



DESIGN  
WEST

November 17, 2021

Nathan Stewart, Public Works Director  
Morgan Stroud, Staff engineer  
City of McCall, Public Works Department  
216 East Park Street  
McCall, ID 83638

**Re: CUP 21-03 – 111 S Samson Trail - Engineering Review #1**

Dear Nathan & Morgan,

We are in receipt of your November 10, 2021 letter which outlines the Public Works Department's comments for CUP 21-03. Below please find a copy of your comments along with our responses and information presented in *Blue Italics*. Comment responses have been addressed by Joe Barton, Paragon Engineering and Dion Zimmerman, Design West Architects. Both will be available for follow up questions during our CUP hearing on December 7<sup>th</sup>. Additionally, please reference the November 17, 2021 Traffic Impact Study for this project for additional information and details.

1. The existing campus is missing key pedestrian and bike routes to get students to and from the public Samson Trail and Deinhard public rights-of-way, particularly for students approaching the campus from the south and west. There is not a proposed multi-modal route connects pedestrians and bikes and brings them efficiently to the schools' entrances without having to walk and bike through vehicular areas or use excessively long routing that would discourage use. Reading through the comments that were provided by parents during pick up and drop off, the students and parents going through the parking lots and drive aisles causes delays, congestion and safety concerns. A pedestrian and bike path that parallels the main entrance driveway (or similar alternative) should be incorporated that provides a more direct connection from the Deinhard and Samson Trail intersection.

Creating a safer route for pedestrians and bikes, will help encourage students to utilize these modes of transportation which may be considered currently unsafe and will ultimately reduce vehicular congestion within the campus.

*The site plans being developed include modifications to the campus entry road at E Deinhard Lane & S Samson Trail to incorporate bicycle and pedestrian access to the on-campus bike and pedestrian facilities.*

*Figure 2 of the referenced Traffic Impact Study shows the campus bicycle and pedestrian access plan, which includes the connection to the public pathway at E Deinhard Lane and S Samson Trail. See the referenced Traffic Impact Study for additional bicycle and pedestrian information.*

2. The proposed circulation plan shows a separation of buses from the general drop off/pickup route. It is assumed this will improve circulation. Please provide quantitative information in your traffic flow analysis on how this change improves or provides accommodations for the existing and anticipated higher traffic volumes to the other entrances of the school. Please also address the concerns listed below for the two entrances off Samson Trail, specifically:

*The July 26, 2019, Payette Lakes Middle School & Barbara Morgan*

MERIDIAN, IDAHO  
PULLMAN, WASHINGTON  
KENNEWICK, WASHINGTON  
ONTARIO, OREGON

DESIGN WEST  
ARCHITECTS, P.A.

216 SW FIFTH AVENUE  
MERIDIAN, IDAHO 83642  
TEL. 208-888-1768  
www.designwestpa.com



*Elementary School Traffic Flow Analysis report did include some suggestions for separating the campus bus traffic from the general traffic. These recommendations were based on bus route and time logistics in that separating the bus traffic reduced the potential for buses to get hung up in the general traffic, therefore throwing off route times. Separating bus traffic from general traffic on the internal campus site is not anticipated to have an impact to traffic conditions on the public roadway intersections.*

*Approximately twelve school buses entered and exited the school campus in the peak hour traffic counts completed on September 22, 2021, representing a small percentage of total traffic on the campus.*

*See additional information related to the timing of implementing a change to site circulation and note that modifying the campus north approach to two-way traffic is not included in the current design plans, associated with the Middle School remodel/expansion.*

- a. North Samson Trail Entrance – at this location busses entering the campus will be interacting with vehicles entering and exiting the middle school:

*Note the current bus and traffic circulation has bus traffic interacting with Middle School exit traffic at the campus north approach. Therefore, modifying the traffic circulation plan would not change the campus exit interaction between buses and general traffic.*

*Additionally, under the current traffic circulation the buses entering campus are intermixed with all general traffic entering the campus. Under the future modification that would convert the campus north approach to two-way traffic, bus traffic entering the campus would only be interacting with general traffic entering the Middle School.*

- i. Turning movement conflicts for buses and staged vehicles leaving the campus – will lane widening be needed both on Samson Trail and/or the campus drive lanes?

*No future lane widening on the campus north approach or S Samson Trail would be necessary for the exiting bus traffic. This approach already accommodates exiting vehicle and bus traffic.*

*Upon converting the campus north approach to two-way traffic, the campus approach would be widened to accommodate the additional lane and the entry radius on the campus approach should be constructed to accommodate the bus turning radius. Therefore, no widening on S Samson Trail would be necessary.*

- ii. Due to the convergence of the majority of both vehicle and bus traffic entering/exiting at this intersection, is a southbound left turn lane warranted on Samson Trail? What backups on Samson Trail (southbound) are anticipated with this route change?

