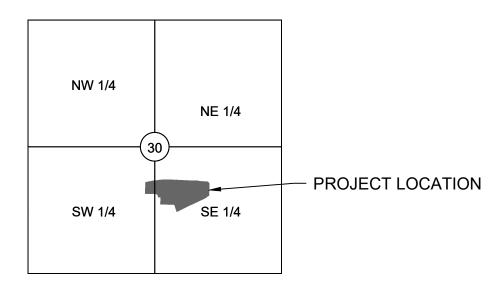
LOCATION MAP SECTION 30, TOWNSHIP 48N, RANGE 31W JACKSON COUNTY, MISSOURI SCALE=NTS



LEGAL DESCRIPTION:

DISCOVERY PARK CROSSING, FINAL PLAT, TRACT B (2.48 AC)



UTILITY CONTACTS:

WATER UTILITIES: 1200 SE HAMBLEN RD LEE'S SUMMIT, MO 64063 PHONE: (816) 969-1900

PUBLIC ROADWAY:
CITY OF LEE'S SUMMIT, MO
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
PHONE: (816) 969-1800

POWER: EVERGY 1300 SE HAMBLEN RD LEE'S SUMMIT, MO 64081 PHONE: (816) 347-4320 STORMWATER:
CITY OF LEE'S SUMMIT, MO
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
PHONE: (816) 969-1800

NATURAL GAS: SPIRE GAS ENERGY 3025 SW CLOVER DRIVE LEE'S SUMMIT, MO 64082 PHONE: (816) 985-8888

TELECOMMUNICATIONS:
AT&T
PHONE: 800-286-8313
SPECTRUM
PHONE: 877-772-2253
GOOGLE FIBER

PHONE: 877-454-6959

FEMA FLOOD INFORMATION:

THE ENTIRE SITE IS LOCATED WITHIN ZONE X, "AREAS OF 0.2% ANNUAL CHANGE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AS DEPICTED ON THE FEMA FLOOD INSURANCE RATE (FIRM) MAP NUMBER 29095C0409G, REVISION DATE JANUARY 20, 2017.

OIL/GAS WELLS:

NO OIL OR GAS WELLS ARE LOCATED WITHIN PROJECT LIMITS. INFORMATION OBTAINED FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES, GEOLOGICAL SURVEY GEOSCIENCES TTECHNICAL RESOURCE ASEESMENT TOOL (GEOSTRAT).

PRIVATE SANITARY SEWER AND WATERMAIN EXTENSION PLANS

DISCOVERY CROSSING AT DISCOVERY PARK

LEE'S SUMMIT, JACKSON COUNTY, MO

SECTION 30, T48N, R31W

DATE: 8/12/25



WATERSHED: LITTLE CEDAR CREEK - LITTLE BLUE RIVER

GENERAL NOTES:

- 1. THE CONTRACTOR IS OBLIGATED TO INSPECT FOR EXISTING CONDITIONS/INSTALLATIONS AND AVAILABLE INFORMATION PRIOR TO SUBMITTING A BID, REFER TO SPECIFICATIONS ALSO.
- 2. EXISTING INSTALLATIONS (SUCH AS WATER MAINS/LINES, GAS MAINS/LINES, SEWER MAINS/LINES, TELEPHONE LINES, POWER LINES, AND UTILITY STRUCTURES IN THE VICINITY OF THE WORK TO BE DONE) ARE INDICATED ON THE DRAWINGS ONLY TO THE EXTENT THAT SUCH INFORMATION HAS BEEN MADE AVAILABLE TO OR DISCOVERED BY THE ENGINEER IN PREPARING THE DRAWINGS. THERE IS NO GUARANTEE AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION, AND ALL RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS THEREOF IS EXPRESSLY DISCLAIMED.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR LOCATING ALL EXISTING INSTALLATIONS.
- 4. ANY DELAY, ADDITIONAL WORK, FEES OR EXTRA COST TO THE CONTRACTOR CAUSED BY OR RESULTING FROM DAMAGE TO OR MODIFICATION OF EXISTING INSTALLATIONS BY THE CONTRACTOR OR AFFECTED UTILITY COMPANY SHALL NOT CONSTITUTE A CLAIM FOR EXTRA WORK, ADDITIONAL PAYMENT OR DAMAGES.
- 5. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONSTRUCTION PRIOR TO SUBMITTING HIS BID. NO EXTRAS WILL BE PAID DUE TO UNANTICIPATED EXISTING CONDITIONS/INSTALLATIONS.
- 6. CROSS-ACCESS RIGHTS THROUGH THE DEVELOPMENT WILL BE CONFERRED BY FINAL PLAT, COVENANTS AND RESTRICTIONS, OR SEPARATE DOCUMENT.
- PROPOSED DETENTION FACILITIES SHALL BE CONSTRUCTED PRIOR TO THE DEVELOPMENT OF ANY PART OF THE SUBJECT DRAINAGE AREA.

C202 SANITARY LINE B PLAN & PROFILE 1 C203 SANITARY LINE B PLAN & PROFILE 2 SANITARY LINE C PLAN & PROFILE C205 SANITARY DRAINAGE MAP C206 SANITARY DRAINAGE CALCS C300 **WATER PLAN & PROFILE 1** C301 **WATER PLAN & PROFILE 2** C302 WATER PLAN & PROFILE 3 C303 WATER PLAN & PROFILE 4 C500 SANITARY SEWER DETAILS WATER DETAILS

Sheet List Table

GENERAL NOTES

GENERAL LAYOUT

COVER

Sheet Title

SANITARY LINE A PLAN & PROFILE 1

SANITARY LINE A PLAN & PROFILE 2

Sheet Number

C100

C101

C102

C200

C201

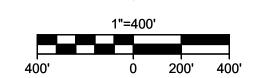
SURVEY CONTROL:

MA									
POINT #	NORTHING	EASTING	ELEVATION	FULL DESCRIPTION					
70	1012199.1784	2822426.6458	979.659	CTL					
71	1012201.5784	2823256.5599	982.202	CTL					
600	1012240.0965	2822893.8602	966.768	CTL					

CP #70: 1/2" IB/CAP ON THE NORTH SIDE OF NW COLBERN ROAD. IT IS IN THE 1ST FIELD ENTRANCE WEST OF NE DOUGLAS STREET CP#71: SET 1/2" IB/CAP ON THE SW CORNER OF COLBERN ROAD AND MAIN

CP#600: SET 1/2" IB/CAP ON THE SOUTH SIDE OF MAIN STREET WHERE MAIN STREET TURNS EAST ON THE SOUTH SIDE OF I-470

N



PROJECT SPECIFICATIONS:

THE SPECIFICATIONS FOR THIS PROJECT SHALL BE THE FOLLOWING:

1. MOST CURRENT VERSION OF THE DESIGN AND CONSTRUCTION MANUAL OF THE CITY OF LEE'S SUMMIT, MO.

DISTURBED AREA: 12.60 AC

2. MOST CURRENT VERSION OF THE AMERICAN PUBLIC WORKS ASSOCIATION - KANSAS CITY METRO CHAPTER

THE STANDARD SPECIFICATIONS THROUGH AND INCLUDING THE LATEST AMENDMENTS SHALL BE PART OF THESE PROJECT DRAWINGS AND SPECIFICATIONS AND ARE HEREIN BY REFERENCE. THE MORE STRINGENT OF THESE STANDARD SPECIFICATIONS AND THOSE PREPARED BY THE ENGINEER PREPARING THESE PLANS SHALL GOVERN.

CIVIL ENGINEER:

PHONE: (816) 777-0400

OWN, INC. 8455 COLLEGE BLVD OVERLAND PARK, KS 66210 EMAIL: JBARTZ@WEAREOWN.COM

INTRINSIC DEVELOPMENT 3622 ENDEAVOR AVE., STE. 101 COLUMBIA, MO 65201

DEVELOPER:

COLUMBIA, MO 65201 CONTACT: JOHN ODLE PHONE: (573) 615-2252

PREPARED AND SUBMITTED BY:

JEFFREY W. BARTZ, P.E. MISSOURI P.E. NO. 2012022594

DATE

OWN

8455 College Boulevard Overland Park, KS 66210 816.777.0400 weareown.com

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Engineering Corporation

PRIVATE SANITARY SEWER AND WATER MAIN EXTENSION AT DISCOVERY CROSSING

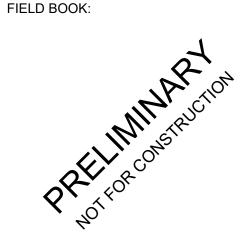
SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD LEE'S SUMMIT, MO

	REVISIONS			
NO.	DESCRIPTION	DATE		

DRAWING INFORMATION

PROJECT NO: 24KC10016 DRAWN BY: JGD

CHECK BY: JWB
ISSUED DATE: 8/12/25



ISSUED BY: LICENSE NO:

SHEET TITLE

COVER

SHEET NUMBER

C100

1 OF 16

GENERAL NOTES:

- PROPOSED MANHOLES SHALL CONFORM TO THE CITY OF LEE'S SUMMIT DETAILS AND SPECIFICATIONS.
- 2. ALL WORK IN PUBLIC EASEMENTS AND RIGHT-OF-WAY AND ALL EROSION CONTROL WORK MUST COMPLY WITH THE LATEST EDITION OF THE TECHNICAL PROVISIONS & STANDARD DRAWINGS FOR ROADS AND SEWERS, OF LEE'S SUMMIT, MISSOURI.
- WATER MAINS AND SANITARY SEWER MAINS/STRUCTURES SHALL HAVE AT LEAST 10' OF HORIZONTAL SEPARATION FROM EDGE OF WATER PIPE TO EDGE OF SEWER PIPE OR SEWER STRUCTURE.
- 4. WATER MAINS AND SANITARY SEWERS SHALL HAVE AT LEAST 18" OF VERTICAL SEPARATION FROM EDGE OF PIPE TO EDGE OF PIPE. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.
- 5. ALL SEWER MANHOLES WITHIN PROPOSED ASPHALT PAVEMENT SHALL INCLUDE CONCRETE COLLAR TO MATCH MANHOLE RIM FLUSH WITH PAVEMENT PER THE CITY OF LEE'S SUMMIT, MISSOURI STANDARD DETAIL.
- 6. ALL SANITARY SEWER LATERALS SHALL HAVE A TRENCH CHECK, CONSISTING OF FLOWABLE BACKFILL INSTALLED DURING CONSTRUCTION. TRENCH CHECK SHALL EXTEND TO BOTTOM OF TRENCH, TO WIDTH OF TRENCH TO 12 INCHES ABOVE PIPE, FOR A MINIMUM LENGTH OF 12 INCHES, TRENCH CHECK SHALL BE LOCATED AT LEAST 5 FEET FROM SANITARY SEWER MAIN.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE PLANS IN THEIR POSSESSION ARE THE MOST CURRENT VERSION ISSUED, ARE FULLY COORDINATED WITH ALL SUBCONTRACTORS, AND PRESENT ON SITE AT ALL TIMES.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEVIATIONS FROM THESE PLANS UNLESS WRITTEN APPROVAL FROM ENGINEER, OWNER, OR DEVELOPER.
- 9. ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
- 10. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSED ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES AND ITEMS OF WORK.
- 11. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ALL UTILITY COMPANIES AND OBTAIN ANY RELEVANT INFORMATION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL BOUNDARY CORNERS AND SECTION CORNERS. ANY BOUNDARY CORNER AND/OR SECTION CORNER DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RESET BY A LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI, AT THE CONTRACTOR'S EXPENSE.

REFERENCE:

- 1. UNLESS EXPLICITLY DESCRIBED OTHERWISE WITHIN THESE PLANS THE FOLLOWING SHALL APPLY;
- A. ALL CONSTRUCTION, INCLUDING THOSE LISTED BELOW, SHALL CONFORM TO THE LATEST CODES AND ORDINANCES OF THE CITY OF LEE'S SUMMIT, MISSOURI.
- B. ALL TRAFFIC CONTROL SIGNAGE SHALL CONFORM WITH THE CURRENT EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- C. ALL UTILITY EXTENSIONS AND CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE UTILITY COMPANIES.
- D. ALL EXTERIOR PAVEMENT (PCC, ASPHALT, ETC.) SHALL BE IN CONFORMANCE WITH THE SPECIFICATIONS OF THE CITY OF LEE'S SUMMIT, MISSOURI.

