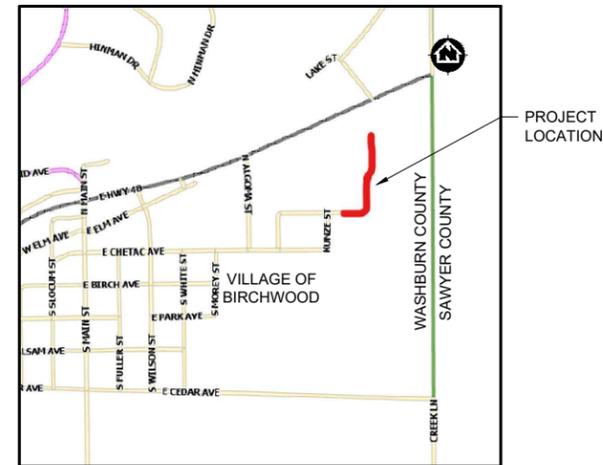
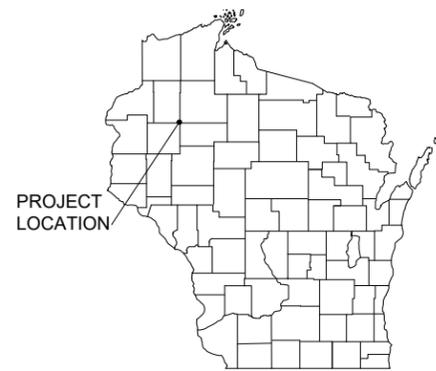


ORCHARD AVENUE EXTENSION

VILLAGE OF BIRCHWOOD WASHBURN COUNTY, WI



LOCATION MAP
NOT TO SCALE

SHEET INDEX

G - GENERAL SHEETS

- G 1 TITLE SHEET
- G 2 TYPICAL SECTION
- G 3 STORM AND GRADING DETAILS
- G 4 EROSION CONTROL NOTES AND DETAILS

R - ROAD CONSTRUCTION AND STORM SEWER SHEETS

- R 1-3 PLAN & PROFILE SHEETS

CS - CROSS SECTION SHEETS

- CS 1-6 CROSS SECTIONS

LEGEND

- W — EXISTING WATER MAIN
- + — EXISTING WATER MAIN, VALVE & HYDRANT
- ○ — EXISTING WATER SERVICE & CURB STOP
- + — PROPOSED WATER MAIN, VALVE, & HYDRANT
- ○ — PROPOSED WATER SERVICE & CURB STOP
- SAN — ○ — EXISTING SANITARY SEWER & MANHOLE
- — — — PROPOSED SANITARY SEWER & MANHOLE
- FM — EXISTING FORCEMAIN
- SS — □ — EXISTING STORM SEWER & INLET
- — — — PROPOSED STORM SEWER & INLET
- — — — PROPOSED STORM SEWER & MANHOLE
- E — BURIED ELECTRIC
- G — BURIED GAS & VALVE
- TV — BURIED CABLE TELEVISION
- T — BURIED TELEPHONE
- FO — BURIED FIBER OPTICS
- OH — OVERHEAD UTILITY
- + — RAILROAD TRACKS
- — — — EXISTING CURB & GUTTER
- — — — PROPOSED CURB & GUTTER
- — — — EXISTING SIDEWALK
- — — — PROPOSED SIDEWALK
- CP — EXISTING CULVERT PIPE
- — — — PROPOSED CULVERT PIPE
- x — x — x — FENCE LINE
- — — — DRAINAGE ARROW
- — — — SILT FENCE
- — — — RIGHT-OF-WAY
- — — — BASELINE
- — — — PROPERTY LINE
- — — — TREE LINE
- BENCHMARK
- IRON PIPE
- IRON ROD
- ▲ CONTROL POINT
- — — — — UTILITY POLE & GUY
- — — — — SOIL BORING
- — — — — LIGHT POLE
- PEDESTAL
- STREET SIGN
- MAILBOX
- FLAGPOLE
- ☆ TREE - DECIDUOUS
- ☆ TREE - CONIFEROUS
- ✕ TREE TO BE REMOVED

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

NOTE:
UTILITY LOCATIONS SHOWN ON PLANS ARE APPROXIMATE AND CONTRACTOR SHALL HAVE APPROPRIATE UTILITY MARK EXACT LOCATIONS PRIOR TO CONSTRUCTION.

PROJECT DATE:	DRAWN BY:	NO.	DATE	REVISION	BY:
10/2025	EDB	.	.	.	.
	DESIGNED BY: EDB	.	.	.	.
	CHECKED BY: Init	.	.	.	.

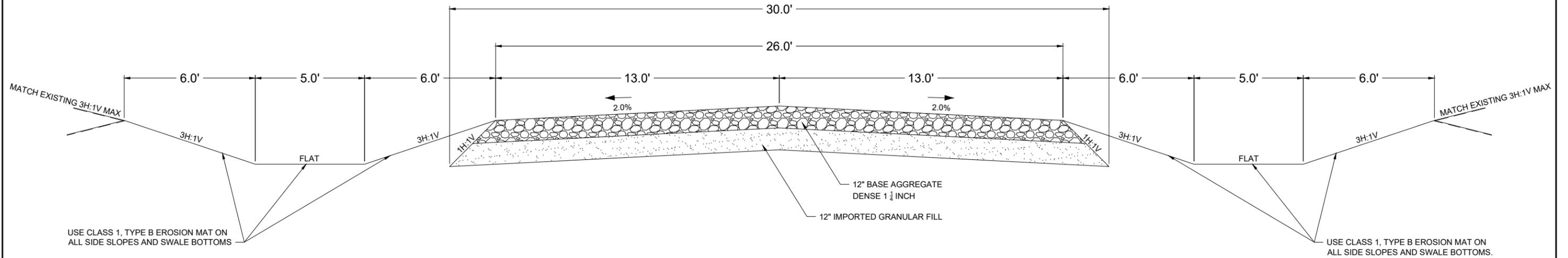
PLOT DATE: 12/16/2025 4:14 PM, G:\00\00525\00525051\CADD\Construction Documents\R00525051 Typical Section.dwg

MSA ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
11 E Marshall Street, Rice Lake WI 54868
(715) 234-1009 www.msa-ps.com
© MSA Professional Services, Inc.

ORCHARD AVENUE EXTENSION
VILLAGE OF BIRCHWOOD
WASHBURN COUNTY, WI

TITLE SHEET

PROJECT NO:
R00525051
SHEET
G1



PROPOSED ORCHARD AVENUE TYPICAL SECTION
N.T.S

PROJECT DATE:	DRAWN BY:	NO.	DATE	REVISION	BY:
10/2025	EDB	-	-	-	-
	EDB	-	-	-	-
	Init	-	-	-	-

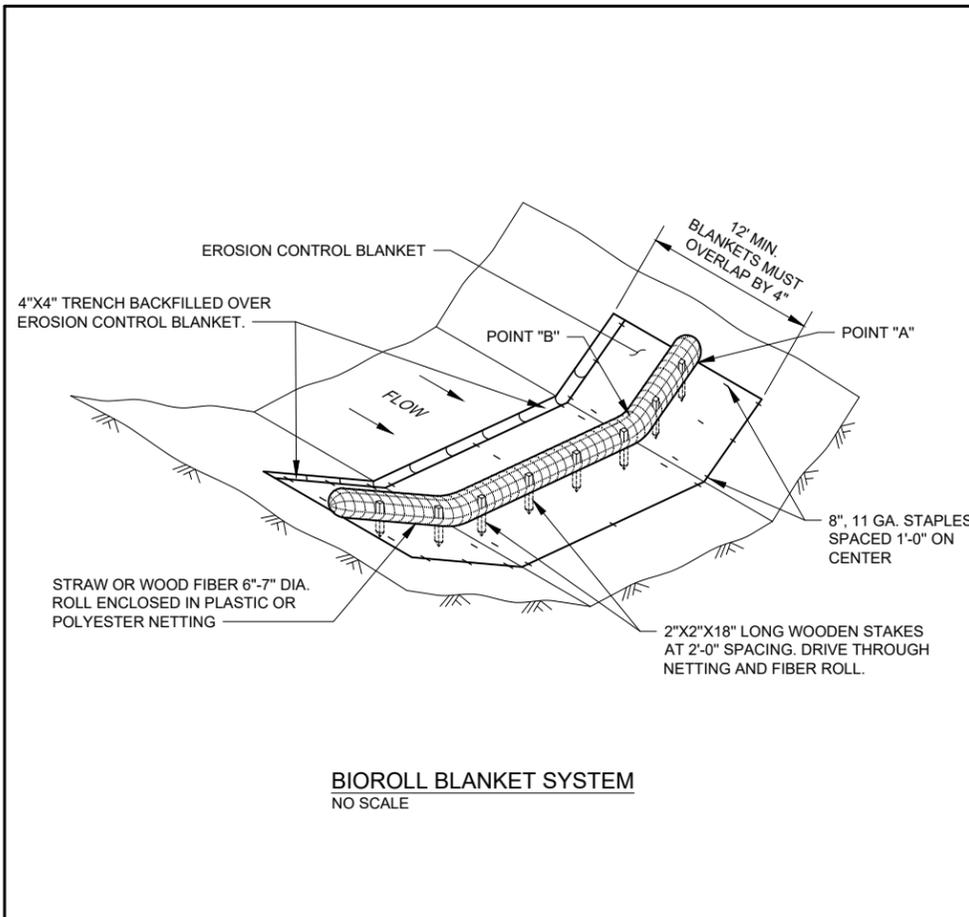


ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
11 E Marshall Street, Rice Lake WI 54868
(715) 234-1009 www.msa-ps.com
© MSA Professional Services, Inc.

