

GENERAL NOTES

1. 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. CURRENT PLANS PREPARED BY OLSSON MAY BE OBTAINED AT THE DIRECTION OF OLSSON'S CLIENT. DIRECT REQUESTS TO OLSSON MAY REQUIRE ADDITIONAL AUTHORIZATIONS, AGREEMENTS, AND/OR FEES. PLEASE CONTACT THE ENGINEER FOR INFORMATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEVIATIONS FROM THESE PLANS UNLESS WRITTEN APPROVAL FROM ENGINEER, OWNER, AND DEVELOPER.
3. ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
4. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES AND ITEMS OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK SHOWN IN THE PLANS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS, PAYING ALL FEES, AND FOR OTHERWISE COMPLYING WITH ALL APPLICABLE REGULATIONS GOVERNING THE WORK.
7. THE CONTRACTOR SHALL NOT ENGAGE IN ACTIVITIES THAT MAY ENROACH ON WATERS OF THE U.S., INCLUDING WETLANDS, UNTIL ANY NECESSARY PERMITS MAY BE OBTAINED. THE CONTRACTOR SHALL REVIEW AND COMPLY WITH ALL CONDITIONS DESCRIBED IN THE PERMIT.
8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, THE SAFETY OF ALL PERSONS INCLUDING VISITORS AND THE GENERAL PUBLIC, AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY THROUGHOUT THE PROJECT AND NOT BE LIMITED BY WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.
9. 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.
10. 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.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ADJACENT PROPERTIES AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE DURING CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR REPAIRING ANY DAMAGE RESULTING FROM CONSTRUCTION ACTIVITIES.
12. PRIOR TO MOVING OFF THE JOB THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER TO PERFORM A FINAL WALK-THROUGH OF THE CONSTRUCTION SITE.

REFERENCES

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 LEE'S SUMMIT, MISSOURI.
 - B. ALL CONSTRUCTION IN MODOT RIGHT-OF-WAY SHALL CONFORM TO THE LATEST SPECIFICATIONS ADOPTED BY U.S. DEPARTMENT OF TRANSPORTATION AND MODOT.
 - C. ALL TRAFFIC CONTROL SIGNAGE SHALL CONFORM WITH THE CURRENT EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
 - D. ALL UTILITY EXTENSIONS AND CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE UTILITY COMPANIES..
 - E. ALL EXTERIOR PAVEMENT (PCC, ASPHALT, ETC.) SHALL BE IN CONFORMANCE WITH THE SPECIFICATIONS OF LEE'S SUMMIT, MISSOURI AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.
4. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE DELIVERY MANAGER AND COORDINATING ANY MAILBOXES THAT MAY BE DISTURBED. FAILURE TO DO SO MAY SUBJECT THE CONTRACTOR TO PROSECUTION BY THE FEDERAL GOVERNMENT.

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 MAKING THEIR OWN ASSUMPTIONS REGARDING SITE SURFACE AND SUBSURFACE CONDITIONS. THIS INCLUDES 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 LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS WHEN CONFLICTS AND DISCREPANCIES ARE FOUND.

CONSTRUCTION

1. THE CONTRACTOR SHALL INSTALL TRAFFIC CONTROL WHILE WORKING IN THE PUBLIC RIGHT-OF-WAY AS SHOWN IN THESE PLANS. IF PLANS ARE NOT PROVIDED, CONTRACTOR SHALL COORDINATE AND PROVIDE CONTROLS TO THE SATISFACTION OF THE RIGHT-OF-WAY OWNER.
2. THE CONTRACTOR SHALL PROTECT ALL TREES OVER 3" CALIPER FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE ON THESE PLANS.
3. THE CONTRACTOR SHALL DISPOSE ALL WASTE MATERIAL RESULTING FROM THE PROJECT OFF-SITE AND IN STRICT CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES.
4. 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.
5. THE CONTRACTOR SHALL STREET SWEEP OR OTHERWISE CLEAN ALL ACCESS ROUTES TO THE SITE AT CONCLUSION OF THE PROJECT.

SHOP DRAWINGS

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS A MINIMUM OF 7 DAYS PRIOR TO THE REQUESTED DATE OF APPROVAL. ENGINEER SHALL REVIEW SHOP DRAWINGS OR SAMPLES IN CONFORMANCE WITH THE DESIGN FOR THIS PROJECT AS DESCRIBED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERRORS OR 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 OBTAINED ENGINEER'S WRITTEN APPROVAL OF EACH SUCH VARIATION. PRIOR TO SUBMITTING EACH SHOP DRAWING OR SAMPLE, CONTRACTOR SHALL HAVE REVIEWED AND VERIFIED:
 - A. ALL FIELD MEASUREMENTS, QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR INFORMATION WITH RESPECT THERETO;
 - B. ALL MATERIALS WITH RESPECT TO INTENDED USE, FABRICATION, SHIPPING, HANDLING, STORAGE, ASSEMBLY AND INSTALLATION PERTAINING TO THE PERFORMANCE OF THE WORK;
 - C. ALL INFORMATION RELATIVE TO MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENT THERETO;
 - 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:
 - A. ALL STORM SEWER STRUCTURES TO BE INSTALLED WITH THIS PROJECT.
 - B. ANY ITEMS IN THESE PLANS THAT ALLOW FOR AN "APPROVED EQUAL" ALTERNATIVE.

STORM SEWER GENERAL NOTES:

1. STORM STRUCTURES SHALL BE PER CURRENT CITY DETAILS. IF CITY DOES NOT HAVE PUBLISHED DETAILS STRUCTURES SHALL BE PER CURRENT APWA SPECIFICATIONS.
2. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH CITY OF LEE'S SUMMIT, MISSOURI.
3. ALL PIPE LENGTHS AND ELEVATIONS ARE CALCULATED LINEARLY FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
4. ALL STRUCTURE DIMENSIONS ARE TO INSIDE FACE OF STRUCTURE.
5. COORDINATES ARE PROVIDED AT THE CENTER OF STRUCTURE. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING THE BOX DURING INSTALLATION.
6. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF STORM SEWER.
7. STORM 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 PROPOSED PIPE.
8. STRUCTURE 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 STRUCTURE.
9. PIPE PENETRATIONS SHALL BE GROUTED TO ENSURE WATERTIGHT SEALS.
10. MAINTAIN MINIMUM DEPTH OF COVER PER APWA 5606.06

CONTROL POINT TABLE				
POINT NUMBER	NORTHING	EASTING	POINT ELEVATION	DESCRIPTION
11	978424.224	2811650.442	1030.85	3" IB/CAP SET IN THE CENTER MEDIAN OF ROUTE 150. IT IS DUE NORTH OF THE CENTER LINE OF THE DRIVEWAY TO PROPERTY ADDRESS 2025 ROUTE 150. IT IS 12.15 FT WEST OF A LIGHT POLE, 8.5 FT SOUTH OF THE BACK OF CURB, AND 8.1 FT NORTH OF THE BACK OF CURB.
12	978340.573	2812332.280	1036.11	3" IB/CAP SET ON THE EAST SIDE OF SW PRYOR RD AT THE SOUTHEAST CORNER OF THE INTERSECTION OF ROUTE 150 AND SW PRYOR RD. IT IS 2.15 FT EAST OF THE BACK OF CURB, 19 FT WEST OF THE TRAFFIC SIGNAL POLE, AND 9.6 FT WEST OF A VAULT.
13	977064.448	2812265.992	1012.10	3" IB/CAP SET ON THE NORTHEAST CORNER OF THE INTERSECTION OF SW PRYOR RD AND SW NAPA VALLEY DR. IT IS 6 FT EAST OF THE BACK OF CURB, 10.2 FT NORTH OF THE CORNER OF THE SIDEWALK, AND 7.25 FT WEST OF ROCK LANDSCAPE BORDER.
14	977092.478	2810924.856	1040.93	3" IB/CAP SET IN THE NORTHWEST CORNER OF THE SOUTH ADJOINING PROPERTY. IT IS 7.5 FT EAST OF THE FENCE LINE, AND 45 FT SOUTH OF OF THE TREE LINE.
18	978446.811	2810956.695	1050.47	3" IB/CAP SET IN THE CENTER MEDIAN OF ROUTE 150. THE POINT IS DIRECTLY SOUTH OF A WHITE MAILBOX ON AN ORANGE POST FOR HOUSE ADDRESS 2144 ROUTE 150. IT IS 6.6 FT SOUTH OF THE BACK OF CURB, 5.8 FT NORTH OF THE BACK OF CURB, AND 31 FT EAST OF A LIGHT POLE.
BENCHMARK				
BMK1	977045.350	2812211.924	1014.83	CHISELED PLUS ON THE EAST FLANGED BOLT OF THE FIRE HYDRANT ON THE WEST SIDE OF SW PRYOR ROAD ON ADJOINING PROPERTY SOUTH OF THE SOUTHWEST CORNER OF SUBJECT PROPERTY.
BMK2	978357.416	2811627.737	1031.31	RAILROAD SPIKE IN THE NORTH FACE OF POWER POLE LOCATED ON THE SOUTH SIDE MISSOURI STATE HIGHWAY 150 AT THE WEST SIDE OF THE DRIVEWAY TO 2025 MISSOURI STATE HIGHWAY 150, LEE'S SUMMIT, MO.

ESTIMATE OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	AS-BUILT
STREET				
1	6" ASPHALT PAVEMENT	S.Y.	10747	
2	SUBGRADE STABILIZATION (6" FLYASH TREATMENT)	S.Y.	13095	
3	CONCRETE CURB & GUTTER (CG-2)	L.F.	6840	
4	CONCRETE CURB & GUTTER (CG-2 DRY)	L.F.	232	
5	5' CONCRETE SIDEWALK	L.F.	161	
6	ADA RAMP	EA.	20	
7	STOP SIGNS	EA.	9	
8	STREET NAME SIGNS	EA.	14	
9	TYPE IV OBJECT MARKERS	EA.	16	
STORM				
10	STD. CURB INLET (5'x3' INSIDE)	EA.	29	29
11	STD. CURB INLET (5'x4' INSIDE)	EA.	4	4
12	STD. CURB INLET (5'x5' INSIDE)	EA.	1	1
13	STD. CURB INLET (7'x3' INSIDE)	EA.	1	1
14	STD. FIELD INLET (4'x4' INSIDE)	EA.	6	6
15	STD. FIELD INLET (5'x5' INSIDE)	EA.	1	1
16	STD. FIELD INLET (6'x6' INSIDE)	EA.	1	1
17	STD. MANHOLE (4' DIA. INSIDE)	EA.	1	1
18	STD. MANHOLE (5' DIA. INSIDE)	EA.	5	5
19	DETENTION BASIN OUTLET STRUCTURE (6'x6' INSIDE)	EA.	1	1
20	6" UNDERDRAIN PIPE	L.F.	171.50	172.51
21	15" HDPE	L.F.	1539.36	1506.81
22	18" HDPE	L.F.	360.09	360.98
23	24" HDPE	L.F.	1277.68	1283.96
24	24" RCP	L.F.	34.00	34.39
25	30" HDPE	L.F.	598.48	597.49
26	36" HDPE	L.F.	240.35	241.88
27	42" HDPE	L.F.	281.17	281.46
28	48" HDPE	L.F.	9.46	9.75
29	48" RCP	L.F.	56.36	56.91
30	30" HDPE END SECTION	EA.	2	2
31	42" HDPE END SECTION	EA.	1	1
32	48" RCP END SECTION	EA.	1	1
33	15" HDPE PLUG	EA.	4	4
34	24" HDPE PLUG	EA.	1	1
35	RIPRAP	S.Y.	127.45	127.45*
36	SWALE TURF REINFORCEMENT MAT	S.Y.	343	343*
37	CONNECTION TO EXISTING	EA.	1	1

AS PROVIDED BY CONTRACTOR*

AS-BUILT

4/14/2021

DWG: F:\2019\2001-2500\019-2339-A\0-Design\AutoCAD\Final Plans - Asbuilts\Sheets\CONCV\STREET & STORM\C_TTL01_A192339.dwg
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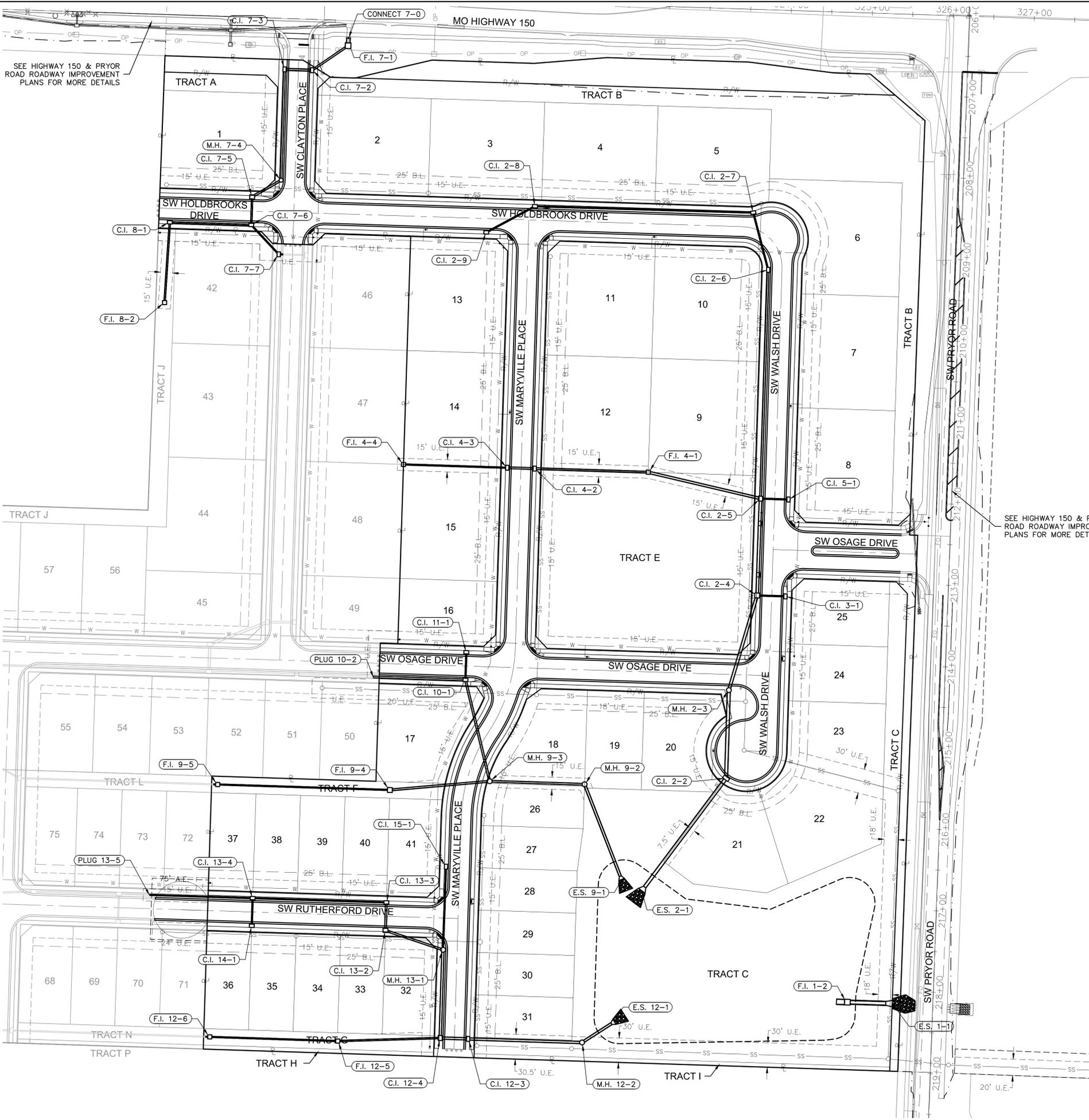


REV. NO.	DATE	REVISIONS DESCRIPTION
1	6/15/2020	ESTIMATE OF QUANTITIES UPDATED
2	7/24/2020	ESTIMATE OF QUANTITIES UPDATED

GENERAL NOTES
 STREET & STORM SEWER PLANS
 OSAGE
 FIRST PLAT
 LEE'S SUMMIT, MISSOURI
 2020

drawn by: AA
 checked by: SS
 designed by: AA
 QA/QC by: JES
 project no.: A19-2339
 drawing no.: C_TTL01_A192339
 date: 3/17/2020

DWG: F:\2019\2001-2500\019-2339-A\10-Design\AutoCAD\Find Plans - Abutil's\Sheets\CNCV\STREET & STORM\C_GEN01_A192339.dwg USER: bworthley
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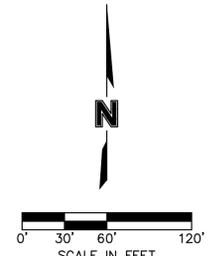


STRUCTURES		
STRUCTURE ID	NORTHING	EASTING
C.I. 2-2	977467.8986	2811988.0157
C.I. 2-4	977692.4187	2812026.3213
C.I. 2-5	977811.3432	2812030.5897
C.I. 2-6	978092.1864	2812039.9885
C.I. 2-7	978162.5469	2812021.6235
C.I. 2-8	978170.3359	2811752.3191
C.I. 2-9	978138.2214	2811692.2720
C.I. 3-1	977691.3103	2812061.3037
C.I. 4-2	977848.1807	2811752.1166
C.I. 4-3	977849.2574	2811718.1337
C.I. 5-1	977810.2506	2812065.0724
C.I. 7-2	978337.3681	2811477.4711
C.I. 7-3	978338.4239	2811443.4875
C.I. 7-5	978181.8882	2811403.5100
C.I. 7-6	978147.4055	2811402.4174
C.I. 7-7	978111.3146	2811436.2915
C.I. 8-1	978150.5883	2811301.9679
C.I. 10-1	977588.7590	2811666.5942
C.I. 11-1	977622.7420	2811667.6676
C.I. 12-3	977147.9332	2811669.8990
C.I. 12-4	977149.0136	2811635.4159
C.I. 13-2	977281.0969	2811567.9474
C.I. 13-3	977315.5796	2811569.0400
C.I. 13-4	977320.8051	2811404.1227
C.I. 14-1	977286.8221	2811403.0460

STRUCTURES		
STRUCTURE ID	NORTHING	EASTING
C.I. 15-1	977359.4044	2811642.5825
CONNECT 7-0	978376.9050	2811522.3190
E.S. 1-1	977191.3061	2812193.0089
E.S. 2-1	977329.8018	2811884.1121
E.S. 9-1	977343.7014	2811859.1483
E.S. 12-1	977168.9630	2811850.2767
F.I. 1-2	977193.0635	2812137.6738
F.I. 4-1	977843.7470	2811892.0464
F.I. 4-4	977853.3111	2811590.1979
F.I. 7-1	978367.4601	2811521.8275
F.I. 8-2	978052.0411	2811295.4838
F.I. 9-4	977453.5763	2811573.4124
F.I. 9-5	977460.3060	2811361.0190
F.I. 12-5	977145.2863	2811509.1437
F.I. 12-6	977150.3910	2811351.1993
M.H. 2-3	977576.1928	2811991.4471
M.H. 7-4	978202.2690	2811439.1734
M.H. 9-2	977460.5422	2811813.5020
M.H. 9-3	977464.2507	2811696.4606
M.H. 12-2	977143.4837	2811810.3285
M.H. 13-1	977257.3396	2811638.8487
PLUG 10-2	977592.3647	2811552.7975
PLUG 13-5	977324.8415	2811276.7301

SEE HIGHWAY 150 & PRYOR ROAD ROADWAY IMPROVEMENT PLANS FOR MORE DETAILS

NOT AS-BUILT



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REVISIONS

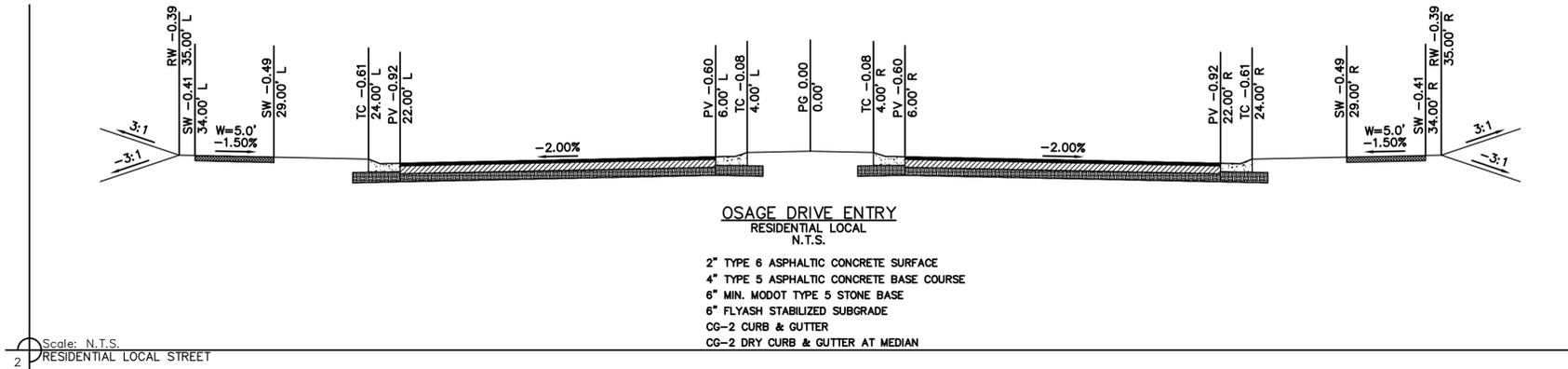
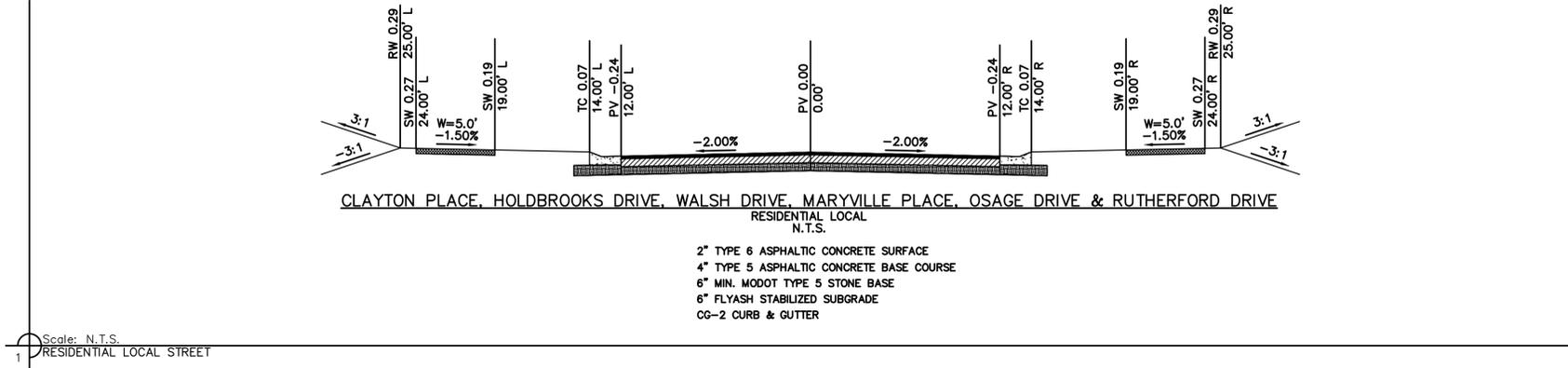
REV. NO.	DATE	REVISIONS DESCRIPTION
1	6/19/2020	EAST-WEST WALSH STREET NAME CHANGED, 24', 28', 7' & 13' MOVED WALSH CUL-DE-SAC REVISED, MARYVILLE DEAD END SHORTENED RUTHERFORD TEMPORARY CUL-DE-SAC ADDED

GENERAL LAYOUT
 STREET & STORM SEWER PLANS
 OSAGE
 FIRST PLAT

drawn by: AA
 checked by: SS
 designed by: AA
 QA/QC by: JES
 project no.: A19-2339
 drawing no.: C_GEN01_A192339
 date: 3/17/2020

2020

SHEET
 C103



CLAYTON PLACE, HOLDBROOKS DRIVE, WALSH DRIVE, MARYVILLE PLACE, OSAGE DRIVE & RUTHERFORD DRIVE
 RESIDENTIAL LOCAL
 N.T.S.
 2" TYPE 6 ASPHALTIC CONCRETE SURFACE
 4" TYPE 5 ASPHALTIC CONCRETE BASE COURSE
 6" MIN. MODOT TYPE 5 STONE BASE
 6" FLYASH STABILIZED SUBGRADE
 CG-2 CURB & GUTTER

OSAGE DRIVE ENTRY
 RESIDENTIAL LOCAL
 N.T.S.
 2" TYPE 6 ASPHALTIC CONCRETE SURFACE
 4" TYPE 5 ASPHALTIC CONCRETE BASE COURSE
 6" MIN. MODOT TYPE 5 STONE BASE
 6" FLYASH STABILIZED SUBGRADE
 CG-2 CURB & GUTTER
 CG-2 DRY CURB & GUTTER AT MEDIAN



REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	6/15/2020	STREET NAME CHANGED	

TYPICAL SECTIONS STREET & STORM SEWER PLANS	2020
OSAGE FIRST PLAT	
LEE'S SUMMIT, MISSOURI	

drawn by: AA
 checked by: SS
 designed by: AA
 QA/QC by: JES
 project no.: A19-2339
 drawing no.: C_TYP01_A192339
 date: 3/17/2020

NOT AS-BUILT

GENERAL NOTES:

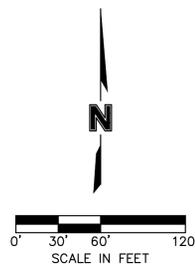
1. CONTRACTOR SHALL ADHERE TO THE "DESIGN AND CONSTRUCTION MANUAL" SECTION 2100 AS ADOPTED BY THE CITY OF LEE'S SUMMIT (LATEST EDITION), FOR EXCAVATION AND EMBANKMENT WORK WITHIN THE PROPOSED RIGHT-OF-WAY.
2. AREAS OF CONSTRUCTION SHALL BE STRIPPED OF ALL VEGETATION, ORGANIC MATTER AND TOPSOIL TO A DEPTH AS RECOMMENDED BY GEOTECHNICAL ENGINEER AND OR TESTING AGENCY. SOILS REMOVED DURING SITE STRIPPING SHOULD BE EVALUATED TO DETERMINE IF PORTIONS OF THE TOPSOIL STRATUM MAY BE UTILIZED AS STRUCTURAL FILL WITHIN PAVEMENT AREAS. ANY MATERIAL NOT DEEMED AS SUITABLE FILL MATERIAL BY THE GEOTECHNICAL ENGINEER AND OR TESTING AGENCY SHALL BE REMOVED FROM THE JOB SITE BY THE CONTRACTOR AT HIS EXPENSE.
3. ALL EMBANKMENT OUTSIDE OF RIGHT-OF-WAY SHOULD BE PLACED IN CONTROLLED LIFTS HAVING A MAXIMUM LOOSE LIFT THICKNESS OF 8". EMBANKMENT SHOULD BE COMPACTED TO A MINIMUM OF 95% OF THE MATERIALS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-698 (STANDARD PROCTOR COMPACTION). MOISTURE CONTENT OF THE FILL AT THE TIME OF COMPACTION SHALL BE WITHIN A RANGE OF -0 TO +4 PERCENT OF OPTIMUM MOISTURE CONTENT.