EXISTING CONDITIONS:

- 1. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS OF THE PROJECT AREA.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING THEIR OWN INVESTIGATIONS AND MAKE THEIR OWN ASSUMPTIONS REGARDING SITE SURFACE AND SUBSURFACE CONDITIONS. THIS INCLUDE THE LOCATION AND CONSISTENCY OF ANY EXISTING ROCK LAYERS UNDERLYING THE PROJECT SITE. CONTACT THE ENGINEER REGARDING ANY DISCREPANCIES THAT MAY AFFECT THE ABILITY TO CONSTRUCT FROM THESE PLANS AS DESIGNED.
- 3. EXISTING CONDITIONS WERE DETERMINED THROUGH A VARIETY OF METHODS THAT MAY INCLUDE SURVEY, AERIAL IMAGERY, AVAILABLE RECORDS, GIS DATA, ETC. SUBSURFACE CONDITIONS ARE APPROXIMATE AND MAY NOT INCLUDE ALL UTILITIES AND OTHER SITE IMPROVEMENTS PRESENT ON SITE. THE CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATED EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS WHEN CONFLICTS AND DISCREPANCIES ARE FOUND.

CONSTRUCTION:

- 1. THE CONTRACTOR SHALL DISPOSE OF ALL WASTE MATERIAL RESULTING FROM THE PROJECT OFF-SITE AND IN STRICT CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES.
- 2. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS ARE TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED. NOT ALL ADJUSTMENTS ARE INDICATED IN THE PLANS.
- 3. THE CONTRACTOR SHALL STREET SWEEP OR OTHERWISE CLEAN ALL ACCESS ROADS TO THE SITE AT THE CONCLUSION OF THE PROJECT.

CONSTRUCTION:

- 1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWING A MINIMUM OF 7 DAYS PRIOR TO THE REQUIRED DATE OF APPROVAL.ENGINEER SHALL REVIEW SHOP DRAWINGS OR SAMPLE CONFORMANCE WITH THE DESIGN FOR THIS PROJECT AS DESCRIBED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERRORS OF OMISSIONS IN SHOP DRAWINGS. THE ENGINEER'S REVIEW SHALL NOT EXTEND TO MEANS OR METHODS OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY VARIATION FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS UNLESS CONTRACTOR HAS NOTIFIED ENGINEER OF EACH SUCH VARIATION AT THE TIME OF SUBMISSION, AND OBTAIN ENGINEER'S WRITTEN APPROVAL OF EACH SUCH VARIATION. PRIOR TO SUBMITTING EACH SHOP DRAWING OR SAMPLE, CONTRACTOR SHALL HAVE REVIEWED AND VERIFIED:
- ALL FIELD MEASUREMENTS, QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR INFORMATION WITH RESPECT THERETO:
- ALL MATERIALS WITH RESPECT TO INTENDED USE, FABRICATION, SHIPPING, HANDLING, STORAGE, ASSEMBLY AND INSTALLATION PERTAINING TO PERFORMANCE OF THE WORK;
- C. ALL INFORMATION RELATIVE TO MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENT
- D. CONTRACTOR SHALL ALSO HAVE REVIEWED AND COORDINATED EACH SHOP DRAWING OR SAMPLE WITH OTHER SHOP DRAWINGS AND SAMPLES, AND WITH THE REQUIREMENTS OF THE WORK AND THE CONTRACT DOCUMENTS.
- E. ALL SUBMITTED SHOP DRAWINGS SHALL BEAR A STAMP OR SPECIFIC WRITTEN INDICATION AND SIGNATURE THAT CONTRACTOR HAS FULLY COMPLETED THE ABOVE TASKS.
- 2. SHOP DRAWINGS AS DESCRIBED ABOVE ARE REQUIRED FOR, BUT NOT LIMITED TO, THE FOLLOWING:
- ALL SANITARY SEWER STRUCTURES TO BE INSTALLED WITH THE PROJECT.
- B. ALL WATER METER VAULTS TO BE INSTALLED WITH THE PROJECT.
- C. ANY ITEMS IN THESE PLANS THAT ALLOW FOR AN "APPROVED EQUAL" ALTERNATIVE.

SANITARY SEWER GENERAL NOTES:

- 1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH THE CITY OF LEE'S SUMMIT, MISSOURI.
- 2. ALL PIPE LENGTHS ARE CALCULATED LINEARLY FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
- 3. ALL STRUCTURE DIMENSIONS ARE TO INSIDE FACE OF STRUCTURE.
- 4. COORDINATES ARE PROVIDED AT CENTER OF STRUCTURE. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING THE LID DURING INSTALLATION.
- 5. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF SANITARY SEWER.
- 6. SANITARY SEWER TRENCHES SHALL BE CONSTRUCTED SUCH THAT UNDISTURBED EXISTING SOIL OR FILL COMPACTED TO 95% PROCTOR DENSITY IS AT A DEPTH THAT IS 18" ABOVE TOP OF
- 7. MANHOLE INVERT CHANNELS SHALL BE SMOOTH, CIRCULAR, AND CONFORMING TO 1/2 THE ADJACENT PIPE SECTION (INVERT TO CENTER). CHANGES IN DIRECTION OF FLOW SHALL BE MADE WITH A SMOOTH CURVE AND MAINTAIN SHAPE THROUGHOUT. CHANGES IN GRADE OF ADJACENT PIPES SHALL BE TRANSITIONED SMOOTHLY AND EVENLY THROUGH THE MANHOLE.
- 8. PIPE PENETRATIONS SHALL USE GASKETS TO ENSURE WATERTIGHT SEALS.
- 9. TRACING TAPE SHALL BE INSTALLED ALONG ALL NON-METALLIC SURFACES OR AS DIRECTED BY LOCAL CODES AND ORDINANCES.
- 10. SEWER LINE INSPECTIONS AND TESTING MUST BE SCHEDULED A MINIMUM OF TWO FULL BUSINESS DAYS IN ADVANCE, CONTRACTOR SHALL FURNISH ALL TESTING EQUIPMENT, TESTING SHALL INCLUDE:
- A. MANDEREL TEST OF ALL GRAVITY SEWERS. IF THE MANDREL TEST FAILS ON ANY SECTION OF PIPE, THAT SECTION SHALL BE UNCOVERED AND REPLACED.
- B. AIR PRESSURE TEST OF ALL GRAVITY SEWERS.
- C. VACUUM TEST OF ALL MANHOLES.
- 11. REFER TO CURRENT CITY SPECIFICATIONS FOR MINIMUM PIPE SLOPES.
- 12. CONTRACTOR MAY BE REQUIRED TO RECONSTRUCT PIPE AND STRUCTURE IF MINIMUM INVERT DROP OR PIPE SLOPE REQUIREMENTS ARE NOT MET.
- 13. SANITARY STRUCTURES SHALL BE PER CURRENT CITY DETAILS. IF CITY DOES NOT HAVE PUBLISHED DETAILS STRUCTURES SHALL BE PER CURRENT APWA SPECIFICATIONS.
- 14. GRAVITY SANITARY SEWER AND WATER LINES SHALL BE SEPARATED BY A MINIMUM OF 10' HORIZONTALLY WHEN PARALLEL AND 2' VERTICALLY WHEN CROSSING. WATER LINES SHALL CROSS ABOVE SANITARY SEWERS.
- 15. RAIN WATER FROM ROOFS, STREETS, AND OTHER AREAS AND GROUNDWATER FROM FOUNDATION DRAINS SHALL BE EXCLUDED FROM ALL NEW SEWERS.

WATER PLAN NOTES:

- 1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH THE UTILITY OWNER AND THE CITY OF LEE'S SUMMIT, MISSOURI.
- 2. ALL PIPE LENGTHS ARE CALCULATED LINEARLY FROM CENTER OF FITTING OR WALL OF VAULT.
- 3. COORDINATES ARE PROVIDED ALONG PIPE CENTERLINE. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODE AND ORDINANCES OR AS AN AID WHEN ORIENTING INSTALLATIONS.
- 4. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF WATER.
- 5. WATER PIPE TRENCHES SHALL BE CONSTRUCTED SUCH THAT UNDISTURBED EXISTING SOIL OR FILL COMPACTED TO 95% PROCTOR DENSITY IS AT A DEPTH THAT IS 18" ABOVE TOP OF PROPOSED PIPE.
- 6. ALL PRIVATE WATER LINES SHALL BE A MINIMUM OF 42" AND MAXIMUM OF 60" BELOW THE FINISHED GRADE ELEVATIONS SHOWN HEREIN UNLESS OTHERWISE NOTED.
- 7. IF AN AS-BUILT OF A WATER LINE IS REQUIRED OR EXPECTED THE CONTRACTOR SHALL NOT BACKFILL THE TRENCH UNTIL AN AS-BUILT SURVEY IS CONDUCTED.
- 8. DISINFECTION AND PRESSURE TESTING OF WATER LINES SHALL BE PERFORMED AND PAID FOR BY THE CONTRACTOR AND AS REQUIRED BY THE UTILITY OWNER.
- 9. ALL EXISTING FIRE HYDRANTS ON SITE OR IN THE RIGHT-OF-WAY BETWEEN PROPERTY AND ROADWAY SHALL BE REPAINTED PER LOCAL CODE AND ORDINANCES.
- 10. TRACING TAPE SHALL BE INSTALLED ALONG ALL NON-METALLIC SURFACES OR AS DIRECTED BY LOCAL CODES AND ORDINANCES.

	ESTIMATE OF QUAN	ITITIES									
	PRIVATE SANITARY SEWER - LINE F										
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	AS-BUILT							
1	8" SANITARY PVC (SDR-26)	L.F.	780								
2	MANHOLE, STANDARD 4" DIA.	E.A.	3								
3	CONNECT TO EXISTING MANHOLE	E.A.	1								
4	REMOVAL OF VERTICAL MANHOLE SECTIONS ON EXISTING STRUCTURE	E.A.	1								
5	AS-BUILTS	E.A.	1								
	PRIVATE WATERMAIN - LINE	SA&B									
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	AS-BUILT							
6	8" C900 PVC PIPE	L.F.	1669								
7	8" x 8" TEE	E.A.	3								
8	8" - 45° BEND	E.A.	10								
9	8" GATE VALVE	E.A.	4								
10	FIRE HYDRANT ASSEBMLY (INCLUDING TEE)	E.A.	6								
11	AIR RELEASE ASSEMBLY (NOT INCLUDING TEE)	E.A.	1								
12	CONNECTION TO EXISTING WATERMAIN	E.A.	2								
13	AS-BUILTS	E.A.	1								

SUMMARY OF QUANTITIES AS INDICATED ABOVE AND ANY QUANTITIES AS SHOWN WITHIN THE PLANS HAVE BEEN PROVIDED FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR USE IN PREPARATION OF CONTRACT DOCUMENTS. QUANTITIES INTENDED FOR, BUT NOT LIMITED TO, THE PREPARATION OF PROPOSALS AND BID DOCUMENTS SHALL BE INDEPENDENTLY EVALUATED BY THE ESTIMATING PARTY BASED UPON THE CONTENTS OF THESE PLANS.



