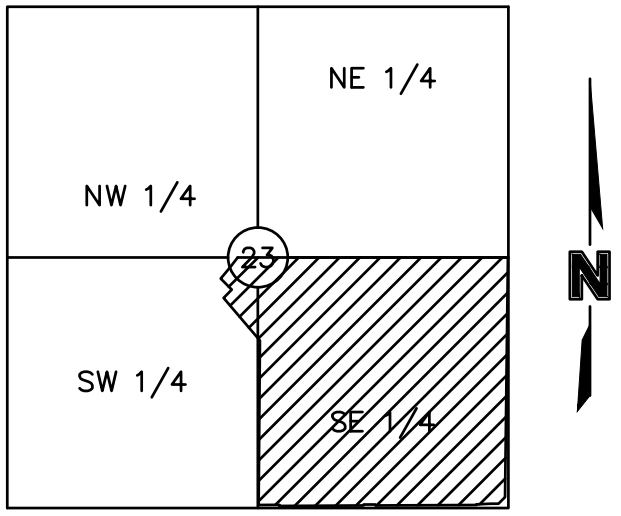


DWG: F:\2019\4001-4500\019-4059\40-DESIGN\AUTOCAD\FINAL PLANS\SHEETS\GNVC\C_TT100_0194059.dwg USER: emorton
DATE: Apr 20, 2020 3:27pm XREFS: C_PBASE_0194059_34x22 C_PBLK_0194059 C_PBDY_0194059



LOCATION MAP
Sec. 23, Twp. 47 N., Rge. 23 W.
(N.T.S.)

THE RETREAT AT HOOK FARMS STREET AND STORM SEWER PLANS

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

PROJECT TEAM & UTILITY CONTACT LIST	
OWNER / DEVELOPER HUNT MIDWEST REAL ESTATE DEVELOPMENT, INC. 8300 NE UNDERGROUND DRIVE KANSAS CITY, MO 64161 CONTACT: AARON SCHMIDT PHONE: 816.459.4285 FAX: 000.000.0000	UTILITY SERVICE NUMBERS NAME: DEVELOPMENT SERVICES PHONE: 816-969-1200 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
ENGINEER OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: NAME, P.E. PHONE: 816.299.4341	
SURVEYOR OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: JASON ROUDEBUSH, PLS PHONE: 816.361.1177	



Page Number	Sheet Number	Sheet Title
1	C100	COVER SHEET
2	C101	GENERAL NOTES
3	C102	GENERAL LAYOUT
4	C103	GRADING PLAN
5	C104	SW RED BARN ROAD PLAN & PROFILE
6	C105	SW HEARTHSTONE PLACE, SW HARVEST MOON LANE PLAN & PROFILE
7	C106	SW HARVEST MOON LANE PLAN & PROFILE
8	C107	TRAFFIC CONTROL PLAN
9	C108	INTERSECTION DETAILS
10	C109	INTERSECTION DETAILS
11	C110	INTERSECTION DETAILS
12	C111	TRAIL GRADING PLAN
13	C112	STORM PLAN & PROFILES
14	C113	STORM PLAN & PROFILES
15	C114	STORM PLAN & PROFILES
16	C115	STORM PLAN & PROFILES
17	C116	DETENTION BASIN PLAN
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20	C119	MASTER DRAINAGE PLAN
21	C120	SIGNAGE DETAILS
22	C121	SIGNAGE DETAILS
23	C122	STORM DETAILS
24	C123	STORM DETAILS
25	C124	STREET DETAILS
26	C125	STREET DETAILS

LEGEND

<ul style="list-style-type: none"> △ CTL SURVEY CONTROL POINT ▲ SURVEY BENCHMARK ▲ TBM SURVEY TEMPORARY BENCHMARK □ G M GAS METER □ GAR GAS RISER ○ G M GAS MANHOLE □ GR GAS REGULATOR □ TP TELEVISION PEDESTAL □ F FIBER BOX □ FP FIBER PEDESTAL □ C B CABLE BOX □ CV CABLE VAULT □ TP TELEPHONE PEDESTAL ○ S M STORM MANHOLE □ SG STORM GRATE ○ S M SANITARY MANHOLE □ TS TRAFFIC SIGNAL BOX ○ TS TRAFFIC SIGNAL MANHOLE □ TS TRAFFIC SIGNAL POLE W/ ARM □ TS TRAFFIC SIGNAL POLE □ TS TRAFFIC SIGNAL CONTROL BOX □ TP TRAFFIC SIGNAL PEDESTAL ○ E M ELECTRIC MANHOLE □ E R ELECTRIC RISER □ E B ELECTRIC BOX □ EC ELECTRIC CABINET □ E J ELECTRIC JUNCTION BOX ○ Y L YARD LIGHT □ L P LIGHT POLE □ B U BUSH □ P P P POWER POLE □ P P P POWER POLE W/ LIGHT — GUY WIRE 	<ul style="list-style-type: none"> ○ SPH SPRINKLER HEAD □ SCV SPRINKLER CONTROL VALVE ○ W M WATER METER PIT ○ F H FIRE HYDRANT □ W M WATER METER □ W V WATER VALVE ○ F P FLAG POLE ○ S SIGN ○ B BOLLARD □ W P WOOD POST ○ S P STEEL POST ○ C O C COLUMN ○ B H BORE HOLE □ S T STUMP ○ B U BUSH ○ E T EVERGREEN TREE ○ D T DECIDUOUS TREE
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<ul style="list-style-type: none"> —— SECTION LINE —— PROPERTY LINE —— CENTER LINE —— PROPOSED ROW LINE —— EXISTING ROW LINE —— UTILITY EASEMENT —— 1371 EXISTING CONTOUR —— 1371 EXISTING CONTOUR —— 1371 PROPOSED MINOR CONTOUR —— 1371 PROPOSED MAJOR CONTOUR —— EXISTING TREELINE 	<ul style="list-style-type: none"> —— TEL EXISTING TELEPHONE LINE —— SS EXISTING SANITARY LINE —— EXISTING STORM LINE —— G EXISTING GAS LINE —— W EXISTING WATER LINE —— X—X—X—X EXISTING CHAIN LINK FENCE —— OHE EXISTING OVERHEAD ELECTRIC —— P EXISTING PIPE LINE —— GRADING LIMITS —— TEMP CONSTRUCTION EASEMENT —— PROPOSED CHAIN LINK FENCE —— PROPOSED WOOD PRIVACY FENCE
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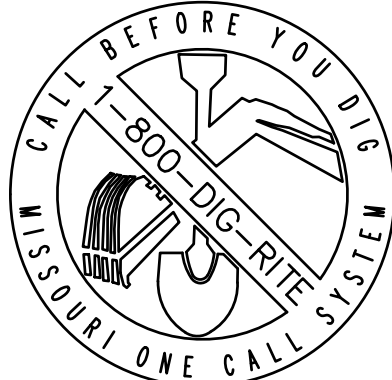
<ul style="list-style-type: none"> M.G. MATCH GRADE P PAVEMENT TC TOP OF CURB EP EDGE OF PAVEMENT R/W RIGHT-OF-WAY TCE TEMP CONSTRUCTION EASEMENT PROP. PROPOSED EXIST. TYP. EXISTING TYPICAL (R) REMOVAL CONSTR. CONSTRUCTION TBM TEMPORARY BENCHMARK C.P. CONTROL POINT BC BACK OF CURB ASPHALT 2-INCH MILL & OVERLAY CONCRETE
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<input checked="" type="checkbox"/>	NOT FOR CONSTRUCTION
<input type="checkbox"/>	REVIEWED FOR CONSTRUCTION

PROPERTY DESCRIPTION:
(AS PROVIDED BY CHICAGO TITLE INSURANCE COMPANY, NOVEMBER 1, 2018)

ALL THAT PART OF THE SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 47, RANGE 32, IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, BEING BOUNDED AND DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWEST CORNER OF SAID SOUTHEAST QUARTER; THENCE SOUTH 89 DEGREES 45 MINUTES 34 SECONDS EAST, ALONG THE NORTH LINE OF SAID SOUTHEAST QUARTER, 2613.19 FEET TO ITS INTERSECTION WITH THE WEST RIGHT-OF-WAY LINE OF PRYOR ROAD AS NOW ESTABLISHED; THENCE SOUTH 02 DEGREES 45 MINUTES 31 SECONDS WEST, ALONG SAID WEST RIGHT-OF-WAY LINE, 2520.50 FEET; THENCE SOUTH 47 DEGREES 23 MINUTES 30 SECONDS WEST, ALONG SAID WEST RIGHT-OF-WAY LINE, 135.21 FEET TO ITS INTERSECTION WITH THE NORTH RIGHT-OF-WAY LINE OF HOOK ROAD, AS NOW ESTABLISHED; THENCE NORTH 87 DEGREES 58 MINUTES 31 SECONDS WEST, ALONG SAID NORTH RIGHT-OF-WAY LINE, 2264.70 FEET; THENCE NORTH 02 DEGREES 43 MINUTES 25 SECONDS EAST, ALONG SAID NORTH RIGHT-OF-WAY LINE, 10.00 FEET; THENCE NORTH 87 DEGREES 58 MINUTES 31 SECONDS WEST, ALONG SAID NORTH RIGHT-OF-WAY LINE, 252.00 FEET TO A POINT ON THE WEST LINE OF SAID SOUTHEAST QUARTER; THENCE NORTH 02 DEGREES 43 MINUTES 25 SECONDS EAST ALONG SAID WEST LINE, 2615.22 FEET TO THE POINT OF BEGINNING.

ALSO,
ALL THAT PART OF THE FOLLOWING DESCRIBED PROPERTY IN THE NORTHEAST ¼ OF THE SOUTHWEST ¼ OF SECTION 23, TOWNSHIP 47, RANGE 32, LYING NORTH OF EAGLE CREEK GREENWAY, A SUBDIVISION, ALL IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, TO-WIT:
THE SOUTH ONE HALF OF THE NORTHEAST QUARTER AND THE SOUTH ONE-HALF OF THE NORTHWEST QUARTER AND ALL THAT PART OF THE SOUTHWEST QUARTER OF SECTION 23, TOWNSHIP 47, RANGE 32, IN LEE'S SUMMIT, JACKSON COUNTY MISSOURI, BEING DESCRIBED AS FOLLOWS:
BEGINNING AT THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER, THENCE NORTH 2 DEGREES 36 MINUTES 10 SECONDS EAST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER 1330.50 FEET TO THE NORTHWEST CORNER OF THE SOUTH ONE-HALF OF SAID NORTHWEST QUARTER, THENCE SOUTH 87 DEGREES 40 MINUTES 35 SECONDS EAST, ALONG THE NORTH LINE OF SAID SOUTH ONE-HALF 2657.85 FEET TO THE NORTHEAST CORNER OF SAID SOUTH ONE-HALF, THENCE SOUTH 87 DEGREES 41 MINUTES 31 SECONDS EAST ALONG THE NORTH LINE OF THE SOUTH ONE-HALF OF SAID NORTHEAST QUARTER 2654.44 FEET TO THE NORTHEAST CORNER OF SAID SOUTH ONE-HALF; THENCE SOUTH 2 DEGREES 46 MINUTES 08 SECONDS WEST, ALONG THE EAST LINE OF SAID NORTHEAST QUARTER 1323.83 FEET TO THE SOUTHWEST CORNER OF SAID NORTHEAST QUARTER; THENCE NORTH 87 DEGREES 45 MINUTES 23 SECONDS WEST, ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER, 2653.42 FEET TO THE SOUTHWEST CORNER OF SAID NORTHEAST QUARTER; THENCE SOUTH 2 DEGREES 43 MINUTES 24 SECONDS WEST, (DEED-SOUTH 2 DEGREES 41 MINUTES 49 SECONDS WEST), ALONG THE EAST LINE OF SAID SOUTHWEST QUARTER, 1138.42 FEET TO THE CENTERLINE OF MOUSE CREEK, AS NOW ESTABLISHED; THENCE NORTH 51 MINUTES 15 SECONDS WEST (DEED-NORTH 25 DEGREES 52 MINUTES 53 WEST), ALONG SAID CENTERLINE, 73.83 FEET; THENCE NORTH 67 DEGREES 53 MINUTES 09 SECONDS WEST (DEED-NORTH 67 DEGREES 54 MINUTES 44 SECONDS WEST), ALONG SAID CENTERLINE, 379.20 FEET; THENCE SOUTH 39 DEGREES 00 MINUTES 27 SECONDS WEST (DEED-SOUTH 38 DEGREES 58 MINUTES 52 SECONDS WEST), ALONG SAID CENTERLINE, 187.72 FEET; THENCE NORTH 48 DEGREES 37 MINUTES 07 SECONDS WEST (DEED-NORTH 48 DEGREES 38 MINUTES 42 SECONDS WEST), ALONG SAID CENTERLINE, 131.31 FEET; THENCE NORTH 73 DEGREES 28 MINUTES 23 SECONDS WEST (DEED-NORTH 73 DEGREES 29 MINUTES 58 SECONDS WEST), ALONG SAID CENTERLINE, 279.90 FEET THENCE NORTH 26 DEGREES 34 MINUTES 47 SECONDS WEST (DEED-NORTH 26 DEGREES 36 MINUTES 22 SECONDS WEST), ALONG SAID CENTERLINE, 312.25 FEET; THENCE NORTH 62 DEGREES 29 MINUTES 46 SECONDS WEST (DEED-NORTH 62 DEGREES 31 MINUTES 21 SECONDS WEST), ALONG SAID CENTERLINE, 134.47 FEET; THENCE SOUTH 52 DEGREES 10 MINUTES 15 SECONDS WEST (DEED-SOUTH 52 DEGREES 08 MINUTES 40 SECONDS WEST), ALONG SAID CENTERLINE, 85.16 FEET; THENCE SOUTH 19 DEGREES 37 MINUTES 09 SECONDS WEST (DEED-SOUTH 19 DEGREES 35 MINUTES 34 SECONDS WEST), ALONG SAID CENTERLINE, 142.83 FEET; THENCE SOUTH 79 DEGREES 21 MINUTES 39 SECONDS WEST (DEED-SOUTH 79 DEGREES 20 MINUTES 04 SECONDS WEST), ALONG SAID CENTERLINE, 68.92 FEET; THENCE NORTH 73 DEGREES 27 MINUTES 48 SECONDS WEST (DEED-NORTH 73 DEGREES 29 MINUTES 23 SECONDS WEST), ALONG SAID CENTERLINE, 114.02 FEET; THENCE NORTH 25 DEGREES 46 MINUTES 28 SECONDS WEST (DEED-NORTH 25 DEGREES 48 MINUTES 03 SECONDS WEST), ALONG SAID CENTERLINE, 73.12 FEET; THENCE NORTH 87 DEGREES 30 MINUTES 19 SECONDS WEST (DEED-NORTH 87 DEGREES 31 MINUTES 54 SECONDS WEST), ALONG SAID CENTERLINE, 473.33 FEET; THENCE NORTH 49 DEGREES 45 MINUTES 48 SECONDS WEST (DEED-NORTH 49 DEGREES 47 MINUTES 23 SECONDS WEST), ALONG SAID CENTERLINE, 343.23 FEET; THENCE NORTH 56 DEGREES 22 MINUTES 25 SECONDS WEST (DEED-NORTH 56 DEGREES 24 MINUTES 00 SECONDS WEST), ALONG SAID CENTERLINE, 277.94 FEET; THENCE NORTH 65 DEGREES 42 MINUTES 49 SECONDS WEST (DEED-NORTH 65 DEGREES 44 MINUTES 24 SECONDS WEST), ALONG SAID CENTERLINE, 182.37 FEET; THENCE NORTH 22 DEGREES 55 MINUTES 55 SECONDS WEST (DEED-NORTH 22 DEGREES 57 MINUTES 30 SECONDS WEST), ALONG SAID CENTERLINE, 65.99 FEET TO ITS INTERSECTION WITH THE WEST LINE OF SAID SOUTHWEST QUARTER; THENCE NORTH 2 DEGREES 36 MINUTES 17 SECONDS EAST (DEED-NORTH 2 DEGREES 34 MINUTES 42 SECONDS EAST), ALONG SAID WEST LINE, 239.42 FEET TO THE POINT OF BEGINNING.
(SHOWN FOR CONVENIENCE IN REPORTING.)



