

APPENDIX C



April 26, 2012

Ms. Anne Hurlburt
City Administrator
City of Scandia
14727 209th Street
Scandia, MN 55073

**Re: Draft Environmental Impact Statement - Traffic Analysis
for Zavoral Mining Project
RLK Incorporated Project No. 2011-163-M**

Dear Ms. Hurlburt:

RLK Incorporated has been hired by the Take-Action Conserve Our Scandia group to review the Draft Environmental Impact Statement (DEIS), of the Zavoral Mining project. RLK focused specifically on Question 21 of the DEIS, as well as Appendix B-5, to determine the accuracy and completeness of the traffic analysis conducted in the DEIS.

Overall, RLK finds the report devoid of the technical analysis needed to evaluate the traffic operation and safety of the project. Grand assumptions without corroborating evidence do not justify the report's conclusions of no traffic impacts associated with the site. The DEIS must expound upon its analysis, and provide information that justifies its conclusions of no impacts. This includes the following:

- As presented, this report only includes Average Daily Traffic (ADT) information and does not include AM and/or PM Peak Hour turning movement volumes. Turning movement volumes are important to the overall operational analyses of intersections.
- It is unclear whether the ADT information provided has been adjusted to reflect seasonal fluctuations (i.e., recreational traffic on the scenic byway, etc.), and whether this adjusted traffic will be impacted by the hauling operations.
- The analysis must include adequate capacity analyses of specific intersections. Operational analysis typically includes Level of Service Analysis and Warrant Analysis.
- The DEIS investigated crash statistics for only three years, yet there is at least ten years of crash data available related to the gravel operation. One such crash was a fatality involving a hauling truck and a pedestrian directly relatable to gravel operations. With such data available, the DEIS should consider the ten years of data.
- The DEIS does not include an Intersection Crash Performance analysis using the Mn/DOT methods of calculating intersection crash rate per million entering vehicles, severity rate, crash density, or crash cost per year. Nor does the DEIS include Segment Crash Performance analyses.

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These calculations allow comparisons with similar intersections statewide in order to verify severity.

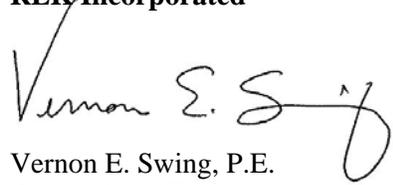
- The response to question 21 of the DEIS suggests that the traffic will be the same for Class C production, yet in its present condition, the traffic associated with Class C production arrives via Hwy 243, Hwy 95 and Hwy 97, resulting in a right turn from Hwy 95 to Hwy 97. In the proposed condition, the Class C will come from the Zavoral mine, requiring the traffic associated with this production to progress across Hwy 95. This will increase the traffic conflict opportunities from 2 to at least 6, resulting in degradation in safety.
- The DEIS does not present traffic analysis of the existing, the short-term build (1st year after completion) short-term no-build, long-term build or no-build scenarios. Typically, development traffic analysis identifies the existing traffic, the projected No-Build traffic operational analyses, and then presents the development's trip generation and Build traffic operational analyses. Projected turning movements levels of service must be presented to assess whether the use constitutes an impact and to provide a comparison between the scenarios.
- The DEIS does not state the sight distances at any of the study locations. Sight distances are important in determining gap analysis of intersections. Because trucks take a longer time to progress from a standing stop, larger gaps in the traffic stream are required, as opposed to smaller vehicles. Gap analysis must also take into account the vertical and horizontal changes in the roadway alignment throughout the study area. The DEIS needs to analyze these gaps, both for the current conditions and the conditions in the future.
- Safety is discussed from the stand point of crashes, without special attention drawn to the design vehicle used to transport the mined material. Trucks used for this activity accelerate and decelerate at significantly slower rates, which can have an adverse impact on the ability to avoid collisions, and increase the safety risks. The dismissive comment regarding the lack of evidence of near miss occurrences does not adequately address the potential that exists.
- There is no discussion of the structural capacity of the roadways and their ability to handle the increase in daily truck trips. The DEIS must provide an assessment of the existing and future pavement condition.
- Mitigation is summarized in the DEIS, yet there is no quantitative discussion of the impacts and changes to the operations or safety of the roadway network associated with the proposed mitigation strategies. These mitigation measures should also be quantified and prioritized.

