SECTION 3

3.1 PUBLIC AND AGENCY INVOLVEMENT

Agency Coordination and Participation

September 1, 2005 – Met with the city of Grandville to discuss 4(f) and right-of-way issues.

July 18, 2005 - Met with Department of Environmental Quality to review environmental aspects of the project.

May 3, 2005 – Met with Georgetown Township and representative of the Jenison Baptist Temple to discuss historical issues regarding the Temple.

April 17, 2005 - Met with Department of Environmental Quality to review environmental aspects of the project.

March 31, 2005 - Met with the Ottawa County Road Commission on traffic issues and Baldwin Design issues.

March 7, 2005 - Met with the Ottawa County Road Commission on traffic issues and Baldwin Design issues.

November 10, 2004 – Met with the city of Grandville on non-motorized issues.

August 24, 2004 - Met with the city of Grandville on non-motorized issues.

July 15, 2004 – Met with Department of Environmental Quality to review environmental aspects of the project.

June 8, 2004 – Met with the Ottawa County Road Commission on traffic issues and Baldwin Design issues.

April 21, 2004 – Met with the Ottawa County Road Commission on traffic issues and Baldwin Design issues.

March 9, 2004 - Local Agency meeting attended by: Georgetown Township, Ottawa County Road Commission, Grand Valley Metro Council, city of Grandville, and the Kent County Road Commission.

January 14, 2004 – Stakeholder Meeting was held at Georgetown Township.

December 2, 2003 – Public Information meeting – Georgetown Township

November 5, 2003 - Local Agency meeting attended by: Georgetown Township, Ottawa County Road Commission, Grand Valley Metro Council, city of Grandville, West Michigan Environmental Action Council and the Kent County Road Commission.

September 30, 2003 – Met with CSX and local agencies to discuss railroad coordination issues.

September 2, 2003 - Met with the Ottawa County Road Commission on traffic issues and Baldwin Design issues.

August 28, 2003 - Local Agency meeting attended by: Georgetown Township, Ottawa County Road Commission, Ottawa County Planning, city of Grandville, Council and the Kent County Road Commission.

Other meetings were held with individuals and groups regarding issues for the Baldwin Project. These meetings were held throughout the Environmental Assessment Process.

3.2 Railroad Coordination

The Baldwin Project includes the closure of two railroad crossings; Baldwin Street and a private crossing on Old M-21, and the construction of a new freeway ramp beneath the existing freeway bridge and adjacent to the existing CSX track that also passes beneath the same freeway bridge. The I-196 freeway mainline bridges over the CSX mainline will also be replaced as part of the project.

This project will also involve replacing structures over the railroad. Preliminary design plans include the modification of the structures which currently span Rush Creek, near the existing CSX structure over Rush Creek. The existing structure south of Baldwin Street will be removed and north of Baldwin Street the parking lot for the wastewater treatment plant will redesigned and a structure will be constructed to span Rush Creek.

A meeting was held between the CSX Corporation and MDOT on September 30, 2003. Other attendees included representatives of the Ottawa County Road Commission, and Georgetown Township. Issues discussed in that meeting included: preliminary design plans for the project, structure distance from CSX right-of-way, crossing closures, train volumes and speeds, and construction coordination. There also was consensus that additional discussion and agreements would be necessary to ensure effective project coordination.

3.3 Public Involvement

A public hearing will be conducted on the proposed project after the EA/4(f) document is distributed to the public. The hearing will allow citizens and local agencies an opportunity to review and provide comments on specific aspects of the project. A copy of the EA/4(f) document and technical reports will be available at local agencies for review before the public hearing date. A public information meeting was held on December 2, 2004 at the Georgetown Township Hall. The meeting was attended by approximately 170 people who provided written and oral comments to the study team. Attendees received a brochure showing an aerial view of the study

area and explanation of the background, need and objectives of the study. Members of the general public also attended the January 14, 2004 stakeholder meeting also held at Georgetown Township Hall. A public web-site (www.michigan.gov/mdotstudies) under I-196 at Chicago Drive (Baldwin Street) is available for public information and review. The following e-mail address: MDOT-i196atBaldwinStreet-study@michigan.gov is also available for public questions and comment on this project.

SECTION 4 – PROJECT COSTS

4.1 Project Costs

The estimated cost for constructing the Preferred Alternative is approximately $42.6 million (2005 dollars). This cost includes design, ROW acquisition, and road/bridge construction. The following Table 4.1 illustrates the cost breakdown.

Georgetown Township has appropriated $1,000,000 towards the design and/or construction phases of this project (See Appendix A for the resolution letter).

TABLE 4.1 – Baldwin Interchange Cost Summary

	Cost ($millions)
Baldwin Street and I-196 Road Costs*	$23.336
Bridge Costs	$19.125
ROW Costs	$ 1.130
Total Project Costs	**$42.591**

*Local road modifications recommended by this study would be funded with city/county transportation funds.

SECTION 5

5.1 CONCLUSION

The Michigan Department of Transportation has reviewed this project for potential impacts on the human and natural environments. Based on the information in this Environmental Assessment, field reviews, and coordination with other agencies and the public, it is anticipated that this project will have no long-term significant negative impacts on the natural or human environment within the project area.

SECTION 6 - PROGRAMMATIC SECTION 4(f) EVALUATION

6.1 Introduction

This project is being processed for approval under the U.S. Department of Transportation, Federal Highway Administration's (FHWA) Programmatic Section 4(f) Evaluation published in the August 22, 1983 Federal Register.

Section 4(f) of the 1966 Department of Transportation Act specifies that publicly-owned land from a park, recreational area, or wildlife and waterfowl refuge of national, state or local significance, or any land from a historic site of national, state or local significance, may not be used for transportation projects unless: 1) there is no feasible and prudent alternative; and 2) proposed projects include all possible planning to minimize harm.

Section 6(f) of the Land and Water Conservation Fund Act (L&WCF), as amended, ensures that property acquired or developed with L&WCF assistance shall not be converted to other than public outdoor recreation uses without the approval of the Secretary of the U.S. Department of the Interior. However, no lands within the proposed project have been acquired or developed with L&WCF assistance. Thus, Section 6(f) documentation is not required.

This Section 4(f) Evaluation discusses the proposed project, its potential impacts to a Section 4(f) property, avoidance alternatives and measures to minimize harm. Based on the following evaluation, a preliminary determination has been made by the Division Administrator that the proposed action will temporarily impact a Section 4(f) resource, all alternatives have been fully evaluated, and measures will be taken to minimize the impacts to the Section 4(f) land. Upon consideration of comments received from resource agencies and the public concerning the proposed action, the Federal Highway Administration will either apply the Section 4(f) Evaluation and document the project files or prepare a separate Final Section 4(f) Evaluation for processing under the procedures set forth in Federal Highway Administration regulations 23 CFR 771.135.

6.2 Proposed Action

In order to address immediate and future access, capacity, and operational needs, it is recommended that modified access to the I-196 at Chicago Drive interchange be constructed, as indicated in the Build Alternative sub-section. This modification will include direct eastbound-on and westbound-off freeway access between I-196 and Baldwin Street. These new ramps will provide freeway access to Georgetown Township without the at-grade crossing of the CSX rail-line. Baldwin Street will be extended to connect with the new ramps, and improved between Main Street and the new ramps to accommodate the additional traffic.

6.3 Description of the Section 4(f) Facility

Grandville Trail

The Grandville Extension of Kent Trails, completed in 2004, is owned and maintained by the city of Grandville. The Grandville Extension is a 12 foot wide, linear park, meandering between the Grand River and I-196 from the trail head parking area (also used by the city of Grandville Wastewater Treatment Plant) and connecting to Kent Trails System. The trail offers residents many opportunities to enjoy the river and surrounding wooded area including fishing, cycling, in-line skating, jogging, and walking. (See Exhibit 6.1 for a map of the Grandville Bike Trail.)

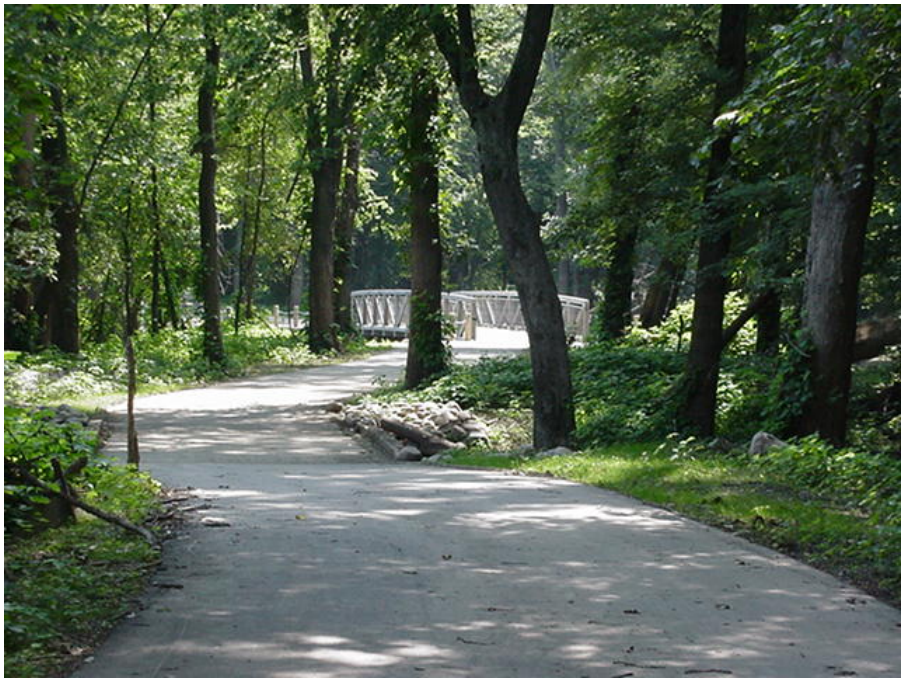


Photo 5 - City of Grandville Trail.

6.4 Impacts to the Section 4(f) Facility

The proposed project will require 0.2 acres of right-of-way impacting approximately 8 parking spaces from the trail/wastewater treatment plant parking area to construct the westbound I-196 off-ramp to Baldwin Street. The parking area will be reconfigured and the entrance will be relocated from Old Chicago Drive to the new waste water treatment facility service drive north of Baldwin Street. Additionally, during construction MDOT will temporarily relocate the segment of the Grandville Trail located directly adjacent to the construction zone. The temporary trail relocation will allow for safe pedestrian access at all times during construction.

6.5 Avoidance Alternatives

The proposed project cannot be built without temporarily impacting the Grandville Trail and obtaining ROW from the trail/wastewater treatment plant parking area. Several other alternatives, including the No Build Alternative, were evaluated in the project area, however, no other alternative completely addressed the purpose and need criteria and improves safety and traffic operations. Therefore, the small section of ROW must be obtained from the parking area and the Grandville Trail must be temporarily moved.

6.6 Measures to Minimize Harm

Several steps will be taken to limit impact to the Grandville Trail. The parking spaces and parking area impacted will be replaced. The construction area will be limited only to the area needed to add the new off-ramp and retaining wall. The construction area will be fenced and signs will be installed to prohibit pedestrian access. Access will be maintained to the Grandville Trail and parking area at all times during construction. When construction has been completed, the trail will be restored to its current condition, or better. Additionally, during construction, the parking of vehicles or storage of equipment and materials on recreation property is prohibited.

The proposed project will necessitate the construction of a retaining wall directly adjacent to the trail. MDOT will facilitate a context sensitive solutions workshop to involve the community in determining a context sensitive aesthetic treatment for the new retaining wall.