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PRIVATE SANITARY **SEWER AND WATER** MAIN EXTENSION AT **DISCOVERY CROSSING**

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD LEE'S SUMMIT, MO

	REVISIONS			
NO.	DESCRIPTION	DATE		

DRAWING INFORMATION

PROJECT NO: 24KC10016 DRAWN BY: JGD

CHECK BY: JWB

ISSUED DATE: 8/12/25

FIELD BOOK:



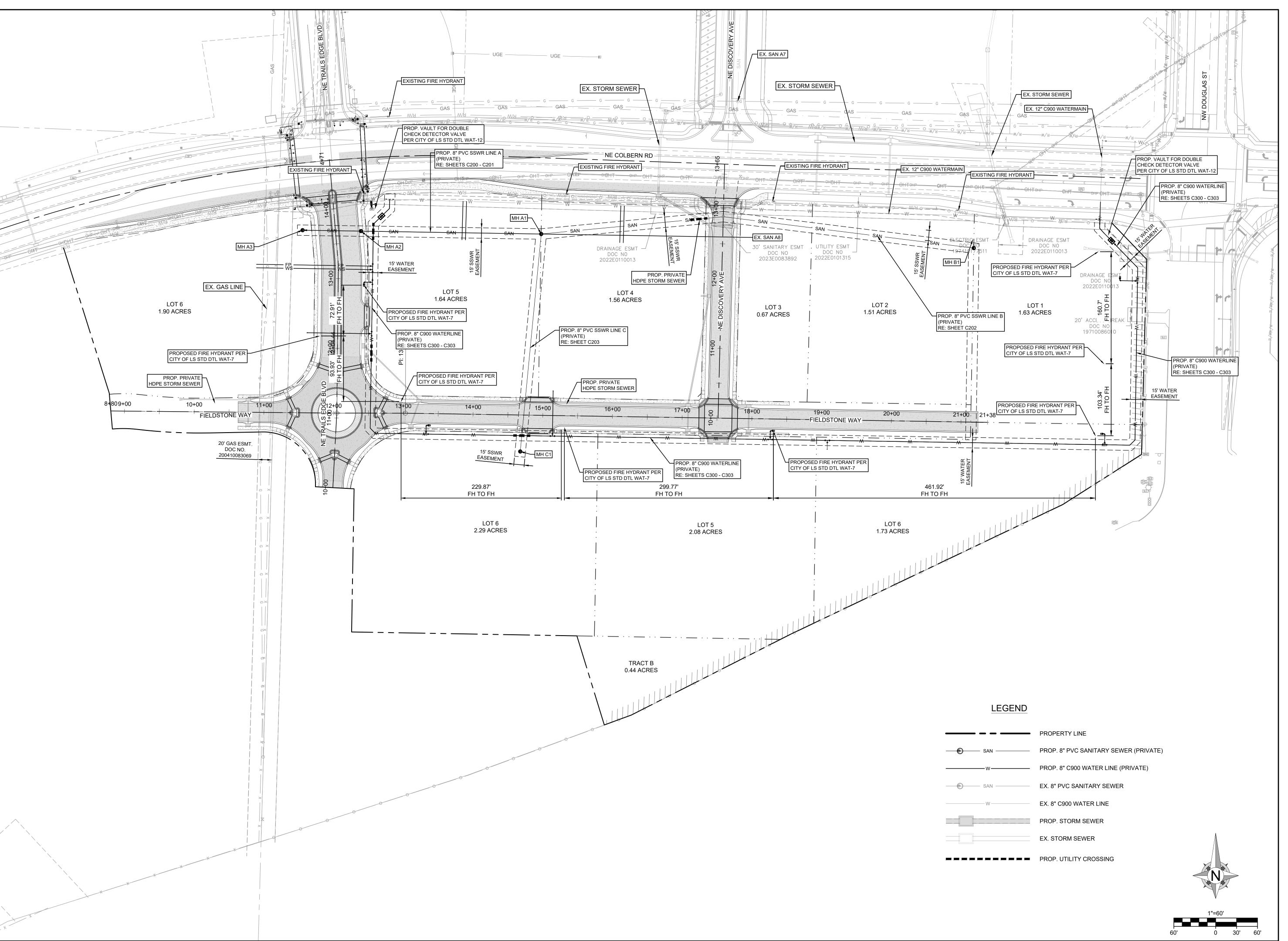
ISSUED BY: LICENSE NO:

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

C101



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PRIVATE SANITARY SEWER AND WATER MAIN EXTENSION AT DISCOVERY CROSSING

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FIELD BOOK:

PRELIMINAR

ISSUED BY:

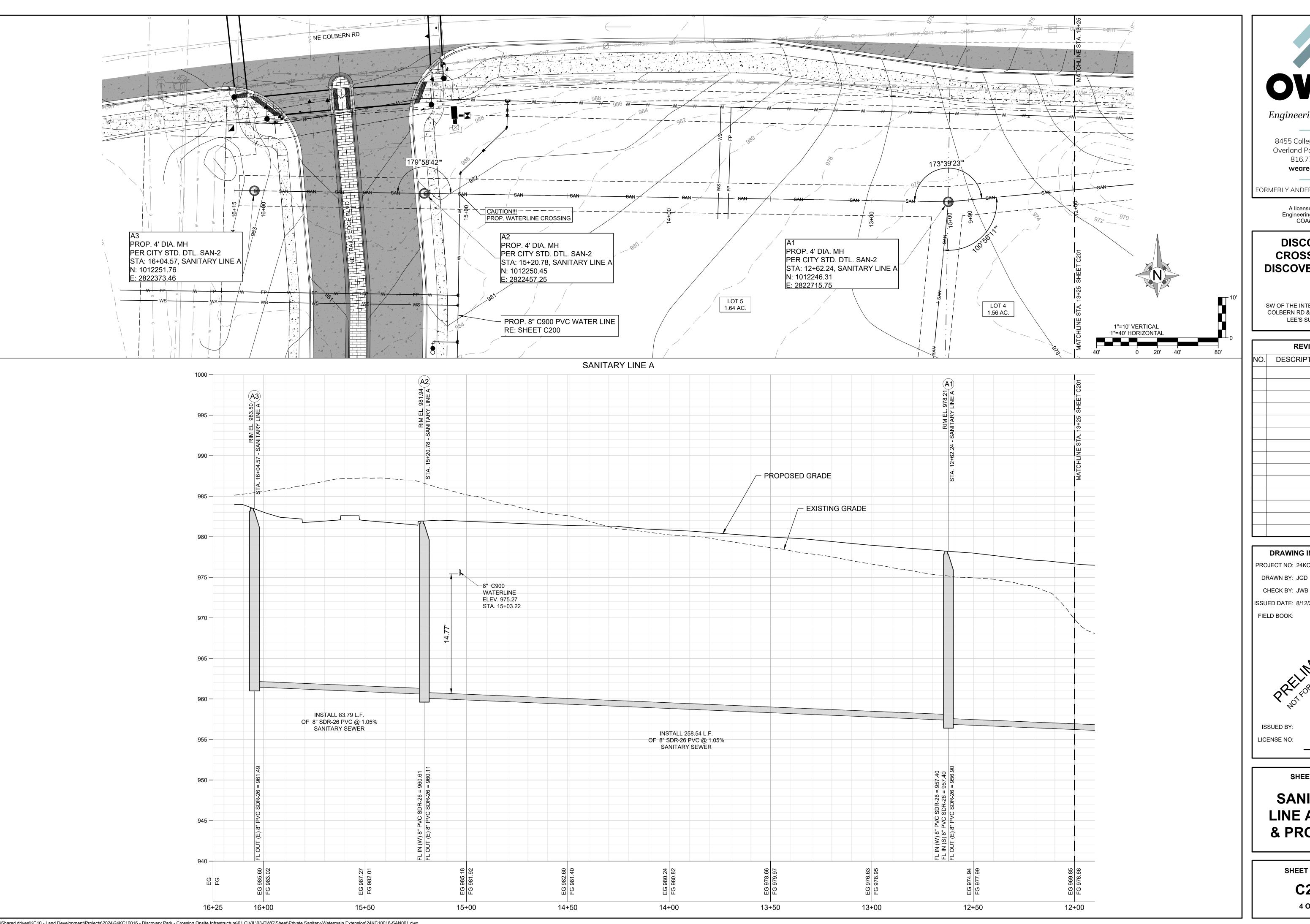
LICENSE NO:

SHEET TITLE

GENERAL LAYOUT

SHEET NUMBER

C102





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DISCOVERY CROSSING AT DISCOVERY PARK

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD LEE'S SUMMIT, MO

REVISIONS							
NO.	DESCRIPTION	DATE					

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ISSUED DATE: 8/12/25 FIELD BOOK:

ISSUED BY: LICENSE NO:

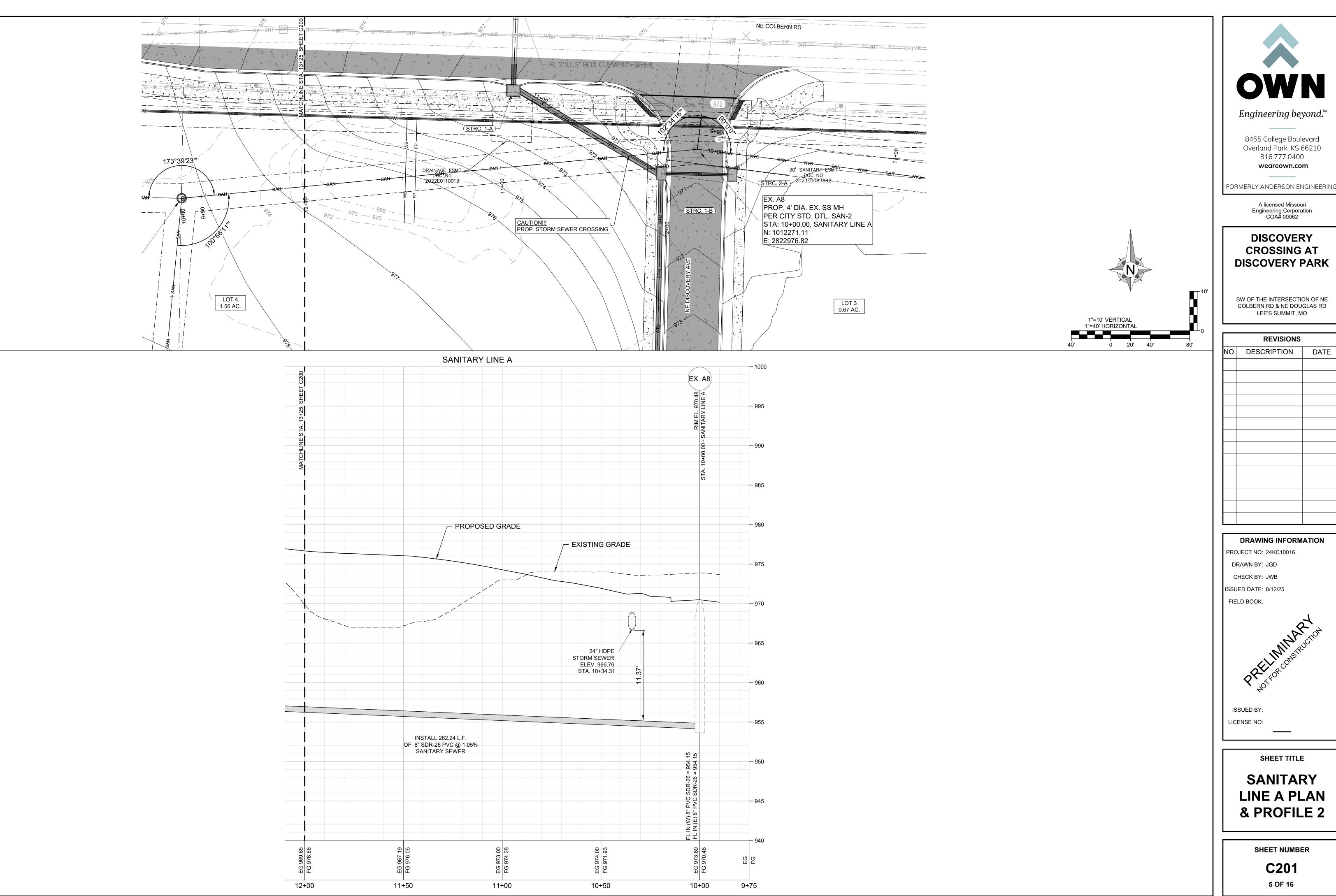
SHEET TITLE

SANITARY **LINE A PLAN** & PROFILE 1

SHEET NUMBER

C200

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DISCOVERY CROSSING AT DISCOVERY PARK

