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DEPARTMENT OF ANTHROPOLOGY WESTERN MICHIGAN UNIVERSITY

TECHNICAL REPORT NO. 10 1982

AN ARCHAEOLOGICAL SURVEY OF THE PROPOSED DRAIN EXTENSION ALONG EAST OSCEOLA STREET, REED CITY, OSCEOLA COUNTY, MICHIGAN

PREPARED FOR

THE MICHIGAN DEPARTMENT OF TRANSPORTATION AND THE MICHIGAN DEPARTMENT OF STATE

WILLIAM M. CREMIN

ABSTRACT

The East Osceola Street Drain Extension project comprises a narrow strip of land about 12 m wide by 132 m long and is located in Reed City, Michigan. The parcel was investigated by means of a systematic and intensive program of shovel testing that established both the undisturbed nature of subsurface deposits as suggested in the project description provided by the MDOT and the absence of potentially significant cultural resources. On the basis of the archaeological survey, together with a comprehensive review of the relevant maps, documents, and literature, it can be recommended that the project be permitted to proceed as planned.

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INTRODUCTION:

On September 8, 1982, a cooperative agreement between the Michigan Department of Transportation, the Michigan Department of State, and Western Michigan University, authorizing Phase I archaeological evaluation of a small parcel of land in Reed City, Michigan, was executed. Subsequently, a team of researchers from the Department of Anthropology initiated a literature, documents, and site file search and undertook onsite investigation of the project in order to determine whether the proposed drain extention along East Osceola Street would have an adverse impact on cultural resources. There follows a report of the WMU program of research, together with recommendations based upon the team's findings.

The opinions, findings, and conclusions expressed in this publication are those of the author and not necessarily those of the Department of State, or Divisions thereof, or the Michigan Department of Transportation, or the Michigan State Transportation Commission.

PROJECT PERSONNEL:

Principal Investigator - Dr. William M. Cremin, Associate Professor of Anthropology, WMU Field Assistant - Mr. Charles B. Stout, M.A. Candidate in Anthropology, WMU DESCRIPTION OF THE PROJECT AREA:

Lying at an elevation of approximately 305 m above sea level, the research area of this study occupies a slight ridge paralleling a small unnamed stream located within the corporate limits of Reed City, Michigan (Map 1). Specifically, the project consists of a narrow strip of land about 12 m wide by 132 m long and is situated several hundred meters east of US-131 and 90 m north of Business Route US-10 in the SW 1/4, NW 1/4, NW 1/4 of Section 15, Richmond Township, T17N RIOW, Osceola County, Michigan. The proposed East Osceola Street drain extension commences on the west at Roth Street and terminates on the east in the aforementioned stream which is tributary to the nearby Hersey River (Map 2). The river, itself, passes by the project at a distance of about 300 m to the north and east. The size of this parcel of land is slightly less than 1600 m².

At the time that the survey team visited the project, the western one half was observed to be maintained in lawn. The eastern portion supported a dense cover of tall weeds interspersed with many stems of sumac. Along the stream bank there occurred a number of scrub hardwoods, including hop hornbeam, beech, rock elm, and willow interspersed with marsh grasses and more sumac. Immediately to the south of the project limits was a dense stand of white pine trees.

An examination of the relevant documents, literature, and maps revealed that this area of "Inner Michigan" occupies part of a high interlobate morainal system resulting from the meeting of the Michigan and Huron Lobes of the Wisconsin ice sheet. This upland formation is drained by rivers that flow westward



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to Lake Michigan, and in the case of this portion of Osceola County drainage is provided by the Muskegon River (Prahl 1980).

The principal stream traversing the Reed City environs is the Hersey River. This stream, in turn, discharges into the Muskegon just south of the Village of Hersey located some six kilometers to the southeast. The headwaters of the Hersey lie to the north of Reed City in an area of the county punctuated by numerous small spring-fed streams, lakes, ponds, marshes, and swamps (see Trygg 1964 for a graphic illustration of the local drainage pattern at the time of the original land survey conducted in 1838).

Ecologically speaking, this portion of interior Lower Michigan occupies a great tension zone between the Canadian and Carolinian biotic provinces. Here, one observes the often subtle transition from southern hardwood forests, exemplified by the oak-hickory and beech-maple associations, to northern forests with their increasingly strong admixture of conifers (Prahl 1980). Braun (1950), in her definitive work entitled <u>Deciduous Forests of Eastern North America</u>, assigns this area to the Hemlock-White Pine-Northern Hardwoods Region of the deciduous forest formation.

