

NOTES:

1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LEE'S SUMMIT TECHNICAL SPECIFICATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.
3. ALL WYES ARE STATIONED USING MAIN LINE STATIONS.
4. ALL EXCAVATION IS CONSIDERED UNCLASSIFIED.
5. ALL SERVICE STUB LINES SHALL HAVE A MINIMUM PIPE STIFFNESS OF SDR-26.
6. ALL SANITARY SEWER MANHOLES ARE 4' DIAMETER UNLESS OTHERWISE NOTED.
7. ALL SERVICE STUBS SHALL BE 90° TO THE MAIN, UNLESS OTHERWISE NOTED.
8. REFERENCE SHEET 7 FOR "MANHOLE IN PAVED AREA" DETAIL FOR PROPOSED MANHOLES IN ASPHALT OR CONCRETE PAVEMENT. REINFORCED CONCRETE COLLARS SHALL BE INSTALLED SO THE CONCRETE COLLAR FORMS A DIAMOND-SHAPE WHEN VIEWED ALONG THE STREET.
9. PROPOSED GRADING IS FOR REFERENCE ONLY. CONTRACTOR IS TO GRADE WITHIN THE LIMITS OF DISTURBANCE AND PROVIDE SANITARY COVER AS REQUIRED BY THE CITY'S TECHNICAL SPECIFICATIONS.
10. MSFE = MINIMUM SERVICEABLE FLOOR ELEVATION.
11. SSNR = SEWER SERVICE NOT REQUIRED.
12. DDS = DISTANCE TO DOWNSTREAM MANHOLE.
13. ALL EXCAVATION IS CONSIDERED UNCLASSIFIED.
14. REFERENCE SHEET 7 FOR EXCAVATION BENEATH PROPOSED STREETS DETAIL.
15. EVERY STUB LINE SHALL BE MARKED AT THE END OF THE PIPE WITH A VERTICAL 2"x4" A MINIMUM OF SIX (6) FEET IN LENGTH.

MO GRS BENCHMARK:

STATION NAME - JA-90

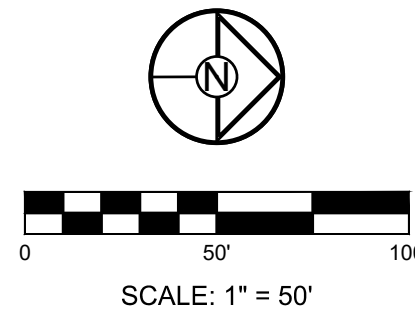
KC METRO ALUMINUM GRS DISK SET IN CONCRETE STAMPED "JA-90, 1988"  
LOCATED NEAR THE INTERSECTION OF LANGSFORD ROAD AND OLD LANGSFORD ROAD, 43 FEET SOUTHEAST OF THE CENTER OF LANGSFORD ROAD AND 32 FEET NORTH OF THE CENTER OF OLD LANGSFORD ROAD.  
N:1001052.8503, E:2845604.8272

ELEV. 997.045

PROJECT BENCHMARK:

"SQUARE" CUT IN TOP OF CONCRETE STORM MANHOLE  
STORM MANHOLE IS LOCATED APPROX. 130 FEET EAST OF THE  
INTERSECTION OF SE JOEL AVE & BLUE PARKWAY AND 26 FEET SOUTH  
OF THE CENTERLINE OF BLUE PARKWAY.  
N:996874.9690, E:2840937.1365

