**Technical Assistance Webpage**

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| **WHAT IS TECHNICAL ASSISTANCE?** |

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| TxLTAP’s grant-funded technical assistance for public works and road & bridge employees provides expert guidance and practical support to address specific challenges in maintaining and improving infrastructure.This no-cost assistance covers areas such as roadway maintenance, repair techniques, safety protocols, and project efficiency. By tapping into specialized knowledge, public works staff will attempt to find tailored solutions to complex problems, ensure compliance with regulations, and enhance the quality and safety of transportation networks.TxLTAP's technical assistance helps employees work more effectively, leading to smoother operations and better-served communities, all while being fully grant-funded. |
| **Have a technical question?**We want to hear it! If you’re asking, someone else might be too... |

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| Do you have questions or need support on roadway-related challenges? TxLTAP is here to help! Take advantage of this opportunity to get the answers you need — reach out to us today!﻿Simply click the button below, complete the form, and we’ll provide you with the answers you’re looking for. |
| **Technical Assistance Examples** |
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| **Texas City/County Area of Concern:** |

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| **Issue:**A county reached out to TxLTAP regarding a rapidly deteriorating roadway that had undergone multiple short-term repairs but continued to degrade.**TxLTAP Assessment:**After a thorough evaluation, TxLTAP experts identified that poor drainage was the underlying cause of the road’s erosion, rather than just surface wear. The county had been addressing the symptoms rather than the root cause.**TxLTAP Resolution:**TxLTAP provided the county with detailed guidance on improving drainage along the roadway, focusing on right-of-way corrections. They recommended implementing long-term solutions, such as:* **Regrading Shoulders and Ditches:** Enhanced water flow by properly sloping ditches to prevent pooling and erosion.
* **Installing Proper Culverts:** Ensured effective water management by installing correctly sized and placed culverts.
* **Using Geotextiles:** Reinforced the road base to improve drainage and prevent erosion.
* **Improving Road Crown Design:** Enhanced water runoff by adjusting the road’s crown to prevent water pooling on the surface.

Additionally, TxLTAP advised the county on preparing the roadway for resurfacing using high-quality materials and preventive maintenance strategies to extend its lifespan.**Common Drainage Solutions for Eroding Roads:****﻿**To mitigate the impacts of poor drainage on roads, TxLTAP recommends the following strategies:* **Improved Ditching and Grading –**Re-grade Road shoulders and ditches to direct water away.
* **Installing Culverts** **–**Prevent erosion by allowing water to pass under the roadway.
* **French Drains –**Redirect surface and groundwater with gravel-filled trenches.
* **Proper Crown Design –**Ensure roads are sloped from center to edges for better runoff.
* **Installing Geotextiles –**Reinforce roads by placing geotextile fabrics beneath the surface.
* **Riprap Installation –**Place large stones along drainage channels to slow water flow and reduce erosion.
* **Vegetative Erosion Control –** Plant grass or other vegetation to stabilize soil.
* **Drainage Pipes and Channels –**Use additional drainage systems to handle excess runoff.
* **Check Dams –** Slow water flow in steep drainage areas with check dams.

Each solution must be tailored to the specific environment and severity of the issue to extend the life of the roadway effectively. |

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| **Texas City/County Area of Concern:** |

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| **Issue:**A Texas city faced significant roadway deterioration with a severely limited budget for repairs. The city’s leadership sought assistance from TxLTAP to identify cost-effective solutions.**TxLTAP Assessment:**TxLTAP met with the City Manager and Public Works Director to review the city’s budget and strategize how to stretch their resources. The goal was to achieve the maximum impact on roadway repairs and long-term maintenance, despite the limited financial resources.**TxLTAP Resolution:**TxLTAP provided expert advice on construction activities and suggested the following affordable and effective strategies for extending the city’s road repair budget while maintaining quality:* **Preventative Maintenance Programs:**Regular activities like crack sealing and patching can delay the need for costly repaving by addressing minor issues early.
* **Pavement Preservation Techniques:** Methods such as slurry sealing and micro-surfacing protect and extend pavement life, preventing water infiltration and reducing the need for reconstruction.
* **Use of Recycled Materials:** Utilizing recycled asphalt pavement (RAP) or recycled concrete reduces material costs while promoting environmental sustainability.
* **Cold In-Place Recycling:** This method recycles existing pavement material on-site, saving costs on new materials and transportation.
* **Geosynthetics for Road Reinforcement:**Using geogrids and geotextiles strengthens the road base, improving drainage and load distribution to extend the pavement's lifespan.
* **Thin Asphalt Overlays:** A thin layer of asphalt can provide a new surface at a fraction of the cost of full reconstruction.
* **Optimizing Road Design for Traffic Loads:**Matching materials to the expected traffic loads helps prevent premature wear and optimize resource use.
* **Public-Private Partnerships (PPPs):** Collaborating with private companies spreads the financial burden and accelerates improvements.
* **Prioritizing Repairs Based on Data:**Using pavement management systems ensures funds are spent on the most critical repairs.
* **Deferred Reconstruction and Phased Repairs:** Tackling one section at a time spreads the cost of necessary reconstruction over multiple years.
* **Bond or Grant Funding:** Federal and state grants or bond financing can supplement local budgets for infrastructure improvements.

TxLTAP helped the city identify long-term solutions and extend the longevity of its roadways without exceeding its limited budget. |

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**Need a Technical Consultation?**

TxLTAP Technical Assistance: Expert Guidance, Proven Solutions, and Safer Roads – at No Cost! – Empowering you to build and maintain safer, more efficient roadways every step of the way