REVIEWED BY: _____
CITY OF LEE'S SUMMIT

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

MEGAN J. WALTER, P.E.
CIVIL ENGINEER
MO# 2012029697



REV. NO.	DATE	REVISIONS DESCRIPTION

2020

COVER SHEET
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS
LEE'S SUMMIT, MO

drawn by:	EM
checked by:	EM
designed by:	RB
QA/QC by:	NH
project no.:	019-4059
drawing no.:	C_TT100_0194059
date:	4/20/2020

olsson
1301 Burlington Street
North Kansas City, MO 64116
TEL 816.361.1177
FAX 816.361.1888
www.olsson.com

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. ARCHITECTURAL AND STRUCTURAL ELEMENTS SHOWN IN THESE PLANS ARE FOR REFERENCE ONLY. CONTRACTORS AND SURVEYORS SHALL REFERENCE THEIR RESPECTIVE PLANS FOR DESIGN INFORMATION.
2. THE CONTRACTOR SHALL ADHERE TO THE SITE PREPARATION AND STRUCTURAL FILL RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AS PROVIDED BY THE GEOTECHNICAL ENGINEER INCLUDING ALL CURRENT ADDENDUMS. THE STANDARDS AND SPECIFICATIONS OF LEE'S SUMMIT, MISSOURI SHALL ALSO APPLY AND TAKE PRECEDENCE WHEN STRICTER THAN THE GEOTECHNICAL REPORT OR WHEN NO GEOTECHNICAL REPORT IS GIVEN.
3. 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 MISSOURI DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY SHALL CONFORM TO THE LATEST SPECIFICATIONS ADOPTED BY U.S. DEPARTMENT OF TRANSPORTATION AND MISSOURI DEPARTMENT OF TRANSPORTATION.
 - 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

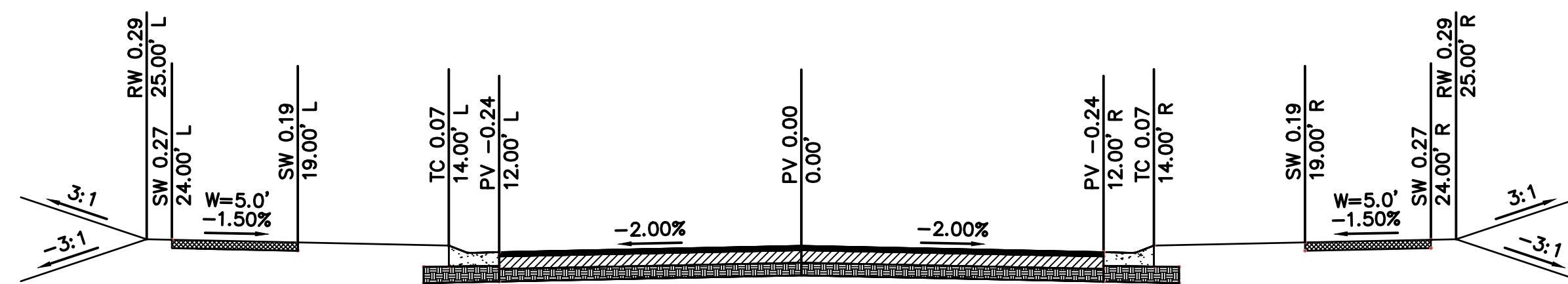
1. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS OF THE PROJECT AREA.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING THEIR OWN INVESTIGATIONS AND MAKING THEIR OWN ASSUMPTIONS REGARDING SITE SURFACE AND SUBSURFACE CONDITIONS. THIS INCLUDES THE LOCATION AND 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. IN ADDITION TO THE CONDITIONS OF THE GEOTECHNICAL REPORT AND AS A MINIMUM THE CONTRACTOR SHALL PERFORM THE GRADING AS FOLLOWS:
 - A. THE CONSTRUCTION AREA SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL AND ORGANIC MATTER FROM ALL AREAS TO BE OCCUPIED BY BUILDING AND PAVING. STRIPPING EXISTING TOPSOIL AND ORGANIC MATTER SHALL BE TO A MINIMUM DEPTH OF 6 INCHES. TOPSOIL FOR REPLACEMENT ON SLOPES MAY BE STOCKPILED ON SITE IN AREAS DESIGNATED BY THE OWNER. CONTRACTOR SHALL REMOVE EXCESS STRIPPINGS AND EXCESS EXCAVATION WITHIN 30 DAYS OF COMPLETION OF GRADING OPERATIONS.
 - B. AREAS TO RECEIVE FILL AND AREAS CUT TO SUBGRADE LEVEL SHALL BE SCARIFIED AND THE TOP 8-INCH DEPTH COMPACTED TO 95% STANDARD PROCTOR DENSITY. THE SUBGRADE SHALL BE PROOF ROLLED WITH A MODERATELY HEAVY LOADED DUMP TRUCK OR SIMILAR APPROVED CONSTRUCTION EQUIPMENT TO DETECT UNSUITABLE SOIL CONDITIONS. ANY UNSUITABLE AREAS SHALL BE UNDERCUT AND REPLACED WITH SUITABLE MATERIAL BEFORE ANY FILL MATERIAL CAN BE APPLIED.
 - C. FILL SHALL BE PLACED IN MAXIMUM OF 8 INCH LIFTS.
 - D. TOPSOIL SHALL BE PLACED TO A MINIMUM DEPTH OF 6 INCHES OVER ALL AREAS DISTURBED BY THE WORK. LARGE STONES, STICKS AND LUMPS SHALL BE REMOVED OR BROKEN UP, AND THE TOPSOIL SHALL BE LEVELED AND RAKED. ALL DISTURBED AREAS SHALL BE LANDSCAPED PER LANDSCAPE PLANS OR SHALL BE SEEDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED.
 - E. CONTRACTOR SHALL PROVIDE COMPACTION TEST RESULTS AS REQUIRED.
4. THE CONTRACTOR SHALL DISPOSE ALL WASTE MATERIAL RESULTING FROM THE PROJECT OFF-SITE AND IN STRICT CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES.
5. 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.
6. THE CONTRACTOR SHALL STREET SWEEP OR OTHERWISE CLEAN ALL ACCESS ROUTES TO THE SITE AT CONCLUSION OF THE PROJECT.

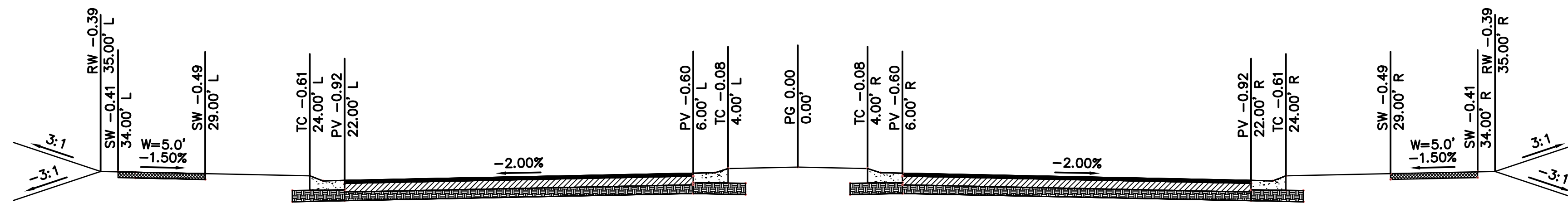
SHOP DRAWINGS

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 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. ALL SANITARY SEWER STRUCTURES TO BE INSTALLED WITH THIS PROJECT.
 - C. ALL SITE FENCING AND RAILING INCLUDING ANY GATES.
 - D. ALL LANDSCAPE AND RETAINING WALLS.
 - E. ANY ITEMS IN THESE PLANS THAT ALLOW FOR AN 'APPROVED EQUAL' ALTERNATIVE.



SW HEARTHSTONE PLACE, SW RED BARN ROAD, SW HARVEST MOON LANE, SW HARVEST MOON PLACE
RESIDENTIAL LOCAL
N.T.S.

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



SW HEARTHSTONE PLACE ENTRY
RESIDENTIAL LOCAL
N.T.S.

- 2" TYPE 6 ASPHALTIC CONCRETE SURFACE
- 4" TYPE 5 ASPHALTIC CONCRETE BASE COURSE
- 6" MIN. MODOT TYPE 5 STONE BASE
- 6" FLYASH STABILIZED SUBGRADE
- CG-2 CURB & GUTTER
- CG-2 DRY CURB & GUTTER AT MEDIAN

USER: emorton

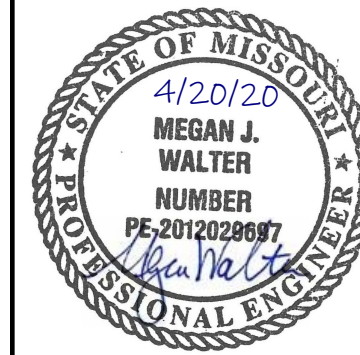
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DATE: Apr 20, 2020 3:27pm
XREFS: C_PTBK_0194059_34x22 C_PBASE_0194059

Scale: N.T.S.
RESIDENTIAL LOCAL STREET

Scale: N.T.S.
RESIDENTIAL LOCAL STREET

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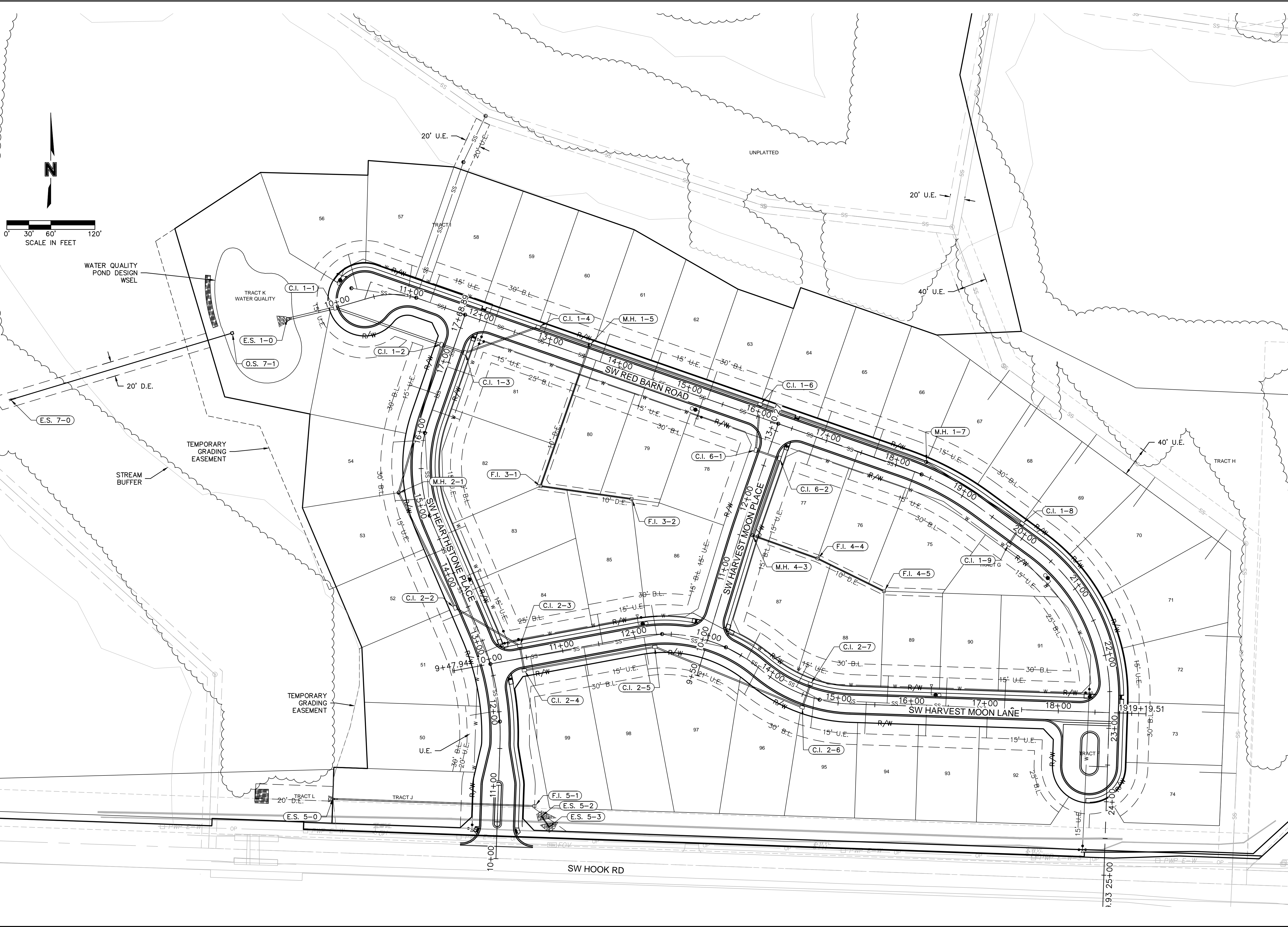
REV. NO.	DATE	REVISIONS DESCRIPTION

GENERAL NOTES
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS
LEE'S SUMMIT, MO
2020

drawn by: EM
checked by: EM
designed by: RB
QA/QC by: NH
project no.: 019-4059
drawing no.: GEN&TABL_0194059
date: 4/20/2020

ALL NOTES REFERENCED ON THIS PLAN SHEET MAY HAVE APPLICATIONS TO EVERY FACET OF THE CONSTRUCTION PLANS. THE NOTE HEADINGS OR TITLES ARE TO BE USED AS A GENERAL GUIDE TO APPLICABLE SITUATIONS.

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STATE OF MISSOURI
4/20/20
MEGAN J. WALTER
PROFESSIONAL ENGINEER
NUMBER PE-2012028697
Megan J. Walter

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

GENERAL LAYOUT
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

2020

REVISIONS

drawn by: EM	checked by: EM
designed by: RB	QA/QC by: NH
project no.: 019-4059	date: 4/20/2020
drawing no.: C_GEN02_0194059	

SHEET C102

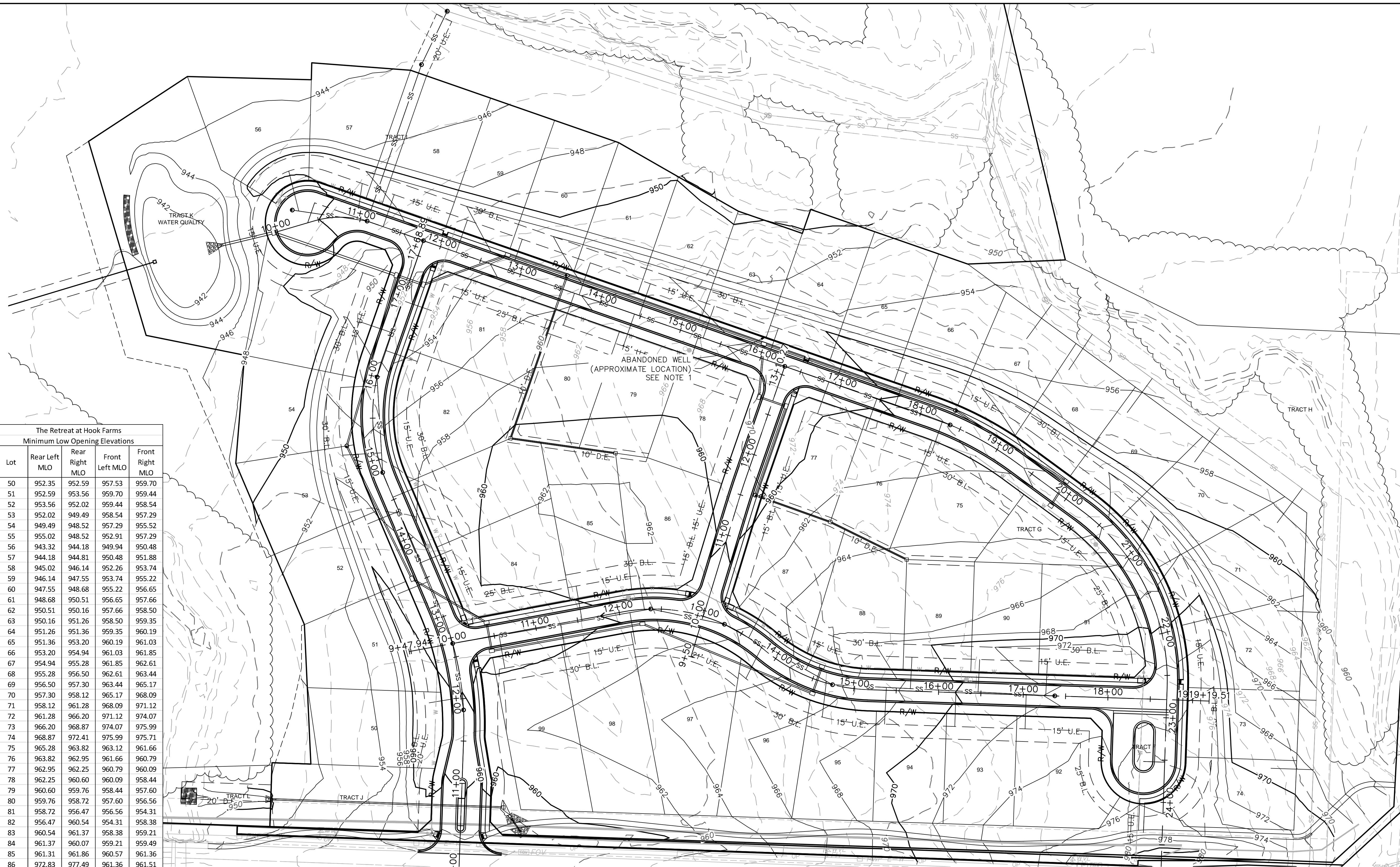
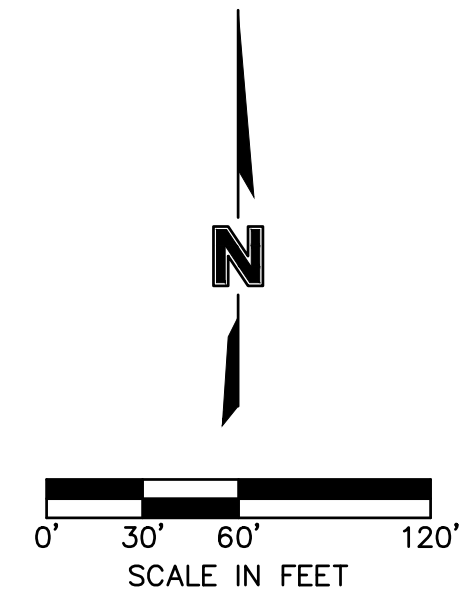
3 OF 53

LEE'S SUMMIT, MO

LOT #	FILL > 8'
50	
51	
52	
53	9
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The Retreat at Hook Farms				
Minimum Low Opening Elevations				
Lot	Rear Left MLO	Rear Right MLO	Front Left MLO	Front Right MLO
50	952.35	952.59	957.53	959.70
51	952.59	953.56	959.70	959.44
52	953.56	952.02	959.44	958.54
53	952.02	949.49	958.54	957.29
54	949.49	948.52	957.29	955.52
55	955.02	948.52	952.91	957.29
56	943.32	944.18	949.94	950.48
57	944.18	944.81	950.48	951.88
58	945.02	946.14	952.26	953.74
59	946.14	947.55	953.74	955.22
60	947.55	948.68	955.22	956.65
61	948.68	950.51	956.65	957.66
62	950.51	950.16	957.66	958.50
63	950.16	951.26	958.50	959.35
64	951.26	951.36	959.35	960.19
65	951.36	953.20	960.19	961.03
66	953.20	954.94	961.03	961.85
67	954.94	955.28	961.85	962.61
68	955.28	956.50	962.61	963.44
69	956.50	957.30	963.44	965.17
70	957.30	958.12	965.17	968.09
71	958.12	961.28	968.09	971.12
72	961.28	966.20	971.12	974.07
73	966.20	968.87	974.07	975.99
74	968.87	972.41	975.99	975.71
75	965.28	963.82	963.12	961.66
76	963.82	962.95	961.66	960.79
77	962.95	962.25	960.79	960.09
78	962.25	960.60	960.09	958.44
79	960.60	959.76	958.44	957.60
80	959.76	958.72	957.60	956.56
81	958.72	956.47	956.56	954.31
82	956.47	960.54	954.31	958.38
83	960.54	961.37	958.38	959.21
84	961.37	960.07	959.21	959.49
85	961.31	961.86	960.57	961.36
86	972.83	977.49	961.36	961.51
87	969.41	972.83	961.63	965.25
88	966.47	969.41	965.25	969.05
89	966.47	969.41	969.05	971.40
90	966.47	969.41	971.40	972.84
91	966.47	969.41	972.84	972.36
92	966.47	969.41	974.45	972.54
93	966.47	969.41	972.54	970.65
94	966.47	969.41	970.65	968.16
95	966.47	969.41	968.16	966.00
96	966.47	969.41	966.00	963.42
97	966.47	969.41	963.42	961.19
98	966.47	969.41	961.19	960.38
99	966.47	969.41	960.38	959.63

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



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.
- 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.
- 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.

