



































SURVEY MONUMENTS

	BENCH MARK
	FOUND CIM
	FOUND CPNT.
	FOUND JLM
	FOUND LATH
	FOUND PIPE
	FOUND READING
	STAKED CIM
	STAKED CPNT.
	STAKED JLM
	STAKED PIPE










EXISTING TOPO SYMBOLS

	AC UNIT
	FENCE POST
	FLAG POLE
	GUARD POST
	GUY ANCHOR
	GUY POLE
	HANDICAP SYMBOL
	MAILBOX
	SHRUB
	SIGN DOUBLE POST
	SIGN SINGLE POST
	TREE CONIFER
	TREE DECIDUOUS
	TREE STUMP
	TV DISH
	WETLAND SYMBOL
	YARD LIGHT



















EXISTING UTILITY MUNICIPAL SYMBOLS

	APRON
	LIFT STATION
	SANITARY CLEANOUT
	SANITARY MANHOLE
	STORM CATCH BASIN
	STORM INLET










EXISTING UTILITY MUNICIPAL SYMBOLS (cont.)

	STORM MANHOLE
	WATER CURB STOP
	WATER HANDHOLE
	WATER HYDRANT
	WATER MANHOLE
	WATER METER
	WATER VALVE
	WATER WELL
	UTILITY SIZE & TYPE





















EXISTING UTILITY PRIVATE SYMBOLS

	ELEC GROUND LIGHT
	ELEC HANDHOLE
	ELEC LIGHT POLE
	ELEC MANHOLE
	ELEC METER
	ELEC PEDESTAL
	ELEC POLE
	ELEC SIGNAL
	ELEC TRANSFORMER BOX
	GAS METER
	GAS VALVE
	LP TANK
	TELE HANDHOLE
	TELE MANHOLE
	TELE PEDESTAL
	TELE POLE
	TV HANDHOLE
	TV PEDESTAL

SOIL BORING SYMBOLS

	LASER-INDUCED FLUORESCENCE BORING
	LYSIMETER
	MONITOR WELL
	PERC TEST
	PIEZOMETER
	RECOVERY WELL
	SOIL BORING
	SOIL VAPOR POINT
	VAPOR SURVEY POINT



PROPOSED UTILITY MUNICIPAL SYMBOLS

	APRON PROPOSED
	SANITARY CLEANOUT PROPOSED
	SANITARY LIFT STATION PROPOSED
	SANITARY LIFT STATION VALVE MANHOLE PROPOSED
	SANITARY MANHOLE PROPOSED
	SANITARY PLUG PROPOSED
	STORM CATCH BASIN PROPOSED
	STORM MANHOLE PROPOSED
	WATER 11 1/4° BEND PROPOSED
	WATER 22 1/2° BEND PROPOSED
	WATER 45° BEND PROPOSED
	WATER 90° BEND PROPOSED
	WATER CAP PROPOSED
	WATER CROSS PROPOSED
	WATER CURB STOP PROPOSED
	WATER HYDRANT PROPOSED
	WATER REDUCER PROPOSED
	WATER SLEEVE PROPOSED
	WATER TEE PROPOSED
	WATER VALVE PROPOSED






PROPOSED UTILITY PRIVATE SYMBOLS

	ELEC LIGHT POLE PROPOSED
---	--------------------------

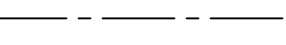

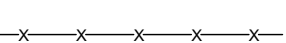
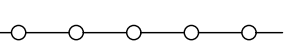
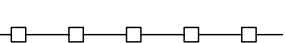


















EROSION CONTROL SYMBOLS

	SURFACE DRAINAGE ARROW
	STORM DRAIN INLET PROTECTION

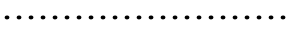
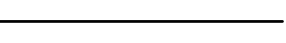
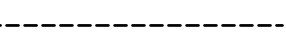
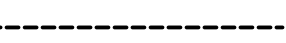
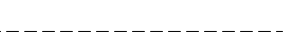
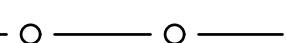
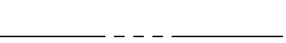

TRAFFIC CONTROL DEVICES & SYMBOLS

	TRAFFIC CONTROL SIGN (1 POST)
	TRAFFIC CONTROL SIGN (2 POST)
	TYPE III BARRICADE
	DRUM CHANNELIZER
	FLASHING ARROW OR MESSAGE BOARD

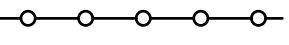
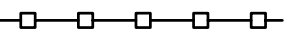
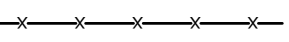
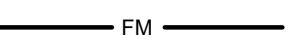
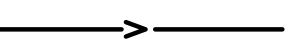


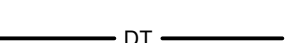


EXISTING TOPOGRAPHIC LINES

	CENTER LINE
	EDGE OF WOODS
	FENCE BARB WIRE
	FENCE CHAIN LINK
	FENCE WOOD
	FORCEMAIN
	OVERHEAD CABLE TV
	OVERHEAD ELECTRIC
	OVERHEAD TELE
	RAILROAD
	RETAINING WALL
	SANITARY SEWER
	SANITARY SEWER SERVICE
	STORM SEWER
	STORM SEWER DRAIN TILE
	UNDERGROUND CABLE TV
	UNDERGROUND ELECTRIC
	UNDERGROUND FIBER OPTIC
	UNDERGROUND GAS
	UNDERGROUND TELE
	WATERMAIN
	WATERMAIN SERVICE
	WETLAND EDGE

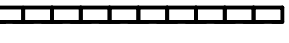
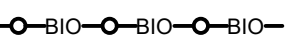
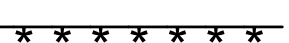
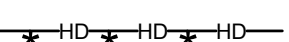
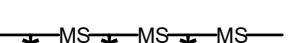


R/W, LOT & EASEMENTS LINES

	BUILDING SETBACK LINE
	LOT LINE PROPOSED
	EASEMENT LINE
	EASEMENT LINE PROPOSED
	LOT LINE
	MNDOT CONTROLLED ACCESS LINE
	RIGHT OF WAY EXISTING
	RIGHT OF WAY PROPOSED

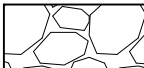

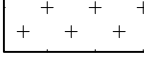





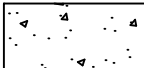
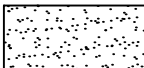

PROPOSED CONSTRUCTION LINES

	FENCE CHAIN LINK PROPOSED
	FENCE WOOD PROPOSED
	FENCE BARB WIRE PROPOSED
	FORCEMAIN PROPOSED
	SANITARY SEWER PROPOSED
	SANITARY SERVICE PROPOSED
	STORM SEWER PROPOSED
	STORM SEWER DRAIN TILE PROPOSED
	WATERMAIN PROPOSED
	WATERMAIN SERVICE PROPOSED

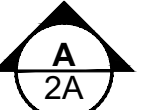
EROSION CONTROL LINES

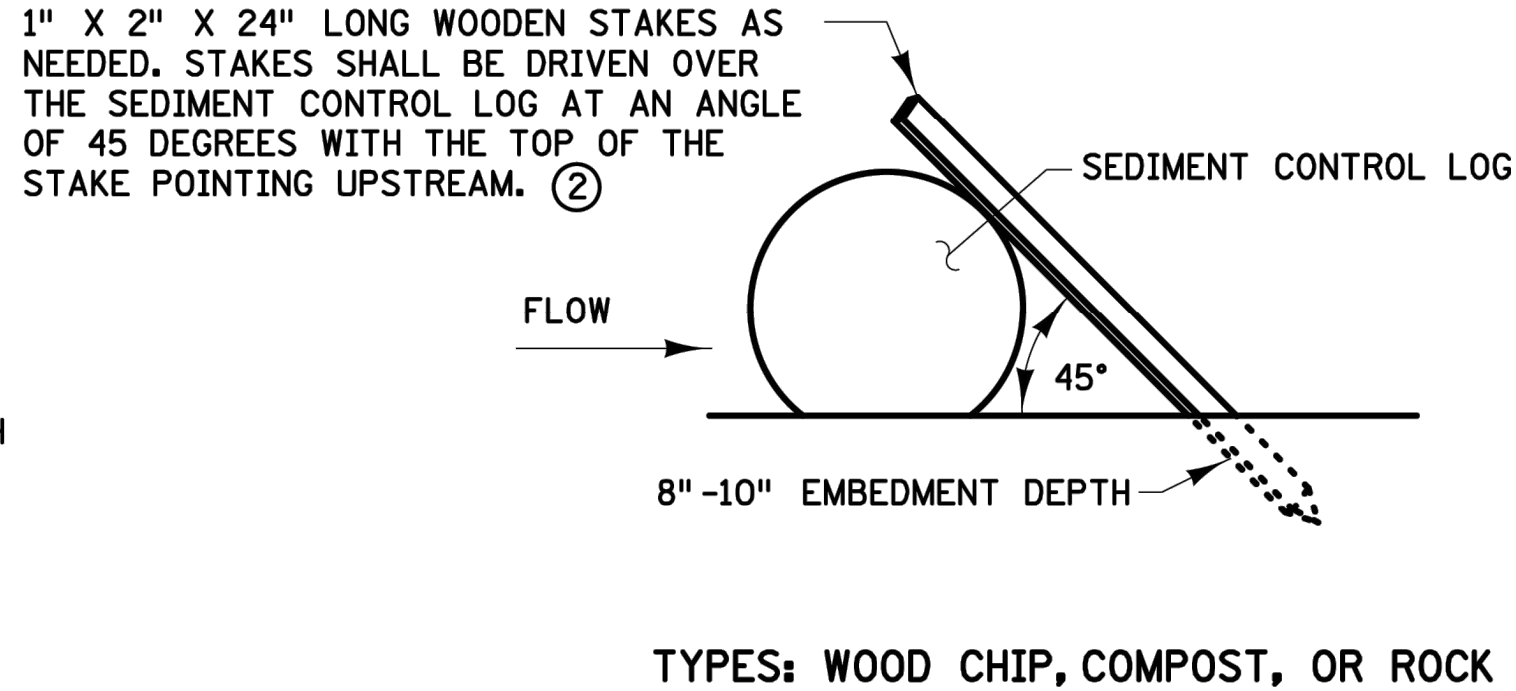
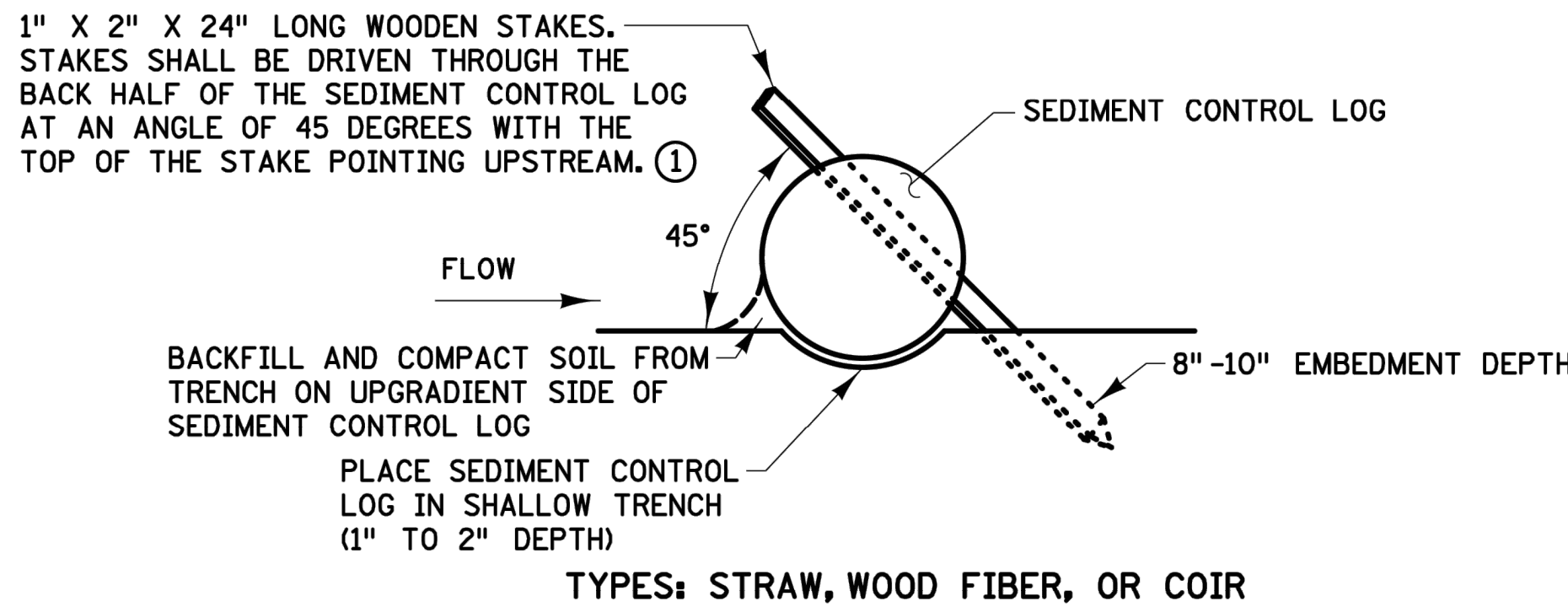
	BALE CHECK
	BIO ROLL
	SILT FENCE
	SILT FENCE TYPE HEAVY DUTY
	SILT FENCE TYPE MACHINE SLICED
	SILT FENCE TYPE PREASSEMBLED
	FLOTATION SILT CURTAIN

HATCH PATTERN AND SHADING LEGEND

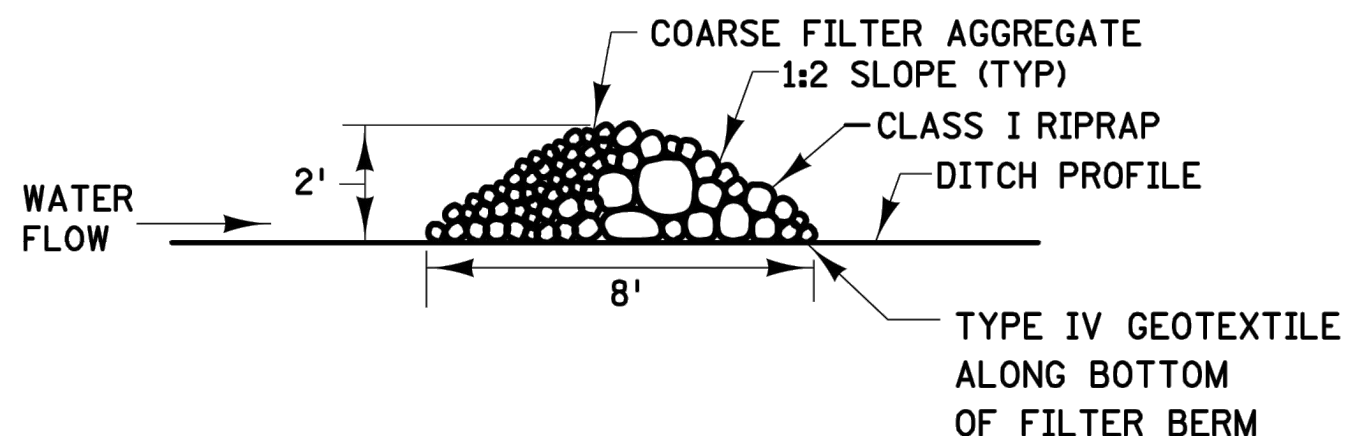
	RANDOM RIPRAP
	SOD
	SEED
	HYDRAULIC STABILIZER
	EROSION CONTROL BLANKET
	TEMP. ROCK CONSTRUCTION ENTRANCE
	BUILDING WALL HATCH
	BITUMINOUS SURFACE
	CONCRETE SURFACE
	GRAVEL SURFACE
	EASEMENT PATTERN

DOCUMENTATION SYMBOLS

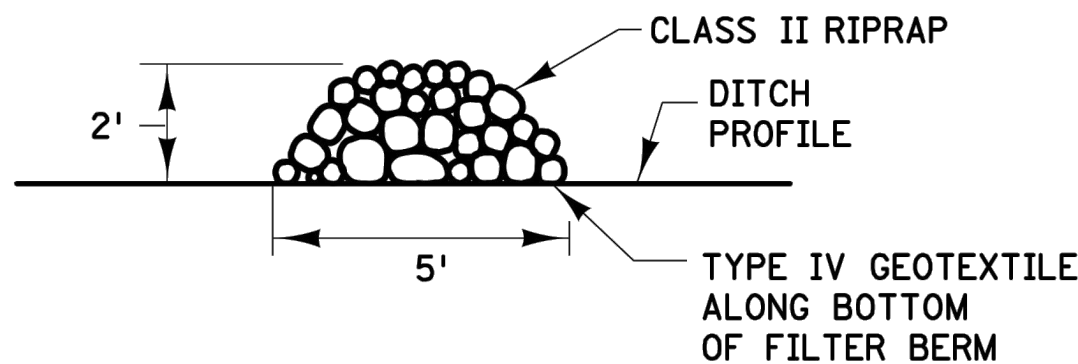
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SEDIMENT CONTROL LOGS

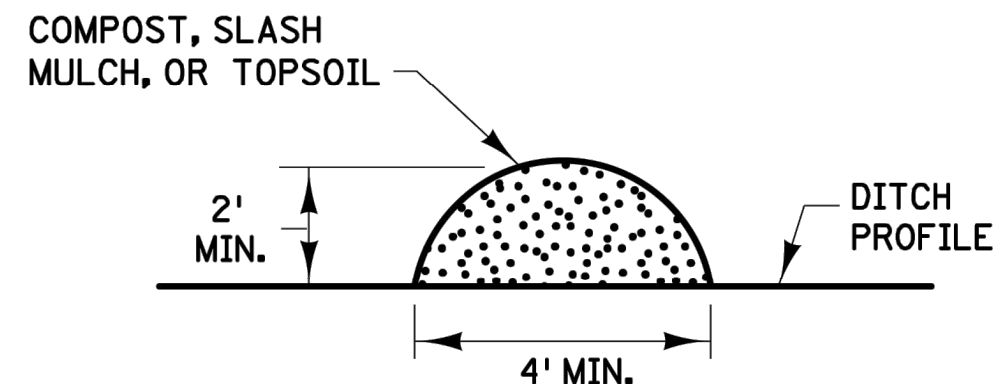


TYPE 3 (ROCK WEEPER)

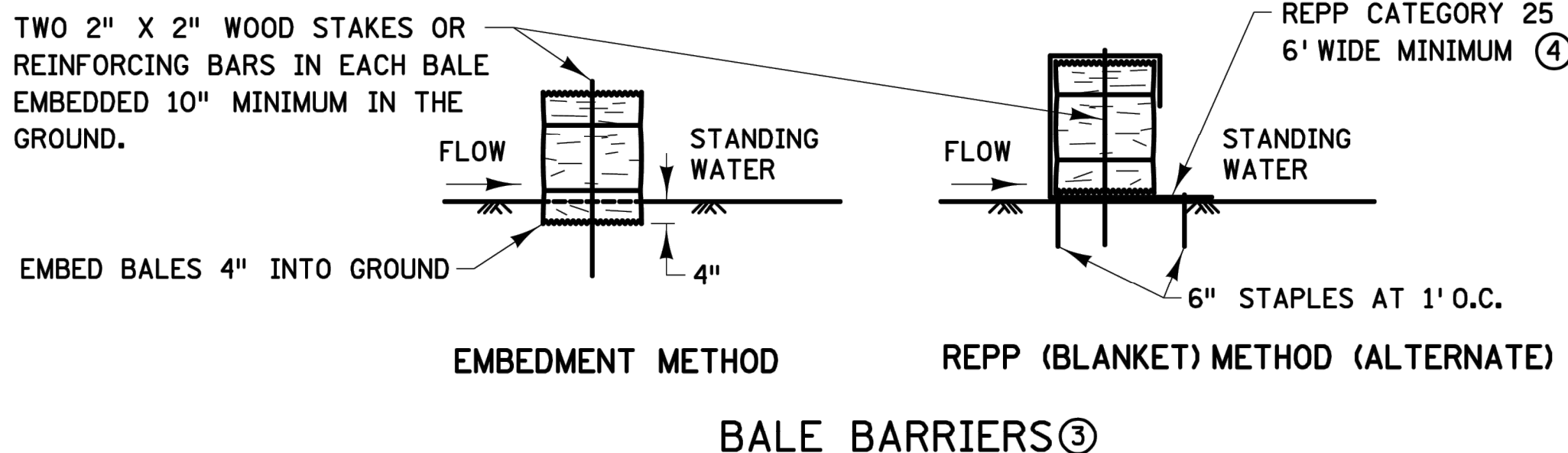


TYPE 5 (ROCK)

FILTER BERMS



TYPE 1 (COMPOST), TYPE 2 (SLASH MULCH), OR TYPE 4 (TOPSOIL)



NOTES:

REPP = ROLLED EROSION PREVENTION PRODUCT.
SEE SPECS. 2573, 3149, 3874, 3882, 3885, 3886, AND 3897.

- ① SPACE BETWEEN STAKES SHALL BE A MAXIMUM OF 1' FOR DITCH CHECKS OR 2' FOR OTHER APPLICATIONS.
- ② PLACE STAKES AS NEEDED TO PREVENT MOVEMENT OF SEDIMENT CONTROL LOGS PLACED ON SLOPES OR AS NEEDED DUE TO OTHER FACTORS. STAKES SHALL BE INCIDENTAL.
- ③ TO BE USED FOR CRITICAL PERIMETER CONTROL AREAS WHERE STANDING WATER OCCURS (6" MAXIMUM DEPTH). BALES SHALL CONSIST OF TYPE 1 MULCH OF APPROXIMATELY 14" X 18" X 36" LONG. BALES SHALL BE PLACED ON EDGE AND BUTTED TIGHT TO ADJACENT BALES.
- ④ INSTEAD OF TRENCHING, PLACE BALE ON THE REPP (BLANKET) AND WRAP BLANKET AROUND THE BALE. PLACE STAKE THROUGH BALE AND BLANKET.

REVISION:
APPROVED: JANUARY 8, 2020
<i>Marni Karnowski</i>
MARNI KARNOWSKI
CHIEF ENVIRONMENTAL OFFICER



STANDARD PLAN 5-297.405

2 OF 8

Tom Styrbicki

THOMAS STYRBICKI

STATE DESIGN ENGINEER

APPROVED: 1-8-2020

REVISED:

STATE PROJ. NO.

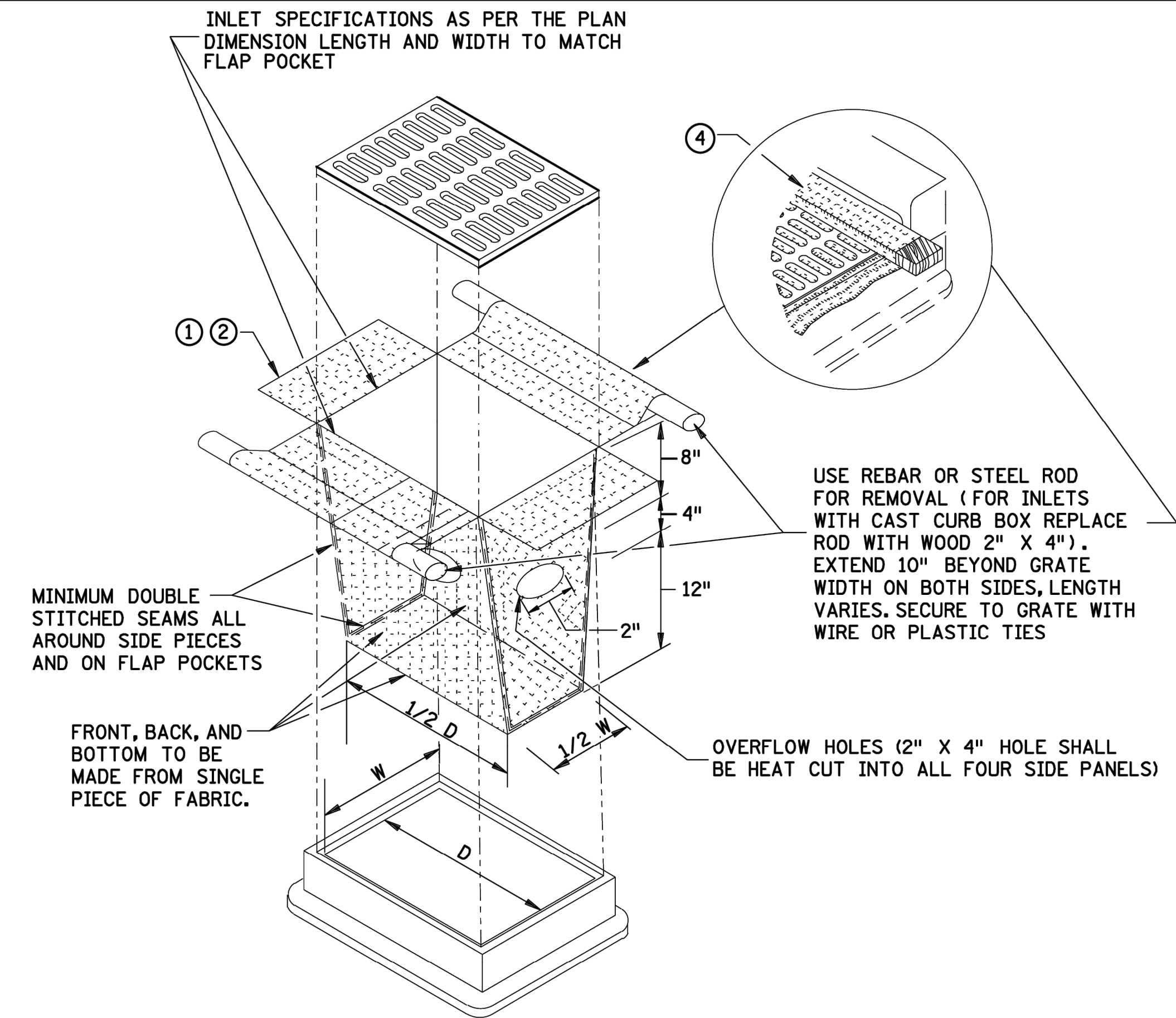
TEMPORARY SEDIMENT CONTROL

FILTER BERMS, SEDIMENT CONTROL LOGS, AND BALE BARRIERS

(T.H.) SHEET NO. OF SHEETS

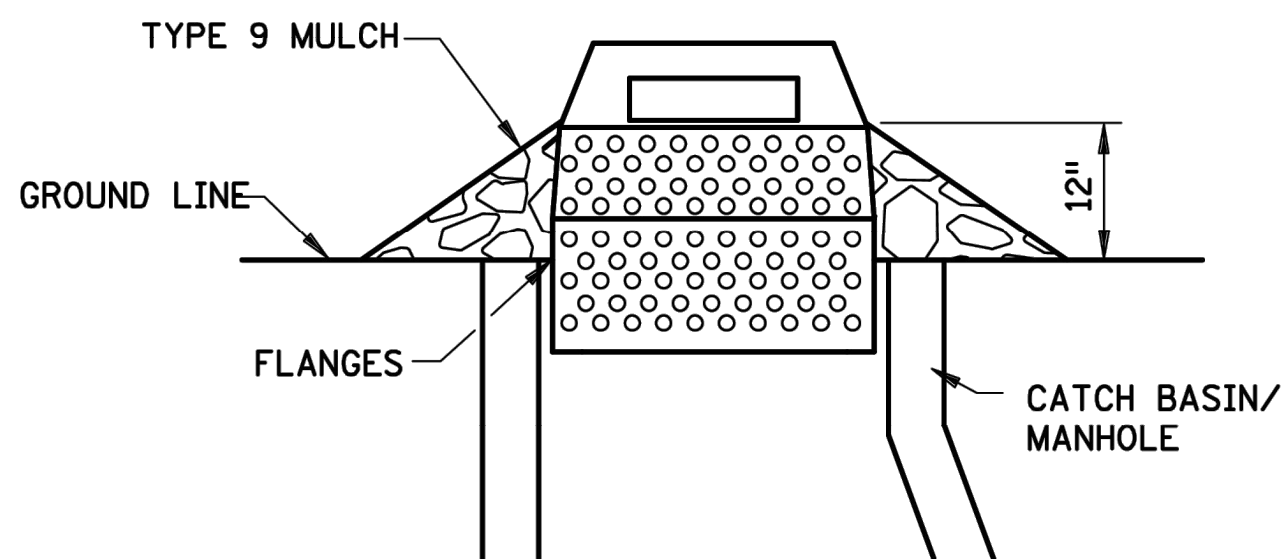
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DATE:	MAY, 2024
SCALE:	AS SHOWN
DRAWN BY:	TMR
CHECKED BY:	WW
JOB NUMBER:	2024-10685



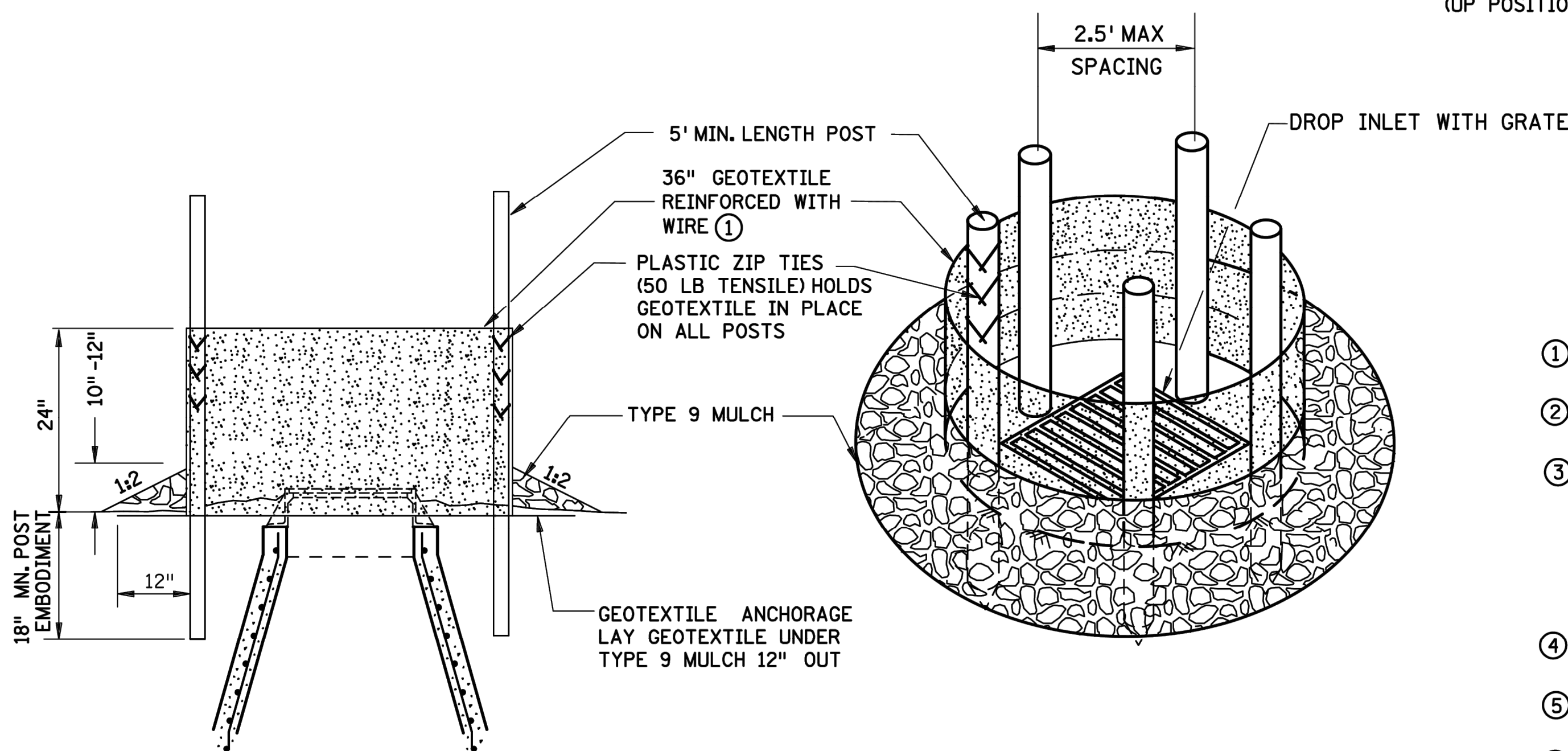
FILTER BAG INSERT ③

(CAN BE INSTALLED IN ANY INLET TYPE
WITH OR WITHOUT A CURB BOX)



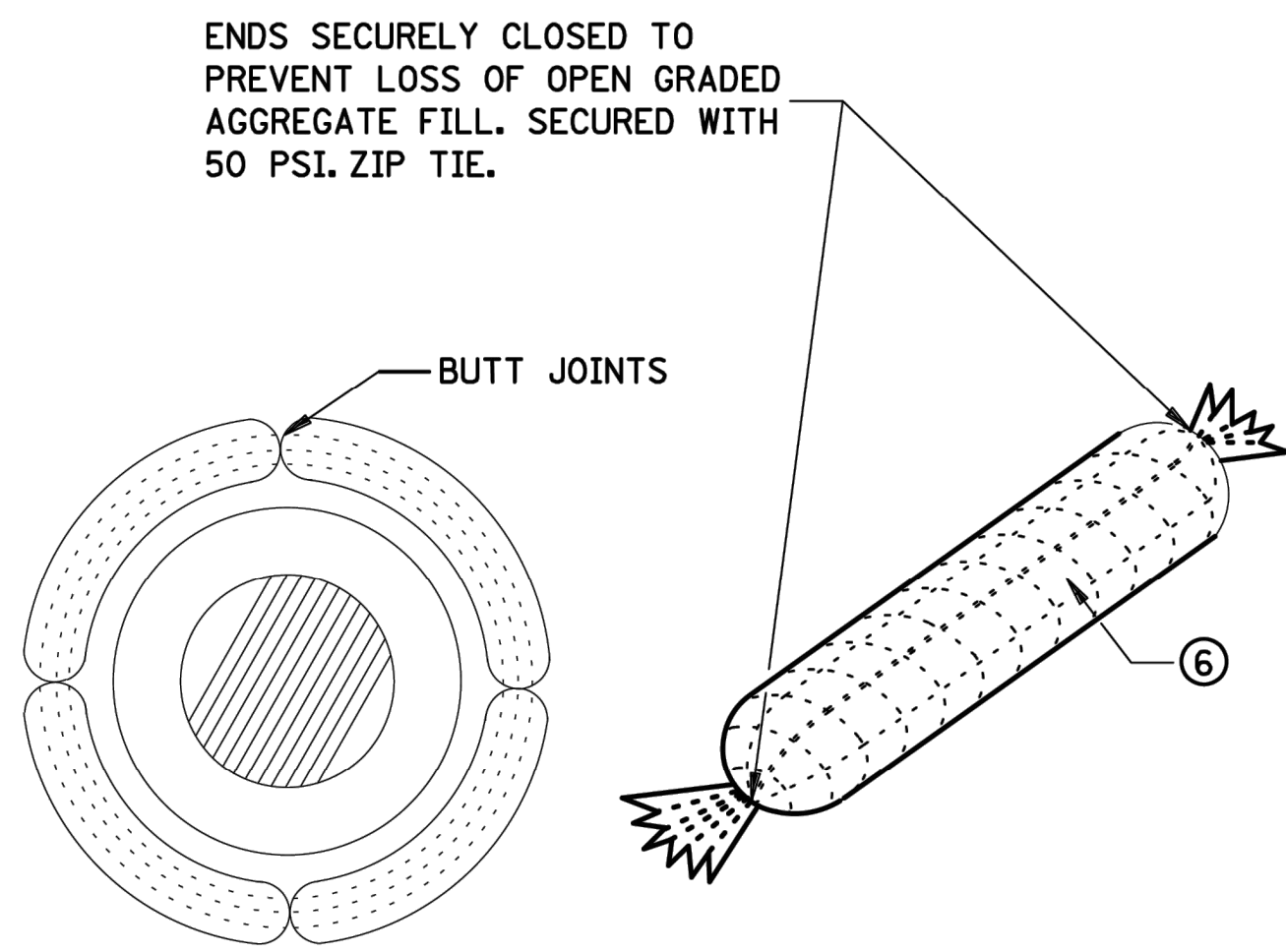
SEDIMENT CONTROL INLET HAT

NOTE:
THE SEDIMENT CONTROL BARRIER SHALL BE A METAL
OR PLASTIC/POLYETHYLENE RISER SIZED TO FIT INSIDE
THE CATCH BASIN/MANHOLE; HAVE PERFORATIONS TO ALLOW
FOR WATER INFILTRATION; HAVE AN OVERFLOW OPENING,
FLANGES AND A LID/COVER.

