November 2007

Updated with Submittals
through May1, 2008

DRESEL CONTRACTING, INC.

CONDITIONAL USE PERMIT APPLICATION
FOR MINING AND PROCESSING
CITY OF SCANDIA

Consulting Civil Engineers

Sunde Engineering, PLLC
10830 Nesbitt Avenue South • Bloomington, Minnesota 55437-3100
Phone: (952) 881-3344 • Fax: (952) 881-1913 • E-Mail: info@sundecivil.com

APPLICATION FOR CONDITIONAL USE PERMIT
DRESEL CONTRACTING, INC.
SAND AND GRAVEL MINING OPERATION
CITY OF SCANDIA
WASHINGTON COUNTY, MINNESOTA

I. INTRODUCTION

The following permit application is submitted on behalf of Dresel Contracting, Inc. (Dresel) in compliance with the City of Scandia's Ordinance No. 103 and Chapter 4 of the Development Code: Mining and Related Activities Regulations adopted by the City of Scandia on August 28, 2007.

Dresel operates a gravel mining and processing operation within the City of Scandia. The site has been actively mined since the late 1960's. Prior to the incorporation of Scandia in 2006, New Scandia Township and Washington County were the permitting authorities. Permitted activities include the removal and processing of aggregate and the recycling of concrete and asphalt.

The operation is located on two parcels of property. The western parcel encompasses 40 acres, of which approximately 31 acres will be mined, and is owned by Dresel. The eastern parcel encompasses 17 acres, of which approximately 5 acres will be mined. The eastern parcel is owned by Roth and leased by Dresel. The entire operation therefore is situated on 57 acres, of which 36 acres is included within the active mining limits.

II. SITE INFORMATION

1. Name and address of operator:

   Dresel Contracting, Inc.
   24044 July Avenue
   Chisago City, MN 55013

   Name and address of land owner:

   PID # 17.032.20.22.0002

   Bruce A. Dresel
   c/o Dresel Contracting, Inc.
   24044 July Avenue
   Chisago City, MN 55013

   PID # 17.032.20.21.0003

   Franklin and Marcella M. Roth
   21820 Lofton Ave.
   Scandia, MN 55073

2. An accurate legal description of where the mining shall occur:

   The legal description of the site is included as Attachment 1.

3. Names and addresses of adjacent property owners within ½ mile of the perimeter of the area being or to be mined:

   A list of all property owners within a ½ mile of the perimeter will be provided by the City of Scandia

4. A narrative outlining the type of material to be excavated, mode of operation, estimate of amount of material to be removed, plans for blasting, estimated time to complete the removal, and other pertinent information to explain the request in detail:

   The mining operation includes removal of overburden, excavation of sand and gravel, crushing, washing, screening, stockpiling, recycling of concrete and asphalt products, and reclamation activities. The site usually operates on a seasonal basis from approximately mid April to mid November depending upon weather conditions. Plans included in this submittal illustrate the current status of mining activity, the locations of operations, phasing, proposed reclamation grades and potential restoration.

   Overburden is removed from areas to be mined and is stockpiled on site and later used for reclamation of completed phases. Aggregate is excavated using front end loaders. Processing consists of crushing, screening, and stockpiling. Recycling of concrete and asphalt occurs at the site and also consists of crushing, screening and stockpiling.

   The final product is loaded on trucks using front end loaders and the product is delivered to projects throughout the area

   An estimated 750,000 - 1,000,000 cubic yards (cy) of aggregate reserves remain at the site. Annual production is quite variable. The material is used to supply local projects. Based on previous site activity, annual production at the site varies from 0-100,000 cy. The life of the facility is completely dependent upon future market demand.

   Blasting does not occur at this site.

5. Fee:

   The required application fee has been submitted to the City under separate cover.

6. Survey indicating property boundaries:

   A survey of the site including property boundaries is included as Sheet C1, Existing Conditions Plan.

7. Map of property indicating where mining is to occur and other significant features as required in Ordnance 103:

The Site Plan, C2, illustrates the site property lines, limits of proposed excavation, setbacks, and topographic data at two foot vertical intervals. Water courses, wetlands, wooded areas, rock outcrops, power transmission poles and lines, and other significant features are also shown.

8. General Location Map and aerial photo:

   A General Location Map, a 2005 Aerial Photo and a USGS Quad Map Excerpt, are included as Figures 1-3 respectively. These figures show the existing mining site in relation to the community.

9. Maps and Plans showing the following for the site and within 300 feet of the perimeter of the mine:

   A. Roads or streets showing all access routes between the property and the nearest arterial road, identifying name, right-of-way width and traveled portion width.

   The main access route to and from the site is Lofton Avenue, (County Road 1) to 218th Street North. The site entrance is located about 800 feet west of Lofton. Lofton and 218th are paved. The names, right-of-way widths, and traveled portion width of all adjacent roads are illustrated on the Existing Conditions Plan, C1.

   B. Easements Plan with widths and purpose.

   Easements, with widths and purpose are illustrated on the Existing Conditions Plan, C1.

   C. Natural land features showing locations of watercourses and drainageways, flood elevations, wetlands, sinks, basins and wooded areas.

   The locations of natural land features are illustrated on C2, Site Plan.

   D. Natural resources including other surface water, groundwater depth, flora, fauna, and any other natural features in the rural environment.

   The locations of natural land features are illustrated on Sheet C1, Existing Conditions Plan.

   E. Manmade features such as buildings and other structures, dams, dikes, and impoundments of water.

   There are no manmade structures or water impoundments on the site.

   F. F. Adjacent land features with all of the requirements included above within 300 feet of the perimeter of the mine, and all platted subdivision lots, metes and bounds parcels, and homes within ¼ mile of the property boundaries. Wells should include private/agriculture, industrial, municipal wells within ½ mile radius of the mine.

Adjacent land features, platted subdivision lots, metes and bounds parcels, and homes within ¼ mile of the property are indicated on the Existing Conditions Plan, C1. All wells within ½ mile radius of the facility, which are on file at the Minnesota Department of Health's County Well Index, are indicated on Figure 2.

G. A minimum of 1 cross section for every 1000 feet running north/south and east/west, showing the extent of overburden, extent of sand and gravel deposits, the groundwater level, and any evidence of the groundwater level in the past.

A series of two north-south and two east-west cross sections are included as Sheets C5-C6. These cross sections depict the existing elevation, overburden, final elevations, extent of deposit, and the elevation of the groundwater. Soil borings were completed as part of the original permitting process. Soil boring data was used to develop the site cross-sections.

H. All processing areas and boundaries shown to scale.

Processing areas are identified on the Site Plan, C2

I. All access roads within the site to processing and mining areas shown to scale:

Access Roads to the processing and mining areas are indicated on the Site Plan, C2.

J. Sequences or phases of operation showing approximate areas involved shown to scale and serially numbered with a description of each.

There are essentially four main phases of mining remaining at the site. Two of the remaining phases may be mined concurrently. The sequence of operations showing the approximate areas involved and the various phases of the operation are indicated on the Phasing Plan, C4.

K. Location of screening berms shown to scale, and notes provided indicating when they will be used as reclamation material. In the same manner overburden storage areas must be identified and noted.

The location of screening berms and overburden stockpile areas are indicated on the Site Plan, C2.

L. Fences and gates and their type or construction described and illustrated:

Fences and gates are indicated on the Site Plan, C2. Three strand wire fence surrounds the site. Locking metal gates are located at the site entrance.

M. Proposed location of principal service or processing buildings or enclosures as well as locations of settling basins and process water ponds:

There are no buildings or structures on the site. Stormwater collects at low areas within the pit floor and infiltrates.

N. Existing site drainage features and flow directions indicated. A plan for handling surface drainage during operation and after final reclamation, consistent with local surface water management plans.

Surface water will be managed during active mining in accordance with the site's NPDES Stormwater Pollution Prevention Plan (SWPPP) and consistent with local surface water management plans. The SWPPP includes a number of best management practices (BMPs) which are incorporated into daily site operations. The BMPs have been designed and implemented to avoid untreated stormwater discharge from the site, minimize potential for erosion and sedimentation throughout the operation of the site and provide for site stabilization at the conclusion of mining activity.

Erosion and sedimentation control practices used on site during active mining include silt fence, vegetated screening berms, wetland buffers and dust control. Screening berms around the perimeter of mining area are vegetated to reduce erosion and to help contain fugitive dust. Stormwater contacting exposed areas drains internally. A vegetative buffer strip is preserved around the wetland basin located west of the active mining area. The buffer strip filters runoff and reduces the potential for sedimentation to occur within the wetland basin.

Erosion and sedimentation control practices after final reclamation include achieving permanent stabilization of the site through proper reclamation design standards. After mining is completed, reclamation will be performed to restore the site to a stable condition, minimize the potential for erosion and allow for future development of the land.