ELEV. 1005.719



NE CORNER, NW 1/4  
SEC. 11-47-31

REUNION AT BLACKWELL  
PUBLIC SANITARY SEWER PLANS  
SE SHENANDOAH DRIVE LEE'S SUMMIT, MO

REVISION DATE	DESCRIPTION
05/05/2023	PER CITY COMMENTS
09/06/2026	PER MDR COMMENTS
03/03/2023	
22-597	





**NOTES:**

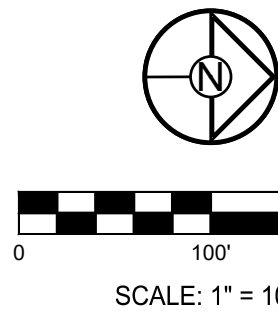
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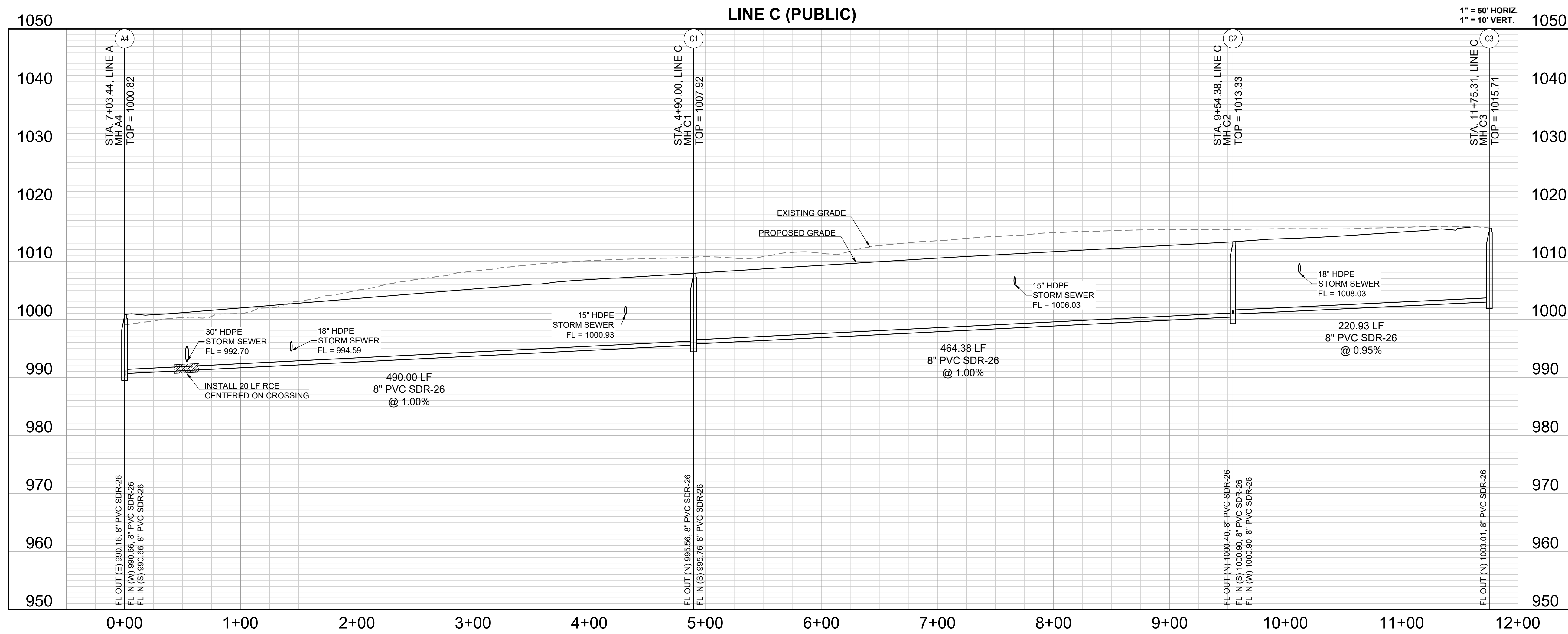
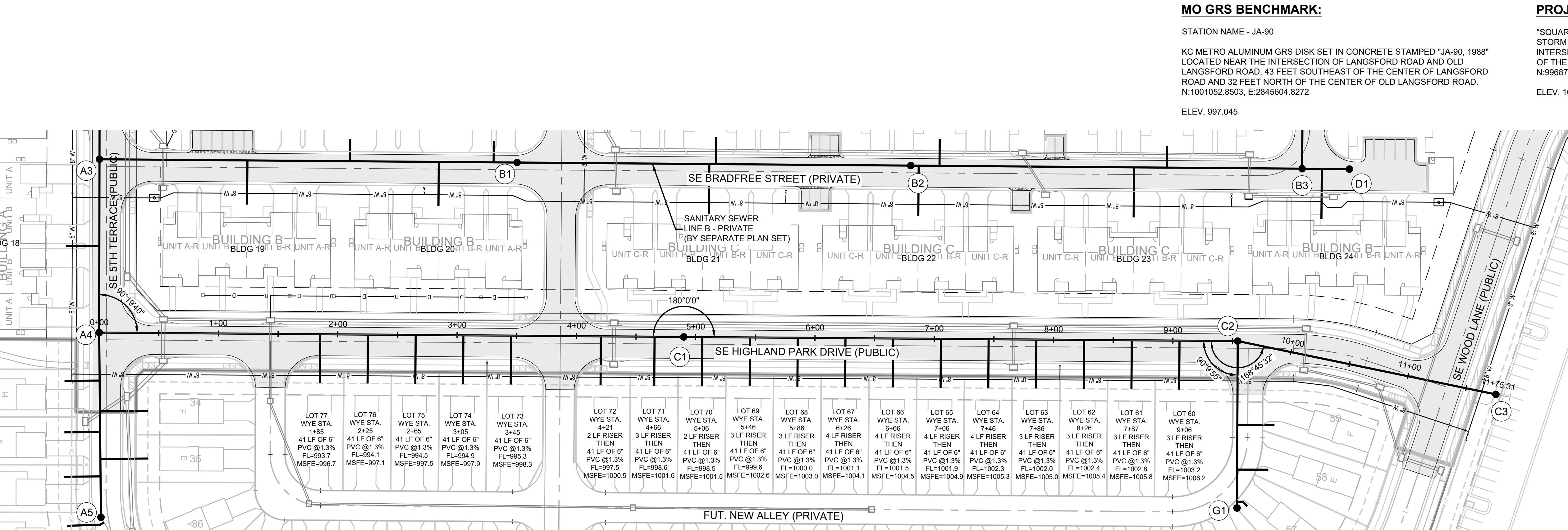
REUNION AT BLACKWELL  
PUBLIC SANITARY SEWER PLANS  
SE SHENANDOAH DRIVE LEE'S SUMMIT, MO

