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Our File No.: 76154-1

April 7, 2017

The City of Calgary
P.O. Box 2100, Station M
Calgary, AB T2P 2M5

Attention: His Worship Naheed Nenshi and Members of Council

Dear Sirs/Mesdames:

Re: Applications in respect of The Hamptons Golf Course (or "Golf Course")

LOC2016-0099:	**Amendment to the Crowchild Trail Phase 4 ASP and Redesignation of parts of the Golf Course to Residential**
LOC2016-0099(OP)	**Subdivision of 7.51 ha (18.55 ac) of the Golf Course (collectively, the "Applications")**
Applicant:	**QuantumPlace Developments ("Quantum")**
Owner:	**Hamptons Golf Course Ltd. (the "Owner" or "Windmill Golf")**

My office acts for the Hamptons Homeowners' Association, for the Hamptons Community Association, and for a group of concerned residents of The Hamptons known as The Hamptons Residents for Responsible Development. I write on their behalf in connection with the above-captioned Applications and public hearing set to proceed before Council on April 11, 2017.

As you may know, the City of Calgary has received over 3,400 letters in opposition to the Applications. The opposition in The Hamptons Community is both wide and intense, and the concerns on which it is grounded are many.

The purpose of this letter is not to review all or even most of these concerns. It is to focus on two issues which, in our respectful view, ought to have received greater attention but seem to date to have been largely overlooked:

1. the Owner's longstanding assertion, to which it has repeatedly declined to commit, that the revenue generated by the excision from The Hamptons Golf Course of over 18 acres and two holes will be used to bolster the viability of the Golf Course and assure its long term survival; and

2. the unusual importance of the Golf Course lands to key elements of the community's stormwater management system.

A brief history of The Hamptons community follows, then a short passage on each of these concerns.

The Hamptons – An Early Model Community

The Hamptons is a self-sustaining community built around a world-class golf course. The community was established in 1990, and the Golf Course opened in 1995.

Purpose-built infrastructure designed and constructed by the developer, Tirion Properties Ltd. ("Tirion"), included an elementary school, paved walking and bicycle paths, soccer pitches, tennis courts and baseball diamonds. The Hamptons Golf Course was, among other things, to perform the following important functions:

- provide open space for the community;
- serve as a green habitat for wildlife; and
- act as a privately-owned, design-built facility to house and operate vital elements of the community's stormwater management system.

Through the Homeowners' Association, all property owners in The Hamptons except Windmill Golf, the successor to Tirion as the owner of the Golf Course, pay annual fees to fund the repair and upkeep of these assets and facilities. While paid for by The Hamptons' homeowners, the assets and facilities are accessible to all Calgarians. As well, through maintenance and enhanced landscaping contracts, homeowners of The Hamptons have contributed more than $5.5 million to the City of Calgary since 2003 for various green space maintenance and landscaping services.

Financed by its own resources, The Hamptons had a 10-15 year start on the creation of a sustainable self-reliant community as encouraged in the current Municipal Development Plan (the "MDP").

1. No Alignment with MDP Principles or Other Promised Community Benefits – Only Harm

The Hamptons Golf Course lands are, as they were designed to be, an integral part of the large-scale landscaped and open-space areas that define The Hamptons community. Consistently, the MDP directs that new development proposals are to "[p]rotect and promote large-scale landscaped and open-space areas that define neighbourhoods and local topography and enhance Calgary's river valley park system", and to "[p]rotect the basic function of city parks and public open spaces, and prevent parkland conversion to other uses".

The Applicants' current proposal to convert over 18 acres of recreational space to residential use is, on its face, misaligned with these objectives. The Applicants do not even profess that the resulting inevitable additional strains on transportation infrastructure and services, on the already-full school and on the already compromised stormwater management system will be offset in any way by the sorts

of countervailing benefits contemplated by the MDP – for example, by improved access to health, retail, workplace or recreational facilities or opportunities.

Instead, the Owner has represented throughout that the supposed benefit to the community will be something else. The City of Calgary's website repeats the Applicants' longstanding allegation that the land use redesignation proposal is "to improve the long term viability of the club by generating additional revenue that will allow the course to continue to remain operational". The Applicants' most recent expression of this promise is in Appendix I to the CPC's Report to Council, where it is represented that the proposed changes of use "will help with the long term viability of The Club by generating revenue that will assist in the reconfiguration and upkeep of the course, allowing it to remain operational as an 18 hole golf course".

If these claims were true, then both the City of Calgary and the residents of The Hamptons would be entitled to expect the Applicants to commit at least to the following:

(a) the restoration of The Hamptons Golf Course to a playable layout in light of the extraction of over 18 acres and two holes;

(b) the preservation of the reconstructed course and its facilities, including the essential components of the stormwater management system serving the community; and

(c) the dedication to these purposes of at least some of the profits intended to be generated by Owner from its conversion of recreational space to a more lucrative use.

Unfortunately, however, there have been no such commitments.

There has been no publication at The Hamptons Golf Course or communication to club members of any plans to reconstruct the amputated areas, and there is no known current development application for their reconstruction and for replacement of the two holes directly impacted. In June 2015, Quantum was quoted as having told an open house meeting that the Owner's need for revenue elsewhere in its portfolio might lead, in fact, to the conversion of the rest of the Golf Course to residential development. I wrote to the Applicants on May 30, 2016, shortly after their application was made, seeking confirmation that funds generated by the conversion of recreational areas to residential development would be dedicated to preserving and repairing the Golf Course, rather than being diverted to other Windmill Golf projects. No such assurance was forthcoming then, and none has been forthcoming since. Councillor Carra again sought such a commitment at the February 23, 2017 Calgary Planning Commission meeting, but Quantum said that it could not speak for the Owner. The Owner has chosen not to appear before CPC to speak for itself on the point.

Moreover, as discussed below, (a) the Owner has recently dug large volumes of rocks out of one of the stormwater holding ponds on the Golf Course, apparently so that they can be taken to another golf course in the Windmill Golf portfolio, and (b) its recent administration of the stormwater management system has seemingly become casual and risky.

In summary, there can be no genuine claim of compliance with the principles of the MDP. And the words of the Applicants to the public, echoed by the City of Calgary, about all of this being to assure instead the improved long term viability of the Golf Course, have proven empty.

2. Community Stormwater Management – Not Just an 18 Acre Issue

If these Applications concerned a community not planned and built to be self-sufficient with its own private infrastructure, it might be acceptable to consider the redesignation of two discrete parcels of over 18 acres without taking into account broader community implications.

But that is not the case here.

The unique stormwater management system is an easy example. Historical data indicates that The Hamptons community receives about 17.5 inches more precipitation annually than does the Calgary International Airport. It sits on glacial moraines, which is why its stormwater management system was based on Nordic European designs. The topography of the Golf Course was deliberately contoured to accommodate and manage the stormwater running under and through it, and to protect and sustain the surrounding area; see MacKenzie and Dumont, "Zero Discharge Stormwater Management", *Journal of Water Management Modeling* R207-06 (2001), an article specifically detailing the design and construction of The Hamptons system (enclosed).

Initially, Tirion's responsibility to construct, maintain and operate the stormwater management system was in service solely of The Hamptons community. Over time, however, the City of Calgary looked to The Hamptons system to offload stormwater from other parts of Calgary, including west Edgemont and the Spyhill Landfill site, when development in such areas removed or compromised natural drainage channels and/or absorption. These additional burdens reached such a level that Tirion objected. In 2005, an agreement was reached under which the City of Calgary was required to pay $25,000 per year to help account for the additional burdens.

The Spyhill Landfill site turned out to be leeching contaminants. This caused the City of Calgary to install environmental monitoring wells between the Landfill site and areas within The Hamptons. The City of Calgary has continued to build or to permit further development that has increased the burdens on The Hamptons system, and more development is contemplated east of Country Hills Boulevard.

The additional burdens implied by these further development plans have not been considered in the current Applications because they fall outside the discrete land parcels that are the subject of it.

Enclosed is what appears to be the 2005 agreement between Tirion and the City of Calgary – an August 26, 2005 Amending Agreement, said to modify a "Stormwater Management Facility Maintenance and Easement Agreement for the Country Club of The Hamptons" (the "Management Agreement"). Both the Amending Agreement and the Management Agreement itself, also enclosed, are registered by caveat and run with portions of the Golf Course lands. The Management Agreement expressly requires that any purchaser enter into an Assumption Agreement to assume the ongoing obligations of Tirion thereunder.

Also enclosed is a copy of a 2010 CARB decision confirming that 61 Hamptons Drive N.W., one of the parcels that is the subject of the current Applications, is "an important piece of the Storm Water Management System in the area" whose "topography [makes] it almost impossible to develop".

As the Management Agreement reflects, both the "Stormwater Management Facility" and the "Stormwater Storage Pond System" are part of the Golf Course lands. The "Stormwater Management Facility" includes all topographical features for the drainage or control of stormwater, including grass swales, paved pathways and gutters, and the sloping, ditching and contouring of land. The "Stormwater Storage Pond System" is specifically defined to include three ponds and various interconnecting pipes and control structures. Without the written approval of the City Engineer, the Owner is prohibited from erecting any structure, or allowing changes to the surface grades, which could restrict or interfere with the Stormwater Management Facility.

Importantly, the Owner shall, at its expense, maintain at all times the Stormwater Management Facility in accordance with the hydraulic and storage volume designs. It shall be responsible for the quantity of water contained therein. It shall install and maintain flow controls. It shall perform all necessary general maintenance and repairs.

There has been no indication that City Administration has reviewed and considered how these important responsibilities of the Owner to the surrounding communities are impacted by both changes to the Stormwater Management Facility and, as the Applications contemplate, the elimination of one of the containment ponds. These considerations are of particular importance in light of the increased burdens on the system since 2005, and the expected additional future burdens on the system as a whole.

Significantly, it seems that the Owner has no proper appreciation of these matters either. Recent events suggest that it is either oblivious to, or unconcerned about, the vital elements of the stormwater management system in its custody and under its management, with the result that the system is already compromised. In 2016, Windmill Golf ceased operating a number of the golf course fountains designed to release stormwater, and recently it has excavated and removed from a key holding pond large numbers of rocks from the pond support walls, apparently so as to remove them to another Windmill Golf course. In August 2016, the water retention pond on holes 14 and 15 – now proposed to be removed – rose more than twelve feet in an hour and breached its downslope banks. All of this suggests both a lack of attention and adherence by the Owner to its vital contractual obligations, and a lack of oversight and enforcement by the City of Calgary of performance of those contractual obligations.

As mentioned, The Hamptons stormwater management system includes a variety of drains, control dams and retention ponds, linked through both above ground swales and other designed topographical contouring and a network of underground pipes. There is no indication that the sensitive interdependence of these elements has either been recognized or taken into account in the Applications, which by definition include the bulldozing of parts of the course and the removal of one of the containment ponds. Quantum's April 21, 2016 submission, while acknowledging the Applicants' intention that the "storm pond located on hole 15 will be removed from Site A", described its removal merely as part of a "staged master drainage plan for the development" being proposed. Administration appears never to have actually examined the private elements of the unique stormwater

management system dependent upon the Golf Course but, according to its Report, the removal of the pond has been accounted for by "additional capacity being added to other area Storm Ponds" – presumably some of the smaller legacy ponds comprising the Stormwater Storage Pond System. Again, management of merely the "storm runoff from the plan area" itself has been the only stated consideration. What is missing is an amended, comprehensive, sustainable plan for the Stormwater Management Facility and the Stormwater Storage Pond System to ensure that they can and will serve the needs of all those who depend upon them.

Summary and Conclusion

By separate letter to City Administration and counsel for the Applicants, we have requested that:

(a) we be provided a copy of any Assumption Agreement entered into by the City and the Owner;

(b) we be provided copies of any records of City monitoring and enforcement of the obligations to maintain and operate the Stormwater Management Facility for The Hamptons as stipulated in the Management Agreement;

(c) we be advised whether the $25,000 annual fee has been paid to Windmill since it acquired the golf course lands in 2013;

(d) we be provided copies of any requests for the written approval of the City Engineer for changes to the surface grades on the parcels that are the subject of the Application, and of any written approvals given;

(e) we be provided a copy of any agreement purporting to modify the contractually agreed elements of the Stormwater Pond System, and of any Alberta Environment approval thereof; and

(f) we be provided a copy of the "staged master drainage plan for the development... prepared by WATT Consulting Group" referred to in the Applicants' April 21, 2016 submission, and copies of any further materials generated in the course of or in response to the DTR thereof.

The bottom line here, with respect, is that the Applications have plain implications for open spaces and stormwater management facilities that were expressly designed to be, and that remain, integral to The Hamptons and surrounding Calgary communities. To date the Applications have failed to receive the review that they warrant because, under the City of Calgary's current process, Administration is not asked to take a wide-angle view of impacts on the overall community but merely a narrow view of the discrete parcels that are the subject of the Applications. In more typical circumstances, such an approach might not be problematic. Here, where the circumstances are decidedly atypical, it is decidedly problematic.

We respectfully suggest that the public hearing for these Applications should be continued pending a review of these matters.

Yours truly,

Blair C. Yorke-Slader, Q.C.

BCYS:sl
Enclosures

cc: Hamptons Homeowners' Association

cc: Hamptons Community Association

cc: The Hamptons Residents for Responsible Development

cc: Office of the Mayor
Mr. Chima Nkemdirim, Chief of Staff

cc: City of Calgary Clerk's Office

cc: City of Calgary
Attention: Mr. Joshua deJong, File Manager
Attention: Ms. Denise Jakal

cc: Tingle Merrett LLP
Counsel for Quantum/Windmill
Attention: Mr. W. E. Brett Code, Q.C.

6

Zero Discharge Stormwater Management

(or Development Expediency Meets Sustainable Development)

John N. MacKenzie and Jim M. K. Dumont

This chapter presents the stormwater management system for a major development area in Calgary. The stormwater management system is a zero discharge system incorporating sedimentation, biological uptake/treatment and irrigation for disposal of stormwater runoff. The system has been designed, implemented and is in successful operation. The zero discharge stormwater system allowed the development area to proceed without off-site storm services, advancing development by some ten years, and controls/mitigates the effects of stormwater runoff on receiving waters.

New analytical techniques were required to assess the operation of the stormwater system because traditional design storm based methodologies are inadequate for assessing the combined inflow, storage and disposal processes. Continuous simulation, using long-term records of precipitation, temperature, and evaporation combined with estimates of plant moisture requirements formed the basis for the design of the stormwater management system.

6.1 Introduction

As rural land is undergoing urban development there is a great increase in impervious areas such as roads, roofs, driveways or sidewalks. Further, the large amount of impervious area, in the order of 35% to 65% of the overall catchment area, is generally directly connected to the area's drainage system. These factors combine to yield higher volumes of runoff and higher rates of storm runoff for post development conditions than pre-development conditions.

MacKenzie, J. and J. Dumont. 2001. "Zero Discharge Stormwater Management (or Development Expediency Meets Sustainable Development)." *Journal of Water Management Modeling* R207-06. doi: 10.14796/JWMM.R207-06.
 www.chijournal.org ISSN: 2292-6062 (Formerly in Models and applications to Urban Water Systems, ISBN: 0-9683681-4-X)

In a conventional storm drainage system either the downstream storm drainage system of pipes and/or ditches is enlarged or new storm outlets are constructed to accommodate development. In both cases there is discharge of storm runoff to a receiving waterway. No matter to what degree the rate of stormwater discharge is restricted, under post development conditions there will always be a significant increase in the volume of stormwater runoff.