NOT AS-BUILT

REFER TO MASTER DRAINAGE PLAN FOR UPDATED GRADING

Ownership
Sherrard Lawrence III & Mary
Parcel 69-800-01-01-00-00-000
14501 Missouri State 150 Hwy,
Lee's Summit, MO. 64082

Ownership
Salerno Construction & Co., Inc.
Parcel 69-800-01-20-00-00-000

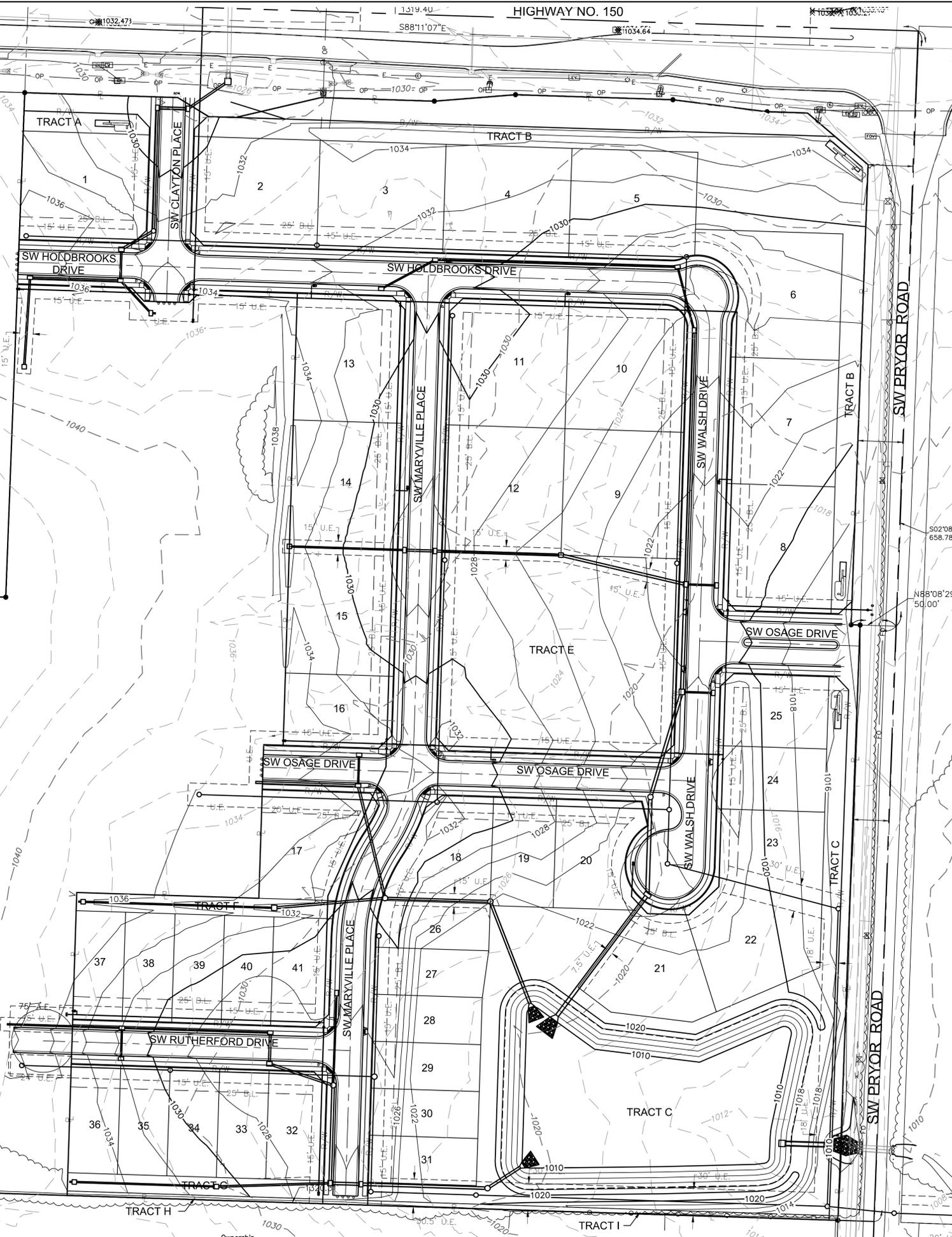


LEGEND	
- - -	EXISTING INDEX CONTOURS
- - -	EXISTING INTERMEDIATE CONTOURS
- - -	PROPOSED INDEX CONTOURS
- - -	PROPOSED INTERMEDIATE CONTOURS

EARTHWORK QUANTITIES		
LOCATION	CUT (C.Y.)	FILL (C.Y.)
STREET	5,625	9,615
SITE	27,711	33,974
TOTAL	33,336	43,589

EARTHWORK QUANTITIES NOTES:

1. EARTHWORK QUANTITIES BASED ON FINISHED GRADE SURFACE AND DO NOT INCLUDE ADJUSTMENTS FOR TOPSOIL AND SHRINKAGE.
2. EARTHWORK QUANTITIES DO NOT TAKE INTO CONSIDERATION EXCAVATION, REMOVAL AND DISPOSAL OF MATERIAL DEEMED UNSUITABLE BY A GEOTECHNICAL ENGINEER. THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR EXCAVATION, REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL AND FOR REPLACING IT WITH SUITABLE MATERIAL.



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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	6/15/2020	GRADING REVISED	

GRADING PLAN (FOR REFERENCE ONLY)
STREET & STORM SEWER PLANS

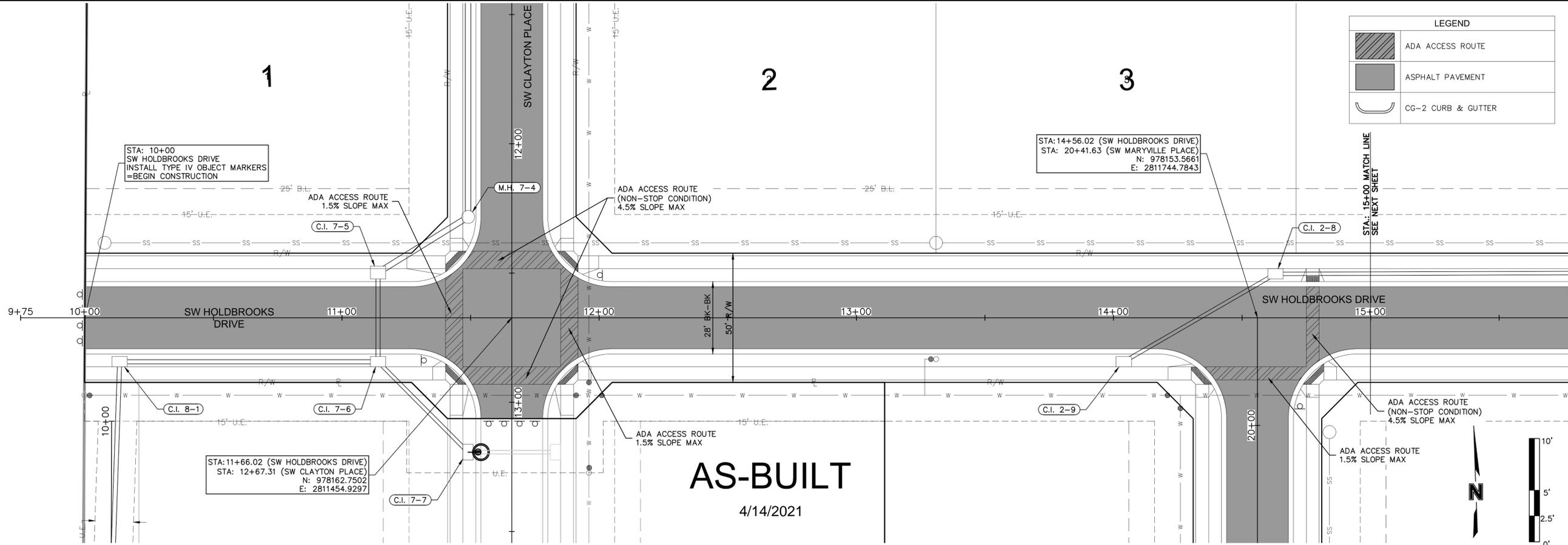
OSAGE
FIRST PLAN

2020

drawn by: AA
checked by: SS
designed by: AA
QA/QC by: JES
project no.: A19-2339
drawing no.: C_GRD01_A192339
date: 3/17/2020

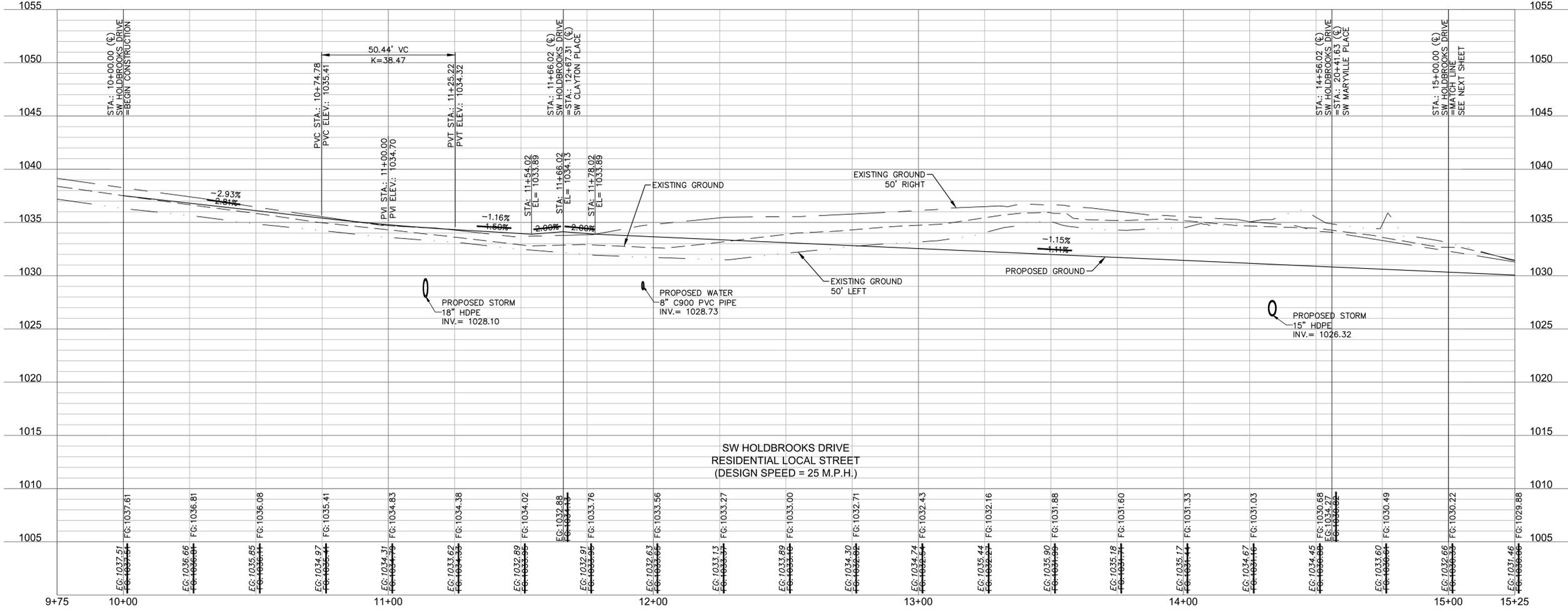
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AS-BUILT
4/14/2021

LEGEND	
	ADA ACCESS ROUTE
	ASPHALT PAVEMENT
	CG-2 CURB & GUTTER



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STATE OF MISSOURI
 BROCK M. WORTHLEY
 LICENSE NUMBER
 PE-201900237
 4/14/2021
 PROFESSIONAL ENGINEER

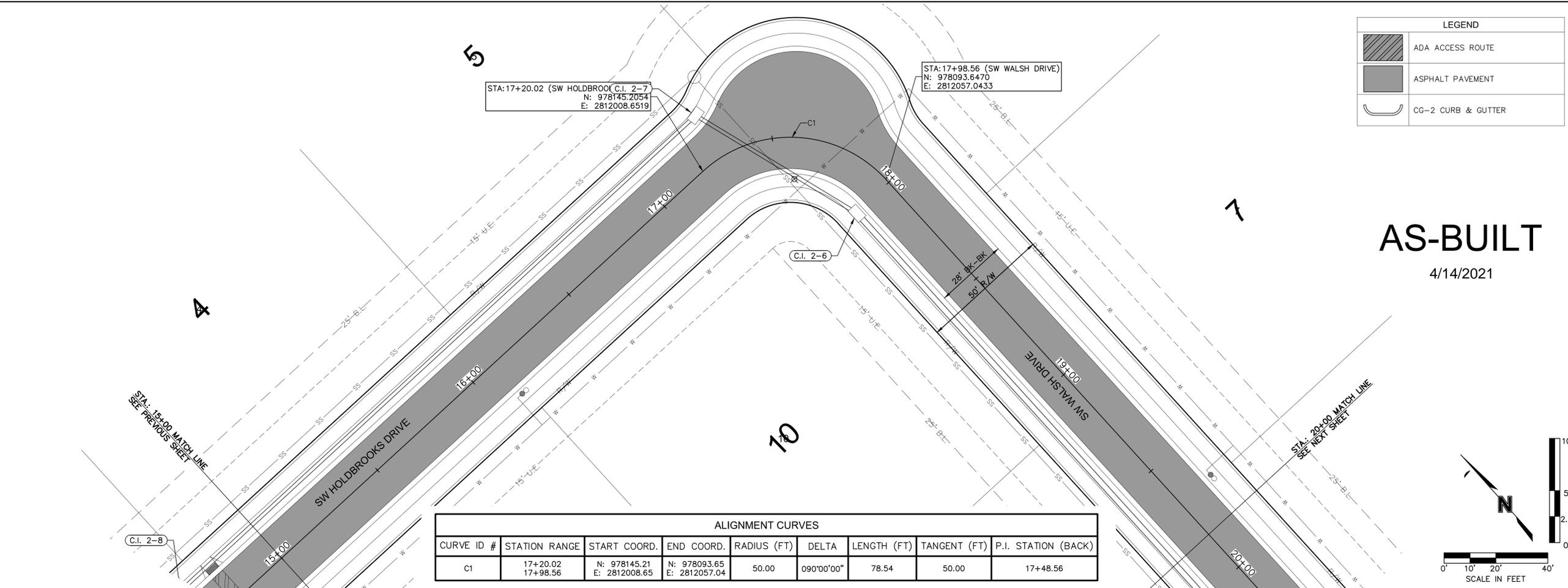
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1	6/15/2020	STREET NAME CHANGED

ROADWAY PLAN & PROFILE (SW HOLDBROOKS DRIVE)
 STREET & STORM SEWER PLANS
 OSAGE
 FIRST PLAT
 LEE'S SUMMIT, MISSOURI
 2020

drawn by: AA
 checked by: SS
 designed by: AA
 QA/QC by: JEB
 project no.: A19-2339
 drawing no.: C_RPP01_A192339
 date: 3/17/2020

SHEET
C109

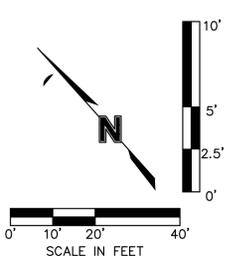
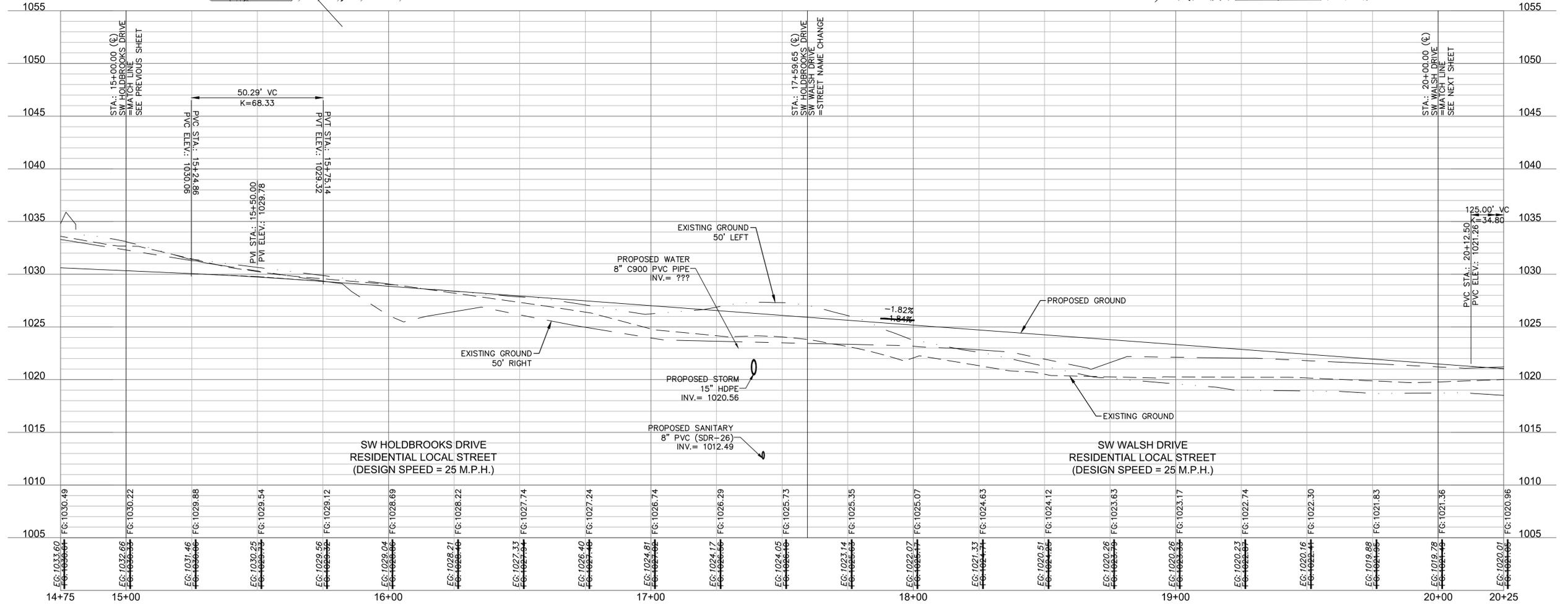
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LEGEND	
	ADA ACCESS ROUTE
	ASPHALT PAVEMENT
	CG-2 CURB & GUTTER

AS-BUILT
4/14/2021

ALIGNMENT CURVES								
CURVE ID #	STATION RANGE	START COORD.	END COORD.	RADIUS (FT)	DELTA	LENGTH (FT)	TANGENT (FT)	P.I. STATION (BACK)
C1	17+20.02 17+98.56	N: 978145.21 E: 2812008.65	N: 978093.65 E: 2812057.04	50.00	090°00'00"	78.54	50.00	17+48.56



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REV. NO.	DATE	REVISIONS DESCRIPTION
1	6/15/2020	STREET NAME CHANGED AND CURB SCHEDULED

BY

REVISIONS

ROADWAY PLAN & PROFILE (SW HOLDBROOKS DRIVE & SW WALSH DRIVE)
STREET & STORM SEWER PLANS

OSAGE
FIRST PLAT

LEE'S SUMMIT, MISSOURI

2020

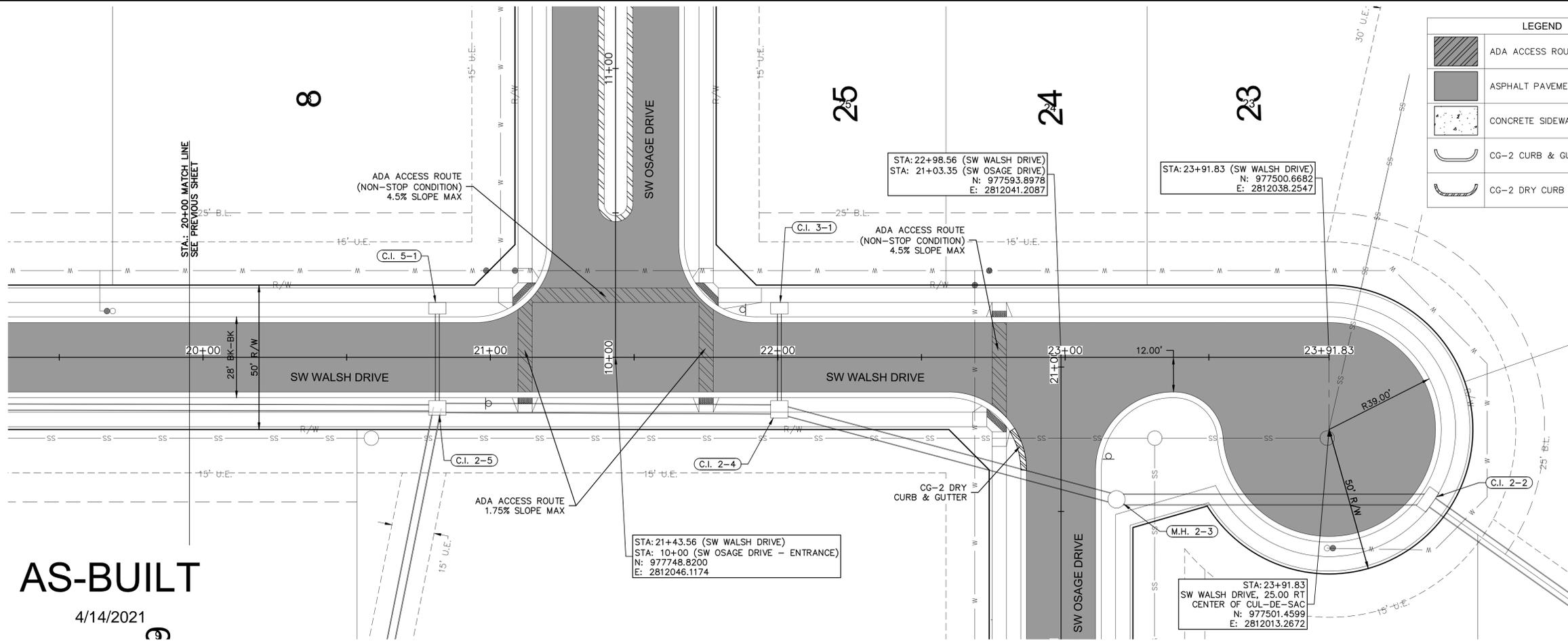
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checked by: SS
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project no.: A19-2339
drawing no.: C_RPP01_A192339
date: 3/17/2020

SHEET
C110

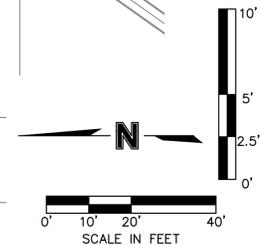
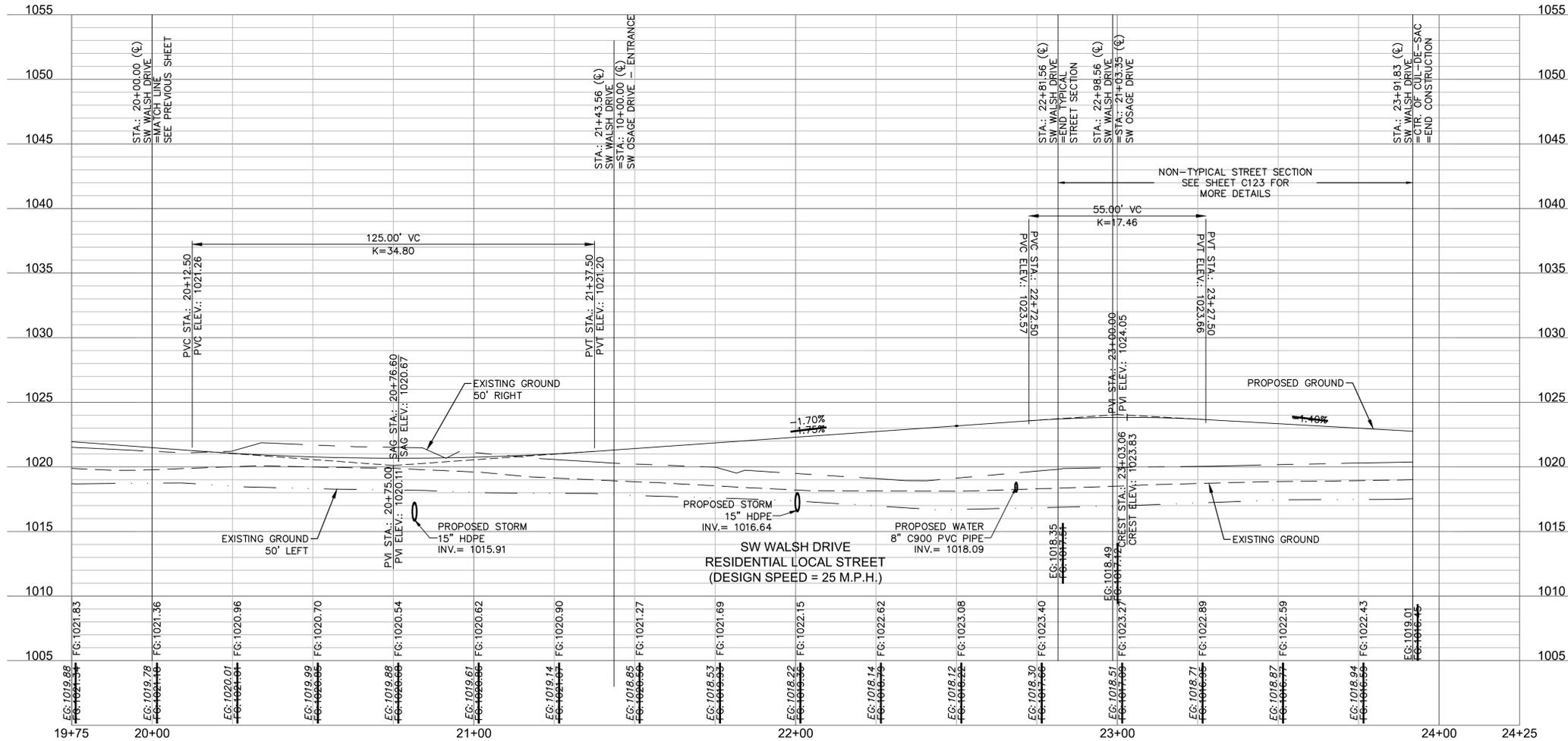
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AS-BUILT

4/14/2021



LEGEND	
	ADA ACCESS ROUTE
	ASPHALT PAVEMENT
	CONCRETE SIDEWALK
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER



REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	6/15/2020	CUL-DE-SAC LAYOUT REVISED AND CG-2 DRY CURB & GUTTER ADDED	

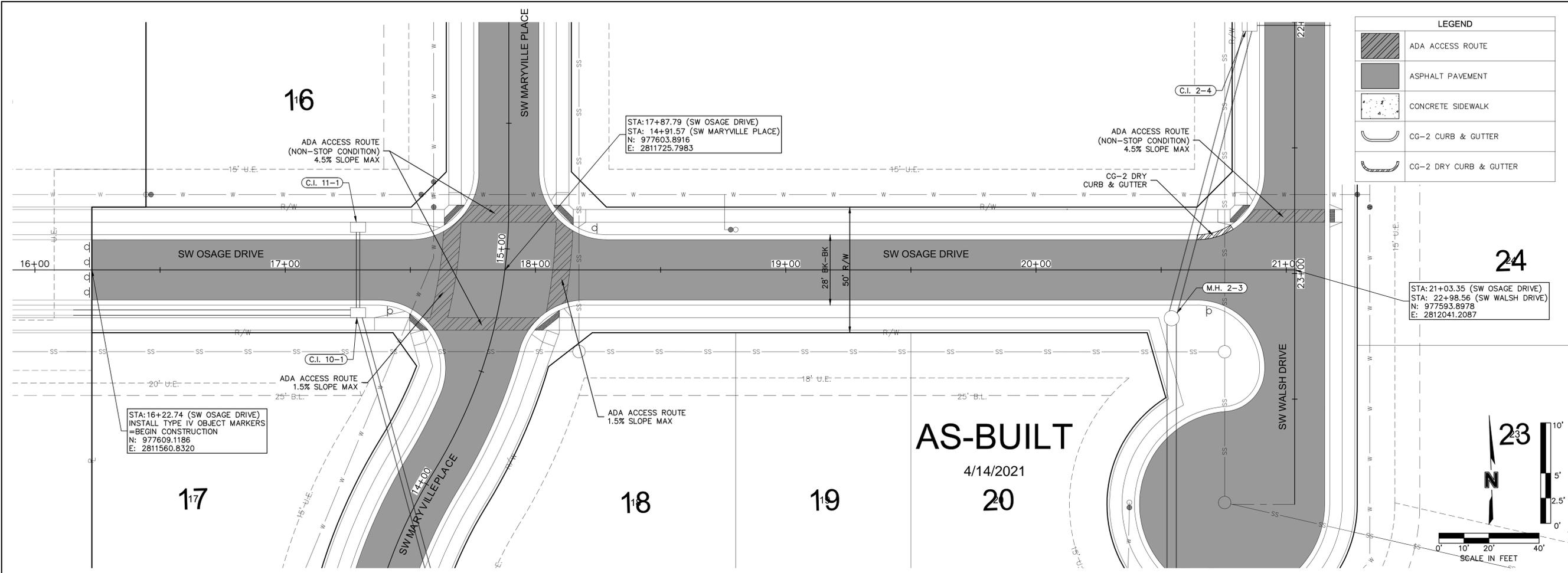
ROADWAY PLAN & PROFILE (SW WALSH DRIVE)
 STREET & STORM SEWER PLANS
 OSAGE
 FIRST PLAT
 LEE'S SUMMIT, MISSOURI
 2020

drawn by: AA
 checked by: SS
 designed by: AA
 QA/QC by: JES
 project no.: C_RPP01_A192339
 drawing no.: 3/17/2020