It is RLK's opinion, the traffic information provided in response to Question 21 of the DEIS does not address the traffic impacts as required by the EIS process. In order to fully understand the traffic impacts associated with the Zavoral mining operation, the above mentioned issues (at a minimum) need to be addressed in a technical manner. Without traffic counts and capacity analysis, the City is unable to assess the impacts to traffic operations and congestion, nor the impacts to the seasonal tourist traffic. Without crash analysis, and gap analysis the City is unable to assess whether existing crash conditions will be exacerbated, or whether the proposed access intersections provide the appropriate safety improvements to allow for seamless integration of site generated traffic. The presented material in the DEIS for Question 21 is incomplete, does not meet the minimum analysis requirements for environmental review, and prevents any opportunity to evaluate the traffic impact of the Zavoral Mining operation. Developing the

mine without appropriate traffic analysis, as we recommend, could result in significant safety issues to Scandia and the surrounding communities, including the increased risk for severe or fatal collisions.

Thank you for the opportunity to review and comment on this information.

Sincerely,
RLK Incorporated

A handwritten signature in black ink that reads "Vernon E. Swing". The signature is written in a cursive style with a large, sweeping "V" at the beginning and a long, horizontal stroke at the end.

Vernon E. Swing, P.E.
Principal Traffic Engineer

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Years of Experience: 26

REGISTRATIONS:

Professional Engineer:
Minnesota
Wisconsin
Iowa
Illinois
Florida
Washington

PROFESSIONAL AFFILIATIONS:

Institute of Transportation Engineers
Traffic Engineering Council

North Central Institute of Transportation Engineers Signal Operations Committee

Sensible Land Use Coalition

Minnesota Surveyors and Engineers Society

EDUCATION:

Bachelor of Science
Civil Engineering
University of Washington

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VERNON SWING is the Principal Traffic Engineer, with over 26 years of traffic engineering and transportation planning experience. Worked extensively in both the public and private sectors with an emphasis on conducting traffic impact studies and mitigation designs. Offers strong expertise in representing complex traffic considerations to public agencies. Prior to working for the private sector, gained 10 years of increasingly responsible signal design and operations experience as a Special Projects Engineer with the Washington State Department of Transportation.

RELEVANT EXPERIENCE:

Relevant experience includes projects involving capacity analysis, access, signal and illumination design, signal operations, signing and traffic control design, and complete street planning. Select examples of project experience include intersections and corridor analysis, plus pedestrian and bicycle facility design.

- **Environmental Documentation** - The Lakes, Blaine, MN. Medtronics, Mounds View, MN. Mr. Swing provided traffic engineering for more than 1,080 acres of *The Lakes* mixed-use development, which include 17 intersections and three arterials for *The Lakes* award-winning property in Blaine. The City of Hopkins, in the redevelopment of a former True Value brownfield needed help with traffic and the rezoning of this property, and with the environmental documentation required by the Minnesota Environmental Quality Board (EQB). Following extensive input from a range of stakeholders, three alternative preliminary site plans were created so that the scale of environmental impacts could be more closely analyzed to enable the site construction through 2008 for use by Cargill.
- **Corridor Study & Design** – Duluth, MN. Mr. Swing was the Project Principal for the streetscape of approximately two miles of Grand Avenue between 62nd Avenue and Carlton Street. This was one of the largest street reconstruction projects undertaken by the City of Duluth. The City's goals for this project included improving parking conditions, bicycle access, replacing aging utilities, and improving/coordinating traffic signals for this main city road. Worcester, MA. Mr. Swing was the Project Manger for the relocation and upgrade of this gateway to the City of Worcester, MA.
- **Relocation of Albany Shaker Road** - Albany, NY. Mr. Swing served as Project Manager for traffic issues related to the relocation and expansion of five miles of Albany Shaker Road near the Albany, New York Airport. This project entailed corridor design and planning, traffic control planning, modal option planning and recreational trail planning and design.