

**MEMORANDUM**

**TO:** Bob Fode – Office of Project Development Director  
**FROM:** Paul Benning – Local Government Engineer *PB*  
**DATE:** July 10, 2015  
**SUBJECT:** Request for Decision on Project Development Activities

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**Project:** NHU-6-297(008)000, PCN 20832 – Grand Forks, DeMers Ave from I-29 to Washington St

**Length:** 2.3 Miles

**Classification:** ND Highway 297 – Principal Arterial, Interregional Corridor

**Cost Participation:** Secondary Regional – 80.93% Federal, 9.07% State, 10% Local

|                 |             |         |
|-----------------|-------------|---------|
| <b>Funding:</b> | \$2,471,271 | Total   |
|                 | \$2,000,000 | Federal |
|                 | \$224,144   | State   |
|                 | \$247,127   | Local   |

**Proposed STIP Info:**

Proposed Improvement: CPR, DBR, Grinding, Stitching, etc.  
Tentative Bid Date: March 11, 2016  
Construction Year: 2016

**Purpose and Need Statement:**

To extend the life of the existing pavement structure along ND Highway 297 through Grand Forks.

**Proposed Improvements:**

This project will provide concrete pavement repair, dowel bar retrofit, grinding and stitching along ND Highway 297 from Interstate 29 to Washington Street. Other improvements to be considered on the project are ADA improvements to the existing shared use path, pavement maintenance to the shared use path and signal coordination and video detection to the exiting signal system. The latter items will only be considered if they can be completed under the same investment strategy as a concrete pavement repair project.

**Decision Requested:**

Would the NDDOT Office of Project Development like to prepare the environmental document and design for this project, or would you recommend that a consultant be hired to do this work?

NDDOT Office of Project Development will do this work

A consultant should be hired to do this work \*

**\* If it is a Consultant, which of the following items should be included in their contract?**

|  | <u>Consultant</u>                   | <u>NDDOT</u>             | <u>N/A</u>                          |
|--|-------------------------------------|--------------------------|-------------------------------------|
| <input type="radio"/> Environmental Document         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| <input type="radio"/> Survey                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| <input type="radio"/> Cultural Resources/Delineation | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| <input type="radio"/> Wetland Delineation            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| <input type="radio"/> Bridge Preliminary Concept     | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="radio"/> Materials and Research         | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="radio"/> Borrow                         | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="radio"/> Hydraulic Report               | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="radio"/> Roadway Design                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| <input type="radio"/> Right of Way                   |                                     |                          |                                     |
| <input type="checkbox"/> Title Information           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| <input type="checkbox"/> Plats                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| <input type="checkbox"/> Appraisals                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| <input type="checkbox"/> Acquisition                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| <input type="checkbox"/> Relocation                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> Borrow                      | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="radio"/> Environmental                  |                                     |                          |                                     |
| <input type="checkbox"/> Mitigation                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| <input type="checkbox"/> Permit Application(s)       | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| <input type="radio"/> Bridge Design                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <input type="radio"/> Materials and Research         | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- Roadway Hydraulics
- Bridge Hydraulics

**Comments:**

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*For* *Suzanne R. Wallace*  
Bob Fode – Office of Project Development

*7-16-15*  
Date

## PROJECT SCOPING WORKSHEET

DATE: (Update) October 12, 2011

PRIORITY: RHS in STIP for construction in 2015

City: Grand Forks

Street: Demers Avenue from I-29 to the Fire Station

County: Grand Forks

Length: EB and WB are 2.3 miles each direction

Proposed Improvement: Preventive Maintenance: concrete pavement repair (CPR), dowel bar retrofit (DBR), stitching, grinding, ADA improvements addressed according to policies at the time, and incidentals. (Update) Add all associated equipment, hardware, and software for video detection and signal interconnects on the corridor, with an estimated cost in 2011 funds at \$370,000 (see attached estimate). Also to be considered are Bike Path maintenance of the existing path, ~~and adding a connection from 42<sup>nd</sup> Street to the west side of the interstate right of way.~~ *TAP project* However, both must be approved under the Preventive Maintenance Investment Strategy.

| <i>Cost Estimates Breakdown (in \$1,000)</i> |     |     |         |         |         |       |       |
|--|-----|-----|---------|---------|---------|-------|-------|
| Alternate                                    | PE  | R/W | Utility | Constr. | Bridges | Misc. | Total |
|  |     |     |         | 3,000   |         |       | 3,000 |
|  | 500 |     |         | 2,000   |         |       | 2,500 |

Present Road: Surface Width? 24 feet (one direction)

