CORRESPONDENCE/MEMORANDUM **State of Wisconsin**

Date: August 13, 2019

To: Beth Cannestra, P.E.
Director, Bureau of Project Development
Attn: David Stertz, P.E.

From: Alan Rommel, P.E.
Region Project Development Chief
Northeast Region

Subject: NEW CONSTRUCTION, RECONSTRUCTION AND REHABILITATION DESIGN STUDY REPORT

Project I.D. 9200-10-00
Shawano – Green Bay
CTH VV Interchange
STH 29
Brown 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.

Region Project Development Chief — Date 8/14/19

Concur:

For Bureau of Project Development
Design Standards and Oversight Chief — Date 8/15/19

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Project I.D. 9200-10-00
Shawano – Green Bay
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STH 29
Brown County

August 13, 2019

Prepared by:
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NEW CONSTRUCTION, RECONSTRUCTION AND REHABILITATION DESIGN STUDY REPORT

1.0 Project Description and Need

1.1 Federal Oversight Project (Yes or No): Yes

1.2 Project Length and Termini

Project Length:

Termini/Limits:

See Exhibit A – Project Location Map/Plan Overview

The improvements along WIS 29 will consist of a diamond interchange for County VV, removal of at grade access at County U, and removing the existing RCUT east of County VV.

The interchange at County VV will consist of realigning County VV beginning south of WIS 29, approximately 2700 feet west of the intersection of County VV and Overland Road at Station 27+00. An overpass will be constructed approximately 1700 feet west of the existing at-grade intersection of County VV and WIS 29. The construction will end approximately 500 feet north of the Marley Street and Millwood Court intersection at Station 69+20. On and off ramps will be constructed for both eastbound and westbound lanes of WIS 29. Milltown Road will also be realigned, intersecting with Marley Street approximately 400 feet south of Millwood Court. The section of relocated Milltown Road will be called Evergreen Avenue. Evergreen Avenue begins at Station 600+00 and ends approximately 2300 feet east of the existing Milltown Road intersection with WIS 29 at Station 642+90.

1.3 Existing Roadway Information

Roadway	Functional Class (Principal or Minor Arterial, Collector or Local)	Surrounding Development Type? (Rural, Urban or Transitional)	Corridors 2030 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)
WIS 29	Arterial	Rural	Backbone	Yes	State Federal	Teir 1	No	No
Marley Street	Collector	Rural	No	No	No	N/A	No	No
Milltown Road	Local	Rural	No	No	No	N/A	No	No
County U (North County Line Road)	Collector	Rural	No	No	No	N/A	No	Yes
Old 29 Road	Local	Rural	No	No	No	N/A	No	No

Comments:

None

1.4 Need for Project

The project is needed to address identified corridor deficiencies. Identified needs include:

- Access and mobility barriers as a result of the expressway system.
- Roadway and safety issues resulting from the varying travel speeds and at-grade access points.
- Multimodal accessibility issues resulting from a lack of appropriate accommodations crossing the high speed and high volume WIS 29 roadway.
- Freight movement issues for area businesses located on both sides of WIS 29 that require safe and convenient WIS 29 access.
- School transportation issues resulting from a rural school district (Pulaski) with students located on both sides of WIS 29, requiring a safe and efficient crossing of the WIS 29 roadway.
- Coordination with local land use/transportation/economic development planning efforts.

Identified needs/deficiencies are described in more detail in the following sections.

Mobility

The existing County VV and County U at-grade intersections with WIS 29, with the use of RCUTS, create inefficient movements for roadway users in this part of the corridor. Vehicle speeds and daily traffic volumes on WIS 29 are very high; existing traffic volumes on WIS 29 are 23,000 vehicles per day and growing. The reduced conflict intersections that were installed at County VV and County U do not allow drivers to make left turns directly onto WIS 29 or to proceed directly across the highway, which makes traveling throughout the region and between the residential and commercial developments in the adjacent communities of Hobart and Howard difficult. This network inefficiency problem will continue to worsen as the area continues to develop and the number of people on the area's transportation system increases.

Previous WIS 29 interchange projects east of County VV included the installation of ITS changeable message boards to inform travelers of delays, poor road conditions, and other aspects of the WIS 29 corridor as they enter the Green Bay Urbanized Area. The County U and County VV areas are within a rural area that does not include fiber/broadband technology, impeding the use of ITS technologies, such as closed-circuit surveillance/traffic cameras, to inform roadway users and overseers of existing roadway conditions, and to assist in efficient traffic movement.

Safety

County VV and County U at-grade intersections before reduced conflict intersection installation

Before the reduced conflict intersections were installed at County VV and County U, the two intersections experienced many right-angle injury crashes each year, including a high number of severe injury crashes. In the year 2013, the high number of injury crashes at the County VV and County U intersections prompted WisDOT to restrict vehicle movements at the intersections through the installation of RCUTs at County VV, and restricting movements at County U to right-in, right-out, and left-in only. This was considered to be an intermediate improvement for safety until funding could be secured for a full interchange at County VV. Tables 1 and 2 display crash information for each of the intersections prior to the intersection modifications.

Table 1: Crash Related Injuries at the County VV At-Grade Intersection between 2008 and 2012 (before RCUT installation)

	Crash Injury Type					
WIS 29 at-grade Intersection with County VV	**Fatal ("K") Injuries**	**Serious ("A") Injuries**	**Minor ("B") Injuries**	**Possible ("C") Injuries**	**Property Damage Only**	**Total**
2008-2012	0	3	5	6	26	**40**

Crash Data Source: Wisconsin Traffic Operations and Safety (TOPS) Laboratory.

Table 2: Crash Related Injuries at the County U At-Grade Intersection between 2008 and 2012 (before reduced conflict intersection installation)

	Crash Injury Type					
WIS 29 at-grade Intersection with County U	**Fatal ("K") Injuries**	**Serious ("A") Injuries**	**Minor ("B") Injuries**	**Possible ("C") Injuries**	**Property Damage Only**	**Total**
2008-2012	0	0	6	4	8	**18**

Crash Data Source: Wisconsin Traffic Operations and Safety (TOPS) Laboratory.

County VV and County U at-grade intersections after reduced conflict intersection installation

After the reduced conflict intersections were installed at County VV and County U, crashes and severity of injuries at the County VV and County U intersections decreased (but continued to occur). Drivers exiting the RCUT were not allowing for large enough gaps to come up to highway speeds, creating a conflict between vehicles on WIS 29 traveling at or above 65 mph encountering slow-moving vehicles on the WIS 29 mainline that are accelerating to highway speeds after completing the RCUTs and entering WIS 29. As a result, considerable "property damage only" accidents have been occurring. Tables 3 and 4 summarize crashes by type and year at the County VV and County U intersections during the most recent 5-year period since reduced conflict intersections were installed.

Table 3: Crashes by type and year at the County VV At-Grade Intersection between 2014 and 2018 (after RCUT installation)

	Crash Injury Type					
WIS 29 at-grade Intersection with County VV	**Fatal ("K") Injuries**	**Serious ("A") Injuries**	**Minor ("B") Injuries**	**Possible ("C") Injuries**	**Property Damage Only**	**Total**
2014	0	0	0	0	9	**9**
2015	0	0	1	1	12	**14**
2016	0	0	1	0	7	**8**
2017	0	1	2	3	19	**25**
2018	0	0	0	2	12	**14**
Total	**0**	**1**	**4**	**6**	**59**	**70**

Crash Data Source: Wisconsin Traffic Operations and Safety (TOPS) Laboratory

Table 4: Crashes by type and year at the County U At-Grade Intersection between 2014 and 2018 (after reduced conflict intersection installation)

	Crash Injury Type					
WIS 29 at-grade Intersection with County U	**Fatal ("K") Injuries**	**Serious ("A") Injuries**	**Minor ("B") Injuries**	**Possible ("C") Injuries**	**Property Damage Only**	**Total**
2014	0	0	0	0	1	**1**
2015	0	0	0	0	0	**0**
2016	0	0	1	0	2	**3**
2017	0	0	0	0	3	**3**
2018	1	0	0	0	1	**2**
Total	**1**	**0**	**1**	**0**	**7**	**9**

Crash Data Source: Wisconsin Traffic Operations and Safety (TOPS) Laboratory

Even after the reduced conflict intersections were installed, crashes continued to occur on the WIS 29 mainline at and near the locations where people now have to accelerate into high-speed traffic. The crash statistics for the two representative five-year periods before and after the reduced conflict intersection installations suggest that the goal of preventing fatalities and serious injuries at and near the County VV and County U intersections may have been achieved, until August 2018 when a fatality occurred at the WIS 29/County U intersection. Year-by-year crash data also shows that the number of crashes continues to increase at the County VV intersection as development in the area continues to increase. It is also important to note that this safety improvement has been achieved at the expense of mobility in this growing area, which is not an ideal long-term solution for the area's transportation network.

Multimodal Accessibility

It is currently difficult and unsafe to travel across WIS 29 at the at-grade County VV and County U intersections on foot or by bicycle because WIS 29 is a divided four-lane expressway that carries a high volume of traffic at very high speeds. This creates a multimodal barrier and poses a substantial challenge to people who want to walk and bicycle between the residential and commercial developments on each side of WIS 29.

Freight Movement
There are businesses and industries on both sides of WIS 29 near the County VV and County U intersections that rely on WIS 29 to receive and distribute goods by large truck. The reduced conflict intersections that were installed at County VV and County U make it inconvenient and unsafe for large trucks to enter WIS 29. Trucks also currently have to accelerate to highway speeds and decelerate to turning speeds on the WIS 29 mainline, which is very dangerous and has resulted in high-speed crashes. Because it is inconvenient and dangerous for large trucks to enter WIS 29 at the County VV and County U at-grade intersections, it may be difficult for the Villages of Hobart and Howard to attract and retain businesses and industries in this area.

Both communities' current comprehensive plans identify the County VV and County U areas as future economic growth areas. Some businesses and industries have indicated that they will not locate in the area unless the inefficient and dangerous at-grade intersection at County VV is converted to a grade-separated interchange. The Village of Howard and the Village of Hobart each contain one of a handful of state-designated 'Certified Development Sites'[1] near the County VV intersection, and the ability to attract development to these sites will largely depend on the conversion of the at-grade County VV intersection to a grade-separated interchange. The Certified Sites Program is a Wisconsin Economic Development Corporation (WEDC) created program intended to enable and promote shovel-ready development sites in the state of Wisconsin.

School Transportation
A rural school district (Pulaski) is located on both sides of WIS 29 in this area. Middle and high school students who live on the south side of the highway need to travel to and from their schools on the north side of the highway on school buses or in private vehicles. In addition to being unsafe to transport students across WIS 29 each school day, the highway's barrier effect adds to the expense of busing children. The current WIS 29 roadway configuration (RCUTs) does not provide a direct route across WIS 29 for bussing companies. School districts are billed with the added expense of having to use inefficient bus routes and multiple vehicles due to the highway's barrier effect on the area school district.

Local Land Use/Transportation/Economic Development Planning
As stated previously, the WIS 29 corridor has been a high priority at the state and local levels for more than 20 years. WisDOT has worked closely with Brown County, the Village of Howard, and the Village of Hobart throughout the WIS 29 Corridor planning efforts.

The communities directly located on WIS 29 have adopted comprehensive plans, developed future land use plans, and are actively planning for future planned growth in their communities. Access to WIS 29 plays an important role in local land use planning and economic development decisions. Intensification of development along WIS 29 is currently occurring and is expected to increase over time. Coordinating where cul-de-sacs, grade separations, interchanges, and enhanced local road connections would be located aids land use planning, transportation planning, and economic development at the local level.

This coordination provides certainty to both property owners and local communities as to where proposed improvements to WIS 29 and associated roadways are planned. The certainty about the future of WIS 29 allows communities and property owners to make well-informed decisions. Coordination ensures that future land uses and/or developments do not preclude or are incompatible with future WIS 29 improvements.

2.0 Existing Facility Information

2.1 Posted Speed

Roadway or Roadway Segment	Posted Speed	Advisory Speed
WIS 29	65 MPH	N/A
County VV	Not Posted Statutory 55 MPH	N/A
Marley Street	40 MPH	N/A
Milltown Road	40 MPH	N/A
County U	45 MPH	N/A
Old 29 Road	45 MPH	N/A

2.2 Geometrics

2.2.1 Horizontal Alignment Features Outside of Design Criteria

Horizontal Feature* (Curve, P.I. Deflection, etc.)	Location (Stationing)	Size* (Radius, P.I. Deflection, etc.)	Super-Elevation* (S.E.)	Speed Rating
None				

* Controlling Criteria for Design Speed ≥ 50 mph

Comments:

None

2.2.2 Vertical Alignment Features/SSD* Outside of Design Criteria

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
None							

* Controlling Criteria for Design Speed ≥ 50 mph, **SSD = Stopping Sight Distance

Comments:

None

2.2.3 Grades* and Vertical Clearance* Outside of Desirable Criteria

Location (Stationing, Overpass Structures, etc.)	Vertical Clearance*
None	

* Controlling Criteria for Design Speed ≥ 50 mph

Comments:

None

2.3 Side-Roads/ Intersections/ Interchanges Information/Geometrics

2.3.1 Side-Roads Design Information

Roadway	Functional Class	Posted Speed (MPH)	Existing Traffic*** (AADT)	Approach Grades	Pedestrian Facilities (Yes or No)	Bicycle Facilities (Yes or No)
County VV	Collector	Not Posted	1800 (2013)	1.5%	No	No
Marley Street	Collector	40	1100 (2009)	-0.3%	No	No
County U	Collector	45	1800 (2009)	0 / 2%	No	No

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

Comments:

None

2.3.2 Intersections Geometrics Outside of Design Criteria

Intersecting Roadway	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)
County VV	Rural	90	Stop	Yes 730’	Yes 1310’	Yes 1105’	Y	Y
Marley Street	Rural	90	Stop	Yes 730’	Yes 1310’	Yes 1105’	Y	Y
County U	Rural	60	Stop	Yes 730’	Yes 1310’	Yes 1105’	Y	Y

* Controlling Criteria for Design Speed ≥ 50 mph

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

Comments:

None

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

2.3.3 Interchange Geometrics Outside of Design Criteria

Intersecting Roadways	Interchange Type	Ramp Types	Ramp Design Speed	Horizontal Curve on Ramp	Vertical Curve on Ramp	Ramp Grades	SSD** Met* (Y/N) Length	DSD** Met (Y/N) Length
None								

* Controlling Criteria for Design Speed ≥ 50 mph

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

Comments:

None

2.4 Cross Section Geometrics Outside of Design Criteria

WIS 29

- Number of roadways — 2
- Number of lanes — 2
- Median width — 60’ – 85’ – Ditch
- Lane width* — 12’
- Shoulder width* (Total and Paved or Curb & Gutter) — LT 6’ (3’ Paved)
  RT 10’ (8’ Paved)
- Bicycle facility type — None
- Sidewalk and curb ramps — Median – Type 5
- Cross slope* — 2%
- Super-elevation* — None
- Horizontal clearance — 12’
- Clear zone — 30’
- Vertical clearance* — N/A
- Side-slopes and ditch sections — 6:1

* Controlling Criteria for Design Speed ≥ 50 mph

CTH VV/Marley Street

- Number of roadways: 1
- Number of lanes: 2
- Median width: None
- Lane width*: CTH VV – 12’; Marley Street – 11’
- Shoulder width* (Total and Paved or Curb & Gutter): 3’ (0’ Paved)
- Bicycle facility type: None
- Sidewalk and curb ramps: None
- Cross slope*: 2%
- Super-elevation*: None
- Horizontal clearance: 5’
- Clear zone: 12’
- Vertical clearance*: N/A
- Side-slopes and ditch sections: 4:1

  * Controlling Criteria for Design Speed ≥ 50 mph

CTH U

- Number of roadways: 1
- Number of lanes: 2
- Median width: None
- Lane width*: 12’
- Shoulder width* (Total and Paved or Curb & Gutter): South of WIS 29 – 4’ (3’ Paved); North of WIS 29 – 3’ (0’ Paved)
- Bicycle facility type: None
- Sidewalk and curb ramps: None
- Cross slope*: 2%
- Super-elevation*: None
- Horizontal clearance: 5’
- Clear zone: 12’
- Vertical clearance*: N/A
- Side-slopes and ditch sections: 4:1

  * Controlling Criteria for Design Speed ≥ 50 mph

2.5 Pavement Structure/Condition

Roadway	Pavement Types and Thicknesses	Physical Description
WIS 29 EB	5” HMA Pavement over 9” Cracked & Seated Concrete Pavement over 4” Base Aggregate	Good
WIS 29 WB	2” HMA Pavement over 10” Concrete Pavement over 4” Base Aggregate over 4” Open Graded Base Aggregate	Good
CTH U	5’ – 13” HMA over 5” – 32” Base Aggregate	Good
CTH VV	9’ – 13” HMA over 3” – 9” Base Aggregate	Good
Marley Street	11’ – 15” HMA over 8” – 17” Base Aggregate	Good

Comments:

None

2.6 Right-of-Way

2.6.1 Encroachments

Location (Station and Distance Left or Right)	Encroachment Type
64+50 – 66+50 Left, Marley Street	Fence, Planters, and Statues
707+00 – 708+00 Left, Milltown Road Connection Road	Light Poles and Flagpole

2.6.2 Unique Right-of-Way Issues

None

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*
None							

* Controlling Criteria for Design Speed ≥ 50 mph

Comments:

None

2.8 Utilities

Utility Name	Type of Utility	General Location	Underground /Overhead/ Both
ATC	Electric	Beginning from the west, the facility runs south of WIS 29 and crosses County U just south of the Old 29 Road intersection. Continues east and crosses to the north of WIS 29 between approximately Station 500+50 and 506+00. Crosses Marley Street at approximately Station 55+00.	Overhead
CenturyLink	Telecommunications	Along the south side of WIS 29	Underground
Nsight Telservices	Telecommunications	Along east side of County U from south limits to Glendale Avenue. Along both sides of County U north of Glendale. Along north side of Glendale west of County U and along south side of Glendale east of County U. Along east side of Overland Road and heads north crossing County VV and WIS 29. Along north side of Milltown Road. Also along south side of Milltown from approximately Station 627+00 to 637+50. Along the both sides of Marley Street from the south until approximately Station 58+50. Then along the west side only to the north limits. Along the north side of Millwood Court.	Underground

Pittsfield Sanitary	Sanitary Sewer	Gravity sewer along the north side of Glendale Avenue west of County U. Continues north along the west side of County U. Force main along Glendale east of County U. Continues north along County U.	Underground
WPS	Electric	Along west side of County U south of WIS 29. Crosses WIS 29 underground and continues overhead along the west side of County U north of WIS 29 to Glendale Avenue. Along south side of Old 29 Road. Another line runs along the east side of County U from the north project limits to just north of WIS 29. This line continues to the east along the north side of WIS 29 crossing to the north of Marley Street west of the intersection with WIS 29. Crosses to the south of Milltown Road east of the intersection with WIS 29. Crosses back to the north of Milltown Road at approximately Station 633+00. Line continues along the north side of Milltown Road to end of project limits. Along west side of Marley Street from approximately Station 59+50 to Station 70+00 where it crosses to the east side. Along south side of Millwood Court. Along north side of County VV crossing to the south of County VV just west of the intersection with WIS 29. Crosses WIS 29 east of the WIS 29/County VV/Millwood intersection.	Overhead/Underground
WPS	Gas	Along the west side of County U from south limits to WIS 29. Along east side of County U from Glendale Avenue to north limits. Along south side of Glendale Avenue crossing County U. Along the south side of County VV from the west limits to approximately Station 30+00'VVN'. Along the west side of Marley Street from approximately Station 57+00'VVN' to the north project limits. Along the south side of Millwood Court. Along the south side of the entire length of Milltown Road.	Underground

Comments:

None

2.9 Railroad Crossings

Location (Sta.)	Railroad Name	No. of Tracks	Function	Crossing Type
None				

Comments:

No railroad crossings within the project.

2.10 Special Soils Conditions

Due to surface soils having low strength, Soils Engineers have recommended excavation below subgrade (EBS) before embankments are placed or roadway base is placed.

2.11 Unique Project Features

None

3.0 Traffic Information

3.1 Traffic Volumes/Conditions

3.1.1 Traffic Forecast Report Attachment

See Exhibit C – Traffic Forecast

3.1.2 Highway Capacity Analysis

Location (Roadway Segment or Intersection)	Existing Level of Service	Construction Year Level of Service	Construction Year + 10 Level of Service
CTH VV	A	A	A
Marley Street	A	A	A

Comments:

None

3.2 Crash Analysis

3.2.1 Project Crash Information

			Number and Severity of Crashes			
Roadway	Crash Rate (1) (Year)	Statewide Crash Rate (1) (Year)	Fatal	Injury	Property Damage	Total No. Crashes
WIS 29 at CTH VV	232 (2014-2018)	200.94 (2017)	0	11	59	70
WIS 29 at CTH U	195 (2014-2018)	200.94 (2017)	1	1	7	9

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

Comments:

None

3.2.2 Significant Crash Locations or Patterns

Location or Pattern	Year	Number and Severity of Crashes				Crash Rate(2)	Possible Factors Contributing to Crashes
		Fatal	Injury	Property Damage	Total		
WIS 29 at CTH VV	2014 - 2018	0	11	59	70	232	Available Gaps for drivers or driver patience using RCUTS

(2) Crashes per million entering vehicles (MEV)

Comments:

None

4.0 Proposed Design Criteria

4.1 Design Class

Roadway or Roadway Segment	Design Class
WIS 29	A3
CTH VV/Marley Street	U2b
Evergreen Avenue	U2b
Centerline Drive	U2b

4.2 Design Speed*

Roadway or Roadway Segment	Design Speed*	Posted Speed
WIS 29	70	65
CTH VV/Marley Street	45	40
Evergreen Avenue	40	40
Centerline Drive	35	35
CTH U	50	45

* Controlling Criteria for all Design Speeds

4.3 S-2/S-3 Design Justifications (DJs)

4.3.1 Controlling Criteria Design Justifications (DJs)

None

4.3.2 Non-Controlling Criteria Design Justifications (DJs)

None

4.4 Safety and Contributing Geometric Analysis (CGA) Design Justification (FDM 11-38) 3R projects and Preventive Maintenance (PM) Group I and Group II Pavement Strategy Projects (FDM 3-5 Exhibit 5.1)

See attached Safety Screening and Contributing Geometric Analysis worksheets for locations and details of Crash Flags, Improvement Flags, and Design Justifications within the project limits.

National Highway System (NHS) Roadway - Substandard Geometric Features Outside of Controlling Design Criteria Covered by Design Justifications (3R & PM Projects)**

NHS Roadway Name: _____

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

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

These geometric features outside of controlling design criteria 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 Design Justifications.

See attached map

Comments:

None

Geometric Features Outside of Controlling Design Criteria NOT Covered by Design Justifications and NOT corrected as part of PM project (PM Group I and Group II pavement strategy projects)

Roadway Name: _____

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

Construction is required for safety improvements or to correct the above controlling geometric features outside of design criteria. 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(s) Alternative Features Considered

County VV's alternative analysis focused on reducing environmental, farming and residential property impacts. Three horizontal alignment variations were developed:

- VV Alternative 1- Shifted Alignment: This alternative alignment begins south of WIS 29 on County VV approximately 3600' west of WIS 29. The alignment would curve to the north and cross WIS 29 approximately 1700' west of the current intersection of County VV and WIS 29. The alignment would then continue northeast into the large agricultural parcel east of existing Marley Street. A proposed roundabout would be located approximately 530' east of Marley Street and 170' south of the northern agricultural property line. The mainline alignment would bend 90 degrees back towards Marley Street where it would match into Marley Street approximately 500' north of the Millwood Court intersection.
- VV Alternative 2 - Millwood Court Roundabout: This alternative alignment is identical to Alternative 1, except for the portions north of WIS 29. North of WIS 29, this alignment would run parallel approximately 50' to the east of the existing Marley Street alignment. At the intersection of Millwood Court, a four-legged intersection would be constructed connecting Millwood Court, Marley Street, and Milltown Road. The mainline alignment matches back into Marley Street approximately 900' north of Millwood Court.

- **VV Alternative 3 - Milltown Roundabout (Preferred Alternative)** (see Appendix 1, page 92): This alternative alignment is identical to Alternative 1, except for portions on the north half of WIS 29. North of WIS 29, this alignment would merge on the existing Marley Street alignment south of the Millwood Court intersection. The roundabout connecting Marley Street and Milltown Road would be located approximately 375' south of the existing Millwood Court and Marley Street intersection.

5.0 Proposed Design Improvement(s)

5.1 Improvement Type(s)

Modernization, Reconstruct with grant funding

5.2 Proposed Geometrics Information

5.2.1 Horizontal Alignment* Information

See Exhibit D – preliminary plans.

5.2.2 Vertical Alignment/Stopping Sight Distance* Information

See Exhibit D – preliminary plans.

5.2.3 Grades* and Vertical Clearances* Information

See Exhibit D – preliminary plans.

*Controlling Criteria for Design Speed ≥ 50 mph

5.3 Side-roads/Intersections/Interchanges Information

5.3.1 Side-Roads Information

Roadway Name	Functional Class	Design Speed (MPH)	Design Year Traffic (AADT)	Design Class	Approach Grades	Ped. Facilities (Y/N)	Bike Facilities (Y/N)
None							

Comments:

Intersecting Roads with WIS 29 have been removed as part of this project.

5.3.2 Intersections Information/Proposed Geometrics

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)
None								

* Controlling Criteria for Design Speed ≥ 50 mph

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

Comments:

Intersecting Roads with WIS 29 have been removed as part of this project and replaced with Interchange.

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

5.3.3 Interchanges Information/Proposed Geometrics

Name of Intersecting Roadways	Interchange Type	Ramp Type	Ramp Design Speed	Ramp Grades	SSD** Met* (Y/N)/ Length	DSD** Met (Y/N)/ Length	Vision Triangle (Yes or No)
CTH VV	Diamond	Tapered Exit Parallel Entrance	60 mph	2.73% – 3.18%	Yes 570’	Yes 990’	No

*Controlling Criteria for Design Speed ≥ 50 mph

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

Comments:

None

5.4 Roundabout(s) Information

Intersection Control Evaluation (ICE) reports were completed for the proposed intersection of CTH VV/Centerline Drive, CTH VV/WIS 29 EB Ramp Terminal, CTH VV/WIS 29 WB Ramp Terminal, and Marley Street/Evergreen Avenue.

The ICE reports determined that a roundabout was the most feasible for the intersections.

See Exhibit F – Critical roundabout parameters.

5.5 Cross Section/Pavement Structure Information

WIS 29

- Number of roadways: 2
- Number of lanes: 4
- Median width/type: 60’ – 85’ - Ditch
- Lane width*/type (Driving, Parking, Bike Lane, etc.): 12’
- Shoulder width* (Total and Paved or Curb & Gutter): LT 6’ (3’ Paved)
RT 10’ (8’ Paved)
- Bike facilities proposed: None
- Pedestrian facilities / sidewalk proposed: None
- Cross slope*: 2%
- Super-elevation*: None
- Horizontal clearance: 12’
- Vertical clearance*: 17.47’
- Pavement structure:
Existing EB
2” HMA Pavement over
10” Concrete Pavement over
4” Base Aggregate over
4” Open Base Aggregate
Existing WB
5” HMA Pavement over
9” Cracked & Seated Concrete over
4” Base Aggregate
- Clear zone: 30’
- Side-slope/Ditch Sections: 6:1

* Controlling Criteria for Design Speed ≥ 50 mph

CTH VV/Marley Street

- Number of roadways	1
- Number of lanes	2
- Median width/type	12’ – Curb Raised
- Lane width*/type (Driving, Parking, Bike Lane, etc.)	12’ Driving, 5’ Urban Shoulder
- Shoulder width* (Total and Paved or Curb & Gutter)	30” Curb & Gutter
- Bike facilities proposed	5’ Urban Shoulder
- Pedestrian facilities / sidewalk proposed	5’-8’ Sidewalk 5’ sidewalk throughout the project except in roundabouts where minimum of 8’ side path is used. This 8’ width is carried across the structure as it allows space for bicyclists to not be on the roadway if they choose.
- Cross slope*	2%
- Super-elevation*	Reverse Crown (2%)
- Horizontal clearance	7’
- Vertical clearance*	N/A
- Pavement structure	Varies for CTH VV, Marley Street, and Roundabouts. See attached typical sections.
- Clear zone	30’
- Side-slope/Ditch Sections	Varies 3:1 to 6:1

* Controlling Criteria for Design Speed ≥ 50 mph

Evergreen Avenue

- Number of roadways	1
- Number of lanes	2
- Median width/type	24’ – Curb Raised
- Lane width*/type (Driving, Parking, Bike Lane, etc.)	12’ Driving, 5’ Urban Shoulder
- Shoulder width* (Total and Paved or Curb & Gutter)	30” Curb & Gutter
- Bike facilities proposed	5’ Urban Shoulder
- Pedestrian facilities / sidewalk proposed	5’ Sidewalk 5’ sidewalk throughout the project except in roundabouts where minimum of 8’ side path is used.
- Cross slope*	2%
- Super-elevation*	None
- Horizontal clearance	7’
- Vertical clearance*	N/A
- Pavement structure	5” HMA Pavement over 15” Base Aggregate Dense 1 ¼” over 24” Select Crushed Material
- Clear zone	30’
- Side-slope/Ditch Sections	Varies 3:1 to 6:1

* Controlling Criteria for Design Speed ≥ 50 mph

CTH U

- Number of roadways	1
- Number of lanes	2
- Median width/type	None
- Lane width*/type (Driving, Parking, Bike Lane, etc.)	12' Driving
- Shoulder width* (Total and Paved or Curb & Gutter)	6' (3' Paved)
- Bike facilities proposed	3' Paved Shoulder
- Pedestrian facilities / sidewalk proposed	None
- Cross slope*	2%
- Super-elevation*	6%
- Horizontal clearance	8'
- Vertical clearance*	N/A
- Pavement structure	5" HMA Pavement over 15" Base Aggregate Dense 1 ¼" over
- Clear zone	20'
- Side-slope/Ditch Sections	Varies 3:1 to 6:1

* Controlling Criteria for Design Speed ≥ 50 mph

5.6 Street Lighting Improvements

Location	Type	Break-away Requirements
CTH VV/Marley Street	Continuous	Yes

5.7 Structures Improvements Information

5.7.1 Bridge Structures

Structure I.D. #	Location	Structure Type	Length	Clear Width*	No. of Spans	Vertical Clearance*	Horizontal Clearance*
B-5-416	CTH VV over WIS 29	Concrete Girder	222.5'	62'	2	17.47'	12'
	Proposed Improvement:						

* Controlling Criteria for Design Speed ≥ 50 mph

Comments:

Context Sensitive Solutions (CSS) are proposed on the structure including formliner for bridge piers and parapets. In addition, staining was also included. This CSS would be the same as the type County FF structure 2 miles to the east. This was chosen by the local of municipalities of Brown County, Village of Hobart, and the Village of Howard. Brown County will be responsible for the maintenance of these CSS features.

5.7.2 Box Culverts and Multiple Pipe Structures

Structure I.D. #	Location	Type	Length	No. Pipes
None				
	Proposed Improvement:			

Comments:

None

5.7.3 Retaining Walls and Noise Barrier Structures

Structure I.D. #	Location	Type	Length	Height
	Proposed Improvement:			

Comments:

None

5.7.4 Sign Bridge Structures

Structure I.D. #	Location	Type	Length	Clear Roadway Width	Vertical Clearance*	Horizontal Clearance*	Clear Zone Under
	Proposed Improvement:						

* Controlling Criteria for Design Speed ≥ 50 mph

Comments:

None

5.7.5 Tunnel Structures

Structure I.D. #	Location	Type (Veh., Ped., Bicycle, etc.)	Length	Lighting Type	Vertical Clearance*	Horizontal Clearance*
	Safety Features			**Coordination with Local Emergency Responders**		
	Proposed Improvement:					

* Controlling Criteria for Design Speed ≥ 50 mph

Comments:

None

5.7.6 Touchdown Points on Local Bridge Program Projects

N/A

5.8 Permanent Traffic Control

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

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

Comments:

None

5.9 Safety Enhancements/Mitigation Measures

Installation of interchange at CTH VV.

With the closure of CTH U intersection, there is a reduction of mobility at the CTH U intersection, but this is outweighed by the safety and the mobility gained with the CTH VV interchange construction.

5.10 Real Estate

5.10.1 Real Estate Acquisition

Plat I.D.:

Relocations		Land (Acres)	Permanent Easements	Temporary Easements	Construction Permits
Type	Number				
None					

Comments:

Three properties were previously acquired under hardship acquisition in 2015 under Wis. Stat 84.295.

5.10.2 Encroachment Actions

Encroachment Location	Encroachment Type	What is to be Done? (Removed, Revocable Permit, etc.)
64+50 – 66+50 Left, Marley Street	Fence, Planters, and Statues	Coordination is on-going with Village of Howard to determine if any of these would stay or not.
707+00 – 708+00 Left, Milltown Road Connection Road	Light Poles and Flagpole	Coordination is on-going with Village of Howard to determine if any of these would stay or not.

Comments:

None

5.11 Utilities

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

Describe any special design features to accommodate utilities:

Marley Street Profile was lowered to minimize impacts to American Transmission Company (ATC) overhead power lines.

Major Utility Agreements:

Coordination with the utility companies is ongoing. Any conflicts found will be addressed later in the design process and coordinated appropriately.

Comments:

None

5.12 Railroads

Describe improvements to Railroad Facilities:

None

Railroad Agreements:

None

Comments:

No railroads within project area.

5.13 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			
9200-10-71/72	23,800,000	71%		29%	2021-2022	None	No

Describe Incentive/Disincentive Clauses:

None

Non-participating Work:

None

Deferred Construction Work (Preventative Maintenance Projects):

None

5.14 Unique or Non-Standard Features

5.14.1 Hazardous Waste

During the phase I Hazmat a few locations were determined adjacent to the project or within the project area. These locations are outside the grading limits, requiring no further action.

5.14.2 Environmental Commitments

See attached environmental commitments.

5.14.3 Community Sensitive Design/Public Involvement

During stakeholder meetings that held with local officials, the Oneida Tribe, and other stakeholders, concepts were proposed for inclusion. These meetings were held at the time in conjunction with design of the County F interchange. Therefore, it is proposed that similar treatments that were completed on the County F project will be proposed for this project. This includes architectural treatments and staining to concrete elements of the bridge structure.

Public Information Meetings were held on 6/28/2011, 4/26/2012 and 4/4/2013.

Public Hearing for the environmental documentation was held on 6/5/19.

5.14.4 Value Engineering

None

6.0 Synopsis

Reports, Documents and Coordination	Completion/ Approval Dates (xx/xx/xxxx)	Status of Coordination or Other Information as Needed
Concept Definition Report (CDR)	N/A	
Risk Assessment (RA) (if needed)	N/A	
Signed Pavement Design Report (PDR)	Pending	
Public Involvement Plan (PIP)	5/25/2011	
Structure Survey Report (SSR) (if needed)	8/6/2013	
Public Information Meeting(s) (PIM(s))	6/28/2011, 4/26/2012 and 4/4/2013	
Signed State Municipal Agreement(s) (SMA(s)) (if needed)		
SHPO Coordination Acceptance (Section 106, etc.) (SHPO)	3/6/2014 & 6/20/2019	
DNR Coordination Acceptance (401 Cert., etc.) (DNR)	Pending	
Preliminary Plan Review Complete (PPRC)	Pending	
Preliminary Structure Plan Review Complete (PSPRC) (if needed)	N/A	
Signed Environmental Document (ED) (Type: 2 ER)	Pending	
Transportation Management Plan (TMP(s)) (Type: 2)	Pending	
Freight/OSOW Accommodations Coordination (FOAC)	4/20/2012	
Roadside Hazard Analysis Sheet (RHA) (if needed)	N/A	
Drainage Design Report (DDR) (if needed)	Pending	
Status of Statutory Actions (if needed)	N/A	

Comments:

7.0 Attachments

- Exhibit A – Project Location/Overview Map
- Exhibit B – Existing Typical Cross Sections/ Finished/Proposed Typical Cross Sections
- Exhibit C – Traffic Forecast Report
- Exhibit D – Preliminary Plan Sheets
- Exhibit E – Critical Design Parameters Chart for Each roundabout proposed
- Exhibit F – Environmental Commitments Basic Sheet (include coordination letters)
- Exhibit G – Transportation Management Plan

Exhibit A

Project Overview Map

2

BEGIN PROJECT
STA. 479+68'EB'
Y = 593054.462
X = 53497.741

TOWN OF PITTSFIELD

COUNTY LINE RD.

CTH U

GLENDALE AVE.

MARLEY ST.

EXCEPTION TO NET CENTERLINE LENGTH
STA. 494+88'EB' TO STA. 516+04'EB

END CONSTRUCTION
STA. 27+00'NB'

BROWN COUNTY
OUTAGAMIE COUNTY

OLD STH 29

EMD CONSTRUCTION
STA. 113+50'OH'

STH 29/32 WB

STH 29/32 EB

BEGIN CONSTRUCTION
STA. 600+00'EGE'

MILLWOOD CT.

VILLAGE OF HOWARD

EXCEPTION TO NET CENTERLINE LENGTH
STA. 567+22'EB' TO STA. 572+69'EB'

NW RAMP

EVERGREEN AVE.

BEGIN CONSTRUCTION
STA. 100+00'OH'

N. COUNTY LINE RD.

CTH U

STRUCTURE B-05-0416

SW RAMP

AE RAMP

SE RAMP

BRONCO CT.

MILLTOWN RD.

BEGIN CONSTRUCTION
STA. 100+00'CE'

CTH VV

END CONSTRUCTION
STA. 119+75'CE'

END CONSTRUCTION
STA. 642+50'EGE'

BEGIN CONSTRUCTION
STA. 27+00'NB'

CENTERLINE DR.

