

**Michael Wilcox - Re: Fwd: Safety Memo**

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**From:** Ryan Kump  
**To:** Wilcox, Michael; Dustin Holt  
**Date:** 1/5/2016 8:37 AM  
**Subject:** Re: Fwd: Safety Memo  
**Cc:** King, Andrew

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Thanks Dustin. This memo echoes my conclusions on the intersection.

**Ryan Kump P.E. | Sandy City | Transportation Engineer**  
 p: [\(801\) 568.2962](tel:8015682962) | f: [\(801\) 562.1312](tel:8015621312)



>>> Dustin Holt <[dustineholt@gmail.com](mailto:dustineholt@gmail.com)> 1/5/2016 8:24 AM >>>  
 Sorry. Not sure why it was not attached. Here you go. Thanks.

On Tue, Jan 5, 2016 at 8:07 AM, Michael Wilcox <[MWilcox@sandy.utah.gov](mailto:MWilcox@sandy.utah.gov)> wrote:

Can you please resend? Nothing was attached to your email. Thanks!

Mike Wilcox  
 Long Range Planning Manager  
 CDBG Program Administrator  
 Phone [\(801\) 568-7261](tel:8015687261)  
 Fax [\(801\) 568-7278](tel:8015687278)  
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>>> Dustin Holt <[dustineholt@gmail.com](mailto:dustineholt@gmail.com)> 1/4/2016 2:48 PM >>>

Andrew,

Sorry I missed you call. We wanted to make certain you had the attached safety memo from Hales Engineering. We'd welcome an opportunity to speak with staff about this sometime this week (prior to the CC next week) as we believe it should help mitigate some of the concern regarding Beetdigger Blvd and 10600 So.

Please take a look and let us know. Ideally Ryan Kump would be in support/agreement with Ryan Hale's memo and then Ryan Kump may have to speak to the importance of 10200 So. connecting to Beetdigger as that seems to be an issue with some of the council members.

Please advise as to when we might be able to sit down for 30 months or so. Thanks.

Dustin E. Holt  
[801.573.9054](tel:8015739054)

## MEMORANDUM

Date: December 16, 2015

To: Boulder Ventures

From: Hales Engineering

**Subject: Beetdigger Boulevard / 10600 South Safety Mitigation Measures**

UT15-746

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### PURPOSE

The purpose of this memorandum is to present the findings of our safety review of the proposed Beetdigger Boulevard intersection with 10600 South in Sandy, Utah, and to present any additional safety mitigation measures not previously identified for inclusion with the construction of this intersection.

### BACKGROUND

Beetdigger Boulevard begins at State Street in Sandy as a three-quarter access and extends southeasterly into the Hamilton Partners and Security National property. It is Hales Engineering's understanding that a requirement of development for these properties was to extend Beetdigger Boulevard in a southerly direction to connect with an existing roadway to create a secondary access.

With the proposed development of the UTA property, Boulder Ventures, a potential buyer for the property has been in discussions with the City about extending Beetdigger Boulevard to connect with 10600 South providing better roadway connectivity in the area and multiple inlets and outlets for the traffic from all three projects (Hamilton Partners, Security National, and Boulder Ventures).

Several individuals have discussed their concerns about the safety of the Beetdigger Boulevard / 10600 South intersection. This memo has been created to review these concerns, as we currently understand them, and discuss safety measures.

## **Safety Concerns / Review**

As we understand the safety concerns that have been raised to date, they include the following:

1. Southbound left-turns will be hard to make during peak hours
2. The UTA TRAX Light Rail crossing creates long vehicle queues that will block southbound left-turning vehicles

It is recognized that the southbound left-turns will be hard to make during the peak hours of the day, however, during the off-peak hours 22 to 23 hours of the day, left-turns will be feasible, similar to the Weeping Willow and Golden Willow Drive accesses.

We also recognize that the southbound left-turns will be blocked on occasion when the TRAX trains are crossing 10600 South and the crossing arms are down creating eastbound through vehicle queuing. There is no way to prevent this queuing and the through traffic on 10600 South will always be the major traffic movement at this location. Southbound left-turning vehicles will have to wait for gaps in the traffic stream.

In order to make the intersection as safe as possible while maintaining all traffic movements, the following safety improvements have been identified for consideration with this project.

## **Crash History**

Crash data from January 2010 through November 2015 for 10600 South from Weeping Willow Drive to the Railroad Tracks was obtained from UDOT. Crash data is protected under 23 USC 409. Crashes over the past 5 years at the Weeping Willow Drive, Golden Willow Drive, and Beetdigger Boulevard / 10600 South are reported below:

- Weeping Willow: 8 total crashes
  - 5 Front to Rear
  - 2 Angle
  - 1 Sideswipe Same Direction
- Golden Willow Drive:
  - 2 Front to Rear
- Beetdigger Boulevard
  - 5 Front to Rear

As shown in the crash data, over all three intersections, only 2 angle crashes were reported. The expressed safety concerns about left-turns onto 16000 South would be manifested with a high number of historical angle crashes. Most of the crashes were front

to rear, which typically results from congestion and queuing, either from the signal at State Street (US-89) or railroad crossing.

Although it is difficult to make a left-turn from any of these roads during the peak hours, it does not appear that there is an existing safety concern at these locations. The crash data does not indicate a pattern or history of angle crashes at these intersections.

### **Safety Improvements**

Safety improvements at the proposed Beetdigger Boulevard / 10600 South, two-way stop intersection could include the following:

1. Intersection lighting – the Beetdigger Boulevard intersection already has street lighting similar to Weeping Willow Drive and Golden Willow Drive in the form of the 10600 South street lighting
2. Southbound left- and right-turn pockets – will be installed with the project
3. Eastbound left-turn pocket – already exists in the form of a two-way left-turn lane on 10600 South
4. Westbound right-turn pocket – will be reviewed by the design team for feasibility and installed if possible
5. Traffic Signalization – not feasible as the volumes do not meet requirements identified in the Manual on Uniform Traffic Control Devices
6. Channelized T-intersection – not feasible as it is too close to the UTA TRAX signal and it would block the private drive on the south side of 10600 South immediately adjacent to the TRAX rail line
7. Three-quarter access (westbound right-turn in from 10600 South to Beetdigger Boulevard, southbound right-turn out from Beetdigger Boulevard, and an eastbound left-turn in from 10600 South) - this would force the desired southbound left-turn movements to do one of three things:
  - a. make a southbound right-turn followed by a U-turn on 10600 South to head east as originally planned
  - b. it could force the southbound left-turns to travel 2.3 to 2.7 miles out of direction to reach the 700 East / 10600 South intersection

- c. it could encourage this traffic to filter through the Little Willow Estates subdivision to reach the Weeping Willow or Golden Willow Drive accesses with 10600 South where left-turns are feasible

This type of access will likely create undesirable and unintended consequences to other areas of Sandy, including roadways and subdivisions.

### **Recommendations**

It is our recommendation that the safety improvements above (1, 2, 3, and 4), be implemented, if feasible, to make the intersection as safe as possible, while maintaining the access as full movement.

It is also recognized that if a safety issue arises in the future, that the City has the right to restrict access at this location.

If you have any questions about this memo, please feel free to contact us.