MMM Group

Proposed Southwood Golf Course

Environmental Impact Statement

Prepared for: Manitoba Conservation

Prepared by:

MMM GROUP

In association with:
Southwood Golf & Country Club

August 2007 | 41725.111

COMMUNITIES

TRANSPORTATION

BUILDINGS

INFRASTRUCTURE

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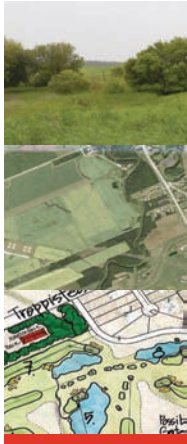
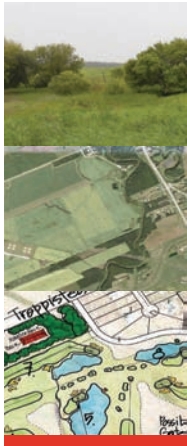
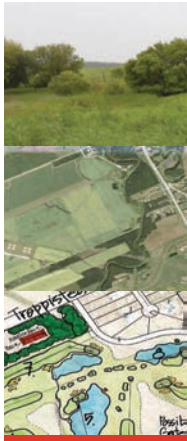
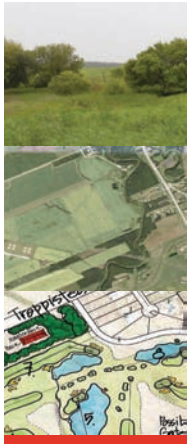


TABLE OF CONTENTS





LIST OF APPENDICES



1.0 INTRODUCTION

The Southwood Golf and Country Club, located at 101 Markham Road near the University of Manitoba, is proposing to relocate its existing 18-hole facility west of the La Salle River south of Rue Des Trappistes (Figure 1). Over the long term the course has acquired enough land to support possible expansion to 27 holes.

The proposed new golf course is considered a Class 2 Development as defined by the Classes of Development Regulation 164/88 under *The Environment Act* (Manitoba). This class development requires submission of an Environment Act Proposal Form (EAPF) and an Environmental Impact Statement (EIS) to Manitoba Conservation in order that public and government agencies can examine the details of the project; its anticipated impacts on the biophysical and socio-economic environments; and the measures the proponent intends to use to mitigate potential environmental impacts. Because the new golf course will draw water from the La Salle River (considered supporting fish and fish habitat), the project also requires the environmental assessment be reviewed by the Department of Fisheries and Oceans (DFO) Canada through Manitoba Conservation. Regulatory advice or approval is also required from Transport Canada, Navigable Waters Protection Branch (NWPB) because the La Salle River is considered to be a navigable waterway, and from Manitoba Water Stewardship (MWS), to issue a License to Divert and Use Water. Separate submissions to DFO, NWPB and MWS were made to address these requirements.

This document supports the EAPF and constitutes the EIS for the proposed golf course. The project includes consideration of environmental effects of undertakings associated with the construction, operation and maintenance of the golf course facility. The scope of the environmental assessment includes an examination of potential changes to the environment that may result from the project, including consideration of effects to the physical, biophysical, socio-economic and cultural heritage environments. The study area (i.e., geographic scope of the assessment) includes the local area directly affected by the project, specifically lands within and immediately adjacent to the proposed development.

As part of the environmental assessment, general mitigation measures and procedures have been outlined as part of a management tool to support construction specifications and “on-ground” activity to prevent or minimize adverse environmental effects from site clearing and construction, operation and maintenance of the facility. These mitigation measures are general recommendations to be utilized by field construction and operating personnel. This approach ensures that the identified effects will be managed through the application of established environmental practices and mitigation techniques.

Figure 1: Proposed Project Site

1.1 Owner of the Land

Offspring Farms Ltd. is the current owner of the parcel of land to be developed for the proposed Southwood Golf Course (Appendix A). The legal description of the subject property is as follows: part Parcels C, D, E, F, G, H, Plan 31578 and part Parcel A, Plan 35968 (WLTO) in the Parish of St. Norbert (Figure 2). The Southwood Golf and Country Club is proposing to purchase approximately 285 acres of land currently used for agriculture to develop the proposed golf course.