N. OVERLAND RD.

OUTAGAMIE COUNTY
BROWN COUNTY

VILLAGE OF HOBART

END PROJECT
STA. 579+55'EB'

PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN OVERVIEW	SHEET	E

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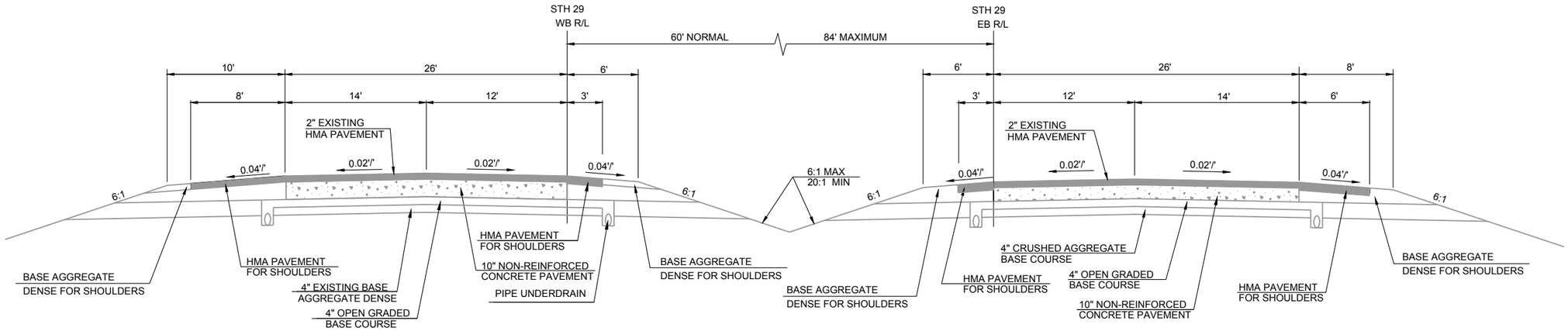
Exhibit B

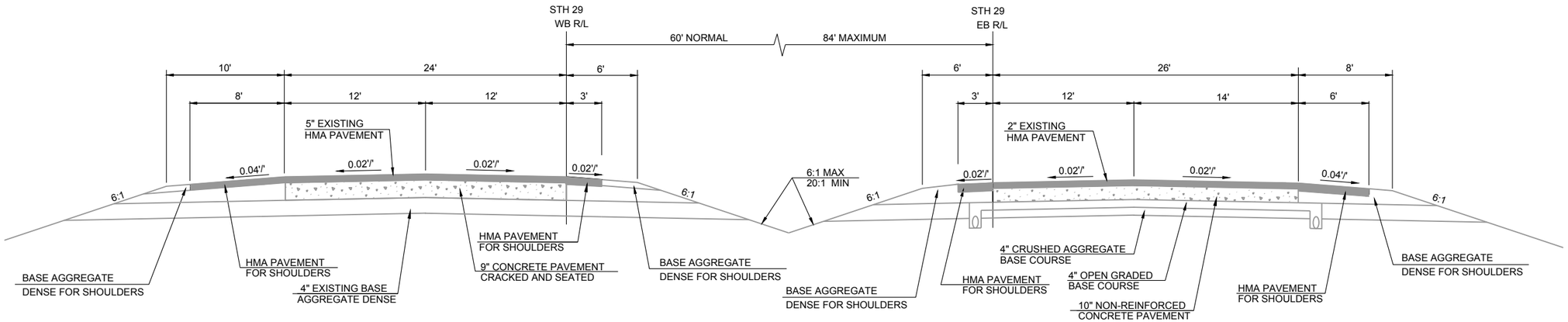
Existing/Proposed Typical Sections

2



EXISTING TYPICAL SECTION FOR STH 29

STA. 479+68'EB' - STA. 494+89'EB'



EXISTING TYPICAL SECTION FOR STH 29

STA. 516+04'EB' - STA. 567+22'EB'
STA. 572+69'EB' - STA. 579+55'EB'

PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN: TYPICAL SECTIONS	SHEET	E

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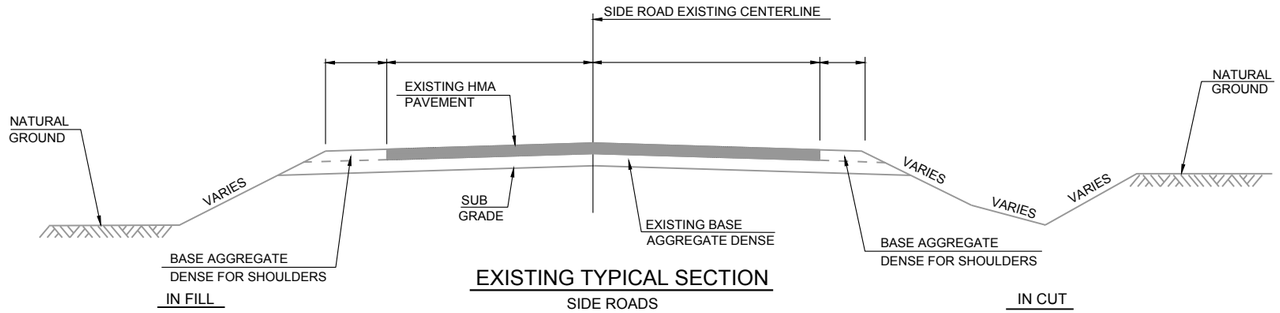
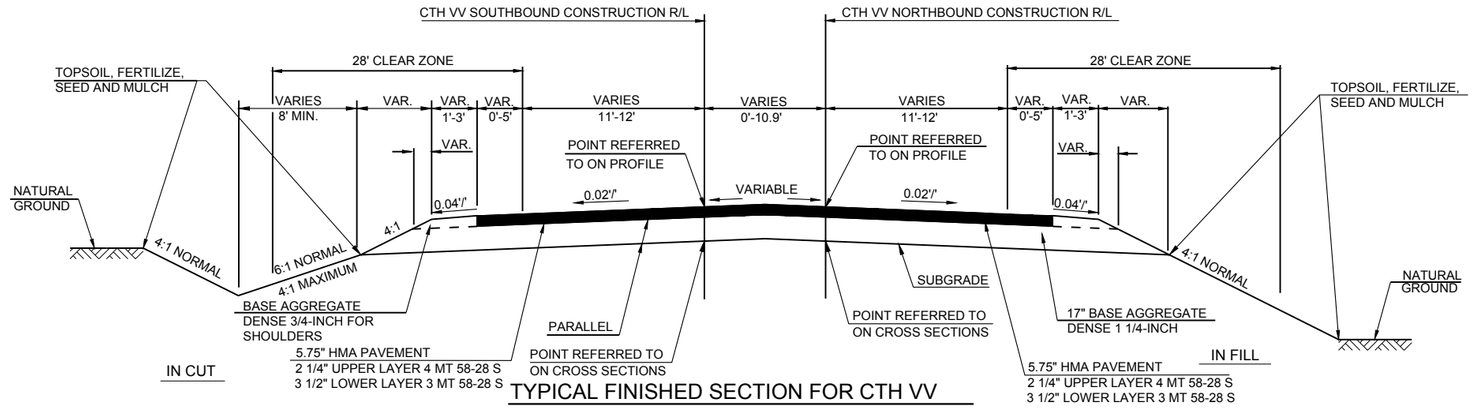


EXISTING TYPICAL SECTION

SIDE ROADS

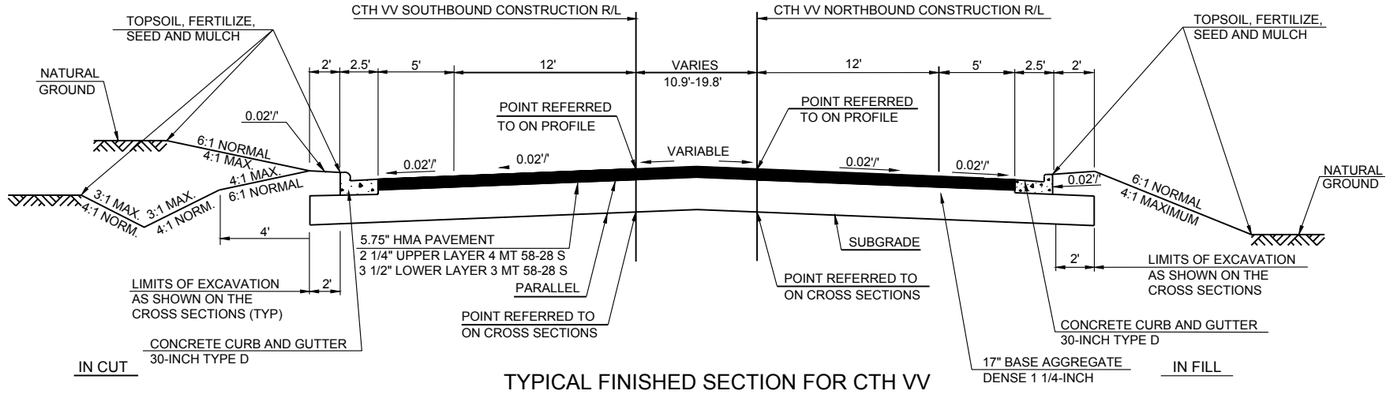
ROADWAY NAME	LOCATION	MATERIAL TYPE	BASE AGGREGATE DEPTH	ASPHALT DEPTH	CONCRETE DEPTH	ROADWAY WIDTH	PAVED SHOULDER WIDTH	BASE AGGREGATE SHOULDER WIDTH	
								LEFT	RIGHT
CTH U	S. OF STH 29	ASPHALT	5"-24"	7"-13"	----	24'	3'	2'-4'	2'-4'
CTH U	N. OF STH 29	ASPHALT	28"-32"	5"-8"	----	24'	----	7'-8'	3'-4'
OLD STH 29 ROAD		ASPHALT OVER CONCRETE	11"-15"	2"	9"	24'	----	8'-10'	8'-10'
CTH VV		ASPHALT	3"-9"	9"-13"	----	24'	----	2'-3'	2'-3'
N. OVERLAND RD.		ASPHALT	----	----	----	20'-22'	----	0'-2'	0'-2'
MARLEY ST.		ASPHALT	8"-17"	11"-15"	----	22'	----	2'-4'	2'-4'
MILLWOOD CT.		ASPHALT	-----	----	----	22'	----	3'-4'	3'-4'
MILLTOWN RD.		ASPHALT	8"-27"	7"-12"	----	22'-24'	----	2'-4'	2'-4'

2



TYPICAL FINISHED SECTION FOR CTH VV

STA. 27+00.00 - STA. 27+89.86 CTH VV NORTHBOUND CONSTRUCTION R/L RIGHT
STA. 27+00.00 - STA. 29+01.32 CTH VV NORTHBOUND CONSTRUCTION R/L LEFT



TYPICAL FINISHED SECTION FOR CTH VV

STA. 27+89.86 - STA. 29+58.18 CTH VV NORTHBOUND CONSTRUCTION R/L RIGHT
STA. 29+01.32 - STA. 29+58.18 CTH VV NORTHBOUND CONSTRUCTION R/L LEFT

PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN: TYPICAL SECTIONS	SHEET	E

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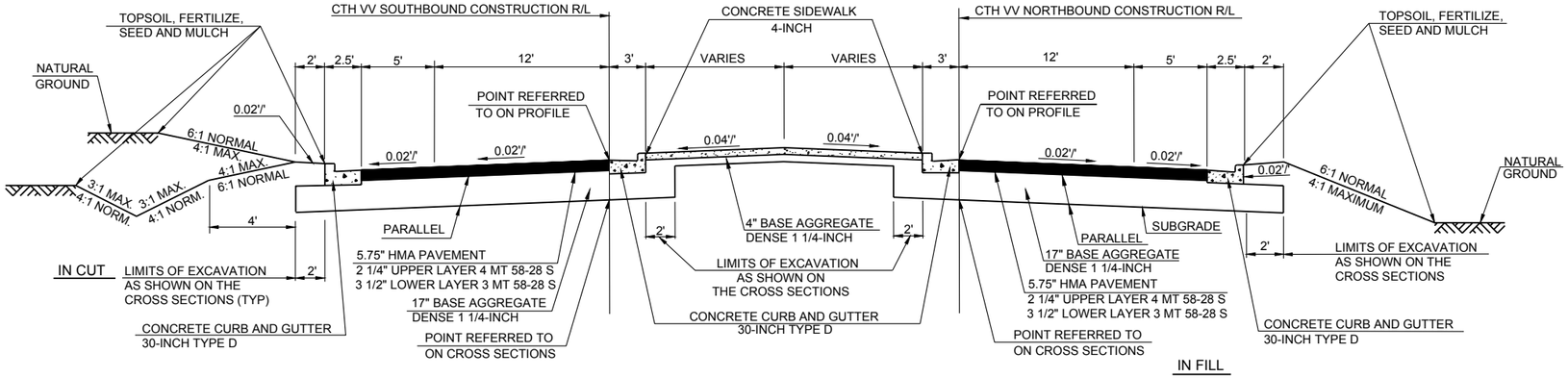
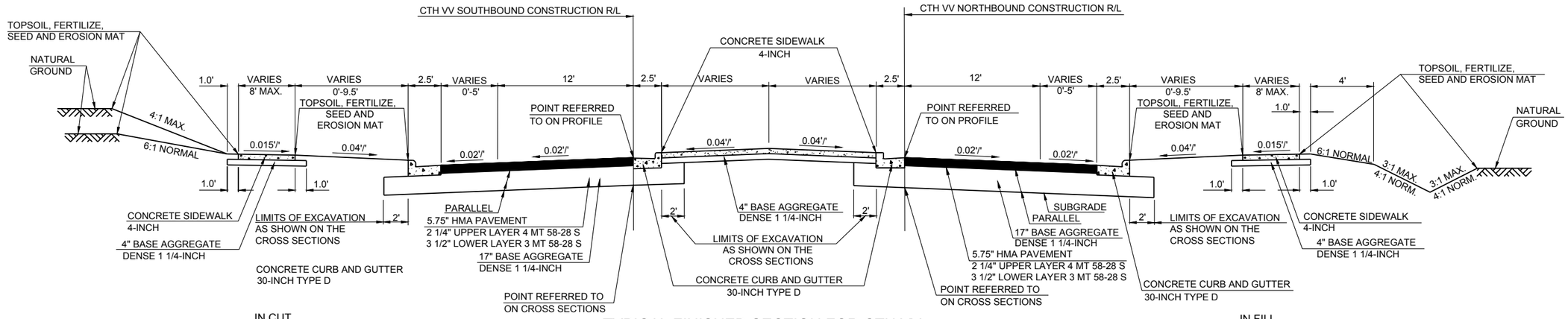


TYPICAL FINISHED SECTION FOR CTH VV

STA. 29+58.18 - STA. 30+59.06 CTH VV NORTHBOUND CONSTRUCTION R/L RIGHT
STA. 29+58.18 - STA. 30+74.56 CTH VV NORTHBOUND CONSTRUCTION R/L LEFT

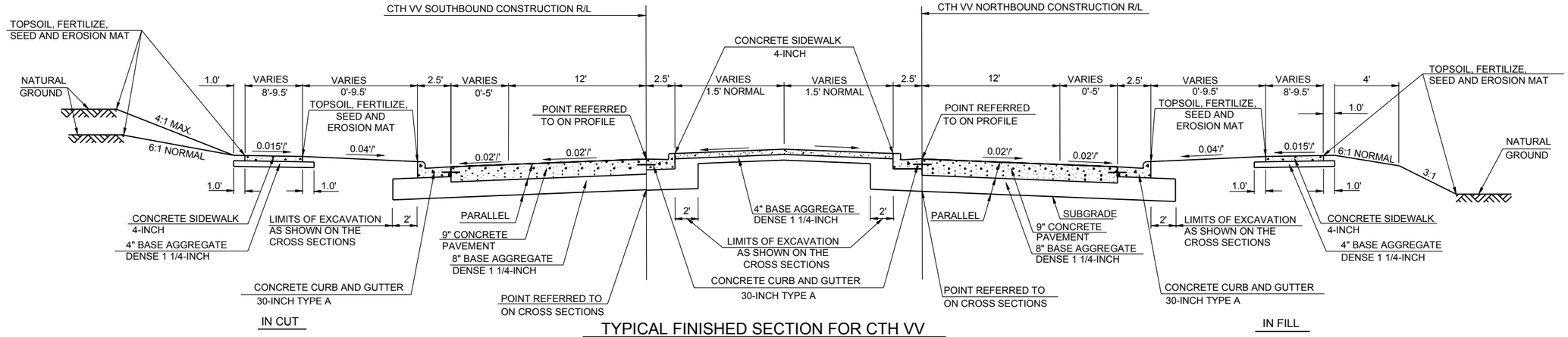


TYPICAL FINISHED SECTION FOR CTH VV

STA. 30+59.06 - STA. 31+65.18 CTH VV NORTHBOUND CONSTRUCTION R/L RIGHT
STA. 30+74.56 - STA. 31+65.18 CTH VV NORTHBOUND CONSTRUCTION R/L LEFT
STA. 33+14.69 - STA. 41+28.97 CTH VV NORTHBOUND CONSTRUCTION R/L RIGHT
STA. 33+14.69 - STA. 41+33.95 CTH VV NORTHBOUND CONSTRUCTION R/L LEFT

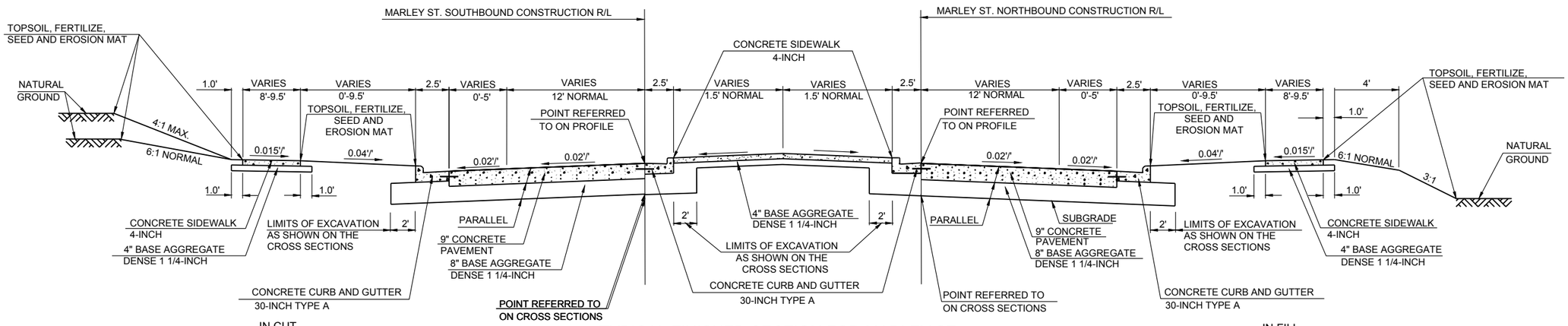
PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN: TYPICAL SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION FOR CTH VV

STA. 41+28.97 - STA. 41+88.26 CTH VV NORTHBOUND CONSTRUCTION R/L RIGHT
STA. 41+33.95 - STA. 41+88.26 CTH VV NORTHBOUND CONSTRUCTION R/L LEFT
STA. 43+37.21 - STA. 45+04.81 CTH VV NORTHBOUND CONSTRUCTION R/L LEFT AND RIGHT



TYPICAL FINISHED SECTION FOR MARLEY ST.

STA. 47+23.29 - STA. 48+78.89 MARLEY ST. NORTHBOUND CONSTRUCTION R/L LEFT AND RIGHT
STA. 50+28.69 - STA. 50+85.66 MARLEY ST. NORTHBOUND CONSTRUCTION R/L RIGHT
STA. 50+28.69 - STA. 51+09.55 MARLEY ST. NORTHBOUND CONSTRUCTION R/L LEFT

PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN: TYPICAL SECTIONS	SHEET	E

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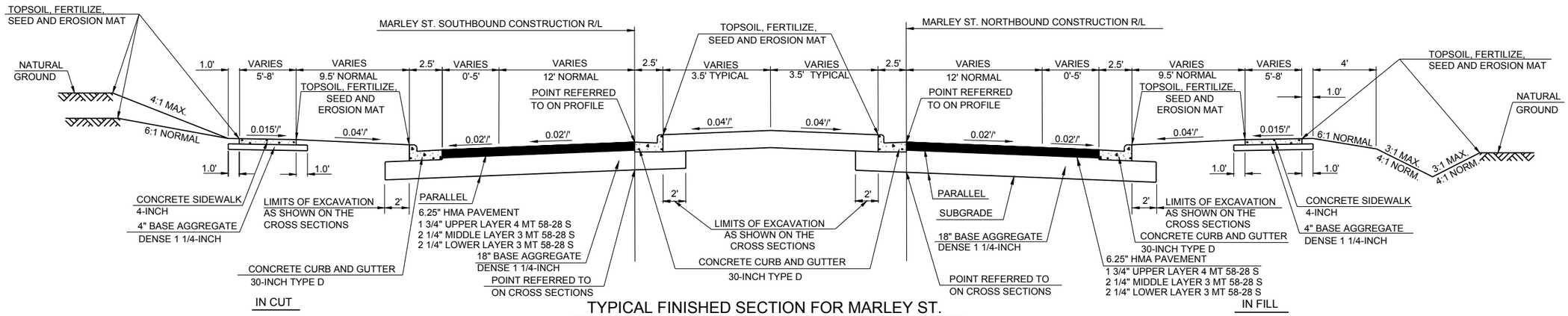
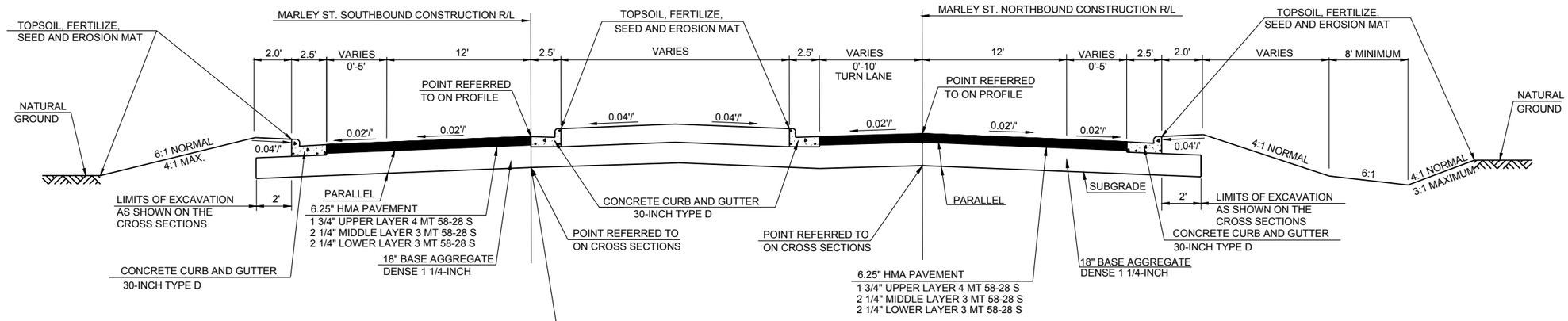


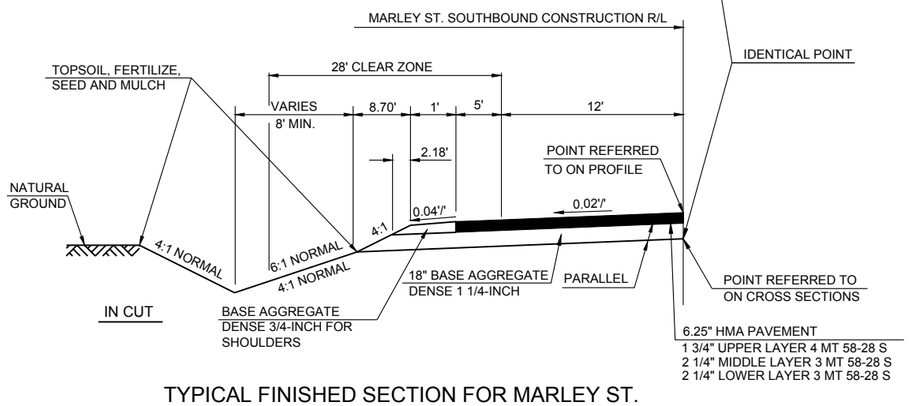
TYPICAL FINISHED SECTION FOR MARLEY ST.

STA. 50+85.66 - STA. 59+50.96 MARLEY ST. NORTHBOUND CONSTRUCTION R/L RIGHT
STA. 50+28.69 - STA. 59+50.96 MARLEY ST. NORTHBOUND CONSTRUCTION R/L LEFT
STA. 61+01.51 - STA. 62+00.45 MARLEY ST. NORTHBOUND CONSTRUCTION R/L RIGHT
STA. 61+01.51 - STA. 62+21.43 MARLEY ST. NORTHBOUND CONSTRUCTION R/L LEFT



TYPICAL FINISHED SECTION FOR MARLEY ST.

STA. 62+00.45 - STA. 66+52.73 MARLEY ST. NORTHBOUND CONSTRUCTION R/L RIGHT
STA. 62+21.43 - STA. 64+47.13 MARLEY ST. NORTHBOUND CONSTRUCTION R/L LEFT

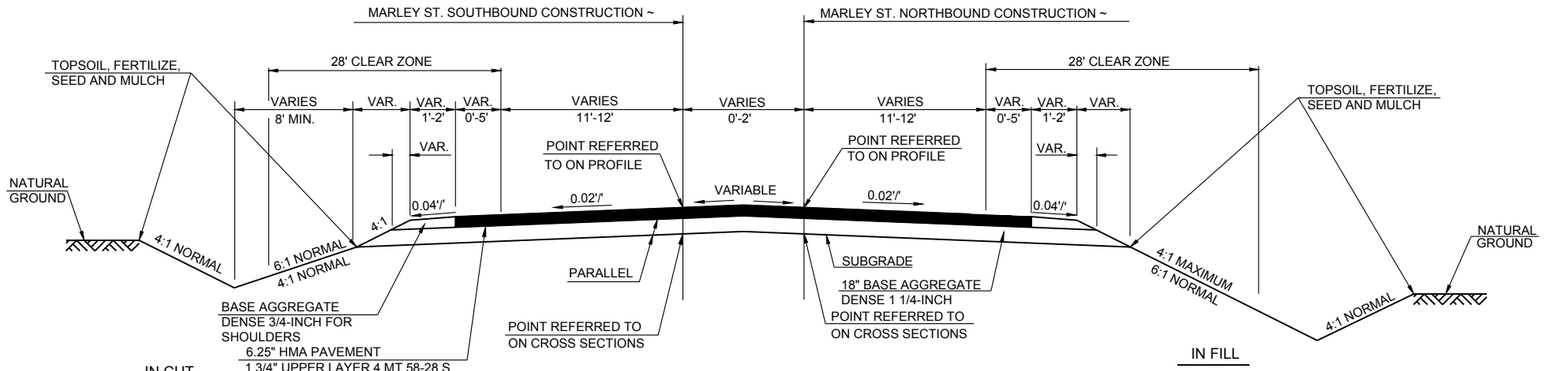


TYPICAL FINISHED SECTION FOR MARLEY ST.

STA. 64+47.13 - STA. 66+52.73 MARLEY ST. NORTHBOUND CONSTRUCTION R/L LEFT

PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN: TYPICAL SECTIONS	SHEET E

2



TYPICAL FINISHED SECTION FOR MARLEY ST.

STA. 66+52.73 - STA. 65+20 MARLEY ST. NORTHBOUND CONSTRUCTION R/L LEFT AND RIGHT

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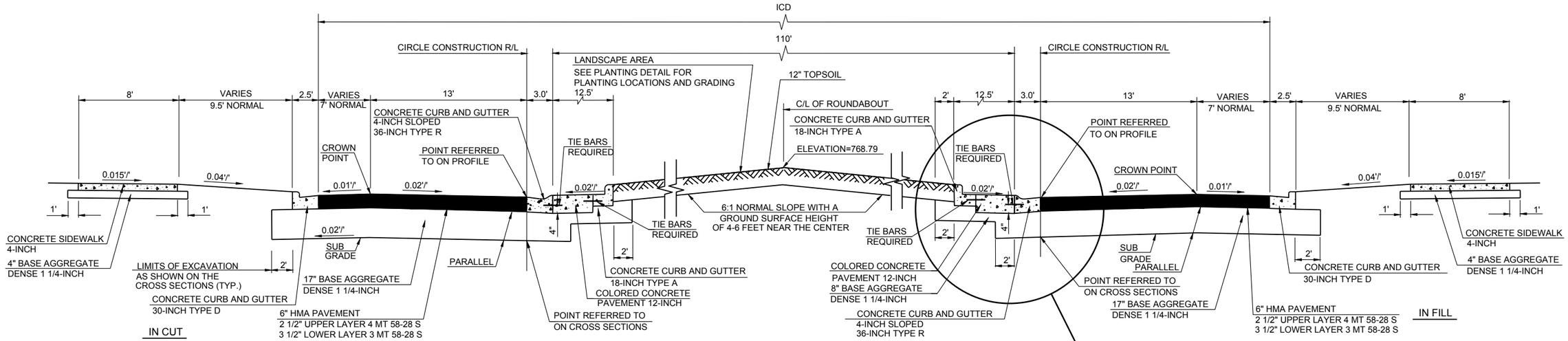
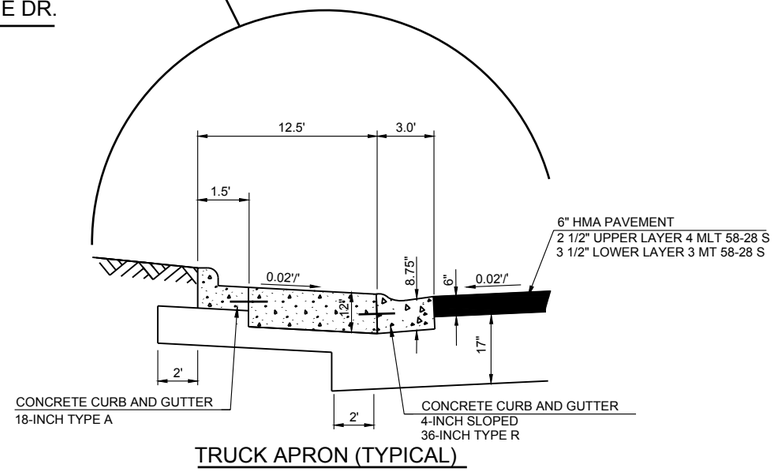


TYPICAL FINISHED SECTION FOR CTH VV/CENTERLINE DR.

ROUNDABOUT DETAIL



TRUCK APRON (TYPICAL)

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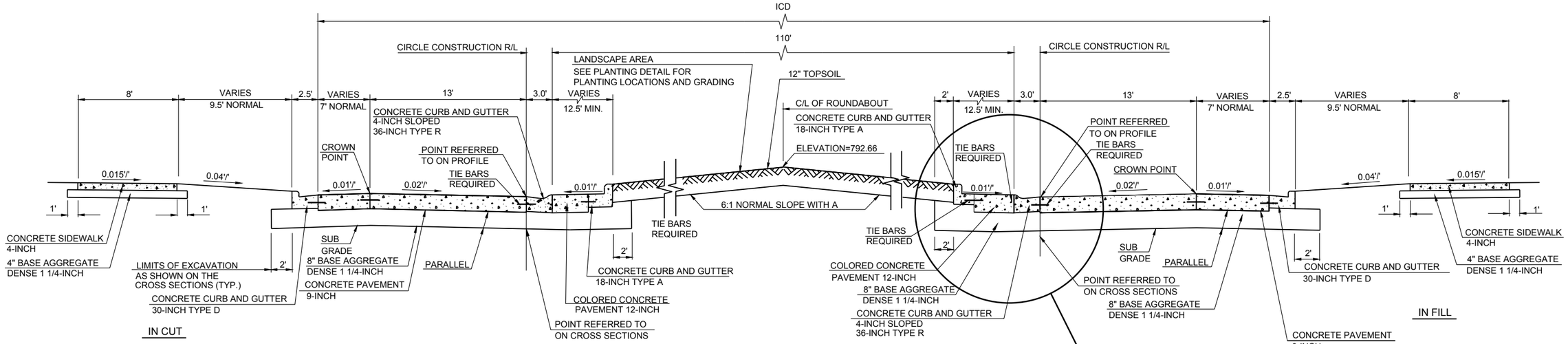
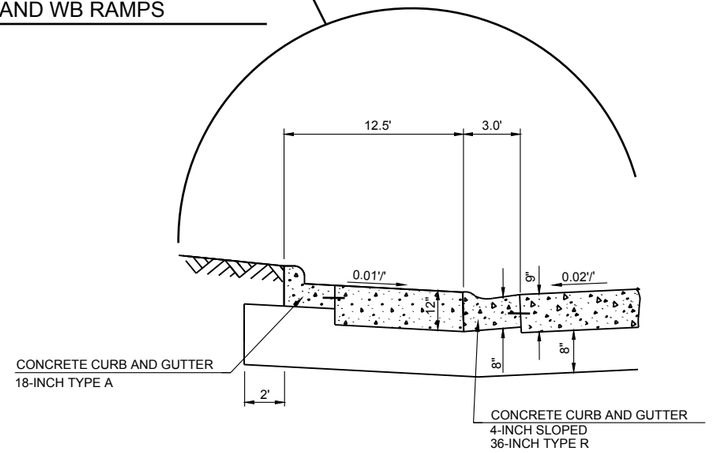


TYPICAL FINISHED SECTION FOR CTH VV/STH 29 EB AND WB RAMPS

ROUNDABOUT DETAIL

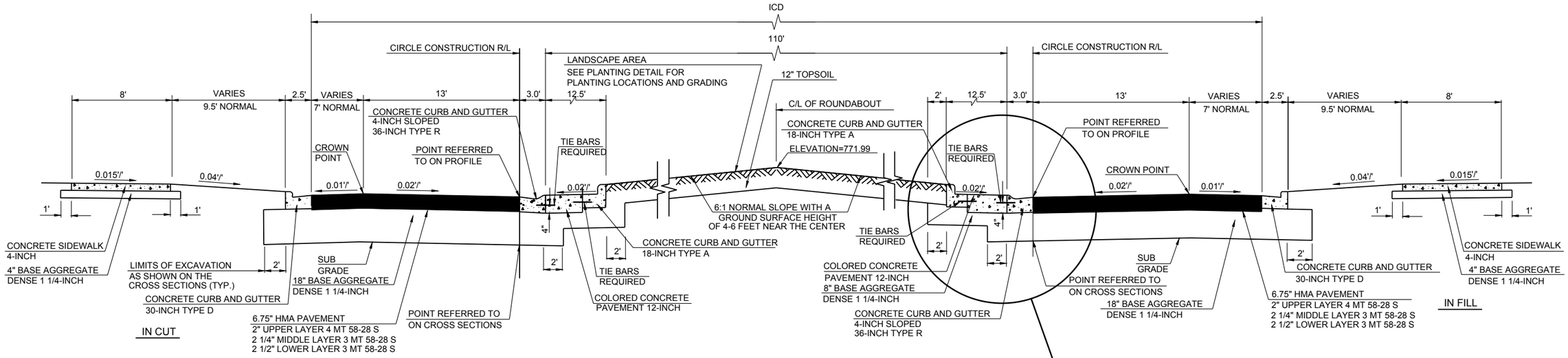


TRUCK APRON (TYPICAL)

PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN: TYPICAL SECTIONS	SHEET	E

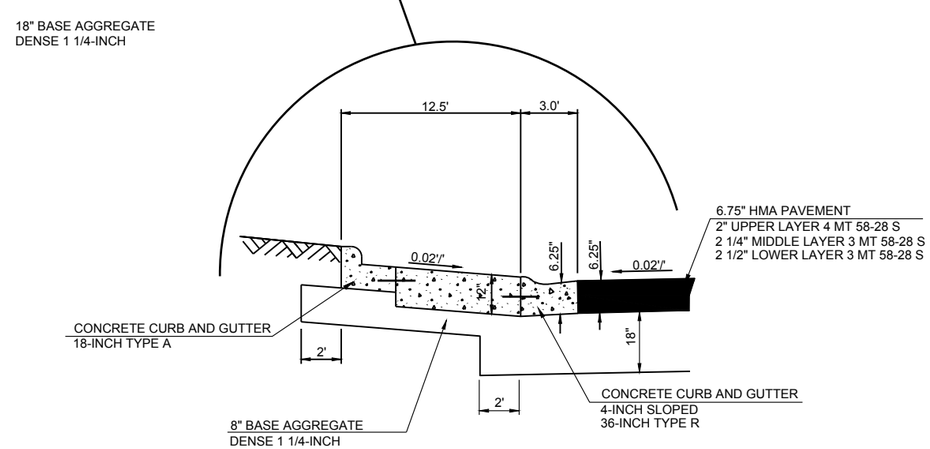
FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020309 ts
PLOT DATE : 7/17/2019 7:02 PM
PLOT BY : SOUFAL, KEVIN
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

2



TYPICAL FINISHED SECTION FOR MARLEY ST./EVERGREEN AVE.

ROUNDABOUT DETAIL



TRUCK APRON (TYPICAL)

PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN: TYPICAL SECTIONS	SHEET	E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020310 ts
PLOT DATE : 7/17/2019 7:02 PM
PLOT BY : SOUFAL, KEVIN
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

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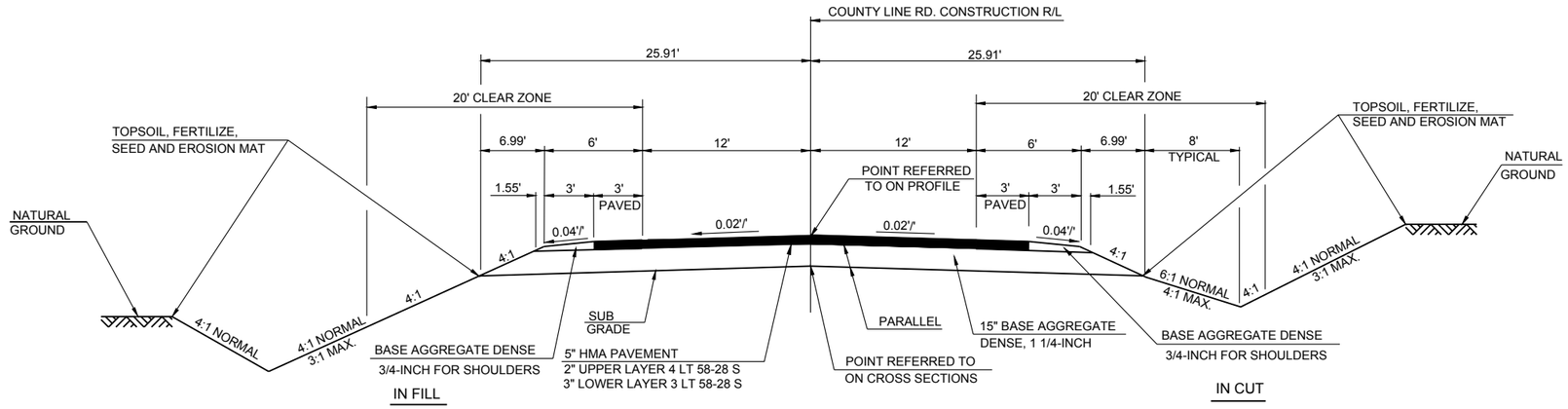
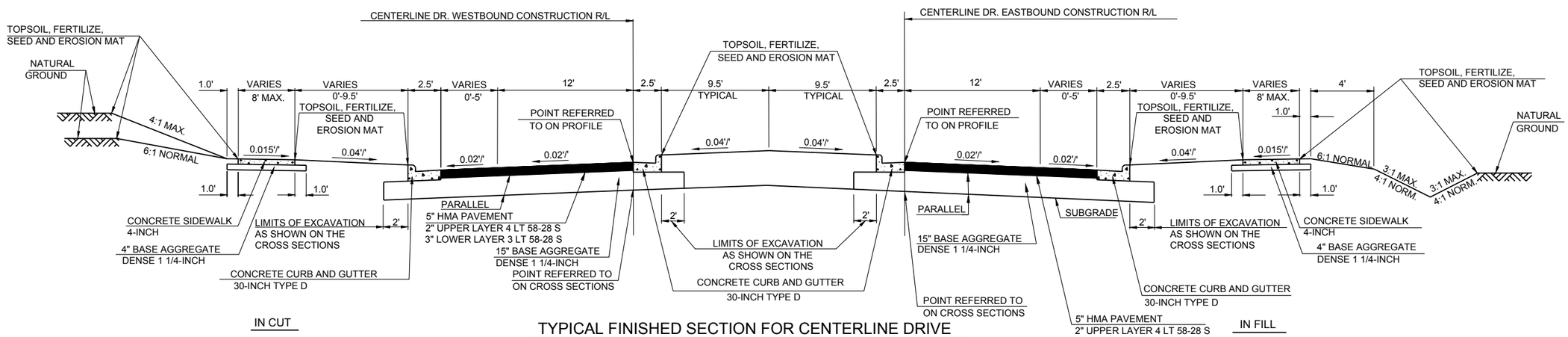


TYPICAL FINISHED SECTION FOR COUNTY LINE RD.



TYPICAL FINISHED SECTION FOR CENTERLINE DRIVE

STA. 100+00.00 - STA. 119+75.00 CENTERLINE DR. EASTBOUND CONSTRUCTION R/L

PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN: TYPICAL SECTIONS	SHEET	E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020311 ts

PLOT DATE : 7/17/2019 7:02 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:200 FT

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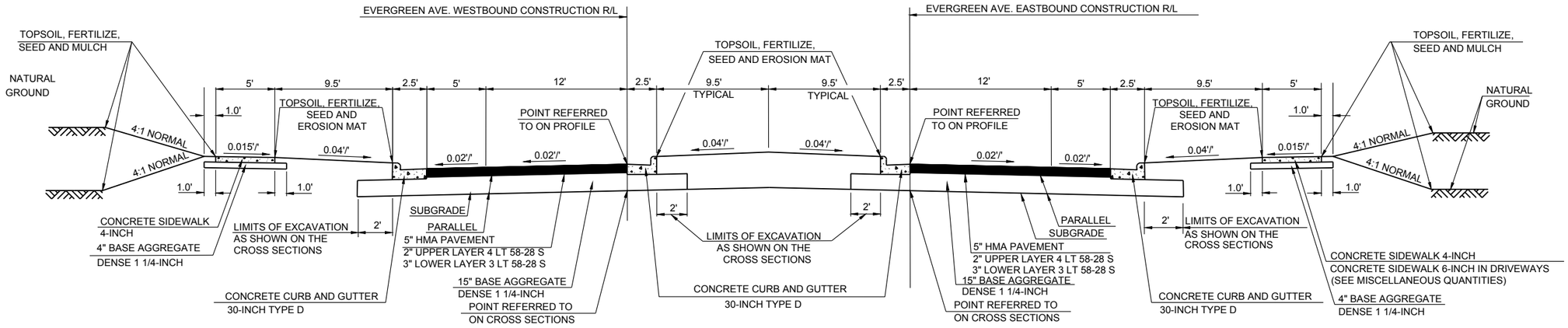
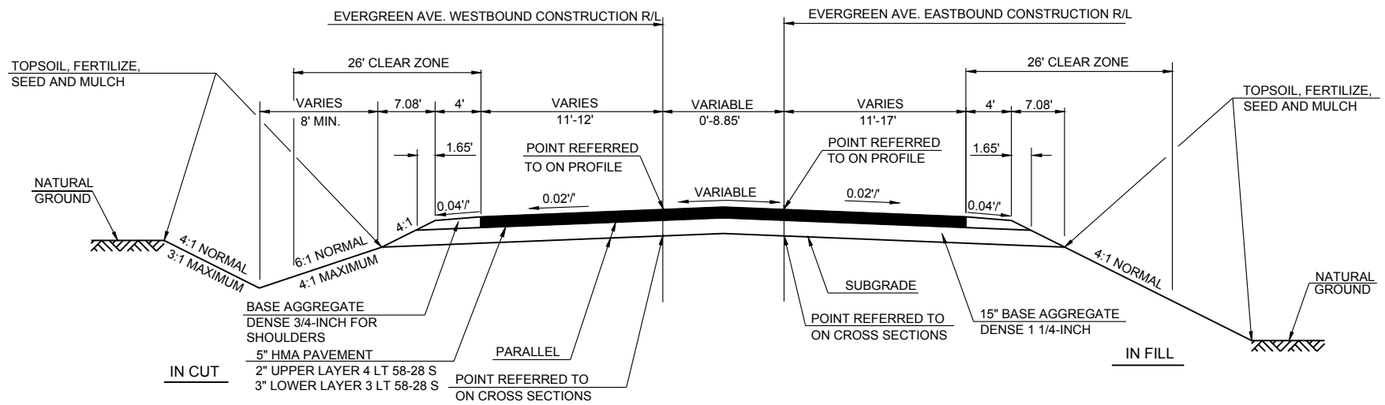


TYPICAL FINISHED SECTION FOR EVERGREEN AVE.

