TOWN OF SHELBY

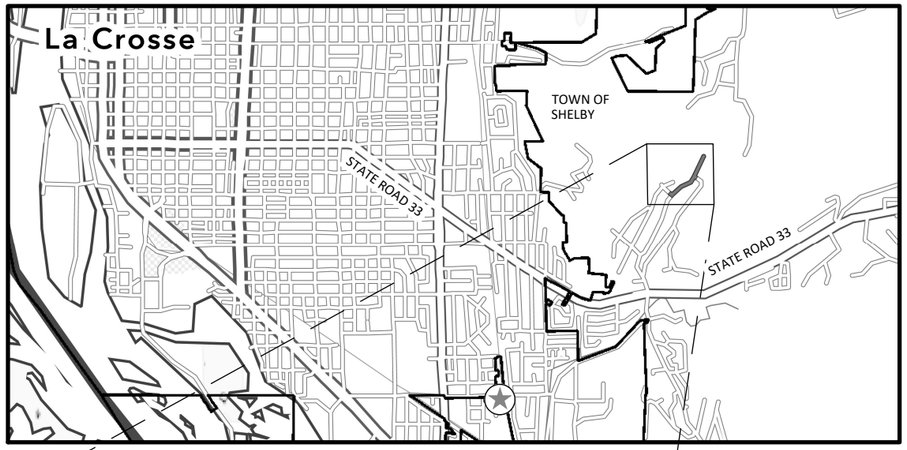
CONSTRUCTION PLANS FOR

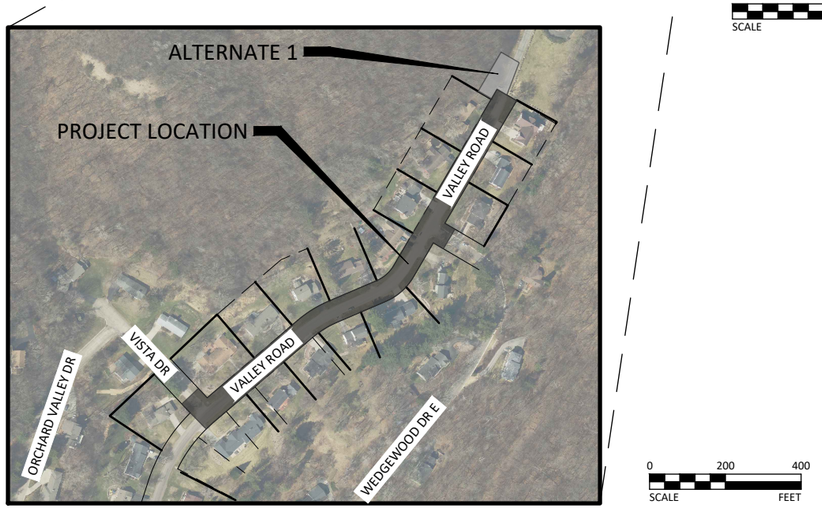
WEDGEWOOD VALLEY STORMWATER IMPROVEMENTS

PHASE 1

GRADING DITCHES, STORM SEWER UPGRADES, ASPHALT PAVING, CONCRETE DRIVEWAYS,
CONCRETE STRUCTURE, STEEL PILING, RIPRAP, EROSION CONTROL & TURF ESTABLISHMENT

OCTOBER, 2024





MAP OF THE
TOWN OF SHELBY
LA CROSSE COUNTY, MN

MAP LEGEND

PROJECT LIMITS

PUBLIC WORKS

NOTE: EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY GOPHER STATE ONE CALL, 1-800-252-1166 OR 651-454-0002.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D UNLESS OTHERWISE NOTED. THIS UTILITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

SHEET NUMBER	SHEET TITLE
GENERAL	
G0.01 - G0.02	TITLE SHEET, LEGEND, GENERAL NOTES
G1.01	STATEMENT OF ESTIMATED QUANTITIES
G2.01	LOCATION, PHASING & TRAFFIC CONTROL PLAN
CIVIL	
C0.01 - C0.02	EXISTING CONDITIONS, REMOVALS PLAN
C1.01 - C1.08	TABLES, DETAILS, TYPICAL SECTIONS
C2.01 - C2.06	EROSION CONTROL PLAN, SWPPP
C5.01 - C5.04	STORM SEWER PLAN & PROFILE
C6.01 - C6.02	STREET PLAN & PROFILE
C8.01 - C8.06	CROSS SECTIONS
THIS PLAN SET CONTAINS 32 SHEETS.	

BM=835.42
TOP NUT HYDRANT
STA 37+38.23
26.91' RT

PROJECT DATUM:
HORIZONTAL: NSRS 2011 LA CROSSE COUNTY COORDINATE SYSTEM
VERTICAL: NSRS11 IN FEET

RECORD DRAWING INFORMATION
OBSERVER:
CONTRACTOR:
DATE:

BOLTON & MENK
2900 43RD STREET NW, SUITE 100
ROCHESTER, MINNESOTA 55901
Phone: (507) 208-4332
Email: Rochester@bolton-menk.com
www.bolton-menk.com

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CHECKED	XXX
CLIENT PROJ. NO.	

NO.	ISSUED FOR	DATE

TOWN OF SHELBY, WISCONSIN
WEDGEWOOD VALLEY STORMWATER IMPROVEMENTS
TITLE SHEET

SHEET
G0.01

EXISTING TOPOGRAPHIC SYMBOLS

- ACCESS GRATE
- AIR CONDITION UNIT
- ANTENNA
- AUTO SPRINKLER CONNECTION
- BARRICADE PERMANENT
- BASKETBALL POST
- BENCH
- BIRD FEEDER
- BOLLARD
- BUSH
- CATCH BASIN RECTANGULAR CASTING
- CATCH BASIN CIRCULAR CASTING
- CURB STOP
- CLEAN OUT
- CULVERT END
- DRINKING FOUNTAIN
- DOWN SPOUT
- FILL PIPE
- FIRE HYDRANT
- FLAG POLE
- FLARED END / APRON
- FUEL PUMP
- GRILL
- GUY WIRE ANCHOR
- HANDHOLE
- HANDICAP SPACE
- IRRIGATION SPRINKLER HEAD
- IRRIGATION VALVE BOX
- LIFT STATION CONTROL PANEL
- LIFT STATION
- LIGHT ON POLE
- LIGHT-GROUND
- MAILBOX
- MANHOLE-COMMUNICATION
- MANHOLE-ELECTRIC
- MANHOLE-GAS
- MANHOLE-HEAT
- MANHOLE-SANITARY SEWER
- MANHOLE-STORM SEWER
- MANHOLE-UTILITY
- MANHOLE-WATER
- METER
- ORDER MICROPHONE
- PARKING METER
- PAVEMENT MARKING
- PEDESTAL-COMMUNICATION
- PEDESTAL-ELECTRIC
- PEDESTRIAN PUSH BUTTON
- PICNIC TABLE
- POLE-UTILITY
- POLE-BRACE
- POST
- RAILROAD SIGNAL POLE
- REGULATION STATION GAS
- SATELLITE DISH
- SIGN NON TRAFFIC
- SIGN TRAFFIC
- SIGNAL CONTROL CABINET
- SOIL BORING
- SIREN
- TELEPHONE BOOTH
- TILE INLET
- TILE OUTLET
- TILE RISER
- TRANSFORMER-ELECTRIC
- TREE-CONIFEROUS
- TREE-DEAD
- TREE-DECIDUOUS
- TREE STUMP
- TRAFFIC ARM BARRIER
- TRAFFIC SIGNAL
- TRASH CAN
- UTILITY MARKER
- VALVE
- VALVE POST INDICATOR
- VALVE VAULT
- VAULT
- VENT PIPE
- WATER SPIGOT
- WELL
- WETLAND DELINEATED MARKER
- WETLAND
- WET WELL
- YARD HYDRANT

PROPOSED TOPOGRAPHIC SYMBOLS

- CLEANOUT
- MANHOLE
- LIFT STATION
- STORM SEWER CIRCULAR CASTING
- STORM SEWER RECTANGULAR CASTING
- STORM SEWER FLARED END / APRON
- STORM SEWER OUTLET STRUCTURE
- STORM SEWER OVERFLOW STRUCTURE
- CURB BOX
- FIRE HYDRANT
- WATER VALVE
- WATER REDUCER
- WATER BEND
- WATER TEE
- WATER CROSS
- WATER SLEEVE
- WATER CAP / PLUG
- RIP RAP
- DRAINAGE FLOW
- TRAFFIC SIGNS

SURVEY SYMBOLS

- BENCHMARK LOCATION
- CONTROL POINT
- MONUMENT FOUND
- CAST IRON MONUMENT
- STONE MONUMENT

EXISTING TOPOGRAPHIC LINES

- RETAINING WALL
- FENCE
- FENCE-DECORATIVE
- GUARD RAIL
- TREE LINE
- BUSH LINE

SURVEY LINES

- CONTROLLED ACCESS
- BOUNDARY
- CENTERLINE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- EXISTING LOT LINE
- PROPOSED LOT LINE
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- SETBACK LINE
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- TEMPORARY EASEMENT

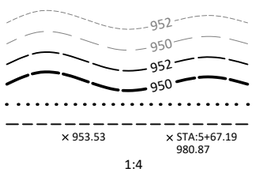
EXISTING UTILITY LINES

- FORCEMAIN
- SANITARY SEWER
- SANITARY SERVICE
- STORM SEWER
- STORM SEWER DRAIN TILE
- WATERMAIN
- WATER SERVICE

PROPOSED UTILITY LINES

- FORCEMAIN
- SANITARY SEWER
- SANITARY SERVICE
- STORM SEWER
- STORM SEWER DRAIN TILE
- WATERMAIN
- WATER SERVICE
- PIPE CASING
- TRENCHLESS PIPE (PLAN VIEW)
- TRENCHLESS PIPE (PROFILE VIEW)

GRADING INFORMATION



- EXISTING CONTOUR MINOR
- EXISTING CONTOUR MAJOR
- PROPOSED CONTOUR MINOR
- PROPOSED CONTOUR MAJOR
- PROPOSED GRADING LIMITS / SLOPE LIMITS
- PROJECT LIMITS
- PROPOSED SPOT ELEVATION
- RISE:RUN (SLOPE)

HATCH PATTERNS

- BITUMINOUS
- GRAVEL
- CONCRETE

EXISTING PRIVATE UTILITY LINES

NOTE:
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- UNDERGROUND FIBER OPTIC
- UNDERGROUND ELECTRIC
- UNDERGROUND GAS
- UNDERGROUND COMMUNICATION
- OVERHEAD ELECTRIC
- OVERHEAD COMMUNICATION
- OVERHEAD UTILITY

UTILITIES IDENTIFIED WITH A QUALITY LEVEL :

LINE TYPES FOLLOW THE FORMAT: UTILITY TYPE - QUALITY LEVEL
EXAMPLE: G-A G-A UNDERGROUND GAS, QUALITY LEVEL A
UTILITY QUALITY LEVEL (A,B,C,D) DEFINITIONS CAN BE FOUND IN CI/ASCE 38-22.

UTILITY QUALITY LEVELS:

QUALITY LEVEL D: PROVIDES THE MOST BASIC LEVEL OF INFORMATION. IT INVOLVES COLLECTING DATA FROM EXISTING UTILITY RECORDS. RECORDS MAY INCLUDE AS-BUILT DRAWINGS, DISTRIBUTION AND SERVICES MAPS, EXISTING GEOGRAPHIC INFORMATION SYSTEM DATABASES, CONSTRUCTION PLANS, ETC.

QUALITY LEVEL C: INVOLVES SURVEYING VISIBLE SUBSURFACE UTILITY STRUCTURES SUCH AS MANHOLES, HAND-HOLES, UTILITY VALVES AND METERS, FIRE HYDRANTS, PEDESTALS AND UTILITY MARKERS, AND THEN CORRELATING THE INFORMATION WITH EXISTING UTILITY RECORDS TO CREATE COMPOSITE DRAWINGS. INCLUDES QUALITY LEVEL D ACTIVITIES.

QUALITY LEVEL B: INVOLVES DESIGNATING THE HORIZONTAL POSITION OF SUBSURFACE UTILITIES THROUGH SURFACE DETECTION METHODS AND COLLECTING THE INFORMATION THROUGH A SURVEY METHOD. INCLUDES QUALITY LEVEL C AND D TASKS.

QUALITY LEVEL A: PROVIDES THE HIGHEST LEVEL OF ACCURACY. IT INVOLVES LOCATING OR POTHOLING UTILITIES AS WELL AS ACTIVITIES IN QUALITY LEVELS B, C, AND D. THE LOCATED FACILITY INFORMATION IS SURVEYED AND MAPPED AND THE DATA PROVIDES PRECISE PLAN AND PROFILE INFORMATION.

ABBREVIATIONS

A	ALGEBRAIC DIFFERENCE	GRAV	GRAVEL	RSC	RIGID STEEL CONDUIT
ADJ	ADJUST	GU	GUTTER	RT	RIGHT
ALT	ALTERNATE	GV	GATE VALVE	SAN	SANITARY SEWER
B-B	BACK TO BACK	HDPE	HIGH DENSITY POLYETHYLENE	SCH	SCHEDULE
BIT	BITUMINOUS	HH	HANDHOLE	SERV	SERVICE
BLDG	BUILDING	HP	HIGH POINT	SHLD	SHOULDER
BMP	BEST MANAGEMENT PRACTICE	HWL	HIGH WATER LEVEL	STA	STATION
BR	BEGIN RADIUS	HYD	HYDRANT	STD	STANDARD
BV	BUTTERFLY VALVE	I	INVERT	STM	STORM SEWER
CB	CATCH BASIN	K	CURVE COEFFICIENT	TC	TOP OF CURB
C&G	CURB AND GUTTER	L	LENGTH	TE	TEMPORARY EASEMENT
CIP	CAST IRON PIPE	LO	LOWEST OPENING	TEMP	TEMPORARY
CIPP	CURED-IN-PLACE PIPE	LP	LOW POINT	TNH	TOP NUT HYDRANT
CL	CENTER LINE	LT	LEFT	TP	TOP OF PIPE
CL.	CLASS	MAX	MAXIMUM	TYP	TYPICAL
CLVT	CULVERT	MH	MANHOLE	VCP	VITRIFIED CLAY PIPE
CMP	CORRUGATED METAL PIPE	MIN	MINIMUM	VERT	VERTICAL
C.O.	CHANGE ORDER	MR	MID RADIUS	VPC	VERTICAL POINT OF CURVE
COMM	COMMUNICATION	NIC	NOT IN CONTRACT	VPI	VERTICAL POINT OF INTERSECTION
CON	CONCRETE	NMC	NON-METALLIC CONDUIT	VPT	VERTICAL POINT OF TANGENT
CSP	CORRUGATED STEEL PIPE	NTS	NOT TO SCALE	WM	WATERMAIN
DIA	DIAMETER	NWL	NORMAL WATER LEVEL		
DIP	DUCTILE IRON PIPE	OHW	ORDINARY HIGH WATER LEVEL		
DWY	DRIVEWAY	PC	POINT OF CURVE	AC	ACRES
E	EXTERNAL CURVE DISTANCE	PCC	POINT OF COMPOUND CURVE	CF	CUBIC FEET
ELEC	ELECTRIC	PE	PERMANENT EASEMENT	CV	COMPACTED VOLUME
ELEV	ELEVATION	PED	PEDESTRIAN, PEDESTAL	CY	CUBIC YARD
EOF	EMERGENCY OVERFLOW	PERF	PERFORATED PIPE	EA	EACH
ER	END RADIUS	PERM	PERMANENT	EV	EXCAVATED VOLUME
ESMT	EASEMENT	PI	POINT OF INTERSECTION	LB	POUND
EX	EXISTING	PL	PROPERTY LINE	LF	LINEAR FEET
FES	FLARED END SECTION	PRC	POINT OF REVERSE CURVE	LS	LUMP SUM
F-F	FACE TO FACE	PT	POINT OF TANGENT	LV	LOOSE VOLUME
FF	FINISHED FLOOR	PVC	POLYVINYL CHLORIDE PIPE	SF	SQUARE FEET
F&I	FURNISH AND INSTALL	PVMT	PAVEMENT	SV	STOCKPILE VOLUME
FM	FORCEMAIN	R	RADIUS	SY	SQUARE YARD
FO	FIBER OPTIC	R/W	RIGHT-OF-WAY		
F.O.	FIELD ORDER	RCP	REINFORCED CONCRETE PIPE		
GRAN	GRANULAR	RET	RETAINING		

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XXX			
CLIENT PROJ. NO.			

TOWN OF SHELBY, WISCONSIN
VALLEY ROAD DRAINAGE IMPROVEMENTS
LEGEND

SHEET
G0.02

TRAFFIC CONTROL LEGEND

R11-2
(48 X 30)
ROAD CLOSED

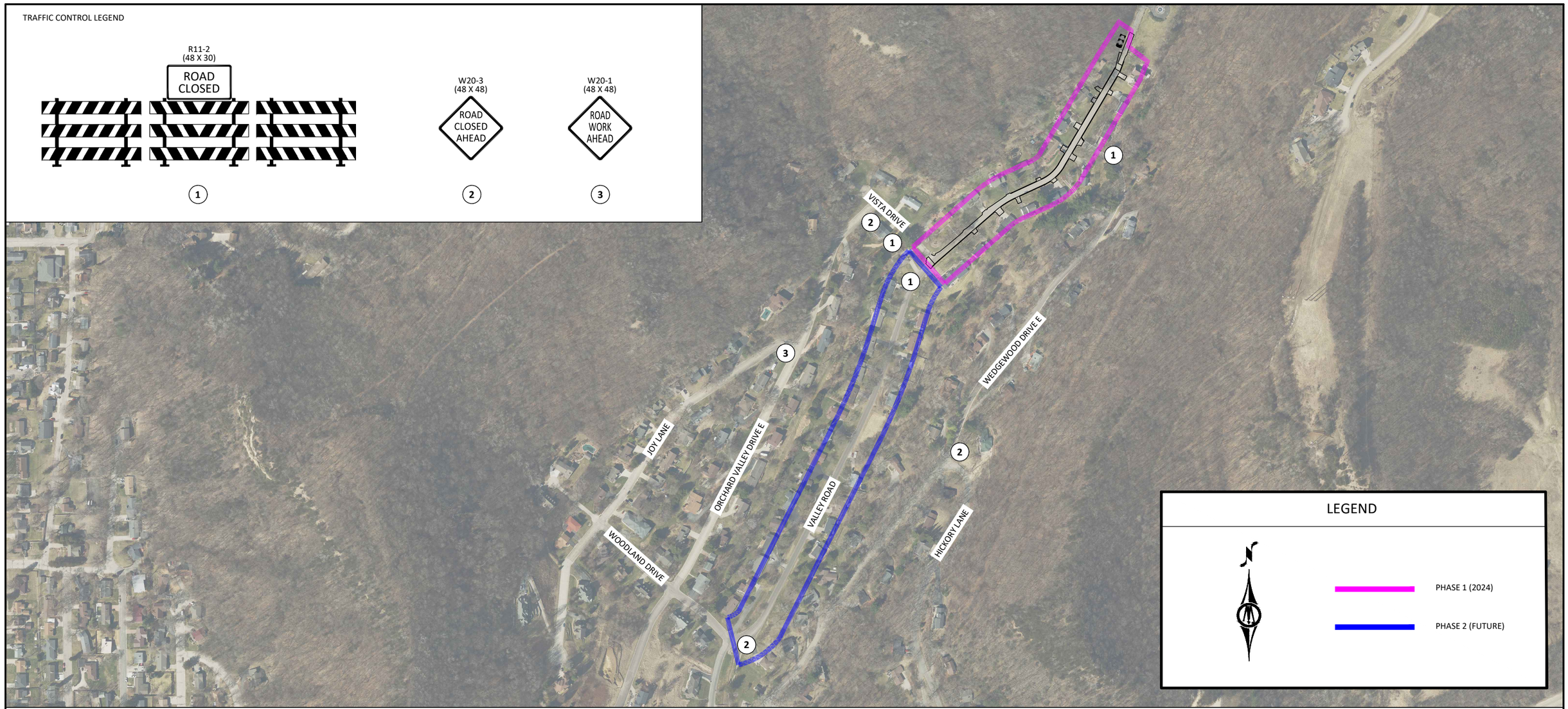
1

W20-3
(48 X 48)
ROAD CLOSED AHEAD

2

W20-1
(48 X 48)
ROAD WORK AHEAD

3



LEGEND

PHASE 1 (2024)

PHASE 2 (FUTURE)

GENERAL CONSTRUCTION REQUIREMENTS

A. All traffic control and erosion control shall be installed before commencing with work in each respective area.

B. Corner lot properties: Where applicable, the Contractor is limited to construction of underground utilities on one-side of the corner lot, while the other leg of the street should provide reasonable access. No underground or significant construction will be allowed simultaneously on two legs of an intersection.

