

9- 3 bed rowhouses

27 total bedrooms, 9 total units

29,155 SF site area

6,615 SF building footprints combined

1,085 SF common open space (courtyard)

730 SF enclosed common shared amenity area

6,542 SF surface parking and access

8 surface spaces

18 enclosed spaces

26 spaces total

PRELIMINARY - NOT FOR CONSTRUCTION

PRELIMINARY - NOT FOR CONSTRUCTION

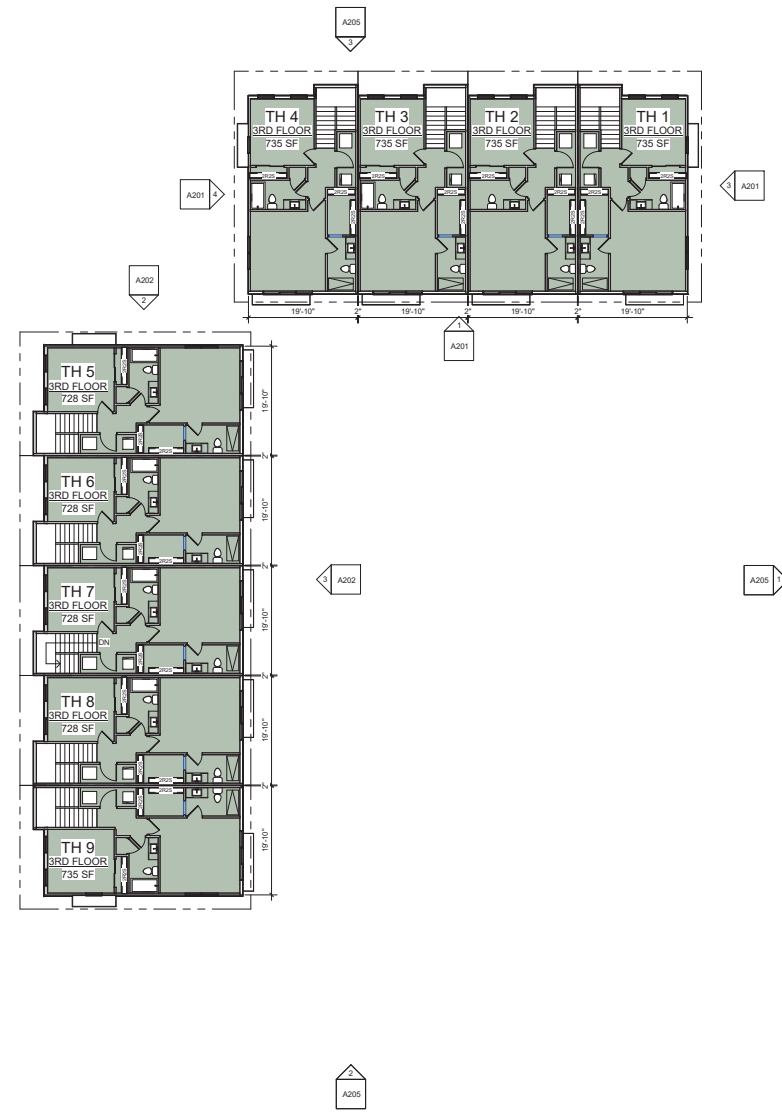
PROJECT: **Wildwood Rowhomes**
2502 County Rd E East
White Bear Lake, MN

REVISIONS:

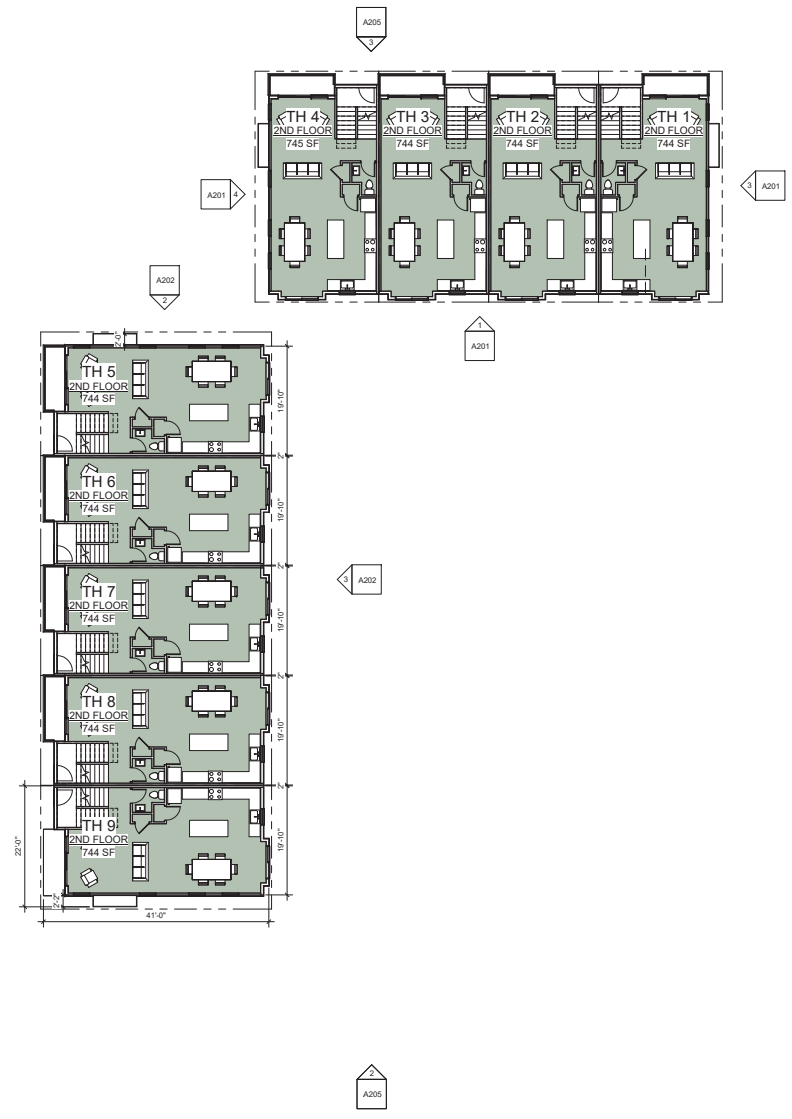
06 / 19 / 2023

PROJECT NO: 00-000
CONTENTS:
Floor Plans

SHEET NO: **A102**



2 3RD FLOOR PLAN
SCALE: 3/32" = 1'-0"



1 2ND FLOOR PLAN
SCALE: 3/32" = 1'-0"

PRELIMINARY - NOT FOR CONSTRUCTION

PROJECT: **Wildwood Rowhomes**
2502 County Rd E East
White Bear Lake, MN

REVISIONS:

06 / 19 / 2023

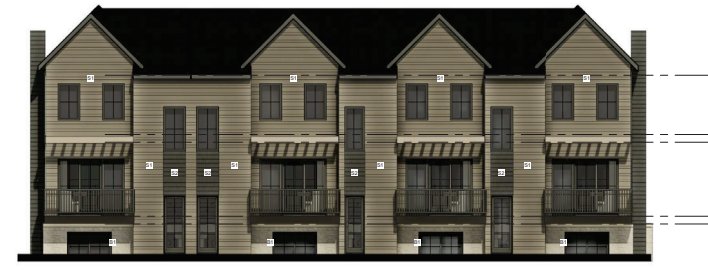
PROJECT NO: 00-000

CONTENTS:
Elevations - Building 1,
Community Room

SHEET NO:
A201

MATERIAL SCHEDULE - OVERALL

Designation	Description	Area	Percentage
B1	Manufactured Stone	2314 SF	14%
B2	Brick - Modular - Painted	1466 SF	8%
S1	Fiber Cement Lap Siding - Medium	3663 SF	23%
S2	Fiber Cement Shake Siding - Dark	1856 SF	11%
S3	Fiber Cement Board and Batten Siding - Dark	5632 SF	33%
S4	Fiber Cement Shake Siding - Wood Tone	1955 SF	12%



2 NORTH ELEVATION - BUILDING 1
SCALE: 1/8" = 1'-0"

MATERIAL SCHEDULE - TH - EAST

Designation	Description	Area	Percentage
B1	Manufactured Stone	153 SF	9%
S1	Fiber Cement Lap Siding - Medium	1269 SF	18%
S2	Fiber Cement Shake Siding - Dark	207 SF	13%



3 EAST ELEVATION - BUILDING 1
SCALE: 1/8" = 1'-0"

MATERIAL SCHEDULE - TH - WEST

Designation	Description	Area	Percentage
B1	Manufactured Stone	184 SF	19%
S1	Fiber Cement Lap Siding - Medium	502 SF	53%
S2	Fiber Cement Shake Siding - Dark	269 SF	28%



1 SOUTH ELEVATION - BUILDING 1
SCALE: 1/8" = 1'-0"

MATERIAL SCHEDULE - TH - SOUTH

Designation	Description	Area	Percentage
B1	Manufactured Stone	33 SF	2%
S1	Fiber Cement Lap Siding - Medium	1277 SF	71%
S2	Fiber Cement Shake Siding - Dark	492 SF	27%



4 WEST ELEVATION - BUILDING 1
SCALE: 1/8" = 1'-0"

MATERIAL SCHEDULE - TH - EAST

Designation	Description	Area	Percentage
B1	Manufactured Stone	184 SF	19%
S1	Fiber Cement Lap Siding - Medium	502 SF	53%
S2	Fiber Cement Shake Siding - Dark	269 SF	28%



5 NW ELEVATION - COMMUNITY ROOM
SCALE: 1/8" = 1'-0"

MATERIAL SCHEDULE - AMENITY - NW

Designation	Description	Area	Percentage
B2	Brick - Modular - Painted	331 SF	100%



6 SE ELEVATION - COMMUNITY ROOM
SCALE: 1/8" = 1'-0"

MATERIAL SCHEDULE - AMENITY - SE

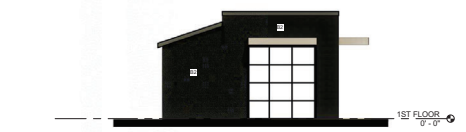
Designation	Description	Area	Percentage
B2	Brick - Modular - Painted	263 SF	100%



7 SW ELEVATION - COMMUNITY ROOM
SCALE: 1/8" = 1'-0"

MATERIAL SCHEDULE - AMENITY - SW

Designation	Description	Area	Percentage
B2	Brick - Modular - Painted	218 SF	100%



8 NE ELEVATION - COMMUNITY ROOM
SCALE: 1/8" = 1'-0"

MATERIAL SCHEDULE - AMENITY - NE

Designation	Description	Area	Percentage
B2	Brick - Modular - Painted	215 SF	100%

PRELIMINARY - NOT FOR CONSTRUCTION

PROJECT: **Wildwood Rowhomes**
2502 County Rd E East
White Bear Lake, MN

06 / 19 / 2023

PROJECT NO: 00-000
CONTENTS:
Elevations - Building 2

SHEET NO:
A202

MATERIAL SCHEDULE - OVERALL

Designation	Description	Area	Percentage
B1	Manufactured Stone	2314 SF	14%
B2	Brck - Modular - Painted	1466 SF	8%
S1	Fiber Cement Lap Siding - Medium	3663 SF	23%
S2	Fiber Cement Shake Siding - Dark	1856 SF	11%
S3	Fiber Cement Board and Batten Siding - Dark	3632 SF	33%
S4	Fiber Cement Shake Siding - Wood Tone	1955 SF	12%



1 WEST ELEVATION - BUILDING 2
SCALE: 1/8" = 1'-0"

MATERIAL SCHEDULE - TH - WEST

Designation	Description	Area	Percentage
B1	Manufactured Stone	186 SF	8%
S3	Fiber Cement Board and Batten Siding - Dark	1617 SF	79%
S4	Fiber Cement Shake Siding - Wood Tone	239 SF	12%



2 NORTH ELEVATION - BUILDING 2
SCALE: 1/8" = 1'-0"

MATERIAL SCHEDULE - TH - NORTH

Designation	Description	Area	Percentage
B1	Manufactured Stone	175 SF	15%
S3	Fiber Cement Board and Batten Siding - Dark	501 SF	33%
S4	Fiber Cement Shake Siding - Wood Tone	272 SF	29%



3 EAST ELEVATION - BUILDING 2
SCALE: 1/8" = 1'-0"

MATERIAL SCHEDULE - TH - EAST

Designation	Description	Area	Percentage
B1	Manufactured Stone	33 SF	2%
S3	Fiber Cement Board and Batten Siding - Dark	1164 SF	72%
S4	Fiber Cement Shake Siding - Wood Tone	552 SF	25%



4 SOUTH ELEVATION - BUILDING 2
SCALE: 1/8" = 1'-0"

MATERIAL SCHEDULE - TH - SOUTH

Designation	Description	Area	Percentage
B1	Manufactured Stone	174 SF	18%
S3	Fiber Cement Board and Batten Siding - Dark	603 SF	57%
S4	Fiber Cement Shake Siding - Wood Tone	272 SF	29%



PRELIMINARY - NOT FOR CONSTRUCTION

ELEMENT
DESIGN - BUILD

PROJECT: **Wildwood Rowhomes**
2502 County Rd E East
White Bear Lake, MN

REVISIONS:

