

PIERCE PINI & ASSOCIATES, INC.
Consulting Civil Engineers

9298 CENTRAL AVENUE NE
SUITE 312
BLAINE, MN 55434
TEL 763-537-1311

DEHN OIL COMPANY
SITE IMPROVEMENTS

6651 141st AVENUE NW
RAMSEY, MN 55303



NPDES IMPAIRED WATERS MAP

I hereby certify that this plan or drawing 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.

Company: PIERCE PINI & ASSOCIATES

Signed: *Kevin Gardner*

Name: Kevin Gardner

Date: 09/06/2023 Reg. No: 45815

Issued for	Date

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Comm. No. 23-020

Drawn TS

Checked KG

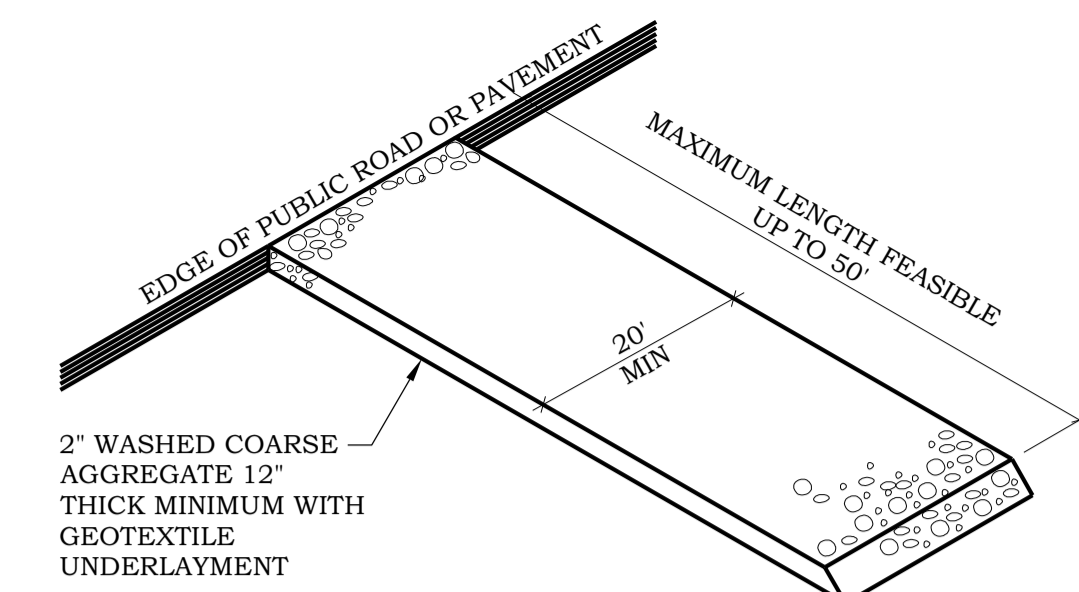
Date 09/06/2023

City Approval

Drawing Title

STORMWATER
POLLUTION
PREVENTION NOTES

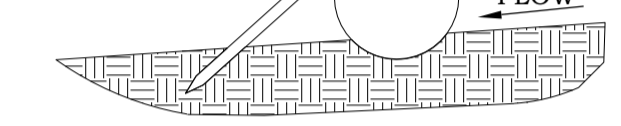
C201



3 GRAVEL CONSTRUCTION ENTRANCE
NO SCALE

1"x2"x24" WOOD STAKES AT 3' MAX SPACING. STAKES SHALL BE DRIVEN OVER LOG AT A 45° ANGLE WITH TOP OF STAKE POINTING UPSTREAM. PROVIDE 8"-10" OF STAKE EMBEDMENT.

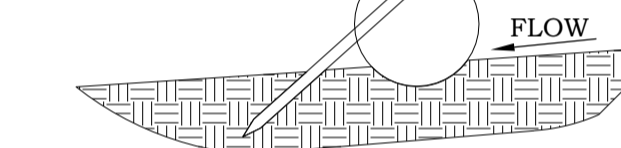
8"-12" DIA LOG WITH ENDS LAPPED 6". FOR INSTALLATION ON BARE SOIL PLACE LOG IN A SMOOTH, ROUNDED TRENCH WITH A DEPTH EQUAL TO 1/4 THE LOG DIA.



FIELD INSTALLATION USING MULCH OR COMPOST

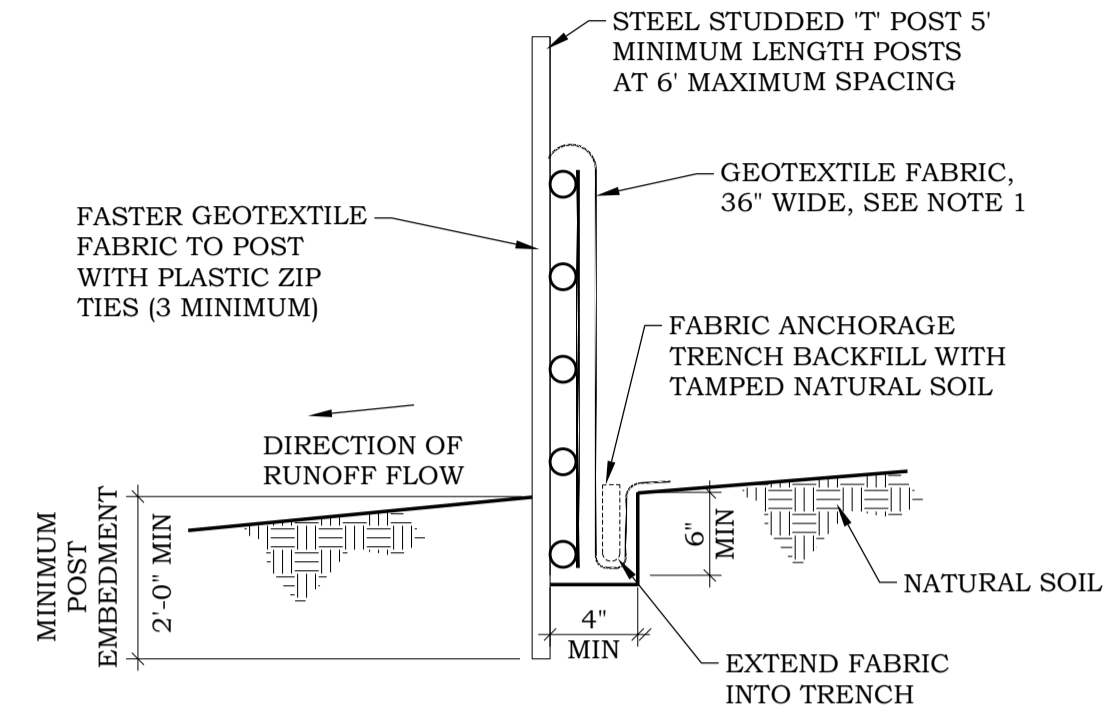
1"x2"x24" WOOD STAKES AT 3' MAX SPACING. STAKES SHALL BE DRIVEN TROUGH BACK HALF OF LOG AT A 45° ANGLE WITH TOP OF STAKE POINTING UPSTREAM. PROVIDE 8"-10" OF STAKE EMBEDMENT.

8"-12" DIA LOG WITH ENDS LAPPED 6". FOR INSTALLATION ON BARE SOIL PLACE LOG IN A SMOOTH, ROUNDED TRENCH WITH A DEPTH EQUAL TO 1/4 THE LOG DIA.