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD LEE'S SUMMIT, MO

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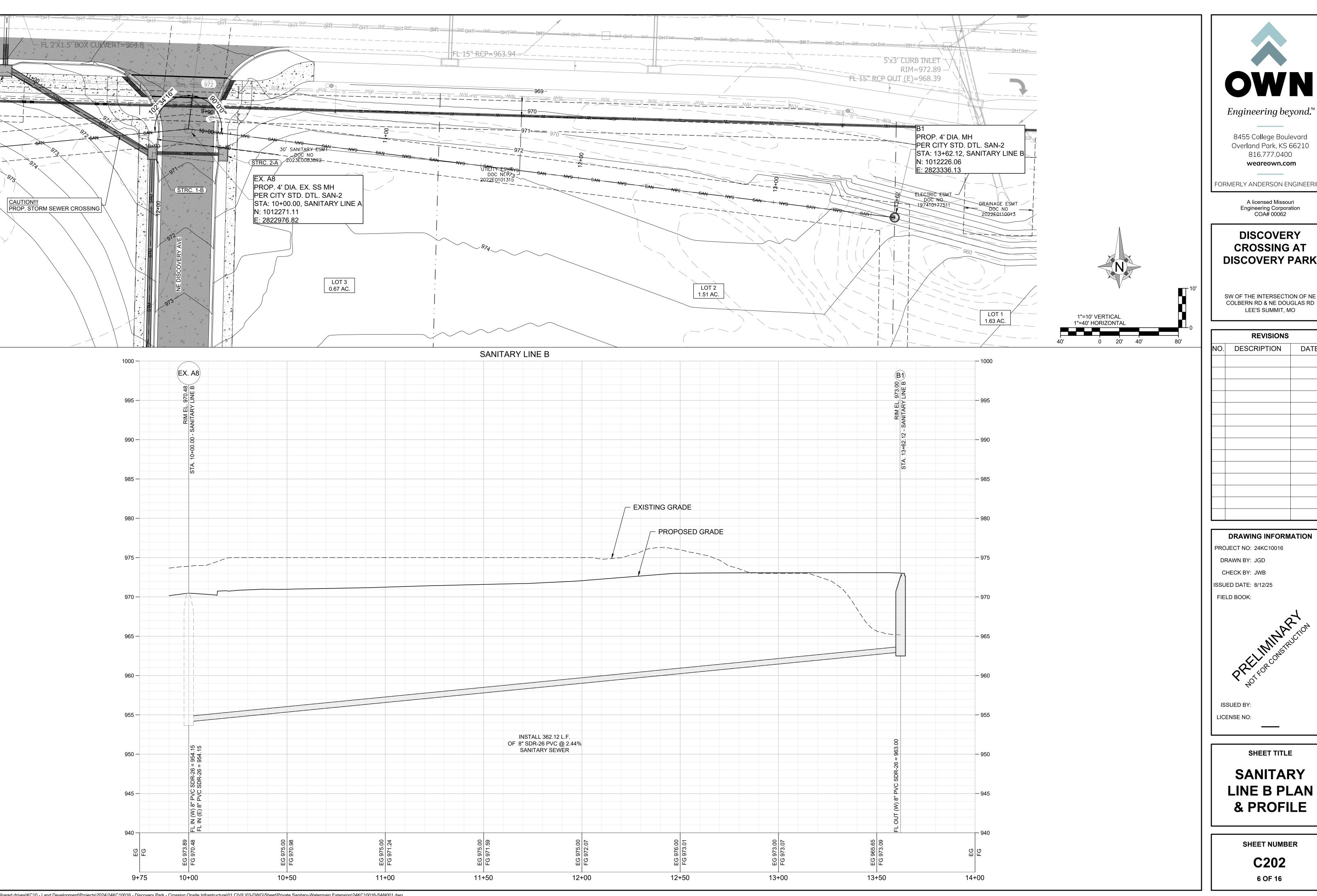
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SHEET TITLE

SANITARY **LINE A PLAN** & PROFILE 2

SHEET NUMBER

C201 5 OF 16





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DISCOVERY CROSSING AT DISCOVERY PARK

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD LEE'S SUMMIT, MO

REVISIONS								
NO.	DESCRIPTION	DATE						

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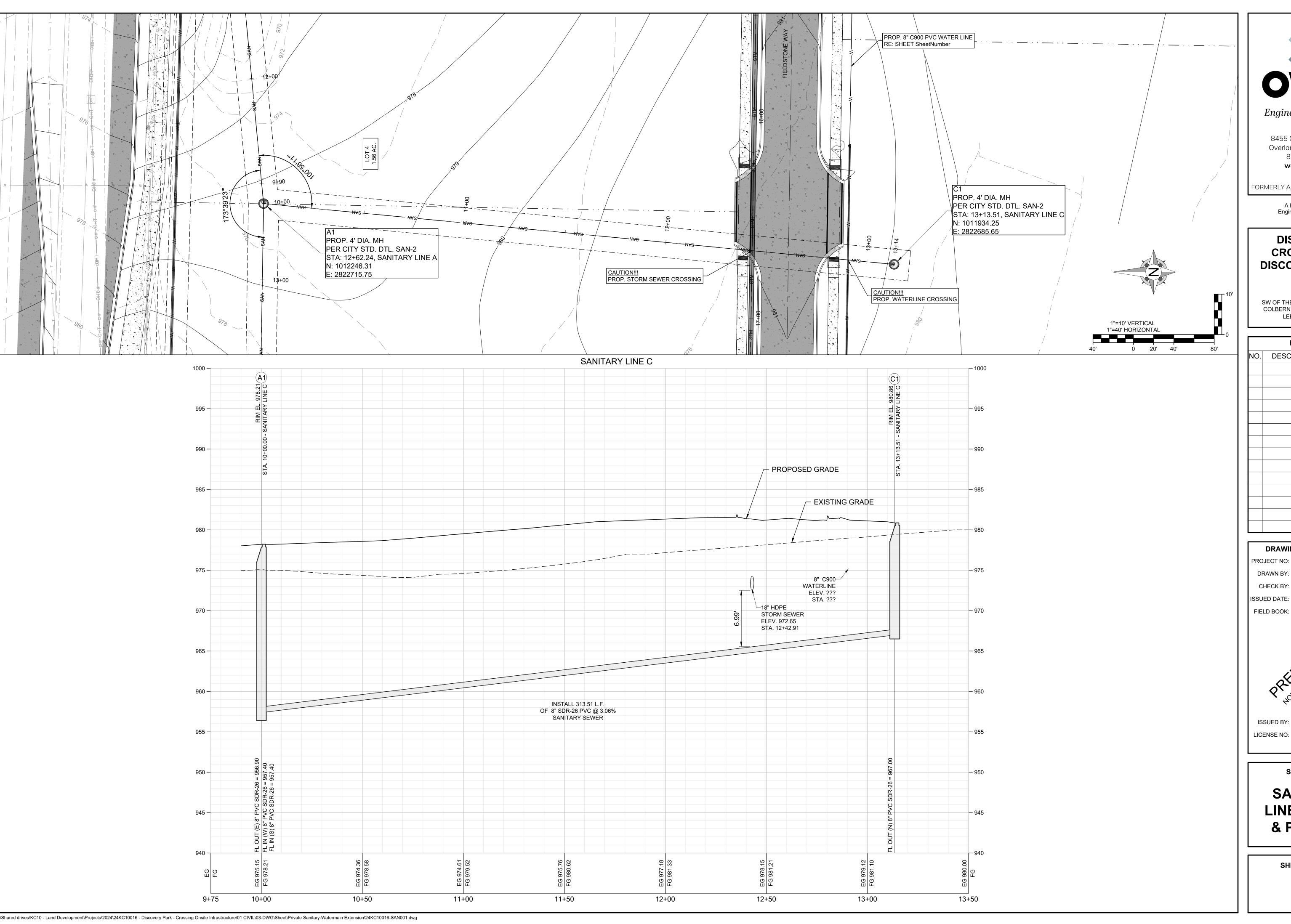
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SANITARY **LINE B PLAN** & PROFILE

SHEET NUMBER

C202 6 OF 16





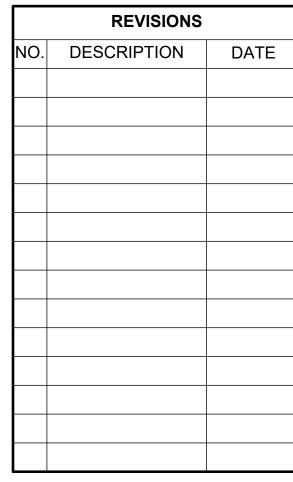
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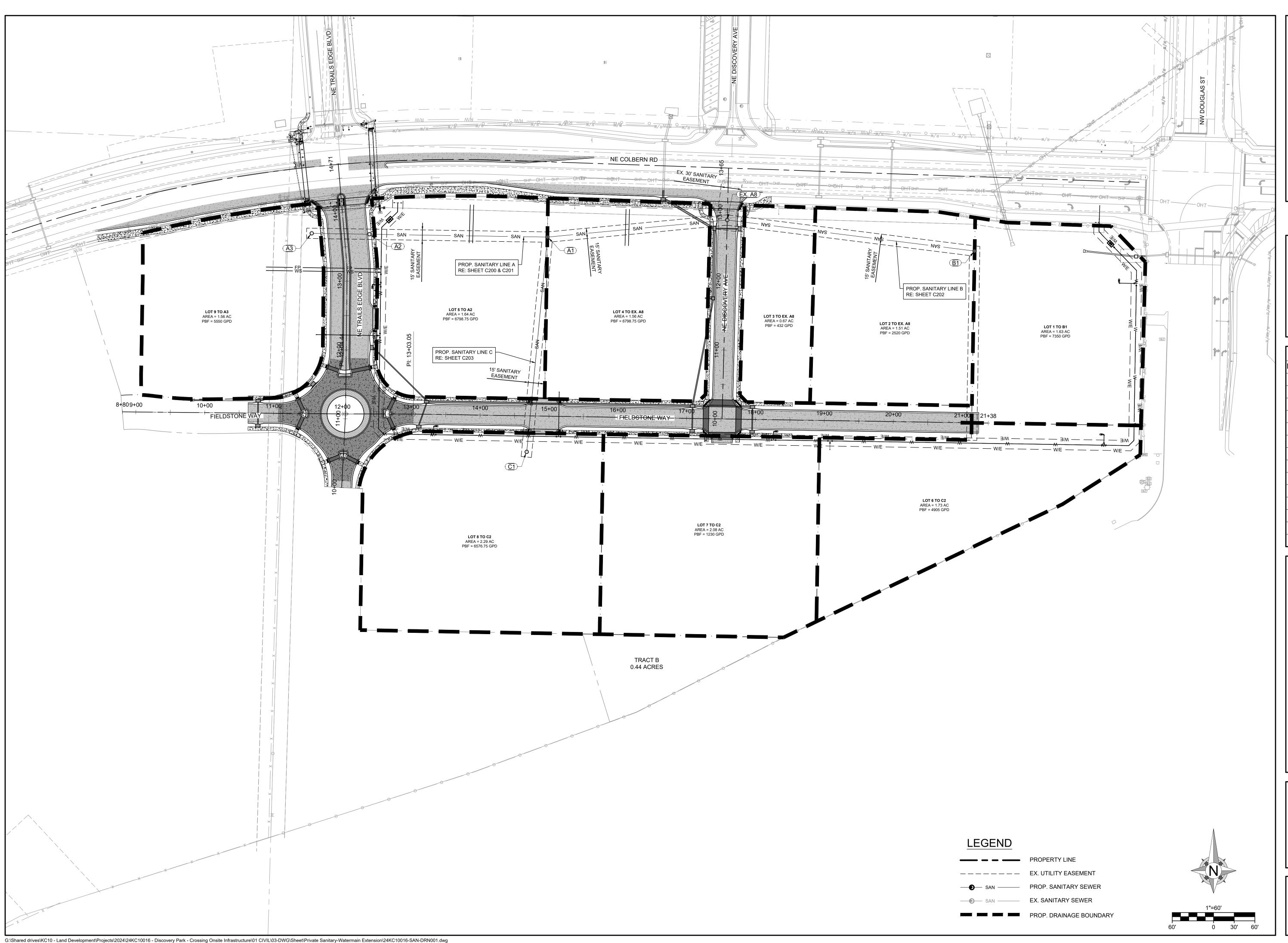
SHEET TITLE

SANITARY LINE C PLAN & PROFILE

SHEET NUMBER

C203

7 OF 16





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PRIVATE SANITARY SEWER AND WATER MAIN EXTENSION AT DISCOVERY CROSSING

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD LEE'S SUMMIT, MO

	REVISIONS			
NO.	DESCRIPTION	DATE		

DRAWING INFORMATION

PROJECT NO: 24KC10016

DRAWN BY: JGD
CHECK BY: JWB

ISSUED DATE: 8/12/25

FIELD BOOK:

PRELIMITARY

ISSUED BY: LICENSE NO:

