CORRESPONDENCE/MEMORANDUM _____ **State of Wisconsin**

Date: May 7th, 2018

To: Beth Cannestra, P.E.
Director, Bureau of Project Development
Attn: David Stertz, P.E. Design Standards and Oversight Section Chief

From: Paul Conlin, P.E.
NW Region – Project Development Chief

Subject: DESIGN STUDY REPORT
Design I.D. 8949-05-02
USH 12
Baldwin - Menomonie
Wilson Creek Bridge B-17-0206
Dunn County

Having considered the economic and social effects of this project, its impact on the environment, and its consistency with the goals of community planning, we request your approval of the attached design study report.

for _____ 5/9/18
Region Project Development Chief Date

Concur:

for _____ 5/9/18
Bureau of Project Development, Date
Design Standards and Oversight Section Chief

DESIGN STUDY REPORT

Project I.D. 8949-05-02
USH 12
Baldwin - Menomonie
Wilson Creek Bridge B-17-0206
Dunn County

DESIGN STUDY REPORT

1.0 PROJECT DESCRIPTION AND NEED

1.1. Federal Oversight Project (Yes or No): No

1.2. Project Length & Termini

Project Length: 0.123 miles

Termini/Limits:

The project begins approximately 200' west of the USH 12 and 106th street intersection and ends approximately 500' east of the same intersection.

1.3. Functional Classification/Access Control

Roadway Name	Functional Class (Arterial, Collector or Local)	Rural, Urban or Transitional	Corridors 2020 or Backbone (No or State which)	NHS Route (Yes or No)	Long Truck Route(No or state Federal or State)	Access Control Tier	On Ped. Trans. Plan (Yes or No)	On Bike Trans. Plan (Yes or No)
USH 12	Major Collector	Rural	No	No	No	3	No	No

1.4. Need for the Project

The need of the proposed project is to address the physical and operational concerns identified on bridge B-17-0009 (USH 12 over Wilson Creek) which was built in 1953 and overlaid with concrete in 1971 & 1989. The deck currently has several spalls and full depth failures. Given the T-girder design, the deck acts as the top portion of the girder and is deteriorating quickly. The sufficiency rating is 49.8 The project will eliminate the structural deficiencies and enhance roadway safety while maintaining a river crossing by replacing the existing bridge with a wider structure that meets current design standards.

The proposed project includes replacing the existing three-span, T-girder bridge with a new 109-foot long, single-span, 45W prestressed concrete girder bridge on sill abutments (A1) and pile encased piers. The bridge will have a 36-foot clear roadway width, 15° skew, a typical 5% cross slope, and single-slope concrete parapets 42SS. The proposed roadway cross-section will consist of two 12-foot HMA pavement travel lanes with 6-foot shoulders (5-foot paved), matching into the existing roadway at the project termini. The proposed bridge width was chosen in order to provide 12-foot lanes and 6-foot shoulders across the bridge for bicyclists in accordance with the Wisconsin Bicycle Facility Design Handbook. Pedestrian accommodations are not being provided based on an absence of need in this rural area.

2.0 PRESENT FACILITY

2.1. Posted Speed

Roadway or Roadway Segment	Posted Speed	Advisory Speed
Baldwin - Menomonie	55	None

2.2. Geometrics

2.2.1. * Horizontal Alignment Features Outside of Desirable or Minimum Design Standards.

* Horizontal Feature (Curve, P.I. Deflection, etc.)	Location (Stationing)	* Size (Radius, P.I. Deflection, etc.)*	* Super-Elevation (s.e.)	Speed Rating

*Controlling Criteria

Comments: There are no horizontal alignment features outside of design standards for a bridge project.

2.2.2. * Vertical Alignment Features/SSD Outside Desirable or Minimum Design Standards.

* Vertical Feature (Curve, Vertical Grade Deflection, etc.)	Location (Stationing)	Sag or Crest	* % Grades	K Value/ Grade Deflection	Speed Rating	* SSD** Met (Yes or No/ Length)	DSD Met (Yes or No/ Length)

*Controlling Criteria **SSD = Stopping Sight Distance

Comments: There are no vertical alignment features outside of design standards for a bridge project.

2.2.3 * Grades and Vertical Clearance Outside Desirable or Minimum Design Standards.

Location (Stationing, Overpass Structures, etc.)	* % Grade	* Vertical Clearance

*Controlling Criteria

Comments: There are no grades and vertical clearance features outside of design standards for a bridge project.

2.3 Side-Roads/Intersections/Interchanges

2.3.1 Side-roads

Roadway Name	Functional Class	Posted Speed (MPH)	Existing Traffic*** (AADT)	Approach Grades	Pedestrian Facilities (Yes or No)	Bicycle Facilities (Yes or No)
106th St.	collector	None posted	Assumed to be <100	4%	No	No

***If Existing Traffic volumes are not available, then state at a minimum whether AADT is assumed to be <100 or >100.

Comments:

2.3.2 Intersections

Intersecting Roadway Names	Intersect. Type	Intersect. Angle	Traffic Control	* SSD** Met [(Y/N) / Length]	ISD** Met [(Y/N) / Length]	DSD** Met [(Y/N) / Length]	Vision Triangle (Y/N)	Corner Clearance To Driveways Present (Y/N)
106th St	c	105.3	Stop	Y/>570	Y/>704	N/<990	Yes	No

*Controlling Criteria

**SSD=Stopping Sight Distance, ISD=Intersection Sight Distance, and DSD=Decision Sight Distance (See FDM 11-25-1).

Comments: Passenger car is design vehicle used. Truck traffic assumed to be < 2.5% AADT.

ISD met for minimum but not desirable. Time gap of 10.5 s (des) and 8.0 s (min) were used for ISD calculations.

Has intersection control evaluation (ICE) worksheet been coordinated (Yes or No)? No.

2.3.3 Interchanges

Comments: No interchanges within the project limits.

2.4 Cross Section

Number of roadways: 1
Number of lanes: 2
Median width: None
* Lane width: 11’
* Shoulder width (Total and Paved or Curb & Gutter): 6’ (3’ paved)
Bicycle Facility Type: None
Sidewalk and curb ramps: None, rural highway
* Cross slope: 2.0%
* Super-elevation: 6.0% Max.
* Horizontal clearance: 30.6’ at structure B-17-009
Clear Zone: 18.0’
* Vertical clearance: No structures over
Side-slopes and Ditch sections: 2.5:1 max. side-slopes

*Controlling Criteria

2.5 Pavement Structure/Condition

Roadway	Pavement Types & Thicknesses	Physical Description
USH 12 Sta. 71+00 - 78+53	6”-12” HMA over concrete	2” mill and overlay with HMA E-3 Special done in 2016. Pavement is in good condition – minor to no cracking.
106th St	Crushed aggregate	Depth unknown. Aggregate roadway is in optimal condition. No potholes or washouts.

2.6 Right Of Way

2.6.1 Encroachments: None identified

Location (Station & Distance Left or Right)	Encroachment Type

2.6.2 Unique Right of Way Issues: None identified

2.7 Structures

Existing Structure I.D. #	Feature Crossed	Structure Type	Sufficiency Rating	* Clear Roadway Width	Railing Type	* Structurally Deficient or Functionally Obsolete	* Inventory Load Rating
B-17-009	Wilson Creek	T-girder	53.7	30.6’	Concrete parapet	Structurally Deficient	HS 25

*Controlling Criteria

Comments: None

2.8 Utilities

Utility Name	Type of Utility	General Location	Underground/ Overhead/Both
Baldwin Telecom Inc.	Communication	West side of 106th street, crossing the new centerline at Sta.12+77 & 11+51	underground
CenturyLink	Communication	South side of US 12 crossing at Sta. 75+86	underground
Xcel Energy	Electricity (distribution)	South side of US 12, 70’ +- from centerline, crossing at Sta. 73+10	overhead
Sprint Corporation	Communication	North side of railroad tracks	underground

Comments: None

2.9 Railroad Crossings: No railroad crossings are located within the project limits.

Location (Sta.)	Railroad Name	No. of Tracks	Function	Crossing Type

Comments: Though no railroad will be crossed, the 106th street re-alignment will end in close proximity to a railroad crossing. The CN railroad goes over 106th street approximately 40' from the end of the work zone.

2.10 Special Soils Conditions

None identified. The project location has predominately silty loam soils.

2.11 Unique Project Features

None identified.

3.0 TRAFFIC

3.1 Traffic Volumes/Conditions

3.1.1 See attached Traffic Forecast Report - Attachment

3.1.2 Highway Capacity Analysis

Location (Roadway Segment or Intersection)	Existing Level of Service	Design Year Level of Service Under Existing Roadway	Design Year Level of Service Under Proposed Roadway
USH 12, 80th St – CTH Q	A	A	A

Comments:

3.2 Crash Analysis

3.2.1 Project Crash Information

Roadway	Crash Rate (1) (Year.)	Statewide Crash Rate (1) (Year)	Number & Severity of Crashes			
			Fatal	Injury	Property Damage	Total No. Crashes
USH 12	34 (2007-2011)	105 (2011)	0	1	0	1

(1) Crash rate based on 100 million vehicles miles traveled (100 MVMT)

Comments: One crash recorded from 2007 – 2011 and weather was a factor. No flags on this segment.

3.2.2 Significant Crash Locations or Patterns

Location or Pattern	Year	Number & Severity of Crashes				Crash Rate(2)	Possible Factors Contributing to Crashes
		Fatal	Injury	Property Damage	Total		

(2) Crashes per million entering vehicles (MEV)

Comments: No patterns were found in type or location of crashes that would have signified problems with roadway geometrics.

4.0 PROPOSED DESIGN CRITERIA

4.1 Design Class

Roadway or Roadway Segment	Design Class
Baldwin - Menomonie	C3

4.2 * Design Speed

Roadway or Roadway Segment	Design Speed	Posted Speed
Baldwin - Menomonie	60 mph	55 mph

* Controlling Criteria

4.3 Design Criteria Outside Of Desirable Standards

This project will include the use of the MGS short radius beam system on the northwest quadrant of the new structure. The system will be installed behind a crash cushion which will be attached to the bridge. This system is not approved as a NCHRP 350 crash tested system. It was decided to use this system due to the location being on the inside of a curve where there is no history of crashes. Using regular MGS at this location would require the purchase of a large area of right-of-way to move 106th street intersection further away from the bridge than is already planned.

4.4 Exceptions To Standards

No exception to standards will be necessary for this project.

4.4.1 Safety Screening Analysis (SSA) and Programmatic Exception to Standards per FDM 11-1-4 (3R projects and Preventive Maintenance (PM) Group I and Group II pavement strategy projects (FDM 3-1 Exhibit 5.1))

See attached Safety Screening worksheets for locations and details of Crash Flags, Improvement Flags, and Programmatic Exceptions to Standards within the project limits.

****National Highway System (NHS) Roadway- Substandard Geometric Features Covered by a Programmatic Exception to Standards (3R & PM projects)***

NHS roadway name:

Location				Feature Type	Magnitude of Variance
Sta.	to Sta.	RP	to RP		

* This documentation is required only for 3R projects on the National Highway System.

These substandard features are located on highway segments containing no flags or only Crash Type Flags. These features do not contribute significantly to the crash situation on these segments of highway so these highway segments are covered by the Programmatic Exception to Standards.

See attached map

Comments: Not an NHS roadway, none required.

Substandard Geometric Features NOT Covered by a Programmatic Exception to Standards and NOT corrected as part of PM project (PM Group I and Group II pavement strategy projects)

Roadway Name:

Location				Feature Type	Magnitude of Variance	Operational Improvements
Sta.	to Sta.	RP	to RP			

Construction is required for safety improvements or to correct the above sub-standard features. The region will either consider this construction for HSIP funding or address this construction with future programming. Operational improvements will be incorporated into the PM project at these locations that are consistent with the scope of the preventive maintenance work and appropriate based on the analysis of crash types.