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03/03/2023	DATE PREPARED:
22-597	PROJ. NUMBER:









SCHLAGEL

ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS

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#E2002003600-F #LAC2001005237 #LS2002008659-F

PREPARED BY:  

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JANUARY  
PE-2005007268  
09.18.2023

SCHLAGEL & ASSOCIATES, P.A.

REUNION AT BLACKWELL  
PUBLIC SANITARY SEWER PLANS  
SE SHENANDOAH DRIVE LEE'S SUMMIT, MO

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05/05/2023	PER CITY COMMENTS
09/06/2026	PER MDR COMMENTS

DRAWN BY:  
TRC

CHECKED BY:  
MAB

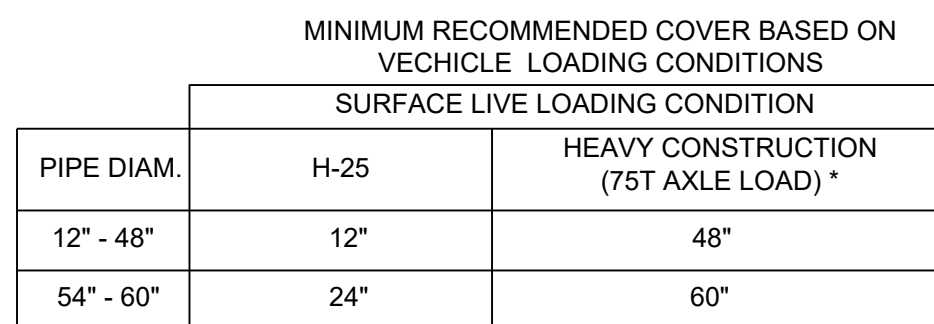
DATE PREPARED:  
03/03/2023

PROJ. NUMBER:  
22-597

LINE C

SHEET  
6

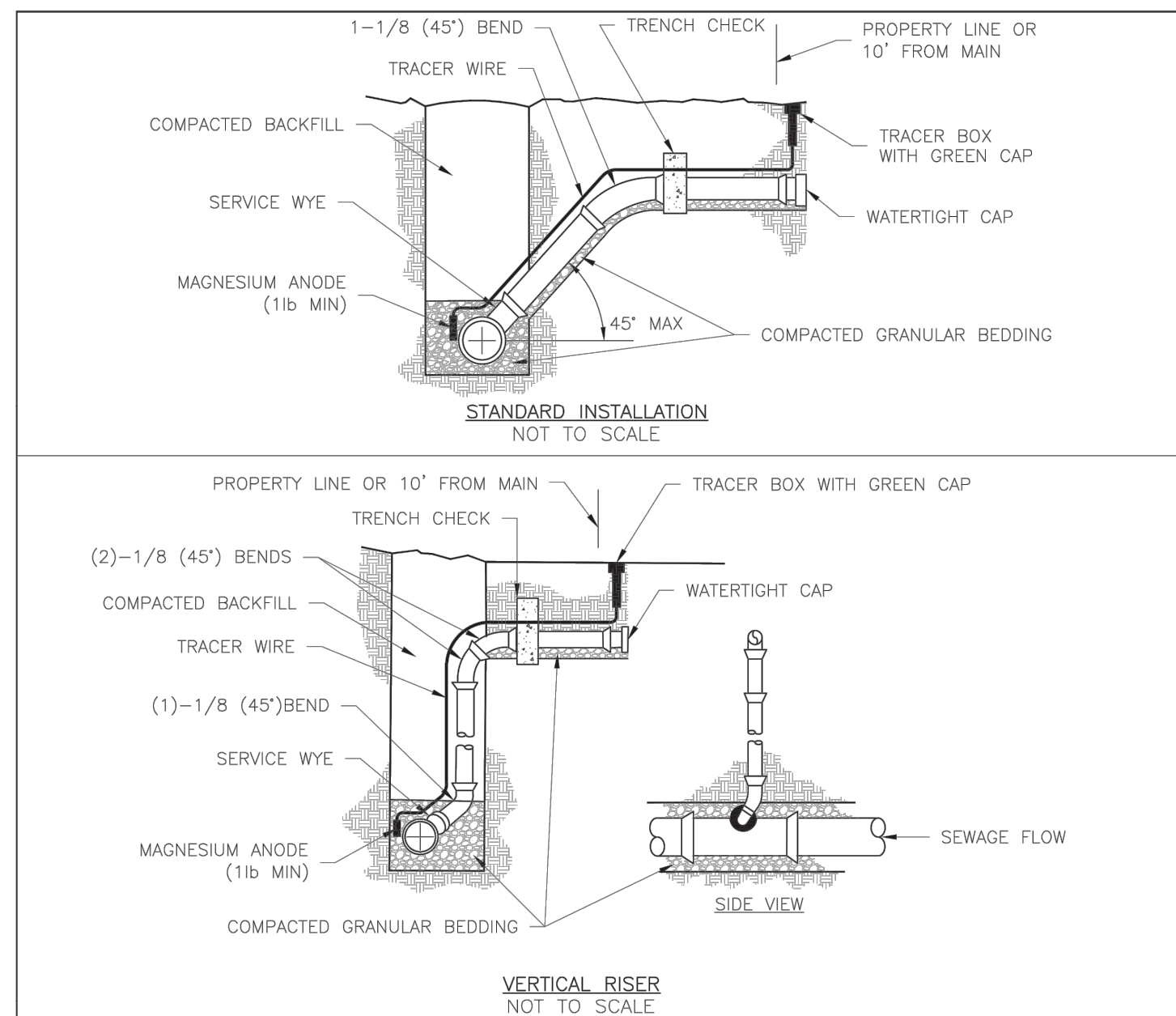




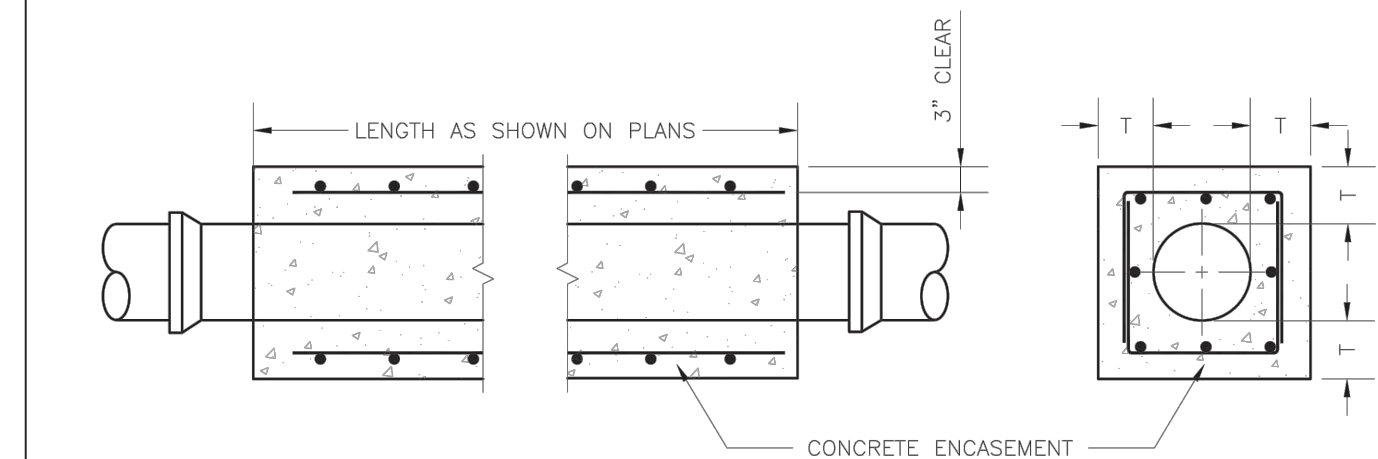
1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.
7. TESTING: CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL MATERIAL TESTING REQUIRED FOR THEIR WORK. THIS INCLUDES SCHEDULING OF TESTS, COORDINATING AND PROVIDING ACCESS TO SAMPLE LOCATIONS, AND SATISFYING ALL TEST RESULT REPORTING REQUIREMENTS.

