USH 14 & Hive Drive Intersection Proposed New Street Connection

CITY OF RICHLAND CENTER

RICHLAND COUNTY, WISCONSIN



PREPARED FOR:

Joe Rox Access Management Coordinator Division of Transportation System Development WisDOT, Southwest Region – La Crosse

PREPARED BY:

KL Engineering, Inc. with Vierbicher Associates On behalf of the City of Richland Center







TECHNICAL MEMORANDUM

5400 King James Way, Suite 200 Madison, Wisconsin 53719 608-663-1218 www.klengineering.com

To: Joe Rox

Access Management Coordinator

Division of Transportation System Development WISDOT, Southwest Region – La Crosse

From: Mike Scarmon, P.E., PTOE

KL Engineering, Inc.

CC: Melinda D. Jones

City Clerk / Treasurer / Zoning Administrator

City of Richland Center

Matt Muchow, P.E. Vierbicher Associates

Date: June 7, 2017

Subject: USH 14 & Hive Drive Intersection – Proposed New Street Connection

Introduction

The purpose of this memo is to present technical information and exhibits for WisDOT's formal review of a proposed new public street connection to US Highway 14 (USH) in Richland Center. Approval of the proposed new street connection will also require an amendment to WisDOT's existing 84.25 access control mapping.

The new street connection is proposed to be located opposite from Hive Drive, on the far west side of the City. Currently, an existing residential access is in the same location as the proposed new street. The new connection is being proposed in conjunction with a pending multi-family development on the currently unimproved Kleinsasser parcel.

The data presented in this memo has been completed as part of a scoping-level intersection study prepared for the City of Richland Center by KL Engineering, with support from Vierbicher Associates. The outline format of this memo was developed primarily as a transmittal of basic project data and exhibits from the study to initiate the review process and is not intended to be a full design study of the proposed intersection.

See Attachment A – Development Site Photos

Proposed Developments

This study evaluated the new street connection in conjunction with the proposed development, and with additional future developments along USH 14 on the west side of Richland Center (RC). See below for a summary of the proposed and future developments.

Proposed Immediate Development

- Development concept includes 3 apartment buildings 135 total units
- Proposed apartments expected to provide appealing location due to proximity to UW-R and RC high school
- First phase of site construction scheduled for late 2017
- Will require conversion of an existing permitted residential access into a public street
- New public street connection expected to dead-end with a cul-de-sac until future phase(s)
- Concept includes multi-use path and sidewalk connectivity to adjacent facilities

Future Development

- Future development expected to include single family detached residential immediately west of Kleinsasser parcel – Approximately 148 total units
- Will require additional public street connection to USH 14 near existing RC well site driveway
- · Parcel is likely the ultimate western urban limit of RC due to steep topography
- Additional future development may occur north of USH 14 limited potential due to floodplain
- No current timeframe for any future development

See Attachment B – Land Development Documents

USH 14 Corridor Overview

USH 14 was last reconstructed in 2013, from 300-ft west of Hive Drive to the east through the City of Richland Center. This project primarily included an urban roadway with raised medians, turn lanes, curb & gutter, sidewalks, and concrete pavement. The Hive Drive intersection was the western limit of the 2013 project. An urban roadway cross section was constructed on the east half of the Hive Drive intersection, and a transitional asphaltic pavement segment was constructed on the west in order to match into the existing 2-lane rural cross section. See below for a summary of the existing roadway characteristics within the USH 14 study corridor:

Access Review Area

- Eastbound upstream intersection functional area is 385-ft based on a 30 mph posted speed
- Approximate project limits for the proposed street connection extend from 500-ft west and east of Hive Drive
- Project limits for longer-term improvements are dependent on future developments, but may extend up to 2,050-ft west of Hive Drive

Existing Roadway Cross Section

- 12-ft through lanes
- 3-ft paved shoulder in rural section
- 5 to 10-ft paved shoulder in urban section
- 24-ft clear zone in rural section
- Hive Drive intersection:
 - No left turn lanes either direction
 - o Includes SB & WB channelized right turns

Existing Pedestrian and Bicycle Facilities

- 4-ft bike lanes in urban section
- Sidewalk currently ends at the west edge of Hive Drive intersection north & south of USH 14
- Hive Drive intersection includes crosswalks on north & east sides

See Attachment C - USH 14 & Hive Drive As Built

USH 14 Access Conditions

This study evaluated the new street connection with the assumption that all existing accesses along USH 14 would remain unchanged. Future developments and corresponding roadway improvements are expected to require reconfiguring access locations within the study corridor. See below for a summary of the existing access characteristics within the USH 14 study corridor:

Existing Access Controls and Recent Mapping Projects

- Controlled access project (1643-00-29) established controls along USH 14 through the Hive Drive intersection in 2003
- Controlled access was ended at RC urban limits, immediately to the east of Hive Drive
- Reconstruction project (1643-07-72) included expanded ROW and maintained controls along USH 14 through the Hive Drive intersection in 2013
- All existing access points west of Hive Drive are identified as permitted locations
- A short segment of future 66' ROW corridor south of USH 14 was informally designated as part of a 2009 Certified Survey Mapping of the City's well site

Existing Access Locations

- 12 existing access locations west of Hive Drive include:
 - 2 commercial locations
 - o 3 agricultural locations
 - o 6 residential locations
 - 1 municipal (well site)
- 7 access locations on south side of USH 14
- 5 access locations on north side of USH 14
- The location of the eastern-most residential access matches the proposed new street

Interim and Future Access Modifications

- Proposed immediate development assumes all 12 existing access locations will remain unchanged
- Future development and corresponding roadway improvements expected to include:
 - o Land use changes and elimination of several access locations
 - o Reconfiguring any remaining access locations to new internal public streets
 - o Existing RC well site access to be converted to future public street connection

Attachment D - Access Mapping

Traffic Data

This study included traffic data collection within the project limits, and included trip generation for the proposed and future residential developments along USH 14. Traffic data was evaluated for purposes of documenting the expected increase in volume and turning movements at the Hive Drive intersection, and to understand changes in traffic flow as a result of future street connection(s). This study does not include capacity analysis at this time. See below for a summary of the existing traffic characteristics within the USH 14 study corridor:

Existing Traffic Conditions

- USH 14 ADT 4,100 vph west of Hive Drive
- USH 14 & Covered Bridge turning volume:
 - o AM peak hour 53 vph (7 EB left turns/hr)
 - o PM peak hour 93 vph (3 EB left turns/hr)
- USH 14 & Hive Drive turning volume:
 - AM peak hour 317 vph (15 EB left turns/hr)
 - o PM peak hour 191 vph (4 EB left turns/hr)

Future Trip Generation

- Proposed Immediate Development 135 units of multi-family residential
 - 942 trips per weekday
 - o 70 trips per AM peak hour

Future Trip Generation (continued)

- o 92 trips per PM peak hour
- Future Development Assumed 148 units of detached single-family residential
 - o 1,506 trips per weekday
 - o 113 trips per AM peak hour
 - o 150 trips per PM peak hour
- Assumes a 5% multimodal reduction for ped/bike trips due to proximity to schools
- Immediate development will access USH 14 via Hive Drive only
- Future development is assumed to have access to USH 14 via 2 connections
- Commercial land use is not anticipated at this time

Traffic Patterns

- Anticipated traffic patterns at Hive Drive include:
 - o 85% to/from the east (toward Richland Center)
 - o 7.5% to/from the west (toward La Crosse)
 - o 7.5% to/from the north (toward schools)
- Traffic patterns are based on existing movements on the north leg of Hive Drive
- New street connection will result in USH 14 cross traffic & WB left turns at Hive Drive

Vehicle Speeds and Posted Limits

- Existing speed zone located 635' west of Hive Drive:
 - o 55 mph posted USH 14 west
 - o 30 mph posted USH 14 east
- 85th percentile speeds indicated traffic flow is moving at higher than posted speeds
- USH 14 speed data for location 1 2,200' west of Hive Drive (within 55 mph zone)
 - o Eastbound 62 mph
 - Westbound 60 mph
- USH 14 speed data for location 2 300' west of Hive Drive (within 30 mph zone)
 - o Eastbound 46 mph
 - Westbound 48 mph
- Hive Drive intersection is located within a speed zone transition area
- The project area also includes the urban-to-rural transition from curbed section to shoulders

Crash Data Screening Analysis

- Crash data for 2012 thru 2016 was reviewed for two intersections:
 - o Covered Bridge Drive 1 crash in 5 years
 - Hive Drive 2 crashes in 5 years
- All crashes were minimal severity

Attachment E - Traffic Data

Proposed Intersection Improvements

This study included a scoping-level design for potential improvements to the USH 14 & Hive Drive intersection, in two phases. See below for a summary of the proposed intersection improvements:

Immediate Improvements

Improvements are expected to be limited to the eastbound upstream functional area of the Hive Drive intersection, based on the 30 mph posted speed limit. All roadway improvements expected to occur south of the existing centerline. See below for key improvements:

- East leg improvements designed for full build-out conditions
 - Median provided
- West leg improvements designed for interim transition future improvements likely to reconfigure this approach
- Eastbound shift taper rate based on design speed of 35 MPH
- Left turn lanes provided in both directions
- EB USH 14 approach to Hive Drive to include curb offset for right turning traffic
- Includes 5-ft paved shoulder (min) in rural section & 4-ft bike lane adjacent to curb & gutter
- No ROW acquisition required grading easements likely
- Intersection construction expected to occur after the next school year (summer of 2018) to minimize disruption

Future Improvements

Future improvements are expected to include upgrading the west leg of the Hive Drive intersection with urban features similar to USH 14 east of Hive Drive (raised medians / turn lanes). Doing so is likely to result in the eastbound upstream functional area being entirely, or partially based on the 55 mph posted speed limit. This concept also includes a new tee-intersection located 1,700-ft west of Hive Drive. See below for key improvements:

- No change to east leg immediate improvements
- Left & right turn lanes provided in both directions
- Includes a raised median on the east leg of the intersection
- Includes 5-ft paved shoulder (min) in rural sections & 4-ft bike lanes adjacent to curb & gutter
- ROW acquisition required multiple access relocations on USH 14
- Intersection construction expected to be prompted as a result of future development(s)
- Final geometry at Hive Drive intersection could accommodate signalization if needed in future

Attachment F – Intersection Concepts

Conclusions of Study

This scoping-level intersection design study was completed on behalf of the City of Richland Center and included: data collection, trip generation, future land use planning, and preliminary intersection design. This memo summarizes data and provides exhibits for WisDOT's formal review of the proposed street connection, and required amendment of existing 84.25 mapping limits.

This study provides the following conclusions to provide additional context during the review process:

- No current safety or traffic operational issues were identified at the Hive Drive intersection
- The relatively low trip generation potential from the initial phase of residential development is not anticipated to create any significant traffic operational impacts
- Local officials support the proposed development for providing desirable housing near educational facilities
- Development will include on and off-street multimodal connectivity
- Interim roadway improvements can be designed to meet standards based on 30 mph posted speed without impacting existing access locations or requiring additional right of way
- Long term roadway improvements can be designed to accommodate future development to the west based on 55 mph posted speed, but will require right of way and multiple access relocations
- Future development(s) are expected to prompt a long term roadway improvement

Attachment A Development Site Photos



The photo was taken from 700 feet west of the Hive Drive Intersection facing east.



