TILLER CORPORATION

Corporate Office:
PO Box 1480
7200 Hemlock Lane, Suite 200
Maple Grove, Minnesota 55311

Tiller Corporation
and its operating divisions

Barton Sand & Gravel Co.
Commercial Asphalt Co.
Barton Enterprises, Inc.

general: (763) 425-4191
facsimile: (763) 425-7153
web: www.tillercorp.com

November 14, 2008

RECEIVED
NOV 2 0 2008
CITY OF SCANDIA

Steve Thorp
Building/Code Enforcement Official
City of Scandia
14727 209th St. North
Scandia, MN 55073

Re: EAW/Conditional Use Permit Application

Dear Mr. Thorp:

Enclosed is the information for an Environmental Assessment Worksheet (EAW) for the Zavoral Mining and Reclamation Project, an Application for Planning and Zoning Request, and the Tiller Corporation Conditional Use Permit Application to the City of Scandia for the Zavoral Mining and Reclamation Project. Also enclosed is a check payable to the City of Scandia in the amount of $276.50 for the Application Fee and the Parcel Search Fee and a check for $10,000.00 the Permit Application Escrow Deposit. Tiller previously submitted a check in the amount of $15,000.00 for the EAW Escrow Deposit.

We look forward to working with Scandia officials, staff and residents.

Respectfully,

Tiller Corporation

Michael Caron
Director of Land Use Affairs

c: Dr. James Zavoral

enc.

File No. 2008025

APPLICATION FOR PLANNING AND ZONING REQUEST

City of Scandia, Minnesota

14727 209th Street North, PO Box 128, Scandia, MN 55073
Phone 651/433-2274 Fax 651/433-5112 Web http://www.ci.scandia.mn.us

Please read before completing: The City will not begin processing an application that is incomplete. Detailed submission requirements may be found in the Scandia Development Code, available at the City office and website (www.ci.scandia.mn.us) and in the checklist forms for the particular type of application. Application fees are due at the time of application and are not refundable.

1. Property Location: *(street address, if applicable)* Part of Sections 18 and 19. The property is primarily located in the southeast quadrant of the intersection of MN Hwy. 95 and MN Hwy. 97

2. Washington County Parcel ID: 1803219310001, 1803219330004, 1803219330003, 1803219320003 1803219340001, 1903219220001 and 1903219210002

3. Complete Legal Description: *(attach if necessary)* See attached application narrative

4. Owner(s):
James Zavoral

Phone:
(h)
(b) 952 924-1550

Street Address:
5239 Highwood Drive West

E-Mail:

City/ State:
Edina, MN

Zip:
55436

5. Applicant/Contact Person:
Applicant/ Tiller Corporation
Contact Person/ Michael Caron

Phone:
(h)
(b) 763 425-4191

Street Address (Mailing):
P.O. Box 1480

E-Mail:
mikec@tillercorp.com

City/ State:
Maple Grove, MN

Zip:
55311

6. Requested Action(s): *(check all that apply)*

____ Variance	____ Minor Subdivision
XX Conditional Use Permit	____ Planned Unit Development
____ Interim Use Permit	____ Preliminary Plat/ Major Subdivision
____ Certificate of Compliance (Residential)	____ Preliminary Plat/ Open Space Conservation Subdivision
____ Certificate of Compliance (Commercial)	____ Final Plat
____ Map Amendment (Zoning or Comprehensive Plan)	____ Permit Extension

7. Brief Description of Request: *(attach separate sheet if necessary)*

Mining and reclamation of previous sand and gravel mine. See attached narrative for complete details.

8. Project Name:

Zavoral Mining and Reclamation Project

I hereby apply for consideration of the above described request and declare that the information and materials submitted with this application are complete and accurate. I understand that applicants are required to reimburse the city for all out-of-pocket costs incurred for processing, reviewing and hearing the application. These costs shall include, but are not limited to: publication and mailing of notices; review by the city's engineering, planning and other consultants; legal costs, and recording fees. An escrow deposit to cover these costs will be collected by the city at the time of application. Any balance remaining after review is complete will be refunded to the applicant. No interest is paid on escrow deposits.

PLEASE NOTE: If the fee owner is not the applicant, the applicant must provide written authorization by the fee owner in order for this application to be considered complete.

