

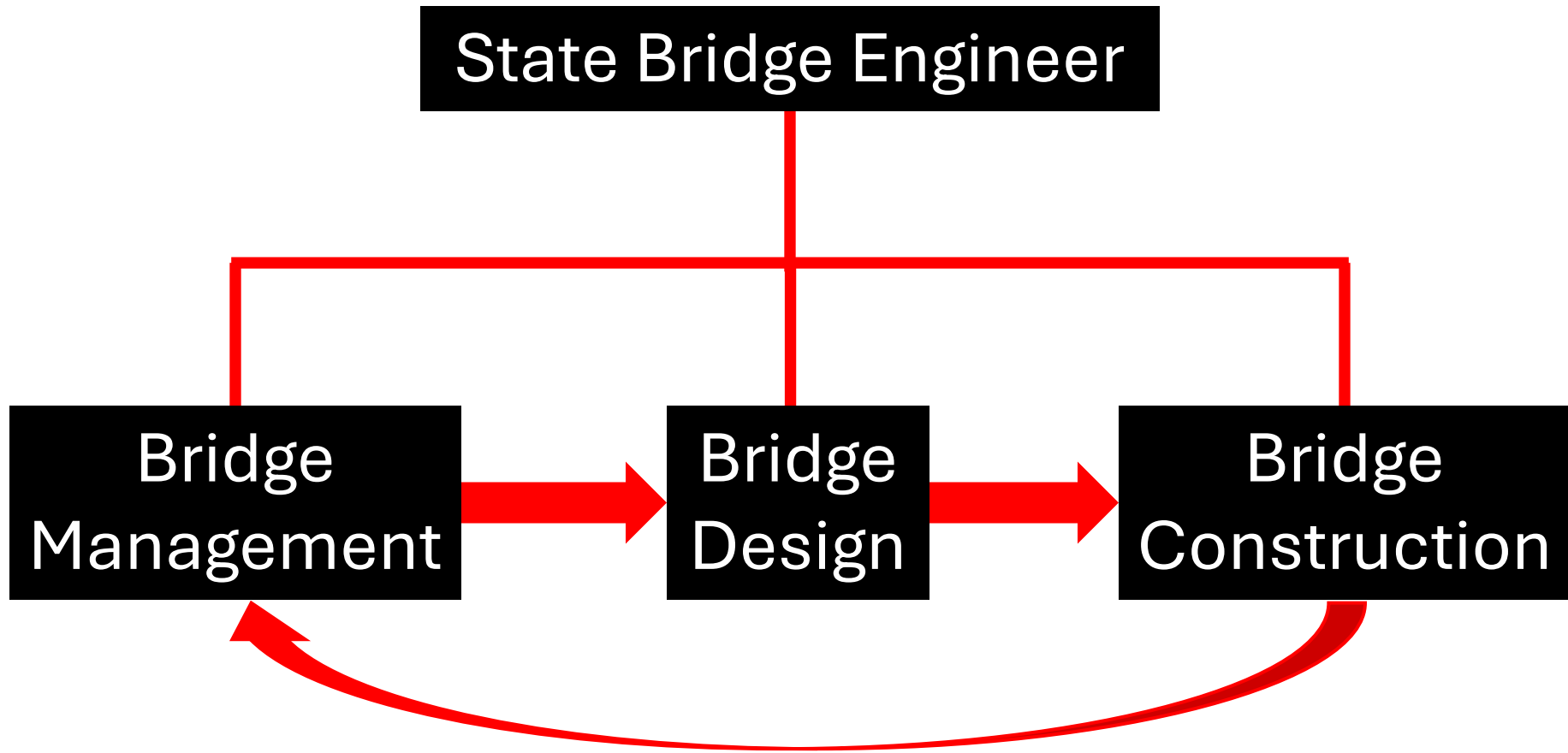
STATE OF BRIDGES IN NEW MEXICO



JULY 2025



New Mexico Department of Transportation Bridge Bureau



NMDOT Bridge Inventory

NMDOT Responsible for the Inspection of All Public Bridges in the State of New Mexico

❖ Total Bridges = 3,758

- NMDOT Owned = 2,976
- Locally Owned = 782

NHS/NON-NHS		
	NMDOT OWNED	LOCALLY OWNED
NHS	1603	15
NON-NHS	1373	767



NMDOT Bridge Inspection Program



- ❖ National bridge inspection standards (NBIS)
 - Requires that all bridges be inspected on 24 month intervals
 - Other requirements
- ❖ Bridge inspections
 - NMDOT district bridge inspection programs
 - New Mexico State University (NMSU)
 - Consultant inspections
 - Bridge management section