SHEET TITLE

SANITARY DRAINAGE MAP

SHEET NUMBER

C204

	10-yr Peak Flow Calculation Table (Inflow & Infiltration)											
Upstream Manhole	Upstream Lot Area	· I K I		Intensity (in/hr)	Q	Cross Sectional Area (2/3 Full)	Wetted Perimeter (P)	Hydraulic Radius (R)				
	(ac)		(min)	(10-yr)	(cfs)	(sf)	(ft)	(ft)				
C1	0.00	0.003	29.30	3.86	0.071	0.247	1.273	0.194				
B1	0.00	0.003	21.00	4.71	0.023	0.247	1.273	0.194				
А3	1.57	0.003	20.76	4.73	0.022	0.247	1.273	0.194				
A2	1.64	0.003	20.76	4.73	0.022	0.247	1.273	0.194				
A1	0.00	0.003	32.59	3.68	0.103	0.247	1.273	0.194				
EX. A8	2.23	0.003	36.56	3.51	0.154	0.247	1.273	0.194				

				ı	Discovery Crossir	ng - Proposed San	nitary Sewer A	Anaylsis Table					
Lot Number	Area (SF)	Area (AC)	Land Use	EDU	Building Area (SF)	Building Area (1000 SF)	PBF (gpd)	Peak Infiltration (gpd/ac)	Tc (min)	I (in/hr)	Peak Inflow (gpd)	Peak Flow (gpd)	Design Flow (MGD)
1	90029.67	1.63	Restaurant	3.5	7000	7.00	7350.00	407.50	21.00	4.71	14880.92	22638.42	0.023
2	46706.7	1.51	Restaurant	3.5	2400	2.40	2520.00	377.50	20.59	4.75	13905.25	16802.75	0.017
3	29122.44	0.67	Restaurant, Drive Thru Only	1.6	900	0.90	432.00	167.14	16.77	5.14	6662.76	7261.90	0.007
4	67827.99	0.78	Retail	0.2	6125	6.13	367.50	195.00	17.43	5.07	7670.73	8233.23	0.008
		0.78	Restaurant	3.5	6125	6.13	6431.25	195.00	17.43	5.07	7670.73	14296.98	0.014
5	71582.61	0.82	Retail	0.2	6125	6.13	367.50	205.00	17.65	5.05	8028.19	8600.69	0.009
		0.82	Restaurant	3.5	6125	6.13	6431.25	205.00	17.65	5.05	8028.19	14664.44	0.015
6	76131	0.87	Retail	0.2	3000	3.00	180.00	217.50	17.92	5.02	8472.00	8869.50	0.009
		0.86	Restaurant	3.5	4500	4.50	4725.00	215.00	17.87	5.03	8383.50	13323.50	0.013
7	90720.41	1.04	Grocery	0.2	15300	15.30	918.00	260.00	18.74	4.94	9957.62	11135.62	0.011
		1.04	Retail	0.2	5200	5.20	312.00	260.00	18.74	4.94	9957.62	10529.62	0.011
8	99680.49	1.14	Retail	0.2	5925	5.93	355.50	285.00	19.18	4.89	10816.00	11456.50	0.011
		1.15	Restaurant	3.5	5925	5.93	6221.25	287.50	19.23	4.89	10901.25	17410.00	0.017
9	68193.48	0.78	Retail	0.2	5000	5.00	300.00	195.00	17.43	5.07	7670.73	8165.73	0.008
		0.78	Restaurant	3.5	5000	5.00	5250.00	195.00	17.43	5.07	7670.73	13115.73	0.013
Subtotal											140676.22	186504.61	0.187

	Sanitary Sewer Design Information (10-yr)											
Upstream Manhole	Downstream Pipe Slope	Downstream Pipe Diameter	Proposed Cumulative Area	Lot Service	Peak Base Flow	Peak Infiltration Flow	Peak Inflow	Total Peak Flow	Cum. Peak Flow	Downstream Pipe Manning N	Downstream Pipe Capacity (2/3 full)	Downstream Pipe Ful Flow Velocity
	(%)	(in)	(Ac.)	(Ac.)	(gpd)	(gpd)	(cfs)	(cfs)	(cfs)		(cfs)	(fps)
C1	3.06%	8.00	6.10	6,7,8	12711.75	1525.00	0.090	0.113	0.113	0.014	1.537	6.22
B1	2.44%	8.00	1.63	1	7350.00	407.50	0.023	0.035	0.035	0.014	1.372	5.56
А3	1.05%	8.00	1.56	9	5550.00	390.00	0.024	0.033	0.033	0.014	0.900	3.64
A2	1.05%	8.00	1.56		0.00	0.00	0.000	0.000	0.033	0.014	0.900	3.64
A1	1.05%	8.00	9.30	5	6798.75	410.00	0.025	0.036	0.181	0.014	0.900	3.64
EX. A8	4.43%	8.00	14.67	2,3,4	9750.75	934.64	0.056	0.072	0.289	0.014	1.849	7.49



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ISSUED DATE: 8/12/25

FIELD BOOK:

PRELIMITAR

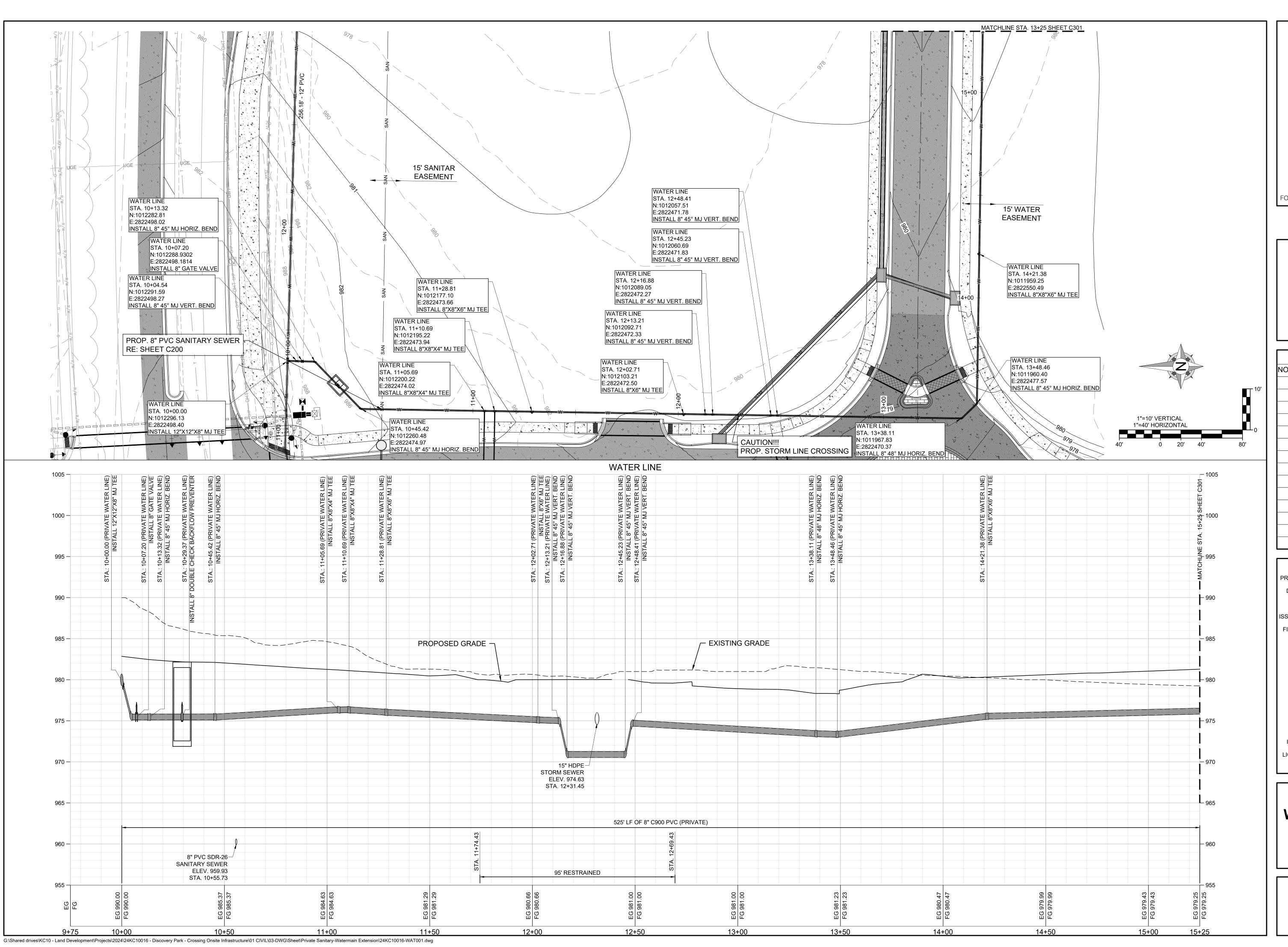
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SHEET TITLE

SANITARY DRAINAGE CALCS

SHEET NUMBER

C205





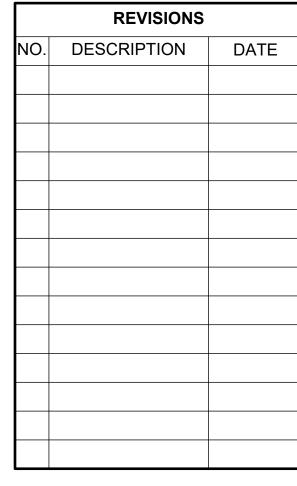
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SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD LEE'S SUMMIT, MO



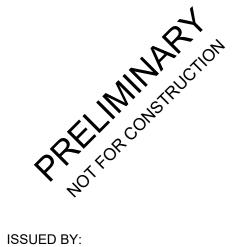
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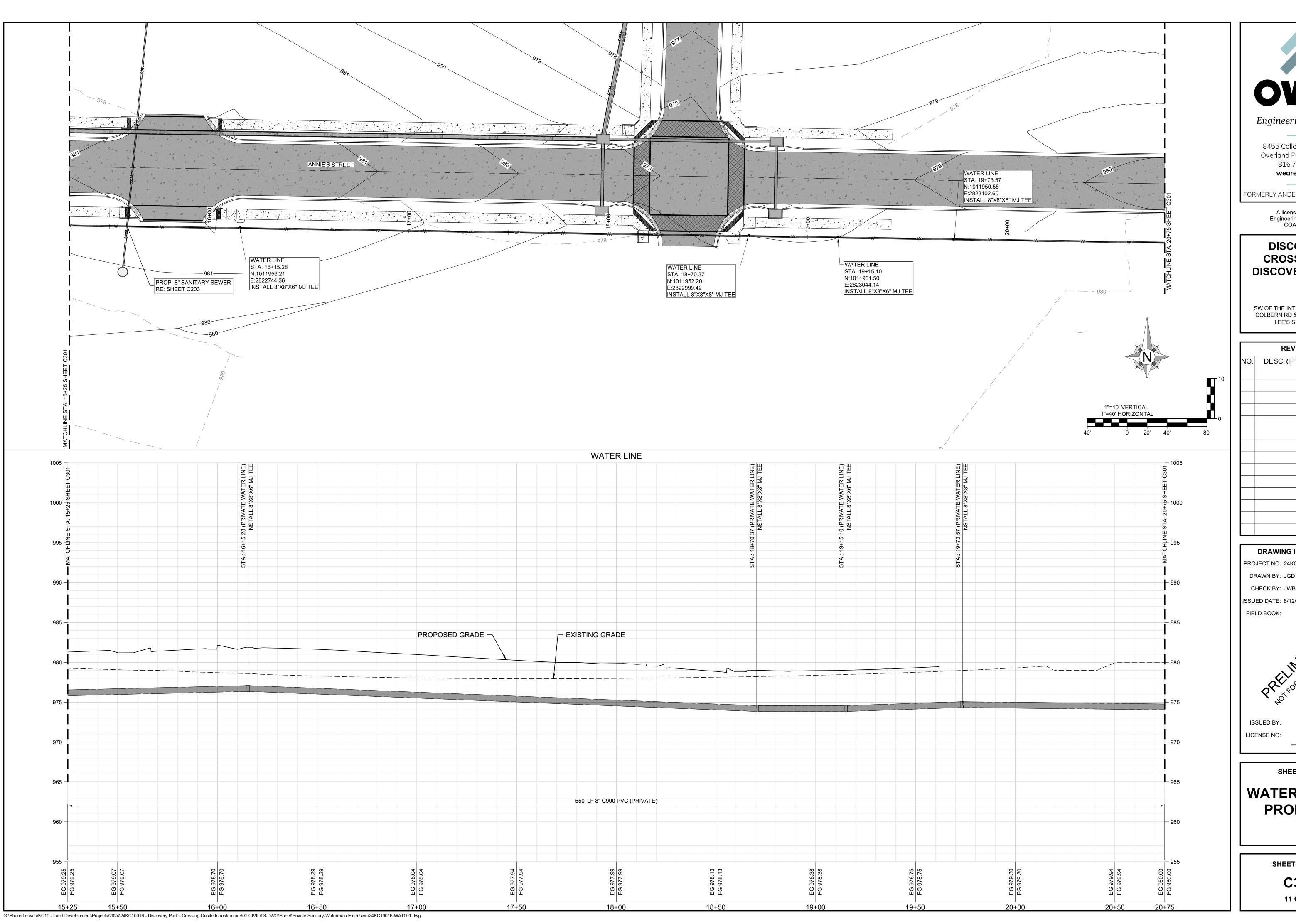
LICENSE NO:

SHEET TITLE

WATER PLAN & PROFILE 1

SHEET NUMBER

C300





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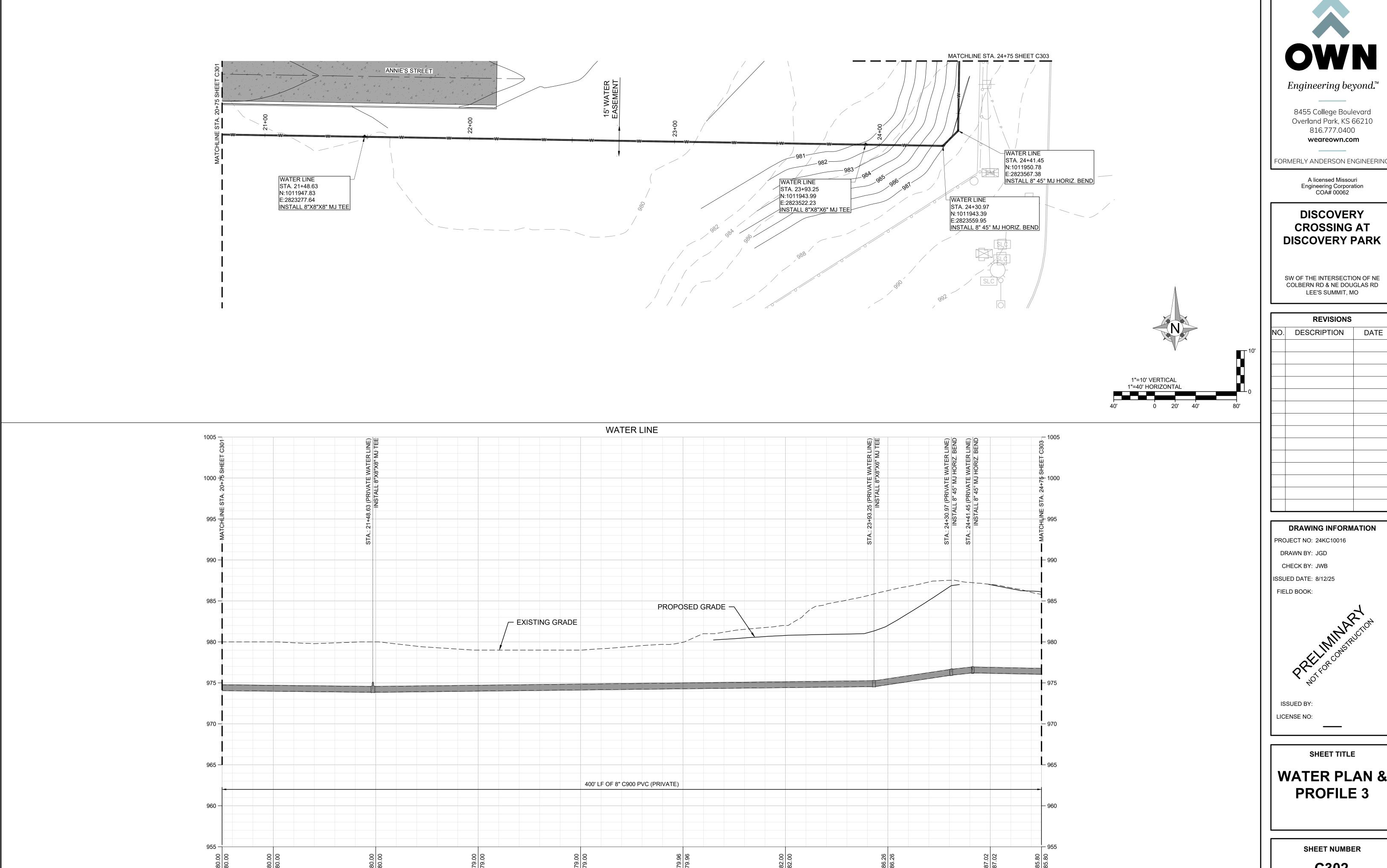
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SHEET TITLE

WATER PLAN & **PROFILE 2**

SHEET NUMBER

C301



22+00

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22+50

23+00

23+50



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DRAWN BY: JGD

ISSUED DATE: 8/12/25

24+50

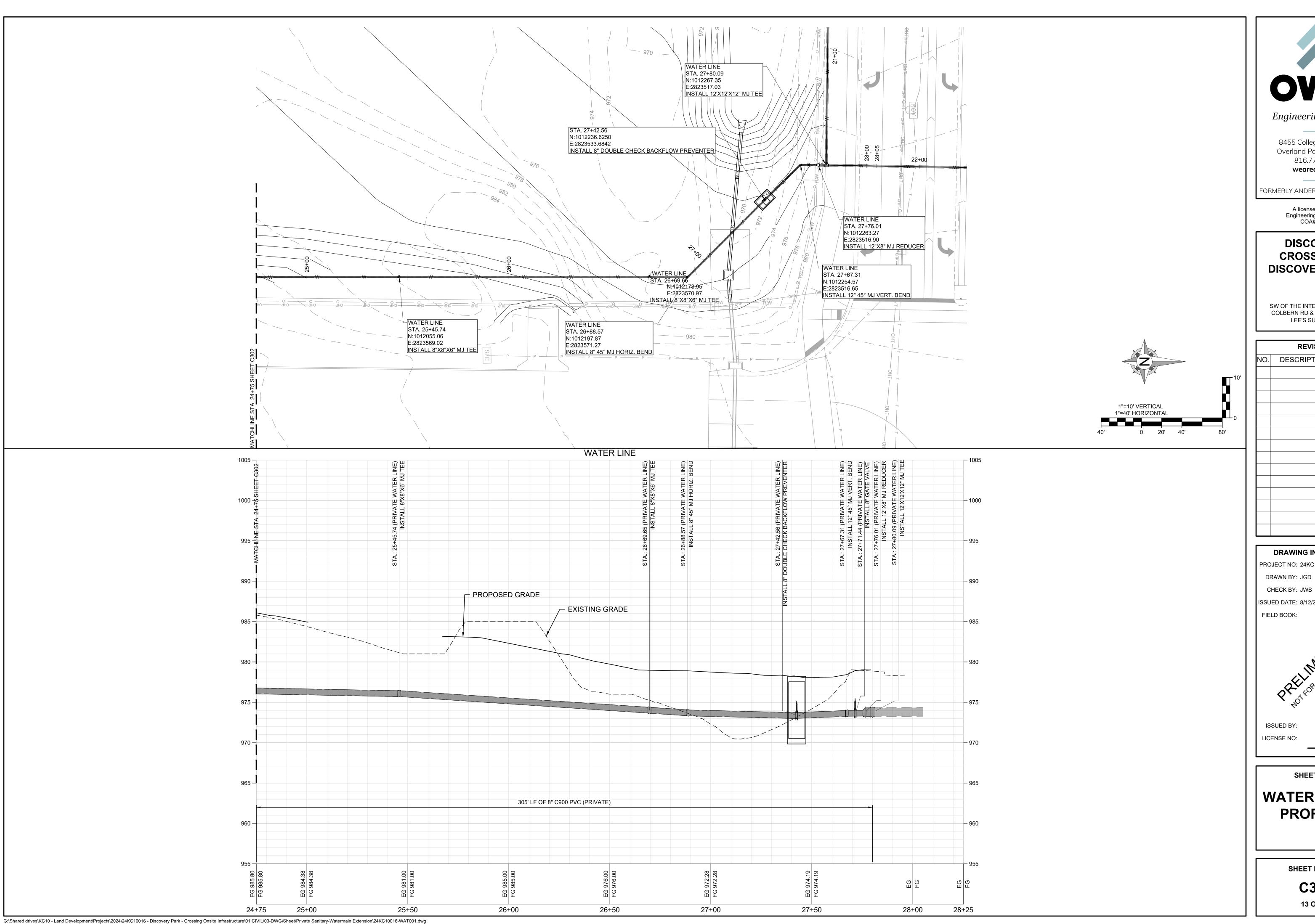
24+00

SHEET TITLE

WATER PLAN & PROFILE 3

SHEET NUMBER

C302





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PROJECT NO: 24KC10016

DRAWN BY: JGD

ISSUED DATE: 8/12/25

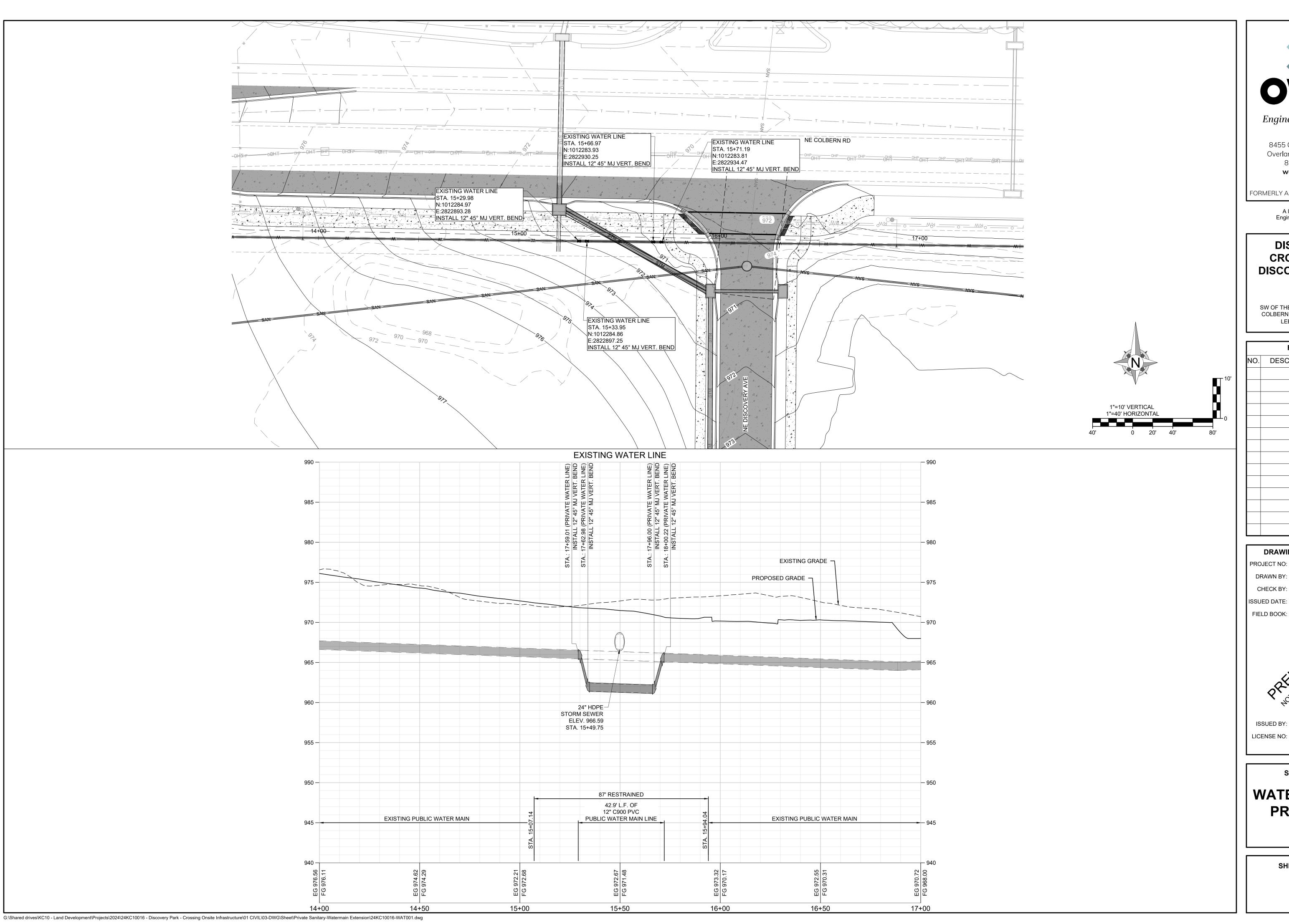
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SHEET TITLE