Property Fee Owner Signature(s)	**Date:** 6/25/08
Applicant Signature(s)	**Date:** 11-14-2008

For City Use Only

Application Fees: 200.00

Parcel Search Fee: 76.50

Escrow Deposit: $10,000

PAID
NOV 20 2008
$10,276.50
CITY OF SCANDIA

November 2008

TILLER CORPORATION

CONDITIONAL USE PERMIT APPLICATION

ZAVORAL MINING AND RECLAMATION PROJECT

NOV 2 0 2008

CITY OF SCANDIA

Consulting Civil Engineers

Sunde Engineering, PLL
10830 Nesbitt Avenue South • Bloomington,
Phone: (952) 881-3344 • Fax: (952) 881-1913 • E-

C.
Minnesota 55437-3100
mail: info@sundecivil.com

APPLICATION FOR CONDITIONAL USE PERMIT
TILLER CORPORATION
ZAVORAL MINING AND RECLAMATION PROJECT
CITY OF SCANDIA
WASHINGTON COUNTY, MINNESOTA

I. INTRODUCTION

The following permit application is submitted on behalf of Tiller Corporation (Tiller) 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.

Tiller is requesting a Conditional Use Permit to operate a gravel mining and processing operation on a dormant, un-reclaimed gravel mine within the City of Scandia. The site, previously mined by multiple operators, contains high quality aggregate materials and was taken out of production in the 1980's before mining was completed and without reclamation. Since the cessation of extraction activities, material has continued to be removed from the property from existing stockpiles. The stockpiles remain on the site although some material has been removed. The site is in need of significant work to facilitate non-mining use because the past mining without reclamation has resulted in irregular landforms.

The 114 acre site is located near the St. Croix River, a federally designated National Scenic Riverway. A portion of the site is located in the St. Croix River District zone, a land use zoning district established by the City of Scandia. The area proposed for sand and gravel mining is located outside of the limits of the St. Croix River District zone.

Some portions of the site are covered by Scenic Easements granted to the federal government and managed by the National Park Service as part of the management plan for the Lower St. Croix River National Scenic Riverway. Under this program, in October 1990, the National Park Service acquired easements it has determined are needed to implement the Management Plan for the river. The area proposed for sand and gravel mining is located outside of the limits of the Scenic Easement area. The only activity proposed within the St. Croix River District zone and Scenic Easement area is limited to final restoration activities of previously disturbed portions of the site.

The project involves mining and restoration of 64 acres located predominantly on disturbed portions of the site. The active mining area

will include mining an additional depth of about 15 feet and expanding the limits of mining by approximately eight acres.

The area of the site adjacent to public roads will be screened with existing berms and vegetation. The remainder of the site, which is situated between the St. Croix River and the mining area, is heavily wooded and will remain untouched. The mining operation will not be visible from the St. Croix River. Railroad tracks run through the very eastern portion of the property.

The site was actively mined beginning in the mid sixties through the eighties. Mining operations included stripping, extraction, crushing, washing, stockpiling, a hot mix asphalt plant and hauling from the site. All processing equipment has been removed from the site; however the site has not been reclaimed. Most recently the site has been operated a source of aggregate from stockpiles located throughout the site.

As stated above, the St. Croix River is a federally designated Scenic Riverway and a portion of the project lies within the St. Croix River District zone. In addition the federal government has acquired Scenic Easements over those portions of the eastern segment of the site it has identified for preservation. Sand and gravel operations are not proposed within the River District zone or Scenic Easement area. Historically mining activities did occur within a portion of the St. Croix River District zone and along the west edge of what is now covered by the federal Scenic Easements. Approximately four acres of the site that are located within the River District/Scenic Easement area have been disturbed prior to County permitting and restoration requirements. Subject to the requirements of the St. Croix River District zone and Scenic Easements, it is proposed that this area should be included in the final restoration activities to coordinate with restoration of the overall operations. Work in this area will not be included in the active mining operation. This unreclaimed area is proposed to be restored during the final phase of reclamation of the active mining site. Slopes will be graded and shaped to those indicated on the final restoration plan to provide uniform topography throughout the mining area. Topsoil will be applied over the slopes and vegetation established to allow stabilization of the site, and control of erosion and sedimentation.