△	
△	

06 / 19 / 2023

PROJECT NO: 00-000
CONTENTS:
Exterior Views

SHEET NO:
A203



PRELIMINARY - NOT FOR CONSTRUCTION

ELEMENT
DESIGN - BUILD

PROJECT: **Wildwood Rowhomes**
2502 County Rd E East
White Bear Lake, MN

REVISIONS:
△
△

06 / 19 / 2023

PROJECT NO: 00-000
CONTENTS:
Exterior Views

SHEET NO:
A204

PRELIMINARY PLAT: WILDWOOD ROWHOMES

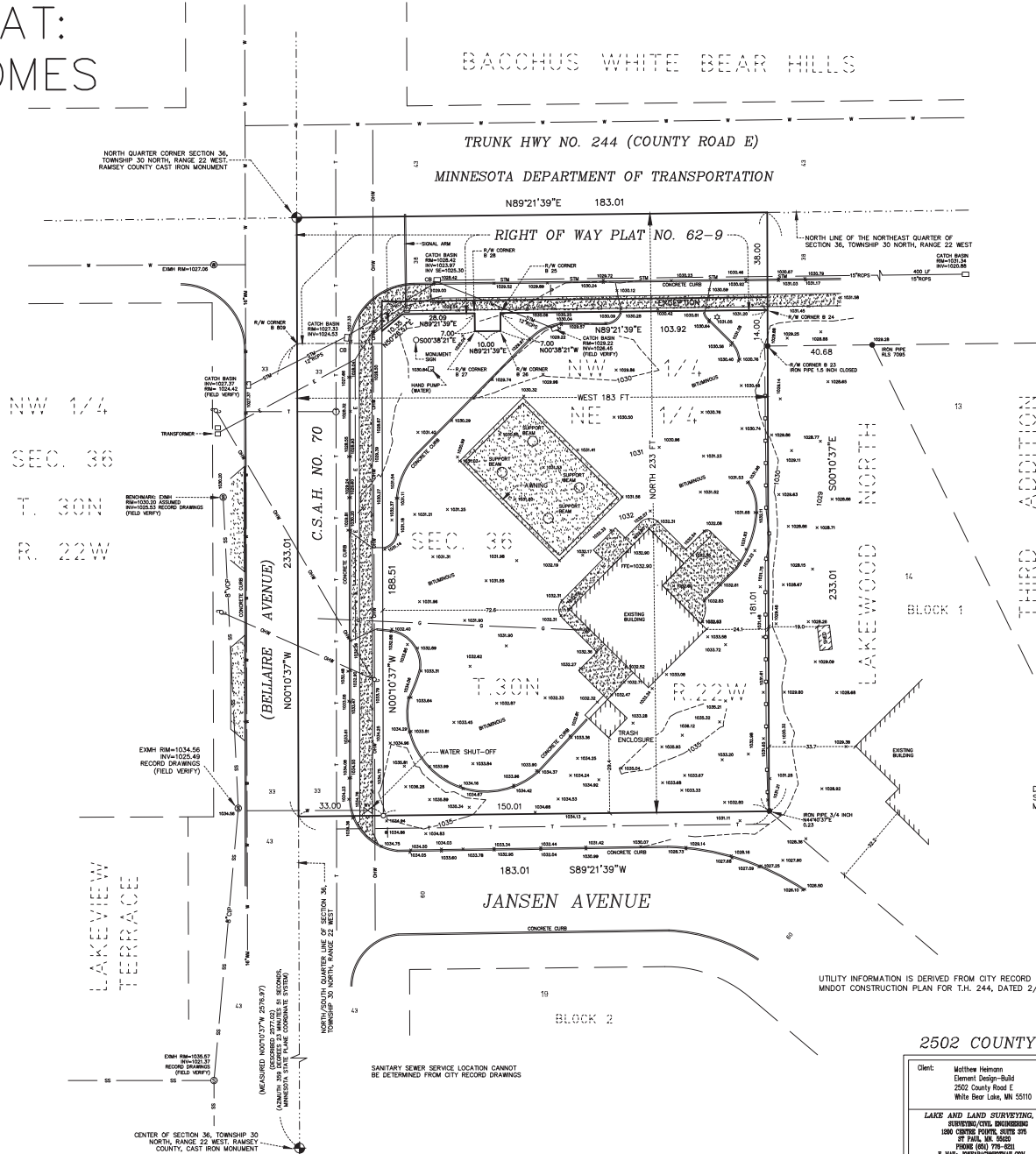
BACCHUS WHITE BEAR HILLS

TRUNK HWY NO. 244 (COUNTY ROAD E)
MINNESOTA DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLAT NO. 62-9

Legal Description:

The West 183 feet of the North 233 feet of the Northwest Quarter of the Northeast Quarter of Section 36, Township 30 (North), Range 22 (West), EXCEPT Parcel 32, RIGHT OF WAY PLAT NO. 62-9, Ramsey County, Minnesota.



DUE TO WINTER CONDITIONS AT THE TIME OF SURVEY WORK PERFORMED, SOME GRAPHICS MAY DIFFER FROM WHAT IS IN THE FIELD.

UTILITY INFORMATION IS DERIVED FROM CITY RECORD DRAWINGS, GOPHER STATE ONE CALL, MNDOT CONSTRUCTION PLAN FOR T.H. 244, DATED 2/19/1986, AND FIELD OBSERVATIONS.

2502 COUNTY ROAD E, WHITE BEAR LAKE

Client:	Matthew Heinman Diamond Design-Build 2502 County Road E White Bear Lake, MN 55110	Design by:	RP	Original date:	12-9-22	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 in the State of Minnesota. My License No. is <u>16464</u> .
Drawn by:	RP/E	Revisits:	1-12-23	Drawing of Field Date: 12-9-22		
Survey book No.:		S.A.P. Number:	2022.416	Page Title:	CERTIFICATE OF SURVEY	Sheet number 1 of 3
<p>LAKE AND LAND SURVEYING, INC. SURVEYING/CIVIL ENGINEERING 1000 COUNTY ROAD, SUITE 370 ST PAUL, MN 55102 PHONE (651) 776-0201 E-MAIL: JORDAN@LAKELANDSURV.COM</p>						

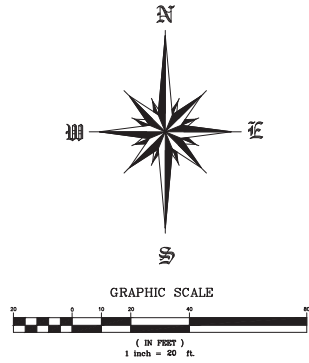
TOTAL LOT AREA: 42,642 SQ. FT. OR 0.98 ACRES
AREA LESS R/W: 29,156 SQ. FT. OR 0.67 ACRES
BASIS OF BEARINGS: RAMSEY COUNTY COORDINATES NAD83 (1988)

CENTER OF SECTION 36, TOWNSHIP 30 NORTH, RANGE 22, WEST, RANGE COUNTY, CAST IRON MONUMENT

- LEGEND**
- DENOTES 12 INCH COMMON SPIKE SET WITH WASHER STAMPED RLS 16464 OR AS NOTED.
 - DENOTES IRON MONUMENT FOUND SIZE, TYPE, & RLS AS NOTED.
 - DENOTES EXISTING SPOT ELEVATION
 - DENOTES EXISTING GRADE CONTOUR
 - DENOTES OVERHEAD UTILITY WIRE
 - DENOTES SANITARY SEWER
 - DENOTES STORM SEWER
 - DENOTES UNDERGROUND WATER LINE
 - DENOTES UNDERGROUND ELECTRIC UTILITY LINE
 - DENOTES UNDERGROUND GAS LINE
 - DENOTES UNDERGROUND TELEPHONE LINE
 - DENOTES CHAIN LINK FENCE
 - DENOTES WOOD FENCE
 - DENOTES SIGN
 - ⊕ DENOTES WATER VALVE
 - ⊕ DENOTES UTILITY POLE
 - ⊕ DENOTES LIGHT POLE
 - ⊕ DENOTES CATCH BASIN
 - ⊕ DENOTES GAS SERVICE
 - ⊕ DENOTES ELECTRIC METER
 - ⊕ DENOTES ELECTRIC MANHOLE
 - ⊕ DENOTES UTILITY HAND HOLE
 - ⊕ DENOTES STORM SEWER MANHOLE
 - ⊕ DENOTES SANITARY SEWER MANHOLE
 - DENOTES CONCRETE SURFACE

PRELIMINARY PLAT: WILDWOOD ROWHOMES

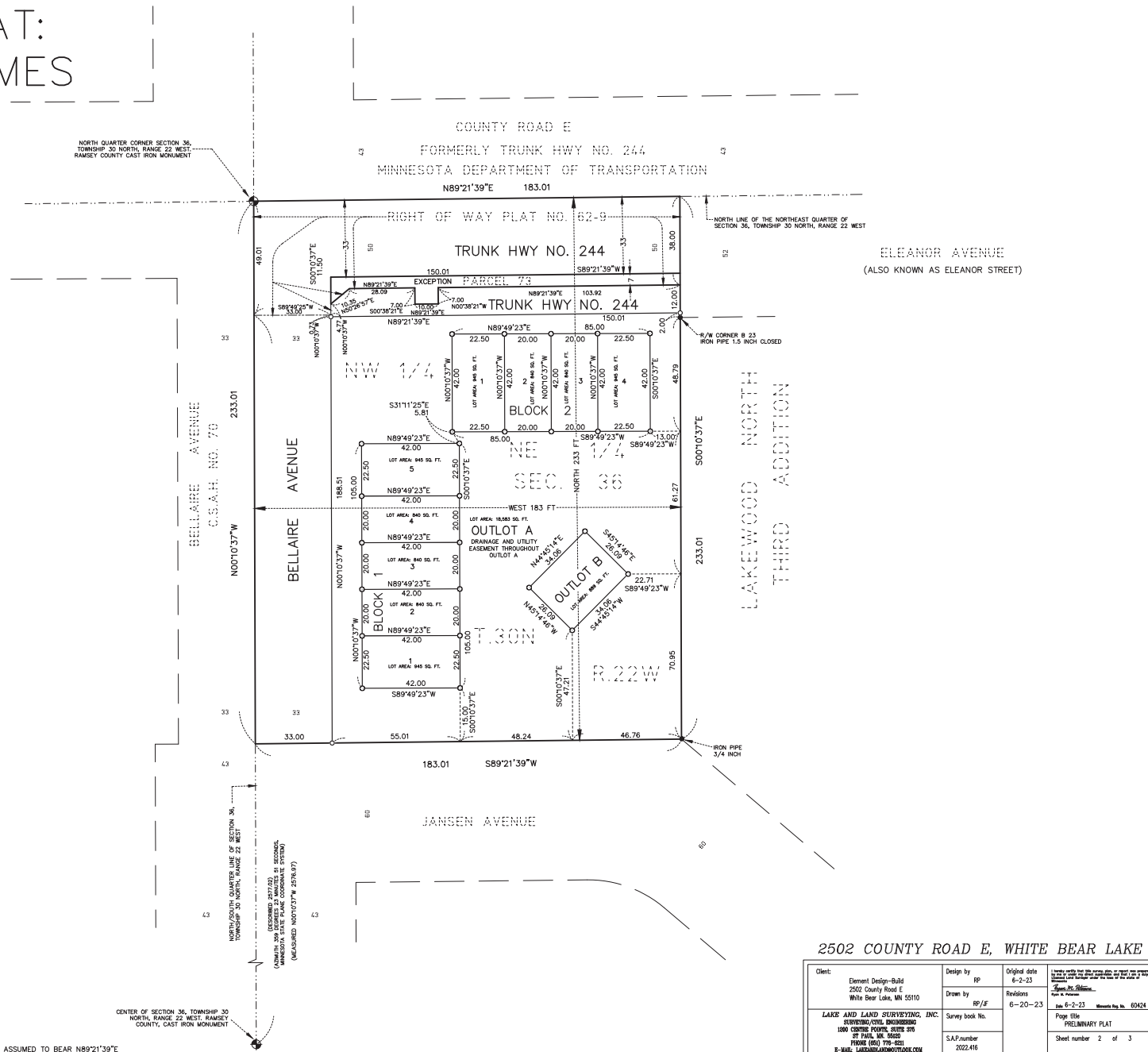
Legal Description: (Warranty Deed)
The West 183 feet of the North 233 feet of the Northwest Quarter of the Northeast Quarter of Section 36, Township 30 (North), Range 22 (West), EXCEPT Parcel 23, RIGHT OF WAY PLAT NO. 62-9, Ramsey County, Minnesota.



LEGEND

- ⊕ DENOTES RAMSEY COUNTY SECTION MONUMENT FOUND, TYPE AS NOTED
- DENOTES 14 INCH X 5/8 INCH REBAR MONUMENT SET AND CAPPED RLS 60424
- DENOTES IRON MONUMENT FOUND, SIZE, TYPE, AND RLS AS NOTED

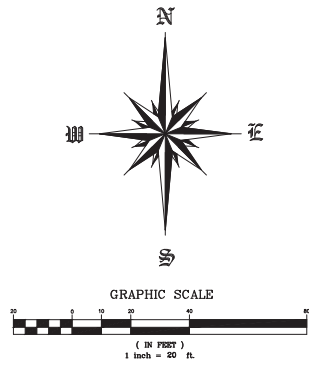
BASIS OF BEARING: THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 36, TOWNSHIP 30 NORTH, RANGE 22 WEST IS ASSUMED TO BEAR N89°21'39"E



2502 COUNTY ROAD E, WHITE BEAR LAKE			
Client:	Element Design-Build 2502 County Road E White Bear Lake, MN 55110	Design by:	RP 6-2-23
Drawn by:	RP/E	Original date:	6-2-23
Survey book No.:		Revisors:	6-20-23 6-2-23 6-2-23
S.A.P. number:	2022.416	Sheet number:	2 of 3
LAKE AND LAND SURVEYING, INC. SURVEYING/CIVIL ENGINEERING 1500 CENTER POINT DRIVE, SUITE 310 ST PAUL, MN 55109 PHONE (612) 778-4261 E-MAIL: LAKEANDLAND@OUTLOOK.COM		Project Title: PRELIMINARY PLAT	

PRELIMINARY PLAT: WILDWOOD ROWHOMES

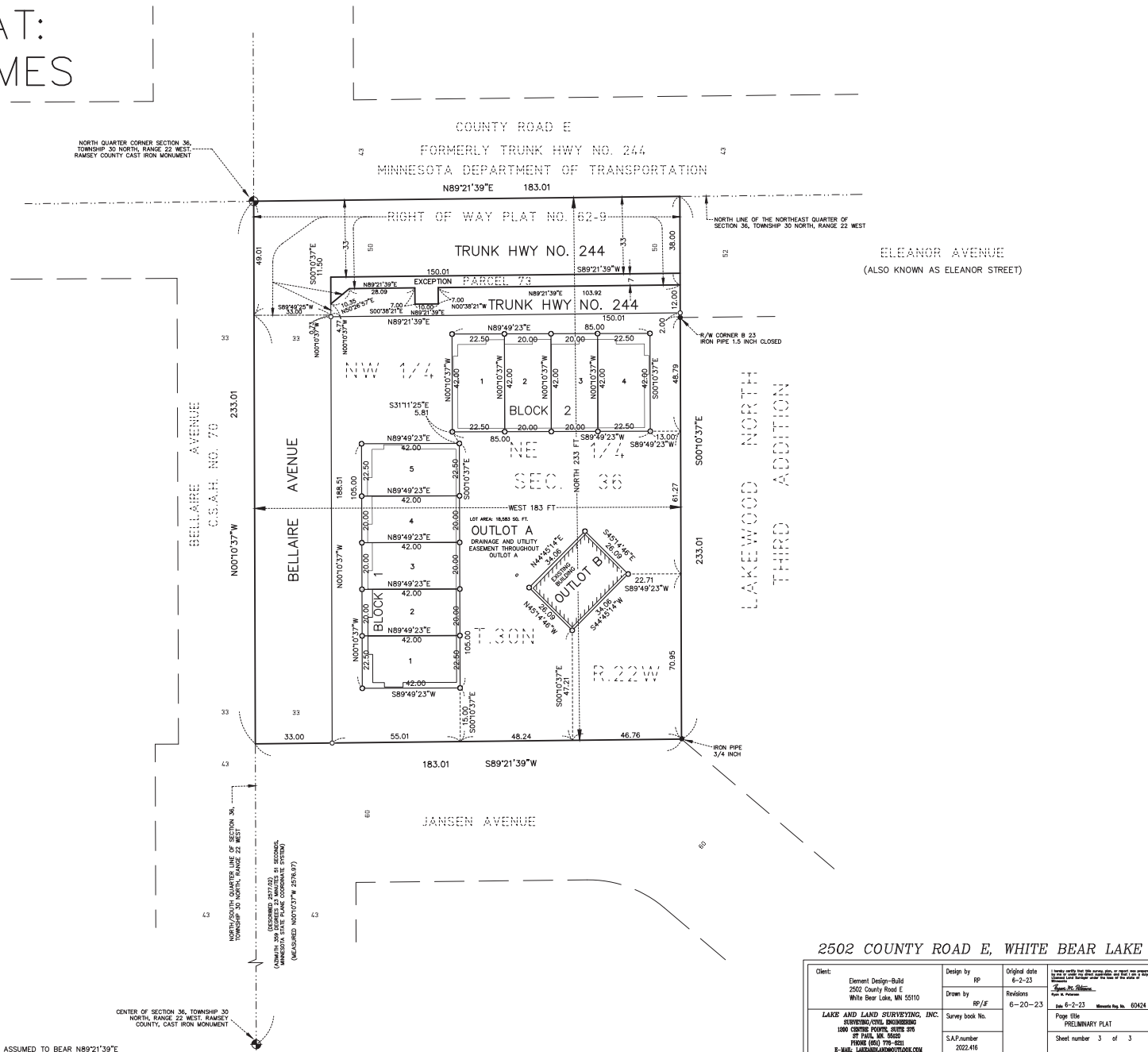
Legal Description: (Warranty Deed)
The West 183 feet of the North 233 feet of the Northwest Quarter of the Northeast Quarter of Section 36, Township 30 (North), Range 22 (West), EXCEPT Parcel 23, RIGHT OF WAY PLAT NO. 62-9, Ramsey County, Minnesota.