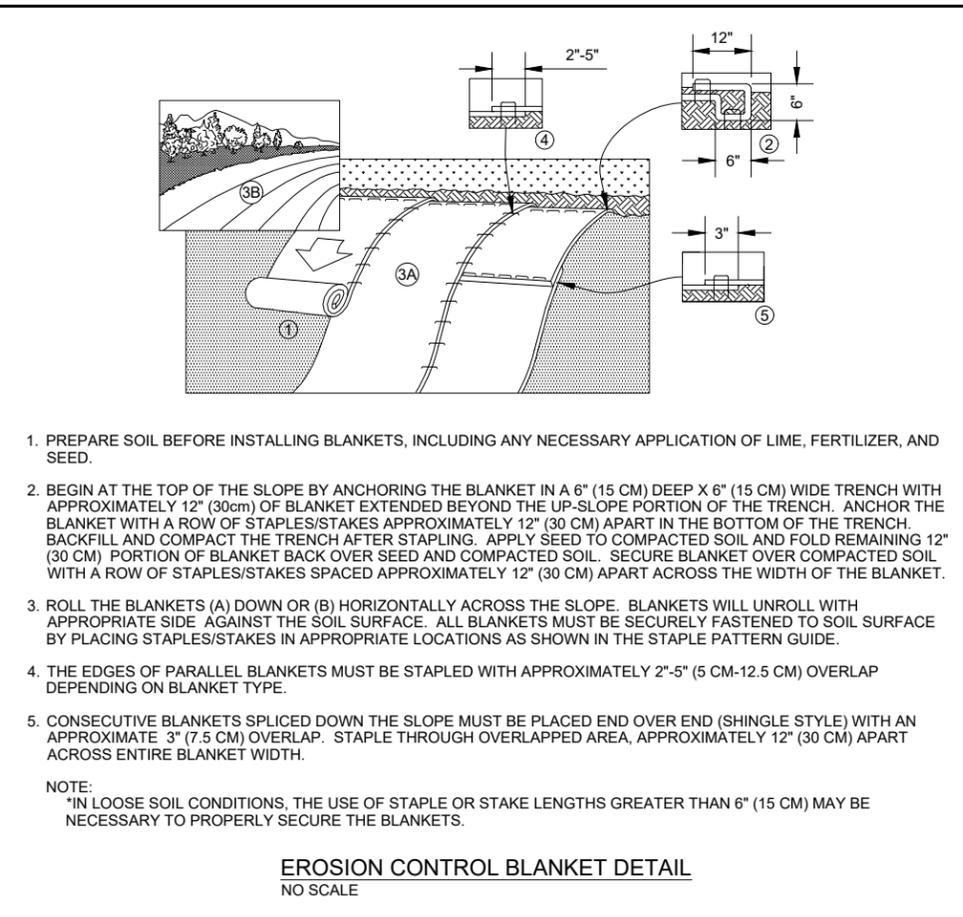
ORCHARD AVENUE EXTENSION
VILLAGE OF BIRCHWOOD
WASHBURN COUNTY, WI

TYPICAL SECTION

PROJECT NO.
R00525051
SHEET
G2



BIOROLL BLANKET SYSTEM
NO SCALE

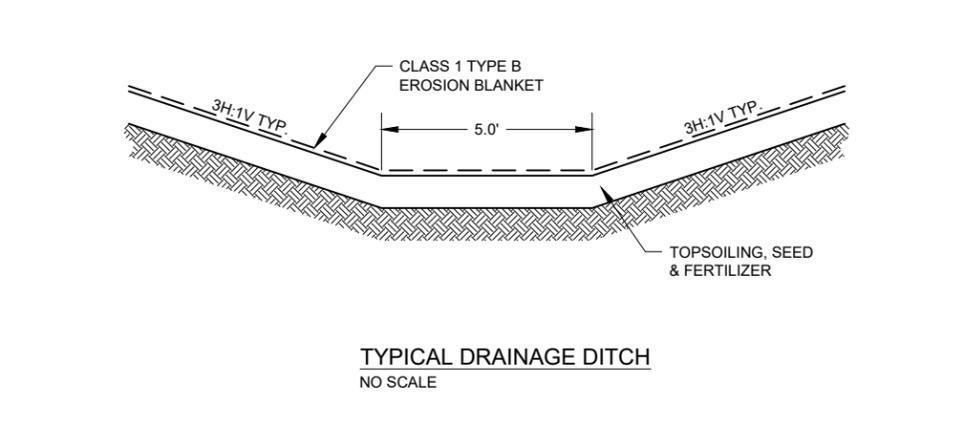
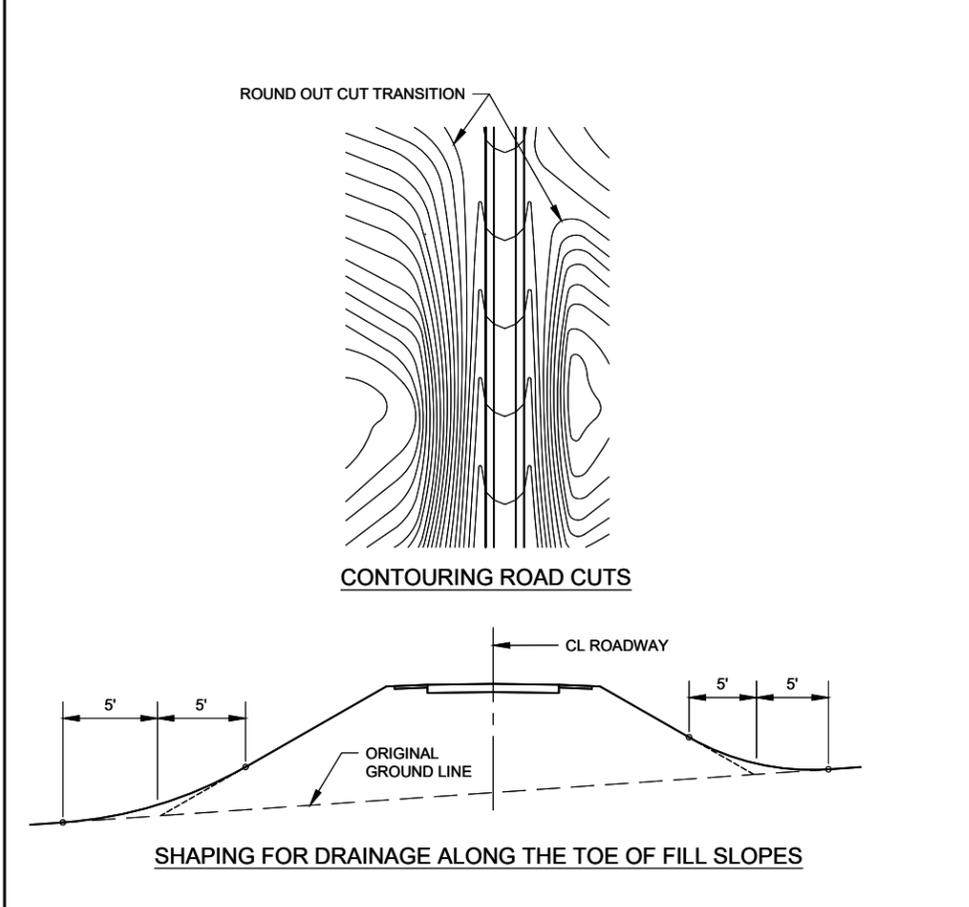
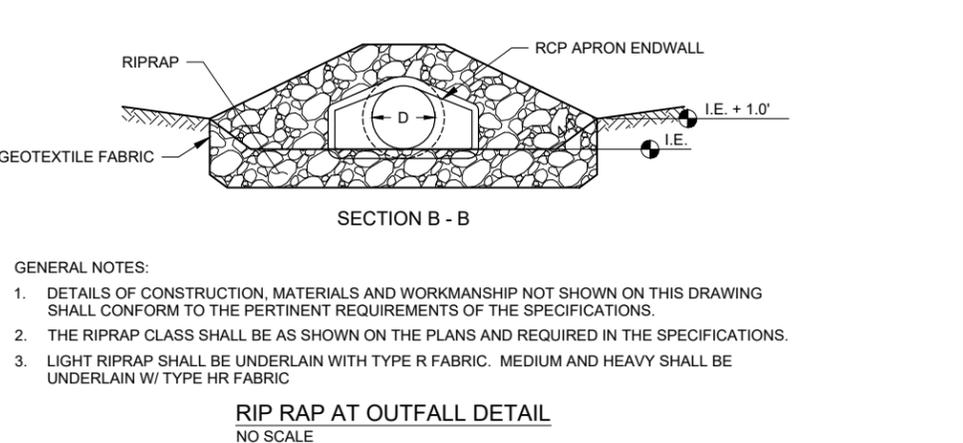
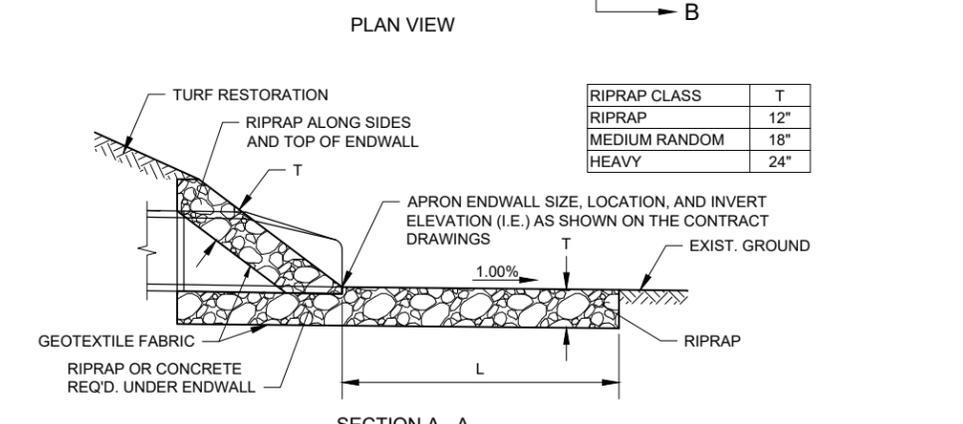