Mining activities will include the extraction, crushing, washing, stockpiling, and hauling of aggregate and the recycling of concrete and asphalt materials. Mining operations will be conducted on a seasonal basis, typically from April through mid November. The site will be worked in phases with the duration of the project expected to be no more than 10 years. Final product is sold locally.

As with most mining operations, overburden will initially be removed from new areas to be mined. The overburden is stockpiled on site and later

used for reclamation on site. However, since the majority of mining will take place on previously disturbed areas, there is very little additional stripping work to be performed as part of the project.

Once an area has been stripped, aggregate is excavated using front-end loaders and is then crushed, processed and stockpiled for sale and distribution from the site. The site will typically operate from 7:00 am – 7:00 pm Monday through Friday. Portable processing equipment will be brought to the site as needed. The equipment will operate until a sufficient volume of material has been processed and stockpiled and then the processing equipment will be removed from the site. When the stockpiled aggregates are nearing depletion, the portable equipment will be brought back to the site to replenish them.

Reclamation activity will proceed as areas of mining are completed. Perimeter areas will be sloped and the interior areas backfilled and graded to restoration grades. Topsoil will be applied and vegetation established to minimize erosion and sedimentation. The site will be left in a condition compatible with contiguous land uses as required by City Code.

II. SITE INFORMATION

1. *Name and address of operator and owner of the land:*

   Owner:
   Dr. James H. Zavoral
   5239 Highwood Drive
   Edina, MN 55436-1248

   Operator:
   Tiller Corporation
   7200 Hemlock Lane, Suite 200
   P.O. Box 1480
   Maple Grove, MN 55311-6480

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 Tax Parcel Identification Numbers has been supplied to the City. The City will obtain a list of all property owners within a ½ mile of the perimeter of the property from Washington County.

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 proposed 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 will operate on a seasonal basis from approximately mid April to mid November depending upon weather conditions. Plans included in this submittal illustrate the proposed location of operations, phasing, proposed reclamation grades and site restoration.

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

   Processed aggregate and recycled product will be loaded on trucks using front-end loaders, the trucks are weighed and the product delivered to projects throughout the area.

   An estimated 1.2 million cubic yards (cy) of aggregate reserves remain at the site. Annual production at the site is estimated to be 150,000 to 250,000 cy. The estimated life of the facility is five to nine years. The actual life of the site will be dependent upon future market demand.

   Blasting will not occur at this site.

5. *Fee:*

   The required application fee has been submitted to the City.

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:*

Sheet C2, Site Plan, illustrates the property lines, limits of proposed excavation, limits of reclamation, 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, 2, and 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 routes to and from the site are State Highway 95 (Hwy 95) and State Highway 97 (Hwy 97). These are paved roads. The current site access shares the intersection with Hwy 95 and Hwy 97, but is skewed. Tiller has been working with the Minnesota Department of Transportation (MnDOT) to redesign the site entrance to improve safety. A right turn lane will be installed in the northbound lane of State Highway 95 as part of the access improvements. In addition, Tiller is working with MnDOT to explore the possibilities of and examine the need for constructing a truck acceleration lane westbound on Hwy 97.

   The site access road will be paved into the site approximately 200 feet. The names, right-of-way widths, and traveled portion width of all adjacent roads are illustrated on Sheet C1, Existing Conditions Plan.

   B. Easements Plan with widths and purpose.

   Known easements, with widths and purpose are illustrated on Sheet C1, Existing Conditions Plan. Portions of the site itself are subject to road right-of-way easements and a scenic easement associated with the River District.

   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 Sheet C2, Site Plan. The St. Croix River Valley lies just east of the site. The proposed mining area is located on a terrace above the River Valley. Regional drainage patterns are towards the east to the river through established drainageways and uncontrolled ravines carved through the bluffs. Restoration of the inactive site will allow improved control of drainage and minimize the potential for erosion and sedimentation from the site into these drainageways.

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. Groundwater contours are also indicated on this plan. Direction of groundwater flow is to the east towards the St Croix River. Groundwater elevation beneath the proposed mining area varies from approximately 800 feet above mean sea level (msl) to 840 feet above msl. This corresponds to an average depth of approximately 55-60 feet beneath the current pit floor. After reclamation, the site will remain approximately 35-45 feet above the water table.

