

Date: May 24, 2016

RE: Land Use Application 5420 Manitou Road, Tonka Bay

1. Please see attached Grading Plan with existing and proposed grade and the direction where storm water runoff will be discharged.
2. Please see attached Shoreland Impact Plan.
3. Please see attached revised site plan with no outdoor seating identified.
4. Activities in the proposed "limited warehouse/indoor storage" include.
  - a. Storage of various goods including but not limited to clothing apparel, footwear and miscellaneous items related to general outdoor activities to be sold at a later date.
  - b. Sorting of various goods including but not limited to clothing apparel, footwear and miscellaneous items related to general outdoor activities to be sold at a later date.
  - c. No outdoor storage of commercial vehicles is required or requested.
5. Please see attached Drive through diagram.

Please contact me with any questions or concerns

763-286-9711

Thank you,



John Studer

Kinghorn Construction

## SHORELAND IMPACT PLAN

Anderson Engineering has prepared the following Shoreland Impact Plan for inclusion in the Land Use Application on behalf of the Owner, for the proposed development at 5420 Manitou Road, Tonka Bay, MN. The information is required per the City Ordinance. The property is bounded by County Road 19 on the east, Hennepin County Regional Railroad to the south, and Village of Tonka Bay property to the west and north.



Aerial image from Google Maps, [www.google.com/maps](http://www.google.com/maps), date 5/16/2016



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Street View image from Google Maps, [www.google.com/maps](http://www.google.com/maps), date 5/16/2016

Per requirements set forth in the City of Tonka Bay Ordinance, Section 1070.16, Subd. 1, a Shoreland Impact Plan is required in the submittal for a Land Use Application. Provisions for sediment control, water management, maintenance of landscaped features will be provided for the proposed development on the property. Upon approval of the Land Use Application, construction plans will be finalized that minimize tree removals, ground cover changes, loss of natural vegetation, and grade changes. Landscaping will be provided to meet the requirements per City Code and Ordinances.

**Subd. 3 – Conditions**

**a.1 Impervious surface**

	Current (sf)	Proposed (sf)	Change (sf)
Building	4,913	9,012	+4,099
Pavement	18,610	16,588	-2,022
Total	23,523	25,622	+2,099
Parcel Area	33,175 (0.76 ac)	33,328 (0.76 ac)	+153
% of Parcel	70.9%	76.9%	+6.0%

**a.2 Stormwater Runoff**

Development of the site is an opportunity to regrade the site to provide stormwater treatment and control on the parcel. Currently there is no stormwater treatments on the commercial property. The development will take every effort to provide treatments such as rain gardens, grass swales, sumps in the catch basins, and rip rap at curb cuts to reduce velocities etc. One in-direct benefit to the project may help alleviate the flooding on the nearby County railroad and trail properties.

**a.3 Floodplain**

Per FEMA floodplain map 27053C0314E and 27053C0312E, the site is located in Zone X, as defined as an area determined to be outside the 0.2% annual chance floodplain.

**a.4 Water Quality**

Reducing parking lot pavement area over 2,000 sq. ft. will reduce pollutants generated from vehicles. It is anticipated the roof drainage for the proposed addition will be discharged at grade towards the grass swale at the north and finally making its way to the nearby storm sewer. Directing parking lot runoff towards natural vegetation and allowing for filtration to occur will improve groundwater quality and reduce the pollutant load from the area before entering into the City storm sewer system or nearby waters.

**b. Stormwater Treatment**

It is anticipated a raingarden and grass swale will be provided on site to promote groundwater recharge prior to discharge into the city storm sewer system. There are other opportunities for installation of debris guards and microsilt basins if stormwater catch basins and inlets are utilized. Analysis will be completed during final design documents. The requirements set forth by the City and Minnehaha Creek Watershed District will be applied to the proposed development.