NBIS Condition Ratings & National Bridge Element (NBE's)



❖ NMDOT rates bridges using NBIS ratings of a 0 to 9 scale for decks, superstructures, substructures, and culverts

- Good condition – 7 to 9
- Fair condition – 5 to 6
- Poor condition – 4 to 0

❖ NBE's ratings

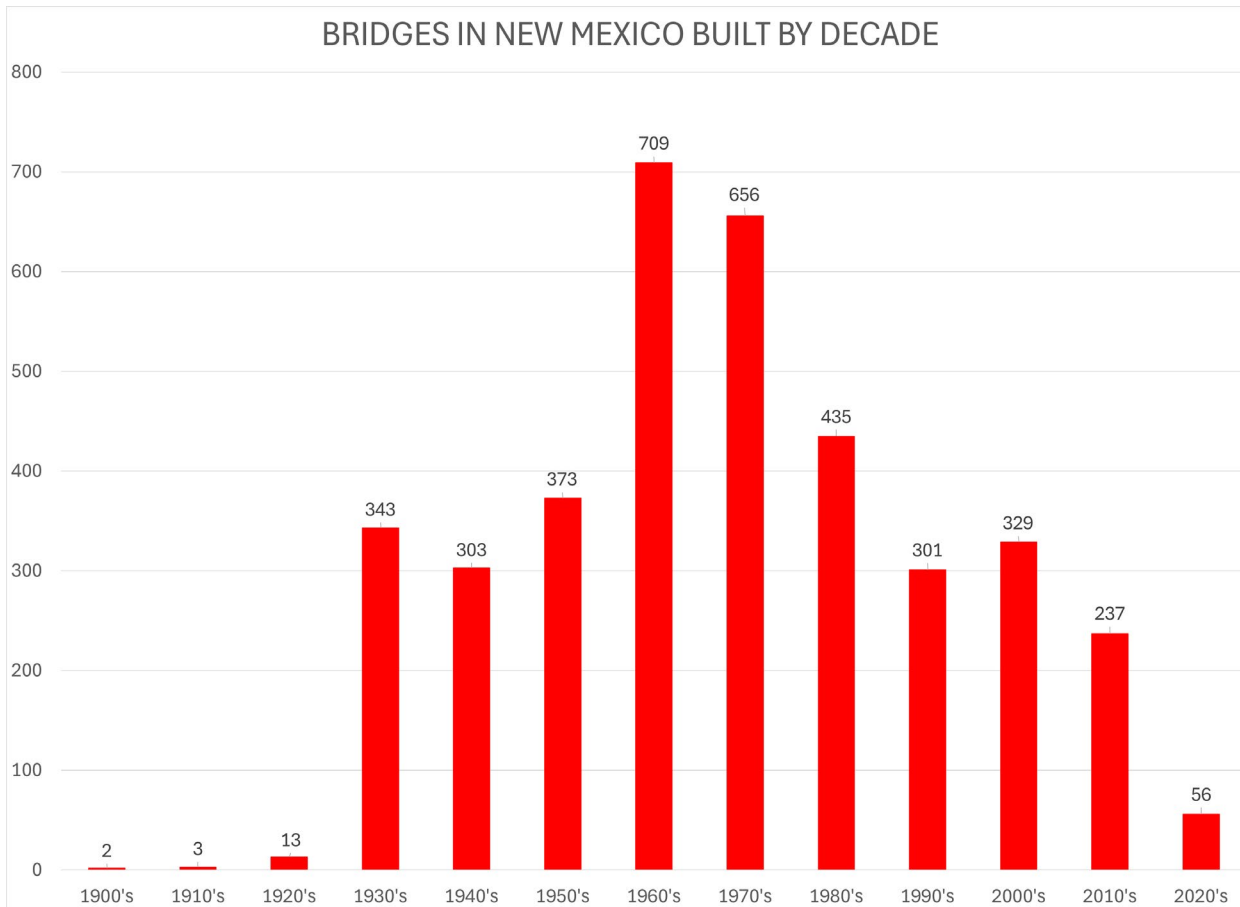
- Rating per individual bridge element
- Track which elements are in poor condition (ie, bearing pads, deck joints, etc.)
- Can create agency defined elements

