Appendix Q

Public Meeting #3 Summary

Public Meeting #3 Summary, I-40 Corridor Study, Arizona to Albuquerque, Milepost 0 to 150, CN 6101580

Prepared for

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1. INTRODUCTION AND PUBLIC MEETING OVERVIEW

This report provides an overview of the third public meeting that was conducted on February 27,2024, as part the I-40 Corridor Study. Meeting invitations, advertisements, social media posts, and a press release inviting people to visit the project website, attend the public meeting, and submit comments were provided beginning February 12, 2024. The public meeting was held on February 27, 2024, and the public comment period ran from February 12, 2024, through March 27, 2024. An overview of the public meeting and comments received is provided in this summary, and details are contained in the report attachments.

1.1 Meeting Announcement, Press Release, Advertisements, Radio, and Social Media Plan

Attachment A contains the meeting announcement, press release, newspaper advertisements, radio announcement and plan, and social media plan for the third public meeting held for the I-40 Corridor Study on February 27, 2024**.** The public meeting was announced through the following media:

- The virtual public meeting, project website updates, and public comment information were advertised in the *Gallup Independent* on February 12, 2024, and the *Cibola Citizen* on February 14, 2024.
- The NMDOT sent a press release announcing the public meeting and the opportunity to provide comment to their media list on February 19, 2024.
- A total of 24 radio advertisements announcing the public meeting and the opportunity to provide input ran on KTNN (AM 660/FM 101.5) and KWRK/KCAZ (FM 96.1 and 99.5) beginning on Tuesday, February 13, 2024, continuing through Thursday, February 22, 2024. A total of 12 announcements were made on each radio station; 6 of the announcements were in the Navajo language of Diné and 6 were in English. KTNN's catchment area covers the Navajo Nation and Gallup in the western portion of the study area in McKinley County. KWRK/KCAZ covers the I-40 study area from the Arizona State line to Grants.
- The meeting announcement was emailed to 404 people and was sent via postal mail to 9 people on February 12, 2024. Individuals included in the distribution included representatives from tribes; regional transportation planning organizations; tribal, state, local elected leaders; federal, state and local government staff; members from the freight industry; area businesses, and members of the public. In addition, 2 people contacted the project team and requested a hard copy of the public meeting presentation materials. The presentation materials were sent to these individuals as requested.
- A social media plan was developed and implemented through the New Mexico Department of Transportation (NMDOT) social media accounts on Facebook and Twitter with multiple messages beginning on February 16, 2024, continuing through March 20, 2024.
- The meeting was also announced via the project website and the NMDOT website.

1.2 Project Website

The I-40 Corridor Study website was updated to provide information on the public meeting and how to provide input on the I-40 Corridor Study. The web updates were launched on February 12, 2024. From February 12, 2024, through March 27, 2024, there were a total of 831 sessions on the website, which included 625 individual users (people who viewed the website), meaning that some people visited the website multiple times.

The website had several avenues by which it could be accessed, the percentage of people accessing the site through these various methods include:

- 71% of people used direct access, meaning they clicked on a link to the website or typed in the address.
- About 15% of the site views originated via an organic search of the web (Google or other search).
- Approximately 9% of visitors accessed the site through web referrals, which occurs when people access the I-40 page from another webpage (such as the NMDOT website).
- Social media was responsible for 5% of the web visits that originated from a link via a social media post.

Web visitors came from many locations, with the highest number, about 18%, coming from Albuquerque. A smaller number of visitors came from Phoenix (6%), San Antonio (5%), Grants (3%) Gallup (2%) and Los Angeles (2%). Many remaining users came from cities within New Mexico, including Santa Fe, Rio Rancho, Socorro, Laguna, Clovis and Deming. Users visiting from areas outside of New Mexico included Dallas, Houston, San Diego, Flagstaff, Durango, and Denver.

1.3 Virtual Public Meeting

The NMDOT hosted the third virtual public meeting discussing the I-40 Corridor Study on February 27, 2024, at 6:30 PM. In addition to the 12 NMDOT and consultant presenters/panelists, 52 people attended the meeting. A total of 2 meeting participants called in via phone. and the 50 remaining participants attended online. Because the meeting was conducted virtually, a formal sign-in sheet was not provided, thus full names and contact information are not available.

Of the 52 attendees:

- 15 were members of the public.
- 2 were elected officials, including New Mexico State Representatives Garcia (District 69) and Grants City Councilmember Beverly Michael. Tribal elected officials were also in attendance and are discussed below.
- 8 were from area tribal nations, including 4 tribal staff members and 4 elected officials, including the Acoma Pueblo's 1st and 2nd Lieutenant Governors (Wendell Chino and Ted Ortiz), the Laguna Acting Governor (Gaylord Siow), and the Navajo Nation Church Rock Chapter President (Larry King).
- 8 represented various federal, county, and local agencies.
- 1 member of the media was in attendance.

- 18 represented Federal Highway Administration (FHWA), the NMDOT, or various engineering consulting firms.

A total of 21 people asked questions or made comments at the meeting. A recording of the meeting was made available on the website for people to view on February 29, 2024. As of March 27, 2024, the meeting was viewed by 17 viewers with an average viewing time of about 23 minutes. Attachment B contains meeting notes and the presentation that was made. A summary of the questions asked and the responses are provided in Section 2.1.

1.4 Written Public Comments

In addition to questions asked at the public meeting, the NMDOT received 10 written comments during the public comment period from February 12, 2024, through March 27, 2024. The written comments and responses are provided in Section 2.2.

1.5 Public Comment Form

The NMDOT provided a public comment form that people could fill out to provide comments. A total of 21 people completed the comment form. Comments received are provided in Section 2.3.

2. PUBLIC COMMENTS

The NMDOT invited people to submit questions and comments at the public meeting, by submitting comments in writing, or by completing an online public comment form. A total of 21 people made comments or asked questions at the meeting, 10 people or entities provided comments in writing, and 21 people provided input via the public comment form.

2.1 Public Meeting Questions and Comments

Exhibit 1 provides a summary of the public comments and responses provided at the public meeting. Attachment B contains the full comments and responses.

Exhibit 1. Public Meeting Comment and Response Summary

#	Theme	Comment	Response
1	Freight Parking	Any considerations on commercial motor vehicle parking? Fatigue is a major contributor to crashes.	We looked at the existing truck parking and availability in the corridor since the corridor is located across an area when truck drivers need to stop per federal regulations. It appears that on some peak travel days (Wednesday and Thursday) some additional parking could be warranted. NMDOT is taking a broader look across the State at the issue as part of their long-term freight planning. We are not proposing any expansion of existing facilities or specific truck parking locations. Recommended ITS improvements would help truck drivers identify where truck parking is available.
2	Wildlife Crashes	How many of the crashes on I-40 involved collisions with wildlife?	Just under 5% of crashes on the corridor are wildlife crashes. There are some areas where wildlife collisions that occur more frequently, and these tend to be on the west side of the corridor.
3	ITS	Can you elaborate on the ITS traffic management center? Where would that be developed?	It would be developed in District 6. There is a traffic management center in Albuquerque that covers the greater metro area, but not one in District 6.
4	Wildlife Corridors	Will the proposed actions involve improvements to habitat connectivity to benefit wildlife movement/migration?	Each individual project will have detailed environmental studies will be done for the specific project area that will look at wildlife habitats. There may be specific recommendations that come out in some of those locations that could direct a change in what type of structure there is to allow for habitat crossings. These crossing are important and there are areas where there are wildlife crossings.
5	Overpass	What did the study come up with for the I-40 by Sky City Casino for the road between the east and west overpass?	For Exit 102, the study looked at the entrance and exit ramps, not the overpass or roads on either side of the overpass. For areas adjacent to frontage roads, we looked at how and where they connect into I-40 and if there was (or was not) an available frontage road. There are no specific improvements proposed on the frontage roads near Exit 102.

#	Theme	Comment	Response
6	Alternate Routes	Is there a plan to construct frontage roads in areas where there are sections missing?	We are not recommending construction of new frontage roads. There are currently 37 miles of I-40 that do not have adjacent frontage roads including 11 miles at the continental divide (milepost [MP] 37 to 48) and another section between MP 114 to 140. While frontage roads can be helpful when I-40 is closed, challenges arise for people having access to these roads from I-40. Frontage roads have lower speeds, generally don't have shoulders, and are not conducive to heavy truck traffic. We have heard mixed things from the public on these roads. People living in the communities adjacent to the frontage roads have expressed concerns when I-40 traffic uses these routes. The Enhanced 2-lane concept has wider shoulders over the entire corridor that would provide space to allow at least one lane to be opened more quickly in instances when there are crashes. One of the challenges with the existing frontage roads is that interchanges are sometimes more than 5 miles apart. This means that just because there is a frontage road available, doesn't mean that people can get to it from I-40 if a crash has occurred. In addition, areas where we don't currently have frontage roads are not necessarily areas where roads are needed for other purposes. The section that spans from MP 114 to 140 is all on tribal lands. We know additional right of way would be needed in this area to build a new frontage road. Additionally, the Enhanced 2-lane Alternative would require about 22-feet of extra space to be implemented. Implementing additional frontage roads would require about 40 feet (2, 12-foot lanes and 2, 8-foot shoulders). These new frontage roads still wouldn't address many of the needs on I-40 and some of the other reasons why we need widened shoulders.
7	Bridges, Laguna	Are there any bridge replacements or repairs that are planned for areas in Laguna Pueblo, specifically exits 108 through 140?	There is one bridge/overpass that is slated for improvements in the Laguna area, at MP 119, frontage road 4012. For the overpass at MP 114, the ultimate plan is to reconstruct the bridge to remove the skew and ramps can enter without loops. This bridge does not have sufficient width underneath to fit the Enhanced 2-Lane or 3-Lane alternatives. It also appears that the overpass at MP 108 has been identified as potentially having insufficient widths for the proposed alternatives. These overpasses may not necessarily be replaced but could need widening to fit alternatives.
8	Pavement	Have you conducted a review of the average frequency over the entire I-40 Corridor that full-depth reconstruction of segments of pavement have been required over the past 20 years, and wouldn't extending pavement service life also be fundamental to improving highway safety?	NMDOT assesses pavement condition along I-40 and changes have been observed in pavement conditions over the last few years. More detailed information indicates that some areas have existing pavement that still has an additional service life and can be improved using other methods. There are areas where pavement needs to be fully reconstructed. It is a combination that is needed, and it will be an ongoing process and evaluation and it will be used to determine and prioritize areas as projects are implemented along the 150-mile corridor.

#	Theme	Comment	Response
9	Pavement	What are the plans for better quality blacktop materials to be used throughout the I-40 Corridor?	NMDOT continually looks at what the industry has and what methodologies are being used to make the best pavement choices. Those recommendations get worked through the NMDOT's general office and applied to projects. As projects go forward and new technologies are adopted by NMDOT, they will be employed. It is a continuous process.
10	Railroad Bridges	What are the plans for railroad crossings along I-40 at McCarty, Seama, and Mesita?	The structures there fall into a couple of different categories. Some are highway bridges crossing over railroad tracks. There is an instance where the railroad crosses over I-40. Many of the bridges are narrow and need to be widened. When those projects are done, there is coordination with the railroad and future railroad plans including planned expansion, upgrades to structural systems, or other safety needs are considered. These bridges would be improved as individual projects and they would have their own specific design and coordination with the railroad. To dive into each specific crossing would require more specific information. We don't have a specific plan or layout for all the bridges (there are 154 bridges in the corridor). I think the specific bridges you are talking about is one near MP 95, that one would have to be replaced for I-40 widening to occur. Similarly, there is design work underway to look at the bridge at Seama near MP 106.
11	Freight-Only Lanes	Because there is a such a high percentage of trucks on I-40, has a study been done to have truck only lanes?	Our initial alternatives considered these. Truck lanes have been talked about for decades on US highways; however, very few of them exist. Part of the reason for this is when we look at FHWA criteria for locations where truck lanes make sense, we find that the traffic volume and split on I-40 doesn't match the criteria. One criterion is when truck volumes exceed 30% (they do in this corridor). However, the peak traffic volumes need to exceed about 1,800 vehicles per lane hour. When we look at projected 2050 numbers on I-40, we expect to be about half that. Therefore, current traffic conditions on I-40 are not at the point where truck lanes would meet FHWA criteria. Other considerations include who pays for the truck-only lanes and who benefits from them. We don't have any other freight only lanes in New Mexico, and there are few found throughout the country.
12	Multiple Questions and Comments	1. Option 1 says it will cost $3.9 billion and Option 2 will cost about $4.5 billion, am I correct? I come up with a $600 million dollar difference using the lower cost for the 3-Lane.	1. The difference in cost you mentioned is on the lower end. As shown in the slides, there is about a $900 million dollar difference between the Enhanced 2 Lane and 3 Lane Alternatives.
		2. Also, you say that that the 2-lane works until 2050, is that correct?	2. Yes, that is correct, based on current projections, we expect 2-lanes to sufficient in most areas until 2050.
		3. As you know, at the Port of California they have extensive cargo that can't be moved yet. Have you taken that into consideration?	3. We have looked at what is expected through FHWA's data on expected future increases in freight. FHWA is expecting a freight increase in this corridor and that was taken into consideration.

#	Theme	Comment	Response
12	Multiple Questions and Comments (cont'd)	4. You also mentioned areas where there are no frontage roads, from the 114 to the 140, we have the same problem from MP 89 to 96, also at Continental Divide. A couple of weeks ago we had an accident that involved several semis, this is happening more often and it's getting worse and worse with wrecks with semis. I've seen back-ups of 10 or 15 miles and people sitting on this interstate for 8 to 10 hours trying to go from Gallup to Albuquerque. These are real concerns of mine, I know its money, but we're looking at a $900 million difference to make it a 3-lane rather than patching it as a 2-lane. We really need to see what is going to happen down the road or we're just going to be having the same conversation 5 or 10 years from now and will say we should have done this differently. Patching it is not fixing it. Cheaper is not better. We need to take into consideration the people who travel this road every day, between Gallup and Albuquerque for doctor's appointments and they get stuck on the highway. These can be life threatening situations that we need to look at. I know it is all about money. If you have a comment on that I would like to hear it.	4. You mentioned a lot of important issues in this corridor. What needs to occur on this corridor is something that can't happen overnight. There are 150-miles of roadway that need improvements such as implementing policies, procedures, and improvements that will help eliminate the need to reduce I-40 to one lane of traffic. Reductions to one lane of traffic cause the backups that you mentioned. When an incident causes the closure of both lanes, backups can extend many miles. This study is looking at how we can start implementing enhancements to reduce impacts to drivers right now and can be completed in the short-term. It is not practical to turn 150 miles of interstate into a construction zone at one time. We need to start incrementally to get I-40 up to an improved condition. Traffic projections are showing that in most areas (exceptions made for steep grades and Gallup) if I-40 has two travel lanes that are open and operating, capacity is sufficient. NMDOT indicated that one of the things that needed to be part of the vision for I-40 is the ability to build in flexibility and the ability to adapt into the proposed improvements. The Enhanced 2-Lane with Added Lanes Alternative meets the current federal and state requirements while providing the ability to expand. The Enhanced 2-Lane would take the typical section that currently exists and getting I-40 into position to be expanded for shoulder or additional lanes. The Enhanced 2-Lane potentially serves as a first phase of implementing a 3-Lane roadway as a lot of the work needed for the 3-Lane Alternative would be completed by building the Enhanced 2-Lane. The difference in cost between the price of the Enhanced 2-lane and the 3-Lane is what would be needed to expand to 3-lanes once the Enhanced 2-Lane is built. When the data and analysis has been completed and a decision is made to expand to 3-lanes, these changes could be made easily if the Enhanced 2-Lane is in place. Changes would require converting one of the 12-ft shoulders into a travel lane and adding a new shoulder. This conversion could be completed while maintaining 2-lanes. For a variety of reasons, it is difficult to project when 3-lanes will be needed. However, if we apply a consistent growth rate, we may need 3-lanes at some point, maybe around 2060, but it is very difficult to accurately project traffic beyond the horizon year of 2050. There are a lot of things that could change in this corridor by then including autonomous vehicles, different technologies, and different ways of doing things. We don't know how those things could affect I-40 in the future. That is why NMDOT thinks it is important for any solutions to have the ability to adapt. What we are recommending are the steps that will get the corridor into an improved condition, with improved reliability. This is a long-term plan; these improvements are not something that are going to be made quickly in a couple of years.

#	Theme	Comment	Response
12	Multiple Questions and Comments (cont'd)	5. The weight of the electric vehicles that are coming out is around 30% heavier than gas-operated vehicles. Freight vehicles will be significantly overweight when they come into operation. Is it in your scope of work to address the weight capacities on I-40?	5. That is diving a little bit deeper into the design than what we do at the study level. Those are things that the NMDOT general office is continuing to look at, and they are using the data they have to make sure pavement thicknesses and the materials used are appropriate. Those are considered with the final designs.
		6. Last year we passed legislation requiring that trucks stay in the right lane except to pass. Hopefully, that will alleviate some of the problems we're facing. Thank you for the presentation. Let's work together to get this done.	6. I think that was a major step forward, and we appreciate it.
13	Laguna, 3 Lanes	The design used at the MP 114 interchange was outstanding. Additionally, I would highly recommend we build 3-lanes from Albuquerque to Gallup. In the future we will have a lot more traffic and I think using barrier wall and using 3-lanes is the way we should look for the future. I would like to discuss the drainage at Fort Wingate and how to correct it.	Thank you for your comment and for the positive feedback on the improvements at MP 114. What we are looking at with the Enhanced 2-Lane, is how we can accommodate 3-lanes in the future when needed. Regarding Fort Wingate, it is a key area as it floods not only I-40 but also the frontage road. There is currently a project that is under development to effectively raise elevation and improve drainage in the area. It is something currently being worked on and is a project that hopefully the public will see in the near future.
14	I-40 and NM 118 East of Gallup	At the casino east of Gallup, there is a community on the south side of I-40, then NM 118 frontage road. The tunnel connection between this community and NM 118 is a concern. The toe of the embankment on I-40 extends too far out. So, when people are coming out of the community on the south side and go under the tunnel and to get to 118, you have to almost pull out onto NM 118 to get sight of incoming traffic. Is this something that could be done to move the embankment back towards the I-40 lanes?	When a project goes through that area the structure will have to be looked at because it currently does not accommodate the Enhanced 2-Lane or the 3-Lane. We will keep this in mind and District 6 will consider it when working on this project and will also assess. As it currently sits that project is outside of what we are looking at with this study but you bring up a good point.
15	Climbing Lanes	Is the recommendation in the steeper grade areas to be 3-lane? Did the slide reference 13 miles of such areas?	To clarify, 10-miles needs to be expanded to 3-lanes in Gallup to provided needed capacity. The climbing lanes total 3 miles, with short sections proposed on either the westbound or eastbound lanes of I-40. For example, there is 1-mile proposed for the westbound lanes from MP 76.5 to 77.5. A total of 4 sections of climbing lanes are proposed on the westbound side, and 1 on the eastbound side. These total 6 miles of 3-lane sections on just one side of I-40, so 3 miles total.
16	General	Please consider keeping the politics out of decisions in improvements along I-40. Rural areas are just as important as the urban locations	Thank you for the comment.

#	Theme	Comment	Response
17	Bridges	What are the contingency plans for the railroad overpass at the McCarty Village in Acoma, along with the tunnel bridge just before the Quemado exit? Regarding the proposed 2 and 3 lane increase proposal and replacing the tunnel bridge?	The tunnel bridge you mention was on the list of studies we had at MP 90.6 for a frontage road and there are no formal plans at this time. With the McCarty railroad overpass (near MP 95), there is no specific plan for that bridge, but the bridge would have to be replaced for any widening to occur even to go to the Enhanced 2-lane. In that particular location, the bridge spans the frontage road and I-40 and there is no space to widen either of them. It is likely that this bridge would have to be replaced entirely
18	Signs	With the passing of legislation to force semi-trucks to use right-lane only, is there a plan to post regulatory signs along the interstate to inform the drivers of this change?	There are already signs posted saying “Trucks use right lane” and signs that say, “Use right lane except to pass”.
19	Bridges	When bridges get replaced, will they be built to 6-lanes?	Each bridge will be evaluated individually. There is a procedure in place that NMDOT is using and continuing to refine. It starts with the bridge providing 2-lanes and 2, 12-ft shoulders. We are looking at the possibility of making the bridges a little bit wider. In addition, there is an evaluation that looks at constructability issues and lifecycle costs and potential phasing to determine if it makes sense to put in 6-lane bridges (3-lanes in each direction). To reiterate, for the Enhanced 2-Lane, bridges are being looked at on a case-by-case basis with the forethought of how they could be expanded in the future. Those considerations are being made so we don’t have a loss of investment.
20	Signs	I think signs to tell commuters stay on right lane (slow traffic) except to pass (left lane) should be posted along the I-40 corridor. When I travel to Albuquerque, I always encounter vehicles blocking both lanes.	Comment is duly noted.
21	Rio San Jose River	What are the plans for the Rio San Jose river that goes under I-40, infrastructure above and below along with runoff?	These will be determined by a site-by-site and project-by-project basis. This is a high-level corridor study that sets the vision for what would get built in the future. We haven’t looked at specifics, we have mostly focused on the bigger picture. The structures and drainage work will have a detailed analysis to set the parameters of what the bridges will need to accommodate, and the drainage work will determine what needs to be accommodated under the bridges. Each individual project will require a detailed engineering and environmental analysis. In addition, we did look at culverts in the corridor and we found several culverts that need to be expanded to accommodate flows in the area and many culverts also need maintenance. NMDOT will use this information as they develop projects, which will be woven into each individual project so these issues get addressed.

2.2 Written Questions and Comments

Exhibit 2 summarizes the 10 comment letters that were received during the public comment period that ran from February 12, 2024, through March 27, 2024, and the responses provided. A copy of Exhibit 2 was emailed to commentors. Attachment C contains a full version of the written comments.

Exhibit 2. Summary of Written Comments and Responses

#	Theme	Summary Comment	Response
1	3 Lanes; Safety,	My suggestion is to build a 3rd lane since the wider shoulder costs $3.9 billion, then it's better to find an additional $0.9 billion and don't return to this issue in future. Next step with 3 lanes - no trucks/SEMIs in the left lane, SEMIs the middle lane for passing only. I frequently travel on I-40, and a major safety concern arises when large trucks abruptly merge in front of you while you're in the right lane, passing other trucks. The slight speed differential between the trucks often results in extended attempts to overtake one another, leading to miles-long stretches where they may not successfully complete the passing maneuver. This, in turn, creates a significant congestion of passenger cars in the left lane, all attempting to maintain the maximum speed allowed by the posted speed limits. Additionally, many of these cars often fail to maintain a safe following distance, compounding the safety risks on the road.	Thank you for sharing your experiences driving on I-40 and your comments supporting the 3-Lane Alternative. The preferred alternative includes ramp extensions to improve safety and provide more space for all vehicles to merge at many on- and off-ramps. Climbing lanes are being proposed in areas with uphill grades, which will to mitigate speed differentials between passenger vehicles and trucks.
2	3 Lanes, Construction Concerns	In my opinion, three lanes in each direction WITH a wider shoulder is absolutely necessary. As a person who has frequently driven I-40 between Albuquerque and Los Angeles, this proposed project is long overdue. New Mexico has been under a state of perpetual construction between Grants and Gallup for over 25 years. No progress has been made in that construction project resulting in at least a 2 to 3 hour wait just to get between those two cities. This wait has never been insignificant to commuters, commerce, or vacationers. Sadly, the State of New Mexico has long been lazy and lackadaisical with making an improvements in that they are by tolerating incompetent construction companies who take advantage of the taxpayers by feigning actual work while actually doing nothing but causing unnecessary traffic jams while NO WORK is actually underway! Whoever in the State is overseeing this decades-long project is just another corrupt lacky who has their own personal self-interests in mind! The State has demonstrated its incompetence with its perpetual construction between Grants and Gallup (again over 25 years) that it in incapable of managing construction projects. I have extreme doubt that the State can do anything without exacerbating its current management failure along the country's principal transportation corridor. I added as a second exemplar the 1-mile section of La Bajada Hill which has been under construction for three years. Governor Lujan Grisham is an embarrassment. If the state is actually going to represent itself as a progressive and pro-commerce State, then it needs to aggressively implement this construction project and vigorously oversee it such that it doesn't take more than two decades to complete. Otherwise, this proposal is just a lot of wasted hot air and BS.	Thank you for sharing your experiences driving on I-40 and your comments supporting the 3-Lane Alternative. A primary recommendation of this study is to minimize traffic delays to the traveling public during construction, maintenance, and incidents. This includes keeping 2 lanes open during construction projects in the future; minimizing lane closures for maintenance activities or shifting it work to off-peak hours; and improving incident management. Wider shoulders are also proposed, which will help to maintain more space on I-40 to keep lanes open. Improving 150 miles of interstate is a complicated endeavor that requires obtaining funding and completing design, environmental consultation and review, and construction. Effects to the traveling public can be minimized by working to keep 2 lanes open as much as possible.

#	Theme	Summary Comment	Response
3	3 Lanes	I have driven between Grants and Albuquerque approximately 300 times in the past 6 years. I have seen it all, which includes a few fatalities. I fully support putting an extra lane. I rarely go between Grants and Gallup, so I can't comment on that. Along with this improvement, I believe there should be heavy enforcement to make sure truckers stay in the far-right lane. If they pass, they must return to the right lane immediately. I have seen many backups because truckers drive side-by- side for long stretches. There are also too many short on-ramps, so many vehicles don't have a chance to move over. The circle on-ramps are extremely dangerous because there is there is no way to increase your speed to the proper amount when entering I-40. The one at Route 66 Casino has been stretched out, which is good. I've seen too many wrecks at that one. The entry lane going east at Exit 85 in Grants is way too short. I've almost been run off the road trying to get onto the freeway. I know this construction will take a long time, but there should be incentives to get it done early. I also believe part of the general backup is caused by closing down the whole I-40 or parts of it way too long. If the police know what happened, it seems there is no need to keep it closed for so long. Ideally, it would be great if there was also a big enough shoulder, so if there is a wreck, that can handle as another lane. Thank you for reading my opinions.	Thank you for sharing your experiences driving on I-40 and your comments supporting the 3-Lane Alternative between Grants and Albuquerque and increased enforcement on I-40. The preferred alternative includes ramp extensions to improve safety and provide more space for all vehicles to merge at on- and off-ramps. Ramp extensions are proposed for the ramps you mention at Exit 140 for the Route 66 Casino and Exit 85 in Grants. Thank you for your support of widening shoulders and improving incident management. As part of project design and construction, the NMDOT will work to minimize construction effects to the traveling public, which could include contractor incentives or other traffic management solutions.

#	Theme	Summary Comment	Response
4	New Mexico Department of Game and Fish (NMDGF)	The NMDGF submitted a formal comment letter as summarized below. Since the proposed highway project includes bridge or road construction activities, the NMDGF recommends implementation of its *Bridge and Culvert Construction Guidelines for Stream, Riparian, and Wetland Habitats* for any rivers, streams, washes, springs, seeps, or riparian areas that are fall within the impact footprint of this project. These guidelines should assist in minimizing impacts to the river or wetland and should be incorporated into the standard best management practices for these types of construction activities. The NMDGF also recommends that preconstruction bat surveys be conducted during summer months to determine if bats occur. If bats are determined to occur at bridge sites, work should be scheduled to avoid impacting bats that may roost there (i.e., conduct work in winter months). All migratory birds are protected against direct take under the federal Migratory Bird Treaty Act (16 U.S.C. Sections 703-712), and hawks, falcons, vultures, owls, songbirds, and other insect-eating birds are protected under New Mexico State Statutes (17-2-13 and 17-2-14 NMSA). To minimize the likelihood of adverse impacts to migratory birds, nests, eggs, or nestlings, the NMDGF recommends that ground disturbance and vegetation removal activities be conducted outside of the primary migratory bird breeding season of April 15-September 1. If ground disturbing and clearing activities must be conducted during the breeding season, the area should be surveyed for active nest sites (with birds or eggs present in the nesting territory) and avoid disturbing active nests until young have fledged. The list of New Mexico Species of Greatest Conservation Need and the federal list of Birds of Conservation Concern should be reviewed to fully evaluate potential effects to migratory birds from your proposed project. Federal agencies are also required under Executive Order 13186 to implement standards and practices that lessen the amount of unintentional take attributable to agency actions. These conservation measures are strongly recommended to ensure persistence of migratory bird species whose populations are small and/or declining within New Mexico. Pronghorn antelope attempting to cross the highway have been found to become trapped within the highway right-of-way along this stretch of I-40, partially because of their aversion to jump fences, and becoming hit by a vehicle. To prevent wildlife and big game from entering the highway right-of-way, and to minimize the potential for wildlife-vehicle collisions, the NMDGF recommends improving fencing along the I-40 corridor wherever possible. In conjunction with this, the NMDGF also recommends constructing overpasses or large underpasses wherever new construction or improvements to roads, bridges, and culverts occur. For more information on wildlife corridors across highways please refer to the *New Mexico Wildlife Corridors Action Plan*.	Thank you for submitting these comments. The NMDOT will identify needed wildlife surveys, requirements, and best management practices in coordination with federal and state agencies as part of project development on a project-by-project basis. Improvements to fencing and/or improving wildlife crossings will be considered, where appropriate, as projects are designed and constructed.

#	Theme	Summary Comment	Response
5 and 6	Laguna Department of Education	The NMDOT received 2 comment letters with the following summarized comments on behalf of the Laguna Department of Education. While many of us that travel I-40 frequently agree that upgrades for safety and traffic flow are imperative, our concern lies in the use of alternative roads during incidents (such as accidents) and congestion that necessitate routing vehicles through our Reservation lands, particularly state road NM 124. Our Transportation Team includes bus routes to service our six villages and we have observed over the years that many drivers do not heed flashing bus lights at stops or attempt to go around the stopped bus which creates a grave safety hazard for our children both boarding and exiting the bus. Additionally, we have received numerous reports of commercial and private vehicles traveling at high speeds on NM 124 during I-40 closures, which creates additional danger for our community members. Lastly, NM 124 does not have adequate black top surfacing, nor shoulder space, to accommodate highway volume or accident detour for any length of time. We propose several suggestions to improve public safety during this project: • Signage: Please consider adding additional signs that state road NM 124 is a bus route. • Add signs that refer to state law 66-7-347 that it is illegal to over-take or go around a stopped school bus. • Police escort: Please provide a police or DOT escort to follow each bus to ensure compliance and prevent an accident. • Consider an alternative road that is more suited to heavy traffic and accessible for emergency vehicles. Thank you for the opportunity to hear our concerns	Thank you for your comments and for sharing your concerns about safety and frontage road use during lane closures on I-40. A primary recommendation of this study is to minimize traffic delays to the traveling public on I-40 during construction, maintenance, and incidents. This includes keeping 2 lanes open during construction projects in the future; minimizing lane closures for maintenance activities or shifting it work to off-peak hours; and improving incident management. Wider shoulders are also proposed on I-40, which will help to maintain more space on I-40 to keep lanes open. These proposed improvements will improve traffic flow on I-40, which should result in fewer I-40 drivers choosing to drive on local frontage roads. We appreciate the suggestion for NM 124 from the Laguna Department of Education and will consider these suggestions as improvements are made on adjacent frontage roads. We look forward to future discussions regarding I-40 and adjacent frontage roads with Laguna Pueblo leadership; Laguna Pueblo entities, including law enforcement, public works, and the school district; and community members.

#	Theme	Summary Comment	Response
7	Eastern Navajo Agency Council	The Eastern Navajo Agency Council submitted Resolution 03-2024-006 supporting NMDOT's I-40 Corridor study and making certain recommendations. The Resolution was voted upon by representatives of 31 Navajo Nation Chapters in Eastern Navajo Agency. The Council also requested to be involved with future I-40 projects so they may contribute to the conversation. Resolution No. ENAC-03-2024-006 Supporting NMDOT's Highway Corridor Study of I-40 and recommending the construction of a third lane from the Arizona State Line to Grants, NM as the first phase, a summary of the resolution and recommendations are provided below. ▪ The current I-40 has become a crowded highway with intrastate and interstate traffic; and ▪ Many semi-trucks use I-40 for transporting goods, supplies or products. At times, it seems like there are more semi- trucks than cars. People have complained about trucks not allowing passage especially if they are in group or convoy. It gets to be unsafe when passenger cars are boxed in; and ▪ Many Navajo persons or families from Arizona communities go to Gallup, NM, for shopping and for necessities and they use I-40 in New Mexico portion from Arizona State Line; and ▪ Navajo families will use I-40 to get home from work and shopping trips. If I-40 is closed, it becomes unsafe when they are stuck in a traffic backup, and because they have to get home, they try to find an alternate or side road or make u- turns; and ▪ There are many medical transports who take patients to the medical appointments on a daily basis. When I-40 is closed, this become a safety hazard and a health concern; and ▪ I-40 asphalt has become unsafe due to many potholes and other structural defects like guardrail damages; and ▪ There needs to be well-maintained resting areas for the semi-truckers and other vehicles. Currently, they just park dangerously on the ramps or on the interstate itself; and ▪ All underpasses should be redesigned for passage by local traffic but not semi-trucks. More such underpasses need to be built for local traffic; and ▪ Because the I-40 is heavily used, the redesign of the road should exceed the minimum standards as to prolong the life of the road; and more reflectors need to be added near curves and there should be more streetlights for off-ramps; and ▪ There should be more signage showing routes to Navajo communities and Chapterhouses. (if Navajo wording is used, former or parallel English word should be included). Navajo words are not in Google maps and tourists have trouble finding the right destination; and ▪ More message alert overhead digital signs should be installed advising drivers of road conditions or closures; and ▪ Three lane traffic has become a necessity for I-40 interstate highway and has helped to promote safety near Jamestown east of Gallup.	The NMDOT thanks the Eastern Navajo Agency Council for your interest and comments on the I-40 Corridor Study. We acknowledge your preference for the 3-Lane Alternative and your suggestion for a first phase between the Arizona State line and Grants. At this time, the NMDOT's preferred alternative is to construct the Enhanced 2-Lane with Added Lanes Alternative, which includes adding a lane in each direction for about 10 miles in Gallup, as identified in the public meeting held on February 27, 2024, and information shared via our website at https://www.dot.nm.gov/projects/i40-west-new-mexico/. Improving 150 miles of interstate is a complicated endeavor that requires obtaining funding and completing design, environmental consultation and review, and construction. Project phasing will occur based on allocated funding and infrastructure needs. Throughout the study, many people have expressed concerns about delays on I-40. A primary recommendation of this study is to minimize traffic delays during construction, maintenance, and incidents. This includes keeping 2 lanes open during construction projects in the future; minimizing lane closures for maintenance activities or shifting it work to off-peak hours; and improving incident management. Wider shoulders are also proposed, which will help to maintain more space on I-40 to keep lanes open. Effects to the traveling public and emergency response vehicles can be minimized by working to keep 2 lanes open as much as possible. The preferred alternative also includes addressing concerns mentioned in this resolution, including pavement condition, damaged guardrail, and message alert systems. The NMDOT will continue to design local road improvements for New Mexico State Routes (such as Route 66, NM 124, and NM 118) to meet NMDOT design standards and provide adequate clearance for passenger vehicles and commercial trucks. The NMDOT looks forward to additional coordination with the Navajo Nation, Navajo Nation leadership, Chapter Houses, and staff as projects are developed and implemented.

