KEYNOTES

- (1) REMOVE EXISTING B612 CONCRETE CURB AND GUTTER.
- (2) REMOVE EXISTING LIGHT POLE.
- (3) REMOVE EXISTING STORM INLET.
- (4) REMOVE EXISTING 18" RCP STORM SEWER.
- (5) REMOVE EXISTING 24" RCP STORM SEWER.
- 6 REMOVE EXISTING ROOF DRAIN. SEE SHEET C4 FOR MORE INFORMATION.
- $\langle \overline{7} \rangle$ REMOVE EXISTING TRASH ENCLOSURE.
- (8) INSTALL TREE PROTECT @ DRIPLINE OF EXISTING TREE

SAWCUT LINE

RE = 986.05 -INV=976.45

- (9) EXISTING TRANSFORMER TO REMIAN. MN HWY 7 FRONTAGE RD
- (1) EXISTING GAS METER TO REMAIN.
- (11) EXISTING HYDRANT TO REMAIN.
- (12) REMOVE EXISTING SIGN.

- (13) REMOVE EXISTING FIBER OPTIC LINE. CONTRACTOR TO COORDINATE RE-ROUTE LOCATION WITH PRIVATE UTILITY OWNER.
- (14) REMOVE EXISTING SANITARY SERVICE TO MAIN. CAP AND SEAL PER CITY STANDARDS
- (15) REMOVE EXISTING CONC. ISLANDS. SEE ARCHITECTURAL FOR MORE INFORMATION OF REMODEL UNDER CANOPY
- (16) REMOVE EXISTING FLAG POLE.

AND BEREP

PROTECT EX

WM IN-PLACE

SAWCUT LINE

RE = 986.35

INV=980.90

RE = 985.99 NNV=980.49

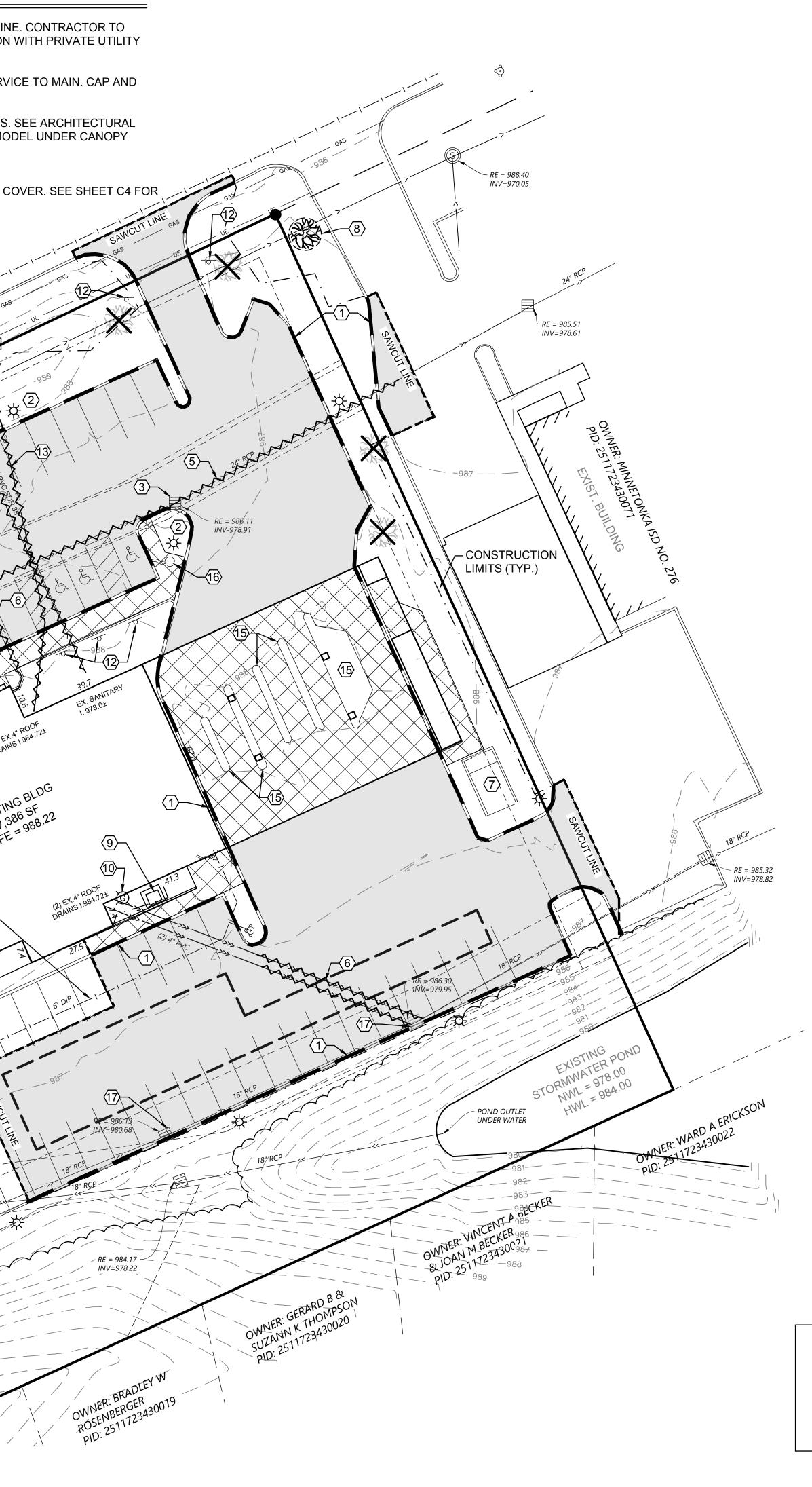
OWNER: WATERFORD (OWNER: WATERFORD (PID: 2511723430064

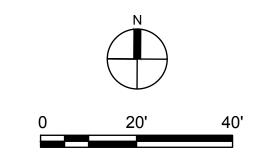
CENTER

EP

RE = 987.12 INV=977.62

(17) REMOVE AND REPLACE EXISTING COVER. SEE SHEET C4 FOR MORE INFORMATION





LEGEND

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PROPERTY LIMITS CONSTRUCTION LIMITS EXISTING D+U EASEMENT **EXISTING WATERMAIN** EXISTING STORM SEWER EXISTING GAS MAIN **EXISTING COMMUNICATIONS LINE** EXISTING UNDERGROUND ELECTRIC **EXISTING FENCE** EXISTING HYDRANT AND GV EXISTING STORM SEWER INLET EXISTING HANDHOLE EXISTING SIGN **EXISTING LIGHT POLE** FULL DEPTH SAW CUT REMOVE EXISTING UTILITY **REMOVE EXISTING CONCRETE C&G** REMOVED BITUMINOUS PAVEMENT REMOVED CONCRETE PAVEMENT

REMOVE EXISTING TREE

DEMOLITION NOTES

- UTILITIES SHOWN HERE ARE FOR INFORMATIONAL USE ONLY AND ARE NOT GUARANTEED IN THEIR ACCURACY. VERIFY WORK. NOTIFY ENGINEER OF ANY/ALL DISCREPANCIES WITHIN 24 HOURS OF DISCOVERY.
- CONTRACTOR SHALL HIRE PRIVATE UTILITY LOCATOR AS NECESSARY TO VERIFY UNDERGROUND UTILITIES. UTILITIES SHOWN ON PLANS MAY VARY FROM EXISTING CONDITIONS, AND CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO UTILITY LINES SHOWN, NOT SHOWN, OR SHOWN INCORRECTLY.
- 3. ALL UNDERGROUND UTILITIES MUST BE LOCATED PRIOR TO EXCAVATION OR GRADING ON SITE. CALL GOPHER SATE ONE CALL AT 1-800-252-1166 AT LEAST 48 HOURS PRIOR TO EXCAVATION TO SCHEDULE UTILITY LOCATIONS FOR THIS SITE. CONTRACTOR TO REPAIR ANY DAMAGED UNDERGROUND UTILITIES DURING CONSTRUCTION AT NO COST TO OWNER.
- 4. CONTRACTOR SHALL PROVIDE DIGITAL RECORD OF ALL EXISTING CONDITIONS TO REMAIN IN PLACE THAT MAYBE DAMAGED CAUSED BY REGULAR CONSTRUCTION **OPERATIONS**
- 5. CONTRACTOR TO VERIFY EXISTING INVERT ELEVATIONS, SIZE, AND TYPE OF ALL SANITARY, STORM, AND WATERMAIN CONNECTION LOCATIONS PRIOR TO INSTALLATION. NOTIFY **ENGINEER & OWNER OF DISCREPANCIES WITHIN 24 HOURS** OF DISCOVERY.
- 6. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR DEMOLITION, REMOVAL, AND DISPOSAL.
- 7. ALL MATERIAL DESIGNATED FOR REMOVAL TO BECOME PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE NOTED. CONTRACTOR SHALL HAUL MATERIAL OFF-SITE AND DISPOSE IN A RESPONSIBLE MANNER.
- 8. CONTRACTOR TO COORDINATE WITH SMALL UTILITY OWNER FOR REMOVAL/REPLACEMENT WORK.



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PROJECT

MM CAPITAL SHOREWOOD, LLC

ADDITION/REMODELING

19765 MN - 7 SHOREWOOD, MINNESOTA

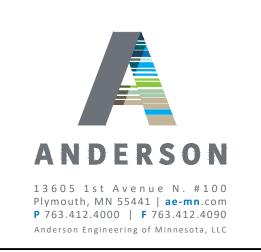
	NO. 1 FINAL WATERSHED
1/8/25	1 FINAL WATERSHED

DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NOT FOR CONSTRUCTION BRIAN J. FIELD, P.E.

57224 REG. NO.

01/08/2025 DATE



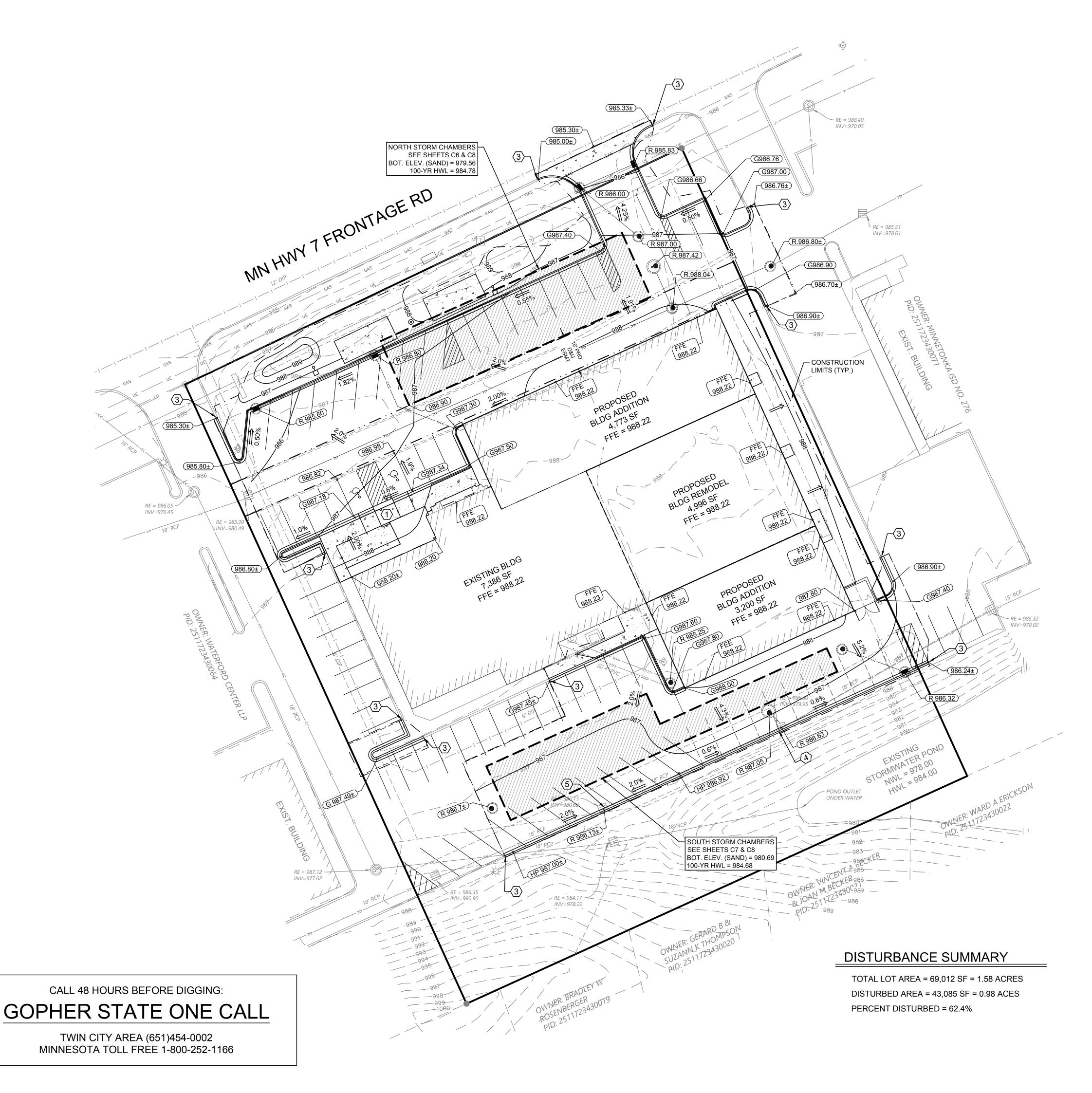
DEMOLITION PLAN

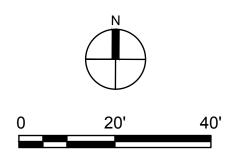
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CALL 48 HOURS BEFORE DIGGING: **GOPHER STATE ONE CALL**

> TWIN CITY AREA (651)454-0002 MINNESOTA TOLL FREE 1-800-252-1166





LEGEND

	PROPERTY LIMITS
· ·	CONSTRUCTION LIMITS
<u> </u>	EXISTING MINOR CONTOUR
— — 990 — —	EXISTING MAJOR CONTOUR
987 ——	PROPOSED MINOR CONTOUR
990 ——	PROPOSED MAJOR CONTOUR
\implies	DRAINAGE ARROW
	PROPOSED CONCRETE C&G
· ·	PROPOSED D&U EASEMENT
	PROPOSED STORM INLETS