NBI CONDITION RATINGS		
9 EXCELLENT	}	GOOD CONDITION
8 VERY GOOD		
7 GOOD		
6 SATISFACTORY	}	FAIR CONDITION
5 FAIR		
4 POOR	}	POOR CONDITION
3 SERIOUS		
2 CRITICAL		
1 IMMINENT FAILURE		
0 FAILED		

Current Bridge Conditions

Over 60% of Inventory in Fair Condition

BRIDGES IN NEW MEXICO BUILT BY DECADE



CONDITION OF BRIDGES IN NEW MEXICO			
CONDITION	NMDOT OWNED	LOCALLY OWNED	NATIONAL AVERAGE
POOR	3.3%	5.6%	6.8%
FAIR	62.6%	64.5%	49.1%
GOOD	34.1%	29.9%	44.1%

- ❖ Large portion of bridges built in 1950's through 1970's
- ❖ Average age of bridges in NM is over 50 years old
- ❖ \$8B to bring all fair condition bridges into a good condition
- ❖ \$1.6B to improve good condition bridges to meet national average



NMDOT Bridge Prioritization and Bridge Needs

- ❖ Bridge bureau meets with districts on individual bridge needs
- ❖ Bridges are divided up by national highway system (NHS), non-NHS, and locally owned
- ❖ NMDOT prioritizes bridge work:
 - bridge condition data
 - engineering judgement
 - critical findings
 - bridge load capacity
 - traffic capacity needs
 - Budget availability

RANK	BRIDGE_ID	FACILITY	FEATINT	MILEPOST	YEARBUILT	DECK	SUPER	SUB	CULV	RATING
1	7370	I-25 NBL	ARROYO HONDO RD	285.3	1975	7	5	4	N	POOR
2	7371	I-25 SBL	ARROYO HONDO RD	285.3	1975	7	5	5	N	FAIR
3	6221	US-550 SBL	HAMPTON ARROYO	160.7	1961	6	6	5	N	FAIR
4	6222	US-550 NBL	HAMPTON ARROYO	160.7	1961	6	6	5	N	FAIR
5	1792	IRR/US64/491 WBL	SAN JUAN RIVER	22.1	1936	3	4	4	N	POOR
6	7501	I-25 NBL	SF Southern R/R	282.0	1974	7	5	6	N	FAIR
7	7502	I-25 SBL	SF Southern R/R	282.0	1974	7	5	6	N	FAIR
8	5767	US-84/285	UNNAMED WATERWAY	166.7	1955	N	N	N	4	POOR
9	6012	I-25 NBL/SBL	VALENCIA EXIT	297.0	1957	N	N	N	4	POOR

