

**CITY OF HANOVER
PLANNING COMMISSION MEETING
MAY 22, 2017**

CHAIR
STAN KOLASA

COUNCIL LIAISON
DOUG HAMMERSENG

BOARD MEMBERS
JIM SCHENDEL
MICHAEL CHRISTENSON
MICHELLE ARMSTRONG
DEAN KUITUNEN

- 1. Call to Order and Pledge of Allegiance: 7: p.m.**
- 2. Approval of Agenda**
- 3. Approval of Minutes from April 24, 2017, Regular Meeting**
- 4. Citizen's Forum**
- 5. Public Hearing**
- 6. Unfinished Business**
- 7. New Business**
 - a. Public Works Site Plan Amendment**
- 8. Reports and Announcements**
 - a. Planning Commission Reports**
 - b. Liaison Report**
 - c. Staff Reports**
- 9. Adjournment**

**CITY OF HANOVER
PLANNING COMMISSION MEETING
APRIL 24, 2017
DRAFT MINUTES**

Call to Order/Pledge of Allegiance

Stan Kolasa called the April 24, 2017, Planning Commission Meeting to order at 7:00 pm. Members present were Stan Kolasa, Jim Schendel, Michelle Armstrong, Dean Kuitunen, and Mike Christenson. Also present Council Liaison Doug Hammerseng, City Planner Cindy Nash, and Administrative Assistant Amy Biren. Guests present: Ben and Jaime Lange.

Approval of Agenda

MOTION by Schendel to approve the agenda as presented, seconded by Armstrong.
Motion carried unanimously.

Approval of Minutes from the February 27, 2017, Regular Meeting

MOTION by Schendel to approve the February 27, 2017, minutes as presented, seconded by Christenson.
Motion carried unanimously.

Citizen's Forum

None

Public Hearing

Point of clarification: The public hearing for the Accessory Building Located to the Front and Side of the House was closed at the February 27, 2017, meeting. Once closed, the Planning Commission moved to table a recommendation decision and requested of the applicant specific items to be completed before returning to the Board. Per the League of Minnesota Cities Informational Memo on Public Hearings, if a recommendation decision was not made, "the matter may also be continued for further consideration".

The summary of the continued discussion and review of additional information will be placed under Unfinished Business as was indicated on the approved agenda.

Unfinished Business

Accessory Building Located to the Front and Side of the House

Nash reviewed the requested materials submitted by Lange: the extension of the driveway going to the proposed accessory building, the new survey, and the renderings of the building. She explained that she left some parts of the recommendation blank so as to fill them in after the recommendations of the Planning Commission and the dates when the survey and plans are finalized. She explained to the members that the variance needs to be specific in its details.

Lange explained that when meeting with the builder, the larger size was suggested as it would be more cost effective. He would be willing to go smaller than what was indicated on the plans (52 x 30 feet). The awning was added to enhance the look of the shed.

Armstrong asked if the addition of the extended driveway still met impervious surface requirements. Nash took time during the discussions following to look it up. Nash revealed that the driveway extension would not exceed the impervious surface requirement. Armstrong also gave the Board members a perspective on the size of the shed by showing how much of the Community Hall would be taken up by the size of the shed.

Hammerseng asked about the height of the walls. Lange replied that they were 12 feet and the roof pitch was 4:12. Hammerseng also asked if it met the requirements for size per the ordinance. Armstrong stated that it did and confirmed it with Biren.

Armstrong inquired about the landscaping that would be planned as screening. Lange said it would depend on what trees that currently exist could be saved. He does plan on planting additional trees if needed for screening.

Armstrong asked about the color of the shed. Jaime Lange answered that they first looked at tan colors as the house is that color, but decided that grey would be a better choice with a lighter grey on the top and a darker gray on the lower half (wainscoting). Armstrong asked Nash if the ordinance required it to be the same as the house. Nash replied that it needs to be in keeping with the neighborhood, but does not require it to match the house. Armstrong expressed concern about it looking like a pole shed especially if it is approved at the larger size. Schendel replied that once it was screened with trees, it would be less obvious. Hammerseng said that as Lange's neighbor, he knows it will be well maintained, but was concerned about the look of the shed.

Lange was asked about the purpose of the shed. He replied that it would be used to store vehicles, snowmobiles, the fish house, four wheelers, etc.

Christenson asked Lange if he would be opposed to dropping it down to the next smaller size. Lange said that 45 feet long would be okay. He added he may have to have two doors instead of one large one. Kolasa said that was the approximate size of one of the buildings at the Hanover Athletic Association's property and that it did not seem as large when in location.

Kuitunen commented that he was concerned about setting a precedent and what would happen in the future. Nash replied that Lange is asking for a variance from the ordinance and that the Planning Commission can ask for changes in size, location, trees for screening, etc. She went on to say that if the length is shortened, it can be pushed back and the side of the shed would not be as noticeable from the street.

Kolasa asked the members for their comments:

Hammerseng: He would be more comfortable with it if it was closer to 40 feet in length.

Christenson: He is fine with 45 feet in length.

Kuitunen: He was fine with 50 feet in length, but added that if it was shortened and pushed back, it would be better for the neighborhood.

Armstrong: She is concerned with the look for the neighborhood. She went on to use a shed that had been built on Third Street and how Norway Pines were used for screening. The pines grew quickly and made the shed less noticeable. She would be fine with the 50 foot length if it could be moved back further and had coniferous trees for screening. She also thought the awning was a nice touch and liked having it on the plan.

Schendel: Abstained from commenting.

Kolasa: He would like it kept under 50 feet in length to keep it tucked back and thought it should match the siding of the house.

Nash said that she heard a lot of different things from the Board. No matter what is decided, adjustments to the survey and the shed plans need to be made before sending it to Council. The members need to make a motion and can consider the following items: the size of the building; the location of the building; door location on the side/awning; and screening. The members can make a motion for recommendation at this meeting and then Nash will create a memo and resolution after receiving the asked for modifications.

Armstrong asked what the distance between the house and proposed shed was. Nash said about 35 feet without counting the awning area.

MOTION: Armstrong moved recommending approval of the variance to Council with the shed not being closer than 58 feet to the side property line, and 168 feet to the front property line; and the dimensions of the shed not to exceed 30 feet wide and 46 feet long. Seconded by Kuitunen.

Motion carried with Kolasa, Armstrong, Kuitunen, and Christenson voting in favor. Schendel abstained from voting.

New Business

None

Reports

Staff: Nash informed the members that the City met with a developer for the rest of the Crow River Heights development who was days away from signing a purchase agreement. He would like to start construction yet this year and is hoping to use some of the existing grading from the expired preliminary plat. An Environmental Assessment Worksheet (EAW) will need to be done. The developer has already selected builders for the project. The City will be working with him to make the process as efficient as possible. She was unsure whether or not the deadline would be met in order to bring something to the May Planning Commission meeting, but there would be something for sure at the June meeting.

Biren said that near half of the 500 compost site keys have been given out to residents. The staff has been busy with permits—mainly decks, sheds, and fences. She has been working with buyers interested in lots on Kadler Avenue and Church Street. Staff also met with a buyer with a contingency on a lot in the industrial park to answer questions and work through what is possible on the lot.

Planning Commission: None.

Liaison: Hammerseng informed the members that the bids for the new public works facility will be going out soon. The Wright County Sheriff's Department gave a presentation to Council on policing Hanover. At that same meeting, Council is looking at opportunities to beef up parking in the downtown area.

Adjournment

MOTION by Armstrong to adjourn, seconded by Christenson. **Motion carried unanimously.**
Meeting adjourned at 8:13 pm.

ATTEST:

Amy L. Biren
Administrative Assistant

Collaborative Planning, LLC

PO Box 251
Medina, MN 55340
763-473-0569

Memorandum

Date: May 22, 2017
To: Planning Commission
From: Cindy Nash, City Planner
RE: Public Works Building – Amended Site Plan

The City previously received approval for the site plan for the public works building in the Fall of 2016. Minor modifications to the site plan are being proposed. The ordinance requires that revisions to a site plan be reviewed in the same process as the original site plan approval.

Revisions proposed are the following:

1. Salt shed was relocated to the south and shown on proposed heavy duty pavement.
2. Grading on the west side of the building was modified with minimal surface drainage profile slope to direct runoff south across pavement and into open storage are such that it would ultimately route to the storm water basin.
3. Storm sewer has been removed from the 5th Street roadside ditch. Proposed ditch grading is minimal in depth and minimal profile shape.
4. Culvert is indicated under the access driveway to accommodate drainage of 5th Street roadside ditch.
5. Storm water basin overflow outlet structure and pipe have been relocated to the west side of the basin with pipe extending under the access drive.
6. Water service extension into the building was revised to utility room within truck wash space.

Staff has reviewed the proposal and find it to be in conformance with the Zoning Ordinance and other City regulations. A comment memo from the City Engineer is included for your reference.

Recommendation

Approval of the site plan is recommended subject to the following conditions:

1. Development of the site must be in substantial conformance with the plans prepared by Civil Engineering Site Design and last revised on May 10, 2017. If any additional minor revisions are proposed to the site plans, they may be approved administratively by staff.

PROJECT LOCATION

NORTHWEST QUARTER OF THE
SOUTHWEST QUARTER OF SECTION 36,
TOWNSHIP 120, RANGE 24,
WRIGHT COUNTY, MINNESOTA.

HANOVER PUBLIC WORKS FACILITY

SITE IMPROVEMENT PROJECT

HANOVER, MN

CONTRACTOR:

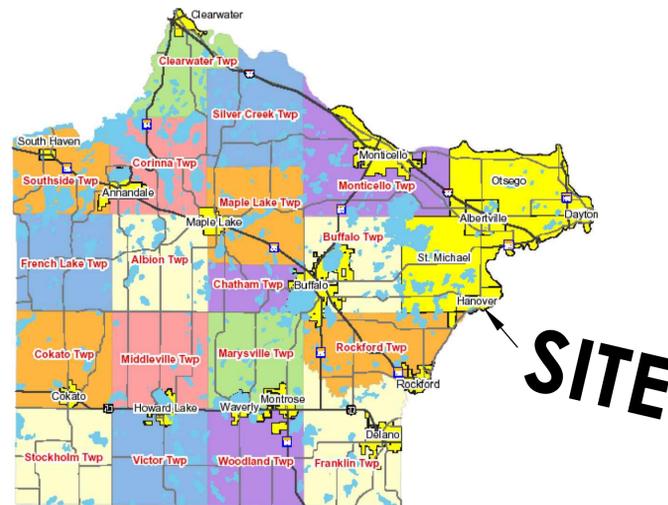
Kinghorn
COMPANY
GENERAL CONTRACTORS

14198 Northdale Blvd
Rogers, MN 55374

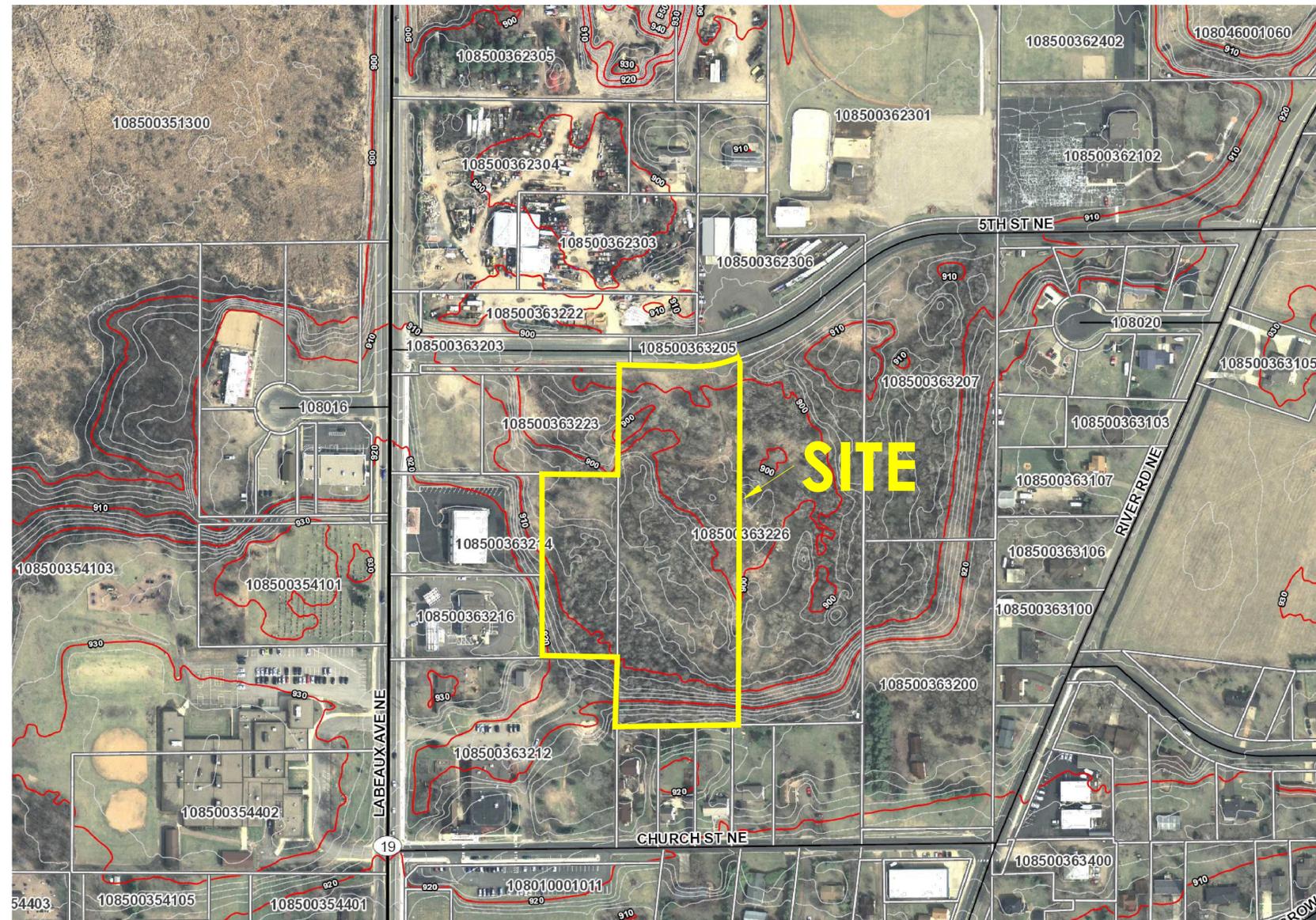
John Studer
(763) 428-8088
johns@kinghornco.com



MINNESOTA



WRIGHT COUNTY



HANOVER, MINNESOTA

**CITY OF HANOVER
PUBLIC WORKS FACILITY**

xxxx 5th Street
Hanover, MN 55341

LOCATION PLAN

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

Date: 05/10/17 Reg. No. 24348
PREPARED BY: **CIVIL ENGINEERING**
SITE DESIGN
118 East Broadway St.
Monticello, Mn 55362
Phone: 763-314-0929
www.civilrad.com

REVISIONS
10/11/16 storm water modifications
05/10/17 modify elevations; modify storm sewer

HORIZONTAL SCALE
1 inch = 50 feet
(FULL SIZE SHEET 24 X 36)

VERTICAL SCALE
1 inch = 10 feet

DATE	09/08/16	DRAWN BY	SD	DESIGNED BY	SD	CHECKED BY	SD
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FILE NO. 00562

CO

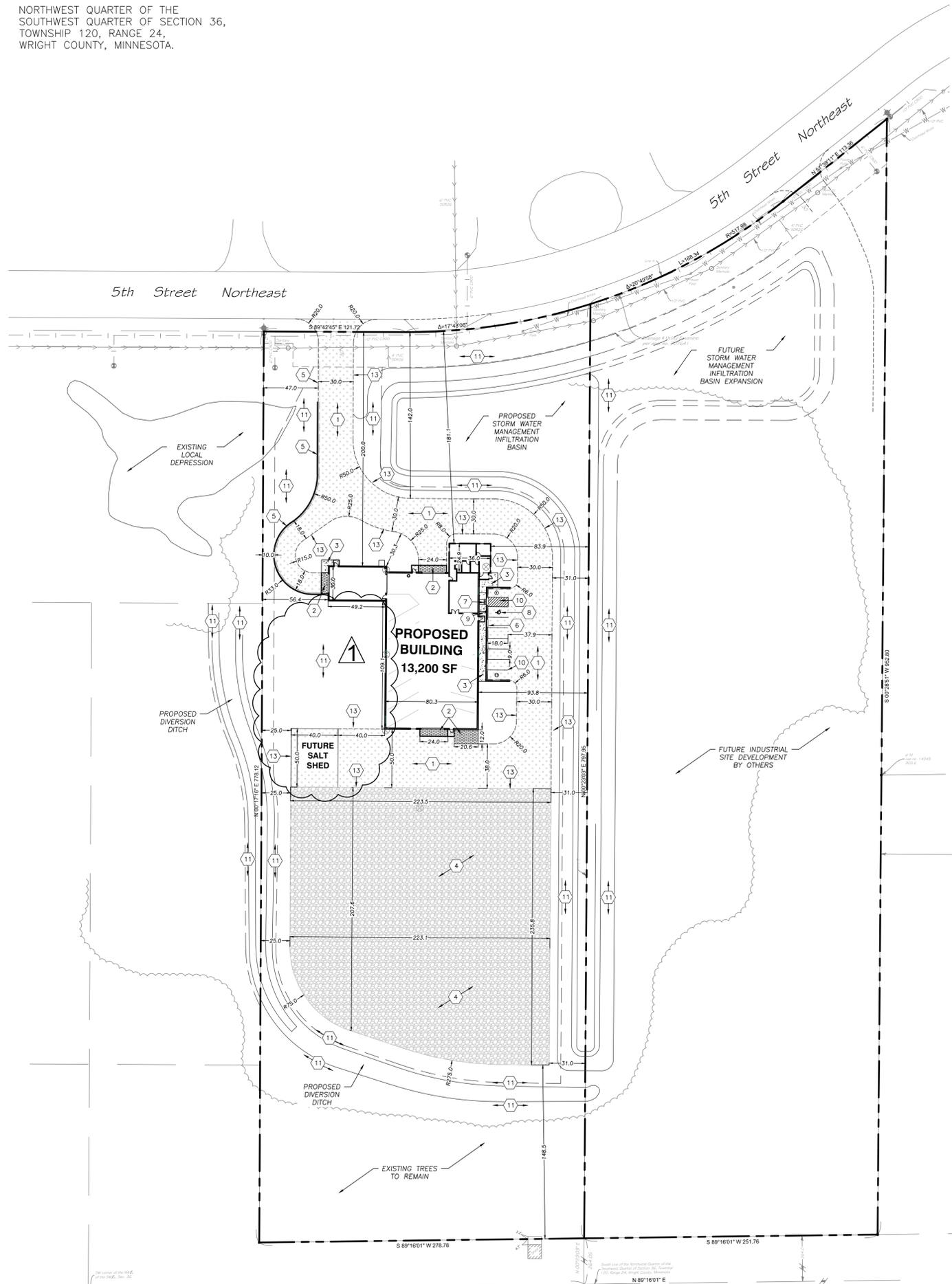
Location Plan

INDEX OF CIVIL SITE DRAWINGS:

- C0 PROJECT LOCATION PLAN
- C1 SITE PLAN
- C2 GRADING AND DRAINAGE PLAN
- C3 DIVERSION DITCH PROFILE PLAN
- C4 UTILITY PLAN
- C5 STORM WATER POLLUTION PREVENTION PLAN
- C6 DETAILS
- C7 LANDSCAPE PLAN

PROJECT LOCATION

NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 36, TOWNSHIP 120, RANGE 24, WRIGHT COUNTY, MINNESOTA.

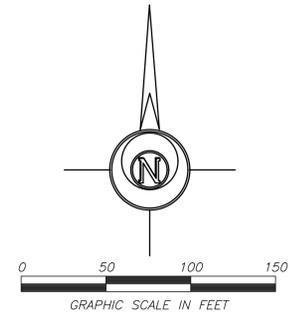


SITE DATA:

EXISTING ZONING: I-3 INDUSTRIAL PARK
 LOT AREA: 5.0 AC
 PROPOSED BUILDING AREA:
 OFFICE 12,190 SF
 WAREHOUSE 1,010 SF
 TOTAL = 13,200 SF
 BUILDING FAR: 0.06
 REQUIRED PARKING STALLS:
 OFFICE 1/200 SF 5 STALLS
 WAREHOUSE 1/2000 SF 6 STALLS
 TOTAL = 11 STALLS
 IMPERVIOUS AREA: 95,417 sf = 2.19 acres
 IMPERVIOUS COVERAGE: 43.8%
 SITE DISTURBANCE AREA: 214,315 sf = 4.92 acres

LEGEND:

- EXISTING BOUNDARY
- - - EXISTING LOT LINE
- - - PROPOSED EASEMENT LINE
- ==== PROPOSED CURB AND GUTTER
- PROPOSED TIP-OUT CURB
- PROPOSED BITUMINOUS EDGE
- Ⓢ PROPOSED PARKING STALLS
- ▨ PROPOSED AGGREGATE SURFACE
- ▨ PROPOSED CONCRETE HEAVY DUTY
- ▨ PROPOSED CONCRETE LIGHT DUTY
- ▨ PROPOSED BITUMINOUS



Topography Survey By: Benchmark:
 Lot Surveys Company Top nut of hydrant at
 7601 73rd Avenue North Northeast corner of 5th
 Minneapolis, MN 55428 Street & Hwy 19.
 763-560-3093 Elevation = 914.31 feet

SETBACK:

LOCATION:	BUILDING	PARKING
FRONT YARD	30'	10'
SIDE YARD	20'	10'
REAR YARD	20'	10'
ADJ TO RESIDENTIAL	50'	10'

KEY NOTES:

- 1 BITUMINOUS PAVEMENT, SEE DETAIL ON PLAN C2
- 2 CONCRETE PAVEMENT HEAVY DUTY, SEE DETAIL ON PLAN C2
- 3 CONCRETE PAVEMENT LIGHT DUTY, SEE DETAIL ON PLAN C2
- 4 AGGREGATE SURFACE 10.0" CLASS 5 OR RECYCLED CONCRETE/BITUMINOUS.
- 5 B612 CONCRETE CURB & GUTTER
MIX 3Y22A FOR MACHINE PLACEMENT (MnDOT 2461)
MIX 3Y32A FOR MANUAL PLACEMENT (MnDOT 2461)
- 6 B612 CONCRETE CURB WITH TIP-OUT GUTTER
MIX 3Y22A FOR MACHINE PLACEMENT (MnDOT 2461)
MIX 3Y32A FOR MANUAL PLACEMENT (MnDOT 2461)
- 7 PED. RAMP -- IN ACCORDANCE WITH AMERICANS WITH DISABILITIES ACT & MnDOT STANDARD PLAN 5-297.250 INCLUDING CONTRASTING DETECTABLE WARNING DEVICES. DEPRESS BACK OF CURB AT RAMP.
- 8 PAINT INTERNATIONAL SYMBOL OF ACCESSABILITY WITH WHITE LATEX PAINT.
- 9 ACCESSIBLE PARKING SIGN (MnDOT NOS. R7-8A & R7-8B). CENTER SIGN ON PARKING STALL. LOCATION PER GENERAL CONTRACTOR. MOUNT ON STEEL CHANNEL POST.
- 10 PAINT 4" SOLID STRIPE -- WHITE LATEX PAINT.
- 11 PLACE 6.0" TOPSOIL AND ESTABLISH GRASS TURF GROUND COVER ON ALL DISTURBED AREAS THAT ARE NOT COVERED BY IMPERVIOUS SURFACE; CONFIRM SELECTION OF LOW MAINTENANCE GRASS SEED WITH OWNER PRIOR TO INSTALLATION; FERTILIZER AND STRAW MULCH (DISC ANCHORED) AT TIME OF SEED PLACEMENT; INSTALL EROSION BLANKET MnDOT CAT3 ON ALL SLOPES 4:1 OR GREATER
- 12 CONCRETE COLLAR AT CATCH BASIN; 10'x10' CONCRETE PAVEMENT HEAVY DUTY
- 13 BITUMINOUS EDGE, NO CURB.