SPOT ELEVATION KEY

±	EXISTING GRADE
G	GUTTER FLOW LINE
тс	TOP OF CURB
HP	HIGH POINT ELEVATION
R	RIM ELEVATION
I	INVERT ELEVATION
EOF	EMERGENCY OVERFLOW ELEVATION
FFE	FINISHED FLOOR ELEVATION

GRADING NOTES

- 1. THE TOTAL DISTURBED AREA IS EQUAL TO 0.98 ACRES. AN MPCA PERMIT IS NOT REQUIRED.
- 2. PROPOSED SPOT ELEVATIONS ARE TO TOP OF FINISHED SURFACE UNLESS OTHERWISE NOTED IN LEGEND.
- 3. TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES. LOCATIONS OF UTILITIES SHOWN BASED ON SURVEY AND AS-BUILT INFORMATION AND MAY NOT REPRESENT ACTUAL CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR UTILIZING UTILITY LOCATES PRIOR TO STARTING ANY WORK.
- 4. CONTRACTOR IS RESPONSIBLE TO QUANTIFY SOIL IMPORT OR EXPORT AND PERFORM THEIR OWN QUANTITY TAKEOFFS FROM THE DRAWINGS. ONSITE EXCAVATION OF SOIL MAY BE NECESSARY TO ACHIEVE FINAL GRADES. CONTRACTOR SHALL COORDINATE ADDITIONAL ONSITE BORROW AREAS WITH OWNER AND ENGINEER. SUITABLE OFFSITE IMPORT MATERIAL MAY BE NECESSARY TO ACHIEVE FINAL GRADES. CONTRACTOR TO COORDINATE WITH GEOTECHNICAL ENGINEER TO VERIFY IMPORT.
- 5. CONTRACTOR SHALL EXCAVATE AND DISPOSE OF UNSUITABLE OR CONTAMINATED SOILS IF DISCOVERED ONSITE IN ACCORDANCE WITH APPLICABLE REGULATION AND AS DIRECTED BY GEOTECHNMICAL ENGINEER.
- CONTRACTOR IS RESPONSIBLE FOR MEETING GRADING/COMPACTION REQUIREMENTS OUTLINED IN THE GEOTECHNICAL REPORT AND SPECIFICATIONS FOR THIS PROJECT
 CONTRACTOR FOR TO CONFORM TO MINDOT OPER 2406 24
- GRADING ELEVATIONS TO CONFORM TO MNDOT SPEC 2106.3.1
 SOIL COMPACTION TESTING SHALL FOLLOW THE FREQUENCY OUTLINED IN THE GEOTECHNICAL REPORT
- OUTLINED IN THE GEOTECHNICAL REPORT.9. CONTRACTOR SHALL COORDINATE SOIL TESTING AND
- INSPECTIONS WITH THE GEOTECHNICAL ENGINEER.
- 10. CONTRACTOR SHALL CONSTRUCT ACCESSIBLE ROUTES IN ACCORDANCE WITH CURRENT ADA STATE AND NATIONAL STANDARDS. NOTIFY ENGINEER WITHIN 24 HOURS IF ADA STANDARDS ARE UNABLE TO ME MET.
- 11. EXISTING SPOT ELEVATIONS AT MATCH POINTS ARE BASED OFF OF EXISTING SITE SURVEY DATE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING CONNECTION POINTS PRIOR TO INSTALLATION. NOTIFY ENGINEER WITHIN 24 HOURS OF ALL DISCREPANCIES.
- 12. SEE SHEET C3 FOR EROSION CONTROL PLAN.

KEY NOTES

- (1) PEDESTRIAN CURB RAMP MEETING 2020 MINNESOTA ACCESSIBILITY STANDARDS.
- (2) RAISE EXISTING CATCH BASIN RIM TO FINISHED GRADE.
- (3) MATCH EXISTING CURB GRADE.
- (4) RAISE EXISTING RIM TO FINISHED GRADE. RECONSTRUCT MANHOLE / TOP BARREL AS NEEDED. SEE SHEET C4 FOR NEW CASTING.
- (5) REMOVE AND REPLACE CASTER PER SHEET C4. ADJUST RIM ELEVATION AS NEEDED TO MATCH FINISHED GRADE.



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PROJECT

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ADDITION/REMODELING

19765 MN - 7 SHOREWOOD, MINNESOTA

> 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 ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NOT FOR CONSTRUCTION BRIAN J. FIELD, P.E.

57224 REG. NO. 01/08/2025 DATE





DRAWN BY: DV CHECKED BY: BF

EROSION CONTROL NOTES

GRADING CONTRACTORS SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL UNDERGROUND UTILITIES WITH THE RESPECTIVE UTILITY COMPANIES PRIOR TO CONSTRUCTION.

- 2. ALL EROSION CONTROL MEASURES CALLED FOR ON THESE PLANS AND SPECIFICATIONS, WHICH MAY INCLUDE SILT FENCE, SEDIMENTATION BASINS OR TEMPORARY SEDIMENT TRAPS, SHALL BE CONSTRUCTED AND SERVICEABLE IN THE FOLLOWING ORDER:
 - A. ROCK CONSTRUCTION ENTRANCES A MINIMUM OF 50 FEET
 - B. SILT FENCE C. TEMPORARY CULVERTS
 - D. TEMPORARY SEDIMENTATION BASINS AND OUTFALL FACILITIES E. STORMWATER POND CONSTRUCTION
 - F. COMMON EXCAVATION AND EMBANKMENT (GRADING)
- G. SEED AND MULCH OR SOD H. BIO-ROLL BARRIERS IN FINISHED GRADED AREAS
- I. INLET AND OUTLET FACILITIES SUBSEQUENT TO STORM SEWER WORK
- 3. GRADING CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY AND NPDES PHASE II PERMITTING REQUIREMENTS AS WELL AS EROSION CONTROL MEASURES AS MAY BE SHOWN ON THESE PLANS OR SPECIFICATIONS. GRADING CONTRACTOR SHALL IMPLEMENT ANY ADDITIONAL EROSION CONTROL MEASURES AS MAY BE REQUIRED TO PROTECT ADJACENT PROPERTY.
- 4. ALL EROSION CONTROL FACILITIES SHALL BE MAINTAINED BY THE CONTRACTOR DURING GRADING OPERATIONS. ANY TEMPORARY FACILITIES WHICH ARE TO BE REMOVED AS CALLED FOR ON THESE PLANS AND SPECIFICATIONS SHALL BE REMOVED BY THE GRADING CONTRACTOR WHEN DIRECTED BY THE ENGINEER. THE GRADING CONTRACTOR SHALL RESTORE THE SUBSEQUENTLY DISTURBED AREA IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.
- 5. THE GRADING CONTRACTOR SHALL SCHEDULE THE SOILS ENGINEER SO THAT CERTIFICATION OF ALL CONTROLLED FILLS WILL BE FURNISHED TO THE OWNER DURING AND UPON COMPLETION OF THE PROJECT.
- 6. ALL DISTURBED AREAS, EXCEPT AREAS TO BE PAVED AND/OR SPECIFICALLY DESIGNED BY A LANDSCAPE PLAN, SHALL BE COVERED WITH A MINIMUM 6" OF TOP SOIL OR AS INDICATED IN SPECIFICATIONS OR LANDSCAPING PLAN. ALL DISTURBED AREAS SHALL BE SEEDED & MULCHED AT THE PRESCRIBED RATES WITHIN 72 HOURS OF FINAL GRADING UNLESS OTHERWISE NOTED.

SEED MIX:	MNDOT	NO. 25-141 59# / ACRE
MULCH:	TYPE 1	2 TONS / ACRE (DISK ANCHORED)
FERTILIZER:	TYPE 3 22-5-10	350# / ACRE
ALL EXPOSED S	OIL AREAS WITH A C	ONTINUOUS POSITIVE SLOPE WITHIN 200 LINEAL FEET OF ANY
SURFACE WATE	R, MUST HAVE TEMF	PORARY EROSION PROTECTION OR PERMANENT COVER FOR
THE EXPOSED S	SOIL AREAS YEAR RC	OUND, ACCORDING TO THE FOLLOWING TABLE OF SLOPES AND
TIME FRAMES:		

TYPE OF SLOPE	TIME (Maximum time an area can remain open when the area is not actively being worked)
STEEPER THAN 3:1	7 DAYS
10:1 TO 3:1 FLATTER THAN 10:1	4 DAYS 7 DAYS

- 7. THE EXISTING TOPOGRAPHY AND CONTOUR ELEVATIONS SHOWN ON THE PLAN WERE TAKEN FROM A PLAN FURNISHED BY OWNER.
- 8. CONTRACTORS GRADING AND EROSION CONTROL OPERATIONS SHALL TAKE PLACE WITHIN THE CONSTRUCTION LIMITS.
- 9. IT IS REQUIRED THAT SOILS TRACKED FROM THE SITE BY MOTOR VEHICLES BE CLEANED DAILY FROM PAVED ROADWAY SURFACES THROUGHOUT THE DURATION OF CONSTRUCTION.
- 10. PROVIDE TEMPORARY SEDIMENTATION BASINS AS DIRECTED BY THE ENGINEER.
- 11. ALL REQUIREMENTS OF THE LOCAL WATERSHED DISTRICT SHALL BE SATISFIED PER THE APPROVED PERMIT
- 12. ALL EROSION & SEDIMENT CONTROL MEASURES SHOWN ON THIS PLAN AND IMPLEMENTED IN THE FIELD AS DIRECTED BY THE ENGINEER SHALL CONFORM TO THE MPCA'S "PROTECTING WATER QUALITY IN URBAN AREAS: BEST MANAGEMENT PRACTICES FOR MINNESOTA".
- 13. DEWATERING AND / OR BASIN DRAINING DISCHARGE SHALL BE DIRECTED TO SEDIMENTATION BASINS WHEREVER POSSIBLE. ALL DISCHARGE POINTS SHALL BE ADEQUATELY PROTECTED FROM EROSION & SCOUR THROUGH USE OF APPROVED ENERGY DISSIPATION DEVICES.
- 14. ALL SOLID WASTE / CONSTRUCTION DEBRIS SHALL BE DISPOSED OF IN ACCORDANCE WITH MPCA REQUIREMENTS. HAZARDOUS MATERIALS SHALL BE STORED / DISPOSED OF IN COMPLIANCE WITH MPCA REGULATIONS.

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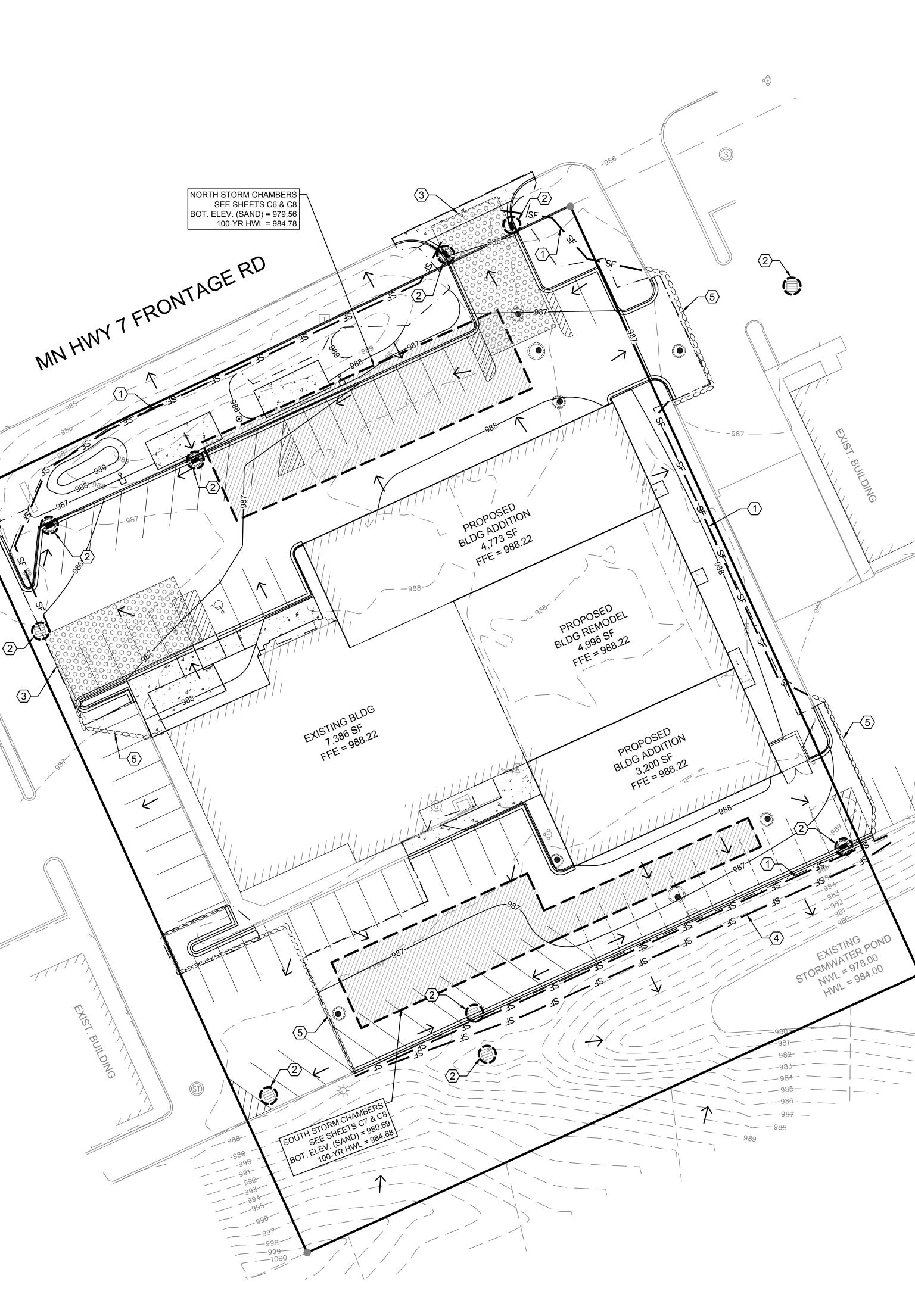
15. CONTRACTOR SHALL USE RAPID STABILIZATION METHODS PER MNDOT 2575 AS NEEDED DURING THE COURSE OF THE WORK TO MAINTAIN CONFORMANCE WITH THE CITY AND NPDES II PERMI REQUIREMENTS. THIS WORK SHALL CONSIST OF OPERATIONS NECESSARY TO RAPIDLY STABILIZE SMALL CRITICAL AREA, TO PREVENT OFF SITE SEDIMENTATION AND / OR TO COMPLY WITH PERMIT REQUIREMENTS. THE WORK MAY BE PERFORMED AT ANY TIME DURING THE CONTRACT AND DURING NORMAL WORKING HOURS. THIS WORK WILL BE CONDUCTED ON SMALL AREAS THAT MAY OR MAY NOT BE ACCESSIBLE WITH NORMAL EQUIPMENT. THIS WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE MNDOT STANDARDS SPECIFICATIONS, THE DETAILS SHOWN IN THE PLANS, AND THE FOLLOWING:

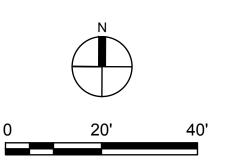
THERE ARE FIVE STABILIZATION METHODS APPROVED FOR THESE OPERATIONS. THESE METHODS MAY BE CONDUCTED INDEPENDENTLY OR IN COMBINATION.