LEGEND

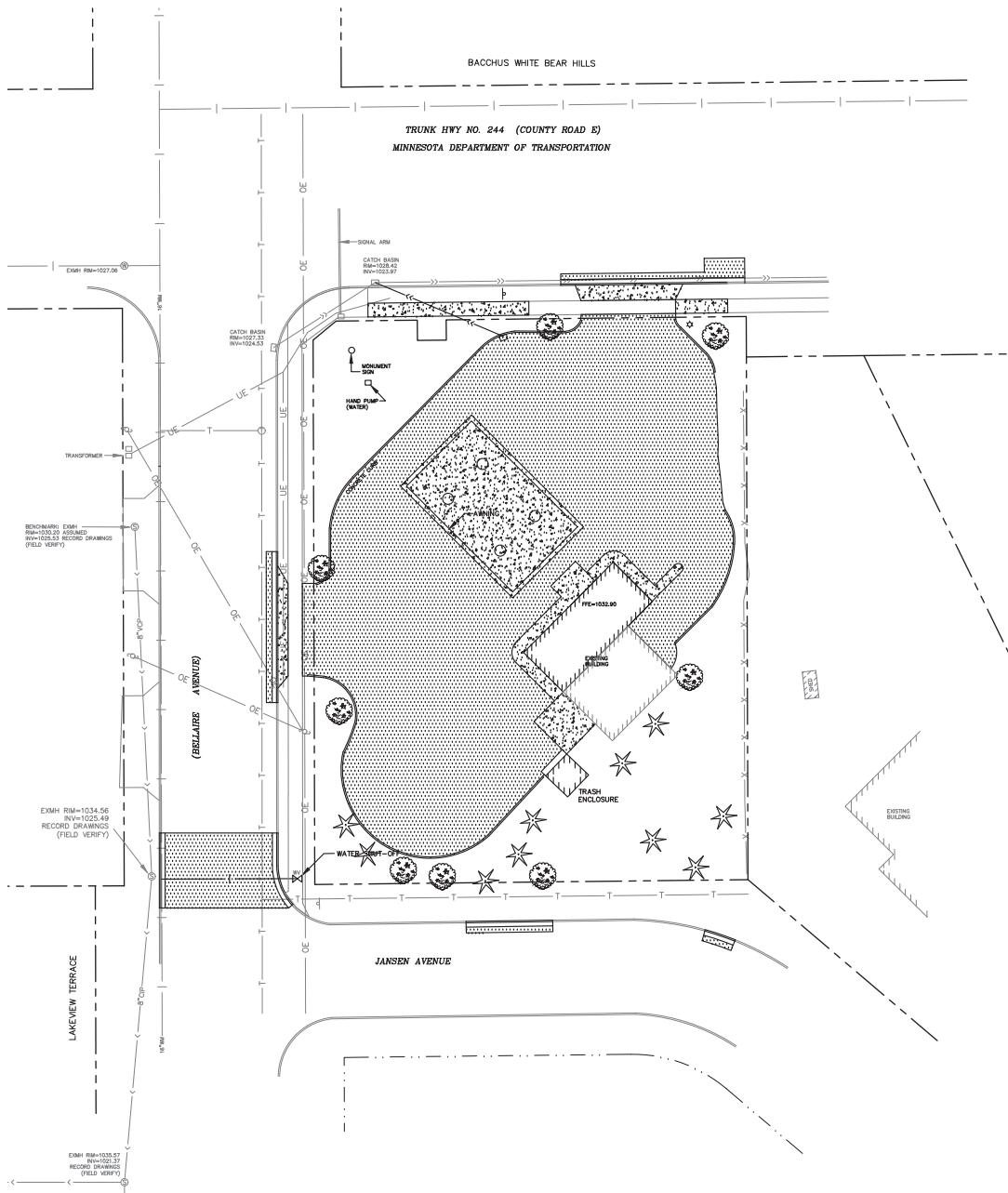
- ⊕ DENOTES RAMSEY COUNTY SECTION MONUMENT FOUND, TYPE AS NOTED
- DENOTES 14 INCH X 5/8 INCH REBAR MONUMENT SET AND CAPPED RLS 60424
- DENOTES IRON MONUMENT FOUND, SIZE, TYPE, AND RLS AS NOTED

BASIS OF BEARING: THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 36, TOWNSHIP 30 NORTH, RANGE 22 WEST IS ASSUMED TO BEAR N89°21'39"E



2502 COUNTY ROAD E, WHITE BEAR LAKE

Client: Element Design-Build 2502 County Road E White Bear Lake, MN 55110	Design by: RP	Original date: 6-2-23	Survey by: RP/JE
Drawn by: RP/JE	Finalists: 6-20-23	Revised: 6-2-23	Survey book No.:
LAKE AND LAND SURVEYING, INC. SURVEYING/CIVIL ENGINEERING 1500 CENTRE POINT, SUITE 310 ST PAUL, MN 55109 PHONE (651) 778-4261 E-MAIL: LAKEANDLAND@OUTLOOK.COM	S.A.P. number: 2022.416	Sheet number: 3 of 3	Project title: PRELIMINARY PLAT



BACCHUS WHITE BEAR HILLS



TRUNK HWY NO. 244 (COUNTY ROAD 83)
MINNESOTA DEPARTMENT OF TRANSPORTATION

(BELLAIRE AVENUE)

JANSEN AVENUE

EXISTING BUILDING

SYMBOL LEGEND

-  REMOVE AND DISPOSE OF EXISTING BITUMINOUS PAVEMENT SECTION
-  REMOVE AND DISPOSE OF EXISTING CONCRETE PAVEMENT SECTION

KEY NOTES

DEMOLITION NOTES

1. Verify all existing utility locations.
2. It is the responsibility of the Contractor to perform or coordinate all necessary utility demolitions and relocations from existing utility locations to all onsite amenities and buildings. These connections include, but are not limited to, water, sanitary sewer, cable tv, telephone, gas, electric, site lighting, etc.
3. Prior to beginning work, contact Gopher State OneCall (651-454-0002) to locate utilities throughout the area under construction. The Contractor shall retain the services of a private utility locator to locate the private utilities.
4. Sawcut along edges of pavements, sidewalks, and curbs to remain.
5. All construction shall be performed in accordance with state and local standard specifications for construction.

Larson Engineering, Inc.
3524 Labore Road
St. Paul, MN 55110
651.481.9129 (F) 651.481.9201
www.larsonengr.com

ELEMENT DESIGN-BUILD
1110 RAYMOND AVENUE, UNIT 3
ST. PAUL, MN 55108

WILDWOOD ROWHOMES
2502 CO RD E EAST
WHITE BEAR LAKE, MN 55110

PRELIMINARY NOT FOR CONSTRUCTION

I hereby certify that this plan, specifications 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.

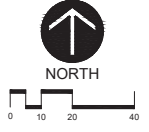
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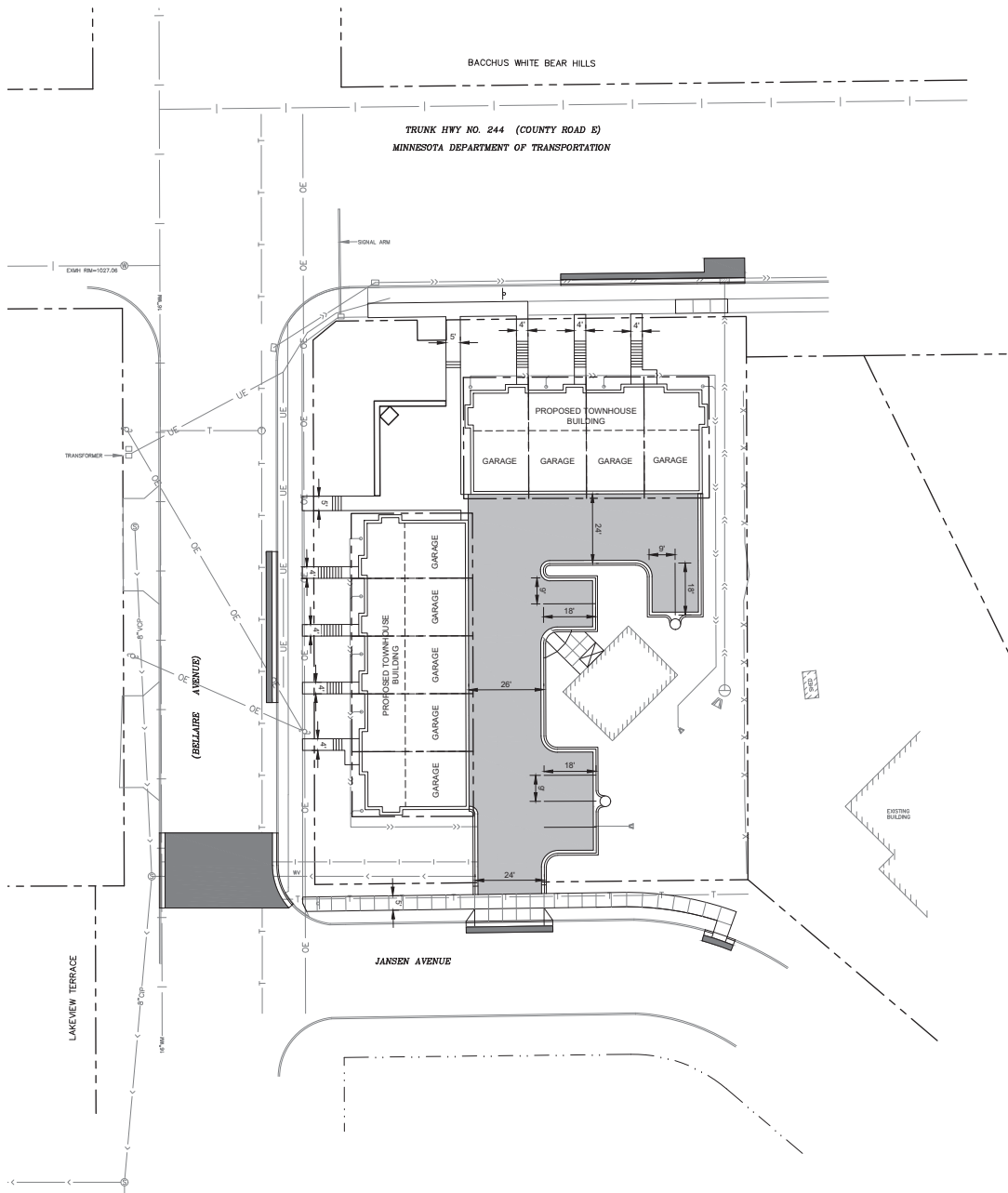
Rev.	Date	Description

Project #: 12236008.000
 Drawn By: TJR
 Checked By: MJW
 Issue Date: 06.20.23
 Sheet Title:

DEMOLITION PLAN

Sheet: **C100**





SYMBOL LEGEND

- MATCH EXISTING PAVEMENT THICKNESS SEE DETAIL
- MATCH EXISTING STREET PAVEMENT SECTION
- NEW LIGHT-DUTY CONCRETE PAVEMENT SEE DETAIL
- NEW HEAVY-DUTY CONCRETE PAVEMENT SEE DETAIL

NOTE: THE CONCRETE JOINTS ARE SHOWN ONLY FOR GENERAL REFERENCE TO SIGNIFY LIGHT-DUTY CONCRETE PAVEMENT. ACTUAL JOINTS SHALL BE CONSTRUCTED PER PROJECT SPECIFICATIONS.

GENERAL

- PROPERTY LINE
- EASEMENT LINE
- RIGHT-OF-WAY LINE
- SETBACK LINE

KEY NOTES

Larson Engineering, Inc.
 3524 Labore Road
 MN 55110
 651.481.9129 / 651.481.9201
 www.larsonengr.com

ELEMENT DESIGN-BUILD
 1110 RAYMOND AVENUE, UNIT 3
 ST. PAUL, MN 55108

WILDWOOD ROWHOMES
 2502 CO RD E EAST
 WHITE BEAR LAKE, MN 55110

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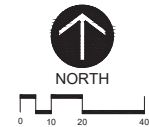
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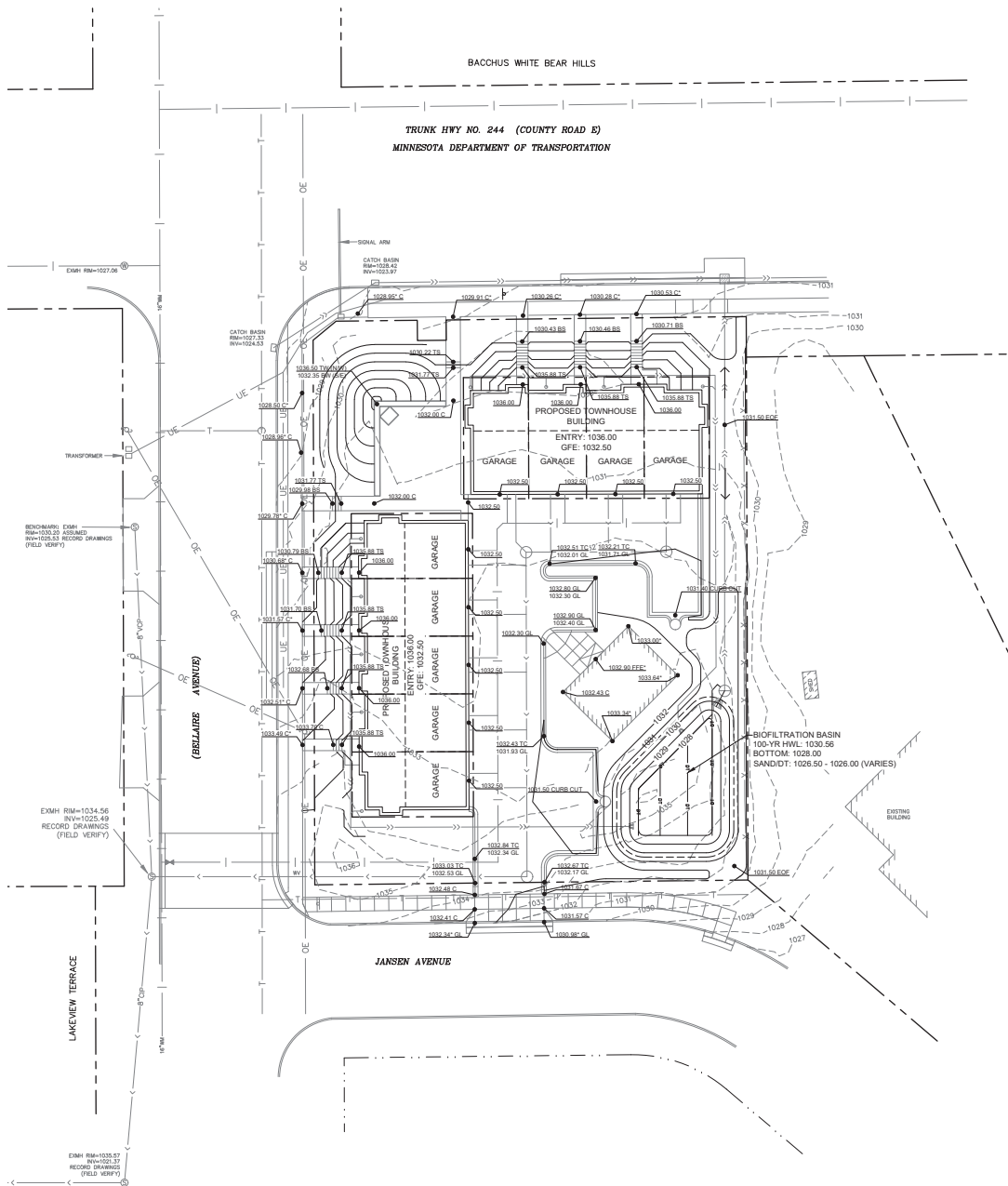
Rev.	Date	Description

