CHANHASSEN MISCELLANEOUS DRAINAGE IMPROVEMENTS

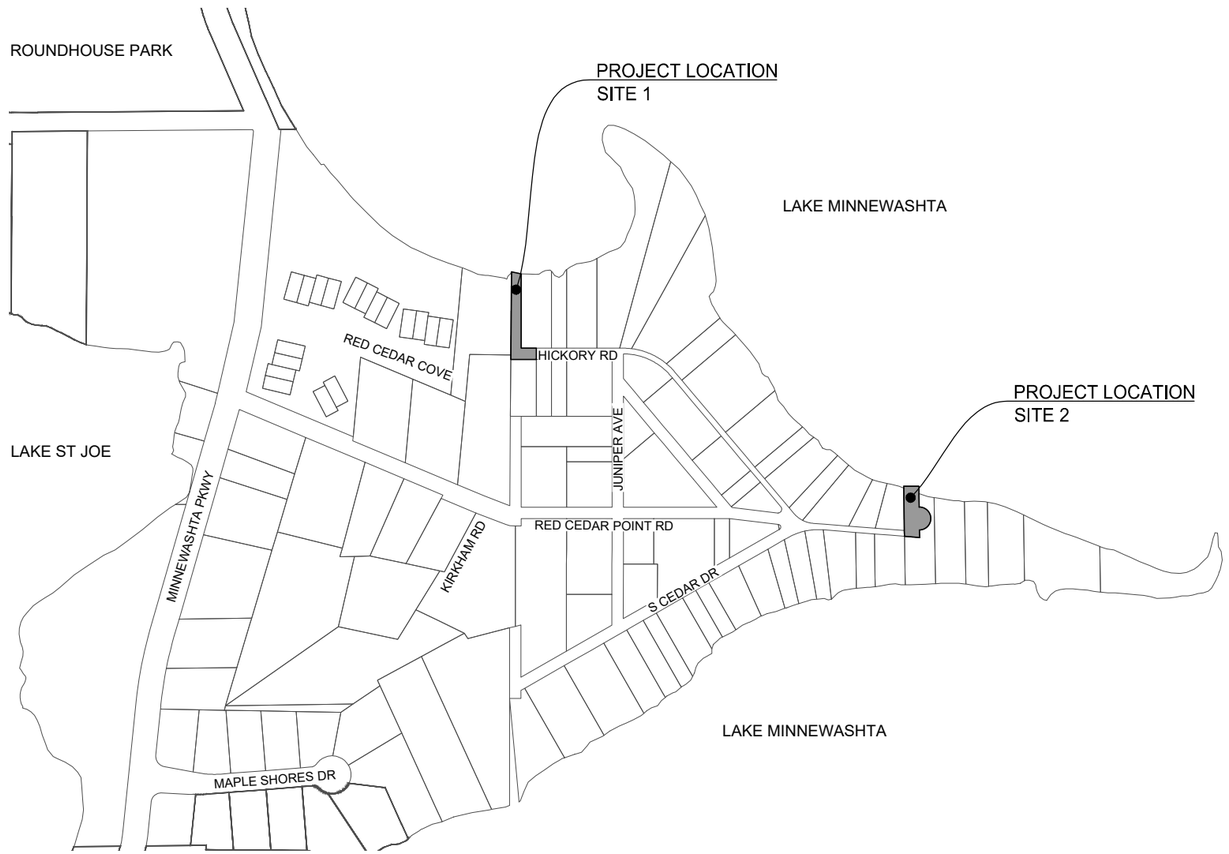
CITY OF CHANHASSEN

EXISTING PLAN SYMBOLS

- PROPERTY LINES/RIGHT-OF-WAY
- UTILITY EASEMENT
- TREE LINE
- SIGN
- DECIDUOUS TREE
- SHRUB
- CONIFEROUS TREE

EXISTING UTILITY SYMBOLS

- FIBER OPTIC CABLE — F/O
- UNDERGROUND TELEPHONE — UGT
- GAS LINE — G
- UNDERGROUND CABLE
- CABLE TV — CTV
- OVERHEAD COMMUNICATIONS LINE — OH
- UNDERGROUND POWER — UGE
- OVERHEAD POWER — OHE
- UNDERGROUND ELECTRIC — UGE
- OVERHEAD TELEPHONE — OHT
- WATER MAIN
- SANITARY SEWER
- STORM SEWER
- CATV VAULT
- POWER POLE
- ELECTRIC BOX
- CATCH BASIN
- STORM APRON
- STORM SEWER MANHOLE
- GATE VALVE
- HYDRANT
- SANITARY SEWER MANHOLE



PROJECT LOCATION MAP

EXCAVATION NOTICE SYSTEM

A CALL TO GOPHER STATE ONE (651-454-0002) IS REQUIRED A MINIMUM OF 48 HOURS PRIOR TO PERFORMING ANY EXCAVATION.

PROJECT LOCATION

COUNTY: CARVER

CARVER COUNTY COORDINATES
DATUM HORIZONTAL = NAD83 (2011)
DATUM VERTICAL = NAVD88

N

0 300 600
SCALE IN FEET

UTILITY INFORMATION

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

PLAN REVISIONS		
DATE	DESCRIPTION	APPROVED BY

GOVERNING SPECIFICATIONS

THIS WORK SHALL BE DONE IN ACCORDANCE WITH THE 2025 EDITION OF THE "CITY OF CHANHASSEN STANDARD SPECIFICATIONS AND DETAIL PLATES".

THE 2025 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

PLAN SET INDEX

SHEET No.	DESCRIPTION
1	TITLE SHEET
2	CONSTRUCTION NOTES
3	MISCELLANEOUS DETAILS
4	MISCELLANEOUS DETAILS
5	MISCELLANEOUS DETAILS
6	REMOVAL & RESTORATION PLAN - WEST
7	REMOVAL & RESTORATION PLAN - EAST
8	SITE-PLAN - WEST
9	SITE-PLAN - EAST

THIS PLAN SET CONTAINS 9 SHEETS

THIS PLAN SET HAS BEEN PREPARED FOR:

CITY OF CHANHASSEN
7700 MARKET BOULEVARD
P.O. BOX 147
CHANHASSEN, MN 55317
(952) 227-1100

ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

I HEREBY CERTIFY THAT THIS PLAN 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 C. ALMS, P.E.

DATE: __/__/2026 LICENSE NUMBER: 54301

WSB PROJ. NO. 032009-000

SHEET 1 OF 9

C:\Users\cjunes\DC\ACCDocs\WSB\032009-000\Project Files\05_Discipline\Drainage\03_Sheets\STREET PLANS\032009-000-C-COVR-SHET.dwg 7/16/2026 4:07:32 PM

GENERAL CONSTRUCTION NOTES

1. CONTRACTOR RESPONSIBLE FOR THE DAMAGE TO STREETS, PARKING LOTS, CONCRETE CURB AND GUTTER, TRAIL, EXISTING BUILDINGS, RETAINING WALLS, AND TREES NOT SHOWN FOR REMOVAL.
2. AT A MINIMUM, DAILY STREET SWEEPING REQUIRED DURING HAULING OPERATIONS, MORE OFTEN AS NEEDED OR DIRECTED BY THE ENGINEER.
3. ALL STOCKPILES MUST HAVE DOWN GRADIENT PERIMETER SEDIMENT CONTROL IMPLEMENTED AND MAINTAINED AT ALL TIMES. STOCKPILES TO RECEIVE TEMPORARY STABILIZATION IF UNWORKED FOR 7 DAYS
4. DEWATERING/DEICING TO TAKE PLACE PRIOR TO EXCAVATION. DEWATERING PLANS MUST BE SUBMITTED AND APPROVED BY THE PROJECT ENGINEER AND MCWD 10 DAYS PRIOR TO PUMPING. PLANS MUST INCLUDE OPERATIONS FOR PREVENTING THE DISCHARGE OF TURBID WATER, AND MUST INCLUDE METHODS FOR CONTROLLING EROSION AND SCOUR.
5. CONTRACTOR SHALL PERFORM ALL DEWATERING AND EXCAVATION ONSITE AND OFF OF ROADWAY, AND LOAD AND HAUL OUT USING ACCESS ROUTE.
6. CONTRACTOR TO COORDINATE ACCESS LIMITS WITH THE ENGINEER IN THE FIELD.
7. EXISTING CONTOURS DEVELOPED FROM PRE-DESIGN SURVEY.
8. CLEARING AND GRUBBING WILL BE REQUIRED FOR ACCESS TO COMPLETE THE GRADING WORK AS SHOWN. APPROXIMATE EXTENTS OF ANTICIPATED CLEARING AND GRUBBING ARE SHOWN ON THE PLANS BUT WILL BE CONFIRMED WITH THE ENGINEER IN THE FIELD AND WILL ALL BE INCIDENTAL TO CLEARING AND GRUBBING PAY ITEMS. NOTABLE TREE REMOVALS ARE SHOWN ON THE PLANS WHERE KNOWN. THESE WILL BE INCIDENTAL TO THE CLEARING AND GRUBBING PAY ITEMS.
9. THE CONTRACTOR SHALL SUPPLY THE CITY WITH TRAFFIC CONTROL AND STAGING PLANS PRIOR TO ANY CONSTRUCTION FOR CITY APPROVAL.
10. WORK ASSOCIATED WITH PROTECTING AND/OR REMOVING AND REINSTALLING FENCES, STREET SIGNS, LAWN IRRIGATION SYSTEMS AND OTHER ITEMS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. ANY DAMAGE TO UNDERGROUND DOG FENCES MUST BE REPORTED TO THE INSPECTOR IMMEDIATELY AND REPAIRED WITHIN 24 HOURS.
11. ELECTRONIC COPIES OF CAD GRADING PLANS WILL BE PROVIDED TO THE CONTRACTOR AND MACHINE CONTROL OR OTHER MEANS APPROVED BY THE ENGINEER SHALL BE USED TO GRADE TO ELEVATIONS OUTLINED IN THE PROJECT PLANS. CONTRACTOR TO PROVIDE SURVEY SHOTS OF SITE GRADING FOLLOWING EXCAVATION PRIOR TO DEMOBILIZING FROM SITE. ENGINEER TO BE PRESENT AT TIME OF VERIFICATION. CITY RESERVES THE RIGHT TO COMPLETE A VERIFICATION SURVEY IN THE SPRING AFTER THE ICE HAS MELTED TO DETERMINE IF ANY CORRECTIVE ACTION IS REQUIRED FOR WORKMANSHIP OR SLOPE STABILITY ISSUES.