As part of the Baldwin Street widening and reconstruction, the sidewalk located on the north side of Baldwin Street will be extended to the new service drive for the waste water treatment plant. This sidewalk extension will provide pedestrian connectivity from Georgetown Township to the non-motorized trail.

6.7 Coordination

Coordination with the owner of the Section 4(f) property is required as part of the environmental review. To comply with this requirement, MDOT coordinated with and wrote to the city of Grandville (owner of the property). Comments have been incorporated into the document. (See coordination letter in Appendix A).

MDOT has also notified the MDNR of the proposed project in regards to a Section 6(f) impact. According to the MDNR, no Land and Water Conservation Funds were spent on the Kent Trails, Grandville Extension. No land conversion is needed for this project.

Michigan Natural Resources Trust Fund grant monies were used to construct the Kent Trails, Grandville Extension. The MDNR has agreed to continued coordination with MDOT and does not foresee any insurmountable issues from a grants management perspective. MDOT will provide detailed plans to the MDNR, Grants Administration Division when they are developed.

6.8 Conclusion

Based upon the above considerations, there is no feasible and prudent alternative to shifting the Grandville Trail and acquiring ROW from the parking area. The proposed action includes all possible planning to minimize harm to the trail resulting from such use.

Appendix A

Early Coordination Request Letter And Responses

JENNIFER GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
LANSING

GLORIA J. JEFF
DIRECTOR

June 4, 2004

Mr. Abdelmoez Abdalla
Division Administrator
Federal Highway Administration
315 West Allegan, Room 211
Lansing, Michigan 48901

Dear Mr Abdalla:

Baldwin Street - Early Coordination Letter

The Michigan Department of Transportation is preparing an Environmental Assessment to study a proposed interchange modification along I-196 at Chicago Dr., (Baldwin Street) in Jenison, Michigan. This interchange project also proposes to widen Baldwin Street from 2 lanes to 3-5 lanes. The study area includes portions of Georgetown Charter Township (Jenison) in Ottawa County and the City of Grandville in Kent County (see Enclosure One). These two communities are primarily commuter suburbs of Grand Rapids.

The I-196/Chicago Drive interchange currently provides the primary freeway access point to the Jenison area. The proposed interchange modification would add two additional ramps, north of the existing I-196/Chicago Dr. interchange, which connects directly with Baldwin Street. Due to the proximity of the Grand River, traffic from the Georgetown Township area is funneled to the I-196/Chicago Drive interchange. This funnel effect is complicated by an at-grade railroad crossing of the CSX Railroad (20-30 trains per day) on Main Street, which results in frequent traffic delays and back-ups onto I-196. The trains and general congestion of the project area have also caused access and delay problems for emergency service vehicles (see Enclosure Two).

Potential impacted resources include wetland and floodplain habitats and their associated functions and values adjacent to the Grand River, Buck Creek and Rush Creek. Air quality and traffic noise impacts will be assessed due to the increased traffic volumes and widening along Baldwin Street. Historic and archaeological resources will be investigated, as they are known to occur in the local area. Social and environmental justice issues may be a concern as impacts may occur to properties along this corridor. Railroad coordination with CSX will be required due to the realignment of Baldwin Street which will eliminate 1-2 at-grade crossing site(s).

As part of the early coordination process, the project team is seeking input from interested agencies, as well as the general public. We are asking for your agency to comment on this project for the Environmental Assessment as it relates to specific areas of concern; acceptable methodologies; and mitigation and permitting requirements, which may be necessary for project implementation. If you need additional information or desire a joint field review, please contact David Schuen at (517) 335-3075.

Sincerely,

Margaret M. Barondess

Margaret Barondess, Manager
Environmental Section
Project Planning Division

Enclosures

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

September 23, 2005

Ms. Margaret Barondess, Manager
Environmental Section
Project Planning Division
Michigan Department of Transportation
P.O. Box 30050
Lansing, Michigan 48909

Dear Ms. Barondess:

SUBJECT: Early Coordination Baldwin Street, I-196, City of Jenison, Ottawa County and the City of Grandville, Kent County, Preliminary File Number 05-41-5002

Thank you for the opportunity to provide early coordination comments for the proposed interchange modification along I-196 at Chicago Drive (Baldwin Street) in Jenison and Grandville, Michigan.

The proposed project would add two additional ramps north of the existing I-196/Chicago Drive interchange which connects directly to Baldwin Street. The project would also widen Baldwin Street from 2 to 3 or 5 lanes and provide a new access road to the Waste Water Treatment Plant (WWTP).

We have the following comments concerning the proposed project. Many of these comments have been previously raised at joint meetings between the Michigan Department of Transportation (MDOT) and the Michigan Department of Environmental Quality's (MDEQ), Land and Water Management Division.

1) The following permits or statutory considerations will be required from the MDEQ.

   a) A National Pollution Discharge Elimination System permit for storm water discharges associated with construction activities is required under Rule 2190 promulgated in accordance with Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).

   b) A permit is needed under Part 301, Inland Lakes and Streams, of the NREPA for both the Rush Creek and Buck Creek crossings. There was discussion at previous meetings as to the need for riprap on the channel banks downstream of the I-196 crossing of the Buck Creek. It was indicated that minimal disturbance should occur on the banks while placing this riprap. Further discussions should take place with the DEQ staff before the proposed bike path crossing under the Buck Creek crossing is designed.

   c) Part 31 reviews are required under the Floodplain Regulatory Authority found in Part 31, Water Resources Protection, of the NREPA for both the Buck Creek and Rush Creek crossings. At the July 18, 2005, meeting, the MDOT presented their preferred structure crossing of Rush Creek for the new WWTP access road. This proposed new structure consists of a 72 foot single span bridge. It was stated that the existing base flow stream is approximately 55-60 feet wide. The existing road

crossing of Rush Creek will also be removed as part of this project. Additional cross culverts will need to be added under the proposed WWTP access road to provide drainage and flow equalization to adjacent wetlands. Under Part 31, a hydraulic analysis will need to be provided demonstrating that the project does not cause a harmful interference as defined by Part 31. It was stated at the joint meeting that the new structure crossing of Rush Creek will cause a small increase at the CSX railroad. The owners of the railroad and any other affected property owners will need to be notified of any increase that extends on their property. Compensating cut for the placement of 300 cubic yards of fill or more within a floodplain will be required. It was stated at one of the meetings that part of the floodplain fill compensation could come from the removal of the existing crossing of Rush Creek. A hydraulic analysis of Buck Creek should evaluate the impacts of the proposed bike bath under I-196.

d) A permit will be required under Part 303, Wetlands Protection, of the NREPA. Exact wetland impact amounts have not been provided by MDOT. It appears that the wetland impacts along the proposed widening of I-196 are being minimized by the use of steep slopes (1 on 2 or steeper) and or retaining walls. It appears that the location of the access road can be justified because of its close approximation to the off-ramp. Additional clarification and justification will be needed for the proposed dimensions of the access road. The proposed road width calls for two 15 foot wide lanes with shoulders. While this width may be needed at the curve to accommodate the turning radius of a single truck, it seems excessive for the remainder of the low volume, low speed access road. At the time of application, an acceptable wetland mitigation and monitoring plan will need to be submitted. A permanent conservation easement will also be needed for the wetland mitigation site. Initial plans also show a proposed bike path for this project. Generally an elevated boardwalk is required when crossing wetlands.

2) Based on descriptions provided at the meetings, it appears that there is adequate justification for the project mainly due to the significant back-ups at the existing at grade railroad crossings. The purpose and need and project justification needs to be adequately described in the environmental document.

3) The no work fish dates for Buck Creek and Rush Creek are September 15 to November 30 and March 1 to April 30.

We may have additional comments as the study proceeds and more information becomes available as to the potential environmental impacts. If you have any questions please contact Ms. Holly Stearns at 517-373-4667 or you may contact me.

Sincerely,

Gerald W. Fulcher, Jr., P.E., Chief
Transportation and Flood Hazard Unit
Land and Water Management Division
517-335-3172

cc: Mr. John Konik, USACE
Ms. Sherry Kamke, USEPA
Mr. Craig Czarnecki, USFWS
Mr. David Schuen, MDOT
Mr. Luis Saldivia, MDEQ
WB District Supervisor, MDEQ
Ms. Holly Stearns, MDEQ

JENNIFER GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
LANSING

GLORIA J. JEFF
DIRECTOR

August 16, 2004

Ms. Martha MacFarlane-Faes
Environmental Review Coordinator
Michigan Historical Center
PO Box 30740
702 W. Kalamazoo
Lansing, Michigan 48909-8240

Dear Ms. MacFarlane-Faes:

ER-04-308
Environmental Assessment for I-196 at Chicago Drive (Baldwin Street)

The purpose of this letter is to request State Historic Preservation Office (SHPO) concurrence with a no adverse effect determination for the new I-196/Chicago Drive (Old M-21) interchange configuration.

Project History

The Michigan Department of Transportation (MDOT) submitted a report entitled "Reconnaissance and Intensive Level Survey of Above-Ground Resources, I-196 at Chicago Drive (Baldwin Street) Interchange, Grandville, Kent County and Jenison, Georgetown Township, Ottawa County" on June 3, 2004. The report, which found only the Jenison Baptist Temple (historically the Jenison Christian Reformed Church) eligible for listing on the National Register, was accepted in its entirety by the SHPO in a July 1, 2004 letter.

Project Impacts

On August 5, 2004, MDOT Historian Sigrid Bergland met with SHPO representatives to discuss the anticipated impacts to the Jenison Baptist Temple (Church). This letter is a formal submittal of the information discussed and the conclusions reached at that meeting. Enclosed is a plan showing the partial outline of the Church and the anticipated impacts of the project. The plan is based upon Alternative 2 (enclosed) as designated in the Environmental Assessment document, which has the largest footprint of the three alternatives. The plan illustrates the proposed changes to the intersection of Main Street

and Baldwin Street and the widening of Baldwin Street to accommodate the increased traffic utilizing the new interchange configuration. Photographs showing the current conditions surrounding the Church are also enclosed.

The north or front façade of the Church presently features a grassy lawn between the building and the sidewalk. The entire area stretching between Main Street and the end of the Church property is paved between the sidewalk and Baldwin Street (Figures 1-3). The project will widen Baldwin Street by a total of roughly 6-1/2 feet, including the curb and gutter, from the edge of the current road (Figures 4-6). Baldwin Street does not currently have curb and gutter on the south side in front of the Church, but does include an approximately 2 foot wide partially paved shoulder. The proposed sidewalk will be located directly adjacent to the road, which will increase the lawn of the Church by roughly 5 feet (Plan).

The western elevation of the Church consists of a small grassy lawn, sidewalk, and a large triangular paved section at the intersection of Main and Baldwin Streets partly delineated by parking barriers (Figures 7-11). The proposed intersection design will alter the shape of the triangular paved area (Figures 12-14 and Plan). In addition, the roadway will feature curb and gutter. Guardrail may be placed along the edge of the road (Plan). Because Main Street is a county road under the jurisdiction of Ottawa County, discussions regarding the guardrail are ongoing. If a guardrail is planned, MDOT will work to install a context sensitive and aesthetically pleasing type of guardrail. The guardrail would help to shield the building from motor vehicles leaving the roadway; the exterior of the Church has been damaged in the past by such accidents (Figure 15).

At the westernmost corner of the Church, only a small sidewalk and a strip of land merely a few inches wide separate the building from the roadway (Figures 16-19). The sidewalk ends in the extensive parking lot on the southern or rear elevation (Figure 20). The only change anticipated to this corner of the building may be the addition of guardrail between the sidewalk and the road. The guardrail would roughly follow the current sidewalk to its termination in the parking lot (Figures 17 and 20 and Plan). Like the western elevation, the guardrail would protect the building from errant vehicles.