Reclamation will involve slope stabilization, seeding and mulching. The Reclamation Plan, C4, indicates proposed site elevations upon completion of restoration. Slope stabilization will be accomplished by backfilling and grading the side slopes to a maximum of 4:1. A minimum of four inches of loamy soils, suitable as topsoil, will be placed on the graded slopes. After topsoil has been placed, the slopes will be seeded and mulched to establish vegetation. Reclaimed areas will be planted with a mix of native trees, shrubs, grasses, flowers and groundcover.

O. A plan for groundwater quality protection to include a minimum of three soil borings showing depth to groundwater.

Three soil borings were drilled in conjunction with past permitting work. The locations of the soil borings are indicated on the site plan, C2. The soil borings identified the water table at an average elevation of 919 feet above mean sea level beneath the site. The mining operation is located in an area characterized by the prevalence of very granular, permeable and non-reactive soils with very low filtering capacity typical of sand and gravel deposits. If contaminants are introduced into the soil column, groundwater may be impacted within a very short time frame. There

are a number of site BMPs and technologies available that are discussed below which eliminate or reduce the potential of introduction of contaminant sources into the soils.

Groundwater Protection Plan

- Limited equipment maintenance is performed on-site and follows company spill prevention policies.

- A service truck comes to the site to perform routine maintenance. All used lubricating oil is collected by facility personnel and hauled off-site to a central collection point (waste oil is not classified as hazardous waste). The service truck carries a spill containment kit.

- All storage tanks are above ground and have secondary containment.

- Topping off of tanks during refueling of any kind is not allowed.

- Availability of spill cleanup equipment on-site including equipment to excavate and remove impacted soils in an expedited fashion.

Measures to protect groundwater quality will be incorporated into final site design once final development has been determined. These will involve a variety of best management practices, including stormwater treatment, erosion control and vegetative filter strips.

P. All mining operations must install one monitoring well. If the proposed mining operation will appropriate groundwater for use in mining operations, the operator shall install not less than one monitoring well down gradient of the mining operation. If the proposed mining operation will include mining into the groundwater table, not less than two monitoring wells shall be installed one up-gradient and one down-gradient of the mine.

Groundwater Monitoring Plan

Groundwater monitoring will be conducted on an annual basis at the site. Currently there are no monitoring wells on the site. One monitoring well will be drilled on the north end of the property and will function as a down gradient well. This well may also serve as Tiller Corporation's upgradient well. The well will be monitored for Diesel Range Organics (DRO) on an annual basis. Monitoring results will be submitted to the City of Scandia.

Q. If lighting is proposed, a plan for lighting the area must be provided. The plan must comply with all City ordinances pertaining to lighting.

There is no lighting proposed at the site.

R. Reclamation Plan in conformance with Section 8.

The Mining and Reclamation Plan, Sheet C3 is a graphic representation of reclamation activities.

- Intent: The intent of reclamation activities covered in this section is to restore the site to a stable condition, minimize the potential for erosion and allow for future development of the land.

- Methods and processes of reclamation: Reclamation will involve slope stabilization, seeding and mulching. Slope stabilization will be accomplished by backfilling and grading the side slopes to a maximum of 4:1. A minimum of four inches of loamy soils, suitable as topsoil, will be placed on the graded slopes. After topsoil has been placed, the slopes will be seeded and mulched to establish vegetation.

- Initial condition of mining site: The site has been a mining operation for many years.

- Limits of various operational areas: The operational areas are indicated on the Site Plan, Sheet C2.

- Phasing and timing of operations and reclamation including areas to be stripped of overburden. Phasing of mining operations is included on the Phasing Plan, Sheet C4. Phase 1-A will be mined in conjunction with Tiller Corporation to accommodate the removal of the common mining border. Phase 1-B may be mined concurrently with 1-A Some reclamation activity has been completed. These areas are illustrated on the Site Plan, Sheet 2. Reclamation of sideslopes will continue as mining progresses around the perimeter of the excavation limits.

- Final condition of the site, including proposed contours and landscaping: The Mining and Reclamation Plan, Sheet C3, indicates proposed site elevations upon completion of restoration.

- Relation of final site condition to adjoining land forms and drainage features within ¼ mile. Reclamation of the site will result in open space with wooded areas and an isolated wetland basin in the western portion of the site.

- Relation of reclaimed site to planned or established uses of surrounding land: The land is designated general rural/agriculture with 4/40 densities. Surrounding land use is similarly guided. Established land uses are agricultural and rural residential in nature.

- A plan for maintenance of reclaimed area: See Mining and Reclamation Plan, Sheet C4.

- A detailed cost estimate of reclamation and maintenance: Reclamation costs for the area currently opened to mining (essentially entire site) are outlined below:

  Finish grading of disturbed area; 36 acres:

  36 acres at $1,000/acre $36,000

Placement of 4" topsoil from on-site stockpiles; 36 acres:

19,360 cy at $ 1.00/cy $19,360

Seeding and Mulching

36 acres at $600/acre $21,600

Total reclamation costs;…….....$76,960

Reclamation will proceed concurrently with mining operations. Reclamation activities which take place during the past mining season as well as reclamation activities planned for the subsequent mining season will be discussed in each annual report. Reclamation standards as included in Ordinance No. 103 Section 8.3-8.8 will be followed.

S. If blasting is proposed as part of the mining operations, the operator must indicate frequency, timing, size, duration and develop a blasting plan:

Blasting is not performed at this site.

T. A description of any processing operations including washing crushing, recycling and bituminous plants and concrete ready-mix plants.

Aggregate is excavated using front end loaders. Processing at the site generally includes crushing, screening, and stockpiling of aggregate, and the recycling of concrete and asphalt by crushing, screening and stockpiling.

III. OPERATING CONDITIONS

1. Setbacks:

Mining, stockpiling or land disturbance activities, with the exception of berming and visual screening, will be setback 50 feet from an adjoining property line, 200 feet from an occupied structure, 100 feet from any contiguous property subdivided into residential lots of 5 acres or less, and 100 feet from any road right-of-way. Reclamation activity may occur within 50’ of the road right-of-way. As indicated in the plan set, the setback along the common mining boundary to the north is 0’.

2. Fencing:

The entire site is fenced with 3 strand wire fencing except where prohibited due to topography, woods and wetlands. There is a locking metal gate at the entrances to the site.

3. Hours of operation:

The site is operated from 7:00 a.m. to 7:00 p.m. Monday through Friday except holidays. Extended hours may be required periodically for situations such as emergencies, accelerated work schedules or weather delays. If operations are required beyond the 7:00 a.m. to 7:00 p.m. hours, or on Saturdays, Sundays or holidays, prior permission will be obtained from the City of Scandia in accordance with procedures set forth in Ordinance No. 103.

4. Screening:

The site is operated in a manner to minimize the visual impact of the extraction and processing area on surrounding properties. There is buffer area to the west and a screening berm along 218th Street N. Processing and stockpiling operations are conducted in recessed portions of the site to minimize visibility. The location of the screening berm is indicated on the Site Plan, Sheet C2.

5. Dust control:

Dust is generated by crushing and screening equipment, excavation and loading equipment, and vehicular movement. Processing areas are located at elevations lower than the surrounding terrain in order to minimize windborne dust leaving the site. Screening berms and perimeter vegetation also minimize dust from leaving the site.

6. Noise:

Noise is generated from processing activities, loading processes, and vehicular movement. Noise is minimized by conducting processing activities within the interior of the site at elevations lower than the surrounding lands. All activities are conducted so as to be in accordance with all Federal, State and County noise standards.

7. Depth of excavation:

Excavation is conducted to a maximum depth of approximately 920 feet above mean sea level. Some backfilling may be required to obtain final restoration grades.

8. Site clearance:

Trees, stumps, roots and other vegetative material removed during site clearance or other activities will be disposed of by logging and/or chipping. Logged material will be used for lumber or firewood. Chipped material will be used as mulch, bio-fuel at approved facilities, erosion control devices or other approved utilizations.

9. Appearance/condition:

All buildings, plants and equipment at the site will be maintained in a neat condition. Weeds and other unsightly or noxious vegetation shall be controlled as necessary to preserve the appearance of the reclaimed areas.

10. Sanitary Facilities:

Portable sanitary facilities are provided in the operating area.

11. Waste Disposal:

Any waste generated from the operation shall be disposed of in accordance with Federal, State and County requirements.

12. Water Quality Monitoring:

See Sections II. O and II. P.

13. Fuel and Chemical Storage:

There is no permanent fuel storage on site. When portable processing equipment is brought to the site, a fuel truck is used to fuel the equipment as needed. There is no chemical storage on-site.

14. Contingency Response Plan:

In the event of a fuel leak or spill, immediate action will be taken. If the spill or leak is active, measures will be taken to control or stop the spill. Available on-site equipment (loaders, dozers) will be used to contain and recover the spill. Additional cleanup equipment and personnel will be called in for assistance as necessary.

A spill that consists of five gallons or more requires that the MPCA State Duty Officer be immediately notified at 651 649-5451. Cleanup will occur in cooperation with the Minnesota Pollution Control Agency.

15. Added Provisions:

The operator will comply with other such reasonable requirements that the City may find necessary to adopt for the protection of health, safety and welfare and/or prevention of nuisance.

