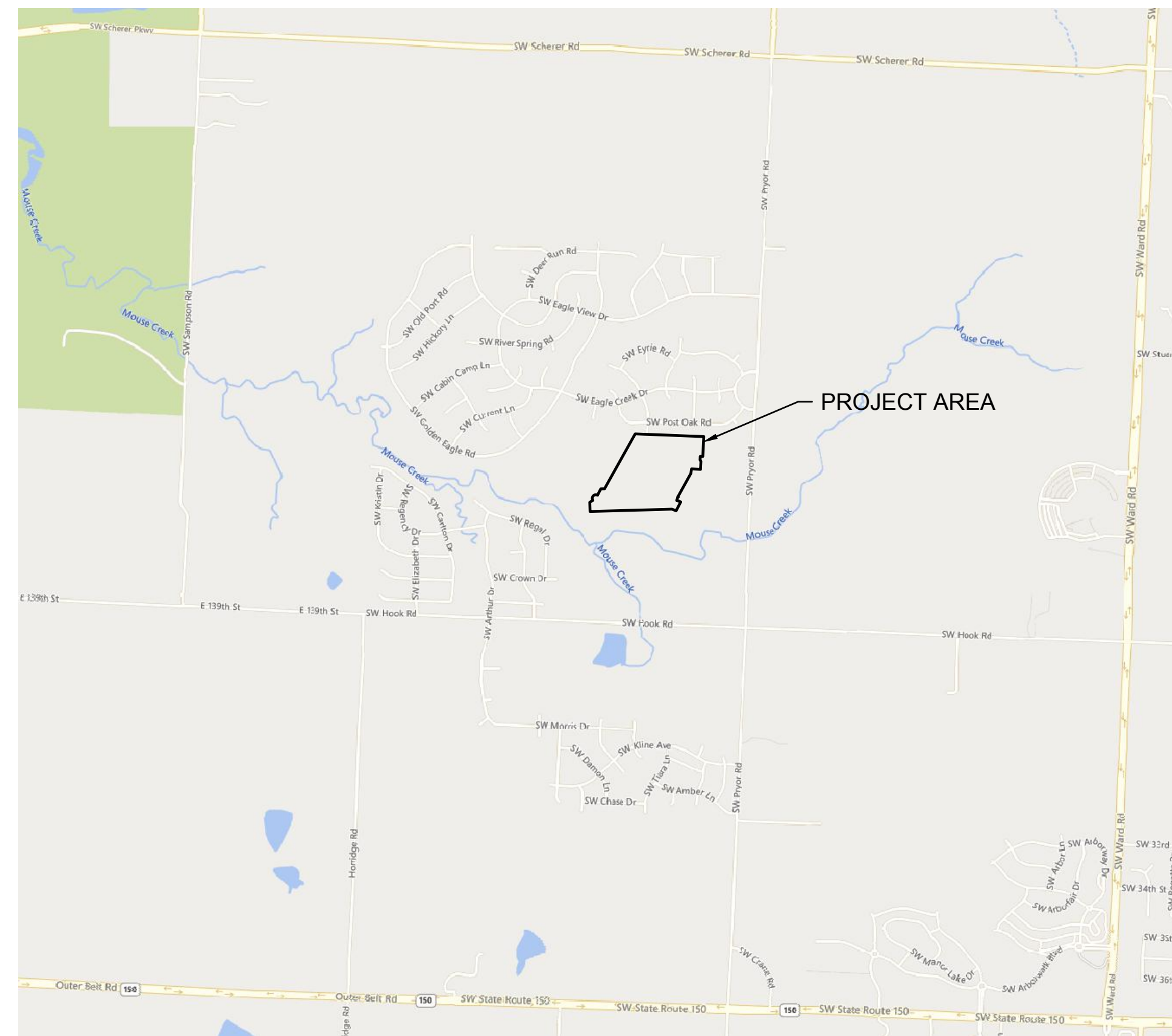
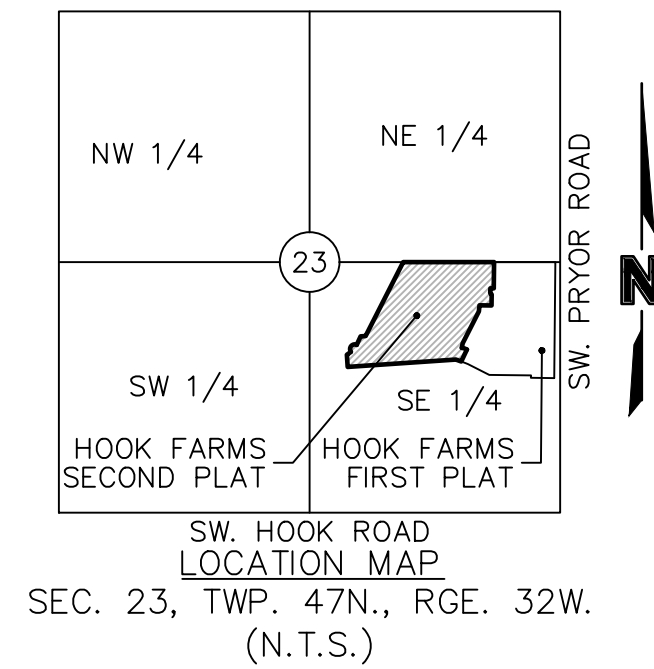


# HOOK FARMS SECOND PLAT STREET & STORM SEWER PLANS

SECTION 23, TOWNSHIP 47 N, RANGE 32 W  
IN LEE'S SUMMIT, JACKSON COUNTY, MO



### PROPERTY DESCRIPTION

A TRACT OF LAND IN THE SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 47 NORTH, RANGE 32 WEST OF THE 5TH PRINCIPAL MERIDIAN IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI BEING BOUNDED AND DESCRIBED BY OR UNDER THE DIRECT SUPERVISION OF JASON S. ROUDEBUSH, P.L.S. 2002014092 AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SOUTHEAST QUARTER; THENCE NORTH 02°45'34" EAST, ON THE EAST LINE OF SAID SOUTHEAST QUARTER, 2,635.08 FEET TO THE NORTHEAST CORNER OF SAID SOUTHEAST QUARTER; THENCE NORTH 87°45'24" WEST, ON THE NORTH LINE OF SAID SOUTHEAST QUARTER, 50.00 FEET TO THE SOUTHEAST CORNER OF LOT 3, EAGLE CREEK—FIRST PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 110409 IN BOOK 165 AT PAGE 01 IN JACKSON COUNTY RECORDER OF DEEDS OFFICE, ALSO BEING THE NORTHWEST CORNER OF PROPOSED HOOK FARMS FIRST PLAT; THENCE CONTINUING NORTH 87°45'24" WEST ON SAID NORTH LINE, ALSO BEING THE PROPOSED NORTH LINE OF SAID PROPOSED HOOK FARMS FIRST PLAT, ALSO BEING THE SOUTH LINE OF SAID EAGLE CREEK—FIRST PLAT, 643.83 FEET TO THE POINT OF BEGINNING OF THE TRACT OF LAND TO BE HEREIN DESCRIBED; THENCE LEAVING SAID NORTH AND SOUTH LINES, SOUTH 02°59'10" WEST, ALONG THE PROPOSED WESTERLY LINE OF PROPOSED HOOK FARMS FIRST PLAT, 277.38 FEET; THENCE NORTH 87°00'50" WEST, ALONG SAID PROPOSED WESTERLY LINE, 36.00 FEET; THENCE SOUTH 02°59'10" WEST, ALONG SAID PROPOSED WESTERLY LINE, 50.00 FEET; THENCE SOUTH 42°00'50" EAST, ALONG SAID PROPOSED WESTERLY LINE, 19.80 FEET; THENCE SOUTH 02°59'10" WEST, ALONG SAID PROPOSED WESTERLY LINE, 116.00 FEET; THENCE NORTH 87°00'50" WEST, ALONG SAID PROPOSED WESTERLY LINE, 126.12 FEET; THENCE SOUTH 07°19'52" WEST, ALONG SAID PROPOSED WESTERLY LINE, 64.17 FEET; THENCE SOUTH 29°10'47" WEST, ALONG SAID PROPOSED WESTERLY LINE, 375.17 FEET; THENCE SOUTH 15°20'56" WEST, ALONG SAID PROPOSED WESTERLY LINE, 50.00 FEET; THENCE ALONG SAID PROPOSED WESTERLY LINE, EASTERLY ALONG A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF SOUTH 74°39'04" EAST WITH A RADIUS OF 275.00 FEET, A CENTRAL ANGLE OF 11°57'16" AND AN ARC DISTANCE OF 57.38 FEET; THENCE SOUTH 27°18'12" WEST, ALONG SAID PROPOSED WESTERLY LINE, 138.17 FEET; THENCE LEAVING SAID PROPOSED WESTERLY LINE, NORTH 67°11'53" WEST, 61.05 FEET; THENCE SOUTH 88°21'16" WEST, 1,139.83 FEET; THENCE NORTH 01°38'44" WEST, 128.09 FEET; THENCE NORTH 57°02'58" EAST, 49.90 FEET; THENCE NORTHEASTERLY ALONG A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF NORTH 32°57'02" WEST WITH A RADIUS OF 50.00 FEET, A CENTRAL ANGLE OF 150°22'53" AND AN ARC DISTANCE OF 131.23 FEET; THENCE NORTH 27°25'51" EAST, 98.75 FEET; THENCE NORTH 88°21'16" EAST, 52.12 FEET; THENCE NORTH 29°10'47" EAST, 873.51 FEET TO A POINT ON SAID NORTH LINE OF SAID SOUTHEAST QUARTER, ALSO BEING THE SOUTH LINE OF EAGLE CREEK—SECOND PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 200100058889 IN BOOK 165 AT PAGE 09 IN SAID JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE SOUTH 87°45'24" EAST, ON SAID NORTH LINE AND SAID SOUTH LINE, 682.19 FEET TO THE SOUTHEAST CORNER OF SAID EAGLE CREEK—SECOND PLAT, ALSO BEING THE SOUTHWEST CORNER OF SAID EAGLE CREEK—FIRST PLAT; THENCE SOUTH 87°45'24" EAST ON SAID NORTH LINE, AND SAID SOUTH LINE OF EAGLE CREEK—FIRST PLAT, 273.64 FEET TO THE POINT OF BEGINNING. CONTAINING 1,157,274 SQUARE FEET OR 26.57 ACRES, MORE OR LESS.

### BENCHMARK

JA-74  
ELEVATION: 1058.10  
N: 978461-2779  
E: 2809447-9650  
DESCRIPTION: KC METRO ALUMINUM GRS DISK SET IN CONCRETE. THE STATION IS STAMPED JA-74, 1988, AND PROJECTS ABOUT 1 INCH

SHEET LIST	
NUMBER	TITLE
C101	TITLE SHEET
C102	GENERAL NOTES
C103	GENERAL LAYOUT
C104	TYPICAL SECTIONS
C105	GRADING PLAN (FOR REFERENCE)
C106	GRADING PLAN (FOR REFERENCE)
C107	SWALE 1 PLAN & PROFILE
C108	SWALE 2 PLAN & PROFILE
C109	SWALE 2 PLAN & PROFILE
C110	ROADWAY PLAN & PROFILE (SW HOOK FARM DRIVE)
C111	ROADWAY PLAN & PROFILE (SW HOOK FARM DRIVE)
C112	ROADWAY PLAN & PROFILE (SW HOOK FARM DRIVE)
C113	ROADWAY PLAN & PROFILE (SW WHEATFIELD COURT)
C114	ROADWAY PLAN & PROFILE (SW WHEATFIELD COURT)
C115	ROADWAY PLAN & PROFILE (SW TRACKER LANE)
C116	ROADWAY PLAN & PROFILE (SW TRACKER LANE)
C117	ROADWAY PLAN & PROFILE (SW TRACKER LANE)
C118	ROADWAY PLAN & PROFILE (SW FARMHOUSE ROAD)
C119	ROADWAY PLAN & PROFILE (SW FIREFLY LANE)
C120	ROADWAY PLAN & PROFILE (SW FIREFLY LANE)
C121	ROADWAY PLAN & PROFILE (SW BARLEY FIELD DRIVE)
C122	ROADWAY PLAN & PROFILE (SW BARLEY FIELD DRIVE)
C123	TRAFFIC CONTROL PLAN
C124	SW TRACKER LANE & SW HOOK FARM DRIVE
C125	SW FIREFLY LANE & SW HOOK FARM DRIVE
C126	SW BARLEY FIELD DRIVE & SW HOOK FARM DRIVE
C127	SW FARMHOUSE ROAD & SW TRACKER LANE
C128	SW WHEATFIELD COURT & SW TRACKER LANE
C129	SW FIREFLY LANE & SW WHEATFIELD COURT
C130	SW BARLEY FIELD DRIVE & SW WHEATFIELD COURT
C131	SW HOOK FARM DRIVE CUL-DE-SAC
C132	STORM SEWER PLAN & PROFILE (LINE 1)
C133	STORM SEWER PLAN & PROFILE (LINE 1)
C134	STORM SEWER PLAN & PROFILE (LINE 2)
C135	STORM SEWER PLAN & PROFILE (LINE 2)
C136	STORM SEWER PLAN & PROFILE (LINES 3 & 4)
C137	STORM SEWER PLAN & PROFILE (LINES 5 & 7)
C138	STORM SEWER PLAN & PROFILE (LINE 6)
C139	STORM SEWER PLAN & PROFILE (LINE 8)
C140	STORM SEWER PLAN & PROFILE (LINE 9)
C141	STORM SEWER PLAN & PROFILE (LINE 10)
C142	STORM SEWER PLAN & PROFILE (LINES 11 & 12)
C143	WATER QUALITY BASIN PLAN
C144	MASTER DRAINAGE PLAN
C145	DRAINAGE PLAN
C146	DRAINAGE TABLES
C147	DRAINAGE TABLES
C148	DETAIL SHEET
C149	DETAIL SHEET
C150	DETAIL SHEET

PROJECT TEAM & UTILITY CONTACT LIST	
<b>OWNER / DEVELOPER</b> HUNT MIDWEST REAL ESTATE DEVELOPMENT, INC. 8300 NE UNDERGROUND DRIVE KANSAS CITY, MO 64161 CONTACT: AARON SCHMIDT PHONE: 816.455.2500	<b>UTILITY SERVICE NUMBERS</b> NAME: LEE'S SUMMIT PUBLIC WORKS PHONE: 816-969-1800  NAME: LEE'S SUMMIT WATER & SERVICES DEPARTMENT PHONE: 816-969-1940  NAME: SPIRE (MGE) PHONE: 314-342-0500  NAME: AT&T PHONE: 800-286-8313  NAME: EVERGY PHONE: 816-471-5275  NAME: SPECTRUM (TWC) PHONE: 877-772-2253  NAME: GOOGLE FIBER PHONE: 877-454-6959
<b>ENGINEER</b> OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: JULIE E. SELLERS, P.E. PHONE: 816.361.1177 EMAIL: JSSELLERS@OLSSON.COM	
<b>SURVEYOR</b> OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: JASON ROUDEBUSH, P.L.S. PHONE: 816.361.1177 EMAIL: JROUDEBOUSH@OLSSON.COM	

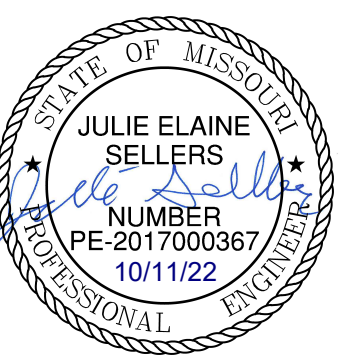
NOT FOR CONSTRUCTION  
 REVIEWED FOR CONSTRUCTION

OLSSON HAS BEEN RETAINED TO PROVIDE AS-BUILT DRAWINGS FOR THIS PROJECT.

JULIE E. SELLERS, P.E.  
 CIVIL ENGINEER  
 MO # PE-2017000367  
 10/11/22  
 DATE

## AS BUILT

DATE SURVEYED: 2022-05-26  
 I HEREBY CERTIFY THAT THE CONDITIONS SHOWN ARE CORRECT AND THE SEWER ARE ACCEPTABLY LOCATED WITHIN EXISTING EASEMENTS OR RIGHT OF WAYS.



REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

TITLE SHEET  
 STREET & STORM SEWER PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4081  
 date: 01-08-2021

SHEET  
C101

Olsson - Civil Engineering  
 Missouri Certificate of Authority #001592  
 1301 Burlington Street  
 North Kansas City, MO 64116  
 TEL 816.361.1177  
 FAX 816.361.1888  
 www.olsson.com





DWG: F:\2019\4001-4500\019-4061-BV40-Design\AutoCAD\Asbuilt\Sheets\GNC\A\Street & Storm Plans\C\_TTL01\_B194061.dwg  
 DATE: Oct 04, 2022 11:10am USER: ssc/or

**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 ENCROACH 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

ESTIMATE OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	AS-BUILT
STREET				
	EXCAVATION	C.Y.	26149	
	EMBANKMENT	C.Y.	25993	
	SUBGRADE STABILIZATION (6" FLYASH TREATMENT)	S.Y.	15049	
	6" ASPHALT PAVEMENT	S.Y.	12232	
	CONCRETE CURB & GUTTER (CG-2)	L.F.	8300	
	CONCRETE CURB & GUTTER (CG-2 DRY)	L.F.	166	
	5' CONCRETE SIDEWALK	L.F.	16.50	
	MILL & OVERLAY	S.Y.	40	
	ADA RAMP	EA.	15	
	STOP SIGNS	EA.	7	
	STREET NAME SIGNS	EA.	14	
	END OF ROAD TREATMENT	EA.	1	
STORM				
	STD. CURB INLET (5'x3' INSIDE)	EA.	<del>21</del>	21
	STD. CURB INLET (5'x4' INSIDE)	EA.	<del>2</del>	2
	STD. CURB INLET (5'x5' INSIDE)	EA.	<del>2</del>	2
	STD. CURB INLET (8'x3' INSIDE)	EA.	<del>2</del>	2
	STD. STORM MANHOLE (4' DIA. INSIDE)	EA.	<del>1</del>	1
	STD. STORM MANHOLE (5' DIA. INSIDE)	EA.	<del>1</del>	1
	STD. FIELD INLET (4'x4' INSIDE)	EA.	<del>7</del>	7
	WATER QUALITY BASIN OUTLET STRUCTURE	EA.	<del>1</del>	1
	12" PVC	L.F.	<del>168.41</del>	
	15" HDPE	L.F.	<del>1092.05</del>	1759.36+
	18" HDPE	L.F.	<del>477.24</del>	324.77+
	24" HDPE	L.F.	<del>945.56</del>	942.83
	30" HDPE	L.F.	<del>216.94</del>	217.86
	36" HDPE	L.F.	<del>549.76</del>	547.53
	12" HDPE END SECTION	EA.	<del>1</del>	1
	15" HDPE END SECTION	EA.	<del>1</del>	1
	18" HDPE END SECTION	EA.	<del>1</del>	1
	24" HDPE END SECTION	EA.	<del>1</del>	1
	36" HDPE END SECTION	EA.	<del>1</del>	1
	RIPRAP	S.Y.	<del>85.3</del>	64.67
	CONNECTION TO EXISTING PIPE	EA.	<del>2</del>	2

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.

**AS BUILT**

DATE SURVEYED: 2022-05-26

**olsson**

Olsson - Civil Engineering  
 Missouri Certificate of Authority #001592  
 1301 Burlington Street  
 North Kansas City, MO 64116  
 www.olsson.com



REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

GENERAL NOTES  
 STREET & STORM SEWER PLANS  
 HOOK FARMS  
 SECOND PLAT  
 2021  
 LEE'S SUMMIT, MO

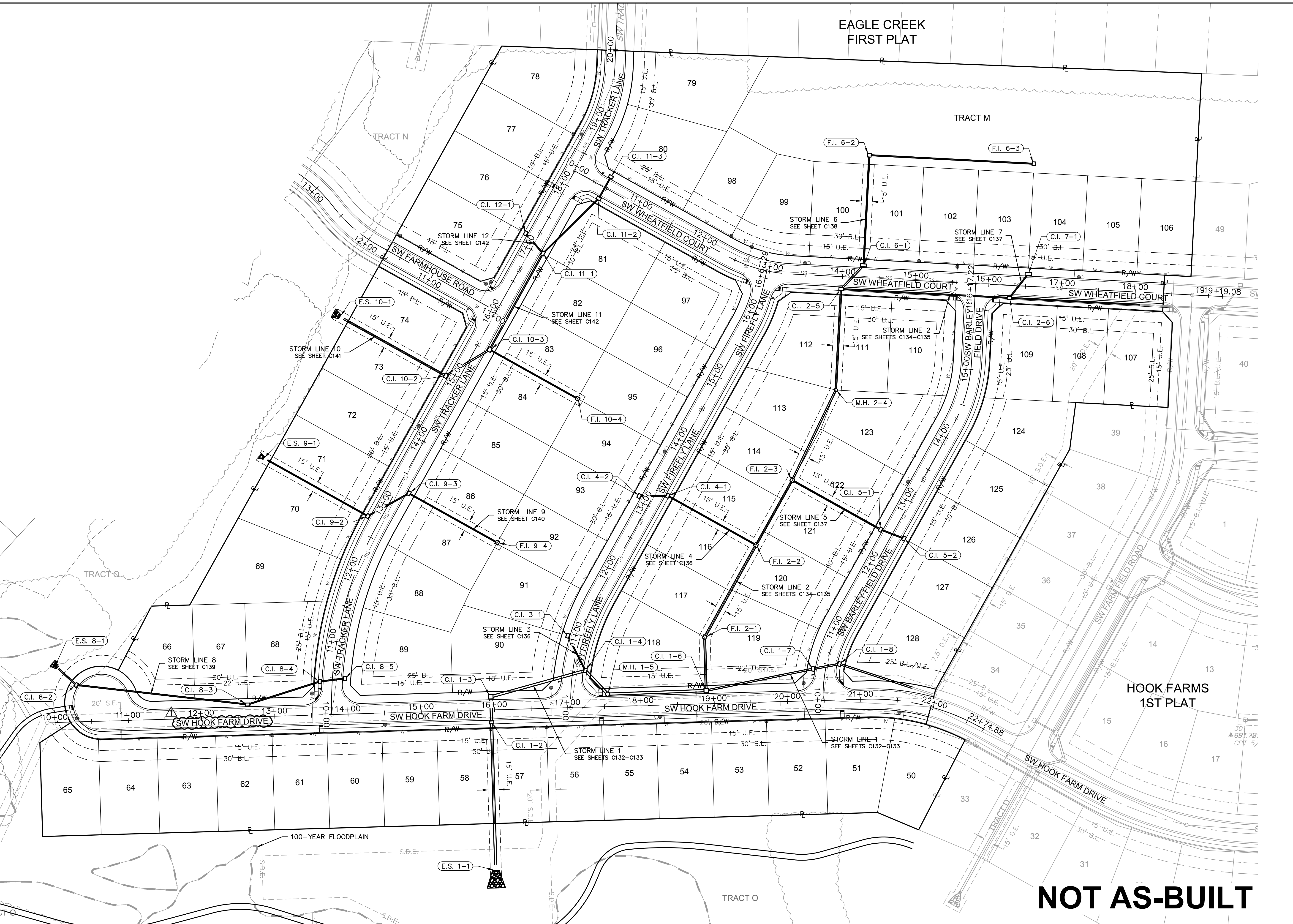
drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

SHEET  
 C102

REVISIONS

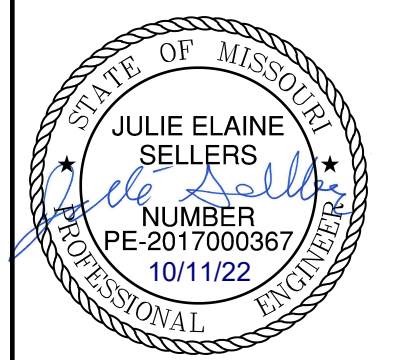


DWG: F:\2019\4001-4500\019-4061-BV40-Design\AutoCAD\Asbuilt\Sheets\GNCA\Street & Storm Plans\C\_GEN01\_B194061.dwg USER: ssoylor  
 DATE: Oct 04, 2022 11:10am XREFS: C\_PBASE\_B194061 C\_PBASE\_B194061 C\_PUTIL\_B194061 C\_PSTRM\_B194061



**NOT AS-BUILT**

**olsson**  
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GENERAL LAYOUT  
 STREET & STORM SEWER PLANS

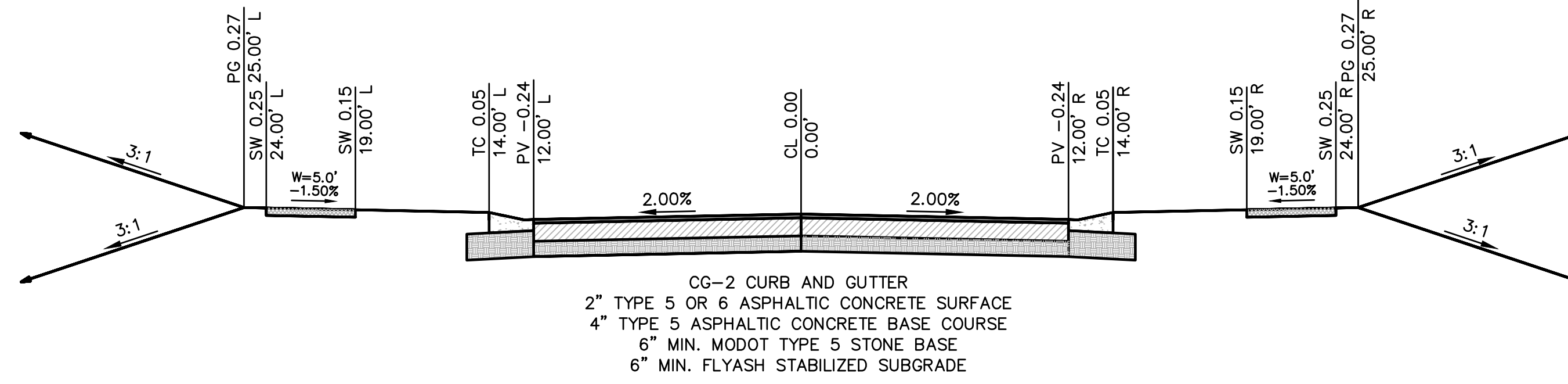
HOOK FARMS  
 SECOND PLAT

LEE'S SUMMIT, MO 2021

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

REVISIONS





CG-2 CURB AND GUTTER  
 2" TYPE 5 OR 6 ASPHALTIC CONCRETE SURFACE  
 4" TYPE 5 ASPHALTIC CONCRETE BASE COURSE  
 6" MIN. MODOT TYPE 5 STONE BASE  
 6" MIN. FLYASH STABILIZED SUBGRADE

**TYPICAL ROADWAY SECTION**

SW HOOK FARM DRIVE, SW TRACKER LANE, SW FIREFLY LANE  
 SW BARLEY FIELD DRIVE, SW WHEATFIELD COURT, SW FARMHOUSE ROAD  
 N.T.S.

**NOT AS-BUILT**



REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	03-23-2021	REVISED PER CITY COMMENTS	
2	04-16-2021	REVISED PER CITY COMMENTS	
3	09-30-2021	CHANGES TO APPROVED PLANS	

TYPICAL SECTIONS	2021
STREET & STORM SEWER PLANS	
HOOK FARMS	
SECOND PLAT	
LEE'S SUMMIT, MO	

SHEET  
C104

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

**olsson**  
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 Missouri Certificate of Authority #001552  
 1301 Burlington Street  
 North Kansas City, MO 64116  
 TEL 816.361.1177  
 FAX 816.361.1888  
 www.olsson.com



**GENERAL NOTES:**

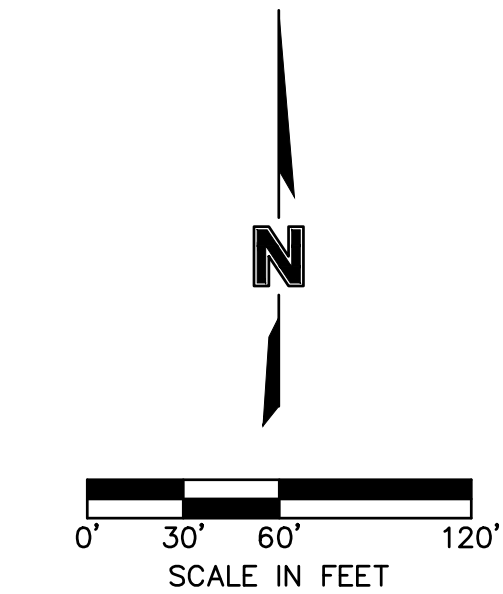
1. CONTRACTOR SHALL ADHERE TO THE "DESIGN AND CONSTRUCTION MANUAL" SECTION 2100 AS ADOPTED BY THE CITY OF LEE'S SUMMIT (LATEST EDITION), FOR EXCAVATION AND EMBANKMENT WORK WITHIN THE PROPOSED RIGHT-OF-WAY.
2. AREAS OF CONSTRUCTION SHALL BE STRIPPED OF ALL VEGETATION, ORGANIC MATTER AND TOPSOIL TO A DEPTH 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.

EARTHWORK QUANTITIES		
LOCATION	CUT (C.Y.)	FILL (C.Y.)
STREET	26,149	25,993
SITE	117,707	77,137
FUTURE PHASE	0	54,547
TOTAL	143,856	157,677

**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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 USER: sso\jor



**NOT AS-BUILT SURFACE  
REFER TO MASTER  
DRAINAGE PLAN**

**LEGEND**

	EXISTING INDEX CONTOURS
	EXISTING INTERMEDIATE CONTOURS
	PROPOSED INDEX CONTOURS
	PROPOSED INTERMEDIATE CONTOURS

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 TEL 816.361.1177  
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 www.olsson.com



REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	CHANGES TO APPROVED PLANS
3	09-30-2021	

BY: \_\_\_\_\_

GRADING PLAN (FOR REFERENCE)  
 STREET & STORM SEWER PLANS

HOOK FARMS  
 SECOND PLAT

LEE'S SUMMIT, MO 2021

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

**SHEET  
C105**



**GENERAL NOTES:**

- 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.
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FUTURE PHASE EARTHWORK CONTRIBUTIONS	
LOCATION	FILL (C.Y.)
HOOK FARMS 2ND PLAT	40,727
RETREAT AT HOOK FARMS 2ND PLAT	9,872
EXCESS	3,948

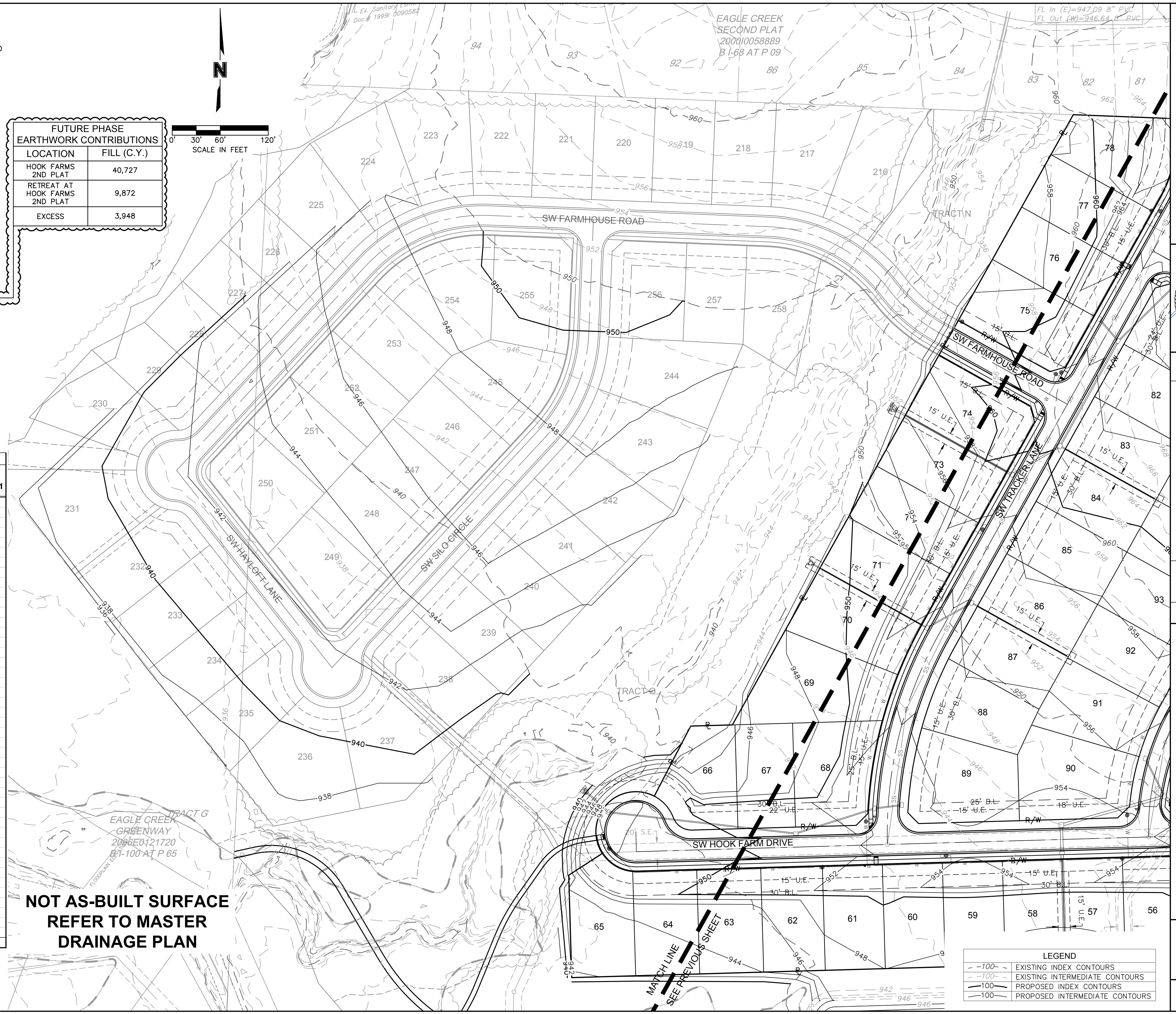
EARTHWORK QUANTITIES		
LOCATION	CUT (C.Y.)	FILL (C.Y.)
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LOT FILL INFORMATION			
LOT NUMBER	MAX DEPTH OF FILL (OVER 2' PLACED)	FILL PLACED ON EXISTING SLOPES > 5:1	PROPOSED SLOPES > 3:1
50	5.5'		
51	4.8'		
52	4.9'		
53	5.2'		
54	7.5'		
55	8.2'		
56	9.7'	X	
57	8.7'	X	
58	10.7'		
59	11.6'		
60	11.6'		
61	11.4'		
62	11.1'		
63	11.0'		
64	10.8'		
65	10.8'		
66	9.8'		
67	10.0'		
68	11.2'		
69	10.7'		
70	9.1'		
71	8.3'		
72	7.1'		
73	5.9'		
74	5.7'		
75	4.7'		
76	3.5'		
77	2.9'		
78	3.1'		
84	2.5'		
85	3.5'		
86	5.8'		
87	6.8'		
88	8.6'		
89	10.3'		
90	8.2'		
91	6.7'		
92	4.3'		
107	8.1'	X	
108	7.8'	X	
118	7.3'	X	
119	7.5'	X	
120	2.7'		
128	8.4'	X	

X Indicates condition applies to lot

**NOT AS-BUILT SURFACE  
REFER TO MASTER  
DRAINAGE PLAN**



LEGEND	
- - - 100 -	EXISTING INDEX CONTOURS
- - - 100 -	EXISTING INTERMEDIATE CONTOURS
— 100 —	PROPOSED INDEX CONTOURS
— 100 —	PROPOSED INTERMEDIATE CONTOURS

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 USER: ssoylor

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STATE OF MISSOURI  
JULIE ELAINE  
SELLERS  
NUMBER  
PE 2017000367  
10/11/22  
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION
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GRADING PLAN (FOR REFERENCE)  
STREET & STORM SEWER PLANS

HOOK FARMS  
SECOND PLAT

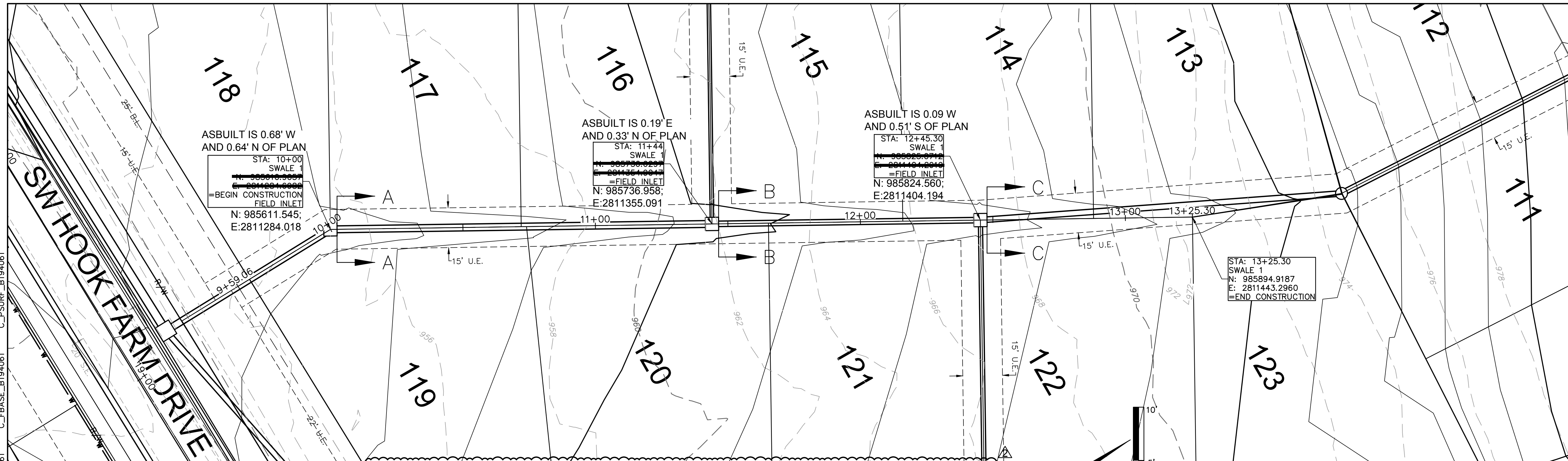
2021

drawn by: B.M.W./A.A.  
checked by: B.M.W.  
designed by: B.M.W./A.A.  
QA/QC by: J.E.S.  
project no.: B19-4061  
date: 01-08-2021

LEE'S SUMMIT, MO



DWG: F:\2019\4001-4500\019-4061-BV40-Design\AutoCAD\Asbuilt\Sheets\GNCV\Street & Storm Plans\C\_SWL01\_B194061.dwg  
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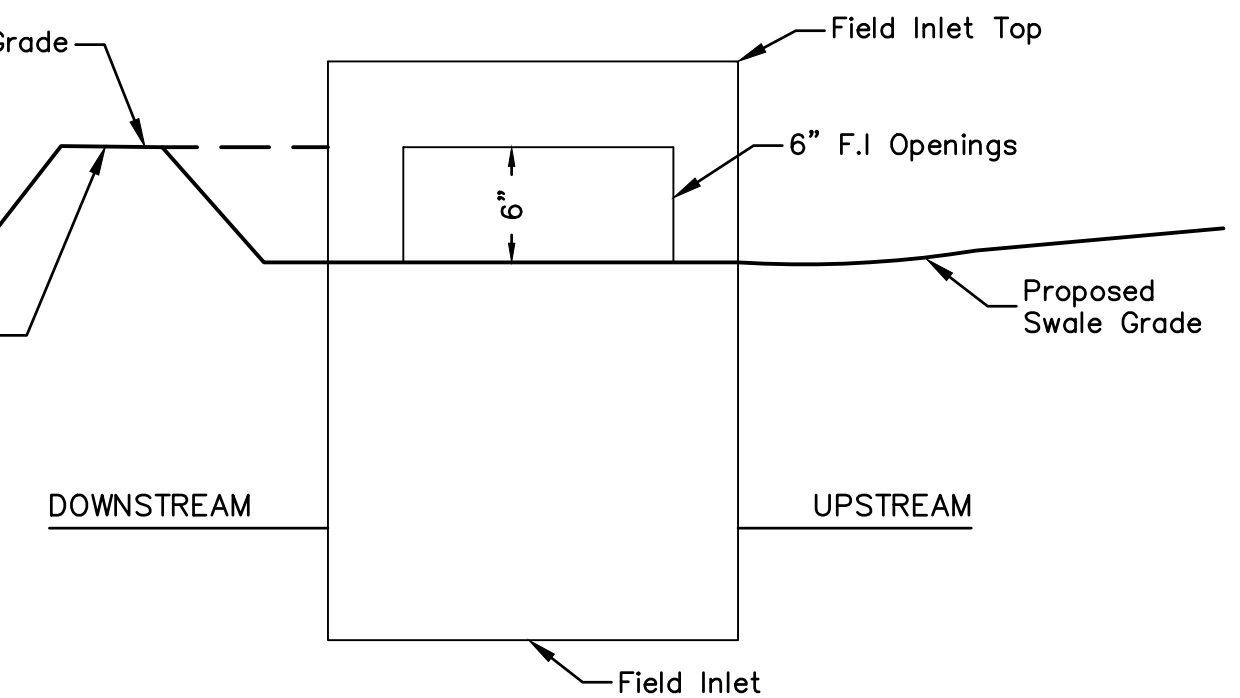
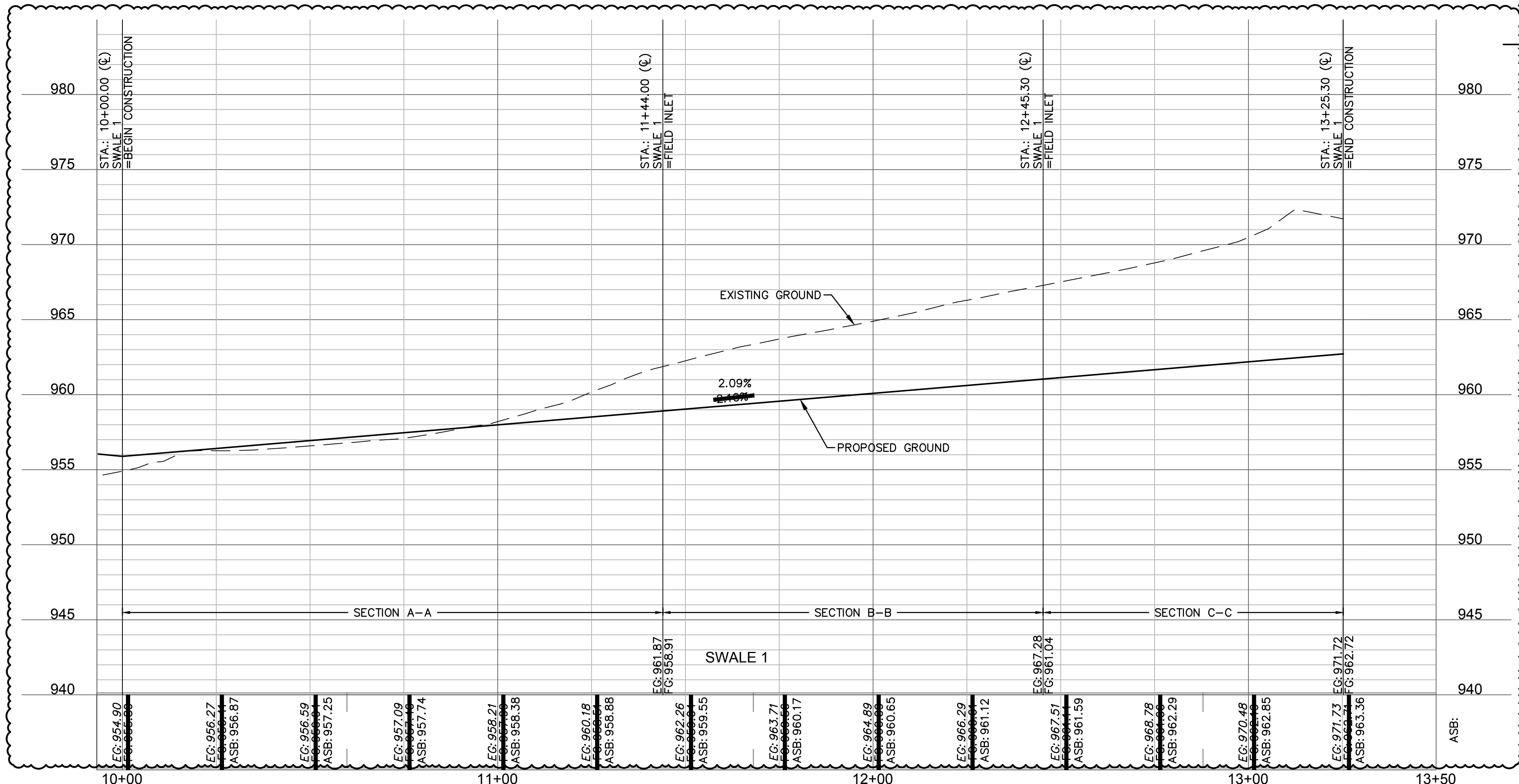
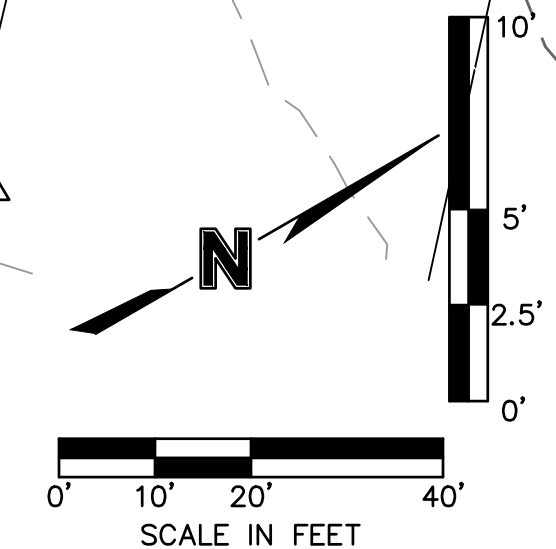


Swale Drainage Area Table (100 year Return Frequency)

Section	Drainage Area (ac.)	C	Tc (min)	i (in/hr)	K	Peak Flow (cfs)
A-A	0.89	0.51	11	8.06	1.25	4.56
B-B	0.49	0.51	12	5.73	2.25	3.21
C-C	0.86	0.51	5	8.27	1.25	4.52

Swale Design Table (100 Year Return Frequency)

SECTION	Section Data					Flow Data								
	Mannings Coefficient	Channel Slope (%)	Swale Depth (ft)	Left Side Slope (H:V)	Right Side Slope (H:V)	Bottom Width (ft)	Discharge (cfs)	Water Depth (ft)	Flow Area (ft <sup>2</sup> )	Velocity (ft/sec)	Wetted Perimeter (ft)	Top Width (ft)	Specific Energy (ft)	Shear Stress (lbs/ft <sup>2</sup> )
A-A	0.03	2.10%	1.29	3:1	3:1	5.00	4.56	0.29	1.70	2.68	6.83	6.74	0.40	0.33
B-B	0.03	2.10%	1.23	3:1	3:1	5.00	3.21	0.23	1.31	2.45	6.45	6.38	0.32	0.27
C-C	0.03	2.10%	1.28	3:1	3:1	5.00	4.52	0.28	1.64	2.76	6.77	6.68	0.40	0.32



NOTE: INCLUDE SUMP PER ABOVE DETAIL WHERE FIELD INLETS ARE LOCATED WITHIN SWALES.

SUMP DETAIL  
N.T.S.

# AS BUILT

DATE SURVEYED: 2022-05-26

N.T.S.  
01 SWALE TYPICAL SECTION A-A, B-B & C-C  
\*NOTE: SEE TABLE FOR SWALE DEPTH

- SWALE GRADING NOTES:**
- CONTRACTOR SHALL CONSTRUCT SWALES WITH MINIMUM SLOPE, WIDTH AND DEPTH AS SHOWN IN THE SWALE DESIGN TABLES.
  - AS-BUILT SURVEY IS REQUIRED/APPROVED BY CITY FOR ALL SWALES AND PRIOR TO APPROVAL FOR ANY BUILDING FOUNDATION PERMIT. CONTRACTOR SHALL BE REQUIRED TO REGRADE SWALES AT CONTRACTOR'S EXPENSE IF ABOVE REQUIREMENTS ARE NOT MET.

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REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

SWALE 1 PLAN & PROFILE  
STREET & STORM SEWER PLANS

HOOK FARMS  
SECOND PLAT

2021

LEE'S SUMMIT, MO

REVISIONS

drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

**SHEET**  
C107



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79

98

99

TRACT M

STA: 10+00  
 SWALE 2  
 N: 986317.8181  
 E: 2811324.3915  
 =BEGIN CONSTRUCTION

STA: 10+40.57  
 SWALE 2  
 N: 986298.0371  
 E: 2811359.8148  
 =BEGIN CURVE

STA: 11+36.58  
 SWALE 2  
 N: 986271.6721  
 E: 2811451.2605  
 =END CURVE

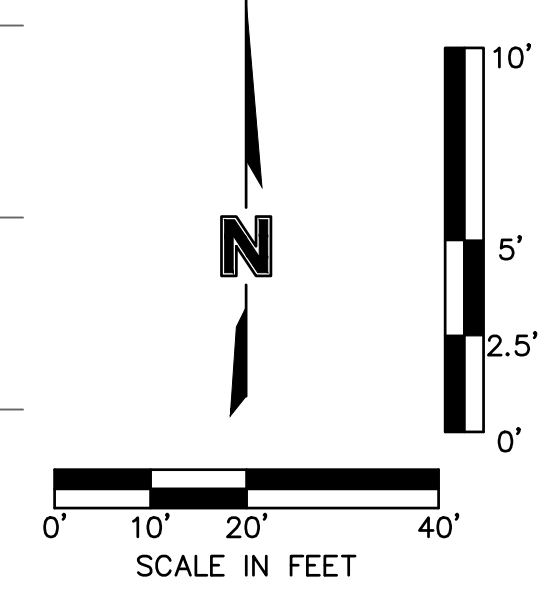
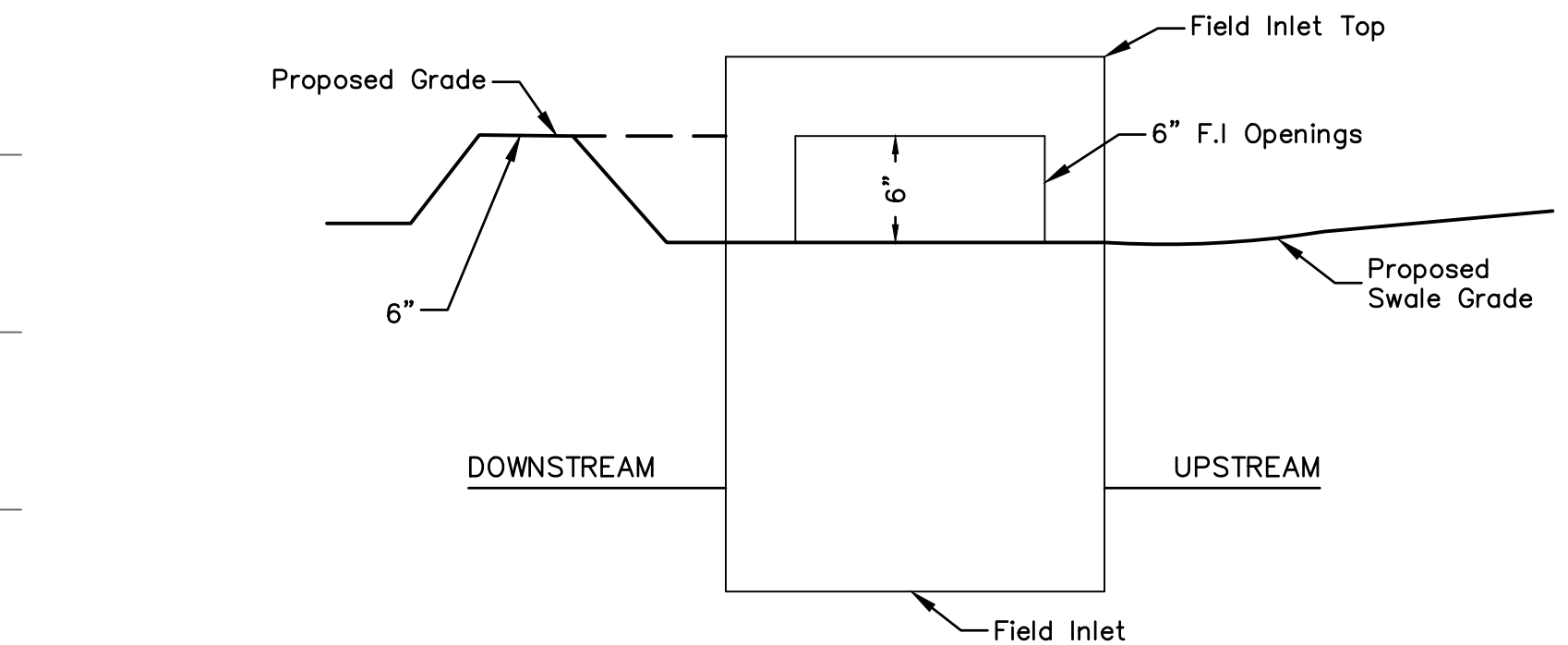
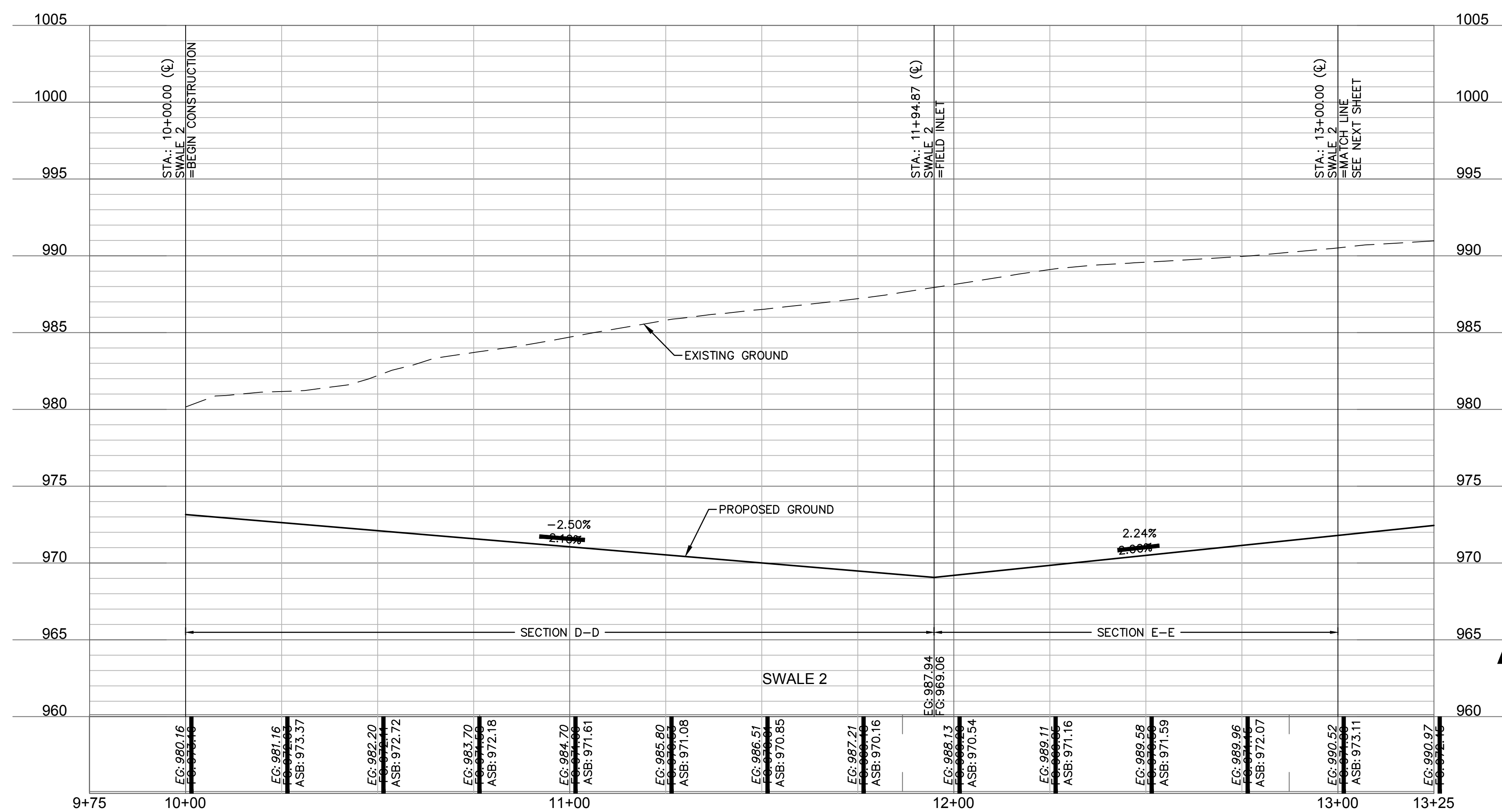
STA: 11+94.87  
 SWALE 2  
 N: 986268.596;  
 E: 2811510.131  
 =FIELD INLET

STA: 13+00.00  
 (SWALE 2)  
 MATCH LINE  
 SEE NEXT SHEET

ALIGNMENT CURVES								
CURVE ID #	STATION RANGE	START COORD.	END COORD.	RADIUS (FT)	LENGTH (FT)	DELTA	CHORD BEARING	CHORD LENGTH (FT)
C1	10+40.57 11+36.58	N: 986298.04 E: 2811359.81	N: 986271.67 E: 2811451.26	210.00	96.00	026°11'37"	S73°55'01"E	95.17

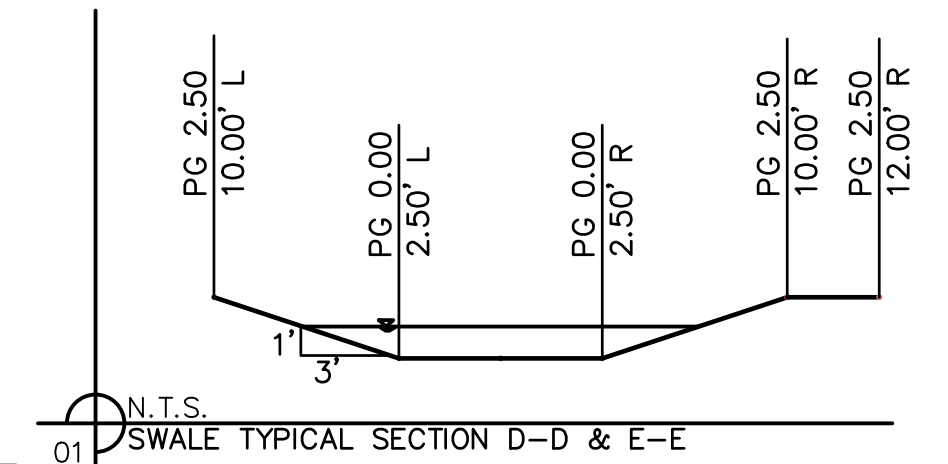
Section	Drainage Area (ac.)	C	Tc (min)	i (in/hr)	K	Peak Flow (cfs)
D-D	1.02	0.51	5	8.27	1.25	5.37
E-E	1.30	0.51	5	4.60	2.25	6.88
F-F	1.29	0.51	5	3.18	3.25	6.78

SECTION	Section Data						Flow Data							
	Mannings Coefficient	Channel Slope (%)	Swale Depth (ft)	Left Side Slope (H:V)	Right Side Slope (H:V)	Bottom Width (ft)	Discharge (cfs)	Water Depth (ft)	Flow Area (ft <sup>2</sup> )	Velocity (ft/sec)	Wetted Perimeter (ft)	Top Width (ft)	Specific Energy (ft)	Shear Stress (lbs/ft <sup>2</sup> )
D-D	0.03	2.10%	2.50	3:1	3:1	5.00	5.37	0.31	1.84	2.92	6.96	6.86	0.44	0.35
E-E	0.03	2.60%	2.50	3:1	3:1	5.00	6.88	0.34	2.05	3.36	7.15	7.04	0.52	0.46
F-F	0.03	2.60%	2.50	3:1	3:1	5.00	6.78	0.34	2.05	3.31	7.15	7.04	0.52	0.46



NOTE: INCLUDE SUMP PER ABOVE DETAIL WHERE FIELD INLETS ARE LOCATED WITHIN SWALES.