In the past it was assumed that stormwater was uncontaminated and therefore was usually discharged to the nearest watercourse without further concern. It is now generally recognized that stormwater runoff is a significant source of pollutants to receiving waterways.

The Hamptons is a new residential and golf course development in northwest Calgary. The Hamptons is located in the Nose Creek drainage basin, draining to West Nose Creek (Figure 6.1). The rate of stormwater discharge to West Nose Creek is restricted to the capacity of the receiving waterway (Stanley, 1986). The Nose Creek drainage basin is in turn a component of the Bow River basin in Alberta. The Bow River is a world-class trout fishery and has been selected for protection by the regulating authorities, Alberta Environment and the City of Calgary. The City of Calgary and Alberta Environment have implemented stormwater quality enhancement requirements for all new development in Calgary draining to the Bow River system.

This chapter addresses work undertaken by the authors in previous employment with JNMacKenzie Engineering Ltd. (JNM).

6.2 Issues Facing the Development

The natural drainage path from the development area was outside of the City limits of the City of Calgary. Due to provincial legislation, agreements with downstream landowners would be necessary for the discharge of urban runoff into the existing intermittent drainage courses. Alternatively easements would be required from affected landowners to construct a piped storm sewer to West Nose Creek. It proved to be impossible to obtain the necessary agreements and easements from the landowners involved.

6.3 Approach to Development

Storm discharge to West Nose Creek from new development areas, including the Hamptons, is subject to a restriction in maximum flow rate of 2.6 L/s/ha for up to and including a 1 in 100 y return period runoff event based on basin studies completed previously (Stanley, 1986). Stormwater detention is required to

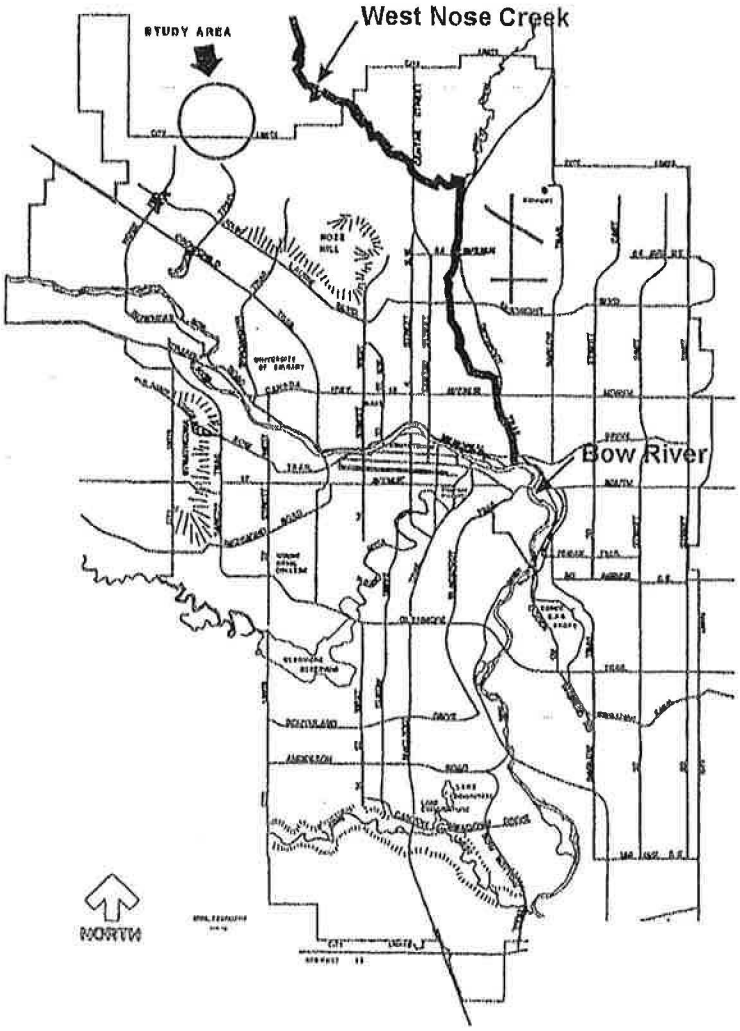


Figure 6.1 Location plan.Interim off-site drainage.

reduce the rate of storm runoff. Thus, the stormwater management planning for the Hamptons development area considered the use of stormwater detention facilities from the onset. The critical issue delaying the development of the Hamptons area was the lack of an off-site storm sewer to dispose of stormwater runoff after retention of the runoff in stormwater detention facilities.

Development planning was revised to include a golf course as an amenity and marketing feature. A golf course provides the physical location for the necessary stormwater detention facilities, and more importantly, the means of disposal of the stormwater runoff through irrigation.

The approach of temporarily storing all stormwater runoff in stormwater storage facilities and then disposing of the runoff by irrigation on the adjacent golf course provided several benefits:

- advancement of the project development schedule;
- reduction of post development flows in the receiving waterway;
- reduction of off-site storm drainage costs, albeit at increased on-site costs;
- reduction of pollutant loading to receiving waterway; and
- a significant step towards sustainable development through reduction of off-site quantity and quality assimilation demands and re-use of stormwater runoff

6.4 The Stormwater Management System

6.4.1 The Study Area

The development area is situated north of the Edgemont/Hawkwood development area (Figure 6.2). It is bounded on the west by Sarcee Trail NW, on the east by Shaganappi Trail NW, on the north by Stoney Trail NW (Transportation and Utility Corridor) and on the south by Country Hills Boulevard NW.

The study area changed under interim and long-term development conditions (Figure 6.2). As part of the normal development process the drainage boundaries will change as a result of re-contouring the land to make it more suited to urban development and neighborhood layout. The stormwater management system was designed to accommodate the changing drainage patterns and boundaries. Under interim development conditions the stormwater detention facilities serviced development within the Hamptons development area, the pre-development area west of Sarcee Trail NW, and the pre-development area to the east of the Hamptons. Interim development comprised some 230 ha while long-term development comprises some 189 ha.

6.4.2 Off-Site Considerations

Storm runoff from both the interim and long-term Hamptons Catchment area is retained on-site in stormwater detention facilities on a golf course within the overall development area. Stormwater runoff is disposed by means of golf

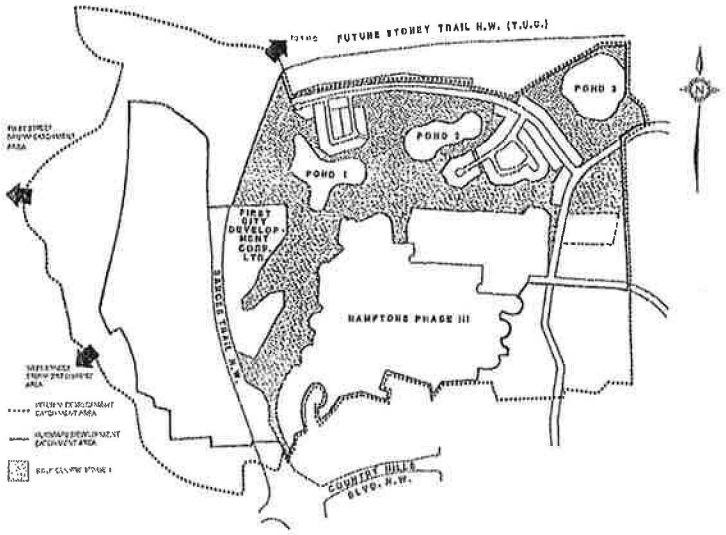


Figure 6.2 Study area.

course irrigation under long-term development conditions. However, until the golf course was constructed and the golf course irrigation system was functional, an interim stormwater disposal system was required.

Interim disposal of storm runoff was accomplished using an automated, real time control, off-peak system discharging to the existing storm sewer system outside the Hamptons catchment area (Figure 6.3). A lift station discharged stormwater through a force main from the detention facilities at the capacity of the off-site storm system. The automated control system prevented pumping of stormwater during storm events; pumping was only allowed when capacity was available in the off-site storm system. The design and operation of this temporary system was verified with a continuous simulation model. This verification process confirmed the viability of detaining the stormwater runoff in a system controlled in real time, based upon downstream system capacity.

As the golf course construction is now completed and the golf course irrigation system is in operation, the stormwater runoff is disposed of by golf course irrigation. Stormwater runoff is pumped to the golf course irrigation system at an average rate of 0.023 m^3/s for the period May 1 to October 31. The pumping rate of 0.023 m^3/s was derived from a maximum irrigation demand of 300 acre feet (370,000 m^3) apportioned over the May 1 to October 31 period. Golf course peak irrigation rates will be determined by available time for irrigation, typically after golfing hours.

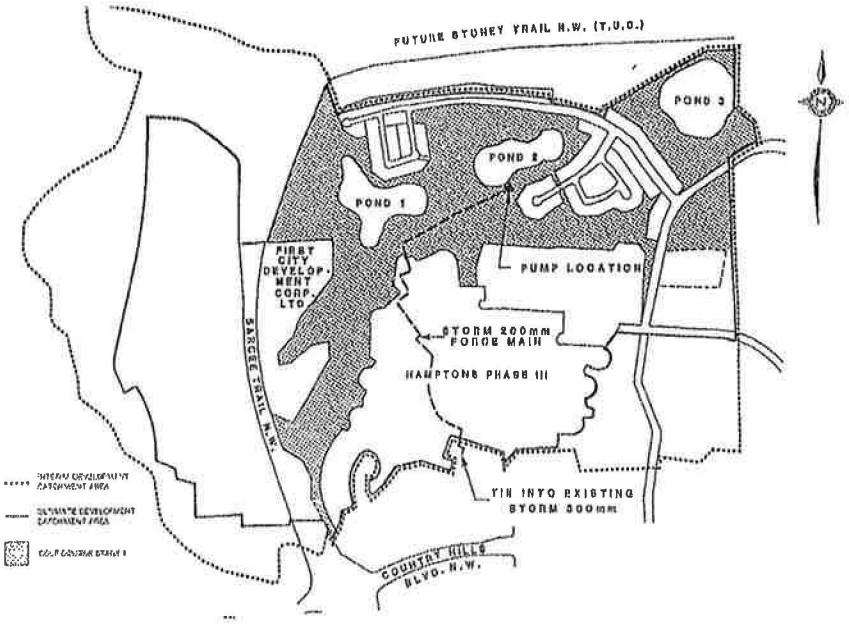


Figure 6.3 Interim off-site drainage.

Regulatory agency policies do not allow the design of systems that apply irrigation amounts in excess of the plant demand. That is, no system of this type can be implemented if it relies upon groundwater infiltration as a part of the disposal mechanism. The only disposal route is through the consumptive use of the applied irrigation water through plant uptake and transpiration. Therefore, the irrigation system does not operate during periods of rainfall or when the surface soil on the golf course has sufficient moisture to provide optimum plant growth. The analysis with the continuous simulation model accounted for irrigation demand only during the growing season and the decreased irrigation demand during and following rainfall events.

6.4.3 Physical Layout of the Stormwater Management System

The development area contains a deep ravine. The ravine area was generally too steep for residential development. The stormwater detention facilities required for stormwater runoff were located in the lowest part of the development area, the ravine area. Construction of dams across the ravine created reservoirs for storage of stormwater runoff.

The overall stormwater management system comprises the three stormwater detention facilities, the conveyance works between the individual facilities and the golf course irrigation system, and the outlet for the overall system. The three stormwater storage facilities were located in the bottom of the ravine; the facilities are at different elevations, Pond 1 being the highest and Pond 3 the lowest (Figure 6.2).

At permanent water level (PWL) the stormwater storage facilities contain approximately 160,000 m^3 of water. This storage volume is often referred to as dead storage and is not available for irrigation. The three stormwater storage facilities are sized such that the water level fluctuation above the PWL for Ponds 1 and 2 in a 1 in 100 y event will be 2.0 m, and 2.25 m for Pond 3. The detention volume, some 170,000 m^3, is contained in the live storage above the PWL. The available live storage is sufficient to contain a 1 in 100 y return period detention volume. Through the continuous simulation analysis the determination of detention requirements considered extended storm periods and short dry periods when no irrigation would occur. The system is also designed to eliminate the detained volume in each year of operation in order to eliminate annual carry over of detained volumes.

6.4.4 Project Design Flood

The stormwater storage facilities are impoundments behind dams across the ravine in the golf course. As such, the design of these facilities is governed by the regulations of the Water Resources Act, Dam and Canal Safety Guidelines (Alberta Environment, 1983).

The recommended project flood is based on the size and hazard potential classification of the structure in question (Alberta Environment, 1983).

The hazard potential related to a dam is dependent on physical size, capacity and downstream conditions. The hazard potential relates to the potential for loss of life or damage should the dam overflow in an emergency event.

The determination of the hazard potential is somewhat subjective. There is no immediate development planned downstream of the three stormwater storage impoundments in the Hamptons. Therefore no loss of life is expected and economic damage is expected to be minimal should the storage capacity of the dam be exceeded.

The Dam Safety Branch guidelines state that for each individual project, a design flood must be calculated by an acceptable method and routed through the catchment area, reservoir and outlets without affecting the integrity of the dam.

Based on the Alberta Environment guidelines, the recommended project flood for these facilities is the 100-y to 0.5 probable maximum flood (PMF) flood. The PMF for the urban catchment of the stormwater storage facilities was defined as the flood that would result if all climatic conditions were at the condition that would result in the maximum precipitation possible for the catchment area.

On a conservative basis a 0.5 PMF was selected for the stormwater storage facilities as the project design flood.

The 0.5 PMF project design flood was calculated on the basis of applying one half of the probable maximum precipitation (PMP) over the catchment area. Point values for PMP over a 10-d period were obtained from Atmospheric Environmental Services for the Calgary area. The PMP values for a 6 h duration were used as the critical short duration high intensity component of the overall 10 d period. The mass of rainfall for the following hours were averaged in order to achieve the 10 d total precipitation. These values were then divided by two to obtain the values for 0.5 PMP and plotted against time (Figure 6.4).

The 0.5 PMP was input to the simulation model to produce a runoff hydrograph that was routed through the catchment area to the three stormwater storage facilities. There is no piped discharge from the three stormwater storage facilities and hence no overflow from the facilities would be allowed.

The 0.5 PMF project design flood has a runoff volume of 371,400 m^3. The project design flood will be detained within the three stormwater storage facilities with a water level fluctuation of 4.25 m above PWL. There is an additional freeboard allowance of 1.0 m above the project design flood level in the facilities.

6.4.5 System Operation

The three stormwater storage facilities in the Hamptons are designed to function as one system in terms of storage. As the three facilities are at different elevations, and have different contributing areas, an automated control system that regulates water levels on individual ponds and discharge between ponds was utilized. The automated control system is equipped with sensing devices that continuously monitor water levels, spilling from upper ponds to lower ponds or pumping as required to maintain prescribed water levels on individual ponds. Overshot gates that can maintain a selected upstream water level for variable discharge control the interconnection between ponds.