EROSION CONTROL BLANKET DETAIL
NO SCALE

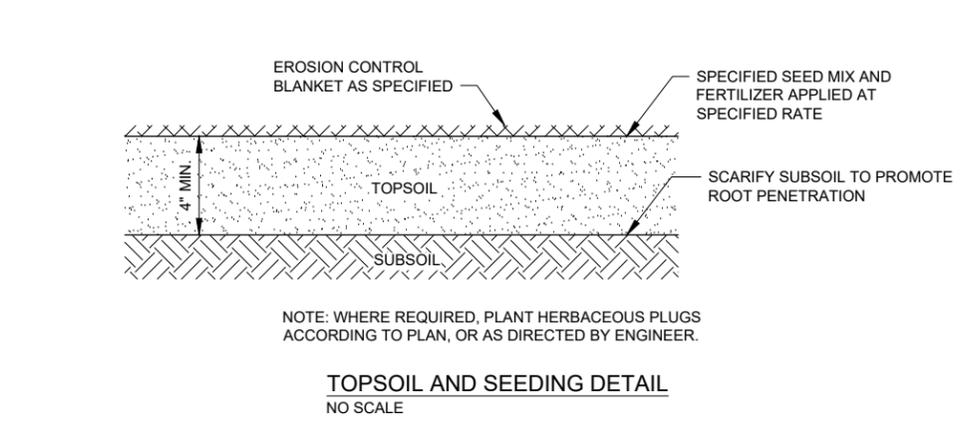
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE BLANKET.
 3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5 CM-12.5 CM) OVERLAP DEPENDING ON BLANKET TYPE.
 5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE BLANKET WIDTH.
- NOTE:
*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

DIA. OF ROUND PIPE (IN.)	L (FT.)	12" DEPTH RIPRAP (CU.YDS.)	18" DEPTH RIPRAP (CU.YDS.)	24" DEPTH RIPRAP (CU.YDS.)
12	8	2.8	4.1	5.5
15	8	2.9	4.4	5.8
18	10	3.9	5.9	7.8
21	10	4.2	6.3	8.4
24	12	5.5	8.3	11.0
27	12	5.8	8.7	11.6
30	14	7.3	10.9	14.5
36	16	9.2	13.8	18.3
42	18	10.9	16.3	21.7
48	20	12.9	19.4	25.8

SPAN OF HERCP (IN.)	L (FT.)	LIGHT d50=6" DEPTH RIPRAP (CU.YDS.)	MEDIUM d50=9" DEPTH RIPRAP (CU.YDS.)	HEAVY d50=12" DEPTH RIPRAP (CU.YDS.)
22	10	3.9	5.9	7.8
30	12	5.5	8.2	10.9
38	14	7.2	10.8	14.3
45	16	9.2	13.7	18.3
53	18	10.9	16.3	21.7
60	20	12.7	19.0	25.4



TYPICAL DRAINAGE DITCH
NO SCALE



PROJECT DATE:	DRAWN BY:	NO.	DATE	REVISION	BY
10/2025	EDB	-	-	-	-
	DESIGNED BY:	EDB	-	-	-
	CHECKED BY:	Init	-	-	-

PLOT DATE: 12/16/2025 4:14 PM, G:\00\00525\00525051\CADD\Construction Documents\R00525051 Typical Section.dwg

MSA ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
11 E Marshall Street, Rice Lake WI 54868
(715) 234-1009 www.msa-ps.com
© MSA Professional Services, Inc.

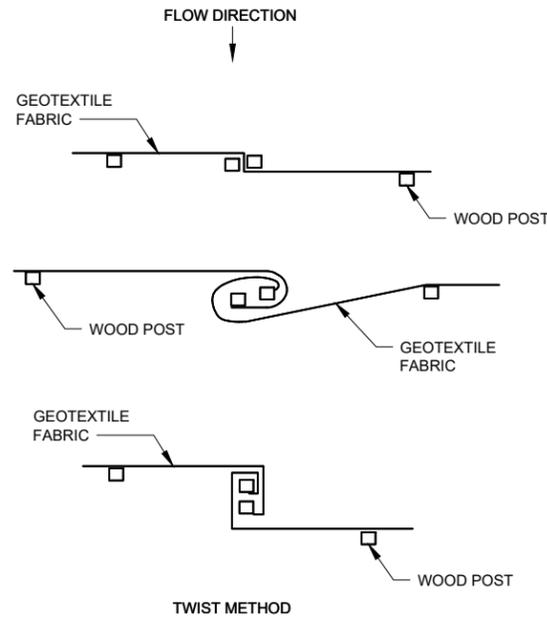
ORCHARD AVENUE EXTENSION
VILLAGE OF BIRCHWOOD
WASHBURN COUNTY, WI

STORM AND GRADING DETAILS

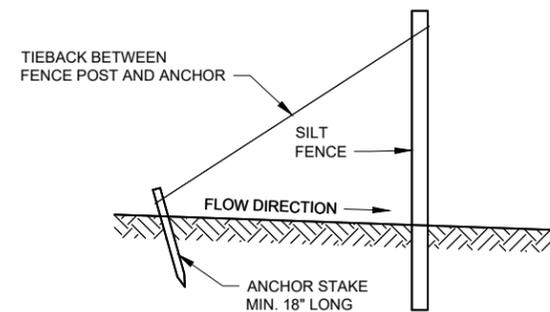
PROJECT NO. R00525051
SHEET G3

**CONSTRUCTION SITE
EROSION CONTROL REQUIREMENTS**

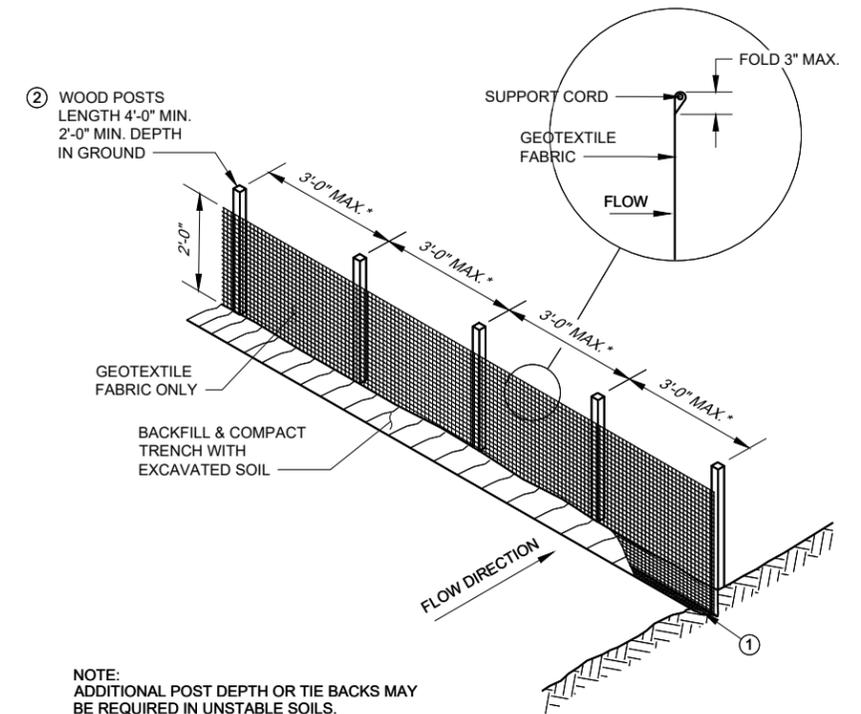
- SECTION NR216.46 OF WISCONSIN STATE ADMINISTRATIVE CODE IDENTIFIES REQUIREMENTS FOR CONSTRUCTION SITE AND POST-CONSTRUCTION EROSION CONTROL. IT IS THE INTENT OF THESE PLANS TO SATISFY THESE REQUIREMENTS. THE METHODS AND STRUCTURES USED TO CONTROL EROSION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL IMPLEMENT AN APPROPRIATE MEANS OF CONTROLLING EROSION DURING SITE OPERATION AND UNTIL THE VEGETATION IS RE-ESTABLISHED. ADJUSTMENTS TO THE CONTROL SYSTEM SHALL BE MADE AS REQUIRED.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE WISCONSIN DNR'S CONSERVATION PRACTICE STANDARDS. THESE STANDARDS ARE PERIODICALLY UPDATED AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND REFERENCE THE MOST RECENTLY RELEASED STANDARD.
- THIS INFORMATION IS ONLY ONE PART OF THE OVERALL EROSION CONTROL REQUIREMENTS. ADDITIONAL REQUIREMENTS MAY ALSO BE SHOWN ON THE CONTRACT DRAWINGS AND IN THE ACCOMPANYING SPECIFICATIONS.
- ADDITIONAL EROSION CONTROL MEASURES, AS REQUESTED IN WRITING BY THE STATE OR LOCAL INSPECTORS, OR THE OWNER'S ENGINEER, SHALL BE INSTALLED WITHIN 24 HOURS.
- THE AREA OF EROSION EXPOSED TO THE ELEMENTS BY GRUBBING, EXCAVATION, TRENCHING, BORROW AND FILL OPERATIONS AT ANY ONE TIME SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE. FOR ANY DISTURBED AREA THAT REMAINS INACTIVE FOR GREATER THAN 7 WORKING DAYS, OR WHERE GRADING WORK EXTENDS BEYOND THE PERMANENT SEEDING DEADLINES, THE SITE MUST BE TREATED WITH TEMPORARY STABILIZATION MEASURES SUCH AS SOIL TREATMENT, TEMPORARY SEEDING AND/OR MULCHING. ALL DISTURBED AREAS SHALL BE TREATED WITH PERMANENT STABILIZATION MEASURES WITHIN 3 WORKING DAYS OF FINAL GRADING.
- ALL EROSION CONTROL MEASURES AND STRUCTURES SERVING THE SITE MUST BE INSPECTED AT LEAST WEEKLY OR WITHIN 24 HOURS OF THE TIME 0.5 INCHES OF RAIN HAS OCCURRED. ALL NECESSARY REPAIR AND MAINTENANCE WILL BE DONE AT THIS INSPECTION TIME.
- ALL EROSION CONTROL DEVICES AND/OR STRUCTURES SHALL BE PROPERLY INSTALLED PRIOR TO CLEARING AND GRUBBING OPERATIONS WITHIN THEIR RESPECTIVE DRAINAGE AREAS. THESE SHALL BE PROPERLY MAINTAINED FOR MAXIMUM EFFECTIVENESS UNTIL VEGETATION IS RE-ESTABLISHED.
- ALL EROSION CONTROL DEVICES SHALL BE PROPERLY INSTALLED PRIOR TO ANY SOIL DISTURBANCE.
- ANY SLOPES STEEPER THAN 3H:1V SHALL BE STAKED WITH EROSION CONTROL FABRIC UNLESS INDICATED ON THE PLAN.
- ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, WASTEWATER, TOXIC MATERIALS, OR HAZARDOUS MATERIALS) SHALL BE PROPERLY DISPOSED OF AND NOT ALLOWED TO BE CARRIED OFF-SITE BY RUNOFF OR WIND.
- WIND EROSION SHALL BE KEPT TO A MINIMUM DURING CONSTRUCTION. WATERING, MULCH, OR A TACKING AGENT MAY BE REQUIRED TO PROTECT NEARBY RESIDENCES AND WATER RESOURCES.
- CHANNELIZED RUNOFF ENTERING THE PROJECT SITE FROM ADJOINING LANDS SHALL BE DIVERTED THROUGH NATURALLY OR ARTIFICIALLY EROSION-RESISTANT CONVEYANCES. IF CHANNELIZED RUNOFF CANNOT BE DIVERTED, SITE BEST MANAGEMENT PRACTICES MUST ACCOUNT FOR THE ADDITIONAL FLOW RATES AND EROSION POTENTIAL THAT SUCH RUNOFF PRESENTS.
- THE CONTRACTOR SHALL TAKE ALL POSSIBLE PRECAUTIONS TO PREVENT SOILS FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. PAVED SURFACES ADJACENT TO CONSTRUCTION SITE VEHICLE ACCESS SHALL BE SWEEPED AND/OR SCRAPED (NOT FLUSHED) PERIODICALLY TO REMOVE SOIL, DIRT, AND/OR DUST.
- EROSION CONTROLS SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF TEMPORARY STOCKPILES. ANY SOIL STOCKPILE THAT REMAINS FOR MORE THAN 7 DAYS SHALL BE COVERED OR TREATED WITH STABILIZATION PRACTICES SUCH AS TEMPORARY OR PERMANENT SEEDING AND MULCHING. ALL STOCK PILES SHALL BE PLACED AT LEAST 75 FEET FROM STREAMS OR WETLANDS.
- ADDITIONAL EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, SANITARY SEWER, WATER MAIN, ETC.) SHALL INCLUDE THE FOLLOWING:
 - PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
 - BACKFILL, COMPACT, AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
 - DISCHARGE OF TRENCH WATER OR DEWATERING EFFLUENT MUST BE PROPERLY TREATED TO REMOVE SEDIMENT IN ACCORDANCE WITH THE WDNR CONSERVATION PRACTICE STANDARD 1061 - DEWATERING OR A SUBSEQUENT WDNR DEWATERING STANDARD PRIOR TO DISCHARGE INTO A STORM SEWER, DITCH, DRAINAGEWAY, OR WETLAND OR LAKE.
- ALL DRAINAGE CULVERTS, STORM DRAIN INLETS, MANHOLES, OR ANY OTHER EXISTING STRUCTURES THAT COULD BE DAMAGED BY SEDIMENTATION SHALL BE PROTECTED ACCORDING TO THE VARIOUS METHODS PROVIDED IN THE PRINTED CONSERVATION PRACTICE STANDARDS.
- ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR STABILIZATION MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
- THE FIRST SIX WEEKS AFTER INITIAL STABILIZATION, ALL NEWLY SEEDED AND MULCHED AREAS SHALL WATERED WHENEVER 7 DAYS ELAPSE WITHOUT A RAIN EVENT.
- WHEN THE DISTURBED AREA HAS BEEN STABILIZED BY PERMANENT VEGETATION OR OTHER MEANS, TEMPORARY BMP'S SUCH AS SILT FENCES, STRAW BALES, AND SEDIMENT TRAPS SHALL BE REMOVED AND THESE AREAS STABILIZED.
- ALL TEMPORARY BEST MANAGEMENT PRACTICES SHALL BE MAINTAINED UNTIL THE SITE IS STABILIZED.
- ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED WITH SEED AND MULCH UNLESS OTHERWISE SPECIFIED. A MINIMUM OF FOUR INCHES OF TOPSOIL SHALL BE APPLIED TO ALL AREAS TO BE SEEDED OR SODDED.