WATER PLAN & **PROFILE 4**

SHEET NUMBER

C303





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NO.	DESCRIPTION	DATE

DRAWING INFORMATION

PROJECT NO: 24KC10016

DRAWN BY: JGD CHECK BY: JWB

ISSUED DATE: 8/12/25

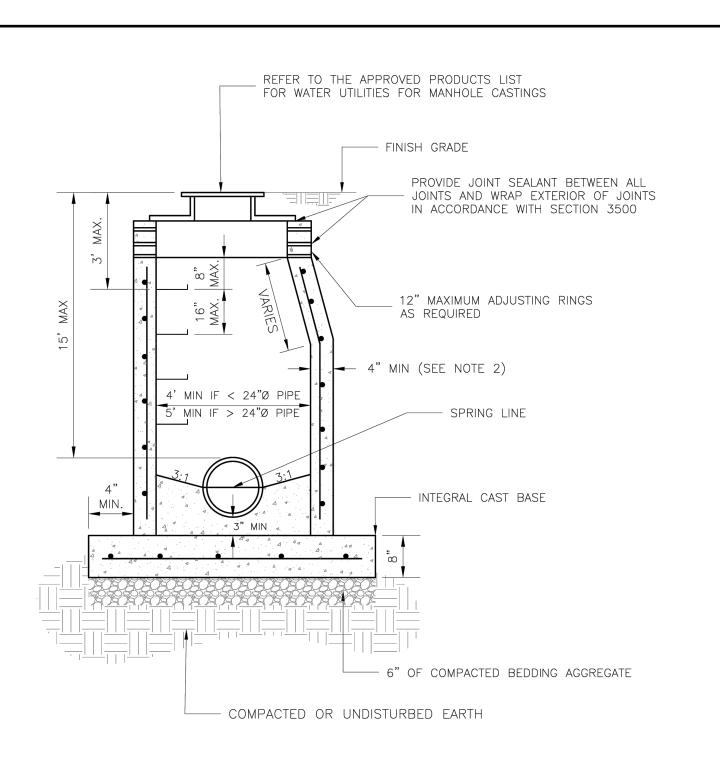
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SHEET TITLE

WATER PLAN & PROFILE 5

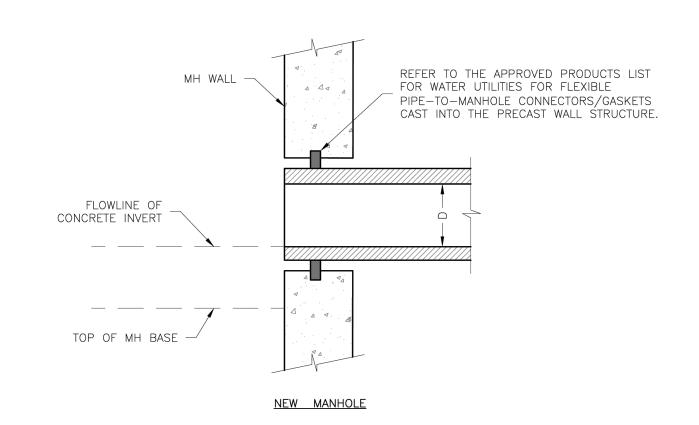
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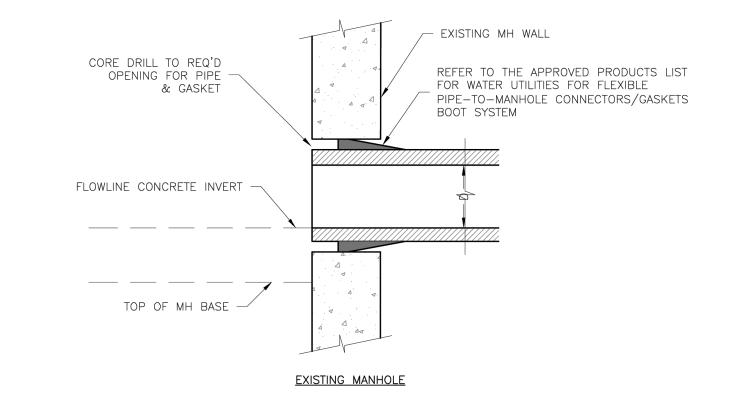
C304



- 1. PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478 EXCEPT AS MODIFIED BY THE SPECIFICATIONS. 2. A WALL THICKNESS NOT LESS THAN ONE-TWELFTH (1/12) OF THE INSIDE DIAMETER OR 4", WHICHEVER IS
- GREATER, SHALL BE USED WHEN THE MANHOLE DEPTH IS LESS THEN 15'. 3. WATERPROOFING SHALL BE REQUIRED ON THE OUTSIDE OF MANHOLES. THE WATERPROOFING SHALL CONSIST OF A TOTAL DRY FILM THICKNESS OF NOT LESS THAN 14 MILS OF BITUMINOUS COATING. 4. ONLY ECCENTRIC MANHOLE CONES WILL BE ALLOWED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
 5. THE FILL CONCRETE FLOW CHANNEL FOR SIDE BRANCHES SHALL BE PLACED TO PROVIDE A SMOOTH TRANSITION
- 6. REFER TO THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR APPROVED MANHOLE GASKET MODELS.
 7. REFER TO THE APPROVED PRODUCTS LIST FOR APPROVED STEPS.

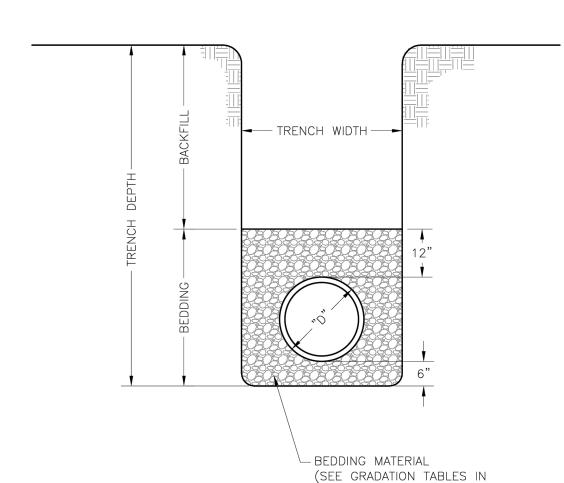
LEE'S SUMMIT	Date: 08/2023	Τ.
LEE 9 90 MINIT	Drawn By: MF	11
MISSOURI	Checked By: AB] [
PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063		11
STANDARD SANITARY PRECAST MANHOLE	SAN-2	
		\top











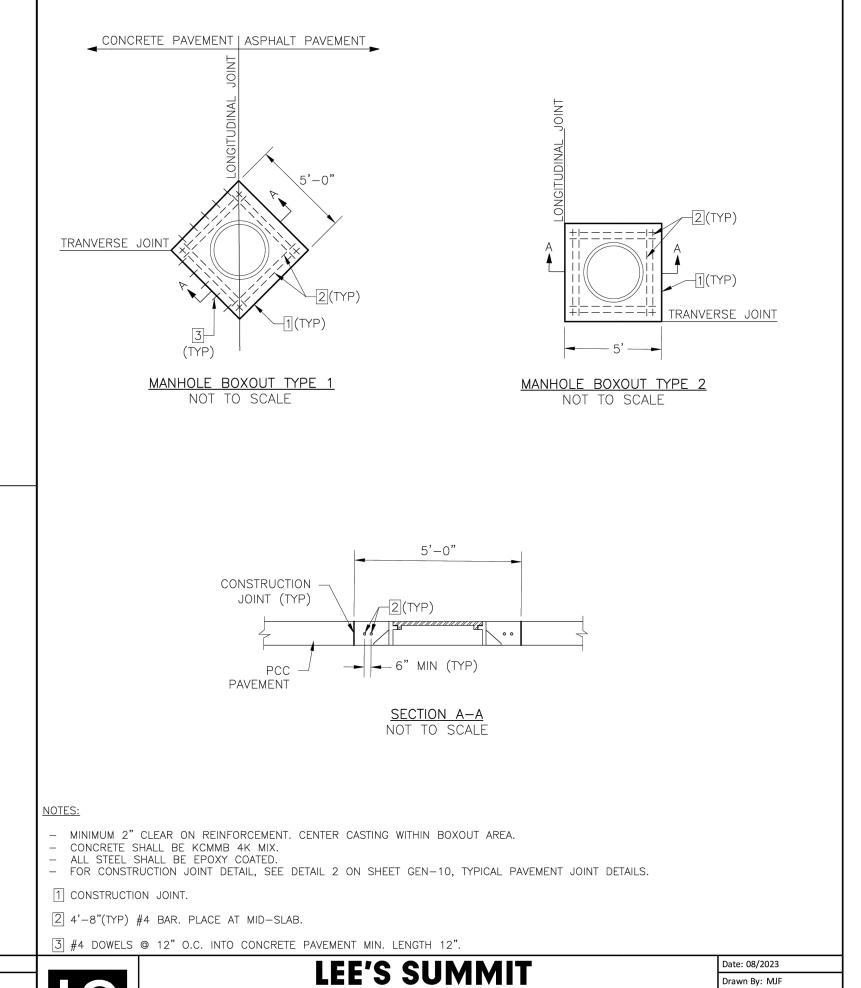
NOTES:

1. FOR TRENCHING AND PAVEMENT PATCHING REPAIRS WITHIN EXISTING OR FUTURE STREETS SEE

LSMO SECTION 2100, PARAGRAPH 2102.4.H)

2. EXCAVATION DEPTH, SLOPES, SHORING, AND STOCKPILE LOCATIONS SHALL COMPLY WITH OSHA





MISSOURI

MANHOLE BOXOUT IN PAVEMENT DETAIL

Drawn By: MJF

Checked By: AB

SAN-9



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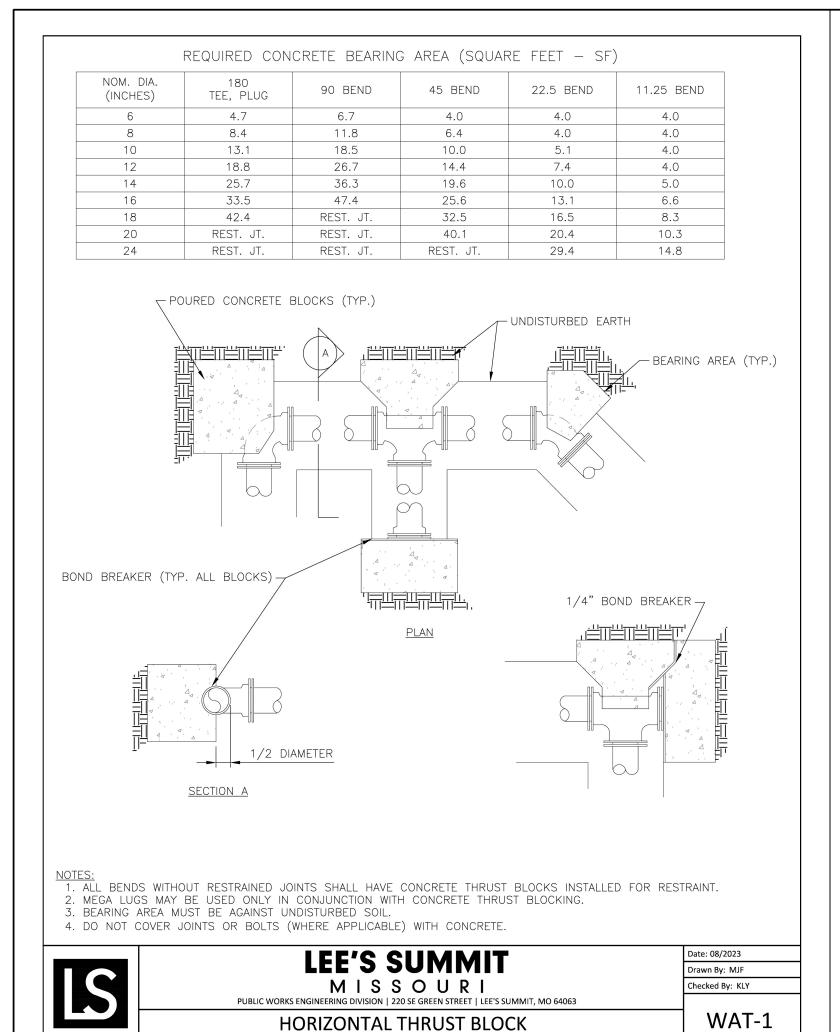
SHEET TITLE

