110711-mead-NM502_assessment-j.xls			Q&A Tracking and Assessment by William C. Mead		
			- Executive Summary -		
Q source [1]	MIG ref [2]	Question	MIG's response	Status [3]	WCM's assessment/notes
mw2a	QB1, QD6	What average circulating speed?	*20-25 mph.*	a	
other2	QB9	How many pedestrians per hour did you consider in your calculations? …each pedestrian will create a 3 to 10 car queue?	*The number of pedestrians is not entered in the SIDRA model.*	d	If improved pedestrian access is a project objective, the effects of pedestrian usage should be included.
mw3	FP13, m7/711	You show current usage is 60-75%. What physical data shows a 2-lane road with RDBs can handle the current traffic volumes?	*MIG states that the 2-lane roadway proposed would be operating near capacity. Traffic would flow smoothly and congestion would be negligible.*	d	For 2 lanes and current traffic volume, I would predict operation at 120-150% of capacity. Congestion inevitable. Major traffic rerouting likely.
mw4	FP13, QD5, m7/7/11	Currently, we see queues where the speed limit decreases from 50 to 35 mph. Why wouldn't queues be larger if RDBs slowed traffic to 20 mph?	*Higher speeds require a bigger gap.*	i	Response incomplete.
mw6	FP15, App. B, m7/7/11	Accident/Crash analysis in error?	*See Appendix B.*	i	Plot with errors of 2x-4x has been used to motivate use of roundabouts.
mw7a	C2, C4, m7/711	Example of an existing roundabout relevant to proposal?	*Golden, CO* *Sedona, AZ* *Bird Rock (San Diego), CA*	i	These examples are not relevant.
enn1	QC6	Where have [roundabouts] failed to meet expectations?	*Consultant team is not aware of any examples that have not produced the expected results.*	i	Several examples are known to us.
other4	QC7	Expected scatter between your model calculations and the actual performance?	*We have not performed this type of research.*	i	MIG should have an existing track record of this kind of data.
mw8a	QD7, m7/7/11	We are familiar with the performance of the 90' roundabout at the intersection of Diamond Drive and San Ildefonso.	*Comparing San Ildefonso's performance with that of the proposed roundabouts requires detailed calculations that are beyond the scope of this contract.*	d	A semi-quantitative comparison of the San Ildefonso roundabout with the proposed RDBs supports the prediction of significant queues and delays, if the proposed corridor concept were implemented.
mw8b	QD7a, DR112, m7/7/11	Based on San Ildefonso experience, what delays do you expect at each of the proposed NM502 roundabouts at peak times?	*See LOS analysis.*	i	Queues occur on San Ildefonso during morning peak with delays of 10-40 sec. Based on peak volumes, longer delays would be expected on Trinity and East Rd.
mw8c	QD7b	What evidence do you have that the delays encountered would be as predicted?	*SIDRA is the most commonly used model for roundabout performance in the US.*	d	Yes, SIDRA is commonly used. However, not as MIG has used it (see QB16).

mw8d	DR	Corridor travel times at peak?	*Similar to existing travel time with traffic signals.*	d	We expect travel times would be considerably greater than for existing roadway. Major rerouting is likely.
mw9	I5	What would be the effects of hesitant drivers, large trucks and buses, bicycle traffic, day-to-day fluctuations, accidents, adverse driving conditions, and construction?	*… travel speed will be affected by the slowest vehicle.*	d	Acceptable answer. Unacceptable roadway performance.
mw10	QD8	Enough reserve capacity?	*The intersections are modeled to 2030 at 1% growth per year…*	d	The MIG response indicates that no other reserve factors have been included.
mw11	m7/7/11	Our SIDRA vers. 5.1 calculations indicate your calculations are quite optimistic.	*We believe our SIDRA (3.2) is a conservative design tool.*	d	Wow!
mw11f	QC3	Can you provide analogous calculations and data that would validate your modeling?	*Beyond project scope.*	i	Why no off-the-shelf examples?
enn2	QB16	What value was used for the Environmental Factor in SIDRA calculations?	*In general, the 1.2 is the Environment Factor in the US. We used EF=1.0 for this project.*	a	MIG usually uses EF=1.2, but has used EF= 1.0 here. SIDRA's authors report that EF=1.2 provides better compliance with HCM2010. EF=1.0 is seriously over-optimistic. [5,6]
other7	QC8	Has MIG/CDM ever designed a roundabout project of this magnitude before?	*The team has many examples of completed projects, but every project and every community is unique.*	i	No example(s). No direct answer.
mw12	D20a	Adequacy of the traffic volume data used as a basis for the NM502 Corridor Study?	*The data conformed to staff expectations and observations.*	d	Available data inadequate to guide large project.
mw12a	D20a	Data collection errors and for traffic variations?		d	MIG evidently did not consider these factors.
mw12b	D20b, DR	Will design proposed meet current and future needs?	*Study has provisions if future traffic conditions exceed the roundabout capacities.*	d	Contingency provisions ineffective.
other10	QD13	What are the uncertainties [in the MIG/SIDRA] modeling?	*LOS based on calculated delays.*	i	Response doesn't answer question.
other11b	QD16b	What happens when the RDBs are at or nearing peak capacity?	*Above capacity, queues can be longer and/or entering speed drops. However, … drivers adjust to conditions and the roundabout operates at expected LOS.*	d	Misleading. MIG's phrase "drivers adjust" means that drivers become more aggressive or else choose other routes.
other12	QD19, DR118	What are your calculated results for … 95% vehicle queue length?	*In the PM peak, the highest queue is 1,302 feet on the Eastbound approach to 15th St.*	d	Even if we accept MIG's calculations at face value, many of the 95% queue lengths are excessive.
other13	QI1, DR111	How handle major evacuation?	*In the event of an emergency ..., [the proposed roadway] will provide adequate room for two lanes of … traffic to enter the roundabout.*	d	Two lanes of traffic winding through 9 roundabouts with clearance of 9' per lane would be slow and could easily lead to accidents.