JOINING TWO LENGTHS OF SILT FENCE ③



**SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)**



NOTE:
ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS.

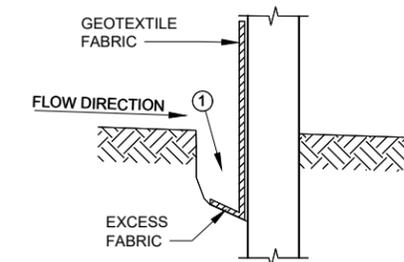
* 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED, OR IF THE SILT FENCE IS FACTORY ASSEMBLED.

ATTACH THE FABRIC TO THE POSTS WITH WIRE STAPLES OR WOODEN LATH AND NAILS.

SILT FENCE

GENERAL NOTES

- TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/2" x 1 1/2" OF OAK OR HICKORY.
- CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS: A) TWIST METHOD -- OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK METHOD -- HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL

PROJECT DATE:	DRAWN BY:	NO.	DATE	REVISION	BY:
10/2025	EDB				
	DESIGNED BY:	EDB			
	CHECKED BY:	Init			

PLOT DATE: 12/16/2025 4:14 PM, G:\00\00525\00525051\CADD\Construction Documents\R00525051 Typical Section.dwg

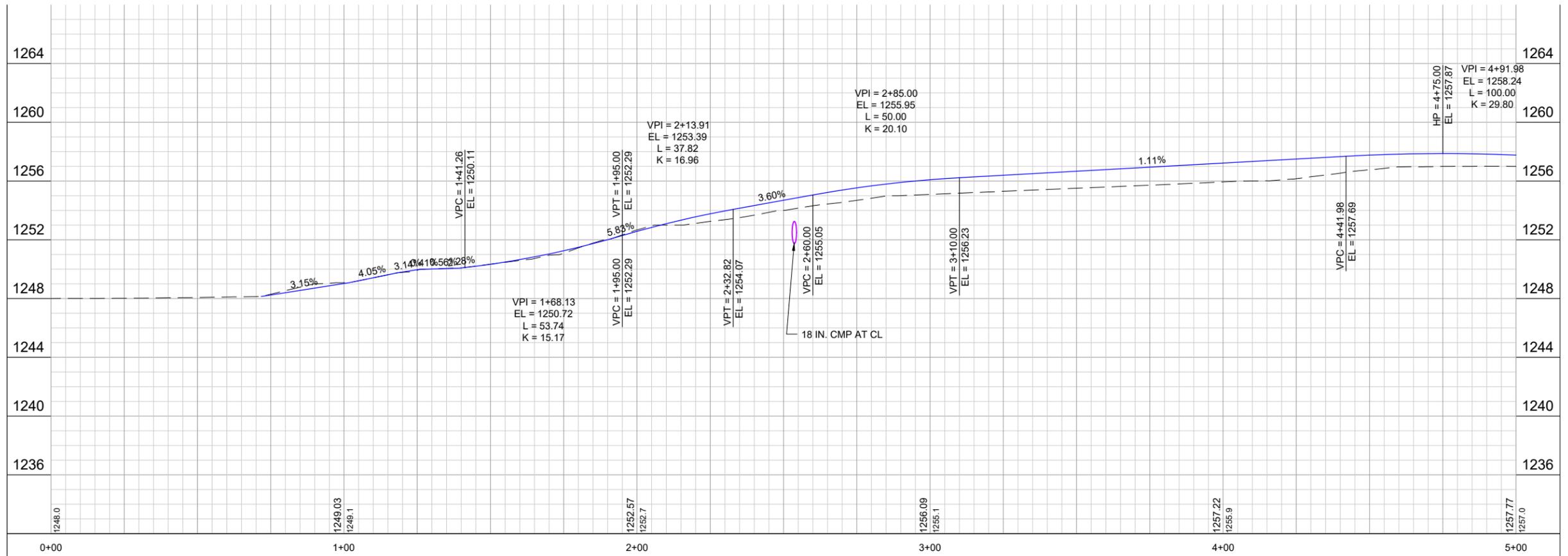
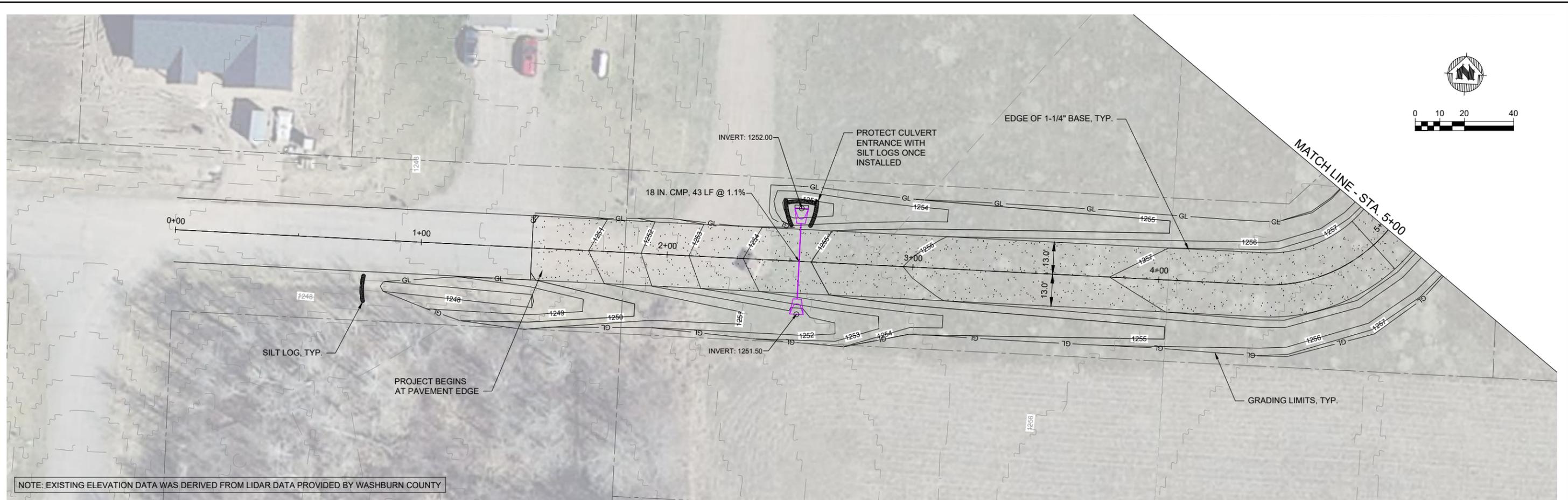


ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
11 E Marshall Street, Rice Lake WI 54868
(715) 234-1009 www.msa-ps.com
© MSA Professional Services, Inc.