SUMP DETAIL  
 N.T.S.



**AS BUILT**

DATE SURVEYED: 2022-05-26

SWALE GRADING NOTES:

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STATE OF MISSOURI  
 JULIE ELAINE SELLERS  
 PE 2017000367  
 10/11/22  
 PROFESSIONAL ENGINEER

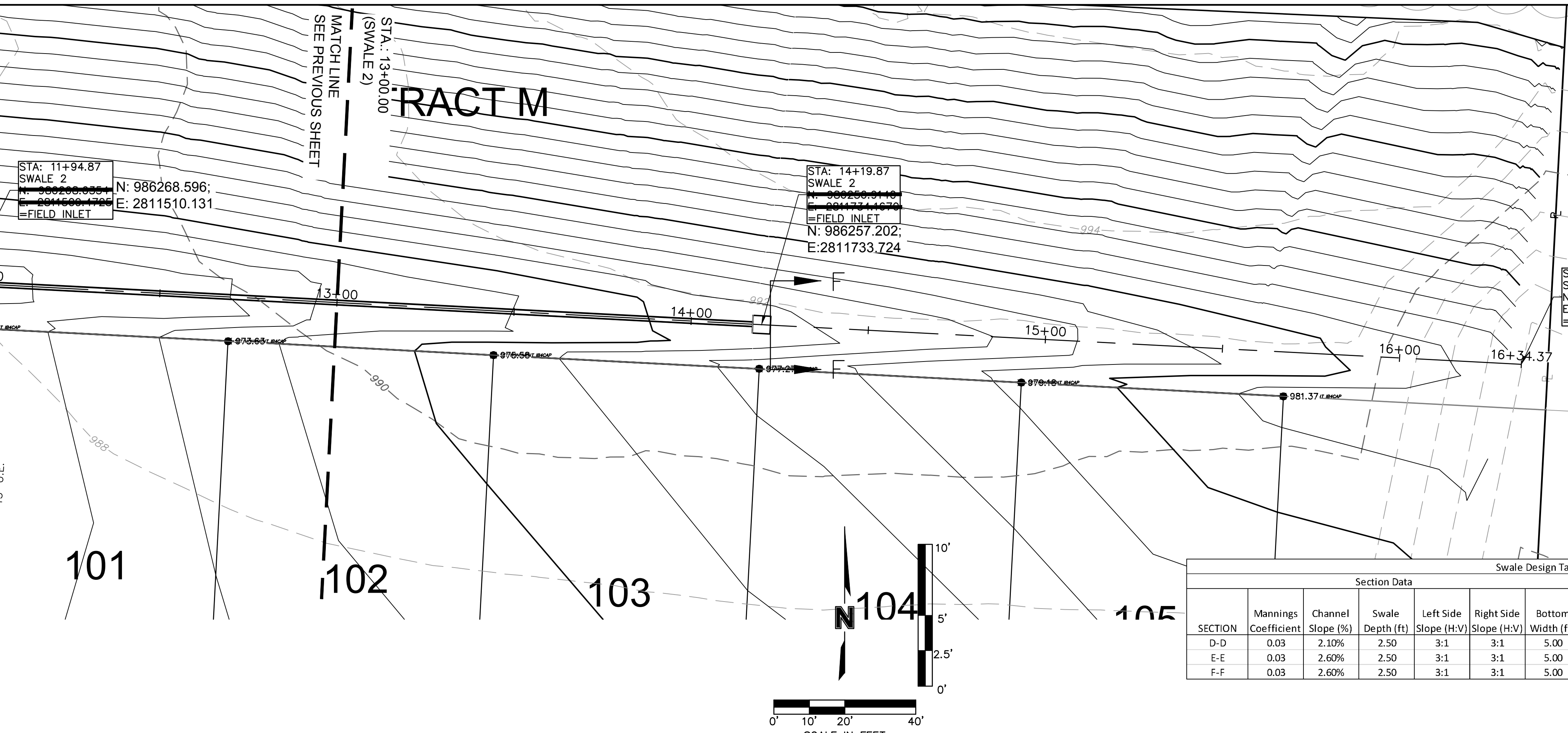
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1	03-23-2021	REVISED PER CITY COMMENTS
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SWALE 2 PLAN & PROFILE  
 STREET & STORM SEWER PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO  
 2021

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
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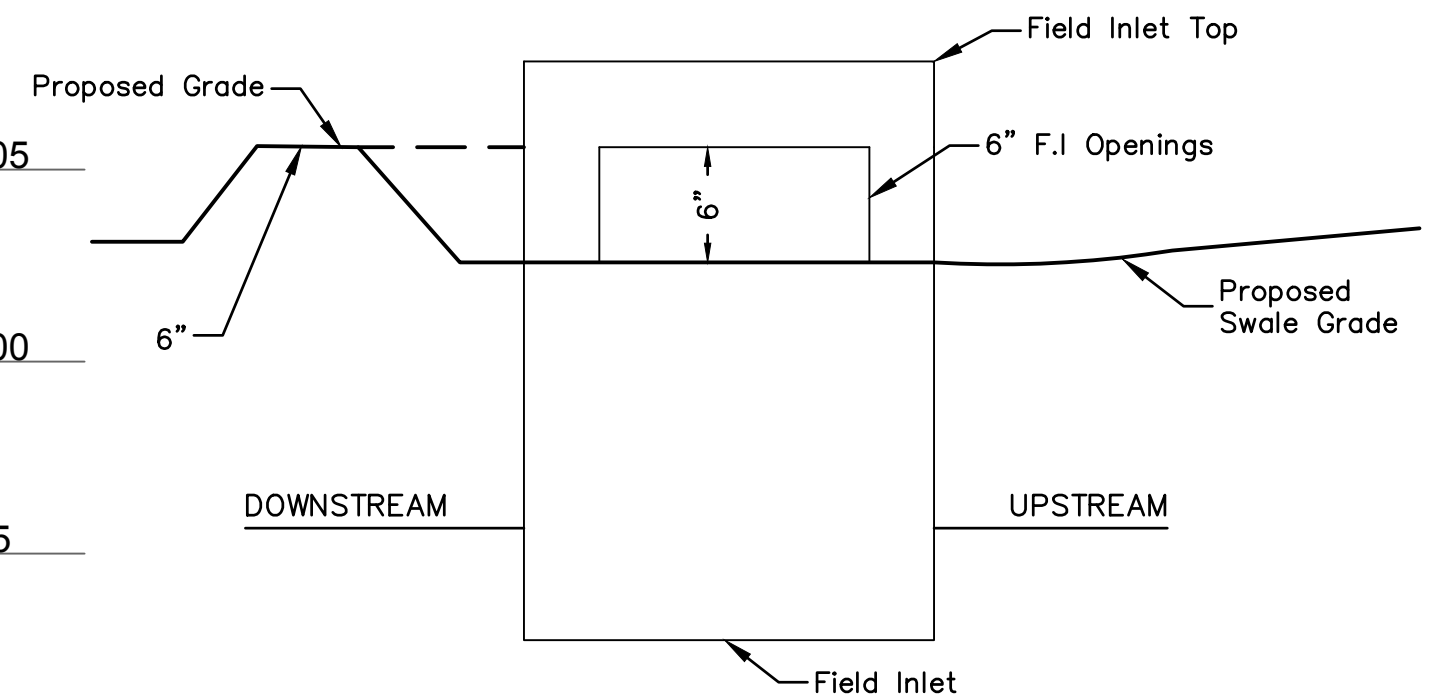
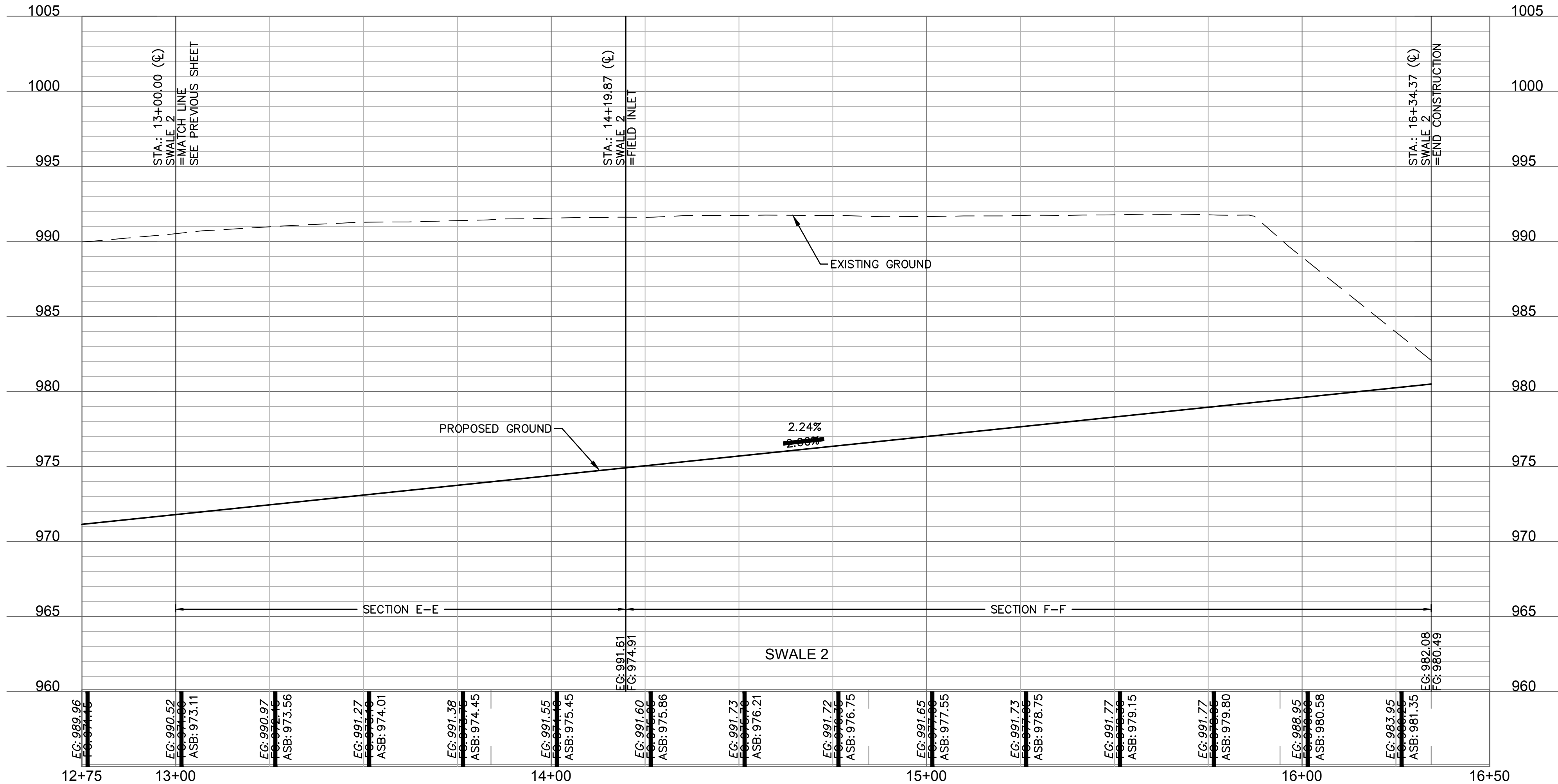
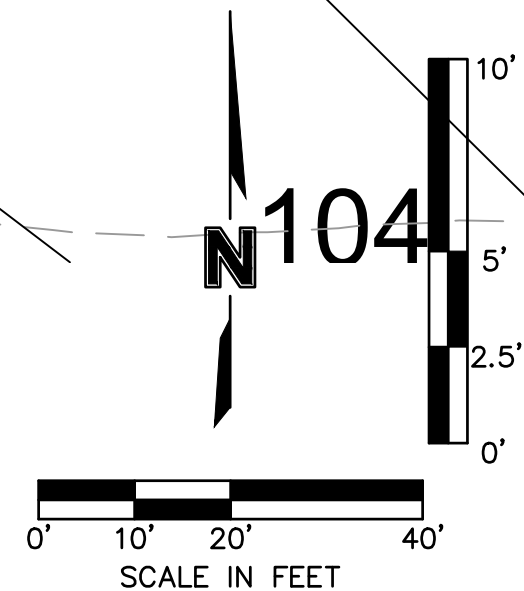


Swale Drainage Area Table (100 year Return Frequency)

Section	Drainage Area (ac.)	C	Tc (min)	i (in/hr)	K	Peak Flow (cfs)
D-D	1.02	0.51	5	8.27	1.25	5.37
E-E	1.30	0.51	5	4.60	2.25	6.88
F-F	1.29	0.51	5	3.18	3.25	6.78

Swale Design Table (100 Year Return Frequency)

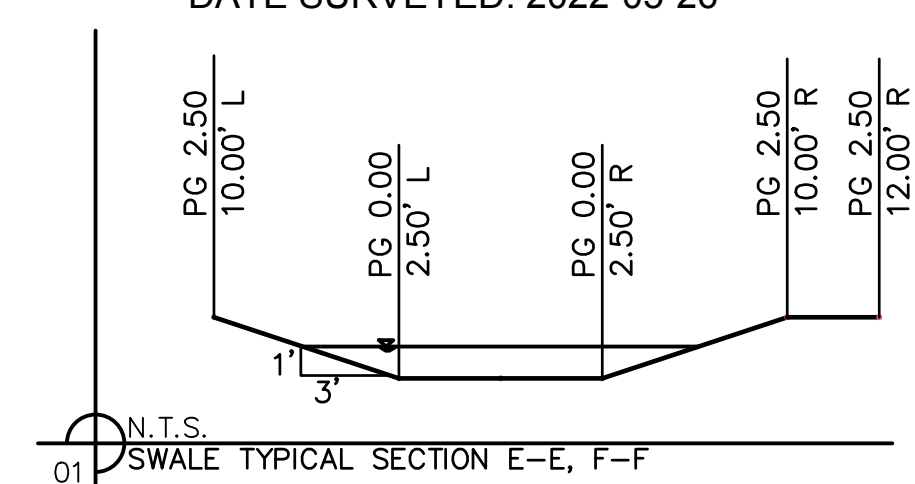
SECTION	Section Data					Flow Data								
	Mannings Coefficient	Channel Slope (%)	Swale Depth (ft)	Left Side Slope (H:V)	Right Side Slope (H:V)	Bottom Width (ft)	Discharge (cfs)	Water Depth (ft)	Flow Area (ft <sup>2</sup> )	Velocity (ft/sec)	Wetted Perimeter (ft)	Top Width (ft)	Specific Energy (ft)	Shear Stress (lbs/ft <sup>2</sup> )
D-D	0.03	2.10%	2.50	3:1	3:1	5.00	5.37	0.31	1.84	2.92	6.96	6.86	0.44	0.35
E-E	0.03	2.60%	2.50	3:1	3:1	5.00	6.88	0.34	2.05	3.36	7.15	7.04	0.52	0.46
F-F	0.03	2.60%	2.50	3:1	3:1	5.00	6.78	0.34	2.05	3.31	7.15	7.04	0.52	0.46



NOTE: INCLUDE SUMP PER ABOVE DETAIL WHERE FIELD INLETS ARE LOCATED WITHIN SWALES.

SUMP DETAIL  
N.T.S.

**AS BUILT**  
DATE SURVEYED: 2022-05-26



SWALE GRADING NOTES:

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REV. NO.	DATE	REVISIONS DESCRIPTION
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2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

SWALE 2 PLAN & PROFILE  
STREET & STORM SEWER PLANS

HOOK FARMS  
SECOND PLAT

LEE'S SUMMIT, MO

2021

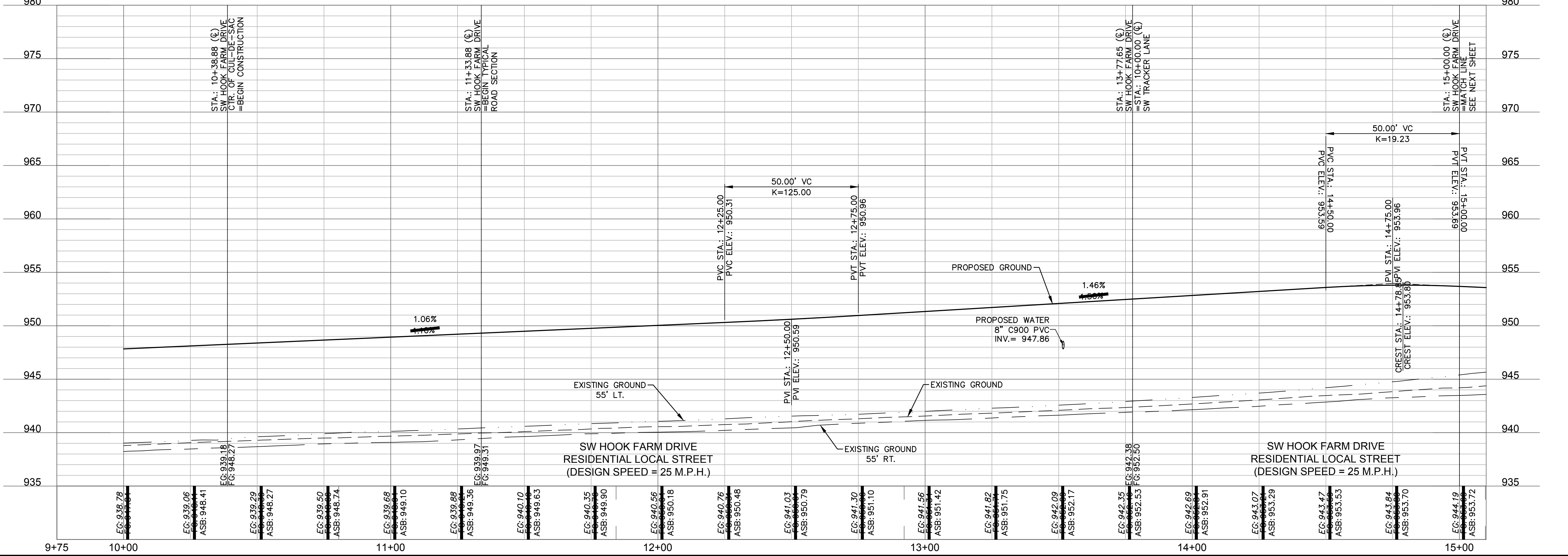
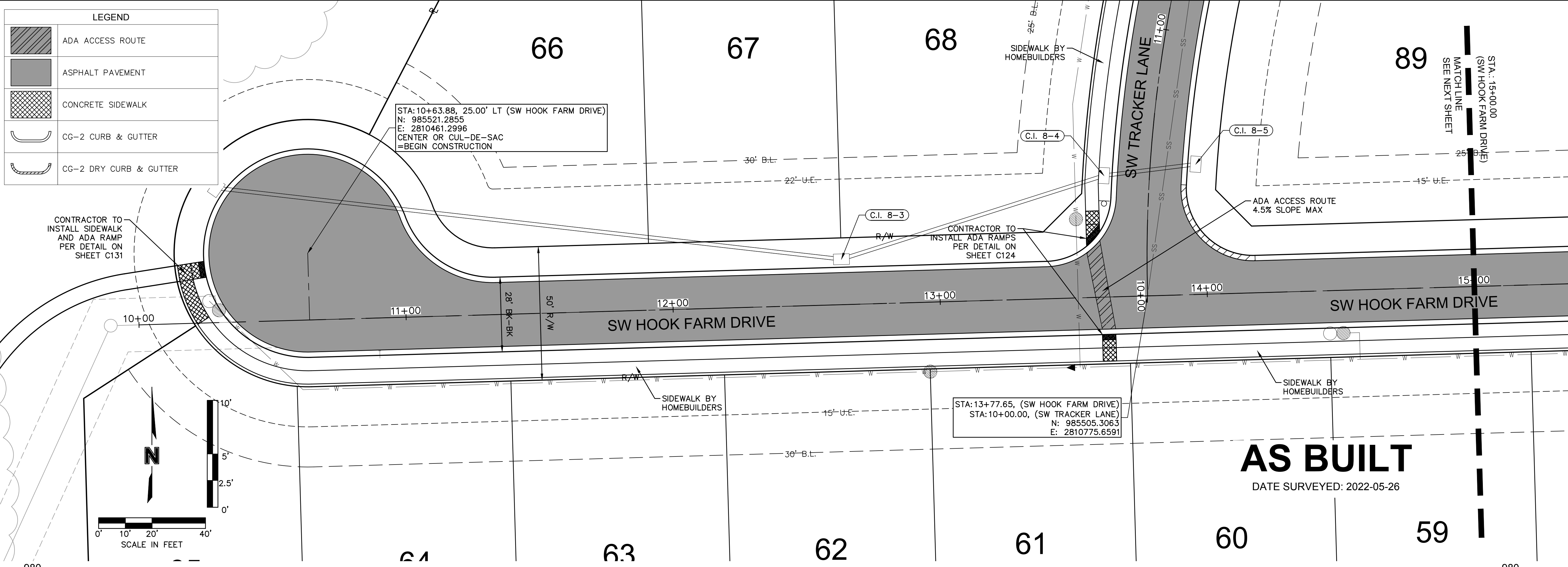
REVISIONS

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 QA/QC by: B.M.W./A.A.  
 project no.: B19-4061  
 date: 01-08-2021

**SHEET**  
C109

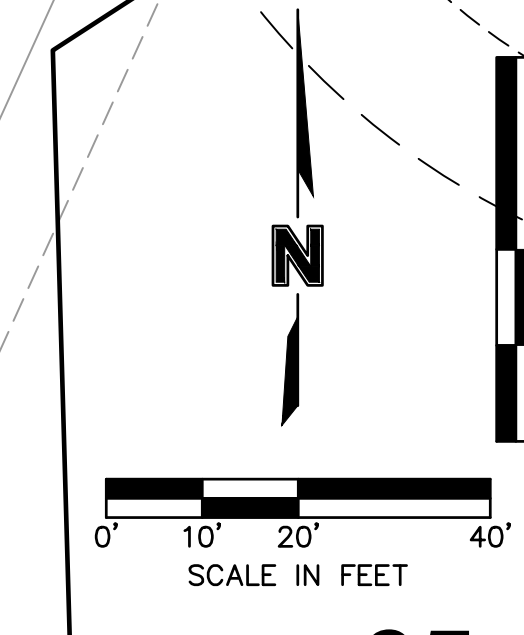


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**LEGEND**

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



STA: 10+63.88, 25.00' LT (SW HOOK FARM DRIVE)  
 N: 985521.2855  
 E: 2810461.2996  
 CENTER OR CUL-DE-SAC  
 =BEGIN CONSTRUCTION

STA: 13+77.65, (SW HOOK FARM DRIVE)  
 STA: 10+00.00, (SW TRACKER LANE)  
 N: 985505.3063  
 E: 2810775.6591

**AS BUILT**  
 DATE SURVEYED: 2022-05-26

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1	03-23-2021	REVISED PER CITY COMMENTS
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3	09-30-2021	CHANGES TO APPROVED PLANS

**ROADWAY PLAN & PROFILE (SW HOOK FARM DRIVE)  
 STREET & STORM SEWER PLANS**

HOOK FARMS  
 SECOND PLAT

LEE'S SUMMIT, MO

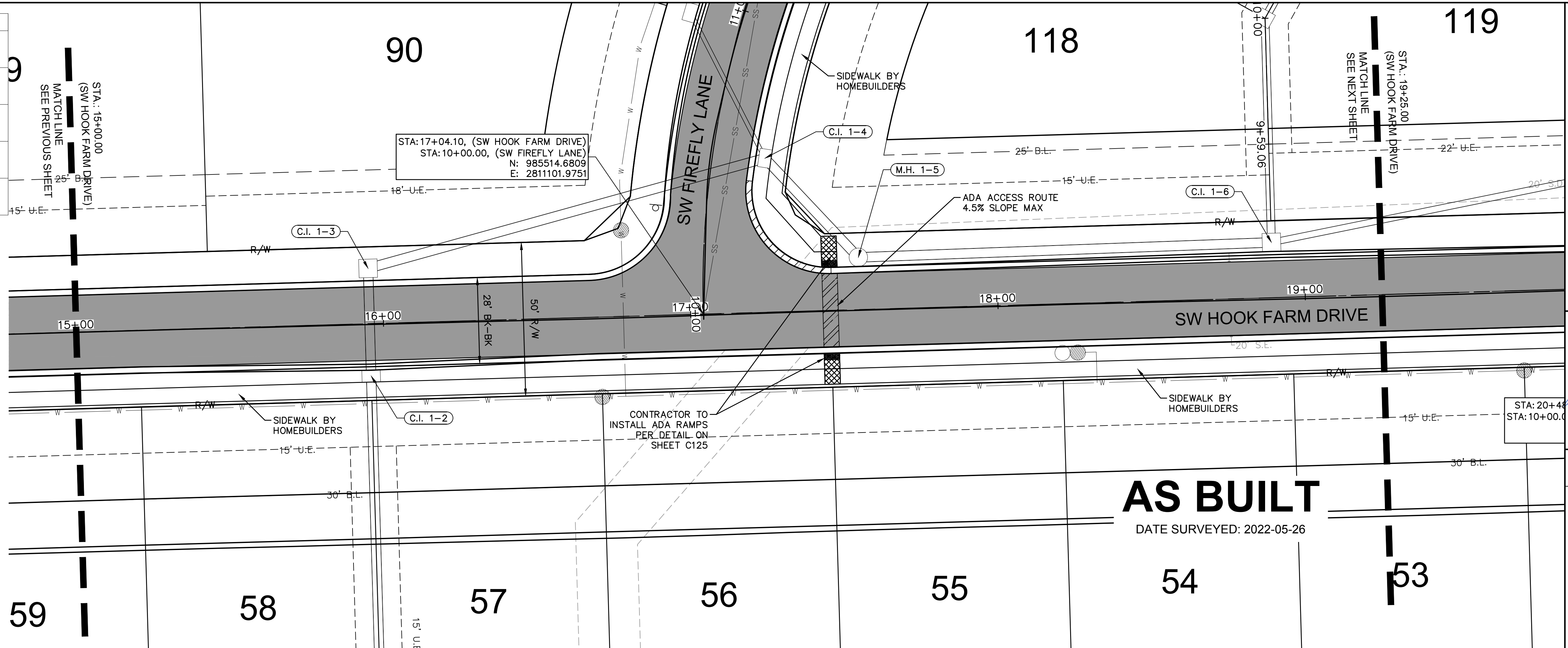
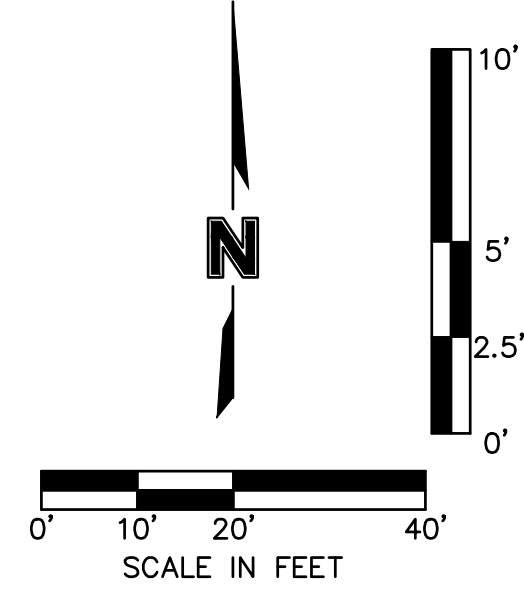
2021

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: B.M.W./A.A.  
 project no.: B19-4061  
 date: 01-08-2021

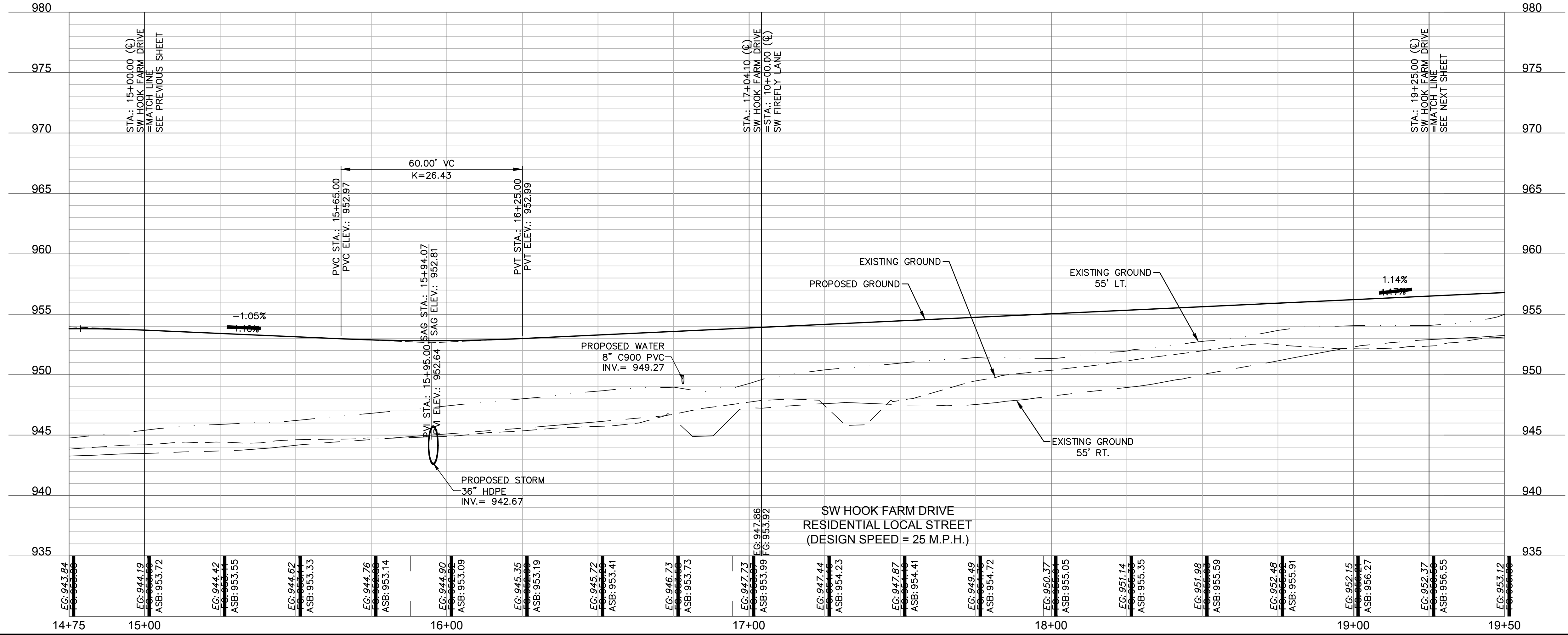


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LEGEND	
	ADA ACCESS ROUTE
	ASPHALT PAVEMENT
	CONCRETE SIDEWALK
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER



**AS BUILT**  
 DATE SURVEYED: 2022-05-26



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STATE OF MISSOURI  
 JULIE ELAINE SELLERS  
 PE #2017000367  
 10/11/22  
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION
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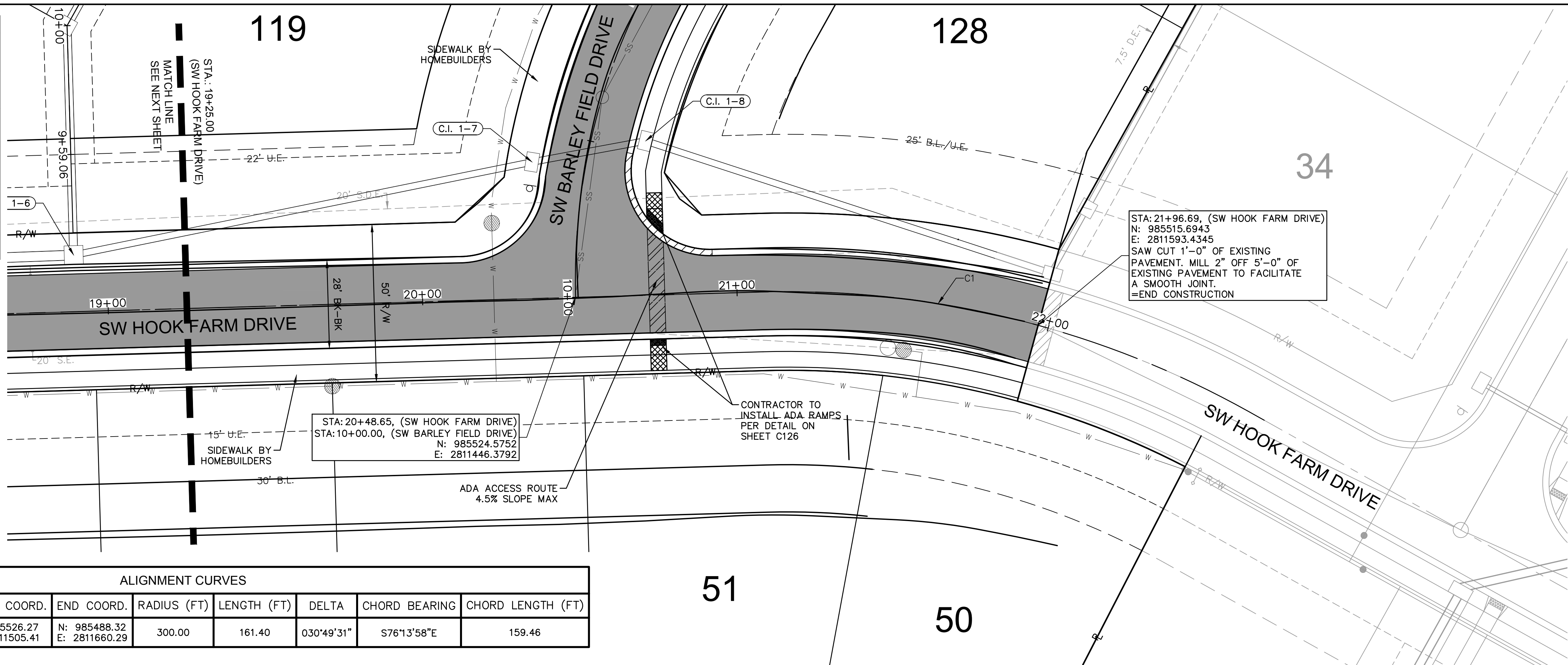
ROADWAY PLAN & PROFILE (SW HOOK FARM DRIVE)  
 STREET & STORM SEWER PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEES SUMMIT, MO  
 2021

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: B.M.W./A.A.  
 project no.: B19-4061  
 date: 01-08-2021

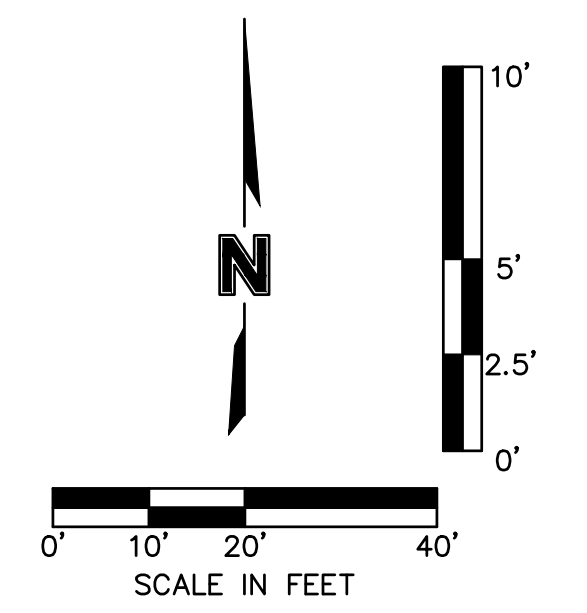
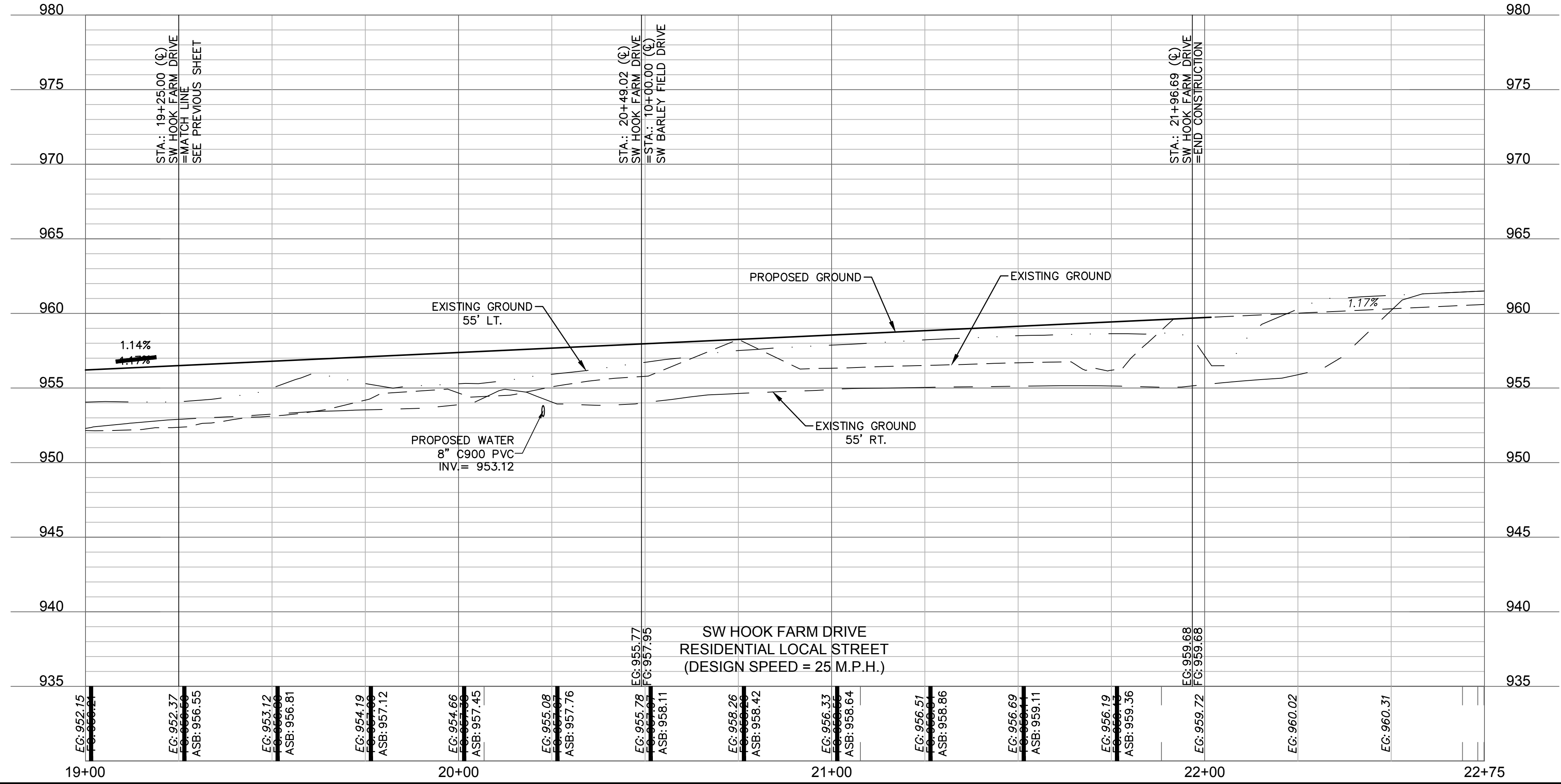


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 USER: ssoylor

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



ALIGNMENT CURVES								
CURVE ID #	STATION RANGE	START COORD.	END COORD.	RADIUS (FT)	LENGTH (FT)	DELTA	CHORD BEARING	CHORD LENGTH (FT)
C1	21+07.71 22+69.11	N: 985526.27 E: 2811505.41	N: 985488.32 E: 2811660.29	300.00	161.40	030°49'31"	S76°13'58"E	159.46



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

HOOK FARMS  
 SECOND PLAT

2021

LEE'S SUMMIT, MO

REVISIONS

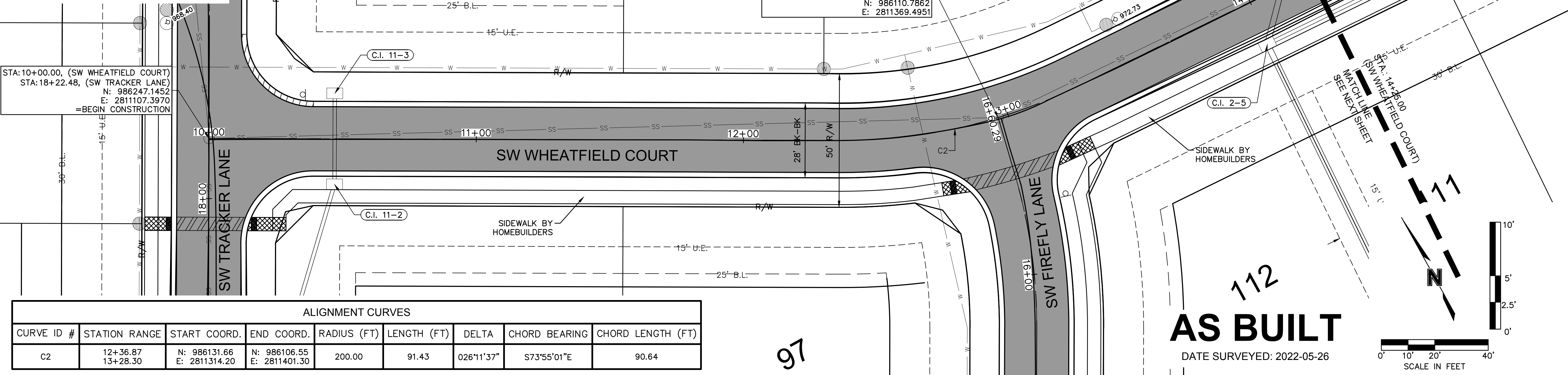
drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

SHEET  
 C112

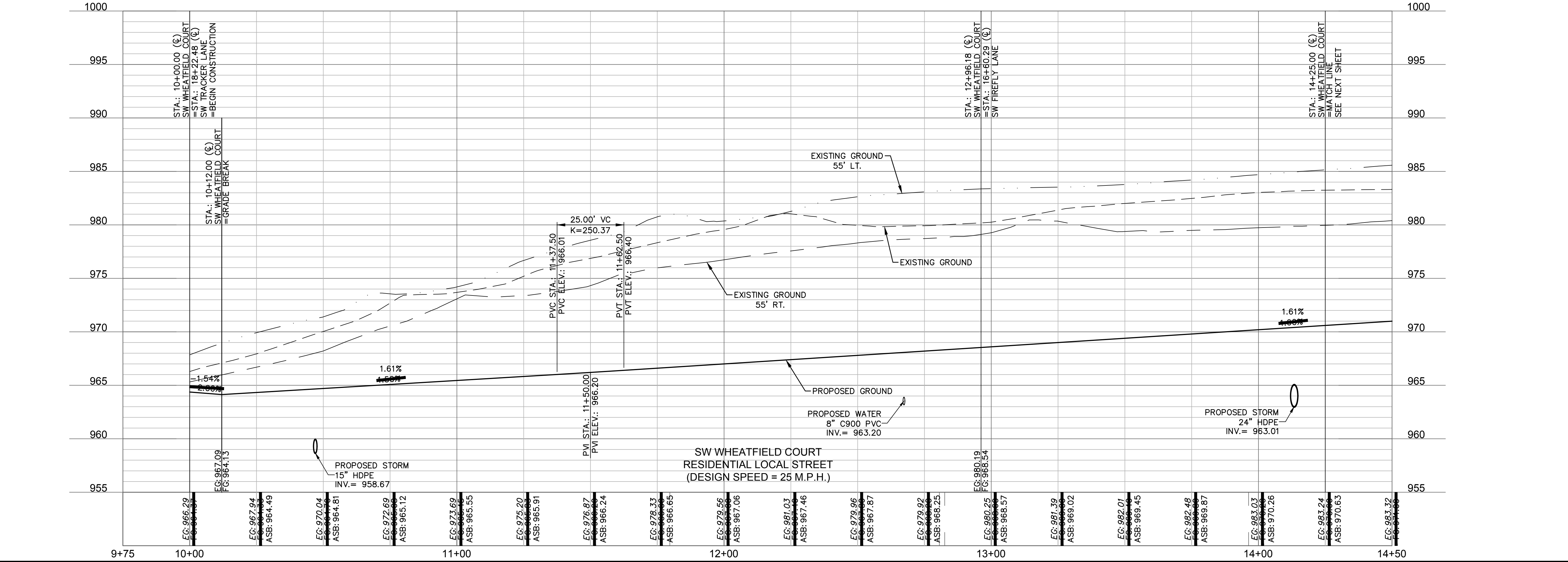


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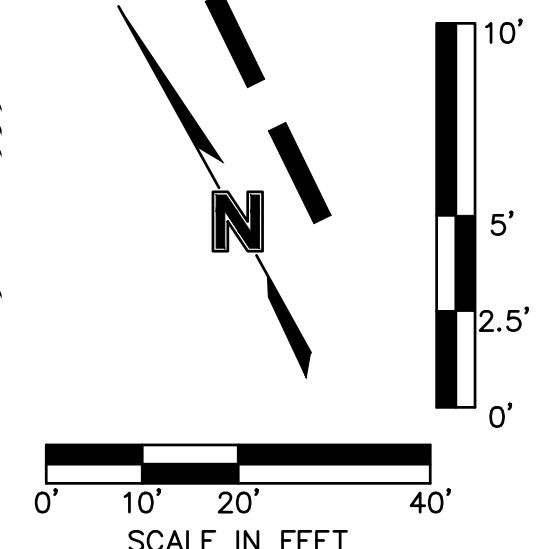
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	ADA ACCESS ROUTE
	ASPHALT PAVEMENT
	CONCRETE SIDEWALK
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER



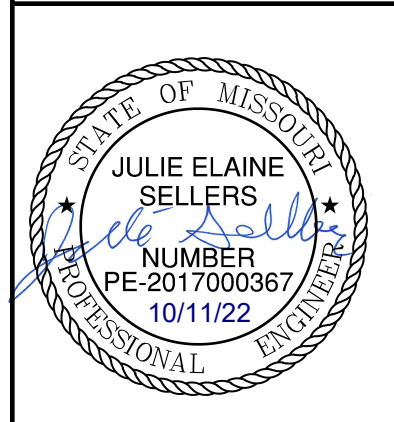
ALIGNMENT CURVES								
CURVE ID #	STATION RANGE	START COORD.	END COORD.	RADIUS (FT)	LENGTH (FT)	DELTA	CHORD BEARING	CHORD LENGTH (FT)
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**112**  
**AS BUILT**  
 DATE SURVEYED: 2022-05-26



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REV. NO.	DATE	REVISIONS DESCRIPTION
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3	09-30-2021	CHANGES TO APPROVED PLANS

ROADWAY PLAN & PROFILE (SW WHEATFIELD COURT)  
 STREET & STORM SEWER PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO  
 2021

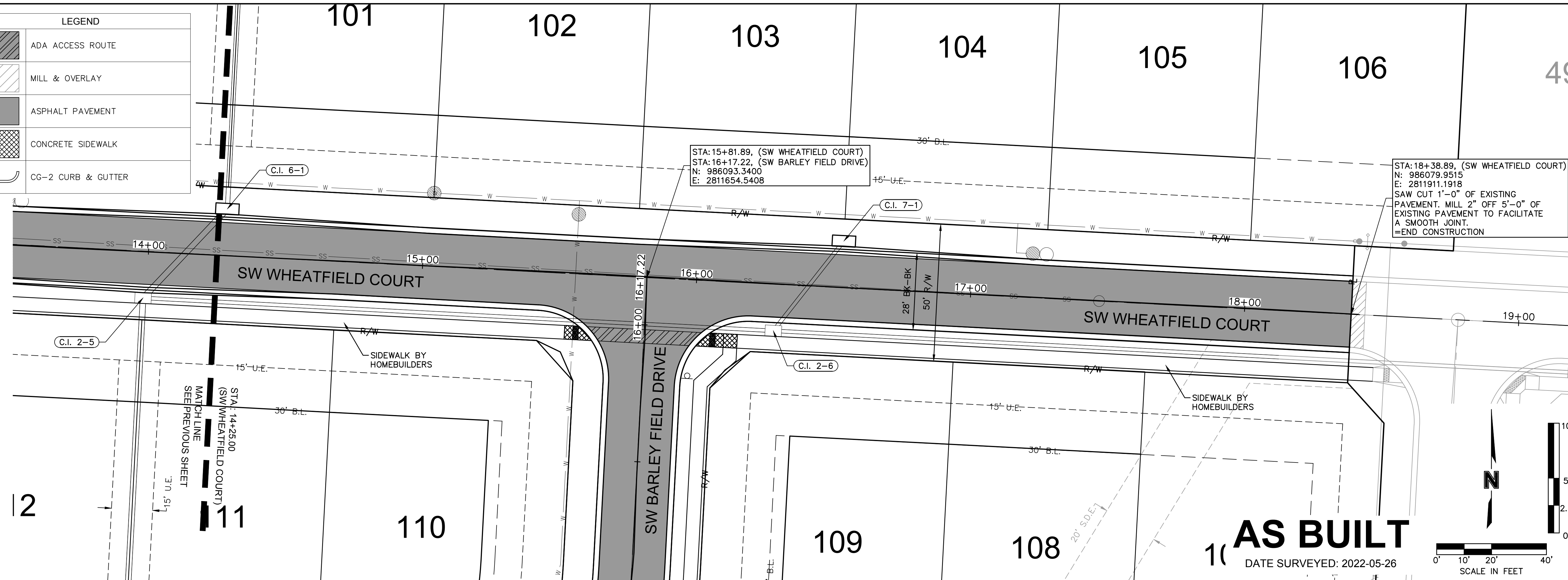
drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: B.M.W./A.A.  
 project no.: B19-4061  
 date: 01-08-2021

**SHEET C113**

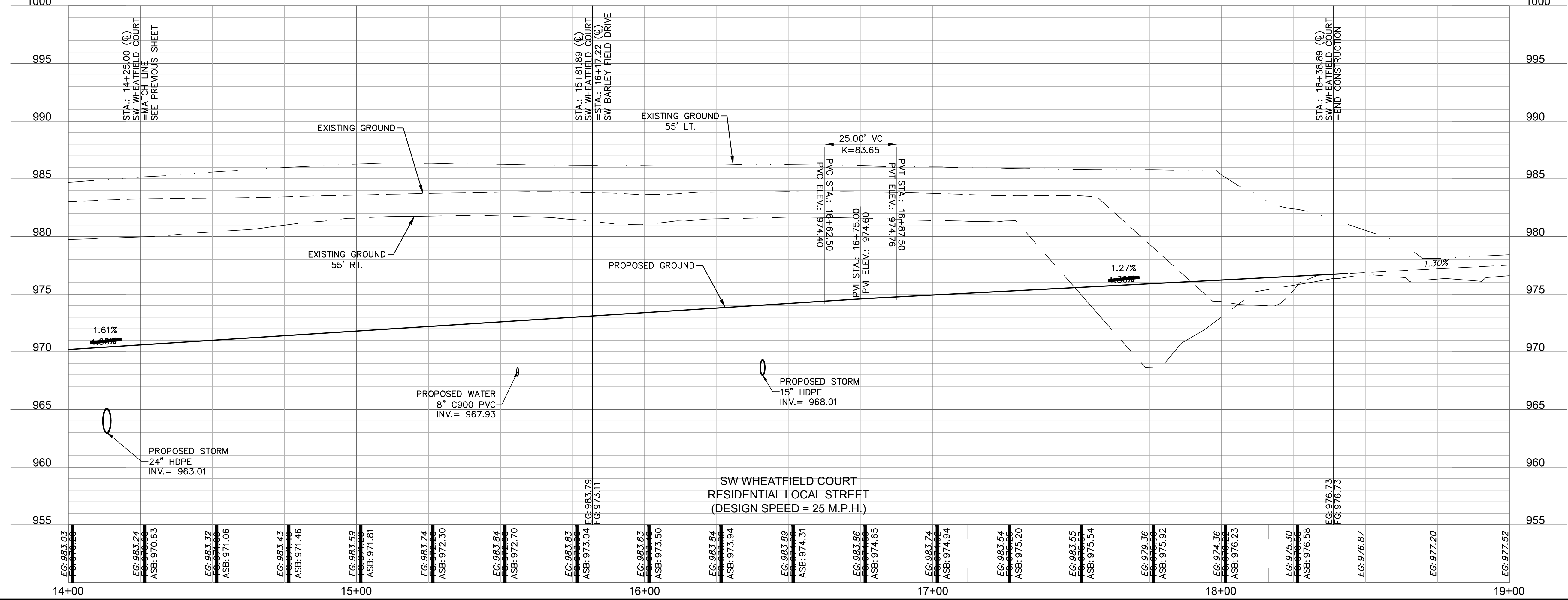
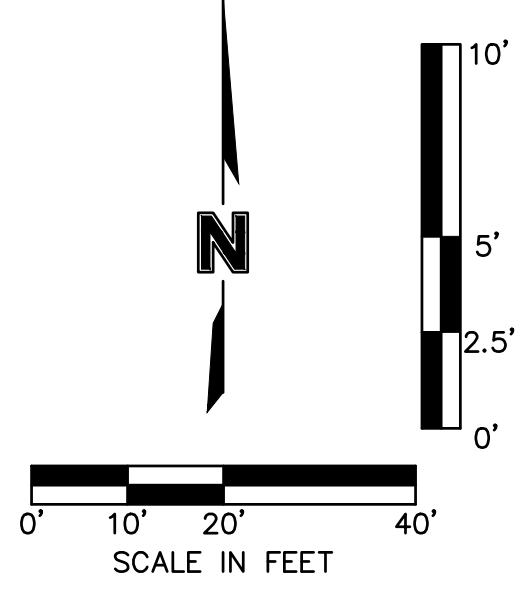


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 USER: ssoylor

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



**AS BUILT**  
 DATE SURVEYED: 2022-05-26



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49

10

11

12

REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

ROADWAY PLAN & PROFILE (SW WHEATFIELD COURT)  
 STREET & STORM SEWER PLANS

HOOK FARMS  
 SECOND PLAT

LEE'S SUMMIT, MO

2021

REVISIONS

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: E.S.  
 project no.: B19-4061  
 date: 01-08-2021

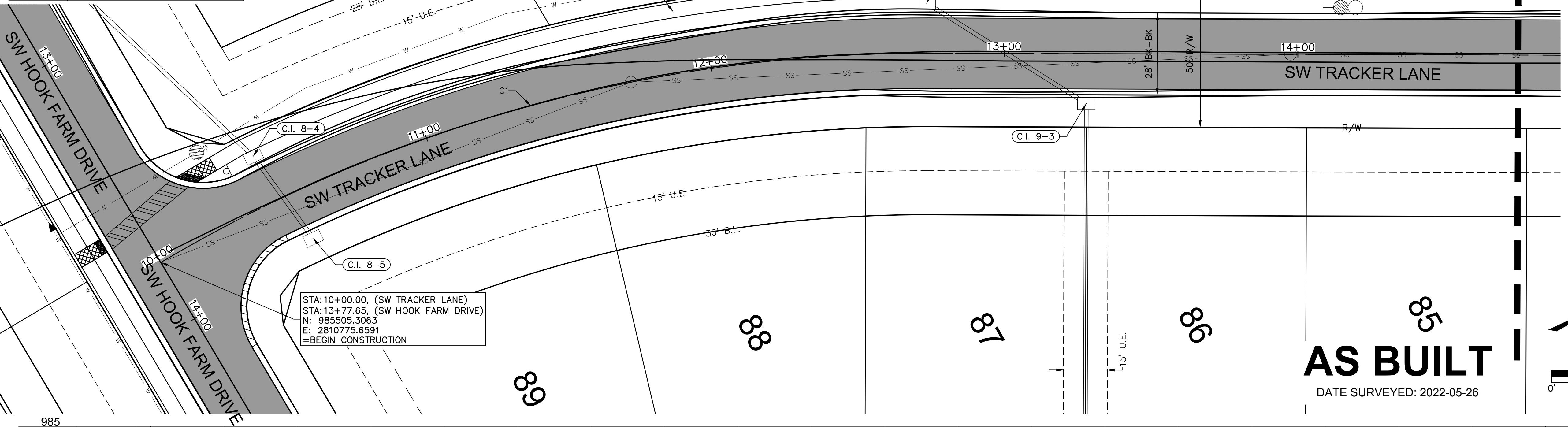
SHEET  
 C114



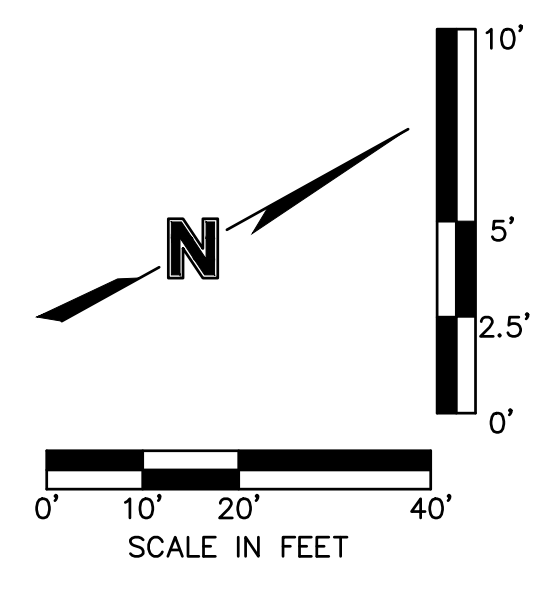
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 USER: ssoy/or

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

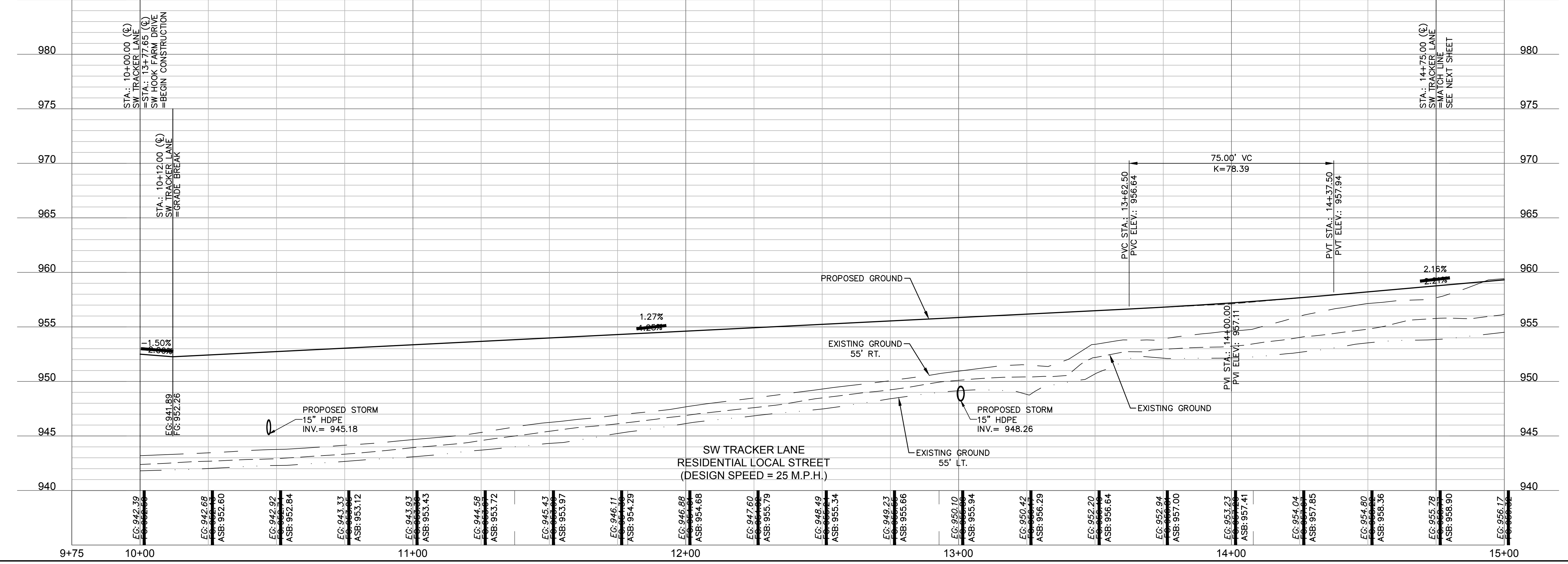
ALIGNMENT CURVES								
CURVE ID #	STATION RANGE	START COORD.	END COORD.	RADIUS (FT)	LENGTH (FT)	DELTA	CHORD BEARING	CHORD LENGTH (FT)
C1	10+00.18 12+74.38	N: 985505.48 E: 2810775.65	N: 985768.60 E: 2810840.17	510.00	274.20	030°48'19"	N13°46'38"E	270.91



STA: 10+00.00, (SW TRACKER LANE)  
 STA: 13+77.65, (SW HOOK FARM DRIVE)  
 N: 985505.3063  
 E: 2810775.6591  
 =BEGIN CONSTRUCTION



**AS BUILT**  
 DATE SURVEYED: 2022-05-26



SW TRACKER LANE  
 RESIDENTIAL LOCAL STREET  
 (DESIGN SPEED = 25 M.P.H.)