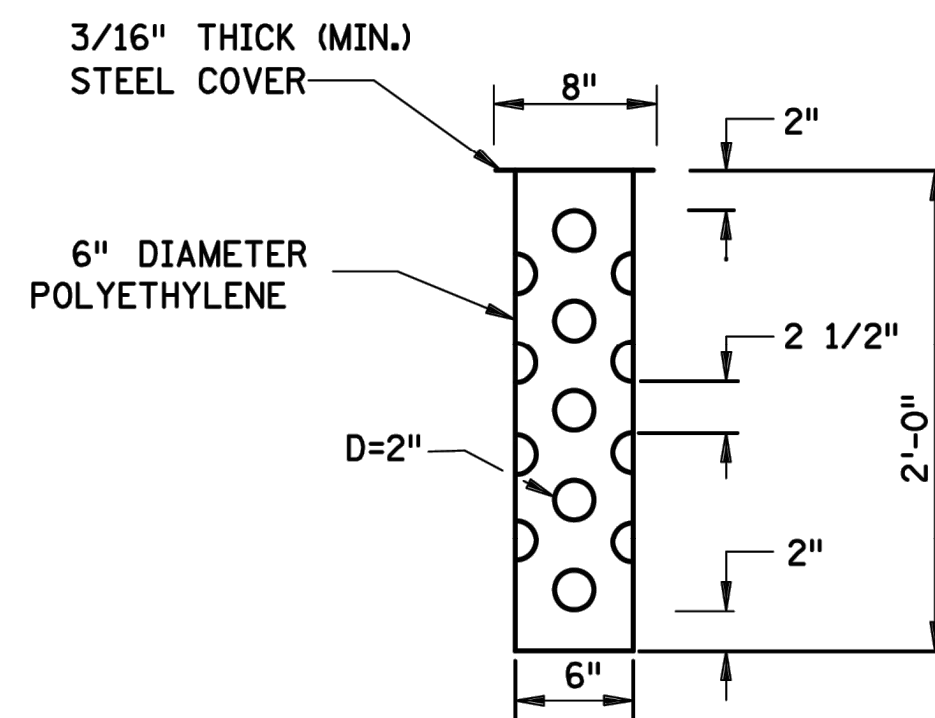


SILT FENCE RING AND ROCK FILTER BERM

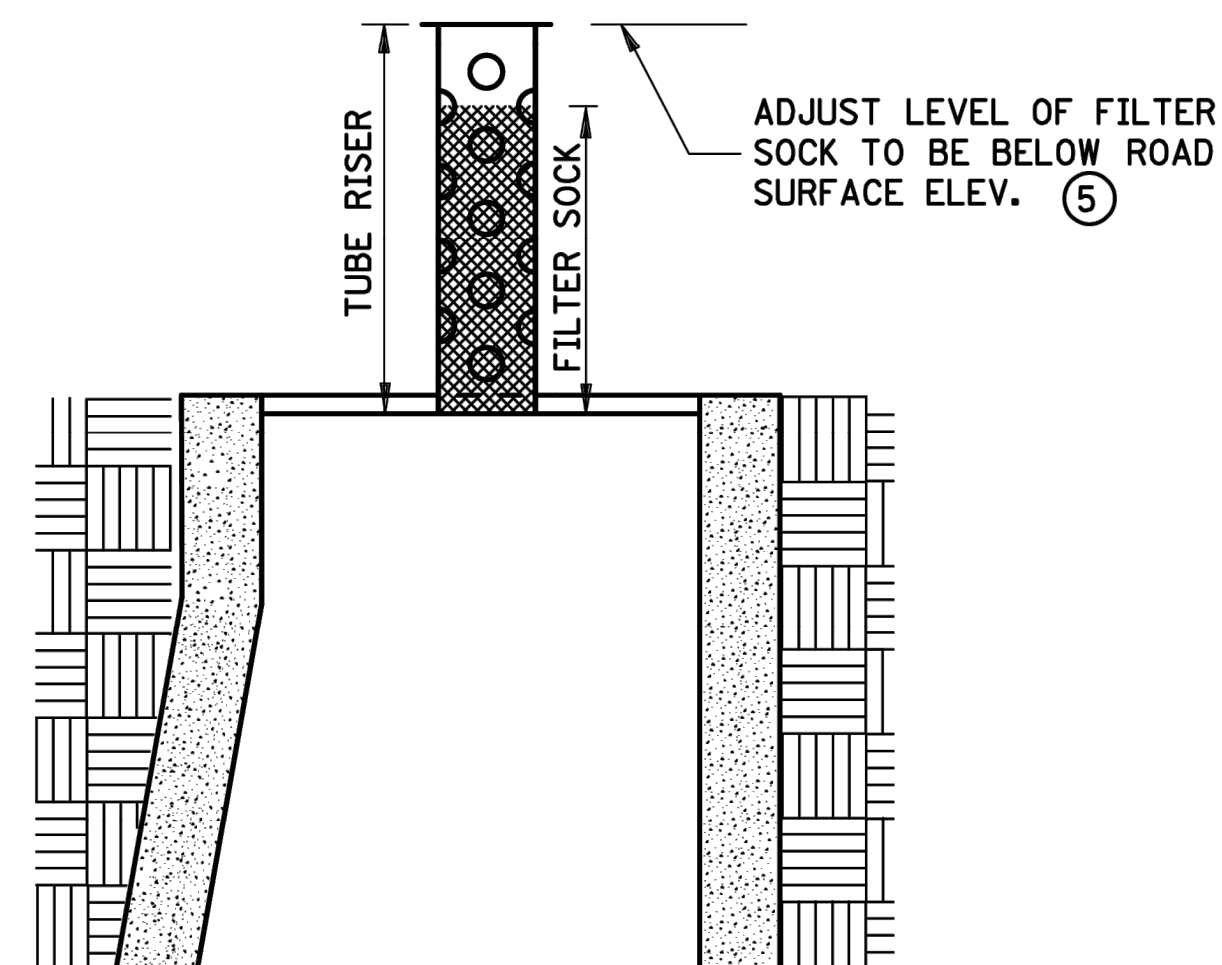
USE WHERE INLET DRAINS IN AN AREA WITH SLOPES AT 1:3 OR LESS



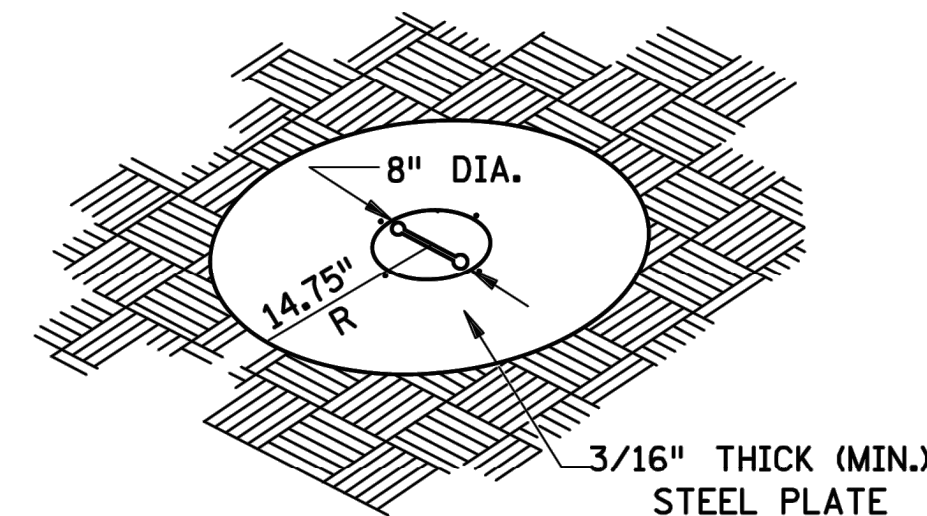
ROCK LOG/COMPOST LOG



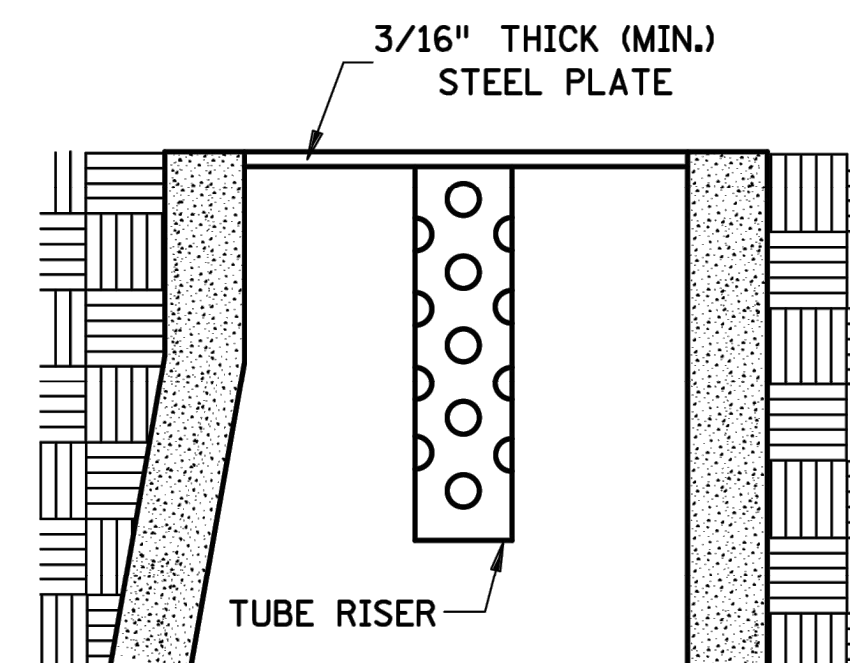
TUBE RISER



SECTION (UP POSITION)



PERSPECTIVE VIEW



SECTION (DOWN POSITION)

POP-UP HEAD

NOTES:

SEE SPECS. 2573, 3137, & 3886.

DEVICES MUST BE ADJUSTED ACCORDINGLY AS TO NOT CAUSE FLOODING ON ROADWAY
THAT WOULD IMPEED TRAFFIC FLOW.

- ① ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH
DIRECTIONS, MEETING SPEC. 3886.
- ② FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED SHALL EXTEND A MINIMUM OF
10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ③ INSTALLATION NOTES:
DO NOT PLACE FILTER BAG INSERT IN INLETS SHALLOWER THAN 30 INCHES,
MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. THE
PLACED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE OF 3 INCHES BETWEEN
THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES.
WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES,
TO ACHIEVE THE 3 INCH SIDE CLEARANCE.
- ④ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2 INCH X 4 INCH OR USE A
ROCK SOCK OR SAND BAGS IN PLACE OF THE FLAP POCKETS.
- ⑤ SOCK HEIGHT MUST NOT BE SO HIGH AS TO SLOW DOWN WATER FILTRATION TO CAUSE
FLOODING OF THE ROADWAY.
- ⑥ GEOTEXTILE SOCK BETWEEN 4-10 FEET LONG AND 4-6 INCH DIAMETER. SEAM TO BE
JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR PROVIDE A
HEAT BONDED SEAM (OR APPROVED EQUIVALENT). FILL ROCK LOG WITH OPEN GRADED
AGGREGATE CONSISTING OF SOUND DURABLE PARTICLES OF COARSE AGGREGATE
CONFORMING TO SPEC. 3137 TABLE 3137-1; CA-3 GRADATION.

REVISION:
APPROVED: 2-28-2017
 CHIEF ENVIRONMENTAL OFFICER



STANDARD PLAN 5-297.405

4 OF 8

APPROVED: 2-28-2017
REVISED:

STATE DESIGN ENGINEER

STATE PROJ. NO.

TEMPORARY SEDIMENT CONTROL STORM DRAIN INLET PROTECTION

(T.H.) SHEET NO. OF SHEETS

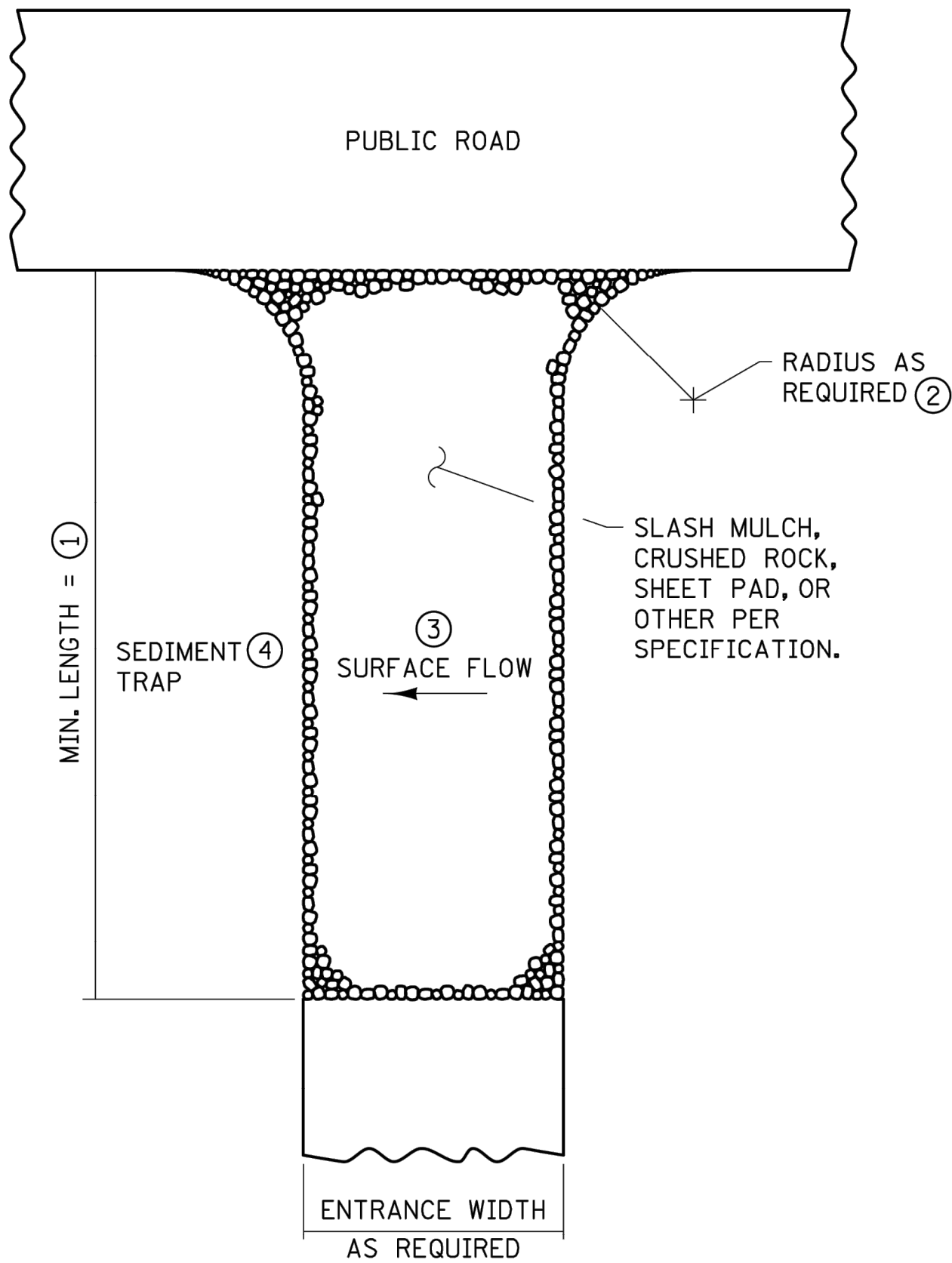
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DATE:	MAY 2024
SCALE:	AS SHOWN
DRAWN BY:	TMW
CHECKED BY:	WW
JOB NUMBER:	2024-10685

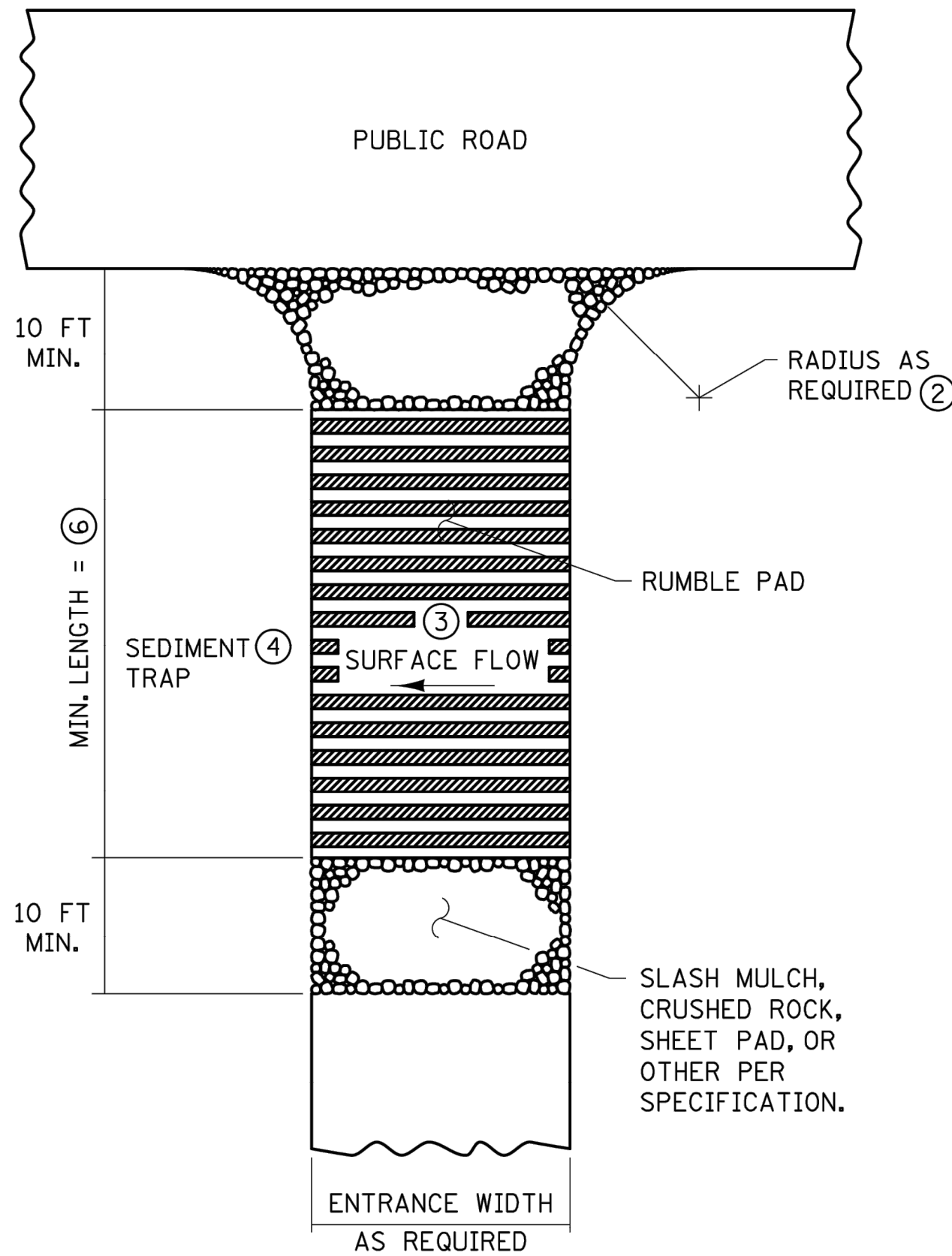
HERITAGE CHURCH PARKING LOT ADDITION
HERITAGE CHURCH
13242 BERRYWOOD DR. BAXTER, MN 56425

SWPPP DETAILS

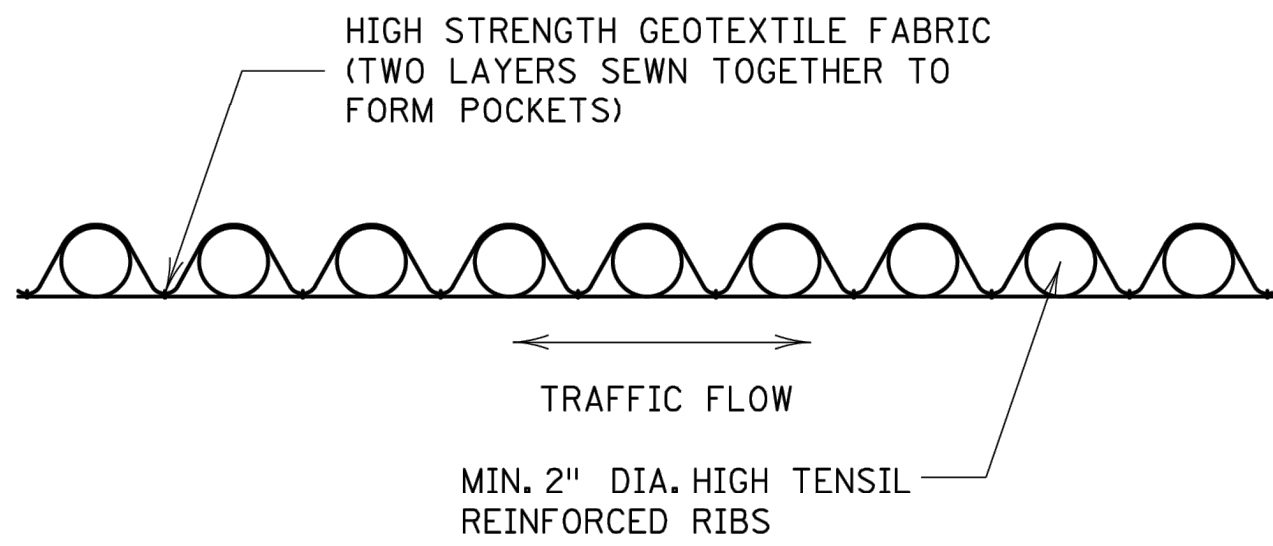
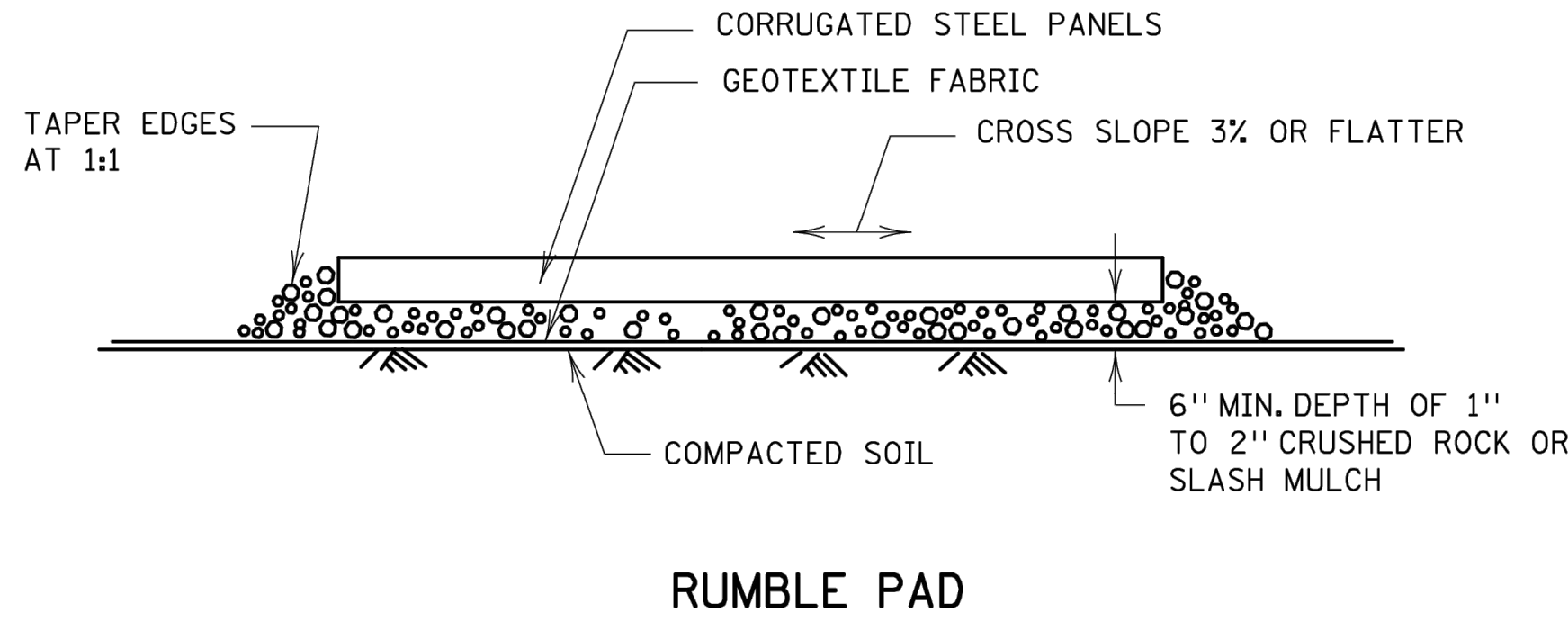
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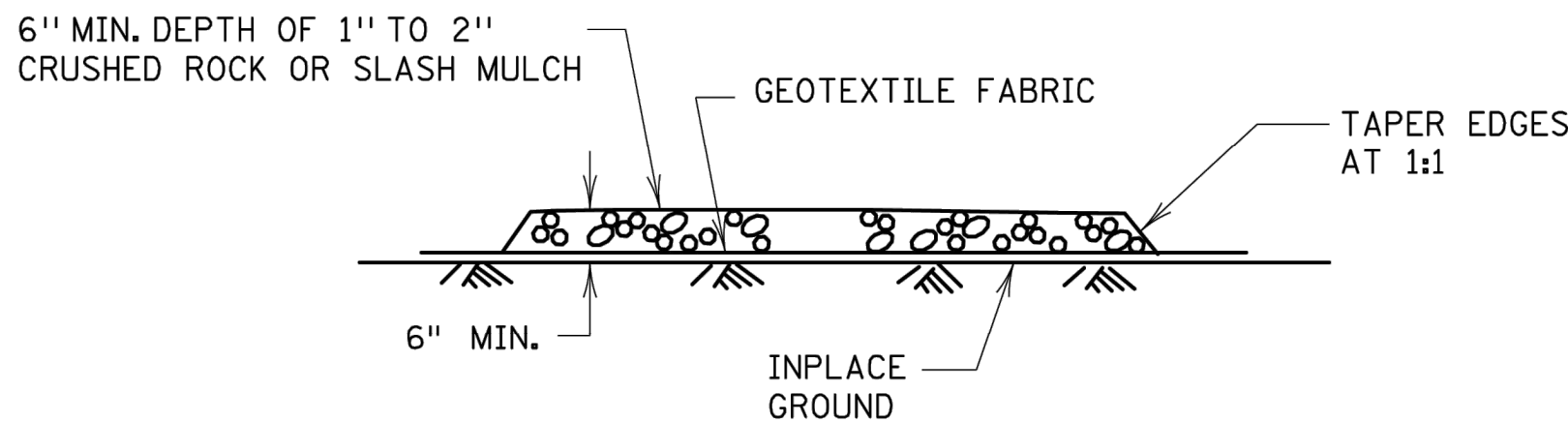
SLASH MULCH, CRUSHED ROCK, OR SHEET PAD CONSTRUCTION EXIT ⑤⑦



RUMBLE PAD CONSTRUCTION EXIT ⑤⑦



SHEET PAD



SLASH MULCH OR CRUSHED ROCK

NOTES:

SEE SPECS. 2573 & 3882.

- ① MINIMUM LENGTH SHALL BE THE GREATER OF 50 FEET OR A LENGTH SUFFICIENT TO ALLOW A MINIMUM OF 5 TIRE ROTATIONS ON THE PROVIDED PAD. MINIMUM LENGTH SHALL BE CALCULATED USING THE LARGEST TIRE WHICH WILL BE USED IN TYPICAL OPERATIONS.
- ② PROVIDE RADIUS OR WIDEN PAD SUFFICIENTLY TO PREVENT VEHICLE TIRES FROM TRACKING OFF OF PAD WHEN LEAVING SITE.
- ③ IF RUNOFF FROM DISTURBED AREAS FLOWS TOWARD CONSTRUCTION EXITS, PREVENT RUNOFF FROM DRAINING DIRECTLY TO PUBLIC ROAD OVER CONSTRUCTION EXIT BY CROWNING THE EXIT OR SLOPING TO ONE SIDE. IF SURFACE GRADING IS INSUFFICIENT, PROVIDE OTHER MEANS OF INTERCEPTING RUNOFF.
- ④ IF RUNOFF FROM CONSTRUCTION EXITS WILL DRAIN OFF OF PROJECT SITE, PROVIDE SEDIMENT TRAP WITH STABILIZED OVERFLOW.
- ⑤ IF A TIRE WASH OFF IS REQUIRED THE CONSTRUCTION EXITS SHALL BE GRADED TO DRAIN THE WASH WATER TO A SEDIMENT TRAP.
- ⑥ MINIMUM LENGTH OF RUMBLE PAD SHALL BE 20 FEET, OR AS REQUIRED TO REMOVE SEDIMENT FROM TIRES. IF SIGNIFICANT SEDIMENT IS TRACKED FROM THE SITE, THE RUMBLE PAD SHALL BE LENGTHENED OR THE DESIGN MODIFIED TO PROVIDE ADDITIONAL VIBRATION. WASH-OFF LENGTH SHALL BE AS REQUIRED TO EFFECTIVELY REMOVE CONSTRUCTION SEDIMENT FROM VEHICLE TIRES.
- ⑦ MAINTENANCE OF CONSTRUCTION EXITS SHALL OCCUR WHEN THE EFFECTIVENESS OF SEDIMENT REMOVAL HAS BEEN REDUCED. MAINTENANCE SHALL CONSIST OF REMOVING SEDIMENT AND CLEANING THE MATERIALS OR PLACING ADDITIONAL MATERIAL (SLASH MULCH OR CRUSHED ROCK) OVER SEDIMENT FILLED MATERIAL TO RESTORE EFFECTIVENESS.