Comments: None

4.5 Typical Cross Section Elements Considered

Meets design standards for rural State Trunk Highways classified as collectors.

5.0 PROPOSED DESIGN IMPROVEMENT

5.1 Improvement Type

303 State Highway Rehab SHR Bridges.

5.2 Geometrics

5.2.1 * Horizontal alignment:

Alignment will remain the same as existing. The horizontal alignment meets desirable design criteria.

5.2.2 * Vertical alignment/Stopping sight distance:

The vertical alignment will remain the same on the east side of the bridge. The west approach will be raised at the bridge to increase the longitudinal slope of the bridge. The existing slope is 0.128% while Bureau of Structures requires 0.5% on new structures. A vertical curve was moved to the west and raised to meet this requirement. This will increase sight distance for traffic entering the highway from 106th Street.

5.2.3 * Grades:.

The grade on the east approach to the bridge will remain the same. For the west approach, the grade will be increased from 1.09% to 1.49% for the reasons stated in 5.2.2.

* Controlling Criteria

5.3 Sideroads/Intersections/Interchanges

5.3.1 Side-roads

Roadway Name	Functional Class	Design Speed (MPH)	Design Year Traffic (AADT)	Design Class	Approach Grades	Ped. Facilities (Y / N)	Bike Facilities (Y / N)
106th St	collector	25	Assumed <100	RT1	2.7%	No	No

Comments: None

5.3.2 Intersections

Intersecting Roadway Names	Intersect. Type	Intersect. Angle	Traffic Control	* SSD** Met [(Y/N) / Length]	ISD** Met [(Y/N) / Length]	DSD** Met [(Y/N)/ Length]	Vision Triangles Proposed (Y / N)	Corner Clearance To Driveways Met (Y / N)
106th St	C	113.07	Stop	Y/>570	Y/>704	N/<990	Yes	No

* Controlling Criteria

**SSD = Stopping Sight Distance, ISD = Intersection Sight Distance & DSD = Decision Sight Distance (See FDM 11-25-1).

Comments:

Passenger car is design vehicle used. Truck traffic assumed to be < 2.5% AADT.

ISD met for minimum but not desirable. Time gap of 10.5 s (des) and 8.0 s (min) were used for ISD calculations.

Has intersection control evaluation (ICE) worksheet been coordinated (Yes or No)? No

5.5 Cross Section/Pavement Structure

Number of roadways: 1

Number of lanes: 2

Median width/Type: No median

* Lane width/Type (Driving, Parking, Bike Lane, etc.): 12’ driving lane

* Shoulder width (Total & Paved or Curb & Gutter): 6’ paved and total

Bike facilities proposed: Paved shoulder

Pedestrian facilities / sidewalk proposed: Rural, no pedestrian facilities

* Cross slope: 2.0%

* Super-elevation: 5.0%

* Horizontal clearance: 6’

* Vertical clearance: No structures over

Pavement Structure: 5” HMA Pavement (3-Inch 3 MT 58-28 S lower layer, 2-Inch 4 MT 58-34 S upper layer) over 10” Base Aggregate Dense 1-1/4”

Clear Zone: 18’

Side-slope / Ditch Sections: 2.5:1 max. 4:1 normal side-slopes

* Controlling Criteria

5.6 Street Lighting: No street lighting is proposed with this project.

5.7 Structures

5.7.1 Bridge Structures

Structure I.D. #	Location	Structure Type	Length	* Clear Width	No. of Spans	* Vertical Clearance	* Horizontal Clearance
B-17-0206	Sta.75+62	Prestressed Girder	111.6’	36’	1	No structures over	18’
	Proposed Improvement:		New structure with wide shoulders				

* Controlling Criteria

Comments: None

5.8 Permanent Traffic Control

Will permanent signs be installed (Yes or No)? No

Are non-standard sign layout details needed (Yes or no)? No

Comments: New signs installed in 2015

5.9 Transportation Management Plan

See the Transportation Management Plan Attachment:

5.10 Safety Enhancements/Mitigation Measures

The existing guardrail within the project limits will be removed and replaced with MGS.
The 30.6' width bridge will be replaced with a 36' width bridge.

5.11 Real Estate

5.11.1 Real Estate Acquisition

Plat I.D.:

Relocations		Land	Permanent	Temporary	Construction
Type	Number	(Acres)	Easements	Easements	Permits

Comments: No real estate needed.

5.11.2 Encroachment Actions

Encroachment Location	Encroachment Type	What is to be Done? (Removed, Revocable Permit, etc.)

Comments: None.

5.12 Utilities

Is Project Trans 220 Utility Project (Yes or No)? Yes

Describe any special design features to accommodate utilities:

None required for this project.

Major Utility Agreements:

None required for this project.

Comments: None

5.13 Railroads

Describe improvements to Railroad Facilities:

None required for this project.

Railroad Agreements:

None.

Comments: None

5.14 Financing And Scheduling

Construction I.D.	Cost Estimate	Type of Funding			Proposed Timeframe For Construction	Ties to Other Work or Projects	Incentive/ Disincentive Clauses (Yes or No)
		% Fed.	% State	% Local			
8949-05-72		80	20		Summer 2021 to Summer 2024	No	No

Describe Incentive/Disincentive Clauses:

None required for this project.

Non-participating Work:

None required for this project.

Deferred Construction Work (Preventative Maintenance projects)

None.

5.15 Unique Or Non-standard Features

5.15.1 Hazardous Waste

No hazardous waste was identified.

5.15.2 Environmental Commitments

See basic sheet 8 attachment.

5.15.3 Community Sensitive Design/Public Involvement

Public involvement meeting pending.

5.15.4 Value Engineering

Is not required for this project.

6.0 SYNOPSIS

	Completion/Approval Dates	Status of Coordination or Other Information as Needed
Concept Definition Report	4/22/14	
Scoping Document	11/5/13	
Public Involvement Plan	Submitted for approval	
Final Aesthetic & Visual Level of Impact Worksheet	N/A	
Speed Limit Change Declaration	N/A	
Environmental Document (Type: CEC)	2/21/18	
Public Hearing/Public Information Meetings	In Progress	TBD – Fall 2018
SHPO Involvement	5/29/14	Arch. & hist.
DNR Involvement	9/15/15	Initial review
Agricultural Impact Statement	N/A	
Pavement Design Report	1/9/17	
Roundabout Review	N/A	
Transportation Management Plan (Type: 2)	9/27/17	Approved 60%
Permits Required (Types:)	N/A	
Local Project Agreements	N/A	
Value Engineering Study	N/A	
Status of Statutory Actions	N/A	

7.0 ATTACHMENTS

Appendix A - Project Location/Overview Map
Appendix B - As-built Plan Sheet(s) (For 3R projects only)
Appendix C - Existing Typical Cross Section(s)
Appendix D - Traffic Forecast Report
Appendix E - Preliminary Plan Sheet(s)
Appendix F - Finished/Proposed Typical Cross Section(s)
Appendix G - Environmental Commitments Basic Sheet (if applicable) (include coordination letters)
Appendix H - Transportation Management Plan Documentation and Request for Approval Form
Appendix I - Roadside Hazard Analysis form template

Appendix A - Project Location Map

March 26, 2014
exported from dotview
WisDOT

DOTView Map

Bridges - STN	State Highways	Rivers/Streams	Township
Railroads	Off-Mainline Routes	Bodies of Water	Counties
Interstate Highways	County Trunks	City	Transportation Regions
US Highways	Rural Roads	Village	

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT		FEDERAL DIVISION OFFICE	SHEET NUMBER	TOTAL SHEETS
		STATE	FEDERAL			
17.1	6.4		21.28	W[illegible] 3N	1	14

Appendix B - As-built Plan Sheets

INDEX [illegible]

SHEET NO. 1 [illegible]
SHEET NO. 2 [illegible] TIONS
SHEET NO. 3 ESTIMATE [illegible]
SHEET NO. – MISCELLANEOUS [illegible]
SHEET NO. 4 RIGHT OF WAY PLAT
SHEET NO. 5 [illegible] STA. 1+50 TO STA. 13+00
SHEET NO. 6-8 [illegible]
SHEET NO. 9-12 [illegible]
SHEET NO. 13-14 CROS[illegible]

STATE OF WISCONSIN

STATE HIGHWAY COMMISSION OF WISCONSIN

PLAN AND PROFILE OF PROPOSED

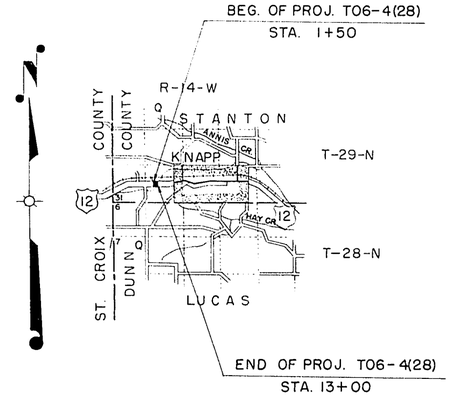
WEST COUNTY LINE—KNAPP ROAD

DUNN COUNTY

PROJECT T06-4(28)

BEGINNING APPROX. 115' FEET SOUTH OF AND 284 FT. EAST OF THE SOUTHWEST COR. OF THE S.E. 1/4 OF THE N.W. 1/4 SEC. 32, T-29-N R-14-W, THENCE N.E. 1150 FT. TO APPROX. 100 FT. EAST & 98 FT. NORTH OF THE S.W. COR. OF THE S.W. 1/4 – N.E. 1/4, SEC. 32, T-29-N, R-14-W.

SCALES
- PLAN 1 IN. 100 FT.
- PROFILE HOR. 1 IN. – 100 FT. VERT. 1 IN. – 10 FT.
- CROSS SECTIONS HOR. 1 IN. – 10 FT. VERT. 1 IN. – 10 FT.



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- SECTION LINE [illegible]
- WATER [illegible]
- FENCES [illegible]
- WIRE FENCE [illegible]
- LOT LINE [illegible]
- CORPORATE OR [illegible]
- PROPERTY LINE [illegible]
- TRAVELED WAY OR [illegible]
- RAILROAD [illegible]
- BASE OR [illegible] LINE [illegible]

- [illegible] LEVERS IN PLACE
- [illegible] LEVERS REQUIRED
- [illegible] OP INLET
- [illegible] WER POLE
- [illegible] LEPHONE OR TELEGRAPH POLE
- [illegible] HT OF WAY MARKERS
- [illegible] FERENCE STAKE FOR P[illegible]S ONLY +61.7 26.0
- [illegible] RSH
- [illegible] DGE
- [illegible] TREES
- GROUND ELEVATION DATUM LINE 73.9
- GRADE ELEVATION DATUM LINE 75.16

LAYOUT

SCALE

TOTAL NET LENGTH OF CENTERLINE = 0.218 MI.

STATE HIGHWAY COMMISSION OF WISCONSIN
MADISON, WIS.