SITE PLAN NOTES:

1. ALL DIMENSIONS SHOWN ARE TO FACE OF CURB, EDGE OF SIDEWALK OR EXTERIOR OF BUILDING UNLESS OTHERWISE NOTED. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS AND SPECIFICATIONS FOR LOCATION OF EXITS, RAMPS, CONCRETE APRONS AND STOOPS.
2. TACK SHALL BE USED ON BITUMINOUS EDGE PRIOR TO PATCHING. MATCH EXISTING GRADES.
3. ALL CONCRETE SIDEWALKS ADJACENT TO BUILDING SHALL BE SEPARATED WITH A 1/2" EXPANSION JOINT.
4. CONTRACTOR SHALL VERIFY ALL CONDUIT REQUIREMENTS FOR SITE LIGHTING, COMMUNICATION, SPRINKLER, ETC WITH OWNER PRIOR TO PAVING.
5. ACCESSIBLE ROUTE SHALL BE PROVIDED FROM ACCESSIBLE STALLS TO BUILDING ENTRANCE (SEE ADAAG REQUIREMENTS). POLE MOUNT APPROVED SIGNS CENTERED ON STALLS. PAINT INTERNATIONAL SYMBOL OF ACCESSIBILITY ON STALL.
6. CONSTRUCT ACCESSIBLE PEDESTRIAN RAMP PER ADAAG AND MNDOT STANDARDS INCLUDING CONTRASTING DETECTABLE WARNING METAL TRUNCATED DOME PANELS.
7. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH FIRE MARSHAL FOR POSTING OF FIRE LANES, CURB MARKING AND SIGNAGE IF NEEDED.
8. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION AND REMOVAL OF ALL EXISTING SITE FEATURES THAT INTERFERE WITH NEW WORK AS SHOWN.
9. ALL NEW UTILITIES MUST BE UNDERGROUND. COORDINATE LOCATIONS WITH LOCAL UTILITY COMPANIES.
10. SIDEWALKS SHALL BE CONSTRUCTED WITH CROSS SLOPE OF 1.5% WITH ADJUSTMENT +/- 0.5%. SIDEWALKS WILL BE INSPECTED AFTER CONSTRUCTION. ANY SIDEWALK EXCEEDING 2.0% CROSS SLOPE WILL NEED TO BE REPLACED AT CONTRACTORS EXPENSE.

GENERAL NOTES:

1. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY THE PERMITTING AUTHORITIES.
2. WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY. THE SOILS REPORT AND RECOMMENDATION SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS.
3. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT PREPARED BY A QUALIFIED SOILS ENGINEER, LICENSED WITHIN THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AND PAVEMENT AREAS HAVE BEEN COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS AND RECOMMENDATIONS SET FORTH IN THE SOILS REPORT.
4. THE LOCATIONS OF THE UNDERGROUND FACILITIES SHOWN ON THIS PLAN ARE BASED ON FIELD SURVEYS AND LOCAL UTILITY COMPANY RECORDS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO STARTING CONSTRUCTION. NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORK FORCE.
5. ALL EXISTING DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.

INDEX OF CIVIL SITE DRAWINGS:

- C0 PROJECT LOCATION PLAN
- C1 SITE PLAN
- C2 GRADING AND DRAINAGE PLAN
- C3 DIVERSION DITCH PROFILE PLAN
- C4 UTILITY PLAN
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- C6 DETAILS
- C7 LANDSCAPE PLAN

CONTRACTOR:

Kinghorn
 COMPANY
 GENERAL CONTRACTORS

14198 Northdale Blvd
 Rogers, MN 55374

John Studer
 (763) 428-8088
 johns@kinghornco.com

**CITY OF HANOVER
 PUBLIC WORKS FACILITY**

xxxx 5th Street
 Hanover, MN 56941

SITE PLAN

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

Date: 05/10/17 Reg. No. 24348
 PREPARED BY: CIVIL ENGINEERING
 SITE DESIGN
 118 East Broadway St.
 Monticello, Mn 55362
 Phone: 763-314-0929
 www.civiland.com

REVISIONS
 10/11/16 storm water modifications
 1/05/17/17 modify storm sewer

DATE	09/08/16	DRAWN BY	SD	DESIGNED BY	SD	CHECKED BY	SD
							VERTICAL SCALE 1 inch = 10 feet
							HORIZONTAL SCALE 1 inch = 50 feet (FULL SIZE SHEET 34 x 46)

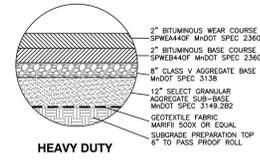
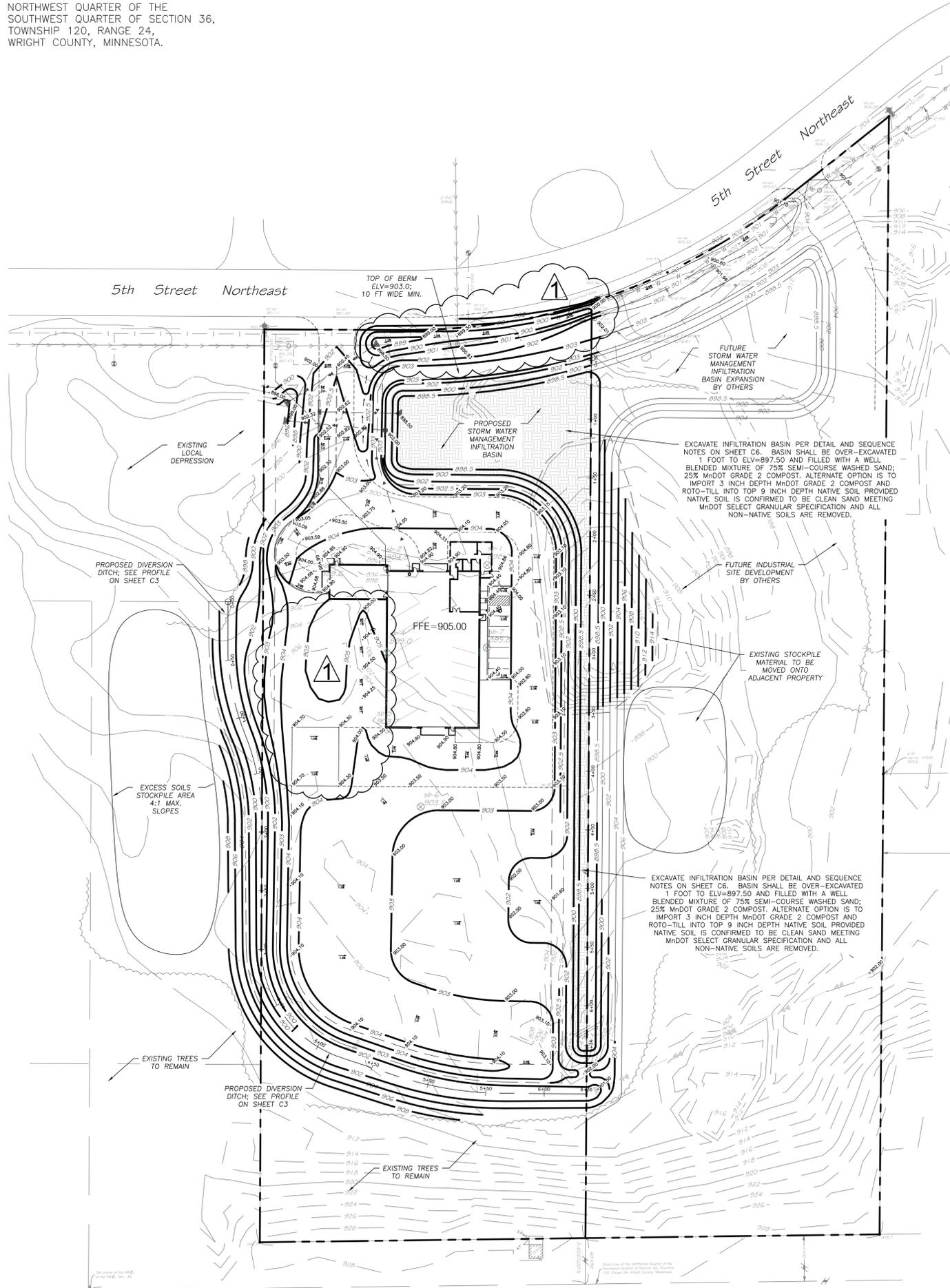
FILE NO. 00562

C1

Site Plan

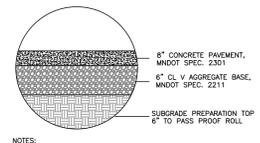
PROJECT LOCATION

NORTHWEST QUARTER OF THE
SOUTHWEST QUARTER OF SECTION 36,
TOWNSHIP 120, RANGE 24,
WRIGHT COUNTY, MINNESOTA.



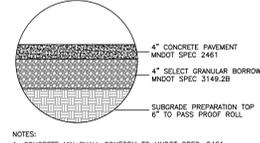
BITUMINOUS PAVEMENT

NOTES:
1. CLASS V AGGREGATE BASE TO EXTEND 1.0 FEET BEHIND BACK OF CURB.
2. SELECT GRANULAR AGGREGATE BASE TO EXTEND 2.0 FEET BEHIND BACK OF CURB.



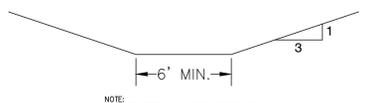
CONCRETE PAVEMENT - HEAVY DUTY

NOTES:
1. CONCRETE MIX SHALL CONFORM TO MNDOT SPEC. 2461
MIX NO. 3122A FOR SURFORM PLACEMENT
MIX NO. 3122B FOR MANUAL PLACEMENT
2. CONCRETE PLACEMENT SHALL CONFORM TO MNDOT SPEC. 2301
3. CONTRACTOR SHALL SPACE THE CONTRACTION JOINTS AT 12'-0" O.C.
4. SOILS SPECIFICATIONS SUPERSEDE ABOVE LISTED SPECIFICATIONS



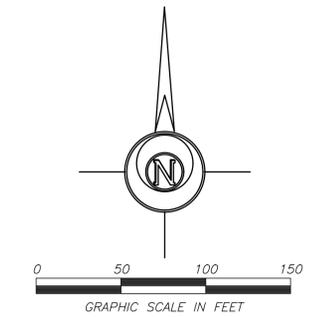
CONCRETE PAVEMENT - LIGHT DUTY

NOTES:
1. CONCRETE MIX SHALL CONFORM TO MNDOT SPEC. 2461
MIX NO. 3122A FOR SURFORM PLACEMENT
MIX NO. 3122B FOR MANUAL PLACEMENT
2. CONCRETE PLACEMENT SHALL CONFORM TO MNDOT SPEC. 2301
3. CONTRACTOR SHALL SPACE THE CONTRACTION JOINTS AT 6'-0" O.C.
4. SOILS SPECIFICATIONS SUPERSEDE ABOVE LISTED SPECIFICATIONS



DITCH DETAIL

NOTE:
1. CONTRACTOR SHALL CLEAN OUT SWALE AS NECESSARY TO KEEP FREE FROM SEDIMENT OR AS DIRECTED BY CITY OR ENGINEER.