EROSION CONTROL NOTES

1. FOR ALL RESTORATION PERFORMED PRIOR TO APRIL 15, RESTORE ALL DISTURBED AREAS WITH OATS COVER CROP (MNDOT SEED MIX OATS, 100 LBS/AC).
2. FOR RESTORATION PERFORMED AFTER APRIL 15, RESTORE ALL WATER EDGES AND WOODED AREAS WHERE DISTURBED OR AS DIRECTED BY ENGINEER IN FIELD WITH TYPE WET DITCH (20 LBS/AC), RESIDENTIAL TURFGRASS (200 LBS/AC) AS SHOWN IN PLANS. TYPE OATS SEED (100 LBS/AC) AND CATEGORY 20 EROSION CONTROL BLANKET SHALL BE INSTALLED ALONG WATER EDGES, BUFFERS, AND NON-MOWABLE SLOPES AS DIRECTED BY THE ENGINEER IN THE FIELD.
3. ALL SOILS DISTURBED DURING CONSTRUCTION ACTIVITIES WILL BE STABILIZED FOLLOWING SEED MIXES, FERTILIZER, AND STABILIZING COVER OUTLINED WITHIN THESE PLANS.
4. IN THE EVENT THAT RESTORATION CANNOT BE IMPLEMENTED WITHIN 7 DAYS AFTER CONSTRUCTION ACTIVITY IN THE DISTURBED AREA HAS CEASED, TEMPORARY EROSION STABILIZATION BMPS (I.E. HYDRO MULCH 3884.B.2) MUST BE SCHEDULED TO OCUR WITHIN THAT 7 DAY TIME FRAME.

wsb

SCALE: AS SHOWN
DESIGN BY: KJF
PLAN BY: CKJ
CHECK BY: BCA

REVISIONS

NO.	DATE	DESCRIPTION

I 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 C ALMS, P.E.

DATE: __/__/2026 LIC. NO: 54301

CONSTRUCTION NOTES

CHANHASSEN MISCELLANEOUS DRAINAGE IMPROVEMENTS
CITY OF CHANHASSEN

CLIENT PROJECT NO. 26-XX

WSB PROJECT NO. 032009-000

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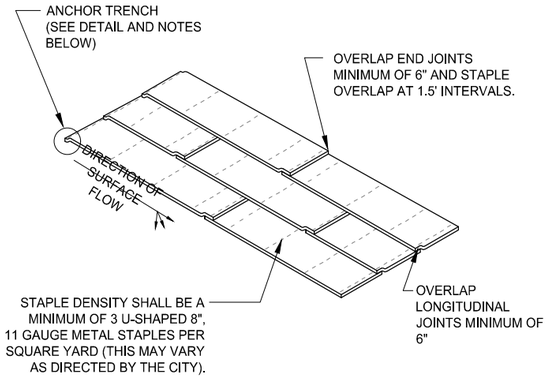
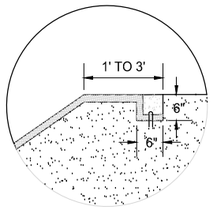
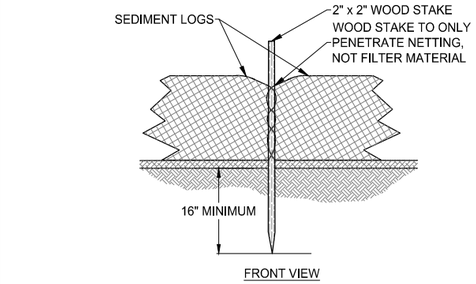


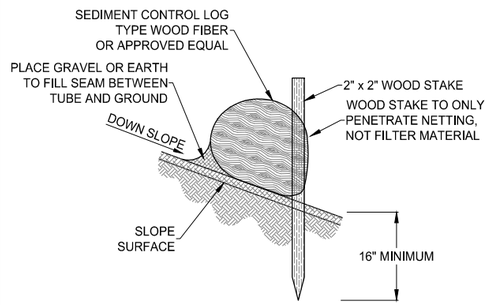
ANCHOR TRENCH
1. DIG 6" X 6" TRENCH
2. LAY BLANKET IN TRENCH
3. STAPLE AT 1.5' INTERVALS
4. BACKFILL WITH NATURAL SOIL AND COMPACT
5. BLANKET LENGTH SHALL NOT EXCEED 100' WITHOUT AN ANCHOR TRENCH



1/3 EROSION CONTROL BLANKET INSTALLATION

SCALE: NO SCALE



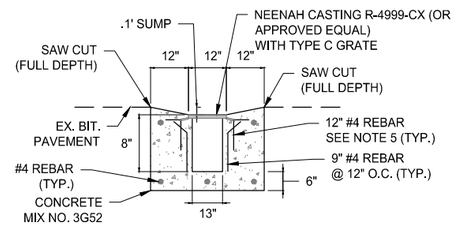


2/3 BIOROLL INSTALLATION DETAIL

SCALE: NO SCALE

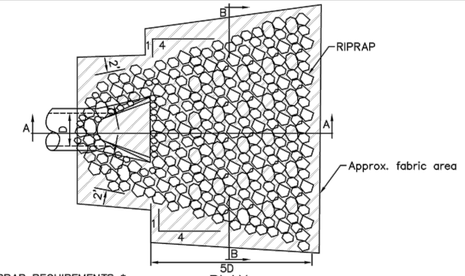
TRENCH DRAIN DETAIL

1. FOLLOW MANUFACTURERS RECOMMENDATIONS FOR TRENCH CONSTRUCTION.
2. SLOPE FLOWLINE OF TRENCH DRAIN TO MATCH THE CROSS SLOPE OF PAVEMENT.
3. ALL NECESSARY MATERIALS, LABOR, APPURTENANCES ARE INCLUDED.
4. ALL REBAR IS EPOXY COATED WITH 2" MINIMUM CLEAR COVER.
5. SPACE PER THE "OPENING HOLE FOR REBAR" ON THE CASTING AS SHOWN IN MANUFACTURER'S RECOMMENDATIONS..



3/3 TRENCH DRAIN DETAIL

SCALE: NO SCALE



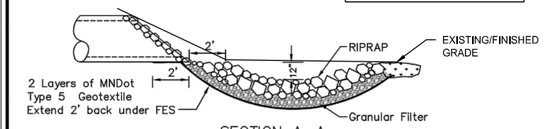
PLAN
NTS

RIPRAP REQUIREMENTS *

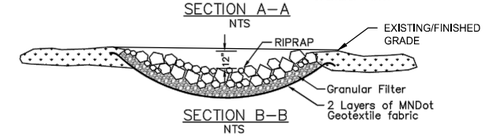
PIPE DIA.	RIPRAP REQUIRED
12" TO 24"	8 to 12 CY CL.3
27" TO 33"	14 to 20 CY CL.3
36" TO 48"	23 to 38 CY CL.3
54" AND UP	62 CY and up CL.4

(One cubic yard is approximately 2,800 lbs.)

NOTE
Granular filter shall be 3" of 1 1/2" clear limestone under rip rap on 2 layers of MNDot Type 5 Geotextile fabric.



SECTION A–A
NTS



SECTION B–B
NTS

* For outlet velocities less than 10 Ft/Sec. Outlet velocities exceeding 10 Ft/Sec shall obtain prior approval by the engineer.

CITY OF CHANHASSEN

RIP RAP DETAIL

REVISED: 1–22
FILE NAME: G:\ENG\SPECS\3107
ENGINEERING DEPARTMENT
PLATE NO.: 3107

wsb

SCALE: AS SHOWN
DESIGN BY: KJF
PLAN BY: CKJ
CHECK BY: BCA

REVISIONS

NO.	DATE	DESCRIPTION

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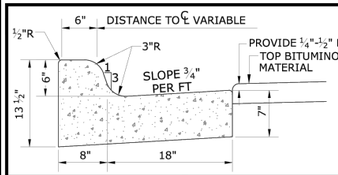
WILLIAM C ALMS, P.E.
DATE: / /2026 LIC. NO: 54301

MISCELLANEOUS DETAILS

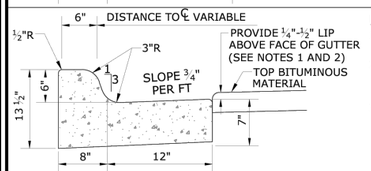
CHANHASSEN MISCELLANEOUS DRAINAGE IMPROVEMENTS
CITY OF CHANHASSEN



* TYPICAL STREET SECTIONS 5200-5202
* SUB-SURFACE DRAINTILE 5232

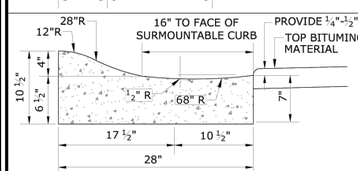
NOTES:
1. FOR TIP OUT GUTTER, LIP ABOVE OF FACE OF GUTTER SHALL BE 0".
2. WHERE GUTTER IS ASSOCIATED WITH A CURB RAMP, THE TOLERANCE SHALL BE 0"- 1/4" FOR ADA COMPLIANCE.