- RAPID STABILIZATION METHOD TYPE 1 MULCH WITH DISC ANCHORING
- TYPE 3 MULCH WITH TYPE HYDRAULIC MULCH
- TYPE HYDRAULIC MULCH WITH SEED MIXTURE 22-11 CATEGORY 3 EROSION CONTROL BLANKET WITH SEED MIXTURE
- RIPRAP CLASS II WITH GEOTEXTILE TYPE III
- THESE EFFORTS WILL BE INCIDENTAL TO THE EROSION CONTROL BID ITEM
- 16. CHANGE OF COVERAGE: FOR STORM WATER DISCHARGES FROM CONSTRUCTION PROJECTS WHERE THE OWNER OR OPERATOR CHANGES, (E.G., AN ORIGINAL DEVELOPER SELLS PORTIONS OF THE PROPERTY TO VARIOUS BUILDERS) THE NEW OWNER OR OPERATOR MUST SUBMIT A SUBDIVISION REGISTRATION WITHIN 7 DAYS OF ASSUMING TRANSFERS, SALE OR CLOSING ON THE PROPERTY.
- 17. INDIVIDUAL SITE BUILDERS SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL NECESSARY EROSION CONTROL MEASURES AS MAY BE REQUIRED. REQUIRED ECM'S SHALL CONSIST OF BUT NOT BE LIMITED TOT HE FOLLOWING:
- A. STAKED FIBER LOG ROLLS AT BACK OF ALL CURB EXCEPT AT CONSTRUCTION / DRIVEWAY ENTRANCE.
- B. SILT FENCE ON ALL DOWN GRADIENT SLOPES FROM CONSTRUCTION AREA. SILT FENCE SHALL HAVE THE BOTTOM DUG IN WITH SOIL FIRMLY COMPACTED. C. ROCK CONSTRUCTION ENTRANCE HAVING 1" TO 2" CLEAR ROCK OVER GEOTEXTILE FABRIC.
- D. STREET CLEANING AS MAY BE REQUIRED SHOULD VEHICLE TRACKING OCCUR.
- INDIVIDUAL SITE BUILDERS ARE REQUIRED TO MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH TIME AS INDIVIDUAL YARDS/VEGETATION ARE ESTABLISHED.
- 18. CONTRACTOR SHALL PROVIDE A TEMPORARY LINED SEDIMENTATION BASIN ON SITE FOR CONSTRUCTION WASH OUT USE. TEMPORARY BASIN SHALL BE LOCATED AS TO PROVIDE EASY ACCESS FOR CONSTRUCTION VEHICLES AND CONCRETE TRUCKS AS NECESSARY.
- 19. INLET SEDIMENTATION CONTROL IS TO BE PROVIDED TO ALL STORM SEWER CATCH BASIN THROUGHOUT CONSTRUCTION . MEASURES APPLIED SHALL COMPLY WITH BEST MANAGEMENT PRACTICES FOR MINNESOTA AND APPLICATION OF NPDES PHASE II AS APPROPRIATE FOR PHASE OF CONSTRUCTION.
- 20. CONTRACTOR SHALL PREVENT SOIL LOSS DURING CONSTRUCTION DUE TO WIND EROSION THROUGHOUT CONSTRUCTION. DUST SHALL BE SUPPRESSED THOUGH THE APPLICATIONS OF WATER, AS DEEMED NECESSARY BY THE CONTRACTOR, OR THROUGH EQUIVALENT BMP'S AS APPROVED BY THE ENGINEER.
- 21. IF LEED ACCREDITATION IS APPLICABLE, CONTRACTOR SHALL DOCUMENT THE IMPLEMENTATION OF THE EROSION AND SEDIMENTATION CONTROL PLAN THROUGH DATE-STAMPED PHOTOS AND INSPECTION LOGS / REPORTS. REPORTS SHALL INCLUDE AT A MINIMUM DESCRIPTION OF ALL EMPLOYED BMP'S (INCLUDING BOTH MEASURES TO PREVENT SOIL LOSS DUE TO RUNOFF AND SOIL LOSS DUE TO WIND EROSION), BMP'S DEEMED UNNECESSARY DUE TO SITE CONDITIONS, CORRECTIVE ACTIONS TAKEN IN RESPONSE TO PROBLEMS, AND ANY ADDITIONAL INFORMATION RELEVANT TO THE CONDITION OF THE EROSION AND SEDIMENT CONTROL PLAN AS IT WAS ESTABLISHED AT THE TIME OF CONSTRUCTION.

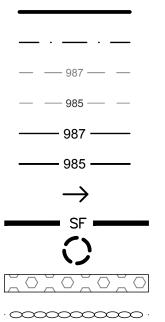
CALL 48 HOURS BEFORE DIGGING: **GOPHER STATE ONE CALL**

> TWIN CITY AREA (651)454-0002 MINNESOTA TOLL FREE 1-800-252-1166





LEGEND



PROPERTY LIMITS CONSTRUCTION LIMITS **EXISTING MINOR CONTOUR** EXISTING MAJOR CONTOUR PROPOSED MINOR CONTOUR PROPOSED MAJOR CONTOUR DRAINAGE ARROW SILT FENCE INLET PROTECTION CONSTRUCTION ENTRANCE **BIO ROLL**

KEY NOTES

- $\langle 1 \rangle$ INSTALL AND MAINTAIN SILTFENCE PERIMETER SEDIMENT PROTECTION IN TURF AREAS.
- $\langle 2 \rangle$ INSTALL AND MAINTAIN INLET SEDIMENT PROTECTION.
- $\langle 3 \rangle$ INSTALL TEMP ROCK ENTRANCE OR MNDOD APPROVED **PRODUCT TRACK PAD AT CONSTRUCTION INGRESS &** EGRESS LOCATION PRIOR TO EXCAVATION. MAINTAIN THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS.
- (4) INSTALL REDUNDANT SILT FENCE ALONG POND SIDE OF SLOPE. 5' BUFFER MIN.
- INSTALL BIO-ROLL IN PAVED AREAS PER MNDOT SPEC $\langle 5 \rangle$ SECTION 3885.



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PROJECT

MM CAPITAL SHOREWOOD, LLC

ADDITION/REMODELING

19765 MN - 7 SHOREWOOD, MINNESOTA

ISSUED S	ET JAN. 08, 2025	
REVISION	IS	
DATE 1/8/25	N0. 1 FINAL WATERSHED	

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 ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NOT FOR CONSTRUCTION BRIAN J. FIELD, P.E.

<u># 57224</u> REG. NO.

01/08/2025 DATE





DRAWN BY: DV

CHECKED BY: BF

C3

INSTALLATION PRIOR TO COMMENCEMENT OF EARTHWORK OPERATIONS ROCK CONST PRIOR TO COMMENCEMENT OF ENTRANCE EARTHWORK OPERATIONS.

SILT FENCE

FILTER

SEED & MULCH

OUTLET SKIMMER AFTER POND GRADING IS COMPLETED STRUCTURE UPON COMPLETION OF POND GRADING. **RIP-RAP &** CONC. SWALE CONST. AND OUTLET INSTALLATION. DETENTION POND DURING EARTHWORK OPERATIONS.

AFTER POND GRADING IS COMPLETED INLET PROTECTION UPON INLET CONSTRUCTING

EVENT. REMOVE SEDIMENTS AS REQUIRED. INSPECT REGULARLY. MAINTAIN AS INSPECT REGULARLY, MAINTAIN AS NEEDED INSPECT & MAINTAIN AT LEAST ANNUALLY AND AFTER HEAVY RAINFALL AFTER HEAVY RAINFALL EVENTS REMOVE SEDIMENTS AS NEEDED. INSPECT & MAINTAIN AFTER HEAV RAINS. REPLACE WASH-OUT AREAS NO REMOVAL NECESSARY. IMMEDIATELY WHEN 1/3 CAPACITY OF BMP IS REACHED AFTER TRIBUTARY AREAS ARE FULLY RESTORED

NSPECTION & MAINTENANCE

STORMWATER POLLUTION PREVENTION PLAN SCHEDULE OF INSTALLATION & MAINTENANCE

INSPECT & MAINT. AFTER EACH RUN-OFF AFTER TRIBUTARY DRAINAGE AREA IS RESTORED. PRIOR TO PAVING PERMANEN PERMANEN PERMANEN

REMOVAL

- $\langle 1 \rangle$ PROPOSED CONCRETE VALLEY GUTTER.
- $\langle 2 \rangle$ CONCRETE SIDEWALK TIP AWAY FROM BUILDING @ 2.00% UNLESS OTHERWISE NOTED ON GRADING SHEET C2.
- $\langle 3 \rangle$ PROPOSED MNDOT B612 CONCRETE CURB.
- $\langle 4 \rangle$ CONSTRUCT MANHOLE OVER EXISTING 24" STORM SEWER
- $\langle 5 \rangle$ TIE IN EXISTING 4" ROOF DRAIN INTO NEW MANHOLE.
- $\langle 6 \rangle$ CONNECT NEW RCP STORM TO EXISTING MANHOLE @ ELEVATION 980.49.
- $\langle 7 \rangle$ PROPOSED 15.0' PRIVATE DRAINAGE & UTILITY EASEMENT.
- $\langle 8 \rangle$ PROPOSED BITUMINOUS PAVEMENT SECTION.
- (9) PROPOSED STORM SEWER CLEANOUT
- (10) EXISTING HYDRANT TO REMAIN.
- (11) REMOVE AND REPLACE EXISTING CATCH BASIN CASTING PER STRUCTURE SCHEDULE BELOW. ADJUST TO FINISHED GRADE AS NEEDED.
- (12) REMOVE AND REPLACE TOP BARREL SECTION OF EXISTING MANHOLE WITH ECCENTRIC CONE. ROTATE OPENING TO BE OUTSIDE OF CONCRETE CURB AND GUTTER. INSTALL CASTING PER STRUCTURE SCHEDULE BELOW.

CBMH-8 R.986.65 I.982.00 (8" S) I.981.48 (12" SE)

I.981.48 (24" NE)

W/ 3.0' SUMP

RE = 987.12

INV=977.62

СВМН-9 —

R.985.60 I.982.10 (12" NE)

(10)-

ONN

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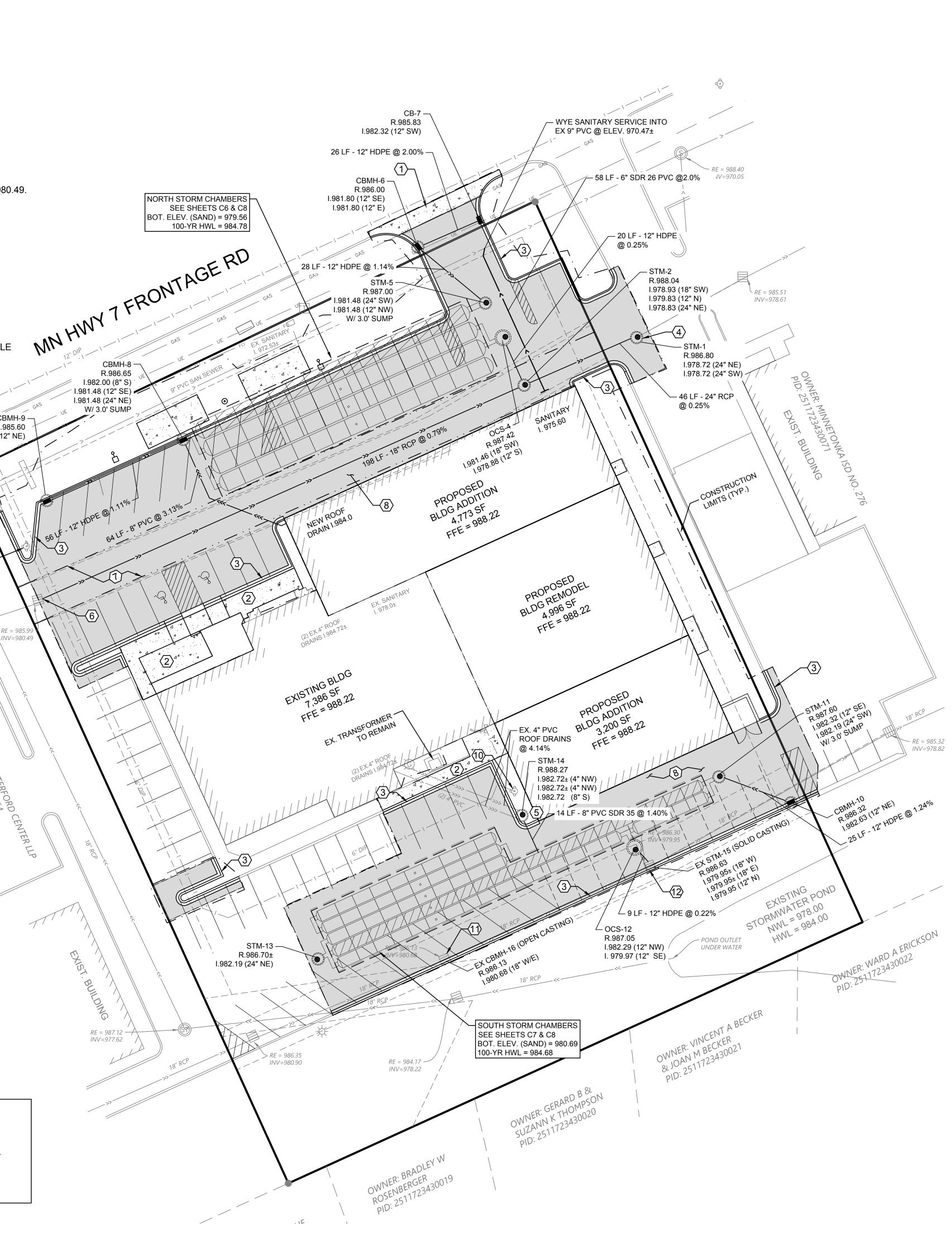
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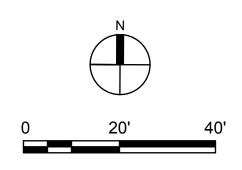
RE = 986.05 -

