

Memorandum of Agreement

**Between
Iowa Department of Natural Resources
And
Iowa Department of Transportation**

Regarding Transportation Land Use Within the Loess Hills

WHEREAS, The Loess Hills of western Iowa represent a resource of significance to the citizens of Iowa and are a recognized land feature of national importance;

WHEREAS, The Loess Hills warrant the highest level of protection and stewardship by state agencies in carrying out their respective legislative mandates;

WHEREAS, The Loess Hills comprise an extensive land form in western Iowa that makes it difficult for the Iowa Department of Transportation (IDOT) to avoid direct encroachment when carrying out the department's mandate to construct and maintain safe and efficient surface transportation facilities for the citizens of Iowa;

WHEREAS, the Iowa Department of Natural Resources (IDNR) and IDOT desire to arrive at a mutually acceptable understanding regarding unavoidable transportation land use within the Loess Hills;

WHEREAS, both IDNR and IDOT concur that a framework for negotiating unavoidable land uses within the Loess Hills would be mutually beneficial in carrying out respective agency responsibilities;

NOW THEREFORE, BE IT RESOLVED, that IDNR and IDOT agree to the following stipulations and conditions regarding encroachment on the Loess Hills, for purposes of maintaining or enhancing Iowa's transportation investments:

Stipulations and consensus points:

1. Definition of Loess Hills land form, soil types, and boundaries:

For purposes of this agreement, the Loess Hills landform will be defined using data provided in the Loess Hills of Western Iowa Special Resource Study and Environmental study prepared by the National Park Service in 2002 (2002 NPS report.) Page seven of this study defines the Loess Hills as a distinctive topographic region encompassing over 640,000 acres and extending nearly 200 miles in a narrow band adjacent to the Missouri River. Loess material is described as a widespread geologic deposit, but accumulating to depths of 150 feet in places within the Loess Hills landform. Topographic features include distinctive shapes, such as steep, narrow ridge crests, peaks, saddles, and

numerous steep side slopes, branching spurs, and precipitous bluffs. Figure 1, attached, shows the Loess Hills landform in relation to the seven principal landform regions of Iowa. Figure 2, attached, shows more specific boundaries of the Loess Hills landform within seven counties of western Iowa.

With the exception of the eastern slope of the Loess Hills, the boundaries shown in Figure 2, will be relied upon to define the Loess Hills landform for purposes of this agreement. Because soils types on the eastern boundary of the Loess Hills tend to be gradational, soil borings will be used to define Loess soils material, using a 50-foot or greater measure to further refine boundaries. Less than 50-foot Loess soils depths would not be considered Loess Hills.

2. Definition of areas of natural cover/vegetation within the Loess Hills:

Areas exhibiting natural vegetation cover shall be afforded a higher level of protection than those areas where natural vegetation has been significantly disturbed or removed. For purposes of this MOA, "natural vegetation" shall include herbaceous or woody vegetation that is unmodified by human activities, vegetation that has been altered in varying degrees by humans but has retained or regained characteristics of an undisturbed community, or vegetation that has been planted by humans but is not actively maintained for agricultural/commercial purposes. Natural vegetation shall include both native as well as introduced species, although a higher level of protection will be afforded those areas exhibiting a predominance of native species. Areas that have been cultivated and planted to non-native grasses, legumes, or grass-legume mixtures for purposes of livestock grazing, seed production, or hay crops shall not be given consideration as natural vegetation, except in cases where threatened or endangered species are present or otherwise very high quality habitat is present.

3. Incorporation by reference of the 2002 NPS report for purposes of defining special landscape areas and other areas of significance (13 areas of significance) which are to be afforded the highest level of protection. This reference will be supplemented by IDNR supplied electronic mapping that provides detailed definition of the 12 special landscape areas plus the Glenwood locality. A general location map of the 12 special landscape areas is shown on Figures 3A. Figure 3B shows the location of the site described as the Glenwood locality (refer to Section 11 of this agreement.)

4. IDOT will adopt an avoid or minimize approach to encroachment or land use within the designated Loess Hills boundary. Specifically, this stipulation means IDOT will not convert Loess Hills lands unless there is no practicable alternative to such land use, in IDOT's judgment. In addition, IDOT will afford special protection measures for areas within the Loess Hills mapped feature that exhibit native vegetation, previously undisturbed areas, or unique habitat.

