

CITY OF CRYSTAL

**PROPOSED PRELIMINARY PLAT
GARDENDALE SUBDIVISION**

**PUBLIC HEARING NOTICE
7:00 P.M. ON MONDAY, FEBRUARY 8, 2016
CRYSTAL CITY HALL (4141 DOUGLAS DR N)**

The Crystal Planning Commission will consider a Preliminary Plat application from SVK Development for Gardendale Subdivision in the area north of 32nd Avenue North between Florida and Hampshire Avenues North.

The existing parcels to be included in the plat are 3215 Florida, 3228 Georgia and 3220 Hampshire Avenues North. The existing house at 3220 Hampshire Avenue North would be demolished.

The project would result in ten lots for construction of new single family houses:

- **Two lots on Florida Avenue North (likely addresses 3213 & 3219)**
- **Six lots on an extension of Georgia Avenue which would end in a cul-de-sac approximately 400 feet north of 32nd Avenue North**
- **Two lots on Hampshire Avenue North (likely addresses 3214 & 3220)**

In addition to the preliminary plat approval, SVK Development is also requesting a variance to reduce the required street pavement width from 30 feet to 28 feet for the extension of Georgia Avenue North.

Citizens may view the proposal at Crystal City Hall during normal business hours or on the city website at www.crystalmn.gov/city_departments/land_use_applications.php. The Planning Commission staff report will be available for viewing after February 5th at the same weblink.

To discuss the proposal or submit written comments for the record, please contact Dan Olson, City of Crystal, 4141 Douglas Dr. N., Crystal, MN 55422 at dan.olson@crystalmn.gov or 763-531-1142.

To speak directly to the Planning Commission, please attend the public hearing on Monday, February 8, 2016 at 7 p.m. at Crystal City Hall.

LEGAL NOTICE: Notice is hereby given that the Planning Commission of the City of Crystal will meet on February 8, 2016 at 7:00 p.m. at Crystal City Hall, 4141 Douglas Drive North, in said City, to consider a Preliminary Plat called "Gardendale Subdivision", with a variance to street width, located near the intersection of Georgia Avenue North and 32nd Avenue North. After holding the public hearing, the Commission is expected to make a recommendation to the City Council for their meeting on Tuesday, February 16, 2016. Persons desiring to be heard are invited and encouraged to attend the public hearing. Persons unable to attend may submit written comments prior to the date of the hearing to: Dan Olson, City of Crystal, 4141 Douglas Dr N, Crystal MN 55422. Auxiliary aids for handicap persons are available upon request at least 96 hours in advance. Please call the City Clerk at 763-531-1145 to make arrangements. Deaf and Hard of Hearing callers should contact the Minnesota Relay Service at 800-627-3529 V/TTY or call 711 to be connected to a TTY.

**Gardendale Subdivision
Crystal, MN**

**NARRATIVE FOR
PRELIMINARY PLAT**

January 12, 2016

INTRODUCTION

On behalf of SVK Development LLC., Landform is pleased to submit plans for a Preliminary Plat to allow 10 single-family homes on three parcels (PIDs 2011821140017, 2011821140101, and 2011821140109) located northeast of the intersection at 32nd Avenue and Hampshire Avenue. The parcels are guided Low Density Residential in the 2030 Comprehensive Plan and zoned R-1. The subdivision will help the city achieve its goal of increasing the availability of new housing of the type that is currently underrepresented in the housing stock, by providing move-up single-family homes.

PRELIMINARY PLAT

The preliminary would allow the development of one vacant parcel, one outlot and one parcel with an existing single family home, that will be demolished to provide 10 buildable lots.

Setbacks

Section 515.33 of the City Code requires all buildings in the R-1 District to be setback 30 feet from the front and rear lot line and setback 5 feet from side lot line. The proposed lots would comply with these requirements.

Lot Standards

Section 515.33 of the Zoning Ordinance establishes a minimum lot area of 7,500 square feet, and a minimum width of 60 feet and a minimum depth of 100 feet. The proposed lot widths are between 62.5 - 64.4 feet wide and lot depths of 130-135 feet. The lot sizes range from 8,472 – 8,527 square feet. Lot standards for the proposed subdivision comply with the lot standards as defined in Chapter 515 of the Zoning Ordinance.

Transportation

We are proposing a 28-foot road in a 60-foot right-of-way that will provide access to the proposed lots, connect with existing infrastructure and allow for parking on both sides of the street. The proposed street improvement will require a new curb cut to extend Georgia Avenue North. The proposed temporary cul-de-sac is P-shaped to minimize impacts on landowners and complies with the minimum turning radius of 35 degrees. The temporary cul-de-sac easement may be vacated and the street extended at some point to service neighboring properties to the north.

Landscaping

Section 520.13 of the Subdivision Ordinance requires open areas of a lot that are not used for required parking area, drives or storage to be landscaped with a combination of overstory trees, understory trees, shrubs, flowers and ground cover materials. The landscape plan provides diverse tree species that are supportive of the site's characteristics. The proposed plantings in the back yard are species that work well in low wet areas. The chosen species for the boulevard trees and backyard trees will provide textures and colors for year round

interests. The value of the landscaping will be at minimum \$34,500.00 per the standards of Section 520.13 of the Zoning Ordinance, based on the estimated project value of \$2.6 million dollars.

Stormwater management

The proposed subdivision will tie into the existing catch basin located where Georgia Avenue will extend from 32nd Avenue. The existing catch basin will need to be moved west out of the street. The system will be lowered to provide positive drainage from the existing drainage ditches including drainage from the adjacent parcels. Stormwater calculations are provided. Improvements are proposed to clean up the existing drainage ditch to make it flow better and allow the homes to be drain tiled and pumped into existing storm system.

SUMMARY

We request approval of the preliminary plat to allow 10 single-family homes on this 2.016-acre parcel. The proposed development is consistent with the R-1 Zoning District standards for subdivision.

We request to be placed on the February 8, 2016 Planning Commission agenda and the February 16, 2016 City Council agenda for approval.

CONTACT INFORMATION

This document is respectfully submitted by:

Landform

105 South Fifth Street, Suite 513

Minneapolis, MN 55330

Any additional questions regarding this application can be directed to Reid Schulz at rschulz@landform.net or 612.638.0245.

CRYSTAL, MINNESOTA AREA LOCATION MAP



ABBREVIATIONS

D & @	Angle	L.F.	Lineal Feet
100 YR.	100 Year Flood Elevation	L.P.	Low Point / Liquid Petroleum
A.B.	Anchor Bolt	L.B.	Pound
A.D.	Area Drain	LGU	Local Government Unit
A/C	Ar. Conditioning Unit	LONG.	Longitude
ADD.	Addendum	LT.	Light / Lighting
ADDL.	Additional	MAINT.	Maintenance
ADJ.	Adjacent / Adjust	MAS.	Masonry
AHJ	Air Handling Unit	MATL.	Material
ALT.	Alternate	MAX.	Maximum
ALUM.	Aluminum	MCH.	Mechanical
ANOD.	Anodized	MED.	Medium
APPROX.	Approximate	MFR.	Manufacturer
ARCH	Architect / Architectural	MH	Manhole
AUTO.	Automatic	MN.	Minimum / Minute
AVG.	Average	MISC.	Miscellaneous
B.C.	Back of Curb	MISSOURI	Minnesota Department Of Transportation
B/W	Basement Floor Elevation	MOD.	Module / Modular
BFE	Basement Floor Elevation	MUL.	Mulch
BIT	Bituminous (Asphaltic)	N.	North
BLDG	Building	N.I.C.	Not In Contract
BSMT.	Basement	NO. OR #	Number
C.F.	Cubic Feet	NOT	Not to Scale
C.F.S.	Cubic Feet Per Second	NTS	Normal Water Elevation
C.G.	Corner Guard	NWL	Normal Water Level
C.J.	Control Joint	O.C.	On Center
C.L.	Centerline	O.D.	Outside Dimension
C.M.U.	Concrete Masonry Unit	O.E.	Overhead Electric
C.O.	Cleanout	OH	Overhead
C.O.E.	U.S. Army Corps Of Engineers	OH/WL	Ordinary High Water Level
C.Y.	Cubic Yards	OPNG.	Opening
CB	Catch Basin	ORIG.	Original
CBMH	Catch Basin Manhole	P.C.	Point of Curvature
CEM.	Cement	P.I.	Point of Intersection
CF	Cast Iron Pipe	P.I.V.	Post Indicator Valve
CFP	Corrugated Metal Pipe	P.L. OR P/L	Property Line
CONC.	Concrete (Portland)	P.O.B.	Point of Beginning
CONN.	Connection	P.S.F.	Pounds Per Square Foot
CONST.	Construction	P.S.I.	Pounds Per Square Inch
CONT.	Continuous	P.T.	Point of Tangency
CONTR.	Contractor	P.V.C.	Point of Vertical Curvature
COP.	Copper	P.V.I.	Point of Vertical Intersection
CU.	Cup	P.V.T.	Point of Vertical Tangency
D.S.	Down Spout	PE	Polyethylene
DEG.	Degree	PED.	Pedestal / Pedestrian
DEMO.	Demolition / Demolish	PERF.	Perforated
DEPT.	Department	PREP.	Preparation
DET.	Detail	PROJ.	Project
DIAM.	Diameter	PROP.	Proposed
DIAG.	Diagonal	PVC	Poly-Vinyl-Chloride (Ppma)
DM.	Dimension	PVMT.	Pavement
DN	Down	QTY.	Quantity
DWG.	Drawing	R.	Radius
E.	East	RAD.	Radius
E.J.	Expansion Joint	R.E.	Rim Elevation (Casting)
E.O.	Emergency Overflow	R.D.	Roof Drain
E.O.S.	Emergency Overflow Swole	R.E.	Remove Existing
E.W.	Each Way	R.O.	Rough Opening
EA.	Each	R.P.	Radius Point
EL.	Elevation	RCP	Reinforced Concrete Pipe
EL.EC.	Electrical	R.S.	Rough Slab
ELEV.	Elevation	RSD	Roof Storm Drain
EPR.	Emergency	RE.	Regrading
ENGR.	Engineer	RENF.	Reinforced
ENTR.	Entrance	REQD.	Required
EQ.	Equal	REV.	Revision / Revised
EQUIP.	Equipment	REGU.	Regulatory Government Unit
EQUIV.	Equivalent	ROW OR R/W	Right of Way
EXIST.	Existing	S.	South
EXP.	Expansion	S.F.	Square Feet
F & I	Furnish and Install	SAN.	Sanitary Sewer
F.B.O.	Furnished by Others	SECT.	Section
F.C.	Face of Curb	SE	Side Exit
F.D.	Floor Drain	SEWO	Side Exit Walk Out
F.D.C.	Fire Department Connection	SHT.	Sheet
F.V.	Field Verify	SIM.	Seal
FB	Full Basement	SUNT.	Sealant
FBWO	Full Basement Walk Out	SPEC.	Specification
FBLO	Full Basement Look Out	SQ.	Square
FDNL.	Foundation	SSD	Subsurface drain
FES	Flared End Section	STMH	Storm Sever Manhole
FFE	Finished Floor Elevation	STD.	Standard
FLR.	Floor	STRUCT.	Structural
FLR OR ()	Floor	SYM.	Symmetrical
FUT.	Future	T	Thickness
G.B.	Grade Break	T/R	Top of Rim
G.C.	General Contractor	T/W	Top of Wall
GAL.	Gallon	TEMP.	Temporary
GALV.	Galvanized	THK.	Thick Thickness
GFE	Garage Floor Elevation	T.J.	Tooled Joint
GL.	Glass	TNH	Top Nut Hydrant
GR.	Grade	TYP.	Typical
H.	Height	UNL.	Unless Noted Otherwise
H.P.	High Point	V.B.	Vapor Barrier
HDPEP	High Density Polyethylene Pipe	V.C.	Vertical Curve
HGT.	Height	V.I.F.	Verify In Field
HORIZ.	Horizontal	VER.	Verify
HVAC	Heating, Ventilation, Air Conditioning	VERT.	Vertical
HYD	Hydrant	VEST.	Vestibule
ID.	Inside Dimension	W	Width
IE. or IE	Invert Elevation	W.P.T.	Working Point
IN. OR ()	Inches	W.W.F.	Welded Wire Fabric
INFO.	Information	W.	Width
INSUL.	Insulation	W/O	Without
INV.	Invert Elevation	WO	Walk Out
IT.	Joint	WESTL.	Westland
		WP.	Waterproof
		WT.	Weight
		YD.	Yard
		YR.	Year