STA. 600+00.00 - STA. 634+74.20 EVERGREEN AVE. EASTBOUND CONSTRUCTION R/L

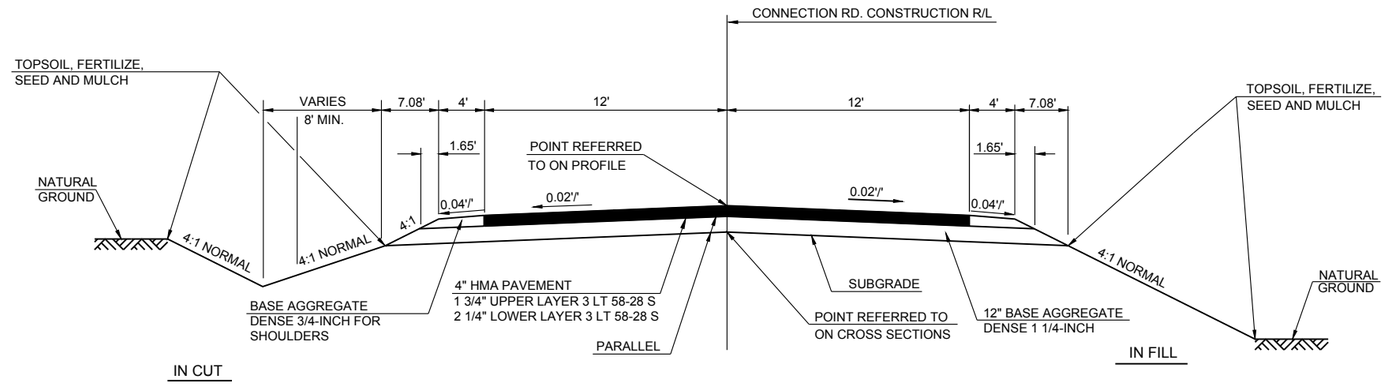


TYPICAL FINISHED SECTION FOR EVERGREEN AVE.

STA. 634+74.20 - STA. 642+50.00 EVERGREEN AVE. EASTBOUND CONSTRUCTION R/L

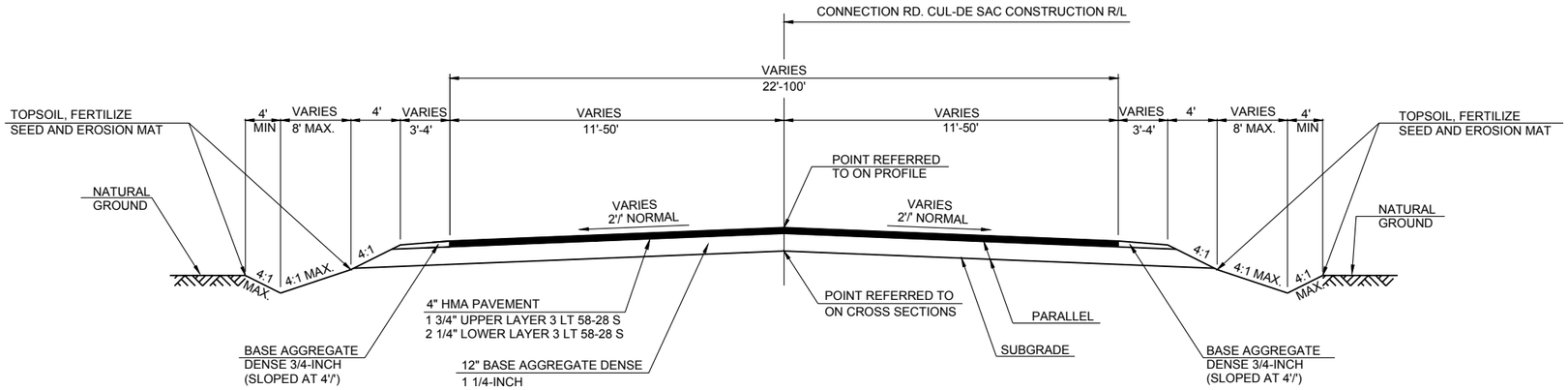
PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN: TYPICAL SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION FOR CONNECTION RD.

STA. 700+00.00 - STA. 708+25.00

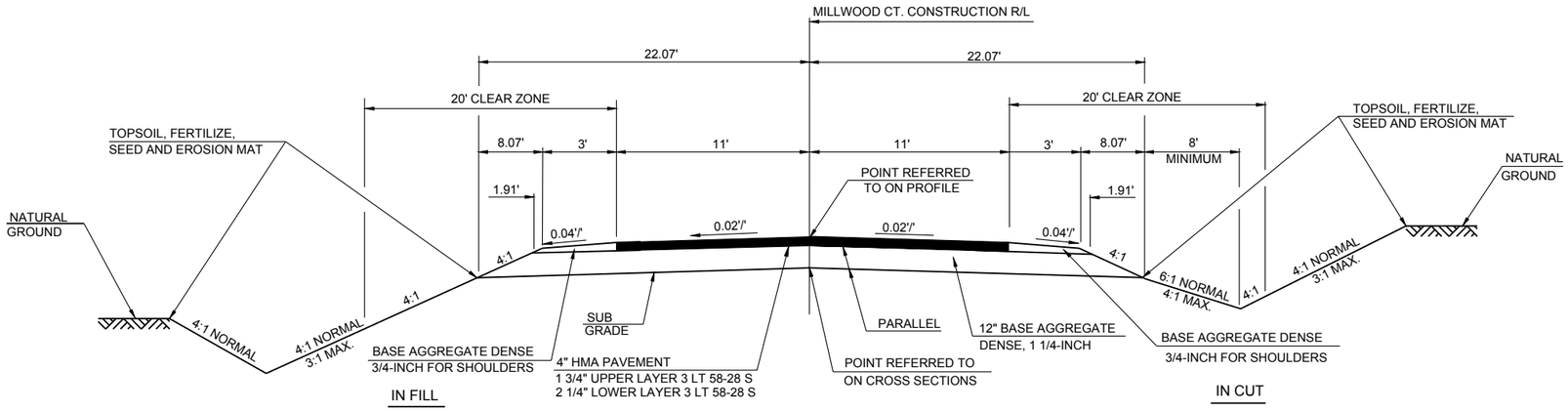


TYPICAL FINISHED SECTION FOR CUL DE SACS

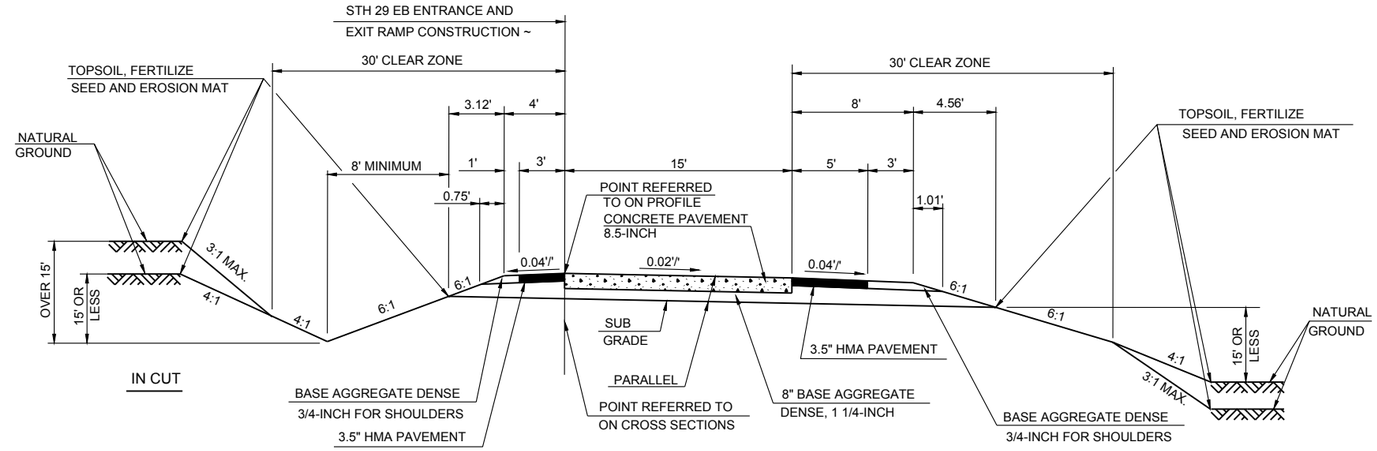
CONNECTION RD.
STA. 708+25.00 - STA. 709+12.87

PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN: TYPICAL SECTIONS	SHEET	E

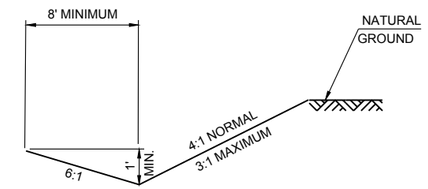
2



TYPICAL FINISHED SECTION FOR MILLWOOD CT.



TYPICAL FINISHED SECTION FOR STH 29
ENTRANCE AND EXIT RAMPS



TYPICAL DITCH CONSTRUCTION FOR STH 29 RAMPS

PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN: TYPICAL SECTIONS	SHEET	E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020314 ts
PLOT DATE : 7/17/2019 7:02 PM
PLOT BY : SOUFAL, KEVIN
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

Exhibit C

Traffic Forecast Report

WisDOT TRAFFIC FORECAST REPORT

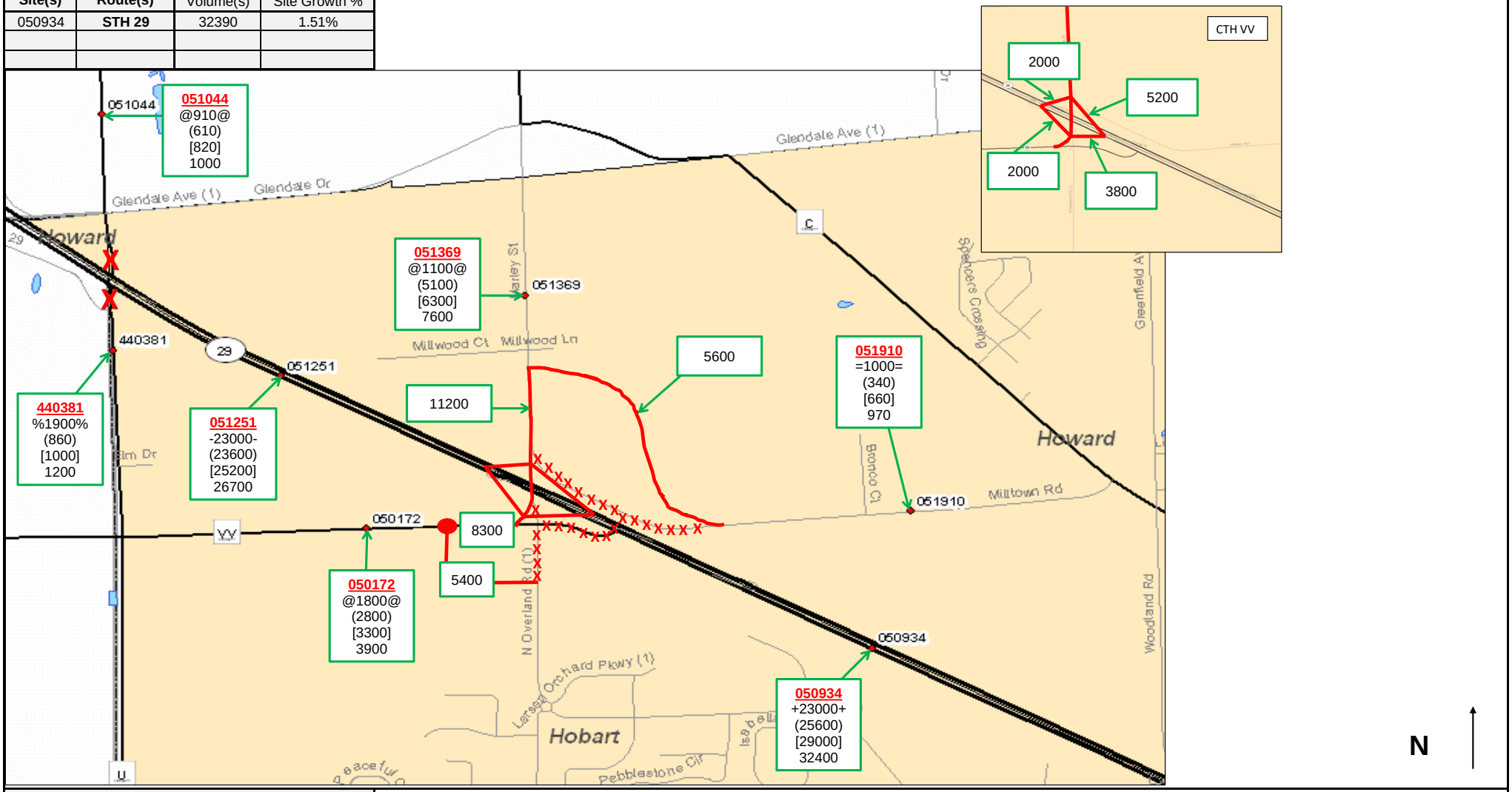
PROJECT ID(S): 9200-06-00 (Build)
ROUTE(S): STH 29

Region/COUNTY(IES): NE / Brown
LOCATION: @ CTH VV
COMPLETED: March 22, 2019

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

Developed by: Chris Chritton
Phone: 608-266-0194
FAX #: (608) 267-0294
E-Mail: chris.chritton@dot.wi.gov

Site(s)	Route(s)	Volume(s)	Site Growth %
050934	**STH 29**	32390	1.51%



SITE ID = Colored, **bolded**, and underlined

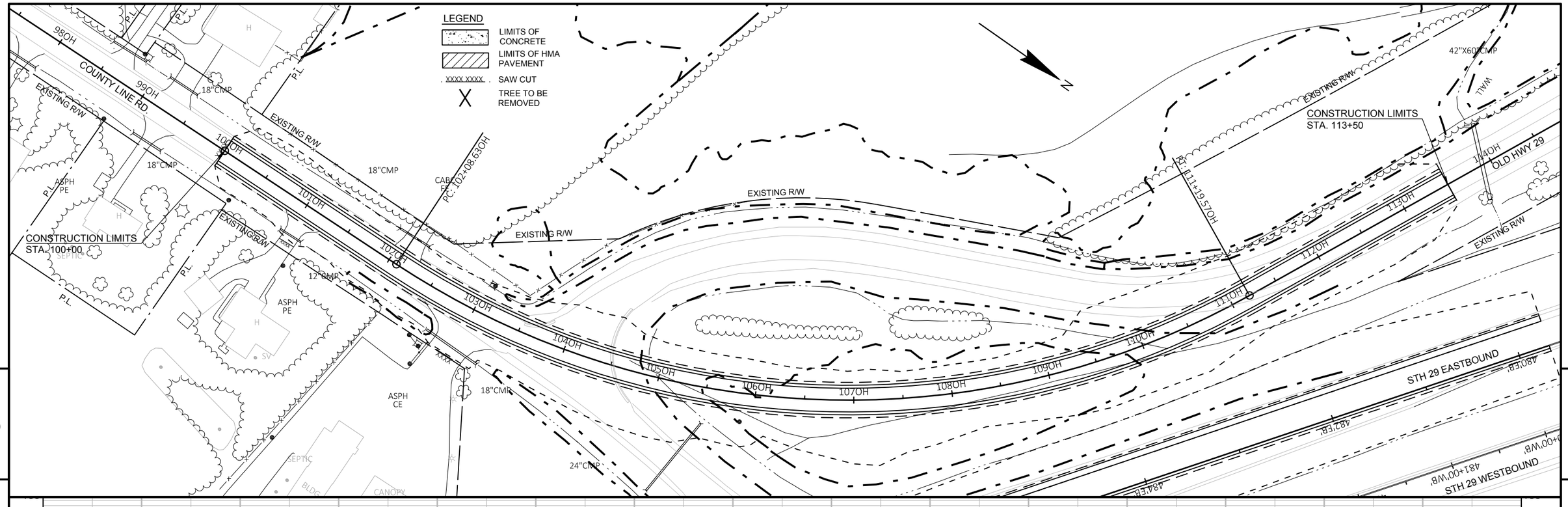
Symbol	Count	Symbol	Forecast
-000-	2018 Count	(000)	2022 AADT
000	2017 Count	[000]	2032 AADT
+000+	2015 Count	000	2042 AADT
=000=	2013 Count		
%000%	2010 Count		
@000@	2009 Count		

NOTES ON THE FORECAST:

1. This projection assumes that no major new traffic generators will be added to the development already included in the 2010/2045 Northeast Regional Travel Demand Model.
2. Vehicle classification data and design values (K factors, directional splits, and percent trucks in design hours) are available here: http://wisconsindot.gov/Pages/projects/data-plan/traf-fore/default.aspx
3. STH 29 is a Factor Group II (Urban-Other) roadway (indicating low to moderate fluctuation in traffic from a seasonal perspective). It is functionally classified as a Urban Principal Arterial (14) for count purposes.
4. The 2010/2045 Northeast Regional Travel Demand Model was used to complete this forecast.
5. Roadway improvements coded within the existing plus committed (E+C) network of the 2010/2045 Northeast Regional Travel Demand Model were assumed to be in place for the purposes of developing this forecast.

Exhibit D

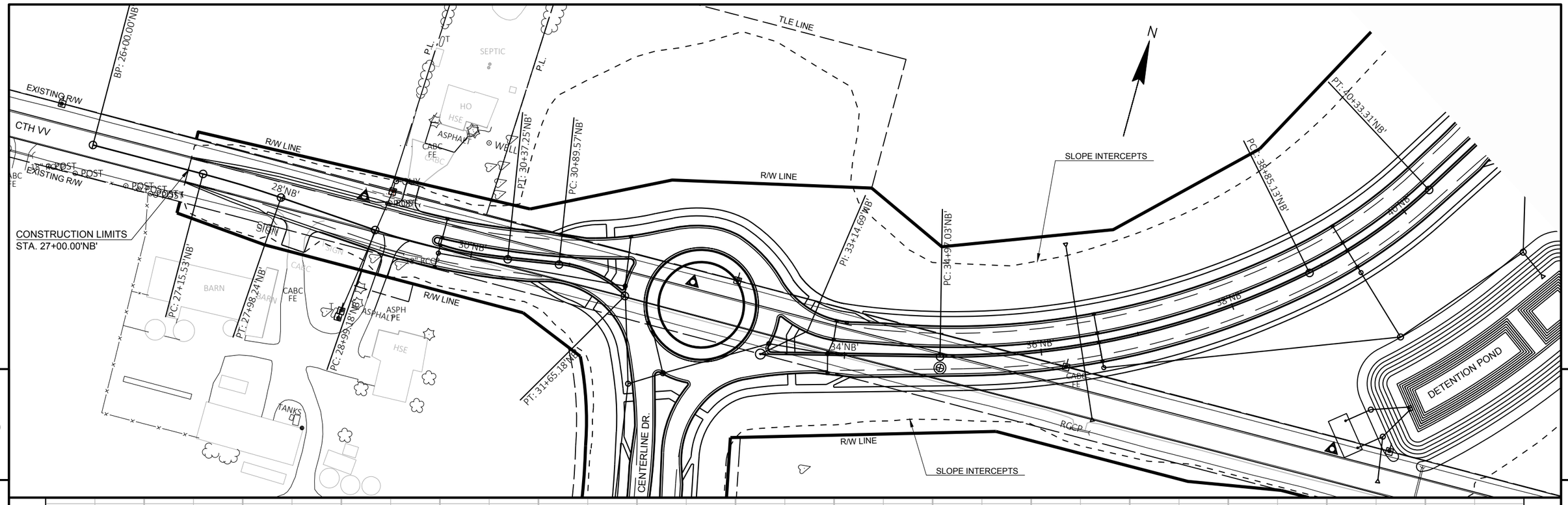
Preliminary Plan Sheets

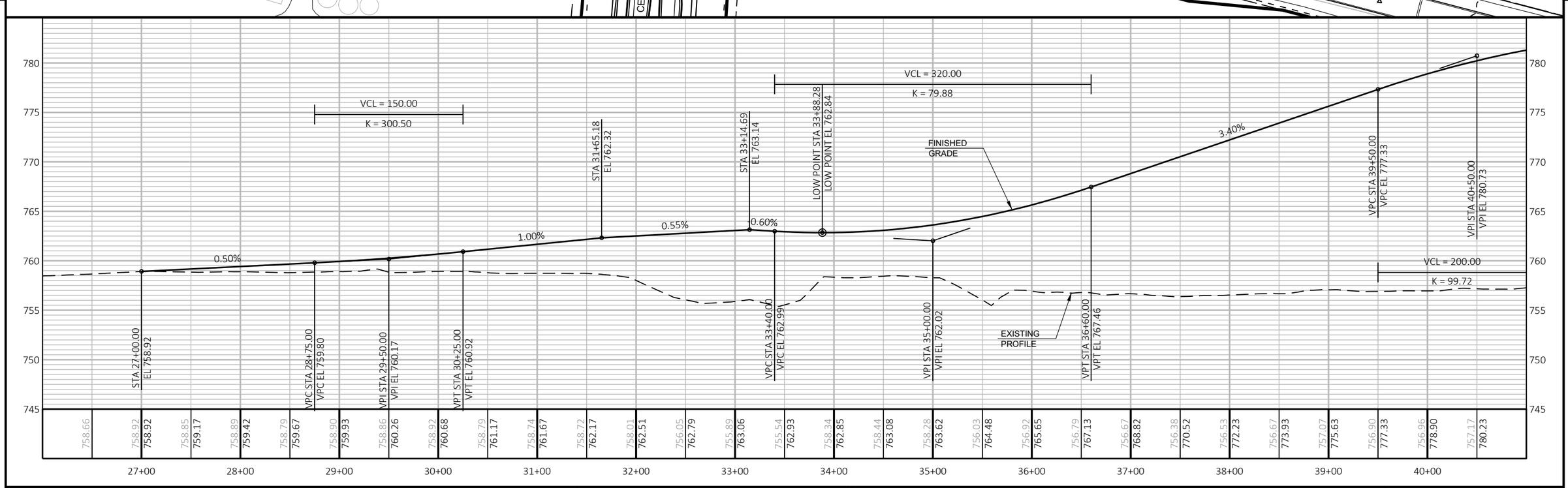


PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: OLD HWY 29	SHEET E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050101-PP OLD HWY 29.DWG
LAYOUT NAME - 050101 pp

PLOT DATE : 7/18/2019 11:02 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:100 FT

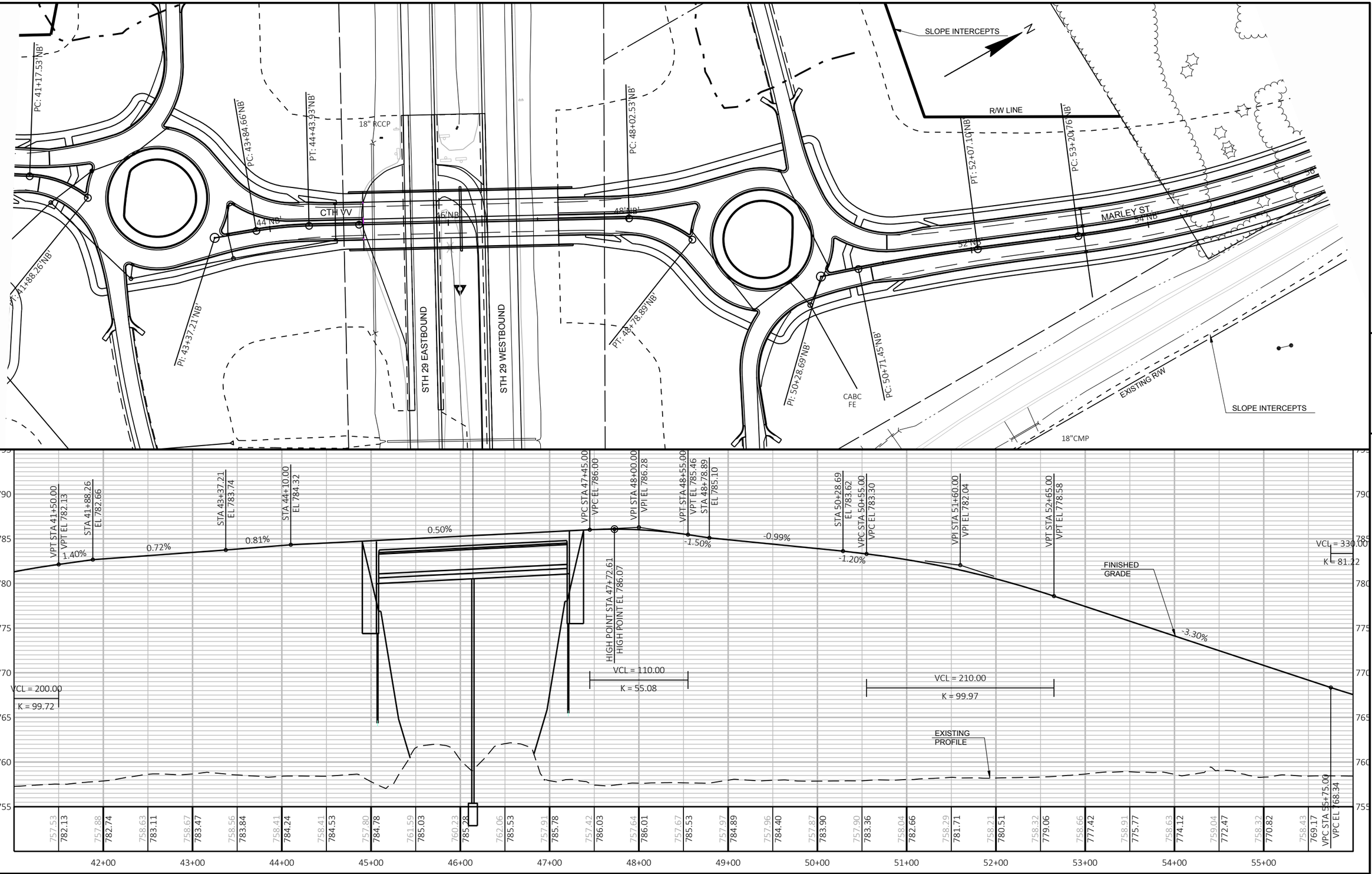




PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: CTH VV NORTHBOUND	SHEET E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050102-PP CTH VV NB.DWG
LAYOUT NAME - 050102 pp

PLOT DATE : 7/17/2019 7:26 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:100 FT

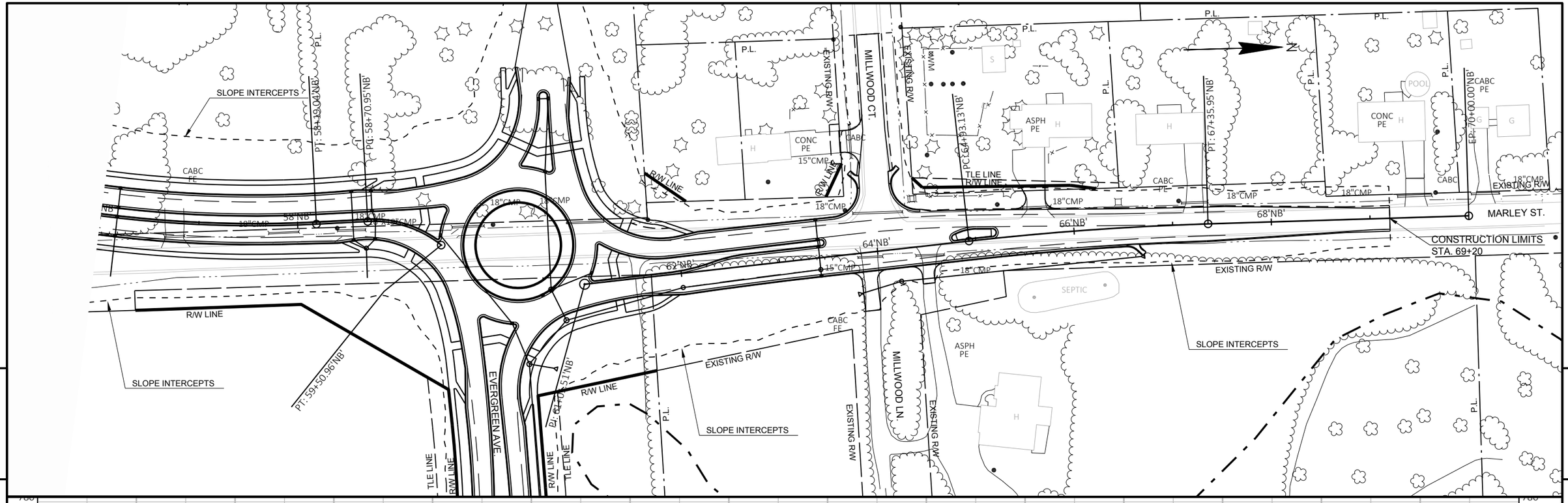


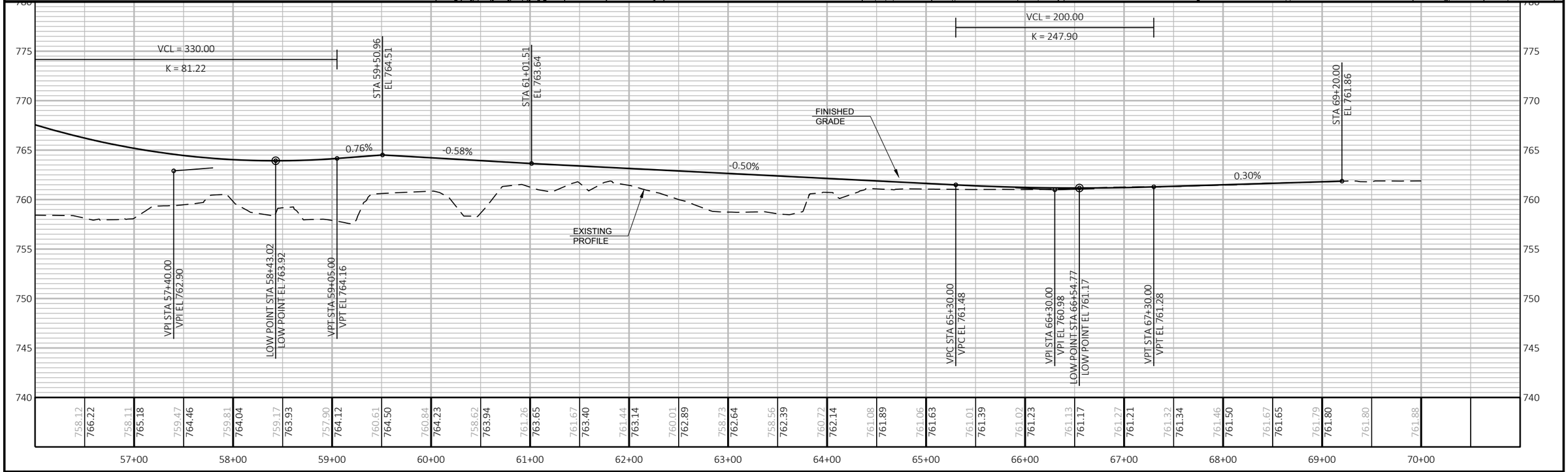
PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: CTH VV/MARLEY ST. NORTHBOUND	SHEET E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050102-PP CTH VV NB.DWG
LAYOUT NAME - 050103 pp

PLOT DATE : 7/17/2019 7:26 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:100 FT

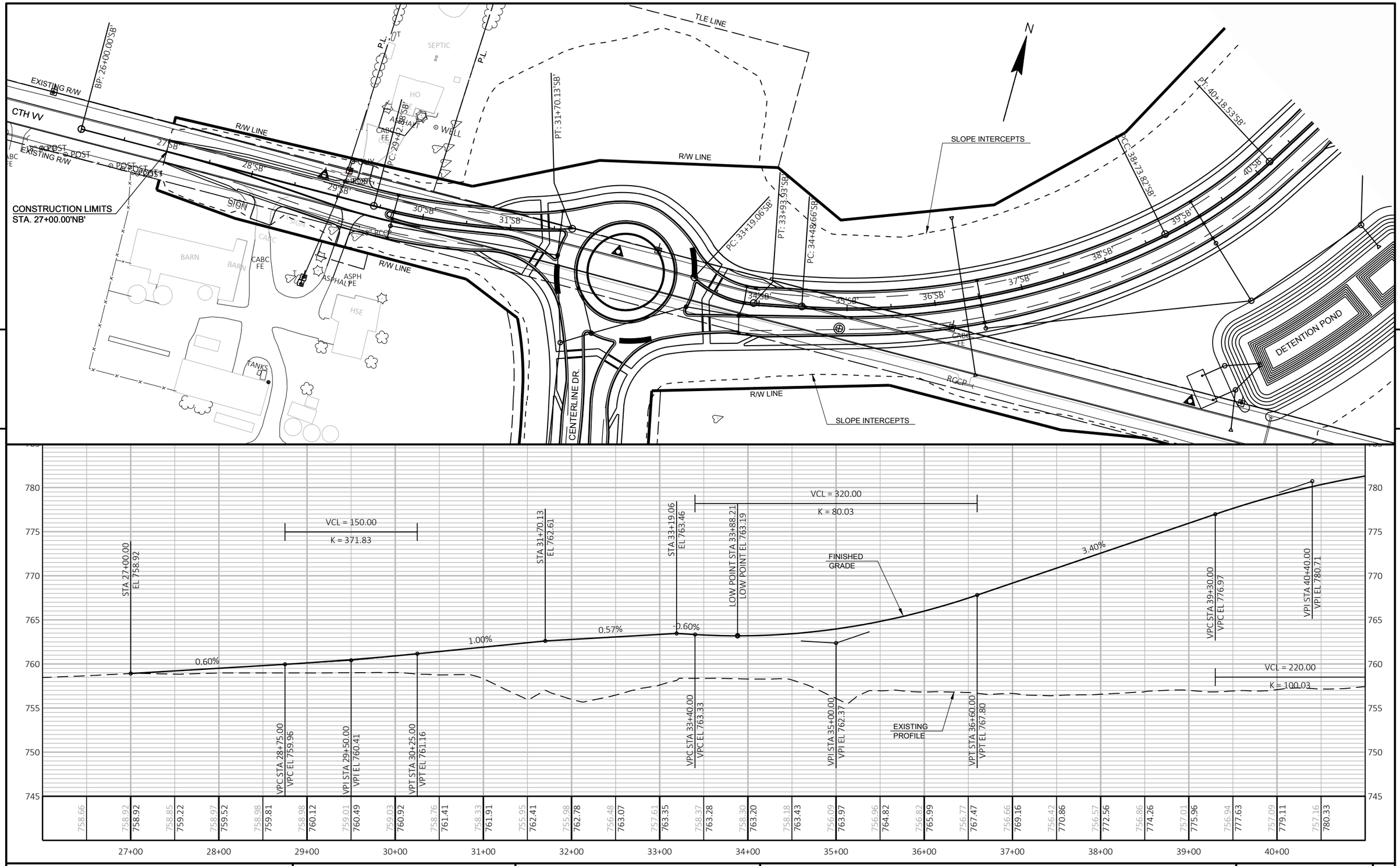
WISDOT/CADDS SHEET 44





PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: MARLEY ST. NORTHBOUND	SHEET E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050102-PP CTH VV NB.DWG
LAYOUT NAME - 050104 pp
PLOT DATE : 7/17/2019 7:27 PM
PLOT BY : SOUFAL, KEVIN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



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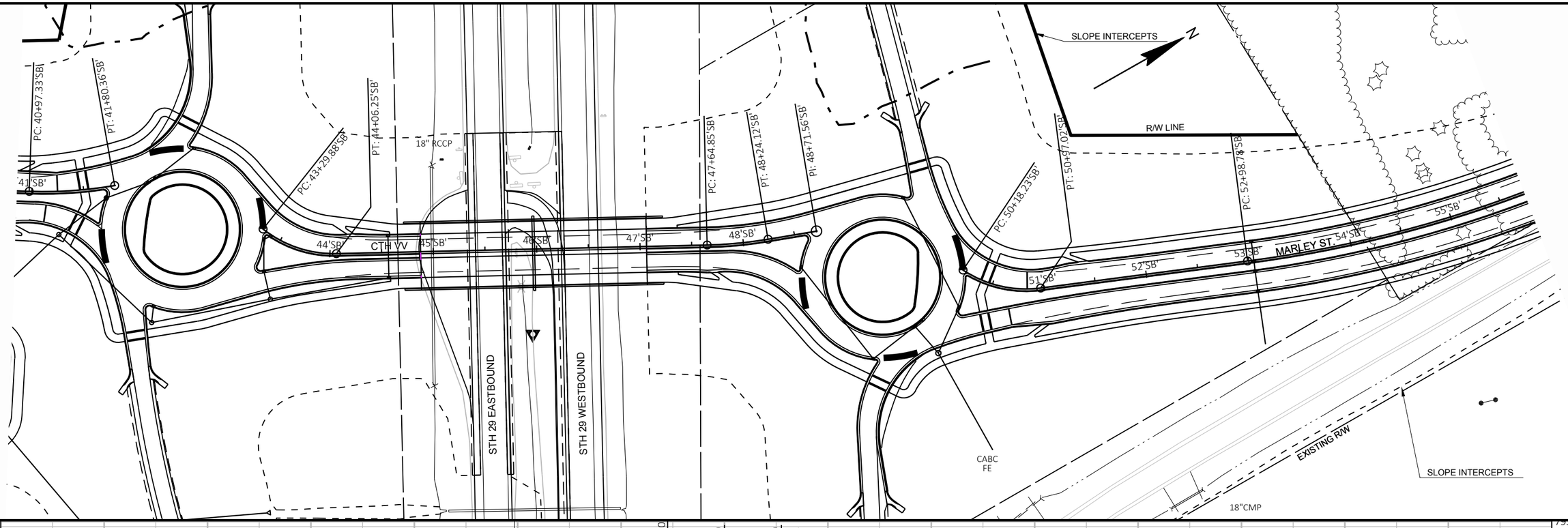
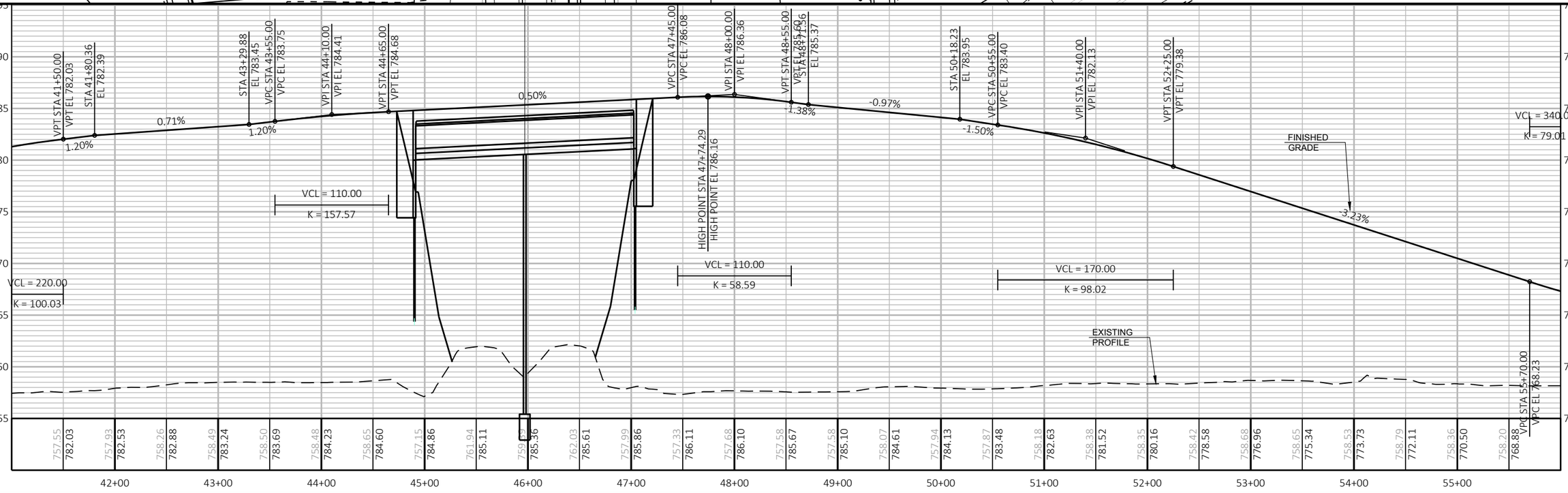
FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050103-PP CTH VV SB.DWG
LAYOUT NAME - 050105 pp