SHEET
 C111

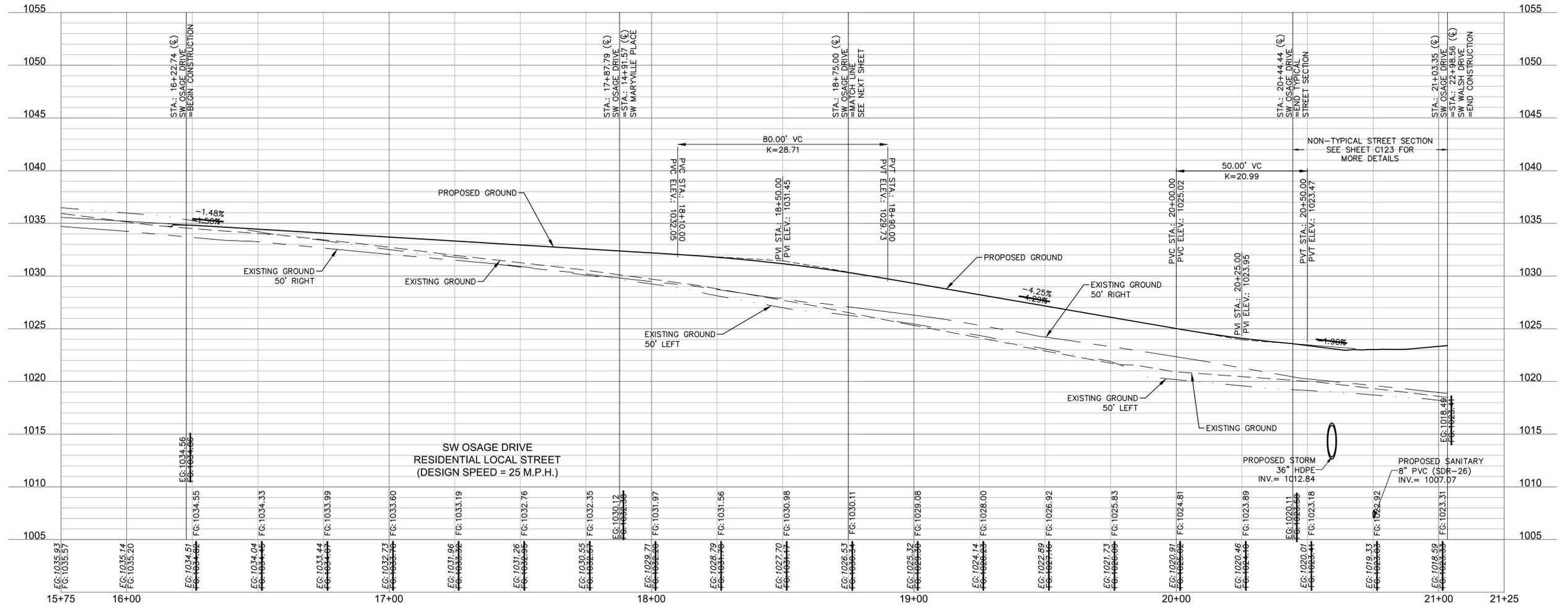
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DWG: F:\2019\2001-2500\019-2339-A10-Design\AutoCAD\Find Plans - Asbuilts\Sheets\CNCV\STREET & STORM\C_RPP02_A192339.dwg
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 USER: bworthley
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LEGEND	
	ADA ACCESS ROUTE
	ASPHALT PAVEMENT
	CONCRETE SIDEWALK
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER

AS-BUILT
 4/14/2021
 20



ROADWAY PLAN & PROFILE (SW OSAGE DRIVE)
 STREET & STORM SEWER PLANS

OSAGE
FIRST PLAN

LEE'S SUMMIT, MISSOURI

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION
1	6/19/2020	CG-2 DRY CURB & GUTTER ADDED

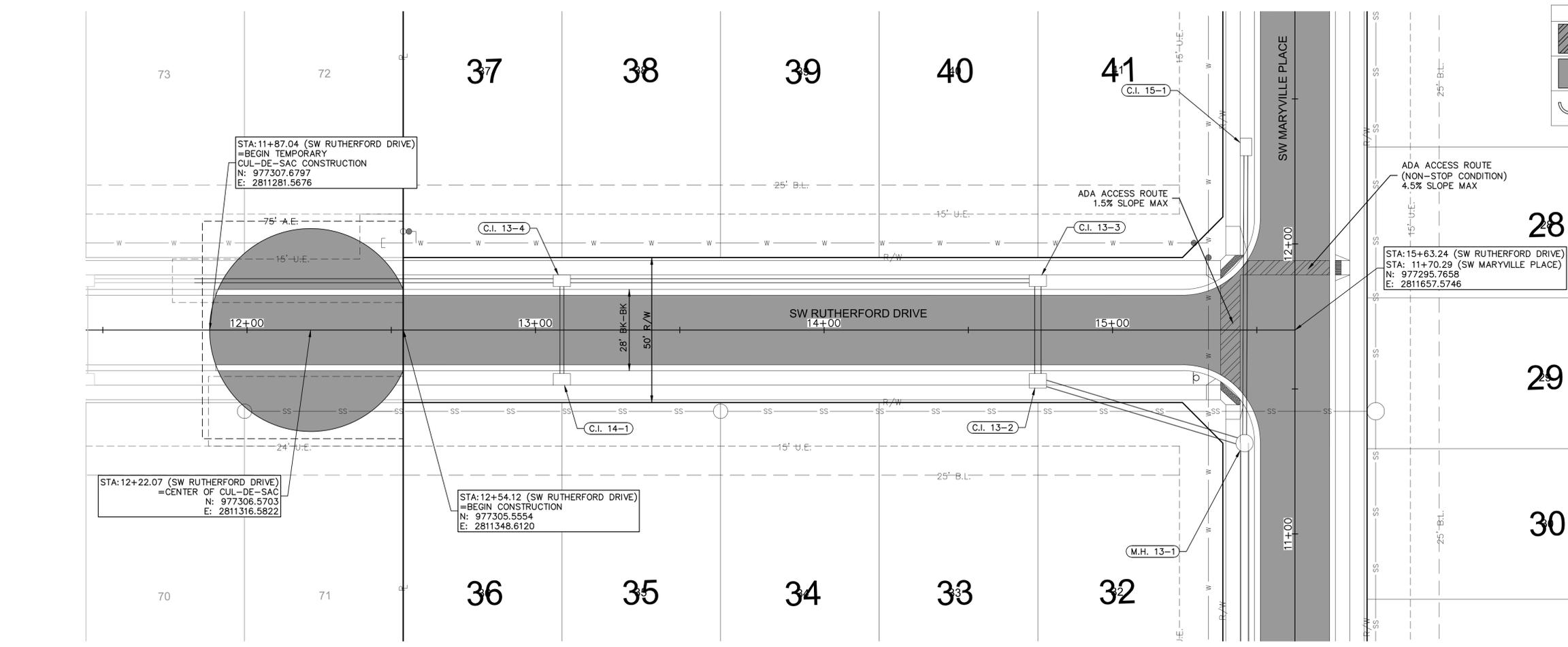
2020

drawn by: AA
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 designed by: AA
 QA/QC by: JEB
 project no.: A19-2339
 drawing no.: C_RPP02_A192339
 date: 3/17/2020

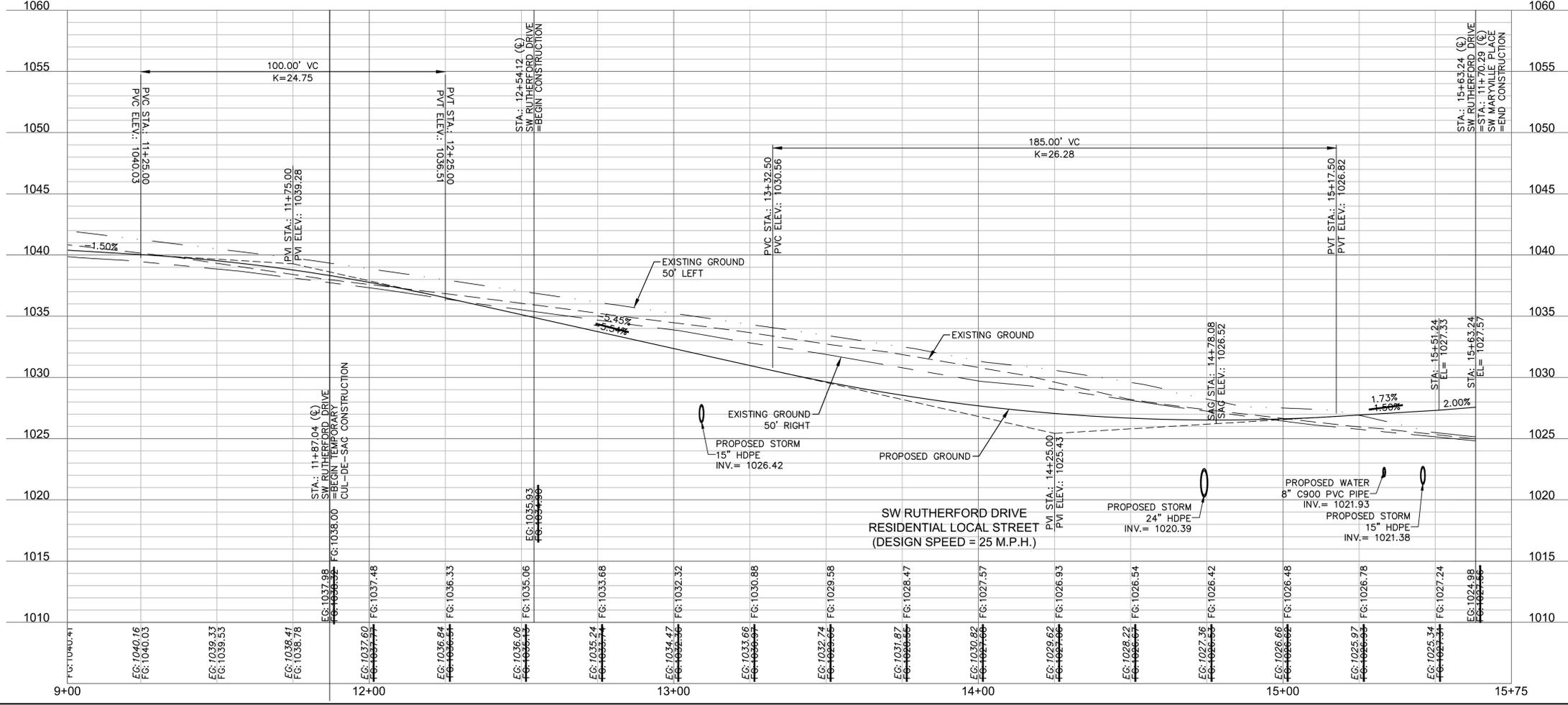
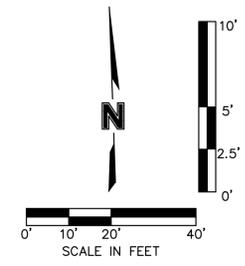
SHEET
C112

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DWG: F:\2019\2001-2500\019-2339-A\10-Design\AutoCAD\Find Plans - Asbuilts\Sheets\CNC\A\STREET & STORM\C_RPFD2_A192339.dwg USER: bworthley
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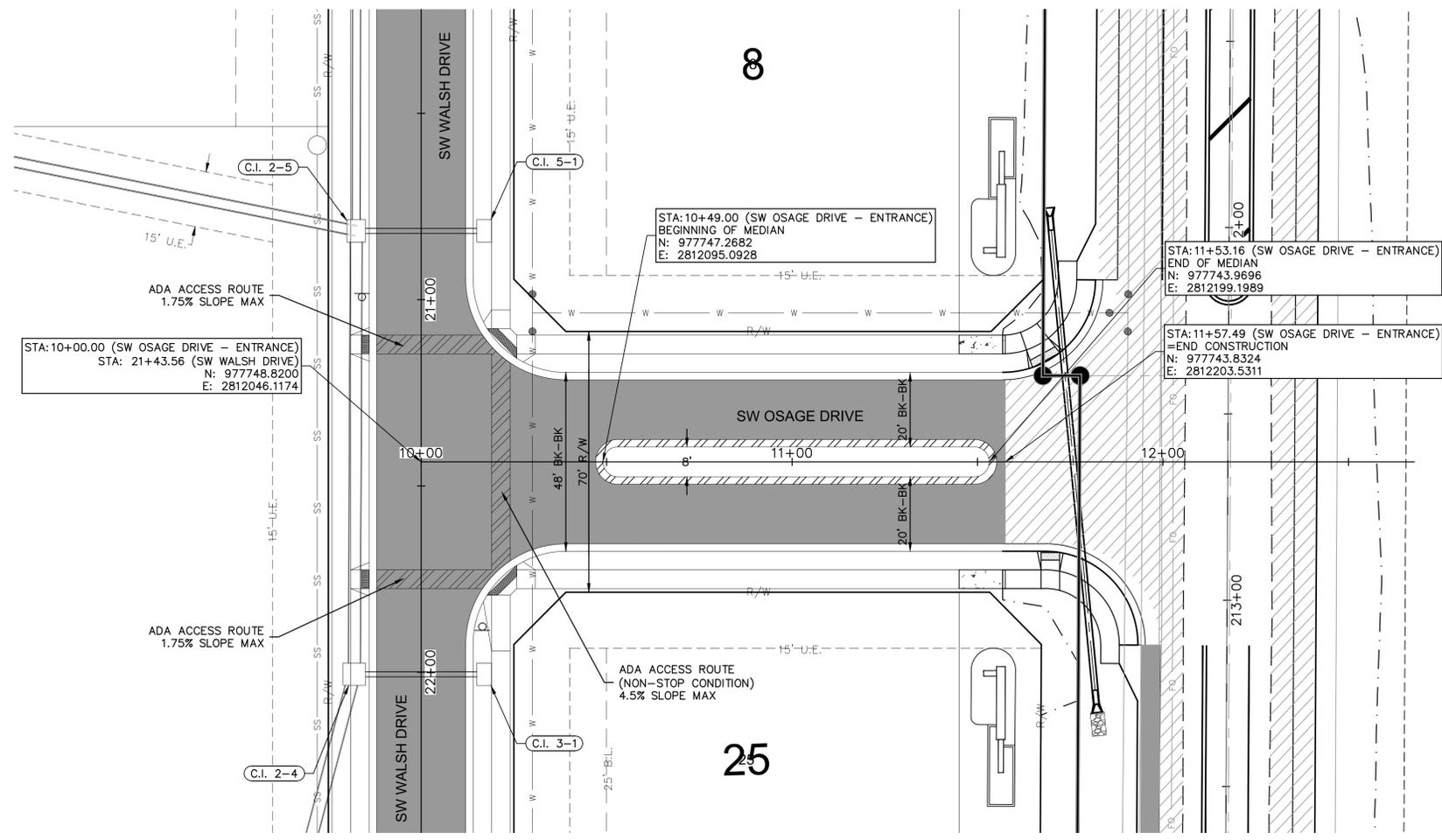
LEGEND	
	ADA ACCESS ROUTE
	ASPHALT PAVEMENT
	CG-2 CURB & GUTTER



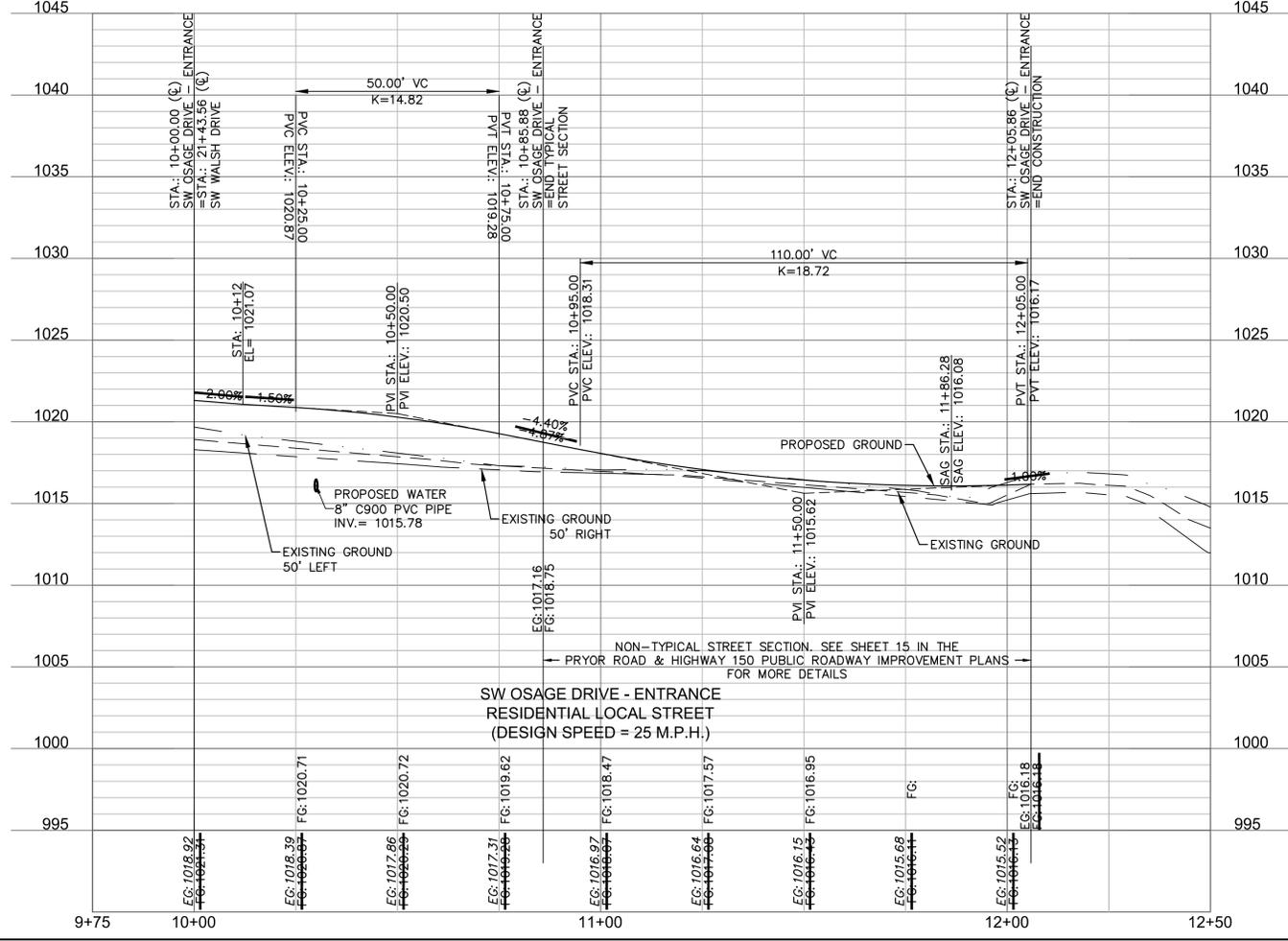
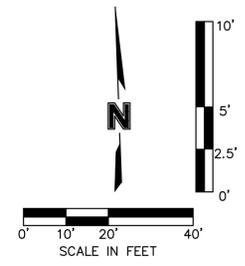
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4/14/2021

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		STATE OF MISSOURI	
BY	DATE	REVISIONS DESCRIPTION	REVISIONS
	6/19/2020	TEMPORARY CUL-DE-SAC ADDED	
REV. NO.	1		
ROADWAY PLAN & PROFILE (SW RUTHERFORD DRIVE)		OSAGE	
STREET & STORM SEWER PLANS		FIRST PLAN	
LEE'S SUMMIT, MISSOURI		2020	
drawn by:	AA	checked by:	SS
designed by:	AA	QA/QC by:	JES
project no.:	A19-2339	drawing no.:	C_RPFD2_A192339
date:	3/17/2020		
SHEET		C113	

DWG: F:\2019\2001-2500\019-2339-A10-Design\AutoCAD\Find Plans - Asbuilts\Sheets\CNC\A\STREET & STORM\C_RPP02_A192339.dwg USER: bworthley
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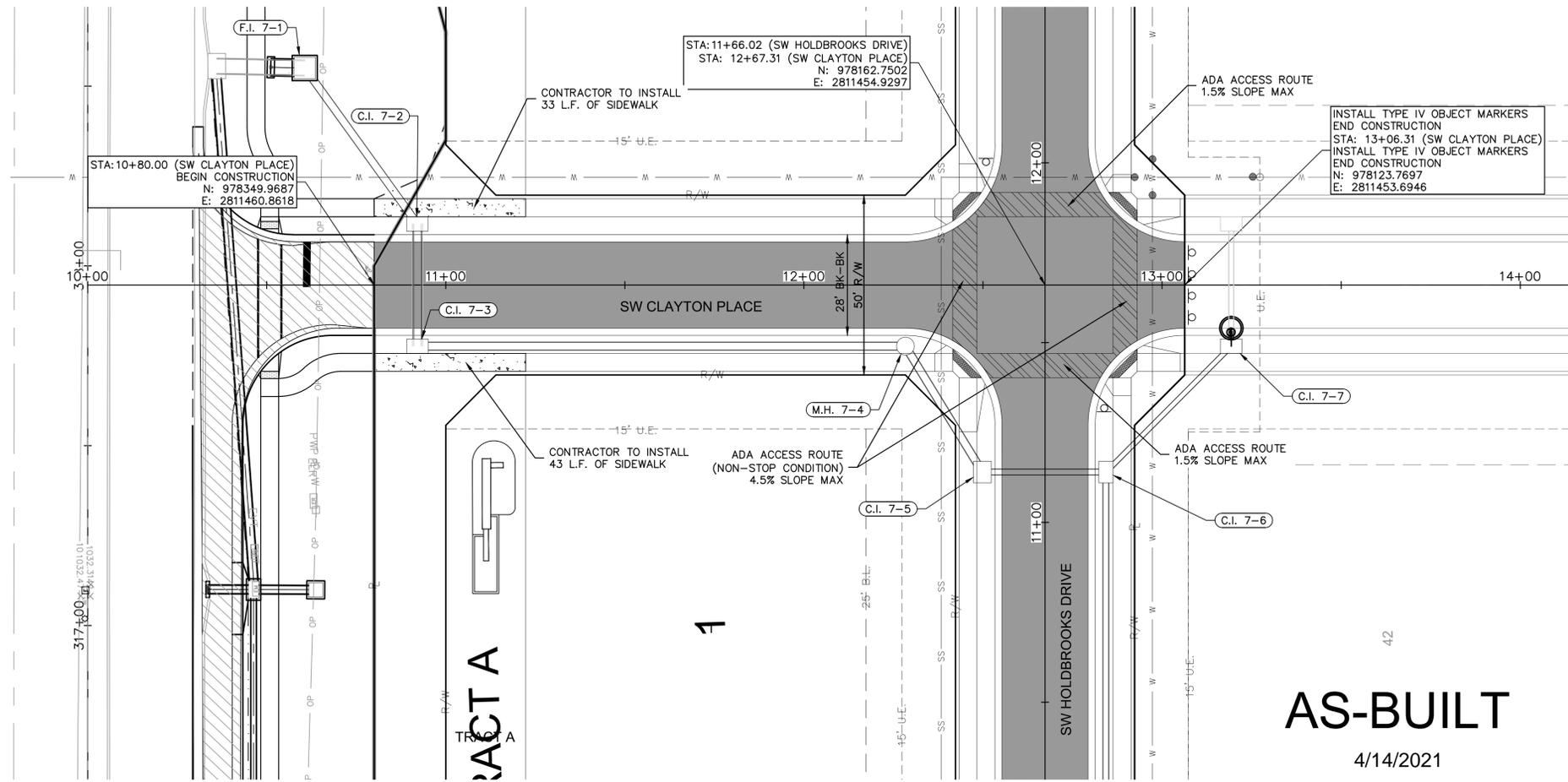


LEGEND	
	ADA ACCESS ROUTE
	ASPHALT PAVEMENT
	CONCRETE SIDEWALK
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER
	SEE HIGHWAY 150 & PRYOR ROAD ROADWAY IMPROVEMENT PLANS



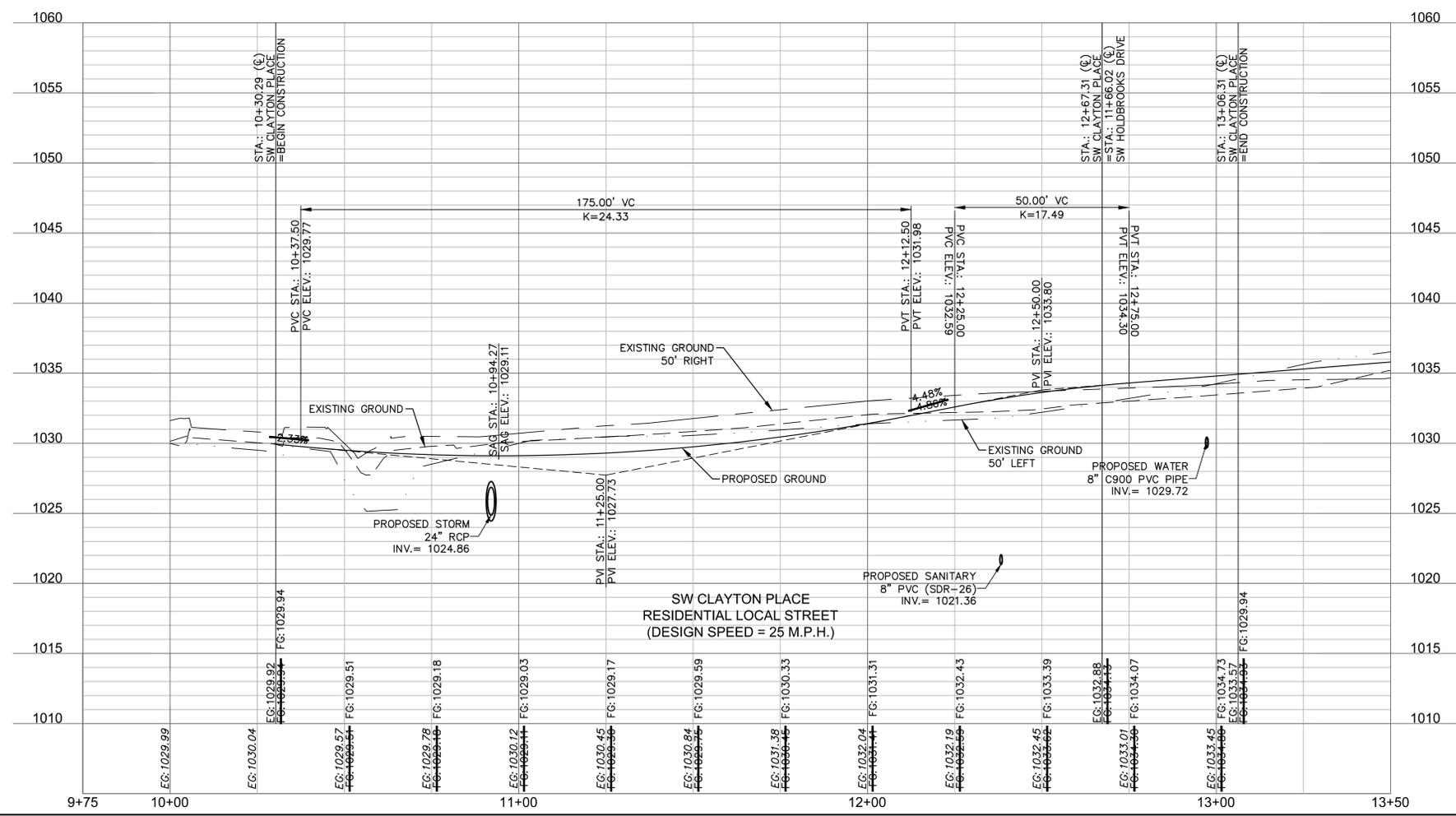
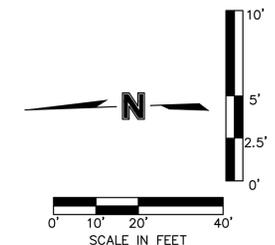
AS-BUILT
4/14/2021