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

Man-made structures are indicated on Sheet C2, Site Plan. There is one residence located east of the railroad tracks. This residence will continue to be occupied by the property owner and is not located within the mining and restoration limits. There are no other houses located within 300 feet of the site. There is one out building located about 300' west of the site.

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 are shown on Sheet C2. Platted subdivision lots, metes and bounds parcels, and homes within ¼ mile of the property boundaries are shown on Sheet 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 4.

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 three east/west cross sections are included as Sheets C5 – C9. These cross sections depict the existing elevation, overburden, final elevations, extent of deposit, and the elevation of the groundwater. Several soil borings were drilled and test pits were dug to characterize the site and develop the mining plan. The results of the soil borings and test pits were used in developing the site cross-sections.

H. All processing areas and boundaries shown to scale.

Processing and stockpiling areas are identified on Sheet C2, Site Plan. Portable processing equipment will be brought to the site periodically to process materials into stockpiles. The processing equipment will be placed in the general area depicted on C2 at recessed elevations to screen the processing equipment from Hwy 95.

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

Tiller is working with MnDOT to realign the current site access and add a right turn lane at the site entrance. Tiller is also pursuing the possibility of and need for constructing a truck acceleration lane on Hwy 97 with MnDOT. The proposed new alignment of the access road and turn lane are indicated on Sheet C2, Site Plan.

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

The sequence of operations showing the approximate areas involved in the various phases of the operation are indicated on the Mining and Phasing Plan, Sheet C3. Phases 1 and 2 each represent approximately three to five years of mining activity. Phase 3 is the restoration work to be located within the River District zone and Scenic Easement area and represents

restoration activity only. This phase will be completed within one construction season subject to the easement rights.

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 locations of screening berms are indicated on Sheet C2, Site Plan. There is an existing screening berm along Hwy 95 south of the site entrance. The berm will be extended along Hwy 95 north of the site entrance. The only remaining overburden is located in the southern portion of the mining area in Phase 3. When overburden is being removed from this area, it will be used to restore previously completed areas. Existing screening berms will be used in final reclamation.

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

The site access will have a locking gate (Site Plan, C2). There is a 5' high chain link fence running along the west property line between the site and the bike path. The chain link fence continues to the north of the existing access to the north property line.

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

There will be no permanent processing structures located on the site. A truck scale and scale house may be located near the entrance. Portable processing equipment will be brought to the site periodically as needed. Sedimentation ponds will be constructed adjacent to the portable washplant to treat and recycle the washwater back to the plant. Washwater will not be discharged off site. When washing operations are complete, the silt in the sedimentation ponds will be dried, blended with other materials and used for reclamation. The approximate location of the processing area is indicated on the Site Plan, C2.

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 development of a new site NPDES Stormwater Pollution Prevention Plan (SWPPP) which will be consistent with local surface water management plans. This plan will allow the site to add a number of best management practices (BMPs) which are typically incorporated into daily site operations. The BMPs have been designed and implemented to prevent untreated stormwater discharge from the site, minimize the 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 will include silt fence, vegetated screening berms, stormwater sedimentation ponds, vegetated buffers and on-going restoration of completed mining areas. Screening berms around the perimeter of mining area will be vegetated to reduce erosion and to help contain fugitive dust and reduce offsite noise.

At least one sedimentation basin will be located on the floor of the mining operation to handle internal drainage. Permanent sedimentation basins have been incorporated into final site reclamation grades.

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, Sheet 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.

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

Protection of the quantity and quality of groundwater resources is vital. Groundwater interacts with, and plays an important role in sustaining, several high value surface water resources within the region.

The geologic setting of the site is an upper stream terrace of the St. Croix River. The stream terrace consists of 10-100 feet of sand, gravelly sand and gravel. The Cambrian Jordan Sandstone forms the first bedrock contact beneath the unconsolidated material throughout most of the mining area. The Ordovician Prairie du Chien Group forms the bedrock subcrop beneath the very northern portion of the mining area. The top of the bedrock surface varies from approximately 770 - 850 feet above msl. East of the mining area towards the St. Croix River, the Jordan Sandstone has been eroded and the St. Lawrence Formation, Franconia Formation and Ironton & Galesville Sandstones form the bedrock subcrop within the St. Croix River Valley.