FIELD INSTALLATION USING STRAW OR WOOD FIBER

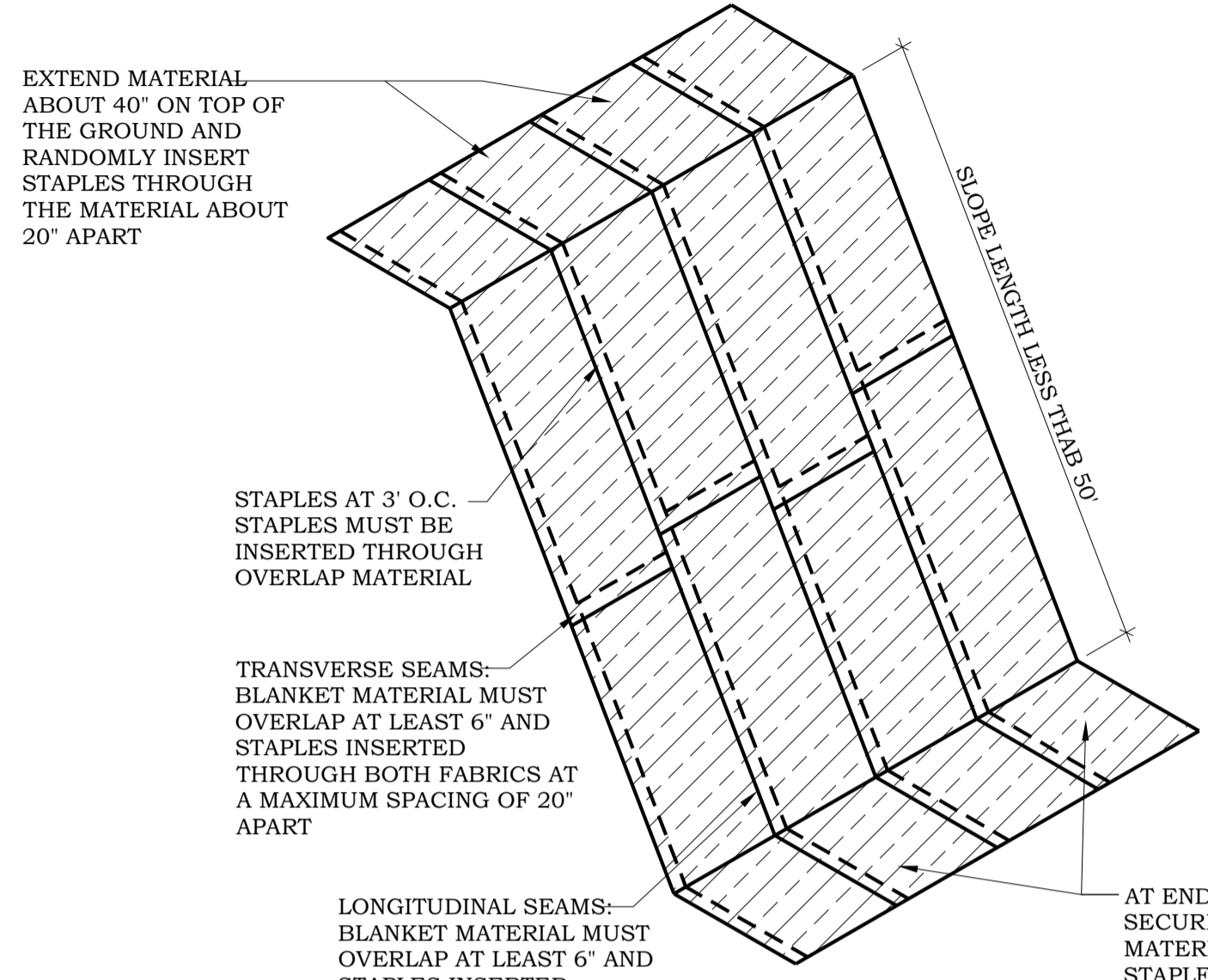
4 EROSION LOG
NO SCALE



- NOTES:
1. GEOTEXTILE FABRIC SHALL BE PER MNDOT SPEC 3886.
 2. SILT FENCES SHOULD BE INSTALLED ON THE CONTOUR (AS OPPOSED TO UP AND DOWN A HILL) AND CONSTRUCTED SO THAT FLOW CANNOT BYPASS THE ENDS.
 3. ENSURE DRAINAGE AREA IS NO GREATER THAN 1/4 ACRE PER 100 FT OF FENCE.
 4. FIELD VERIFY THE MAXIMUM SLOPE LENGTH IN THE TABLE. THIS LENGTH EQUATES TO A 2 FOOT STORAGE HEIGHT FOR THE 100-YEAR EVENT.
 5. SILT FENCE INSTALLATION TO CONFORM TO MNDOT SPEC 2573.3

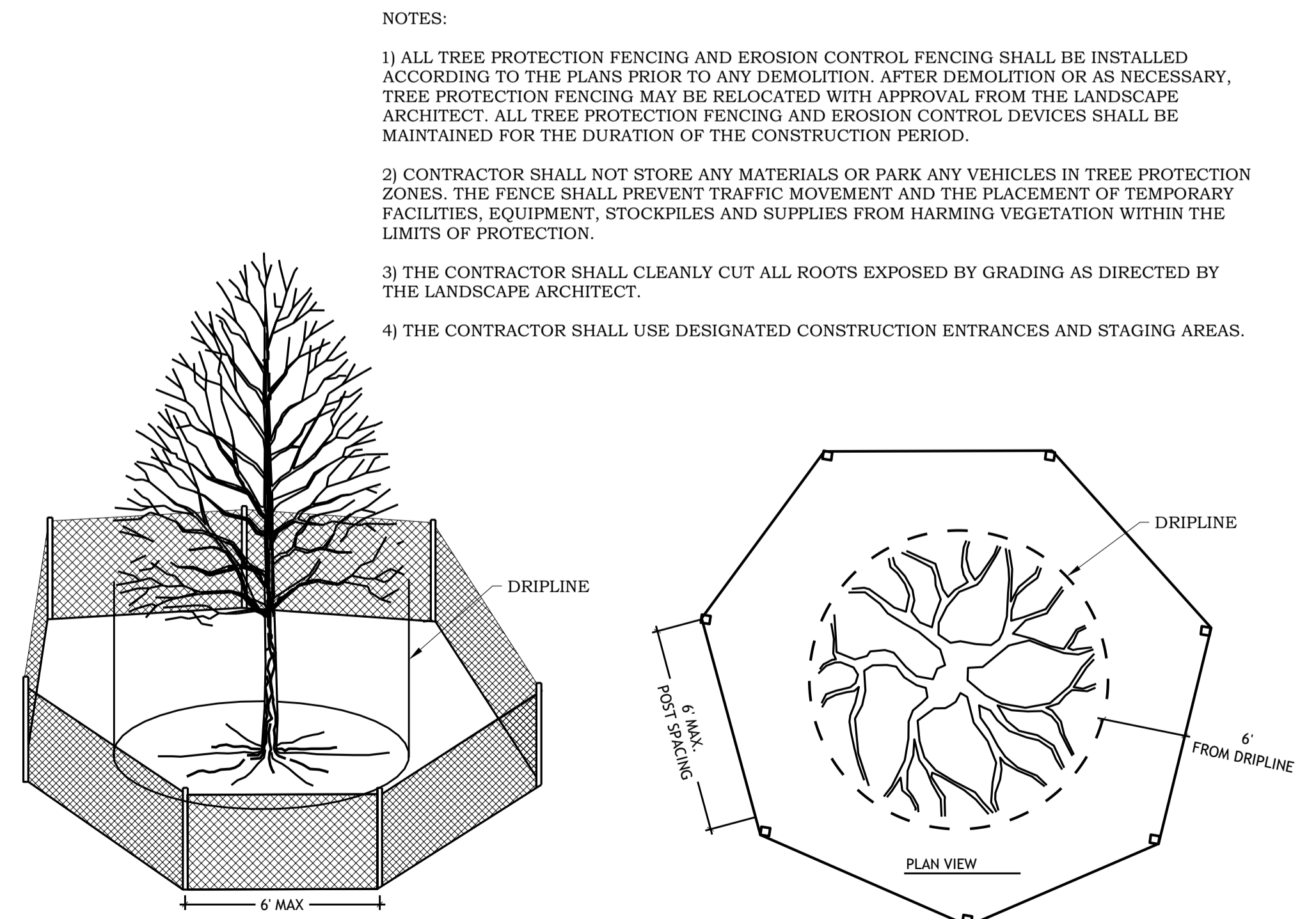
		BY ACCEPTED DESIGN PRACTICES
SLOPE H:V	PERCENT	MAXIMUM SLOPE LENGTH
100:1	1%	100 FT
50:1	2%	75 FT
25:1	4%	75 FT
20:1	5%	75-50 FT
17:1	6%	50 FT
12.5:1	8%	50 FT
10:1	10%	50-25 FT
5:1	20%	25-15 FT
4:1	25%	15 FT
3:1	33%	15 FT
2:1	50%	15 FT