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STATE OF MISSOURI  
 JULIE ELAINE SELLERS  
 Missouri Professional Engineer  
 NUMBER PE-2017000367  
 10/11/22  
 PROFESSIONAL

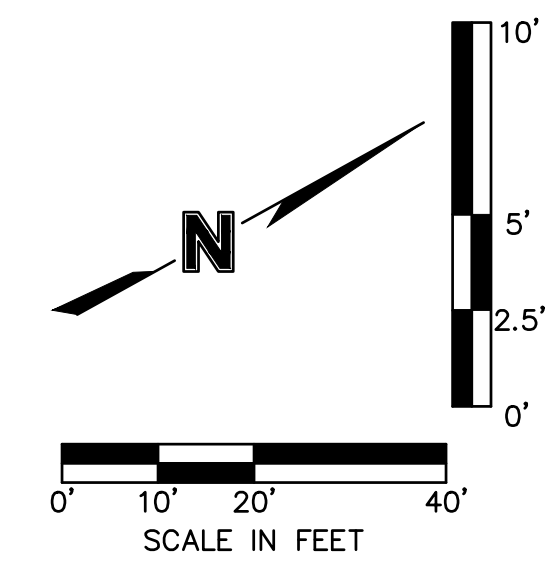
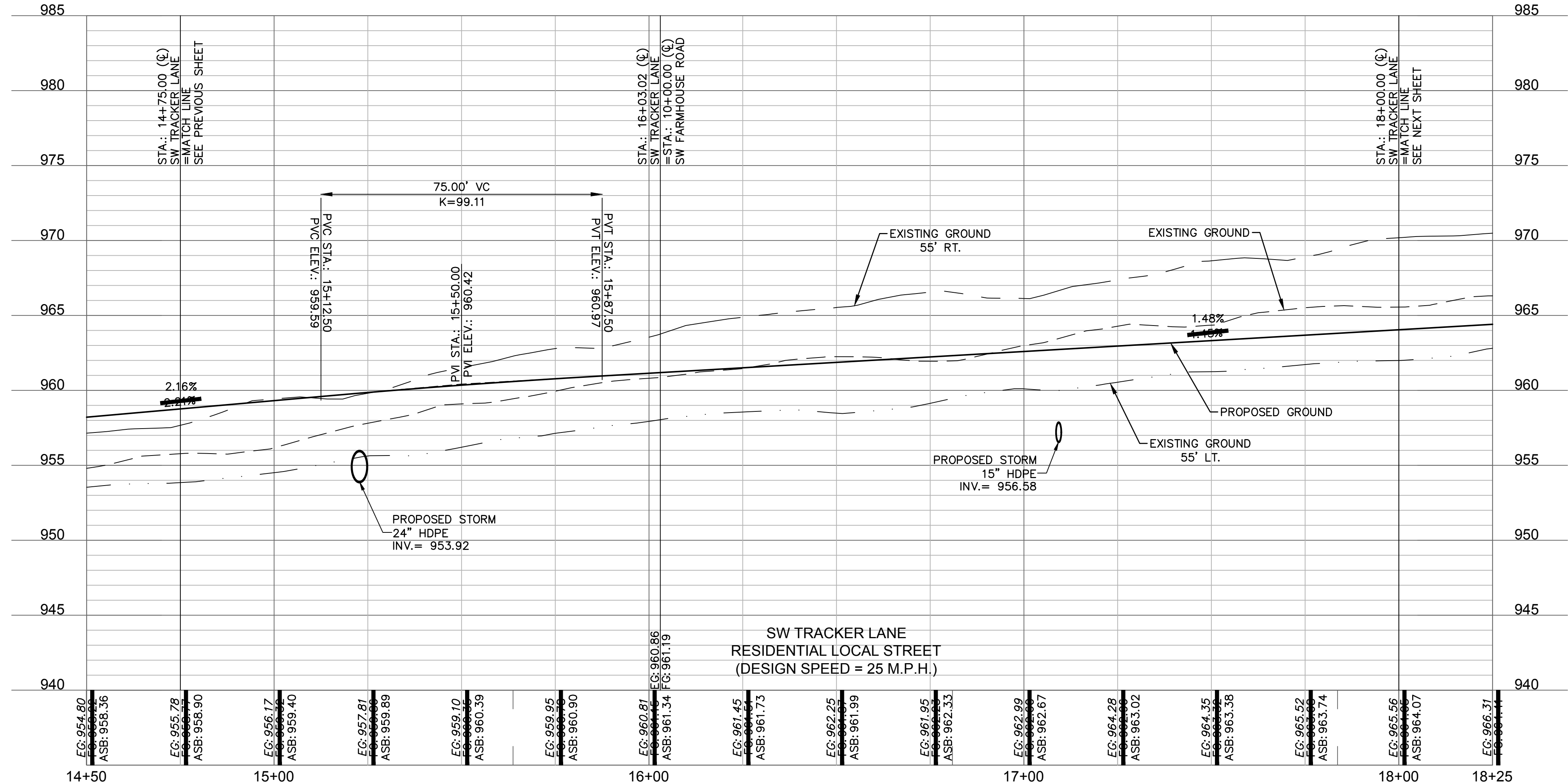
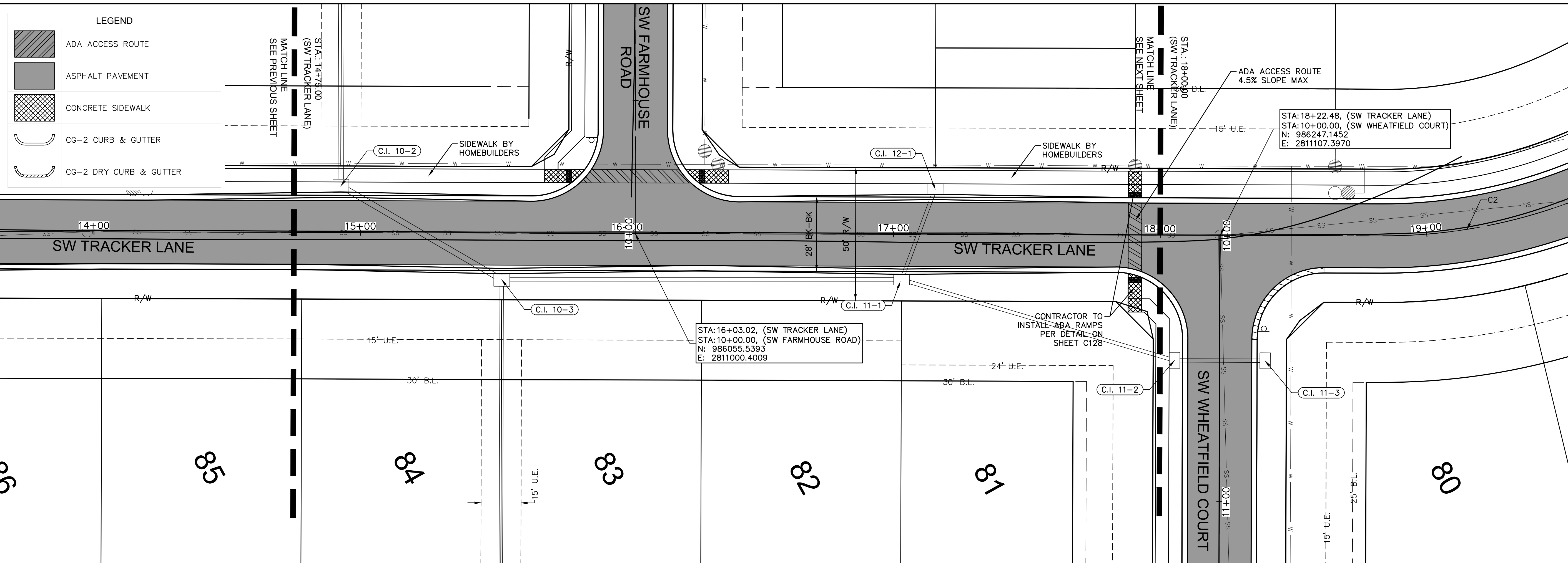
REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	03-23-2021	REVISED PER CITY COMMENTS	
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3	09-30-2021	CHANGES TO APPROVED PLANS	

ROADWAY PLAN & PROFILE (SW TRACKER LANE)  
 STREET & STORM SEWER PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO  
 2021

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: B.M.W./A.A.  
 project no.: B19-4061  
 date: 01-08-2021



DWG: F:\2019\4001-4500\019-4061-EX40-Design\AutoCAD\Asbuilt\Sheets\GNC\Street & Storm Plans\C\_RP02\_B194061.dwg  
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 USER: ssoylor



**AS BUILT**  
 DATE SURVEYED: 2022-05-26

C\_PATT\_B194061  
 C\_FBASE\_B194061  
 C\_PSURF\_B194061  
 C\_PUTIL\_B194061  
 C\_PBASE\_B194061  
 C\_PENDY\_B194061

**LEGEND**

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

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ROADWAY PLAN & PROFILE (SW TRACKER LANE)  
 STREET & STORM SEWER PLANS

HOOK FARMS  
 SECOND PLAT

LEE'S SUMMIT, MO

2021

REVISIONS

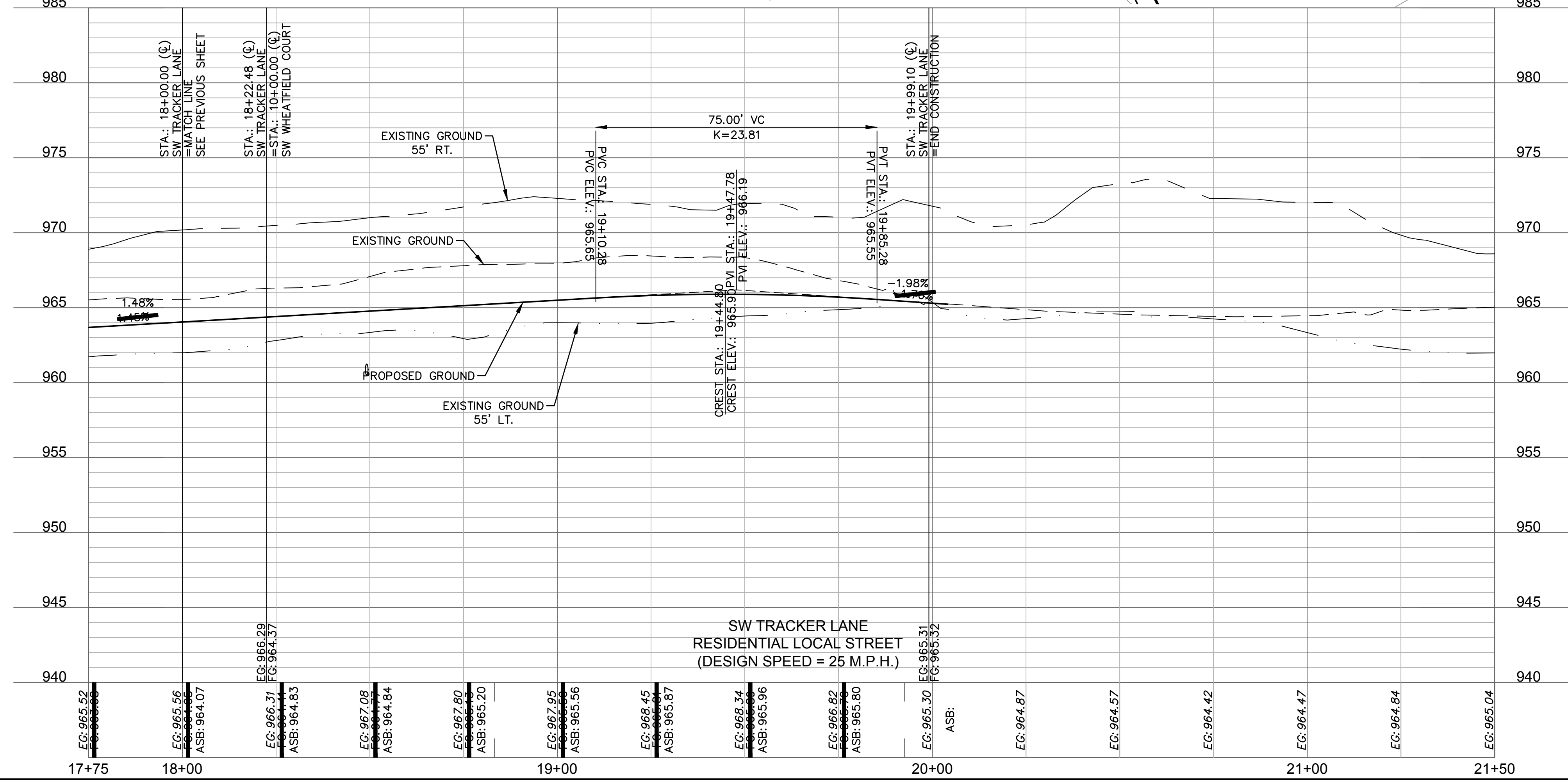
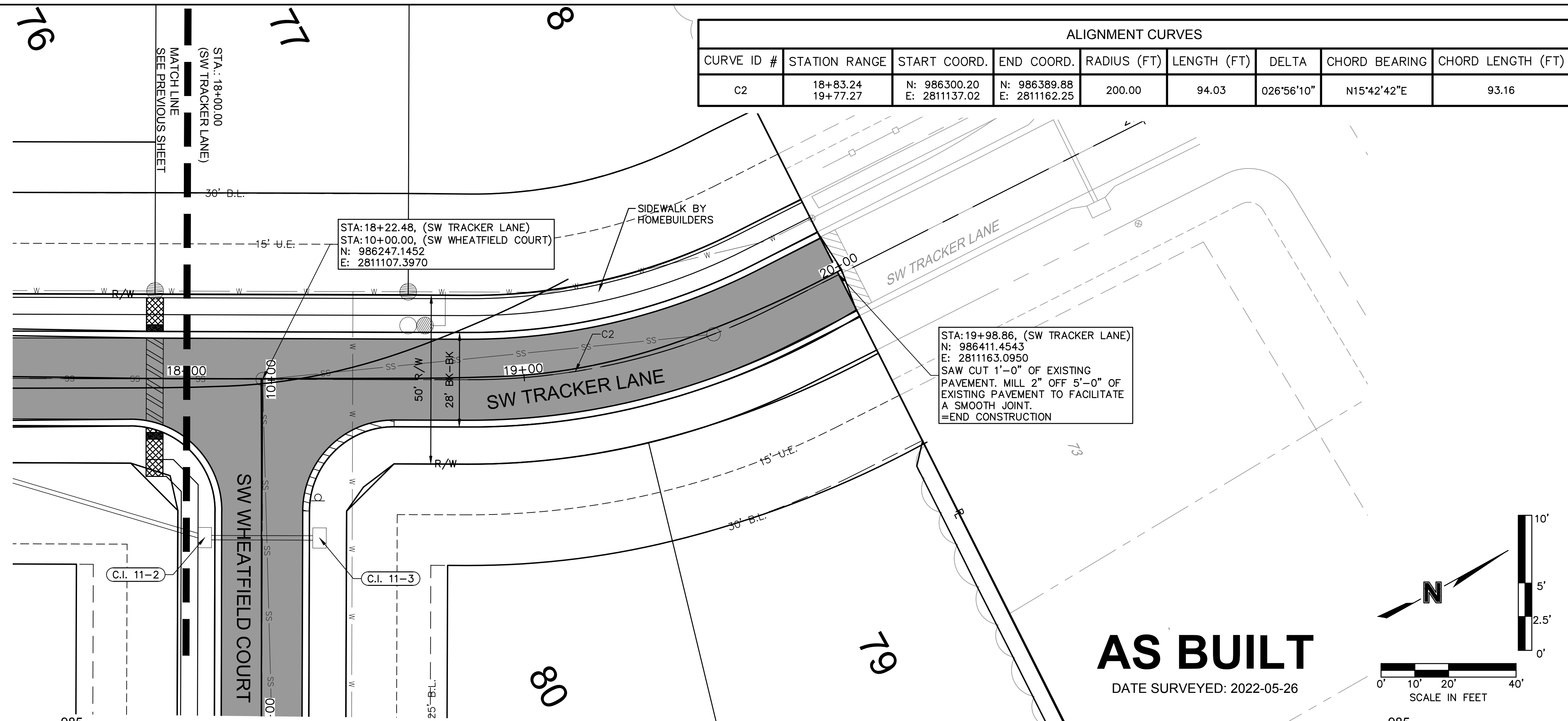
drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

**SHEET**  
 C116

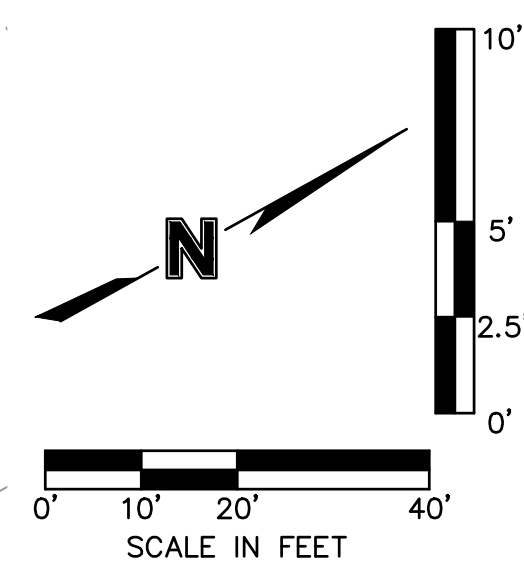


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 USER: ssoylor

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



**AS BUILT**  
DATE SURVEYED: 2022-05-26



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ROADWAY PLAN & PROFILE (SW TRACKER LANE)  
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HOOK FARMS  
 SECOND PLAT

LEE'S SUMMIT, MO

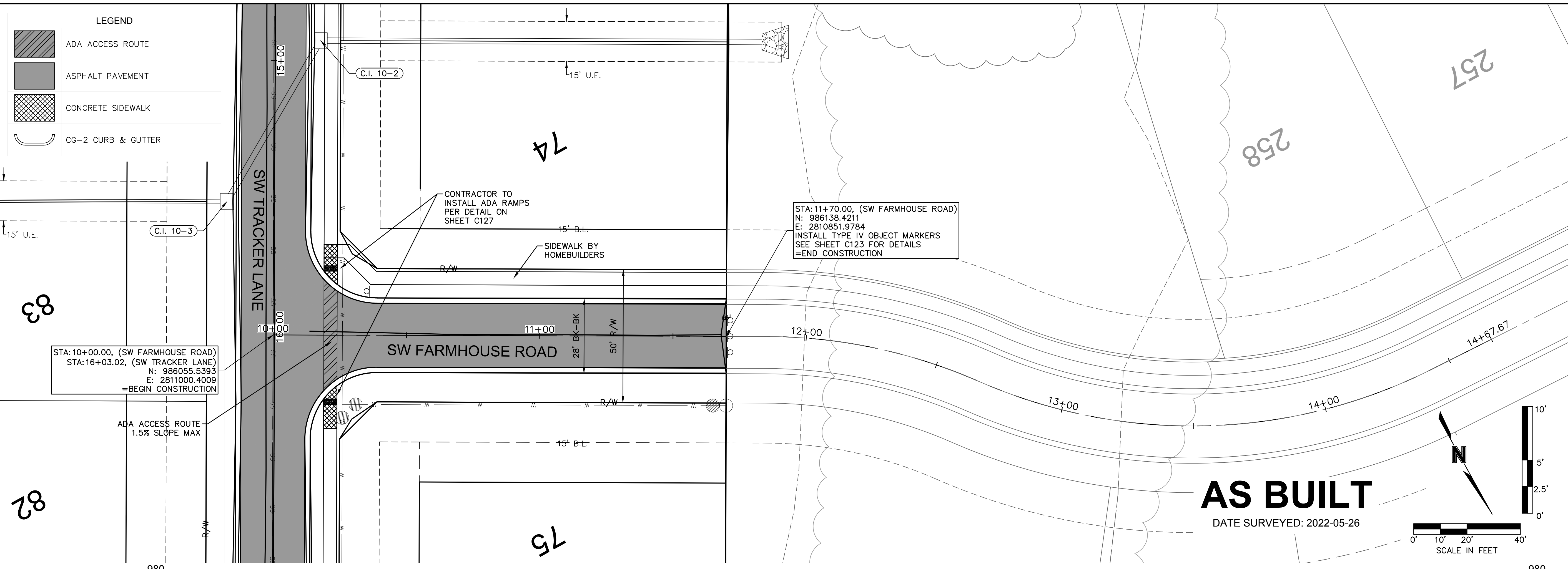
2021

REVISIONS

drawn by:	B.M.W./A.A.
checked by:	B.M.W./A.A.
designed by:	B.M.W./A.A.
QA/QC by:	J.E.S.
project no.:	B19-4061
date:	01-08-2021



DWG: F:\2019\4001-4500\019-4061-EX40-Design\AutoCAD\Asbuilt\Sheets\GNCV\Street & Storm Plans\C\_RPPO2\_B194061.dwg  
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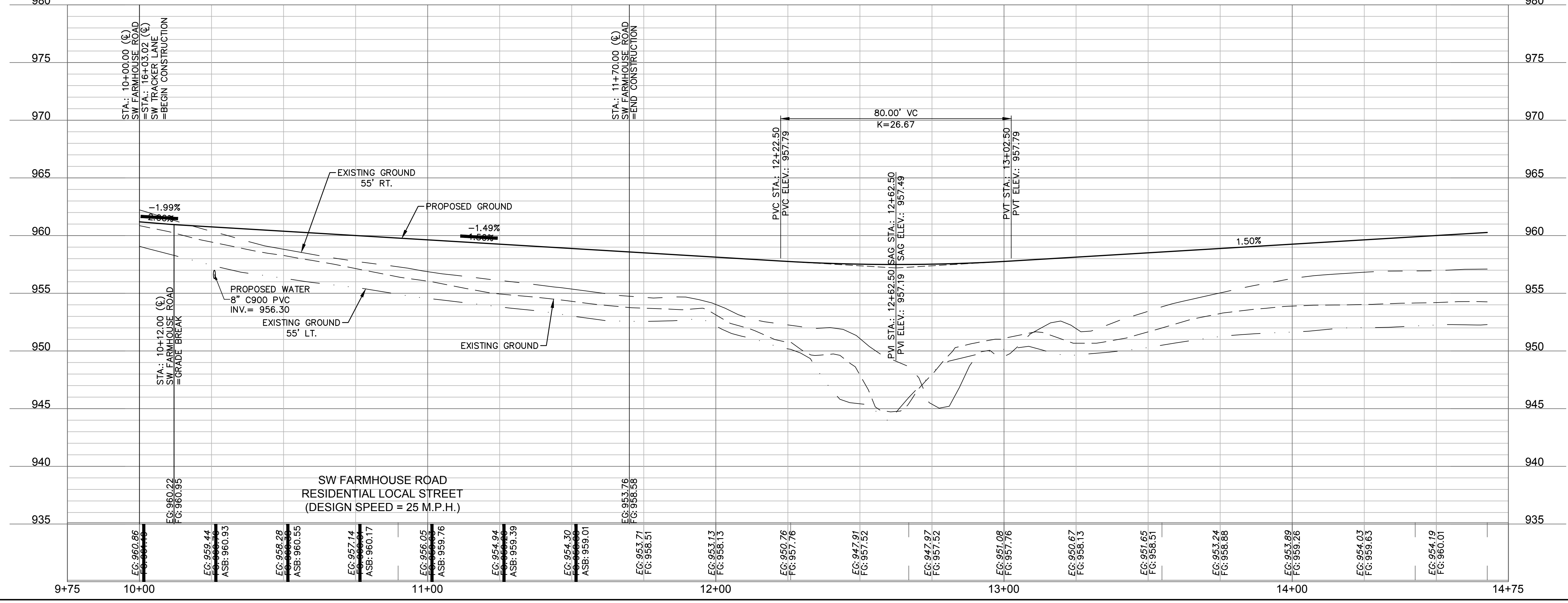
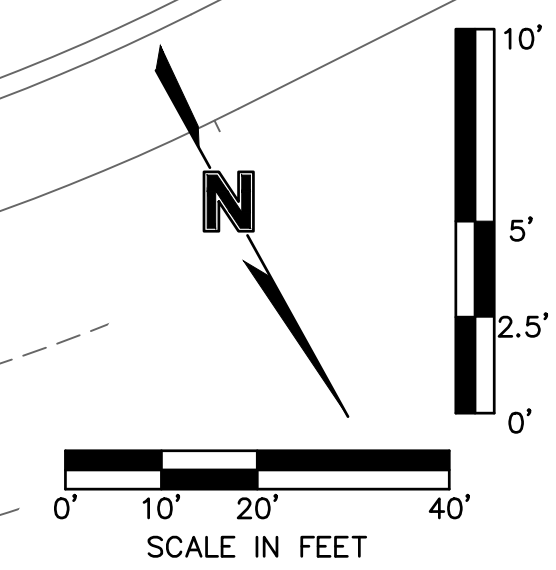
82

88

74

75

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 JULIE ELAINE SELLERS  
 PROFESSIONAL ENGINEER  
 NUMBER PE-2017000367  
 EXPIRES 10/11/22

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3	09-30-2021	CHANGES TO APPROVED PLANS

BY

ROADWAY PLAN & PROFILE (SW FARMHOUSE ROAD)  
 STREET & STORM SEWER PLANS

HOOK FARMS  
 SECOND PLAT

LEE'S SUMMIT, MO 2021

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

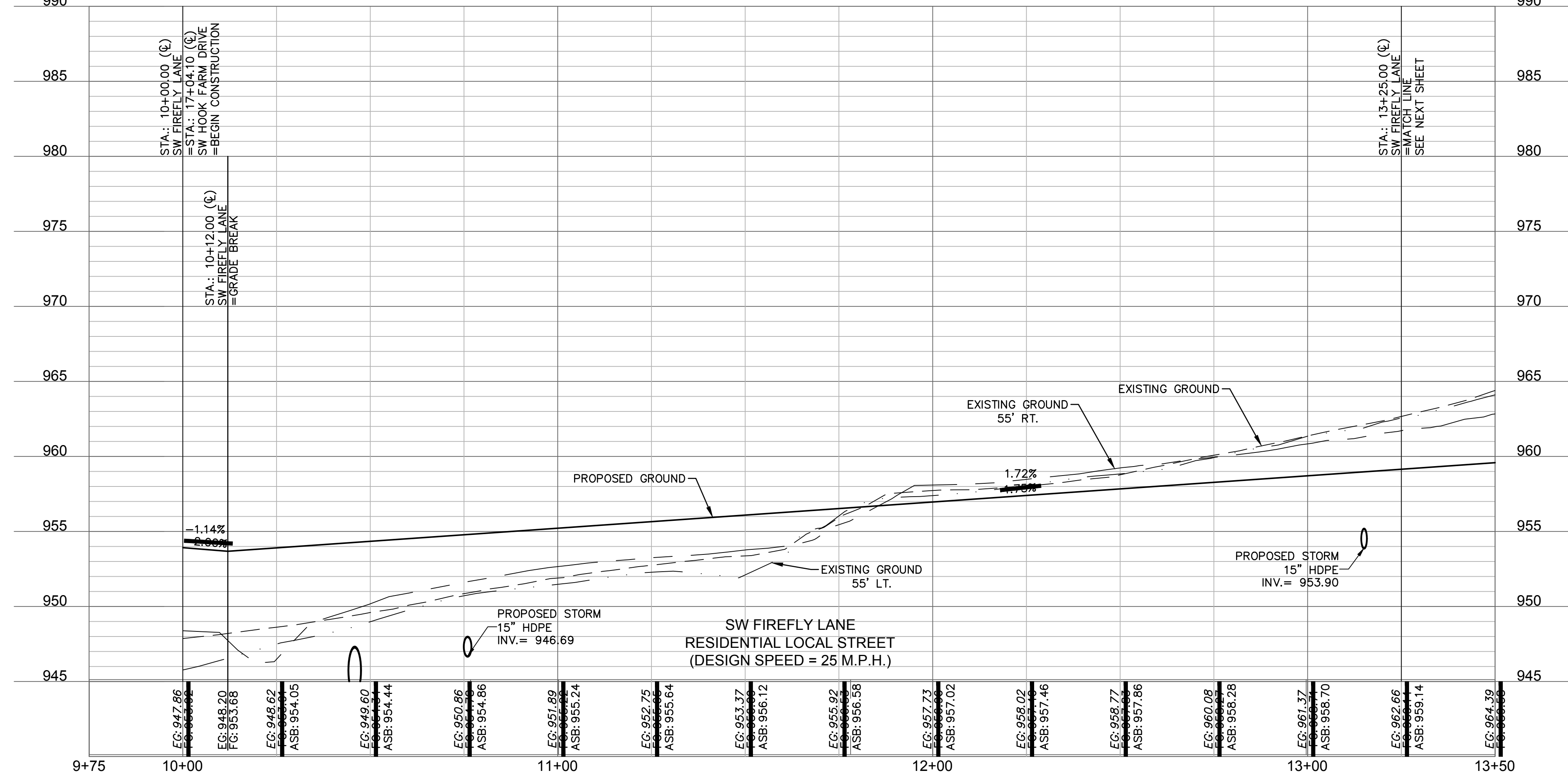
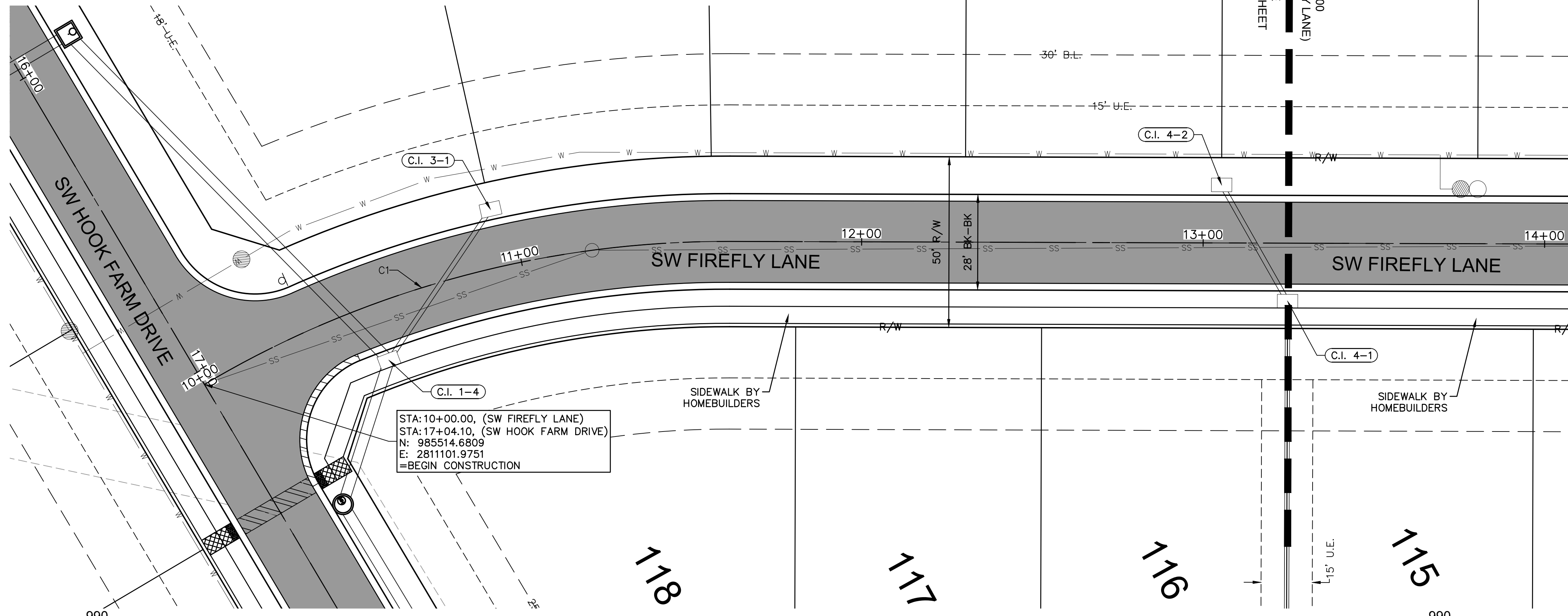
SHEET C118



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

ALIGNMENT CURVES								
CURVE ID #	STATION RANGE	START COORD.	END COORD.	RADIUS (FT)	LENGTH (FT)	DELTA	CHORD BEARING	CHORD LENGTH (FT)
C1	10+39.03 11+61.40	N: 985553.66 E: 2811103.39	N: 985669.56 E: 2811139.92	300.00	122.37	023°22'17"	N17°29'39"E	121.53



**AS BUILT**  
 DATE SURVEYED: 2022-05-26

Drawn by: B.M.W./A.A.  
 Checked by: B.M.W./A.A.  
 Designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 Project no.: B19-4061  
 Date: 01-08-2021

**olsson**  
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 North Kansas City, MO 64116  
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 FAX 816.361.1888  
 www.olsson.com

STATE OF MISSOURI  
 JULIE ELAINE SELLERS  
 PE-2017000367  
 10/11/22  
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

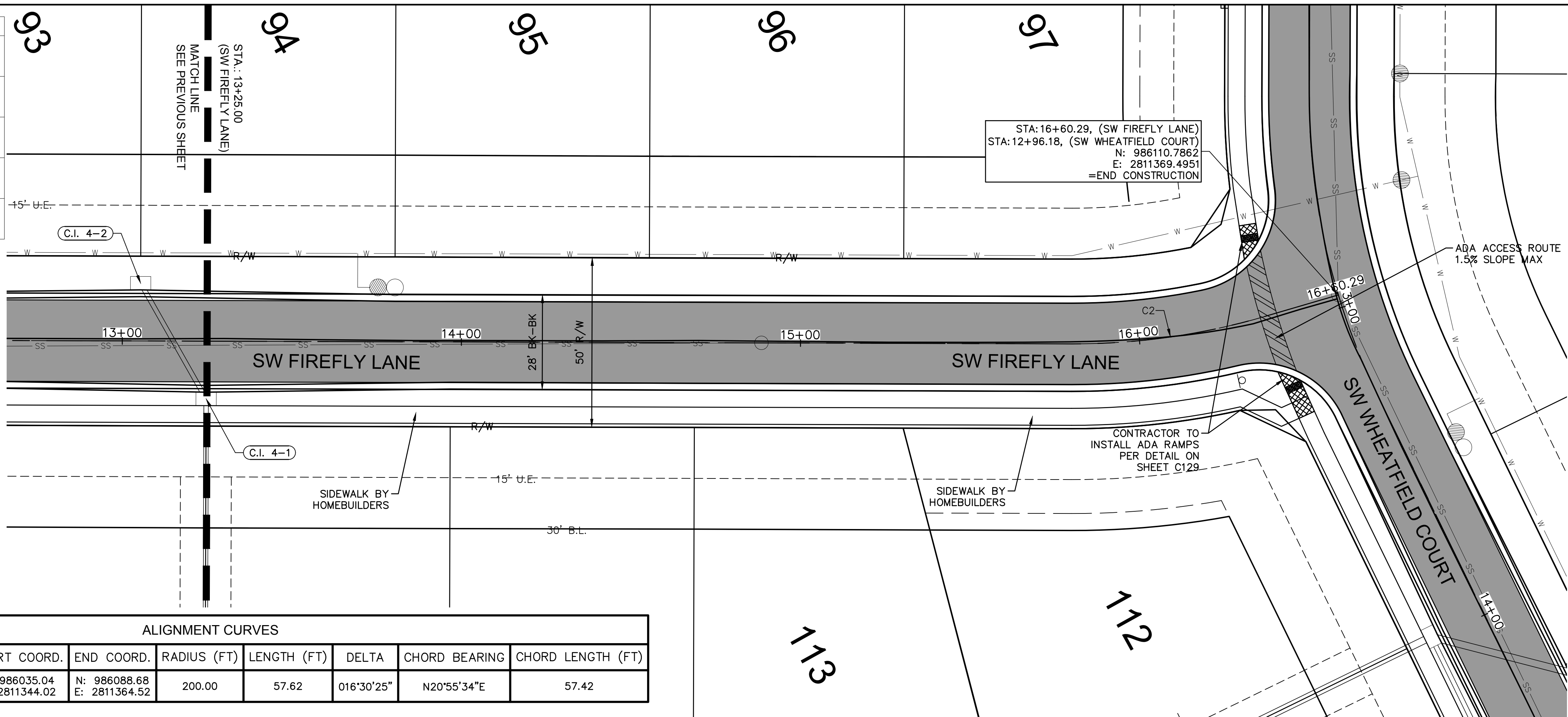
ROADWAY PLAN & PROFILE (SW FIREFLY LANE)  
 STREET & STORM SEWER PLANS  
 HOOK FARMS  
 SECOND PLAT

2021  
 REVISIONS  
 LEE'S SUMMIT, MO

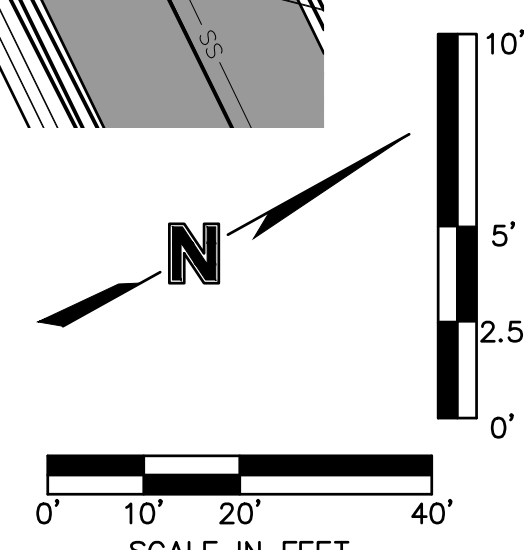
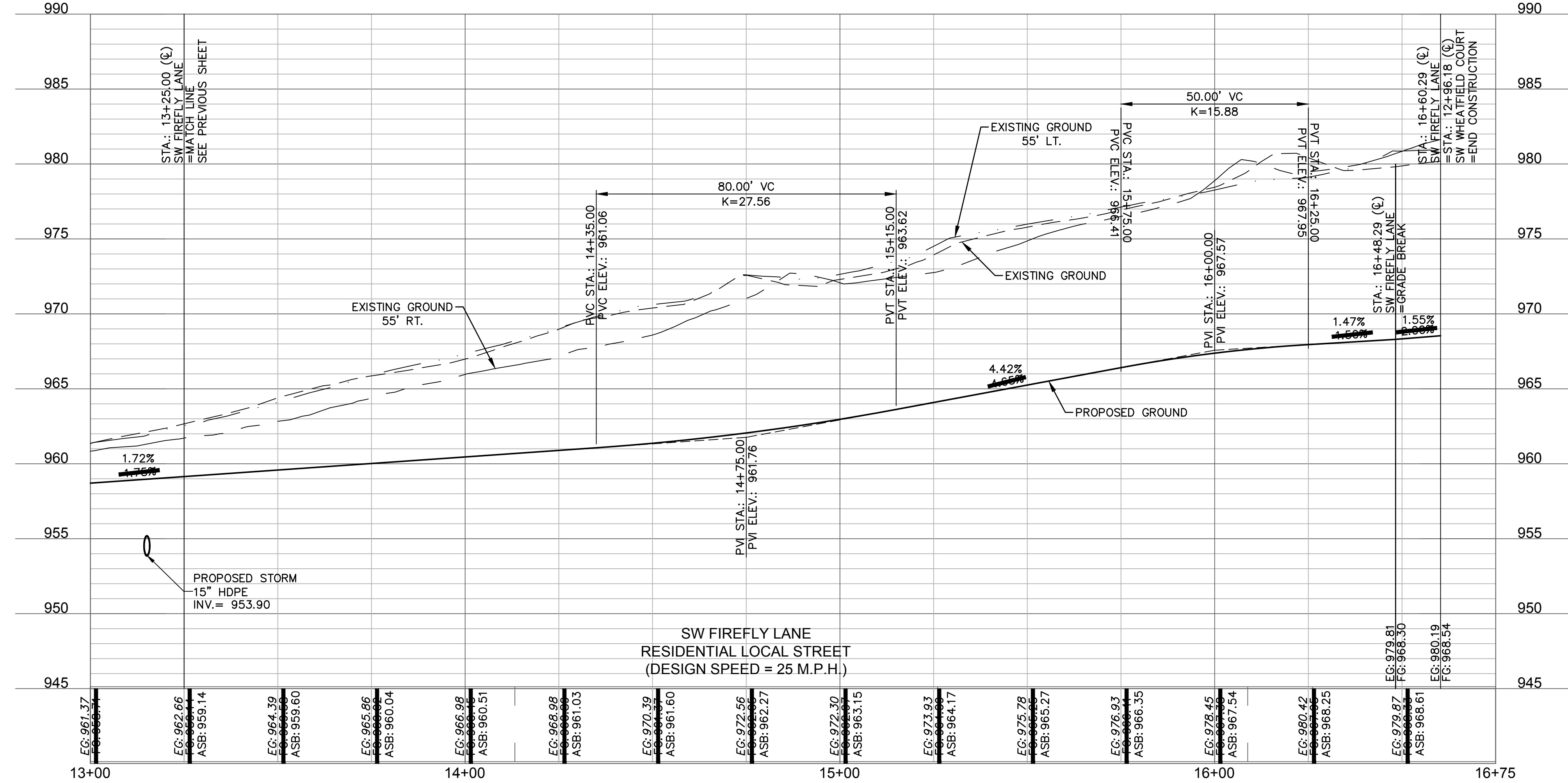


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 USER: ssoylor

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



ALIGNMENT CURVES								
CURVE ID #	STATION RANGE	START COORD.	END COORD.	RADIUS (FT)	LENGTH (FT)	DELTA	CHORD BEARING	CHORD LENGTH (FT)
C2	15+80.01 16+37.63	N: 986035.04 E: 2811344.02	N: 986088.68 E: 2811364.52	200.00	57.62	016°30'25"	N20°55'34"E	57.42



**AS BUILT**  
 DATE SURVEYED: 2022-05-26

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STATE OF MISSOURI  
 JULIE ELAINE SELLERS  
 PROFESSIONAL ENGINEER  
 NUMBER PE-2017000367  
 10/11/22

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	03-23-2021	REVISED PER CITY COMMENTS	
2	04-16-2021	REVISED PER CITY COMMENTS	
3	09-30-2021	CHANGES TO APPROVED PLANS	

ROADWAY PLAN & PROFILE (SW FIREFLY LANE)  
 STREET & STORM SEWER PLANS

2021

HOOK FARMS  
 SECOND PLAT

LEE'S SUMMIT, MO

SHEET C120

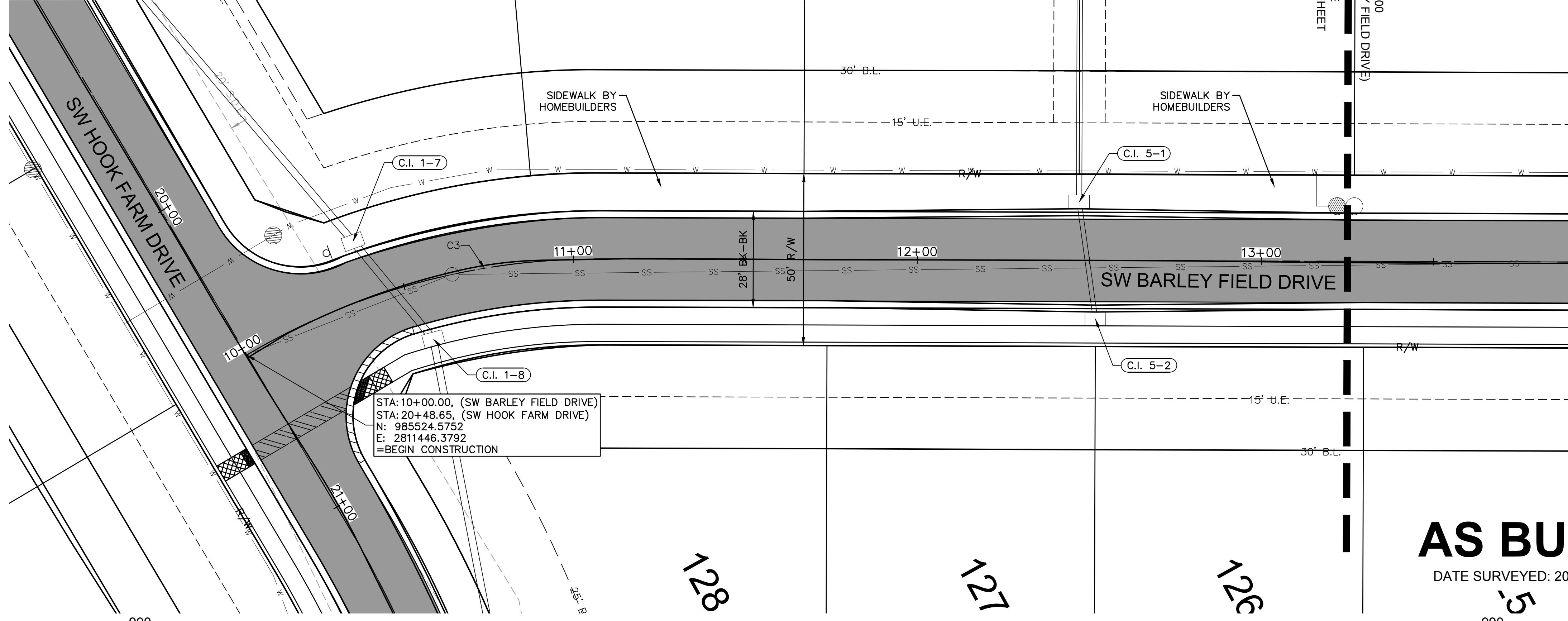
drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: E.S.  
 project no.: B19-4061  
 date: 01-08-2021



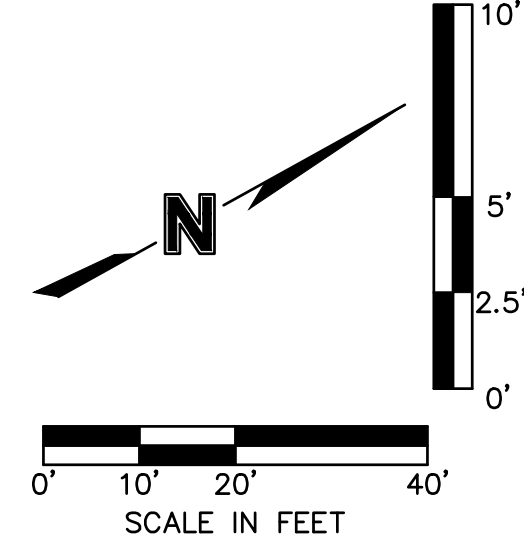
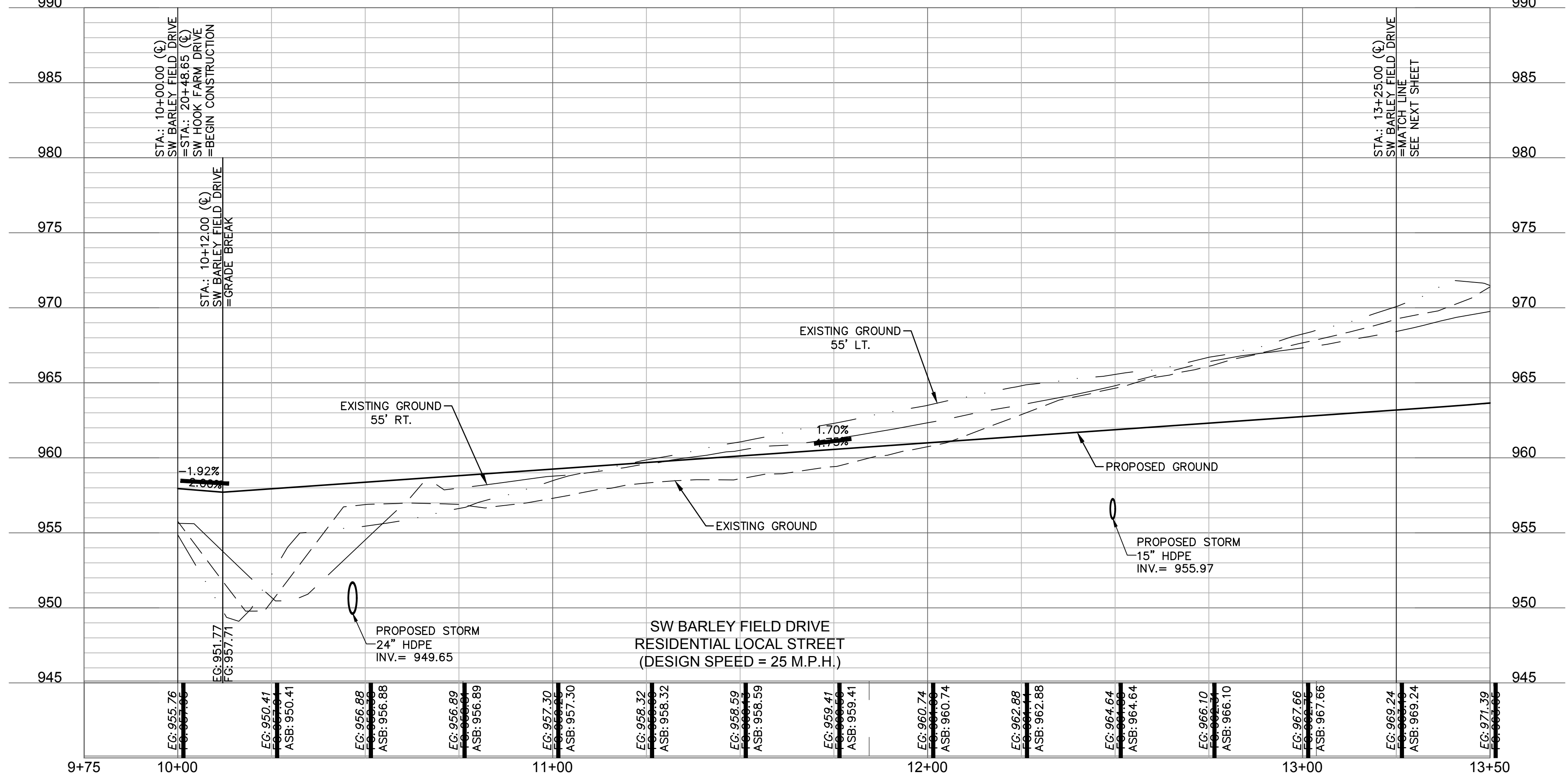
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LEGEND	
	ADA ACCESS ROUTE
	ASPHALT PAVEMENT
	CONCRETE SIDEWALK
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER

ALIGNMENT CURVES								
CURVE ID #	STATION RANGE	START COORD.	END COORD.	RADIUS (FT)	LENGTH (FT)	DELTA	CHORD BEARING	CHORD LENGTH (FT)
C3	10+39.06 11+07.60	N: 985563.48 E: 2811449.07	N: 985627.83 E: 2811471.68	200.00	68.54	019°38'08"	N19°21'43"E	68.21



**AS BUILT**  
 DATE SURVEYED: 2022-05-26



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 PE-2017000367  
 10/11/22  
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION
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3	09-30-2021	CHANGES TO APPROVED PLANS