The photo was taken 150 feet west of Hive Drive intersection fasting east.





Project Name: Kleinsasser Apartments
Project Location: Richland Center, WI

Page (1)



The photo was taken just south of the Hive Drive intersection facing south.



The photo was taken just south of the Hive Drive intersection facing north.





Project Name: Kleinsasser Apartments
Project Location: Richland Center, WI

Page (2)



The photo was taken at the existing authorized driveway facing south.



The photo was taken 300 feet west of the Hive Drive intersection facing east.





Project Name: Kleinsasser Apartments Project Location: Richland Center, WI Page (3)



The photo was taken on Hive Drive facing south.



The photo was taken at Hive Drive facing east.





Project Name: Kleinsasser Apartments
Project Location: Richland Center, WI
Page (4)



The photo was taken 900 feet east of Hive Drive facing east.



The photo was taken 1,500 feet east of Hive Drive facing east.

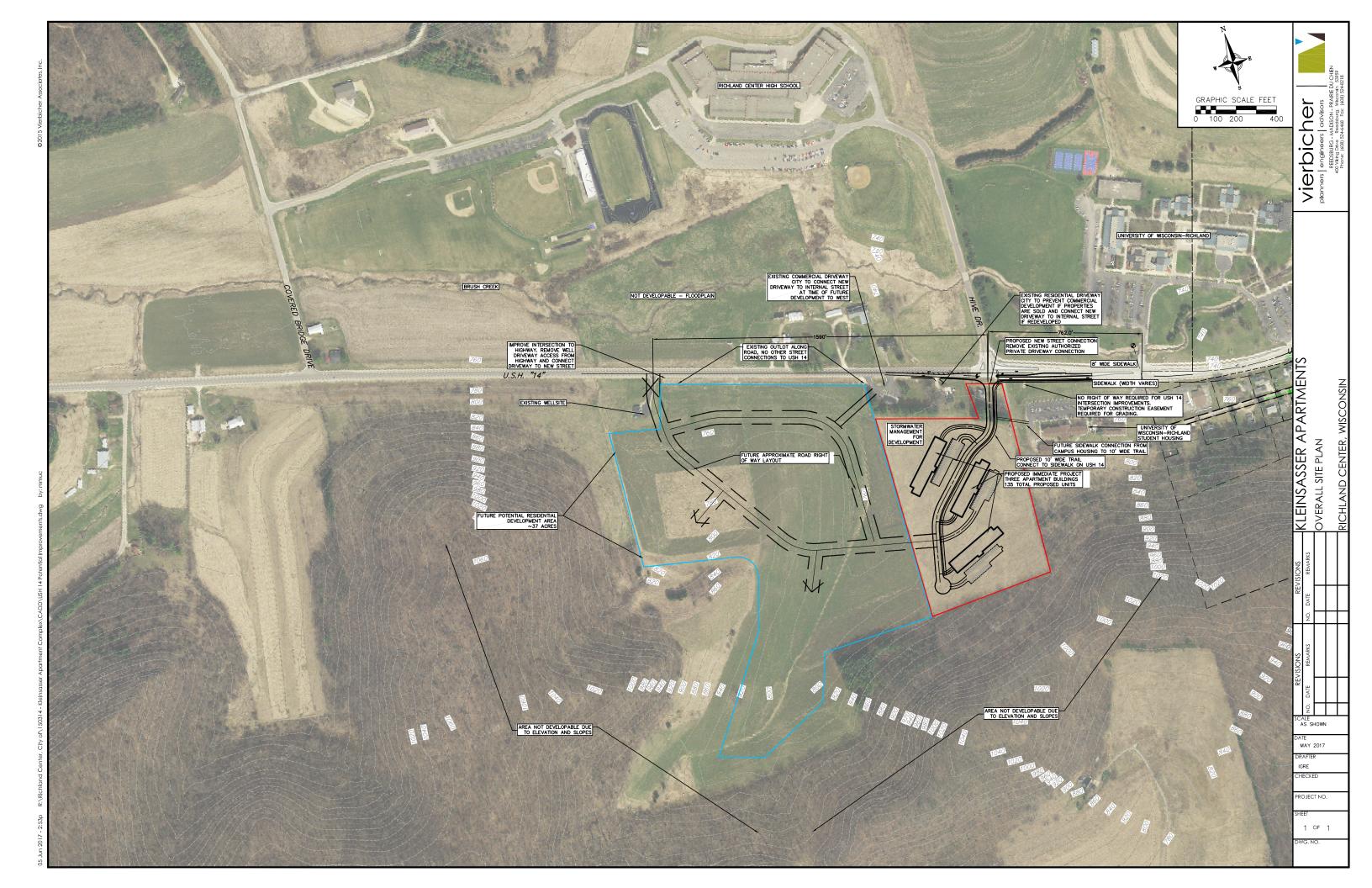




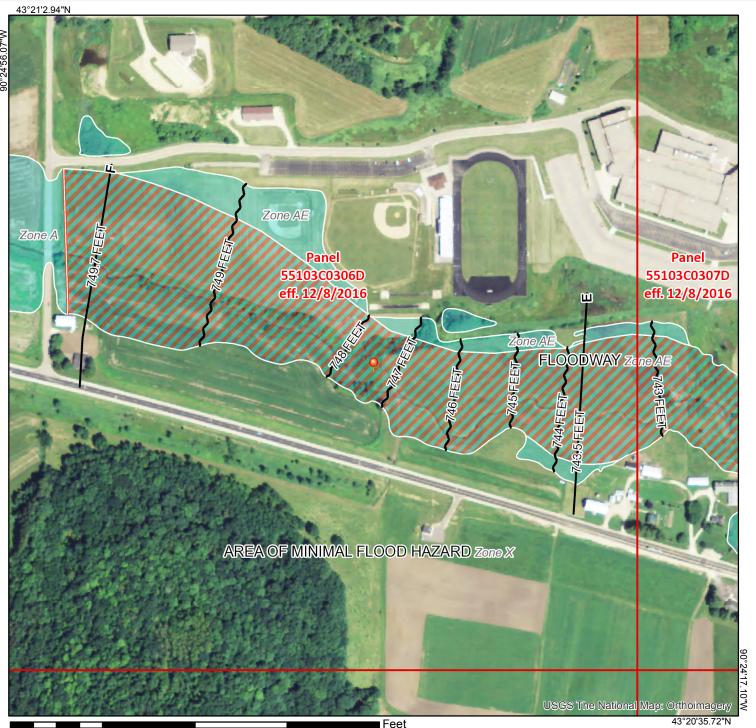
Project Name: Kleinsasser Apartments Project Location: Richland Center, WI

Page (5)

Attachment B Land Development Documents



National Flood Hazard Layer FIRMette



Legend

Cross-Sections

1

Base Flood Elevations



Flood Hazard Zones

1% Annual Chance Flood

Regulatory Floodway

Special Floodway

Area of Undetermined Flood Hazard

0.2% Annual Chance Flood

Future Conditions 1% Annual Chance Flood Hazard

Area with Reduced Risk Due to Levee

LOMRs

Effective

Map Panels

Digital Data

Unmodernized Maps

Unmapped

This map complies with FEMA's standards for the use of digital flood maps. The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. The base map shown complies with FEMA's base map accuracy standards.

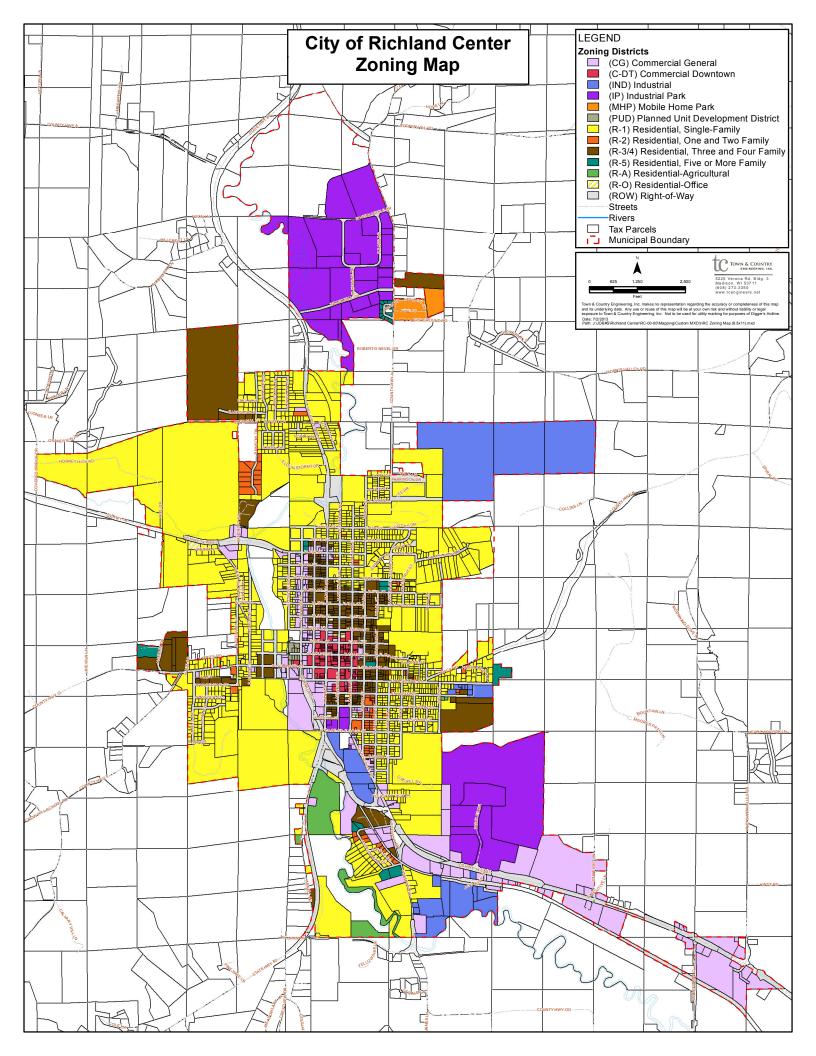
The NFHL is a living database, updated daily, and this map represents a snapshot of information at a specific time.

