INTRODUCTION

The existing Highway 17, while revealing the beauty of nature in areas of the Bucket Moraine Scenic Drive, is deficient in the essential alignment elements as required for a safe, efficient, arterial highway. The roadway, a 22-foot bituminous surface over a concrete base, has extremely narrow shoulders, irregular ditch lines, and beautiful but potentially hazardous trees lining most sections of the route. In attempting to conform to the rolling topography along the route, the mid-1930's design of Highway 17 is now substandard for today’s traffic with respect to its horizontal and vertical alignment. Severe horizontal curvatures and vertical crests reduce and restrict the necessary sight distance essential to afford safe State Trunk Highway operations.

SAFETY RECORD

In the past three years, 137 accidents have occurred along this length of Highway 17, resulting in five fatalities and 115 personal injuries. The associated injury rate is about three times greater than the statewide average. The associated fatality rate of this section of Highway 17 is approximately six times greater than the statewide average.

TRAFFIC

When constructed on its original location during the 1930's, traffic demands along Highway 17 were minimal. At the present time, traffic counts along Highway 17 at the I-55 interchange indicate average traffic volumes approaching 10,000 vehicles per day. Reasonable and conservative methods of traffic projection indicate that the average daily traffic will increase substantially over the next two decades, causing intolerable operational deficiencies along the existing route.

The anticipated increased traffic demand within the Highway 17 environmental corridor will be determined by the attractiveness of rural-residential subdivision development, the flowing urban sprawl, the east of commuter movements to employment centers within the urban area, and the utilization of recreational resources.

FACILITY NEED AND TYPE

An improvement to Highway 17 is necessary to establish a practical operating service level on this facility compatible with anticipated traffic demands and in accordance with accepted safety and geometric design features. Highway 17 should be developed as a primary arterial — a controlled access facility in accordance with the State Highway Plan — approved and adopted by the State DOT last July. The proposed facility, similar to Highway 184, a two-lane roadway constructed on a four-lane right-of-way, features interchanges with major highways, railroad grade separations, and private access control. Public roads would be connected to the facility with normal at-grade intersections.
ALTERNATE CORRIDOR STUDY

With a broad study area along existing Highway 17 between I-55 and the North County Line, the State DOT, at the direction of the Governor, made studies of several corridor possibilities as revealed by maps, aerial photographs, and on-the-ground observations of the existing road network and topography by an experienced team of route location planners and engineers. Each of these alternate corridors was examined on the basis of directionality, operational characteristics, community service, traffic service, design standard conformance, socioeconomic impact, conservancy, aesthetical considerations, construction economics, and disruption or displacement of residential, commercial, or industrial developments. A draft environmental impact assessment was prepared to examine these impacts.

The final evaluation of any corridor must pay particular attention to a paramount objective of all people -- that is the conservancy of the natural environment. However, conservancy cannot have absolute dominance; it must be achieved as a state of harmony between man, mechanization, and the land.

Upon considered evaluation of all corridors, four major corridors displayed merit and where retained for further examination. The corridors are illustrated on the large aerial photo.

Corridor A

Alternative A, commencing at the I-55 interchange, traverses orth on a new location approximately one-quarter mile west of existing Highway 17, to an interchange with Highway 46 slightly east of the present Highway 17/Highway 46 intersection. The corridor continues northbound on its new location, crossing existing Highway 17 at the CTH L intersection. The corridor then heads northward through the Village of Lake Estates between Elm and Otter Lakes, adjacent to the existing Highway 17 alignment. The corridor swings to the east, avoiding development in the community of South Lake, crosses Highway 92, and joins with Alternative B. Both corridors then share the same location northward to the terminal at the North County line. Alternative A relates well to traffic demand and affords reasonable traffic service to the lake communities. However, Alternative A creates more disruption and fails to achieve many of the project goals and objectives.

Corridor B

Alternative B, commencing at the I-55 interchange, bears initially to the northeast on relocation, continuing with slight curvature to the west to become adjacent to and east of the present Highway 17 at the Meow River. Crossing the river, the new alignment is directed northward, remaining east of and adjacent to the existing alignment. An interchange is proposed with improved Highway 46 near existing Hill Street in Southridge. The corridor then swings to the northeast, east of Otter Lake, becoming coincident with CTH S near CTH L. The corridor then begins to curve gradually to the northwest, crossing Highway 92 to the west of the present CTH S/Highway 92 intersection. The corridor continues to the northwest, becoming coincident with existing
Highway 17 north of Elmwood Road, and then proceeds northward along the existing alignment to the northern terminal at North County Line.

Alternative B displays merit in the conformance to the developed goals, objectives, and requirements of a transportation facility. This location will provide a high level of traffic service to all facets of the existing Highway 17, affording functional low-volume local service. Alternative B enables the design of the proposed roadway adjacent to areas of scenic value while conserving and preserving the natural resources and terrain throughout its length.

**Corridor C**

Alternative C is located to the east of corridor B. It is 2.4 miles longer than alternative B and avoids much of the wetland areas affected by the other alternatives. Because of its distance from the other alternatives, it is felt that it would have very little effect on the tax base. Alternative C has a design speed of 40 mph due to the many hills along the route.

**Corridor D**

Alternative D is just east of alternative C and avoids some of the steep hills. Because of its long distance from the current road, it will result in increased travel times. Alternative D avoids some of the wetlands, but its remote location creates poor service levels.

**No-Build Alternative**

Doing nothing carries some cost. The existing roadway is in need of extensive repairs which will cost $5 million. Traffic growth is likely to lead to more crashes and possible congestion.