



MEMO

From the office of the...

Vice-President (Finance) & CFO

TO: Member of Executive Board
FROM: Albert Huynh, EFRT Program Director and Alexandria Johnston, Vice President (Finance)
SUBJECT: EFRT Capital Expenditure- Bikes
DATE: August 13, 2019

Dear Executive Board,

The following proposal is for the capital fund request to purchase new bicycles for the MSU Emergency First Response Team. The suggested bicycles and the elements required to operate are outlined in the proposal.

Problem:

The EFRT responders currently respond on bikes and have 3 bikes in their possession of varying conditions. The bicycles were purchased approximately 6 years ago and have been maintained through various repairs at MSU MACycle and Piereks (located in Westdale). However, due to multiple Canadian winters, regular wear and tear, and theft, the bikes are currently in a condition where they may pose a hazard to responders. There have been multiple reports of responders falling off bicycles due to their bad condition, putting responder safety at risk, as well as delaying our response times to urgent calls.

The EFRT prides itself on its quick response time to patients in need and responds to patients 24/7 throughout the school year. The primary goal of the team is to help determine what type of additional medical care that patients need as well as to provide quick care to patients in the interim while waiting for Hamilton Paramedic Services.

The target response time for a vital sign absent (VSA) call in Hamilton, meaning the patient is not breathing and no heartbeat is detected is 6 minutes. This goal is met 70% of the time which is an improvement from previous rates but still means that patients can wait 6 minutes or more to receive care. Access to early CPR and defibrillation is one of the few things that can increase survival rates in VSA patients. This is a top priority call meaning all other emergencies have lower target response times with the target time for some calls being 20 minutes or more depending on priority. Additionally, Hamilton has experienced some of the highest code zero rates in the province, meaning that zero ambulances are available to attend a call. This is due to offload delays in emergency departments but can contribute to long EMS response times.

EFRT strives for an average 3-4 minute response time for almost every call in the central campus area. This is half of the expected EMS arrival time for the top priority call for Hamilton Paramedic Services. EFRT helps to bridge the gap between emergency services and students and provide high level care while patients wait. Additionally, responder's familiarity with campus helps to get to calls faster than emergency services and the partnership with campus security allows the guidance of emergency vehicles to calls.

The team only ceases operation during reading weeks and the holiday break, keeping operations running even in the event of inclement weather. In working to help reduce the time that it takes for student to access emergency services as well as acting as a liaison between patients and Hamilton Paramedic Services, it is important that EFRT responders can respond safely and efficiently to calls. Responders have kept operation open on days when other university services are closed to help to provide a consistent presence on campus for students. However inclement weather forcing university closure delays response times and may put responders at risk due to icy conditions. A temporary solution to this used this year was to have responders be transported by campus security in their vehicle. This allowed responders to arrive safely but is a solution only available if the special constables have no other calls. This means the service is inconsistent at best. Additionally, coordination can be difficult if responders are not all at the same location.

Proposal 1

After consulting with our partners at McMaster Security Services and MSU Macycle, we have concluded that the bicycles they currently have in storage are not fit for EFRT's emergency response procedures. For this reason, EFRT needs new bicycles fit for winter and summer biking to replace our old fleet of bicycles. David Zavlasky, MSU Macycle director, has offered some suggestions outlined below.

Currently, EFRT bikes pose a hazard for responders, and increasing theft has left them in a nearly unusable state. The Dual Sport 1 Model of bicycle has all terrain tires, which would make biking to calls in icy winter conditions safer for our responders. Furthermore, the frames of these bicycles are much more suited to rapid bike seat changes, accounting for the variety of seat heights responders need. Each Dual Sport 1 comes at price of \$549.99. While this may be an expensive upfront cost, each bike comes with a lifetime yearly maintenance, which would save EFRT \$174 per year per bike in maintenance costs.

Purchasing bicycles from the "freewheels" stores gives EFRT access to yearly maintenance, which saves money overtime instead of our yearly maintenance from Piereks, located in Westdale. Freewheels also offers a basic maintenance class for those purchasing bicycles, which my internal coordinator as well as I can attend. This will allow us to further conduct our own maintenance to further restore bikes and keep them in good condition between the yearly maintenance runs. We can also use the services of Macycle to further maintain these bikes.

The total projected cost is outlined below:

Item	Cost
Dual Sport 1 Bicycle	\$549.99
Dual Sport 1 Bicycle	\$549.99
Dual Sport 1 Bicycle	\$549.99
Total	\$1849.97
Total with Tax	\$2203.47

Proposal 2

After consulting with our partners at McMaster Security Services and MSU Macycle and Freewheels, we have concluded that the bicycles they currently have in storage are not fit for EFRT's emergency response procedures. For this reason, EFRT needs new bicycles fit for winter and summer biking to replace our old fleet of bicycles. David Zaslavsky, MSU Macycle director, has offered another suggestion.

"As far as EFRT goes, I am familiar with the team from my days at Mac! So it wasn't as choppy to me as you might think! Let's get down to the bicycles. I know yourself and Vince had been speaking on the phone about the Dual Sport series from Trek. Ideally we feel that the DS2 would be the best choice for durability, especially through all seasons. I'm also recommending the Ion Pro/Flare RT bundle. The Ion Pro is a VERY bright light at 1300 lumens, but I feel that this will make it more suitable as the battery charge will last longer, and it will be usable as a light to see on a trail if necessary at night."

-Freewheel Andrew

*"I did recommend the DS2 as well, and I'd echo Andrew's recommendation too. The big difference is in the tires and the brake system - the DS1 uses cables ('mechanical') to activate brakes, while the DS2 uses brake fluid ('hydraulic'). As well, the DS2 comes stock with superior tires, especially for poor weather. The hydraulic brake makes it much more weather-resistant, as the cable may rust and not activate if left out in poor weather, while fluid is entirely sealed. In terms of serviceability, the cable is easier to service, but needs to be serviced more frequently. Hydraulic brakes are also more powerful in general. It's not a total loss if you have to go for DS1 (they are *miles* ahead of what y'all use now). But I agree with Andrew. Just my \$0.02."*

-MSU Macycle David Zaslavsky

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The total projected cost is outlined below:

Item	Cost
Dual Sport 2 Bicycle	789.99
Dual Sport 2 Bicycle	789.99
Dual Sport 2 Bicycle	789.99
Total	2369.97
Total with Tax	2678.07

Sincerely,

Albert Huynh
EFRT Program Director

&

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