16. Processing:

The site operates permanent processing equipment in accordance with all Federal State and City air and water quality and noise standards. Processing equipment is screened from view from other properties and adjacent roads. Crushing equipment is placed on the floor of the facility and setbacks per Ordinance No. 103 are maintained between the processing equipment and the property lines.

17. Recycling:

Recycling at the facility will meet all applicable standards contained in Section 7.1 (1) of Ordinance No, 103. The estimated volume of materials recycled on an annual basis varies from 0-50,000 cy of asphalt and concrete combined. The stockpile of material to

be recycled will not exceed the volume of material that can be processed in two consecutive mining seasons.

18. Trucking Operations: The site has access to 218th Street North about 800 feet west of County Road 1 (Lofton Avenue). Lofton and 218th are paved. Trucks are loaded so as to comply with state law. Loose material is cleaned from the trucks and tires before the leaving the facility.

19. Asphalt Plants and Ready-mix plants:

There are no hot-mix asphalt or ready-mix plants operated at this facility.

IV. CERTIFICATION

I certify that the plans, specifications or reports for the above described facility were prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Kirsten Pauly

Date: November 21, 2007 Reg. No. 21842

ATTACHMENT 1

LEGAL DESCRIPTION

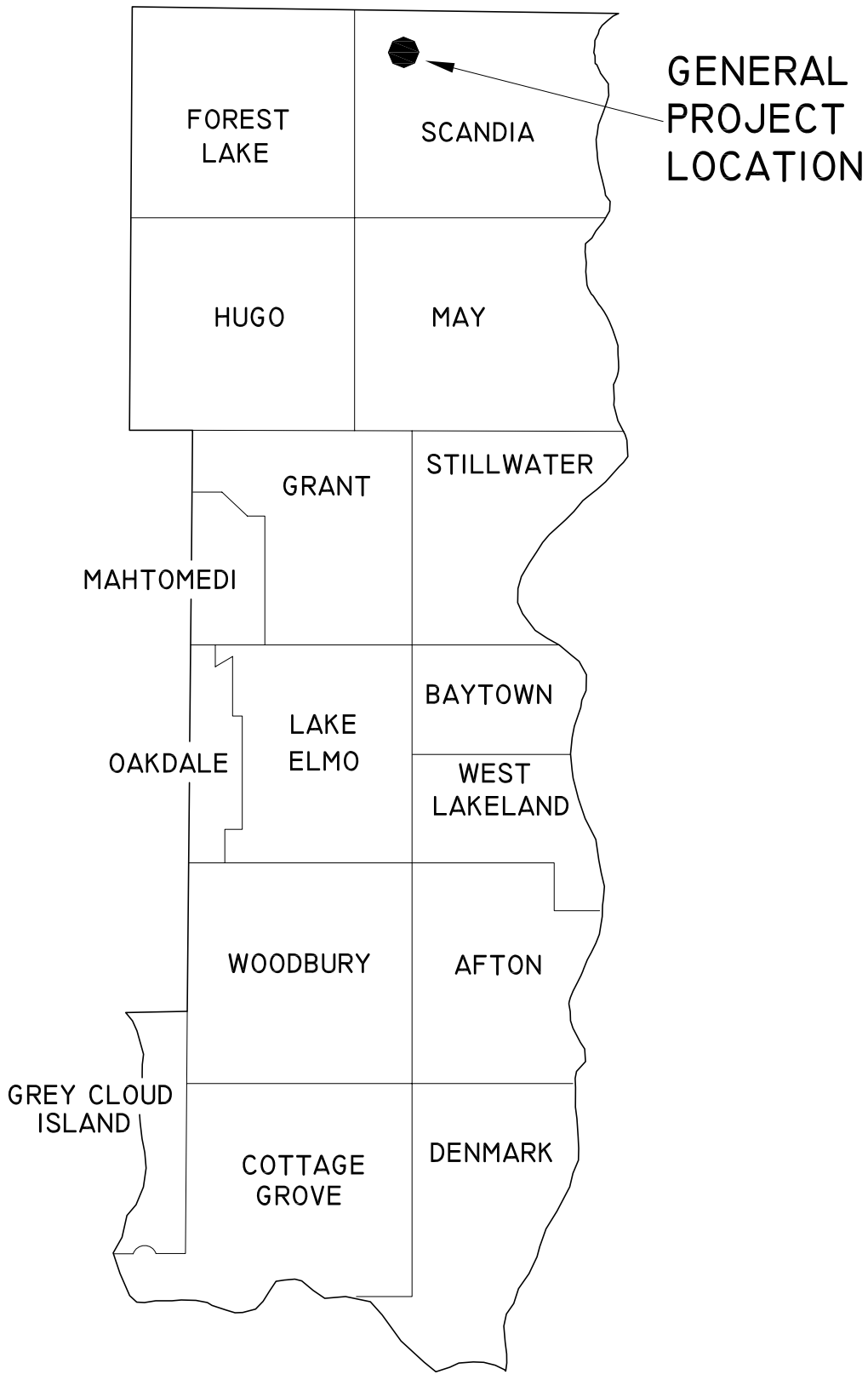
(From Tax Statements)

Dresel Property: PID 1703220220002

Sect-17 Twp-032 Range-020 PT N1/2-NW1/4 S17T32R20 BEING THE E 1396FT OF THE FOLL DESC PARCEL:THAT PT N1/2-NW1/4 OF S17T32R 20 LYING NLY OF THE S 66FT &LYING WLY OF THE E 768.7FT THEREOF NEW SCANDIA TWP

Roth Property: PID 1703220210003.

Sect-17 Twp-032 Range-020 PT NE1/4-NW1/4 173220 COM AT N1/4 COR OF SEC 17 THEN S ALONG N & S 1/4 LINE OF SD SEC A DIST OF 527.5 FT TO PT OF BEG THEN CONT ON SAME LINE A DIST OF 443.5 FT TO A PT THEN ON A DEFLECT ANG TO RT OF 90DEG. A DIST OF 491 FT TO A PT THEN ON A DEFLECT ANG TO RT OF 90DEG. A DIST OF 443.5 FT TO A PT THEN ON A DEFLECT ANG OF 90DEG. TO RT A DIST OF 491 FT TO PT OF BEG SUBJ TO EASEMENT AND THAT PT NE1/4 NW1/4 S17T32R20 DESC AS FOLL:COM AT THE N1/4 CORNER OF SEC17 THN SLY ALG THE N-S1/4 LINE OF SEC17 A DIST 971FT TO THE PT OF BEG THN WLY DEFLECT 90DEG TO THE RT A DIST OF 491FT THN NLY DEFLECT 90 DEG TO THE RT A DIST 443.5FT THN ELY DEFLECT 90DEG TO THE RT A DIST OF 76 FT THN NLY DEFLECT 90DEG TO THE LEFT A DIST 548FT M/L TO THE N LINE OF SEC17 THN WLY ALG THE N LINE OF SEC 17 A DIST 355FT M/L TO THE W LINE OF THE E 768.7FT OF SD NE1/4 NW1/4 THNC SLY ALG SD W LINE A DIST 1254FT M/L TO THE N LINE OF THE S 66FT OF SD1/4 -1/4 THN ELY ALG SD N LINE A DIST OF 770FT M/L TO THE N-S1/4 LINE OF SEC 17 THN NLY ALG SD N-S1/4 LINE A DIST OF 283FT M/L TO THE PT OF BEG -SUBJ TO CSAH#1 ALG THE MOST ELY LINE SUBJ TO & INCLUDING ANY VALID EASEMENTS RESTRICTIONS & RESERVATIONS NEW SCANDIA TWP (RESTRICTION:WRITTEN APPROVAL FROM NEW SCANDIA TWP IS REQUIRED BEFORE EITHER OF THE TWO(2)PARCELS OF LAND DESCRIBED HEREIN MAY BE CONVEYED SEPARATELY