1.2 Owner of the Mineral Rights

The Crown owns the mineral rights for the land upon which the proposed Golf Course will be developed. Southwood Golf and Country Club will not be acquiring mineral rights.

2.0 PROJECT DESCRIPTION

The proposed new Southwood golf course is currently planned to be an 18-hole Championship course situated on a parcel of agricultural land south of Rue des Trappistes and west of the La Salle River in the St. Norbert area of the city of Winnipeg. The golf course will comprise approximately 285 acres of private property that will be purchased for development from a larger land holding. Eighteen holes will be developed initially, with enough land acquired to possibly expand to 27 holes. Each nine hole section will be built to include a set of Championship tee boxes of at least 3,700 yards, a second set of tee boxes measuring 3,300 yards, a third set of tee boxes measuring 3,000 yards and a front set of tee boxes approximately 2,600 yards long. The proposed course is scheduled to open for business in the spring of 2010.

A preliminary golf course concept design was prepared in July 2007 by Thomas McBroom Associates Ltd. A copy of the concept plan is included as Figure 3. The concept plan shows the golf course accessed via a new roadway off of the existing Des Ruines du Monastere road. The new access road bisects a part of the conceptual golf course layout, leading to a clubhouse, a parking area for ± 250 vehicles, a driving range and a chipping area. A golf course maintenance building and yard is proposed at the treed area at the northern limit of the proposed site south of Rue Des Trappistes and west of Des Ruines du Monastere.

Contour levels at the proposed golf course are generally uniform as the site is relatively flat. Some slight changes in relief are noted along a principal natural drainage in the northern part of the site and southeast of the proposed clubhouse location where the land slopes moderately down towards the La Salle River.

The golf course layout identifies nine holes located in the northern-third of the site, north of the clubhouse. The remaining nine holes, a landscaped parking lot, the driving range and chipping area are located in the southern two-thirds of the site south of the clubhouse. Three holes, 7, 8 and 9, are adjacent to a residential area off of Rue du Monastere, south of Rue Des Trappistes, and the Trappist Monastery Heritage Park site. The configuration of the golf course may change but is representative of what is planned for the site.