MNDOT B618
CONCRETE CURB AND GUTTER



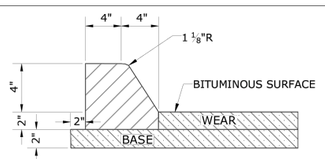
NOTES:
1. FOR TIP OUT GUTTER, LIP ABOVE OF FACE OF GUTTER SHALL BE 0".
2. WHERE GUTTER IS ASSOCIATED WITH A CURB RAMP, THE TOLERANCE SHALL BE 0"- 1/4" FOR ADA COMPLIANCE.
3. B612 FOR USE ONLY WITH PRIVATE DRIVEWAYS, PARKING LOTS, OR MEDIANS.

MNDOT B612
CONCRETE CURB AND GUTTER



NOTES:
1. FOR TIP OUT GUTTER, LIP ABOVE OF FACE OF GUTTER SHALL BE 0".
2. WHERE GUTTER IS ASSOCIATED WITH A CURB RAMP, THE TOLERANCE SHALL BE 0"- 1/4" FOR ADA COMPLIANCE.

SURMOUNTABLE
CONCRETE CURB AND GUTTER

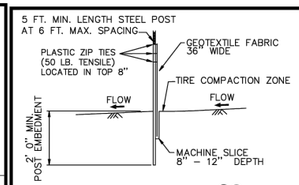


NOTES:
1. TACK ALL BITUMINOUS OR CONCRETE PLACEMENT SURFACES BEFORE PAVING BITUMINOUS CURBS.

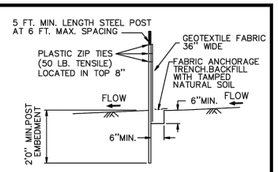
BITUMINOUS CURB
4" SHOE FORMED

TYPICAL CURB AND GUTTER

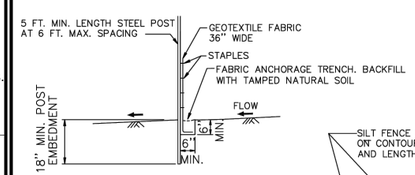
REVISED: 2-25
ENGINEERING DEPARTMENT
PLATE NO.: 5203



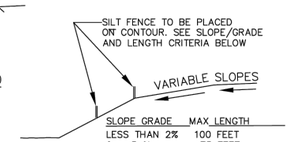
SILT FENCE, MACHINE SLICED ①②



SILT FENCE, HEAVY DUTY ①②



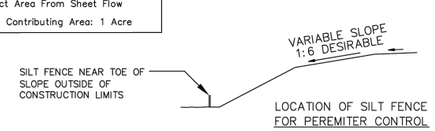
SILT FENCE, PREASSEMBLED ①②



SLOPE GRADE	MAX LENGTH
LESS THAN 2%	100 FEET
2 – 5. %	75 FEET
5 –10%	50 FEET
10 – 20 %	25 FEET
GREATER THAN 20%	15 FEET

LOCATION OF SILT FENCE
FOR SEDIMENT CONTROL

NOTES:
Silt Fence To Meet The Requirements Of The Most Recent Edition Of The MnDOT Specifications. See Sections 2573 & 3886. Wood Silt Fence Posts May Only Be Used If Prior Approval is Obtained From The City.
① To Protect Area From Sheet Flow
② Maximum Contributing Area: 1 Acre

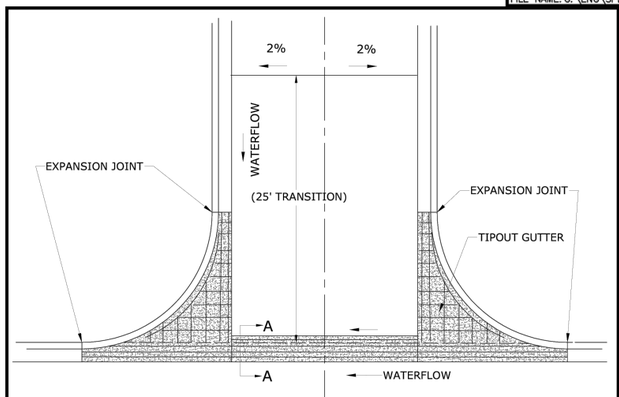


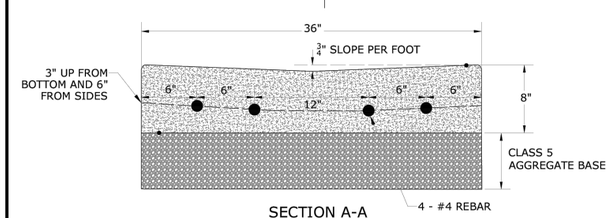
LOCATION OF SILT FENCE
FOR PEREMITER CONTROL

CITY OF CHANHASSEN

SILT FENCE

REVISED: 1–21
FILE NAME: G:\ENG\SPECS\5300
ENGINEERING DEPARTMENT
PLATE NO.: 5300



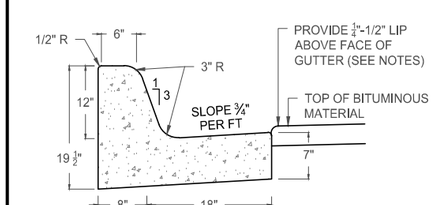


SECTION A-A

NOTES:
1. 1/2" PREFORMED JOINT FILLER MATERIAL - AASHTO M213.
2. CONTRACTION JOINTS 8' O.C. IN CROSS GUTTER.
3. MAX. SPACING FOR #4 REBAR IS 2' ON CENTERS FOR WINGS.

STREET INTERSECTION
CONCRETE VALLEY GUTTER

REVISED: 12-24
ENGINEERING DEPARTMENT
PLATE NO.: 5206



NOTES:
1. FOR TIP OUT GUTTER, LIP ABOVE OF FACE OF GUTTER SHALL BE 0".
2. WHERE GUTTER IS ASSOCIATED WITH A CURB RAMP, THE TOLERANCE SHALL BE 0" - 1/4" FOR ADA COMPLIANCE.

B1218 CONCRETE CURB

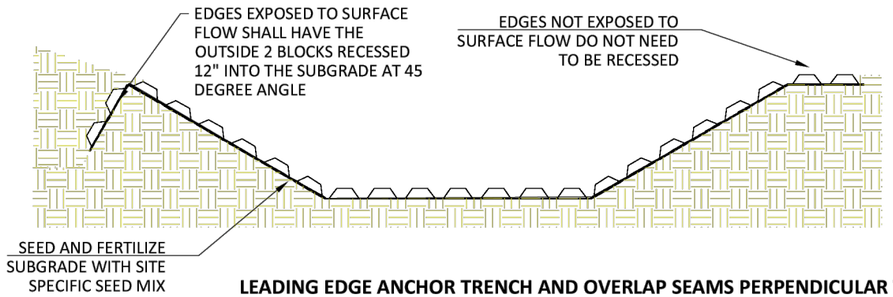
CLIENT PROJECT NO.
26-XX

WSB PROJECT NO.
032009-000

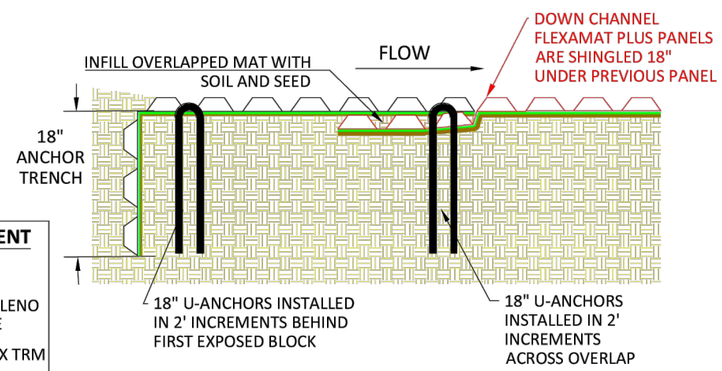
SHEET
3 OF 9

C:\Users\cjunes\DC\ACCDocs\WSB\032009-000\Project Files\05_Discipline\Drainage\03_Sheets\STREET PLANS\032009-000-CP-GNRL-DETL.dwg 7/16/2026 4:07:48 PM

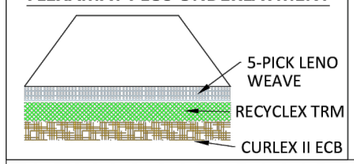
METHOD FOR TREATING EDGES EXPOSED TO SURFACE SHEET FLOW



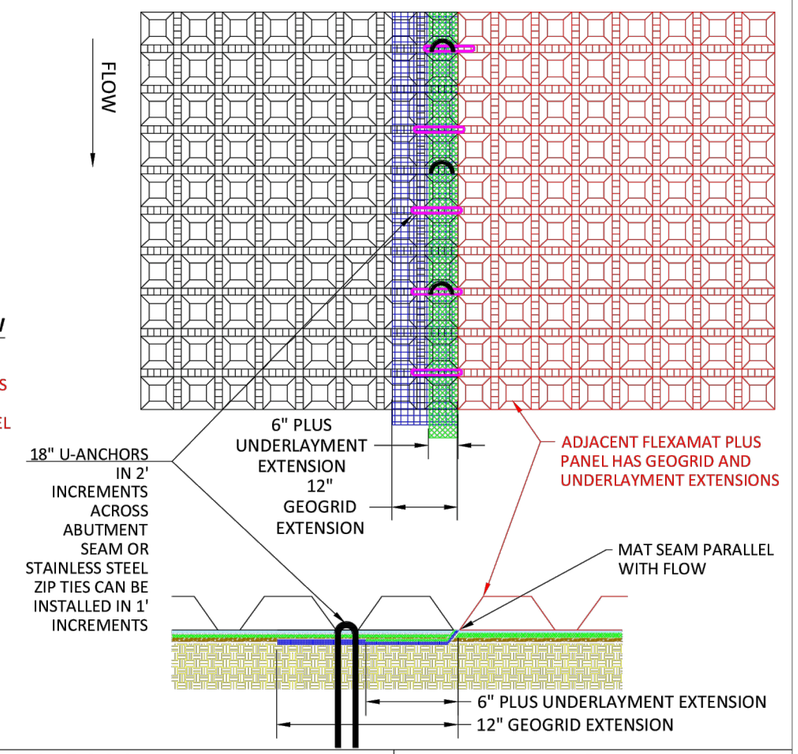
LEADING EDGE ANCHOR TRENCH AND OVERLAP SEAMS PERPENDICULAR TO FLOW



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

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SCALE: AS SHOWN
DESIGN BY: KJF
PLAN BY: CKJ
CHECK BY: BCA

REVISIONS

NO.	DATE	DESCRIPTION

I 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 C ALMS, P.E.
DATE: / /2026 LIC. NO: 54301