The catchment areas tributary to respective facilities and the size of the individual facilities are not proportionate. Most of the overall catchment area drains to Pond 1. Pond 1 is at the highest elevation of the three ponds in the overall system. The large catchment area to Pond 1 dictates that the storage

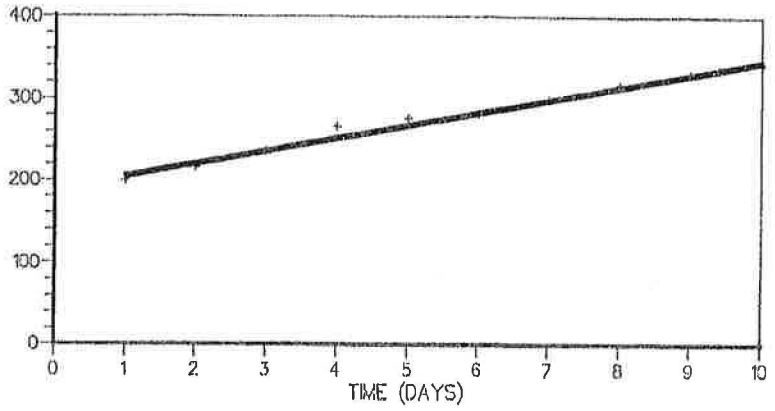


Figure 6.4 Calgary probable maximum precipitation.

capacity of Pond 1 is fully utilized and that flow to the downstream ponds will occur. Overflow from upper ponds to lower ponds is conveyed by means of a gravity pipe network from Pond 1 to Pond 2, and from Pond 2 to Pond 3. Water can be re-circulated from Pond 1 to Pond 2 and Pond 3 by means of the irrigation distribution system.

The automated control system regulates water levels in the three ponds, pumping or spilling as required to maintain specified water levels. Since completion of the golf course and its associated irrigation system, stormwater is disposed by means of golf course irrigation. No discharge from the stormwater management system takes place during periods of rainfall as the golf course irrigation demand is satisfied by rainfall at that time. Prior to the completion of the golf course, stormwater was disposed by an automated off-peak discharge system to the existing piped storm drainage in an adjacent catchment area.

The operation of the stormwater management system is summarized in Figure 6.5.

1. Up to a 1 in 100 y return period runoff event
   Ponds 1 & 2 operated to the same levels
   No discharge to Pond 3 until Ponds 1 & 2 reach 2.0 m of live storage
   Maximum water level in Ponds 1 & 2 is 2.0 m above PWL
2. During a 1 in 100 y return period runoff event
   Ponds 1 & 2 maintained at 2.0 m above PWL, spilling to Pond 3
   Pond 3 fills to 2.25 m above PWL

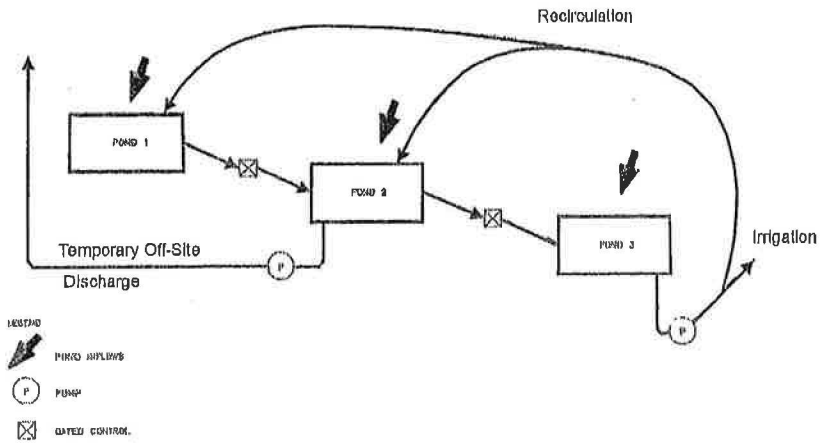


Figure 6.5 Distribution of 24-hr 0.5 PMF rainfall.

3. Greater than a 1 in 100 y return period runoff event
   Ponds 1 & 2 rise together above 2.0 m above PWL
   Pond 3 has local inflow and fills above 2.25 m above PWL
   No spill to Pond 3 from Ponds 1 & 2 until Ponds 1 & 2 reach 4.0 m above PWL
   Ponds 1 & 2 maintained at 4.0 m above PWL while spilling to Pond 3

6.5 Simulation Analysis

The stormwater management system was analyzed and designed on the basis of a hydrologic and hydraulic simulation of the performance of the system. System operation is complex; involving differential storage rates, automated pumped discharge, and variable and random periods available for stormwater discharge.

The approach chosen for the analysis of the stormwater management system is continuous simulation. This approach allows a probability analysis of runoff in the study area. The probabilities attached to various events, or put another way, their return periods, are correctly determined so as to carry out properly any associated risk analysis. The probabilities are determined by frequency analyses of the simulation results, in exactly the same way as if there were recorded data available.

An alternate simulation approach is to utilize synthetic design storms for the study area that have a probability of occurrence, or return period, associated with the design storm. The probability of occurrence, or return period, attached to a synthetic design storm is questionable, as it is not determinable what characteristic of the synthetic design storm has that probability of occurrence: the duration of the rainfall event, the peak intensity of the rainfall event, the total volume of the rainfall event, a combination of all three, or the runoff resulting from the rainfall event. There can be, therefore, no direct comparison of the runoff from what is referred to as a 1 in 100 y return period synthetic design storm to the 1 in 100 y return period runoff determined from a frequency analysis of recorded or simulated data.

Given historical recorded data, calibration of the simulation analyses can be undertaken. The use of the synthetic design storm approach does not allow calibration, as there is no recorded data that can be used for calibration. This continuous simulation technique and the computer model used in the analysis were calibrated during the Nose Creek basin planning process of which the Hamptons development is a contributing area (Stanley, 1986; JNM, 1988).

Perhaps the primary benefit of continuous simulation analyses is that the frequency of occurrence of conditions of interest can be properly estimated. For example, occurrence of a given water level in a stormwater storage facility depends not only on the rainfall volume and distribution, but also on antecedent conditions such as soil moisture in the catchment area and the existing water level in the storage facility prior to runoff commencing. Any stormwater management system that incorporates storage (hence any stormwater drainage system with a restricted discharge rate) is extremely sensitive to conditions prior to a rainfall event. A period of relatively low intensity of rainfall, but considerable volume of rainfall, may fill, or at least partially fill, the stormwater storage available. The system will then react quite differently to a significant rainfall event than had the stormwater storage been empty.

Using the design storm simulation technique, the frequency of the rainstorm average intensity is known from an intensity-duration-frequency relationship (IDF Curve), however, the rainfall distribution over the selected duration of the synthetic design storm and the critical antecedent conditions are usually specified according to an arbitrary design rule, if considered at all. The frequency of occurrence of the design condition therefore represents some unknown combined probability of rainfall and antecedent conditions. Hence the frequency of occurrence of the resulting condition of interest (e.g. water level, runoff rate) is also unknown.

Continuous simulation allows a direct observation of the frequency of the condition of interest from the modeling results such as pumping duration, annual maximum water levels, annual and monthly water level duration analysis.

Conditions of interest can be observed from the continuous simulation results on whatever time basis is desired. Often annual maximum and minimum values are recorded so as to carry out an annual frequency analysis. The continuous simulation analysis inherently considers all of the factors affecting a condition of interest as long as those factors were simulated, and hence accounts for the effect of joint probabilities in conditions such as water levels, maximum storage values, or pumping duration.

Long-term continuous hourly precipitation and temperature records beginning in 1960 were used to simulate the operation of the stormwater management system under different outflow criteria in order to determine the system storage and pumping capacity required. Through such operational studies it was possible to determine the overall system's response to extended wet weather conditions (multiple rainfall events).

The continuous simulation analyses addressed the stormwater management system as one combined facility rather than three separate facilities for the purpose of determining the volume of stormwater storage required in the system. Separate routing analyses were undertaken to ensure that the required stormwater storage, distributed between the three stormwater storage facilities, could be fully utilized under operational conditions.

Discharge from the stormwater storage facilities is only allowed during periods of no rainfall. For both the interim pumped discharge to the existing adjacent piped storm drainage system and the long-term pumped discharge for golf course irrigation this was modeled by not allowing any discharge from the system until runoff to the system had ceased. In the case of the interim pumped discharge to the adjacent development area the modeling approach considers that capacity in the adjacent storm sewer system is not available until runoff to the system has ceased. In the case of the long-term pumped discharge for golf course irrigation the modeling approach considers that there is potentially no irrigation demand during periods of rainfall.

For each year of the continuous simulation analyses the maximum stormwater storage volume occurring in the overall system was extracted from the continuous simulation analysis in order to carry out a probabilistic frequency analysis to determine the 1 in 100 y return period stormwater storage required.

A requirement of the probabilistic frequency analysis is that the individual events in the analysis (in this case the annual maximum stormwater storage volumes) are independent; that is the maximum stormwater storage in one year is not affected by the maximum stormwater storage in the previous year. In practice this requires that the live stormwater storage in the overall system must return to zero each year prior to the next year's maximum storage value. In other words, there must be no carry over storage from one year to another. If there is carry over storage a different probabilistic analyses is required.

A further consideration in considering carry over storage from one year to another for the Hamptons stormwater storage system is that the operation of the stormwater storage should be equivalent to other stormwater storage facilities in the City of Calgary. No stormwater storage facilities in Calgary utilize carry over storage from one year to another. Hence the stormwater storage system for the Hamptons was sized such that there was no carry over storage over the period of the continuous simulation analysis.

The discharge rate for the overall stormwater management system was fixed by either the interim off-peak discharge to the adjacent development or the long-term irrigation demand. Stormwater storage required to control a 1 in 100 y return period event was increased until no carry over storage was required in the period of simulation. Due to regulatory requirements, only the plant water demands have been met with the irrigation system. There is additional capacity for disposal in this system should disposal be allowed through excess application of irrigation and infiltration to groundwater.

The computer model utilized for the continuous simulation analyses was a modified version of the QUALHYMO model (Rowney and Wisner, 1985).

6.6 Stormwater Quality Enhancement

It has often been assumed that stormwater is uncontaminated and therefore stormwater has been directly discharged to the nearest watercourse without further concern. Generally, it is now acknowledged that that direct stormwater discharge can have detrimental effects on receiving waters in terms of the water quality of the stormwater runoff as well as the rate of stormwater runoff.

The potential for significant input of pollutants from stormwater runoff to a receiving watercourse is now generally recognized, and specifically recognized by Alberta Environment and the City of Calgary. Stormwater runoff, particularly after a prolonged period without rainfall, is contaminated through contact with street litter, eroded swales, deicing chemicals, animal droppings, traffic residue, fertilizers, biocides and atmospheric dust fall. Major constituents of street runoff (organic matter, algal nutrients, coliform bacteria, heavy metals and pesticides) have been found in the form of suspended solids.

The Hamptons stormwater management system retains all stormwater runoff without any discharge to the receiving watercourse. There is, therefore, 100% retention and removal of all stormwater pollutants from the receiving watercourse.

Due to the summer only discharge from the stormwater management system, all winter runoff is retained in the stormwater management system for an extended period. Further, as no discharge from the stormwater management

system is made during periods of rainfall, summer runoff is also retained in the stormwater management system. Average hydraulic residence times are:

- summer runoff: 4.4 months
- winter runoff: 10.4 months

The expected hydraulic residence times are such that removal of suspended sediment in the stormwater storage facilities is anticipated to be high.

Notwithstanding the argument that the Hamptons stormwater management system achieves a 100% removal of all stormwater pollutants discharged to the receiving watercourse (80% removal is the current objective of both Alberta Environment and the City of Calgary), the stormwater management system does not address disposal of accumulated sediments/pollutants in the storage facilities. The Hamptons stormwater system is not unique in this matter. The accumulated sediments in the stormwater storage facilities can be, and have been, removed physically. The issue of disposing of the removed sediments, depending on their pollutant makeup, has yet to be addressed in Calgary.

6.7 Conclusions

This chapter has presented a major development area in Calgary for which a stormwater management system incorporating sedimentation, biological uptake/treatment and irrigation with stormwater runoff has been implemented and is in successful operation. The zero discharge stormwater system allowed the development area to proceed without off-site storm servicing, advancing development by some 10 years, reduces the demand upon the potable water supply, and controls/mitigates the effects of development on receiving waters. Development expediency and sustainable development have met in Calgary. To date the partnership is going well.

The long-term disposal of the accumulated sediments in the stormwater storage facilities remains an issue due to the pollutants present in the sediments. Indeed this is an issue for all stormwater sedimentation facilities. There is a saying that ' We will have to generate problem solvers galore, for every problem we solve creates ten problems more'. We end this chapter with this thought.

References

Alberta Environment, 1983. The Water Resources Act Dam and Canal Safety Regulation Guidelines. Alberta Environment, Water Resources Administration Division, Dam Safety Branch. Edmonton, Alberta. January, 1983.

JNM, 1988. Stormwater Management Study - Crowchild IV Development Area. Prepared for the Crowchild IV Owners Group. JNMacKenzie Engineering Ltd. Calgary, Alberta. October, 1988.

Rowney, A.C. and P. E Wisner. 1985. QUALHYMO User's Manual. University of Ottawa. Ottawa, Ontario. 1985.

Stanley Assocs., 1986. Nose Creek Basin Storm Drainage Study, Phase 3 Report, Storm Drainage Screening Analysis. Prepared for the City of Calgary, Engineering Department. Stanley Associates Engineering Ltd. Calgary, Alberta. December, 1986.

USDI, 1977. Design of Small Dams. United States Department of the Interior, Bureau of Reclamation. Washington D.C. 1977

ALBERTA GOVERNMENT SERVICES
LAND TITLES OFFICE

IMAGE OF DOCUMENT REGISTERED AS:

051428532

ORDER NUMBER: 32347073

CAVEAT

FORBIDDING REGISTRATION

To the Registrar of the South Alberta Land Registration District:

Take Notice that **THE CITY OF CALGARY,** a municipal corporation in the Province of Alberta claims an interest in the following described lands pursuant to Section 655 of the *Municipal Government Act,* R.S.A. 2000, c.M-26, as amended and by virtue of a Stormwater Management Facility Maintenance and Easement Agreement dated the 4th day of May, 1992 (registered instrument number 931 259 284) and amended by an Amending Agreement dated the **26th** day of **August, 2005** made between **TIRION PROPERTIES LTD.** and **THE CITY OF CALGARY,** a copy of which Amending Agreement is hereby attached as Schedule "A" and forms part of this Caveat, setting forth the terms and conditions of development, namely:

See attached Schedule "B"

standing in the register in the name of: **TIRION PROPERTIES LTD.**

and it forbids the registration of any person as transferee or owner of, or of any instrument affecting the said estate or interest unless the Instrument or certificate of title, as the case may be, is expressed to be subject to its claim.

It appoints the office of the City Solicitor, 12th Floor, Municipal Building, 800 Macleod Trail S.E., Calgary, Alberta as the place at which notice and proceedings relating hereto may be served.

DATED this 2 day of ~~October~~ November, 2005.