Surface Type? Concrete

On Street Parking Allowed? No Present: No

Proposed: No

| <b>Proposed Improvements</b> |                   |                                       |
|------------------------------|-------------------|---------------------------------------|
| ADT Present: 19,540          | Yr: 2010          | Travel Way Width : 24 feet            |
| ADT Design: 28,975           | Design year: 2012 | No. of Lanes: Two                     |
| Design Speed: 45 mph         |                   | Roadway Width: 27 feet (curb to curb) |
| Maximum Curve:               |                   | Min. R/W Width:                       |
| Maximum Grade:               |                   |                                       |

| <b>Right of Way</b>  |                          |
|--|--------------------------|
| Will Additional ROW or easement be acquired? No            | ROW acquisition by: None |
| Has any ROW easements been acquired since 7-1-72: Yes      | ROW Condemnation by:     |
| Est. No. of occupied family dwelling to be displaced? None |                          |
| Est. No. business to be displaced? None                    |                          |

| <b>Impacts</b>   |                     |
|--|---------------------|
| Will there be any additional Impacts (Cultural and Environmental Resources): None              |                     |
| Will there be any taking of any right-of-way from any public parkland (4F) or schools (6F): No |                     |
| Airports: No   | Public Hearings: No |
| Environmental Classification (Cat-Ex, EA, EIS): Cat-Ex   |                     |
| Transportation Enhancements: Maintenance on current multi-use path                             |                     |
| Intermodal: None   |                     |
| Pedestrian Needs: Evaluate during project development  |                     |

| <b>Railroads Crossings</b> |           |                                 |                       |             |                    |                     |
|----------------------------|-----------|---------------------------------|-----------------------|-------------|--------------------|---------------------|
| RR Name                    | No. Xings | No. Tracks and Type of Crossing | Daily Train Movements | Train Speed | Present Protection | Proposed Protection |
|                            | None      |                                 |                       |             |                    |                     |
|                            |           |                                 |                       |             |                    |                     |

**Purpose and Need Statement For Regional Projects**

**Purpose and Need:** To prolong the useful life of the existing pavement. The two segments were re-constructed between 1993 and 1994 with 9 inches of non reinforced concrete pavement on 4 inches of asphalt stabilized base, and no dowel bars. The pavement is in good condition, and a preventive maintenance project will prolong the useful life of the roadway.

No operational improvements will be considered with this project due to the Investment Strategy of Preventive Maintenance.

**(Update)** Signal coordination and video detection has significantly improved traffic operations within the city of Grand Forks. Updating the existing equipment, installing new equipment, filling in the gaps in the interconnect capabilities will further enhance and improve traffic operations, reduce emissions, and save travelers time and money.

Cost estimate updated to 2011 dollars based on having now completed several similar urban projects

## Scoring Categories:

### Category 1 Economic Vitality:

- A: Yes
- B: Yes
- C: N/A
- D: N/A

### Category 2 Security:

- A: Any signals not already upgraded to video detection could be considered.
- B: Yes
- C: N/A
- D: Yes

### Category 3 Accessibility and Mobility:

- A: Designed for a forecasted AADT of 28,975 and currently at an ADT of 19,540.
- B: Yes.
- C: Yes, maintenance on shared use path can be considered.
- D: No
- E: N/A

### Category 4 Environmental/Energy/QOL:

- A: N/A
- B: N/A
- C: Pavement repair and grinding will enhance fuel savings as well as vehicle maintenance costs.
- D: Yes
- E: N/A
- F: Yes