Summary

The new I-196/Chicago Drive (Old M-21) interchange configuration and resulting changes to Baldwin and Main Streets will not have an adverse effect upon the Jenison Baptist Temple. Although the roadway will be widened, the lawn on the front facade will actually be increased. The corner of Main and Baldwin Streets will be altered to accommodate increased traffic, but the new corner configuration will help to define the setting of the Jenison Baptist Temple. The increased lawn and corner definition will

actually improve upon current conditions. The addition of guardrail, if implemented, will help to protect the building from further damage.

Please feel free to contact me at 335-4229 if you have any questions or concerns. If you concur with this assessment, please sign the concurrence line below. Thank you.

Sincerely,

Sigrid JJ Bergland, Historian
Environmental Section
Project Planning Division

Enclosures

I concur: _____ Date: 9/24/04
Brian Conway, State Historic Preservation Office

STATE OF MICHIGAN
JENNIFER GRANHOLM
GOVERNOR
DEPARTMENT OF HISTORY, ARTS AND LIBRARIES
LANSING
DR. WILLIAM ANDERSON
DIRECTOR

August 20, 2004

DAVID L RUGGLES PHD STAFF ARCHAEOLOGIST
ENVIRONMENTAL SECTION
MDOT BUREAU OF TRANSPORTATION PLANNING
425 WEST OTTAWA STREET
PO BOX 30050
LANSING MI 48909

RE: ER-04-308 Executive Summary for Phase I/II Archaeological Survey Report, I-96 at Chicago Drive Interchange (Baldwin Connector), Kent and Ottawa Counties

Dear Dr. Ruggles:

We have reviewed the executive summary of the Phase I/II archaeological survey report on the I-96 at Chicago Drive Interchange project, prepared by Commonwealth Cultural Resources Group (CCRG). The executive summary discusses the investigation of a 19th century site complex, which includes two standing structures, as well as additional structural ruins. The Office of the State Archaeologist has assigned this site state site number 20OT337. The summary also describes the investigation of the potential location of a late 19th century blacksmith shop and creamery, and reports the identification of site 20KT295, which consists of a possible concentration of fire-cracked rock (FCR); and site 20KT296, which is a Late Woodland prehistoric site.

CCRG recommends that none of the sites within the project area are eligible for listing on the National Register of Historic Places (NRHP). Investigation of the potential location of the blacksmith shop and creamery did not result in the identification of a site. We agree that sites 20OT337 and 20KT295 are not eligible for the NRHP.

In the case of 20KT296, we struggled with the recommendation that the site is not eligible. This was not because we felt that the site is eligible, but because we felt that it was not conclusively demonstrated that the site is not eligible. Phase II investigation of the site revealed a well developed A horizon and no evidence of plow scars, suggesting that archaeological deposits at the site are intact. Ceramics were recovered (albeit very small sherds), which allowed chronological placement of the site in the early Late Woodland period. A possible ground stone tool, and a possible ground stone tool fragment were recovered, along with chipped stone debitage. In addition, fire-cracked rock (FCR) was recovered, raising at least the possibility that hearth features may be present at the site. When evaluating sites, this combination of evidence (intact deposits, diagnostic artifacts, and the potential for features) opens the door to potential eligibility.

On Thursday, August 10th, Dean Anderson of the Office of the State Archaeologist, discussed the issue of eligibility status of site 20KT296 with you. You indicated that your preference was to conduct additional testing at the site, and resolve any eligibility questions. Toward that end, CCRG conducted additional shovel testing at the site. This morning, Project Archaeologist for CCRG, Sean Dunham, called Dean Anderson and reported the results of the testing. The CCRG crew put in shovel tests along the central portion of the east-west trending ridge, and in the vicinity of the previous positive shovel tests at either end of the ridge. Only one of these shovel tests was positive, producing four small ceramic sherds. Radial shovel tests around the positive test produced no artifacts.

Based on the results of the additional testing at the site, in combination with the results of the original Phase II testing, we agree with CCRG's recommendation that site 20KT296 is not eligible for the NRHP. Consequently, it is the opinion of the State Historic Preservation Officer (SHPO) that no historic properties will be affected within the project's area of potential effect.

If you have any questions, please contact Brian Grennell, Environmental Review Specialist, at (517) 335-2721 or by email at ER@michigan.gov. **Please reference our project number in all communication with this office regarding this undertaking.** Thank you for this opportunity to review and comment, and for your cooperation.

Sincerely,

John R. Halsey for

Brian D. Conway
State Historic Preservation Officer

BDC:DLA:bgg

JENNIFER GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
LANSING

GLORIA J. JEFF
DIRECTOR

February 20, 2004

Mr. Ron Yob, Tribal Chairperson
Grand River Band of Ottawa Indians
1251 Plainfield N.E.
P.O. Box 2937
Grand Rapids, Michigan 49501

Tribal Consultation for I-196, Baldwin Road,
Archaeological Investigation and Testing,
City of Jenison, Ottawa County.

The Michigan Department of Transportation (MDOT) is planning to build alternate on-off ramps at the I-196/Baldwin Road interchange. This area has been subject to previous soils disturbance through filling/cutting activities through urban development of the area during the last two centuries. There are no known archaeological sites within the affected area. Still, to ensure that valuable cultural resources are protected, we are undertaking this study.

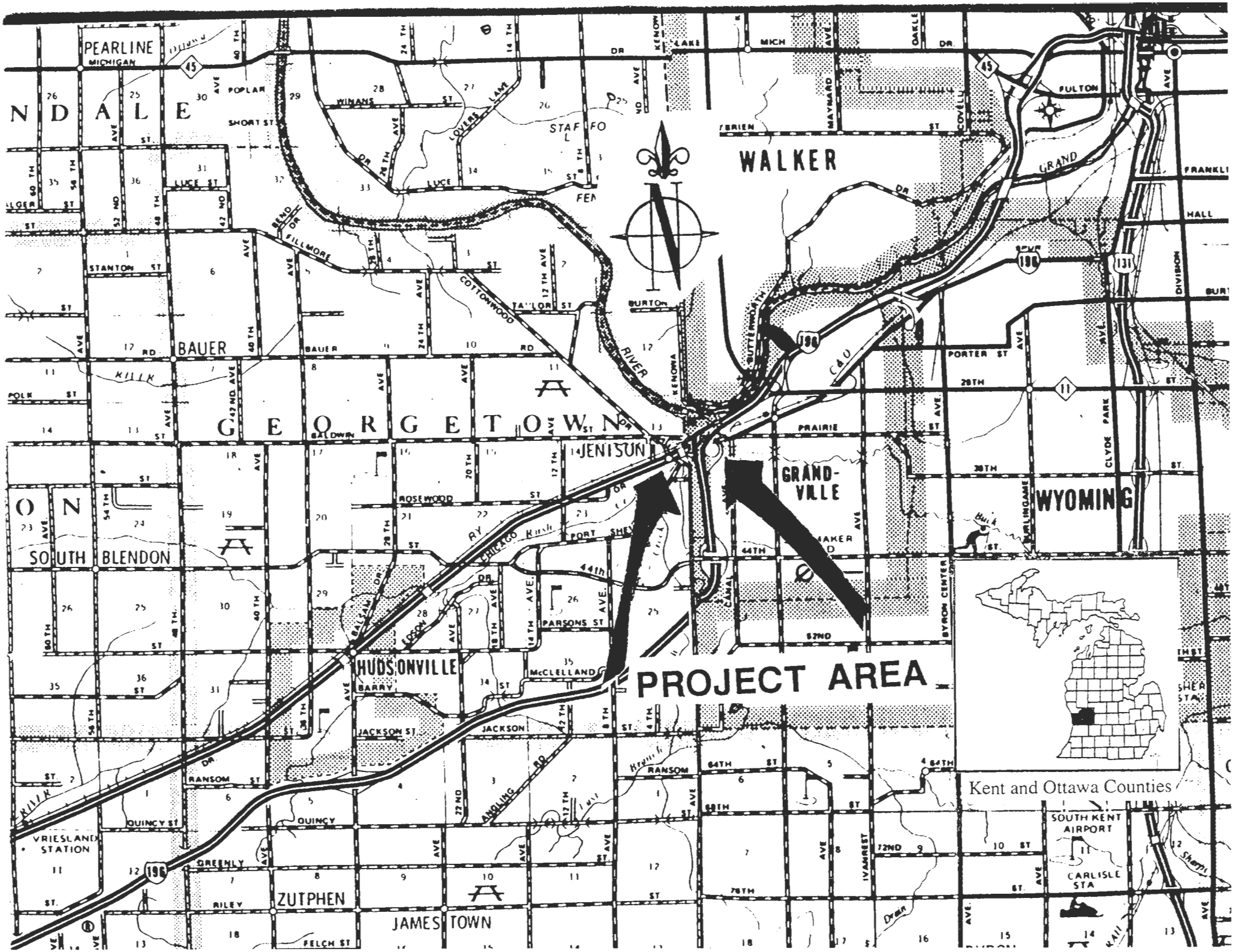
We respectfully request that you review the area in question as identified on the attached maps and provide any Tribal comments and/or concerns you may identify for Traditional cultural and/or religious properties. You may be assured that if any human remains or burials are encountered during the work, your office will be contacted immediately.

We would appreciate hearing from you, or other Tribal authority, as soon as possible to discuss this project and to consult on cultural protocols related to the work. I look forward to the opportunity to consult with you on this important project. If you have any questions, I can be contacted at (517) 335-2637.

My best regards,

David L. Ruggles, Ph.D.
Tribal Affairs Coordinator
Rugglesd@Michigan.gov

Enclosures


PROJECT AREA
Kent and Ottawa Counties
WALKER
GEORGETOWN
JENISON
GRANDVILLE
WYOMING
SOUTH BLENDON
HUDSONVILLE
ZUTPHEN
JAMESTOWN
VRIESLAND STATION
SOUTH KENT AIRPORT
CARLISLE STA
PEARLINE
BAUER
STAFFORD
FULTON
PORTER ST
PRAIRIE
ROSEWOOD
PARSONS ST
McCLELLAND
JACKSON
RANSOM
QUINCY
GREENLY
RILEY
FELCH ST
STANTON ST
LUCE ST
FILLMORE
COTTONWOOD
TAYLOR ST
BURTON
BALDWIN
POPLAR
SHORT ST
WINANS
O'BRIEN
MICH
LAKE
DR
GRAND
RIVER
KILLE
C&O
CANAL
BUTTERWORTH
KENOWA
BYRON CENTER
CLYDE PARK
DIVISION
HALL
FRANKLIN
ANDLING RD
IVANREST
BELSAY DR
CHICAGO
PORT SHEL
44TH
52ND
64TH
72ND
78TH
28TH
30TH
196
131
11
45

June 3, 2004

Mr. Ron Yob, Tribal Chairperson
Grand River Band of Ottawa Indians
1251 Plainfield, N.E.
P.O. Box 2937
Grand Rapids, Michigan 49501

Tribal Consultation for I-196, Baldwin Road,
Archaeological Investigation and Testing,
City of Jenison, Ottawa County

This letter is to inform you that per our correspondence with you in a letter dated February 20, 2004, the proposed archaeological investigation and testing of the I-196/Baldwin Road area will be taking place beginning on June 8, 2004. You may be assured that if any human remains or burials are encountered during the work, your office will be contacted immediately.

We would appreciate hearing from you or other Tribal authority as soon as possible to discuss this project and to consult on cultural protocols related to the work. If you have any questions or concerns, I can be contacted at (517) 335-2637.