INV=976.45

	STRUCTL	JRE SCHEDULE
STRUCTURE NO.	SIZE	CASTING & NOTES (NEEHAN)
STM-1	48" ROUND	R-1642-SOLID "STORM"
STM-2	48" ROUND	R-1642-SOLID "STORM"
STM-3	48" ROUND	R-1642-SOLID "STORM"
OCS-4	60" ROUND	R-1642-SOLID "STORM"
STM-5	48" ROUND	R-1642-SOLID "STORM"
CBMH-6	48" ROUND	R-3067-V
CB-7	2' X 3' RECT	R-3067-V
CBMH-8	48" ROUND	R-3067-V
CBMH-9	48" ROUND	R-3067-V
CBMH-10	48" ROUND	R-3067-V
STM-11	48" ROUND	R-1642-SOLID "STORM"
0CS-12	60" ROUND	R-1642-SOLID "STORM"
STM-13	48" ROUND	R-1642-SOLID "STORM"
STM-14	48" ROUND	R-1642-SOLID "STORM"
EX STM-15	48" ROUND	R-1642-SOLID "STORM"
EX CBMH-16	48" ROUND	R-3067-V







LEGEND

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PROPERTY LIMITS CONSTRUCTION LIMITS **PROPOSED D&U EASEMENT EXISTING WATERMAIN EXISTING SANITARY SEWER EXISTING STORM SEWER** EXISTING UNDER DRAIN PROPOSED STORM SEWER PROPOSED UNDER DRAIN/ ROOF DRAIN PROPOSED SANITARY SEWER PROPOSED STORM INLETS PROPOSED BITUMINOUS PVMT PROPOSED CONCRETE PVMT

GENERAL NOTES

- ALL CONSTRUCTION SHALL COMPLY WITH **RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER** AND PER THE GEOTECHNICAL REPORT UNLESS DIRECTED OTHERWISE.
- 2. ALL CONSTRUCTION SHALL COMPLY WITH THE 2022 EDITION OF MNDOT SPECIFICATIONS, UNLESS DIRECTED OTHERWISE.
- 3. THE CONTRACTOR IS REQUIRED TO ADHERE TO THE SPECIFICATIONS AND REGULATIONS SET FORTH BY THE CITY/UTILITY PROVIDER, CEAM, AND MINNESOTA PLUMBING CODE (MINNESOTA RULES CHAPTER 4714) CONCERNING THE MATERIALS, INSTALLATION, AND TESTING OF WATER AND SANITARY UTILITIES. VERIFY RECEIPT OF ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
- 4. EXISTING TOPOGRAPHIC AND UTILITY INFORMATION PREPARED BY WESTWOOD. BE ADVISED THAT THE LOCATION AND TYPE OF EXISTING UTILITIES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY THE INFORMATION IS NOT WARRANTED TO BE ACCURATE OR COMPLETE. THE CONTRACTOR, IN COOPERATION WITH THE APPROPRIATE UTILITY COMPANY OR MUNICIPALITY, IS RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND DEPTH OF ALL UNDERGROUND UTILITIES.
- ALL HANDICAPPED STALLS AND ACCESS RAMPS SHALL COMPLY WITH CURRENT ADA STANDARDS. SEE ARCHITECTURAL PLANS FOR EXACT LOCATION OF BUILDING ENTRANCES
- ALL JOINTS AND CONNECTIONS IN THE STORM SEWER SYSTEM SHALL BE WATER TIGHT. APPROVED RESILIENT RUBBER JOINTS MUST BE USED MEETING ASTM F2510 TO MAKE WATER TIGHT CONNECTIONS TO MANHOLES AND CATCH BASINS. DO NOT GROUT OVER FLEXIBLE CONNECTIONS TO MANHOLES
- 7. HDPE STORM SEWERS MUST MEET ASTM F714. WATER TIGHT JOINTS MUST BE USED AT ALL CONNECTIONS INCLUDING STRUCTURES. THE INSTALLATION MUST COMPLY WITH ASTM D2321.
- STORM SEWER TO BE ADS N-12 DUAL WALL PIPE OR APPROVED EQUAL.
- RCP STORM PIPE TO BE CLASS III UNLESS OTHERWISE SPECIFIED.
- 10. WATER SERVICE TO BE PROVIDED TO REMODELED/ ADDITION AREAS INTERNALLY. PROTECT EXISTING SERVICES IN PLACE.



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PROJECT

MM CAPITAL SHOREWOOD, LLC

ADDITION/REMODELING

19765 MN - 7 SHOREWOOD, MINNESOTA

ISSUED S	IET JAN. 08, 2025
REVISION	IS
DATE <u>1/8/25</u>	N0. <u>1</u> FINAL WATERSHED

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 ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NOT FOR CONSTRUCTION BRIAN J. FIELD, P.E.

<u># 57224</u> REG. NO.

01/08/2025 DATE

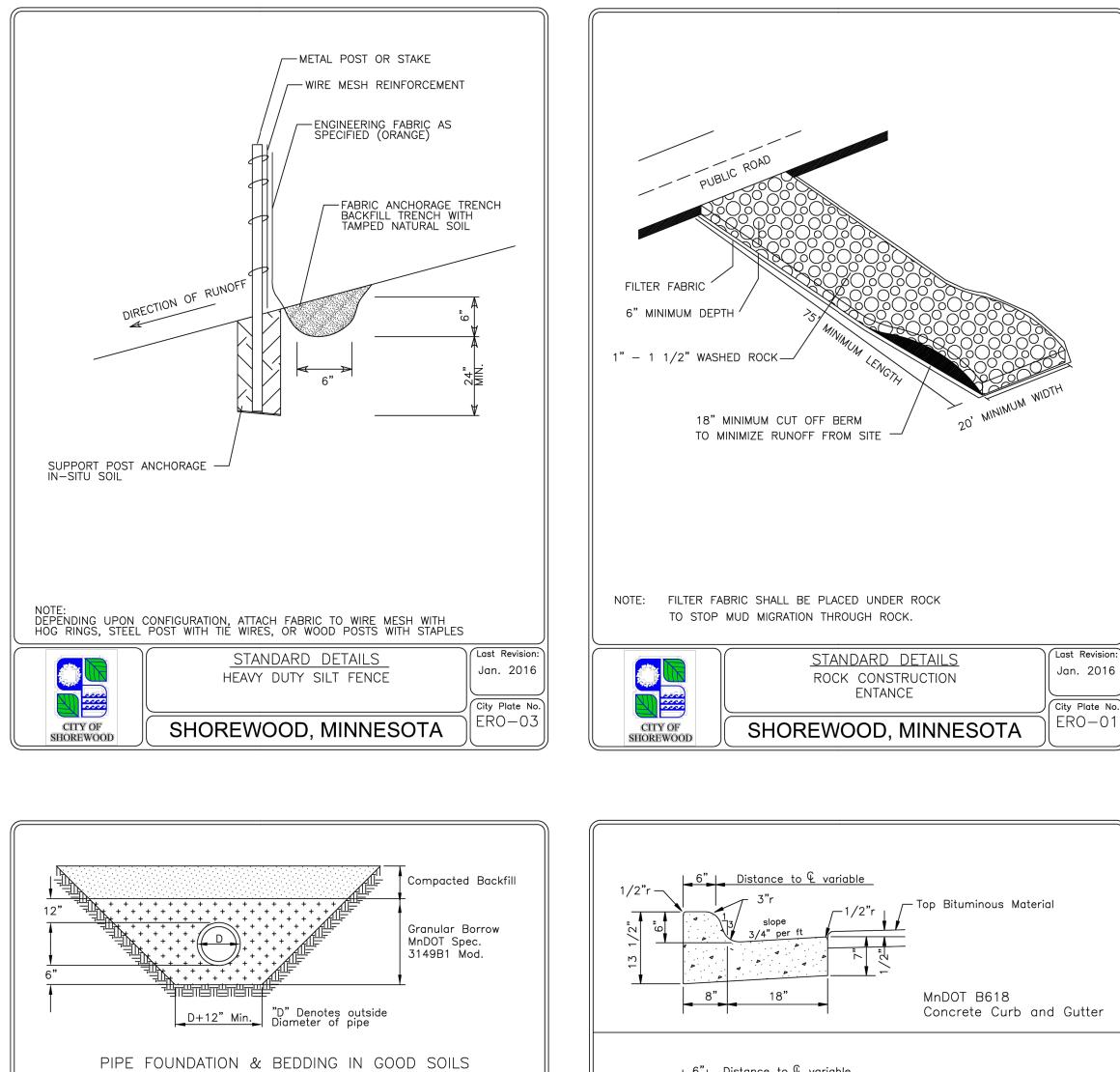


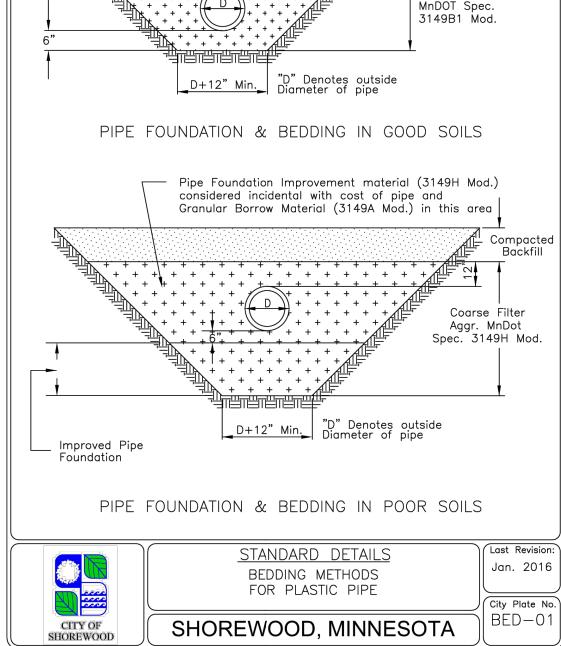


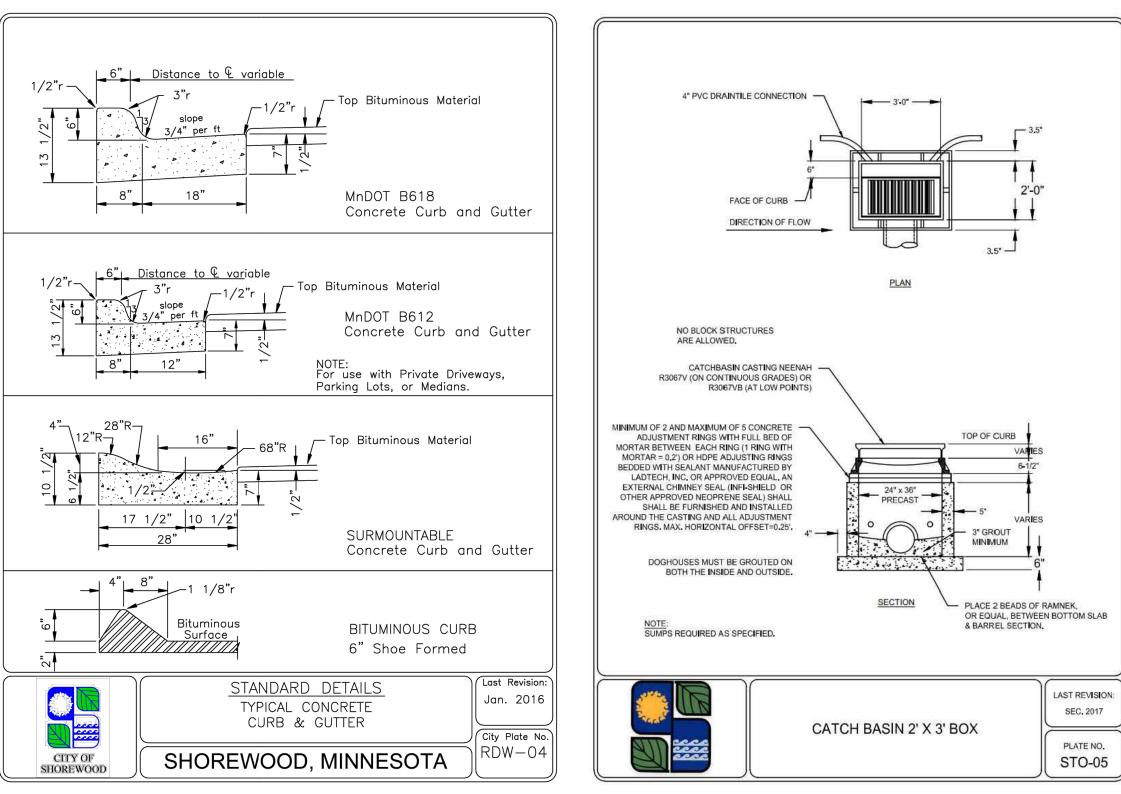
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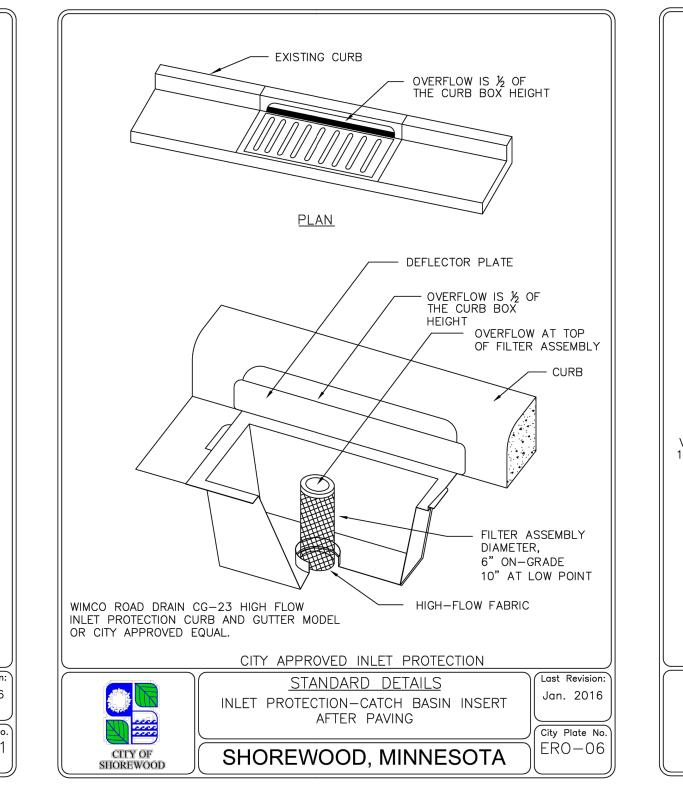
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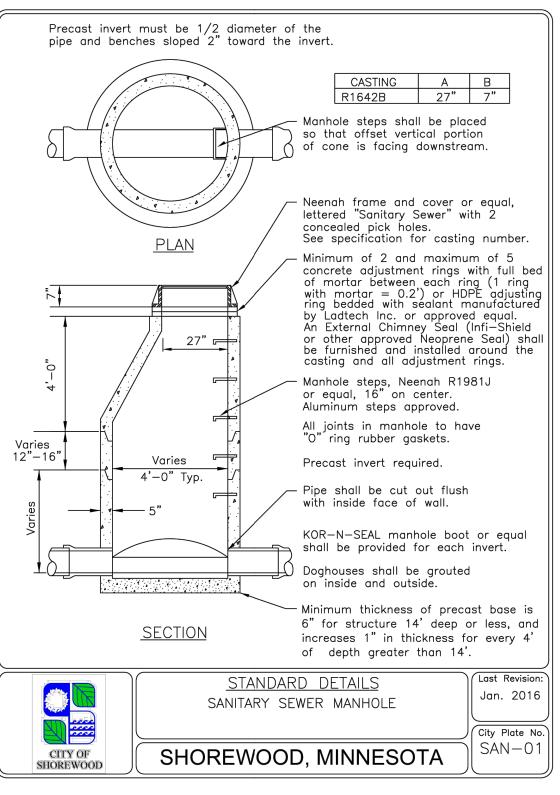
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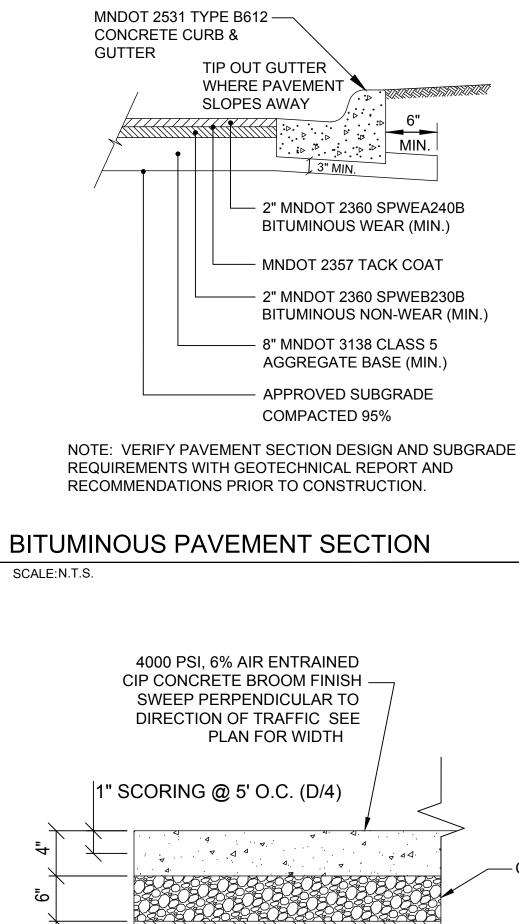