PLOT DATE : 7/17/2019 7:27 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:100 FT





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LAYOUT NAME - 050106 pp

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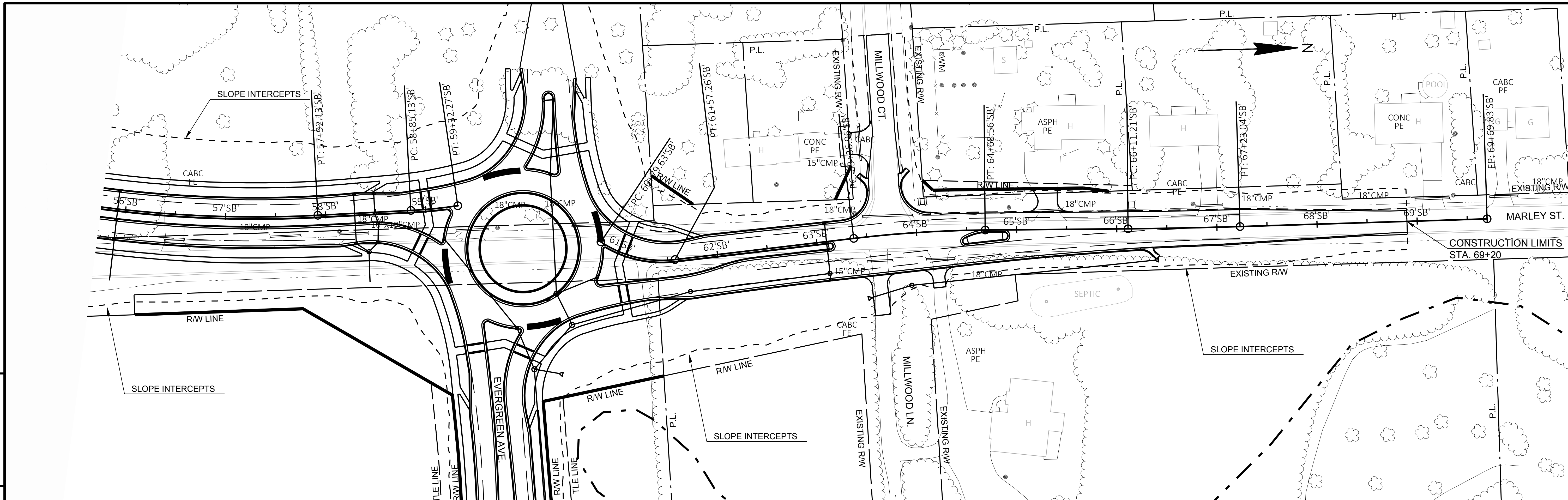
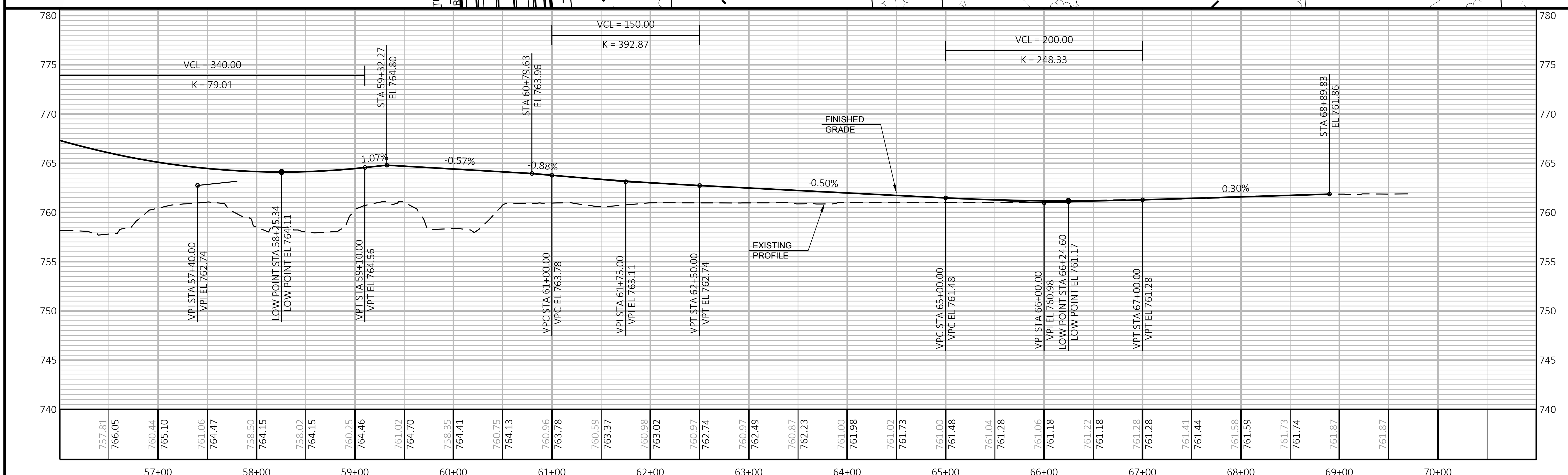
WISDOT/CADDS SHEET 44





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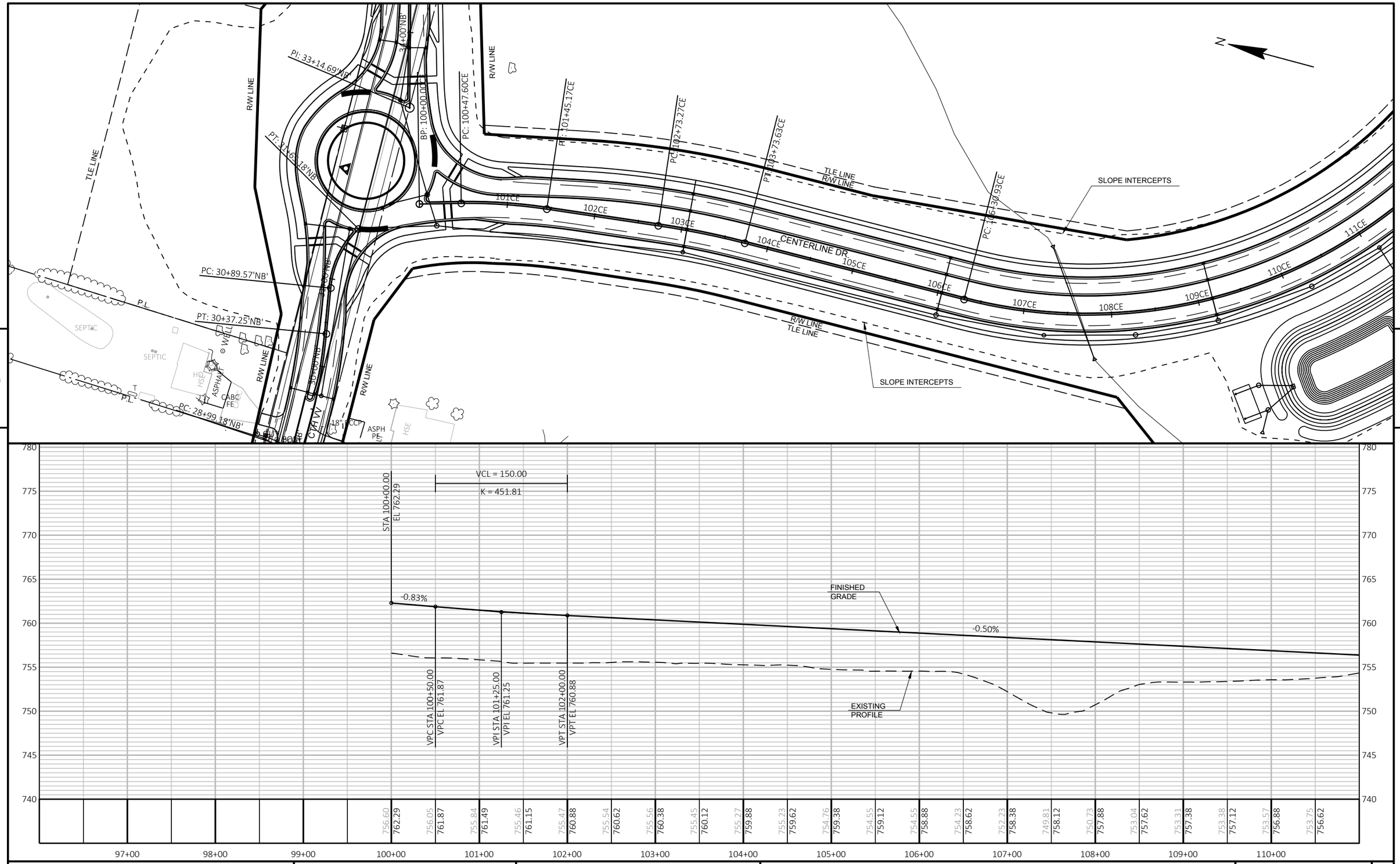

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LAYOUT NAME - 050108 pp

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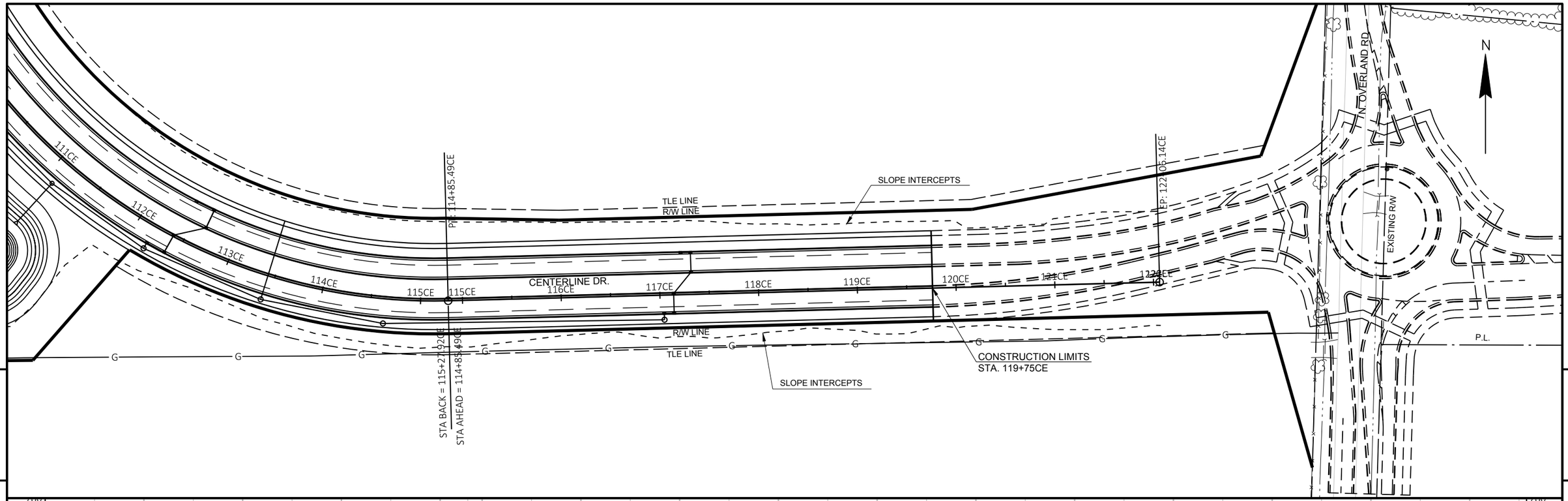

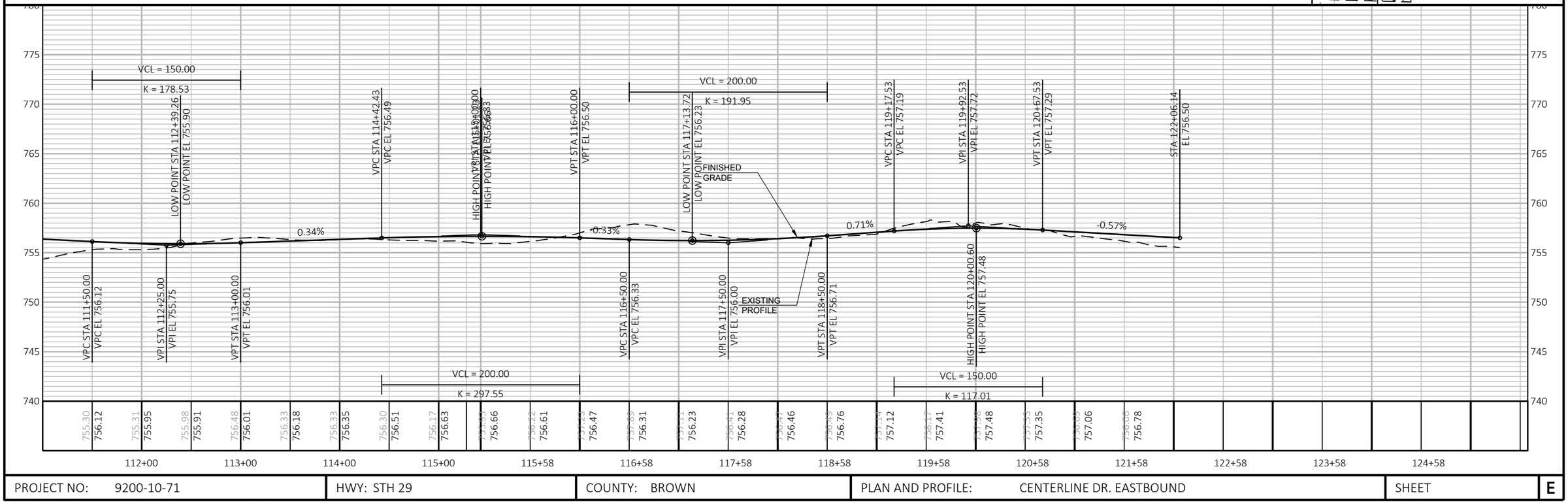

PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: CENTERLINE DR. EASTBOUND	SHEET E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050104-PP CENTERLINE DR EB.DWG
LAYOUT NAME - 050109 pp

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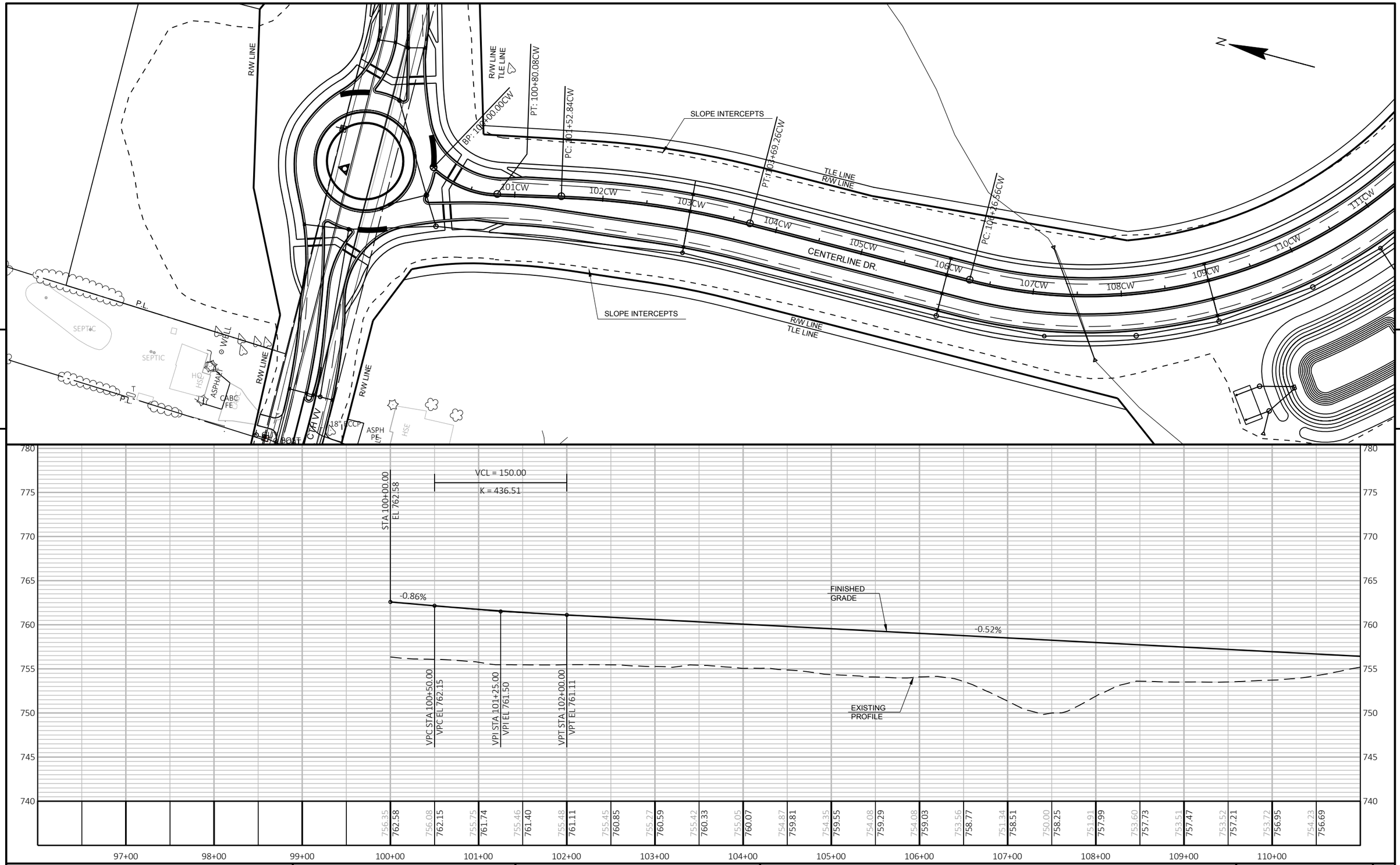
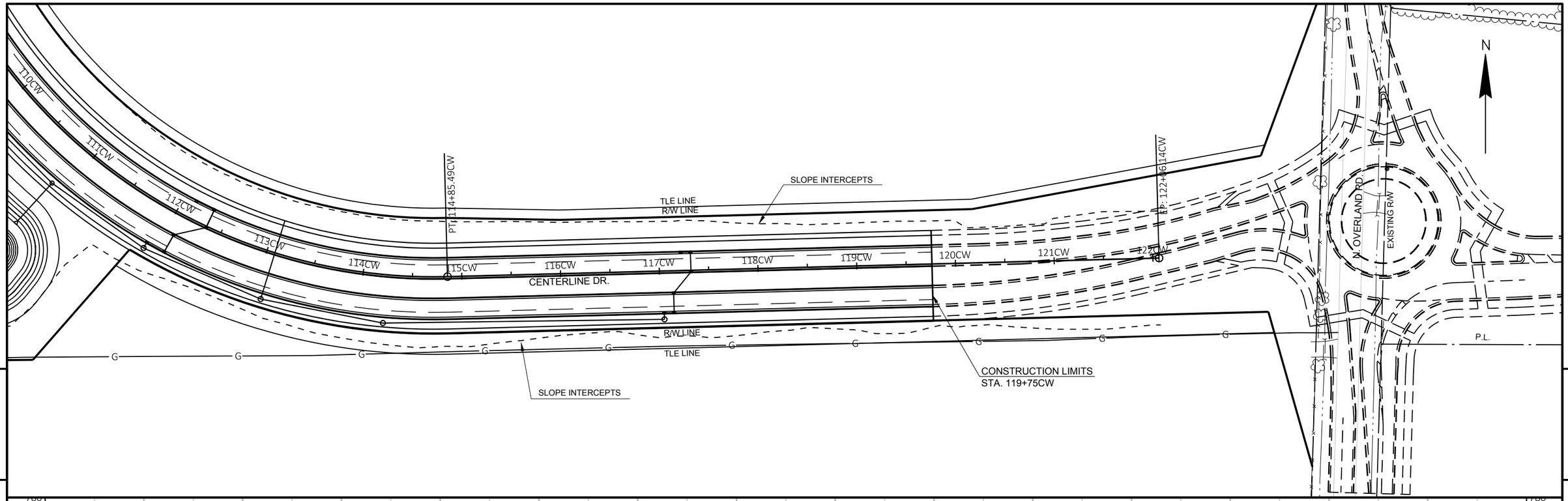


PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: CENTERLINE DR. WESTBOUND	SHEET E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050105-PP CENTERLINE DR WB.DWG
LAYOUT NAME - 050110 pp

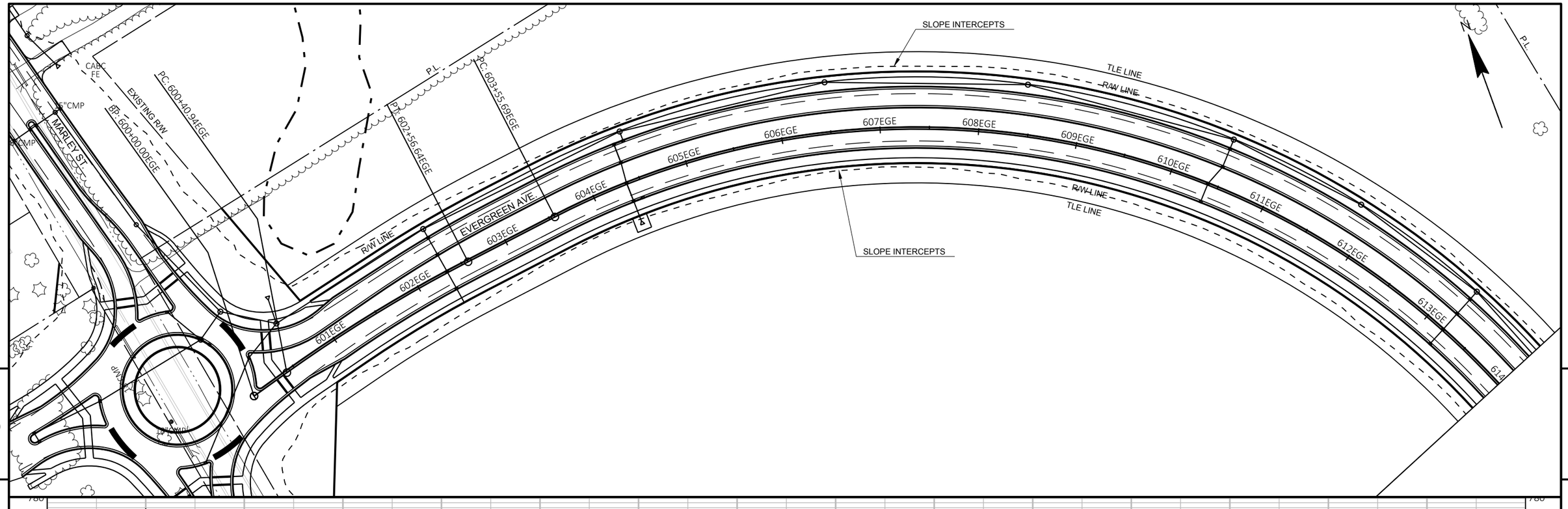
PLOT DATE : 7/17/2019 7:30 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:100 FT

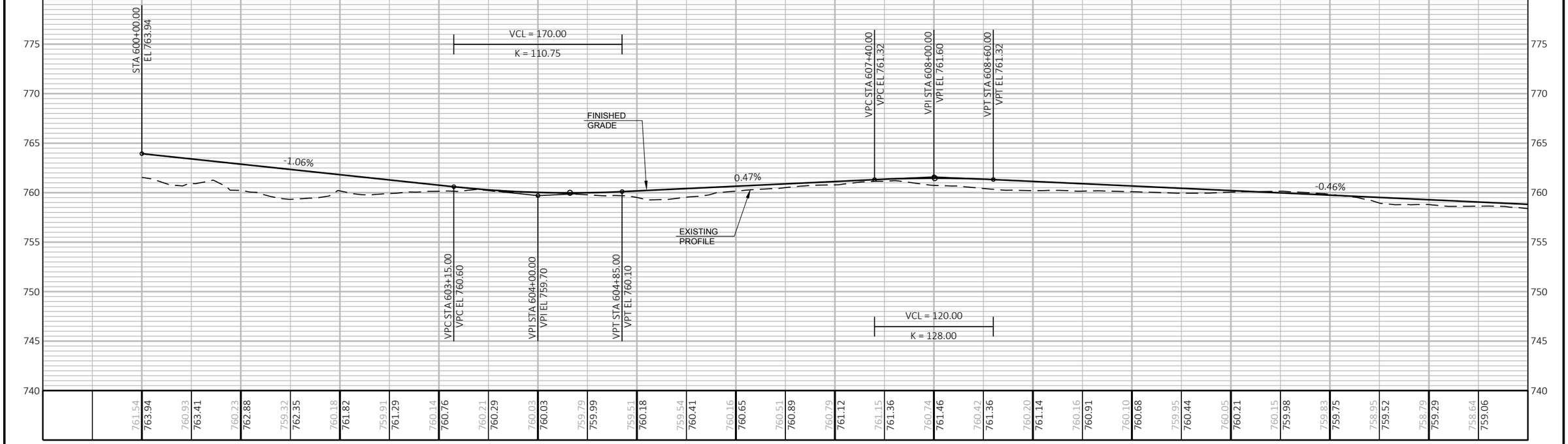


PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: CENTERLINE DR. WESTBOUND	SHEET	E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050105-PP CENTERLINE DR WB.DWG
LAYOUT NAME - 050111 pp

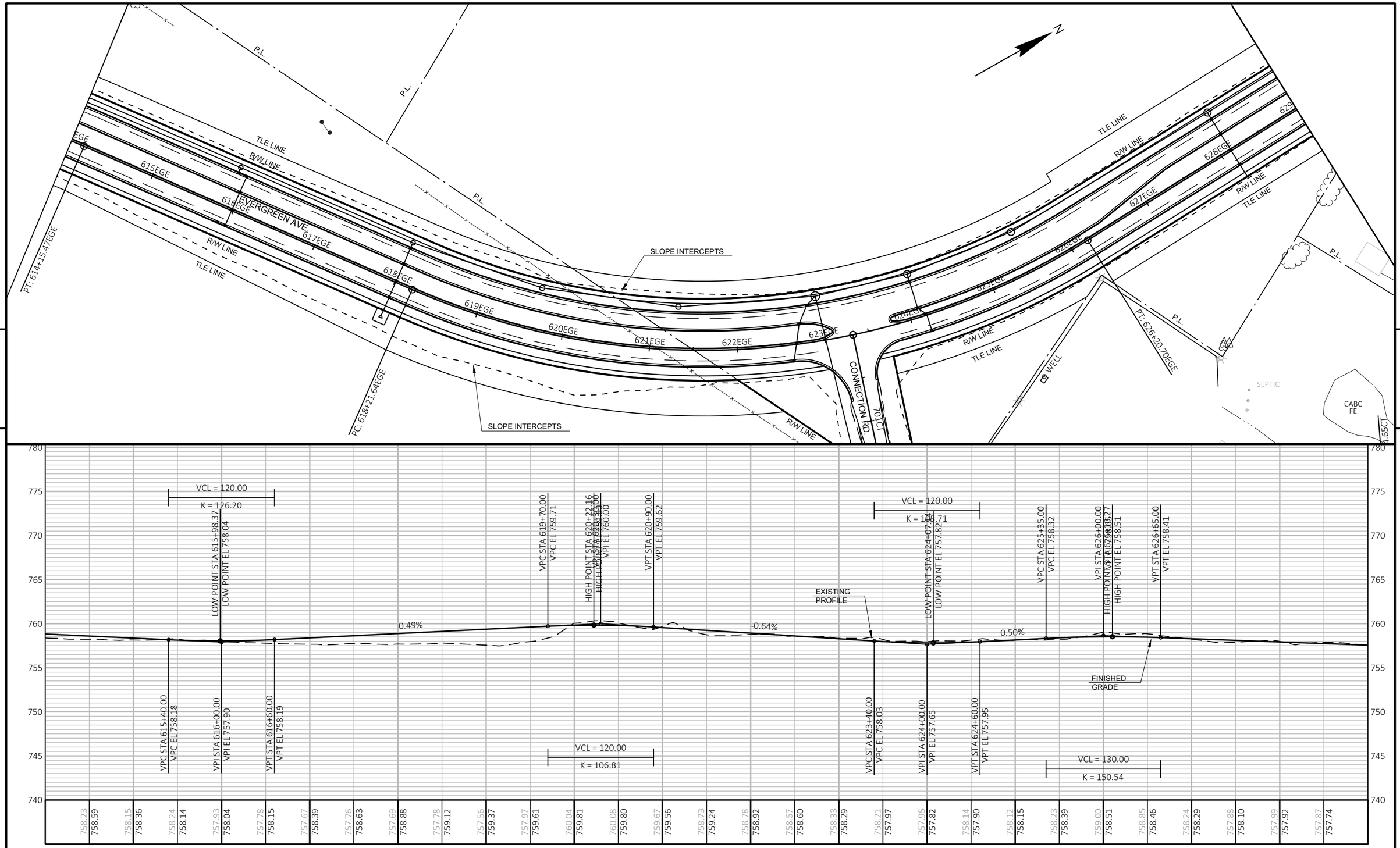
PLOT DATE : 7/17/2019 7:30 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:100 FT





PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: EVERGREEN AVE. EASTBOUND	SHEET E

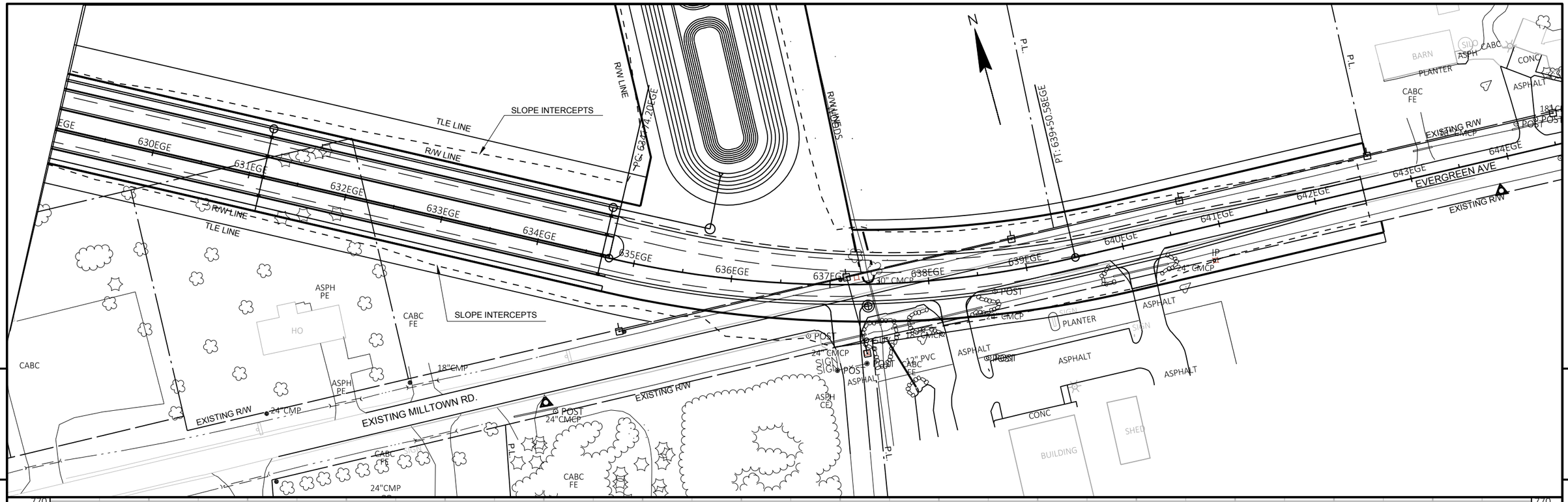
FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050106-PP EVERGREEN AVE EB.DWG
LAYOUT NAME - 050112 pp
PLOT DATE : 7/17/2019 7:31 PM
PLOT BY : SOUFAL, KEVIN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

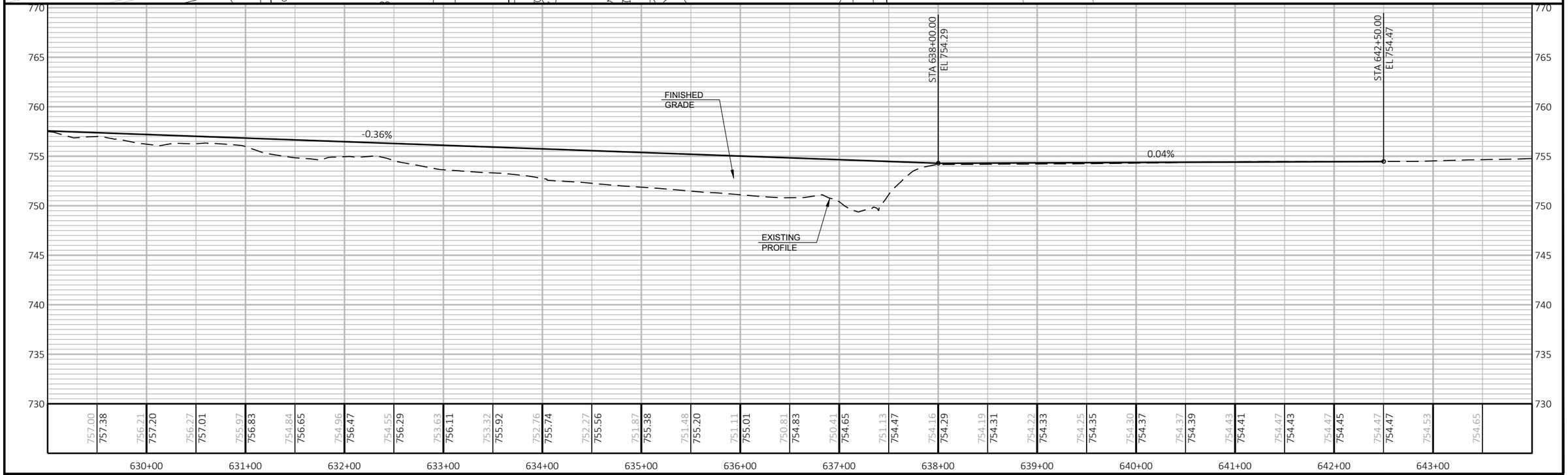


PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: EVERGREEN AVE. EASTBOUND	SHEET E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050106-PP EVERGREEN AVE EB.DWG
LAYOUT NAME - 050113 pp

PLOT DATE : 7/17/2019 7:31 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:100 FT





PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: EVERGREEN AVE. EASTBOUND	SHEET E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050106-PP EVERGREEN AVE EB.DWG
LAYOUT NAME - 050114 pp

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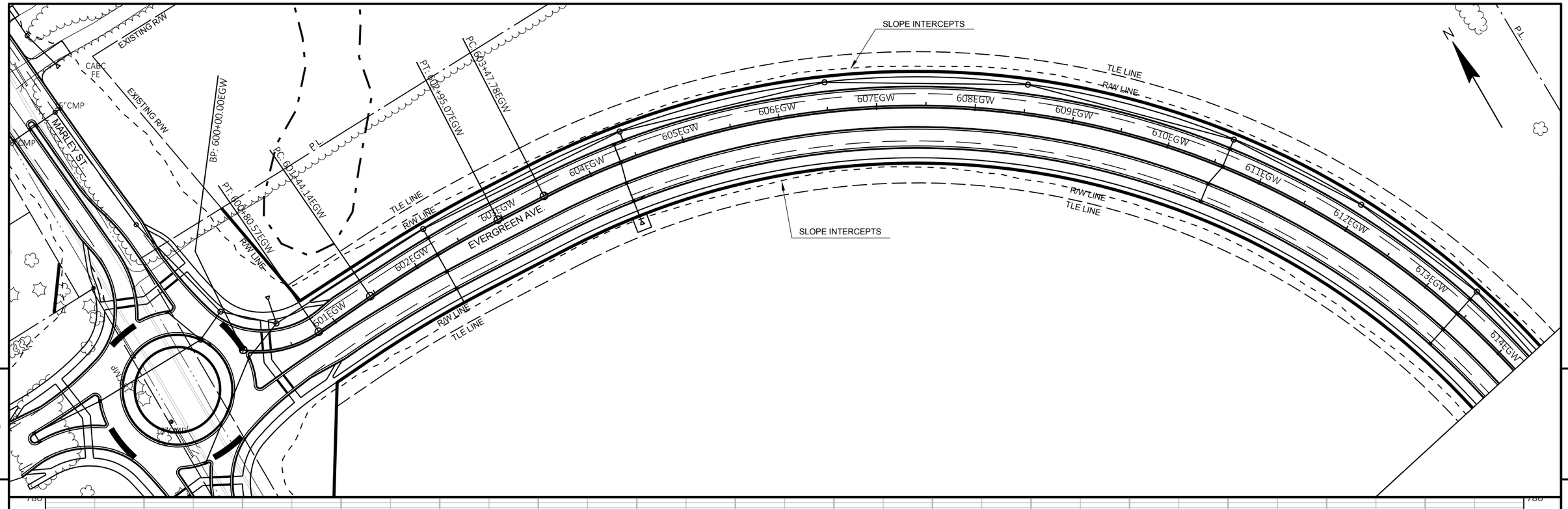
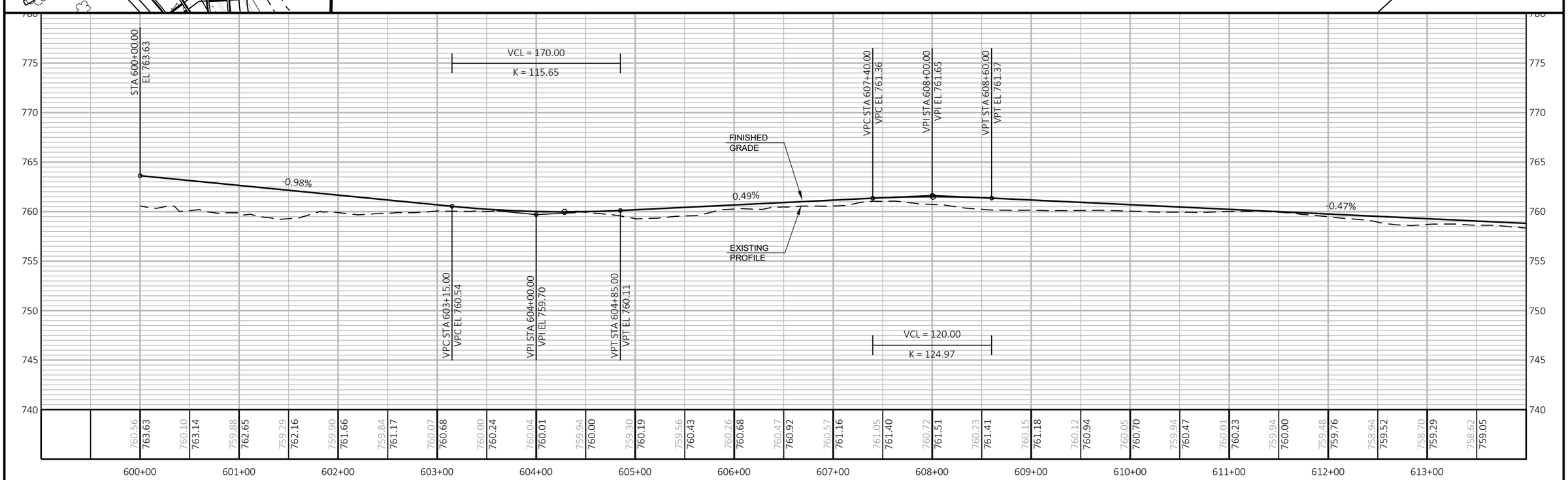
WISDOT/CADDS SHEET 44