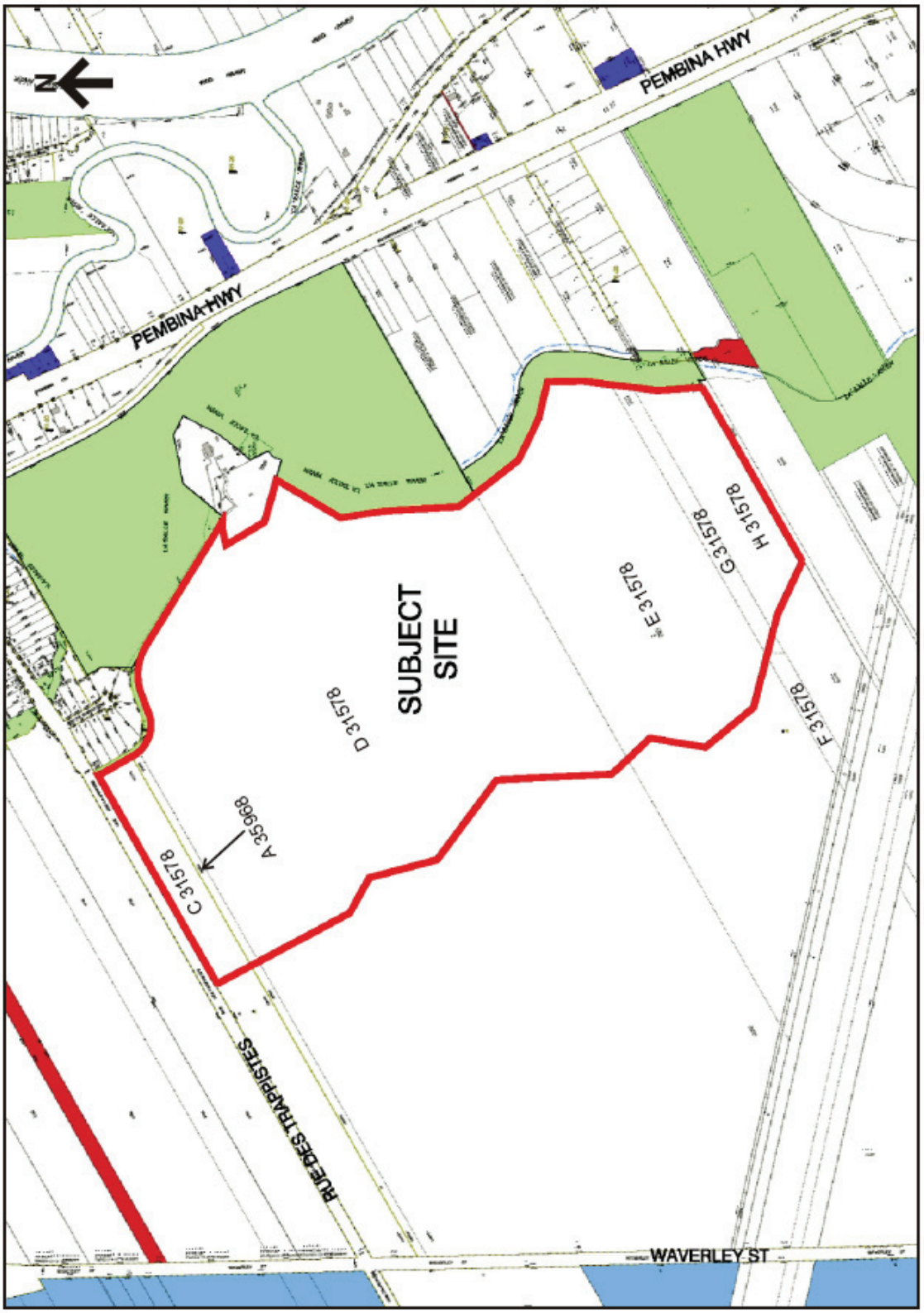


Figure 2: Legal Plan

Figure 3: Conceptual Plan

The golf course clubhouse and parking area will be located to the southwest of the Trappist Monastery Heritage Park site in the vicinity of an existing Oak grove at the end of the new access road. Detailed clubhouse building design plans have yet to be prepared, however it is anticipated that the building will serve as a multi-purpose facility that will likely include the following amenities:

- An attached pro golf shop and associated facilities;
- Restaurant;
- Dining room;
- Boardroom;
- Screened patio;
- Centralized kitchen;
- Office space;
- Meeting/training/lunch room;
- Men's and ladies locker room; and
- Washroom facilities.

External facilities typical to most golf courses will include:

- Facility access and parking;
- Practice facilities;
- Club grounds;
- Centrally located snack and beverage facility (possibly part of the clubhouse);
- Starter's hut;
- Centralized covered shelter;
- Intercom system;
- Possible male and female washroom facilities per each nine hole section;
- Network of paved or gravel cart paths for the course and maintenance purposes;
- Possible secondary network of maintenance paths;
- Course maintenance building; and
- Seasonal cart and club rental and storage (likely be provided at the golf shop or maintenance building).

Connections will be made to nearby municipal water and sewage systems. Hydro, gas and telephone services will also be extended to the course site.

The maintenance building and yard, to be located in a wooded area south of Rue Des Trappistes, will contain the equipment and supplies required to maintain and operate the golf course. The

building will also serve as a garage where repairs and maintenance work are conducted. Two aboveground storage tanks, one for gasoline and the other for diesel to fuel the maintenance equipment, will be located at the maintenance yard. The storage tanks will be installed to meet new tank regulations coming into force in 2010. A dedicated area within the maintenance building will be set aside for equipment maintenance, including oil and filter changes, and for used oil and filter collection for recycling. Some supplies of fertilizers, herbicides, and grass seed will also be stored in this building as required.