#	Theme	Summary Comment	Response
8	Citizen, Acoma Pueblo	1. ROW agreements must be negotiated with the informed consent of tribal governments like the Pueblo of Acoma and its federal trustee, the United States. a. The Bureau of Indian Affairs, as well as other federal agencies, must be involved when issues of cultural sites and cultural resources such as waterways, homes, and farmlands are involved.	1. Thank you for your comments. At this time, no right-of-way needs have been identified for the proposed improvements. However, if right-of-way is needed on Acoma lands, the NMDOT will work with the Acoma Pueblo and the Bureau of Indian Affairs (BIA), as required. Impacts to cultural, natural, or other tribal resources will be identified on a project-by-project basis, and the NMDOT will conduct all required government-to-government consultation and obtain required permits and approvals from the BIA and other federal, state, and local agencies as required.
		2. State and Tribal government consultations may cover other matters, such as: a. Utility corridors and roads which cross through the exterior boundaries of Acoma Pueblo require special consideration. b. Acoma may impose special restrictions on the height, weight, and types of materials that can be transported through Acoma lands on alternate routes for the safety of its resident community members and the protection of its waterways, farmlands and other cultural resources.	2. Comment noted.
		3. A speed limit of 65 mph should be imposed on traffic proceeding through the Pueblo of Acoma on I-40 to reduce the occurrence of accidents through this narrow traffic corridor.	3. The NMDOT is not considering reducing posted speed limits in the study area at this time. The posted speed limit on I-40 is 75 miles per hour through the study area from the Arizona State line (MP 0) to the Atrisco Vista Interchange in Albuquerque (MP 150), with the exception of the urban area of Gallup from MP 15.5 to 26.5. I-40 near Laguna at MP 115 had previously been the only other portion of I-40 in the study area with a posted speed of 65 miles per hour. In 2021, roadway improvements were made in this area, and the speed was increased to 75 miles per hour. Initial traffic data indicates that crashes in this area have decreased since the I-40 improvements were made and the speed limit was increased.

#	Theme	Summary Comment	Response
8	Citizen, Acoma Pueblo (cont'd)	4. Alternate routes parallel to I-40 at Acoma are in need of improvement. a. Fatima Hill Road is uneven, with cracked pavement and patches. b. Exit 100 frontage road that runs parallel to I-40 on the south side needs to be raised to allow the installation of drainage culverts. Storm runoff from Mt. Taylor floods the roadway, causing the concrete blocks in the road to separate from the asphalt. c. NM 124, west of McCartys, resurfaced a few years ago, was stripped down last year, and needs to be resurfaced or repaved. d. NM 124 under I-40 at MP 90.6 was dripping water down the west wall causing water to pool on the road surface under the bridge after a dry week on March 23, 2024 e. Any re-routing of NM 124 must avoid sensitive wetland areas, springs, and habitat for threatened and endangered species.	a. Thank you for providing this information. Fatima Hill Road is not a state highway and is not owned, operated, or maintained by the NMDOT. b. As individual projects are implemented and proceed into the design phase, a Drainage Analysis will be completed to determine specific site needs including changes to the roadway grade. Based on a preliminary drainage assessment of this area, the natural drainage path travels through 2 arroyos and associated floodplains from north to south. I-40 has been built over the drainage path and runoff flows under 2, I-40 bridges and a large concrete box culvert. During high rain and flood events, water travels through these arroyos, under the bridge and through the box culvert to discharge to the south side of I-40. The frontage road has concrete panels to be able to withstand occasional flooding that likely occurs during high rain events. c. Pavement resurfacing was done in 2023 on sections of NM 124 at McCartys and areas west. Based on the field assessment done for this study in 2022, additional pavement resurfacing is not proposed at this time, but will continue to be monitored by the NMDOT in accordance with State and FHWA performance measures. d. The NMDOT inspects the concrete box culvert at MP 90.6 regularly as part of their bridge inspection program. The last report indicated that this structure is in fair condition. e. At this time, there is no proposal to reroute NM 124.

#	Theme	Summary Comment	Response
8	Citizen, Acoma Pueblo (cont'd)	5. A Joint Powers Agreement should be negotiated between Acoma Law Enforcement and the New Mexico State Police for the I-40 Corridor through Acoma. a. Special wireless alerts and emergency notifications for accidents involving hazardous materials on or near Acoma will allow time for some traffic to be diverted to facilities west of Acoma at Exits 85, 89, and west of Laguna at Exit 102. b. Hazmat manifests should be provided to Acoma Law Enforcement in advance of shipments through Acoma on I-40 and on alternate routes through Acoma in case an incident occurs that endangers the Acoma community or its tribal homelands.	5. Thank you for these suggestions. The NMDOT is not an enforcement agency and any such agreement would need to be negotiated between Acoma Law Enforcement and the New Mexico Department of Public Safety. State statutes, laws, and federal regulation regarding hazardous waste including compliance with the Environmental Protection Agency's national system for tracking hazardous waste shipments, is overseen by the New Mexico Environment Department. Information about the Hazardous Waste Bureau is available at https://www.env.nm.gov/hazardous-waste/.
		***Recommendation for an Acoma Alternative to enhance 2 lanes through the Pueblo of Acoma with improved drainage, possibly with permeable pavement below overpasses that allows the roadway to absorb some moisture and eliminate puddles. Widening of existing shoulders through Acoma is not recommended due to the unavailability of land in this narrow transportation corridor. Lowering the speed limit through the Pueblo of Acoma is advisable to protect this historic community and provide more opportunity for traffic to safely exit I-40 and explore the sights and unique landscape of Acoma Pueblo, especially during traffic incidents or delays on I-40. Some shoulders can be widened and extended at on and off ramps, permitting improved entry and exit off I-40 at Exit 102 (Sky City Casino, commercial district); Exit 100 (San Fidel); and Exit 89.44 (State Road 117), similar to the on and off ramps at Exit 96 (McCartys). Thank you	Thank you for these comments and support of the preferred alternative, the Enhanced 2-Lane with Added Lanes Alternative. Our initial review indicates that widening the I-40 shoulders through Acoma would not require additional right-of-way. Please see the response to item #3 above, as it relates to your suggested change to lower the speed limit. Please note other comments received from our meetings with the Acoma Pueblo indicate that many Acoma members have expressed concern about detours that result in I-40 traffic being rerouted through the Acoma Pueblo.
9	Preferred Alternative, Pavement	I agree with your team's recommendation for the adequacy of the Enhanced 2-Lane design with the addition of the third lanes through Gallup and the addition of the three westbound climbing lanes. The 12-foot shoulders will be very practical improvement and a huge safety enhancement for I-40 commuters.	Thank you for your support of the preferred alternative.

#	Theme	Summary Comment	Response
9	Preferred Alternative, Pavement (cont'd)	It's my comment that the study has a major omission. The need to improve the safety of highway users was presented as the driving force that ultimately justified all the proposed improvements: Improved ramps, corrected curves, and wider road shoulders. I gather that these potential improvements were all subjects that received a significant amount of attention within the overall I-40 Corridor Study. I recall brief mention during the presentation that "Pavement needs to be improved." But there was no deeper dig into the subject of improving pavement performance. No percentage of safety improvement was offered for a choice of alternative pavement designs that would provide pavement structural sections designs that would realistically double, triple, or even quadruple the service life of pavements. For the purpose of a deeper dig into the percentage safety improvements that could be achieved by extending pavement service life throughout the I-40 Corridor, I would recommend starting by formally defining "Pavement Service Life" for the purpose of the I-40 Corridor Study. My suggestion for that definition: Pavement Service Life is the number of years during which the pavement does not require any dig out repairs or pothole repairs, no full depth pavement reconstruction, and no asphalt pavement overlays. Note that pavement maintenance operations would not be included in this definition of Pavement Service Life. Based upon rehabilitation of the entire I-40 Corridor to the standard that Parametrix is recommending, with the widened road shoulders, future pavement maintenance operations should be able to be scheduled and conducted at greatly reduced risk to highway users. Since my two questions asked during public meeting #3 remain unanswered, I am going guess for the average frequency over the entire I-40 Corridor that traffic back-ups have been generated by either (1.) full-depth reconstruction of failed segments of pavement, (2.) repair of localized pavement failures, or (3.) installation of asphalt pavement overlays applied to pavements exhibiting signs of premature distress. Given any evidence to the contrary, I am going to propose that the I-40 Corridor Study will ultimately determine that traffic back-ups related to pavement dig out repairs and pothole repairs, pavement reconstruction, and pavement overlays have historically occurred on an average of once every 8 years. It would be fair to state that a pavement design that with a service life of 24 years, instead of 8 years, would provide a huge percentage improvement in improving highway safety that would be appropriate to feature within the I-40 Corridor Study as delivering the greatest bang for the buck. Deserving special mention in your report is the fact that a pavement design has been proven in service on the I-40 Corridor that has already quadrupled pavement service life at no increase in original construction costs. Given the depth of nature of the reviews that Parametrix has conducted into the other topics during the I-40 Corridor Study, it should not be impossible to coordinate with NMDOT and dig back twenty to thirty years and answer the most fundamental question regarding the I-40 pavements. How often have traffic-backups within the I-40 Corridor related to pavement repairs, reconstruction, or overlays been experienced? Once it's been determined that the study will make available the historical frequency of traffic back-ups related to this group of pavement repair measures, then it becomes possible to present the percentage of safety improvement made available by simply extending Pavement Service Life. Let me know if there is anything contained in "The New Mexico I-40 Corridor Turf Wars" submittal that you would like to give further discussion.	Thank you for your questions and comments related to pavement performance. The NMDOT has received the information you have provided in "The New Mexico I-40 Corridor Turf Wars." The I-40 Corridor Study is a high-level study on a 150- mile corridor that identifies corridor needs, identifies and evaluates corridor-wide alternatives to address corridor needs, and identifies a preferred alternative. Pavement condition was considered as part of the I-40 Corridor Study, but pavement performance is a design-level detail that is considered and determined as part of project development and design. As stated in the responses from the public meeting, the NMDOT continually evaluates pavement design and performance and incorporates improved solutions as specific projects are designed. Specifically, the NMDOT Pavement Management and Design assesses current and future pavement conditions according to New Mexico and FHWA performance measures (identified in Title 23 of the Code of Federal Regulations Part 490) and will identify pavement treatments on an individual project basis that optimize the use of available funding.

#	Theme	Summary Comment	Response
10	Preferred Alternative, Pavement (Same as Commentor #9)	This email serves as additional public input to the I-40 Corridor Study and as a formal retraction of my previously stated support for the Enhanced 2-Lane Option. **I-40 Corridor Reconstruction - Safety Concerns Deserve Greater Attention** While widening the shoulders for the existing 2-lane highway configuration would be a valuable safety enhancement, a reconstructed I-40 pavement with only 2 lanes with widened shoulders is going to insufficient to address the level of safety hazards that are unique to I-40 and other highways with high daily traffic counts dominated by heavy truck traffic. Recent driving experience on two major California highways (Interstate 5 and US Highway 99) through Central California rekindled my awareness that while the 2-lane design proposed for I-40 in New Mexico might be considered sufficient on a shear functionality basis (just looking at the total number of trucks and cars that the road can handle), that is not the case when you factor in the high percentage of heavy trucks, and the human factor – the erratic behavior of too high a percentage of car and truck drivers on the highways today. When the mix of cars and trucks is so heavily weighted with truck traffic, the 2-lane design is nothing less than a death trap, even at current traffic levels, let alone the traffic volume that will be using the I-40 Corridor by Year 2050. If Intelligent Traffic Systems (ITS) controls were implemented in conjunction with the new Enhanced 2-Lane and I-40 were dedicated exclusively to robotically controlled trucks and cars, with cars and trucks driven by human drivers (the Human Factor) completely eliminated from the equation, then an Enhanced 2-Lane highway could be considered safe and functional. Instead, the reality is that 2-lane interstate highways have their traffic flow constantly being backed up by long lines of heavy trucks driving bumper to bumper in the drive lane, with individual truck drivers darting into the first available space between the faster moving automobiles in the passing lane in order to pass slower moving truck drivers. Now you have 20 to 30 automobiles moving at high speeds in the passing lane rapidly braking behind the truck that has just pulled into the passing lane, setting up a situation where cars that were previously safely spaced are now bumper to bumper, and being endangered by frantic car drivers trying to pass them in the drive lane and cut into the passing lane between cars that are already too tightly spaced. Add into this mix of cars and trucks the drivers who are either taking methamphetamines, or driving as if they are on drugs that make them absolutely frantic drivers. Given this reality, the 2-lane configuration is no longer an option that competently addresses the all-important human factors that impacts highway safety. Based in the Central Valley of California, I frequently travel 2-lane segments of Interstate 5, and the mix of 2-lane and 3 lanes sections of US Highway 99, which is being improved to a 3-Lane Interstate highway. The sections of these highways that are 2-lanes are congested and hazardous nightmares to drive. The newly constructed 3-lane segments are facilitating safer interaction. While far from eliminating every possible safety hazard, there is a day and night difference in safety. New Mexico State Representative Patricia Lundstrom from Gallup has good reason to make public statements that the Enhanced 2-Lane is inadequate as a response to addressing the safety concerns.	Thank you for your additional comments. The NMDOT acknowledges that you retracted your support for the preferred alternative and now support the 3-Lane Alternative. As stated in public meetings, the traffic analysis conducted for the I-40 Corridor Study considered existing and future traffic volumes and the high percentage of large commercial trucks that drive on I-40 as part of the capacity analysis done for the study. As such, the higher percentage of trucks observed on this section of I-40 was taken into account as part of the evaluation and 2 lanes were found to be sufficient in most areas in 2050. Areas where 3 lanes are proposed include 10 miles through Gallup and climbing lanes on roadway inclines where the speed differences between semi-trucks and passenger vehicles can impede traffic flow and traffic speeds. In response to your comments related to highway safety, as presented at the public meeting, adding a third lane can improve safety on an uncongested highway by up to 10%. Note that other improvements proposed, such as widening the inside shoulder from 4 feet to 12 feet, has been found to improve highway safety by up to 12%.

#	Theme	Summary Comment	Response
10	Preferred Alternative, Pavement (Same as Commentor #9, cont'd)	**I-40 Corridor Reconstruction - Economic Concerns Related to DOT Inertia** As previously submitted and summarized in the PDF Attachment titled The New Mexico I-40 Corridor Turf Wars: The results achieved by utilization of a revolutionary product technology that was recommended by the New Mexico Division Office of the FHWA in Year 2000 for demonstration within the I-40 Corridor, and then again for a second segment of I-40 in Year 2002, continue to be ignored by NMDOT, in spite of the excellent results reported in field performance monitoring. Major cost savings would be realized in reconstruction of the I-40 Corridor if pavement designs incorporating the advantages offered by this advanced stabilizer technology were being implemented by the DOT. With cost savings in pavement construction available in the range of 50% for reconstruction of the I-40 pavements based upon using EMC SQUARED System stabilizer products during in-place pavement recycling operations, or 25% when applied to subgrade soils and base materials and used as the input for modern Mechanistic-Empirical (M-E) Pavement Designs capable of making more efficient use of costly hot mix asphalt pavement materials, there is no reason that the 3-Lane Alternative is not an affordable option. If NMDOT and FHWA can fund reconstruction of the I-40 Corridor based upon the 2-Lane Enhanced Option built according to conventional pavement design, then they can also modernize their design and construction process and build the much safer 3-Lane Alternative with the same amount of funding. Given the tragic history and inordinate number of traffic fatalities that continue to be experienced on this length of interstate highway in New Mexico, the public deserves to have DOT's practice of ignoring cost-saving options, options that have previously been demonstrated within the I-40 Corridor, questioned and discussed in the I-40 Corridor Study reporting. As part of this review, an investigation should also be conducted into how and why the EMC SQUARED System stabilizer product technology (EMC2) that was reviewed and approved for statewide use by the DOT's Product Evaluation Committee in 1998, and then successfully demonstrated in NMDOT construction projects at two locations on Interstate 40 in 2000 and 2002, with sponsorship and participation of the FHWA, mysteriously taken off NMDOT's Approved Product List (APL) following completion of the two FHWA Demonstration Projects. With the Year 2000 FHWA demonstration Project having now outperformed NMDOT's previous pavement installation, constructed according to its conventional pavement design, by a factor of 8 times, it is time to be asking questions. Why hasn't NMDOT already taken responsibility to restore this break-through product technology to its previously approved status so that current projects can be taking advantage of this cost-saving technology to build safer, longer-lasting highway pavements? With the Year 2000 FHWA Demonstration Project having now outperformed NMDOT's previous pavement installation, constructed according to its conventional pavement design, by a factor of 8 times, it is time to be asking questions. Why hasn't NMDOT already taken responsibility to restore this break-through product technology to its previously approved status so that current projects can be taking advantage of this cost-saving technology to build safer, longer-lasting highway pavements?	Thank you for your questions and comments related to pavement performance. As stated previously, the NMDOT has received the information you have provided in "The New Mexico I-40 Corridor Turf Wars." We appreciate your comments and questions related to pavement performance. As stated in our previous response, pavement performance is a design-level detail that is considered and determined as part of project development and design. Specifically, the NMDOT Pavement Management and Design assesses current and future pavement conditions according to New Mexico and FHWA performance measures (identified in Title 23 of the Code of Federal Regulations Part 490). Pavement treatments identified on an individual project basis optimize the use of available funding and are required by New Mexico Statute 13-1-164 be drafted so as to ensure maximum practicable competition that will fulfill the performance requirements. Specific products, such as the EMC SQUARED System are evaluated under the NMDOT's Product Evaluation Program in accordance with the current NMDOT Specifications for consideration on the Approved Products List.

2.3 Public Comment Form Responses and Comments

A public comment form was made available through the I-40 Corridor Study website. A total of 21 people provided responses using the comment form as discussed below. Attachment D provides individual comment forms.

2.3.1 Question 1: What areas of I-40 do you think should be the highest priority for improvements? (select one)

A total of 19 people responded to this question and their responses were as follows:

a. Arizona State Line to Gallup (MP 0 to 16) = 5% (1)
b. Gallup (MP 16 to 26) = 16% (3)
c. East Gallup to Iyanbito Exit (MP 26 to 37) = 16% (3)
d. Continental Divide/Coolidge (MP 37 to 48) = 5% (1)
e. Continental Divide to Milan/Grants (MP 48 to 72) = 10.5% (2)
f. Grants (MP 72 to 89) = 0% (0)
g. Grants to Cubero (MP 89 to 105) = 10.5% (2)
h. Cubero to NM 6 (MP 105 to 126) = 5% (1)
i. NM 6 to Route 66 Casino (MP 126 to 140) = 10.5% (2)
j. Route 66 Casino to Atrisco Vista/Albuquerque (MP 140 to 150) = 21% (4)

2.3.2 Question 1a: If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

A total of 20 people responded to this question. Participants could select more than 1 answer, so the results add up to more than 100%. Responses were as follows:

a. This is the section I drive the most = 0% (0)
b. I experience delays in this area = 20% (4)
c. I see a lot of crashes in this area = 20% (4)
d. The roadway shoulders are narrow = 20% (4)
e. There are no nearby frontage roads/alternate routes = 20% (4)
f. The on- and off-ramps are challenging to drive = 20% (4)
g. The pavement is in poor condition = 35% (7)

h. Other (please specify) = 55% (1), as provided below:

1. Why is there no center median barrier on I-40 west of Albuquerque? I-25 has at least steel cable barrier. I have traveled both I-40 and I-25 for last 4 years. I-40 had narrow median and NO barrier. Saves lives. The one on I-25 has been hit often.
2. There are very few rest stops with bathrooms, and when you come across them, they are always closed.
3. The curves.
4. Surface lane painting (solid white lane stripes, center lane demarcation, ramp painting).
5. I had to select something. I'm not sure which section should be the priority.
6. Hills cause semis to intermittently block the flow of traffic and dangerous sudden slowdowns on a heavily traveled road.
7. High volume of traffic, particularly trucks. An additional lane is very important given how many trucks there are.
8. During snowstorms and at night the off-ramp to the weigh station is poorly marked and wider than the highway, making it easy to get disoriented and stray out of the lane onto the shoulder/off-ramp. Better lighting and signage is needed.
9. As Albuquerque continues to spread west, the traffic in this area increases and strains the current infrastructure.
10. Aggressive truck drivers are the cause of most accidents, which needs the utmost attention immediately. Dedicated lanes for trucks traffic only, cameras to observe and control aggressive drivers would bring immediate relief.
11. No explanation provided.

2.3.3 Question 2: What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

For this question, people were asked to select up to 3 items from the list below. Participants could select more than 1 answer, so the results add up to more than 100%. A total of 21 people responded to this question as follows:

a. Wider roadway shoulders = 19% (4)

b. Improved pavement = 52% (11)

c. Longer on-and off-ramps = 29 (6)

d. Adding a third lane in Gallup = 38% (8)

e. Adding climbing lanes = 38% (8)

f. Keeping 2-lanes open on I-40 as much as possible during construction and maintenance = 43% (9)

g. Improved alternate routes = 19% (4)

h. Improved Intelligent Transportation Systems (ITS)/Traveler Information Systems = 14% (3)

i. Improved incident management = 14% (3)

j. Other (please specify) = 14% (3), as provided in the list below:

- Widening roads is always a bad idea. I don't understand why you would do this.
- Three lanes is the best solution.

2.3.4 Question 3: What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

Participants could select more than 1 answer, so the results add up to more than 100%. A total of 20 people responded to this question and their responses were as follows:

a. Facebook = 35% (7)

b. X/Twitter = 5% (1)

c. Email = 30% (6)

d. Press release/newspaper = 80% (16)

e. Other (please specify) = 20% (4), as provided below:

- Updates on Google maps
- Tiktok
- Posts on a dedicated website
- Direct communications to people that have signed up with NMDOT to be informed as part of NMSTUDY

2.3.5 Question 4: Did you find the project website and information shared at the meeting to be informative and easy to understand?

A total of 18 people responded to this question and their responses were as follows:

- Yes = 94. % (17)
- No = 6% (1)

2.3.6 Question 5: Please provide any additional comments. (open ended)

This was an open-ended question. A total of 16 people responded to this question as listed in Exhibit 3.

Exhibit 3. Responses to Question 5

Theme	Comments
3 Lanes	While there are added costs, I think it's critically important to increase to 3 lanes in each direction from Albuquerque west to the Arizona State Line. Commerce has changed dramatically since the interstate system was created. The volume of truck traffic has increased significantly. An additional lane creates better ability for everyone to maneuver safely in normal conditions, and will help keep things passable when there is construction or accidents/weather conditions
3 Lanes	Improvement projects considered by NMDOT should always consider the long-term impact and how the demands of the roadway are anticipated to change in the next 5 years. While expanding the shoulders would have the intended impact now, in the long term it would prove to be a band aid. For 3.8 billion versus 5 billion dollars (I may not be recalling these figures 100% accurately), it makes sense to spend the extra money for a longer-term solution.
3 Lanes	Having 3 lanes available and possibly keeping 1 lane as a "no 18 wheelers allowed" will assist with the flow of traffic as this is highly traveled by 18 wheelers and they cause a lot of slowdowns, plus they are not all considerate of smaller vehicles and will make lane changes regardless of speed or weather.
3 Lanes, Safety	Wide shoulders are needed if a third lane cannot be afforded, or you can't add limited third lane zones to assist with passing and moving traffic jams. Dangerous passing and sharing the road with big rigs makes for very dangerous, nerve-wracking driving conditions, much less during bad weather or crowded summer travel season.
3 Lanes, Safety	I consider I-40 the most dangerous road I drive on. In addition to all the obvious problems that people report (including my comment herein about semis not keeping speed on hills and causing sudden and dangerous speed changes). The entire highway needs to be widened to 3 lanes. I have driven the highway on windy days (which New Mexico has many) and HAD SEMIs GET *BLOWN* INTO MY LANE!!!!!! There are so many needs, it's hard to pick just a few. Yes, alternate routes and advanced warnings for long construction delays would be very useful, too. I've definitely experienced those needs.
Safety	Why is there no center median barrier on I-40 west of Albuquerque? I-25 has at least steel cable barrier. I have traveled both I-40 and I-25 for the last four years. I-40 has a narrow median and NO barrier. You see different places on I-25 where barrier was damaged, but the vehicle did not cross into other lane.
Safety, Ramps	Suggest modifying the on-ramp from Gallup Exit 20 to westbound I-40. The poor signage and short merging of traffic lanes confuses the tourists and large vehicles and can cause accidents.
Ramps	Set of questions are restrictive to what may be planned for selected sites, which is fine, but I think we need to "look further down the road". I would like to see planning and design on: 1) completing the "clover leaf" on the north side of Exit 26 that would provide greater and easier traffic relief; and 2) plan for a new interchange about 3.8 miles east of Exit 26 (so new Exit 30?) to relieve flow traffic into Gallup. The new interchange would match up with State Highway 566. These improvements would aid greater economic development for East Gallup and nearby Navajo Nation communities.
Incidents, 3 Lanes	I travel this section of road of I-40 between ABQ and Gallup, which is a national embarrassment. I have to allow an extra 2 hours to my plans because of the likelihood of an "incident". It is unsafe. When an incident happens, the road shuts down for incredibly long delays. Other parts of the nation can clear incidents far quicker because they have wider lanes and broad shoulders to facilitate. Widen this entire section to 3 lanes AND add a shoulder. Anything less is a band-aid, and we will be having this conversation again in ten years. It is cheaper do it right the first time.
Incidents	I believe that all along the I-40 corridor, there should be some way for traffic to continue to move when a collision occurs. If a collision happens on any part of I-40, traffic is at standstill for hours on end. Also, zipper merges do not work. No one knows how to zipper merge! Keep at least 2 lanes of traffic open in both directions during construction, please!
Incidents, Weather	My family and I see a lot of serious accidents around the Continental Divide area during winter. These accidents often back up traffic and prevent emergency services from reaching people in need. People traveling on the road also end up stuck for hours unable to move, especially in the snow. One accident stopped traffic for several hours in the snow and my family had to call roadside assistance to ensure our car stayed warm and fueled.

Theme	Comments
Construction	There is constant construction in the areas east and west of Gallup. I find this headache in no other section of I40 so much. Why? I cross it a lot. I am trying to use alternatives now as it is too frustrating. Why constant construction just here? Something is very very wrong in this corridor!
Speed	The obvious, but politically impossible, solution is to LOWER THE SPEED LIMIT (and enforce it, lol). It's too bad we have to waste all this taxpayer money on something that can't work. People will drive even faster after the lanes are widened.
Speed, Pavement, Infrastructure	I-40 Texas to Arizona; not good. Eastbound I-40 in Texas is well graded, smooth, not rough driving. NM builds portions of Interstates with a light scratch and surface method; minimal grading and leveling. Interstates in NM are "wavy"; north of NM 165 exit on I-25 is a roller coaster. Surfaces of I-40 and I-25 are not safe. Road markings are faded and non-existent due to weathering. Signs (faded) mirror the markings. Exits in Gallup are too short for normal acceleration lane merging to the freeway. Rest areas generally, and restrooms specifically, are dirty and poorly kept. The one "at-expectation-restroom" in New Mexico is US 285 west of Roswell. I-40 in Albuquerque is a rough as a "cow path": concrete potholes filled with "asphalt" are repairs that only last a few weeks, Everyone speeds! 65 mph zones are a "concept"! Everyone travels 75 or 85 in Albuquerque. Top speed should be 60 mph. NO CITY, COUNTY, OR STATE LAW ENFORCEMENT VEHICLES ATTEMPTING TO CONTROL SPEEDING ARE EVER SEEN!
Connectivity	There needs to be better connectivity from I-40 to NM 6 and to I-25. Los Lunas is experiencing and will continue to experience traffic from I-40 through town onto I-25 to avoid the traffic in Albuquerque Big-I. Improvements to NM 6 and expansion will be needed in the immediate future to offset traffic from I-40 heading south.
Wildlife	Please build one or more wildlife corridors along this expanse.

Attachment A

Announcement, Advertisements, and Social Media Plan

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

U.S. Department of Transportation
Federal Highway Administration

I-40 Corridor Study

Arizona to Albuquerque, CN 6101580

Virtual Public Meeting
Tuesday, February 27, 2024 at 6:30 PM (Mountain Time)

You are invited to attend the third virtual public meeting for the I-40 Corridor Study, hosted by the New Mexico Department of Transportation. The I-40 Corridor Study includes developing a long-term improvement plan for 150 miles of I-40 from the Arizona state line to the Atrisco Vista Interchange in Albuquerque. At the meeting, the study team will discuss the alternatives analyzed; proposed operational enhancements; the recommended Enhanced 2-Lane With Added Lanes Alternative; and we would like to receive your input on our recommendations. To join the meeting; learn more about the study; and share your questions and comments:

- **Join the meeting online** or learn more about the study at i40nmstudy.com
- **Join the meeting by phone** at 1-669-900-6833, Meeting ID: 819 3188 2221, Participant ID/Meeting Password: 398595
- **Submit comments** during the public meeting or before **Wednesday, March 27, 2024** via the comment form provided at i40nmstudy.com; email to i40study@parametrix.com; or postal mail to I-40 Corridor Study, 4041 Jefferson Plaza NE, Suite 210 Albuquerque, NM 87109.

To request accommodations under the Americans with Disabilities Act or a translator, please call Stephanie Miller at 505-445-5464 by February 22, 2024. Please call 505-445-5464 to ask questions or request a printed copy of meeting materials.

New Mexico DEPARTMENT OF TRANSPORTATION

Michelle Lujan Grisham, Governor
Ricky Serna, *Cabinet Secretary*

FOR IMMEDIATE RELEASE
February 19, 2024

I-40 Corridor Study from the Arizona State Line to Atrisco Vista Interchange

Join us for the Third Virtual Public Meeting on Tuesday, February 27, 2024, at 6:30 p.m.

MILAN, N.M. – The New Mexico Department of Transportation (NMDOT) invites you to attend a third online Public Input Meeting on Tuesday, February 27, 2024, at 6:30 p.m. MST to learn about the ongoing I-40 Corridor Study and provide input. The I-40 Corridor Study includes developing a long-term improvement plan for 150 miles of I-40 from the Arizona state line to the Atrisco Vista Interchange in Albuquerque. At the meeting, the study team will discuss the alternatives analyzed; proposed operational enhancements; the recommended Enhanced 2-Lane With Added Lanes Alternative; and we would like to receive your input on our recommendations.

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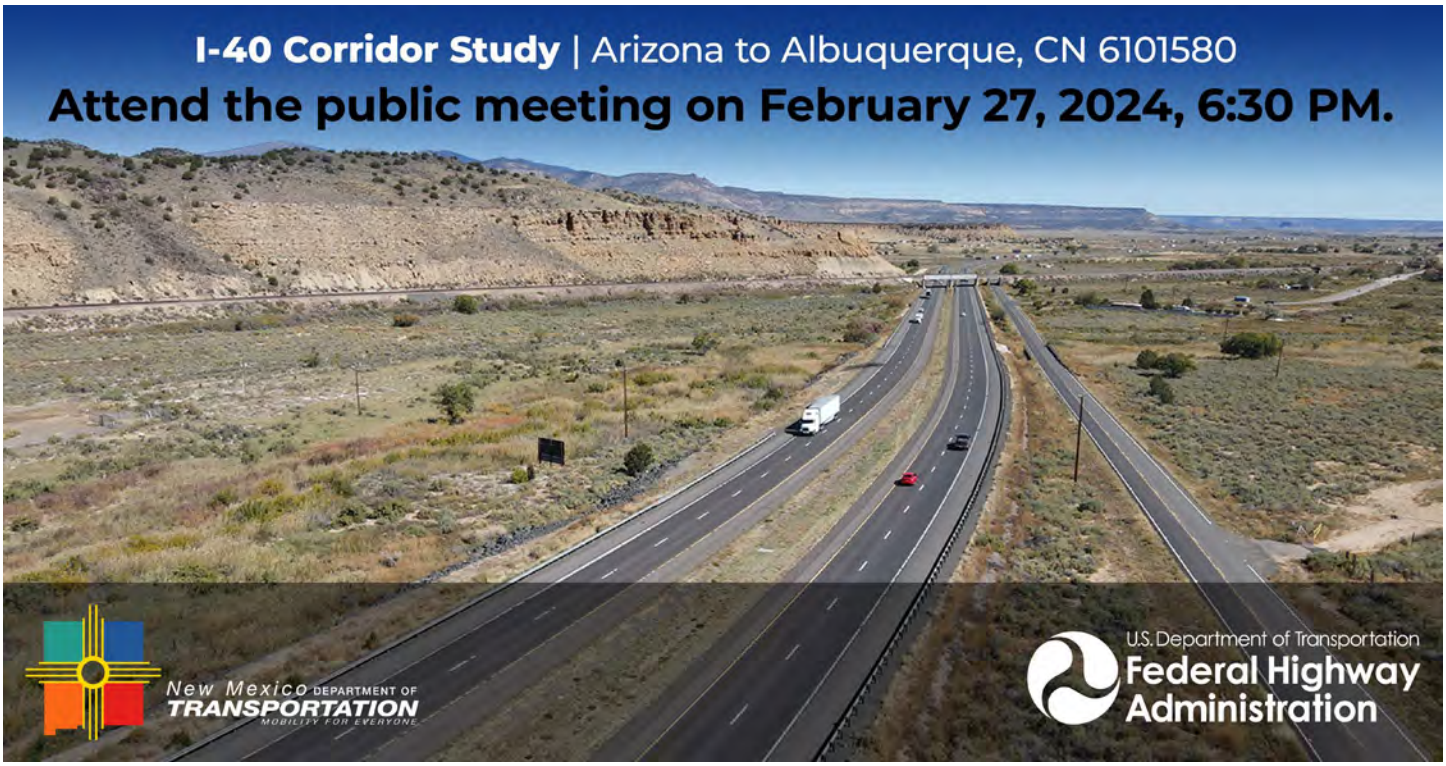

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NMDOT

Mobility for everyone

Delane D. Baros, *District-6 PIO* | Delane.Baros@dot.nm.gov | 505 240 1392

First lady Jill Biden questions whether special counsel referenced son's death to score political points

By Colleen Long
Associated Press

WILMINGTON, Del. — First lady Jill Biden said in an email to campaign donors that she didn't know what the special counsel was trying to achieve when he suggested President Joe Biden could not remember when his son Beau died.

It was an emphatic defense of her husband in a note to supporters as Biden's team worked to alleviate Democratic concerns over the alarms raised by a special counsel about Biden's age and memory, in a report determining that Biden would not be charged with any criminal activity for possessing classified documents after he left office.

Biden campaign officials said Sunday that Jill Biden's message was the best-performing email since the president's initial email launching his campaign on April 25, though they would not say how much money had been raised because of it.

Special counsel Robert Hur found the president should not face charges for retaining the documents, and described as a hypothetical defense that the 81-year-old president could show his memory was "hazy," "fuzzy," "faulty," "poor" and having "significant limitations," and added that during an interview with investigators that Biden couldn't recall "even within years" when his oldest son Beau had died.

An unusually personal observation

Hur was appointed to the job by Attorney General Merrick Garland, who is also investigating Trump and Biden's younger son, Hunter. Hur earlier served as the top federal prosecutor in Maryland after being nominated by Trump.

"Believe me, like anyone who has lost a child, Beau and his death never leave him," Jill Biden said.

It was an unusually personal observation for a special counsel investigating the president's handling of classified documents. Beau Biden died in 2015 from a brain tumor. It's something that Biden speaks of regularly, and cites as both a reason why he didn't run in 2016 and a later motivator for his successful 2020 run.