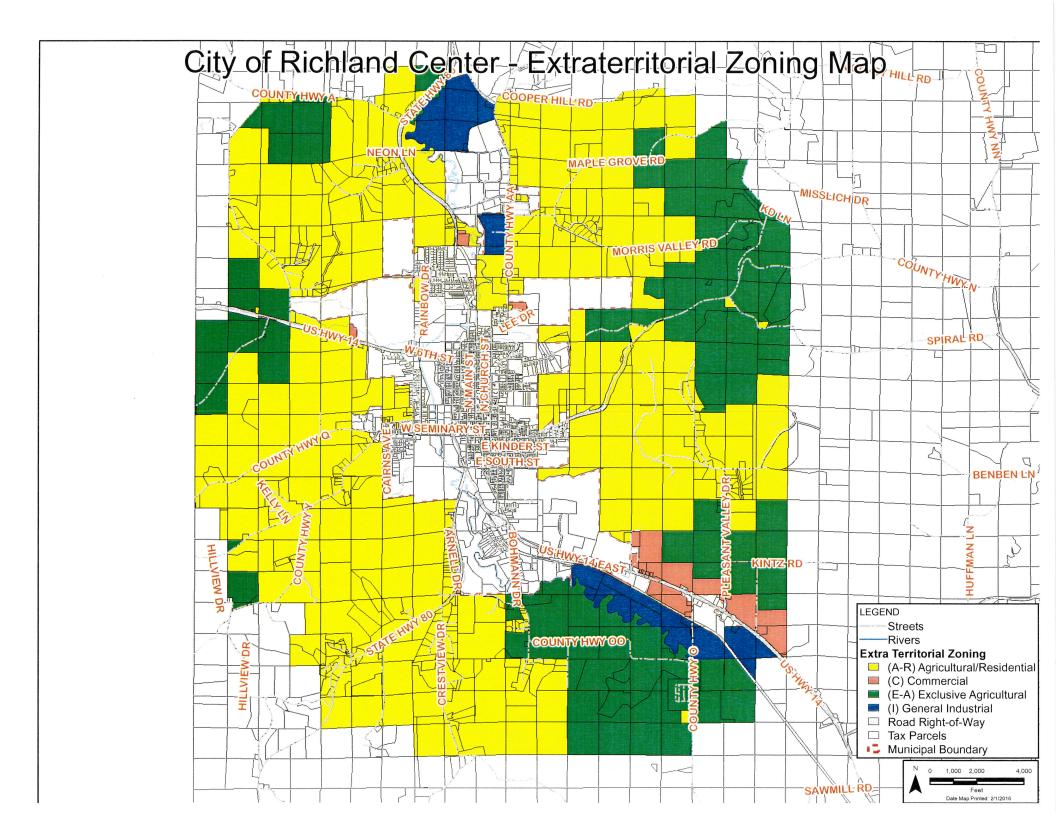
Flood risks are dynamic and can change frequently due to a variety of factors, including weather patterns, erosion, and new development. FEMA flood maps are continually updated through a variety of processes. Users should always verify through the Map Service Center (http://msc.fema.gov) or the Community Map Repository that they have the current effective information.

NFHL maps should not be created for unmapped or unmodernized areas.



250 500 1,000 1,500 2,000 Date: 5/30/2017 Time: 11:39:25 AM





Attachment C USH 14 & Hive Drive As Built

(NOV 12 ORDER OF	
	ORDER OF	SHEETS

Section No. 1

Typical Sections and Details Estimate of Ouontities Miscellaneous Ouantities

Right of Way Plat Plan and Profile

(Includes Erosion Control Plans) Standard Detail Drawings

Section No. 7 Section No. 8 Structure Plans Computer Earthwork Data Section No. 9

Section No. 9 Cross Sections

TOTAL SHEETS = 272

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

FEDERAL PROJECT STATE PROJECT PROJECT CONTRACT 1643-07-72 WISC 2012601 1

RICHLAND CENTER/CITY LIMITS-W 6 T H

(HIVE DRIVE ELY TO WEST 6TH ST)

USH 14 RICHLAND COUNTY

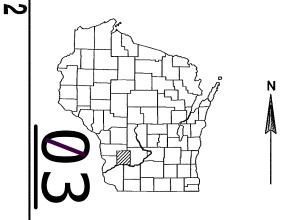
> STATE PROJECT NUMBER 1643-07-72

AS-BUILT PLAN

SUPERVISOR: Steve Flottmeyer, WisDOT LaCrosse PROJECT MANAGER: Todd Waldo, WisDOT LaCrosse PROJECT LEADER: Lorie Peterson, WisDOT LaCrosse PRIME CONTRACTOR: McGuire, Inc. WORK STARTED: May 8, 2013

WORK COMPLETED: November 21, 2013 CONTRACT ID: 20121113003

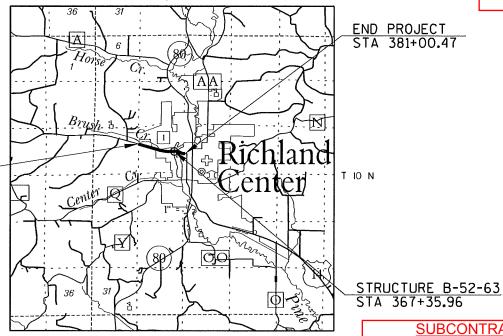
AWARDED CONTRACT AMOUNT: \$2,926,561.43



DESIGN DESIGNATION

A.A.D.T. 2011 = 7.250 A.A.D.T. 2031 D.H.V. 2031 = 906 = 58/42 = 8.6 T. % DESIGN SPEED = 35 MPH **ESALS** = 2,941,900

<u>BEGIN PROJECT</u> STA 339+80.00 Y = 448631.734X = 670995.078



CONVENTIONAL SYMBOLS

COUNTY LINE CORPORATE LIMITS PROPERTY LINE LOT LINE LIMITED EASEMENT EARTHWORK BALANCE POINT EXISTING RIGHT OF WAY PROPOSED OR NEW R/W LINE

SURVEY LINE SLOPE INTERCEPT ORIGINAL GROUND ROCK MARSH OR ROCK PROFILE

MARSH AREA

WOODED OR SHRUB AREA

P.L. + 58.1

WATER

COMBUSTIBLE FLUIDS UNDERGROUND UTILITIES ELECTRIC TELEPHONE OR TELEGRAPH TV/CABLE SERVICE PEDESTAL TELEPHONE POLE RAILRDAD SANITARY SEWER

STORM SEWER EXISTING CULVERT PROPOSED CULVERT CULVERT (Profile View)

LAYOUT

TOTAL NET LENGTH OF CENTERLINE = 0.781 MI (URBAN)

SUBCONTRACTORS:

Arbor Green, Inc. Augelli Concrete & Excavating, LLC Con-Cor Company, Inc. D L Gasser Construction Guide Lines Pavement Marking, LLC **Lunda Construction Company** Red Arrow Electric Safety Equipment Leasing Co. Snyder & Associates, Inc.

Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), Richland County.



STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

REPARED BY SEH TIM MAEDKE C,O, Examiner

PPROVED FOR THE DEPARTMENT (Signature)

STANDARD ABBREVIATIONS

ADUT	ADUTHENT	111/0	LINDRANT
ABUT	ABUTMENT	HYD	HYDRANT
AC	ACCRECATE	ID	INSIDE DIAMETER
AGG	AGGREGATE	INV	INVERT
AECPRC	APRON ENDWALL FOR CULVERT PIPE	IP LHF	IRON PIPE ON PIN
ACDU	REINFORCED CONCRETE	- ···	LEFT-HAND FORWARD
ASPH AVG	ASPHALTIC	L LF	LENGTH OF CURVE
ADT	AVERAGE	- '	LINEAR FOOT
BF	AVERAGE DAILY TRAFFIC BACK FACE	LC	LONG CHORD OF CURVE
- :		LS	LUMP SUM
ВМ	BENCH MARK	MH	MANHOLE
BR	BRIDGE	MOR	MID POINT OF RADIUS
CE	COMMERCIAL ENTRANCE	NC	NORMAL CROWN
CL OR C/L OR &		NO	NUMBER
Δ	CENTRAL ANGLE OR DELTA	OBLIT	OBLITERATE
CONC	CONCRETE	PAVT	PAVEMENT
CPRC	CULVERT PIPE REINFORCED CONCRETE	PE	PRIVATE ENTRANCE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE	PVRC	POINT OF VERTICAL REVERSE CURVE
25	HORIZONTAL ELLIPTICAL	QOR	QUARTER POINT OF RADIUS
CR	CREEK	R	RADIUS
CY	CUBIC YARD	REQ'D	REQUIRED
C & G	CURB AND GUTTER	RES	RESIDENCE OR RESIDENTIAL
D	DEGREE OF CURVE	RHF	RIGHT-HAND FORWARD
DHV	DESIGN HOUR VOLUME	R/W	RIGHT-OF-WAY
DISCH	DISCHARGE	R	RIVER
DG	DITCH GRADE	RDWY _	ROADWAY
DWY	DRIVEWAY	R/L OR R	REFERENCE LINE
Χ	EAST GRID COORDINATE	SALV	SALVAGED
EAT	STEEL PLATE BEAM GUARD	SAN	SANITARY SEWER
	ENERGY ABSORBING TERMINAL	SF	SQUARE FEET
EOR	END POINT OF RADIUS	SY	SQUARE YARD
EL	ELEVATION	SDD	STANDARD DETAIL DRAWINGS
ENT	ENTRANCE	STA	STATION
ESALS	EQUIVALENT SINGLE AXLE LOADS	SS	STORM SEWER
EXC	EXCAVATION	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
EBS	EXCAVATION BELOW SUBGRADE	SE	SUPERELEVATION RATE
EXIST	EXISTING	TC	TOP OF CURB
FC	FACE OF CURB	T OR TN	TOWN
FF	FACE TO FACE	T	TRUCKS (PERCENT OF)
FERT	FERTILIZE	TYP	TYPICAL
FE	FIELD ENTRANCE	VAR	VARIABLE
FL	FLOW LINE	VC	VERTICAL CURVE
FO	FIBER OPTIC	Υ	NORTH GRID COORDINATE
CWT	HUNDREDWEIGHT	YD	YARD

UTILITY CONTACTS

WISCONSIN POWER & LIGHT COMPANY
761 ENTERPRISE DRIVE
PLATTEVILLE, WI 53818
TELEPHONE: 608.342.4114
CELL#: 608.558.7708
ATTENTION: DENNIS STEPHENSON
EMAIL: DENNISSTEPHENSON@ALLIANTENERGY.COM

RICHLAND ELECTRIC COOPERATIVE PO BOX 439 1027 NORTH JEFFERSON STREET RICHLAND CENTER, WI 53581 TELEPHONE: 608.647.3173 CELL#: 608.553.1418 ATTENTION: LARRY HALLETT EMAIL: LARRY@REC.COOP

WE ENERGIES
500 S. 116TH STREET
WEST ALLIS, WI 53214
TELEPHONE: 414.944.5662
CELL* 262.993.1217
ATTENTION: CRAIG DEKARSKE
EMAIL: CRAIG.DEKARSKE@WE-ENERGIES.COM



CALL 811 OR (800)242.8511 (877)500.9592 (EMERGENCY ONLY) www.DiggersHotline.com GENUINE TELECOM
1027 NORTH JEFFERSON STREET
RICHLAND CENTER, WI 53581
TELEPHONE: 608.647.2345
CELL*: 608.604.6062
ATTENTION: BRANDON KINNEY
EMAIL: BKINNEY@GENUINETEL.COM

CHARTER COMMUNICATIONS 2701 DANIELS STREET MADISON, WI 53718 TELEPHONE: 608.576.2613 ATTENTION: STEVE HEGGE EMAIL: SHEGGE@CHARTERCOM.COM

FRONTIER
415 BROADWAY DRIVE
SUN PRAIRIE, WI 53590
TELEPHONE: 608.837.1151
CELL*: 608.509.5051
ATTENTION: BRIAN VAN OOYEN
EMAIL: BRIAN.VANOOYEN@FTR.COM

RICHLAND CENTER MUNICIPAL (ACTING DPW)
450 SOUTH MAIN ST.
RICHLAND CENTER, WI 53581
TELEPHONE: 608.647.3559
CELL*: 608.604.0328
ATTENTION: TERRY NELSON
EMAIL: TNELSON@WPPIENERGY.ORG

450 SOUTH MAIN ST. RICHLAND CENTER, WI 53581 TELEPHONE: 608.647.2434 CELL#: 608.604.4947 ATTENTION: DALE BENDER EMAIL: DBENDER@WPPIENERGY.ORG RICHLAND CENTER MUNICIPAL (WATER) 450 SOUTH MAIN ST. RICHLAND CENTER, WI 53581 TELEPHONE: 608.647.4226 CELL#: 608.604.1048 ATTENTION: GAYLE MATHEWS EMAIL: GMATHEWS@WPPIENERGY.ORG RICHLAND CENTER MUNICIPAL (SANITARY SEWER) 450 SOUTH MAIN ST. RICHLAND CENTER, WI 53581 TELEPHONE: 608.647.3917 CELL#: 608.604.4917 ATTENTION: TODD FISCHER EMAIL: RCWWRC@MWT.NET RICHLAND SCHOOL DISTRICT (WATER) 1996 HWY 14 W RICHLAND CENTER, WI 53581 TELEPHONE: 608.647.6106 CELL#: 608.604.1465 ATTENTION: RACHEL SCHULTZ EMAIL: RSCHULTZ@RICHLAND.K12.WI.US

RICHLAND CENTER MUNICIPAL (ELECTRIC)

GENERAL NOTES

WHEN THE QUANTITY OF BASE AGGREGATE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN EXISTING OR FINISHED SIDEWALK, ARE TO BE 4-INCH SALVAGED TOPSOILED, FERTILIZED, SEEDED, AND MULCHED OR EROSION MATTED AS SHOWN IN THE PLAN.

