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August 19, 2012

Honorable Mayor Sam Kooiker
Members of the Rapid City Common Council
City of Rapid City
300 Sixth Street
Rapid City, SD 57701

RE: Agenda Item 58 – No. PW073112-32

Mayor Kooiker and Council Members:

I am writing in request of your support for the Request For Exception to allow an existing approach on Fifth Street to be utilized for a right-turn-only exit. A previous exception was granted in February of this year to allow the same approach to be utilized for a right-turn-only entrance and we are seeking to extend the use to an exit.

The existing approach which is centrally located between East Stumer Road and Catron Boulevard is shown on the attached aerial photo exhibit. The approach has been in place since at least 2008 and is 26' wide, which is the standard width of a driving aisle that accommodates two-way traffic. This is the only approach located on Fifth Street between East Stumer Road and Catron Boulevard.

The East Stumer Road intersection is signalized as well as the Catron Boulevard intersection. The signal at Catron Boulevard will regulate the north-bound traffic on Fifth Street, providing breaks in traffic for users to exit this approach.

Perhaps most importantly, there is an existing raised median between the south-bound lanes and the north-bound lanes on Fifth Street. The median separates the traffic that is moving south-bound on Fifth Street, so the users of the approach in question do not have to deal with cross-traffic from the west side of the road. There will be no left-turn incoming traffic from the west lanes and no left-turn traffic exiting to the west lanes.

There are several references from the American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Highways and Streets (2011) that refer to the preferred use of raised-curb medians – including:

> *"Non-traversable medians generally have a lower crash rate than two-way left-turn lanes and undivided roadway sections for all access densities" (P2-74)*
>
> *"Medians are highly desirable on arterials carrying four or more lanes." (P4-34)*
>
> *"Raised medians have application on arterial streets where it is desirable to regulate left-turn movements." (P4-35)*

"Driveways used for right turns only are desirable where the cross section includes a curbed median or a flush median and median barrier." (P4-47)

Also attached is the chart from Page 2-75 of the AASHTO manual which indicates that the non-traversable (or raised) median has the lowest estimated crash rates compared to undivided roadways and where both left and right turn movements are allowed.

In addition to the discussion regarding the preferences and advantages of raised-curb medians which limit traffic to only right turns, the AASHTO manual references the need to consider and balance the use of land and adjoining property when considering control of access – including:

"Where access to a highway is managed, entrances and exist are located at points best suited to fit traffic ***and land-use needs****." (P2-70)* (bold text is my emphasis)

"Driveway terminals are, in effect, low-volume intersections; thus, their design and location merit special consideration. … they are important links that provide access to residences and commercial establishments." (P4-47)

"To the extent practical, driveway designs should consider a range of objectives including: … (2) providing reasonable access to property;"

"The design of intersections is important to users of the intersections and owners of land adjacent to the intersection. Therefore, design criteria should be selected that will result in balanced and cost-effective design that provides efficient operations and low crash frequencies, and considers the needs of all user groups."(P 9-1)

The ability to utilize this existing approach for a right-turn in ***and*** a right-turn out is an important feature for the future development and use of this property. We have demonstrated that the raised-curb median which separates the north and south bound traffic on Fifth Street is a preferred safety feature and yields the lowest estimated crash rates for median usage (attached chart). We have also demonstrated that land use needs and reasonable access are part of the consideration for access control.

I would also point out that the parcel to take access from this approach is part of a Planned Development. At the time of development, specific plans will be submitted for review and approval. Staff and Planning Commission will have the opportunity to review, comment and have input on this development and the utilization of this approach.