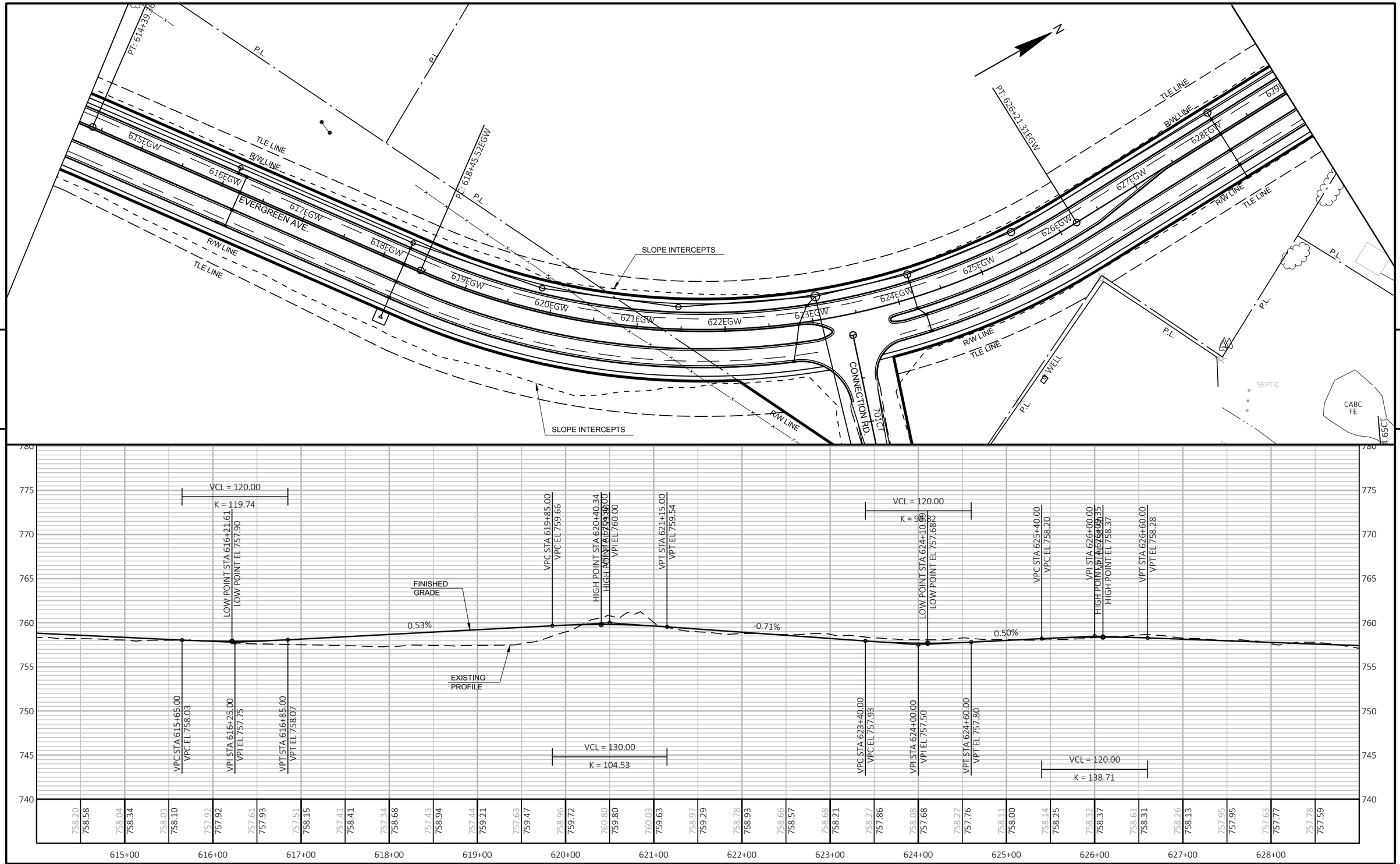




PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: EVERGREEN AVE. WESTBOUND	SHEET E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050107-PP EVERGREEN AVE WB.DWG
LAYOUT NAME - 050115 pp

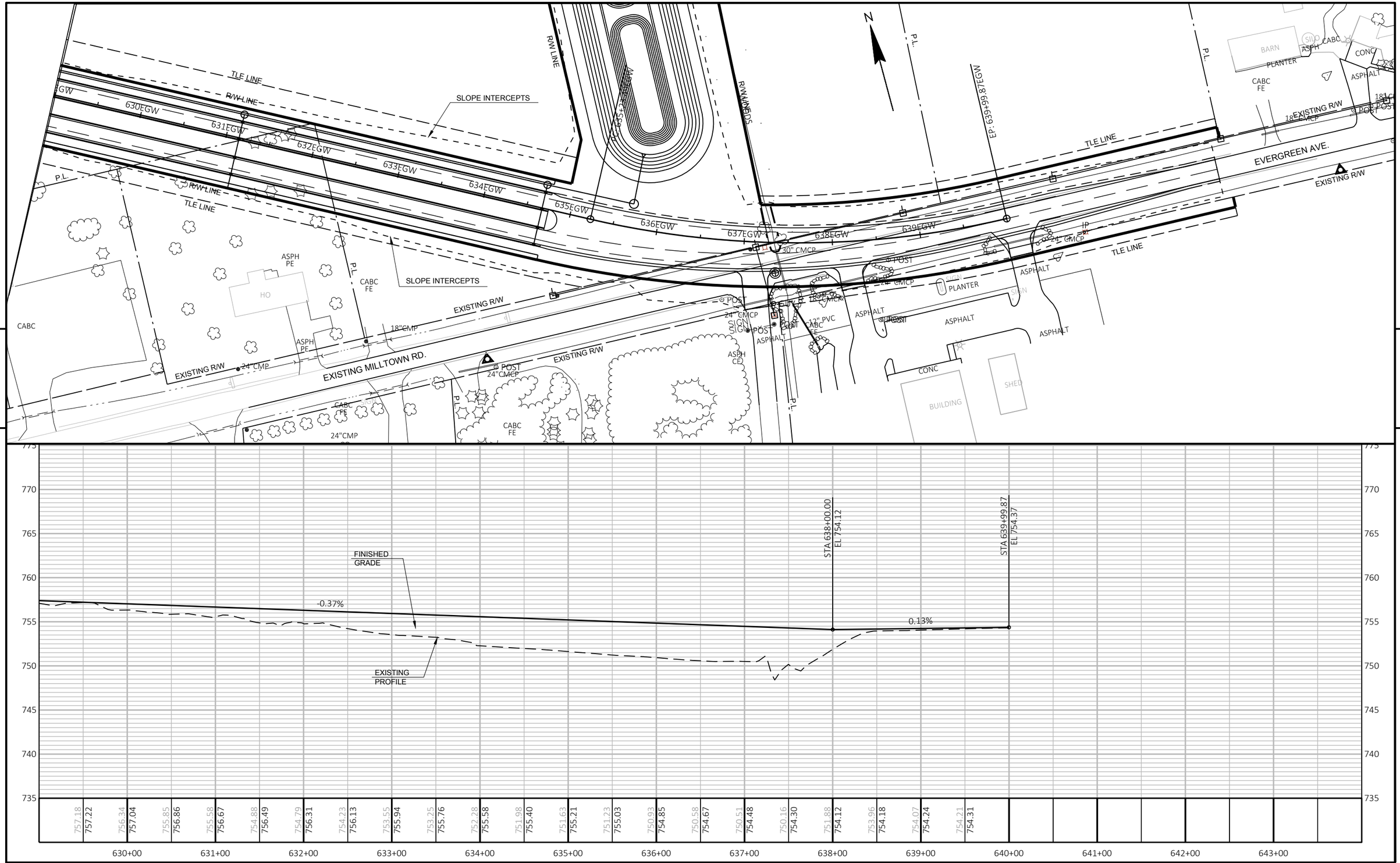
PLOT DATE : 7/17/2019 7:32 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: EVERGREEN AVE. WESTBOUND	SHEET	E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050107-PP EVERGREEN AVE WB.DWG
LAYOUT NAME - 050116 pp

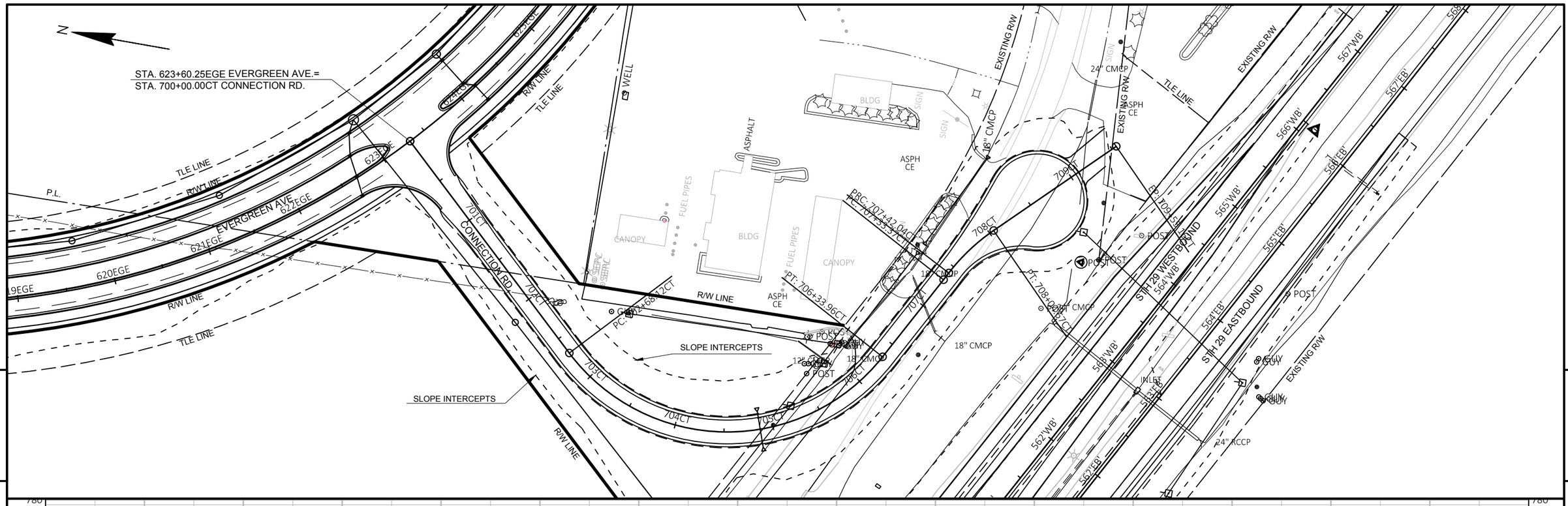
PLOT DATE : 7/17/2019 7:32 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:100 FT

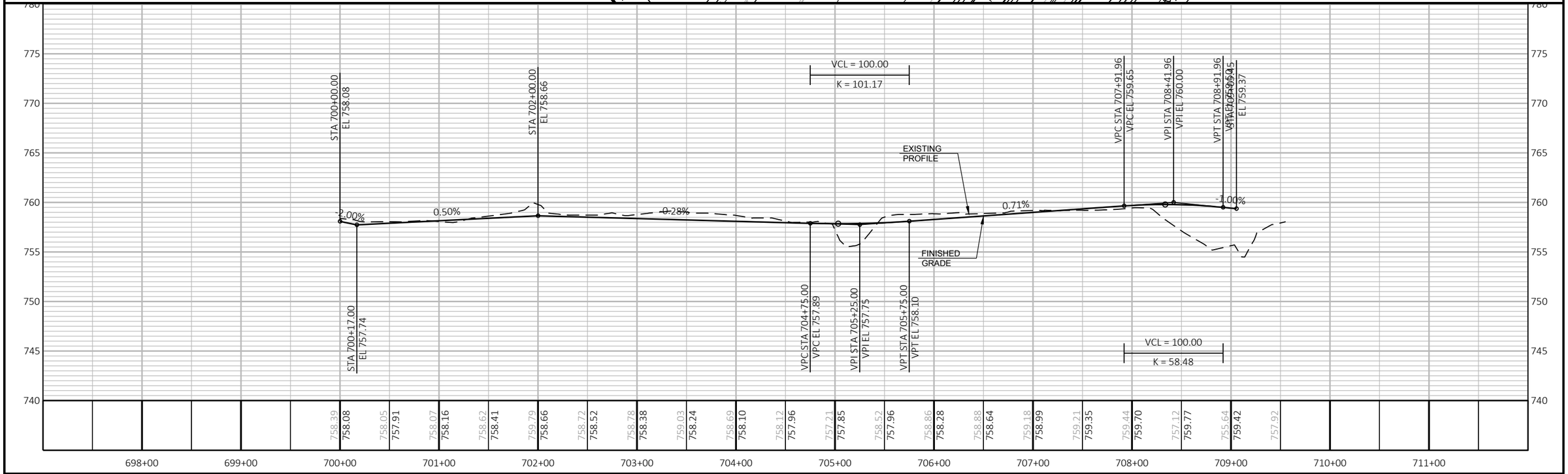


PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: EVERGREEN AVE. WESTBOUND	SHEET E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050107-PP EVERGREEN AVE WB.DWG
LAYOUT NAME - 050117 pp

PLOT DATE : 7/17/2019 7:32 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:100 FT



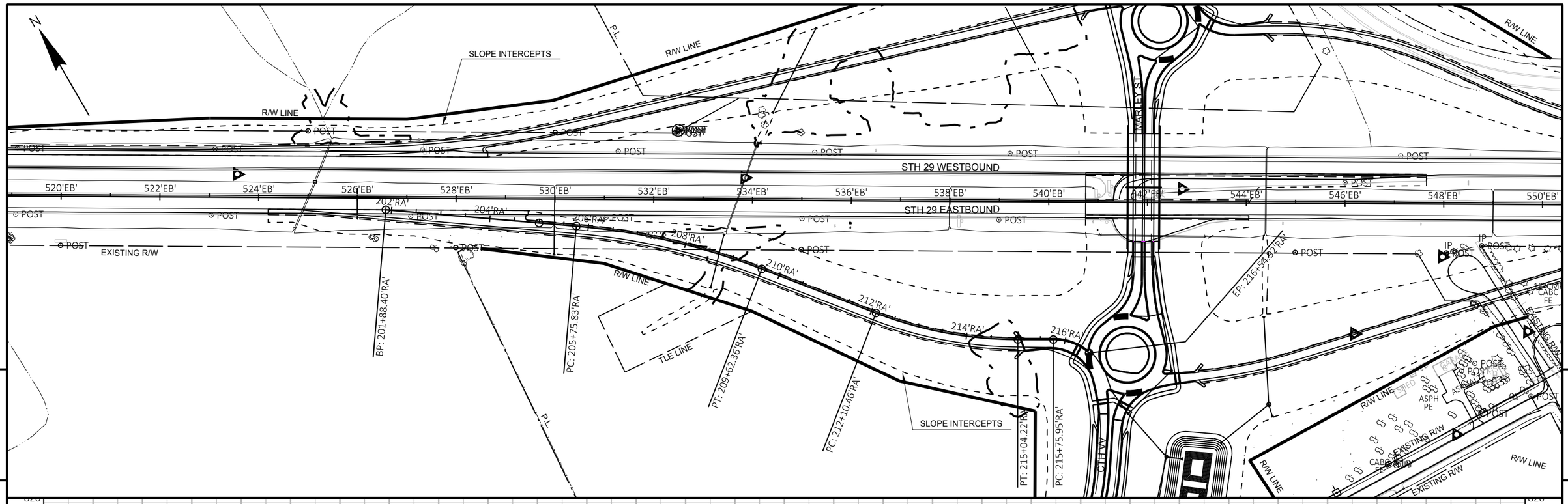


PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: CONNECTION RD.	SHEET E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050108-PP CONNECTION RD.DWG
LAYOUT NAME - 050118 pp

PLOT DATE : 7/18/2019 10:55 AM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:100 FT

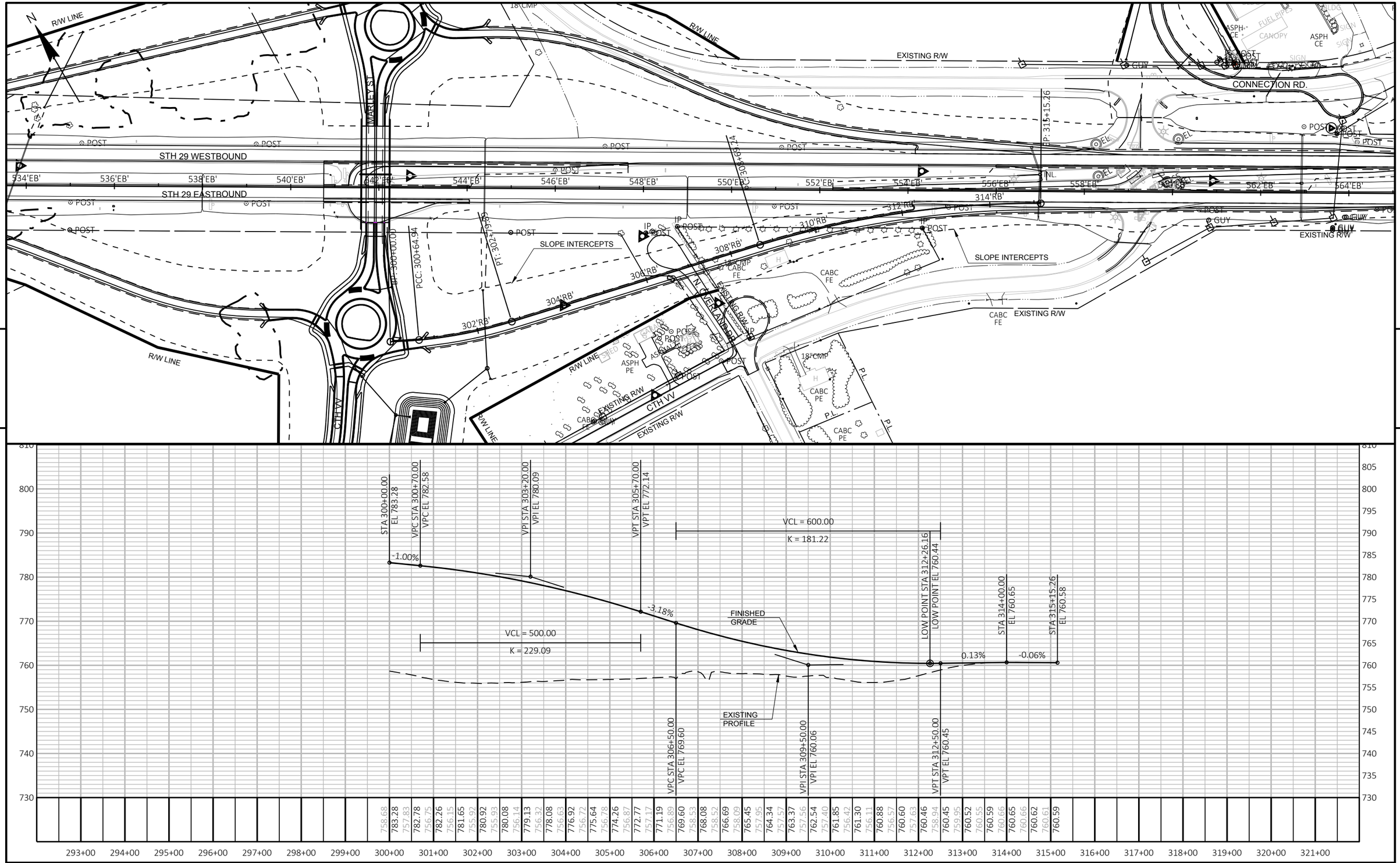
WISDOT/CADDS SHEET 44



PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: RAMP 'A'	SHEET E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050108-PP RAMP 'A'.DWG
LAYOUT NAME - 050119 pp

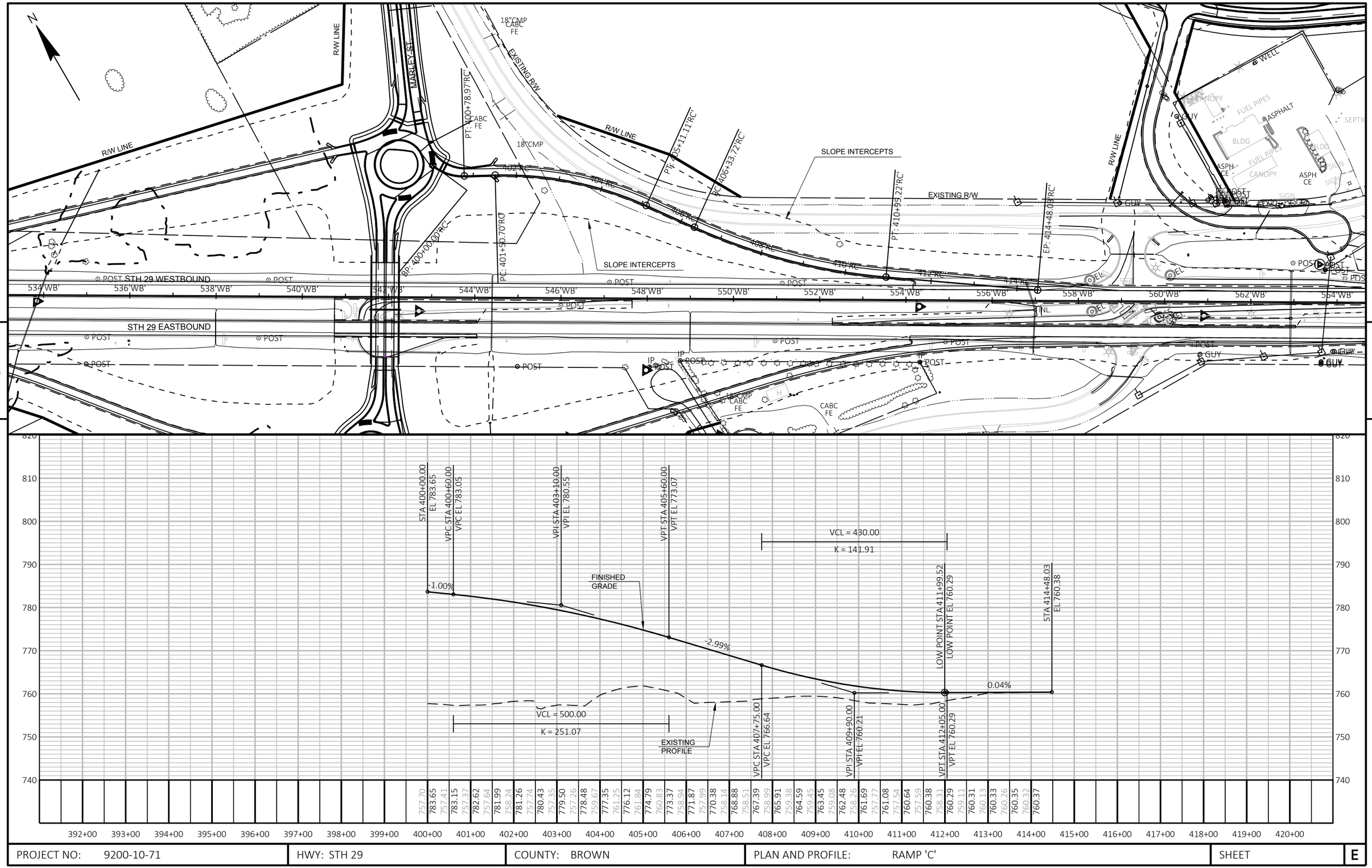
PLOT DATE : 7/17/2019 7:34 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:200 FT



PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: RAMP 'B'	SHEET E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050109-PP RAMP 'B'.DWG
LAYOUT NAME - 050120 pp

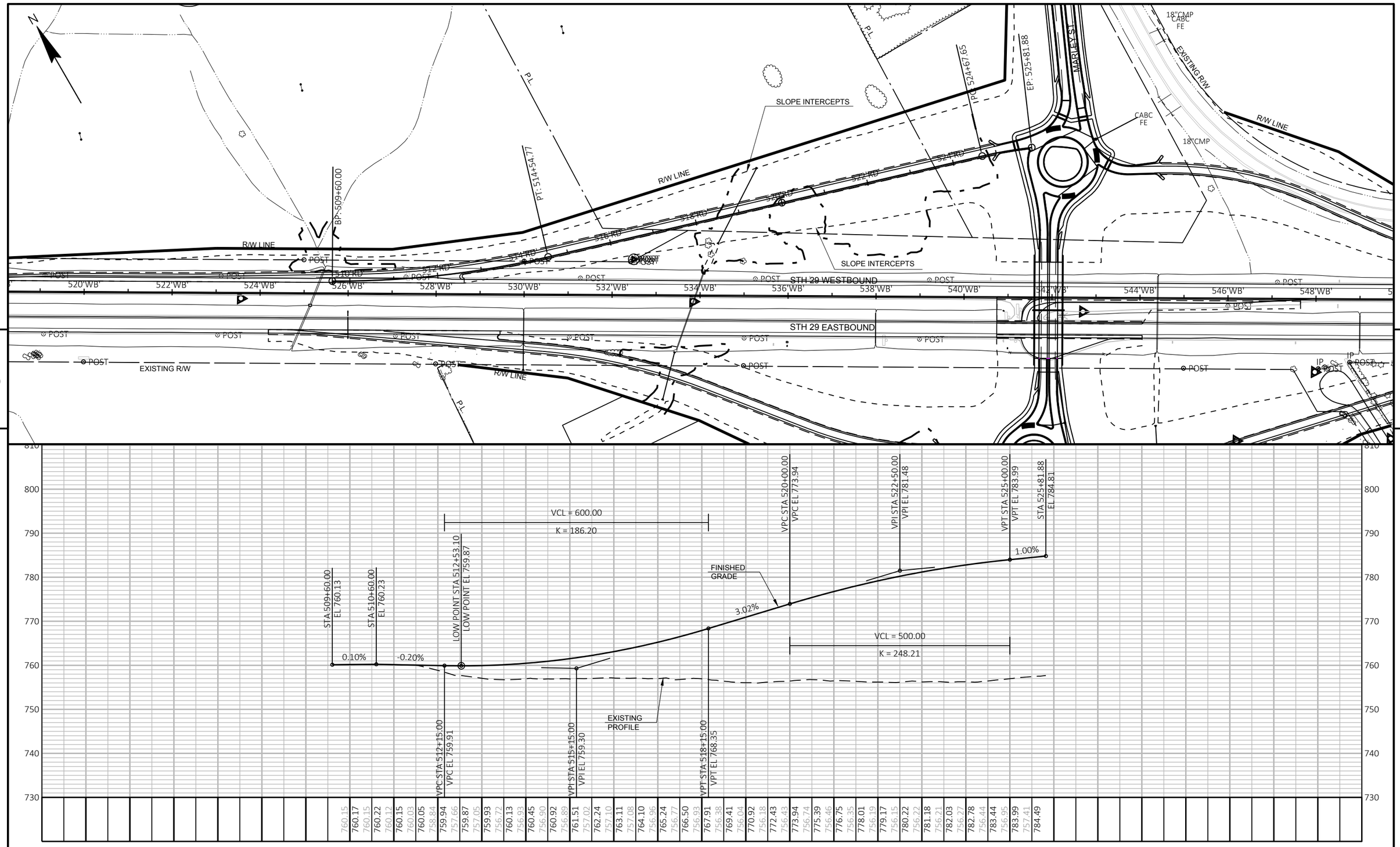
PLOT DATE : 7/17/2019 7:34 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:200 FT



PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: RAMP 'C'	SHEET E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050110-PP RAMP 'C'.DWG
LAYOUT NAME - 050121 pp

PLOT DATE : 7/17/2019 7:35 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:200 FT



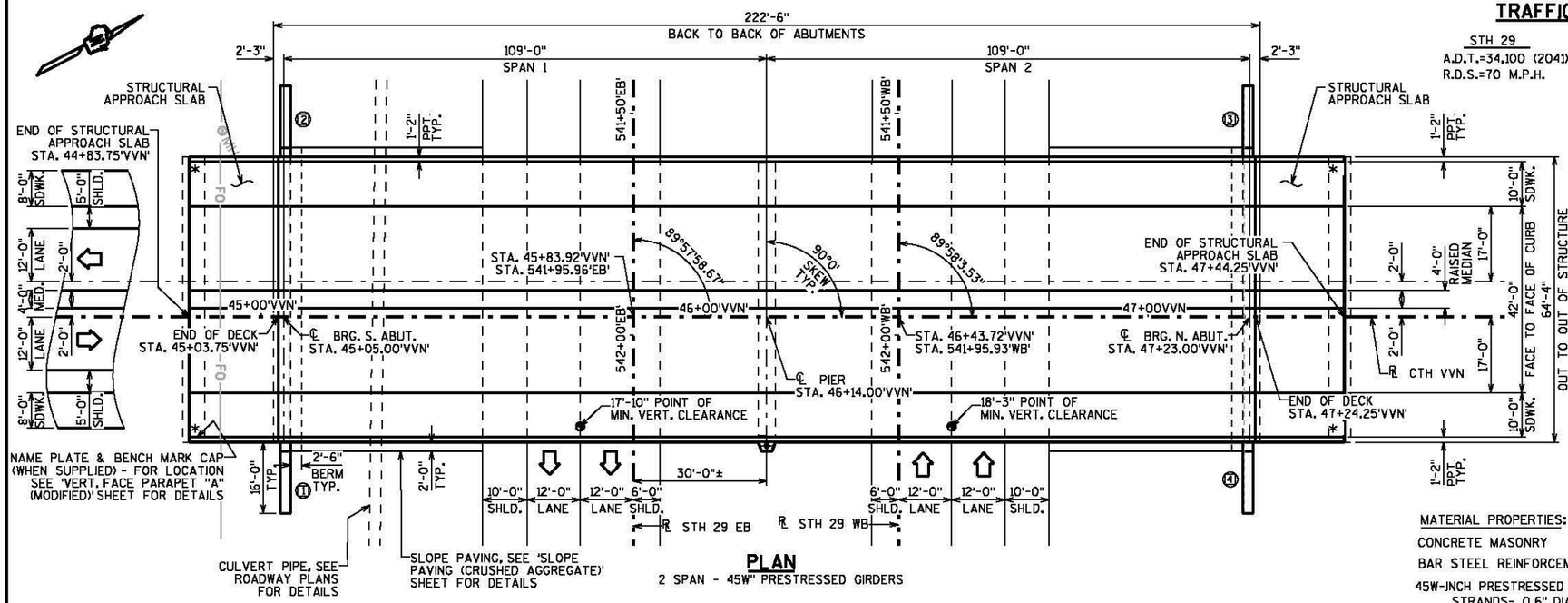
PROJECT NO: 9200-10-71	HWY: STH 29	COUNTY: BROWN	PLAN AND PROFILE: RAMP 'D'	SHEET	E

FILE NAME : V:\TRANS-GB\410610 STH 29-CTH VV INTERCHANGE\C3D\SHEETSPLAN\050111-PP RAMP 'D'.DWG
LAYOUT NAME - 050122 pp

PLOT DATE : 7/17/2019 7:36 PM PLOT BY : SOUFAL, KEVIN PLOT NAME : PLOT SCALE : 1 IN:200 FT

STATE PROJECT NUMBER

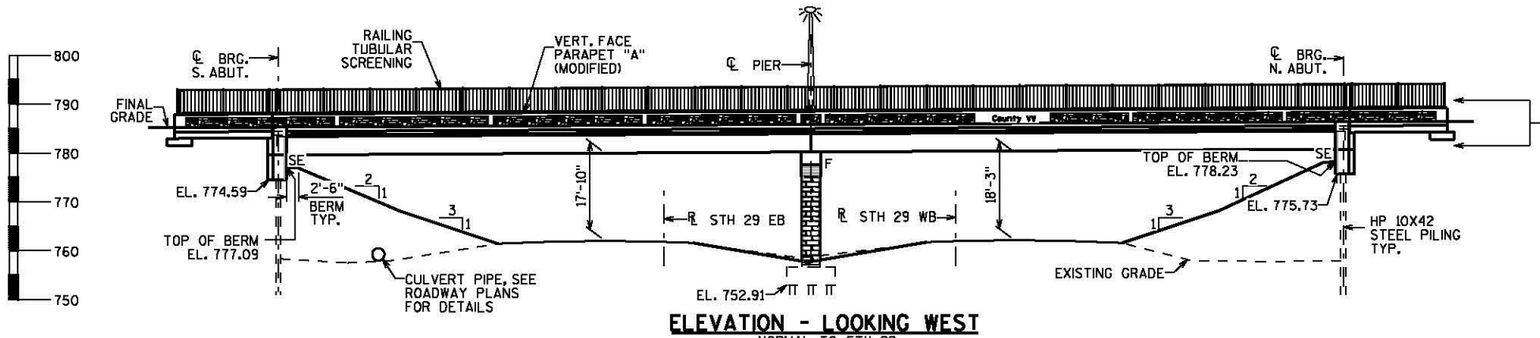
9200-06-xx



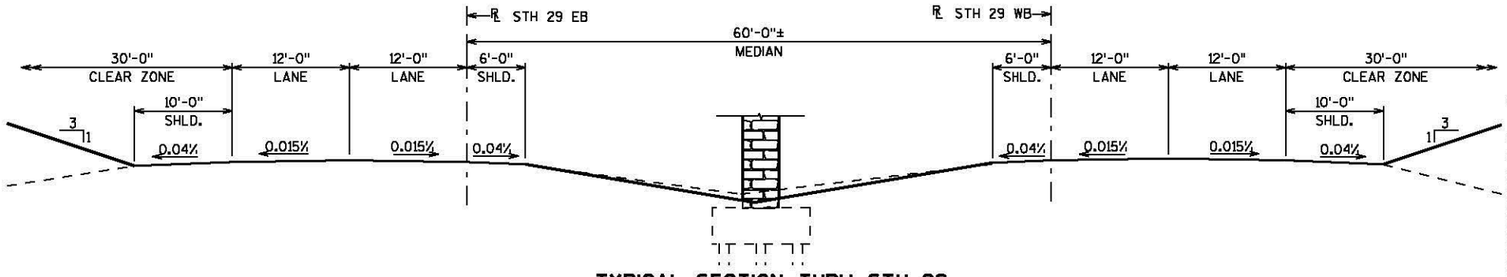
PLAN
2 SPAN - 45W" PRESTRESSED GIRDERS

* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

(8) INDICATES WING NUMBER



ELEVATION - LOOKING WEST
NORMAL TO STH 29



TYPICAL SECTION THRU STH 29
LOOKING WEST

TRAFFIC VOLUME

STH 29	CTH VV
A.D.T.=34,100 (2041)	A.D.T.=9,200 (2041)
R.D.S.=70 M.P.H.	R.D.S.=45 M.P.H.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 10X42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS **PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
S. ABUT. ESTIMATED 70'-0" LONG.
N. ABUT. ESTIMATED 50'-0" LONG.

PIER TO BE SUPPORTED ON HP 10X42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS **PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED 75'-0" LONG.

** THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

DESIGN DATA

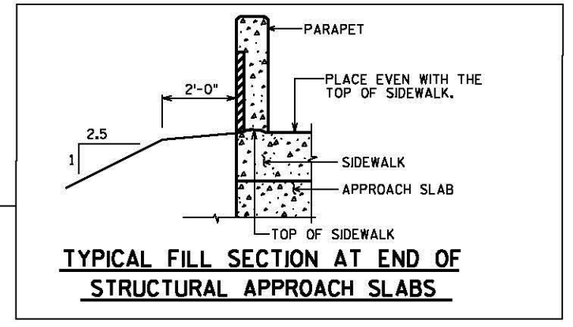
LIVE LOAD:

DESIGN LOADING; HL-93
INVENTORY RATING FACTOR: RF=1.15
OPERATING RATING FACTOR: RF=1.53
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 215 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY SLAB — f'c = 4,000 P.S.I. ALL OTHER — f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.
45W-INCH PRESTRESSED GIRDERS, CONCRETE MASONRY — f'c = 8,000 P.S.I.
STRANDS- 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.



TYPICAL FILL SECTION AT END OF STRUCTURAL APPROACH SLABS

STRUCTURE DESIGN CONTACTS:

STEVEN DOOCY (608) 261-6063
AARON BONK (608) 261-0261

LIST OF DRAWINGS

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES

ACCEPTED _____ DATE _____
CHIEF STRUCTURES DESIGN ENGINEER

STRUCTURE B-5-416

CTH VV OVER STH 29

COUNTY: BROWN — ~~TOWN/CITY/VILLAGE~~: HOBART

DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SAD	JJS	SAD	MJK

GENERAL PLAN

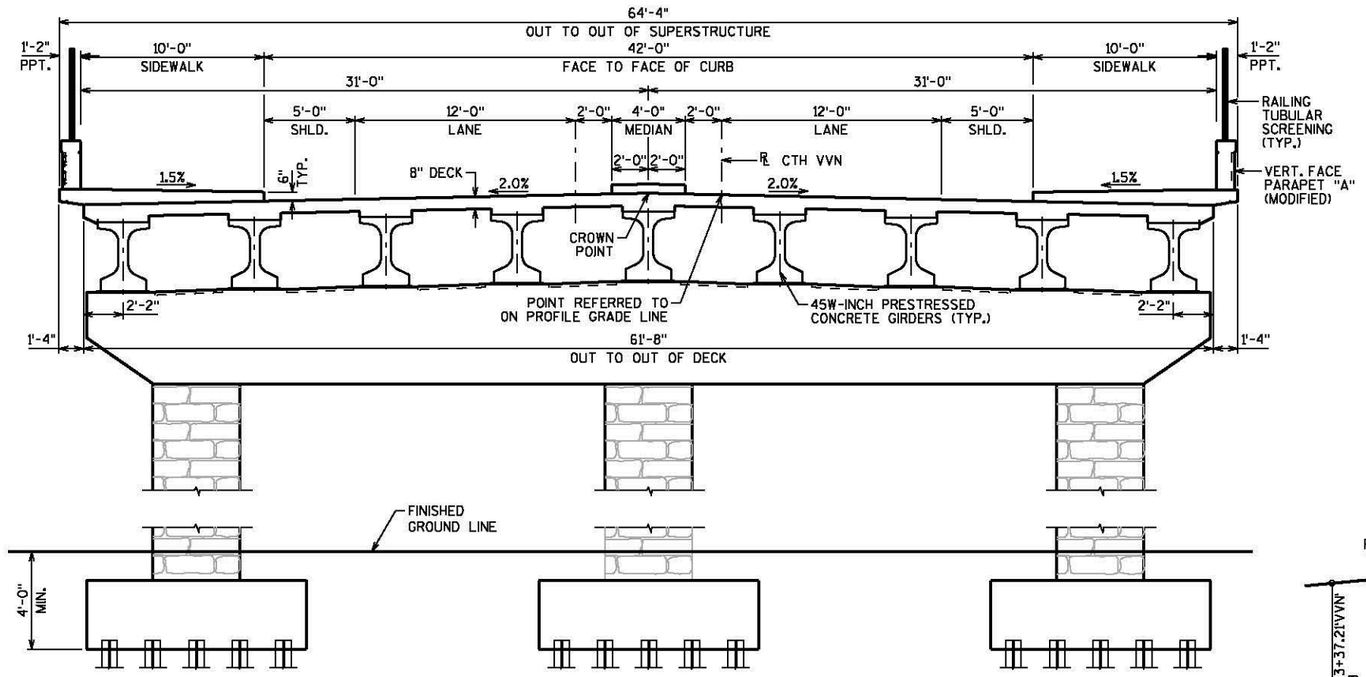
SHEET 1 OF 22

I.D. 9200-06-00B

DATE: **JULY 2015**

SCALE = 12.0

STATE PROJECT NUMBER
9200-06-XX



CROSS SECTION THRU ROADWAY

NORMAL TO ℄ OF ROADWAY LOOKING NORTH

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

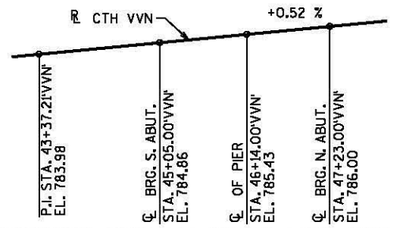
THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK, SIDEWALK, AND MEDIAN SURFACES.

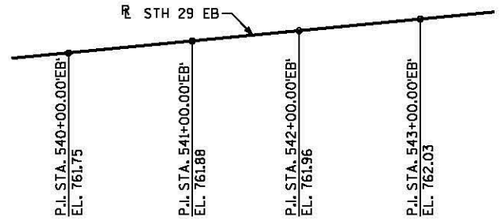
PIGMENTED SURFACE SEALER TO BE APPLIED TO THE ENTIRE THE FRONT FACE AND THE TOP OF THE PARAPET.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIERS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS.