ROADWAY PLAN & PROFILE (SW OSAGE DRIVE - ENTRANCE)		BY
STREET & STORM SEWER PLANS		DATE
OSAGE FIRST PLAT		REVISIONS DESCRIPTION
LEE'S SUMMIT, MISSOURI		REVISIONS
2020		REV. NO.
drawn by: AA		DATE
checked by: SS		REVISIONS DESCRIPTION
designed by: AA		1 6/15/2020 ADA ACCESS ROUTE SLOPES UPDATED
QA/QC by: JES		2 7/24/2020 TYPICAL STREET SECTION NOTE ADDED
project no.: A19-2339		
drawing no.: C_RPP02_A192339		
date: 3/17/2020		
SHEET C114		



LEGEND	
	ADA ACCESS ROUTE
	ASPHALT PAVEMENT
	CONCRETE SIDEWALK
	CG-2 CURB & GUTTER
	SEE HIGHWAY 150 & PRYOR ROAD ROADWAY IMPROVEMENT PLANS

AS-BUILT
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BROCK M. WORTHLEY
Professional Engineer
PE-201900237
4/14/2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

ROADWAY PLAN & PROFILE (SW CLAYTON PLACE)
STREET & STORM SEWER PLANS

OSAGE
FIRST PLAT
2020

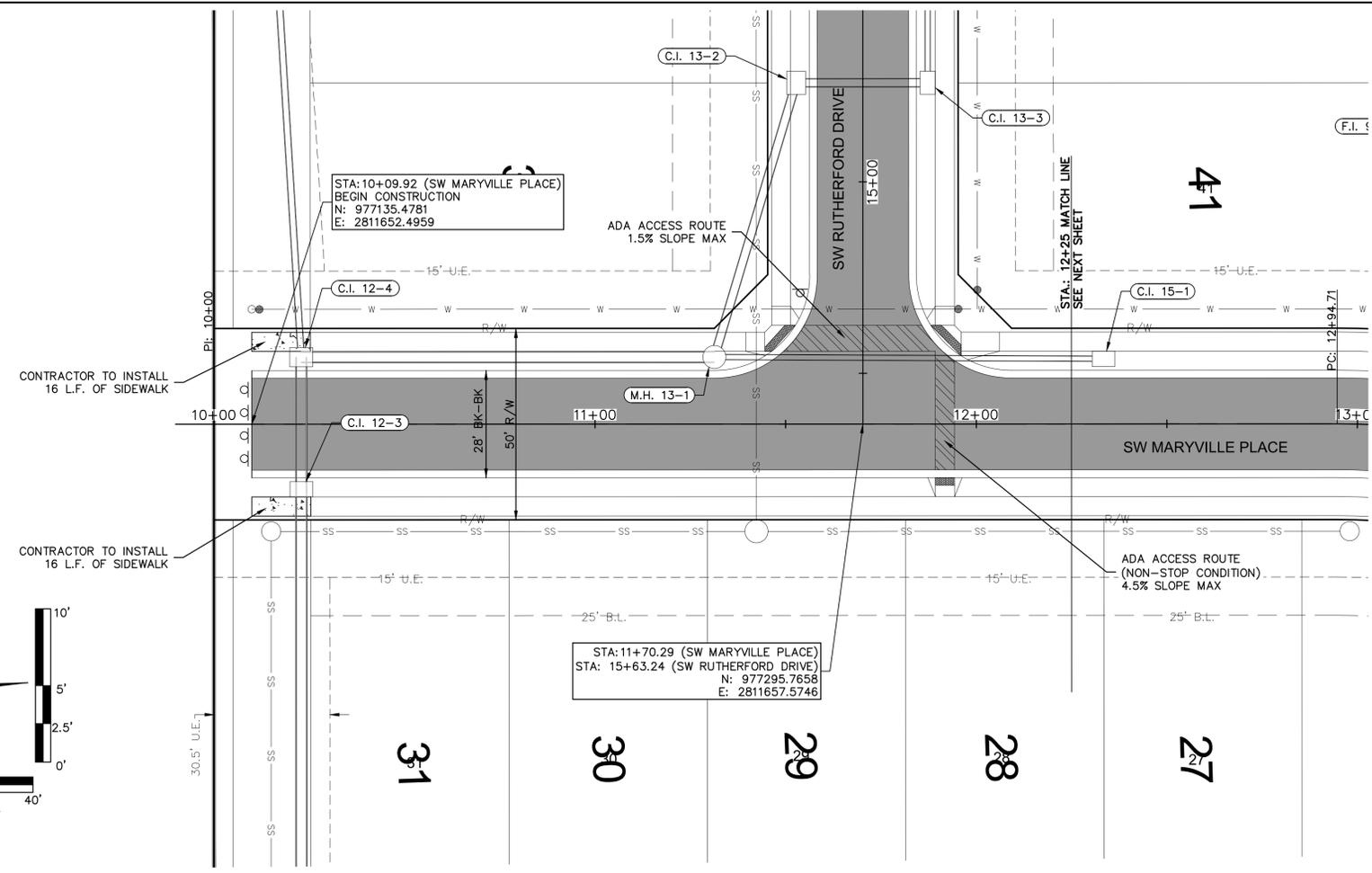
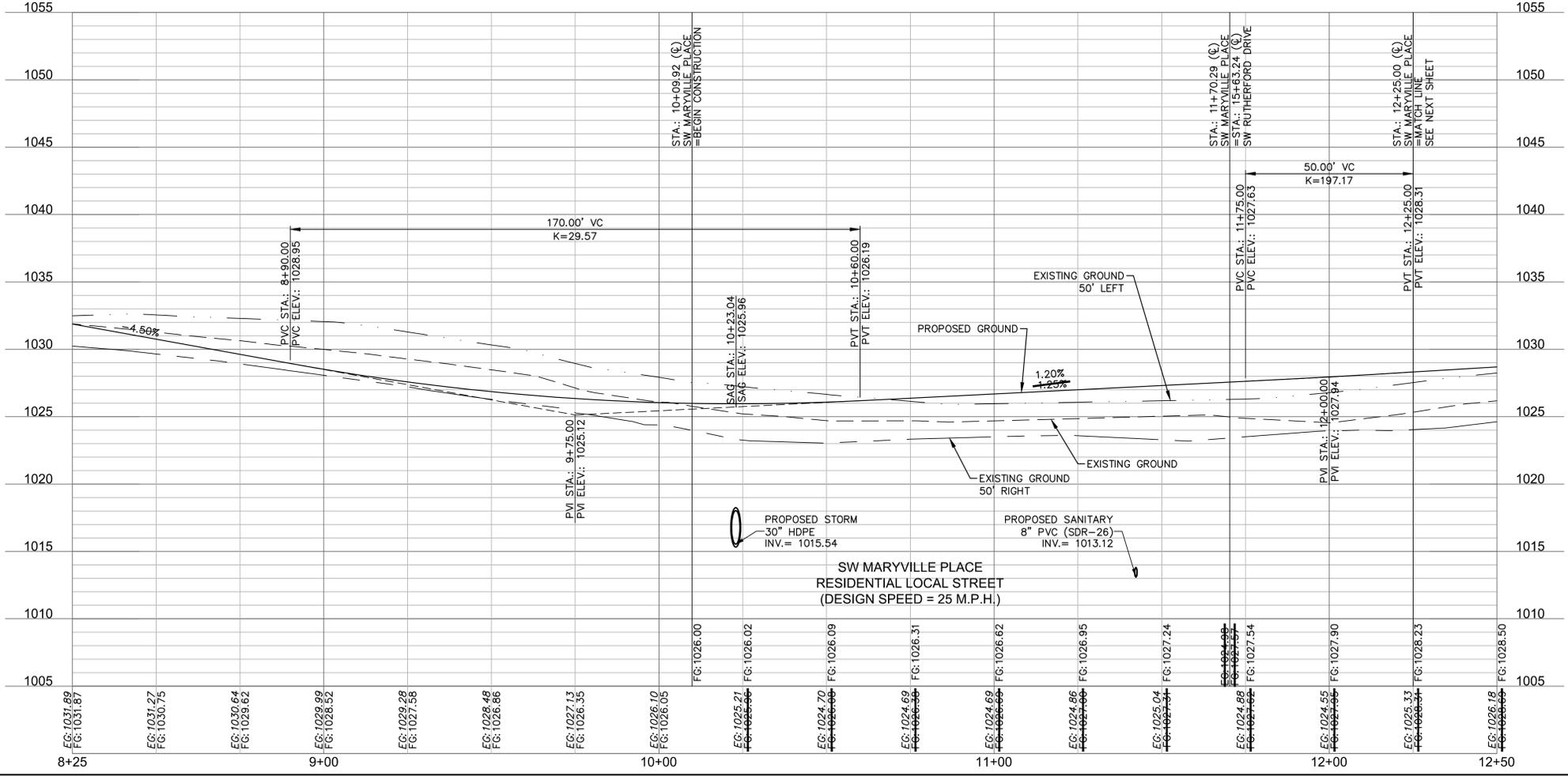
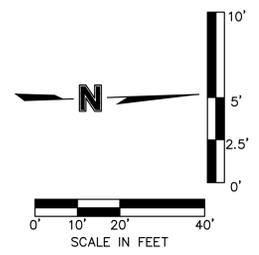
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checked by: SS
designed by: AA
QA/QC by: JES
project no.: A19-2339
drawing no.: C_RP02_A192339
date: 3/17/2020

SHEET
C115

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4/14/2021



LEGEND	
	ADA ACCESS ROUTE
	ASPHALT PAVEMENT
	CONCRETE SIDEWALK
	CG-2 CURB & GUTTER

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BROCK M. WORTHLEY
Professional Engineer
PE-201900237
4/14/2021

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	6/15/2020	BEGINNING OF CONSTRUCTION POINT MOVED	

ROADWAY PLAN & PROFILE (SW MARYVILLE PLACE)
STREET & STORM SEWER PLANS

OSAGE
FIRST PLAT

LEE'S SUMMIT, MISSOURI

2020

REVISIONS

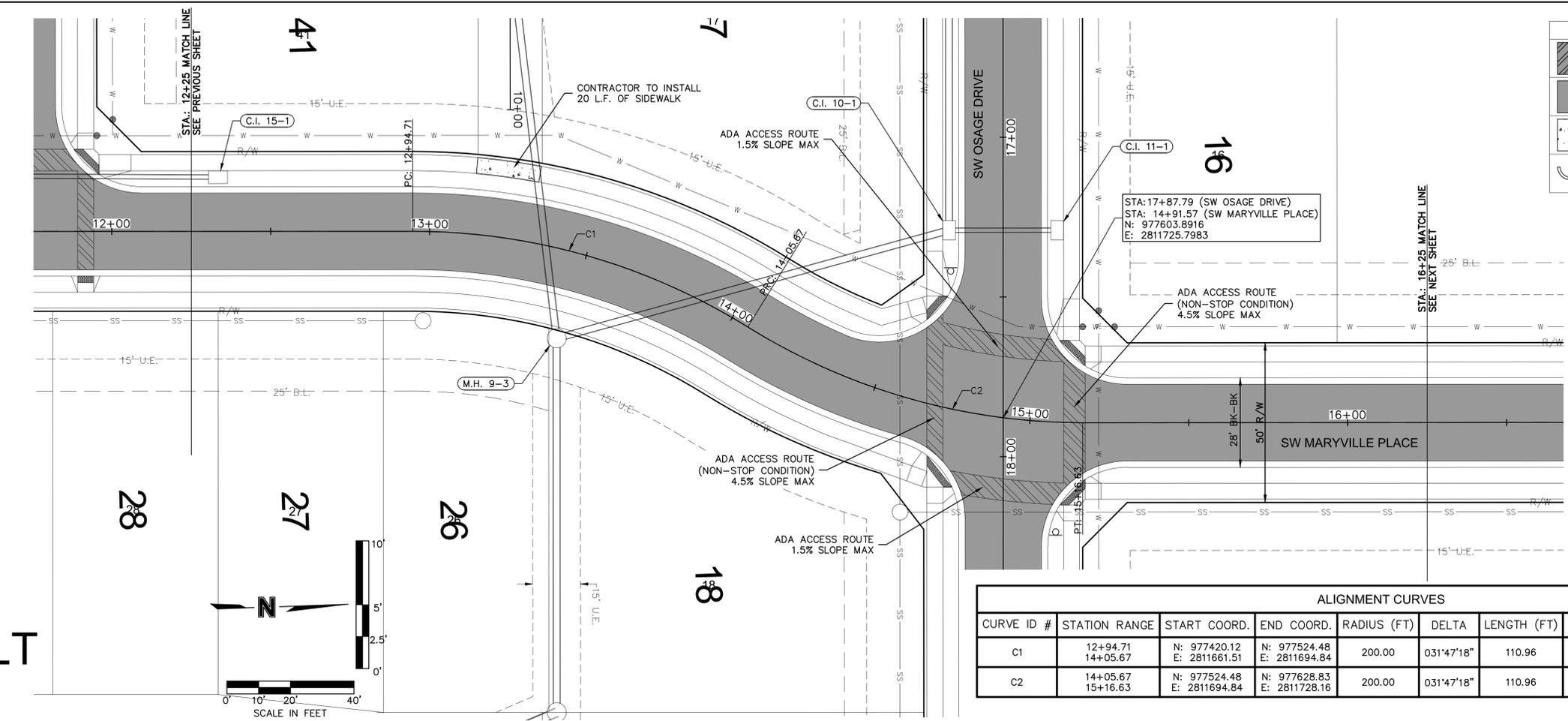
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date:	3/17/2020

SHEET C116

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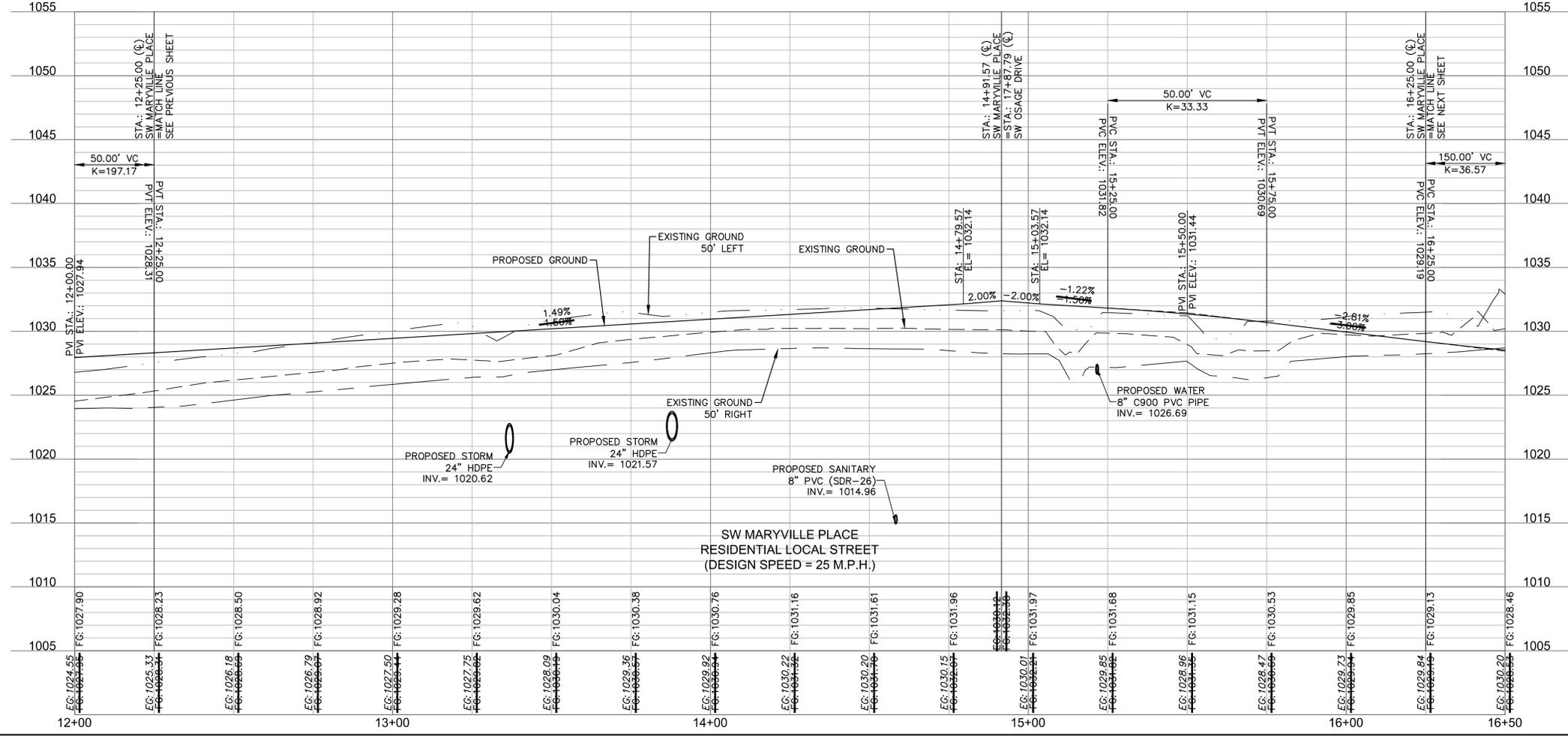
AS-BUILT

4/14/2021



LEGEND	
	ADA ACCESS ROUTE
	ASPHALT PAVEMENT
	CONCRETE SIDEWALK
	CG-2 CURB & GUTTER

ALIGNMENT CURVES								
CURVE ID #	STATION RANGE	START COORD.	END COORD.	RADIUS (FT)	DELTA	LENGTH (FT)	TANGENT (FT)	P.I. STATION (BACK)
C1	12+94.71 14+05.67	N: 977420.12 E: 2811661.51	N: 977524.48 E: 2811694.84	200.00	031°47'18"	110.96	56.95	13+48.72
C2	14+05.67 15+16.63	N: 977524.48 E: 2811694.84	N: 977628.83 E: 2811728.16	200.00	031°47'18"	110.96	56.95	14+59.68



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STATE OF MISSOURI
 BROCK M. WORTHLEY
 PE-201900237
 4/14/2021
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	6/18/2020	CURVE DATA ADDED	

ROADWAY PLAN & PROFILE (SW MARYVILLE PLACE)
 STREET & STORM SEWER PLANS

2020

REVISIONS

OSAGE
 FIRST PLAT

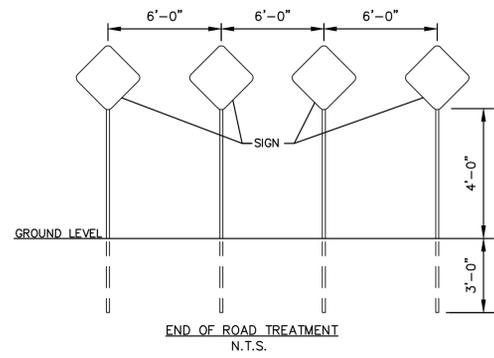
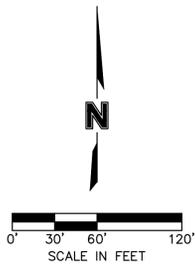
LEE'S SUMMIT, MISSOURI

drawn by: AA	checked by: SS
designed by: AA	QA/QC by: JES
project no.: A19-2339	drawing no.: C-BRPO3_A192339
date: 3/17/2020	

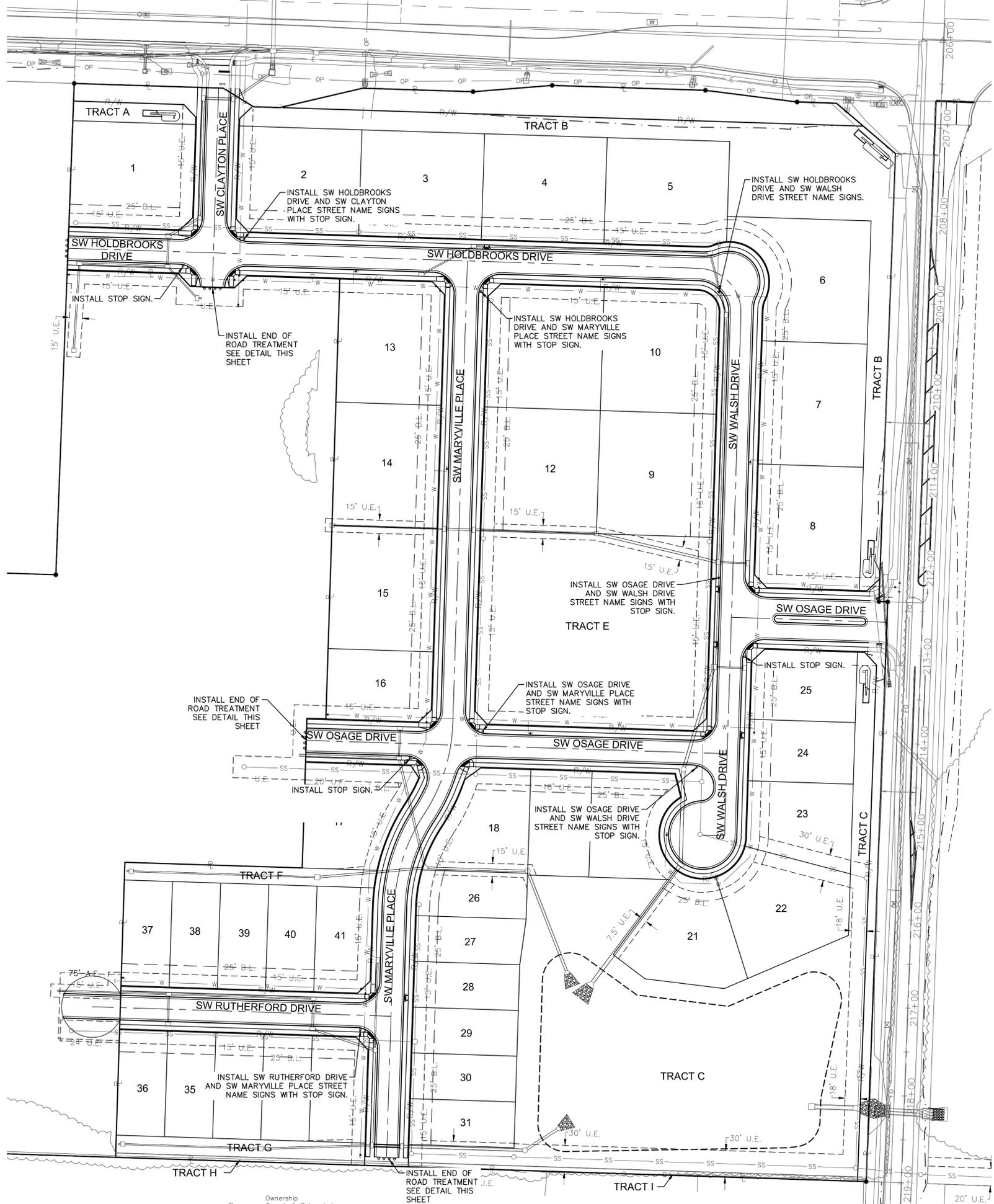
SHEET
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2020

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OBJECT MARKERS (TYPE OM4-3, 18"x18") ARE TO BE INSTALLED 2' FROM END OF PROPOSED PAVEMENT.



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BROCK M. WORTHLEY
PE-201900237
4/17/2021
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1		STREET SIGNS ADDED	

TRAFFIC CONTROL PLAN
STREET & STORM SEWER PLANS

OSAGE
FIRST PLAT

2020

LEE'S SUMMIT, MISSOURI

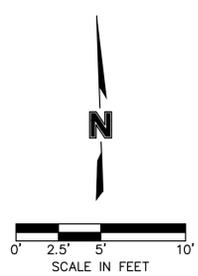
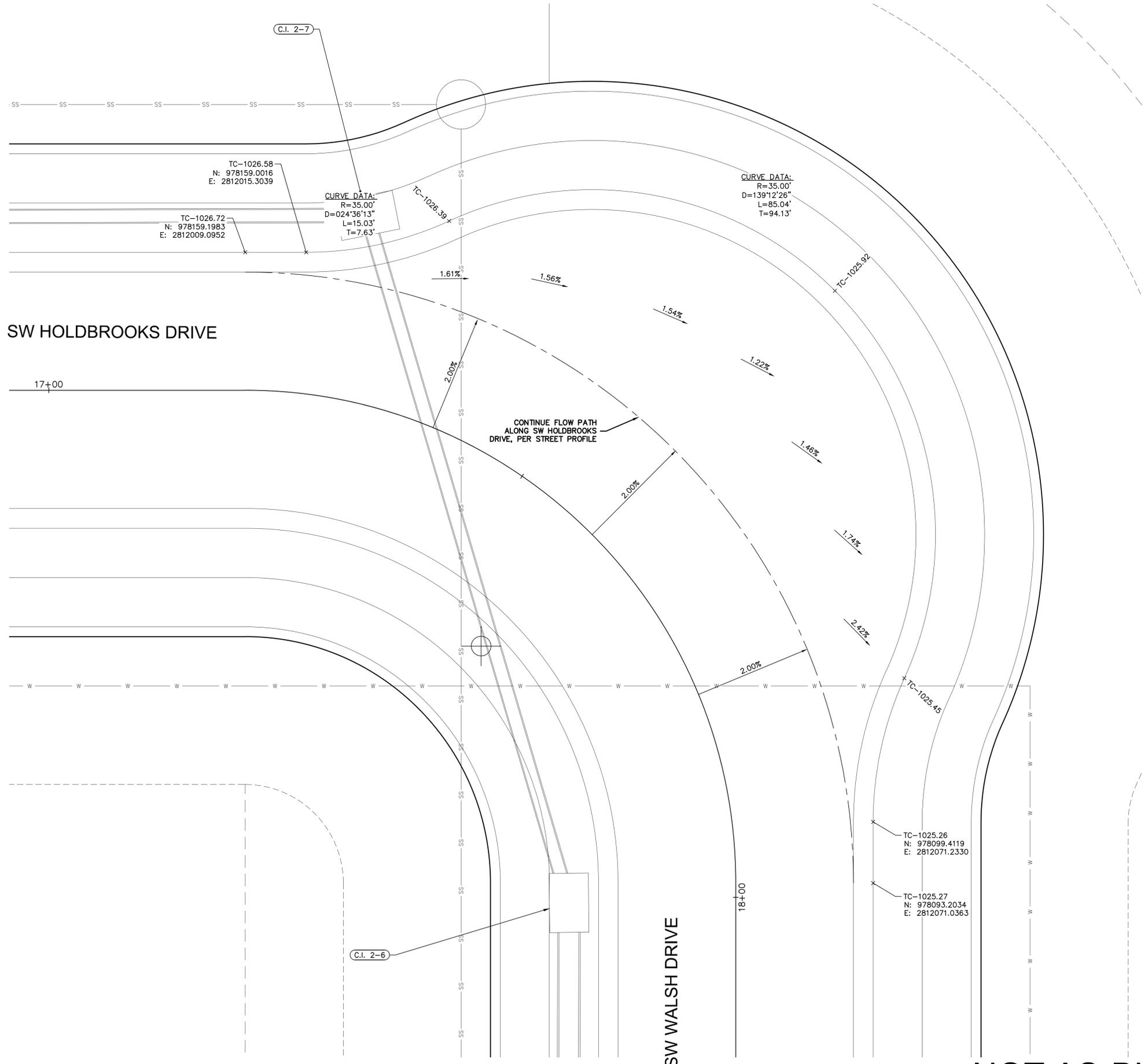
2020

drawing by: AA	checked by: SS	designed by: AA	QA/QC by: JES
project no.: A19-2339	drawing no.: C_TCP01_A192339	date: 3/17/2020	

SHEET
C119

Ownership

DWG: F:\2019\2001-2500\019-2339-A\10-Design\AutoCAD\Final Plans - Aebulites\Sheets\CNCV\STREET & STORM\C_INT01_A192339.dwg USER: bwertthley
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 BROCK M. WORTHLEY
 LICENSE NUMBER
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 4/17/2021
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	6/18/2020	CUL-DESIGN DETAILS ADDED	