LEGEND

100-	EXISTING INDEX CONTOURS
100-	EXISTING INTERMEDIATE CONTOURS
100-	PROPOSED INDEX CONTOURS
100-	PROPOSED INTERMEDIATE CONTOURS

EARTHWORK QUANTITIES

LOCATION	CUT (C.Y.)	FILL (C.Y.)
STREET	21637	8047
SITE	66789	33695
TOTAL	88426	41742

NOTES:

- ONE OIL OR GAS WELL IS LOCATED ON THE PROPERTY (DRY HOLE, ABANDONED AS OF 5/11/1928).
 COORDINATES: 38.87019N, -94.41911W
 INFORMATION VERIFIED VIA MISSOURI DNR:
<https://dnr.mo.gov/geology/geoserv/oilandgas.htm>
 (UPDATED AUGUST 2018)

EARTHWORK QUANTITIES NOTES:

- EARTHWORK QUANTITIES BASED ON FINISHED GRADE SURFACE AND DO NOT INCLUDE ADJUSTMENTS FOR TOPSOIL AND SHRINKAGE.
- 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.

THIRD PARTY TESTING REQUIRED FOR WATER QUALITY BASIN:

- REMOVE TOPSOIL AND ORGANIC MATERIAL FROM THE AREA
- PROOF ROLL TO CHECK THE SUBGRADE
- PLACE 9" LOOSE LIFTS OF 9" MATERIAL WITH LL=50 AND PI=25 OR GREATER. 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.

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GRADING PLAN
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

LEE'S SUMMIT, MO

2020

REVISIONS

drawn by:	EM	checked by:	EM
designed by:	RB	QA/QC by:	NH
project no.:	019-4059	drawing no.:	C_GRD01_0194059
date:	4/20/2020		

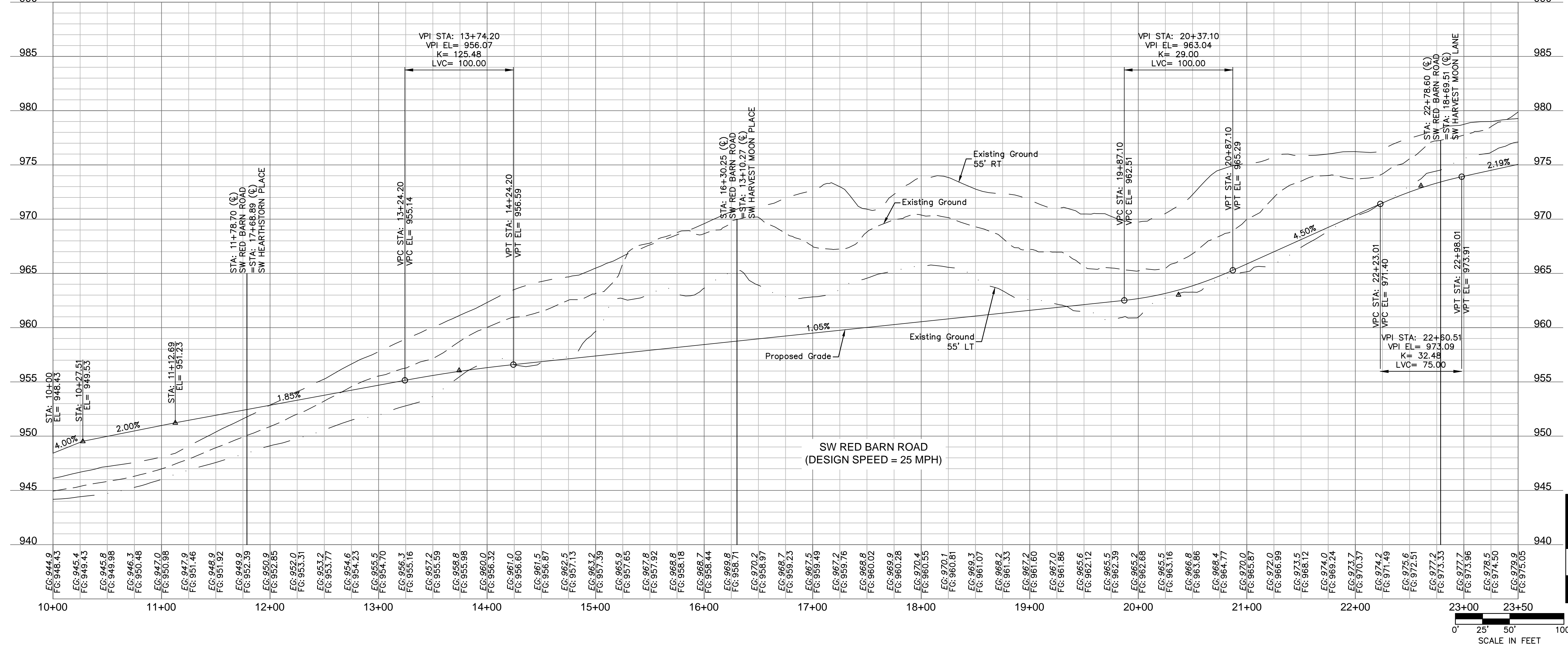
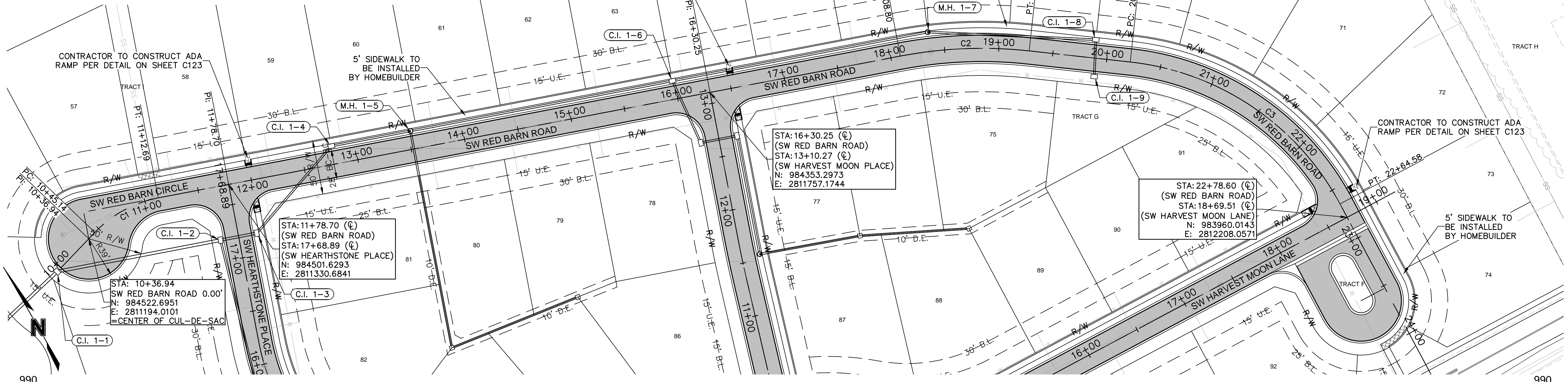
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CURVE TABLE					
CURVE ID #	RADIUS (FT)	LENGTH (FT)	DELTA	TANGENT (FT)	P.I. STA. (BK.)
C1	109.16	67.55	035°27'33"	34.90	10+77.80
C2	400.00	119.26	017°04'57"	60.07	18+67.98
C3	250.00	242.84	055°39'20"	131.97	21+32.61

LEGEND

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



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REV. NO.	DATE	REVISIONS DESCRIPTION

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2020

REVISIONS

SW RED BARN ROAD PLAN & PROFILE
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

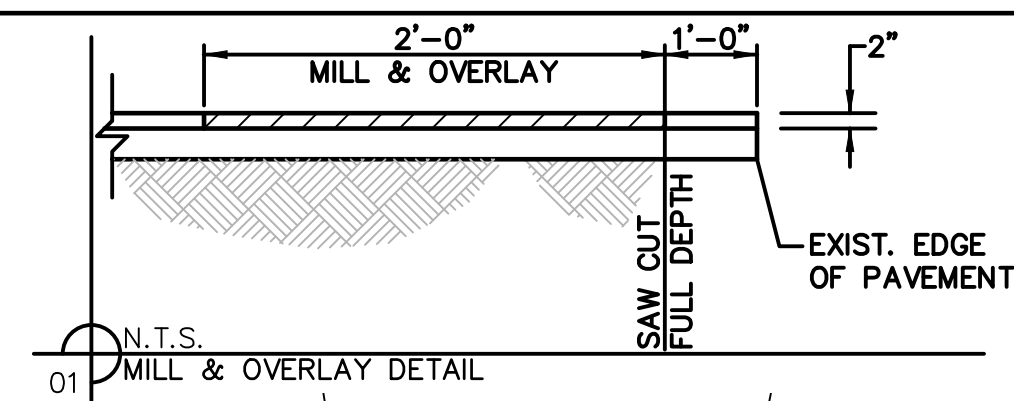
LEE'S SUMMIT, MO

drawn by: _____ EM
 checked by: _____ EM
 designed by: _____ RB
 QA/QC by: _____ NH
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 drawing no.: C_RR02_0194059
 date: 4/20/2020

