Iowa Department of Transportation

SPECIAL PROVISIONS
FOR
ALTERNATE BORROW AREAS (LOESS HILLS)

Pottawattamie County
IM-NHS-029-3(86)52--03-78

Effective Date
March 15, 2011

THE STANDARD SPECIFICATIONS, SERIES 2009, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

090118.01 DESCRIPTION.
This specification describes the Contractor's responsibilities in regards to locating alternate borrow areas in the Loess Hills region of western Iowa.

Article 2102.03, F, of the Standard Specifications shall apply with modifications and additions contained in this specification.

090118.02 DEFINITIONS.

A. Loess Hills.
Loess Hills is 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 define the Loess Hills landform. Because soil 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 will not be considered Loess Hills.

B. Natural Vegetation.
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. Natural vegetation includes herbaceous or woody vegetation that is unmodified by human activities, vegetation

altered in varying degrees by humans, but has retained or regained characteristics of an undisturbed community; or vegetation planted by humans, but is not actively maintained for agricultural or commercial purposes. Natural vegetation includes both native and introduced species, although a higher level of protection will be afforded those areas exhibiting a predominance of native species. Areas 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.

C. Special Landscape Areas and Glenwood Locality.
Special landscape areas and the Glenwood locality shall be afforded the highest level of protection. A general location map, attached, of the 12 special landscape areas is shown on Figure 3A. Figure 3B, attached, shows the location described as the Glenwood locality.

090118.03 CONSTRUCTION.

A. Loess Hills Borrow Material.

1. Avoid or minimize use of borrow material from within the designated Loess Hills boundary. Do not utilize Loess Hills borrow material unless there is no practicable alternative per the discretion of the Engineer. In addition, afford special protection measures for areas within the Loess Hills mapped feature exhibiting native vegetation, previously undisturbed areas, or unique habitat.

2. Do not use of borrow materials from the 12 special landscape areas, Glenwood locality, and west face of the Loess Hills boundary.

3. When borrow sites are necessary within the Loess Hills, shape borrows to blend into the natural surroundings.

4. When land use from the Loess Hills is unavoidable, cultivated land and previously disturbed areas within the Loess Hills can receive less consideration for avoidance and minimization than natural vegetative areas.

B. Alternate Borrow Area Review.

1. The Department, in consultation with the DNR, will review proposed alternate borrow areas within the designated Loess Hills boundary.

2. The DNR will provide input regarding establishing mitigative buffer zones adjacent to areas of natural vegetation.

3. The review process will be completed within 30 calendar days, except under extraordinary circumstances.

090118.04 METHOD OF MEASUREMENT AND BASIS OF PAYMENT.
Work required to comply with this specification shall be considered incidental to Excavation, of the class specified, as shown on the plans.

Attachments

Figure 1 – Landform Regions of Iowa

Figure 2 – Special Landscape Areas in the Loess Hills Landform Region

Figure 3A – Special Landscape Areas

Figure 3B – Nebraska Phase Archeological Sites Within the Glenwood Locality in Mills County