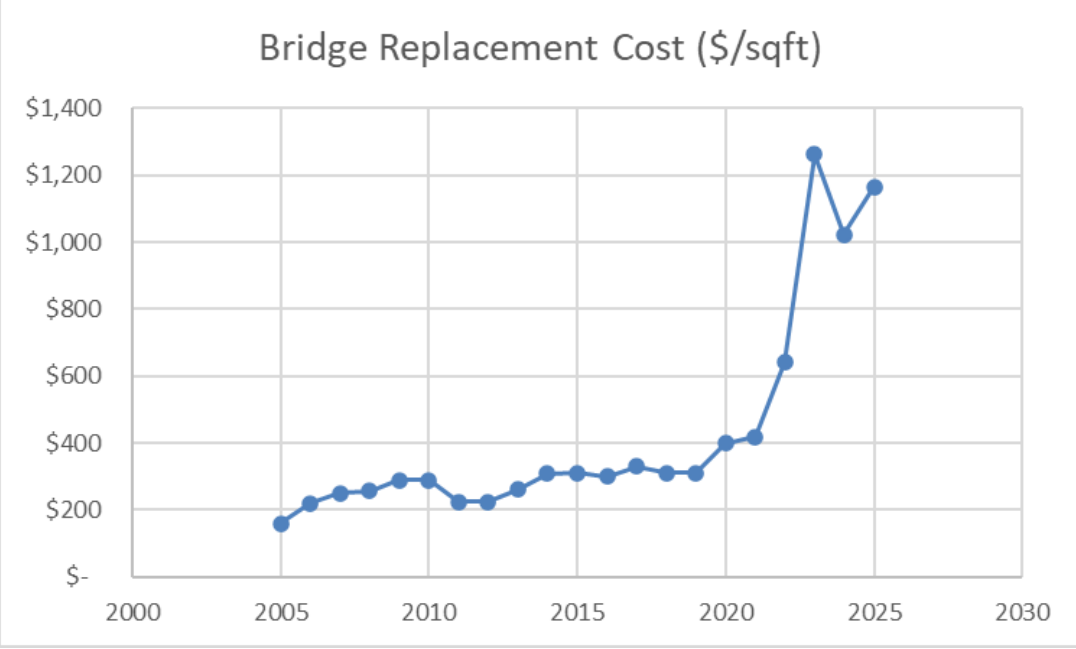


Bridge Work Costs

The average cost to build a bridge has increased from \$400/SF in 2020 to over \$1,100/SF in 2025.

ESTIMATED BRIDGE COSTS FOR TYPICAL BRIDGE

Bridge Work Activity	Example	Approximate Cost, 2025, (per square foot)
Preventive Maintenance	Deck sealing, expansion joint and bearing maintenance, paint element maintenance	\$ 117
Rehabilitation	Concrete repair, expansion joint and bearing replacement	\$ 583
Major Rehabilitation	Deck replacement, superstructure rehabilitation	\$ 875
Replacement	Bridge replacement	\$ 1,166
Culvert replacement	Culvert replacement (replacement of entire length)	\$ 875



Bridges require scheduled maintenance to meet their design service life.

Bridge Life Cycle Maintenance

- ❖ Bridges built today are designed for a 75-year design life
- ❖ Scheduled maintenance such as deck patching and joint replacement is required to meet this design life
- ❖ Failure to provide proper maintenance may lead to having to perform a major rehabilitation or an early replacement