SHEET C104
5 OF 53

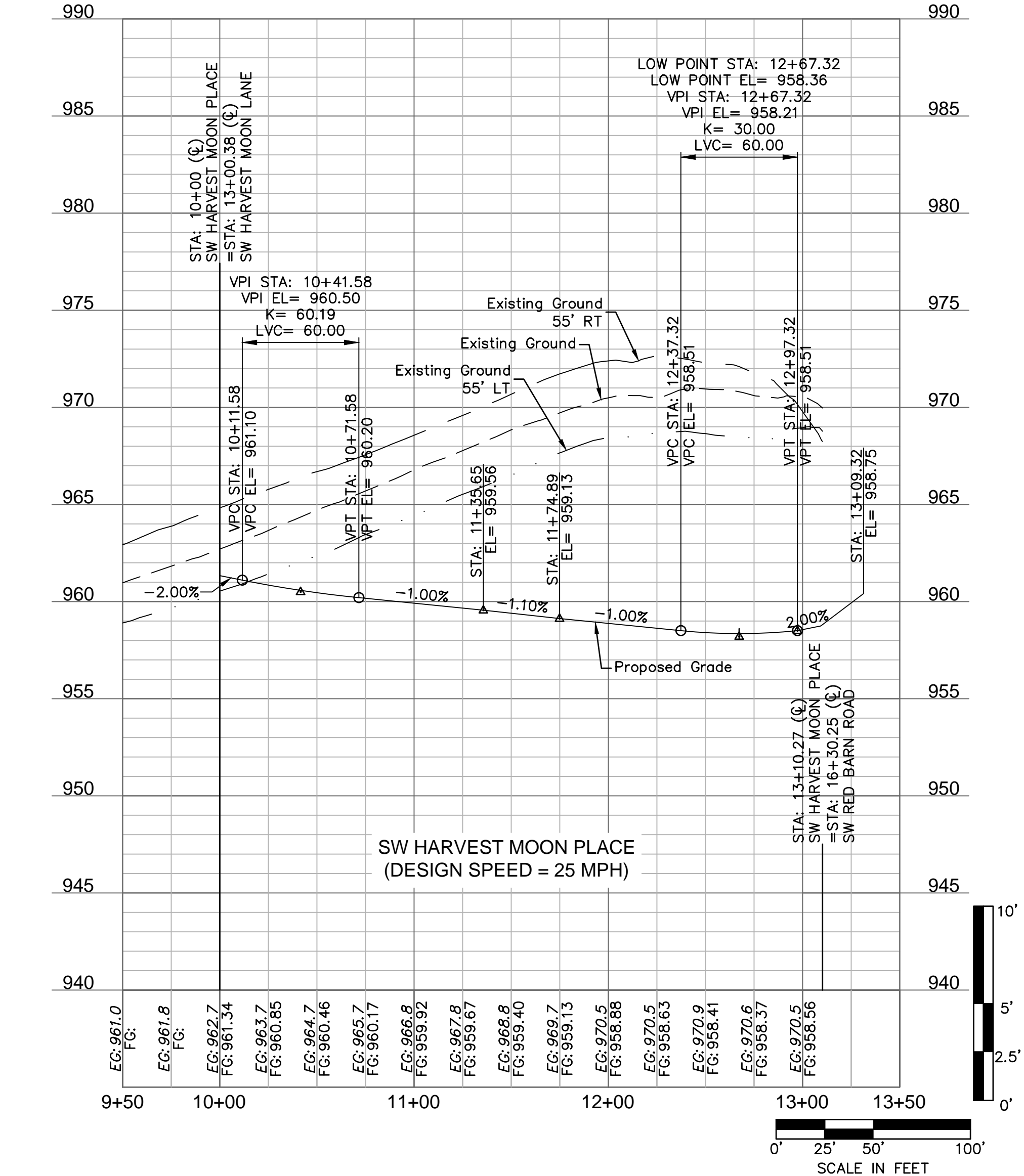
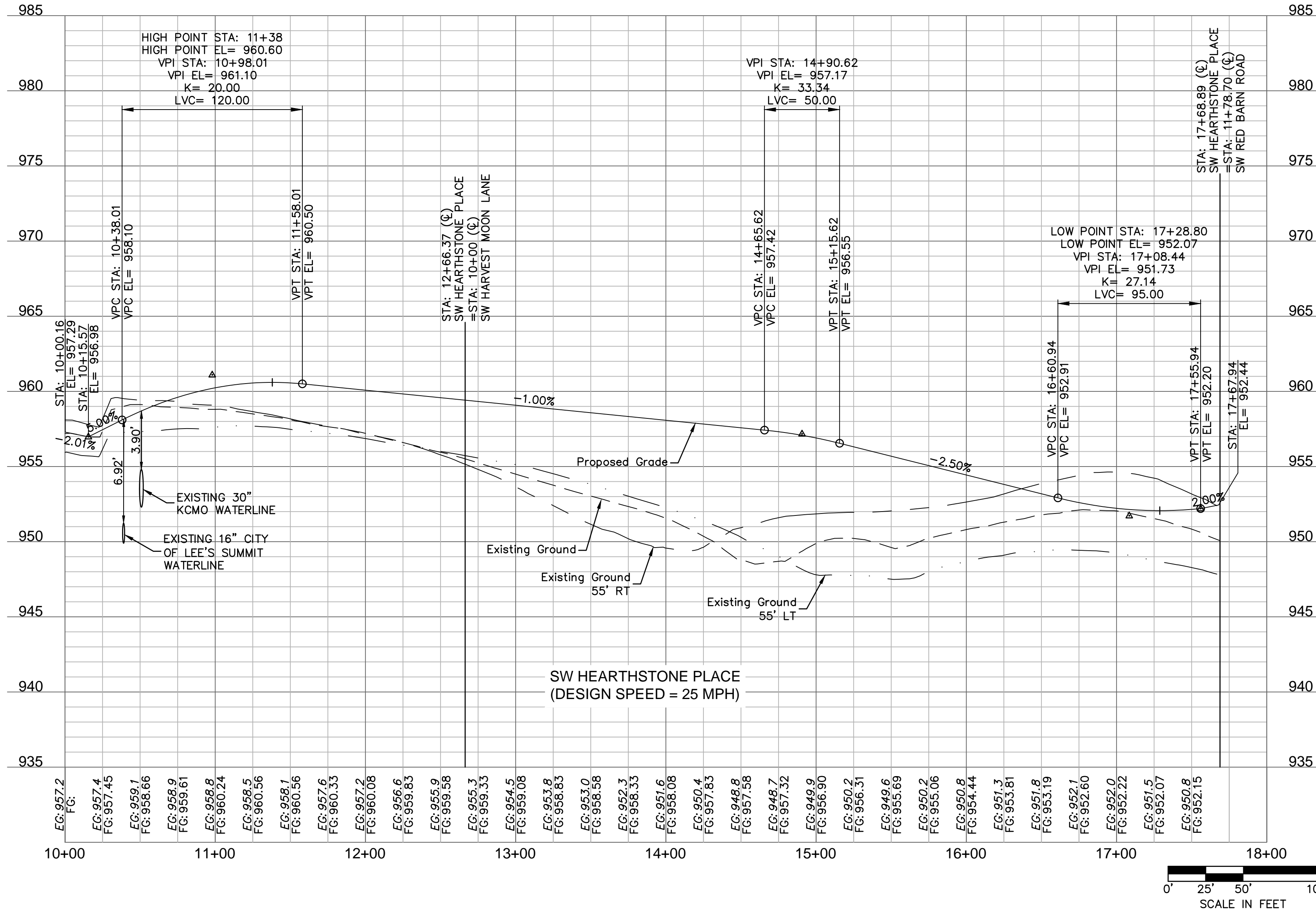
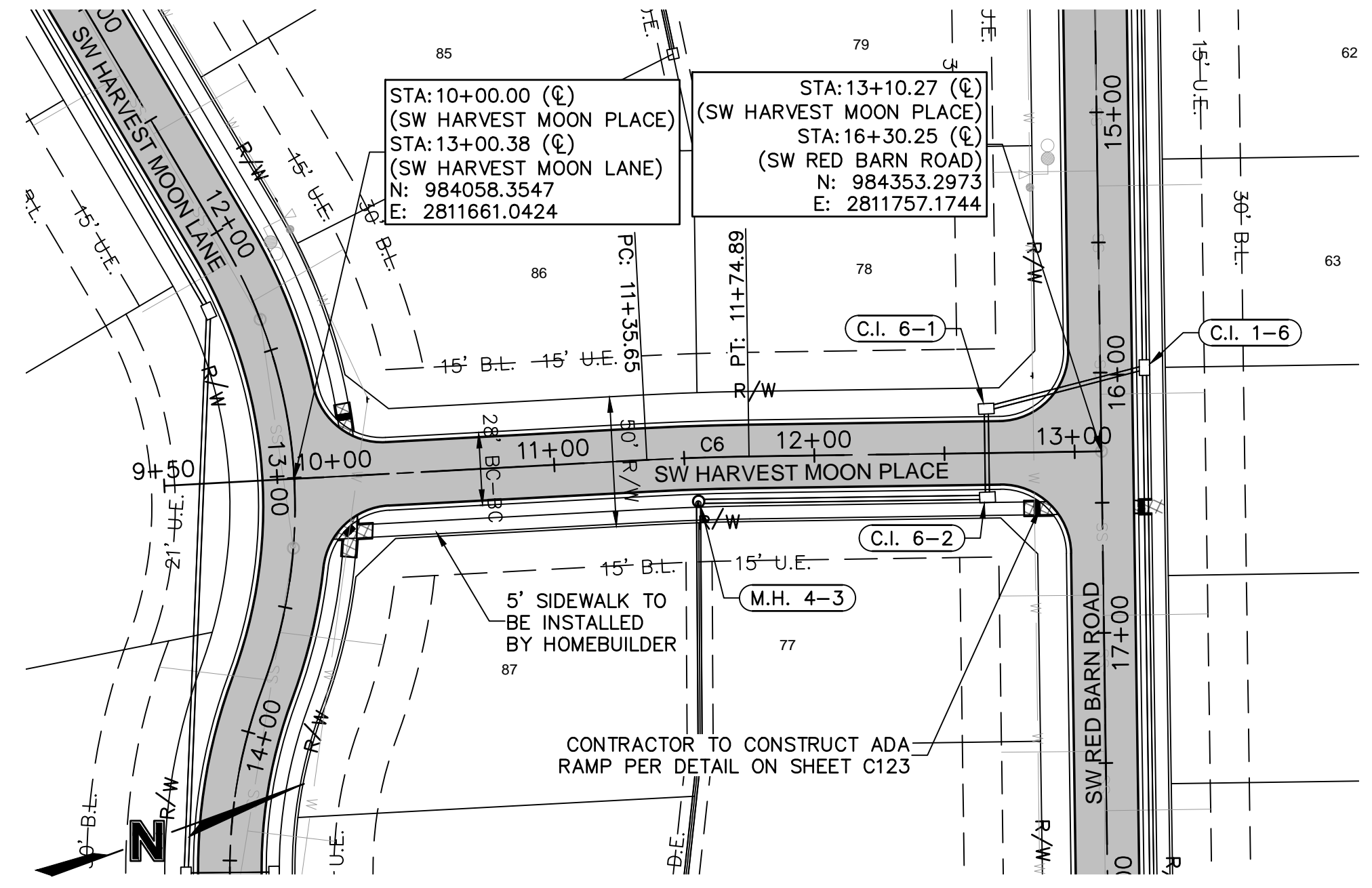
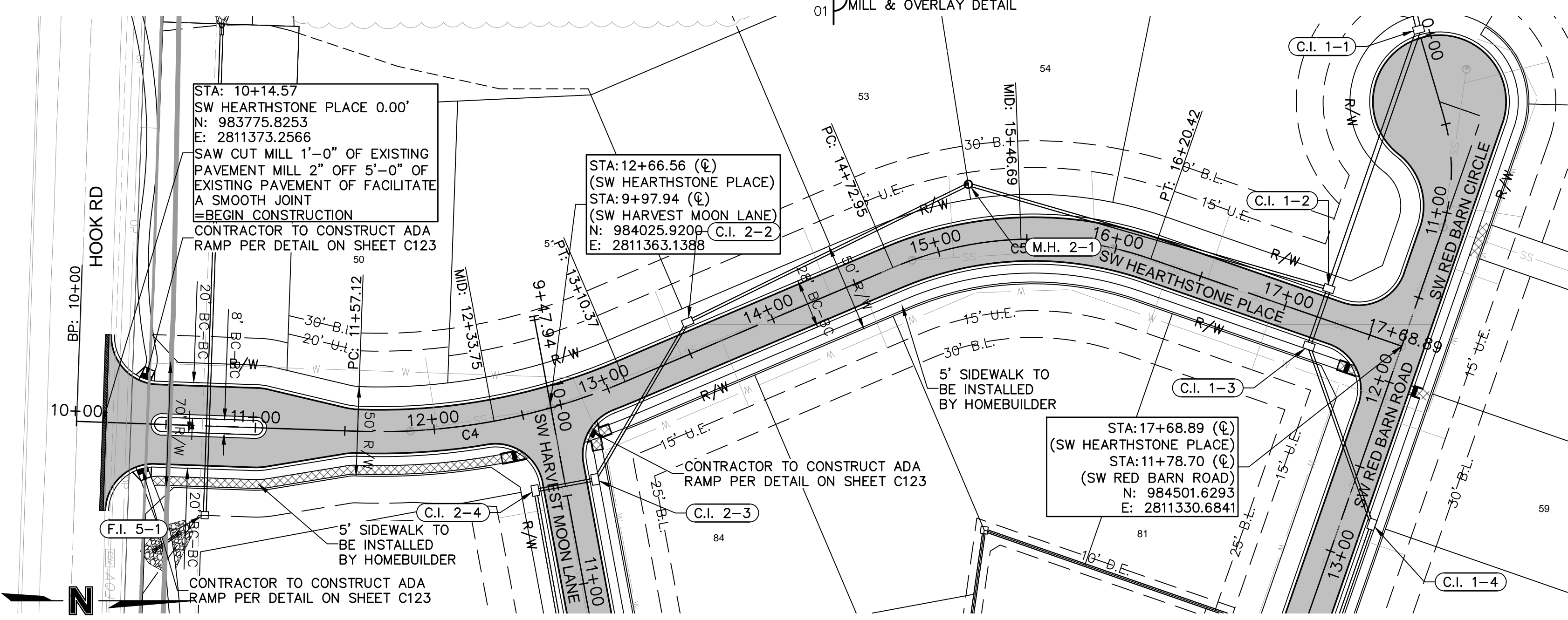
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 USER: emorton

CURVE TABLE					
CURVE ID #	RADIUS (FT)	LENGTH (FT)	DELTA	TANGENT (FT)	P.I. STA. (BK.)
C4	349.99	153.25	025°05'16"	77.87	12+32.50
C5	200.00	147.47	042°14'45"	77.27	15+43.15



LEGEND		
	CONCRETE SIDEWALK	
	ASPHALT PAVEMENT	
	CG-2 CURB & GUTTER	

CURVE TABLE					
CURVE ID #	RADIUS (FT)	LENGTH (FT)	DELTA	TANGENT (FT)	P.I. STA. (BK.)
C6	1000.00	39.23	002°14'52"	19.62	11+55.27



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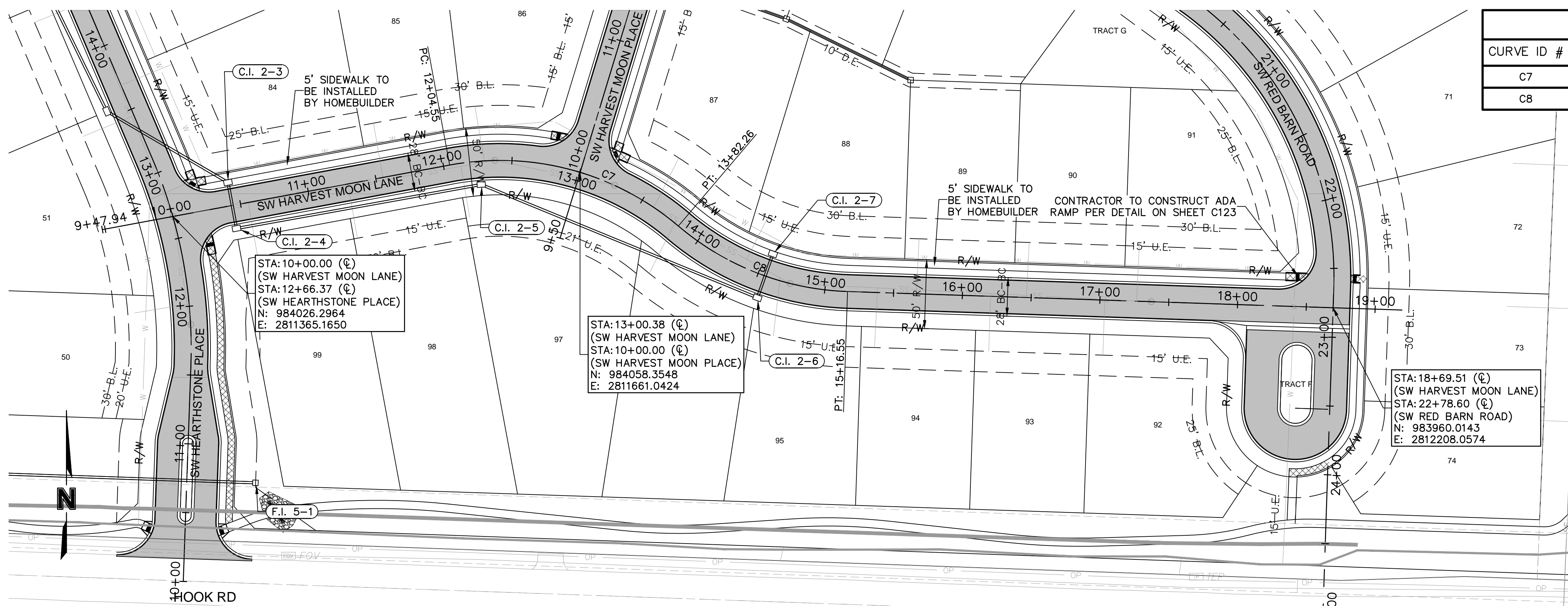
SW HEARTHSTONE PLACE, SW HARVEST MOON LANE PLAN & PROFILE
 STREET AND STORM SEWER PLANS
 THE RETREAT AT HOOK FARMS
 CONSTRUCTION DOCUMENTS
 LEES SUMMIT, MO

2020

drawn by: _____ EM
 checked by: _____ EM
 designed by: _____ RB
 QA/QC by: _____ NH
 project no.: 019-4059
 drawing no.: C_RRPO2_0194059
 date: 4/20/2020

SHEET C105
6 OF 53

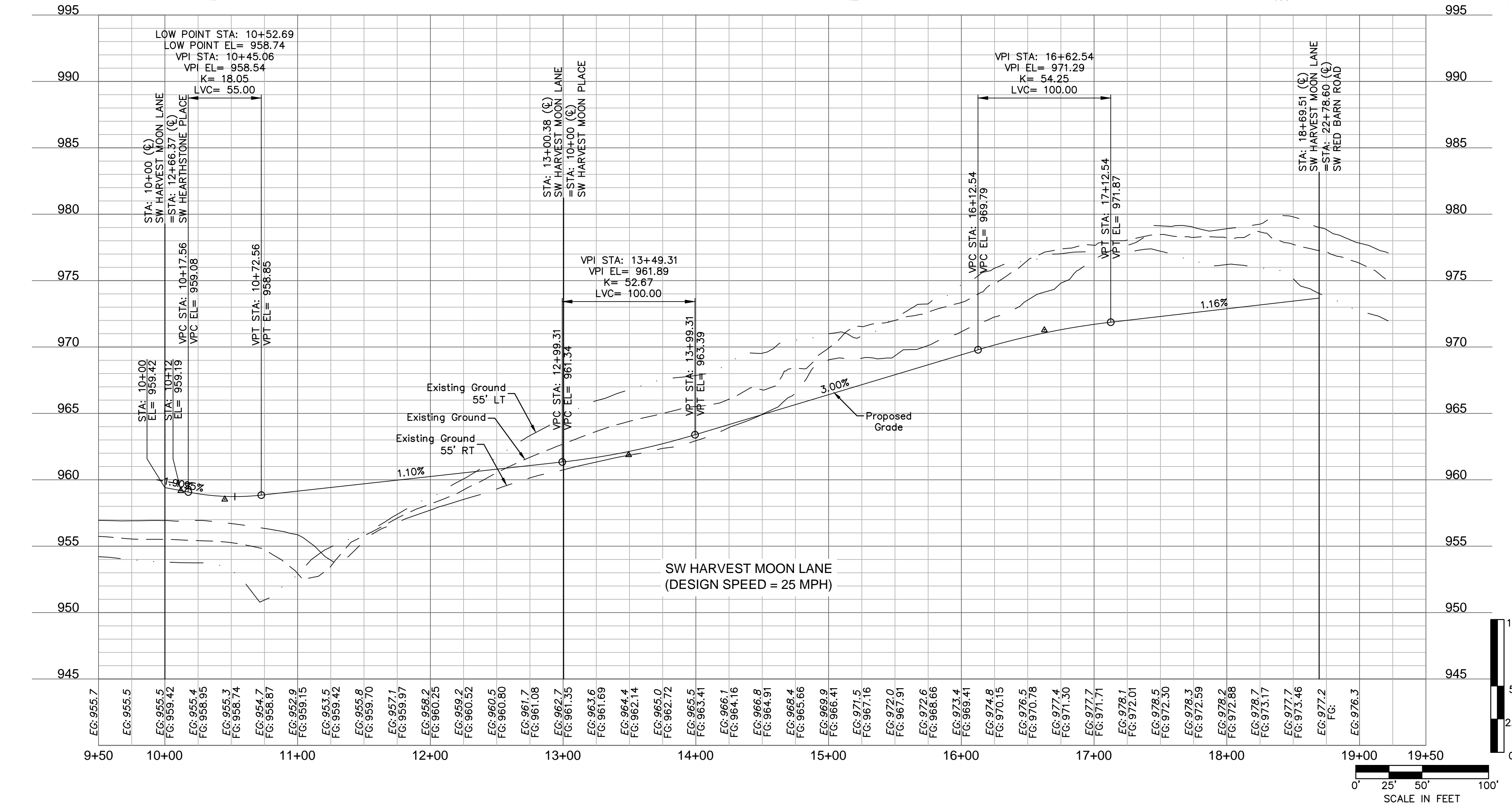
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 USER: emorton



CURVE TABLE					
CURVE ID #	RADIUS (FT)	LENGTH (FT)	DELTA	TANGENT (FT)	P.I. STA. (BK.)
C7	200.00	177.71	050°54'36"	95.20	12+87.06
C8	200.00	134.29	038°28'13"	69.78	14+46.76

LEGEND

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



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SW HARVEST MOON LANE PLAN & PROFILE
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

