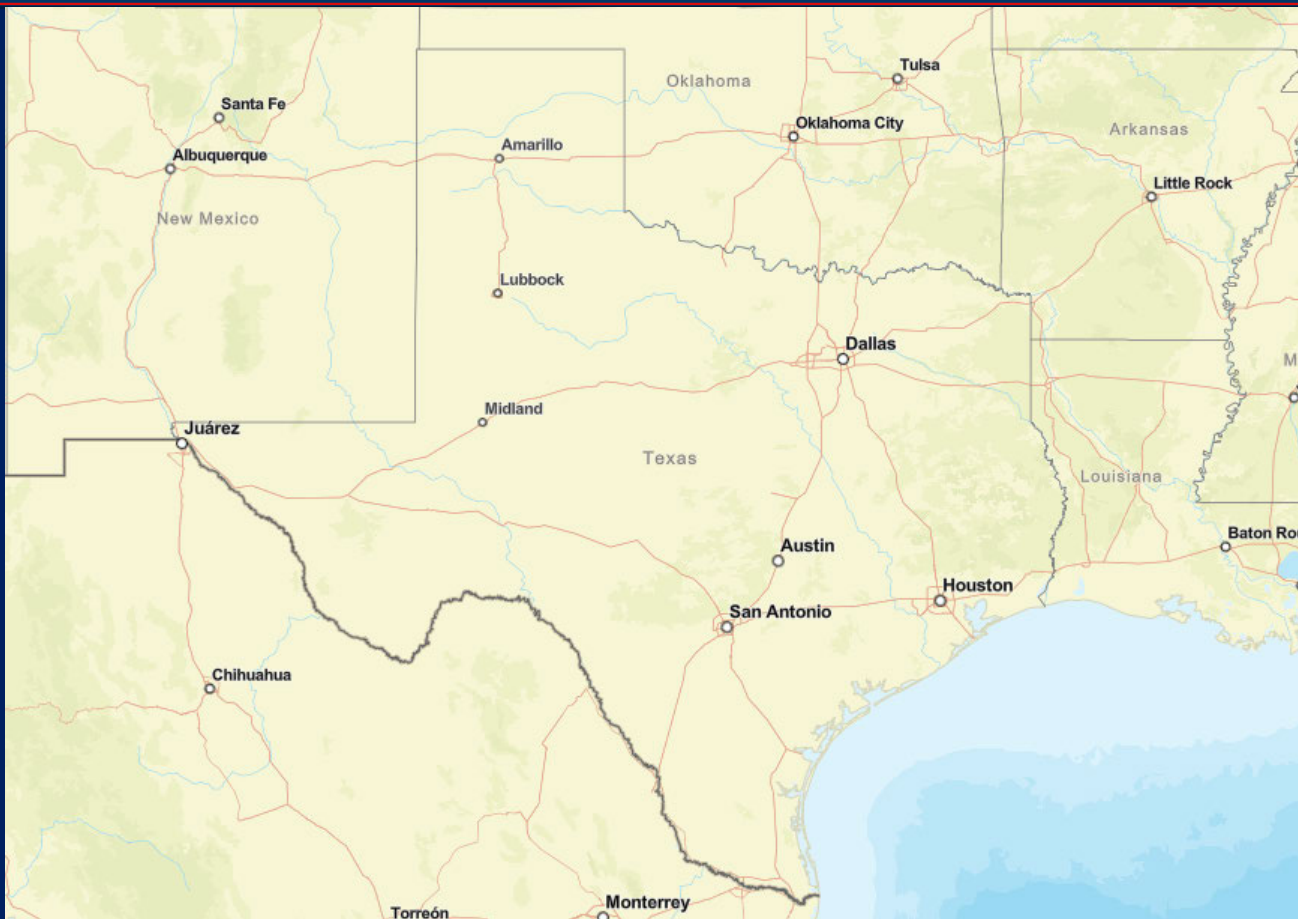


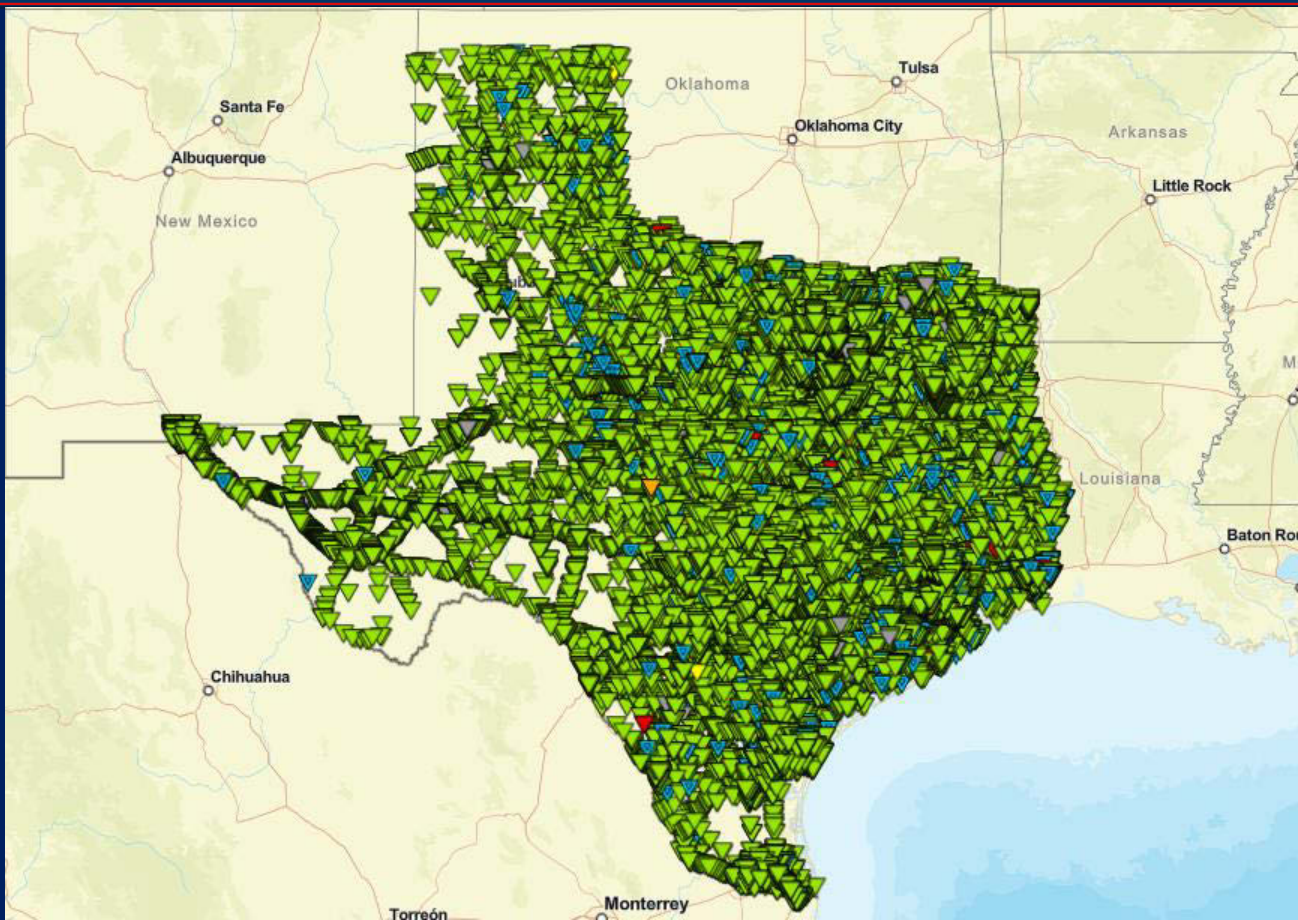
TxDOT Bridge Division

Jamie F. Farris, P.E. – Bridge Division Director



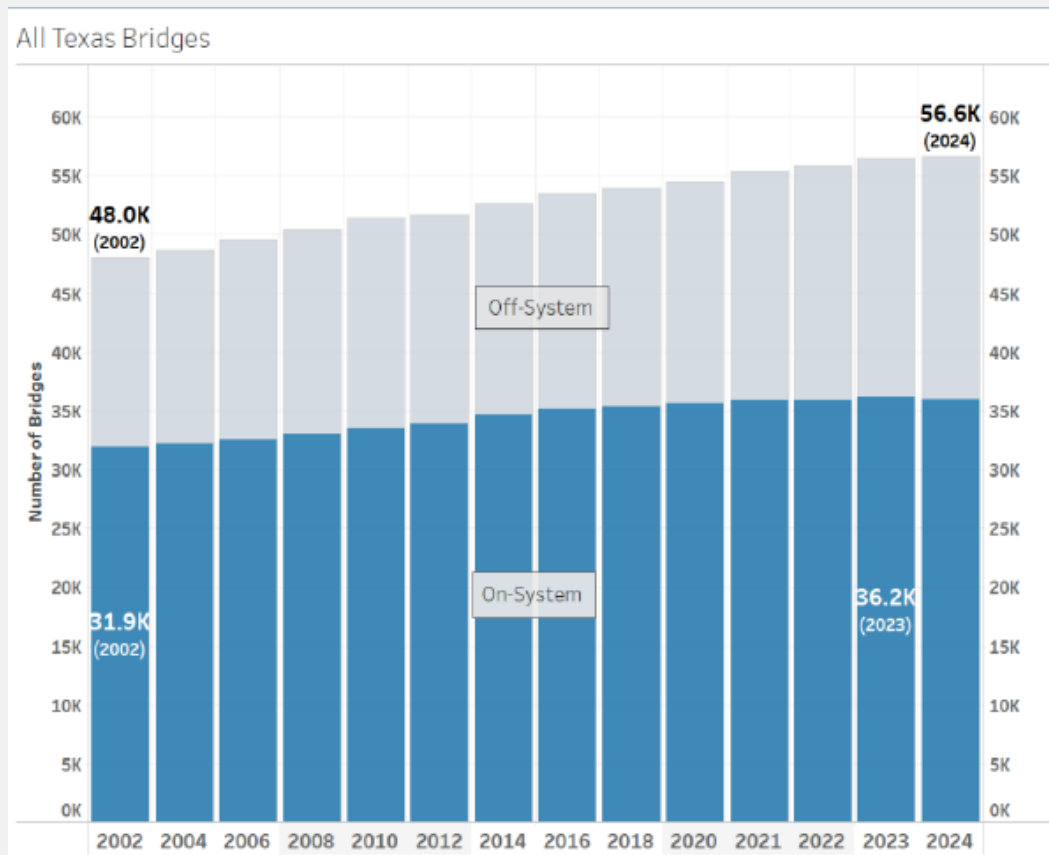
April 14, 2025



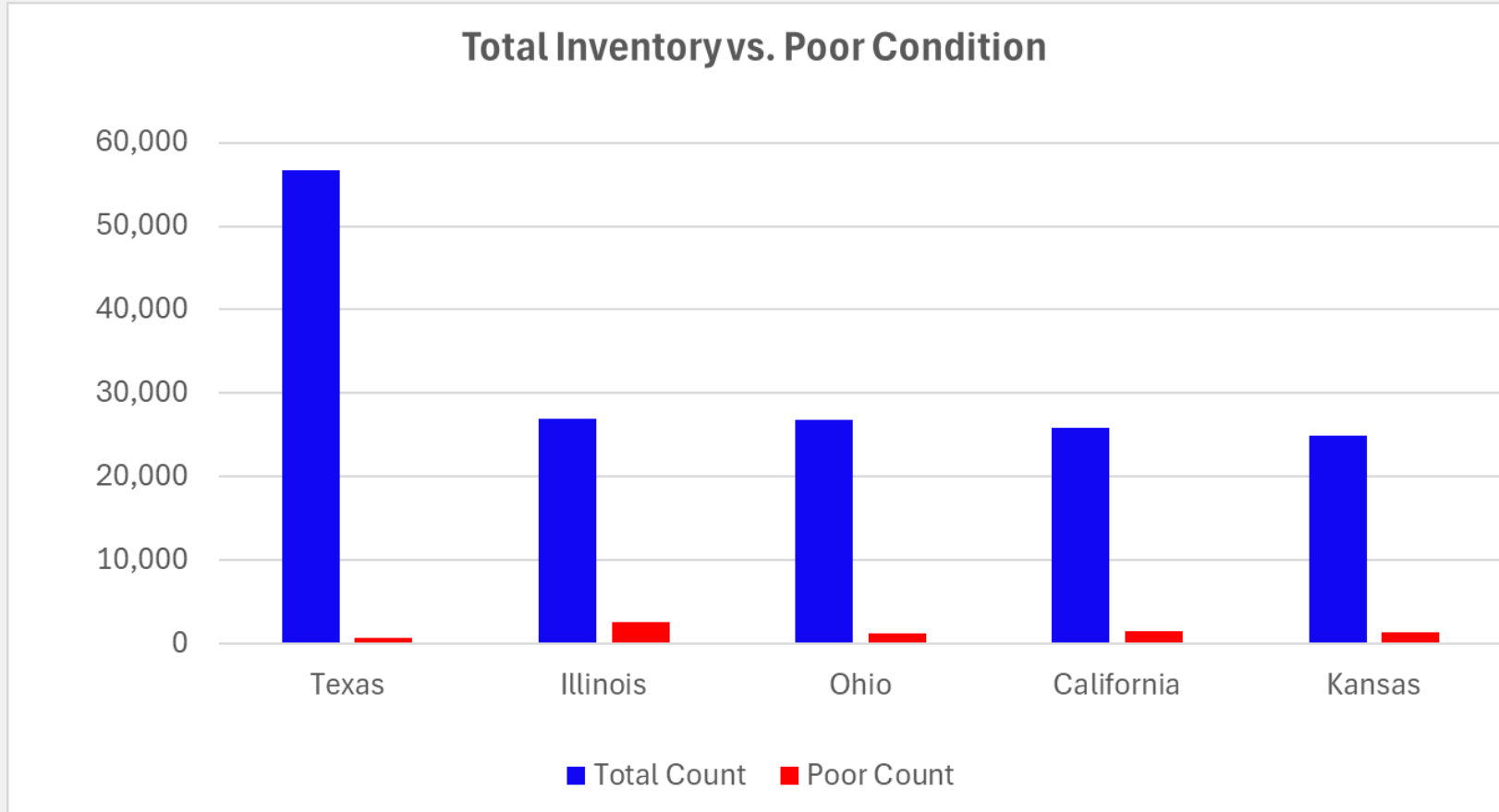


Texas Bridges

- 56,620 Total Bridges
- 35,973 On-system
- 20,647 Off-system



Texas Compared to Other States



Texas Bridges: What we did

- Priority in 2001 – Reduce percentage of Poor Condition bridges

2001: 6.6%

2008: 3.6%

2019: 1.3%

2023: 1.2%

2025: 1.1%



Texas Bridges

2024 State Data	Rank: SD bridges as % of inventory	Rank: # SD bridges	Rank: % of bridge area SD	Number of Bridges	Number of SD bridges	SD Bridges as % of Inventory
Florida	46	34	48	13,036	364	3.0%
District of Columbia	47	52	21	257	5	2.0%
Georgia	48	38	51	15,069	240	2.0%
Delaware	49	51	45	872	11	1.0%
Texas	50	22	50	56,729	695	1.0%
Arizona	51	46	49	8,573	99	1.0%
Nevada	52	50	52	2,099	24	1.0%

Bridge Funding

- Category 6 – managed by Bridge Division
- Performance based prioritization process
- Sub-programs
 - Highway Bridge Program
 - Bridge Maintenance & Improvement Program
 - Bridge System Safety