SYMBOLS

EXISTING	DESCRIPTION	NEW	DESCRIPTION
	MAJOR CONTOUR		MAJOR CONTOUR
	MINOR CONTOUR		MINOR CONTOUR
	SPOT ELEVATION		SPOT ELEVATION
	BUILDING		BUILDING
	CANOPY / OVERHANG		CANOPY/OVERHANG
	CONCRETE		UNDERGROUND STRUCTURE
	BITUMINOUS		CONCRETE
	LANDSCAPING		CONCRETE CURB
	GRAVEL		EDGE OF PAVEMENT
	PAVING BLOCK		FENCING
	STORM SEWER LINE		GUARD RAIL
	SANITARY SEWER LINE		CONCRETE RETAINING WALL
	WATER MAIN		MODULAR RETAINING WALL
	OVERHEAD ELECTRIC		FIELDSTONE RETAINING WALL
	UNDERGROUND TELEPHONE		EXIT LOCATION
	UNDERGROUND ELECTRIC		LIGHT STANDARD
	GAS LINE		POWER POLE
	CONCRETE CURB		SLOPE DIRECTION
	FENCING		CATCH BASIN
	RETAINING WALL		MANHOLE
	SET 1/2" X 14" IRON PIPE		BOLLARD
	IRON MONUMENT FOUND		FORCE MAIN
	SURVEY DISK (BENCHMARK)		ROOF DRAIN SYSTEM
	POWERPOLE		WATERMAN
	GUY WIRE		FIRE LINE (IF SEPARATE)
	GUARD POST		FIRE DEPT. CONNECTION
	GAS METER		SOIL SUBDRAIN
	TRANSFORMER		GAS LINE-UNDERGROUND
	WATER SHUT-OFF VALVE		ELECTRIC-UNDERGROUND
	TRAFFIC SIGN		TELEPHONE-UNDERGROUND
	FLAG POLE		UNDERGROUND CABLE/TV
	LIGHT POLE		LAWN SPRINKLER SLEEVE
	TREES		
	TREE LINE		
	MANHOLE		
	CATCH BASIN		
	FIRE HYDRANT		
	WATER VALVE		
	FLARED END SECTION		
	MAILBOX		
	NOTE NUMBER		
	MEASURED DISTANCE		
	DISTANCE PER RECORDED PLAT		
	SOL BORING		

EROSION CONTROL SYMBOLS

SYMBOL	DESCRIPTION
	SEDIMENT CONTROL FENCE
	INLET PROTECTION

DRAWING SYMBOLS

SYMBOL	DESCRIPTION
	NOTE REFERENCE
	PARKING STALL COUNT
	LARGE SHEET DETAIL
	COORDINATE POINT
	REVISION - ADDENDUM, BULLETIN, ETC.
	REVISED AREA (THIS ISSUE)

LEGAL DESCRIPTION

OUTLOT A, PROFESSORS ADDITION, HENNEPIN COUNTY, MINNESOTA.
 THAT PART OF LOT 9, BLOCK 2, GARDENDALE ACRES, HENNEPIN COUNTY, MINNESOTA LYING EAST OF THE WEST 22 FEET THEREOF.
 LOT 12, BLOCK 3, GARDENDALE ACRES, HENNEPIN COUNTY, MINNESOTA.

BENCHMARK

ELEVATIONS ARE BASED ON MN/DOT GEODETIC STATION NAME: CARL MN053 WHICH HAS AN ELEVATION OF: 907.209 FEET (NAVD88).

OWNER

SVK DEVELOPMENT
 3335 PENNSYLVANIA AVE. N.
 CRYSTAL, MN 55427
 TEL (612) 760-8660
 FAX (612) 252-9077
 CONTACT: MICHAEL KEVITT

PROJECT CONTACTS

CIVIL ENGINEER LANDFORM
 105 SOUTH FIFTH AVENUE, SUITE 513
 MINNEAPOLIS, MN 55401
 TEL 612-252-9070
 FAX 612-252-9077
 CONTACT: REID SCHULZ

SURVEYOR SATHRE-BERGQUIST INC.
 150 SOUTH BROADWAY
 WAYZATA, MN 55391
 TEL 952-476-8000
 CONTACT: DAVID PEMBERTON

LANDSCAPE ARCHITECT LANDFORM
 105 SOUTH FIFTH AVENUE, SUITE 513
 MINNEAPOLIS, MN 55401
 TEL 612-252-9070
 FAX 612-252-9077
 CONTACT: DANIELLE PIERQUET

CIVIL / LANDSCAPE SHEET INDEX & REVISION MATRIX

SHEETS ISSUED BY ISSUE / REVISION DATE	01/12/16
C0.1 CIVIL & LANDSCAPE TITLE SHEET	X
C0.2 PRELIMINARY PLAT	X
C1.1 EXISTING CONDITIONS & DEMOLITION	X
C3.1 GRADING, DRAINAGE, & EROSION CONTROL	X
C4.1 UTILITIES	X
C7.1 CIVIL CONSTRUCTION DETAILS	X
C7.2 CIVIL CONSTRUCTION DETAILS	X
C7.3 CIVIL CONSTRUCTION DETAILS	X
L1.1 TREE PRESERVATION PLAN	X
L2.1 LANDSCAPE PLAN	X

SITE / UTILITY CONTACTS

CITY PLANNER
 CITY OF CRYSTAL
 4141 DOUGLAS DRIVE N.
 CRYSTAL, MN 55422

DAN OLSON
 DAN.OLSON@CRYSTALMN.GOV
 TEL: 763-531-1142
 FAX:

CITY ENGINEER
 CITY OF CRYSTAL

MARK RAY
 MARK.RAY@CRYSTALMN.GOV
 TEL: 763-531-1160
 FAX:

DEVELOPER

SVK DEVELOPMENT
 3335 PENNSYLVANIA AVE. N.
 CRYSTAL, MN 55427
 TEL (612) 760-8660 - FAX (612) 545-5235

MUNICIPALITY



PROJECT

GARDENDALE SUBDIVISION
 CRYSTAL, MN

SHEET INDEX

SHEET	TITLE
C0.1	CIVIL & LANDSCAPE TITLE SHEET
C0.2	PRELIMINARY PLAT
C1.1	EXISTING CONDITIONS & DEMOLITION
C3.1	GRADING, DRAINAGE & EROSION CONTROL
C4.1	UTILITIES
C7.1	CIVIL CONSTRUCTION DETAILS
C7.2	CIVIL CONSTRUCTION DETAILS
C7.3	CIVIL CONSTRUCTION DETAILS
L1.1	TREE PRESERVATION
L2.1	LANDSCAPE

REVISION HISTORY

DATE	REVISION	REVIEW
12 JAN 2016	PRELIMINARY PLAT	CNC

PROJECT MANAGER REVIEW

BY/TS	DATE 01-12-2016

CERTIFICATION

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

Signature shown in registration stamp. Web signed copy of this plan on file at the registration office. This plan, as shown, is available upon request.



IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED REPRODUCIBILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

PRELIMINARY PLAT
 01-12-2016



105 South Fifth Avenue Tel: 612-252-9070
 Suite 513 Fax: 612-252-9077
 Minneapolis, MN 55401 Web: landform.net

FILE NAME C001SVK004.DWG

PROJECT NO. SVK16004

CIVIL & LANDSCAPE TITLE SHEET
C0.1

SHEET NO. 1/10

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GARDENDALE SUBDIVISION
 CRYSTAL, MN

SHEET	TITLE
C0.1	CIVIL & LANDSCAPE TITLE SHEET
C0.2	PRELIMINARY PLAT
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C4.0	UTILITIES
C7.1	CIVIL CONSTRUCTION DETAILS
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C7.3	CIVIL CONSTRUCTION DETAILS
L1.1	TREE PRESERVATION
L2.1	LANDSCAPE

REVISION HISTORY

DATE	REVISION	REVIEW
12 JAN 2016	PRELIMINARY PLAT	CNC

PROJECT MANAGER REVIEW

BY	DATE
RTS	01.12.2016

CERTIFICATION

I hereby certify that this plan 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.

PRELIMINARY NOT FOR CONSTRUCTION

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PRELIMINARY PLAT
 01-12-2016



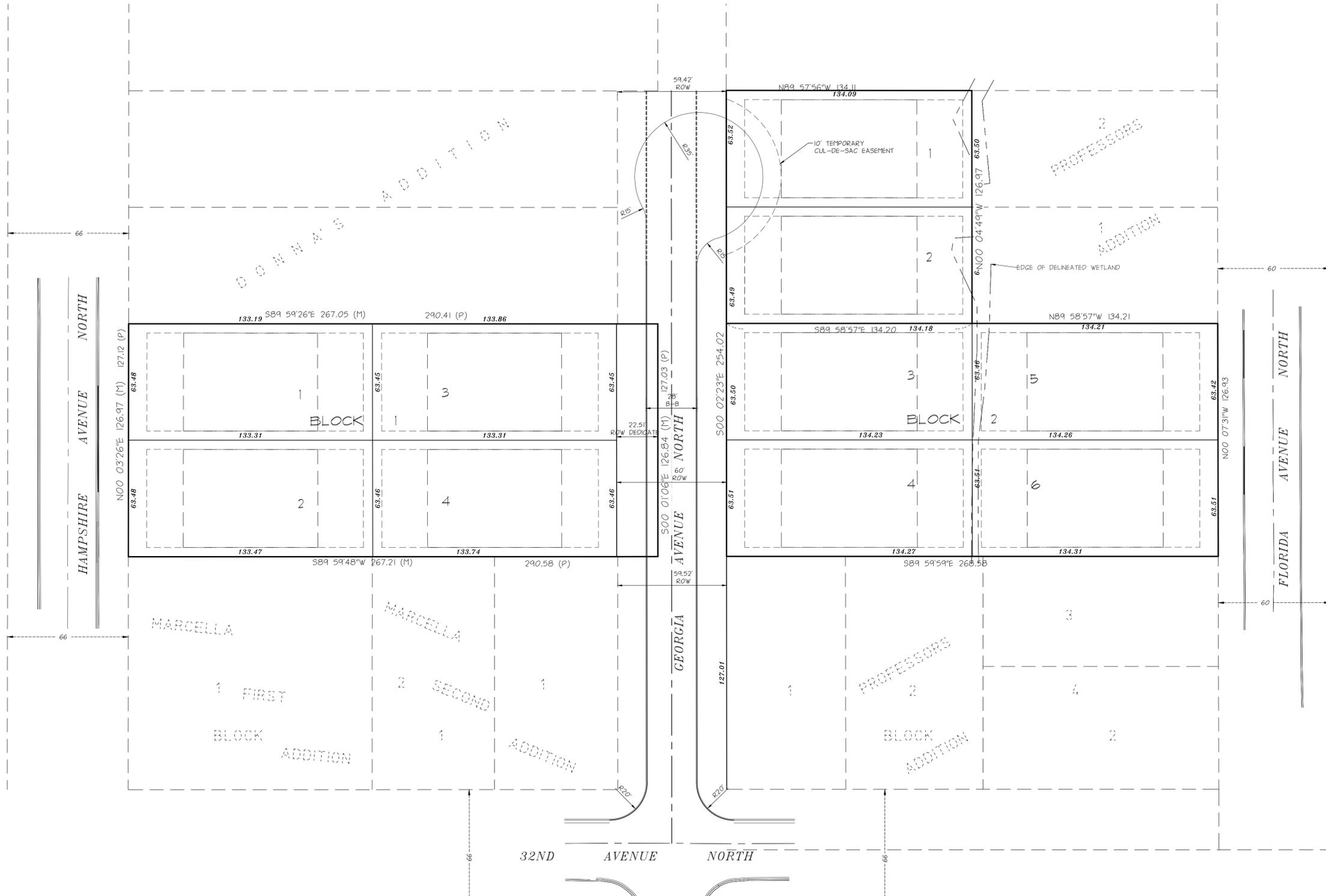
105 South Fifth Avenue Tel: 612-252-9070
 Suite 513 Fax: 612-252-9077
 Minneapolis, MN 55401 Web: landform.net

FILE NAME C002SVK004.DWG

PROJECT NO. SVK16004

PRELIMINARY PLAT
C0.2

SHEET NO. 2/10



AREA SUMMARY

TOTAL GROSS AREA = 87,816 S.F. (2.016 ACRES)
 ROW DEDICATION = 2,791 S.F. (0.064 ACRES)
 NET AREA = 85,025 S.F. (1.952 ACRES)
 TOTAL # OF UNITS = 10
 NET DENSITY = 5.12 UNITS/ACRE

LOT SUMMARY

PARCEL ID:	PARCEL SIZE:
LOT 1, BLOCK 1	8454 S.F.
LOT 2, BLOCK 1	8468 S.F.
LOT 3, BLOCK 1	8459 S.F.
LOT 4, BLOCK 1	8457 S.F.
LOT 1, BLOCK 2	8,517 S.F.
LOT 2, BLOCK 2	8,517 S.F.
LOT 3, BLOCK 2	8,519 S.F.
LOT 4, BLOCK 2	8,525 S.F.
LOT 5, BLOCK 2	8,516 S.F.
LOT 6, BLOCK 2	8,527 S.F.