REVISION:
APPROVED: 2-28-2017
Chief Environmental Officer

MINNESOTA
DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.405 5 OF 8
APPROVED: 2-28-2017
REVIS: 2-28-2017
STATE PROJ. NO. (T.H.)
STATE DESIGN ENGINEER

TEMPORARY SEDIMENT CONTROL
STABILIZED CONSTRUCTION EXIT

SHEET NO. OF SHEETS

WIDSETH
ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

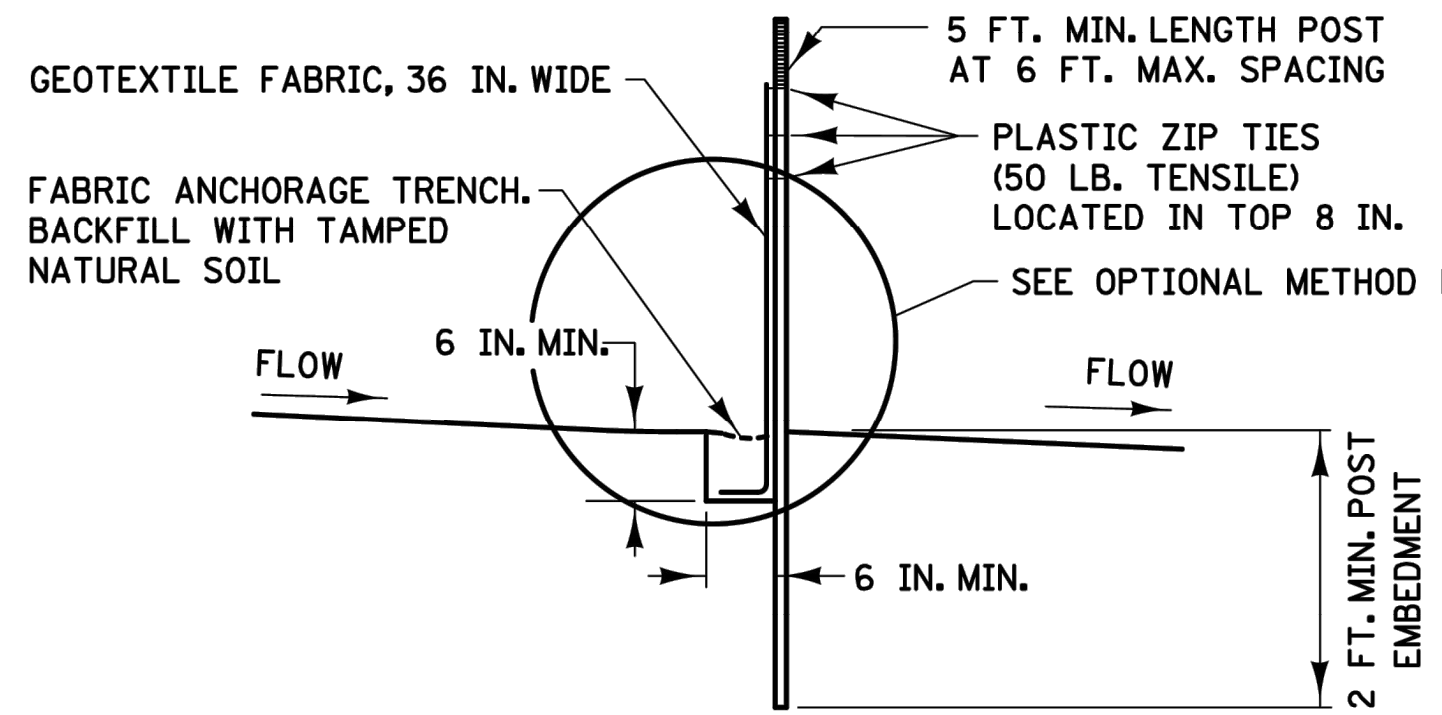
WILLIAM WESTERBERG
DATE: 06/28/2024
LIC. NO. 21874

DATE	REVISION DESCRIPTION	BY

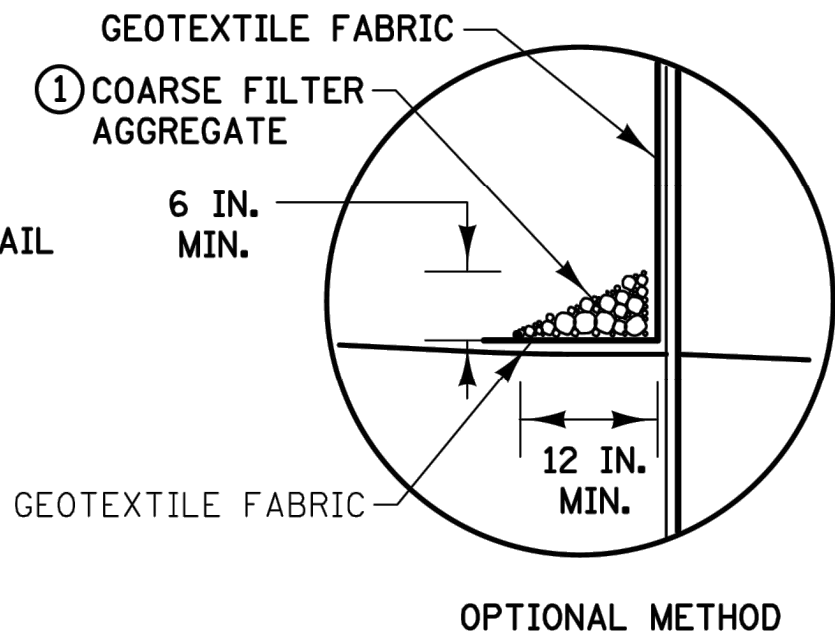
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DRAWN BY:			
CHECKED BY:			
JOB NUMBER:	2024-10685		

HERITAGE CHURCH PARKING LOT ADDITION
HERITAGE CHURCH
13242 BERRYWOOD DR. BAXTER, MN 56425
SWPPP DETAILS

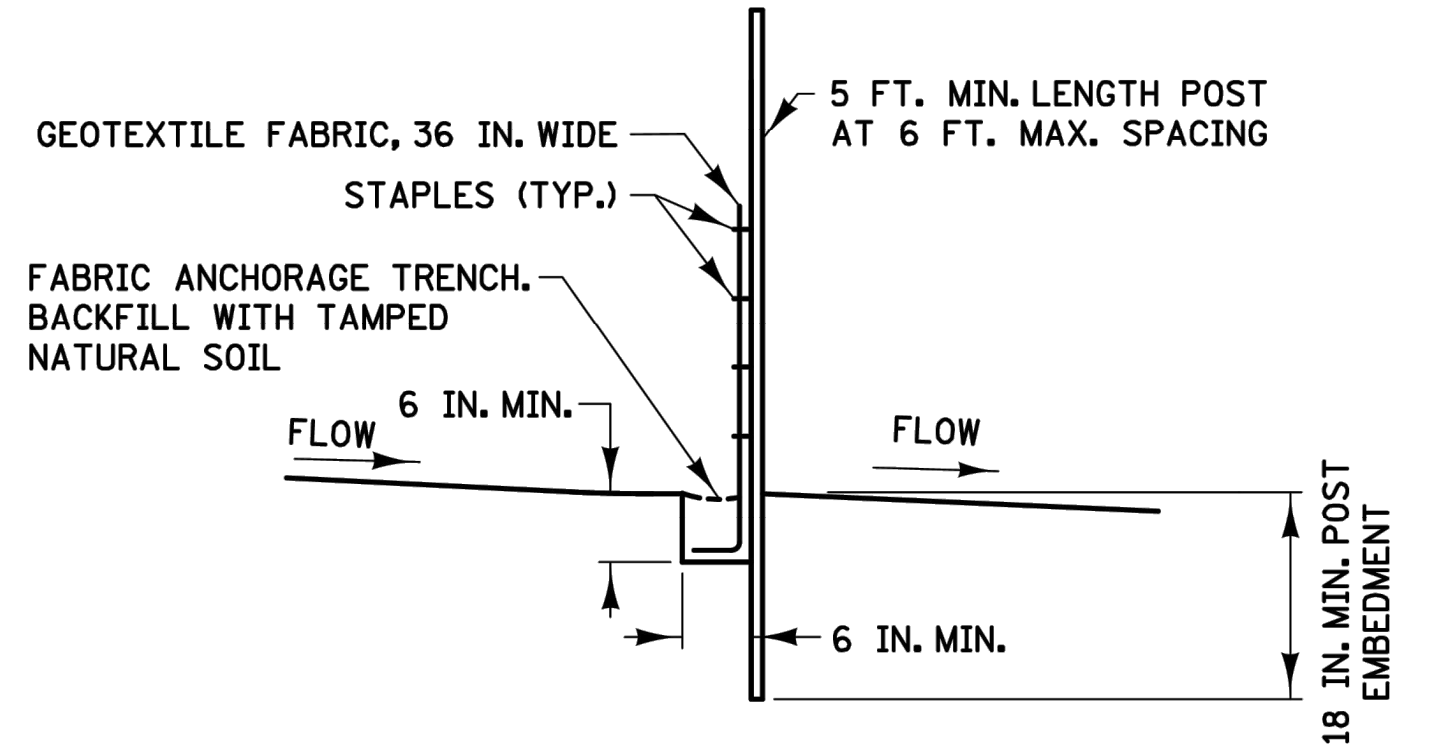
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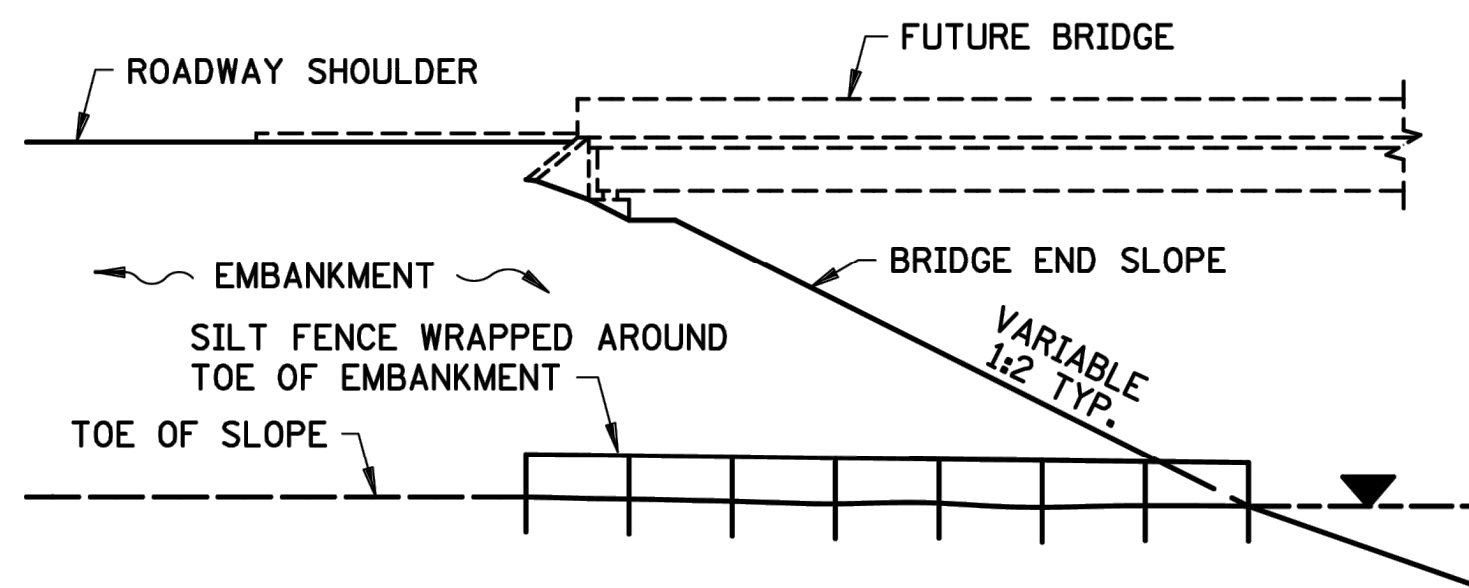
SILT FENCE TYPE HI ②
(HAND INSTALLED)



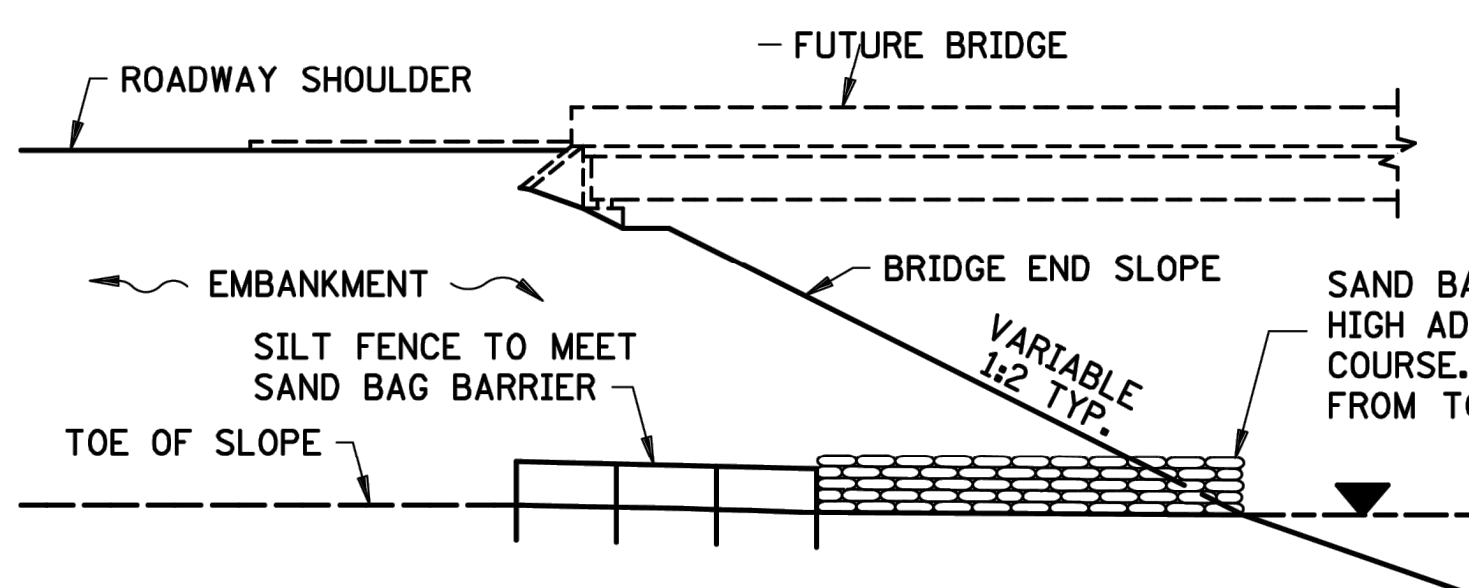
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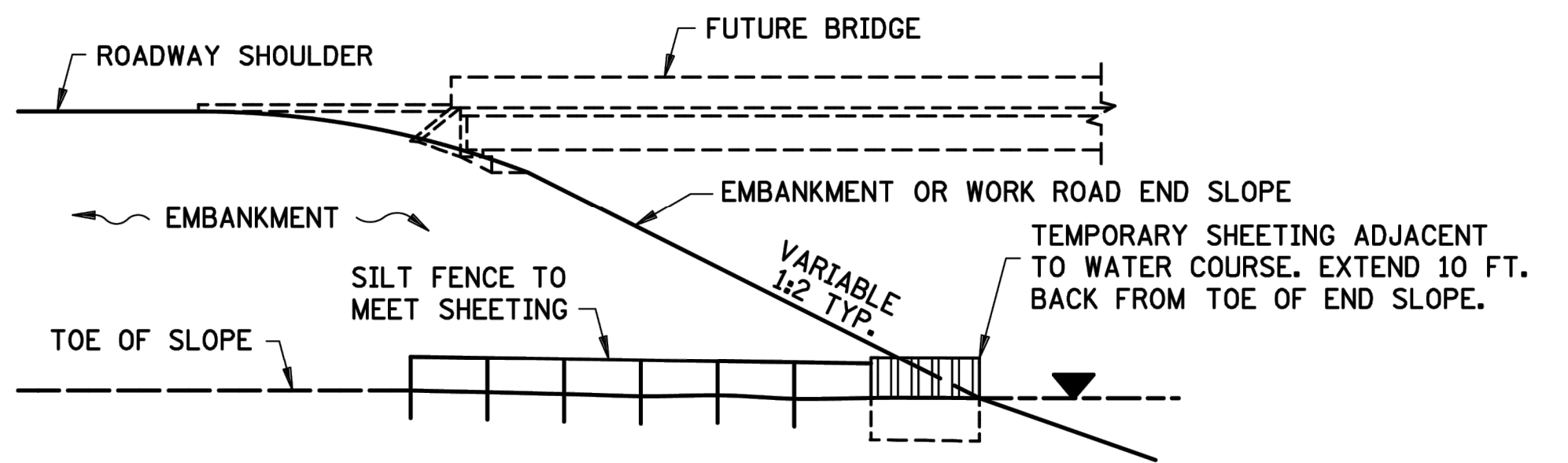
SILT FENCE TYPE PA ③
(PREASSEMBLED)



SILT FENCE ONLY ④

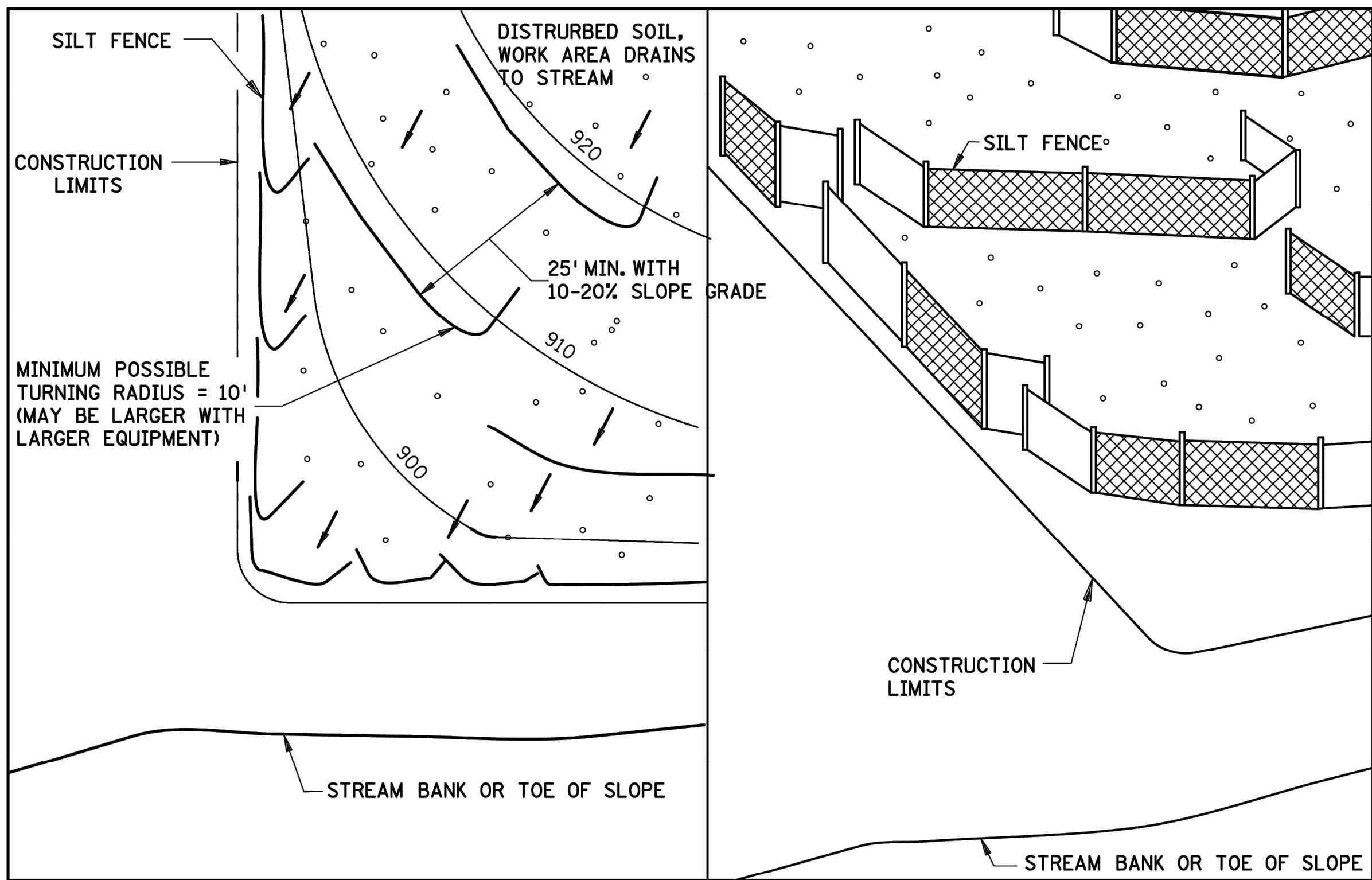


SILT FENCE WITH SAND BAGS ⑤



SILT FENCE WITH SHEETING ⑥

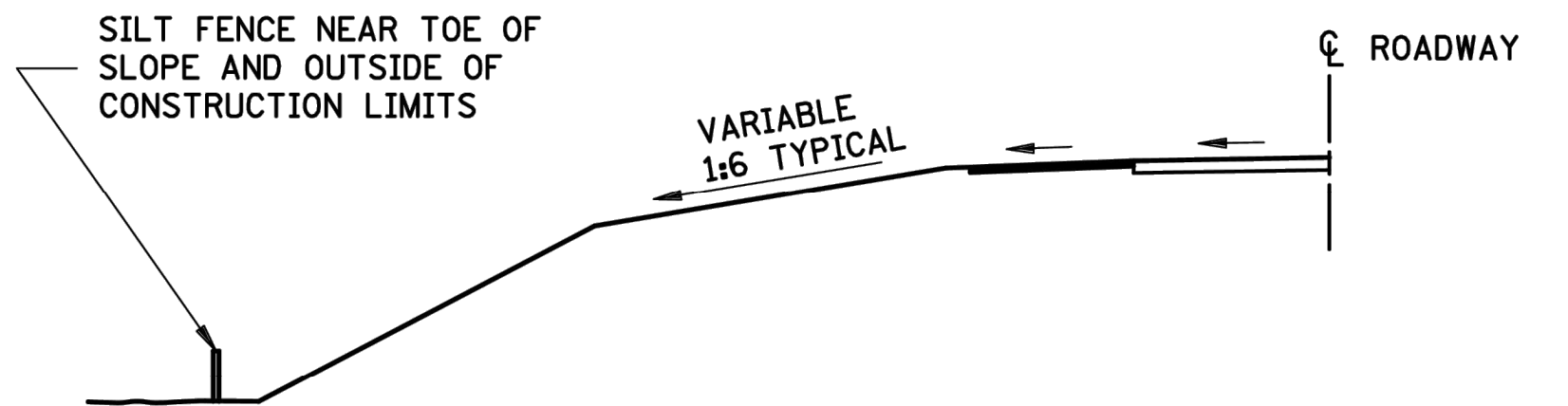
INSTALLATION AT BRIDGE EMBANKMENT ADJACENT TO WATER



PLAN VIEW

PERSPECTIVE VIEW

J-HOOK INSTALLATION



LOCATION AT TOE OF ROADWAY EMBANKMENT

NOTES:

SEE SPECS. 2573, 3149 & 3886.

- ① COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.
- ② TO PROTECT AREAS FROM SHEET FLOW. MAXIMUM CONTRIBUTING AREA: 1 ACRE.
- ③ TO PROTECT AREAS FROM SHEET FLOW. MAXIMUM CONTRIBUTING AREA: 0.25 ACRE.
- ④ WATER COURSE FLOW VELOCITY: STANDING. CONTRIBUTING SLOPE AREA: 1/2 ACRE.
- ⑤ WATER COURSE FLOW VELOCITY: 1 TO 7 FT./SEC. CONTRIBUTING SLOPE AREA: 1 ACRE.
- ⑥ WATER COURSE FLOW VELOCITY: 8 TO 15 FT./SEC. CONTRIBUTING SLOPE AREA: 3 ACRES.

REVISION:
APPROVED: 2-28-2017
CHIEF ENVIRONMENTAL OFFICER

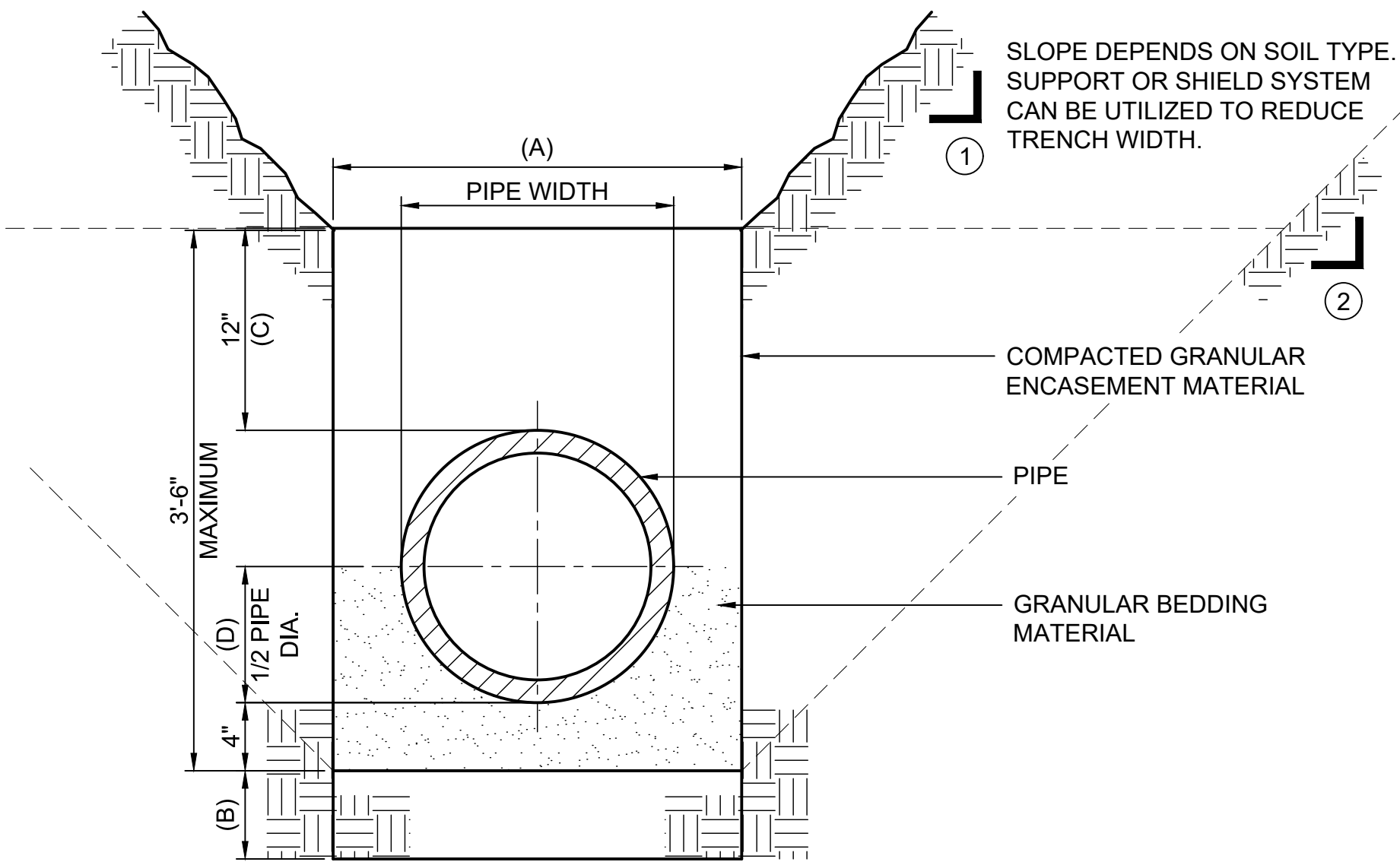
MINNESOTA
DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.405	6 OF 8
APPROVED: 2-28-2017	REVISOR:
STATE PROJ. NO.	(T.H.)

TEMPORARY SEDIMENT CONTROL

SILT FENCE

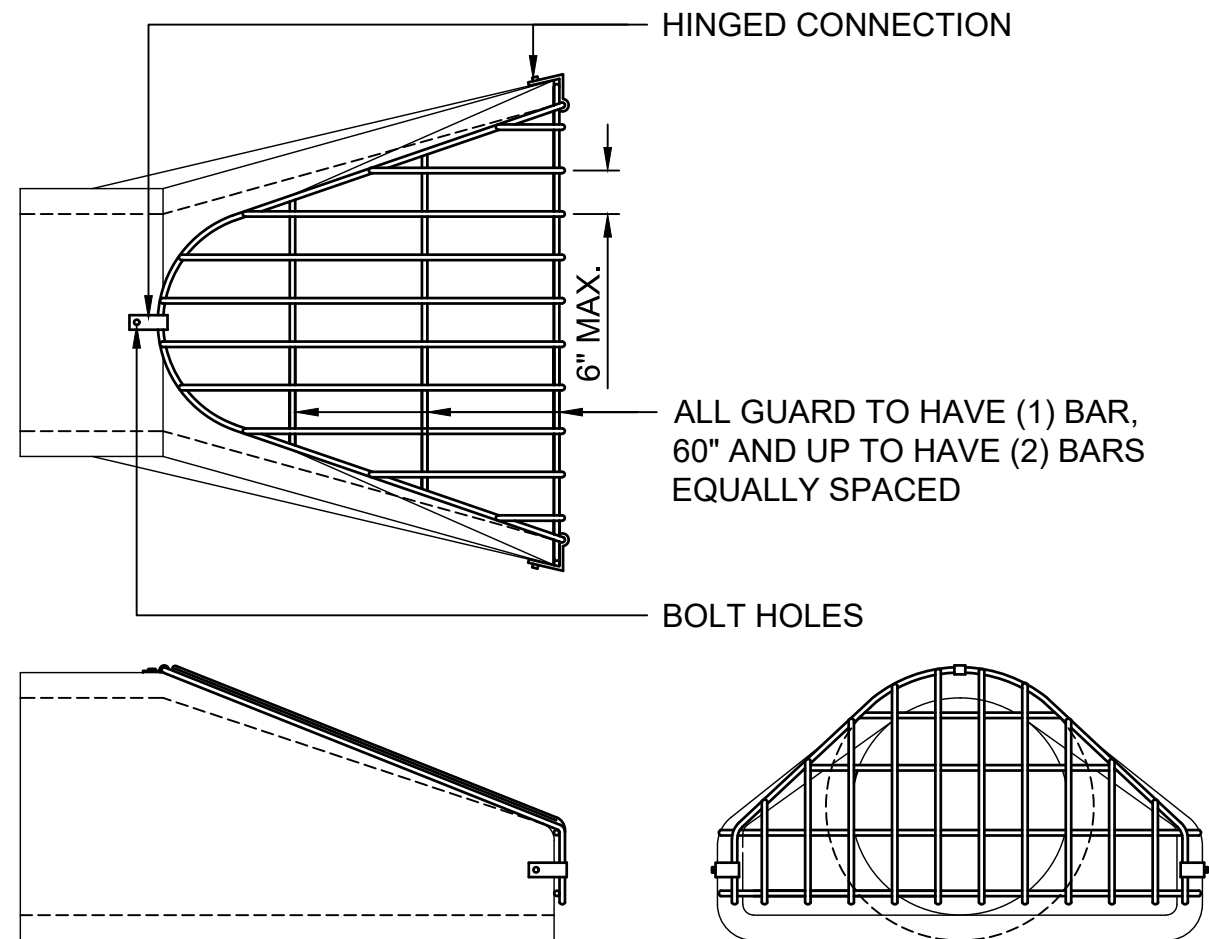
SHEET NO. OF SHEETS



NOTE:
THIS DETAIL APPLIES TO
SANITARY SEWER, STORM SEWER,
WATERMAIN, AND ALL SERVICE PIPE.

- (A) MINIMUM TRENCH WIDTH SHALL ALLOW FOR SIX INCHES CLEARANCE ON EACH SIDE OF PIPE JOINT HUB.
- (B) THE TRENCH MAY BE OVEREXCAVATED A MIN. OF 6" & BACKFILLED WITH COMPACTED GRANULAR MATERIALS WHEN ROCK, INCOMPRESSIBLE MATERIALS, OR UNSTABLE SOILS ARE ENCOUNTERED.
- (C) COMPACTED GRANULAR ENCASEMENT MATERIAL SHALL COVER THE TOP OF PIPE BY AT LEAST 12" AND EXTEND THE FULL WIDTH OF THE TRENCH OR AT LEAST 2 1/2" TIMES THE PIPE DIAMETER ON EACH SIDE OF THE PIPE.
- (D) BEDDING AND HAUNCHING MATERIAL SHALL BE PLACED AND COMPACTED TO PROVIDE FULL SUPPORT FOR THE LENGTH OF THE PIPE.

- ① 0-12' DEPTH TRENCH SLOPE DEPENDS ON SOIL TYPE.
- ② 12'-20' DEPTH TRENCH SLOPE DEPENDS ON SOIL TYPE.
- ③ 0-20' DEPTH TRENCH SUPPORT OR SHIELD SYSTEM CAN BE UTILIZED TO REDUCE TRENCH WIDTH.
- ④ 20' OR GREATER DEPTH TRENCH EXCAVATION MUST BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER. CONTRACTOR SHALL HAVE THE DESIGN COMPLETED AT HIS EXPENSE AND PROVIDE A COPY TO THE OWNER AND THE PROJECT ENGINEER (WSN).



HOT DIP GALVANIZED PER MN/DOT 3392 OR ASTM-A153

BOLT HOLES									
STANDARD DESIGN					HEAVY DESIGN				
	PIPE SIZE	HOLE DIA. REQ'D.	BOLT DIA.	BAR SIZE		PIPE SIZE	HOLE DIA. REQ'D.	BOLT DIA.	BAR SIZE
ARCH ROUND	12"-24"	3/4"	5/8"	5/8"	ARCH ROUND	12"-18"	3/4"	5/8"	3/4"
	27"-48"	7/8"	3/4"	3/4"		21"-48"	7/8"	3/4"	1"
	54"-90"	1 1/8"	1"	1"		54"-90"	1 1/8"	1"	1 1/4"
	22"-29"	3/4"	5/8"	5/8"		22"	3/4"	5/8"	3/4"
	36"-59"	7/8"	3/4"	3/4"		29"-59"	7/8"	3/4"	1"
	65"-88"	1 1/8"	1"	1"		65"-88"	1 1/8"	1"	1 1/4"
BOLT LG. = PIPE WALL THK. + 2 1/2"									

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TYPICAL PIPE BEDDING

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REVISED
--/--/----

DETAIL NO.
308A

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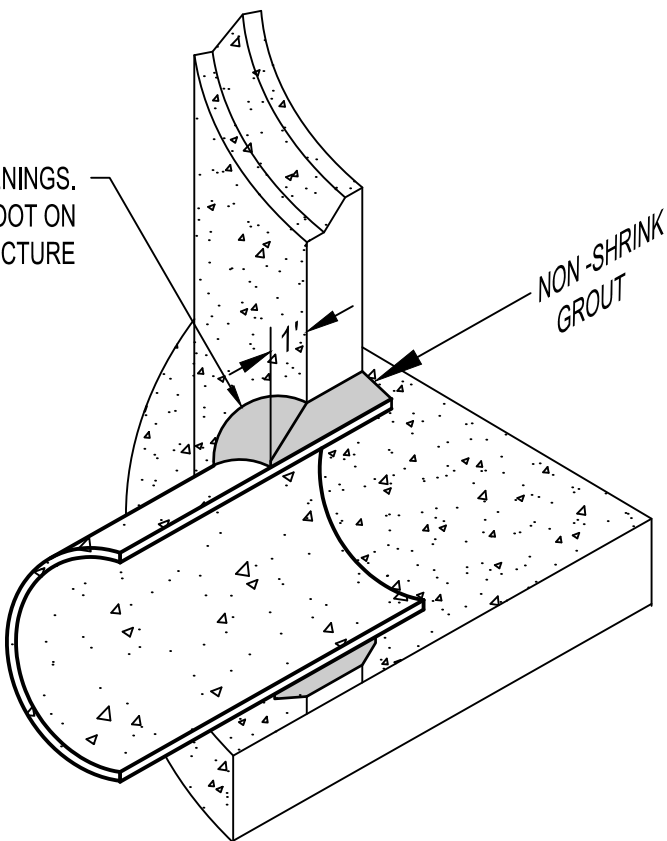
TRASH GUARD FOR CONC. FLARED ENDS

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REVISED
--/--/----

DETAIL NO.
306A

PACK GROUT AROUND ALL ANNULAR OPENINGS.
GROUT SHALL EXTEND A MINIMUM OF 1 FOOT ON
OUTSIDE OF STRUCTURE



NOTES:

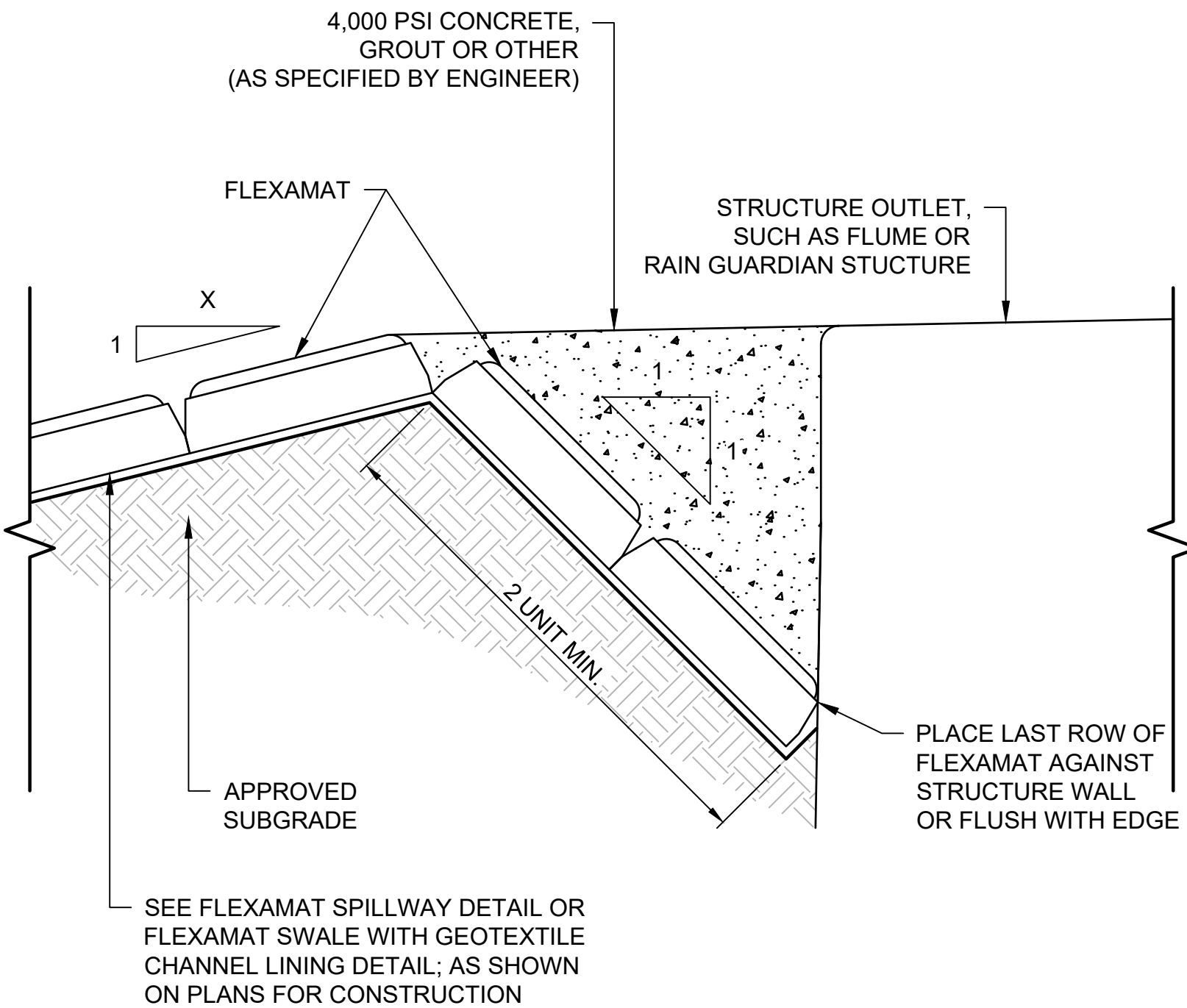
1. NON - SHRINK GROUT TO BE FROM COMMERCIAL REDI-MIX PLANT.