42" MNDOT 3149 SELECT GRANULAR BORROW OR ONSITE CLEAN SAND

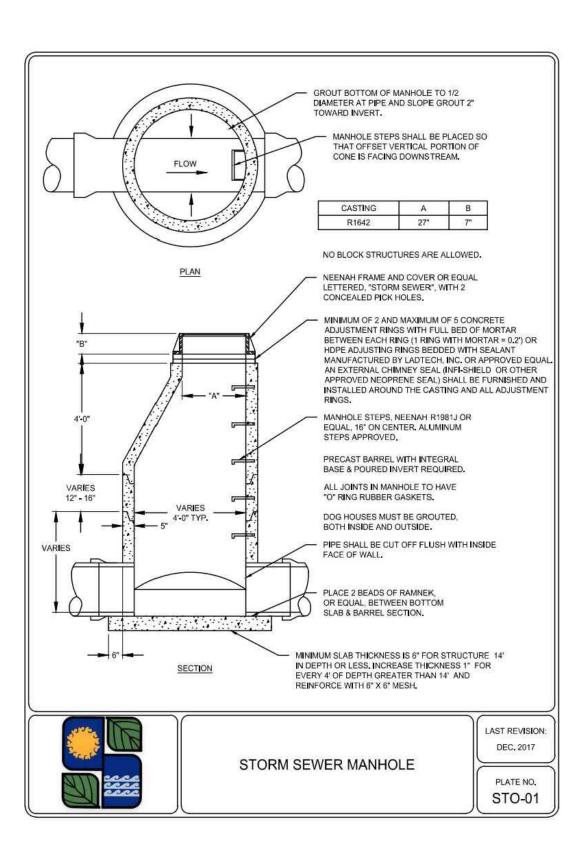
@ 3:1 PER GEOTECHNICAL REPORT

CONCRETE SIDEWALK SECTION

ADJACENT TO FROST STOOPS. TAPER UP

2

SCALE:N.T.S.





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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 ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NOT FOR CONSTRUCTION

BRIAN J. FIELD, P.E. # 57224 REG. NO.

01/08/2025 DATE



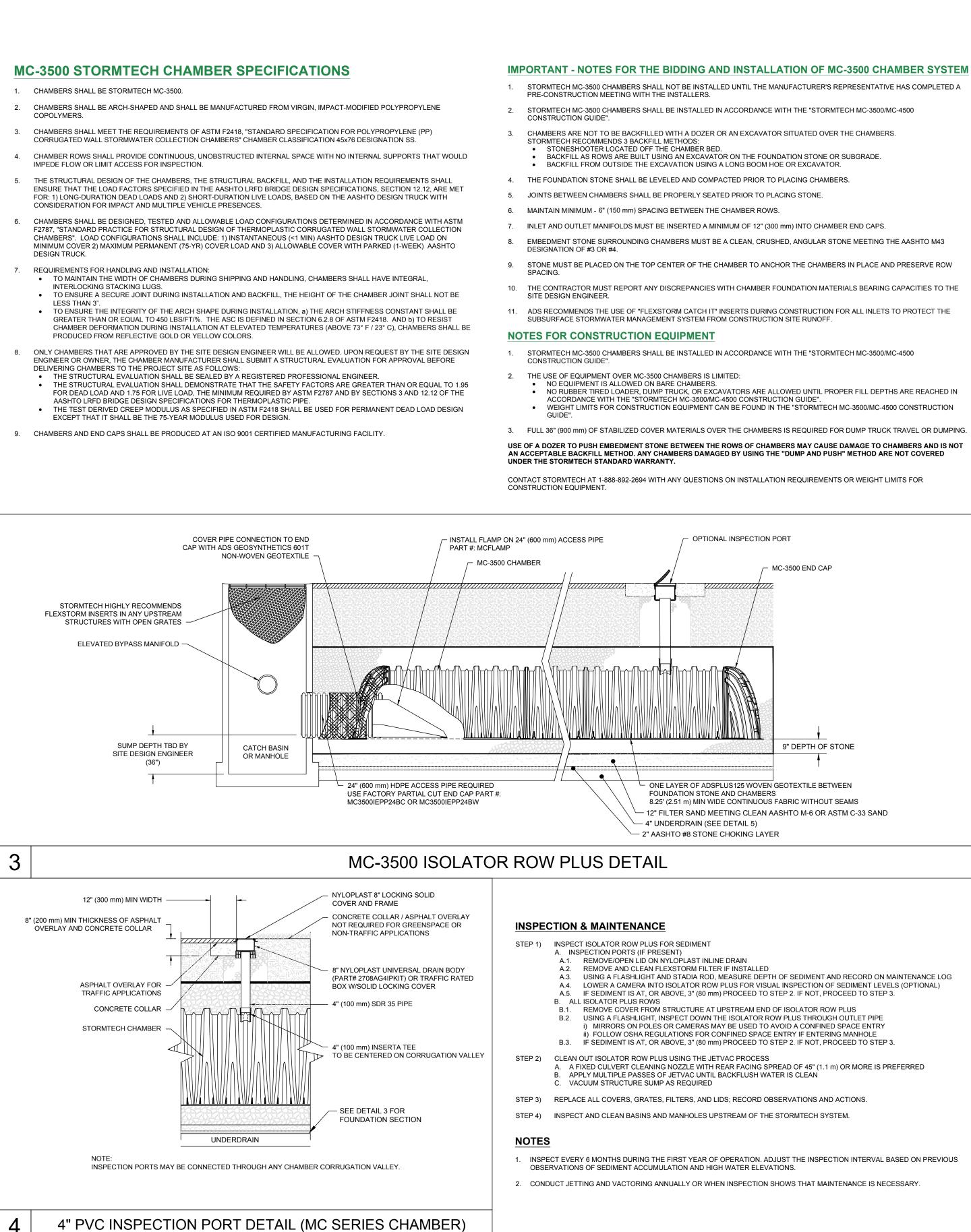
DETAILS

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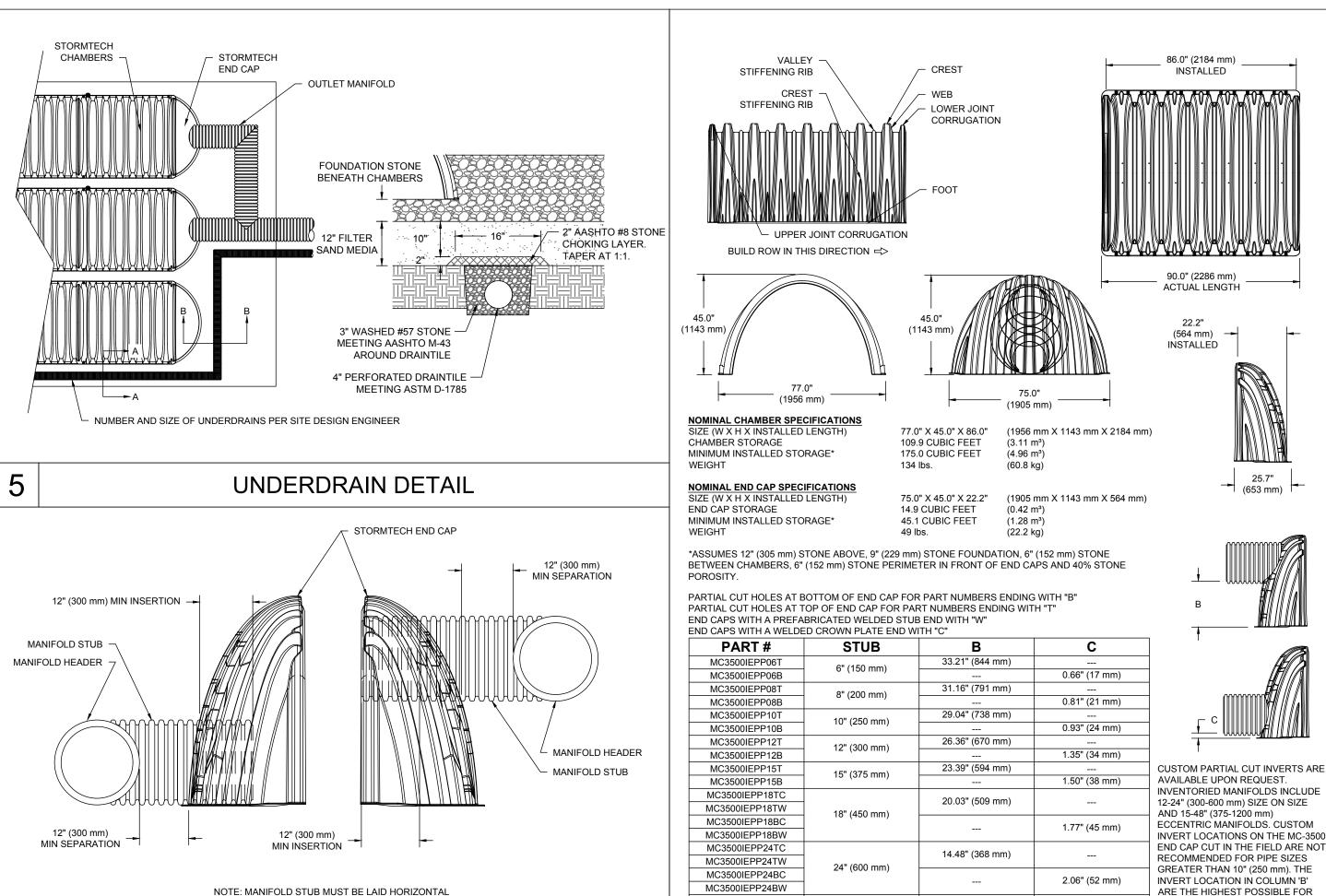
COMPACTED AGGREGATE BASE

COMPACTED SUB-BASE 95%









FOR A PROPER FIT IN END CAP OPENING.

MC-SERIES END CAP INSERTION DETAIL

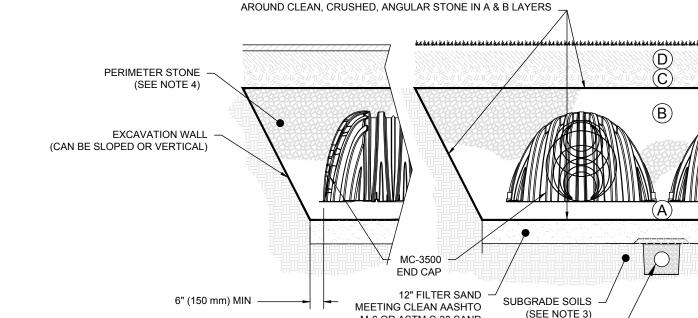
ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

2

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
С	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 18" (450 mm) OF MATERIAL OVEF THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS I 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOF WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
В	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE⁵	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE⁵	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

MHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION. . WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".

