LAKE EDEN

EROSION & SEDIMENTATION CONTROL PLAN

1260582 Alberta Ltd

BOX 2148

STONY PLAIN, ALBERTA

Apr. 29, 2013

MPA Engineering Ltd. Permit # 6432

Revised APRIL 2013

LAND DESCRIPTION: Lot 1, Block 1, Plan 852-0616 within the N ½ Section 13, Township 53, Range 2, West of the 5th Meridian containing 220 acres more of less

PROJECT DESCRIPTION:

The project consists of the regarding of a portion of the lands referenced above and as shown in the plan attached hereto and referenced as 'Site Grading Area_Oct_2012'.

The intent of the project is to remove excess loam and overburden in an area which is intended to be utilized as a staging area for future development. At a point in time the area which is proposed for regarding was used during the winter months as a parking lot in support of the Lake Eden Ski Hill. The area appears to have originally been a depressional area and being located at the base of the ski hill a logical location for vehicle parking. Unfortunately, the area which entails the parking area was never properly developed with suitable clay materials and compacted to provide a year round base.

It is the intent of the land owner to remove the overburden and topsoil and fill with clay from the adjacent hillside slope and then remediate the disturbed areas with top soil and seeding. The excess topsoil and overburden will be placed in a berm as depicted in the attached plan.

ENVIRONMENTAL SENSITIVITIES

The re-grading of the existing slope as shown on the attached plan may have some impact with respect to environmental sensitivities. The slopes and disturbed area will be remediated and seeded as quickly as possible to minimize potential nuisances such as dust and for soil erosion.

The disturbed slopes in the west portion of the disturbed area will be re-graded to a minimum of 6% slopes while slope gradients falling easterly will follow the existing gradients as much as possible. It is anticipated that the final grades will be field fitted.

Drainage in the area will not be altered and that the natural drainage flowing to the east as depicted in the attached plan will be retained. It is important to note that no drainage will be redirected towards the lake.

SITE ACTIVITIES:

The scope of work as mentioned above entails the stripping and stockpiling of top soil and overburden and the re-grading of the subsurface. Upon completion of the stockpiling the lands will be regarded and the top soil replacement completed.

PROJECT SCHEDULE

Work is anticipated to recommence immediately upon approval by Parkland County and it is our intent to complete the re-grading and remediation work this spring and summer. Should the frost level intrude into the land before the work can be completed the project will be resumed in spring once frost conditions permit.

POTENTIAL ENVIRONMENTAL ISSUES:

1) Erosion of soil through storm run-off and siltation exposure to lands outside the disturbed areas.

2) Redirection or alteration of existing drainage patterns which may impact lands outside the disturbed areas.

3) Redirection or alteration of existing drainage patterns which may redirect surface runoff and siltation towards Lake Eden.

4) Dust suppression during construction activities.

MITIGATION:

Best management practices will be applied at all times to prevent adverse impacts on the environment. As demonstrated within the attached plans surface drainage will not be altered and that due care and attention is taken to ensure that the present drainage patterns as reflected in the natural slope of the lands are maintained.

In addition to perimeter control for sediment transportation and deposition, where siltation may impact undisturbed areas the installation of siltation fencing, as shown in the attached plan, is proposed. As indicated on the attached plans the final slope gradients shall be determined in the field, however, as stated previously surface erosion will be controlled through the application of the following best management practices.

1) The placement of the silt fencing shall be determined upon completion of the site grading. (As mentioned previously the gradients will be determined in the field).
2) The trench method of placement will be deployed, however, that is subject to revision.
3) Support posts will be driven to a minimum depth of .3 m into the ground, spaced approximately 2m apart and placed on downstream side of fence.
4) Exposed trench will be backfilled
5) Drainage area will be no greater than .1 ha per 30m of silt fence.
6) Slope gradient above the fence will be no greater than 2:1.
7) Silt fencing shall be placed along the contour line and up sloped to collect runoff.
8) Maximum length of each section of silt fence shall be 40m.
9) Sedimentation build up will be removed as required.

The re-loaming and re-seeding of the disturbed areas will occur as soon as the re-grading has been completed. This will include the reseeding of the berm as shown in the attached plan. The seeding will be completed in accordance with Parkland County Specifications 8.6.

EROSION & SEDIMENTATION CONTROL POST DEVELOPMENT

The best management practices referenced above focus on addressing the potential environmental issues that may be more construction centric. To ensure that erosion and sedimentation control is maintain post construction it is proposed to incorporate the following best management practices into our mitigation strategy:

1) The most easterly 30 metres of the site graded area will be graded to a slope elevation not greater to .1% to reduce the rate of flow.

2) Low profile sedimentation berms, not exceeding .5m in height, will be constructed paralleling the siltation fence on the east boundary of the disturbed, as shown in the cross-section and site grading drawings attached hereto. These low profile sedimentation berms with act to reduce both the rate of flow and to capture sedimentation that make occur as a result of erosion after seeding.

3) Gentle swales between the sedimentation berms will further reduce the rate of flow and further assist in the capture of sedimentation.

4) Willows will be placed along the west boundary of the siltation fence, and both within and around the low profile sedimentation berms as shown in the attached plan to assist in the development of soil structure.

PLAN IMPLEMENTATION

The work will be completed by Formula Contractors of Stony Plain, Alberta. Formula Contracting has considerable work experience in this field and in very conversant with the requirements of Parkland County with respect to site grading and site remediation.

Formula Contracting Ltd. having been extensively involved in large municipal and provincial infrastructure projects has an experienced team which is well versed in best management practices and emergency response procedures.

Contact will be Wes Erickson, of Formula Contracting, # 4 Bolder Blvd in Stony Plain. The phone number for voice communication will be (780-983-6734.

Secondary or alternative contact is: Tracy Vigoren, Cell Phone # is 780-619-8186

SITE INSPECTION PLAN

It should be clearly understood that the land which is subject to the site grading is part of the land holdings of 1260582 Alberta Ltd. and the area of disturbance is entirely within the control and ownership of the landowner. The landowner has made application to place a residence on this parcel of land and as a private land owner is solely responsible for the day to day activities that occur within the lands in title.

As an owner residing on the parcel, the landowner will, from his residence, view the area of disturbance on a daily basis. In addition, the landowner will through normal maintenance activities and enjoyment of the lands will inspect the areas of disturbance. Should a major rain event occur the landowner will make a concerted effort to view the area of disturbance to determine if the reclamation as proposed has been impacted.

If further remedial action is required the landowner will make every effort to mitigate the problems as quickly as possible.