"May 30th is a day forever etched on our hearts," Jill Biden said in a note to supporters about the day Beau Biden died. "It shattered me, it shattered our family. ... What helped me, and what helped Joe, was to find purpose. That's what keeps Joe going, serving you and the country we love."

The references to Beau Biden in Hur's report enraged the president, who later said: "How in the hell dare he raise that?"

Voters have been concerned about his age. In an August poll by The Associated Press-NORC Center for Public Affairs, 77% of U.S. adults said Biden is too old to be effective for four more years. It was one of the rare sources of bipartisan agreement during a politically polarized era, with 89% of Republicans and 69% of Democrats saying Biden's age is a problem.

"Joe is 81, that's true, but he's 81 doing more in an hour than most people do in a day. Joe has wisdom, empathy, and vision," Jill Biden said. "His age, with his experience and expertise, is an incredible asset and he proves it every day."

AP photo/John Bazemore

First Lady Jill Biden listens during a roundtable discussion on women's health Wednesday in Atlanta.

Art exhibit honors fun-loving man killed in mass shooting in Maine

Joe Phelan/The Kennebec Journal via AP

Peter Precourt levels a sign in the front window for the "There Goes My Hero: Chapter 1 Peyton Brewer-Ross" show Thursday at Art:Works on Main gallery in Winthrop, Maine.

The Associated Press

WINSLOW, Maine — Peyton Brewer-Ross was the life of the party, with wraparound sunglasses and an outlandish Randy "Macho Man" Savage Slim Jim jacket. He also was a Navy shipbuilder, the father of a 2-year-old girl, and engaged to be married.

Brewer-Ross, one of the 18 people killed in the deadliest mass shooting in Maine history, was remembered during a weekend art exhibit dubbed, "There Goes My Hero: Chapter One: Peyton Brewer-Ross." The 40-year-old was playing cornhole with friends when he was gunned down on Oct. 25 in Lewiston. Another 13 people were injured.

His fiancée, Rachael Sloat, said she curated the art exhibit "to shed a little light on just how fun and eclectic a man he truly was, and most importantly the hero he was and will always be to our daughter Elle."

He was 'so much more'

"I want Peyton to be remembered for all that he was and not boxed into any particular category, most especially this recent tragedy. Some people will remember him from cornhole, some will remember him as a pipe fitter, some will remember him for his Slim Jim jacket. Peyton was all of those things and so much more," she wrote.

Sloat was a student of art professor Peter Precourt at the University of Maine at Augusta, who owns the gallery, Art:Works on Main. Sloat inspired Brewer-Ross to take an art class at Southern Maine Community College.

She said she thought it'd be fun for people to see some of his paintings, and for others to join in. The artwork included a cornhole board decorated in Brewer-Ross' honor and drawings depicting him in his homemade, tasseled jacket that paid tribute to the flamboyant professional wrestler "Macho Man," who appeared in ads for Slim Jim, one of Brewer-Ross' favorite snacks.

And Brewer-Ross' own work was also on display: his painting of a Pabst Blue Ribbon beer signed with his initials "PBR"; self-portrait in sunglasses and a cowboy hat; and, in a nod to his own sense of humor, a man holding aloft a pair of men's white underwear.

Precourt offered up his gallery because he felt he needed to do something after the tragedy, and he's willing to continue the series to honor others. "I'm comamitted as long as people are interested in keeping this conversation going," he said.

New Mexico Department of Transportation
U.S. Department of Transportation Federal Highway Administration

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Bundesregierung.de via AP

In this photo provided by Bundesregierung, from left, Sen. Chris Coons, D-Del., and German Chancellor Olaf Scholz pose for a selfie on X on Feb. 8.

US Sen. Coons and German Chancellor Scholz see double at Washington meeting

By Brian D. Hannon
Associated Press

U.S. Sen. Chris Coons and German Chancellor Olaf Scholz were seeing double when they met in Washington, D.C., this week and went on social media to share their mirror image with the world.

The Delaware Democrat and the leader of Germany's coalition government share an uncommon likeness, right down to their bald tops and squinty smiles, which they showed off in a selfie taken by Coons on Thursday during Scholz's trip to the American capital to encourage U.S. support for Ukraine in its ongoing war with Russia.

Scholz met with President Joe Biden as well as members of Congress, where he and Coons posed for the lighthearted image shared on their respective accounts on X, formerly Twitter.

"Wer ist wer?" Coons wrote in German over the selfie, meaning, "Who is who?"

"Great to see my Doppelgänger again — @ChrisCoons!" Scholz posted in English above a photo taken from a few feet away while the men were posing in front of Coons' phone.

The men, separated by five years, with Scholz aged 65 and Coons his junior at 60, previously met in January at the World Economic Forum in Davos, Switzerland.

Scholz was in Washington to emphasize the stakes of the Ukraine conflict for the U.S., Europe and others. Russian President Vladimir Putin earlier this week repeated his claim that the February 2022 invasion was intended to protect his nation's interests. Kyiv insists the attack was an unprovoked aggression.

"Without the support of United States, and without the support of the European states, Ukraine will have not a chance to defend its own country," Scholz said.

Nation in brief

Allies fear US is becoming less reliable

LONDON (AP) — As chances rise of a Joe Biden-Donald Trump rematch in the U.S. presidential election race, America's allies are bracing for a bumpy ride.

Many worry that a second term for Trump would be an earthquake. But tremors already abound and concerns are rising that the U.S. could grow less dependable regardless of who wins. With a divided electorate and gridlock in Congress, the next American president could easily become consumed by manifold challenges at home. That's before even beginning to address flashpoints around the world from Ukraine to the Middle East.

Analyst Thomas Gift said that whoever wins the presidential race, the world is headed toward one where the U.S. is no longer the undisputed superpower.

Biden's campaign joins TikTok, amid national security concerns with app

WASHINGTON (AP) — President Joe Biden's 2024 campaign is now on TikTok, even though he has expressed national security concerns over the platform and banned it on federal devices.

Biden isn't yet going to join the platform, nor the others in his administration and the account will be run entirely by the campaign team. It's an effort to reach an ever-fragmented American population, particularly as younger voters gravitate away from traditional media.

But both the FBI and the Federal Communications Commission have warned that TikTok owner ByteDance could share user data with China's authoritarian government.

Glenn Youngkin aims to bolster mental health care

RICHMOND, Va. (AP) — There's consensus in Virginia that the mental health care system is in need of reform, due to what Gov. Glenn Youngkin's administration says is an overreliance on hospitalization at a time of growing need. About a year ago, the Republican rolled out an ambitious initiative to transform the way psychiatric care is delivered.

Youngkin wants a system that allows people to get the treatment they need without delay, in their own community and not necessarily in the confines of a hospital. Doing so would relieve an overwhelming pressure point on law enforcement. His push is part of a renewed focus on the issue around the country.

Haley tells Trump 'say it to my face' after he questions her husband's whereabouts

GILBERT, S.C. (AP) — The race for the Republican nomination got personal Saturday when Donald Trump questioned the absence of Nikki Haley's husband on the campaign trail. Trump repeatedly asked about her husband, Michael Haley, who is deployed on a yearlong stint in Africa with the National Guard, saying "Where is he? He's gone."

The Haley family's response came quickly. "Donald, if you have something to say, don't say it behind my back. Get on a debate stage and say it to my face," Haley said. The controversial remarks are not the first time Trump has reportedly disparaged members of the U.S. military. In 2015, he said he likes "people who weren't captured," referring to Sen. John McCain's status as a former prisoner of war.

Quad . . .

Continued form A1

Registration for the Kids Quad is on Friday February 16 from 3 p.m. to 7 p.m. and Saturday February 17 from 7 a.m. to 8:30 p.m. Those that win in their age group will also win a free bike.

The Mt. Taylor Quad is also changing how awards will be given. They will only be doing awards for overall winners first, second and third, male, female, and co-ed for teams and pairs. For soloists they will continue to give awards for age group winners. If participants also participate in both the Mt. Taylor Quadrathlon in the winter and the 50K Trail Race in the fall they get an award called the Mt. Taylor Doubler Award.

Brown spoke about why she likes doing the Quad both as a race director and as a participant, "As a volunteer I like doing the Quad because I think it's important to our community and I appreciate that it brings people to town to spend money at our local businesses and I also appreciate that it's a great reflection of who we are and the natural resources and beauty that exist in Grants. As a participant I like to do it because it is a lot of fun. It is the most fun endurance event in which I have participated." For those interested in participating in the Quad but are a little unsure, Brown said that those individuals should begin training in the fall, believe in themselves, participate in a team, and work up to being a soloist.

For more information regarding the Quad, you can check out their website at mttaylorquad.org. For those interested in volunteering for the event you can reach out to staff on their Facebook page, Mt. Taylor Quadrathlon.

Fort Wingate . . .

Continued form A1

federal, state, and tribal entities to remediate the environmental impacts of past military practices and restore the health of the land and water in the area.

The Final Restoration Plan is accessible to the public on the ONRT's website, providing detailed information on the selected restoration projects and the assessment process. This initiative underscores a shared commitment to environmental stewardship and the healing of lands that hold cultural and ecological significance to the Navajo Nation and the Zuni Tribe.

The settlement and subsequent restoration plan serve as a testament to the power of collaboration and negotiation in addressing complex environmental issues, offering hope for the recovery of the natural landscape at Fort Wingate and setting a precedent for future restoration efforts.

For more information and to view the Final Restoration Plan, visit the ONRT's website at https://onrt.env.nm.gov/wp-content/uploads/2024/02/2024.02.01.FWDAFinalRPEA.pdf

Magic . . .

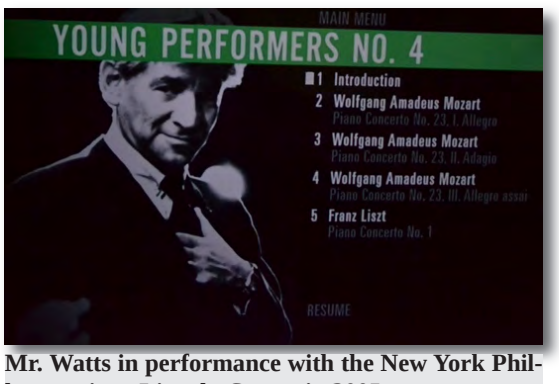
Continued form A1

ducting the orchestra for Miss Weiner was Yuri Krasnopolsky.

Mr. Bernstein felt a special connection to the assistant conductors, having been one himself at the beginning of his career. It is the job of the assistant conductor to assist at rehearsals and to fill in for the conductor if he gets sick or for some other reason isn't able to perform. Three new assistant conductors are added to the Philharmonic Orchestra each year.

Weiner's career has included performances as a soloist with other orchestras including the London Symphony Orchestra, and the Berlin Philharmonic. She has also conducted workshops and masterclasses for aspiring pianists and has made several recordings.

Performing the second movement of Mozart's Concerto andante, was Claudia Hoca of Buffalo, New York. She was born in Austria where her mother was a schoolteacher, and her father was a professor. Assistant Conductor to Miss Hoca's performance was Zoltan Rozsnyai, also Austrian and Hungarian. Hoca graduated from the Curtis Institute of Music in Philadelphia, where she knew another pianist, Andre Watts and she earned her Master's degree at State University of New York at Buffalo. Following her education she won praise winning prizes at the Chopin Young Pianist Competition and the Washington International Bach Competition. Like



Mr. Watts in performance with the New York Philharmonic at Lincoln Center in 2005. Credit...Richard Termine for The New York Times

Weiner, she has performed with noted orchestras: New York Philharmonic, the Philadelphia Orchestra, the Boston Pops, and the Philharmonia Virtuosi of New York.

Hoca suffered severe injuries in a car accident in 2013 which caused her to cancel an engagement and to persevere through years of recovery. She is now performing again at the peak of her skills.

The third and final movement of Mozart's Concerto was performed presto by Pamela Mia Paul with assistant conductor Serge Fournier. Ms. Paul continued her career as a performer and also became a successful teacher. Her students have also gained successful careers in teaching and have won competitions.

During her international career she played piano with some of the world's greatest orchestras in the United States, Europe, The People's Republic of China, South Korea, and Turkey, only a few. The Robert Beaser's Piano Concerto was commissioned by her and written for Ms. Paul who played for its premier with the St. Louis Symphony conducted by Leonard Slatkin. The concerto was also played in Europe by the Monte Carlo Philharmonic conducted by Richard Dufallo, and the American Composers Orchestra with Dennis Russell Davies conducting.

Ms. Paul currently teaches at the University of North Texas College of Music as the Regents Professor of Piano.

The final performance was by Andre Watts playing the Liszt Concerto No. 1 in E-flat major and conducted by the maestro, Leonard Bernstein. It's no wonder the pianist played Franz Liszt, as he was a major influence on the young artist. Mr. Bernstein elected to personally conduct for the pianist after an impressive audition.

Watt's mother, an amateur pianist, encouraged her son to study and practice, and Bernstein, by Watt's admission, practically handed him a career at age 16, following the Young Peoples Concert.

"Mr. Watts was then living in relative obscurity in

Philadelphia, practicing on a beat-up piano with 26 missing strings. But he emerged from his performance of Liszt's Piano Concerto No. 1 a bona fide star." The New York Times, July 14, 2023.

"'My greatest satisfaction is performing," Mr. Watts told The New York Times in 1971, when he was 25. "'The ego is a big part of it, but far from all. Performing is my way of being part of humanity — of sharing… There's something beautiful," he added, "about having an entire audience hanging on a single note.'" The New York Times, July 14, 2023

Andre Watts passed away July 12, 2023 at age 77.

It seems that recognition by Leonard Bernstein was the kiss of success.

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Smith's Food & Drug	8 am to 4 pm		8 am to 4 pm		8 am to 4 pm	

Cibola County Transfer Station: 8:00-5:00 Mon.-Sat.
(accepts above items, motor oil, electronic waste, and tires)
www.recyclecibola.org - or - leave message at 505-552-2166

New Mexico Department of Transportation
U.S. Department of Transportation Federal Highway Administration

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Virtual Public Meeting
Tuesday, February 27, 2024 at 6:30 PM, Mountain Time

You are invited to attend the third virtual public meeting for the I-40 Corridor Study, hosted by the New Mexico Department of Transportation. The I-40 Corridor Study includes developing a long-term improvement plan for 150 miles of I-40 from the Arizona state line to the Atrisco Vista Interchange in Albuquerque. At the meeting, the study team will discuss the alternatives analyzed; proposed operational enhancements; the recommended Enhanced 2-Lane With Added Lanes Alternative; and we would like to receive your input on our recommendations. To join the meeting; learn more about the study; and share your questions and comments:

- **Join the meeting online** or learn more about the study at i40nmstudy.com
- **Join the meeting by phone** at 1-669-900-6833, Meeting ID: 819 3188 2221, Participant ID/Meeting Password: 398595
- **Submit comments** during the public meeting or before **Wednesday, March 27, 2024** via the comment form provided at i40nmstudy.com; email to i40study@parametrix.com; or postal mail to I-40 Corridor Study, 4041 Jefferson Plaza NE, Suite 210 Albuquerque, NM 87109.

To request accommodations under the Americans with Disabilities Act or a translator, please call Stephanie Miller at 505-445-5464 by February 22, 2024. Please call 505-445-5464 to ask questions or request a printed copy of meeting materials.

Help Stop the Theft of Newspapers

By: Cibola Citizen Staff

After an audit of last week's newspaper sales, the *Cibola Citizen* was able to determine that, on average, over $350 worth of newspapers are stolen from our machines every week.

Because of this rampant theft, we are in the process of removing our newspaper machines and having the newspapers sold inside of stores. We do not want to restrict access to the public's news, but are being forced to take these measures as we are taking massive financial hits from the recent rampant theft.

Do you want to support your local newspaper? Here are a few steps:

1. Only take one newspaper for each dollar you put in the machine.

2. Purchase your newspaper inside any of our carrier locations: Allsup's on First Street in Grants, Allsup's on Roosevelt Avenue in Grants, Allsup's on Nimitz Drive in Grants, El Cafecito in Grants, Diamond G in Grants, Mt. Taylor Coffee Company in Grants, Chavez Plumbing in Grants, Parkhurst Pharmacy in Grants, Rosie's Laundry in Grants, and Handy Andy in Grants; Chaco Canyon Travel Center in Milan, Petro Gas Station in Milan, John Brooks Supermarket in Milan, Allsup's in Milan; Villa De Cubero in Cubero. While you're here, browse and support your local businesses.

3. If you see someone taking more than one paper when they only paid for one, please ask them to return the stolen product.

4. Have your business carry the newspaper inside your shop to help eliminate theft. Call 505-287-3840 and enquire about getting newspapers in your business.

5. Better yet, subscribe to have it delivered to your mail for $40, savings of $12 per year

An average of $350 a week in stolen product hurts not only the *Cibola Citizen*, but diminishes from the taxes we could be paying to the city for improvements to roads, water systems, and parks. Cibola is one community, we should be working together to stop theft and each do our part to see this community prosper.

I-40 CORRIDOR STUDY RADIO PLAN FOR PUBLIC MEETING #3, FEBRUARY 27, 2024

Proposed Radio Ad Schedule

The proposed radio ad schedule assumes a total of 12 ads for each radio station (24 ads total). Six of the ads on each station will be in Dine and 6 of the ads on each station will be in English. Proposed times for the ads are as follows:

Date	KTNN (AM 660/FM 101.5)	KWRK/KCAZ (FM 96.1 and 99.5)
2/13/24	7:45 am English/12:15 pm Dine	Same as KTNN
2/14/24	12:03 pm English/ 5:30 pm Dine	
2/16/24	9:03 am English/3:10 pm Dine	
2/19/24	10:10 am Dine/5:30 pm English	
2/21/24	7:45 am Dine/10:10 am English	
2/22/24	9:10 am Dine/3:10 pm English	
Total	12 ads: 6 Dine/6 English	12 ads: 6 Dine/6 English

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Radio Ad Script

You are invited to attend the third public meeting for the I-40 Corridor Study hosted by the New Mexico Department of Transportation. The meeting will be held on Tuesday, February 27, 2024 at 6:30 PM Mountain Time. The I-40 Corridor Study includes developing a long-term improvement plan for I-40 from the Arizona state line to the Atrisco Vista Interchange in Albuquerque. At the meeting, the study team will discuss the alternatives analyzed; proposed operational enhancements; the recommended Enhanced 2-Lane With Added Lanes Alternative; and we would like to receive your input on our recommendations. To join the meeting, learn more about the study, and provide input, visit our website at i40nmstudy.com. To request a translator or accommodations under the Americans with Disabilities Act, please call Stephanie Miller at 505-445-5464 by February 22, 2024.

I-40 Corridor Study Social Media Plan Facebook | February 2024

Date	Content	Social Account
Facebook (Truncated after 477 characters)		
2/16	Join us for the 3rd public meeting on Tuesday, Feb. 27, 2024 at 6:30 p.m. MT to learn about the recommended improvements for the I-40 Corridor and to provide input. The NMDOT is conducting the study to develop a long-term highway operational improvement plan for 150 miles of I-40 from the Arizona state line to the Atrisco Vista Interchange near Albuquerque. To learn more, connect to the public meeting, or provide feedback visit i40nmstudy.com. #I40NMStudy	Facebook
2/22	The NMDOT is conducting a corridor study and has developed recommendations for I-40 from the Arizona/New Mexico state line to the Atrisco Vista Interchange near Albuquerque. To learn about the recommendations, join the public meeting on Feb. 27 at 6:30 p.m. MT. For more information, visit i40nmstudy.com. Hear directly from the study team and have your questions answered! We want your feedback. #i40nmstudy	Facebook
2/27	Join us tonight to hear an update on NMDOT's I-40 Corridor Study and alternatives being considered on this 150-mile stretch of I-40 from the Arizona state line to the Atrisco Vista Interchange in Albuquerque. The study team will discuss alternatives analyzed and recommendations. We want your input! Visit our website to join the meeting online or by phone at i40nmstudy.com. #i40nmstudy	Facebook
3/5	Did you miss the virtual public meeting on the I-40 Corridor Study? Visit our website at i40nmstudy.com to watch the recorded presentation and provide your comments. Comments will be accepted through March 27, 2024.	Facebook
3/20	Don't forget to provide your comments on the I-40 Corridor Study by March 27. 2024. Learn more at: i40nmstudy.com. #i40nmstudy	Facebook

Suggested Graphics:

See separate files

I-40 Corridor Study Social Media Plan Twitter | February 2024

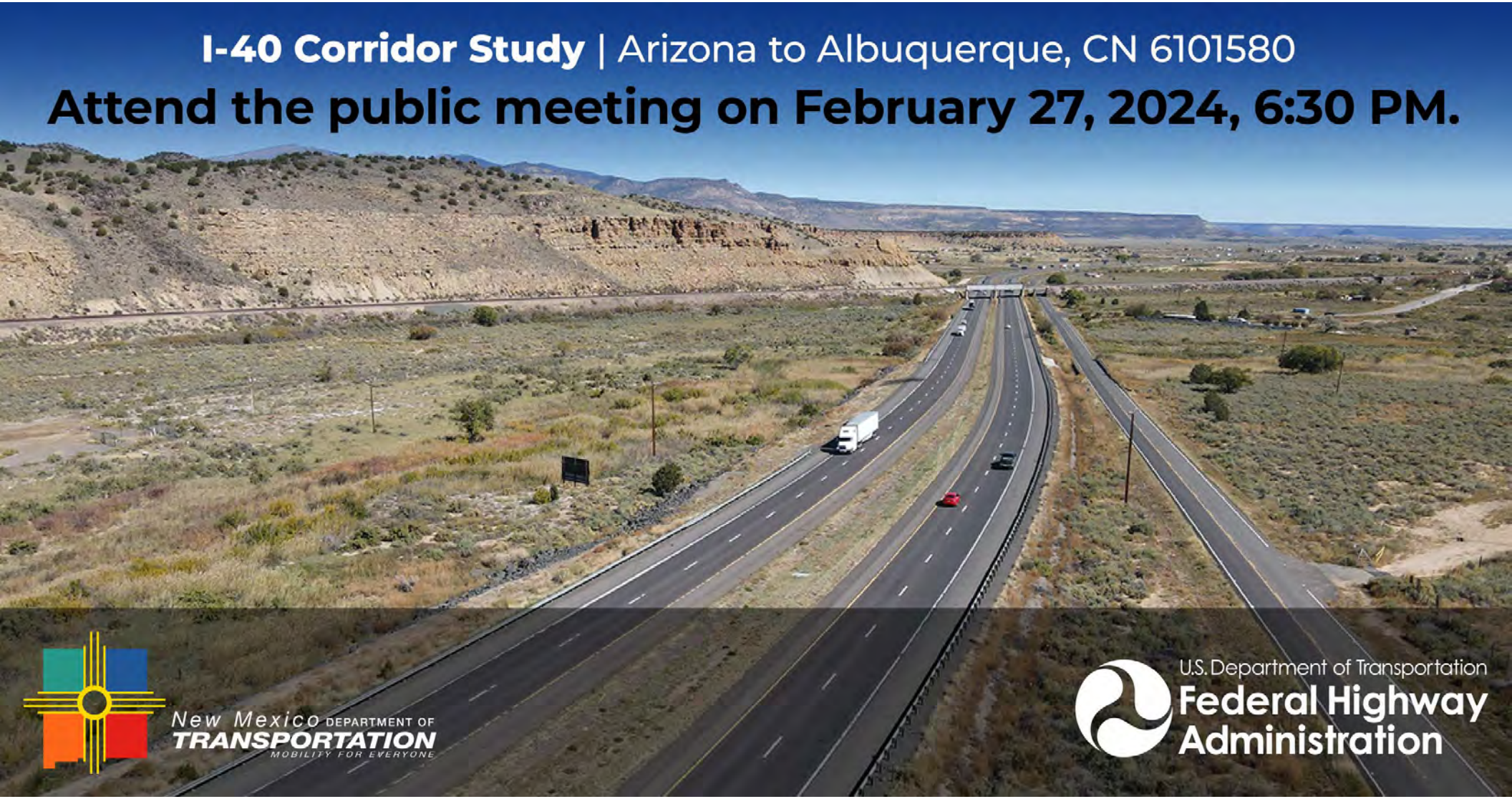
Date	Content	Social Account
Twitter Posts (280 characters)		
2/16	Join us for the 3rd public meeting on Tuesday, 2/27 at 6:30 PM MT to hear an update on NMDOT's I-40 Corridor Study and recommendations. i40nmstudy.com #I40NMStudy	Twitter
2/22	We want your input on I-40 between the AZ state line and the Atrisco Vista Interchange in Albuquerque! We will present the recommended improvements on Tuesday, 2/27 at 6:30 PM MT. To learn more, visit: i40nmstudy.com #i40nmstudy	Twitter
2/27	Join us tonight at 6:30 PM MT for a virtual public meeting on the I-40 Corridor Study on this 150-mile stretch of I-40 from the AZ state line to the Atrisco Interchange near Albuquerque. Visit our website to join the meeting online or by phone at i40nmstudy.com	Twitter
3/5	Missed the virtual public meeting on the I-40 Corridor Study? Visit our website at i40nmstudy.com to watch the recorded presentation and provide your comments. #i40nmstudy	Twitter
3/20	Don't forget to provide your comments on the I-40 Corridor Study by 3/27. Learn more at: i40nmstudy.com #i40nmstudy	Twitter

Suggested Graphics:

See separate files

I-40 Corridor Study | Arizona to Albuquerque, CN 6101580

Attend the public meeting on February 27, 2024, 6:30 PM.



New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

U.S. Department of Transportation
Federal Highway Administration

I-40 Corridor Study

Arizona to Albuquerque, CN 6101580

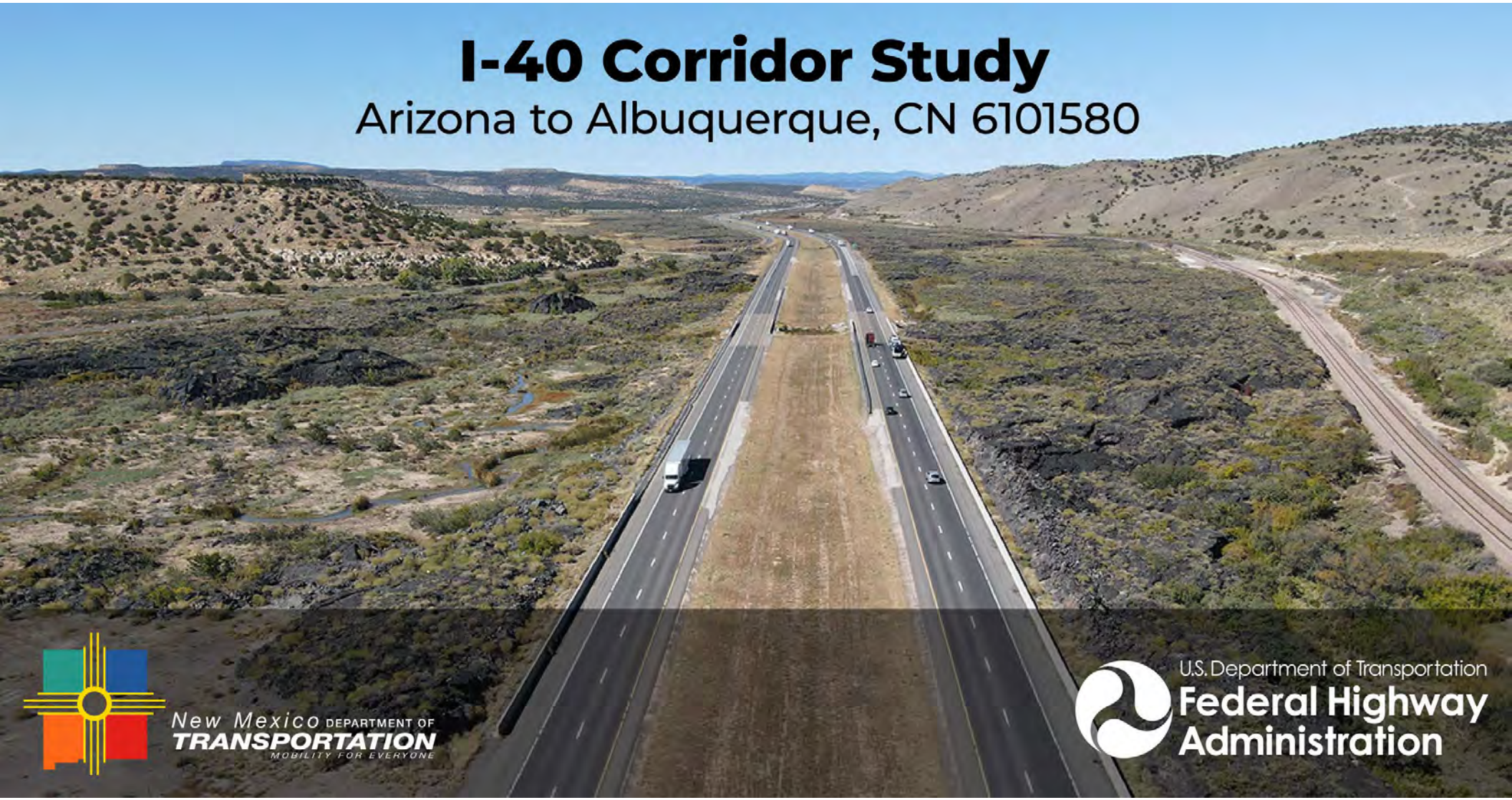
Please submit your comments by March 27, 2024.

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

U.S. Department of Transportation
Federal Highway Administration

I-40 Corridor Study

Arizona to Albuquerque, CN 6101580



New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

U.S. Department of Transportation
Federal Highway Administration

NMDOT
February 22 ·

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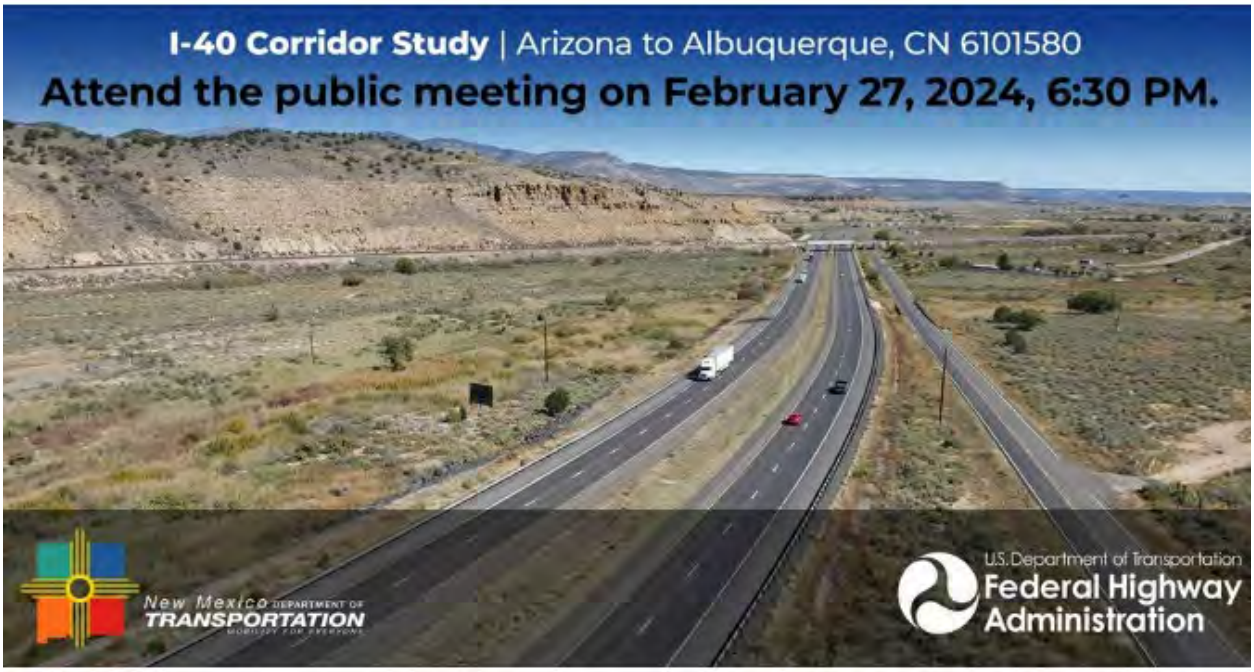


21 2 comments 15 shares

Like Comment Share

Attachment B

Public Meeting Notes and Presentation

I-40 CORRIDOR STUDY PUBLIC MEETING#3 NOTES (CN 6101580)

MEETING DATE: February 27, 2024 **TIME:** 6:30 – 8:28 PM

SUBJECT: I-40 Corridor Study Public Meeting #3 (via Zoom)

NMDOT and Consultant Panelists

Summer Herrera, NMDOT Project Manager	Chris Baca, Parametrix Project Manager
Joe Casares, NMDOT Interim Central Region Design Manager	Stephanie Miller, Parametrix Deputy Project Manager
Lisa Vega, NMDOT District 6 Engineer	Charles Allen, Parametrix Traffic Engineering Lead
Nancy Perea, NMDOT District 3 Traffic Engineer	Jeff Fredine, Parametrix Environmental Lead
Jennifer Mullins, NMDOT Public Involvement Specialist	Brent Hamlin, Parametrix Facilitator
Arif Kazmi, NMDOT Assistant District 6 Engineer	Tyler Pennington, Parametrix Staff

Meeting Purpose

The focus of the public meeting was to discuss project findings and recommendations and provide an opportunity for questions and comments on the information and alternatives presented.

Meeting Overview

The meeting began at 6:30 p.m. and ended at 8:28 p.m. The project team gave a presentation during the first 57 minutes and hosted a question-and-answer session for about 63 minutes. The presentation included information about how people could make comments during the meeting or outside of the meeting via email, postal mail, or phone through March 27, 2024. A copy of the presentation is attached to these meeting notes.

Meeting Attendance

In addition to the 12 NMDOT and consultant presenters/panelists, 52 people attended the meeting. A total of 2 meeting participants called in via the phone and the 50 remaining participants attended online. Because the meeting was conducted virtually, a formal sign-in sheet was not provided, so full names and contact information are not available.

Of the 52 attendees:

- 15 were members of the public.
- 2 were elected officials, including New Mexico State Representatives Garcia (District 69) and Grants City Councilmember Beverly Michael. Tribal elected officials were also in attendance and are discussed below.
- 8 were from area tribal nations, including 4 tribal staff members and 4 elected officials including the Acoma Pueblo's 1st and 2nd Lieutenant Governors (Wendell Chino and Ted Ortiz), the Laguna Acting Governor (Gaylord Siow); and the Navajo Nation Church Rock Chapter President (Larry King).
- 8 represented various federal, county, and local agencies.
- 1 member of the media was in attendance.

- 18 represented FHWA, NMDOT, or various engineering consulting firms.

Question and Answer Session

A question-and-answer session followed the meeting presentation and 21 questions or comments were provided as summarized below.