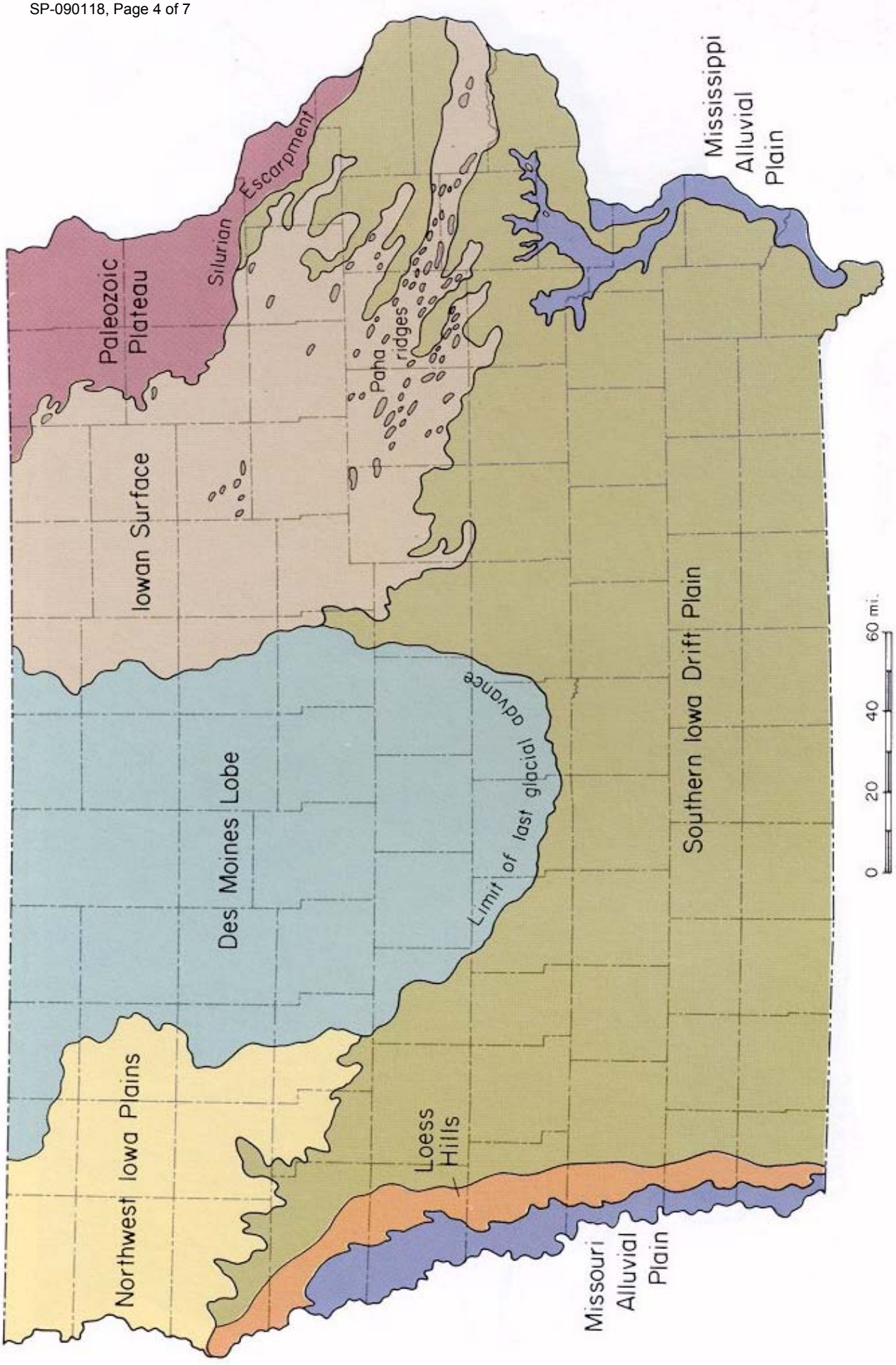