SURVEYED: M.L. SEVERSON NOTES
DIVISION COMPUTED: S.J.J.
DIVISION CHECKED: R.E.M. COMPUTATIONS

CORRECT:
DATE 3/21/53 W. H. Bangerter DIVISION ENGINEER

RECOMMENDED FOR APPROVAL:
DATE 3/31/53 [illegible] CONSTRUCTION ENGINEER

APPROVED:
DATE 4/1/53 E. L. Roetter TRANSPORTATION ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL:

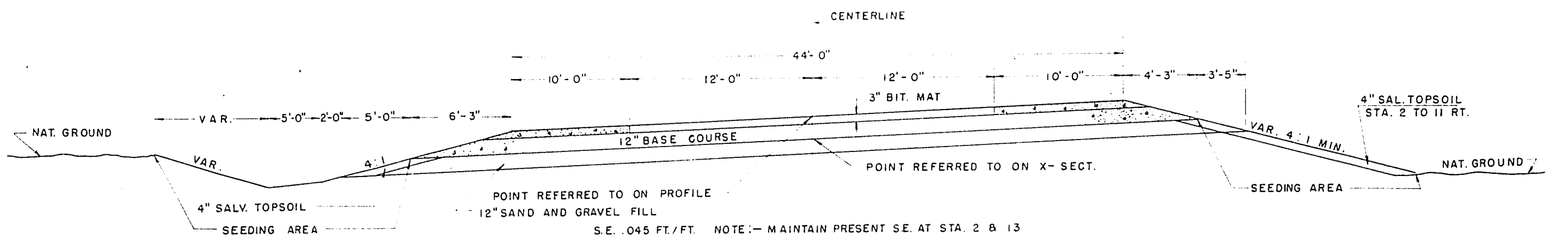
DISTRICT ENGINEER DATE

APPROVED:

DIVISION ENGINEER DATE

T06-4(28)

P. R. A. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
W'S	T06 - 4(28)	2	14



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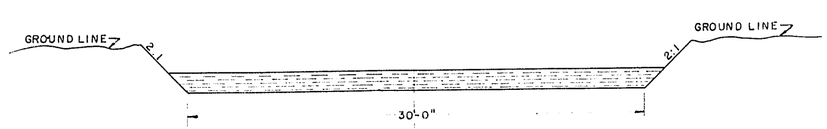
TYPICAL FINISHED SECTION



SECTION FOR CHANNEL CHANGE

STANDARD DETAILS
1-2.1.1 EXC. & BACKFILL FOR ABUTMENTS
7-1.3.1 MARKER POSTS

7-4.1.1 CONSTR. BARRICADE

TYPICAL CROSS SECTION
FOR

44' ROAD BED

ESTIMATE OF QUANTITIES

Appendix B - As-built Plan Sheets

CONTRACT NO. 1

B. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
U.S. 3N	T06-4(28)	3	14

THIS PROJECT IS TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE HIGHWAY COMMISSION OF WISCONSIN — EDITION OF 1951 AND SPECIAL PROVISIONS ATTACHED TO PROPOSAL

SEC. NO.	STATION TO STATION	NET LENGTH OF CENTER LINE	CLEARING		GRUBBING		REMOVING OLD CULVERT		REMOVING OLD BRIDGE		REMOVING PAV'T			EXCAVATION				SAND GRAVEL FILL	FINE GRADING	SHOULDER EMBANKMENT	FINISHING ROADWAY	OBLITERATING OLD ROAD	CONCRETE		GRAVEL OR CRUSHED STONE		CONCRETE PAVEMENT		CONCRETE HEADERS	CONCRETE SURFACE DRAINS	CONCRETE PAVEMENT REINF.	PREP. ROADBED FOR BITUM. SURF.	BITUM. MAT. FOR PRIME COAT	BITUM. ROAD MIX	AGGREGATES FOR BITUM. ROAD MIX SURFACE	BITUM. MAT. FOR SURFACE COURSE	BIT. CONC. PAV'T.	
									STA.		STA. 8+30												BASE COURSE		BASE COURSE	SHOULDER												
				2101-3	2101-5	2101-6	2104-1		2104-21		2105-1			2106-1	2106-2	2106-4	2109-1	2110-1	2112-1	2113-1	2114-1	2116-1	2201-1		2203-1	2203-1	2301-1	2301-	2301-5	2301-6	2301-7	2310-1	[illegible]	2312	[illegible]	2314-1	2317-1	
			IN DIA.	ACRE	IN DIA.	ACRE	L.S.		L.S.		SQ. YD.			C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	STA.	STA.	SQ. YD.		C.Y.	C.Y.	SQ. YD.	SQ. YD.	SQ. YD.	C.Y.	SQ. YD.	STA.	GAL.	[illegible]	[illegible]	TON	TON	
	1+50 - 13+00	1150	36		36				1		2227			3200			7698	2422			10				2388													
			36		36				1		2227			3200			7698	2422			10				2388													

BRIDGES (STRUCTURES OVER 20 FT. SPAN)

SEC. NO.	REMOVE OLD BRIDGE STA.	COMMON EXC.	EXCAVATION FOR STRUCTURES	SAND GRAVEL FILL	CONCRETE MASONRY	BAR STEEL REINF.	STRUCTURAL STEEL	STEEL CASTINGS	CARBON STEEL FORGINGS	SHEET LEAD	SHEET ZINC	TR'T'D LUMBER AND TIMBER	UNTR'D TIMBER TEST PILING	UNTREATED TIMBER PILING		TREATED TIMBER PILING		FLOOR DRAINS	RIP-RAP
														DELIVERED	DRIVEN	DELIVERED	DRIVEN		
	2104-21	2106-1	2107-1	2110-1	2401-1	2406-2	2407-	2407-3	2407-4	2407-9	2407-11	2408-2	2501-1	2501-2	2501-3	2501-4	2501-5	2507-1	2512-1
	L.S.	C.Y.	C.Y.	C.Y.	C.Y.	LB.	LB.	LB.	LB.	LB.	LB.	M.B.M.	L.S.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	C.Y.
			220		334.2	50,770							1	570	570	400	400	4	165
			220		334.2	50,770							1	570	570	400	400	4	165

CULVERTS (STRUCTURES 20 FT. SPAN & UNDER)

SEC. NO.	REMOVE OLD CULV'T STA.	COMMON EXC.	EXCAVATION FOR STRUCTURES	SAND GRAVEL FILL	CONCRETE MASONRY	BAR STEEL REINF.	STRUCTURAL STEEL	STEEL CASTINGS	CARBON STEEL FORGINGS	SHEET LEAD	SHEET ZINC	TR'T'D LUMBER AND TIMBER	UNTR'D TIMBER TEST PILING	TREATED TIMBER PILING		FLOOR DRAINS	RIP-RAP
														DELIVERED	DRIVEN		
	2104-1	2106-1	2107-2	2110-1	2404-1	2406-3	2407-	2407-3	2407-4	2407-9	2407-11	2408-2	2501-1	2501-4	2501-5	2507-1	2512-1
	L.S.	C.Y.	C.Y.	C.Y.	C.Y.	LB.	LB.	LB.	LB.	LB.	LB.	M.B.M.	L.S.	LIN. FT.	LIN. FT.	EACH	C.Y.

SEC. NO.	RUBBLE MASONRY		CULVERT PIPE										RIP-RAP	HEAVY RIPRAP	RUBBLE PAVING		DITCH CHECKS		PIPE UNDER DRAIN	STORM SEWER				CATCH BASINS		MANHOLES		INLETS		CONCRETE			GUARD FENCE			MARKER POSTS	MARKER POSTS FOR R-O-W	CALCIUM CHLORIDE SURFACE TREATMENT	TOP-SOIL	SALVAGED TOP-SOIL	FERTILIZER	SEEDING	SODDING
	MORTAR	DRY	18"												PLAIN	GRO'T'D														CURB	CURB AND GUTTER	SIDE WALK	CABLE	TIMBER RAIL	ANCHORAGES FOR CABLE								
	2405-	2409-3	2411-	2411-	2411-	2411-	2411-	2411-	2411-	2411-	2411-	2411-	2512-1	2512-2	2515-1	2515-2	2516-	2516-	2517-1	2519-	2519-	2519-	2519-	2520-	2520-	2520-	2520-	2520-	2520-	2521-1	2521-3	2522-11	2523-1	2523-2	2523-5	2523-3	2523-4	2525-1	2528-1	2528-2			4-1
	C.Y.	C.Y.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	C.Y.	C.Y.	SQ. YD.	SQ. YD.		C.Y.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	LIN. FT.	LIN. FT.	SQ. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	TON		SQ.		SQ. YD.
			26																																	5	12			2540		6500	
			26																																	5	12			2540		6500	

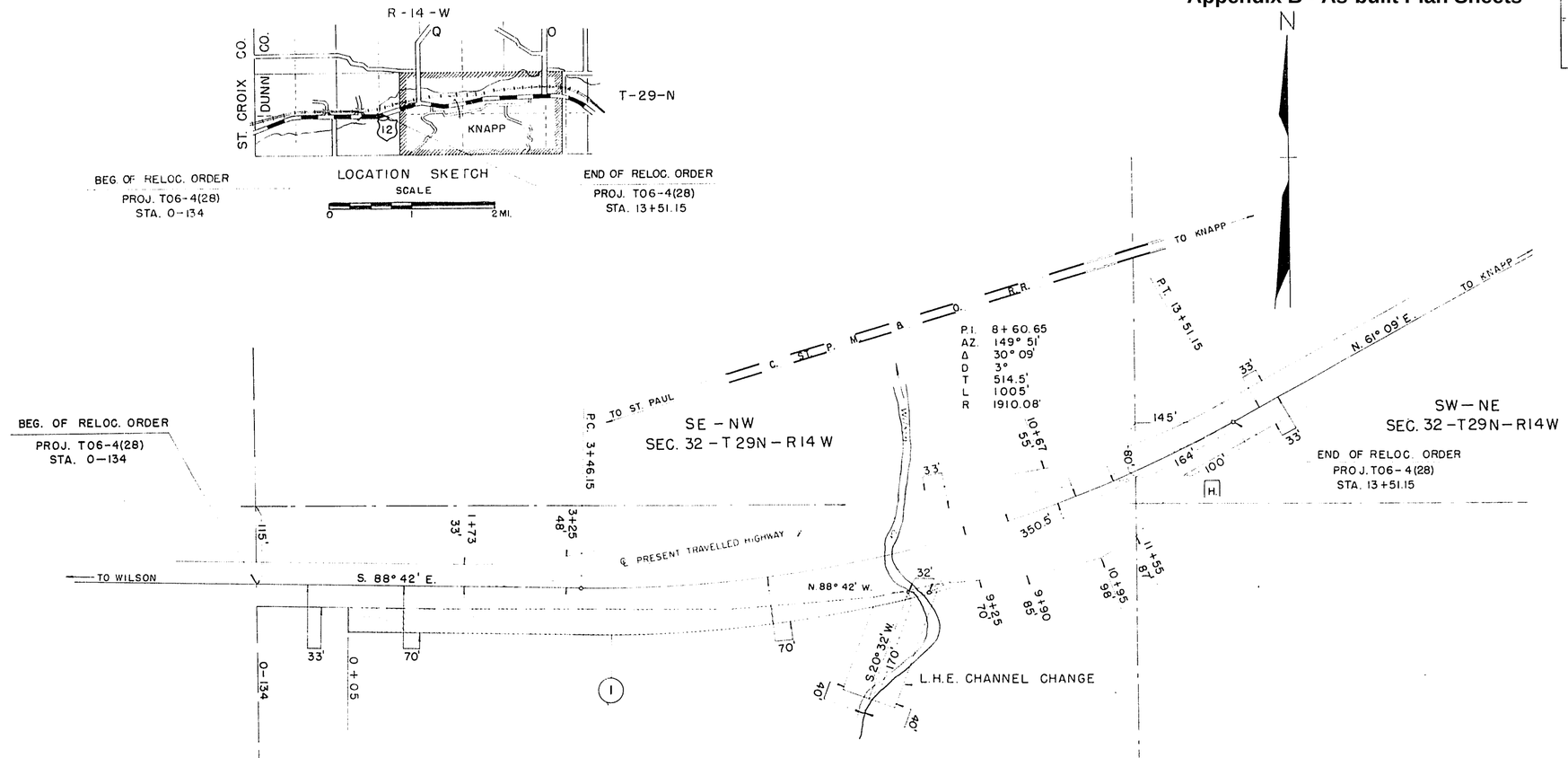
Appendix B - As-built Plan Sheets

COUNTY AND STRAY	ROUTE	CLASS AND ...		FEDERAL DIVISION OF ICE	SHEET NUMB R	TOTAL SHEETS
17.1	6.4	21.28		WIS. 5N	4	14

BEG. OF RELOC. ORDER
PROJ. T06-4(28)
STA. 0-134

LOCATION SKETCH
SCALE
0 1 2 MI.