C. Work affecting vehicular access to properties with singular access points within the work limits shall be staged to minimize the amount of time that access is closed. Under no circumstances shall work restrict access to residences over nights, weekends, or other periods of time while work is not actively progressing.

D. The Contractor shall coordinate with the postal service, garbage/recycling service, and school bus service prior to construction to allow for reasonable continuation of their services throughout construction.

E. The contractor shall coordinate with emergency services to develop a contingency plan for accessing the site during all hours of the day, throughout construction.

F. The contractor shall track and log all water usage during the project and submit this information to the City. Contractor shall coordinate with the Public Works Department prior to using any hydrants.

G. The Contractor shall temporarily relocate mailboxes, haul recycling and garbage for residents to a designated pick up location and back at the end of the day, etc., as required by the subject service provider. All equipment materials and labor required to coordinate with service providers and maintain services shall be incidental to the Contract.

H. The work shall be scheduled to minimize the elapsed time between pavement removal and the new street construction in order to cause the least disruption and inconvenience to adjacent properties. Each construction activity within each segment shall be pursued diligently and continuously from start to finish. After the aggregate base is in place, temporary access shall be provided to the adjacent properties when no construction activity is taking place, including evenings and weekends (incidental).

I. Modifications to the limitations described above may be requested by the Contractor. Such variations will be considered by the Engineer and the Owner and will be evaluated based on the impacts to properties within the project area. If approved, written authorization will be provided to the Contractor.

J. The Contractor shall protect existing street pavement to the extent possible. Rubber tracks and direct loading of removed items are preferred.

K. The Contractor shall provide street and driveway access through permanent or temporary means whenever active work is not occurring. Access shall consist of a smooth, all weather surface that does not restrict flow of traffic during or after normal rainfall events. All work and materials necessary to be included in Traffic Control unit price.

L. Protect existing sanitary sewer mains, services, structures, and castings. Protect existing water mains, services, curb stops, hydrants, and valves. Protect existing storm sewer not designated for removal.

M. The Contractor shall deliver in-person written notices to each affected resident prior to closing their driveway for work. Notice shall be at least 72 hours in advance of the closing. Driveways shall be closed for no more than 24 hours.

N. Water services and curb stops shall be protected. The depths of the water services are unknown, and may need to be shifted during construction to avoid the proposed storm sewer main. In the event it is discovered a water service must be replaced in order to install the new storm sewer, the Contractor shall inform Town staff immediately and deliver in-person written notices to each affected resident prior to shutting off their water. Resident notices shall be at least 24 hours prior to water shutoff or at an earlier time if convenient to resident.

PHASING NOTES

PHASE 1 (NORTH IMPROVEMENTS): Drainage improvements between Vista Drive and the north terminus of Valley Road. All work to be substantially complete by XXXX as defined in the project manual. Additional details regarding phasing requirements are included in Section 013513 of the Project Manual.

PHASE 2 (SOUTH IMPROVEMENTS): Drainage improvements between Woodland Drive and Vista Drive. Improvements in this area have not been scheduled.

HORZ. 0 200 400
SCALE FEET

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2900 43RD STREET NW, SUITE 100
ROCHESTER, MINNESOTA 55901
Phone: (507) 208-4332
Email: Rochester@bolton-menk.com
www.bolton-menk.com

DESIGNED	JTP
DRAWN	JTP
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CLIENT PROJ. NO.	

NO.	ISSUED FOR	DATE

TOWN OF SHELBY, WISCONSIN
VALLEY ROAD DRAINAGE IMPROVEMENTS
LOCATION, PHASING & TRAFFIC CONTROL PLAN

SHEET
G2.01

HORZ. SCALE 0 25 50 FEET

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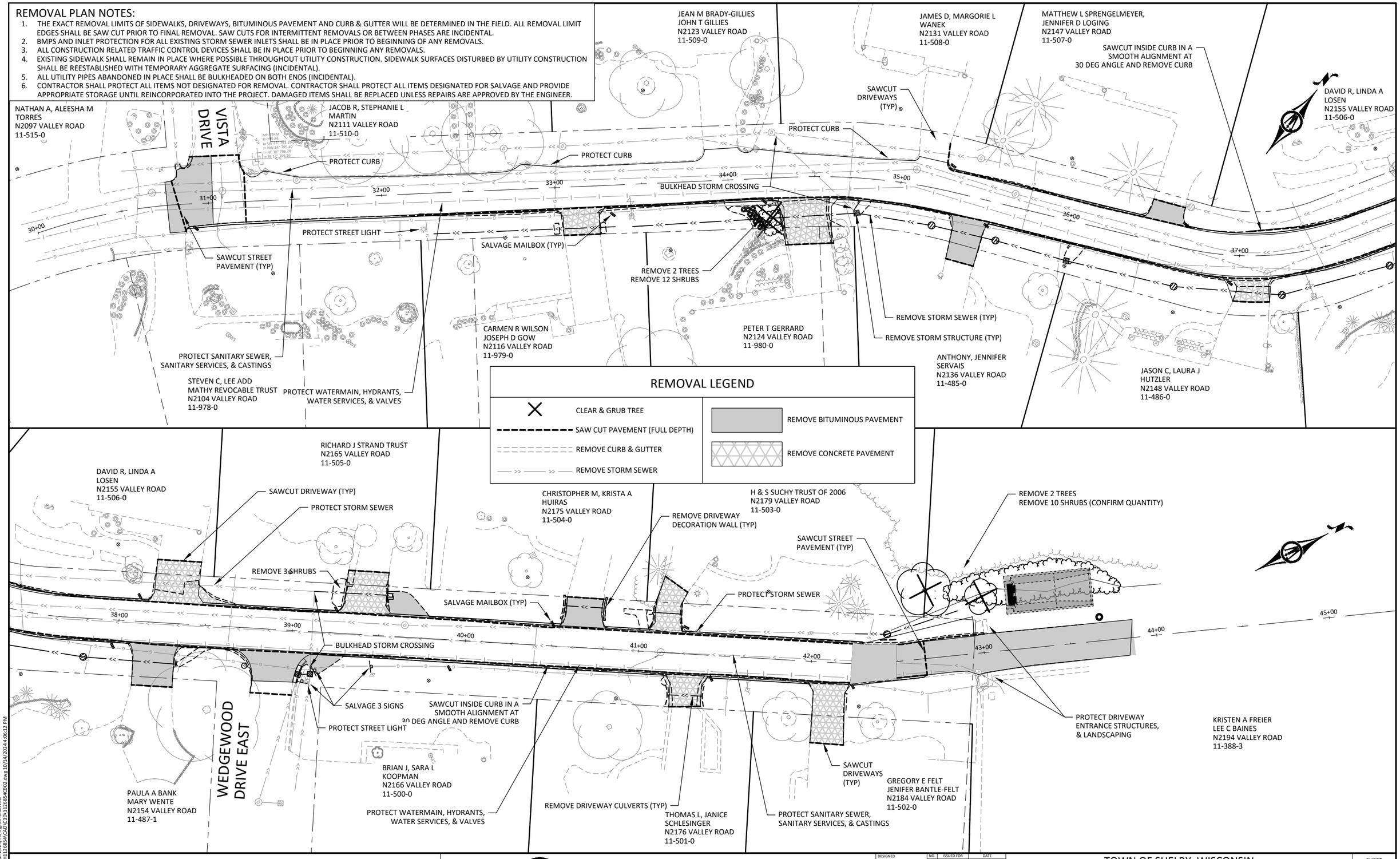
TOWN OF SHELBY, WISCONSIN
VALLEY ROAD DRAINAGE IMPROVEMENTS
EXISTING CONDITIONS

SHEET C0.01

REMOVAL PLAN NOTES:

1. THE EXACT REMOVAL LIMITS OF SIDEWALKS, DRIVEWAYS, BITUMINOUS PAVEMENT AND CURB & GUTTER WILL BE DETERMINED IN THE FIELD. ALL REMOVAL LIMIT EDGES SHALL BE SAW CUT PRIOR TO FINAL REMOVAL. SAW CUTS FOR INTERMITTENT REMOVALS OR BETWEEN PHASES ARE INCIDENTAL.
2. BMPS AND INLET PROTECTION FOR ALL EXISTING STORM SEWER INLETS SHALL BE IN PLACE PRIOR TO BEGINNING OF ANY REMOVALS.
3. ALL CONSTRUCTION RELATED TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO BEGINNING ANY REMOVALS.
4. EXISTING SIDEWALK SHALL REMAIN IN PLACE WHERE POSSIBLE THROUGHOUT UTILITY CONSTRUCTION. SIDEWALK SURFACES DISTURBED BY UTILITY CONSTRUCTION SHALL BE REESTABLISHED WITH TEMPORARY AGGREGATE SURFACING (INCIDENTAL).
5. ALL UTILITY PIPES ABANDONED IN PLACE SHALL BE BULKHEADED ON BOTH ENDS (INCIDENTAL).
6. CONTRACTOR SHALL PROTECT ALL ITEMS NOT DESIGNATED FOR REMOVAL. CONTRACTOR SHALL PROTECT ALL ITEMS DESIGNATED FOR SALVAGE AND PROVIDE APPROPRIATE STORAGE UNTIL REINCORPORATED INTO THE PROJECT. DAMAGED ITEMS SHALL BE REPLACED UNLESS REPAIRS ARE APPROVED BY THE ENGINEER.



REMOVAL LEGEND

CLEAR & GRUB TREE	REMOVE BITUMINOUS PAVEMENT
SAW CUT PAVEMENT (FULL DEPTH)	REMOVE CONCRETE PAVEMENT
REMOVE CURB & GUTTER	
REMOVE STORM SEWER	

HORZ. SCALE 0 25 50 FEET

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CLIENT PROJ. NO.	

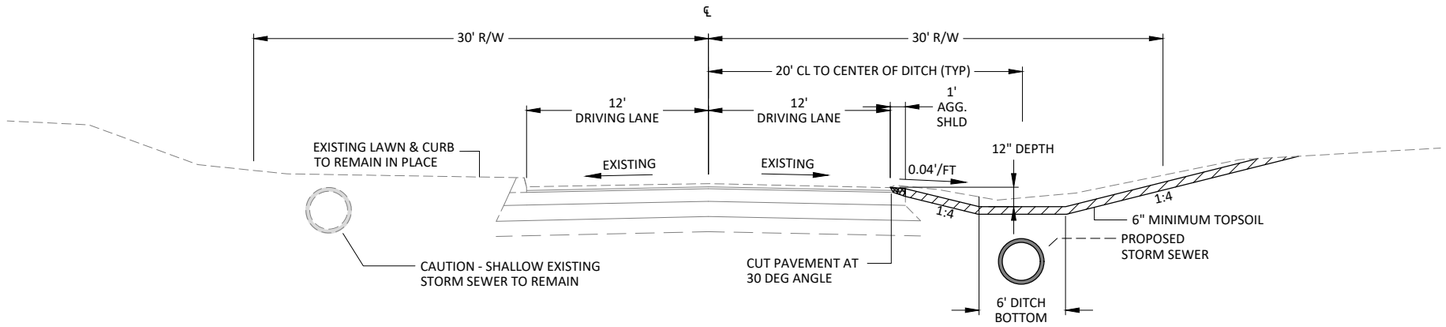
NO.	ISSUED FOR	DATE

TOWN OF SHELBY, WISCONSIN
VALLEY ROAD DRAINAGE IMPROVEMENTS
REMOVAL PLAN - VALLEY ROAD

SHEET C0.02

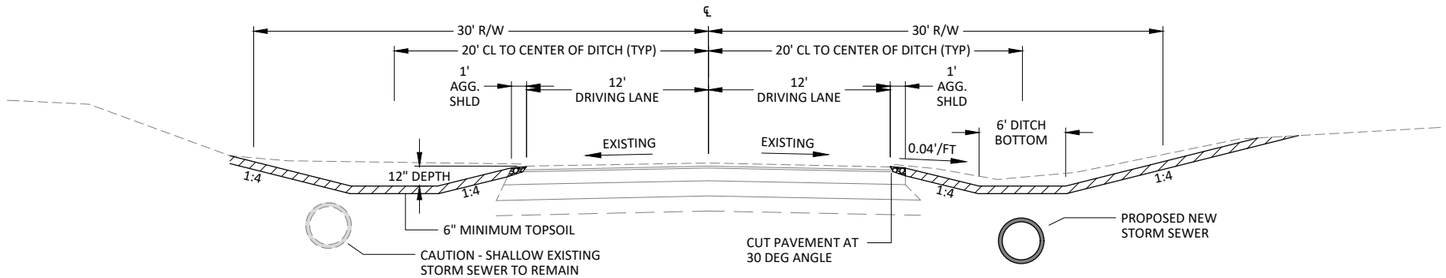
TYPICAL SECTION

VALLEY ROAD
STA. 30+75 TO STA. 35+25



TYPICAL SECTION

VALLEY ROAD
STA. 35+25 TO STA. 43+00

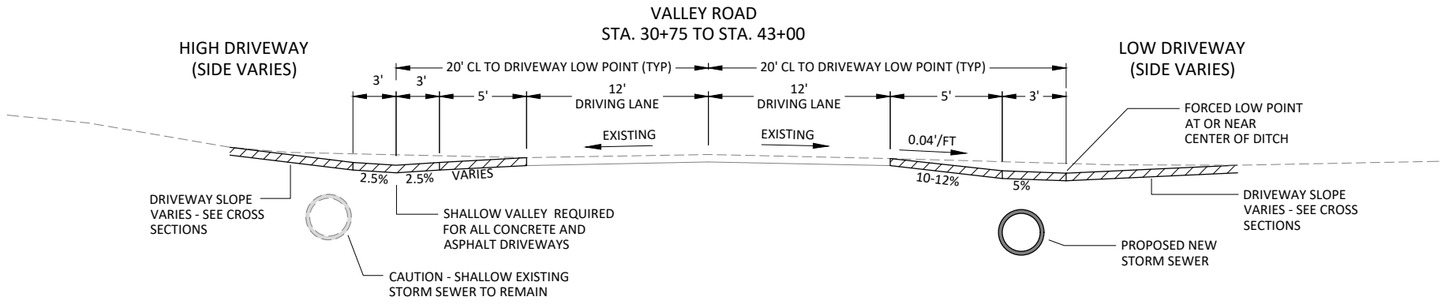


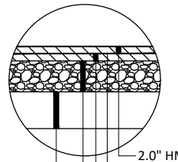
GENERAL NOTES:

1. PAVEMENT SLOPES AT INTERSECTIONS MAY VARY FROM THOSE SHOWN ON THE TYPICAL SECTION
2. GRADE ALL TOPSOIL MATERIAL TO 1" DEPTH BELOW PAVEMENT & GRAVEL SURFACES PRIOR TO PLACING SOD

TYPICAL DRIVEWAY

VALLEY ROAD
STA. 30+75 TO STA. 43+00





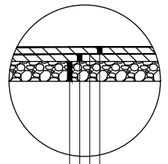
ASPHALT PATCHING SPECIAL NOTES:

(1) PAID AS - ASPHALT PATCHING SPECIAL
(2) EXCAVATION AND REMOVAL OF EXISTING PAVEMENT FOR PATCH IS PAID AS REMOVING ASPHALTIC SURFACE.

2.0" HMA PAVEMENT 4 LT 58-28 S (1)
ASPHALTIC TACK COAT (1)
2.0" HMA PAVEMENT 4 LT 58-28 S (1)
10" BASE AGGREGATE DENSE 1 1/4-INCH (1)
12" PREPARING THE FOUNDATION (INCIDENTAL)

ASPHALT PATCHING SPECIAL (UTILITY CROSSINGS)

NOT TO SCALE



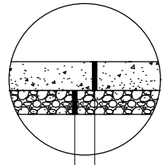
ASPHALT DRIVEWAY 4"-INCH NOTES:

(1) PAID AS - HMA PAVEMENT
(2) PAID AS - TACK COAT

2.0" HMA PAVEMENT 4 LT 58-28 S (1)
ASPHALTIC TACK COAT (2)
2.0" HMA PAVEMENT 4 LT 58-28 S (1)
4" BASE AGGREGATE DENSE 1 1/4-INCH (INCIDENTAL)

ASPHALT DRIVEWAY 4-INCH

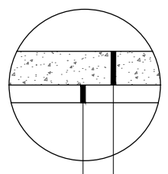
NOT TO SCALE



CONCRETE DRIVEWAY 6-INCH
4" BASE AGGREGATE DENSE 1 1/4-INCH (INCIDENTAL)

CONCRETE DRIVEWAY 6-INCH (INCLUDES VALLEY THROUGH DRIVEWAY)

NOT TO SCALE



10" BASE AGGREGATE DENSE 3/4-INCH
12" PREPARING THE FOUNDATION (INCIDENTAL)

AGGREGATE SHOULDERING

NOT TO SCALE

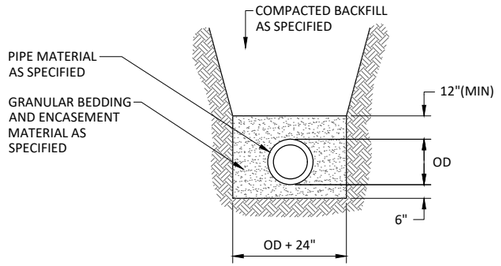
BOLTON & MENK
2900 43RD STREET NW, SUITE 100
ROCHESTER, MINNESOTA 55901
Phone: (507) 208-4332
Email: Rochester@bolton-menk.com
www.bolton-menk.com

DESIGNED	JTP
DRAWN	JTP
CHECKED	XXX
CLIENT PROJ. NO.	