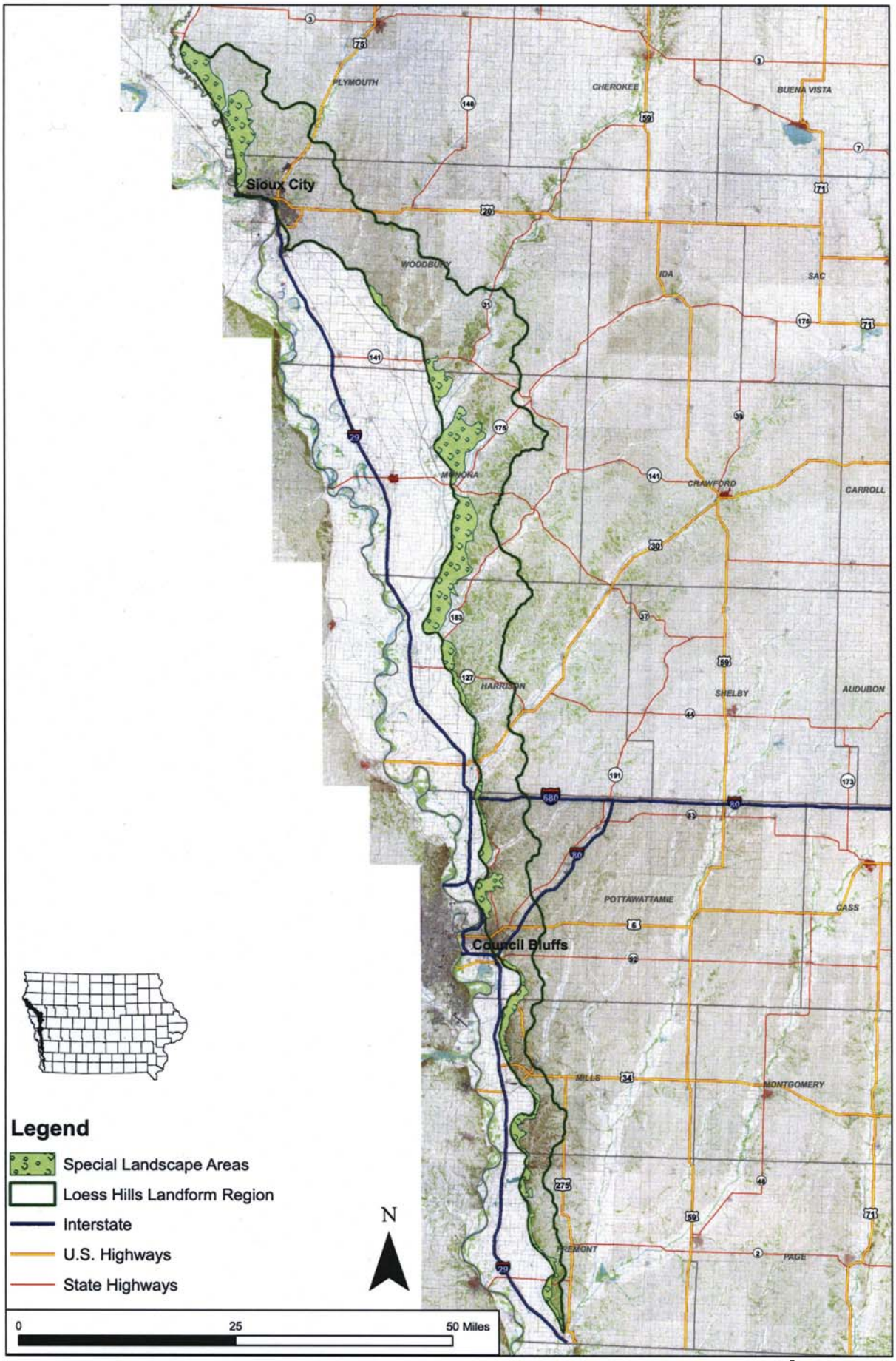