## PIPE EMBEDMENT

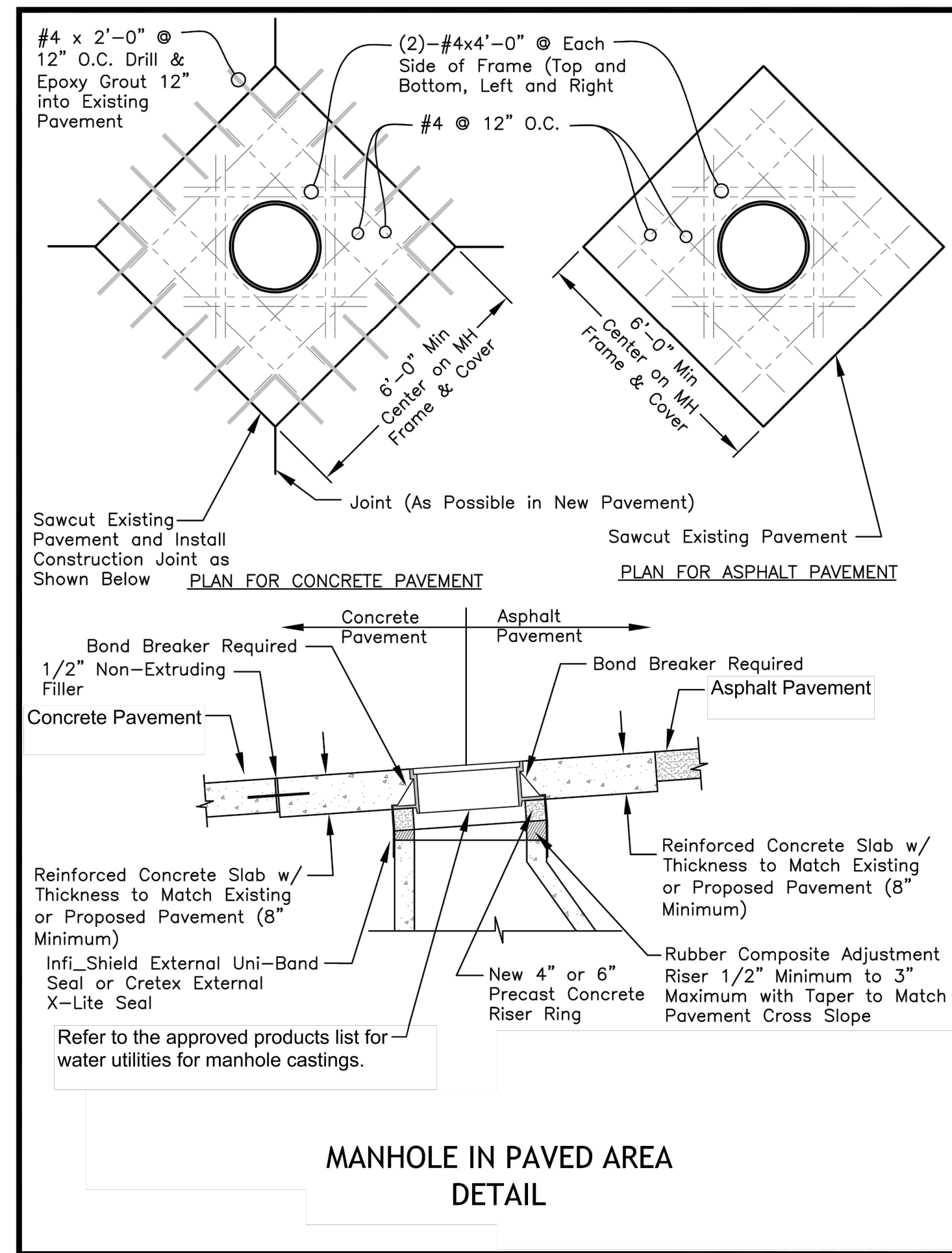
NOT TO SCALE



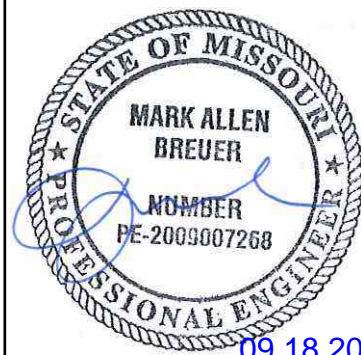
- NOTES:
1. ALL SEWER STUBS SHALL BE CONSTRUCTED TO PROPERTY LINE OR 10' MINIMUM FROM THE MAIN, WHICHEVER IS GREATER. WHERE SIDEWALKS ARE PRESENT, CONTRACTOR SHALL EXTEND SERVICE LINE UNDER EXISTING SIDEWALK TO TWO FEET BEYOND.
  2. IMPERVIOUS TRENCH CHECKS SHALL BE PLACED ON BUILDING SEWER STUBS (AT LEAST 5' AWAY FROM THE SANITARY MAIN).
  3. TRENCH CHECKS ON THE BUILDING SEWER STUBS SHALL EXTEND 6" BELOW THE BOTTOM OF THE PIPE. LENGTH SHALL BE A MINIMUM OF 12". THE HEIGHT OF THE TRENCH CHECK SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE. THE TRENCH CHECK SHALL BE 12" WIDE. SEE SPECIFICATION SECTION 2100 FOR SEWER MAIN BEDDING AND BACKFILL.
  4. #12 GAUGE GREEN INSULATED COPPER TRACER WIRE SHALL BE INSTALLED. TRACER WIRE TERMINAL BOXES SHALL BE INSTALLED 6" TO 12" ABOVE THE SEWER SERVICE OR AS DIRECTED BY THE ENGINEER.
  5. FOR SERVICES, TRACER WIRE SHALL RUN FROM THE WYE AND TERMINATE IN A FLUSH MOUNTED TRACER BOX WITH A GREEN CAST IRON LOCKABLE TOP. WIRE SHALL BE TAPED OR TIED TO THE PIPE AT 5' INTERVALS.