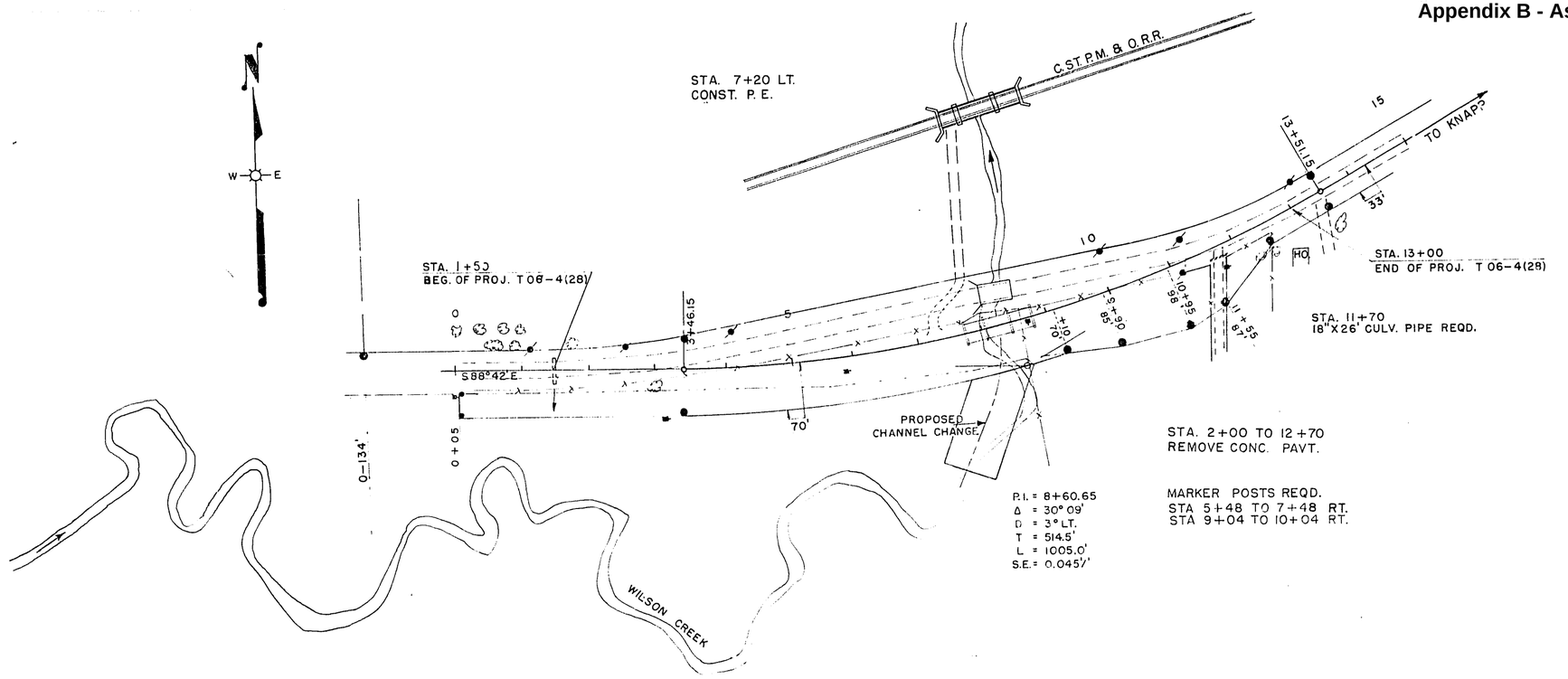
END OF RELOC. ORDER
PROJ. T06-4(28)
STA. 13+51.15

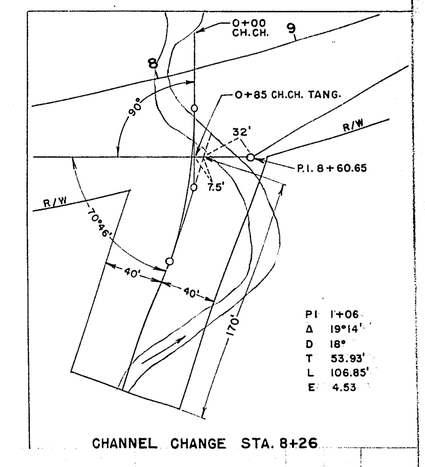


SCHEDULE OF LANDS AND INTERESTS REQUIRED			
PAR.	OWNER	ACRES	INTEREST
1	GRACE OLSON ETAL	0.64	ESMT. & L.H.E. (0.31 AC.)

STATE HIGHWAY COMMISSION OF WISCONSIN
PLAT OF RIGHT OF WAY REQUIRED
PROJE. T06-4(28)
WEST COUNTY LINE — KNAPP ROAD
U.S. H. 12 DUNN COUNTY
SCALE
0' 50' 100' 200'
LENGTH = 0.181 MILES
DATED FEB. 17, 1953

TO 6-4(28) 5 14

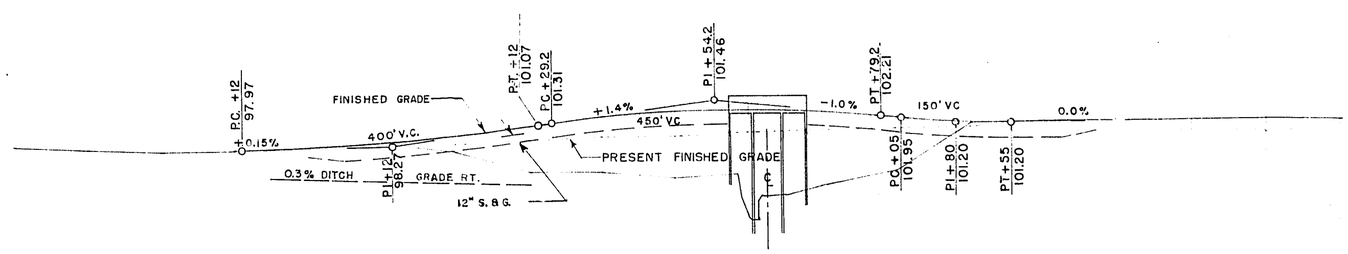




CHANNEL CHANGE STA. 8+26

NET LENGTH OF CENTERLINE STA. 1+50 TO 13+00 = 1150 LIN. FT.

E.B.S.	813	C 3200 CY
C	1987 CY	
CH. CH.	400 CY	
F	8718 CY	
SHG 25%		
BORROW	7698 CY	
S. & G. FILL	2422 C. Y.	
SHG. 15%		



STA 1+50
3'X 2' CONC. BOX IN PLACE

STA 8+26 B 17-9
3-SPAN (32-40-32) CONTINUOUS CONC. SLAB BRIDGE REQD.
30' ROADWAY

STA. 8+30 LT. OLD 45' SPAN DECK CONC. GIRDER BR. IN PLACE. -- REMOVE WEST ABUT. REINF. CONCRETE, EAST ABUT. — TIMBER PILING
24' ROADWAY FACE TO FACE OF REINF. CONC. RAILINGS.

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		98.22	98.60	99.70	100.90	102.17	102.92	103.15	102.83	102.00	101.30	101.20	101.20			

ORIGINAL SURVEY NOTE BOOK NO.		BY	DATE
	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

FINAL SURVEY NOTE BOOK NO.		BY	DATE
	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

STATION	7+85	7+00	6+00	5+00	4+00	3+00	2+00	1+00	0+00
DISTANCE	85	100	100	100	100	100	100	100	
YARDAGE EXCAVATION UNCL.	167	120	35	67	107	133			
YARDAGE EXCAVATION E.B.S.			9	67	141	163			
YARDAGE FILL	1871	2128	1439	644	230	91			

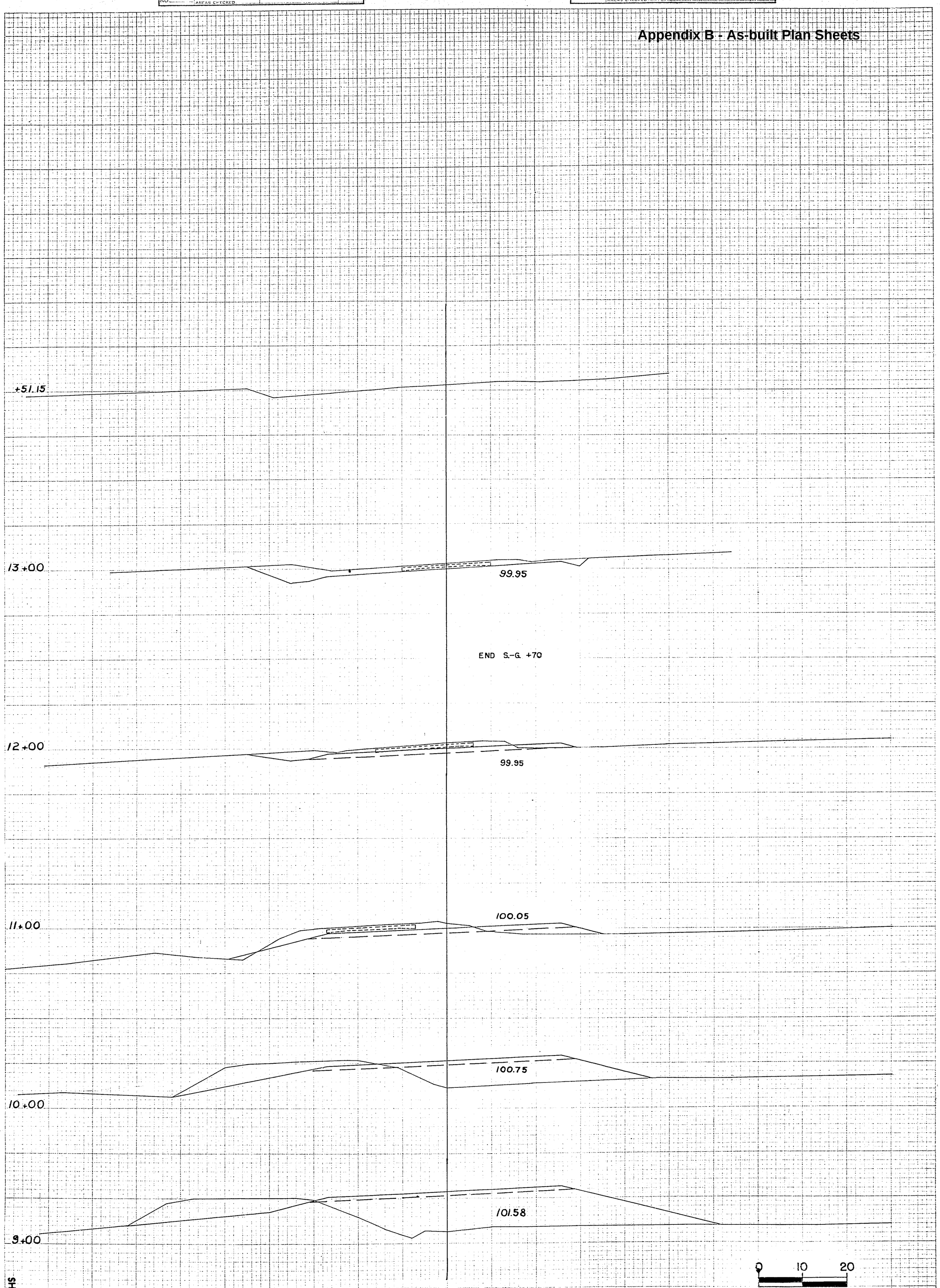
SHEET TOTAL 631 380 6403

P.R.A. DISTRICT OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEET
WIS. 5N	T06-4(28)	13	14