5. IDOT will implement a total avoidance policy regarding use of borrow materials within the 12 special landscape areas and the Glenwood locality as defined in the 2002 NPS report. This stipulation will also apply to the west face of the Loess Hills boundary,

as defined in point 1 above. When borrow sites are necessary within the Loess Hills, IDOT agrees, to the greatest extent possible, to shape borrows so that they blend into the natural surroundings. In instances where use of land within the 12 special landscape areas or the Glenwood locality may be necessary and unavoidable, such as maintenance or safety and capacity improvements to existing highways, IDOT will confer with IDNR, as discussed in paragraph 7 below, prior to any formal decision. This consultative aspect will include a clear statement of why encroachment is necessary, what avoidance options were examined, and what, if any, opportunities exist for remedial action. Any remedial actions agreed to will be in writing and approved by both agencies.

6. When land use from the Loess Hills is unavoidable, IDOT and IDNR agree that cultivated land and previously disturbed areas within the Loess Hills can receive less consideration for avoidance and minimization than priority avoidance areas noted in paragraph 3, above. Similarly, land from the east side of the Loess Hills can be used for transportation needs, if other reasonable alternatives have been eliminated.

7. MOA Implementing Processes:

- A. IDOT, in consultation with IDNR, will develop an implementing process that provides for early input/consultation with IDNR prior to a decision to encroach upon Loess Hills lands. This consultation process will follow the protocols established by this MOA, and will include a standardized data transmittal plan agreed to by both agencies.
- B. By means of the process established in paragraph 7A, above, IDNR will be afforded the opportunity to provide early input into borrow site selection when borrows are proposed within the Loess Hills mapped feature established by the 2002 NPS report.
- C. On a case by case basis, IDNR will be asked to provide input regarding establishing mitigative buffer zones adjacent to areas of natural cover. IDOT's Office of Location and Environment will provide IDNR a formal evaluation of both natural cover areas and potential buffer zones as part of this effort.
- D. Should there be an instance where IDOT cannot avoid a natural area, or one of the 12 special areas or Glenwood locality described in the 2002 NPS report, IDOT will advise IDNR of the circumstances involved, and will include a discussion of IDOT's efforts to avoid or minimize the effects of proposed construction. This activity could include mutually agreed upon mitigation or other remedial actions appropriate to the scale of impacts.
- E. The consultation process described in this MOA will be carried out for each incursion into the Loess Hill mapped feature. Results of this consultation will then be documented within the National Environmental Policy Act (NEPA) compliance report prepared for each project, and also retained with the NEPA administrative record, as evidence of compliance with MOA stipulations.
- F. The consultative process described by this MOA will be carried forward in each instance where encroachment into the Loess Hills land form may be necessary. In the interests of efficiency, it is agreed that the consultative process described herein will be completed within 30 days, except under extraordinary circumstances.

9. Periodic Review or Modification of the MOA:

This MOA may be periodically reviewed when either signatory party determines a review or update to these provisions may be necessary. If modifications to the MOA result, they may be incorporated by addendum signed by both agencies, or by revising/updating the original MOA, followed by signature.

10. Stipulations Regarding Development of Local Systems Projects:

Transportation improvements sponsored by city and county governments (local systems initiatives) routinely are outside of IDOT's jurisdictional control. As such, IDOT's oversight role is limited to assuring that project development is completed in compliance with specific federal guidance, as appropriate. In these cases, IDOT will strongly encourage city and county project sponsors to follow the stipulations and consensus points established by this memorandum of agreement. Additionally, IDOT will make copies of this MOA available to city and county governments and metropolitan and regional planning associations for their use in planning future local systems transportation initiatives.

11. Scope of MOA Provisions:

Agreement with the provisions of this MOA, along with applicable state and federal laws, defines the complete guidance for IDOT land use within the Loess Hills land feature. With respect to the Glenwood locale in Mills County (13th special landform feature) IDOT's avoidance commitment will be based on the provisions of Section 106 of the National Historic Preservation Act of 1966, 36 CFR Part 800, as amended, and Iowa Code section 314.24 of the Iowa Code when applicable.