MISCELLANEOUS DETAILS

CHANHASSEN MISCELLANEOUS DRAINAGE IMPROVEMENTS
CITY OF CHANHASSEN

CLIENT PROJECT NO. 26-XX
WSB PROJECT NO. 032009-000
SHEET 4 OF 9

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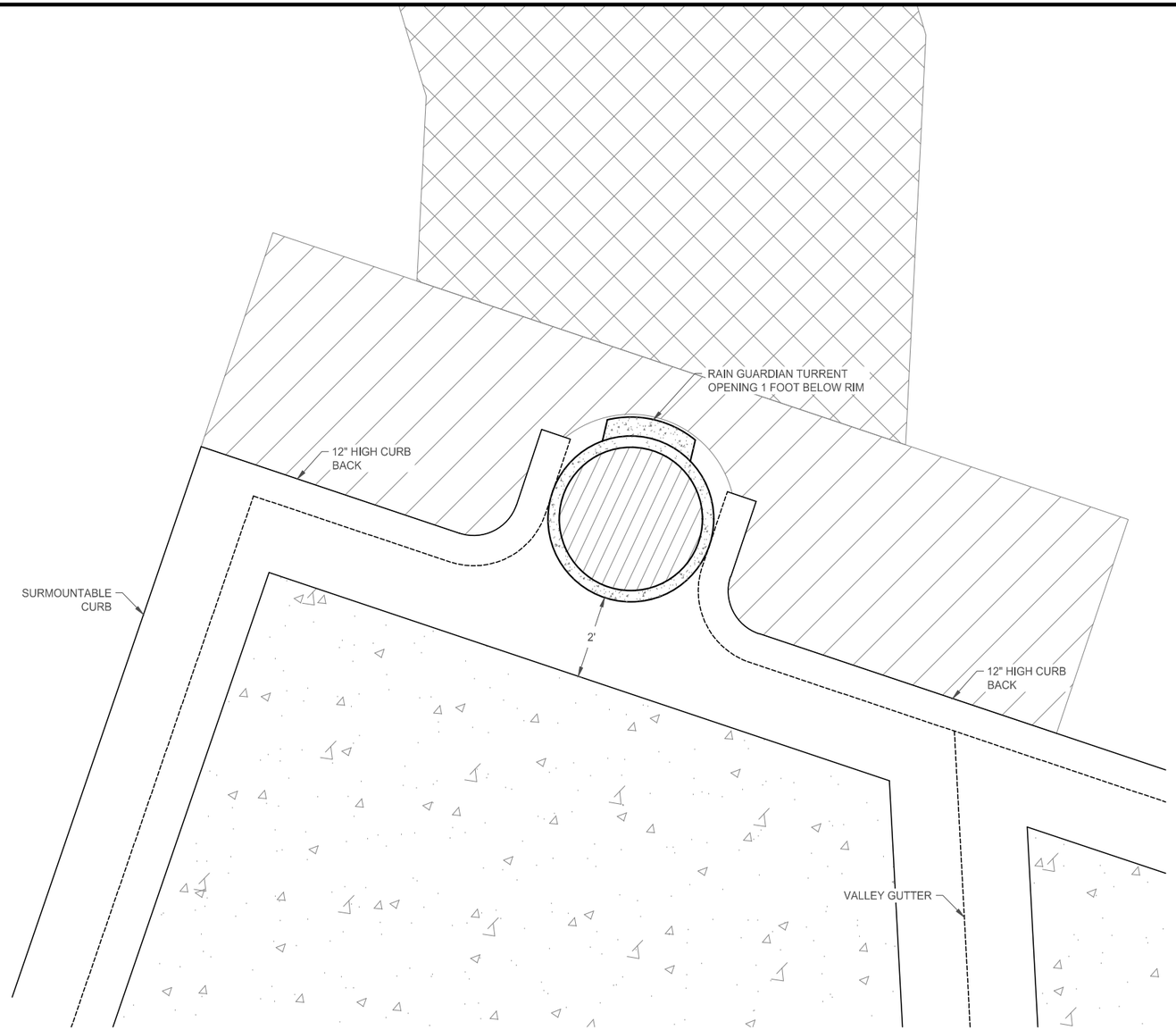
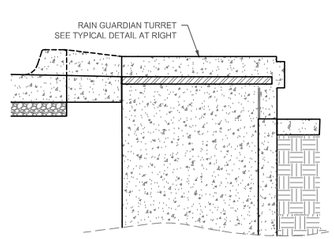


PLAN - CURB OPENING INLET WITH STONE SPLASH BLOCK ASSEMBLY
NOT TO SCALE



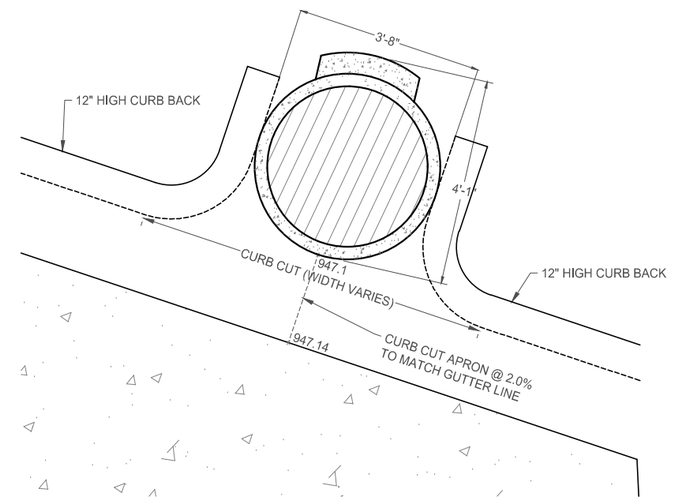
SECTION - RAIN GUARDIAN INLET OPENING
NOT TO SCALE

SPECIFICATIONS:

1. STEEL REINFORCED, COLD JOINT SECURED MONOLITHIC CONCRETE STRUCTURE (1,030 LBS,). CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS. CONCRETE AIR ENTRAINED (4% TO 8% BY VOLUME). MANUFACTURED AND DESIGNED TO ASTM C858.
2. THREE-POINT PICK USING RECESSED LIFTING POCKETS WITH A STANDARD HOOK.
3. TOP GRATE.

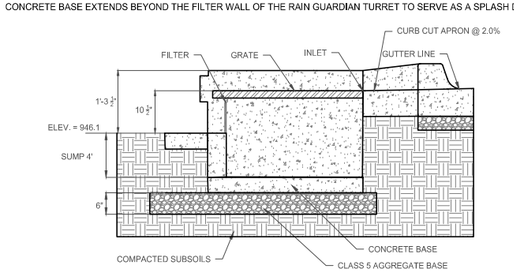
INSTALLATION NOTES:

1. INSTALL THE CLASS 5 BASE (COMPACTED TO 95% STANDARD PROCTOR). THE DISTANCE FROM THE BACK OF THE CURB MAY VARY BASED ON SITE CONDITIONS, BUT CONSIDERATIONS SHOULD INCLUDE SLOPE OF THE INLET AND BASIN SIDE SLOPES ADJACENT TO THE RAIN GUARDIAN TURRET. POSITION RAIN GUARDIAN TURRET SO PRIMARY OUTLET ALIGNS WITH TOE OF BASIN SIDE SLOPE TO AVOID SOIL INTERFERENCE WITH REMOVABLE FILTER WALL. EXCAVATE 1' 10" BELOW THE GUTTER LINE ELEVATION (I.E. THE BIORETENTION OVERFLOW ELEVATION) TO ACCOMMODATE THE 1' PONDING DEPTH, 6" CLASS 5 AGGREGATE, AND 4" RAIN GUARDIAQN TURRET BASE (INCLUDED). THEREFORE, THE TOP OF THE CLASS 5 COMPACTED BASE IS PRECISELY 1' 4" BELOW THE GUTTER LINE ELEVATION. THE INLET TO THE RAIN GUARDIAN TURRET WILL BE 10-1/2" ABOVE THE TOP OF THE CONCRETE BASE AND 1-1/2" BELOW THE GUTTER LINE ELEVATION TO ACCOMMODATE A SLOPED INLET FROM THE GUTTER TO THE RAIN GUARDIAN TURRET.
2. SET RAIN GUARDIAN TURRET ON THE PREPARED CLASS 5 BASE.
3. INSTALL FRAMING FOR INLET BETWEEN RAIN GUARDIAN TURRET AND BACK OF CURB. TOP ELEVATIONS OF THE FRAMING SHOULD MATCH THE TOP OF THE CURB ON THE STREET SIDE AND THE TOP OF THE RAIN GUARDIAN TURRET ON THE BIORETENTION SIDE.
4. INSTALL EXPANSION/CONTRACTION JOINT MATERIAL OR A SHEET OF POLY TO SERVE AS A BOND BREAK BETWEEN RAIN GUARDIAN TURRET AND CONCRETE INLET BEFORE POURING INLET.
5. SIDE CURBS OF THE POURED INLET MUST HAVE AN INSURMOUNTABLE PROFILE TO PREVENT WATER FLOW FROM OVERTOPPING THE DOWNSTREAM SIDE OF THE INLET.
6. REMOVABLE FILTER WALL SHOULD BE INSTALLED WITH FILTER FABRIC ON THE INTERIOR SIDE OF THE RAIN GUARDIAN TURRET.