SW HOLDBROOKS DRIVE & SW WALSH DRIVE INTERSECTION
 STREET & STORM SEWER PLANS

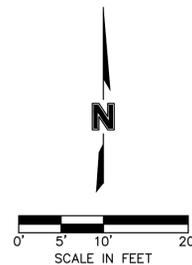
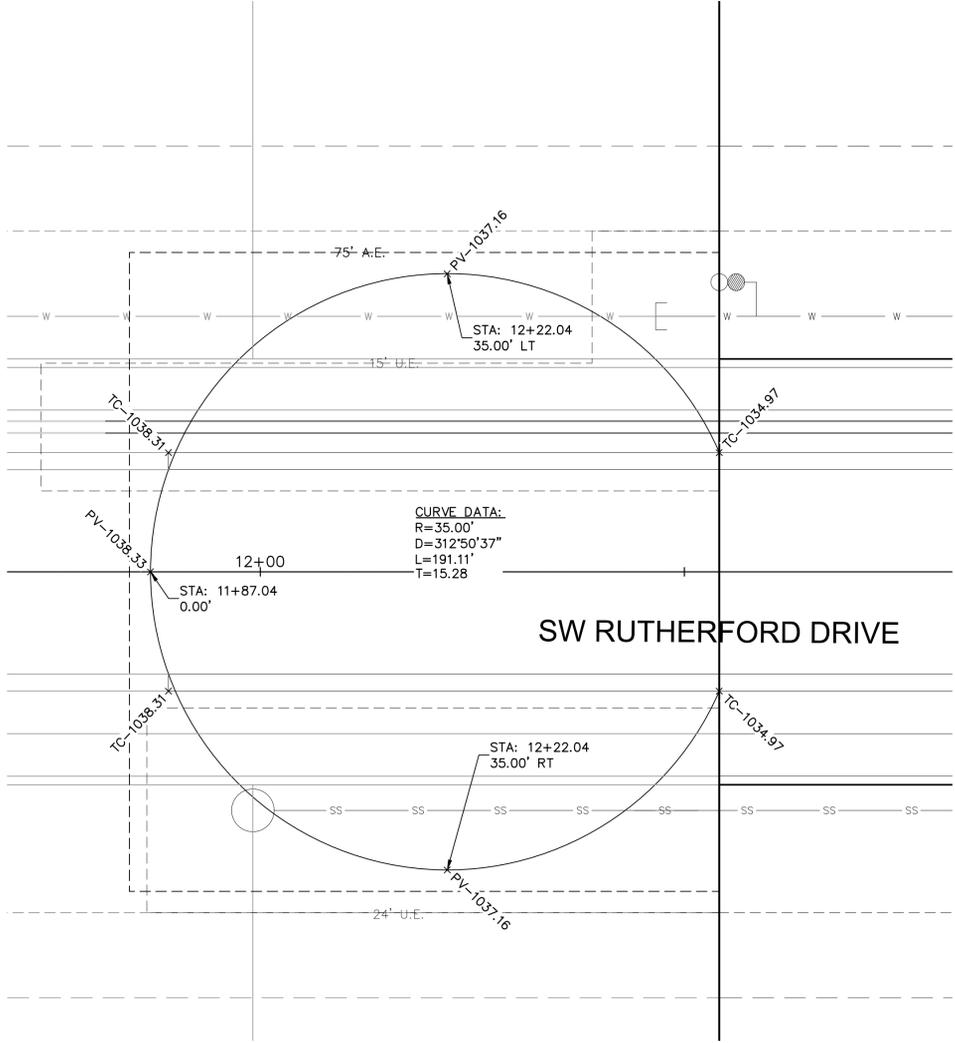
OSAGE
 FIRST PLAT
 2020

drawn by: AA
 checked by: SS
 designed by: AA
 QA/QC by: JES

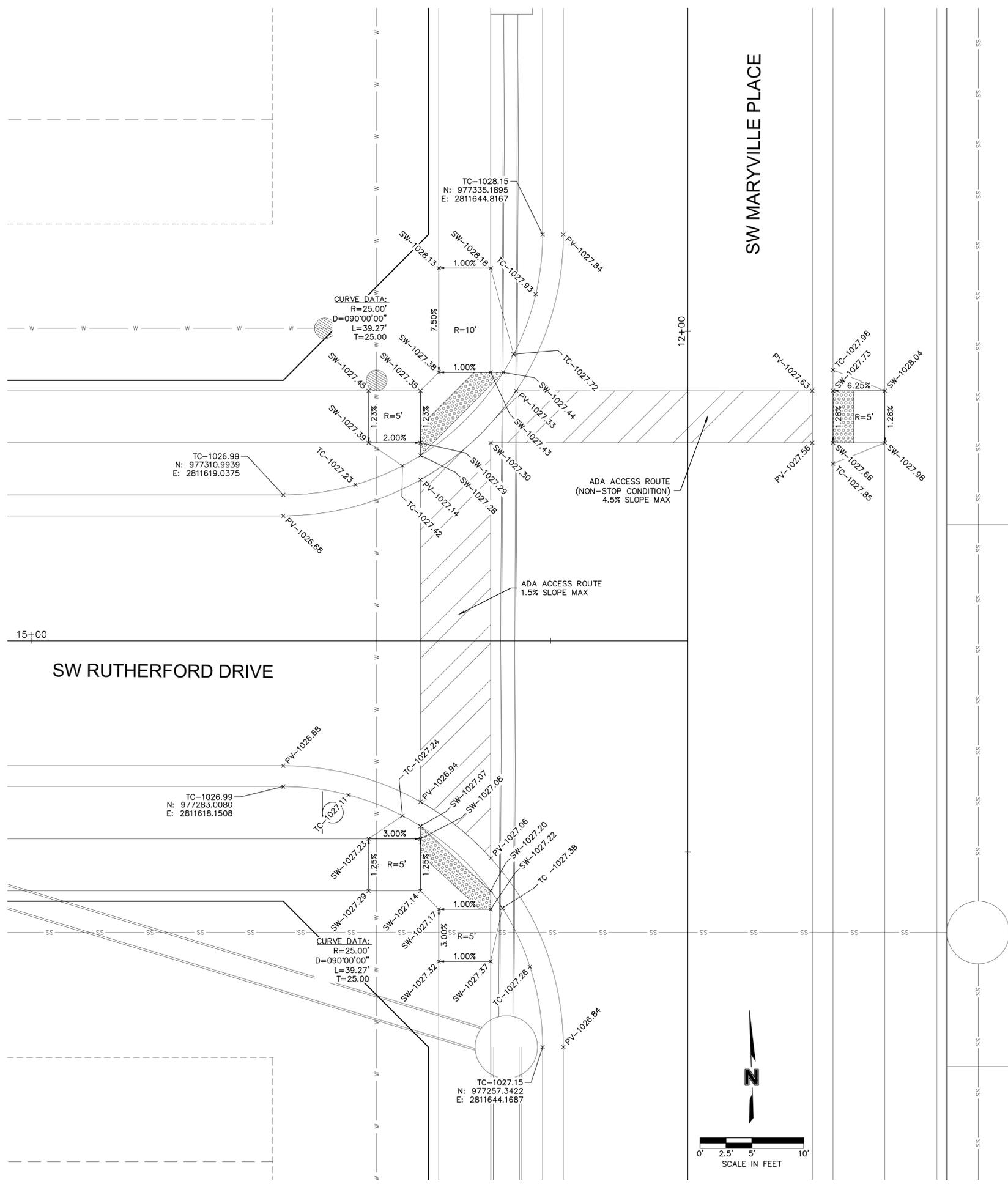
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SHEET
C122

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 DATE: Mar 10, 2021 5:24pm XREFS: C_XBASE_A192339 C_PBASE_A192339 C_PENDY_A192339 C_PBLK_A192339



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STATE OF MISSOURI
 BROCK M. WORTHLEY
 LICENSE NUMBER: PE-2019080237
 EXPIRES: 4/1/2021
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION
1	6/15/2020	TEMPORARY CUL-DE-SAC DETAILS ADDED

BY: _____

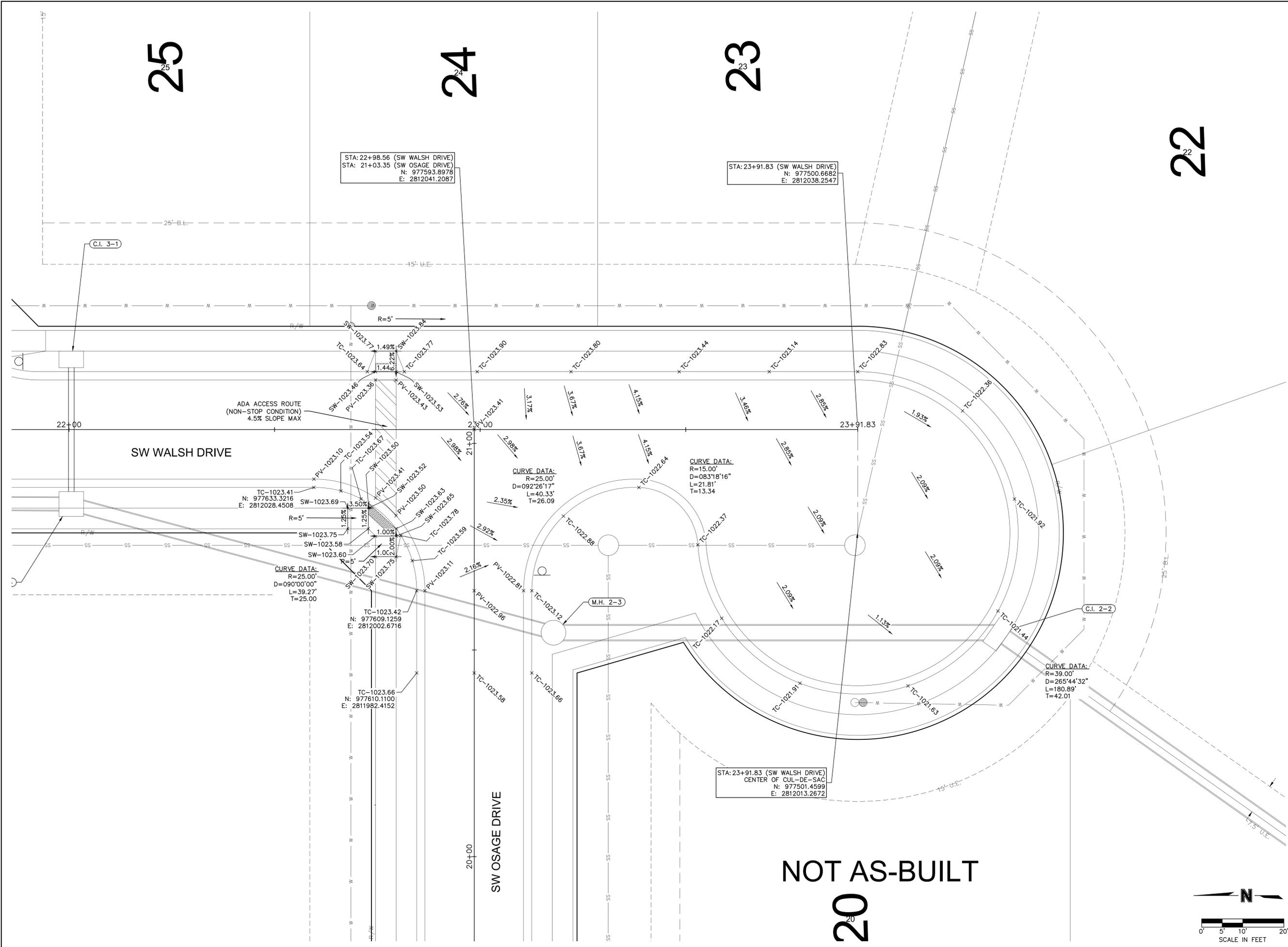
SW RUTHERFORD DRIVE & SW MARYVILLE PLACE INTERSECTION
 STREET & STORM SEWER PLANS
 OSAGE
 FIRST PLAT

LEE'S SUMMIT, MISSOURI 2020

drawn by: AA
 checked by: SS
 designed by: AA
 QA/QC by: JES
 project no.: A19-2339
 drawing no.: C_INT02_A192339
 date: 3/17/2020

SHEET C124

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STA: 22+98.56 (SW WALSH DRIVE)
 STA: 21+03.35 (SW OSAGE DRIVE)
 N: 977593.8978
 E: 2812041.2087

STA: 23+91.83 (SW WALSH DRIVE)
 N: 977500.6682
 E: 2812038.2547

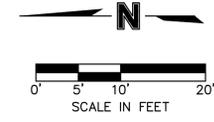
CURVE DATA:
 R=25.00'
 D=090°00'00"
 L=39.27'
 T=25.00'

CURVE DATA:
 R=25.00'
 D=092°26'17"
 L=40.33'
 T=26.09'

CURVE DATA:
 R=15.00'
 D=083°18'16"
 L=21.81'
 T=13.34'

CURVE DATA:
 R=39.00'
 D=265°44'32"
 L=180.89'
 T=42.01'

STA: 23+91.83 (SW WALSH DRIVE)
 CENTER OF CUL-DE-SAC
 N: 977501.4599
 E: 2812013.2672



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STATE OF MISSOURI
 BROCK M. WORTHLEY
 LICENSE NUMBER
 PE-201900237
 4/17/2021
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	6/15/2020	CUL-DE-SAC LAYOUT AND GRADING CHANGED	

SW WALSH DRIVE & SW OSAGE DRIVE INTERSECTION
 STREET & STORM SEWER PLANS
 OSAGE
 FIRST PLAT

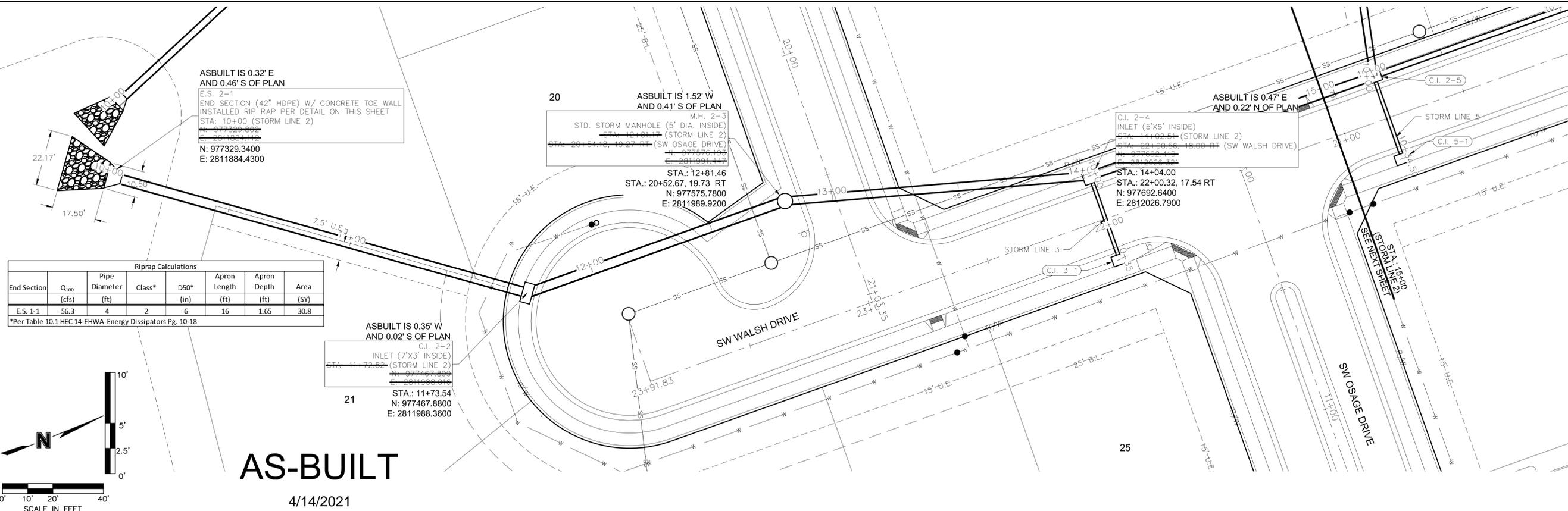
2020

LEE'S SUMMIT, MISSOURI

drawn by: AA	checked by: SS
designed by: AA	QA/QC by: JES
project no.: A19-2339	drawing no.: C_INT02_A192339
date: 3/17/2020	

SHEET C126

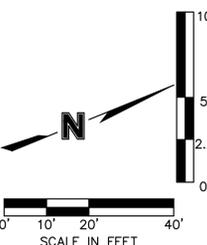
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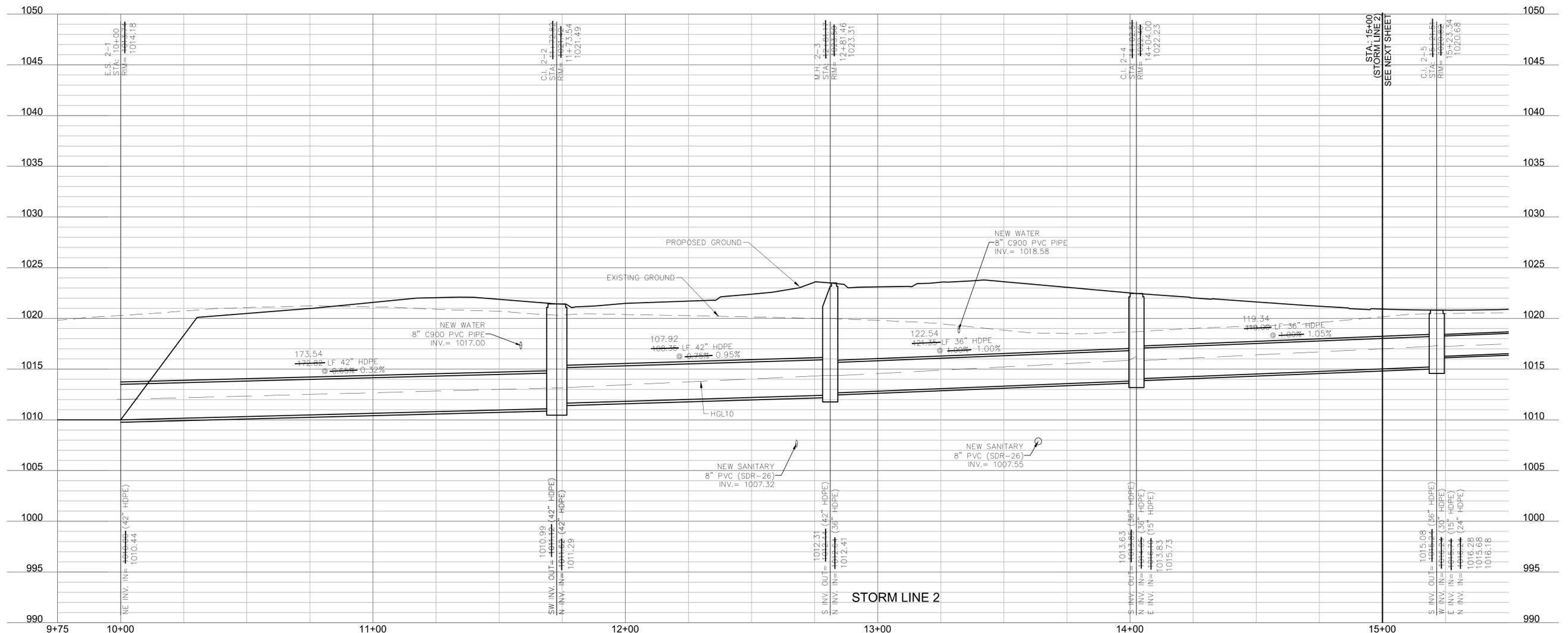
Riprap Calculations

End Section	Q ₁₀₀ (cfs)	Pipe Diameter (ft)	Class*	D50* (in)	Apron Length (ft)	Apron Depth (ft)	Area (SY)
E.S. 1-1	56.3	4	2	6	16	1.65	30.8

*Per Table 10.1 HEC 14-FHWA-Energy Dissipators Pg. 10-18



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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

STORM SEWER PLAN & PROFILE
STREET & STORM SEWER PLANS

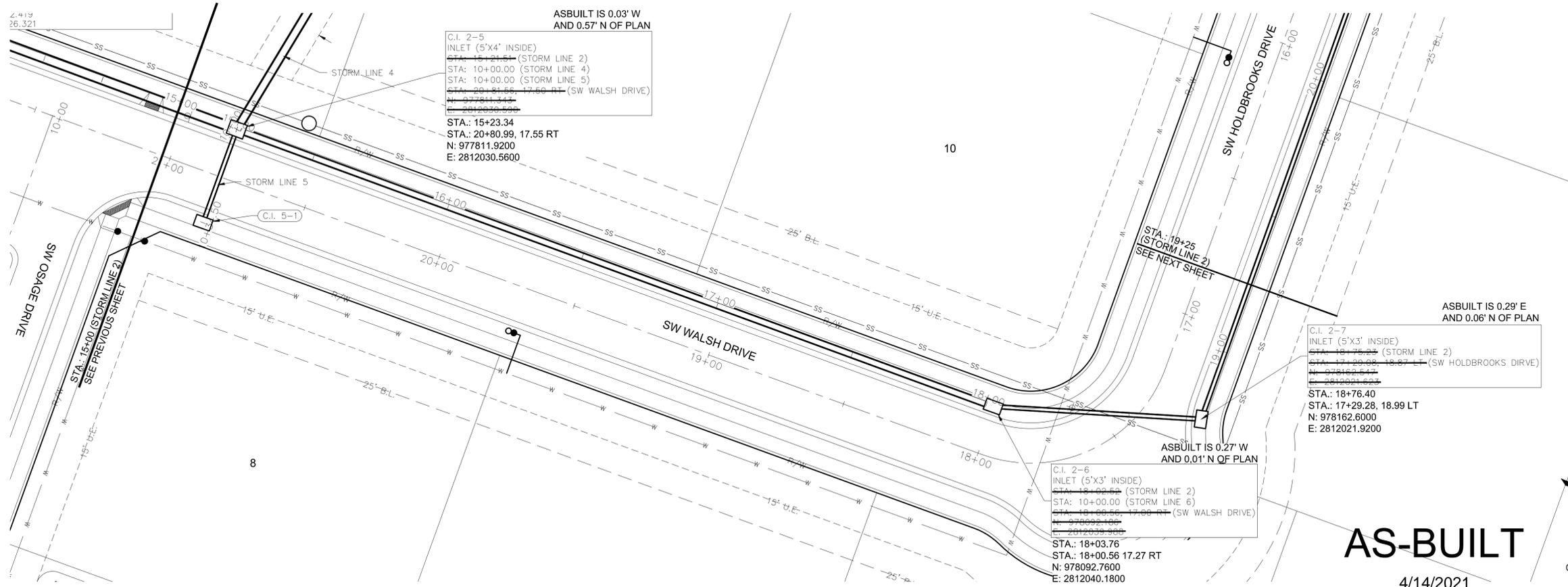
OSAGE
FIRST PLAT

2020

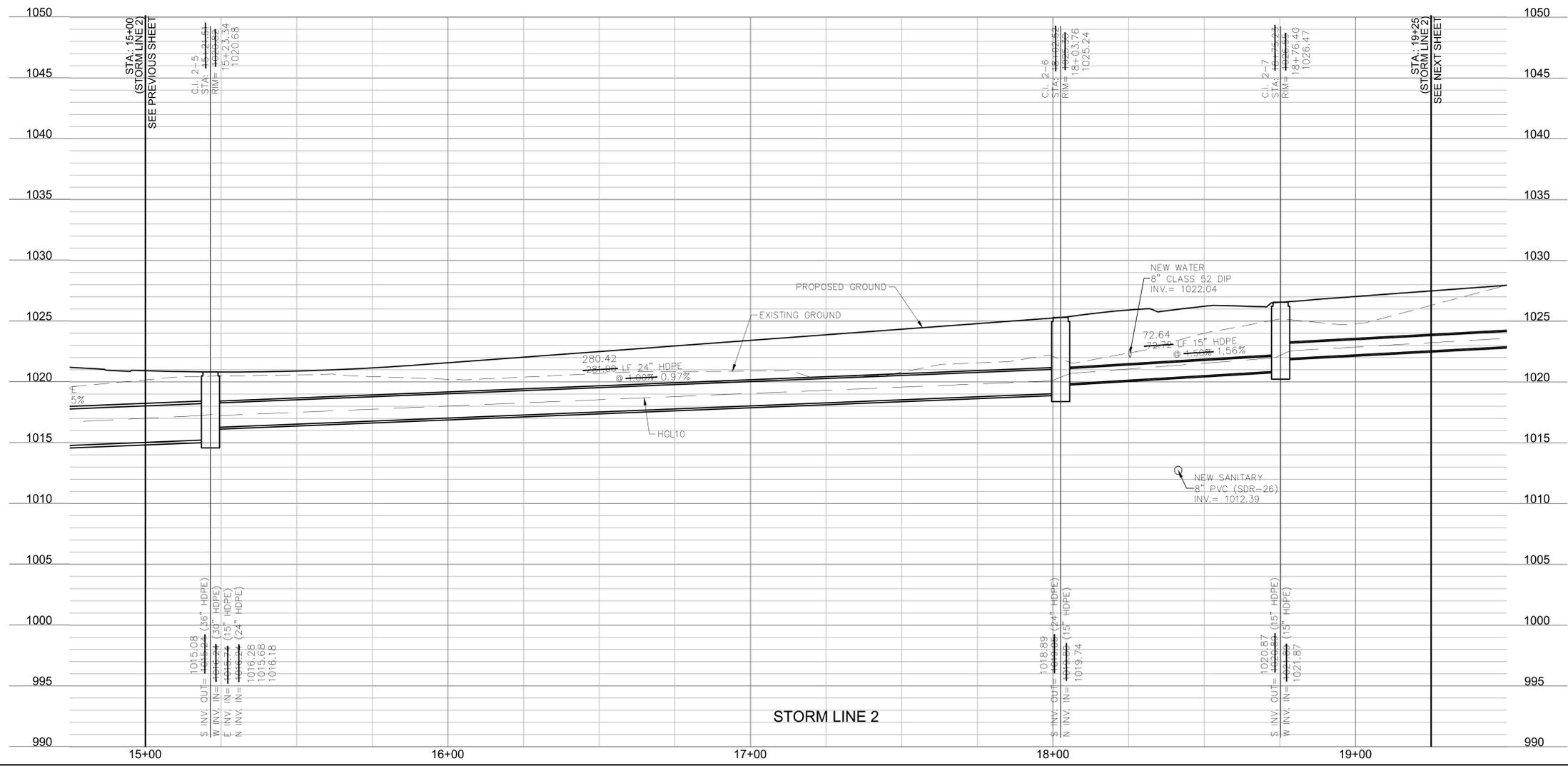
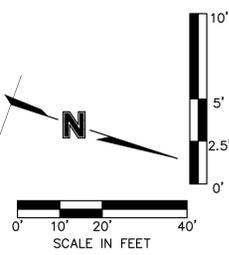
drawn by: AA
checked by: SS
designed by: AA
QA/QC by: JEB
project no.: A19-2339
drawing no.: C_STM01_A192339
date: 3/17/2020

SHEET
C127

DWG: F:\2019\2001-2500\019-2339-A\10-Design\AutoCAD\Final Plans - As-Built\Sheets\CONV\STREET & STORM\C_STM01_A192339.dwg USER: bworthley
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 BROCK M. BORTHWICK
 LICENSE NUMBER
 PE-201900237
 4/17/2021
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION
1	6/19/2020	C.I. 2,7 MOVED AND PIPE SLOPES CHANGED