TABLE 7: FUNDING CATEGORIES AND DISTRIBUTION**(10 year Plan)**

FUNDING CATEGORY		2025 UTP DISTRIBUTION
1	Preventive Maintenance & Rehabilitation	\$18,667,880,000
2	Metro and Urban Corridor Funding	\$11,487,980,409
3	Non-Traditionally Funded Transportation Projects	\$6,604,813,383
4	Statewide Connectivity Corridor Projects	\$20,066,864,154
5	Congestion Mitigation and Air Quality Improvement	\$2,322,790,000
6	Structures Replacement and Rehabilitation (Bridge)	\$4,681,612,746
7	Metropolitan Mobility and Rehabilitation	\$6,041,345,275
8	Safety Projects	\$3,747,421,009
9	Transportation Alternatives	\$1,769,509,408
10	Supplemental Transportation Projects	\$2,611,692,752
11	District Discretionary	\$6,146,047,030
12	Strategic Priority	\$20,025,958,943
TOTAL UTP FUNDING: CATEGORIES 1-12		\$104,173,915,109

Bridge Funding

- CAT 6 Funding over time (in millions)

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
\$300	\$300	\$203	\$213	\$253	\$352	\$339	\$387	\$408	\$576

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
\$511	\$379	\$422	\$438	\$462	\$461	\$493	\$504	\$487	\$493	\$477



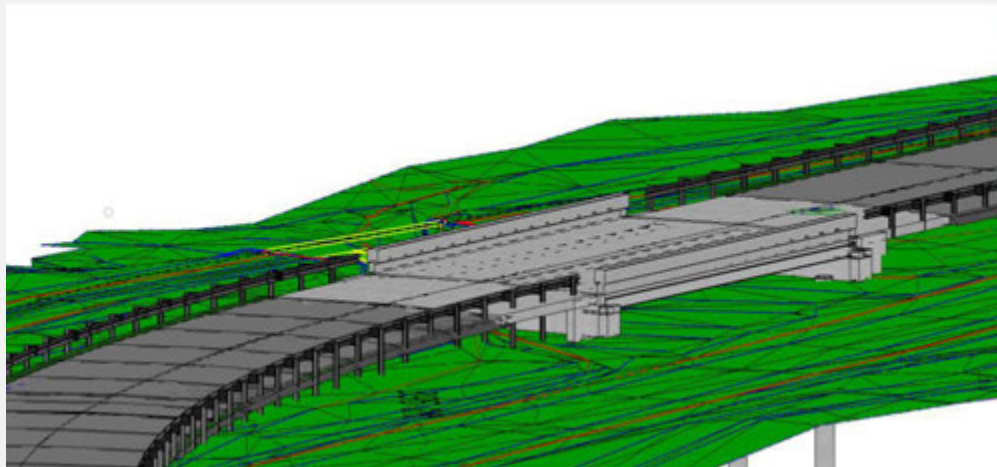


Texas Bridges: What We're Doing



Bridge Digital Delivery

- Implementation of Open Bridge Modeler – Since 2022



Bridge Digital Delivery



Bridge Briefings

- Began in June 2024 – once a month webinar
 - Bridge Design QA/QC
 - Bridge Layouts and PBLR
 - Rail retrofits
 - TIP testing and load testing DS guidance
 - Bridge deck overlay options
 - Bridge Division resources
 - Bridge load rating program



Geotechnical Design

- New LRFD Manual published



Geotechnical Manual - LRFD

Bridge Division

April 2024

Data Driven Decisions

- AASHTO BrM Software for asset management
 - Use of historic condition trends to make predictions of performance.
 - TxDOT sponsored multiple research projects for deterioration modeling.