THE FINAL LOCATION OF ALL DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER.

ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

ALL SIDE ROAD EARTHWORK QUANTITIES ARE INCLUDED IN MAINLINE EARTHWORK QUANTITIES.

CONSTRUCT INSIDE EDGE OF SIDEWALK 1/4 INCH HIGHER THAN THE TOP OF CURB, WHEN THEY ARE ADJACENT TO EACH OTHER.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AND PAVEMENTS AT REMOVAL LIMITS.

TOP OF CASTING ELEVATIONS SHOWN FOR INLETS REFER TO THE CASTING ELEVATION AT THE FLOWLINE OF GRATE.

ALL STORM SEWER INVERTS, ELEVATIONS, PIPE LENGTHS, AND GRADES ARE COMPUTED CENTER-TO-CENTER OF STRUCTURES.

INLET PROTECTION TYPE A AND C REQUIRED ON ALL INLETS.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION.

PAVEMENT		NOM AGG		NOM AGG
THICKNESS	LOWER	SIZE	UPPER	SIZE
(INCH)	(INCH)	(mm)	(INCH)	(mm)
3.0			3.0	12.5
5.25	3.25	19.0	2.00	12.5

CURB RAMP TYPES ARE SHOWN ON THE PLAN AND PROFILE SHEETS.

WDNR CONTACT

WIS DNR
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
TELEPHONE: 608.275.3308
ATTENTION: CATHERINE A. BLESER
EMAIL: CATHERINE.BLESER@WISCONSIN.GOV

DESIGN CONTACT

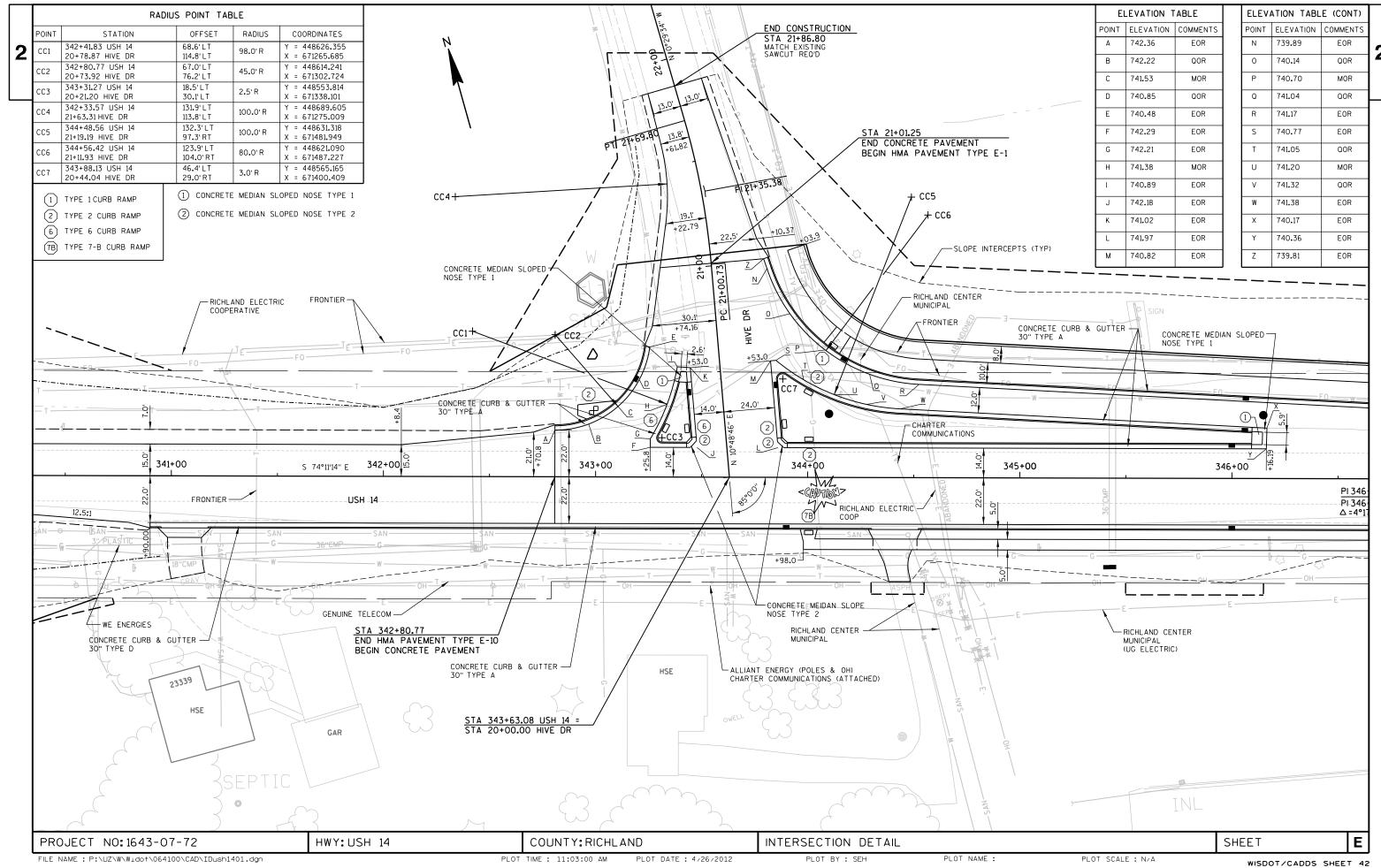
SEH INC
418 WEST SUPERIOR STREET SUITE 200
DULUTH, MN 55802-1512
TELEPHONE: 218.279.3000
ATTENTION: SCOTT WEYANDT
EMAIL: SWEYANDT@SEHINC.COM