CITY OF BAXTER, MINNESOTA
STORM PIPE PENETRATION
PUBLIC WORKS DEPARTMENT

REV. 9-17

ST-2

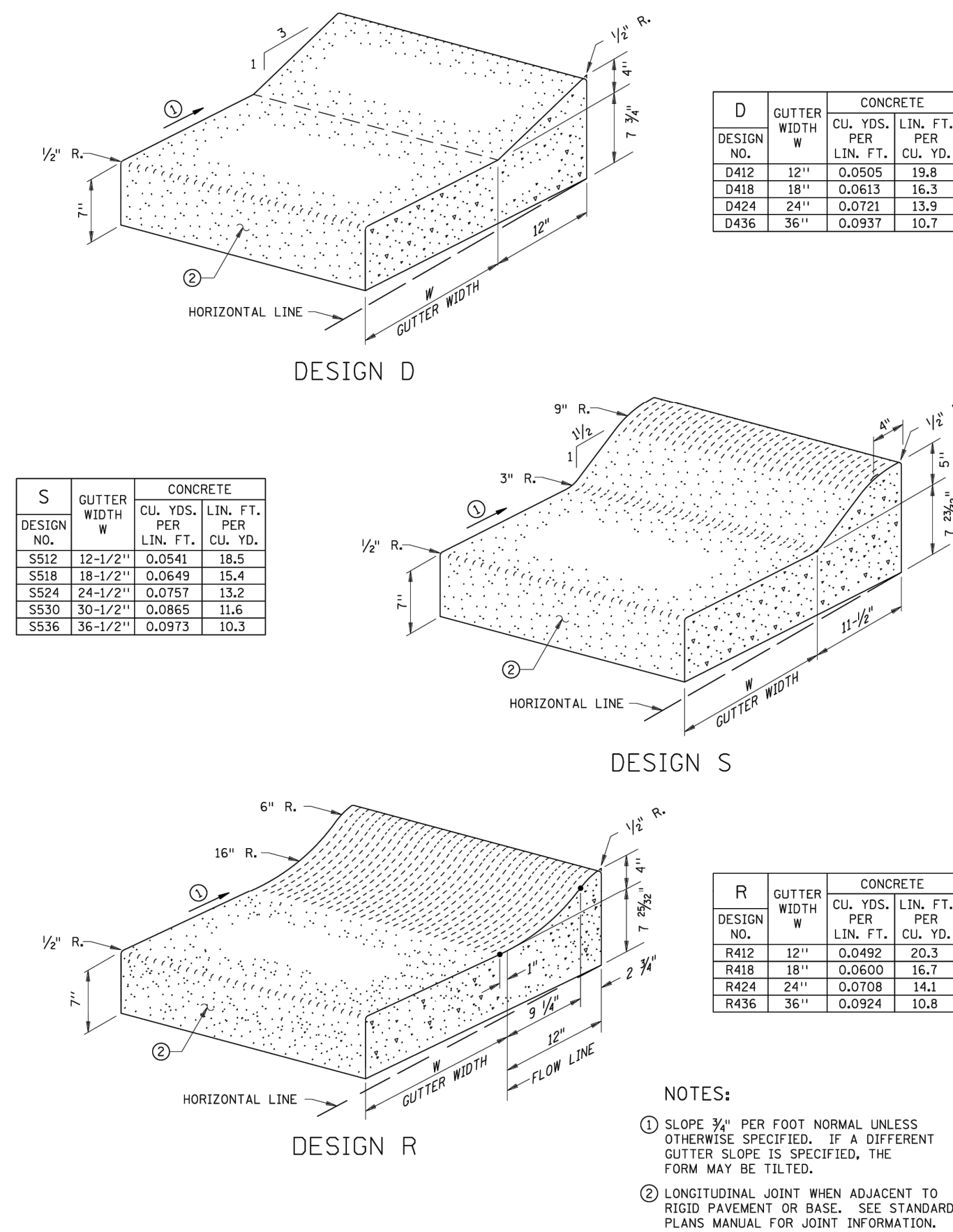
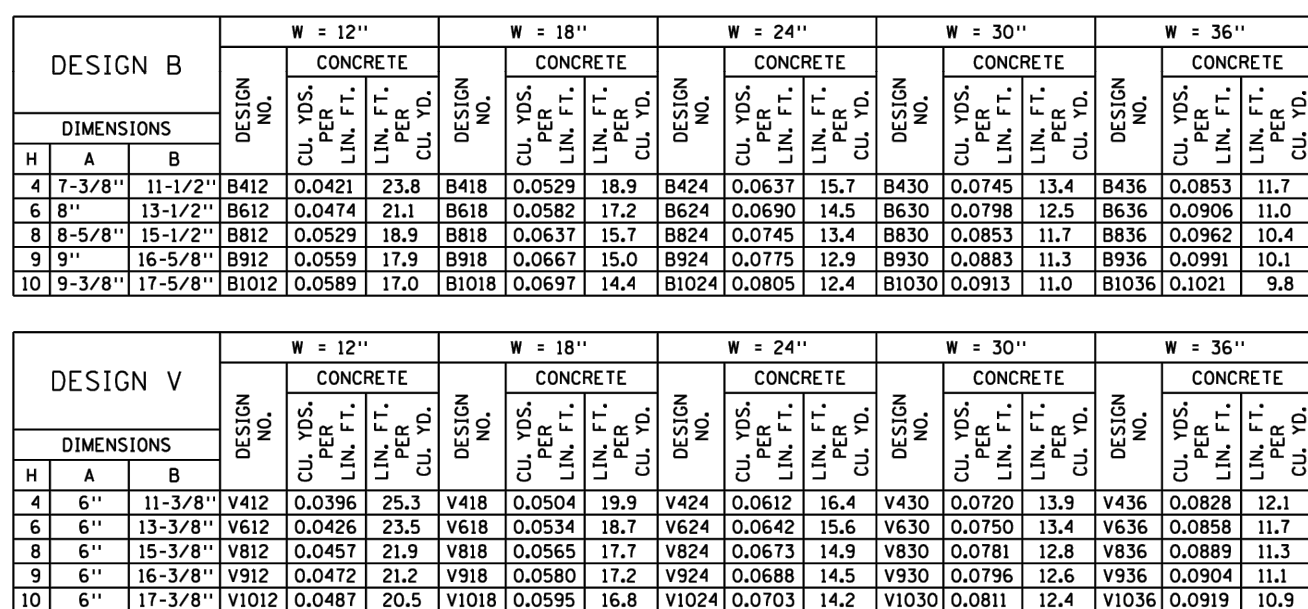


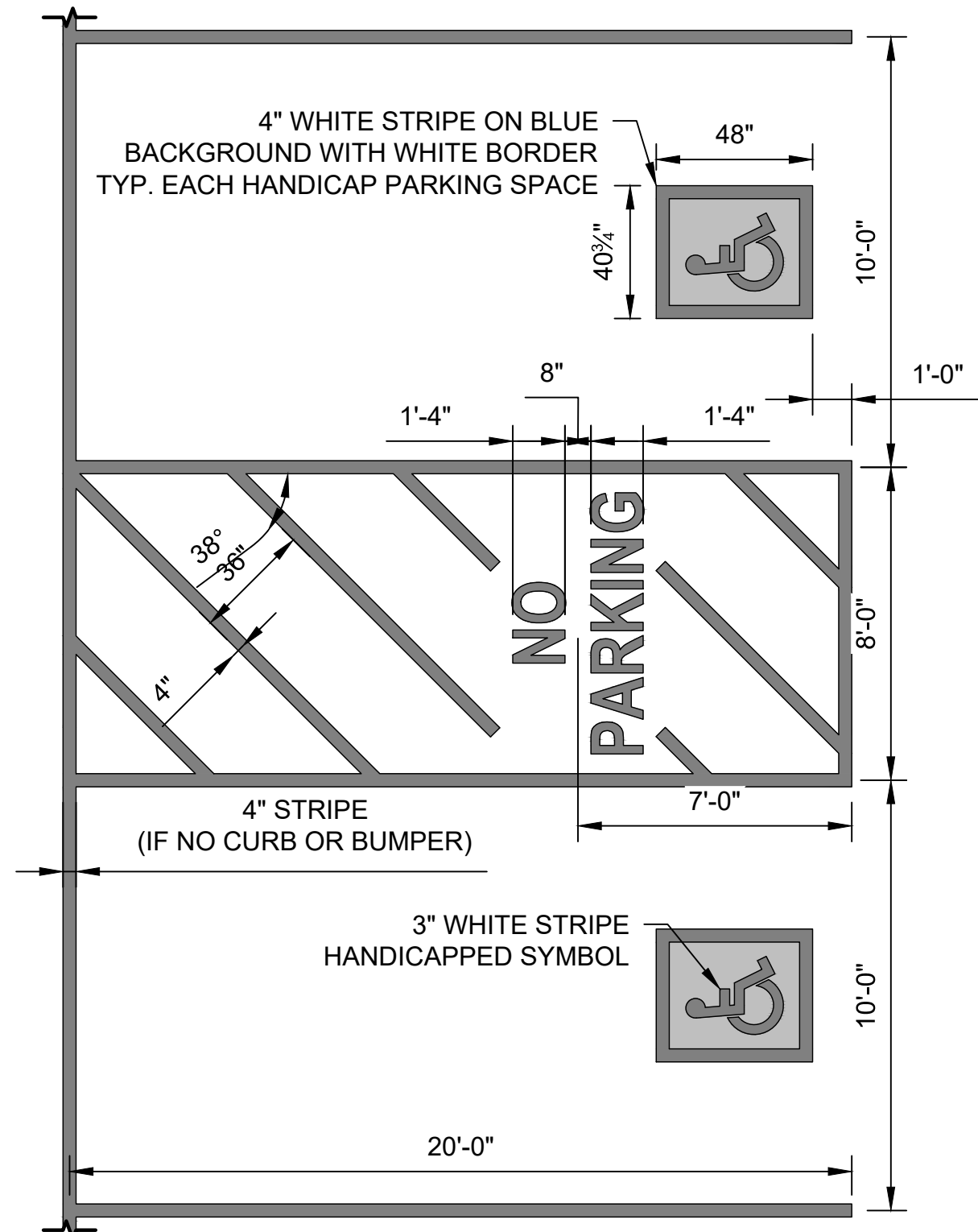
NOTE:

WHERE THE STRUCTURE EDGE THAT CONNECTS TO THE FLEXAMAT IS CURVED OR WHERE THE FLEXAMAT TILES CAN NOT ALIGN PERFECTLY TO MATCH THE SHAPE OF THE STRUCTURE; TRIM THE FLEXAMAT BETWEEN BLOCKS TO BEST FIT THE STRUCTURE SHAPE & STILL ALLOW A SUFFICIENT GROUT CONNECTION.

FLEXAMAT ANCHOR TRENCH DETAIL

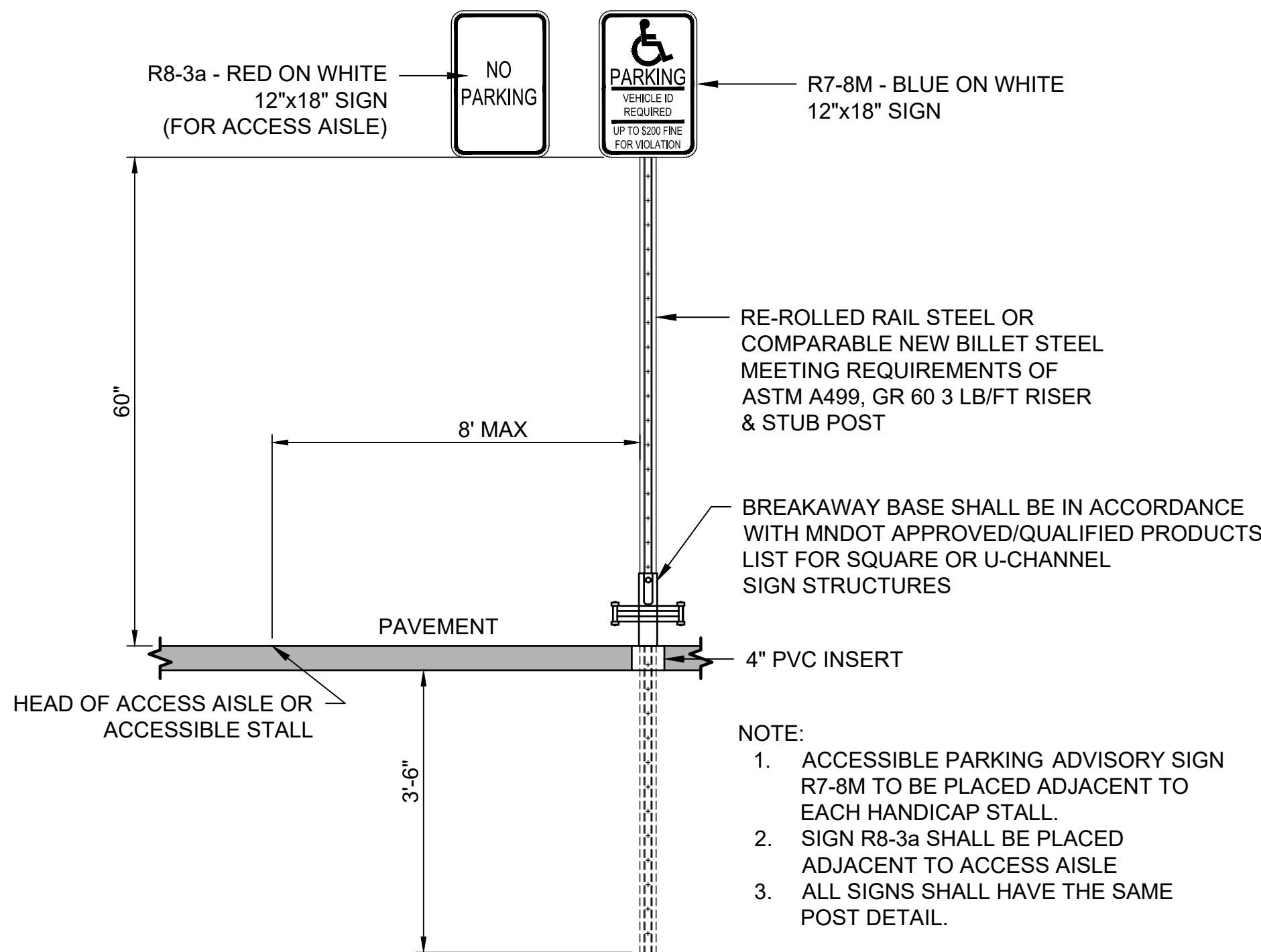
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NOTE:
ALL PAINT USED FOR STRIPING SHALL CONFORM TO
STANDARD MNDOT REQUIREMENTS AS OUTLINED IN
MNDOT SPECIFICATION No. 3591. COLOR SHALL BE BRIGHT
WHITE.

ACCESSIBLE STALL STRIPING DETAIL
SCALE: NONE



- NOTE:
1. ACCESSIBLE PARKING ADVISORY SIGN
R7-8M TO BE PLACED ADJACENT TO
EACH HANDICAP STALL.
 2. SIGN R8-3a SHALL BE PLACED
ADJACENT TO ACCESS AISLE
 3. ALL SIGNS SHALL HAVE THE SAME
POST DETAIL.

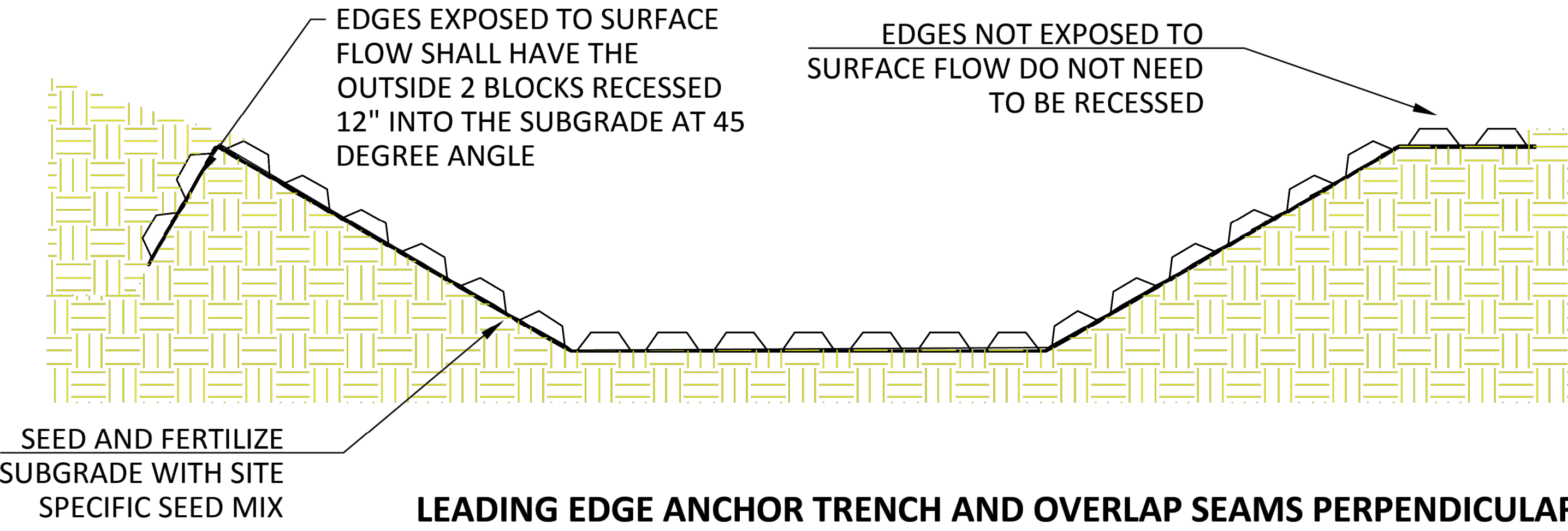
TYPICAL PARKING ADVISORY SIGN WITH BREAKAWAY BASE
SCALE: NONE

DATE	REV#	REVISIONS DESCRIPTION	BY

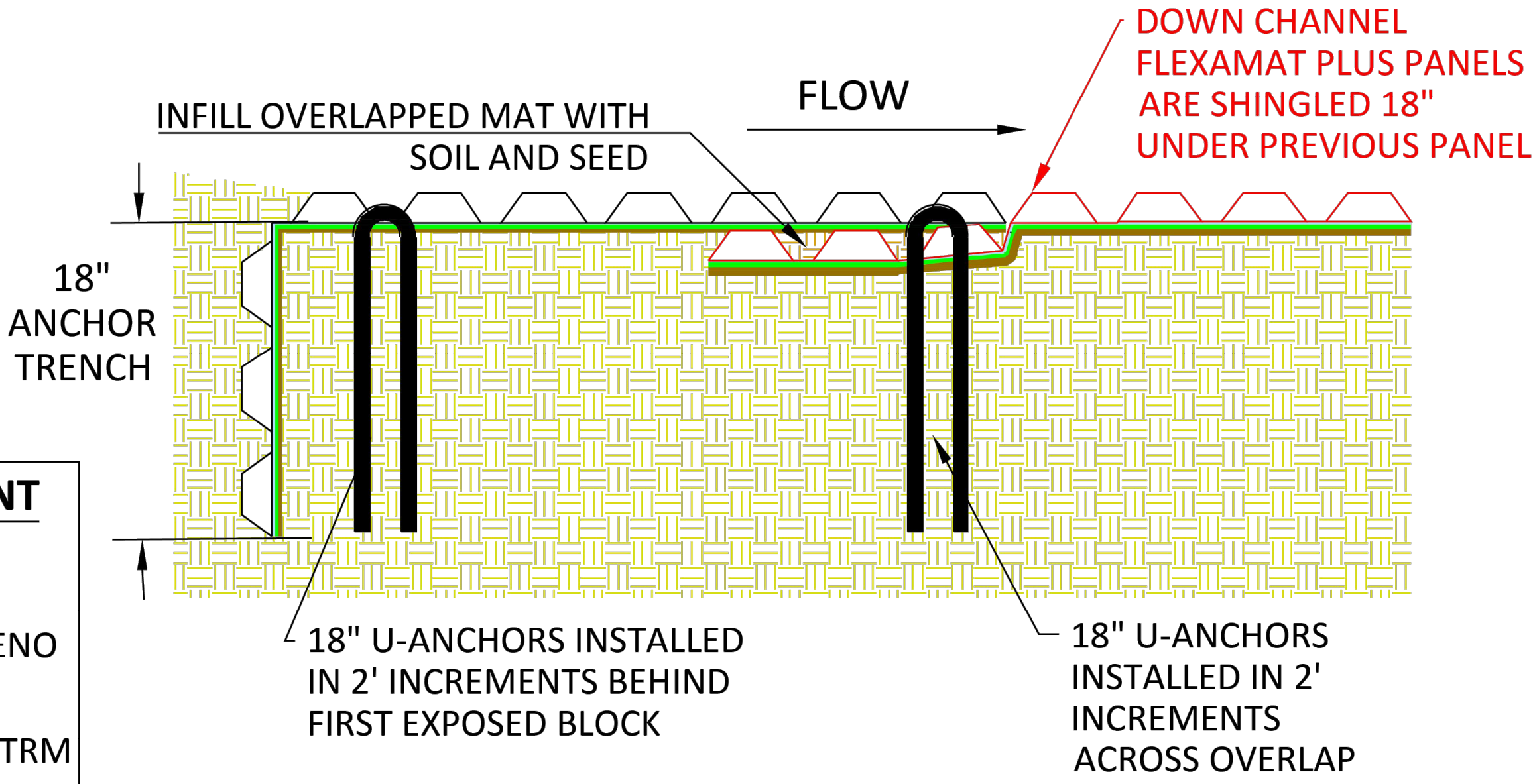
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CHECKED BY:	WW
JOB NUMBER:	2024-10685

HERITAGE CHURCH PARKING LOT ADDITION HERITAGE CHURCH 13242 BERRYWOOD DR. BAXTER, MN 56425 CIVIL DETAILS
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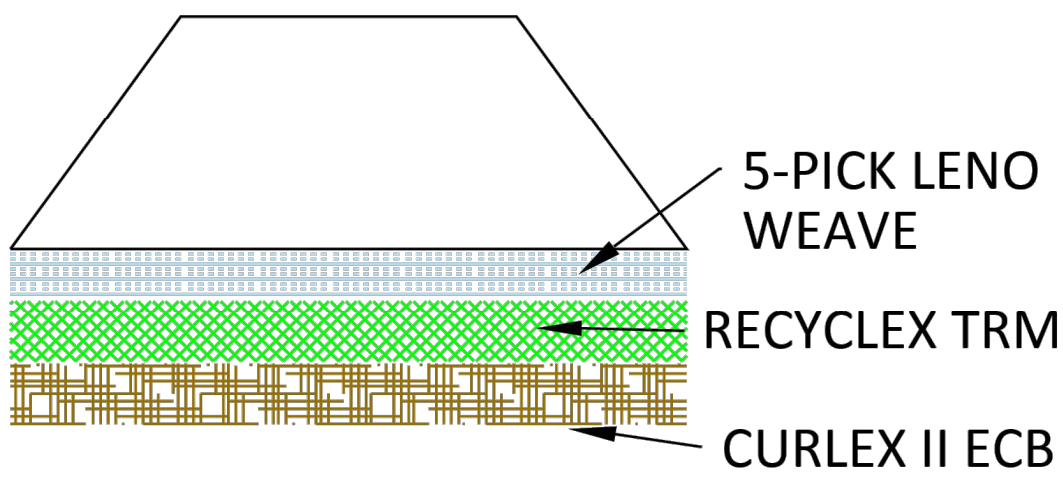
METHOD FOR TREATING EDGES EXPOSED TO SURFACE SHEET FLOW



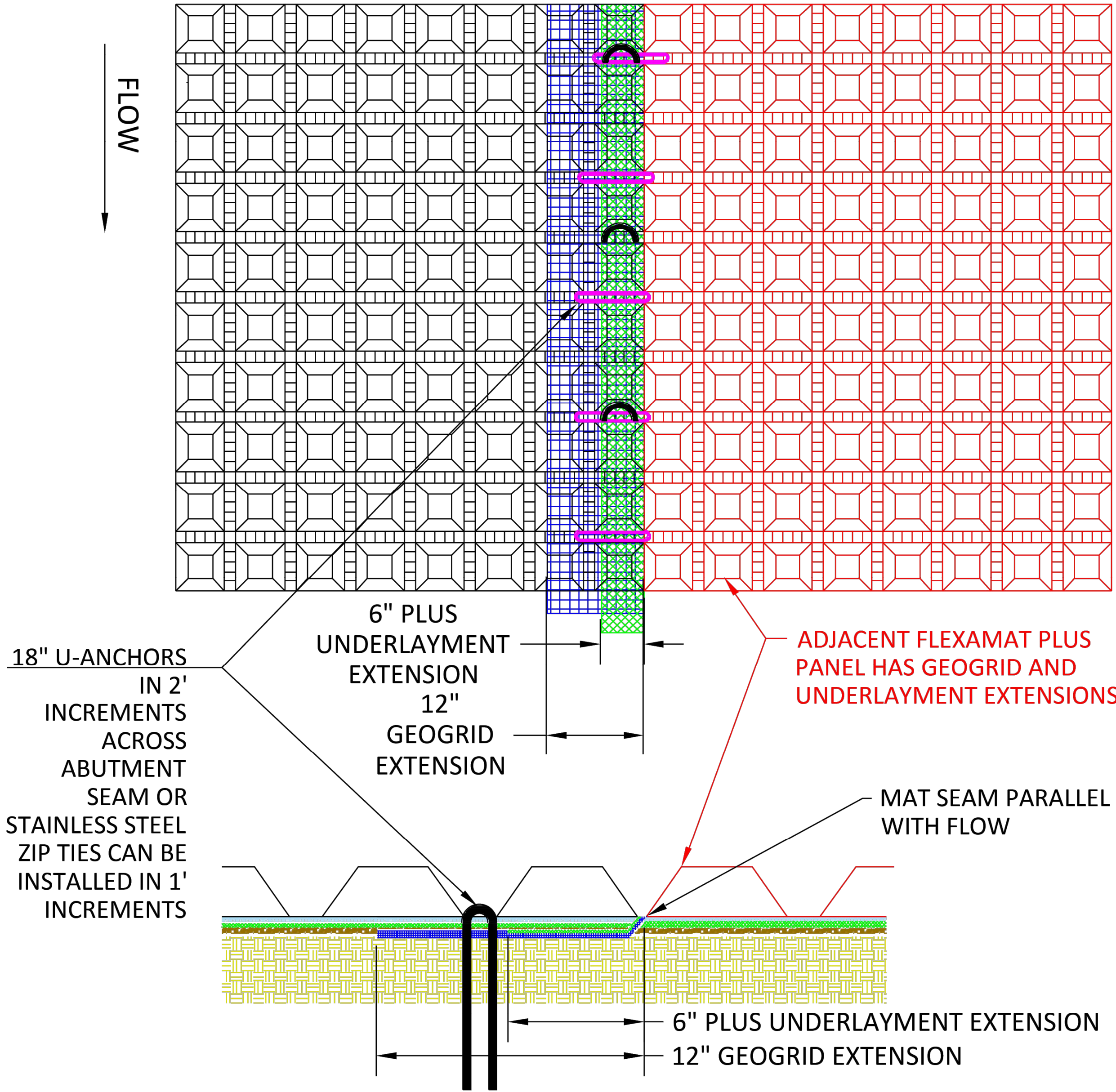
LEADING EDGE ANCHOR TRENCH AND OVERLAP SEAMS PERPENDICULAR TO FLOW



FLEXAMAT PLUS UNDERLAYMENT



ABUTMENT METHOD FOR WIDER THAN 16'



FLEXAMAT PLUS CHANNEL - LAYOUT PARALLEL TO FLOW

CONSTRUCTION NOTES:

1. AN ENGINEER OR MANUFACTURES REPRESENTATIVE SHALL BE ONSITE FOR THE START OF THE INSTALLATION.
2. GRADE CHANNEL SO THAT WATER WILL FLOW DOWN CENTER OF THE CHANNEL AND BE CONTAINED TO THE CHANNEL. ALL SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND.
3. PRIOR TO FLEXAMAT PLUS INSTALLATION SEED AND FERTILIZE THE PREPARED SUBGRADE WITH SITE SPECIFIC SEED MIX AND IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
4. INSTALL FLEXAMAT PLUS ROLLS, USING THE WIDEST ROLLS POSSIBLE TO AVOID SEAMS.
 - 4.1. FOR CHANNELS THAT ARE WIDER THAN 16', INSTALL 15.5' WIDE FLEXAMAT PLUS ROLLS THAT INCLUDE 12" GEOGRID EXTENSIONS WITH A 6" PLUS UNDERLAYMENT EXTENSIONS. THESE SEAMS ARE PARALLEL WITH FLOW, THE ADJACENT MAT INSTALLED OVER THE EXTENSIONS. ENSURE GEOGRID AND TRM EXTENSIONS ARE LAYING FLAT ON SUBGRADE PRIOR TO INSTALLING ADJACENT MAT.
 - 4.2. SECURE THE ABUTMENT PARALLEL WITH FLOW BY INSTALLING 18" U-ANCHORS IN 2' INCREMENTS OR 20" STAINLESS STEEL ZIP TIES IN 1' INCREMENTS THROUGH THE EXTENSION OVERLAP. U ANCHORS OR ZIP TIES TO BE INSTALLED PERPENDICULAR TO FLOW. ZIP TIES SHALL ENCOMPASS 3 CORDS OF GEOGRID FROM EACH MAT.
5. FOR ADDITIONAL SECTIONS OF MAT, SECURE SEAM PERPENDICULAR WITH FLOW BY OVERLAPPING THE DOWNSTREAM SECTION 18" WITH UPSTREAM SECTION OF MAT. PRIOR TO INSTALLING OVERLAP, FLIP UPSTREAM MAT BACK 24". EXCAVATE 2.25' OF SOIL 18" FROM END OF UPSTREAM MAT. DOWNSTREAM SECTION IS LAID IN THE SHALLOW TRENCH. RETURN AND TAMP SOIL OVER INITIAL EDGE AND SEED. FLIP END OF UPSTREAM MAT OVER THE SOIL COVERED AND SEEDED INITIAL LEADING EDGE OF DOWNSTREAM MAT.
 - 5.1. SECURE OVERLAPS PERPENDICULAR TO FLOW BY INSTALLING 18" U-ANCHORS IN 2' INCREMENTS OR 20" STAINLESS STEEL ZIP TIES IN 1' INCREMENTS THROUGH THE OVERLAP. ZIP TIES SHALL ENCOMPASS 3 CORDS OF GEOGRID FROM EACH MAT.
6. AT THE INITIAL LEADING EDGE OF THE FLEXAMAT PLUS ARMORED CHANNEL, EMBED THE MAT 18" IN A VERTICAL ANCHOR TRENCH. FILL AND COMPACT ANCHOR TRENCH WITH SUITABLE FILL. AT ENDING

MOTZ ENTERPRISES, INC.