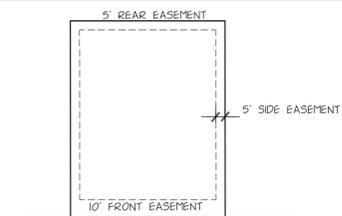
ZONING SETBACK SUMMARY

THE PROPERTY IS CURRENTLY ZONED (R-1) LOW DENSITY RESIDENTIAL
 BUILDING SETBACK INFORMATION IS AS FOLLOWS
 FRONT YARD = 30 FT.
 REAR = 30 FT.
 SIDE = 5 FT.

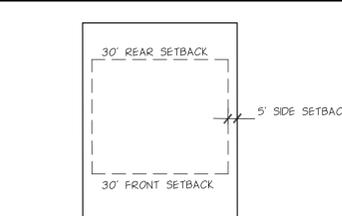
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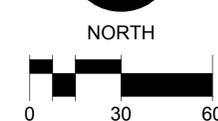
TYPICAL EASEMENTS

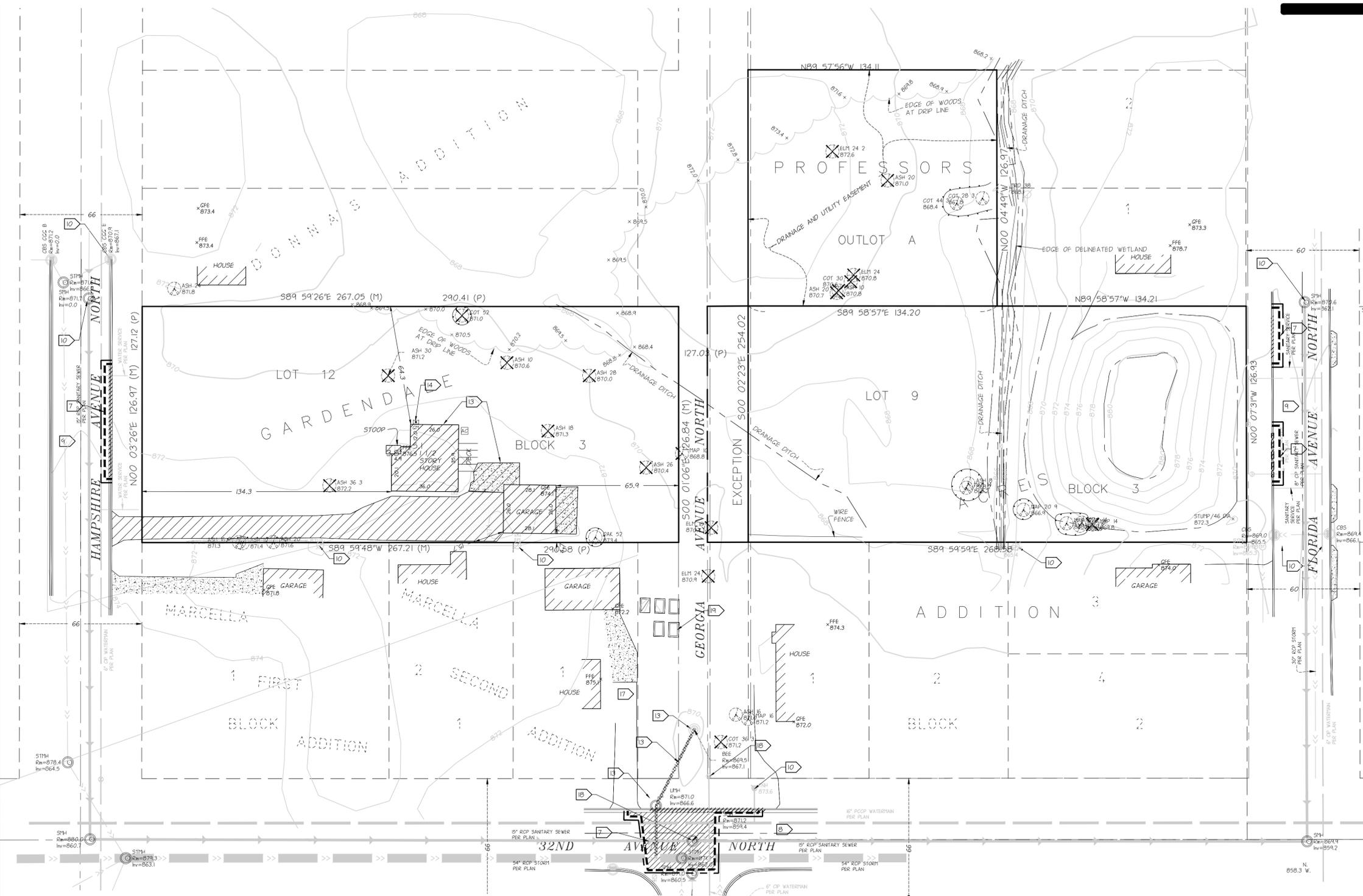


TYPICAL EASEMENTS



Know what's Below.
 Call before you dig.





LEGEND

- ✕ TREE REMOVAL
- - - TREE FENCE
- ▨ STRUCTURE AND/OR PAVEMENT REMOVAL
- ////// CURB REMOVAL
- XXXXXX STORM SEWER REMOVAL
- - - SAWCUT LINE
- - - CONSTRUCTION LIMITS

DEVELOPER

SVK DEVELOPMENT
 3335 PENNSYLVANIA AVE. N.
 CRYSTAL, MN 55427
 TEL (612)760-8660 - FAX (612)545-5235

MUNICIPALITY

PROJECT

GARDENDALE SUBDIVISION
 CRYSTAL, MN

SHEET INDEX

SHEET	TITLE
C01	CIVIL & LANDSCAPE TITLE SHEET
C02	PRELIMINARY PLAN
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C4.0	GRADING, DRAINAGE & EROSION CONTROL UTILITIES
C7.1	CIVIL CONSTRUCTION DETAILS
C7.2	CIVIL CONSTRUCTION DETAILS
C7.3	CIVIL CONSTRUCTION DETAILS
L11	TREE PRESERVATION
L21	LANDSCAPE

REVISION HISTORY

CONTACT ENGINEER FOR ANY PRIOR HISTORY

DATE	REVISION	REVIEW
12 JAN 2016	PRELIMINARY PLAN	CNC

PROJECT MANAGER REVIEW

BY RTS DATE 01-12-2016

CERTIFICATION

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

Signature shown as [Name] on [Date]. I have signed copy of this plan on file at [Address]. I am a duly Licensed Professional Engineer under the laws of the state of Minnesota. I am not providing any services, LLC office and is available upon request.

PRELIMINARY NOT FOR CONSTRUCTION

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PRELIMINARY PLAT
 01-12-2016

LANDFORM
 From Site to Finish

105 South Fifth Avenue Tel: 612-252-9070
 Suite 513 Fax: 612-252-9077
 Minneapolis, MN 55401 Web: landform.net

FILE NAME C101SVK16004.DWG

PROJECT NO. SVK16004

EXISTING CONDITIONS & DEMOLITION

C1.1

SHEET NO. 3/10

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- EXISTING CONDITIONS**
- BACKGROUND INFORMATION SHOWN IS FROM SURVEY BY SATHRE-BERGQUIST INC., WATZATA, MN, ON NOV. 10, 2015, EXPRESSLY FOR THIS PROJECT; CITY OF CRYSTAL, MINNESOTA RECORDED DRAWINGS; AND UTILITY SERVICE PROVIDERS. LANDFORM OFFERS NO WARRANTY, EXPRESSED OR WRITTEN, FOR INFORMATION PROVIDED BY OTHERS. EXISTING PROJECT CONDITIONS SHALL BE VERIFIED PRIOR TO BEGINNING CONSTRUCTION. ERRORS, INCONSISTENCIES, OR OMISSIONS DISCOVERED SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.

- DEMOLITION AND CLEARING NOTES**
- OBTAIN PERMITS FOR DEMOLITION, CLEARING, AND DISPOSAL PRIOR TO BEGINNING.
 - CONTACT UTILITY SERVICE PROVIDERS FOR FIELD LOCATION OF SERVICES 72 HOURS PRIOR TO BEGINNING DEMOLITION AND CLEARING.
 - SEE SHEET C3.1 FOR EROSION PREVENTION AND SEDIMENT CONTROL MEASURES THAT MUST BE IN PLACE PRIOR TO DISTURBANCES TO SITE.
 - BUILDING DEMOLITION: VERIFY WITH OWNER THAT BUILDING HAS BEEN CLEARED OF REGULATED MATERIALS REQUIRING SPECIAL HANDLING OR DISPOSAL. REMOVE STRUCTURE, COLUMNS, CANOPIES, FOOTINGS, FOUNDATIONS, AND ANY ASSOCIATED CONSTRUCTION IN ITS ENTIRETY.
 - DIMENSIONS SHOWN FOR REMOVAL ARE APPROXIMATE. COORDINATE WITH NEW CONSTRUCTION TO ENSURE APPROPRIATE REMOVAL OF EXISTING FACILITIES.
 - REFER TO DETAILS FOR PAVEMENT SAWCUT. REMOVE CONCRETE WALKS AND CURBING TO THE NEAREST EXISTING JOINT BEYOND CONSTRUCTION LIMITS.
 - COMPLETE DEMOLITION WITH MINIMAL DISRUPTION OF TRAFFIC. COORDINATE LANE CLOSURES WITH THE REGULATORY AUTHORITY AND PROVIDE ADVANCE NOTIFICATION TO AFFECTED EMERGENCY RESPONSE PROVIDERS.
 - PROVIDE BARRICADES, LIGHTS, SIGNS, TRAFFIC CONTROL, AND OTHER MEASURES NECESSARY FOR PROTECTION AND SAFETY OF THE PUBLIC AND MAINTAIN THROUGHOUT CONSTRUCTION.
 - PROTECT STRUCTURES, UTILITIES, TREES, PLANT MATERIAL, SOO, AND ADJACENT PROPERTY FROM DAMAGE DURING CONSTRUCTION UNLESS NOTED FOR REMOVAL. DAMAGE SHALL BE REPAIRED TO EQUAL OR BETTER CONDITION AT NO ADDITIONAL COST.
 - ABANDON WELLS AND ON SITE SEWAGE FACILITIES PRIOR TO ANY OTHER DEMOLITION IN ACCORDANCE WITH REQUIREMENTS OF REGULATORY AUTHORITIES.
 - REMOVE TREES NOTED, INCLUDING ROOT STRUCTURES, FROM THE SITE. COORDINATE WITH OWNER TO MARK TREES TO BE SAVED OR TRANSPLANTED PRIOR TO CLEARING.
 - REMOVE EXISTING SITE FEATURES INCLUDING, BUT NOT LIMITED TO, UNDERGROUND UTILITIES, PAVING, CURBING, WALKWAYS, FENCING, RETAINING WALLS, SCREEN WALLS, APRONS, LIGHTING, RELATED FOUNDATIONS, SIGNAGE, BOLLARDS, LANDSCAPING, AND STAIRWAYS WITHIN THE CONSTRUCTION LIMITS UNLESS NOTED OTHERWISE.
 - COORDINATE REMOVAL, RELOCATION, TERMINATION, AND RE-USE OF EXISTING PRIVATE UTILITY SERVICES AND APPURTENANCES WITH THE UTILITY COMPANIES. RESTORE ELECTRIC HANDHOLES, PULLBOXES, POWERPOLES, GUYLINES, AND STRUCTURES DISTURBED BY CONSTRUCTION IN ACCORDANCE WITH UTILITY OWNER REQUIREMENTS.
 - EXISTING PIPING AND CONDUITS MAY BE ABANDONED IN-PLACE IF FILLED WITH SAND AND IF NOT IN LOCATION OF PROPOSED BUILDING OR IN CONFLICT WITH PROPOSED UTILITIES OR STRUCTURES. TERMINATE EXISTING SERVICES AT THE SUPPLY SIDE IN CONFORMANCE WITH PROVIDER'S STANDARDS.
 - HALL DEMOLITION DEBRIS OFF-SITE TO A FACILITY APPROVED BY REGULATORY AUTHORITIES FOR THE HANDLING OF DEMOLITION DEBRIS, UNLESS NOTED OTHERWISE.
 - COORDINATE REMOVAL OF DRIVEWAY AND REPLACEMENT WITH ADJACENT NEIGHBOR
 - SAVE AND RE-USE STRUCTURES, IF APPLICABLE, AS TIE-IN POINTS FOR NEW CONSTRUCTION.
 - CONTRACTOR TO COORDINATE REMOVALS/RELOCATION OF GARDEN PLOTS WITH HOMEOWNER.