Topography Survey By: _____ Benchmark: _____
Lot Surveys Company Top nut of hydrant at
7601 73rd Avenue North Northeast corner of 5th
Minneapolis, MN 55428 Street & Hwy 19.
763-560-3093 Elevation = 914.31 feet

GRADING NOTES

- ALL SITE CONSTRUCTION TO COMPLY WITH THE CITY OF HANOVER STANDARDS AND THE LATEST VERSION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR HIGHWAY CONSTRUCTION EXCEPT WHERE HEREIN MODIFIED BY THESE DOCUMENTS.
- OSHA REQUIREMENTS SHALL BE FOLLOWED FOR ALL WORK ON THIS PROJECT.
- THE CONTRACTOR SHALL NOTIFY GOPHER STATE ONE CALL PRIOR TO ANY EXCAVATION.
- THE CONTRACTOR SHALL VERIFY ALL LOCATIONS AND ELEVATIONS OF UNDERGROUND UTILITIES WITH UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION AND IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS.
- ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO BEGINNING GRADING OPERATIONS. ANY EROSION CONTROL ITEMS NECESSARY TO PROTECT ADJACENT PROPERTIES SHALL BE CONSTRUCTED BY THE GRADING CONTRACTOR.
- EROSION CONTROL MAINTENANCE SHALL BE PERFORMED BY THE GRADING CONTRACTOR AND REMOVED AS PER THE CONTRACT DOCUMENTS OR AS DIRECTED BY THE ENGINEER, FOLLOWED BY ALL NECESSARY RESTORATION OF DISTURBED AREAS. THIS WORK SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
- THE GRADING CONTRACTOR SHALL SCHEDULE THE SOILS ENGINEER TO FACILITATE CERTIFICATION OF ALL CONTROLLED FILLS IN A TIMELY MANNER. DENSITY TESTS SHALL MEET THE FOLLOWING REQUIREMENTS:
A. WITHIN THE UPPER 3' OF STREETS OR PAVEMENT, THE GRADING CONTRACTOR SHALL UTILIZE APPROVED SOILS THAT ARE WITHIN 1% OF THE OPTIMUM MOISTURE CONTENT AS DEFINED BY ASTM D-698 STANDARD PROCTOR TEST MEETING 100% STANDARD PROCTOR DENSITY AND NOT EXCEEDING THIS COMPACTION BY MORE THAN 1% BELOW THE UPPER 3'. COMPACTION SHALL MEET 95% STANDARD PROCTOR DENSITY AND BE WITHIN 3% OF THE OPTIMUM MOISTURE CONTENT. GRADING TOLERANCES SHALL AVERAGE 0.1', BUT SHALL NOT BE CONSISTENTLY HIGH OR LOW.
B. GRADING TOLERANCES FOR THE REMAINDER OF THE SITE SHALL BE 0.15'.
- THE FINAL PLAT OR CERTIFIED SURVEY SHALL GOVERN FOR EASEMENTS AND LOT DIMENSIONS.
- ALL AREAS OF UNSUITABLE SOILS FOUND IN THE BUILDING PAD OR PAVEMENT AREAS THAT CANNOT BE CORRECTED SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTOR. THE GRADING CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF THESE AREAS AND PROVIDE INFORMATION AS TO THEIR SIZE AND LOCATION.
- THE GRADING CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE TO THE SITE AT ALL TIMES.
- THE GRADING CONTRACTOR SHALL KEEP PUBLIC STREETS AND TRAVEL WAYS CLEAR OF SOIL AND DEBRIS. DAILY CLEANING AT THE CONSTRUCTION ENTRANCE SHALL BE PERFORMED.
- ALL PROPOSED SPOT ELEVATIONS ARE TO FLOW LINE OF CURB OR THE FINISHED BITUMINOUS/CONCRETE SURFACE UNLESS OTHERWISE NOTED.

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CONTRACTOR:



14198 Northdale Blvd
Rogers, MN 55374
John Studer
(763) 428-8088
johns@kinghornco.com

**CITY OF HANOVER
PUBLIC WORKS FACILITY**

GRADING AND DRAINAGE PLAN

xxxx 5th Street
Hanover, MN 55341

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
S. J. W. L. A.

Date: 05/10/17 Reg. No. 24348
PREPARED BY: CIVIL ENGINEERING SITE DESIGN
118 E. Broadway St.
Monticello, Mn 55362
Phone: 763-314-0929
www.civiland.com

REVISIONS
10/11/16 storm water modifications
03/02/17 modify elevations: modify storm sewer
A 05/10/17 modify elevations: modify storm sewer

DATE 09/08/16	SD	SD	SD
DRAWN BY		DESIGNED BY	
CHECKED BY			

FILE NO. 00562

C2
Grading and
Drainage Plan

PROJECT LOCATION

NORTHWEST QUARTER OF THE
SOUTHWEST QUARTER OF SECTION 36,
TOWNSHIP 120, RANGE 24,
WRIGHT COUNTY, MINNESOTA.

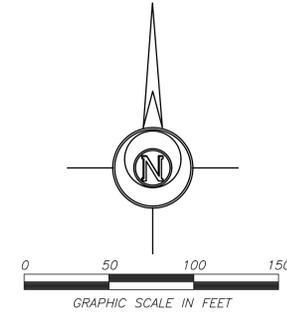
CONTRACTOR:



GENERAL CONTRACTORS

14198 Northdale Blvd
Rogers, MN 55374

John Studer
(763) 428-8088
johns@kinghornco.com

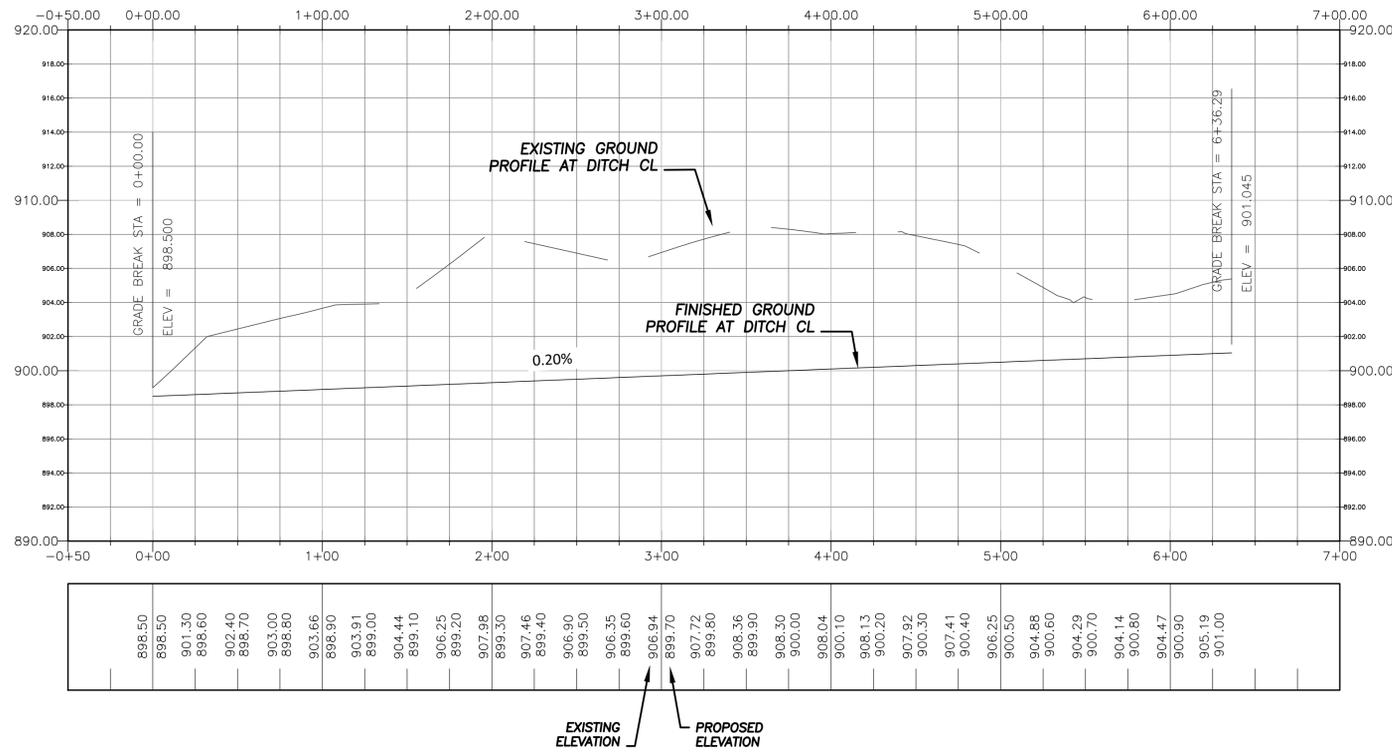


Topography Survey By: Lot Surveys Company
7601 73rd Avenue North
Minneapolis, MN 55428
763-560-3093

Benchmark: Top nut of hydrant at
Northeast corner of 5th
Street & Hwy 19.
Elevation = 914.31 feet

HORIZ: 1"=50'
VERT: 1"=5'

PROFILE DIVERSION DITCH



INDEX OF CIVIL SITE DRAWINGS:

- C0 PROJECT LOCATION PLAN
- C1 SITE PLAN
- C2 GRADING AND DRAINAGE PLAN
- C3 DIVERSION DITCH PROFILE PLAN
- C4 UTILITY PLAN
- C5 STORM WATER POLLUTION PREVENTION PLAN
- C6 DETAILS
- C7 LANDSCAPE PLAN

**CITY OF HANOVER
PUBLIC WORKS FACILITY**

DIVERSION DITCH PROFILE PLAN

xxxx 5th Street
Hanover, MN 55341

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Date: 05/10/17 Reg. No. 24348

PREPARED BY: CIVIL ENGINEERING
SITE DESIGN

118 East Broadway St.
Monticello, MN 55362
Phone: 763-314-0929
www.civillead.com

REVISIONS:
10/11/16 storm water modifications
05/10/17 modify elevations: modify storm sewer

DATE	09/08/16	DRAWN BY	SD	DESIGNED BY	SD	CHECKED BY	SD
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HORIZONTAL SCALE
1 inch = 50 feet
(FULL SIZE SHEET 34 x 30)

VERTICAL SCALE
1 inch = 5 feet

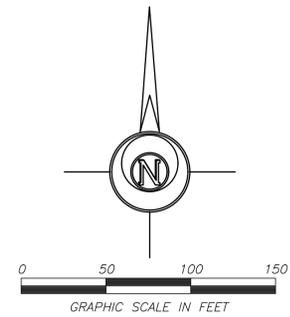
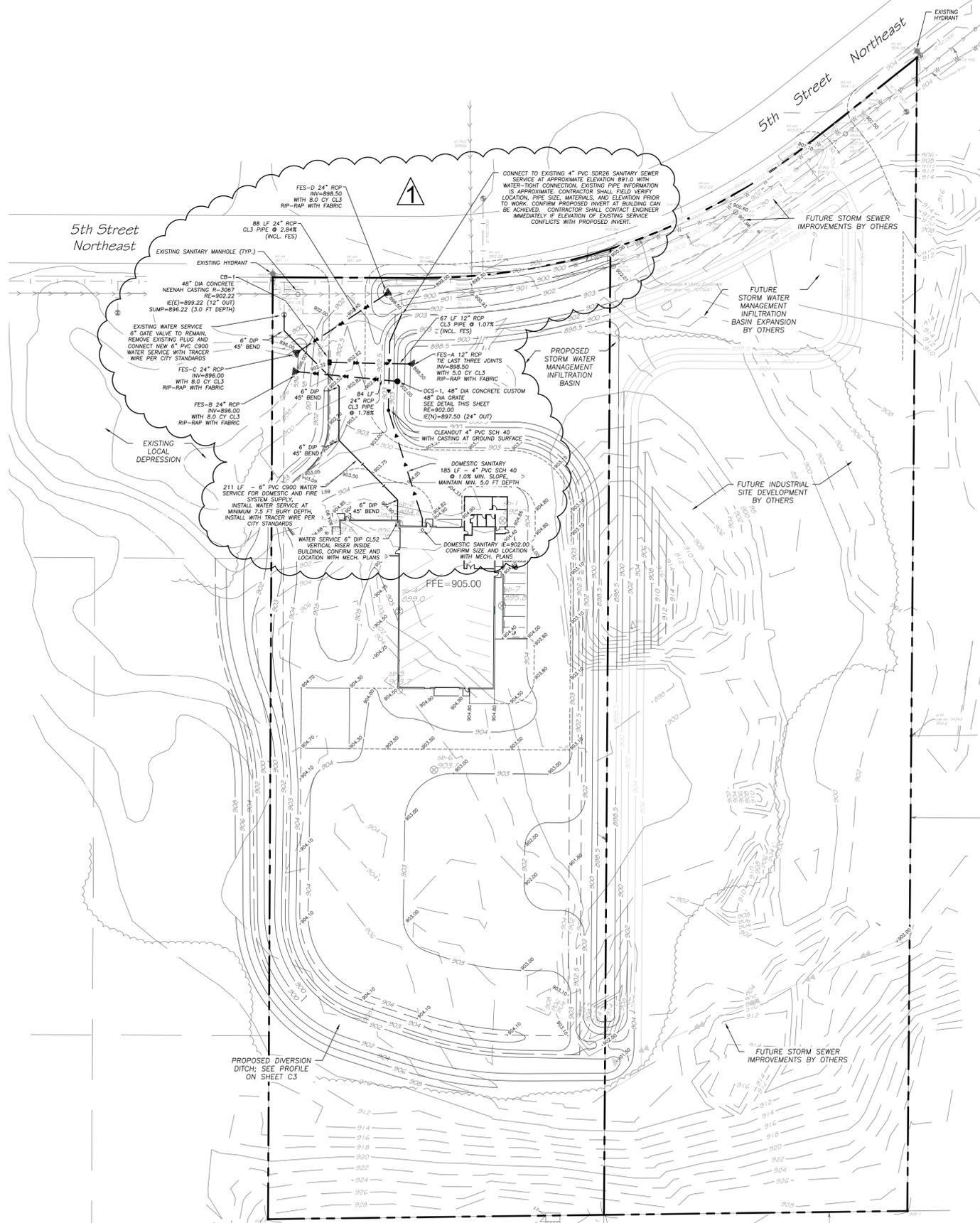
FILE NO. 00562

C3

Diversion Ditch
Profile Plan

PROJECT LOCATION

NORTHWEST QUARTER OF THE
SOUTHWEST QUARTER OF SECTION 36,
TOWNSHIP 120, RANGE 24,
WRIGHT COUNTY, MINNESOTA.