SANITARY **SEWER DETAILS**

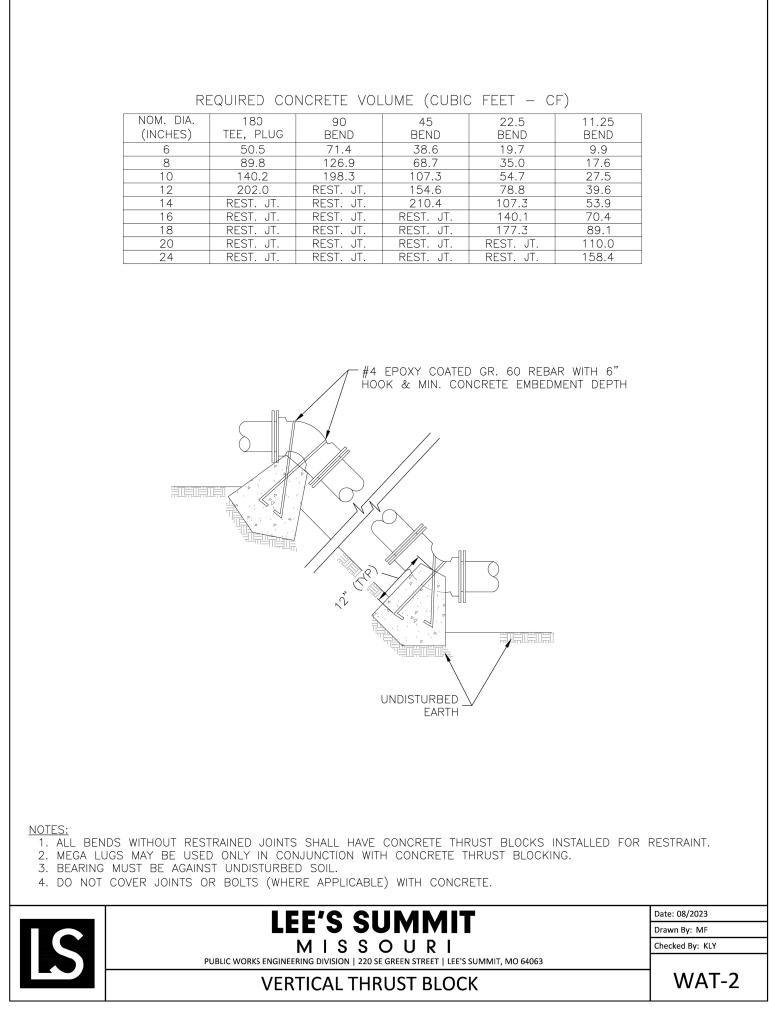
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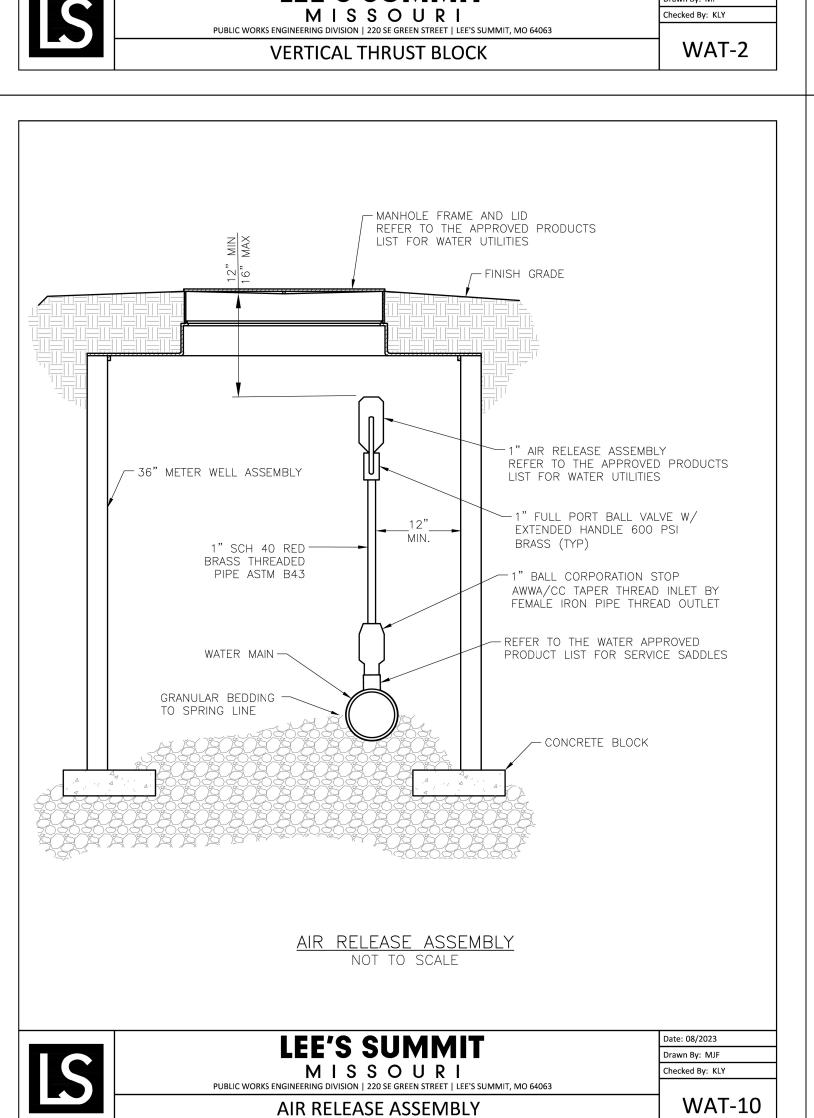
C500

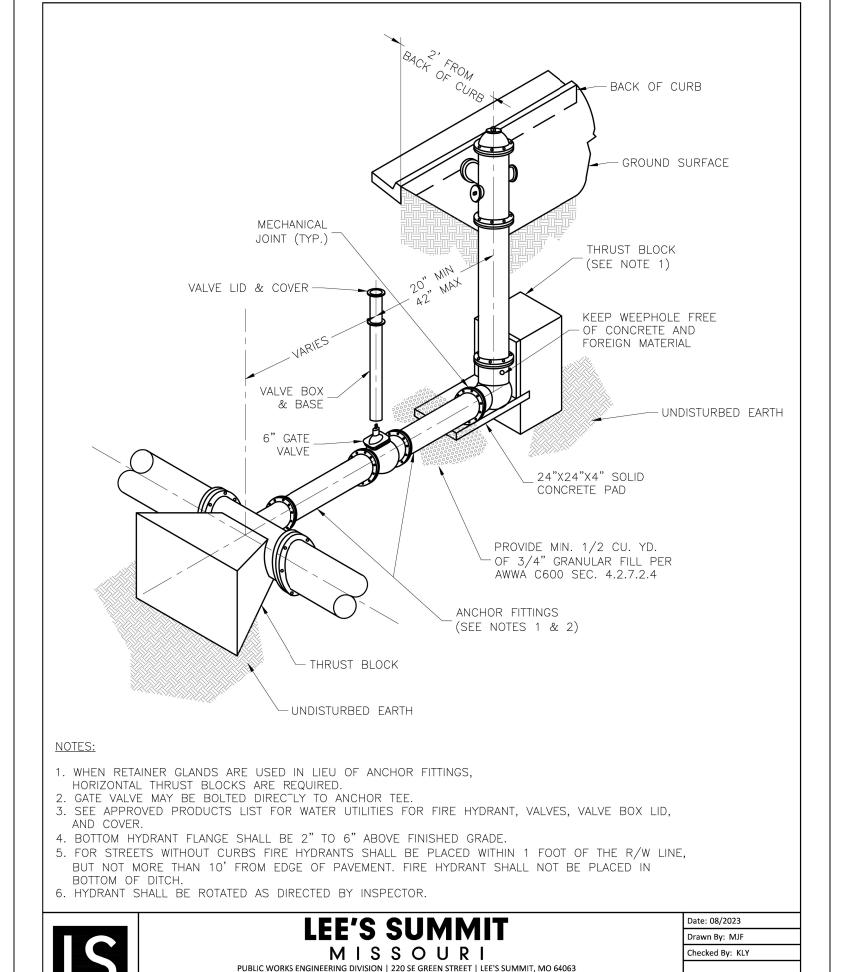
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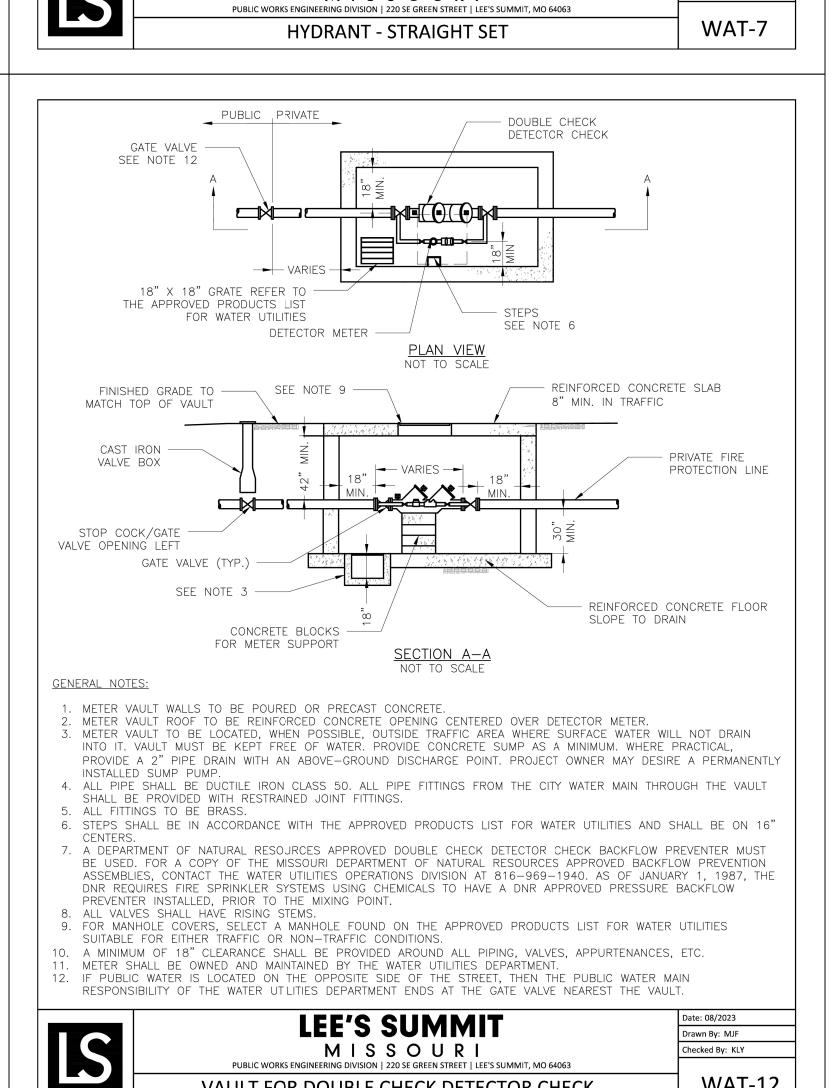


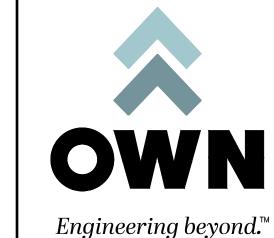
HORIZONTAL THRUST BLOCK











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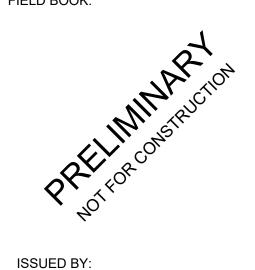
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LICENSE NO:

SHEET TITLE

WATER DETAILS

SHEET NUMBER

16 OF 18

C501