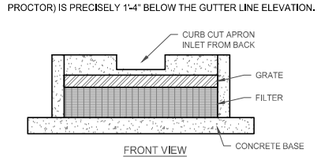
"RAIN GUARDIAN" (OR APPROVED EQUAL) TURRET TYPICAL DETAIL PLAN VIEW
NOT TO SCALE

NOTES:
1. INLET WIDTH AND DISTANCE BETWEEN BACK OF CURB AND RAIN GUARDIAN TURRET MAY VARY WITH SITE CONDITIONS.
2. CONCRETE BASE EXTENDS BEYOND THE FILTER WALL OF THE RAIN GUARDIAN TURRET TO SERVE AS A SPLASH DISSIPATER.



CROSS SECTION

NOTES:
1. THE TOP OF THE CLASS 5 BASE (COMPACTED TO 95% STANDARD PROCTOR) IS PRECISELY 1'-4" BELOW THE GUTTER LINE ELEVATION.



FRONT VIEW

"RAIN GUARDIAN" TURRET TYPICAL DETAIL
NOT TO SCALE

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CITY OF CHANHASSEN

SCALE:	DESIGN BY:
AS SHOWN	KJF
PLAN BY:	CHECK BY:
CKJ	BCA

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WILLIAM C ALMS, P.E.

DATE: ___/___/2026 LIC. NO: 54301

MISCELLANEOUS DETAILS

CHANHASSEN MISCELLANEOUS
DRAINAGE IMPROVEMENTS
CITY OF CHANHASSEN

CLIENT PROJECT NO.
26-XX

WSB PROJECT NO.
032009-000

SHEET
5 OF 9

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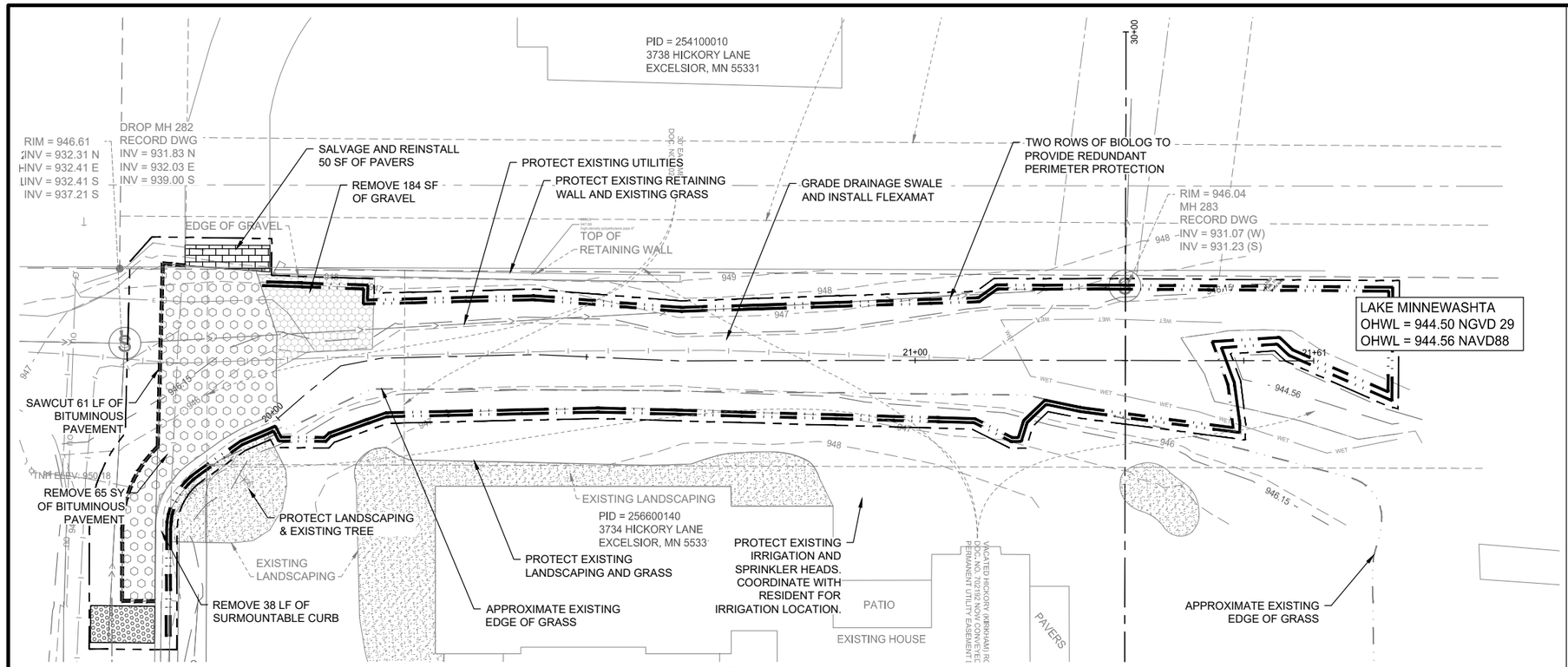
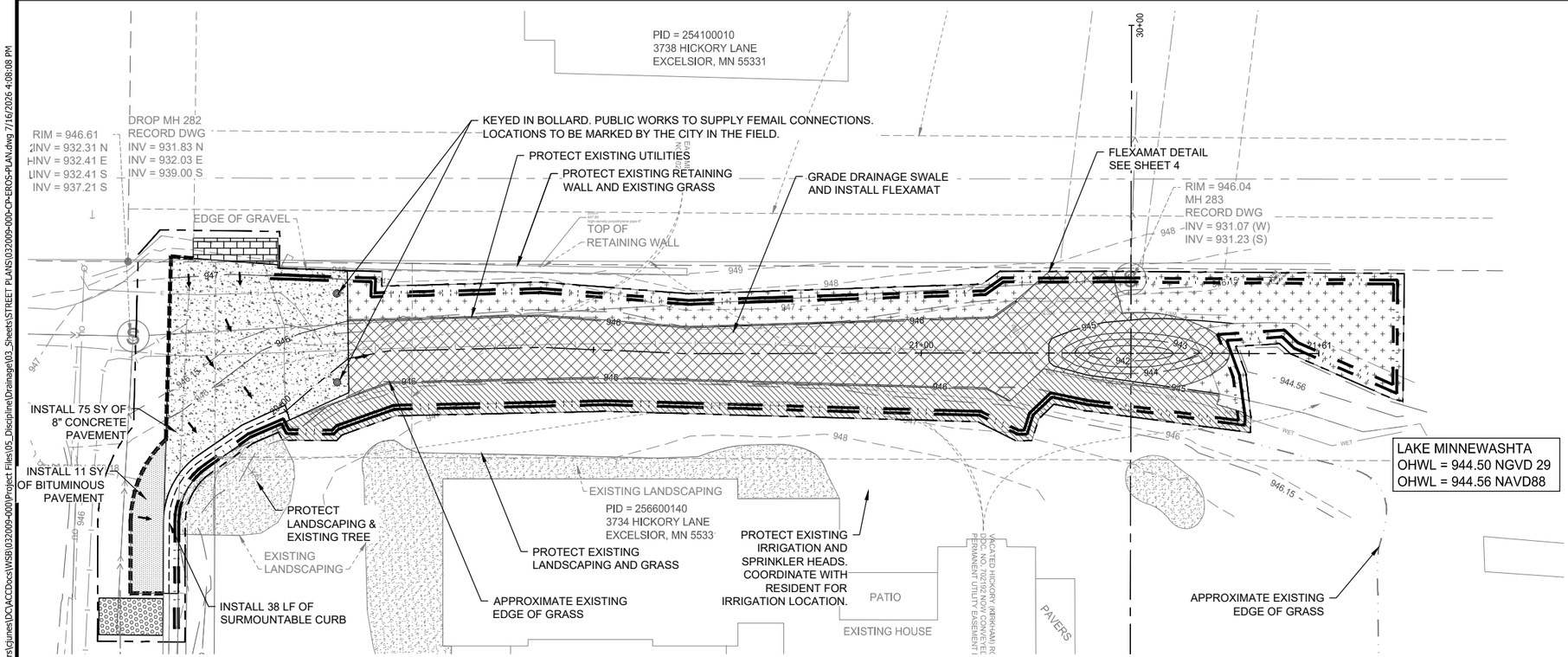
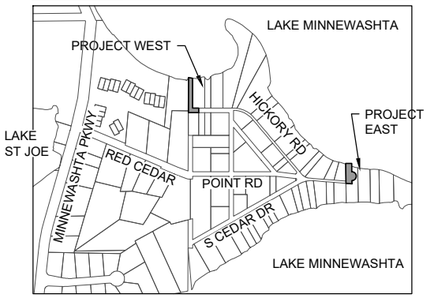


EXISTING CONDITIONS AND REMOVALS



PROPOSED CONDITIONS AND RESTORATION

LOCATION



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SCALE IN FEET

SEE CONSTRUCTION NOTES SHEET 2.