My best regards,

David L. Ruggles, Ph.D.
Tribal Affairs Coordinator
rugglesd@michigan.gov

United States Department of the Interior

FISH AND WILDLIFE SERVICE
East Lansing Field Office (ES)
2651 Coolidge Road, Suite 101
East Lansing, Michigan 48823-6316

IN REPLY REFER TO:

July 2, 2004

Ms. Margaret Barondess
Environmental Section
Project Planning Division
Michigan Department of Transportation,
P.O. Box 30050
Lansing, Michigan 48909

Re: Proposed interchange modification along I-196 at Chicago Drive, Jenison, Michigan

Dear Ms. Barondess:

Thank you for your June 4, 2004 request for early comments on the Environmental Assessment to study a proposed interchange modification along I-196 at Chicago Drive in Jenison, Michigan. You indicate the project also proposes to widen Baldwin Street from 2 lanes to 3-5 lanes. These comments are prepared under the authority of the Fish and Wildlife Coordination Act and are consistent with section 7 of the Endangered Species Act (Act) of 1973, as amended.

Endangered Species Act Comments

Our files do not indicate the presence of any federally endangered, threatened, or proposed species, or designated or proposed critical habitat, in the action area. If the project requires modification, or new information becomes available that suggests species listed or proposed for listing may be present and/or affected, you should initiate consultation with us as required by section 7 of the Act. Since threatened and endangered species data changes continuously, we recommend you contact this office for an updated Federal list of the species occurring in the project area every six months during the remaining planning and building period.

Fish and Wildlife Coordination Act Comments

Information you have provided indicates the currently proposed project may impact wetland and floodplain habitats adjacent Grand River, Buck Creek and Rush Creek. We recommend the Michigan Department of Transportation consider all practicable alternatives which minimize the potential for impacts to wetlands and other waterbodies that may be present in the project area. We also suggest your Environmental Assessment include an ecological evaluation of any rivers or streams that may be affected.

Wetland and stream impacts may require a Michigan Department of Environmental Quality permit, for which our office will have additional review responsibilities. In the review of the permit application, we may concur (with or without stipulations) or object to permit issuance depending upon whether specific construction practices may impact public trust fish and wildlife resources of concern.

We appreciate the opportunity to provide these early comments. Please refer any questions directly to Jack Dingledine of this office at (517) 351-6320 or the above address.

Sincerely,

Craig A. Czarnecki
Field Supervisor

g: admin/archives/july04/baldwinstearlyco.jvd.doc

DEPARTMENT OF THE ARMY
DETROIT DISTRICT, CORPS OF ENGINEERS
BOX 1027
DETROIT, MICHIGAN 48231 1027

November 30, 2004

IN REPLY REFER TO

Engineering & Technical Services
Regulatory Office
File No. 04-050-011-0

Margaret Barondess
Michigan Department of Transportation
Project Planning Division, Environmental Section
P.O. Box 30050
Lansing, Michigan 48909

Dear Ms. Barondess:

We are writing in response to your letter, dated June 4, 2004, requesting our input on the Environmental Assessment (EA) being prepared for the I-196/Chicago Drive project, located near Jenison, in Ottawa and Kent counties. As presented, the project includes potential wetland impacts associated with the widening of Baldwin Street and the construction of two new I-196 access ramps to be located north of the existing Chicago Drive interchange. Based on the U.S. Army Corps of Engineers' (Corps) responsibility to regulate work in waters of the United States, we offer the following information.

The Corps has been given the authority to regulate certain activities under two Federal laws, Section 10 of the 1899 Rivers and Harbors Act, and Section 404 of the 1977 Clean Water Act. Under Section 10, a permit is required for any structures or work in the navigable waters of the United States such as the Grand River. In addition, a Section 10 permit is required for structures or work outside this limit if they affect the course, location, or condition of the waterbody as to its navigable capacity. Section 404 requires a permit for the discharge of fill material into waters of the United States including adjacent wetlands. Filling and grading work, mechanized landclearing, sidecasting of excavated material, and some forms of piling installation are considered discharges of dredged or fill material under the Corps' regulatory authority. The area of Corps jurisdiction under Section 404 extends to the OHWM, and to the upland boundary of any adjacent wetlands.

Based on available resources and our knowledge of the site, the waterways and wetlands contained within the project area appear to be within the regulatory jurisdiction of the Corps. A Department of the Army permit will be required for any discharge of dredged or fill material in wetlands, and for any work waterward of the Grand River, Buck Creek, or Rush Creek.

The purpose and need statement is the primary foundation for identification of reasonable alternatives and evaluation of impacts in the Environmental Assessment (EA). Accordingly, the purpose cannot be so narrowly drawn as to restrict the range of alternatives. We recommend that a statement of purpose and need be developed which fully characterizes the proposed work, so that alternatives may be developed and fairly considered.

The heart of both the EA and the Corps' permit evaluation process is the consideration of alternatives. For the Corps, these considerations are outlined in Corps of Engineers' regulations and in the Section 404(b)(1) Guidelines promulgated by the U.S. Environmental Protection Agency. The Corps cannot authorize projects where practicable alternatives are available with less adverse impacts. The guidelines define a practicable alternative as one which "is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes". In the case of wetlands, the burden of proof is on the applicant to demonstrate that no less damaging practicable alternatives are available.

Once all project alternatives have been evaluated and the least damaging, practicable alternative has been identified, compensatory mitigation may be used to offset the remaining, unavoidable wetland impacts. As stated in the Detroit District Mitigation Guidelines and Requirements (found at http://www.lrc.usace.army.mil/who/regulatoryoffice/districtinformation/ under the "Mitigation" heading) the Corps generally requires mitigation to be performed at a ratio greater than 1:1, on a unit area basis. The exact ratio is "based on the functions and values of the impacted aquatic resource, the uncertainty of success, the distance and type of wetland proposed for mitigation, and the function and value relationship between the impact and mitigation sites." We encourage you to consult the document referenced above for more detailed information about mitigation.

In addition to the evaluation of alternatives and mitigation, the EA should also examine the project's potential positive and negative impacts on a variety of public interest factors. These factors include conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. If the project's detrimental impacts are found to outweigh its beneficial impacts in relation to the public interest, the project cannot be approved.

We appreciate the opportunity to provide input at this early stage. Should you have any questions, please contact Kerrie E. Kuhne at the above address or telephone (313) 226-5381. Please refer to File Number: 04-050-011-0.

Sincerely,

Thomas E. Allenson
Acting Chief, Permit Evaluation Branch A
Regulatory Office

County of Ottawa
Administrator's Office

Alan G. Vanderberg
County Administrator

12220 Fillmore Street, Room 310, West Olive, Michigan 49460

West Olive (616) 738-4068
Fax (616) 738-4888
Grand Haven (616) 846-8295
Grand Rapids (616) 662-3100
e-mail: avander@co.ottawa.mi.us

January 14, 2005

Roger Safford, Region Engineer
Michigan Department of Transportation – Grand Region
1420 Front Street NW
Grand Rapids, Michigan 49504

Dear Mr. Safford,

The purpose of this correspondence is to provide you with input regarding the Michigan Department of Transportation's Five-Year (2005-2009) Transportation Program.

One of the projects listed in the Transportation Program is the Baldwin Street Connector in Georgetown Township. If this project is constructed, it would have a significant positive impact on the safety and efficient movement of traffic in eastern Ottawa County. The Ottawa County Board of Commissioners has demonstrated their support for the project by approving a Resolution-of-Support (see attached) on May 27, 2003.

Since population growth, new development, and locomotive activity are all increasing throughout Georgetown Township, it is unmistakably clear that the Baldwin Street location will continue to experience increasing congestion and safety issues. To that point, it is imperative that projects such as the Baldwin Street Connector be given special consideration and high priority on MDOT project lists.

Unfortunately, the language contained in the Five-Year Program describing MDOT's commitment to the Baldwin Street Connector is evasive and it actually indicates the project has been deferred for an indefinite period of time. Because of the importance of this project to eastern Ottawa County, I am respectfully requesting that MDOT include language and a definitive timeline in the Five-Year Program which would strengthen the Department's commitment to the Baldwin Street Connector Project.

If you have any questions, please feel free to contact me at (616) 738-4898.

Sincerely,

Alan G. Vanderberg, Administrator
Ottawa County

cc: Ottawa County Board of Commissioners
Wayne Kuipers, State Senator
William Van Regenmorter, State Representative
William Huizenga, State Representative
Barb Vander Veen, State Representative
William Holland, Supervisor, Georgetown Township
Kent Rubley, Managing Director, Ottawa County Road Commission
Abed Itani, Transportation Director, Grand Valley Metro Council
Steve Redmond, Transportation Planner, MDOT

Attachment (1)

COUNTY OF OTTAWA
STATE OF MICHIGAN
RESOLUTION

At a regular meeting of the Board of Commissioners of the County of Ottawa, Michigan, held at the Fillmore Street Complex in the Township of Olive, Michigan on the 27th day of May, 2003 at 1:30 o'clock p.m. local time.

PRESENT: Commissioners: Kortman, Kuyers, Swartout, Ruiter, Rinck, Rycenga, Schrotenboer, Visscher, Berghorst, VanderLaan, Vander Kam (11)

ABSENT: Commissioners: None.

It was moved by Commissioner Berghorst and supported by Commissioner Vander Kam that the following Resolution be adopted:

WHEREAS, population growth continues to increase in the Georgetown Township area and congestion problems will continue to increase in severity near and around Baldwin Street, and 19 to 23 train operations per day by the CSX Railroad Company cause significant traffic back-ups on the only access routes from Jenison to I-196 and, and there is no other viable high-traffic route into the Jenison area from I-196 other than Chicago Drive; and,

WHEREAS, this creates a serious traffic safety concern in the Jenison area around Chicago Drive and the Interstate 196 interchange, and,

WHEREAS, the problem would be alleviated by the Baldwin Street Connector to I-196, which would provide the safest, most efficient travel alternative in and out of Jenison for a high

percentage of the township's residents, which live north of Chicago Drive and also north the CSX Railroad tracks; and,

WHEREAS, Governor Granholm and the Michigan Department of Transportation recently announced revisions to the 5 Year Road & Bridge Program citing "tight budgetary times" even though the Michigan Department of Transportation's Budget is projected to increase; and,

WHEREAS, these revisions will eliminate at least $10 million in funding allocated for design and right-of-way acquisition activities for the Baldwin Street Connector Project without providing any definitive future date for allocation of these funds; and,

WHEREAS, the Ottawa County Board of Commissioners continues to believe the safety problems which spurred the Baldwin Street Connector need immediate attention and the Baldwin Street Connector is the best long-term solution; and,

NOW THEREFORE BE IT RESOLVED, that the Ottawa County Board of Commissioners encourages Governor Granholm, the Michigan Legislature, and the MDOT to restore the $10 million in funding for the Baldwin Street Connector Project to the most recent 5 Year Road & Bridge Program; and,

BE IT FURTHER RESOLVED, that the Ottawa County Board of Commissioners send copies of this Resolution to Governor Granholm, Representative Huizenga, Representative Vander Veen, Representative Van Regenmorter, Senator Kuipers, and Congressman Hoekstra; and,

BE IT FURTHER RESOLVED, that all resolutions and parts of resolutions insofar as they conflict with this Resolution are hereby repealed.

YEAS: Commissioners: Kortman, Vander Kam, Kuyers, VanderLaan, Ruiter, Berghorst, Rinck, Visscher, Rycenga, Schrotenboer, Swartout (11)

NAYS: Commissioners: None.

ABSTENTIONS: Commissioners: None.

RESOLUTION ADOPTED.