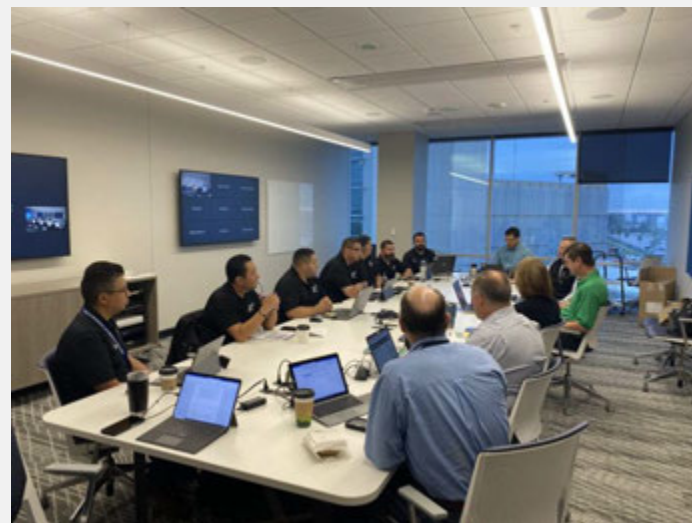
Data Driven Decisions

- Renewed focus on tracking, reporting, and performing repairs from inspection findings.
 - Use of GIS tools
 - Assignment of levels of severity to help prioritize



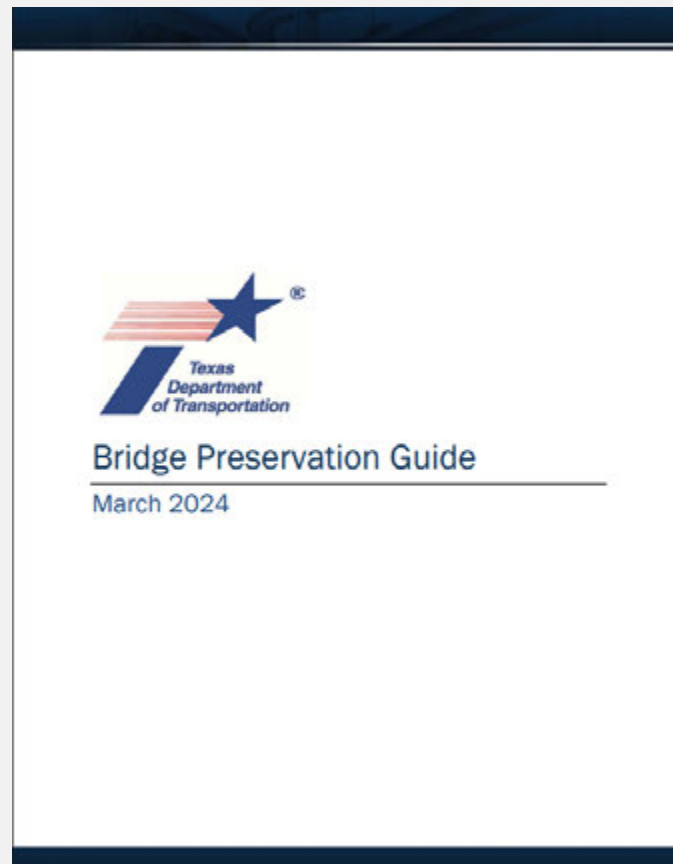
District 4YR Bridge Plan Meetings

- Goals:
 1. Ensure we are maintaining our on-system bridges that are in good or fair condition
 2. Reduce the number of on- and off-system bridges in poor condition,
 3. Work towards or maintaining the Bridge Condition Score targets established by TxDOT Commission
 4. Identify best practices and opportunities for improvement.



Bridge Preservation

- Bridge Preservation Guide
 - Decks
 - Joints
 - Concrete superstructures and substructures
 - Steel superstructures
 - Culverts
 - Riprap repair



Repair Working Drawings

WORKING DRAWINGS

Description
Index Sheet of Working Drawings

File Name
[WD-Table-24.dgn](#)

Bridge Decks

Description
Full Depth Deck Repair
Partial Depth Deck Repair
Bridge Deck Overlay Notes
Waterproof Details

File Name
[WD-FDDR-24.dgn](#)
[WD-PDDR-24.dgn](#)
[WD-BDON-24.dgn](#)
[WD-WPD-24.dgn](#)

Bridge Joints

Description
Cleaning and Sealing Existing Bridge Joints
Cleaning and Sealing Existing Bridge Joints (Strip Seal)
Cleaning and Sealing Bridge Joints (Pan Girders)
Precompressed Foam Expansion Joint Seal
Joint Repair and Replacement Details (For Bridges With Asphalt Overlay)
Joint Repair and Replacement Details (For Bridges Without Asphalt Overlay)