LEGEND:

- CONSTRUCTION LIMITS
- PROPERTY LINE
- DRAINAGE AND UTILITY EASEMENT
- EASEMENT CENTERLINE
- UNDERLYING LOT LINE
- EDGE OF EXISTING GRASS (APPROX.)
- GAS LINE
- FIBER OPTION LINE
- ELECTRICAL LINE
- SANITARY SEWER PIPE
- STORM SEWER PIPE
- DRAINTILE PIPE
- WATERMAIN PIPE
- CONTOUR - MAJOR - EXISTING
- CONTOUR - MINOR - EXISTING
- CONTOUR - OHWL - EXISTING
- BIOLOG TYPE WOODFIBER
- CONTOUR - MAJOR - PROPOSED
- CONTOUR - MINOR - PROPOSED
- EXISTING CURB & GUTTER (SURMOUNTABLE)
- PROPOSED CURB & GUTTER (SURMOUNTABLE)
- PROPOSED CURB & GUTTER (B1218)
- SAWCUT BITUMINOUS PAVEMENT
- BOLLARD (PROPOSED)
- CATCH BASIN
- STORM SEWER MANHOLE
- SANITARY SEWER MANHOLE
- FLARED END SECTION
- NOTEBALE TREE REMOVALS (INCIDENTAL TO CLEARING AND GRUBBING PAY ITEMS)
- DRAINAGE FLOW ARROW
- RESTORE (BY OTHERS)
- RESTORE WITH WET DITCH
- FLEXMAT
- EXISTING LANDSCAPE AREA
- EXISTING BITUMINOUS PAVEMENT (REMOVED)
- EXISTING GRAVEL (REMOVED)
- EXISTING RIPRAP
- PAVERS (SALVAGED AND REINSTALLED)
- 8" CONCRETE PAVEMENT (INSTALLED)
- BITUMINOUS PAVEMENT (INSTALLED)
- CONSTRUCTION ENTRANCE

wsb

SCALE:	DESIGN BY:
AS SHOWN	KJF
PLAN BY:	CHECK BY:
CKJ	BCA

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WILLIAM C ALMS, P.E.

DATE: ___/___/2026 LIC. NO: 54301

REMOVAL & RESTORATION PLAN - WEST

CHANHASSEN MISCELLANEOUS
DRAINAGE IMPROVEMENTS
CITY OF CHANHASSEN

CLIENT PROJECT NO.
26-XX

WSB PROJECT NO.
032009-000

SHEET
6 OF 9

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LEGEND:

- CONSTRUCTION LIMITS
- PROPERTY LINE
- DRAINAGE AND UTILITY EASEMENT
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- GAS LINE
- FIBER OPTION LINE
- ELECTRICAL LINE
- SANITARY SEWER PIPE
- STORM SEWER PIPE
- DRAINTILE PIPE
- WATERMAIN PIPE
- 920 CONTOUR - MAJOR - EXISTING
- 922 CONTOUR - MINOR - EXISTING
- 944.56 CONTOUR - OHWL - EXISTING
- BIOLOG TYPE WOODFIBER
- 920 CONTOUR - MAJOR - PROPOSED
- 922 CONTOUR - MINOR - PROPOSED
- CATCH BASIN
- STORM SEWER MANHOLE
- SANITARY SEWER MANHOLE
- FLARED END SECTION
- NOTEBALE TREE REMOVALS (INCIDENTAL TO CLEARING AND GRUBBING PAY ITEMS)
- DRAINAGE FLOW ARROW
- EXISTING CURB & GUTTER (SURMOUNTABLE)
- PROPOSED CURB & GUTTER (SURMOUNTABLE)
- PROPOSED CURB & GUTTER (B1218)
- EXISTING BITUMINOUS PAVEMENT (REMOVED)
- EXISTING RIPRAP
- CONSTRUCTION ENTRANCE
- BITUMINOUS PAVEMENT (INSTALLED)
- CONCRETE PAVEMENT (INSTALLED)
- FLEXMAT
- SEED RESTORATION (BY OTHERS)
- CLEAR AND GRUB AREA
- RESTORE WITH RESIDENTIAL TURFGRASS @ 200 LB/AC, FERTILIZER TYPE 3 @ 350 LB/AC, AND EROSION CONTROL BLANKET CATEGORY 20

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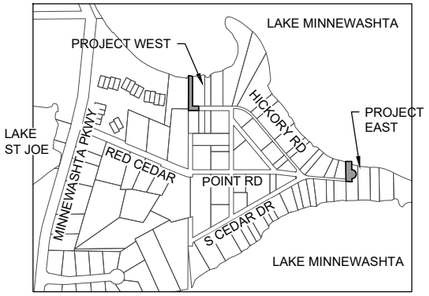
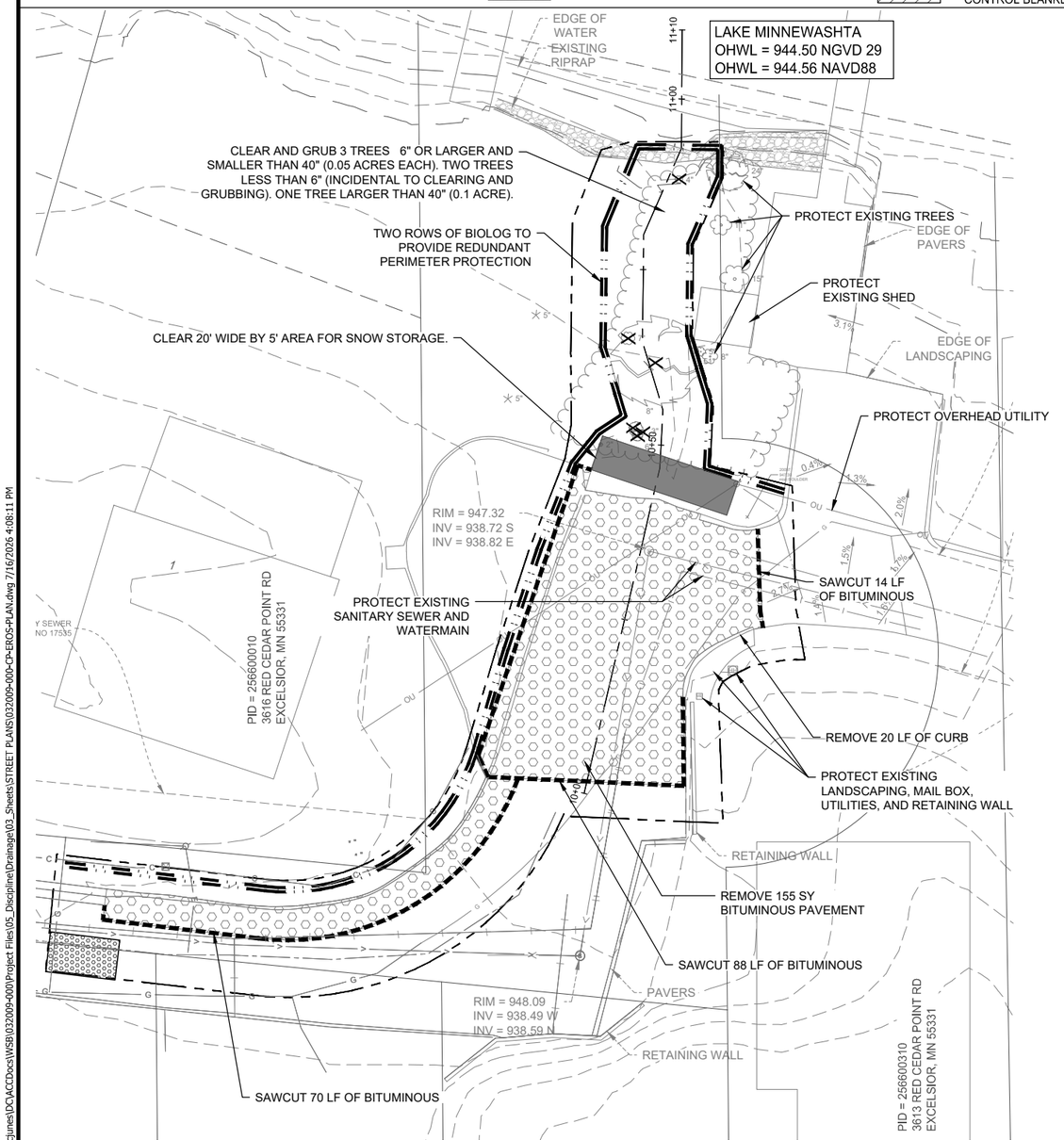
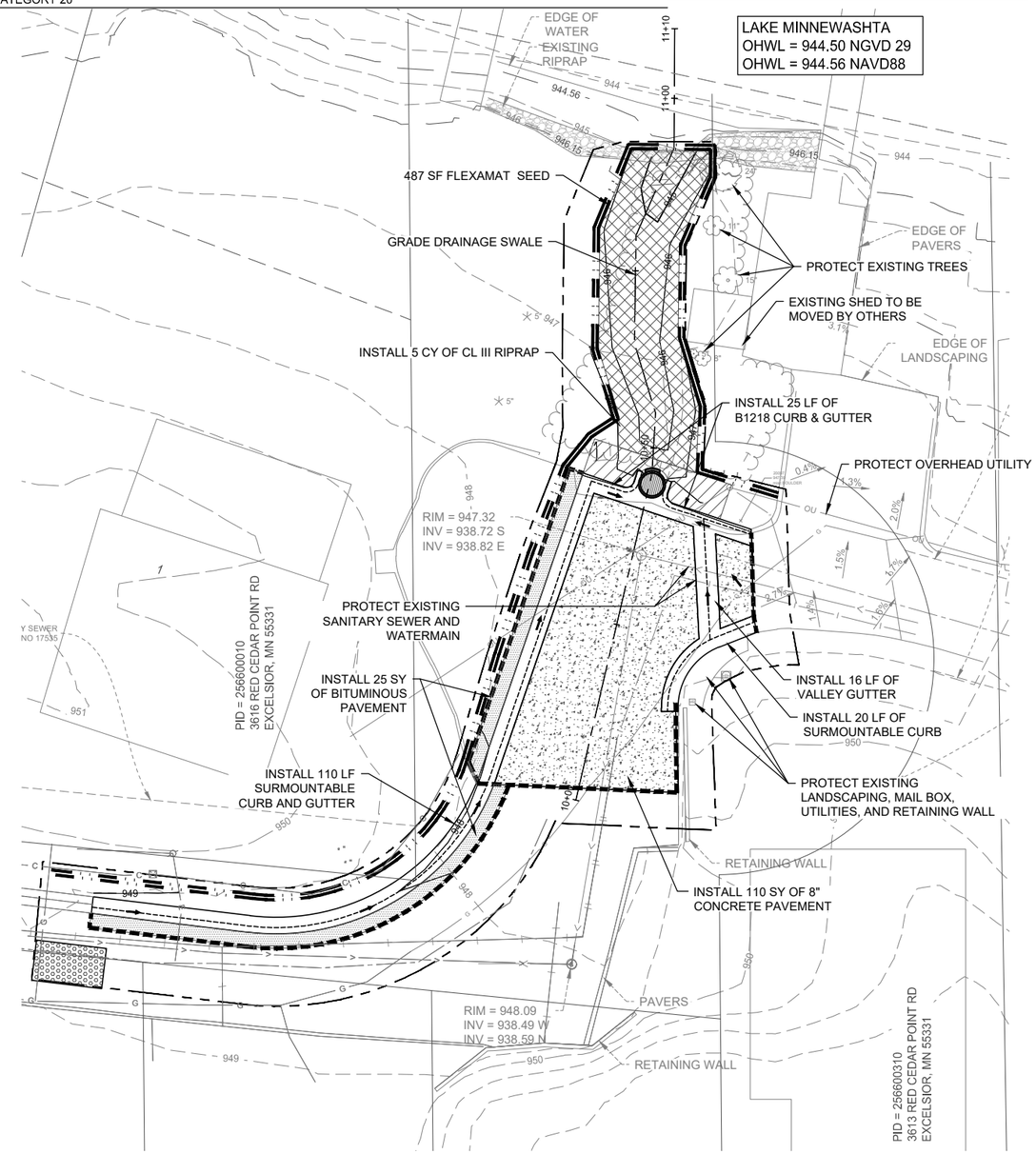
SEE CONSTRUCTION NOTES SHEET 2.

