

Brian:

As discussed we have prepared a capital cost estimate for the two options to pave Whistler Parking Lot 1; one for paving with an 80 mm asphaltic concrete surface and one with a gravel pave surface based on a total area of 6,400 sq. meters. The cost of the paved parking lot includes an oil water and sediment control device (Vortechinics), several catch basins and associated drainage piping. Good subgrade drainage is required for the asphalt paved parking lot in order to prevent frost heaving whereas the gravel pave surface will be more tolerant of these conditions and will require a lesser subsurface drainage system. We have not allowed for a storm water device in the design of the gravel pave lot as the water will be filtered through the subgrade gravels. Both drainage systems discharge to the Fitzsimmons Creek dry channel. The costs are summarized as follows:

### **Asphaltic Concrete Parking Lot (80 mm thickness)**

1. Asphaltic concrete paving - 80mm (\$100/tonne)  $\$19.20 \times 6,400 \text{ sq. m} = \$123,900$
2. Base gravel - 150 mm thick -  $\$8.00/\text{sq.m} \times 6,400 \text{ sq.m} = \$51,200$
3. Subbase gravel - 300 mm thick -  $\$12.00/\text{sq.m} \times 6,400 \text{ sq.m} = \$76,800$
4. Drainage piping: - 200mm dia. @ 200m x  $\$80.00 = \$16,000$ 
  - 300mm                    40m     $\$150 = \$6,000$
  - 375mm                   60m     $\$190 = \$11,400$
  - 450mm                   120m    $\$250 = \$30,000$
5. Catchbasins - 21 @  $\$1000 = \$21,000$
6. Manholes - 6 @  $\$3000 = \$18,000$
7. Storm water treatment device and bypass piping (Vortechinics) allow  $\$60,000$
8. Outlet structure at creek allow  $\$8000$
9. Miscellaneous grading and filling of the existing parking lot to develop surface drainage grades - Allow  $\$10,000$
10. Line painting allow  $\$2000$

Total estimated capital cost  $\$432,000$  excludes GST, Engineering or Contingencies  
Excluded any parking area lighting or landscaping.

### **Gravel Pave Parking Lot**

1. Gravel pave structure, infill gravel, road base and filter -  $\$46.82/\text{sq.m} (\$4.35/\text{sq. ft.}) \times 6400 \text{ sq.m} = \$299,700$
2. Allow for 100 mm thickness (average) of 75mm minus subbase gravel to shape existing lot  $\$4.00/\text{sq. m.} \times 6,400 \text{ sq m} = \$25,600$
3. Subsurface drainage collection system comprising approximately 150mm, 200mm and 250mm diameter perforated and solid pipe - 150 mm - 370 m -  $\$80 = \$29,600$ 
  - 200 mm - 20 m -  $\$90 = \$1800$
  - 250 mm - 100m -  $\$150 = \$15,000$
4. Manhole and cleanouts 5 mh @  $\$3000$  and 15 cleanouts @  $\$500 = \$22,500$
5. Outlet structure at creek allow  $\$4000$

Total estimated capital cost  $\$398,200$  excludes GST, Engineering or Contingencies  
Excludes any parking area lighting or landscaping.

Note that these costs are approximate only based on sketch plans for each option.

Call if you have any questions

Ken