**ORCHARD AVENUE EXTENSION
VILLAGE OF BIRCHWOOD
WASHBURN COUNTY, WI**

EROSION CONTROL NOTES AND DETAILS

PROJECT NO:
R00525051
SHEET
G4



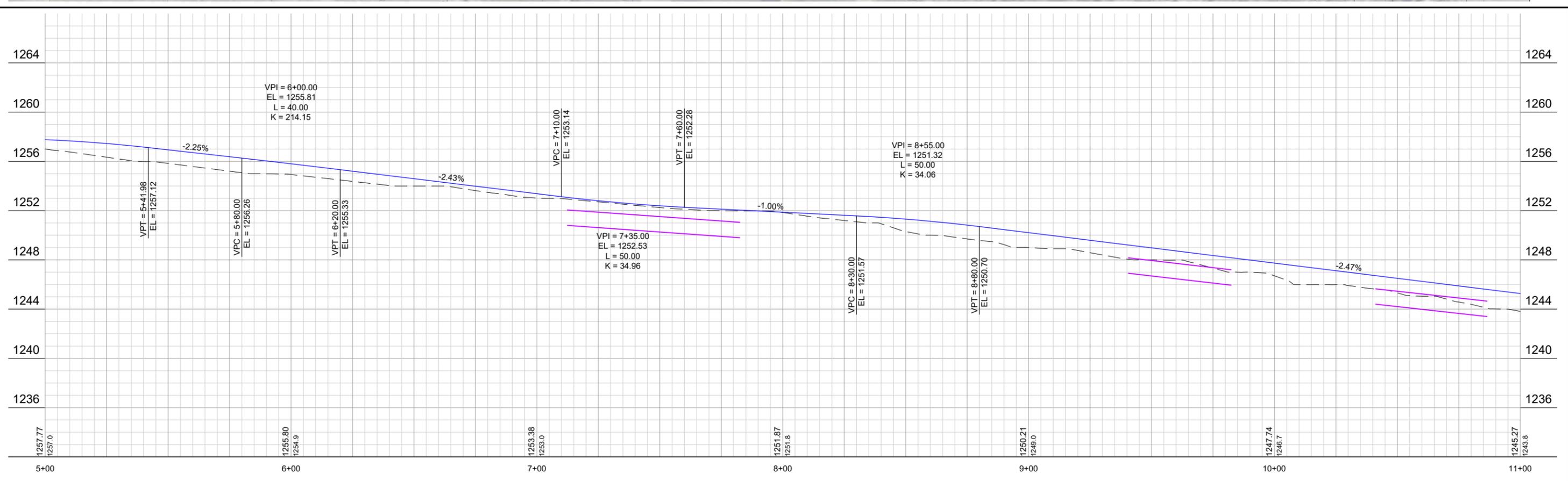
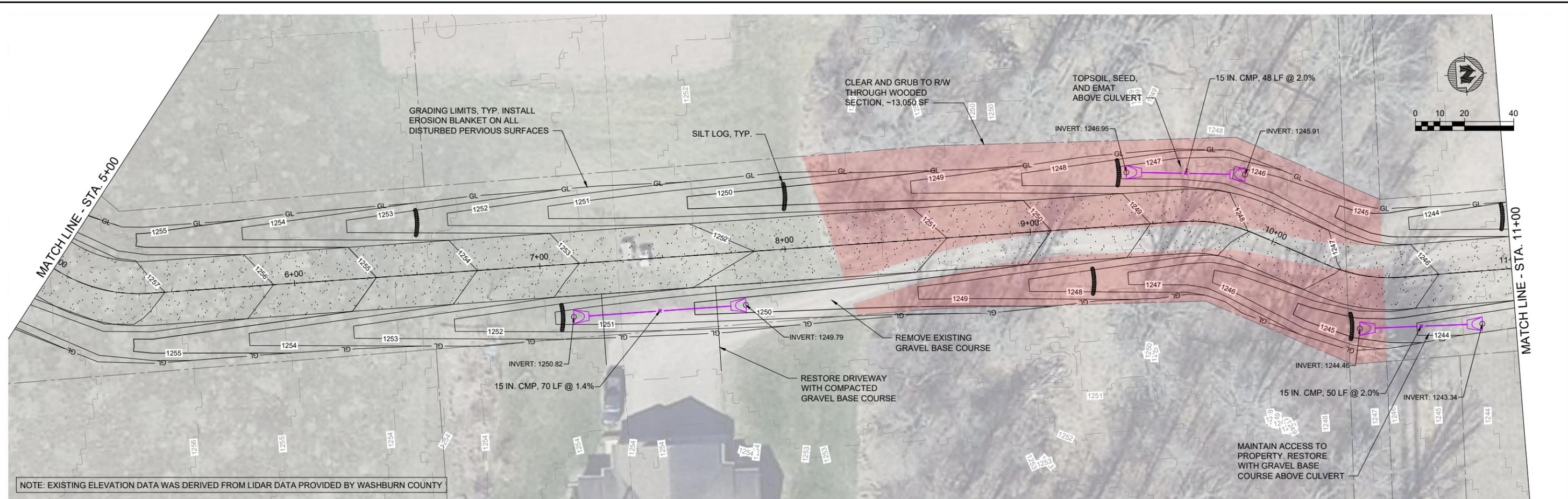
NO.	DATE	REVISION	BY
1	10/2025		EDB
2			EDB
3			Init

MSA ENGINEERING | ARCHITECTURE | SURVEYING
 FUNDING | PLANNING | ENVIRONMENTAL
 11 E Marshall Street, Rice Lake WI 54868
 (715) 234-1009 www.msa-ps.com
 © MSA Professional Services, Inc.

ORCHARD AVENUE EXTENSION
 VILLAGE OF BIRCHWOOD
 WASHBURN COUNTY, WI

PLAN & PROFILE

PROJECT NO. R00525051
 SHEET R1



PROJECT DATE:	DRAWN BY:	NO.	DATE	REVISION	BY:
10/2025	EDB	-	-	-	-
	EDB	-	-	-	-
	Init	-	-	-	-

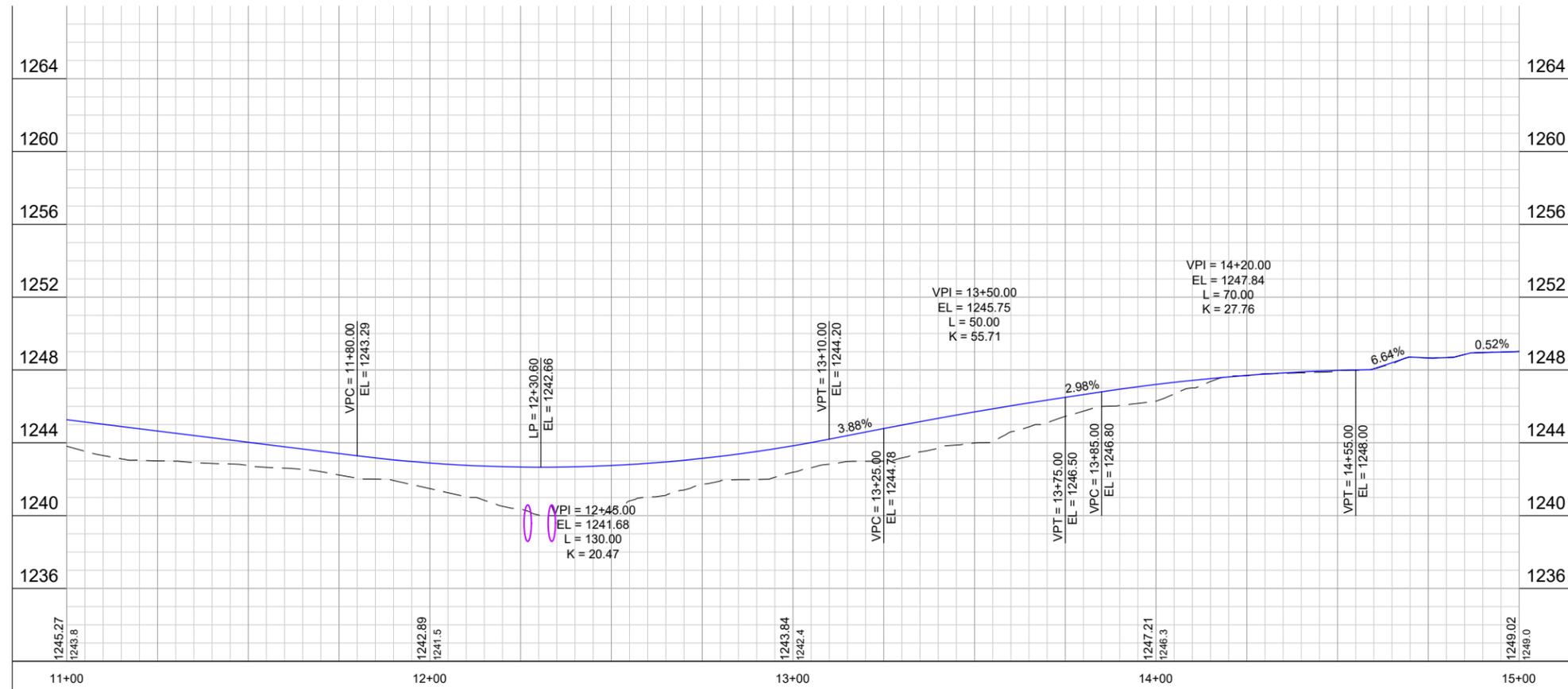
MSA
 ENGINEERING | ARCHITECTURE | SURVEYING
 FUNDING | PLANNING | ENVIRONMENTAL
 11 E Marshall Street, Rice Lake WI 54868
 (715) 234-1009 www.msa-ps.com
 © MSA Professional Services, Inc.