ORIGINAL SURVEY NOTE BOOK NO.		BY	DATE
	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

FINAL SURVEY NOTE BOOK NO.		BY	DATE
	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

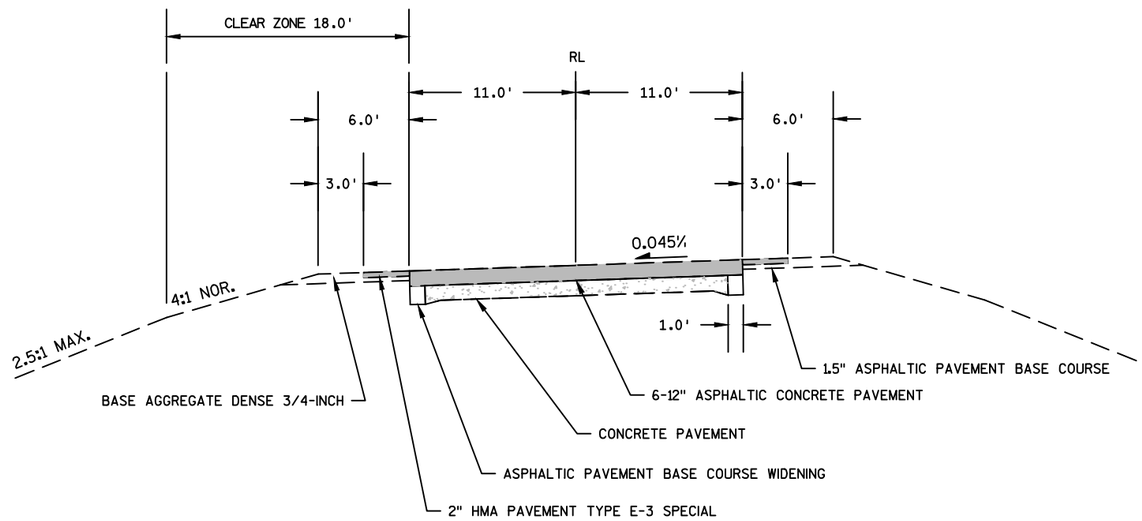
Appendix B - As-built Plan Sheets



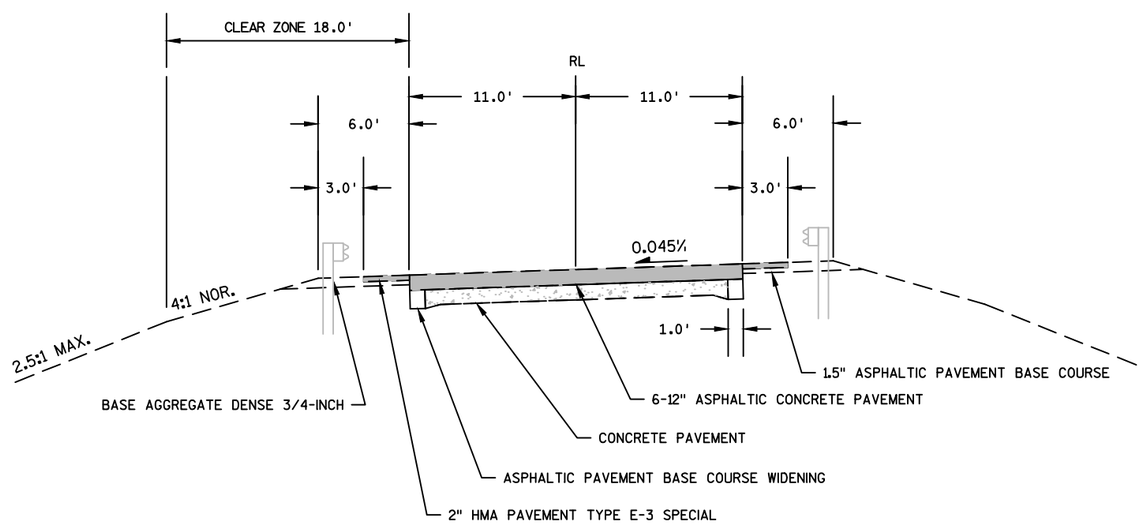
STATION	DISTANCE	EXCAVATION UNCL.	EXCAVATION E.B.S.	FILL
13+51.15				
13+00	51.15			
12+00	100	311	144	0
11+00	100	200	169	59
10+00	100	293	96	463
9+00	100	443	24	1369
		109		424
SHEET TOTAL		1356	433	231

P.R.A. DISTRICT OFFICE	PROJECT	SHEET NUMBER	TOTAL SHEETS
WIS. 5N	T06-4(28)	14	14

2



EXISTING TYPICAL SECTION
STA. 71+00 - STA. 74+11.95
STA. 75+07.05 - STA. 78+53



EXISTING TYPICAL SECTION
STA. 74+11.95 - STA. 75+07.05
STA. 76+10.91 - STA. 77+29.66

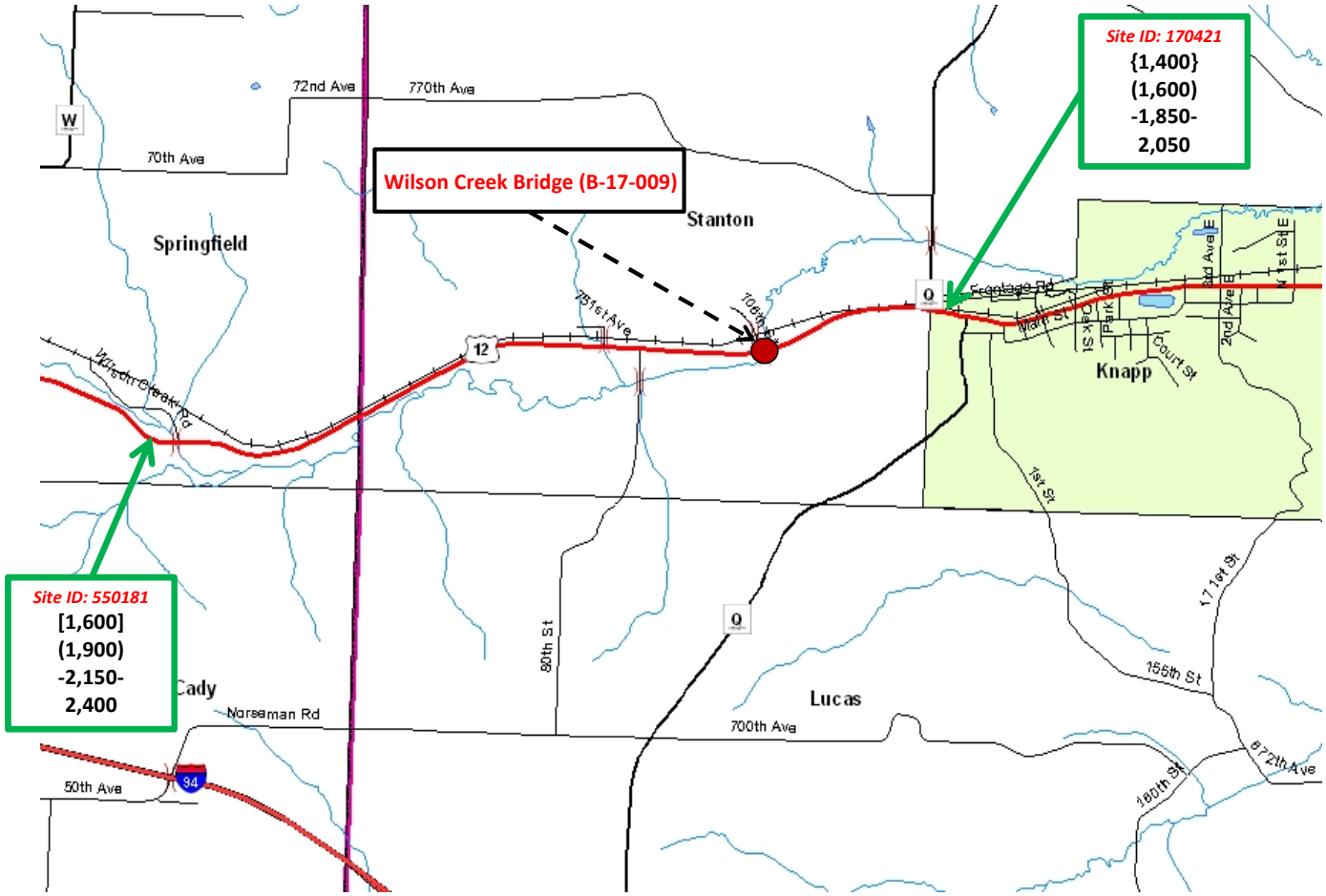
PROJECT NO:8949-05-72	HWY:USH 12	COUNTY:DUNN	EXISTING TYPICAL SECTIONS	SHEET	E

FILE NAME : N:\PDS\C3D\89490502 WILSON CREEK\SHEETSPLAN\020301_TS_REV.DWG PLOT DATE : 2/22/2018 11:33 AM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:10 FT

Appendix D - Traffic Forecast Report

TRAFFIC FORECAST REPORT	REGION/COUNTY(IES): NW/Dunn	Developed by: Vicki S. Haskell
PROJECT ID(S): 8949-05-02	LOCATION: USH 12 at the Wilson Creek Bridge (B-17-009), Knapp	Phone: (608) 266-2571
ROUTE(S): USH 12	COMPLETED: November 8, 2012	FAX #: (608) 267-0294
		E-Mail ID: vicki.haskell@dot.wi.gov

Traffic Forecasting Section; Bureau of Planning and Economic Development; Division of Transportation Investment Management



Design Values (%)			
Routes →	USH 12		
Design Volume(s):	2,400	--	--
K250	9.8	--	--
K100	11.1	--	--
K30	13.9	--	--
T(DHV)	3.0	--	--
D(Dsgn. Hr.)	60/40	--	--
K8(ADT)	--	--	--
T(A8HV)	--	--	--

Last Count/Forecast Years:

[000] 2009 AADT - Count
{000} 2010 AADT - Count
(000) 2018 AADT - Forecast
-000- 2028 AADT - Forecast
000 2038 AADT - Forecast

Truck Class %'s			
Class	Seg. 1	Seg. 2	Seg. 3
2D	1.8	--	--
3AX	0.5	--	--
2S1+2S2	0.7	--	--
3-S2	0.6	--	--
DBL-BTM	0.0	--	--
TOTAL	3.6%	--	--

NOTES ON THE FORECAST:

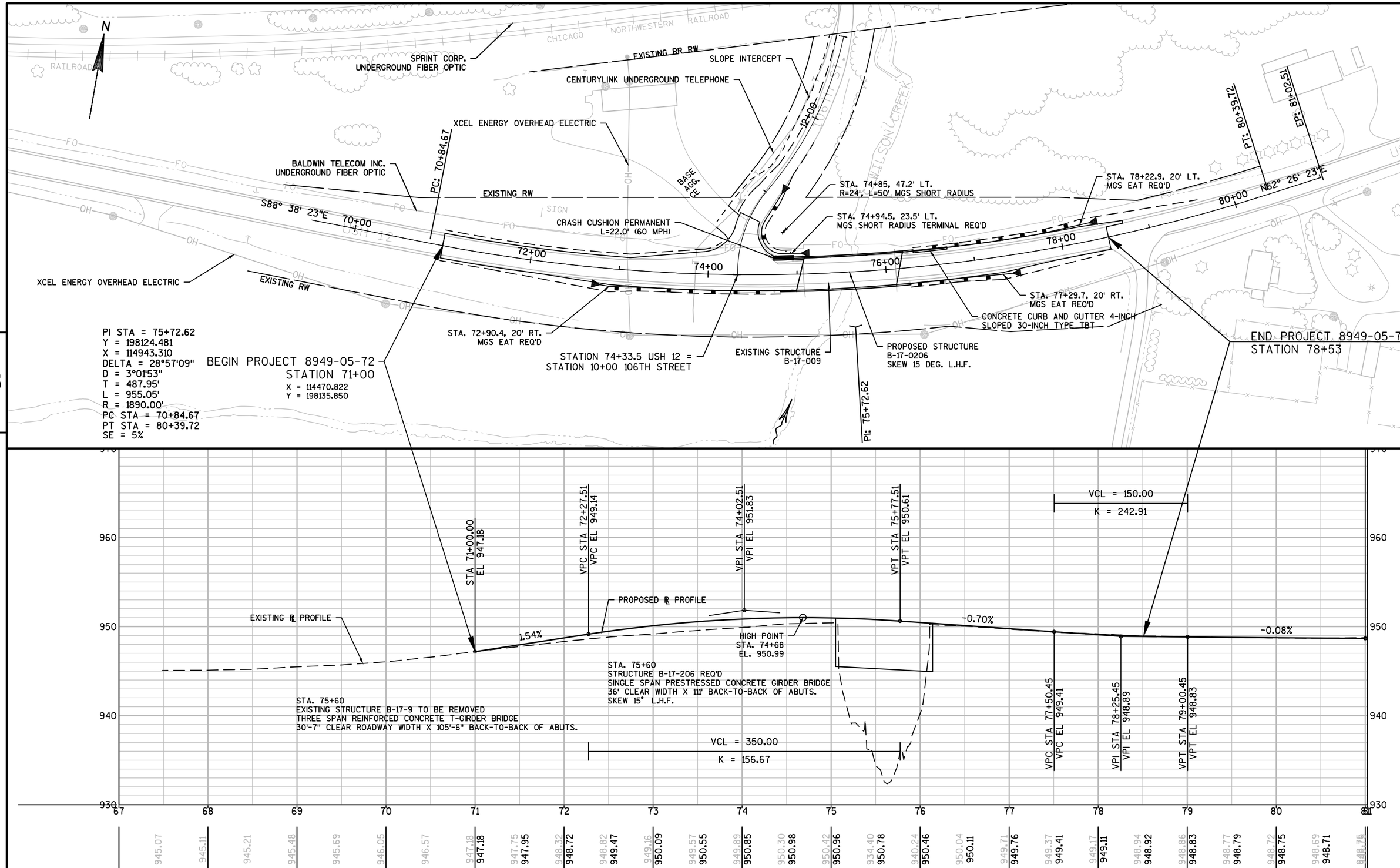
1. This projection assumes that no major new traffic generators will be developed in the area served by the roadway or intersection over the course of the planning period.

2. The historical traffic count trends will continue increasing at a decreasing rate. BoxCox regression is used to project past count data.

3. Truck classification percentages were taken from the 2010 Wisconsin Vehicle Classification Data for site #170248 on USH 12 west of CTH BB in the Menomonie Township, Dunn County.

MORE NOTES ON THE FORECAST:

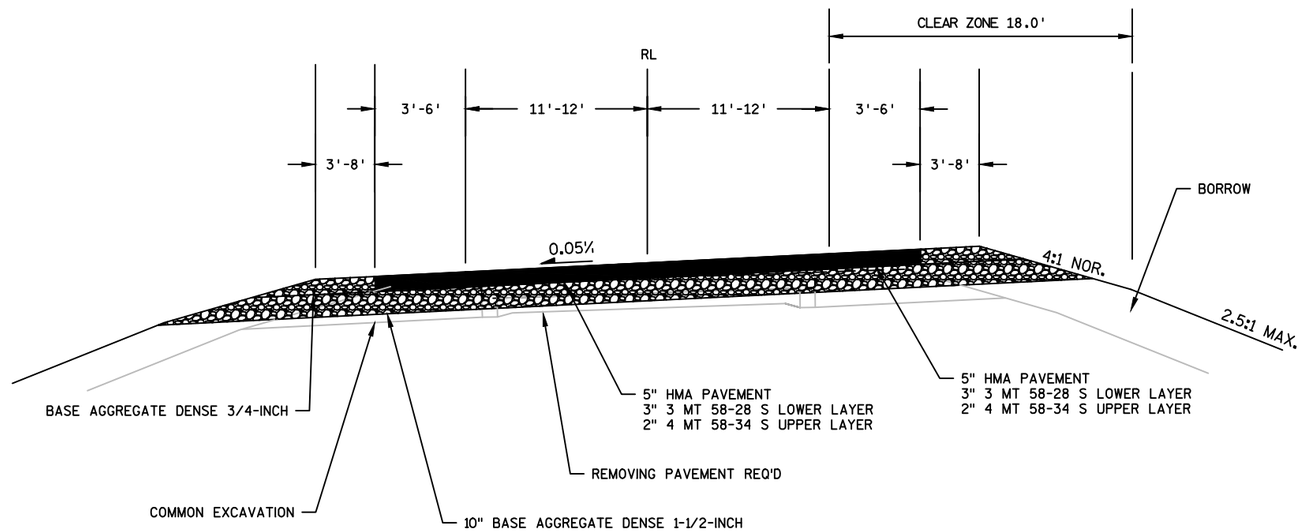
4. USH 12 is a factor group IV indicating low to moderate fluctuations in traffic from a seasonal perspective. It is functionally classified as a rural major collector for count purposes in this area.



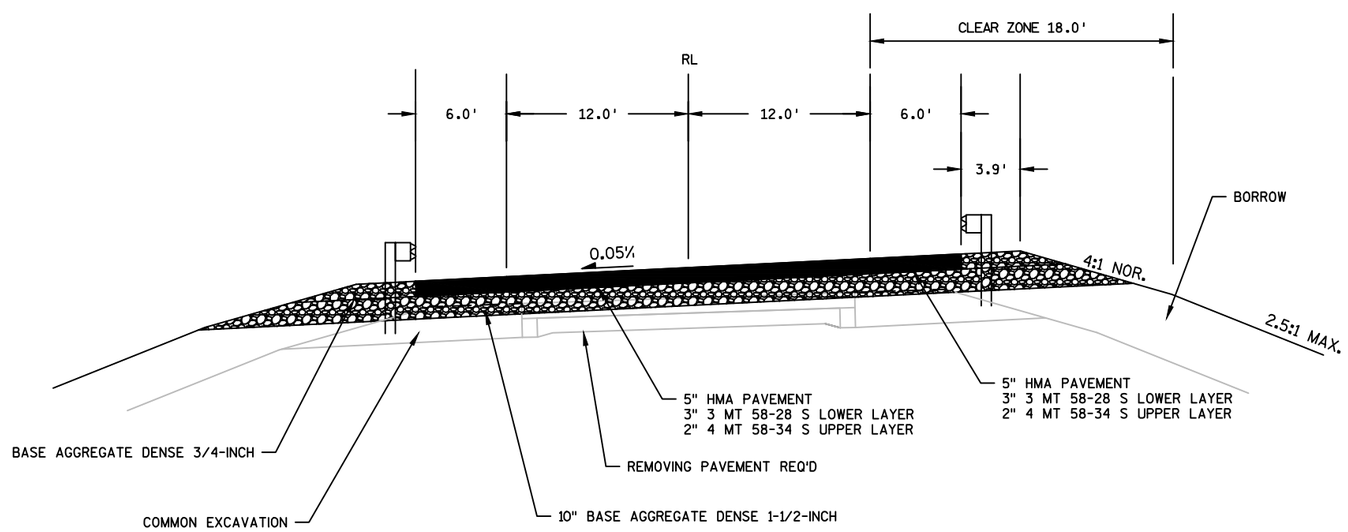
PROJECT NO:8949-05-72	HWY:USH 12	COUNTY:DUNN	PLAN AND PROFILE: WILSON CREEK BRIDGE	SHEET	E

FILE NAME : N:\PDS\C3D\89490502 WILSON CREEK\SHEETSPLAN\050101_PP_ALT 2.DWG
LAYOUT NAME - SHEET - 50101
PLOT DATE : 4/30/2018 1:27 PM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



FINISHED TYPICAL SECTION
STA. 71+00 - STA. 75+03.42 LT.
STA. 71+00 - STA. 72+90.40 RT.
STA. 77+29.66 - STA. 78+52.75 RT.
STA. 78+23.79 - STA. 79+59.96 LT.

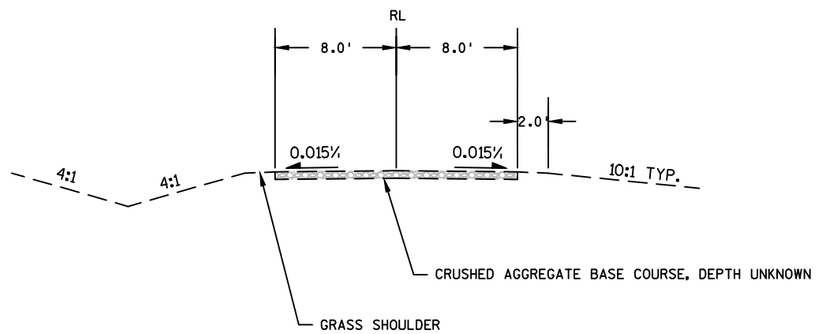


FINISHED TYPICAL SECTION
STA. 72+90.40 - STA. 75+03.72 RT.
STA. 76+15.33 - STA. 77+29.66 RT.
STA. 76+15.33 - STA. 78+23.79 LT.

