

## Geospatial Data Recommended for Loading

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### **AGIO Evaluation Procedures**

- 1) Datasets that pertain to the framework data layers
- 2) Datasets that support current, statewide coordination activities
- 3) Critical infrastructure datasets required for homeland security
- 4) Statewide spatial data sets that are enhanced or unique to those currently in GeoStor
- 5) Spatial data sets covering large geographic areas of Arkansas that are enhanced or unique to those currently in GeoStor
- 6) City, County, or Local spatial data sets that are enhanced or unique to those currently in GeoStor
- 7) Any entity may chose to cover the cost of having its spatial data placed in GeoStor at a higher priority. The cost to input the spatial data will be estimated from the information provided in the procedural section.

In accordance with Board policy PS-01 GeoStor Data Loading Procedures of the Board the following list of geospatial data sets are recommended to the Board for loading into GeoStor by the AGIO.

**Data Category:** Transportation

**GIS Board Priority Category:** 1, 2, 3, 4, & 5

**Title:** Weight Restricted Highways

**Publisher:** Arkansas State Highway and Transportation Department

**Abstract:** This dataset contains line attributes which represent the weight restricted portions of highways in the state that are regulated by the Arkansas State Highway and Transportation Department.

**AGIO Recommendation:** AGIO recommends this data be loaded.

**Data Category:** Transportation

**GIS Board Priority Category:** 1, 2, 3, 4, & 5

**Title:** Posted Highways Bridges

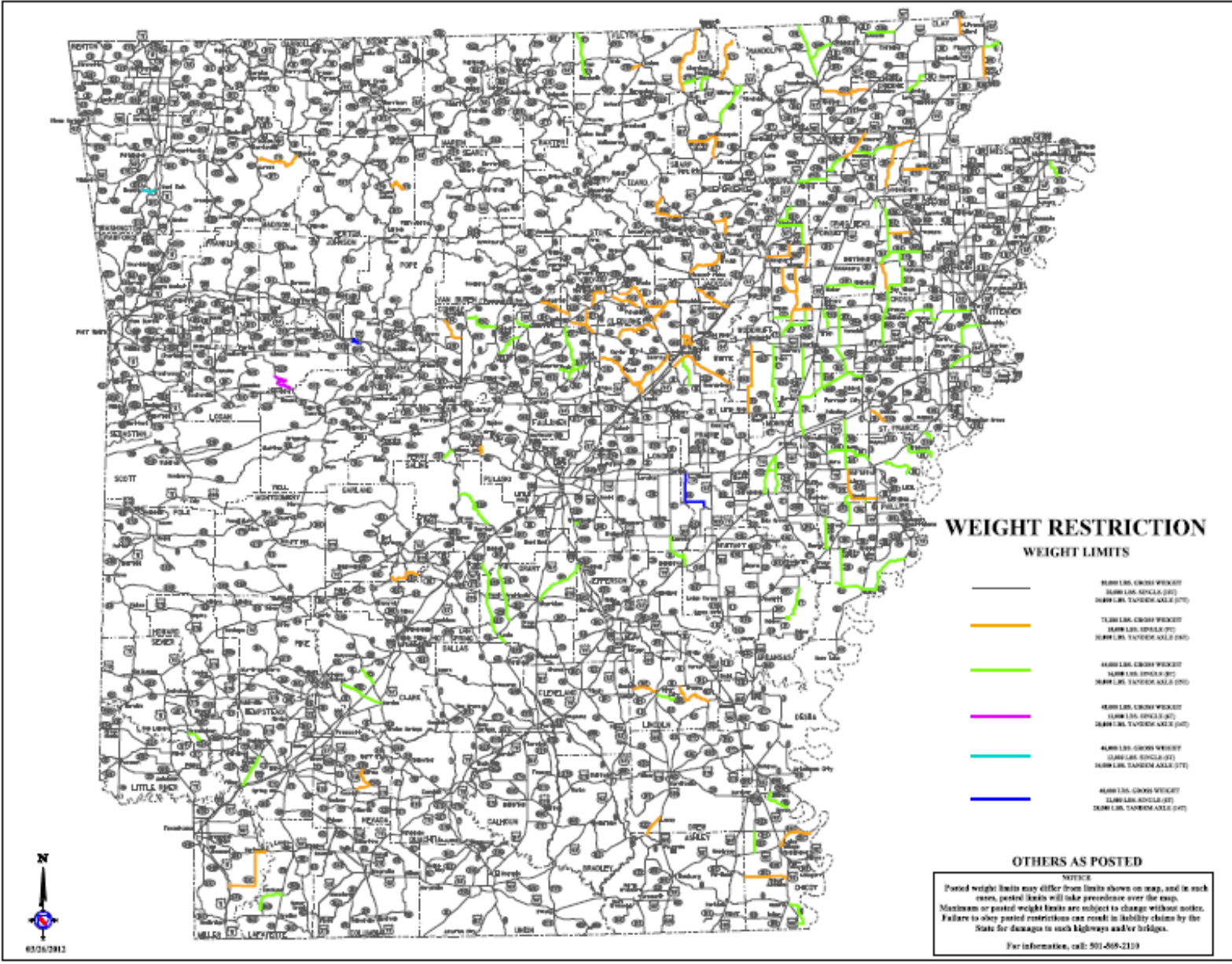
**Publisher:** Arkansas State Highway and Transportation Department

**Abstract:** This dataset contains point attributes which represent the posted highway bridges and weight limits in the state that are regulated by the Arkansas State Highway and Transportation Department.