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

HOOK FARMS  
 SECOND PLAT

LEE'S SUMMIT, MO

2021

REVISIONS

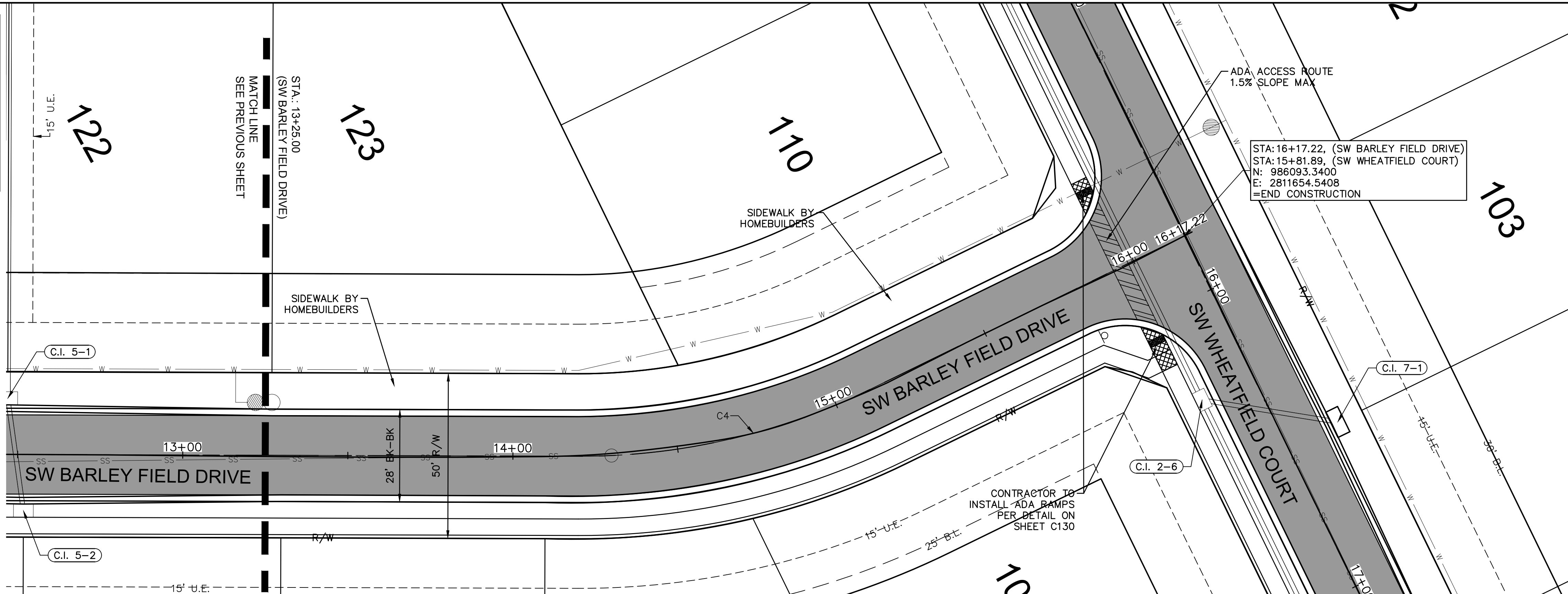
drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

**SHEET C121**



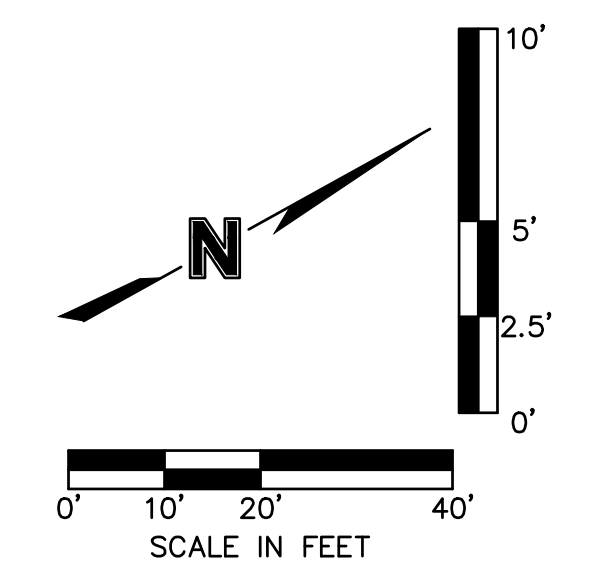
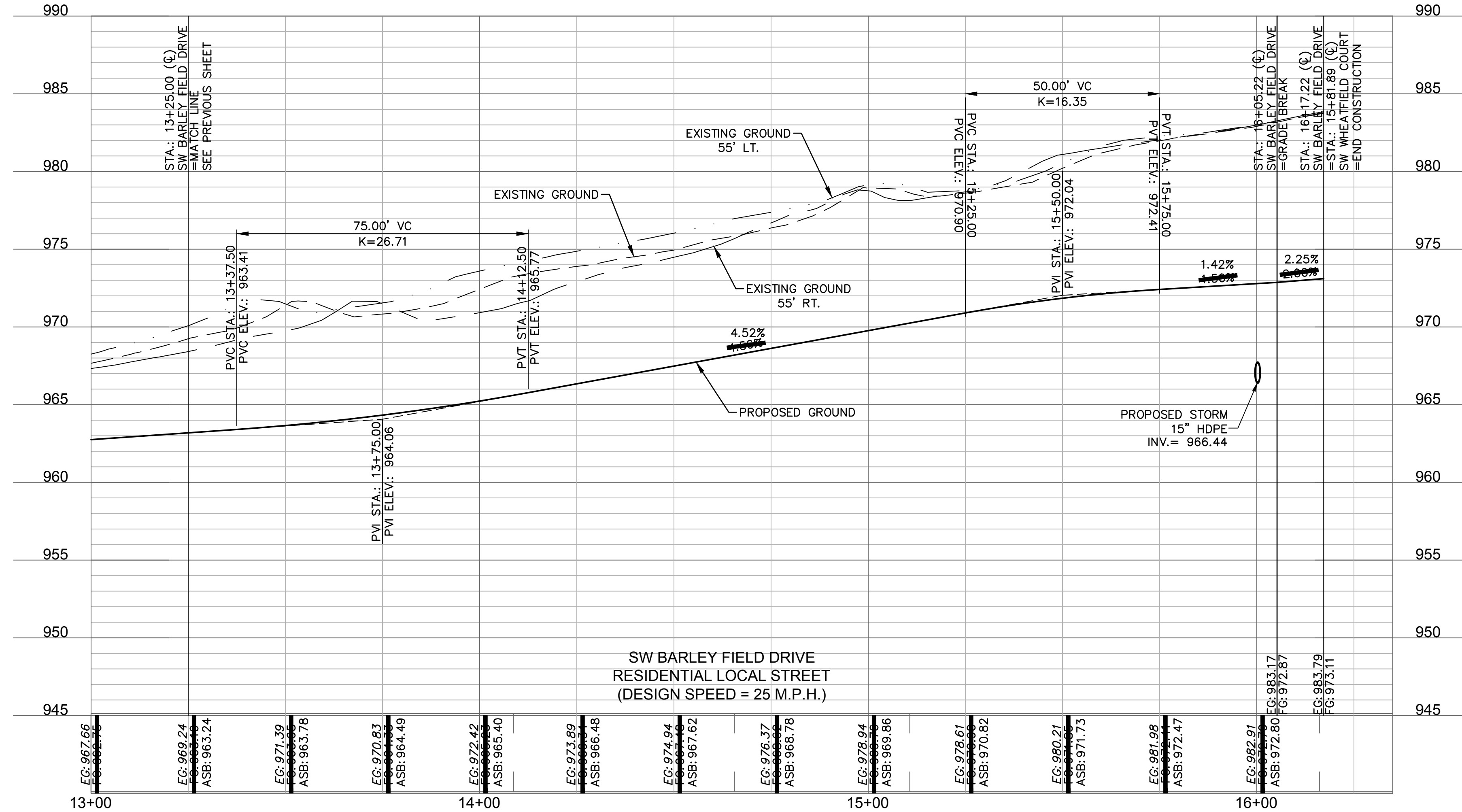
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 USER: ssoylor

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



STA: 16+17.22, (SW BARLEY FIELD DRIVE)  
 STA: 15+81.89, (SW WHEATFIELD COURT)  
 N: 986093.3400  
 E: 2811654.5408  
 =END CONSTRUCTION

ALIGNMENT CURVES								
CURVE ID #	STATION RANGE	START COORD.	END COORD.	RADIUS (FT)	LENGTH (FT)	DELTA	CHORD BEARING	CHORD LENGTH (FT)
C4	14+19.84 15+11.28	N: 985900.45 E: 2811623.91	N: 985987.54 E: 2811649.02	200.00	91.43	026°11'37"	N16°04'59"E	90.64



**AS BUILT**  
 DATE SURVEYED: 2022-05-26

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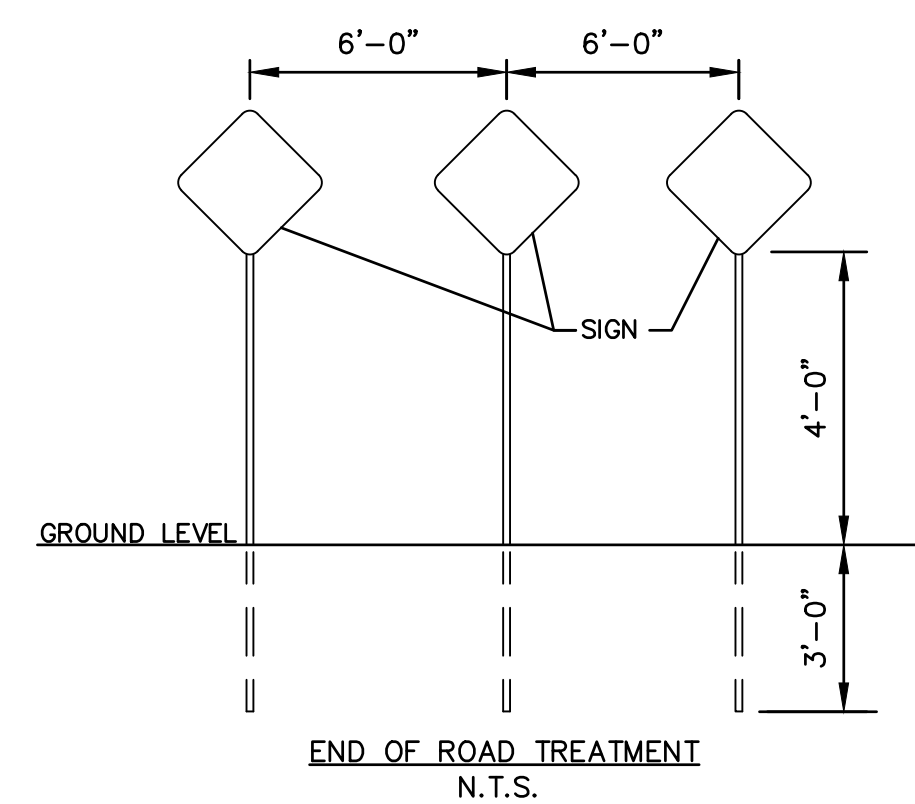
REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

ROADWAY PLAN & PROFILE (SW BARLEY FIELD DRIVE)  
 STREET & STORM SEWER PLANS  
 HOOK FARMS  
 SECOND PLAT  
 2021  
 LEE'S SUMMIT, MO

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021



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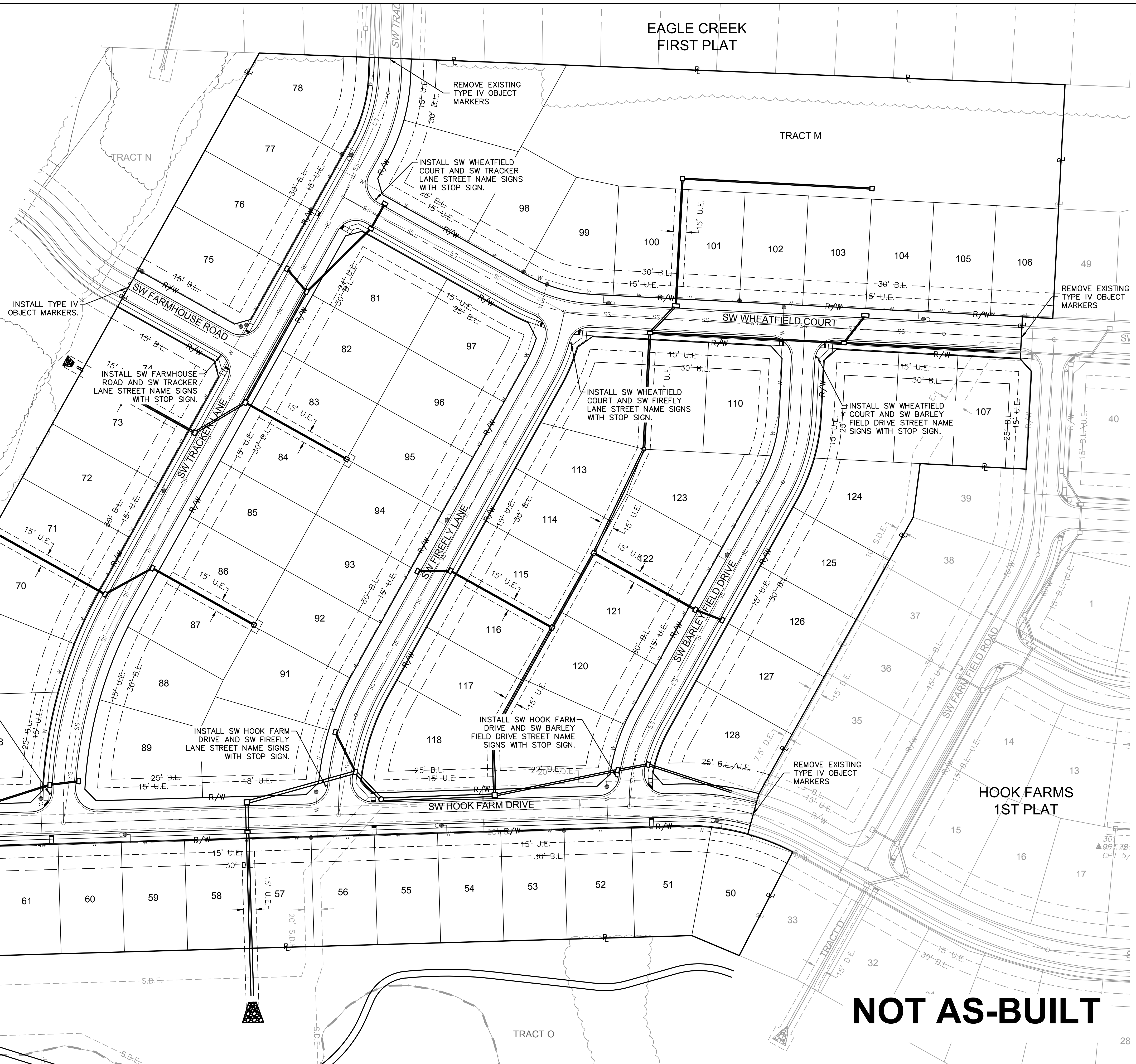
OBJECT MARKERS (TYPE OM4-3, 18"x18") ARE TO BE INSTALLED 2' FROM END OF PROPOSED PAVEMENT.

EAGLE CREEK FIRST PLAT

TRACT M

HOOK FARMS 1ST PLAT

**NOT AS-BUILT**



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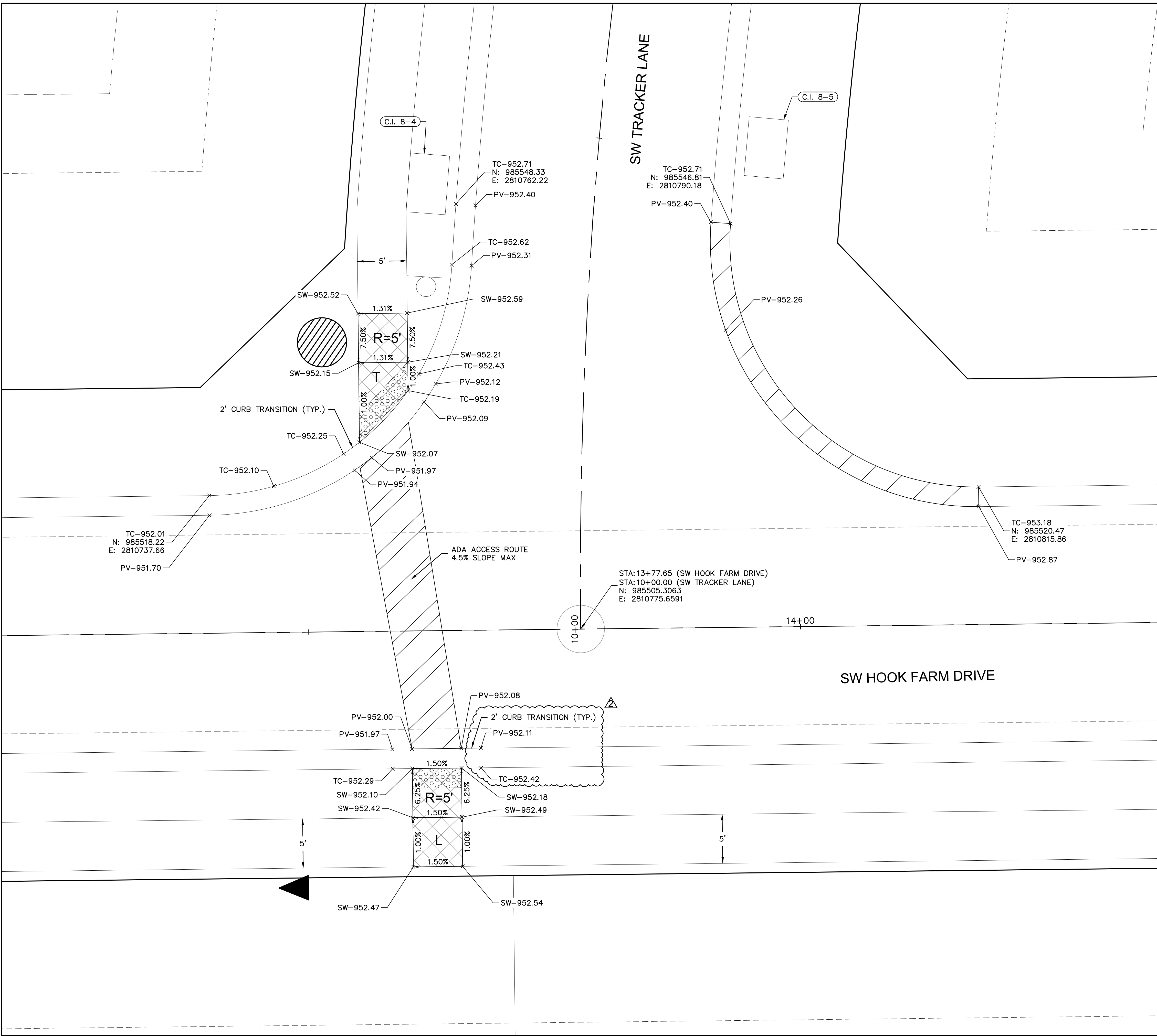
REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

TRAFFIC CONTROL PLAN  
 STREET & STORM SEWER PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO  
 2021

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021



DWG: F:\2019\4001-4500\019-4061-EV40-Design\AutoCAD\Asbuilt\Sheets\GNC\Street & Storm Plans\C\_INT01\_B194061.dwg  
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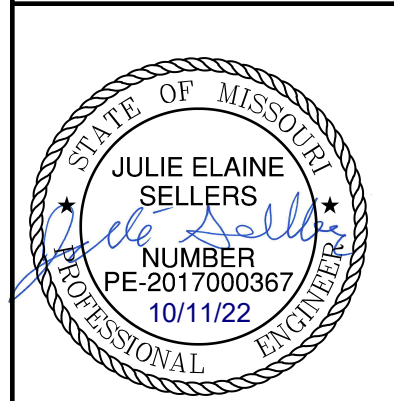
- INTERSECTION AND ADA DETAIL NOTES:
1. ALL ADA CURB RAMPS SHALL BE BUILT PER CURRENT MUNICIPALITY ADOPTED ADA STANDARDS.
  2. CURB RAMP FLARES SHALL NOT BE STEEPER THAN 1:10 MAX SLOPES.
  3. LANDING SHALL BE PROVIDED WHERE INDICATED ON PLAN SHEET OR BY PROWAG STANDARDS. LANDING SHALL BE 4'X4' MINIMUM. RAMP RUNS SHALL HAVE A MAXIMUM RUNNING SLOPE OF 1:12 UNLESS THE RAMP LENGTH IS OVER 15 FEET, THEN THE SLOPE CAN BE GREATER AS INDICATED IN DETAILS TO REACH STREET GRADES.
  4. LANDINGS SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
  5. CROSS SLOPE FOR RAMPS AND SIDEWALK SHALL NOT EXCEED 2%.
  6. AFTER CURBS HAVE BEEN CONSTRUCTED, AND BEFORE ASPHALT OR CONCRETE PAVEMENT IS POURED, CURBS SHOULD BE MEASURED WITH A LEVEL TO ENSURE CURB ALONG ADA RAMPS AND LANDINGS WILL MEET ADA REQUIREMENTS.
  7. ADA RAMP CONSTRUCTION WILL BE INSPECTED THOROUGHLY BY THE CITY INSPECTOR. CONTRACTOR SHALL BE REQUIRED TO RECONSTRUCT RAMPS, CURBS AND/OR PAVEMENT AT CONTRACTOR'S EXPENSE IF ADA RAMPS AND LANDINGS CANNOT MEET THE ADA REQUIREMENTS, PER APPROVED PLAN OR APPROVED ALTERNATIVE.
  8. CURVE DATA IS FOR BACK OF CURB.

LEGEND

TC-	TOP OF CURB
PV-	TOP OF PAVEMENT
SW-	SIDEWALK
L	LANDING AREA
R	RAMP AREA
T	TRANSITION AREA
(Hatched Pattern)	ADA ACCESS ROUTE
(Crown Symbol)	CG-2 CURB & GUTTER
(Flat Symbol)	CG-2 DRY CURB & GUTTER
(Dashed Pattern)	ADA RAMP (CONSTRUCTED BY CONTRACTOR)

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REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

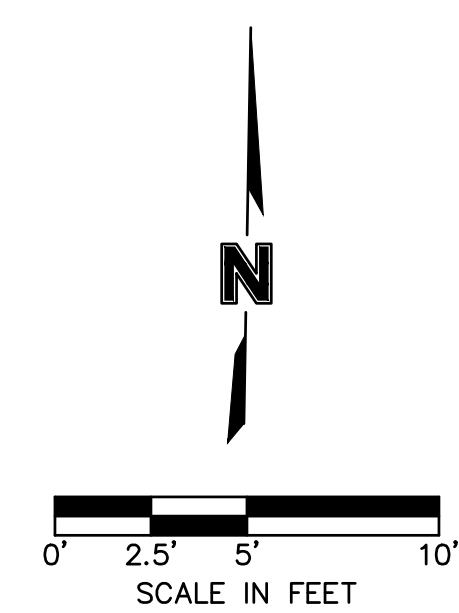
SW TRACKER LANE & SW HOOK FARM DRIVE  
 STREET & STORM SEWER PLANS

HOOK FARMS  
 SECOND PLAT

LEE'S SUMMIT, MO

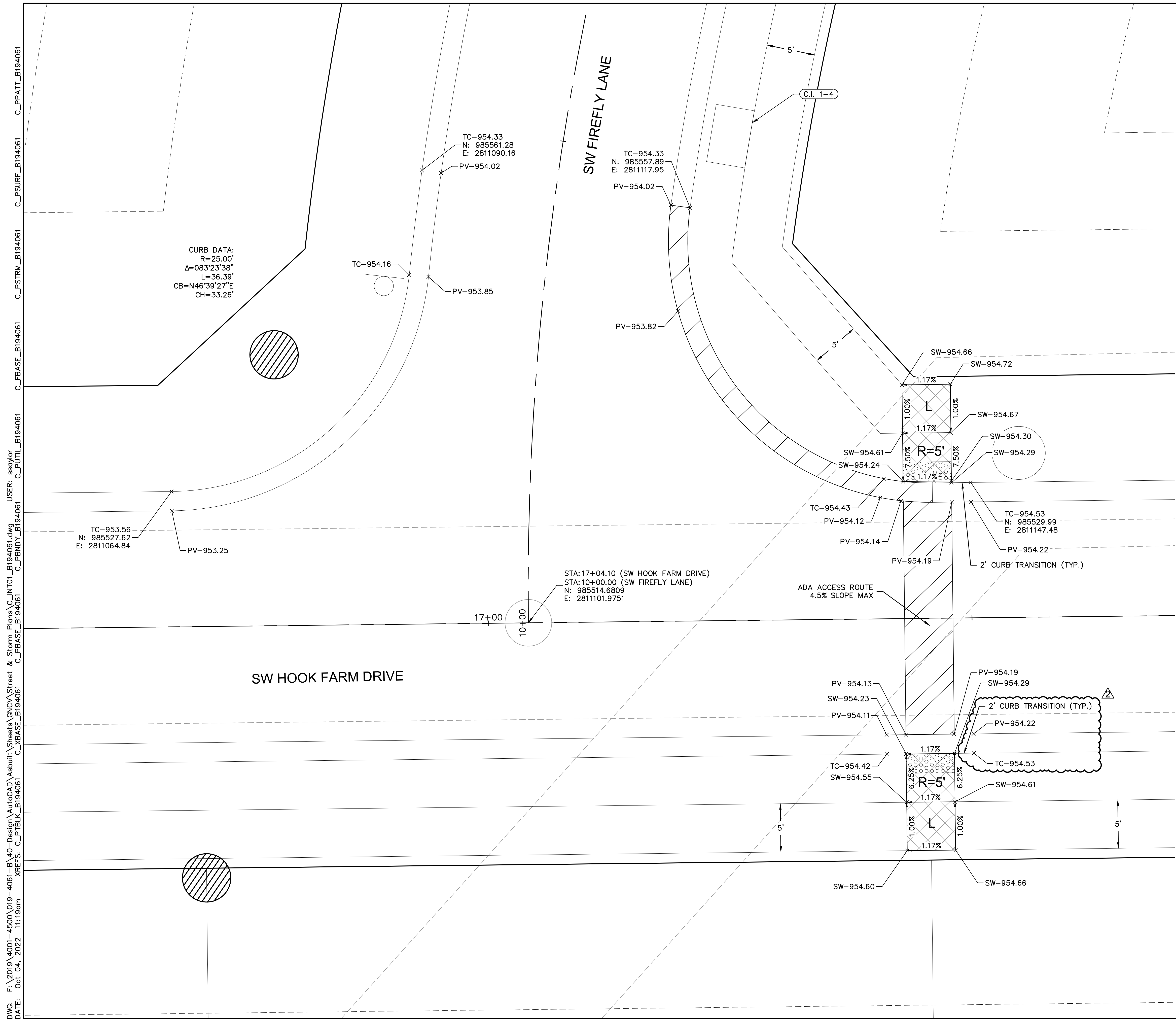
2021

**NOT AS-BUILT**



drawn by: B.M.W./A.A.  
 checked by: B.M.W./  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021





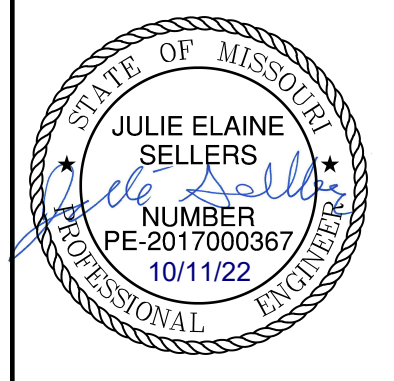
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R=25.00'  
Δ=083°23'38"  
L=36.39'  
CB=N46°39'27"E  
CH=33.26'

- INTERSECTION AND ADA DETAIL NOTES:
1. ALL ADA CURB RAMPS SHALL BE BUILT PER CURRENT MUNICIPALITY ADOPTED ADA STANDARDS.
  2. CURB RAMP FLARES SHALL NOT BE STEEPER THAN 1:10 MAX SLOPES.
  3. LANDING SHALL BE PROVIDED WHERE INDICATED ON PLAN SHEET OR BY PROWAG STANDARDS. LANDING SHALL BE 4'x4' MINIMUM. RAMP RUNS SHALL HAVE A MAXIMUM RUNNING SLOPE OF 1:12 UNLESS THE RAMP LENGTH IS OVER 15 FEET, THEN THE SLOPE CAN BE GREATER AS INDICATED IN DETAILS TO REACH STREET GRADES.
  4. LANDING SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
  5. CROSS SLOPE FOR RAMPS AND SIDEWALK SHALL NOT EXCEED 2%.
  6. AFTER CURBS HAVE BEEN CONSTRUCTED, AND BEFORE ASPHALT OR CONCRETE PAVEMENT IS POURED, CURBS SHOULD BE MEASURED WITH A LEVEL TO ENSURE CURB ALONG ADA RAMPS AND LANDINGS WILL MEET ADA REQUIREMENTS.
  7. ADA RAMP CONSTRUCTION WILL BE INSPECTED THOROUGHLY BY THE CITY INSPECTOR. CONTRACTOR SHALL BE REQUIRED TO RECONSTRUCT RAMPS, CURBS AND/OR PAVEMENT AT CONTRACTOR'S EXPENSE IF ADA RAMPS AND LANDINGS CANNOT MEET THE ADA REQUIREMENTS, PER APPROVED PLAN OR APPROVED ALTERNATIVE.
  8. CURVE DATA IS FOR BACK OF CURB.

LEGEND	
TC-	TOP OF CURB
PV-	TOP OF PAVEMENT
SW-	SIDEWALK
L	LANDING AREA
R	RAMP AREA
T	TRANSITION AREA
	ADA ACCESS ROUTE
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER
	ADA RAMP (CONSTRUCTED BY CONTRACTOR)

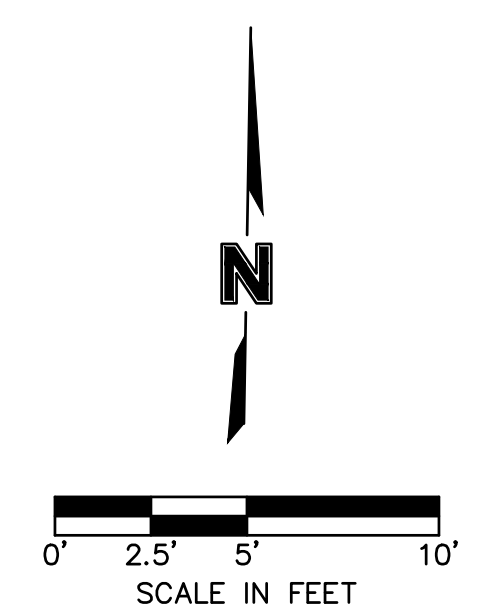
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FAX 816.361.1888  
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	03-23-2021	REVISED PER CITY COMMENTS	
2	04-16-2021	REVISED PER CITY COMMENTS	
3	09-30-2021	CHANGES TO APPROVED PLANS	

**NOT AS-BUILT**



SW FIREFLY LANE & SW HOOK FARM DRIVE  
STREET & STORM SEWER PLANS

HOOK FARMS  
SECOND PLAT

LEE'S SUMMIT, MO

2021

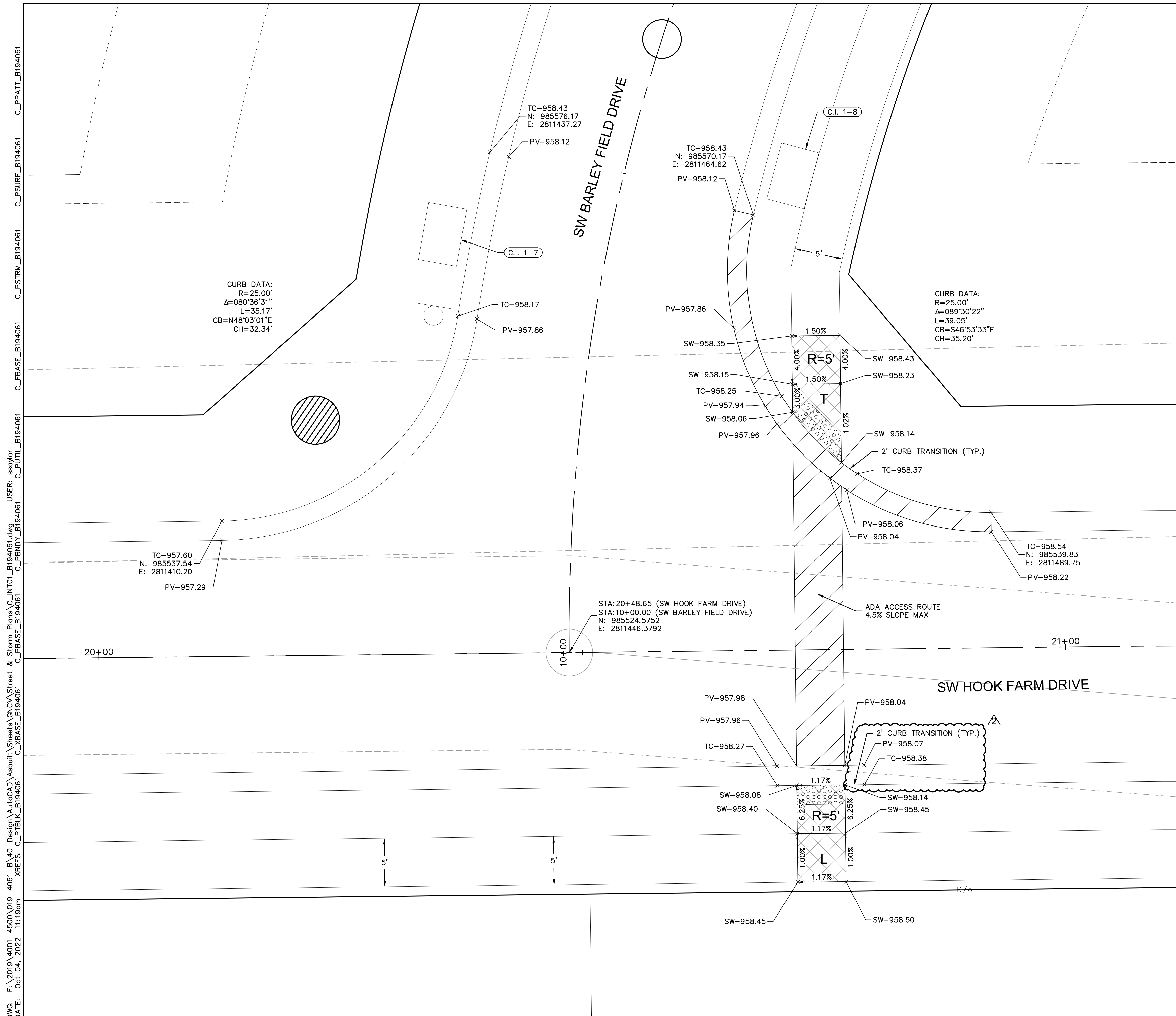
REVISIONS

drawn by:	B.M.W./A.A.
checked by:	B.M.W.
designed by:	J.E.S.
QA/QC by:	B.M.W./A.A.
project no.:	B19-408-1
date:	01-08-2021

SHEET  
C125

DWG: F:\2019\4001-4500\019-4061-BV40-Design\AutoCAD\Asbuilt\Sheets\GNCV\Street & Storm Plans\C\_INT01\_B194061.dwg USER: ssojlor  
DATE: Oct 04, 2022 11:19am XREFS: C\_PTEILK\_B194061 C\_PBASE\_B194061 C\_PSTRM\_B194061 C\_PSURF\_B194061 C\_PPATT\_B194061 C\_PUTIL\_B194061 C\_PBNDY\_B194061 C\_FBASE\_B194061 C\_PSTRM\_B194061 C\_PPATT\_B194061





CURB DATA:  
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 $\Delta=080^{\circ}36'31''$   
 L=35.17'  
 CB=N48^{\circ}03'01''E  
 CH=32.34'

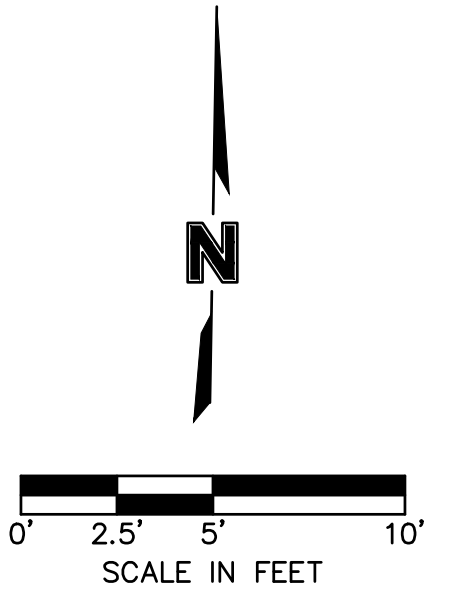
CURB DATA:  
 R=25.00'  
 $\Delta=089^{\circ}30'22''$   
 L=39.05'  
 CB=S46^{\circ}53'33''E  
 CH=35.20'

STA: 20+48.65 (SW HOOK FARM DRIVE)  
 STA: 10+00.00 (SW BARLEY FIELD DRIVE)  
 N: 985524.5752  
 E: 2811446.3792

- INTERSECTION AND ADA DETAIL NOTES:
1. ALL ADA CURB RAMPS SHALL BE BUILT PER CURRENT MUNICIPALITY ADOPTED ADA STANDARDS.
  2. CURB RAMP FLARES SHALL NOT BE STEEPER THAN 1:10 MAX SLOPES.
  3. LANDING SHALL BE PROVIDED WHERE INDICATED ON PLAN SHEET OR BY PROWAG STANDARDS. LANDING SHALL BE 4'X4' MINIMUM. RAMP RUNS SHALL HAVE A MAXIMUM RUNNING SLOPE OF 1:12 UNLESS THE RAMP LENGTH IS OVER 15 FEET, THEN THE SLOPE CAN BE GREATER AS INDICATED IN DETAILS TO REACH STREET GRADES.
  4. LANDINGS SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
  5. AFTER CURBS HAVE BEEN CONSTRUCTED, AND BEFORE ASPHALT OR CONCRETE PAVEMENT IS POURED, CURBS SHOULD BE MEASURED WITH A LEVEL TO ENSURE CURB ALONG ADA RAMPS AND LANDINGS WILL MEET ADA REQUIREMENTS.
  6. ADA RAMP CONSTRUCTION WILL BE INSPECTED THOROUGHLY BY THE CITY INSPECTOR. CONTRACTOR SHALL BE REQUIRED TO RECONSTRUCT RAMPS, CURBS AND/OR PAVEMENT AT CONTRACTOR'S EXPENSE IF ADA RAMPS AND LANDINGS CANNOT MEET THE ADA REQUIREMENTS, PER APPROVED PLAN OR APPROVED ALTERNATIVE.
  7. CURVE DATA IS FOR BACK OF CURB.

LEGEND	
TC-	TOP OF CURB
PV-	TOP OF PAVEMENT
SW-	SIDEWALK
L	LANDING AREA
R	RAMP AREA
T	TRANSITION AREA
	ADA ACCESS ROUTE
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER
	ADA RAMP (CONSTRUCTED BY CONTRACTOR)

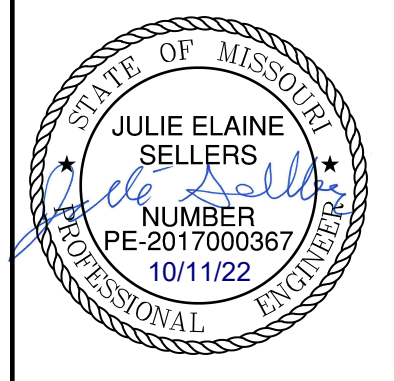
**NOT AS-BUILT**



DWG: F:\2019\4001-4500\019-4061-EV40-Design\AutoCAD\Asbuilt\Sheets\GNC\Street & Storm Plans\C\_INT01\_B194061.dwg  
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 USER: ssoy/or

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2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

SW BARLEY FIELD DRIVE & SW HOOK FARM DRIVE  
 STREET & STORM SEWER PLANS

HOOK FARMS  
 SECOND PLAT

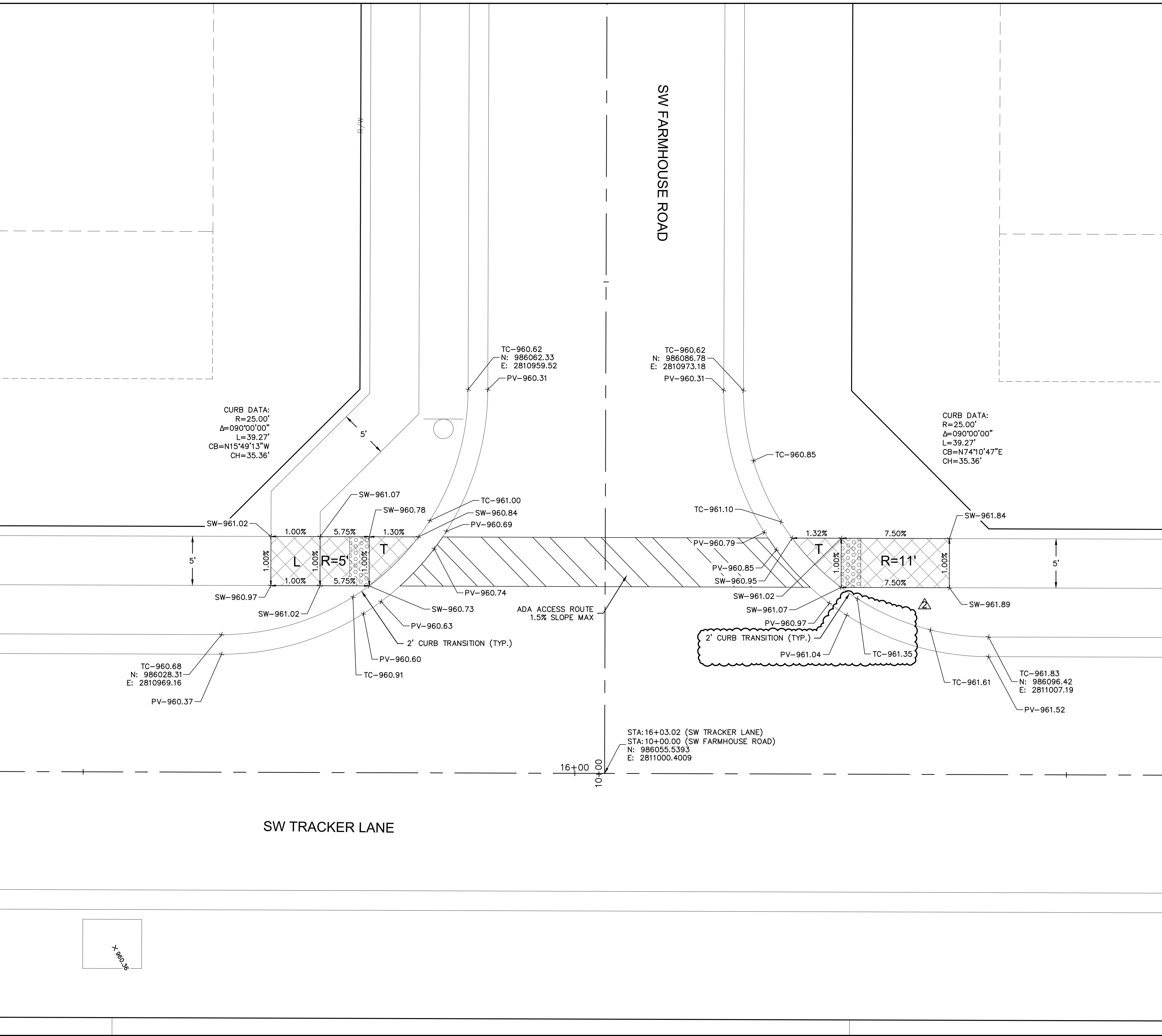
LEE'S SUMMIT, MO 2021

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

**SHEET C126**



DWG: F:\2019\4001-4500\019-4061-EX-40-Design\AutoCAD\Asbuilt\Sheets\GNC\A\Street & Storm Plans\C\_INT01\_B194061.dwg  
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 USER: ssoy/or

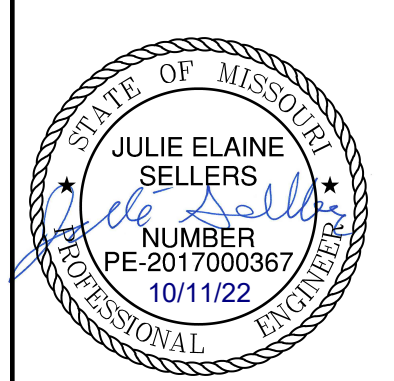


- INTERSECTION AND ADA DETAIL NOTES:
1. ALL ADA CURB RAMP SHALL BE BUILT PER CURRENT MUNICIPALITY ADOPTED ADA STANDARDS.
  2. CURB RAMP FLARES SHALL NOT BE STEEPER THAN 1:10 MAX SLOPES.
  3. LANDING SHALL BE PROVIDED WHERE INDICATED ON PLAN SHEET OR BY PROWAG STANDARDS. LANDING SHALL BE 4'X4' MINIMUM. RAMP RUNS SHALL HAVE A MAXIMUM RUNNING SLOPE OF 1:12 UNLESS THE RAMP LENGTH IS OVER 15 FEET, THEN THE SLOPE CAN BE GREATER AS INDICATED IN DETAILS TO REACH STREET GRADES.
  4. LANDINGS SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
  5. CROSS SLOPE FOR RAMPS AND SIDEWALK SHALL NOT EXCEED 2%.
  6. AFTER CURBS HAVE BEEN CONSTRUCTED, AND BEFORE ASPHALT OR CONCRETE PAVEMENT IS POURED, CURBS SHOULD BE MEASURED WITH A LEVEL TO ENSURE CURB ALONG ADA RAMPS AND LANDINGS WILL MEET ADA REQUIREMENTS.
  7. ADA RAMP CONSTRUCTION WILL BE INSPECTED THOROUGHLY BY THE CITY INSPECTOR. CONTRACTOR SHALL BE REQUIRED TO RECONSTRUCT RAMPS, CURBS AND/OR PAVEMENT AT CONTRACTOR'S EXPENSE IF ADA RAMPS AND LANDINGS CANNOT MEET THE ADA REQUIREMENTS, PER APPROVED PLAN OR APPROVED ALTERNATIVE.
  8. CURVE DATA IS FOR BACK OF CURB.

LEGEND	
TC-	TOP OF CURB
PV-	TOP OF PAVEMENT
SW-	SIDEWALK
L	LANDING AREA
R	RAMP AREA
T	TRANSITION AREA
	ADA ACCESS ROUTE
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER
	ADA RAMP (CONSTRUCTED BY CONTRACTOR)

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REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

SW FARMHOUSE ROAD & SW TRACKER LANE  
 STREET & STORM SEWER PLANS

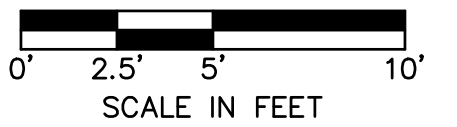
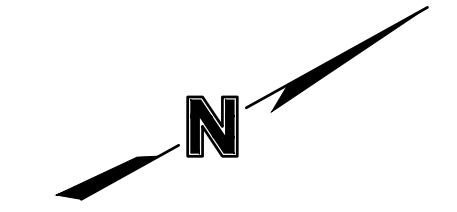
HOOK FARMS  
 SECOND PLAT

2021

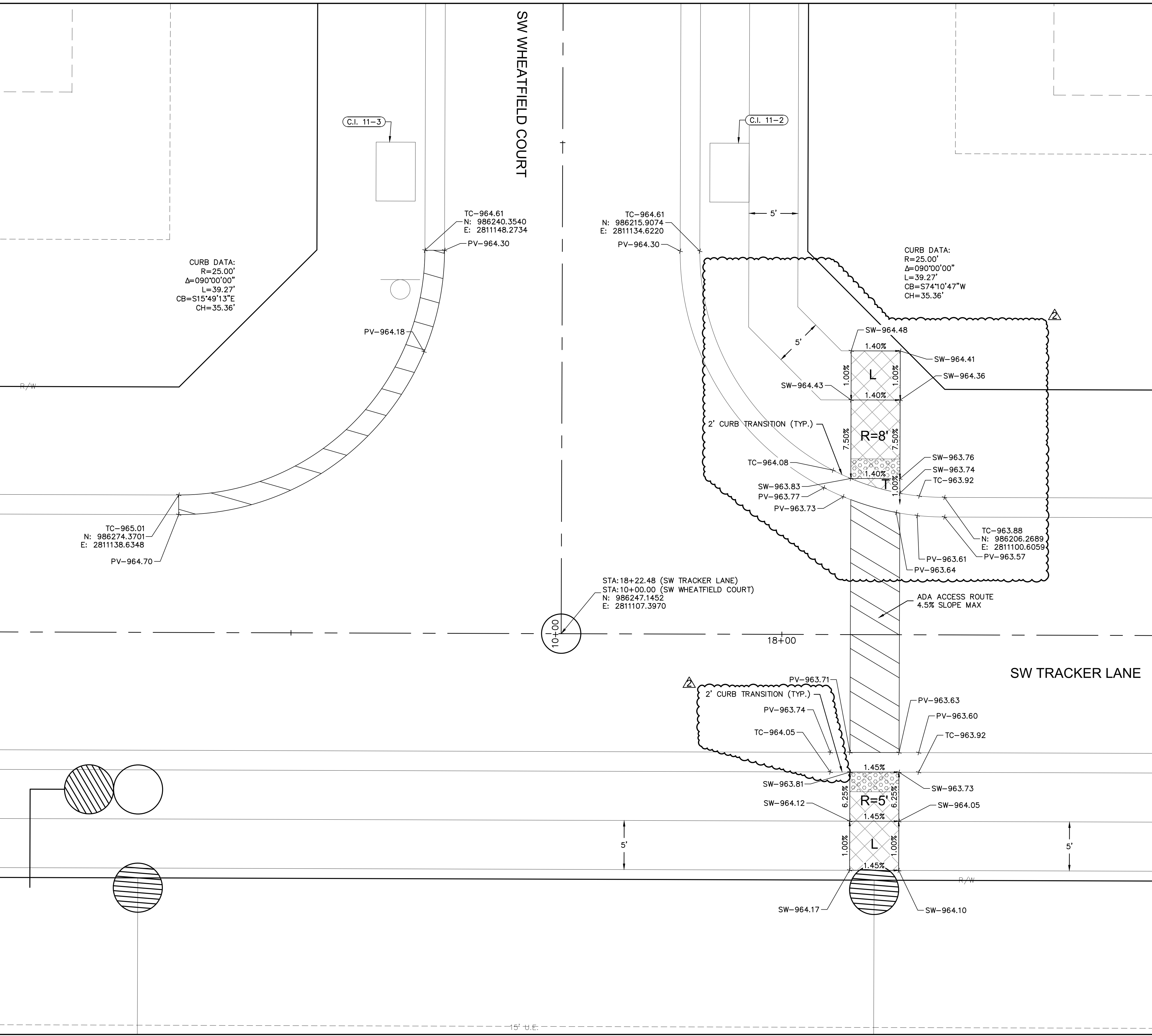
LEE'S SUMMIT, MO

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: J.E.S.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

**NOT AS-BUILT**







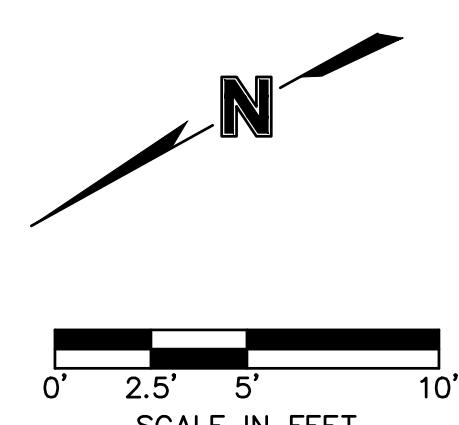
**INTERSECTION AND ADA DETAIL NOTES:**

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- CURVE DATA IS FOR BACK OF CURB.