File Name
[WD-CSBJ-24.dgn](#)
[WD-CSBJ\(SS\)-24.dgn](#)
[WD-CSBJ\(PG\)-24.dgn](#)
[WD-PFEJ-24.dgn](#)
[WD-JRR\(ACP\)-24.dgn](#)
[WD-JRR-24.dgn](#)

Beams and Bearing Pads

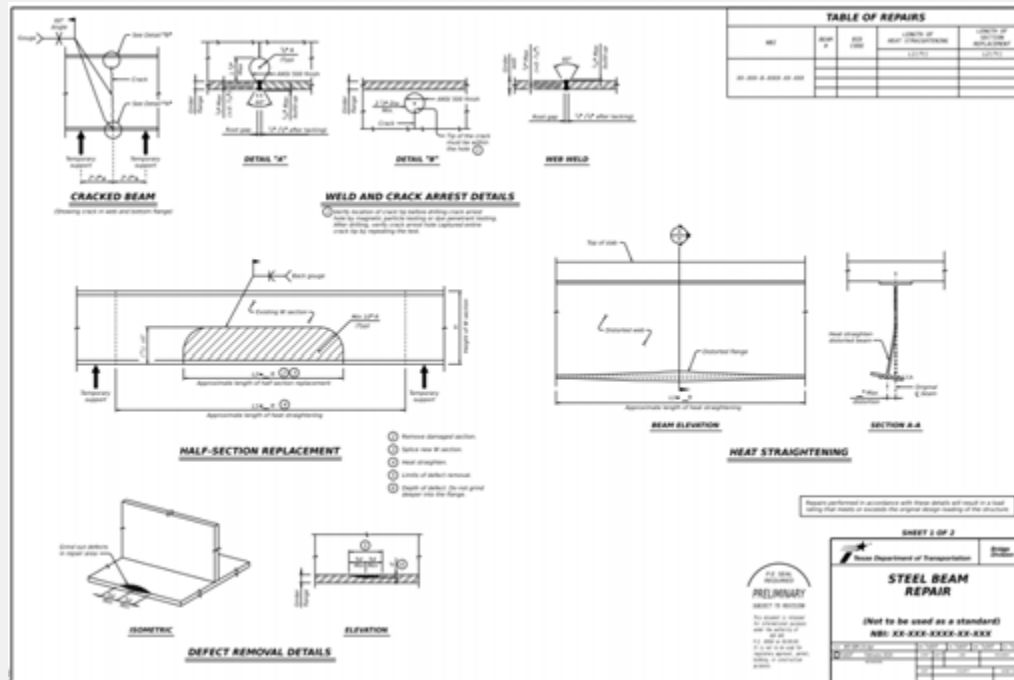
Description
Elastomeric Bearing Replacement (Concrete)
Elastomeric Bearing Replacement (Steel)
Prestressed Concrete Beam Repair
Bridge Protective Beam Wrap
Steel Beam Repair
Zone Painting Details

File Name
[WD-EBR\(C\)-24.dgn](#)
[WD-EBR\(S\)-24.dgn](#)
[WD-PCBR-24.dgn](#)
[WD-BPBW-24.dgn](#)
[WD-SBR-24.dgn](#)
[WD-ZPD-24.dgn](#)