Project #: 12236008.000
 Drawn By: TJR
 Checked By: MJW
 Issue Date: 06.20.23
 Sheet Title:

PAVING PLAN

Sheet: **C200**





SYMBOL LEGEND

- 950 --- EXISTING CONTOURS
- 950 --- PROPOSED CONTOURS - MAJOR INTERVAL
- 949 --- PROPOSED CONTOURS - MINOR INTERVAL
- --- GRADE BREAK LINE
- --- GRADE SLOPE
- ← --- SILT FENCE
- [Pattern] RIP-RAP / ROCK CONST. ENTRANCE
- [Symbol] INLET PROTECTION
- [Symbol] CONCRETE WASHOUT STATION
- [Symbol] CONCRETE WASHOUT STATION
- SPOT ABBREVIATIONS:
- TC - TOP OF CURB
- GL - GUTTER LINE
- GO - GUTTER OUT
- B - BITUMINOUS
- C - CONCRETE
- EO - EMERGENCY OVERFLOW
- TW - TOP OF WALL
- BW - BOTTOM OF WALL (FIG)
- (*) - EXISTING TO BE VERIFIED

GRADING NOTES

1. Tree protection consisting of snow fence or safety fence installed at the drip line shall be in place prior to beginning any grading or demolition work at the site.
2. All elevations with an asterisk (*) shall be field verified. If elevations vary significantly, notify the Engineer for further instructions.
3. Grades shown in paved areas represent finish elevation.
4. All disturbed areas to receive "X" of good quality topsoil and seed.
5. All construction shall be performed in accordance with state and local standard specifications for construction.

Larson Engineering, Inc.
 3524 Labore Road
 White Bear Lake, MN 55110
 651.481.9129 (F) 651.481.1201
 www.larsonengr.com

ELEMENT DESIGN-BUILD
 1110 RAYMOND AVENUE, UNIT 3
 ST. PAUL, MN 55108

WILDWOOD ROWHOMES
 2502 CO RD E EAST
 WHITE BEAR LAKE, MN 55110

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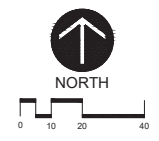
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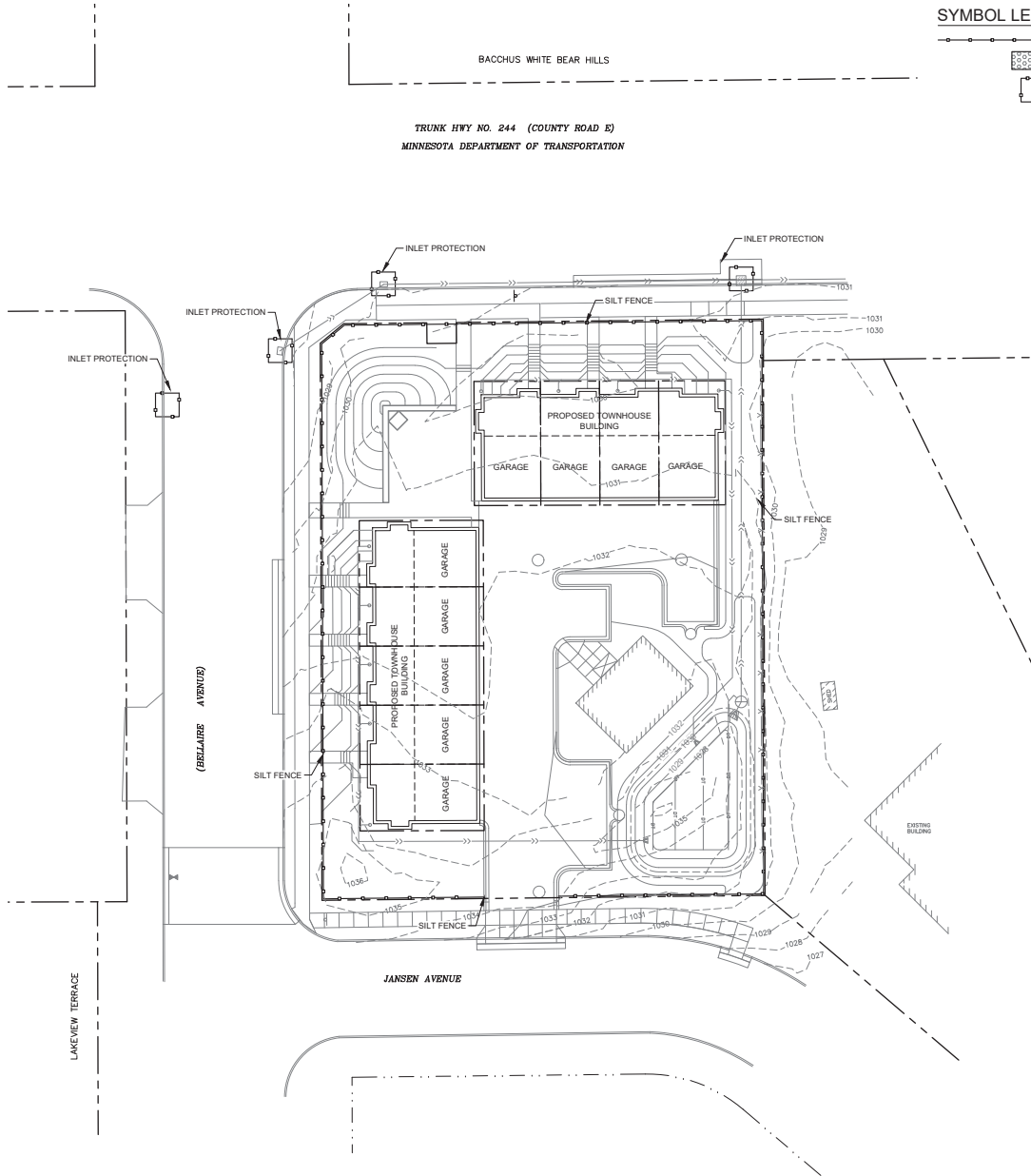
Rev.	Date	Description

Project #: 12236008.000
 Drawn By: TJR
 Checked By: MJW
 Issue Date: 06.20.23
 Sheet Title:

GRADING PLAN

Sheet:
C300



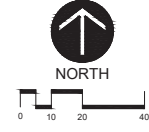


SYMBOL LEGEND



EROSION CONTROL NOTES

- Owner and Contractor shall obtain MPCA-NPDES permit. Contractor shall be responsible for all fees pertaining to this permit. The SWPPP shall be kept onsite at all times.
- Install temporary erosion control measures (inlet protection, silt fence, and rock construction entrances) prior to beginning any excavation or demolition work at the site.
- Erosion control measures shown on the erosion control plan are the absolute minimum. The contractor shall install temporary earth dikes, sediment traps or basins, additional siltation fencing, and/or disk the soil parallel to the contours as deemed necessary to further control erosion. All changes shall be recorded in the SWPPP.
- All construction site entrances shall be surfaced with crushed rock across the entire width of the entrance and from the entrance to a point 50' into the construction zone.
- The toe of the silt fence shall be trenched in a minimum of 6'. The trench backfill shall be compacted with a vibratory plate compactor.
- All grading operations shall be conducted in a manner to minimize the potential for site erosion. Sediment control practices must be established on all down gradient perimeters before any up gradient land disturbing activities begin.
- All exposed soil areas must be stabilized as soon as possible to limit soil erosion but in no case later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) and the constructed base components of roads, parking lots and similar surfaces are exempt from this requirement.
- The normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from any portion of the construction site, or diverts water around the site, must be stabilized within 200 linear feet from the property edge, or from the point of discharge into any surface water. Stabilization of the last 200 linear feet must be completed within 24 hours after connecting to a surface water. Stabilization of the remaining portions of any temporary or permanent ditches or swales must be completed within 14 days after connecting to a surface water and construction in that portion of the ditch has temporarily or permanently ceased.
- Pipe outlets must be provided with energy dissipation within 24 hours of connection to surface water.
- All riprap shall be installed with a filter material or soil separation fabric and comply with the Minnesota Department of Transportation Standard Specifications.
- All storm sewers discharging into wetlands or water bodies shall outlet at or below the normal water level of the respective wetland or water body at an elevation where the downstream slope is 1 percent or flatter. The normal water level shall be the invert elevation of the outlet of the wetland or water body.
- All storm sewer catch basins not needed for site drainage during construction shall be covered to prevent runoff from entering the storm sewer system. Catch basins necessary for site drainage during construction shall be provided with inlet protection.
- In areas where concentrated flows occur (such as swales and areas in front of storm catch basins and intakes) the erosion control facilities shall be backed by stabilization structure to protect those facilities from the concentrated flows.
- Inspect the construction site once every seven days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours. All inspections shall be recorded in the SWPPP.
- All silt fences must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches 1/3 of the height of the fence. These repairs must be made within 24 hours of discovery, or as soon as field conditions allow access. All repairs shall be recorded in the SWPPP.
- If sediment escapes the construction site, off-site accumulations of sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts.
- All soils tracked onto pavement shall be removed daily.
- All infiltration areas must be inspected to ensure that no sediment from ongoing construction activity is reaching the infiltration area and these areas are protected from compaction due to construction equipment driving across the infiltration area.
- Temporary soil stockpiles must have silt fence or other effective sediment controls, and cannot be placed in surface waters, including stormwater conveyances such as curb and gutter systems, or conduits and ditches unless there is a bypass in place for the stormwater.
- Collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal requirements.
- Oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA regulations.
- External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed onsite.
- All liquid and solid wastes generated by concrete washout operations must be contained in a leak-proof containment facility or impermeable liner. A compacted clay liner that does not allow washout liquids to enter ground water is considered an impermeable liner. The liquid and solid wastes must not contact the ground, and there must not be runoff from the concrete washout operations or areas. Liquid and solid wastes must be disposed of properly and in compliance with MPCA regulations. A sign must be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.
- Upon completion of the project and stabilization of all graded areas, all temporary erosion control facilities (silt fences, hay bales, etc.) shall be removed from the site.
- All permanent sedimentation basins must be restored to their design condition immediately following stabilization of the site.
- Contractor shall submit Notice of Termination for MPCA-NPDES permit within 30 days after Final Stabilization.



Larson Engineering, Inc.
 3524 Labore Road
 St. Paul, MN 55110
 651.481.9120 (F) 651.481.1201
 www.larsonengr.com

ELEMENT DESIGN-BUILD
 1110 RAYMOND AVENUE, UNIT 3
 ST. PAUL, MN 55108

WILDWOOD ROWHOMES
 2502 CO RD E EAST
 WHITE BEAR LAKE, MN 55110

PRELIMINARY NOT FOR CONSTRUCTION

I hereby certify that this plan, specifications 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.