1 HEAVY DUTY SILT FENCE
NO SCALE



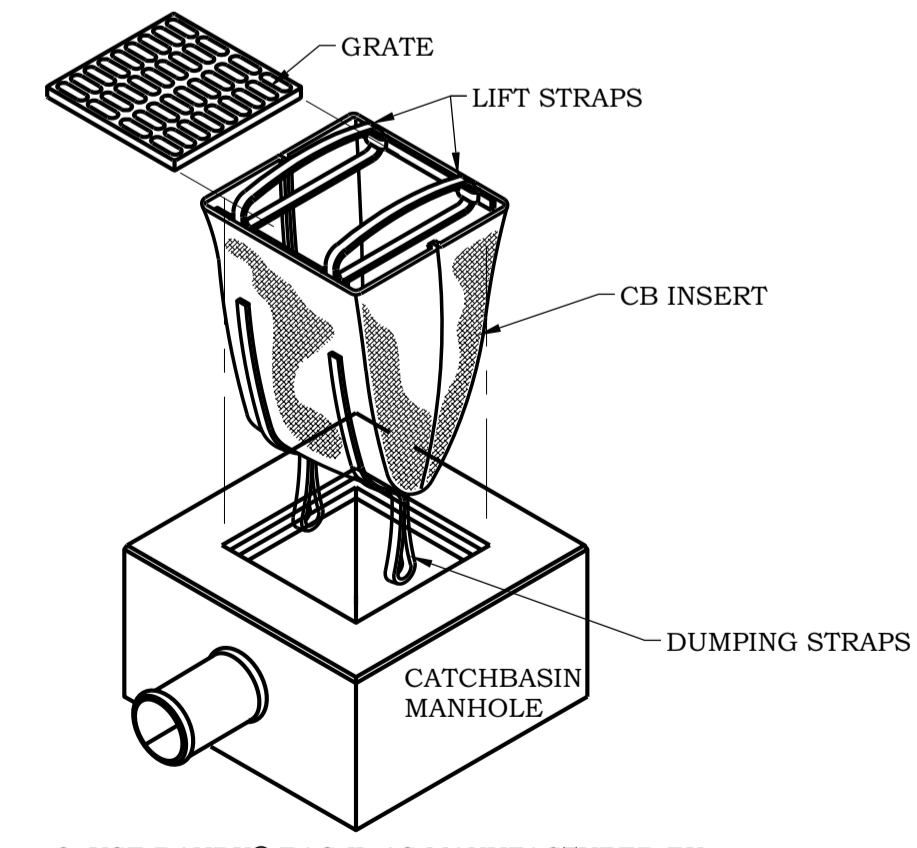
- NOTES:
1. EROSION CONTROL BLANKET TO BE CATEGORY 4-COCONUT 2S FOR SLOPES GREATER THAN 5:1 AND SIDES AND BOTTOM OF ALL DRAINAGE SWALES AND PONDING AREAS AND CATEGORY 2-STRAW 2S FOR ALL SLOPES LESS THAN 5:1 PER MNDOT SPEC. SECTION 3885.
 2. INSTALL PER MNDOT SPEC. SECTION 2575

2 EROSION CONTROL BLANKET
NO SCALE



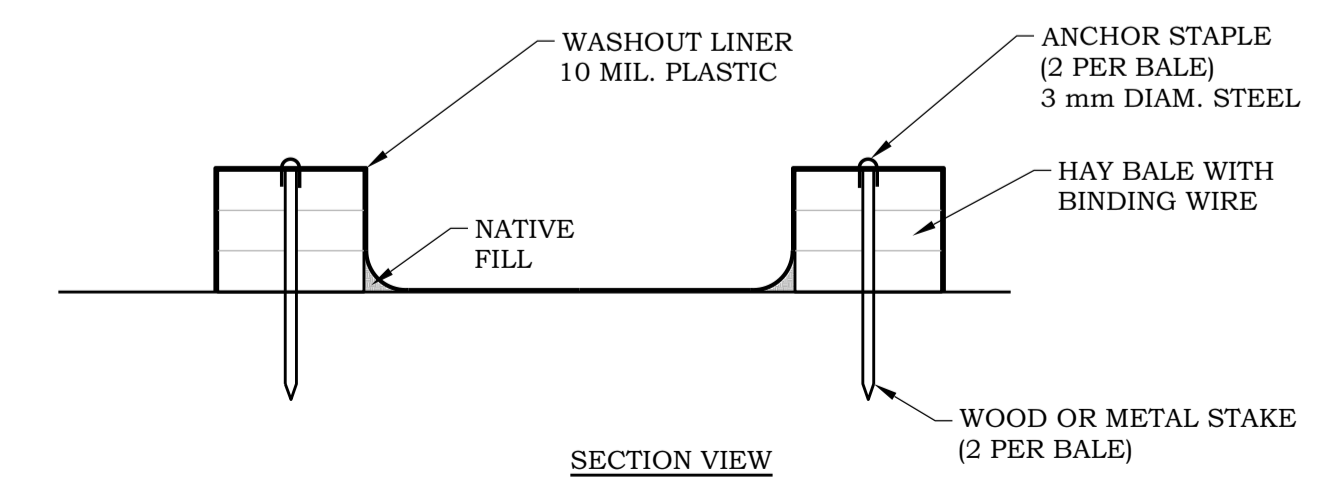
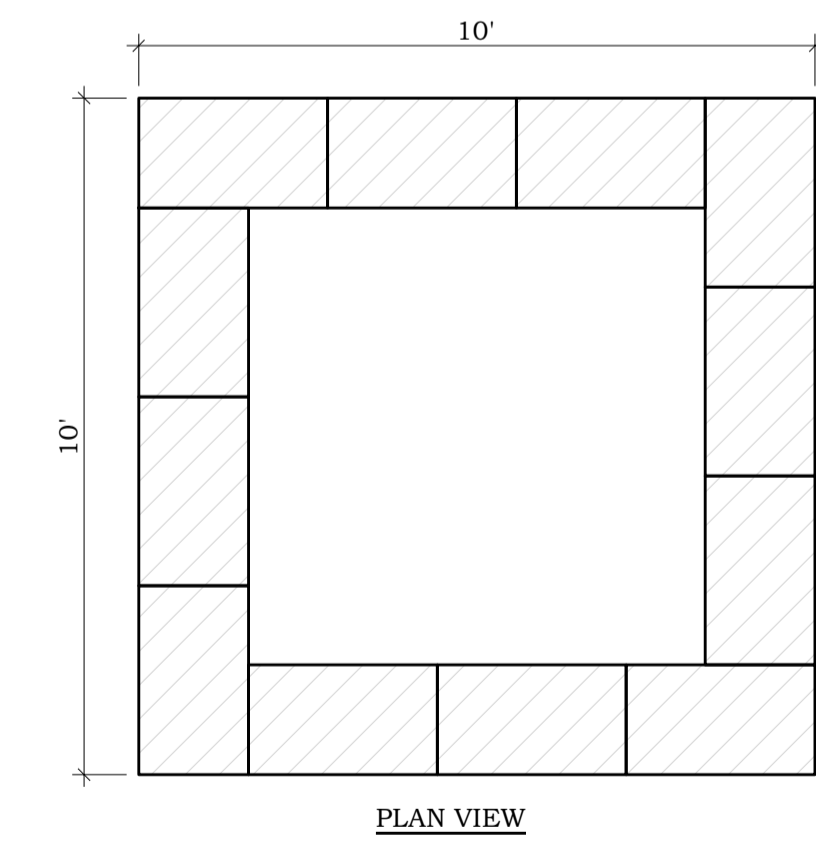
- NOTES:
- 1) ALL TREE PROTECTION FENCING AND EROSION CONTROL FENCING SHALL BE INSTALLED ACCORDING TO THE PLANS PRIOR TO ANY DEMOLITION. AFTER DEMOLITION OR AS NECESSARY, TREE PROTECTION FENCING MAY BE RELOCATED WITH APPROVAL FROM THE LANDSCAPE ARCHITECT. ALL TREE PROTECTION FENCING AND EROSION CONTROL DEVICES SHALL BE MAINTAINED FOR THE DURATION OF THE CONSTRUCTION PERIOD.
 - 2) CONTRACTOR SHALL NOT STORE ANY MATERIALS OR PARK ANY VEHICLES IN TREE PROTECTION ZONES. THE FENCE SHALL PREVENT TRAFFIC MOVEMENT AND THE PLACEMENT OF TEMPORARY FACILITIES, EQUIPMENT, STOCKPILES AND SUPPLIES FROM HARMING VEGETATION WITHIN THE LIMITS OF PROTECTION.
 - 3) THE CONTRACTOR SHALL CLEANLY CUT ALL ROOTS EXPOSED BY GRADING AS DIRECTED BY THE LANDSCAPE ARCHITECT.
 - 4) THE CONTRACTOR SHALL USE DESIGNATED CONSTRUCTION ENTRANCES AND STAGING AREAS.