BY: _____

2020

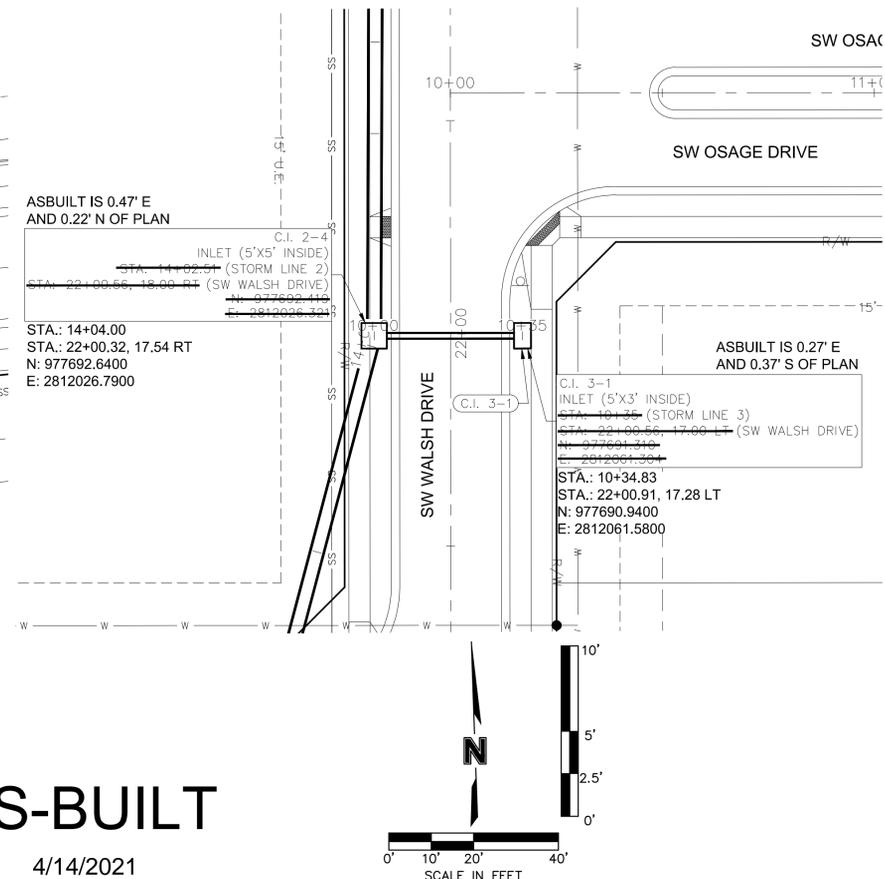
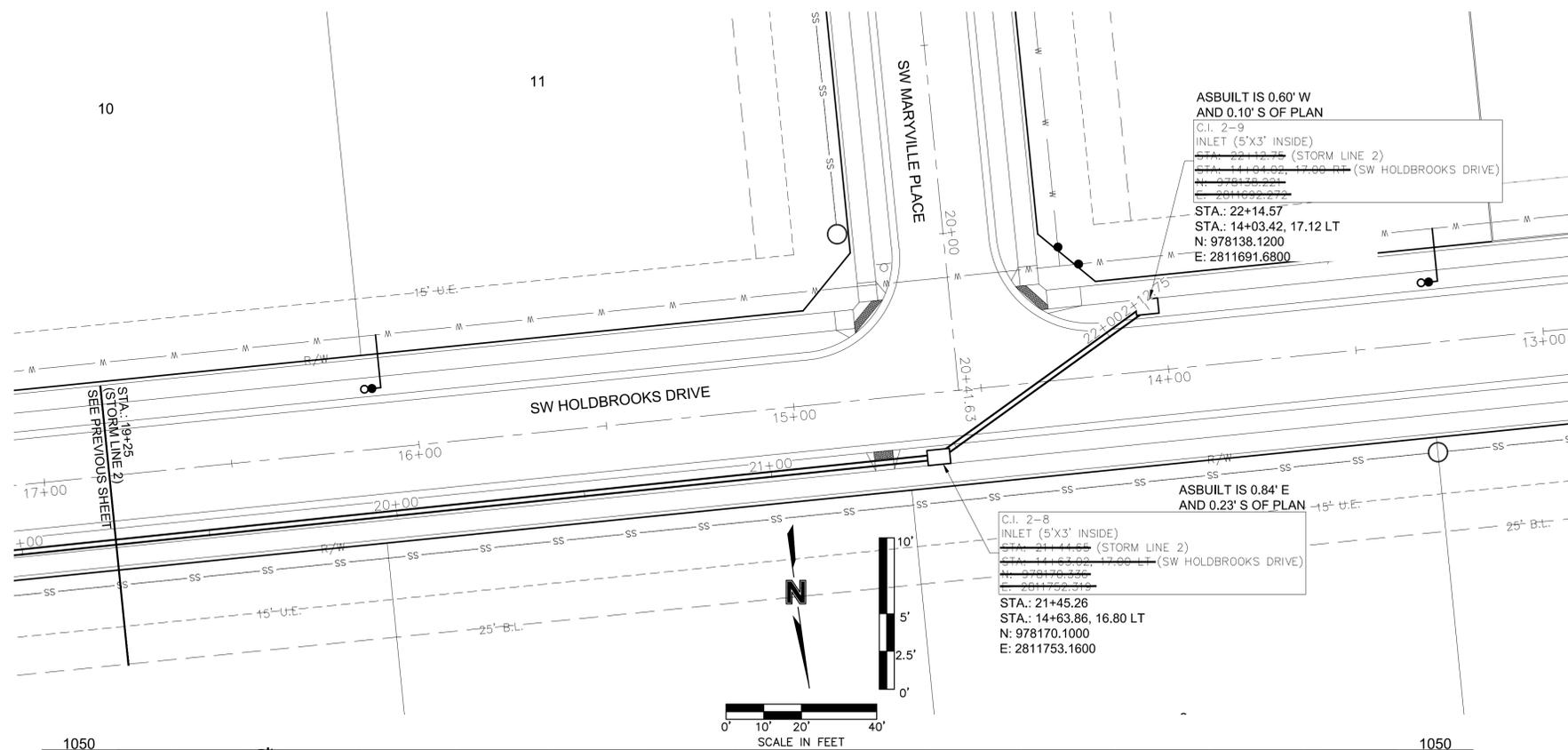
STORM SEWER PLAN & PROFILE
STREET & STORM SEWER PLANS
 OSAGE
 FIRST PLAT

LEE'S SUMMIT, MISSOURI

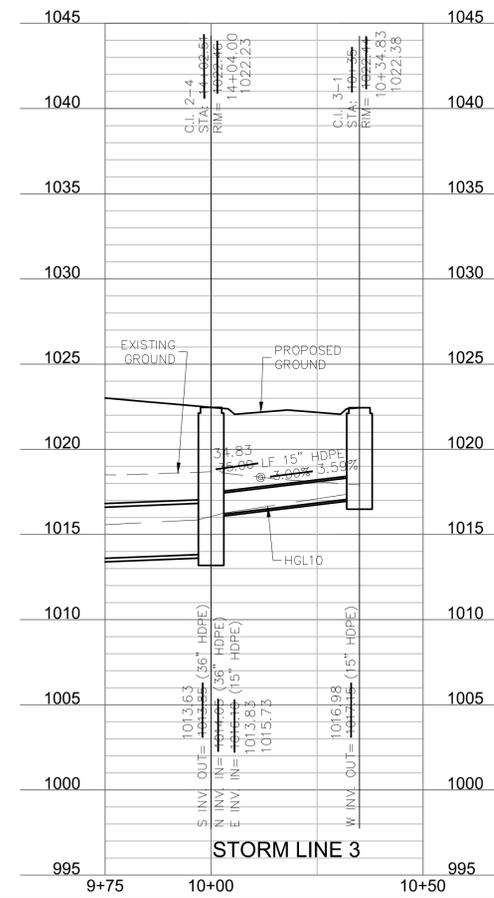
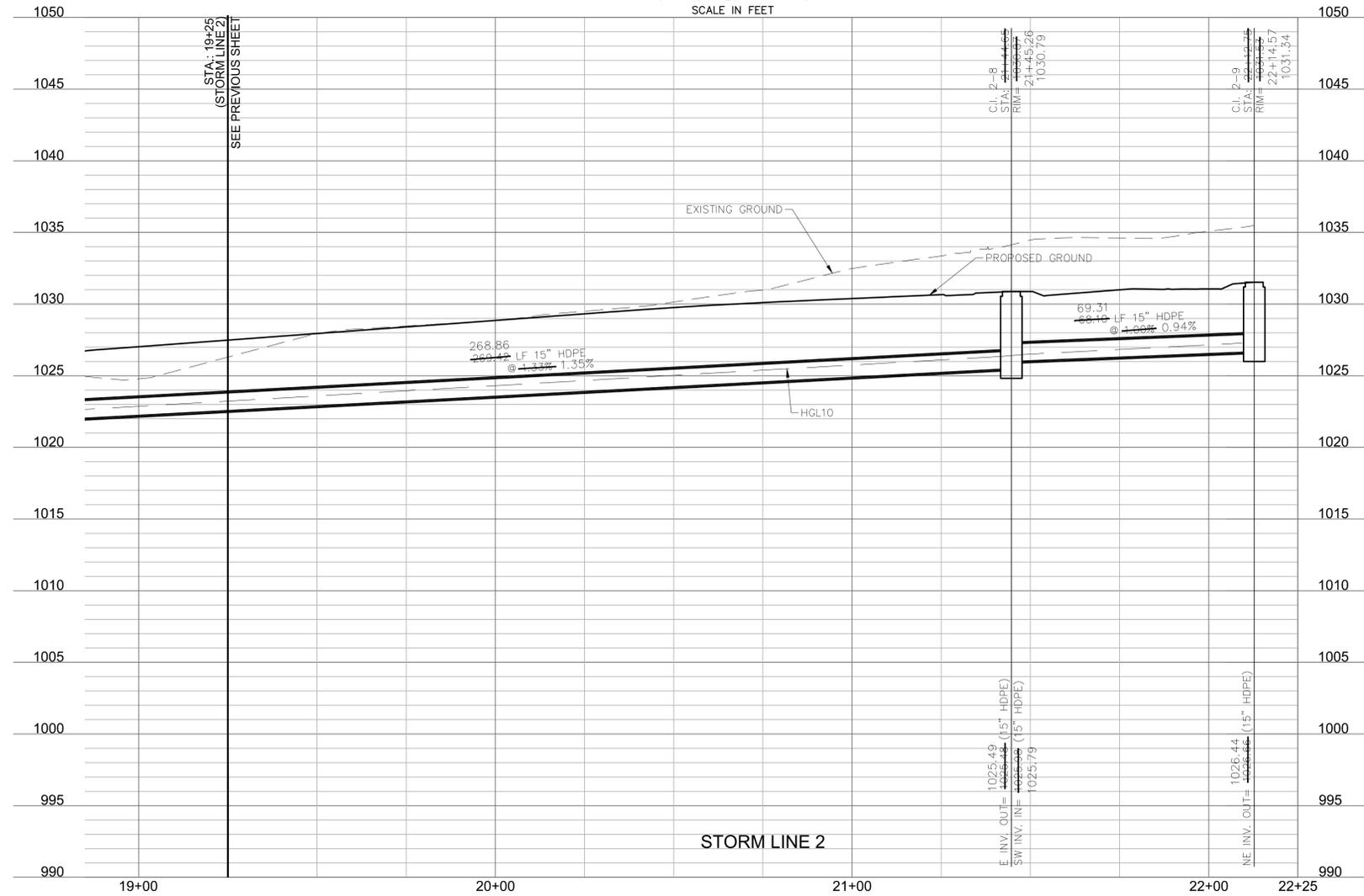
drawn by: AA
 checked by: SS
 designed by: AA
 QA/QC by: JES
 project no.: A19-2339
 drawing no.: C_STM01_A192339
 date: 3/17/2020

SHEET
 C128

DWG: F:\2019\2001-2500\019-2339-A10-Design\AutoCAD\Final Plans - Asbuilts\Sheets\CONV\STREET & STORM\C_STM01_A192339.dwg USER: bworthley
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STATE OF MISSOURI
 BROCK M. WORTHLEY
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 4/14/2021
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REV. NO.	DATE	REVISIONS DESCRIPTION
1	6/15/2020	C.I. 2-8 MOVED AND PIPE SLOPES CHANGED

BY: _____

STORM SEWER PLAN & PROFILE
 STREET & STORM SEWER PLANS
 OSAGE
 FIRST PLAT

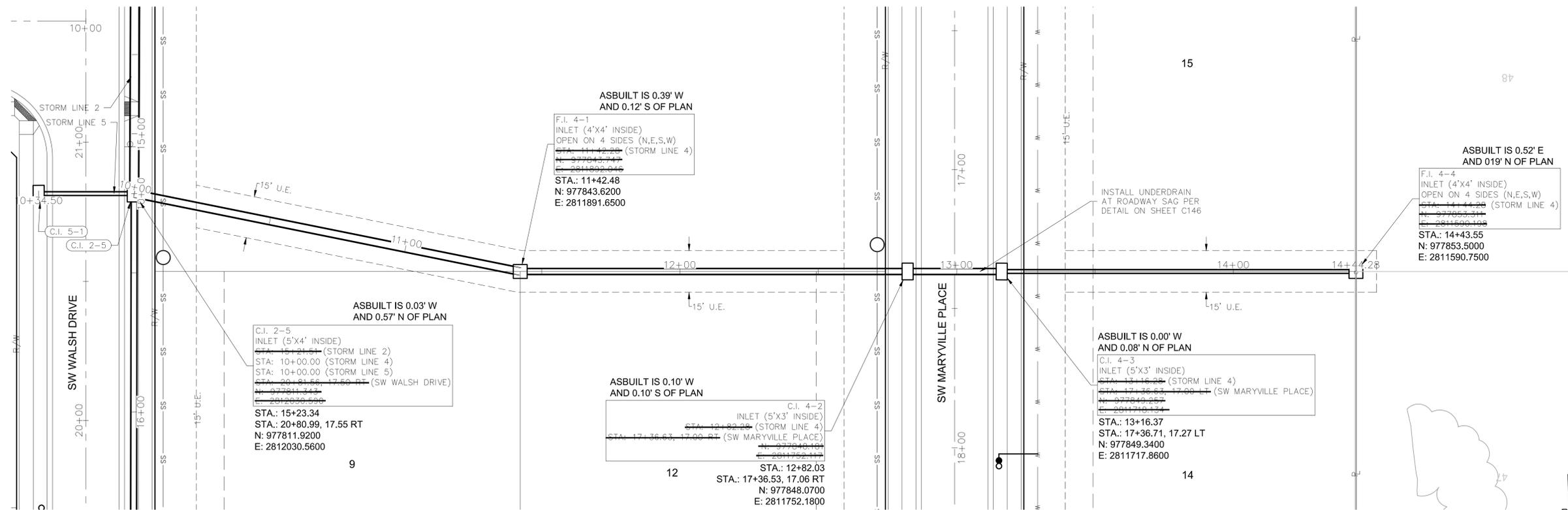
LEE'S SUMMIT, MISSOURI

2020

drawn by: AA
 checked by: SS
 designed by: AA
 QA/QC by: JES
 project no.: A19-2339
 drawing no.: C_STM01_A192339
 date: 3/17/2020

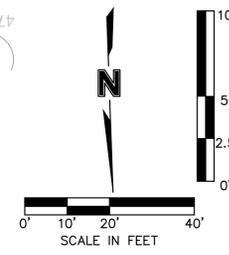
SHEET
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4/14/2021



REV. NO.	DATE	REVISIONS DESCRIPTION
1	6/15/2020	UNDERDRAIN NOTE ADDED

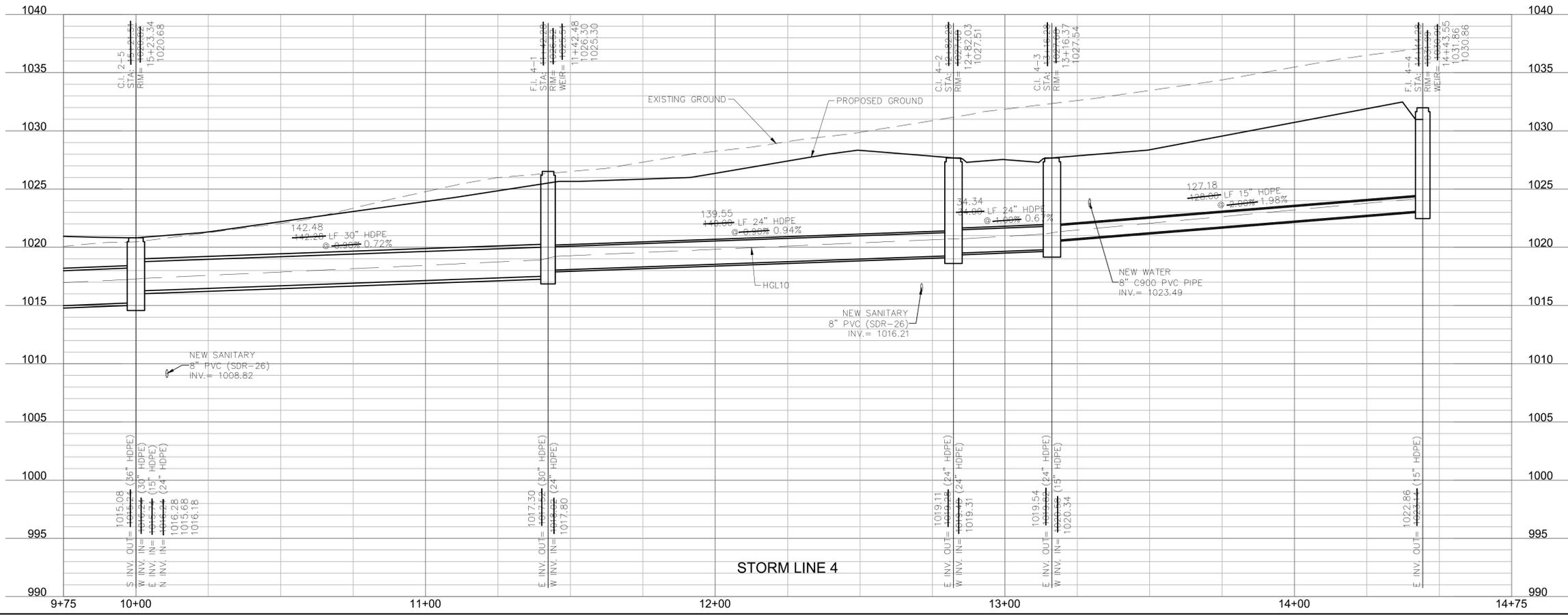
STORM SEWER PLAN & PROFILE		OSAGE FIRST PLAT	2020
STREET & STORM SEWER PLANS			
LEE'S SUMMIT, MISSOURI			

drawn by: AA
 checked by: SS
 designed by: AA
 QA/QC by: JES
 project no.: A19-2339
 drawing no.: C_STM01_A192339
 date: 3/17/2020

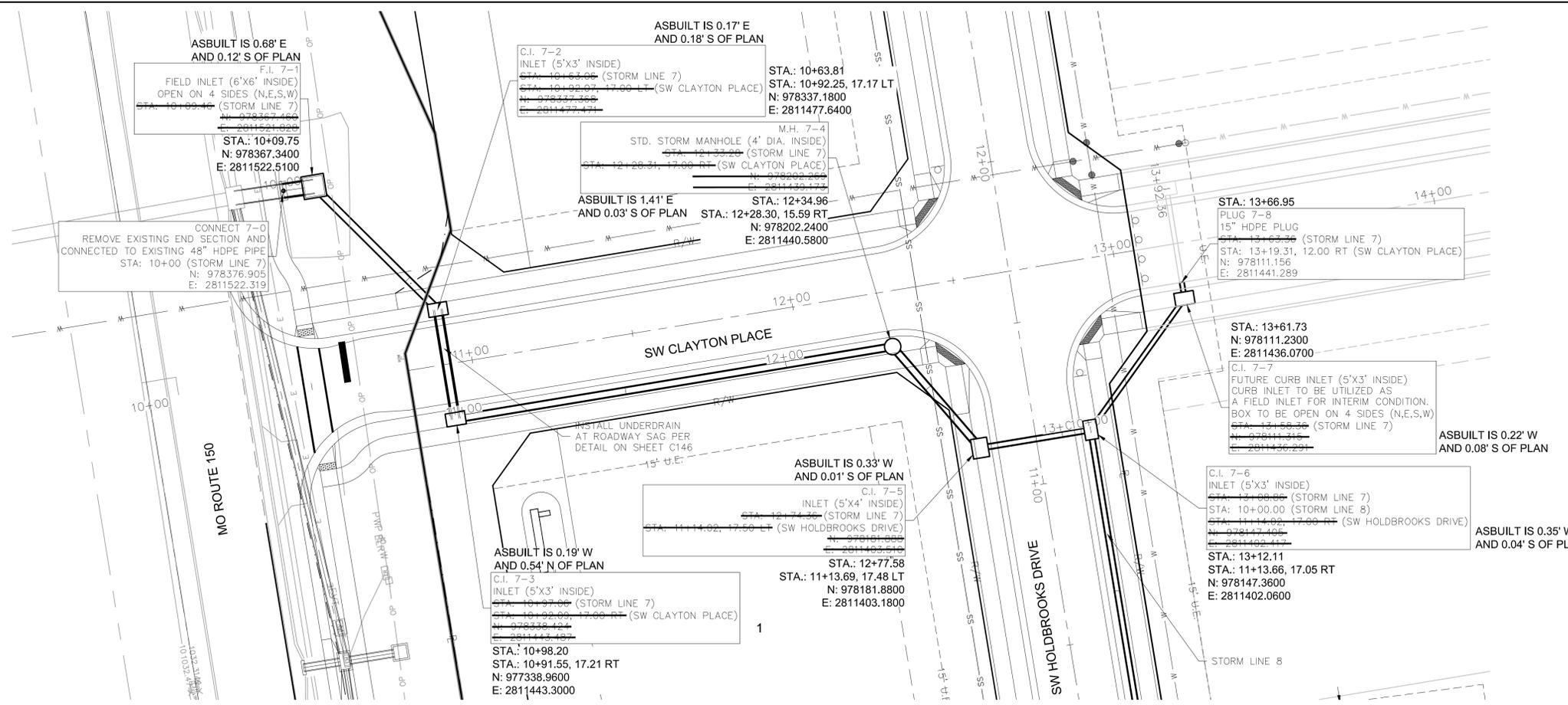
SHEET
C130



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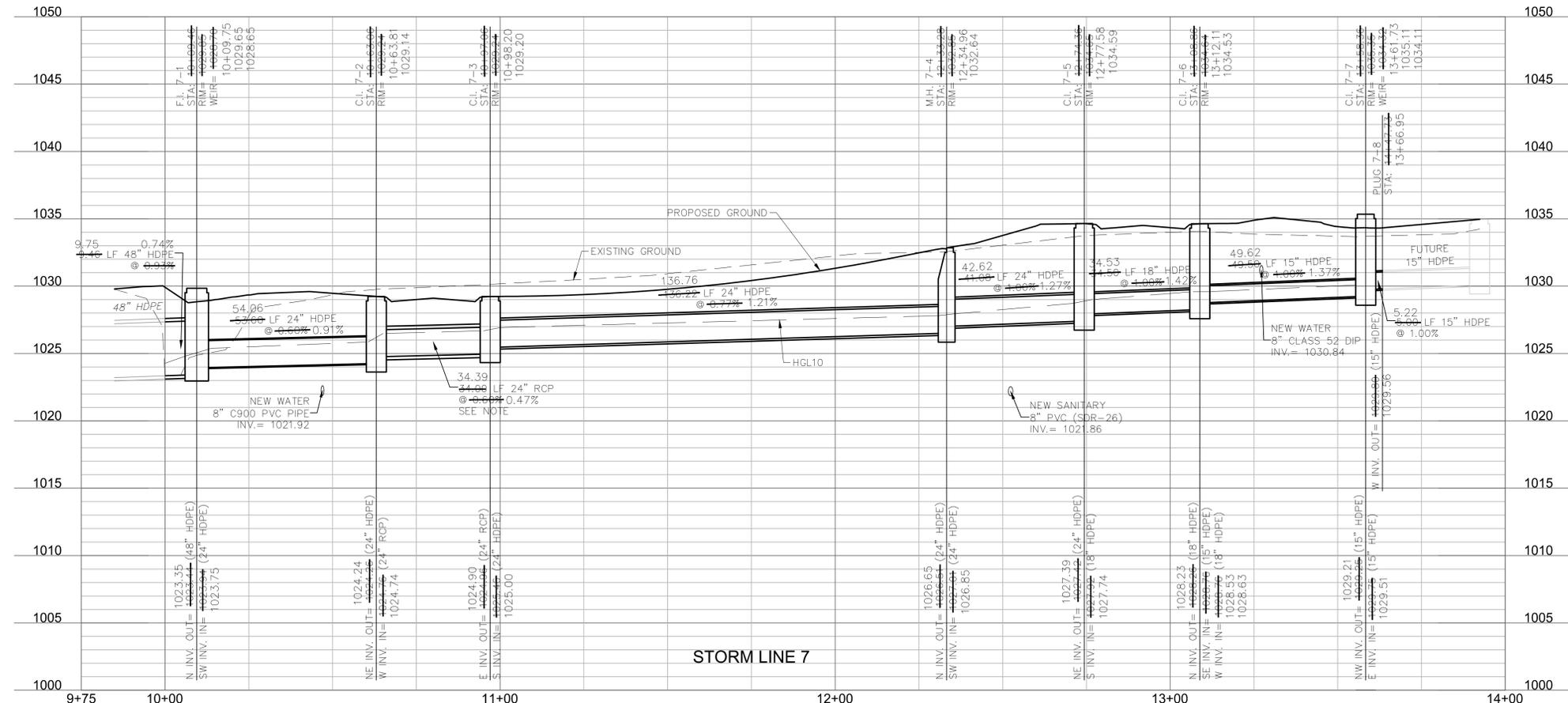
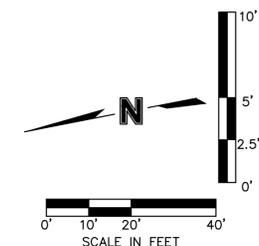


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 USER: bworthley
 C_PSTRM_A192339 C_PBASE_A192339 C_PBDY_A192339 C_PUTIL_A192339 C_PBASE_A192339



NOTE:
 ADS POLYPROPYLENE PIPE MAY BE USED
 INSTEAD OF REINFORCED CONCRETE PIPE

AS-BUILT
 4/14/2021



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BROCK M. WORTHLEY
 LICENSE NUMBER
 PE-201900237
 4/14/2021
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	6/15/2020	UNDERDRAIN & ALTERNATE PIPE MATERIAL NOTE ADDED	
	7/24/2020	FLOW LINES BETWEEN CONNECT 7-0 AND M.H. 7-4 REVISED	
		15" HDPE STUB ADDED	