*If the north campus approach is converted to two-way traffic, no turn lanes are necessary on S Samson Trail. The conflicting northbound traffic volume is insufficient to cause traffic backup*



for the southbound left movement.  
*The referenced Traffic Impact Study recommends improvements on S Samson Trail (See Figure 8 and associated text within the Traffic Impact Study) after reaching a campus student enrollment of 850 students. That is an increase of  $\pm 120$  students over current enrollment on the campus.*

b. Samson Trail/Deinhard Lane Entrance:

- i. It is understood that the majority of traffic coming to the campus (during peak morning/evening hours) are utilizing Deinhard Lane. How does this proposed circulation plan increase/decrease the historical traffic volumes at the Samson Trail/Deinhard Lane intersection, especially considering an increase in traffic as the campus's capacity increases?

*The traffic redistribution would reduce the total intersection traffic volume at E Deinhard Lane and S Samson Trail by redistributing the traffic entering the Middle School to the campus north approach, effectively removing all traffic coming from the north and going to the Middle School from the intersection. Redistributing the Middle School entering traffic to the north campus approach would reduce the traffic at the E Deinhard Lane and S Samson Trail intersection by  $\pm 33$  vehicles in the AM peak traffic hour, representing about a 3.5% reduction in traffic at the intersection. Similar intersection traffic reduction would also be seen in the afternoon peak hour traffic.*

- ii. What improvements to Deinhard/Samson Trail intersection are necessary to mitigate the higher peak hour traffic volumes as described in the draft Analysis, especially considering traffic will increase as campus capacity increases.

*The referenced Traffic Impact Study shows that no improvements to the intersection of E Deinhard Lane and S Samson Trail are necessary until the campus student enrollment reaches 850 students. The analysis indicates this holds true for the existing traffic circulation layout and the proposed future modifications to the traffic circulation. See Figure 8 and the associated text within the referenced Traffic Impact Study for recommended improvements at the intersection once campus student enrollment exceeds 850 students.*

3. With respect to #2 above, pick-up and drop-off times are identified as the cause of most of the traffic that occurs in the mornings and afternoons. More information should be collected on the number of vehicles that are queueing at these times and a quantitative analysis of how the proposed circulation lane will mitigate queueing times should be provided.

*See Section 3.3 of the referenced Traffic Impact Study for information pertaining to vehicle queueing at the campus schools.*

4. There does not appear to be an area dedicated for pick-up and drop-offs for the



middle school.

*The current plans for construction with the Middle School remodel/expansion include relocating the existing handicap parking and significantly expanding the area for student drop-off and pick-up at the Middle School. See the referenced Traffic Impact Study for additional information.*

- a. Are pick-ups/drop offs expected to occur within the drive lanes of the parking lot (presumably at the school's main entrance)?

*No, the drop-off and pick-up will be at the curb along the east side of the parking lot where there is sufficient width of the drop-off and pick-up lane, a drive isle and room to access the parking stalls.*

- b. Will this cause congestion within the parking lot drive lanes and/or impacts to vehicles trying to exit the campus?

*The proposed modifications to the drop-off and pick-up area are expected to significantly increase efficiency and therefor reduce the drop-off and pick-up queue time. This along with the available drive isle widths will reduce parking lot congestion and remove the drop-off and pick-up vehicle conflict with entering and exiting vehicles.*

5. Some expansion of the elementary school parking lot for staging is shown, but there is not information and data supporting that this increase in area will be sufficient to alleviate the problems that are being seen. Separating these idle vehicles from areas where traffic needs to flow would help with the congestion in the school internally and the intersection. Please provide information on the number of vehicles that participate in pick-up and drop-offs and where all those vehicles will be staged and located on the campus.

*Improvements at the Elementary School are not planned with the site construction associated with the Middle School remodel/expansion. The School District is still in the process of building options for the Elementary School site. It is unlikely that the parking lot concept shown in the July 26, 2019, Payette Lakes Middle School & Barbara Morgan Elementary School Traffic Flow Analysis report will be the final solution that moves to construction.*

*One concept that is being considered is extending a drop-off and pick-up lane up the south school property boundary and looping in at the traffic circle, therefore separating the drop-off and pick-up traffic from traffic accessing the existing parking stalls.*

*Vehicle queueing at the Elementary School has no impact to the campus approaches or the public roadway system.*

6. Has the project team discussed having pick-ups/drop offs park in a designated location and walking to pick up their students? This could help mitigate idling/queueing vehicles impacting drive lanes within the campus and resulting in backups on Deinhard and Samson Trail. This could also address safety concerns with requiring students to walk to vehicles unsupervised.

*As indicated in the referenced Traffic Impact Study, the vehicle queueing on*



*the internal campus roadways and parking lots do not result in traffic backups on the public roadway system. The left turn into the Middle School parking lot from the Elementary School access road was identified as a location that could cause traffic backup during slick roadway conditions. The proposed future modifications to the campus north approach in combination with restricting left turns at the Middle School parking lot approach eliminates the potential for this condition. Additionally, the upgrades to the Middle School drop-off and pick-up area will increase queueing efficiency at the Middle School, reducing the potential for any queue there to influence through traffic on the Elementary School access road.*

*Some parents do park at alternate locations around the campus and have students walk to their vehicles, although there is no designated area for this parking. It would require significant on-campus changes to implement a specific park and walk system.*

7. Currently, limiting access to the campus from the two entrances off Samson Trail creates a bottleneck for traffic at Samson Trail/Deinhard intersection during the City's busiest morning traffic (7-9 AM), at the end of the school day, and during major campus activities (athletic events, assemblies, etc.). We understand there are many vehicles delivering students coming to the campus from the north and south, despite a lack of vehicular access from these sides of the campus. Additionally, it is expected that significant future residential development to the east of the campus will occur in the near future (500-1500 units based on current/future zoning).