811

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NORTH

0 30 60



GARDENDALE SUBDIVISION
 CRYSTAL, MN

SHEET	TITLE
C01	CIVIL & LANDSCAPE TITLE SHEET
C02	PRELIMINARY PLAN
C11	EXISTING CONDITIONS & DEMOLITION
C31	GRADING, DRAINAGE & EROSION CONTROL
C40	UTILITIES
C71	CIVIL CONSTRUCTION DETAILS
C72	CIVIL CONSTRUCTION DETAILS
C73	CIVIL CONSTRUCTION DETAILS
L11	TREE PRESERVATION
L21	LANDSCAPE

REVISION HISTORY

DATE	REVISION	REVIEW
12 JAN 2016	PRELIMINARY PLAN	CNC

PROJECT MANAGER REVIEW

BY/TS	DATE
	01/12/2016

CERTIFICATION

I hereby certify that this plan 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.

PRELIMINARY NOT FOR CONSTRUCTION

Signature shown is not for use on any other project. Web signed copy of this plan on file at Minnesota Department of Transportation, LLC office and is available upon request.

PRELIMINARY PLAT
 01-12-2016

LANDFORM
 From Site to Finish

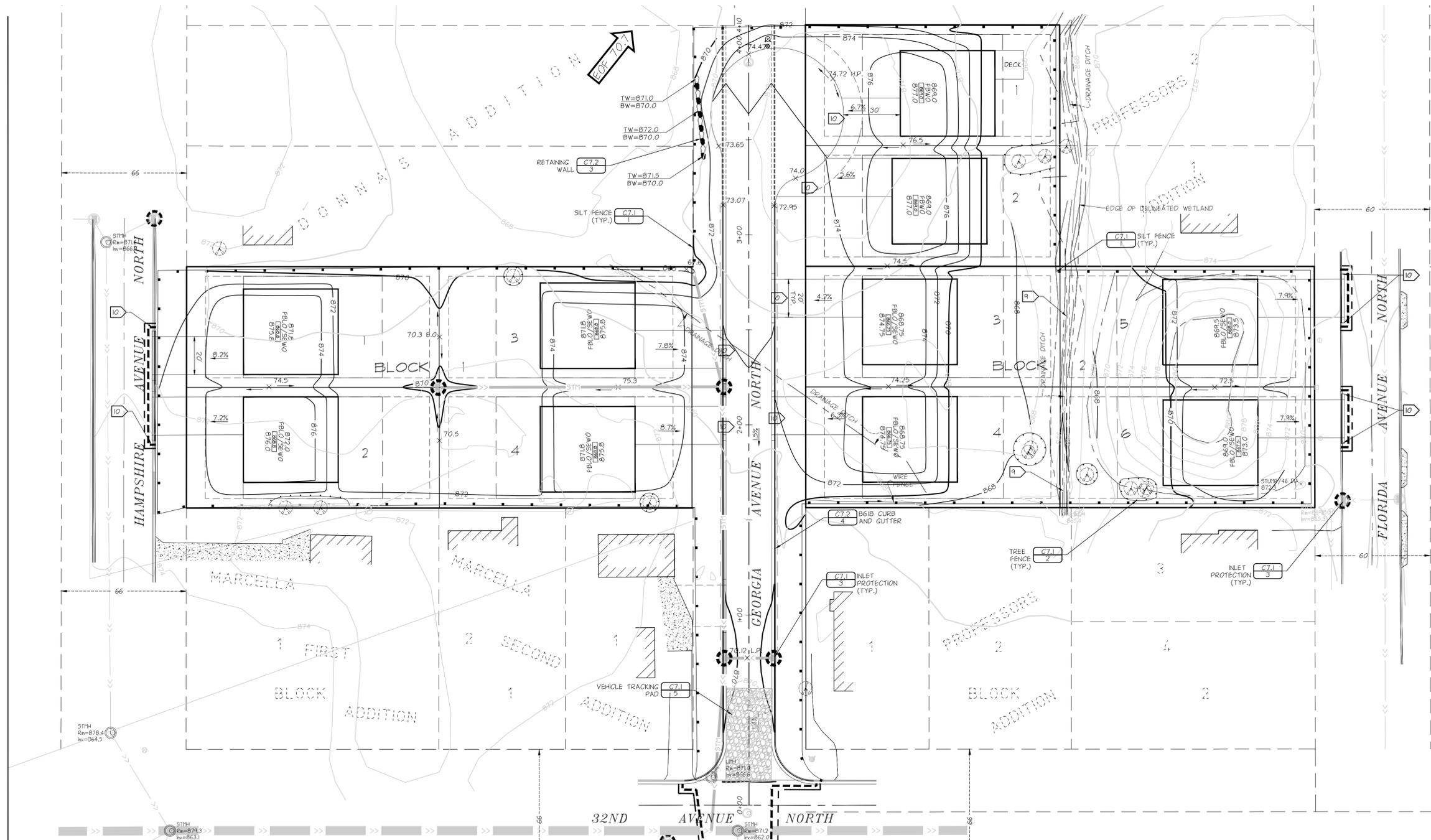
105 South Fifth Avenue Tel: 612-252-9070
 Suite 513 Fax: 612-252-9077
 Minneapolis, MN 55401 Web: landform.net

FILE NAME C301SVK16004.DWG

PROJECT NO. SVK16004

GRADING, DRAINAGE & EROSION CONTROL

C3.1



GRADING AND PAVING NOTES

- CONTACT UTILITY SERVICE PROVIDERS FOR FIELD LOCATION OF SERVICES 72 HOURS PRIOR TO BEGINNING GRADING.
- NO GEOTECHNICAL REPORT WAS PREPARED.
- REMOVE TOPSOIL FROM GRADING AREAS AND STOCKPILE SUFFICIENT QUANTITY FOR REUSE. MATERIALS MAY BE MINED FROM LANDSCAPE AREAS FOR USE ON SITE AND REPLACED WITH EXCESS ORGANIC MATERIAL WITH PRIOR OWNER APPROVAL.
- REMOVE SURFACE AND GROUND WATER FROM EXCAVATIONS. PROVIDE INITIAL LIFTS OF STABLE FOUNDATION MATERIAL IF EXPOSED SOILS ARE WET AND UNSTABLE.
- REFER TO STRUCTURAL SPECIFICATIONS FOR EARTHWORK REQUIREMENTS FOR BUILDING PADS.
- AN INDEPENDENT TESTING FIRM SHALL VERIFY THE REMOVAL OF ORGANIC AND UNSUITABLE SOILS, SOIL CORRECTION, AND COMPACTION AND PROVIDE PERIODIC REPORTS TO THE OWNER.
- PLACE AND COMPACT FILL USING LIFT THICKNESSES MATCHED TO SOIL TYPE AND COMPACTION EQUIPMENT TO OBTAIN SPECIFIED COMPACTION THROUGHOUT THE LIFT.
- COMPACT MATERIAL IN PAVED AREAS TO 95% OF MAXIMUM DRY DENSITY, STANDARD PROCTOR (ASTM D698) EXCEPT THE TOP 3 FEET WHICH SHALL BE COMPACTED TO 100%. COMPACT TO 98% DENSITY WHERE FILL DEPTH EXCEEDS 10 FEET.
- CONTRACTOR TO DREDGE AND REGRADE DRAINAGE SWALES.
- CONTRACTOR TO PLACE 3" NOSE DOWN CURB AT ALL DRIVEWAY TRANSITIONS

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

- INSTALL PERIMETER SEDIMENT CONTROLS PRIOR TO BEGINNING WORK AND MAINTAIN FOR DURATION OF CONSTRUCTION. REMOVE CONTROLS AFTER AREAS CONTRIBUTING RUNOFF ARE PERMANENTLY STABILIZED AND DISPOSE OF OFF SITE.
- LIMIT SOIL DISTURBANCE TO THE GRADING LIMITS SHOWN. SCHEDULE OPERATIONS TO MINIMIZE LENGTH OF EXPOSURE OF DISTURBED AREAS.
- MANAGEMENT PRACTICES SHOWN ARE THE MINIMUM REQUIREMENT. INSTALL AND MAINTAIN ADDITIONAL CONTROLS AS WORK PROCEEDS TO PREVENT EROSION AND CONTROL SEDIMENT CARRIED BY WIND OR WATER.
- EXCAVATE PONDS EARLY IN THE CONSTRUCTION SEQUENCE. REMOVE SEDIMENT FROM PONDS PERIODICALLY AND AFTER AREAS CONTRIBUTING RUNOFF ARE PERMANENTLY STABILIZED.
- CONTRACTOR SHALL PREVENT SEDIMENT LADEN WATER FROM ENTERING THE INFILTRATION SYSTEM UNTIL THE SITE IS COMPLETELY STABILIZED.
- ALL EXPOSED SOIL AREAS MUST BE STABILIZED WITHIN 72 HOURS OF COMPLETION OF WORK IN EACH AREA. (IF WITHIN 1 MILE OF IMPAIRED WATER USE THE FOLLOWING NOTE INSTEAD) ALL EXPOSED SOILS AREAS SHALL BE STABILIZED IMMEDIATELY TO LIMIT SOIL EROSION IN THAT PORTION OF THE SITE WHERE CONSTRUCTION HAS TEMPORARILY OR PERMANENTLY CEASED.
- SEED, SOD, MULCH AND FERTILIZER SHALL MEET THE FOLLOWING SPECIFICATIONS, AS MODIFIED.
 ITEM SPECIFICATION NUMBER
 SOD MNDOT 3878
 SEED MNDOT 3876
 MN TYPE 22-III @ 30.5 LB/AC - TEMPORARY EROSION CONTROL
 MN TYPE 25-151 @ 120 LB/AC - PERMANENT TURF
 MULCH (MNDOT TYPE 1 @ 2 TON/AC, DISC ANCHORED) MNDOT 3882
 FERTILIZER MNDOT 3881 \ MNDOT 2575
- SEE LANDSCAPE SHEETS FOR PERMANENT TURF AND LANDSCAPE ESTABLISHMENT.
- HYDRAULIC MULCHING AND OTHER PRACTICES MUST BE USED ON SLOPES OF 3:1 OR STEEPER TO PROVIDE ADEQUATE STABILIZATION.
- AT LEAST SIX INCHES OF TOPSOIL OR ORGANIC MATTER MUST BE SPREAD AND INCORPORATED INTO THE UNDERLYING SOIL DURING FINAL SITE TREATMENT WHEREVER TOPSOIL HAS BEEN REMOVED.
- THE CONTRACTOR MUST, AT A MINIMUM INSPECT, MAINTAIN, AND REPAIR ALL DISTURBED SURFACES AND ALL EROSION AND SEDIMENT CONTROL FACILITIES AND SOIL STABILIZATION MEASURES EVERY DAY WORK IS PERFORMED ON THE SITE AND AT LEAST WEEKLY UNTIL LAND-DISTURBING ACTIVITY HAS CEASED. THEREAFTER, THE CONTRACTOR MUST PERFORM THESE RESPONSIBILITIES AT LEAST WEEKLY UNTIL VEGETATIVE COVER IS ESTABLISHED.

LEGEND

SYMBOL	DESCRIPTION	ESTIMATED QUANTITY
	INLET PROTECTION	8 EACH
	SILT FENCE	1920 L.F.
	TREE FENCE	
	VEHICLE TRACKING PAD	1 EACH
	PAVEMENT SAWCUT	
	CONSTRUCTION LIMITS	

BUILDING TYPE

XXX.X	FBWO/FB	
XXXXX	XXXXX	: FRONT GARAGE ELEVATION
XXXXX	XXXXX	: WALKOUT UNIT / FULL BASEMENT UNIT
XXXXX	XXXXX	: MINIMUM BASEMENT ELEVATION
XXXXX	XXXXX	: REAR ELEVATION

NOTES:
 1. GARAGE LOCATION INDICATED BY DRIVEWAY.