THE CITY OF CALGARY
By its agent in that behalf

ALLAN R. CUNNINGHAM
Barrister and Solicitor

SCHEDULE "A"
TO CAVEAT

STORMWATER MANAGEMENT FACILITY MAINTENANCE AND EASEMENT AGREEMENT FOR THE COUNTRY CLUB OF THE HAMPTONS

THIS **AMENDING AGREEMENT** made this 26 day of August, 2005

BETWEEN:

THE CITY OF CALGARY, a Municipal Corporation of the Province of Alberta

(hereinafter referred to as "the City")

OF THE FIRST PART

- and -

TIRION PROPERTIES LTD., a body corporate carrying on business in the City of Calgary, in the Province of Alberta

(hereinafter referred to as "the Developer")

OF THE SECOND PART

AMENDING AGREEMENT

WHEREAS the City and the Developer on May 04, 1992, entered into a Stormwater Management Facility Maintenance and Easement Agreement for the Country Club of the Hamptons (the "Management Agreement");

AND WHEREAS the City and the Developer now wish to amend the Management Agreement;

NOW THEREFORE THIS AGREEMENT WITNESSETH that in consideration of the covenants and agreements herein contained, THE PARTIES AGREE AS FOLLOWS:

1. All defined terms in the Management Agreement shall have the same meaning in this Amending Agreement.

2. The Management Agreement is amended by deleting clause 1.01(a) and replacing it with the following:

1.01 (a) "Director, Wastewater" means the City's Director, Wastewater.

3. The Management Agreement is amended by deleting the words "City Engineer" wherever found in the Management Agreement and replacing them with the words "Director, Wastewater".

4. The Management Agreement is amended by deleting clause 4.01 and replacing it with the following:

4.01 The Developer shall, at its own expense, maintain at all times the Stormwater Management Facility in accordance with the hydraulic and storage volume designs as approved by the City to the satisfaction of the Director, Wastewater. As a result, the City shall pay a lump sum annually to the Developer in the amount of TWENTY-FIVE THOUSAND ($25,000.00) DOLLARS which shall be full compensation for work required to maintain the facility. The amount shall be subject to annual inflationary increases at the rate of Calgary's Consumer Price Index (CPI). An invoice shall be submitted annually to the Director, Wastewater by the Developer for payment.

IN WITNESS WHEREOF the parties hereto have executed this Agreement as of the day and year first above written.

APPROVED
AS TO CONTENT
WW
AS TO FORM SOLICITORS

THE CITY OF CALGARY

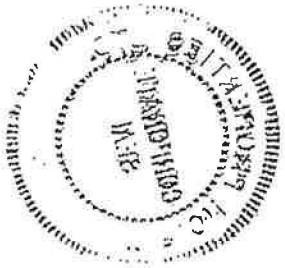
Per: _____
Director, Wastewater

Per: _____
ACTING City Clerk
AUG 2 6 2005

TIRION PROPERTIES LTD.

Per: _____

Per: _____



Dated: _____

BETWEEN:

THE CITY OF CALGARY, a Municipal Corporation of the Province of Alberta

(hereinafter referred to as "the City")

OF THE FIRST PART

- and -

TIRION PROPERTIES LTD., a body corporate carrying on business in the City of Calgary, in the Province of Alberta

(hereinafter referred to as "the Developer")

OF THE SECOND PART

AMENDING AGREEMENT

PAUL L. TOLLEY
CITY SOLICITOR
The City of Calgary
Law Department
12th Floor, Calgary Municipal Building
800 Macleod Trail S.E.
P. O. Box 2100, Station "M"
Calgary, Alberta
T2P 2M5

Solicitor: Allan R. Cunningham

File No.: KN5173

SCHEDULE "B"

FIRSTLY: PLAN 9311969
LOT 4
CONTAINING 24.846 HECTARES (61.4 ACRES) MORE OR LESS
EXCEPTING THEREOUT:

PLAN	NUMBER	HECTARES	ACRES (MORE OR LESS)
CONDOMINIUM	0510667	0.008	0.020

EXCEPTING THEREOUT ALL MINES AND MINERALS

(Certificate of Title: 051 060 428 +15)

SECONDLY: PLAN 9311969
LOT 5
CONTAINING 17.5480 HECTARES (43.36 ACRES) MORE OR LESS
EXCEPTING THEREOUT:

PLAN	NUMBER	HECTARES	ACRES (MORE OR LESS)
SUBDIVISION	9412415	2.312	5.71
SUBDIVISION	0112546	0.113	0.28
SUBDIVISION	0510667	0.006	0.015

EXCEPTING THEREOUT ALL MINES AND MINERALS

(Certificate of Title: 051 060 428 +13)

CANADA	)	I, **ALLAN R. CUNNINGHAM,** of the City of
PROVINCE OF ALBERTA	)	Calgary, in the Province of Alberta,
	)	Barrister and Solicitor,
TO WIT:	)	**MAKE OATH AND SAY:**

(1) That I am the agent for the above named Caveator; and

(2) That I believe that the said Caveator has a good and valid claim upon the said lands and I say that this Caveat is not being filed for the purpose of delaying or embarrassing any person interested in or proposing to deal therewith.

SWORN BEFORE ME at the City of Calgary, in the Province of Alberta, this 2 day of ~~October~~ NOVEMBER, 2005.

ALLAN R. CUNNINGHAM

Cheryl Wyatt
Commissioner for Oaths in and for the Province of Alberta
Commission Expires: April 18, 2007

Dated: 2005

CAVEAT

PAUL L. TOLLEY
City Solicitor
Law Department, The City of Calgary
12th Floor, Municipal Building, 800 Macleod Trail S.E.
P.O. Box 2100, Station "M"
Calgary, Alberta, T2P 2M5
Fax (403) 268-4634

File: KN5173

ALBERTA GOVERNMENT SERVICES
LAND TITLES OFFICE

IMAGE OF DOCUMENT REGISTERED AS:

931259284

ORDER NUMBER: 32347073

L 401(10-79)

CAVEAT

FORBIDDING REGISTRATION

To the Registrar of the South Alberta Land Registration District

Take Notice that THE CITY OF CALGARY
in the Province of Alberta
claims an interest in and to the following lands and by virtue of an Agreement in writing executed the 4th day of May, 1992 and made between TIRION PROPERTIES LTD. and THE CITY OF CALGARY, a copy of which is attached hereto as Schedule "A", pursuant to Section 92(2) of the Planning Act, R.S.A. 1980, Chapter P-9 and to Section 72(4) of the Land Titles Act, R.S.A. 1980, Chapter L-5, namely:

LOTS 4 and 5

PLAN 931 1969

BEING LANDS LOCATED IN SECTION 24 AND THE EAST HALF OF SECTION 23 ALL IN TOWNSHIP 25 RANGE 2 WEST OF THE FIFTH MERIDIAN

standing in the register in the name of TIRION PROPERTIES LTD.

; and

It forbids the registration of any person as transferee or owner of, or of any instrument affecting the said estate or interest unless the instrument or certificate of title, as the case may be, is expressed to be subject to its claim.

It appoints the office of the City Solicitor, City Hall, Calgary, Alberta 12th Floor 800 MacLeod Trail S.E. as the place at which notice and proceedings relating hereto may be served.

DATED this 5 day of May A.D. 19 92

THE CITY OF CALGARY
By its agent in that behalf

Agent for The City of Calgary
CHRISTOPHER S. DAVIS
Barrister & Solicitor

REGISTERED 1993 10 18
CAVEAT

CANADA
PROVINCE OF ALBERTA
TO WIT:

I CHRISTOPHER S. DAVIS
of the City of Calgary
in the Province of Alberta,
Barrister & Solicitor make oath and say:

(1) That I am the agent for the above named Caveator

(2) That I believe that the said Caveator has a good and valid claim upon the said lands and I say that this Caveat is not being filed for the purpose of delaying or embarrassing any person interested in or proposing to deal therewith.

SWORN at the City of Calgary
in the Province of Alberta,
this 5 day of May A.D. 1992
Before me,

CHRISTOPHER S. DAVIS

LORI E. JENSEN A Commissioner for Oaths in and for the Province of Alberta
A Commissioner for Oaths in and for
the Province of Alberta
Appointment Expires May 8, 1994

Dated A.D. 19

RE

Caveat

FORBIDDING REGISTRATION

P 1244 B

City Solicitor
City Hall
P.O. Box 2100
Calgary, Alberta
T2P 2M5

STORMWATER MANAGEMENT FACILITY MAINTENANCE AND EASEMENT AGREEMENT FOR THE COUNTRY CLUB OF THE HAMPTONS

BETWEEN:

THE CITY OF CALGARY, a municipal Corporation,

(hereinafter referred to as "the City")

OF THE FIRST PART

- and -

TIRION PROPERTIES LTD., a body corporate, carrying on business in the City of Calgary, in the Province of Alberta,

(hereinafter referred to a "the Developer")

OF THE SECOND PART

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TABLE OF CONTENTS

STORMWATER MANAGEMENT FACILITY MAINTENANCE AND EASEMENT AGREEMENT FOR THE COUNTRY CLUB OF THE HAMPTONS

THIS AGREEMENT made this 4TH day of MAY, A.D. 1992

BETWEEN:

THE CITY OF CALGARY, a municipal Corporation,

(hereinafter referred to as "the City")

OF THE FIRST PART

- and -

TIRION PROPERTIES LTD., a body corporate, carrying on business in the City of Calgary, in the Province of Alberta,

(hereinafter referred to a "the Developer")

OF THE SECOND PART

WHEREAS the Developer is the registered owner of those lands situated in the City of Calgary, in the Province of Alberta, and being legally described as follows:

LOTS 4 AND 5
PLAN 921
BEING LANDS LOCATED IN SECTION 24 AND THE EAST HALF OF SECTION 23 ALL IN TOWNSHIP 25 RANGE 2 WEST OF THE FIFTH MERIDIAN

(hereinafter called "the Golf Course Lands");

AND WHEREAS the Subdivision Approving Authority (as defined in the Planning Act of Alberta) approved the subdivision of the Golf Course Lands for the purpose of a golf course;

AND WHEREAS it is a requirement of the City that the Developer execute this agreement for the purpose of granting an easement and right-of-way in and through the Golf Course Lands in order for the City issuing to the Developer a development permit for the stripping and grading of the Golf course Lands;

AND WHEREAS the Developer is responsible for the cost of installing various services through the Golf Course Lands;

B

AND WHEREAS the Developer intends to construct a Stormwater Management Facility, as hereinafter defined, for the purpose of retaining stormwater from the adjoining lands as approved by the City Engineer;

AND WHEREAS it is intended that the Developer shall use retained stormwater to irrigate the Golf Course Lands.

NOW THEREFORE THIS AGREEMENT WITNESSETH that in consideration of the covenants and agreements herein contained, the parties hereto agree one with the other as follows:

ARTICLE 1 DEFINITIONS

1.01 In this agreement, including the preamble and this Article, unless the context otherwise requires:

(a) City Engineer" means the person appointed by the City, as the City Engineer, pursuant to the Municipal Government Act;

(b) "Emergency" means that which in the opinion of the City Engineer is a serious risk of damage to person or property and which should be rectified promptly and as a result cannot be scheduled to be rectified during either the Off-Peak Season or the Off-Peak Days;

(c) "Force Main (Off-Site)" means piping and related appurtenances shown generally on Schedule "D" which occupy public utility rights-of-way and/or public roadway and which convey stormwater from the Force Main (On-Site) to the public gravity storm sewer system;

(d) "Force Main (On-Site)" means piping and related appurtenances shown generally on Schedule "F" which are located on the Golf Course Lands and which convey stormwater from the Stormwater Storage Pond System via the Stormwater Pumping Station to the Force Main (Off-Site);

(e) "General Utility Right-of-Way" means the utility right-of-way shown on the utility right-of-way plan registered at the Land Titles office for the Southern Alberta Land Registration District as Plan _____ and shown generally outlined in yellow on Schedule "A" attached hereto;

(f) "Golf Course Lands" means the lands containing the golf course, Stormwater Storage Pond System, Stormwater Management Facility and General Utility Right-of-Way registered at the Land Titles office for the Southern Alberta Land Registration District as Plan _____ and shown generally as outlined in red on Schedule "A" attached hereto;

(g) "Off-Peak Days" means any day during Off-Peak Season and Mondays, Tuesdays and Wednesdays, (other than Mondays, Tuesdays or Wednesdays

which are statutory holidays) during the remainder of the year;

(h) "Off-Peak Season" means any day during the period from October 15 to April 15;

(i) "Service Road Access" means the gravel and the paved service access Rights-of-Way to be constructed by the Developer providing access by vehicles, machinery, equipment and workmen in the Golf Course Lands and the General Utility Right-of-Way as shown on Schedule "B" attached hereto;

(j) "Stormwater Management Facility" means the Force Main (Off-Site) and any facility or facilities located within the Golf Course Lands for the drainage or control of stormwater including, without restricting the foregoing, a grass swale, a concrete or asphalt pathway, gutter or swale, storm sewer, the sloping, ditching and contouring of land to facilitate the drainage or control of stormwater as shown as of the date of this agreement, the Force Main (On-Site), the Stormwater Storage Pond System, and the Stormwater Pumping Station and such other water drainage or control facilities on or adjacent to the Golf Course Lands as the parties may agree upon, in writing, from time to time;

(k) "Stormwater Pumping Station" means the private pumping station for the purpose of pumping stormwater from the Stormwater Storage Pond System to a gravity storm sewer during non-precipitating days including all fixtures, structures and electrical components; and

(l) "Stormwater Storage Pond System" means the three ponds, including the interconnecting pipes and control structures, located within the Golf Course Lands for storage of stormwater from City storm sewer facilities, to be used for irrigation of the golf course by the Developer, as shown outlined in green on Schedule "C" attached hereto and forming part hereof and such other facilities as the parties may agree upon, in writing, from time to time.

ARTICLE 2 EASEMENTS

2.01 The Developer hereby grants to the City the right, privilege and easement in, on, through and over the Service Road Access for the purpose of ingress to and egress from the Golf Course Lands, the Stormwater Management Facility, the General Utility Right-of-Way, Stormwater Pumping Station, Force Main (On-Site) and Stormwater Storage Pond System.

2.02 The Developer hereby grants to the City the right, privilege and easement of a right-of-way, on, under, through and over the Service Road Access, the Stormwater Management Facility and the General Utility Right-of-Way for the purpose of constructing, operating, inspecting, maintaining, replacing and repairing facilities to be constructed thereon and for the purpose of the transmission and storage of stormwater thereon.

2.03 The City and its employees, contractors, subcontractors, officers, servants, agents and workmen shall have the full and free right and liberty to have ingress and egress and to pass and repass on the easements and rights of way above described in this Article 2, either on foot or by means of vehicles or necessary machines whatsoever and to remain on the said rights of way and easements for all purposes of digging, putting down, taking up, operating, connecting, disconnecting, constructing, repairing, replacing, maintaining and inspecting the facilities to be constructing on the said rights of way and easements.

2.04 The City in carrying out any of the aforesaid operations will do so in a good and workmanlike manner and will cause or do as little damage or inconvenience to the owner or occupier of the Golf Course Lands, as is reasonably possible, and any excavations or working made or done in connection therewith shall be restored to their former condition, except that the City shall not be required to replace trees, shrubs, flowers or sand traps situated on the said rights of way and easements. The Developer agrees not to locate trees or golf greens on the said rights of way and easements.

2.05 In exercising its rights arising under Article 2 of this agreement the City, so far as is reasonably practicable to do so, shall exercise such rights at such time or times and in such a manner, having regard to the nature of the operations to be performed, as will reasonably minimize interference with the use and enjoyment of the golf course constructed on the Golf Course Lands and except in the case of an Emergency will exercise such rights during the Off-Peak Season or where under all the circumstances it is not practical in the opinion of the City Engineer to exercise such rights in the Off-Peak Season, such rights shall be exercised on Off-Peak Days. Notwithstanding the foregoing the City may and is hereby entitled to exercise any and all of the rights hereby granted to it forthwith on the happening of an Emergency. Other than for the purpose of inspecting, the City shall, however, only exercise its rights under Article 2 of this agreement if there is an Emergency or if the Developer has failed to construct, operate, maintain, replace or repair the Stormwater Management Facility as required herein and has, failed to correct same within 30 days of receiving written notice of such failure from the City.