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(513)772-6689
Info@Flexamat.com
Flexamat.com



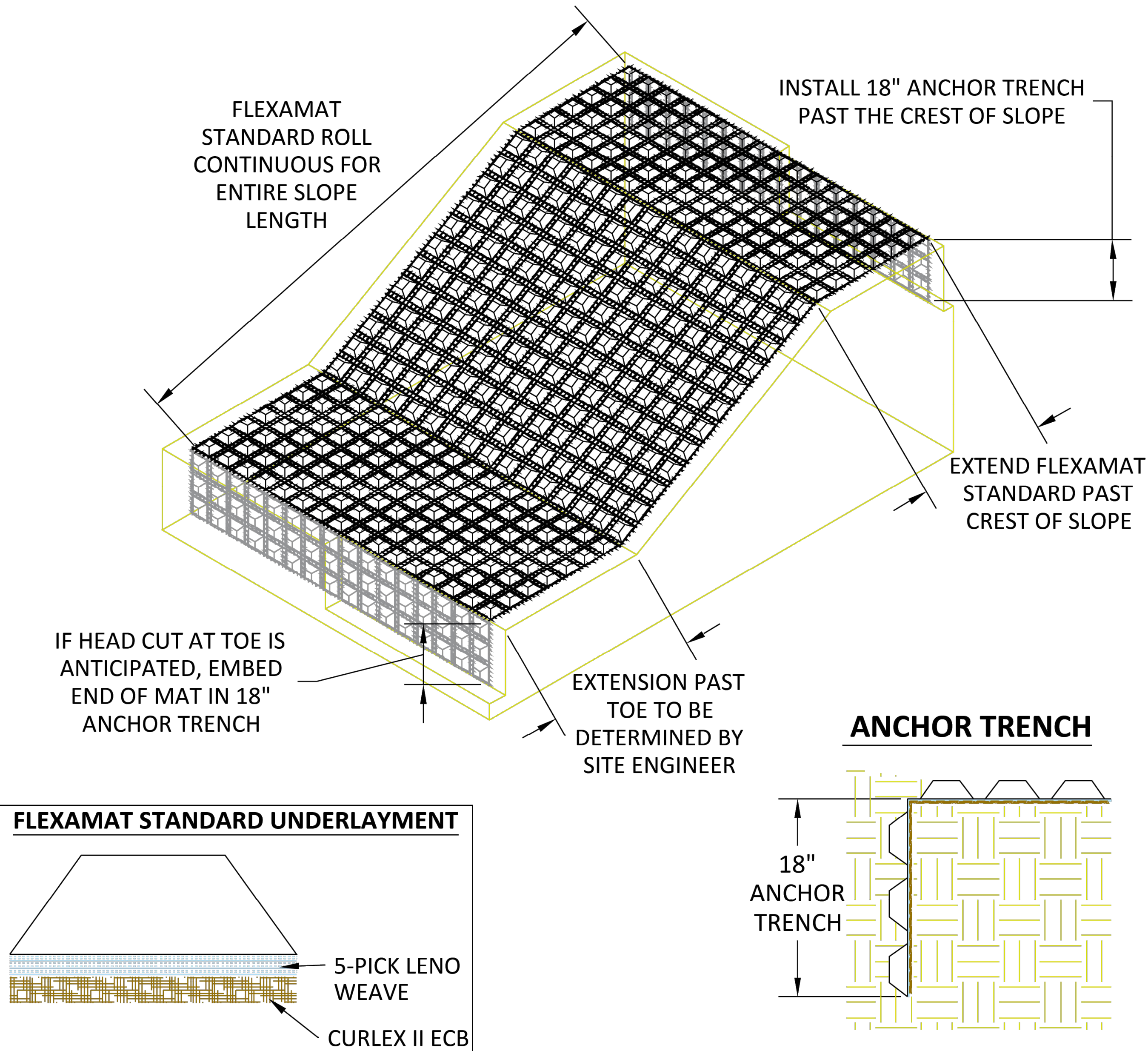
WIDSETH
ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

DATE: MAY 2024
SCALE: AS SHOWN
DRAWN BY: TMR
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JOB NUMBER: 2024-10685

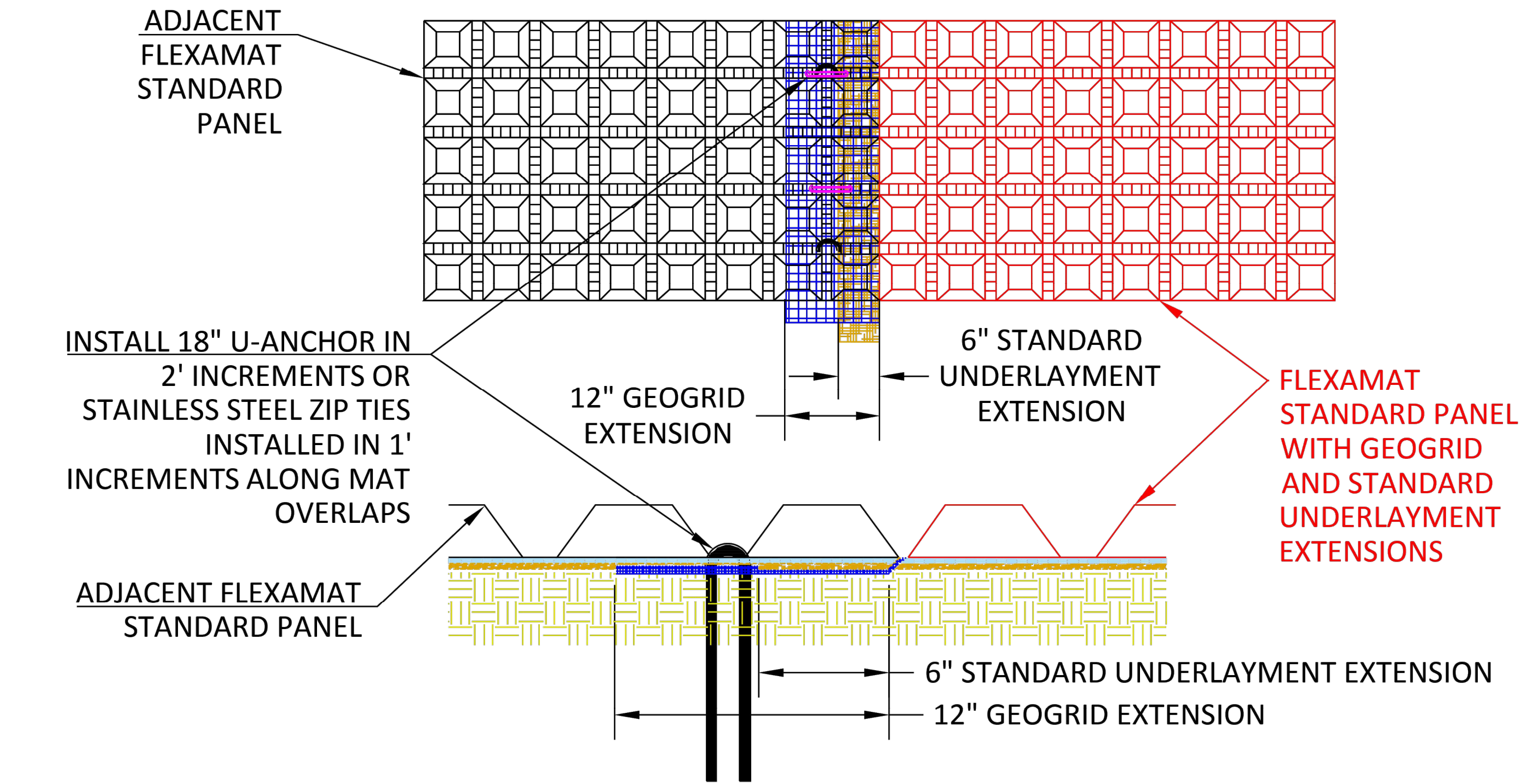
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HERITAGE CHURCH
13242 BERRYWOOD DR. BAXTER, MN 56425
CIVIL DETAILS

REV - 2
C2.08

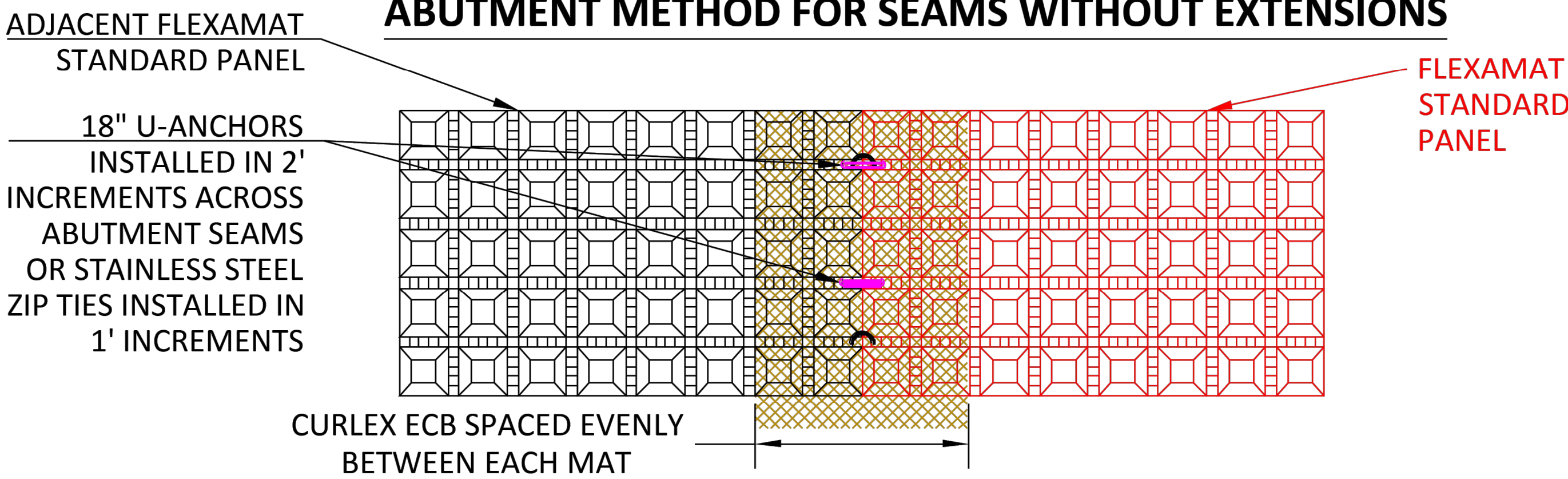
ISOMETRIC VIEW OF SLOPE AND ANCHOR TRENCHES



ABUTMENT METHOD FOR SEAMS WITH EXTENSIONS



ABUTMENT METHOD FOR SEAMS WITHOUT EXTENSIONS



FLEXAMAT STANDARD - SLOPE ARMORING

CONSTRUCTION NOTES:

1. AN ENGINEER OR MANUFACTURERS REPRESENTATIVE SHALL BE ONSITE FOR THE START OF THE INSTALLATION.
2. ALL SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND.
3. PRIOR TO FLEXAMAT STANDARD INSTALLATION SEED AND FERTILIZE SUBGRADE WITH SITE SPECIFIC SEED MIX IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
4. INSTALL FLEXAMAT STANDARD ROLLS THAT ARE CONTINUOUS FOR ENTIRE SLOPE LENGTH. FOR SLOPES LONGER THAN 16', USE MATS WITH EXTENSIONS CUT TO THE LENGTH OF THE SLOPE. INSTALL MATS TO THAT THE MATTING EXTENDS PAST THE CREST OF SLOPE AND INTO AN 18" ANCHOR TRENCH.
 - 4.1. FOR ARMORED SLOPE LENGTHS 16' OR LESS, INSTALL CURLEX ECB EQUALLY UNDER ADJACENT MATS. SECURE SEAM WITH #3 REBAR 18" U-ANCHORS IN 2' INCREMENTS THE LENGTH OF THE ABUTMENT.
 - 4.2. ARMORED SLOPE LENGTHS LONGER THAN 16', INSTALL NEXT MAT OVER EXTENSIONS.
5. INSTALL SUBSEQUENT MATS OVER THE GEOGRID EXTENSION AND STANDARD UNDERLAYMENT EXTENSION OF THE PREVIOUSLY INSTALLED MAT. ENSURE THE GEOGRID AND STANDARD UNDERLAYMENT EXTENSIONS ARE LAYING FLAT ON THE SUBGRADE BEFORE INSTALLING ADJACENT MAT OVER THE EXTENSIONS.
6. INSTALL #3 REBAR 18" U-ANCHORS IN 2' INCREMENTS ACROSS THE GEOGRID AND STANDARD EXTENSION ABUTMENT. INSTALL ANCHORS PERPENDICULAR TO THE SLOPE DIRECTLY BEHIND FIRST ROW OF BLOCKS ON THE ADJACENT MAT.
7. AT THE END OF THE ARMORED SLOPE, IF HEAD CUT IS ANTICIPATED, EMBED THE MAT 18" IN A TERMINATION TRENCH. FILL AND COMPACT TERMINATION TRENCH WITH SUITABLE FILL.

MOTZ ENTERPRISES, INC.

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HERITAGE CHURCH PARKING LOT ADDITION
HERITAGE CHURCH
13242 BERRYWOOD DR. BAXTER, MN 56425
CIVIL DETAILS

REV -1
C2.09

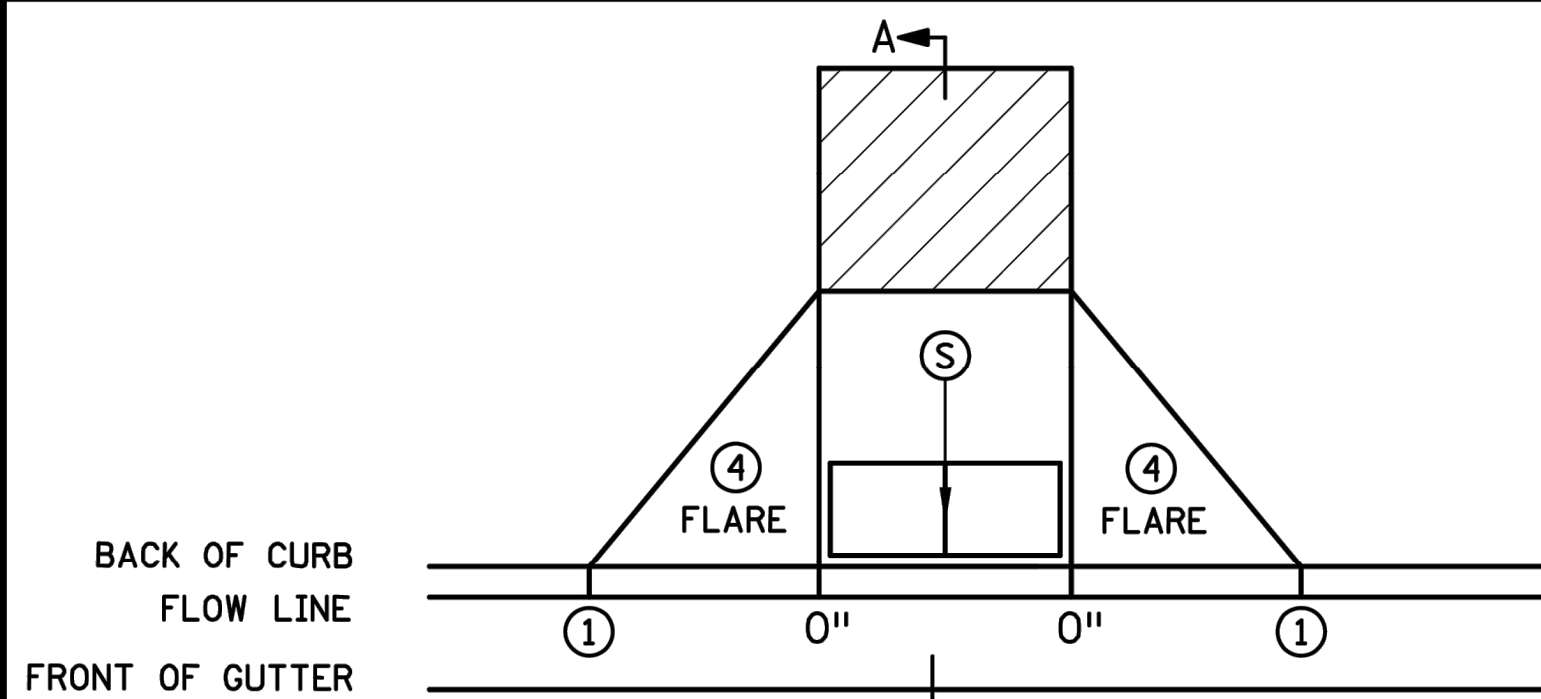
WIDSETH

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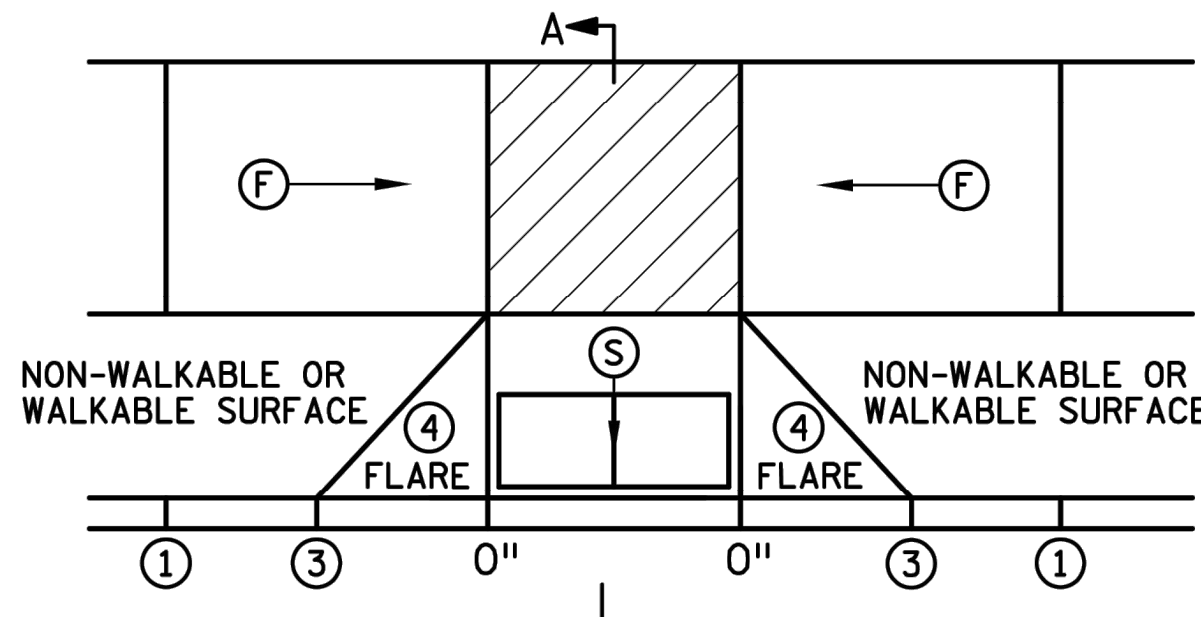
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BY: [Signature]
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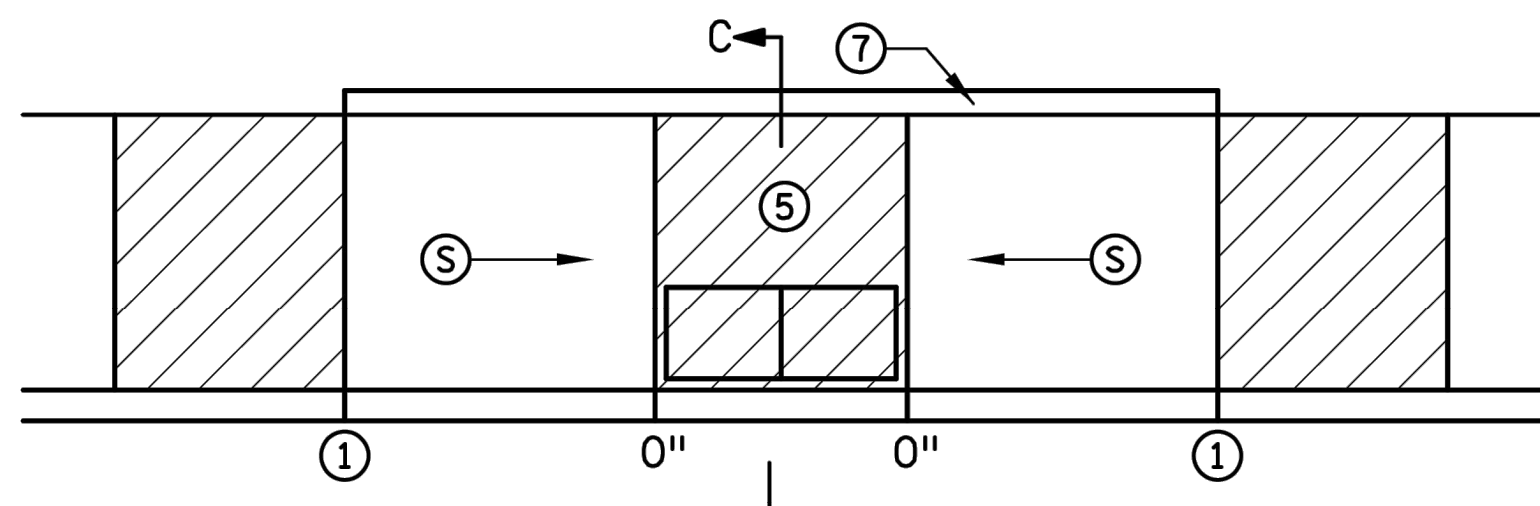
I HEREBY CERTIFY THAT THIS PLAN SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
[Signature]
WILLIAM WESTERBERG
DATE: 06/28/2024
JOB NO. 21874



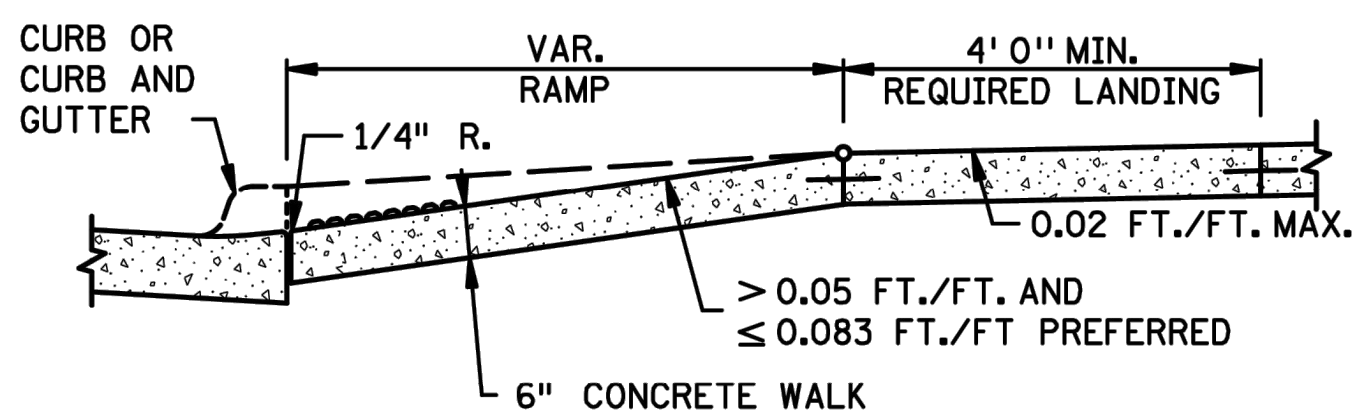
PERPENDICULAR



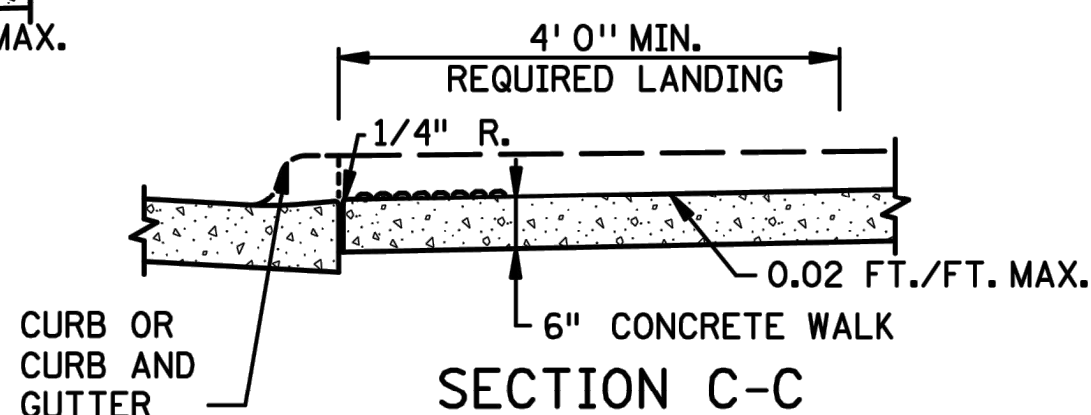
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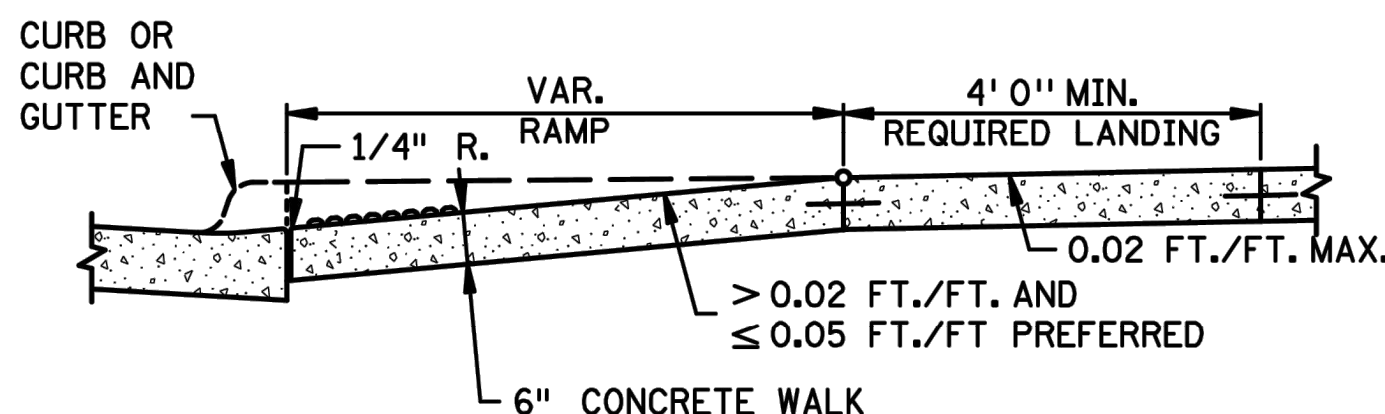
PARALLEL