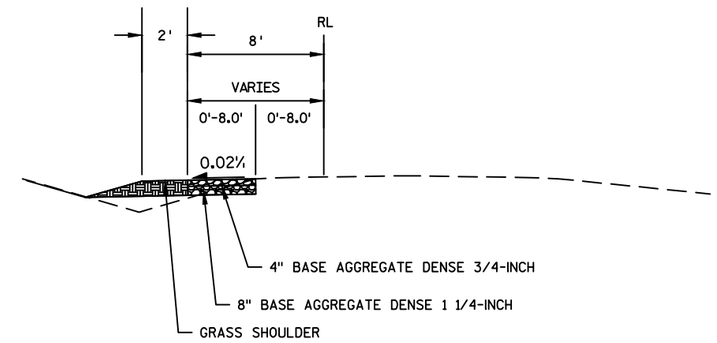
PROJECT NO:8949-05-72	HWY:USH 12	COUNTY:DUNN	FINISHED TYPICAL SECTIONS	SHEET	E

FILE NAME : N:\PDS\C3D\89490502 WILSON CREEK\SHEETSPLAN\020301_TS_REV.DWG PLOT DATE : 2/22/2018 11:34 AM PLOT BY : KRUG, GARY W PLOT NAME : PLOT SCALE : 1 IN:10 FT

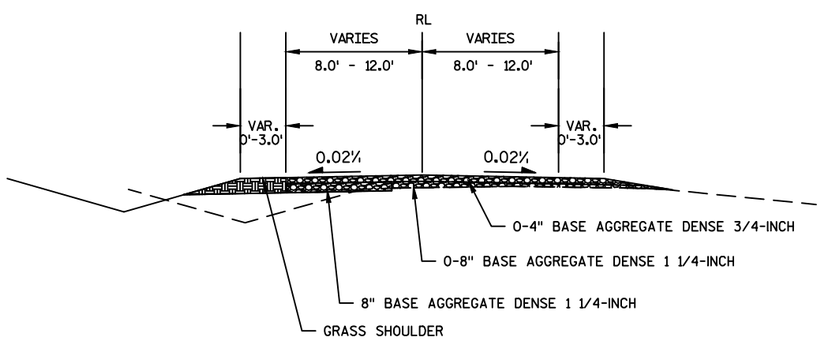
2



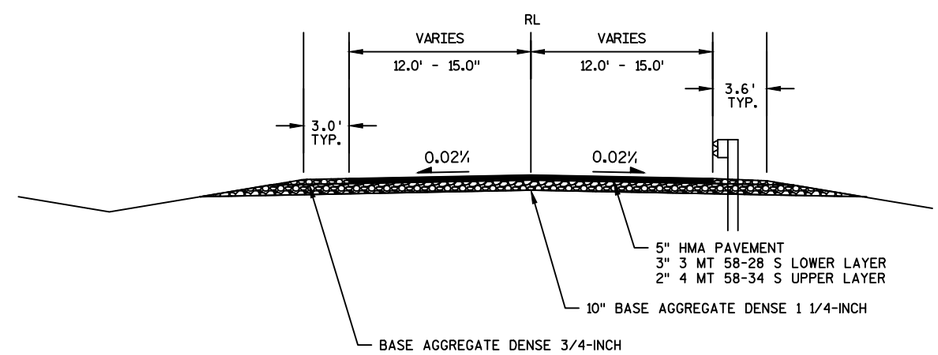
106TH STREET EXISTING TYPICAL SECTION



106TH STREET FINISHED TYPICAL SECTION
STA. 11+74 - STA. 12+97.38



106TH STREET FINISHED TYPICAL SECTION
STA. 10+67 - STA. 11+74



106TH STREET FINISHED TYPICAL SECTION
STA. 10+18 - STA. 10+67

PROJECT NO:8949-05-72	HWY:USH 12	COUNTY:DUNN	EXISTING/FINISHED TYPICAL SECTIONS 106TH STREET	SHEET	E

Describe any unique or unusual circumstances and subsequent coordination with FHWA:
No unique or unusual circumstances.

VI. Supporting Documentation – List any additional discussion, agency correspondence, or supporting documentation used in this CE determination. Attach this documentation to the checklist and maintain a copy in the project file. Projects with 4(f) *de minimis* determinations or programmatic evaluations will require review by WisDOT Central Office and review and approval by FHWA prior to the approval of this CE.

Have already had communication about the project to local agencies, the DNR, and Native American tribes.

VII. Mitigation & Commitments – List any environmental mitigation measures or commitments that will be incorporated into the project. Any items listed below must be incorporated into the project plans and contract documents. *Attach a copy of this page to the design study report (DSR) and the plans, specifications, and estimate (PS&E) submittal package.*

Environmental Factor	Commitment (If none, include 'No special or supplemental commitments required.')
General Economics	No special or supplemental commitments required.
Business	No special or supplemental commitments required.
Agriculture	No special or supplemental commitments required.
Community or Residential	No special or supplemental commitments required.
Indirect Effects	No special or supplemental commitments required.
Cumulative Effects	No special or supplemental commitments required.
Environmental Justice	No special or supplemental commitments required.
Historic Resources	No special or supplemental commitments required.
Archaeological/Burial Sites	No special or supplemental commitments required.
Tribal Coordination/Consultation	No special or supplemental commitments required.
Section 4(f) and 6(f) or Other Unique Areas	No special or supplemental commitments required.
Aesthetics	No special or supplemental commitments required.
Wetlands	Wetlands are present near Wilson Creek within the project limits. An estimated X.XX acres of wetlands would be impacted from this project. The impacts will be mitigated in accordance to the DOT/DNR Cooperative Agreement and the Wisconsin Department of Transportation Wetland Mitigation Banking Technical Guideline. The NW Region Environmental Coordinator and the WisDOT construction supervisor will ensure fulfillment.

Rivers, Streams and Floodplains	Commitments Made Wilson Creek is a Coldwater, Class I trout stream in this area. All instream work that could adversely impact water quality should be undertaken between April 15 and September 15. The existing structure will be removed in accordance with STSP 203-020 "Removing Old Structure Over Waterway with Minimal Debris". Special provisions will require contractors to implement the following measures before and after mobilizing in-water equipment to prevent the spread of Viral Hemorrhagic Septicemia (VHS), Zebra Mussel, and other invasive species. Follow STSP 107-055 "Environmental Protection – Aquatic Exotic Species Control". The WisDOT Construction Supervisor will ensure fulfillment of this commitment.
Lakes or other Open Water	No special or supplemental commitments required.
Groundwater, Wells and Springs	No special or supplemental commitments required.
Upland Wildlife and Habitat	No special or supplemental commitments required.
Coastal Zones	No special or supplemental commitments required.
Threatened and Endangered Species	Commitments Made Section 7 coordination was conducted with USFWS. WDNR review of NHI database was completed. All restrictions and mitigation measures required by USFWS and/or WDNR will be followed. WisDOT Construction Supervisor will see that this commitment is fulfilled.
Air Quality	No special or supplemental commitments required.
Construction Stage Sound Quality	No special or supplemental commitments required.
Traffic Noise	No special or supplemental commitments required.
Hazardous Substances or Contamination	Commitments Made A Phase I Hazardous Materials Assessment Site Summary has been completed and there is no reason to suspect contamination in the area of the project. Asbestos containing material has been found on structure (B-17-009). Standardized special provision 203-005 will be included in the plans. The contractor will be responsible for completion of the Notification of Demolition and/or Renovation (DNR form 4500-113) if required. A copy of the inspection report is available from the region office. The WisDOT Construction Supervisor will ensure fulfillment of this commitment.
Storm Water	No special or supplemental commitments required.
Erosion Control	Commitments Made Proper erosion control measures will be used to minimize impacts per Cooperative Agreements between WisDOT and WDNR and Trans 401 of Wisconsin's Administrative Code. An Erosion Control Implementation Plan (ECIP) will be prepared for review by the WDNR prior to construction. Determination of detailed erosion control measures will be determined during final design. The contractor will specify their construction methods in the ECIP and restore disturbed areas as soon as feasible. WisDOT Construction Supervisor will ensure fulfillment of this commitment.
Other Migratory Birds	Commitments Made Based on site review, there is evidence of past migratory bird nesting on the existing structure. To avoid impacts to nesting birds, no structure demolition work will take place between May 1 and August 30. The WisDOT Construction Supervisor will ensure fulfillment of these commitments.

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
101 S. Webster Street
Box 7921
Madison WI 53707-7921

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

September 15, 2015

Gary Krug, P.E.
Wisconsin DOT NW Region
718 W. Clairemont Avenue
Eau Claire, WI 54701

Subject: DNR Initial Project Review
Project I.D. 8949-05-02
Wilson Creek Bridge B-17-0206
USH 12
Baldwin to Menomonie
Dunn County
Section 32, T29N, R14W

Dear Mr. Krug:

The Wisconsin Department of Natural Resources (DNR) has received the information you provided for the proposed above-referenced project on 08/24/2015. According to your proposal, the purpose of this project is to replace the bridge, along with a realignment of 106th Street.

Preliminary information has been reviewed by DNR staff for the project under the DNR/DOT (Wisconsin Department of Transportation) Cooperative Agreement. Initial comments on the project as proposed are included below, and assume that additional information will be provided that addresses all resource concerns identified. In addition to the project specific resource concerns highlighted below, it is DNR's expectation that the full range of DOT roadway standards will be applied throughout the design process.

A. Project-Specific Resource Concerns

Wetlands:

There is potential for wetland impacts to occur as a result of this project. Wetland impacts must be avoided and/or minimized to the greatest extent practicable. Unavoidable wetland losses must be compensated for in accordance with the DNR/DOT Cooperative Agreement and the DOT Wetland Mitigation Banking Technical Guideline. Per the Cooperative Agreement, mitigation banking is the preferred compensation option, however DOT and DNR agree that other practicable and ecologically valuable project specific opportunities may be pursued on a case-by-case basis. DNR requests information regarding the amount and type of unavoidable wetland impacts.

Fisheries/Stream Work:

Wilson Creek is a Coldwater, Class I trout stream. In order to protect developing fish eggs and substrate for aquatic organisms, all instream work that could adversely impact water quality should be undertaken between April 15th, and September 15th.

Endangered Resources:

Based upon a review of the Natural Heritage Inventory (NHI) and other DNR records dated 09/15/2015, no Endangered Resources or suitable habitat that could be impacted by this project are known or likely to occur in the project area or its vicinity.

Migratory Birds:

Based on site review, there is evidence of past migratory bird nesting on the existing structure. Under the U.S. Migratory Bird Treaty Act, destruction of swallows and other migratory birds or their nests is unlawful unless a permit has been obtained from the U.S. Fish & Wildlife Service (USFWS). Therefore, the project should either occur only between [insert appropriate dates for your area, e.g., August 30 and May 1] (non-nesting season) or utilize measures to prevent nesting *(e.g., remove unoccupied nests during the non-nesting season and install barrier netting prior to May 1)*. If netting is used, ensure it is properly maintained, then removed as soon as the nesting period is over. If neither of these options is practicable then the USFWS must be contacted to apply for a depredation permit.

Invasive Species and Viral Hemorrhagic Septicemia (VHS):

Adequate precautions should be taken to prevent transporting or introducing invasive species via construction equipment, as provided under chapter NR 40 Wis. Adm. Code. Further information on species classified as Restricted or Prohibited under NR 40 can be found at: http://dnr.wi.gov/topic/Invasives/classification.html.

DNR will work with project managers to help identify specific problem areas across the project site and recommend preventive measures. The following Best Management Practices (BMPs) for rights-of-way provide a series of measures that will ensure reasonable precautions are taken throughout the stages of construction: http://www.wisconsinforestry.org/files/invasiveBMPs/TransportationRoW-BMPs.pdf .

Any equipment coming into contact with surface waters must be properly cleaned and disinfected to address the spread of invasive species and viruses. Special provisions must require contractors to implement the following measures before and after mobilizing in-water equipment to prevent the spread of VHS, Zebra Mussel, and other invasive species. Contractors should follow ***STSP 107-055*** *Environmental Protection, Aquatic Exotic Species Control*, or protocol found here: http://dnr.wi.gov/topic/fishing/documents/vhs/disinfection_protocols.pdf .

Additional information on invasive species and infested waters can be found at: http://dnr.wi.gov/lakes/invasives/AISByWaterbody.aspx

Floodplains:

The project lies within a mapped/zoned floodplain. Floodplain impacts should be assessed and/or quantified and appropriate coordination must be carried out in accordance with the DOT/DNR Cooperative Agreement. Coordination must also occur with the Dunn County Zoning Program.

Burning:

If burning of brush will occur as part of this project, the contractor should be informed that it is illegal to burn materials other than clean wood. It is also illegal to start or maintain fires using oily substances, or other materials prohibited under chapter NR 429, Wis. Adm. Code. All necessary burning permits must be obtained prior to construction, as required under local and state fire protection regulations, in order to comply with NR 429 (Malodorous Emissions & Open Burning) http://docs.legis.wisconsin.gov/code/admin_code/nr/400/429.pdf .

Burning permits are available through the local DNR ranger or fire warden, however other local burning permits maybe required.