WASHINGTON COUNTY
GENERAL LOCATION MAP

FIGURE 1

N

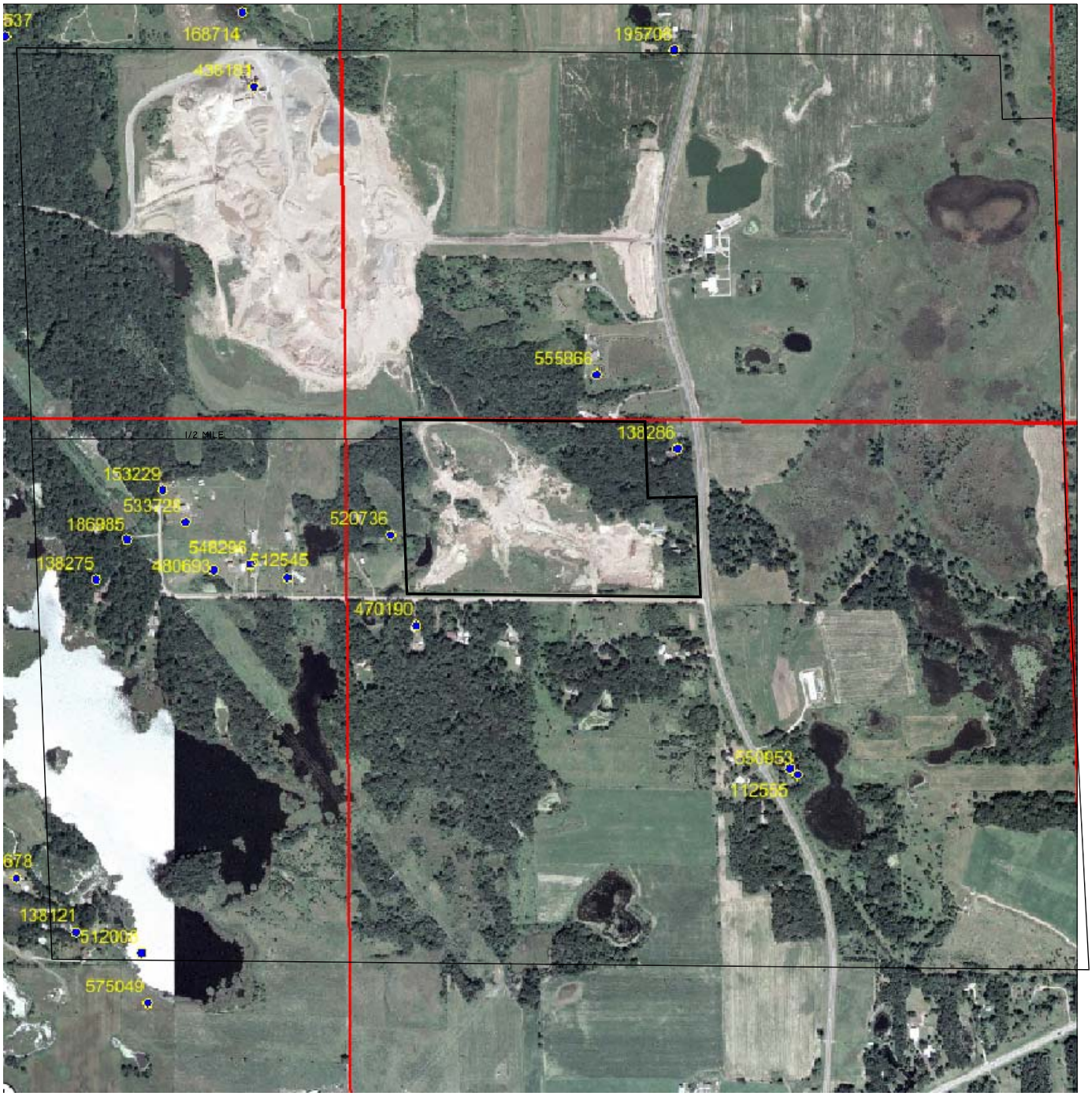
600 0 600 1200
SCALE IN FEET

2005 AERIAL PHOTOGRAPH
FIGURE 2

N

1000 0 1000 2000
SCALE IN FEET

USGS QUAD MAP EXCERPT
FIGURE 3



WELL LOCATIONS FROM COUNTY
WELL INDEX

FIGURE 4
WELLS WITHIN 1/2 MILE

CARNELLIAN–MARINE–ST. CROIX WD

FOREST LAKE–COMFORT LAKE WMO

A-2

37' TRAVELLED PORTION WIDTH

120' R-O-W

SITE

LOFTON AVE. N.

218TH ST. N.

66' R-O-W

26' TRAVELLED PORTION WIDTH

86 FOOT WIDE NSP EASEMENT DOC 3415446

CSAH 1

GERMAN LAKE

PONDING & DRAINAGE EASEMENT PER DOC 692787

PONDING & DRAINAGE EASEMENT PER DOC 692787

PONDING & DRAINAGE EASEMENT PER DOC 692787

PONDING & DRAINAGE EASEMENT DOC 692787

NORTHERN NATURAL GAS CO.

NORTHERN NATURAL GAS CO.

NSP CO ELECTRIC TRANS LINE EASEMENT PER BOOK 684,PAGE 320 PAGE 320

THE ENTIRE SITE AND SURROUNDING AREA IS ZONED A–2, AGRICULTURAL. LAND WITHIN 1000' GERMAN LAKE IS PART OF THE SHORELAND MANAGEMENT OVERLAY DISTRICT.

SHORELAND MANAGEMENT OVERLAY DISTRICT

HOUSES/OUTBUILDINGS

WATERSHED BOUNDARY

PARCELS, EASEMENTS, ROADWAYS, ETC. FROM GIS INFORMATION OBTAINED FROM WASHINGTON COUNTY DATED 1/31/05.

HOUSE LOCATIONS FROM SITE SURVEY AND A 2005 AERIAL PHOTOGRAPH.

BASED ON SOIL BORING INFORMATION THE WATER TABLE IS APPROXIMATELY 919.0 FEET ABOVE MEAN SEA LEVEL.

N

200 0 200 400

SCALE IN FEET

Sunde Engineering, PLLC.

CONSULTING CIVIL ENGINEERS
10830 NESBITT AVENUE SOUTH
BLOOMINGTON, MINNESOTA 55437
(952) 881-3344 TELEPHONE
(952) 881-1913 FAX
www.sundecivil.com

DRESEL CONTRACTING, INC.

SCANDIA MINING OPERATION

DATE	REVISION
04/23/08	City Comments

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.

KIRSTEN PAULY

DATE: 4/23/08 REG. NO.: 21842

INFORMATION:

PROJECT NO.: 93-253

DRAWN BY:

CHECKED BY:

APPROVED BY: KP

SCALE: Graphic

DATE: 11/20/07

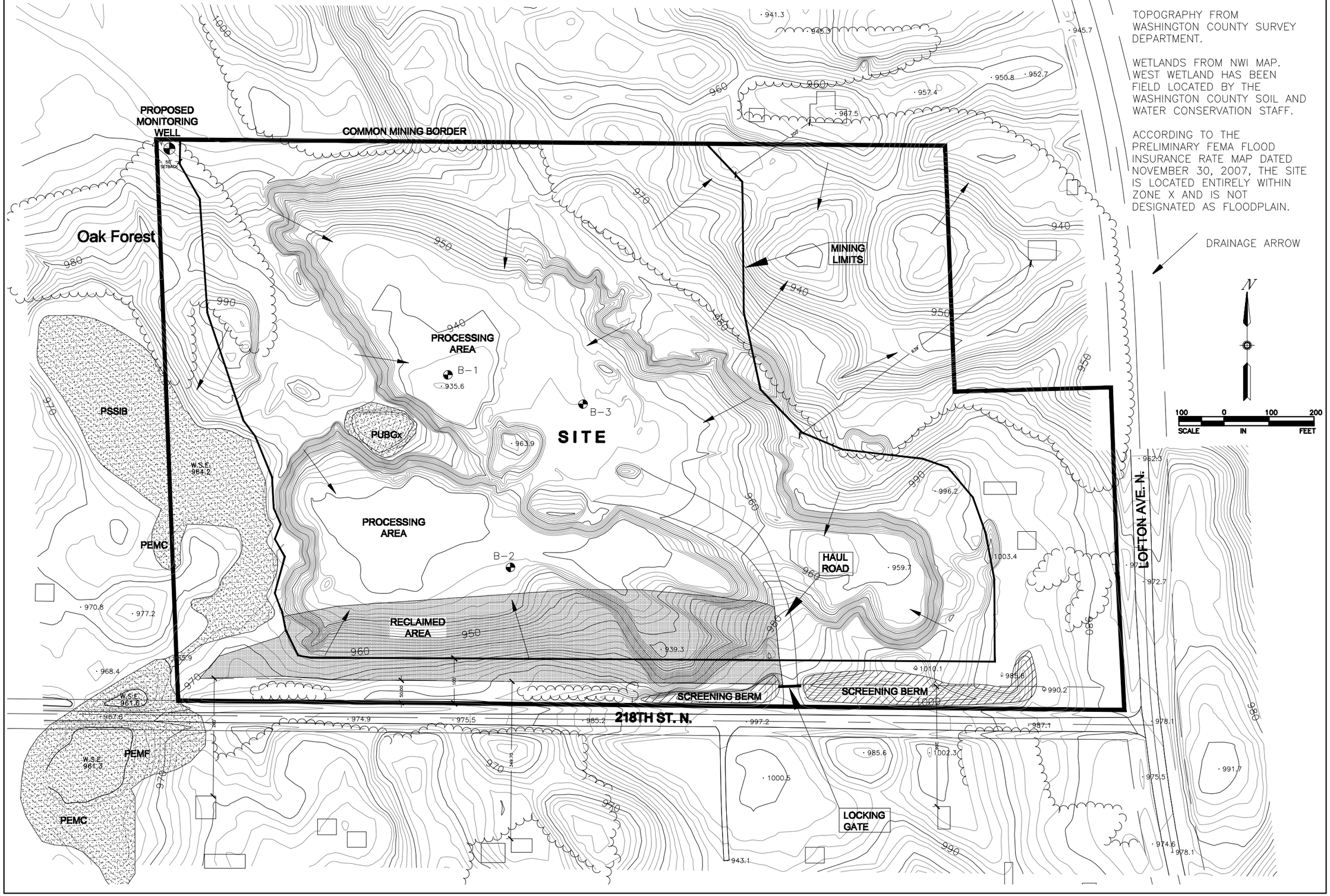
DESCRIPTION:

EXISTING CONDITIONS

SHEET NO:

C1

1 of 7



NOTES:

TOPOGRAPHY FROM WASHINGTON COUNTY SURVEY DEPARTMENT.