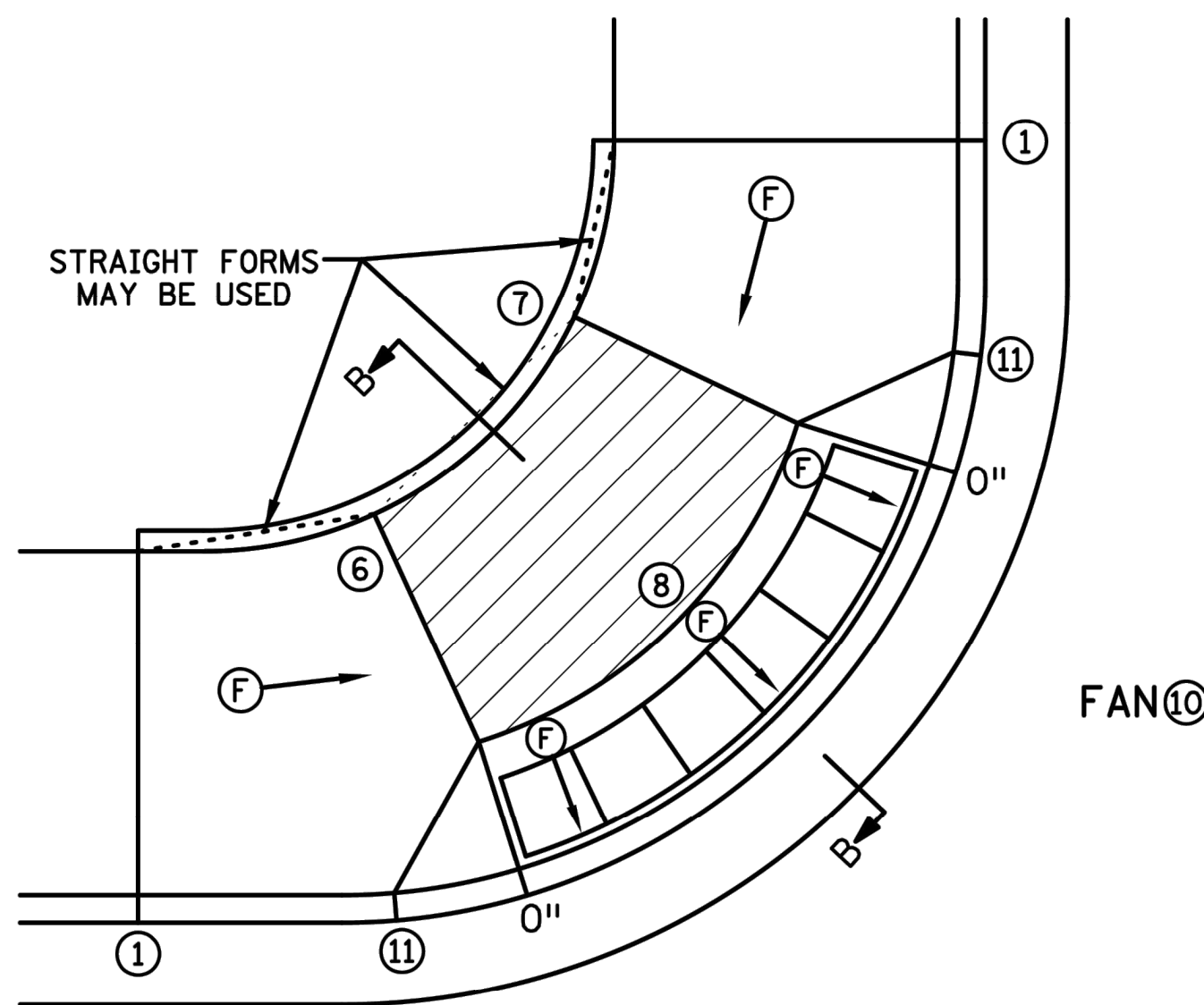
SECTION A-A
PERPENDICULAR/TIERED/DIAGONAL



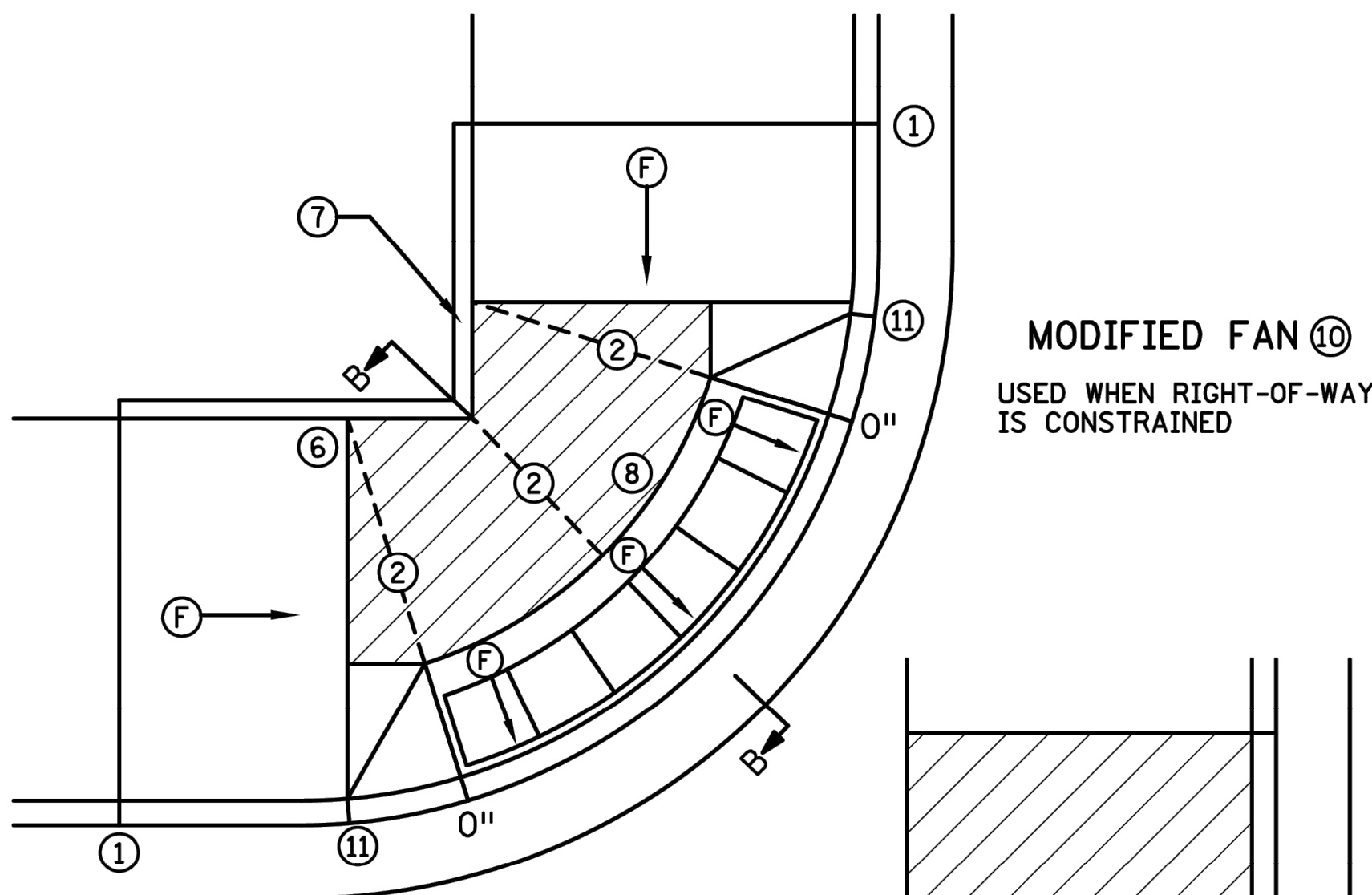
SECTION C-C
PARALLEL/DEPRESSED CORNER



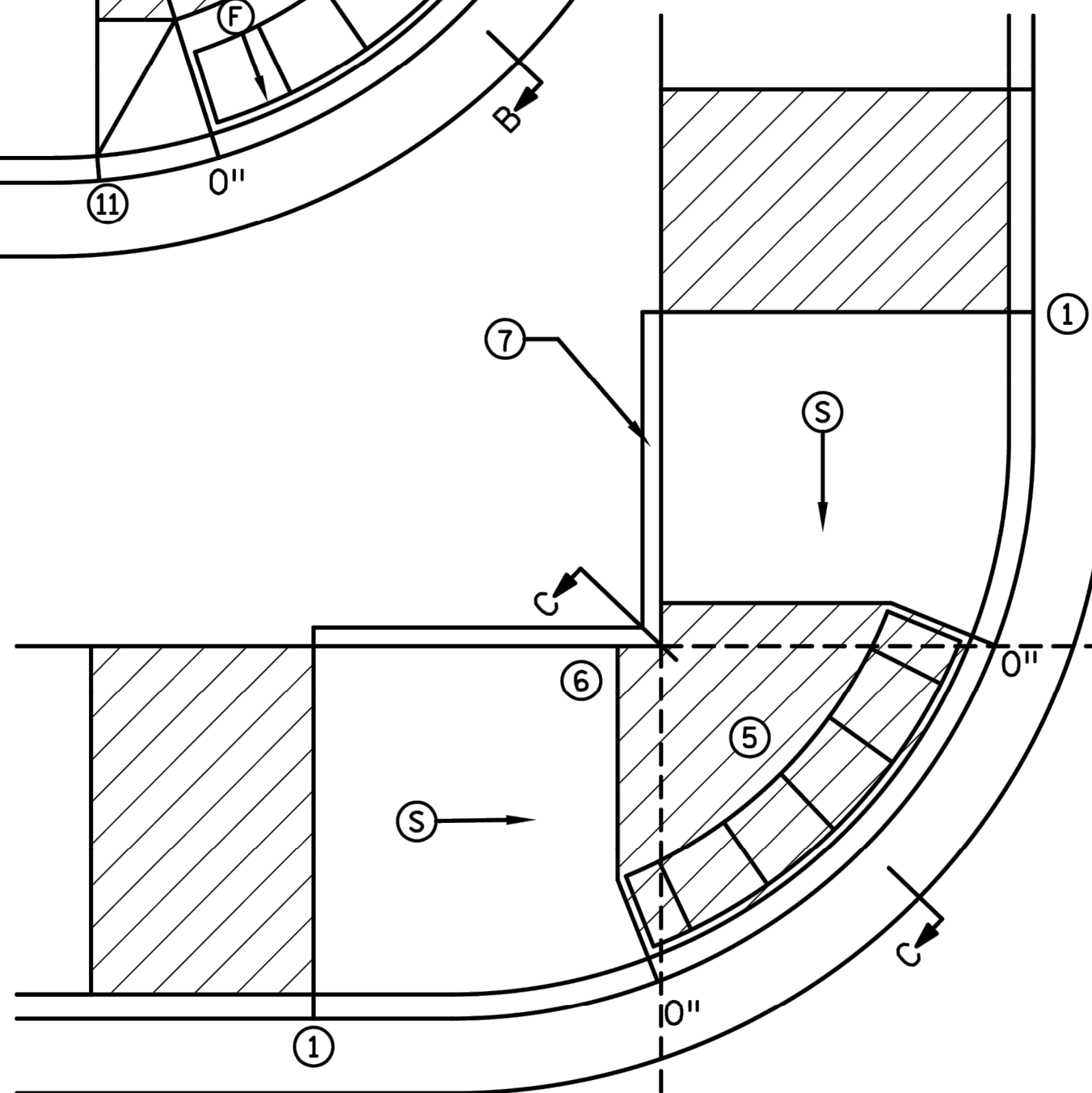
SECTION B-B
FAN



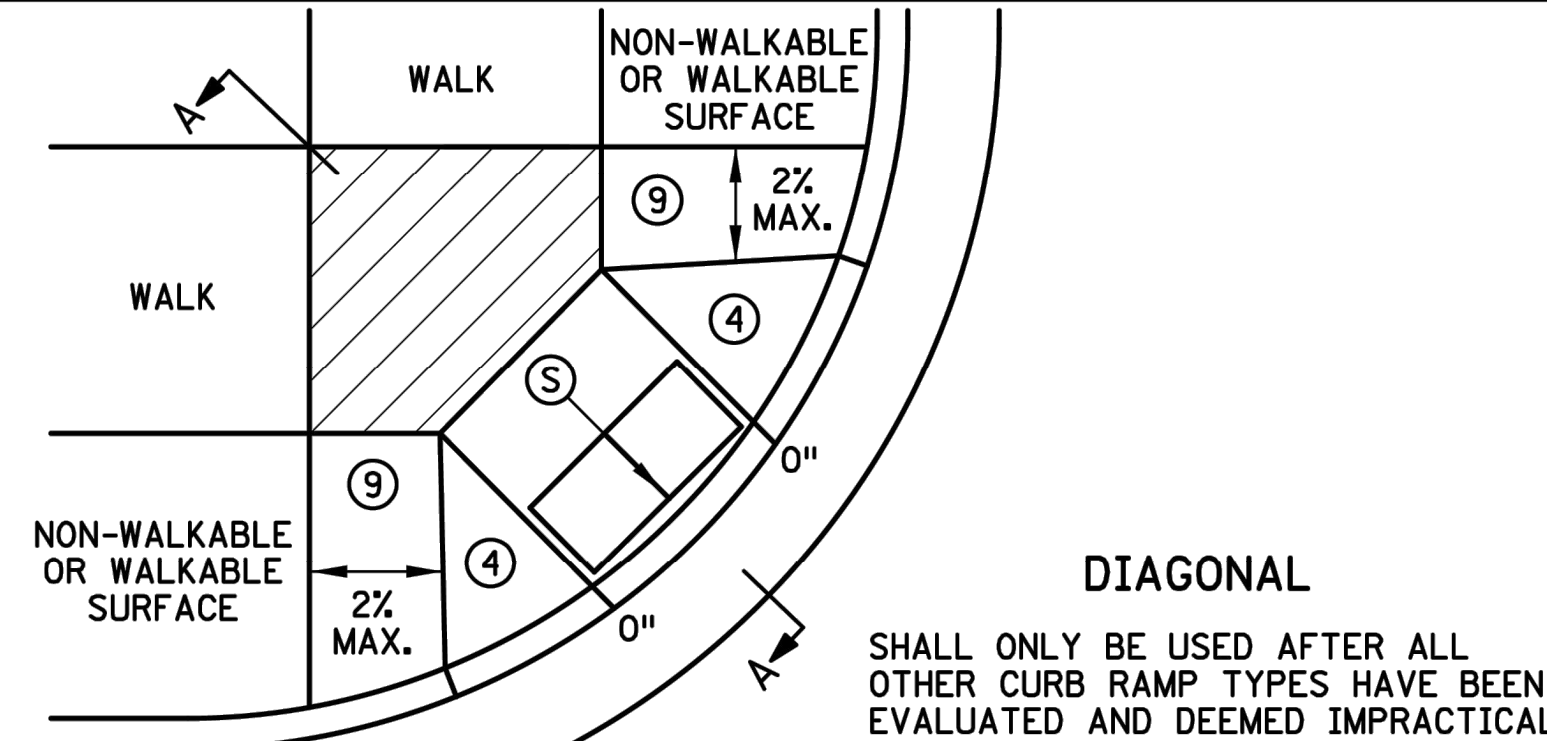
FAN



MODIFIED FAN
USED WHEN RIGHT-OF-WAY
IS CONSTRAINED



DEPRESSED CORNER



DIAGONAL

SHALL ONLY BE USED AFTER ALL
OTHER CURB RAMP TYPES HAVE BEEN
EVALUATED AND DEEMED IMPRACTICAL

NOTES:

- LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.
- INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.
- SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30' OF VERTICAL RISE WHEN THE LONGITUDINAL RUNNING SLOPE IS GREATER THAN 5.0%.
- CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.
- ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL, THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH, (EXCEPT AS STATED IN 6) BELOW.
- TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR, FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 OF 6 FOR ALL SEPARATELY POURED INITIAL LANDINGS.
- WHEN SIDEWALK IS AT BACK OF CURB, TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE. MAINTAIN POSITIVE BOULEVARD DRAINAGE TO TOP OF CURB.
- ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.
- 4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.
- WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.
- RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.
- 1 MATCH FULL HEIGHT CURB.
- 2 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.
- 3 3" HIGH CURB WHEN USING A 3' LONG RAMP, 4" HIGH CURB WHEN USING A 4' LONG RAMP.
- 4 SEE SHEET 4 OF 6, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS.
- 5 DETECTABLE WARNINGS MAY BE PART OF THE 4' X 4' MIN. LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.
- 6 THE GRADE BREAK SHALL BE PERPENDICULAR TO THE BACK OF WALK, THIS WILL ENSURE THAT THE GRADE BREAK IS PERPENDICULAR TO THE DIRECTION OF TRAVEL. (TYPICAL FOR ALL)
- 7 WHEN ADJACENT TO GRASS, GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS LESS THAN 5% RUNNING SLOPE SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
- 8 A 7' MIN TOP RADIUS GRADE BREAK IS REQUIRED TO BE CONSTRUCTIBLE.
- 9 PAVE FULL WALK WIDTH.
- 10 "S" SLOPES ON FANS SHALL ONLY BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.
- 11 INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3" CURB HEIGHT. REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

LEGEND	
THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.	
(S)	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
(F)	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
(X)	LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PAR.
X"	CURB HEIGHT

REVISION:
APPROVED: 11-04-2021
Jeffrey Perkins
OPERATIONS DIVISION

MINNESOTA
DEPARTMENT
OF
TRANSPORTATION

STANDARD PLAN 5-297.250
1 OF 6
APPROVED: 11-04-2021
REVISED:
THOMAS STYRBECKI
STATE DESIGN ENGINEER

STATE PROJ. NO. (TH)

PEDESTRIAN CURB RAMP DETAILS

SHEET NO. OF SHEETS

WIDSETH
ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

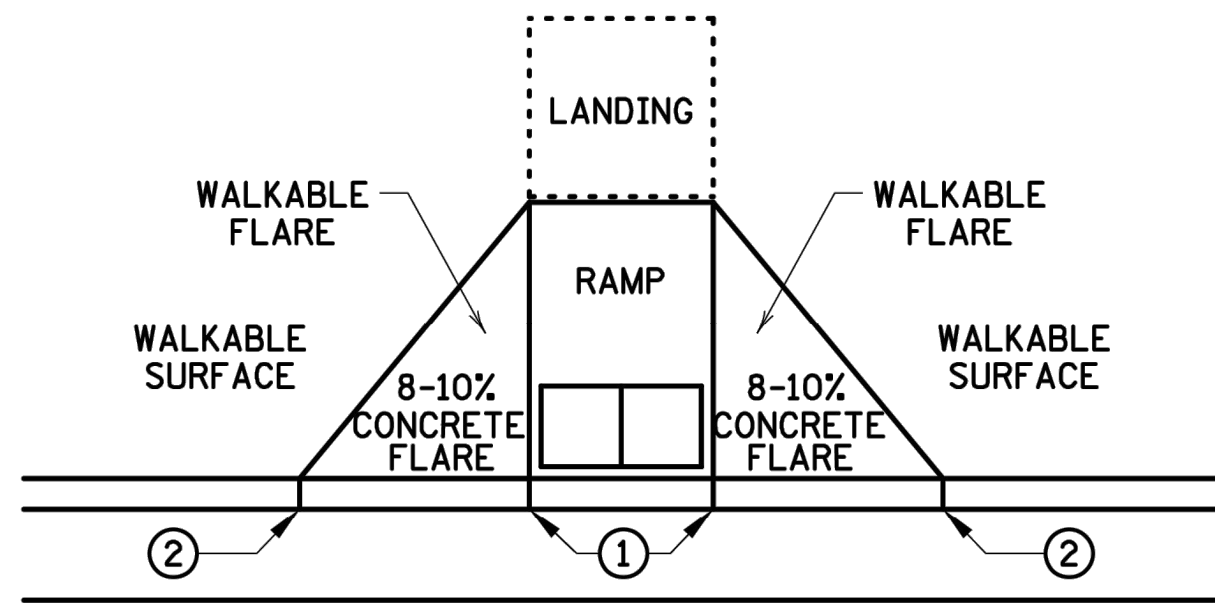
WILLIAM WESTERBERG
DATE: 06/26/2024 LIC-NO 21874

DATE	REV#	REVISIONS DESCRIPTION	BY

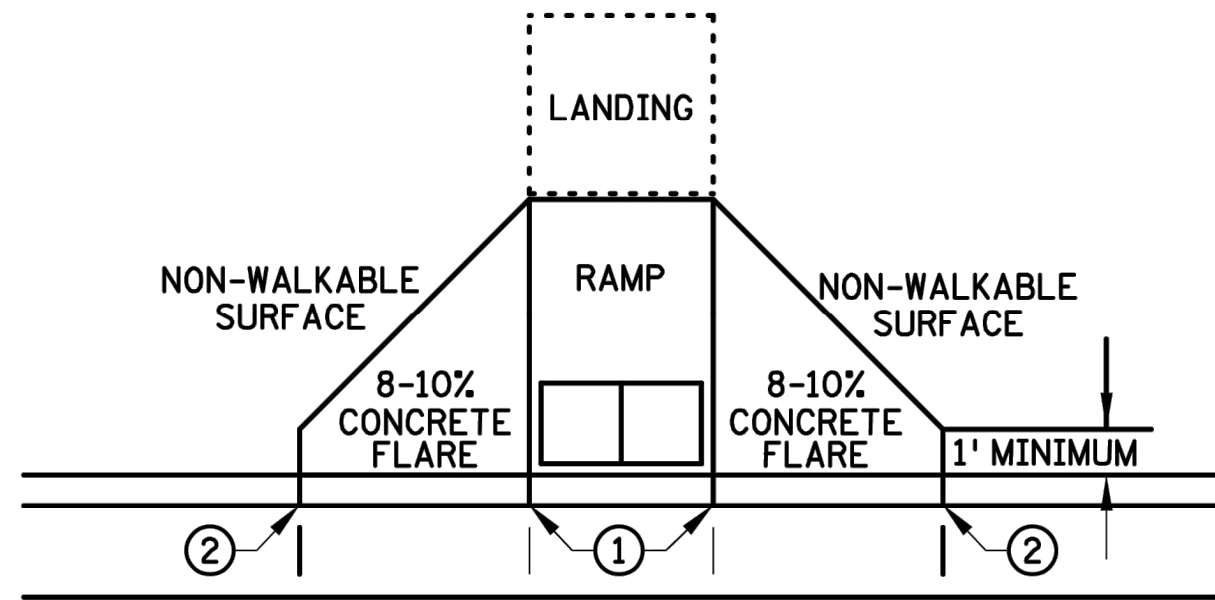
DATE: MAY 2024
SCALE: AS SHOWN
DRAWN BY: TWR
CHECKED BY: WV
JOB NUMBER: 2024-10695

HERITAGE CHURCH PARKING LOT ADDITION
HERITAGE CHURCH
13242 BERRYWOOD DR. BAXTER, MN 56425
ADA DETAILS

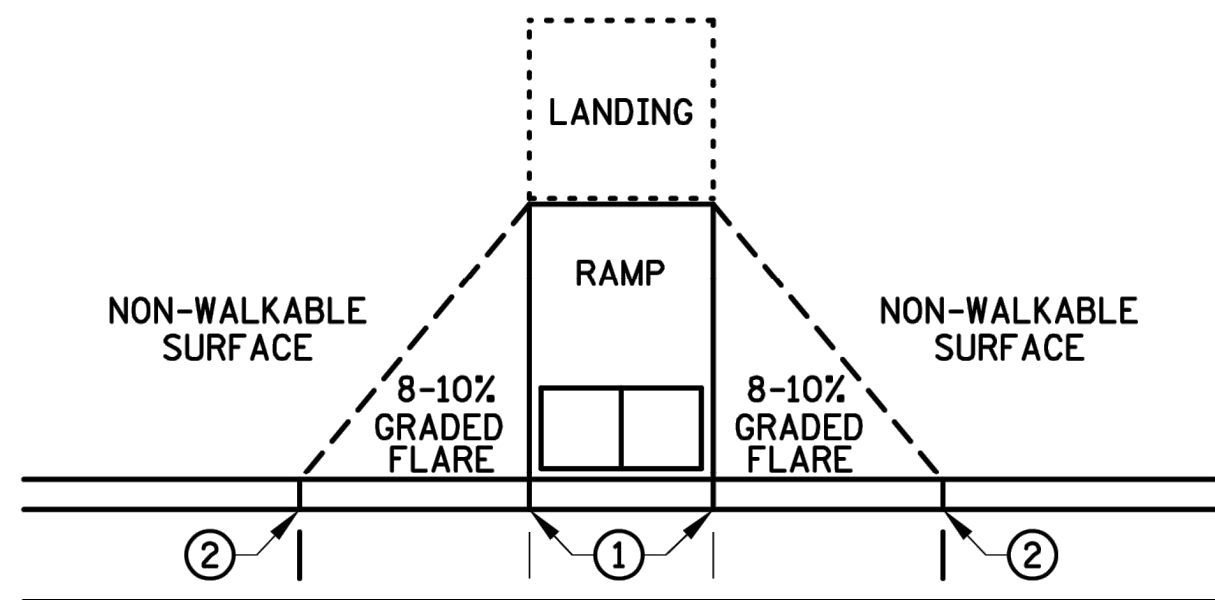
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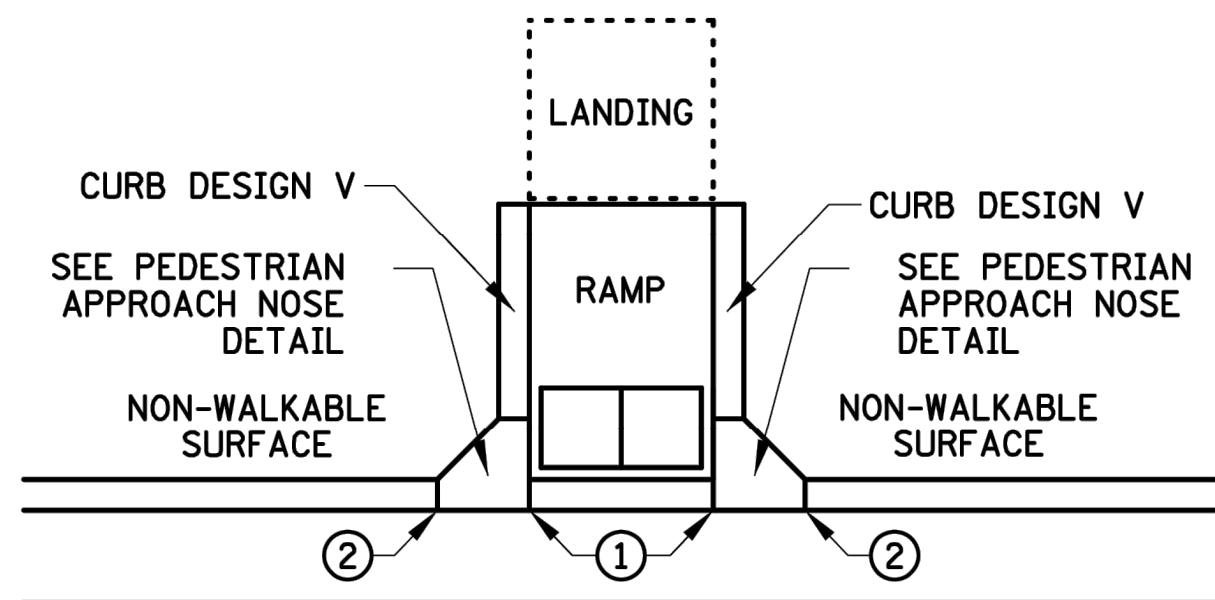
PAVED FLARES
ADJACENT TO WALKABLE SURFACE



PAVED FLARES
ADJACENT TO NON-WALKABLE SURFACE

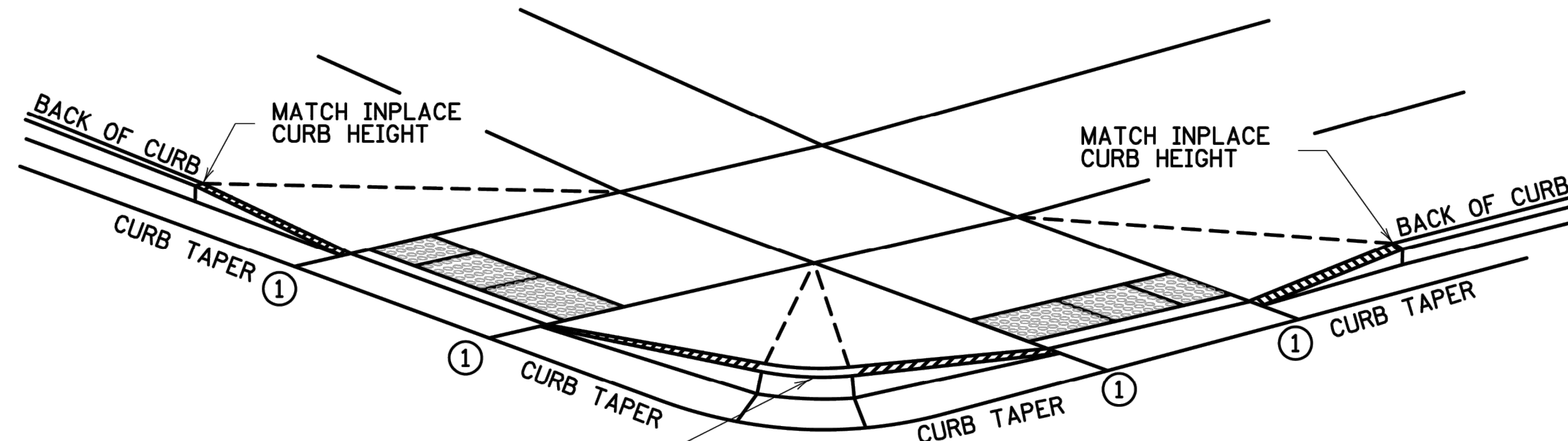


GRADED FLARES



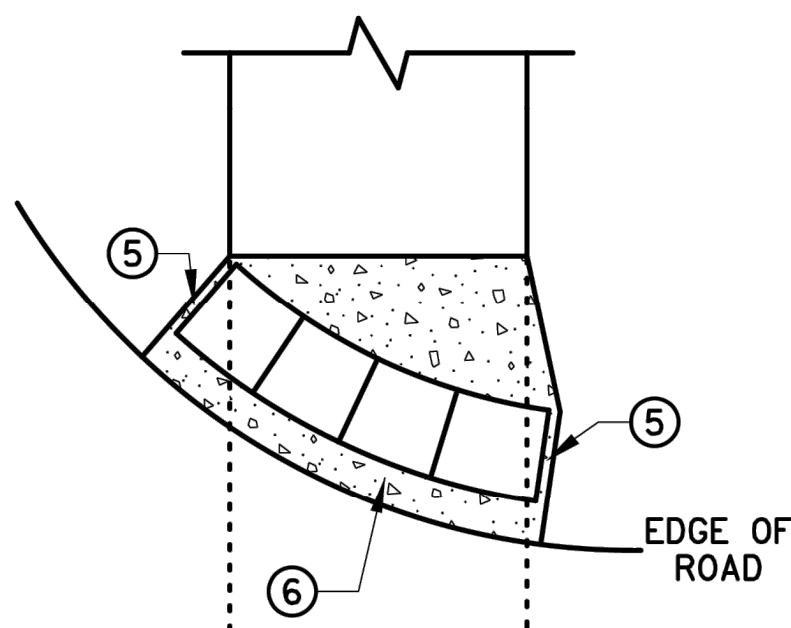
RETURNED CURB ④

TYPICAL SIDE TREATMENT OPTIONS ③ ⑩

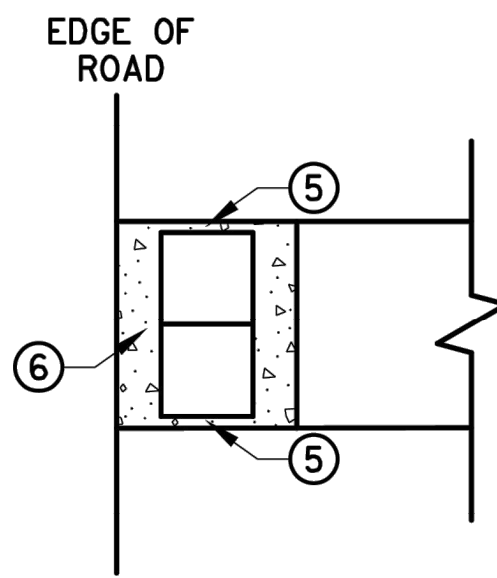


3" MINIMUM CURB HEIGHT, 4" PREFERRED
(MEASURED AT FRONT FACE OF CURB)
FOR A MIN. 6" LENGTH (MEASURED ALONG FLOW LINE)

DETECTABLE EDGE WITH ⑦
CURB AND GUTTER

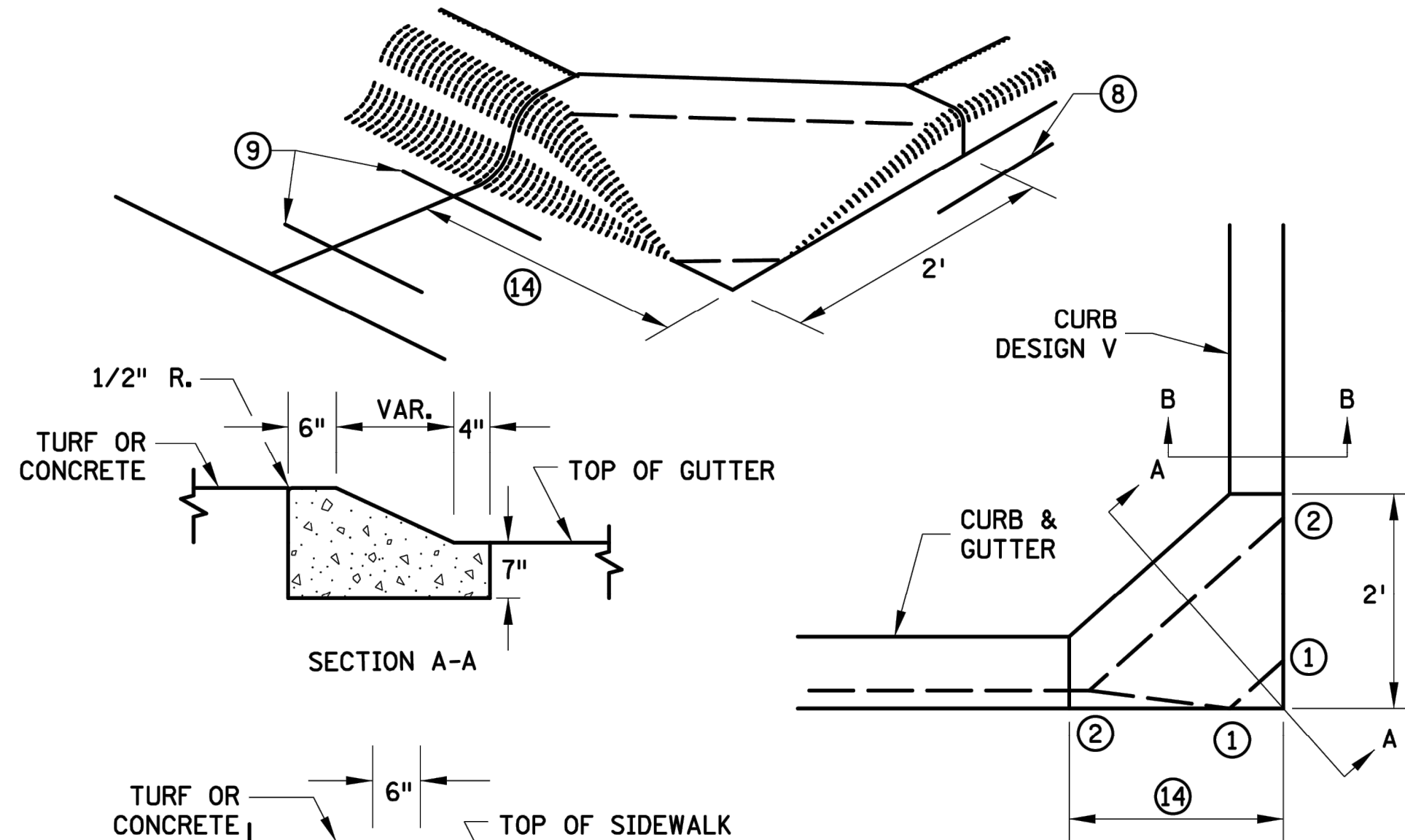


RADIAL DETECTABLE WARNING

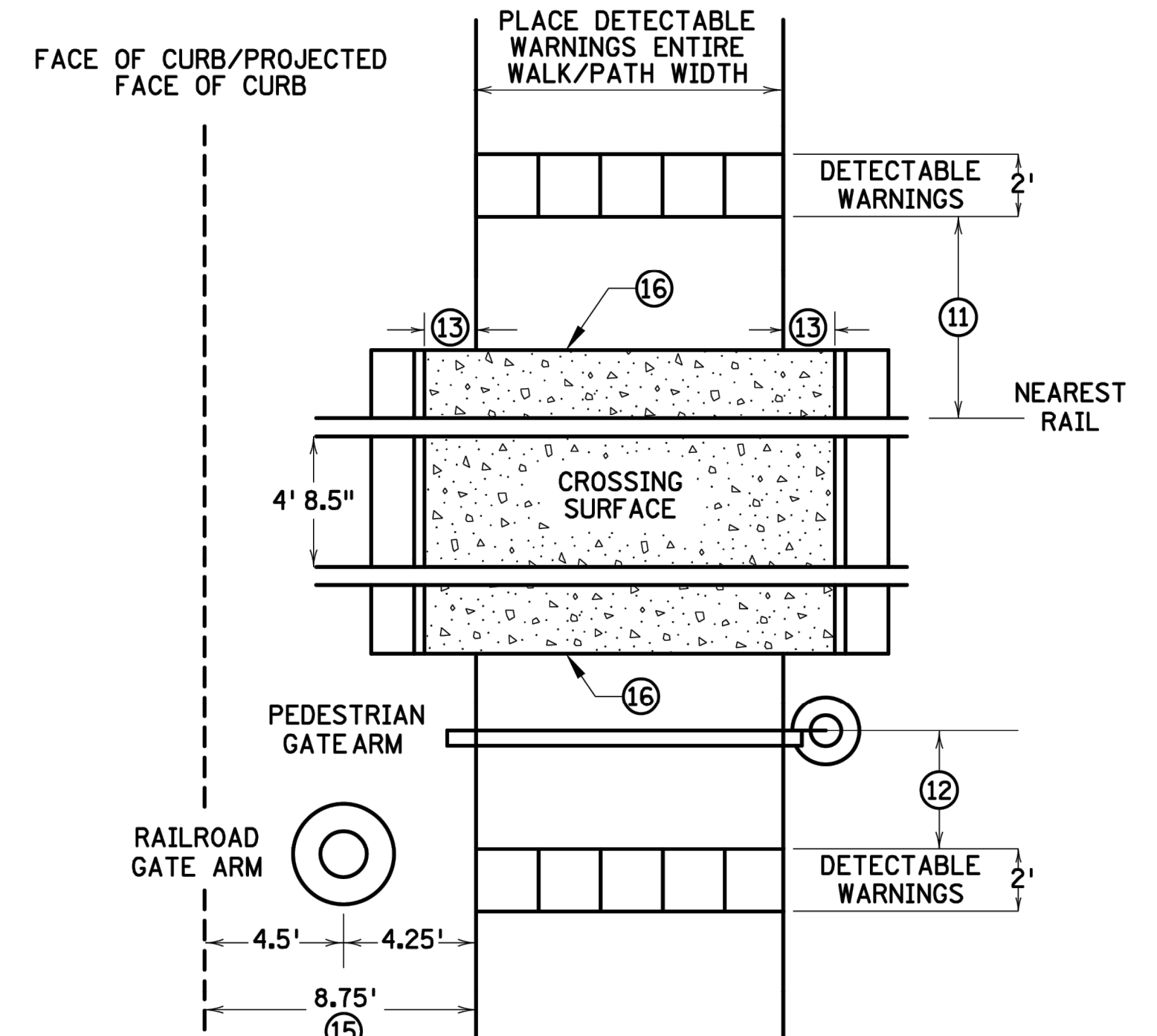


RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER



PEDESTRIAN APPROACH
NOSE DETAIL
(FOR RETURNED CURB
SIDE TREATMENT)



RAILROAD CROSSING
PLAN VIEW

NOTES:

- INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3 INCH CURB HEIGHT, INCREASE CURB TAPER LENGTH AT LESS THAN 8% OR REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.
- SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.
- A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.
- CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.
- ① 0" CURB HEIGHT. SEE INSET A ON SHEET 3 OF 6.
- ② FULL CURB HEIGHT.
- ③ SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED AS FIELD CONDITIONS DICTATE. THE ENGINEER SHALL DETERMINE THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.
- ④ TYPICALLY USED FOR MEDIANS AND ISLANDS.
- ⑤ WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" MAX. BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.
- ⑥ IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF BITUMINOUS ROADWAY AND/OR BITUMINOUS SHARED-USE PATH TO PROVIDE VISUAL CONTRAST.
- ⑦ ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS, AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.
- ⑧ DRILL AND GROUT 1 - NO. 4 12" LONG REINFORCEMENT BAR (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE V CURB.
- ⑨ DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.
- ⑩ SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6" LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE. CONSTRUCT THESE TAPERS AT 0"-3" AT 8-10%, THEN LESS THAN 5% FROM 3" CURB TO FULL CURB HEIGHT.
- ⑪ NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12' MINIMUM TO 15' MAXIMUM FROM THE NEAREST RAIL. FOR SKEWED RAILWAYS IN NO INSTANCE SHALL THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.
- ⑫ WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 2' FROM THE APPROACHING SIDE OF THE GATE ARM. THIS CRITERIA GOVERNS OVER NOTE ⑪.
- ⑬ CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.
- ⑭ 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.
- ⑮ SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.
- ⑯ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

REVISION:
APPROVED: 11-04-2021
<i>Jeffrey Perkins</i>
JEFFREY PERKINS
OPERATIONS DIVISION



STANDARD PLAN 5-297.250	4 OF 6
APPROVED: 11-04-2021	REVISD:
<i>Tom Styrback</i>	THOMAS STYRBICKI
STATE DESIGN ENGINEER	STATE PROJ. NO. (TH)

PEDESTRIAN CURB RAMP DETAILS

SHEET NO. OF SHEETS

DATE	REVISION DESCRIPTION	BY
MAY 2024	AS SHOWN	THW
		WV

DATE	SCALE	DRAWN BY	CHECKED BY	JOB NUMBER
MAY 2024	AS SHOWN	THW	WV	2024-10685

STORM WATER POLLUTION PREVENTION PLAN NARRATIVE:

Project Location:

The Heritage Church site is located in the City of Baxter at 13242 Berrywood Dr, Baxter, MN 56425. A site location map has been provided detailing the location of the proposed improvements.

Existing Site Description:

The existing site consists of a church, school, parking lots, sidewalk, storm sewer and site related utilities. The stormwater runoff from the buildings and parking lots currently drain to existing catch basins that are connected by underground storm sewer that carry the stormwater to the College Pond infiltration basin east of the site. The south end of the property drains to an onsite depression in the southeast corner of the site. Access to the property is off Berrywood Drive and College Road.

Proposed Site Description:

The proposed improvements consist of an addition to the parking lot, storm sewer, and construction of an infiltration basin. The property is 13.34 acres in size and the total land disturbance will be 2.57 acres. The existing site is covered by 5.48 acres of impervious surface and the proposed site will be covered by 6.62 acres of impervious surface. The total impervious area will increase; therefore, permanent stormwater treatment is required from the NPDES and the City of Baxter. The construction of the infiltration basin will be completed to accommodate the necessary stormwater treatment required by the NPDES and City of Baxter.