**AGIO Recommendation:** AGIO recommends this data be loaded.

# ATTACHMENT 3

## Graphic Depicting Weight Restricted Highways and Posted Highways Bridges



# ATTACHMENT 3

## ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT Process for Establishing a Weight Restriction on A Non-weight Restricted Bridge

It is beneficial to the motorists of Arkansas that full, unrestricted access be provided across all bridges when possible. However, it is the responsibility of the Department to ensure that the bridges are maintained in a condition suitable for use by the traveling public. In order to maintain some bridges in a suitable condition, it may be necessary at times to limit the amount of weight that can be carried by a single load on those bridges.

The following is the process by which bridges that are experiencing significant deterioration can be weight restricted to preserve their conditions.

- The initial evaluation and continual monitoring of all bridges is the responsibility of the appropriate District Engineer and Bridge Inspection staff.
- Distress that can be attributed to loadings in excess of those for which the bridge was designed or is the result of seasonal or unusual conditions that have changed the characteristics of the bridge may be cause for a bridge rating analysis. At the first sign of significant distress in a bridge element, the Bridge Rating Section will evaluate the bridge and the Bridge Design Engineer will forward the rating to the State Maintenance Engineer.
- After consultation, the District Engineer or the State Maintenance Engineer will determine if any of the elements of the bridge can be repaired or modified by Department Bridge Maintenance Crews.
- If the bridge rating analysis indicates a short remaining bridge life due to the increased loading or seasonal conditions, and the needed improvements are beyond the capabilities of Bridge Maintenance forces the District Engineer, Bridge Design Engineer and State Maintenance Engineer will consult to determine whether the posting of a weight restriction is recommended. The State Maintenance Engineer will forward the results of the rating analysis and supporting data to the Assistant Chief Engineer-Operations with a recommendation for the posting of a weight restriction of the bridge. The recommendation will include the specific weight restriction that the State Maintenance Engineer, Bridge Design Engineer and the District Engineer believe to be appropriate.
- The Assistant Chief Engineer-Operations will coordinate the weight restriction recommendations with a committee composed of the Assistant to the Director and the Assistant Chief Engineers for Planning and for Design. The Assistant Chief Engineer-Operations will forward a final recommendation to the Deputy Director and Chief Engineer for approval.
- Upon the Deputy Director and Chief Engineer's approval of the posting of a weight restriction, the District Engineer will make a public notification to the local media 10 days in advance of the official posting. In addition, the District Engineer will make necessary notifications within the Department and arrange for appropriate signing of the bridge for enforcement purposes and posting on the Department's website.

# ATTACHMENT 3

## ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT Process for Establishing a Weight Restriction on A Non-weight Restricted Highway

It is beneficial to the motorists of Arkansas that full, unrestricted access be provided on all highways when possible. However, it is the responsibility of the Department to ensure that the highways are maintained in a condition suitable for use by the traveling public. In order to maintain some sections of highways in a suitable condition, it may be necessary at times to limit the amount of weight that can be carried by a single load on those sections.

The following is the process by which sections of highways that are experiencing significant deterioration can be weight restricted to preserve their conditions.

- The initial evaluation and continual monitoring of all highways is the responsibility of the appropriate District Engineer and staff.
- Distress that can be attributed to loadings in excess of those for which the pavement was designed or is the result of seasonal or unusual conditions that have changed the characteristics of the pavement or supporting base may be cause for a pavement evaluation. At the first sign of significant distress in a highway pavement for which there are no near-term improvements, the District Engineer will evaluate the route and report the evaluation to the State Maintenance Engineer.
- After consultation, the District Engineer or the State Maintenance Engineer may request a roadway strength analysis from the Planning and Research Division. Pavement and base information from the Materials Division will be combined with data from the Falling Weight Deflectometer (FWD) to assess pavement strengths. The results of the pavement strength analysis will be reported to the State Maintenance Engineer and the District Engineer.
- If the pavement strength analysis indicates a short remaining pavement life due to the increased loading or seasonal conditions, the District Engineer and State Maintenance Engineer will consult to determine whether the posting of a weight restriction is recommended. The State Maintenance Engineer will forward the strength analysis and supporting data to the Assistant Chief Engineer-Operations with a recommendation for the posting of a weight restriction of the highway. The recommendation will include the specific weight restriction that the State Maintenance Engineer and the District Engineer believe to be appropriate.
- The Assistant Chief Engineer-Operations will coordinate the weight restriction recommendations with a committee composed of the Assistant to the Director and the Assistant Chief Engineers for Planning and for Design. The Assistant Chief Engineer-Operations will forward a final recommendation to the Deputy Director and Chief Engineer for approval.
- Upon the Deputy Director and Chief Engineer's approval of the posting of a weight restriction, the District Engineer will make a public notification to the local media 10 days in advance of the official posting. In addition, the District Engineer will make necessary notifications within the Department and arrange for appropriate signing of the route for enforcement purposes.

This process should be considered for preventing failure of the pavement after all reasonable standard maintenance operations are used to maintain and strengthen a pavement.