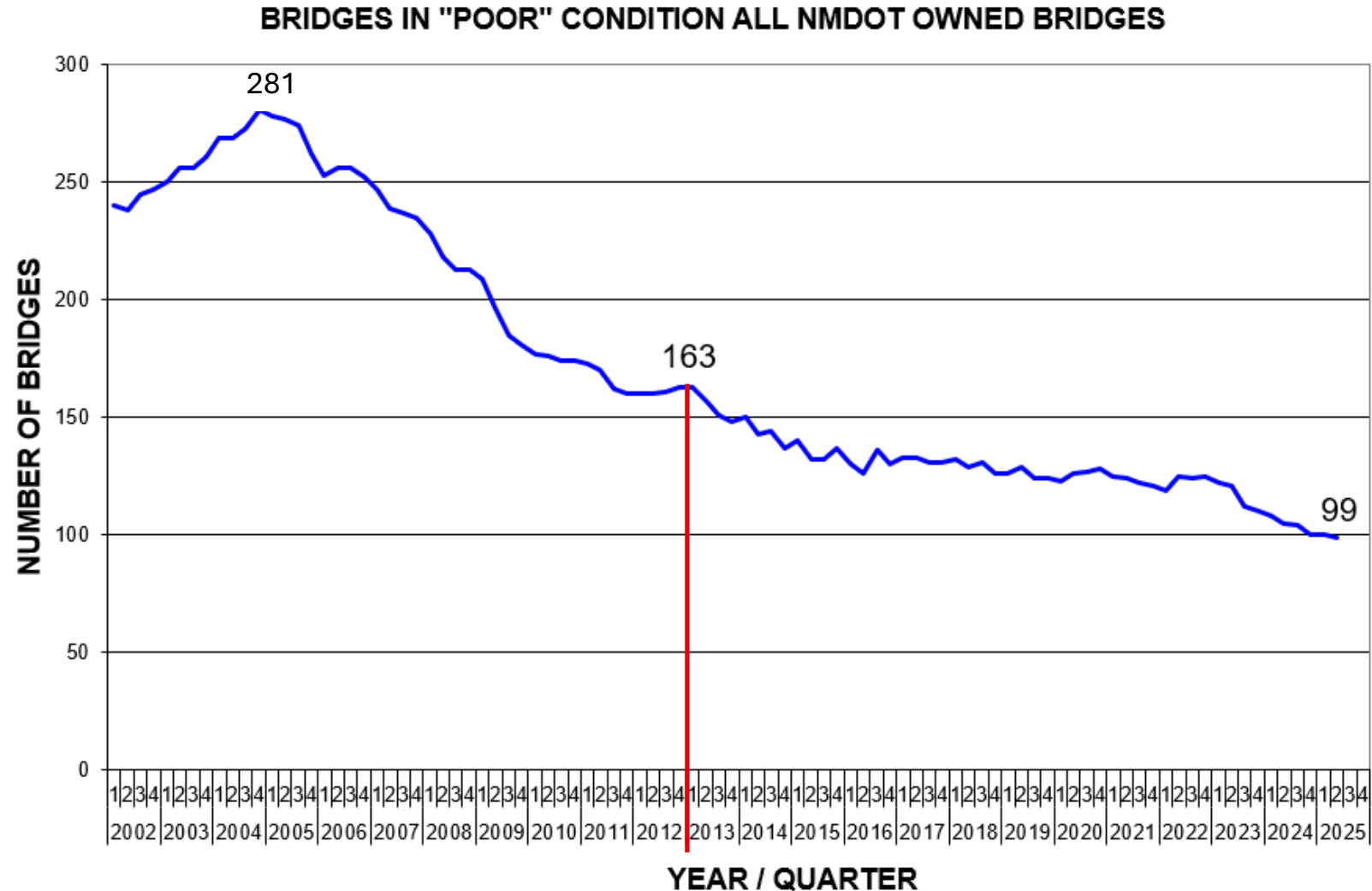
Bride Maintenance Intervals

Year	Maintenance Activity
Year 1	Deck sealing
Year 15	Deck sealing, expansion joint and bearing maintenance, paint element maintenance
Year 30	Deck replacement superstructure and substructure rehabilitation
Year 45	Deck sealing, expansion joint and bearing maintenance, paint element maintenance



NMDOT Bridge Prioritization Program

- ❖ Late 1990's: NMDOT began tracking poor condition bridges and noticed limited service life of bridge decks
- ❖ 2013: NMDOT set aside \$14 million for rehabilitation and preventive maintenance work
- ❖ NMDOT successfully reduced the number of state-owned poor condition bridges from 281 (2004) to 99 (2025)



NMDOT Bridge Price Agreements

- ❖ 2017: FHWA stopped allowing federal funds to be used on price agreements
- ❖ 2018: the NMDOT decided to only use state contract maintenance funds to pay for price agreements
- ❖ Price agreements significantly reduce time and process needed for repairs



Bridge 9030 (US-285 SB @ MP 88, south of Roswell, north embankment was washed out by large flood.



Bridge 7301 (Lordsburg interchange bridge, I-10 WB @ exit 24) was struck by an overweight vehicle.



2022 Transportation Bill – Bridge Formula Funds

- ❖ 2022 transportation bill included \$45 million/year for 5 consecutive years to be used on bridge replacements
- ❖ An additional \$18 million/year awarded for FY 2022 and FY 2023
- ❖ NMDOT bridge funding goal: spend 15% on locally owned bridges

LOCAL PROJECTS FUNDED WITH BRIDGE FORMULA FUNDS

Control Number	Local Agency Bridge Projects	Amount
LC00540	Dona Ana County	\$ 7,800,000
2104850	City of Roswell	\$ 2,400,000
2104840	City of Carlsbad	\$ 2,201,720
6101810	City of Grants	\$ 3,000,000
6101820	Sandoval County	\$ 3,964,807
		\$ 19,366,527



Transportation Project Fund (TPF) Projects

- ❖ TPF Local Grant Program:
 - Funded annually through tax distributions
 - Cannot be mixed with federal funding
 - Requires a 5% local entity match
 - Hardship waiver available
- ❖ 32 bridges were funded or designed with TPF funds
- ❖ \$36.4 million dollars awarded for bridges since 2022

