

**STEVENS HIGH SCHOOL TRAFFIC STUDY  
AND CONCEPTUAL DESIGN  
PROJECT NO. ST03-1317**

**No. PW081203-07**

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**PROJECT DESCRIPTION**

The City of Rapid City desires a traffic study of the Stevens High School campus in Rapid City. The study includes performing traffic counts, analyzing existing conditions, recommending and prioritizing improvements, and providing preliminary cost estimates for recommended improvements.

The study would result in the evaluation of ideas and options to improve the safety and capacity of the Steven's High School Campus. These options will be presented in report form to the City and School Staff.

**1) EVALUATION**

- a) The study area includes 44<sup>th</sup> Street from Brookside Drive to the 44<sup>th</sup>/Raider (south) intersection, the entire length of Raider Road, and Range Road (within the functional area of the Raider Rd/Range Rd intersection.
- b) Evaluate level of service at all intersections within study area (approximately seven)
- c) Evaluate the capacity and operational characteristics of the surrounding street network
- d) Evaluate the capacity and operational characteristics of the internal roadways and parking lots on school property.
- e) Evaluate pedestrian safety

## **2) RECOMMENDATIONS**

The consultant is to recommend options to improve the safety, operational characteristics, and capacity for both internal site circulation and for the surrounding street network. These recommended improvements are to be prioritized in order of importance. Issues for which recommendations are expected include the following:

- a) Modifications to existing parking lot access to Raider Road south of Range Road
- b) Modifications to the existing traffic control, geometry and configuration of the Raider Rd/Range Rd intersection.
- c) Identify any roads that should be restricted to one way vehicular movement (such as the internal school roadway and Raider Road).
- d) Determine if any additional access to 44<sup>th</sup> Street is warranted
- e) Recommend any modifications to on-street parking
- f) Recommend any modifications for pedestrian safety

## **3) Conceptual Designs and Cost Estimates**

- a) A conceptual design is to be completed for each recommended improvement.
- b) A construction cost estimate is to be prepared for each option.
- c) A summary report is to be prepared. This report will consist of a summary of:
  - i) Traffic data
  - ii) Identification and evaluation of proposed improvements
  - iii) Cost estimates
  - iv) Conceptual layouts of proposed improvements