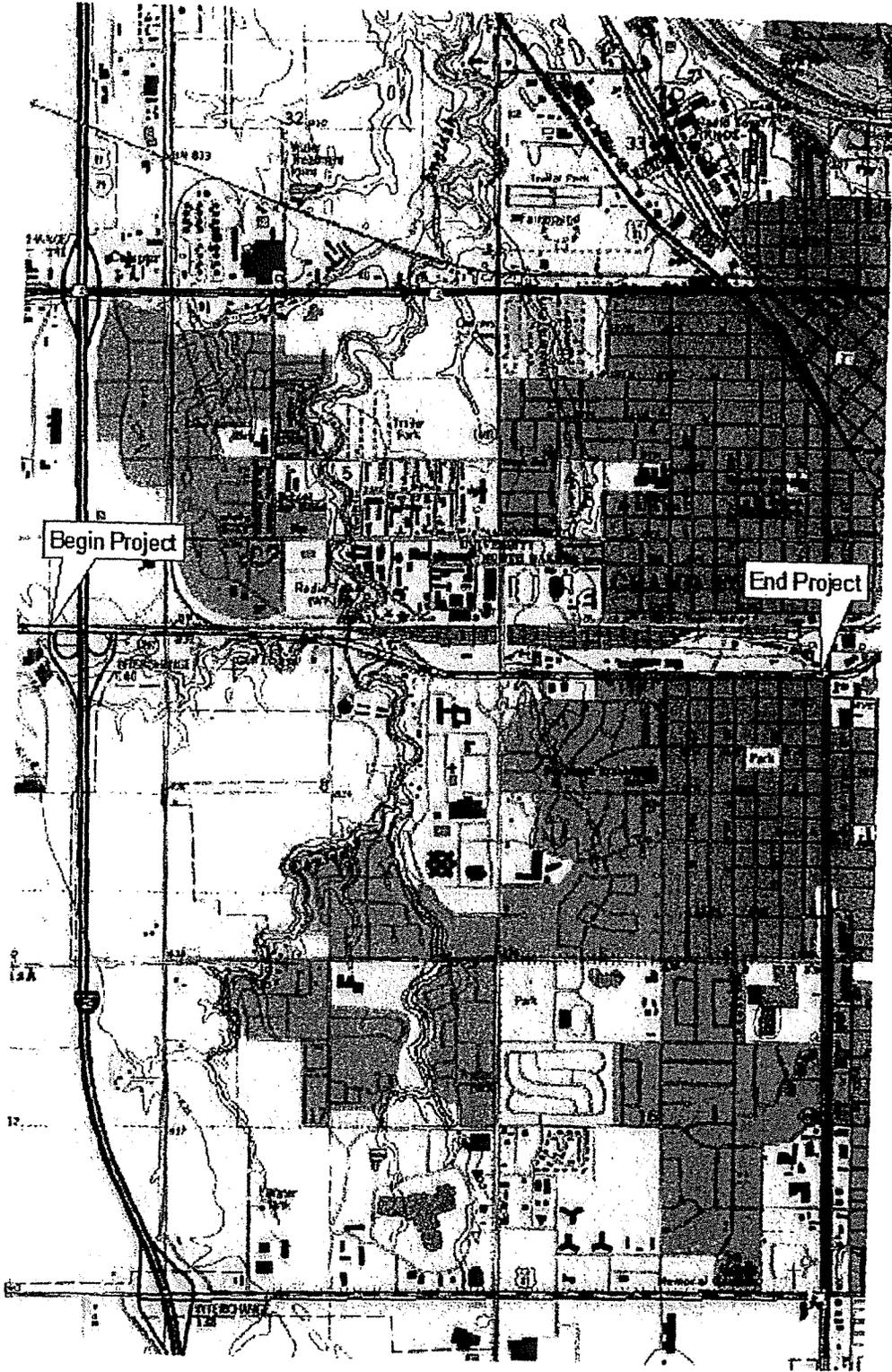
### Category 5 Integration and Connectivity:

- A: Yes – signal coordination
- B: Improves the ride, but not connectivity since the roadway already exists.
- C: Yes
- D: Yes
- E: Yes

### Category 6 Efficient System Management:

- A: Yes - signals
- B: Yes
- C: N/A
- D: N/A





**2015: Demers Ave from I-29 to the Fire Station**

**PROJECT Preventive Maintenance**

| Item # | Item   | Quantity | Unit | Unit price | Total         |
|--------|--|----------|------|------------|---------------|
|        | FIBER OPTIC TRENCH - NO FIBER                                | 6000     | LF   | \$10.00    | \$ 60,000.00  |
|        | FIBER OPTIC BORE - NO FIBER                                  | 5000     | LF   | \$8.00     | \$ 40,000.00  |
|        | FIBER OPTIC CABLE - LENGTH OF PROJECT + 30' IN EACH PULL BOX | 12000    | LF   | \$16.50    | \$ 198,000.00 |
|        | PULL BOXES   | 28       | EA   | \$750.00   | \$ 21,000.00  |
|        | FANS   | 4        | EA   | \$200.00   | \$ 800.00     |
|        | Use 12pr Multimode and 12 Pr Singlemode Cable                |          |      |            |               |
|        |  |          |      |            | \$ 319,800.00 |
|        | Subtotal   |          |      |            | \$ 319,800.00 |
|        | 15 % Contingencies   |          |      |            | \$ 47,970.00  |
|        | Sub Total  |          |      |            | \$ 367,770.00 |
|        | 4 % 2012   |          |      |            | \$ 382,480.80 |
|        | 4 % 2013   |          |      |            | \$ 397,780.03 |
|        | 4 % 2014   |          |      |            | \$ 413,691.23 |

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