Chairperson, Ottawa County
Board of Commissioners

Ottawa County Clerk

The City of Grandville
CITY HALL
3195 Wilson Avenue,
Grandville, MI 49418-1299
Phone 616.531.3030
Fax 616.530.4984

January 27, 2004

Steve Redmond, Transportation Planner
State of Michigan Department of Transportation
1420 Front Avenue NW
Grand Rapids MI 49504

Dear Steve:

Thank you for allowing the City of Grandville to participate in the January 14 I-196/Baldwin Street Study Stakeholders meeting. Although the City of Grandville has commented previously on various aspects and alternatives for this pending project, I thought it might be helpful to summarize all of our comments to date in a single document for your use.

Preferred Alternative Concept – The City of Grandville favors the alternatives that include a right-hand merge onto eastbound I-196 for traffic entering from Baldwin Street. The right merge is the standard design expected by drivers, better facilitates traffic flow, reduces the chance of congestion on the expressway, reduces the chance for highway accidents (patrol/EMS responsibilities fall to the City of Grandville) and works much better with the existing right merge on-ramp from Chicago Drive just southwest of the proposed new interchange location. The right merge should be accompanied by appropriate laneage (east to the 28th Street exit) allowing for safety in the frequent and necessary weave/merge movements.

Grandville Wastewater Treatment Plant (WWTP) Impacts – The design selected must be sensitive to the vital access and operations of the Grandville WWTP and also anticipate the WWTP's impact to the proposed interchange. It appears that each of the early alternative concepts would relocate the WWTP's only access point westerly to a new location on the proposed roadway leading to/from the on-ramp. This is a positive as it eliminates the need for the WWTP's existing private railroad crossing, however, some new issues must then be resolved. The new roadway should permit 2-way traffic at least to the point of the new plant access drive to facilitate the arrival and departure of WWTP employees, suppliers and vendor trucks performing hauling duties associated with the plant's Program for Effective Residuals Management. The latter activity involves heavy, slow moving trucks entering and exiting the plant on this roadway just a short distance from where vehicles will be leaving the I-196 expressway. This might imply that a 5-lane rather than 3-lane street cross-section be utilized for the new roadway or some type of acceleration lane for the plant be included, however, regardless of cross section, it appears inevitable that trucks entering the street from the WWTP will impede traffic

exiting the expressway and this should be reflected in the design and planning for elements such as sight distance. Also, turn around space for trucks on the WWTP site must be preserved.

Creek Flows – We are certain that the environmental study will include a review of potential impacts of any proposed fill or structures to the normal and flood flows of Buck and Rush Creek but state here the importance of maintaining these flows to prevent any increased incidence of local or upstream flooding.

Bike Trail Impacts – The existing cooperation between MDOT and the City of Grandville must continue to protect against impacts to the recent extension of the Kent Trails non-motorized trail and a parking lot at the trailhead on the WWTP property that were funded jointly by the City and the MDNR. This recreational resource and adequate public access to it must be protected or accommodated in some way by the project.

Additionally, project design should take into account the necessity and anticipation of a future non-motorized connection between Grandville and Jenison. It is our understanding that an extension of the trail along the Grand River is a long-range goal of the Ottawa County Parks Commission. This extension probably wouldn't be impacted by the project, however, a separate connection between the new trailhead parking lot at the WWTP and the "downtown" portion of Jenison along the Baldwin connector should be accommodated. My assumption is that this would most likely take the form of a separated, paved path or sidewalk on the north side of the new Baldwin connector road to the ramps. Apparently such a connection has been mentioned in other public comments received to date on the project.

Lastly with regard to non-motorized trails, the City of Grandville has been interested in completing a link of the riverfront/Kent Trails/Millennium Park area on the north side of I-196 with the downtown and residential portions of Grandville south of the freeway. The freeway is a substantial obstacle to such a connection. Potential connection points are limited with likely possibilities including using the existing freeway overpasses over the CSX railroad, the existing freeway overpasses over Buck Creek, the existing freeway overpasses at Wilson Avenue or some sort of new structure spanning the freeway. This project should not further restrict or eliminate potential access to the riverfront. Further, we would like to open dialogue with the appropriate parties at MDOT to begin planning for such a connection.

Questions – Finally, a few questions:

(1) It appears the new access drive to the WWTP would be placed off the existing WWTP property. What property right would Grandville have in this driveway? Title? Easement? Other?

(2) Presumably MDOT will need to obtain additional right-of-way from the City of Grandville to accommodate the project. At what stage can we expect the extent of this impact to be determined and made known to Grandville?

(3) The planning documents for the Environmental Study included a quantification of traffic at the Wilson Avenue/M-11/I-196 ramp intersection in Grandville. Those documents show this intersection to be congested and at a deficient level of service. Is MDOT giving consideration to any physical, signal or operational changes at this intersection that might improve this situation?

Sincerely,

Kenneth D. Krombeen
City Manager

The City of Grandville
CITY HALL
3195 Wilson Avenue,
Grandville, MI 49418-1299
Phone 616.531.3030
Fax 616.530.4984

October 18, 2005

Ms. Ann M. Lawrie
Bureau of Transportation Planning
Michigan Department of Transportation
425 W Ottawa Street
PO Box 30050
Lansing MI 48909

Dear Ms. Lawrie:

The City of Grandville supports the efforts of MDOT to construct the proposed Baldwin Street interchange at Interstate 196.

I have spoken with staff from your department and reviewed your September 29 letter regarding impacts of this construction on the existing Kent Trails – Grandville Extension non-motorized trail along the Grand River and through the Grandville Wastewater Treatment Plant property. The proposed work will involve minor use of the trail and parking area which have been determined to qualify as Section 4(f) property.

I understand that temporary trail relocation will be necessary to allow for safe pedestrian access to be maintained to the trail. I appreciate MDOT's commitment to maintain safe and clear access to the trail at all times during construction, to maintain safe and clear access to the trail/wastewater plant parking area at all times during construction, to fence and sign construction areas where pedestrian access will not be permitted and to restore the trail and parking area to their original condition, or better, upon completion.

I understand and agree that as a result of this project, the proposed work will not result in any temporary or permanent adverse change to the current activities, features, or attributes which are important to the purposes or functions that qualify the trail for protection under Section 4(f) and that it will included only a minor amount of property.

I further understand that MDOT is proposing to acquire right-of-way from the City of Grandville at the current trail/wastewater treatment plant parking area and south of the existing Baldwin Street. Such right-of-way acquisition will require formal action by the Grandville City Council.

I appreciate the coordination efforts made by your department. If I can be of further assistance, please feel free to contact me.

Sincerely,

Kenneth D. Krombeen

Kenneth D. Krombeen
City Manager

GEORGETOWN
CHARTER
TOWNSHIP

P.O. Box 769
Jenison MI 49429-0769

The following resolution was passed unanimously at the Township Board meeting held on March 9, 1998:

#980309-07 - Baldwin St. Connector

Moved by Henry Hilbrand, seconded by Bernard Mackus, to approve the Resolution for the Baldwin St. Connector as follows:

Baldwin Street Connector
Resolution

Whereas, the urgency of the need to relieve traffic congestion in the Baldwin St./Cottonwood/ Chicago Drive and I 196 interchange area is well established;

Whereas, the Baldwin St. Connector to I 196 is the most viable and feasible solution to this problem;

Whereas, this area is a part of the Southwest GVMC Area Traffic Circulation Study;

Whereas, the funding for Phase I of the Southwest GVMC Area Traffic Study has been appropriated by MDOT and GRETS with local participation;

Be It Resolved, that this area be segregated from the Southwest GVMC Area Traffic Circulation Study so that this Baldwin St. Connector project can be designated and appropriated for design and construction as soon as possible.

Be It Further Resolved, that Georgetown Township appropriate $1,000,000 toward the design and construction phases of this project.

MOTION CARRIED AND RESOLUTION DECLARED ADOPTED

Henry Hilbrand, Supervisor
Georgetown Charter Township

R. J. Poel, Clerk
Georgetown Charter Township

Appendix B

Traffic Analysis

Traffic Analysis

This appendix provides a comparative analysis of design-year (2025) traffic operations between the *No-Build Alternative* and the *Preferred Alternative*. Additional traffic and capacity analysis for existing and forecasted traffic are included in the *I-196 at Chicago Street (Baldwin Street) Traffic and Geometrics Technical Report* which is available upon request.

Comparison of Build Alternative and No-Build Alternative

Under the *No Build Alternative*, no future transportation improvements to the project area were assumed inside the study area. Other than committed projects, only changes to traffic signal timings and re-striping of pavement markings to alter lane usage were assumed. The *Preferred Alternative* includes the recommended I-196 southwest off and northeast on ramps to/from Baldwin Street and an additional third lane on I-196 between the eastbound Baldwin Street on-ramp and the northbound M-11 off-ramp.

Projected traffic volumes for both the *No Build* and *Preferred Alternatives* were forecasted using the transportation model generated by the Grand Valley Metro Council (GVMC), the local Metropolitan Planning Organization for the Grand Rapids metropolitan area.

Basic Freeway Segments and Ramp Freeway Junctions

As shown in **Tables 1 and 2,** under the *No Build* scenario, Level of Service (LOS) deficiencies will result in both the morning and afternoon peak hour between the eastbound on-loop from Chicago Drive and the off-ramp to eastbound M-11. The *Preferred Alternative* provides the necessary additional lane between the new Baldwin Street on-ramp and the eastbound M-11 off-ramp to improve traffic operations.

All westbound freeway segment analyses result in acceptable traffic operations Ramp analyses were not possible for the two highest volume ramps on westbound I-196 as each ramp was either an add-on or a drop lane associated with the westbound auxiliary lane between M-11 and the westbound Chicago Drive exit. However, the volume-to-capacity (V/C) ratio for the westbound Chicago Road is greater than one under the *No Build Alternative.* The *Preferred Alternative* does relieve congestion on the westbound Chicago Drive off-ramp as shown by the improved V/C ratio.

TABLE 1 - FREEWAY OPERATIONS ANALYSIS SUMMARY

FUTURE (2025) YEAR AM PEAK-HOUR

Ramp	Merge/ Diverge LOS	Fwy LOS	Merge/ Diverge LOS	Fwy LOS
	AM-Peak-No Build		AM-Peak-Preferred Alternative	
EASTBOUND I-196 AM PEAK HOUR				
Off-Ramp to Chicago Drive	C	D	C	D
On–Ramp (Loop) from Chicago Drive	F	C	B	C
New Baldwin On Ramp			C	E
Off-ramp to Eastbound M-11	F	F	E	D
WESTBOUND I-196 AM PEAK HOUR				
On–Ramp from M-11	V/C-.52	C	V/C-.62	C
New Baldwin Road Off Ramp			C	C
Off-ramp to Westbound Chicago Dr	V/C-.50	C	V/C-.12	C
On-Ramp (Left) from WB Chicago Dr	B	C	B	C
Off-Ramp (Loop) to EB Chicago Dr	B	C	B	C
On-ramp from Eastbound Chicago Dr.	C	C	C	C

Ramp V/C is given where direct calculation of Merge/Diverge LOS is not possible by methods of 2000 HCM Highest V/C provided (Upstream/Downstream Flow (V_{fi},V_{fo}), Entering/Existing Flow (V_{12}), Ramp flow (V)

TABLE 2 - FREEWAY OPERATIONS ANALYSIS SUMMARY

FUTURE (2025) YEAR PM PEAK-HOUR

Ramp	Merge/ Diverge LOS	Fwy LOS	Merge/ Diverge LOS	Fwy LOS
	PM-Peak-No Build		PM-Peak-Preferred Alternative	
EASTBOUND I-196 PM PEAK HOUR				
Off-Ramp to Chicago Drive	D	D	D	D
On–Ramp (Loop) from Chicago Drive	F	D	B	D
New Baldwin On Ramp			D	D
Off-ramp to Eastbound M-11	F	F	E	D
WESTBOUND I-196 PM PEAK HOUR				
On–Ramp from M-11	V/C-.63	C	V/C-.76	C
New Baldwin Road Off Ramp			D	D
Off-ramp to Westbound Chicago Dr	V/C-1.05	D	V/C-.54	D
On-Ramp (Left) from WB Chicago Dr	B	C	B	C
Off-Ramp (Loop) to EB Chicago Dr	C	C	B	C
On-ramp from Eastbound Chicago Dr	C	C	C	C

Ramp V/C is given where direct calculation of Merge/Diverge LOS is not possible by methods of 2000 HCM Highest V/C provided (Upstream/Downstream Flow (V_{fi},V_{fo}), Entering/Existing Flow (V_{12}), Ramp flow(V)

Freeway Weave Analysis

Freeway weave analysis was completed for westbound I-196 between M-11 and the westbound Chicago Drive off ramp under the *No Build Alternative* assuming a 2,000 foot weave section, the maximum allowed by the 2000 Highway Capacity Manual. The weave section analyzed for the *Additional Access Alternative* was between the M-11 on-ramp and a new off-ramp to Baldwin Street. A three-lane section was assumed for both alternatives which included two basic through lanes and an auxiliary lane between the ramps.