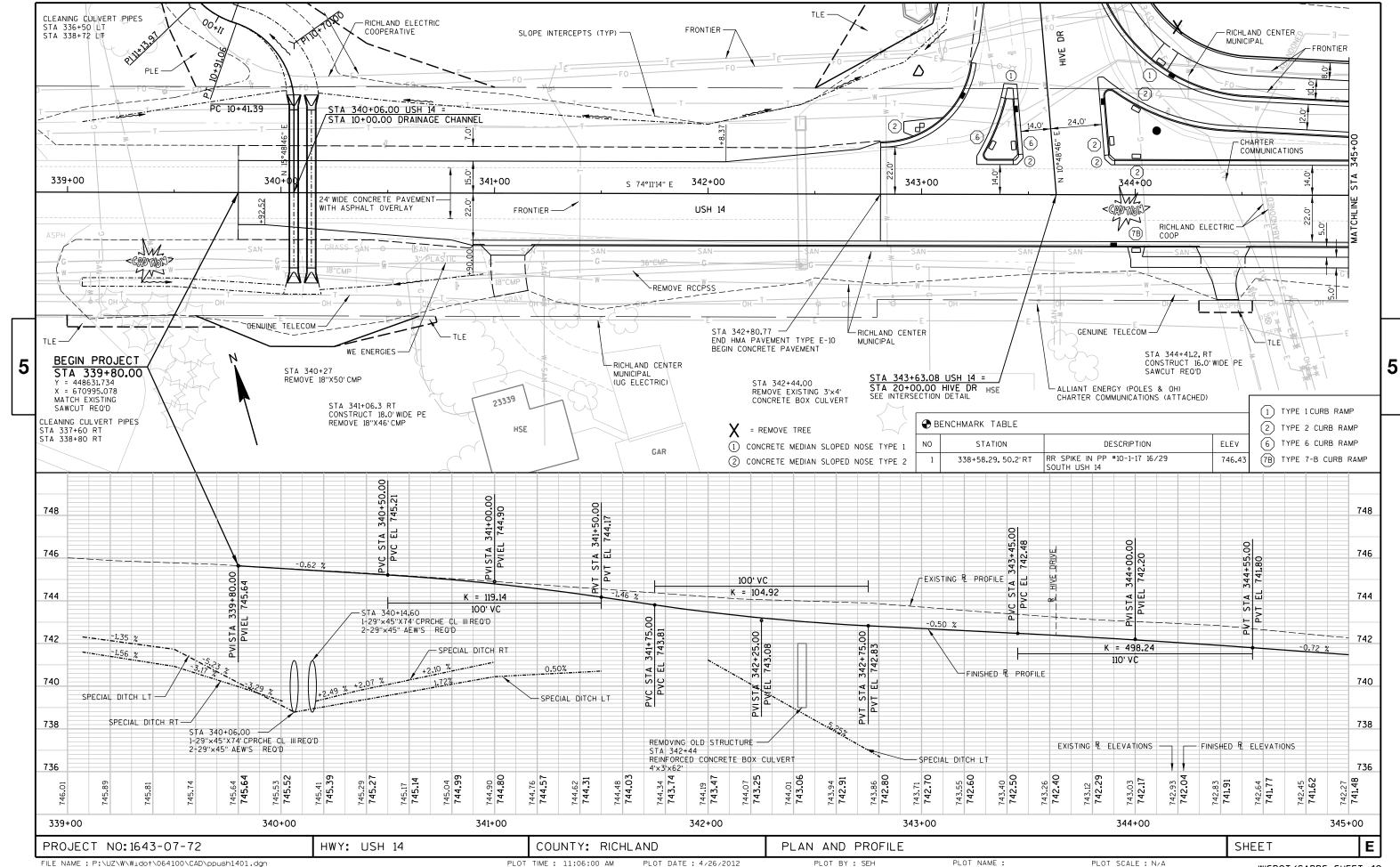
ORDER OF SECTION 2 SHEETS

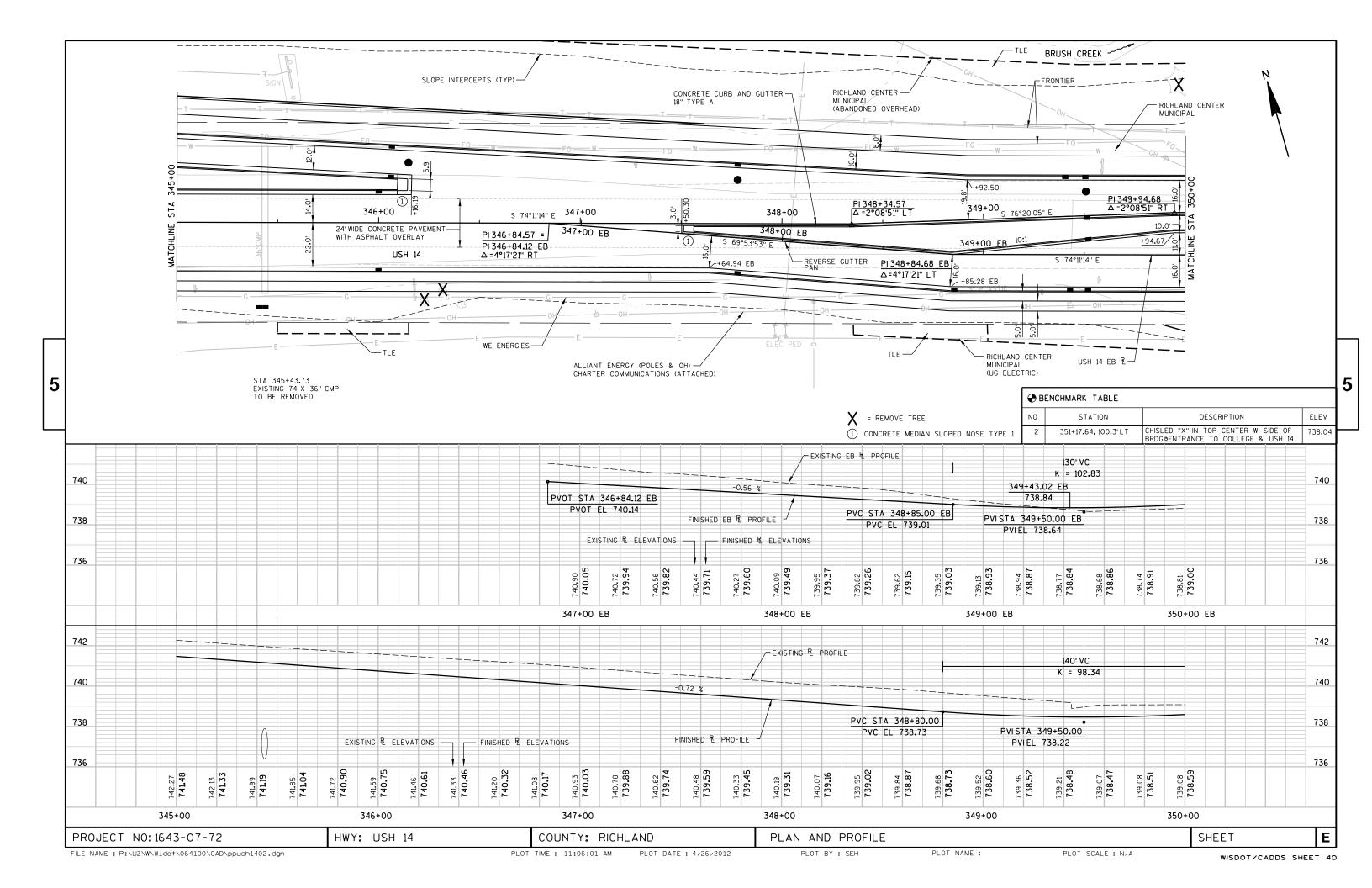
GENERAL NOTES
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
EROSION CONTROL
STORM SEWER
PERMANENT SIGNING
PAVEMENT MARKING
LIGHTING
TARFIC CONTROL
ALIGNMENT

PROJECT NO:1643-07-72 HWY:USH 14 COUNTY:RICHLAND GENERAL NOTES SHEET **E**

FILE NAME: P:\UZ\W\Wido+\064100\CAD\gnush1401.dgn PLOT TIME: 11:44:24 AM PLOT DATE: 8/5/2012 PLOT BY: SEH PLOT NAME: PLOT SCALE: N/A WISDOT/CADDS SHEET 42



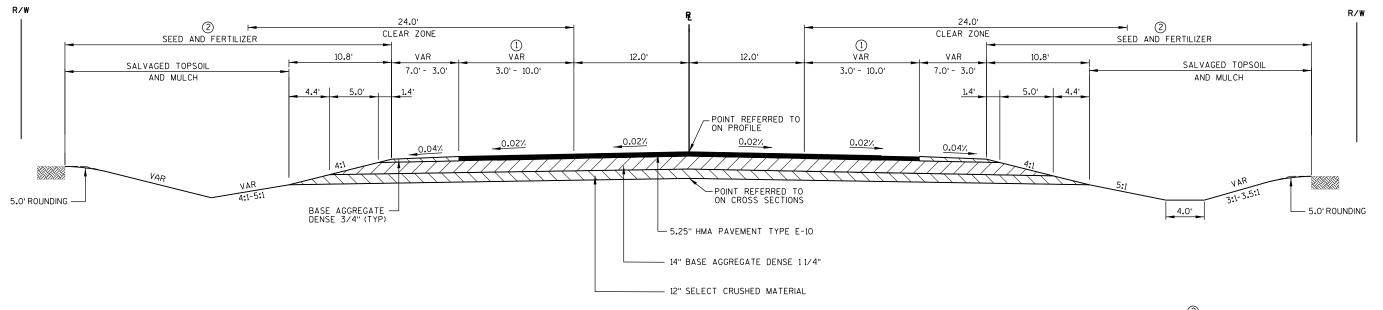




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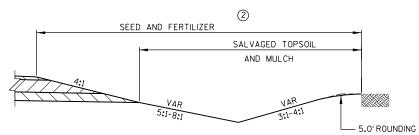
NOTES:

- ① TRANSITION HMA PAVEMENT FROM 3.0' WIDE TO 10.0' WIDE FROM: STA 339+92.52 TO STA 340+80.00 RT STA 342+08.40 TO STA 342+80.77 LT
- ② SEE EROSION CONTROL PLANS FOR LOCATIONS AND TYPES OF EROSION CONTROL ITEMS. OMIT SALVAGED TOPSOIL, SEED, FERTILIZER AND MULCH AT LOCATIONS WHERE RIPRAP IS THE EROSION CONTROL ITEM.

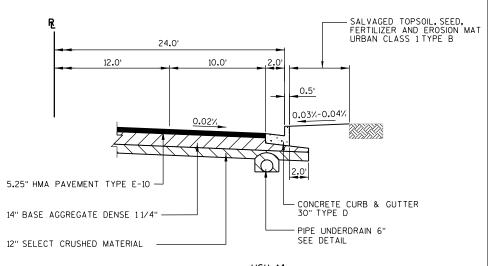


TYPICAL FINISHED SECTION

USH 14 STA 339+80.00 TO STA 342+80.77



USH 14 STA 340+18.00 TO STA 340+90.00



USH 14 STA 340+90.00 TO STA 342+80.77

WISDOT/CADDS SHEET 42

PROJECT NO:1643-07-72 HWY:USH 14 COUNTY:RICHLAND TYPICAL SECTIONS

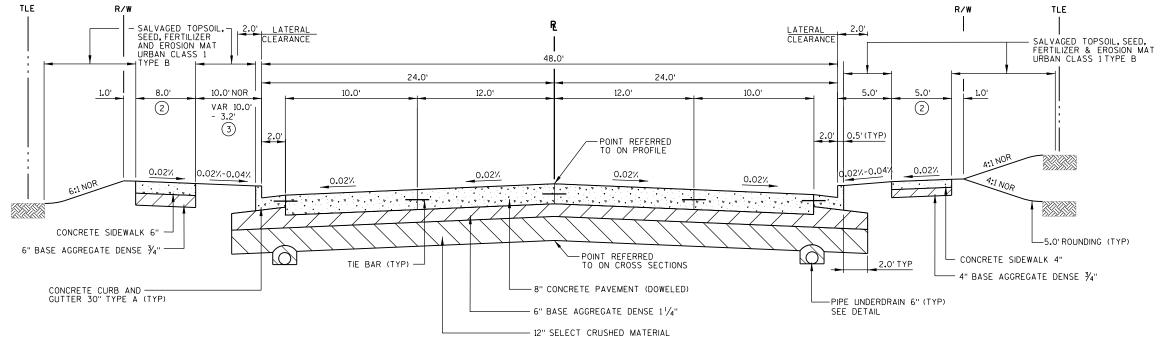
FILE NAME: P:\UZ\W\\\uddot\\064100\\CAD\\tyUSH1403.dgn PLOT TIME: 11:02:47 AM PLOT DATE: 4/26/2012 PLOT BY: SEH PLOT NAME: PLOT NAME: PLOT SCALE: N/A PLOT



1 REFER TO PLAN AND PROFILE SHEETS FOR RAISED MEDIAN LOCATIONS AND WIDTHS.

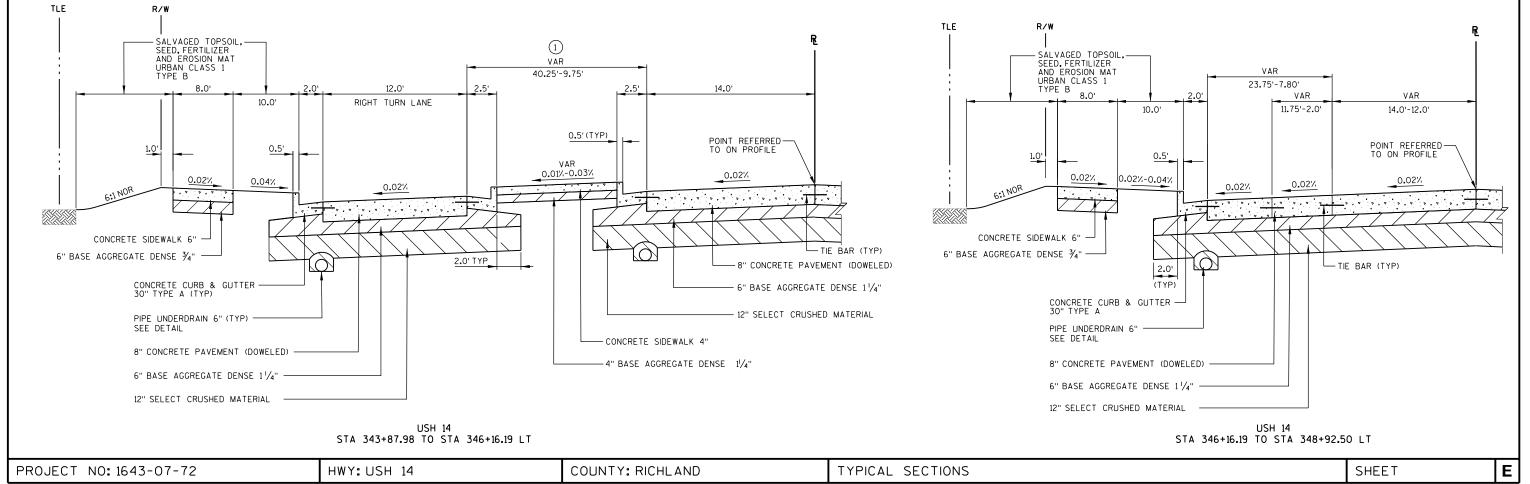
NOTES:

- REFER TO PLAN AND PROFILE SHEETS FOR CONCRETE SIDEWALK LOCATIONS.
- 3 REFER TO PLAN AND PROFILE SHEETS FOR TERRACE WIDTH LOCATIONS.