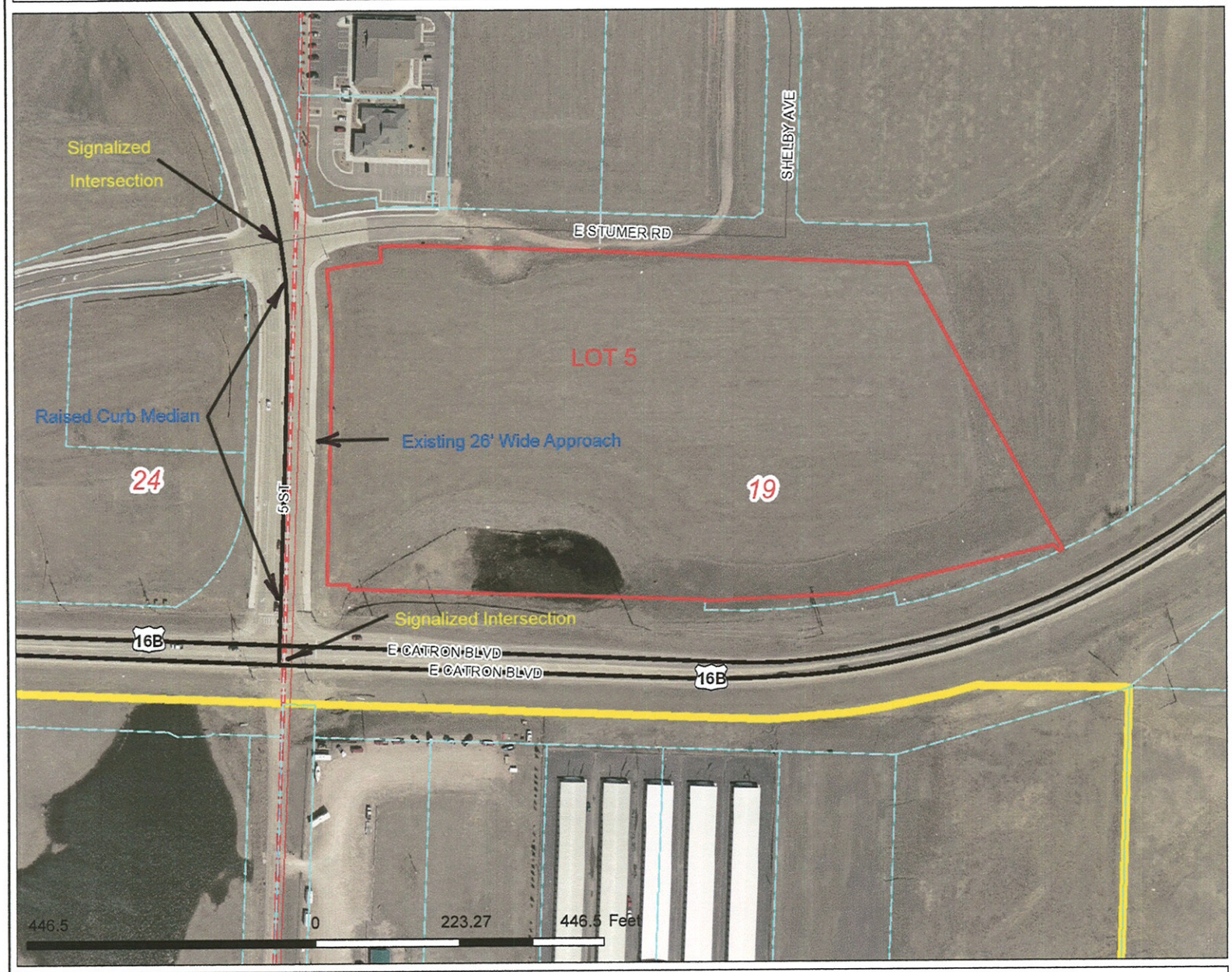
We believe that the raised-curb median which restricts the amount of traffic utilizing this approach and the signalized intersection at Catron Boulevard which will regulate the flow of traffic provide good safety measures for use of this approach and will afford the owner and developer the reasonable use that they seek for this property. Your support of the request for exception as recommended by the Public Works Committee on August 14, 2012 is greatly appreciated.

Sincerely,
FISK LAND SURVEYING & CONSULTING ENGINEERS, INC.

Janelle L. Finck
President

elf
encl

Rapid City-Pennington County GIS



Legend

Roads
- Interstate
- US highway
- SD highway
- County highway
- Main road
- Minor arterial
- Collector
- Ramp
- Paved road
- Unpaved road
- Unimproved road
- Trail
- FS Highway
- Airport Runway
- Not yet coded