2.06 The Developer shall, at it own risk, have the right to incorporate and use the said easements and rights of way as a golf course and to construct thereon irrigation, drainage and private utility improvements and facilities that the Developer deems necessary or of advantage of its use and enjoyment of the Golf Course Lands as a golf course. The Developer may install, put down, take up, and relay, connect, disconnect, repair, replace, maintain, inspect and operate in, through and across the said easement and rights of way granted to the City, private irrigation and drainage facilities, private water lines and other private underground systems provided that the Developer shall have obtained the consent of the City, which consent shall not be unreasonable withheld, to the location of the said improvements and facilities. The Developer agrees to indemnify and save harmless the City from and against all claims, damages, debts,

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dues, suits, actions and causes of action, costs, expenses or sums of money that the City may suffer or be put to by reason of anything done by the Developer in the exercise of the rights and privileges granted to the Developer pursuant to this Clause 2.06.

2.07 The Developer covenants that it will not build, erect or maintain nor permit or suffer to be built, erected or maintained on the Golf course Lands a building or structure nor allow changes to the surface grades as approved by the City which would or could prevent, restrict or interfere with the Stormwater Management Facility unless the construction of such buildings or structures or the changes to the surface grades as approved by the City are approved in writing by the City Engineer. The Developer agrees to indemnify and save harmless the City from and against all claims, damages, debts, dues, suits, actions and causes of actions, costs, expenses or sums of money that the City may suffer or be put to by reason of anything done by the Developer in the exercise of the rights and privileges granted to the Developer pursuant to this Clause 2.07.

2.08 The parties hereto acknowledge that the City may require an easement northeast of Pond 3 on the Golf Course Lands (the "Future Easement") as shown on Schedule "A" attached hereto and forming part hereof, or at some other location determined by the City Engineer, in order to connect the Stormwater Management Facility to a future stormwater line north of the Golf Course Lands. The Developer agrees to provide such easement therefore as is reasonably required by the City Engineer.

2.09 The City agrees to indemnify and save harmless the Developer from and against all claims, damages, debts, dues, suits, actions and causes of action, costs, expenses or sums of money that the Developer may suffer or be put to by reason of anything done by the City in the exercise of the rights and privileges granted the City under Article 2 hereof, except that the City shall not be liable to indemnify and save harmless the Developer:

(i) In respect of revenues lost as a result of the City interfering with the play of golf during an Emergency;

(ii) In respect of matters from which the Developer must indemnify and save harmless the City; or

(iii) In respect of matters for which the Developer is responsible under this agreement.

The City shall not be liable for any interfering with the play of golf so long as the City is complying with the terms of this agreement.

2.10 The Developer agrees to permit local storm drainage from the rear of the residential, reserve, public utility lots and road backsloping and adjoining the Golf Course Lands to drain onto the Golf Course Lands to the extent that such drainage occurs naturally and to the extent such drainage is undirected and unconcentrated except that water from downspouts on residences shall be permitted to drain onto the Golf Course Lands, provided such stormwater does not come directly from the downspouts onto

the Golf course Lands and the City agrees to restrict the drainage referred to in this Clause 2.10 by imposing on other developers of lands adjacent to and in the same drainage envelope as the Golf Course Lands the same design standards as imposed upon the Hamptons subdivision.

ARTICLE 3 CONSTRUCTION

3.01 The Developer agrees to construct the Stormwater Management Facility in accordance with such designs and plans as are approved by the City Engineer, and in accordance with Hamptons Golf Course-Stage 1 Stormwater Storage Facilities Design Level Hydraulic Assessment by J.N. MacKenzie Engineering Ltd. March 1991 and any amendments or modifications to same as approved by the City Engineer.

3.02 The Developer shall obtain all licenses, permits and approvals which may be required for the construction of the Stormwater Management Facility.

3.03 The Developer agrees to enter into and execute a "pipeline agreement" with the City for the purposes of allowing the Force Main (Off-Site) to occupy the public utility rights-of-way and/or public roadway as shown on Schedule "D" and shaded green attached hereto.

3.04 The City agrees to construct and maintain the facility to be located in the Future Easement.

ARTICLE 4 MAINTENANCE

4.01 The Developer shall, at its expense, maintain at all times the Stormwater Management Facility in accordance with the hydraulic and storage volume designs as approved by the City to the satisfaction of the City Engineer.

4.02 The Developer shall, at its expense, be responsible for the quantity and quality of the water contained in the Stormwater Management Facility.

4.03 The Developer shall, at its expense, clean up all debris, skim off petroleum products, control vegetation (including algae), control sediment, control insect populations, control odours or such other conditions which are similar, in the opinion of the City Engineer, and perform other necessary general maintenance of the Stormwater Management Facility.

4.04 The Developer shall, at its expense, be responsible for and shall make at its expense all necessary repairs and/or replacements, additions or improvements to the Stormwater Management Facility and all repairs and/or replacements or improvements to the Stormwater Management Facility as required by the City Engineer or Alberta Environment.

B

4.05 The Developer agrees that the pumping of stormwater from the Stormwater Management Facility to the public storm sewer system shall occur only on non precipitating days. Non precipitating days shall be days of no rainfall precipitation but, if necessary, shall be determined by the City Engineer in his sole opinion.

4.06 The Developer, at its expense, shall install and maintain flow controls to limit water flow to the Force Main (On-Site) and the Force Main (Off-Site) as determined by the City Engineer.

4.07 The City shall allow the Developer access to the public lands where shown on Schedules "E1", "E2", and "E3" attached hereto and forming part hereof to perform the obligations of the Developer imposed by this Article 4 subject always to the Developer applying for and obtaining such permits from the City Engineer as may be required to perform such obligations.

ARTICLE 5 EXCLUSION OF LIABILITY

5.0 It is agreed between the Developer and the City that except to the extent the same is caused by the negligence or unlawful acts of the City or by the negligence or unlawful acts of other persons for whom or in respect of which the City is in law responsible, the City, its contractors, agents, servants and employees, shall not be liable for damage or injury to any property of the Developer arising from:

(a) the design, operation and construction of any improvements undertaken by the Developer on the Golf Course Lands;

(b) stormwater overland drainage on, in, under, through or over the Golf course Lands;

(c) the management, quantity or quality of water and any flooding or erosion in the Stormwater Management Facility;

(d) unstable land or any associated sloughing or subsidence therefrom forming part of the Golf Course Lands.

Except to the extent the same is cause by the negligence or unlawful acts of the City or by the negligence or unlawful acts of other persons for whom and in respect of which the City is in law responsible, the City, its agents, servants and employees shall not be liable for damage to the Golf Course Lands due to the contaminants in the Stormwater Management Facility. Notwithstanding the foregoing, the City is not liable where the principle cause of the damage is the result of the negligence of some person for whom the City is not in law responsible.

ARTICLE 6 ARBITRATION

6.01 Any dispute as to any of the matters which, if no agreement is reached upon them by the provisions of this Agreement, are to be determined by arbitration, shall be settled and determined by three arbitrators appointed in the manner following, that is to say:

(a) either party may appoint an arbitrator and on doing so shall forthwith give notice in writing thereof to the other party;

(b) the party in receipt of a notice of the appointment of an arbitrator as foresaid shall, unless it has already done so, within seven (7) days from the date of receipt the notice an arbitrator on behalf of and at the expense of the party so in default;

(c) if either party does not appoint an arbitrator within the time limited under the preceding subsection (b), the other party may apply to a Judge of the Court of Queen's Bench of Alberta to appoint an arbitrator on behalf of and at the expense of the party so in default;

(d) the arbitrators appointed by or for the parties hereto shall appoint a third arbitrator and, if they fail to do so within fourteen (14) days after the last of them was appointed, either party on notice to the other may apply to a Judge of the Court of Queen's Bench of Alberta to appoint a third arbitrator;

(e) the appointment of all arbitrators except those appointed by a Judge as herein provided shall be in writing;

(f) the arbitrators shall have the power to obtain the assistance, advice or opinion of such engineer, architect, surveyor, appraiser, valuer or other expert as they may think fit and shall have the discretion to act upon any assistance, advice or opinion so obtained;

(g) the arbitration award may include an award of costs and interest, and, notwithstanding the provisions of the *Arbitration Act* of the Province of Alberta, the amount of costs shall not be limited to the scale of rates provided in the *Arbitration Act* of Alberta;

(h) each of the parties will do all acts and things and execute all deeds and instruments necessary to give effect to any award made upon any such arbitration.

ARTICLE 7 GENERAL

7.01 Where the context so requires, the singular number shall be read as if the plural were expressed and the masculine or neuter gender as of the

masculine, feminine or neuter were expressed.

7.02 If any covenant or term of this agreement or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this agreement, other than the term covenant or portion hereto which is invalid or unenforceable, shall not be affected thereby and each covenant or term of this agreement shall be valid and in force to the extent permitted by law.

7.03 The preamble to this agreement shall form part hereof as if repeated herein.

7.04 If either party shall be prevented from or delayed in performing any obligations imposed by the terms of this agreement by reason of strike, lockout, government restriction, act of God, unavailability of material or labour or similar cause and which is beyond the control of such party, then the time for performing such obligation shall be extended for such reasonable time which shall not be greater than the length of the delay caused by such event.

7.05 Either party may waive any breach by the other of any of the provisions of this agreement, or in default by the other, provided that no such waiver shall be binding upon such party unless given in writing, nor shall any such waiver extend or be taken to affect any subsequent breach or default or to affect the right of the waiving party.

7.06 Any notice, communication or request to be given to either party shall be in writing and delivered by registered mail, postage prepaid, personal delivery, or by telex, telegram, or facsimile transmission ("FAX"), addressed to such party at the following address:

as to the City:
City Engineer,
Municipal Building
800 Macleod Trail South
P.O. Box 2100, Postal Station "M"
Calgary, Alberta
T2P 2M5
FAX: 268-8291

as to the Developer:
Tirion Properties Ltd.
#700, 926 - 5th Avenue S.W.
Calgary, Alberta
T2N 0N7
FAX: 262-3781

or at such other address as either party may from time to time advise the other in writing by notice. Any such notice, communication or request whenever mailed shall be deemed to have been received on the fourth (4th) business day next following the date it is so mailed or, if by telex, telegram, or FAX, on the first business day next following the date of transmission, or personal delivery on the day of such provided that if normal mail, telex, telegram, or FAX, service is interrupted by strikes,

slowdown or other cause, then any of the said services which have not been so interrupted shall be utilized or the notice, communication or request shall be personally delivered to ensure prompt receipt.

7.07 Prior to the assignment, sale or transfer of any portion of the Golf Course Lands or any interest in the Golf Course Lands by which the rights and obligations under this agreement are assigned sold or transferred, in whole or in part, the Developer shall cause the assignee, purchaser or transferee to enter into an Assumption Agreement with the City acceptable to the City Solicitor, duly executed by the assignee, purchaser or transferee. Upon the receipt by the City of such Assumption Agreement, which shall provide for the assumption by the assignee, purchaser or transferee of any such portion of the Golf Course Lands of the obligations imposed by this agreement with respect thereto which are then unsatisfied, the assignor, vendor or transferor of such portion shall be deemed to be released from such obligations.

7.08 The parties hereto acknowledge that the City is not responsible for the water quality and does not guarantee the quantity or quality of water in the Stormwater Management Facility.

7.09 The Developer shall not store insecticides, herbicides, pesticides, fungicides, fertilizers or chemicals in locations which may contaminate the Stormwater Management Facility and shall take due care in the use thereof. The Developer shall not, in any of its applications, use substances containing mercury, arsenic or cadmium or other substances deemed deleterious by the City Engineer.

7.10 The Developer at its expense shall post and maintain appropriate warning signs on the Golf Course Lands giving warning of the Stormwater Management Facility and the danger associated therewith all to the satisfaction of the City Engineer.

7.11 If the Developer fails to perform an obligation of the Developer under this agreement, the City may at the cost of the Developer perform such obligation and for that purpose may enter upon the Golf Course Lands on not less than five (5) days prior notice to the Developer or without notice in the case of an Emergency. The Developer shall forthwith reimburse the City for all costs and expenses incurred by the City in performing any such obligation.

7.12 The City shall for the purpose of this agreement have an interest in the Golf Course Lands pursuant to the obligations contained herein and shall be entitled to register a caveat against the legal title to the Golf Course Lands to protect such interest. The rights, privileges and obligations hereunder shall extend to and shall be binding upon the City, its successors and assigns and upon the Developer, its successors, successors in title and assigns. Covenants herein contained shall be construed as running with the Golf Course Lands. The rights and privileges and obligations of the Developer hereunder shall only be enforceable against the owner of the Golf Course Lands registered on title at the time such enforcement becomes necessary.

8

7.13 Time shall, in all respects, be of the essence of this agreement.

7.14 In the event of an application for subdivision or redevelopment of the Golf Course Lands, or portion thereof, the City undertakes, upon request from the Developer, to discharge any caveat registered pursuant to this Agreement against such portion of the proposed subdivision or redevelopment which, in the opinion of the City Engineer, does not contain the Stormwater Management Facility.

7.15 Wherever in this Agreement the approval of the City Engineer is required or action is required of the Developer by the City Engineer, the City Engineer shall at all times act reasonably.

IN WITNESS WHEREOF the City and the Developer have hereunto caused their corporate seals to be affixed, attested by the hands of their proper officers in this behalf at Calgary, in the Province of Alberta, this 4TH day of MAY, A.D. 1992.