1 PAD DETAIL NO SCALE

NPDES AREA SUMMARY

	EXISTING	PROPOSED
PERVIOUS	101,780 SF	64,179
IMPERVIOUS	5,884 SF	43,485 SF
TOTAL	107,664 SF	107,664 SF



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PRELIMINARY PLAT
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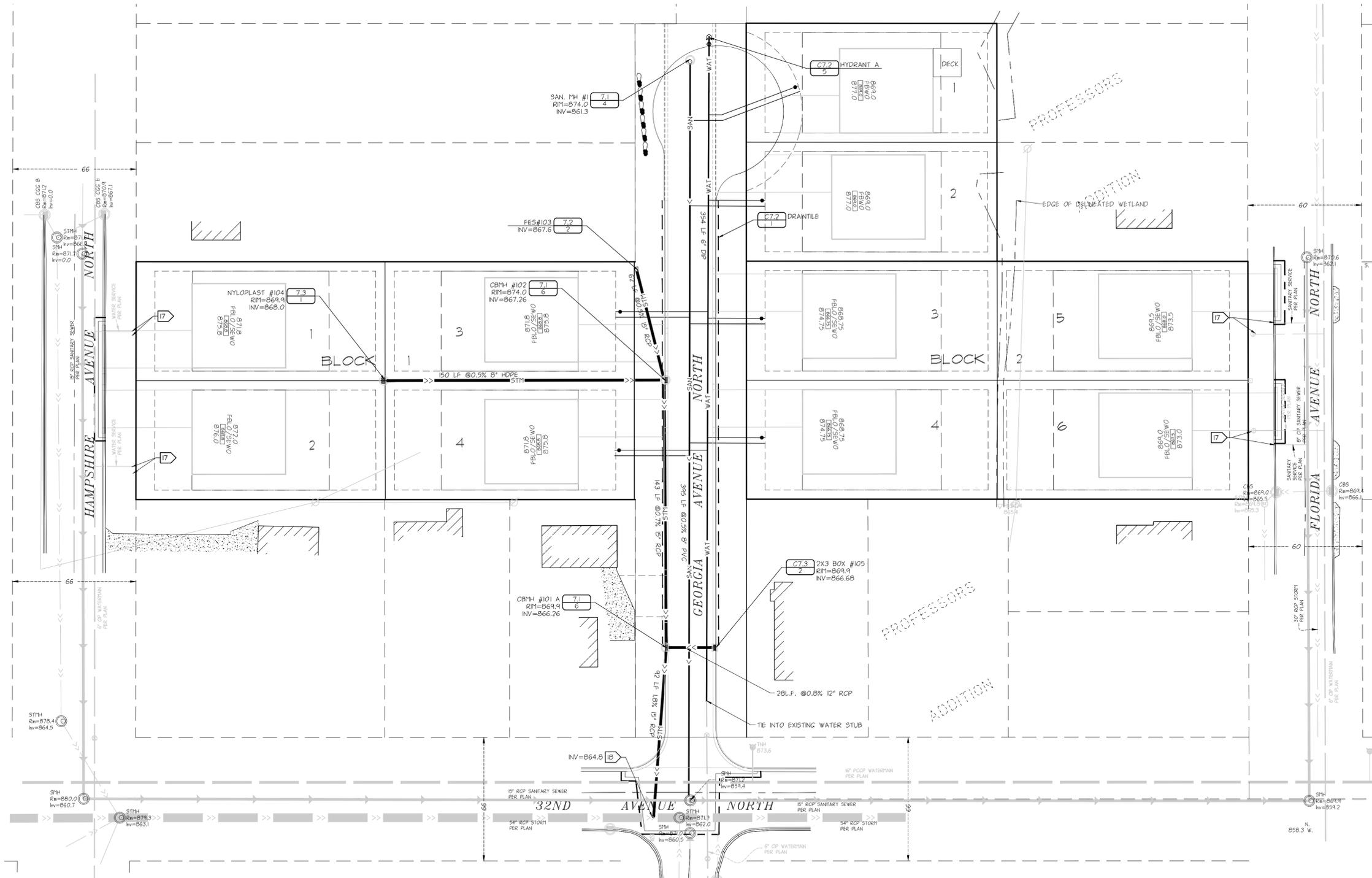
FILE NAME C401SVK16004.DWG

PROJECT NO. SVK16004

UTILITIES

C4.1

SHEET NO. 5/10



UTILITY NOTES

- PIPE MATERIALS
 WATERMAIN 6" POLYWRAPPED DIP CLASS 52
 WATER SERVICE 1.5" COPPER PIPE
 SANITARY SEWER 8" PVC SDR 35
 SANI. SEWER SERVICE 4" PVC SDR 26
 STORM SEWER RCP 12"-15" CLASS 5 (ASTM C76)
 8" HOPE
- CONTACT UTILITY SERVICE PROVIDERS FOR FIELD LOCATION OF SERVICES 72 HOURS PRIOR TO BEGINNING.
- COORDINATE WITH PRIVATE UTILITIES TO PROVIDE ELECTRIC, NATURAL GAS, AND COMMUNICATIONS SERVICES TO LOTS.
- PROVIDE MEANS AND MEASURES TO PROTECT ADJACENT PROPERTY FROM DAMAGE DURING UTILITY INSTALLATION.
- PIPE LENGTHS SHOWN ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE OR END OF END SECTION.
- ADJUST STRUCTURES TO FINAL GRADE WHERE DISTURBED. COMPLY WITH REQUIREMENTS OF UTILITY. MEET REQUIREMENTS FOR TRAFFIC LOADING IN PAVED AREAS.
- INSTALL TRACER WIRE WITH ALL NON-CONDUCTIVE UTILITIES.
- CONNECT TO CITY UTILITIES IN ACCORDANCE WITH CITY OF CRYSTAL STANDARDS.
- CONTACT CITY OF CRYSTAL PUBLIC WORKS AT 815-356-3614 FOR WET TAP INSPECTION.

UTILITY NOTES

- MAINTAIN 7.5 FEET OF COVER ON WATER.
- DEFLECT WATER TO MAINTAIN 18-INCH MINIMUM OUTSIDE SEPARATION AT SEWER CROSSINGS. CENTER PIPE LENGTHS TO PROVIDE GREATEST SEPARATION BETWEEN JOINTS.
- CONTACT CITY OF CRYSTAL PUBLIC WORKS AT 815-356-3614 FOR FLUSHING AND PRESSURE TEST INSPECTIONS.
- CATCH BASINS IN CURB AND GUTTER ARE SUMPED 1 INCH BELOW THE GUTTER GRADE. REFER TO DETAIL 4 ON SHEET C7.2.
- CENTER POINT ENERGY WILL FURNISH AND INSTALL GAS SERVICE PIPING FROM THE MAINLINE TO THE METER AND THE METER. GAS SERVICE FROM THE METER SHALL BE INSTALLED BY THE MECHANICAL CONTRACTOR.
- CONTRACTOR TO POT-HOLE ALL UTILITY CROSSINGS PRIOR TO CONSTRUCTION OF NEW UTILITIES TO VERIFY DEPTHS OF EXISTING LINES. CONTACT ENGINEER IMMEDIATELY IF ANY CONFLICTS ARE DISCOVERED.
- THE WATER DISTRIBUTION SYSTEM SHALL BE DISINFECTED PER MINNESOTA RULES, PART 4715.2250.
- CONTRACTOR TO FIELD VERIFY SANITARY AND WATER SERVICES
- CONTRACTOR TO FIELD VERIFY STORM SEWER TIE-IN INVERT



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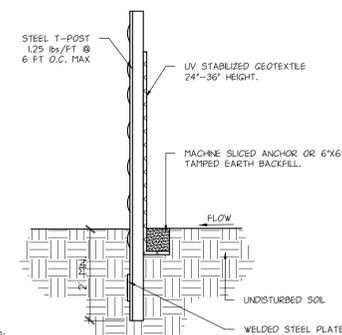
FILE NAME C701SVK16004.DWG

PROJECT NO. SVK16004

DETAIL / CIVIL CONSTRUCTION

C7.1

SHEET NO. 6/10



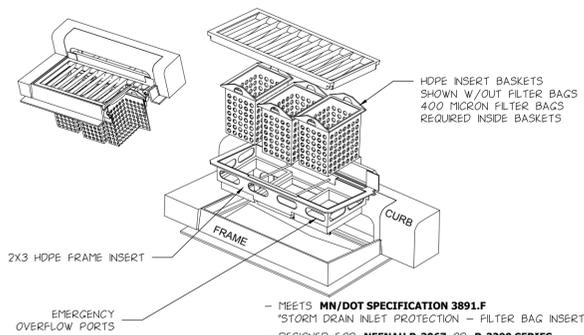
NOTES:

- DIG A 6" TRENCH ALONG THE INTENDED FENCE LINE OR USE MACHINE SLICED ANCHOR.
- INSTALL ON CONTOUR AT CONSTANT ELEVATION.
- DRIVE ALL POSTS INTO THE GROUND AT THE BACK SIDE OF THE TRENCH.
- LAYOUT WIRE MESH AND SILT FENCE ON THE UP HILL SIDE ALONG THE FENCE LINE, AND BACK FILL.

1

SILT FENCE

NO SCALE



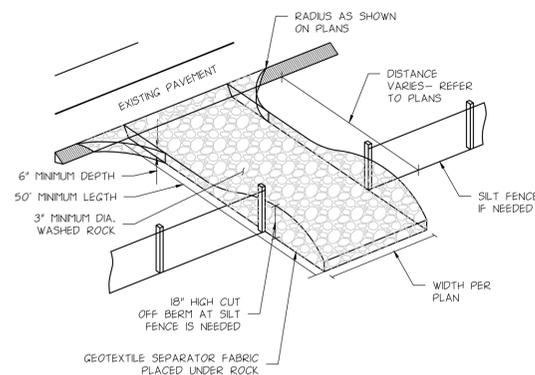
INFRASAFE - 2'x3' DEBRIS COLLECTION DEVICE

AS MANUFACTURED BY ROYAL ENVIRONMENTAL SYSTEMS
 ALTERNATIVE ALLOWED AS APPROVED BY PERMITTING AUTHORITIES

INLET PROTECTION 2'x3'

NO SCALE

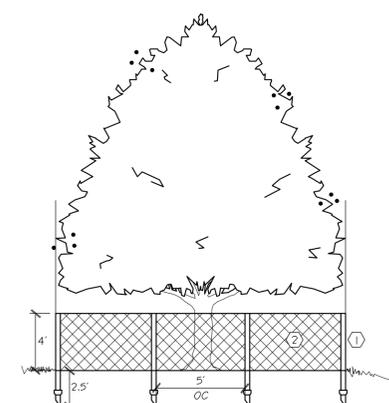
3



VEHICLE TRACKING PAD

NO SCALE

5



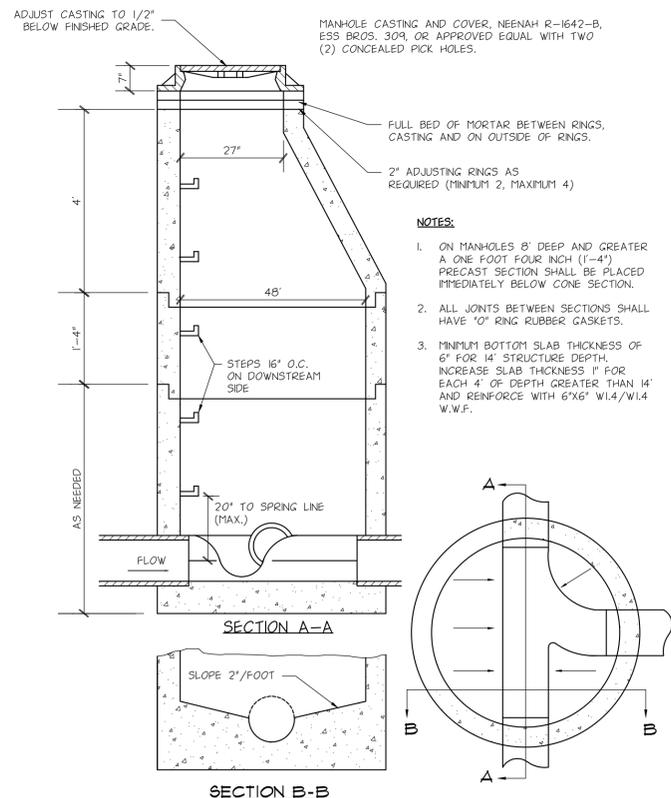
INSTALL TREE PROTECTION DEVICES PRIOR TO START OF LAND DISTURBANCE. MAINTAIN UNTIL FINAL LANDSCAPE IS INSTALLED.

- 6.5" STEEL T-POST, 1.25 LB/LF, POSITION AT DRIPLINE.
- ORANGE, POLYETHYLENE SAFETY NETTING, THREE TIES PER POST.