ADS GEOSYNTHETICS 601T NON-WOVEN GEOTEXTILE ALL



NOTES:

6

- (SEE DETAIL 5) CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
- CHAMBER CLASSIFICATION 45x76 DESIGNATION SS MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". 3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION

M-6 OR ASTM C-33 SAND

- FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS 4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- 5. REQUIREMENTS FOR HANDLING AND INSTALLATION: • TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
- TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3". • TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

UNDERDRAIN -

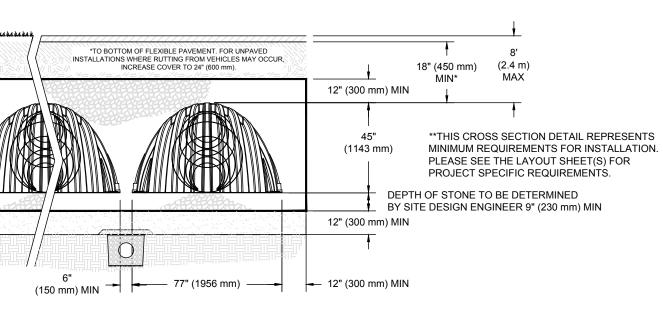
30" (750 mm) MC3500IEPP30BC NOTE: ALL DIMENSIONS ARE NOMINAL

MC-3500 TECHNICAL SPECIFICATIONS

2.75" (70 mm)

THE PIPE SIZE.

. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR





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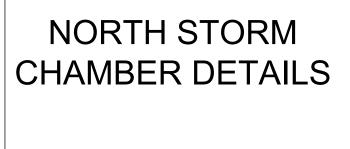
PROJECT

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SC-740 STORMTECH CHAMBER SPECIFICATIONS

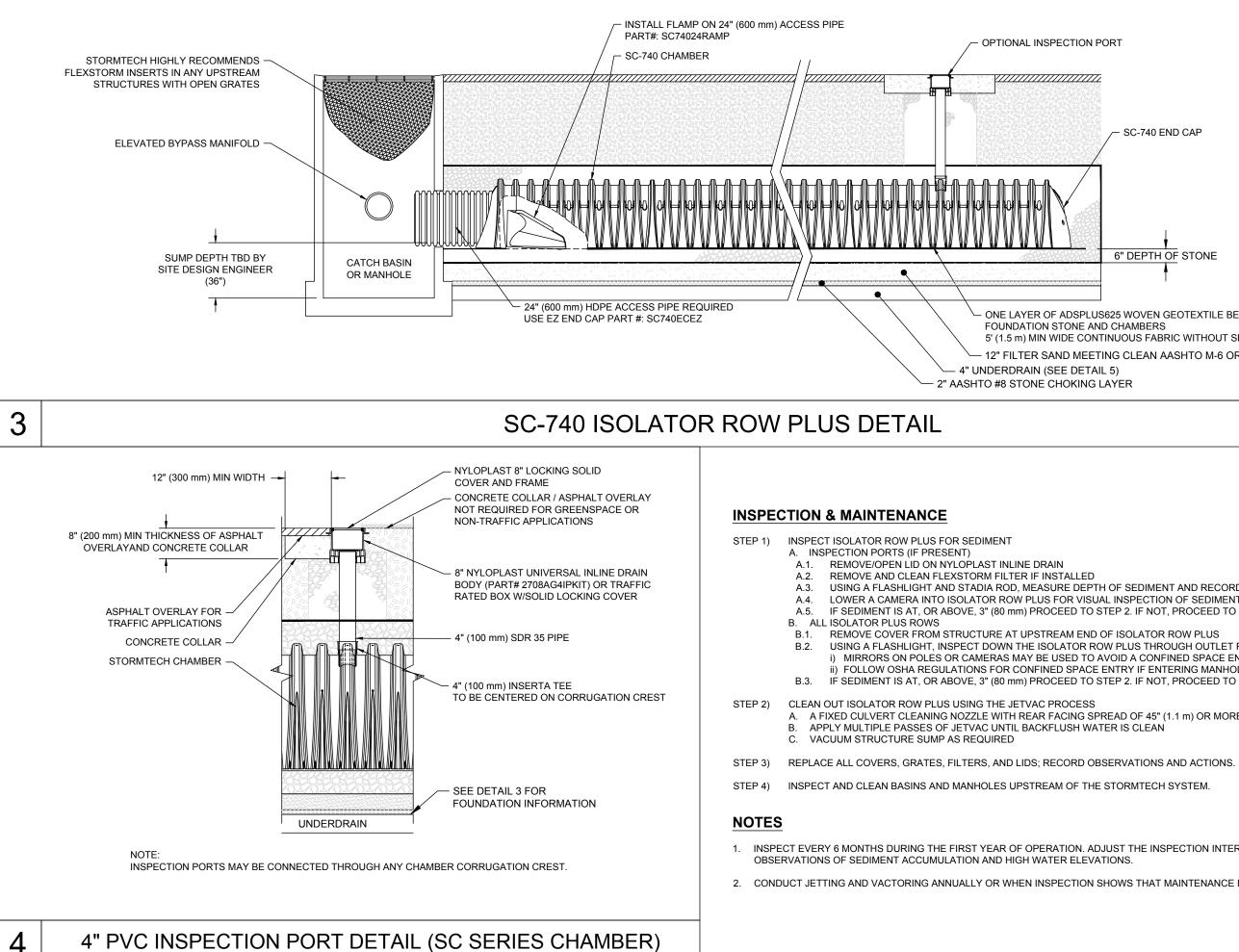
- 1. CHAMBERS SHALL BE STORMTECH SC-740.
- 2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- 7. REQUIREMENTS FOR HANDLING AND INSTALLATION: • TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL,
- INTERLOCKING STACKING LUGS. TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL. THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BI
- LESS THAN 2". • TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL
- BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS. 8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER. THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
- THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE
- AASHTO LRED BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE. THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- 9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

- STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS
- CONSTRUCTION GUIDE".
- STORMTECH RECOMMENDS 3 BACKFILL METHODS: STONESHOOTER LOCATED OFF THE CHAMBER BED BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE. BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- 4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS
- 5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- 6. MAINTAIN MINIMUM 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

- CONSTRUCTION GUIDE". 2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED: NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
- GUIDE"

3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING. USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT







IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780

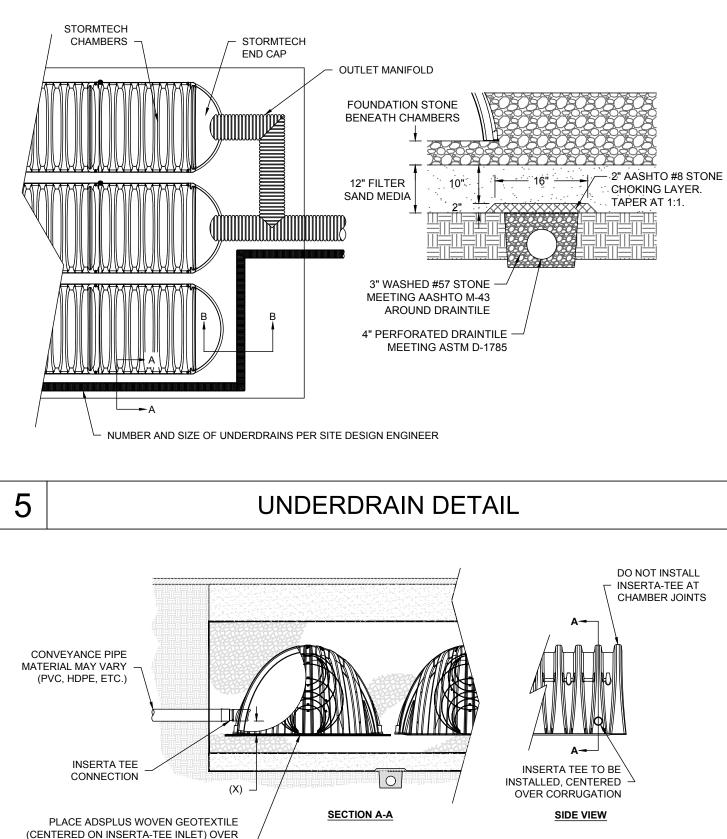
CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS

7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm).

ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE

STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780

• NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE". WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION



BEDDING STONE FOR SCOUR PROTECTION HEIGHT FROM BASE OF MAX DIAMETER OF AT SIDE INLET CONNECTIONS. GEOTEXTILE CHAMBER INSERTA TEE CHAMBER (X) MUST EXTEND 6" (150 mm) PAST CHAMBER FOOT 6" (150 mm) 4" (100 mm) SC-310 SC-740 10" (250 mm) 4" (100 mm) 10" (250 mm) 4" (100 mm) SC-800 4" (100 mm) DC-780 10" (250 mm) PART NUMBERS WILL VARY BASED ON INLET PIPE 6" (150 mm) MC-3500 12" (300 mm) MATERIALS. CONTACT STORMTECH FOR MORE MC-4500 12" (300 mm) 8" (200 mm) INFORMATION 12" (300 mm) 8" (200 mm) CONTACT ADS ENGINEERING SERVICES IF INSERTA TEE MC-7200 INSERTA TEE FITTINGS AVAILABLE FOR SDR 26, SDR 35, SCH 40 IPS INLET MUST BE RAISED AS NOT ALL INVERTS ARE POSSIBLE GASKETED & SOLVENT WELD, N-12, HP STORM, C-900 OR DUCTILE IRON

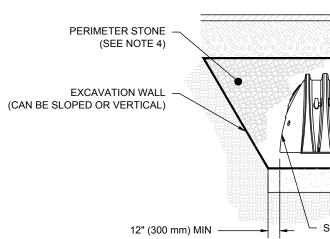
6 **INSERTA-TEE SIDE INLET DETAIL**

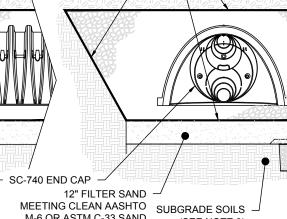
	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
С	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS I 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
В	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE⁵	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
А	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE⁵	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

2

COMPACTION REQUIREMENTS ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION. . WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".

> ADS GEOSYNTHETICS 601T NON-WOVEN GEOTEXTILE ALL AROUND CLEAN, CRUSHED, ANGULAR STONE IN A & B LAYERS





(SEE NOTE 3)

M-6 OR ASTM C-33 SAND

NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
- 2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". 3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH
- CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- 4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS. REQUIREMENTS FOR HANDLING AND INSTALLATION:
- TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS. • TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2". • TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

6" DEPTH OF STONE

- ONE LAYER OF ADSPLUS625 WOVEN GEOTEXTILE BETWEEN FOUNDATION STONE AND CHAMBERS 5' (1.5 m) MIN WIDE CONTINUOUS FABRIC WITHOUT SEAMS - 12" FILTER SAND MEETING CLEAN AASHTO M-6 OR ASTM C-33 SAND - 4" UNDERDRAIN (SEE DETAIL 5)

- SC-740 END CAP

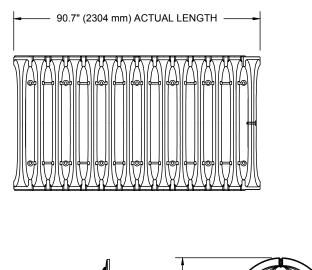
A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL) A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY i) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS

2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY

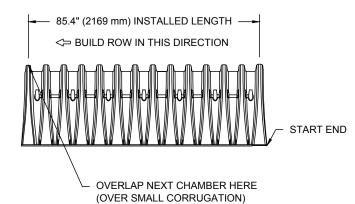


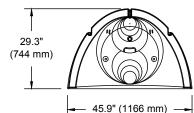
12.2"

(310 mm)

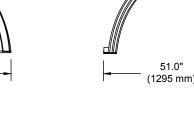
WEIGHT

CHAMBER STORAGE



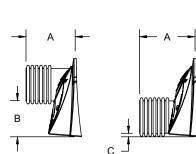






(33.6 kg)





(762 mm)

PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B" PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T" PRE-CORED END CAPS END WITH "PC"

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

PART #	STUB	Α	В	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.0" (277 mm)	18.5" (470 mm)	
SC740EPE06B / SC740EPE06BPC	- 6" (150 mm)	10.9" (277 mm)		0.5" (13 mm)
SC740EPE08T /SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	
SC740EPE08B / SC740EPE08BPC	0 (200 mm)	12.2 (310 1111)		0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	
SC740EPE10B / SC740EPE10BPC		13.4 (340 1111)		0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	
SC740EPE12B / SC740EPE12BPC	12 (300 mm)	14.7 (373 1111)		1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	
SC740EPE15B / SC740EPE15BPC		10.4 (407 11111)		1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	
SC740EPE18B / SC740EPE18BPC				1.6" (41 mm)
SC740ECEZ*	24" (600 mm)	18.5" (470 mm)		0.1" (3 mm)

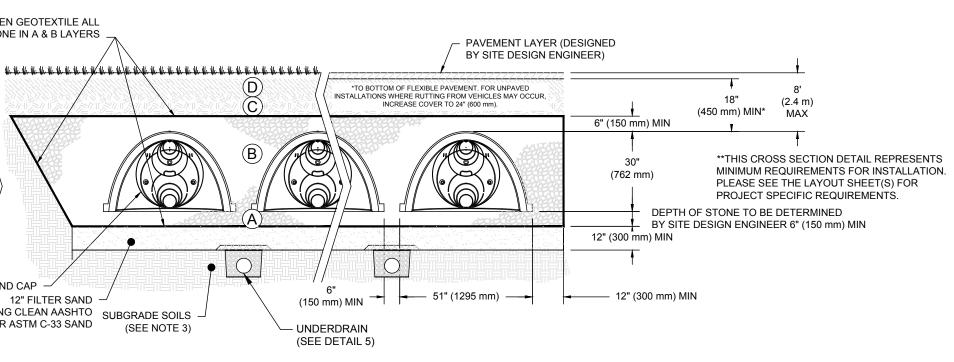
ALL STUBS, EXCEPT FOR THE SC740ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740ECEZ THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL. NOTE: ALL DIMENSIONS ARE NOMINAL