TYPICAL FINISHED SECTION

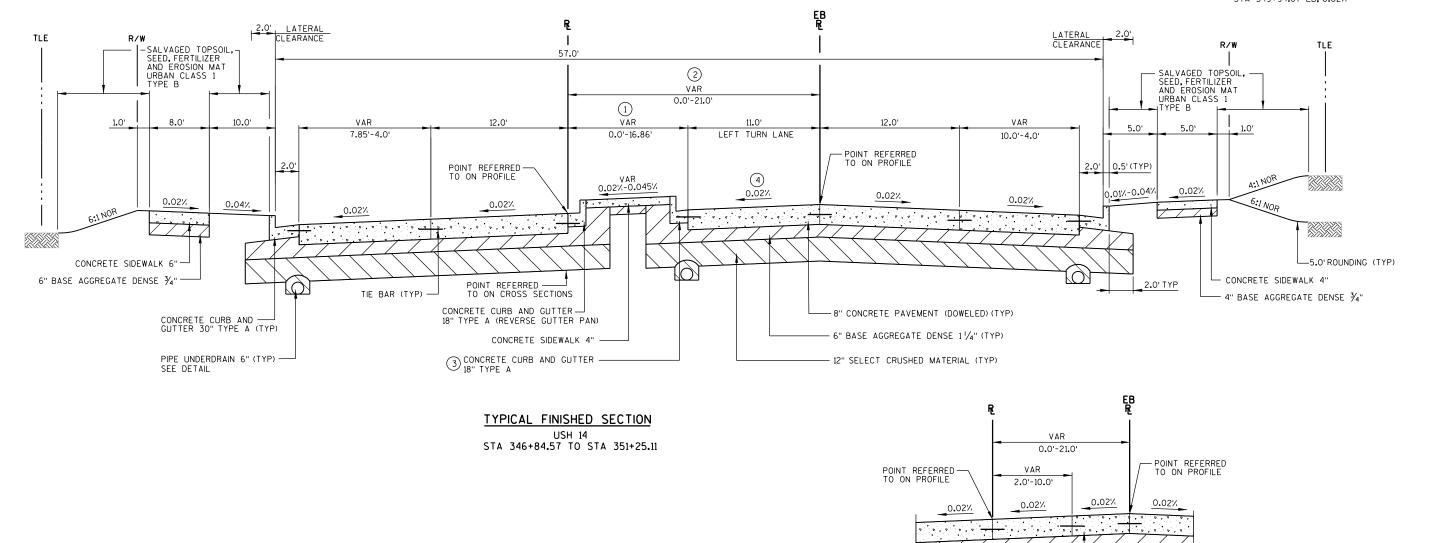
USH 14 STA 342+80.77 TO STA 346+84.57 STA 355+40.11 TO STA 359+00.00



NOTES:

- 1) REFER TO PLAN AND PROFILE SHEETS FOR RAISED MEDIAN LOCATIONS AND WIDTHS. 10.0' NORMAL WHEN ADJACENT TO LEFT TURN LANE.
- 2 REFER TO PLAN AND PROFILE SHEETS FOR LEFT TURN LANE WIDTH AND TAPER LOCATION.
- 3 REFER TO PLAN AND PROFILE SHEETS FOR REVERSE GUTTER PAN LOCATIONS.
- REFER TO CROSS SECTION SHEETS FOR LEFT TURN LANE CROSS SLOPES. VARIES AT THE FOLLOWING LOCATIONS:

STA 348+84.68 EB, 0.00% TO STA 349+52.00 EB, 0.35% TO STA 349+94.67 EB, 0.02%



TYPICAL FINISHED SECTION

- 8" CONCRETE PAVEMENT (DOWELED)
- 6" BASE AGGREGATE DENSE 1 1/4"
- 12" SELECT CRUSHED MATERIAL

WISDOT/CADDS SHEET 42

USH 14 BEFORE, BETWEEN & AFTER MEDIANS

PROJECT NO: 1643-07-72 HWY: USH 14 COUNTY: RICHLAND TYPICAL SECTIONS SHEET **E**

Attachment D Access Mapping

Document Number

AUTHORIZATION FOR ACCESS TO OR ACROSS A CONTROLLED-ACCESS HIGHWAY

Wisconsin Department of Transportation ED1002 697

the heirs, successors and assigns.

Pursuant to the provisions of s.84.25 Wisconsin Statutes, the Department of Transportation has established a section of U.S.H. 14 in Richland County, as a Controlled-Access Highway, designated as Controlled-Access Project 1643-00-29, effective on and after 6/4/02; as recorded in Volume 367 of Deeds Title, Pages 526-529 as the Document Number 250230.

The Department of Transportation approves and consents to direct access between said highway and the lands of the owner(s) in the SE 1/4 of the NW 1/4 and the NE 1/4 of the SW 1/4 of SEC 17, T10N, R1E, Town of Richland, Richland County.

by means of one Private Driveway located as follows: one private driveway located on the south side of U.S.H. 14.

The authorized access shall be located entirely within the limits of the above described property, subject to the terms and conditions as are set forth in the 'APPLICATIONS/PERMIT TO CONSTRUCT ACCESS DRIVEWAY TO STATE HIGHWAY', required by Section 86.07(2), Wisconsin Statutes.

VOL420PAGE 735

260730

RECORDED

T 12:15 O'CLOCK P.

MOV 2 0 2003

REGISTER OF DEEDS
RICHLAND COUNTY, WISCONSI:

This space is reserved for recording

Return to

Wisconsin Department of Transportation

District 5

3550 Mormon Coulee Road

La Crosse, WI 54601

(Date Commission Expires)

Parcel Identification Number/Tax Key Number 22017241000, 22017311000

Robert L. & Thomas D. Pellett

(Owner Name)
741 Hwy 51 E, Stoughton, WI 53589

(Address)

Wisconsin Department of Transportation

(For District Director Signature)
Joseph S. Olson

(Print Name)

State of Wisconsin
) ss.

La Crosse County
On the above date, this instrument was acknowledged before me by the named person(s).

(Signature, Notary Public, State of Wisconsin)
Gregory S. Messling

(Print or Type Name, Notary Public, State of Wisconsin)
8/22/04

THIS AUTHORIZATION, superseding any and all prior Notices of Authorizations, is issued to the following owner(s) of the above-described property,



FINDING, DETERMINATION AND DECLARATION APPROVED BY THE DIRECTOR, BUREAU OF HIGHWAY DEVELOPMENT, DIVISION OF INFRASTRUCTURE DEVELOPMENT, DEPARTMENT OF TRANSPORTATION ON 5-21-02, RECORDED 6-4-02, VOLUME 367 OF RECORDS, PAGES 526-529, DOCUMENT NO. 250230.

AGRICULTURAL
OUTLOT
PROPERTY LINE
PUBLIC HIGHWAY

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



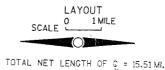
WEST COUNTY LINE- RICHLAND CENTER
U.S.H. 14 RICHLAND COUNTY

CONTROLLED ACCESS PROJECT 1643-00-29

R2W R2E BEGIN PROJECT 1643-00-29 BEGIN EXCEPTION 1643-00-29 ROCKBRIDGE END EXCEPTION MARSHALL 1643-00-29 CONVENTIONAL SIGNS AND ABBREVIATIONS END PROJECT 1643-00-29 QUARTER LINE SIXTEENTH LINE PROPERTY LINE AKAN al EXISTING RIGHT OF WAY CONTROL LIMITS EASEMENT C DAYTON SECTION CORNER







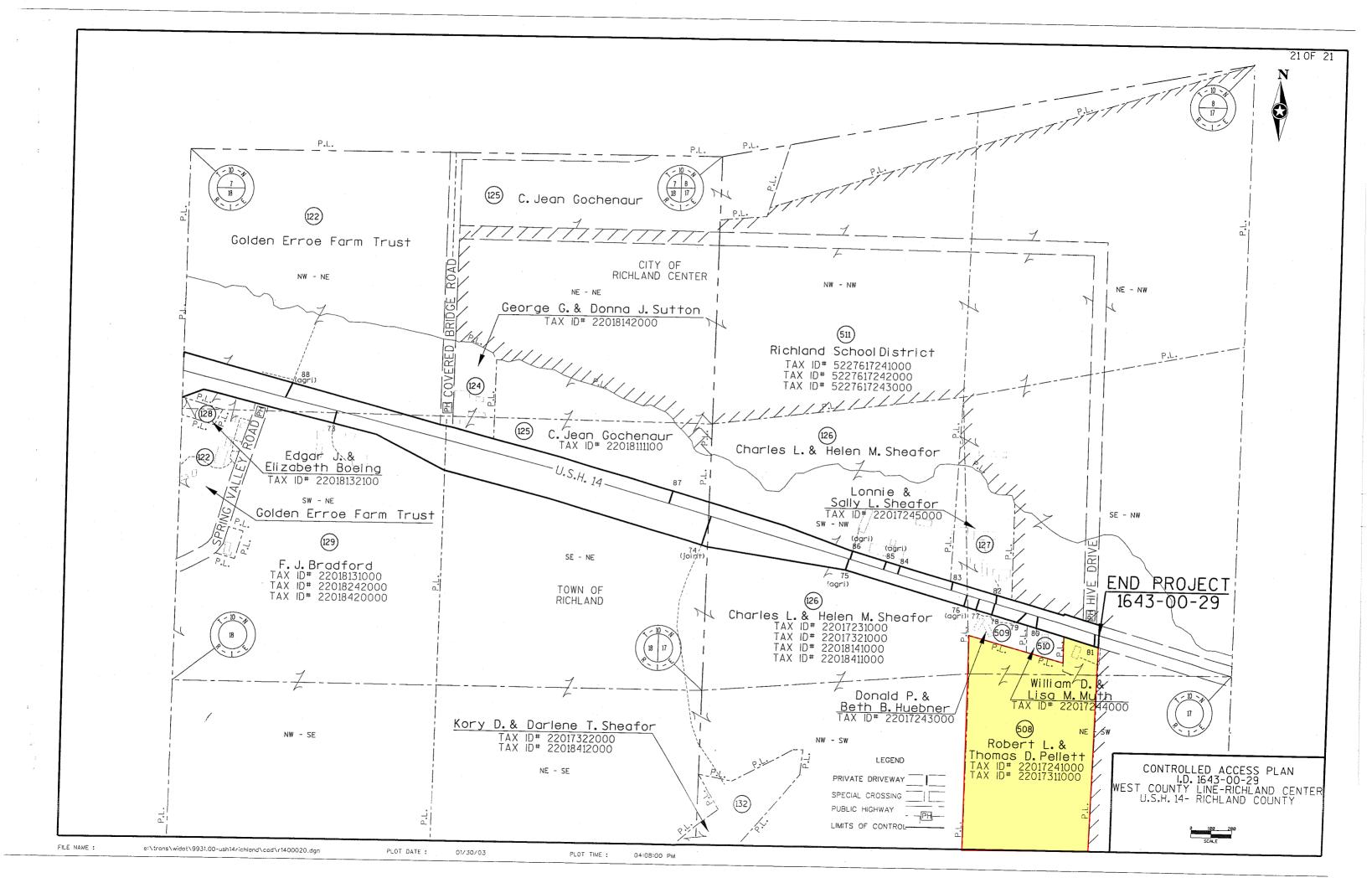
THIS CONTROLLED ACCESS PLAN
APPROVED AND ADOPTED ON 2. 2, 20 2.