NO.	ISSUED FOR	DATE

TOWN OF SHELBY, WISCONSIN
VALLEY ROAD DRAINAGE IMPROVEMENTS
TYPICAL SECTIONS

SHEET C1.01



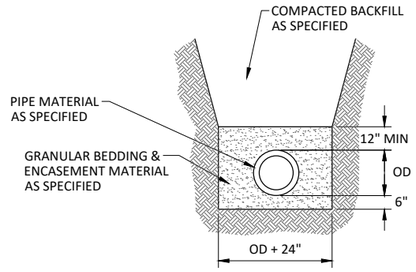
BOLTON & MENK

NON-RIGID SANITARY SEWER TRENCH

NOT TO SCALE

LAST REVISION: 04-2021

PLATE NO. 5-200



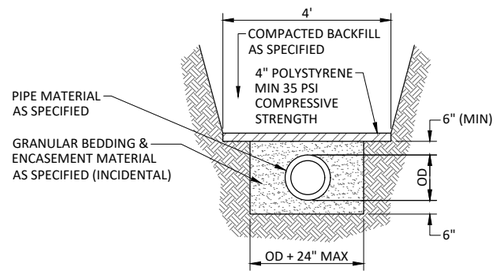
BOLTON & MENK

PVC WATERMAIN TRENCH

NOT TO SCALE

LAST REVISION: 04-2021

PLATE NO. 6-200



BOLTON & MENK

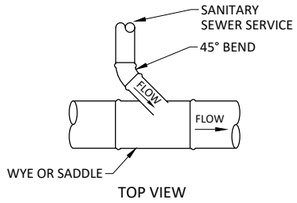
WATERMAIN INSULATION

NOT TO SCALE

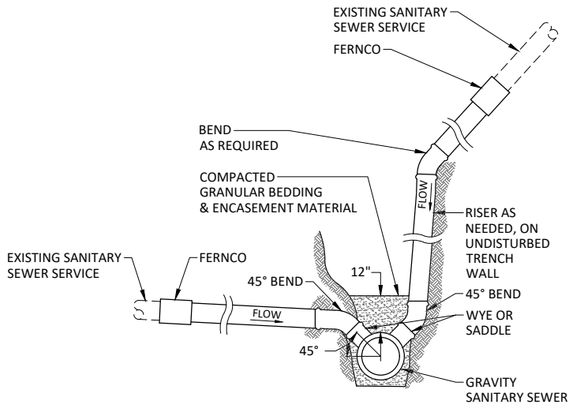
LAST REVISION: 04-2021

PLATE NO. 6-202

SEWER SERVICE REQUIREMENTS
-GRADES-
MINIMUM - 1.0% (1/8" PER FT)
OPTIMUM - 2.0% (1/4" PER FT)
MAXIMUM - 12.5%



TOP VIEW



NOTE:
1. WYES, BENDS AND PIPE SIZES AS REQUIRED BY PLANS AND SPECS
2. WHERE NO EXISTING SEWER IS INPLACE, INSTALL PVC CAP AND MARK LOCATION WITH 4"X4"X6' TIMBER & 3/8" X 4' STEEL ROD BURY 6" BELOW FINISHED GRADE

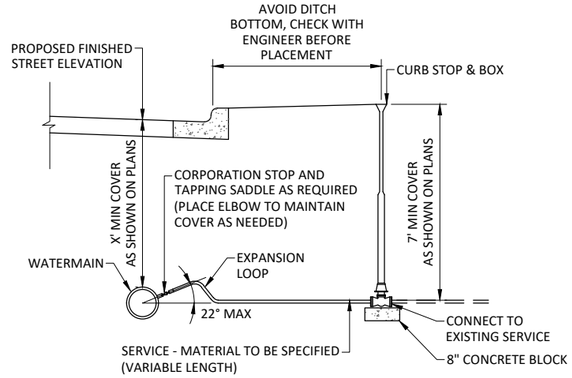
BOLTON & MENK

SANITARY SEWER SERVICE
AND SERVICE RISER, RECONSTRUCTION

NOT TO SCALE

LAST REVISION: 04-2021

PLATE NO. 5-107



NOTE: WHERE NO EXISTING WATER SERVICE IS INPLACE, INSTALL 0.5' FLARED & CRIMPED COPPER SERVICE LINE AND STEEL "T" FENCE POST AT CURB STOP

WATER SERVICE INSTALLATION - RECONSTRUCTION

NOT TO SCALE

BOLTON & MENK
2900 43RD STREET NW, SUITE 100
ROCHESTER, MINNESOTA 55901
Phone: (507) 208-4332
Email: Rochester@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
JTP			
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JTP			
CHECKED			
XXX			
CLIENT PROJ. NO.			

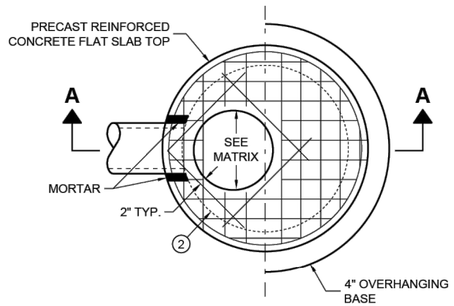
TOWN OF SHELBY, WISCONSIN

VALLEY ROAD DRAINAGE IMPROVEMENTS

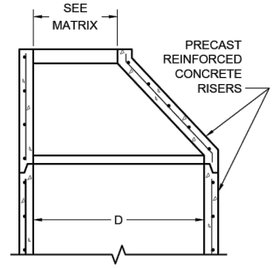
DETAILS

SANITARY SEWER & WATERMAIN

SHEET C1.05



PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

COVER MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V V-B	VV-B	WM	Z
	OPENING SIZE (FT.)												
3-FT	2 X 2	X	X					X		X			
	2 DIA.				X								X
4-FT TO 6-FT	2 X 2	X	X					X		X			
	2 X 2.5			X				X	X	X		X	
	2 DIA.				X								X
	2 X 3						X						
	2.5 X 3					X							
	2 X 3.5*										X*		

* REQUIRES 5-FT DIAMETER OR LARGER STRUCTURE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USE ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

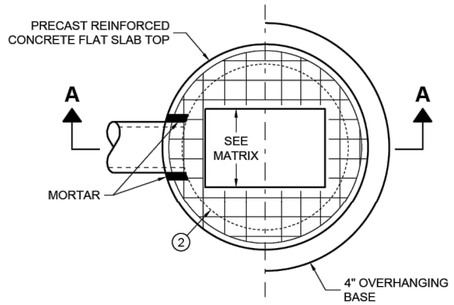
(1) MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

(2) FOR PRECAST CATCH BASINS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

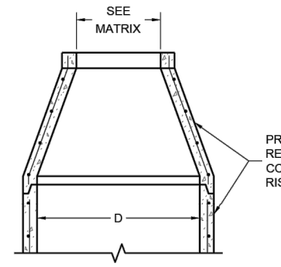
(3) PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

(4) 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

(5) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFROMING TO ASTM C443.



PLAN VIEW RECTANGULAR OPENING

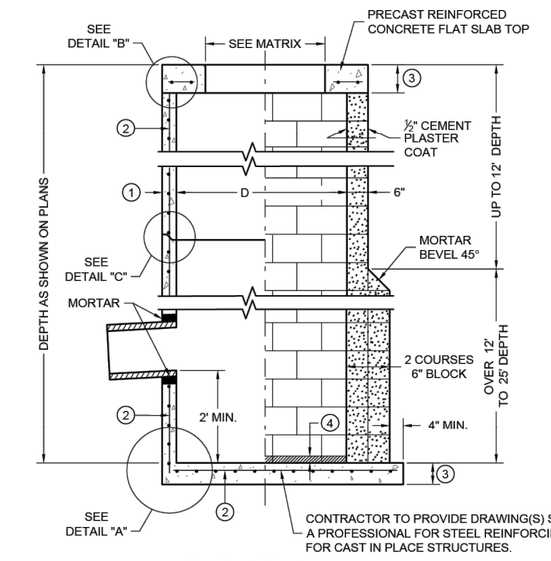


OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

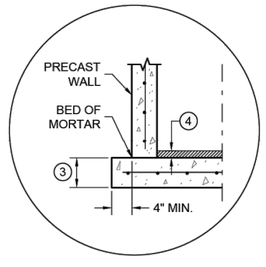
CATCH BASINS
3-FT, 4-FT, 5-FT AND 6-FT DIAMETER



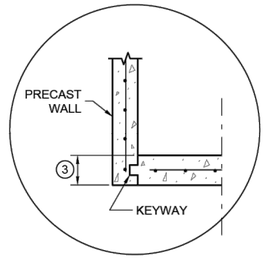
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (2)

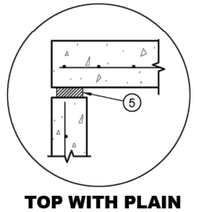


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

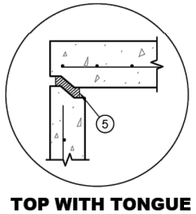


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

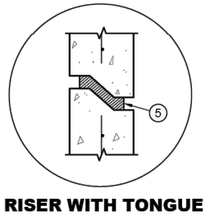
DETAIL "A"



TOP WITH PLAIN END JOINT

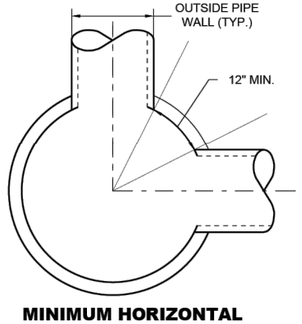


TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B" **DETAIL "C"**



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

CATCH BASINS, 3-FT. 4-FT., 5 FT., AND 6-FT. DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

SDD 08A08-03

BOLTON & MENK
2900 43RD STREET NW, SUITE 100
ROCHESTER, MINNESOTA 55901
Phone: (507) 208-4332
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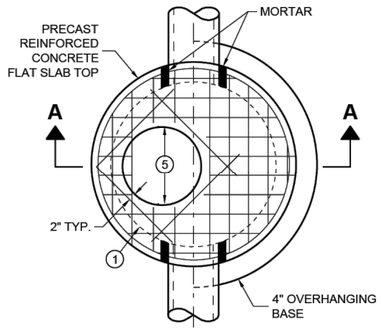
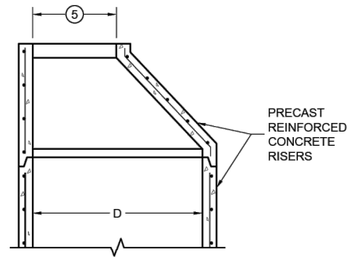
CLIENT PROJ. NO.			

TOWN OF SHELBY, WISCONSIN
VALLEY ROAD DRAINAGE IMPROVEMENTS
DETAILS
STORM SEWER

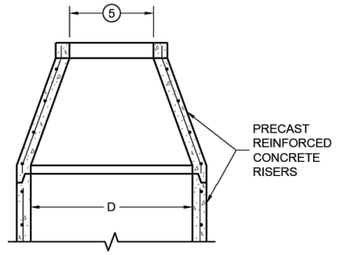
SHEET C1.06



PLAN VIEW
CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

MANHOLE COVER OPENING MATRIX

OPENING SIZE (FT.) (5) \ MANHOLE COVER TYPE	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42 *	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

GENERAL NOTES

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ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

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STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL IMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

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ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

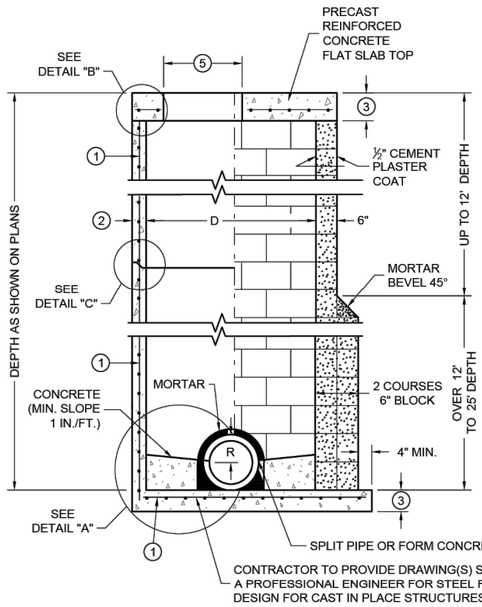
(1) FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

(4) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.

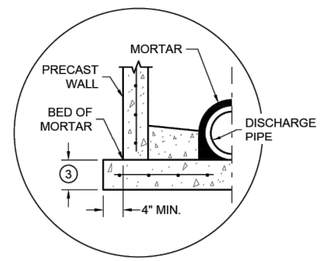
(5) SEE MANHOLE COVER OPENING MATRIX.



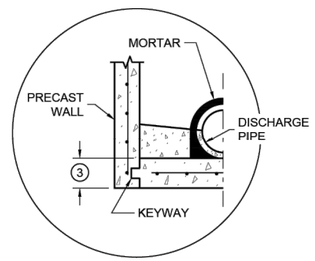
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)

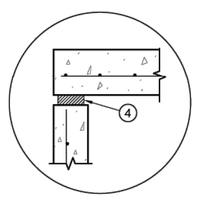


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

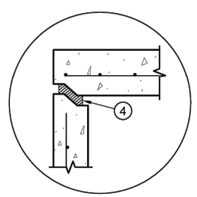


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

DETAIL "A"

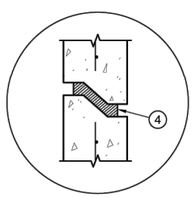


TOP WITH PLAIN END JOINT



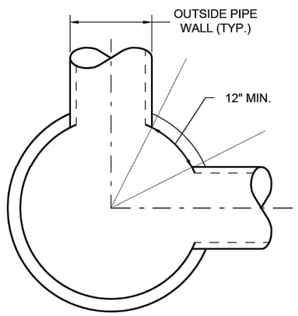
TOP WITH TONGUE AND GROOVE JOINT

DETAIL "B"



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "C"



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

SDD 08B09-04

BOLTON & MENK
2900 43RD STREET NW, SUITE 100
ROCHESTER, MINNESOTA 55901
Phone: (507) 208-4332
Email: Rochester@bolton-menk.com
www.bolton-menk.com

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DRAWN	JTP
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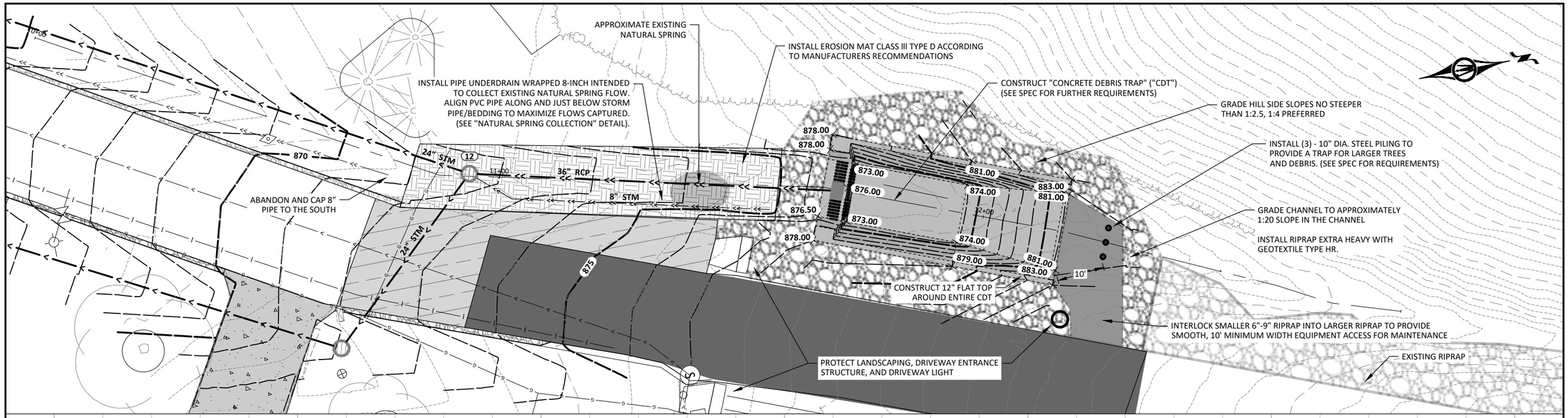
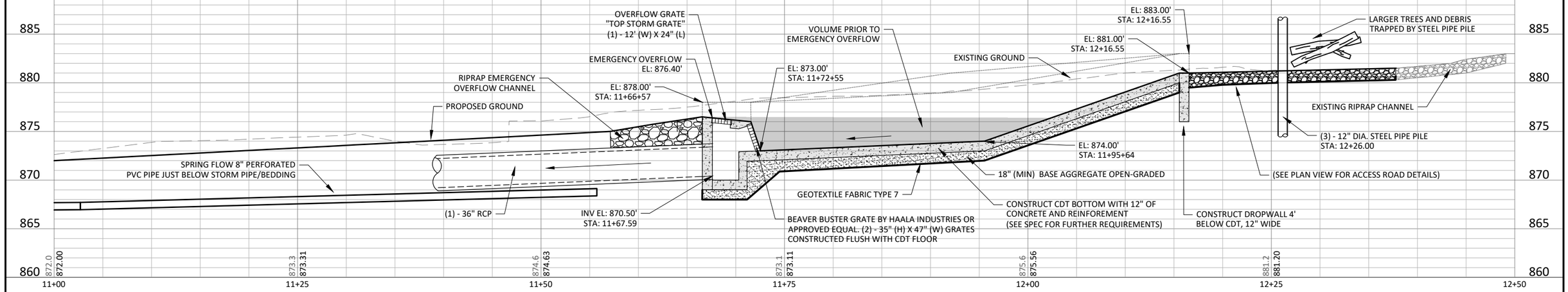
CLIENT PROJ. NO.	

NO.	ISSUED FOR	DATE

TOWN OF SHELBY, WISCONSIN
VALLEY ROAD DRAINAGE IMPROVEMENTS
DETAILS
STORM SEWER

SHEET C1.07





8" PERFORATED PVC PIPE WITH ROCK/FABRIC DETAIL

NOTES

1) **CONTRACTOR SHALL BE RESPONSIBLE FOR PHASING OF THE CONCRETE DEBRIS TRAP AND RELATED CONSTRUCTION DURING ANY AND ALL RAIN EVENTS UNTIL APPROVED AS COMPLETED. ANY DAMAGE TO THE STRUCTURE, RIPRAP, STORM SYSTEM, PRIVATE OR PUBLIC PROPERTY FROM ANY WEATHER OR EROSION DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED AT THE COST OF THE CONTRACTOR.**
2) **CONTRACTOR SHALL WORK WITHIN PROVIDED RIGHT OF WAY.**

HORZ. 0 5 10 SCALE FEET
VERT. 0 5 10 SCALE FEET

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TOWN OF SHELBY, WISCONSIN
VALLEY ROAD DRAINAGE IMPROVEMENTS
DETAILS
CONCRETE DEBRIS TRAP

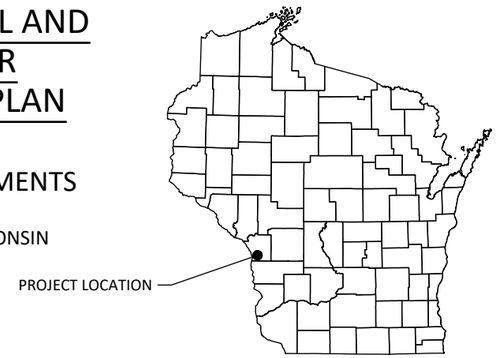
SHEET C1.08

EROSION CONTROL AND STORMWATER MANAGEMENT PLAN

VALLEY ROAD DRAINAGE IMPROVEMENTS

TOWN OF SHELBY

LA CROSSE COUNTY, WISCONSIN



RESPONSIBLE PARTIES:

The Contractor and Owner must apply for coverage under the General Permit to Discharge under the Wisconsin Pollution Discharge Elimination System (WPDES) as required by the National Pollution Discharge Elimination System (NPDES) Phase II program. Coverage under the permit will begin, unless notification by the WDNR to the contrary, 14 working days after an applicant's complete Notice of Intent (NOI) has been received by the WDNR. he maximum period of general permit coverage for any project is limited to 3 years per NOI.

The landowner must conduct inspections of implemented erosion and sediment best management practices at least weekly and within 24 hours after a rainfall event of 0.5 inches or greater, and repair or replace erosion and sediment best management practices as necessary. BMP's must be repaired or replaced within 24 hours of inspection or notification of a problem.

	COMPANY	CONTACT PERSON	PHONE
LANDOWNER:	TOWN OF SHELBY	XXXX	XXXX
EROSION AND SEDIMENT CONTROL PLAN DESIGNER:	Bolton & Menk, Inc.	JORDAN PANKONIN	952-917-9754
CONTRACTOR:			
SUBCONTRACTOR:			
PARTY RESPONSIBLE FOR INSTALLING AND MAINTAINING BMP's			
PARTY RESPONSIBLE FOR LONG TERM O&M:	TOWN OF SHELBY	XXXX	XXXX

GENERAL STORMWATER DISCHARGE REQUIREMENTS

All requirements listed in NR 216.47, Wisconsin's Statute for Storm Water Runoff Discharge Permits, for the design of the permanent stormwater management system and discharge, have been included in the preparation of the Stormwater Management Plan. These include but are not limited to:

1. The expected amount, frequency, intensity, and duration of precipitation.
2. The nature of stormwater runoff and run-on at the site
3. Peak flow rates and stormwater volumes to minimize erosion at outlets and downstream channel and stream bank erosion.
4. The range of soil particle sizes expected to be present on the site.