**c.1 Maintenance**

Landscaping and annual maintenance will be provided by the Owner. For stormwater site elements, a maintenance agreement will be set forth requiring annual inspection and maintenance, i.e. raingarden and silt inlet traps on the property. The City of Tonka Bay has provided a draft maintenance agreement to be included with the final construction documents later this year.

**c.2 Tree Removal**

The current tree cover is minimal on the property thus few trees will be removed during the building addition and parking lot reconstruction. Existing trees are small and are not anticipated to be considered significant. Replacement trees will be planted per the requirements set forth in the City Code.

**c.3 Ground cover change**

The commercial property currently has minimal vegetative ground cover. The area for the proposed building addition is currently an asphalt parking lot in disrepair. Areas for grass and landscaping will be developed during final design for construction documents.

**c.4 Loss of Vegetation**

The vegetation on the property is currently in poor condition and likely not native to the property. After construction and final grading, areas will be revegetated with seed/sod in combination with those plantings required for the construction of a raingarden and trees as necessary to comply with the City Code. It is anticipated that no marshes or wetlands will be impacted for this project.

**c.5 Grade Changes**

Existing elevations on the property range from 935-941 feet. Slight modifications to existing grades are anticipated to provide drainage away from the buildings and parking areas, and direct them to stormwater treatment elements at the site. The general grading on the parcel is from south to north.

**d. Appearance**

The current building structure is in a state of disrepair and is located in a visually appealing lot. The enhancements to the building facade will revitalize the area. Exterior elements will be chosen to provide a fresh look while not overshadowing the beauty of the area.

**e. Lot Coverage**

Current: 70.9% hardcover  
Proposed 76.9% hardcover

The increase in hardcover is about 6.0%. Although there is a proposed increase in the impervious area, the amount of untreated stormwater runoff will be decreased. Every effort will be designed to incorporate stormwater treatment elements to enhance water quality for stormwater runoff. The proposed building roof drain is anticipated to be directly discharged into the nearby City stormwater manhole just north of the property. Rooftop runoff is typically much cleaner than parking lots. Preliminary plans show stormwater from the parking lot areas being directed to raingardens or grass swales; producing filtration opportunities currently not present on the site.

**f. Residential density**

N/A

**g. Conformance**

The proposed development and future construction will be in conformance with local standards including but not limited to: Shoreland Management Plan, Comprehensive Plan, Zoning and Subdivision Ordinances of the City of Tonka Bay.

**h. Review**

The project shall be reviewed and approved by the Minnehaha Creek Watershed and the City Engineer.

*Minnehaha Creek Watershed District* – Stormwater Management Rule for Redeveloped site resulting in an increase in impervious surface for sites less than 1.0 acres (Table 4): Requirements include incorporation of BMPs and use of temporary erosion control devices during construction.

*City of Tonka Bay* – See inclusion

**Construction Activities**

Construction activities will minimize grading and provide Erosion and Sediment Control devices (BMPs) during construction. Such items to be used are not limited to erosion control fence, bioroll ditch check, rock construction entrance, and inlet sediment protection. Upon establishment of vegetation at the site, the BMPs will be removed and maintained by the Owner.

**Construction Documents and Permitting**

Upon approval of the Land Use Application from the City of Tonka Bay, a formal submittal will be processed to the Watershed and City for review of the proposed development later this year. The submittal will include final construction documents with a site plan, utility plan, grading plan, stormwater plan, and details. Specifications and calculations will be included for the rain garden and further analysis of the site soil conditions.

**Summary**

In summary, the future redevelopment of the property will provide stormwater treatment features and materials to reduce potential pollution, erosion, and siltation. It is anticipated a raingarden and grass swales will be constructed and maintained to provide filtration and enhance water quality for stormwater runoff. Grading and vegetation removals will be limited. Landscaping and tree plantings will be established at final construction. The redevelopment of the property will visually enhance the area and increase the current insufficient stormwater treatment practices typically found on sites today.