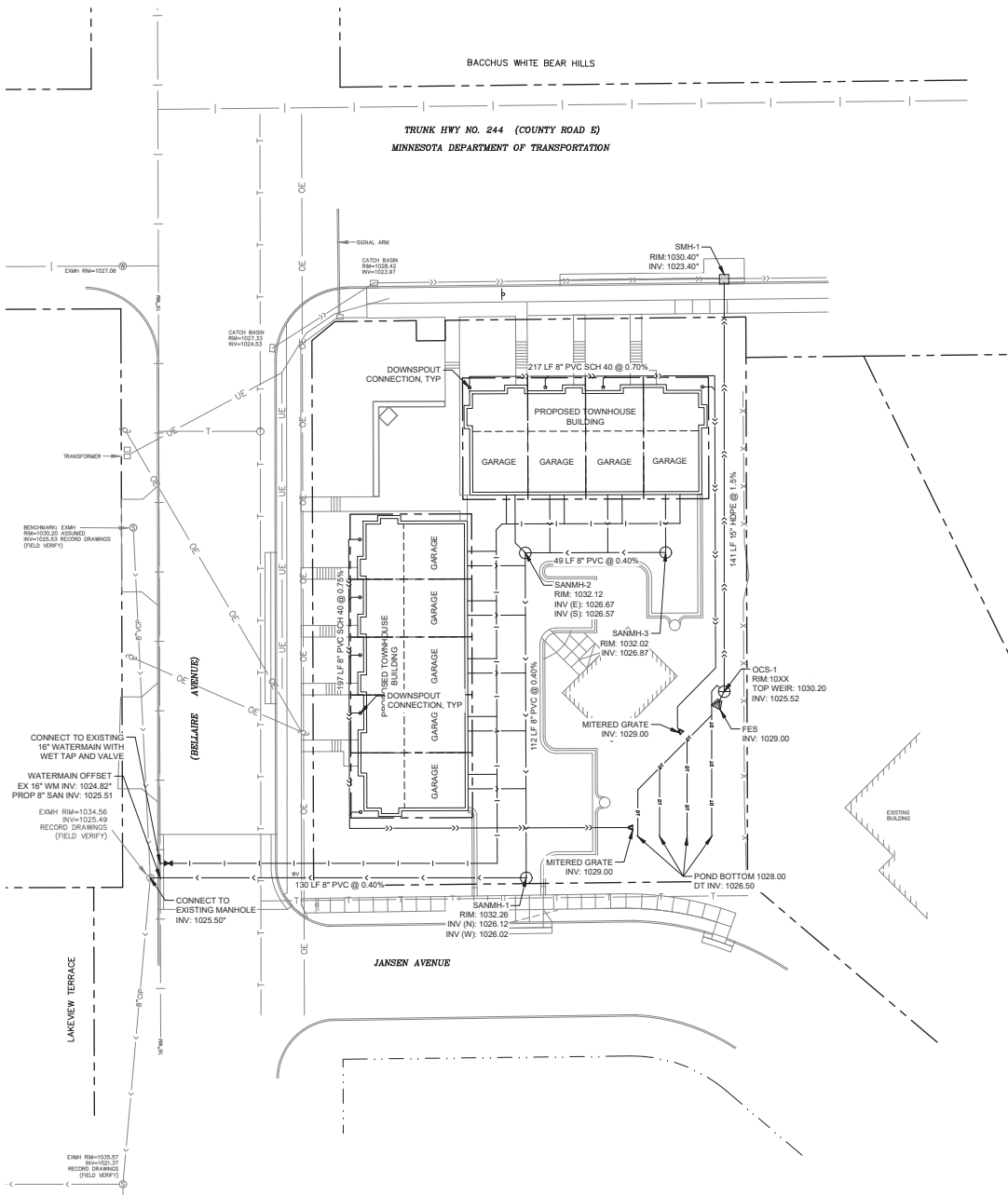
Date: _____ Lic. No.: _____

Rev.	Date	Description

Project #: 12236008.000
 Drawn By: TJR
 Checked By: MJW
 Issue Date: 06.20.23

Sheet Title:
EROSION CONTROL PLAN

Sheet:
C400



SYMBOL LEGEND

- STORM MANHOLE
- CATCH BASIN
- FLARED END
- SANITARY MANHOLE
- HYDRANT
- ⊕ GATE VALVE & BOX
- ⊗ WATER SHUTOFF
- ⊙ LIGHT POLE
- CTV —
- UE — UE —
- FO —
- GAS — GAS — GAS —
- S — S — S — S — S — S —
- T — T — T — T — T — T —
- W — W — W — W — W — W —
- DT — DT —
- CABLE UNDERGROUND LINE
- ELECTRIC OVERHEAD LINE
- ELECTRIC UNDERGROUND LINE
- FIBER OPTIC UNDERGROUND LINE
- NATURAL GAS UNDERGROUND LINE
- SANITARY SEWER PIPE
- STORM SEWER PIPE
- TELEPHONE UNDERGROUND LINE
- WATERMAIN PIPE
- DRAIN/TIE PIPE

UTILITY NOTES

1. It is the responsibility of the contractor to perform or coordinate all necessary utility connections and relocations from existing utility locations to the proposed building, as well as to all onsite amenities. These connections include but are not limited to water, sanitary sewer, cable TV, telephone, gas, electric, site lighting, etc.
2. All service connections shall be performed in accordance with state and local standard specifications for construction. Utility connections (sanitary sewer, watermain, and storm sewer) may require a permit from the City.
3. The contractor shall verify the elevations at proposed connections to existing utilities prior to any demolition or excavation.
4. The contractor shall notify all appropriate engineering departments and utility companies 72 hours prior to construction. All necessary precautions shall be made to avoid damage to existing utilities.
5. Storm sewer requires testing in accordance with Minnesota plumbing code 4714.1109 where located within 10 feet of waterlines or the building.
6. HDPE storm sewer piping shall meet ASTM F2306 and fittings shall meet ASTM D3212 joint pressure test. Installation shall meet ASTM C2321.
7. All RCP pipe shown on the plans shall be MNDOT class 3.
8. Maintain a minimum of 7 1/2' of cover over all water lines and sanitary sewer lines. Where 7 1/2' of cover is not provided, install 2" rigid polystyrene insulation (MNDOT 3780) with a thermal resistance of at least 5 and a compressive strength of at least 25 psi. Insulation shall be 8" wide, centered over pipe with 6" sand cushion between pipe and insulation. Where depth is less than 5' use 4" of insulation.
9. Install water lines 12" above sewers. Where the sewer is less than 12" below the water line (or above), install sewer piping of materials approved for inside building use for 10 feet on each side of the crossing.
10. All watermain piping shall be class 52 ductile iron pipe unless noted otherwise.
11. See Project Specifications for bedding requirements.
12. Pressure test and disinfect all new watermain in accordance with state and local requirements.
13. Sanitary sewer piping shall be PVC, SDR-35 for depths less than 12', PVC SDR-26 for depths between 12' and 25', and class 52 D.I.P. for depths of 26' or more.
14. A structure adjustment shall include removing and salvaging the existing casting assembly, removing existing concrete rings to the precast section. Install new rings and salvaged casting to proposed grades, cleaning casting flange by mechanical means to insure a sound surface and install an external chimney seal from casting to precast section. Chimney seals shall be Infi-Shield Uni-Band or an approved equal.

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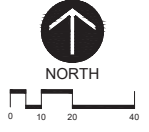
ELEMENT DESIGN-BUILD
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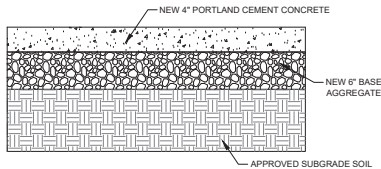
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Rev.	Date	Description
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Checked By:	MJW	
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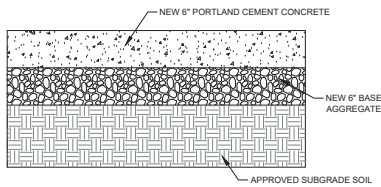


UTILITY PLAN
 Sheet:
C500



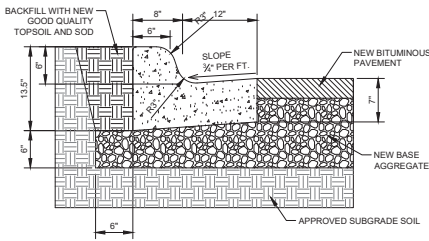
LIGHT-DUTY CONCRETE CONSTRUCTION DETAIL

NOT TO SCALE



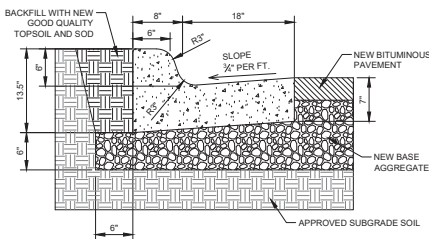
HEAVY-DUTY CONCRETE CONSTRUCTION DETAIL

NOT TO SCALE



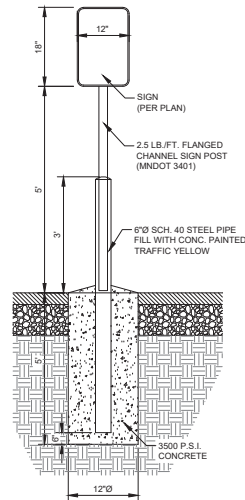
B612 CONCRETE CURB & GUTTER DETAIL

NOT TO SCALE



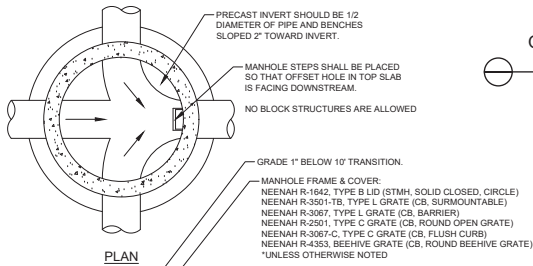
B618 CONCRETE CURB & GUTTER DETAIL

NOT TO SCALE



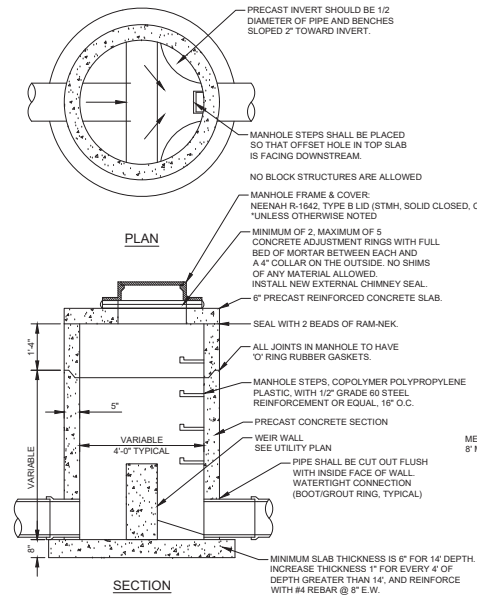
ACCESSIBLE PARKING SIGN AND POST DETAIL

NOT TO SCALE



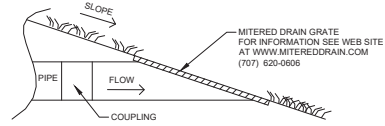
CATCH BASIN MANHOLE DETAIL

NOT TO SCALE



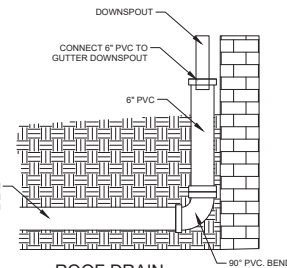
OUTLET CONTROL STRUCTURE MANHOLE DETAIL

NOT TO SCALE



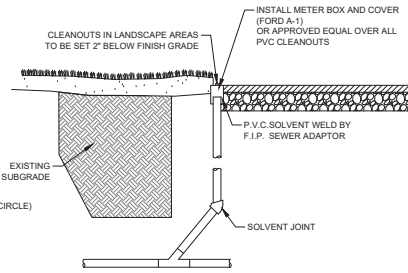
MITERED END GRATE DETAIL

NOT TO SCALE



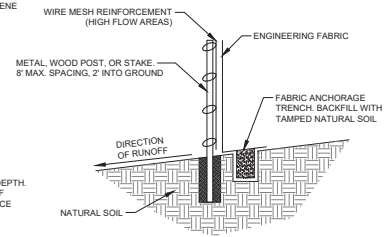
ROOF DRAIN CONNECTION DETAIL (TURF)

NOT TO SCALE



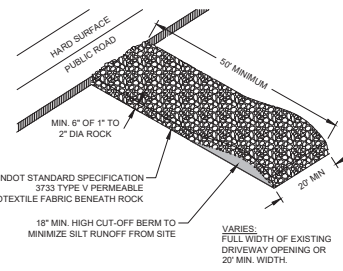
SANITARY SEWER CLEANOUT DETAIL

NOT TO SCALE



SILT FENCE INSTALLATION DETAIL

NOT TO SCALE



ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE

PRELIMINARY NOT FOR CONSTRUCTION

Client: **WILDWOOD ROWHOMES**
 2502 CO RD E EAST
 WHITE BEAR LAKE, MN 55110

Project Title: **WILDWOOD ROWHOMES**
 1110 RAYMOND AVENUE, UNIT 3
 ST. PAUL, MN 55108

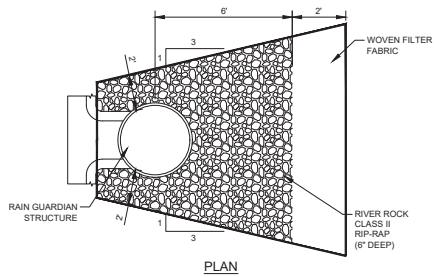
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Rev.	Date	Description

Project #: 12236008.000
 Drawn By: TJR
 Checked By: MJW
 Issue Date: 06.20.23
 Sheet Title: **DETAILS**

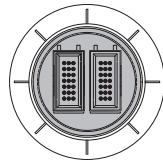
Sheet: **C600**



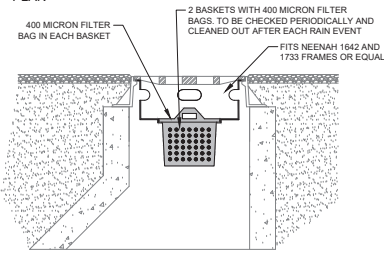
NOTE:
500X MIRAFI FABRIC OR EQUAL

RAIN GUARDAIN WITH RIP-RAP DETAIL

NOT TO SCALE



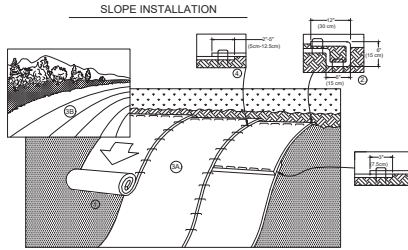
FILTER AREA	5.65 FT ²
OVERFLOW AREA	0.42 FT ²
MAXIMUM OVERFLOW RATE (@ 7" HEAD)	1.99 CFS
MAXIMUM OVERFLOW RATE (@ 13" HEAD)	2.79 CFS
BASKET WEIGHT (EMPTY)	1 LB
BASKET WEIGHT (FULL-APPROX.)	45 LBS



PROFILE

INFRASAFE INLET PROTECTION DEVICE (OR EQUAL)

NOT TO SCALE



1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPs), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
NOTE: WHEN USING CELLO-SEED DO NOT SEED PREPARED AREA. CELLO-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECPs IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF RECPs EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPs WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECPs BACK OVER SEED AND COMPACTED SOIL. SECURE RECPs OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECPs.
3. ROLL THE RECPs (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECPs WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPs MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECPs MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECPs TYPE.
5. CONSECUTIVE RECPs SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECPs WIDTH.
NOTE:
*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECPs.

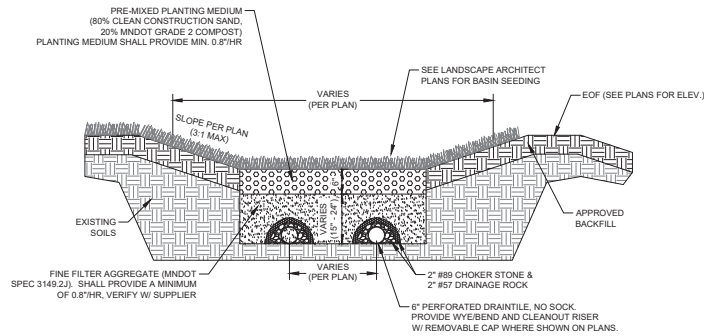
Category 4 Erosion Control Blanket:
North American Green S350 erosion control blanket or approved equal.

Top Net Polypropylene 1.5 lb/1,000 ft ² (0.73 kg/100 m ²) approx. wt.	Bottom Net Polypropylene 1.5 lb/1,000 ft ² (0.73 kg/100 m ²) approx. wt.
Straw Fiber 0.50 LBS/YD ² (0.27 KG/M ²)	Thread Photodegradable

Staples/Anchors:
The type of anchors used to secure the blanket to the ground shall be Steel wire 1 Gauge 1" wide x 6" long.

EROSION CONTROL BLANKET

NOT TO SCALE



NOTES:

1. SOILS WITH FILTRATION AREAS SHALL BE PROTECTED FROM COMPACTION DUE TO CONSTRUCTION TRAFFIC. AREAS SHALL BE STAKED AND MARKED OFF, WITH ONLY LOW IMPACT EQUIPMENT (TRACKED OR SIMILAR) ALLOWED.