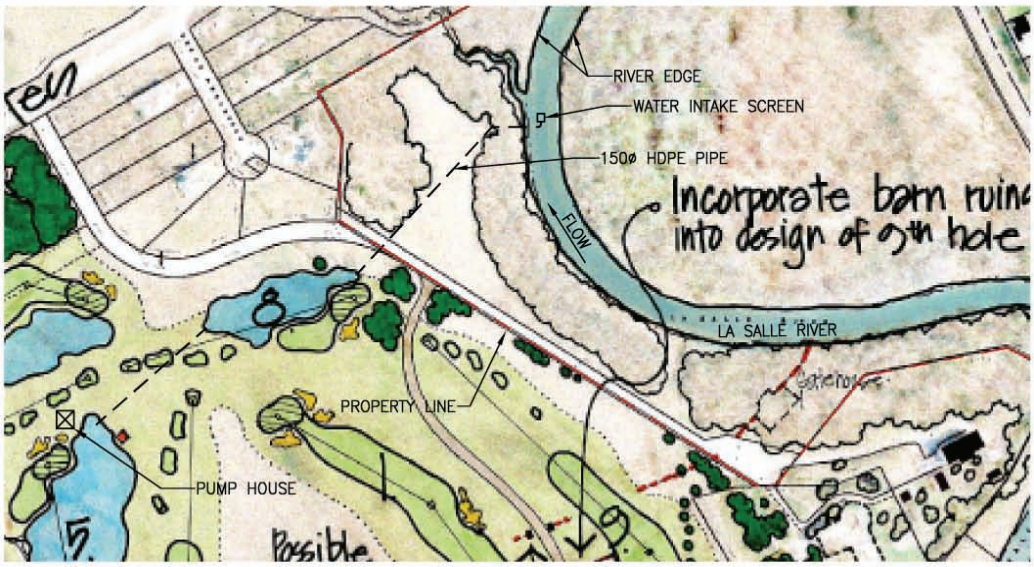
Irrigation for the golf course will be provided by a system of ponds comprising a northern and southern drainage system as illustrated on the conceptual plan (Figure 3). The natural and artificial drainage system will be designed to accommodate the average rainfall for the region plus a factor of 25% to accommodate increased rainfall anomalies, such as occurred in the spring and summers of 2004 and 2005. The ponds will be about 3 to 4 metres deep. A drawdown maximum of approximately 0.5 m is proposed for the pond reservoir system. The final configuration and size of the ponds will be determined based on water storage and fill requirements and the licensed water withdrawal from the La Salle River.

The pond at hole 5 will likely be designated as the main reservoir with a pumphouse located near the north end, which would be close to existing electrical power along Des Ruines du Monastere. The pond near hole 8 will likely be used as a settling pond to remove silt prior to using the water for irrigation. Ponds encompassing the southern drainage system will be used for storm water management and fill material but will not be used for irrigation water storage unless necessary.

An irrigation intake line will be required and will likely extend approximately 190 metres from the La Salle River to a settling pond. The location and design of the intake line is as illustrated in Figures 4, 5 and 6. The line will provide raw water from the river to a wet well located inside a pumphouse located near the settling pond. The water level in the La Salle River can fluctuate between approximately 2 to 5 metres at its deepest point in the area for the intake, between April and August of any given year. The presence of an intake line in the La Salle River requires consultation with the Department of Fisheries and Oceans (DFO) Canada, Navigable Water Protection Department (NWPD) of Transport Canada, and Manitoba Water Stewardship Water Licensing Branch. Approval for the intake design from DFO was received in August 2007 (Appendix B).

From the wet well at the pumphouse, water will be distributed by electric pumps and underground distribution lines to the golf course. It is proposed to withdraw approximately

35 million gallons (US)/year from the La Salle River for irrigation use. The water may be treated with chemicals or filtered prior to use for irrigation. A fully computerized, programmable control system and a network of automated sprinklers will be used for irrigation. The control system will be located within the maintenance building.