SC-740 TECHNICAL SPECIFICATIONS

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS. CONTACT STORMTECH FOR





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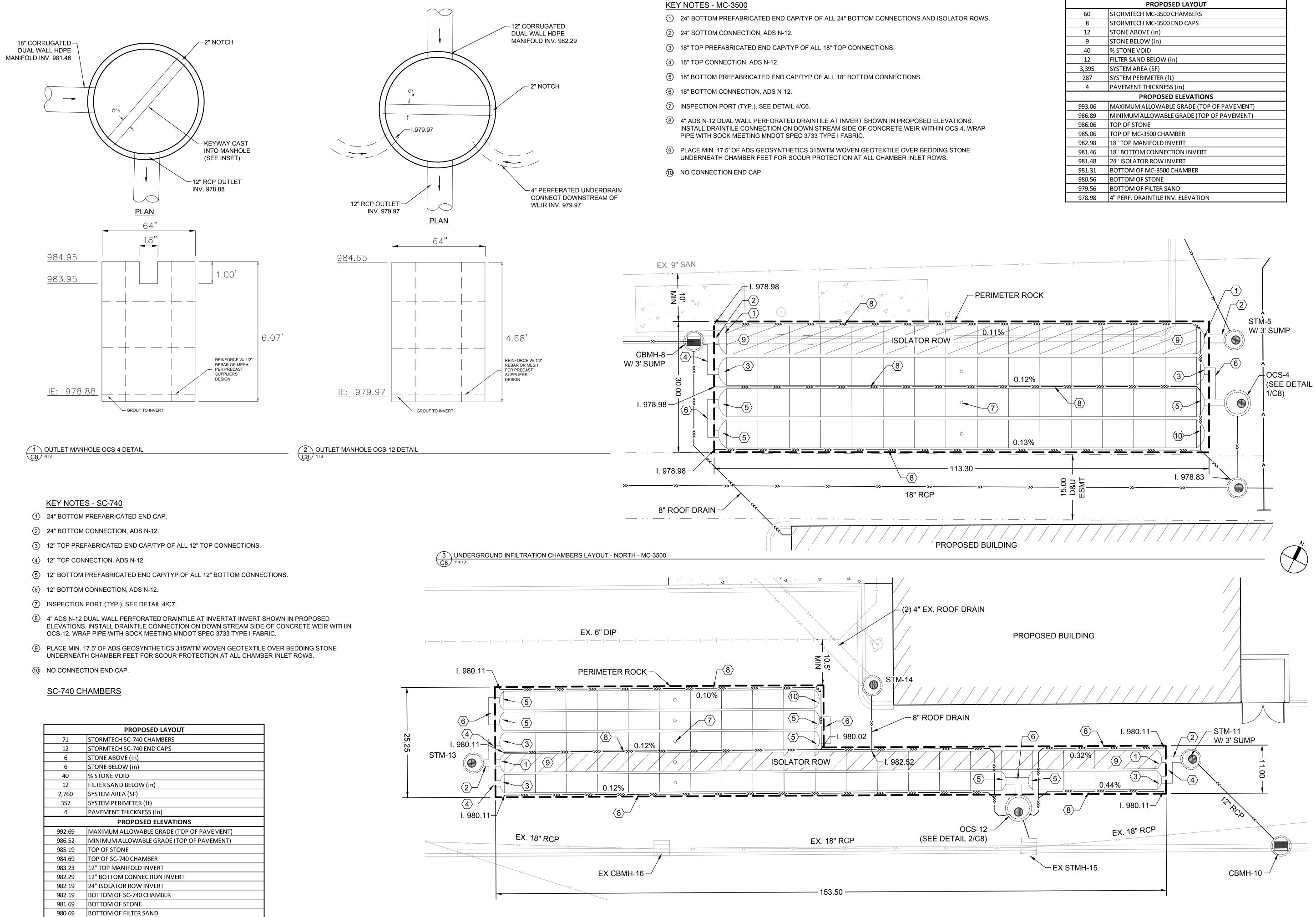
PROJECT

MM CAPITAL SHOREWOOD, LLC

ADDITION/REMODELING

19765 MN - 7 SHOREWOOD, MINNESOTA

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REG. N		DATE
	13605 1st Av Plymouth, MN 55 P 763.412.4000	RSON renue N. #100 5441 ae-mn.com F 763.412.4090 ng of Minnesota, LLC
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980.11 4" PERF. DRAINTILE INV. ELEVATION

4 UNDERGROUND INFILTRATION CHAMBERS LAYOUT - SOUTH - SC-740

PROPOSED LAYOUT					
60	STORMTECH MC-3500 CHAMBERS				
8	STORMTECH MC-3500 END CAPS				
12	STONE ABOVE (in)				
9	STONE BELOW (in)				
40	% STONE VOID				
12	FILTER SAND BELOW (in)				
3,395	SYSTEM AREA (SF)				
287	SYSTEM PERIMETER (ft)				
4	PAVEMENT THICKNESS (in)				
	PROPOSED ELEVATIONS				
993.06	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT)				
986.89	MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT)				
986.06	TOP OF STONE				
985.06	TOP OF MC-3500 CHAMBER				
982.98	18" TOP MANIFOLD INVERT				
981.46	18" BOTTOM CONNECTION INVERT				
981.48	24" ISOLATOR ROW INVERT				
981.31	BOTTOM OF MC-3500 CHAMBER				
980.56	BOTTOM OF STONE				
979.56	BOTTOM OF FILTER SAND				
978.98	4" PERF. DRAINTILE INV. ELEVATION				



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PROJECT

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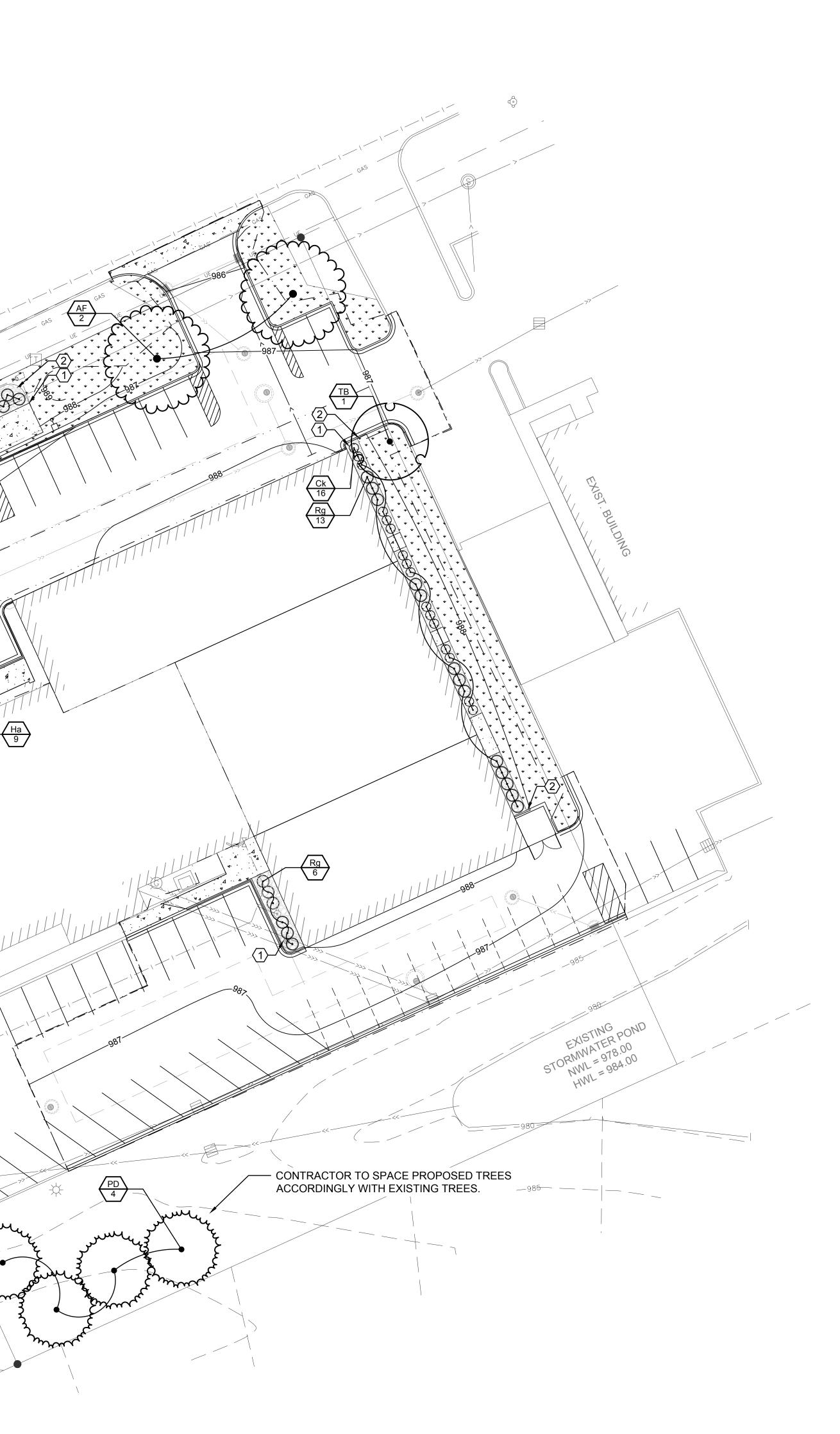
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BRIA # 5722	AN J. FIELD, P.E. 24 01/08/2025	
REG. N		
	ANDERSON	
	13605 1st Avenue N. #100 Plymouth, MN 55441 ae-mn.com P 763.412.4000 F 763.412.4090 Anderson Engineering of Minnesota, LLC	
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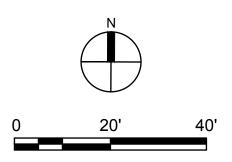
PLANT SCHEDULE

<u>SYMBOL</u>	<u>CODE</u>	<u>QTY</u>	COMMON / BOTANICAL NAME	<u>CONT</u>	CAL
TREES					
	AF	2	RED SUNSET® MAPLE ACER RUBRUM `FRANKSRED`	B&B	3" CAL.
Julia and a second	PD	4	BLACK HILLS WHITE SPRUCE PICEA GLAUCA 'DENSATA'	B&B	10` HT.
	ТВ	1	BOULEVARD AMERICAN LINDEN TILIA AMERICANA 'BOULEVARD'	B&B	3" CAL.
SYMBOL	CODE	<u>QTY</u>	COMMON / BOTANICAL NAME	<u>CONT</u>	SIZE
SHRUBS					
(•)	Ck	24	KARL FOERSTER FEATHER REED GRASS CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	3 GAL.	
·	На	9	ANNABELLE HYDRANGEA HYDRANGEA ARBORESCENS 'ANNABELLE'	5 GAL.	
E B	Rg	42	GRO-LOW FRAGRANT SUMAC RHUS AROMATICA 'GRO-LOW'	5 GAL.	

CALL 48 HOURS BEFORE DIGGING:

TWIN CITY AREA (651)454-0002 MINNESOTA TOLL FREE 1-800-252-1166





LEGEND

	PROPERTY LIMITS
_ · · · _	CONSTRUCTION LIMITS
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	NEW SOD
	3" DEEP ROCK MULCH W/ FABRIC, MATCH EXISTING

NOTES

- 1. PER CITY OF SHOREWOOD CODE, IRRIGATION IS NOT REQUIRED
- 2. IF A DISCREPANCY IS FOUND, THE PLANTING PLAN SHALL OVERRIDE THE PLANT SCHEDULE.

KEY NOTES

- (1) ROCK MULCH
- $\langle 2 \rangle$ POLY LANDSCAPE EDGER, SEE DETAIL 2/L2

CITY OF SHOREWOOD LANDSCAPE REQUIREMENTS

- 1. WHERE INCOME-PRODUCING PROPERTIES ABUT A PROPERTY ZONED FOR RESIDENTIAL USE, THERE SHALL BE SCREENING ALONG THE BOUNDARY OF THE RESIDENTIAL PROPERTY.
- 1.1. THE PROJECT SITE AND ALL ADJACENT PROPERTIES ARE ZONED AS PUD. PER CITY REQUEST, ADDITIONAL SCREENING HAS BEEN PROPOSED ALONG THE SOUTH PROPERTY LINE, BETWEEN THE PROJECT SITE AND THE ADJACENT RESIDENTIAL DEVELOPMENT.
- 2. PER CITY REQUEST, ADDITIONAL LANDSCAPING HAS BEEN PROPOSED ALONG THE NORTHERN PROPERTY LINE TO ENHANCE THE GREEN SPACE BETWEEN THE PROJECT SITE PARKING LOT AND THE HIGHWAY 7 FRONTAGE ROAD.

CITY OF SHOREWOOD TREE PRESERVATION REQUIREMENTS

SEVEN (7) EXISTING TREES ONSITE TO BE REMOVED:

THREE (3) RED MAPLES (ACER RUBRUM) 1 @ 8" DBH 2 @ 5" DBH

FOUR (4) CRABAPPLES (MALUS)

- 1 @ 12" DBH 1 @ 8" DBH
- 2 @ 5" DBH

TWO (2) EXISTING TREES REMOVED AT 8" = FOUR (4) PROPOSED 3" CALIPER DECIDUOUS TREES OR 6' TALL CONIFEROUS TREES

ONE (1) EXISTING TREE REMOVED AT 12" = THREE (3) PROPOSED 3" CALIPER DECIDUOUS TREES OR 6' TALL CONIFEROUS TREES.

TOTAL REPLACEMENT TREES REQUIRED: SEVEN (7) AT 3" CALIPER OR 6' HEIGHT TOTAL REPLACEMENT TREES PROVIDED: SEVEN (7) AT 3" CALIPER AND 10' HEIGHT



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PROJECT

MM CAPITAL SHOREWOOD, LLC

ADDITION/REMODELING

19765 MN - 7 SHOREWOOD, MINNESOTA

ISSUED SET JAN. 08, 2025 REVISIONS				
DATE	N0			
1/8/25	_1	FINAL WATERSHED		

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 LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

CURT H. CLAEYS, P.L.A.