FILTRATION BASIN CROSS SECTION

NOT TO SCALE

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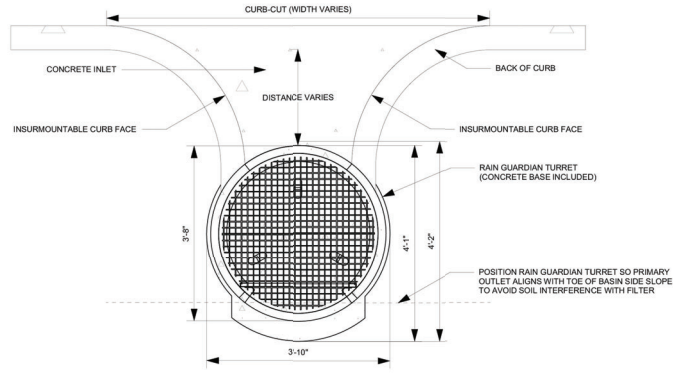
Rev.	Date	Description

Project #: 12336008.000
Drawn By: TJR
Checked By: MJW
Issue Date: 06.20.23
Sheet Title:

DETAILS

Sheet: **C601**

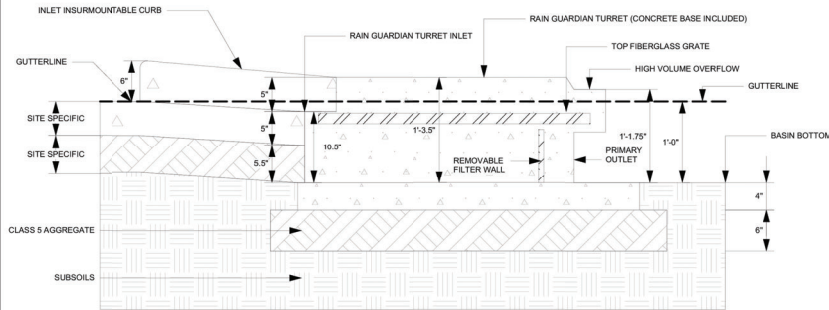
PLAN VIEW



PLAN VIEW NOTES

1. INLET WIDTH AND DISTANCE BETWEEN BACK OF CURB AND RAIN GUARDIAN TURRET MAY VARY WITH SITE CONDITIONS.
2. CONCRETE BASE EXTENDS BEYOND THE FILTER WALL OF THE RAIN GUARDIAN TURRET TO SERVE AS A SPLASH DISSIPATOR.

ELEVATION VIEW



CROSS-SECTION VIEW NOTES

1. THE TOP OF THE CLASS 5 BASE (COMPACTED TO 95% STANDARD PROCTOR) IS PRECISELY 1' 4" BELOW THE GUTTERLINE ELEVATION.

3D VIEWS



SPECIFICATIONS

1. STEEL REINFORCED, COLD-JOINT SECURED MONOLITHIC CONCRETE STRUCTURE (1,030 LBS). CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS. CONCRETE AIR ENTRAINED (4% TO 8% BY VOLUME). MANUFACTURED AND DESIGNED TO ASTM C858.
2. THREE-POINT PICK USING RECESSED LIFTING POCKETS WITH A STANDARD HOOK.
3. TWO-PIECE FIBERGLASS TOP GRATE (16 LBS/PIECE, 1-1/2" THICK) - 1,780 LB CONCENTRATED LOAD OR 409 LB/SQ-FT UNIFORM LOAD.

INSTALLATION NOTES

1. INSTALL THE CLASS 5 BASE (COMPACTED TO 95% STANDARD PROCTOR). THE DISTANCE FROM THE BACK OF THE CURB MAY VARY BASED ON SITE CONDITIONS, BUT CONSIDERATIONS SHOULD INCLUDE SLOPE OF THE INLET AND BASIN SIDE SLOPES ADJACENT TO THE RAIN GUARDIAN TURRET. POSITION RAIN GUARDIAN TURRET SO PRIMARY OUTLET ALIGNS WITH TOE OF BASIN SIDE SLOPE TO AVOID SOIL INTERFERENCE WITH REMOVABLE FILTER WALL. EXCAVATE 1' 10" BELOW THE GUTTERLINE ELEVATION (I.E. THE BIoretENTION OVERFLOW ELEVATION) TO ACCOMMODATE THE 1' PONDING DEPTH, 6" CLASS 5 AGGREGATE, AND 4" RAIN GUARDIAN TURRET BASE (INCLUDED). THEREFORE, THE TOP OF THE CLASS 5 COMPACTED BASE IS PRECISELY 1' 4" BELOW THE GUTTERLINE ELEVATION. THE INLET TO THE RAIN GUARDIAN TURRET WILL BE 10-1/2" ABOVE THE TOP OF THE CONCRETE BASE AND 1-1/2" BELOW THE GUTTERLINE ELEVATION TO ACCOMMODATE A SLOPED INLET FROM THE GUTTER TO THE RAIN GUARDIAN TURRET.
2. SET RAIN GUARDIAN TURRET ON THE PREPARED CLASS 5 BASE.
3. INSTALL FRAMING FOR INLET BETWEEN RAIN GUARDIAN TURRET AND BACK OF CURB. TOP ELEVATIONS OF THE FRAMING SHOULD MATCH THE TOP OF THE CURB ON THE STREET SIDE AND THE TOP OF THE RAIN GUARDIAN TURRET ON THE BIoretENTION SIDE.
4. INSTALL EXPANSION/CONTRACTION JOINT MATERIAL OR A SHEET OF POLY TO SERVE AS A BOND BREAK BETWEEN RAIN GUARDIAN TURRET AND CONCRETE INLET BEFORE POURING INLET.
5. SIDE CURBS OF THE POURED INLET MUST HAVE AN INSURMOUNTABLE PROFILE TO PREVENT WATER FLOW FROM OVERTOPPING THE DOWNSTREAM SIDE OF THE INLET.
6. REMOVABLE FILTER WALL SHOULD BE INSTALLED WITH FILTER FABRIC FACING THE RAIN GUARDIAN TURRET INLET.

MANUFACTURED BY: **FORTERRA**
Structural & Specialty

REVISION HISTORY

REV	BY	DATE	DESCRIPTION
A	MDH	08/29/18	TURRET - 1'



Anoka Conservation District
1318 McKay Dr. NE, Suite 300
Ham Lake, MN 55304
763-434-2030



**RAIN GUARDIAN TURRET
PRETREATMENT CHAMBER
BIoretENTION PONDING DEPTH: 1'
TYPICAL DETAIL**

RAIN GUARDIAN TURRET DETAIL

NOT TO SCALE

PRELIMINARY NOT FOR CONSTRUCTION



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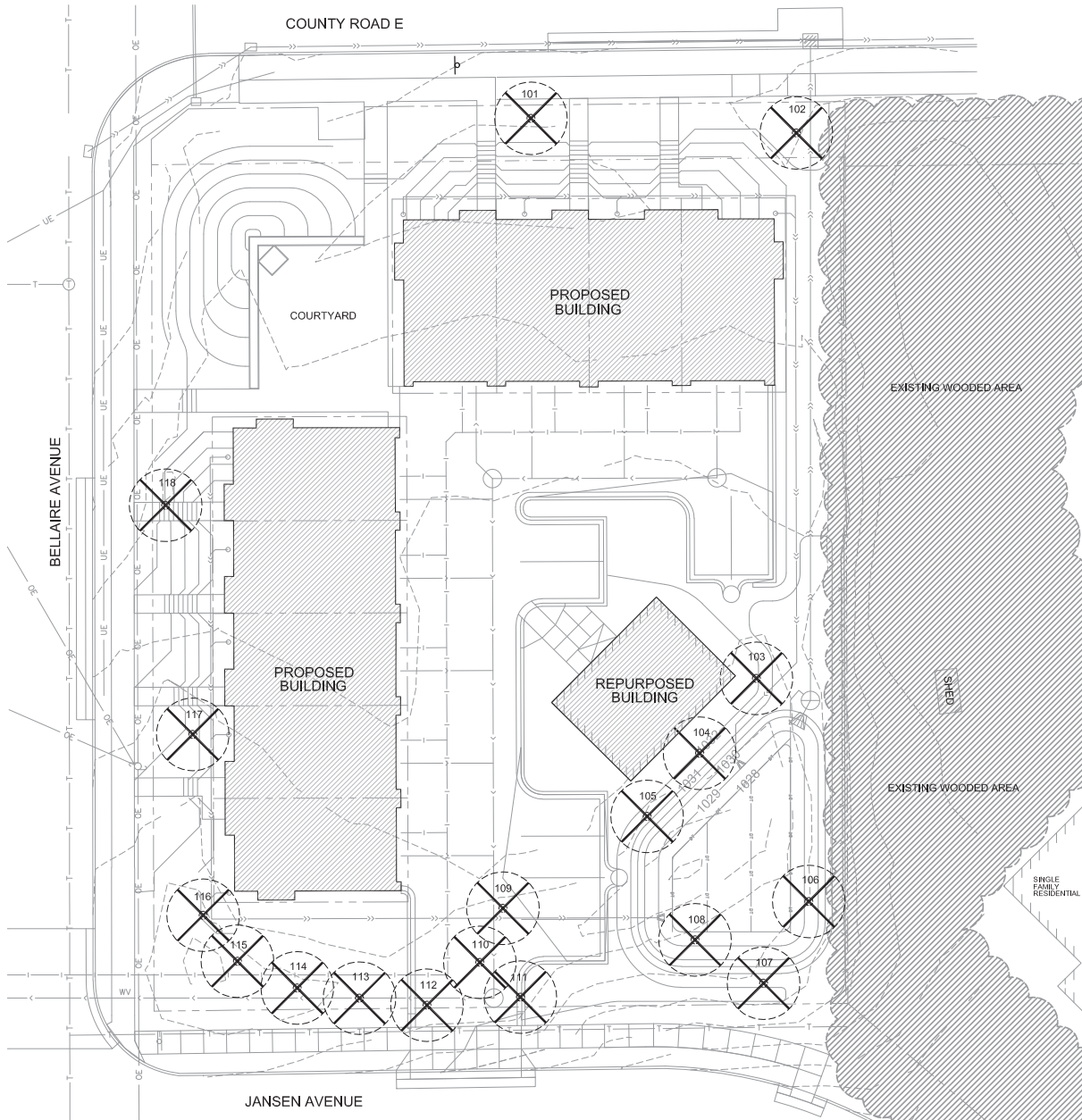
Date: _____ Lic. No.: _____

Rev.	Date	Description

Project #: 12336008.000
Drawn By: TJR
Checked By: MJW
Issue Date: 08.20.23
Sheet Title:

DETAILS

Sheet: **C602**



TREE PRESERVATION PLAN:

Legend:



Municipal Tree Mitigation Requirements:

Total Significant Tree Inches On-Site (B):	230
Total Premium Inches Removed (A1):	230
Total Secondary Inches Removed (A2):	0
Total Premium Replacement Inches Required (D)*:	306
Total Secondary Replacement Inches Required (D)**:	0
Total Replacement Inches Required:	306
Non-Significant Inches to Remain Credit:	0
Bldg Tree Credits***:	306
Total Replacement Inches Owed:	306
Total Replacement Inches Shown:	50
New Observatory Trees Proposed: 14	
New Ornamental Trees Proposed: 10	
Remaining Tree Inches Owed:	256

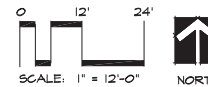
* (A1/B) x C1 x A1 = D
 ** (A2/B) x C2 x A2 = D
 (230/230) x 1.33 x 230 = 506
 (0/230) x 2.66 x 0 = 0

A1 = Total caliper inches of significant premium trees lost as a result of land alteration
 A2 = Total caliper inches of significant secondary trees lost as a result of land alteration
 B = Total caliper inches of significant trees situated on the land
 C1 = Tree replacement constant, premium tree (1.33)
 C2 = Tree replacement constant, secondary tree (2.66)
 D = Replacement Trees (number of caliper inches)

***Building Tree Credit: Trees in the grassy area within the ROW next to the street may be counted towards the preservation calculation at a rate of half. 359 Bldg inches / 2 = 179.5 inch credits
 Note: Replacement inches that cannot be planted on site may be paid into the Arber Day planting fund at the rate of \$100 per caliper inch

Point #	Type	Inches	Significant?	Classification	Remove?
101	ELM	18	Y	Premium	Y
102	ELM	18	Y	Premium	Y
103	ELM	12	Y	Premium	Y
104	PINE	10	Y	Premium	Y
105	PINE	10	Y	Premium	Y
106	PINE	10	Y	Premium	Y
107	PINE	10	Y	Premium	Y
108	PINE	10	Y	Premium	Y
109	PINE	12	Y	Premium	Y
110	PINE	8	Y	Premium	Y
111	OAK	18	Y	Premium	Y
112	PINE	10	Y	Premium	Y
113	OAK	12	Y	Premium	Y
114	OAK	28	Y	Premium	Y
115	PINE	10	Y	Premium	Y
116	PINE	10	Y	Premium	Y
117	ELM	12	Y	Premium	Y
118	ELM	12	Y	Premium	Y

Summary	Inches
Total Significant Tree Inches On-Site	230
Total Premium Tree Inches Removed	230
Total Secondary Tree Inches Removed	0
Total Premium Replacement Inches	306.00
Total Secondary Replacement Inches	0.00
Total Replacement Inches	306.00
Total Non-Significant Inches to Remain as credit	0
Total Bldg Inches	0
Total Inch Credits from Bldg Trees	0.00
Total Replacement Inches Owed	306.00



CALYX
 DESIGN GROUP
 Landscape Architecture | Planning
 472 Campbell Avenue N, Suite 101A
 Minneapolis, MN 55412
 Telephone: 612.338.0018
 Website: www.calyxdesigngroup.com

Client:
ELEMENT
 DESIGN-BUILD
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PRELIMINARY
 Benjamin Hartberg, PLA
 Date: XX-XXXX-XXXX L.L. No. 988985