LOCATION





EXISTING CONDITIONS AND REMOVALS



PROPOSED CONDITIONS AND RESTORATION

wsb

CITY OF CHANHASSEN

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WILLIAM C ALMS, P.E.

DATE: __/__/2026 LIC. NO: 54301

REMOVAL & RESTORATION PLAN - EAST

CHANHASSEN MISCELLANEOUS DRAINAGE IMPROVEMENTS
CITY OF CHANHASSEN

CLIENT PROJECT NO.
26-XX

WSB PROJECT NO.
032009-000

SHEET
OF 9

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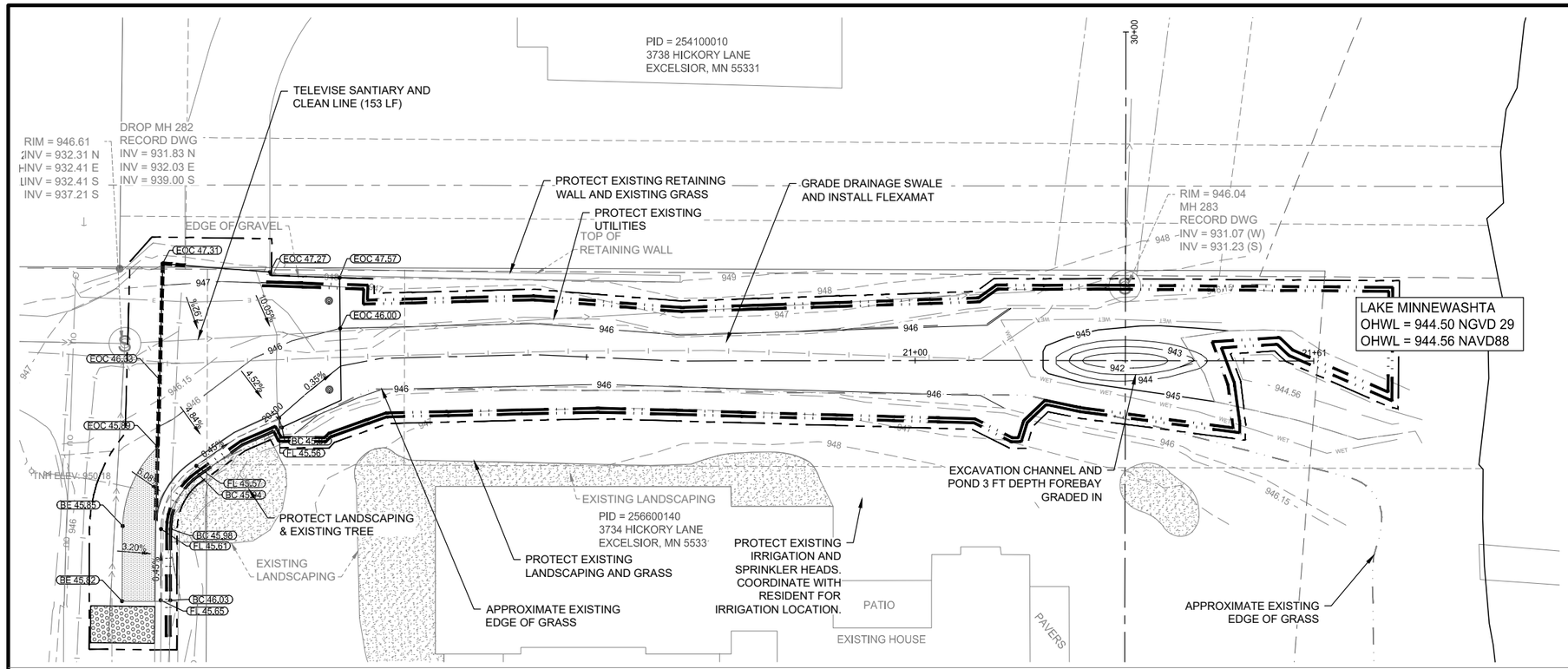
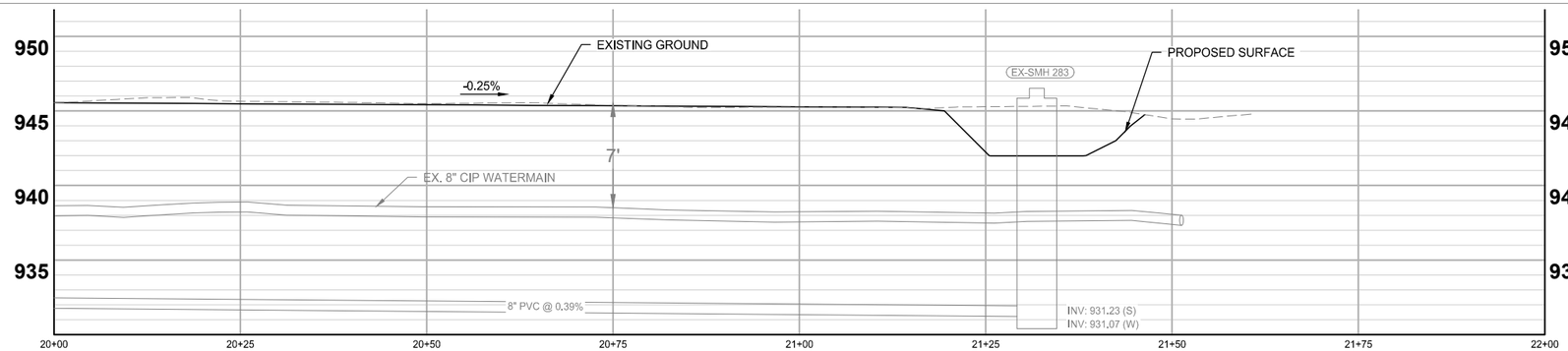
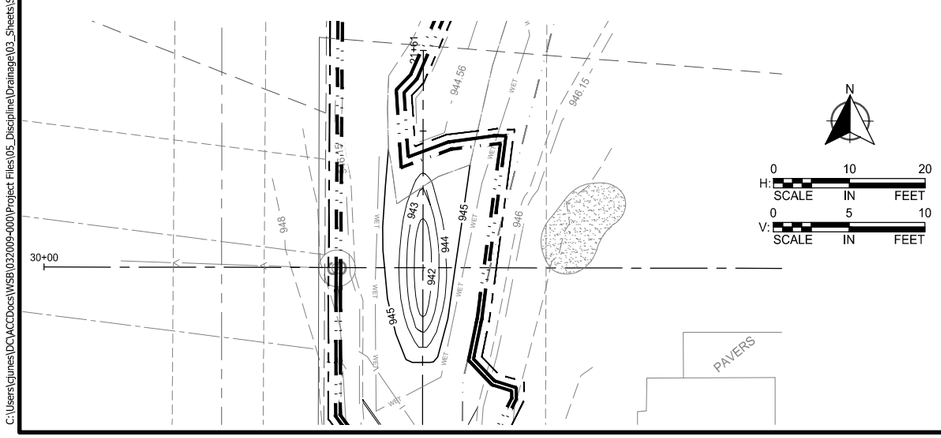
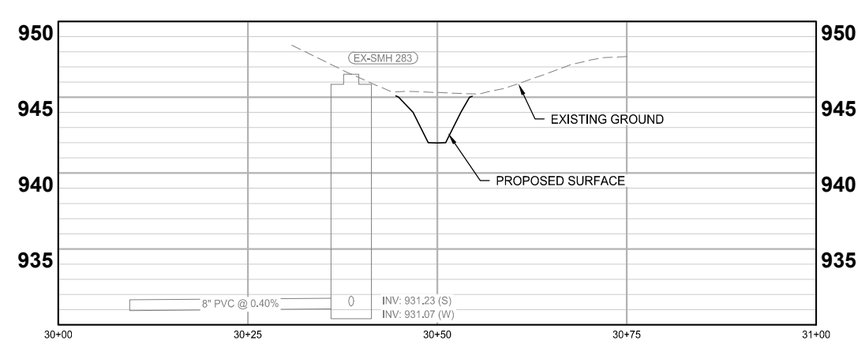
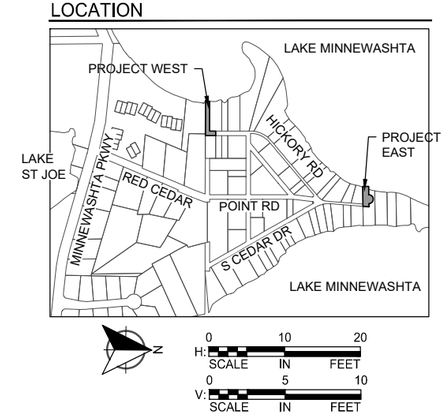








LOCATION



SEE CONSTRUCTION NOTES SHEET 2.