1. Question (Q), Jerry Calderon, USDOT (56:55): Any considerations on commercial motor vehicle parking? Fatigue is a major contributor to crashes.
   - Response (R): Stephanie: We looked at the existing truck parking and availability in the corridor since the corridor is located across an area when truck drivers need to stop per federal regulations. It appears that on some peak travel days (Wednesday and Thursday) some additional parking could be warranted. NMDOT is taking a broader look across the State at the issue as part of their long-term freight planning. We are not proposing any expansion of existing facilities or specific truck parking locations. As part of the ITS improvements are being recommended that would help truck drivers identify where truck parking is available along the corridor.
2. Q, Anonymous (58:26): How many of the crashes on I-40 involved collisions with wildlife?
   - R, Charles: Just under 5% of crashes on the corridor are wildlife crashes. They do occur and we've analyzed the patterns. There are some areas where wildlife collisions that occur more frequently, and these tend to be on the west side of the corridor.
3. Q, Paul Sittig, Bohannan Huston, (59:10): Can you elaborate on the ITS traffic management center? Where would that be developed?
   - R, Stephanie: It would be developed in District 6. Currently there is a traffic management center in Albuquerque that covers the greater metro area. There is not one in District 6, but that would be the longer-term vision, to establish one in District 6, the hope is to implement one of these in the future.
4. Q, Anonymous (1:00:34): Will the proposed actions involve improvements to habitat connectivity to benefit wildlife movement/migration?
   - R, Chris: As each individual project comes into play, more detailed environmental study will be done in the area. This will look at wildlife habitats. There may be specific things that come out in some of those locations which could direct a change in what type of structure there is to allow for habitat crossings. Those would get more specific as each individual project occurred and would be looked at as part of the environmental documents. These crossing are important and there are areas where there are wildlife crossings.
5. Q, Anonymous (1:03:14): What did the study come up with for the I-40 by Sky City Casino for the road between the east and west overpass?
   - Response (R), Stephanie: I believe the area you are asking about is near Exit 102. For this location, the study looked at the entrance and exit ramps, not so much the overpass or roads on either side of the overpass. For areas adjacent to frontage roads, we looked at how and where they connect into I-40 and if there was (or was not) an available frontage road. There are no specific improvements proposed on the frontage roads near Exit 102.

6. Q, Palau, FHWA (1:05:35): Is there a plan to construct frontage roads in areas where there are sections missing?
    - R, Stephanie: We looked at this, and we are not recommending that new frontage roads be constructed at this time. There are currently 37 miles of I-40 that do not have adjacent frontage roads. Part of that includes 11 miles at the continental divide (milepost [MP] 37 to 48) and another section between MP 114 to 140. While frontage roads can be helpful when I-40 is closed, what is challenging is that people have to be able to get to these roads from I-40. The frontage roads are typically lower speed roads and generally don't have shoulders and are not conducive to heavy truck traffic. We have heard mixed things from the public on these roads. People living in the communities adjacent to the frontage roads have expressed concerns when I-40 traffic uses these routes. Part of the thinking behind the Enhanced 2-lane concept is that having wider shoulders over the entire corridor would provide space to allow at least one lane to be opened more quickly in instances when there are crashes. One of the tricky things with the existing frontage roads is that there are only a handful of interchanges, and they are sometimes 5+ miles apart. This means that just because there is a frontage road available, doesn't mean that people can get to it from I-40 if a crash has occurred. Areas where we don't currently have frontage roads, are not necessarily areas where roads are needed for other purposes. The section that spans from MP114 to 140 is all on tribal lands. We know additional right of way would be needed in this area to build a new frontage road. Additionally, the Enhanced 2-lane Alternative would require about 22-feet of extra space to be implemented. Implementing additional frontage roads would require about 40 feet (two 12-ft lanes and two 8-ft shoulders). These new frontage roads still wouldn't address many of the needs on I-40 and some of the other reasons why we need widened shoulders.
7. (Q), Laguna Acting Governor Gaylord Siow, (1:08:55): Are there any bridge replacements or repairs that are planned for areas in Laguna Pueblo, specifically exits 108 through 140.
    - Response (R), Stephanie and Chris: There is one bridge/overpass that is slated for improvements in the Laguna area, at (MP) 119, frontage road 4012. This overpass is identified as needing repair and will need improvements. Additionally, for the overpass at MP 114, I think the ultimate plan is to reconstruct the bridge so that it is not on a skew and all the ramps can enter without loops. This bridge does not have sufficient width underneath to fit the Enhanced 2-Lane or 3-Lane alternatives. It also appears that the overpass at MP 108 has been identified as potentially having insufficient widths for the proposed alternatives. These overpasses may not necessarily be replaced but could need widening to fit the Enhanced 2-Lane Alternative.
8. Q, Bob Randolph (1:13:21): Have you conducted a review of the average frequency over the entire I-40 Corridor that full-depth reconstruction of segments of pavement has been required over the past 20 years, and wouldn't extending pavement service life also be fundamental to improving highway safety?
    - Response (R), Chris: NMDOT does do pavement assessment along I-40. We have looked at this and have seen changes in pavement conditions over the last couple years. The plan is not to look solely at entire pavement replacement. More detailed information indicates that some areas have existing pavement that still has an additional service life and can be improved using other methods. There are areas where pavement needs to be fully reconstructed. It is a combination that is needed, and it will be an ongoing

process and evaluation and it will be used to determine and prioritize areas as projects are implemented along the 150-mile corridor.

9. Q, Anonymous (1:15:20): What are the plans for better quality blacktop materials to be used throughout the I-40 Corridor?
   - R, Chris: NMDOT continually looks at what the industry has and what methodologies are being used to make the best pavement choices. Those recommendations get worked through the NMDOT's general office and applied to projects. As projects go forward and new technologies are adopted by NMDOT, they will be employed. It is a continuous process.
10. Q, Anonymous (1:16:35) What are the plans for railroad crossings along I-40 at McCarty, Seama, and Mesita?
    - R, Chris and Stephanie: The structures there fall into a couple of different categories. Some are the highway bridges crossing over railroad tracks. There is an instance where the railroad crosses over I-40. These bridges could be independent projects. Many of the bridges are narrow and need to be widened. When those projects are done, there is coordination with the railroad and what is looked at in those is not only the existing track, but also future railroad plans including if there is planned expansion, upgrades to the structural systems of the bridges, or other safety considerations. These bridges would be improved as individual projects and have their own specific design and coordination with the railroad. To dive into each specific crossing would require more specific information. If more information is needed, we can have a follow up to discuss. We don't have a specific plan or layout for all the bridges (there are 154 bridges in the corridor). I think the specific bridges you are talking about is one near MP 95, that one would have to be replaced for I-40 widening to occur. Similarly, there is design work underway to look at the bridge at Seama near MP 106.
11. Q, Palau, FHWA (1:19:05): Because there is a such a high percentage of trucks on I-40, has a study been done to have truck only lanes?
    - R, Stephanie: Our initial alternatives did consider these. Truck lanes have been talked about for decades on US highways; however, very few of them exist. Part of the reason for this is when we look at FHWA criteria for locations where truck lanes make sense, we find that the traffic volume and split on I-40 don't match the criteria. One criterion is when truck volumes exceed 30%, ours do in this corridor. However, the peak volumes need to exceed about 1,800 vehicles per lane hour. When we look at projected 2050 numbers on I-40, we expect to be about half that value. Current traffic conditions on I-40 are not at the point where truck lanes would meet the criteria. The other consideration is talking about who pays for the truck lanes and who benefits from them. We don't have any other freight only lanes in New Mexico, and there are few found throughout the country.
12. Q, Representative Garcia (1:20:46): Option 1 says it will cost $3.9 billion and Option 2 will cost about $4.5 billion, am I correct?
    - R, Stephanie: The difference in cost you mentioned is on the lower end. As shown in the slides, there is about a $900 million dollar difference between the Enhanced 2 Lane and 3 Lane Alternatives.

    Q, Representative Garcia (1:21:07): I come up with a $600 million dollar difference using the lower cost for the 3-Lane. Also, you say that that the 2-lane works until 2050, is that correct?

- R, Stephanie: Yes, that is correct, based on current projections, we expect 2-lanes to sufficient in most areas until 2050.

Q, Representative Garcia (1:22:11): As you know, at the Port of California they have extensive cargo that can't be moved yet. Have you taken that into consideration?

- R, Stephanie: We have looked at what is expected through FHWA's data on expected future increases in freight. FHWA is expecting a freight increase in this corridor and that was taken into consideration.

Q, Representative Garcia (1:22:48): You also mentioned areas where there are no frontage roads, from the 114 to the 140, we have the same problem from MP 89 to 96, also at continental divide. Those areas are really concerning. As you all know, a couple of weeks ago we had an accident out there that involved several semis and this is happening more and more often. I'm bringing this up because I've been in the towing business for 40 years and it's getting worse and worse with wrecks with semis. You mention back-ups of 1 or 2 miles, I've seen back-ups of 10 or 15 miles and people sitting on this interstate for 8 to 10 hours trying to go from Gallup to Albuquerque. These are real concerns of mine, I know its money, but we're looking at a $900 million difference to make it a 3-lane rather than patching it as a 2-lane. That's my opinion of what is happening here. We really need to see what is going to happen down the road or we're just going to be having the same conversation 5 or 10 years from now and will say we should have done this differently. Patching it is not fixing it. Cheaper is not better. We need to take into consideration the people who travel this road every day, between Gallup and Albuquerque for doctor's appointments and they get stuck on the highway. These can be life threatening situations that we need to look at. I know it is all about money. If you have a comment on that I would like to hear it.

- R, Chris: Representative Garcia, thank you for your comments, I appreciate them. You mentioned a lot of important issues in this corridor. What needs to occur on this corridor is something that can't happen overnight. There are 150-miles of roadway there are initial improvements that need to be done. These include implementing policies, procedures, and improvements that will help eliminate the need to reduce I-40 to one lane of traffic. Reductions to one lane of traffic cause the backups that you mentioned. There are times, especially when an incident causes the closure of both lanes, when backups can extend many miles. The one that recently occurred at Atrisco Vista backed traffic up past the Rio Puerco. What this study is looking at is how can we start implementing enhancements to reduce the things that are affecting people right now and can be completed in the short-term. Regardless of which alternative is selected, or if we had all of the money need right now, it is not practical to turn 150 miles of interstate into a construction zone at one time. What we need to do start incrementally to get I-40 up to an improved condition. Fortunately, right now, traffic projections are showing that in most areas (exceptions made for steep grades and Gallup) if I-40 has two travel lanes that are open and operating, capacity is sufficient to carry the traffic. It is my perspective on this, but I think the NMDOT has been very proactive and forward thinking. The indicated that one of the things that needed to be part of the vision for I-40 is the ability to build in flexibility and the ability to adapt into the proposed improvements. The Enhanced 2-Lane Alternative meets the current federal and state requirements while providing the ability to expand. A lot of the work that must be done with an Enhanced 2-Lane involves taking the typical section that currently exists and getting I-40 into a position that it can be expanded for shoulder or additional lanes. In

a more basic sense, the Enhanced 2-Lane primarily serves as a first phase or a potential phase of implementing a 3-Lane roadway because a lot of the work that has to be done for the 3-Lane Alternative would be completed by building the Enhanced 2-Lane. As you mentioned, the difference in cost between the price of the Enhanced 2-lane and the 3-Lane is what would be needed to expand to 3-lanes once the Enhanced 2-Lane is built. When the data and analysis has been completed and the decision is made to expand to 3-lanes, the changes could be made easily once the Enhanced 2-Lane is in place. The changes would simply require going in and converting one of the 12-ft shoulders into a travel lane and then adding a new shoulder. This could all be completed while maintaining 2-lanes. Part of the idea with the Enhanced 2-Lane is how you implement widening and work towards improving the corridor. The low hanging fruit are the things we can do it the short-term to make I-40 safer and more reliable. Depending on how you look at it, is it inevitable that I-40 will need to be a 3-lane. We are not sure, for a variety of reasons it difficult to project when 3-lanes will be needed. However, if we apply a consistent growth rate out, we may need 3-lanes at some point, maybe around 2060, but it is very difficult to accurately project traffic beyond the horizon year of 2050. There are a lot of things that could change on this corridor in the future including autonomous vehicles, different technologies, and different ways of doing things. We don't know how those things could affect I-40 in the future. That is why NMDOT thinks it is important for any solutions to have the ability to adapt. In summary, your concerns are spot on and a lot of people have those concerns. What we are recommending are the steps that will get the corridor into an improved condition, with improved reliability. This is a long-term plan; these improvements are not something that are going to be made quickly in a couple of years.

Q, Representative Garcia (1:31:55): The weight of the electric vehicles that are coming out is around 30% heavier than gas-operated vehicles. Freight vehicles will be significantly overweight when they come into operation. Is it in your scope of work to address the weight capacities on I-40?

- R, Chris: That is diving a little bit deeper into the design than what we do at the study level. Those are things that the NMDOT general office is continuing to look at, and they are using the data they have to make sure pavement thicknesses and the materials used are appropriate. Those are considered with the final designs.

Q, Representative Garcia (1:32:58): Last year we passed legislation requiring that trucks stay in the right lane except to pass. Hopefully, that will alleviate some of the problems we're facing.

- R, Chris: I think that was a major step forward, and we appreciate it.

Q, Representative Garcia (1:33:35): Thank you for the presentation. Let's work together to get this done.

13. Q, Kozeliski (1:34:48): The design used at the MP 114 interchange was outstanding. Additionally, I would highly recommend we build 3-lanes from Albuquerque to Gallup. In the future we will have a lot more traffic and I think using barrier wall and basically using 3-lanes is the way we should look for the future. Additionally, if any of the design team gets the opportunity to come to Gallup, I would like to visit and discuss the drainage at Fort Wingate and how to correct it.
    - R, Chris: Thank you for your comment and for the positive feed back on the improvements at MP 114. What we are looking at with the Enhanced 2-Lane, is how we can accommodate 3-lanes in the future

when needed. Regarding Fort Wingate drainage, it is a key area as it floods not only I-40 but also the frontage road. There is currently a project that is under development to effectively raise elevation and improve drainage in the area. It is something currently being worked on by the department and is a project that hopefully the public will see in the near future. Please provide your contact information to our team and we will pass it along to the designers working on that project.

14. Q, Larry King, President of the Navajo Church Rock Chapter (1:40:36): At the casino east of Gallup, there is a community on the south side of I-40, then NM 118 frontage road. The tunnel connection between this community and NM 118 is a concern. The toe of the embankment on I-40 extends too far out. So, when people are coming out of the community on the south side and go under the tunnel and to get to 118, you have to almost pull out onto NM 118 to get sight of incoming traffic. Is this something that could be done to move the embankment back towards the I-40 lanes?
    - R, Chris: When a project goes through that area the structure will have to be looked at because it currently does not accommodate the Enhanced 2-Lane or the 3-Lane. We will keep this in mind and District 6 will consider it this when working on this project and will also assess if that is something that can be looked at separately as a project as well. As it currently sits that project is a little outside of what we're doing but you bring up a good point.
15. Q, Kirk Weber (1:44:36): Is the recommendation in the steeper grade areas to be 3-lane? Did the slide reference 13 miles of such areas?
    - Response (R), Stephanie: Let me clarify the information provided on the slide. 10-miles need to be expanded to 3-lanes in Gallup to provided needed capacity. The climbing lanes total 3 miles, with short sections proposed on either the westbound or eastbound lanes of I-40. For example, here is 1-mile proposed for the westbound lanes from MP 76.5 to 77.5. This is calling out the specific locations where if it's on the westbound side of the highway or the north side of the highway. We have 4 sections of climbing lanes proposed on the westbound side, and then we have 1 on the eastbound side. These total 6 miles of 3-lane sections on just one side of 1-40, so 3 miles total.
16. Comment (C), Anonymous (1:45:48): Please consider keeping the politics out of decisions in improvements along I-40. Rural areas are just as important as the urban locations.
    - R, Brent: Thank you for the comment.
17. Q, Acoma 2nd Lt. Governor (1:46:02): What are the contingency plans for the railroad overpass at the McCarty Village in Acoma, along with the tunnel bridge just before the Quemado exit? Regarding the proposed 2 and 3 lane increase proposal and replacing the tunnel bridge?
    - R, Stephanie: I believe that the tunnel bridge you mention was on the list of studies we had at MP 90.6 for a frontage road. I believe that is an underpass that goes under I-40 with a low vertical clearance. I believe that is something being studied, but there are no formal plans at this time. With the McCarty railroad overpass, I think this is the one at MP 95, there is no specific plan for that bridge, but the bridge would have to be replaced for any widening to occur even to go to the Enhanced 2-lane. In that particular location, the bridge spans the frontage road and I-40 and there is no space to widen either of them. It is likely that this bridge would have to be replaced entirely.
18. Q, Anonymous (1:47:43) With the passing of legislation to force semi-trucks to use right-lane only, is there a plan to post regulatory signs along the interstate to inform the drivers of this change?

- R, Lisa Vega: There are already signs posted saying “Trucks use right lane” and signs that say “Use right lane except to pass”.

19. Q, Anonymous (1:48:37): When bridges get replaced, will they be built to 6-lanes?
    - R, Chris: Each bridge will be evaluated individually. There is a procedure in place that NMDOT is using and continuing to refine. It starts with the bridge providing 2-lanes and 2, 12-ft shoulders. We are looking at the possibility of making the bridges a little bit wider. In addition, there is an evaluation that looks at constructability issues and lifecycle costs and potential phasing to determine if it makes sense to put in 6-lanes bridges or 3-lanes of a bridge in each direction, or if its more feasible in the construction of the bridges. This might mean the structure under the bridge gets built to accommodate 3-lanes and the actual bridge deck is constructed at a later time. All of these are being considered. To reiterate, for the Enhanced 2-Lane, bridges are being looked at on a case-by-case basis with the forethought of how they could be expanded in the future. Those considerations are being made so we don’t have a loss of investment.
20. C, Larry King, President of the Navajo Church Rock Chapter (1:51:48): I think signs to tell commuters stay on right lane (slow traffic) except to pass (left lane) should be posted along the I-40 corridor. When I travel to Albuquerque, I always encounter vehicles blocking both lanes.
    - R, Chris: Comment is duly noted.
21. Q, Acoma 2nd Lt. Governor (1:53:55): What are the plans for the Rio San Jose river that goes under I-40, infrastructure above and below along with runoff?
    - R, Stephanie and Chris: These will be determined by a site-by-site/project-by-project basis. This is a high-level corridor study that sets the vision for what would get built in the future. We haven’t looked at specifics, we have mostly focused on the bigger picture. The structures and drainage work will have a detailed analysis to set the parameters of what the bridges will need to accommodate, and the drainage work will determine what needs to be accommodated under the bridges. Each individual project will require a detailed engineering and environmental analysis. In addition, we did do a thorough look at culverts in the corridor and one thing we did find was there are several culverts that need to be expanded to accommodate flows in the area and many culverts also need maintenance. NMDOT will use this information as they develop projects, which will be woven into each individual project so these issues get addressed.

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

U.S. Department of Transportation
Federal Highway Administration

I-40 Corridor Study

Arizona to Albuquerque
Milepost 0 to 150
CN 6101580

Public Meeting #3

February 27, 2024 | 6:30 pm

What Area of I-40 is the NMDOT Studying?

Introductions

Presenters

- **Summer Herrera**- NMDOT Project Manager
- **Chris Baca** – Project Manager, Parametrix
- **Stephanie Miller** – Deputy Project Manager, Parametrix

Technical Team Representatives

- **Nancy Perea** - NMDOT District 3 Traffic Engineer
- **Greg Clarke** – NMDOT District 3 Technical Support Engineer
- **Arif Kazmi** – NMDOT Assistant District 6 Engineer
- **Charles Allen** – Traffic Lead, Parametrix
- **Brent Hamlin** – Moderator, Parametrix

Meeting Information

Agenda

- Presentation
- Q & A session after the presentation
- **Presentation is being recorded**

How do I ask questions or provide a comment?

- All participants will be muted until the end of the presentation
- We will answer questions at the end of the meeting
- We will provide instructions on how to ask a question or make a comment at the end of the presentation

I-40 Corridor Study Purpose

Develop a long-term corridor plan to improve **traffic operations** and **reliability**; traveler **safety;** and the **condition** of I-40 and associated infrastructure.

Meet state and federal requirements

NMDOT Corridor Study Process

PHASE A: Alternatives Identification and Screening ▶

PHASE B: Detailed Alternatives Analysis ▶

PHASES C and D ▶

We are here

Identify Existing Conditions → Develop Public Involvement Plan → Establish Purpose and Need → Identify Alternatives → Screen Alternatives → Detailed Alternatives Analysis → Identify Preferred Alternative and Recommendations → Submit Final Study Report and Obtain FHWA Concurrence → Environmental Analysis / Preliminary Design

PUBLIC INVOLVEMENT

Public Survey and Meeting #1
November 15, 2022

Public Meeting #2
April 25, 2023

Public Meeting #3
February 27, 2024

Summary: Public and Stakeholder Engagement

Stakeholder	Summary
Public Meetings • Meeting 1, **November 15, 2022** • Meeting 2, **April 25, 2023** • Meeting 3, **February 27, 2024**	 • 56 attendees, 70 people completed a survey • 76 attendees • **Current Meeting**
Tribes and Organizations • Bureau of Indian Affairs • Acoma Pueblo • Laguna Pueblo • Navajo Nation • Zuni Pueblo	• Initial meetings occurred in **September and October 2022** • Follow-up meetings occurred in **May, June, and July 2023** • Additional meetings planned in **March/April 2024**
Regional Transportation Planning Organizations • Mid-Region Council of Governments • Northwest New Mexico	• Initial meetings in **September 2022** • Follow-up meetings occurred in **May and June 2023** • Additional meetings planned in **March 2024**
New Mexico Trucking Association	• Survey in **January 2023**, 32 people responded
State Patrol	• Meeting in **January 2023**

Public and Freight Survey Results

What highway or safety issues do you encounter on I-40?

Public Responses

1. Traffic back-ups = 91% public
2. Roadway/lane closures due to accidents = 82%
3. Lane closures due to construction = 78%
4. Conflicts with large commercial trucks = 68%
5. Tie = 51%
   - Poor road or pavement condition
   - People driving too fast
   - Slow moving vehicles
8. Drivers attempting to make unsafe passing moves = 49%
9. Poor weather conditions = 23%
10. Inadequate shoulders = 14%

Freight Responses

1. Poor road or pavement condition = 72%
2. Lane closures due to construction = 69%
3. Tie = 56%
   - Traffic back-ups
   - People driving too fast
5. Poor weather conditions = 53%
6. Tie = 50%
   - Roadway/lane closures due to accidents
   - Drivers attempting to make unsafe passing moves
8. Tie = 31%
   - Slow moving vehicles
   - Inadequate shoulder width
10. Illegally parked vehicles along ramps = 16%

What Have We Learned?

- **Operations and Reliability** - Traffic back-ups are caused by **construction, maintenance, and crashes.**
- **Safety** - I-40 has multiple interchange ramps that need to be extended and curves that need corrections. Fatal and serious injury crash rates **are higher** than state averages.
- **Roadway Condition** - **Pavement** needs to be improved, several **bridges** need repair or replacement, and many **drainage** structures need to be expanded or repaired.
- **Roadway Capacity and Growth** – In most areas, **I-40 with 2 travel lanes** in each direction **will be sufficient** through the 2050. Capacity will be needed in Gallup, on isolated grades, and at several ramps.

What Issues Need to be Addressed?

- **Improve Traffic Operations and Reliability** – Reduce lane closures.
- **Improve Safety** – Lengthen ramps and correct curves.
- **Improve Roadway Condition** – Address pavement, bridge, and drainage needs.
- **Prepare for the Future** – Build projects that provide flexibility and can be expanded, where and when warranted, without loss of investment.

Reduce Lane Closures

- Traffic back-ups are caused by lane reductions due to **construction, maintenance, and crashes**.
- During an 8-week period there were 17 incidents (27% of the time)
  - **9 maintenance-related closures**
  - **7 crashes**
  - **1 flooding closure**

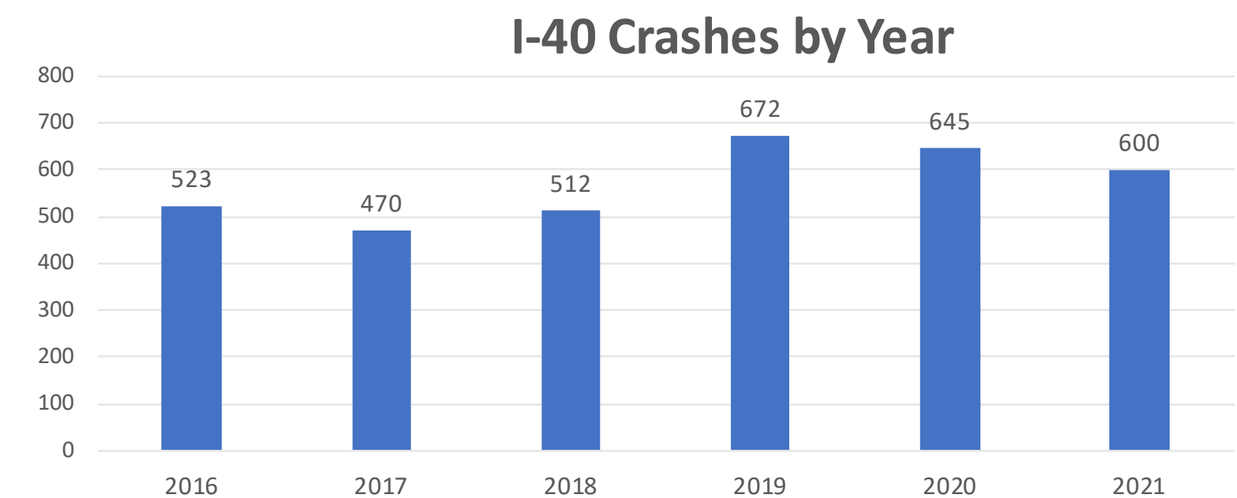
Improve Safety and Roadway Condition

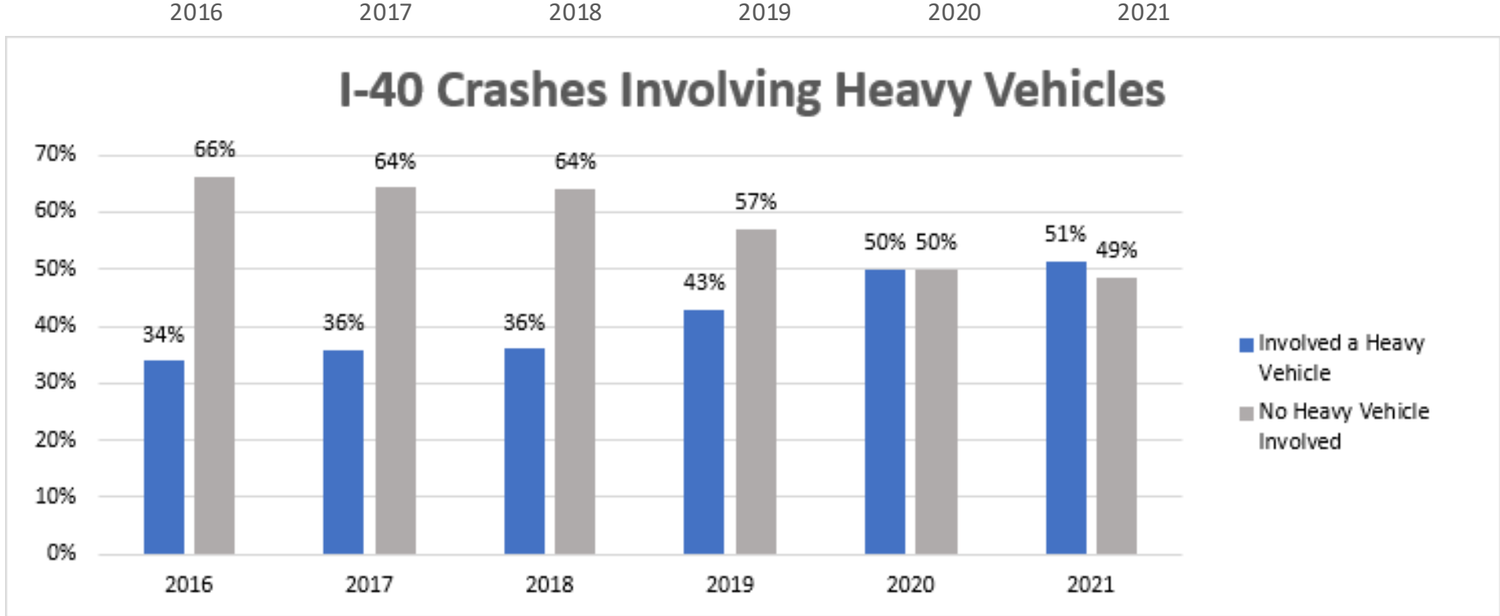
I-40 has **immediate needs**:

- Pavement needs **repair**
- **118** curves need to be corrected
- **2/3 of ramps** or merge areas are too short
- **Narrow** shoulders
- **Flooding** east of Gallup at Fort Wingate (MP 30 to 36)
- 5 bridges in **poor** condition

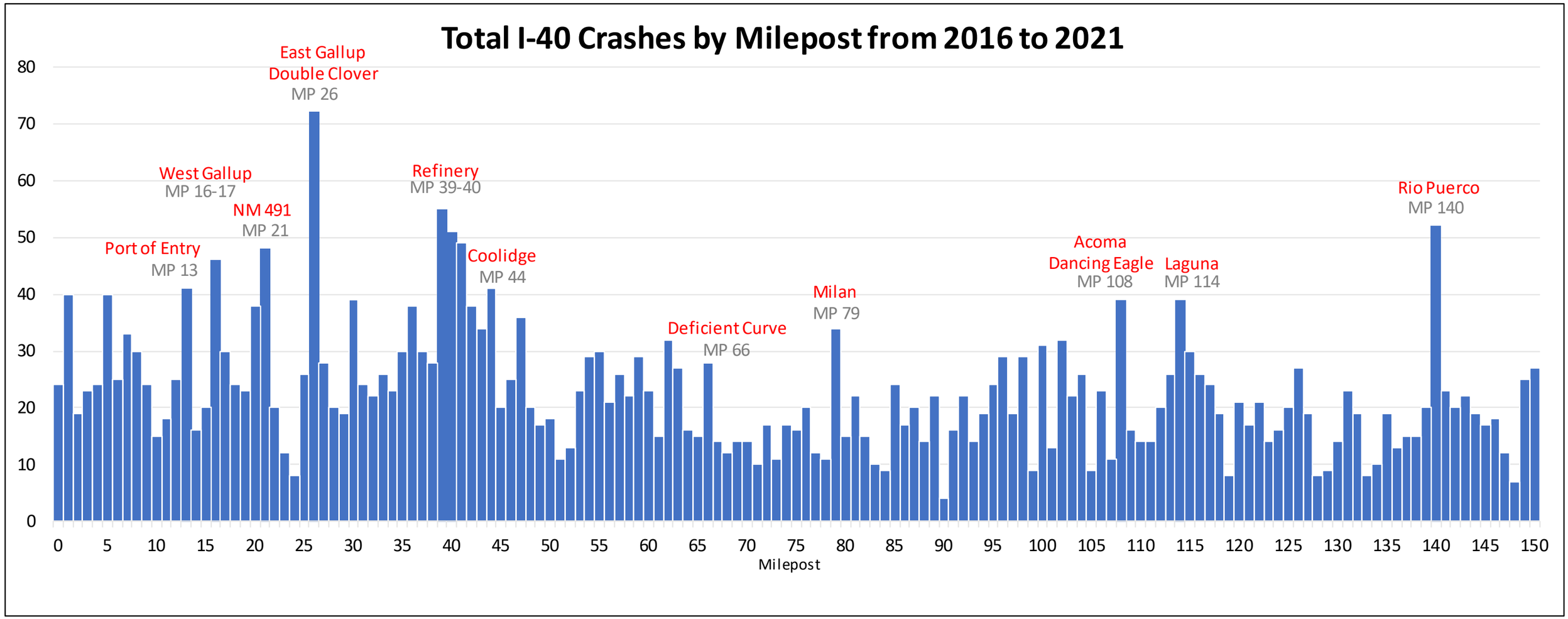
Improve Safety and Roadway Condition

- Crashes have been **increasing**
- Fatal and serious injury rates **are higher** than state averages
- **Weather** is a factor in 21% of crashes





Safety: I-40 Crash Locations, 2016-2021



Most common crash types: Fixed object (20%) Side-swipes (17%) Overturns (14%) Rear-ends (13%) = 64%

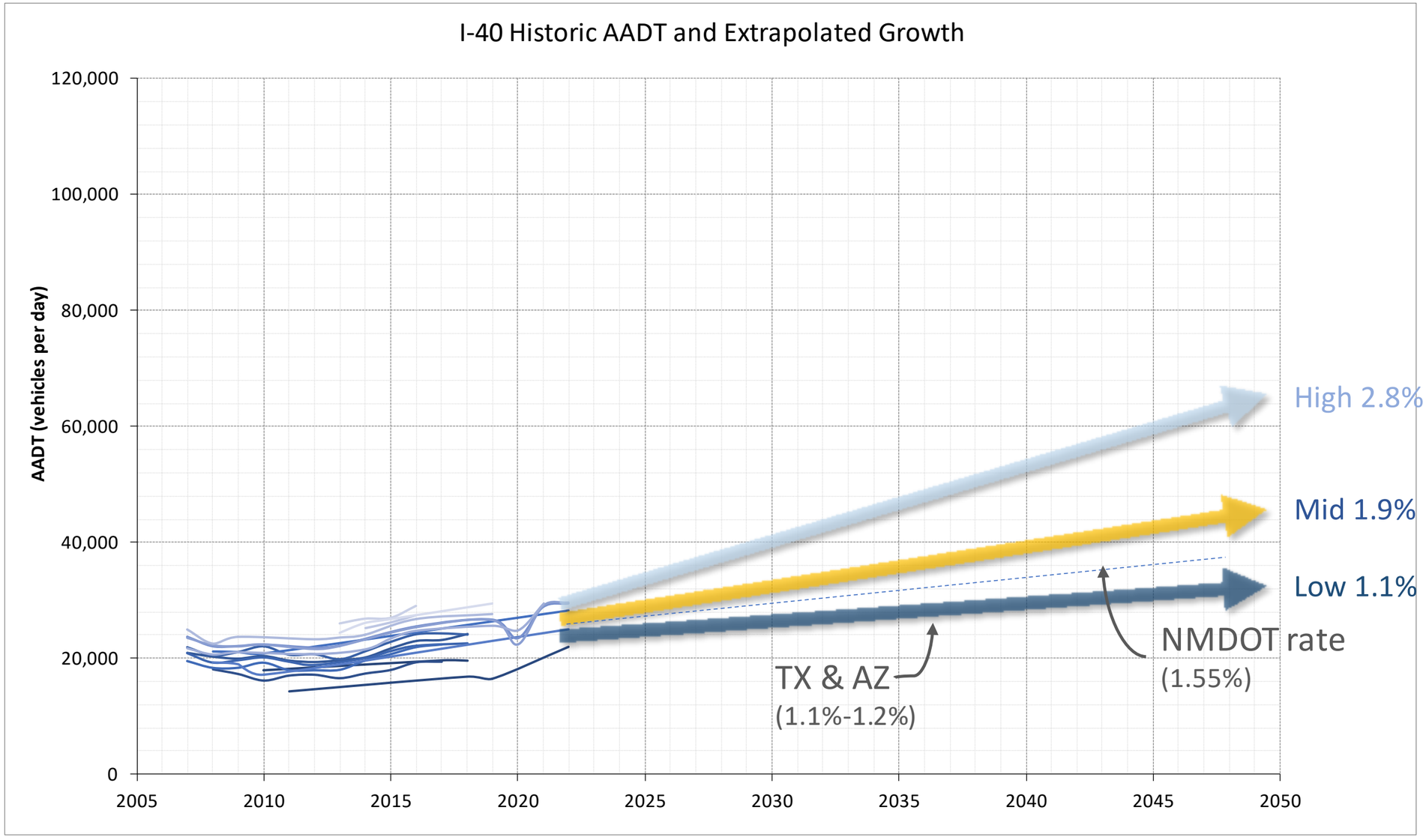
Preparing for the Future

Capacity – I-40 with 2 travel lanes in each direction will be sufficient in **most areas** through the planning horizon year of 2050.