The elevation of the groundwater table beneath the site varies from approximately 840 feet above msl in the western portion of the site to a level of just below 700 feet above msl at the river. This elevation change shows the strong easterly gradient towards the discharge area of the St. Croix River Valley.

The following measures will be taken to protect groundwater quality:

- Limited equipment maintenance will be performed on-site and Tiller's spill prevention policies will be followed.

- A service truck will come to the site to perform routine maintenance. All used lubricating oil will be 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.

- Any fuel stored on site will be stored in above ground tanks with secondary containment in accordance with MPCA and local rules. Secondary containment will consist of an impermeable enclosure with an impermeable base or approved double walled tanks. In the event of a tank failure, the secondary containment will prevent the release of petroleum products to the environment. Alternatively, a service truck may be used to fuel equipment as needed.

- A Spill Prevention Control and Counter Measures Plan (SPCC Plan) will be prepared for the site. This plan will document procedures to be followed in the event of a spill or release at the site. Tiller's policy regarding spills is that any spill of oil, gasoline, diesel fuel, or lubricant is to be reported to Paul Schultz P.G., Tiller's Land Use Coordinator, and cleaned up promptly. Any spills of 5 gallons or more of petroleum products or any volume of hazardous materials are reported to the state duty officer as required by applicable state statutes and regulations (Minn. Stat. 299K)

- Topping off tanks of any kind is not allowed under company procedures.

- Spill cleanup equipment will be available on-site including equipment to excavate and remove impacted soils in an expedited fashion, fire extinguishers, absorbent pads, spill blocker dikes, empty barrels, rags and shovels.

A groundwater monitoring well will be installed down gradient of the stockpiling and mining operations. The well will be completed in the upper portion of the groundwater table and sampled on a annual basis for diesel range organics.

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.**

A groundwater monitoring well will be installed down gradient of the stockpiling and processing area. The well will be completed in the upper portion of the groundwater table and sampled on an annual basis for diesel range organics (DRO). Sampling results will be submitted to the City on an annual basis in conjunction with the annual report. The report will include all previous years' data and will be in a spreadsheet or graph form to facilitate identifying trends in water quality.

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.**

As daylight hours grow shorter in the fall of the year, lighting is provided for the crushing and screening operations. The lighting structures are on the floor of the pit and the lights are hooded and directed downward.

R. Reclamation plan in conformance with Section 8.

The Reclamation Plan, Sheet C4 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 sedimentation and allow for future development of the land in accordance with land use regulations in effect at the time of final development.

- 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 majority of the site is an un-reclaimed gravel mine.

- Limits of various operational areas: The operational areas are indicated on the Site Plan, Sheet C2. Operations will occur on the floor of the facility.

- Phasing and timing of operations and reclamation including areas to be stripped of overburden: The Mining and Phasing Plan, Sheet C3, depicts and describes the proposed phasing including timing. Because of previous mining activities, there is very little if any overburden left to be removed. Much of the material available for the reclamation will come from screening berms and overburden stockpiles currently existing on-site. If necessary, additional materials such as top soil may be brought in from offsite.

- Final Condition of the site, including proposed contours and landscaping: Reclamation Plan, Sheet C4, indicates proposed site elevations upon completion of restoration.

- Relation of final site condition to adjoining land forms and drainage features within ¼ mile: The site is located on a terrace above the

river valley and the final site condition will be consistent with land forms found on adjacent property located on the same terrace. There are a number of drainage ways along the bluff line within 1/4 mile of the site that direct water through the St. Croix River Valley towards the river. These will not be disturbed during mining or reclamation. Final site condition will leave the site stabilized, minimize the potential for future erosion and sedimentation and restore habitat within previously disturbed areas of the St. Croix River District.

- Relation of reclaimed site to planned or established uses of surrounding land: The site and surrounding area is land is currently zoned semi-rural residential and agriculture, and St. Croix River District. Established land uses are agricultural and rural residential in nature. Final site condition will enable the site to be developed in compliance with adopted current comprehensive land-use plans and regulations.

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

- A detailed cost estimate of reclamation and maintenance: Reclamation costs for the entire area to be mined and reclaimed are presented below.