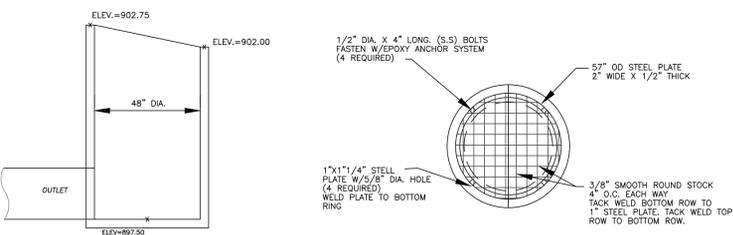


Topography Survey By: Lot Surveys Company
7601 73rd Avenue North
Minneapolis, MN 55428
763-560-3093

Benchmark: Top nut of hydrant at
Northeast corner of 5th
Street & Hwy 19.
Elevation = 914.31 feet

GENERAL UTILITY NOTES:

- Specifications applicable for this project: Current standard specifications for the City of Hanover, MN and all Minnesota Department of Health and MPCA requirements except where modified by these contract documents.
- OSHA requirements shall be followed for all work on this project.
- The Contractor shall notify "Gopher State One Call" 48 hours prior to any excavation (651-454-0002 or 1-800-252-1166 out state.)
- The Contractor shall verify all locations and elevations of underground utilities with utility companies prior to any construction (storm sewer, sanitary sewer, water, natural gas, telephone, electric, etc.), and immediately notify the Engineer of any conflicts.
- The Contractor shall protect all existing utilities and facilities to allow proper functioning during and after construction. Any required supporting structures shall be supplied by the Contractor as work incidental to the contract.
- The contractor shall immediately notify the Engineer of any conflicts between existing utilities, and the proposed construction. The Engineer will coordinate with the Utility Company in question to determine the need for relocation of the existing utility.
- Existing conditions such as sand in manholes or valve boxes shall be identified by the Contractor and these shall be reported to the Engineer prior to excavation by the Contractor. Once construction has begun, all damage to underground utilities will be assumed to have been caused by the Contractor, any repairs necessary shall be performed by the Contractor at the Contractor's expense.
- Final Plat shall govern for easements and lot lines.
- The Contractor shall coordinate with the local jurisdiction to obtain permits and meter for water source. All associated costs shall be incidental to the Contract, including disposal of test water into City's sanitary sewer system. The Contractor shall not operate gate valves or hydrants on the City's water supply system.
- The Contractor shall notify the City Engineer and the Project Engineer 48 hours prior to starting work or as required by the local jurisdiction or be subject to being shut down.
- The Contractor shall keep access roads clear of soil or other debris, and perform daily street cleaning as required by the NPDES permit. Positive drainage, controlled with erosion control and erosion prevention measures as required by the NPDES permit shall be performed. Inlet protection shall be installed within 48 hours after inlet construction. Unless specified on the plans or as a bid item on the Bid Form, any temporary culverts, ditches, filter fabric, etc. necessary to accomplish this shall be performed as incidental to the Contract.
- The Contractor shall preserve and protect the markers and monuments set for the subdivision of the land.
- The Contractor shall schedule the soils engineer to facilitate certification of all controlled fills in a timely fashion. Density tests shall meet the following:
A. Density tests shall be taken on all trenches at locations as determined by the Engineer or his representative.
B. Within the upper 3' of streets, private drives and parking lots, Contractor shall utilize approved soils that are within 1% optimum moisture content as defined by the Standard Proctor Test-ASTM: D-698 with 100% Standard Proctor Density and not exceeding compaction by more than 1%. Below the upper 3', compaction shall meet 95%. Grading tolerances shall be 0.1'.
- The Owner shall pay for all testing of soils compaction. Any areas which fail to meet the above standards shall be corrected and re-tested by the Owner's testing agent at the Contractor's expense.
- Sanitary service and Water service shall be installed at elevations as defined on this plan (approximate 7.0' bury depth).
- Contractor shall provide temporary traffic control in compliance with MN/DOT "Temporary Traffic Control Zone Layouts Field Manual" dated 2015 for construction adjacent to travel ways.
- Contractor shall be responsible for verification of the depth of existing utilities listed on this plan prior to the ordering of any fittings, structures, castings, etc. Engineer and the Owner shall not be responsible for any discrepancies found as depths are estimated.
- City inspection is required for the sanitary sewer and water service connections.
- Contractor to comply with all regulatory agency permit conditions for permits obtained by owner and for permits obtained by general contractor.
- All work performed and materials used for construction of utilities must conform to the City of Hanover Standard Specifications and Details.



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CONTRACTOR:



14198 Northdale Blvd
Rogers, MN 55374

John Studer
(763) 428-8088
johns@kinghornco.com

**CITY OF HANOVER
PUBLIC WORKS FACILITY**

xxxx 5th Street
Hanover, MN 55341

UTILITY PLAN

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

Scott W. Wala

DATE: 05/10/17 Reg. No. 24348
PREPARED BY: CIVIL ENGINEERING SITE DESIGN
118 East Broadway St.
Monticello, MN 55362
Phone: 763-314-0929
www.civiland.com

REVISIONS

10/11/16	storm water modifications
03/02/17	modify elevations: modify storm sewer
05/10/17	modify elevations: modify storm sewer

DATE	09/08/16
DRAWN BY	SD
DESIGNED BY	SD
CHECKED BY	SD

FILE NO. 00562



Utility Plan

PROJECT LOCATION

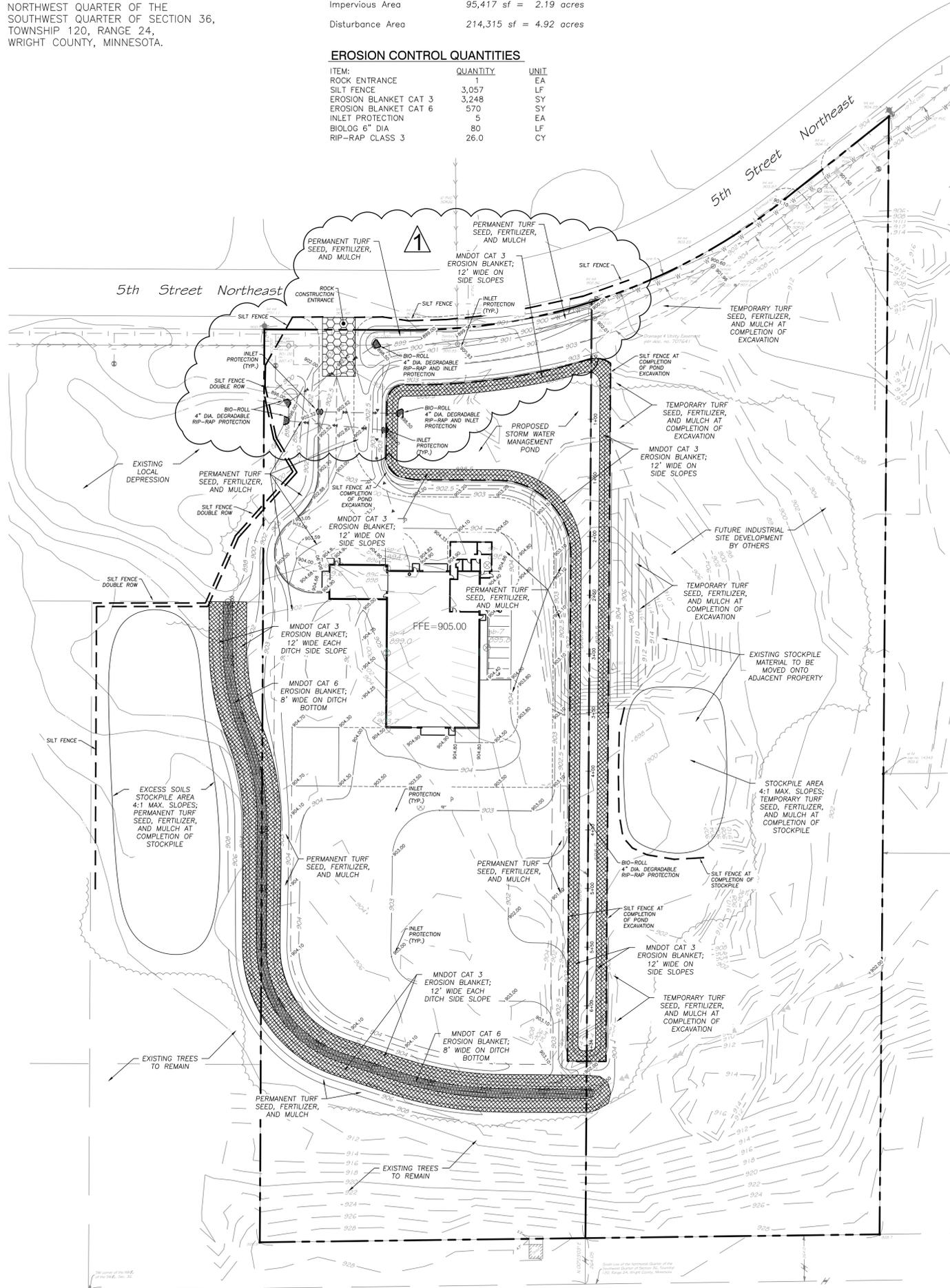
NORTHWEST QUARTER OF THE
SOUTHWEST QUARTER OF SECTION 36,
TOWNSHIP 120, RANGE 24,
WRIGHT COUNTY, MINNESOTA.

IMPERVIOUS AND DISTURBANCE AREAS

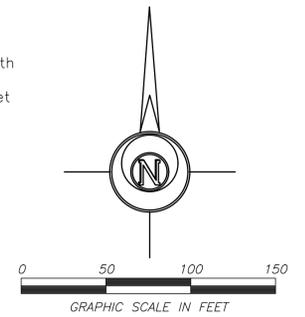
Impervious Area 95,417 sf = 2.19 acres
Disturbance Area 214,315 sf = 4.92 acres

EROSION CONTROL QUANTITIES

ITEM:	QUANTITY	UNIT
ROCK ENTRANCE	1	EA
SILT FENCE	3,057	LF
EROSION BLANKET CAT 3	3,248	SY
EROSION BLANKET CAT 6	570	SY
INLET PROTECTION	5	EA
BIOLOG 6" DIA	80	LF
RIIP-RAP CLASS 3	26.0	CY



Topography Survey By: Benchmark:
Lot Surveys Company Top nut of hydrant at
7601 73rd Avenue North Minneapolis, MN 55428
603-560-3093 Elevation = 914.31 feet



SWPP NARRATIVE
This project construction will consist of site clearing, grading, utilities, building, parking lot, drive aisles, and truck court.
First, perimeter silt fence and rock construction entrance shall be installed. Then site work shall commence. The contractor shall dispose all debris off-site. Then the site can be graded, utilities installed, building constructed, curbing and pavements installed, final grade tolerance, and landscape final stabilization. Once final grade is established and certified, the site shall be stabilized with seed and mulch, erosion blanket, or sod. Once vegetation is established, temporary erosion control measures shall be removed.

