

IOWA GYRATORY MIX DESIGN (SuperPave) FOR LOCAL AGENCIES

IMPLEMENTATION BULLETIN #4
March 2001

Since the initial study indicates that there will be no significant changes to the current mixes, the primary difference between the current and future practices will be only in the mix design methodology. The information obtained from gyratory mix design gives the engineer a better understanding of the mixture over the Marshall method. Minor adjustments to less than 10% of the local mixtures may be necessary; however, it is the intent of the implementation evaluation to NOT have a significant negative impact on the current local agency asphalt paving programs.

The committee does not plan to automatic test concurrent Marshall and Gyratory mix samples. However, we encourage the cities and counties with mixtures that have not been previously analyzed to request testing of their 2001 Marshall projects. A statewide cross-section of data is being used to develop the mix criteria. In Districts that have marginal representation in the original test database additional data would be desirable. This will ensure a successful implementation of gyratory technology for all low volume routes. Please refer to SuperPave Bulletin #2 for the data requirements for this mixture evaluation. Previous Bulletins are available on the Local Systems website at

www.dot.state.ia.us/local_systems/publications/publications.htm

under the heading "Iowa Gyratory Mix Design (SuperPave) Bulletins". If you have any questions about this process please contact John Hinrichsen at the Central Materials Office at (515) 239-1601.

It is the goal of the Implementation Team to have a Special Provision for local agencies to utilize Gyratory technology by April of 2001. It will be an all-inclusive document containing all of the pertinent information necessary for preparing the mix design and administering a Gyratory project. Although this will not meet the plan turn-in dates for projects being let in Spring of 2001, the committee hopes that local agencies will be willing to utilize this technology in pilot projects through Mutual Benefit Change Orders with the contractors. A separate design guide is being prepared to assist pavement designers with material and mixture selection.

The statewide training sessions held this past winter were well attended by both engineers and technicians responsible for pavement design, mix design and construction practices. The information gained will be a valuable tool in understanding how the change in design methods will be a vast improvement over past practices. It also serves as a guide in developing these changes on the local level. Until the gyratory technology has been fully implemented the DOT will continue to conduct these sessions during the winter training season. If you have not taken advantage this free opportunity in the past you are encouraged to do so. For more information on SuperPave training contact Mike Heitzman at the Central Materials Office at (515) 239-1003.

It is the intent of the Implementation Plan to successfully apply Gyratory Mix Design Technology for all future asphalt paving in Iowa. This Implementation Plan will allow local agencies to continue to utilize their existing aggregates while applying Gyratory Mix Design criteria.

The Implementation team hopes to conduct several open house sessions this construction season to familiarize everyone with the technology. If you would like to showcase your asphalt project please feel free to contact any of the members of the Implementation Team. We will be happy to coordinate a demonstration session in your area.

The members of the Local Agency Implementation Team are:

Jon Ites, Buena Vista County Engineer
Todd Hagan, Madison County Engineer
Dave Paulson, Carroll County Engineer
Eric Schallert, City of Davenport
Ted Huisman, Cessford Construction Co.
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This is the fourth in a series of bulletins to be issued by the Implementation Team. If you desire more information about the Implementation Plan please contact Mike Heitzman at the Central Materials Office at (515) 239-1003.