Final Grading:

Finish grading/sloping of disturbed area; 70 acres:

70 acres at $1,000/acre $70,000

Placement of 4" topsoil from on-site stockpiles and mining areas: 70 acres:

37,645 cy at $ 1.00/cy $37,645

Seeding and Mulching"

70 acres at $600/acre $42,000

Total reclamation costs;.....$149,645

Reclamation activities will be updated and 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 will not be performed at this site.

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

Aggregate will be excavated using front end loaders. Processing at the site will include crushing, screening, washing, sorting and stockpiling of aggregate and recycling of concrete and asphalt by crushing, screening and stockpiling.

The mining and aggregate processing and recycling activities will all operate in compliance with applicable Federal and State standards and the operating standards of Ordinance No. 103.

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.

2. *Fencing:*

There is a 5' high chain link fence running along the west property line between the site and the bike path. The chain link fence continues to the north of the existing access to the north property line. There is a locking gate at the entrance to the facility.

3. *Hours of operation:*

The site will operate 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 will be operated in a manner to minimize the visual impact of the extraction and processing area on surrounding properties. A screening berm and vegetation are located along Hwy 95. The site will not be visible from the St. Croix River. Processing and stockpiling operations will be conducted in recessed portions of the site to minimize visibility. Existing screening berms are shown on Site Plan, Sheet C2.

5. *Dust control:*

Dust will be generated by crushing and screening equipment, excavation and loading equipment, and vehicular movement. Vehicular dust generation will be minimized by paved access roads and watering internal unpaved haul roads. Processing areas will be located at elevations lower than the surrounding terrain in order to minimize windborne dust leaving the site. The sand and gravel processing activities at the site will operate in compliance with General Air Emission Permit Number 05301018-001, which is issued by MPCA.

6. *Noise:*

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

7. *Depth of excavation:*

Maximum depth will be approximately 840 feet above msl. Restoration grades will vary from 846-890 feet above msl.

8. *Site clearance:*

Trees, stumps, roots and other vegetative material removed during site clearing 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 will be provided in the operating areas as required by the Mine Safety and Health Administration.

11. *Waste Disposal:*

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

12. *Water Quality Monitoring:*

See Sections II. O and II. P.

13. *Fuel and Chemical Storage*:

All fuel and chemicals stored on site are stored in accordance with Federal and State standards. On-site fuel storage will consist of one or two above ground tanks with double walls or secondary containment in accordance with MPCA rules. Alternatively, equipment will be fueled as needed using a service truck.

The site will operate under a National Pollutant Discharge Elimination System (NPDES) multiple site general permit for aggregate operations as required by EPA and issued by MPCA. This permit requires that the site operates under the associated Stormwater Pollution Prevention (SWPP) Plan. A copy of the NPDES Permit and SWPP Plan will be supplied to the City.

14. *Contingency Response Plan:*

The site will operate under a company spill prevention and countermeasure plan (SPCC). Tiller will submit necessary portions of the SPCC Plan to the City and the City's fire department.

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 will operate portable processing equipment. All processing operations will be conducted in accordance with all Federal, State and local air, water quality and noise standards. Processing equipment will be screened from view from other properties and adjacent roads. Crushing equipment will be placed on the floor of the facility and setbacks per Ordinance No. 103 will be 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 volume of asphalt and concrete materials recycled on an annual basis will be reported annually in the mining report. The stockpile of material to be recycled will not exceed the volume of material that can be processed in two consecutive operating seasons.

18. *Trucking Operations:*

The site is served by Hwy 95 and Hwy 97. There is a current site access at the intersection of Hwy 95 and Hwy 97. Tiller has met with MnDOT and determined that the existing site access needs to be realigned to provide a safer intersection. A right hand turn lane into the site from Hwy 95 will also be constructed. The vast majority of truck traffic, approximately 95%, will travel from the site west on Hwy 97. Tiller is also discussing with MnDOT the feasibility of constructing an acceleration lane heading west on Hwy 97. The driveway realignment will require a new access permit from MnDOT. A bike trail is located along Hwy 95, south of the intersection of Hwys 95/97, ending at the site's current access road. The very northern-most portion (100') of the bike trail may need to be removed as part of the realignment. The proposed realignment is illustrated on Figure 5.

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:*

Asphalt or ready-mix plants are not planned to operate at this site.

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 and Professional Geologist under the laws of the State of Minnesota.

Kirsten Pauly, PE/PG

Date: 11/11/08 Reg. No. 21842