Freeway weave analyses were also completed for eastbound I-196 under the *Additional Access Alternative.* The analyzed section was between a new on-ramp from Baldwin Street and the existing off-ramp to eastbound M-11. Since no eastbound weave information exists, the ratio of weaving to non-weaving was assumed to be similar to the westbound I-196 weave.

Table 3 indicates the westbound I-196 weaving movement between M-11 and Chicago Drive operates at LOS "E" in the PM peak hour. All weaves operate at acceptable LOS under the *Preferred Alternative* with operational improvement in traffic density shown at the weave section of westbound I-196 between M-11 and the westbound Chicago Drive off ramp.

TABLE 3 - WEAVING OPERATIONS ANALYSIS

FUTURE 2025 (NO BUILD) YEAR PEAK-HOUR

Weave Section	Weaving Volumes						
	V A-C	V A-D	V B-C	V B-D	AVG SPEED	Density	LOS
AM PEAK HOUR							
W B I-196 Between M-11 and WB Chicago	**1,600**	**575**	**600**	**475**	**54.69**	**22.73**	**C**
PM PEAK HOUR							
WB I-196 Between M-11 and WB Chicago	**1,750**	**1,400**	**525**	**800**	**42.93**	**39.91**	**E**

FUTURE 2025 (PREFERRED ALTERNATIVE) YEAR PEAK-HOUR

Weave Section	Weaving Volumes						
	V A-C	V A-D	V B-C	V B-D	AVG SPEED	Density	LOS
AM PEAK HOUR							
W B-196 Between M-11 and WB Baldwin *Compound Weave Length=2000+ ft*	**1,700**	**475**	**950**	**350**	**49.51**	**26.83**	**C**
WB I-196 Between Baldwin & WB Chicago *Compound Weave Length=900 ft*	**2,225**	**200**	**850**	**250**	**48.57**	**27.78**	**C**
EB I-196 Between Baldwin and M-11 Off-ramp	**3,600**	**425**	**300**	**500**	**58.20**	**33.70**	**D**
PM PEAK HOUR							
WB-196 Between M-11 and WB Baldwin *Compound Weave Length=2000+ ft*	**2,625**	**525**	**1,050**	**550**	**50.31**	**34.96**	**D**
WB I-196 Between Baldwin & WB Chicago *Compound Weave Length=900 ft*	**1,700**	**200**	**1,000**	**250**	**44.19**	**31.57**	**D**
EB I-196 Between Baldwin and M-11 Off-ramp	**3,225**	**425**	**525**	**300**	**59.80**	**31.10**	**D**

Future Year (2025) Signalized Intersection Traffic Operations Analysis

Signalized and un-signalized intersection analyses were completed assuming the projected traffic volumes. **Tables 4 and 5** contain a summary of the signalized intersections for the morning and evening peak hours in 2025.

In the both morning and evening peak hour, the following two intersections operate at LOS volume "E" or "F" under the *No Build Alternative*:

- Chicago Drive and Main Street – insufficient capacity for the northbound left, southbound left plus poor weaving space for westbound traffic between the westbound I-196 off ramp and Main Street (which reduces intersection capacity)

- Baldwin Street and Cottonwood Drive – insufficient capacity for the southbound, eastbound and westbound left turning movements.

A review of the *Preferred Alternative* shows substantial improvement to the Chicago/Main and Baldwin/Cottonwood intersections in both the morning and evening peak hours.

TABLE 4 - SIGNALIZED INTERSECTION OPERATIONS ANALYSIS SUMMARY

FUTURE 2025 YEAR AM PEAK-HOUR

Signalized intersection-AM Peak	No Build		Preferred Alternative	
	Average Delay	LOS	Average Delay	LOS
M-11 and WB I-196 On-Ramp	17.8	B	35.8	D
Chicago Drive and Main Street	79.4	E	29.8	C
Chicago Drive and Cottonwood Drive	28.8	C	41.0	C
Baldwin Drive and Cottonwood Drive	109.6	F	45.2	D
New Baldwin Street and Main Street	n/a	n/a	19.8	B

TABLE 5 - SIGNALIZED INTERSECTION OPERATIONS ANALYSIS SUMMARY

FUTURE 2025 YEAR PM PEAK-HOUR

Signalized intersection-PM Peak	No Build		Preferred Alternative	
	Average Delay	LOS	Average Delay	LOS
M-11 and WB I-196 On-Ramp	54.9	D	31.9	C
Chicago Drive and Main Street	129.3	F	54.2	D
Chicago Drive and Cottonwood Drive	35.8	D	39.2	D
Baldwin Drive and Cottonwood Drive	70.5	E	61.2	E
New Baldwin Street and Main Street	n/a	n/a	38.7	D

Future Year (2025) Signalized Intersection Traffic Operations Analysis

Table 6 contains the summary of un-signalized intersections for the morning and evening peak hours under both alternatives. During each peak hour the following un-signalized intersections operate at LOS "F":

- M-11and EB I-196 Off-ramp
- Chicago Drive and EB I-196 Ramps
- Chicago Drive and WB I-196 Off Ramps

The *Preferred Alternative* does provide improvement to the WBI-196 to EB Chicago Drive intersection because of eastbound traffic diverting to the Baldwin Street ramp.

TABLE 6 - UNSIGNALIZED INTERSECTION OPERATIONS ANALYSIS SUMMARY

FUTURE (2025 NO BUILD/PREFERRED ALTERNATIVE) YEAR PEAK-HOUR

Intersection	NB		SB		EB		WB	
	Left	Right	Left	Right	Left	Right	Left	Right
AM PEAK LEVEL-OF-SERVICE								
M-11and EB I-196 Off-ramp		F/F						
Chicago Drive and EB I-196 Ramps	F/F	C/C					C/D	
Chicago Drive and WB I-196 Off Ramps		F/C						
PM PEAK LEVEL-OF-SERVICE								
M-11and EB I-196 Off-ramp		F/F						
Chicago Drive and EB I-196 Ramps	F/F	C/C					C /C	
Chicago Drive and WB I-196 Off Ramps		E/C						

Conclusion

In order to accommodate future travel demands with sufficient traffic operational quality, local road improvements are necessary in addition to the construction of the additional access. A list of the surface street improvements needed to accommodate design year 2025 traffic is as follows:

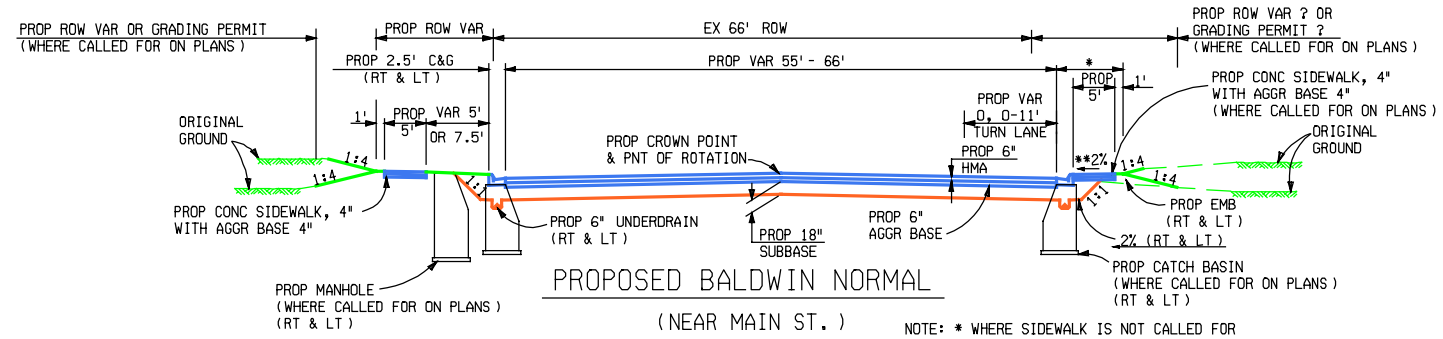
- Widen Baldwin Street east of Main Street.

- Reconstruction of the Baldwin Street/Main Street intersection including the erection of a traffic signal.

- Construction of a second southbound through lane on Cottonwood Drive at Baldwin Street.

Appendix C

Preferred Alternative Cross-Sections

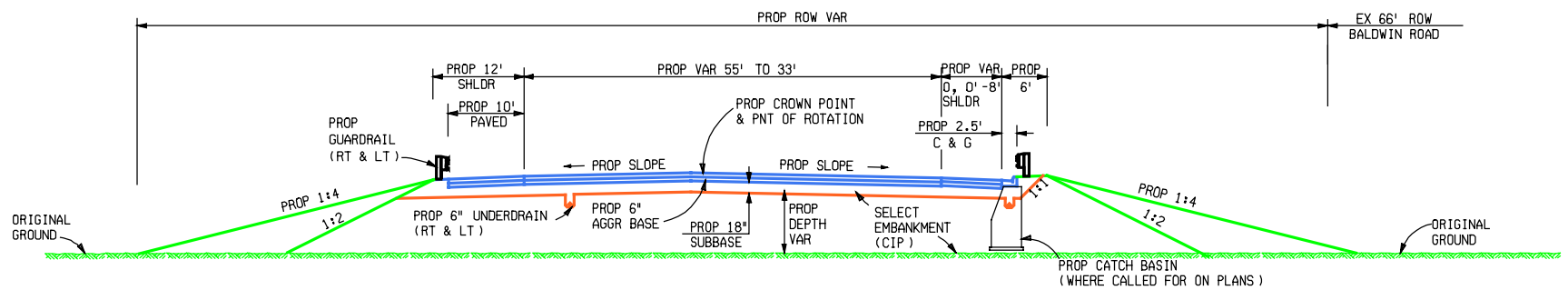


PROPOSED BALDWIN NORMAL

(NEAR MAIN ST.)

