



# Construction & Materials Tips

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**Editor's Note:** We asked Ken Fults, the Director of Materials and Pavements (CSTM&P) to provide an analysis of this newly formed section. Ken started with TxDOT in Lufkin as their District Laboratory Engineer. He later moved to Austin and worked in the M&T laboratory before joining the Design Division – Pavements Section.

In this article, Ken comments on the materials testing and laboratory functions of CSTM&P, and relates how these will best serve district operations:

## The New Materials and Pavements Section - an Analysis

The new Materials and Pavements Section (CSTM&P) is more than just a combination of the Materials and Tests Section and the Pavements Section; it is a response to the need to integrate operations and provide seamless support to district functions. The pavement design, mix design, construction specifications, materials testing, and pavement evaluation functions should flow as one continuous, integrated process. A failure in any given area results in a failure of the product.

### Quality

The District Laboratory is the cornerstone of a successful construction project. A good laboratory operation should be proactive in resolving issues before they become problems. The district laboratory should be the eyes and ears of the District Construction Engineer. Stay ahead of the curve by providing planning and design input. This can be as simple as making sure that an overlay is not placed over an existing pavement with underlying problems, such as stripping of the aggregate matrix. A few core samples can save millions of dollars.

One of the greatest concerns in accurate quantification is proper sampling. Often, we treat sampling like flagging, and send our least experienced staff to collect samples. The best test methods cannot compensate for a poor sample.

### Integrity

There should never be a question about the integrity of laboratory test reports or results. To assure integrity requires a trained staff, serviceable and reliable test equipment, and strict adherence to all test procedures. When (*not* if) there is a dispute concerning test results, there should be no question of accuracy or bias.

## Timeliness

Never withhold test results from contractor, and see that they receive them in a timely manner. If we believe our tests have value, then the greatest value is in using those results to make positive changes in quality; not merely create documentation. We *measure* quality, but only the contractor can *provide* quality. It is, therefore, in our best interest to share quality results.

## Maintenance

An important but often overlooked function of the district laboratory is providing support to maintenance operations. Assist them to select, secure, and use the same high-quality materials in their maintenance operations as were originally required for contract construction. Establishing continuity from design and construction to maintenance is vital - and comes naturally to a good laboratory operation. CSTM&P is committed to fostering that same continuity of design, construction, and maintenance through the various section and branch operations.

## Conclusion

When you have problems, do not hesitate to call. But – feel free to call *before* you have problems. We are here to help and to support your efforts with constructive solutions. Depending on your question or area of concern, call any of us listed below:

Title/Branch	Name	Telephone (512)	Fax (512)
Section Director	Ken Fults	506-5804	506-5812
Assistant Director	Jeff Seiders	506-5808	506-5812
Accelerated Pavement Testing	Dar-Hao Chen	467-3963	465-3681
Aggregates	Caroline Herrera	506-5907	506-5915
Asphalt	Darren Hazlett	506-5816	506-5825
Bituminous/Flexible Pavements	Dale Rand	506-5836	506-5839
Calibration	Joe Canfield	465-7358	467-5999
Cement/Concrete	Gerald Lankes	506-5855	506-5865
Coatings	Darren Hazlett	506-5816	506-5825
Instrumentation	Darren Hazlett	506-5816	506-5825
Misc. Products	Karl Janak	506-5922	506-5939
Pavement and materials	Mike Murphy	465-3686	465-3681
Precast Concrete	Joe Roche	506-5932	506-5939
PMIS Data	Bryan Stampely	465-3676	465-3681
Rigid Pavements	Gary Graham	506-5845	506-5865
Soils	Caroline Herrera	506-5907	506-5915
Structural Steel	Jason Tucker	506-5935	506-5939
Traffic Illumination	Darren Hazlett	506-5816	506-5825