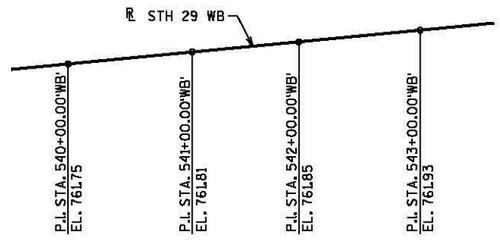


PROPOSED PROFILE GRADE LINE CTH VVN



EXISTING PROFILE GRADE LINE STH 29 EB

FOR INFORMATION ONLY



EXISTING PROFILE GRADE LINE STH 29 WB

FOR INFORMATION ONLY

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER	SOUTH APPROACH	SOUTH ABUTMENT	PIER	NORTH ABUTMENT	NORTH APPROACH	TOTALS
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-5-416	LS	--	--	--	--	--	--	1
210.0100	BACKFILL STRUCTURE	CY	--	--	280	--	280	--	560
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	--	204	--	--	--	204	408
502.0100	CONCRETE MASONRY BRIDGES	CY	667	99	72	149	72	99	1,158
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1,559	142	--	--	--	142	1,843
502.3210	PIGMENTED SURFACE SEALER	SY	183	17	--	--	--	17	217
503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	1,969	--	--	--	--	--	1,969
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	0	0	3,890	3,300	3,890	0	11,080
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	126,770	15,640	1,760	17,920	1,760	15,640	179,490
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	2,210	--	--	--	--	--	2,210
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	36	--	--	--	--	--	36
506.4000	STEEL DIAPHRAGMS B-5-416	EACH	32	--	--	--	--	--	32
513.4091	RAILING TUBULAR SCREENING B-5-416	LF	441	40	--	--	--	40	521
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	--	--	16	--	16	--	32
517.1010.S	CONCRETE STAINING B-5-416	SF	5,014	27	82	837	83	27	6,070
517.1015.S	CONCRETE STAINING MULTI-COLOR B-5-416	SF	931	80	379	944	379	80	2,793
517.1050.S	ARCHITECTURAL SURFACE TREATMENT B-5-416	SF	931	80	379	944	379	80	2,793
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	--	--	910	3,375	650	--	4,935
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	--	--	351	--	357	--	708
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	--	--	119	--	119	--	238
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	--	2	--	--	--	2	4
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	16	3	--	--	--	3	22
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	208	18	--	--	--	18	244
653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	1	--	--	--	--	--	1
657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	1	--	--	--	--	--	1
SPV.0090	FENCE CHAIN LINK POLYMER COATED 6-FT	LF	--	--	32	--	32	--	64
	NON-BID ITEMS								
	FILLER	SIZE	--	--	--	--	--	--	1/2", 3/4", & 1 1/2"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-416

DRAWN BY SAD | PLANS CK'D. MJK

CROSS SECTION & QUANTITIES

SHEET 2

SCALE = 4.0

Exhibit E

Critical Design Parameters Chart for Roundabouts

9200-10-00
Shawano - Green Bay
CTH VV Interchange
STH 29
Brown County

CTH VV / Centerline Drive

CRITICAL DESIGN PARAMETERS	LEG 1 SB - NA	LEG 2 EB CTH VV	LEG 3 NB Centerline Dr.	LEG 4 WB CTH VV
APPROACH WIDTH (FT)	NA	12	12	12
ENTRY WIDTH, E (FT)	NA	19.5	19.6	19.5
ENTRY ANGLE, PHI Φ (DEG)	NA	16.4	17.5	NA
INSCRIBED CIRCLE DIAMETER, ICD (FT)	NA	156	156	156
EXIT WIDTH (FT)	NA	18.8	19.1	19.1
CIRCULATING ROADWAY WIDTH UPSTREAM OF ENTRY (FT)	NA	20	20	20

FASTEST SPEED PATH

R1, RADIUS/SPEED (FT/MPH)	NA	NA	144	24	132	23	144	24
R2, RADIUS/SPEED (FT/MPH)	NA	NA	106	20	NA	NA	104	20
R3, RADIUS/SPEED (FT/MPH)	NA	NA	NA	NA	NA	NA	NA	NA
R4, RADIUS/SPEED (FT/MPH)	61	18	61	18	61	18	61	18
R5, RADIUS/SPEED (FT/MPH)	NA	NA	97	21	94	21	NA	NA
BYPASS R5, RADIUS/SPEED (FT/MPH)	NA	NA	NA	NA	NA	NA	NA	NA

MINIMUM SIGHT PARAMETERS

APPROACH DESIGN SPEED (MPH)	NA		45		35		45	
HORIZONTAL STOPPING SIGHT DISTANCE (FT)	NA		360		250		360	
CIRCULATING INTERSECTION SIGHT DISTANCE (FT/MPH)	NA	NA	132	18	132	18	132	18
ENTERING INTERSECTION SIGHT DISTANCE (FT/MPH)	NA	NA	NA	NA	161	22	169	23

DESIGN VEHICLE: WB-67
TRUCK APRON WIDTH: 12'
OSOW ACCOMMODATIONS: NA
CIRCULATING ROADWAY CROSS SLOPE: 13' at 2% sloping inward / 7' at 1.0% sloping outward
ACCESS CONTROL: Driveways are provided prior to the splitter island on the west leg
PARKING CONTROL: No parking allowed
BICYCLE AND PEDESTRIAN ACCOMMODATIONS: An 8-ft sidepath is provided around the outside of the roundabout with pedestrian crossings on all legs. Bicycle on and off-ramps are provided on all legs.

DESIGNER: Ayres Associates
REVIEWER: Ayres Associates
SIGNATURE: 
DATE: 7/24/2019
NAME: Kevin Kuhlow

The reviewer's signature on this document indicates that the design has been reviewed and is in general compliance with good roundabout principals. The critical design elements have been addressed. The project design engineer in responsible charge of final plan development will stamp the plans when applicable.

9200-10-00
Shawano - Green Bay
CTH VV Interchange
STH 29
Brown County

CTH VV / EB STH 29 Ramp Terminal

CRITICAL DESIGN PARAMETERS	LEG 1 SB CTH VV	LEG 2 EB Off-Ramp	LEG 3 NB CTH VV	LEG 4 EB On-ramp
APPROACH WIDTH (FT)	12	15	12	NA
ENTRY WIDTH, E (FT)	19.4	19.6	19.4	NA
ENTRY ANGLE, PHI Φ (DEG)	NA	14.5	18.0	NA
INSCRIBED CIRCLE DIAMETER, ICD (FT)	156	156	156	156
EXIT WIDTH (FT)	16.4	NA	19.5	20.6
CIRCULATING ROADWAY WIDTH UPSTREAM OF ENTRY (FT)	20	20	20	20

FASTEST SPEED PATH

R1, RADIUS/SPEED (FT/MPH)	143	24	144	24	148	24	NA	NA
R2, RADIUS/SPEED (FT/MPH)	98	21	96	21	97	21	NA	NA
R3, RADIUS/SPEED (FT/MPH)	NA	NA	NA	NA	NA	NA	NA	NA
R4, RADIUS/SPEED (FT/MPH)	61	18	61	18	61	18	61	18
R5, RADIUS/SPEED (FT/MPH)	NA	NA	92	20	114	22	NA	NA
BYPASS R5, RADIUS/SPEED (FT/MPH)	NA	NA	NA	NA	NA	NA	NA	NA

MINIMUM SIGHT PARAMETERS

APPROACH DESIGN SPEED (MPH)	45		40		45		NA	
HORIZONTAL STOPPING SIGHT DISTANCE (FT)	360		305		360		NA	
CIRCULATING INTERSECTION SIGHT DISTANCE (FT/MPH)	132	18	132	18	132	18	NA	NA
ENTERING INTERSECTION SIGHT DISTANCE (FT/MPH)	NA	NA	169	23	169	23	NA	NA

DESIGN VEHICLE: WB-67
TRUCK APRON WIDTH: Varies, 12' typical
OSOW ACCOMMODATIONS: Ramp-off/ramp-on though the roundabout
CIRCULATING ROADWAY CROSS SLOPE: 13' at 2% sloping inward / 7' at 1.0% sloping outward
ACCESS CONTROL: Access controlled
PARKING CONTROL: No parking allowed
BICYCLE AND PEDESTRIAN ACCOMMODATIONS: An 8-ft sidepath is provided around the outside of the roundabout with pedestrian crossings on all legs. Bicycle on and off-ramps are provided on all legs.

DESIGNER: Ayres Associates
REVIEWER: Ayres Associates
SIGNATURE:  DATE: 7/24/2019
NAME: Kevin Kuhlow

The reviewer's signature on this document indicates that the design has been reviewed and is in general compliance with good roundabout principals. The critical design elements have been addressed. The project design engineer in responsible charge of final plan development will stamp the plans when applicable.

9200-10-00
Shawano - Green Bay
CTH VV Interchange
STH 29
Brown County

CTH VV / WB STH 29 Ramp Terminal

CRITICAL DESIGN PARAMETERS	LEG 1 SB Marley St	LEG 2 WB On-Ramp	LEG 3 NB CTH VV	LEG 4 WB Off-ramp
APPROACH WIDTH (FT)	12	NA	12	15
ENTRY WIDTH, E (FT)	19.6	NA	19.4	19.6
ENTRY ANGLE, PHI Φ (DEG)	17.8	NA	NA	15.5
INSCRIBED CIRCLE DIAMETER, ICD (FT)	156	156	156	156
EXIT WIDTH (FT)	17.8	21.5	16.4	NA
CIRCULATING ROADWAY WIDTH UPSTREAM OF ENTRY (FT)	20	20	20	20

FASTEST SPEED PATH

R1, RADIUS/SPEED (FT/MPH)	134	23	NA	NA	142	24	138	24
R2, RADIUS/SPEED (FT/MPH)	119	22	NA	NA	99	21	91	20
R3, RADIUS/SPEED (FT/MPH)	NA	NA	NA	NA	NA	NA	NA	NA
R4, RADIUS/SPEED (FT/MPH)	61	18	61	18	61	18	61	18
R5, RADIUS/SPEED (FT/MPH)	107	22	NA	NA	NA	NA	108	22
BYPASS R5, RADIUS/SPEED (FT/MPH)	NA	NA	NA	NA	NA	NA	NA	NA

MINIMUM SIGHT PARAMETERS

APPROACH DESIGN SPEED (MPH)	45		NA		45		40	
HORIZONTAL STOPPING SIGHT DISTANCE (FT)	360		NA		360		305	
CIRCULATING INTERSECTION SIGHT DISTANCE (FT/MPH)	132	18	NA	NA	132	18	132	18
ENTERING INTERSECTION SIGHT DISTANCE (FT/MPH)	161	22	NA	NA	NA	NA	169	23

DESIGN VEHICLE: WB-67
TRUCK APRON WIDTH: Varies, 12' typical
OSOW ACCOMMODATIONS: Ramp-off/ramp-on though the roundabout and JW Industries press boxes SB right turn
CIRCULATING ROADWAY CROSS SLOPE: 13' at 2% sloping inward / 7' at 1.0% sloping outward
ACCESS CONTROL: Access controlled
PARKING CONTROL: No parking allowed
BICYCLE AND PEDESTRIAN ACCOMMODATIONS: An 8-ft sidepath is provided around the outside of the roundabout with pedestrian crossings on all legs. Bicycle on and off-ramps are provided on all legs.

DESIGNER: Ayres Associates
REVIEWER: Ayres Associates
SIGNATURE: 
DATE: 7/24/2019
NAME: Kevin Kuhlow

The reviewer's signature on this document indicates that the design has been reviewed and is in general compliance with good roundabout principals. The critical design elements have been addressed. The project design engineer in responsible charge of final plan development will stamp the plans when applicable.

9200-10-00
Shawano - Green Bay
CTH VV Interchange
STH 29
Brown County

Marley Street / Evergreen Avenue

CRITICAL DESIGN PARAMETERS	LEG 1 SB Marley St	LEG 2 EB Evergreen Ave	LEG 3 NB Marley St	LEG 4 WB Evergreen Ave
APPROACH WIDTH (FT)	12	12	12	12
ENTRY WIDTH, E (FT)	19.6	19.5	19.6	19.6
ENTRY ANGLE, PHI Φ (DEG)	18.2	17.4	16.3	17.7
INSCRIBED CIRCLE DIAMETER, ICD (FT)	156	156	156	156
EXIT WIDTH (FT)	19.8	19.9	19.7	18.6
CIRCULATING ROADWAY WIDTH UPSTREAM OF ENTRY (FT)	20	20	20	20

FASTEST SPEED PATH

R1, RADIUS/SPEED (FT/MPH)	143	24	148	24	143	24	142	24
R2, RADIUS/SPEED (FT/MPH)	117	22	105	21	98	21	105	21
R3, RADIUS/SPEED (FT/MPH)	NA	NA	NA	NA	NA	NA	NA	NA
R4, RADIUS/SPEED (FT/MPH)	61	18	61	18	61	18	61	18
R5, RADIUS/SPEED (FT/MPH)	90	20	93	20	106	21	96	21
BYPASS R5, RADIUS/SPEED (FT/MPH)	NA	NA	NA	NA	NA	NA	NA	NA

MINIMUM SIGHT PARAMETERS

APPROACH DESIGN SPEED (MPH)	45		40		45		40	
HORIZONTAL STOPPING SIGHT DISTANCE (FT)	360		305		360		305	
CIRCULATING INTERSECTION SIGHT DISTANCE (FT/MPH)	132	18	132	18	132	18	132	18
ENTERING INTERSECTION SIGHT DISTANCE (FT/MPH)	169	23	169	23	169	23	169	23

DESIGN VEHICLE: WB-67
TRUCK APRON WIDTH: 12'
OSOW ACCOMMODATIONS: JW Industries press boxes SB through
CIRCULATING ROADWAY CROSS SLOPE: 13' at 2% sloping inward / 7' at 1.0% sloping outward
ACCESS CONTROL: Driveways are provided prior to the splitter island on the west leg
PARKING CONTROL: No parking allowed
BICYCLE AND PEDESTRIAN ACCOMMODATIONS: An 8-ft sidepath is provided around the outside of the roundabout with pedestrian crossings on all legs. Bicycle on and off-ramps are provided on all legs.

DESIGNER: Ayres Associates
REVIEWER: Ayres Associates
SIGNATURE: 
DATE: 7/24/2019
NAME: Kevin Kuhlow

The reviewer's signature on this document indicates that the design has been reviewed and is in general compliance with good roundabout principals. The critical design elements have been addressed. The project design engineer in responsible charge of final plan development will stamp the plans when applicable.

Exhibit F

Environmental Commitments (including coordination letters)

BASIC SHEET 8 - ENVIRONMENTAL COMMITMENTS

Attach a copy of this page to the design study report and the PS&E submittal package.

Factor Sheet	**Commitment** (If none, include "No special provision or supplemental commitments required.")
A-1 General Economics	Access to businesses will be maintained during construction. The Construction Supervisor will assure fulfillment of the commitment.
A-2 Business	The Transportation Management Plan will be followed; access to businesses will be maintained during construction. The Construction Supervisor will assure fulfillment of the commitment.
A-3 Agriculture	To address potential drainage problems that may occur as a result of the project, WisDOT will continue to coordinate design and construction plans with the Brown County land conservationist. The county land conservationist will also be consulted to ensure that construction proceeds in a manner that minimizes crop damage, soil compaction, and soil erosion on adjacent farmland. Landowners and operators will be given advanced notice of acquisition and construction schedules so that farm activities can be adjusted accordingly. To the extent feasible, the timing of acquisition and construction will be coordinated with the landowners and operators to minimize crop damage and disruption of farm operations. WisDOT will consult with landowners whose current and future access to farmland is affected. Where access is relocated or a new access point provided, WisDOT will consult with the affected landowner(s) to ensure that the new or altered access point is in a safe location for efficient farm use. Current farm operators will be allowed to continue farming land acquired for the proposed project until it is needed for construction as long as there is adequate time to complete the growing season and harvest the crops. The WisDOT Project Manager will fulfill these commitments.
B-1 Community or Residential	The Transportation Management Plan will be followed; access to residences will be maintained during construction. Construction of individual driveways may require temporary closures. The Construction Supervisor will assure fulfillment of the commitment.
B-2 Indirect Effects	No commitments needed
B-3 Cumulative Effects	No commitments needed
B-4 Environmental Justice	No commitments needed
B-5 Historic Resources	No commitments needed
B-6 Archaeological Sites	No commitments needed
B-7 Tribal Coordination/Consultation	The WisDOT design engineer will continue coordination with the Oneida Nation during future project development phases.
B-8 Section 4(f) and 6(f) or Other Unique Areas	No commitments needed
B-9 Aesthetics	No commitments needed
C-1 Wetlands	Wetland fill will require compensatory mitigation pursuant to the WisDOT/WDNR cooperative agreement. Wetland mitigation ratios and a potential wetland mitigation site will be coordinated with WDNR and the ACOE and utilize the WisDOT Statewide wetland bank. The WisDOT Project Manager will fulfill this commitment.

Factor Sheet	**Commitment** (If none, include “No special provision or supplemental commitments required.”)
C-2 Rivers, Streams and Floodplains	The design engineer will design any structures crossing streams so that the flow line of the structure is 6-inches below the existing streambed. The WisDOT Project Manager will fulfill this commitment. Coordination will continue with the Oneida Nation regarding potential watershed impacts. Proposed mitigation strategies for Trout Creek watershed impacts will include routing drainage north of North Overland Road into a pond to control the flow of water into an existing agricultural ditch. Both ponds that will discharge water into the Trout Creek watershed will have thermal treatment to cool the pond water. The WisDOT Project Manager will fulfill this commitment.
C-3 Lakes or other Open Water	Not applicable
C-4 Groundwater, Wells and Springs	Not applicable
C-5 Upland Wildlife and Habitat	No commitments needed
C-6 Coastal Zones	No commitments needed
C-7 Threatened and Endangered Species	WDNR has indicated that a Migratory Bird Concentration Site is located close to the project location. The clearing of any wooded areas will be kept to a minimum to minimize impacts to trees used by birds to rest and perch. WDNR has indicated that there is potential habitat for the wood turtle (Glyptemys insculpta) which is on Wisconsin’s list of threatened species. The need for any future field inventories or mitigation measures will be determined in a future engineering phase in consultation with WDNR. WDNR indicates impacts to turtles can be avoided by use of exclusion fencing to be erected between the streams and the construction zone prior to the beginning of their active period (March 15) of the construction year to discourage turtles from entering the work area. Fencing will also be needed for construction site erosion control. Location and timing of the fencing will be determined in future stages of design, when specific plans are being prepared. The silt fence is to be installed prior to construction activities and the area behind the silt fence is to be surveyed and any turtles confined within the project area removed prior to any site disturbance. The WisDOT Project Manager will be responsible for overseeing implementation.
D-1 Air Quality	The project is exempt from permit requirements.
D-2 Construction Stage Sound Quality	Check all that apply: ☒ WisDOT Standard Specification 107.8(6) and 108.7.1 will apply. The Construction Supervisor will assure fulfillment of the commitment.
D-3 Traffic Noise	No commitments needed
D-4 Hazardous Substances or Contamination	Standard Specifications should be included in the contract to address the potential for encountering unexpected residual hazardous materials during project construction. If unexpected contaminated soils are encountered during construction, they will be remediated. The Construction Supervisor will fulfill this commitment.
D-5 Storm Water	Storm water management will be implemented in accordance with standard storm water management practices and the WisDOT / WDNR Cooperative Agreement. Inlet protections will be required during construction. The Construction Supervisor will fulfill this commitment.

Factor Sheet	**Commitment** (If none, include “No special provision or supplemental commitments required.”)
D-6 Erosion Control	Erosion control will be implemented in accordance with standard erosion control practices and the WisDOT / WDNR Cooperative Agreement. An erosion control implementation plan for the project will be developed by the contractor and submitted to the WDNR office 14 days prior to the preconstruction conference. The Construction Supervisor will fulfill this commitment.
E- Demolition Material	All demolition material generated as a result of this project will be disposed of according to state law.
E- Invasive Species	WisDOT will work with WDNR to determine the best action to prevent the spread of invasive species within the project area.

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
Northeast Region Headquarters
2984 Shawano Avenue
Green Bay WI 54313-6727

Scott Walker, Governor
Cathy Stepp, Secretary

Telephone 920-662-5100
FAX 920-662-5413
TTY Access via relay - 711

January 7, 2011

DOT: Brown, 7304

Daniel Segerstrom
Wisconsin Department of Transportation
944 Vanderperren Way
Green Bay, WI 54324-0080

SUBJECT: DOT/DNR Initial Project Review
Project I.D.#: 9200-06-00
Project Title: STH 29 Freeway Conversion
Location: CTH U – Woodland Road
County: Brown

Dear Mr. Segerstrom:

Preliminary information on the above referenced project has been reviewed by DNR Northeast Region staff under the DOT/DNR Cooperative Agreement. This project includes construction of a diamond interchange approximately 1600 feet west of existing CTH VV/STH 29 intersection, a new overpass that will extend North Pine Tree Road over STH 29 to Milltown Road, closure of CTH U/STH 29 intersection, and construction of an overpass at the existing CTH U/STH 29 intersection location. Pertinent environmental considerations are presented below:

WETLANDS

According to the DNR Surface Water Data Viewer there are mapped wetlands within the project boundary. During an onsite visit on December 29, 2010 I could not assess much of the vegetation due to snow cover. A wetland delineation will be needed to define any wetland limits within the project boundary.

WILDLIFE/FISHERIES

Much of the area appeared to be agricultural fields. There are some wooded areas and wooded fencerows that probably provide cover for wildlife. According to the DNR Surface Water Data Viewer there are two unnamed waterways near the project. One waterway, which is associated with the CTH VV/STH 29 Interchange, is a tributary to Trout Creek. The second waterway, which is associated with the Pine Tree Road extension Overpass, is a tributary to Lancaster Creek. There are plans to improve Trout Creek habitat for trout and Lancaster is currently classified as trout water. These waterways probably act as wildlife corridors. Depending on the project limits these waterways may be impacted, which would require further coordination.

ENDANGERED RESOURCES

There are recent records for a Migratory Bird Concentration Site close to this location as well as records for both State Threatened Blanding's turtle (*Emydoidea* blandingii) and State Threatened wood turtle (*Glyptemys* insculpta). The Department recommends that clearing of any wooded area be kept to a minimum to minimize impacts to the Migratory Bird Concentration Site as migratory birds will use the trees to rest and perch.

For the two State Threatened turtle species both species are known to inhabit the waterways and their riparian corridors. It is reasonable to assume that these turtles may be present at or near the project site if the project limits extend to the waterways discussed above.

If project construction will start in the spring, the perimeter of the areas to be disturbed that are along the riparian corridors should be protected with properly trenched-in silt fence prior to March 15 to discourage turtles from entering the work area. If the construction area cannot be silt-fenced by March 15, the silt fence must be installed prior to construction activities and the area behind the silt fence must be surveyed and any turtles confined within the project area removed prior to any site disturbance, and throughout the construction period.

FLOODPLAINS

A determination must be made as to whether the project lies within a mapped/zoned floodplain. If the project lies in such an area, DNR required submittal of the results of a 100 year flood analysis for the structure(s). Also, if the new structure(s) will create an increase in the 100 year backwater condition, DNR requires that all affected upstream landowners be notified, and appropriate legal arrangements made. For areas lying outside mapped/zoned floodplain, DNR may request the results of DOT flow and backwater calculations. For project-specific information, please consult with the Brown County Zoning Administrator.

OTHER COMMENTS

1. It will be important to coordinate this project with the surrounding municipalities due to the potential of both secondary and cumulative effects, such as new access roads or new development, associated with this project.

2. The environmental document regarding this project should discuss planned development from the local municipalities as a result of this project.

3. Conditions stated in all previous DNR correspondence regarding this project shall apply.

4. There is potential for wetland impacts to occur as a result of this project and therefore wetland impacts must be minimized and/or avoided to the greatest extent possible. Unavoidable wetland impacts must be mitigated in accordance to the DOT/DNR Cooperative Agreement and the Wisconsin Department of Transportation Wetland Mitigation Banking Technical Guideline. The Department requests information regarding the amount of unavoidable wetland impacts.

5. All demolition material generated as a result of this project must be disposed of according to state law.

6. There are known invasive plant species within the project limits. All equipment must be disinfected prior to arriving to and upon completion of the project in the areas with known invasive species to prevent the spread of invasive/exotic species and viruses. Please have the contractor follow these steps:
    a. Inspect equipment and remove any vegetation (fragments, stems, leaves, or roots) or mud and dispose of debris prior to leaving the point of origin;
    b. Drain any trapped water;
    c. Wash all equipment (inside and out) with high pressure hot water (> 104 degree Fahrenheit), or;
    d. Dry the equipment thoroughly for 5 days.

7. Proper erosion control measures must be used and maintained during and after construction. An erosion control implementation plan for the project must be developed by the contractor and submitted to this office 14 days prior to the preconstruction conference.

The above comments represent the Department's initial concerns for the proposed project and do not constitute final concurrence. Final concurrence will be granted after review of plans and further consultation if necessary. If any of the concerns or information provided in this letter requires further clarification, please contact this office at (920) 662-5119.

Sincerely,

James P. Doperalski Jr.
Environmental Analysis and Review Specialist

c. Mike Helmrick – DOT NER, Green Bay
Matt Schaeve – Green Bay
File: 7304

From:	Doperalski, James P - DNR
To:	Dave Tollefson
Cc:	Ternes, Matthew - DOT; Robillard, Troy; Helmrick, Michael - DOT; Scott Cramer
Subject:	RE: STH 29 (WisDOT ID 9200-06-00)
Date:	Friday, July 1, 2016 3:38:48 PM

It doesn't appear that there are any major changes compared to what I reviewed in 2011. I did do a new NHI review this afternoon and didn't find any new records. The only change is that the Blanding's Turtle has been reclassified as State Special Concern rather than State Threatened. My initial review letter should still be valid.

We are committed to service excellence.
Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

James P. Doperalski Jr.
Cell Phone: (920) 412-0165
James.Doperalski@wisconsin.gov

From: Dave Tollefson [mailto:DTollefson@KLEngineering.com]
Sent: Friday, July 01, 2016 2:39 PM
To: Doperalski, James P - DNR
Cc: Ternes, Matthew - DOT; Robillard, Troy; Helmrick, Michael - DOT; Scott Cramer
Subject: STH 29 (WisDOT ID 9200-06-00)

Mr. Doperalski
As detailed in previous correspondence, the Wisconsin Department of Transportation (WisDOT) is in the process of
developing plans for the conversion of STH 29 in Brown County to freeway standards. WisDOT is currently preparing an
environmental document that will assess the potential effects of the project. Please see the attached DNR/DOT Project Review Request, and send any comments to myself and Matt Ternes (WisDOT Project Manager).

I.D. 9200-06-00
CTH U – Woodland Rd
STH 29
Brown County

Please do not hesitate to ask any follow-up questions on the scope of this project. Thanks in advance for your time and cooperation.

Dave Tollefson
Environmental Specialist

KL Engineering, Inc.
5950 Seminole Centre Ct., Suite 200
Madison, WI 53711
608.663.1218
dtollefson@klengineering.com

Helmrick, Michael - DOT

From: Doperalski, James P - DNR
Sent: Wednesday, March 13, 2019 9:56 AM
To: Helmrick, Michael - DOT
Cc: Ternes, Matthew - DOT
Subject: RE: 29/VV 9200-06-00

I renewed the NHI review I conducted in 2016 and the only changes were to the Federal status of the Blanding's and Wood Turtles to Species of Concern. The Wood Turtle is still State Threatened. There are no records for the NLEB, RPBB, Dwarf Lake Iris or Red Knot.

For an updated review I'd prefer to wait until we do an updated wetland determination. Otherwise the largest update would be the TCGP requirements.

We are committed to service excellence.
Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

James P. Doperalski Jr.
Cell Phone: (920) 412-0165
James.Doperalski@wisconsin.gov

From: Helmrick, Michael - DOT
Sent: Wednesday, March 13, 2019 9:14 AM
To: Doperalski, James P - DNR <James.Doperalski@wisconsin.gov>
Cc: Ternes, Matthew - DOT <Matthew.Ternes@dot.wi.gov>
Subject: 29/VV 9200-06-00

Jim –

Need a NLEB and RPBB confirmation for the 29/VV interchange project. ID is 9200-06-00. Previous coordination is attached. Not sure if you heard yet or not, but the County got a grant along with some funding commitments from Hobart and Howard to get this interchange completed. So it's on an aggressive schedule with the plan for construction in 2020. You'll be hearing more in the near future, and we will need to go out and update our previous wetland determination, but for now I just need the NLEB/RPBB check so I can do the section 7 coordination. We will also need an update to the prelim comments, or an updated confirmation that it's still valid, but that request will likely come from Ayres or KL.

Two other species popped up. Dwarf Lake Iris, which I can say habitat is not present. The other species that popped up on the federal list was the Red Knot, which appears to just migrate through WI, and very unlikely to be inhabiting this area based on what I read. But if you have any concerns with the Red Knot let me know that too. It doesn't appear that it's even tracked in the NHI from what I saw on the DNR website.

Thanks!

Mike

Mike Helmrick
Region Environmental Coordinator
Wisconsin Department of Transportation

State of Wisconsin
Governor Scott Walker

Department of Agriculture, Trade and Consumer Protection
Ben Brancel, Secretary

January 10, 2011

Daniel Segerstrom
Wisconsin Department of Transportation
Northeast Region
944 Vanderperren Way
Green Bay, WI 54324-0080

Re: STH 29: CTH "U" to Woodland Road
Brown County
WisDOT ID#: 9200-06-00

Dear Mr. Segerstrom:

Thank you for giving the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) the opportunity to comment on the proposed construction of interchanges and overpasses on STH 29 between CTH "U" and Woodland Road.

According to the information you provided, the Wisconsin Department of Transportation (WisDOT) is proposing to construct a diamond interchange at STH 29 and CTH "VV," an overpass for North Pine Tree Road, and an overpass for CTH "U." This area is located in the town of Hobart (southwest of STH 29) and the village of Howard (northeast of STH 29) in Brown County.

When evaluating the impacts that a project could have on agriculture, DATCP's primary concerns include: the loss of farmland, the number of farm parcels to be severed, changes in access to farmland, the loss of farm buildings, and the impacts on drainage. The following is a brief discussion of this project's potential impacts on agriculture.

Acquisition of farmland: The loss of farmland, especially cropland or pasture, can reduce the productive capacity of a farm operation, which could lead to a loss of income and profitability. Farmers with livestock also need to have an adequate amount of land for growing feed crops and spreading manure. If they cannot find replacement land, they may be forced to cull some of their livestock. Farmers who lose land because of the proposed project may have difficulty finding comparable replacement acreage for a number of reasons including: (1) other area farmers will also be in the market, thereby increasing demand and perhaps price for farmland; (2) the supply of farmland will decrease because of right-of-way acquisitions; (3) the productive potential of available farmland may be less than the farmland taken; and (4) travel distances to available farmland may be cost prohibitive.

The construction of an interchange and two overpasses could cause a significant loss in acreage for a few farmland owners. A better evaluation of the loss of farmland can be done after WisDOT completes preliminary designs for the project and affected farmland owners are identified.

Soils: Another factor to consider when evaluating the loss of farmland is the quality of the affected soils. Prime farmland is defined as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. All of the major soils that will be affected by the proposed project are classified as prime farmland except for the Shawano soils at the intersection of STH 29 and North Pine Road.

The soils in the vicinity of the proposed STH 29/CTH "VV" interchange include Oshkosh silt loam with 0 to 2 percent slopes, Oshkosh silt loam with 2 to 6 percent slopes, and Solona loam with 1 to 3 percent slopes.

At STH 29 and North Pine Tree Road the soils most affected by the proposed project include Kewaunee loam-gravelly substratum with 2 to 6 percent slopes and Shawano loamy fine sand with 6 to 12 percent slopes.

The soils that will be affected at the CTH "UU" overpass of STH 29 include mostly Oshkosh silt loam with 2 to 6 percent slopes with a small amount of Solona loam with 1 to 3 percent slopes.

Oshkosh silt loam is deep and well drained to moderately well drained. It is found on lacustrine plains dissected by V-shaped valleys. It has medium available water capacity and slow permeability. Natural fertility is high and the organic-matter content is low. Where the slopes are 0 to 2 percent, runoff is slow. Where the slopes are 2 to 6 percent, runoff is slow to medium.

Solona loam with 1 to 3 percent slopes is deep and somewhat poorly drained soil that is found in depressions and drainageways and glacial till plains. It has high available water capacity and moderate permeability. Natural fertility and the organic-matter content are medium. Runoff is slow and the use of drain tile can help remove excess water.

Kewaunee loam-gravelly substratum with 2 to 6 percent slopes is deep and well drained to moderately well drained soil. It is found on glacial till plains and ridges. The available water capacity is high and permeability is slow.

Shawano loamy fine sand with 6 to 12 percent slopes is deep and excessively drained. It is found on sandy lacustrine plains and outwash plains. It has low available water capacity and rapid permeability. Natural fertility and organic-matter content are low.

Zoning: The town of Hobart and the village of Howard have exclusive agricultural zoning. The town of Hobart has town-administered exclusive agricultural zoning. None of the farmland in either the town or village is covered by a Farmland Preservation Agreement.

Severances: Severance of farms, particularly those that leave irregularly shaped remnant parcels, can make equipment usage awkward and production more costly. This increased cost is due in part to the additional time, fuel, and equipment wear associated with maneuvering equipment in corners of fields that are not square or along sides of fields that are not straight. Severances can also create access problems where farm buildings are separated from cropland and pasture.

DATCP cannot determine if the proposed project will sever any farm parcels and cause severance impacts until the preliminary design is completed.

Access: Changes to intersection configuration could affect access to adjacent farmland in two ways. First, the changes in the configuration of intersections could affect a farmer's route between parcels of his/her farmland or between his/her farm and other businesses the provide services for the farm. Second, the proposed project could require the relocation, restriction, or elimination of access points to farm property.

The creation of an interchange at STH 29/CTH "VV" is likely to make traveling through that intersection easier and safer for all motorists including farmers. The creation of overpasses will likely have mixed impacts for nearby farmers. While it will be easier for farmers and other motorists to cross STH 29 where overpasses are constructed, they will not have direct access to STH 29 at these locations. This may require longer more circuitous trips to access STH 29 than are currently followed. For example, if a town of Hobart farmer heads north on CTH "U" and intends to turn to the northwest on STH 29, he/she would have to access STH 29 at a different intersection.

If access to any farm property is relocated, restricted, or eliminated, these changes could affect the efficiency of farm operations by increasing travel time and distance between farm parcels or for trips between the farm and other businesses. Farmers that are forced to spend more time on roadways also face greater risk of traffic accident. Existing access points may be affected if they are too close to an interchange ramp.

Acquisition of buildings: The loss or relocation of buildings can disrupt the efficiency of a farm operation. If affected buildings are relocated to another part of the farm or if buildings are included in an acquisition and replacement buildings are constructed elsewhere on the farm, the landowner may lose cropland or pasture in addition to the land lost for highway right-of-way. Also, if new replacement buildings are constructed, the cost to build them may be greater than the market value paid for the acquired buildings. This difference would be an additional burden on the landowner.

Drainage: The proposed project does not appear to be located within any drainage districts. However, the project will affect soils that might have drainage tiling to improve agricultural productivity. Highway construction can damage these structures and impede the flow of surface water, which could damage crops and reduce yields.

The DATCP may prepare an Agricultural Impact Statement (AIS) for the proposed project after WisDOT determines the amount of property to be acquired from each farmland owner. The AIS would provide detailed information on the impacts to agriculture caused by the proposed project.

Thank you for allowing DATCP the opportunity to comment on the proposed project. If you have any questions, please feel free to call me at (608)224-4646.

Sincerely,

Alice Halpin

Alice Halpin
Agricultural Impact Analyst

From: Halpin, Alice L - DATCP
To: Dave Tollefson
Subject: RE: AIS - STH 29: CTH U-Woodland Rd
Date: Thursday, March 21, 2019 3:07:05 PM
Attachments: image001.png

Hi Dave.

First an FYI, Lindsay has moved on to the DNR and doesn't work at DATCP any more.

Regarding a potential update to the AIS, we would only consider writing an addendum if the amount of farmland that would be acquired has increased or if the project is affecting different farmland owners from the ones listed in the AIS. If the amount of farmland to be acquired has decreased, DATCP doesn't need to be notified. Otherwise, you should send us a table listing the originally proposed acquisitions for each farmland owner and the revised acquisitions for each of them. Have the affected landowners been notified of any changes?

Depending on the sizes of the proposed changes in the acquisitions, we may or may not prepare an addendum. I'll look over the information you submit and let you know.

Alice

Alice Halpin
Agricultural Impact Statements Program, Division of Agricultural Resource Management
Wisconsin Department of Agriculture, Trade and Consumer Protection
P.O. Box 8911
Madison, WI 53708-8911
phone: (608)224-4646
fax: (608)224-4615
e-mail: alice.halpin@wisconsin.gov

Please complete this brief survey to help us improve our customer service. Thank you for your feedback.

alice.halpin@wisconsin.gov**brief survey**

From: Dave Tollefson <DTollefson@KLEngineering.com>
Sent: Thursday, March 21, 2019 2:52 PM
To: Tekler, Lindsay M - DNR <Lindsay.Tekler@wisconsin.gov>; Halpin, Alice L - DATCP <Alice.Halpin@wisconsin.gov>
Subject: AIS - STH 29: CTH U-Woodland Rd

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
180 FIFTH STREET EAST, SUITE 700
ST. PAUL MINNESOTA 55101-1678

REPLY TO
ATTENTION

2011 JAN -5 A 11: 56

WISDOT-DIST 3

January 3, 2011

Operations
Regulatory (2011-00031-LMK)

Mr. Daniel Segerstom
944 Vanderperren Way
Green Bay, Wisconisn 54303

Dear Mr. Segerstrom:

We have received the letter entitled "WisDOT 9200-06-00 STH 29 CTH U – Woodland Road" dated December 20, 2010. Due to limited staff and resources, it is unlikely that U.S. Army Corps of Engineers Regulatory staff will review or comment on this letter until we receive a permit application. In lieu of a specific response, please consider the following general information concerning our regulatory program that may apply to the proposed project.

If the proposal involves activity in navigable waters of the United States, it may be subject to the Corps of Engineers' jurisdiction under Section 10 of the Rivers and Harbors Act of 1899 (Section 10). Section 10 prohibits the construction, excavation, or deposition of materials in, over, or under navigable waters of the United States, or any work that would affect the course, location, condition, or capacity of those waters, unless the work has been authorized by a Department of the Army permit.

If the proposal involves discharge of dredged or fill material into waters of the United States, it may be subject to the Corps of Engineers' jurisdiction under Section 404 of the Clean Water Act (CWA Section 404). Waters of the United States include navigable waters, their tributaries, and adjacent wetlands (33 CFR § 328.3). CWA Section 301(a) prohibits discharges of dredged or fill material into waters of the United States, unless the work has been authorized by a Department of the Army permit under Section 404. Information about the Corps permitting process can be obtained online at http://www.mvp.usace.army.mil/regulatory.

The Corps' evaluation of a Section 10 and/or a Section 404 permit application involves multiple analyses, including (1) evaluating the proposal's impacts in accordance with the National Environmental Policy Act (NEPA) (33 CFR part 325), (2) determining whether the proposal is contrary to the public interest (33 CFR § 320.4), and (3) in the case of a Section 404 permit, determining whether the proposal complies with the Section 404(b)(1) Guidelines (Guidelines) (40 CFR part 230).

If the proposal requires a Section 404 permit application, the Guidelines specifically require that "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental

consequences" (40 CFR § 230.10(a)). Time and money spent on the proposal prior to applying for a Section 404 permit cannot be factored into the Corps' decision whether there is a less damaging practicable alternative to the proposal.

If you have any questions regarding the application process please contact Nick Domer at 920-448-2824, the Corps' contact for the County in which this proposal is located.

Sincerely,

Tamara E. Cameron
Chief, Regulatory Branch

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Green Bay ES Field Office
2661 Scott Tower Drive
New Franken, Wisconsin 54229-9565
Telephone 920/866-1717
FAX 920/866-1710

January 12, 2011

Mr. Daniel Segerstrom
Division of Transportation
944 Vanderperren Way
Green Bay, Wisconsin 54324-0080

re: WisDOT ID 9200-06-00
Freeway Conversion
CTH U –Woodland Road
STH 29
Brown County, Wisconsin

Dear Mr. Segerstrom:

The U.S. Fish and Wildlife Service (Service) has received your letter dated December 20, 2010, requesting comments on the subject project. The project involves improvements to STH 29 located in the Village of Howard and the Town of Hobart in Brown County, Wisconsin. We have reviewed the information provided in your letter and our comments follow.

Federally-Listed Species, Candidate Species, and Critical Habitat

Due to the project location, no federally-listed species would be expected within the project area. This precludes the need for further action on this project as required by the 1973 Endangered Species Act, as amended. Should additional information on listed or proposed species or their critical habitat become available or if project plans change or if portions of the proposed project were not evaluated, it is recommended that you contact our office for further review.

Wetlands and Streams

We note that a portion of the project area includes wetlands. Areas that include wetlands are the closure of STH 29 intersection with CTH U and the eastern portion of the proposed diamond interchange at CTH VV and STH 29. In refining and selecting project alternatives, efforts should be made to select an alternative that does not adversely impact wetlands. If no other alternative is feasible and it is clearly demonstrated that project construction resulting in wetland disturbance or loss cannot be avoided, a wetland mitigation plan should be developed that identifies measures proposed to minimize adverse impacts and replace lost wetland habitat values and other wetland functions and values. Any project that impacts wetlands or waterways, including seasonally ephemeral and intermittent streams, should include design features such as culverts to retain hydrological connection between areas fragmented by the project.

We appreciate the opportunity to respond. Questions pertaining to these comments can be directed to Ms. Jill Utrup 920-866-1734.

Sincerely,

Louise Clemency
Field Supervisor

December 20, 2010

«First» «Last»
«Title»
«Company»
«Add1»
«Add2»
«City», «ST» «Zip»

RE: WisDOT ID 9200-06-00
Freeway Conversion
CTH U – Woodland Road
STH 29
Brown County

Dear «T» «Last»:

The Wisconsin Department of Transportation (WisDOT) is initiating a freeway conversion study on STH 29 in Brown County. A project location map is enclosed. This project involves the following:

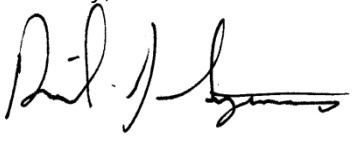
- Construction of a diamond interchange at CTH VV and STH 29, located approximately 1,600 feet west of the existing CTH VV/STH 29 intersection. This interchange will connect to Marley Street to the north and CTH VV to the south. Milltown Road will be realigned to intersect with Marley Street at the existing Millwood Court/Marley Street intersection.
- Construction of a new overpass that will extend North Pine Tree Road from Sunlite Drive on the south terminus, to Milltown Road on the north terminus. This new overpass is located approximately 6,600 feet east of the intersection of CTH VV/STH 29.
- Closure of the STH 29 intersection with CTH U. An overpass of STH 29 will be constructed at the current STH 29/CTH U intersection. This work includes the realignment of approximately 1,400 feet of Old Highway 29.