ORCHARD AVENUE EXTENSION
 VILLAGE OF BIRCHWOOD
 WASHBURN COUNTY, WI

PLAN & PROFILE

PROJECT NO.
R00525051
 SHEET
R2

PLOT DATE: 12/16/2025 4:15 PM, G:\00\00525\00525051\CADD\Construction Documents\R00525051 Plan and Profile.dwg

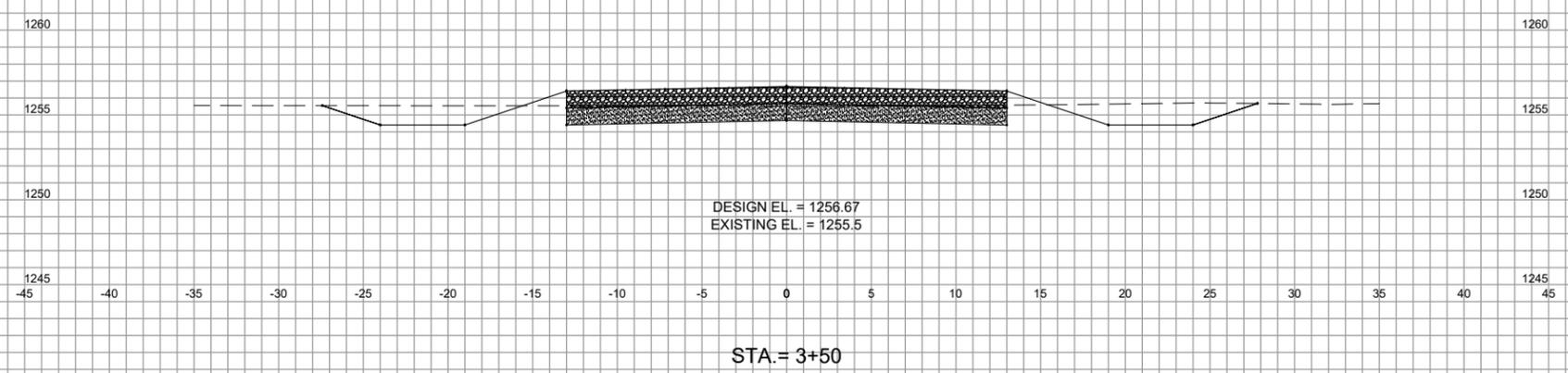
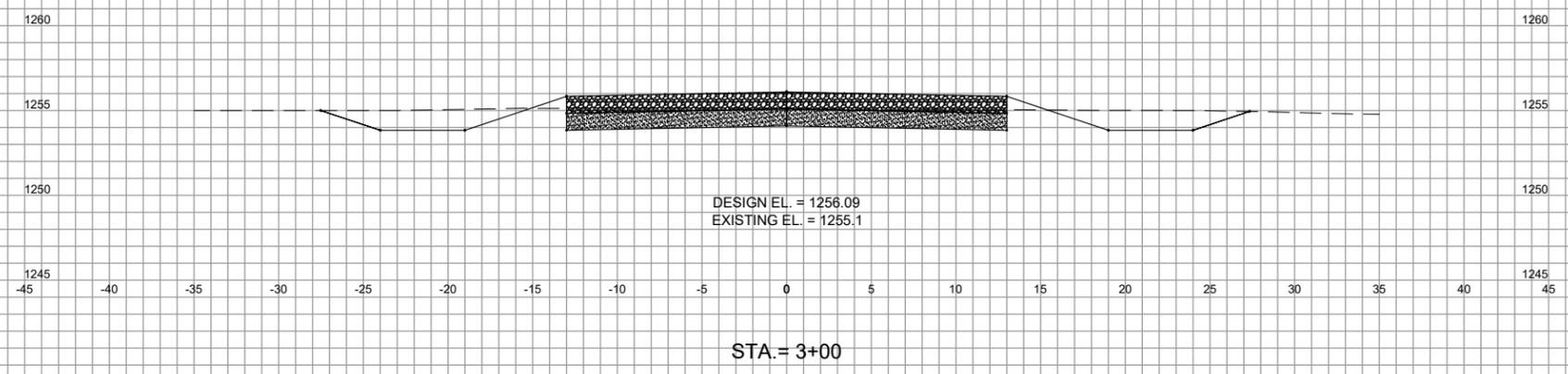
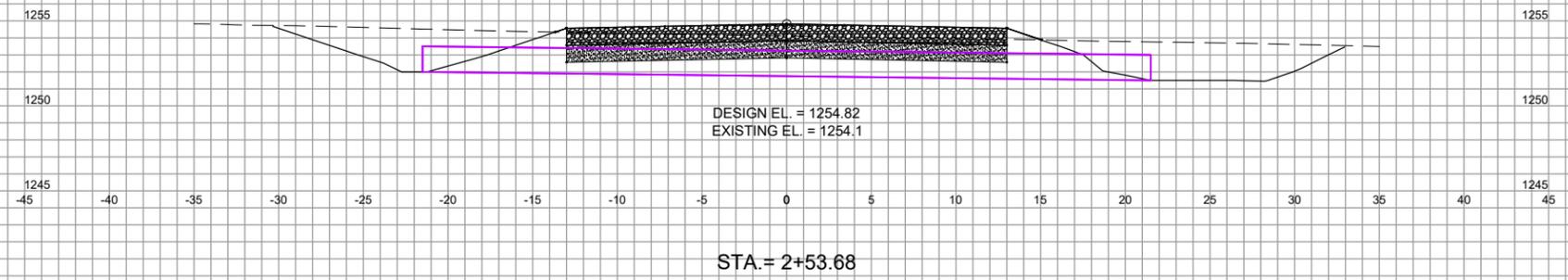


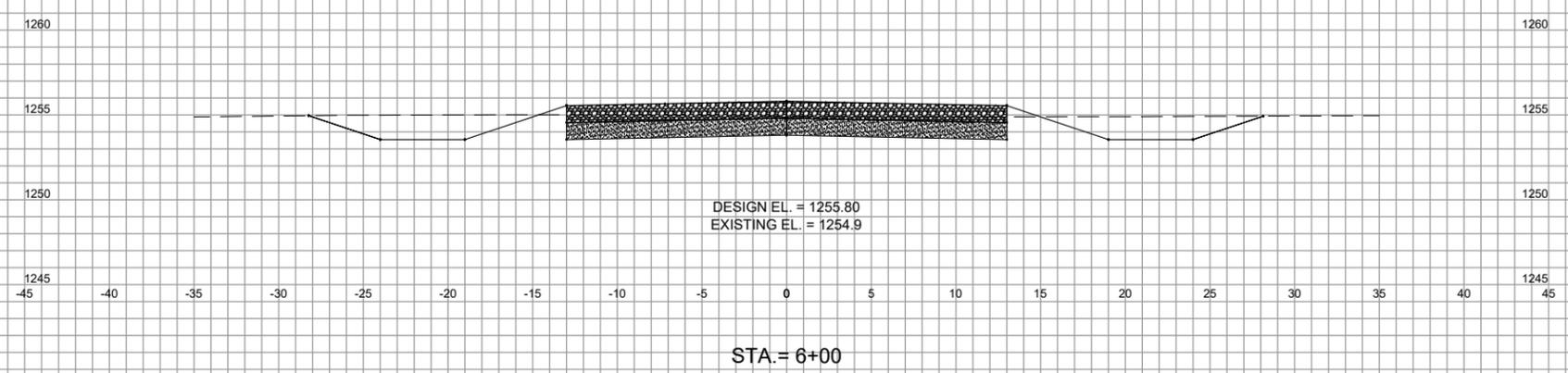
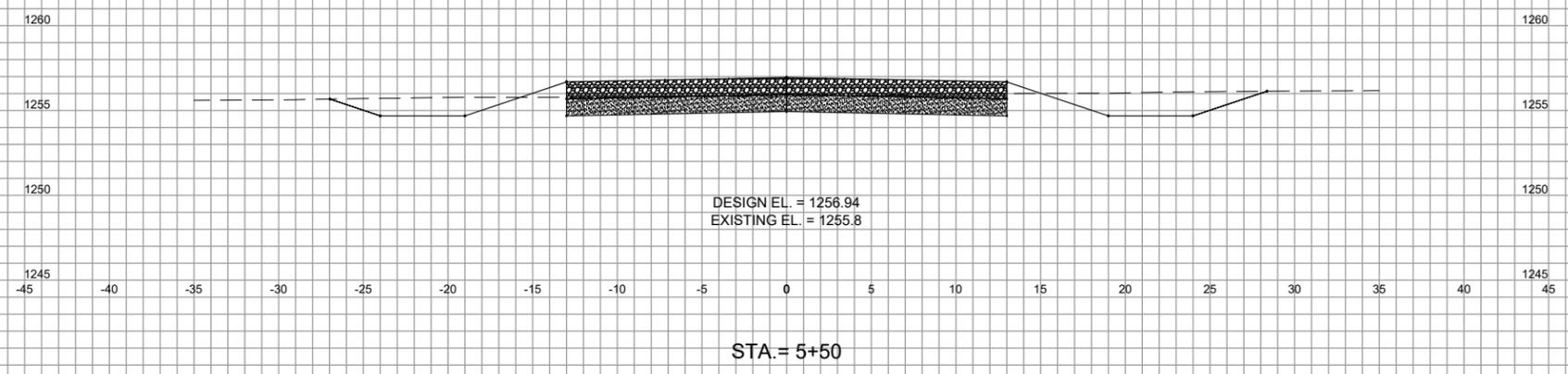
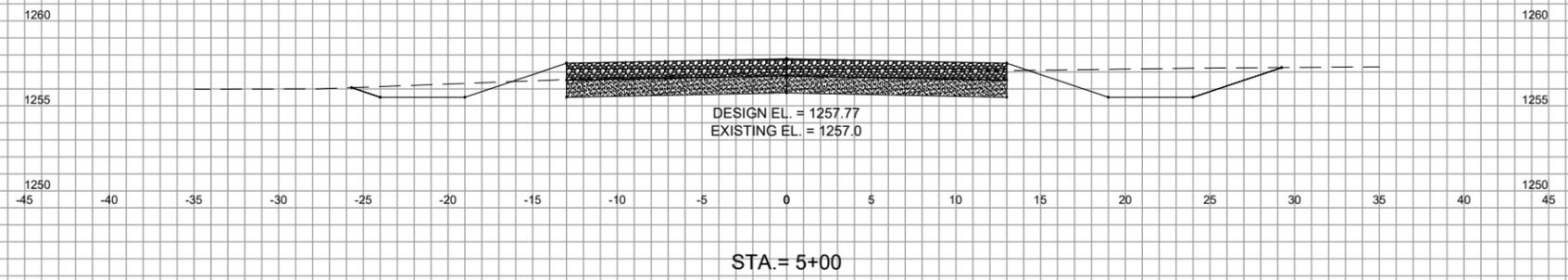
PROJECT DATE:	10/2025	NO.	DATE	REVISION	BY
DRAWN BY:	EDB	-	-	-	-
DESIGNED BY:	EDB	-	-	-	-
CHECKED BY:	Init	-	-	-	-