LEE'S SUMMIT, MO

2020

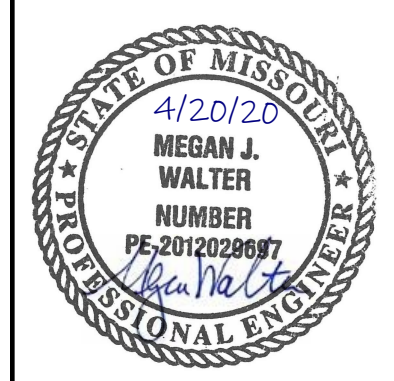
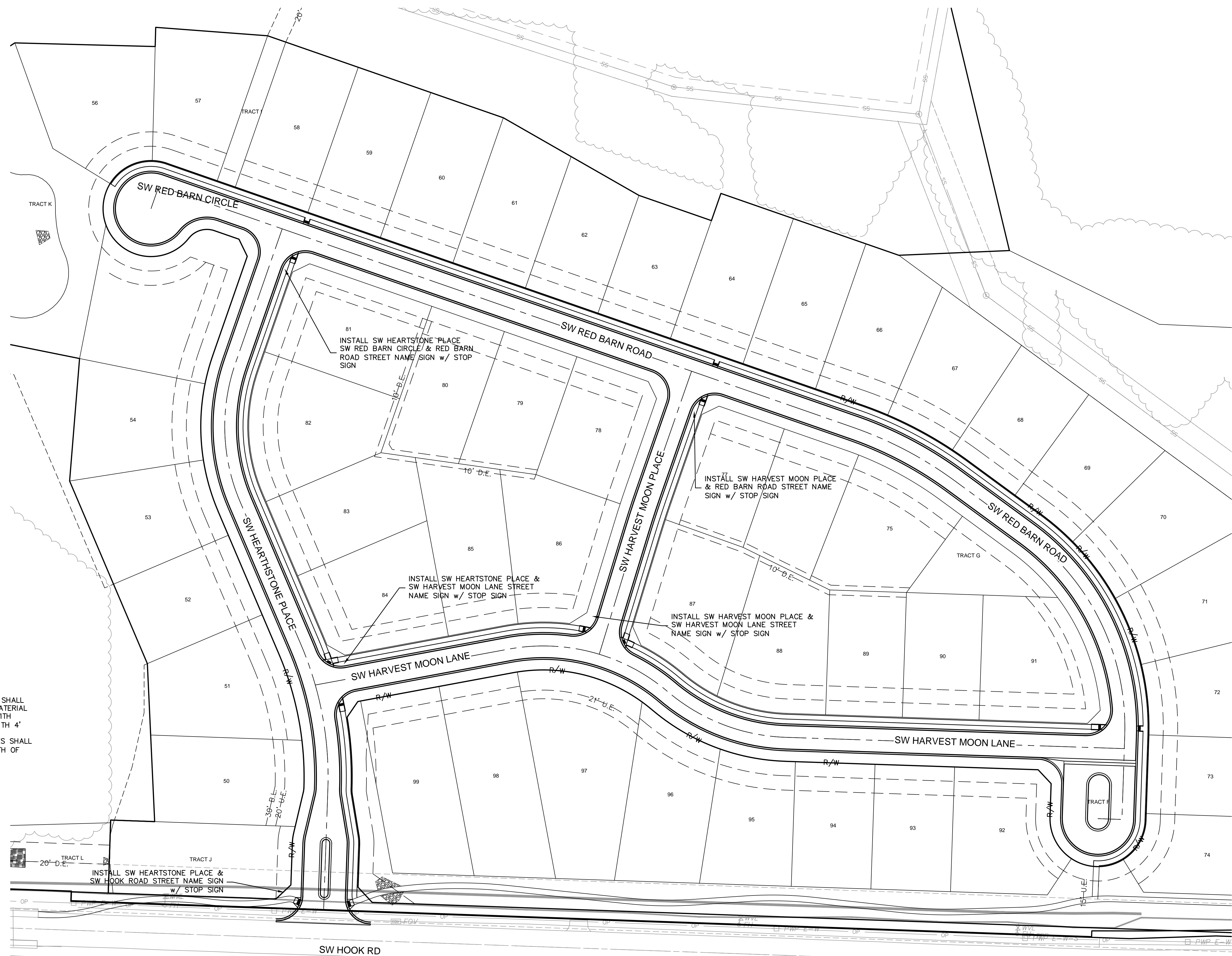
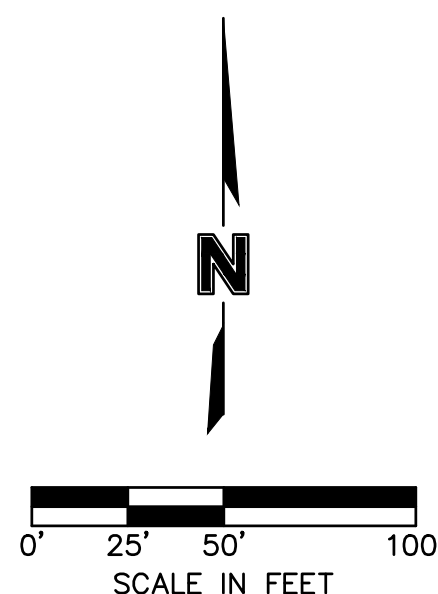
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SHEET C106

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NOTE:
 THE CROSSWALK AND STOP LINES SHALL BE PERFORMED THERMOPLASTIC MATERIAL AND LOCATED IN CONFORMANCE WITH STANDARD DETAILS AND MUTCD WITH 4' OF SEPERATION AND CONSISTENT PARALLEL WIDTH. CROSSWALK LINES SHALL BE 10' APART MATCHING THE WIDTH OF THE SHARED-USE PATH.

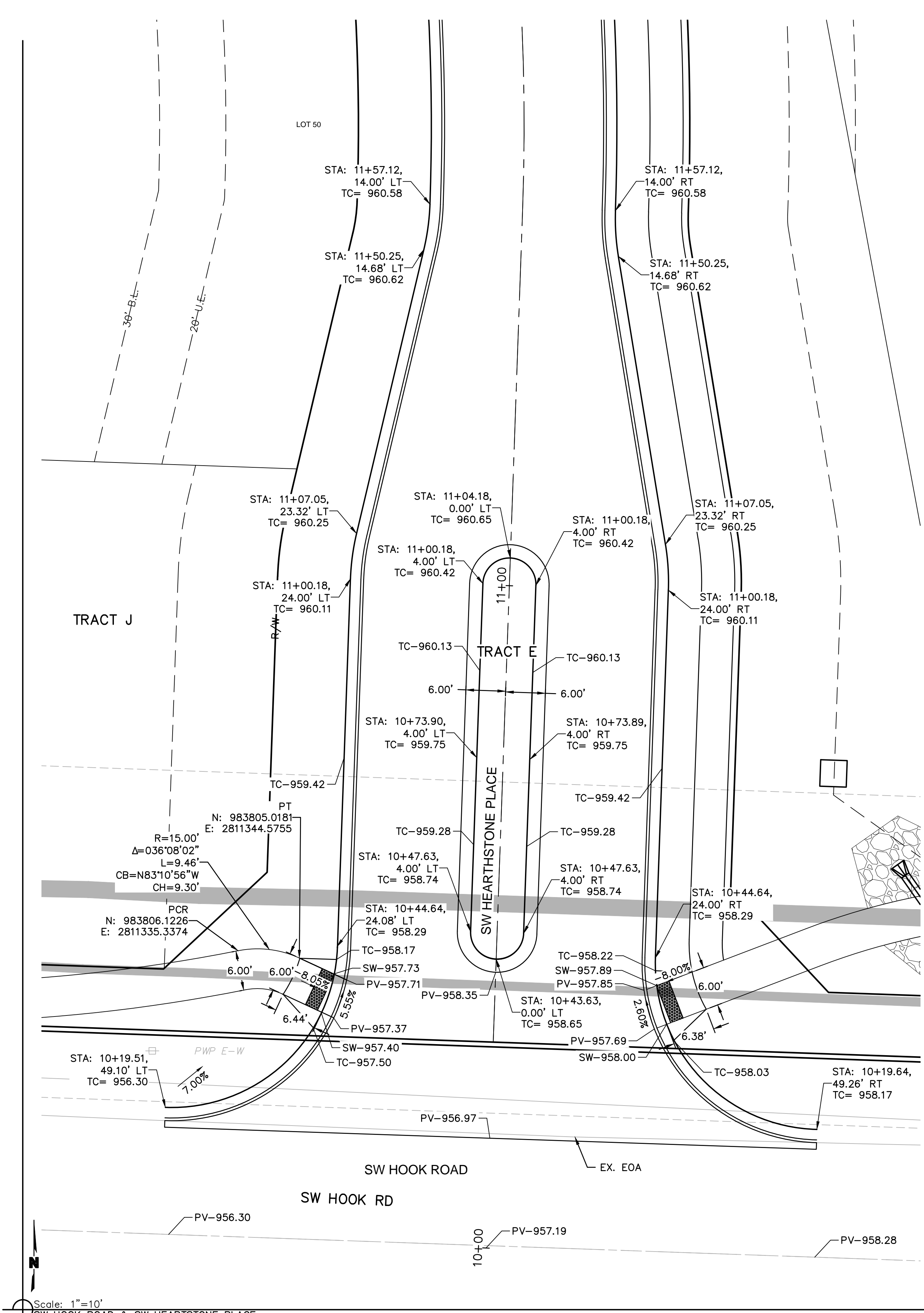


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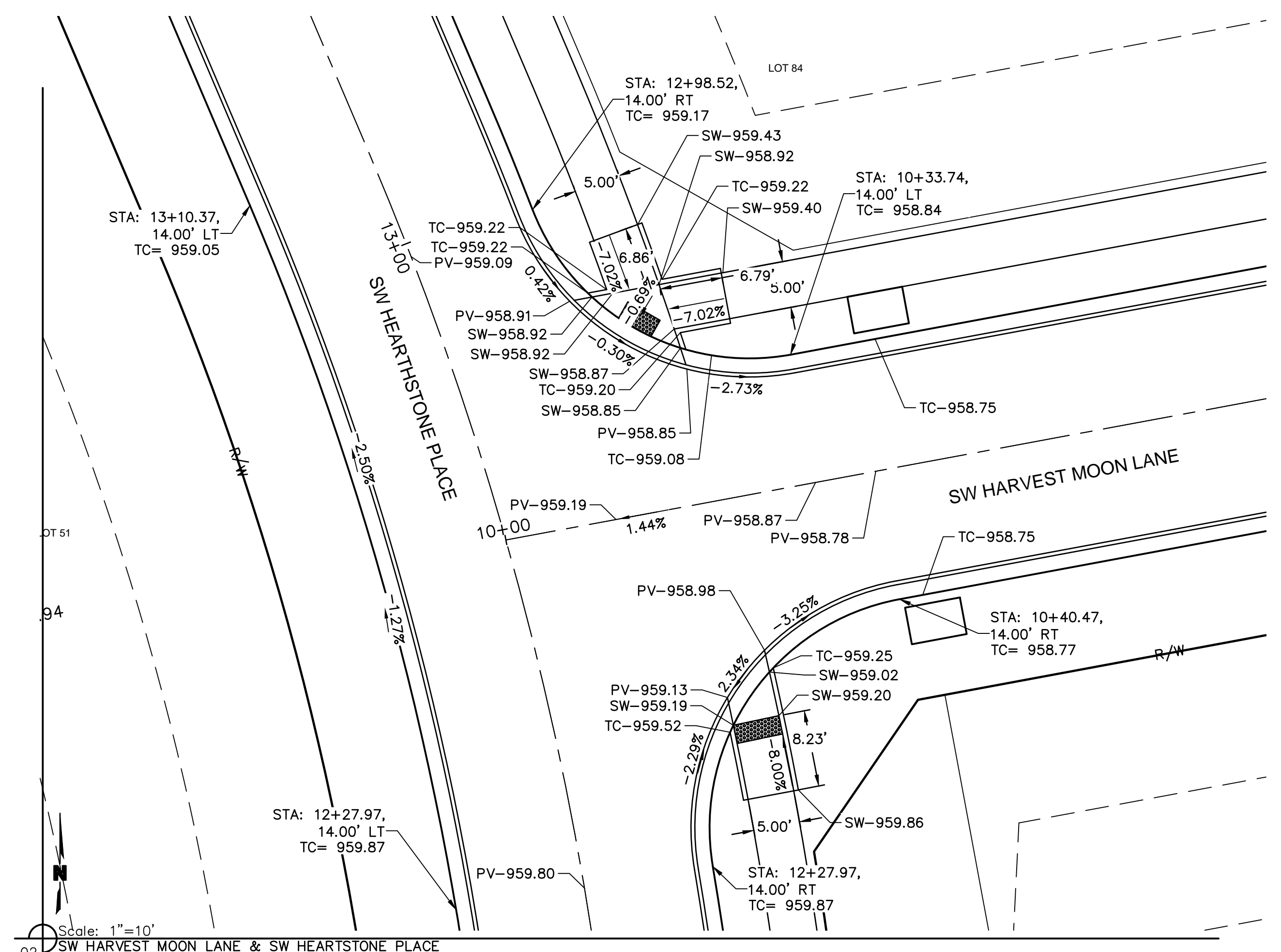
TRAFFIC CONTROL PLAN
 STREET AND STORM SEWER PLANS
 THE RETREAT AT HOOK FARMS
 CONSTRUCTION DOCUMENTS
 LEES SUMMIT, MO
 2020
 REVISIONS

drawn by: EM
 checked by: EM
 designed by: RB
 QA/QC by: NH
 project no.: 019-4059
 drawing no.: C_TRF01_0194059
 date: 4/20/2020

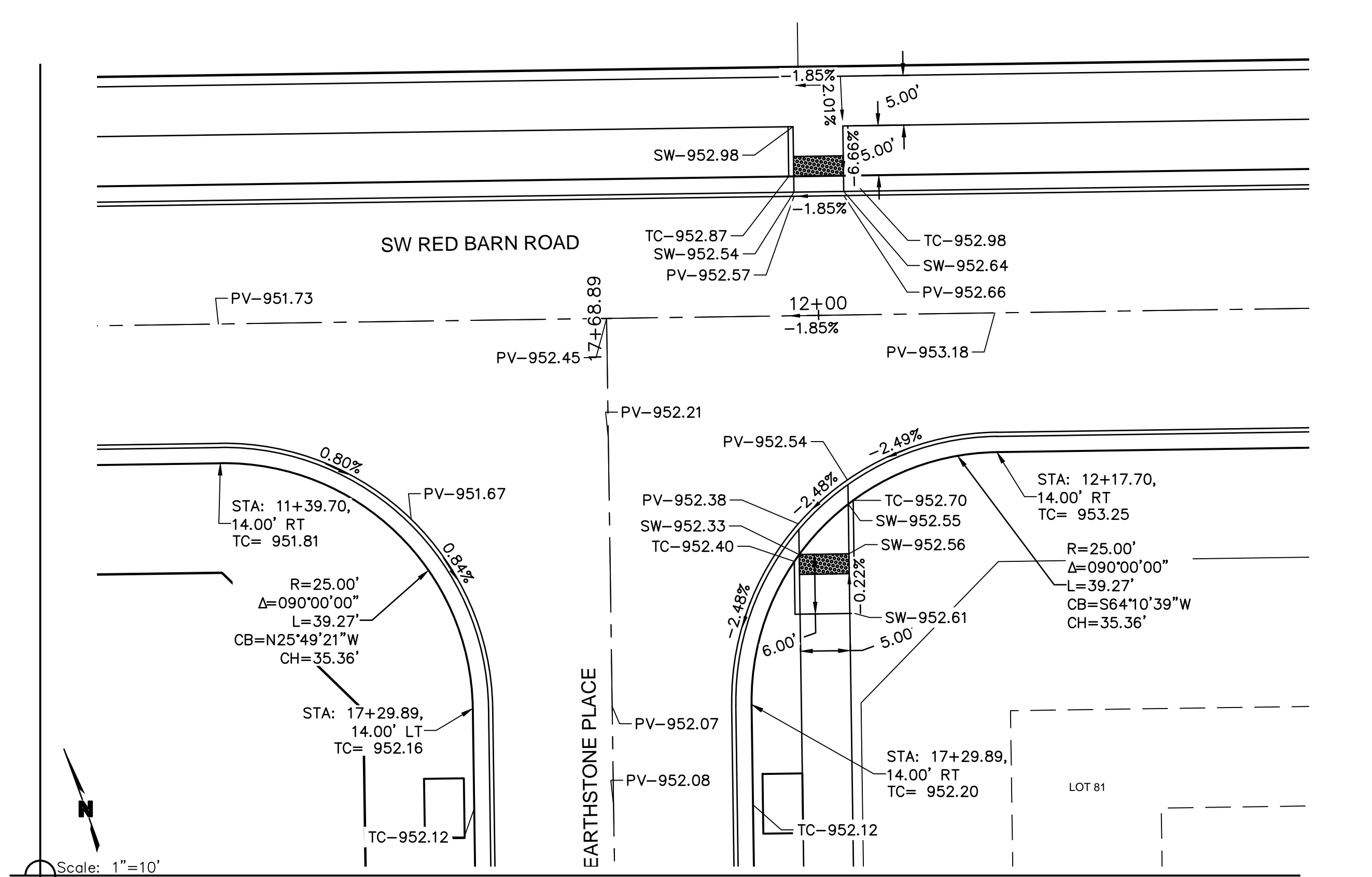
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Scale: 1"=10'
 01 SW HOOK ROAD & SW HEARTSTONE PLACE