B. Project Specific Construction Site Considerations

The following issues should be addressed in the Special Provisions, and the contractor will be required to outline their construction methods in the Erosion Control Implementation Plan (ECIP). An adequate ECIP for the project must be developed by the contractor and submitted to this office for review at least 14 days prior to the preconstruction conference. Erosion control and stormwater measures must adhere to the DNR/DOT Cooperative Agreement, Trans 401, and applicable federal laws.

Erosion Control and Storm Water Management:

- Erosion control devices should be specified on the construction plans. All disturbed bank areas should be adequately protected and restored as soon as feasible.

- If erosion mat is used along stream banks, DNR recommends that biodegradable non-netted mat be used (e.g. Class I Type A Urban, Class I Type B Urban, or Class II Type C). Long-term netted mats may cause animals to become entrapped while moving in and out of the stream. Avoid the use of fine mesh matting that is tied or bonded at the mesh intersection such that the openings in the mesh are fixed in size.

- If dewatering is required for any reason, the water must be pumped into a properly selected and sized dewatering basin before the clean/filtered water is allowed to enter any waterway or wetland. The basin must remove suspended solids and contaminants to the maximum extent practicable. A properly designed and constructed dewatering basin must take into consideration maximum pumping volume (gpm or cfs) and the sedimentation rate for soils to be encountered. Do not house any dewatering technique in a wetland.

- The contractor should restrict the removal of vegetative cover and exposure of bare ground to the minimum amounts necessary to complete construction. Restoration of disturbed soils should take place as soon as conditions permit. If sufficient vegetative cover will not be achieved because of late season construction, the site must be properly winterized.

- All temporary stock piles must be in an upland location and protected with erosion control measures (e.g. silt fence, rock filter-bag berm, etc.). Do not stockpile materials in wetlands, waterways, or floodplains.

Structure Removal/Bridge Demolition:

Due to the characteristics of this section of the Wilson Creek, **STSP 203-020**, *Removing Old Structure Over Waterway With Minimal Debris*, will be adequate for this project. Please coordinate with DNR early in the design phase of the project if the bridge must be dropped into the waterway before removal.

Temporary Structure:

If a temporary structure is required to build the bridge, please provide the DNR with details describing the dimensions of the causeway or temporary bridge, and what materials would be used to construct it. In addition, the DOT must meet the standards of NR 116, Floodplain Management, for the temporary structures.

Asbestos:

A Notification of Demolition and/or Renovation and Application for Permit Exemption, DNR form 4500-113 (chapters NR 406, 410, and 447 Wis. Adm. Code) may be required. Please refer to DOT FDM 21-35-45 and the DNR's notification requirements web page: http://dnr.wi.gov/topic/Demo/Asbestos.html for further guidance on asbestos inspections and notifications. Contact Mark Davis, Air Management Specialist 608-266-3658, with questions on the form. The notification must be submitted 10 working days in advance of demolition projects.

Navigation Concerns during Construction:

This reach of the Wilson Creek is not used by recreational watercraft. It will not be necessary to place navigational aids during construction.

This project may require a permit from the U.S. Army Corps of Engineers (ACOE). For further details you will need to contact Daniel Munson of the ACOE located in the St. Paul office. All local, state, and federal permits and/or approvals must be obtained prior to commencing construction activities.

The above comments represent the DNR's initial concerns for the proposed project and do not constitute final concurrence. Final concurrence will be granted after further review of refined project plans, and additional consultation if necessary. If any of the concerns or information provided in this letter requires further clarification, please contact this office at 715-839-1609, or email at christopherj.willger@wi.gov.

Sincerely,

Chris Willger
Environmental Analysis & Review Specialist

cc: Nick Schaff, WisDOT
Tara Weiss, WisDOT

WisDOT TMP Documentation and Request for Approval

TMP ID: 2779

Approved (60%)

This is a request for approval of the Transportation Management Plan (TMP) for the project detailed below. Impacts resulting from project activities meet the current work zone policies of the Wisconsin Department of Transportation.

1A. Project Information:

TMP Type:	Type 2
Region:	NW
Local Program:	No
Created Comment:	
Design ID:	8949-05-02
Project Title:	Baldwin - Menomonie
County:	DUNN
Highway:	US 12
Construction ID:	8949-05-72
Project Type:	Bridge Replacement
Project Limits:	Wilson Creek Bridge B-17-0206
Project Length:	
Project Duration:	
Engineer's Estimate:	$1M-3M
PS&E Date:	05/01/2018
LET Date:	11/14/2023
NHS Route:	No
AADT:	
AADT Year:	
Federal Oversight:	No

1B. Project Impacts:

Anticipated Begin:	06/2023
Anticipated End:	08/2023
Delay:	Minor
OSOW Route:	No

1C. Location:

Highway

Begin County:	DUNN
End County:	DUNN
Highway:	US 12 WB
Begin Landmark:	WILSON CREEK (B-17-0009 BEGIN) | US 12 WB | DUNN

Direction From:
Distance From:
End Landmark: 106TH ST | US 12 WB | DUNN
Direction From:
Distance From:

Begin County: DUNN
End County: DUNN
Highway: US 12 EB
Begin Landmark: 106TH ST | US 12 EB | DUNN
Direction From:
Distance From:
End Landmark: WILSON CREEK (B-17-0009 BEGIN) | US 12 EB | DUNN
Direction From:
Distance From:

Local Road

Begin County: DUNN
End County: DUNN
Roadway Name: 106th Atreet
Begin Landmark (LR): USH 12
End Landmark (LR):

2. Brief description of work activities.

Replace the existing structure with a new structure. The new structure will include width to accommodate two 12' through lanes, a 12' right turn lane, 6' shoulder and 3' shoulder. A turn lane is to be added for west bound traffic turning to 106th street. The 106th street intersection is to be moved approximately 50' west of the current location. Approximately 300' of 106th street will be reconstructed.

3. Briefly describe the staging planned for maintaining traffic.

The bridge will be removed and the new bridge constructed in halves under temporary single lane traffic control with temporary signals.

4. Will there be restrictions on pedestrian/bicycle access?

☐ Yes ☑ No

5. Briefly describe how access to traffic generators, businesses, school buses, garbage trucks, postal services, and transit impacts will be mitigated (alternate routes, etc.).

a) Are the strategies in compliance with ADA?

The Village of Knapp is located approximately one half mile to the east. Traffic going to and from Knapp will be required to go through the temporary signals in the work zone. Currently there are no pedestrian facilities and bikes can travel on the shoulder. these accomodations will be maintained.

b) Is access to bus stops affected?

☐ Yes ☑ No

6. Will the project have lane closures?

☑ Yes ☐ No

If Yes:

a) Are there restrictions on when lane closures are allowed?

☐ Yes ☑ No

b) What hours/days are lane closures permitted?

c) How were traffic counts used in determining permitted lane closure times?(For multi-lane roadways, indicate peak hour volume per direction of travel. For two-lane, two-way roadways indicate AADT)?

Work zone capacity was determined using guidance from FDM 11-50-30. Typical AADT is 1400. Single lane closures were determined more efficient and effective than a detour for this work.

7. Please provide the following.

a) Minimum lane width to be maintained.

12'

b) Minimum lane width plus shoulder width to accommodate OSOW.

13.75'

c) Minimum height (if less than typically available)

Typical height will be available.

8. Will the project be detoured?

☐ Yes ☑ No

9. List major special events and holidays, and how traffic disruptions will be minimized.

Holiday working restrictions for typical holidays will be addressed with standard holiday working restrictions in the project special provisions.

10. Describe the method(s) (LCAT, Quadro, FDM 11-50-30, etc.) used to

estimate motorist delays or queue length (Applicable only for freeways, expressways, and signalized corridors).

Not a freeway or expressway.

11. What is the anticipated travel delay during peak travel periods (also indicate frequency, e.g. daily and duration)? Please compare the peak hour volumes per lane with the work zone capacity criteria in FDM 11-50-30. If it exceeds the estimated capacity, a delay calculation is required. If the delay is more than 15 minutes, the TMP will be a type 3 and if less than 15 minutes, it generally will be a type 2. The Regional Work Zone Engineer can assist you in determining your delay.

No delays in excess of 15 minutes are expected. Calculated work zone single lane capacity is expected to be greater than actual volumes during the proposed work.

12. Identify alternate routes anticipated, and any alternate route improvements or signing planned.

Us 12 is an alternate route for I-94 at this location. A temporary alternate route will be signed taking traffic to STH 25 to STH 29 to STH 128.

13. Are any intersection traffic control changes proposed such as temporary signals, temporary changes to an all way stop, etc?

Temporary signals are proposed at the USH 12 and 106th street intersection to facilitate half at a time staging of the new structure. .

14. Are there anticipated traffic impacts from the proposed project on other roads/routes in the region/corridor? Identify other projects in the corridor (only if delay anticipated on this project).

None anticipated.

15. Does the project affect other regions/states?

☐ Yes ☑ No

16. Check mitigation strategies planned

STRATEGY	COMMENTS
☑ Public information campaigns	
☐ Off-peak lane closures	

- [ ] Temporary widening to maintain traffic lanes
- [ ] Changeable message signs (PCMS)
- [ ] Ramp closures
- [x] Temporary signals/timing revisions
- [ ] Coordination with adjacent projects
- [ ] Innovative contracting, (lane rental, A+B, etc)
- [ ] Temporary Emergency Pullouts
- [ ] Motorist service patrols
- [ ] Nighttime Work
- [x] Enhanced Traffic control devices (Wet reflective pavement marking, temp concrete barrier, etc) — Temporary concrete barrier.
- [ ] Reduced regulatory speed limit (requires declaration approved by Regional Traffic Engineer, & by BTO if 65-mph hwy or higher speed facility.)

17. Describe public information strategies planned (coordinate this activity with your Regional Communications Manager).

The regional communications manager will send updates to the local media and WisDOT website and online 511 website. The construction project leader will update lane closures through the Wisconsin Lane Closure System.

18. Describe incident management strategies planned.

Incident response will be handled as outlined in the WisDOT emergency traffic operations (ETO) plan.

19. Describe how transit impacts will be mitigated.

No transit impacts anticipated.

Attachments:

Attachments for TMP ID 2779 are listed below.

[f] Attachment 1.pdf (Location map)
[f] Attachment 2.pdf (Traffic Control Plan)
[f] Attachment 3.xls (Traffic Forecast)
[f] Attachment 4.doc (Trans 75 Check Sheet for Complete Streets Review)
[f] attachment 5.pdf (alternate route)

*** [F] represents folder and [f] represents file.**

Approvals:

60% Approval

Signature Role	Signature Status	Signatory	Signed On
Project Manager (PM)	Signed	Tara Weiss	10/19/2016 13:38 PM
Regional Traffic (RT)	Signed	Chad Hines	01/25/2017 15:26 PM
Regional Project Development Chief (RPDC)	Signed	Paul Conlin	01/25/2017 16:14 PM
Bureau of Project Development (BPD)	Signed	John Stolzman	09/27/2017 09:03 AM

Roadside Hazard Analysis

Project I.D. 8949-05-02/72

Entered by: Gary Krug

Checked by:

Speed (MPH) = 55 mph

AADT = 2400

Alignment = USH 12 Reference Line

Hazard ID	Station or Stations	Offset (ft)	L/R	Total length of hazard FT	Description	Action	Discussion
1	75+05-76+15	15’	both	110’	Existing bridge hazard, B-17-9 narrower than the roadway		Existing bridge to be replaced with a wider bridge.
2	75+60	➢ 15’	both	20’	Wilson Creek		Water hazard to be neutralized by the use of the proper length of guardrail.
3	75+05-76+15	18’	both	110’	Bridge parapet		Blunt end hazard to be shielded with guardrail or crash cushion.
4							
5							
6							