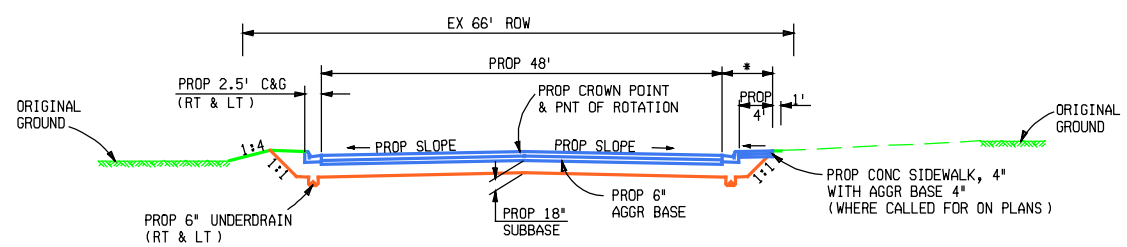
NOTE: * WHERE SIDEWALK IS NOT CALLED FOR
THE PROP DISTANCE WILL BE 6'.
(SIDEWALK LOCATED ON CHURCH PARCEL ONLY)

** WHERE SIDEWALK WILL NOT BE USE THE
THE PROP SLOPE WILL BE 4%.



PROPOSED BALDWIN NORMAL

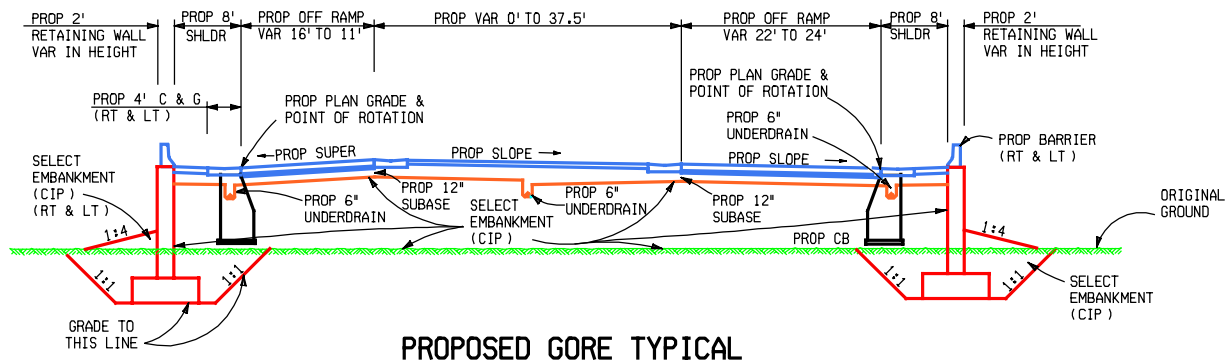
(NEAR I-196)



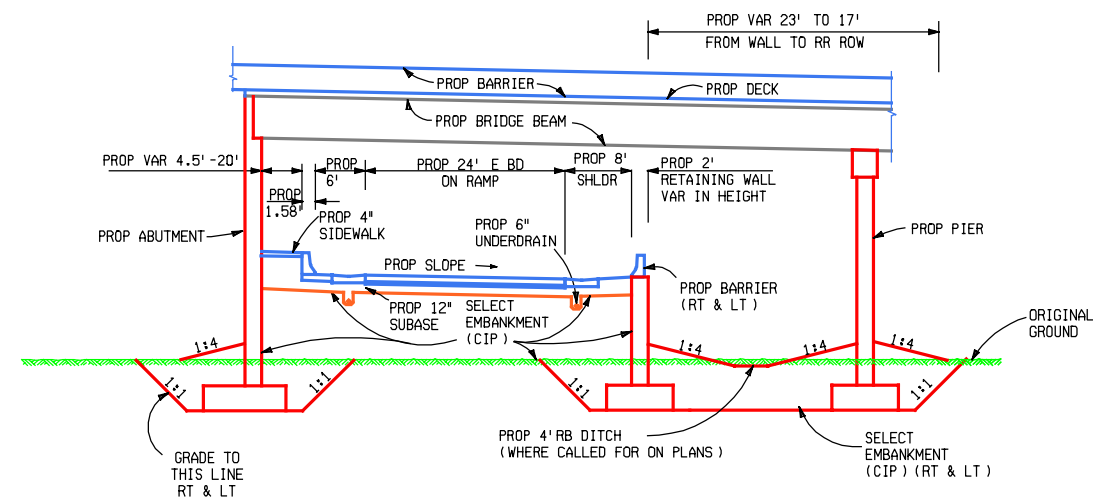
PROPOSED MAIN RECONSTRUCT

NOTE: * WHERE SIDEWALK IS NOT CALLED FOR
THE PROP DISTANCE WILL BE 6'.
(SIDEWALK LOCATED ON CHURCH PARCEL ONLY)

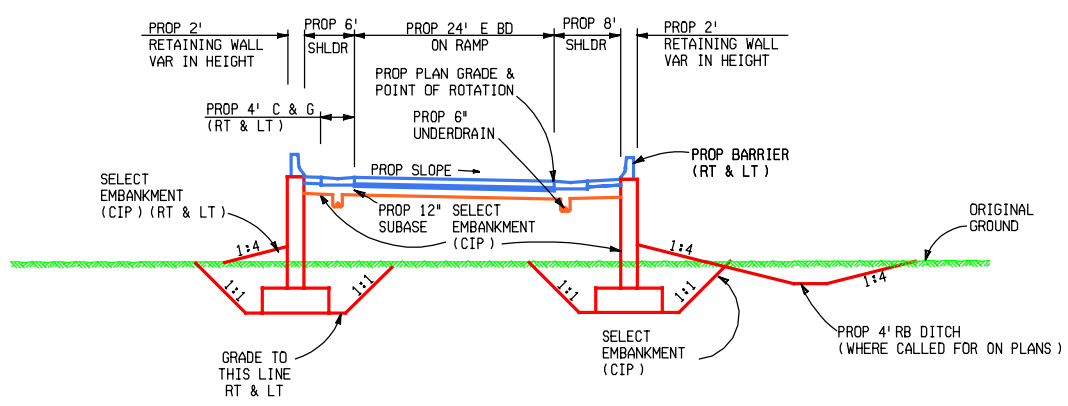
MDOT Michigan Department of Transportation	STATE PROJ. NO. 46274	MICHIGAN DEPARTMENT OF TRANSPORTATION / I-196 CHICAGO DRIVE DESIGN STUDY
	FEDERAL NO.	**PREFERRED ALTERNATIVE** **PROPOSED BALDWIN ROAD TYPICAL** **PROPOSED MAIN STREET TYPICAL**
		EXHIBIT C-1



PROPOSED GORE TYPICAL
AT W BD AND E BD RAMP CONNECTION

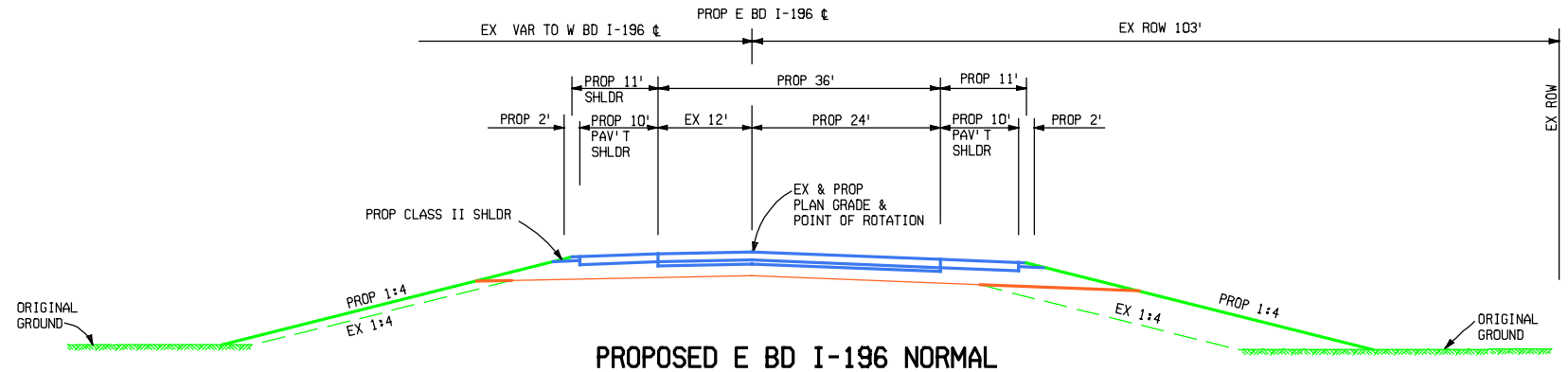


PROPOSED E BD ON RAMP
AT BRIDGE ABUTMENTS

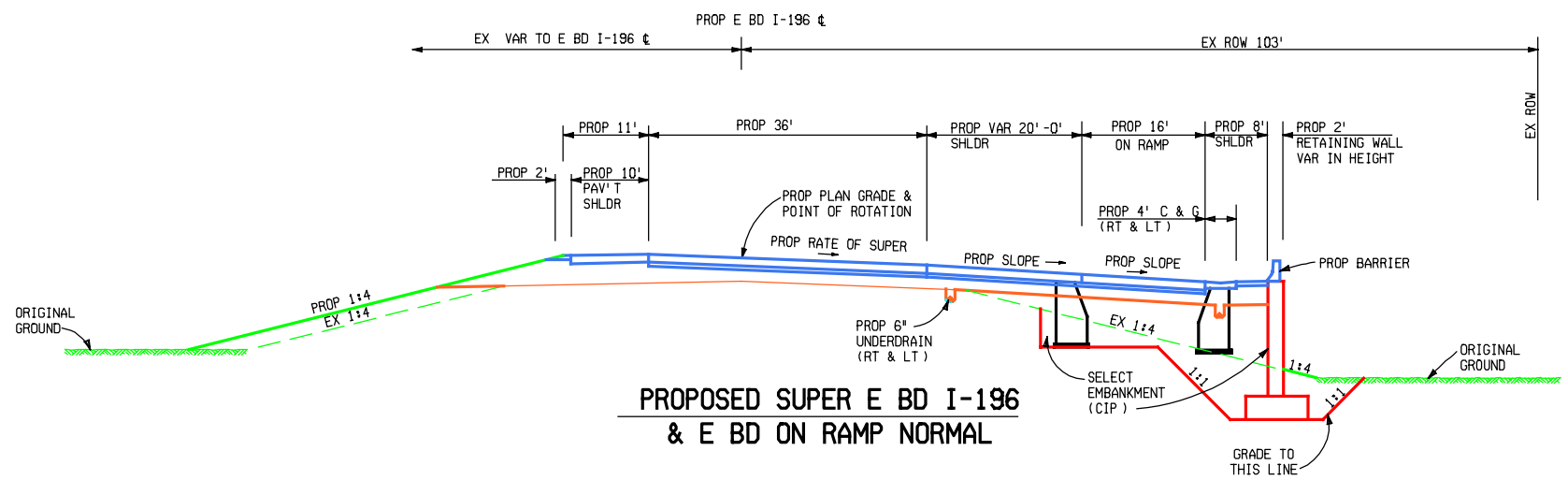


PROPOSED E BD ON RAMP
BETWEEN W BD AND E BD I-196

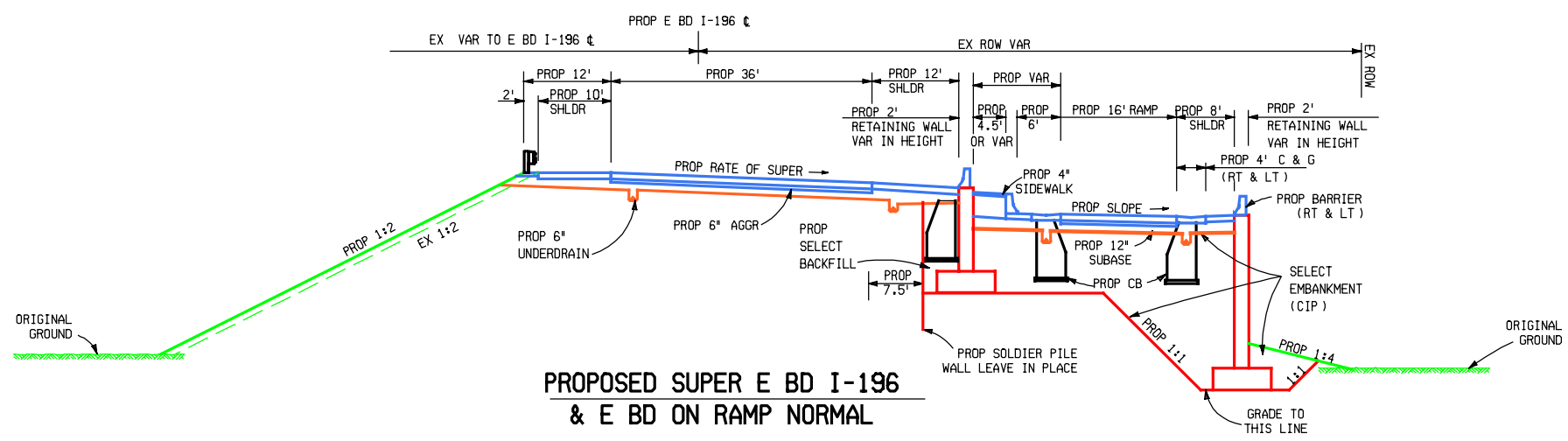
MDOT Michigan Department of Transportation	STATE PROJ. NO. 46274	MICHIGAN DEPARTMENT OF TRANSPORTATION / I-196 CHICAGO DRIVE DESIGN STUDY
	FEDERAL NO.	**PREFERRED ALTERNATIVE** **E BD I-196 AND W BD ON RAMP TYPICAL**
		EXHIBIT C-2



