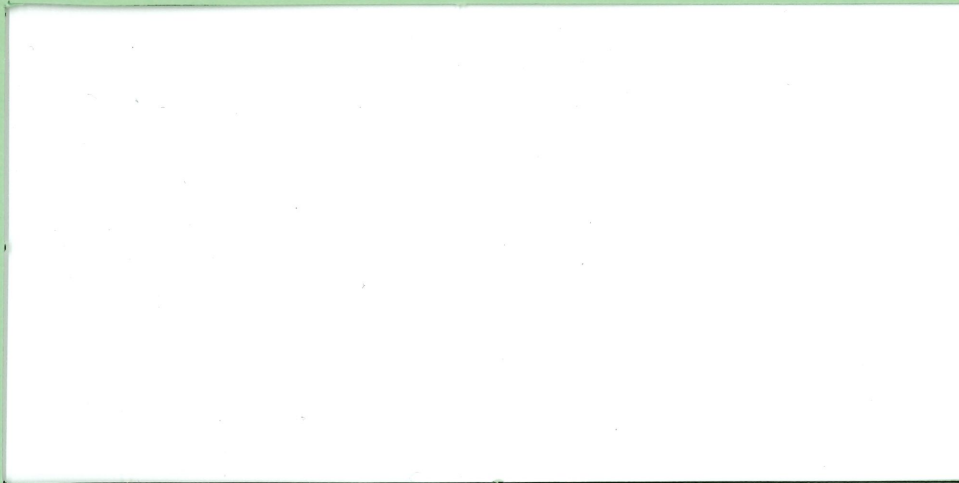


INVENTORY AND EVALUATION

SOIL AND WATER RESOURCES



SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

PROJECT # 730379
HARDIN COUNTY FAS ROUTE 1893
REVIEW

This review was prepared for the Department of Soil Conservation at the request of the State Office for Planning and Programming.

The review was made by the Hardin Soil Conservation District and Soil Conservation Service. Dick Bassett, District Conservationist, Soil Conservation Service assembled the following material.

February, 1973

A Soil, Water and Related Resource Review for Project #730379, Hardin County FAS Route 1893, Road Improvement Project.

PROJECT LOCATION AND DESCRIPTION

The above proposed two and one-half mile long road improvement project is located in Sections 17, 20 and 29, Jackson Township, Hardin County, Iowa. Exact location is shown on the attached map.

The site was visited by Rolley Glasgow, Hardin County Engineer, Dean E. Miller, Conservation Technician, Soil Conservation Service, and Richard L. Bassett, District Conservationist, Soil Conservation Service on February 22, 1973.

Construction on the road will begin in 1973, paving in 1975.

OBJECTIVE OF THE REVIEW

The objective is to review and determine if the proposed road project will affect any soil and water conservation improvements planned or presently installed.

SOIL

The proposed road improvement project is located within the Clarion-Nicollet-Webster Soil Association. The soils are presently mapped on less than one-half of the proposed road location. The available soil information can be found at the Hardin Soil Conservation District Office in Eldora, Iowa.

The Clarion-Nicollet-Webster Soil Association consists of varying depths of glacial till parent material. The upland glacial till soils found along the proposed road location are primarily a friable, calcarious loam till with occasional sand pockets, gravel and rocks found at various levels throughout the soil profile.

There will be no excessive road cuts since the land is fairly flat with slopes no greater than seven percent.

Soil erosion can occur during earth moving, leveling and grading operations. Soil loss from the project will result when bare soil is left exposed to wind and water erosion elements for an indefinite length of time. A good follow-up seeding program for roadside ditches, slopes, and banks will prevent excessive soil loss from occurring above the permissible five tons per acre per year.

The bottomland soils were developed from alluvium parent material. Internal drainage would be from somewhat to very poor.

WATER

There may be agricultural underground tile drainage lines outleting near the road right-of-way or crossing the road right-of-way.

There will be a new bridge constructed over South Beaver Creek. The creek will be straightened to flow under the bridge. The new channel will be 600 feet in length and has been proposed to the Iowa Natural Resources Council for approval.

The project passes through County Drainage District numbers 20 and 70, location shown on attached map.

RELATED RESOURCES

Smooth brome grass seed will be seeded along road ditches, banks and shoulders. Switchgrass added to the vegetation seeding mixture would add natural beauty to the roadside as well as control soil loss.

1. The following seeding mixture and rate would be adequate for roadside erosion control.

<u>SEEDING MIXTURE</u>	<u>RATE, lbs/Acre</u>
Brome grass	20
Switchwell (Blackwell)	10

A nurse crop such as oats or ryegrass should be seeded with the above mixture at the rate of 1 bushel per acre to provide quick vegetative cover.