DOCUMENT RETENTION

The following documentation will be retained for a period of not less than 3-years from the date of submittal of the NOT.

1. All reports required by subch. III of ch. NR 216, Wis. Adm. Code.
2. Copies of the Erosion Control and Storm Water Management Plans
3. Amendments
4. Background information used in the preparation of all reports and plans required by this permit
5. All required calculations for design of the temporary and permanent BMPs.

LEGEND

1/4-MILE BOUNDARY

PROJECT BOUNDARY

RECEIVING WATERS

PROJECT AREA

Type of Development: Residential/Utility

Total Area of Project (acres) =	1.5	ACRES
Total Estimated Disturbed Area (acres) =	1.5	ACRES
Impervious Area (% of total land disturbance) Before Construction =	56.3	%
Impervious Area (% of total land disturbance) After Construction =	56.5	%

Planned Construction Start Date:	SPRING 2025
Estimated Construction Completion Date:	FALL 2025

PERMANENT STORMWATER MANAGEMENT SYSTEM:

Type of storm water management used if more than 1 acre of new impervious surface is created:

	Wet Sedimentation Basin
	Infiltration/Filtration
	Regional Pond
X	Permanent Stormwater Management Not Required

(Less than 1 acre of new impervious surface created)

PROJECT LOCATION:

COUNTY	TOWNSHIP	RANGE	SECTION	LATITUDE	LONGITUDE
LA CROSSE	T15N	R07W	03,10	43.7991°	-91.1943°

BMP SUMMARY	QUANTITY	UNIT
INLET PROTECTION	37	EACH
TEMPORARY DITCH CHECKS	730	LF
SOD	3070	SY

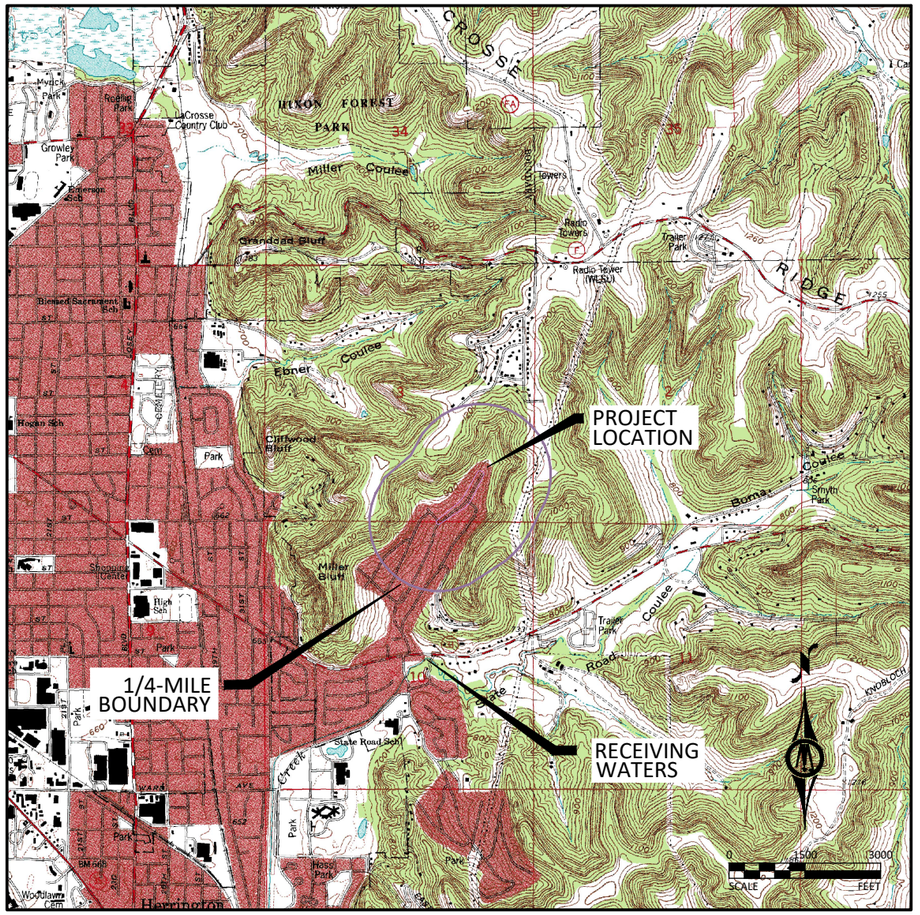
DESCRIPTION OF CONSTRUCTION ACTIVITIES AND STORMWATER MANAGEMENT:

Construction activities include: Site grading, storm sewer improvements, temporary erosion and sediment control, and permanent stabilization.

Stormwater currently flows down into the coulee creating concentrated channels. A large channel flows into the road ditches on the north end of Valley Road and collects into the storm sewer systems on both sides of Valley Road. Heading south and lower in elevation, more water flows toward Valley Road from the east and west slopes and is collected into the storm system. Water leaves the project area in an existing storm system that travels south to the bottom of the coulee, into a stream and eventually out to the Mississippi River.

After construction is complete the same amount of stormwater will drain into and from the project area. Driveways will be lowered below the street elevation to allow ditches full of water to keep the water in the ditches and not direct water into the street. More storm sewer inlets will be added in the ditches to collect stormwater sooner and help prevent water from backing up on private property. A larger pipe will be replacing several smaller culverts on the east side and then will connect to the west side storm sewer system similar to the existing storm sewer network.

This project includes the following stormwater management devices: A large debris collection system will be constructed at the top of Valley Road to collect trees, boulders, and other debris that has been known to wash down the street during large storm events. This debris basin has been designed to allow city staff access to remove debris in preparation for the next storm. Temporary erosion control measures such as sediment control logs and erosion control blanket could be used during construction.



RECEIVING WATERS:

Receiving waters are identified on the USGS 7.5 min quad map within 1/4 mile of the project boundary. Immediate receiving waters that are outstanding resource waters (ORW), exceptional resource waters (ERW) or impaired waters, the associated impairment, and WLA are listed as follows. All specific BMPs relative to construction activities listed in this permit for special and impaired waters have been incorporated into this plan. All specific BMPs listed in approved TMDLs and those BMPs listed for construction related waste load allocations have also been incorporated.

NAME OF WATER BODY	TYPE (ditch, pond, wetland, lake, etc.)	Designated ORW/ERW?	USEPA Approved TMDL?
PAMMEL CREEK	RIVER	NO	NO

IMPLEMENTATION SCHEDULE AND PHASING:

1) Submit Erosion and Sediment Control Plan Updates to Engineer. Submittal shall include any requested changes to the Erosion and Sediment Control Plan, including but not limited to: Trained Personnel, Locations for Stockpiles, Concrete Washout, Sanitation Facilities, Types and Locations of Erosion & Sediment Control. Failure to submit updates shall be considered acceptance of the Erosion and Sediment Control Plan as designed with no changes.
2) Install perimeter sediment control, inlet protection, and construction entrance/exit.
3) Grub trees and shrubs, excavate for utilities in green space and grade ditches.
4) Remove existing road surfaces when required at utility improvement locations.
5) Complete all approved utility improvement work within phased area.
6) Install inlet protection after installation of proposed inlets.
7) Construct Concrete Debris Catch and install steel piles.
8) Install proposed permanent turf establishment.
9) Pave road surfaces that were removed for utility work.
10) Add additional temporary BMPs as necessary during construction based on inspection reports.
11) Ensure final stabilization measures are complete.
12) Submit Notice of Termination (NOT) to WDNR after BMPs have been removed and all storm water discharges associated with the construction site activities that were required to have WPDES permit coverage under NR216 have ceased.

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TOWN OF SHELBY, WISCONSIN

VALLEY ROAD DRAINAGE IMPROVEMENTS

EROSION AND SEDIMENT CONTROL PLAN

PROJECT INFORMATION AND LOCATION MAP

SHEET C2.01

EROSION PREVENTION PRACTICES:

Phased construction will be used to extent practical or as indicated in the plans to minimize exposed soils.

Rapid stabilization shall be of type and quantity indicated in the project specifications. Additional rapid stabilization may be necessary to minimize erosion throughout the duration of the project. Type and quantity shall be determined by the engineer or inspector prior to installation. In extreme cases, the contractor shall use any available rapid stabilization to immediately mitigate erosion, then further remedy the situation with approval by owner or engineer.

SEDIMENT CONTROL PRACTICES:

Practices must be established on all down gradient perimeters and be located up gradient of any buffer zones. Perimeter controls must be in place before up gradient land- disturbing activities begin and shall remain in place until final stabilization.

All sediment controls practices shall be re-installed if they have been adjusted or removed to accommodate short-term activities and replaced immediately after the short term activity has ceased. Short term activities shall be performed as quickly as possible. Sediment control practices shall be re-installed even before the next precipitation event if the activity is not complete.

All storm drains must be protected by appropriate BMPs during construction until all sources to the inlet have been stabilized. Inlet protection may be removed for specific safety concerns identified by the Permittee or jurisdictional authority. The removal shall be documented in the SWPPP and retained on site. Temporary stockpiles must have silt fence or other effective sediment controls and shall not be placed in surface waters or natural buffers.

Vehicle tracking BMPs shall be installed to minimize track out of sediment from the construction site. Method shall be approved by engineer prior to commencement of construction activities. Street sweeping shall be used if vehicle tracking BMPs are not adequate to prevent sediment from being tracked onto the street.

Soil compaction shall be minimized and topsoil shall be preserved, unless infeasible or if construction activities dictate soil compaction or topsoil stripping.

DEWATERING AND BASIN DRAINING

Turbid or sediment-laden waters related to dewatering or basin draining shall be discharged to a temporary or permanent sedimentation basin on the project site unless infeasible. The temporary or permanent basin may discharge to surface waters if the basin water has been visually checked to ensure adequate treatment has been obtained in the basin and that the nuisance conditions will not result from the discharge. Discharge points shall be adequately protected from erosion and proper velocity dissipation provided.

All water from dewatering or basin-draining activities must be discharged in a manner that does not cause nuisance conditions, erosion in the receiving channels or on down slope properties, or inundation in wetlands causing significant adverse impacts to the wetland.

If filters with backwash waters are used, the backwash water shall be hauled away for disposal, returned to the beginning of the treatment process, or incorporated into site in a manner that does not cause erosion. Backwash water may be discharged to sanitary sewer if permission is granted by the sanitary sewer authority.

POLLUTION PREVENTION:

Building products that have the potential to leach pollutants must be under cover to prevent discharge or protected by an effective means designed to minimize contact with stormwater.

Pesticides, herbicides, insecticides, fertilizers, treatment chemicals, and landscape materials must be under cover.

Hazardous materials and toxic waste must be properly stored in sealed containers to prevent spills, leaks or other discharge. Restricted access storage areas must be provided to prevent vandalism.

Solid waste must be stored, collected and disposed of properly.

Portable toilets must be positioned so that they are secure and will not be tipped or knocked over. Sanitary waste must be disposed of properly.

Discharge of spilled or leaked chemicals, including fuel, from any area where chemicals or fuel will be loaded or unloaded shall be prevented using drip pans or absorbents. Supplies shall be available at all times to clean up discharged materials and that an appropriate disposal method must be available for recovered spilled materials.

Exterior vehicle or equipment washing on the project site shall be limited to a defined area of the site. Runoff from the washing area shall be contained in a sediment basin or other similarly effective controls and waste from the washing activity must be properly disposed of. No engine degreasing is allowed on site.

Effective containment for all liquid and solid wastes generated by concrete and other washout operations related to construction activity shall be effectively contained. Liquid and solid washout waste shall not contact the ground, and containment must be designed so that it does not result in runoff from the washout operations or areas. A sign must be installed adjacent to each washout facility that requires site personnel to utilize the proper facilities for disposal of concrete and other washout wastes.

INSPECTION & MAINTENANCE:

A trained person shall routinely inspect the entire construction site at least once every 7 days during active construction and within 24-hours after a rainfall event greater than 0.5 inches in 24 hours. Following an inspection that occurs within 24-hours after a rainfall event, the next inspection must be conducted within 7 days.

All inspections and maintenance conducted during construction must be recorded within 24 hours in writing and records must be retained with the SWPPP. Inspection report forms are available in the Project Specifications. Inspection report forms other than those provided shall be approved by the engineer.

During frozen ground conditions, inspections may be suspended and shall resume within 24 hours after runoff occurs or 24 hours prior to resuming construction activity, whichever is first.

Inspection and maintenance shall resume until another Permittee has obtained coverage under this Permit or the project has undergone Final Stabilization, and an NOT has bee submitted.

All erosion prevention and sediment control BMPs shall be inspected to ensure integrity and effectiveness during all routine and post-rainfall inspections. All non-functioning BMPs must be repaired, replaced, or supplemented with functional BMPs by the end of the next business day after discovery, or as soon as field conditions allow access.

Streets and other areas adjacent to the project must be inspected for evidence of off-site accumulations of sediment. If sediment is present, it must be removed in a manner and at a sufficient frequency to minimize off-site impacts.

POLLUTION PREVENTION

Products and materials that have the potential to leach pollutants that are stored on the site must be stored in a manner designed to minimize contact with stormwater. Materials that are not a source of potential contamination to stormwater or that are designed for exposure to stormwater are not required to be covered.

Hazardous materials including but not limited to pesticides, fertilizer, petroleum products, curing compounds and toxic waste must be properly stored and protected from stormwater exposure as recommended by the manufacturer in an access restricted area.

Solid waste must be stored, collected and disposed of in compliance with the WPDES Permit.

Portable toilets must be positioned so that they are secure and will not be tipped or knocked over. Sanitary waste must be disposed of properly in accordance with the WPDES Permit.

Exterior vehicle or equipment washing on the project site shall be limited to a defined area of the site. No engine degreasing is allowed on site. A sign must be installed adjacent to each washout facility that requires site personnel to utilize the proper facilities for disposal of concrete and other washout wastes.

The Contractor shall prepare and submit an amendment detailing the location and BMPs proposed for storage of materials, solid waste, portable toilets, and exterior vehicle or equipment washing on the site. The amendment shall include a spill prevention and response plan that is appropriate for the materials proposed to be on the site. The amendment shall meet or exceed the minimum requirements of the WPDES Permit.

SPECIAL ENVIRONMENTAL CONSIDERATIONS:

1)	Was an environmental review required for this project or any part of a common plan of development or sale that includes all or any portion of this project?	NO
2)	Does any portion of the site have the potential to affect threatened or endangered species or their critical habitat?	NO
3)	Does any portion of this site discharge to a Calcareous fen.	NO
4)	Will any portion of the site potentially affect properties listed on the National Register of Historic Places or a known or discovered archeological site?	NO
5)	Have any Karst features have been identified in the project vicinity?	NO
6)	Is compliance with temporary or permanent stormwater management design requirements infeasible for this project?	NO
7)	Has the WI DNR promulgated "work in water restrictions" for any Public Water this site disharges to during fish spawning?	NO

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TOWN OF SHELBY, WISCONSIN
VALLEY ROAD DRAINAGE IMPROVEMENTS
EROSION AND SEDIMENT CONTROL PLAN
NARRATIVE

SHEET
C2.02

LEGEND

- PROJECT BOUNDARY
- SOIL TYPE
- STEEP SLOPES (>33.3%)

N

0 200 400
SCALE FEET

SOIL TYPE SUMMARY

Map Unit Symbol	Soil Name	Hyd. Soil Group	Erodibility
116D2	CHURCHTOWN	B	CLASS 2
116E2	CHURCHTOWN	B	CLASS 2

NHEL - Not Highly Erodible Land
PHEL - Potentially Highly Erodible Land
HEL - Highly Erodible Land

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

DESCRIPTION	SHEET NO.
SITE MAP	C2.01
DIRECTION OF FLOW	C2.04
FINAL STABILIZATION	C2.04
SOILS	C2.03
DRAINAGE STRUCTURES	C5.01-C5.04, C1.06
DRAINAGE TABULATION	C1.02
STORM SEWER PLAN & PROFILE SHEETS	C5.01-C5.04
EROSION & SEDIMENT CONTROL DETAILS	C2.05 & 2.06
EROSION CONTROL TABULATION	C1.04
TURF ESTABLISHMENT TABULATION	C1.04
NARRATIVE & NOTES	C2.01 - C2.02

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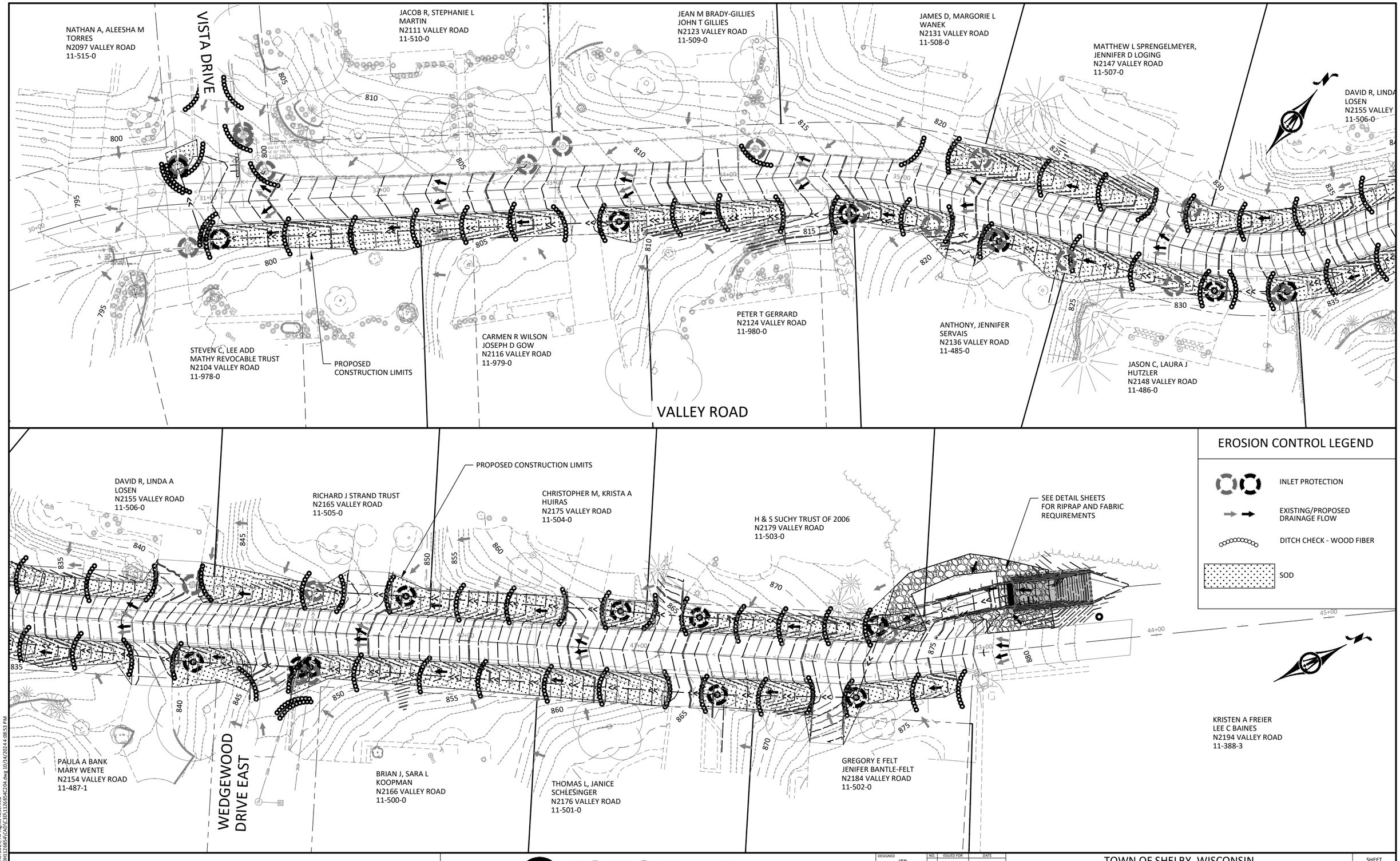
TOWN OF SHELBY, WISCONSIN
VALLEY ROAD DRAINAGE IMPROVEMENTS
EROSION AND SEDIMENT CONTROL PLAN
SITE AND SOILS MAP