Paleozoic Plateau
Silurian Escarpment
Mississippi Alluvial Plain
Iowan Surface
Paha ridges
Des Moines Lobe
Limit of last glacial advance
Southern Iowa Drift Plain
Northwest Iowa Plains
Loess Hills
Missouri Alluvial Plain
0
20
40
60 mi.

Figure 1



Special Landscape Areas in the Loess Hills Landform Region

Figure 2

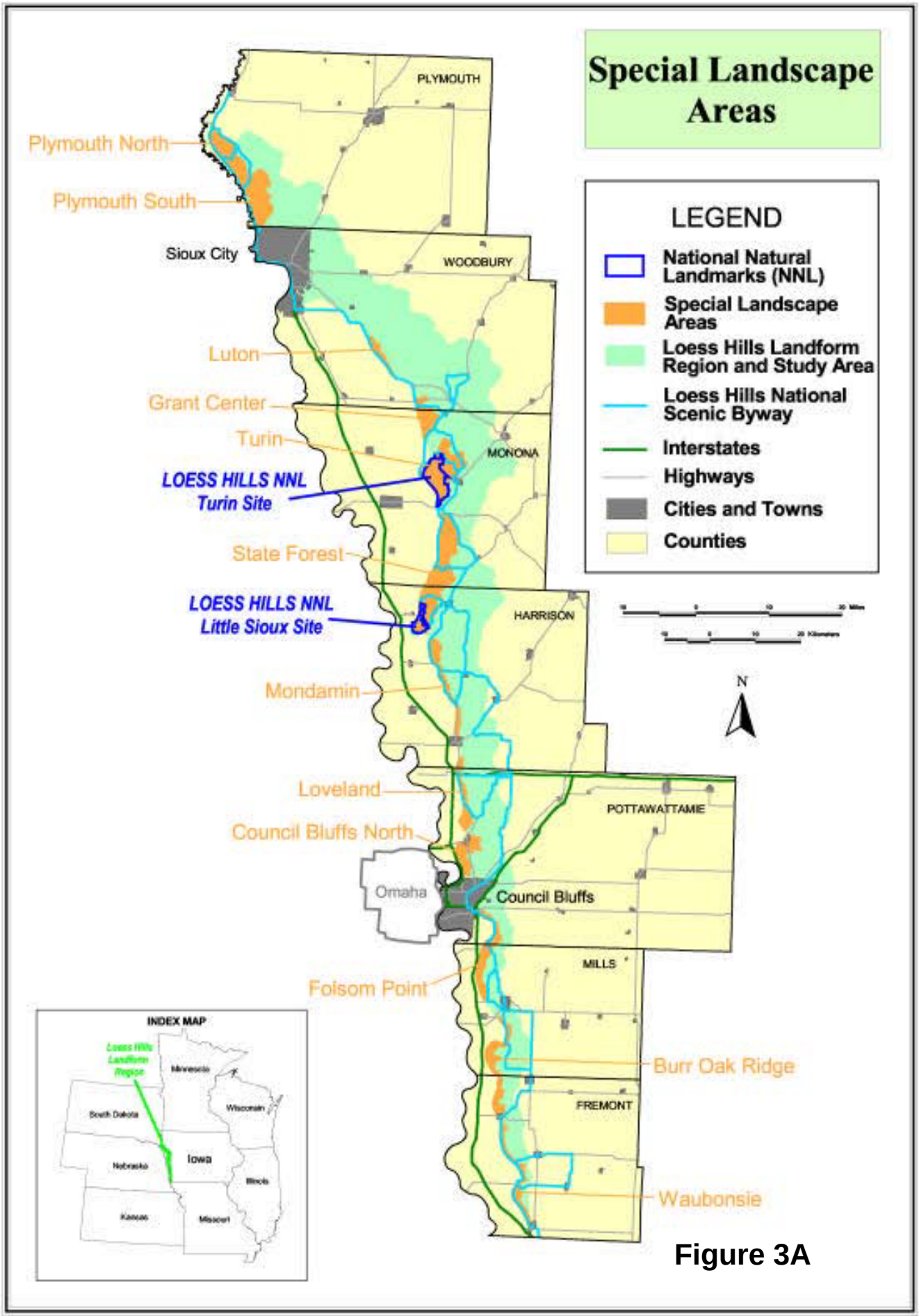

Special Landscape Areas
LEGEND
National Natural Landmarks (NNL)
Special Landscape Areas
Loess Hills Landform Region and Study Area
Loess Hills National Scenic Byway
Interstates
Highways
Cities and Towns
Counties
PLYMOUTH
WOODBURY
MONONA
HARRISON
POTTAWATTAMIE
MILLS
FREMONT
Plymouth North
Plymouth South
Sioux City
Luton
Grant Center
Turin
LOESS HILLS NNL
Turin Site
State Forest
LOESS HILLS NNL
Little Sioux Site
Mondamin
Loveland
Council Bluffs North
Omaha
Council Bluffs
Folsom Point
Burr Oak Ridge
Waubonsie
N
INDEX MAP
Loess Hills Landform Region
Minnesota
Wisconsin
South Dakota
Nebraska
Iowa
Illinois
Kansas
Missouri