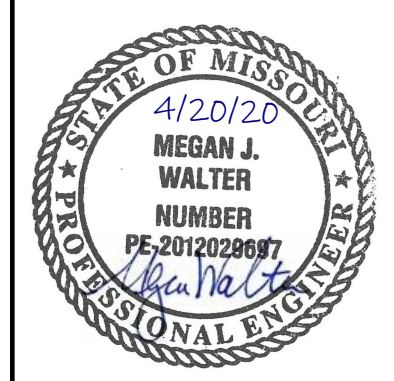


Scale: 1"=10'
 02 SW HARVEST MOON LANE & SW HEARTSTONE PLACE



Scale: 1"=10'
 03 SW HEARTSTONE PLACE & SW RED BARN ROAD

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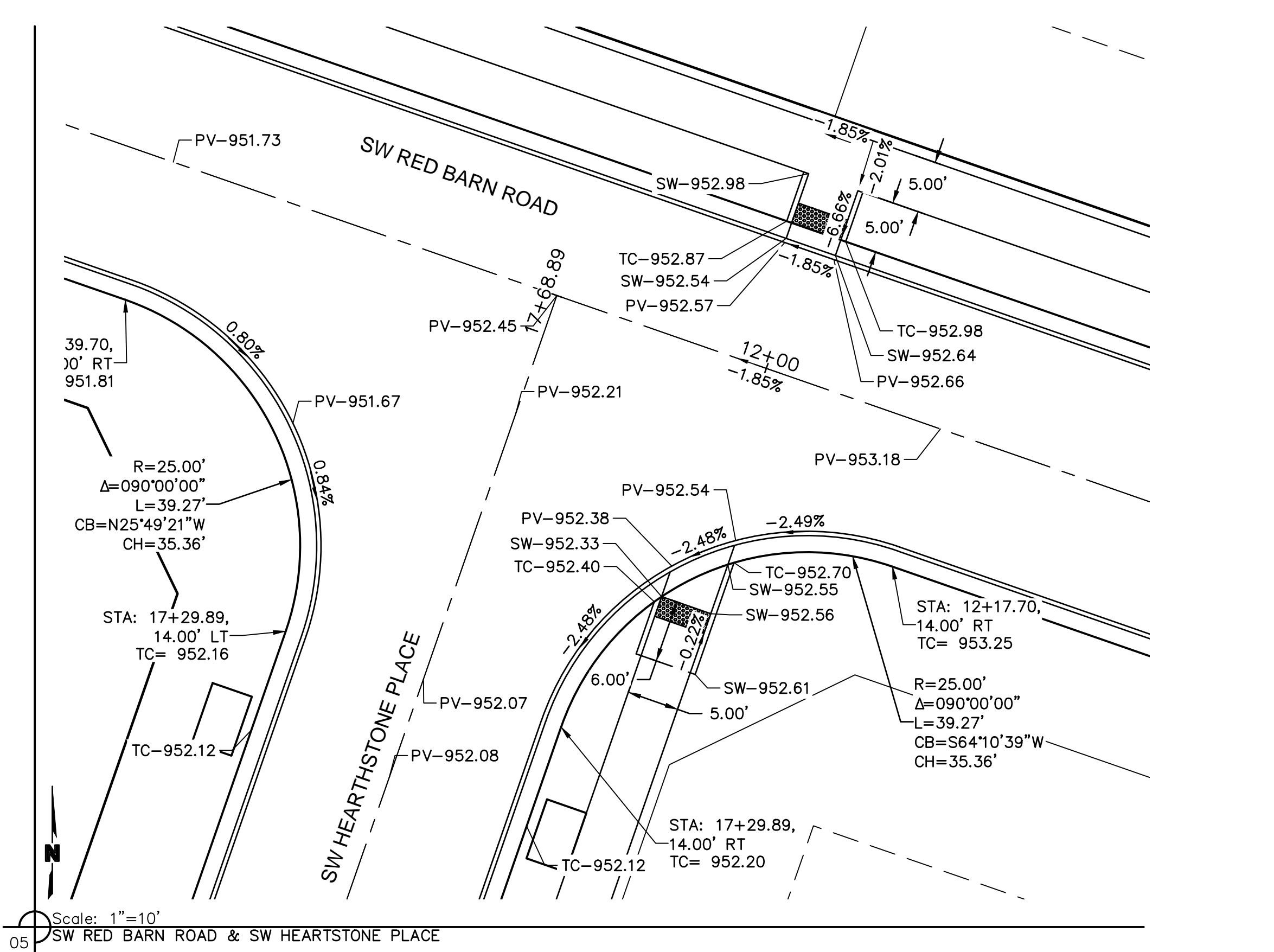


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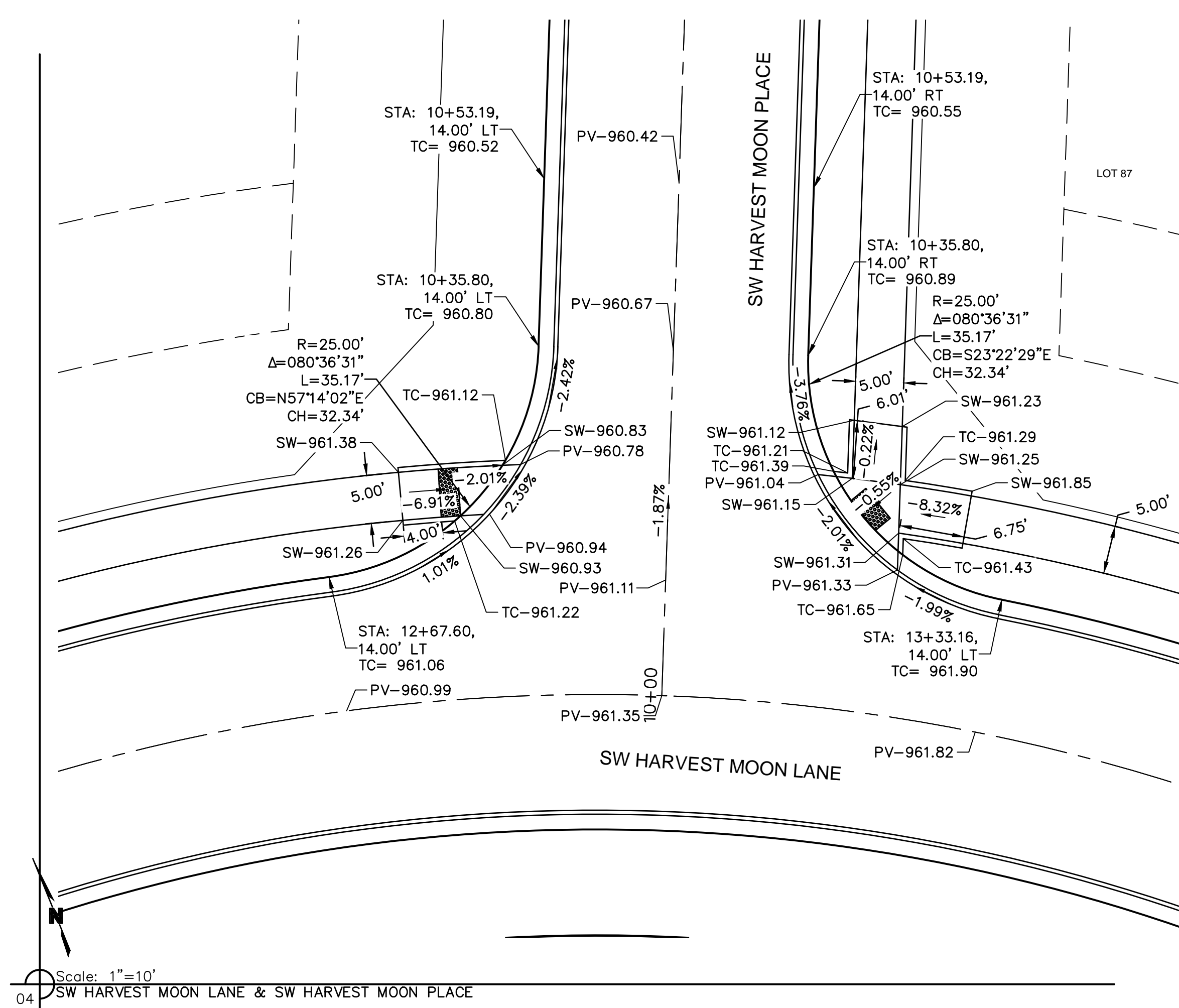
INTERSECTION DETAILS
 STREET AND STORM SEWER PLANS
 THE RETREAT AT HOOK FARMS
 CONSTRUCTION DOCUMENTS
 LEE'S SUMMIT, MO
 2020

drawn by: EM
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 designed by: RB
 QA/QC by: NH
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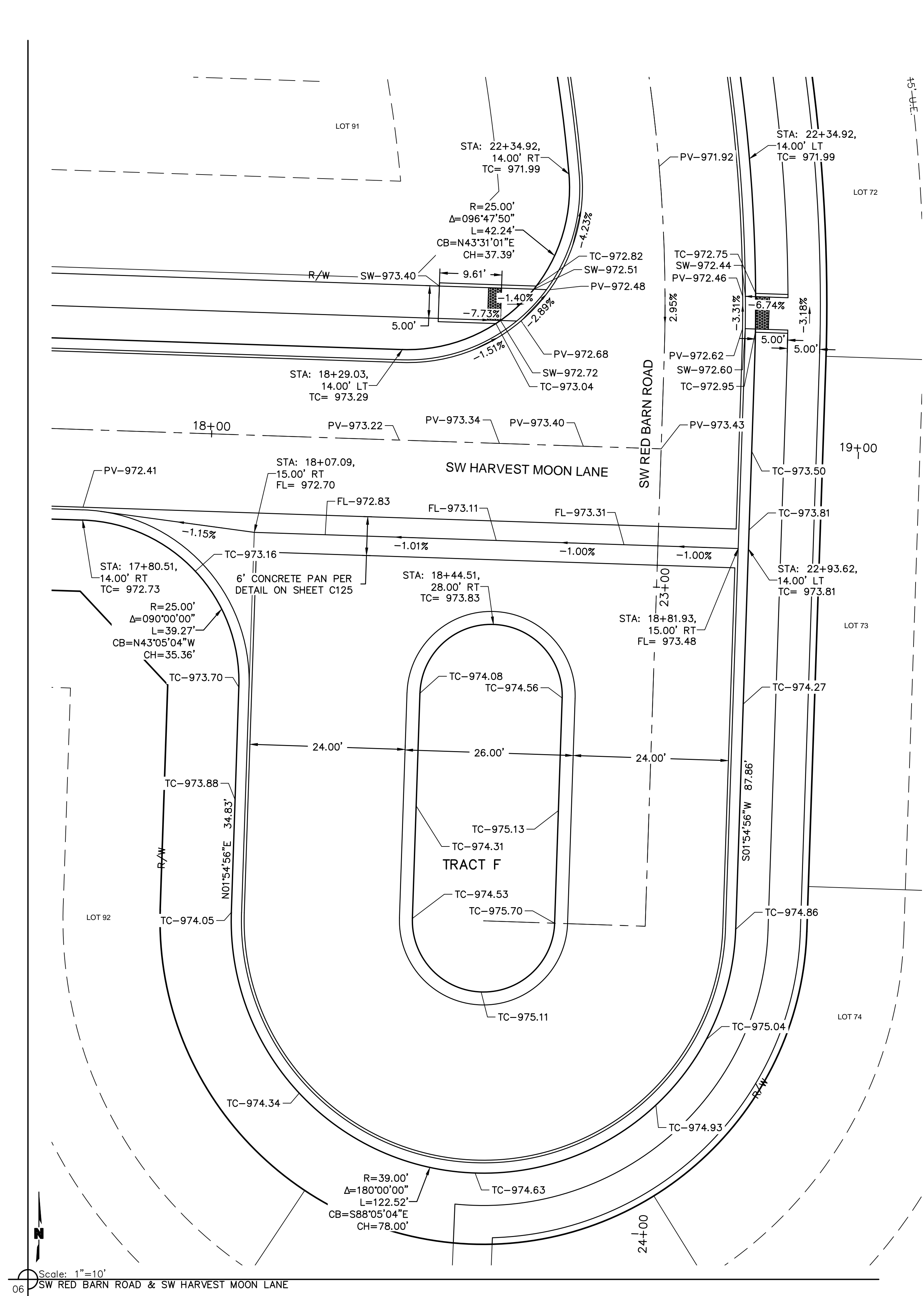
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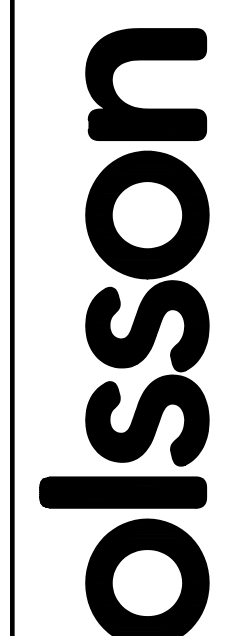
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 05 SW RED BARN ROAD & SW HEARTHSTONE PLACE




Scale: 1"=10'
 04 SW HARVEST MOON LANE & SW HARVEST MOON PLACE



Scale: 1"=10'
 06 SW RED BARN ROAD & SW HARVEST MOON LANE



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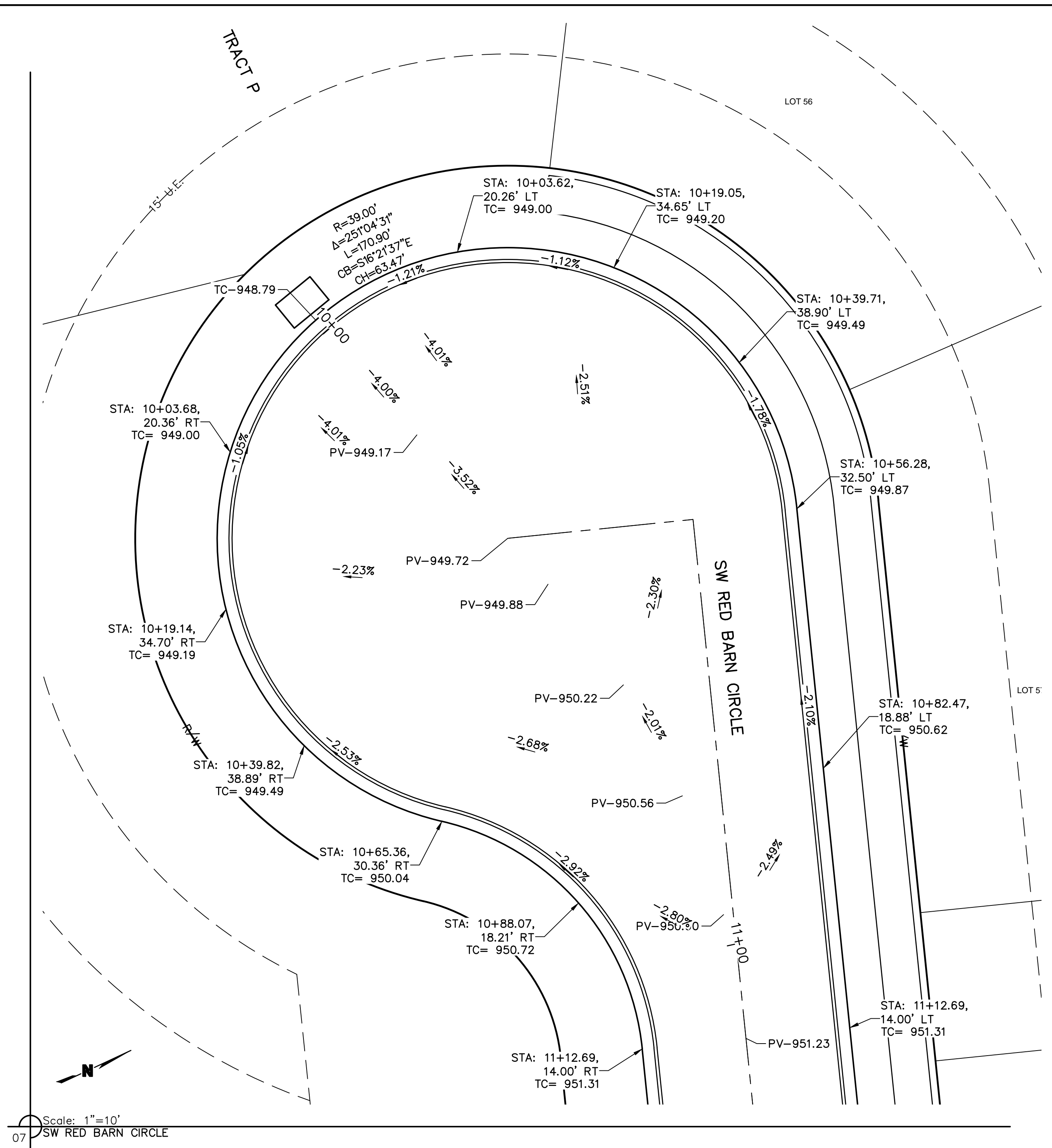
INTERSECTION DETAILS
STREET AND STORM SEWER PLANS
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LEE'S SUMMIT, MO
 2020

drawn by: _____	EM
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project no.: 019-4059	
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date: 4/20/2020	

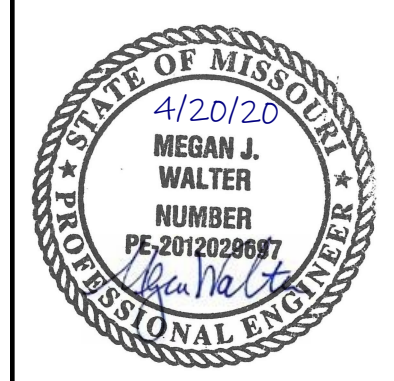
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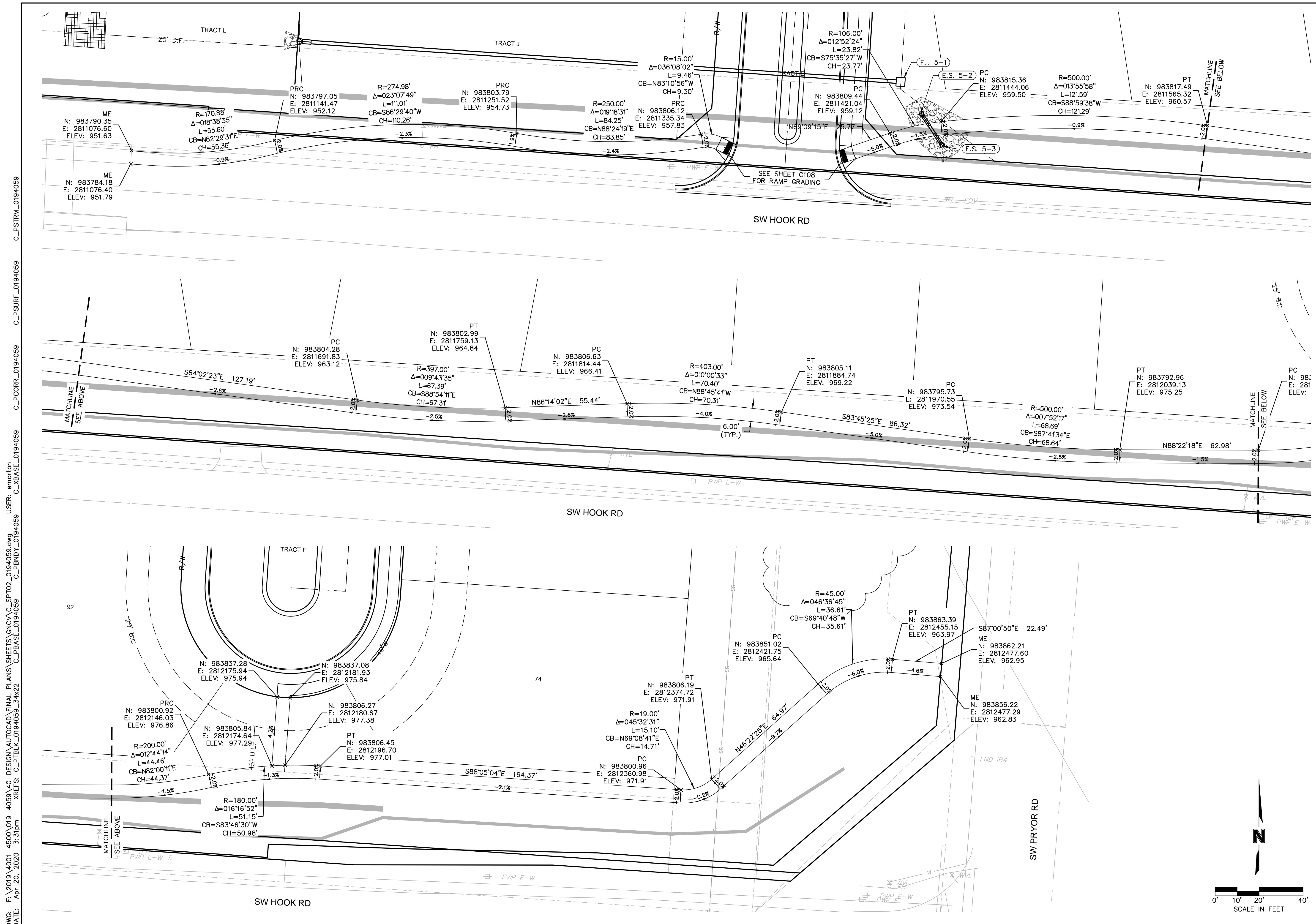
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