2

TREE PROTECTION

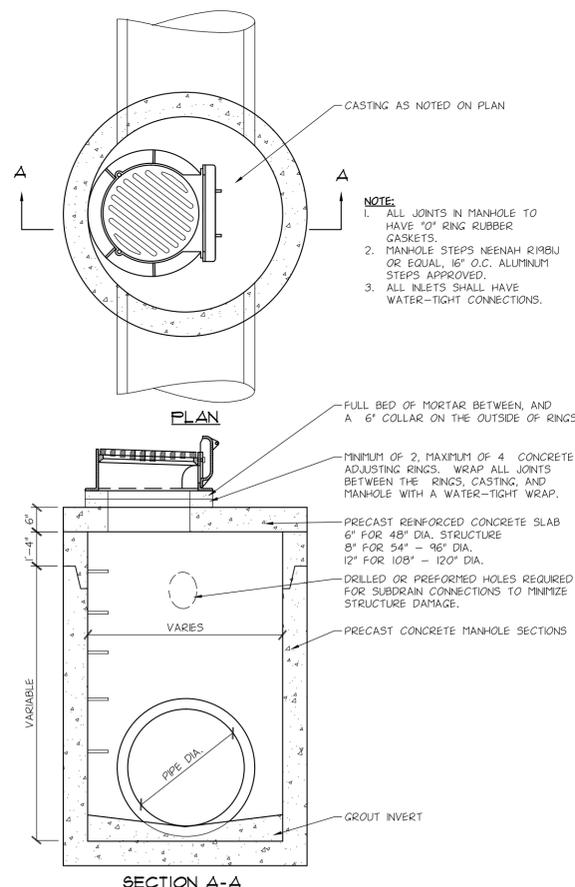
NO SCALE



SANITARY SEWER MANHOLE

NO SCALE

4



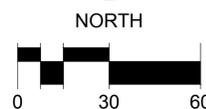
STORM SEWER CATCH BASIN MANHOLE

NO SCALE

6



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**GARDENDALE
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 CRYSTAL, MN**

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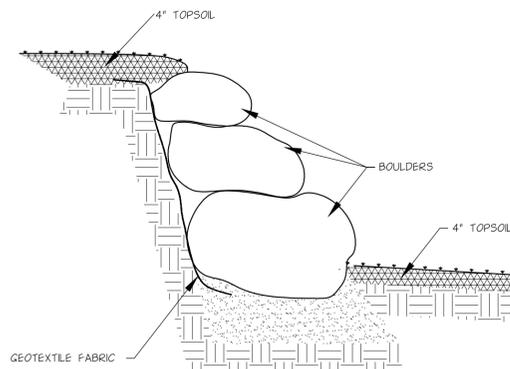
FILE NAME C702SVK16004.DWG

PROJECT NO. SVK16004

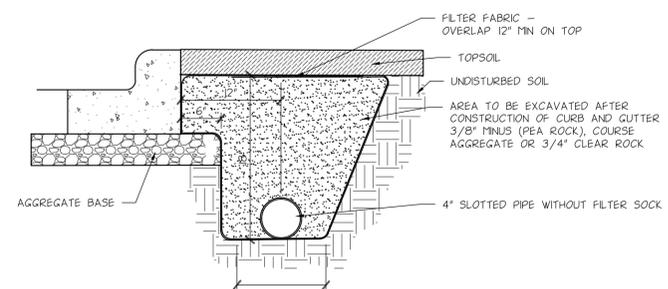
DETAIL / CIVIL CONSTRUCTION

C7.2

SHEET NO. 7/10



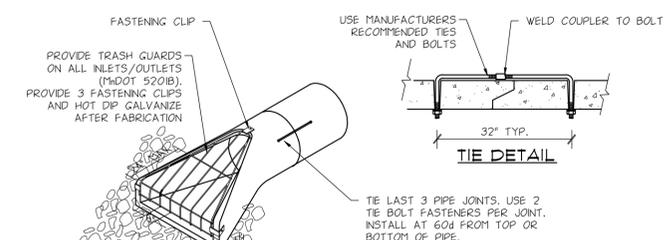
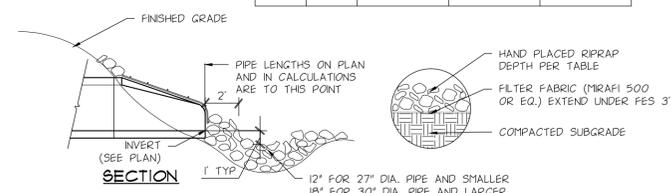
3 BOULDER RETAINING WALL
 NO SCALE



1 DRAIN TILE BEHIND CURB
 NO SCALE

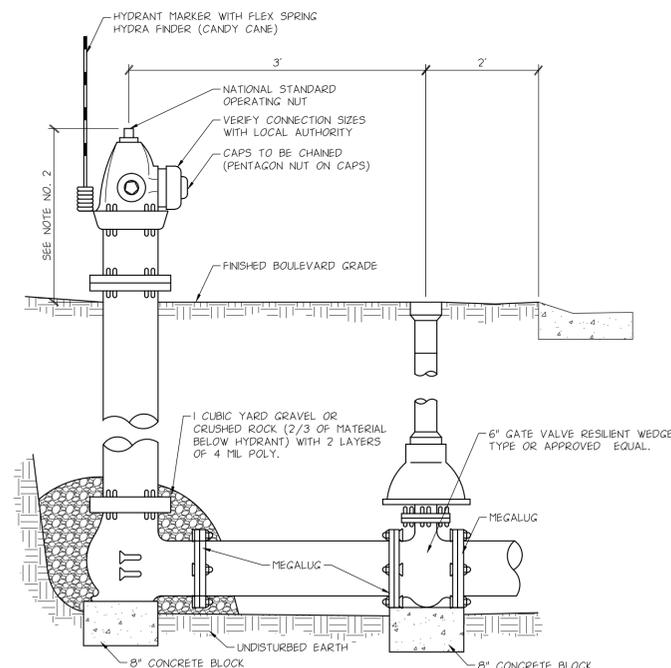
TABLE OF QUANTITIES
 RIPRAP AT RCP OUTLETS

DIA. OF ROUND PIPE (IN.)	LENGTH (FT.)	CLASS II	CLASS III	CLASS IV
		d50= 6"	d50= 9"	d50= 9"
12	8	2.8	4.1	5.5
15	8	2.9	4.4	5.8
18	10	3.9	5.9	7.8
21	10	4.2	6.3	8.4
24	12	5.5	8.3	11.0
27	12	5.8	8.7	11.6
30	14	7.3	10.9	14.5
36	16	9.2	13.6	18.3
42	18	10.9	16.3	21.7
48	20	12.9	19.4	25.8



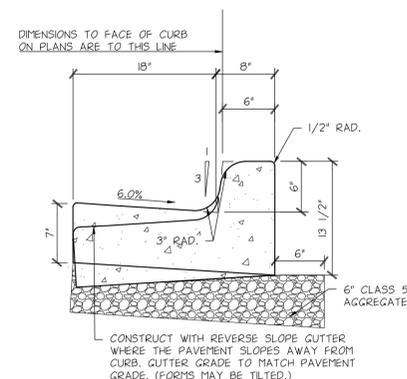
PIPE SIZE	TRASH GUARD SIZING	
	BAR S	H
12"	3/4"	2 1/2"
15"	3/4"	3"
18"	3/4"	4"
21"24"	1"	4"
27"-36"	1"	5"
42"	1"	6"
48"-54"	1 1/4"	6"
60"-72"	1 1/4"	7"
78"-90"	1 1/4"	7"

2 FLARED END SECTION AND TRASH GUARD WITH RIP RAP
 NO SCALE



- NOTES:**
1. FIRE HYDRANTS SHALL BE PAINTED RED AT THE FACTORY.
 2. TOP OF FIRE HYDRANT DESIGN ELEVATION SHALL BE 2.5' ABOVE FINISHED BOULEVARD GRADE.
 3. THRUST BLOCKING MAY ALSO BE REQUIRED ON DEAD END LINES.
 4. COVER WATERMAN PER PLAN.
 5. VERIFY BRAND AND MODEL OF HYDRANT WITH LOCAL AUTHORITY.

5 HYDRANT AND GATE VALVE WITH BOX
 NO SCALE



4 B618 CONCRETE CURB & GUTTER
 NO SCALE



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NYLOPLAST DRAIN BASIN WITH DOME GRATE

(1, 2) INTEGRATED DUCTILE IRON GRATE TO MATCH BASIN O.D.
 (3) VARIABLE INVERT HEIGHTS AVAILABLE (ACCORDING TO PLANS/TAKE OFF)
 (4) VARIOUS TYPES OF INLET & OUTLET ADAPTERS AVAILABLE. 4" - 30" FOR CORRUGATED HDPE ADS II-28 HANCOCK DUAL WALL, ADS HANCOCK SINGLE WALL, N-12 HP PVC SEWER (EX. SDR 35), PVC DWV (EX. SCH 40), PVC C900/C905, CORRUGATED & RIBBED PVC
 (5) ADAPTER ANGLES VARIABLE 0° - 360° ACCORDING TO PLANS
 (6) MIN. ON 8" - 30" 6" MIN ON 30"
 (7) VARIABLE SUMP DEPTH ACCORDING TO PLANS (8" MIN. ON 8" - 24", 10" MIN. ON 30" BASED ON MANUFACTURING REQ.)
 THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I OR CLASS II MATERIAL AS DEFINED IN ASTM D2221. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2221.

1 - 8" - 30" DOME GRATES SHALL BE DUCTILE IRON PER ASTM A818 GRADE 70-60.
 2 - 4" & 6" DOME GRATES FIT ONTO THE DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7005-110-06.
 3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE REQUIRED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7005-110-06.
 4 - DRAINAGE CONNECTION STUD JOINT TIGHTNESS SHALL CONFORM TO ASTM D2221 FOR CORRUGATED HDPE ADS II-28 HANCOCK DUAL WALL, N-12 HP, & PVC SEWER (EX. SDR 35).
 5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360° TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7005-110-02.
 6 - 8" - 30" DOME GRATES HAVE NO LOAD RATING.

DRAWN BY	DATE	SCALE	SHEET	1 OF 1
AWA	8-10-09	A	1-25	1 OF 1

NON TRAFFIC INSTALLATION

DRAIN BASIN
 TOP SOIL
 GRATECOVER
 4" MIN ON 8" - 24" 6" MIN ON 30"

INLINE DRAIN
 TOP SOIL
 GRATECOVER
 4" MIN ON 8" - 24" 6" MIN ON 30"

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I OR CLASS II MATERIAL AS DEFINED IN ASTM D2221. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE WELL PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2221.

DRAWN BY	DATE	SCALE	SHEET	1 OF 1
CJA	8-30-09	A	1-25	1 OF 1

WHEN ARE INLINE DRAINS USED?

218AG ... X
 271AG ... X
 2712AG ... X
 2715AG ... X
 2718AG ... X
 2724AG ... X
 2730AG ... X

1: TO ENTER AN EXISTING LINE USING A TEE & RISER
 2: AT THE BEGINNING OF A DRAIN LINE USING AN ELBOW & RISER

TYPICAL INSTALLATIONS

TYPICAL INSTALLATION OF NYLOPLAST DRAIN BASIN AND INLINE DRAIN

(3) VARIABLE ELEVATION

WATER-TIGHT ADAPTERS AVAILABLE FOR MOST COMMON PLASTIC PIPING SYSTEMS

WHEN ARE DRAIN BASINS USED?

2808AG ... X
 2810AG ... X
 2812AG ... X
 2815AG ... X
 2818AG ... X
 2824AG ... X
 2830AG ... X

1: TO CHANGE ELEVATION
 2: TO CHANGE PIPE DIAMETER
 3: TO CHANGE PIPE TYPE
 4: FOR SHALLOW APPLICATIONS
 5: TO CHANGE DIRECTION

1 - STRUCTURES & ADAPTERS AVAILABLE IN SIZES 8" - 30"
 2 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360° TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7005-110-02
 3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS RISERS ARE REQUIRED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS SEE DRAWING NO. 7005-110-06

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONVEY, TRANSFER OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

DRAWN BY	DATE	SCALE	SHEET	1 OF 1
AWA	8-10-09	A	1-40	1 OF 1

NYLOPLAST DRAINAGE BASINS

NO SCALE

1

(NEENAH CASTING NO. R-3067 WITH TYPE DR, DL, OR TYPE V GRATE OR APPROVED EQUAL)

DIRECTION OF MAJOR FLOW (TYPE DL GRATE)

NOTE:
 1. EXPANSION MATERIAL TO BE PLACED IN SECOND JOINT BOTH SIDES OF CATCH BASIN.
 2. RECESS CATCH BASIN 2" BELOW GUTTER GRADE LINE.
 3. FOR SURMOUNTABLE CURB, PROVIDE FACE OF CURB TRANSITION EXTENDING 10" ON EACH SIDE OF CATCH BASIN TO MATCH CASTING.

2" ADJUSTING RINGS (MIN. 2, MAX. 4)
 FULL BED OF MORTAR BETWEEN THE RINGS, 6" CONCRETE COLLAR AROUND OUTSIDE OF RINGS. WRAP ALL JOINTS BETWEEN THE RINGS, CASTING, AND MAN-HOLE WITH A WATER-TIGHT WRAP.
 2" ADJUSTING RINGS (MIN. 2, MAX. 4)
 WATER-TIGHT CONNECTION
 INTEGRAL CAST BASE

NOTE:
 4.5" MAXIMUM BULD

DRILLED OR PREFORMED HOLES REQUIRED FOR DRAINILE CONNECTIONS TO MINIMIZE STRUCTURE DAMAGE.