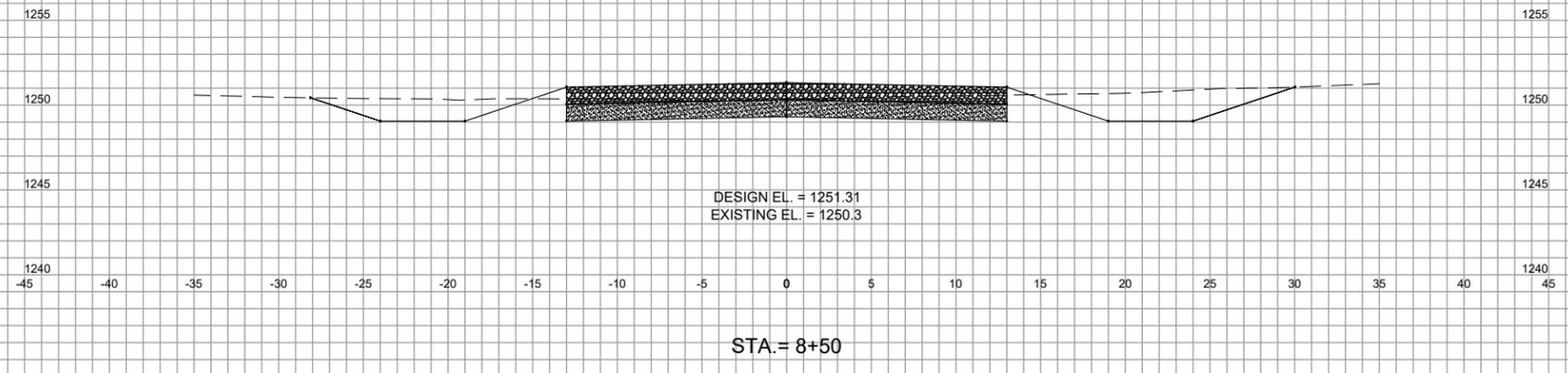
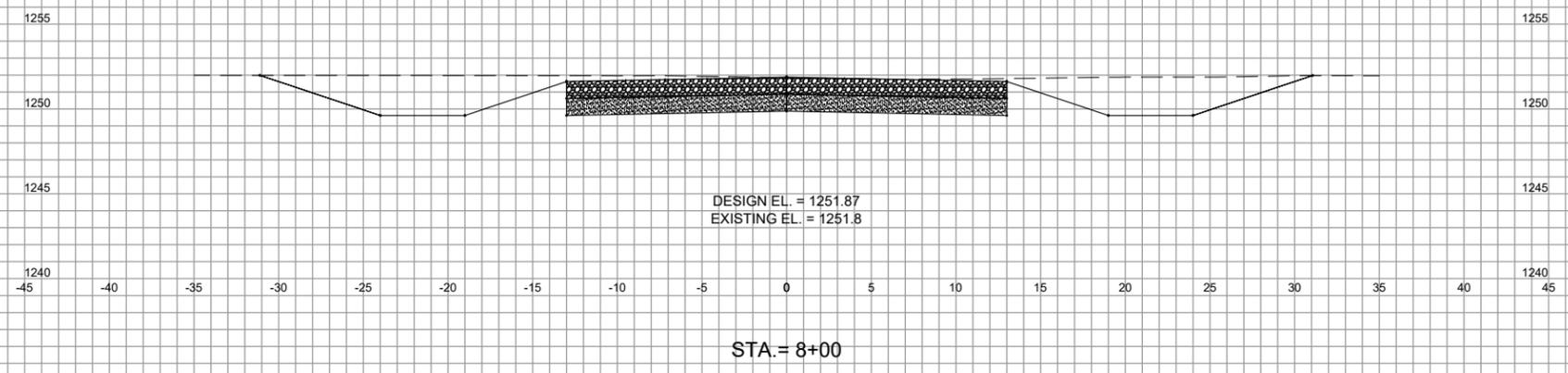
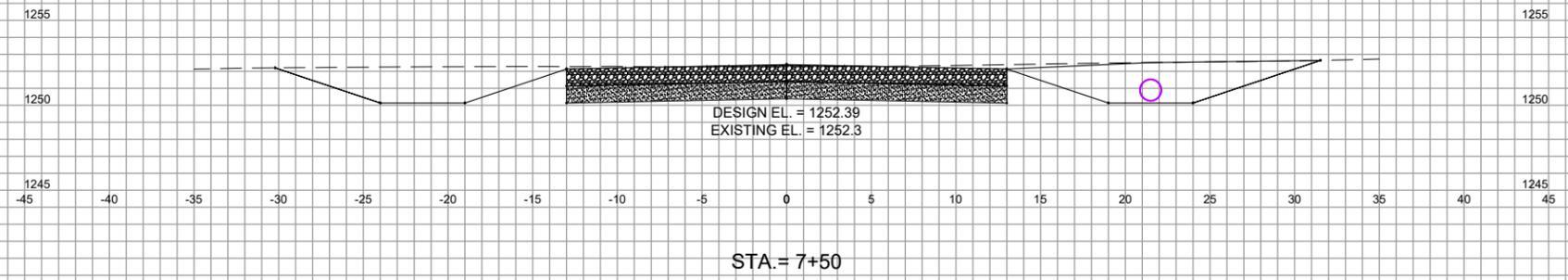
MSA
 ENGINEERING | ARCHITECTURE | SURVEYING
 FUNDING | PLANNING | ENVIRONMENTAL
 11 E Marshall Street, Rice Lake WI 54868
 (715) 234-1009 www.msa-ps.com
 © MSA Professional Services, Inc.

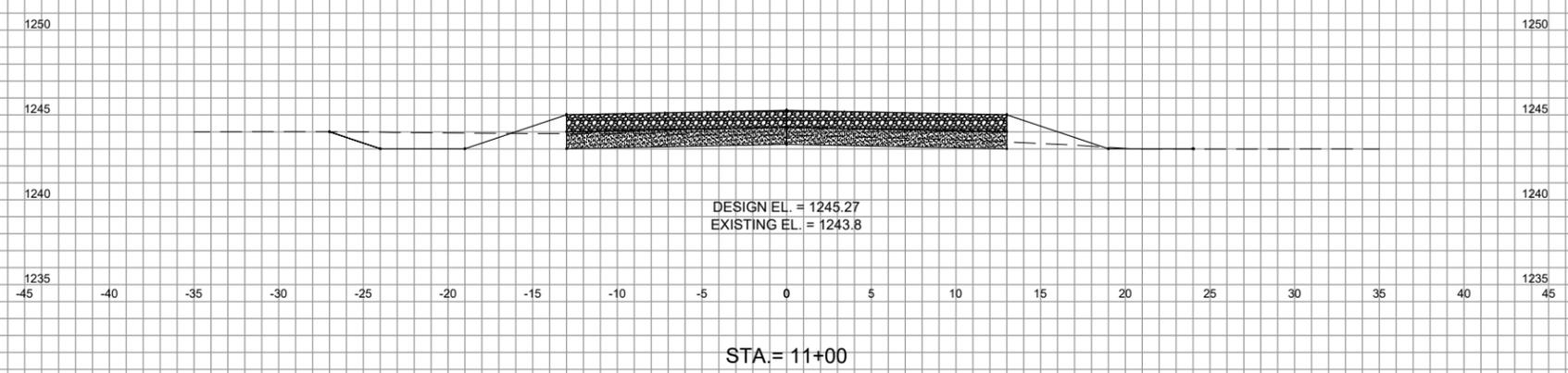
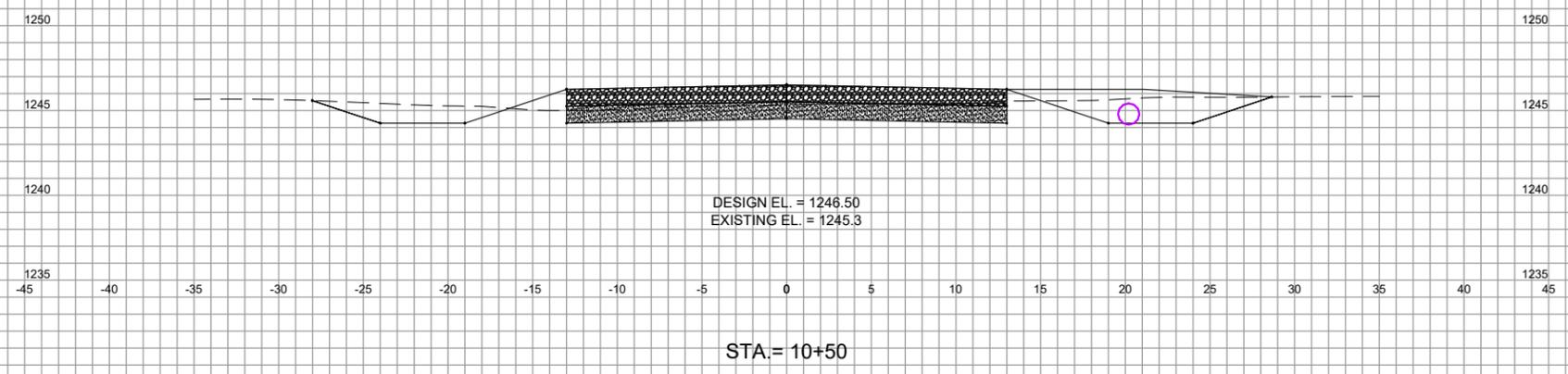
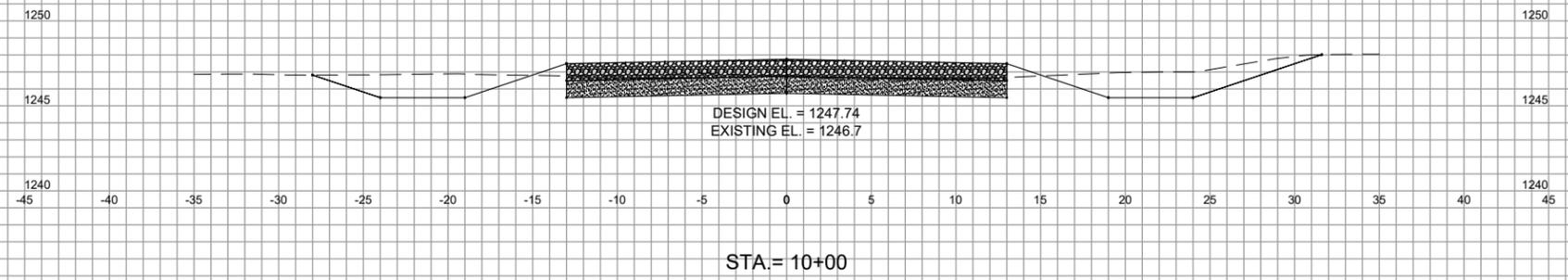
ORCHARD AVENUE EXTENSION
 VILLAGE OF BIRCHWOOD
 WASHBURN COUNTY, WI