- Need additional capacity at 32 ramps, in Gallup, and on isolated uphill grades.

Preparing for the Future

I-40 with 2 travel lanes in each direction operates well and will be sufficient in **most areas** until 2050 and beyond.



Preparing for the Future

Flexibility for the Future – The long-term plan must be able to **adapt** to changes in technology and growth.

What Are Possible Solutions?

How do we **reduce** lane closures;
improve safety and roadway condition;
and **prepare** for the future?

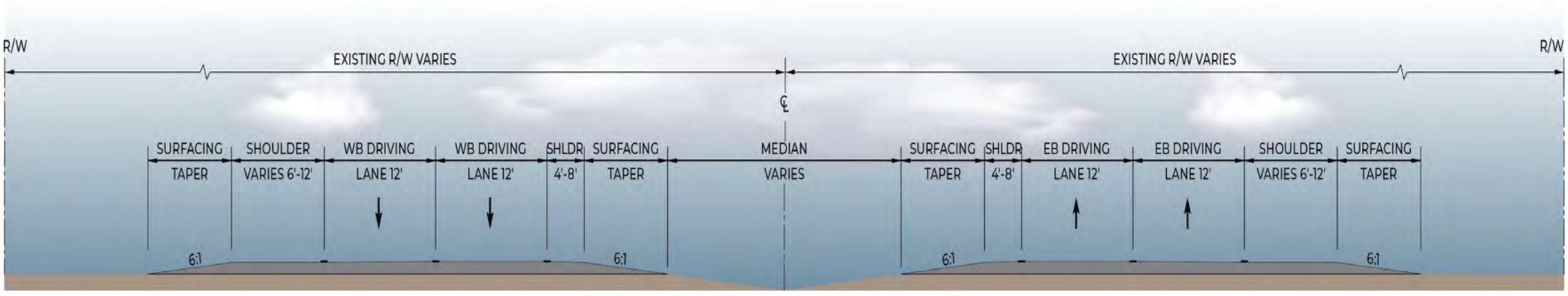
What are Possible Solutions?

- **Alternative 1 =** Enhanced 2-Lane w/ Added Lanes + Operational Enhancements
- **Alternative 2** = Widen to 3 Lanes + Operational Enhancements

Operational Enhancements
• Minimize Lane Closures During Construction and Maintenance
• Intelligent Transportation System (ITS) Improvements – Data collection, cameras, digital messaging, etc.
• Improve Alternate Routes
• Incident Management

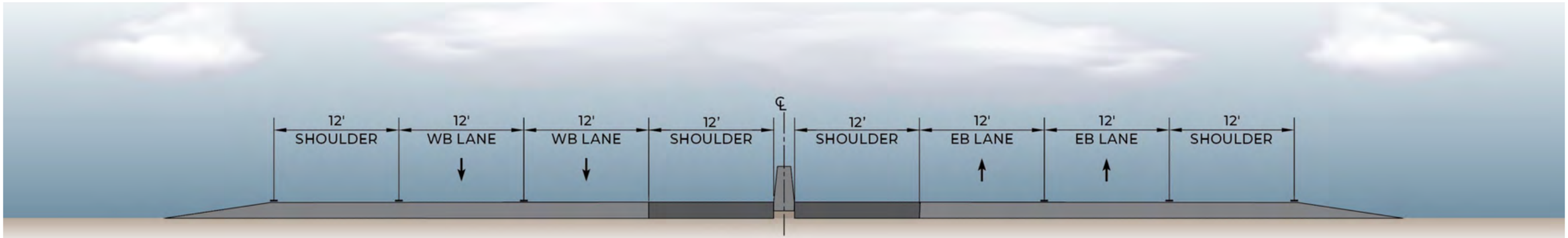
Existing I-40

Existing I-40 Typical Section

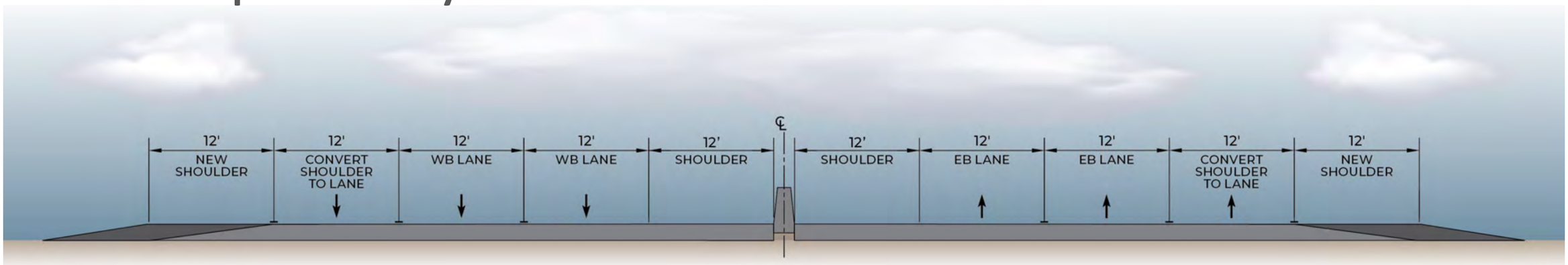


Build Alternative Example Roadway Sections

Enhanced 2-Lane Example Roadway Section



3-Lane Example Roadway Section



Enhanced 2-Lane roadway can be widened to 3 lanes by adding a 12-foot shoulder to the inside or outside of I-40.

Comparison of Roadway Widths

Roadway Type	Total Width	Total Width Added
Existing I-40	38 ft x 2 directions = 76 ft	**0 ft**
Enhanced 2-Lane	48 ft x 2 directions = 96 ft	**+ 20 feet**
3-Lane	60 ft x 2 directions= 120 ft	**+ 44 feet**

Proposed Alternatives

What are the Safety Benefits?

Improvement		Before	After	% Crash Reduction
Lengthen Ramps	Lengthen Entrance Ramp	300 ft	1,000 ft	up to **29%**
	Lengthen Exit Ramp	300 ft	1,000 ft	up to **5%**
Improve Horizontal Curves	Increase Superelevation	1.9%	4.2%	up to **7%**
		2.5%	3.5%	up to **1%**
Widen Shoulders	Widen Inside Shoulder	**2 ft**	8 ft	up to **9%**
			12 ft	up to **15%**
		4 ft	8 ft	up to **6%**
			12 ft	up to **12%**
	Widen Outside Shoulder	6 ft	12 ft	up to **14%**
		8 ft	12 ft	up to **9%**
		10 ft	**12 ft**	up to **5%**
Widen to 3-Lanes	Add Travel Lane	**2 lanes**	**3 lanes**	up to **10%**

Example of a Curve Correction Made in 2021

Crash Before Construction

Before Construction

After Construction

Example of Ramps Needing Improvements

Exit 89 Quemado

Ramp Improvement Example

What are the Costs?

Alternative	Average Cost Per Mile	Total
Enhanced 2-Lane with Added Lanes (includes 13 miles of 3-Lane roadway)	$24 to 26 million	$3.6 to 3.9 billion
3-Lane	$30 to 32 million	$4.5 to 4.8 billion

For comparison and discussion purposes, does not include operational enhancements, project development, right-of-way, or New Mexico Gross Receipts Tax.

How Were the Alternatives Evaluated?

- **Traffic Operations and Future Traffic Growth** – Both accommodate expected future traffic growth between now and 2050.
- **Safety** – Both improve safety by lengthening interchange ramps, correcting curves, and widening shoulders.
- **Maintenance of Traffic during Construction** – Both maintain 2 lanes.
- **Maintenance of Traffic during Incidents, Maintenance, and Construction Once Built** – Enhanced 2-Lane is a substantial improvement, the 3-Lane provides more space and flexibility.
- **Right-of-Way Impacts** – No anticipated needs for either alternative.
- **Environmental Considerations** – 3-Lane Alternative has a larger footprint and more potential effects, but differences are minor.
- **Cost** – 3-Lane is about 25 to 30% more than the Enhanced 2-Lane and will also have higher maintenance costs.

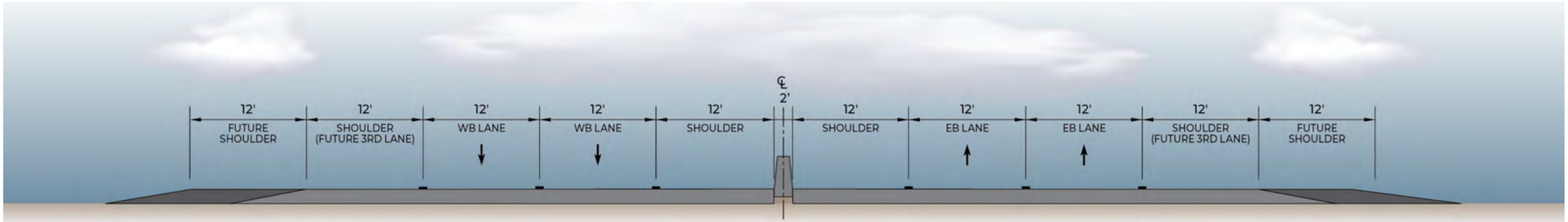
What Alternative is Recommended?

Enhanced 2-Lane with Added Lanes Alternative with Operational Enhancements

- **Improves Traffic Operations and Reliability** by reducing the main causes of traffic back-ups – construction, maintenance, and incidents.
- **Responds to Safety and Infrastructure Needs** by addressing pavement condition, ramps that need to be extended, and curves that need to be corrected.
- **Meets Expected Future Traffic Growth** and is **"future-ready"** for easy expansion to 3-lane should conditions change.

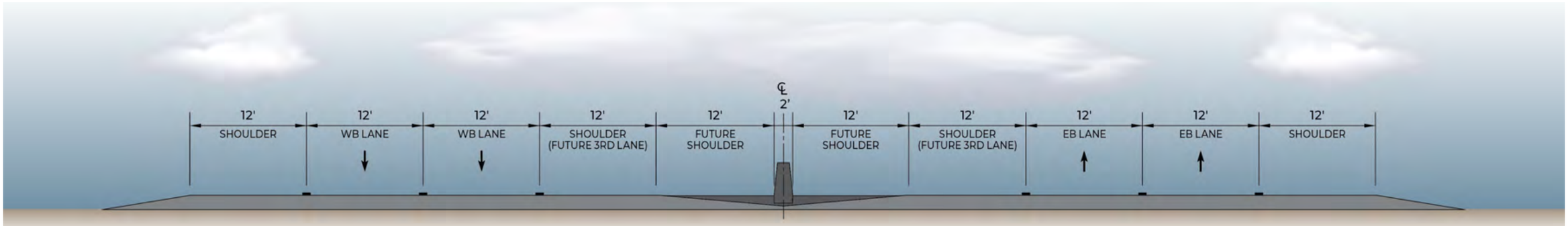
Roadway Sections and Future Expansion

Example Section A – Flush Median with Wall Barrier (50 miles, shown in video)

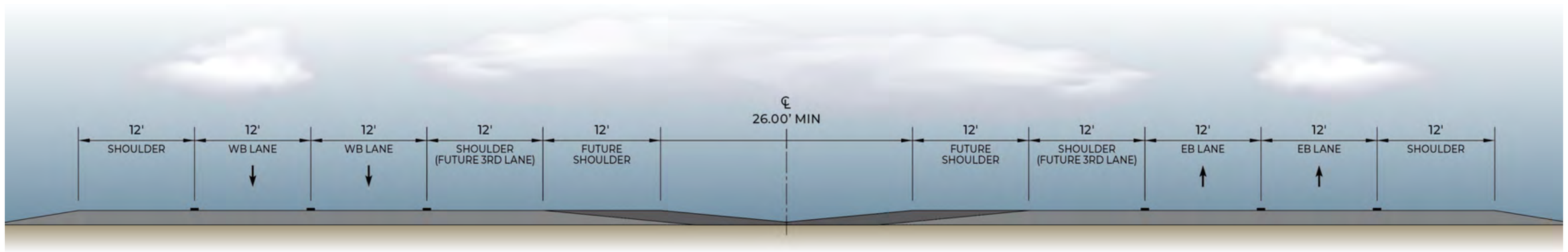


Roadway Sections and Future Expansion

Example Section B – Depressed Median with Future Wall Barrier (41 miles)



Example Section C – Wide Depressed Median with No Wall Barrier (59 miles)



How Does the Enhanced 2-Lane Improve Incident Response?

How Does the Enhanced 2-Lane Keep Lanes Open During Maintenance?

Where Are 3-Lanes Proposed?

Includes about 13 miles of widening to 3-Lanes

Where Are Ramp Improvements Proposed?

Exit	Description	Ramp Improvements Needed
3	Eastbound Rest Area	2/2
8	Defiance/Manuelito	4/4
12	Westbound Pullout	2/2
16	West Gallup	1/4
20	Downtown Gallup	5/5
22	Gallup	4/4
26	East Gallup	4/4
33	McGaffey	4/4
36	Iyanbito	4/4
53	Thoreau	2/4
63	Prewitt	4/4
79	Milan	4/4

Exit	Description	Ramp Improvements Needed
81 A/B	Grants/San Rafael	5/5
85	Grants/Mt. Taylor	5/5
89	Quemado (Hwy 117)	4/4
100	San Fidel	4/4
102	Acoma/Sky City	3/4
104	Cubero/Budville/Seama	1/4
108	Casa Blanca/Paraje	4/4
114	Laguna	3/4
117	Mesita	3/4
126	Los Lunas/Hwy 6	3/4
131	To'hajiilee	4/4
140	Rio Puerco/ Rt 66 Casino	3/4

82 ramps need improvements at 24 locations

Recommended Operational Enhancements

Minimize Lane Closures during Construction and Maintenance

- Maintain 2-lanes during construction. Costs are included in build alternative costs.
- Develop and implement policies to maintain 2 lanes during maintenance activities as much as possible during daytime hours. Costs will be determined on a case-by-case basis.

ITS Improvements

- Upgrade and add data collection stations, cameras, and messaging signs.
- Provide a traffic management center to monitor traffic and incidents and a truck parking availability system.
- Provide fiber optic network to connect devices and improve information provided to travelers.
- Estimated costs are about **$30 million**

Recommended Operational Enhancements

Improve Alternate Routes

- Repair or replace bridges and pavement with identified needs.
- Remove vertical clearance constraints (MP 8.4 on NM 118 and MP 90.5 on NM 124)
- Costs for bridges and vertical clearance constraints will be developed on a case-by-case basis. Pavement costs will vary and range from $2.1 million per mile for reconstruction and $750,000 per mile for rehabilitation on typical 2-lane roadway. Costs for wider roadways will be higher.

Improve Incident Management

- NMDOT will continue to work with the legislature and law enforcement to improve incident management through **improved coordination** and training and supporting incident response.
- Costs would depend on policies and procedures developed and would be determined on a case-by-case basis.

How Will Improvements be Prioritized?

Immediate Needs – Continue data collection, develop policies to improve reliability, build currently funded projects, and seek additional funding.

- **Data collection** – Get existing systems working and upgrade and add new data collection points
- **Policies** – Maintain 2-lanes during construction, develop policies for maintenance, which may include doing work during off-peak times. Improve incident management (e.g. push/pull legislation).
- **Projects and Funding** – Build currently funded projects, seek additional funding to implement the I-40 Corridor Plan.

I-40 and Alternate Route Studies Funded and In Progress

#	NMDOT #	Location	Description	Prior Funding	2024 Funding	2025 Funding	Total Funding
1	6101600	I-40 MP 8.0, NM 118 (West of Gallup)	Study to Improve Truck Clearance on NM 118	$1 million			**$1 million**
2	6101390	I-40, MP 20.5 – 21.5 Gallup @ US 491	I-40/US 491 Interchange Study	$1.7 million	$32,433	$1,467,567	**$3.2 million**
3	6101570	I-40 MP 90.6, NM 124 East of Grants	Study to Improve Truck Clearance/Realign NM 124	$950,000			**$950,000**
						Total	**$5.150 million**

I-40 Funded Projects 2024 to 2027

#	NMDOT #	Location	Description	Prior	2024	2025	2026	2027	Total
1	6101391	MP 20.4 – 21.2	US 491 Ramp Realignment					$7,400,000	$7,400,000
2	6100932	MP 21.9 – 25.7	Gallup Pavement Rehabilitation					$10,656,393	$10,656,393
3	6101500	MP 30.0 – 31.0	Bridge Rehabilitation (4 bridges)					$4,000,000	$4,000,000
4	6101581	MP 39.8 – 44.8	Roadway Widening	$18,962,572		$41,657,539			$60,620,111
5	6101550	MP 72.2 and 85.1	Bridge Deck Overlay (2 bridges)				$10,700,000		$10,700,000
6	6101551	MP 76.1	Bridge Rehabilitation		$1,500,000				$1,500,000
7	6100838	MP 105.9 – 106.4	Bridge Replacement (2 bridges)	$200,000	$1,217,295		$8,566,385		$9,983,680
8	6100843	MP 119.38	Bridge Replacement					$900,000	$900,000
9	6101630	MP 121.8	Bridge Repair (2 bridges)		$750,000				$750,000
			Total	**$19,162,572**	**$3,467,295**	**$41,657,539**	**$19,266,385**	**$22,956,393**	**$106,510,184**

How Will Future Unfunded Improvements be Prioritized?

- Smaller-Scale **Safety and Crash Reduction** Improvements (ramp and geometric improvements)
- Larger-Scale Projects to Maintain Critical Infrastructure and **Keep I-40 Open** (includes Fort Wingate and addressing alternate routes)
- Larger-Scale **Safety Improvement** Projects
- **Expand** to the Enhanced 2-Lane Configuration and add 3rd lane in Gallup and select uphill grades

Summary of Recommendations

Operational Enhancements, Policies, Build Funded Projects

- ITS Improvements – Data collection, cameras, digital messaging, etc.
- **Maintain two lanes** during construction and maintenance activities
- Incident Management – Re-establish traffic lanes as efficiently as possible
- Build funded projects, design **Enhanced 2-Lane Alternative** at Continental Divide

Geometric and Ramp Improvements

Maintain Critical Infrastructure

- Fort Wingate/MP 30 and maintain existing alternate routes

Implement the Enhanced 2-Lane with Added Lanes Alternative

- Future projects prioritized by areas with **poor pavement**
- **3 Lanes in Gallup Metro** and on select uphill grades (13 miles)

Monitor Traffic Growth – Adjust to 3-Lane Section as Warranted

- Convert inside or outside shoulder and add a new shoulder

Next Steps

- **Public Comments and Stakeholder Meetings** – Obtain input and incorporate into the final recommendations and I-40 Corridor Plan (Winter/Spring 2024)
- **Finalize recommendations** and the I-40 Corridor Plan (Spring 2024)
- **Implement** existing planned and funded projects
- **Seek funding** for projects in the I-40 Corridor Plan
- Continue to **collect data** and verify and update the I-40 Corridor Plan as needed

How Can I Submit Comments?

Project website at i40nmstudy.com

- Provide comments using the comment form
- A meeting recording and presentation materials will be available

E-mail comments to i40study@parametrix.com

Mail comments to:

I-40 Corridor Study
4041 Jefferson Plaza NE, Suite 210
Albuquerque, NM 87109

Please submit comments by Wednesday, March 27, 2024

How Do I Ask a Question If I Called In?

If you are on a phone and want to ask a question:

- Press ***9** to raise your hand and the moderator will call on you to ask a question.
- Press ***6** to “unmute” to ask your question.
- Please state your name, affiliation (if applicable), and ask your question.

How Do I Ask a Question If I Am Online?

Ask a question using the Q&A button or verbally:

- To use the Q&A button, select the button, type your question, and hit send.
- To ask your question verbally, please “raise your hand” using the button.
  - The moderator will call on you.
  - You will be prompted to unmute. (If you are on the phone, *6 unmutes)
- Please state your name and ask your question.

Attachment C

Written Comments

From:	Igor
To:	I40 Study
Subject:	public input in I-40 corridor study
Date:	Tuesday, February 13, 2024 11:10:12 AM

Hi,

I read the article: Officials ask for public input in I-40 corridor study (msn.com)

My suggestion is to build a 3rd lane since the shoulder costs $3.9 bln, then it's better to find an additional $0.9 bln and don't return to this issue in future.

Next step with 3 lanes - **no** trucks/SEMIs in the left lane, for SEMIs the middle lane for passing only.

I frequently travel on I-40, and a major safety concern arises when large trucks abruptly merge in front of you while you're in the right lane, passing other trucks. The slight speed differential between the trucks often results in extended attempts to overtake one another, leading to miles-long stretches where they may not successfully complete the passing maneuver. This, in turn, creates a significant congestion of passenger cars in the left lane, all attempting to maintain the maximum speed allowed by the posted speed limits. Additionally, many of these cars often fail to maintain a safe following distance, compounding the safety risks on the road.

Best,
Igor

From: Tom Tierney
To: I40 Study
Subject: I-40 study
Date: Wednesday, February 14, 2024 8:31:49 AM

In my opinion, three lanes in each direction WITH a wider shoulder is absolutely necessary. I-40 is a principal corridor between the West Coast and East Coast more products passed through New Mexico than most other states. IF such a project could be completed, it would alleviate a lot of the traffic pressures that exist between our State borders. however, I doubt that "if" is even possible .

As a person who has frequently driven I-40 between Albuquerque and Los Angeles, this proposed project is long overdue. New Mexico has been under a state of perpetual construction between Grants and Gallup for over 25 years. No progress has been made in that vonstruction project resulting in at leadt a 2 to 3 hour wait just to get between those two cities. This wait has never been insignificant to commuters, commerce, or vacationers.
Sadly, the State of New Mexico has long been lazy and lackadaisical with making an improvement in that are by tolerating incompetent construction companies who take advantage of the taxpayers by feining actual work while actually doing nothing but causing unnecessary traffic jams while NO WORK is actually underway! Whoever in the State is overseeing this decades-long project is just another corrupt lacky who has their own personal self-interests in mind!

The State has demonstrated its incompetitence with its perpetual construction between Grants and Gallup (again over 25 years) that it in incapable of
managing construction projects. I have extreme doubt that the State can do anything without exacerbating its current management failure along the country's principal transportation corridor. I added as a second exemplar the 1 mile section of La Bajada Hill which has been an under construction for three years. Governor Lujan Grisham is an embarrassment to this country.

If the state is actually going to represent itself as a progressive and pro-commerce State, then it needs to aggressively implement this construction project and vigorously oversee it such that it doesn't take more than two decades to complete. Otherwise, this proposal is just a lot of wasted hot air and BS.

From:	Monte Harms
To:	I40 Study
Date:	Monday, March 4, 2024 1:47:17 PM

Hello - I'm Monte Harms, and I have driven between Grants and Albuquerque approximately 300 times in the past 6 years. I have seen in all, which includes a few fatalities. I fully support putting an extra lane for the whole duration of that route. I rarely go between Grants and Gallup, so I can't comment on that. Along with this improvement, I believe there should be heavy enforcement to make sure truckers stay in the far right lane. If they pass, they must return to the right lane immediately. I have seen so much backup because truckers drive side-by-side for long stretches. There are also too many short-duration on-ramps, so many vehicles don't have a chance to move over. The circle on-ramps are extremely dangerous because is there is no way to increase your speed to the proper amount when entering I-40. The one at Route 66 Casino has been stretched out, which is good. I've seen too many wrecks at that one. The entry lane going East at Exit 85 in Grants is way too short. I've almost been run off the road trying to get onto the freeway. I know this construction will take a long time, but there should be incentives to have it done early, as was done for the changes made to the Big I many years ago. I also believe part of the general backup is caused by closing down the whole I-40 or parts of it way too long. If the police know what happened, it seems there is no need to keep it closed for so long. Ideally, it would be great if there was also a big enough shoulder, so if there is a wreck, that can handle as another lane. Thank you for reading my opinions. Monte Harms

From:	Marchetti, Jack, DGF
To:	I40 Study
Cc:	DGF-EEP-TG; Tatman, Nicole, DGF; Duvuvuei, Orrin, DGF; Opatz, Anthony, DGF
Subject:	RE: I-40 Corridor Study - NMDGF Comments
Date:	Friday, March 8, 2024 2:17:13 PM

To Whom It May Concern,

The New Mexico Department of Game and Fish (Department) would like to submit comments in response to the New Mexico Department of Transportation (NMDOT) I-40 Corridor Study as it was presented during the public meeting on 27 February 2024. Please consider this email the Department's official comments on the study.

Since the proposed highway project includes bridge or road construction activities, the Department recommends implementation of its *Bridge and Culvert Construction Guidelines for Stream, Riparian, and Wetland Habitats* for any rivers, streams, washes, springs, seeps, or riparian areas that are fall within the impact footprint of this project. These guidelines should assist in minimizing impacts to the river or wetland and should be incorporated into the standard best management practices for these types of construction activities.

The Department also recommends that preconstruction bat surveys be conducted during summer months to determine if bats occur. If bats are determined to occur at bridge sites, work should be scheduled to avoid impacting bats that may roost there (i.e., conduct work in winter months).

All migratory birds are protected against direct take under the federal Migratory Bird Treaty Act (16 U.S.C. Sections 703-712), and hawks, falcons, vultures, owls, songbirds, and other insect-eating birds are protected under New Mexico State Statutes (17-2-13 and 17-2-14 NMSA), unless permitted by the applicable regulatory agency. To minimize the likelihood of adverse impacts to migratory birds, nests, eggs, or nestlings, the Department recommends that ground disturbance and vegetation removal activities be conducted outside of the primary migratory bird breeding season of April 15-September 1. Breeding season may begin earlier for raptors or when working in low-elevation habitats such as deserts. If ground disturbing and clearing activities must be conducted during the breeding season, the area should be surveyed for active nest sites (with birds or eggs present in the nesting territory) and avoid disturbing active nests until young have fledged. For active nests, establish adequate buffer zones to minimize disturbance to nesting birds. Buffer distances should be at least 100 feet from songbird and raven nests; 0.25 miles from most raptor nests; and 0.5 miles for ferruginous hawk (*Buteo regalis*), golden eagle (*Aquila chrysaetos canadensis*), peregrine falcon (*Falco peregrinus*), and prairie falcon (*Falco mexicanus*) nests. Active nest sites in trees or shrubs that must be removed should be mitigated by qualified biologists or wildlife rehabilitators. Department biologists are available to consult on nest site mitigation and can facilitate contact with qualified personnel.

The list of New Mexico SGCN (see link, page 14, table 5) and the federal list of Birds of Conservation Concern should be reviewed to fully evaluate potential effects to migratory birds from your proposed project. Federal agencies are also required under Executive Order 13186 to implement standards and practices that lessen the amount of unintentional take attributable to agency actions. These conservation measures are strongly recommended to ensure persistence of migratory bird species whose populations are small and/or declining within New Mexico.

Pronghorn antelope attempting to cross the highway have been found to become trapped within the highway right-of-way along this stretch of I-40, partially because of their aversion to

jump fences, and becoming hit by a vehicle. To prevent wildlife and big game from entering the highway right-of-way, and to minimize the potential for wildlife-vehicle collisions, the Department recommends improving fencing along the I-40 corridor wherever possible. In conjunction with this, the Department also recommends constructing overpasses or large underpasses wherever new construction or improvements to roads, bridges, and culverts occur. The combination of these two actions would help to minimize wildlife-vehicle collisions while also allowing for habitat connectivity and safe migration across the I-40 corridor for wildlife and big game species. For more information on wildlife corridors across highways, please refer to the New Mexico Wildlife Corridors Action Plan.

Thank you for the opportunity to submit comments on this study. Please contact me with any questions.

Sincerely,

Jack Marchetti (he/him)
Aquatic/Riparian Habitat Specialist
Ecological and Environmental Planning Division
New Mexico Department of Game and Fish
[redacted]

From:	Amy Suman
To:	I40 Study; Ron.Shutiva@dot.nm.gov
Subject:	Laguna Department of Education"s I-40 study position
Date:	Monday, March 11, 2024 3:35:54 PM
Attachments:	I40 ed.pdf

Good Afternoon, Parametrix and Mr. Shutiva,
Please see the attached letter regarding the I-40 proposed expansion project on behalf of the Laguna Department of Education.
Appreciatively,
Amy Suman

Amy Suman, MS, CPT
Superintendent
Laguna Department of Education
[redacted]

"Education should be recognized as an essential requirement for the disruption of the cycle of poverty and inequities in health." International Journal of Health Services, 2015.

Pueblo of Laguna
Department of Education
Office of the Superintendent

[redacted]

March 11, 2024

Good afternoon Parametrix Engineering and I-40 Study Committee Representative,

My name is Amy Suman and I am the Superintendent of the Laguna Department of Education. I am writing this letter of concern on behalf of LDoE regarding the proposed I-40 expansion project and the implications the project may have upon on our community.

While many of us that travel I-40 frequently agree that upgrades for safety and traffic flow are imperative, our concern lies in the use of alternative roads during incidents (such as accidents) and congestion that necessitate routing vehicles through our Reservation lands, particularly state road NM 124.

Our LDoE Transportation Team includes bus routes to service our six villages and we have observed over the years that many drivers do not heed flashing bus lights at stops or attempt to go around the stopped bus which creates a grave safety hazard for our children both boarding and exiting the bus. Additionally, we have received numerous reports of commercial and private vehicles travelling at high speeds on NM 124 during I-40 closures which creates additional danger for our community members. Lastly, NM 124 does not have adequate black top surfacing, nor shoulder space, to accommodate highway volume or accident detours for any length of time.

We propose several suggestions to improve public safety during this project:

- Signage: Please consider adding additional signs that state road NM 124 is a bus route.
- Add signs that refer to state law 66-7-347 that it is illegal to over-take or go around a stopped school bus.
- Police escort: Please provide a police or DOT escort to follow each bus to ensure compliance and prevent an accident.
- Consider an alternative road that is more suited to heavy traffic and accessible for emergency vehicles.

Thank you for the opportunity to hear our concerns on behalf of our Laguna Department of Education.

Appreciatively,

Amy Suman, MS , CPT
Superintendent, Laguna Department of Education.

From:	Eric Olson
To:	I40 Study
Cc:	Amy Suman
Subject:	Letter RE I-40 Corridor Study and impacts on the Pueblo of Laguna
Date:	Monday, March 11, 2024 4:16:03 PM
Attachments:	Parametrix Letter EEO 2024 0311.pdf

Attached. Thanks very much.

Eric

Eric E. Olson, M.S.
Controller and Grants Manager
Laguna Department of Education
[redacted]

“Don’t let what you cannot do interfere with what you can do” – John Wooden

Pueblo of Laguna
Department of Education
Office of the Superintendent

[redacted]

March 11, 2024

Good afternoon Parametrix Engineering and I-40 Study Committee Representative,

My name is Eric Olson and I am the Controller for the Laguna Department of Education. I am writing this letter of concern on behalf of LDoE regarding the proposed I-40 expansion project and the implications the project may have upon on our community.

While many of us that travel I-40 frequently agree that upgrades for safety and traffic flow are imperative, our concern lies in the use of alternative roads during incidents (such as accidents) and congestion that necessitate routing vehicles through our Reservation lands, particularly state road NM 124.

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- Police escort: Please provide a police or DOT escort to follow each bus to ensure compliance and prevent an accident.
- Consider an alternative road that is more suited to heavy traffic and accessible for emergency vehicles.

Thank you for the opportunity to hear our concerns on behalf of our Laguna Department of Education.

Best Regards,

Eric E. Olson, M.S.
Controller, Laguna Department of Education.

From:	Leonard Tsosie
To:	I40 Study
Cc:	Johnny Johnson; Ervin Chavez; Judy Platero; Danny Simpson; Steven R. Arviso; dbradley@navajodot.org; Tom Platero; George H. Tolth; Lester Yazzie; lorren_007@yahoo.com; Norman M. Begay
Subject:	ENAC Resolution re I-40 Corridor Study
Date:	Friday, March 15, 2024 1:24:17 PM
Attachments:	ENAC Res re I-40 Corridor Study.pdf

Attached is the Resolution 03-2024-006 supporting NMDOT's I-40 Corridor study and making certain recommendations. Since this was voted upon by representatives of 31 Navajo Nation Chapters in Eastern Navajo Agency, please accept this as the recommendations of the 31 Chapters. Also, please let us know when discussion regarding I-40 study or reconstruction is going to be discussed so we may provide contribution to the conversation. Thank you

RESOLUTION
OF THE
EASTERN NAVAJO AGENCY COUNCIL
THE NAVAJO NATION

No. ENAC-03-2024-006

SUPPORTING NEW MEXICO DEPARTMENT OF TRANSPORTATION'S HIGHWAY CORRIDOR STUDY OF I-40 AND RECOMMENDING THE CONSTRUCTION OF A THIRD LAND FROM THE ARIZONA STATELINE TO GRANTS, NEW MEXICO AS THE FIRST PHASE

WHEREAS:

1. The Eastern Navajo Agency Council is established under the Legislative Branch of the Navajo Nation and certified by Resolution IGRS-251-01; and
2. Pursuant to 26 N.N.C. Section 103 (D) (4), the Eastern Navajo Agency Council, a consortium of elected Chapter Officials representing thirty-one (31) certified Navajo Nation Chapters, agree to address and undertake common goals and interests for the benefit of the Eastern Navajo Agency Chapters; and
3. Pursuant 2 N.N.C SECTION: 4028; the Eastern Navajo Agency Council is vested with government authority to review all matters affecting the community to make most appropriate recommendations when necessary to the Navajo Nation, County, State, Federal and other local agencies; and
4. As its website indicates, the New Mexico Department of Transportation (NMDOT) is conducting a highway corridor study of I-40 from the Arizona State Line to the Atrisco Vista Interchange in Albuquerque, New Mexico. The study covers 150-miles of I-40 and alternate routes located from milepost 0.0 to 150.0. The purpose of the I-40 Corridor Study is to develop a long-term corridor plan to improve traffic operations and reliability; traveler safety; and the condition of I-40 and associated infrastructure. The study includes: Data collection and analysis; Developing and evaluating alternatives; Developing a highway improvement plan; and
5. NMDOT is accepting comments, which are due by March 27, 2024. Comments can be emailed to: i40study@parametrix.com; and
6. Many people (drivers and non-drivers) use I-40 to go to cities, to other communities, etc., for shopping, medical trips, food trips, business trips, recreation. I-40 is deemed to be a safer route. So, people choose to travel on I-40; and
7. The current I-40 has become a crowded highway with intrastate and interstate traffic; and
8. Many semi-trucks use I-40 for transporting goods, supplies or products. At times, it seems like there are more semi-trucks than cars. People have complained about trucks not allowing passage especially if they are in group or convoy. It gets to be unsafe when passenger cars are boxed in; and
9. Many Navajo persons or families from Arizona communities go to Gallup, NM, for shopping and for necessities and they use I-40 in New Mexico portion from Arizona stateline; and
10. Navajo families will use I-40 to get home from work and shopping trips. If I-40 is closed, it becomes unsafe when they are stuck in a traffic backup, and because they have to get home, they try to find an alternate or side road or make u-turns; and
11. There are many medical transports who take patients to the medical appointments on a daily basis. When I-40 is closed, this become a safety hazard and a health concern; and
12. I-40 asphalt has become unsafe due to many potholes and other structural defects like guardrail damages; and
13. There needs to be well-maintained resting areas for the semi-truckers and other vehicles. Currently, they just park dangerously on the ramps or on the interstate itself; and
14. All underpasses should be redesigned for passage by local traffic but not semi-trucks. More such underpasses need to be built for local traffic; an
15. Because the I-40 is heavily used, the redesign of the road should exceed the minimum standards as to prolong the life of the road; and more reflectors need to be added near curves and there should be more street lights for off-ramps; and

16. There should be more signage showing routes to Navajo communities and Chapterhouses. (if Navajo wording is used, former or parallel English word should be included). Navajo words are not in Google maps and tourists have trouble finding the right destination; and
17. More message alert overhead digital signs should be installed advising drivers of road conditions or closures; and
18. Three lane traffic has become a necessity for I-40 interstate highway and the safety of a three lane traffic has helped to promote safety near Jamestown east of Gallup.