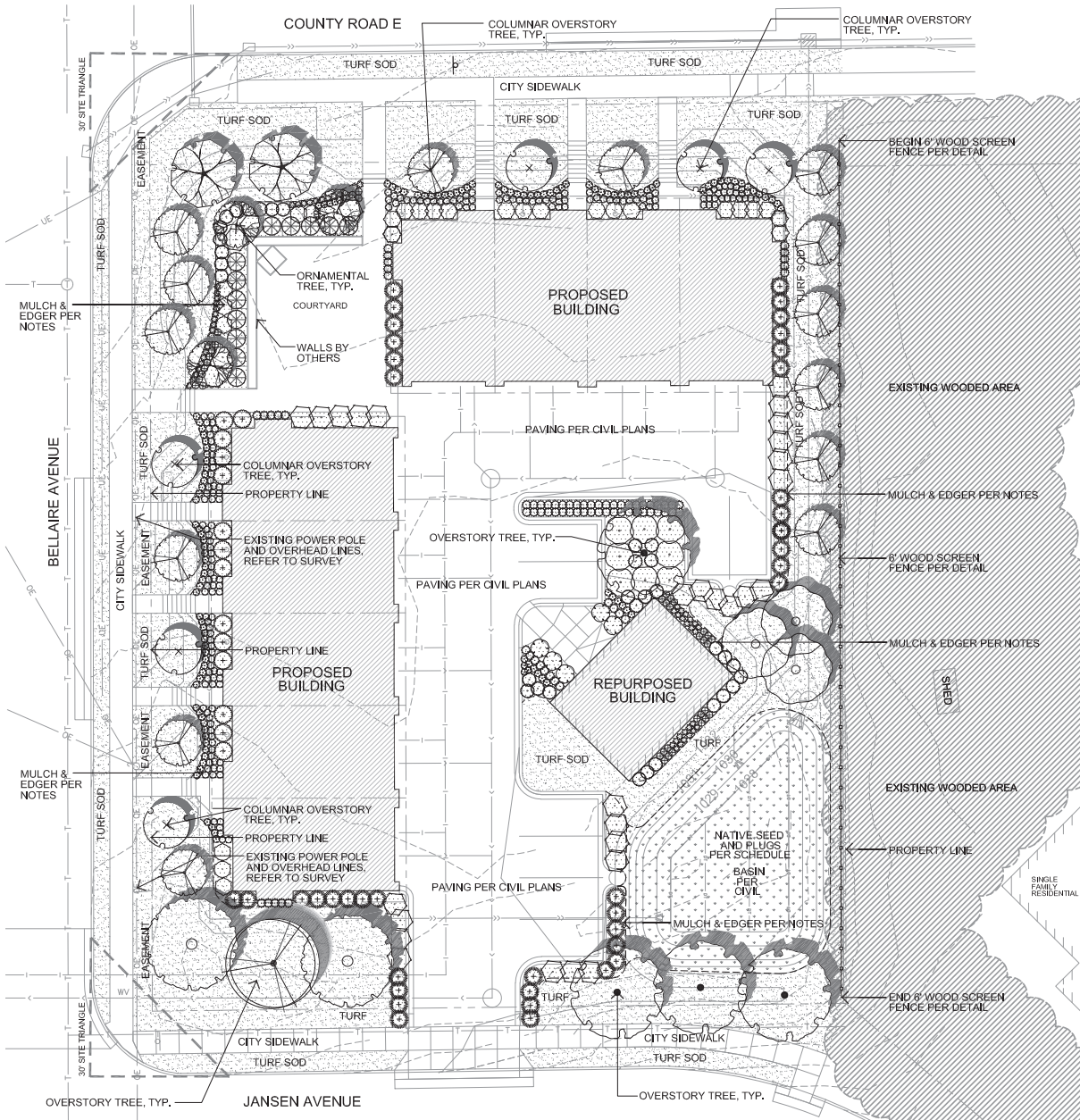
Rev.	Date	Description

Project #: 12236008.000
 Drawn By: HL
 Checked By: BH
 Issue Date: 06.21.2023
 Sheet Title:

TREE
PRESERVATION
PLAN

Sheet:

L000



LANDSCAPE LAYOUT PLAN:

Legend:

- Proposed Turf Sod
- Existing Wooded Area
- Edger per Landscape Notes

ALL PROPOSED TREES TO BE PLANTED 10' MINIMUM FROM UTILITIES

City of White Bear Lake Landscape Requirements:

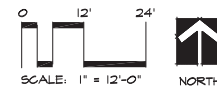
Site Data
 Landscaped Parking Lot Perimeter: 95 LF*
 *views from abutting property and public right-of-way

Parking Lot Screening
 All open off-street parking areas of (5) or more spaces shall be screened from abutting property and views from the public right-of-way.

- (1) 2.5" caliper tree per 25 LF of landscaped parking lot perimeter
 Calculation: 95 / 25 = (4) 2.5" caliper trees
- (1) 18" shrub per 3 LF of landscaped parking lot perimeter
 Calculation: 95 / 3 = (32) 18" shrubs

PLANT SCHEDULE

OVERSTORY TREE	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	REMARKS
	A3	Acer x freemanii 'Senna'	Senna Glen Maple	2.5" Cal.	B&B	1	
	BF	Betula papyrifera 'Fargo' TM	Dakota Pinnacle White Birch	2.5" Cal.	B&B	6	Single Stem
	G4	Gleditsia triacanthos inermis 'Dread TM'	Street Keeper Honey Locust	2.5" Cal.	B&B	4	
	PE	Populus tremula 'Erecta'	Columnar Swedish Aspen	2.5" Cal.	B&B	14	
	OC	Quercus	Clifton Spike Oak	2.5" Cal.	B&B	3	
	TS	Tilia americana 'Sentry'	Sentry Linden	2.5" Cal.	B&B	2	
ORNAMENTAL TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	REMARKS
	CT	Crataegus x mondensis 'Toba'	Toba Hawthorn	1.5" Cal.	B&B	3	
	MP	Malus x 'Prairie'	Prairie Crab Apple	1.5" Cal.	B&B	2	
SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	REMARKS
	Am	Aronia melanocarpa 'Morton' TM	Ironcake Beauty Black Chokeberry	5 gal.	Pot	14	
	Cr	Cornus alba 'Rognem'	Red Gnome Dogwood	5 gal.	Pot	5	
	Di	Dieris floribunda	Dwarf Bush Honeysuckle	3 gal.	Pot	33	
	H1	Hydrangea arborescens 'Annabelle'	Annabelle Hydrangea	5 gal.	Pot	28	
	JF	Juniperus chinensis 'Sea Green'	Sea Green Juniper	5 gal.	Pot	41	
	Rg	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	5 gal.	Pot	8	
	Ra	Ribes alpinum	Alpine Currant	5 gal.	Pot	33	
	T2	Thuja occidentalis 'Tachy Globe'	Tachy Globe Arborvitae	5 gal.	Pot	12	
ANNUALS/PERENNIALS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	REMARKS
	Am3	Alum x 'Millenium'	Millenium Ornamental Choke	1 gal.	Pot	88	
	Hp	Heuchera micrantha 'Palace Purple'	Palace Purple Coral Bells	1 gal.	Pot	82	
	P1	Perovskia atrisiphocarpa 'Little Spike'	Little Spike Russian Sage	1 gal.	Pot	38	
	P2	Phlox subulata 'Emerald Blue'	Emerald Blue Creeping Phlox	1 gal.	Pot	126	
	R2	Rutbeckia fulgida 'Goldstrum'	Black Eyed Susan	1 gal.	Pot	56	
GRASSES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	REMARKS
	Ck	Calamagrostis x acediflora 'Karl Foerster'	Feather Reed Grass	1 gal.	Pot	76	



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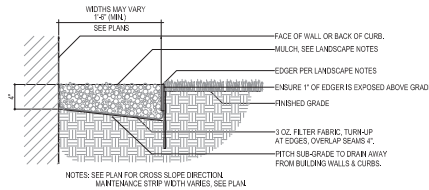
PRELIMINARY
 Benjamin Hartberg, P.L.A.
 Date: XX-XXXX-XXXX L.L. No. 46809

Rev.	Date	Description

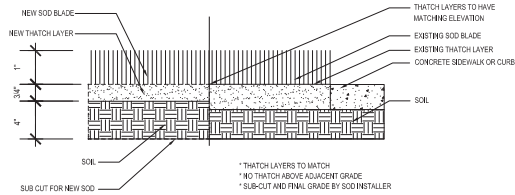
Project No: 12236006.000
 Drawn By: HL
 Checked By: BH
 Issue Date: 06.21.2023
 Sheet Title:
LANDSCAPE PLAN
 Sheet:
L100

Landscaping Notes and Requirements:

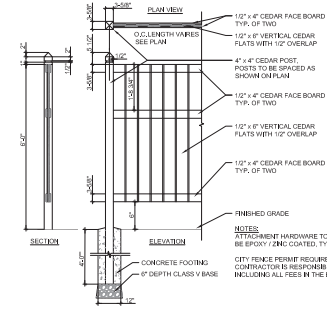
- Tree saucer for individual trees outside of a plant bed to be four inches (4") depth natural Western Red Cedar mulch for trees outside of a plant bed. Install per tree planting detail. Do not place mulch against tree trunk. Remove wire and burlap from top third of root ball before final soil back-fill and mulch.
- Refer to civil plan sheets for grading, drainage, site dimensions, survey, tree removal, proposed utilities and erosion control.
- All plant material shall comply with the latest edition of the American Standard for Nursery Stock, American Association of Nurserymen. Unless noted otherwise, deciduous shrubs shall have at least 5 canes at the specified shrub height. Plant material shall be delivered as specified. All deciduous trees are measured at 48" from finished grade to determine tree diameter (DBH). All coniferous trees are measured from finished grade to the top of the central leader. If no central leader is present on coniferous trees, that plant is rejected and must be replaced immediately.
- Plan takes precedence over plant schedule if discrepancies in quantities exist.
- All proposed plants shall be located and staked as shown.
- Adjustment in location of proposed plant material may be needed in field. Should an adjustment be required, the client will provide field approval. Significant changes may require city review and approval.
- The project landscape contractor shall be held responsible for watering and properly handling all plant materials brought on the site both before and after installation. Schedule plant deliveries to coincide with expected installation time within 36 hours.
- All plant materials shall be fertilized upon installation as specified.
- The landscape contractor shall provide the owner with a watering schedule appropriate to the project site conditions and to plant material growth requirements.
- If the landscape contractor is concerned or perceives any deficiencies in the plant selections, soil conditions, drainage or any other site condition that might negatively affect plant establishment, survival or guarantee, they must bring these deficiencies to the attention of the landscape architect & client prior to bid submission. Plant bed drainage concerns during plant installation shall be brought to the attention of the Owner and General Contractor immediately.
- Contractor shall establish to his/her satisfaction that soil and compaction conditions are adequate to allow for proper drainage at and around the building site.
- Contractor is responsible for ongoing maintenance of all newly installed plant material for the duration of the warranty period. Landscape contractor is responsible for coordinating lawn mowing hand-off with the Owner after the first mowing. Any acts of vandalism or damage which may occur prior to owner acceptance shall be the responsibility of the contractor. Contractor shall provide the owner with a maintenance program including, but not limited to weed control, plant pruning, fertilization and disease/pest control beyond the first year of maintenance. See Note #22.
- Warranty: The contractor shall guarantee newly planted material through one calendar year from the date of written owner acceptance. Plants that exhibit more than 20% die-back damage shall be replaced at no additional cost to the owner. The contractor shall also provide adequate tree wrap and deer/rodent protection measures for the plantings during the warranty period.
- This layout plan constitutes our understanding of the landscaping requirements listed in the ordinance. Changes and modifications may be requested by the city based on applicant information, public input, council decisions, etc.
- The landscape contractor shall be responsible for obtaining any permits and coordinating inspections as required throughout the work process.
- Plant size & species substitutions must be approved in writing prior to acceptance in the field.
- Irrigation: The landscape contractor shall furnish an Irrigation Layout Plan for head-to-head coverage of all trees and turf planting areas. Use commercial grade irrigation equipment and provide cut-sheets and provide (3) copies of the proposed layout plan to the Civil Engineer for review and approval prior to installation. Coordinate irrigation connection point, controller, back-flow and valve locations with the architect and general contractor. Irrigation contractor to verify if a deduct meter is required and include in bid. Include (1) fall shut-down and (1) spring start-up in bid.
- All edger shall be professional grade black steel edger, 1/8" thickness. Anchor every 18" on-center (minimum). Submit sample.
- Landscape Contractor is responsible for coordination with the General Contractor, to protect the new improvements on and off-site during landscape work activities. Report any damage to the General Contractor immediately.
- Rock mulch areas shall be 3/4" inch dia. local clean dark trap rock over weed mat. Install per detail. Submit mulch sample for approval.
- All planting and sodded areas shall be prepared prior to installation activities with a hairy power box rake or equal to provide a firm planting bed free of stones, sticks, construction debris, etc.
- Turf Sodding shall conform to all rules and regulations as established in the MnDOT Seeding Manual, 2014 edition, for turf bed preparation, installation, maintenance, acceptability, and warranty. Turf Sod Installation to include one year of maintenance in the bid price, which includes fertilization and weed control (3 times - (2) applications in the first growing season and (1) application the following spring. Also, include mechanical plug aeration, which is to occur (1) time the spring following turf sod installation, including snow storage areas. An acceptable stand of turf is lush, full, and weed-free. See specifications for additional information and contractor mowing requirement.
- The Landscape Contractor shall furnish samples of all landscape materials for approval prior to installation.
- The Landscape Contractor shall clear and grub the underbrush from within the work limits to remove dead branches, leaves, trash, weeds and foreign materials.
- The landscape contractor shall contact Gopher State One Call no less than 48 hours before digging for field utility locations.
- The landscape contractor shall be responsible for the removal of erosion control measures once vegetation has been established to the satisfaction of the municipal staff. This includes silt curtain fencing and sediment logs placed in the landscape.
- The landscape contractor shall be responsible for visiting the site to become familiar with the conditions prior to bidding and installation. Coordinate with the general contractors on matters such as fine grading, landscaped area conditions, staging areas, irrigation connection to building, etc.
- See Site and CMI plans for additional information regarding the project, including infiltration area soils and sub-surface drainage requirements and performance.
- Topsoil Requirements: All graded areas of the site that are designated on the plan set for turf sod shall have no less than 6" of imported top soil, areas designated for shrubs, trees, and perennials shall have no less than 12" of imported top soil, meeting MnDOT classifications for planting soil for trees, shrubs, and turf. Slope away from building.
- Landscape contractor must prove the open sub-grade of all planting areas after their excavation is capable of infiltrating a minimum requirement of 1.4-inch of water per hour prior to installation of plant materials, topsoil, irrigation, weed mat, and mulch. Planting areas not capable of meeting this requirement shall have 4" diameter X 48" depth holes augured every 36" on-center and filled with MnDOT Free-Draining Coarse Filter Aggregate. Re-test sub-grade percolation for compliance to infiltration minimum requirement.
- Landscape contractor to provide nursery pull list (bill of lading) including plant species and sizes shipped to the site. Additionally, the landscape contractor shall provide nursery stock traceability, proving none of the materials provided contain or are genetic strains of the neoreichthid family including acorantipid, clathrapid, limnodynepid, nelenypid, nitrinac, nitidopid and tintinac.
- Landscape contractor shall apply granular Preen pre-emergent herbicide in all wood mulch areas immediately following installation and again the following spring.