STORM SEWER PLAN & PROFILE
 STREET & STORM SEWER PLANS
 OSAGE
 FIRST PLAT

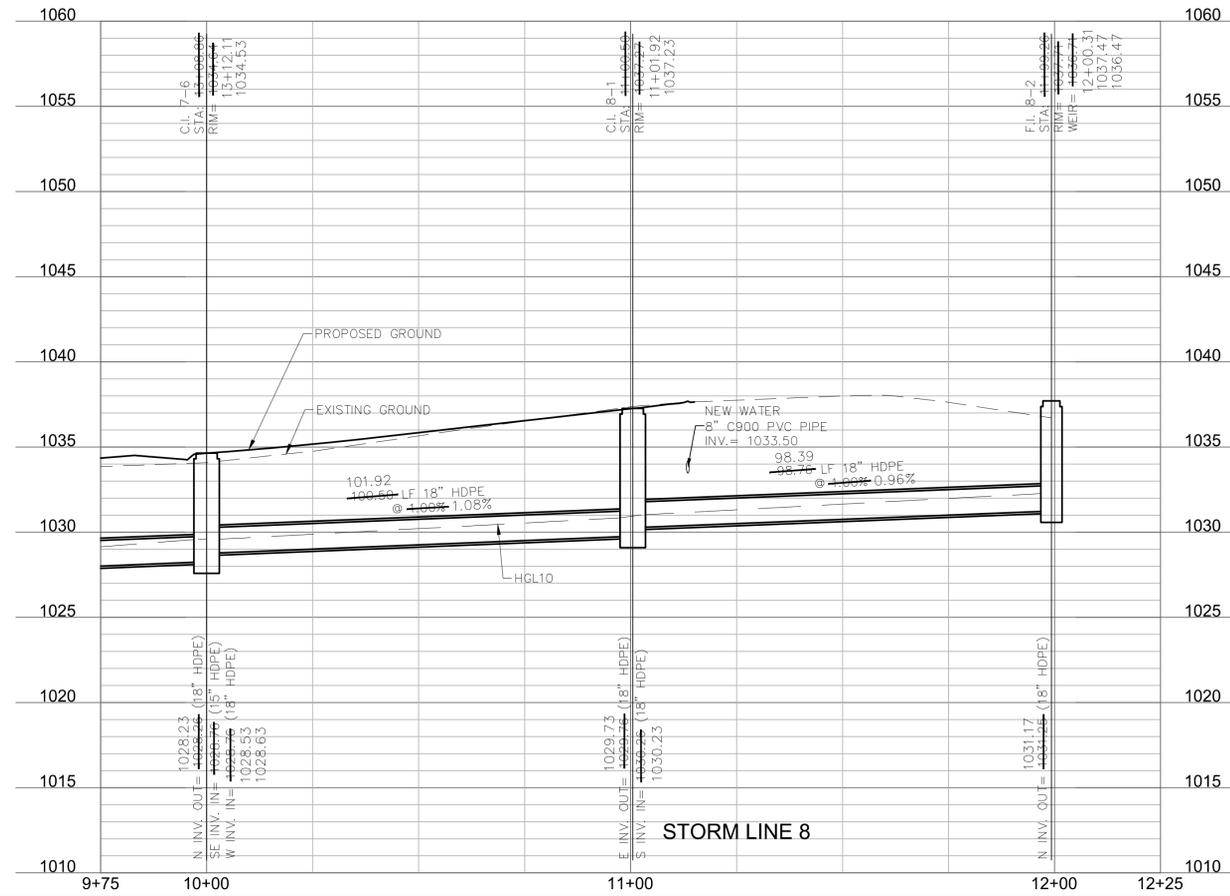
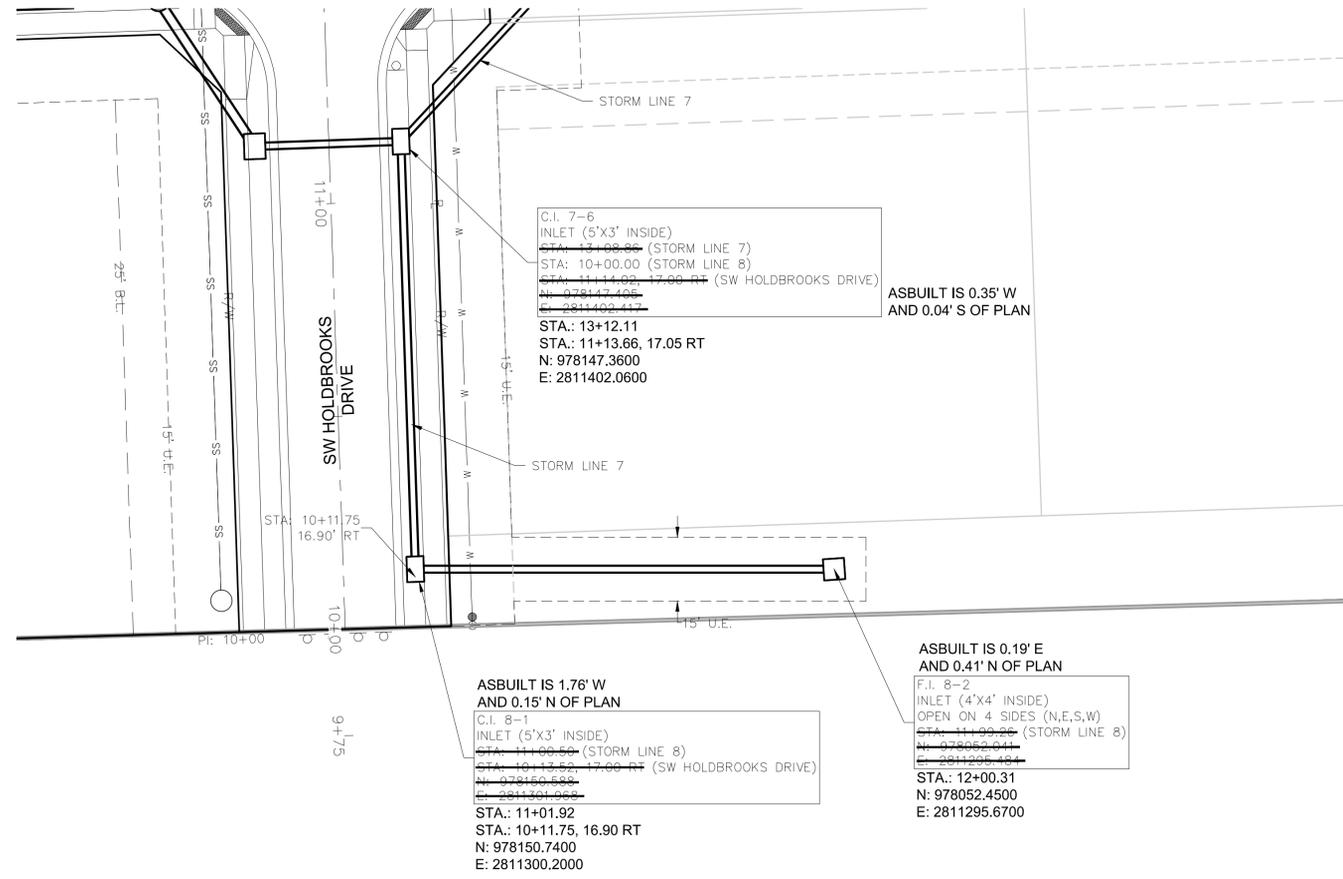
LEE'S SUMMIT, MISSOURI

2020

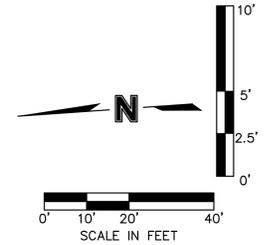
drawn by: AA
 checked by: SS
 designed by: AA
 QA/QC by: JES
 project no.: A19-2339
 drawing no.: C_STM02_A12339
 date: 3/17/2020

SHEET
 C132

DWG: F:\2019\2001-2500\019-2339-A\10-Design\AutoCAD\Final Plans - Asbuilts\Sheets\CNC\A\STREET & STORM\C_STM02_A12339.dwg USER: bworthley
 DATE: Apr 14, 2021 8:57am XREFS: C:\PSTRM_A192339 C:\PBASE_A192339 C:\PBASE_A192339 C:\PUTIL_A192339 C:\PBASE_A192339

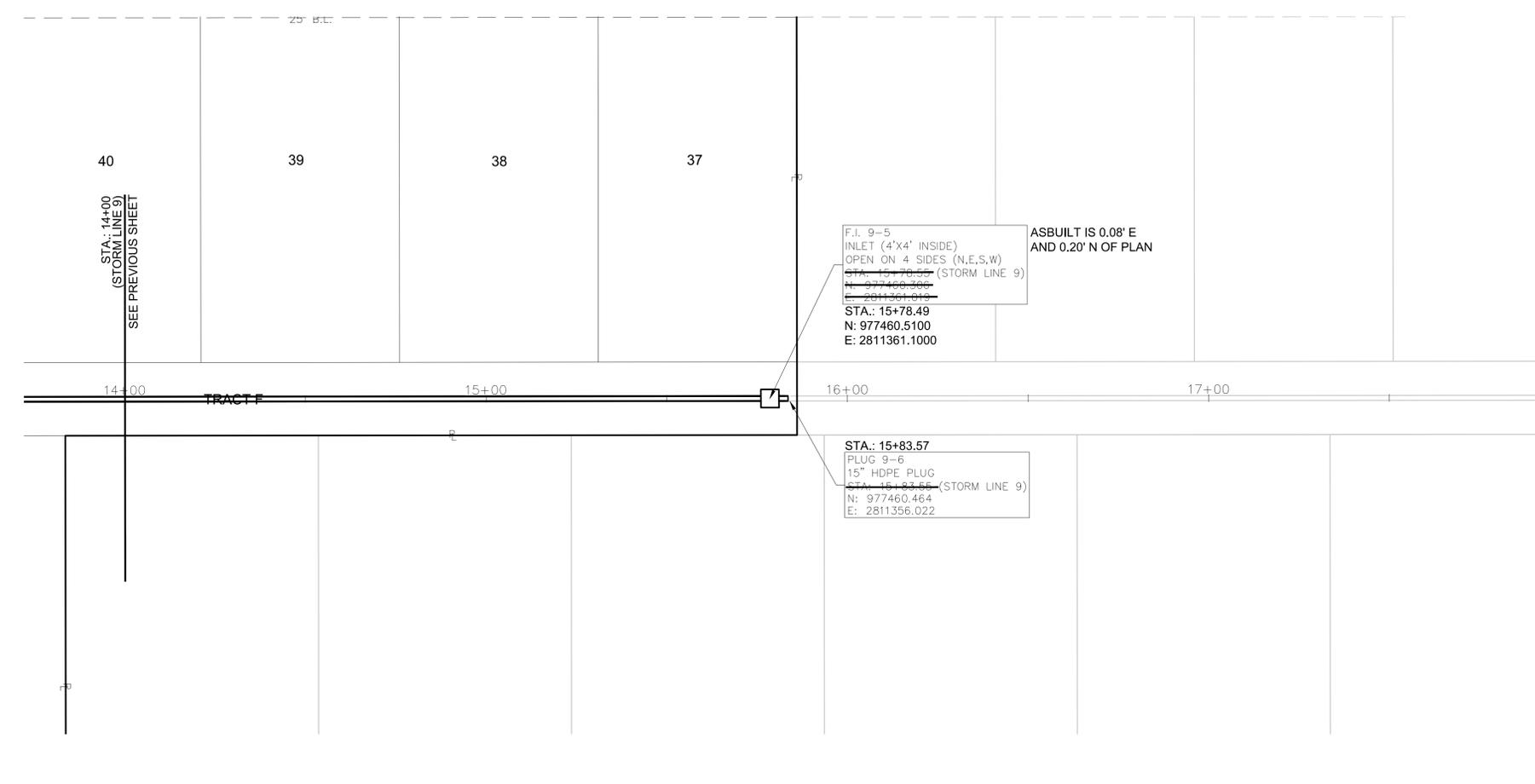


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BY	
REVISIONS DESCRIPTION	
DATE	
REV. NO.	
STORM SEWER PLAN & PROFILE STREET & STORM SEWER PLANS OSAGE FIRST PLAT LEE'S SUMMIT, MISSOURI	
2020	
drawn by:	AA
checked by:	SS
designed by:	AA
QA/QC by:	JES
project no.:	A19-2339
drawing no.:	C_STM02_A12339
date:	3/17/2020
SHEET C133	

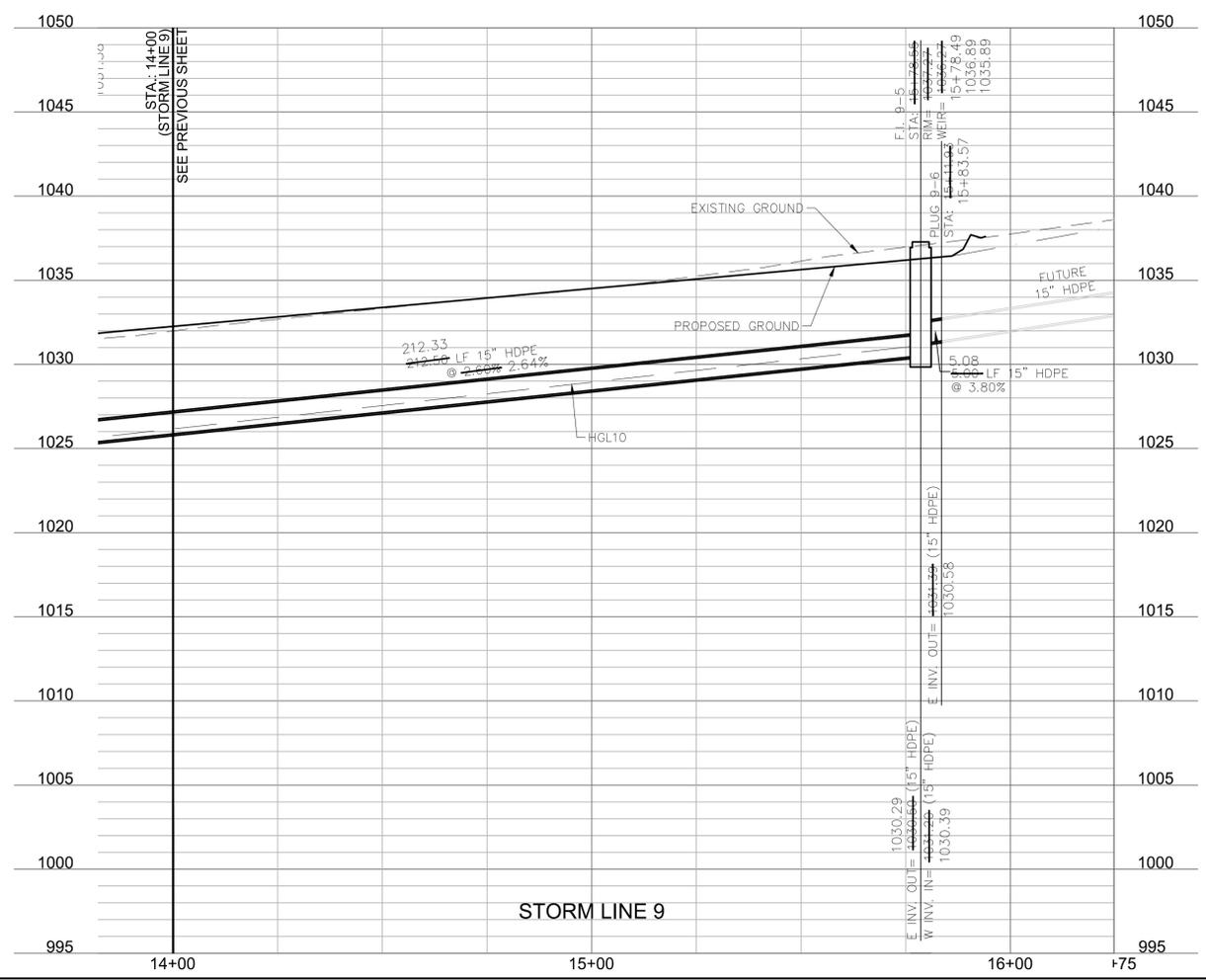
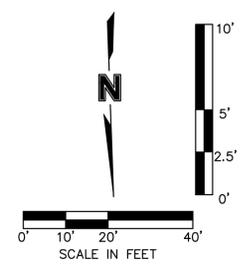
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F.I. 9-5
 INLET (4'x4' INSIDE)
 OPEN ON 4 SIDES (N,E,S,W)
 STA: 15+78.49 (STORM LINE 9)
 N: 977460.265
 E: 2811361.019
 STA: 15+78.49
 N: 977460.5100
 E: 2811361.1000

ASBUILT IS 0.08' E
 AND 0.20' N OF PLAN

STA: 15+83.57
 PLUG 9-6
 15" HDPE PLUG
 STA: 15+83.55 (STORM LINE 9)
 N: 977460.464
 E: 2811356.022



AS-BUILT
 4/14/2021



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 LICENSE NUMBER
 PE-201900237
 4/14/2021
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
2	7/24/2020	15" HDPE STUB ADDED	

STORM SEWER PLAN & PROFILE
 STREET & STORM SEWER PLANS

OSAGE
 FIRST PLAT

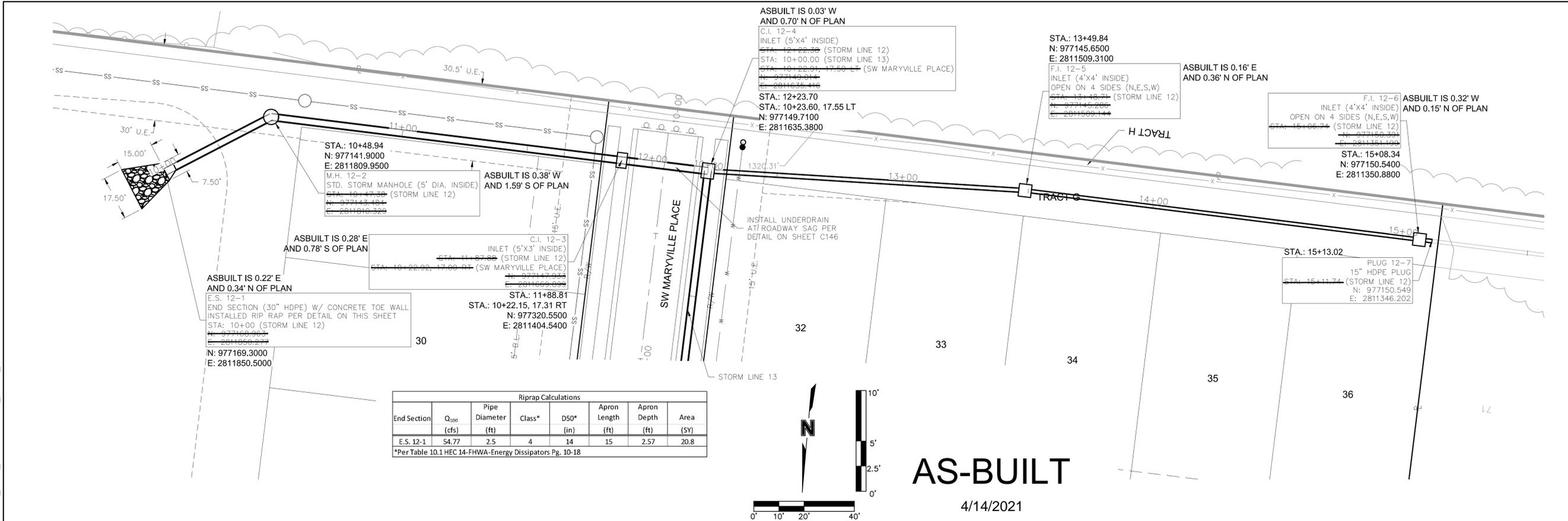
2020

LEE'S SUMMIT, MISSOURI

drawn by: AA
 checked by: SS
 designed by: AA
 QA/QC by: JES
 project no.: A19-2339
 drawing no.: C_STM02_A12339
 date: 3/17/2020

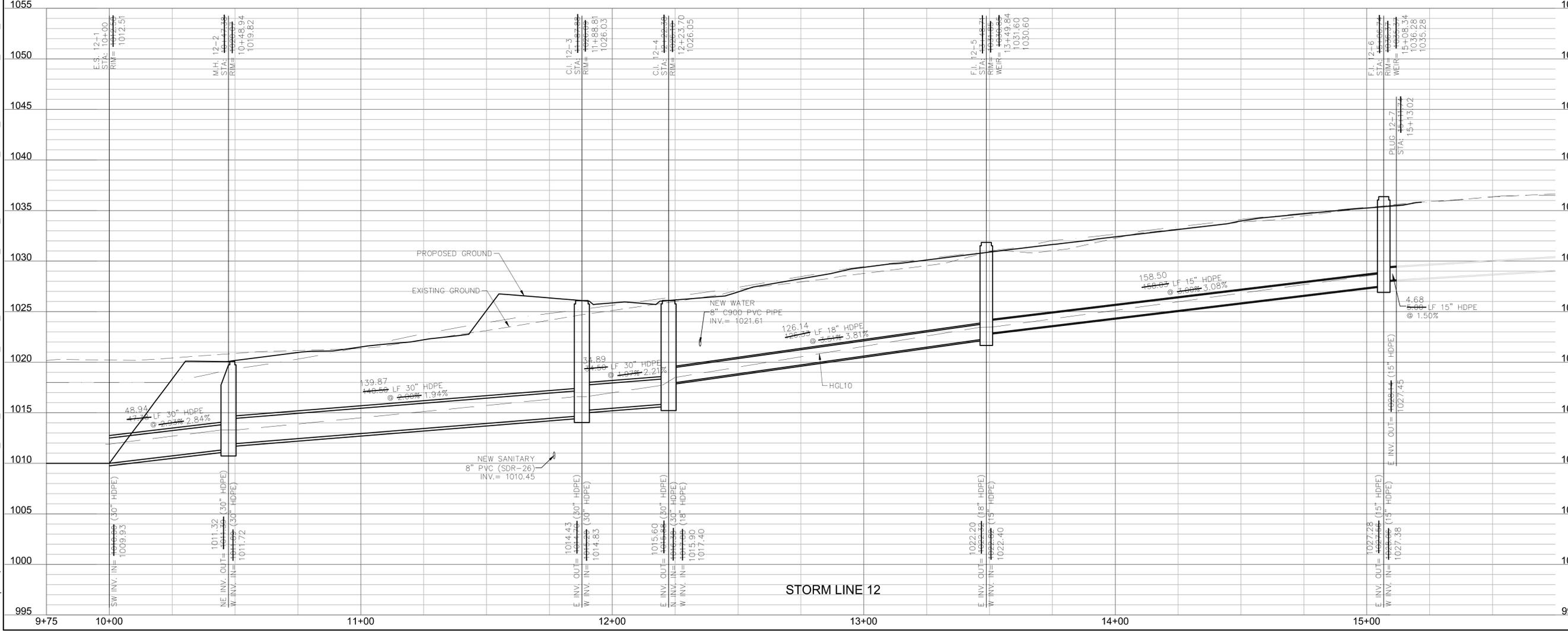
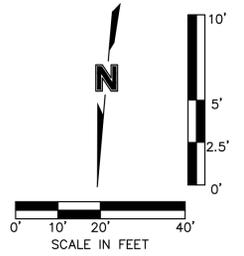
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End Section	Q ₁₀₀ (cfs)	Pipe Diameter (ft)	Class*	D50* (in)	Apron Length (ft)	Apron Depth (ft)	Area (SY)
E.S. 12-1	54.77	2.5	4	14	15	2.57	20.8

*Per Table 10.1 HEC 14-FHWA-Energy Dissipators Pg. 10-18



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REV. NO.	DATE	REVISIONS DESCRIPTION
1	6/19/2020	UNDERDRAIN NOTE ADDED
2	7/24/2020	PIPE SIZE CHANGED FROM 24" TO 30" HDPE. 15" HDPE STUB ADDED

BY: _____

2020

STORM SEWER PLAN & PROFILE
 STREET & STORM SEWER PLANS
 OSAGE
 FIRST PLAT
 LEE'S SUMMIT, MISSOURI

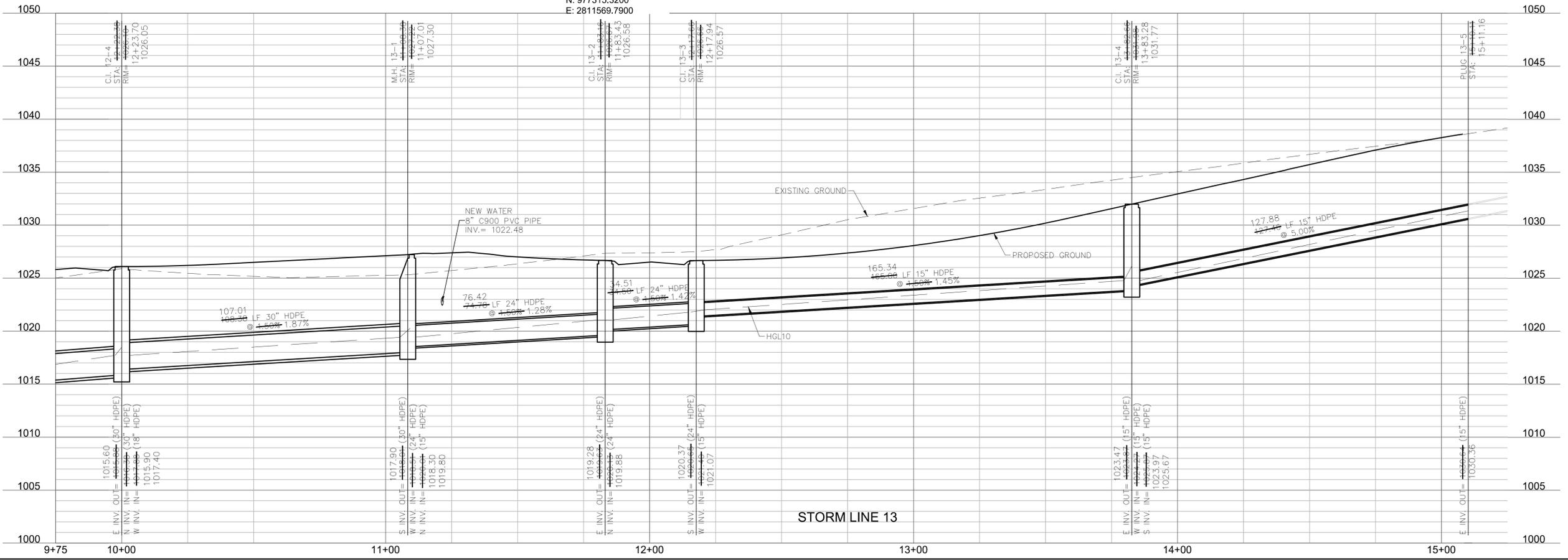
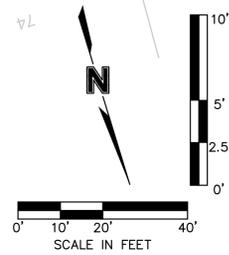
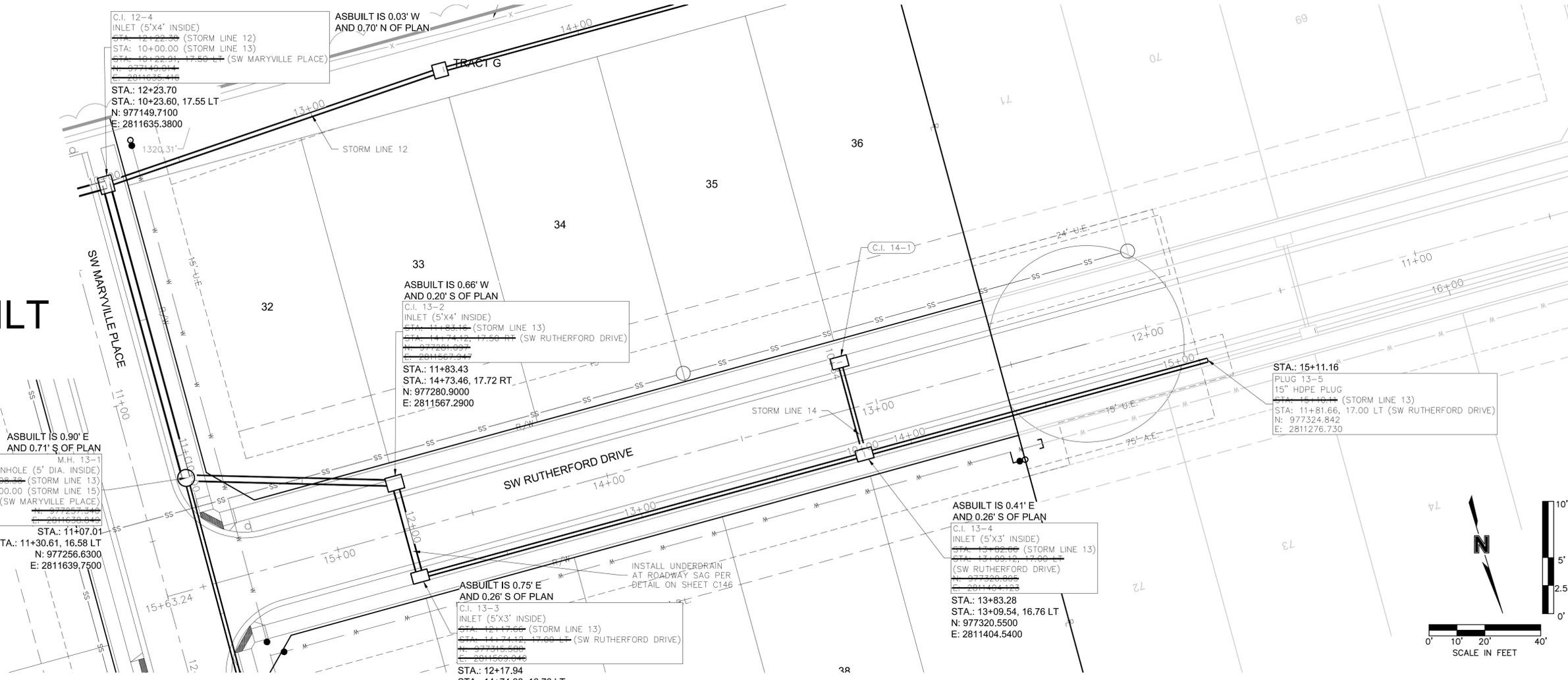
drawn by: AA
 checked by: SS
 designed by: AA
 QA/QC by: JES
 project no.: A19-2339
 drawing no.: C_STM03_A12339
 date: 3/17/2020

SHEET
 C138

DWG: F:\2019\2001-2500\019-2339-A10-Design\AutoCAD\Final Plans - Asbuilts\CNCV\STREET & STORM\C_STM03_A12339.dwg
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REV. NO.	DATE	REVISIONS DESCRIPTION
1	6/15/2020	PIPE AND PLUG 13.5 EXTENDED UNDERDRAIN NOTE ADDED

STORM SEWER PLAN & PROFILE
 STREET & STORM SEWER PLANS

OSAGE
 FIRST PLAT

drawn by: AA
 checked by: SS
 designed by: AA
 QA/QC by: JES
 project no.: A19-2339
 drawing no.: C_STM03_A12339
 date: 3/17/2020

2020

SHEET
C139

LEE'S SUMMIT, MISSOURI

AS-BUILT LINES 2, 3, 4, 5 3/10/2021

F:\2019\2001-2500\019-2339-A\40-Design\AutoCAD\Final Plans - Asbuilts\Sheets\CNCV\STREET & STORM\C_DRN01_A192339.dwg USER: bworthley
 DATE: Mar 10, 2021 4:45pm C:\BASE_A192339 C:\PBLK_A192339 C:\PSTRM_A192339