*As observed during the September 2021 traffic count and supported by the analysis contained in the referenced Traffic Impact Study, the campus access traffic does not create a "bottleneck" at the E Deinhard Lane and S Samson Trail intersection.*

*Major campus activities (i.e. football games) occur six to ten times per year. It is fiscally impractical and often physically impossible to design facilities for such rare occasions. Consider all the major event centers around the Boise valley. Facilities around these event centers are in no way designed to accommodate event traffic at a high level of service.*

Providing or planning for an alternative vehicular and multi-modal access to the campus from the east could mitigate inefficient traffic flows from the neighborhoods surrounding the campus (i.e. Woodlands, Fox Ridge, and future development to the east) as well as reduce traffic volumes at the Deinhard/Samson Trail and North Samson Trail entrances. The City was presented (by a potential developer) with a concept of extending Deinhard Lane through the MSDS campus as a potential option to improve access to the campus as well as potential future development east of the campus. Our understanding is this concept has not been endorsed by MDSD to date, and you indicated that backups into the proposed Deinhard Lane as well as space constraints along the east side of the campus were concerns.

- a. Can you please elaborate on the benefits and impacts of extending Deinhard Lane through the campus on circulation and congestion in the vicinity of the campus?

*See Section 4.2 of the referenced Traffic Impact Study*



- b. Does the drop off/pickup parking lot concept in #6 above provide a potential solution?

*See Section 4.2 of the referenced Traffic Impact Study and the response to Comment 5 above.*

- c. Can you provide a recommended alternative to the Deinhard Lane extension that still provides a future easterly campus entrance for those future neighborhoods?

*See Section 4.2 of the referenced Traffic Impact Study*

8. The draft traffic flow analysis will need to be revised to address the comments above. We understand that you have completed recent traffic counts during Fall 2021 and that you will be providing this subsequent data and traffic impact analysis.

*The Traffic Impact Study for this project is being submitted with this letter.*

9. A signage and striping plan will be required to be submitted. This could be combined as part of other roadway and/or site plans submitted as part of the final civil design package.

*Signing and pavement marking plans for the campus site work will be prepared and submitted. The site work associated with the Middle School remodel/expansion does not include any construction within the public right-of-way.*

10. Any roadway, driveway or pathway widening or other construction located within the public right-of-way will require civil construction plans designed by a licensed professional engineer to be reviewed and approved by the City Engineer and permitted for construction via a public works permit. We assume these plans will be provided in the final civil plans for the project.

*Site civil plans for the campus site work associated with the Middle School remodel/expansion are being design by and will be stamped by a licensed professional engineer. The site work associated with the Middle School remodel/expansion does not include any construction within the public right-of-way.*

#### Stormwater and Drainage:

1. A Stormwater management plan for the campus was approved in 2011 with the Payette Lakes Middle School & Saballa Field Site Improvements Project. Please confirm that current stormwater facilities can accommodate the additional runoff generated by the proposed building addition and new impervious areas (parking, drive lanes, sidewalks/pathways, etc.) in accordance with the City's Drainage Management Guidelines. If enhancements/modifications to the current stormwater management facilities are proposed, please include this information in the proposed civil plans set and provide a revision to the 2011 approved Stormwater Drainage Report.

*The Middle School remodel/expansion and associated site work will result in a decrease in total hard surface area and will not change the campus drainage patterns. Therefore, no update to the campus stormwater plan is necessary.*





Utilities:

1. Per our 11/5/21 discussions, we understand that the proposed building expansion will not require increasing water meter sizing or any other significant new utilities to serve the expansion.

*Correct, the only utility changes anticipated include relocating a fire hydrant and adjusting water valve cans to grade.*

2. Please provide confirmation from the McCall Fire District of the required fire flow volumes needed to support fire protection for the enlarged Middle School building so we can confirm that required volumes are available at the adjacent City water hydrants.

*The current building square footage is 55,056 square ft. The new additions bring the total gross square footage to 64,723 square ft. The international fire code table B105.1 require a fire flow of 4500 gpm for a duration of 4 hours. By using the allowable reduction listed in table B105.2 of .25% of the required, the actual gallons per minute fire flow is 1125 gpm. However, code minimum does not permit less than 1500 gpm, therefore, the required fire flow for Payette Lakes Middle School should be calculated at 1500 gallon per minute.*

Please let us know if you have any questions or need additional information relative to our above responses.

Sincerely,

Michael Schlager, Project Manager

Cc: Jason Clay – McCall Donnelly School District