A public information meeting will be held in April 2011 to familiarize interested parties with the project. In the near future, cultural resource investigation studies will be conducted for the above project. These investigations will enable WisDOT to determine whether historical properties as defined in 36 CFR 800 are located in the project area. Other environmental studies will also be conducted and may include; endangered species survey, contaminated material investigations, soil testing, and right-of-way surveys. Information obtained from these studies will assist the engineers in the design to avoid, minimize or mitigate the proposed project's effect upon cultural and natural resources.

We would be pleased to receive any comments regarding this project or information you wish to share pertaining to cultural resources located in the area. If your tribe would like to become a consulting party under Section 106 of the National Historic Preservation Act or if you would like to receive additional information regarding this proposed project, please contact:

Daniel Segerstrom
WisDOT Project Manager, NE Region
944 Vanderperren Way
Green Bay, WI 54324
(920) 492-5623

Sincerely,



Daniel Segerstrom
WisDOT Project Manager

cc: Eugene S. Johnson, Bureau of Equity and Environmental Services
James Becker, Bureau of Equity and Environmental Services
Bruce Ommen, Ayres Associates
KL Engineering

T	First	Last	Company	Title	Add1	Add2	City	ST	Zip	Phone
Ms.	Edith	Leoso	Bad River Band of Lake Superior Chippewa Indians of Wisconsin	THPO	Chippewa Indians - WI	PO Box 39	Odanah	WI	54861	715-682-7111
Mr.	Mike	Alloway	Forest County Potawatomi Community of Wisconsin		Tribal Office	PO Box 340	Crandon	WI	54520	715-478-7200
Mr.	William	Quackenbush	Ho-Chunk Nation	THPO	Executive Offices	405 Airport Rd (Box 667)	Black River Falls	WI	54615	715-284-9343
Ms.	Joyce	Miller	Iowa Tribe of Oklahoma	Attn: Cultural Preservation Department	RR1	Box 721	Perkins	OK	74059	405-547-2402 (Ext 243)
Mr.	Jerry	Smith	Lac Courte Oreilles Band of Lake Superior Chippewa Indians of Wisconsin	THPO	Chippewa Indians – WI (Tribal Historic Preservation Office)	13394 W. Trepania Road	Hayward	WI	54843	715-634-8934 (Ext 262)
Ms.	Melinda	Young	Lac du Flambeau Band of Lake Superior Chippewa Indians of Wisconsin	THPO	Chippewa Indians – WI (Tribal Office)	PO Box 67	Lac du Flambeau	WI	54538	715-588-3303
Mr.	giiwegiizhigookway	Martin	Lac Vieux Desert Band of Lake Superior Chippewa Indians	Ketegitigaaning Ojibwe Nation/THPO	Chippewa Indians	PO Box 249	Watersmeet	MI	49969	
Mr.	David	Grignon	Menominee Indian Tribe of Wisconsin	THPO	W3426 CTH V V West	PO Box 910	Keshena	WI	54135	715-799-5114
Ms.	Corina	Burke	Oneida Tribe of Indians of Wisconsin	THPO	Tribal Office	PO Box 365	Oneida	WI	54155	
Mr.	Michael	Allen	Great Lakes Inter-Tribal Council	Executive Director	PO Box 9		Lac du Flambeau	WI	54538	
Mr.	Troy	Parr	Oneida Tribe of Indians of Wisconsin		Little Bear Development Center	N7332 Water Circle Place, PO Box 365	Oneida	WI	54155	
Mr.	Joseph	Hale, Jr.	Prairie Band Potawatomi Nation	Historic Preservation Officer		16281 Q Road	Mayetta	KS	66509	785-966-4019
Mr.	Larry	Balber	Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin	THPO	Chippewa Indians – WI (Red Cliff Council)	88385 Pike Rd	Bayfield	WI	54814	715-779-3700
Ms.	Jane	Nioce	Sac and Fox Nation of Missouri in Kansas and Nebraska	Museum Director	In Kansas & Nebraska	305 N. Main	Reserve	KS	66434	785-742-7471
Ms.	Sandra	Massey	Sac and Fox Nation of Oklahoma	NAGPRA Representative		RT 2, Box 246	Stroud	OK	74079	888-336-4692
Mr.	Jonathon	Buffalo	Sac and Fox of the Mississippi in Iowa	NAGPRA Representative	In Iowa	349 Meskwaki Rd	Tama	IA	52339	641-484-4678
			Sokaogon Chippewa Community Mole Lake Band	Attn: Cultural Resource Director	Mole Lake Band	3051 Sand Lake Road	Crandon	WI	54520	715-478-7500
Ms.	Wanda	McFaggen	St. Croix Band Chippewa Indians of Wisconsin	THPO	Tribal Office	24663 Angeline Avenue	Webster	WI	54893	715-349-2195 (Ext 238)

July 9, 2015

«First» «Last»
«Title»
«TRIBE»
«Add1»
«Add2»
«City», «ST» «Zip»

RE: WisDOT ID 9200-06-00
Freeway Conversion
CTH U – Woodland Road
STH 29, Brown County

Dear «T» «Last»:

The Wisconsin Department of Transportation (WisDOT) is in the process of developing plans for the conversion of WIS 29 in Brown County to freeway standards. A project location map is enclosed.

Your tribe was previously contacted regarding this project in May of 2011. Any previous comments your tribe provided WisDOT regarding this project are enclosed. We are requesting that your tribe review your previous comments to determine if those comments are still relative and to provide any additional comments you may have.

This project involves the following:

- Construction of a diamond interchange at CTH VV and STH 29, located approximately 1,600 feet west of the existing CTH VV/STH 29 intersection. This interchange will connect to Marley Street to the north and CTH VV to the south. Milltown Road will be realigned to intersect with Marley Street at the existing Millwood Court/Marley Street intersection.
- Construction of a new overpass that will extend North Pine Tree Road from Sunlite Drive on the south terminus, to Milltown Road on the north terminus. This new overpass is located approximately 6,600 feet east of the intersection of CTH VV/STH 29.
- Closure of the STH 29 intersection with CTH U. An overpass of STH 29 will be constructed at the current STH 29/CTH U intersection. This work includes the realignment of approximately 1,400 feet of Old Highway 29.

We would be pleased to receive any comments regarding this project or information you wish to share pertaining to cultural resources located in the area. If your tribe would like to become a consulting party under Section 106 of the National Historic Preservation Act or if you would like to receive additional information regarding this proposed project, please contact me at me at 944 Vanderperren Way, Green Bay, WI 54304 or by phone at (920) 492-3500.

Sincerely,

Matt Ternes
WisDOT Project Manager

cc: James Becker, DTSD Bureau of Technical Services, Environmental Services Section
Matt Ternes, WisDOT Project Manager
Mike Helmrick, Environmental Coordinator, WisDOT Northeast Region
Troy Robillard, Ayres Associates
KL Engineering, Inc.

T	FIRST	LAST	TITLE	TRIBE	ADD1	ADD2	CITY	ST	ZIP
Ms.	Edith	Leoso	THPO	Bad River Band of Lake Superior	Chippewa Indians - WI	PO Box 39	Odanah	WI	54861
Ms.	Melissa	Cook	THPO	Forest CO Potawatomi Community – WI	Tribal Office	PO Box 340	Crandon	WI	54520
Mr.	LeRoy	Defoe	THPO	Fond du Lac Band of	Lake Superior Chippewa	1720 Big Lake Road	Cloquet	MN	55720
Mr.	William	Quackenbush	THPO	Ho-Chunk Nation	Executive Offices	PO Box 667	Black River Falls	WI	54615
Mr.	Jerry	Smith	THPO	Lac Courte Oreilles Band - Lake Superior	Chippewa Indians – WI Tribal Office	13394 W. Trepania Road	Hayward	WI	54843
Ms.	Melinda	Young	THPO	Lac Du Flambeau Band - Lake Superior	Chippewa Indians – WI (Tribal Historic Preservation Office)	PO Box 67	Lac du Flambeau	WI	54538
Mr.	David	Grignon	THPO	Menominee Indian Tribe of Wisconsion	W3426 CTH V V West	PO Box 910	Keshena	WI	54135
Ms.	Corina	Williams	THPO	Oneida Tribe of Indians of Wisconsin	Tribal Office	PO Box 365	Oneida	WI	54155
Mr.	Larry	Balber	THPO	Red Cliff Band of Lake Superior	Chippewa Indians – WI	88385 Pike Rd, HWY 13	Bayfield	WI	54814
Ms.	Wanda	McFaggen		St. Croix Band Chippewa Indians – WI	Tribal Historic Preservation Office	24663 Angeline Avenue	Webster	WI	54893
			Cultural Resource Director	Sokaogon Chippewa Community	Mole Lake Band	3051 Sand Lake Road	Crandon	WI	54520
Ms.	Sherry	White	THPO	Stockbridge Munsee Community of WI	Tribal Office	W13447 Camp 14 Road	Bowler	WI	54416
Ms.	Sandra	Massey	NAGPRA Representative	Sac & Fox Nation of Oklahoma		RR 2, Box 246	Stroud	OK	74079
Mr.	Edmore	Green		Sac & Fox Nation of Missouri	In Kansas & Nebraska	305 N. Main	Reserve	KS	66434
Mr.	Jonathon	Buffalo	NAGPRA Representative	Sac & Fox of the Mississippi	In Iowa	349 Meskwaki Road	Tama	IA	52339
			Cultural Preservation Office	Iowa Tribe of Oklahoma		RR 1, Box 721	Perkins	OK	74059
Ms.	Hattie	Mitchell		Prairie Band Potawatomi Nation		16281 Q Road	Mayetta	KS	66509
Mr.	giiwegiizhigookway	Martin	Ketegitigaaning Ojibwe Nation/THPO	Lac Vieux Desert Band - Lake Superior	Chippewa Indians	PO Box 249	Watersmeet	MI	49969

July 22, 2016

«First» «Last»
«Title»
«TRIBE»
«Add1»
«Add2»
«City», «ST» «Zip»

RE: WisDOT ID 9200-06-00
Freeway Conversion
CTH U – Woodland Road
STH 29, Brown County

Dear «T» «Last»:

The Wisconsin Department of Transportation (WisDOT) is in the process of developing plans for the conversion of WIS 29 in Brown County to freeway standards. A project location map is enclosed.

Your tribe was previously contacted regarding this project in May of 2011; project updates were sent in July 2015. Any previous comments your tribe provided WisDOT regarding this project are enclosed. We are requesting that your tribe review your previous comments to determine if those comments are still relative and to provide any additional comments you may have.

This project involves the following:

- Construction of a diamond interchange at CTH VV and STH 29, located approximately 1,600 feet west of the existing CTH VV/STH 29 intersection. This interchange will connect to Marley Street to the north and CTH VV to the south. Milltown Road will be realigned to intersect with Marley Street at the existing Millwood Court/Marley Street intersection.
- Construction of a new overpass that will extend North Pine Tree Road from Sunlite Drive on the south terminus, to Milltown Road on the north terminus. This new overpass is located approximately 6,600 feet east of the intersection of CTH VV/STH 29.
- Closure of the STH 29 intersection with CTH U. An overpass of STH 29 will be constructed at the current STH 29/CTH U intersection. This work includes the realignment of approximately 1,400 feet of Old Highway 29.

We would be pleased to receive any comments regarding this project or information you wish to share pertaining to cultural resources located in the area. If your tribe would like to become a consulting party under Section 106 of the National Historic Preservation Act or if you would like to receive additional information regarding this proposed project, please contact me at me at 944 Vanderperren Way, Green Bay, WI 54304 or by phone at (920) 366-3028.

Sincerely,

Matt Ternes
WisDOT Project Manager

cc: Matt Ternes, WisDOT Project Manager
Mike Helmrick, Environmental Coordinator, WisDOT Northeast Region
James Becker, WisDOT BTS-ESS

T	FIRST	LAST	TITLE	TRIBE	ADD1	ADD2	CITY	ST	ZIP
Ms.	Edith	Leoso	THPO	Bad River Band of Lake Superior	Chippewa Indians - WI	PO Box 39	Odanah	WI	54861
Ms.	Melissa	Cook	THPO	Forest CO Potawatomi Community – WI	Tribal Office	PO Box 340	Crandon	WI	54520
Mr.	Marcus	Ammesmaki	THPO	Fond du Lac Band of	Lake Superior Chippewa	1720 Big Lake Road	Cloquet	MN	55720
Mr.	William	Quackenbush	THPO	Ho-Chunk Nation	Executive Offices	PO Box 667	Black River Falls	WI	54615
Mr.	Jerry	Smith	THPO	Lac Courte Oreilles Band - Lake Superior	Chippewa Indians – WI Tribal Office	13394 W. Trepania Road	Hayward	WI	54843
Ms.	Melinda	Young	THPO	Lac Du Flambeau Band - Lake Superior	Chippewa Indians – WI (Tribal Historic Preservation Office)	PO Box 67	Lac du Flambeau	WI	54538
Mr.	David	Grignon	THPO	Menominee Indian Tribe of Wisconsion	W3426 CTH V V West	PO Box 910	Keshena	WI	54135
Ms.	Corina	Williams	THPO	Oneida Tribe of Indians of Wisconsin	Tribal Office	PO Box 365	Oneida	WI	54155
Mr.	Larry	Balber	THPO	Red Cliff Band of Lake Superior	Chippewa Indians – WI	88385 Pike Rd, HWY 13	Bayfield	WI	54814
Ms.	Wanda	McFaggen		St. Croix Band Chippewa Indians – WI	Tribal Historic Preservation Office	24663 Angeline Avenue	Webster	WI	54893
Mr.	Adam	VanZile	THPO	Sokaogon Chippewa Community	Mole Lake Band	3051 Sand Lake Road	Crandon	WI	54520
Ms.	Sandra	Massey	NAGPRA Representative	Sac & Fox Nation of Oklahoma		RR 2, Box 246	Stroud	OK	74079
Mr.	Gary	Bahr		Sac & Fox Nation of Missouri	In Kansas & Nebraska	305 N. Main	Reserve	KS	66434
Mr.	Jonathon	Buffalo	NAGPRA Representative	Sac & Fox of the Mississippi	In Iowa	349 Meskwaki Road	Tama	IA	52339
			Cultural Preservation Office	Iowa Tribe of Oklahoma		RR 1, Box 721	Perkins	OK	74059
Ms.	Hattie	Mitchell	THPO	Prairie Band Potawatomi Nation		16281 Q Road	Mayetta	KS	66509
Mr.	Art	Owen	THPO	Prairie Island Indian Community		6392 Sturgeon Lake Road	Welch	MN	55089
Mr.	giiwegiizhigookway	Martin	Ketegitigaaning Ojibwe Nation/THPO	Lac Vieux Desert Band - Lake Superior	Chippewa Indians	PO Box 249	Watersmeet	MI	49969
CC:									
Mr.	Matt	Ternes	WisDOT Project Manager	WisDOT – NE Region (Green Bay Office)	944 Vanderperren Way		Green Bay	WI	54304
Mr.	Mike	Helmrick	Environmental Coordinator	WisDOT – NE Region (Green Bay Office)	944 Vanderperren Way		Green Bay	WI	54304
Mr.	James	Becker	WisDOT BTS-ESS	WisDOT – Central Office	4802 Sheboygan Avenue		Madison	WI	53707

WisDOT Division of Transportation System Development
Northeast Region
944 Vanderperren Way
Green Bay, WI 54304

Governor Tony Evers
Secretary Craig Thompson
wisconsindot.gov
Telephone: (920)492-5643
FAX: (920)492-5640
Email: ner.dtsd@dot.wi.gov

March 21, 2019

«First» «Last»
«Title»
«TRIBE»
«Add1»
«Add2»
«City», «ST» «Zip»

Re: notice of federal undertaking and request for comments under 36 CFR 800
9200-10-00
Shawano – Green Bay
CTH VV Interchange
WIS 29
Brown County

The Wisconsin Department of Transportation (WisDOT), in cooperation with the Federal Highway Administration, is considering an undertaking located on WIS 29 in Brown County. The proposed undertaking may consist of:

- Closure of the existing at-grade intersection of WIS 29 and County VV. Construction of a diamond interchange at County VV and WIS 29; located approximately 1,700 feet west of the existing County VV/WIS 29 intersection. This interchange will connect with Marley Street to the north and County VV to the south. Roundabouts will be constructed at the County VV/WIS 29 eastbound ramp terminus, and the Marley Street/WIS 29 westbound ramp terminus.
- Milltown Road will be realigned to intersect with Marley Street at a roundabout located approximately 375 feet south of the existing Millwood Court/Marley Street intersection.
- County VV (Triangle Drive) will be realigned to intersect with a roundabout located approximately 1,000 feet south of the roundabout at County VV and the WIS 29 eastbound terminus. A new roadway will be constructed on the south leg of this roundabout, providing a connection to North Overland Road.
- A cul-de-sac will be constructed at the intersection of North Overland Road and Triangle Drive.
- Closure of the WIS 29 intersection with County U (County Line Road). On the north side of WIS 29, County Line Road will end at Glendale Avenue, and on the south side of WIS 29, County Line Road will connect to Old Wisconsin 29.
- Installation of a broad band fiber optic line that has two possible routes (see attached)

Your tribe has requested to be notified of undertakings in this area of Wisconsin. Attached is information regarding the proposed undertaking to assist you in providing comments regarding the determination of the area of potential effect (APE) and potential impacts to historic properties and/or burial sites.

WisDOT would be pleased to receive any comments your tribe wishes to share regarding the determination of the APE or potential impacts to historic properties and/or burials in this undertaking. Also, other environmental studies may be conducted to include endangered species survey, contaminated material investigations, soil testing and right-of-way surveys. Results of these studies will assist the engineers in the design to avoid, minimize or mitigate the proposed project's effect upon cultural and natural resources. To ensure your comments are considered during this phase of project development, WisDOT requests a response within 30 days of receipt of this letter.

Your tribe was previously contacted regarding this project under ID 9200-06-00. Initial coordination occurred in May of 2011; project updates were also sent in July 2015 and July 2016.

If your tribe wishes to become a consulting party under Section 106 of the National Historic Preservation Act or would like to receive additional information regarding this proposed project, please contact WisDOT Project Manager Matt Ternes at 944 Vanderperren Way, Green Bay, WI 54304 or by phone at (920) 366-3028.

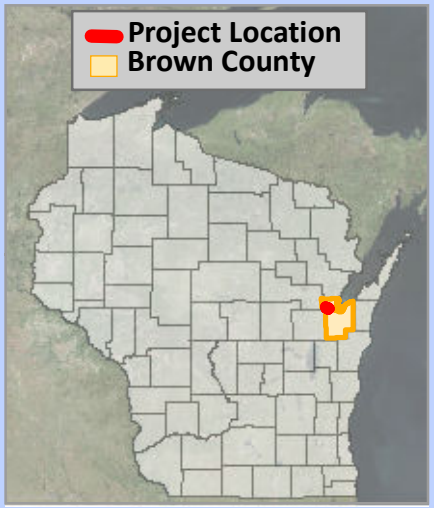
Sincerely,

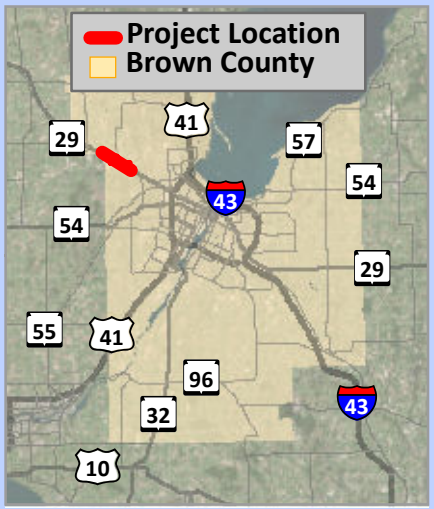
Matt Ternes
WisDOT Project Manager

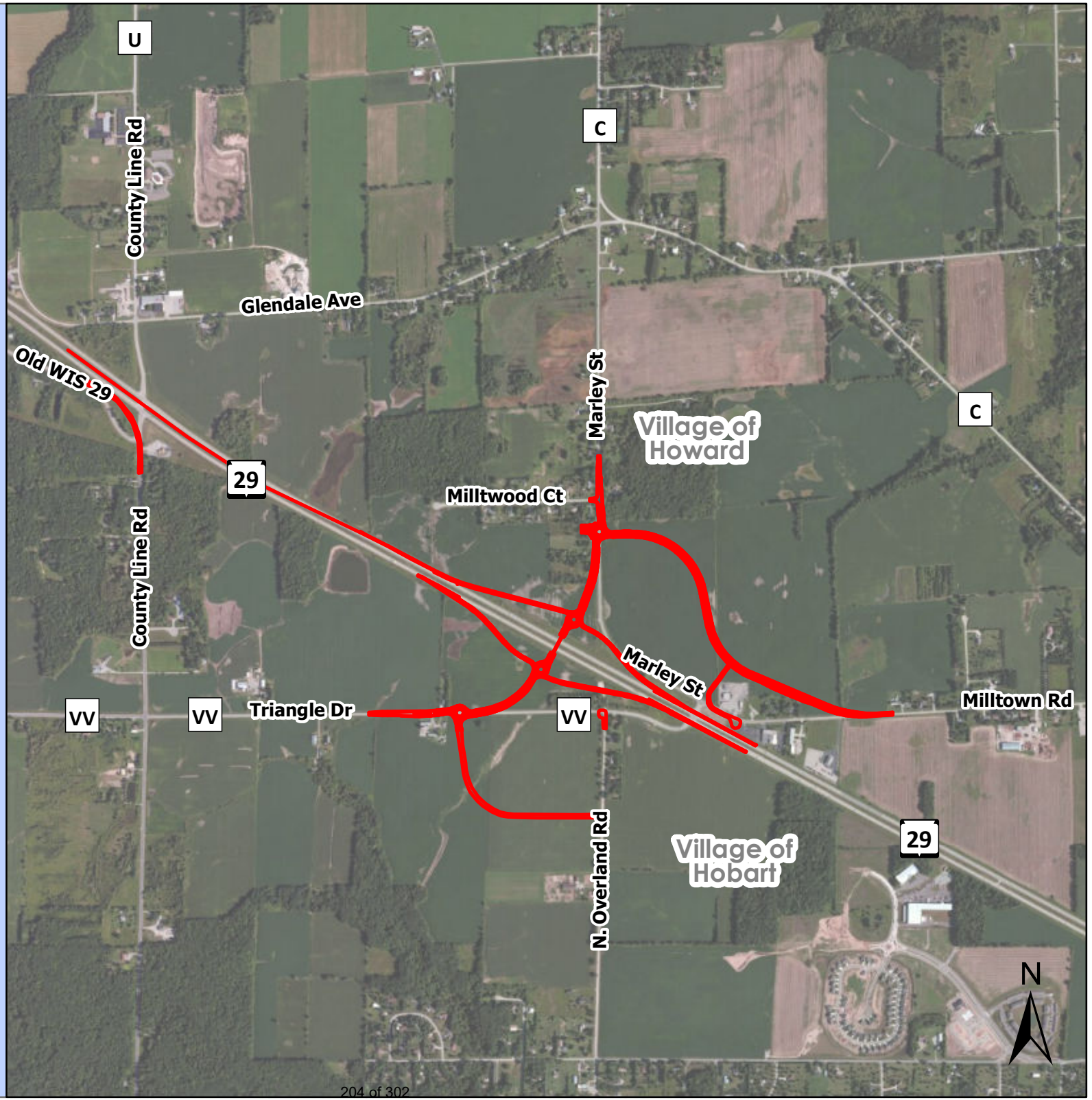
cc: bees.cr@dot.wi.gov
Matt Ternes, WisDOT Project Manager
Mike Helmrick, Environmental Coordinator, WisDOT Northeast Region
Ayres Associates

Project Location Map

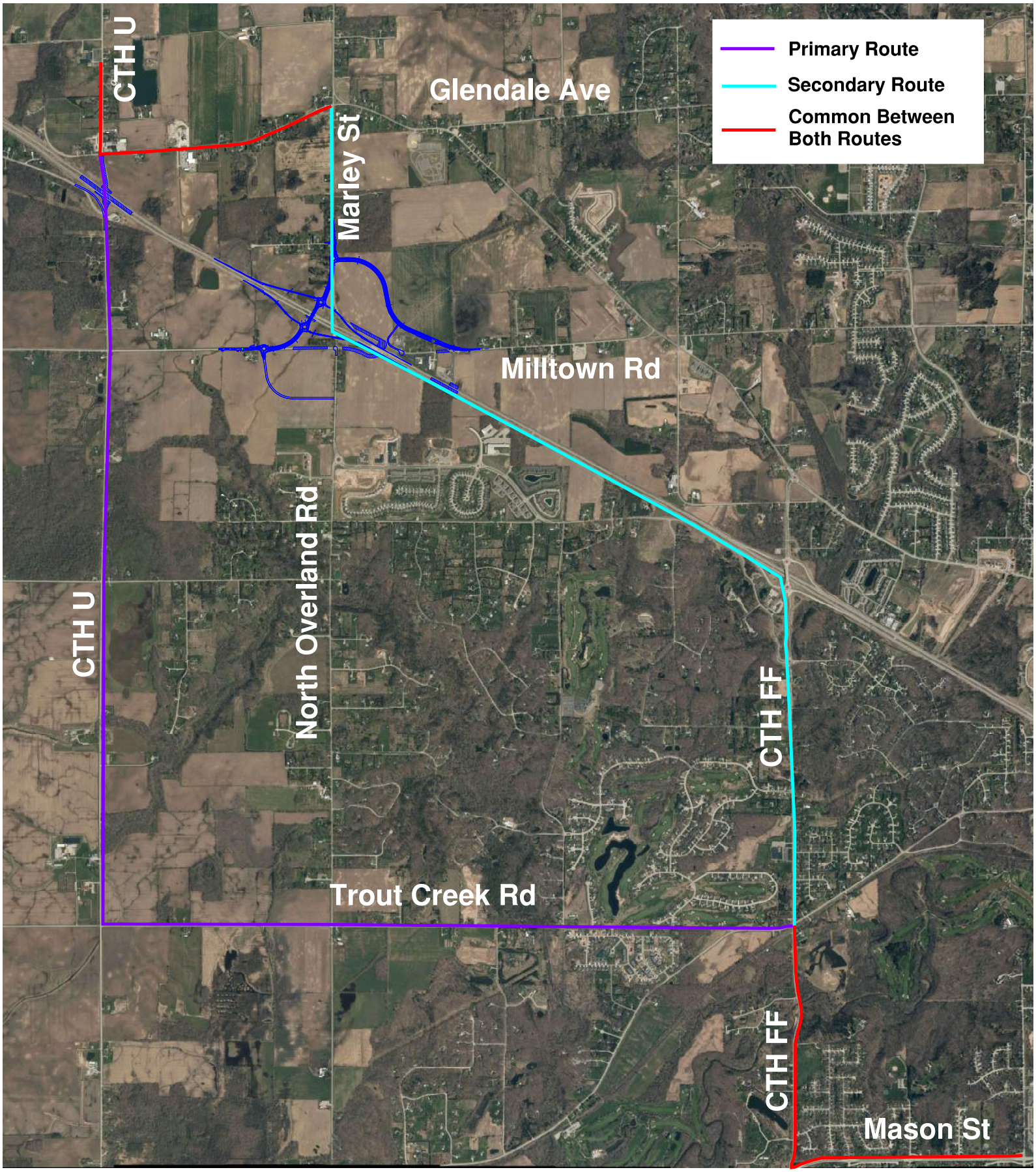
WIS 29
(CTH U to Woodland Rd)
Brown County
Project I.D. 9200-06-00







Brown County Broadband Fiber Possible Routes



Bad River Band of Lake Superior Chippewa Indians of Wisconsin
Attn: Edith Leoso, THPO
P.O. Box 39
Odanah, WI 54861

Forest County Potawatomi Community of Wisconsin
Attn: Michael LaRonge, THPO
Tribal Office
P.O. Box 340
Crandon, WI 54520

Fond du Lac Band of Lake Superior Chippewa
Attn: Marcus Ammesmaki
1720 Big Lake Road
Cloquet, MN 55720

Ho-Chunk Nation
Attn: William Quackenbush, THPO
Executive Offices
P.O Box 667
405 Airport Road
Black River Falls, WI 54615

Lac Courte Oreilles Band – Lake Superior
Attn: Robert Sander, THPO
Chippewa Indians – WI Tribal Office
13394 W. Trepania Road
Hayward, Wi 54843

Lac du Flambeau Band – Lake Superior
Attn: Melinda Young, THPO
Chippewa Indians – WI
P.O. Box 67
Lac du Flambeau, WI 54538

Menominee Indian Tribe of Wisconsin
Attn: David Grignon, THPO
W3426 CTH V V West
P.O. Box 910
Keshena, WI 54135

Oneida Tribe of Indians of Wisconsin
Attn: Corina Williams
Tribal Office
P.O. Box 365
Oneida, WI 54155

Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin
Attn: Larry Balber, THPO
Red Cliff Band of Lake Superior Chippewa Indians
88385 Pike Road, Highway 13
Bayfield, WI 54814

St. Croix Band Chippewa Indians – WI
Attn: Wanda McFaggen, THPO
Tribal Historic Preservation Office
24663 Angeline Avenue
Webster, WI 54893

Sokaogon Chippewa Community
Attn: Adam VanZile, THPO
Mole Lake Band
3051 Sand Lake Road
Crandon, WI 54520

Stockbridge Chippewa Community
Attn: Bonney Hartley, THPO
Tribal Office
W13447 Camp 14 Road
Bowler, WI 54416

Sac and Fox Nation of Oklahoma
Attn: Sandra Massey, NAGPRA Rep.
RR 2, Box 246
Stroud, OK 74079

Sac and Fox Nation of Missouri in Kansas and Nebraska
Attn: Gary Bahr
305 North Main
Reserve, KS 66434

Sac and Fox of the Mississippi in Iowa
Attn: Jonathan Buffalo, NAGPRA Rep.
349 Meskwaki Road
Tama, IA 52339-9629

Iowa Tribe of Oklahoma
Cultural Preservation Office
RR 1, Box 721
Perkins, OK 74059

Prairie Band Potawatomi Nation
Attn: Hattie Mitchell, NHPA Rep.
16281 Q Road
Mayetta, KS 66509

Lac Vieux Desert Band of Lake Superior Chippewa Indians
Attn: giiwegiizhigookway Martin, THPO
Ketegitigaaning Ojibwe Nation
P.O. Box 249
Watersmeet, MI 49969

Prairie Island Indian Community
Attn: Noah White, THPO
Minnesota Mdewakanton Sioux
5636 Sturgeon Lake Road
Welch, MN 55089

Stockbridge-Munsee Tribal Historic Preservation Office

Sherry White - Tribal Historic Preservation Officer
W13447 Camp 14 Road
P.O. Box 70
Bowler, WI 54416

Date 5-24-11
Project Number ID 9200-06-00 Freeway Conversion
TCNS Number
Company Name WisDOT

We have received you letter for the above listed project. Before we can process the request we need more information. The additional items needed are checked below.

Additional Information Required:

_____Site visit by Tribal Historic Preservation Officer
_____Archeological survey, Phase 1
_____Literature/record search including colored maps
_____Pictures of the site
_____Any reports the State Historic Preservation Office may have
_____Has the site been previously disturbed
_____ Review fee must be included with letter

If site has been previously disturbed please explain what the use was and when it was disturbed.

Other comments or information needed

After reviewing your letter we find that:

_____ "No Properties" the Tribe concurs with a Federal agency's finding that there are no National Register eligible or listed properties within the Federal undertaking's area of potential effect or APE 36CFR 800.4 (d) (1)

_____"No Effect" historic or prehistoric properties are present but the Federal undertaking will have no effect on the National Register eligible or listed properties as defined in Sec. 800.16(i)

_____"No Adverse Effect" refers to written opinions provided to a Federal agency as to whether or not the Tribe agrees with (or believes that there should be) a Federal agency finding that its Federal undertaking would have "No Adverse Effect" 36 CFR 800.5(b)

(715) 793-3970 *Email: sherry.white@mohican-nsn.gov*

_____"Adverse Effect" refers to written opinions provided to a Federal Agency that undertaking would cause Adverse Effects to the area of potential effect on National Register or eligible properties according to the criteria set forth in 36 CFR 800. 5(a) (1), (2) (i)- (vii)

_X_ Project not within a county the Mohican Tribe has interest in

Should this project inadvertently uncover a Native Amercian site, we ask that you halt all construction and notify the Stockbridge-Munsee Tribe immediately.

Please do not resubmit project for changes that are not ground disturbance.

Sincerely,

Sherry White

Sherry White
Tribal Historic Preservation Officer

Exhibit G

Transportation Management Plan

WisDOT TMP Documentation and Request for Approval

TMP ID: 4826

Current Version

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:	NE
Local Program:	No
Created Comment:	
Federal Oversight:	Yes
Design ID:	9200-10-00
Project Title:	Shawano - Green Bay; CTH VV Interchange
County:	BROWN
Highway:	WIS 29
AADT:	23000
AADT Year:	2018
Construction ID:	9200-10-71
Project Type:	Reconstruction
Project Limits:	Shawano - Green Bay; CTH VV Interchange
Project Length:	1.338 Mile(s)
Project Duration:	580 Day(s)
Engineer's Estimate:	more than $10M
PS&E Date:	05/01/2020
LET Date:	09/08/2020
NHS Route:	Yes

1B. Project Impacts:

Anticipated Begin:	04/2021
Anticipated End:	10/2022
OSOW Route:	Yes

1C. Location:

Highway

Location #	1
Begin County:	BROWN
End County:	BROWN
Highway:	WIS 29 EB
Closure Type:	Mainline

Begin Landmark:	BROWN - OUTAGAMIE CO LINE | WIS 29 EB/WIS 32 SB | BROWN
Direction From:	At Landmark
Distance From:	0 Mile(s)
End Landmark:	COUNTY FF (B-05-0402 BEGIN) | WIS 29 EB/WIS 32 SB | BROWN
Direction From:	At Landmark
Distance From:	0.00 Mile(s)

Location #	2
Begin County:	BROWN
End County:	BROWN
Highway:	WIS 29 WB
Closure Type:	Mainline
Begin Landmark:	COUNTY FF (B-05-0402 BEGIN) | WIS 29 WB/WIS 32 NB | BROWN
Direction From:	At Landmark
Distance From:	0.00 Mile(s)
End Landmark:	OUTAGAMIE - BROWN CO LINE | WIS 29 WB/WIS 32 NB | BROWN
Direction From:	At Landmark
Distance From:	0.00 Mile(s)

Location #	3
Begin County:	BROWN
End County:	BROWN
Highway:	WIS 54 EB
Closure Type:	Mainline
Begin Landmark:	COUNTY FF | WIS 54 EB | BROWN
Direction From:	At Landmark
Distance From:	0.00 Mile(s)
End Landmark:	COUNTRY CLUB RD | WIS 54 EB | BROWN
Direction From:	At Landmark
Distance From:	0.00 Mile(s)

Location #	4
Begin County:	BROWN
End County:	BROWN
Highway:	WIS 54 WB
Closure Type:	Mainline
Begin Landmark:	COUNTRY CLUB RD | WIS 54 WB | BROWN
Direction From:	At Landmark
Distance From:	0.00 Mile(s)
End Landmark:	COUNTY FF | WIS 54 WB | BROWN

Direction From: At Landmark
Distance From: 0.00 Mile(s)

Local Road

Begin County: BROWN
End County: BROWN
Roadway Name: CTH VV
Begin Landmark (LR): CTH U
End Landmark (LR): WIS 29

Begin County: BROWN
End County: BROWN
Roadway Name: Marley Street
Begin Landmark (LR): WIS 29
End Landmark (LR): Glendale Avenue

Begin County: BROWN
End County: BROWN
Roadway Name: CTH U
Begin Landmark (LR): CTH VV
End Landmark (LR): School Lane

Begin County: BROWN
End County: BROWN
Roadway Name: Milltown Road
Begin Landmark (LR): Marley Street
End Landmark (LR): Bronco Court

Begin County: BROWN
End County: BROWN
Roadway Name: CTH FF
Begin Landmark (LR): WIS 54
End Landmark (LR): WIS 29

Begin County: BROWN
End County: BROWN
Roadway Name: Glendale Avenue
Begin Landmark (LR): Marley Street
End Landmark (LR): CTH U

2. Brief description of work activities.

The improvements along WIS 29 will consist of a diamond interchange for County VV and removal of the at grade access at County U. The interchange at County VV will consist of realigning County VV beginning south of WIS 29, approximately 2700 feet west of the intersection of County VV and Overland Road. An overpass will be constructed approximately 1700 feet west of the existing at-grade intersection of County VV and WIS 29. The construction will end approximately 500 feet north of the Marley Street and Millwood Court intersection. On and off ramps will be constructed for both eastbound and westbound lanes of WIS 29. Milltown Road will also be realigned, intersecting with Marley Street approximately 400 feet south of Millwood Court. The section of relocated Milltown Road will be called Evergreen Avenue. The relocated roadway ends approximately 2300 feet east of the existing Milltown Road intersection with WIS 29. A new roadway called Centerline Drive will be constructed between County VV and North Overland Road. As part of the project broadband fiber optic will be installed. The new fiber will run from the intersection of WIS 54/Country Club Road west on WIS 54 to County FF, north of County FF to WIS 29, west on WIS 29 to Marley Street, north on Marley Street to Glendale Avenue, west on Glendale Avenue to County U, finally north on County U to School Lane.

3. Briefly describe the staging planned for maintaining traffic.

Interchange Construction: Access will be maintained at all times to adjacent businesses and residents from at least one direction. Stage 1 (April 2021 - July 2021) All roadways will be open to traffic with work taking place off alignment. Stage 2 (July 2021 - October 2021) Marley Street will be closed from Milltown Road to Glendale Avenue to allow for the construction of the roundabout at Marley Street/Evergreen Avenue. In addition Milltown Road will be closed east of Marley Street to allow for the connection of Evergreen Avenue to Milltown Road. Access to the existing businesses west of the Evergreen Avenue connection will still have access to WIS 29 during this stage. At the end of Stage 2, Marley Street/Evergreen Avenue roundabout along with new Evergreen Avenue will be completed and will provide access between Milltown Road and Marley Street. A temporary connection will be made between WIS 29 and Old Milltown road Connection Road, therefore allowing access from WIS 29 to Evergreen Avenue. Stage 3 (November 2021 - March 2022) .Structure work will take place with lane closures on WIS 29. Roadway work will be shut down for winter. Stage 4 (April 2022 - July 2022) CTH VV will be closed to allow for construction of the CTH VV/Centerline Drive roundabout. Access from North Overland Road to WIS 29 will be maintained during this stage. CTH VV west of the project will be detoured to CTH U north to WIS 29 east back to CTH VV. Stage 5 (July 2022 - August 2022) During one of the last construction stages of the project, to complete the ramps connecting to WIS 29, access to WIS 29 from North Overland Road and also from Evergreen Avenue will be closed. Lane closures will be required on WIS 29. CTH VV/Centerline Drive roundabout will be opened to allow a connection from CTH VV to North Overland Road via Centerline Drive. The detour of CTH VV will remain in place from the last stage. Stage 6 (September 2022 - October 2022) Existing RCUTS will be removed. In addition CTH U access to WIS 29 will be removed. CTH U will be reconstructed to connect into Old 29 Road. Lane closures will be required along WIS 29. CTH VV interchange, including CTH VV, Marley Street, Milltown Road, Evergreen Ave, and Centerline Drive will be completed and open to traffic. See attached conceptual staging plans for additional information. Broadband Fiber Construction: Construction will be completed with single lane closures and shoulder closures according to Standard Detail Drawings. Exact locations are unknown at this time due to plans currently under design.

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?

Access to businesses along the project corridor will be maintained by use of construction staging and by the use of the sideroads. Coordination will take place with the local schools regarding school bus routes along the project corridor. Coordination will also take place with garbage collection and postal services as the design continues. All strategies are in compliance with ADA.

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?

Traffic restrictions have not been provided yet by the region.

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)?

Traffic restrictions have not been provided yet by the region.

7. Please provide the following.

a) Minimum lane width to be maintained.

12 Feet

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

16 Feet

c) Minimum height (if less than typically available)

Minimum height to be maintained.

8. Will the project be detoured?

☑ Yes ☐ No

a) Explain length of detour, travel times, improvements required for signal timing, surface and shoulder conditions, capacity, etc

CTH VV will be detoured in year two of construction. The detour will start at the CTH VV/CTH U intersection. Traffic will follow CTH U to WIS 29, then take eastbound WIS 29 back to CTH VV. Detour length is approximately 2 miles, with an additional travel time for the detour of less than 5 minutes.

b) Are there width and height restrictions on the detour?

