



256 Aberdeen Road West, Lethbridge, Alberta T1J 0N2

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Web: www.bluegrassltd.ca * e-mail: tom@bluegrassltd.ca

IRRIGATION CONSULTING PROPOSAL

For

(Your Name & Address Here)

INTENT OF THE PROPOSAL:

The intent of this proposal is to not only list all related costs and expenditures, but also to provide all necessary advice, documents, plans and specifications for the design, planning, and installation of an efficient irrigation system at _____ Golf Course. The planning and construction of the new irrigation system will consider all of the site's agronomical, physical, and environmental limitations.

The overall design and function of the new irrigation system is to show significant improvements in the playing condition of the golf course by enhancing the superintendent's current irrigation and cultural practices. For example, golfers will experience fewer wet or soggy areas on the golf course, and the superintendent will apply less fertilizer, fungicide and pesticide.

REQUIREMENTS OF CLIENT:

The management team will provide the most up-to-date and accurate information about the parameters of the site. This would include, but not be limited to, player traffic patterns, soil conditions, water storage capacity and quality, climate and wind conditions, and any future construction planned for the golf course.

An ortho-rectified aerial photo, at a .25 or .50 meter resolution, is suggested as a base map that will be imported into AutoCad and used to outline the course.

OBJECTIVES OF THE CONSULTANT:

Bluegrass Irrigation Consulting Ltd. will offer quality, independent professional irrigation consulting services.



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SCOPE OF WORK

Phase (1) PRELIMINARY

- Review the contract and irrigation consulting services in the proposal with the management team.
- Begin to collect data from the golf course superintendent and / or architect including irrigation and cultural practices presently used on the golf course. As well as potential road crossings, underground power lines and any other course feature that would impact the irrigation system's design or installation.
- Begin to research and collect relevant information about environmental concerns, the current water license and any local codes and by-laws.
- Begin to research and collect relevant physical, geographic and climatic information about the site. Including soil and water conditions, drainage problems, and any other site characteristic that would impact the irrigation system's design or installation.
- Begin to research the availability of an applicable aerial photo of the site.

Phase (2) IRRIGATION SYSTEM DESIGN

- Discuss with the course superintendent and / or architect the overall area to be irrigated and discuss the water requirements for greens, tees, fairways, and driving range areas.
- Tour the entire golf course with the superintendent and / or architect and look for areas or situations that will require a special irrigation design technique.
- Prepare a preliminary irrigation plan showing the existing mainline, proposed new mainline routing and sprinkler head locations.
- Prepare a water report showing weekly application rates, a proposed irrigation schedule, and a typical year's water consumption.
- Review the preliminary irrigation plan and water usage report with the management team. Revise as needed to a final irrigation design plan.
- Finalized the irrigation system design in AutoCAD for the golf course including all of the areas to be irrigated.
- Prepare a detailed irrigation design for tendering and installation purposes including sprinkler head type and location, pipe layout and sizing, control system layout and wire sizing, isolation valve locations, and any other feature relevant to the irrigation design for the golf course.



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Phase (3a) EXISTING PUMP STATION REVIEW

- Consult with the course superintendent when the pump station was installed, who installed it and what equipment was originally installed
- Examine and assess the existing pump station infrastructure and components providing a report highlighting the positive and negative aspects and the possible limitations of the existing pump system.
- Prepare a budget for any necessary upgrades to the existing pump station.

OR

Phase (3b) NEW PUMP STATION DESIGN

- Prepare an AutoCad design of the existing pump station components and incorporate a new pump station that would be located within the existing building floor plan or within an addition to the existing building.
- Formulate design parameters (flow & psi) based on the final irrigation plan. Specifying a skid style pump station to pre-qualified pump station manufacturers that would be located within the existing building floor plan or in the addition to the existing building.
- Prepare a budget for a new pump station using as many of the existing building and infrastructure components as possible.

Phase (3c) PUMP STATION TENDERING

- Prepare one tender package for pre-qualified pump station manufacturers and/or contractors to bid the upgrade of the existing pump station or the installation of a new pump station
- Arrange for a mandatory pre-bid site meeting for pump station manufacturer and/or contractors to review the site and clarify the intent of the pump station design and specifications.
- Review and evaluate the pump station tender making a presentation to the golf club superintendent and representative(s).
- Assist the club in the negotiation with, and recommendation of, a company to supply and install the upgrade or supply a new pump station.



