINATION HAS BEEN SUBMITTED TO THE MINNESOTA POLLUTION CONTROL AGENCY.

ATTACHMENT C: MAINTENANCE PLAN FOR PERMANENT STORM WATER TREATMENT SYSTEM

ATTACHMENT C - ABOVE-GROUND
FACILITY MANAGEMENT SCHEDULE

1. ALL STORMWATER RETENTION, DETENTION AND TREATMENT BASINS MUST BE INSPECTED AT LEAST ONCE A YEAR TO DETERMINE THAT BASIN RETENTION AND TREATMENT CHARACTERISTICS ARE ADEQUATE. A STORAGE TREATMENT BASIN WILL BE CONSIDERED INADEQUATE IF SEDIMENT HAS DECREASED THE WET STORAGE VOLUME BY 50 PERCENT OR DRY STORAGE VOLUME BY 25 PERCENT OF ITS ORIGINAL DESIGN VOLUME, BASED ON THIS INSPECTION, IF A STORMWATER BASIN REQUIRES SEDIMENT CLEANOUT, THE BASIN WILL BE RESTORED TO ITS ORIGINAL DESIGN CONTOURS AND VEGETATED STATE WITHIN ONE YEAR OF THE INSPECTION DATE.
2. ALL OUTLET STRUCTURES, CULVERTS, OUTFALL STRUCTURES AND OTHER STORMWATER FACILITIES FOR WHICH MAINTENANCE REQUIREMENTS ARE NOT OTHERWISE SPECIFIED HEREIN MUST BE INSPECTED IN THE SPRING, SUMMER AND FALL OF EACH YEAR. WITHIN 30 DAYS OF THE INSPECTION DATE, ALL ACCUMULATED SEDIMENT AND DEBRIS MUST BE REMOVED SUCH THAT EACH STORMWATER FACILITY OPERATES AS DESIGNED AND PERMITTED. CONTRIBUTING DRAINAGE AREAS MUST BE KEPT CLEAR OF LITTER AND VEGETATIVE DEBRIS. INFLOW PIPES AND OVERFLOW SPILLWAYS KEPT CLEAR, INLET AREAS KEPT CLEAN, AND UNDESIRABLE VEGETATION REMOVED. EROSION IMPAIRING THE FUNCTION OR INTEGRITY OF THE FACILITIES, IF ANY, WILL BE CORRECTED, AND ANY STRUCTURAL DAMAGE IMPAIRING OR THREATENING TO IMPAIR THE FUNCTION OF THE FACILITIES MUST BE REPAIRED.
3. VOLUME CONTROL FACILITIES AND CONTRIBUTING DRAINAGE AREAS MUST BE INSPECTED EVERY THREE MONTHS DURING THE OPERATIONAL PERIOD (BETWEEN SPRING SNOWMELT AND FIRST SUBSTANTIAL SNOWFALL) AND MONITORED AFTER RAINFALL EVENTS OF 1 INCH OR MORE TO ENSURE THAT THE CONTRIBUTING DRAINAGE AREA IS CLEAR OF LITTER AND DEBRIS, INFLOW PIPES AND OVERFLOW SPILLWAYS ARE CLEAR, INLET AREAS ARE CLEAN, UNDESIRABLE VEGETATION IS REMOVED AND THERE IS NO EROSION IMPAIRING OR THREATENING TO IMPAIR THE FUNCTION OF A FACILITY. IF SEDIMENT HAS ACCUMULATED IN A INFILTRATION FEATURE, WITHIN 10 DAYS OF INSPECTION DEPOSITED SEDIMENTS MUST BE REMOVED, THE INFILTRATION CAPACITY OF THE UNDERLYING SOILS MUST BE RESTORED, AND ANY SURFACE DISTURBANCE MUST BE STABILIZED. INSPECTION MUST ENSURE THAT SEDIMENT TRAPS AND FOREBAYS ARE TRAPPING SEDIMENT AND THAT MORE THAN 50 PERCENT OF THE STORAGE VOLUME REMAINS, THE CONTRIBUTING DRAINAGE AREA IS STABLE (I.E., NO EROSION IS OBSERVED), AND INLETS AND OUTLET/OVERFLOW SPILLWAYS ARE IN GOOD CONDITIONS WITH NO EROSION. MAINTENANCE TECHNIQUES USED MUST PROTECT THE INFILTRATION CAPACITY OF THE PRACTICE BY LIMITING SOIL COMPACTION TO THE GREATEST EXTENT POSSIBLE (E.G., BY USING LOW-IMPACT EARTH-MOVING EQUIPMENT).

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612.615.0060

PRELIMINARY: NOT FOR CONSTRUCTION

PROJECT
RADISSON ROAD TOWNHOMES
11967 & 11985 RADISSON RD NE, BLAINE, MN 55449

RON CLARK CONSTRUCTION
7500 WEST 78TH STREET, EDINA, MN 55439

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.

David J. Knaeble
DATE 3/6/23 LICENSE NO. 48776

ISSUE/SUBMITTAL SUMMARY

DATE	DESCRIPTION
11/22	WATERSHED SUBMITTAL
1/23	WATERSHED RESUBMITTAL
3/23	CITY SUBMITTAL

DRAWN BY AM REVIEWED BY DK
PROJECT NUMBER 20352.01

REVISION SUMMARY

DATE	DESCRIPTION

SWPPP - ATTACHMENTS

SW1.5

DocuSign

Certificate Of Completion

Envelope Id: A8DEE5EB728340D59F0DF51CA9FCE702
Status: Sent
Subject: Complete with DocuSign: Anoka County ROW Permit Application
Source Envelope:
Document Pages: 28
Signatures: 1
Certificate Pages: 4
Initials: 1
AutoNav: Enabled
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Highway Permits
Anoka County Government Center
2100 3rd Avenue
Anoka, MN 55303
HighwayPermits@co.anoka.mn.us
IP Address: 216.206.50.82

Record Tracking

Status: Original
4/4/2023 1:40:41 PM
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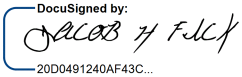
JACOB H FICK jacobf@enebak.com Security Level: DocuSign.email ID: 1 4/4/2023 1:40:43 PM	DocuSigned by:  20D0491240AF43C...	Sent: 4/4/2023 1:40:42 PM Viewed: 4/4/2023 1:40:54 PM Signed: 4/4/2023 2:13:49 PM
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Attn: Information Technology, #300
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