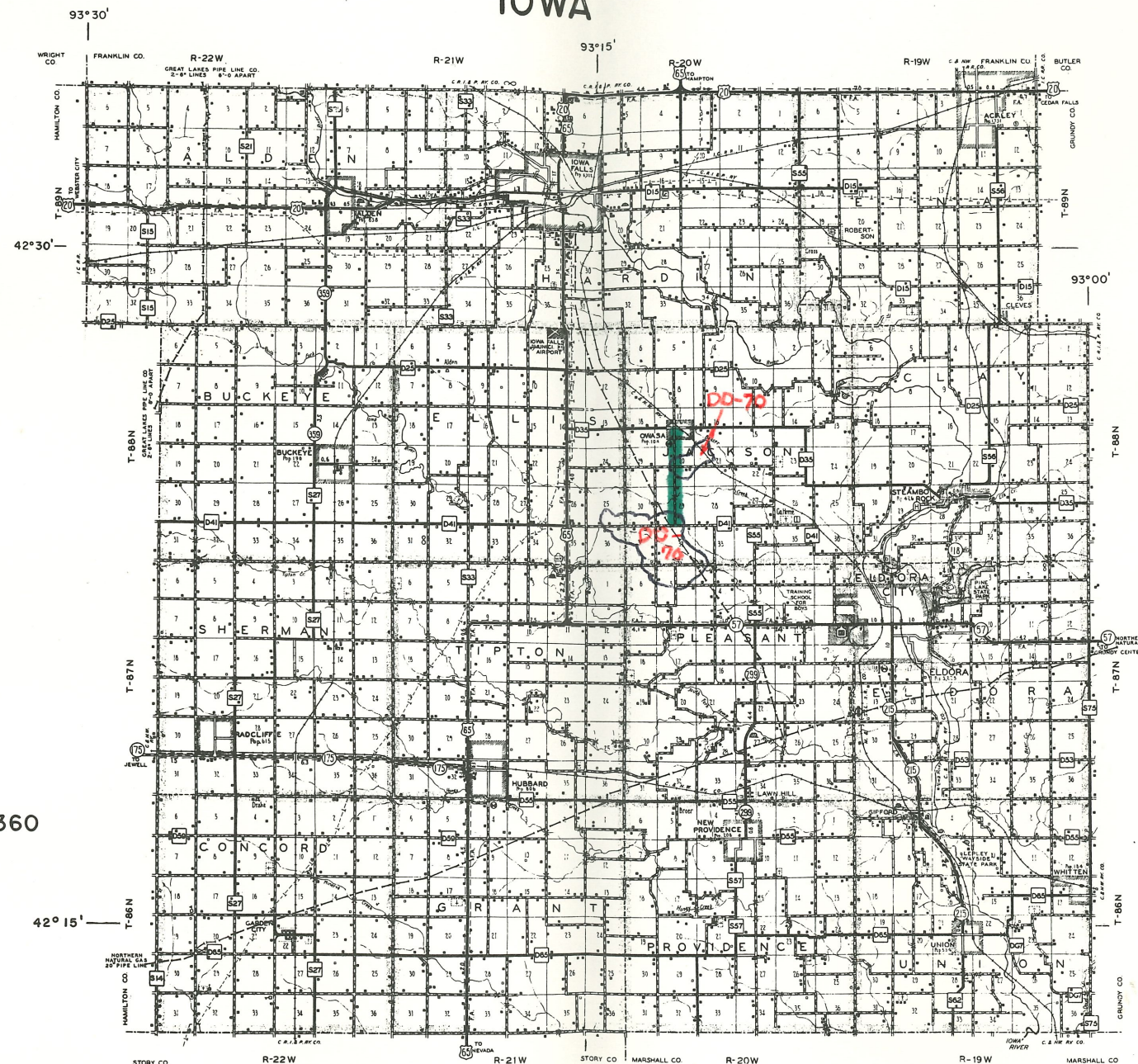
RECOMMENDATIONS

1. Recognize that there are several different soil types within the vicinity of the proposed road improvement project.
2. Provide for immediate and adequate soil erosion control measures during all phases of road improvement or construction to insure that the soil loss will be less than five tons per acre per year from the construction site.
3. Consider establishing switchgrass vegetation that will enhance natural beauty of the roadsides as well as provide permanent vegetative cover to protect bare soil from wind and water erosion.
4. Repair or replace broken underground agricultural tile drainage lines damaged during construction.

CONCLUSION

There will be no serious soil, water and related resource impact resulting from the construction of road project #730379 provided the proceeding recommendations are considered. The proposed road project does not interfere with any soil and water conservation improvements planned or presently installed.

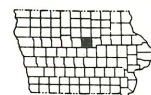
HARDIN COUNTY SOIL CONSERVATION DISTRICT IOWA



 Proposed Road Improvement Project

 DD-20 County Legal Drainage District

TOTAL ACREAGE APPROXIMATE 367,360



SCALE 1 0 1 2 3 4 5 6 7 MILES

SCALE 1/253,440

(POLYCONIC PROJECTION)

SOURCE:
COUNTY HIGHWAY MAP (1968)

USDA-SCS-LINCOLN, NEBR. 1971

10-20-71
5,N-29,620