NOW, THEREFORE BE IT RESOLVED THAT:

1. The Eastern Navajo Agency Council hereby supports NMDOT Highway Corridor Study of I-40.
2. The Eastern Navajo Agency Council respectfully recommends that a third land for I-40 be built from the Arizona Stateline through Gallup to Grants NM, as the first phase of the re-construction of I-40 highway.
3. The President and Vice President of ENAC are hereby authorized to take any and all reasonable and proper steps to effectuate the letter and intent of this Resolution.

CERTIFICATION

I hereby certify that the foregoing resolution was approved by the Eastern Navajo Agency Council at a duly called meeting at Iyanbito Chapter, Iyanbito, New Mexico at which a quorum was present and the same was passed by a vote of 37 in favor, 00 opposed, 05 abstained, this 2nd day of March 2024.

Motion: Milton Davidson, Manuelito Chapter
Second: Anselm Morgan, Smith Lake Chapter

Johnny Johnson, President

Attest:

Judy K Platero, Secretary

From:	Laura Watchempino
To:	I40 Study
Subject:	I-40 Corridor Study - Comments
Date:	Monday, March 25, 2024 9:47:32 PM

1) ROW agreements must be negotiated with the informed consent of tribal governments like the Pueblo of Acoma and its federal trustee, the United States.

a) The Bureau of Indian Affairs, as well as other federal agencies, must be involved when issues of cultural sites and cultural resources such as waterways, homes, and farmlands are involved.

2) State and Tribal government consultations may cover other matters, such as:

b) Utility corridors and roads which cross through the exterior boundaries of Acoma Pueblo require special consideration.

c) Acoma may impose special restrictions on the height, weight, and types of materials that can be transported through Acoma lands on alternate routes for the safety of its resident community members and the protection of its waterways, farmlands and other cultural resources.

2) A speed limit of 65 mph should be imposed on traffic proceeding through the Pueblo of Acoma on I-40 to reduce the occurrence of accidents through this narrow traffic corridor.

a) Alternate routes parallel to I-40 at Acoma are in need of improvement.

i) Fatima Hill Road is uneven, with cracked pavement and patches.

ii) Exit 100 frontage road that runs parallel to !-40 on the south side needs to be raised to allow the installation of drainage culverts. Storm runoff from Mt. Taylor floods the roadway, causing the concrete blocks in the road to separate from the asphalt.

iii) NM 124, west of McCartys, resurfaced a few years ago, was stripped down last year, and needs to be resurfaced or repaved.

iv) NM 124 under I-40 at MP 90.6 was dripping water down the west wall causing water to pool on the road surface under the bridge after a dry week on March 23, 2024

v) Any re-routing of NM 124 must avoid sensitive wetland areas, springs, and habitat for threatened and endangered species..

3) A Joint Powers Agreement should be negotiated between Acoma Law Enforcement and the New Mexico State Police for the I-40 Corridor through Acoma.

a) Special wireless alerts and emergency notifications for accidents involving hazardous materials on or near Acoma will allow time for some traffic to be diverted to facilities west of Acoma at Exits 85, 89, and west of Laguna at Exit 102.

b) Hazmat manifests should be provided to Acoma Law Enforcement in advance of shipments through Acoma on I-40 and on alternate routes through Acoma in case an incident occurs that endangers the Acoma community or its tribal homelands.

*******Recommendation for an Acoma Alternative to enhance 2 lanes through the Pueblo of Acoma with improved drainage, possibly with permeable pavement below overpasses that allows the roadway to absorb some moisture and eliminate puddles.

Widening of existing shoulders through Acoma is not recommended due to the unavailability of land in this narrow transportation corridor. Lowering the speed limit through the Pueblo of Acoma is advisable to protect this historic community and provide more opportunity for traffic to safely exit I-40 and explore the sights and unique landscape of Acoma Pueblo, especially

during traffic incidents or delays on I-40.

Some shoulders can be widened and extended at on and off ramps, permitting improved entry and exit off I-40 at Exit 102 (Sky City Casino, commercial district); Exit 100 (San Fidel); and Exit 89.44 (State Road 117), similar to the on and off ramps at Exit 96 (McCartys).

Thank you for taking my comments into consideration.
L. Watchempino

From:	Bob Randolph
To:	Stephanie Miller
Cc:	Chris Baca
Subject:	I-40 Corridor Submittal: The New Mexico I-40 Corridor Turf Wars
Date:	Thursday, February 29, 2024 8:01:28 PM
Attachments:	The New Mexico 1-40 Corridor Turf Wars.pdf

Hi Stephanie,

Good job on the presentation Tuesday evening . I agree with your team's recommendation for the adequacy of the Enhanced 2-Lane design with the addition of the third lanes through Gallup and the addition of the three westbound climbing lanes. The 12' shoulders will be very practical improvement and a huge safety enhancement for I-40 commuters.

As you may suspect from the two questions that I submitted during the Q&A Session following the presentations, it's my comment that the study has a major omission. The need to improve the safety of highway users was presented as the driving force that ultimately justified all the proposed improvements: Improved Ramps, Corrected Curves, and Wider Road Shoulders. I gather that these potential improvements were all subjects that received a significant amount of attention within the overall I-40 Corridor Study. I recall brief mention during the presentation that "Pavement needs to be improved." But there was no deeper dig into the subject of improving pavement performance. No percentage of safety improvement was offered for a choice of alternative pavement designs that would provide pavement structural sections designs that would realistically double, triple, or even quadruple the service life of pavements.

For the purpose of a deeper dig into the percentage safety improvements that could be achieved by extending pavement service life throughout the I-40 Corridor, I would recommend starting by formally defining "Pavement Service Life" for the purpose of the I-40 Corridor Study. My suggestion for that definition: **Pavement Service Life is the number of years during which the pavement does not require any dig out repairs or pothole repairs, no full-depth pavement reconstruction, and no asphalt pavement overlays.** Note that pavement maintenance operations, such as applications of optional measures such as fog seals, chip seals, NovaChip and Open Graded Friction Course applications, would not be included in this definition of Pavement Service Life. Based upon rehabilitation of the entire I-40 Corridor to the standard that Parametrix is recommending, with the widened road shoulders, future pavement maintenance operations should be able to be scheduled and conducted at greatly reduced risk to highway users.

Since my two questions asked during the Q&A Session remain unanswered, I am just going to have to venture a guess for the average frequency over the entire I-40 Corridor that traffic back-ups have been generated by either (1.) full-depth reconstruction of failed segments of pavement, (2.) repair of localized pavement failures, or (3.) installation of asphalt pavement overlays applied to pavements exhibiting signs of premature distress. Given any evidence to the contrary, I am going to propose that the I-40 Corridor Study will ultimately determine that

traffic back-ups related to pavement dig out repairs and pothole repairs, pavement reconstruction, and pavement overlays have historically occurred on an average of once every 8 years. It would be fair to state that a pavement design that with a service life of 24 years, instead of 8 years, would provide a huge percentage improvement in improving highway safety that would be appropriate to feature within the I-40 Corridor Study as delivering the greatest bang for the buck. Deserving special mention in your report is the fact that a pavement design has been proven in service on the I-40 Corridor that has already quadrupled pavement service life at no increase in original construction costs.

Given the depth of nature of the reviews that Parametrix has conducted into the other topics during the I-40 Corridor Study, it should not be impossible to coordinate with NMDOT and dig back twenty to thirty years and answer the most fundamental question regarding the I-40 pavements. **How often have traffic-backups within the I-40 Corridor related to pavement repairs, reconstruction, or overlays been experienced?** Once it's been determined that the study will make available the historical frequency of traffic back-ups related to this group of pavement repair measures, then it becomes possible to present the percentage of safety improvement made available by simply extending Pavement Service Life.

Let me know if there is anything contained in "The New Mexico I-40 Corridor Turf Wars" submittal that you would like to give further discussion.

Sincerely,

Bob Randolph
Stabilization Products LLC
[redacted]

Comments Submitted to I-40 Corridor Study

by Bob Ranadolph, Stabilization Products LLC.

[redacted]

THE HISTORY OF THE I-40 CORRIDOR TURF WARS IN NEW MEXICO

AS RELEVANT TO THE I-40 CORRIDOR STUDY

INTRODUCTION

An adversarial relationship and long-running dispute between the New Mexico Department of Transportation (NMDOT) and the Federal Highway Administration (FHWA) over the route, the design and construction of highway projects along the I-40 Corridor contains many story elements similar to those of the famous Lincoln County Wars of 1878 – 1881 in New Mexico. The Lincoln County War story took many twists and turns. It was years long in the making and takes time in the telling, as does the history the I-40 Corridor Turf Wars. In both cases, the controversies involved a variety of governmental agencies, businesses and individuals with different agendas in conflict about issues related to money, power and control. As of this year, 2024, with the State of New Mexico and the federal government now facing the reality that the complete reconstruction of the 1-40 Corridor has been estimated to cost as much as $4.8 billion dollars, the history related to the most recent episode of the I-40 Corridor Turf War deserves revisiting as it offers templates for construction methodologies that could double the speed of highway reconstruction, cut the cost of construction by as much as half, restore safe driving conditions for highway users at the earliest possible date, and greatly extend pavement service life. While recent history has been neglected by the public agencies involved, it is fortunate that it survives to be told, particularly with a segment of I-40 constructed with a stabilized pavement structural section already outlasting the previous pavement by a factor of more than eight times. Even better news, another segment of I-40 pavement constructed as a second FHWA Demonstration Project using one of the same family of stabilizer products provided by Soil Stabilization Products Company (SSPCo), provides the prototype design for dramatically speeding highway reconstruction at significantly reduced cost. SSPCo is the manufacturer of the EMC SQUARED stabilizer products that were in the center of the most recent episode of I-40 Corridor Turf War. The company has a history of over three decades of interaction with the FHWA, NMDOT and contractor personnel involved in the Turf War. SSPCo staff were on site during the construction process to provide technical support for the involved state and federal engineers, for the general contractor and for the subcontractor recycling the pavement and applying the stabilizer treatment. Lessons Learned can be valuable in many aspects. SSPCo retains extensive documentation associated with this history, some of which are made available here for review by today's NMDOT and FHWA engineering staff who were not participants during the planning, design, construction phases of these I-40 Demonstration Projects, or privileged to review the results of the annual IRI monitoring after construction. Given the current predictions for the time required and the billions of dollars that it will cost to entirely reconstruct 150 miles of I-40 Corridor, this history is now more relevant than ever. With a reported annual average of 18 fatalities, 17 serious injuries and over 600 crashes on this section of Interstate Highway, time is of the essence in rebuilding I-40 to remain repair-free and safe driving.

The application of innovative stabilizer products in the first of the two I-40 Demonstration projects constructed 24 years ago has already extended pavement service life by a factor of eight times and counting. The NMDOT Research Bureau was not involved in the planning, design, construction or monitoring of either of the two FHWA Demonstration Projects, but they did produce a report on the second demonstration project after interviewing the engineers of NMDOT District 6 who were involved during the construction of the second demonstration project. The Research Bureau report summarized "Everyone who was involved on this project agrees that the overall process utilized on this 1-mile experimental test section was a very good process and believe that the department should pursue the use of this method on more re-construction projects throughout the state."

The FHWA Area Engineer observing the construction of this second demonstration project and monitoring the annual IRI test results reported that both the recycling construction process and the EMC SQUARED stabilizer treatment were effective. After consulting with other FHWA engineers, he concluded that the construction process and the stabilizer products that were demonstrated had the potential to reduce the future cost to re-construct I-40 pavements by forty to fifty percent when deployed for full-scale highway construction projects. The question that now begs to be answered is how is it possible that the exceptional promise of these new highway construction technologies have not been publicized and extensively deployed when the pavements along the I-40 Corridor are failing at such a massive scale?

HISTORY OF ADVERSARIAL RELATIONSHIPS BETWEEN FHWA AND NMDOT REGARDING I-40 HIGHWAY

President Dwight D. Eisenhower signed the Federal Aid Highway Act of 1956 in June of that year after a long campaign promoting a national highway system as essential to natural security and prosperity. The Interstate Highway System program would establish a national system of interstate highways that would be constructed with not less than four lanes and no at-grade crossings. Administered by the U.S. Bureau of Public Roads, the federal government was to pay 90% of the cost of the construction of the interstate highways. The Bureau of Public Roads became the Federal Highway Administration (FHWA) with the establishment of the U.S. Department of Transportation (USDOT) in 1967. Historic U.S. Highway 66 was to be replaced by the construction of Interstate 40 (I-40) and the first segments of I-40 in New Mexico were completed through largely rural areas by 1960. The decade of the 1960's saw the first phase of the I-40 Corridor Turf Wars between the agencies known today as the FHWA and the New Mexico Department of Transportation (NMDOT). The cities in New Mexico located along Highway 66 had been built up over the years surrounding US 66 and many local businesses serviced the traffic coming through town on US 66. The plans for I-40 construction during the 1960's included segments of highway that would bypass towns such as Gallup and Grants. The highway bypasses around the cities in New Mexico were viewed as a direct threat to the economic survival of the cities and the New Mexico Legislature passed an Anti-Bypassing Law that forbid the construction of bypasses around any city or town opposed to being bypassed. This put the FHWA and NMDOT directly at odds and led to the threat that the State of New Mexico would lose its federal highway funding if the state continued to prohibit the construction of the interstate bypasses. In response, the New Mexico Legislature repealed the Anti-Bypassing Law in 1966, ending the first of the two I-40 Corridor Turf Wars and beginning a 15 year long phase of bypass construction to complete the Interstate system in New Mexico.

Starting in 1970, the Federal Highway Administration encouraged states on a voluntary basis to conduct Value Engineering (V.E.) on federally funded highway projects as a tool to improve the quality of highway construction and to reduce construction costs. The National Highway System Designation Act of 1995 formally required states to conduct Value Engineering. The 1995 act mandated that states conduct VE studies on all construction projects on the National Highway System with estimated total costs of $25 million or more. Some states were already conducting VE programs on their own initiative at this time, while other states strongly disagreed with the mandate and were uncooperative. https://highways.dot.gov/public-roads/septoct-1999/value-engineering-incredible-return-investment

The New Mexico Department of Transportation (NMDOT) was one of the state agencies during these years known for maintaining a strongly adversarial relationship with the FHWA and being highly resistant to the new Value Engineering mandate. The high cost of the frequent pavement failures that were already ongoing along the I-40 Corridor were of particular concern to FHWA, and an early source of conflict between FHWA and NMDOT. As of year 2000, after several years of consistent pressure being applied by the Clinton/Gore Administration on the U.S. Department of Transportation and FHWA personnel to encourage innovation and cost-savings on federally funded highway projects by enforcing the new federal Value Engineering mandates on the states (as detailed in the article provided in the link above}, the FHWA engineering staff in the New Mexico Division were enthusiastically promoting deployment of innovative product and equipment technology, as instructed. Federal highway construction funds could be withheld for projects that were not subjected to VE studies, or that failed to implement the recommendations of the VE studies. Two FHWA Demonstration Projects deploying new products and equipment on segments of the I-40 Corridor were constructed in the early 2000's. The Demonstration Project agreements with the State of New Mexico contributed a higher percentage of federal funding in return for the State's agreement to provide long term monitoring and reporting of the performance the new highway construction technologies being demonstrated.

THE FHWA DEMONSTRATION PROJECTS

FHWA DEMONSTRATION PROJECT #1: The I-40 MP 93 – MP 97 FHWA Demonstration Project – Eastbound MP 94 – MP 96 Subgrade and Base Stabilization

https://www.stabilizationproducts.net/docs/18809.pdf

The first of the two FHWA I-40 Demonstration Projects was constructed in Summer 2000 at a location in the center section of the I-40 Corridor between the Arizona border and Albuquerque and was known as the Milepost 93 – Milepost 97 (MP 93 – MP 97) Project. The maintenance-free performance of the Eastbound MP 94 – MP 96 segment of the MP 93 – MP 97 Project has been confirmed by Lisa Vega, NMDOT District 6 Engineer, and the exceptional performance of this segment of I-40 constructed on a stabilized base course and subgrade has been covered in detail in previous communications. The MP 93 – MP 97 Project involved Full-Depth Reconstruction of four miles of Westbound Lanes in Summer 1999, followed by four miles of the Eastbound Lanes the following year. In each case, traffic was diverted onto a paved crossing that detoured the traffic away from the drive lanes being rebuilt and over to the two lanes running in the opposite direction. These two lanes were then temporarily repurposed to provide a single lane for traffic headed eastbound, and a single lane for westbound traffic.

When the reconstruction of the Westbound Lanes on this I-40 project began the previous year, contractor W W Construction, Inc. (WWC) experienced major subgrade and base course failures as they attempted to reconstruct the pavement structural section, following the complete removal of the previous asphalt pavement and the cement treated base (CTB) that failed after only three years in service. During reconstruction of the Westbound lanes during Summer 1999, neither lime treatment nor geosynthetic reinforcement (geotextile fabrics and geogrids) provided the effective bridging that WWC needed in order to place aggregate base course and asphalt pavement materials without having to constantly stop construction in order to conduct base course and subgrade repairs.

WWC knew from their communications with NMDOT Maintenance staff that the ground conditions under the Eastbound Lanes scheduled for reconstruction in Year 2000 were far worse than those under the Westbound Lanes, which had already given them so many problems. NMDOT maintenance staff reported that the Eastbound Lanes of this segment of the highway were the worst ground conditions along the entire length of the I-40 Corridor. WWC had previously experienced outstanding results bridging similar soft subgrade conditions with the EMC SQUARED System liquid stabilizer products in a situation that otherwise had them stopped in the middle of completing a paving project for the City of Gallup. Based upon this experience, WWC submitted a Value Engineering (VE) proposal to the NMDOT District 6 Engineer and the FHWA Division Office based upon using the EMC SQUARED stabilizer products as an alternative to the geosynthetic and lime products they had used during reconstruction of the Westbound Lanes. WWC's interest in using the EMC SQUARED stabilizer products was for their immediate working platform requirements, rather than in extending the quality and service life of the pavements they were reconstructing. WWC received approval for their VE Submittal from the District 6 Engineer and the FHWA Division Office and successfully completed the Eastbound MP 94 – MP 96 segment with a minimum of problems and delays. Twenty-four years later, with the Eastbound lanes still smooth-running and maintenance free, it is the good fortune of state and federal taxpayers that this contractor-led initiative solved a costly and reoccurring pavement failure problem by using an innovative product technology that the NMDOT Materials Bureau had previously refused to consider.

District Engineer and Contractor Predictions Proven Wrong

The contractor, WWC, the NMDOT District 6 Engineer, and the FHWA Area Engineer were all satisfied with the performance of the stabilized subgrade and stabilized base course during the construction phase. The stabilized materials provided excellent all-weather working platforms and eliminated the frequent cycle of failures and repairs that the contractor had previously experienced with lime treatment. FHWA and the NMDOT District Engineer approved reducing the thickness of the asphalt pavement surface course in recognition of the increased strength and moisture resistance of the EMC SQUARED stabilized base and subgrade layers. NMDOT's District 6 Engineer and his Project Engineer, and WWC's Project Superintendent all admitted that they were skeptical that the pavements constructed on top of the layers treated with the EMC SQUARED System stabilizer products would outlast the previous pavement constructed on Cement Treated Base (CTB). Since the previous pavement constructed on the CTB layer had failed within three years, all three of these men predicted that the pavement being now being constructed on the EMC SQUARED treated base and subgrade layers would also fail within three years of construction, commenting that they regarded the new pavement design being demonstrated as "just another temporary band-aid job."

What they didn't understand was that the EMC SQUARED stabilizer treatments improve base and soil stability in an entirely different manner than the cement treated base materials and the application of cement to soil with which they were previously familiar. It was their mutual opinion that a pavement design with nothing less than far thicker layers of asphalt pavement and stabilized base materials than used for previous reconstruction could possibly be effective in extending pavement service life over these highly problematic ground conditions. As it turns out, they were wrong. They were off in their predicted service life by a factor of at least 8 times, and wrong again on the layer thickness issue. As recently confirmed by the current NMDOT District 6 Engineer, this segment of Eastbound MP 94 – MP 96 pavement constructed on a relatively thin layer of EMC SQUARED stabilized base course and only eight inches of stabilized subgrade soil remains smooth running and free of repairs, 24 years after construction, and with no reports of anticipated problems. Twenty-four years of service life and still counting, this segment constructed on the EMC SQUARED stabilized base and subgrade could serve as the prototype for the future when 40 year design life becomes the national standard.

Signs of a Renewed I-40 Corridor Turf War Surface in the Spring of Year 2000

While there was great enthusiasm from the FHWA engineering staff involved in the I-40 MP 93 – MP 97 Demonstration Project, and strong interest expressed by many NMDOT engineers, in support of expanding the use of the EMC SQUARED System stabilizer products throughout the state, the person at that time that held the position of State Materials Engineer, and in charge of the Materials Bureau, took a strongly adversarial stance opposing the approval and use of the products. Their approval had taken place prior this promotion to the position. He widely broadcast his personal opinion that the products were ineffective and that they should not be used on NMDOT projects. He ignored all of the extensive materials testing and field performance evidence being presented that contradicted his opinion. At this point, having stated so adamantly that it was his expert opinion that the products were ineffective, ongoing use of the previously approved EMC SQUARED System stabilizer products became a direct threat to his authority. Perhaps it is no surprise then that he actively campaigned against further use of the products, in spite of the mounting evidence that he was being presented that was confirming their effectiveness. He went so far as to broadcast misinformation to the district engineers as part of his commitment to discredit the products whose performance in the I-40 Demonstration Projects was being positively reported. See Appendix: Spread of Misinformation.

Today, the evidence of twenty-four years of maintenance-free performance is now in plain view. This exceptional performance above worst case ground conditions further confirms the value of the IRI monitoring that accurately predicted exceptional service life for this stabilized segment of Interstate 40 highway. The decision of a Materials Bureau of the past to hide the availability and performance history of the EMC SQUARED System stabilizer products that were proving to be a uniquely effective solution for the I-40 pavement problems was clearly made in error, and not in the best interest of the State of New Mexico. The good news is that highly questionable decisions made in the past can be overridden based upon current review of the record and the ongoing repair-free performance of the Eastbound I-40 MP 94 – MP 96 pavements. The historical record and the ongoing performance of the pavement built on the stabilized segment of the I-40 Corridor demonstrate the benefits and provide solid basis for future utilization.

FHWA DEMONSTRATION PROJECT #1 SUMMARY: Eastbound MP 94 – MP 96 Segment of I-40 MP 93 – MP 97 Demonstration Project

NMDOT was mandated by the 1998 Federal Highway Administration National Highway Strategic Plan to conduct field performance monitoring of the entire federal highway system within the state on an annual basis. Highway pavement performance was monitored with the use of high-speed profilers as evaluated according to the International Roughness Index (IRI) pavement rating system. https://www.stabilizationproducts.net/docs/18778-Page14-B.pdf

The reporting of the IRI test results provided FHWA with a tool that could be used to evaluate the performance of the pavements designed and constructed by NMDOT, and used by FHWA to justify FHWA demands that more effective design and construction procedures be implemented before federal highway construction funds would be released. It is interesting to note that the FHWA Area Engineer continued for over a full decade to monitor the annual IRI test results that NMDOT submitted for the I-40 MP 93 – MP 97 Demonstration Project and chart the story they were revealing.

Ironically, the FHWA Area Engineer was able to take the assembled IRI test data and use a chart generated by NMDOT's Material Bureau for utilizing IRI monitoring data to predict the point in the future when particular segments of pavement would be due for reconstruction. The FHWA Area Engineer was able to use the chart, developed by a Materials Bureau with its leadership of the time so strongly opposed to the use of the EMC SQUARED System stabilizer products, to accurately predict that the Eastbound MP 94 – MP 96 segment of pavement constructed on the EMC SQUARED Stabilized Base and Subgrade layers would deliver exceptionally long service life. As confirmed by District 6 Engineer Lisa Vega, this segment of pavement is a Success Story. The service life it has already exhibited extends far beyond any pavements designed for the I-40 Corridor according to the input of the Materials Bureau of this era. The chart used by the FHWA Area Engineer to compile and interpret the IRI data for this segment of pavement is not particularly easy to understand upon casual review, but the two page letter by the FHWA Area Engineer written thirteen years after the completion of the Demonstration Project explains in simpler terms just how exceptionally effective the EMC SQUARED System stabilizer treatments had proven to be on both of the two I-40 Demonstration Projects that he had participated in **and continued to monitor. The chart and his letter are provided in the Appendix.**

FHWA DEMONSTRATION PROJECT #2: I-40 Eastbound MP 12.7 to MP 13.7 I-40 Demonstration Project - Pavement Recycling and Base Stabilization

The first of the two FHWA Demonstration Projects on I-40 (MP 93 – MP 97), as previously summarized, was a version of conventional full-depth reconstruction where all existing materials remaining from the failed pavement were removed and replaced with virgin aggregate and asphalt pavement materials. As of year 2024 the EMC SQUARED Stabilizer treatments applied during this first demonstration have already extended the service life and smooth running ride quality of the Eastbound MP-94 to MP-96 lanes by over eight times over the previously reconstructed pavement structural section. This is wonderful news for individual highway projects where the pavement failure is already so extreme that full-depth reconstruction is the only possible option, but with the large scale of the pavement failure currently being experienced along the I-40 Corridor, the circumstances beg for a faster and less costly

method of reconstruction. Fortunately, the innovative EMC SQUARED stabilizer product technology was featured again in a second demonstration project sponsored by FHWA, the I-40 Eastbound MP 12.7 - MP 13.7 Demonstration Project, constructed in 2002. In this case the EMC SQUARED base stabilizer product was successfully demonstrated when applied during a, in-place pavement recycling operation.

NOTE #1: This is an important moment to make mention that there is a potential for confusion between the terminology full-depth reconstruction, as defined above, Full Depth Reclamation (FDR) and Stabilized Full Depth Reclamation (SFDR). While full-depth reconstruction requires the contractor to remove and off-haul all existing pavement materials and import new aggregate base as well as new asphalt or concrete pavement materials, FDR is a process where the existing distressed surface course pavement is recycled in-place, along with existing base materials, into a recycled aggregate that is repurposed as base course for a new surface course pavement. SFDR simply incorporates the application of a stabilizer treatment to improve the stiffness and moisture resistance of the layer constructed with the recycled aggregate material.

The I-40 Eastbound MP 12.7 – MP 13.7 pavement recycling and stabilization demonstration is a matter of record and provides an available solution for NMDOT's current predicament. This solution is available courtesy of the federal agency that was being treated by NMDOT as its adversary during these early years of the second I-40 Corridor Highway Turf War. Given the fact that the FHWA Division Office was impressed with the performance and economics of the stabilized subgrade and stabilized base constructed under the Eastbound MP-94 to MP-96 pavements during the Summer of 2000, it was not surprising that FHWA insisted that an EMC SQUARED stabilizer product once again be deployed during second FHWA Demonstration Project within the I-40 Corridor. This second demonstration project was entirely at the initiative of FHWA and featured innovative construction equipment capable of in-place recycling the pavement, as well the addition of an EMC SQUARED System product for stabilization of the recycled base materials manufactured in-place from the failing existing I-40 pavement.

NOTE #2: For the sake of NMDOT's future pavement designs that will govern the rehabilitation of the I-40 Corridor, it is important to be aware that both of the two FHWA Demonstration Projects that are the subject of this synopsis were reconstructed segments of interstate highway that had been designed and previously constructed with Cement Treated Base (CTB) layers that in each case failed the pavements after only three years in service. Given the environmental factors in New Mexico that influence pavement service life, these I-40 Corridor pavement failures have clearly proven that rigid and highly permeable CTB materials are not the correct design solution for highways constructed on top of native subgrades that are moving underneath the pavement as a result of this combination of moisture and frost susceptible clay soils and shallow groundwater conditions. These costly I-40 Corridor pavement failures are not the only examples in the state where the selection of inappropriate base course materials have contributed to rapid pavement failures and the hazardous driving conditions that are currently being experienced. There is a strong engineering basis that explains why the more advanced EMC SQUARED stabilizer technology has already extended pavement service life more than eight times beyond the service life previously experienced with the CTB pavement designs. EMC SQUARED System stabilizer products increase strength and modulus while retaining elastic behavior, in contrast to rigid CTB layers that crack, rather than bridge over soft ground conditions. Even more

important for service in New Mexico is the proven ability of these unique products to effectively treat moisture and frost susceptible soil and base materials, keeping water out from under the pavement, rather than attracting and collecting water directly under asphalt and concrete pavements. https://www.stabilizationproducts.net/docs/NM%20&%20TX%20Subgrade%20Connection.pdf

This second FHWA Demonstration Project, Eastbound I-40 MP 12.7 – 13.7, was included as part of the rehabilitation of a length of I-40 pavement running 20.5 miles east from the Arizona border to the City of Gallup, New Mexico. Given the pressure from FHWA to incorporate the demonstration as part of their agreement to supply funding for the larger project, the construction engineers of NMDOT District 6 selected a one mile segment of the eastbound lanes that they later admitted was the worst case of soft subgrade ground conditions within the I-40 Corridor west of Gallup. This failed segment of pavement was slated for full depth reconstruction with extensive deep excavations anticipated as extra work for the contractor. Once again, a segment of I-40 Corridor pavement was selected by the District for the location of a FHWA Demonstration Project because it was known to be their worst case problem. As time would reveal, this failed one-mile segment was selected by the NMDOT District 6 Construction Engineering staff based on their knowledge gained by having previous access to Ground Penetrating Radar (GPR) test results that revealed to them that this location was compromised by the presence of groundwater as shallow as three feet below the pavement. Curiously, the presence of the extremely shallow groundwater was a fact that they did not share with the FHWA, the recycling subcontractor, or with the manufacturer of the stabilizer products, until long after the construction of this demonstration project was completed. This withholding of information is an important element that will resurface in this telling of the history of the second phase of the I-40 Corridor Highway Turf Wars. The FHWA MP 12.7 to MP 13.7 Demonstration Project ultimately proved that there is an effective alternative to costly full-depth reconstruction. Being able to recycle failed pavements in-place and repurposing them into new base course layers speeds construction and lowers costs by eliminating time delays associated with excavating and off-hauling existing pavement and base materials and then hauling in new crushed aggregate materials for base course construction during full-depth reconstruction projects. Recycling only one drive lane during this first phase of the second I-40 Demonstration Project allowed traffic to continue on the adjacent pavement and eliminated the cost and need to construct temporary cross over detour roads as was the practice when full-depth reconstruction of I-40 pavements was otherwise required. Based upon deploying this pavement recycling and stabilization process (SFDR) at full scale, i.e., projects of 20 miles or more, rather than a one mile test section, FHWA engineers estimated a forty to fifty percent cost reduction was possible.

NOTE #3: An average resilient modulus of 234,000 psi was determined for the EMC SQUARED Stabilized Base material by testing five specimens fabricated from the stabilized mix sampled during the pavement recycling and stabilization operations and evaluated in the University of New Mexico pavement materials testing laboratory. Resilient modulus test results are the required input for using the state-of-the-art Mechanistic-Empirical (M-E) Pavement Design method being promoted by the FHWA. A modulus of 234,000 psi indicates that the material can be assigned a structural layer coefficient similar to that of typical hot mix asphalt mixtures. Given the use of this EMC SQUARED Stabilized Base material in pavement designs, it's highly likely that it would further reduce the required thickness of the asphalt pavement surface course and produce even greater than 50% savings over conventional design for reconstruction of I-40 Corridor pavements.

It is fair to say that it becomes complicated comparing EMC SQUARED Stabilized Aggregate materials with Hot Mix Asphalt (HMA) materials in layer equivalency because asphalt is a viscoelastic material that dramatically loses stiffness, or modulus, as temperatures and loads increase, and that is prone to permanent deformation. On the other hand, while EMC SQUARED Stabilized Aggregate materials retain elastic behavior, they are not viscoelastic and subject to loss of stiffness. Shown to retain relatively consistent modulus values through the wide range of temperatures and loading conditions that a pavement will typically be exposed to in the service environment, testing has also confirmed that an EMC SQUARED Stabilized Aggregate mixture produced for a large road construction project within the borders of New Mexico was not subject to permanent deformation, making it appropriate for use in severe service conditions. Based upon sophisticated Dynamic Modulus testing that evaluates pavement materials through a wide range of temperature and loading that model the conditions in the actual highway service environment, EMC SQUARED Stabilized Base materials compare favorably with typical HMA materials in modulus value and can be considered equivalent in structural value to typical HMA materials. https://www.stabilizationproducts.net/docs/18828.pdf At a fraction of the cost and with superior resistance to permanent deformation, the availability of EMC SQUARED Stabilized Aggregate materials brings into question the continuing acceptance of highway pavement designs reliant on layers of asphalt pavement surface courses nine to twelve-inches thick, all of which is subject to major loss of stiffness and load carrying capacity during warmer weather conditions due to the viscoelastic nature of these materials. What is obvious is that these conventional highway designs are no longer being subjected to serious Value Engineering reviews in the interest of providing pavements that will provide exceptional service life and cost less to build.

NOTE #4: Recycled pavement aggregates that are manufactured at the jobsite are typically less expensive than importing virgin crushed aggregate materials to the jobsite. The only problem is that recycled aggregates are well-known to be highly moisture susceptible in their untreated state, making application of an effective stabilization treatment a necessity. A moisture susceptible base course layer constructed on top of the moisture susceptible clay subgrades of the I-40 Corridor will rapidly fail a new pavement, as surely as the CTB base layers of the past. That failure mechanism has been proven beyond a doubt. While wishful thinking has historically ruled the day, and the fact that crushed concrete aggregate was once part of a water-shedding concrete slab, or that asphalt millings were once tightly bound in a water-shedding pavement layer, has nothing to do with their behavior as a layer of recycled aggregate. The recycled material will have a much higher percentage of void space as it cannot be compacted to the density of the original pavement material. Voids provide pathways for water intrusion into the base layer and will rapidly fail a new pavement, as surely as the moisture susceptible and high permeability virgin aggregate materials that are contributing to the current epidemic of pavement failure being experienced throughout the I-40 Corridor. Water must be kept out of the pavement base course, rather than being encouraged to reside or flow through the base layer, compromising the stiffness of the base layer and contributing to further saturation of the clay subgrade soils. NMDOT spokespersons have attributed the failures of the I-40 Corridor pavements to saturated clay subgrades, so the need to more effectively eliminate the presence of water in the layers underneath the pavement should not be subject to debate. Base materials, recycled or otherwise, and subgrade soils all need to be treated with stabilizer products proven effective in counteracting moisture infiltration. That's how pavements can remain maintenance-free going on a quarter century above ground conditions that previously failed pavements at frequencies of 3 to 5 years.