POLLUTION PREVENTION NOTES
Solid waste: collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction debris and other wastes must be disposed of properly off-site and must comply with MPCA requirements.
Hazardous materials: oils, gasoline, paint, and any hazardous substance 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 must be in compliance with MPCA regulations.
External washing of trucks or other construction vehicles is not allowed on site. No engine degreasing is allowed on site.
Concrete truck washout is not to be allowed on site unless washout waste is contained with no discharge to ground surface or site drainage facilities. Containment systems are to be located a minimum 50 feet away from drainage facilities and watercourses. Containment systems shall have an impermeable liner. Containment system shall be clearly marked with signage.
All sanitary waste must be collected from portable toilet units on site by a licensed waste management contractor. The units must be secured and shall be maintained on a regular basis as needed to prevent overflowing.

EROSION CONTROL NOTES
1. All devices necessary to control erosion and sediment (i.e. perimeter silt fence, rock construction entrances, swales, ponds, berms, ETC.) shall be installed prior to any other construction operations.
2. After completion of final grading, exposed soils must be permanently stabilized within 7 days. Stabilization shall consist of disc-anchored seed & mulch, HEC-2 with fiber reinforced matrix, erosion blanket with seed, or sod.
3. The site must be kept in a well drained condition at all times. The contractor shall be responsible for temporary ditches, or other means necessary to ensure proper drainage. The building pad must be provided with a positive outflow. This work shall be incidental to the grading contract.
4. Entering/exiting the site shall occur only at rock construction entrance to reduce tracking of dirt onto paved streets. Sediment tracked onto streets during working hours must be reclaimed via street sweeping and sweeping at the end of each working day.
5. Stormwater discharge pipe outlet energy dissipation shall be provided by rip-rap with size, quantity, and placement in accordance with City standards. Rip-rap installation shall be within 24 hours of pipe installation.
6. Install silt fence around all temporary inactive stockpiles which are not place within existing silt fence area or other perimeter erosion controls.
7. Stabilization of temporary or permanent drainage ditches that drain water from the construction site must be initiated within 24 hours of connecting the drainage ditch to any storm water conveyance system and must be completed using erosion blanket.
8. Sufficient personnel, equipment, and materials shall be mobilized within 24 hours of written order (i.e. email) by the owner or owners representative to conduct corrective work and install temporary erosion control work in the case of an emergency.

EROSION CONTROL MAINTENANCE SCHEDULE
1. Erosion control measures shall be inspected by the contractor's representative and maintained by the contractor every Friday and within 24 hours after any rainfall event larger than 1/2" until the project is completed. Maintenance requirements are as follows: silt fence - 1/3 height of fence or damaged, remove sediment and/or repair fence within 24 hours; rock entrance - refresh as necessary to conform to detail; inlet protection inserts - remove sediment after each rain event, clean or replace filter when clogged; surface water - drain and stabilize, within 7 days of discovery; and street sweeping - remove all sediment tracked onto paved surfaces within 24 hours or as directed by City Engineer.
2. Replacement - Fabric shall be replaced promptly when it decomposes or becomes ineffective before the barrier is no longer necessary.
3. Any sediment remaining in place after silt fence is no longer required shall be dressed to conform with the existing grade, prepared, and seeded with appropriate seed mix, as directed by the engineer.
4. Removal of the silt fence - Silt fences shall be removed when they have served their useful purpose, but not before the upward sloping area has been permanently stabilized.

EROSION CONTROL INSTALLATION SCHEDULE
1. Silt fence shall be installed or restored prior to any construction. Silt fence shall be located as shown to intercept runoff. The area located beyond the perimeter silt fence shall not be disturbed during construction.
2. Rock Construction Entrance shall be installed prior to grading operations.
3. All storm sewer inlets shall have inlet protection inserts installed. Inserts shall be "Road rain-Top Slab" or "Road Drain-Curb & Gutter" inlet protection devices as manufactured by WIMCO (or approved equal) and installed per manufacturer's recommendations.
4. All erosion control installations shall remain in place and be maintained in good condition by the contractor until the site has been re-vegetated, at which time it shall be removed by the contractor. For proposed paved surface areas, the contractor may remove necessary silt fencing to construct roadway, while maintaining adequate erosion control in adjacent areas.
5. Sufficient topsoil shall be stockpiled to allow for the replacement of 4" topsoil for disturbed areas to be re-vegetated.
6. The contractor shall schedule site grading, utility installation and roadway construction so that the general site can be mulched and re-seeded soon after disturbance. Areas that will not be subject to construction traffic shall be seed and mulched or sodded within 72 hours of final grading.

VEGETATION GROUND COVER SCHEDULE
1. Stabilization of all exposed soil areas must be initiated immediately but in no case completed later than seven (7) days after the construction activity in that portion of the site has temporarily or permanently ceased. Seeding or mulching shall conform to the latest NPDES requirements for installation schedule with regards to grading.
2. Permanent turf ground cover shall include all disturbed areas be covered with a minimum 6" topsoil and sodded or seeded as allowed by City, or as proposed on City approved landscape plan for the project. If not otherwise specified, seed to be MnDOT mix 2.60 applied at 100 lbs/ac. MnDOT Type 3 mulch shall be applied at 2 tons/ac and disc anchored in areas not covered by sod or erosion blanket.
3. Temporary ground cover shall be MnDOT seed mix 150 shall be applied at 100 lbs/ac, or equivalent as approved by City. MnDOT Type 1 mulch shall be applied at 2 tons/ac and disc anchored in areas not covered by sod or erosion blanket.
4. Fertilizer shall be MnDOT Type 1 10-10-20 and applied at 200 lbs/ac. Disc fertilizer into top 3" of soil. Specification reference is MnDOT 2575.
5. Dormant seed mix shall be used after November 1 or when temperatures do not exceed 40° F, using same rates specified above. No seed shall be placed on snow or ice greater than 2" in depth.
6. Any seeded areas that do not become established with vegetation shall be reseeded at Contractor's expense.
7. Erosion blanket shall be installed in seed areas with ground surface slopes of 4H:1V or steeper.

RESPONSIBLE PARTY
Contact information for the responsible party for erosion control is:
TO BE DETERMINED

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C5	STORM WATER POLLUTION PREVENTION PLAN
C6	DETAILS
C7	LANDSCAPE PLAN

CONTRACTOR:
Kinghorn COMPANY
GENERAL CONTRACTORS
14198 Northdale Blvd
Rogers, MN 55374
John Studer
(763) 428-8088
johns@kinghornco.com

CITY OF HANOVER
PUBLIC WORKS FACILITY
xxxx 5th Street
Hanover, MN 56941
STORM WATER POLLUTION PREVENTION PLAN

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Date: 05/10/17 Reg. No. 24348
PREPARED BY: CIVIL ENGINEERING SITE DESIGN
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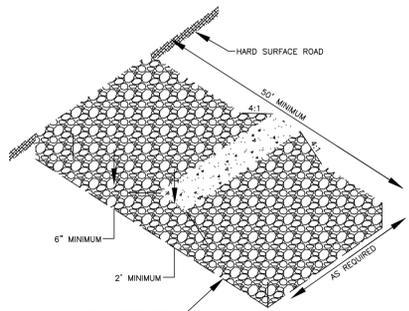
REVISIONS

10/11/16	storm water modifications	
11/05/17	modify storm sewer	

DATE: 09/08/16
DRAWN BY: SD
DESIGNED BY: SD
CHECKED BY: SD

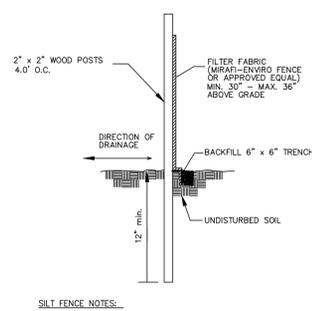
VERTICAL SCALE: 1 inch = 10 feet
HORIZONTAL SCALE: 1 inch = 50 feet (SHEET 34 X 30)

FILE NO. 00562
C5
Storm Water Pollution Prevention Plan



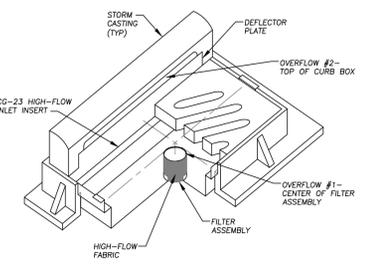
NOTES:
 ROCK SIZE SHOULD BE 1" TO 2" IN SIZE SUCH AS MN/DOT CA-1 OR CA-2 COURSE AGGREGATE. (WASHED)
 A GEOTEXTILE FABRIC MAY BE USED UNDER THE ROCK TO PREVENT MIGRATION OF THE UNDERLYING SOIL INTO THE STONE.

ROCK CONSTRUCTION ENTRANCE DETAIL



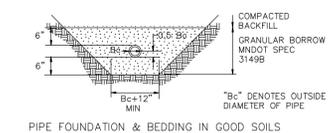
SILT FENCE NOTES:
 1. SILT FENCE SHALL BE BLACK IN COLOR.
 2. DIG A 6" TRENCH ALONG THE INTENDED FENCE LINE, OR MACHINE SLICE TO 6" DEPTH.
 3. DRIVE ALL POSTS INTO THE GROUND AT THE DOWNHILL SIDE OF THE TRENCH.
 4. LAY OUT SILT FENCE ON THE UPHILL SIDE ALONG THE FENCE LINE, AND BACK FILL.
 5. WOOD POSTS MAY BE SPAKED UP TO 4 FEET APART TO SUPPORT THE FABRIC.
 6. REMOVE SILT FENCE AFTER TURF IS ESTABLISHED.
 7. HEAVY DUTY SILT FENCE TO HAVE STEEL T-POSTS AND WIRE MESH BACKING.

SILT FENCE DETAIL

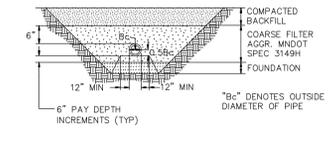


NOTES:
 1) CONTRACTOR OPTION TO USE WMCO INLET PROTECTION INSERT OR EQUAL.

INLET PROTECTION DETAIL

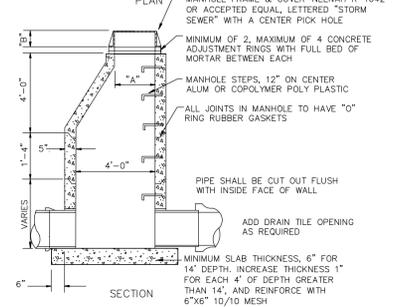
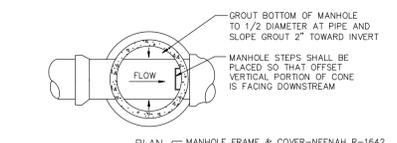


PIPE FOUNDATION & BEDDING IN GOOD SOILS

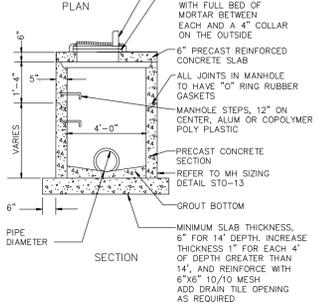
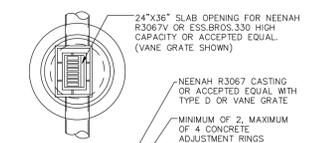