FY	District	CN	Entity	State Amount 95%	Entity Amount 5%	Total
2022	1	LP10010	Village of Santa Clara	\$ 570,000.00	\$ 30,000.00	\$ 600,000.00
	1	LP10026	Sierra County	\$ 855,000.00	\$ 45,000.00	\$ 900,000.00
	1	LP10028	Socorro County	\$ 1,710,000.00	\$ 90,000.00	\$ 1,800,000.00
	4	LP40022	Guadalupe County	\$ 451,250.00	\$ 23,750.00	\$ 475,000.00
	4	LP40023	Colfax County	\$ 1,425,000.00	\$ 75,000.00	\$ 1,500,000.00
	5	LP50015	City of Bloomfield	\$ 363,850.00	\$ 19,150.00	\$ 383,000.00
	5	LP50016	Taos County	\$ 470,250.00	\$ 24,750.00	\$ 495,000.00
	5	LP50023	Rio Arriba County	\$ 190,000.00	\$ 10,000.00	\$ 200,000.00
	5	LP50029	Village of Questa	\$ 507,300.00	\$ 26,700.00	\$ 534,000.00
	6	LP60019	Pueblo of Jemez	\$ 2,958,300.00	\$ 155,700.00	\$ 3,114,000.00
	6	LP60025	McKinley County	\$ 1,900,000.00	\$ 100,000.00	\$ 2,000,000.00
	6	LP60027	Cibola County	\$ 1,187,500.00	\$ 62,500.00	\$ 1,250,000.00
	6	LP60030	Sandoval County	\$ 807,500.00	\$ 42,500.00	\$ 850,000.00
	6	LP60031	Sandoval County	\$ 1,330,000.00	\$ 70,000.00	\$ 2,105,300.04
2022 Total				\$ 14,725,950.00	\$ 775,050.00	\$ 16,206,300.04
2023	1	LP10036	Village of Hatch	\$ 547,822.96	\$ 28,832.79	\$ 576,655.75
	1	LP10037	Town of Mesilla	\$ 445,223.20	\$ 23,432.80	\$ 468,656.00
	1	LP10038	City of Socorro	\$ 332,500.00	\$ 17,500.00	\$ 350,000.00
	1	LP10048	Sierra County	\$ 1,425,000.00	\$ 75,000.00	\$ 1,500,000.00
	2	LP20034	Chaves County	\$ 1,187,500.00	\$ 62,500.00	\$ 1,250,000.00
	2	LP20035	City of Carlsbad	\$ 2,850,000.00	\$ 150,000.00	\$ 3,000,000.00
	5	LP50033	Taos County	\$ 950,000.00	\$ 50,000.00	\$ 1,000,000.00
	6	LP60032	Cibola County	\$ 1,900,000.00	\$ 100,000.00	\$ 2,000,000.00
2023 Total				\$ 9,638,046.16	\$ 507,265.59	\$ 10,145,311.75
2024	4	LP40047	City of Raton	\$ 504,758.99	\$ 26,566.26	\$ 531,325.25
	4	LP40058	Harding County	\$ 373,350.00	\$ 19,650.00	\$ 393,000.00
	5	LP50048	Santa Fe County	\$ 1,140,000.00	\$ 60,000.00	\$ 1,200,000.00
	5	LP50052	Village of Questa	\$ 541,500.00	\$ 28,500.00	\$ 570,000.00
	6	LP60039	Cibola County	\$ 1,900,000.00	\$ 100,000.00	\$ 2,000,000.00
	6	LP60041	Sandoval County	\$ 1,238,725.19	\$ 65,196.06	\$ 1,303,921.25
	6	LP60042	Village of Milan	\$ 2,850,000.00	\$ 150,000.00	\$ 3,000,000.00
2024 Total				\$ 8,548,334.18	\$ 449,912.32	\$ 8,998,246.50
2025	1	LP10070	Village of Santa Clara	\$ 444,600.00	\$ 23,400.00	\$ 468,000.00
	2	LP20058	Otero County	\$ 380,000.00	\$ 20,000.00	\$ 400,000.00
	6	LP60046	Cibola County	\$ 2,660,000.00	\$ 140,000.00	\$ 2,800,000.00

Bridge Management Software – AASHTOWare BrM



- ❖ All bridge inspection data is stored in the AASHTOWare bridge management program (BrM)
- ❖ NMDOT is moving toward BrM use to predict future projects
- ❖ BrM to provides a strong data-driven method for selection

NAJERA, BEN

Programs > Program Planning

Respect external frozen projects: Yes No

Program Information

Start Year: 2020
End Year: 2020
Utility Weight Profile: Undefined
Assigned Network Policies:

Subdivision Profile: owner
NBI Deterioration Method: NbiConverter
NBI Converter Profile: BrM Default

Optimization Progress

Complete!