LOCATION PLAN

MMM GROUP	ND LEA Inc. Suite 111 - 93 Lombard Ave. Winnipeg, MB R3B 3B1 t. 204.943.3178 f. 204.943.4948 www.mmm.ca	SOUTHWOOD GOLF COURSE PROPOSED WATER INTAKE WATER INTAKE SCREEN & PUMP HOUSE LOCATION		
		SCALE: N.T.S.	DATE: JULY 20, 2007	DWG. No. 41725-SK-002

Figure 4: Pump Intake Location for the Proposed Golf Course

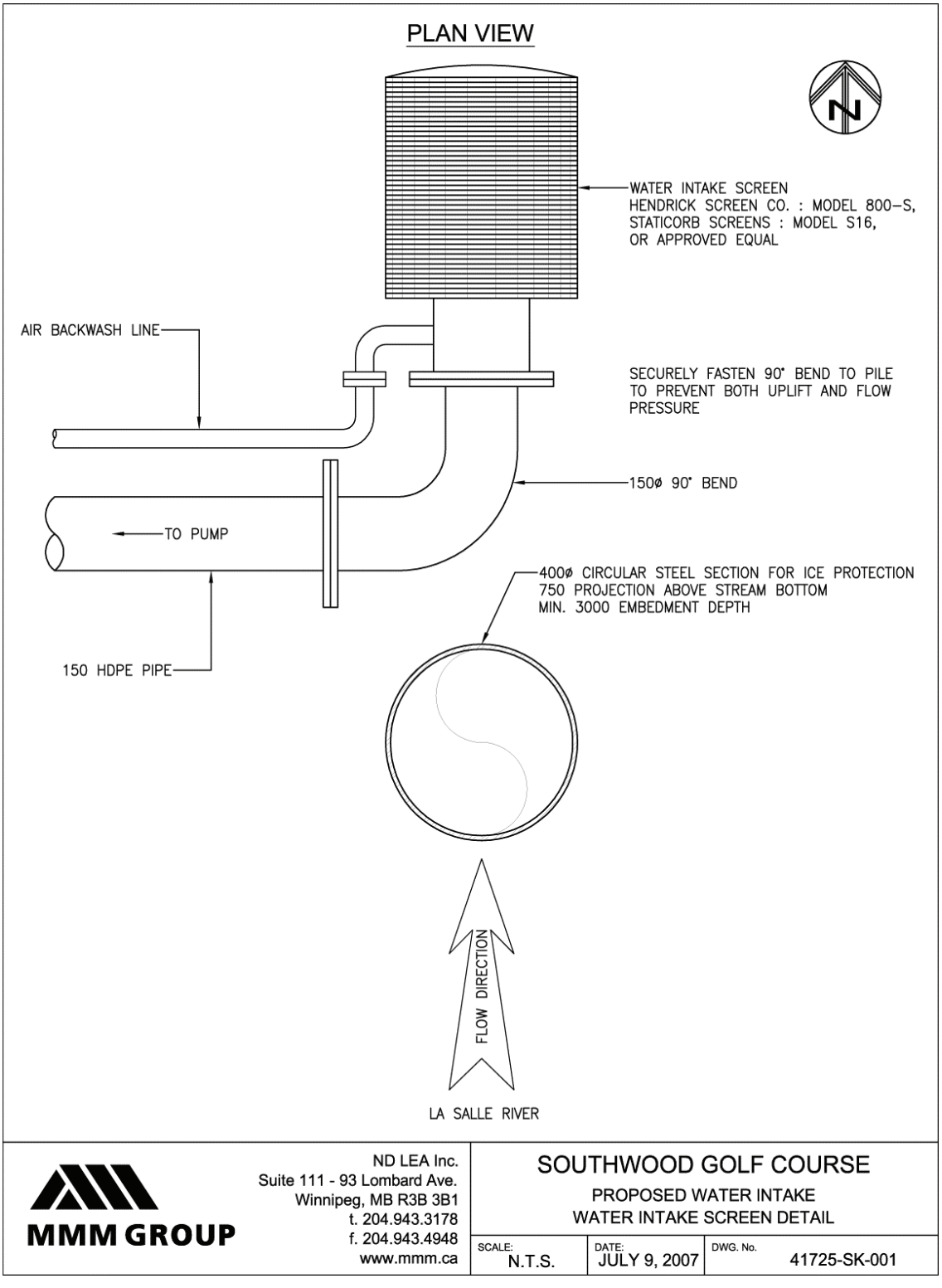
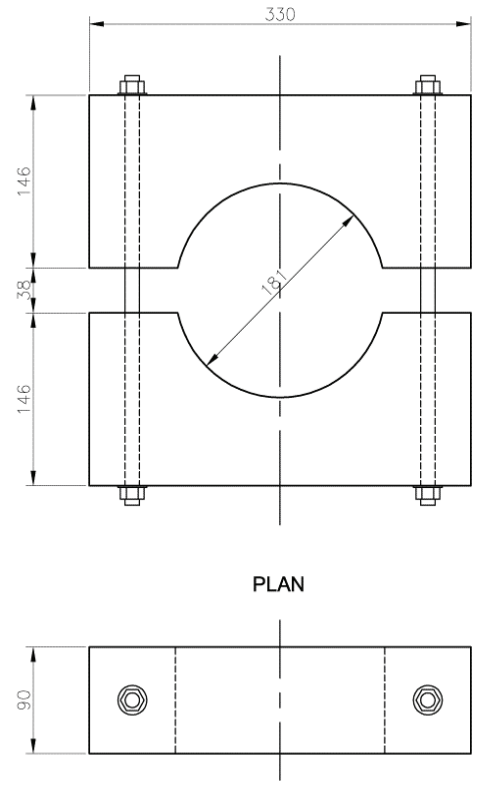