When J.M. Reed, founder of Reed City, and his associates first visited the area in 1852, they observed that a strip of hardwood forest paralleled the course of the Hersey River between the present Village of Hersey and Reed City. This strip of forest was noted to be virtually free of undergrowth and much like a "park"; the ground beneath the canopy was covered with numerous flowering plants and ground pine. The prevalent species in the canopy included beech, maple, basswood,

black cherry, and rock elm. However, the uplands flanking either side of the river valley supported extensive stands of white pine; this being nowhere more evident than in the area of the headwaters of the Hersey north of Reed City (White 1975).

PREVIOUS RESEARCH IN THE PROJECT AREA:

A thorough literature, documents, and site file search indicates that no archaeological, historical, or architectural sites have been recorded for the area of the MDOT project. However, one archaeological site, 200L13, is reportedly situated in the floodplain of the Hersey River about 450 m to the northeast (Map 1). According to a local history source, Mrs. Dale Woods (1976), Indians lived in a group of wigwams along the Hersey River flats in the S 1/2, SW 1/4 of Section 10. To date, the presence of an archaeological site(s) on the river floodplain near Reed City has not been confirmed either through survey or excavation.

Looking somewhat farther afield, the professional archaeological community has only recently become moderately active in this area of "Inner Michigan", and this is largely the result of highway-related cultural resource investigations. Unfortunately, the findings to date have been less than gratifying. For example, R. Flanders (1977) of Grand Valley State Colleges conducted an archaeological survey along US-131 through Richmond Township during the 1977 field season. According to the report he submitted upon completion of the project, nothing of any consequence was found (Barbara Mead, Michigan History Division, personal communication).

More recently, Flanders and E. Prahl, with grant support from the Michigan Department of State, established a series of mile-wide survey transects at specific points along the Muskegon River from Big Rapids to Houghton Lake. Prahl (1980) suggests that this research program accumulated some valuable data for comparison with the information derived from his earlier work in the Lower Muskegon Valley. Be that as it may, nothing of potential significance is reported for the Hersey River segment of the Upper Muskegon Valley.

In the final analysis, the state site files are virtually silent with respect to the presence of known sites in the general vicinity of the MDOT project; i.e. with the singular exception of the aforementioned, and as yet unconfirmed, Indian encampment reported in a local history source. Therefore, it is reasonable to conclude that at this time our knowledge of the archaeological resource potential of this area of the State of Michigan is minimal at best.

SURVEY FIELD PROCEDURES:

Because ground surface visibility across the project was absolutely <u>nil</u>, surveyors relied on shovel testing procedures to examine it. The project was traversed from west to east along two transects spaced eight meters apart, with shovel tests being initially placed at intervals of 10 m along each line of survey. As we approached to within about 60 m of the stream, the interval between probes was reduced to 5 m. At water's edge, additional shovel tests were placed at selected points between transects, greatly augmenting our examination of this most critical area within the project. In aggregate, 36 shovel tests

were placed along the two lines of survey and an additional 11 probes were established along the stream bank. The locations of all 47 shovel tests are approximated on Map 2.

The shovel testing program revealed a completely undisturbed soil profile across the parcel, confirming the statement regarding the probable condition of subsurface deposists contained in the project description provided by the MDOT. Briefly, the soil profile may be summarized as follows:

<u>depth</u>

0-13 cm

<u>contents of the deposits</u> -a well developed A¹ horizon of dark brown clay loam showing strong humus content and plant root development

13-34 cm

34-68 cm

68-120 cm

-an A² horizon consisting of clay loam with some sand and inclusions of gravel. Only the root systems of woody plants consistently penetrated this zone

-a strong lens of Pleistocene-age gravels, varying in size from a few cm³ to the size of a closed fist, occurred across the parcel at this depth. Stream sorting of the gravel was increasingly evident as the team approached water's edge -deposits of sand, strongly to weakly sorted, and lacking observable gravel content, were encountered by the team at this depth along the length of the

project. In the stream bank, the sand was observed to extend to a depth of at least 1.7 m below the modern ground surface

RESULTS OF THE SURVEY:

The survey team did not record an archaeological site in the East Osceola Street drain extension project. Nor did we observe any standing structures or foundation material within the zone of impact. In fact, the only cultural item we recovered during shovel testing was a fragment of bottle glass of modern vintage in the humus zone in that portion of the parcel maintained in lawn. From our on-site investigation of the project we can only conclude that this parcel of land has never experienced any disturbance that might be anticipated to leave traces in the ground.

RECOMMENDATIONS:

On the basis of a systematic and intensive on-site examination of the MDOT project, together with a thorough review of relevant maps, documents, and literature having a bearing upon local topography, drainage, vegetation patterns, and the history of the Reed City area, it can only be concluded that this strip of land had not experienced significant cultural activity over the years. Therefore, the proposed drain extension project will not have an adverse impact on potentially important cultural resources, and it can be recommended that this project be permitted to proceed as scheduled.

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