5 TREE PROTECTION FENCING
NO SCALE



2. USE DANDY® BAG II AS MANUFACTURED BY DANDY® PRODUCTS, INC.
3. AN EQUIVALENT CATCHBASIN EROSION CONTROL INSERT METHOD OR PRODUCT MAY BE USED WITH PRIOR APPROVAL FROM ENGINEER.

6 CATCH BASIN INSERT
NO SCALE



7 CONCRETE WASHOUT AREA
NO SCALE

I hereby certify that this plan or drawing 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.

Company: PIERCE PINI & ASSOCIATES

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Name: Kevin Gardner

Date: 09/06/2023 Reg. No: 45815

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Drawn TS

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Date 09/06/2023

City Approval

Drawing Title

STORMWATER POLLUTION PREVENTION DETAILS

DRAWING LEGEND

- PROPERTY LINE
- DRAINAGE AND UTILITY EASEMENT
- PROPOSED CHAIN LINK FENCE
- █ EXISTING PAVEMENT
- ▨ PROPOSED BITUMINOUS PAVEMENT
- ~ EXISTING CONTOUR
- ~ PROPOSED CONTOUR
- +69.2 PROPOSED SPOT ELEVATION
- █ ROCK CONSTRUCTION ENTRANCE
- SILT FENCE

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GRADING, DRAINAGE AND EROSION CONTROL PLAN

C402

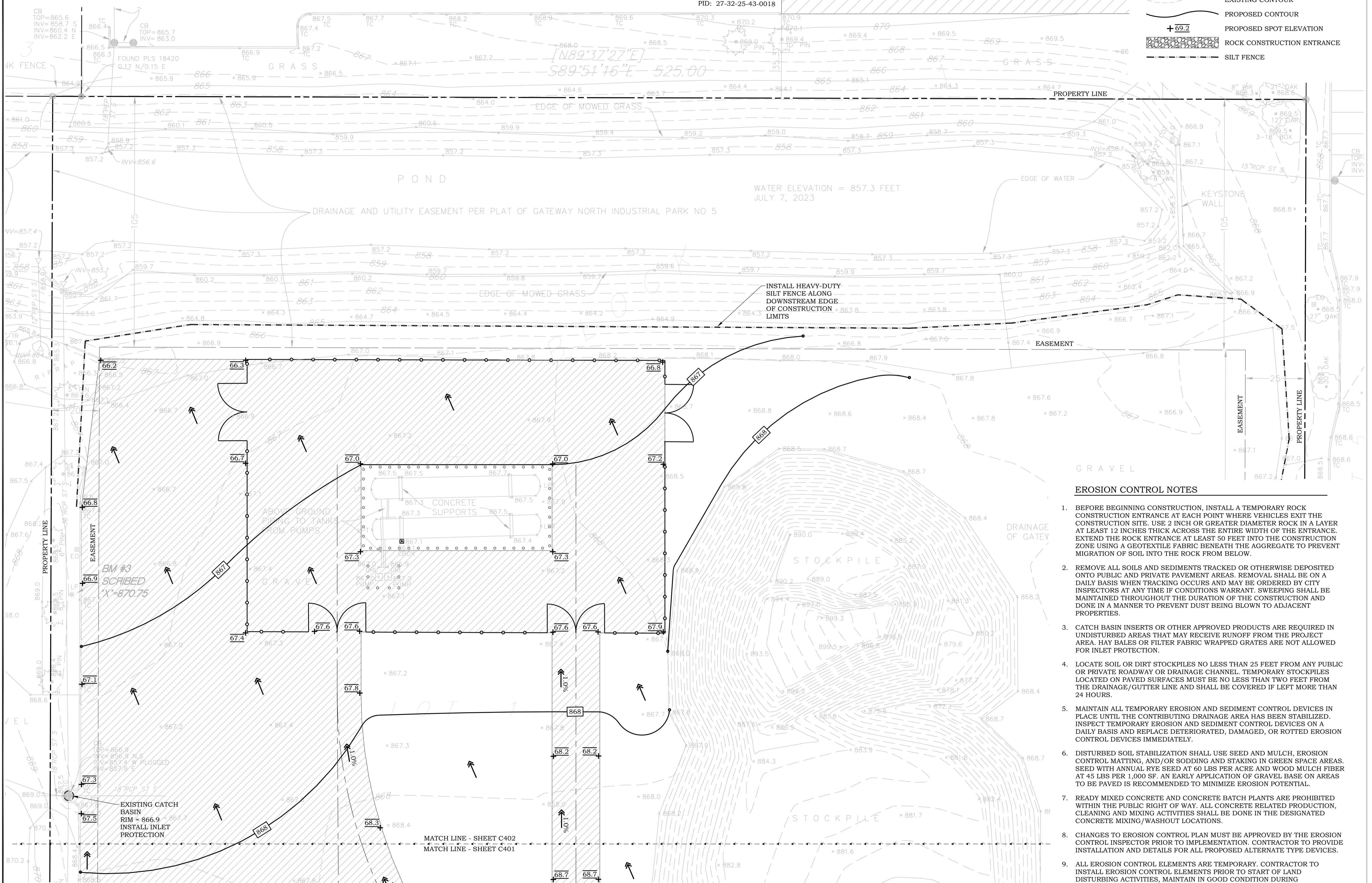
ESTIMATED BMP QUANTITIES	
HEAVY-DUTY SILT FENCE	650 LF
ROCK CONSTRUCTION ENTRANCE	1 EACH
CONCRETE WASHOUT AREA	1 EACH
INLET PROTECTION	1 EACH

NOTE: QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL DETERMINE FOR THEMSELVES THE EXACT QUANTITIES FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL NOT RELY ON THESE QUANTITIES FOR THEIR BID AND CIVIL ENGINEER IS NOT RESPONSIBLE FOR COST ESTIMATES OR ACTUAL CONSTRUCTION COSTS.

ACREAGE SUMMARY	
TOTAL LOT AREA	10.17 ACRES
EXISTING IMPERVIOUS AREA	6.98 ACRES
PROPOSED IMPERVIOUS AREA	6.98 ACRES
DISTURBED AREA	2.40 ACRES