PROPOSED E BD I-196 NORMAL



PROPOSED SUPER E BD I-196
& E BD ON RAMP NORMAL



PROPOSED SUPER E BD I-196
& E BD ON RAMP NORMAL

NOTE:
PROPOSED TYPICAL ARE LOOKING IN DIRECTION OF TRAFFIC.

MDOT
Michigan Department of Transportation

STATE PROJ. NO.
46274

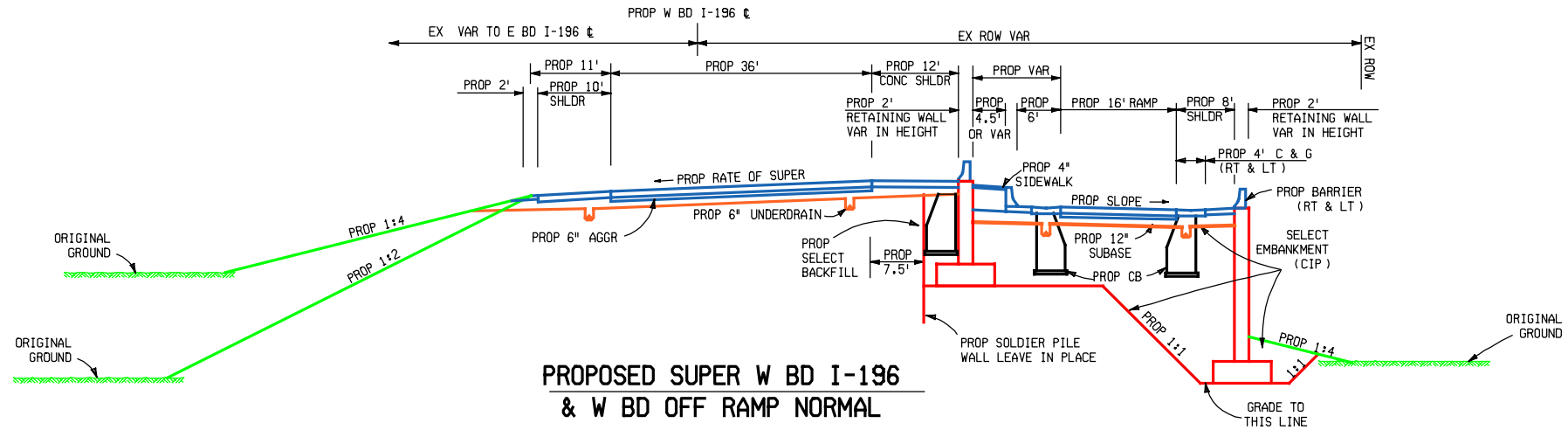
FEDERAL NO.

MICHIGAN DEPARTMENT OF TRANSPORTATION / I-196 CHICAGO DRIVE DESIGN STUDY

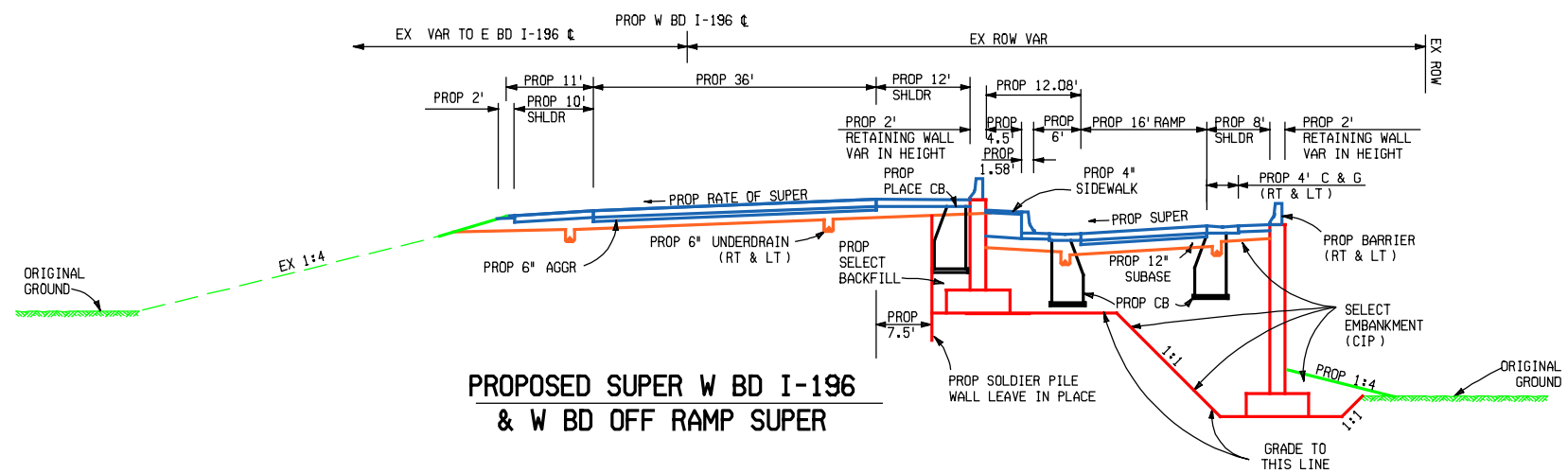
PREFERRED ALTERNATIVE

E BD I-196 AND E BD ON RAMP TYPICAL

FIGURE C-3

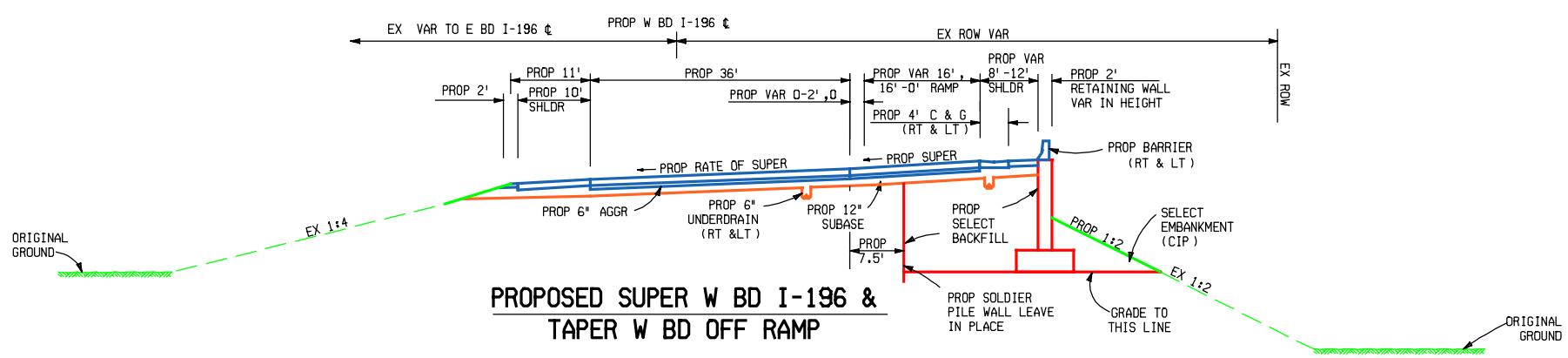


PROPOSED SUPER W BD I-196
& W BD OFF RAMP NORMAL



PROPOSED SUPER W BD I-196
& W BD OFF RAMP SUPER

NOTE:
PROPOSED TYPICAL ARE LOOKING IN DIRECTION OF TRAFFIC.



PROPOSED SUPER W BD I-196 &
TAPER W BD OFF RAMP

MDOT
Michigan Department of Transportation

STATE PROJ. NO.
46274

FEDERAL NO.

MICHIGAN DEPARTMENT OF TRANSPORTATION / I-196 CHICAGO DRIVE DESIGN STUDY

PREFERRED ALTERNATIVE

W BD I-196 AND W BD OFF RAMP TYPICAL

EXHIBIT C-4

Appendix D

Conceptual Stage Relocation Plan

Michigan Department of Transportation
Real Estate Division
Conceptual Stage Relocation Plan
Proposed Ramp Construction at I-196/Chicago Drive (Baldwin Street)
Control Section: 41029/70023, Job Number: 462740

November 2, 2005

GENERAL AREA AND PROJECT INFORMATION

The proposed project area is located along I-196 between M-11 in Kent County, the I-196/Chicago Drive (old M-21) interchange, and the Baldwin Street/Main Street intersection in Ottawa County. The project consists of two alternatives, a No Build Alternative and a Preferred Build Alternative, which includes two additional ramps (WB off and EB on) and connects I-196 directly with Baldwin Street, just north of Chicago Drive. The project also includes the existing Baldwin Street section, which will be realigned and widened from 2 lanes to 5 lanes up to the Main Street intersection.

The area is primarily a residential suburb in the western part of the Grand Rapids metropolitan area.

DISPLACEMENTS

No Build Alternative: 0 Displacements
Preferred Alternative: Possible 1 Residential Displacement

DISPLACEMENT EFFECTS AND ANALYSIS:

Acquisition of property for this project will allow for an orderly and timely relocation of all eligible displaced residents, businesses, farms and nonprofit organizations. The acquiring agency will ensure the availability of a sufficient number of replacement properties in the local area for all eligible displacees.

Residential: The project may cause the displacement of potentially 1 residential unit. A study of the housing market in the project area indicates a sufficient number of replacement homes and rentals will be available throughout the relocation process. It is anticipated that the local residential real estate market will have the capacity to absorb the potential one residential displacement impacted by this project.

ASSURANCES:

The acquiring agency will offer assistance to all eligible residents, businesses, farms, and nonprofit organizations impacted by the project, including persons acquiring special services and assistance. The agency's relocation program will provide such services in accordance with Act 31, Michigan P.A. 1970; Act 227, Michigan P.A. 1972; Act 87, Michigan P.A. 1980 as amended, and the Federal

Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended. The acquiring agency's relocation program is realistic and will provide for the orderly, timely, and efficient relocation of all eligible displaced persons in compliance with state and federal guidelines.

Prepared by:

Kelly Ramirez

Kelly Ramirez
Relocation Specialist

Date: November 2, 2005