SHEET C2.03



EROSION CONTROL LEGEND

- INLET PROTECTION
- EXISTING/PROPOSED DRAINAGE FLOW
- DITCH CHECK - WOOD FIBER
- SOD

HORZ. SCALE 0 25 50 FEET

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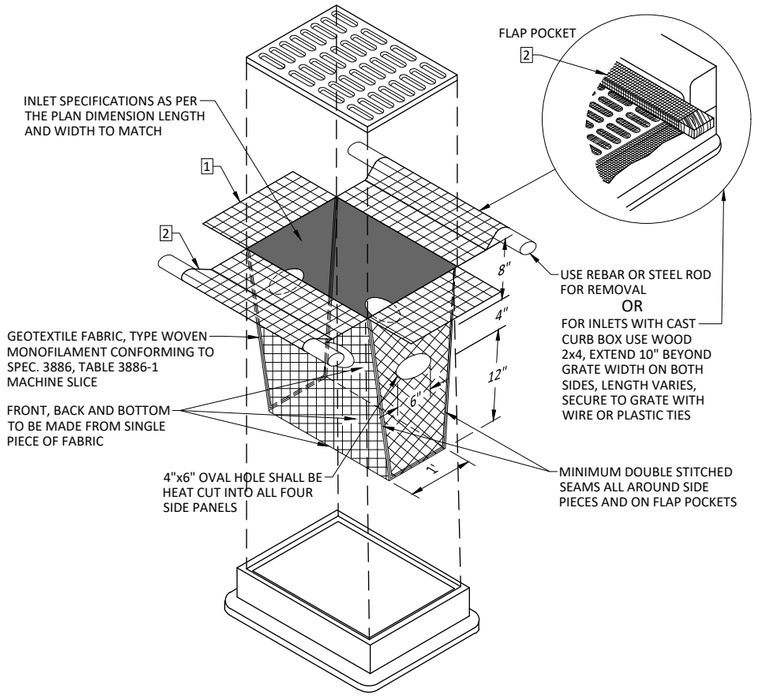
TOWN OF SHELBY, WISCONSIN
VALLEY ROAD DRAINAGE IMPROVEMENTS
EROSION AND SEDIMENT CONTROL PLAN

SHEET C2.04



NOTES:

1 INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER. MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENTS EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL IN THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

2 FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2x4.

INSTALLATION NOTES:
DO NOT INSTALL PROTECTION IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

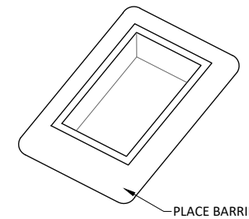
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

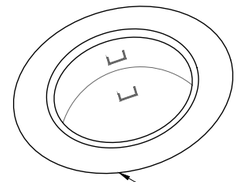
BOLTON & MENK

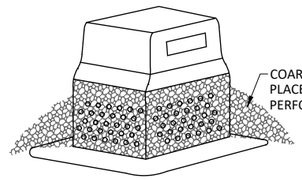
INLET PROTECTION
GEOTEXTILE BAG
NOT TO SCALE

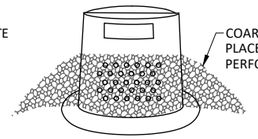
LAST REVISION: 04-2021

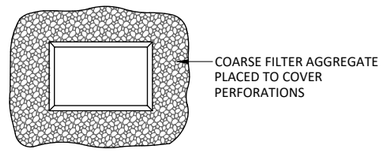
PLATE NO. 3-104

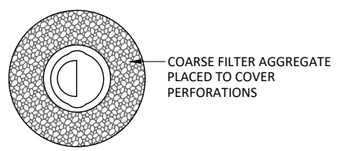


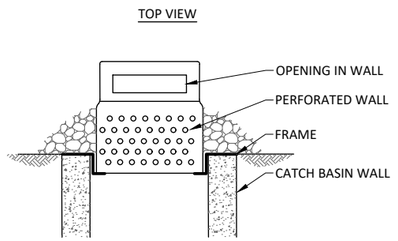


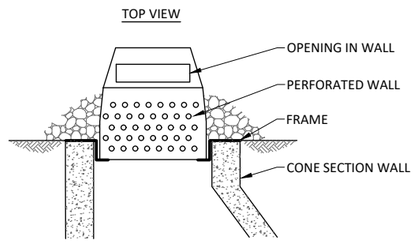












BOLTON & MENK

INLET PROTECTION
PERFORATED WALL
NOT TO SCALE

LAST REVISION: 04-2021

PLATE NO. 3-107

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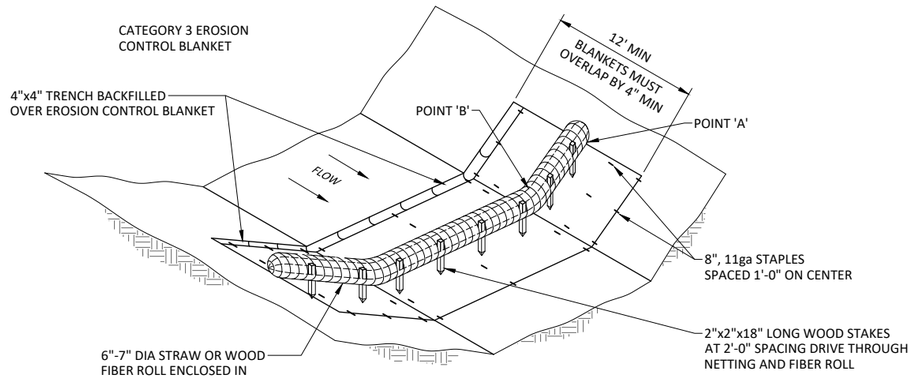
TOWN OF SHELBY, WISCONSIN
VALLEY ROAD DRAINAGE IMPROVEMENTS
EROSION AND SEDIMENT CONTROL PLAN
EROSION AND SEDIMENT CONTROL DETAILS

SHEET C2.05



TEMPORARY DITCH CHECK

NOT TO SCALE

NOTE:
POINT 'A' MUST BE 1'-0" MIN HIGHER THAN
POINT 'B' TO ENSURE THAT WATER FLOWS OVER
THE DITCH CHECK AND NOT AROUND THE ENDS

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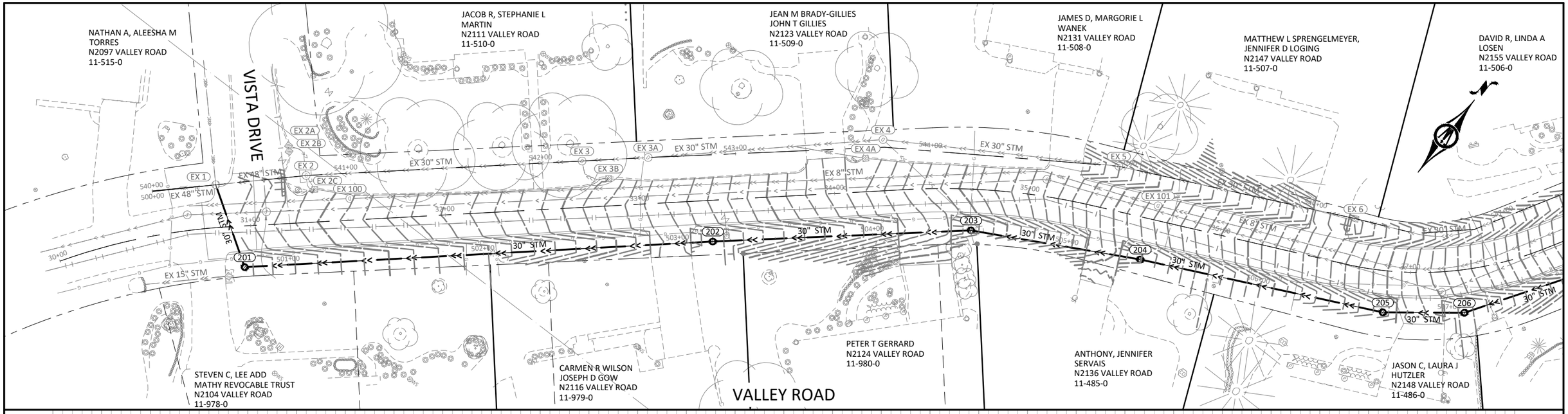
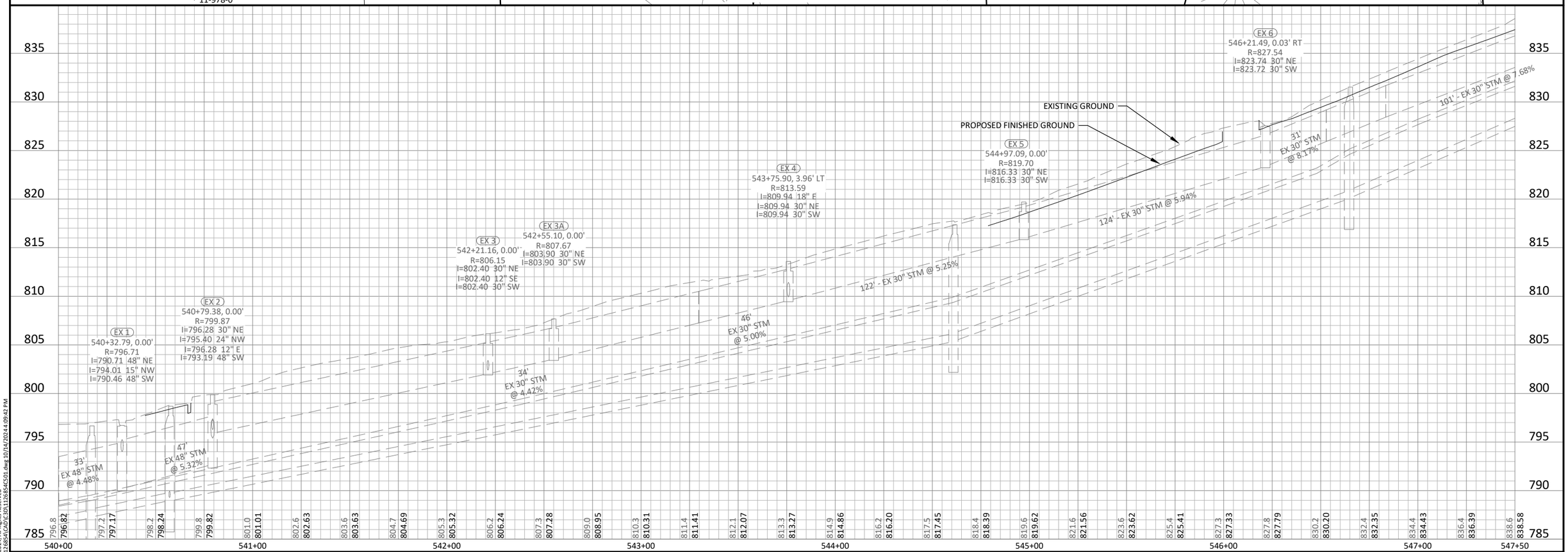
TOWN OF SHELBY, WISCONSIN
VALLEY ROAD DRAINAGE IMPROVEMENTS
EROSION AND SEDIMENT CONTROL PLAN
EROSION AND SEDIMENT CONTROL DETAILS

SHEET
C2.06





HORZ. SCALE 0 25 50 FEET
VERT. SCALE 0 5 10 FEET

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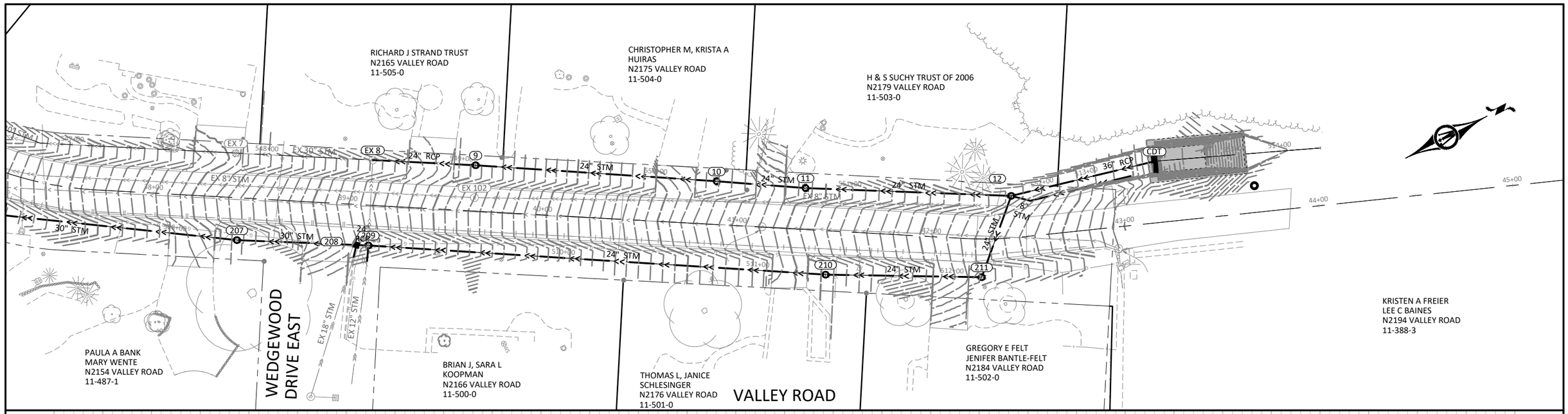
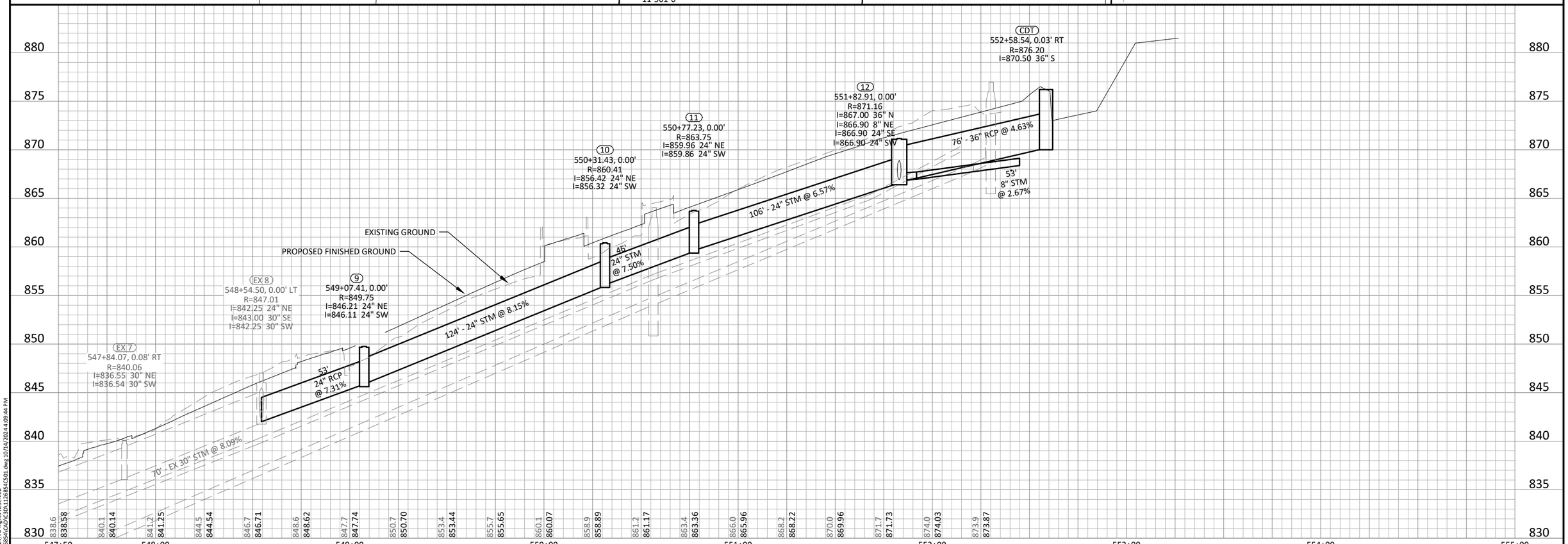
TOWN OF SHELBY, WISCONSIN
VALLEY ROAD DRAINAGE IMPROVEMENTS
STORM SEWER PLAN & PROFILE - WEST DITCH BOTTOM

SHEET C5.01





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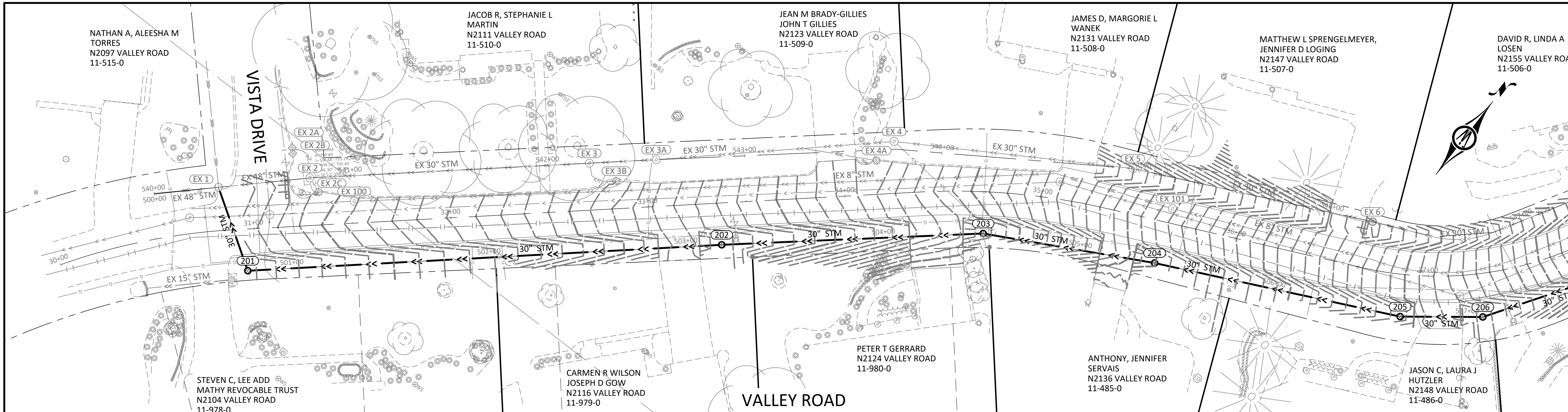
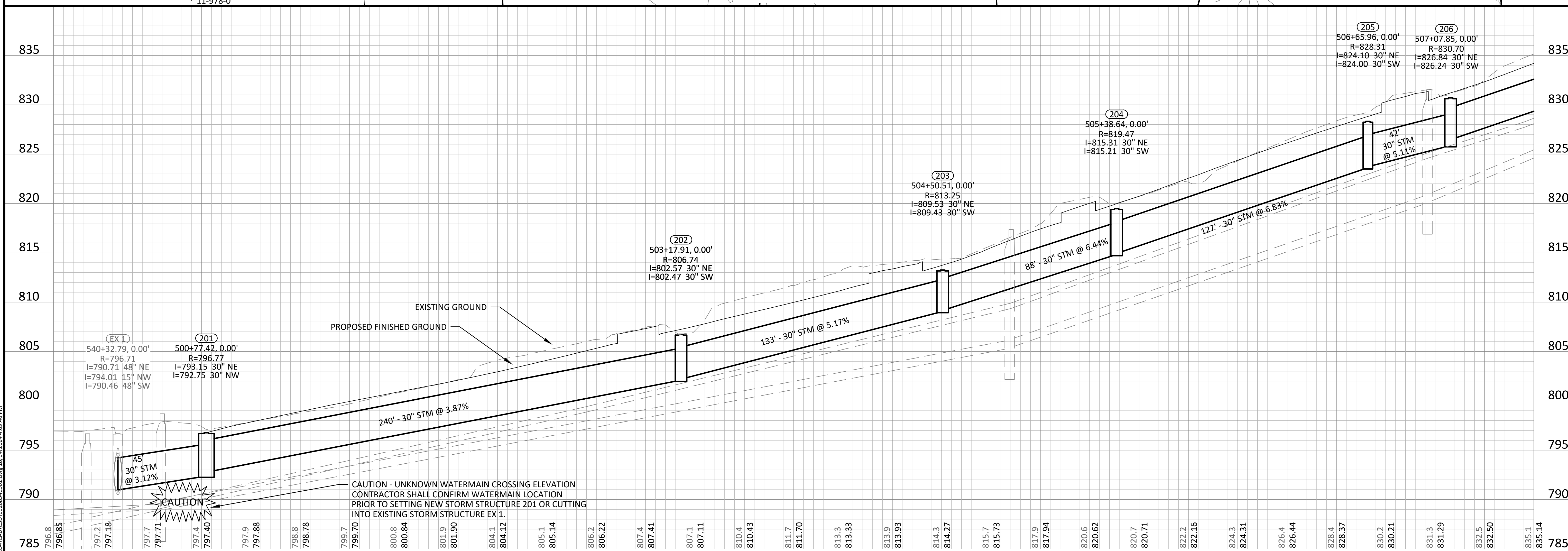
TOWN OF SHELBY, WISCONSIN