Progress Messages

Initializing Program Optimization... 2/26/2020 2:30:39 PM
Processing Scenario 'Default'. 2/26/2020 2:31:28 PM
Getting Action Sequences 2/26/2020 2:31:28 PM
Getting Utility Tree 2/26/2020 2:31:29 PM
Processing Segments... 2/26/2020 2:31:29 PM
Retrieving Budgets 2/26/2020 2:31:29 PM
Estimating initial conditions of all segments 2/26/2020 2:31:29 PM
Getting inspections for State Highway Agency 2/26/2020 2:31:30 PM
Running deterioration modeling for State Highway Agency 2/26/2020 2:31:42 PM
Running deterioration modeling for State Highway Agency - 33.34% 2/26/2020 2:31:47 PM
Running deterioration modeling for State Highway Agency - 66.69% 2/26/2020 2:31:48 PM
Estimating initial performance for State Highway Agency 2/26/2020 2:31:50 PM

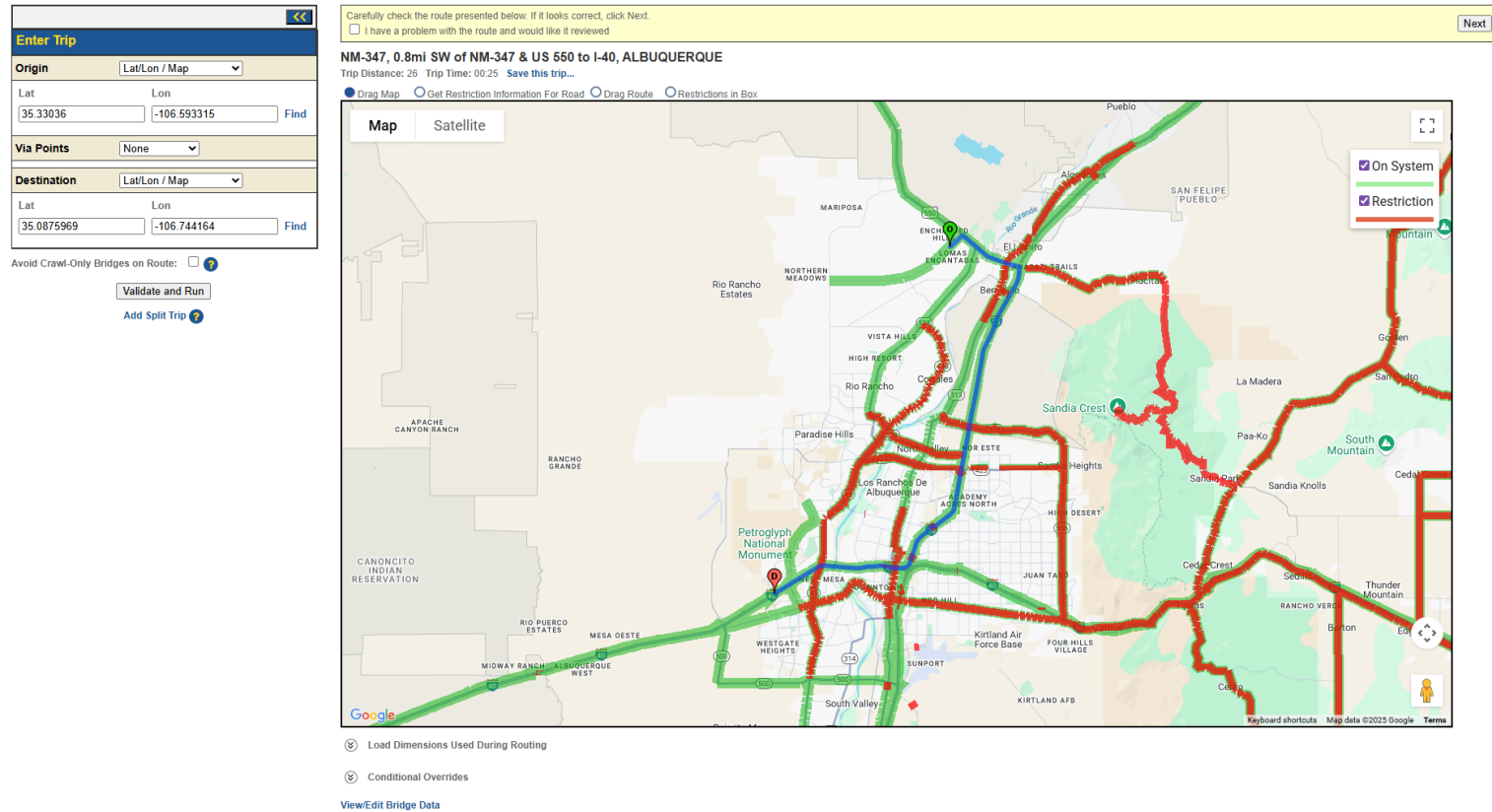
Assigned Projects

Segment: Year:

Project Name	Category	Automatic	Cost	Utility	Utility Benefit	Benefit/Cost (\$k)	Cost (\$k) / Benefit	Year	Frozen	Status
00000000009102(Preserve Deck)	No Category	Yes	\$242,190	83.15	2.82	0.0116	\$85.88	2020	No	Proposed
00000000008550(Preserve Deck, Rehab Super, Rehab)	Minor Rehab Work	Yes	\$243,563	68.19	5.34	0.0219	\$45.61	2020	No	Proposed
00000000008424(Preserve Deck, Rehab Super, Rehab)	Minor Rehab Work	Yes	\$358,629	75.88	5.35	0.0149	\$67.03	2020	No	Proposed
00000000007949(Preserve Deck)	No Category	Yes	\$348,470	73.64	3.74	0.0107	\$93.17	2020	No	Proposed
00000000007931(Preserve Deck, Rehab Super, Rehab)	Minor Rehab Work	Yes	\$571,975	74.95	5.35	0.0094	\$106.91	2020	No	Proposed
00000000007628(Preserve Deck, Rehab Super, Rehab)	Minor Rehab Work	Yes	\$431,983	64.83	5.34	0.0124	\$80.90	2020	No	Proposed
00000000007374(Preserve Deck, Rehab Super, Rehab)	Minor Rehab Work	Yes	\$165,264	74.19	2.68	0.0162	\$61.67	2020	No	Proposed
00000000007373(Preserve Deck, Rehab Super, Rehab)	Minor Rehab Work	Yes	\$55,879	78.75	5.35	0.0957	\$10.44	2020	No	Proposed
00000000007312(Preserve Deck, Rehab Super, Rehab)	Minor Rehab Work	Yes	\$418,705	70.05	5.34	0.0128	\$78.41	2020	No	Proposed
00000000007269(Preserve Deck, Rehab Super, Rehab)	Minor Rehab Work	Yes	\$383,107	70.05	5.34	0.0139	\$71.74	2020	No	Proposed
00000000007154(Preserve Deck, Rehab Super, Rehab)	Minor Rehab Work	Yes	\$507,659	72.18	5.35	0.0105	\$94.89	2020	No	Proposed
00000000006598(Preserve Deck, Rehab Super, Rehab)	Minor Rehab Work	Yes	\$587,722	70.05	5.34	0.0091	\$110.06	2020	No	Proposed
00000000006395(Preserve Deck, Rehab Super, Rehab)	Minor Rehab Work	Yes	\$553,216	67.46	5.34	0.0097	\$103.60	2020	No	Proposed
00000000006235(Preserve Deck, Rehab Super, Rehab)	Minor Rehab Work	Yes	\$477,741	71.42	5.34	0.0112	\$89.46	2020	No	Proposed
00000000006212(Preserve Deck, Rehab Super, Rehab)	Minor Rehab Work	Yes	\$500,164	73.88	5.35	0.0107	\$93.49	2020	No	Proposed

Bridge Management Software – OVLOAD

- ❖ The bridge management section performs bridge capacity analysis for all overweight permits issued in the state
- ❖ This section works to ensure that oversize and overweight vehicles can safely travel across the state
- ❖ NMDOT uses a beam analysis program called OVLOAD for all overweight permits



The screenshot displays the OVLOAD software interface. On the left is the 'Enter Trip' form with the following fields:

- Origin:** Lat: 35.33036, Lon: -106.593315
- Via Points:** None
- Destination:** Lat: 35.0875969, Lon: -106.744164

Buttons include 'Validate and Run' and 'Add Split Trip'. Below the form is a checkbox for 'Avoid Crawl-Only Bridges on Route:'. The main area shows a map of Albuquerque, NM, with a route highlighted in red. A yellow banner at the top of the map area reads: 'Carefully check the route presented below. If it looks correct, click Next. I have a problem with the route and would like it reviewed.' Below the map, the route is identified as 'NM-347, 0.8mi SW of NM-347 & US 560 to I-40, ALBUQUERQUE'. Trip details include 'Trip Distance: 26' and 'Trip Time: 00:25'. A legend on the right indicates 'On System' (green line) and 'Restriction' (red line). At the bottom, there are links for 'Load Dimensions Used During Routing', 'Conditional Overrides', and 'View/Edit Bridge Data'.