PIPE FOUNDATION & BEDDING IN POOR SOILS

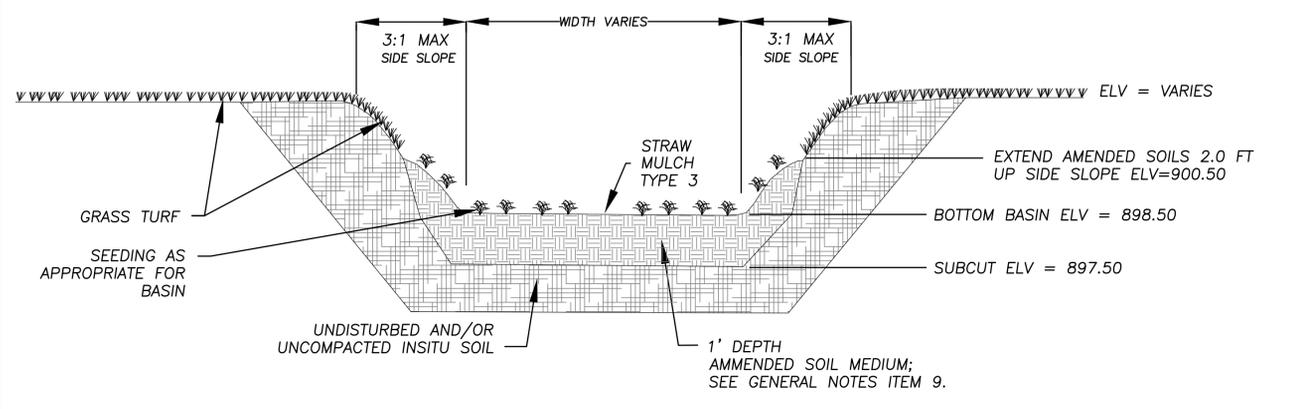
BEDDING METHODS FOR PVC



STORM SEWER MANHOLE



CATCH BASIN MANHOLE



TYPICAL INFILTRATION BASIN CROSS-SECTION

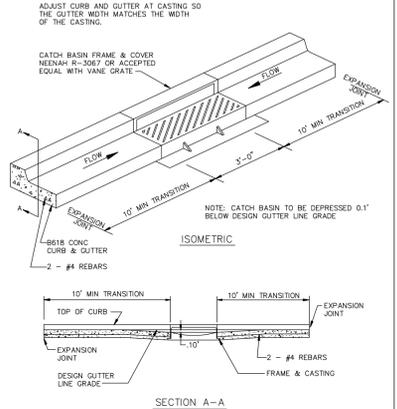
GENERAL NOTES:

- INSTALL ALL TEMPORARY EROSION CONTROL MEASURES (IN ACCORDANCE WITH MNDOT GENERAL CONDITIONS 2573) PRIOR TO THE START OF ANY CONSTRUCTION OPERATION THAT MAY CAUSE ANY SEDIMENTATION OR SILTATION AT THE SITE.
- INSTALL STORM DRAIN INLET PROTECTION TO PREVENT CLOGGING OF THE STORM SEWER AND SEDIMENT LOADS TO DOWNSTREAM STORM WATER FACILITIES OR WATERBODIES.
- IF THE STORM WATER BMP IS BEING DESIGNED TO SERVE AS A TEMPORARY SEDIMENT BASIN, GRADE THE BMP TO WITHIN 18" ABOVE THE FINAL GRADE TO PROTECT THE UNDERLYING MATERIAL FROM CLOGGING. ONCE CONSTRUCTION IN THE CONTRIBUTING DRAINAGE AREA HAS BEEN COMPLETED AND THE SITE IS STABILIZED, EXCAVATE THE INFILTRATION BASIN TO FINAL GRADE AND COMPLETE CONSTRUCTION OF THE INFILTRATION BASIN.
- GRADING OF THE INFILTRATION BASIN SHALL BE ACCOMPLISHED USING LOW-IMPACT EARTH MOVING EQUIPMENT TO PREVENT COMPACTION OF THE UNDERLYING SOILS. SMALL TRACKED DOZERS AND BOBCATS WITH RUNNER TRACKS ARE RECOMMENDED.
- EXCAVATE THE INFILTRATION BASIN TO THE SPECIFIED DEPTH (ELEVATION). ALL SUB MATERIAL BELOW THE SPECIFIED ELEVATION SHALL BE LEFT UNDISTURBED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- GRADE TO THE DEPTH (ELEVATION) SPECIFIED IN THE CONSTRUCTION DOCUMENTS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

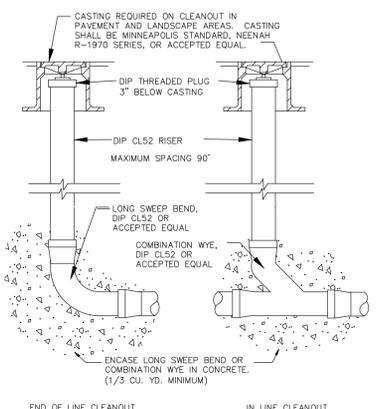
- IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE BMP DURING OR IMMEDIATELY FOLLOWING EXCAVATION, THIS MATERIAL WILL NEED TO BE REMOVED FROM THE INFILTRATION BASIN PRIOR TO INITIATING THE NEXT STEP IN THE INFILTRATION BASIN CONSTRUCTION PROCESS. THIS IS ESPECIALLY IMPORTANT IF THE INFILTRATION BASIN HAS BEEN DESIGNED TO INFILTRATE STORM WATER. SEDIMENT THAT HAS BEEN WASHED INTO THE INFILTRATION BASIN DURING THE EXCAVATION PROCESS CAN SEAL THE PERMEABLE MATERIAL, SIGNIFICANTLY REDUCING THE INFILTRATION CAPACITY OF THE SOILS.
- MATERIAL EXCAVATED FROM THE INFILTRATION BASINS SHALL BE DISPOSED ON-SITE.
- INFILTRATION BASINS SHALL BE OVER-EXCAVATED 1 FOOT TO ELV = 897.50 AND FILLED WITH A WELL BLENDED MIXTURE OF 75% SEMI-COURSE WASHED SAND, 25% MNDOT GRADE 2 COMPOST. ALTERNATE OPTION IS TO IMPORT 3 INCH DEPTH MNDOT GRADE 2 COMPOST AND ROTO-TILL INTO TOP 9 INCH DEPTH NATIVE SOIL PROVIDED NATIVE SOIL IS CONFIRMED TO BE CLEAN SAND MEETING MNDOT SELECT GRANULAR SPECIFICATION AND ALL NON-NATIVE SOILS ARE REMOVED.
- INFILTRATION BASIN TO BE SEEDED WITH MNDOT SEED MIX 34-181 OR APPROVED EQUAL SEEDING SHALL CONFORM TO MNDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, PLANTING SPECIFICATION 3876, 2005 EDITION.
- PORTIONS OF INFILTRATION BASINS TO BE SEEDED SHALL BE MULCHED WITH CLEAN GRAIN STRAW (MNDOT TYPE 3) AT A RATE OF 2 TONS PER ACRE.
- SEEDING AND INSTALLATION OF ANY EROSION CONTROL BLANKET NECESSARY SHALL BE COMPLETED WITHIN SEVEN DAYS (7) DAYS OF FINAL GRADING.

CONSTRUCTION SEQUENCING

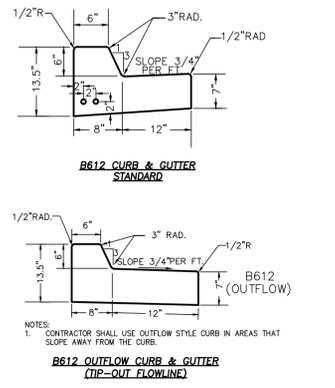
- CONTRACTOR SHALL PERFORM CONTINUOUS INSPECTIONS OF EROSION CONTROL PRACTICES FROM THE TIME SILT FENCE IS INSTALLED UNTIL FINAL APPROVAL OF THE INFILTRATION BASINS.
- INSTALL SILT FENCE ALONG THE PERIMETER OF THE SITE TO PREVENT SEDIMENT FROM LEAVING THE SITE DURING THE CONSTRUCTION PROCESS.
- ALL DOWNGRADE PERIMETER SEDIMENT-CONTROL BMPs MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND-DISTURBING ACTIVITY BEGINS.
- REMOVE TOPSOIL FROM THE SITE AND PLACE IN TEMPORARY STOCKPILE LOCATION. TEMPORARY SEED THE STOCKPILE AND SURROUND WITH SILT FENCE.
- ROUGH GRADE THE SITE. IF THE INFILTRATION BASINS ARE GOING TO BE USED FOR TEMPORARY SEDIMENT CONTROL, GRADE THE INFILTRATION BASINS TO WITHIN 18" ABOVE THE FINAL GRADE TO PROTECT THE UNDERLYING SOILS FROM CLOGGING.
- INSTALL SILT FENCE UP-GRADE OF INFILTRATION BASIN TO PROTECT INFILTRATION AREA FROM SEDIMENTATION AND SOIL COMPACTION.
- CONSTRUCT SITE IMPROVEMENTS TAKING THE LOCATION AND FUNCTION OF STORM WATER BMPs INTO CONSIDERATION.
- TEMPORARY SEED AND MULCH DISTURBED AREAS ON SITE AS APPROPRIATE.
- INSTALL UNDERGROUND UTILITIES (WATER, SANITARY SEWER, ELECTRIC AND PHONE) TAKING THE LOCATIONS AND FUNCTION OF STORM WATER BMPs INTO CONSIDERATION.
- FINAL GRADE THE SITE AND FINE GRADE INFILTRATION BASIN. AFTER INFILTRATION BASIN FINAL GRADING AND PRIOR TO PLACEMENT OF AMMENDED SOIL MEDIA, THE BASIN FLOOR MUST BE TILLED TO A DEPTH OF AT LEAST TWELVE (12) INCHES TO PROVIDE A WELL-AERATED, POROUS SURFACE TEXTURE.
- INSTALL AMMENDED SOIL MEDIA IN INFILTRATION BASIN AND INSTALL PERMANENT SOIL STABILIZATION.
- STABILIZE THE SITE BY INSTALLATION OF SOD, NATIVE SEEDING, AND PLANTINGS OF THE INFILTRATION BASIN AND LANDSCAPING PLAN AND INSTALL EROSION CONTROL BLANKET.
- REMOVE THE SILT FENCE AFTER THE SITE IS STABILIZED PER PROJECT ENGINEER APPROVAL.



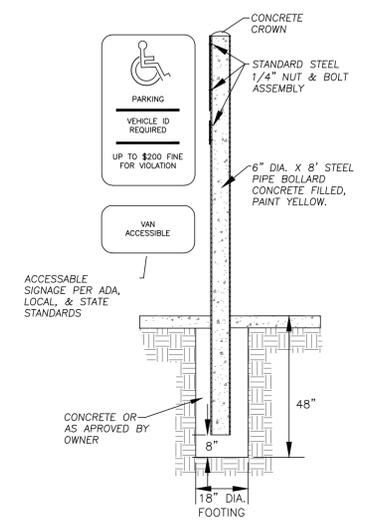
CURB AND GUTTER CONSTRUCTION AT CATCH BASIN



SERVICE LINE CLEANOUTS



CONCRETE CURB AND GUTTER DETAILS



BOLLARD SIGN POST DETAIL

CONTRACTOR:
Kinghorn COMPANY
 GENERAL CONTRACTORS
 14198 Northdale Blvd
 Rogers, MN 55374
 John Studer
 (763) 428-8088
 johns@kinghornco.com

CITY OF HANOVER
 PUBLIC WORKS FACILITY
 xxxxx 5th Street
 Hanover, MN 55341
DETAILS PLAN

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
 Date: 05/10/17 Reg. No. 24348
 PREPARED BY: CIVIL ENGINEERING SITE DESIGN
 118 Ego Boulevard St.
 Monticello, MN 55362
 Phone: 763-314-0929
 www.civilrad.com

REVISIONS	DATE	DRAWN BY	DESIGNED BY	CHECKED BY
10/11/16 storm water modifications	09/08/16	SD	SD	SD
05/10/17 modify storm sewer				

FILE NO.	00562
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INDEX OF CIVIL SITE DRAWINGS:

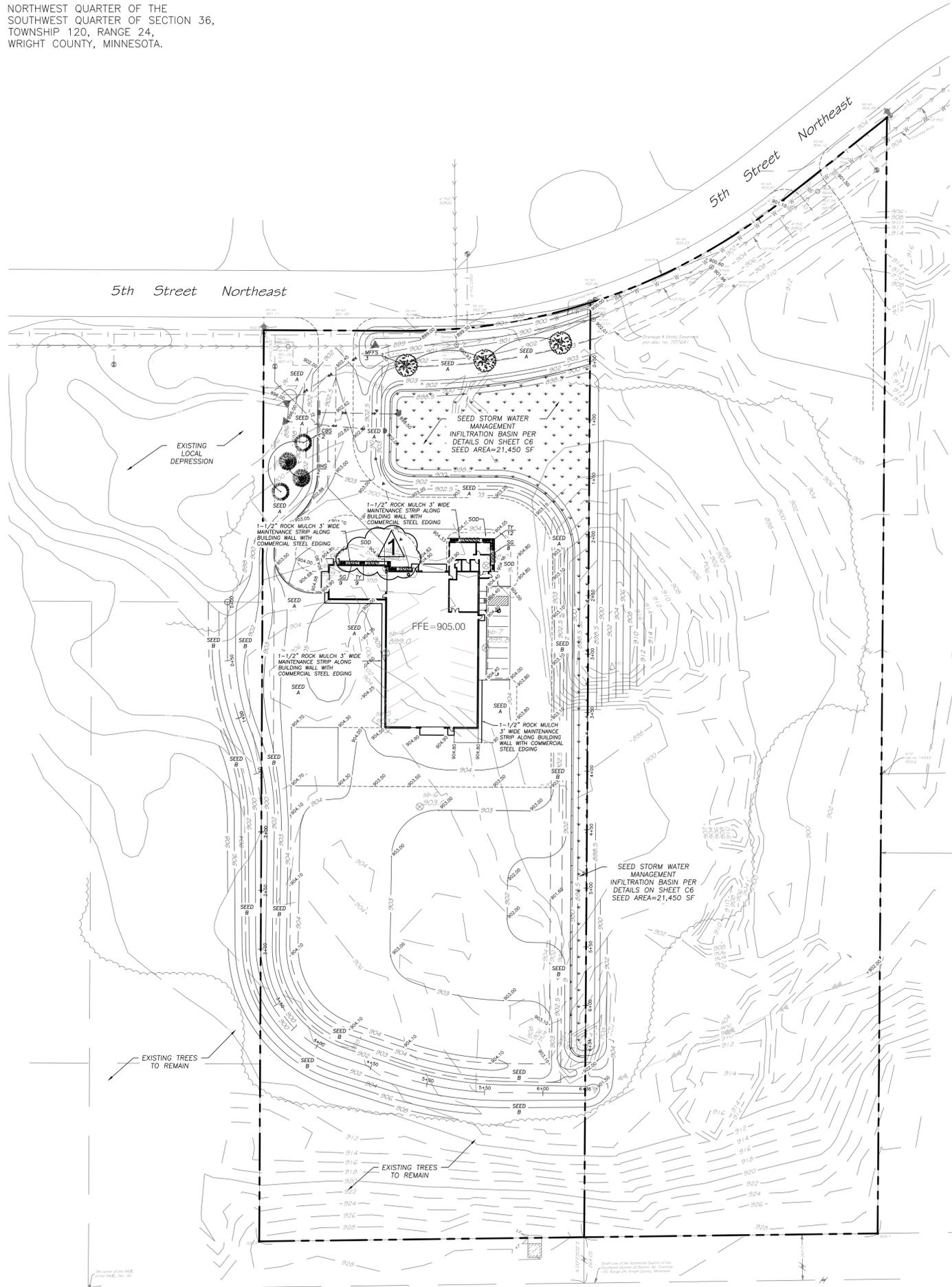
- C0 PROJECT LOCATION PLAN
- C1 SITE PLAN
- C2 GRADING AND DRAINAGE PLAN
- C3 DIVERSION DITCH PROFILE PLAN
- C4 UTILITY PLAN
- C5 STORM WATER POLLUTION PREVENTION PLAN
- C6 DETAILS
- C7 LANDSCAPE PLAN

C6

Details Plan

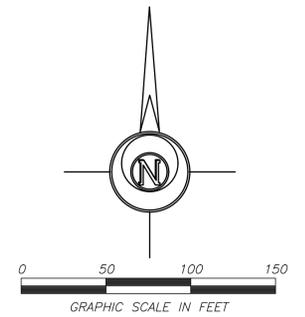
PROJECT LOCATION

NORTHWEST QUARTER OF THE
SOUTHWEST QUARTER OF SECTION 36,
TOWNSHIP 120, RANGE 24,
WRIGHT COUNTY, MINNESOTA.



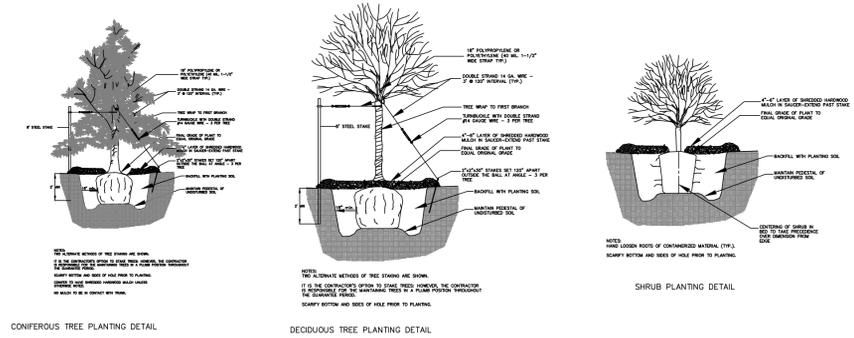
PLANT LIST:

QTY	KEY	COMMON NAME	SIZE/ROOT
TREES OVERSTORY DECIDUOUS			
3	MFFS	Maple, Fall Fiesta Sugar	2 Inch
3	Total		
TREES OVERSTORY CONIFEROUS			
2	CBS	Colorado Blue Spruce	3 Feet
2	BHS	Black Hills Spruce	3 Feet
4	Total		
SHRUBS			
21	TY	Taunton Yew	5 Gallon
17	SG	Spirea, Goldflame	5 Gallon
38	Total		



Topography Survey By: Lot Surveys Company
7601 73rd Avenue North
Minneapolis, MN 55428
763-560-3093

Benchmark: Top nut of hydrant at
Northeast corner of 5th
Street & Hwy 19.
Elevation = 914.31 feet



GENERAL NOTES:

- Contractor shall provide one year guarantee of all plant materials. The guarantee begins on the date of the General Contractor written acceptance of the date determined as substantially complete. Replacement materials shall also have a one year guarantee upon planting.
- Landscape contractor shall inspect the site and become familiar with existing conditions relating to the nature and scope of work. If any discrepancies are found, the General Contractor shall be notified prior to construction. The base information including contours, trails, utilities, curbs, and building locations were provided by others. All discrepancies must be resolved prior to construction.
- Landscape contractor shall verify plant layout and bring to the attention of the General Contractor discrepancies which may compromise the design or intent of the layout.
- Landscape contractor shall assure compliance with codes and regulations governing the work and materials supplied.
- Landscape contractor shall protect all existing roads, curbs/gutters, trails, trees, lawns, and site elements during construction. Damage to the same shall be repaired at no cost to the Owner.
- Landscape contractor shall verify the location of all utilities above and below grade prior to any soil disruption or installation. Provide necessary protection for same before construction begins.
- Landscape contractor shall coordinate each phase of installation with General Contractor.
- Landscape contractor shall be responsible for ongoing maintenance of all installed materials until time of substantial completion. Repair and/or replace all damaged materials due to construction or acts of vandalism at no cost to the Owner.
- Landscape contractor shall verify that all plant placement will not negatively affect the plant's survival or warranty. Undesirable site conditions shall be brought to the attention of the General Contractor prior to construction.
- Landscape irrigation to be provided for all mowed turf areas. Design/build irrigation plan to be approved by owner. Record plan to be provided to owner at completion.
- Landscape contractor shall submit a written request for the substantial completion of all landscape and site improvements prior to submitting for final payment. The submittal shall include an as-built drawing of all landscape and irrigation installations and improvements.

TURF NOTES:

- Sod turf areas unless noted as seed. Landscape contractor to obtain approval of sod type from General Contractor or owner prior to installation.
- Sod shall be TPI certified turf grass sod, highland sod only. Sod shall be free from weeds, stones, and have a strong fibrous root structure and be free from burned or bare spots.
- Sod shall be uniform in depth and cut into even rolls. All sod delivered to the site shall be installed that day. All seams shall be laid tight in staggered rows not less than 18 inches apart. Sod that abuts curbs or concrete areas shall have a finish grade 1 inch below the hard surface elevation. Once sod is installed the elevations shall be level. Sod areas shall be fertilized with a 22-05-10, 80% WLN, 0% CI, at 350 lbs/ac and applied as per distributor's requirements.
- Landscape contractor to confirm approval of seed mix from General Contractor or owner prior to installation.
- Seed shall be installed as per the distributor's requirements for proper coverage and germination.
- Seed A: MnDOT seed mix 25-131 shall be applied at 220.0 lbs/ac in moderate maintenance turf areas.
- Seed B: MnDOT seed mix 35-221 shall be applied at 36.5 lbs/ac in low maintenance turf areas.
- MnDOT Type 1 mulch shall be applied at 2 tons/ac and disc anchored in areas not covered by sod or erosion blanket.
- Fertilizer shall be 22-05-10, 80% WLN, 0% CI, at 350 lbs/ac. Disc fertilizer into top 3" of soil.
- Dormant seed mix shall be used after November 1 or when temperatures do not exceed 40° F, using some rates specified above. No seed shall be placed on snow or ice greater than 2" in depth.
- Any seeded areas that do not become established with vegetation shall be re-seeded at Contractor's expense.

PLANTING NOTES:

- All plants to be Minnesota grown and hardy. Plants to be installed as per standard ANN planting practices. Nursery stock shall comply with the current edition of the American Standard for Nursery Stock, ANSI Z60.1.
- No planting will occur until final grading has been completed.
- All tree and shrub beds shall be staked and approved prior to installation.
- No substitutions will be accepted unless approval is granted by the General Contractor prior to submission of the bid.
- Location adjustments may be needed in the field. Landscape Architect must be notified.
- Plants to be installed as per planting details.
- Plants shall be fertilized upon installation with dried bone meal. Other approved fertilizers mixed in with the planting soil as per the manufacturer's instructions may be applied. Summer and fall installations shall have an application of granular 10-0-5, 12oz. per 2.5' cal. tree and 6oz. per shrub. An additional application of 10-10-10 the following spring in the tree saucer.
- Areas receiving ground covers, perennials, or garden space shall receive a minimum of 18 inches of planting soil consisting of 4 parts topsoil, 4 parts screened compost, and 1 part sand.
- All deciduous trees shall be wrapped in the fall prior to Dec. 1 and removed after April 15. Tree wrap shall be asphalt impregnated crepe, wrapped from base of trunk flare to first branches. An additional application of 10-10-10 the following spring in the tree saucer.
- Edging shall be professional grade poly material. Edging horizontal layout to be uniform with smooth transitions. Edging vertical placement to be below typical mower deck cutting height.
- A 24" wide rock mulch maintenance strip shall be installed along the wall of the building. Maintenance strip shall have weed barrier fabric under rock mulch and edged with poly edging.
- Weed barrier shall be 4oz. woven needle punch, black. Overlapping seams.
- Rock mulch, (River Rock, 1-1/2 inch or 2-1/2 inch) shall be placed a minimum of 4 inches deep. Rock mulch shall have weed barrier fabric or 6 mil poly under rock.
- Mulch tree rings shall be 6 feet in diameter and be a minimum of 4 inch deep double shredded dark brown hardwood. Mulch shall not come in contact with tree trunks.
- All deciduous plantings shall occur between spring thaw and June 15, or between fall's first frost and the first snow or Nov. 15, which ever comes first. Coniferous plantings must be prior to Oct. 1.
- Landscape contractor shall be responsible for determining appropriate planting conditions. Warranties shall be enforced regardless of weather and planting conditions.
- No excess materials or debris will be on site. All hard surfaces will be swept and washed clean.

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CONTRACTOR:
Kinghorn
COMPANY
GENERAL CONTRACTORS

14198 Northdale Blvd
Rogers, MN 55374

John Studer
(763) 428-8088
johns@kinghornco.com

CITY OF HANOVER
PUBLIC WORKS FACILITY

xxxx 5th Street
Hanover, MN 55341

LANDSCAPE PLAN

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

DATE: 10/11/16 Reg. No. 24348
PREPARED BY: CIVIL ENGINEERING SITE DESIGN
118 East Broadway St.
Monticello, Mn 55362
Phone: 763-314-0929
www.civillead.com

REVISIONS

DATE	BY	DESCRIPTION
10/11/16	SD	storm water modifications
10/05/17	SD	storm water elevations; modify storm sewer

VERTICAL SCALE
1 inch = 5 feet

HORIZONTAL SCALE
1 inch = 50 feet
(FULL SIZE SHEET 34 X 40)

DATE	DRAWN BY	DESIGNED BY	CHECKED BY
09/08/16	SD	SD	SD

FILE NO. 00562

C7

Landscape Plan