INTERSECTION DETAILS
 STREET AND STORM SEWER PLANS
 THE RETREAT AT HOOK FARMS
 CONSTRUCTION DOCUMENTS

LEE'S SUMMIT, MO

2020

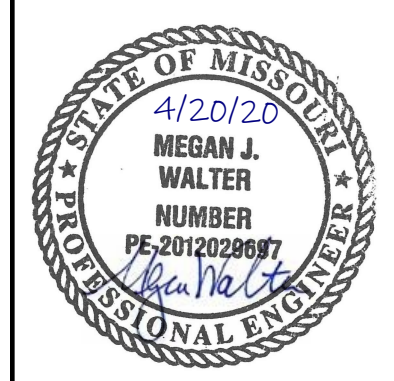
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 checked by: EM
 designed by: RB
 QA/QC by: NH
 project no.: 019-4059
 drawing no.: C_SPT01_0194059
 date: 4/20/2020



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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAIL GRADING PLAN
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

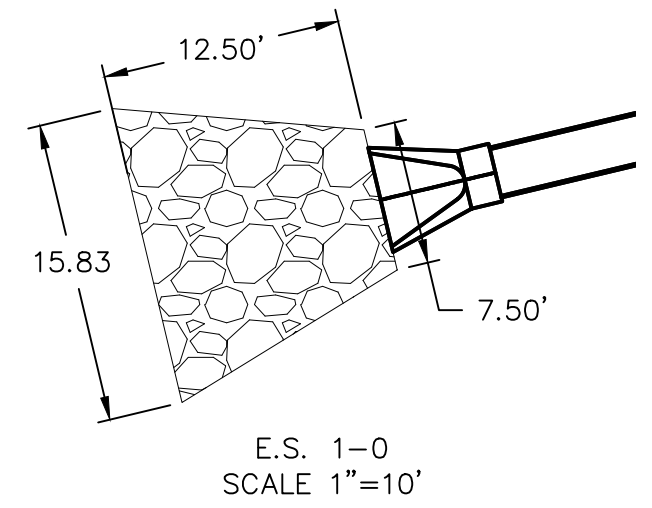
LEE'S SUMMIT, MO

2020

drawn by:	EM
checked by:	EM
designed by:	RB
QA/QC by:	NH
project no.:	019-4059
drawing no.:	C_SPT02_0194059
date:	4/20/2020

SHEET C111
12 OF 53

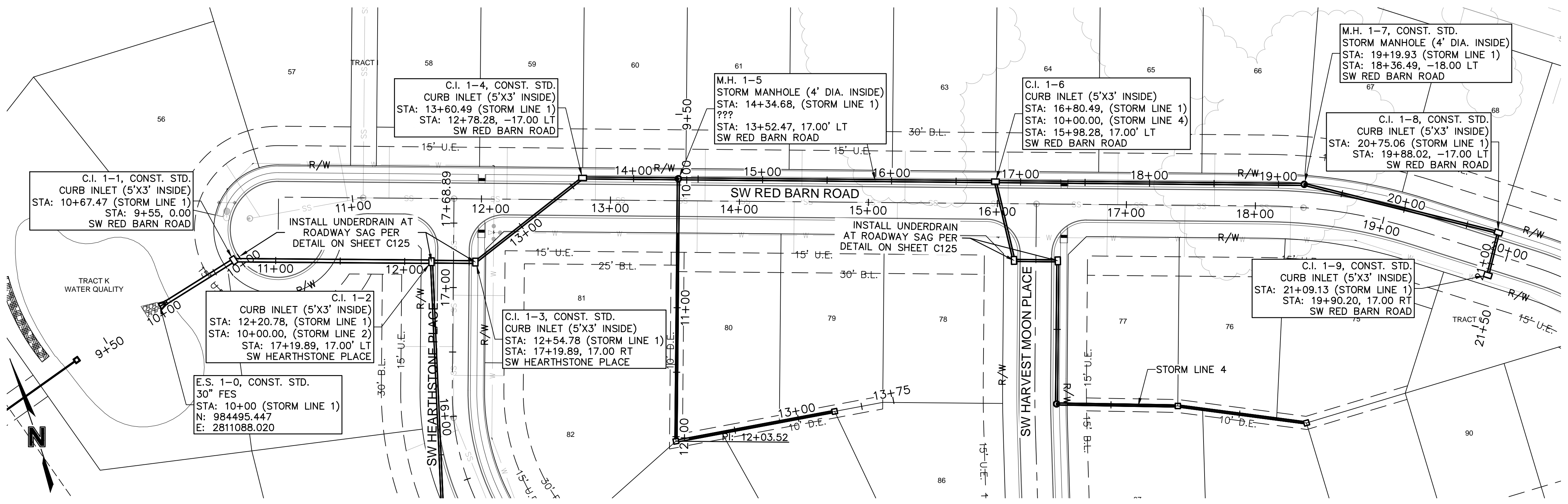
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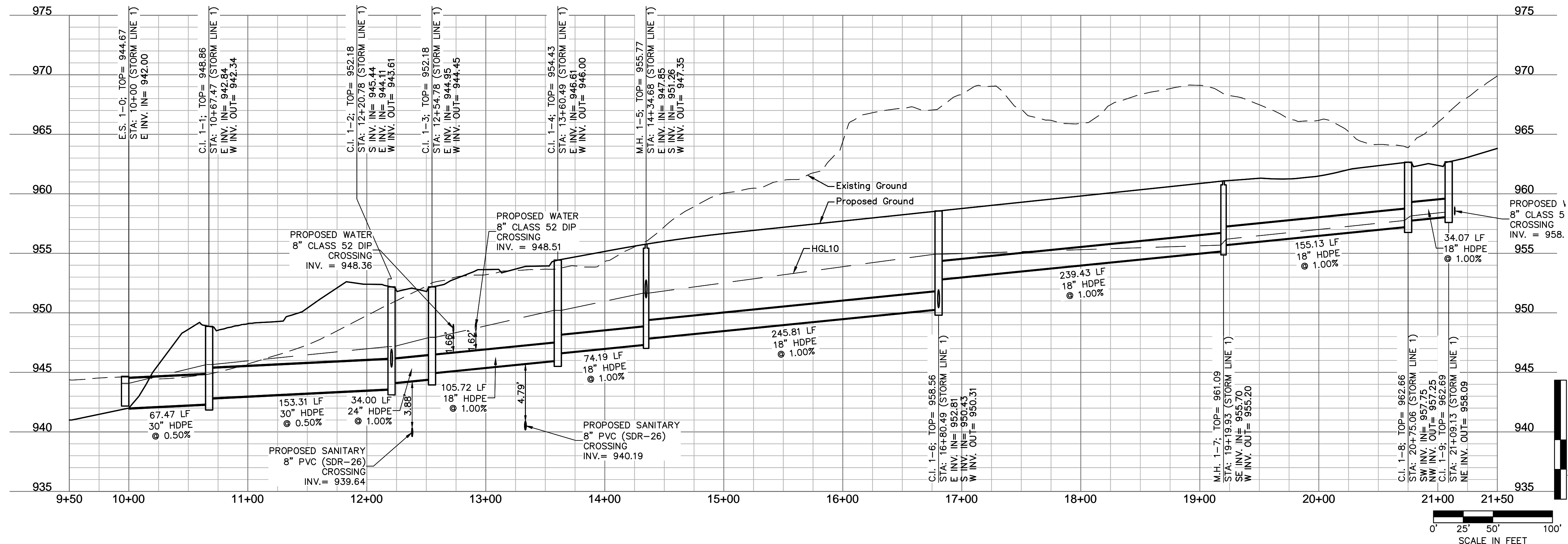
Riprap Calculations							
End Section	Q ₁₀₀ (cfs)	Pipe Diameter (ft)	Class*	D50* (in)	Apron Length (ft)	Apron Depth (ft)	Area (SY)
E.S. 1-0	37.93	2.5	3	10	12.5	2.00	16.2
E.S. 5-0	9.09	1.5	2	6	6	1.65	4.3
E.S. 7-0	0.61	0.5	1	5	2	1.46	0.5

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

NOTES:
 1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
 2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 4' MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.



STORM LINE 1 (9+50 - 21+50)



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REV. NO.	DATE	REVISIONS DESCRIPTION

STORM PLAN & PROFILES
 STREET AND STORM SEWER PLANS
 THE RETREAT AT HOOK FARMS
 CONSTRUCTION DOCUMENTS

2020

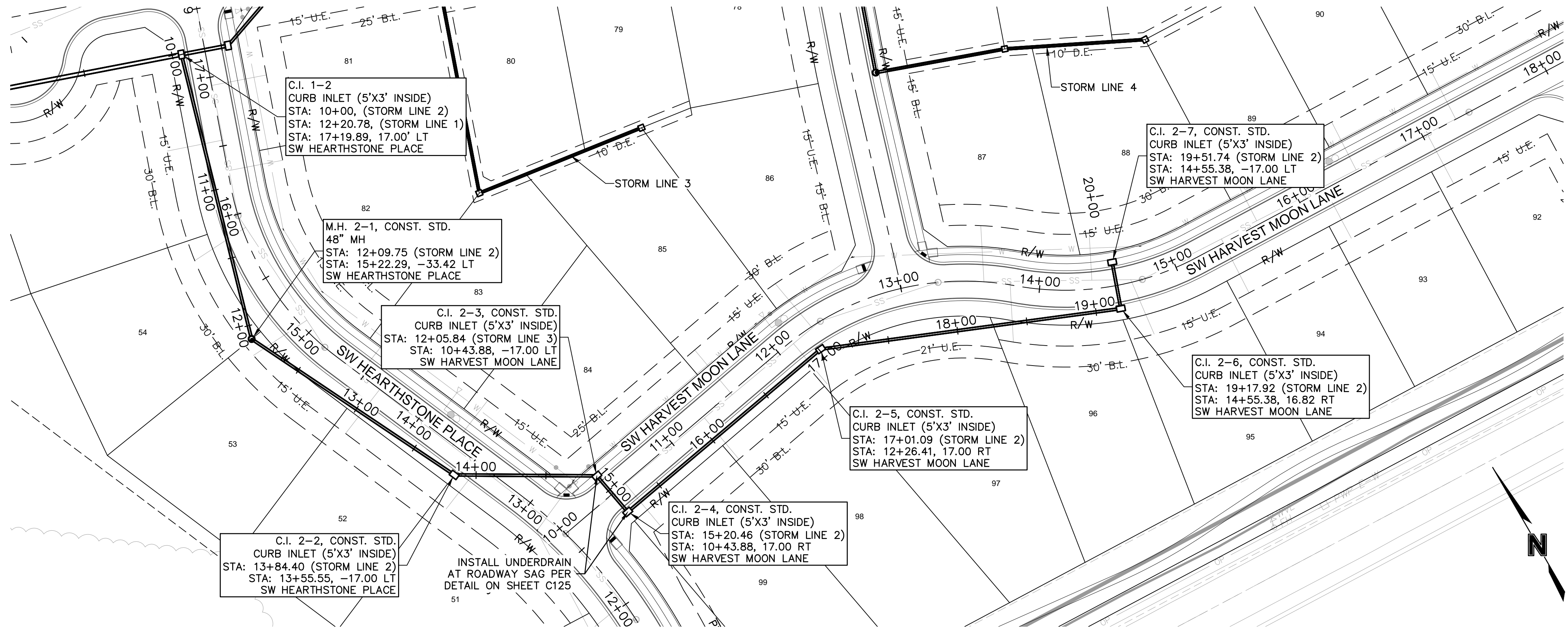
LEE'S SUMMIT, MO

drawn by: _____ EM
 checked by: _____ EM
 designed by: _____ RB
 QA/QC by: _____ NH
 project no.: 019-4059
 drawing no.: C_STM02_0194059
 date: 4/20/2020

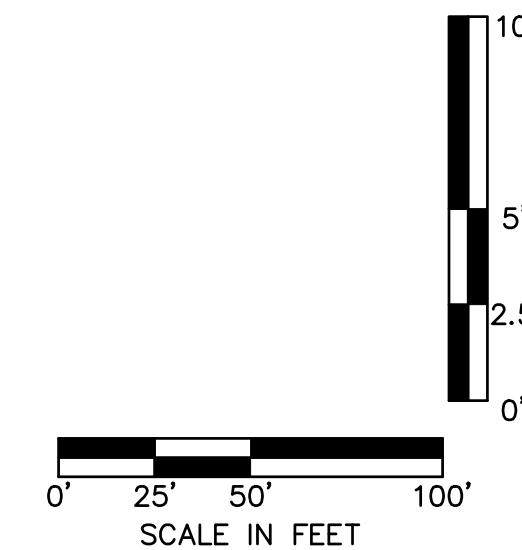
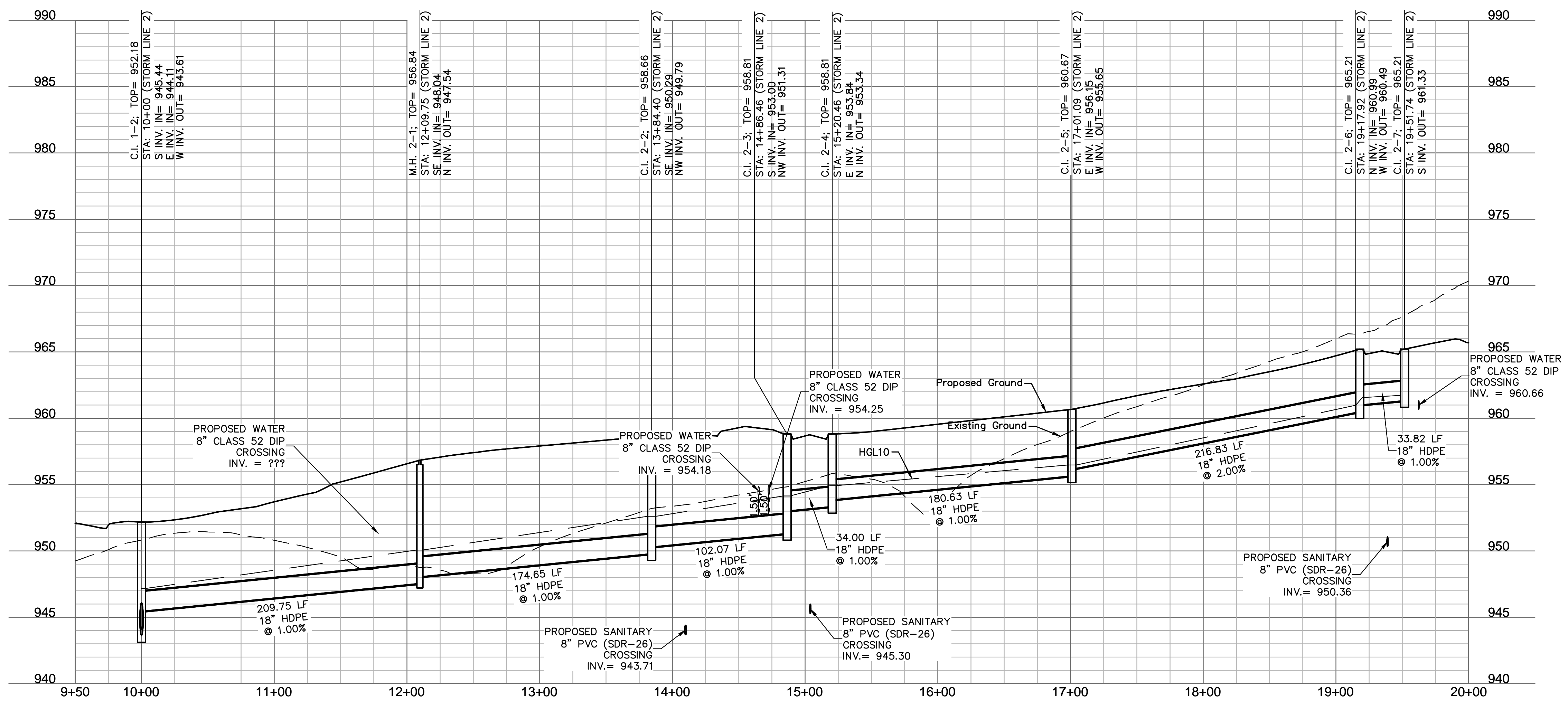
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 13 OF 53

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NOTES:
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 2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 4" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.