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Phase (4) IRRIGATION SYSTEM TENDERING

- Prepare a detailed unit price tender document based on the detailed irrigation design. This would include, but not limited to, the size and quantity of mainline pipe, the size and quantity of isolation, air release and quick coupler valves, the size, type and location of sprinkler heads and controllers based on using _____ products (or approved equal).
- Distribute tender packages to pre-qualified irrigation contractors to bid the supply and installation of the sprinkler system consistent with the final irrigation system design. The tender package would include a copy of the detailed irrigation design plan and a set of contract documents that include specifications and qualifications for the contractor, general conditions and supplementary site conditions, installation detail drawings, written technical specifications for installation, and an extra tender form that the contractor must fill out, sign and return to the consultant on or before the closing date.
- Arrange for a mandatory pre-bid site meeting for contractors to review the site conditions, fully understand the irrigation plan and clarify the intent of the contract documents.
- Review and evaluate the unit price tenders making a presentation to the golf club superintendent and representative(s) on the irrigation system supply and installation tenders.
- Assist the club in the negotiation with, and recommendation of, a contractor to supply and install the sprinkler system.

Phase (5) ON SITE SERVICES DURING CONSTRUCTION

- Coordinate administration of the contract before and during construction including payment schedules, holdbacks and warranties.
- Host a pre-construction meeting to discuss and resolve administrative procedures and responsibilities and finalize the installation schedule.
- Make periodic site visits to stake all equipment locations including mainline, sprinkler heads, controllers and isolation valves. Draw as-staked maps for the contractor to use as revised drawing. (If required).
- Make periodic site visits to review installation, report deficiencies, survey an ongoing GPS as-built drawing, review billing and payment approvals.
- Make a site visit at the end of the project to conduct an irrigation audit of the new system to calculate a base-watering schedule and assist the manufacturer's representative with programming of the central controller.



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FEE STRUCTURE & PAYMENT SCHEDULE

- Phase (1) PRELIMINARY
 This fee is payable upon the client reviewing the proposal, agreeing to the consulting services and signing the contract. (This Phase includes ____ site visits to review the irrigation consulting services, sign the contract and to begin collecting relevant data)

- Phase (2) IRRIGATION SYSTEM DESIGN
 This fee is payable in two parts. The first 50% is due upon contract signing and the second 50% is due upon completion and approval of the detailed irrigation design. (This Phase includes ____ site visits to review the design prior to finalizing it in AutoCAD)

- Phase (3a) EXISTING PUMP STATION REVIEW
 This fee is payable upon preparation of a design and budget for upgrading the existing pump station. (This Phase includes ____ site visits to review the design prior to finalizing it in AutoCAD)

- Phase (3b) NEW PUMP STATION DESIGN & SPECS
 This fee is payable upon the preparation of a design and budget for replacing the existing pump station.

- Phase (3c) PUMP STATION TENDERING
 This fee is payable upon the selected company signing the pump station contract.

- Phase (4) IRRIGATION SYSTEM TENDERING
 This fee is payable upon the selected company signing the pump station contract. (This Phase will require two site visits to host an irrigation system pre-bid site meeting).

- Phase (5) ON SITE SERVICES DURING CONSTRUCTION
 This fee is payable monthly. Staking, installation reviews and other site visits are all invoiced @ _____ per day. The consultant estimates _____ days for the irrigation system installation and commissioning.

Phase (1)	\$ _____				
Phase (2)	\$ _____				
		Phase (3a or 3b)	\$ _____		
		Phase (3c)	\$ _____		
				Phase (4)	\$ _____
				Phase (5)	\$ _____

Total Phase (1) + (2) = \$ _____ (Irrigation System Planning & Budgeting)
 Total Phase (3) = \$ _____ (Pump Station Design and Tendering)
 Total Phase (4) + (5) = \$ _____ (Irrigation System Tendering, On Site services during & after Installation)

- Notes:**
- (1) This proposal lists and includes four distinct site visits from Phase (1) through (3).
 - (2) The consultant has not included travel expenses
 - (3) Applicable Provincial and Federal taxes are extra.
 - (4) This proposal is valid for 90 days