WETLANDS FROM NWI MAP. WEST WETLAND HAS BEEN FIELD LOCATED BY THE WASHINGTON COUNTY SOIL AND WATER CONSERVATION STAFF.

ACCORDING TO THE PRELIMINARY FEMA FLOOD INSURANCE RATE MAP DATED NOVEMBER 30, 2007, THE SITE IS LOCATED ENTIRELY WITHIN ZONE X AND IS NOT DESIGNATED AS FLOODPLAIN.

Sunde Engineering, PLLC.
CONSULTING CIVIL ENGINEERS
16930 NESBITT AVENUE SOUTH
BLOOMINGTON, MINNESOTA 55437
(952) 891-2944 TELEPHONE
(952) 891-1913 FAX
www.sundeeng.com

DRESEL CONTRACTING, INC.

SCANDIA MINING OPERATION

DATE	REVISION
1/8/09	City Comments
4/28/09	City Comments

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.

KIRSTEN PAULY
DATE: 4/28/09 REG. NO.: 21942

INFORMATION:

PROJECT NO.: 93-253
DRAWN BY:
CHECKED BY:
APPROVED BY: KP
SCALE: Graphic
DATE: 11/28/07

DESCRIPTION:

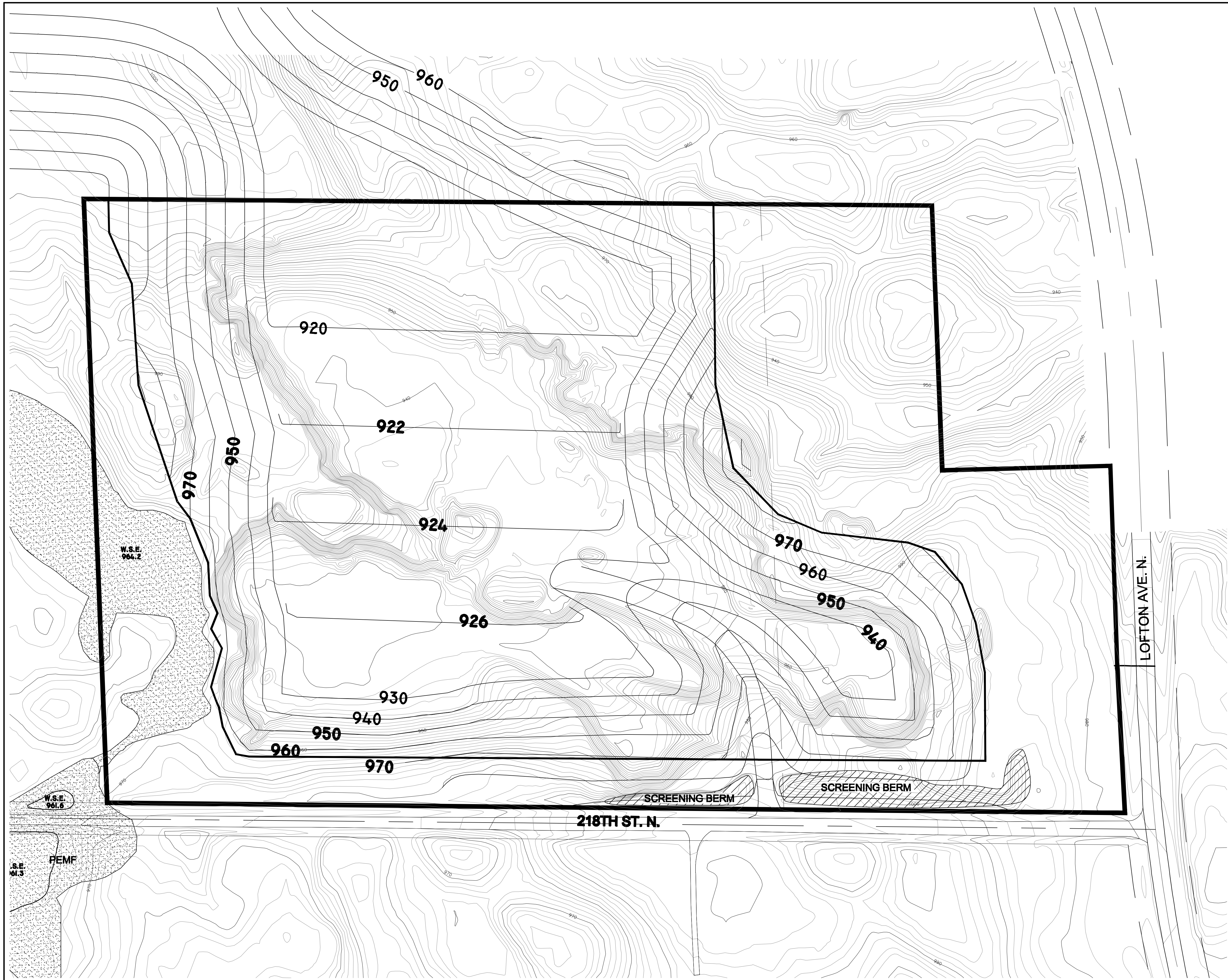
SITE PLAN

SHEET NO:

C2

1 of 7

93-253 T.32 , R0 Z,ES. GL DRAWING: \\Kirstenspc\dwgs\Tiller - All\Tiller New Scandia\DRESEL\2007 Permit\C2-SitePlan.dwg LAYOUT: Layout1 XREF: Kirstens Signature



NOTES:

EXISTING TOPOGRAPHY IS FROM THE WASHINGTON COUNTY SURVEYORS DEPARTMENT.

MINING WILL OCCUR TO A MAXIMUM DEPTH OF 918 FEET ABOVE MEAN SEA LEVEL, 1' ABOVE THE WATER TABLE. PERIMETER SLOPES WILL BE BACKFILLED TO A MAXIMUM SLOPE OF 4:1. 4" OF LOAMY ON SITE SOILS SUITABLE AS TOPSOIL WILL BE PLACED OVER THE RESTORED AREAS. THESE AREAS WILL THEN BE SEEDED AND MULCHED TO ESTABLISH VEGETATION.

IN AREAS TO BE SEEDED, USE NATIVE SEED MIXTURE EQUIVALENT TO MNDOT NO. 350. APPLY SEED MIXTURE AT A RATE OF 84.5 LBS PER ACRE IN ACCORDANCE WITH MNDOT STANDARD SPEC. 2575. INCORPORATE A FERTILIZER (SLOW RELEASE TYPE WITH 10 WEEK RESIDUAL) CONSISTING OF 23-0-30 (%N-P-K) INTO THE SOIL AT AN APPLICATION RATE OF 200 LBS PER ACRE BY DISKING PRIOR TO SEEDING. ESTABLISH NATIVE SEED MIX IN ACCORDANCE WITH MNDOT STANDARD SPEC. 2575.3. LIGHTLY HARROW OR RAKE THE SITE FOLLOWING THE SEEDING OPERATION. PACK THE SITE FOLLOWING HARROWING IN ORDER TO ENSURE A FIRM SEED-BED.

COMPLY WITH THE REQUIREMENTS OF MNDOT STANDARD SPEC. TABLE 2575-2 FOR SEASON OF PLANTING NATIVE SEED MIXTURES. THE APPROPRIATE DATES FOR SPRING SEEDING ARE FROM APRIL 15 THROUGH JULY 20. FALL SEEDING DATES ARE FROM SEPTEMBER 20 TO OCTOBER 20. DORMANT SEEDING DATES ARE FROM OCTOBER 20 TO NOVEMBER 15. DORMANT SEEDING WILL ONLY BE ALLOWED IF THE MAXIMUM SOIL TEMPERATURE AT A DEPTH OF 1 INCH DOES NOT EXCEED 50 DEGREES F IN ORDER TO PREVENT GERMINATION.

MAINTAIN AREAS PLANTED WITH NATIVE SEEDS: PREVENT OR CONTROL WEED ESTABLISHMENT, MOW ONCE EVERY THREE TO FIVE YEARS IN ORDER TO REMOVE DEAD PLANT MATERIAL AND STIMULATE NEW SEED.

Sunde Engineering, PLLC.
CONSULTING CIVIL ENGINEERS
10830 NESBITT AVENUE SOUTH
BLOOMINGTON, MINNESOTA 55437
(952) 881-3344 TELEPHONE
(952) 881-1913 FAX
www.sundecivil.com

DRESEL CONTRACTING, INC.

SCANDIA MINING OPERATION

DATE	REVISION
4-22-08	CITY COMMENTS

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.