45613	
REG. NO.	

01/08/2025 DATE



LANDSCAPE PLAN

DRAWN BY: JS CHECKED BY: CC

L1

GENERAL LANDSCAPE NOTES

- 1. LANDSCAPE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING A BID TO BECOME COMPLETELY FAMILIAR WITH SITE CONDITIONS.
- 2. NO PLANTING SHALL BE INSTALLED UNTIL ALL GRADING, BUILDING, CONSTRUCTION, UTILITY WORK & IRRIGATION HAS BEEN COMPLETED IN THE AREAS TO BE PLANTED.
- 3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY ALL UNDERGROUND CABLES, CONDUITS, WIRES, ETC. ON THE PROPERTY.
- 4. ALL PROPOSED PLANT MATERIAL SHALL BE LOCATED CAREFULLY AS SHOWN ON THE PLAN. IF THE CONTRACTOR BELIEVES AN ERROR HAS BEEN MADE REGARDING SPACING OR LOCATION OF THE PLANT MATERIAL INDICATED ON THE PLAN. NOTIFY THE OWNER PRIOR TO INSTALLATION.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETE MAINTENANCE OF THE PLANT MATERIAL (WATERING, SPRAYING, FERTILIZING, MOWING, ETC.) UNTIL THE WORK HAS BEEN ACCEPTED, BY THE OWNER.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS TO PROPERTY DAMAGE FROM PLANTING OPERATIONS AT NO COST TO THE OWNER.
- 7. ALL NEWLY PLANTED PLANT MATERIAL SHALL BE GUARANTEED THROUGH ONE CALENDAR YEAR STARTING FROM THE DATE OF ACCEPTANCE ESTABLISHED BY THE OWNER.
- 8. THE CONTRACTOR SHALL MEET WITH THE OWNER OR OWNERS REPRESENTATIVE ON SITE WHEN THEY FEEL THE PROJECT IS COMPLETE ACCORDING TO THE CONTRACT DOCUMENTS. IF ALL WORK IS SATISFACTORY AND COMPLETE ACCORDING TO THE CONDITIONS OF THE CONTRACT DOCUMENTS, THEN THE OWNER MUST DECLARE THE PROJECT COMPLETE. THIS DECLARATION WILL CONSTITUTE AS THE BEGINNING OF THE ONE (1) YEAR WARRANTEE PERIOD FOR ALL PLANT MATERIAL. THE OWNER SHALL PROVIDE A LETTER WITH SIGNATURE STATING THE DATE OF ACCEPTANCE.
- WIND BURN OR OTHERWISE DAMAGED PLANT MATERIAL WILL NOT BE ACCEPTED.
- 10. CONTRACTOR CAN SUBSTITUTE MACHINE MOVED MATERIAL USING APPROPRIATE SIZE TREE SPADE FOR B & B WITH OWNER APPROVAL
- 11. THE PRACTICE OF STAKING SHOULD NOT ALLOW NAILS, SCREWS, WIRES, ETC. TO PENETRATE THE OUTER SURFACE OF THE TREES.
- 12. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF ALL TREE STAKES, GUYS, STRAPS AND TRUNK PROTECTION MEASURES FOLLOWING THE COMPLETION OF THE WARRANTEE PERIOD OR AS DIRECTED BY THE OWNER.
- 13. LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE THE OWNER WITH MAINTENANCE INFORMATION DURING THE GUARANTEE PERIOD RELATING TO WATERING, FERTILIZING, PRUNING, PEST CONTROL, AND RELATED ITEMS. THIS WILL BE PREPARED AND DELIVERED TO THE OWNER AFTER PROVISIONAL INSPECTION APPROVAL HAS BEEN GIVEN BY THE OWNER.
- 14. INSTALL CORRUGATED PLASTIC TREE GUARDS, WHITE IN COLOR, WITH THE SIZE OF TUBE 1" DIA. (MIN.) LARGER THAN THE CALIPER OF THE TREE TO BE PROTECTED.
- 15. CONTRACTOR TO FURNISH & STALL PLASTIC EDGING AS SHOWN ON THE PLANS & DETAILS. PLASTIC EDGING SHALL BE MEDIUM DENSITY POLYETHYLENE WITH U.V. INHIBITOR, BLACK IN COLOR, WITH A TOTAL DEPTH OF 5" (1" DIA. TOP AND 4" SHAFT WITH 1.5" V EVERY 3-1/2 FEET OF EDGING.
- 16. PLANT BEDS SHALL BE MULCHED WITH ROCK MULCH THAT MATCHES EXISTING ON SITE.
- 17. LANDSCAPE FABRIC (FILTER MAT) TO HAVE A COMBINED WEIGHT OF 4.5-5.5 OZ. PER S.Y. FABRIC SHOULD BE U.V. STABILIZED AND HAVE A FIVE YEAR MINIMUM WEATHERABILITY FACTOR IN FULL SUNLIGHT. FABRIC TO BE PHILLIPS DUON R OR EQUIVALENT. LANDSCAPE FABRIC INSTALLED WITH HOLES FOR PLANTS CUT 2.5 TIMES THE DIAMETER OF THE CONTAINER.
- 18. 3" DEPTH SHREDDED HARDWOOD MULCH SHALL BE INSTALLED UNDER ALL TREES THAT ARE ISOLATED FROM GROUNDCOVER AREAS.
- 19. CALIPER OF TREES UP TO AND INCLUDING 4" SHALL BE MEASURED AT 6" ABOVE GROUND LEVEL, AND 12" ABOVE GROUND LEVEL FOR LARGER SIZES.
- 20. FOR BALLED & BURLAP PLANT MATERIAL, REMOVE THE TOP HALF OF THE BURLAP FROM THE ROOT BALL. WIRE CAGES, STRAPS, ETC. SHALL BE REMOVED FROM THE TOP HALF OF THE ROOTBALL BEFORE INSTALLATION
- 21. ALL CONTAINER MATERIAL SHALL HAVE BEEN GROWN IN CONTAINER FOR A MINIMUM OF 6 MONTHS PRIOR TO INSTALLATION.
- 22. LANDSCAPE CONTRACTOR SHALL PROVIDE AND INSTALL NURSERY GROWN PLANT MATERIAL CONFORMING TO THE REQUIREMENTS AND RECOMMENDATIONS OF THE LATEST EDITION OF ANSI Z60.1 STANDARDS UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIFICATIONS.

PLANTING, SODDING AND TOPSOIL NOTES

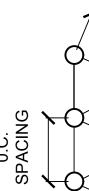
- 1. LANDSCAPE CONTRACTOR SHALL ENSURE THAT NEW TREES MOVED ONTO THE SITE ARE DUG FROM SIMILAR SITES WITH SIMILAR SOILS TO THE SOILS OF THIS PROJECT (HEAVY TO HEAVY, LIGHT TO LIGHT. HEAVY TO LIGHT SOILS). CONTRACTOR SHALL REVIEW SOIL CONDITIONS/TYPES WITH OWNER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- 2. ALL NEWLY INSTALLED PLANT MATERIAL SHALL BE PLANTED IN WELL-DRAINED AREAS. NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION IF ANY PLANT MATERIAL IS LOCATED IN DRAINAGE SWALES OR WET & POORLY DRAINED AREAS.

3. ALL PLANTINGS SHALL RECEIVE FERTILIZER AS FOLLOWS:

- 3.1. SUMMER AND FALL PLANTING: 0-20-20 GRANULAR (IN SAUCER AROUND PLANT AT THE RATE OF 12 OZ. PER 2-3" CAL. TREE & 6 OZ. PER SHRUB). SPRING PLANTING: 10-10-10 GRANULAR (APPLY ABOVE REFERENCED FERTILIZER AT A 3.2. RATE OF 12 OZ. PER 1-1/2" CAL. TREE OR LARGER & 6 OZ. PER SHRUB & PERENNIAL.
- 4. ALL PLANTINGS SHALL RECEIVE AN AMENDED SOIL MIX CONSISTING OF THREE (3) PARTS: 4.1. 45% APPROVED TOPSOIL (ONE SITE PREFERRED)
- 4.2. 45% ORGANIC MATTER (TYPE 1 SPHAGNUM PEAT MOSS FINELY DIVIDED WITH A PH OF 3.1 - 5.0.)
- 4.3. 10% SAND (FINE CLEAN MASONRY SAND)
- 5. AREAS TO RECEIVE SEED SHALL HAVE A 6" MINIMUM DEPTH OF TOPSOIL. TOPSOIL SHALL PROVIDE FERTILE, FRIABLE, NATURAL LOAM, SURFACE SOIL, REASONABLY FREE OF SUBSOIL, CLAY CLUMPS, BRUSH WEEDS AND OTHER LITTER, AND FREE OF ROOTS, STUMPS, STONE LARGER THAN 1" IN ANY DIMENSION, AND OTHER EXTRANEOUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH.

PLANT ESTABLISHMENT PERIOD

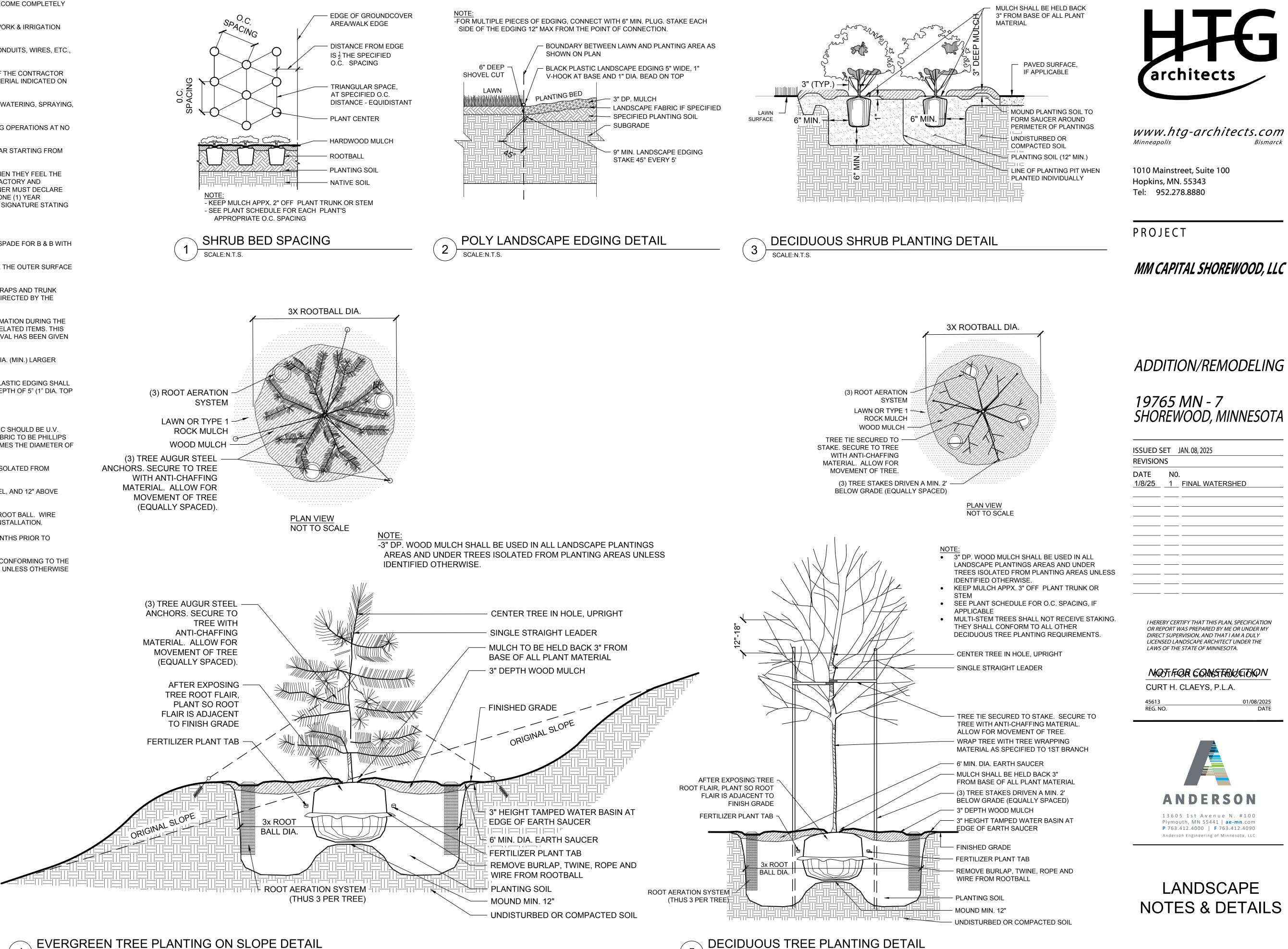
- 1. THE REQUIRED WORK SHALL CONSIST OF CONTINUOUSLY CONDUCTING OPERATIONS AND MAINTENANCE FOR A WARRANTY PERIOD ESTABLISHED FOR 1 YEAR AFTER THE INSTALLATION HAS BEEN ACCEPTANCE BY THE OWNER. THE WORK INCLUDES:
- 1.1. ESTABLISHMENT OF BALLED AND BURLAPPED AND CONTAINER PLANT MATERIAL AND SODDED AREAS INCLUDING PEST CONTROL, FERTILIZING AND FUNGICIDAL TREATMENTS REGULAR WATERING SCHEDULING FOR ALL PLANT MATERIAL AND SEED 1.2.
- **IRRIGATIONS SYSTEM OPERATION AND MAINTENANCE** 1.3.
- REMOVAL OF ALL WEEDS WITHIN THE PROJECT AREA BY METHODS AGREED BY THE 14 OWNER (POST/PRE HERBICIDE TREATMENT, HAND OR MECHANICAL REMOVAL)
- MAINTENANCE OF MISCELLANEOUS ITEMS (EROSION CONTROL PRODUCTS, REPAIRS FROM 1.5. EROSION)
- 2. PLANT MATERIAL DEEMED TO BE REPLACED AT THE END OF PLANT ESTABLISHMENT PERIOD SHALL BE EXECUTED WITHIN 2 WEEKS (14 DAYS) PRESENTING LESS THE FOLLOWING SURVIVORSHIP:
- 2.1. BALLED AND BURLAPPED AND CONTAINER PLANT MATERIAL: 75%
- 2.2. SEEDED AREAS: 100% (0% BARE SOIL)
- 3. REPLACEMENT PLANTS AND SEED SHALL BE OF THE SAME SPECIES AND SIZE AS ORIGINALLY SPECIFIED ON THE DRAWINGS, UNLESS THE OWNER DETERMINES THAT SUBSTITUTIONS OF ANOTHER SPECIES OR SIZE SHALL BE MADE.







(3) TREE AUGUR STEEL WITH ANTI-CHAFFING (EQUALLY SPACED).





SCALE:N.T.S.

MM CAPITAL SHOREWOOD, LLC

REVISION		
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