APPROVED	
As To Content Engineering	
Planning	
Land	
As To Form Solicitors	

THE CITY OF CALGARY

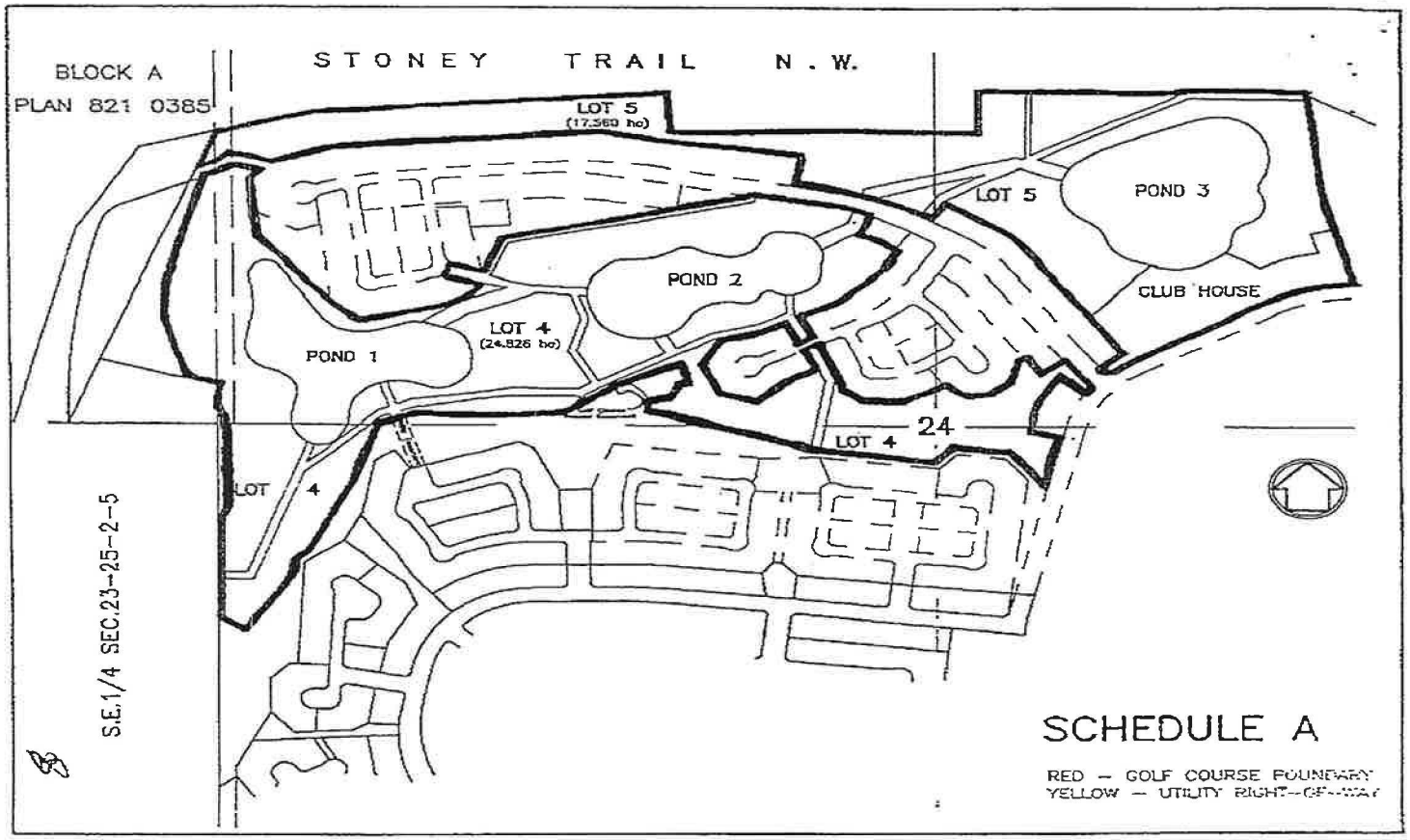
Per: _____
COMMISSIONER

Per: _____
CITY CLERK MAY 04 1992

TIRION PROPERTIES LTD.

Per: _____

Per: _____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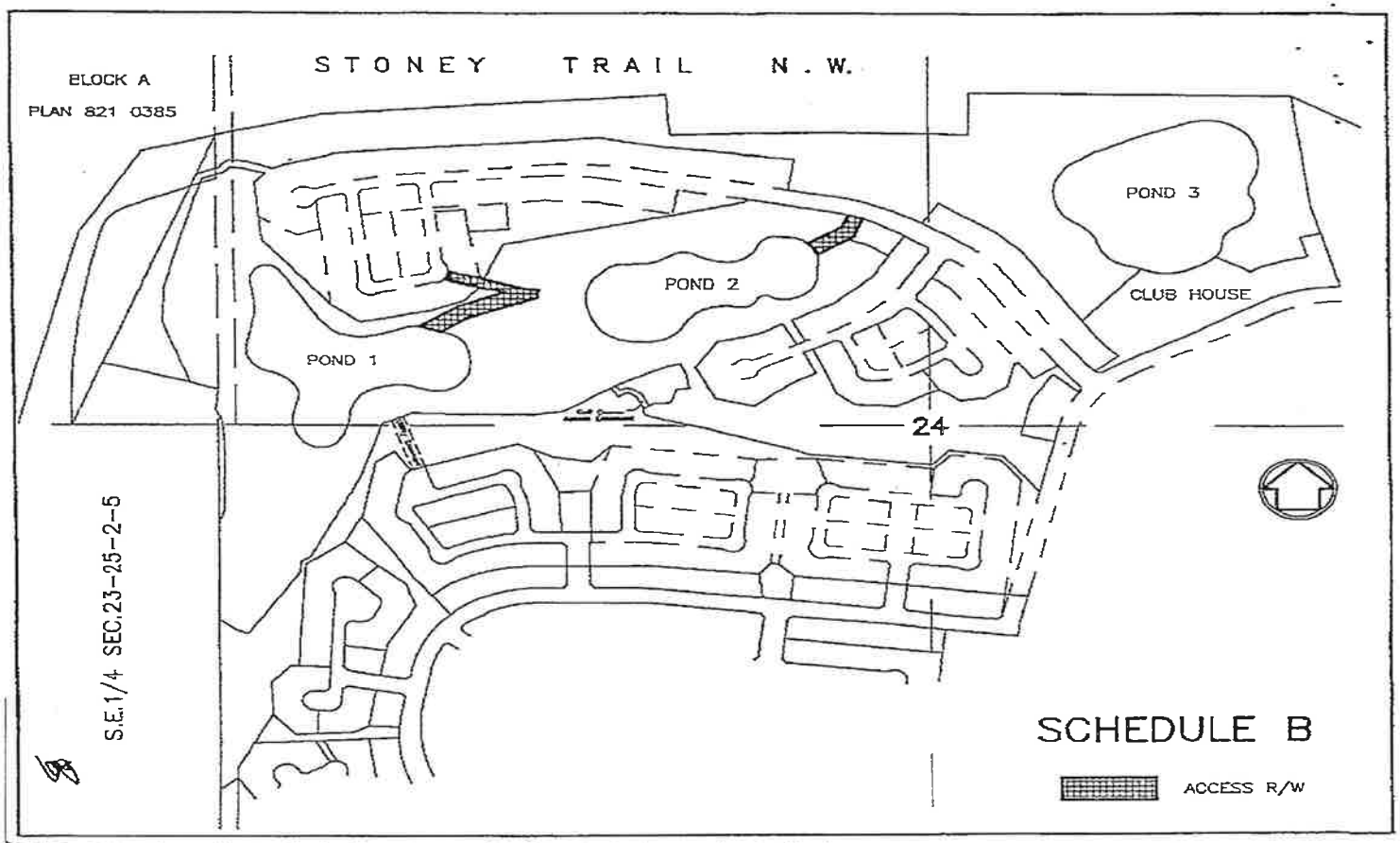
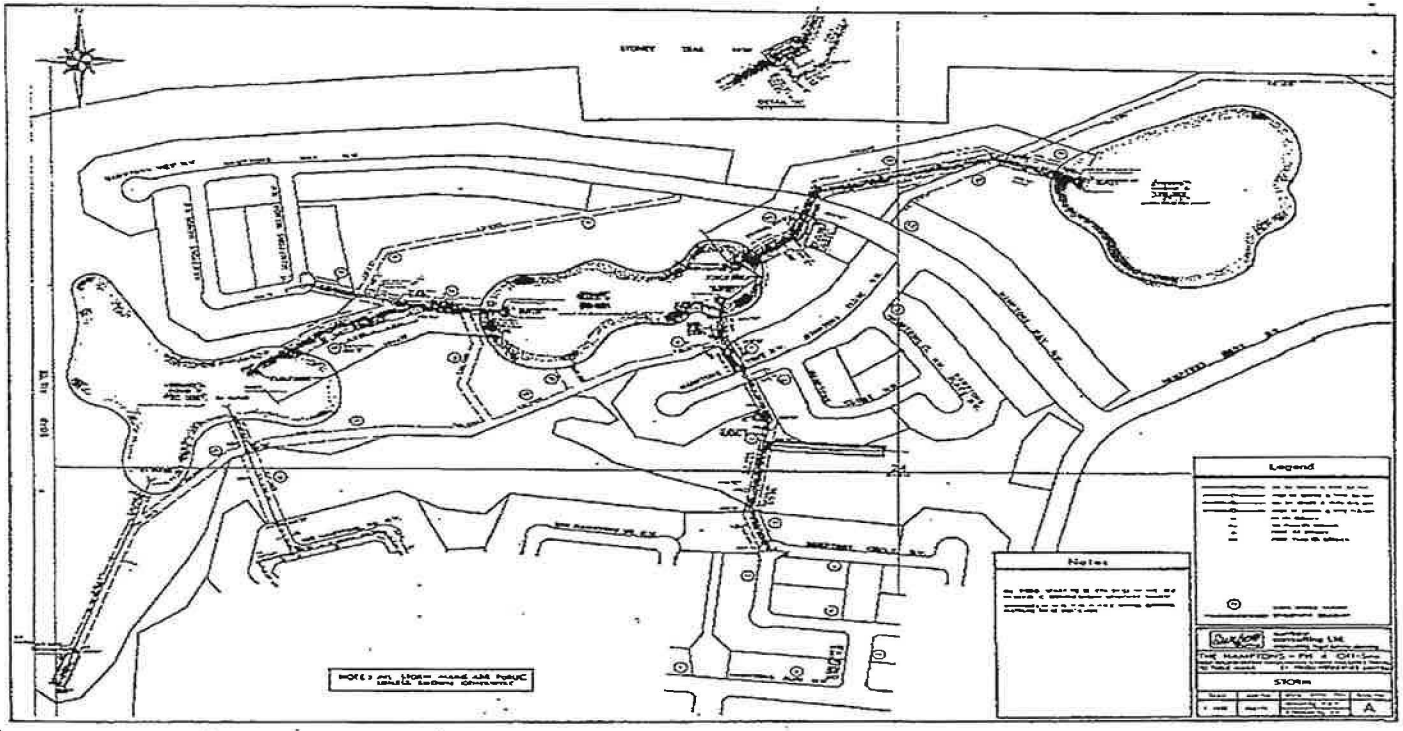
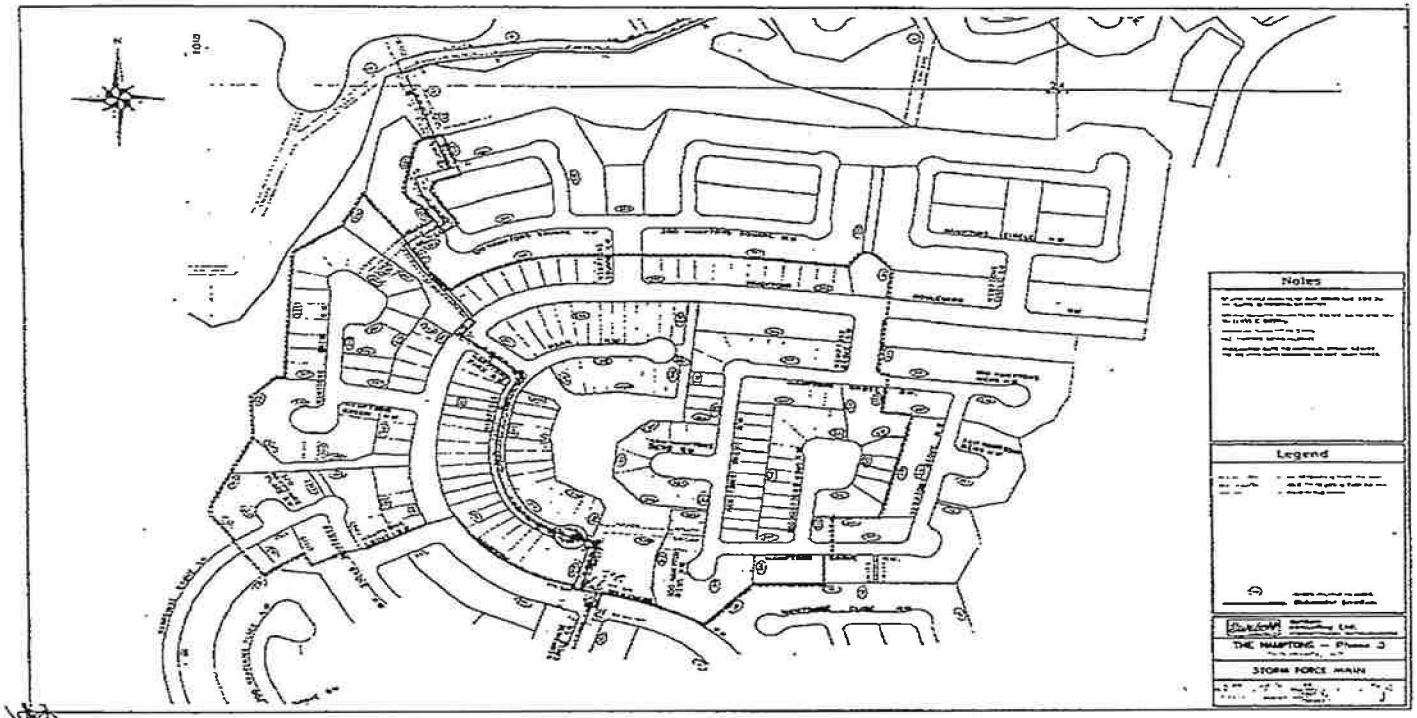
PLAN 821 0385
STONEY TRAIL N.W.
LOT 5
(17.569 ha)
LOT 5
POND 3
POND 2
CLUB HOUSE
LOT 4
(24.826 ha)
POND 1
24
LOT 4
LOT 4
S.E.1/4 SEC.23-25-2-5
SCHEDULE A
RED – GOLF COURSE BOUNDARY
YELLOW – UTILITY RIGHT-OF-WAY