LEGEND:

- CONSTRUCTION LIMITS
- PROPERTY LINE
- DRAINAGE AND UTILITY EASEMENT
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- WATERMAIN PIPE
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- CONTOUR - OHWL - EXISTING
- BIOLOG TYPE WOODFIBER
- CONTOUR - MAJOR - PROPOSED
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- EXISTING CURB & GUTTER (SURMOUNTABLE)
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- NOTEBALE TREE REMOVALS (INCIDENTAL TO CLEARING AND GRUBBING PAY ITEMS)
- DRAINAGE FLOW ARROW
- RESTORE (BY OTHERS)
- RESTORE WITH WET DITCH
- FLEXMAT
- EXISTING LANDSCAPE AREA
- EXISTING BITUMINOUS PAVEMENT (REMOVED)
- EXISTING GRAVEL (REMOVED)
- EXISTING RIPRAP
- PAVERS (SALVAGED AND REINSTALLED)
- 8" CONCRETE PAVEMENT (INSTALLED)
- BITUMINOUS PAVEMENT (INSTALLED)
- CONSTRUCTION ENTRANCE

wsb

SCALE:	DESIGN BY:
AS SHOWN	KJF
PLAN BY:	CHECK BY:
CKJ	BCA

REVISIONS

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WILLIAM C ALMS, P.E.

DATE: __/__/2026 LIC. NO: 54301

GRADING PLAN - WEST

CHANHASSEN MISCELLANEOUS DRAINAGE IMPROVEMENTS
CITY OF CHANHASSEN

CLIENT PROJECT NO. 26-XX

WSB PROJECT NO. 032009-000

SHEET 8 OF 9

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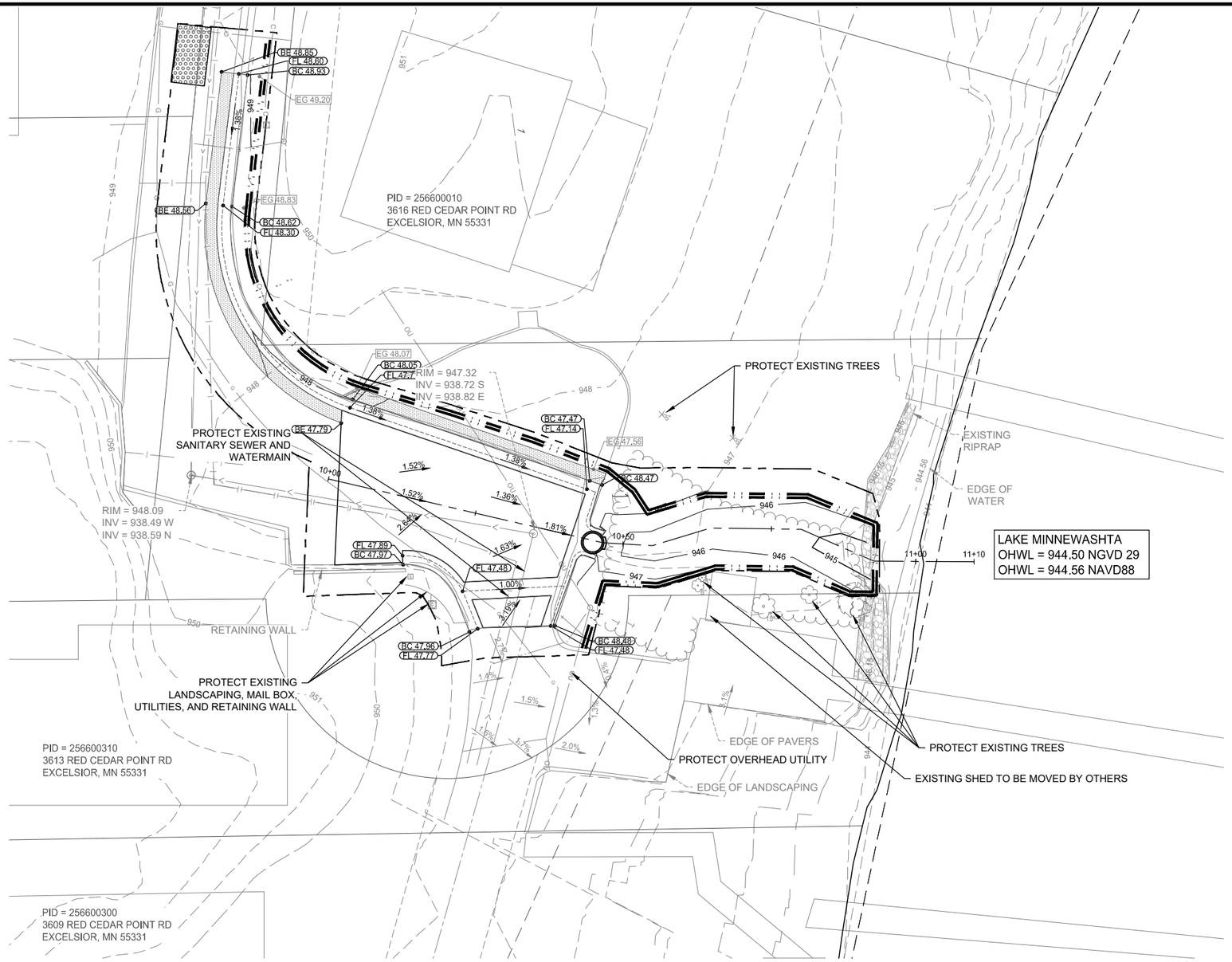

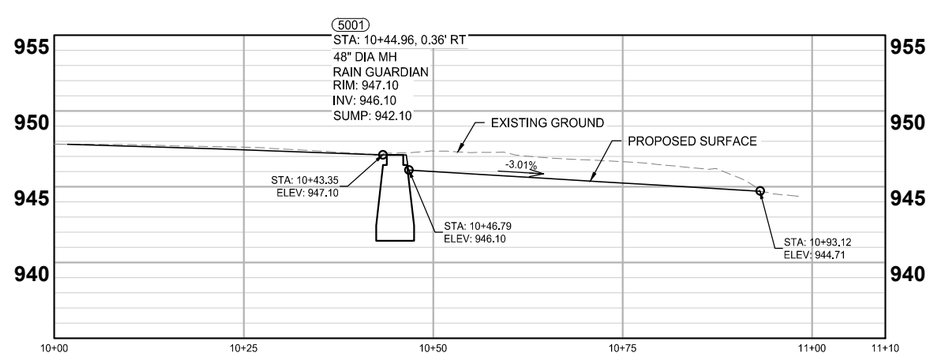

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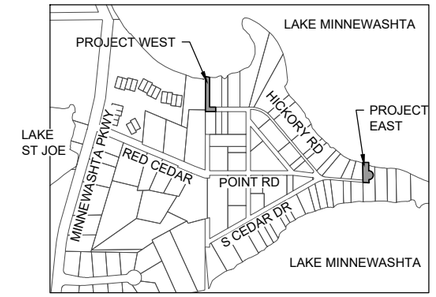

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SCALE IN FEET

SEE CONSTRUCTION NOTES SHEET 2.

LEGEND:

- CONSTRUCTION LIMITS
- PROPERTY LINE
- DRAINAGE AND UTILITY EASEMENT
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- EDGE OF EXISTING GRASS (APPROX.)
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- CONTOUR - OHWL - EXISTING
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- CONTOUR - MAJOR - PROPOSED
- CONTOUR - MINOR - PROPOSED
- EXISTING CURB & GUTTER (SURMOUNTABLE)
- PROPOSED CURB & GUTTER (SURMOUNTABLE)
- PROPOSED CURB & GUTTER (B1218)
- SAWCUT BITUMINOUS PAVEMENT
- BOLLARD (PROPOSED)
- CATCH BASIN
- STORM SEWER MANHOLE
- SANITARY SEWER MANHOLE
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- DRAINAGE FLOW ARROW
- RESTORE (BY OTHERS)
- RESTORE WITH WET DITCH
- FLEXMAT
- EXISTING LANDSCAPE AREA
- EXISTING BITUMINOUS PAVEMENT (REMOVED)
- EXISTING GRAVEL (REMOVED)
- EXISTING RIPRAP
- PAVERS (SALVAGED AND REINSTALLED)
- 8" CONCRETE PAVEMENT (INSTALLED)
- BITUMINOUS PAVEMENT (INSTALLED)
- CONSTRUCTION ENTRANCE

wsb

SCALE:	DESIGN BY:
AS SHOWN	KJF
PLAN BY:	CHECK BY:
CKJ	BCA

REVISIONS

NO.	DATE	DESCRIPTION

I 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 C ALMS, P.E.

DATE: __/__/2026 LIC. NO: 54301

GRADING PLAN - EAST

CHANHASSEN MISCELLANEOUS DRAINAGE IMPROVEMENTS
CITY OF CHANHASSEN

CLIENT PROJECT NO. 26-XX

WSB PROJECT NO. 032009-000

SHEET 9 OF 9

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