☐ Yes ☑ No

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

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying WIS 29 traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday periods: - From noon Friday, May 28, 2021 to 6:00 AM Tuesday, June 1, 2021 for Memorial Day; - From noon Friday, July 2, 2021 to 6:00 AM Tuesday, July 6, 2021 for Fourth of July; - From noon Friday, September 3, 2021 to 6:00 AM Tuesday, September 7, 2021 for Labor Day; - From noon Friday, November 19, 2021 to 6:00 AM Monday, November 22, 2021 for Opening Deer Gun Hunting; - From noon Wednesday, November 24, 2021 to 6:00 AM Monday, November 29, 2021 for Thanksgiving; - Green Bay Packers home games and Packer Family Scrimmage: From five hours prior to kickoff of the game until five hours after the end of the game; - From noon Friday, December 24, 2021 to 6:00 AM Monday December 27, 2021 for Christmas; - From noon Friday, December 31, 2021 to 6:00 AM Monday January 3, 2022 for New Years; - From noon Friday, May 27, 2022 to 6:00 AM Tuesday, May 31, 2022 for Memorial Day; - From noon Friday, July 1, 2022 to 6:00 AM Tuesday, July 5, 2022 for Fourth of July; - From noon Friday, September 2, 2022 to 6:00 AM Tuesday, September 6, 2022 for Labor Day.

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).

Coordination with region is ongoing.

11. What is the anticipated travel delay during the project for each impacted roadway? The Regional Work Zone Engineer can assist you in determining your delay. If the project anticipates using Lane Rental, Enhance Liquidated Damages, Interim Liquidated Damages, or other alternative contracting method that uses road user costs, include what the delay will be from the impacts. For a Lane Rental, what will be the queuing and additional delay if the roadway is not reopen?

Coordination is ongoing with region.

Delay and Queue Information

#	Location Description	Delay (min)	Queue (mi)	Delay Cause

1	WIS 29 EB From BROWN - OUTAGAMIE CO LINE to COUNTY FF (B-05-0402 BEGIN)	2	0.0	Lane Closure
2	WIS 29 WB From COUNTY FF (B-05-0402 BEGIN) to OUTAGAMIE - BROWN CO LINE	0	0.0	
3	WIS 54 EB From COUNTY FF to COUNTRY CLUB RD	0	0.0	
4	WIS 54 WB From COUNTRY CLUB RD to COUNTY FF	0	0.0	

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

No alternate route is anticipated for WIS 29. Anticipated alternate routes for local roads include Glendale Avenue, North County Line Road, Centennial Centre Blvd. No improvements are planned for alternative routes.

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

There are no intersection improvements planned for the project.

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).

There are no anticipated traffic impacts on other routes. The Village of Hobart will be constructing a roundabout on North Overland Road in 2021 at the future connection of Centerline Drive. Brown County will be reconstructing Marley Street from Millwood Court to Glendale Avenue in 2022.

15. Does the project affect other regions/states?

☐ Yes ☑ No

16. Check mitigation strategies planned

STRATEGY	COMMENTS
☑ Public information campaigns	WisDOT will provide a media release and put on the WisDOT Website when road work will begin. Project updates will be released weekly to keep public up to date.
☑ Off-peak lane closures	Restrictions for when lanes can be closed.
☐ Temporary widening to maintain traffic lanes	
☑ Changeable message signs (PCMS)	Changeable message signs will be used to inform the traveling public of changes in staging prior to the switch and also before road closures.

- ☐ Ramp closures
- ☐ Temporary signals/timing revisions
- ☐ Coordination with adjacent projects
- ☐ Innovative contracting, (lane rental, A+B, etc)
- ☐ Temporary Emergency Pullouts
- ☐ Motorist service patrols
- ☑ Nighttime Work — Setting of bridge beams will require nighttime rolling closures of WIS 29.
- ☐ Enhanced Traffic control devices (Wet reflective pavement marking, temp concrete barrier, etc)
- ☑ Reduced regulatory speed limit (requires declaration approved by Regional Traffic Engineer, & by BTO if 65-mph hwy or higher speed facility.) — Speed limit to be reduce along WIS 29 during lane closures and lane restrictions for safety.

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

WisDOT will provide media releases weekly to inform the public of project progress. In addition the contractor will hold business meetings to update businesses and public of schedule and work operations.

18. Describe incident management strategies planned.

Emergency services will be notified by the Contractor of the roadwork so their routes can be adjusted accordingly. Coordination will be ongoing during construction as staging changes and access routes change.

19. Describe how transit impacts will be mitigated.

There are no transit routes though the project area. School bus routes coordination is ongoing to minimize impacts.

Attachments:

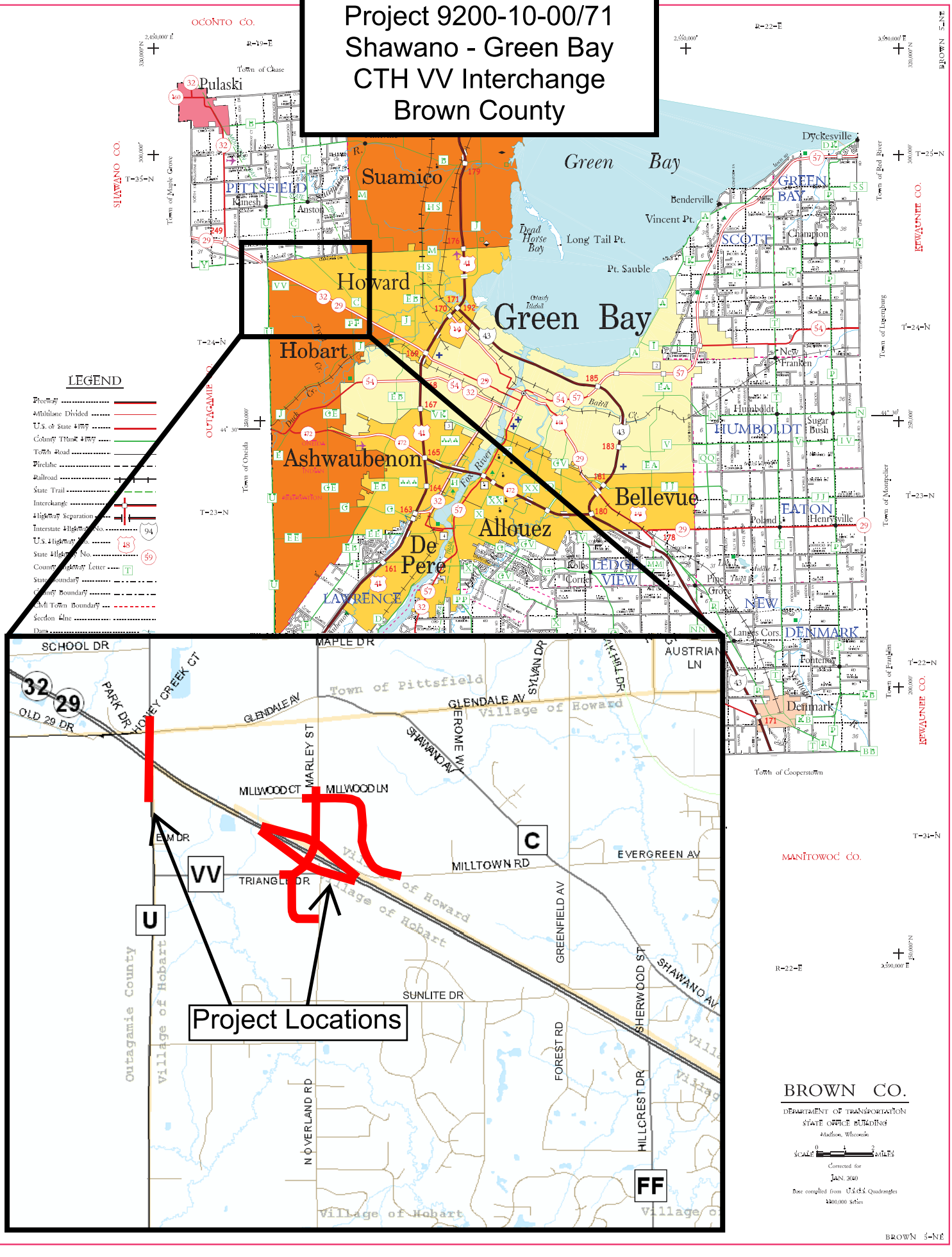
Attachments for TMP ID 4826 are listed below.

[f] Project location map.pdf
[f] Traffic.pdf
[f] Conceptual Staging.pdf

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

Approvals:

Project 9200-10-00/71
Shawano - Green Bay
CTH VV Interchange
Brown County



WisDOT TRAFFIC FORECAST REPORT

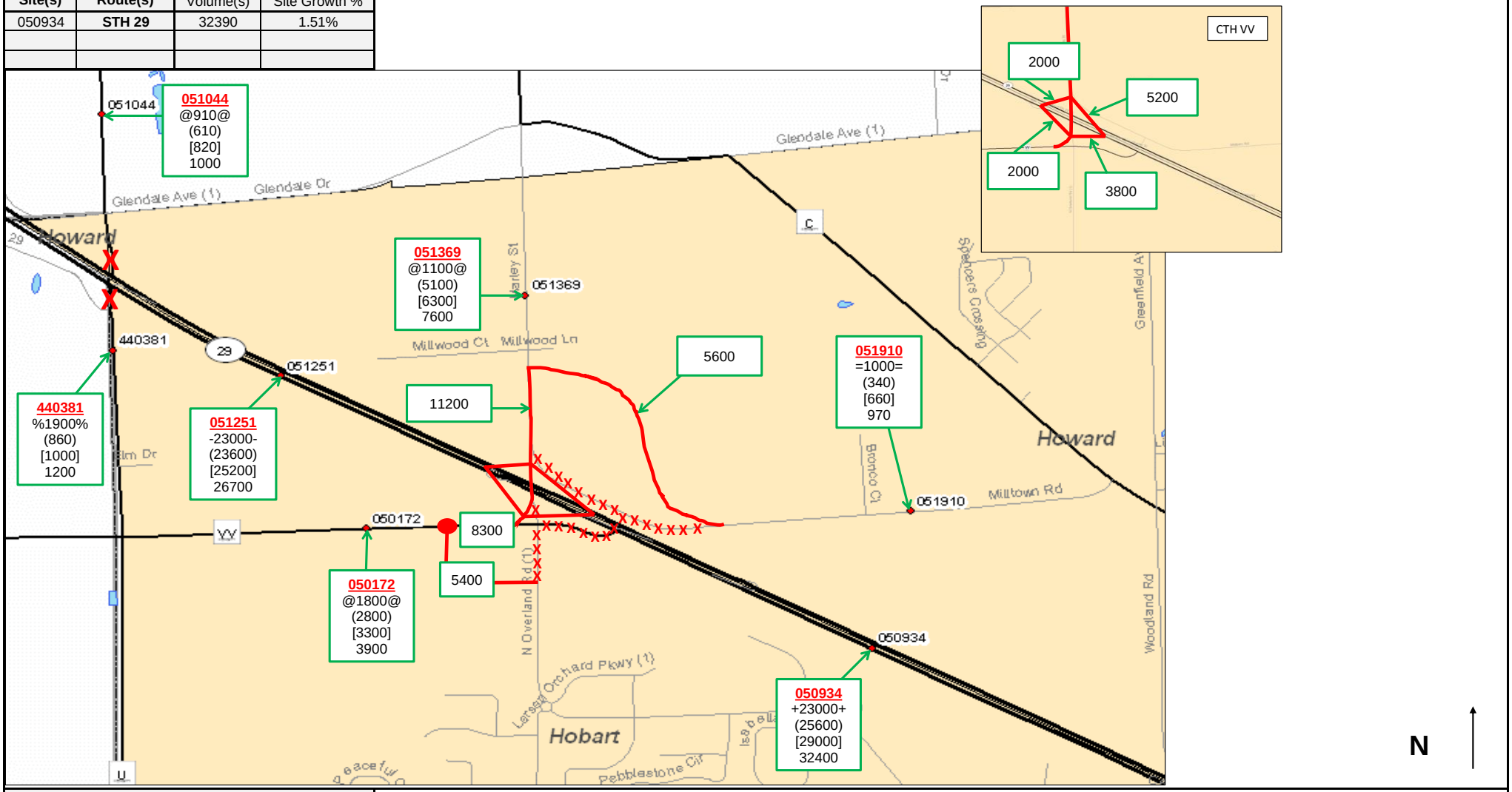
PROJECT ID(S): 9200-06-00 (Build)
ROUTE(S): STH 29

Region/COUNTY(IES): NE / Brown
LOCATION: @ CTH VV
COMPLETED: March 22, 2019

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

Developed by: Chris Chritton
Phone: 608-266-0194
FAX #: (608) 267-0294
E-Mail: chris.chritton@dot.wi.gov

Site(s)	Route(s)	Volume(s)	Site Growth %
050934	**STH 29**	32390	1.51%



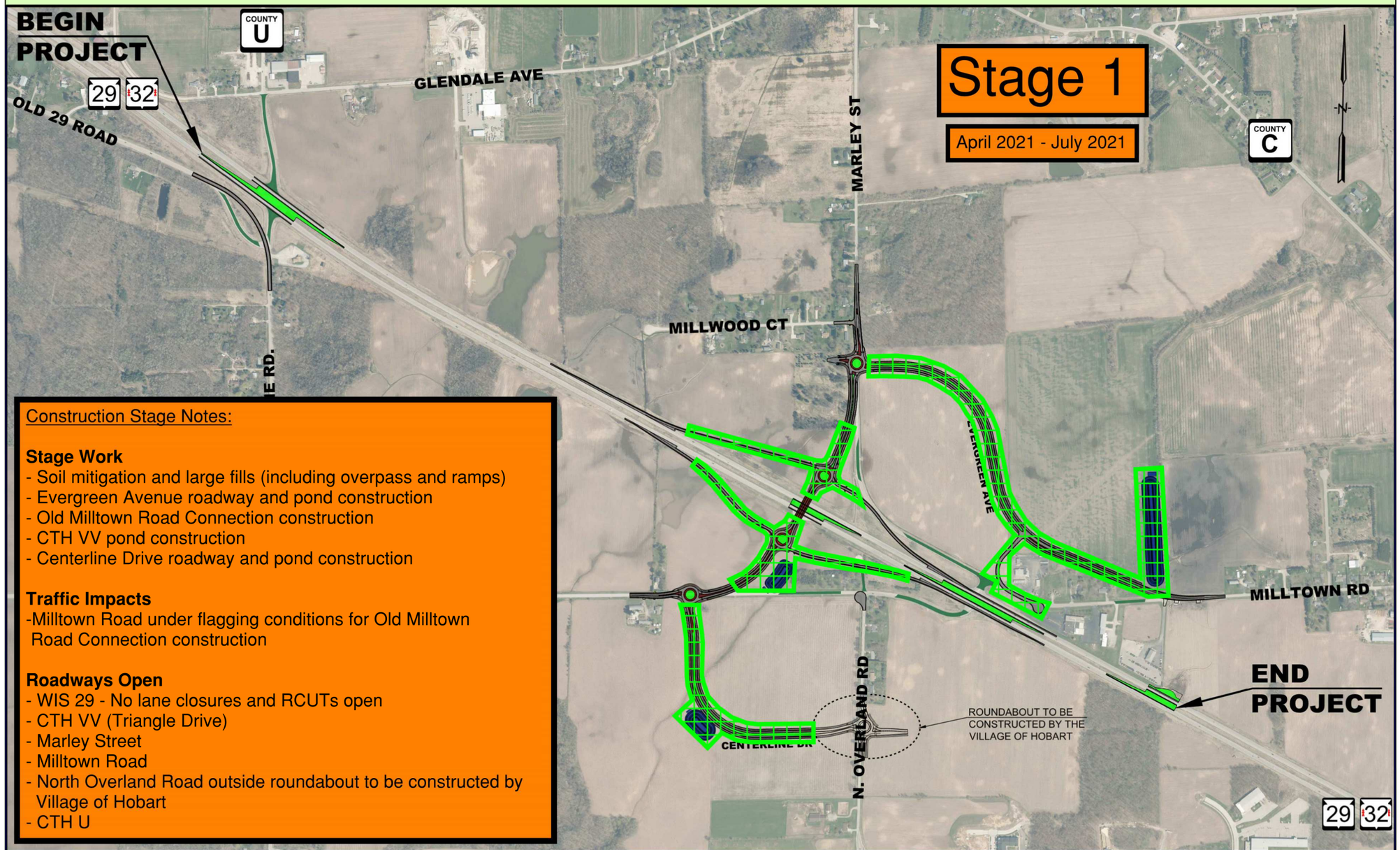
SITE ID = Colored, **bolded**, and underlined

Symbol	Count	Symbol	Forecast
-000-	2018 Count	(000)	2022 AADT
000	2017 Count	[000]	2032 AADT
+000+	2015 Count	000	2042 AADT
=000=	2013 Count		
%000%	2010 Count		
@000@	2009 Count		

NOTES ON THE FORECAST:

1. This projection assumes that no major new traffic generators will be added to the development already included in the 2010/2045 Northeast Regional Travel Demand Model.
2. Vehicle classification data and design values (K factors, directional splits, and percent trucks in design hours) are available here: http://wisconsindot.gov/Pages/projects/data-plan/traf-fore/default.aspx
3. STH 29 is a Factor Group II (Urban-Other) roadway (indicating low to moderate fluctuation in traffic from a seasonal perspective). It is functionally classified as a Urban Principal Arterial (14) for count purposes.
4. The 2010/2045 Northeast Regional Travel Demand Model was used to complete this forecast.
5. Roadway improvements coded within the existing plus committed (E+C) network of the 2010/2045 Northeast Regional Travel Demand Model were assumed to be in place for the purposes of developing this forecast.

Project Overview



Construction Stage Notes:

Stage Work
- Soil mitigation and large fills (including overpass and ramps)
- Evergreen Avenue roadway and pond construction
- Old Milltown Road Connection construction
- CTH VV pond construction
- Centerline Drive roadway and pond construction

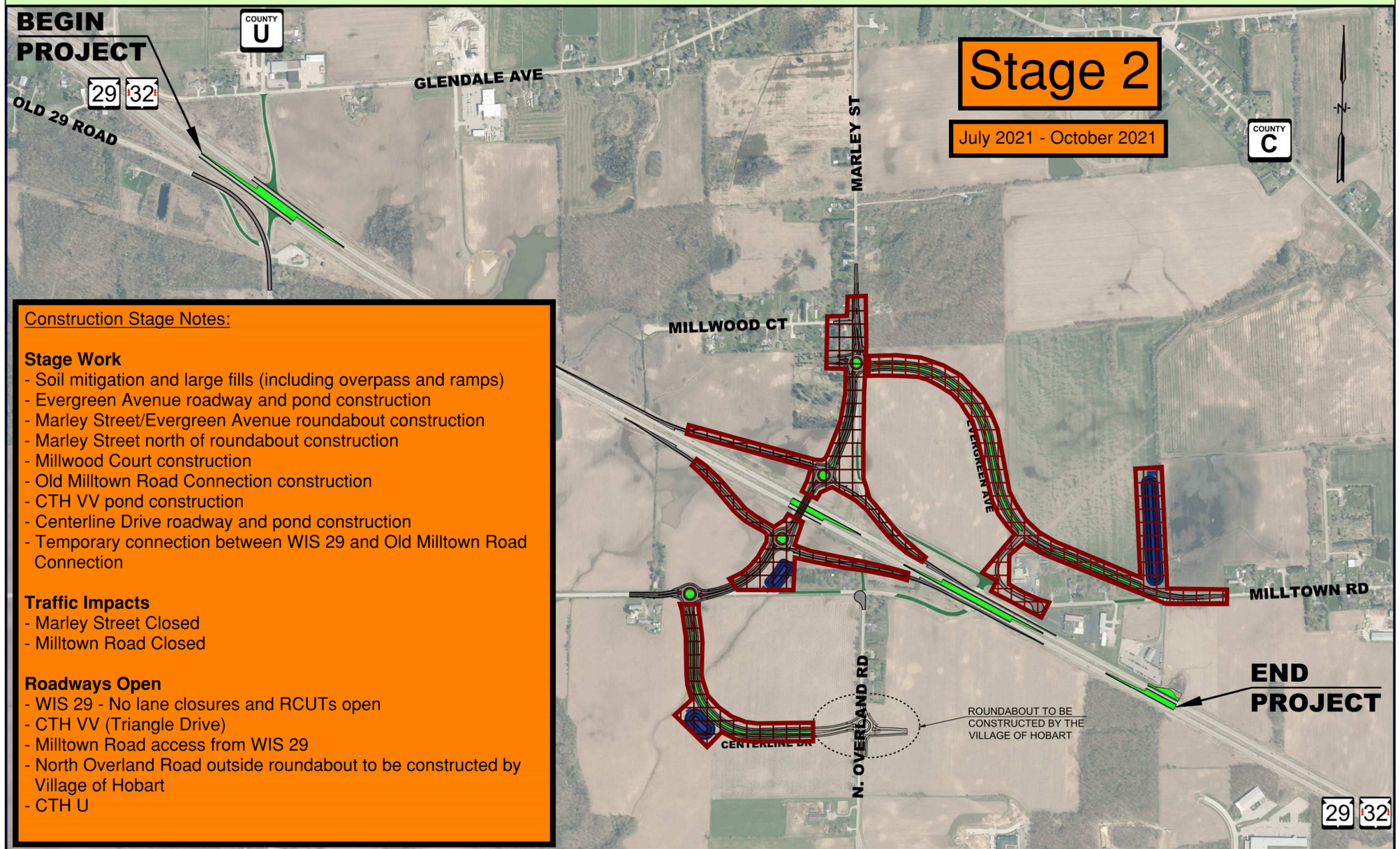
Traffic Impacts
-Milltown Road under flagging conditions for Old Milltown Road Connection construction

Roadways Open
- WIS 29 - No lane closures and RCUTs open
- CTH VV (Triangle Drive)
- Marley Street
- Milltown Road
- North Overland Road outside roundabout to be constructed by Village of Hobart
- CTH U

WIS 29/COUNTY VV Interchange, Brown County

U.S. Department of Transportation Federal Highway Administration

Project Overview



Construction Stage Notes:

Stage Work
- Soil mitigation and large fills (including overpass and ramps)
- Evergreen Avenue roadway and pond construction
- Marley Street/Evergreen Avenue roundabout construction
- Marley Street north of roundabout construction
- Millwood Court construction
- Old Milltown Road Connection construction
- CTH VV pond construction
- Centerline Drive roadway and pond construction
- Temporary connection between WIS 29 and Old Milltown Road Connection

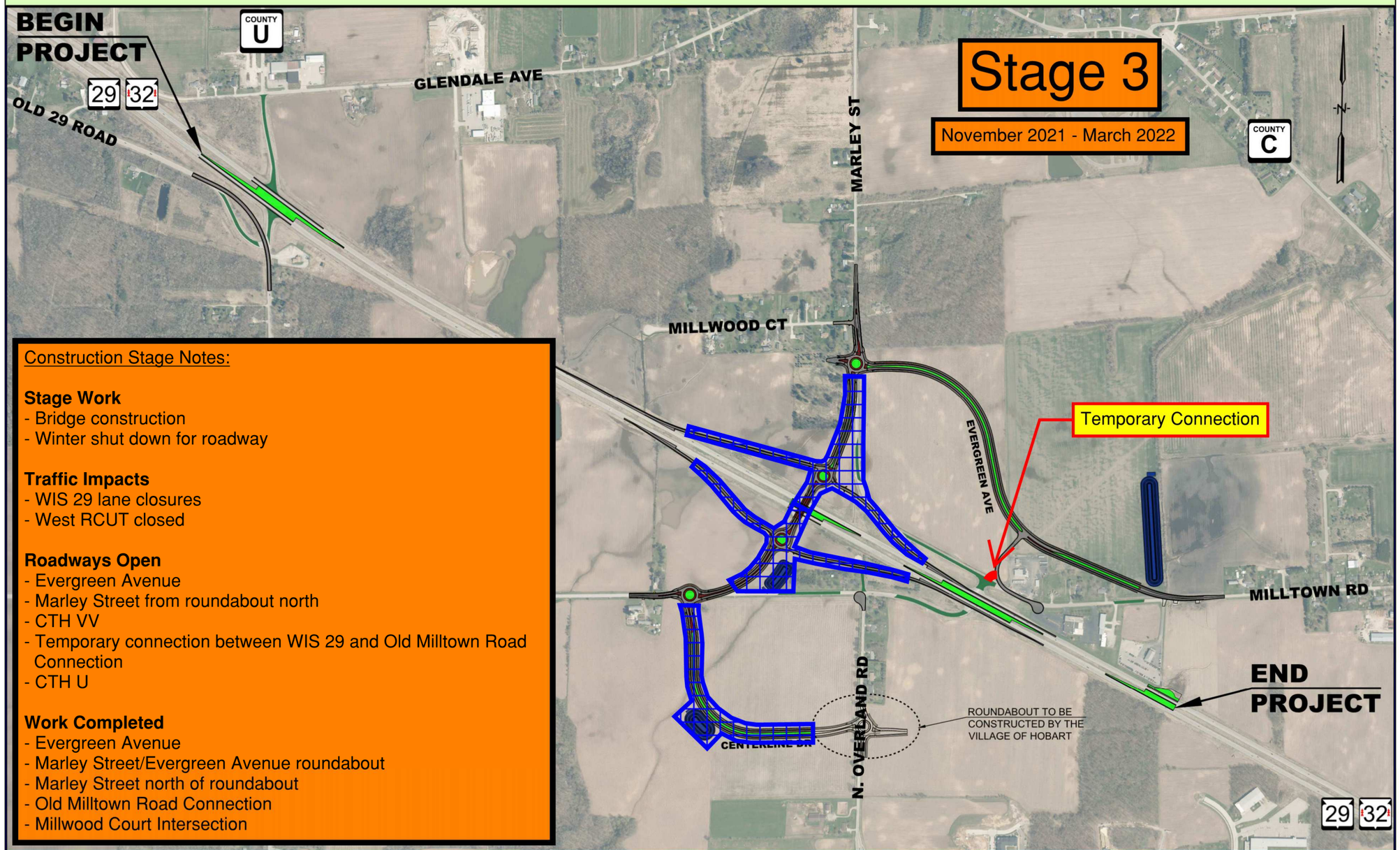
Traffic Impacts
- Marley Street Closed
- Milltown Road Closed

Roadways Open
- WIS 29 - No lane closures and RCUTs open
- CTH VV (Triangle Drive)
- Milltown Road access from WIS 29
- North Overland Road outside roundabout to be constructed by Village of Hobart
- CTH U

WIS 29/COUNTY VV Interchange, Brown County

U.S. Department of Transportation Federal Highway Administration

Project Overview



Construction Stage Notes:

Stage Work
- Bridge construction
- Winter shut down for roadway

Traffic Impacts
- WIS 29 lane closures
- West RCUT closed

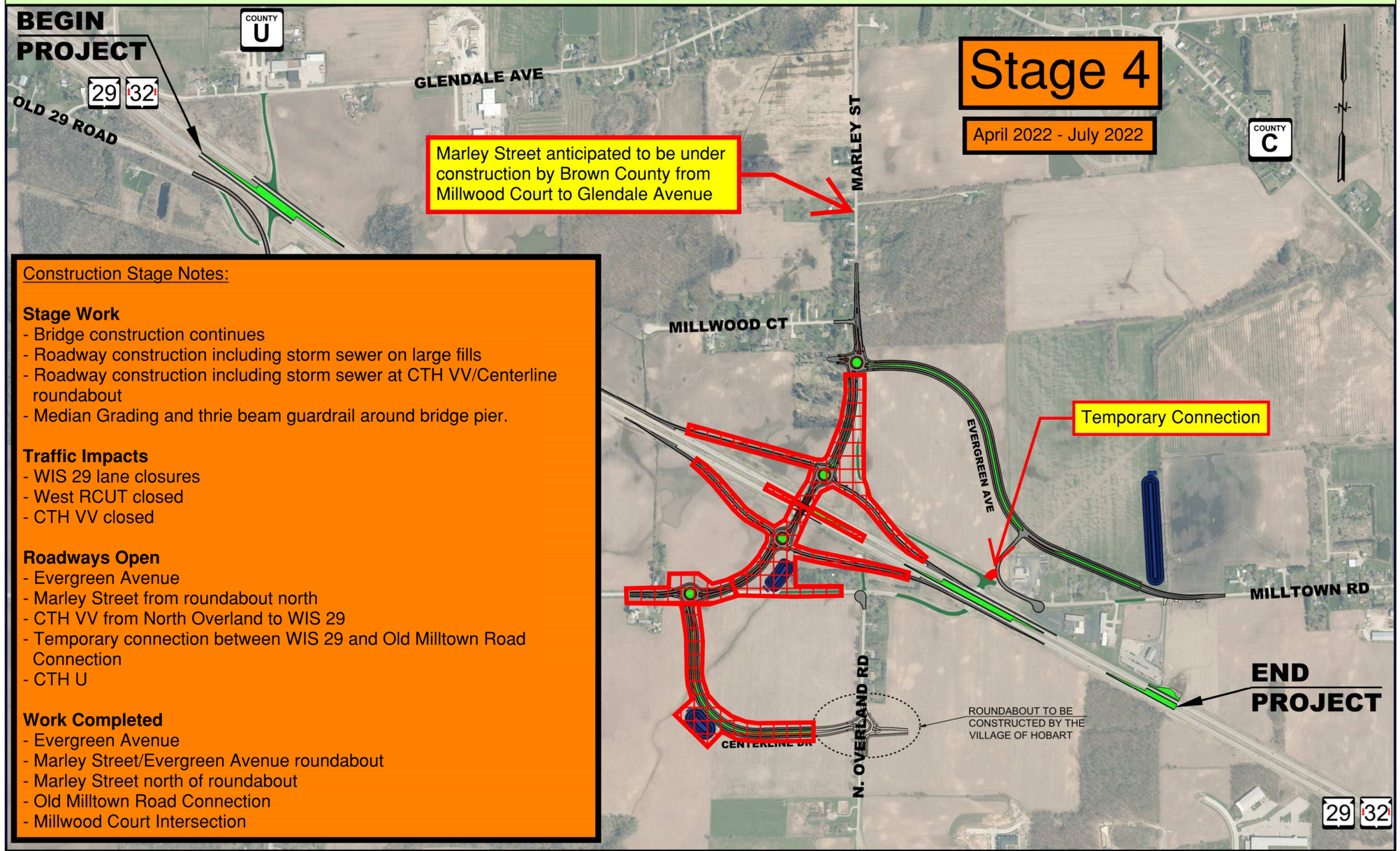
Roadways Open
- Evergreen Avenue
- Marley Street from roadabout north
- CTH VV
- Temporary connection between WIS 29 and Old Milltown Road Connection
- CTH U

Work Completed
- Evergreen Avenue
- Marley Street/Evergreen Avenue roundabout
- Marley Street north of roundabout
- Old Milltown Road Connection
- Millwood Court Intersection

WIS 29/COUNTY VV Interchange, Brown County

U.S. Department of Transportation Federal Highway Administration

Project Overview



Construction Stage Notes:

Stage Work
- Bridge construction continues
- Roadway construction including storm sewer on large fills
- Roadway construction including storm sewer at CTH VV/Centerline roundabout
- Median Grading and thrie beam guardrail around bridge pier.

Traffic Impacts
- WIS 29 lane closures
- West RCUT closed
- CTH VV closed

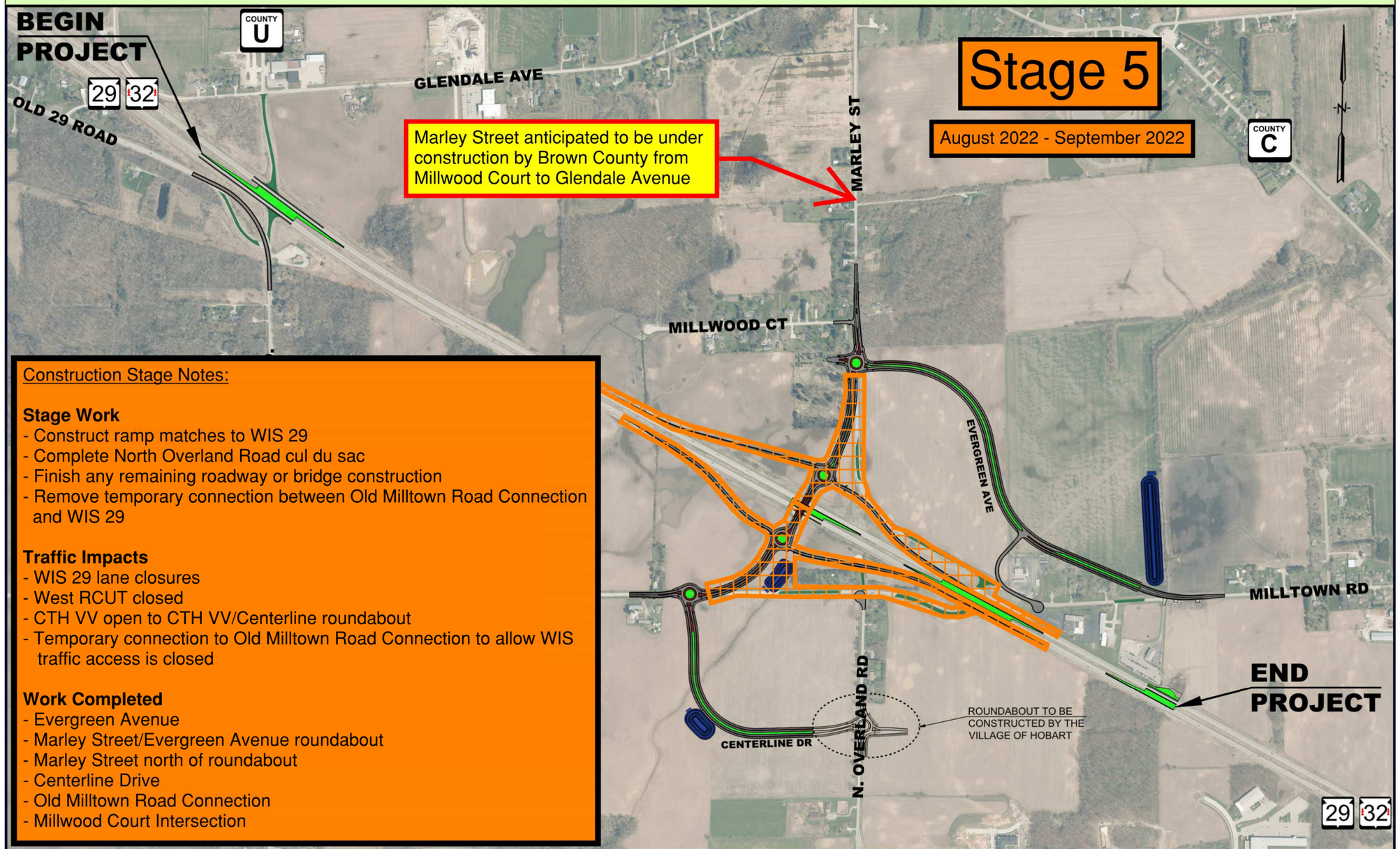
Roadways Open
- Evergreen Avenue
- Marley Street from roundabout north
- CTH VV from North Overland to WIS 29
- Temporary connection between WIS 29 and Old Milltown Road Connection
- CTH U

Work Completed
- Evergreen Avenue
- Marley Street/Evergreen Avenue roundabout
- Marley Street north of roundabout
- Old Milltown Road Connection
- Millwood Court Intersection

WIS 29/COUNTY VV Interchange, Brown County

U.S. Department of Transportation Federal Highway Administration

Project Overview



Construction Stage Notes:

Stage Work
- Construct ramp matches to WIS 29
- Complete North Overland Road cul du sac
- Finish any remaining roadway or bridge construction
- Remove temporary connection between Old Milltown Road Connection and WIS 29

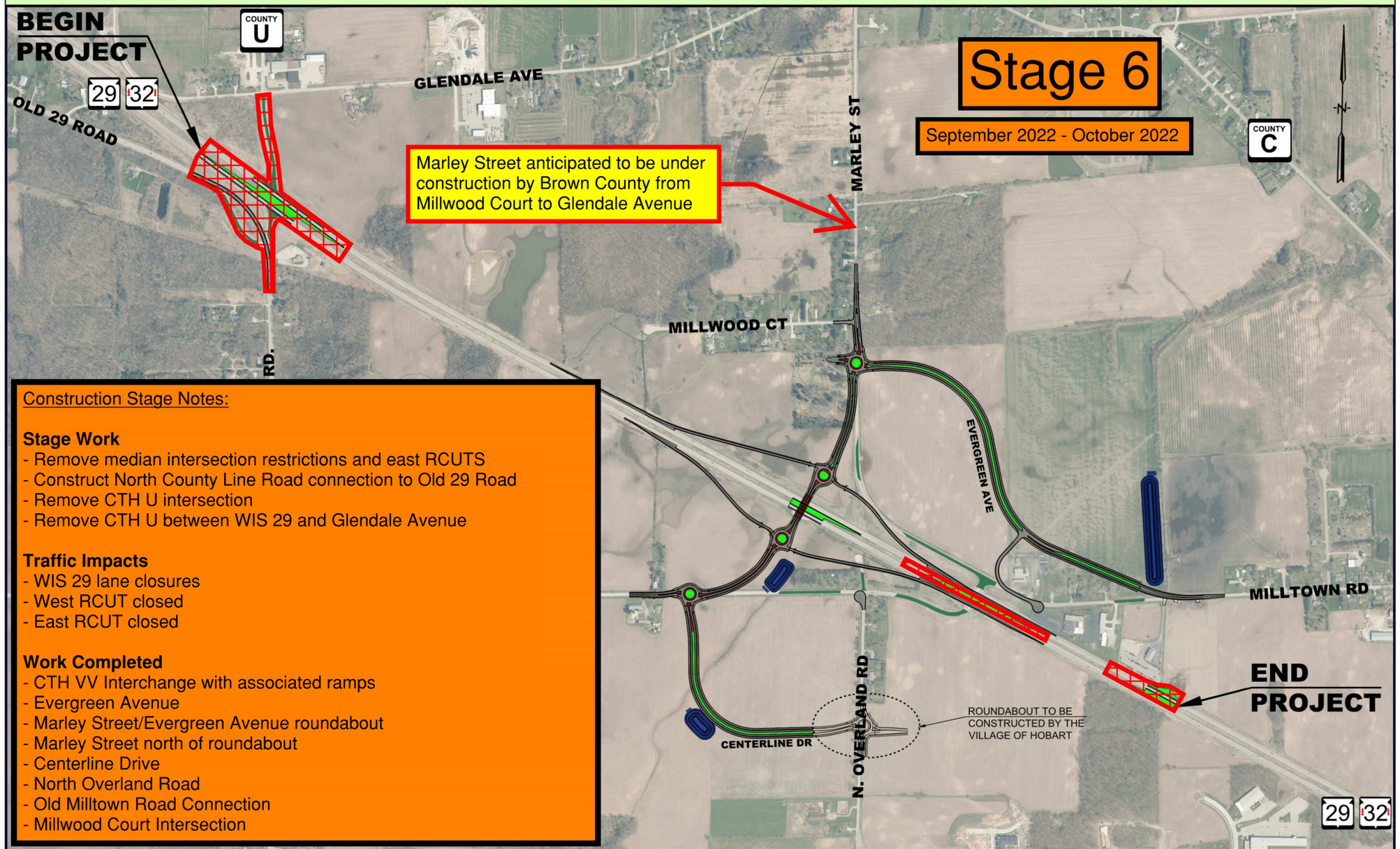
Traffic Impacts
- WIS 29 lane closures
- West RCUT closed
- CTH VV open to CTH VV/Centerline roundabout
- Temporary connection to Old Milltown Road Connection to allow WIS traffic access is closed

Work Completed
- Evergreen Avenue
- Marley Street/Evergreen Avenue roundabout
- Marley Street north of roundabout
- Centerline Drive
- Old Milltown Road Connection
- Millwood Court Intersection

WIS 29/COUNTY VV Interchange, Brown County

U.S. Department of Transportation Federal Highway Administration

Project Overview



Construction Stage Notes:

Stage Work
- Remove median intersection restrictions and east RCUTS
- Construct North County Line Road connection to Old 29 Road
- Remove CTH U intersection
- Remove CTH U between WIS 29 and Glendale Avenue

Traffic Impacts
- WIS 29 lane closures
- West RCUT closed
- East RCUT closed

Work Completed
- CTH VV Interchange with associated ramps
- Evergreen Avenue
- Marley Street/Evergreen Avenue roundabout
- Marley Street north of roundabout
- Centerline Drive
- North Overland Road
- Old Milltown Road Connection
- Millwood Court Intersection

WIS 29/COUNTY VV Interchange, Brown County

U.S. Department of Transportation Federal Highway Administration