Figure 5: Proposed Water Intake Screen Detail



CONCRETE WEIGHTS FOR SUBMERGED SERIES 150 HDPE PIPE

N.T.S.

NOTES:

1. PIPE PROTECTED FROM CONCRETE WEIGHT WITH NEOPRENE SPOUNGE UNDERPAD CUT 50mm WIDER THAN THE WIDTH OF THE WEIGHT
2. CONCRETE IS A MINIMUM 20MPa.
3. ALL BOLTS, NUTS AND WASHERS ARE STAINLESS STEEL.
4. ALL WEIGHTS WERE SUITABLY REINFORCED TO PREVENT CRACKING DURING INSTALLATION OF THE PIPE.
5. ALL WEIGHTS INSTALLATION SPACING AT 1.50m.

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SOUTHWOOD GOLF COURSE
PROPOSED WATER INTAKE
CONCRETE WEIGHTS DETAIL

SCALE:	DATE:	DWG. No.
N.T.S.	JULY 20, 2007	41725-SK-003

Figure 6: Proposed Water Intake Concrete Weights Detail

2.1 Site Preparation and Construction

The golf course site consists principally of agricultural land with some pockets of forest cover located on the property. Photographs of the site are included in Appendix C. Site clearing will commence with earth works consisting of cut and fill activities, followed by fine grading, drainage works and excavation for the irrigation and pond system. It is anticipated that no material will be brought on-site for construction. A cut and fill balance is envisioned for the construction of the golf course. Material such as sand and granular material that will be required for the operation of the golf course will be imported to the project site (i.e., bunkers, pathways).

The design concept proposed seeks to minimize the amount of clearing required and leave as much of the natural areas as possible on the course itself. Large, old-growth trees will be surveyed and flagged prior to clearing and construction to ensure that they are not damaged so they can be incorporated into the golf course design.

Construction activities will also include the installation of the pumphouse, the intake line to the La Salle River and the internal irrigation distribution lines.

The final stage of golf course development will involve course landscaping. There is the possibility, that through discussions with the University of Manitoba and Manitoba Hydro, trees from the existing golf course may be removed and replanted at the new proposed golf course location. Purchasing of additional trees may also be required for the new golf course landscaping.

2.2 Operation and Maintenance

The operation and maintenance (O & M) of the proposed golf course will be conducted in accordance with applicable Best Management Practices (BMPs) that will seek to blend environmentally responsible maintenance practices into day-to-day golf course operations. As much as practicable, the Southwood Golf Course intends to follow the Standard Environment Management Practices that are generally applicable to all golf courses and which form the basis for the Audubon Cooperative Sanctuary Program. The proponent is committed to incorporating as many of these standards as practical in balancing the demands of golf with their responsibility to the natural environment.

The following discussion of operation and maintenance practices is based on information obtained from the current Course Superintendent at the existing Southwood Golf and Country Club. Operation and maintenance activities undertaken at the current golf course, which will also apply to

the new location, consist of the following: irrigation/water withdrawal; use of fungicides and fertilizers; pesticide use; fuel/lubricant use and storage; tree/flower bed maintenance; and use of municipal services.