NOTE: IMPERVIOUS AREAS INCLUDE COMPACTED AGGREGATE SURFACES

6650 143rd AVE. NW
 PID: 27-32-25-43-0018



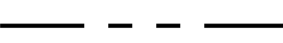

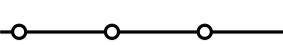

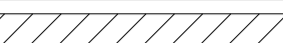
EROSION CONTROL NOTES

- BEFORE BEGINNING CONSTRUCTION, INSTALL A TEMPORARY ROCK CONSTRUCTION ENTRANCE AT EACH POINT WHERE VEHICLES EXIT THE CONSTRUCTION SITE. USE 2 INCH OR GREATER DIAMETER ROCK IN A LAYER AT LEAST 12 INCHES THICK ACROSS THE ENTIRE WIDTH OF THE ENTRANCE. EXTEND THE ROCK ENTRANCE AT LEAST 50 FEET INTO THE CONSTRUCTION ZONE USING A GEOTEXTILE FABRIC BENEATH THE AGGREGATE TO PREVENT MIGRATION OF SOIL INTO THE ROCK FROM BELOW.
- REMOVE ALL SOILS AND SEDIMENTS TRACKED OR OTHERWISE DEPOSITED ONTO PUBLIC AND PRIVATE PAVEMENT AREAS. REMOVAL SHALL BE ON A DAILY BASIS WHEN TRACKING OCCURS AND MAY BE ORDERED BY CITY INSPECTORS AT ANY TIME IF CONDITIONS WARRANT. SWEEPING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE CONSTRUCTION AND DONE IN A MANNER TO PREVENT DUST BEING BLOWN TO ADJACENT PROPERTIES.
- CATCH BASIN INSERTS OR OTHER APPROVED PRODUCTS ARE REQUIRED IN UNDISTURBED AREAS THAT MAY RECEIVE RUNOFF FROM THE PROJECT AREA. HAY BALES OR FILTER FABRIC WRAPPED GRATES ARE NOT ALLOWED FOR INLET PROTECTION.
- LOCATE SOIL OR DIRT STOCKPILES NO LESS THAN 25 FEET FROM ANY PUBLIC OR PRIVATE ROADWAY OR DRAINAGE CHANNEL. TEMPORARY STOCKPILES LOCATED ON PAVED SURFACES MUST BE NO LESS THAN TWO FEET FROM THE DRAINAGE/GUTTER LINE AND SHALL BE COVERED IF LEFT MORE THAN 24 HOURS.
- MAINTAIN ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES IN PLACE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED. INSPECT TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES ON A DAILY BASIS AND REPLACE DETERIORATED, DAMAGED, OR ROTTED EROSION CONTROL DEVICES IMMEDIATELY.
- DISTURBED SOIL STABILIZATION SHALL USE SEED AND MULCH, EROSION CONTROL MATTING, AND/OR SODDING AND STAKING IN GREEN SPACE AREAS. SEED WITH ANNUAL RYE SEED AT 60 LBS PER ACRE AND WOOD MULCH FIBER AT 45 LBS PER 1,000 SF. AN EARLY APPLICATION OF GRAVEL BASE ON AREAS TO BE PAVED IS RECOMMENDED TO MINIMIZE EROSION POTENTIAL.
- READY MIXED CONCRETE AND CONCRETE BATCH PLANTS ARE PROHIBITED WITHIN THE PUBLIC RIGHT OF WAY. ALL CONCRETE RELATED PRODUCTION, CLEANING AND MIXING ACTIVITIES SHALL BE DONE IN THE DESIGNATED CONCRETE MIXING/WASHOUT LOCATIONS.
- CHANGES TO EROSION CONTROL PLAN MUST BE APPROVED BY THE EROSION CONTROL INSPECTOR PRIOR TO IMPLEMENTATION. CONTRACTOR TO PROVIDE INSTALLATION AND DETAILS FOR ALL PROPOSED ALTERNATE TYPE DEVICES.
- ALL EROSION CONTROL ELEMENTS ARE TEMPORARY. CONTRACTOR TO INSTALL EROSION CONTROL ELEMENTS PRIOR TO START OF LAND DISTURBING ACTIVITIES. MAINTAIN IN GOOD CONDITION DURING CONSTRUCTION AND REMOVE FROM THE SITE UPON COMPLETION OF FINAL PAVING AND TURF ESTABLISHMENT.

GRADING, DRAINAGE AND EROSION CONTROL PLAN

1" = 20' (22" X 34" SHEET)
 1" = 40' (11" X 17" SHEET)

DRAWING LEGEND

-  PROPERTY LINE
-  DRAINAGE AND UTILITY EASEMENT
-  PROPOSED CHAIN LINK FENCE
-  EXISTING PAVEMENT
-  PROPOSED BITUMINOUS PAVEMENT

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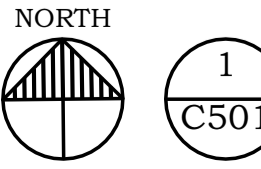
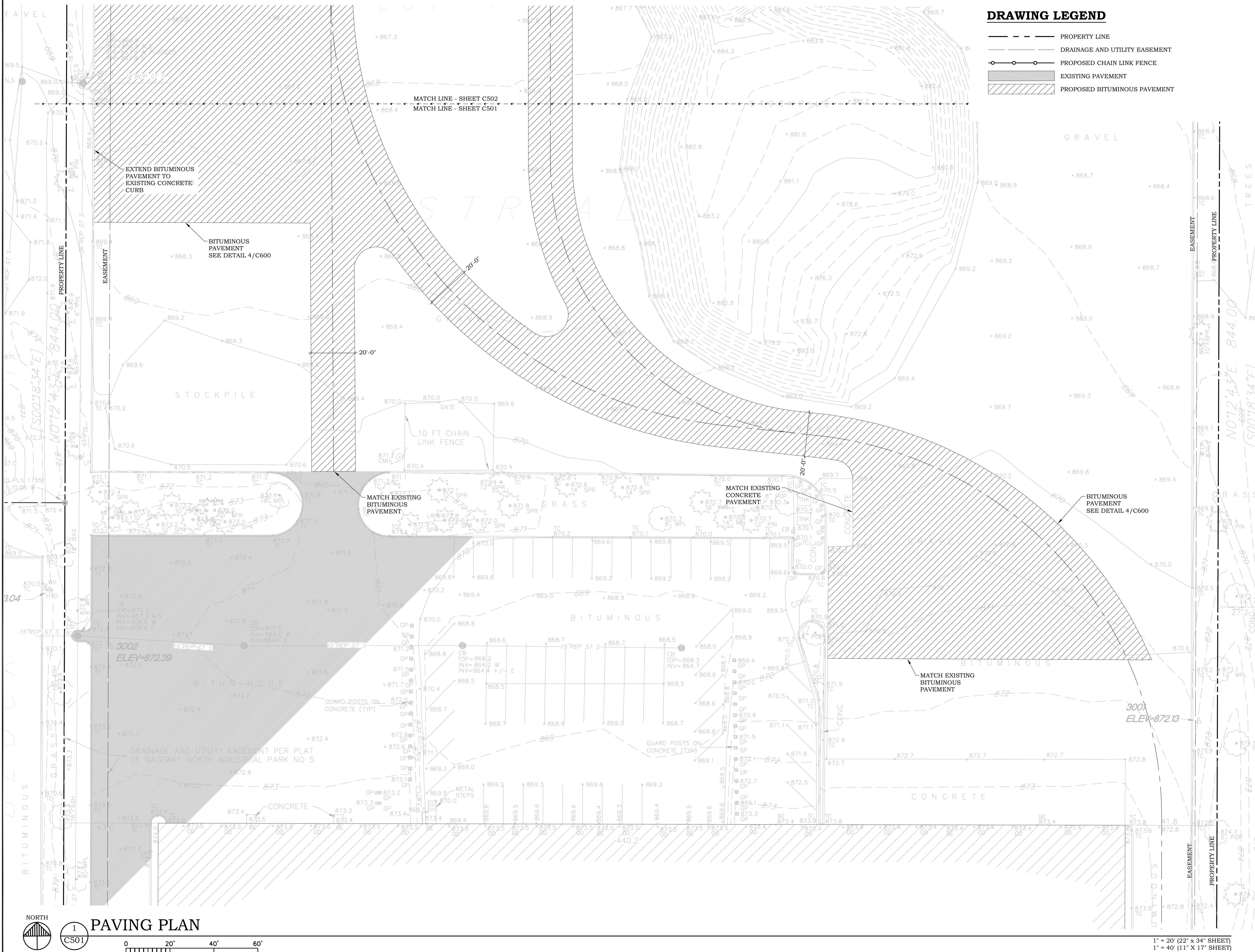
Date 09/06/2023

City Approval

Drawing Title

PAVING PLAN

C501



PAVING PLAN

1" = 20' (22" x 34" SHEET)
 1" = 40' (11" x 17" SHEET)

DRAWING LEGEND

- PROPERTY LINE
- - - DRAINAGE AND UTILITY EASEMENT
- ○ ○ ○ ○ PROPOSED CHAIN LINK FENCE
- ▒ EXISTING PAVEMENT
- ▨ PROPOSED BITUMINOUS PAVEMENT