Substructure and Culverts

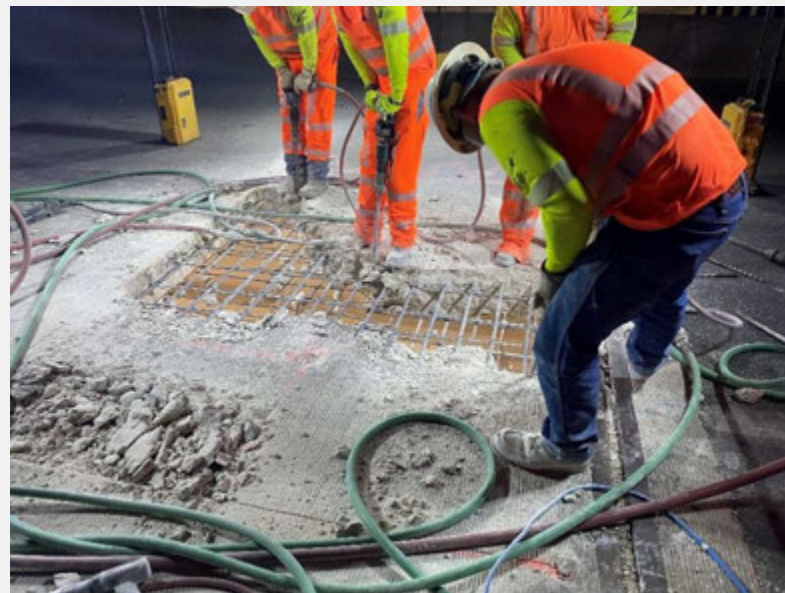
Description
Pile Encasement
Bent Cap Repair Details
Box Culvert Slip Lining Details

File Name
[WD-PED-24.dgn](#)
[WD-BCRD-24.dgn](#)
[WD-BCSL-24.dgn](#)



Attacking Bridge Work from All Angles

- No longer solely reliant on Highway Bridge Program
- Now looking at numerous funding categories to cover different facets of bridge rehab, repair, and maintenance work.
- Vastly expanding in-house bridge work, both in terms of work categories and amount of work being performed.



Workforce Development

 Daryn Sims 4/15 9:38 AM

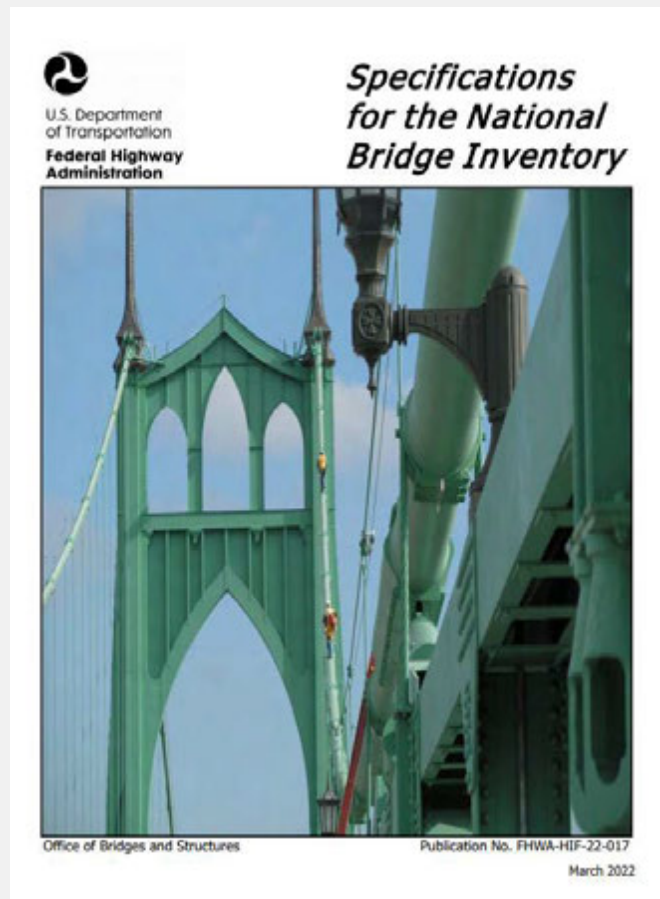
Odessa FUA Training

In House FUAW Correction Group I wasn't able to make it out with the group on this one, but it looks like Odessa had a great turnout and got to put their hands on some FUA's. Thank yall for having us!



Bridge Inspection

- Transition from NBIS to SNBI
- Began in 2022



Steel Bridges

- Texas is the first state to get an FHWA approved plan for designating, designing, and inspecting System Redundant Members (SRM) and Internally Redundant Members (IRM)
 - Updated TxDOT Inspection Manual and Bridge Design Manual
- Ongoing work to re-classify existing steel twin tub girder bridges by complex analysis.







Final Thoughts