VALLEY ROAD DRAINAGE IMPROVEMENTS

STORM SEWER PLAN & PROFILE - WEST DITCH BOTTOM

SHEET C5.02





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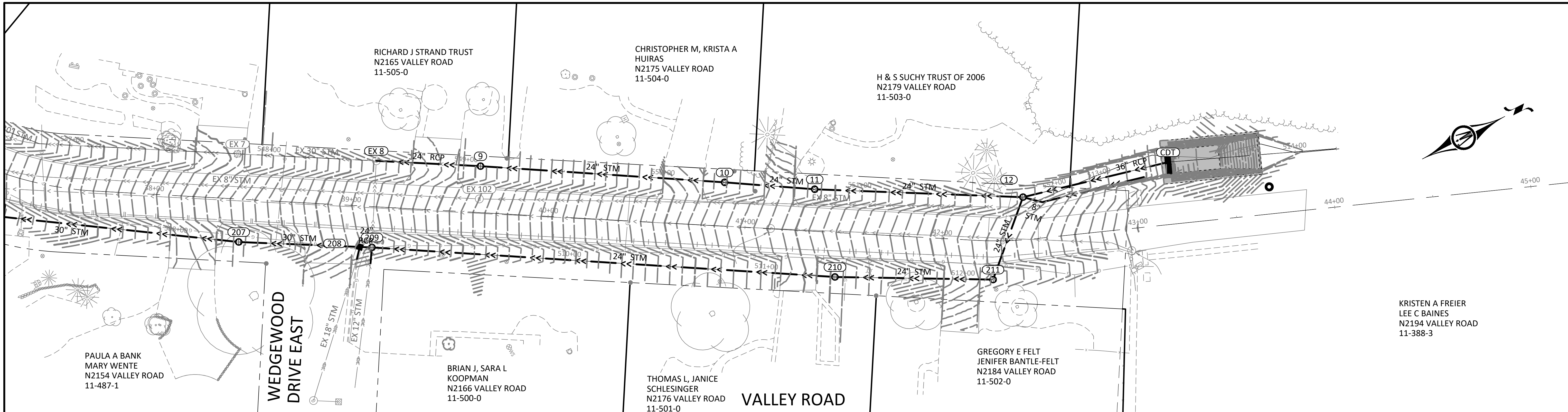
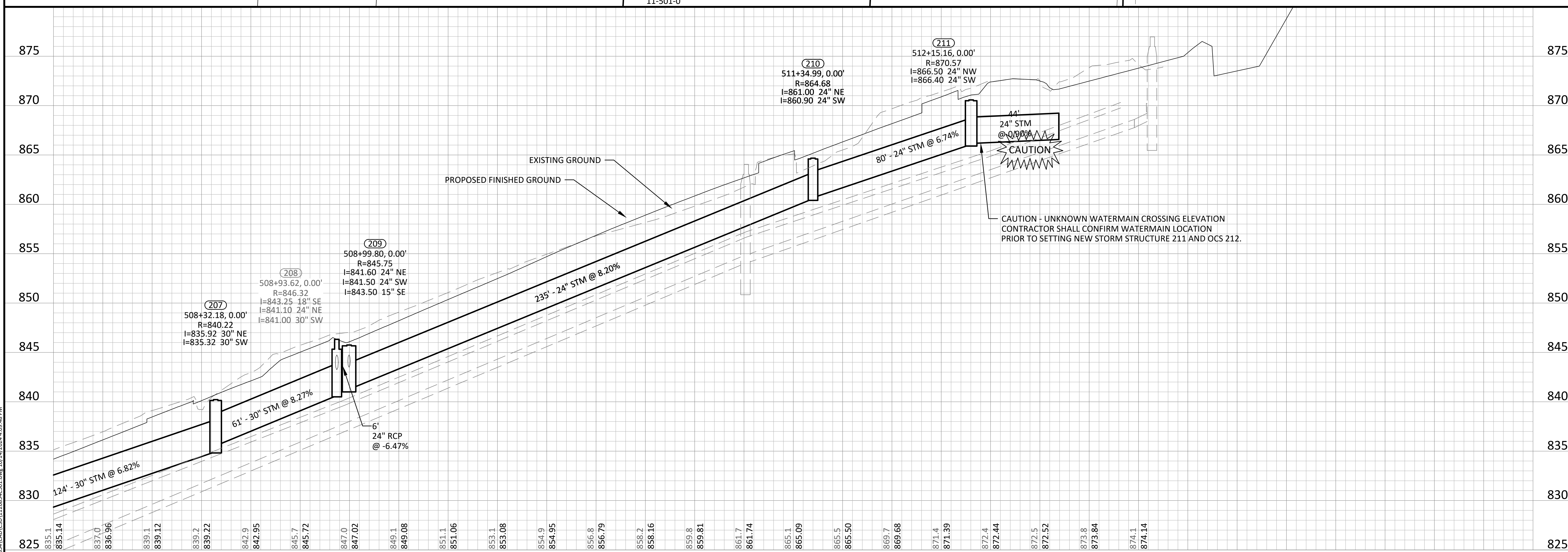
VALLEY ROAD DRAINAGE IMPROVEMENTS

STORM SEWER PLAN & PROFILE - EAST DITCH BOTTOM

SHEET C5.03





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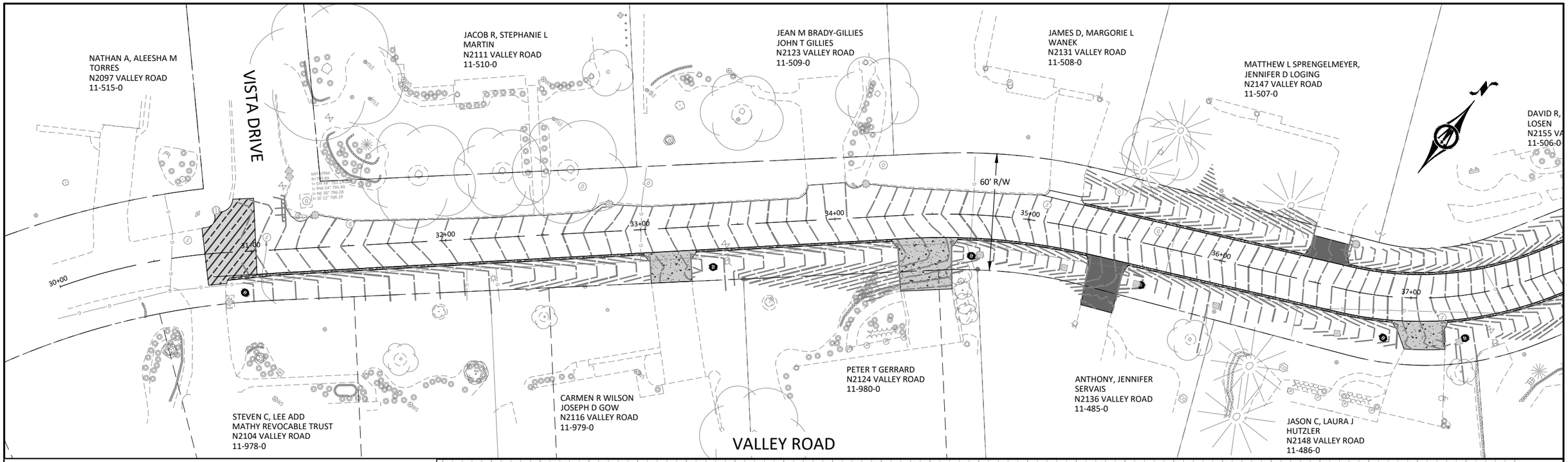
VALLEY ROAD DRAINAGE IMPROVEMENTS

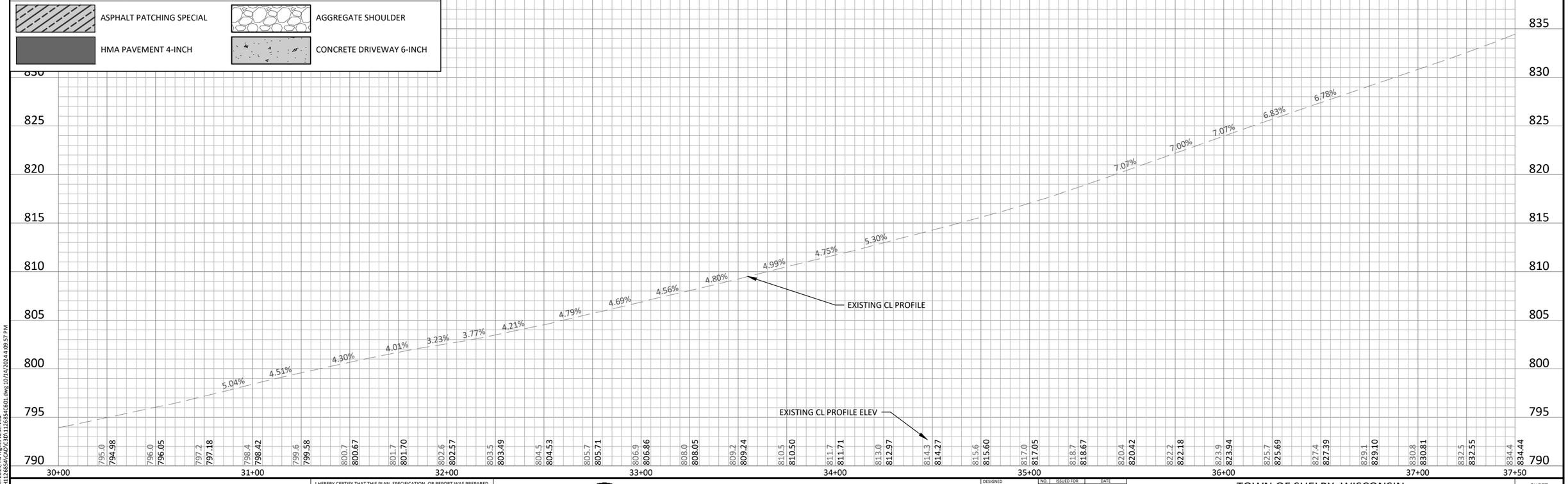
STORM SEWER PLAN & PROFILE - EAST DITCH BOTTOM

SHEET C5.04



LEGEND

- ASPHALT PATCHING SPECIAL
- AGGREGATE SHOULDER
- HMA PAVEMENT 4-INCH
- CONCRETE DRIVEWAY 6-INCH



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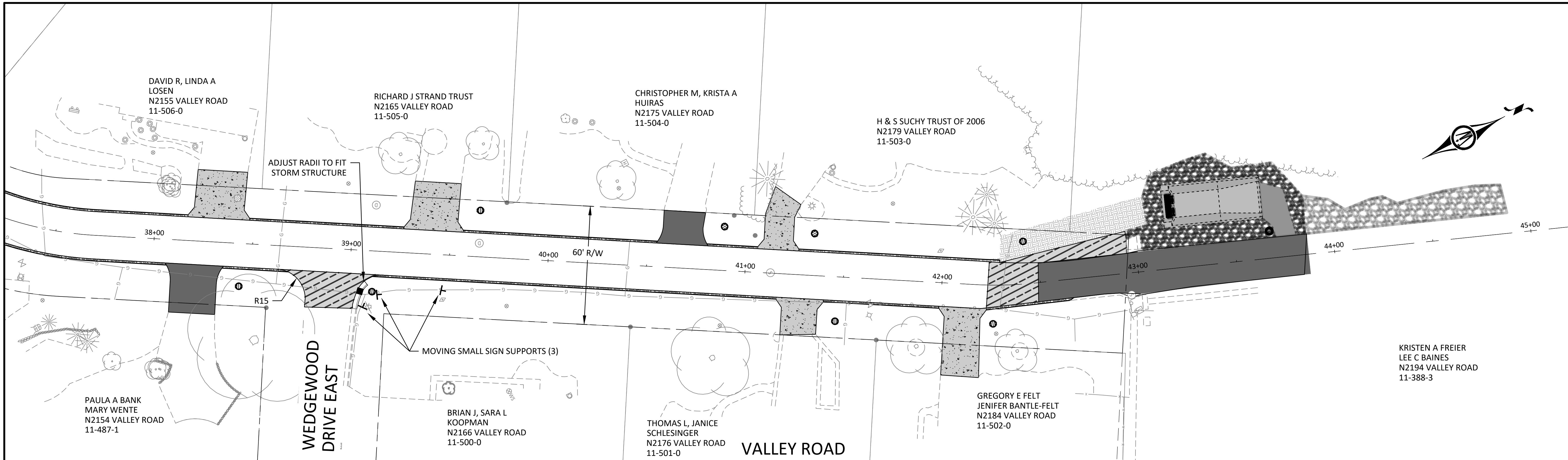
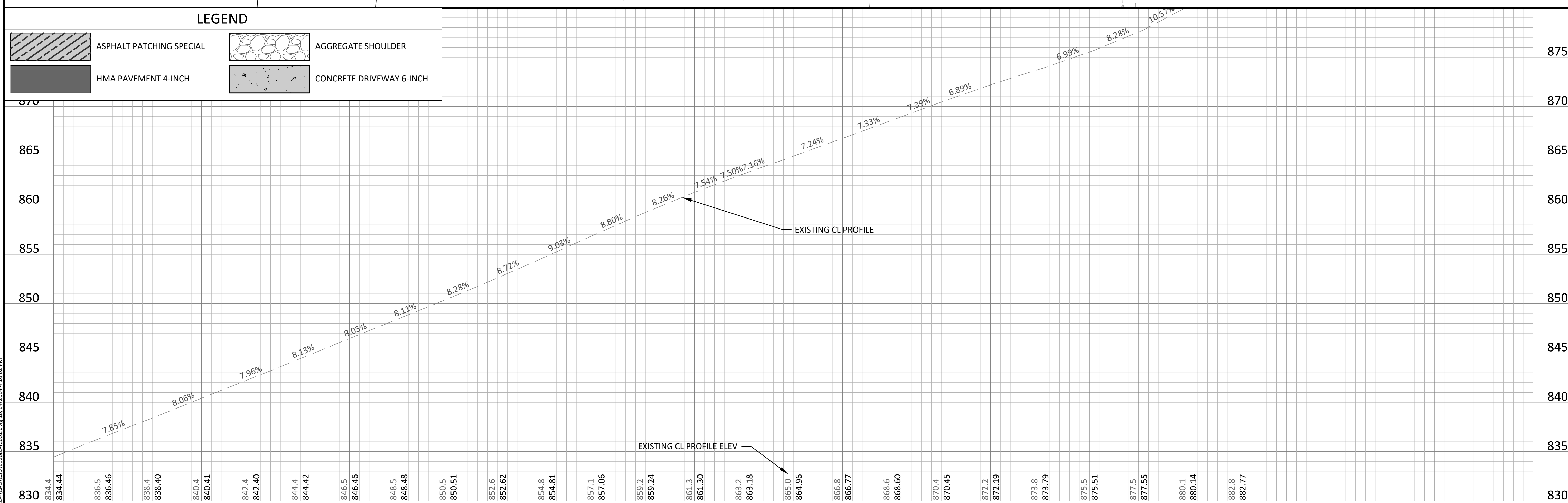
VALLEY ROAD DRAINAGE IMPROVEMENTS

STREET PLAN & PROFILE

SHEET C6.01





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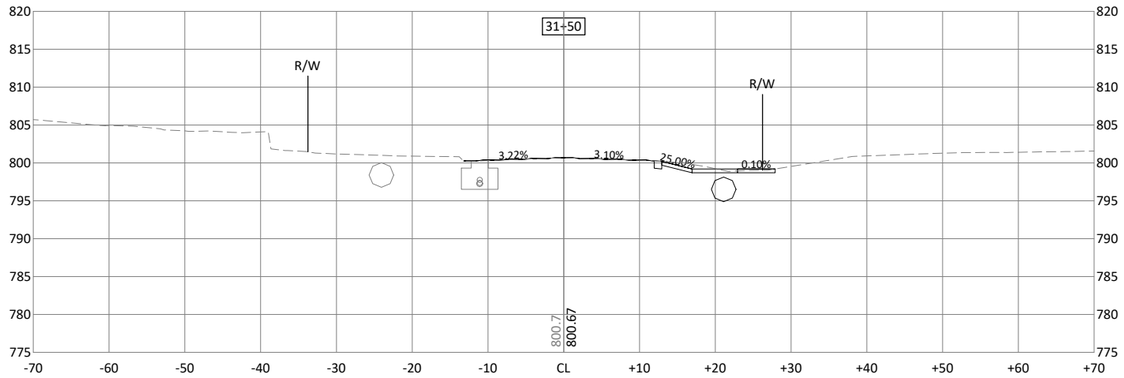
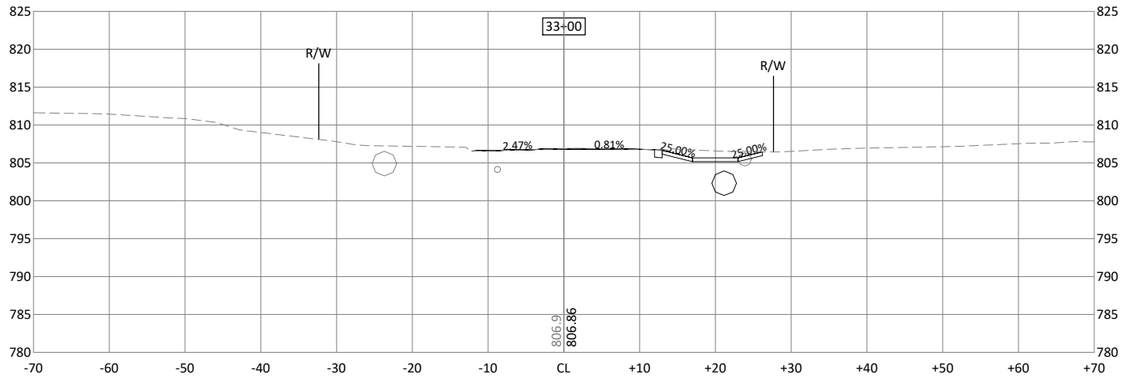
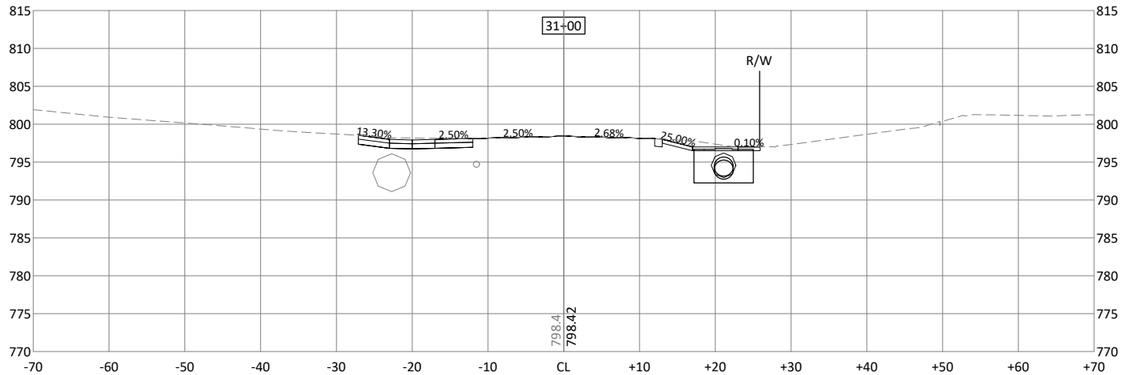
VALLEY ROAD DRAINAGE IMPROVEMENTS