2.2.1 Irrigation / Water Withdrawal

The golf course will be irrigated using a water well (pumphouse) and a screened pump intake line from the La Salle River. River water will be fed into a settling pond and then the main reservoir established as part of the golf course pond drainage system. Golf course water withdrawal may be supplemented from a nearby City of Winnipeg watermain hook-up and would require a separate servicing agreement. An automatic sprinkler computer system located within the maintenance building will control watering during the seasonal operation of the course. Automated watering of the greens, teeboxes and fairways will occur at night between approximately 10:15 p.m. and 5:00 a.m. Greens and teeboxes will be watered nightly when required during hot and dry weather and less so during wetter periods.

Fairways will be watered less frequently, possibly once or twice a week, but could be watered four to five times per week if there is a spell of hot and dry weather. The proposed target rate of irrigation would likely be set at approximately one inch per week. This rate of irrigation will depend on the amount of precipitation, the temperature and degree of evaporation along with the soils natural moisture retention capabilities. The golf course will be sloped and graded to ensure optimum drainage and best use of irrigated water given the clay soil conditions.

The proponent has submitted an application to Divert and Use Water to Manitoba Water Stewardship, Water Licensing Branch. If approved, MWS will issue a license to Southwood Golf and Country Club to withdraw water from the La Salle River for irrigation use. The license will contain terms and conditions as well as an annual limit.

2.2.2 Herbicides / Fertilizers

Herbicides and fertilizers will be used to maintain the greens and fairways. Greens and fairways will be sprayed with fungicides in the fall. Spraying for weed control would occur during the spring and summer as required. Products required will be ordered and brought to the course for application. Some storage of product may also occur at the golf course in approved industrial-sized metal containers at the maintenance building.

Generally, the greens, tee boxes and fairways would be fertilized with a standard fertilizer mix, including the use of both liquid and granular products. The fairways would likely be fertilized three times a season (i.e., spring, summer and fall [during the dormant stage]). A follo fertilizer is applied

using a sprayer during the spring and summer. In late fall, a dormant fertilizer is applied using a spreader. The greens would likely be hand applied throughout the season every 7 to 14 days (from May up to October [Thanksgiving weekend]). The tees, depending on the weather, would be fertilized with a granular product every six to eight weeks. Very little long-term storage of fertilizers would occur on-site and most are likely to be brought to the site as needed during course operation. Some unused fertilizer from the previous seasons operation could be stored over the winter in a side building, or in a dedicated area in the maintenance building.

2.2.3 Pesticide Use

Pesticide use at the golf course is expected to be minimal, and would only be applied in response to nuisance concerns (e.g., infestations). Any application of pesticides on the golf course would be carried out by a certified contractor and would be subject to a yearly "Pesticide Use Permit" issued by Manitoba Conservation to the proponent. This permit must be renewed annually.

It is expected that the golf course would fog for nuisance mosquitoes on an as required basis. Any fogging would likely occur at night in the early morning (i.e., approx. 3:00 a.m.) and would involve using a hand-held diesel carrier fogger with Malathion (at a ratio of 6:1 [one part Malathion]). Any decision to proceed with fogging on the course would be weather dependent and based on the number of complaints received from the golf club members and/or other concerns. The City of Winnipeg currently fogs and larvacides for mosquitoes in the vicinity of the proposed project area. One hundred meter buffer zones are respected by the City of Winnipeg for residents who do not want fogging on their property.

2.2.4 Fuel / Lubricant Use and Storage

Golf carts used on the course will be electric powered. The carts will be placed in a storage area under the clubhouse during the off-season. Batteries for the golf carts will be stored in a heated area within the maintenance building during the fall/winter period. A licensed operator will collect any used batteries for proper disposal.

Maintenance equipment and mowers on the course would use gas and diesel fuel. The fuel product will be stored in two separate aboveground storage tanks as required by new regulations coming into force in 2010. Equipment oil and filters will be changed at a dedicated area within the maintenance building. Used oil and filters will be collected within 45-gallon drums for recycling and proper disposal.