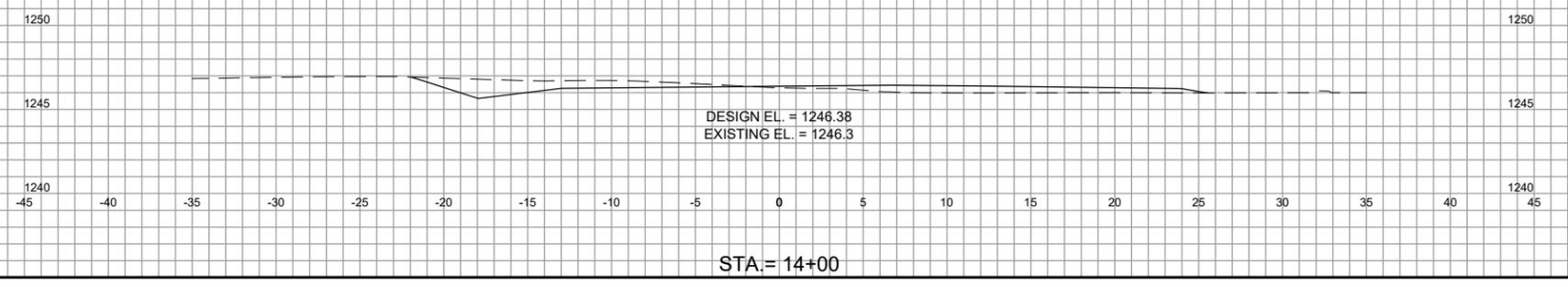
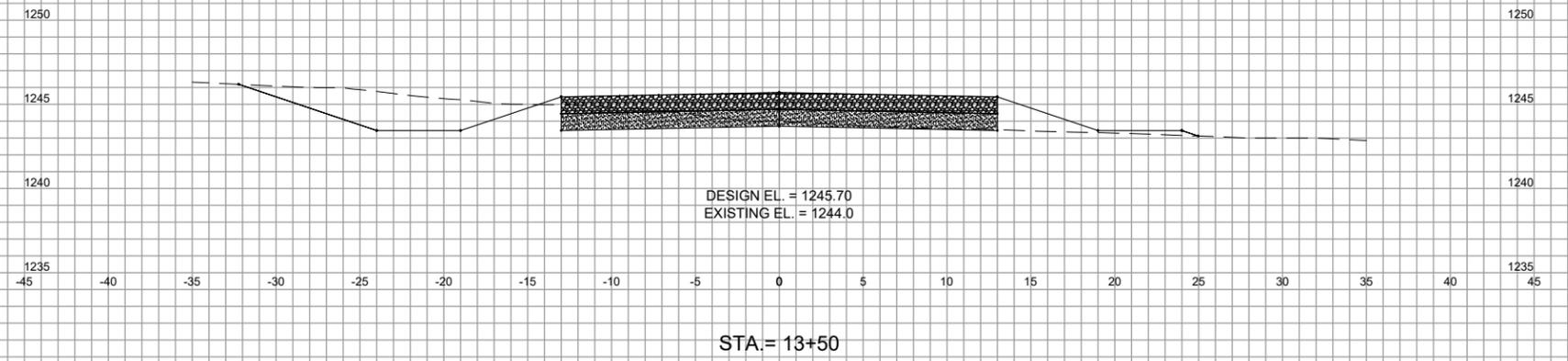
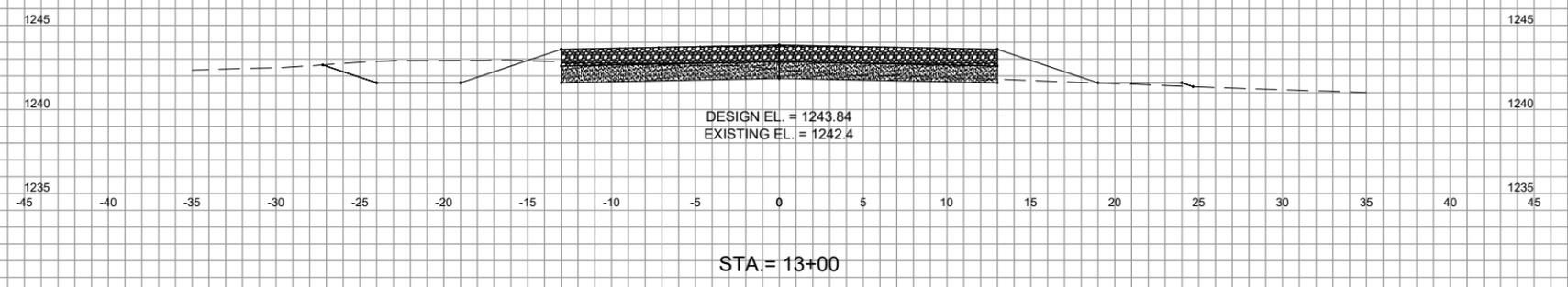
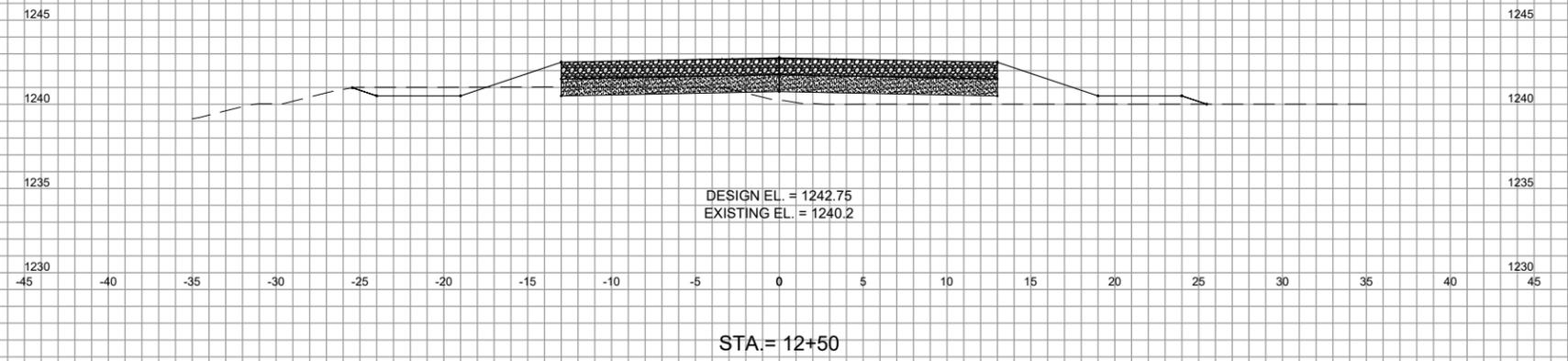
PLAN & PROFILE













ENGINEERING | ARCHITECTURE | SURVEYING
PLANNING | ENVIRONMENTAL
11 E Marshall Street, Rice Lake WI 54868
(715) 234-1009 www.msa-ps.com
© MSA Professional Services, Inc.

ORCHARD AVENUE EXTENSION
VILLAGE OF BIRCHWOOD
WASHBURN COUNTY, WI

CROSS SECTIONS

PROJECT NO.
R00525051
SHEET
CS6

ENGINEERING | ARCHITECTURE | SURVEYING
PLANNING | ENVIRONMENTAL
11 E Marshall Street, Rice Lake WI 54868
(715) 234-1009 www.msa-ps.com
© MSA Professional Services, Inc.

ORCHARD AVENUE EXTENSION
VILLAGE OF BIRCHWOOD
WASHBURN COUNTY, WI

CROSS SECTIONS

PROJECT NO.
R00525051
SHEET
CS6