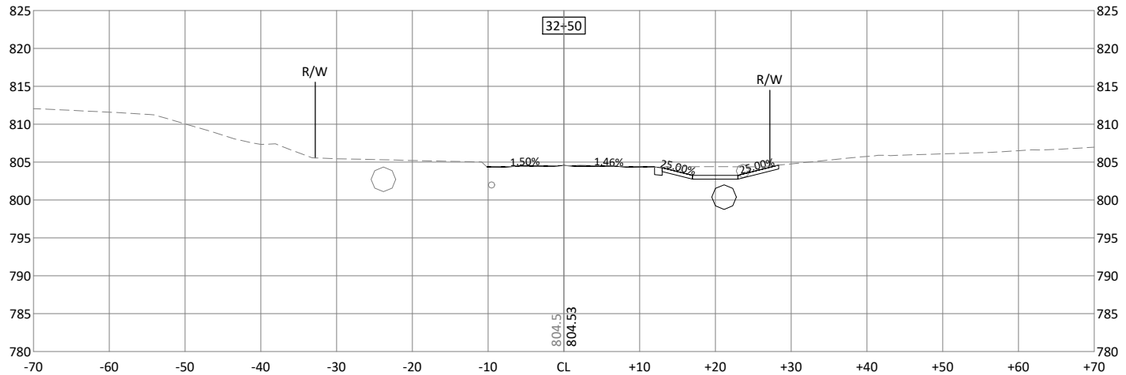
STREET PLAN & PROFILE

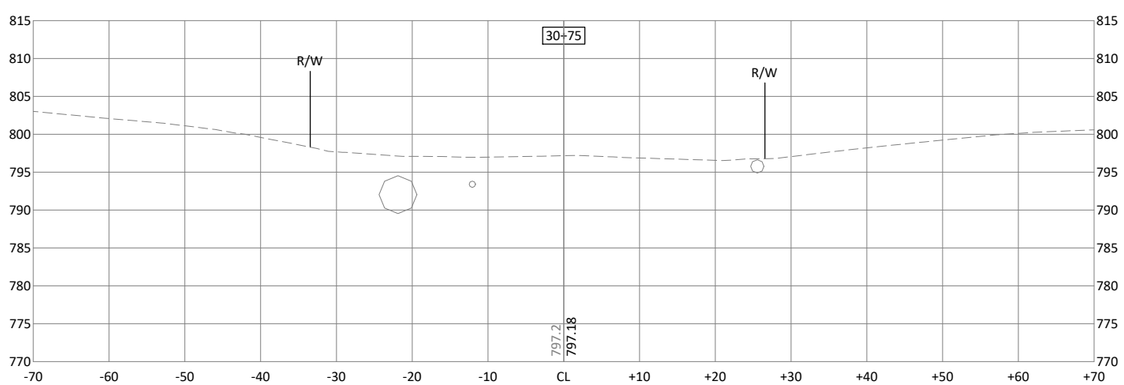
SHEET C6.02

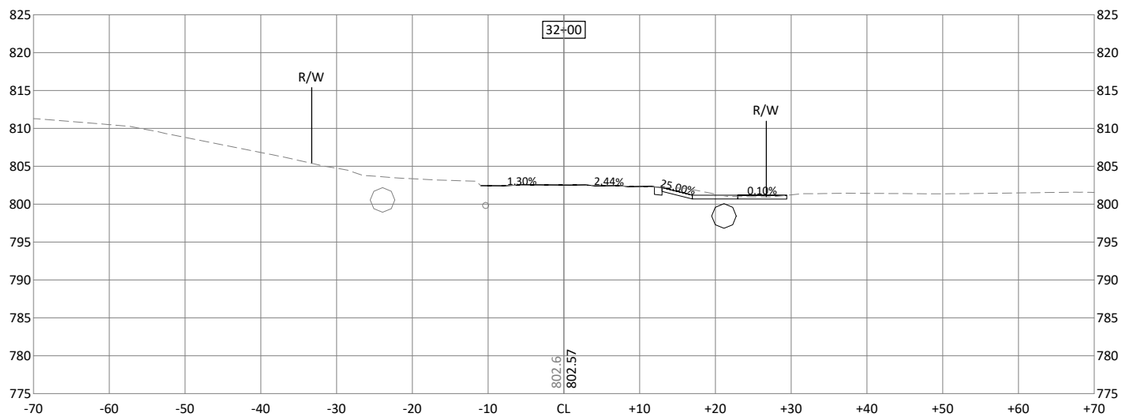












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CROSS SECTIONS

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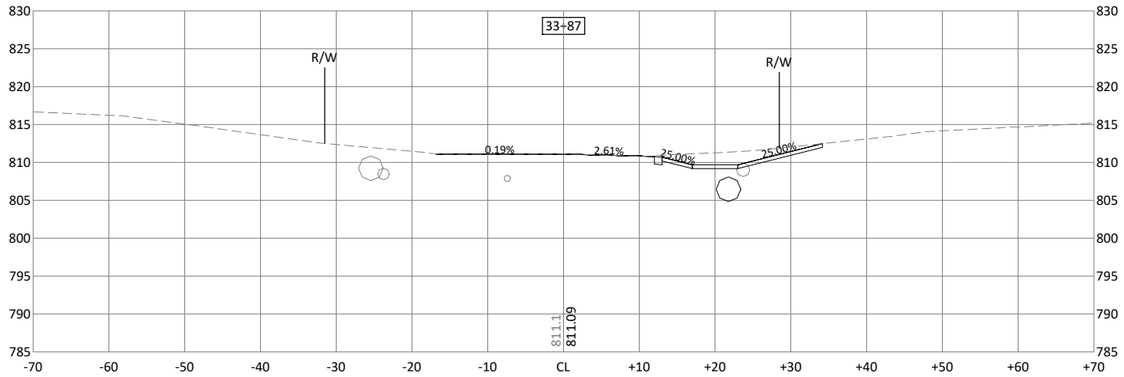

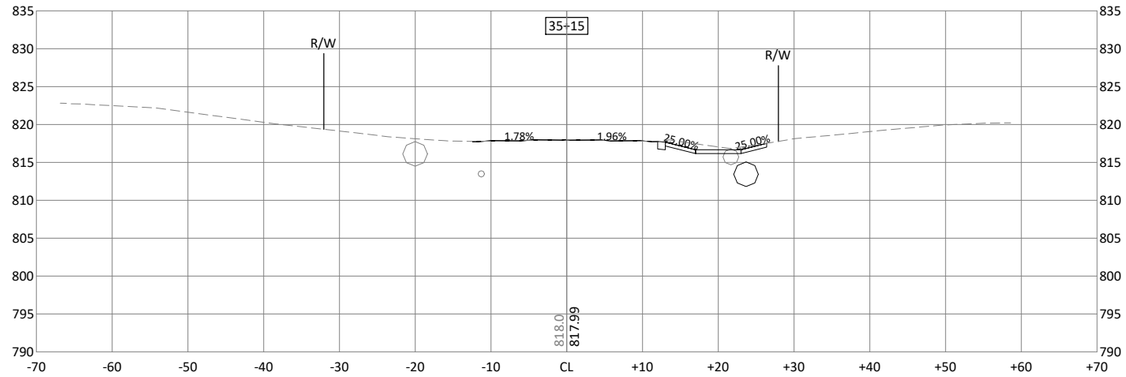

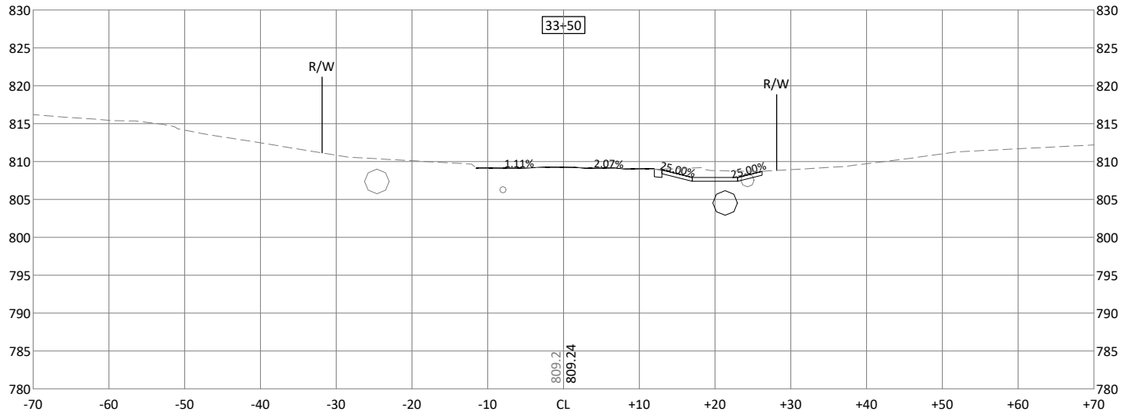

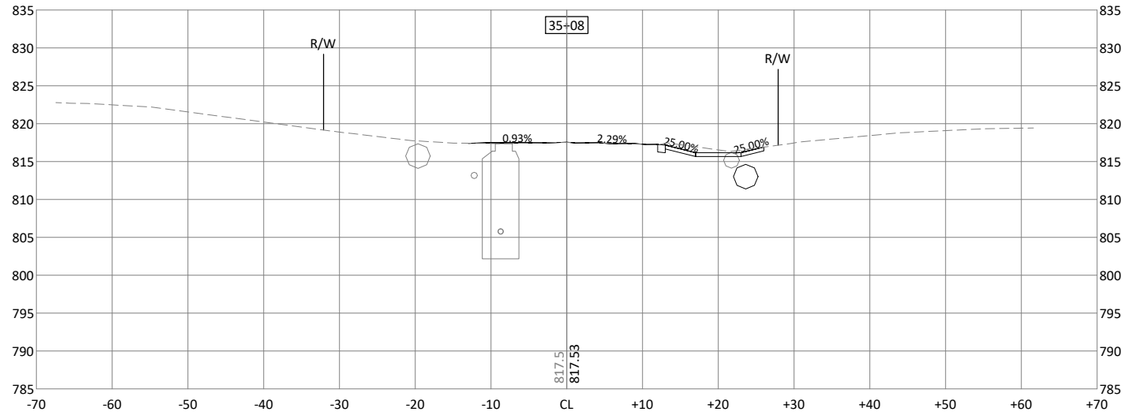

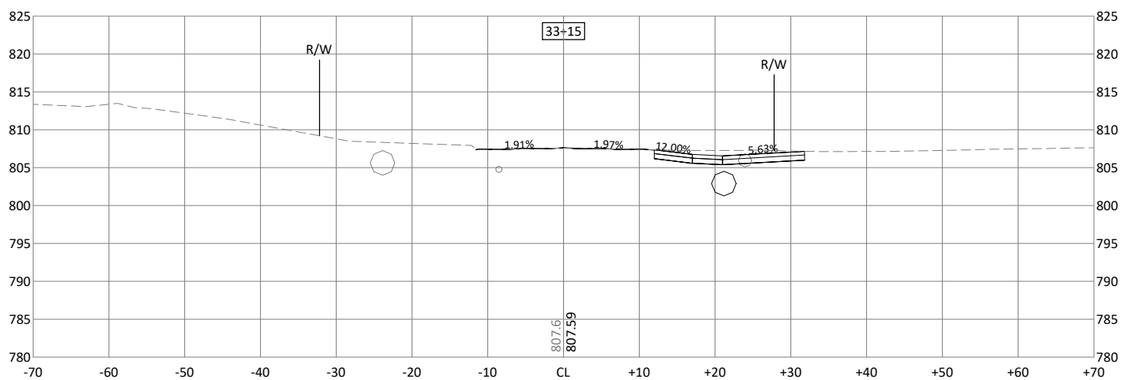

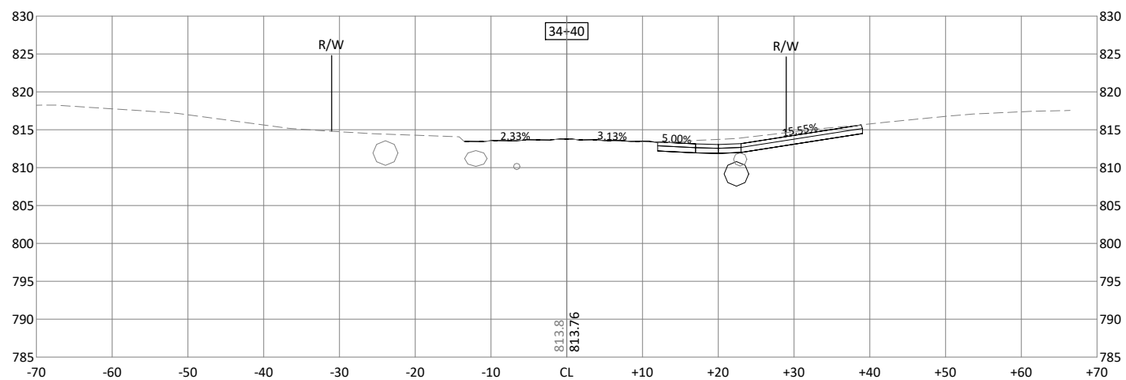

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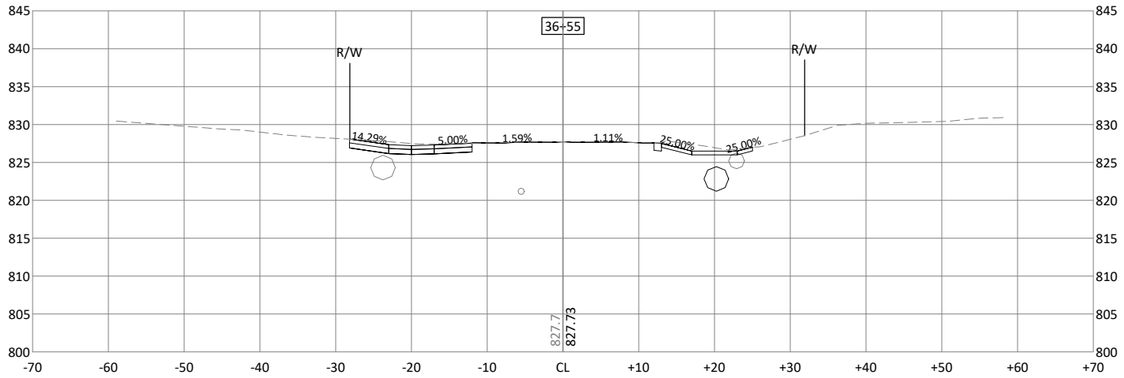