The proposed infiltration basin will have a top elevation of 1197.0, an emergency overflow at 1196.0 and a bottom elevation of 1192.0. Runoff from the parking lot addition and part of the existing parking lot will sheet flow to nearby curb cuts that will direct the runoff to a grass swale where it then flows into the infiltration basin. A stormwater management plan has been developed and is available upon request and shall be considered part of this SWPPP.

The project will be disturbing under 5 acres; therefore, a temporary sediment control basin will not be required.

The disturbed area consists of Zimmerman-Urban land complex, which is hydrologic group A soil. The proposed drainage will not alter offsite drainage significantly by the proposed improvements. Only modifications will be incorporated to the interior drainage area boundaries.

Waters Within One Mile (Not Receiving Waters):

Water Body ID	Water Body Name	Type	Special Water	Impaired Water
07010104-656	Mississippi River	River	Yes	Yes
07010104-695	Buffalo Creek River	River	Yes	Yes

Dates of Construction:

The project will be started summer 2024, with construction being completed in fall 2024.

Contact Information:

Owner:

Heritage Church
Chad Sundberg, Director of Operations
13242 Berrywood Drive
Baxter, MN 56425
218-829-3209

Contractor:

TBD

Estimated Erosion Prevention and Sediment Control Quantities

Item	Estimated Quantity		
Seed Mixture MnDOT, Mix 22-111 Application Rate (100 LBS/ACRE)	1.26	AC	
Seed Mixture MnDOT, Mix 25-151 Application Rate (400 LBS/ACRE)	1.26	AC	
Seed Mixture MnDOT, Mix 33-261 Application Rate (35 LBS/ACRE)	0.21	AC	
Hydraulic Reinforced Fiber Matrix Application Rate (3900 LBS/ACRE)	1.26	AC	
Fertilizer Type 3 (10-10-20) Application Rate (300 LBS/ACRE)	1.26	AC	
Stabilized Construction Exit	1	EA	
Storm Drain Inlet Protection (MNDOT Spec. 2573)	5	EA	
Rolled Erosion Prevention Category 30 Natural (MNDOT Spec. 2575)	1,177	SQ YDS	
Articular Concrete Riprap (MNDOT Spec. 2511)	90	SQ YDS	
Sediment Control Log	104	LF	

(MNDOT Spec. 2575)

Silt Fence Type MS (MnDOT Spec. 2573) 737 LF

Dewatering:

It is anticipated that dewatering will not be required during portions of the utility installation.

Total disturbed area within project areas are as follows:

Project Disturbed Area = 2.57 AC

Existing Impervious Area = 5.48 AC

Proposed Impervious Area = 6.62 AC

Unique Storm Water Management Features

There are two special and impaired waters (Mississippi River and Buffalo Creek) within one mile of the project site, but do not receive runoff from the site.

TMDL Implementation Plans Containing Storm Water Requirements

No TMDL Implementation Plans currently exist for the receiving waters on this project.

Long Term Maintenance

Long term maintenance of the permanent storm water management system will be by Heritage Church. The sump in drainage structure DS-01 and the infiltration basin shall be inspected annually. The infiltration basin shall be cleaned and restored to design grade after one half of the storage volume has been filled with sediment. The sump in the drainage structure DS-01 shall be cleaned out annually or if one half of the sump has been filled with sediment.

Erosion Control Supervisor Requirements

The Contractor must identify an Erosion Control Supervisor (ECS) who is knowledgeable and experienced in the application of erosion and sediment control Best Management Practices (BMP's). The ECS must work with the Contractor to oversee and implement the SWPPP, and the installation, inspection, and maintenance of erosion and sediment control BMP's before, during and after construction. The Contractor/ECS is required to comply with the training requirements in 2023 Permit Reference 21 of the NPDES Permit. The permittee(s) shall ensure that employees are properly trained in the following areas with certification proof provided at the pre-construction conference.

SWPPP Preparation:

Name: Thomas Rients

Dates of instruction and training specifics are on file at Widseth and are available upon request.

Site Manager:

Name: TBD
Dates of Training: _____
Instructors Name providing Training: _____
Content of Training (incl. hours): _____

BMP Installer:

Name: TBD
Dates of Training: _____
Instructors Name providing Training: _____
Content of Training (incl. hours): _____

The Contractor/ECS shall develop a chain of responsibility with all operators on the site to ensure that the SWPPP will be implemented and stay in effect until the project site has undergone Permit Termination Conditions in accordance with 2023 Permit Reference 13 of the NPDES Permit and a Notice of Termination (NOT) has been submitted to the MPCA in accordance with 2023 Permit Reference 4 of the NPDES Permit. The Contractor/ECS must routinely inspect the entire construction site at least once every seven days during active construction and within 24 hours after a rainfall event greater than 0.5 inch in 24 hours. The Contractor shall take action to eliminate any deficiencies found during these inspections. The Contractor must provide two rain gauges to be installed on the construction site. Inspections, maintenance, and documentation must be in accordance with the NPDES Permit 2023 Permit Reference 11. See 2023 Permit Reference 24.5 of the NPDES Permit for record retention requirements. Copies of the inspection records are to be submitted to the Engineer.

The Contractor/ECS must amend the SWPPP as necessary to include additional requirements, such as additional or modified BMP's, designed to correct problems or address situations in accordance with 2023 Permit Reference 6 of the NPDES Permit.

Individual Site Plans will be required by the E.C. Supervisor as deemed necessary. Refer to MnDot 1717.

A daily inspection log will be required by the E.C. Supervisor of all sediment, erosion, and materials on site (ie: chemicals, etc.). This log shall be kept current.

The E.C. Supervisor shall provide an inlet staging schedule and protection plan for the entire project. This plan and schedule shall be presented to the engineer at the pre-construction conference. Minimum requirements of the plan and schedule shall include:

- date of proposed inlet protection device installation
- protection device utilized
- estimated duration of device in operation
- schedule of subsequent devices that will be utilized for inlet protection

The contractor shall have a petroleum release plan and shall have all necessary materials on hand to implement the plan. All employees shall be trained in implementation of the plan. The MPCA shall be informed of any petroleum spills greater than 5 gallons.

STORM WATER POLLUTION PREVENTION PLAN NOTES:

Construction Practices to Minimize Storm Water Contamination

- Stockpiles should be constructed away from slopes and natural drainage ways and have sediment controls at the base prior to the initiation of stockpiling.
- Collected solid waste, sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal requirements.
- No construction materials can be buried on site.
- Licensed sanitary waste management handler must dispose of sanitary waste.
- Fertilizers must be stored in covered locations.
- Restricted access to chemical storage areas must be provided to prevent vandalism.
- All chemicals must be stored in locked containers when not in use.
- Oil, gasoline, paint, and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge.
- Storage and disposal of hazardous waste must be in compliance with MPCA regulations.
- Vehicles must be monitored for leaks and preventative maintenance scheduled.
- Spill kits must be available during equipment fueling and maintenance operations.
- External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained, and waste properly disposed of. No engine degreasing is allowed on site.
- Asphalt substances must be applied according to manufactures recommendations.
- Spray guns must be cleaned on removable surfaces such as tarpaulins.
- Contractor/Erosion Control Supervisor must make a spill response plan before the application of any chemical that may be harmful to the environment.
- All spills must be reported immediately. Spill cleanup materials must be available on site. Material shall include but not limited to brooms, mops, rags, gloves, absorbent material, sand plastic and metal containers. Spills that reach storm water conveyance systems connected to a Water of the State must be immediately reported to the MPCA State Duty Officer.
- Contractor must control weeds on the entire project site.
- Form release oil must be applied over a pallet covered with absorbent material to collect excess fluid. The absorbent material shall be replaced when saturated.
- Dust control must be provided as conditions warrant.
- If this project is not stabilized before winter conditions stop construction activities, it shall be the contractor's responsibility to ensure sediment does not reach a water of the state. A written plan of this activity shall be presented to the engineer 1 month before expected project shut down for the season occurs. This plan shall include but not be limited to:
 - date of proposed bmp employment
 - duration of bmp's employed
 - schedule of subsequent bmp's employed

Temporary and Permanent Erosion Control Practices

BMPs proposed for temporary and permanent erosion control are shown on the erosion control plan sheets and are further identified as follows:

Temporary Erosion Control Methods

All disturbed soil areas shall be temporarily mulched with Type 1 mulch within 7 days if the area is not being actively worked. Temporary seed mix 22-111 at a rate of 100 lbs/ac of Pure Live Seed will be used only in cases where disturbed soil areas are anticipated to remain unworked in excess of 7 days prior to placement of Type 1 mulch.

Permanent Erosion Control Methods

Permanent erosion control will be achieved by using Seed Mixture 25-151 at a rate of 400 lbs/ac of Pure Live Seed, Type 3 Fertilizer with a composition of 10-10-20 at a rate of 300 lbs/ac, and Hydraulic Soil Stabilizer, Type 5 at a rate of 3900 lbs/ac on all disturbed construction areas.

Temporary Sediment Control Methods

Silt fence and sediment control logs will be used as the primary control to prevent sediment from draining off the construction site.

Rock construction entrances shall be placed at all locations construction vehicles will be exiting the project area.

Unique Environmental Concerns

There are not wetlands adjacent to the project. The Mississippi River and Buffalo Creek are within one mile of the site boundary, but do not receive runoff from the site.

Timing of BMP Installation

Erosion and sediment control BMP's must be installed as necessary to minimize erosion from disturbed surfaces and capture sediment onsite. All BMP's must conform to 2023 Permit Reference 8 and 9 of the NPDES Permit.

Erosion Prevention Practices

The Contractor/ECS is responsible for the Erosion Prevention Practices contained in 2023 Permit Reference 8 of the NPDES Permit. The Contractor/ECS must plan for and implement appropriate construction phasing, vegetative buffer strips, horizontal slope grading and other construction practices that minimize erosion. The location of areas not to be disturbed must be delineated (marked) on the development site before work begins.

All exposed soil areas must be stabilized as soon as possible to limit soil erosion but in no case later than 14 days (7 days for sites discharging to special or impaired waters, see 2023 Permit Reference 24 of NPDES Permit) after the construction activity in that portion of the site has temporarily or permanently ceased.

The normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from any portion of the construction site, or diverts water around the construction site, must be stabilized within 200 lineal feet from the property edge, or from the discharge into any surface water. Stabilization must be complete within 24 hours after connecting to surface water.

Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours after connection to a surface water.

Sediment Control Practices

The Contractor/ECS is responsible for the Sediment Control Practices contained in 2023 Permit Reference 9 of the NPDES Permit. Sediment Control Practices must be installed on all down gradient perimeters before any upgradient land disturbing activities begin. There shall be no unbroken slope length greater than 75 feet for slopes with a grade of 3:1 or steeper. These practices must remain in place until Permit Termination Conditions have been established in accordance with 2023 Permit Reference 13 of the NPDES Permit.

The timing of installation of Sediment Control Practices may be adjusted to accommodate short-term activities such as clearing or grubbing, or passage of vehicles. Short-term activities must be completed as quickly as possible, and the practices must be installed immediately after the activity is completed. However, the Sediment Control Practices must be installed before the next precipitation event even if the activity is not complete.

All storm drain inlets must be protected by appropriate BMP's during construction until all sources with potential for discharging to the inlet have been stabilized. Inlet protection may be removed if a specific safety concern has been identified and the procedure in 2023 Permit Reference 9.8 of the NPDES Permit is followed.

Temporary soil stockpiles must have silt fence or other effective sediment controls, and cannot be placed in surface waters, including stormwater conveyances such as curb and gutter systems, or conduit and ditches unless there is a bypass for stormwater.

Vehicle tracking of sediment from the construction site must be minimized by BMP's such as stone or wood chip pads, concrete or steel wash racks, or equivalent systems. Street sweeping with collection must be used if such BMP's are not adequate to prevent sediment from being tracked onto the street (see 2023 Permit Reference 9.12 of the NPDES Permit).

Dewatering related to the construction activity must comply with 2023 Permit Reference 10 of the NPDES Permit. Dewatering discharge that may have turbid or sediment laden discharge must be discharged to a temporary or permanent sedimentation basin on the project site whenever possible and BMP's must be implemented to prevent water containing sediment or other pollutants from being discharged to surface waters or downstream properties.

Contractor may construct temporary sedimentation basins in accordance with 2023 Permit Reference 14 of the NPDES Permit.

Pollution Prevention:

Each contractor on site is individually responsible for maintaining a clean and safe work site. The person responsible shall dispose of all solid waste properly and in compliance with the MPCA disposal requirements. Solid waste includes but is not limited to: collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris. The person responsible shall be responsible for all hazardous materials during construction. Oil, gasoline, grease, paint, and other hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks and unwanted discharges. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in accordance with the MPCA regulations. External washing of trucks and other construction equipment is prohibited on this project site.

Concrete washout site: all liquid and solid wastes generated by concrete washout operations must be contained in a leak proof containment facility or impermeable liner. The liquid and solid wastes must not contact the ground, and there must not be runoff from the concrete washout operations or areas. Liquid and solid wastes must be disposed of properly and in compliance with the MPCA regulations. A sign must be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.

The following telephone numbers are provided for assistance to the contractors and are not necessarily comprehensive; it is the responsibility of the individual contractor to make sure of proper notification.

Poison Control (800) 222-1222
24 Hour Spill Emergency (800) 422-0798

Payment

Cost for permanent and temporary erosion and sediment control measures shown on the plans will be paid per unit bid prices. The costs to maintain and remove these devices shall be incidental to the bid items. The cost for temporary seeding, soil stabilization, or any additional temporary erosion and sediment control devices shall be paid according to MN/DOT Spec. 2573.5 or 2575.5 as applicable. All costs for documentation required by the Permit shall be incidental to other items unless a specific bid item is established.

Contacts

Agency	Permit	Name	Phone Number
MPCA	NPDES	Brian Green	507-206-2610
Baxter	City	Trevor Walter	218-454-5100
SWPPP Design	WSN	Thomas Rients	218-316-3639

EC Supervisor

Amendments to the SWPPP:

Date:

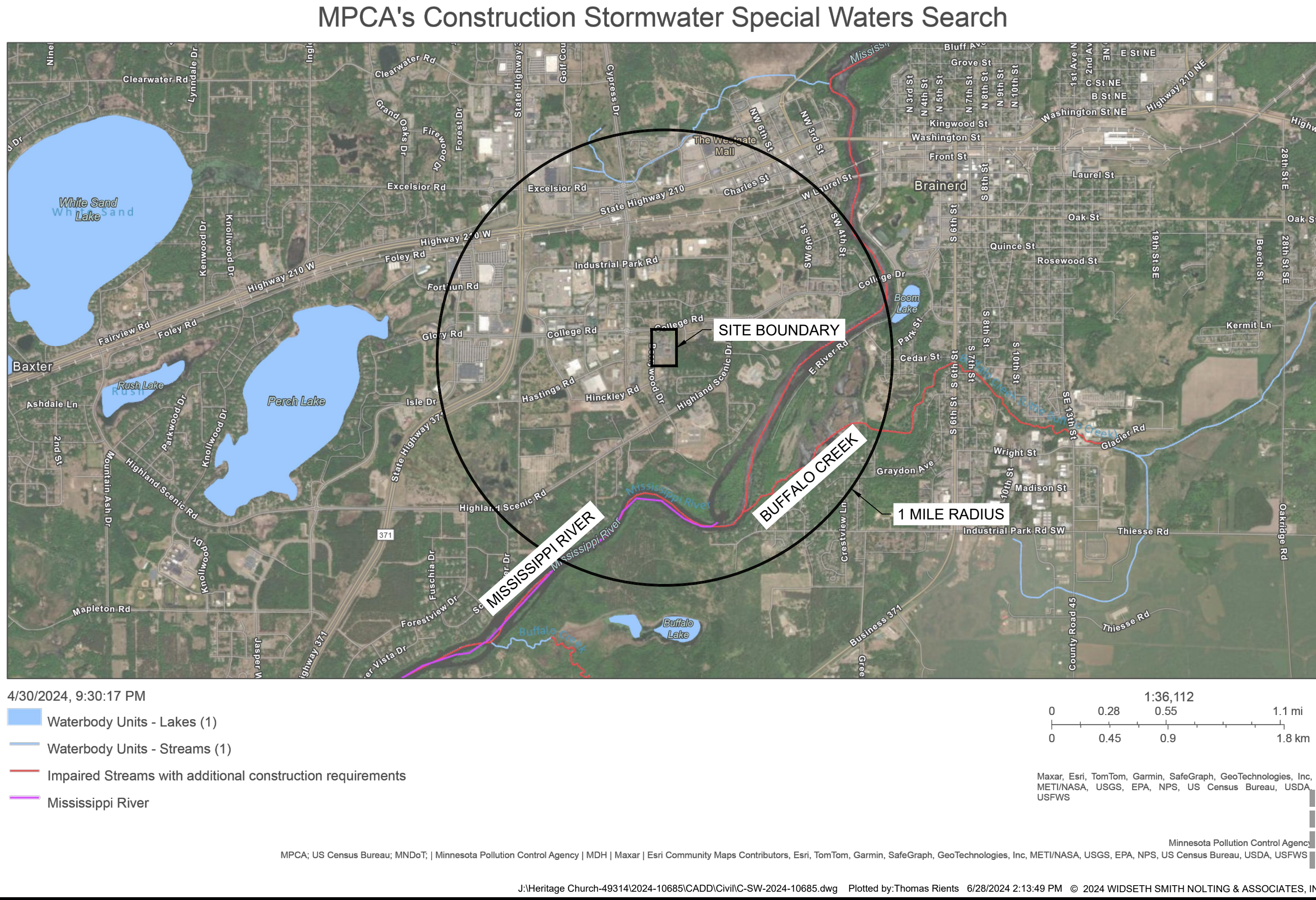
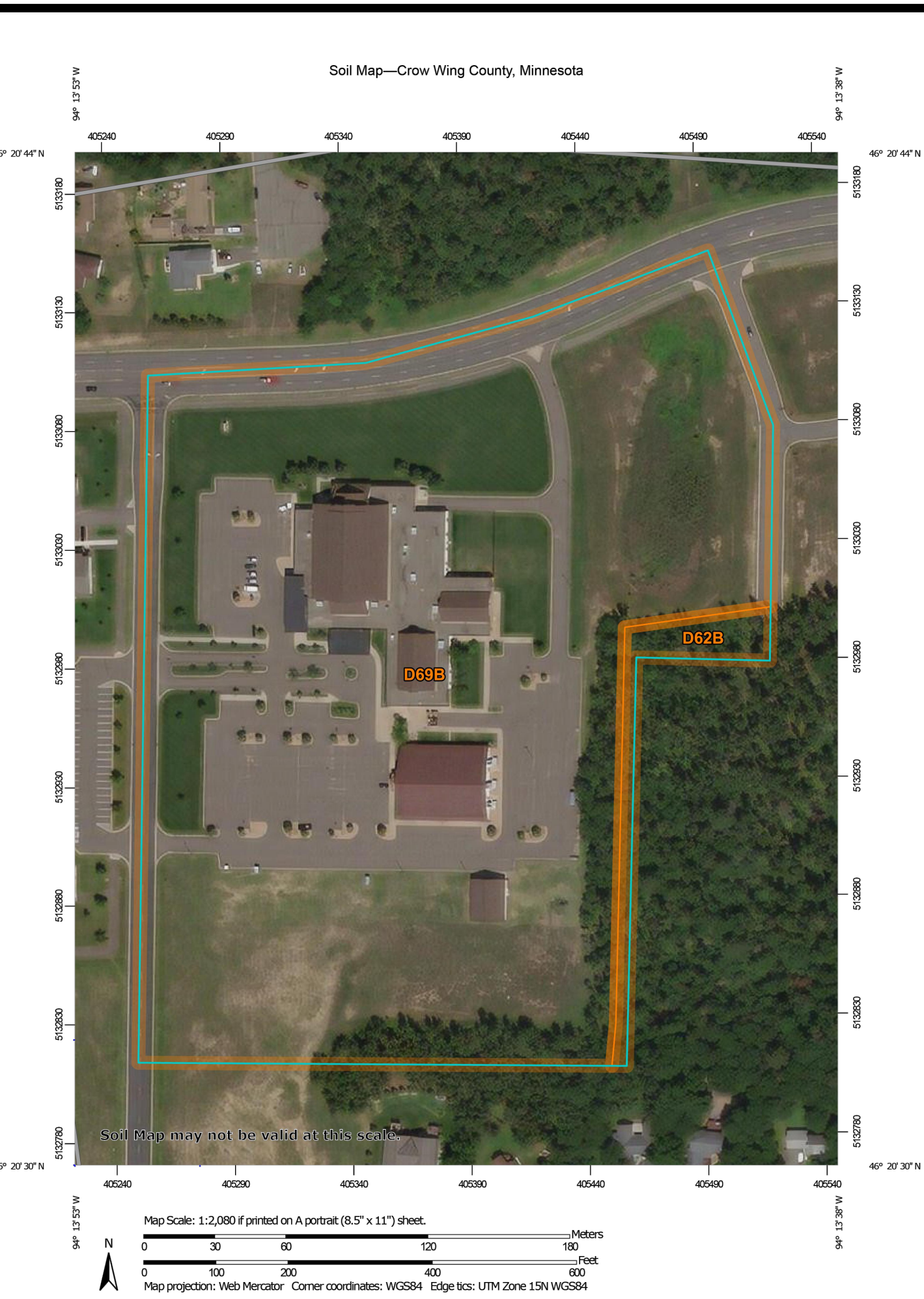
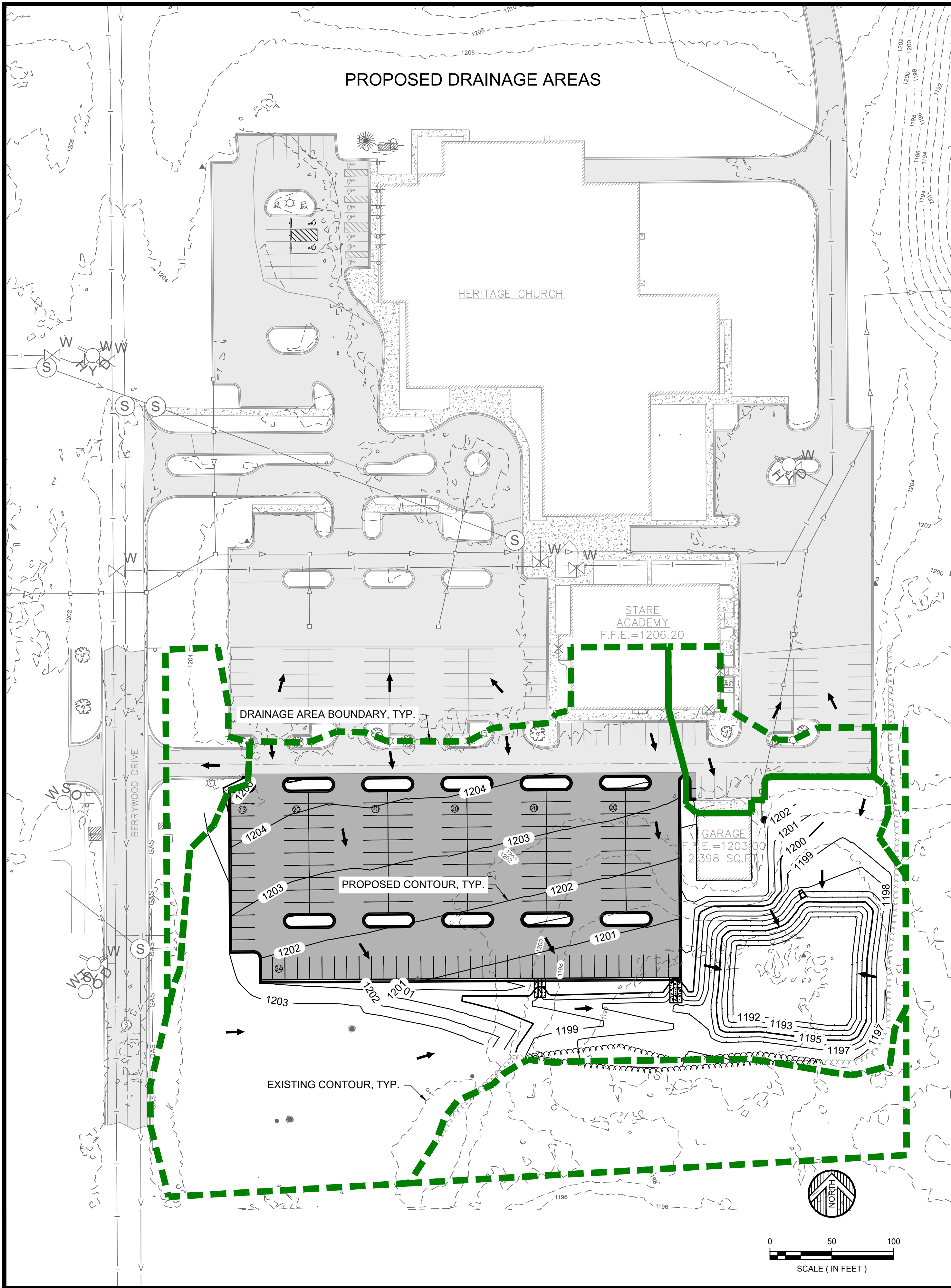
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REVISIONS DESCRIPTION	BY			

DATE	REV			

DATE: MAY, 2024	AS SHOWN	THUR	
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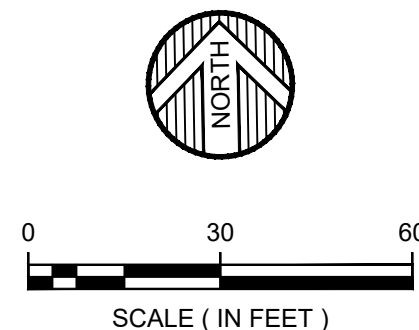
HERITAGE CHURCH PARKING LOT ADDITION HERITAGE CHURCH 13242 BERRYWOOD DR. BAXTER, MN 56425 SWPPP NARRATIVE	JOB NUMBER: 2024-10685
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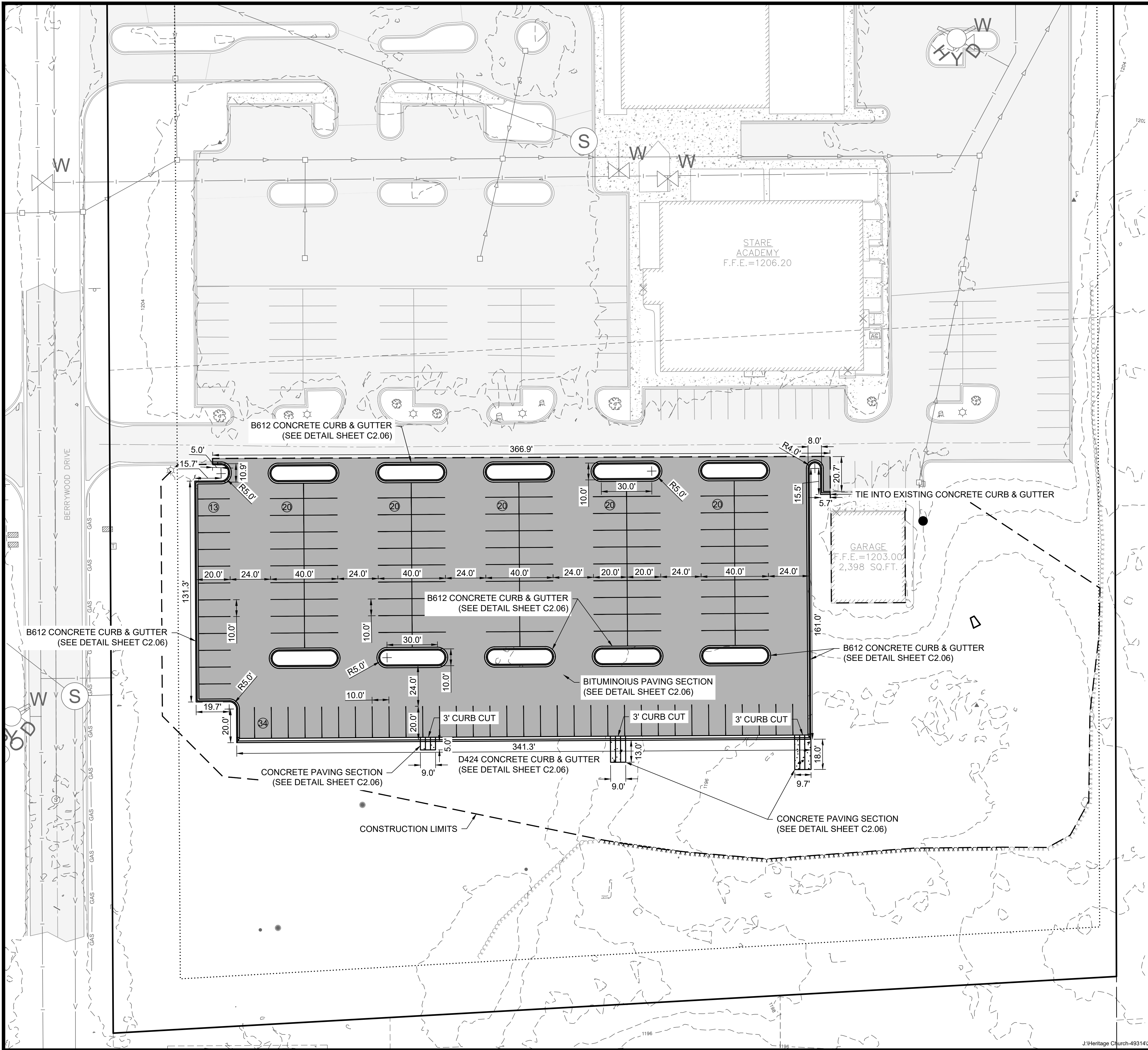
DATE	REVISION	DESCRIPTION	BY

DATE:	MAY 2024
SCALE:	AS SHOWN
DRAWN BY:	TMR
CHECKED BY:	WW
JOB NUMBER:	2024-10685

HERITAGE CHURCH PARKING LOT ADDITION
HERITAGE CHURCH
13242 BERRYWOOD DR. BAXTER, MN 56425
SWPPP MAPS



SHEET NO.
C4.01



GENERAL CONSTRUCTION NOTES

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GENERAL SITE PLAN NOTES

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- CONTRACTOR SHALL CALL GOPHER STATE ONE CALL PRIOR TO BEGINNING REMOVALS.
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- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL AND SHALL BE IN COMPLIANCE WITH THE MINNESOTA UNIFORM TRAFFIC CONTROL DEVICES MANUAL AND TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS FIELD MANUAL. THE TRAFFIC CONTROL SHALL BE APPROVED BY THE CITY PRIOR TO INSTALLATION.
- ALL CURB TO MEET MINNESOTA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR A TYPE "B612 CURB & GUTTER", UNLESS PLANS ARE MARKED OTHERWISE.
- ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
- ALL CURB RADII ARE 5.0 FEET TO FACE OF CURB UNLESS OTHERWISE NOTED.

IMPERVIOUS AREA TABLE

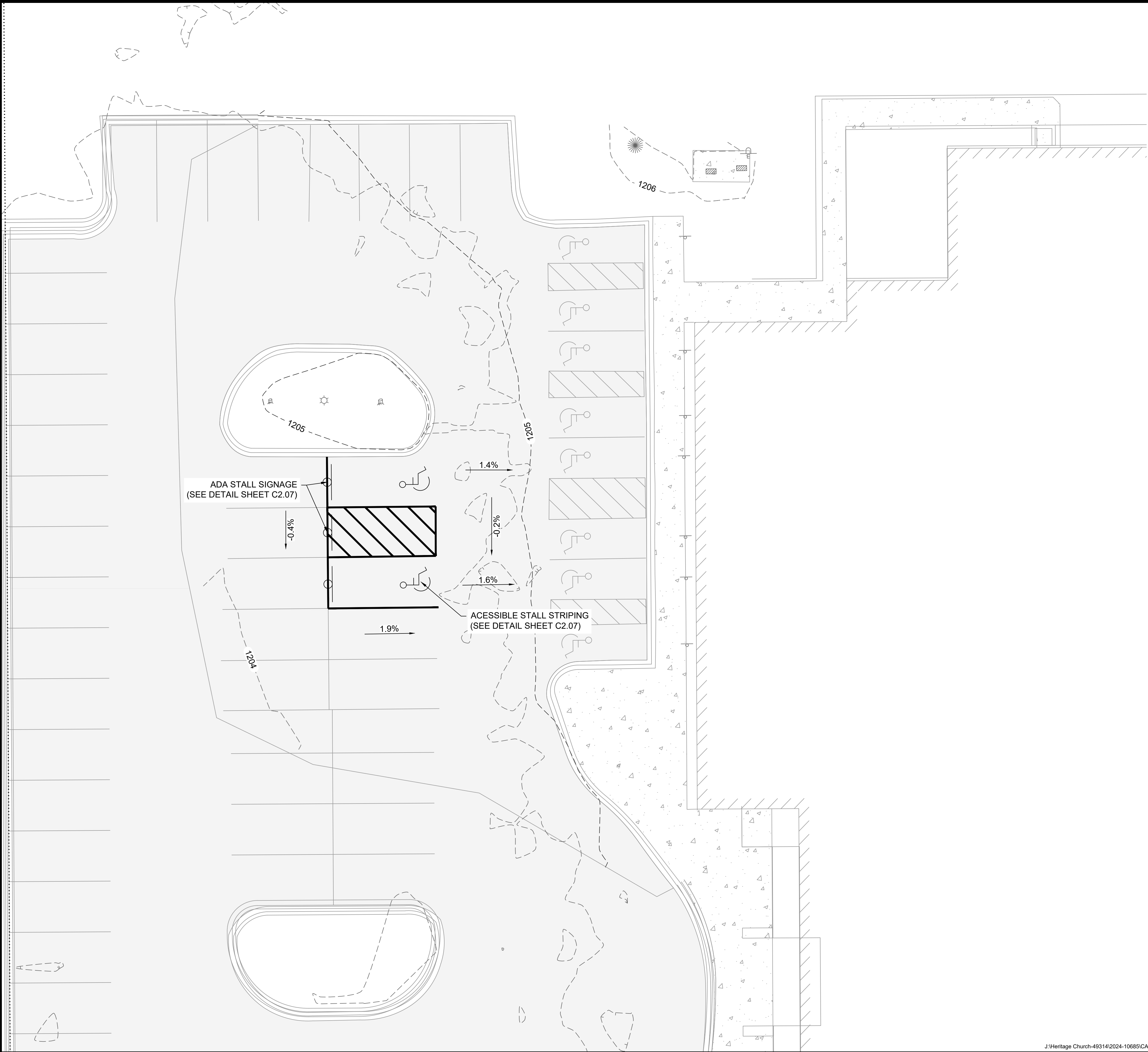
ITEM	AREA (FT²)	IMPERVIOUS (%)
PROPERTY AREA	= 580,830	
EXISTING IMPERVIOUS AREAS		
BUILDINGS	= 66,419	11.44%
IMPERVIOUS PAVEMENT	= 172,223	29.65%
TOTAL EXISTING IMPERVIOUS	= 238,642	41.09%
PROPOSED IMPERVIOUS AREAS		
BUILDINGS	= 66,419	11.44%
IMPERVIOUS PAVEMENT	= 222,001	38.22%
TOTAL IMPERVIOUS	= 288,420	49.66%

PARKING CALCULATION TABLE

EXISTING PARKING LOT		
PARKING STALLS PROVIDED	=	283
HANDICAP ACCESSIBLE STALLS PROVIDED	=	12
TOTAL STALLS	=	295

PARKING LOT ADDITION		
EXISTING STALLS	=	244
PROPOSED STALLS	=	147
HANDICAP ACCESSIBLE STALLS	=	14
TOTAL STALLS	=	405





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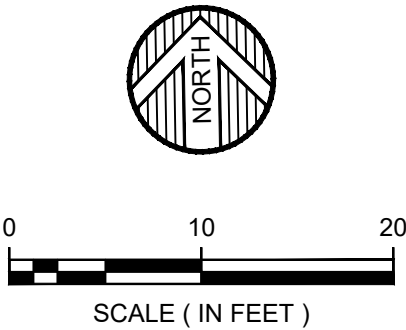
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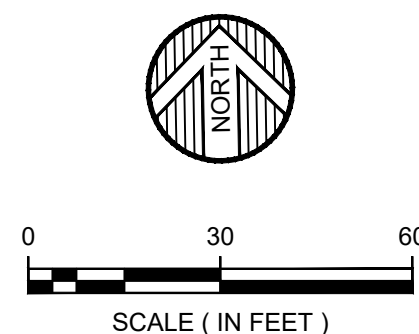
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DATE	REVISION DESCRIPTION	BY

DATE: MAY, 2024	AS SHOWN
SCALE: TMR	WV
DRAWN BY: WV	
CHECKED BY: WV	
JOB NUMBER: 2024-10685	



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- HAULING HOURS MUST BE CONFIRMED WITH THE CITY PRIOR TO BEGINNING WORK.
- SPOT ELEVATIONS SHOWN INDICATE FINISHED PAVEMENT ELEVATIONS, GUTTER FLOW LINE OF CURB GUTTER, BACK OF CURB ELEVATIONS (TC), AND FINISHED SURFACE GRADE, UNLESS OTHERWISE NOTED.
- ALL SLOPES MUST BE GRADED TO 3:1 OR FLATTER, UNLESS OTHERWISE NOTED ON THE PLANS.
- INFILTRATION AREA SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES TO AVOID COMPACTION OF THE SOILS. IT IS RECOMMENDED THIS AREA BE FENCED OFF AND NOT UTILIZED FOR CONSTRUCTION STAGING, STOCKPILING MATERIALS, OR ANY OTHER CONSTRUCTION RELATED ACTIVITY. THE INFILTRATION AREA SHALL BE SHAPED TO FINAL GRADE AND ALL HEAVY CONSTRUCTION EQUIPMENT SHALL NOT BE ALLOWED IN THE BASIN AFTER FINAL GRADE HAS BEEN ESTABLISHED.