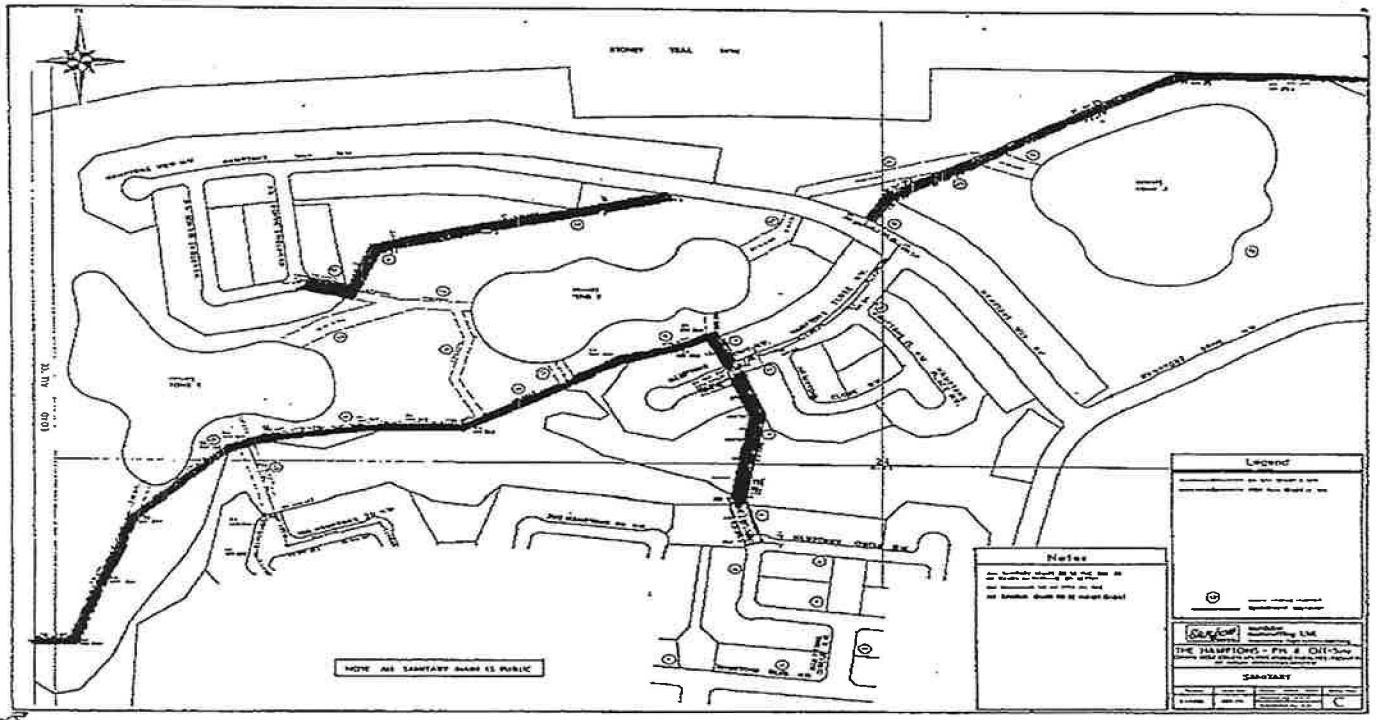

STONEY TRAIL N.W.
BLOCK A
PLAN 821 0385
POND 1
POND 2
POND 3
CLUB HOUSE
24
S.E.1/4 SEC.23-25-2-5
SCHEDULE B
ACCESS R/W



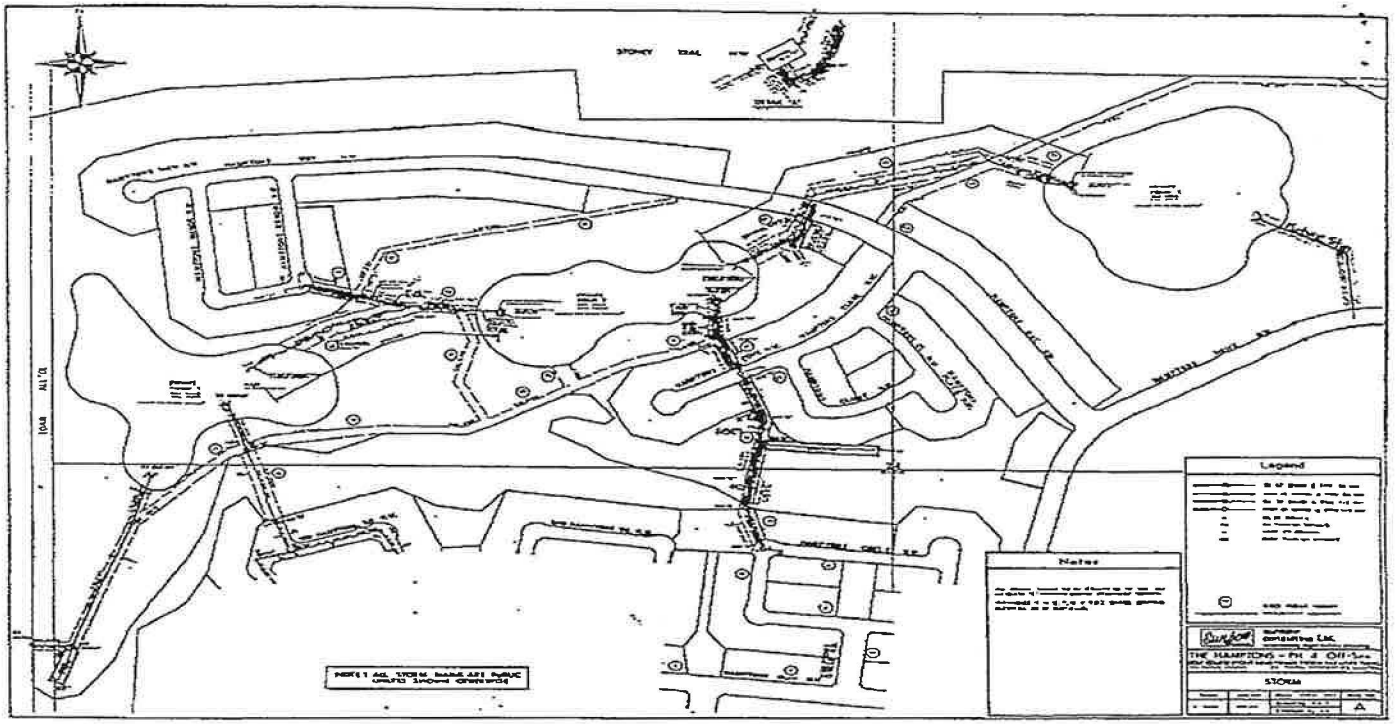
SCHEDULE C Storm Water Storage Pond System (Private)



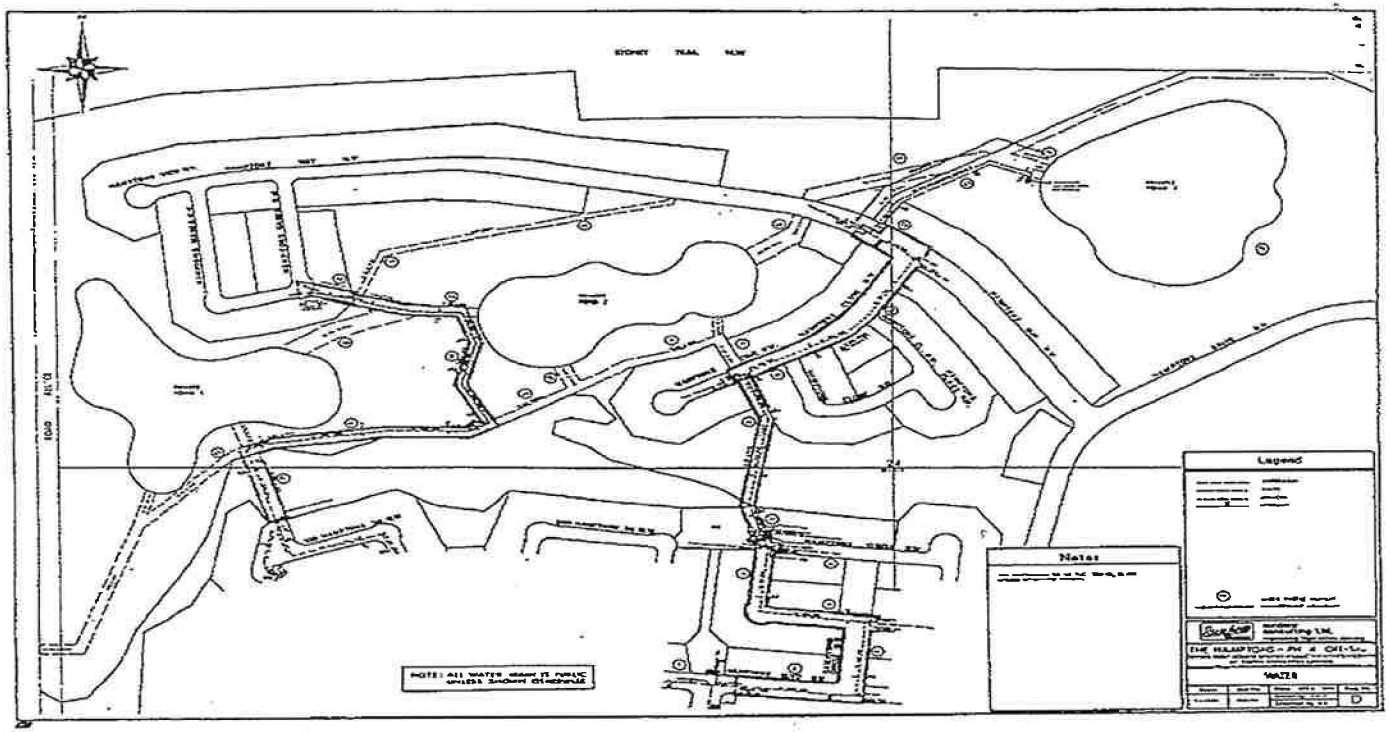
SCHEDULE D Storm Force Main (Private)
(Pipeline Agreement)



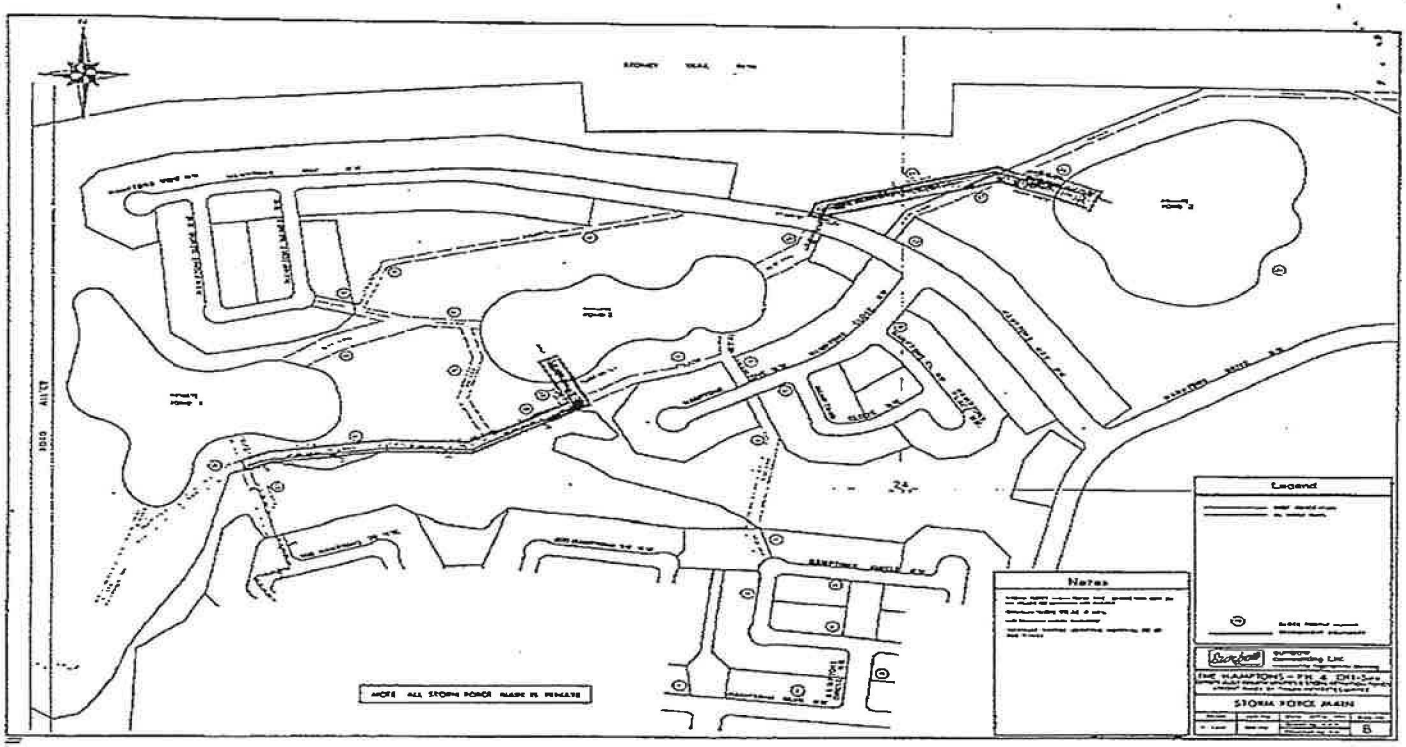
SCHEDULE E 1 Sanitary Sewer (Public)



SCHEDULE E2 Storm Sewer (Public)



SCHEDULE E3 Water (Public)



SCHEDULE F Storm Force Main (Private)

Dated:

BETWEEN:

THE CITY OF CALGARY, a municipal Corporation,

(hereinafter referred to as "the City")

OF THE FIRST PART

- and -

TIRION PROPERTIES LTD., a body corporate, carrying on business in the City of Calgary, in the Province of Alberta,

(hereinafter referred to a "the Developer")

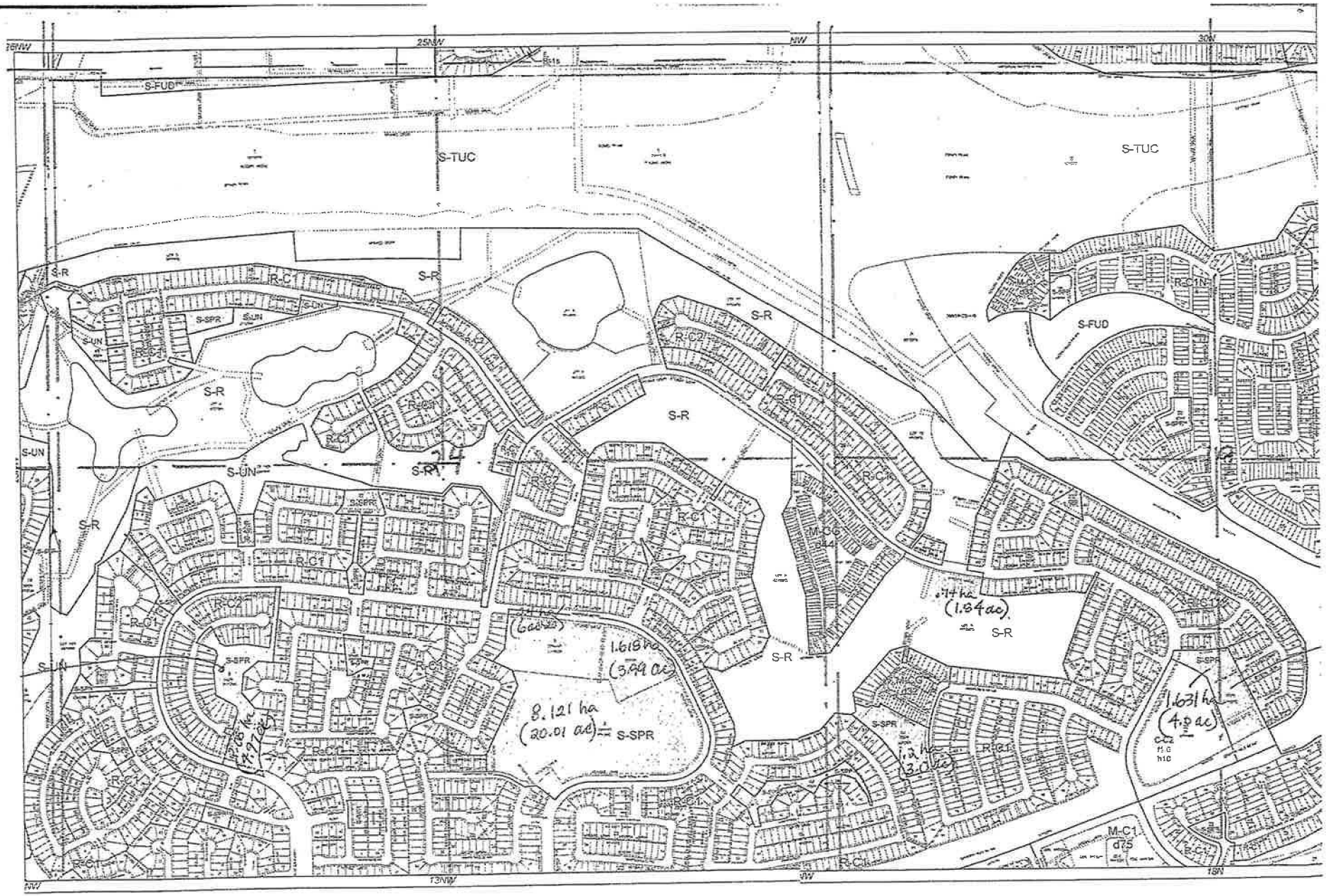
OF THE SECOND PART

STORMWATER MANAGEMENT FACILITY MAINTENANCE AND EASEMENT AGREEMENT

D.O. KVEMSHAGEN, Q.C.
CITY SOLICITOR
The City of Calgary
Law Department
12th Floor - Municipal Building
800 Macleod Trail S.E.
P. O. Box 2100, Station "M"
Calgary, Alberta
T2P 2M5