Figure 3A

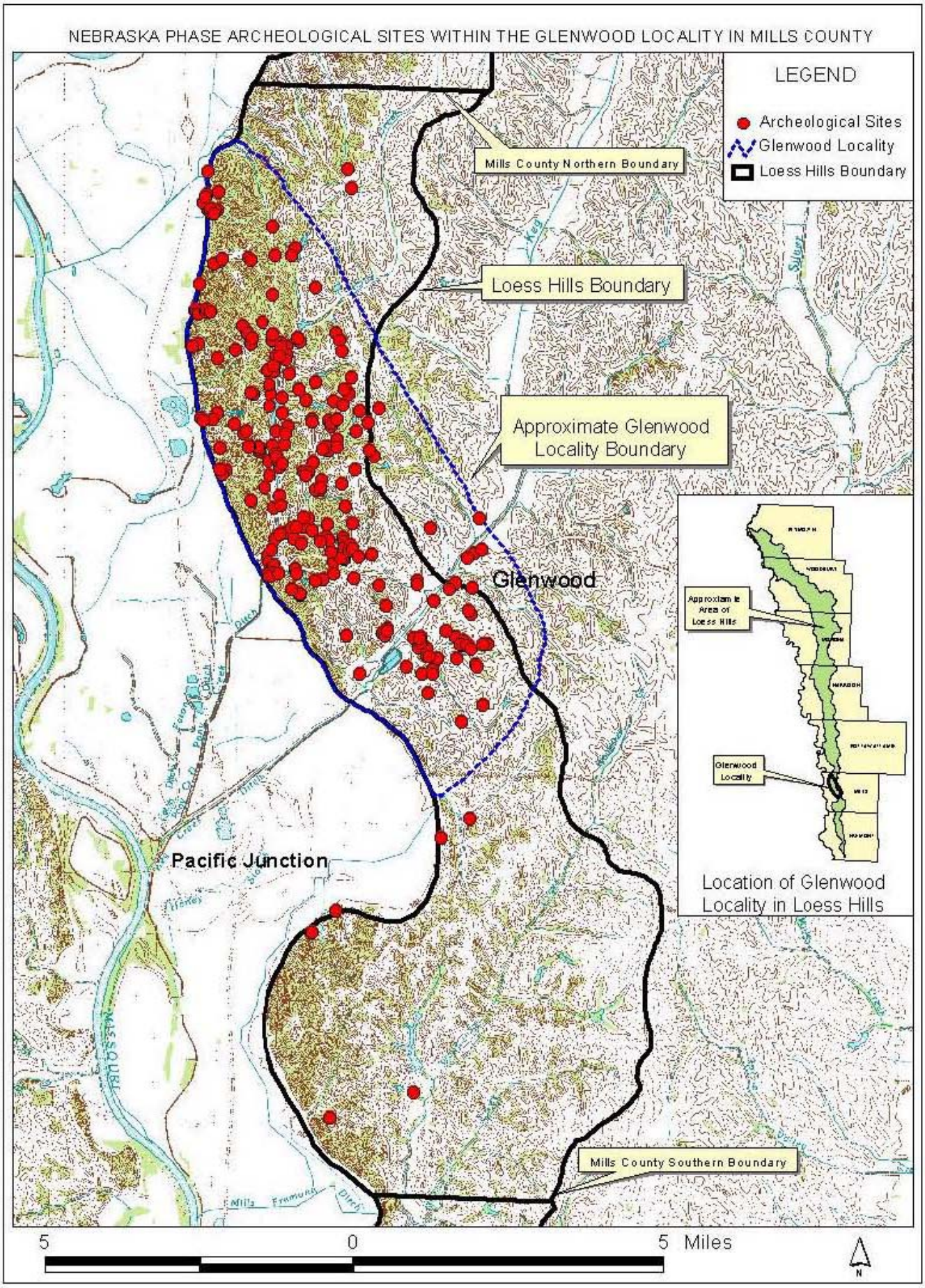

NEBRASKA PHASE ARCHEOLOGICAL SITES WITHIN THE GLENWOOD LOCALITY IN MILLS COUNTY
LEGEND
Archeological Sites
Glenwood Locality
Loess Hills Boundary
Mills County Northern Boundary
Loess Hills Boundary
Approximate Glenwood Locality Boundary
Glenwood
Pacific Junction
Mills County Southern Boundary
Approximate Area of Loess Hills
Glenwood Locality
Location of Glenwood Locality in Loess Hills
5
0
5 Miles
N

Figure 3B