KIRSTEN PAULY
DATE: 11/20/07 REG. NO.: 21942

INFORMATION:

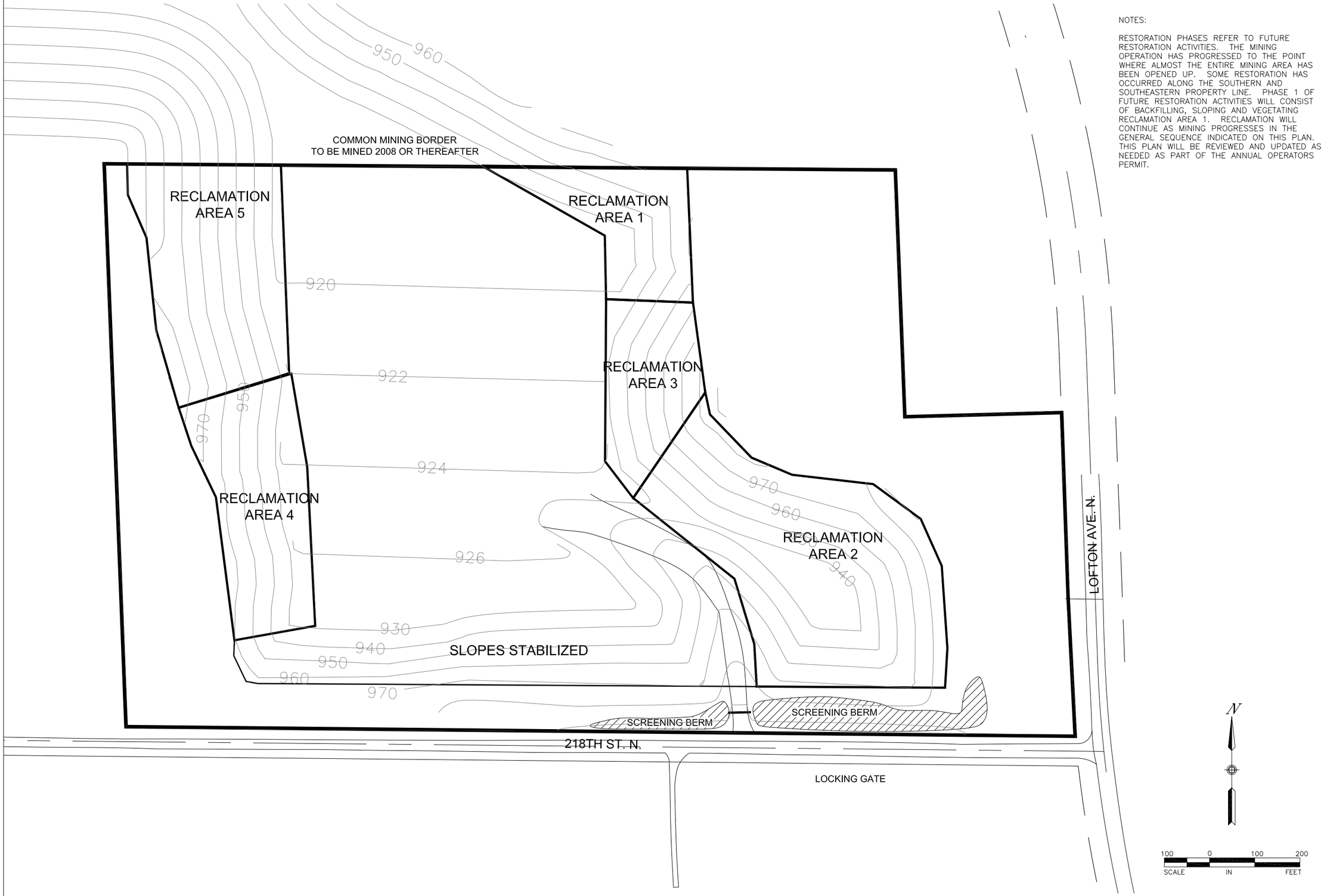
PROJECT NO.: 93-253
DRAWN BY:
CHECKED BY:
APPROVED BY: KP
SCALE: Graphic
DATE: 11/20/07

DESCRIPTION:

MINING AND RECLAMATION PLAN

SHEET NO:

C3



NOTES:

RESTORATION PHASES REFER TO FUTURE RESTORATION ACTIVITIES. THE MINING OPERATION HAS PROGRESSED TO THE POINT WHERE ALMOST THE ENTIRE MINING AREA HAS BEEN OPENED UP. SOME RESTORATION HAS OCCURRED ALONG THE SOUTHERN AND SOUTHEASTERN PROPERTY LINE. PHASE 1 OF FUTURE RESTORATION ACTIVITIES WILL CONSIST OF BACKFILLING, SLOPING AND VEGETATING RECLAMATION AREA 1. RECLAMATION WILL CONTINUE AS MINING PROGRESSES IN THE GENERAL SEQUENCE INDICATED ON THIS PLAN. THIS PLAN WILL BE REVIEWED AND UPDATED AS NEEDED AS PART OF THE ANNUAL OPERATORS PERMIT.

Sunde Engineering, PLLC.
CONSULTING CIVIL ENGINEERS
10830 NESBITT AVENUE SOUTH
BLOOMINGTON, MINNESOTA 55437-3100
(952) 881-3344 TELEPHONE
(952) 881-1913 FAX
www.sundecivil.com

DRESEL
CONTRACTING, INC.

SCANDIA MINING
OPERATION

DATE	REVISION
4/23/08	CITY COMMENTS

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Kirsten Pauly
DATE: 4/23/08 REG. NO.: 21842

INFORMATION:

PROJECT NO.:
DRAWN BY:
CHECKED BY:
APPROVED BY:
SCALE:
DATE: 4/23/08

DESCRIPTION:

RECLAMATION
SEQUENCING

SHEET NO:

C3-A

of

NOTES:

PHASE 1A WILL BE MINED IN CONJUNCTION WITH TILLER CORPORATION. PHASE 1B MAY BE MINED CONCURRENTLY WITH PHASE 1A.

COMMON MINING BORDER
TO BE MINED 2008 OR THEREAFTER

PHASE 1A

PHASE 3

PHASE 2

PHASE 1B

WETLAND

WETLAND

SCREENING BERM

SCREENING BERM

218TH ST. N.

LOCKING GATE

LOFTON AVE. N.

N

100 0 100 200
SCALE IN FEET

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CONSULTING CIVIL ENGINEERS
16930 NEBBITT AVENUE SOUTH
BLOOMINGTON, MINNESOTA 55437
(952) 891-3344 TELEPHONE
(952) 891-1913 FAX
www.sundeeng.com

DRESEL CONTRACTING, INC.

SCANDIA MINING OPERATION

DATE	REVISION
12/20	CITY COMMENTS

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KRISTEN PAULY
DATE: 11/28/07 REG. NO.: 21642

INFORMATION:

PROJECT NO.: 93-253
DRAWN BY:
CHECKED BY:
APPROVED BY: KP
SCALE: Graphic
DATE: 11/28/07

DESCRIPTION:

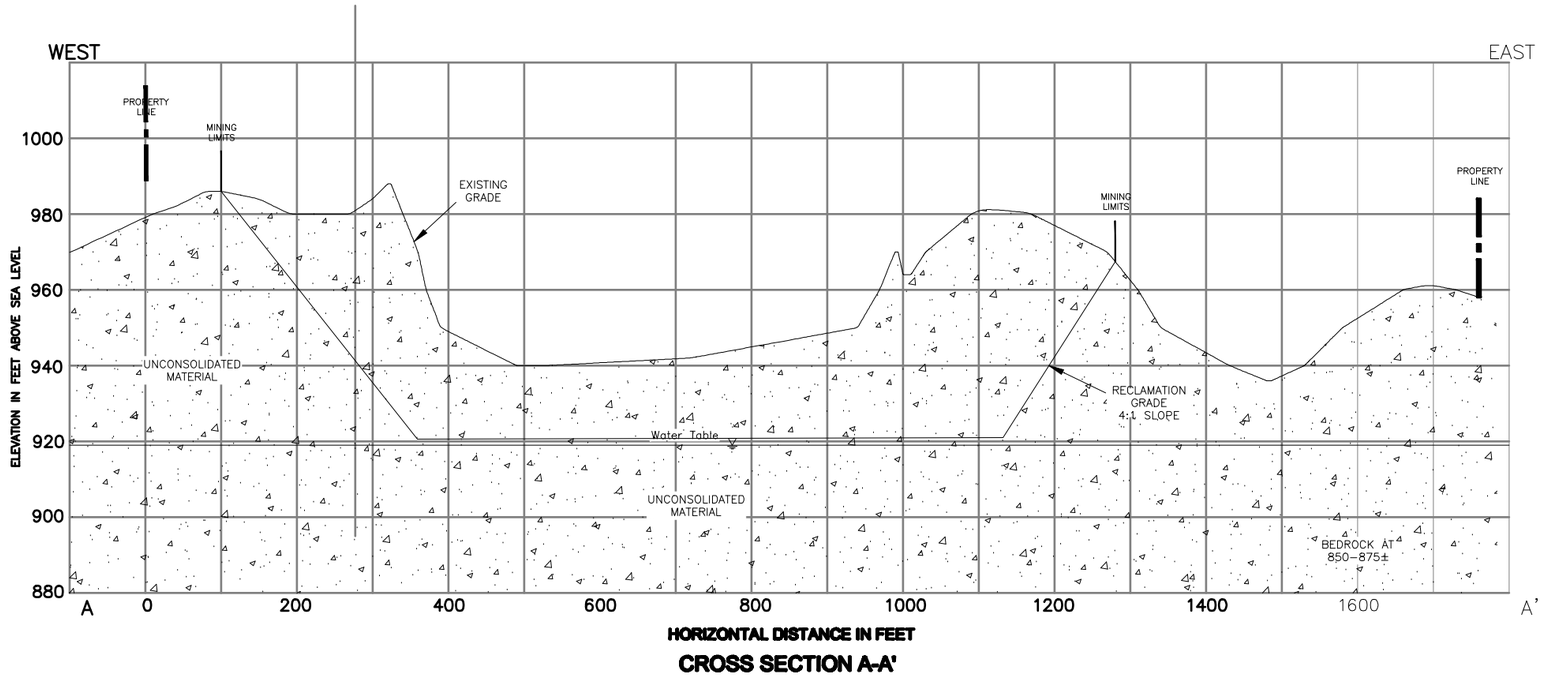
PHASING PLAN

SHEET NO:

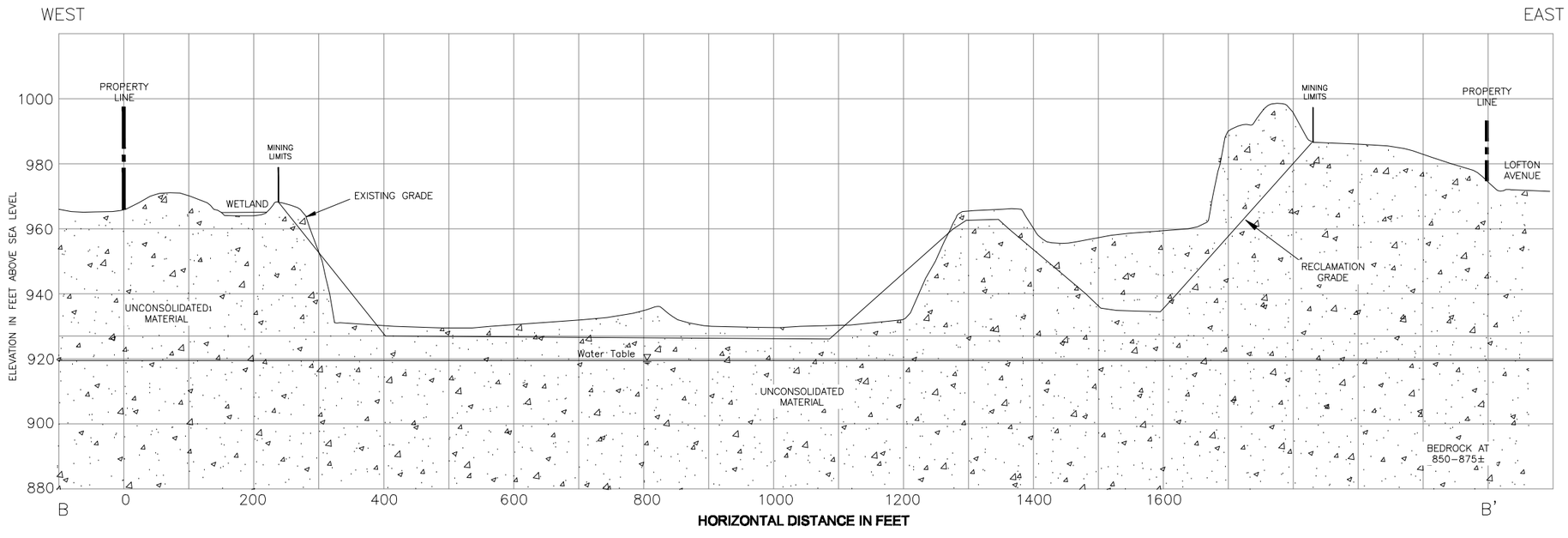
C4

1 of 7

93-253 T.32 . 20 Z.5. GL DRAWING: \\Kirstenspc\dwgs\Tiller - All\Tiller New Scandia\DRESEL\2007 Permit\C4-Phasing Plan.dwg LAYOUT: C4



CROSS SECTION A-A'



CROSS SECTION B-B'

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CONSULTING CIVIL ENGINEERS
16930 NESBITT AVENUE SOUTH
BLOOMINGTON, MINNESOTA 55437
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DRESEL CONTRACTING, INC.

SCANDIA MINING OPERATION

DATE	REVISION

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KIRSTEN PAULY
DATE: 11/28/07 REG. NO.: 21642

INFORMATION:

PROJECT NO.: 93-253
DRAWN BY:
CHECKED BY:
APPROVED BY: KP
SCALE: Graphic
DATE: 11/28/07

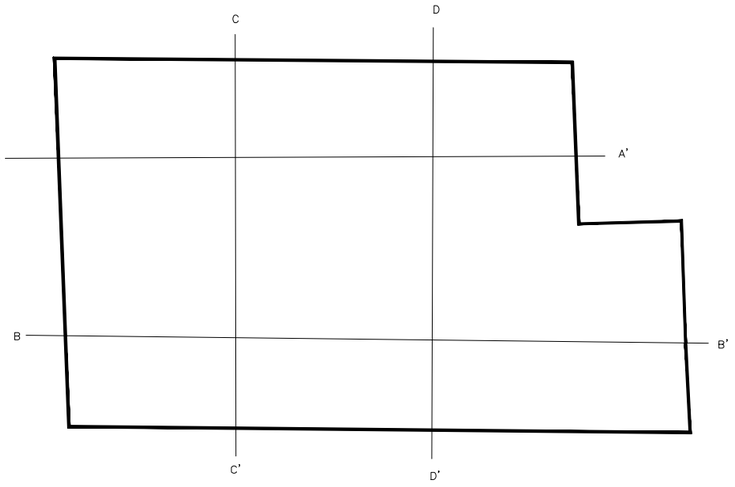
DESCRIPTION:

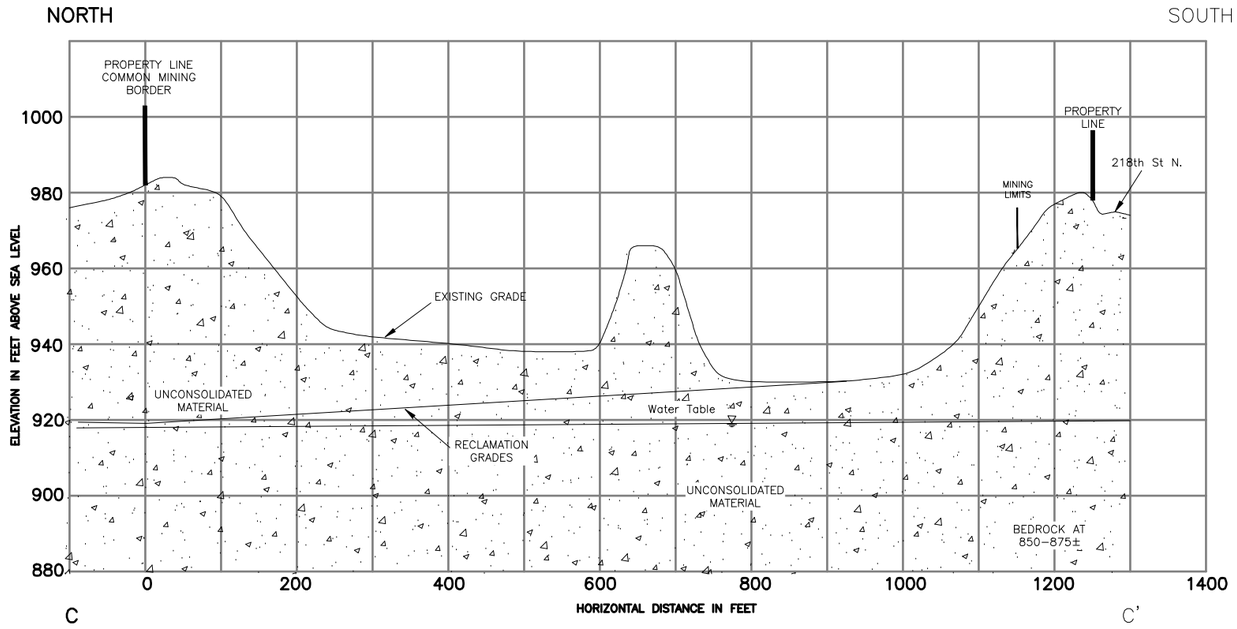
CROSS SECTIONS A-A' & B-B'

SHEET NO:

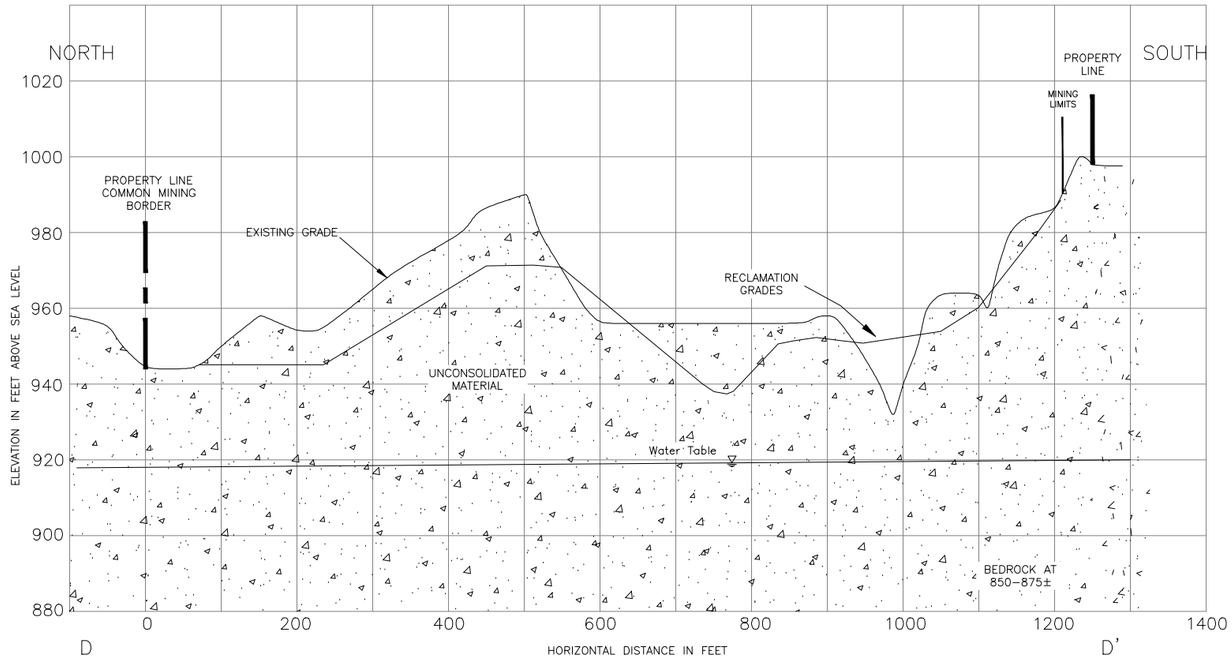
C5

93-253 T.32 , RD 7,ES. GL DRAWING: \\Kirstenspc\durga\Tiller - All\Tiller New Scandia\DRESEL\2007 Permit\Cross sections.dwg LAYOUT: A-A'





CROSS SECTION C-C'



CROSS SECTION D-D'

Sunde Engineering, PLLC.
CONSULTING CIVIL ENGINEERS
16930 NESBITT AVENUE SOUTH
BLOOMINGTON, MINNESOTA 55437
(952) 891-2944 TELEPHONE
(952) 891-1913 FAX
www.sundeeng.com

DRESEL CONTRACTING, INC.

SCANDIA MINING OPERATION

DATE	REVISION

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KIRSTEN FAULY
DATE: 11/28/07 REG. NO.: 21642

INFORMATION:

PROJECT NO.: 93-253
DRAWN BY:
CHECKED BY:
APPROVED BY: KF
SCALE: Graphic
DATE: 11/28/07

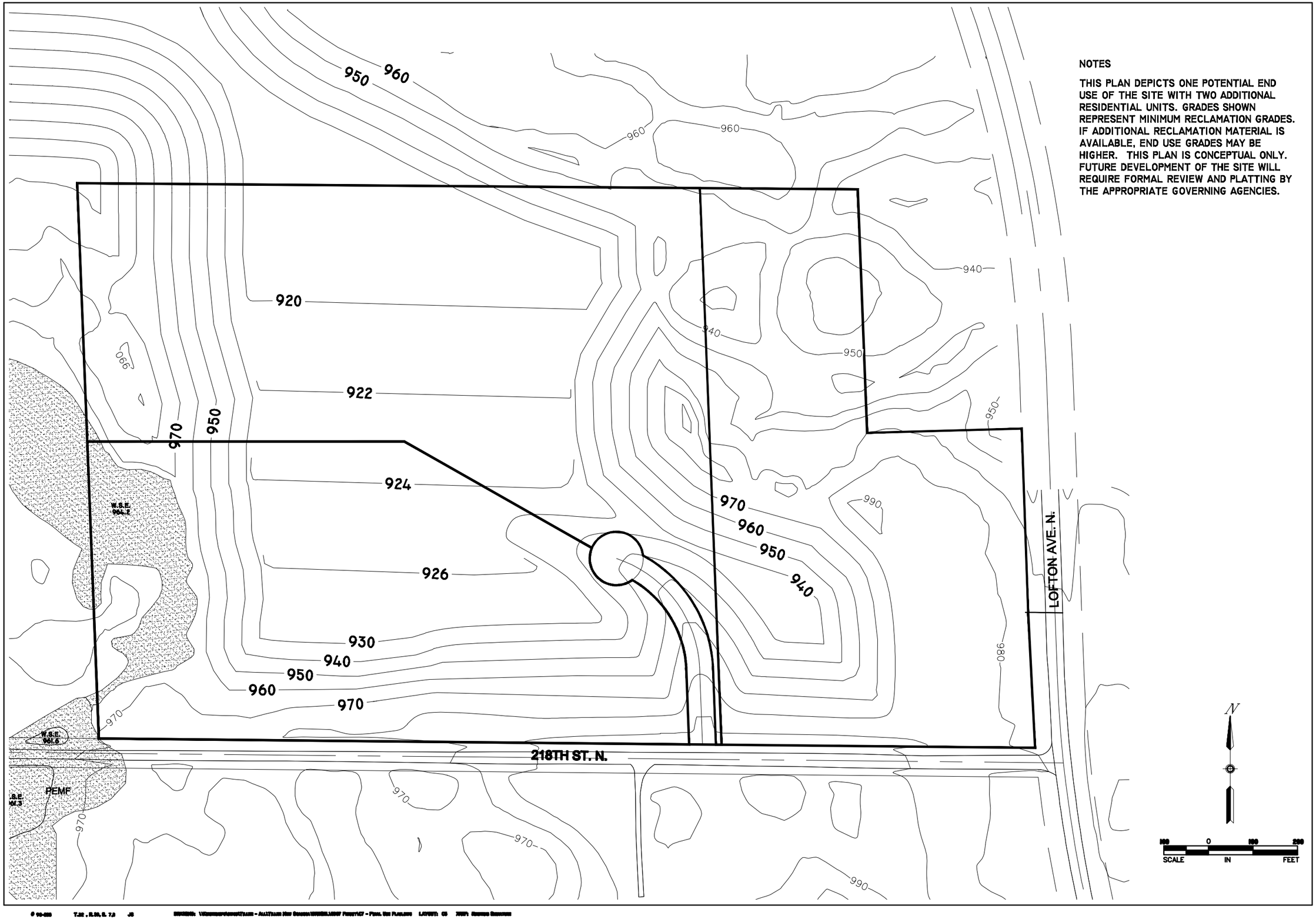
DESCRIPTION:

CROSS SECTIONS C-C' & D-D'

SHEET NO:

C6

93-253 T.32 , R0 7,5t. GL DRAWING: \\Kirstenapc\dwgs\Tiller - All\Tiller New Scandia\DRESEL\2007 Permit\Cross sections.dwg LAYOUT: C-C'



NOTES

THIS PLAN DEPICTS ONE POTENTIAL END USE OF THE SITE WITH TWO ADDITIONAL RESIDENTIAL UNITS. GRADES SHOWN REPRESENT MINIMUM RECLAMATION GRADES. IF ADDITIONAL RECLAMATION MATERIAL IS AVAILABLE, END USE GRADES MAY BE HIGHER. THIS PLAN IS CONCEPTUAL ONLY. FUTURE DEVELOPMENT OF THE SITE WILL REQUIRE FORMAL REVIEW AND PLATTING BY THE APPROPRIATE GOVERNING AGENCIES.

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CONSULTING CIVIL ENGINEERS
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BLOOMINGTON, MINNESOTA 55437
(952) 891-2944 TELEPHONE
(952) 891-1913 FAX
www.sundeeng.com

DRESEL CONTRACTING, INC.

SCANDIA MINING OPERATION

DATE	REVISION

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KRISTIN FAULY
DATE: 4/22/09 REG. NO.: 21942

INFORMATION:

PROJECT NO.: 99-099
DRAWN BY: JS
CHECKED BY:
APPROVED BY: KF
SCALE: Graphic
DATE: 04/22/09

DESCRIPTION:

CONCEPT ULTIMATE USE PLAN

SHEET NO:

C7

1 of 7