**LEGEND**

TC-	TOP OF CURB
PV-	TOP OF PAVEMENT
SW-	SIDEWALK
L	LANDING AREA
R	RAMP AREA
T	TRANSITION AREA
	ADA ACCESS ROUTE
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER
	ADA RAMP (CONSTRUCTED BY CONTRACTOR)

**NOT AS-BUILT**



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 FAX 816.361.1888  
 www.olsson.com

**STATE OF MISSOURI**  
 JULIE ELAINE SELLERS  
 REGISTERED PROFESSIONAL ENGINEER  
 NUMBER PE-2017000367  
 10/11/22

**REVISIONS**

REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

**SW WHEATFIELD COURT & SW TRACKER LANE STREET & STORM SEWER PLANS**

**HOOK FARMS SECOND PLAT**

**LEE'S SUMMIT, MO**

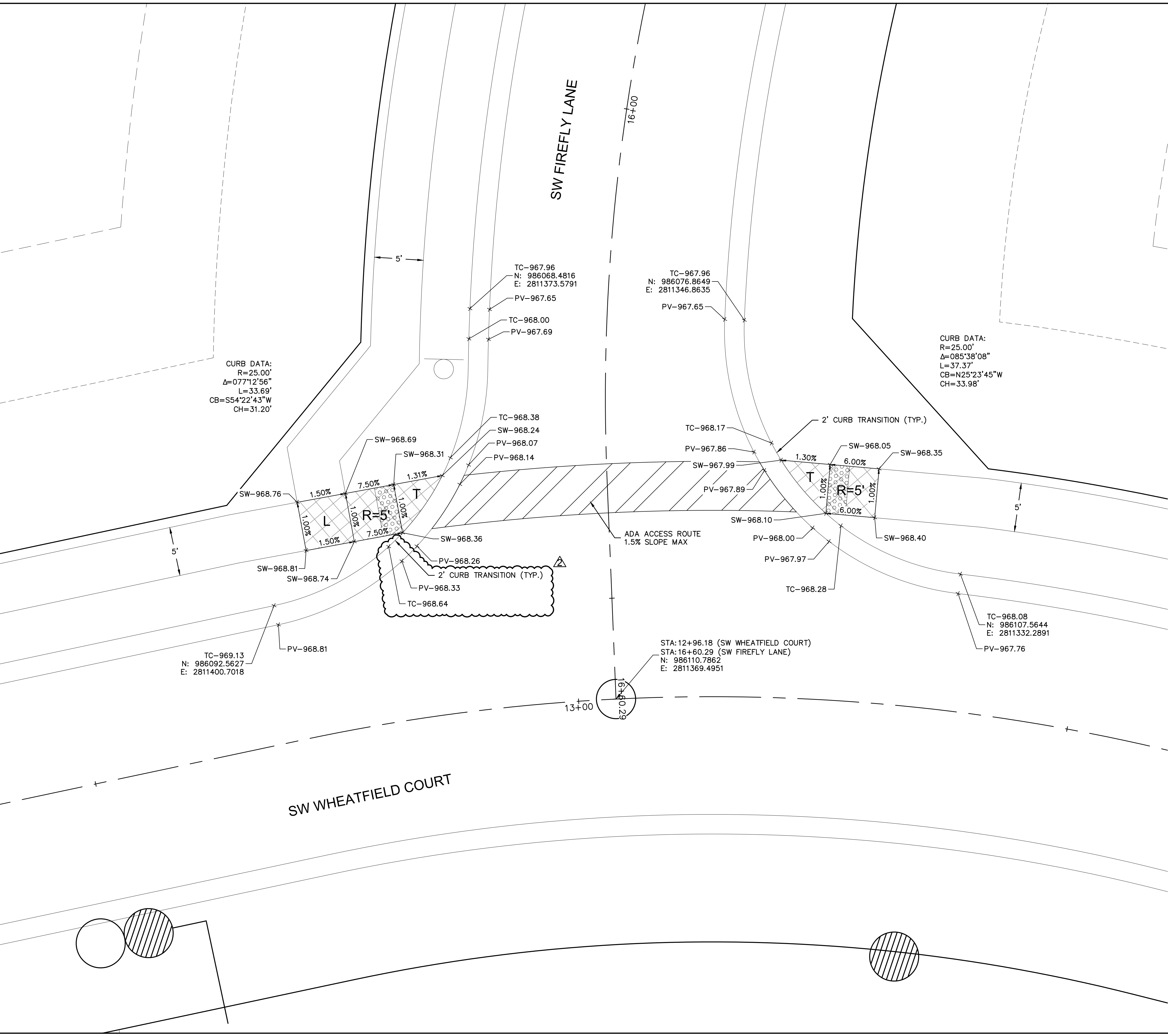
2021

drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: J.E.S.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

**SHEET C128**



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 USER: sso/or



CURB DATA:  
 R=25.00'  
 $\Delta=077^{\circ}12'56''$   
 L=33.69'  
 CB=S54°22'43"W  
 CH=31.20'

CURB DATA:  
 R=25.00'  
 $\Delta=085^{\circ}38'08''$   
 L=37.37'  
 CB=N25°23'45"W  
 CH=33.98'

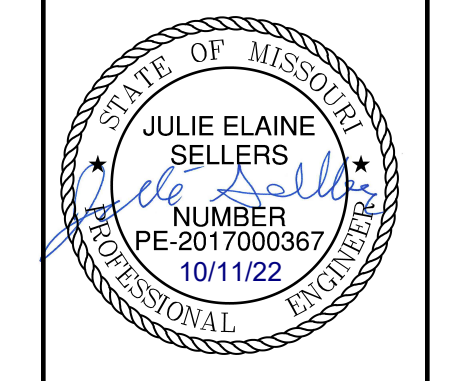
STA:12+96.18 (SW WHEATFIELD COURT)  
 STA:16+60.29 (SW FIREFLY LANE)  
 N: 986110.7862  
 E: 2811369.4951

- INTERSECTION AND ADA DETAIL NOTES:
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  4. RAMP RUNS SHALL HAVE A MAXIMUM RUNNING SLOPE OF 1:12 UNLESS THE RAMP LENGTH IS OVER 15 FEET, THEN THE SLOPE CAN BE GREATER AS INDICATED IN DETAILS TO REACH STREET GRADES.
  5. LANDINGS SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
  6. CROSS SLOPE FOR RAMP AND SIDEWALK SHALL NOT EXCEED 2%.
  7. AFTER CURBS HAVE BEEN CONSTRUCTED, AND BEFORE ASPHALT OR CONCRETE PAVEMENT IS POURED, CURBS SHOULD BE MEASURED WITH A LEVEL TO ENSURE CURB ALONG ADA RAMP AND LANDINGS WILL MEET ADA REQUIREMENTS.
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TC-	TOP OF CURB
PV-	TOP OF PAVEMENT
SW-	SIDEWALK
L	LANDING AREA
R	RAMP AREA
T	TRANSITION AREA
	ADA ACCESS ROUTE
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER
	ADA RAMP (CONSTRUCTED BY CONTRACTOR)

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 FAX 816.361.1888  
 www.olson.com



REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	03-23-2021	REVISED PER CITY COMMENTS	
2	04-16-2021	REVISED PER CITY COMMENTS	
3	09-30-2021	CHANGES TO APPROVED PLANS	

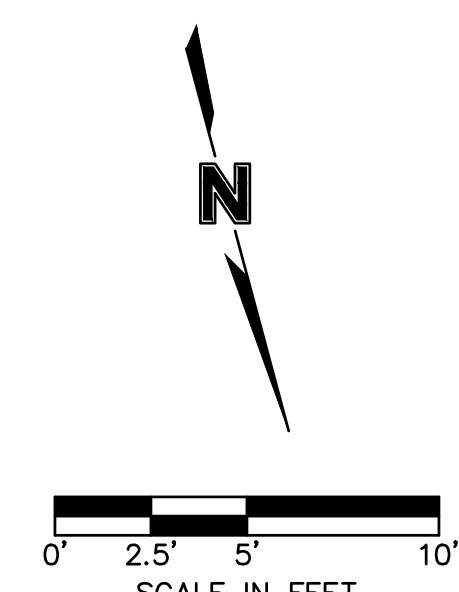
SW FIREFLY LANE & SW WHEATFIELD COURT  
 STREET & STORM SEWER PLANS

HOOK FARMS  
 SECOND PLAT

LEE'S SUMMIT, MO 2021

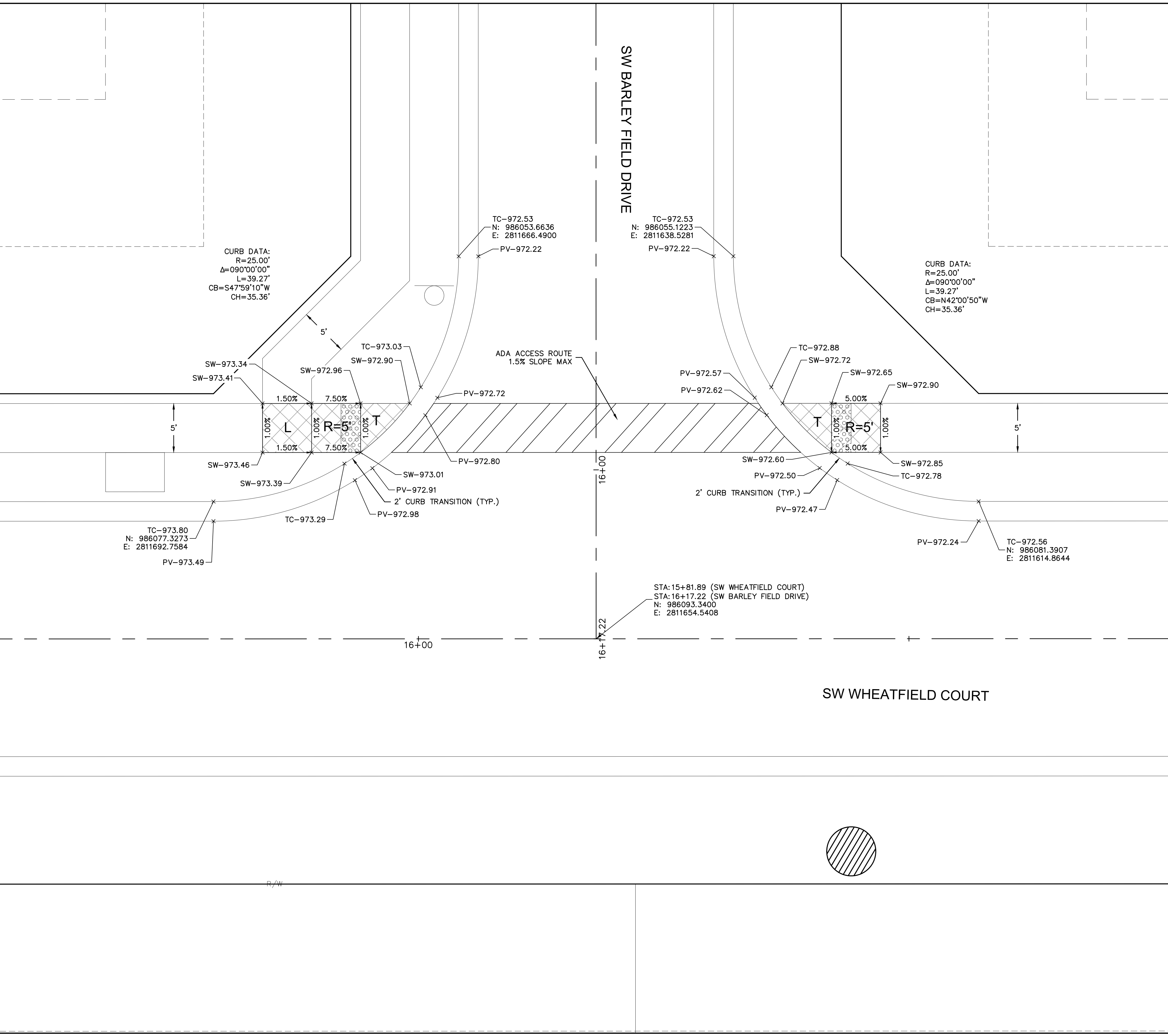
drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: J.E.S.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

**NOT AS-BUILT**





DWG: F:\2019\4001-4500\019-4061-EX40-Design\AutoCAD\Asbuilt\Sheets\GNCV\Street & Storm Plans\C\_INT02\_B194061.dwg  
 DATE: Oct 04, 2022 11:20am  
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 C\_PPATT\_B194061

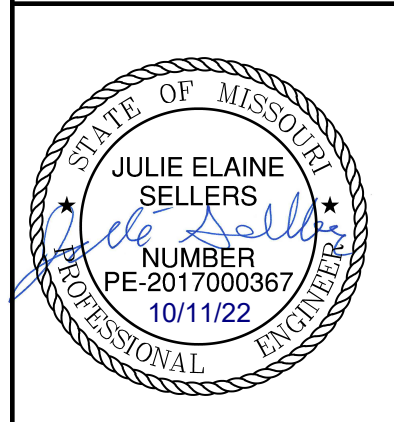


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	ADA ACCESS ROUTE
	CG-2 CURB & GUTTER
	CG-2 DRY CURB & GUTTER
	ADA RAMP (CONSTRUCTED BY CONTRACTOR)

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1	03-23-2021	REVISED PER CITY COMMENTS
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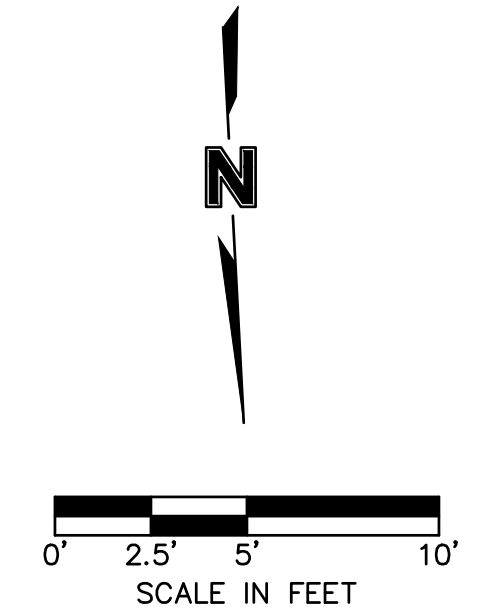
SW BARLEY FIELD DRIVE & SW WHEATFIELD COURT  
 STREET & STORM SEWER PLANS

HOOK FARMS  
 SECOND PLAT

LEE'S SUMMIT, MO 2021

drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

**NOT AS-BUILT**





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 USER: sso/or

CURB DATA:  
 R=39.00'  
 $\Delta=251^{\circ}04'31''$   
 L=170.90'  
 CB=S33°53'32"W  
 CH=63.47'

- INTERSECTION AND ADA DETAIL NOTES:
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TC-	TOP OF CURB
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SW-	SIDEWALK
L	LANDING AREA
R	RAMP AREA
T	TRANSITION AREA
	ADA RAMP & CONCRETE SIDEWALK (CONSTRUCTED BY CONTRACTOR)
	ADA ACCESS ROUTE
	CG-2 CURB & GUTTER

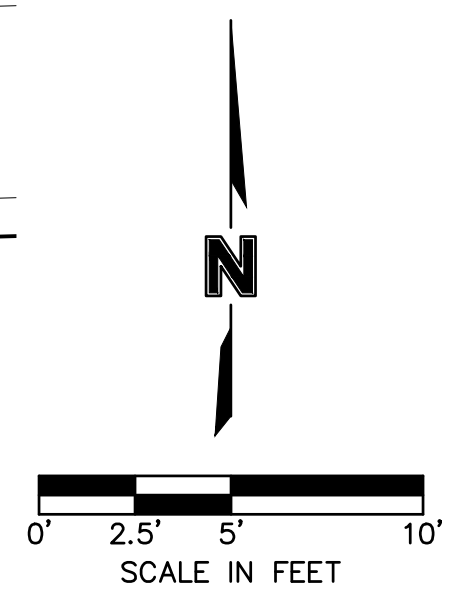
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 L=43.42'  
 CB=S56°06'28"E  
 CH=40.69'

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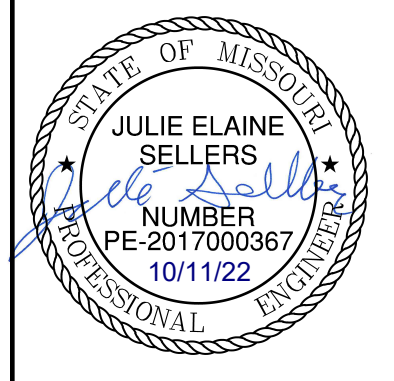
SW HOOK FARM DRIVE

**NOT AS-BUILT**



**olsson**

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
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SW HOOK FARM DRIVE CUL-DE-SAC STREET & STORM SEWER PLANS

HOOK FARMS SECOND PLAT

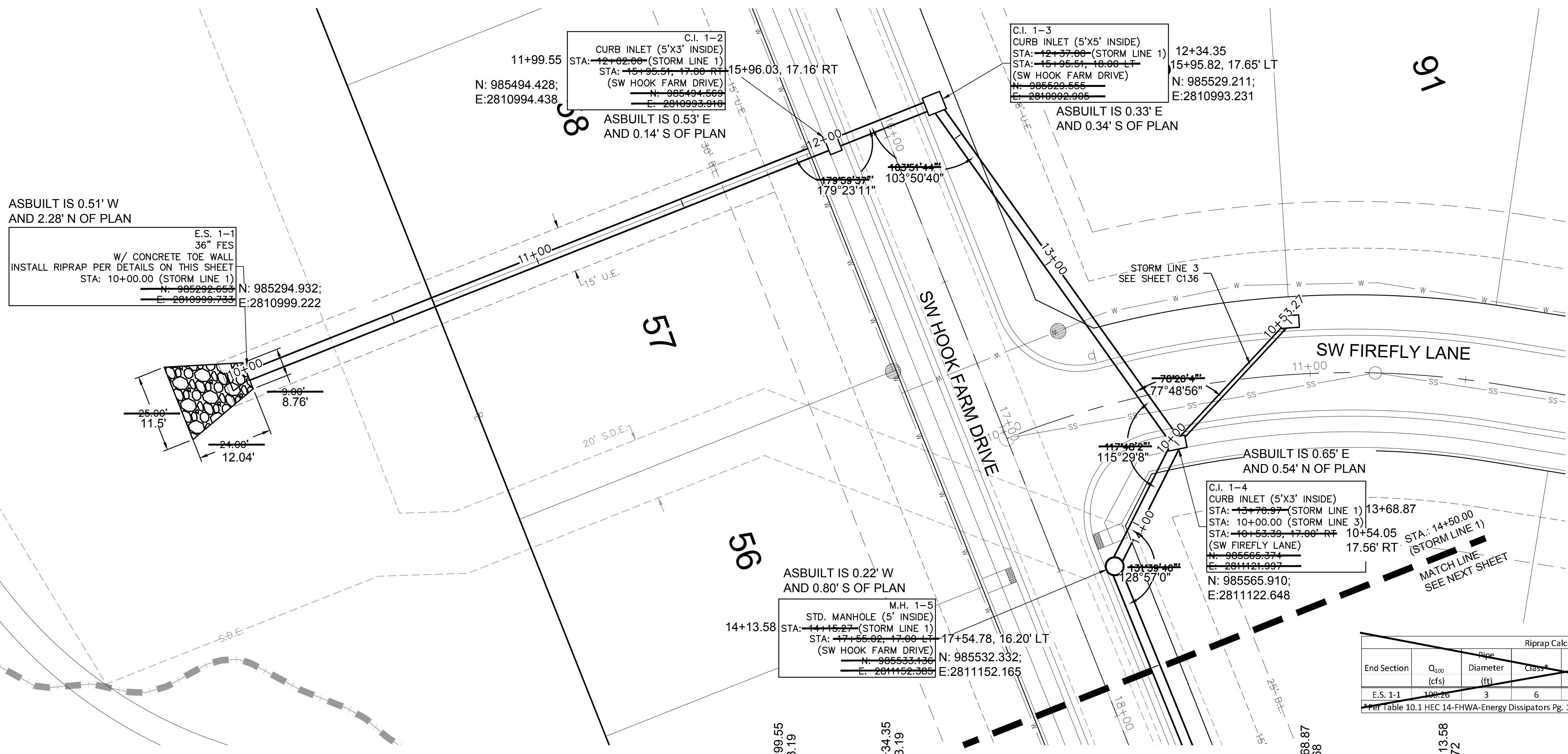
LEE'S SUMMIT, MO 2021

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: J.E.S.  
 QA/QC by: B.M.W./A.A.  
 project no.: B19-4061  
 date: 01-08-2021

**SHEET C131**

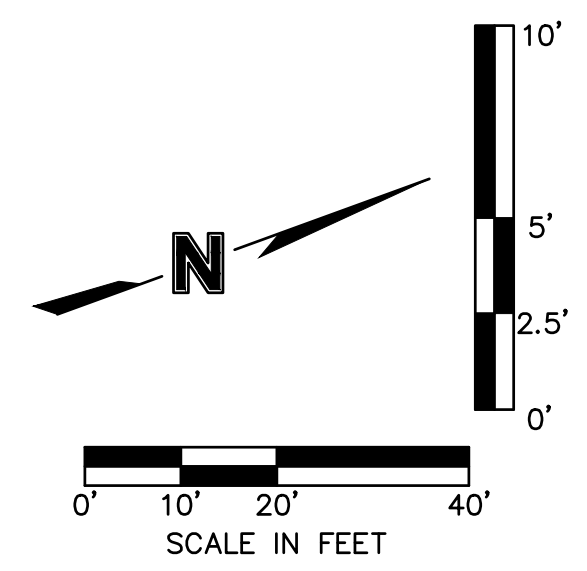


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# AS BUILT

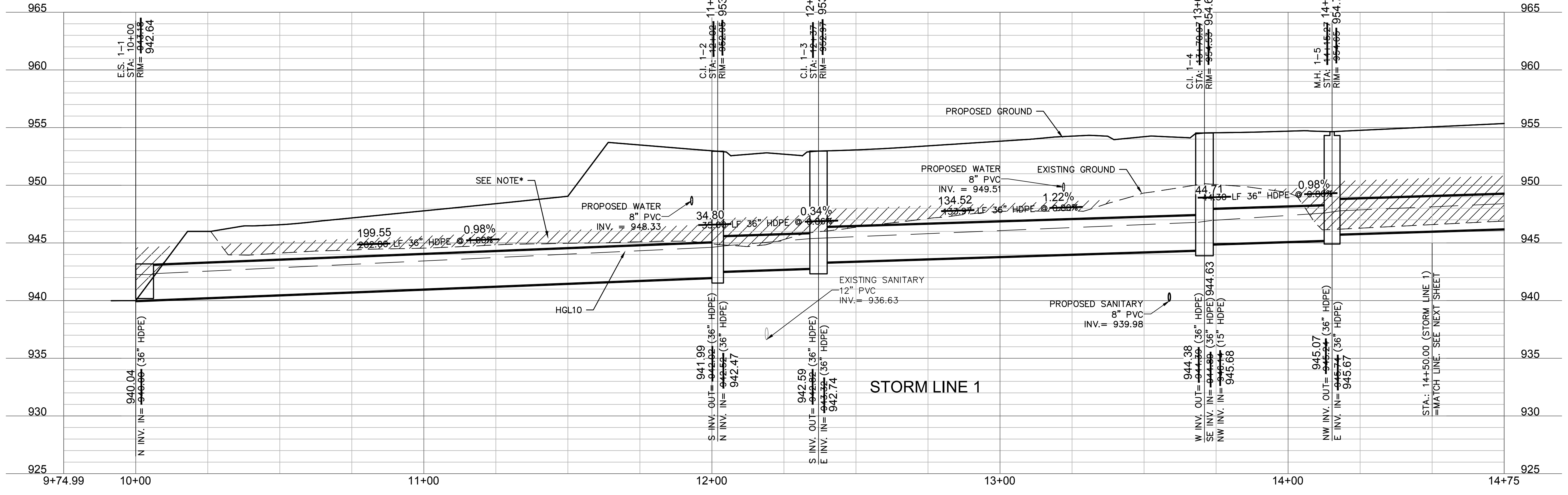
DATE SURVEYED: 2022-05-26



\*NOTE: CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE

End Section	Q <sub>100</sub> (cfs)	Ripe Diameter (ft)	Class	D50 (in)	Apron Length (ft)	Apron Depth (ft)	Area (SY)
E.S. 1-1	106.26	3	6	22	24	3.67	45.3

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



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 FAX 816.361.1888  
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JULIE ELAINE SELLERS  
 NUMBER PE-2017000367  
 EXPIRES 10/1/22

## AS BUILT

DATE SURVEYED: 2022-05-26

BY

REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

### STORM SEWER PLAN & PROFILE (LINE 1) STREET & STORM SEWER PLANS

HOOK FARMS  
 SECOND PLAT

2021

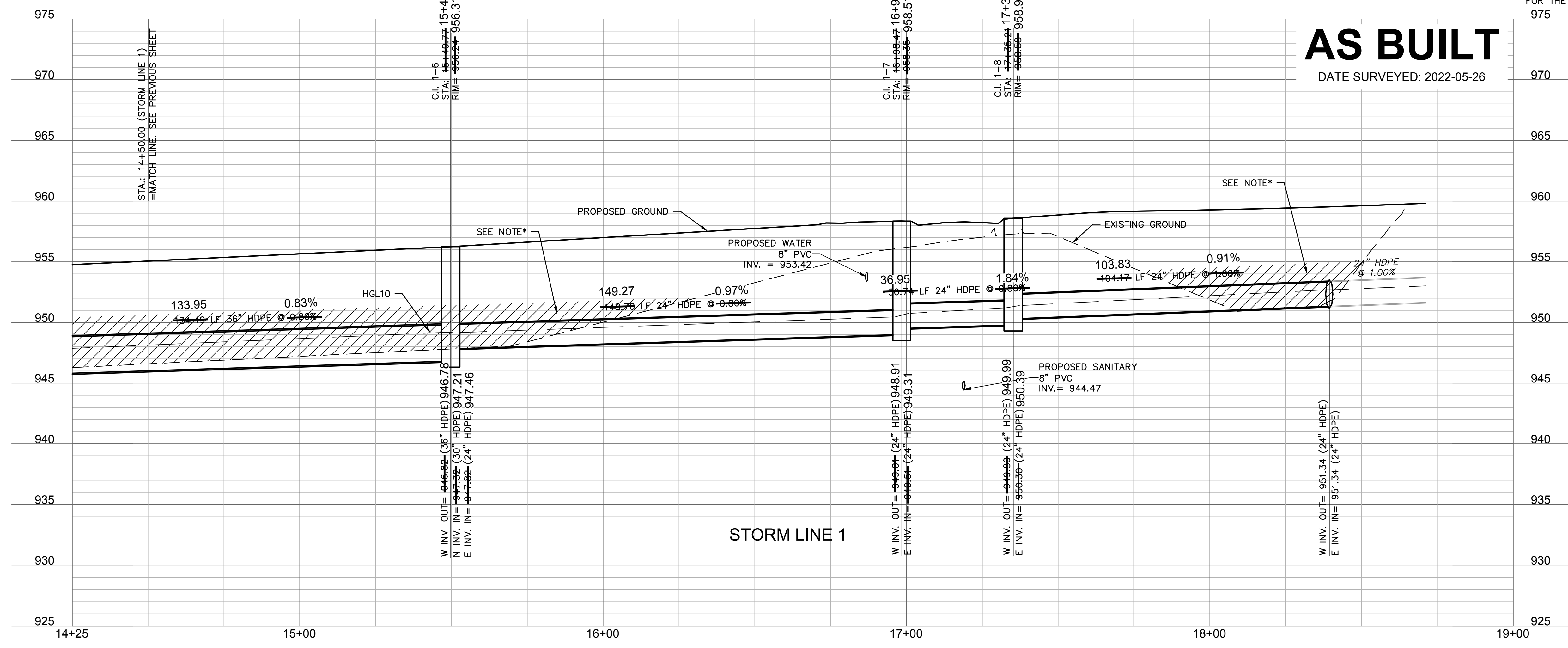
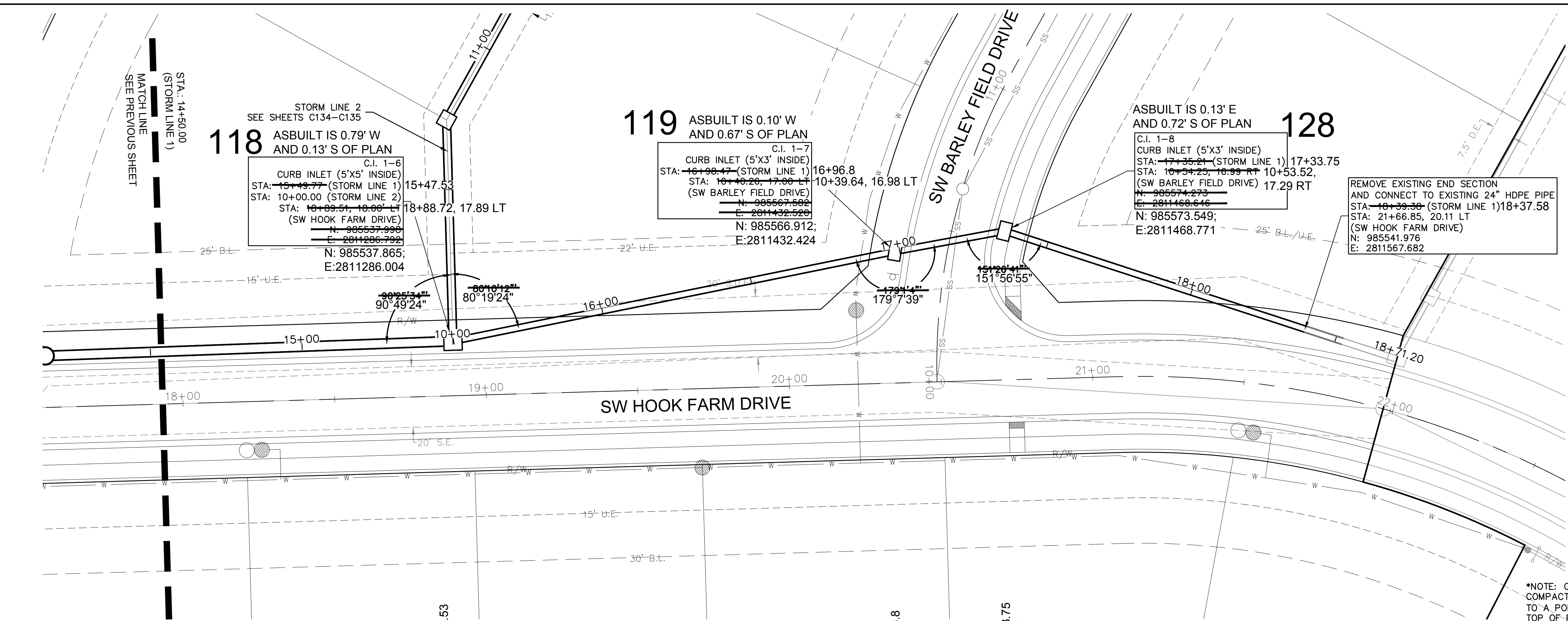
LEE'S SUMMIT, MO

drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-09-2021

**SHEET C132**

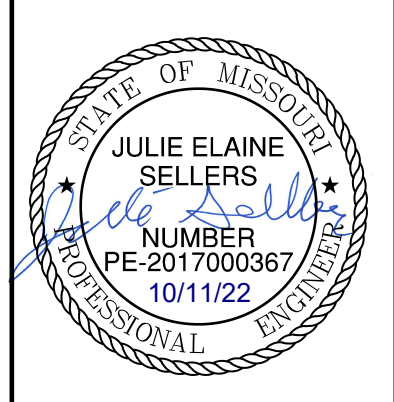


DWG: F:\2019\4001-4500\019-4061-EX-40-Design\AutoCAD\Asbuilt\Storm Plans\C\_STM01\_B194061.dwg  
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 C\_PJTL\_B194061  
 C\_PBASE\_B194061  
 C\_PBLK\_B194061



**AS BUILT**  
 DATE SURVEYED: 2022-05-26

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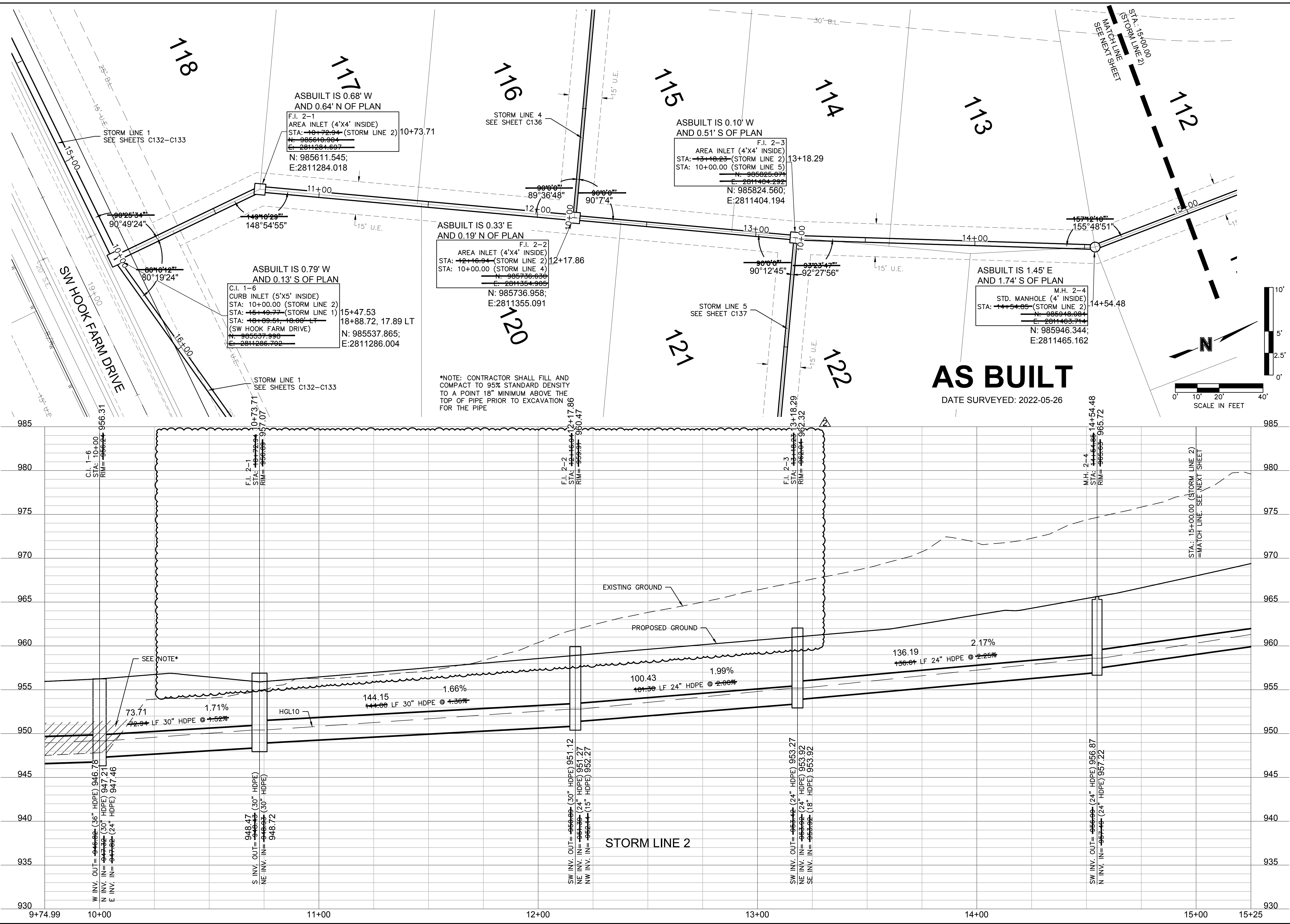
REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	CHANGES TO APPROVED PLANS
3	09-30-2021	

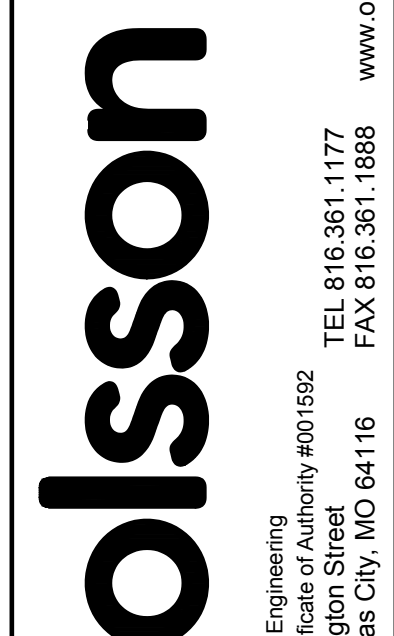
STORM SEWER PLAN & PROFILE (LINE 1)  
 STREET & STORM SEWER PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEES SUMMIT, MO  
 2021

drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021




DWG: F:\2019\4001-4500\019-4061-EX-40-Design\AutoCAD\Asbuilt\Sheets\GNCV\Street & Storm Plans\C\_STM01\_B194061.dwg USER: ssoylor  
 DATE: Oct 04, 2022 11:20am XREFS: C\_XBASE\_B194061 C\_PBASE\_B194061 C\_PENDY\_B194061 C\_PJTIL\_B194061 C\_PTRK\_B194061





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REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

**STORM SEWER PLAN & PROFILE (LINE 2)**  
**STREET & STORM SEWER PLANS**  
**HOOK FARMS**  
**SECOND PLAT**

2021

LEES SUMMIT, MO

BY: \_\_\_\_\_

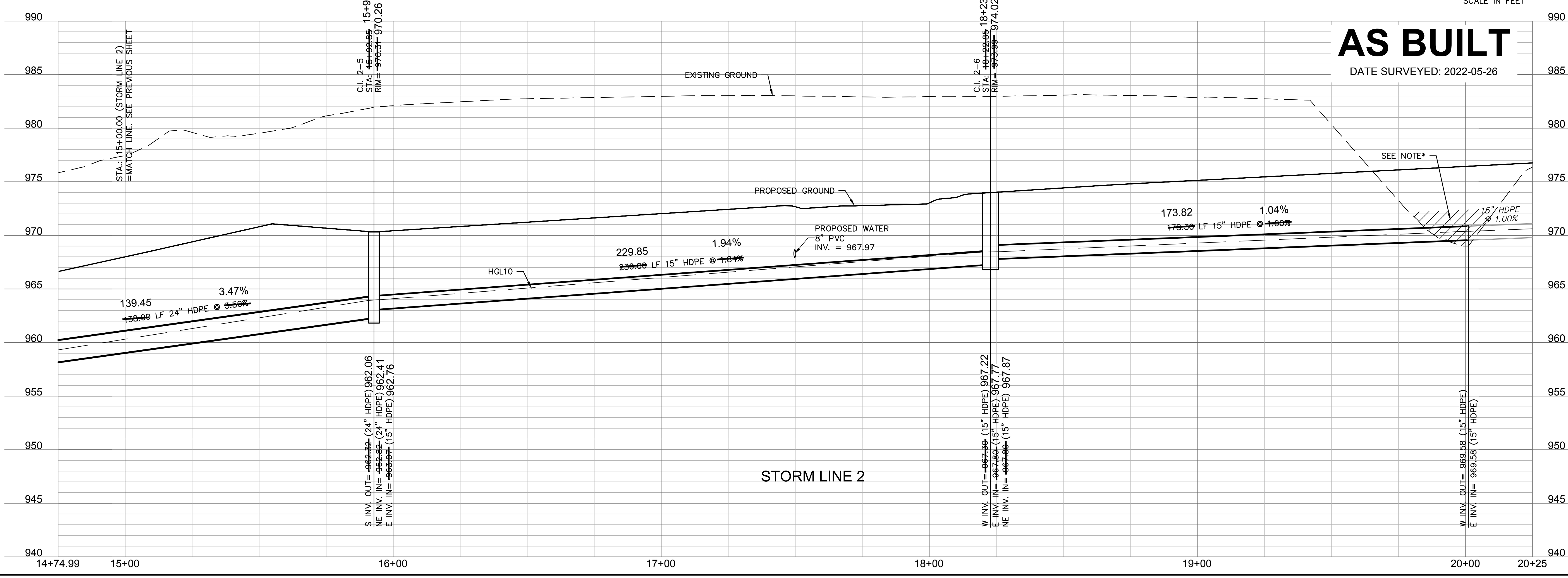
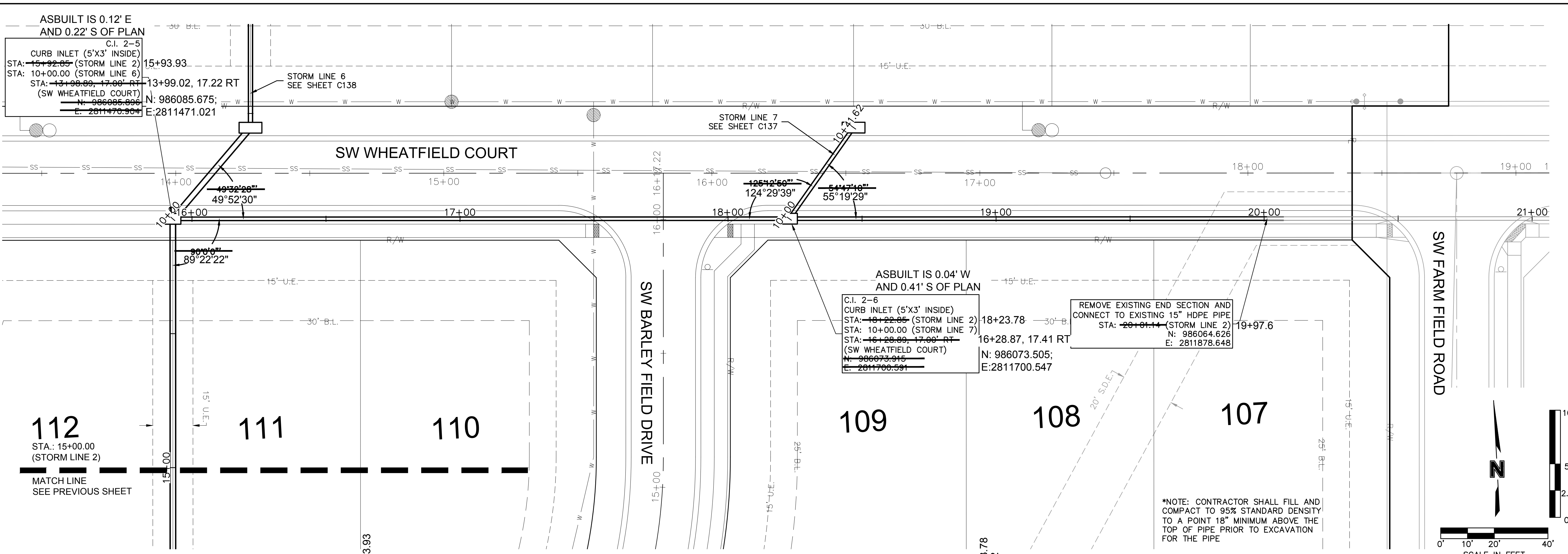
DATE: \_\_\_\_\_

drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-09-2021

**SHEET**  
C134



DWG: F:\2019\4001-4500\019-4061-EX-40-Design\AutoCAD\Asbuilt\Sheets\GNCV\Street & Storm Plans\C\_STM01\_B194061.dwg  
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STATE OF MISSOURI  
 JULIE ELAINE SELLERS  
 PE #2017003367  
 10/11/22  
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

BY

STORM SEWER PLAN & PROFILE (LINE 2)  
 STREET & STORM SEWER PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO

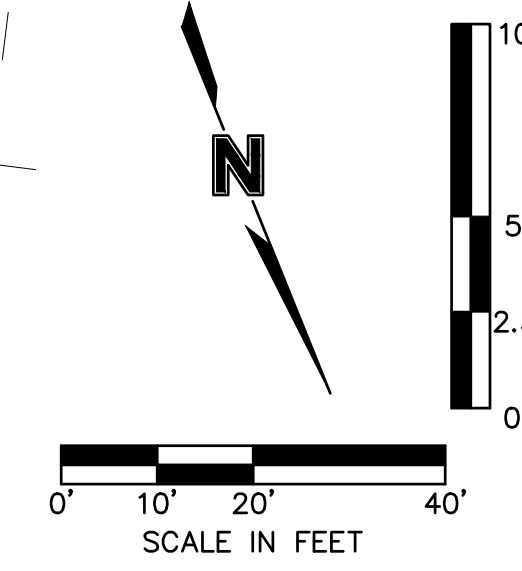
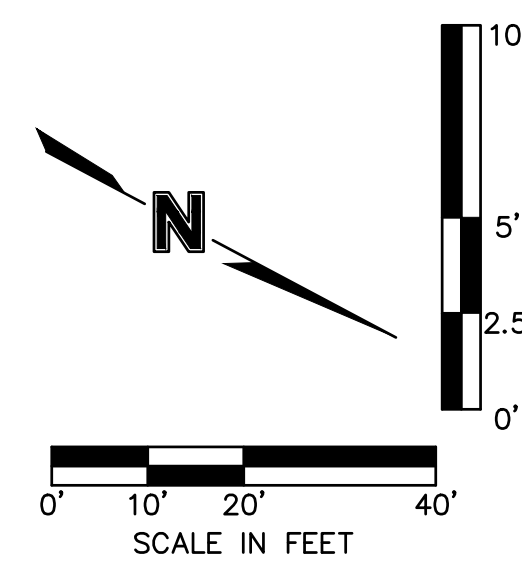
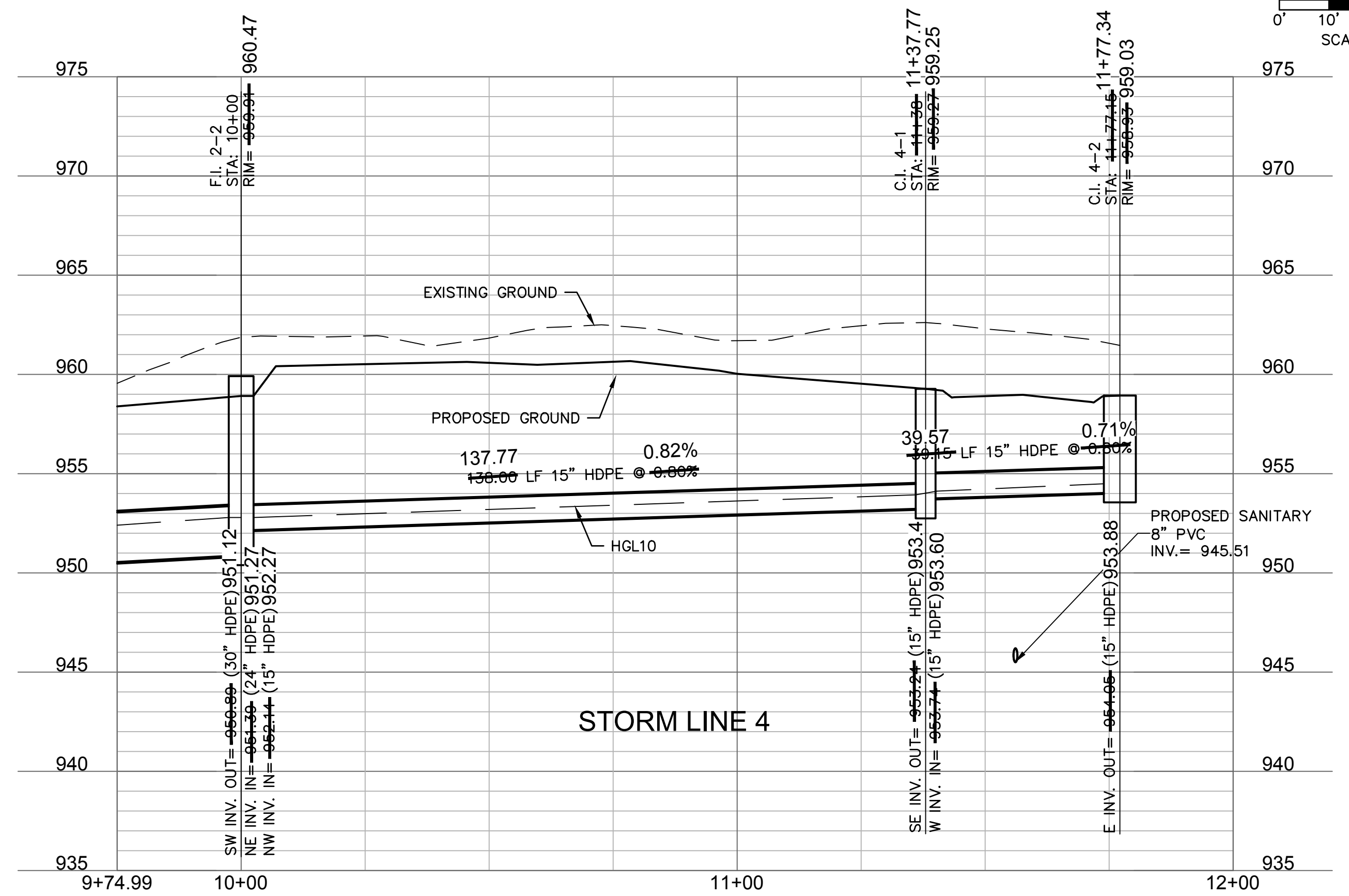
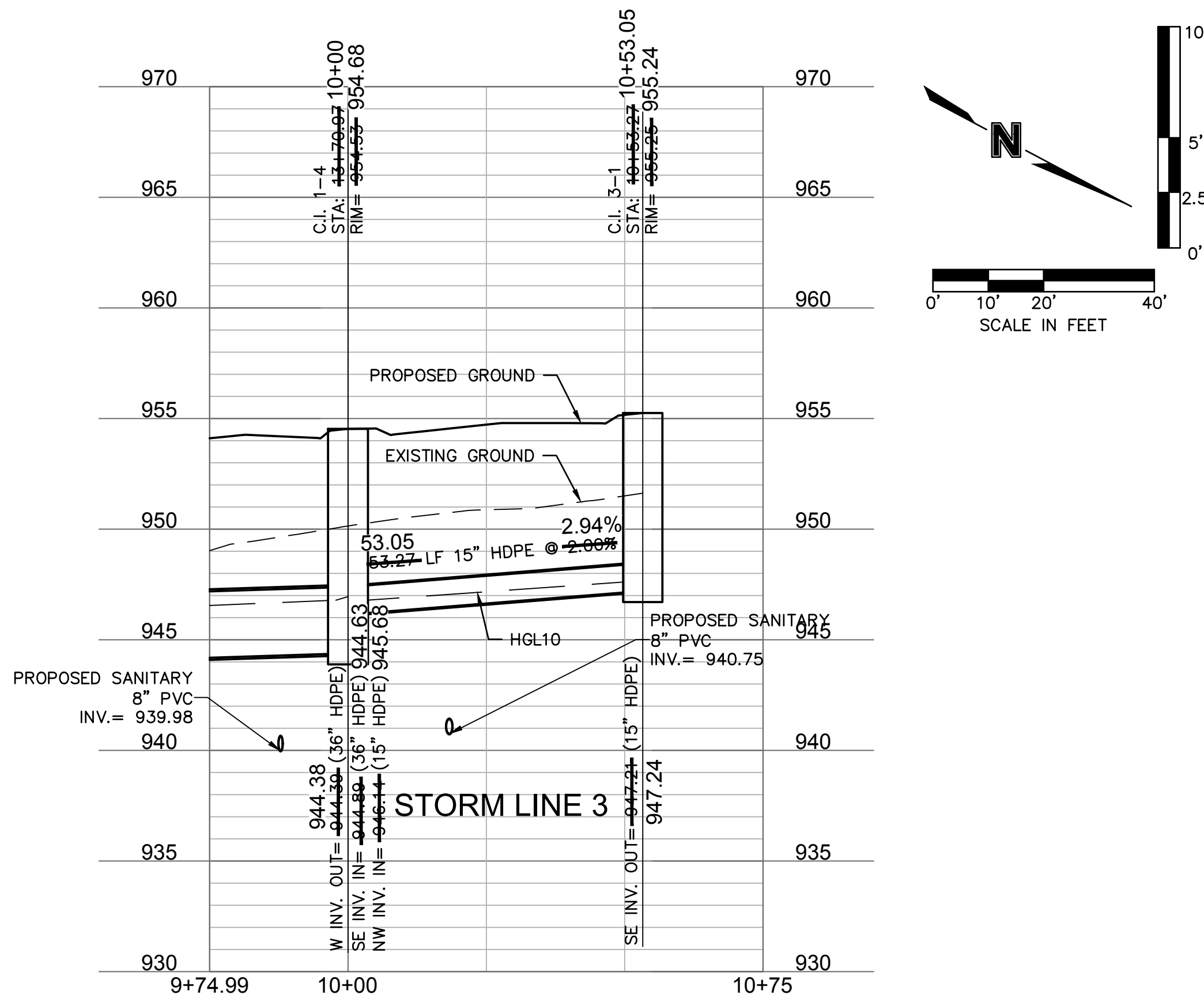
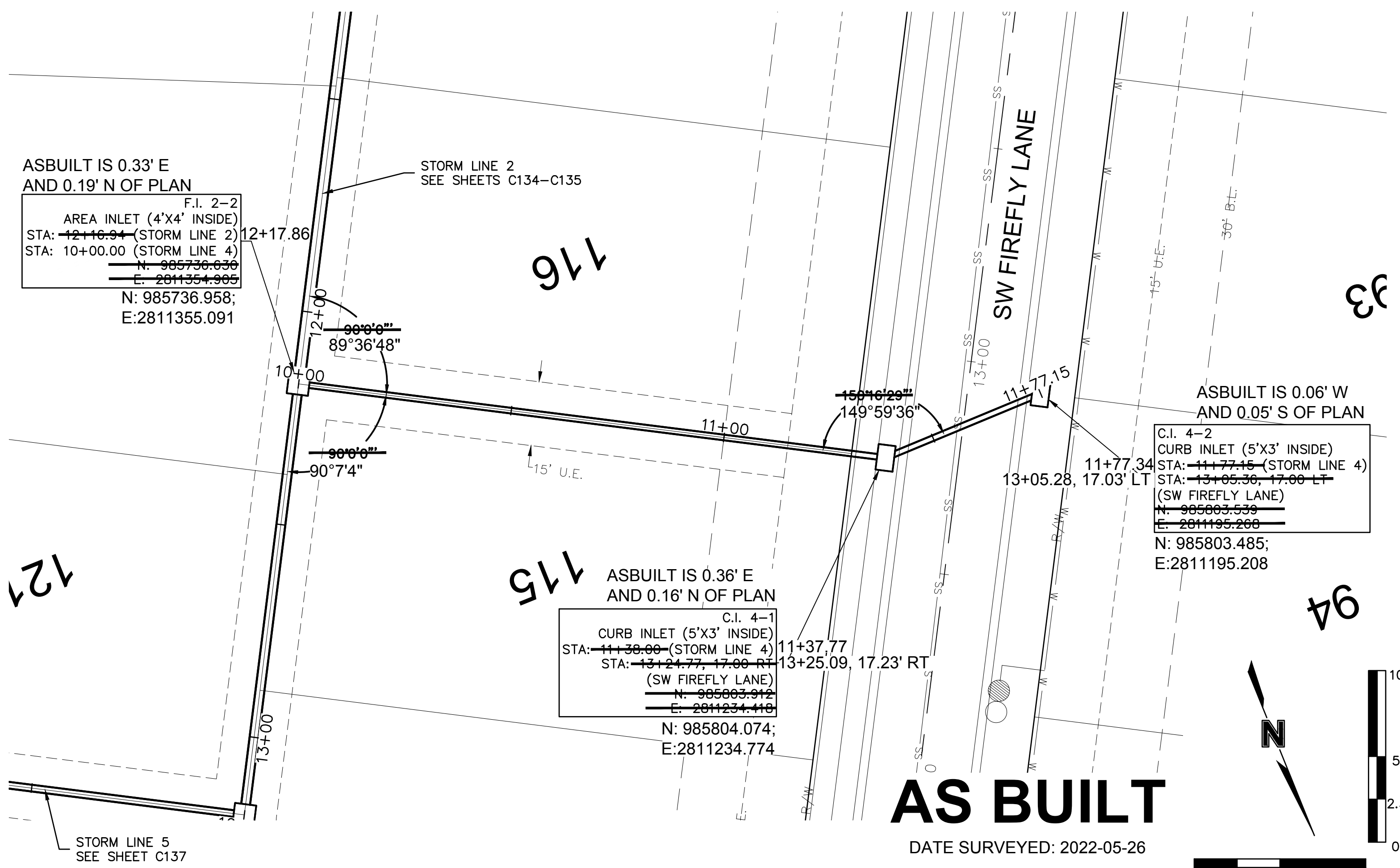
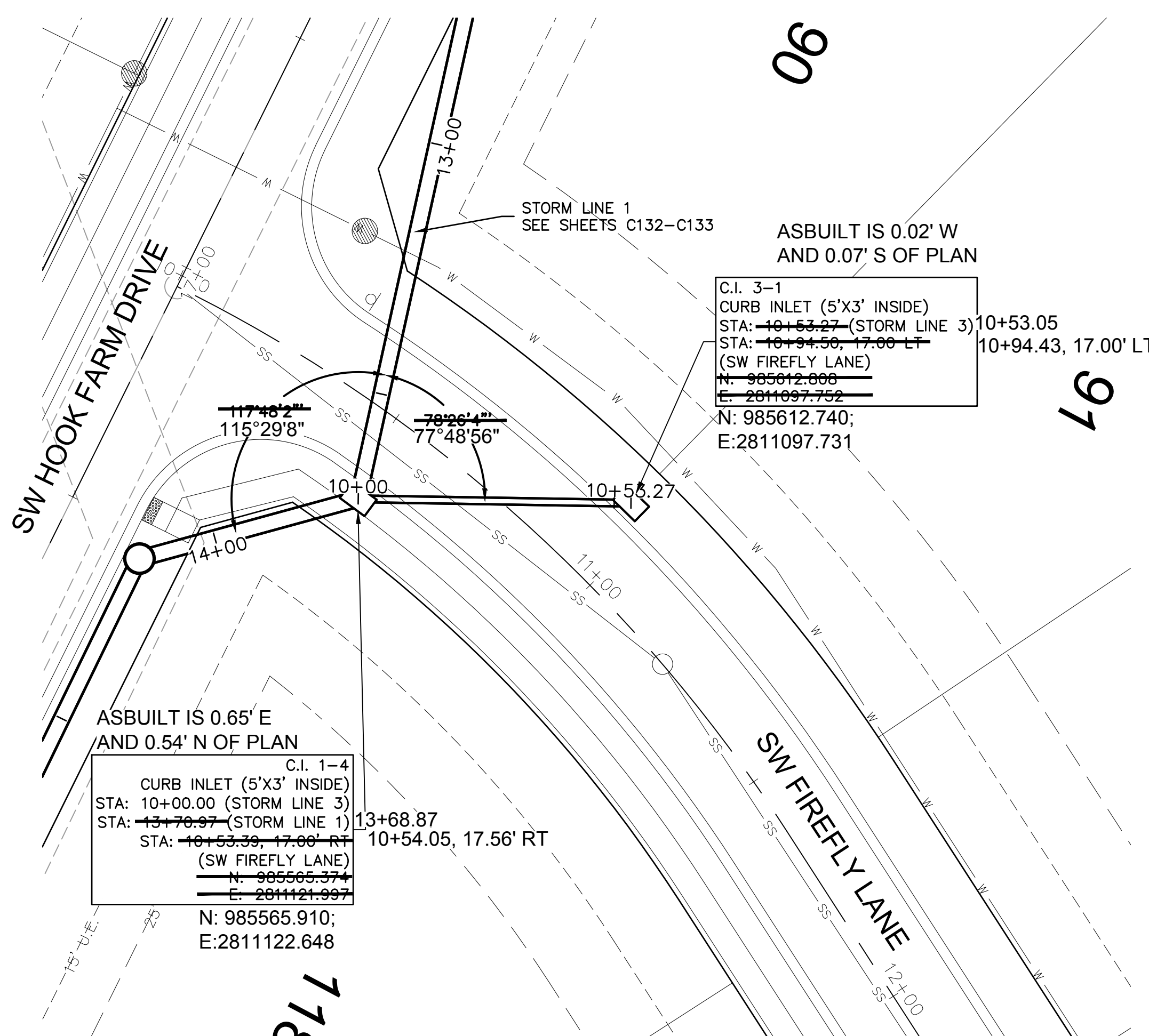
2021

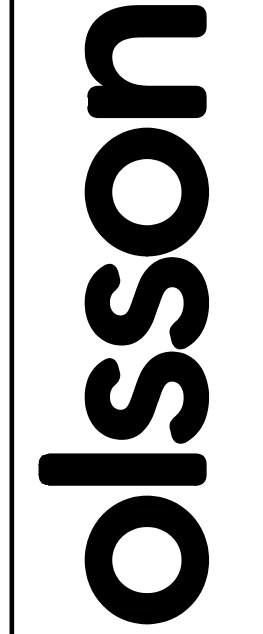
drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

SHEET C135




DWG: F:\2019\4001-4500\019-4061-EX40-Design\AutoCAD\Asbuilt\Sheets\GNCV\Street & Storm Plans\C\_STM02\_B194061.dwg  
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JULIE ELAINE SELLERS  
 NUMBER PE-2017000367  
 10/11/22  
 MISSOURI PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