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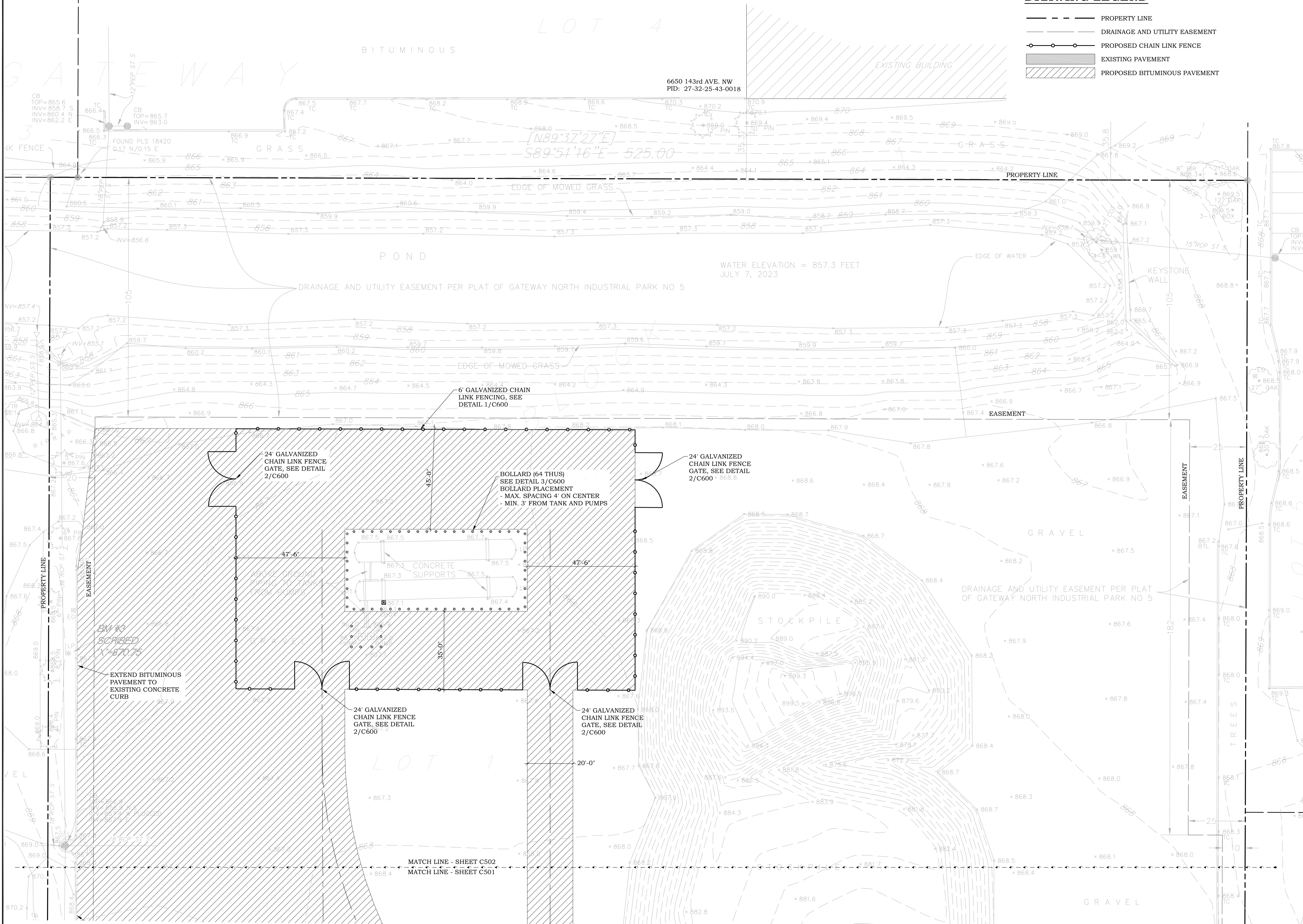
Date 09/06/2023

City Approval

Drawing Title

PAVING PLAN

C502



1" = 20' (22" X 34" SHEET)
 1" = 40' (11" X 17" SHEET)

DEHN OIL COMPANY SITE IMPROVEMENTS

6651 141st AVENUE NW RAMSEY, MN 55303

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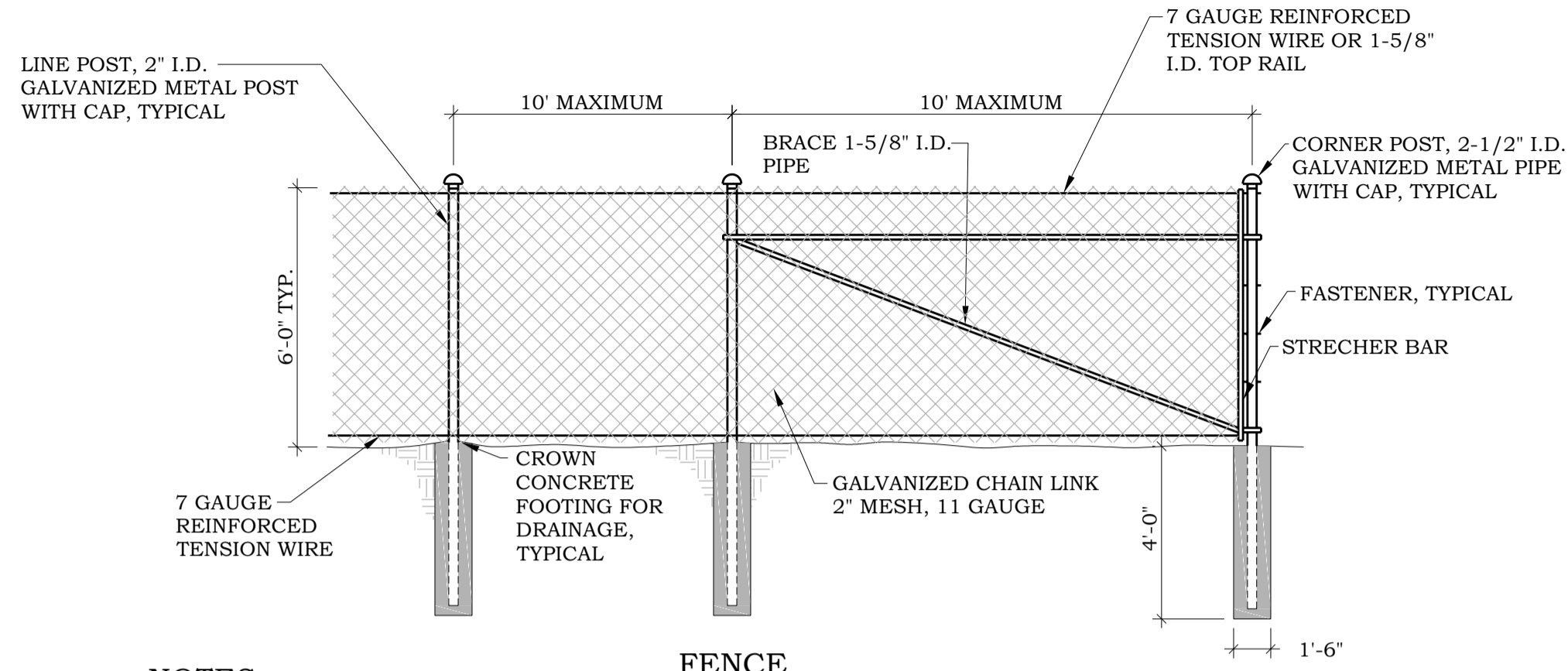
City Approval