  6. THE TRACER WIRE MUST BE INSTALLED WITHIN 1.0 FT OF THE SEWER SERVICE.
  7. THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPICES IN THE TRACER WIRE MUST BE REMOVED. WIRE CONNECTORS, WIRE NUTS SHALL NOT BE USED. A WATER-PROOF CONNECTION IS NECESSARY TO PREVENT CORROSION.



- NOTES:
1. FOR PIPES LESS THAN 15", T = 6" MIN.
  2. FOR PIPES 15" THRU 36", T = 8" MIN.
  3. INTERMEDIATE BELLS SHALL BE ENCASED.
  4. REINFORCING STEEL SHALL BE #4 @ 12" O.C. EACH WAY WITH A MINIMUM REBAR LAP OF 12".



PREPARED BY:



09.18.2023

SCHLAGEL &amp; ASSOCIATES, P.A.

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PUBLIC SANITARY SEWER PLANS

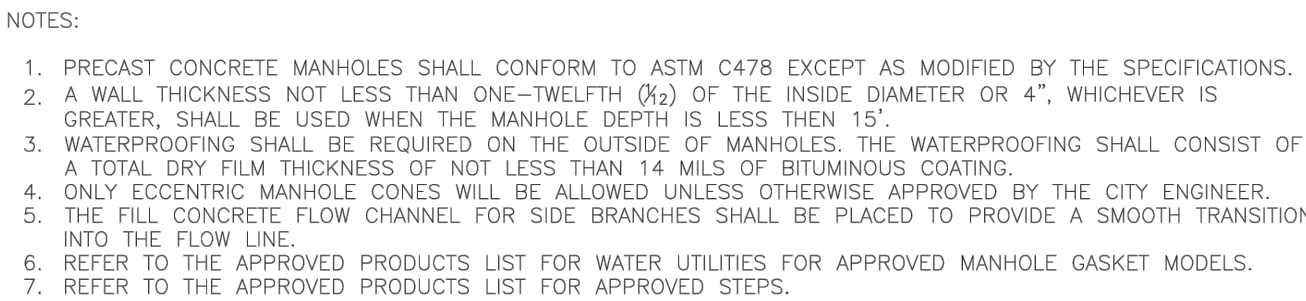
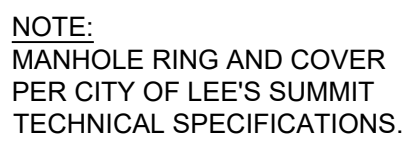
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1	05/05/2023	PER CITY COMMENTS
2	09/06/2026	PER MDNR COMMENTS
3		
4		
5		
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8		

## DETAILS

SHEET

7





REVISION	DATE	DESCRIPTION
1	05/05/2023	PER CITY COMMENTS
2	06/06/2026	PER MUNK COMMENTS
3		
4		
5		
6		
7		
8		
9		