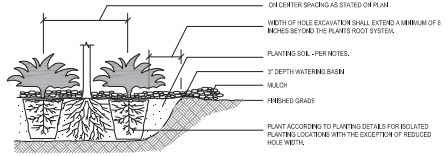
1 MULCH & EDGER DETAIL
NOT TO SCALE



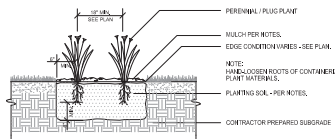
2 NEW SOD TO EXISTING SOD DETAIL
NOT TO SCALE



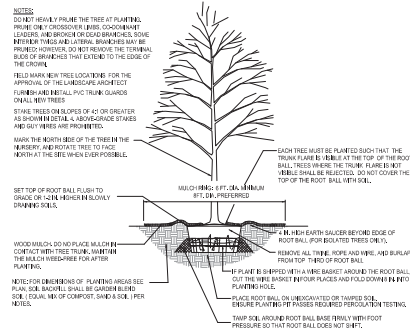
4 6'-0" WOOD PRIVACY FENCE
NOT TO SCALE



5 TYP. SHRUB PLANTING - SECTION
NOT TO SCALE



6 TYP. PERENNIAL PLANTING - SECTION
NOT TO SCALE



3 DECIDUOUS TREE PLANTING - SECTION
NOT TO SCALE

LANDSCAPE DETAILS, NOTES, & SCHEDULES

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Client:

WILDWOOD
ROWHOMES
2502 CO RD E EAST
WHITE BEAR LAKE, MN 55110

Project Title:

I hereby certify that this plan, specifications 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.
PRELIMINARY
Benjamin Hartberg, P.L.A.
Date: XX-XXXX-XXXX L.S. No. 98989

Rev.	Date	Description

Project #: 12236008.000

Drawn By: HL

Checked By: BH

Issue Date: 06.21.2023

Sheet Title:

LANDSCAPE DETAILS

Sheet:

L200

NATIVE SEED MIX:

Seed in Basin areas: (unless otherwise noted on civil plans), shall be: MCDOT #33-201 seed mixture, drilled into the prepared planting medium (per civil engineer's detail) layer at 80 lbs per acre. Submit seed mix for approval. Grading and Erosion Control per Civil Plans and Specifications. Include live plugs per the additional schedule below.

33-201 Stormwater South & West					
Common Name	Scientific Name	Rate (lb/acre)	Rate (kg/ha)	% of Mix (by weight)	Seeds/ sq ft
big bluestem	<i>Andropogon gerardii</i>	2.00	2.24	5.72%	7.35
fringed bromegrass	<i>Bromus ciliatus</i>	2.00	2.24	5.73%	8.10
Virginia wild rye	<i>Elymus virginicus</i>	1.50	1.68	4.29%	2.31
fowl bluegrass	<i>Poa palustris</i>	1.06	1.19	3.03%	50.70
slender wheatgrass	<i>Elymus trachycaulus</i>	1.00	1.12	2.85%	2.53
wheatgrass	<i>Panicum virgatum</i>	0.38	0.43	1.07%	1.53
prairie cordgrass	<i>Spartina pectinata</i>	0.38	0.43	1.07%	0.91
Indian grass	<i>Sorghastrum nutans</i>	0.12	0.13	0.36%	0.55
bluejoint	<i>Calamagrostis canadensis</i>	0.06	0.07	0.18%	6.40
Grasses Subtotal		8.50	9.53	24.29%	80.78
swell-fruited sedge	<i>Carex stipitata</i>	0.25	0.28	0.71%	3.10
dark green bulrush	<i>Scirpus atrovirens</i>	0.19	0.21	0.54%	31.70
woolgrass	<i>Scirpus cyperinus</i>	0.06	0.07	0.18%	39.00
Sedges & Rushes Subtotal		0.50	0.56	1.43%	73.80
golden alexander	<i>Zizia aurea</i>	0.20	0.22	0.56%	0.79
autumn sneezeweed	<i>Helenium autumnale</i>	0.13	0.15	0.36%	5.97
marsh milkweed	<i>Asclepias incarnata</i>	0.11	0.12	0.32%	0.20
leafy beggartick	<i>Bidens frondosa</i>	0.11	0.12	0.31%	0.20
Canada anemone	<i>Anemone canadensis</i>	0.07	0.08	0.19%	0.20
obedient plant	<i>Physostegia virginiana</i>	0.07	0.08	0.21%	0.30
tall coneflower	<i>Rudbeckia laciniata</i>	0.07	0.08	0.21%	0.37
Symphyotrichum					
New England aster	<i>novae-angliae</i>	0.07	0.08	0.19%	1.56
flat-topped aster	<i>Doellingeria umbellata</i>	0.06	0.07	0.17%	1.50
spotted Joe eye weed	<i>Eutrochium maculatum</i>	0.06	0.07	0.18%	2.19
blue vervain	<i>Verbena hastata</i>	0.05	0.06	0.15%	1.85
Forbs Subtotal		1.00	1.12	2.85%	15.13
Oats	<i>Avena sativa</i>	25.00	28.02	71.43%	11.14
Cover Crop Subtotal		25.00	28.02	71.43%	11.14
Total		35.00	39.23	100.00%	180.85

Purpose: Stormwater pond edges, temporarily flooded dry ponds, and temporarily flooded ditch bottoms.

Planting Area: Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. MNDOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.

Basin Area: Live Plug Schedule:

Plug Species	Scientific Name	Common Name	Size	Root
24" Core-Cone	<i>Bahiaflexensis floribunda</i>	Stret. Bullhead	FLAT	PLUG
	<i>Chamaecrista canadensis</i>	Blue Joint Grass	FLAT	PLUG
	<i>Wolfsly Sedge</i>		FLAT	PLUG
	<i>Bells Sedge</i>		FLAT	PLUG
	<i>Rush Sedge</i>		FLAT	PLUG
	<i>Banks River Sedge</i>		FLAT	PLUG
	<i>Lake Sedge</i>		FLAT	PLUG
	<i>Twined Sedge</i>		FLAT	PLUG
	Common Forb		FLAT	PLUG
	Green Bullhead		FLAT	PLUG
	Woolgrass		FLAT	PLUG
	Cool Grass		FLAT	PLUG

* Contractor is to evenly distribute the allocated amount of plants/plugs throughout the basin areas located within the site accordingly.

NATIVE SEED MIX REQUIRED MAINTENANCE - 3 YRS:

Native Grass and Forb Mixtures (mixtures beginning with the number 3)

Year 1 Establishment (spring seeding):
 1) Prepare site - Late April - May
 2) Seed - May 1 - June 1
Maintenance:
 1) Mow (6-8 inches) - every 30 days after planting until September 30.
 2) Weed Control - mowing should help control annual weeds. Spot spray herbicides, etc.

Establishment (fall seeding):
 1) Prepare site - Late August - early September
 2) Seed - late September to freeze-up
Maintenance (following season):
 1) Mow (6-8 inches) - once in May, June, and July
 2) Weed Control - mowing should help control annual weeds. Spot spray herbicides, etc.

Evaluation:
 1) Cover crop growing within 2 weeks of planting (except dormant plantings).
 2) Seedlings spaced 1-6 inches apart in drill rows.
 3) Native grass seedlings may only be 4-6 inches tall.
 4) If there is a flush of growth from fescue etc., mow as necessary.

Year 2 Maintenance:
 1) Mow (6-8 inches) one time between June 1 - August 15 before weeds set seed.
 2) Weed Control - mowing should keep annual weeds down. Spot spray herbicides, etc.
 3) Some sites may not require much maintenance the second year.

Evaluation:
 1) Cover crop will be gone unless winter wheat was used in a fall planting.
 2) Grasses forming clumps 1-6 inches apart in drill rows, but still short.
 3) Some flowers should be blooming (black-eyed Susans, bergamot, etc.).
 4) If there is a flush of growth from fescue etc., mow site.

Year 3 Maintenance:
 1) Mow only if necessary.
 2) Weed Control - Spot spray herbicides, etc.
 3) Sites usually do not require much maintenance the third year.

Evaluation:
 1) Planting should begin looking like a prairie - tall grasses, flowers, etc.

Long-term Maintenance:
 1) Weed Control - Spot spray herbicides, etc.
 2) Burning (3-5 year rotation) alternate spring and fall if possible.
 3) Haying (3-5 year rotation) late summer or early fall. Alternate with burning (may substitute for burning).
 4) Burning two years in a row will really "clean up" rough-looking sites.

NATIVE SEEDING INSTALLATION METHOD:

Drop Seeding onto Tilled Sites
 This is the "standard" method for seeding on prepared sites such as those on construction projects.

- Site Preparation:** The site should be prepared by loosening topsoil to a minimum depth of 3 inches.
- Fertilizer:** Use a fertilizer analysis based on a soil test or a general recommendation is a 10-10-10 (NPK) commercial grade analysis at 200 lbs/acre.
- Seed Installers:** Seed should be installed with a drop seeder that will accurately meter the types of seed to be planted, keep all seeds uniformly mixed during the seeding and contain drop seed tubes for seed placement (Bibb-type). The drop seeder should be equipped with a cultipacker assembly to ensure seed-to-soil contact.
- Seeding Rates:** Rates are specified in the mixture tabulation for the specified mix.
- Packing:** If the drop seeder is not equipped with a cultipacker, the site should be cultipacked following the seeding to ensure seed-to-soil contact.
- Mulch:** Cover soil with a hyclomulch consisting of natural wood fiber or paper fiber, water, and M-Binder at 100 lbs per acre.

Note: Heavy equipment is not allowed in the infiltration basins to keep soils from getting compacted. If any compaction occurs due to seeding operations, the soils must be uncompacted.

Irrigation Performance Requirements:

- IRRIGATION SYSTEM SHOULD AVERAGE 40+ PSI AT THE BASE OF ALL SPRINKLER HEADS. NOTIFY LANDSCAPE ARCHITECT IF AVAILABLE PRESSURE DIFFERS.
- IRRIGATION CONTRACTOR TO PREPARE FULL IRRIGATION LAYOUT PLANS FOR LANDSCAPE ARCHITECT'S REVIEW, LAYOUT WORK AS ACCURATELY AS POSSIBLE. THE CONTRACTOR MAY MAKE MINOR ADJUSTMENTS TO THE LOCATION AND SPACING AS NECESSARY TO ACCOMMODATE ACTUAL FIELD CONDITIONS. HEAD LOCATIONS SHALL BE FLAGGED AND REVIEWED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- COORDINATE SLEEVING AND IRRIGATION PIPE / HEAD / INTERNAL PLUMBING INSTALLATION WITH THE WORK OF OTHERS.
- ALL MATERIALS SHALL BE INSTALLED AS DETAILED ON DRAWINGS, (HOWEVER, IF THE CONTRACT DRAWINGS AND/OR SPECIFICATIONS DO NOT THOROUGHLY DESCRIBE THE METHOD OR TECHNIQUES TO BE USED, THE CONTRACTOR SHALL FOLLOW THE INSTALLATION METHODS ISSUED BY THE MANUFACTURE. ALL SUCH LITERATURE MUST BE SUBMITTED 48 HOURS PRIOR TO INSTALLATION FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT.)
- CHECK AND VERIFY ALL EXISTING AND PROPOSED SITE CONDITIONS, UTILITIES AND SERVICES PRIOR TO TRENCHING.
- LATERAL PIPING TO BE A MINIMUM OF 12 INCHES DEEP AND MAINLINES A MINIMUM OF 18 INCHES DEEP.
- ALL MAIN LINE PIPING AND LATERAL PIPE OF 1-1/2" AND LARGER SHALL BE PVC (SDR 26 / CLASS 150). ALL OTHER LATERAL PIPE OF 1-1/4" AND SMALLER MAY BE POLYETHYLENE.
- ALL TEES AND ELBOWS SHALL BE PVC (100 PS), INCLUDE THRUST BLOCKING AT TEE AND ELBOW JOINTS.
- ALL SPRINKLERS SHALL BE AS NOTED ON DETAIL & SPECIFICATION.
- ADJUST HEADS FOR GRADE, AS NECESSARY. AFTER TURF GRASS HAS BEEN ESTABLISHED AND ALL SETTLEMENT AT HEADS HAS OCCURRED.
- ALL AUTOMATIC CONTROLLERS, FILTERS, BACKFLOW PREVENTERS AND HOSE BIBS SHALL BE SET PLUMB. SPRINKLER HEAD FILTERS, QUICK COUPLER VALVES AND ALL VALVES WITH STEMS SHALL BE SET PERPENDICULAR TO FINISHED GRADE.
- CONTROL VALVE WIRES, INCLUDING THE GROUND WIRE, SHALL BE #12 GAUGE U.FULL, APPROVED DIRECT BURIAL UNDERGROUND CONNECTIONS SHALL BE MADE WITH 3-WIRE CONNECTORS (DBV) OR APPROVED EQUAL.
- TRACER-WIRE IS TO BE PLACED OVER ALL MAIN AND LATERAL LINES.
- PLACE ALL VALVES IN APPROVED VALVE BOXES.
- USE TEFLON TAPE ON ALL THREADED JOINTS.
- BRAND EACH VALVE BOX WITH 2" HIGH LETTERING SHOWING ZONE NUMBER AND CONTROLLER LETTER (EXAMPLE 'A3'). THIS STAMP IS TO MATCH THE ZONE SHOWN ON THE PLAN UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT.
- CONDUCT PERFORMANCE TEST IN THE PRESENCE OF OWNER AND LANDSCAPE ARCHITECT FOLLOWING COMPLETION OF SYSTEM INSTALLATION.
- CONDUCT AND DEMONSTRATE WINTERIZATION AND SPRING START-UP PROCESS TO OWNER IN THE FALL OF COMPLETION.
- LANDSCAPE ARCHITECT SHALL BE NOTIFIED TO VERIFY TRENCH DEPTHS BEFORE BACKFILLING.
- IRRIGATION CONTRACTOR TO COORDINATE MECHANICAL ROOM WATER CONNECTION POINT WITH MECHANICAL ENGINEER AND PLUMBING CONTRACTOR.
- AFTER INSTALLATION OF DRIP IRRIGATION PIPE IS COMPLETE AND PRIOR TO SODDING OR MULCH INSTALLATION, THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT TO REVIEW THE INSTALLATION OF THE DRIP IRRIGATION SYSTEM.
- LANDSCAPE CONTRACTOR TO ADJUST HEADS IN THE FIELD TO ENSURE WATER DOES NOT SPRAY THE BUILDING FACE OR PAVED AREAS.
- COORDINATE LOCATION OF ROOFTOP-MOUNTED ATMOSPHERIC MOISTURE (RAIN) SENSOR WITH OWNER AND ARCHITECT.
- COORDINATE LOCATION OF SLEEVING UNDER PAVED AREAS WITH GENERAL CONTRACTOR, EARTHWORK, AND PAVING SUB-CONTRACTORS.
- SUBMIT LAYOUT PLAN AND PRODUCT DATA TO THE LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- IRRIGATION BID SHALL INCLUDE (1) FALL SHUT-DOWN AND (1) SPRING START-UP.
- THIS PROJECT WILL USE HUNTER COMMERCIAL IRRIGATION PRODUCTS.
- PROVIDE THE OWNER WITH MANUFACTURER'S INSTRUCTION MANUAL FOR CONTROLLER, POST IRRIGATION ZONE LAYOUT MAP AT 8"X10" NEXT TO THE CONTROLLER FOR REFERENCE.
- PROVIDE THE OWNER WITH AN AS-BUILT PLAN (PAPER AND CAD .DWG) UPON COMPLETION OF INSTALLATION.



I hereby certify that this plan, specifications 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.

PRELIMINARY
 Benjamin Hartberg, PLA
 Date: XX-XX-XXXX Lik: No. 48989

Rev.	Date	Description

Project #: 12236008.000
 Drawn By: HL
 Checked By: BH
 Issue Date: 06.21.2023
 Sheet Title:

LANDSCAPE DETAILS

Sheet:

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