Solicitor: CHRIS S. DAVIS/pjf]

File No.: P 1244B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S-TUC
S-TUC
S-R
R-C1
S-SPR
S-UN
R-C2
M-C1
S-FUD
R-C1N
M-C1
d 5
1.618 ha
(3.99 ac)
8.121 ha
(20.01 ac)
S-SPR
1.4 ha
(1.84 ac)
1.2 ha
(3.0 ac)
1.631 ha
(4.0 ac)

CALGARY
COMPOSITE ASSESSMENT REVIEW BOARD (CARB)
DECISION WITH REASONS

In the matter of the complaint against the Property assessment as provided by the *Municipal Government Act*, Chapter M-26, Section 460(4).

between:

Tirion Group of Companies and
Tirion Properties Ltd., COMPLAINANTS

and

The City Of Calgary, RESPONDENT

before:

Board Chair, W. GARTEN
Board Member 1, K. KELLY
Board Member 2, J. KERRISON

This is a complaint to the Calgary Assessment Review Board in respect of Property assessment prepared by the Assessor of The City of Calgary and entered in the 2010 Assessment Roll as follows:

ROLL NUMBER:	200351427	200355386
LOCATION ADDRESS:	11113 37 St. N.W.	10826 37 St. N..W
HEARING NUMBER:	57815	57815
ASSESSMENT:	$93,000	$20,000

ROLL NUMBER:	200666782	442074324
LOCATION ADDRESS:	10499 53 St. N.W.	61 Hamptons Dr. N.W.
HEARING NUMBER:	57815	57815
ASSESSMENT:	$32.500	$20,000

This complaint was heard on 13th day of October, 2010 at the office of the Assessment Review Board located at Floor Number 3, 1212 – 31 Avenue NE, Calgary, Alberta, Boardroom #9.

Appeared on behalf of the Complainant:

- *Brian k. Dell – Representing Wilson Laycraft*

Appeared on behalf of the Respondent:

- *Tyler Johnson – Representing the City of Calgary*

Board's Decision in Respect of Procedural or Jurisdictional Matters:

The Board derives its authority to make this decision under Part 11 of the Municipal Government Act. No specific jurisdictional or procedural matters were raised during the outset of the hearing, and the Board proceeded to hear the merits of the complaint, as outlined below.

Property Description:

Subject #1 – 11113-37 Street N.W.

The subject property is a vacant parcel of land containing 531,862 square feet or 12.21 acres. The subject lands are described as narrow strip of land running generally in an east to west direction along the southern boundary and forms part of a larger subject of land being the Transportation and Utility Corridor, which was acquired for the development of roadway known as Stoney Trail - the north Calgary bypass. The Subject lands are leased by Tirion Properties Ltd. from the Province of Alberta for a 5 year term. There is no physical access available to Stoney Trail from the subject lands.

Subject #2 – 10826-37 Street N.W.

The subject property is a vacant parcel of land containing 44,456 square feet or 1.02 acres. The subject lands are described as narrow strip of land running generally in an east to west direction along the north/east boundary and forms part of a larger subject of land being the Transportation and utility Corridor, which was acquired for the development of roadway known as Stoney Trail – the north Calgay bypass. The subject lands are leased by Tirion Properties

Ltd. from the Province of Alberta for a 5 year term. There is no physical access available to Stoney Trail from the subject lands.

Subject #3 – 10499-53 Steet N.W.

The subject property is a vacant parcel of land containing 45,425 square feet or 1.04 acres. The subject lands are described as triangular in shape with a severe sloping topography associated with the land that would be undevelopable. The sloping lands terminate at a fenced-in catch basin that is one of the commencement points of an overland drainage system that forms the storm water management system for the area. There is no physical access to the roadway known as Sarcee Trail. A review of the Certificate of Title for the subject property indicates 2 Caveats registered against the subject property in respect to Deferred Reserve under Section 102 of the Planning Act. In Addition there is also a Utility Right of Way ("URW") Agreement registered against the subject lands.

The URW agreement severely impacts a portion of the subject property. The "Granting Clause" permits the City of Calgary to install and maintain a utility line or lines through the subject lands. It is known that at least one utility line exists on the property and that is the underground drainage system to move water between two large bodies of water. This clause restricts Tirion from building or erecting any building or structure on this subject of land. The clause further prohibits Tirion to make any changes to the existing landscape of the property.

Subject #4 – 61 Hamptons Drive N.W.

The Subject property is 4 separate and distinct vacant parcels of land containing a total of 43,783 square feet or 1.01 acres. Three of the parcels are triangular in shape and have no form of public access. Essentially these 3 subjects are land-locked and are the remnants resulting from the earlier subdivision of the parent parcel for these lands. The largest parcel of the subject property is irregular in shape and fronts onto the roadway known as Hamptons Drive N.W. All of these lands have a land use designation of residential (R-C1). A review of the Certificate of Title for the subject property indicates 2 Caveats registered against the subject lands.

Upon further review of the URW Agreement, it was found to severely impact the future utility of the larger parcel of the subject properties. The granting clause permits the City of Calgary to install and maintain a utility line or lines through the subject lands and encompasses the entirety of the large subject. It is known that at least one utility line exists on the property and that is the underground drainage system to move water between two large bodies of water. The restrictive clause prevents Tirion from building or erecting any building or structure on the large parcel of the subject lands. The clause further prohibits Tirion ro make any changes to the existing landscape of the property.

Issues:

The Complainant raised the matter that the subject properties were subject to a decision made by the MGB in 2008 and 2009.

The Complainant raised the issue of Market Value based on the Income approach and direct comparison approach.

Complainant's Requested Value:

Subject #1 and #3	$25,000	$2,000
ROLL NUMBER:	200351427	200355386
LOCATION ADDRESS:	11113 37 St. N.W.	10826 37 St. N..W
Subject #2 and #4	$0	$2,000
ROLL NUMBER:	200666782	442074324
LOCATION ADDRESS:	10499 53 St. N.W.	61 Hamptons Dr. N.W.

Legislation

The *Municipal Government Act*, R.S.A. 2000, c. M-26;

S 1(1) (n) 'market value' means the amount that a property, as defined in section 284 (1) (r), might be expected to realize if it is sold on the open market by a willing seller to a willing buyer.

S.467(1) An assessment review board may, with respect to any matter referred to in section 460(5), make a change to an assessment roll or tax roll or decide that no change is required.

S.467 (3) an assessment review board must not alter any assessment that is fair and equitable, taking into consideration

a) the valuation and other standards set out in the regulations,
b) the procedures set out in the regulations, and
c) the assessments of similar property or businesses in the same municipality.

Board's Decision in Respect of Each Matter or Issue:

Complainant's Position:

The complainant submitted in addition to the original submission one additional evidence package marked as Exhibit C-1 overhead photo of the subject properties. This submission was not objected by the Respondent.

The Complainant brought to the Board's attention an MGB decision no. DL DL016/10

dated March 2, 2010 pertaining to the 2008 assessment where the MGB had reduced the assessment of the subject properties to the requested amounts.

The Complainant further brought to the Boards attention a requested decision by both the City of Calgary and the Complainant to reduce the 2009 assessment to the same amounts as the 2008 MGB decision.

The Complainant provided evidence of a lease agreement (for subjects #1 and #3) between Tirion Properties Ltd. and the Province of Alberta dated Aug. 25, 2004 which has since expired. The Complainant provided a letter from the legal firm Wilson Laycraft confirming that a deal to renew the lease (at the existing rate of $2,400/annum) had been reached with the Province of Alberta and were simply waiting for the paperwork to arrive.

The Complainant argued that all 4 subjects were of little or no value:

1. Subject #1 and #3 – These subjects are owned by the Province of Alberta and leased to Tirion Properties for a nominal sum of $2,400/annum. Currently there is a small portion of a maintenance shed encroaching on subject #1 and a portion of the subject is utilized for a golf cart path. Subject #3 is not utilized in any way by Tirion Properties Ltd. Both subjects are adjacent to a major transportation and utility corridor.

   Complainant agrees with the previous 2008 MGB decision and subsequent 2009 agreement by both Tirion and the City of Calgary to reduce the assessment for subject #1 to $25,000 and subject #3 to $2,000 using a cap rate of 7.25%.

2. Subject #2 – This subject is broken up into 3 pieces, 2 adjacent to the golf course and 1 which is part of the intricate storm water management system developed by Tirion for long term water management. The complainant argued that the 2 small strips adjacent to the golf course has no value and is not being utilized by the golf course. The complainant pointed out that the far east piece (adjacent to Hamptons Drive) of the subject is utilized as a cart path and is not accessible to the public. However below the surface is an important route for the storm water management system. This has made this piece of subject #2 impossible to develop and as such has little or no value. The Complainant agrees with the previous 2008 MGB decision and subsequent 2009 agreement by both Tirion and the City of Calgary to reduce the assessment to $2,000.

3. Subject #4 – The Complainant argued that the subject is an important part of the storm water management system and as such has little or no real estate value. The storm water is collected from run off of Sarcee Trail and allows the water to continue east into the next pond and the next and so on. This water is utilized by the Hamptons Golf Course for irrigation. The Complainant argued that the topography and lack of road access has made it impossible to develop the subject.

Respondent's Position:

The City of Calgary argued that the MGB decision was not current and that conditions have changed since then.

1. Subject #1 and #3 – The Respondent argued that the lease with the Province of Alberta

had expired and there was no executed lease agreement in place. There was also no official interim agreement in place stating the amount of rent that had been negotiated. It was argued that a portion of subject #1 was being partially utilized as part of the golf course. The result is that these subjects should be re-assessed based on current market values using typical golf course assess values.

The Respondent agreed that if a lease had been in place, the City of Calgary could concede to a 7.25% capitalization rate to be used for the calculation of the 2010 assessment.

2. Subject #2 – The Respondent argued that the pieces of subject #2 adjacent to the golf course could be sold to the adjacent land owners or incorporated into the golf course. As such these small pieces of land do have true value. The Respondent further argued that the cart path has value to the golf course as a method of ingress/egress and since it's location is adjacent to Hampton Drive should be assessed at market value.

3. Subject #4 – The Respondent argued that this parcel could be developed as it is well located in the sub-division. It also provides an amenity to the neighbouring homeowners as a feeder to the lakes in the district. As such this property does have value in the marketplace.

Board's Decision:

The Board found the following:

1. Subject #1 and #3 – The Board found that both the Complainant and the Respondent were in agreement with regards to the 7.25% capitalization used in the MGB order for 2008 and 2009.

The Board found that both sites (owned by the Province of Alberta) were adjacent to a Major Transportation and Utility Corridor with no physical access available from Stoney Trail.

The Board realizes that there was no executed lease in place and as such the Complainant would not be required to pay tax on the subject lands until a lease had been in place however, the Board found that the subject lands we being utilized as though there was an existing lease in effect and could only conclude that a renewal was underway. Without any evidence to the contrary the Board found that the Complainant was overholding on the original lease and still responsible for the assessment for the 2010 taxation year.

It is the Board's Decision that the assessment be reduced for subject #1 at 11113 37 St. N.W. to $25.000 and that the assessment be reduced for subject #3 at 10826 37 St. N.W. to $2,000. The Board further reconfirms the findings of the MGB pertaining to the order for 2008 and 2009.

2. Subject #2 – The Board found that in order to create value on the 2 smaller strips adjacent to the golf course, the strips would have to be sub-divided in such a way that the developer could sell the parcels to the adjacent homeowners backing onto the sub-

divided pieces. It was felt that the costs associated with this process could not justify any immediate benefit.

The Board found that the larger strip of land used as a golf path adjacent to Hampton Drive was not simply a golf path however was an integral part of the Storm Water Management system in the area. It was found that this parcel could not be developed due to the restrictive utility right of way placed on the title. The above ground use as a cart path was simply a method of hiding the real purpose of the site which was an avenue for storm water below the surface.

It is the Board's Decision that the assessment be reduced for subject #2 at 10499 53 St. N.W. to $0. The Board further reconfirms the findings of the MGB pertaining to the order for 2008 and 2009.

3. Subject #4 - The Board found that the subject was an important piece of the Storm Water Management System in the area. There was no physical access to any road in the area and it was apparent that the topography made it almost impossible to develop. This coupled with the restrictive covenants pertaining to the URW results in the subject having little market value. The notion presented by the City of Calgary that the subject site was a feeder to a lake in the area which provides benefit to the area residents is completely wrong and without foundation.

It is the Board's Decision that the assessment be reduced for subject #4 at 61 Hamptons Dr. N.W. to $2,000. The Board further reconfirms the findings of the MGB pertaining to the order for 2008 and 2009.

Dissenting Opinion on Award of Costs:

It was strongly felt by the Presiding Officer that in this case, costs should be awarded against the City of Calgary as per MRAC Schedule 3 Part 2 totalling $2,500 for Preparation of Hearing, First ½ day of hearing and Second ½ day of hearing.

It was felt by the Presiding Officer that there was an attempt by the City of Calgary to wear down the Complainant for the 3rd straight year on precisely the same issues with no change in the condition of the property in question. The following sums up the events that led the Presiding Officer to this dissenting decision:

1. **After three consecutive years embroiled in a dispute over assessment value, the City of Calgary sent an Intern Assessor (in training) to argue the City's position. The City had exceptionally poor arguments and/or the same arguments used in previous years.**

2. **Arguing that the City could assess Provincial property without evidence of a lease agreement in place is a misuse of the authority given to the assessment department by the City of Calgary.**

3. **Arguing that on one hand Tirion did not have a lease agreement however on the other hand determining a land value for a property not own by Tirion was incomprehensible. Further requiring Tirion to be responsible for this assessment**

did not make sense.

4. The City further argued that the storm water management system was considered to be a lake and is of benefit to the local residents was completely unfounded and simply a method of providing any excuse before the Board.

5. The Intern Assessor did not attempt to view the subject properties.

6. The City of Calgary did not provide comparables as it relates to their assessments.

7. The Board collectively felt that this hearing was a waste of the Boards time and an injustice to the taxpayer.

DATED AT THE CITY OF CALGARY THIS 18 DAY OF October 2010.

for Warren Garten
Presiding Officer

An appeal may be made to the Court of Queen's Bench on a question of law or jurisdiction with respect to a decision of an assessment review board.

Any of the following may appeal the decision of an assessment review board:

(a) the complainant;

(b) an assessed person, other than the complainant, who is affected by the decision;

(c) the municipality, if the decision being appealed relates to property that is within the boundaries of that municipality;

(d) the assessor for a municipality referred to in clause (c).

An application for leave to appeal must be filed with the Court of Queen's Bench within 30 days after the persons notified of the hearing receive the decision, and notice of the application for leave to appeal must be given to

(a) the assessment review board, and

(b) any other persons as the judge directs.