BY

DATE

REVISIONS

STORM SEWER PLAN & PROFILE (LINES 3 & 4)  
 STREET & STORM SEWER PLANS

HOOK FARMS  
 SECOND PLAT

2021

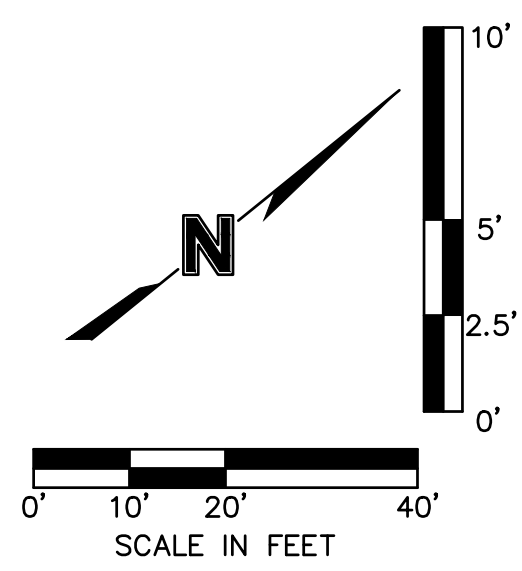
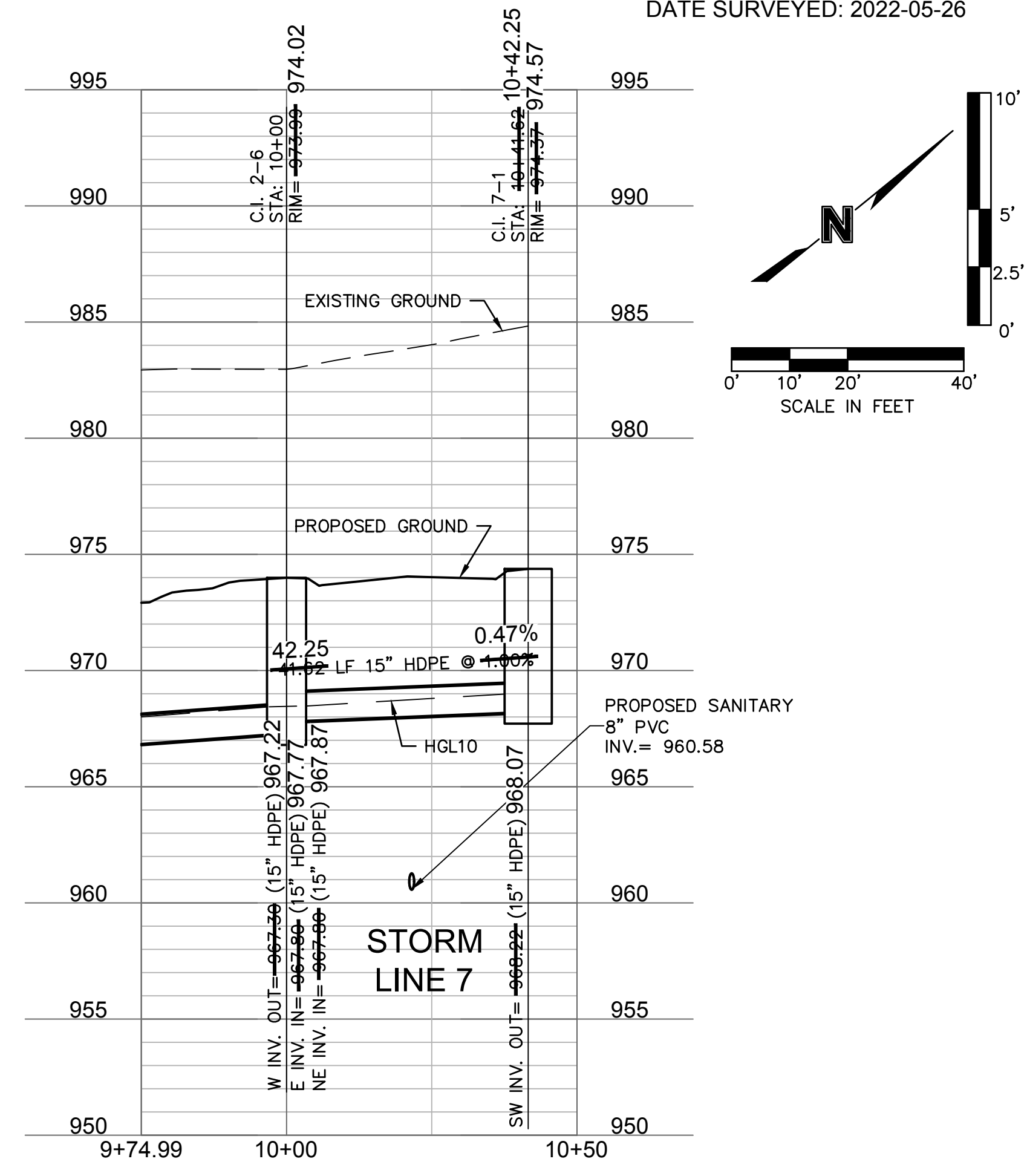
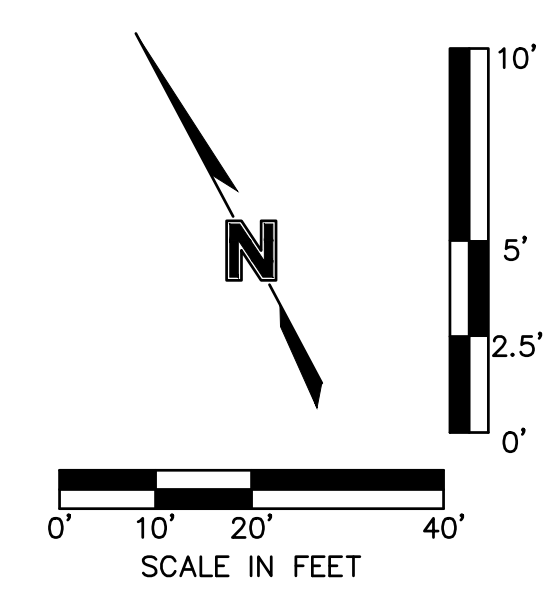
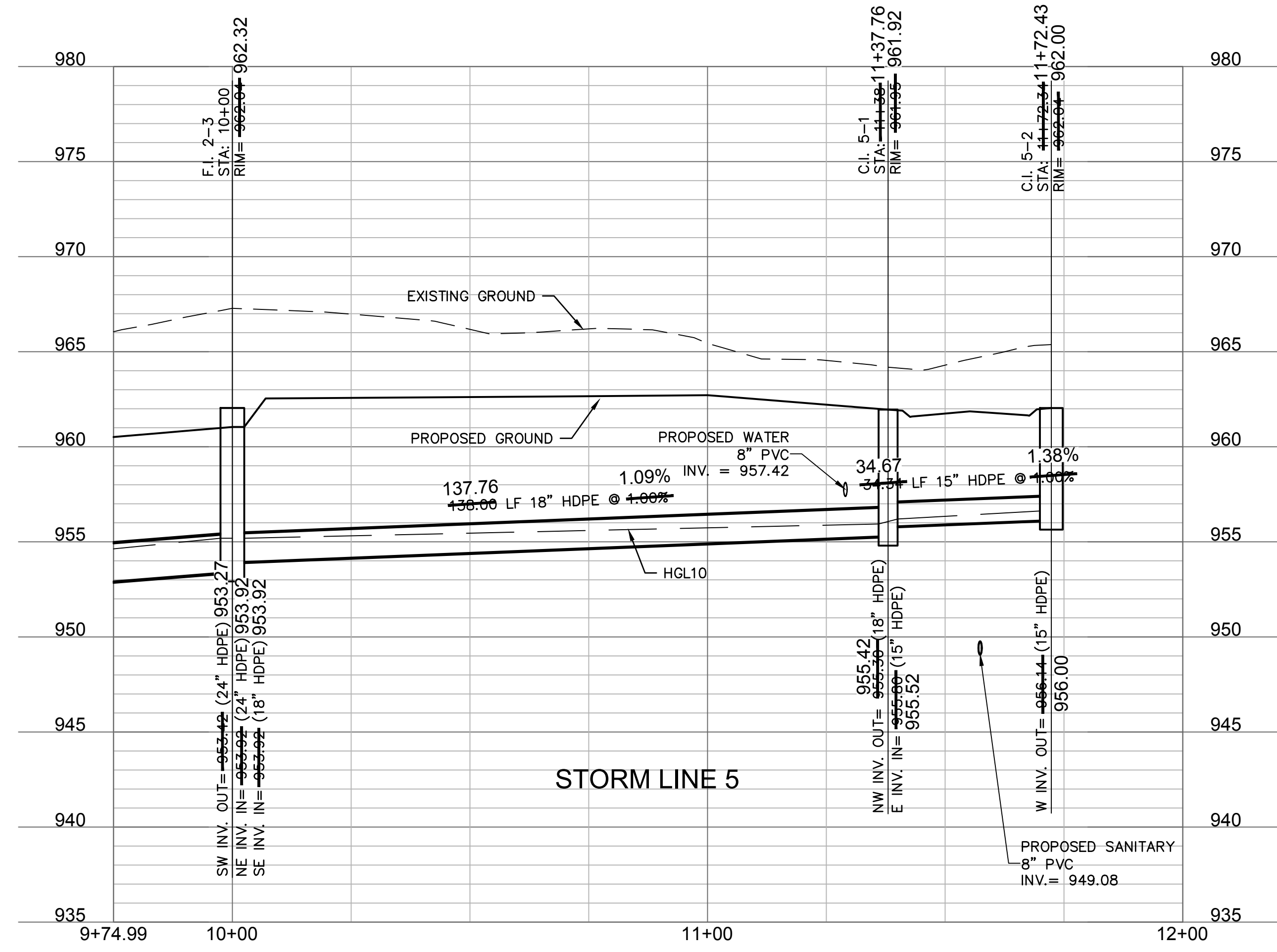
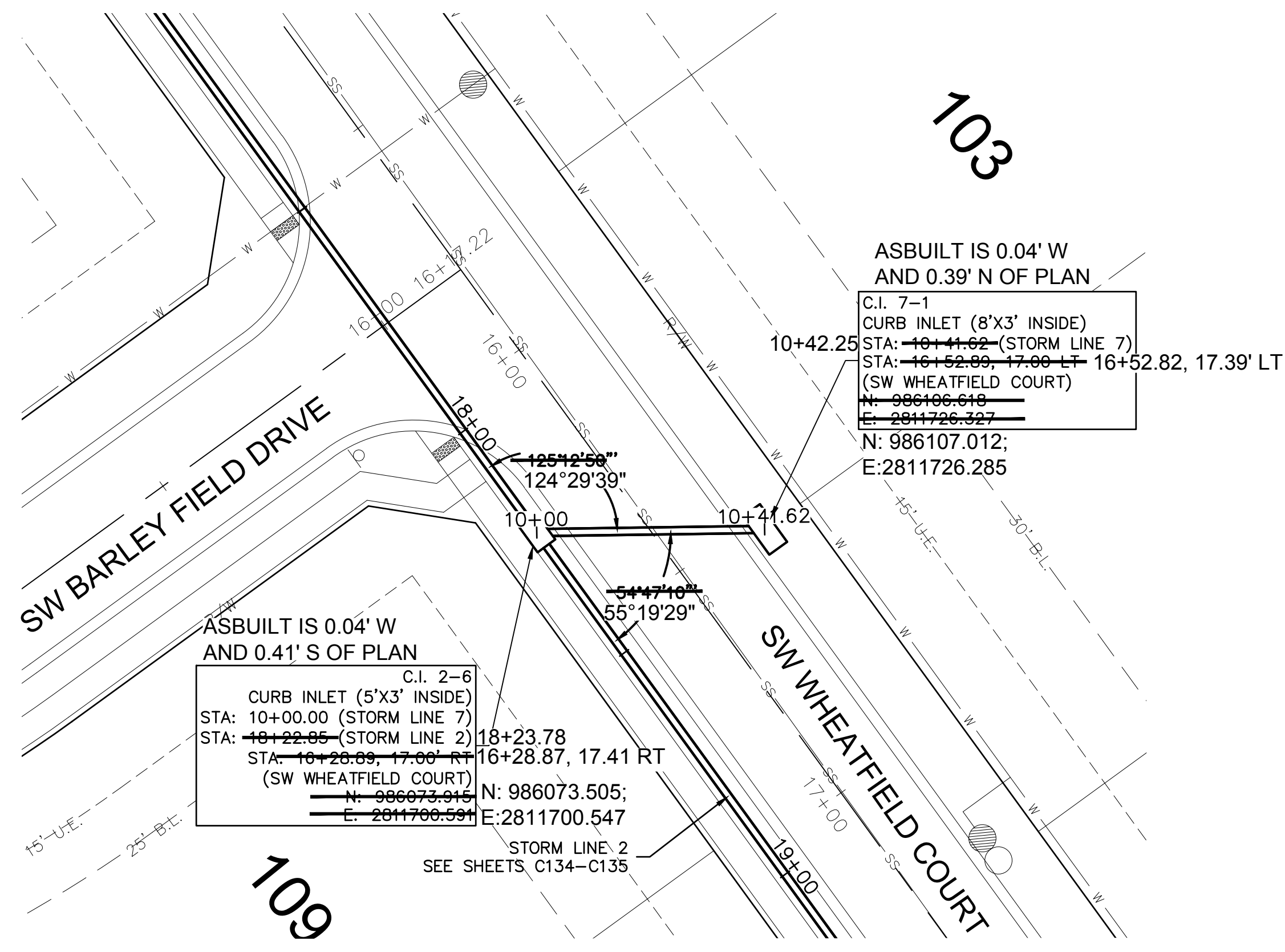
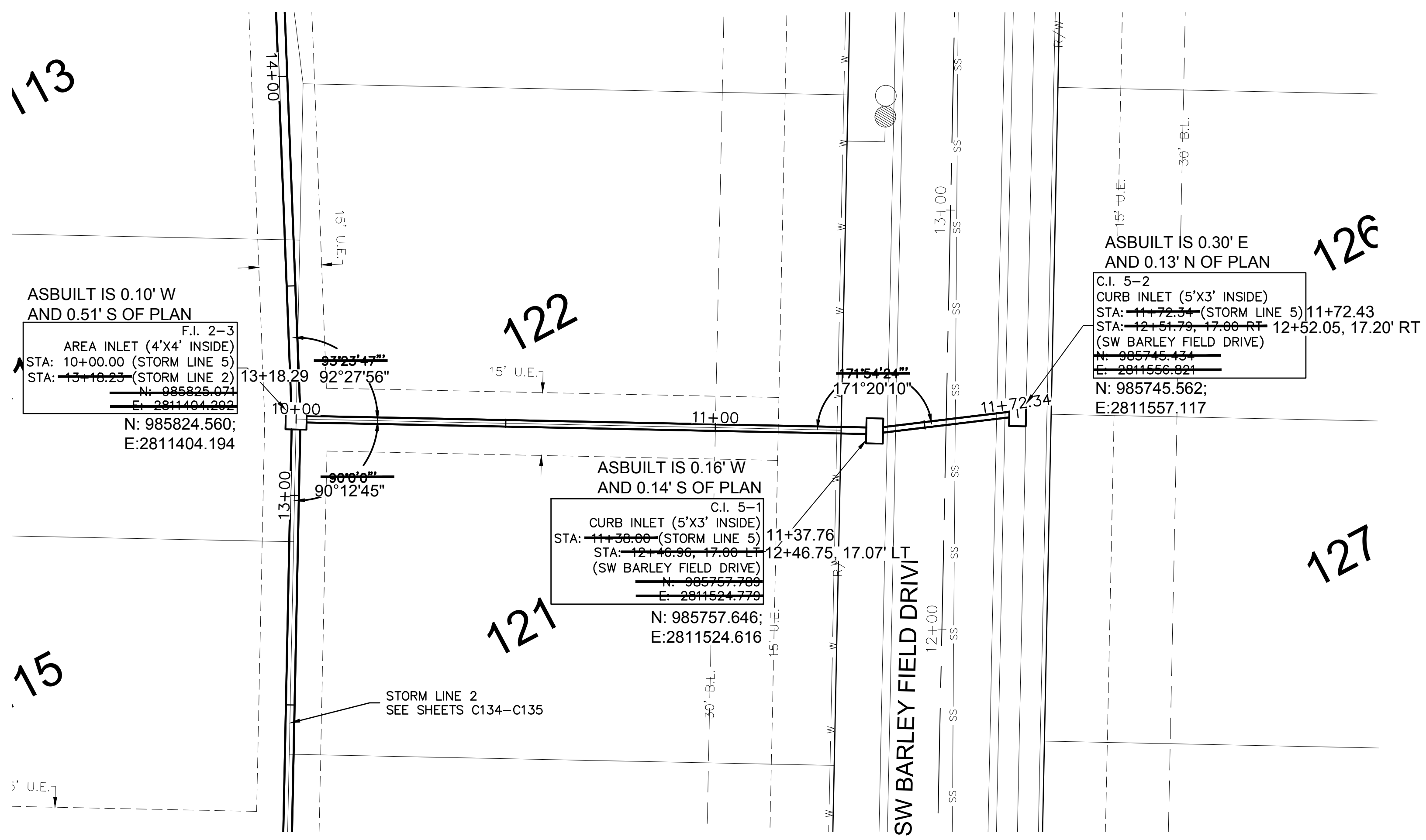
drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-09-2021

LEE'S SUMMIT, MO

SHEET C136



DWG: F:\2019\4001-4500\019-4061-EX40-Design\AutoCAD\Asbuilt\GNC\A\Street & Storm Plans\C\_STM02\_B194061.dwg USER: ssoyfor  
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**AS BUILT**  
 DATE SURVEYED: 2022-05-26

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 JULIE ELAINE SELLERS  
 PROFESSIONAL ENGINEER  
 NUMBER PE-2017000367  
 10/11/22

REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

BY: \_\_\_\_\_

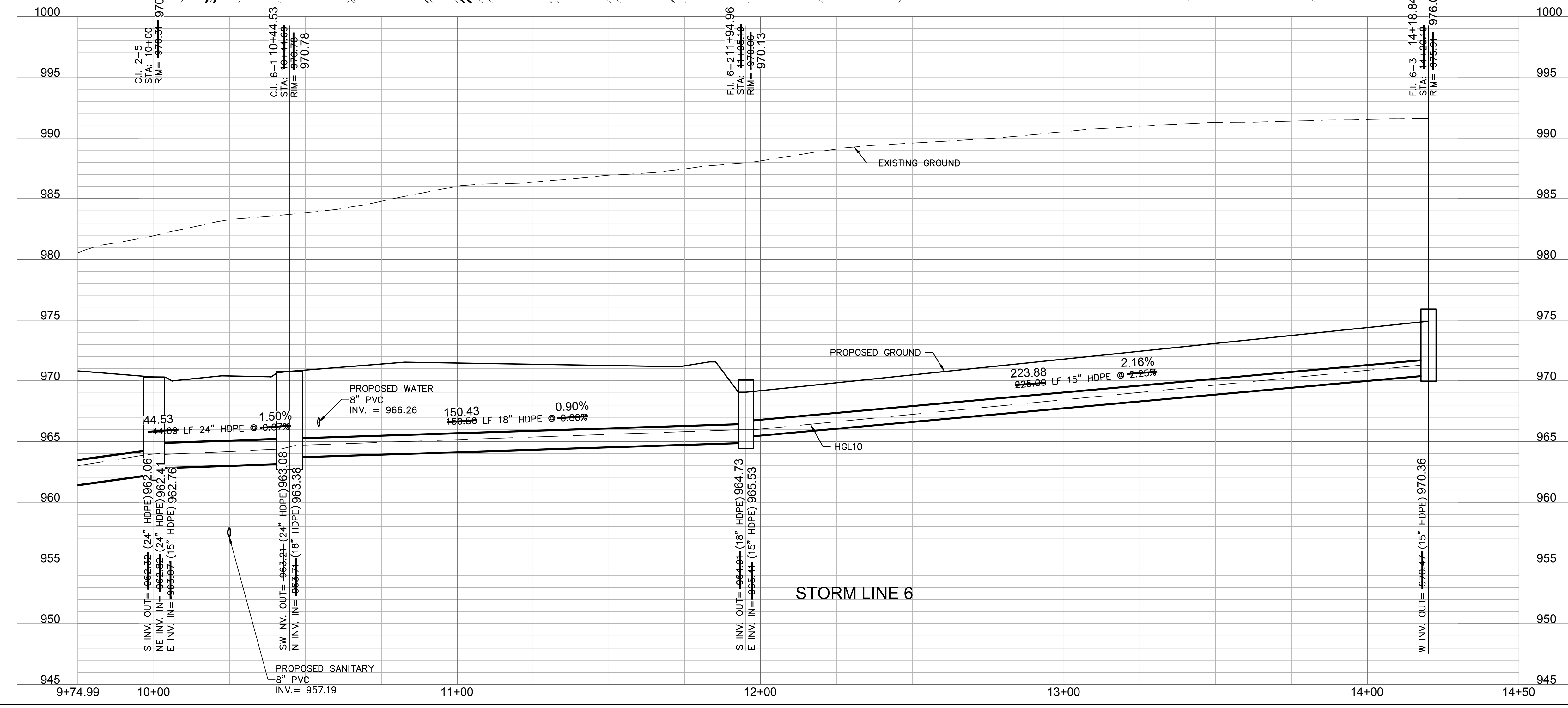
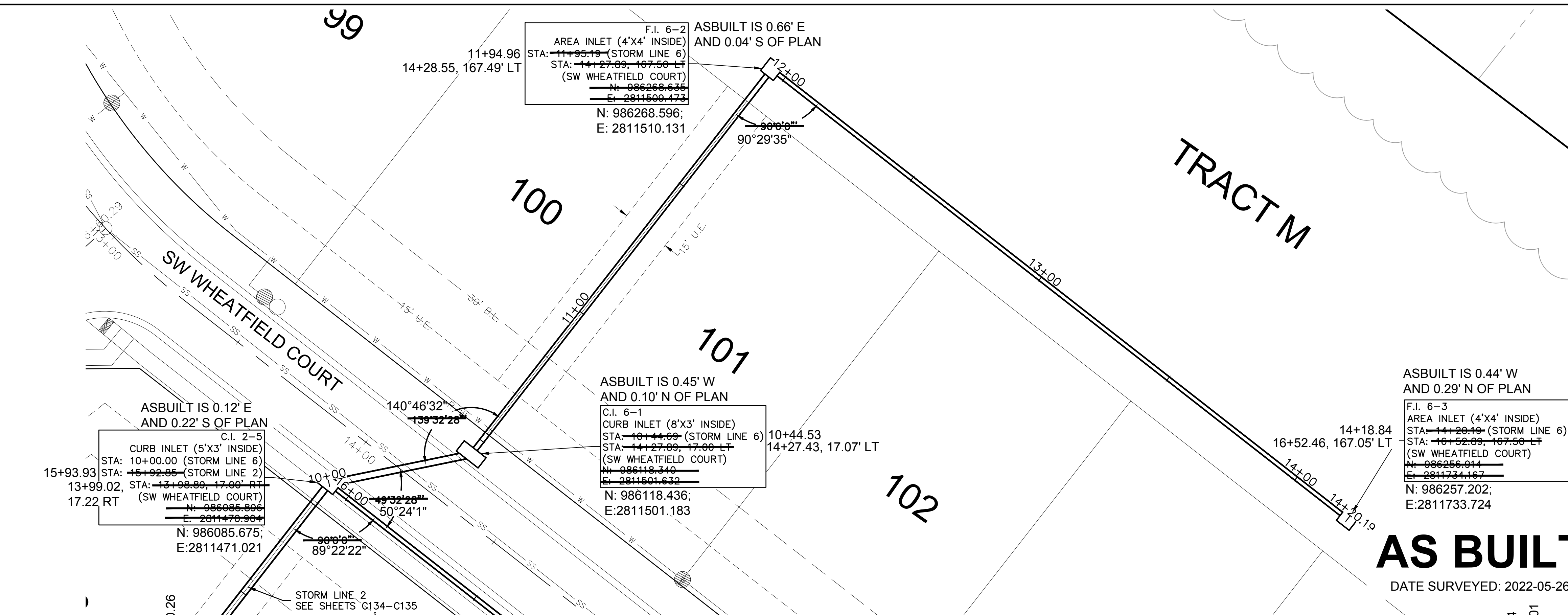
STORM SEWER PLAN & PROFILE (LINES 5 & 7)  
 STREET & STORM SEWER PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO 2021

drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-09-2021

SHEET C137

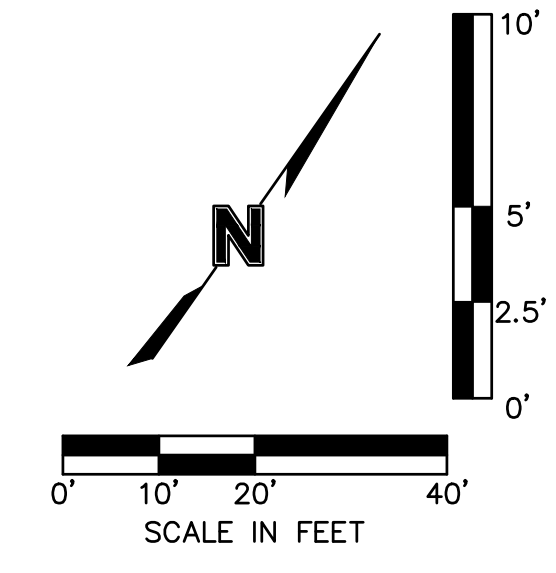


DWG: F:\2019\4001-4500\019-4061-BV40-Design\AutoCAD\Asbuilt\Sheets\GNCV\Street & Storm Plans\C\_STM02\_B194061.dwg USER: ssoyfor  
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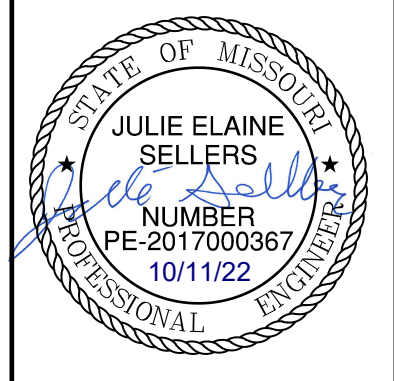


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DATE SURVEYED: 2022-05-26



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REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

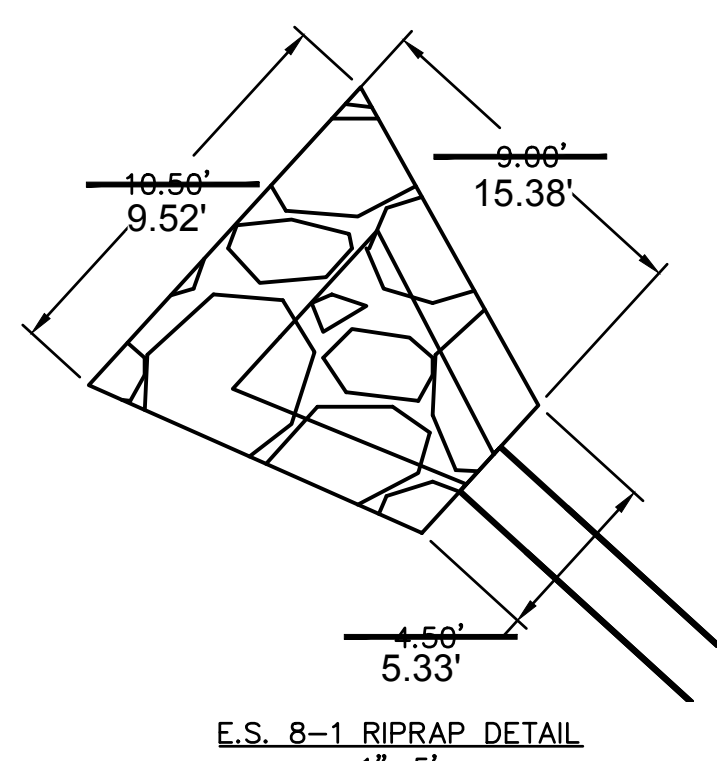
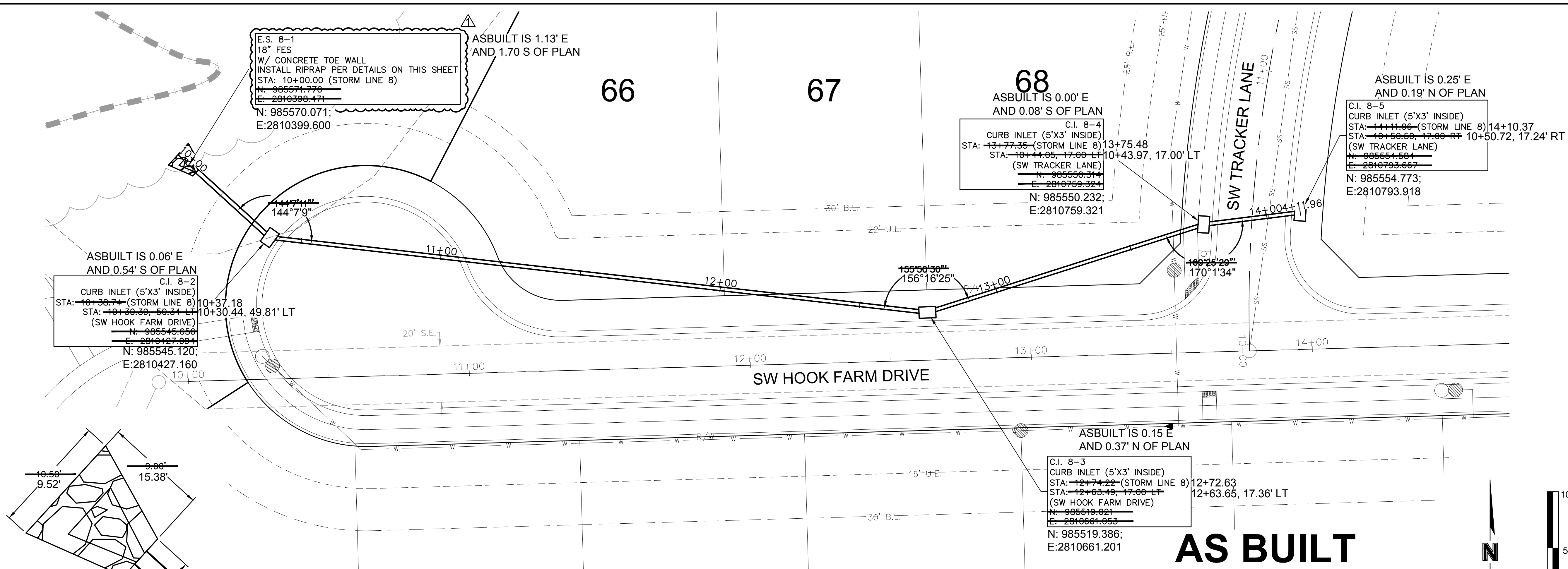
STORM SEWER PLAN & PROFILE (LINE 6)  
 STREET & STORM SEWER PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO  
 2021

drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-09-2021

SHEET  
 C138



DWG: F:\2019\4001-4500\019-4061-EX-40-Design\AutoCAD\Asbuilt\Storm Plans\C\_STM02\_B194061.dwg USER: ssoyfor  
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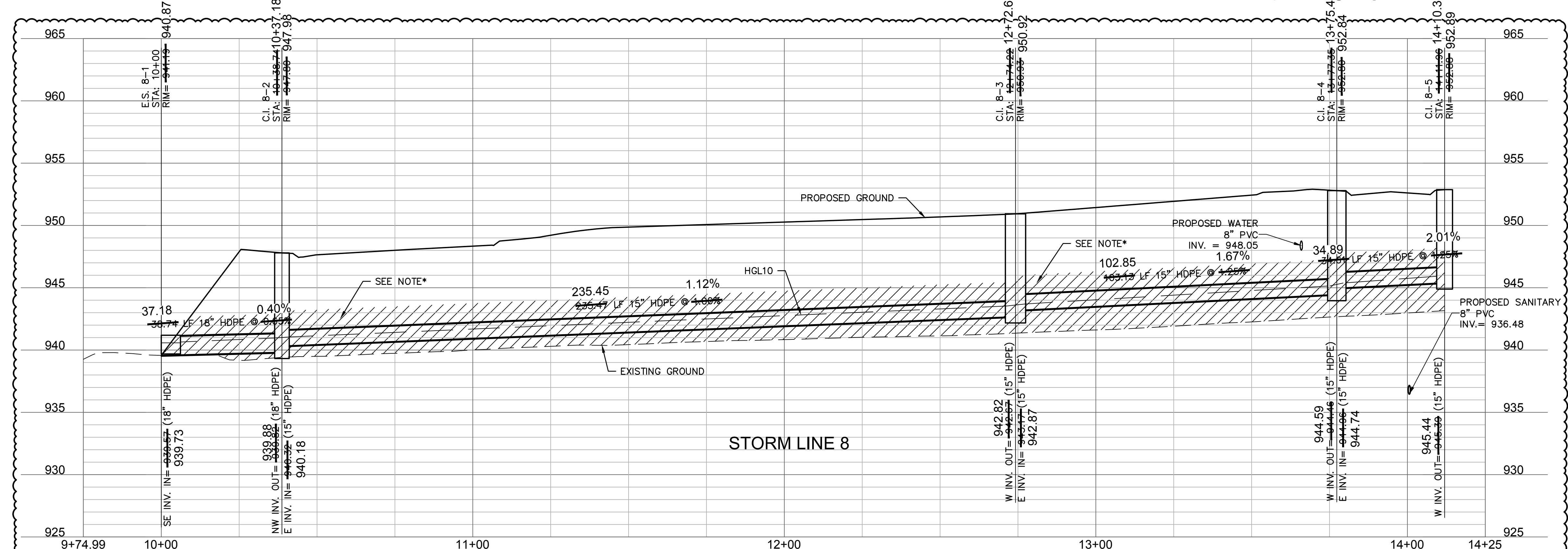
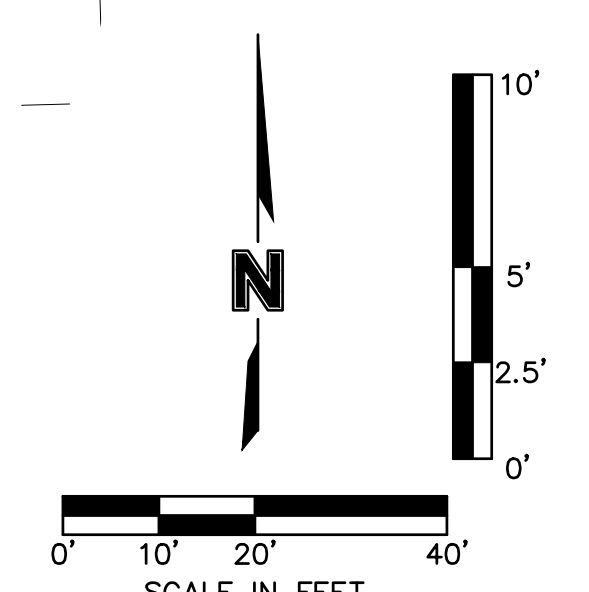


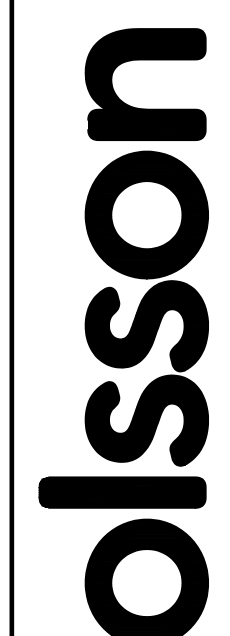
End Section	Q <sub>100</sub> (cfs)	Pipe Diameter (ft)	Class*	DFD <sup>†</sup> (ft)	Apron Length (ft)	Apron Depth (ft)	Area (Sq)
E.S. 8-1	17.4	1.5	4	14	9	2.57	7.5

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

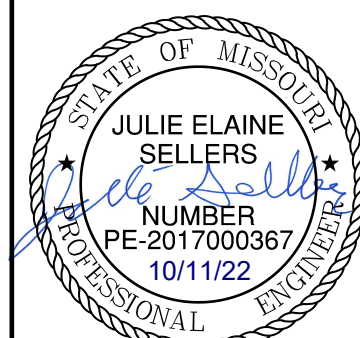
**AS BUILT**  
 DATE SURVEYED: 2022-05-26

\*NOTE: CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE





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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	03-23-2021	REVISED PER CITY COMMENTS	
2	04-16-2021	REVISED PER CITY COMMENTS	
3	09-30-2021	CHANGES TO APPROVED PLANS	

**REVISIONS**

**2021**

**STORM SEWER PLAN & PROFILE (LINE 8)  
 STREET & STORM SEWER PLANS**

**HOOK FARMS  
 SECOND PLAT**

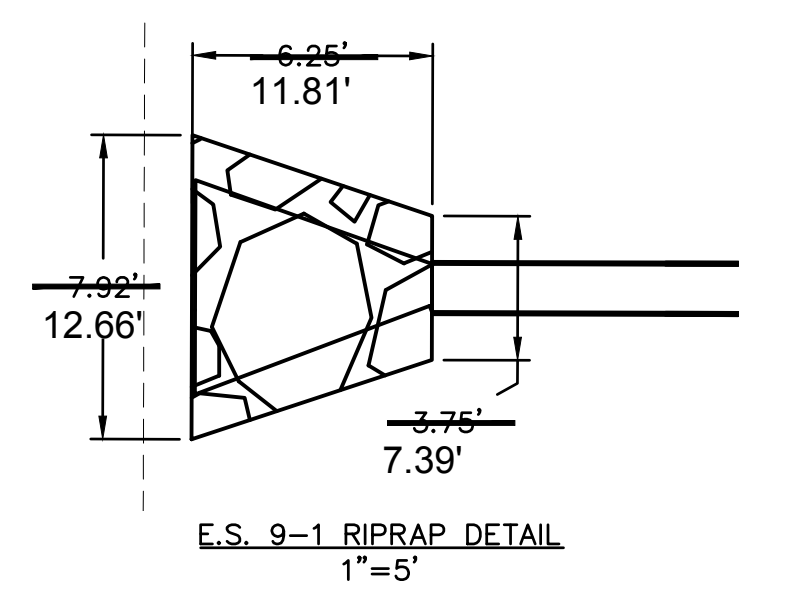
**LEE'S SUMMIT, MO**

drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-09-2021

**SHEET  
 C139**



DWG: F:\2019\4001-4500\019-4061-EX40-Design\AutoCAD\Asbuilt\Sheets\GNCV\Street & Storm Plans\C\_STM03\_B194061.dwg  
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ASBUILT IS 3.45' E AND 2.19' S OF PLAN  
 E.S. 9-1  
 15" FES  
 W/ CONCRETE TOE WALL  
 INSTALL RIPRAP PER DETAILS ON THIS SHEET  
 STA: 10+00.00 (STORM LINE 9)  
 STA: ~~12+73.74, 179.45~~ 12+73.57, 175.37' LT  
 (SW TRACKER LANE) N: 985853.150;  
 N: ~~985855.330~~ E: ~~2810663.677~~ E: 2810686.522

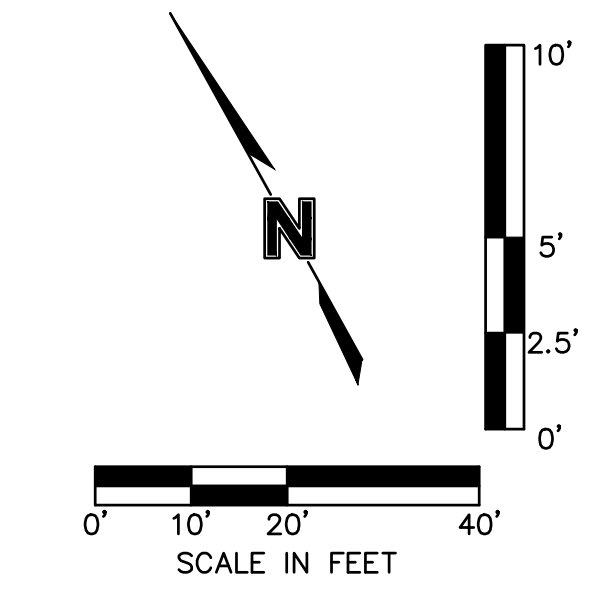
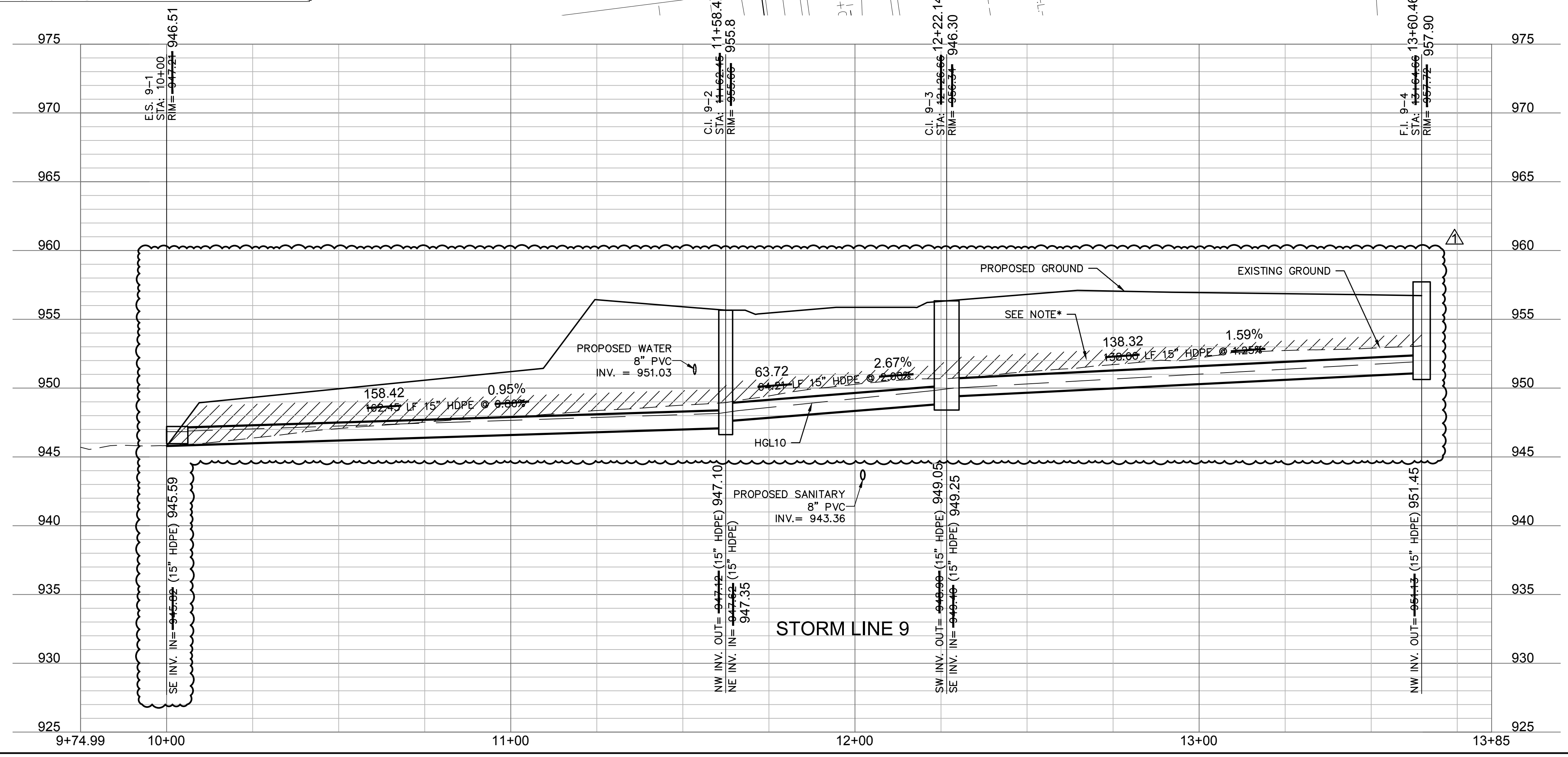
ASBUILT IS 0.13' E AND 0.12 N OF PLAN  
 C.I. 9-2  
 CURB INLET (5'X3' INSIDE)  
 STA: ~~11+62.45~~ (STORM LINE 9) 11+58.42  
 STA: ~~12+73.56, 17.00~~ LT  
 (SW TRACKER LANE)  
 N: ~~985776.154~~ E: ~~2810824.917~~  
 N: 985776.272;  
 E: 2810825.043

ASBUILT IS 0.26' W AND 0.21' S OF PLAN  
 C.I. 9-3  
 CURB INLET (5'X3' INSIDE)  
 STA: ~~12+26.66~~ (STORM LINE 9) 12+22.14  
 STA: ~~13+28.91, 17.00~~ RT 13+27.70, 16.88' RT  
 (SW TRACKER LANE)  
 N: ~~985807.139~~ E: ~~2810801.161~~  
 N: 985806.927;  
 E: 2810880.900

ASBUILT IS 0.11' W AND 0.59' S OF PLAN  
 F.I. 9-4  
 AREA INLET (4'X4' INSIDE)  
 STA: ~~13+64.66~~ (STORM LINE 9) 13+60.46  
 STA: ~~13+28.91, 155.00~~ RT  
 (SW TRACKER LANE)  
 N: ~~985739.857~~ E: ~~2811001.648~~  
 N: 985739.268;  
 E: 2811001.543

Riprap Calculations							
End Section	Q <sub>100</sub> (cfs)	Pipe Diameter (ft)	Glass* (mm)	D50* (ft)	Apron Length (ft)	Apron Depth (ft)	Area (SY)
E.S. 9-1	11.2	1.25	3	10	22.12	2.00	20.2

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



\*NOTE: CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE

**AS BUILT**  
 DATE SURVEYED: 2022-05-26

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	03-23-2021	REVISED PER CITY COMMENTS	
2	04-16-2021	REVISED PER CITY COMMENTS	
3	09-30-2021	CHANGES TO APPROVED PLANS	

STORM SEWER PLAN & PROFILE (LINE 9)  
 STREET & STORM SEWER PLANS

HOOK FARMS  
 SECOND PLAT

2021

LEE'S SUMMIT, MO

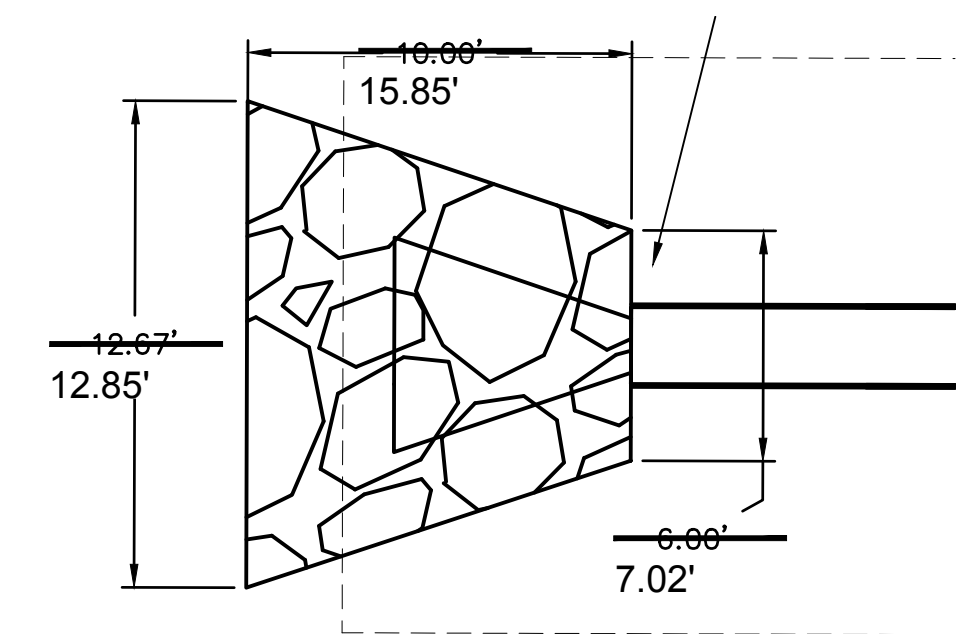
REVISIONS

drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-09-2021

SHEET  
 C140



DWG: F:\2019\4001-4500\019-4061-EX-40-Design\AutoCAD\Asbuilt\Sheets\GNCV\Street & Storm Plans\C\_STM03\_B194061.dwg  
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E.S. 10-1 RIPRAP DETAIL  
1"=5'

ASBUILT IS 2.99' E  
AND 1.74' S OF PLAN

E.S. 10-1  
24" FES  
W/ CONCRETE TOE WALL  
INSTALL RIPRAP PER DETAILS ON THIS SHEET  
STA: 10+00.00 (STORM LINE 10)  
STA: 14+92.52, 14+92.97 LT- 14+92.46, 179.50' LT  
(SW TRACKER LANE) N: 986046.527;  
E: 986046.260  
N: 2810991.296 E: 2810789.774

ASBUILT IS 0.21' W  
AND 0.28' N OF PLAN

C.I. 10-2  
CURB INLET (5'x4' INSIDE)  
STA: 11+65.47 (STORM LINE 10)  
STA: 11+92.52, 17.56' LT  
(SW TRACKER LANE)  
N: 985967.595  
E: 2810931.247  
N: 985967.871;  
E: 2810931.037

ASBUILT IS 0.49' E  
AND 0.05' N OF PLAN

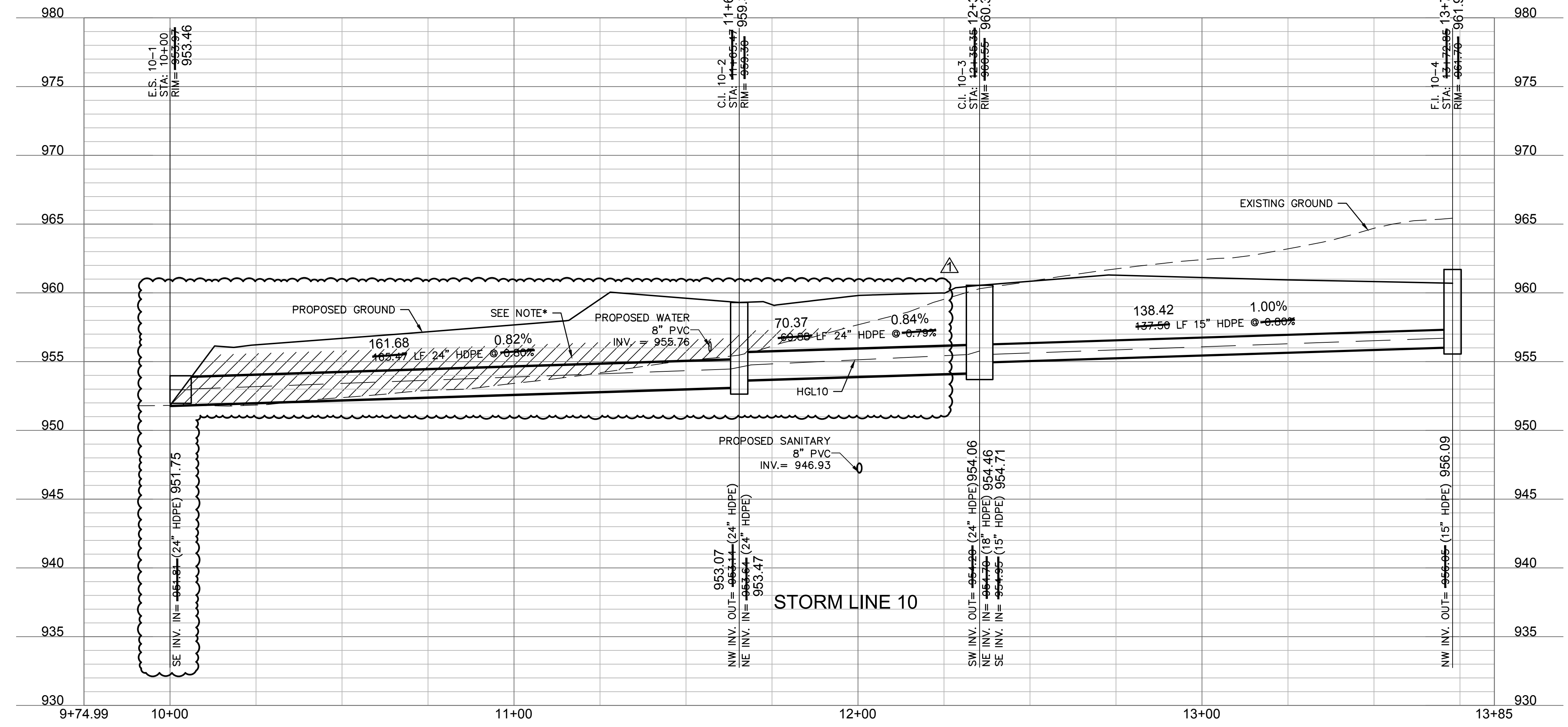
C.I. 10-3  
CURB INLET (5'x4' INSIDE)  
STA: 12+35.55 (STORM LINE 10)  
STA: 10+00.00 (STORM LINE 11)  
STA: 15+53.01, 17.50' RT- 15+53.29, 17.91' RT  
(SW TRACKER LANE)  
N: 986003.342  
E: 2810991.296  
N: 986003.389;  
E: 2810991.790

ASBUILT IS 1.07' E  
AND 0.80' S OF PLAN

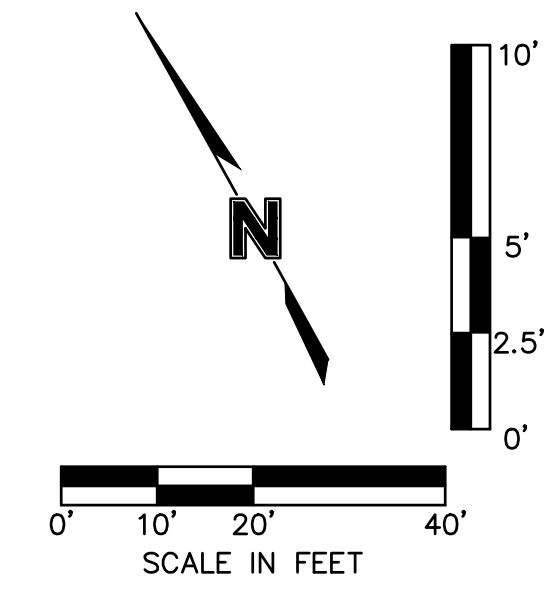
F.I. 10-4  
AREA INLET (4'x4' INSIDE)  
STA: 13+72.05 (STORM LINE 10)  
STA: 15+52.01, 155.00' RT- 15+52.83, 156.32' RT  
(SW TRACKER LANE)  
N: 985935.503  
E: 281111.347  
N: 985935.500;  
E: 281111.243

End Section	Q <sub>100</sub> (cfs)	Pipe Diameter (ft)	Class*	D50+ (ft)	Apron Length (ft)	Apron Depth (ft)	Area (SY)
E.S. 10-1	21.85	2	3	10	10	2.00	10.4

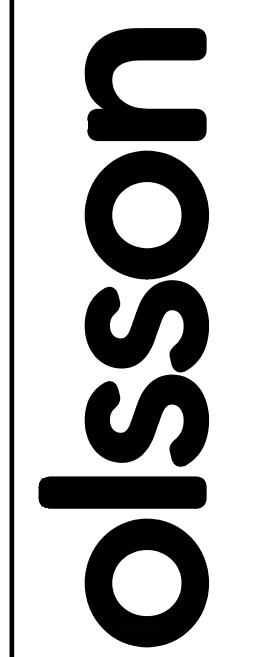
\* Per Table 10.1 HEC-14 FHWA-Energy Dissipators Pg. 10-18




\*NOTE: CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE



**AS BUILT**  
DATE SURVEYED: 2022-05-26



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JULIE ELAINE  
SELLERS  
NUMBER  
PE-2017000367  
10/11/22