FHWA DEMONSTRATION PROJECT #2 SUMMARY: Eastbound MP 12.7 – MP 13.7 Segment of I-40

The design concept for this demonstration of Pavement Recycling and Stabilization, the intrigue during its construction, and the interplay of the participants involved in this phase of I-40 Corridor Turf Wars are all highly relevant and necessary to understanding the valuable history of this FHWA Demonstration Project. With a goal that Lessons Learned from this demonstration project can be taken advantage of in during the pavement design stage for the current and upcoming reconstruction of the I-40 Corridor pavements, focusing first on the results that this demonstration project achieved is the best starting point. For reasons that will be later addressed, this one mile demonstration project that reconstructed the two eastbound main lanes and their paved shoulders was built according to two different construction methods. One lane of pavement and the attached shoulder were recycled and stabilized in place, while the eastbound interstate traffic continued eastbound as a single lane of traffic on the remaining lane and shoulder while the adjacent stabilized recycled base installation was completed and surfaced with a new Hot Mix Asphalt (HMA) pavement surface course. The other main lane and shoulder were reconstructed according to conventional full depth reconstruction, with excavations as deep as six feet required to replace saturated clay soils that otherwise could not be bridged by placement of base course aggregate materials. Given the decision to approve the reconstruction of Eastbound MP 12.7 – MP 13.7 using this combination of two different construction methods ultimately provided a valuable comparison of the performance of these different methods of pavement reconstruction. The first being a pavement reconstructed using specialized stabilizer products and equipment that could recycle the pavement in-place in a single pass, and then apply a liquid stabilization treatment to the recycled pavement aggregate mixture in a second pass. The second construction method being conventional full-depth reconstruction and use of un-stabilized recycled pavement aggregate for base course construction. According to the FHWA Area Engineer who was involved during the planning, construction and ongoing monitoring of this demonstration project, the lane and shoulder reconstructed by in-place recycling and stabilization procedures remained maintenance-free and smooth running throughout its life, while the lane and shoulder reconstructed according to conventional full-depth reconstruction required three full-depth repairs during its first year in service and was noticeably rough riding in comparison to the pavement constructed on the recycled and stabilized base course.

WHY SUCH A DIFFERENCE IN PERFORMANCE? We know the recycled pavement base layer treated with the EMC SQUARED Stabilizer was functionally impermeable within the pavement structural section and that this stabilized recycled pavement aggregate mixture had layer equivalency similar or better than that of hot mix asphalt of similar layer thickness (UNM resilient modulus test results). https://www.stabilizationproducts.net/docs/18659.pdf Compare the performance of the pavement constructed on the EMC SQUARED stabilized base layer to that of a pavement for the adjacent eastbound lane placed on a base layer constructed with untreated recycled pavement aggregate materials that were moisture susceptible and had a stiffness (modulus) only a fraction that of the stabilized base. The IRI test results were clear. Also likely contributing to the poor performance of the pavement placed on the un-stabilized base course during full-depth reconstruction, that pavement and base course were constructed on top of an un-stabilized subgrade that was constructed after the contractor had deep-excavated saturated soils below subgrade elevation and backfilled these areas with highly permeable recycled pavement materials that had not been stabilized, thereby creating the proverbial bathtubs of water that would remain permanently resident immediately under the pavement.

The district construction engineers withheld their knowledge about the presence of extremely shallow groundwater under the MP 12.7 – 13.7 segment of the I-40. All that was revealed to the FHWA Area Engineer, to pavement recycling subcontractor Rocky Mountain Stabilization (RMS), the pavement recycling subcontractor and Soil Stabilization Products (SSPCo), the manufacturer of the soil stabilization product being applied, was the fact that the fill material that had been placed during reconstruction three years previous to elevate the paving grade through this area had not been well compacted, for some reason, and remained poorly consolidated. The presence of the shallow groundwater, as later revealed, would have made it impossible to achieve the specified degree of compaction. Clay soils with groundwater just three feet below are going to be saturated by the upward movement of capillary water. It is impossible to successfully compact saturated soils to high densities, nor effectively compact another layer above. The pavement recycling demonstration project that would be constructed at this same location included use of the innovative compaction and pavement breaking equipment (Impactor brand equipment), that could provide compaction benefits for soils as deep as ten feet below the surface of the layer being compacted, as well as being used to rapidly crush concrete pavement into concrete rubble in preparation for pulverization to aggregate gradation by rotary rock crushing equipment. The use of the Impactor and rotary rock crushing equipment for pavement recycling applications were relatively new introductions to the highway construction market as of 2002, so the ability to cost-effectively rubblize and pulverize concrete and asphalt pavement into gradations appropriate to meet state aggregate base course specification requirements was new technology that FHWA thought should be shared with the state. FHWA knew that a second challenge, beyond being able to crush pavement to meet aggregate gradations, was to stabilize the crushed pavement material to resist the intrusion of water. Simply being able to achieve the gradation specifications requirements for recycled pavement materials does not mean that the material produced will not be highly moisture susceptible (water sucking). In order to address the moisture susceptibility problems that were anticipated in the recycled pavement aggregate base material, FHWA recommended that an EMC SQUARED System stabilizer treatment be included as an equally important part of the demonstration project. In addition to improving the stiffness and structural value of the recycled aggregate, the stabilizer treatment was intended to treat the moisture and frost susceptibility problems common to recycled aggregate materials when used in such cold climate locations. Returning to the subject of using the Impactor equipment for deep soil compaction, the plan of the FHWA Area Engineer and pavement recycling contractor was to take full advantage of the mobilization and availability of the Impactor equipment to deeply compact, compress and consolidate the native subgrade soils beneath the eastbound lanes being reconstructed. By the time the existing layers of asphalt pavement overlays and underlying concrete pavement were crushed to aggregate gradation, along with the layer of cement treated base material, there was a significant excess of recycled aggregate that would have to be removed in order to provide a paving grade at proper elevation for placement of a nine-inch thick surface course pavement built up with layers of hot mix asphalt. Given the excess in quantity of recycled aggregate material available, there would be no problem if the use of the Impactor equipment further compacted the subgrade soils downward by several inches or more in elevation. Given this understanding, pavement recycling subcontractor Rocky Mountain Stabilization applied maximum possible compaction effort as planned part of the demonstration project to see if deep compaction of native subgrade soils underneath such problematic highway alignments could extend the service life of pavements constructed over similar areas.

It was revealed well after the completion of this demonstration project that the GPR survey that NMDOT had conducted for this area reported groundwater beneath this segment of pavement as shallow as three feet. No wonder the previous pavement for this segment of interstate failed after only three years of service. If the information about these dangerously shallow groundwater conditions had been shared by NMDOT, the deep compaction and heavy compaction that took place would never have even been considered as an option by the FHWA, RMS and SSPCo staff involved in this project and on site during its construction. In fact, super-heavy compaction and vibratory compaction of a partially-cured layer of stabilized base material placed on top of a soft layer of clays soils with groundwater immediately below would obviously sabotage the integrity of any stabilized base layer known to man. A highly questionable demand was then made of subcontractor RMS by the NMDOT Project Engineer after RMS reported that the planned heavy compaction effort appeared to be counterproductive as it was generating what appeared to be stress cracking in the stabilized base layer.

Recycled pavement aggregate materials are notorious for the variability in their composition, gradation and Moisture-Density Relations. The MP 12.7 – MP 13.7 recycled aggregate was a combination of pulverized asphalt pavement, concrete pavement and Cement Treated Base materials. The difficulty is in determining practical compaction controls, and it is typical that considerable field experimentation and adjustments to moisture content are part of the initial day, or days of a recycling project. NMDOT's expert on concrete pavement materials made the intelligent observation that having a pulverized concrete material as a major component in the recycled aggregate mixture could be anticipated to absorb an unexpected amount of water out of the treated mixture. In retrospect, one could anticipate that this particular recycled aggregate mixture would be highly problematic during initial field construction when it came time to determine the ideal amount of water to incorporate in the mixture as part of the stabilization process and as necessary for compaction operations. While RMS, SSPCo, FHWA and the NMDOT quality control testing staff were in the midst of experimenting with moisture adjustments so that the most appropriate moisture content for the stabilized mixture during compaction could be determined, the Project Engineer refused to cooperate in this field adjustment process and demanded that the subcontractor immediately drive a loaded water truck back and forth over the curing layer of stabilized base material. When this normal standard of proof rolling failed to deform the stabilized bae to his satisfaction, even when so prematurely required prior to a period of curing time, he then demanded that RMS drive its 90,000 pound Roto-Trimmer on top of stabilized base layer. A very strange decision to insist that the newly treated stabilized base be subjected to the weight of a piece of equipment that exceeded the Federal gross weight limit of 80,000 pounds for traffic on interstate highway pavements, and a limit of 20,000 pounds per axle. Instead of spreading a maximum load of 80,000 pounds on eighteen truck tires, as is the case with 18-Wheeler trucks, the loading from the 90,000 pound Roto-Trimmer was spread on only two closely spaced axles and four closely space tires. https://www.stabilizationproducts.net/docs/18789.pdf The equipment rig set up known as the Roto-Trimmer included attaching a 20,000 pound rock crushing unit on the front of a CAT 936 Wheel Loader weighing almost 50,000 pounds, with the weight of the rock crusher on front balanced by a 20,000 pound power pack attached to the back of the loader. This particular piece of heavy equipment would fail a thick concrete pavement placed directly on top of a soft saturated subgrade, so the fact that proof-rolling with the Roto-Trimmer only generated only limited deformations in the recently installed

stabilized base was not an indication of a problem to anybody other than the Project Engineer. It should have been an indication to allow more curing time before applying further compaction effort or allowing traffic on the stabilized base layer. This would have been the course of action approved by any NMDOT Project Engineer, without question, if a similarly limited amount of light cracking or deformation was observed in a newly placed layer of Cement Treated Base. That's just common sense. If the Project Engineer was seriously committed to seeing the stabilization treatment given the chance to fully demonstrate its performance capabilities, they would have erred on the side of caution, ensuring the stabilized material had sufficient curing time before being subjected to any testing or proof rolling. They would also have informed the RMS construction crew conducting the compaction operations that they were working on top of native subgrade soils just below the treated base layer that were known by previous GPR testing to be saturated by the presence of unusually shallow groundwater. The obvious course of action, if this information had been made available to all parties involved, would have been to delay further compaction and proof rolling while the stabilization treatment was given time to cure and strengthen sufficiently to bridge the underlying saturated soils.

The failure to accommodate the field construction problems generated by highly problematic shallow groundwater, a condition that was previously known to exist by the NMDOT Project Engineer, and to instead insist on a proof-rolling regime, is simply impossible to interpret as being intended to accomplish anything other than justifying a claim of some sort of failure of the stabilized base layer, no matter how inconsequential it might be. This is one of the more unusual aspects of this phase of the I-40 Corridor Turf Wars. To be fair, it should also be noted that the Project Engineer and the District's quality control staff had no previous experience with field determination of compaction controls for recycled pavement aggregate materials, which are famously variable in their Moisture-Density Relations, nor were they previously experienced with the application of a stabilizer treatment to a base material manufactured in-place by specialized equipment such as the Impactor and Roto-Trimmer. Once subcontractor RMS reported that they had observed localized deformation in the treated base layer while conducting the proof rolling with the heavy Roto-Trimmer that had been demanded by the Project Engineer, the general contractor (WWC) quickly submitted a proposal to stop any further pavement recycling and stabilization operations beyond completing this first of the two eastbound lanes with placement of the asphalt pavement, per the original plan. WWC then received approval from the state, over the objection of the FHWA Area Engineer, to reconstruct the second lane and shoulder according to the conventional full-depth pavement reconstruction method.

As a result of the decision to complete construction of the one eastbound lane as originally planned (placing the asphalt pavement on the stabilized base layer after it was sufficiently cured to support the paving operation), and then approving a change of plans at the request of WWC to instead construct the second of the two eastbound lanes according NMDOT's conventional full-depth reconstruction design, the Project Engineer unknowingly provided the FHWA Area Engineer with the opportunity to observe the IRI data that would be continuously gathered by a state crew after the demonstration project was completed. This facilitated comparing the performance of the Hot Mix Asphalt (HMA) pavement placed on the stabilized base that was constructed using the in-place recycling equipment and the EMC SQUARED Stabilizer treatment, as compared with the test results for the asphalt pavement placed on the base and subgrade constructed according to NMDOT's conventional full-depth reconstruction pavement method, which applied no stabilization treatment to the exposed subgrade or to its base course layer.

In the case of both of the two eastbound lanes of the MP 12.7 – MP segment of I-40, the plans included placement of nine inches of asphalt pavement. The winning pavement in this comparison, at potentially half the cost when employed for full-scale reconstruction projects on the I-40 Corridor, was the pavement placed on top of the stabilized base that was recycled in-place using the Impactor and Roto-Trimmer equipment in combination with application of the EMC SQUARED Stabilizer treatment. This pavement with the stabilized base remained smooth running and free of repairs, while the pavement constructed according to traditional full-depth construction was reported by the FHWA Area Engineer after review of IRI test data as rough riding and requiring several full depth pavement repairs within its first year of service. Once again, providing an interesting window into the ongoing I-40 Corridor Turf War, the International Roughness Index (IRI) test results revealed an inconvenient truth that opponents of the EMC SQUARED System product technology in the Materials Bureau would not admit or consider, reportedly holding up the reporting for years by insisting to the FHWA that the results of the IRI testing not be included in any final report on the project that the Department was obligated to submit.

Neither the NMDOT Materials Bureau nor Research Bureau were formally involved in the planning, construction, or post-construction monitoring of the two I-40 FHWA Demonstration Projects. Since the Materials Bureau was opposing the use of the EMC SQUARED Stabilizer treatment, it was understood that the State's reporting obligations for the I-40 Eastbound MP 12.7 – MP 13.7 Demonstration Project would be satisfied by contracting the study out to Gordon R. McKeen, P.E., a nationally recognized highway research engineer with expertise on the behavior of pavement materials and the influence that moisture movement and fluctuations in moisture content have on the engineering behavior of subgrade soils and base materials. Since application of the EMC SQUARED Stabilizer to the recycled pavement aggregate base material was intended to function as a barrier to moisture movement into the base layer and to eliminate the susceptibility of the recycled pavement aggregate to moisture intrusion and damage from the seasonal freeze-thaw cycles common to this region, his anticipated involvement in the project was particularly appropriate. Gordon McKeen was also a professor in the Civil Engineering Department at the University of New Mexico, and his study was to include testing conducted in the pavement materials testing laboratory at the UNM's ATR Institute under the control of Laboratory Supervisor Ken A. Martinez. Samples of the EMC SQUARED Stabilized Recycled Base mixture were collected during construction and evaluated by resilient modulus testing. It was also anticipated that McKeen's study would include on site observations and reporting on the construction process and include field testing of the stabilized base layer with Ground Penetrating Radar (GPR) equipment. In this case, the GPR equipment was to be included in the study with the intent to evaluate the performance of the stabilized recycled aggregate base layer to potentially serve as a more reliable method of construction quality control for future highway projects that would incorporate stabilized recycled pavement aggregate materials in the construction of their base course layers. The use of conventional density testing as a quality control measure, as detailed in NMDOT's Specification Section 302 regarding the compaction of recycled aggregate materials, was known to be problematic, as experienced during the in-place pavement recycling and stabilization process being demonstrated on Interstate 40. Unfortunately, the State refused to fund any portion of the research study, leading to the immediate cancellation of all further work or reporting by Gordon McKeen and Ken Martinez.

With impressive resilient modulus test results for the stabilized recycled aggregate material already being reported out from the pavement materials lab at UNM, test results that this State Materials Engineer did not want to have shared, and the questionable demand by the District 6 Project Engineer for proof rolling the uncured stabilized base installation with a heavily weighted piece of large construction equipment, the fact that both the NMDOT Materials Bureau and NMDOT District 6 subsequently refused to reimburse Gordon McKeen and Ken Martinez for the work they had already conducted, or to pay for any future monitoring, testing or reporting, is not surprising when viewed in retrospect. It seemed extraordinarily queer at the time that the State would not fund the planned study by a highly qualified third-party reviewer, given the dispute between the FHWA Engineer and the State Materials Engineer regarding the effectiveness of the stabilizer treatments, but not so strange when revisited in the light of the now exposed campaign to ban the use of this highly competitive stabilizer product technology. The impressive resilient modulus test results directly contradicted statements being made by the State Materials Engineer to discredit the EMC SQUARED System products. Documenting the success of a new and more cost-effective option would clearly be threatening to the status quo and a matter of embarrassment for the State Materials Engineer.

Sharing of test results revealing that the new product technology could save the State major money and reduce the degree of its dependence upon far more costly asphalt, cement, lime, crushed aggregate and geosynthetic products, was not universally welcomed by everyone within the Department, or by industry. In any case, the NMDOT state bureau offices and the district office refused to fund the study. While neither the NMDOT Materials Bureau or Research Bureau were involved in pavement recycling and stabilization project, based upon their refusal to fund the study under the direction of Gordon McKeen, NMDOT was still left with the obligation to produce a final report for the FHWA. After years of requests by FHWA for a reporting, and ultimately under pressure of financial penalties, the NMDOT Research Bureau ultimately produced a less than complete report almost five years after the demonstration project was completed. According to the reporting from the FHWA Area Engineer, the NMDOT State Materials Engineer continued to play a role in delaying the reporting until FHWA staff compromised and agreed with his demand that the report avoid anything more than the mentioning the name of the EMC SQUARED System stabilizer products.

While it had been common knowledge for several years that NMDOT refused to fund the study by Gordon McKeen, the reporting produced by the NMDOT Research Bureau curiously implied that the proposed research study by Gordon McKeen was in fact actually conducted. This is the very research study that the two Bureaus had refused to fund. If funded, the study would have included detailed information about the construction process that Gordon McKeen would have been paid to be on site to observe, as well as reporting on his lab test results documenting the effectiveness of the EMC SQUARED stabilizer application. The fact is that the reporting produced by the Research Bureau falsely states that a research report was produced by Gordon McKeen, and then mysteriously states that his report was not included or its findings referenced in the Bureau report being provided by the Bureau, with no explanation given for this highly questionable omission. The Research Bureau report provides the contact information for Gordon R. McKeen, knowingly stating an additional falsehood by implying that Gordon McKeen could make this non-existent report available if contacted.

What this NMDOT Research Bureau report can be given credit for honestly reporting is the very exciting potential and excellent results that were achieved with the use of the specialized equipment and the recycling process demonstrated in this project, and their recommendation that NMDOT implement more pavement recycling projects throughout the state using similar construction methods. The Research Bureau reporting and the comments they received in response from the FHWA and SSPCo regarding the errors and omissions in the reporting are shared in the APPENDIX section at the end of this report.

CHANGING ALLIANCES IN I-40 CORRIDOR TURF WAR IMPACT SECOND DEMONSTRATION PROJECT

Referencing the first of the two FHWA Demonstration Projects that took place within the I-40 Corridor, and the start of the second of the I-40 Corridor Turf Wars, there were a limited number of participants lined up in support of the project and just a single person in opposition. Contractor WWC and SSPCo, the manufacturer of the EMC SQUARED System liquid stabilizer products that were eventually demonstrated during each of the two demonstration projects, had a previous working relationship with successful results for WWC during their construction of a pavement installation for a facility owned by the City of Gallup. This cooperative working relationship continued during the first of the two demonstration projects on I-40 and for subsequent road construction for a NMDOT project within Gallup city limits where WWC required a temporary solution to bridge excessively wet ground conditions.

FHWA Area Engineer Ray Pederson was a Profession Engineer (P.E.) with a materials engineering background and was open minded to reviewing WWC's Value Engineering (V.E.) submittal to use EMC SQUARED Stabilizer products as an alternative to lime treatment for reconstruction of the Eastbound lanes of the MP 94 – MP 96 segment of I-40. WWC had previously experienced the superior bridging performance of soil and aggregate materials treated with the EMC SQUARED System products when placing base course and asphalt pavement materials above extremely soft ground conditions. The application of lime during a previous phase of the project had not proven satisfactory in this regard. The FHWA Area Engineer lent his support to the WWC Project Superintendent's proposal as they were both on the same page regarding the suitability of the EMC SQUARED System products for this application.

The NMDOT District 6 Engineer was also interested in a proposal to use the innovative stabilizer products recommended by WWC in order to complete the reconstruction work as quickly as possible so that they could have the crossing detour pavements removed and all four lanes of the interstate highway reopened to traffic. Aligned then with WWC in support of the appropriateness of the EMC SQUARED System products for this particular requirement were the NMDOT District Engineer and Project Engineer, the FHWA Area Engineer and FHWA Division Office, and SSPCo, the manufacturer of the stabilizer products that would be demonstrated on this I-40 project. This alliance held through a second unrelated project in Gallup where the same parties were involved. The only opposition to the use of the EMC SQUARED Stabilizer products at this time came from the State Materials Engineer, John Tenison, who was not personally involved in either of the demonstration projects and who had no previous experience using the EMC SQUARED System stabilizer products. The use of the EMC SQUARED System stabilizer products was approved by the NMDOT's District 6 Engineer and the FHWA Area Engineer without consulting the State Materials Engineer, which may have been the cause of his strong opposition to the use of the EMC SQUARED System stabilizer products on NMDOT projects.

The fact that the Second I-40 Corridor Turf War was in progress became evident when the State Materials Engineer took a position in direct opposition to the FHWA Area Engineer, a Professional Engineer (P.E.) who also had a materials engineering background. These two men became the primary adversaries in the ongoing turf war. The FHWA Area Engineer continued to collect the IRI testing data that documented the effectiveness of the EMC SQUARED System stabilizer applications in improving the smooth-running performance of the I-40 pavements by using the chart developed by the NMDOT Materials Bureau for interpreting the IRI test data. Using this NMDOT chart, he was able to accurately predict that the EMC SQUARED System treatments were going to prove uniquely effective in extending pavement service life.

Meanwhile, the State Materials Engineer remained irreversibly opposed to admitting the significance of the accumulating IRI test data or approving use of these stabilizer products and refused to consider any evidence contradicting his position, a position that appeared to have been set in concrete from day one. The FHWA Area Engineer filed reports stating that the State Materials Engineer was misreporting IRI test results, and misrepresenting data from the testing of cores that he ordered extracted from the subgrades of the I-40 MP 93 – MP 97 Demonstration Project a couple years after the project had been completed. The FHWA Area Engineer had been onsite during the construction work while the State Materials Engineer was not, so he was able to find extensive discrepancies in reporting under the direction of the State Materials Engineer, one being the fact that only two miles of the Eastbound Lanes of the demonstration project were treated with the EMC SQUARED System stabilizer products (MP 94 – MP 96), but when the project was discussed by the State Materials Engineer, he averaged in the poor performance results for the two one-mile segments of the eastbound lanes that were not built on stabilized base and subgrade, misreporting the data as if the entire four-mile segment had been stabilized, thereby masking the exceptional performance of the pavements constructed on top of the stabilized layers. Even worse, of seven cores extracted from the eastbound lanes, the FHWA Area Engineer was able to determine that two of the cores were extracted from two areas of subgrade that failed during base course placement and that were repaired but not stabilized. These two soil cores had much higher moisture contents than the five cores that had been stabilized. The State Materials Engineer misinterpreted the higher moisture content of these two un-stabilized cores as evidence of the impermanence and ineffectiveness of the EMC SQUARED System products, while the FHWA Area Engineer noted that the other five cores that the State Materials Engineer had extracted from sections of subgrade that he could confirm as having been stabilized all had similar moisture contents within range of their optimum moisture contents (OMC), which is the approximate moisture content at which they had been processed and compacted during the stabilization process, proving exactly the opposite of the conclusion drawn by the State Materials Engineer. The EMC SQUARED System stabilizers were formulated to keep excess moisture out of treated materials and to stabilize their moisture content in close proximity to their OMC, functioning as moisture barriers within the pavement structural section. According to the FHWA Area Engineer, this is exactly what was confirmed by the results for the five stabilized cores that the NMDOT field crew had extracted. The State Materials Engineer admitted in writing that the EMC SQUARED System subgrade treatments appeared to be effective in providing stable working platforms during construction. He nevertheless reached the conclusion, based upon the testing conducted on the two cores extracted from areas of subgrade that had not been stabilized, that the benefits of treatment were proven to be only temporary in nature. Based upon this misinformation, he

then let it be known that in his opinion the products could not be approved for soil stabilization as their benefits were only temporary and not permanent, a point he knew would be hard to debate until the test of time proved otherwise. As it turns out, by applying the EMC SQUARED System Dual Component stabilizer products (EMC SQUARED 2000 and EMS Earth Materials Sealant) that were properly applied per the soil stabilization specifications for long term performance requirements for the Eastbound MP 94 – MP 96 segment of 1-40, there is now an established track record of 24 years of failproof service to evidence the benefits and the permanence of the EMC SQUARED System stabilization treatments. The failed arguments of this long-retired State Materials Engineer are themselves overdue for retirement.

When the FHWA insisted that approval of funding 20.5 miles of I-40 reconstruction west of Gallup would be contingent upon including a test section once again featuring the use of the EMC SQUARED Stabilizer products, in this case to be applied to recycled pavement aggregate material produced by an innovative in-place pavement recycling operation, former allies suddenly became enemies. The FHWA was interested in demonstrating what soon proved to be a faster and less expensive method of reconstructing the failed pavements of the I-40 Corridor. The positions of the FHWA Area Engineer and the State Materials Engineer in the I-40 Corridor Turf War remained in direct opposition, while major changes took place in the alliances that had been previously established supporting the use of the EMC SQUARED System stabilizer products for the first FHWA Demonstration Project on I-40. The biggest changes in the alliances of the parties either for, or against the use of the EMC SQUARED System stabilizer products for NMDOT highway construction projects, occurred after contractor WWC and the NMDOT District 6 engineering staff recognized the economic threat that this new in-place pavement recycling and stabilization process represented. WWC had essentially owned NMDOT highway construction work in their area for many years, dominating contract awards and the supply of hot mix asphalt and crushed aggregate materials that were produced for these NMDOT contracts. Their first problem was the fact that a switch by the state from conventional full-depth reconstruction to in-place pavement recycling would eliminate their highly profitable sale of millions of tons of their crushed aggregate materials for state projects. Even worse, the incorporation of the EMC SQUARED System stabilizer products in both full-depth and stabilized pavement recycling projects could be anticipated to extend the service life of these pavements, reducing the astoundingly high frequency of I-40 pavement failures and reconstruction projects that had been so dependably profitable for WWC. Ongoing specification of the EMC SQUARED System products for stabilization of the recycled base materials could be even more costly to WWC. WWC could also anticipate that inches of stabilized base would eventually result in fewer inches of far more costly hot mix asphalt materials if NMDOT was mandated to conduct Value Engineering and employ the more modern pavement design methods that utilize the resilient modulus, dynamic modulus and repeated load triaxial test results as their design inputs. These repeated loading tests have proven to be favorable to highly resilient EMC SQUARED Stabilized Base materials. The consequent loss of the sales of millions of tons of asphalt materials would be highly disruptive to the asphalt industry throughout the state, as well as to WWC. Now that the EMC SQUARED System base and subgrade treatments have extended the pavement life of a segment of I-40 Corridor by a factor of 8 times, or more, one could safely say it was in the economic self-interest of WWC, the heavy highway contractor and dominant local supplier of aggregate and asphalt materials in the area, to be as proactive as possible and partnered with all available allies in opposing further use of the EMC SQUARED System products in New Mexico.

Turning next to the predicament of the NMDOT District 6 Office, they could anticipate that approval of further use of these alternative construction methods and stabilizer products would extend pavement service life, reduce the frequency of pavement failures, maintenance repairs, and highway reconstruction, and speed the completion of future highway reconstruction projects by eliminating or reducing the need to purchase and transport crushed aggregate and asphalt pavement materials, while halving the cost of pavement construction. The problem with all of these improvements and cost efficiencies resulting from adapting the new equipment and stabilizer technology would similarly reduce the total amount of money flowing through the district office and cut need in the district office for all categories of engineering and administration staff. Many NMDOT staff took jobs with WWC as second careers following retirement from their jobs for the State. In this economically disadvantaged region, the loss of jobs and hundreds of millions of state and federal highway construction dollars would negatively impact a local economy that had become dependent upon the frequent failures of the I-40 Corridor pavements. Not necessarily a case of planned obsolescence, but certainly a large and welcome source of money flowing into the local economy if the problem of frequent pavement failure remains unresolved.

Parallel to the intention of the State's Anti-Bypassing Law that was passed in the 1960's, and later rescinded in response to the threatened loss of federal funding, local economic self-interest once again stood in opposition to the mission of the FHWA to provide the safest and most efficient interstate highway system at the lowest possible cost to taxpayers. Today, now that we know that it is a fact that durable smooth-running pavements reduce fuel consumption for trucks and cars, consequently also lowering carbon emissions, there is an entirely different set of environmental concerns that FHWA is currently mandated to address. Similarly, there is a choice between maintaining the status quo or deploying these clean, cold-manufactured liquid stabilizer products into interstate highway construction projects in the interest of reducing dependence on conventional highway construction materials that are fossil-fuel intensive during their heated manufacturing processes and well-known to be major sources of global carbon emissions.

Interestingly, in addition to the engineers in the FHWA's New Mexico Division Office, there was strong interest and support for greater use of the EMC SQUARED Stabilizer products from NMDOT's top executives, in contrast to the opposition from the State Materials Engineer and District engineering staff. Pete K. Rahn, head of NMDOT (Cabinet Secretary), NMDOT Deputy Secretary Adolpho Lucero, number two in command, and Steve Harris, their Deputy Secretary of Transportation, were all enthusiastic about potential further use of the EMC SQUARED System stabilizer products after learning about the subgrade and base stabilization applications of the products on the first of the two FHWA Demonstration Projects, and even more interested in the verbal reports coming in during the construction of the Eastbound I-40 MP 12.7 – 13.7 segment where the in-place pavement recycling and stabilization process was being demonstrated and reports coming in indicating potential cost savings in the range of fifty percent. While certain staff at Bureau and District level were voicing their opposition to the approval of the EMC SQUARED System products, the NMDOT executive command viewed the products in an entirely different perspective. At executive level, there was an open line of communication with the FHWA engineers in the New Mexico Division Office, so the information they were receiving was not being filtered by the Materials Bureau or District-level engineers with alternate agendas. The NMDOT Executives tasked with maintaining and reconstructing the entire state highway system had to deal with the realtiy that the budget was never going to be adequate to satisfy all the demands. Their positions with statewide

responsibilities put them under constant pressure from regional and local interests to fund the maintenance and reconstruction of every section of local or Interstate Highway in New Mexico that was in substandard condition.

As will be further addressed, Pete Rahm and Adolpho Lucero, as the leaders of NMDOT, were highly motivated during this particular period of time to stretch available highway dollars to improve the state highway system. New technology that could reduce the cost of highway reconstruction and extend pavement service life was exactly what they were looking for. They lent their support for use of the EMC SQUARED System products for major state highway projects that were in the planning stage, such as the upgrading of 120 miles of two lane State Highway 44 to a four lane US Highway 550, and upgrading State Highway 84 to US Highway 285 in a project known as the Pojoaque Bypass. Testimonial to their commitment to addressing the State's worst highway safety problems by finding creative solutions to fund widening two lane highways to safer four lane configurations, Pete Rahn and Adolpho Lucero risked taking significant public backlash when they pursued a private highway funding arrangement to facilitate reconstructing and widening 120 miles of the two lane State Highway 44 and upgrading it to federal standards as US Highway 550. The goal was to complete the entire project in just three years, using a Public-Private Partnership (PPP) concept, rather than the twenty-seven year period that was estimated for completion of this project using conventional pay-as-you go construction. They negotiated an arrangement with Koch Performance Roads, Inc., a subsidiary of Koch Industries, Inc., to obligate the State's future federal highway funds to quickly reconstruct 120 miles of SH 44 into a four lane US Highway and include a performance warranty and maintenance for a period of twenty years (or 4,000,000 ESAL's, whichever came first). The State would be obligated to take over highway maintenance when the warranty period ended. In addition to the potential profit involved constructing a highway project that the federal government agreed to assume 100% of the cost and eventually paid Koch $420 million to complete, Koch was in the process of promoting its proprietary polymer-modified asphalt product and promising extended pavement service life and lower life cycle costs. The funding that was made available through this unique public-private partnership did allow the construction work to be completed within the three year schedule. The rapid completion included speeding the work by awarding concurrent contracts for portions of the project to four Heavy-Highway Contractors.

The Koch companies failed in their dream to build a fool-proof project that would provide flawless demonstration of their more costly polymer-modified asphalt product when their senior engineer declined to approve the use of the EMC SQUARED System stabilizer products in place of the application of lime chemicals to the subgrade soils for the entire length of the 120-mile long project. One of the positive aspects reported for the PPP approach to funding large public infrastructure projects is the greater freedom to utilize highly innovative, or even disruptive products and construction processes. While highly tempted to approve the popular proposal to use EMC SQUARED System stabilizer products, the senior engineer of record made a costly mistake when he made the decision to build the highway using the most conventional of chemicals, a choice which eventually sabotaged the performance of a significant length of their newly placed polymer-modified asphalt pavement. The cost-saving proposal to approve the use of the EMC SQUARED System stabilizer products and eliminate the use of lime, and lime fly ash (LFA) on the project had widespread support from all the contractors, the FHWA Division Office, the NMDOT Project Engineer directly involved in the SH 44/US 285 project, and the firm hired for

Construction Management services. There was no apparent opposition to switching from the calcium-based stabilizers to the EMC SQUARED System stabilizer products as the assumption was that Koch was warranting their work and responsible for the final pavement design and highway maintenance through the warranty period. Testing had been conducted by AMEC Earth & Environmental using the R-Value procedure with soil sampled from the project alignment and the excellent performance of the EMC SQUARED System treatments in stabilizing the project soils (R Value 85) had already been documented.

Koch's decision to stick with lime chemical further increased their costs by slowing construction, due both to limitations in the supply of lime and the limited availability of specialty subcontractors equipped to apply lime products and service the four contractors with the four connected highway projects construction all in construction at the same time. Even worse that slowing construction was a soil chemistry problem unique to the use of calcium-based stabilizer products that soon reflected upward through Koch's polymer-modified asphalt pavements. Some of the problems that failed the pavements were activated by the addition of calcium based chemical stabilizers (lime, and lime + fly ash) to soils with soluble sulfate chemical content (e.g. gypsum). Apparently not sufficiently informed regarding the risk of this dangerous failure mechanism and the wide-spread presence of sulfates in the subgrade soils, NMDOT has specified and Koch approved the application of lime. A combination of lime and lime/fly ash products were then widely applied to the subgrade soils of the 44/550 project, creating heaving reactions that resulted in rough riding pavement, with heaves and dips, and extensive buckling and cracking of the polymer-modified asphalt pavement surface course. While it is the addition of lime to sulfate-bearing soils that generates the problem, the terminology offered by the lime industry to describe this problem is Sulfate-Induced Heave, or simply Sulfate-Heave. Greater caution in reviewing the results of soil chemistry testing prior to construction, which identified significant amounts of sulfates in the subgrade soils, and acknowledging the high level of risk associated with lime treatment, would have made it obvious from the beginning that selection of the EMC SQUARED System products, which are not calcium-based, would have eliminated this risk as well as saving many millions of dollars.

NOTE #5: While clearly deviating far from history directly related to the I-40 pavements, and the history of the I-40 Corridor Turf Wars, the costly Lessons Learned by the application of the wrong chemical soil stabilizer to sulfate-bearing soils during the 44/550 project deserve special mention.