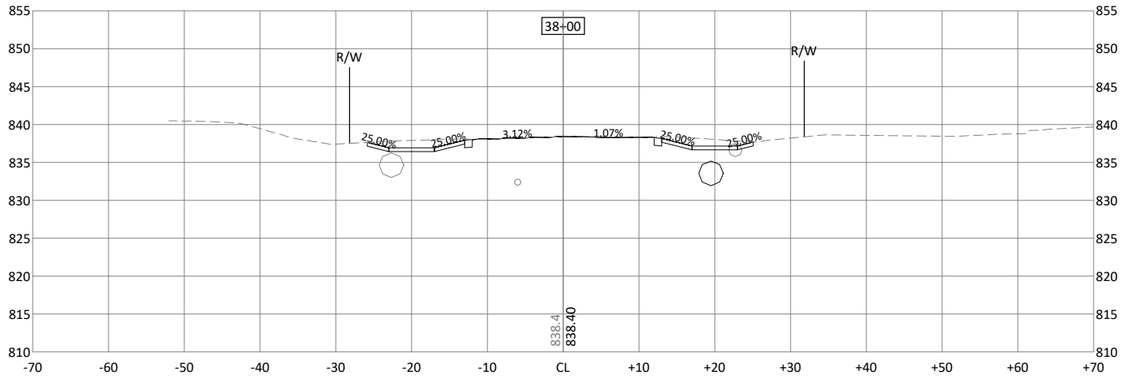

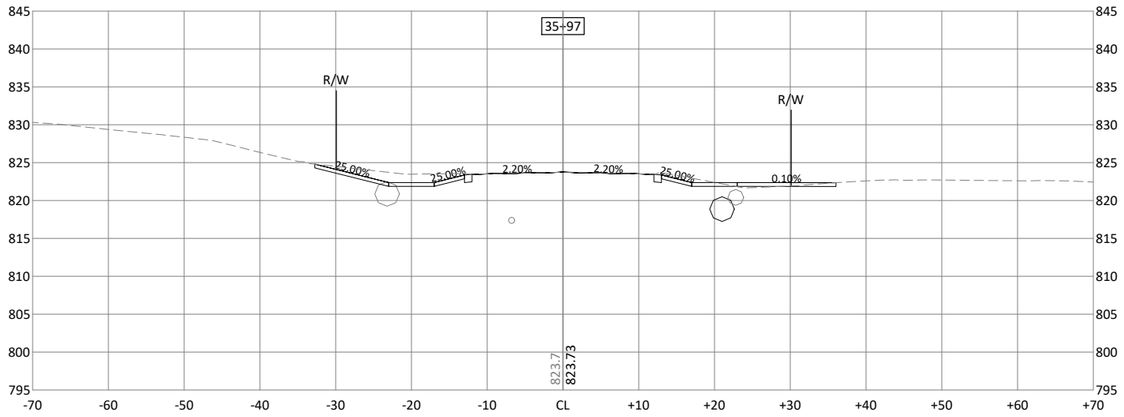

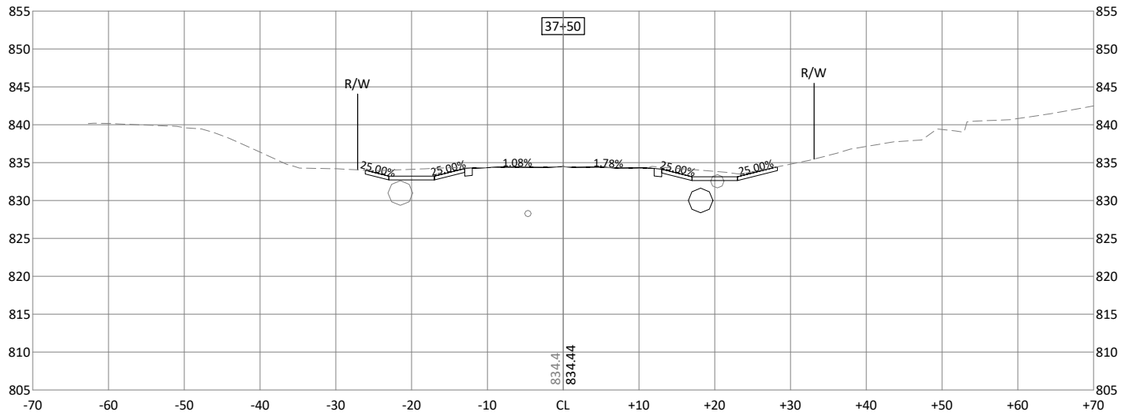

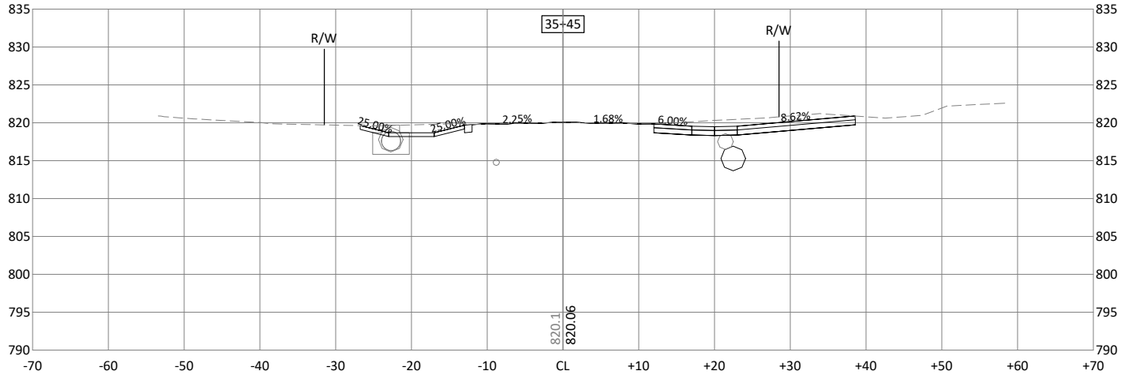

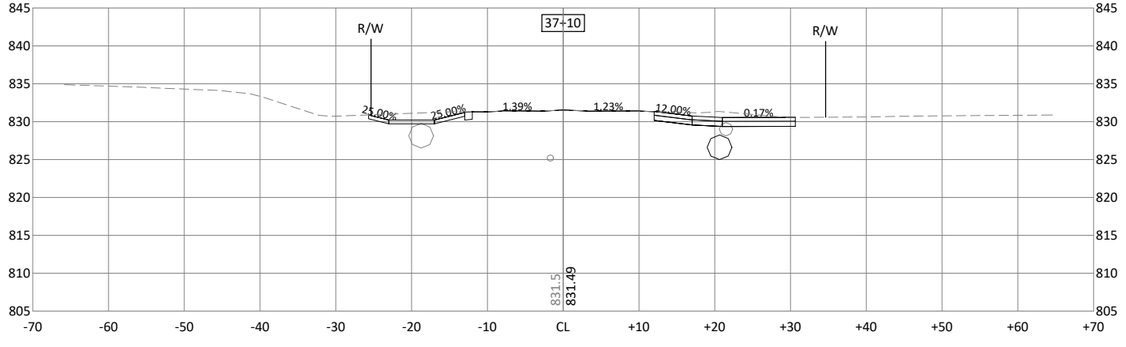

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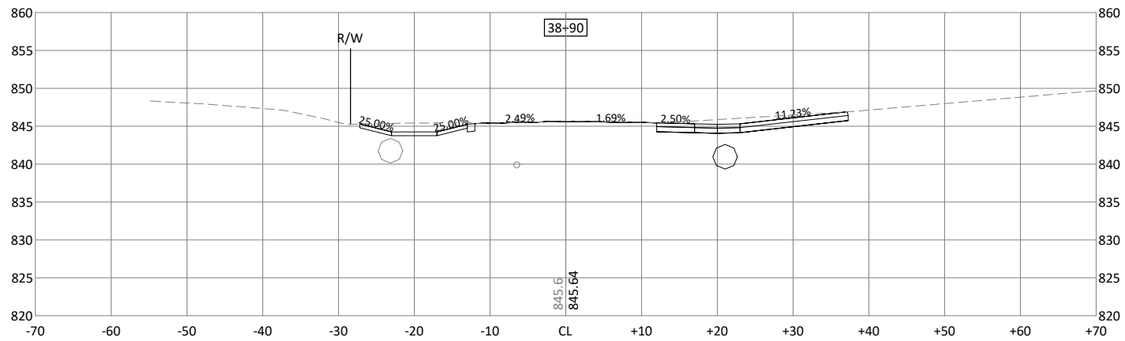

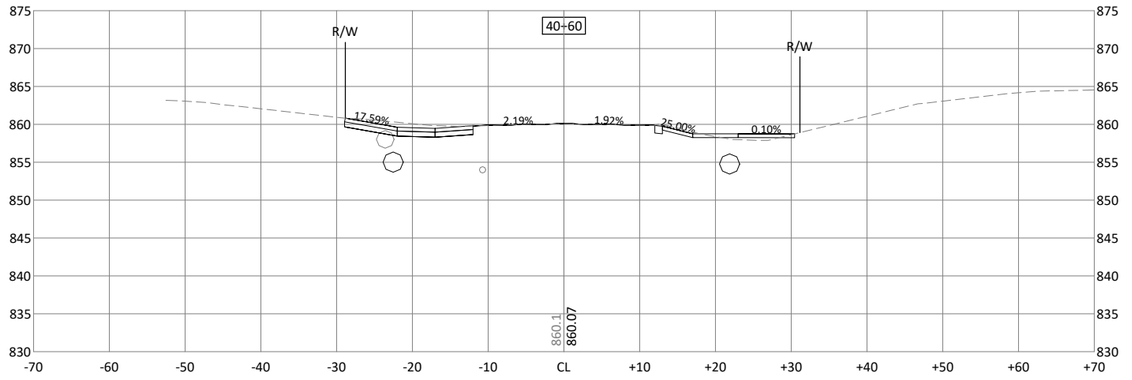

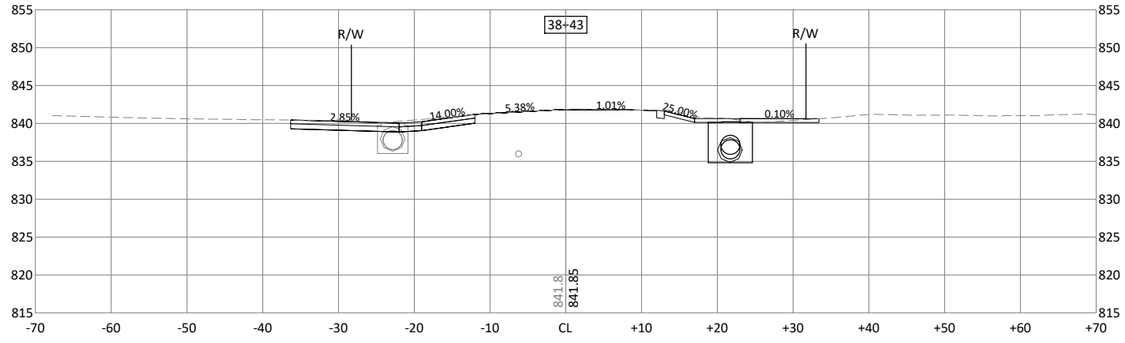

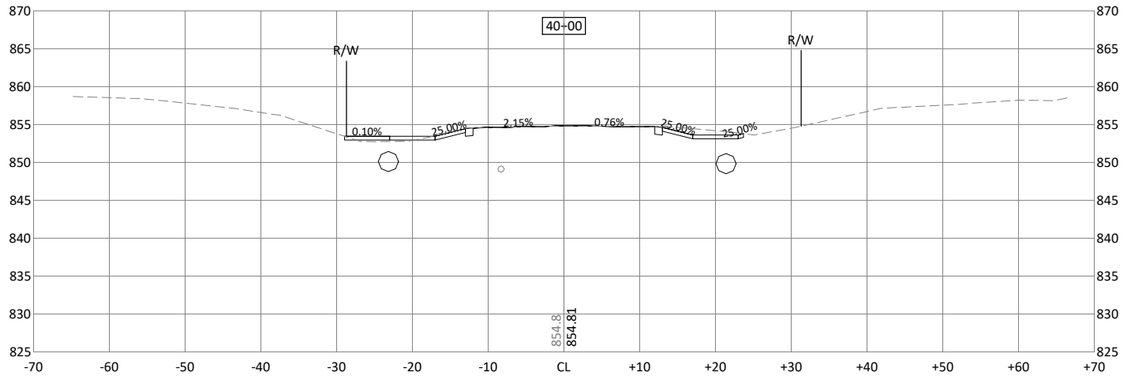

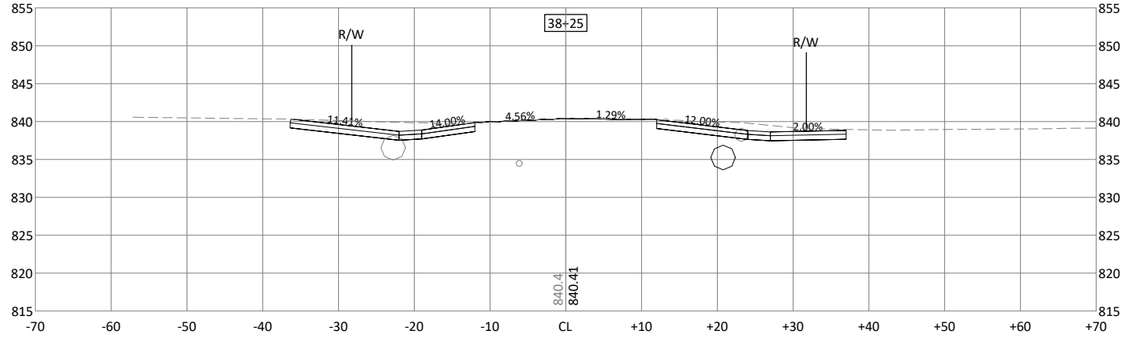

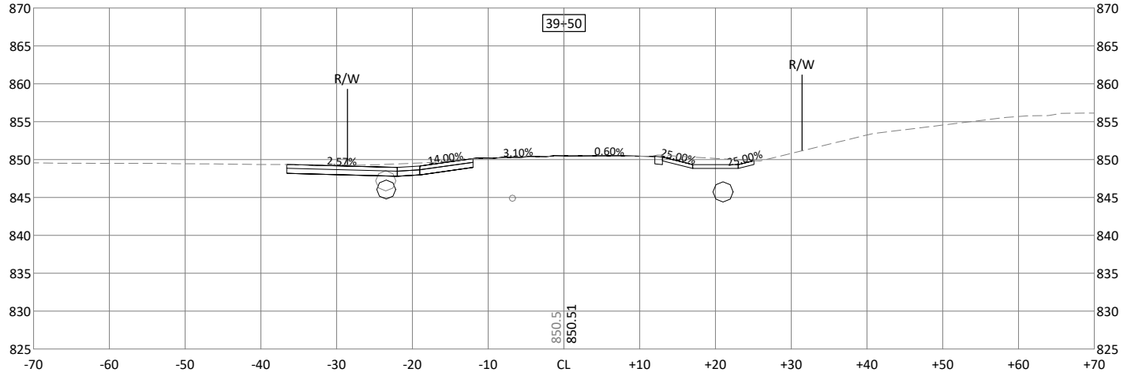

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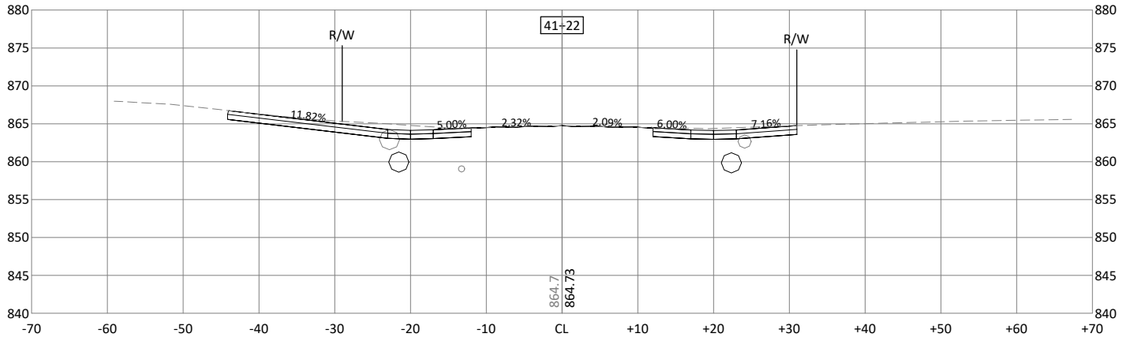

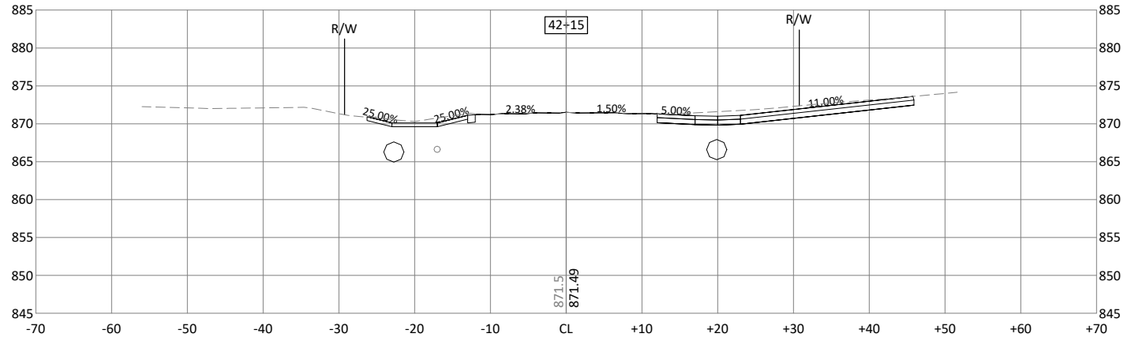

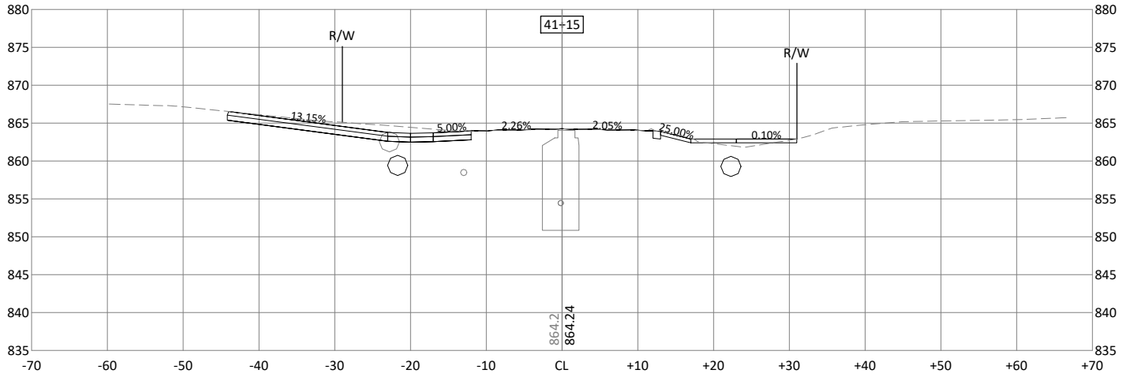

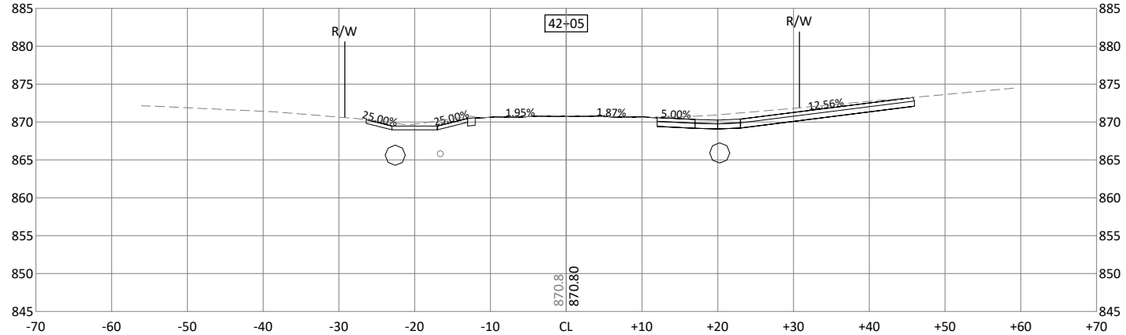

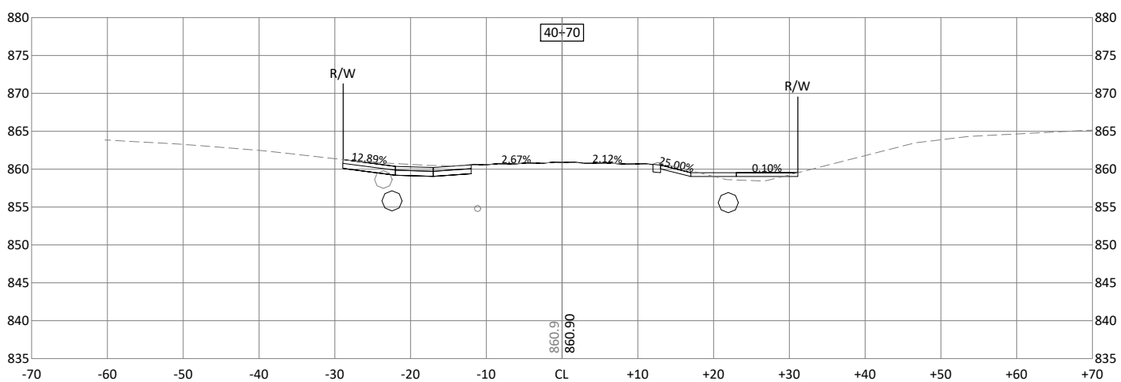

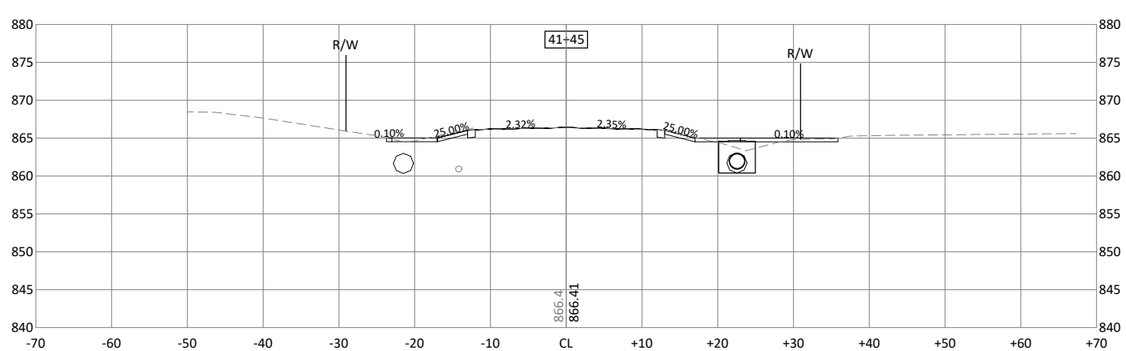

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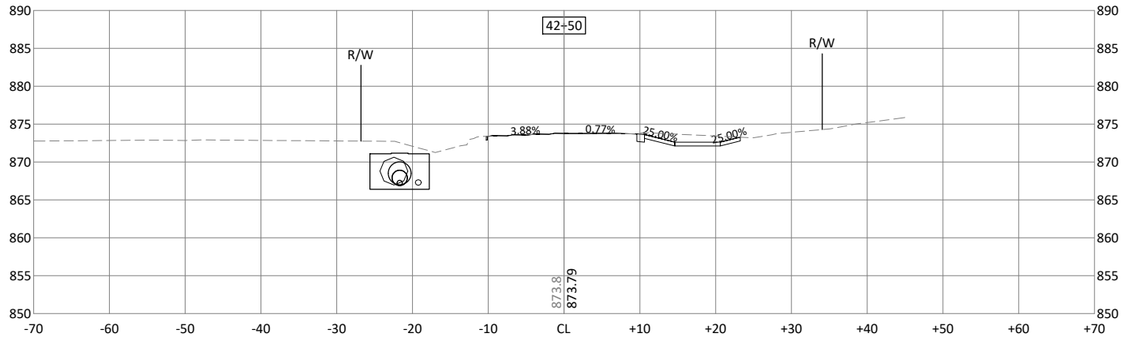
C8.05



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