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STORM SEWER PLAN & PROFILE (LINE 10)  
STREET & STORM SEWER PLANS

HOOK FARMS  
SECOND PLAT

LEE'S SUMMIT, MO

2021

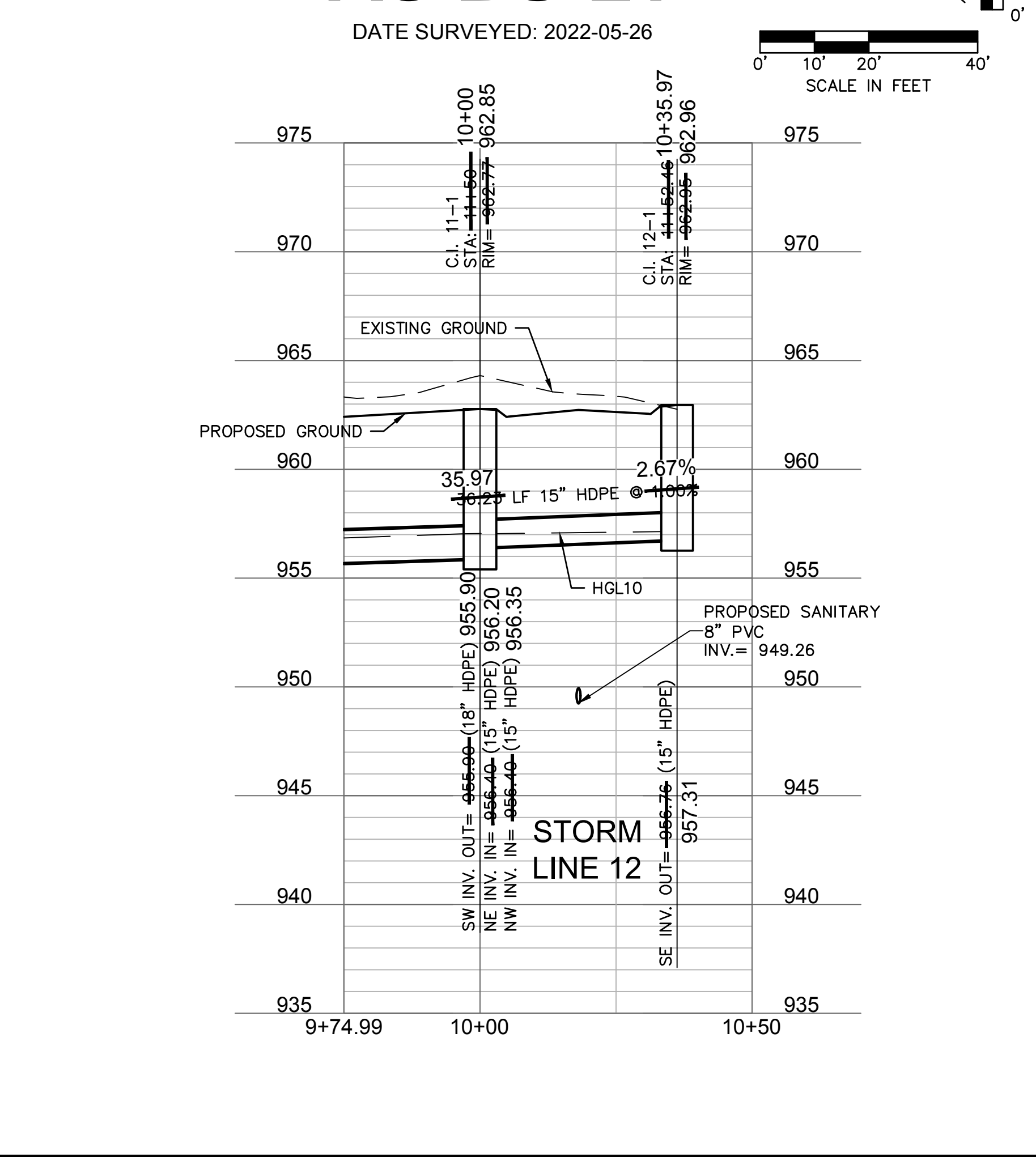
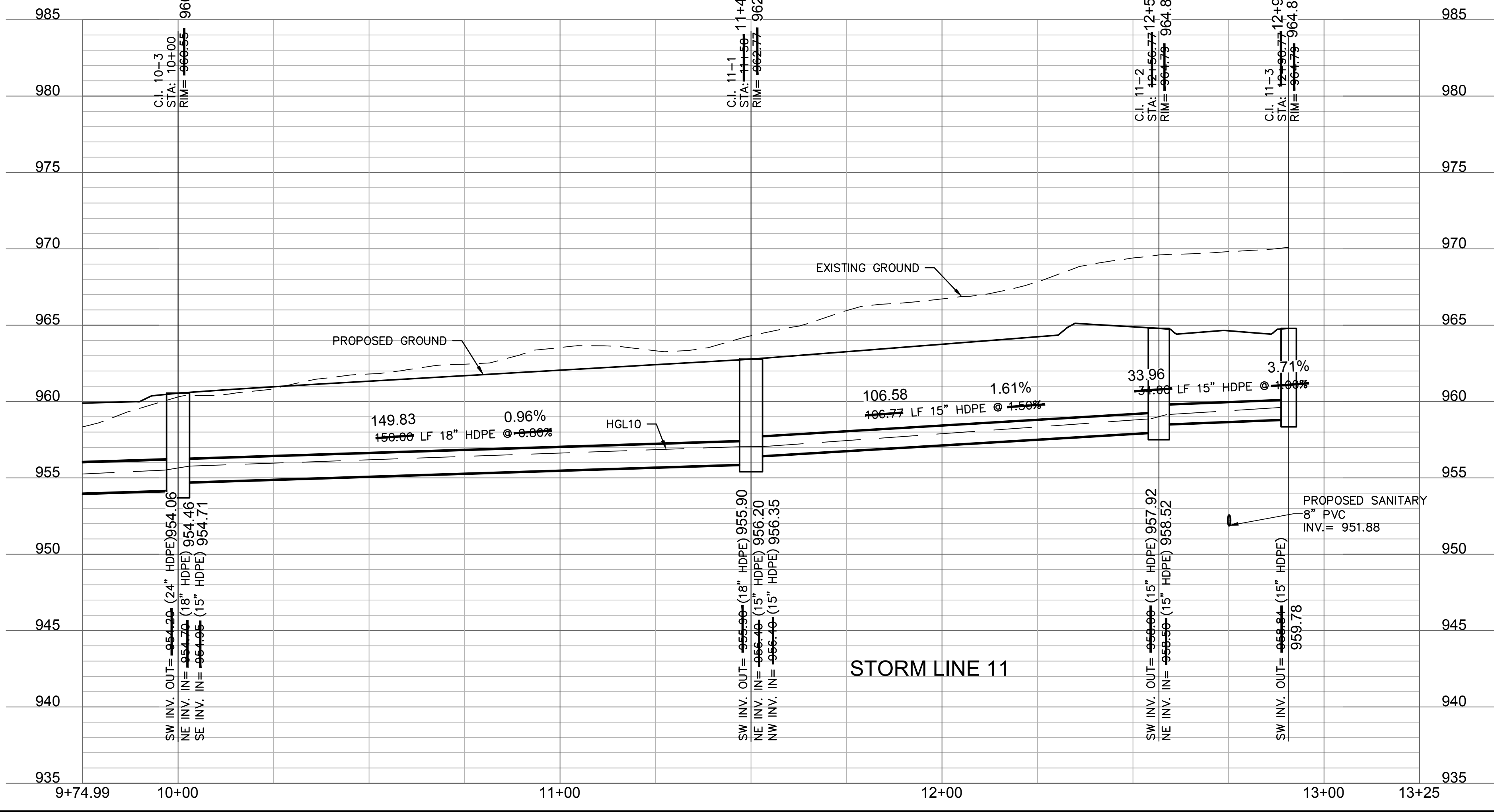
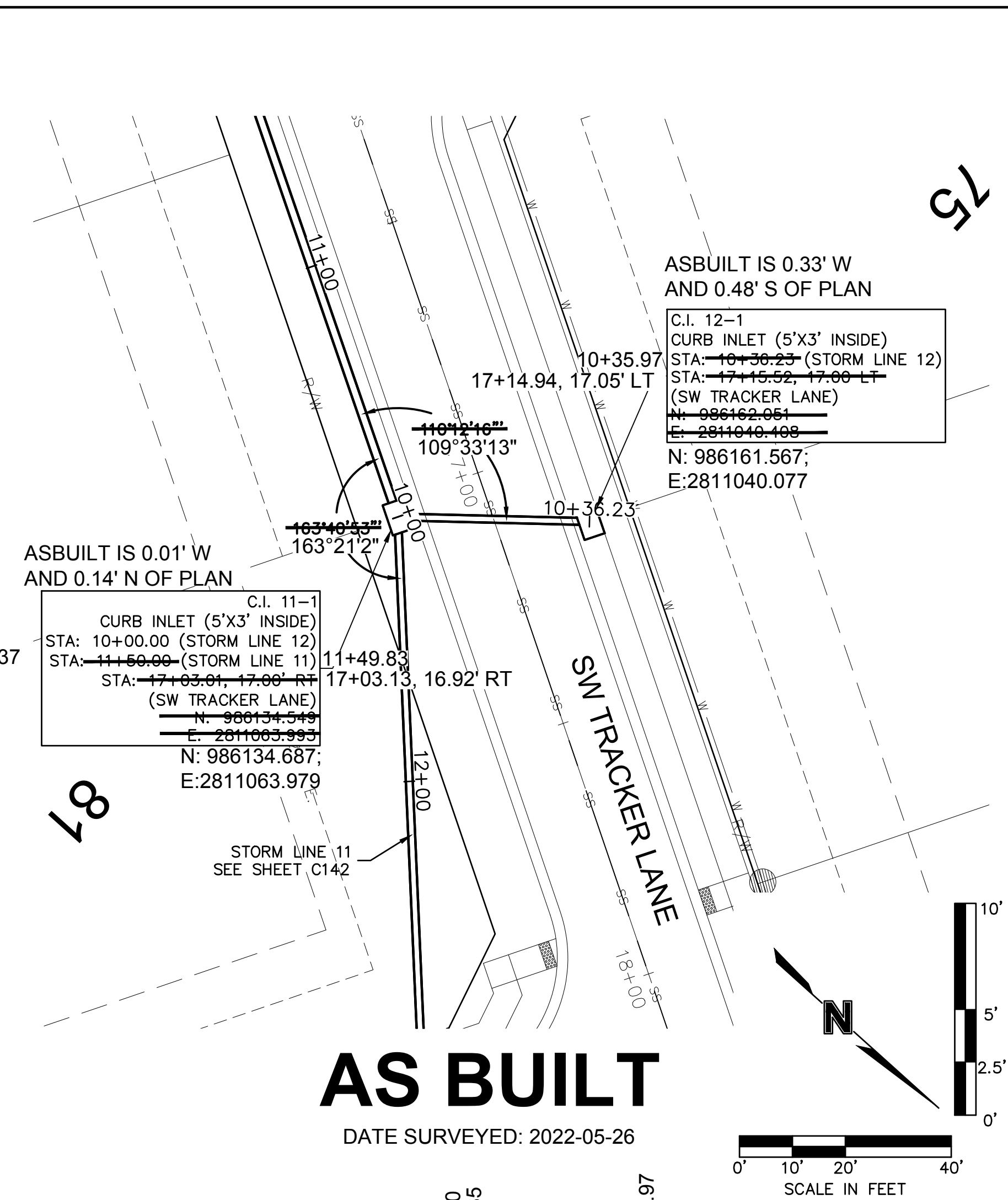
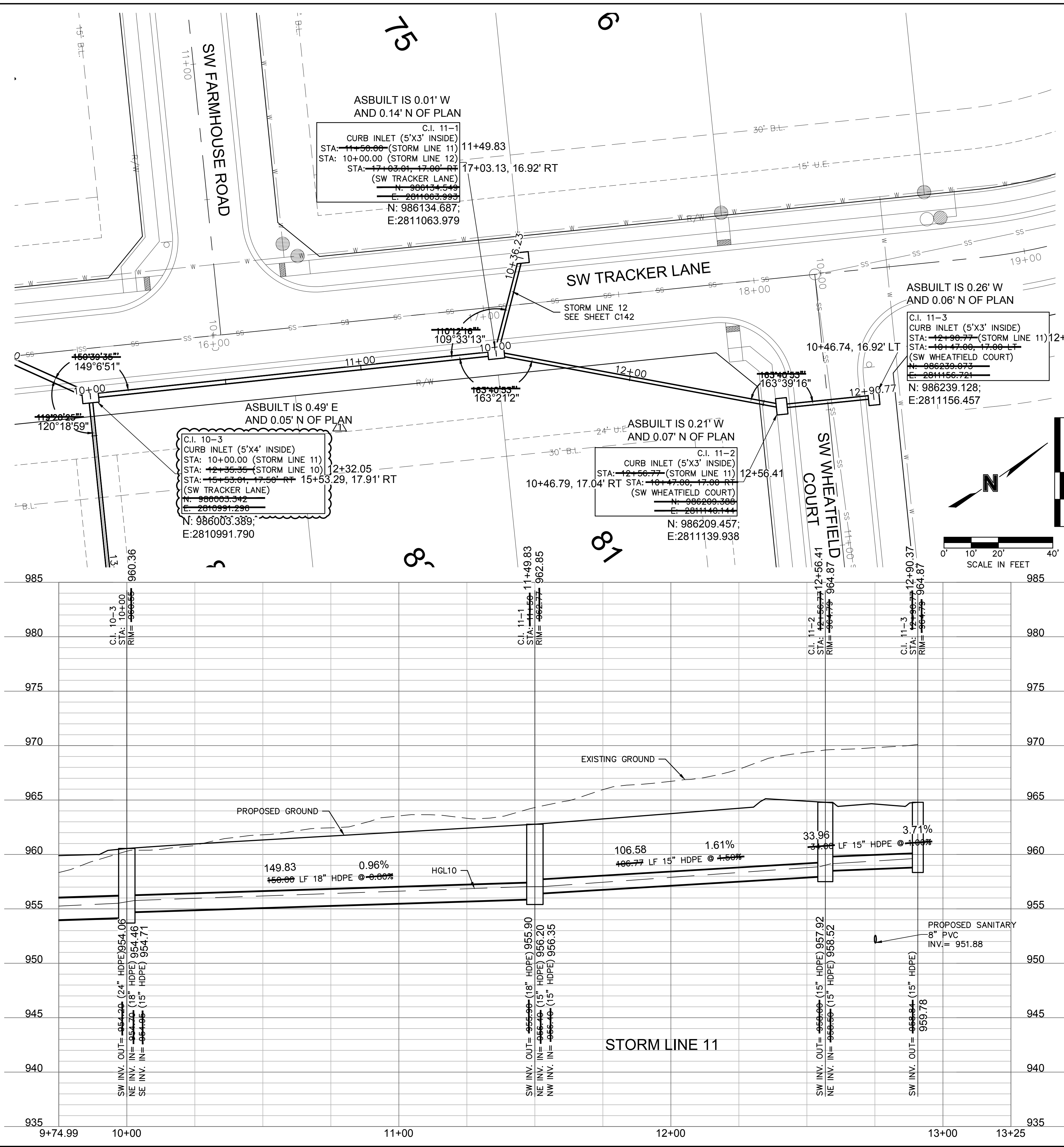
REVISIONS

drawn by: B.M.W./A.A.  
checked by: B.M.W.  
designed by: B.M.W./A.A.  
QA/QC by: J.E.S.  
project no.: B19-4061  
date: 01-09-2021

SHEET  
C141



DWG: F:\2019\4001-4500\019-4061-EX-40-Design\AutoCAD\Asbuilt\Sheets\GNCV\Street & Storm Plans\C\_STM03\_B194061.dwg  
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 USER: ssoyfor



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 www.olsson.com

STATE OF MISSOURI  
 JULIE ELAINE SELLERS  
 PE #2017000367  
 10/11/22  
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

BY

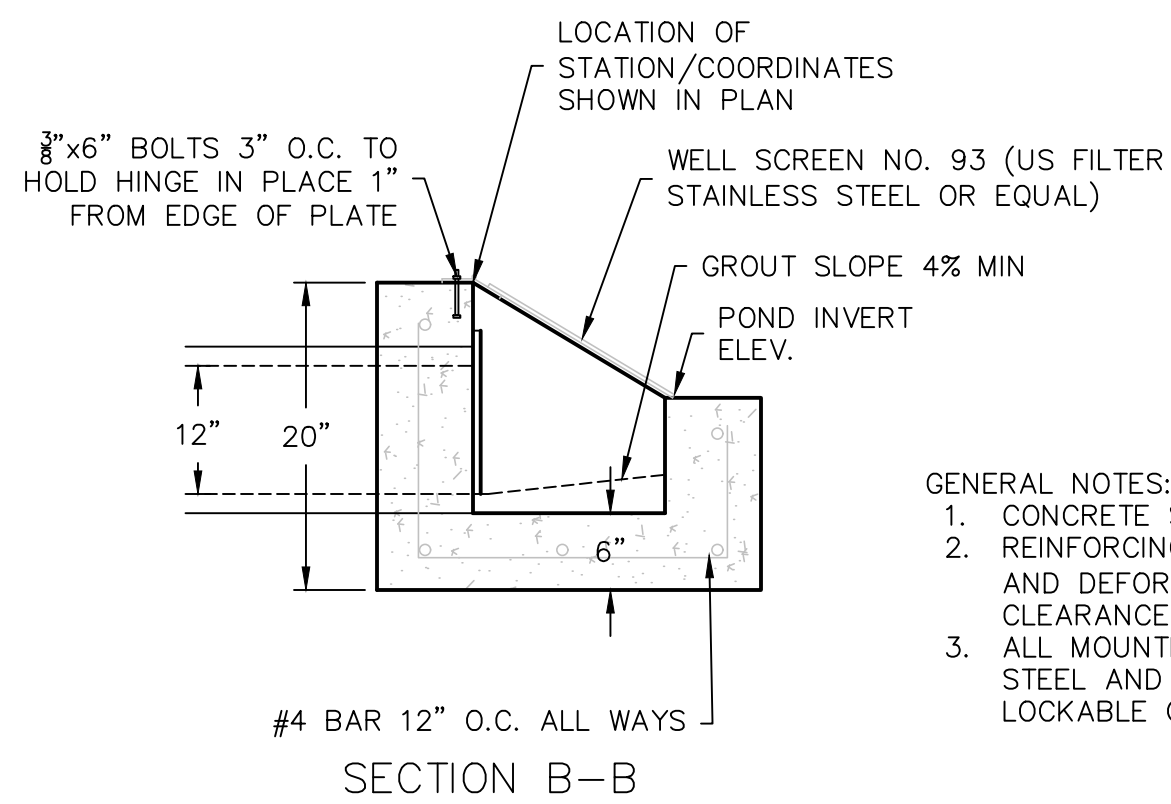
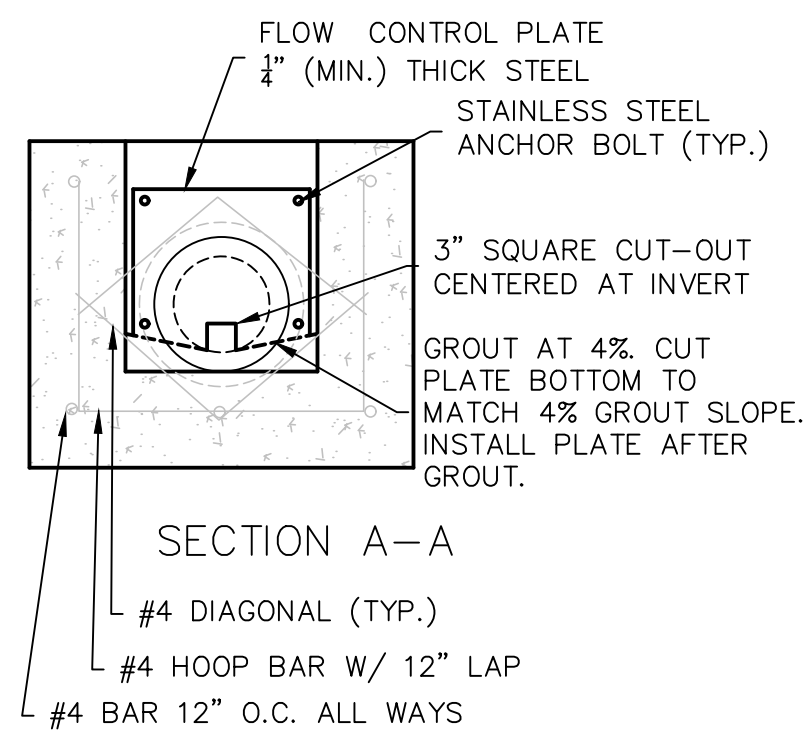
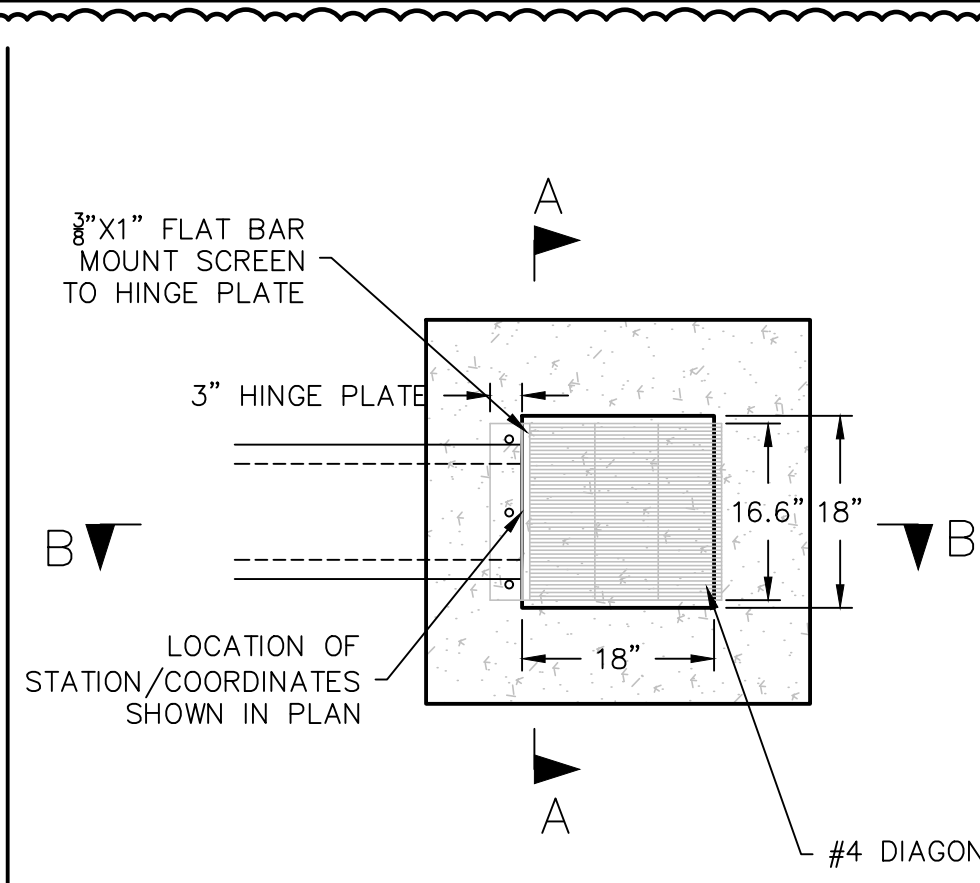
STORM SEWER PLAN & PROFILE (LINES 11 & 12)  
 STREET & STORM SEWER PLANS  
 HOOK FARMS  
 SECOND PLAT  
 2021  
 LEE'S SUMMIT, MO

drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

SHEET  
 C142

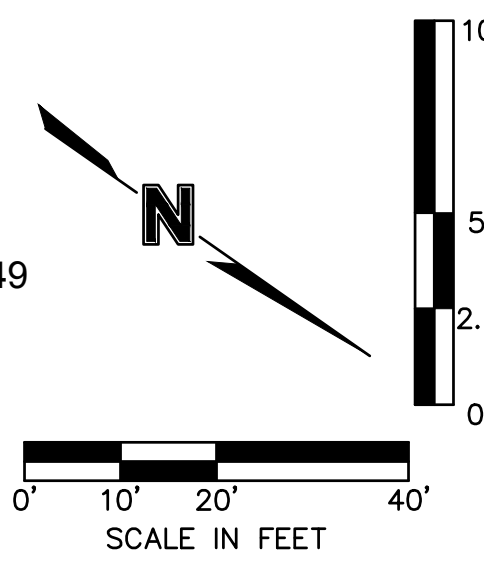
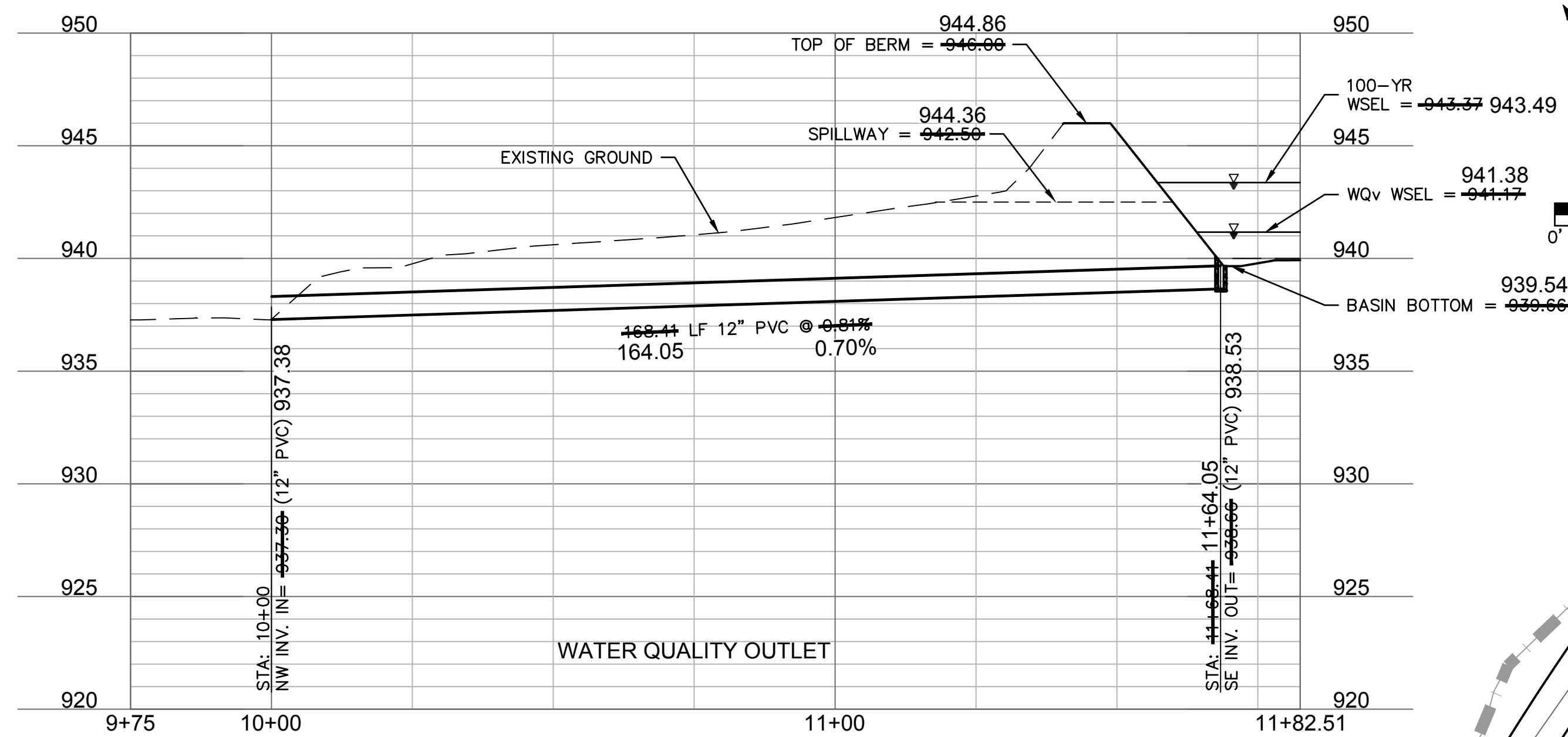


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 DATE: Oct 04, 2022 11:24am XREFS: C\_PBASE\_B194061 C\_PUTIL\_B194061 C\_PBASE\_B194061 C\_PBASE\_B194061



- GENERAL NOTES:
1. CONCRETE SHALL BE CLASS B
  2. REINFORCING BARS SHALL BE EPOXY COATED AND DEFORMED, AND SHALL HAVE MINIMUM 2" CLEARANCE.
  3. ALL MOUNTING HARDWARE TO BE STAINLESS STEEL AND PROVIDED WITH HINGES AND LOCKABLE OR BOLTABLE ACCESS.

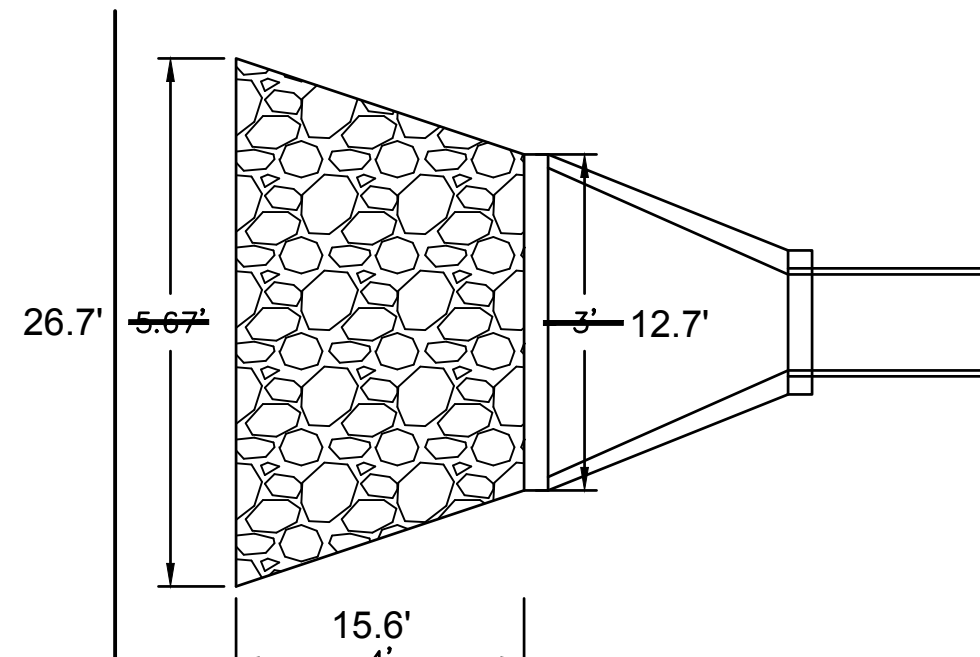
N.T.S.  
01 WATER QUALITY BASIN OULET STRUCTURE



BASIN DETAILS	
SPILLWAY TYPE	BROAD CRESTED WEIR
SPILLWAY LENGTH	75.50 FT
SPILLWAY ELEVATION	944.36 <del>942.50</del> FT
SPILLWAY DEPTH	0.50 <del>3.50</del> FT
DAM ELEVATION	944.86 <del>946.00</del> FT
WATER QUALITY STORM WATER SURFACE ELEVATION	941.38 <del>941.17</del> FT
100-YR DESIGN WATER SURFACE ELEVATION	943.49 <del>943.37</del> FT
DESIGN STORAGE	80,201 <del>100,035</del> CF

Riprap Calculations							
End Section	Q <sub>100</sub> (cfs)	Pipe Diameter (ft)	Class*	D50* (in)	Apron Length (ft)	Apron Depth (ft)	Area (SY)
WQv Outlet	4.154	1	1	5	4	1.46	1.9

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



**AS BUILT**  
DATE SURVEYED: 2022-05-26

STA.: 10+00.00  
INSTALL 12" HDPE END SECTION W/ CONCRETE TOE WALL.  
INSTALL RIPRAP PER DETAILS ON THIS SHEET.  
N: 985097.57  
E: 2811128.71

STA.: 11+64.05  
WATER QUALITY BASIN OULET STRUCTURE.  
SEE DETAIL ON THIS SHEET  
N: 985097.57  
E: 2811128.71

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STATE OF MISSOURI  
 JULIE ELAINE SELLERS  
 PROFESSIONAL ENGINEER  
 NUMBER PE-2017000367  
 10/11/22

REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

WATER QUALITY BASIN PLAN  
 STREET & STORM SEWER PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO  
 2021



DWG: F:\2019\4001-4500\019-4061-BV40-Design\AutoCAD\Asbuilt\Sheets\GNCV\Street & Storm Plans\C\_DRN01\_B194061.dwg USER: sso/vor  
 DATE: Oct 04, 2022 11:24am XREFS: C\_PBASE\_B194061 C\_PBASE\_B194061 C\_PENDY\_B194061 C\_PUTIL\_B194061 C\_PTBK\_B194061

Hook Farms Second Plat			
Lot	Rear Left MBOE	Rear Right MBOE	As Built Plot Plan Required
50	954.92	953.57	Y
51	953.57	952.88	Y
52	952.88	950.65	Y
53	950.65	950.27	Y
54	950.27	949.30	Y
55	949.30	948.19	Y
56	948.19	947.82	Y
57	947.82	947.35	Y
58	947.34	947.97	Y
59	947.97	947.72	Y
60	947.72	947.99	Y
61	947.99	946.90	Y
62	946.90	944.72	Y
63	944.72	942.92	Y
64	942.92	942.70	Y
65	973.63	940.82	Y
66	941.13	943.41	Y
67	943.41	947.90	Y
68	947.90	954.22	Y
69	943.41	948.62	Y
70	948.62	949.34	Y
71	949.34	950.54	Y
72	950.54	953.88	Y
73	953.88	956.67	Y
74	977.02	959.59	Y

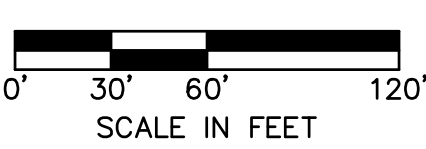
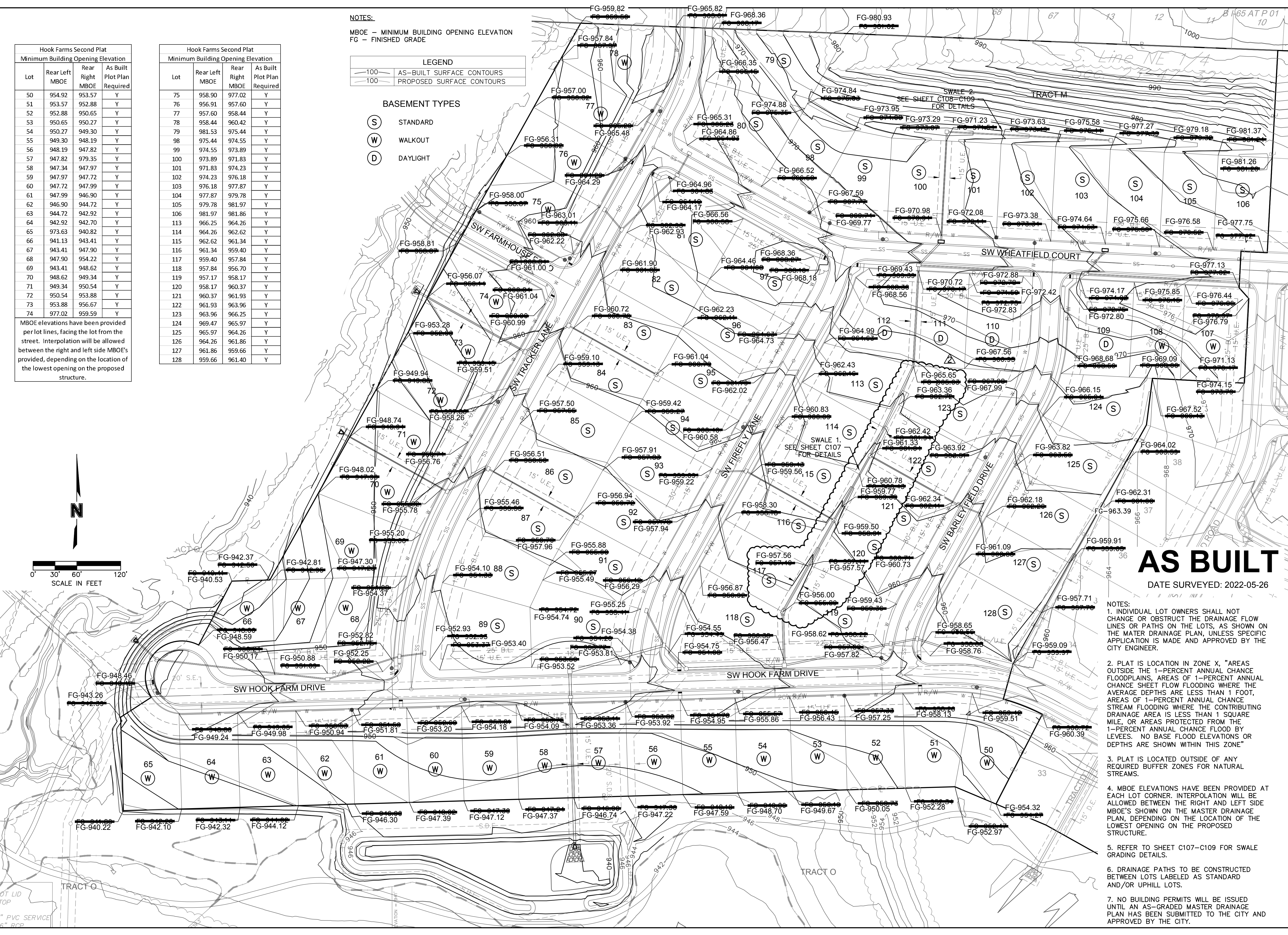
MBOE elevations have been provided per lot lines, facing the lot from the street. Interpolation will be allowed between the right and left side MBOE's provided, depending on the location of the lowest opening on the proposed structure.

Hook Farms Second Plat			
Lot	Rear Left MBOE	Rear Right MBOE	As Built Plot Plan Required
75	958.90	977.02	Y
76	956.91	957.60	Y
77	957.60	958.44	Y
78	958.44	960.42	Y
79	981.53	975.44	Y
98	975.44	974.55	Y
99	974.55	973.89	Y
100	973.89	971.83	Y
101	971.83	974.23	Y
102	974.23	976.18	Y
103	976.18	977.87	Y
104	977.87	979.78	Y
105	979.78	981.97	Y
106	981.97	981.86	Y
113	966.25	964.26	Y
114	964.26	962.62	Y
115	962.62	961.34	Y
116	961.34	959.40	Y
117	959.40	957.84	Y
118	957.84	956.70	Y
119	957.17	958.17	Y
120	958.17	960.37	Y
121	960.37	961.93	Y
122	961.93	963.96	Y
123	963.96	966.25	Y
124	969.47	965.97	Y
125	965.97	964.26	Y
126	964.26	961.86	Y
127	961.86	959.66	Y
128	959.66	961.40	Y

NOTES:  
 MBOE - MINIMUM BUILDING OPENING ELEVATION  
 FG - FINISHED GRADE

LEGEND  
 -100 AS-BUILT SURFACE CONTOURS  
 -100 PROPOSED SURFACE CONTOURS

BASEMENT TYPES  
 (S) STANDARD  
 (W) WALKOUT  
 (D) DAYLIGHT



# AS BUILT

DATE SURVEYED: 2022-05-26

- NOTES:
- INDIVIDUAL LOT OWNERS SHALL NOT CHANGE OR OBSTRUCT THE DRAINAGE FLOW LINES OR PATHS ON THE LOTS, AS SHOWN ON THE MASTER DRAINAGE PLAN, UNLESS SPECIFIC APPLICATION IS MADE AND APPROVED BY THE CITY ENGINEER.
  - PLAT IS LOCATION IN ZONE X, "AREAS OUTSIDE THE 1-PERCENT ANNUAL CHANGE FLOODPLAINS, AREAS OF 1-PERCENT ANNUAL CHANGE SHEET FLOW FLOODING WHERE THE AVERAGE DEPTHS ARE LESS THAN 1 FOOT, AREAS OF 1-PERCENT ANNUAL CHANGE STREAM FLOODING WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1 SQUARE MILE, OR AREAS PROTECTED FROM THE 1-PERCENT ANNUAL CHANGE FLOOD BY LEVEES." NO BASH FLOOD ELEVATIONS OR DEPTHS ARE SHOWN WITHIN THIS ZONE"
  - PLAT IS LOCATED OUTSIDE OF ANY REQUIRED BUFFER ZONES FOR NATURAL STREAMS.
  - MBOE ELEVATIONS HAVE BEEN PROVIDED AT EACH LOT CORNER. INTERPOLATION WILL BE ALLOWED BETWEEN THE RIGHT AND LEFT SIDE MBOE'S SHOWN ON THE MASTER DRAINAGE PLAN, DEPENDING ON THE LOCATION OF THE LOWEST OPENING ON THE PROPOSED STRUCTURE.
  - REFER TO SHEET C107-C109 FOR SWALE GRADING DETAILS.
  - DRAINAGE PATHS TO BE CONSTRUCTED BETWEEN LOTS LABELED AS STANDARD AND/OR UPHILL LOTS.
  - NO BUILDING PERMITS WILL BE ISSUED UNTIL AN AS-GRADED MASTER DRAINAGE PLAN HAS BEEN SUBMITTED TO THE CITY AND APPROVED BY THE CITY.

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REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS
3	09-30-2021	CHANGES TO APPROVED PLANS

MASTER DRAINAGE PLAN  
STREET & STORM SEWER PLANS

HOOK FARMS  
SECOND PLAT

REVISIONS

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

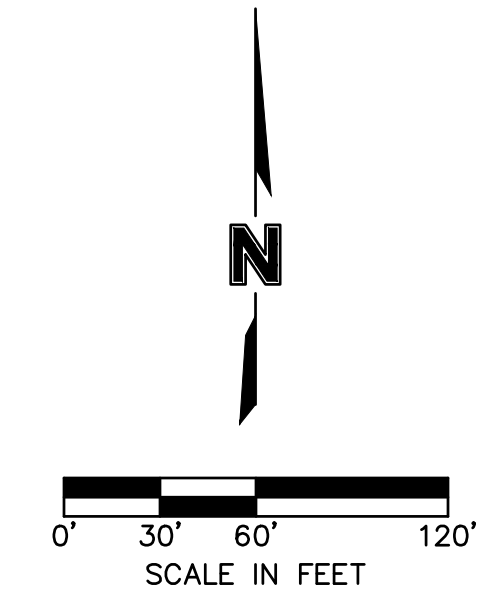
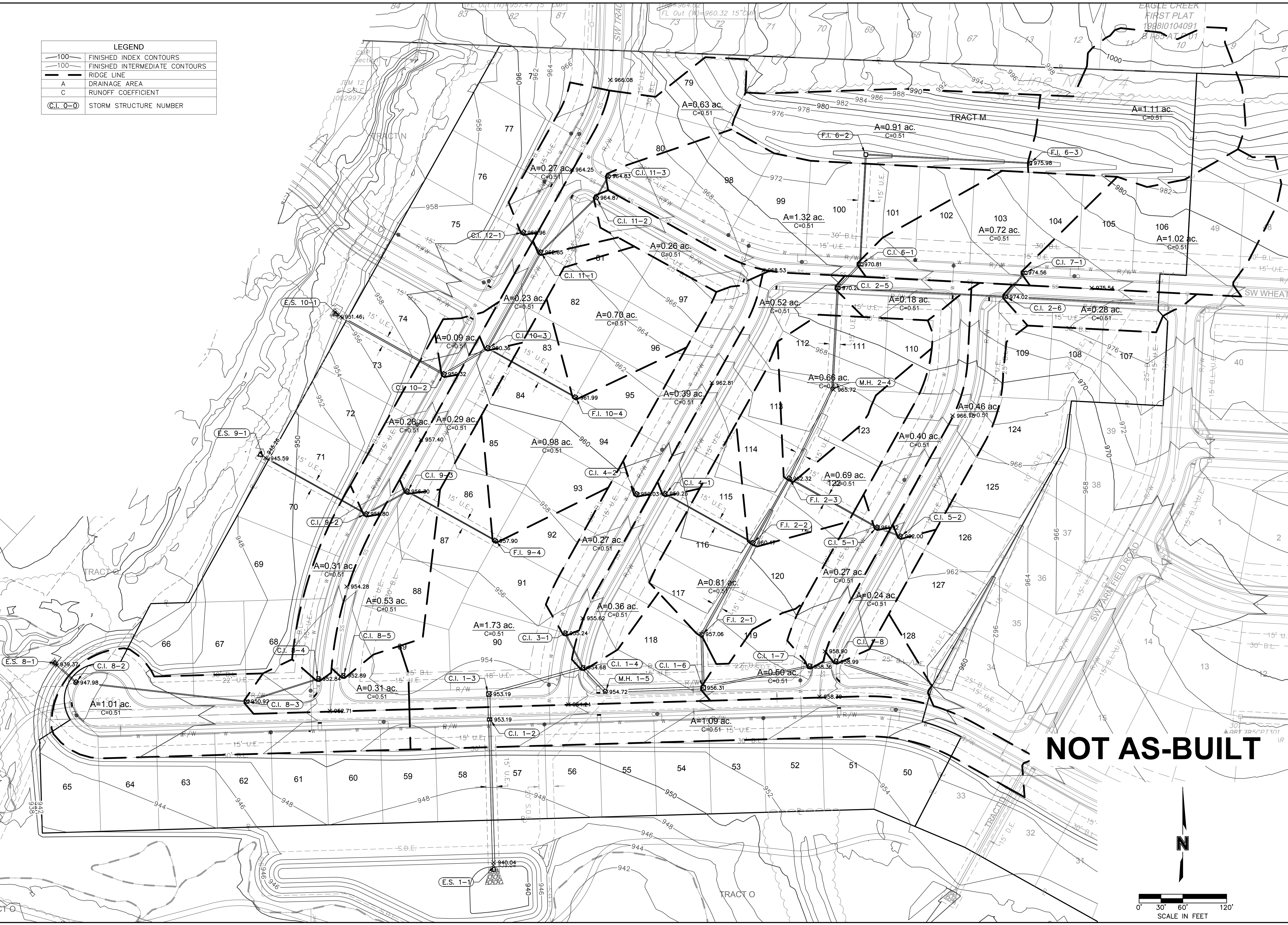
2021

LEE'S SUMMIT, MO



LEGEND	
	FINISHED INDEX CONTOURS
	FINISHED INTERMEDIATE CONTOURS
	RIDGE LINE
	DRAINAGE AREA
	RUNOFF COEFFICIENT
	STORM STRUCTURE NUMBER

DWG: F:\2019\4001-4500\019-4061-EX40-Design\AutoCAD\Asbuilt\Sheets\GNCA\Street & Storm Plans\C\_DRN02\_B194061.dwg  
 DATE: Oct 04, 2022 11:25am  
 XREFS: C\_XBASE\_B194061 C\_PBASE\_B194061 C\_PENDY\_B194061 C\_PUTIL\_B194061 C\_PTBK\_B194061 C\_PSTRM\_B194061  
 USER: ssoylor



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STATE OF MISSOURI  
 JULIE ELAINE SELLERS  
 PE 2017000367  
 10/11/22  
 PROFESSIONAL ENGINEER

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1	03-23-2021	REVISED PER CITY COMMENTS
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3	09-30-2021	CHANGES TO APPROVED PLANS

BY: \_\_\_\_\_

2021

DRAINAGE PLAN  
 STREET & STORM SEWER PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO

drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-09-2021

SHEET C145



10 Year Return Frequency						
Inlet ID	Captured Flow	Bypass Flow	Inlet Efficiency (Note 2)	Gutter Depth	Gutter Spread	Ponding Depth
	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)
C.I. 1-2(L)	3.36	0.00	100.00%	0.20	10.20	...
C.I. 1-2(R)	0.23	0.00	100.00%	0.07	3.74	...
C.I. 1-2	4.19	0.00	100.00%	...	...	...
C.I. 1-3(L)	0.34	0.00	100.00%	0.09	4.36	...
C.I. 1-3(R)	2.74	0.00	100.00%	0.19	9.44	...
C.I. 1-3	7.20	0.00	100.00%	...	...	...
C.I. 1-4	1.43	0.24	85.63%	0.14	7.21	...
C.I. 1-6	1.94	0.32	85.85%	0.18	8.79	...
C.I. 1-7	1.08	0.13	89.48%	0.13	6.36	...
C.I. 1-8	1.05	0.12	89.77%	0.13	6.28	...
F.I. 2-1	3.04	0.00	100.00%	...	...	0.15
F.I. 2-2	2.59	0.00	100.00%	...	...	0.13
F.I. 2-3	2.48	0.00	100.00%	...	...	0.13
C.I. 2-5	0.64	0.03	95.13%	0.11	5.27	...
C.I. 2-6	0.97	0.08	91.95%	0.12	6.22	...
C.I. 3-1	1.08	0.11	90.54%	0.13	6.47	...
C.I. 4-1	1.66	0.32	83.66%	0.16	7.76	...
C.I. 4-2	1.28	0.18	87.85%	0.14	6.92	...
C.I. 5-1	1.34	0.20	87.27%	0.14	7.05	...
C.I. 5-2	1.54	0.27	85.02%	0.15	7.50	...
C.I. 6-1	3.22	0.90	78.18%	0.21	10.38	...
F.I. 6-2	3.41	0.00	100.00%	...	...	0.16
F.I. 6-3	4.16	0.00	100.00%	...	...	0.18
C.I. 7-1	3.80	1.42	72.80%	0.23	11.35	...
C.I. 8-2(L)	2.06	0.00	100.00%	0.15	7.65	...
C.I. 8-2(R)	0.99	0.00	100.00%	0.13	6.25	...
C.I. 8-2	3.99	0.00	100.00%	...	...	...
C.I. 8-3	1.51	0.17	89.96%	0.16	7.96	...
C.I. 8-4	1.10	0.14	88.79%	0.13	6.37	...
C.I. 8-5	1.86	0.38	83.08%	0.17	8.31	...
C.I. 9-2	0.98	0.08	92.39%	0.13	6.34	...
C.I. 9-3	1.59	0.25	86.30%	0.16	7.76	...
F.I. 9-4	3.68	0.00	100.00%	...	...	0.17
C.I. 10-2	0.33	0.01	97.51%	0.08	3.88	...
C.I. 10-3	1.85	0.41	81.75%	0.16	8.20	...
F.I. 10-4	2.63	0.00	100.00%	...	...	0.14
C.I. 11-1	3.20	1.41	69.52%	0.22	11.03	...
C.I. 11-2	0.91	0.07	92.93%	0.12	6.12	...
C.I. 11-3	3.67	2.18	62.75%	0.24	11.98	...
C.I. 12-1	0.94	0.07	92.82%	0.12	6.25	...
F.I. 9-4	3.68	0.00	100.00%	...	...	0.17
C.I. 10-2	0.33	0.01	97.51%	0.08	3.88	...
C.I. 10-3	1.85	0.41	81.75%	0.16	8.20	...
F.I. 10-4	2.63	0.00	100.00%	...	...	0.14
C.I. 11-1	3.20	1.41	69.52%	0.22	11.03	...
C.I. 11-2	0.91	0.07	92.93%	0.12	6.12	...
C.I. 11-3	3.67	2.18	62.75%	0.24	11.98	...
C.I. 12-1	0.94	0.07	92.82%	0.12	6.25	...

10 Year Return Frequency						
Inlet ID	Drainage Area	C	Tc	i	K	Peak Flow
	(ac)		(min)	(in/hr)		(cfs)
C.I. 1-2(L)	0.87	0.51	5.00	7.35	1.00	3.26
C.I. 1-2(R)	0.06	0.51	5.00	7.35	1.00	0.23
C.I. 1-2(B)	0.16	0.51	5.00	7.35	1.00	0.60
C.I. 1-2	1.09	0.51	5.00	7.35	1.00	4.09
C.I. 1-3(L)	0.09	0.51	5.00	7.35	1.00	0.34
C.I. 1-3(R)	0.55	0.51	5.00	7.35	1.00	2.06
C.I. 1-3(B)	1.10	0.51	5.00	7.35	1.00	4.13
C.I. 1-3	1.74	0.51	5.00	7.35	1.00	6.53
C.I. 1-4	0.36	0.51	5.00	7.35	1.00	1.35
C.I. 1-6	0.50	0.51	5.00	7.35	1.00	1.88
C.I. 1-7	0.27	0.51	5.00	7.35	1.00	1.01
C.I. 1-8	0.24	0.51	5.00	7.35	1.00	0.90
F.I. 2-1	0.81	0.51	5.00	7.35	1.00	3.04
F.I. 2-2	0.69	0.51	5.00	7.35	1.00	2.59
F.I. 2-3	0.66	0.51	5.00	7.35	1.00	2.48
C.I. 2-5	0.18	0.51	5.00	7.35	1.00	0.68
C.I. 2-6	0.28	0.51	5.00	7.35	1.00	1.05
C.I. 3-1	0.27	0.51	5.00	7.35	1.00	1.01
C.I. 4-1	0.52	0.51	5.00	7.35	1.00	1.95
C.I. 4-2	0.39	0.51	5.00	7.35	1.00	1.46
C.I. 5-1	0.40	0.51	5.00	7.35	1.00	1.50
C.I. 5-2	0.46	0.51	5.00	7.35	1.00	1.73
C.I. 6-1	0.72	0.51	5.00	7.35	1.00	2.70
F.I. 6-2	0.91	0.51	5.00	7.35	1.00	3.41
F.I. 6-3	1.11	0.51	5.00	7.35	1.00	4.16
C.I. 7-1	1.02	0.51	5.00	7.35	1.00	3.83
C.I. 8-2(L)	0.55	0.51	5.00	7.35	1.00	2.06
C.I. 8-2(R)	0.22	0.51	5.00	7.35	1.00	0.83
C.I. 8-2(B)	0.25	0.51	5.00	7.35	1.00	0.94
C.I. 8-2	1.02	0.51	5.00	7.35	1.00	3.83
C.I. 8-3	0.31	0.51	5.00	7.35	1.00	1.16
C.I. 8-4	0.31	0.51	5.00	7.35	1.00	1.16
C.I. 8-5	0.53	0.51	5.00	7.35	1.00	1.99
C.I. 9-2	0.28	0.51	5.00	7.35	1.00	1.05
C.I. 9-3	0.38	0.51	5.00	7.35	1.00	1.43
F.I. 9-4	0.98	0.51	5.00	7.35	1.00	3.68
C.I. 10-2	0.09	0.51	5.00	7.35	1.00	0.34
C.I. 10-3	0.23	0.51	5.00	7.35	1.00	0.86
F.I. 10-4	0.70	0.51	5.00	7.35	1.00	2.63
C.I. 11-1	0.63	0.51	5.00	7.35	1.00	2.36
C.I. 11-2	0.26	0.51	5.00	7.35	1.00	0.98
C.I. 11-3	1.32	0.51	5.00	7.35	1.00	4.95
C.I. 12-1	0.27	0.51	5.00	7.35	1.00	1.01

10 Year Return Frequency													
Upstream Structure	Downstream Structure	Length	Upstream Invert	Downstream Invert	Slope	Diameter	Manning's n	Total Flow	Velocity	Capacity	Flow Depth	Upstream Struct. HGL	Upstream Top Elev.
		(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(ft/s)	(cfs)	(ft)	(ft)	(ft)
C.I. 1-2	E.S. 1-1	202.00	942.02	940.00	1.00	36	0.012	65.27	10.82	72.25	2.23	944.61	952.95
C.I. 1-3	C.I. 1-2	35.00	942.83	942.52	0.86	36	0.012	61.08	10.33	68.99	2.19	945.35	952.95
C.I. 1-4	C.I. 1-3	133.97	944.39	943.32	0.80	36	0.012	53.88	9.58	64.51	2.10	946.77	954.53
M.H. 1-5	C.I. 1-4	44.30	945.24	944.89	0.79	36	0.012	51.37	9.41	64.22	2.03	947.57	954.65
C.I. 1-6	M.H. 1-5	134.49	946.82	945.74	0.80	36	0.012	51.37	9.44	64.75	2.02	949.15	956.22
C.I. 1-7	C.I. 1-6	148.70	949.01	947.82	0.80	24	0.012	16.30	7.01	21.91	1.33	950.46	958.22
C.I. 1-8	C.I. 1-7	36.74	949.80	949.51	0.79	24	0.012	15.22	6.97	21.77	1.23	951.21	958.58
NULL ON LINE 1	C.I. 1-8	104.17	951.34	950.30	1.00	24	0.012	14.17	7.17	24.48	1.09	952.69	953.52
F.I. 2-1	C.I. 1-6	72.94	948.43	947.32	1.52	30	0.012	34.08	8.46	54.44	1.85	950.41	956.89
F.I. 2-2	F.I. 2-1	144.00	950.89	948.93	1.36	30	0.012	30.54	8.99	51.83	1.46	952.77	959.91
F.I. 2-3	F.I. 2-2	101.30	953.42	951.39	2.00	24	0.012	25.01	9.67	34.69	1.38	955.18	962.04
M.H. 2-4	F.I. 2-3	136.61	956.99	953.92	2.25	24	0.012	19.65	8.37	36.73	1.26	958.58	965.63
C.I. 2-5	M.H. 2-4	138.00	962.32	957.49	3.50	24	0.012	19.65	9.27	45.84	1.09	963.91	970.31
C.I. 2-6	C.I. 2-5	230.00	967.30	963.07	1.84	15	0.012	8.72	8.09	9.49	0.94	968.44	973.99
NULL ON LINE 2	C.I. 2-6	178.30	969.58	967.80	1.00	15	0.012	3.95	5.30	6.99	0.67	970.38	970.95
C.I. 3-1	C.I. 1-4	53.27	947.21	946.14	2.01	15	0.012	1.08	2.42	9.91	0.63	947.62	955.25
C.I. 4-1	F.I. 2-2	138.00	953.24	952.14	0.80	15	0.012	2.94	4.48	6.25	0.63	953.93	959.27
C.I. 4-2	C.I. 4-1	39.15	954.05	953.74	0.79	15	0.012	1.28	3.62	6.22	0.38	954.50	958.93
C.I. 5-1	F.I. 2-3	138.00	955.30	953.92	1.00	18	0.012	2.88	2.89	11.38	1.26	955.94	961.95
C.I. 5-2	C.I. 5-1	34.34	956.14	955.80	0.99	15	0.012	1.54	4.00	6.96	0.40	956.63	962.04
C.I. 6-1	C.I. 2-5	44.69	963.21	962.82	0.87	24	0.012	10.29	5.69	22.89	1.09	964.36	970.78
F.I. 6-2	C.I. 6-1	150.50	964.91	963.71	0.80	18	0.012	7.57	5.97	10.16	0.96	965.97	970.06
F.I. 6-3	F.I. 6-2	225.00	970.47	965.41	2.25	15	0.012	4.16	6.45	10.49	0.55	971.29	975.91
C.I. 7-1	C.I. 2-6	41.62	968.22	967.80	1.01	15	0.012	3.80	5.25	7.03	0.66	969.01	974.37
C.I. 8-2	E.S. 8-1	38.74	939.82	939.57	0.65	18	0.012	8.46	5.88	9.14	1.13	940.97	946.73
C.I. 8-3	C.I. 8-2	235.47	942.67	940.32	1.00	15	0.012	4.47	4.98	6.99	0.86	943.53	950.92
C.I. 8-4	C.I. 8-3	103.13	944.46	943.17	1.25	15	0.012	2.96	5.09	7.82	0.53	945.15	952.80
C.I. 8-5	C.I. 8-4	34.61	945.39	944.96	1.24	15	0.012	1.86	4.43	7.80	0.42	945.93	952.88
C.I. 9-2	E.S. 9-1	162.45	947.12	945.82	0.80	15	0.012	5.73	5.70	6.26	0.94	948.09	955.66
C.I. 9-3	C.I. 9-2	64.21	948.90	947.62	1.99	15	0.012	4.75	6.55	9.88	0.61	949.78	956.35
F.I. 9-4	C.I. 9-3	138.00	951.13	949.40	1.25	15	0.012	3.68	5.44	7.83	0.60	951.90	957.72
C.I. 10-2	E.S. 10-1	165.47	953.14	951.81	0.80	24	0.012	13.10	6.67	21.93	1.11	954.44	959.29
C.I. 10-3	C.I. 10-2	69.88	954.20	953.64	0.79	24	0.012	12.77	6.63	22.01	1.09	955.48	960.55
F.I. 10-4	C.I. 10-3	137.50	956.05	954.95	0.80	15	0.012	2.63	4.48	6.25	0.57	956.70	961.70
C.I. 11-1	C.I. 10-3	150.00	955.90	954.70	0.80	18	0.012	8.72	6.26	10.18	1.07	957.04	962.77
C.I. 11-2	C.I. 11-1	106.77	958.00	956.40	1.50	15	0.012	4.58	6.07	8.56	0.65	958.87	964.79
C.I. 11-3	C.I. 11-2	34.00	958.84	958.50	1.00	15	0.012	3.6					

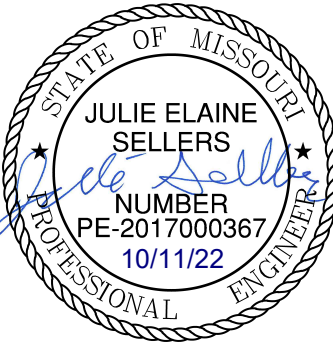


100 Year Return Frequency						
Inlet ID	Captured Flow	Bypass Flow	Inlet Efficiency (Note 2)	Gutter Depth	Gutter Spread	Ponding Depth
	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)
C.I. 1-2(L)	6.19	0.00	100.00%	0.26	12.82	...
C.I. 1-2(R)	0.39	0.00	100.00%	0.09	4.62	...
C.I. 1-2	7.63	0.00	100.00%	...	...	...
C.I. 1-3(L)	0.59	0.00	100.00%	0.11	5.38	...
C.I. 1-3(R)	6.36	0.00	100.00%	0.26	12.96	...
C.I. 1-3	14.19	0.00	100.00%	...	...	...
C.I. 1-4	2.44	0.89	73.20%	0.19	9.34	...
C.I. 1-6	3.55	1.43	71.29%	0.24	11.81	...
C.I. 1-7	1.90	0.48	79.74%	0.16	8.20	...
C.I. 1-8	1.92	0.50	79.31%	0.17	8.25	...
F.I. 2-1	5.33	0.00	100.00%	...	...	0.22
F.I. 2-2	4.54	0.00	100.00%	...	...	0.19
F.I. 2-3	4.34	0.00	100.00%	...	...	0.19
C.I. 2-5	1.08	0.11	90.84%	0.13	6.50	...
C.I. 2-6	1.58	0.26	85.66%	0.15	7.68	...
C.I. 3-1	1.89	0.42	81.80%	0.17	8.30	...
C.I. 4-1	2.57	0.96	72.69%	0.19	9.63	...
C.I. 4-2	2.03	0.53	79.27%	0.17	8.55	...
C.I. 5-1	2.14	0.60	78.02%	0.18	8.76	...
C.I. 5-2	2.44	0.85	74.25%	0.19	9.38	...
C.I. 6-1	5.35	4.17	56.23%	0.28	14.21	...
F.I. 6-2	5.99	0.00	100.00%	...	...	0.23
F.I. 6-3	7.30	0.00	100.00%	...	...	0.27
C.I. 7-1	5.55	4.78	53.73%	0.29	14.65	...
C.I. 8-2(L)	3.62	0.00	100.00%	0.19	9.45	...
C.I. 8-2(R)	2.87	0.00	100.00%	0.19	9.30	...
C.I. 8-2	8.13	0.00	100.00%	...	...	...
C.I. 8-3	3.64	1.42	71.92%	0.24	12.02	...
C.I. 8-4	1.83	0.46	79.78%	0.16	8.02	...
C.I. 8-5	3.80	2.55	59.83%	0.25	12.28	...
C.I. 9-2	1.62	0.26	86.25%	0.16	7.85	...
C.I. 9-3	4.00	2.86	58.28%	0.25	12.72	...
F.I. 9-4	6.45	0.00	100.00%	...	...	0.25
C.I. 10-2	0.56	0.03	94.87%	0.10	4.79	...
C.I. 10-3	4.19	4.36	49.04%	0.27	13.48	...
F.I. 10-4	4.61	0.00	100.00%	...	...	0.20
C.I. 11-1	5.09	7.04	41.98%	0.32	15.85	...
C.I. 11-2	1.49	0.22	87.24%	0.15	7.56	...
C.I. 11-3	5.08	7.77	39.56%	0.32	16.10	...
C.I. 12-1	1.55	0.23	87.07%	0.15	7.71	...

