

TRANSPORTATION ENGINEERING

Blacksmith Village Project in Eden, UT: Clear Zone

The Blacksmith Village project is located at 2145 North and 5500 East in Eden, UT. The County has asked that a Clear Zone discussion be provided relative to the project. 5500 East is posted at 40 MPH .

Clear zone is defined by the ASSHTO Roadway Design Manual. Chapter 3 is dedicated to Roadside Topography and Drainage Features and relates roadway clear zone and distance from the road to minimize the chances of placing immovable barriers within the area known as the recovery area. Figure 3.1b provides clear zone distance curves based on ADT and roadway design speed. 5500 East is Federal Aid Route 3468 and in 2011, there was 2,055 ADT. For a roadway with 2,055 ADT and posted at 40 MPH , Table 3.1 of the AASHTO Roadside Design Guidelines indicates that a Clear Zone of 12-14 feet is recommended when the Fore or Back slopes are $1 \mathrm{~V}: 6 \mathrm{H}$ or flatter, as they are in this area.

Based on the design and field measurements provided, the following dimensions occur for the proposed cross section as measured away from the building towards the travel lanes. .

- Concrete 15 feet from building
- Raised Berm 15 to 23 feet ( 8 ft . berm) (Fence at 23 feet)
- Road Base 23 to 26 feet
- Asphalt Pathway 26 to 34 feet
- Road Base 34 to 37 feet
- Edge of oil to white line approx. 12 inch shoulder (38 feet from Building)

This indicates that the clear zone extends to 24-26 feet from the building which places it within the Road Base area closest to the building. Therefore there does not appear to be anything proposed, including the fence, that would extend into the clear zone. The existing asphalt pathway will still remain within that clear zone but no immovable structures appear to be proposed. Therefore, the proposed development does not appear to change any of the existing operational issues or impact the clear zone or raise additional issues within the clear zone. Ideally, the pathways would be outside of the clear zones or have some curb protection, however, this is an existing condition and it is not uncommon to have pathways immediately adjacent to the roadway.

Please contact me with concerns.
Sincerely,
A-Trans Engineering


Joseph Perrin, PhD, PE, PTOE
Principal


Aerial of 5500 East


Street View of 5500: Looking South
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Street View of 5500: Looking North