12. Agency Concurrence: Signature below indicates acceptance of the stipulations and consensus points detailed in this memorandum of agreement. These points will not be changed or modified without mutual agreement by the agencies involved.

Ben Hering
For Iowa Department of
Natural Resources

11-12-08
Date

James P. Rost
James P. Rost, Director
Office of Location and Environment
Iowa Department of Transportation

11/06/08
Date

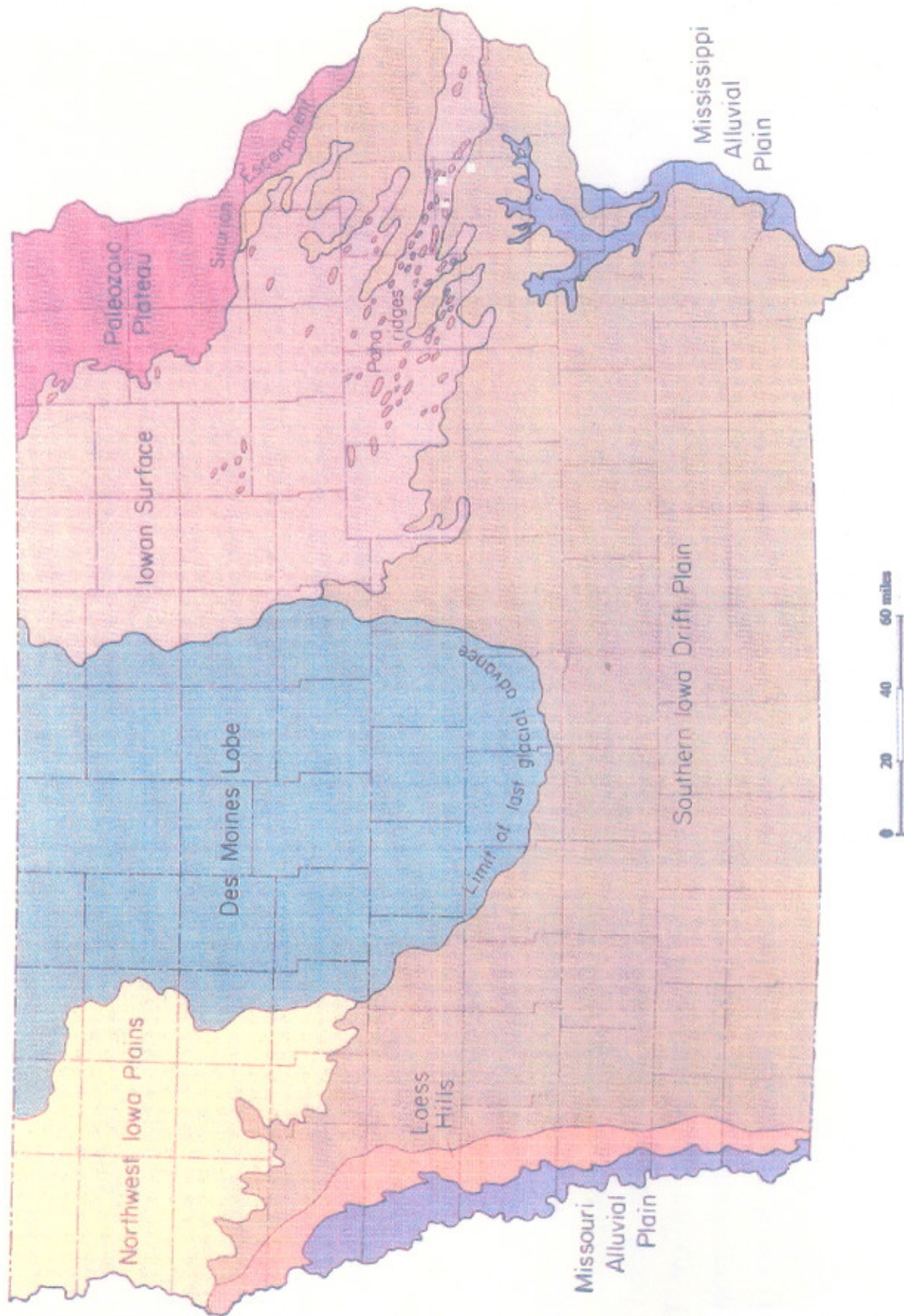
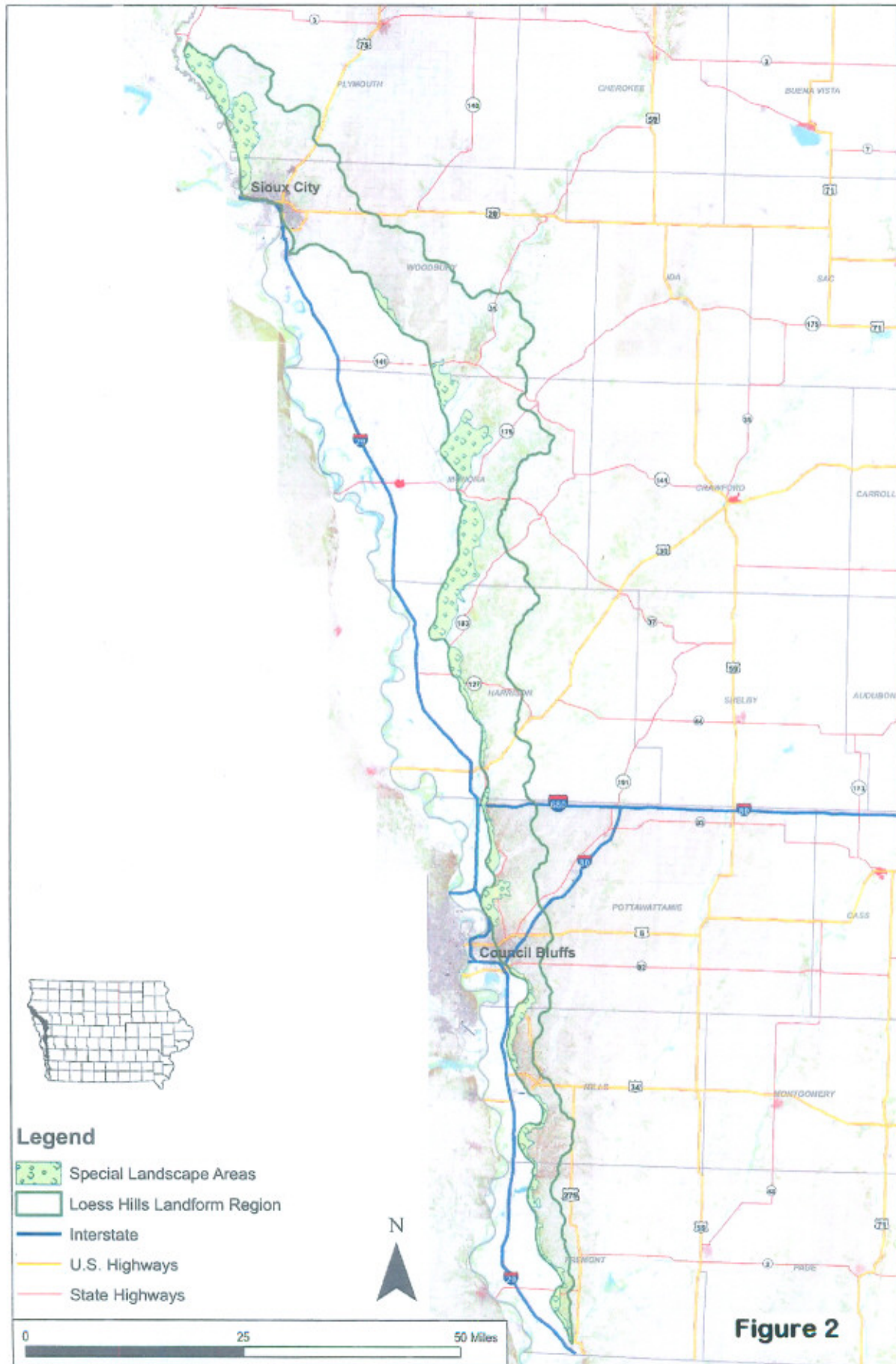


Figure 1



Special Landscape Areas in the Loess Hills Landform Region