PURSUANT TO
FINDING DETERMINATION AND DECLARATION
BY THE
WISCONSIN DEPARTMENT OF TRANSPORTATION

DATE: 8/6/03

POPULATION OF HIGHWAY DEVELOPMENT

REVISED & AMENDED



Document Number VACATION ORDER TRANSPORTATION PROJECT PLAT

Wisconsin Department of Transportation s.84.095(3)(b) Wis. Stats. DT2222 2006

This Vacation Order applies to Transportation Project Plat 1643-07-21-4.01, recorded on November 9, 2011 as Document Number 295731 in the Office of the Register of Deeds for Richland County.

Whereas, parcel 4 of the above-described Transportation Project Plat has been determined to be unnecessary for transportation improvement project purposes, said parcel is vacated and rescinded.

This Vacation Order has been approved by the Wisconsin Department of Transportation.

VOI 584 PAGE 359

297449

RECORDED AT 8:3 DO'CLOCK a. M

APR 05 2012

VOS84 OF Records PAGE 3

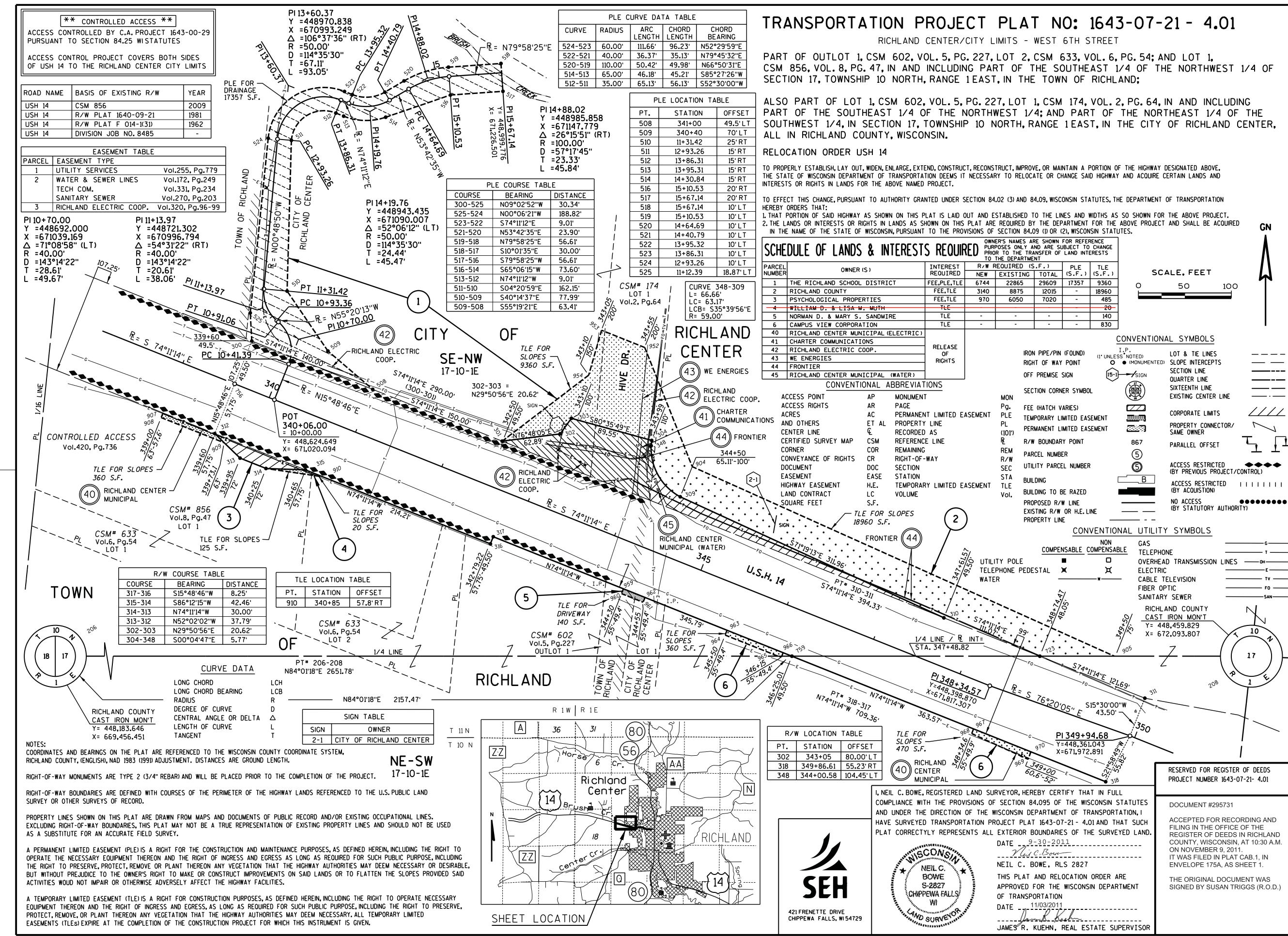
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Return to

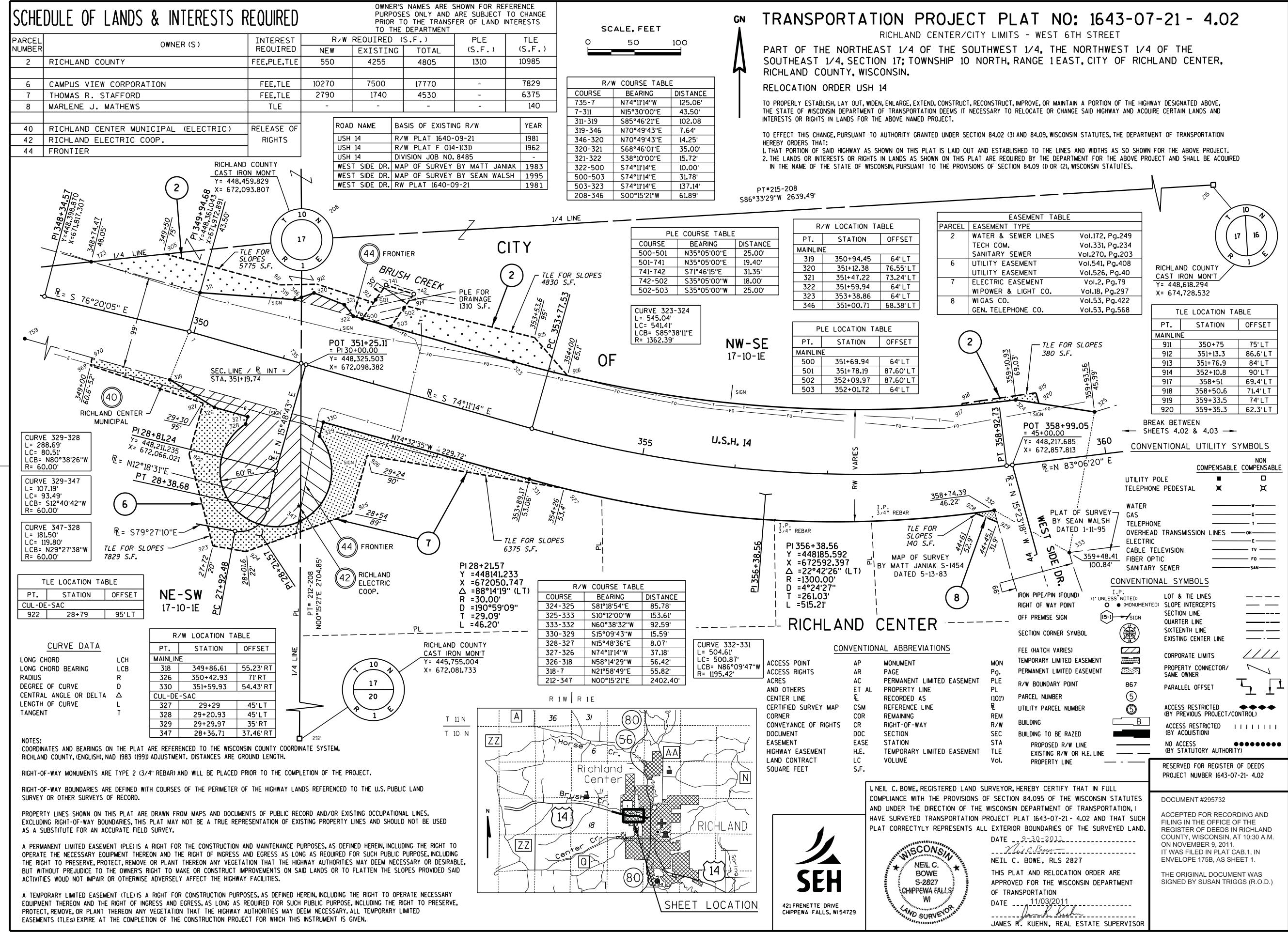
Wisconsin Dept. of Transportation SW Region - La Crosse Attn.: Robert L. Pozorski 3550 Mormon Coulee Drive La Crosse, WI 54601