2

2'x3' BOX TYPE CATCH BASIN

NO SCALE



GARDENDALE SUBDIVISION CRYSTAL, MN

SHEET	TITLE
C01	CIVIL & LANDSCAPE TITLE SHEET
C02	PRELIMINARY PLAT
C11	EXISTING CONDITIONS & DEMOLITION
C31	GRADING, DRAINAGE & EROSION CONTROL UTILITIES
C4.0	UTILITIES
C7.1	CIVIL CONSTRUCTION DETAILS
C7.2	CIVIL CONSTRUCTION DETAILS
C7.3	CIVIL CONSTRUCTION DETAILS
L11	TREE PRESERVATION
L21	LANDSCAPE

REVISION HISTORY

DATE	REVISION	REVIEW
12 JAN 2016	PRELIMINARY PLAT	CNC

PROJECT MANAGER REVIEW

BY/TS	DATE
	01-12-2016

CERTIFICATION

I hereby certify that this plan 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.

PRELIMINARY NOT FOR CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

PRELIMINARY PLAT

01-12-2016



105 South Fifth Avenue
Suite 513
Minneapolis, MN 55401

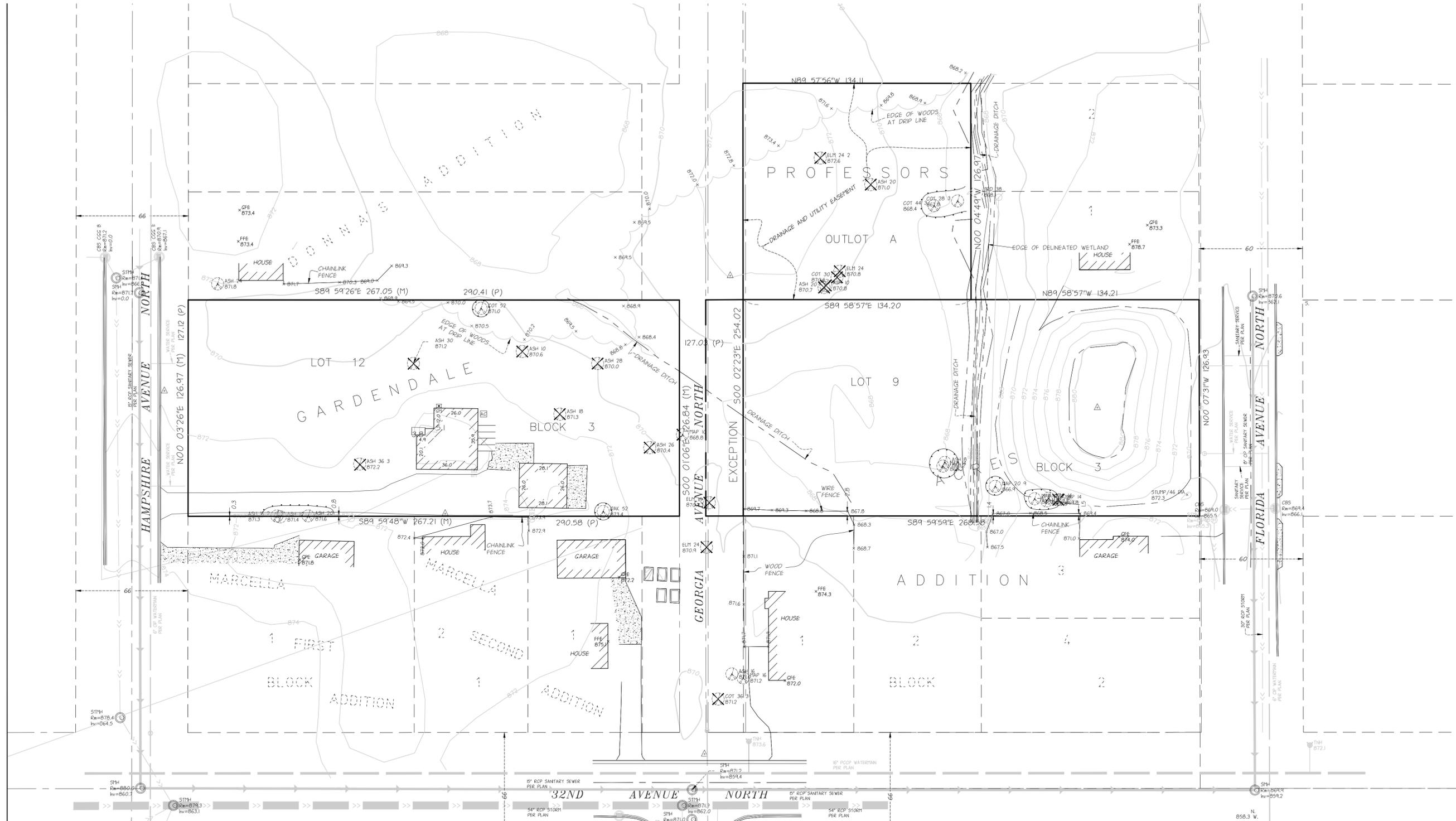
File Name: L101SVK16004.DWG

Project No.: SVK16004

TREE PRESERVATION

L1.1

SHEET NO. 9/10



EXISTING CONDITIONS

TREE SURVEY INFORMATION PROVIDED BY SATHRE-BERGQUIST INC.. LANDFORM OFFERS NO WARRANTY, EXPRESSED OR WRITTEN, FOR INFORMATION PROVIDED BY OTHERS. EXISTING PROJECT CONDITIONS SHALL BE VERIFIED PRIOR TO BEGINNING CONSTRUCTION. ERRORS, INCONSISTENCIES, OR OMISSIONS DISCOVERED SHALL BE REPORTED TO THE ENGINEER.

LEGEND

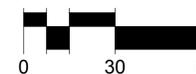
- TREE FENCE
- TREE
- ANTICIPATED TREE REMOVAL

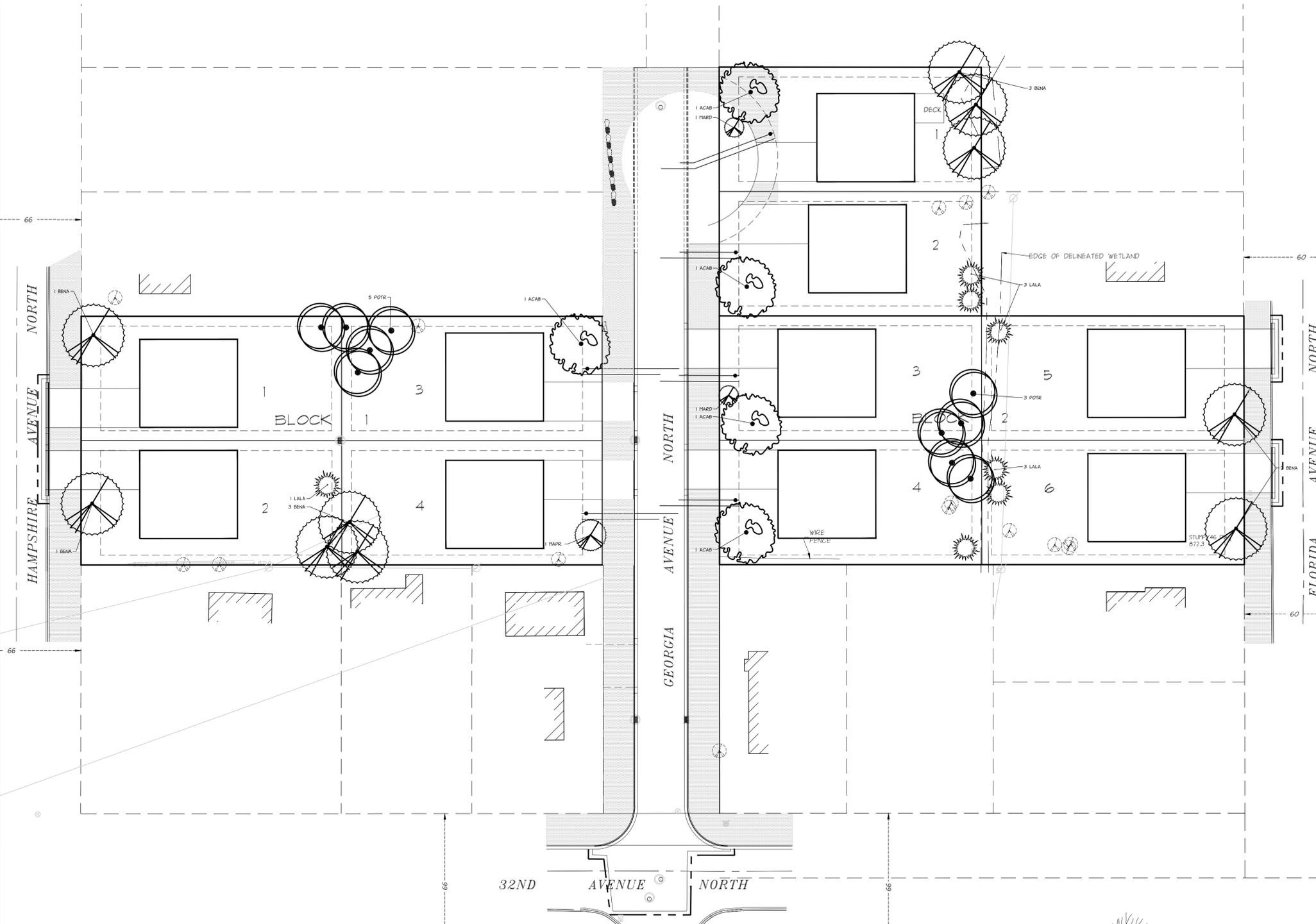


Know what's Below.
Call before you dig.



NORTH





LANDSCAPE NOTES

- CONTACT UTILITY SERVICE PROVIDERS FOR FIELD LOCATION OF SERVICES 72 HOURS PRIOR TO BEGINNING.
- COORDINATE INSTALLATION WITH CONTRACTORS PERFORMING RELATED WORK.
- SEED MIXTURE (36-211, 34-1B1, 25-251 & 33-261) AS DEFINED IN CURRENT MNDOT SEEDING MANUAL. NATIVE SEEDS SHALL BE OF MINNESOTA ORIGIN AND CERTIFIED BY THE MINNESOTA CROP IMPROVEMENT ASSOCIATION (MCA). PROVIDE VERIFYING DOCUMENTATION TO THE OWNER 30 DAYS MINIMUM PRIOR TO INSTALLATION.
- PLANT MATERIAL SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS AND BE OF HARDY STOCK, FREE FROM DISEASE, INFESTATION, DAMAGE, AND DISFIGURATION. FOR DISCREPANCY BETWEEN THE NUMBER OF PLANTS ON THE SCHEDULE AND THE NUMBER SHOWN ON THE DRAWING, THE DRAWING SHALL GOVERN.
- PLANTING SOIL SHALL CONSIST OF 4 PARTS TOPSOIL TO 1 PART PEAT HUMUS, WITH 3 POUNDS OF COMMERCIAL FERTILIZER ADDED PER CUBIC YARD.
- SPREAD A MINIMUM OF 4 INCHES OF TOPSOIL AND SEED ALL TURF AREAS DISTURBED BY CONSTRUCTION.
- FOLLOW MNDOT SEEDING MANUAL FOR PLANTING INSTRUCTIONS FOR ESTABLISHMENT OF NATIVE SEED AND PROVIDE COORDINATION FOR REQUIRED EROSION PREVENTION AND SEDIMENT CONTROL.
- PLACE PLANTS ACCORDING TO LAYOUT WITH PROPER NOMINAL SPACING.
- SEE DETAILS FOR DEPTH OF PLANTING SOIL.
- 2" HDPE IRRIGATION STUB AND CONTROLLER WIRES. BUILDER TO EXTEND TO BUILDING FOR WATER REUSE IRRIGATION.
- UNDERGROUND RAINWATER REUSE CISTERNS, 2,333 C.F. CAPACITY. ACTUAL DESIGN, LOCATION AND INSTALLATION BY BUILDER AT THE TIME OF BUILDING CONSTRUCTION. LOCATION SHOWN FOR INFORMATIONAL USE ONLY.

LEGEND

SEED MIX: MNDOT 25-251 HIGH MAINTENANCE TURF

DEVELOPER

SVK DEVELOPMENT
 3335 PENNSYLVANIA AVE. N.
 CRYSTAL, MN 55427
 TEL (612)760-8660 - FAX (612)545-5235

MUNICIPALITY



PROJECT

GARDENDALE SUBDIVISION
 CRYSTAL, MN

SHEET INDEX

SHEET	TITLE
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REVISION HISTORY

DATE	REVISION	REVIEW
12 JAN 2016	PRELIMINARY PLAT	CNC

PROJECT MANAGER REVIEW

BY/TS	DATE
	01.12.2016

CERTIFICATION

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

Signature shown in red. Wet signed copy of this plan on file at the office of the Engineer, LLC office and is available upon request.