Inlet Design Table													
10 Year Return Frequency													
Inlet ID	Inlet Location	Peak Flow	Upstream Bypass	Total Flow	Clogging Factor	Inlet Capacity	Sag Inlet Capacity (Note 1)	Captured Flow	Bypass Flow	Inlet Efficiency (Note 2)	Gutter Depth	Gutter Spread	Ponding Depth
		(cfs)	(cfs)	(cfs)		(cfs)	(cfs)	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)
C.I. 2-2(L)	SAG	0.34	...	...	...	...	...	...	...	...	0.08	3.97	...
C.I. 2-2(R)	SAG	2.21	...	...	...	...	...	...	...	...	0.17	8.64	...
C.I. 2-2	SAG	3.64	0.00	3.64	0.80	27.16	21.73	3.64	0.00	100.00%	...	...	...
C.I. 2-4	GRADE	0.45	0.00	0.45	1.00	0.44	0.44	0.44	0.01	96.83%	0.09	4.45	...
C.I. 2-5(L)	SAG	1.31	...	...	...	...	...	...	...	...	0.14	6.76	...
C.I. 2-5(R)	SAG	3.75	...	...	...	...	...	...	...	...	0.21	10.42	...
C.I. 2-5	SAG	7.81	0.11	7.93	0.80	19.40	15.52	7.93	0.00	100.00%	...	...	...
C.I. 2-6	GRADE	1.05	0.00	1.05	1.00	0.95	0.95	0.95	0.10	90.63%	0.12	5.99	...
C.I. 2-7	GRADE	3.41	0.37	3.78	1.00	2.87	2.87	2.87	0.91	75.84%	0.21	10.47	...
C.I. 2-8	GRADE	2.48	0.00	2.48	1.00	2.11	2.11	2.11	0.37	85.10%	0.18	9.18	...
C.I. 2-9	GRADE	2.85	0.00	2.85	1.00	2.36	2.36	2.36	0.49	82.96%	0.19	9.68	...
C.I. 3-1	GRADE	0.41	0.00	0.41	1.00	0.40	0.40	0.40	0.01	97.18%	0.09	4.31	...
F.I. 4-1	SAG	0.90	0.00	0.90	0.80	18.67	14.93	0.90	0.00	100.00%	...	...	0.07
C.I. 4-2(L)	SAG	0.94	...	...	...	...	...	...	...	...	0.13	6.40	...
C.I. 4-2(R)	SAG	0.56	...	...	...	...	...	...	...	...	0.10	5.04	...
C.I. 4-2	SAG	1.99	0.00	1.99	0.80	19.40	15.52	1.99	0.00	100.00%	...	...	...
C.I. 4-3(L)	SAG	2.03	...	...	...	...	...	...	...	...	0.17	8.30	...
C.I. 4-3(R)	SAG	2.63	...	...	...	...	...	...	...	...	0.20	9.99	...
C.I. 4-3	SAG	6.53	0.57	7.10	0.80	19.40	15.52	7.10	0.00	100.00%	...	...	...
F.I. 4-4	SAG	6.60	0.00	6.60	0.80	18.67	14.93	6.60	0.00	100.00%	...	...	0.25
C.I. 5-1(L)	SAG	3.30	...	...	...	...	...	...	...	...	0.22	10.78	...
C.I. 5-1(R)	SAG	0.00	...	...	...	...	...	...	...	...	...	...	...
C.I. 5-1	SAG	3.75	0.91	4.66	0.80	19.40	15.52	4.66	0.00	100.00%	...	...	...
F.I. 7-1	SAG	1.50	0.00	1.50	0.80	23.33	18.67	1.50	0.00	100.00%	...	...	0.08
C.I. 7-2(L)	SAG	0.08	...	...	...	...	...	...	...	...	0.05	2.37	...
C.I. 7-2(R)	SAG	0.56	...	...	...	...	...	...	...	...	0.09	4.69	...
C.I. 7-2	SAG	1.84	0.00	1.84	0.80	19.40	15.52	1.84	0.00	100.00%	...	...	...
C.I. 7-3(L)	SAG	0.54	...	...	...	...	...	...	...	...	0.10	5.01	...
C.I. 7-3(R)	SAG	0.29	...	...	...	...	...	...	...	...	0.08	3.80	...
C.I. 7-3	SAG	4.85	0.13	4.97	0.80	19.40	15.52	4.97	0.00	100.00%	...	...	...
C.I. 7-5	GRADE	1.19	0.00	1.19	1.00	1.07	1.07	1.07	0.12	89.95%	0.13	6.38	...
C.I. 7-6	GRADE	0.26	0.05	0.31	1.00	0.30	0.30	0.30	0.01	98.09%	0.08	3.84	...
C.I. 7-7	SAG	4.17	0.00	4.17	0.80	18.67	14.93	4.17	0.00	100.00%	...	...	0.18
C.I. 8-1	GRADE	0.64	0.00	0.64	1.00	0.59	0.59	0.59	0.05	92.81%	0.09	4.65	...
F.I. 8-2	SAG	6.60	0.00	6.60	0.80	18.67	14.93	6.60	0.00	100.00%	...	...	0.25
F.I. 8-2 FTR	SAG	6.99	0.00	6.99	0.80	18.67	14.93	6.99	0.00	100.00%	...	...	0.26
F.I. 9-4	SAG	14.29	0.00	14.29	0.80	36.20	28.96	14.29	0.00	100.00%	...	...	0.36
F.I. 9-5	SAG	1.91	0.00	1.91	0.80	18.67	14.93	1.91	0.00	100.00%	...	...	0.11
F.I. 9-5 FTR	SAG	1.82	0.00	1.82	0.80	18.67	14.93	1.82	0.00	100.00%	...	...	0.11
C.I. 10-1	GRADE	0.71	0.00	0.71	1.00	0.68	0.68	0.68	0.04	95.08%	0.11	5.44	...
PLUG 10-2	GRADE	12.21	...	...	...	...	...	...	...	...	...	...	...
C.I. 11-1	GRADE	1.09	0.00	1.09	1.00	1.00	1.00	1.00	0.09	92.03%	0.13	6.38	...
C.I. 12-3(L)	SAG	1.54	...	...	...	...	...	...	...	...	0.15	7.51	...
C.I. 12-3(R)	SAG	0.00	...	...	...	...	...	...	...	...	0.00	0.00	...
C.I. 12-3	SAG	2.21	0.00	2.21	0.80	19.40	15.52	2.21	0.00	100.00%	...	...	...
C.I. 12-4(L)	SAG	0.00	...	...	...	...	...	...	...	...	0.00	0.00	...
C.I. 12-4(R)	SAG	0.79	...	...	...	...	...	...	...	...	0.12	5.85	...
C.I. 12-4	SAG	3.00	0.00	3.00	0.80	19.40	15.52	3.00	0.00	100.00%	...	...	...
F.I. 12-5	SAG	0.79	0.00	0.79	0.80	18.67	14.93	0.79	0.00	100.00%	...	...	0.06
F.I. 12-6	SAG	0.38	0.00	0.38	0.80	18.67	14.93	0.38	0.00	100.00%	...	...	0.04
F.I. 12-6 FTR	SAG	7.75	0.00	7.75	0.80	18.67	14.93	7.75	0.00	100.00%	...	...	0.28
C.I. 13-2(L)	SAG	0.04	...	...	...	...	...	...	...	...	0.03	1.72	...
C.I. 13-2(R)	SAG	2.51	...	...	...	...	...	...	...	...	0.18	9.22	...
C.I. 13-2	SAG	4.43	1.01	5.43	0.80	19.40	15.52	5.43	0.00	100.00%	...	...	...
C.I. 13-3(L)	SAG	3.00	...	...	...	...	...	...	...	...	0.16	8.03	...
C.I. 13-3(R)	SAG	0.19	...	...	...	...	...	...	...	...	0.08	4.15	...
C.I. 13-3	SAG	5.29	0.24	5.53	0.80	19.40	15.52	5.53	0.00	100.00%	...	...	...
C.I. 13-4	GRADE	0.23	0.00	0.23	1.00	0.22	0.22	0.22	0.01	96.33%	0.06	2.76	...
PLUG 13-5	GRADE	3.13	...	...	...	...	...	...	...	...	...	...	...
C.I. 14-1	GRADE	2.55	0.00	2.55	1.00	1.54	1.54	1.54	1.01	60.41%	0.14	6.87	...
C.I. 15-1	GRADE	1.73	0.04	1.76	1.00	1.53	1.53	1.53	0.23	86.88%	0.15	7.64	...

Notes:
 1. Inlet capacity at sag location has been reduced by a clogging factor of 0.80, reducing theoretical capacity to 80% capacity, as required per APWA Section 5600.
 Both theoretical capacity and reduced capacity are shown.
 2. Inlet efficiency shown in the tables is Captured Flow/Total Flow, denoting the actual percentage of flow captured after the capacity has been reduced to 80% of theoretical capacity.

Drainage Area Design Table						
10 Year Return Frequency						
Inlet ID	Drainage Area	C	Tc	i	K	Peak Flow
	(ac)		(min)	(in/hr)		(cfs)
C.I. 2-2(L)	0.09	0.51	5.00	7.35	1.00	0.34
C.I. 2-2(R)	0.59	0.51	5.00	7.35	1.00	2.21
C.I. 2-2(B)	0.29	0.51	5.00	7.35	1.00	1.09
C.I. 2-2	0.97	0.51	5.00	7.35	1.00	3.64
C.I. 2-4	0.12	0.51	5.00	7.35	1.00	0.45
C.I. 2-5(L)	0.35	0.51	5.00	7.35	1.00	1.31
C.I. 2-5(R)	1.00	0.51	5.00	7.35	1.00	3.75
C.I. 2-5(B)	1.18	0.51	10.10	6.06	1.00	3.64
C.I. 2-5	2.53	0.51	10.10	6.06	1.00	7.81
C.I. 2-6	0.28	0.51	5.00	7.35	1.00	1.05
C.I. 2-7	0.91	0.51	5.00	7.35	1.00	3.41
C.I. 2-8	0.66	0.51	5.00	7.35	1.00	2.48
C.I. 2-9	0.76	0.51	5.00	7.35	1.00	2.85
C.I. 3-1	0.11	0.51	5.00	7.35	1.00	0.41
F.I. 4-1	0.24	0.51	5.00	7.35	1.00	0.90
C.I. 4-2(L)	0.25	0.51	5.00	7.35	1.00	0.94
C.I. 4-2(R)	0.15	0.51	5.00	7.35	1.00	0.56
C.I. 4-2(B)	0.13	0.51	5.00	7.35	1.00	0.49
C.I. 4-2	0.53	0.51	5.00	7.35	1.00	1.99
C.I. 4-3(L)	0.54	0.51	5.00	7.35	1.00	2.03
C.I. 4-3(R)	0.70	0.51	5.00	7.35	1.00	2.63
C.I. 4-3(B)	0.50	0.51	5.00	7.35	1.00	1.88
C.I. 4-3	1.74	0.51	5.00	7.35	1.00	6.53
F.I. 4-4	2.47	0.47	11.96	5.69	1.00	6.60
C.I. 5-1(L)	0.88	0.51	5.00	7.35	1.00	3.30
C.I. 5-1(R)	0.00	0.51	5.00	7.35	1.00	0.00
C.I. 5-1(B)	0.12	0.51	5.00	7.35	1.00	0.45
C.I. 5-1	1.00	0.51	5.00	7.35	1.00	3.75
F.I. 7-1	0.40	0.51	5.00	7.35	1.00	1.50
C.I. 7-2(L)	0.02	0.51	5.00	7.35	1.00	0.08
C.I. 7-2(R)	0.15	0.51	5.00	7.35	1.00	0.56
C.I. 7-2(B)	0.32	0.51	5.00	7.35	1.00	1.20
C.I. 7-2	0.49	0.51	5.00	7.35	1.00	1.84
C.I. 7-3(L)	0.19	0.39	5.00	7.35	1.00	0.54
C.I. 7-3(R)	0.10	0.39	5.00	7.35	1.00	0.29
C.I. 7-3(B)	1.40	0.39	5.00	7.35	1.00	4.01
C.I. 7-3	1.69	0.39	5.00	7.35	1.00	4.85
C.I. 7-5	0.45	0.36	5.00	7.35	1.00	1.19
C.I. 7-6	0.07	0.51	5.00	7.35	1.00	0.26
C.I. 7-7	1.73	0.42	11.70	5.74	1.00	4.17
C.I. 8-1	0.29	0.30	5.00	7.35	1.00	0.64
F.I. 8-2	2.99	0.30	5.00	7.35	1.00	6.60
F.I. 8-2 FTR	3.99	0.30	11.16	5.84	1.00	6.99
F.I. 9-4	3.81	0.51	5.00	7.35	1.00	14.29
F.I. 9-5	0.51	0.51	5.00	7.35	1.00	1.91
F.I. 9-5 FTR	0.48	0.51	5.00	7.35	1.00	1.82
C.I. 10-1	0.19	0.51	5.00	7.35	1.00	0.71
PLUG 10-2	4.71	0.45	11.57	5.76	1.00	12.21
C.I. 11-1	0.29	0.51	5.00	7.35	1.00	1.09
C.I. 12-3(L)	0.41	0.51	5.00	7.35	1.00	1.54
C.I. 12-3(R)	0.00	0.51	5.00	7.35	1.00	0.00
C.I. 12-3(B)	0.18	0.51	5.00	7.35	1.00	0.68
C.I. 12-3	0.59	0.51	5.00	7.35	1.00	2.21
C.I. 12-4(L)	0.00	0.51	5.00	7.35	1.00	0.00
C.I. 12-4(R)	0.21	0.51	5.00	7.35	1.00	0.79
C.I. 12-4(B)	0.59	0.51	5.00	7.35	1.00	2.21
C.I. 12-4	0.80	0.51	5.00	7.35	1.00	3.00
F.I. 12-5	0.21	0.51	5.00	7.35	1.00	0.79
F.I. 12-6	0.10	0.51	5.00	7.35	1.00	0.38
F.I. 12-6 FTR	3.29	0.41	11.67	5.74	1.00	7.75
C.I. 13-2(L)	0.01	0.51	5.00	7.35	1.00	0.04
C.I. 13-2(R)	0.67	0.51	5.00	7.35	1.00	2.51
C.I. 13-2(B)	0.50	0.51	5.00	7.35	1.00	1.88
C.I. 13-2	1.18	0.51	5.00	7.35	1.00	

AS-BUILT LINES 2, 3, 4, 5 3/10/2021

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Inlet Design Table													
100 Year Return Frequency													
Inlet ID	Inlet Location	Peak Flow	Upstream Bypass	Total Flow	Clogging Factor	Inlet Capacity	Sag Inlet Capacity (Note 1)	Captured Flow	Bypass Flow	Inlet Efficiency (Note 2)	Gutter Depth	Gutter Spread	Ponding Depth
		(cfs)	(cfs)	(cfs)		(cfs)	(cfs)	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)
C.I. 2-2(L)	SAG	0.59	...	...	...	...	...	...	...	...	0.10	4.91	...
C.I. 2-2(R)	SAG	3.88	...	...	...	...	...	...	...	...	0.21	10.67	...
C.I. 2-2	SAG	6.38	0.00	6.38	0.80	27.16	21.73	6.38	0.00	100.00%	...	...	...
C.I. 2-4	GRADE	0.79	0.00	0.79	1.00	0.74	0.74	0.74	0.05	93.71%	0.11	5.49	...
C.I. 2-5(L)	SAG	2.30	...	...	...	...	...	...	...	...	0.17	8.38	...
C.I. 2-5(R)	SAG	6.58	...	...	...	...	...	...	...	...	0.26	12.96	...
C.I. 2-5	SAG	13.81	0.35	14.16	0.80	19.40	15.52	14.16	0.00	100.00%	...	...	...
C.I. 2-6	GRADE	1.84	0.00	1.84	1.00	1.54	1.54	1.54	0.30	83.56%	0.15	7.39	...
C.I. 2-7	GRADE	5.99	1.08	7.07	1.00	4.27	4.27	4.27	2.80	60.43%	0.26	13.23	...
C.I. 2-8	GRADE	4.34	0.00	4.34	1.00	3.26	3.26	3.26	1.08	75.14%	0.23	11.34	...
C.I. 2-9	GRADE	5.00	0.00	5.00	1.00	3.60	3.60	3.60	1.40	72.02%	0.24	11.96	...
C.I. 3-1	GRADE	0.72	0.00	0.72	1.00	0.68	0.68	0.68	0.04	94.30%	0.11	5.32	...
F.I. 4-1	SAG	1.58	0.00	1.58	0.80	18.67	14.93	1.58	0.00	100.00%	...	...	0.10
C.I. 4-2(L)	SAG	1.65	...	...	...	...	...	...	...	...	0.16	7.91	...
C.I. 4-2(R)	SAG	0.99	...	...	...	...	...	...	...	...	0.12	6.22	...
C.I. 4-2	SAG	3.49	0.00	3.49	0.80	19.40	15.52	3.49	0.00	100.00%	...	...	...
C.I. 4-3(L)	SAG	3.55	...	...	...	...	...	...	...	...	0.21	10.37	...
C.I. 4-3(R)	SAG	4.61	...	...	...	...	...	...	...	...	0.26	12.78	...
C.I. 4-3	SAG	11.45	1.67	13.12	0.80	19.40	15.52	13.12	0.00	100.00%	...	...	...
F.I. 4-4	SAG	11.70	0.00	11.70	0.80	18.67	14.93	11.70	0.00	100.00%	...	...	0.37
C.I. 5-1(L)	SAG	5.79	...	...	...	...	...	...	...	...	0.28	14.08	...
C.I. 5-1(R)	SAG	0.00	...	...	...	...	...	...	...	...	...	...	...
C.I. 5-1	SAG	6.58	2.80	9.38	0.80	19.40	15.52	9.38	0.00	100.00%	...	...	...
F.I. 7-1	SAG	2.63	0.00	2.63	0.80	23.33	18.67	2.63	0.00	100.00%	...	...	0.12
C.I. 7-2(L)	SAG	0.13	...	...	...	...	...	...	...	...	0.06	2.93	...
C.I. 7-2(R)	SAG	0.99	...	...	...	...	...	...	...	...	0.12	5.79	...
C.I. 7-2	SAG	3.22	0.00	3.22	0.80	19.40	15.52	3.22	0.00	100.00%	...	...	...
C.I. 7-3(L)	SAG	0.96	...	...	...	...	...	...	...	...	0.13	6.51	...
C.I. 7-3(R)	SAG	0.50	...	...	...	...	...	...	...	...	0.09	4.69	...
C.I. 7-3	SAG	8.50	0.39	8.90	0.80	19.40	15.52	8.90	0.00	100.00%	...	...	...
C.I. 7-5	GRADE	2.09	0.00	2.09	1.00	1.72	1.72	1.72	0.37	82.50%	0.16	7.87	...
C.I. 7-6	GRADE	0.46	0.15	0.61	1.00	0.58	0.58	0.58	0.03	95.27%	0.10	4.95	...
C.I. 7-7	SAG	7.38	0.00	7.38	0.80	18.67	14.93	7.38	0.00	100.00%	...	...	0.27
C.I. 8-1	GRADE	1.12	0.00	1.12	1.00	0.98	0.98	0.98	0.15	87.05%	0.11	5.74	...
F.I. 8-2	SAG	11.57	0.00	11.57	0.80	18.67	14.93	11.57	0.00	100.00%	...	...	0.36
F.I. 8-2 FTR	SAG	12.36	0.00	12.36	0.80	18.67	14.93	12.36	0.00	100.00%	...	...	0.38
F.I. 9-4	SAG	25.07	0.00	25.07	0.80	36.20	28.96	25.07	0.00	100.00%	...	...	0.27
F.I. 9-5	SAG	3.36	0.00	3.36	0.80	18.67	14.93	3.36	0.00	100.00%	...	...	0.16
F.I. 9-5 FTR	SAG	3.19	0.00	3.19	0.80	18.67	14.93	3.19	0.00	100.00%	...	...	0.15
C.I. 10-1	GRADE	1.25	0.00	1.25	1.00	1.13	1.13	1.13	0.12	90.75%	0.13	6.72	...
PLUG 10-2	GRADE	21.62	...	...	...	...	...	...	...	...	...	...	...
C.I. 11-1	GRADE	1.91	0.00	1.91	1.00	1.64	1.64	1.64	0.27	85.80%	0.16	7.87	...
C.I. 12-3(L)	SAG	2.70	...	...	...	...	...	...	...	...	0.19	9.28	...
C.I. 12-3(R)	SAG	0.00	...	...	...	...	...	...	...	...	0.00	0.00	...
C.I. 12-3	SAG	3.88	0.00	3.88	0.80	19.40	15.52	3.88	0.00	100.00%	...	...	...
C.I. 12-4(L)	SAG	0.00	...	...	...	...	...	...	...	...	0.00	0.00	...
C.I. 12-4(R)	SAG	1.38	...	...	...	...	...	...	...	...	0.14	7.22	...
C.I. 12-4	SAG	5.26	0.00	5.26	0.80	19.40	15.52	5.26	0.00	100.00%	...	...	...
F.I. 12-5	SAG	1.38	0.00	1.38	0.80	18.67	14.93	1.38	0.00	100.00%	...	...	0.09
F.I. 12-6	SAG	0.66	0.00	0.66	0.80	18.67	14.93	0.66	0.00	100.00%	...	...	0.05
F.I. 12-6 FTR	SAG	13.72	0.00	13.72	0.80	18.67	14.93	13.72	0.00	100.00%	...	...	0.41
C.I. 13-2(L)	SAG	0.07	...	...	...	...	...	...	...	...	0.04	2.12	...
C.I. 13-2(R)	SAG	4.41	...	...	...	...	...	...	...	...	0.24	11.88	...
C.I. 13-2	SAG	7.77	2.52	10.28	0.80	19.40	15.52	10.28	0.00	100.00%	...	...	...
C.I. 13-3(L)	SAG	5.26	...	...	...	...	...	...	...	...	0.20	9.93	...
C.I. 13-3(R)	SAG	0.33	...	...	...	...	...	...	...	...	0.12	5.83	...
C.I. 13-3	SAG	9.28	0.74	10.02	0.80	19.40	15.52	10.02	0.00	100.00%	...	...	...
C.I. 13-4	GRADE	0.39	0.00	0.39	1.00	0.37	0.37	0.37	0.03	92.85%	0.07	3.41	...
PLUG 13-5	GRADE	5.48	...	...	...	...	...	...	...	...	...	...	...
C.I. 14-1	GRADE	4.47	0.00	4.47	1.00	1.96	1.96	1.96	2.52	43.75%	0.17	8.48	...
C.I. 15-1	GRADE	3.03	0.12	3.14	1.00	2.43	2.43	2.43	0.71	77.45%	0.19	9.49	...

Notes:
 1. Inlet capacity at sag location has been reduced by a clogging factor of 0.80, reducing theoretical capacity to 80% capacity, as required per APWA Section 5600. Both theoretical capacity and reduced capacity are shown.
 2. Inlet efficiency shown in the tables is Captured Flow/Total Flow, denoting the actual percentage of flow captured after the capacity has been reduced to 80% of theoretical capacity.

Drainage Area Design Table						
100 Year Return Frequency						
Inlet ID	Drainage Area	C	Tc	i	K	Peak Flow
	(ac)		(min)	(in/hr)		(cfs)
C.I. 2-2(L)	0.09	0.51	5.00	10.32	1.25	0.59
C.I. 2-2(R)	0.59	0.51	5.00	10.32	1.25	3.88
C.I. 2-2(B)	0.29	0.51	5.00	10.32	1.25	1.91
C.I. 2-2	0.97	0.51	5.00	10.32	1.25	6.38
C.I. 2-4	0.12	0.51	5.00	10.32	1.25	0.79
C.I. 2-5(L)	0.35	0.51	5.00	10.32	1.25	2.30
C.I. 2-5(R)	1.00	0.51	5.00	10.32	1.25	6.58
C.I. 2-5(B)	1.18	0.51	10.10	8.56	1.25	6.44
C.I. 2-5	2.53	0.51	10.10	8.56	1.25	13.81
C.I. 2-6	0.28	0.51	5.00	10.32	1.25	1.84
C.I. 2-7	0.91	0.51	5.00	10.32	1.25	5.99
C.I. 2-8	0.66	0.51	5.00	10.32	1.25	4.34
C.I. 2-9	0.76	0.51	5.00	10.32	1.25	5.00
C.I. 3-1	0.11	0.51	5.00	10.32	1.25	0.72
F.I. 4-1	0.24	0.51	5.00	10.32	1.25	1.58
C.I. 4-2(L)	0.25	0.51	5.00	10.32	1.25	1.65
C.I. 4-2(R)	0.15	0.51	5.00	10.32	1.25	0.99
C.I. 4-2(B)	0.13	0.51	5.00	10.32	1.25	0.86
C.I. 4-2	0.53	0.51	5.00	10.32	1.25	3.49
C.I. 4-3(L)	0.54	0.51	5.00	10.32	1.25	3.55
C.I. 4-3(R)	0.70	0.51	5.00	10.32	1.25	4.61
C.I. 4-3(B)	0.50	0.51	5.00	10.32	1.25	3.29
C.I. 4-3	1.74	0.51	5.00	10.32	1.25	11.45
F.I. 4-4	2.47	0.47	11.96	8.06	1.25	11.70
C.I. 5-1(L)	0.88	0.51	5.00	10.32	1.25	5.79
C.I. 5-1(R)	0.00	0.51	5.00	10.32	1.25	0.00
C.I. 5-1(B)	0.12	0.51	5.00	10.32	1.25	0.79
C.I. 5-1	1.00	0.51	5.00	10.32	1.25	6.58
F.I. 7-1	0.40	0.51	5.00	10.32	1.25	2.63
C.I. 7-2(L)	0.02	0.51	5.00	10.32	1.25	0.13
C.I. 7-2(R)	0.15	0.51	5.00	10.32	1.25	0.99
C.I. 7-2(B)	0.32	0.51	5.00	10.32	1.25	2.11
C.I. 7-2	0.49	0.51	5.00	10.32	1.25	3.22
C.I. 7-3(L)	0.19	0.39	5.00	10.32	1.25	0.96
C.I. 7-3(R)	0.10	0.39	5.00	10.32	1.25	0.50
C.I. 7-3(B)	1.40	0.39	5.00	10.32	1.25	7.05
C.I. 7-3	1.69	0.39	5.00	10.32	1.25	8.50
C.I. 7-5	0.45	0.36	5.00	10.32	1.25	2.09
C.I. 7-6	0.07	0.51	5.00	10.32	1.25	0.46
C.I. 7-7	1.73	0.42	11.70	8.13	1.25	7.38
C.I. 8-1	0.29	0.30	5.00	10.32	1.25	1.12
F.I. 8-2	2.99	0.30	5.00	10.32	1.25	11.57
F.I. 8-2 FTR	3.99	0.30	11.16	8.27	1.25	12.36
F.I. 9-4	3.81	0.51	5.00	10.32	1.25	25.07
F.I. 9-5	0.51	0.51	5.00	10.32	1.25	3.36
F.I. 9-5 FTR	0.48	0.51	5.00	10.32	1.25	3.19
C.I. 10-1	0.19	0.51	5.00	10.32	1.25	1.25
PLUG 10-2	4.71	0.45	11.57	8.16	1.25	21.62
C.I. 11-1	0.29	0.51	5.00	10.32	1.25	1.91
C.I. 12-3(L)	0.41	0.51	5.00	10.32	1.25	2.70
C.I. 12-3(R)	0.00	0.51	5.00	10.32	1.25	0.00
C.I. 12-3(B)	0.18	0.51	5.00	10.32	1.25	1.18
C.I. 12-3	0.59	0.51	5.00	10.32	1.25	3.88
C.I. 12-4(L)	0.00	0.51	5.00	10.32	1.25	0.00
C.I. 12-4(R)	0.21	0.51	5.00	10.32	1.25	1.38
C.I. 12-4(B)	0.59	0.51	5.00	10.32	1.25	3.88
C.I. 12-4	0.80	0.51	5.00	10.32	1.25	5.26
F.I. 12-5	0.21	0.51	5.00	10.32	1.25	1.38
F.I. 12-6	0.10	0.51	5.00	10.32	1.25	0.66
F.I. 12-6 FTR	3.29	0.41	11.67	8.14	1.25	13.72
C.I. 13-2(L)	0.01	0.51	5.00	10.32	1.25	0.07
C.I. 13-2(R)	0.67	0.51	5.00	10.32	1.25	4.41
C.I. 13-2(B)						