Drawing Title

CIVIL DETAILS

C600

ALL GATE COMPONENTS SHALL BE GALVANIZED AND RATED FOR EXTERIOR USE



NOTES

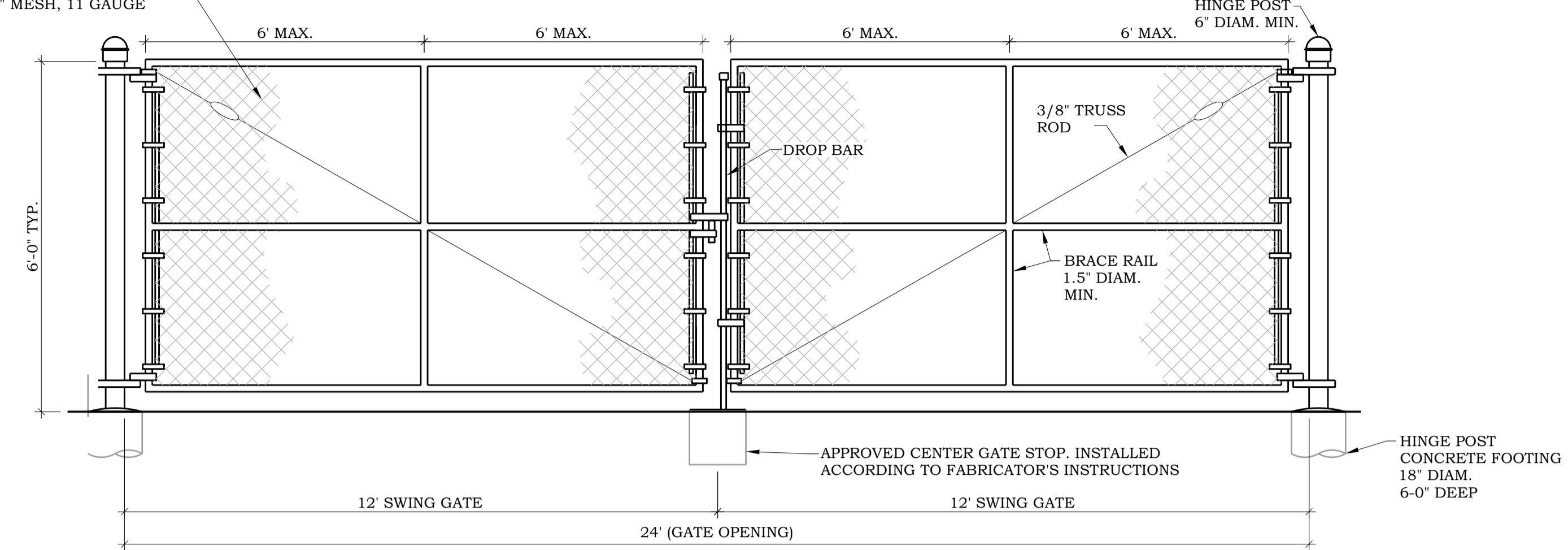
1. DEPTH OF FOOTINGS ARE INTO NATURAL UNDISTURBED SOIL OR TESTED & APPROVED COMPACTED FILL.
2. CONCRETE FOOTINGS SHALL BE A MINIMUM OF 4,000 PSI MIX.
3. 12 GAUGE WIRE FASTENERS SHALL BE USED.
4. ADDITIONAL BRACING MAY BE REQUIRED WITH RUNS OVER 200'.

FENCE

1 CHAIN LINK FENCE

C600

NO SCALE

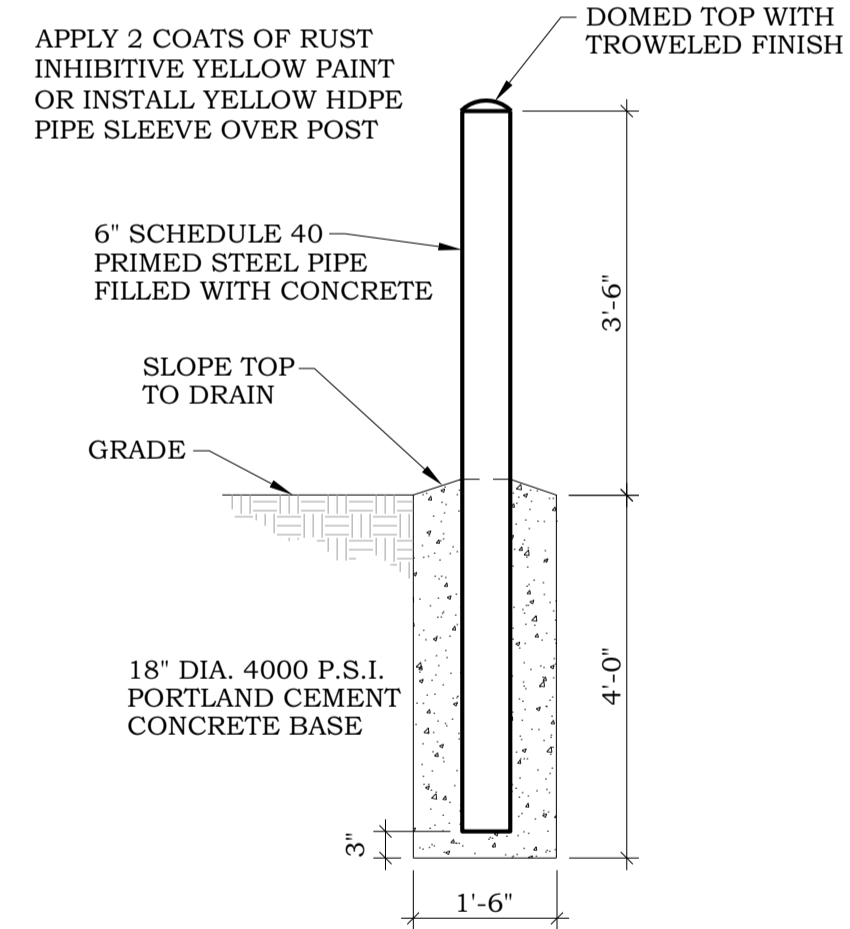


DOUBLE VEHICULAR GATE

2 CHAIN LINK SWING GATE

C600

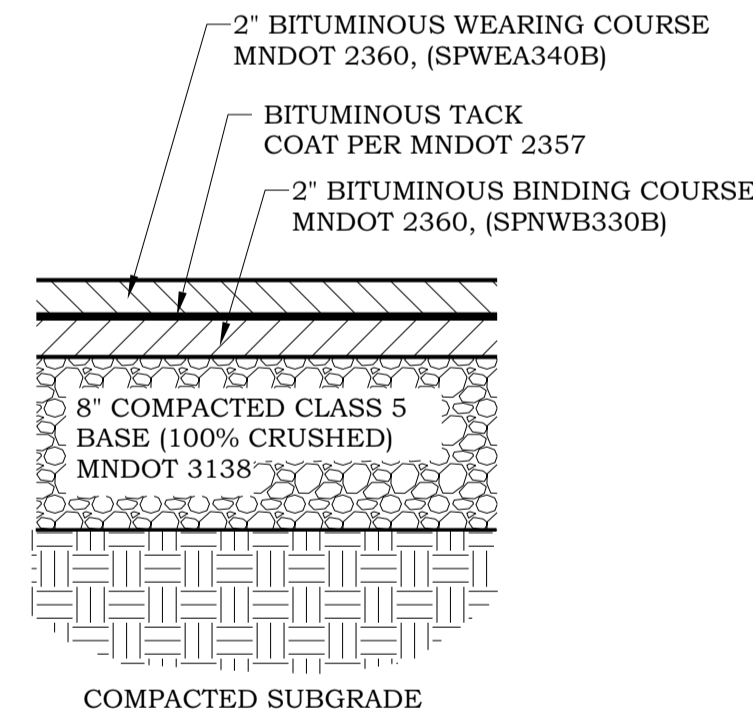
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3 BOLLARD