PRELIMINARY NOT FOR CONSTRUCTION

IF THE SIGNATURE, SEAL OR FOUR LINES DIRECTLY ABOVE ARE NOT VISIBLE, THIS SHEET HAS BEEN REPRODUCED BEYOND INTENDED READABILITY AND IS NO LONGER A VALID DOCUMENT. PLEASE CONTACT THE ENGINEER TO REQUEST ADDITIONAL DOCUMENTS.

PRELIMINARY PLAT

01-12-2016

LANDFORM
 From Site to Finish

105 South Fifth Avenue Tel: 612-252-9070
 Suite 513 Fax: 612-252-9077
 Minneapolis, MN 55401 Web: landform.net

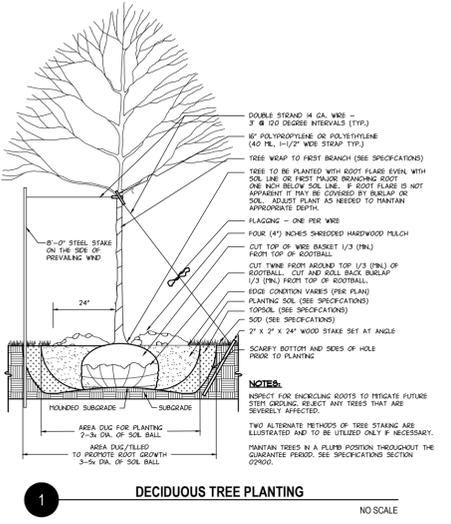
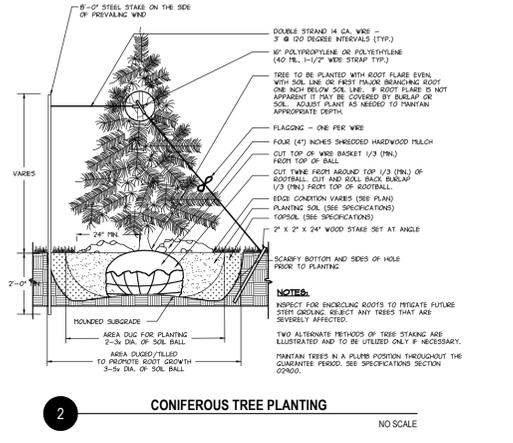
FILE NAME L201SVK16004.DWG
 PROJECT NO. SVK16004

LANDSCAPE

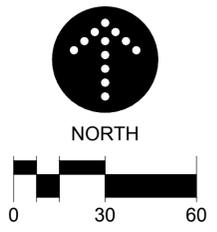
L2.1

SHEET NO. 10/10

NAME	COUNT	KEY	COMMON NAME	SCIENTIFIC NAME	MATURE SIZE	PLANTING SIZE	ROOT COND.
CONIFEROUS SHRUBS	7	POTR	AMERICAN LARCH	LARIX LARICINA	50'H x 30'W	6' HT.	B&B
DECIDUOUS TREES	5	ACAB	AUTUMN BLAZE MAPLE	ACER x FREEMANI 'JEFFERSRED'	50'H x 40'W	2.5' CAL.	B&B
DECIDUOUS TREES	10	BENA	RIVER BIRCH, SINGLE TRUNK	BETULA NIGRA	50'H x 40'W	2.5' CAL.	B&B
DECIDUOUS TREES	10	POTR	QUAKING ASPEN	POPULUS TREMULOIDES	80'H x 30'W	2.5' CAL.	B&B
ORNAMENTAL TREES	1	MAPR	PRAIRIEFIRE CRABAPPLE	MALUS SPP.	20'H x 20'W	1.5' CAL.	B&B
ORNAMENTAL TREES	2	MARD	RED JEWEL CRABAPPLE	MALUS SPP.	15'H x 12'W	1.5' CAL.	B&B



811
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 Call before you dig.

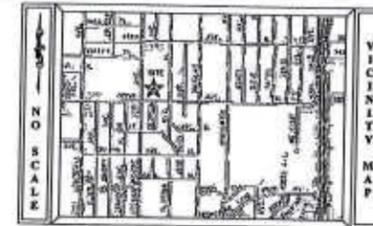




Readings are based on the Hennepin County
Coordinate System (NAD 83 - 1985 ad)



SCALE IN FEET



DESCRIPTION OF PROPERTY SURVEYED
(Legal descriptions per Hennepin County Tax ID)

Outlot A, PROFESSORS ADDITION, Hennepin County, Minnesota.
That part of Lot 9, Block 2, GARDENDALE ACRES, Hennepin County, Minnesota lying east of the west 22 feet thereof.
Lot 12, Block 3, GARDENDALE ACRES, Hennepin County, Minnesota.

A site opinion was not furnished to the surveyor as part of this survey. Only easements per the recorded plat are shown unless otherwise denoted hereon.

Site Address: 3215 Florida Avenue North, Crystal, MN
3228 Georgia Avenue North, Crystal, MN
3335 Pennsylvania Avenue North, Crystal, MN

Flood Zone Information: This property appears to lie in Zone X (area determined to be outside the 0.2% annual chance floodplain) per Flood Insurance Rate Map, Community Panel No. 270156 0213 E, effective date of September 2, 2004.

Parcel Area Information: Gross Area: 87,816 s.f. - 2.016 acres

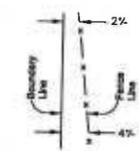
Site Elevation: Elevations are based on MNDOT Geodetic Station Name: CARL, MN053 which has an elevation of 907.209 feet (NAVD88).

Zoning Information: The current Zoning for the subject property is R-1 (Low Density Residential) per the City of Crystal's zoning map dated February 2014. The setback, height, and floor space restrictions for said zoning designation were obtained from the City of Crystal found on their web site on the date of October 30, 2015 and are as follows:

Principal Structure Setbacks - Front: 30 feet; Side: 5 feet; Rear: 30 feet; Height: 2 stories or 32 feet

Please note that the general restrictions for the subject property may have been amended through a city process. We could be unaware of such amendments if they are not in a recorded document provided to us. We recommend that a zoning letter be obtained from the Zoning Administrator for the current restrictions for this site.

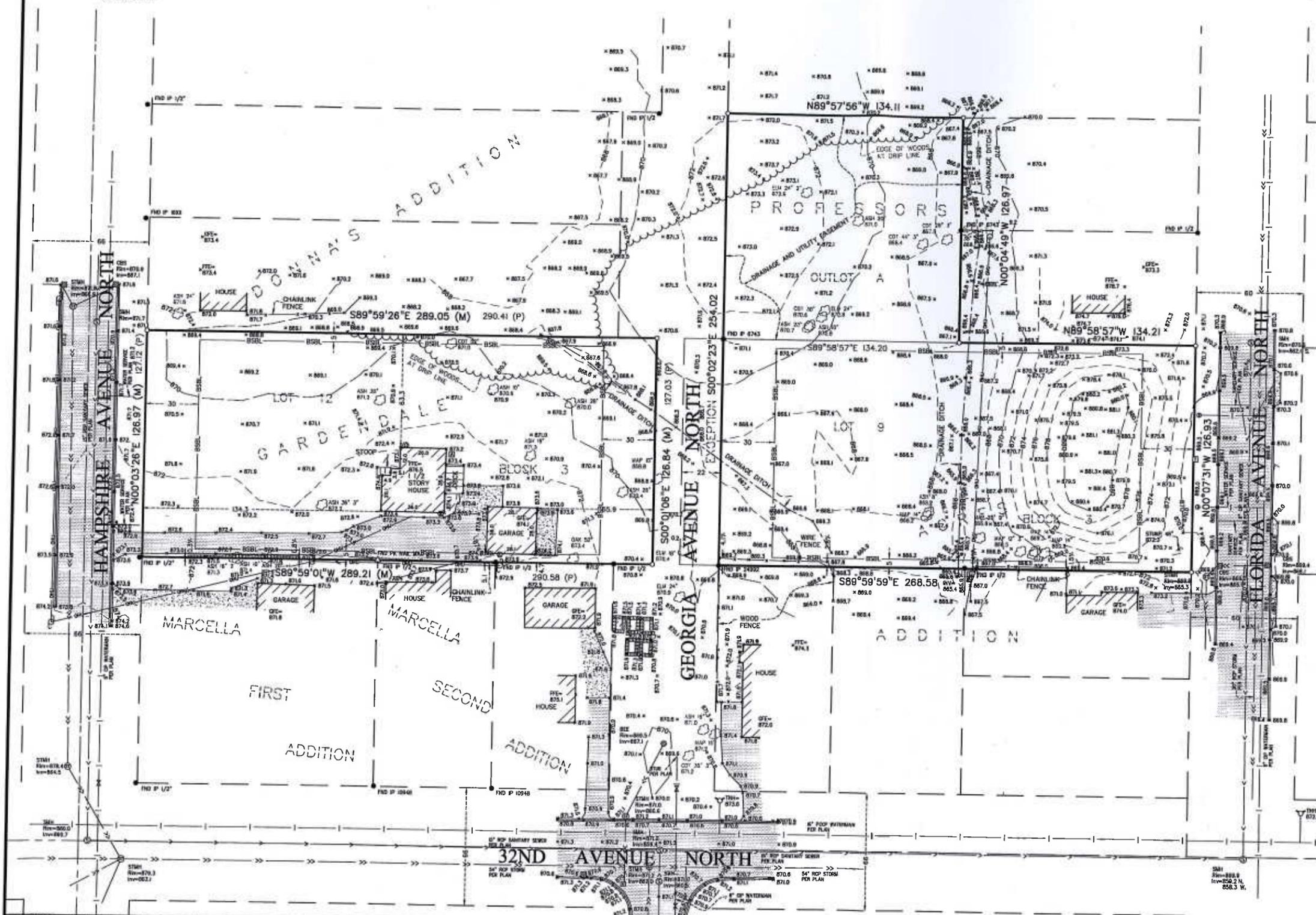
Utilities: We have shown the location of utilities on the surveyed property by observed evidence only. There may be underground utilities encumbering the subject property we are unaware. Please note that we have not placed a Gopher State One Call for this survey. There may or may not be underground utilities in the mapped area, therefore extreme caution must be exercised before any excavation takes place on or near this site. Before digging, you are required by law to notify Gopher State One Call at least 48 hours in advance at 651/454-0002.



Fence ties are shown on the side of the boundary line that the fence is located on.

SURVEY LEGEND

- CAST IRON MONUMENT
- CATCH BASIN
- ◊ FLARED END SECTION
- ⊗ GATE VALVE
- ⋈ GUY WIRE
- ⊕ HYDRANT
- SURVEY MONUMENT SET
- SURVEY MONUMENT FOUND
- ▲ SURVEY CONTROL POINT
- ⊙ LIGHT POLE
- ⊕ POWER POLE
- SANITARY MANHOLE
- ◇ SANITARY CLEANOUT
- ⊕ SIGN
- GROUND ELEVATION
- STORM DRAIN
- STORM MANHOLE
- YARD LIGHT
- TREE CONIFEROUS
- TREE DECIDUOUS
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- TRAFFIC SIGNAL
- UTILITY MANHOLE
- UTILITY PEDESTAL
- WELL
- A/C UNIT
- CABLE TV PEDESTAL
- ELECTRIC TRANSFORMER
- ELECTRIC MANHOLE
- ELECTRIC METER
- GAS METER
- GAS VALVE
- GUARD RAIL
- HAND HOLE
- SOIL BORING
- STAMPHOUS
- BSL BUILDING SETBACK LINE
- CTV CABLE TV
- CONCRETE CURB
- CONCRETE
- CONTOUR EXISTING
- CONTOUR PROPOSED
- DT DRAIN TILE
- ELC ELECTRIC UNDERGROUND
- FENCE
- FO FIBER OPTIC UNDERGROUND
- GAS GAS UNDERGROUND
- OAU OVERHEAD UTILITY
- WOOD RETAINING WALL
- SANITARY SEWER
- STORM SEWER
- TEL TELEPHONE UNDERGROUND
- UTL UTILITY UNDERGROUND
- WATERMAIN



FIELD CREW	NO.	BY	DATE	REVISION
CL SR				
DRAWN				
JUN				
CHECKED				
DBP				
DATE				
12/07/15				

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I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.
Dated this 10th day of November, 2015.
David B. Pemberton, PLS
pemberton@sathre.com
Minnesota License No. 40344

SATHRE-BERGQUIST, INC.
150 SOUTH BROADWAY WAYZATA, MN. 55391 (952) 476-6000

TWP 118 - RGE 21 - SEC 20
Project City: Crystal
Hennepin County

CERTIFICATE OF SURVEY
PREPARED FOR:
SVK Development, LLC.

FILE NO. 88025-008
1
1