WIDSETH
ARCHITECTS ■ ENGINEERS ■ SCIENTISTS ■ SURVEYORS

HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

William Westberg

WILLIAM WESTBERG DATE: 06/28/2024 LIC. NO. 21874

DATE	REV#	REVISIONS DESCRIPTION	BY

DATE:	MAY, 2024
SCALE:	AS SHOWN
DRAWN BY:	TMR
CHECKED BY:	WW
JOB NUMBER:	2024-10685

HERITAGE CHURCH PARKING LOT ADDITION
HERITAGE CHURCH
13242 BERRYWOOD DR. BAXTER, MN 56425
GRADING PLAN

SHEET NO.
C6.01

EROSION CONTROL QUANTITIES*					
TYPE	AREA (YD²)	AREA (ACRES)	VOLUME (CU.YD)	EACH	LIN. FT.
SEED MIXTURE MNDOT. MIX 22-111		1.26			
SEED MIXTURE MNDOT. MIX 25-151		1.26			
SEED MIXTURE MNDOT. MIX 33-261		0.21			
HYDRAULIC REINFORCED FIBER MATRIX		1.26			
FERTILIZER TYPE 3 (10-10-20)		1.26			
STABILIZED CONSTRUCTION EXIT				1	
INLET PROTECTION (MNDOT SPEC. 2573)				5	
ROLLED EROSION PREVENTION CATEGORY 30 NATURAL (MNDOT SPEC. 2575)	1,177				
ARTICULAR CONCRETE RIPRAP (MNDOT SPEC. 2511.604)	90				
SEDIMENT CONTROL LOG (MNDOT SPEC. 2573)					104
SILT FENCE TYPE MS/HI (MNDOT SPEC. 2573)					737

APPLICATION RATE FOR ESTIMATED QUANITIES	
TURF ESTABLISHMENT	
SEED MIXTURE MNDOT. MIX 22-111	100 LBS/ACRE
SEED MIXTURE MNDOT. MIX 25-151	400 LBS/ACRE
SEED MIXTURE MNDOT. MIX 33-261	35 LBS/ACRE
HYDRAULIC REINFORCED FIBER MATRIX	3900 LBS/ACRE
FERTILIZER TYPE 3 (10-10-20)	300 LBS/ACRE

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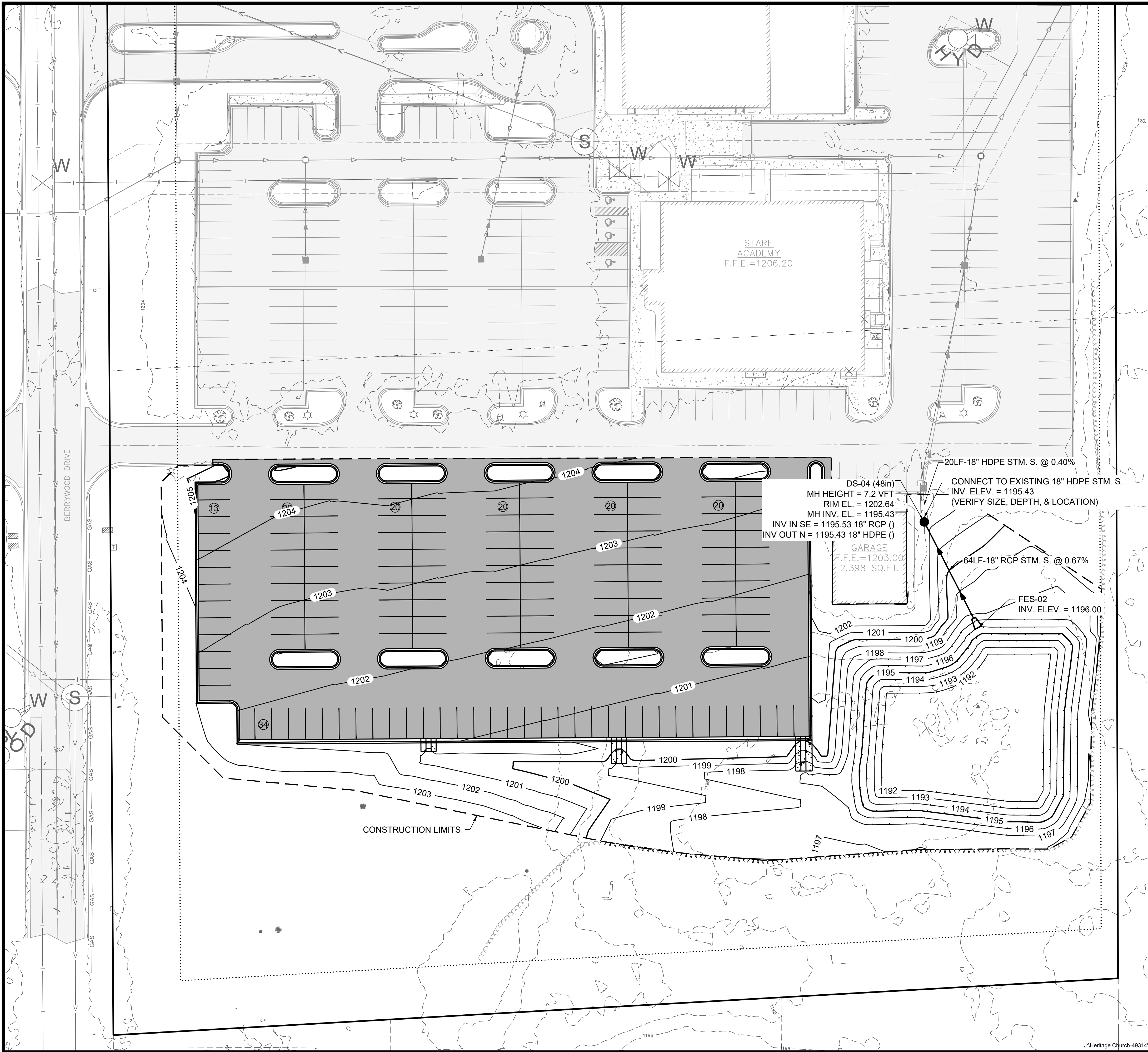
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- ALL SILT FENCE AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY EXCAVATION/CONSTRUCTION AND SHALL BE MAINTAINED UNTIL VIABLE TURF OR GROUND COVER HAS BEEN ESTABLISHED. MAINTENANCE AND REMOVAL OF SEDIMENT CONTROL DEVICES SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
- ALL STREETS UTILIZED FOR PROJECT CONSTRUCTION MUST BE CLEANED AT THE END OF EACH DAY. A ROCK ENTRANCE TO THE SITE MUST BE PROVIDED ACCORDING TO THE DETAILS TO REDUCE TRACKING OF SEDIMENT ONTO PUBLIC STREETS. STREET SWEEPING MAY BE NECESSARY AND WILL BE CONSIDERED INCIDENTAL.
- ALL EXPOSED SOILS MUST BE STABILIZED WITHIN 14 CALENDAR DAYS OF ROUGH GRADE COMPLETION OF AFTER CONSTRUCTION TERMINATES. ALL STOCKPILES SHALL HAVE ADEQUATE SEDIMENT TRAPPING SYSTEMS INSTALLED AROUND THEM.
- ALL AREAS TO BE ESTABLISHED TO GRASS COVER SHALL RECEIVE 4" OF TOPSOIL AND SOD OR SEED. THESE AREAS SHALL BE WATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- INLET PROTECTION SHALL BE INSTALLED AT ALL STORM SEWER INLETS WHICH HAVE A POTENTIAL TO RECEIVE RUNOFF FROM THE CONSTRUCTION SITE.
- INFILTRATION AREA SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES TO AVOID COMPACTION OF THE SOILS. IT IS RECOMMENDED THIS AREA BE FENCED OFF AND NOT UTILIZED FOR CONSTRUCTION STAGING, STOCKPILING MATERIALS, OR ANY OTHER CONSTRUCTION RELATED ACTIVITY. THE INFILTRATION AREA SHALL BE SHAPED TO FINAL GRADE AND ALL HEAVY CONSTRUCTION EQUIPMENT SHALL NOT BE ALLOWED IN THE BASIN.
- SEE PLAN LEGEND FOR A COMPLETE LIST OF HATCHES AND SYMBOLS USED FOR EROSION CONTROL.

LEGEND

- STORM DRAIN INLET PROTECTION (MNDOT SPEC. 2573)
- HYDRAULIC REINFORCED FIBER MATRIX SEED MIXTURE MNDOT 25-151 (COMMERCIAL TURF) & MNDOT 21-111 (TEMPORARY)
- DENOTES 6" TOPSOIL AT INVERT OF INFILTRATION BASIN & SEED MIXTURE MNDOT 33-261
- ROLLED EROSION PREVENTION CATEGORY 30 NATURAL (MNDOT SPEC. 2575)
- ARTICULAR CONCRETE RIPRAP (FLEXIMAT) (MNDOT SPEC. 2511.604)
- SILT FENCE TYPE MS/HI (MNDOT SPEC. 2573)
- DENOTES SEDIMENT CONTROL LOGS (MNDOT SPEC. 2573.503/00062)
- SURFACE DRAINAGE FLOW





GENERAL CONSTRUCTION NOTES

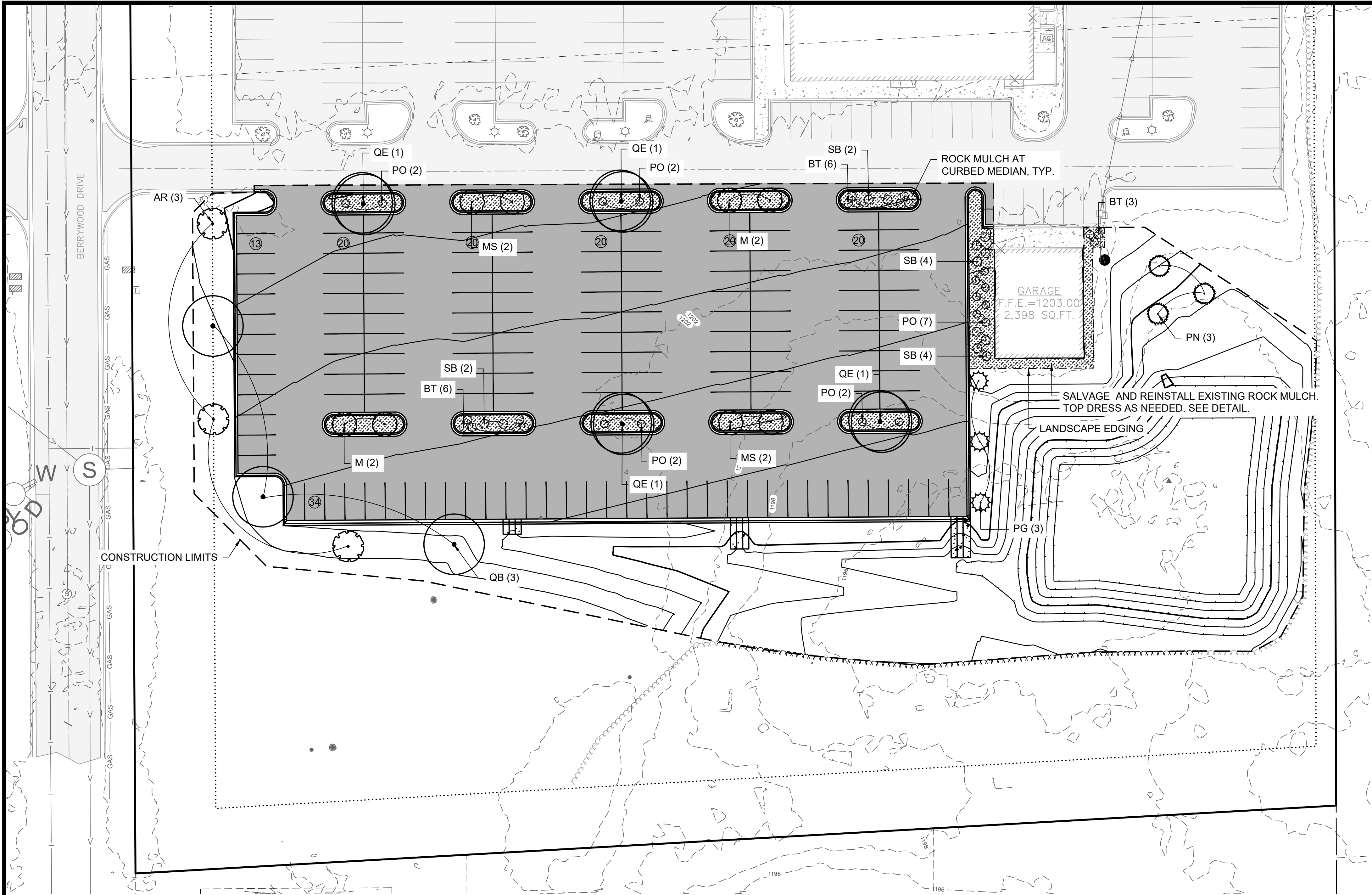
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- THE ENGINEER HAS MADE AN ATTEMPT TO SHOW ALL PUBLIC UTILITIES WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT. PUBLIC UTILITIES SHOWN ON THIS PLAN WERE DRAWN USING FIELD SURVEY INFORMATION AND MAPS PROVIDED TO THE ENGINEER BY THE UTILITY COMPANIES AS A RESULT OF A GOPHER STATE ONE CALL DESIGN LOCATE REQUEST. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE LOCATIONS PRIOR TO BIDDING AND CONSTRUCTING THE PROJECT.
- PRIVATE UTILITY LOCATES ARE TO BE COORDINATED BY THE CONTRACTOR. THE PRIVATE LOCATES WILL BE DONE BY GOPHER STATE ONE CALL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION LOCATES AND SHALL NOTIFY ALL AFFECTED UTILITY COMPANIES AT LEAST 48-HOURS BEFORE CONSTRUCTION.
- RIM ELEVATIONS REFLECT A SUMP OF 0.05 FEET.
- STORM SEWER OF DIFFERING DIAMETERS SHALL MATCH 0.8 DIAMETER GRADE LINE ELEVATIONS AT CATCH BASIN OR MANHOLE JUNCTIONS.
- A MINIMUM OF 18 INCH VERTICAL SEPARATION SHALL BE REQUIRED AT ALL WATER MAIN CROSSINGS WITH SANITARY SEWER AND STORM SEWER.
- HDPE STORM SEWER PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M294, TYPE S WITH WATERTIGHT JOINTS. PVC STORM SEWER SHALL BE SCHEDULE 40 PIPE. FLARED ENDS SHALL BE RCP WITH TRASH GUARDS AND RIP RAP.

DATE	REVISION DESCRIPTION	BY

DATE:	MAY, 2024
SCALE:	AS SHOWN
DRAWN BY:	TMR
CHECKED BY:	WW
JOB NUMBER:	2024-10685



KEY TO FEATURES

- ROCK MULCH
- LANDSCAPE PLANTINGS, SEE SCHEDULE
- LANDSCAPE EDGING

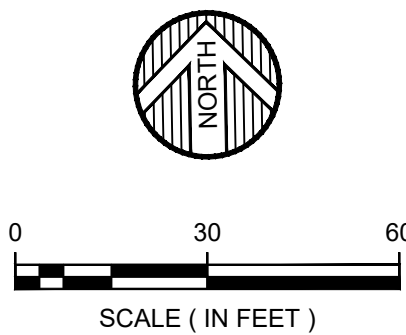
PLANTING SCHEDULE

ABBR.	SCIENTIFIC NAME	COMMON NAME	QTY.	SIZE	TYPE	SPACING	NOTES
DECIDUOUS TREES							
QB	QUERCUS BICOLOR 'JFS-KE12'	AMERICAN DREAM OAK	3	6'	B&B	PER PLAN	2" DBH MIN.
QE	QUERCUS ELLIPSOIDALIS 'BALISKIES'	MAJESTIC SKIES OAK	4	6'	B&B	PER PLAN	2" DBH MIN.
MS	MALUS 'SUTYZAM'	SUGAR TYME CRABAPPLE	4	2"	B&B	PER PLAN	2" DBH MIN.
M	MALUS 'ADIRONDACK'	ADIRONDACK CRABAPPLE	4	2"	B&B	PER PLAN	2" DBH MIN.
AR	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG MAPLE	3	6'	B&B	PER PLAN	2" DBH MIN.
CONIFEROUS TREES							
PG	PICEA GLAUCA DENSATA	BLACK HILLS SPRUCE	3	6'	B&B	PER PLAN	6' MIN.
PN	PINUS NIGRA	AUSTRIAN PINE	3	6'	B&B	PER PLAN	6' MIN.
DECIDUOUS SHRUBS							
PO	PHYSOCARPUS OPULIFOLIUS 'ZELYel2'	RASPBERRY LEMONADE NINEBARK	15	3 GAL.	CONT.	PER PLAN	3 GAL. CONTAINER MIN.
SB	SPIRAEA BETULIFOLIA 'TOR'	TOR SPIREA	12	3 GAL.	CONT.	PER PLAN	3 GAL. CONTAINER MIN.
BT	BERBERIS THUNBERGII 'BALIANNA'	MOSCATO BARBERRY	15	3 GAL.	CONT.	PER PLAN	3 GAL. CONTAINER MIN.

GENERAL NOTES

- THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES, PRIVATE & PUBLIC, BEFORE COMMENCING WORK. CONTACT GOPHER STATE ONE CALL 1-800-252-1166 (OR 811). CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE WHICH MIGHT BE CAUSED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.
- SPREAD MULCH SO THAT IT IS NOT IN CONTACT WITH WOODY BASE OF PLANT.
- THESE NOTES ARE FOR GENERAL REFERENCE IN CONJUNCTION WITH DETAILS, ADDENDA AND CHANGE ORDERS ASSOCIATED WITH THE CONTRACT DOCUMENTS.
- LANDSCAPE CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION.
- LANDSCAPE CONTRACTOR SHALL BECOME FAMILIAR WITH THE LOCATION OF ALL EXISTING AND FUTURE UNDERGROUND SERVICES AND IMPROVEMENTS WHICH MAY CONFLICT WITH WORK TO BE DONE.
- FINE GRADING AND EDGING SHALL BE APPROVED PRIOR TO PLANTING OPERATIONS.
- PLANT MATERIAL SHALL NOT BE INSTALLED IN AN AREA WHICH WILL CAUSE HARM TO ADJACENT STRUCTURES. NOTIFY THE ARCHITECT SHOULD CONFLICTS ARISE.
- UNLESS OTHERWISE NOTED, FINISH GRADE OF PLANTING AREAS SHALL BE 2" BELOW ADJACENT PAVING. TAPER 3" DEPTH MULCH TOP DRESSING TO 1/2" BELOW ADJACENT PAVING (1 1/2" DEPTH) WITHIN 2" OF PAVING.
- ALL EXISTING TREES, SHRUBS, VINES AND GROUND COVERS TO REMAIN SHALL BE PROTECTED. ANY DAMAGE CAUSED BY CONTRACTOR'S WORK OR NEGLIGENCE SHALL BE REPLACED OR REPAIRED AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE OWNER.
- LANDSCAPE CONTRACTOR SHALL ASSURE COMPLIANCE WITH APPLICABLE CODES AND REGULATIONS GOVERNING THE WORK AND MATERIALS SUPPLIED.
- LANDSCAPE CONTRACTOR SHALL PROTECT EXISTING ROADS, CURB AND GUTTER, TRAILS, TREES, LAWNS AND SITE ELEMENTS DURING CONSTRUCTION. DAMAGE TO THESE ITEM SHALL BE REPAIRED AT NO COST TO OWNER.
- UNDERGROUND SERVICES SHALL BE INSTALLED SO THAT TRENCHES DO NOT CUT THROUGH ROOT SYSTEMS OF EXISTING TREES TO REMAIN.
- LANDSCAPE CONTRACTOR SHALL REVIEW THE SITE FOR DEFICIENCIES IN SITE CONDITIONS WHICH MIGHT NEGATIVELY AFFECT PLANT MATERIALS ESTABLISHMENT, SURVIVAL OR WARRANTY. UNDESIRABLE SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO BEGINNING OF WORK.
- LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ONGOING MAINTENANCE OF NEWLY INSTALLED MATERIALS UNTIL TIME OF SUBSTANTIAL COMPLETION. REPAIR OF ACTS OF VANDALISM OR DAMAGE WHICH MAY HAVE OCCURRED PRIOR TO SUBSTANTIAL COMPLETION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- EXISTING TREES OR SIGNIFICANT SHRUB MASSING FOUND ON SITE SHALL BE PROTECTED AND SAVED UNLESS NOTED TO BE REMOVED OR ARE LOCATED IN AN AREA TO BE GRADED. QUESTIONS REGARDING EXISTING PLANT MATERIALS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO REMOVAL.
- EXISTING TREES TO REMAIN, UPON DIRECTION OF ARCHITECT, SHALL BE FERTILIZED AND PRUNED TO REMOVE DEAD WOOD, DAMAGED AND RUBBING BRANCHES.
- SYMBOLS ON PLAN DRAWING TAKE PRECEDENCE OVER SCHEDULES IF DISCREPANCIES IN QUANTITIES EXIST. DETAILS TAKE PRECEDENCE OVER NOTES.
- IT IS CONTRACTOR'S RESPONSIBILITY TO SALVAGE TREES INDICATED ON PLAN, VERIFY EXACT PLANT TYPE, KEEP MOIST AND IN GOOD CONDITION DURING CONSTRUCTION, AND REPLANT ACCORDING TO PLANTING PLAN.

- LANDSCAPE EDGING SHALL BE 3/8"X 5 1/2" ALUMINUM EDGING WITH MILL FINISH, MANUFACTURED BY PERMALOC CORP OR APPROVED EQUAL.
- PROVIDE HARDWOOD BARK MULCH AROUND ALL TREE PLANTINGS SHOWN TO BE PLANTED WITHIN TURF AREAS.
- ROCK MULCH SHALL MATCH SIZE AND COLOR OF EXISTING.
- LANDSCAPE GEOTEXTILE FABRIC SHALL BE MIRAFI 140NL OR APPROVED EQUAL.

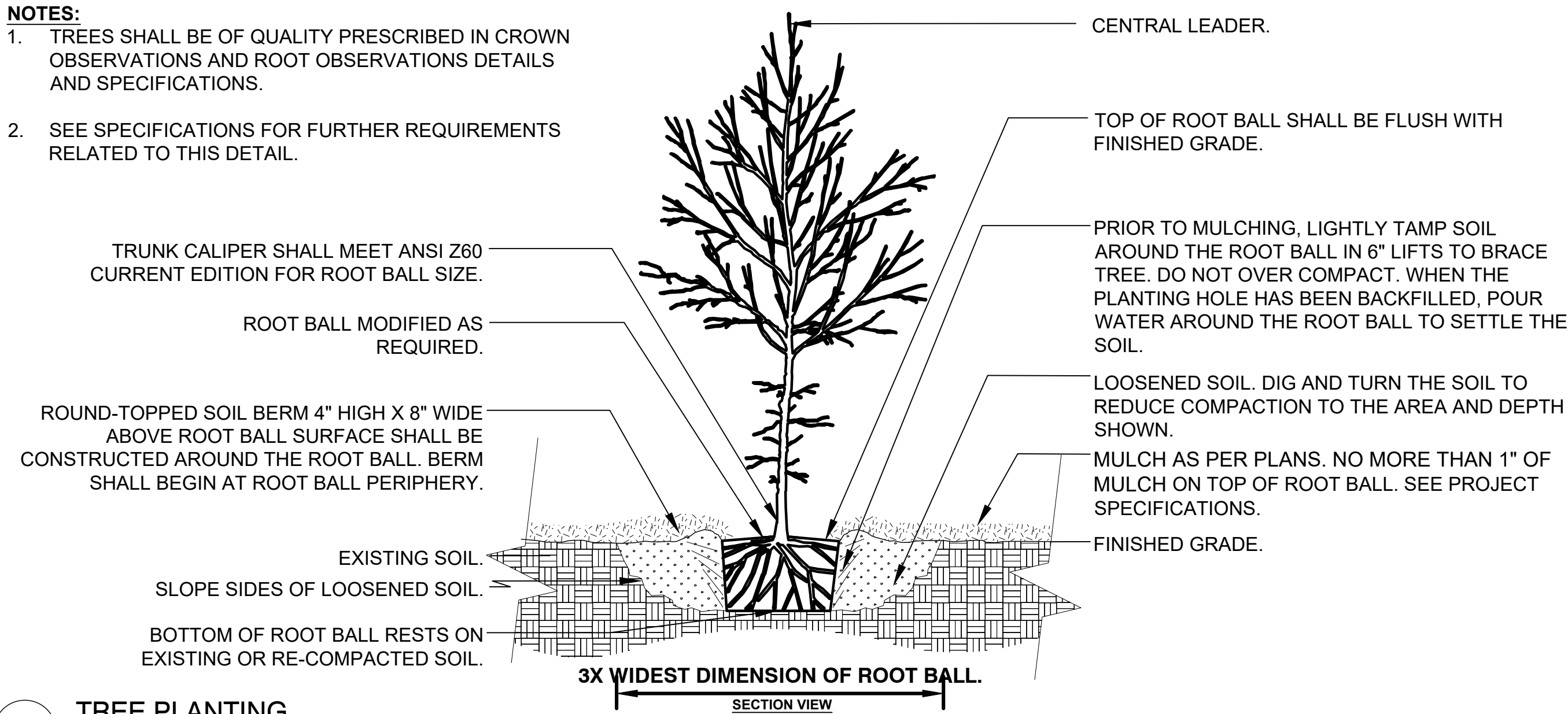


DATE	REVISIONS DESCRIPTION	BY

DATE: JUNE 2024	AS SHOWN	ZSH
SCALE: AS SHOWN		
DRAWN BY: ZSH		
CHECKED BY: ZSH		
JOB NUMBER: 2024-10685		

NOTES:

- TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS AND ROOT OBSERVATIONS DETAILS AND SPECIFICATIONS.
- SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.



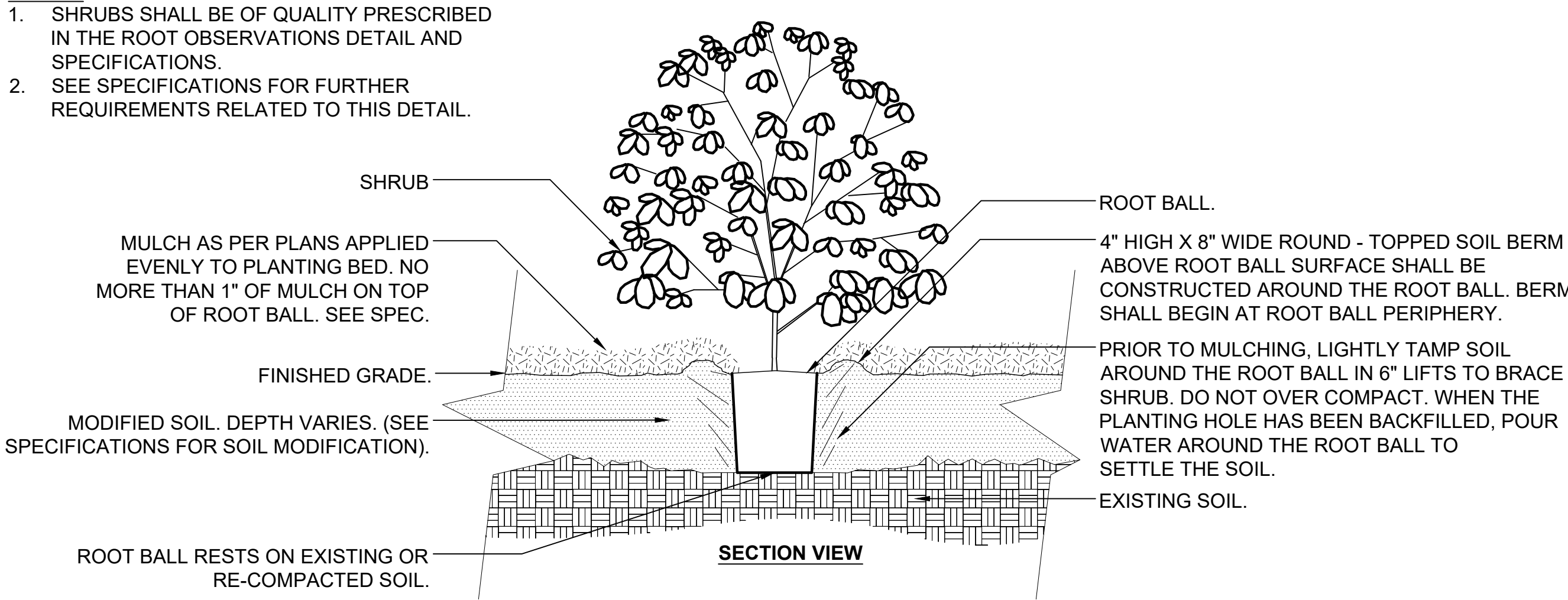
1 TREE PLANTING

1/16" = 1'-0"

ARI-PL-11

NOTES:

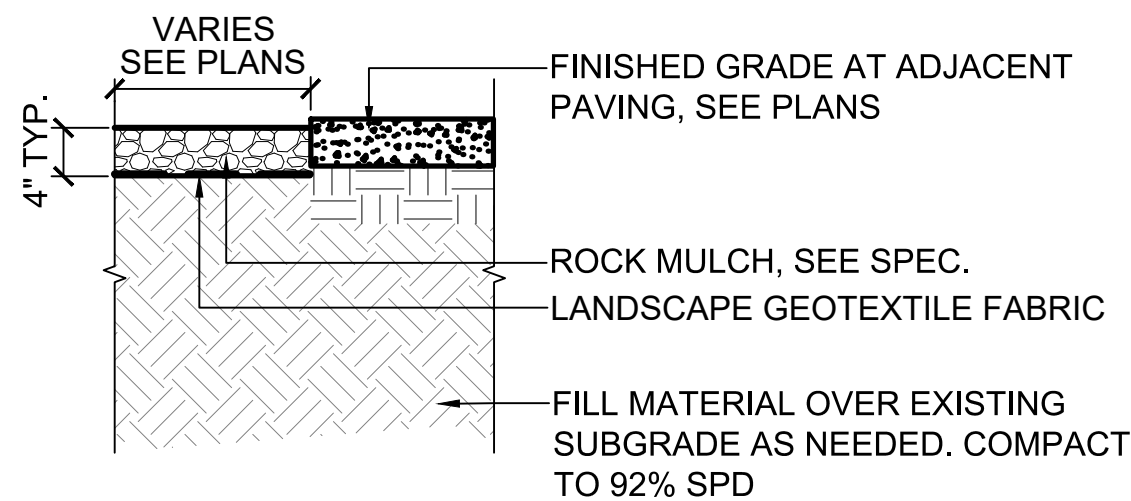
- SHRUBS SHALL BE OF QUALITY PRESCRIBED IN THE ROOT OBSERVATIONS DETAIL AND SPECIFICATIONS.
- SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.



2 SHRUB PLANTING

3/4" = 1'-0"

ARI-PL-10



NOTES:

- SEE PLAN FOR ROCK MULCH LOCATION.
- SET ROCK MULCH 1" BELOW FINISH GRADE, TYP. SEE PLANS FOR EDGING LOCATION.
- WHERE ROCK MULCH MEETS BACK OF CONCRETE CURB, FOLLOW THIS DETAIL. SEE PLANS.

3 ROCK MULCH AT PLANTING AREA

1" = 1'-0"

ARI-ACC-FURN-05

DATE	REVISION DESCRIPTION	BY

DATE:	JUNE 2024
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