NMDOT was also involved during this same period of time with construction of a project north of Santa Fe known as the Pojoaque Bypass, a project that involved improving a two-lane segment of State Highway 86 into four-lane US 285 Highway. The existing asphalt pavement had failed due to the inability of the previous Cement Treated Base (CTB) installation that proved unable to bridge or counteract localized subsidence, creating the need for the continuing placement of asphalt pavement overlays to restore the proper elevation of the pavement. While this conventional design had failed and there was considerable interest in having a new pavement design approved using asphalt millings treated with an EMC SQUARED System stabilizer product, including a Value Engineering proposal submitted by the contractor with the support of FHWA, the cost-saving proposal was overruled by the State Material Engineer, reportedly ignoring multi-million dollar cost savings and the opportunity to demonstrate a stabilized base course with superior bridging and moisture barrier performance already on record. This opposition came in spite of lab test results provided by the contractor along with the performance of a

road test section the contractor had constructed with EMC SQUARED treated asphalt millings and then subjected to months of trafficking by the contractor's large earth moving scrapers without failure, a field testing demonstration that had been observed by FHWA and NMDOT staff. The contractor commented the same scraper haul would have quickly turned an asphalt pavement into dust while the resilient EMC SQUARED Asphalt Millings running surface serviced the scraper haul without any noticeable problems.

HOW DID STABILIZER PRODUCTS HIGHLY FAVORED BY NMDOT TOP EXECUTIVES GET BLACKBALLED BY THE STATE MATERIALS ENGINEER?

The Materials Bureau staff remained unrelenting in their disinformation campaign to discredit the EMC SQUARED System stabilizer products with NMDOT's District Engineers, a group of engineers who had responsibilities that precluded wasting time opposing a State Materials Engineer with a history of ignoring their input and overruling their decisions**. See Appendix: Concerns Shared / Executive Level** With their opposition to the use of the EMC SQUARED System stabilizer products and their lack of cooperation with the engineers in the FHWA Division Office, the Materails Bureau staff were successful in exhausting the patience and motivation of the FHWA engineers working in the New Mexico Division Office. The FHWA engineers were left in a predicament of declining support from their headquarters office for promoting Value Engineering and innovation, and no longer being urged or supported to tighten the purse-strings on federal funding in order to motivate the commitment of state agencies to the more progressive agenda that FHWA had been promoting. With the inauguration of a new Presidential Administration in year 2000, FHWA largely abandoned their strongly proactive role. FHWA Area Engineer Ray Pederson, who had been so instrumental during the introduction of innovative highway construction technology to NMDOT, up to this point in time, grew tired of the turf war battles with the staff in the NMDOT Materials Bureau and took a parallel position with another federal agency with major road funding responsibilities within the State of New Mexico: the USDI Bureau of Indian Affairs (BIA). This left him based in Albuquerque, once again as an Area Engineer, and able to continue monitoring the performance of the two FHWA Demonstration Projects that had been constructed in the I-40 Corridor. Back at NMDOT headquarters, during this same period of time, NMDOT leader Pete Rahm moved on to a similar position at the head of the Missouri Department of Transportation. Adolpho Lucero, second in command at NMDOT, took advantage of an early retirement offer, while Deputy Secretary of Transportation Operations, Steve Harris, was promoted to a position with new responsibilities that demanded his full attention. With the departure of this highly motivated FHWA and NMDOT team that had been so strongly supportive of the full-scale deployment of the EMC SQUARED System stabilizer products, there was no one left in place to counteract the ongoing disinformation campaign and the decision by the State Materials Engineer to remove the previously approved stabilizer products from the State's list of approved products. The State Materials Engineer was essentially the only man left standing after the conclusion of this second battle during the I-40 Corridor Turf War and he was not about to start recognizing reporting of favorable IRI test results and the repair-free pavement that he had been allowed to successfully able to ignore in these circumstances with a changing of the guard within the NMDOT executive office and the FHWA New Mexico Division Office. Thereafter allowed to be a power unto himself, he was able to eventually blackball the approval and the deployment of these highly cost-effective products that continued to prove that they were very well-matched to the need to improve the performance of the NMDOT highway system pavements.

SUMMARY OF LESSONS LEARNED FROM THE TWO I-40 FHWA DEMONSTRATION PROJECTS

I-40 Eastbound MP 94 – MP 96 SEGMENT OF FHWA DEMONSTRATION PROJECT

1. EMC SQUARED System stabilizer treatments have proven effective in prologing pavement service life by a factor of over 8 times to date over the previous pavement constructed on cement treated base (CTB).

2. The permanence of EMC SQUARED Stabilizer treatments in keeping excessive amounts of water out of pavement base and subgrade layers of I-40 pavement already has 24 years of accumulated proof in service.

3. The EMC SQUARED System of subgrade stabilization proved exceptionally effective as a working platform that was a stand out in performance for bridging deposits of saturated clay soils below the constructed subgrade as compared with the lime treatment, geotextile fabrics and geogrid products previously employed during an early phase of this project.

4. The rigid cement treated base (CTB) which failed the previous pavement at this same location within only three years of service was not competitive in cost or performance with the EMC SQUARED System treatments.

5. Extensive materials laboratory testing supports the effectiveness of the EMC SQUARED System treatments in improving the resistance of subgrade soils and base materials to saturation and freeze-thaw damage as well as improving their strength and stiffness.

6. Reports confirm EMC SQUARED System treatments of I-40 subgrade soils were less expensive and faster to apply than lime.

7. Exceptional performance reports support deployment of this cold-manufactured and cold-applied alternative to various types of highway construction applications currently dominated by asphalt, cement or lime products; three categories of previously approved and extensively deployed products that are known to be leading sources of global carbon emissions because of their fossil fuel intensive heated manufacturing processes. Cement manufacturing alone is reported to contribute as much as eight percent of global carbon emissions.

8. EMC SQUARED System stabilizer products are all highly concentrated liquids with a few gallons replacing a truck load of the conventional calcium-based stabilizers (cement, fly ash and lime), and truckloads of imported aggregate base materials. By eliminating unnecessary trucking hauls that otherwise contribute to highway congestion and deterioration of highway pavements being used to access construction projects, use of the EMC SQUARED products eliminates the carbon emissions that otherwise would be generated by the manufacturing of aggregate materials and the operation of diesel trucks hauling these materials to highway construction sites.

I-40 Eastbound MP 12.7 – MP 13.7 FHWA DEMONSTRATION PROJECT

1. Pavement recycling equipment is now available that can pulverize deep layers of asphalt and concrete pavements along with aggregate base or cement treated base (CTB) and recycled these materials into blends of recycled materials with gradations that pass state specifications for aggregate base course applications.

2. Testing at the University of New Mexico (UNM) ATR Institute's pavement materials paving materials laboratory of the pavement materials produced in-place from the eastbound lane of I-40 Eastbound 12.7 – MP 13.7 segment of I-40 produced resilient modulus test results confirming that EMC SQUARED Stabilized Recycled Pavement Aggregate materials can provide load carrying capacity equivalent to that of an asphalt pavement layer of similar layer thickness.

3. IRI monitoring of the pavements constructed above the two eastbound lanes indicated that the pavement constructed on a base course constructed according to NMDOT's conventional design for full-depth pavement reconstruction required several full-depth repairs within the first year

and was on course to premature failure while the pavement above the EMC SQUARED stabilized base that was constructed in-place with recycled pavement materials and stabilized in-place remained smooth running and free of repairs during the monitoring period.

4. The in-place pavement recycling and stabilization method dramatically reduced construction time and was estimated to reduce reconstruction costs by as much as fifty percent.

5. The in-place pavement recycling and stabilization method replaced the need for construction of temporary cross over detours by also eliminating the hazardous deep excavations of full-depth reconstruction that made the continuing use of an adjacent lane for interstate traffic unacceptable because of safety concerns. The in-place method of construction eliminated the need for cross over detours and risk of traffic accidents experienced during reconstruction projects. These safety benefits are further enhanced by a construction process that doubles the speed of highway reconstruction and reduces the number of days that the safety of highway users are put at risk by the dangers of the detours and the rapid braking of cars and trucks that are unavoidable consequences of highway reconstruction projects that restrict and slow traffic flow.

6. As reported by the FHWA Area Engineer in monitoring of this demonstration of the recycling and stabilization reconstruction method, the IRI test results verified far superior smoothness in comparison to pavement reconstructed according to conventional full-depth reconstruction. It has long been established that smoother pavements prolong pavement service life. The potholed pavements of the I-40 Corridor and the frequent reconstruction projects create dangerous conditions that contribute to the high rates of traffic fatalities. The use of this product technology that has been proven highly effective in the I-40 Corridor demonstration projects in providing smoother pavements with longer service life. Smoother-running pavements with extended service life obviously enhance highway safety and should be given priority consideration for all future highway construction planned for the I-40 Corridor.

ACTION PLAN

1. **Restore Approved Product Status for EMC SQUARED System Stabilizer Products on NMDOT Approved Products List** - Evidence supports restoring the EMC SQUARED System stabilizer products to the Approved Products List. After the completion of two FHWA Demonstration Projects on Interstate 40 in the early 2000's, the NMDOT State Materials Engineer successfully lobbied to have the products removed from the Approved Products List. He admitted the obvious in writing, since it was plainly visible to everyone participating that the EMC SQUARED System stabilizer products provided excellent working platforms, treated subgrades that remained solid and stable under construction traffic in all-weather conditions. This was a fact that he could not deny. He instead sowed doubt about whether the EMC SQUARED System treatments could be anticipated to exhibit long-term performance, knowing that the long term benefits could only be proven beyond a doubt by the test of time. Over twenty years later, his position has now been proven to be a losing argument which was not based on any legitimate evidence. The permanence of the benefits of the EMC SQUARED System stabilizer products have now been solidly proven in New Mexico by the exceptional performance of the two-mile pavement test section on the I-40 that has already provided twenty-four years of repair-free service above the worst case ground conditions of the entire I-40 Corridor Study area.
2. **Conduct Laboratory Testing with the EMC SQUARED System stabilizer products with Subgrade Soils sampled from the I-40 Corridor. Conduct testing with Virgin and Aggregate Materials according to Manufacturer's Guidelines for Laboratory Testing. Sample aggregate materials meeting the Materials Specification requirements according to Manufacturer's Recommendations** – Determine modulus values for untreated and stabilized subgrade soils using the resilient modulus test method. Determine modulus values for untreated and stabilized aggregate base course materials using the Repeated Load Triaxial (RLT) test method and either resilient modulus or dynamic modulus test methods.
3. **Input test data in a Mechanistic-Empirical (M-E) Pavement Design and Conduct a Value Engineering (V.E.) study** - Report the comparative costs of various pavement structural section design options based upon use of EMC SQUARED System stabilizer products for treatment of subgrade soils and base course materails as compared with cost estimates for construction according to conventional designs options now under consideration by NMDOT for reconstruction of the I-40 Corridor pavements. Also report the comparative cost of I-40 pavement reconstruction based upon using a Pavement Recycling and Stabilization construction method similar to that of the FHWA I-40 Eastbound MP – 12.7 – MP 13.7 Demonstration Project described earlier in this Synopsis Report.

APPENDIX

Spread of Misinformation:

https://stabilizationproducts.net/docs/Soil%20Modification%20Versus%20Soil%20Stabilization%20-%20NMDOT's%209th%20Street%20Connector%20Projects.pdf

Test results ignored:

https://www.stabilizationproducts.net/docs/18846.pdf

https://stabilizationproducts.net/docs/I-40%2010-year%20Performance.pdf

Report Provided by NMDOT Research Bureau Regarding I-40 MP 12.7 – MP 13.7 Demonstration:

https://stabilizationproducts.net/docs/I-40%20MP%2012.7%20to%20MP%2013.7%20NMDOT%20Report.pdf

Responses from the FHWA and SSPCo Regarding Misinformation and Omissions in Bureau Report:

https://stabilizationproducts.net/docs/FHWA%20Commentary%20on%20Research%20Bureau%20Report.pdf

https://stabilizationproducts.net/docs/SSPCo%20Commentary%20Re%20Research%20Bureau%20Reporting.pdf

https://stabilizationproducts.net/docs/FHWA%20Ray%20Pederson%208-30-2005.pdf

https://stabilizationproducts.net/docs/SSPCo%20%20%20%20%20%20%20%20%20%20%20%20%201-13-2003%20&%209-1-2005.pdf

Concerns Shared / Executive Level Interest:

https://stabilizationproducts.net/docs/Facts%20and%20Concerns%20Shared%20w%20Executive%20Level.pdf

From:	Bob Randolph
To:	Stephanie Miller; Chris Baca
Cc:	Harry Garcia; Patricia Lundstrom; Hochman-Vigil, Dayan; Tallman, Bill; Valerio, Max (FHWA); Luis Melgoza
Subject:	Retraction of Support for Enhanced 2-Lane Option for I-40 Corridor Reconstruction
Date:	Tuesday, March 26, 2024 1:28:43 PM
Attachments:	The New Mexico 1-40 Corridor Turf Wars.pdf NMDOT Product Approval.pdf

Dear Stephanie and Chris,

This email to your attention is intended to serve as additional public input to the I-40 Corridor Study and as formal retraction of my previously stated support for the Enhanced 2-Lane Option for upgrading this segment of Interstate Highway in New Mexico. As noted in the first paragraph of my email to your attention on February 29, 2024, I stated that I was in support of your recommended "Enhanced 2 Lane Option" as you presented to the participants in the recent Virtual Public Meeting. Please include this communication as additional public comment intended to be included in the I-40 Corridor Study.

I-40 Corridor Reconstruction - Safety Concerns Deserve Greater Attention

While widening the shoulders for the existing 2-lane highway configuration would be a valuable safety enhancement, a reconstructed I-40 pavement with only two lanes with widened shoulders ultimately is going to insufficient as a design response to address the level of safety hazards that are unique to Interstate 40 and other highways with high daily traffic counts dominated in volume by heavy truck traffic. Recent driving experience on two major California highways (Interstate 5 and US Highway 99) on their routes through Central California rekindled my awareness that while the 2-lane design proposed for Interstate 40 in New Mexico might be considered sufficient on a shear functionality basis (just looking at the total number of trucks and cars that the road can handle), that is not the case when you factor in the high percentage of heavy trucks in the traffic mix, and the human factor – the erratic behavior of too high a percentage of car and truck drivers on the highways today. When the mix of cars and trucks is so heavily weighted with truck traffic, the 2-lane design is nothing less than a death trap, even at current traffic levels, let alone the traffic volume that will be using the I-40 Corridor by Year 2050. If Intelligent Traffic Systems (ITS) controls were implemented in conjunction with new Enhanced 2-Lane I-40 Highway dedicated exclusively to robotically controlled trucks and cars, with cars and trucks driven by human drivers (the Human Factor) completely eliminated from the equation, then an Enhanced 2-Lane highway could be considered safe as well as functional.

Instead, the reality is that two lane interstate highways have their traffic flow constantly being backed up by long lines of heavy trucks driving bumper to bumper in the drive lane, with individual truck drivers darting into the first available space between the faster moving automobiles in the passing lane in order to pass slower moving truck drivers. Now you have twenty to thirty automobiles moving at high speed in the passing lane rapidly braking behind the truck that has just pulled into the passing lane, setting up a situation where cars that were

previously safely spaced are now bumper to bumper, and being endangered by frantic car drivers trying to move pass them in the drive lane and then cutting into the passing lane between cars that are already too tightly spaced for safety. Add into this mix of cars and trucks the car and truck drivers who are either taking methamphetamines, or driving as if they are on drugs that make them absolutely frantic drivers. Given this reality of this mix of car and truck traffic and the state of driver behavior, the two lane configuration is no longer an option that competently addresses the all-important human factor that so impacts highway safety. Two lane Interstate Highways clogged with heavy truck traffic are driving motorists to unseen levels of crazed and absolutely reckless driving behavior that endanger every other motorist on the highway.

Home-based in the Central Valley of California, I frequently travel on the lengthy two-lane segments of Interstate 5, and on the mix of two-lane and three lanes sections of US Highway 99, which itself is rapidly being improved to the 3-Lane Interstate Highway standard. The sections of these highways that are two-lane are congested and hazardous nightmares to drive, as described in the above paragraph. The newly constructed three lane segments of US Highway 99 are facilitating safer interaction between heavy levels of congested truck and automobile traffic. Trucks can cautiously move in and out of the middle lane to pass slower trucks traveling in the drive lane, and a consistent flow of automobile traffic can generally be maintained by drivers using the inside passing lane (furthest away from the truck drive lane). While far from eliminating every possible safety hazard, there is a day and night difference in the safety factor between the three lane and two lane highway configuration. Fair to say that you can observe a far greater amount of courteous and intelligent driving practiced in the three lane configuration as it better accommodates the mix of car and truck traffic and the Human Factor. There is far more reckless driving behavior exhibited in the two lane configuration because of the frequent backups and reduced driving speeds that generate so much reckless driving behavior. New Mexico State Representative Patricia Lundstrom from Gallup, as a frequent commuter on the I-40 Corridor highway, has good reason to make public statements that the Enhanced 2-Lane Option is inadequate as a response to addressing the safety concerns for drivers using the I-40 Corridor.

I-40 Corridor Reconstruction - Economic Concerns Related to DOT Inertia

As previously submitted and summarized in the PDF Attachment titled The New Mexico I-40 Corridor Turf Wars: The results achieved by utilization of a revolutionary product technology that was recommended by the New Mexico Division Office of the Federal Highway Administration (FHWA) in Year 2000 for demonstration within the I-40 Corridor, and then again for a second segment of I-40 in Year 2002, continue to be ignored by NMDOT, in spite of the excellent results reported in field performance monitoring. Major cost savings would be realized in reconstruction of the I-40 Corridor if pavement designs incorporating the full advantages offered by this advanced stabilizer technology were being implemented by the DOT. With cost savings in pavement construction available in the range of 50% for reconstruction of the I-40 pavements based upon using EMC SQUARED System stabilizer

products during in-place pavement recycling operations, or 25% when applied to subgrade soils and base materials and used as the input for modern Mechanistic-Empirical (M-E) Pavement Designs capable of making more efficient use of costly hot mix asphalt pavement materials, there is no reason that the 3-Lane Alternative is not an affordable option. If NMDOT and FHWA can fund reconstruction of the I-40 Corridor based upon the 2-Lane Enhanced Option built according to conventional pavement design, then they can also modernize their design and construction process and build the much safer 3-Lane Alternative with the same amount of funding.

Given the tragic history and inordinate number of traffic fatalities that continue to be experienced on this length of interstate highway in New Mexico, the public deserves to have DOT's practice of ignoring cost-saving options, options that have previously been demonstrated within the I-40 Corridor, questioned and discussed in the I-40 Corridor Study reporting. As part of this review, an investigation should also be conducted into how and why the EMC SQUARED System stabilizer product technology (EMC2) that was reviewed and approved for statewide use by the DOT's Product Evaluation Committee in 1998 (see attached approval letter), and then successfully demonstrated in NMDOT construction projects at two locations on Interstate 40 in 2000 and 2002, with sponsorship and participation of the Federal Highway Administration (FHWA), mysteriously taken off NMDOT's Approved Product List (APL) following completion of the two FHWA Demonstration Projects**. With the Year 2000 FHWA Demonstration Project having now outperformed NMDOT's previous pavement installation, constructed according to its conventional pavement design, by a factor of 8 times, it is time to be asking questions. Why hasn't NMDOT already taken responsibility to restore this break-through product technology to its previously approved status so that current projects can be taking advantage of this cost-saving technology to build safer, longer-lasting highway pavements?**

Sincerely,

Bob Randolph

[redacted]

NEW MEXICO STATE HIGHWAY
AND TRANSPORTATION DEPARTMENT
AN EQUAL OPPORTUNITY EMPLOYER

GARY E. JOHNSON
GOVERNOR

COMMISSION

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505-827-9500

District Six Office
P.O. Box 2159
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87021
505-285-3200

October 9, 1998

FN 01341

Mr. Glen Gates
Soil Stabilization Products Company, Incorporated
[redacted]

RE: SSPCO EMC^2 SOIL STABILANT

Dear Mr. Gates:

The Product Evaluation Committee considered the merits of your product and voted to approve it. It will be your responsibility to inform all potential users (i.e., contractors and this department) of your product. The purchase of your product is subject to State procurement procedures.

The approval of your product is no guarantee that it will be used on a construction/maintenance project. This approval is withdrawn if your product fails to perform according to the manufacturer's statement and the performance criteria.

Thank you for your submittal and patience.

Sincerely,

Steve Rodriguez
State Maintenance & Traffic Operations Engineer

SR:PR:j

Pc: District Highway Engineers
District Construction Engineers
District Maintenance Engineers
District Traffic Engineers
Robert Garcia
Grady Stem

Attachment D

Public Comment Forms

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 12, 2024, 3:01:12 PM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

Continental Divide to Milan/Grants (MP 48 to 72)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **I see a lot of crashes in this area**
- **The pavement is in poor condition**

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Improved pavement**
- **Adding a third lane in Gallup**
- **Adding climbing lanes**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Facebook**
- **Press Release/Newsletter**

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

5. Please provide any additional comments. (open ended)

Wide shoulders needed if a third lane cannot be afforded or you you can't add limited third lane zones to assist with passing and moving traffic jams. Dangerous passing and sharing the road with big rigs makes for very dangerous, nerve-wracking driving conditions, much less during bad weather or crowded summer travel season.

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 12, 2024, 3:22:00 PM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

NM 6 to Route 66 Casino (MP 126 to 140)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **Other**

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Adding a third lane in Gallup**
- **Keeping 2-lanes open on I-40 as much as possible during construction and maintenance**
- **Improved alternate routes**
- **Improved Intelligent Transportation Systems (ITS)/Traveler Information Systems**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Facebook**
- **Email**

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

No

5. Please provide any additional comments. (open ended)

There needs to be better connectivity from I-40 to NM HWY 6 and to I-25. Los Lunas is experiencing and will continue to experience traffic from I-40 through town onto I-25 to avoid the traffic in ABQ big-I. Improvements to HWY6 and expansion will be needed in the immediate future to offset traffic from I-40 heading south.

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 12, 2024, 3:31:10 PM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

Arizona State Line to Gallup (milepost [MP] 0 to 16)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **Other**

For "Other" please briefly explain:

During snowstorms and at night the offramp to the weigh station is poorly marked and wider than the highway, making it easy to get disoriented and stray out of the lane onto the shoulder/offramp. Better lighting and signage needed.

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Improved pavement**
- **Adding climbing lanes**
- **Keeping 2-lanes open on I-40 as much as possible during construction and maintenance**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Press Release/Newsletter**

5. Please provide any additional comments. (open ended)

Suggest modifying the onramp from Gallup Exit 20 to westbound I-40. The poor signage and short merging of traffic lanes confuses the tourists and large vehicles, and can cause accidents.

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 12, 2024, 6:09:40 PM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

East Gallup to Iyanbito Exit (MP 26 to 37)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **Other**

For "Other" please briefly explain:

There are very few rest stops with bathrooms, and when you come across them, they’re always closed

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Improved pavement**
- **Adding a third lane in Gallup**
- **Adding climbing lanes**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Email**
- **Press Release/Newsletter**

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 12, 2024, 6:24:54 PM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

Route 66 Casino to Atrisco Vista/Albuquerque (MP 140 to 150)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **Other**

For "Other" please briefly explain:

I had to select something. I'm not sure which section should be the priority

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Other**

For "Other" please briefly explain:

Widening roads is always a bad idea. I don't understand why you would do this.

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Email**
- **Press Release/Newsletter**

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

5. Please provide any additional comments. (open ended)

The obvious, but politically impossible, solution is to LOWER THE SPEED LIMIT (and enforce it, lol). It's too bad we have to waste all this taxpayer money on something that can't work. People will drive even faster after the lanes are widened.

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 12, 2024, 7:17:17 PM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

Route 66 Casino to Atrisco Vista/Albuquerque (MP 140 to 150)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **Other**

For "Other" please briefly explain:

As albuquerque continues to spread west, the traffic in this area increases and strains the current infrastructure.

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Wider roadway shoulders**
- **Improved pavement**
- **Improved incident management**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Facebook**
- **Other**

For "Other" please briefly explain:

Updates on Google maps

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

5. Please provide any additional comments. (open ended)

Improvement projects considered by NMDOT should always consider the long term impact and how the demands of the roadway are anticipated to change in the next 5 years. While expanding the shoulders would have the intended impact now, in the long term it would prove to be a bandaid. For 3.8 billion versus 5 billion dollars (i may not be recalling these figures 100% accurately), it makes sense to spend the extra money for a longer term solution.

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 12, 2024, 9:01:52 PM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

East Gallup to Iyanbito Exit (MP 26 to 37)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **I experience delays in this area**
- **I see a lot of crashes in this area**
- **The roadway shoulders are narrow**
- **There are no nearby frontage roads/alternate routes**
- **The pavement is in poor condition**

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Wider roadway shoulders**
- **Adding a third lane in Gallup**
- **Keeping 2-lanes open on I-40 as much as possible during construction and maintenance**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Press Release/Newsletter**

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

5. Please provide any additional comments. (open ended)

There is constant construction in the areas east and west of Gallup. I find this headack in no other section of I40 so much. Why? I cross it a lot. I am trying to use alternatives now as it is too frustrating. Why constant construction just here? Something is very very wrong in this corridor!

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 12, 2024, 10:31:54 PM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

East Gallup to Iyanbito Exit (MP 26 to 37)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **The roadway shoulders are narrow**
- **There are no nearby frontage roads/alternate routes**
- **The on- and off-ramps are challenging to drive**
- **The pavement is in poor condition**

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Improved pavement**
- **Longer on-and off-ramps**
- **Adding a third lane in Gallup**
- **Keeping 2-lanes open on I-40 as much as possible during construction and maintenance**
- **Improved alternate routes**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Press Release/Newsletter**
- **Other**

For "Other" please briefly explain:

Tiktok

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 13, 2024, 6:05:00 AM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

Grants to Cubero (MP 89 to 105)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **Other**

For "Other" please briefly explain:

Why is there NO center median barrier on I-40 west of Albuquerque? I-25 has at least steel cable barrier. I have traveled both I-40 and I-25 for last four years. I-40 had narrow median and NO barrier. Saves lives.The one on I-25 has been hit often.

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Other**

For "Other" please briefly explain:

Three lanes is best solution

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Press Release/Newsletter**

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

5. Please provide any additional comments. (open ended)

Why is there NO center median barrier on I-40 west of Albuquerque? I-25 has at least steel cable barrier. I have traveled both I-40 and I-25 for last four years. I-40 had narrow median and NO barrier. You see different places on I-25 where barrier was damaged but vehicle did not cross into other lane.

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 13, 2024, 7:01:32 AM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

NM 6 to Route 66 Casino (MP 126 to 140)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **I experience delays in this area**

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Longer on-and off-ramps**
- **Adding climbing lanes**
- **Improved incident management**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Press Release/Newsletter**

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

5. Please provide any additional comments. (open ended)

I travel this section of road of I40 between ABQ and Gallup, which is a national embarrassment. I have to allow an extra 2 hours to my plans because of the likelihood of an "incident". It is unsafe. When an incident happens, the road shuts down for incredibly long delays. Other parts of the nation can clear incidents far quicker because they have wider lanes and broad shoulders to facilitate. Widen this entire section to 3 lanes AND add a shoulder. Anything less is a bandaid, and we will be having this conversation again in ten years. It is cheaper do do it right the first time.

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 13, 2024, 8:20:14 AM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

Continental Divide to Milan/Grants (MP 48 to 72)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **Other**

For "Other" please briefly explain:

High volume of traffic, particularly trucks. An additional lane is very important given how many trucks there are.

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Improved pavement**
- **Keeping 2-lanes open on I-40 as much as possible during construction and maintenance**
- **Improved Intelligent Transportation Systems (ITS)/Traveler Information Systems**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Press Release/Newsletter**

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

5. Please provide any additional comments. (open ended)

While there are added costs, I think it's critically important to increase to 3 lanes in each direction from Albuquerque west to the Arizona State Line. Commerce has changed dramatically since the interstate system was created. The volume of truck traffic has increased significantly. An additional lane creates better ability for everyone to maneuver safely in normal conditions, and will help keep things passable when there is construction or accidents/weather conditions.

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 13, 2024, 8:28:28 AM

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **Other**

For "Other" please briefly explain:

Aggressive truck drivers are the cause of most accidents, which needs the utmost attention immediately, dedicated lanes for trucks traffic only, cameras to observe and control aggressive drivers would bring immediate relief

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Improved Intelligent Transportation Systems (ITS)/Traveler Information Systems**
- **Improved incident management**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Facebook**
- **Press Release/Newsletter**

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 13, 2024, 8:34:52 AM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

Gallup (MP 16 to 26)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **The on- and off-ramps are challenging to drive**
- **The pavement is in poor condition**

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Improved pavement**
- **Longer on-and off-ramps**
- **Adding a third lane in Gallup**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Email**
- **Press Release/Newsletter**

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 13, 2024, 9:39:11 AM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

Gallup (MP 16 to 26)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **I experience delays in this area**
- **The roadway shoulders are narrow**
- **There are no nearby frontage roads/alternate routes**
- **The on- and off-ramps are challenging to drive**
- **The pavement is in poor condition**
- **Other**

For "Other" please briefly explain:

on road surface lane painting (solid white lane stripes, center lane demarcation, exit ramp painting at approaches to exit lane painting

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Improved pavement**
- **Longer on-and off-ramps**
- **Adding climbing lanes**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Email**
- **Press Release/Newsletter**
- **Other**

For "Other" please briefly explain:

direct communications to people that have signed up with NMDOT to be informed as part of NMSTUDY

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

5. Please provide any additional comments. (open ended)

I-40 Texas to Arizona; not good. Eastbound I-40 in Texas is well graded, smooth, not rough driving. NM builds portions of Interstates with a light scratch and surface method; minimal grading & leveling. Interstates in NM are "wavy"; north of NM 165 exit on !-25 is a roller coaster. Surfaces of I-40 & I-25 are not safe. Road markings are faded and non-existent due to weathering. Signs (faded) mirror the markings. Exits in Gallup are too short for normal acceleration lane merging to the freeway. Rest areas generally & restrooms specifically are dirty & poorly kept. The one "at-expectation-restroom" in NM is US 285 west of Roswell. I-40 in Albuquerque is a rough as a "cow path": concrete potholes filled with "asphalt" are repairs that only last a few weeks, Everyone speeds! 65 mph zones are a "concept"! Everyone travels 75 or 85 in ABQ. Top speed should be 60 mph. NO CITY, COUNTY OR STATE LAW ENFORCEMENT VEHICLES ATTEMPTING TO CONTROL SPEEDING ARE EVER SEEN!

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 13, 2024, 9:52:10 AM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

Cubero to NM 6 (MP 105 to MP 126)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **Other**

For "Other" please briefly explain:

The curves

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Wider roadway shoulders**
- **Adding climbing lanes**
- **Keeping 2-lanes open on I-40 as much as possible during construction and maintenance**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Press Release/Newsletter**

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

5. Please provide any additional comments. (open ended)

Having 3 lanes available and possibly keeping 1 lane as a "no 18 wheelers allowed" will assist with the flow of traffic as this is highly traveled by 18 wheelers and they cause a lot of slowdowns, plus they are not all considerate of smaller vehicles and will make lanes changes regardless of speed or weather.

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 14, 2024, 3:49:37 PM

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Other**

5. Please provide any additional comments. (open ended)

Please build one or more wildlife corridors along this expanse.

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 19, 2024, 4:48:00 PM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

Gallup (MP 16 to 26)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **The on- and off-ramps are challenging to drive**

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Improved pavement**
- **Adding a third lane in Gallup**
- **Keeping 2-lanes open on I-40 as much as possible during construction and maintenance**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Press Release/Newsletter**

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

5. Please provide any additional comments. (open ended)

Set of questions are restrictive to what maybe planned for selected sites, which is fine but I think we need to "look further down the road". I would like to see planning and design on: 1) completing the "clover leaf" on the north side of the Exit 26 that would provide greater and easier traffic relief; and 2) plan for a new interchange about 3.8 miles east of Exit 26 (so new Exit 30?) to relieve flow traffic into Gallup. The new interchange would match up with St Highway 566. These improvements would aid greater economic development for East Gallup and nearby Navajo Nation communities.

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 28, 2024, 3:33:07 PM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

Route 66 Casino to Atrisco Vista/Albuquerque (MP 140 to 150)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **I experience delays in this area**
- **I see a lot of crashes in this area**
- **There are no nearby frontage roads/alternate routes**
- **The pavement is in poor condition**

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Improved pavement**
- **Longer on-and off-ramps**
- **Adding a third lane in Gallup**
- **Adding climbing lanes**
- **Improved alternate routes**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Facebook**
- **Email**

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

5. Please provide any additional comments. (open ended)

I believe that all along the I-40 corridor, there should be some way for traffic to continue to move when a collision occurs. If a collision happens on any part of I-40, traffic is at standstill for hours on end. Also, zipper merges do not work. No one knows how to zipper merge! Keep at least two lanes of traffic open in both direction during construction, please!

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Feb 28, 2024, 10:29:39 PM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

Grants to Cubero (MP 89 to 105)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **Other**

For "Other" please briefly explain:

Hills cause semis to intermittently block the flow of traffic and dangerous sudden slow downs on a heavily traveled road.

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Adding climbing lanes**
- **Keeping 2-lanes open on I-40 as much as possible during construction and maintenance**
- **Improved alternate routes**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Facebook**

5. Please provide any additional comments. (open ended)

I consider I-40 the most dangerous road I drive on. In addition to all the obvious problems that people report (including my comment herein about semis not keeping speed on hills and causing sudden and dangerous speed changes... The entire highway needs to be widened to 3 lanes. I have driven the highway on windy days (which NM has many) and HAD SEMIs GET *BLOWN* INTO MY LANE!!!!!! There are so many needs, it's hard to pick just a few. Yes, alternate routes and advanced warnings for long construction delays would be very useful, too. I've definitely experienced those needs.

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Mar 5, 2024, 4:18:59 PM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

Route 66 Casino to Atrisco Vista/Albuquerque (MP 140 to 150)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **The pavement is in poor condition**

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Improved pavement**
- **Keeping 2-lanes open on I-40 as much as possible during construction and maintenance**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **Facebook**
- **Press Release/Newsletter**

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

I-40 Corridor Study Public Meeting #3 Comment Form

Submitted by: Anonymous user

Submitted time: Mar 14, 2024, 3:49:58 PM

1. What areas of I-40 do you think should be the highest priority for improvements? (select one)

Continental Divide/Coolidge (MP 37 to 48)

1a. If you answered Question 1, please explain what you are most concerned about in this area. (select all that apply)

- **I see a lot of crashes in this area**
- **The roadway shoulders are narrow**

2. What do you like the most about the recommended Enhanced 2-lane with Added Lanes Alternative? (select up to 3 items)

- **Wider roadway shoulders**
- **Longer on-and off-ramps**

3. What are the most useful ways for NMDOT to provide updates as projects occur on I-40? (select all that apply)

- **X/Twitter**
- **Press Release/Newsletter**
- **Other**

For "Other" please briefly explain:

Posts on a dedicated website

4. Did you find the project website and information shared at the meeting to be informative and easy to understand?

Yes

5. Please provide any additional comments. (open ended)

My family and I see a lot of serious accidents around the Continental Divide area during winter. These accidents often back up traffic and prevent emergency services from reaching people in need. People traveling on the road also end up stuck for hours unable to move, especially in the snow. One accident stopped traffic for several hours in the snow and my family had to call roadside assistance to ensure our car stayed warm and fueled.