Parcel Identification Number/Tax Key Number 022-1724-4000

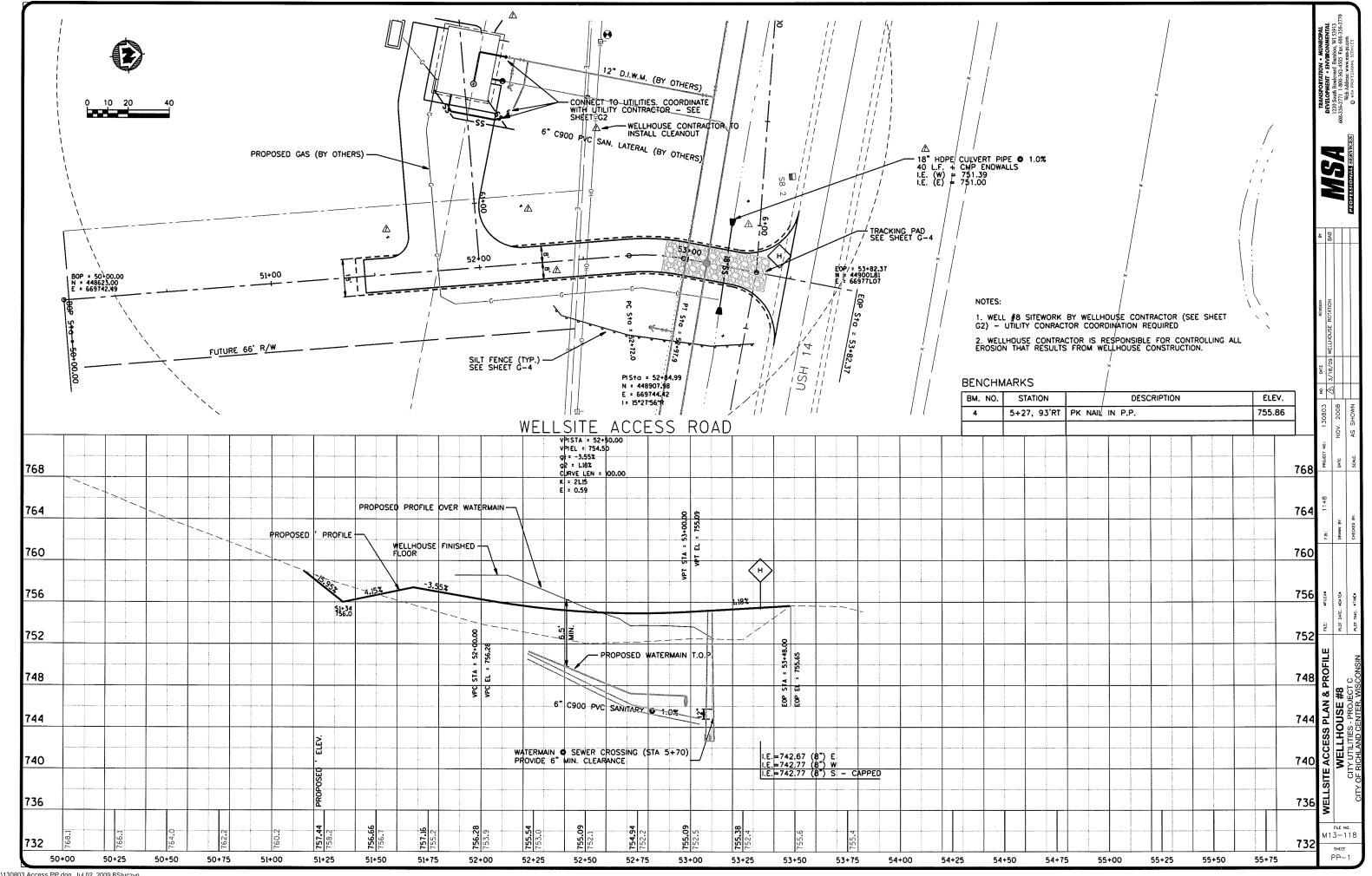
(Signature) Robert L. Pozorski	April 3, 2012 (Date)
(Print Name)	State of Wisconsin)
Distriction) SS.
Right of Way Plat Coordinator	La Crosse County)
(Title)	
	On the above date, this instrument was acknowledged before me by the named person(s).
رود و الله المحالية المحالية المحالية المحالية ال	Bryong & Messly
	(Bignature, Notary Public, State of Wisconsin)
	Gregory M. Messling
(Seal)	(Print or Type Name, Notary Public, State of Wisconsin)
te l	August 19, 2012
	(Date Commission Expires)



PLOT NAME:

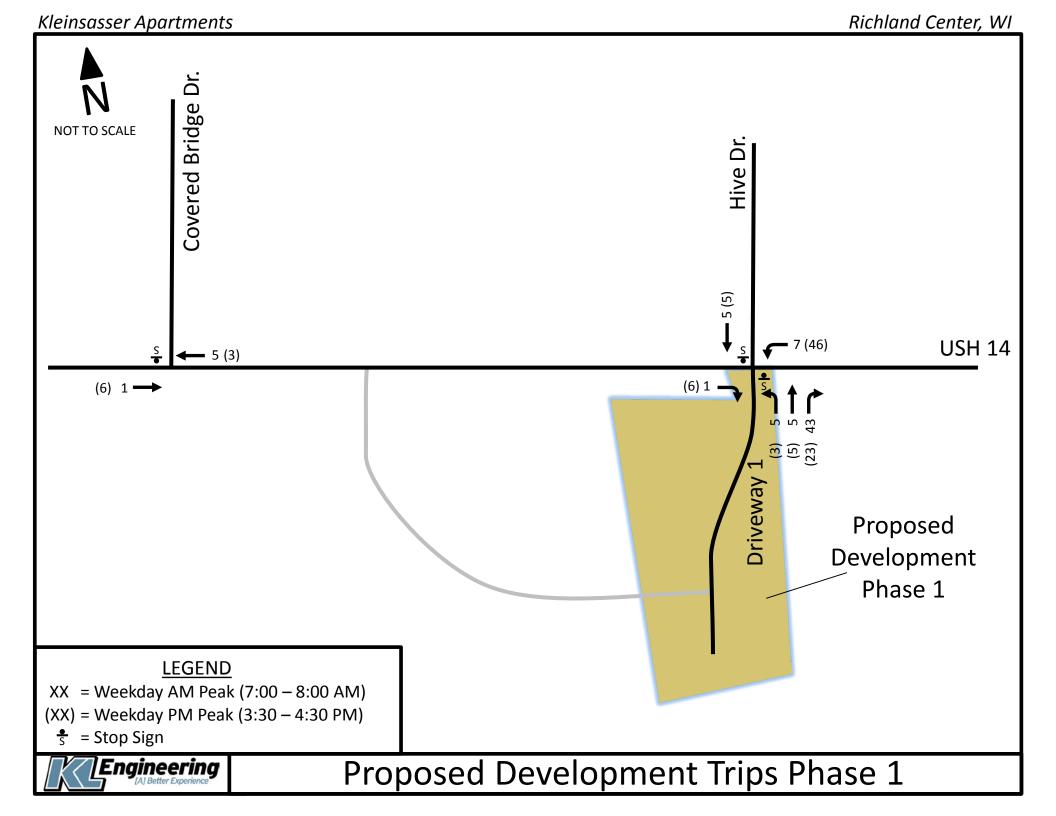


PLOT NAME :

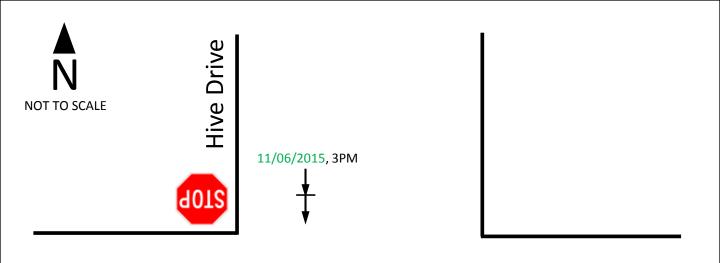


Attachment E Traffic Data

	ITE Land Use Code	Units	Daily Trips per Unit	Weekday Daily Trips	AM Peak			PM Peak		
Land Use					In (%)	Out (%)	Total (Trips Per Unit)	In (%)	Out (%)	Total (Trips Per Unit)
Apartment (Phase 1)	220	135	6.98	942	14	56	70	60	32	92
Apartment (i mase i)	220				(20%)	(80%)	(0.52)	(65%)	(35%)	(0.68)
Multimodal Reduction (5%)				-47	-1	-3	-4	-3	-1	-5
Phase 1 Total			895	13	53	66	57	31	87	
Single-Family Detached Housing	g ₂₁₀	148	10.18	1,506	28	85	113	95	56	150
(Phase 2)					(25%)	(75%)	(0.77)	(63%)	(37%)	(1.01)
Multimodal Reduction (5%)				-75	-1	-4	-6	-5	-3	-7
Phase 2 Total				1,431	27	81	107	90	53	143
Full Build Total			2,326	40	134	174	147	84	230	



Kleinsasser Apartments Richland Center, WI NOT TO SCALE 2,200' from Hive Drive: EB Measured 85th percentile speed = 62mph WB Measured 85th percentile speed = 60mph Speed Limit Signs Approx. 600' from Hive Drive USH 14 SPEED **SPEED** LIMIT 300' from Hive Drive: EB Measured 85th percentile speed = 46mph WB Measured 85th percentile speed = 48mph **Proposed Development** Engineering **Existing Speeds**





USH 14



NOTE: DEER CRASHES NOT INCLUDED. PAGE 1 OF 1.

YEAR

2012 BLACK

2013 BLUE

2014 RED

2015 GREEN

2016 PURPLE

CRASH FREQUENCY/SEVERITY

O Fatal Crash (K)

0 Incapacitating (A-Level)

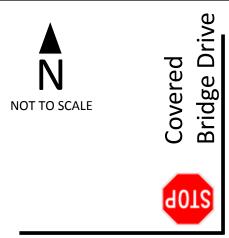
0 Non-Incapacitating (B-Level)

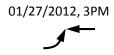
Crashes 1 Possible (C-Level)

1 Property Damage Only

CRASH SEVERITY **LEGEND** = CRASH FREQUENCY **DEFINITIONS** = Fatal Crash "LETTER" = USED FOR REFERENCING = Incapacitating → Head-On CRASHES IN REPORT AS NEEDED Moving Vehicle Angle (Right Angle) Injury Crash DATE OF CRASH ← Backing Vehicle ① Tree → Rear-End `Angle (Left-Turn) = Non-Incapacitating Iniury Crash --- Pedestrian Utility Pole Angle (Right-Turn) **∼** Out of Control SEVERITY (SEE SEVERITY DEFINITIONS) = Possible ...B...▶ Bicyclist Fixed Object 🚣 Sideswipe-Same **→** Overtake ROAD CONDITIONS (DRY IF BLANK) Injury Crash LIGHT CONDITIONS (DAYTIME IF BLANK) = Property Damage Only Crash Parked Vehicle Non-Fixed Object Sideswipe-Opposite **△** Overturn ALCOHOL/DRUG INVOLVEMENT AL/DG

INTERSECTION COLLISION DIAGRAM
JANUARY 2012 - DECEMBER 2016
USH 14 & HIVE DRIVE
RICHLAND COUNTY WISCONSIN





USH 14



NOTE: DEER CRASHES NOT INCLUDED. PAGE 1 OF 1.

YEAR

2012 BLACK

2013 BLUE

2014 RED

2015 GREEN

2016 PURPLE

CRASH FREQUENCY/SEVERITY

Fatal Crash (K)

Incapacitating (A-Level)

Non-Incapacitating (B-Level)

Crashes Possible (C-Level)

Property Damage Only

= CRASH FREQUENCY

LEGEND



--- Pedestrian ...B...▶ Bicyclist

Parked Vehicle

① Tree

Utility Pole

Fixed Object Non-Fixed Object Angle (Right Angle)

'Angle (Left-Turn) Angle (Right-Turn) Sideswipe-Same Sideswipe-Opposite

→ Overtake

→ Rear-End **∼** Out of Control

1

DATE OF CRASH SEVERITY (SEE SEVERITY DEFINITIONS) ROAD CONDITIONS (DRY IF BLANK) LIGHT CONDITIONS (DAYTIME IF BLANK) ALCOHOL/DRUG INVOLVEMENT AL/DG

"LETTER" = USED FOR REFERENCING

CRASHES IN REPORT AS NEEDED

CRASH SEVERITY **DEFINITIONS**

= Fatal Crash = Incapacitating

Injury Crash = Non-Incapacitating Iniury Crash

= Possible Injury Crash

= Property Damage Only Crash

△ Overturn

→ Head-On

INTERSECTION COLLISION DIAGRAM JANUARY 2012 - DECEMBER 2016 **USH 14 & COVERED BRIDGE DRIVE** RICHLAND COUNTY WISCONSIN

Attachment F Intersection Concepts