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. 1-2(L)	0.87	0.51	5.00	10.32	1.25	5.73
C.I. 1-2(R)	0.06	0.51	5.00	10.32	1.25	0.39
C.I. 1-2(B)	0.16	0.51	5.00	10.32	1.25	1.05
C.I. 1-2	1.09	0.51	5.00	10.32	1.25	7.17
C.I. 1-3(L)	0.09	0.51	5.00	10.32	1.25	0.59
C.I. 1-3(R)	0.55	0.51	5.00	10.32	1.25	3.62
C.I. 1-3(B)	1.10	0.51	5.00	10.32	1.25	7.24
C.I. 1-3	1.74	0.51	5.00	10.32	1.25	11.45
C.I. 1-4	0.36	0.51	5.00	10.32	1.25	2.37
C.I. 1-6	0.50	0.51	5.00	10.32	1.25	3.29
C.I. 1-7	0.27	0.51	5.00	10.32	1.25	1.78
C.I. 1-8	0.24	0.51	5.00	10.32	1.25	1.58
F.I. 2-1	0.81	0.51	5.00	10.32	1.25	5.33
F.I. 2-2	0.69	0.51	5.00	10.32	1.25	4.54
F.I. 2-3	0.66	0.51	5.00	10.32	1.25	4.34
C.I. 2-5	0.18	0.51	5.00	10.32	1.25	1.18
C.I. 2-6	0.28	0.51	5.00	10.32	1.25	1.84
C.I. 3-1	0.27	0.51	5.00	10.32	1.25	1.78
C.I. 4-1	0.52	0.51	5.00	10.32	1.25	3.42
C.I. 4-2	0.39	0.51	5.00	10.32	1.25	2.57
C.I. 5-1	0.40	0.51	5.00	10.32	1.25	2.63
C.I. 5-2	0.46	0.51	5.00	10.32	1.25	3.03
C.I. 6-1	0.72	0.51	5.00	10.32	1.25	4.74
F.I. 6-2	0.91	0.51	5.00	10.32	1.25	5.99
F.I. 6-3	1.11	0.51	5.00	10.32	1.25	7.30
C.I. 7-1	1.02	0.51	5.00	10.32	1.25	6.71
C.I. 8-2(L)	0.55	0.51	5.00	10.32	1.25	3.62
C.I. 8-2(R)	0.22	0.51	5.00	10.32	1.25	1.45
C.I. 8-2(B)	0.25	0.51	5.00	10.32	1.25	1.65
C.I. 8-2	1.02	0.51	5.00	10.32	1.25	6.71
C.I. 8-3	0.31	0.51	5.00	10.32	1.25	2.04
C.I. 8-4	0.31	0.51	5.00	10.32	1.25	2.04
C.I. 8-5	0.53	0.51	5.00	10.32	1.25	3.49
C.I. 9-2	0.28	0.51	5.00	10.32	1.25	1.84
C.I. 9-3	0.38	0.51	5.00	10.32	1.25	2.50
F.I. 9-4	0.98	0.51	5.00	10.32	1.25	6.45
C.I. 10-2	0.09	0.51	5.00	10.32	1.25	0.59
C.I. 10-3	0.23	0.51	5.00	10.32	1.25	1.51
F.I. 10-4	0.70	0.51	5.00	10.32	1.25	4.61
C.I. 11-1	0.63	0.51	5.00	10.32	1.25	4.15
C.I. 11-2	0.26	0.51	5.00	10.32	1.25	1.71
C.I. 11-3	1.32	0.51	5.00	10.32	1.25	8.69
C.I. 12-1	0.27	0.51	5.00	10.32	1.25	1.78

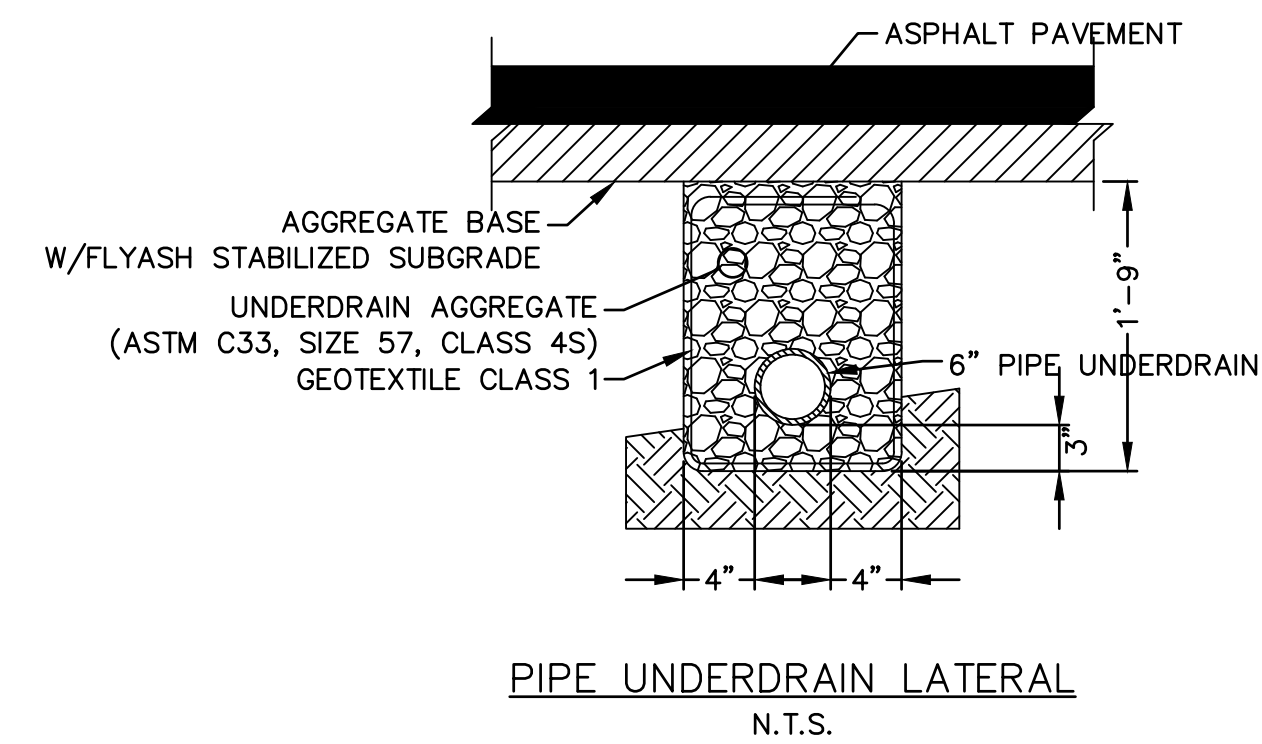
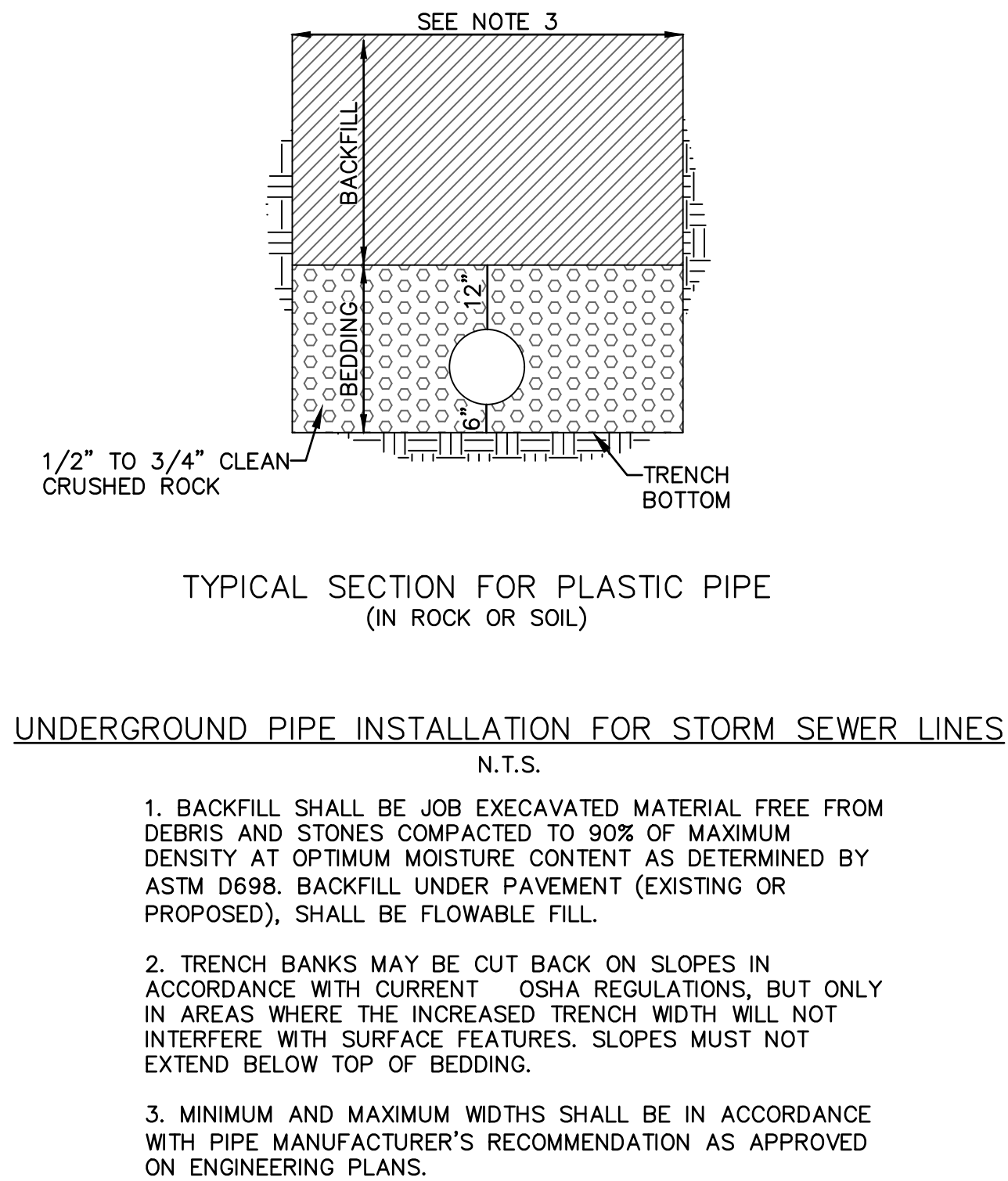
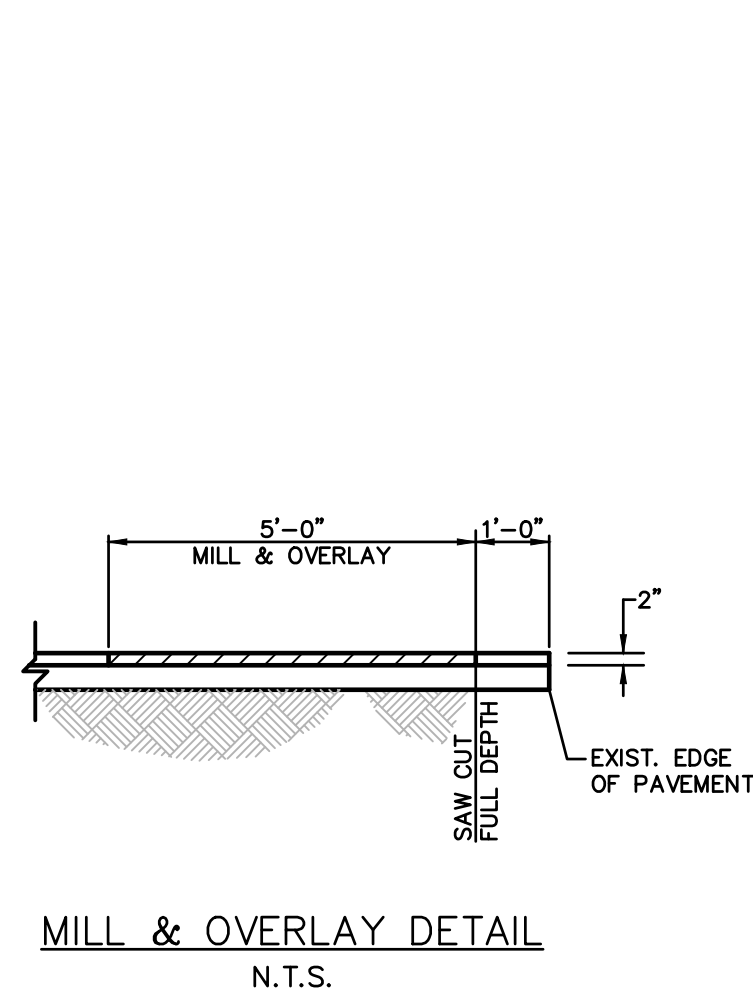
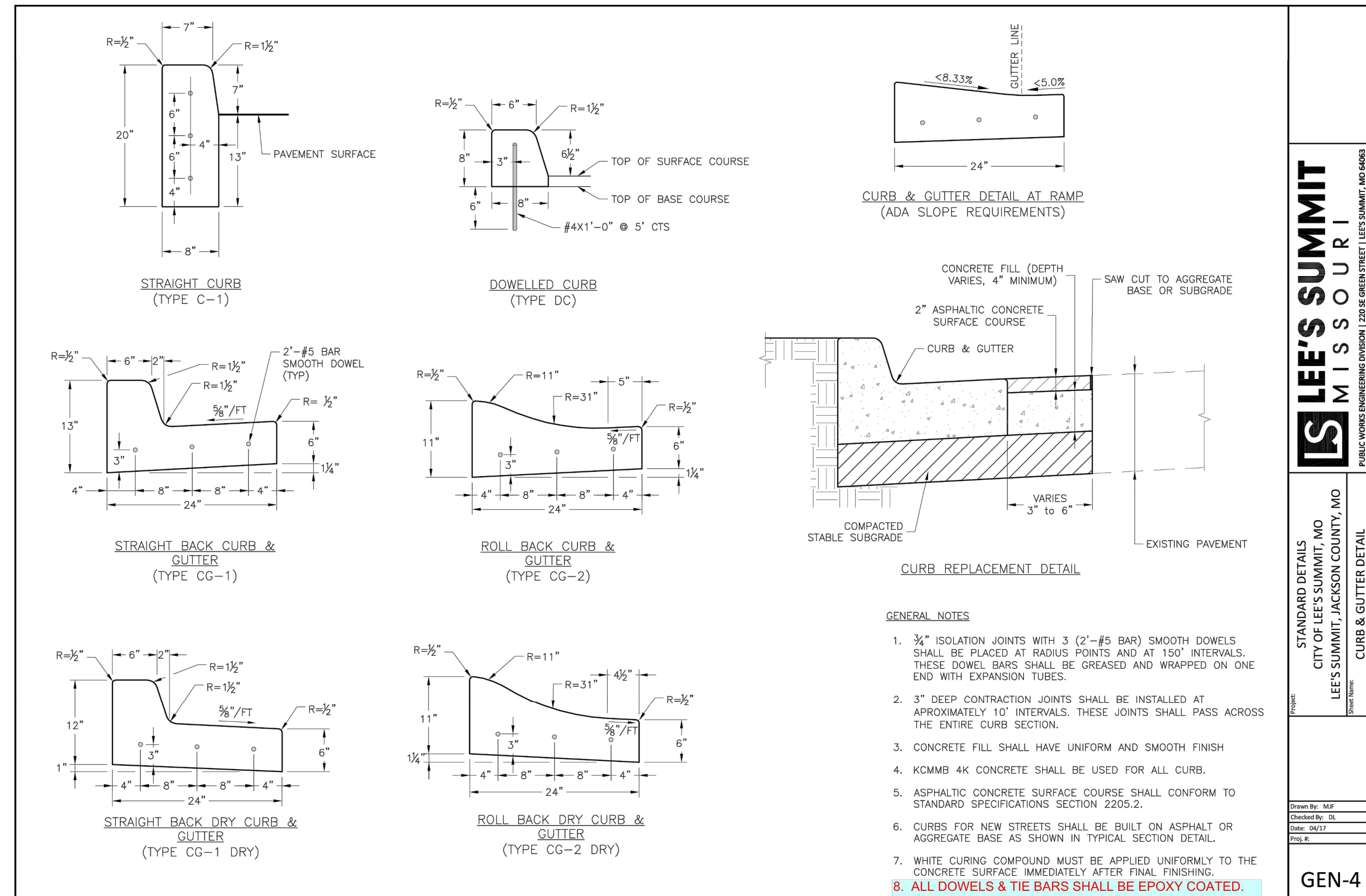
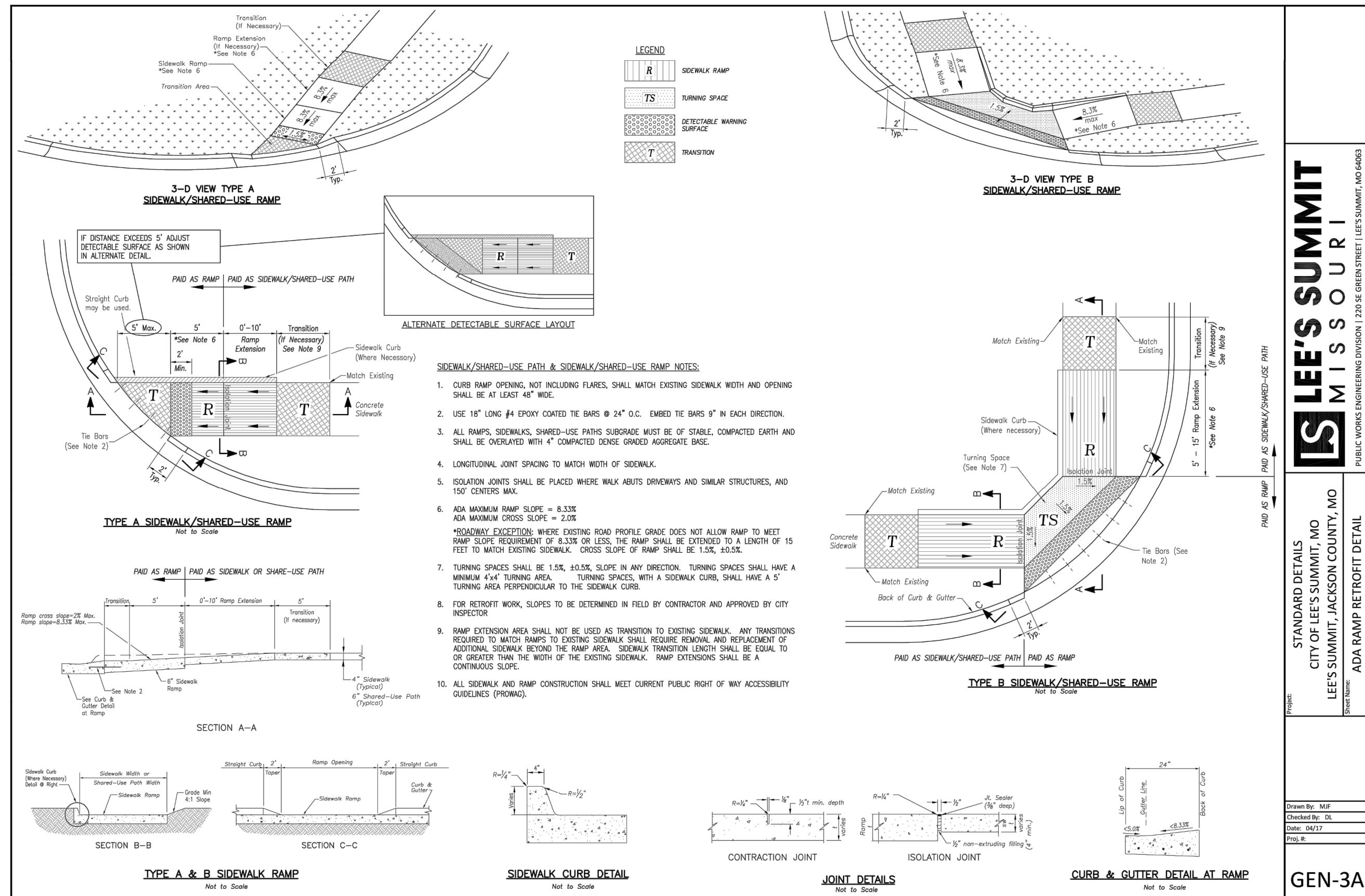
Storm Sewer Design Calculation Table													
100 Year Return Frequency													
Upstream Structure	Downstream Structure	Length (ft)	Upstream Invert (ft)	Downstream Invert (ft)	Slope (%)	Diameter (in)	Manning's n	Total Flow (cfs)	Velocity (ft/s)	Capacity (cfs)	Flow Depth (ft)	Upstream Struct. HGL (ft)	Upstream Top Elev. (ft)
C.I. 1-2	E.S. 1-1	202.00	942.02	940.00	1.00	36	0.012	100.26	14.26	72.25	2.90	946.61	952.95
C.I. 1-3	C.I. 1-2	35.00	942.83	942.52	0.86	36	0.012	92.63	13.11	68.99	3.00	948.11	952.95
C.I. 1-4	C.I. 1-3	133.97	944.39	943.32	0.80	36	0.012	78.44	11.10	64.51	3.00	950.76	954.53
M.H. 1-5	C.I. 1-4	44.30	945.24	944.89	0.79	36	0.012	74.11	10.49	64.22	3.00	951.99	954.65
C.I. 1-6	M.H. 1-5	134.49	946.82	945.74	0.80	36	0.012	74.11	10.49	64.75	3.00	954.09	956.22
C.I. 1-7	C.I. 1-6	148.70	949.01	947.82	0.80	24	0.012	17.99	5.73	21.91	2.00	955.58	958.22
C.I. 1-8	C.I. 1-7	36.74	949.80	949.51	0.79	24	0.012	16.09	5.12	21.77	2.00	955.89	958.58
NULL ON LINE 1	C.I. 1-8	104.17	951.34	950.30	1.00	24	0.012	14.17	4.51	24.48	2.00	956.36	953.52
F.I. 2-1	C.I. 1-6	72.94	948.43	947.32	1.52	30	0.012	54.19	11.04	54.44	2.50	956.33	956.89
F.I. 2-2	F.I. 2-1	144.00	950.89	948.93	1.36	30	0.012	48.00	9.78	51.83	2.50	958.21	959.91
F.I. 2-3	F.I. 2-2	101.30	953.42	951.39	2.00	24	0.012	38.86	12.37	34.69	2.00	961.35	962.04
M.H. 2-4	F.I. 2-3	136.61	956.99	953.92	2.25	24	0.012	29.94	9.53	36.73	2.00	964.35	965.63
C.I. 2-5	M.H. 2-4	138.00	962.32	957.49	3.50	24	0.012	29.94	9.53	45.84	2.00	966.83	970.31
C.I. 2-6	C.I. 2-5	230.00	967.30	963.07	1.84	15	0.012	11.08	9.03	9.49	1.25	973.17	973.99
NULL ON LINE 2	C.I. 2-6	178.30	969.58	967.80	1.00	15	0.012	3.95	3.22	6.99	1.25	974.24	970.95
C.I. 3-1	C.I. 1-4	53.27	947.21	946.14	2.01	15	0.012	1.89	1.54	9.91	1.25	951.57	955.25
C.I. 4-1	F.I. 2-2	138.00	953.24	952.14	0.80	15	0.012	4.60	3.75	6.25	1.25	959.40	959.27
C.I. 4-2	C.I. 4-1	39.15	954.05	953.74	0.79	15	0.012	2.03	1.65	6.22	1.25	959.50	958.93
C.I. 5-1	F.I. 2-3	138.00	955.30	953.92	1.00	18	0.012	4.58	2.59	11.38	1.50	962.53	961.95
C.I. 5-2	C.I. 5-1	34.34	956.14	955.80	0.99	15	0.012	2.44	1.99	6.96	1.25	962.60	962.04
C.I. 6-1	C.I. 2-5	44.69	963.21	962.82	0.87	24	0.012	17.78	5.66	22.89	2.00	967.63	970.78
F.I. 6-2	C.I. 6-1	150.50	964.91	963.71	0.80	18	0.012	13.29	7.52	10.16	1.50	971.03	970.06
F.I. 6-3	F.I. 6-2	225.00	970.47	965.41	2.25	15	0.012	7.30	5.95	10.49	1.25	972.39	975.91
C.I. 7-1	C.I. 2-6	41.62	968.22	967.80	1.01	15	0.012	5.55	4.52	7.03	1.25	973.94	974.37
C.I. 8-2	E.S. 8-1	38.74	939.82	939.57	0.65	18	0.012	17.40	9.91	9.14	1.44	941.90	946.73
C.I. 8-3	C.I. 8-2	235.47	942.67	940.32	1.00	15	0.012	9.27	7.55	6.99	1.25	946.64	950.92
C.I. 8-4	C.I. 8-3	103.13	944.46	943.17	1.25	15	0.012	5.63	4.59	7.82	1.25	947.57	952.80
C.I. 8-5	C.I. 8-4	34.61	945.39	944.96	1.24	15	0.012	3.80	3.10	7.80	1.25	947.77	952.88
C.I. 9-2	E.S. 9-1	162.45	947.12	945.82	0.80	15	0.012	11.20	9.13	6.26	1.25	952.40	955.66
C.I. 9-3	C.I. 9-2	64.21	948.90	947.62	1.99	15	0.012	9.58	7.81	9.88	1.25	954.12	956.35
F.I. 9-4	C.I. 9-3	138.00	951.13	949.40	1.25	15	0.012	6.45	5.26	7.83	1.25	956.73	957.72
C.I. 10-2	E.S. 10-1	165.47	953.14	951.81	0.80	24	0.012	21.85	7.88	21.93	1.63	954.81	959.29
C.I. 10-3	C.I. 10-2	69.88	954.20	953.64	0.79	24	0.012	21.29	7.83	22.01	1.58	955.85	960.55
F.I. 10-4	C.I. 10-3	137.50	956.05	954.95	0.80	15	0.012	4.61	4.90	6.25	0.92	956.92	961.70
C.I. 11-1	C.I. 10-3	150.00	955.90	954.70	0.80	18	0.012	13.21	7.48	10.18	1.50	958.22	962.77
C.I. 11-2	C.I. 11-1	106.77	958.00	956.40	1.50	15	0.012	6.57	5.35	8.56	1.25	959.51	964.79
C.I. 11-3	C.I. 11-2	34.00	958.84	958.50	1.00	15	0.012	5.08	4.80	7.00	1.15	959.75	964.79
C.I. 12-1	C.I. 11-1	36.23	956.76	956.40	0.99	15	0.012	1.55	1.26	6.97	1.25	958.59	962.95

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- NOTES:**
- Where Pipe Underdrains are used, all Underdrain Outlet Pipes shall be solid wall with watertight joints. All Outlets Pipes shall be tied into the nearest storm sewer inlets at roadway sag locations as indicated in the street profile.
  - All Underdrain Pipes shall be installed at a minimum slope of 1%.
  - Underdrain Pipe shall be installed with the perforations placed down.
  - Blanket Underdrain Aggregate, Pipe Underdrain Aggregate, Pipe Underdrain, Edge Underdrain and Outlet Pipe shall conform to City of Lee's Summit Specifications.
  - Overlap geotextile at top of trench a minimum of 12".

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DETAIL SHEET  
 STREET & STORM SEWER PLANS

HOOK FARMS  
 SECOND PLAT

2021

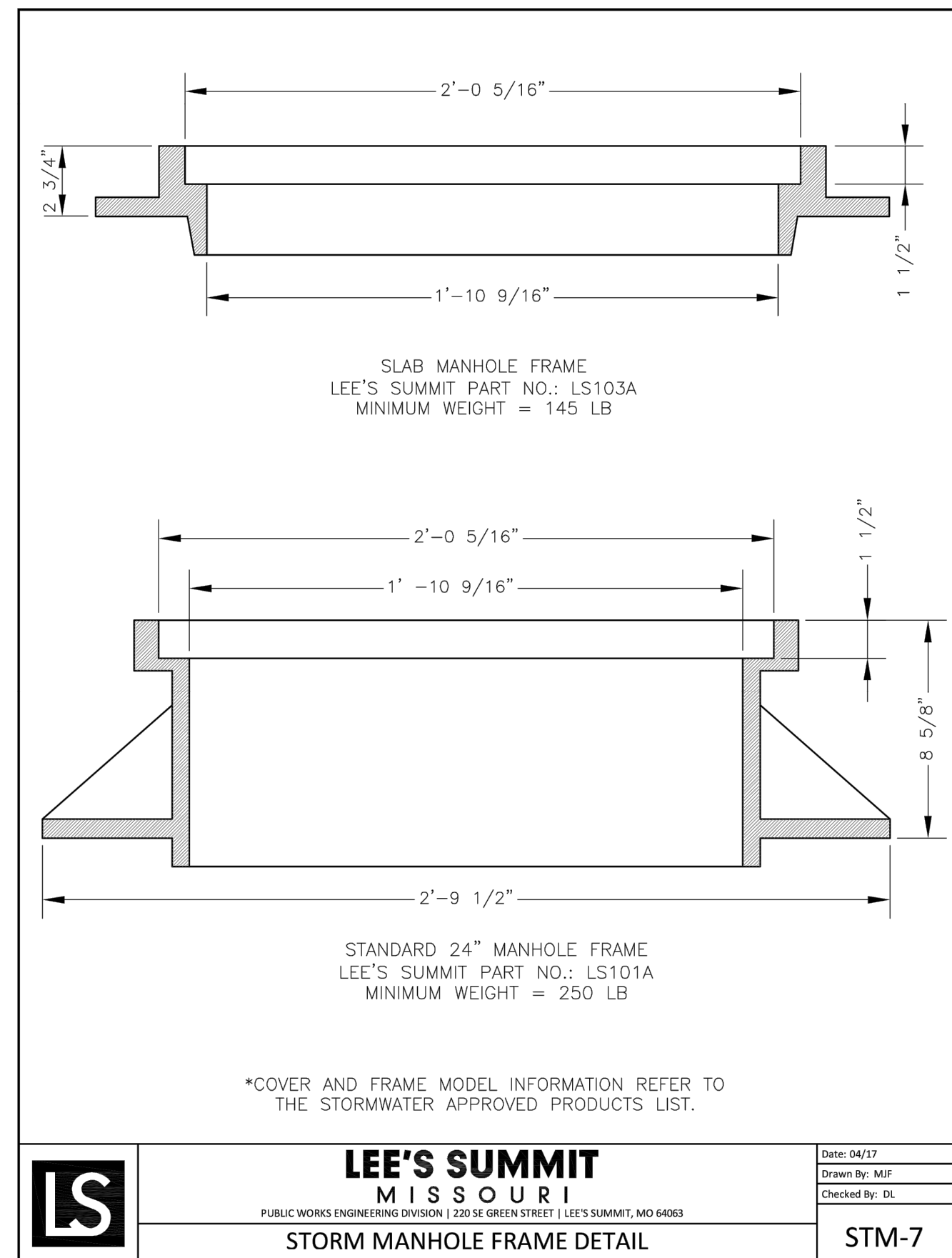
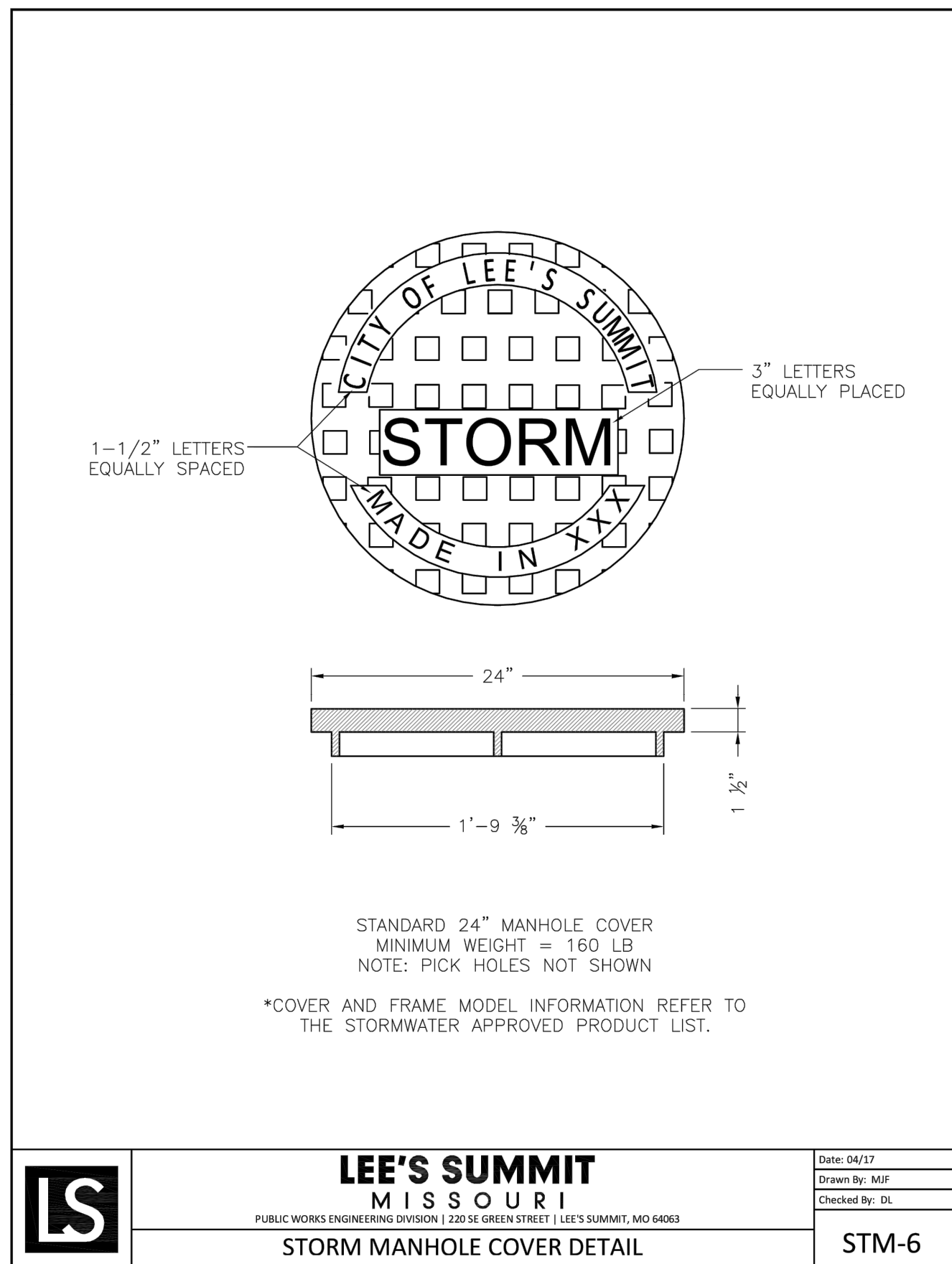
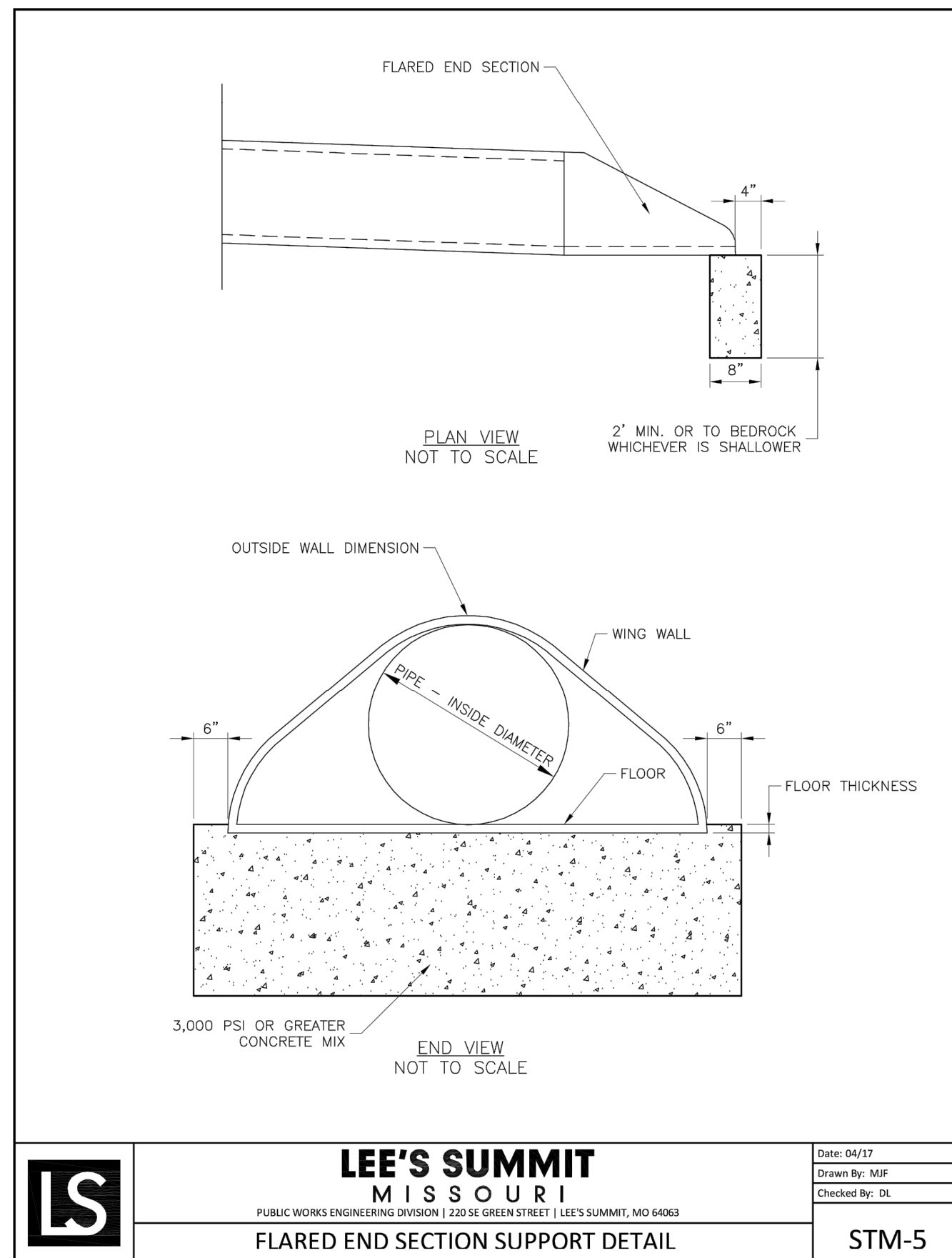
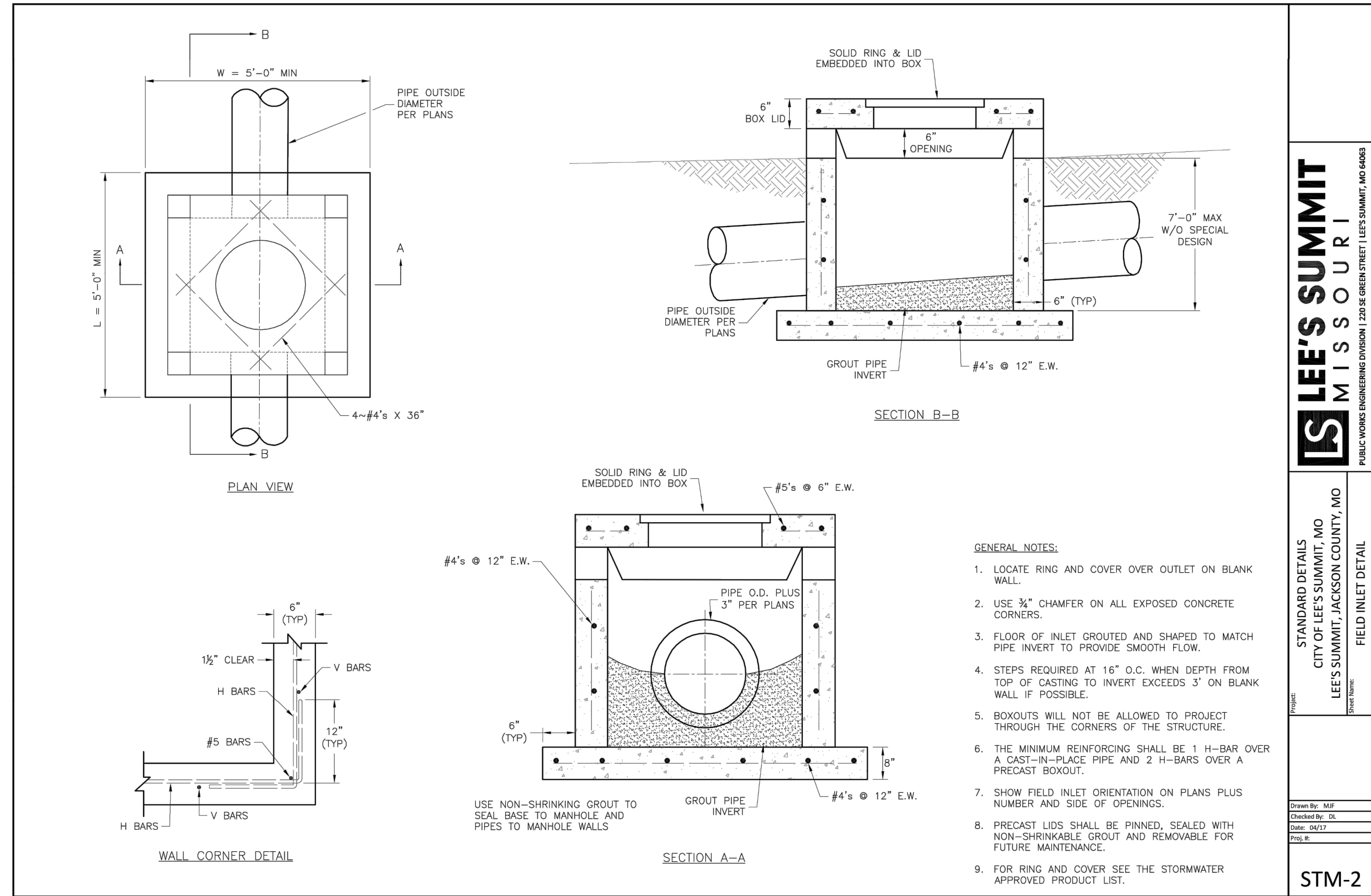
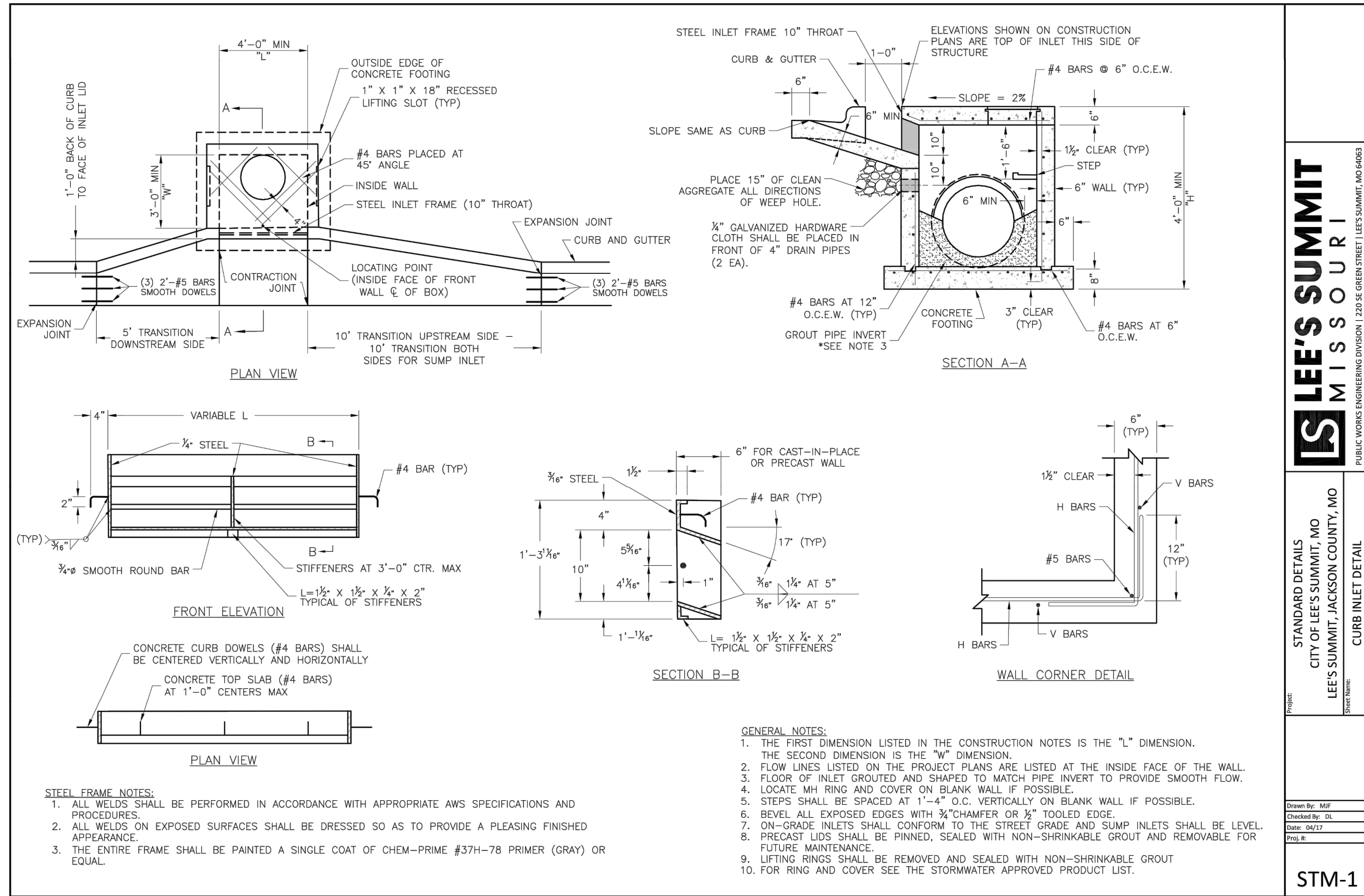
LEE'S SUMMIT, MO

REVISIONS

drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-08-2021

SHEET  
 C148





**NOT AS-BUILT**

**LEE'S SUMMIT MISSOURI**  
 PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

**olsson**  
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**DETAIL SHEET**  
**STREET & STORM SEWER PLANS**

**HOOK FARMS**  
**SECOND PLAT**

drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
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LEE'S SUMMIT, MO

**SHEET C149**



**STANDARD ABBREVIATION LISTS**

Named Streets		Numbered Streets	
Avenue	AV	First	ST
Boulevard	BLVD	Second	RD
Circle	CR	Third	ND
Creek	CR	Fourth to Tenth	TH
Court	CT		
Crossing	XING		
Drive	DR		
Highway	HWY		
Lane	LN		
Parkway	PKWY		
Place	PL		
Road	RD		
Street	ST		
Terrace	TR		
Town	TWN		
Way	WAY		

**STREET NAME SIGN BLANK DETAILS**  
 For Mounting on Square Steel Posts

**PROJECT SIGN DETAILS**

**STREET NAME SIGN FACE DETAILS**

**STREET NAME SIGN QUANTITIES**

Sign Designation	Sign Size	Sign Area (Sq. Ft.)	Number	Quantity (Sq. Ft.)
D3-1 (SP-1)	9" x 9"	Sq. Ft.	1	1
D3-1 (SP-2)	9" x 9"	Sq. Ft.	1	1
D3-1 (SP-3)	9" x 9"	Sq. Ft.	1	1
D3-1 (SP-4)	9" x 9"	Sq. Ft.	1	1
D3-1 (SP-5)	9" x 9"	Sq. Ft.	1	1
D3-1 (SP-6)	9" x 9"	Sq. Ft.	1	1

**STREET NAME SIGN MOUNTING DETAILS**

**WING BRACKET MOUNTING DETAILS**

**NOTES:**

- For all street name signs, the legend shall be white and the background shall be green.
- Arrows shall be added to street name signs where the name of a street changes at an intersection. Street name signs with arrows are to be installed on each side of the intersection to indicate the change in names. Arrows shall be white.
- The "PRIVATE STREET" tag should be added to the end of street name signs to indicate where a street that outside the right-of-way intersects a public street. The background for the "PRIVATE STREET" tag shall be yellow.

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 PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 LEE'S SUMMIT, MISSOURI 64083  
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Project: STREET NAME SIGN DETAILS  
 Sheet Name: STANDARD DRAWING SN-3

Drawn By: AS  
 Checked By: JW  
 Date: 09/24/2024  
 Project: 3 OF 3

**SIGN MOUNTING DETAILS**

**NON-CURBED INTERSECTION INSTALLATION**

**CURBED INTERSECTION INSTALLATION**

**CONTROL SIGN LOCATION**

**MEDIAN SIGN LOCATION**

**NOTE:**

- Generally, the sign mounting height should not be more than 1' greater than the minimum mounting height.

**NOTE:**

- A 4" P.V.C. sleeve shall be installed in new concrete medians at each location where a sign is to be installed.
- For existing concrete medians, a 4" hole shall be cored into the concrete.

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Project: SIGN MOUNTING DETAILS  
 Sheet Name: STANDARD DRAWING SN-1

Drawn By: AS  
 Checked By: JW  
 Date: 08/28/2020  
 Project: 1 OF 3

**PERMANENT SIGNING GENERAL NOTES:**

- All signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
- The Contractor is responsible for avoiding any and all utilities when installing sign posts, whether the utility is indicated on the plans or not.
- All workmanship and materials shall be subject to the inspection and approval of the Public Works Department of the City of Lee's Summit.
- The Contractor shall advise the location of all sign posts to be installed. The City Inspector shall review the existing plans for installation. Minor relocation to avoid conflicts may be allowed with the approval of the City Traffic Engineer or Designer.
- Signs shown to be installed on the side of road posts shall be mounted with stainless steel straps or wing brackets as detailed. No signs are to be installed on wood poles. See Traffic Signal Standard Drawings for the installation of signs on mast arms.
- All post-mounted signs shall be installed with stainless steel anchors according to the Standard Drawings.
- All existing signs will be used in place during construction and protected from damage unless otherwise indicated in the plans. If the Contractor damages any existing sign or posts during construction, the Contractor will be required to replace the damaged materials with new signs or posts of the same type and size at the Contractor's expense. The Contractor shall be responsible for removing and storing any signs that are to be replaced on the project. All equipment shall be maintained in good condition. All signs and posts removed shall be delivered to the City's Public Works Maintenance Facility (1971 SE Hamilton Road). The Contractor shall be responsible for removing and storing construction equipment in good condition and is fully responsible for the equipment until it is delivered.
- All Stop, Yield, or street name signs shall be maintained in a conspicuous location for the driving public. All Stop and Yield signs removed for construction purposes can be temporarily replaced for reflectivity (no less than 7 feet above the pavement surface) until they can be reinstalled. Any temporary Stop or Yield sign installation to be left in place overnight will require prior approval from the City Inspector.

**U-STEEL POST DETAILS**

**U-STEEL POST NOTES:**

- Splice shall be positioned entirely between finished grade line and 18" above finished grade line. Only one splice will be allowed per post.
- U-Steel post shall be 3" dia., galvanized according to ASTM A123.
- U-Steel post can be used for installation of signs with an area of less than 2.5 square feet.
- All posts shall be embedded a minimum of 3 feet.

**STRAP TYPE SIGN SUPPORT DETAILS**

**METAL POLE SIGN MOUNTING NOTES:**

- Signs on metal poles shall be attached with two brackets and stainless steel bands.
- Holes in sign for attachment to the mounting brackets shall be offset a minimum of 2 inches from the edge of the sign.
- Holes in sign shall be located such that the sign is level.
- All strap, bracket, and seal materials should be Type 304 stainless steel.

**SQUARE STEEL POST DETAILS**

**SQUARE STEEL POST NOTES:**

- Square steel sign posts and break-away anchor shall consist of the following materials:  
 Sign Post - 14 Ga. 2" x 2" Square Steel Post  
 Post Anchor - 12 Ga. 2 1/2" x 2 1/2" x 30" Square Steel Post  
 Anchor Sleeve - 12 Ga. 2 1/2" x 2 1/2" x 18" Square Steel Post
- 14 Gauge posts must meet a certified minimum yield strength of 80,000 psi.
- In all installations, the first hole above the finished grade line on the sign post, anchor, and anchor sleeve must be in line for the insertion of the corner bolt, and anchor sleeve must be in line for the insertion of the corner bolt.
- The maximum area for one sign post is 0.9 square feet. A sign or combination of signs with an area greater than 0.9 square feet will require two posts. Also, signs with a width greater than 30" (not including 30" x 30" diamond shaped signs) will require two posts.

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Project: SIGN POST DETAILS  
 Sheet Name: STANDARD DRAWING SN-2

Drawn By: AS  
 Checked By: JW  
 Date: 08/28/2024  
 Project: 2 OF 3

**NOT AS-BUILT**

**STORM MANHOLE NOTES**

- ALL MANHOLES ARE TO BE PRECAST CONCRETE AND OF ECCENTRIC CONE TYPE UNLESS OTHERWISE SPECIFIED.
- MANHOLE TOP ADJUSTMENTS SHALL BE ACCOMPLISHED BY THE USE OF CONCRETE ADJUSTMENT RINGS.
- TOP OF MANHOLE CASTING SHALL BE SET FLUSH AND ON SAME SLOPE AS FINISHED SURFACE OR AS DIRECTED BY THE ENGINEER.
- REINFORCEMENT IN ALL SECTIONS SHALL EQUAL OR EXCEED A.S.T.M. C-478 SPECIFICATIONS.
- THE ENGINEER SHALL DESIGNATE MODIFICATIONS FOR MANHOLES WITH SPECIAL DESIGNS.
- THE INSIDE DIAMETER OF THE MANHOLE SHALL BE 4'-0" FOR PIPE DIAMETERS FROM 12" THRU 24", 5'-0" FOR PIPE DIAMETERS FROM 27" THRU 36", AND 6'-0" FOR PIPE DIAMETERS 42" THRU 48".
- CLEARANCE TOLERANCE OF PIPE OPENINGS: THE MAXIMUM ALLOWABLE PIPE OPENING ON A HORIZONTAL AXIS SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 12". THE MAXIMUM ALLOWABLE PIPE OPENING ON VERTICAL AXIS SHALL BE THE OUTSIDE DIAMETER PLUS 8". THE MAXIMUM CLEARANCE BETWEEN THE OUTSIDE SURFACE OF AN INSTALLED PIPE AND THE CONCRETE OF THE MANHOLE SHALL BE 2".
- INSTALLATION OF PIPE OPENINGS: ALL REQUIRED PIPE OPENINGS SHALL BE PLANT CAST IN MANHOLE UNITS. FIELD ALTERATIONS OF OPENINGS WILL BE PERMITTED PROVIDED WALLS ARE SCORED WITH A MASONRY SAW TO A DEPTH SUFFICIENT TO SEVER REINFORCING STEEL. A CHIPPING HAMMER MAY THEN BE USED TO REMOVE THE CONCRETE. MINIMUM DISTANCE BETWEEN ANY TWO ADJACENT PIPES SHALL BE 2".
- NO DIRECT PAYMENT FOR SHAPING FLOOR OR CONNECTING PIPES AS SHOWN ON PLANS.
- RING AND COVER TO BE NEENAH R-1736, CLAY & BAILEY #2008, DEETER # 1316, OR APPROVED EQUAL. (CASTING MAY VARY BY MUNICIPALITY, REFER TO PLANS & CONTRACT DOCUMENTS.)

**STANDARD PRECAST STORM SEWER MANHOLE**  
 NOT TO SCALE

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**JULIE ELAINE SELLERS**  
 Missouri Professional Engineer  
 NUMBER PE-2017000367  
 10/11/22

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