Lot Lines
- <all other values>
- Lot Line
- Parcel Line

Township/Section Lines
- 0
- 7

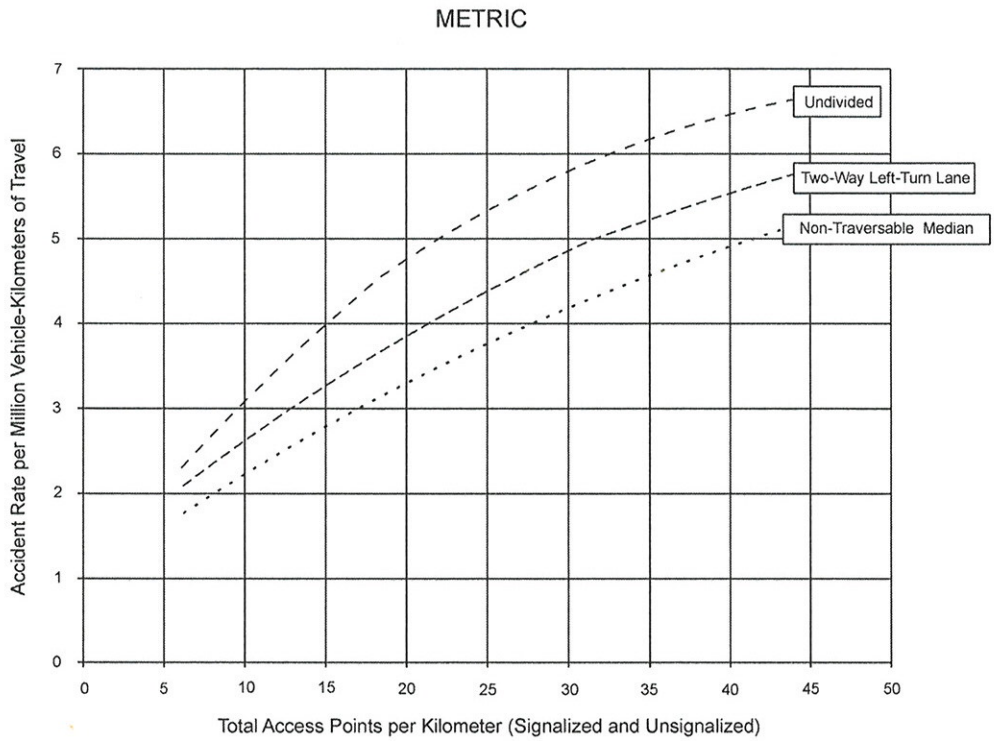
PLSS Sections

County Line

Scale: 1: 2,679

Map Notes:

DISCLAIMER: This map is provided 'as is' without warranty of any representation to accuracy, timeliness, or completeness. The burden for determining accuracy, completeness, timeliness, merchantability, and fitness for or the appropriateness for use rests solely on the user. Rapid City and Pennington County make no warranties, express or implied, as to the use of the map. There are no implied warranties of merchantability or fitness for a particular purpose. The user acknowledges and accepts the limitations of the map, including the fact that the data used to create the map is dynamic and is in the constant state of maintenance, correction, and update. This documents does not represent a legal survey of the land. There are no restrictions on the distribution of printed Rapid City/Pennington County maps, other than the City of Rapid City copyright/credit notice must be legible on the print. The user agrees to recognize and honor in perpetuity the copyrights and other proprietary claims for the map(s) established or produced by the City of Rapid City or the vendors furnishing said items to the City of Rapid City.



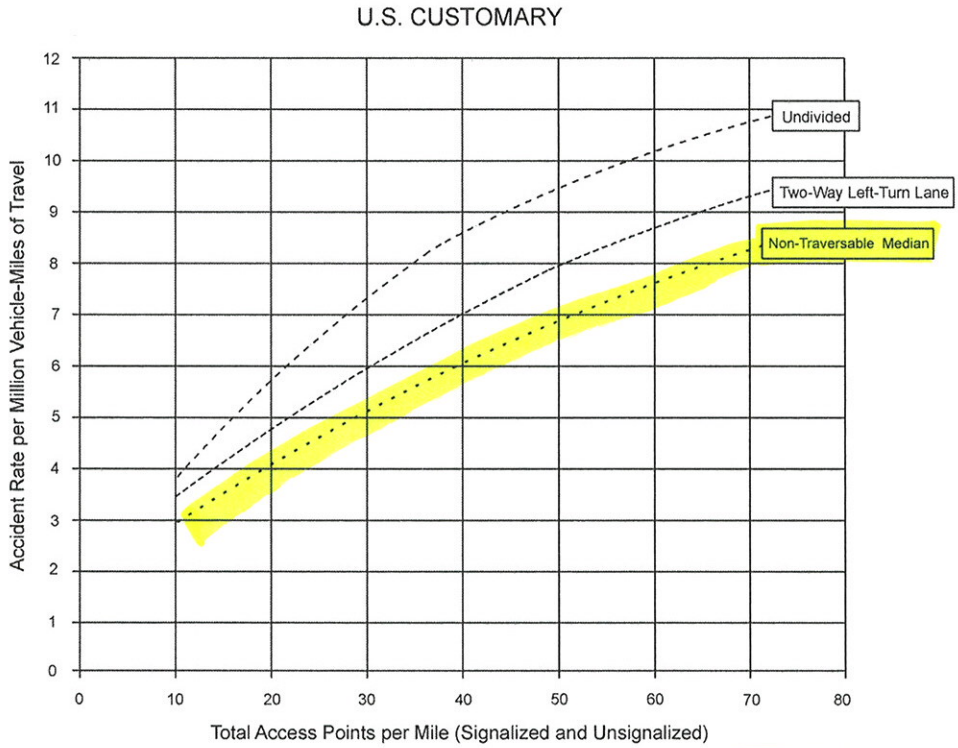


Figure 2-32. Estimated Crash Rates by Type of Median—Urban and Suburban Areas (*22*)

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