C600

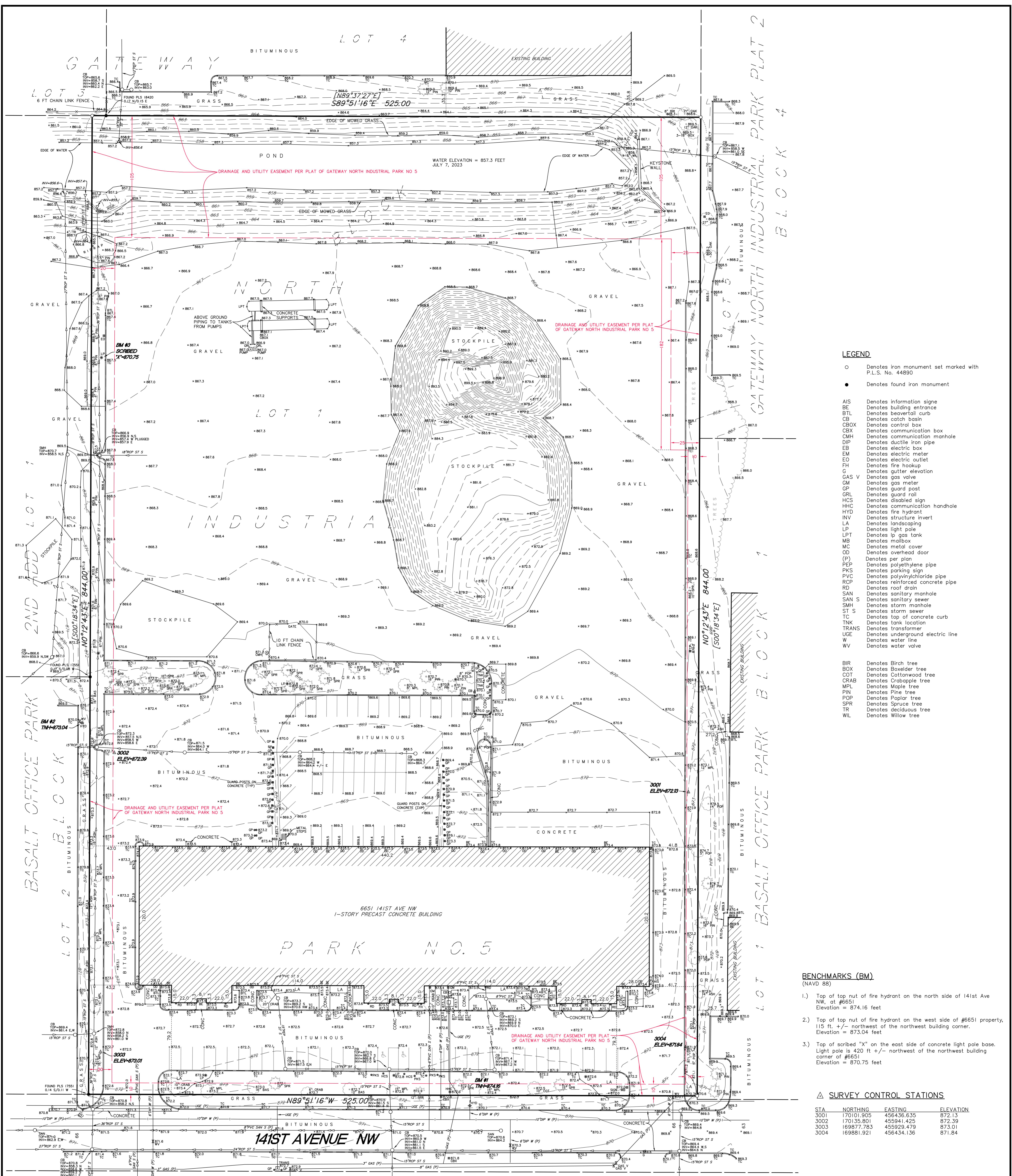
NO SCALE



4 BITUMINOUS PAVEMENT

C600

NO SCALE



LEGEND

- Denotes iron monument set marked with P.L.S. No. 44890
- Denotes found iron monument
- AIS Denotes information sign
- BE Denotes building entrance
- BTL Denotes beavertail curb
- CB Denotes catch basin
- CBX Denotes cotton box
- CBX Denotes communication box
- CMH Denotes communication manhole
- DIP Denotes ductile iron pipe
- EB Denotes electric box
- EM Denotes electric meter
- EO Denotes electric outlet
- FH Denotes fire hookup
- G Denotes gutter elevation
- GAS V Denotes gas valve
- GM Denotes gas meter
- GP Denotes guard post
- GRL Denotes guard rail
- HCS Denotes disabled sign
- HHC Denotes communication handhole
- HYD Denotes fire hydrant
- INV Denotes structure invert
- LA Denotes landscaping
- LP Denotes light pole
- LPT Denotes lp gas tank
- MB Denotes mailbox
- MC Denotes metal cover
- OD Denotes overhead door
- (P) Denotes per plan
- PEP Denotes polyethylene pipe
- PKS Denotes parking sign
- PVC Denotes polyvinylchloride pipe
- RCP Denotes reinforced concrete pipe
- RD Denotes roof drain
- SAN Denotes sanitary manhole
- SAN S Denotes sanitary sewer
- SMH Denotes storm manhole
- ST S Denotes storm sewer
- TC Denotes top of concrete curb
- TKN Denotes tank location
- TRANS Denotes transformer
- UGE Denotes underground electric line
- W Denotes water line
- WV Denotes water valve
- BIR Denotes Birch tree
- BOX Denotes Bowler tree
- COT Denotes Cottonwood tree
- CRAB Denotes Crabapple tree
- MPL Denotes Maple tree
- PIN Denotes Pine tree
- POP Denotes Poplar tree
- SPR Denotes Spruce tree
- TR Denotes deciduous tree
- WIL Denotes Willow tree

BENCHMARKS (BM)
(NAVD 88)

- Top of top nut of fire hydrant on the north side of 141st Ave NW, at #6651
Elevation = 874.16 feet
- Top of top nut of fire hydrant on the west side of #6651 property, 115 ft. +/- northwest of the northwest building corner.
Elevation = 873.04 feet
- Top of scribed "X" on the east side of concrete light pole base. Light pole is 420 ft +/- northwest of the northwest building corner of #6651
Elevation = 870.75 feet

△ SURVEY CONTROL STATIONS

STA	NORTHING	EASTING	ELEVATION
3001	170101.905	456436.635	872.13
3002	170135.801	455941.425	872.39
3003	169877.783	455929.479	873.01
3004	169891.921	456434.136	871.84

DESCRIPTION OF PROPERTY SURVEYED
(Per Warranty Deed Doc. No. 2366603.001)

Lot 1, Block 1, Gateway North Industrial Park No. 5, Anoka County, Minnesota.

PLAT RECORDING INFORMATION

The plat of GATEWAY NORTH INDUSTRIAL PARK was filed for record on March 6, 2001, as Document No. 1553817 in Abstract Book 60, Page 23.

[] Bearings and/or dimensions listed within brackets are per plat or record documents.

TITLE COMMITMENT

This survey was prepared without the benefit of current title work. Easements, appurtenances, and encumbrances may exist in addition to those shown hereon. This survey is subject to revision upon receipt of a current title insurance commitment or attorney's title opinion.

AREA

Area = 443,100 square feet or 10.172 acres

GENERAL NOTES

- Survey coordinate and bearing basis: Anoka County System NAD83 (1996 adjustment)
- There were no wetland delineation markers observed in the process of conducting the fieldwork.

UTILITY NOTES

- Utility information from plans and markings was combined with observed evidence of utilities to develop a view of the underground utilities shown hereon. However, lacking excavation, the exact location of underground features cannot be accurately, completely and reliably depicted. In addition, Gopher State One Call locate requests from surveyors may be ignored or result in an incomplete response. Where additional or more detailed information is required, excavation and/or a private utility locate request may be necessary.
+There were no utility markings observed in the field in response to our Gopher State One Call ticket
- Other underground utilities of which we are unaware may exist. Verify all utilities critical to construction or design.
- Some underground utility locations are shown as marked onsite by those utility companies whose locators responded to our Gopher State One Call, ticket numbers 231794133 and 231794152.
- Contact GOPHER STATE ONE CALL at 651-454-0002 (800-252-1166) for precise onsite location of utilities prior to any excavation.

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 12th day of July, 2023.

SUNDE LAND SURVEYING, LLC
By: *Arnaud F. Colson*
Leonard F. Carlson, P.L.S. Minn. Lic. No. 44890

Added LP tank detail	NDN	7/27/23
Revision	By	Date
	NDN	

Drawing Title:
BOUNDARY, LOCATION, TOPOGRAPHIC and UTILITY SURVEY FOR: DEHN OIL COMPANY OF: 6651 141st Ave NW, Ramsey, MN

SUNDE LAND SURVEYING
Main Office: 900 East Bloomington Freeway (35W) • Suite 118
Bloomington, Minnesota 55425-3435
952-881-2455 (Fax: 952-888-9526)
www.sunde.com

Project: 2023-084 Date: 07/12/2023
Township: 32 Range: 25 Section: 27
File: 2023084001.dwg Sheet: 1 of 1