STORM LINE 2 (9+50 - 20+00)



1301 Burlington Street
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 FAX 816.361.1888
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PROFESSIONAL ENGINEER
 MEGAN J. WALTER
 NUMBER PE-2012028697
 DATE 4/20/20

REV. NO.	DATE	REVISIONS DESCRIPTION

STORM PLAN & PROFILES
 STREET AND STORM SEWER PLANS
 THE RETREAT AT HOOK FARMS
 CONSTRUCTION DOCUMENTS

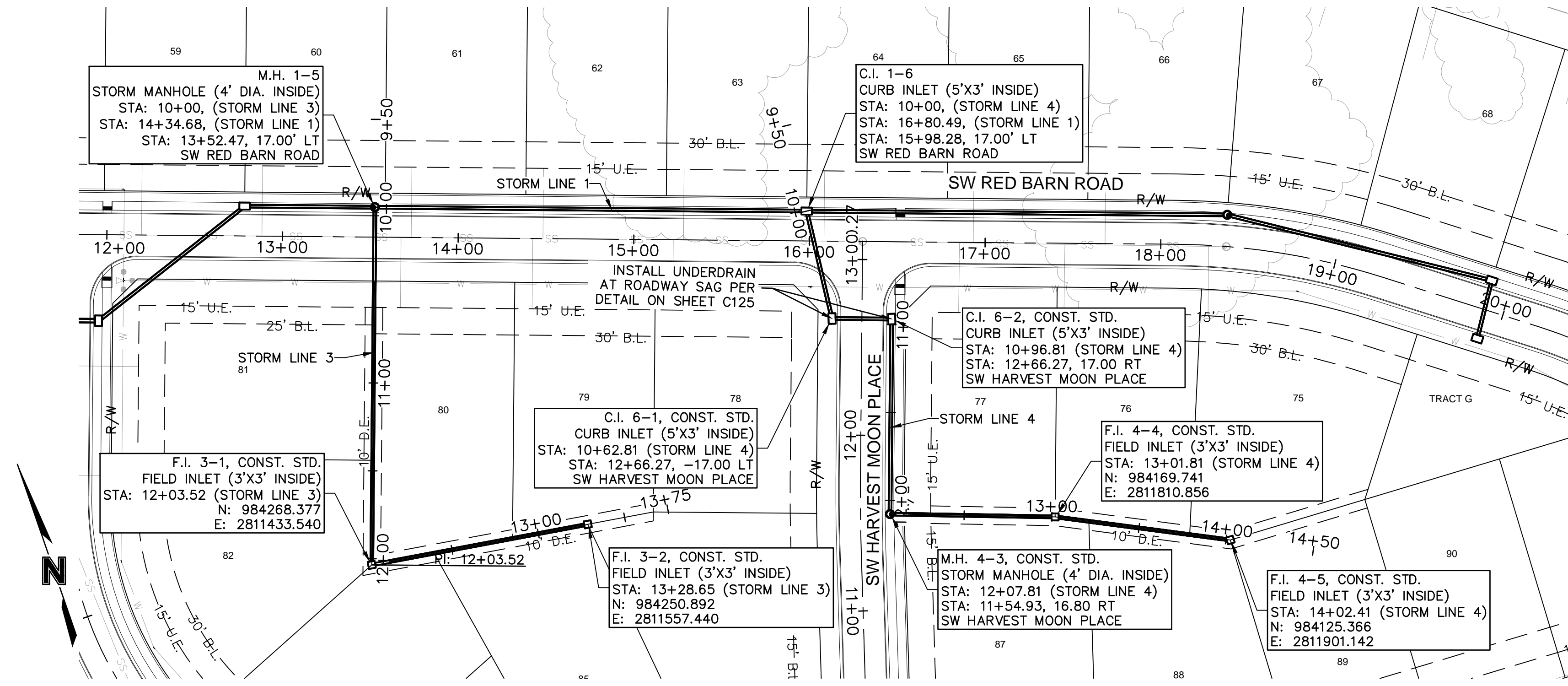
LEES SUMMIT, MO

2020

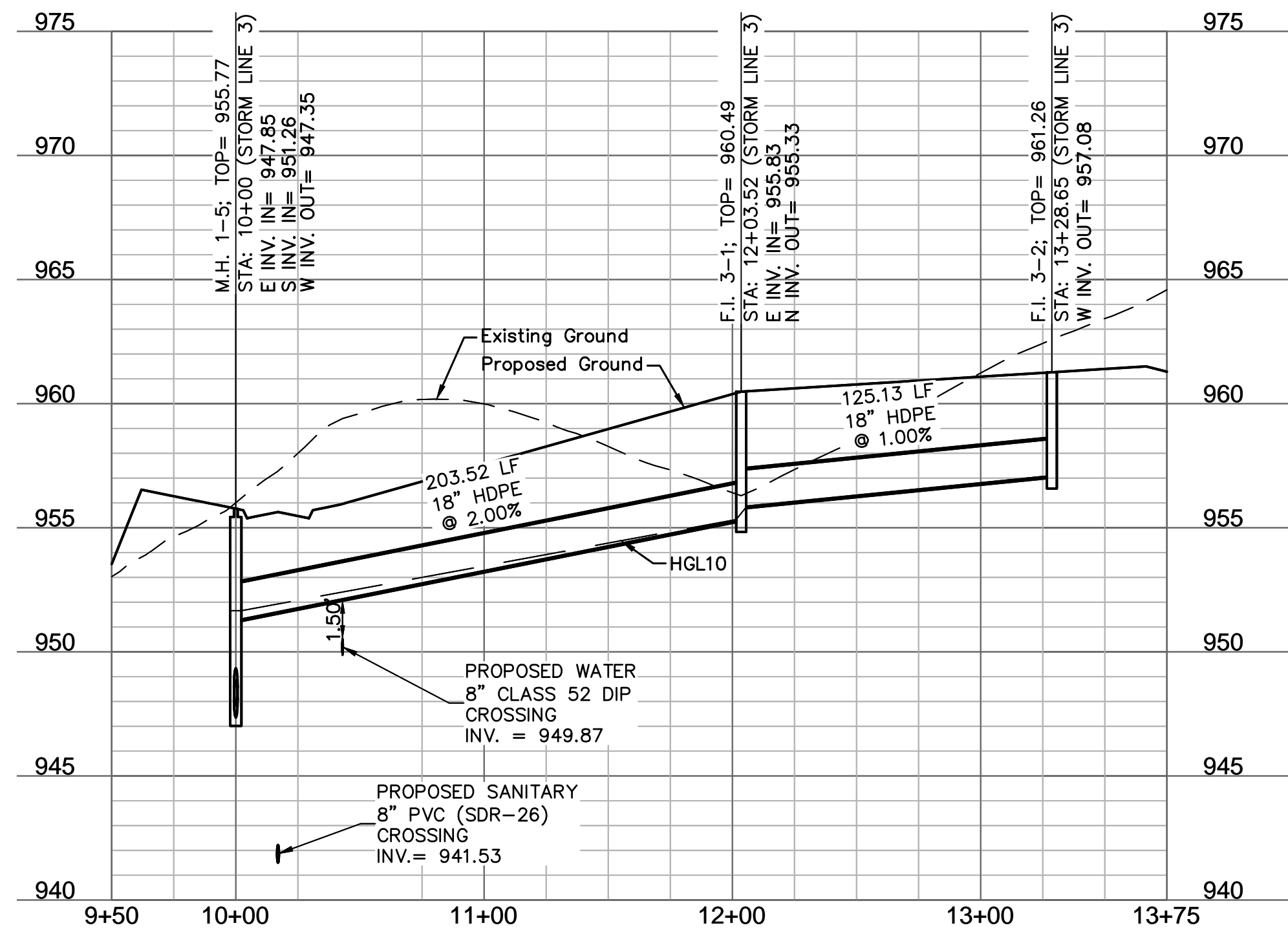
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 project no.: 019-4059
 drawing no.: C_STM02_0194059
 date: 4/20/2020

SHEET C113
 14 OF 53

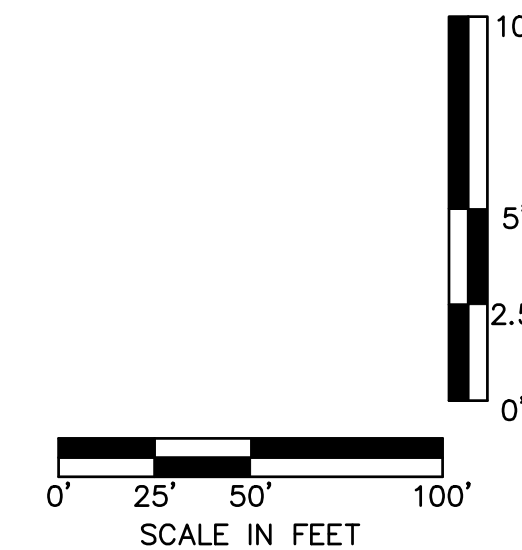
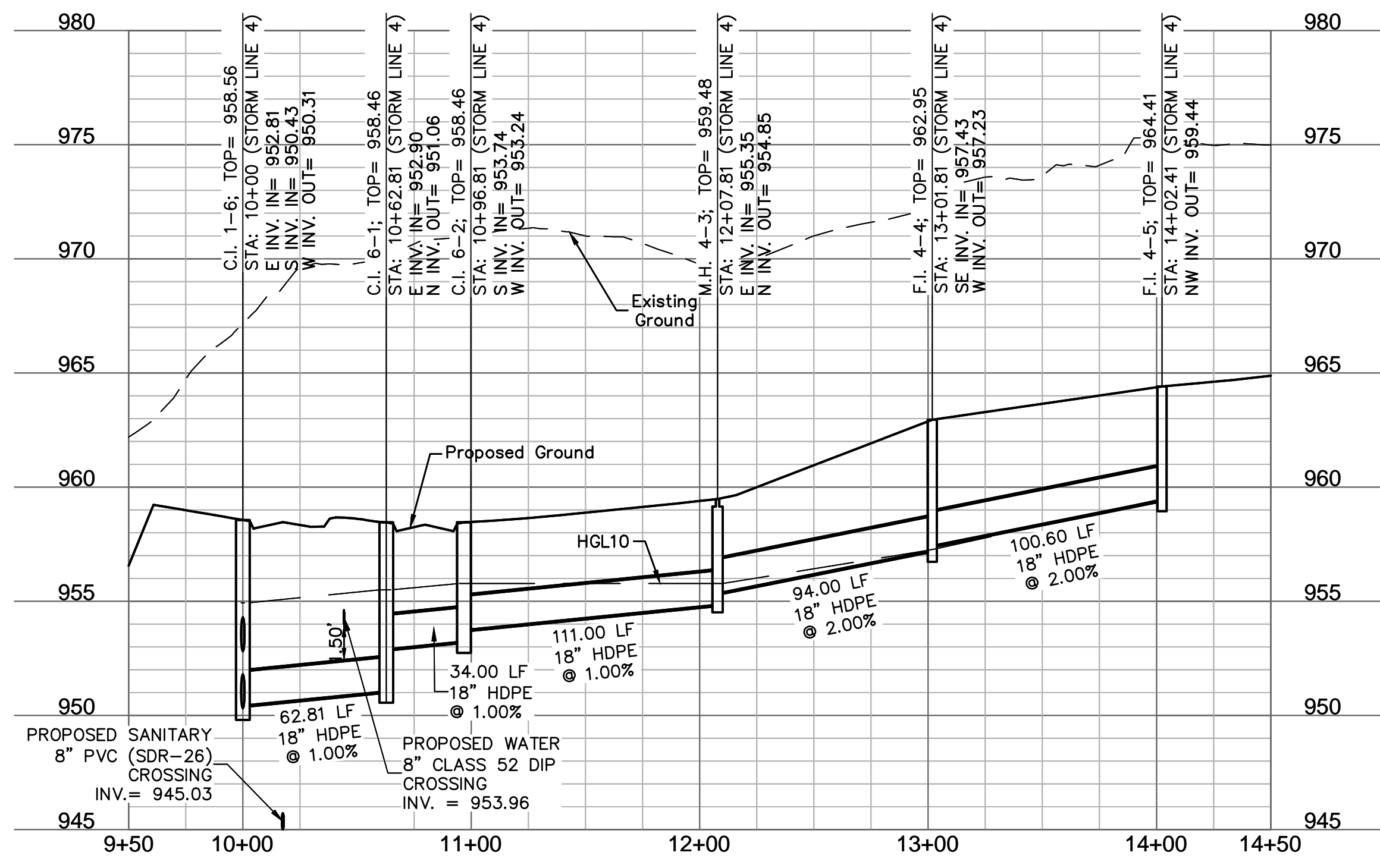
NOTES:
 1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
 2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 4' MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.



STORM LINE 3 (9+50 - 13+75)



STORM LINE 4 (9+50 - 14+50)



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 FAX 816.361.1888
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STATE OF MISSOURI
 4/20/20
 MEGAN J. WALTER
 NUMBER
 PE 201202897
 PROFESSIONAL ENGINEER

BY: _____
 DATE: _____
 REV. NO. _____
 REVISIONS DESCRIPTION

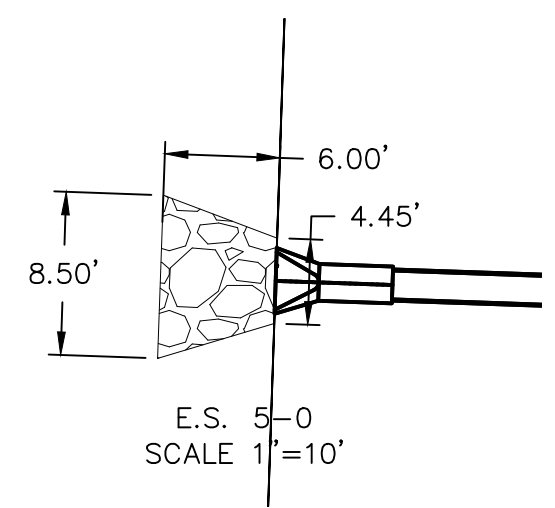
STORM PLAN & PROFILES
 STREET AND STORM SEWER PLANS
 THE RETREAT AT HOOK FARMS
 CONSTRUCTION DOCUMENTS

LEE'S SUMMIT, MO
 2020

drawn by: EM
 checked by: EM
 designed by: RB
 QA/QC by: NH
 project no.: 019-4059
 drawing no.: C_STM02_0194059
 date: 4/20/2020

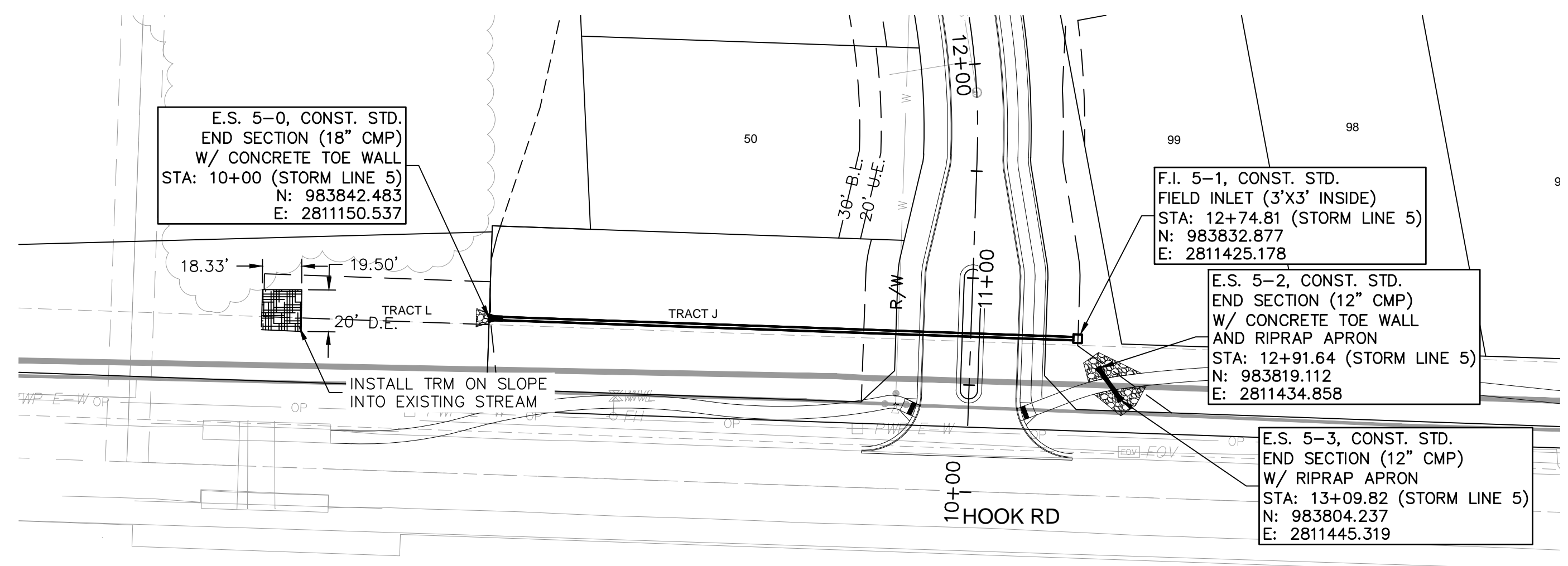
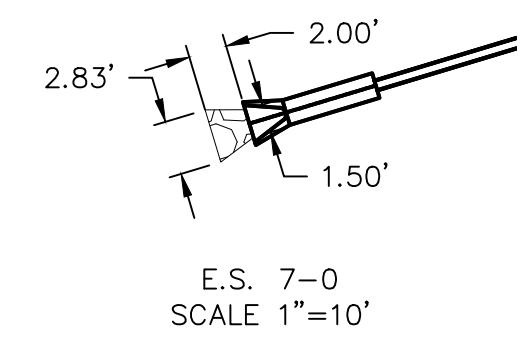
SHEET C114
 15 OF 53

NOTES:
 1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
 2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 4" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.

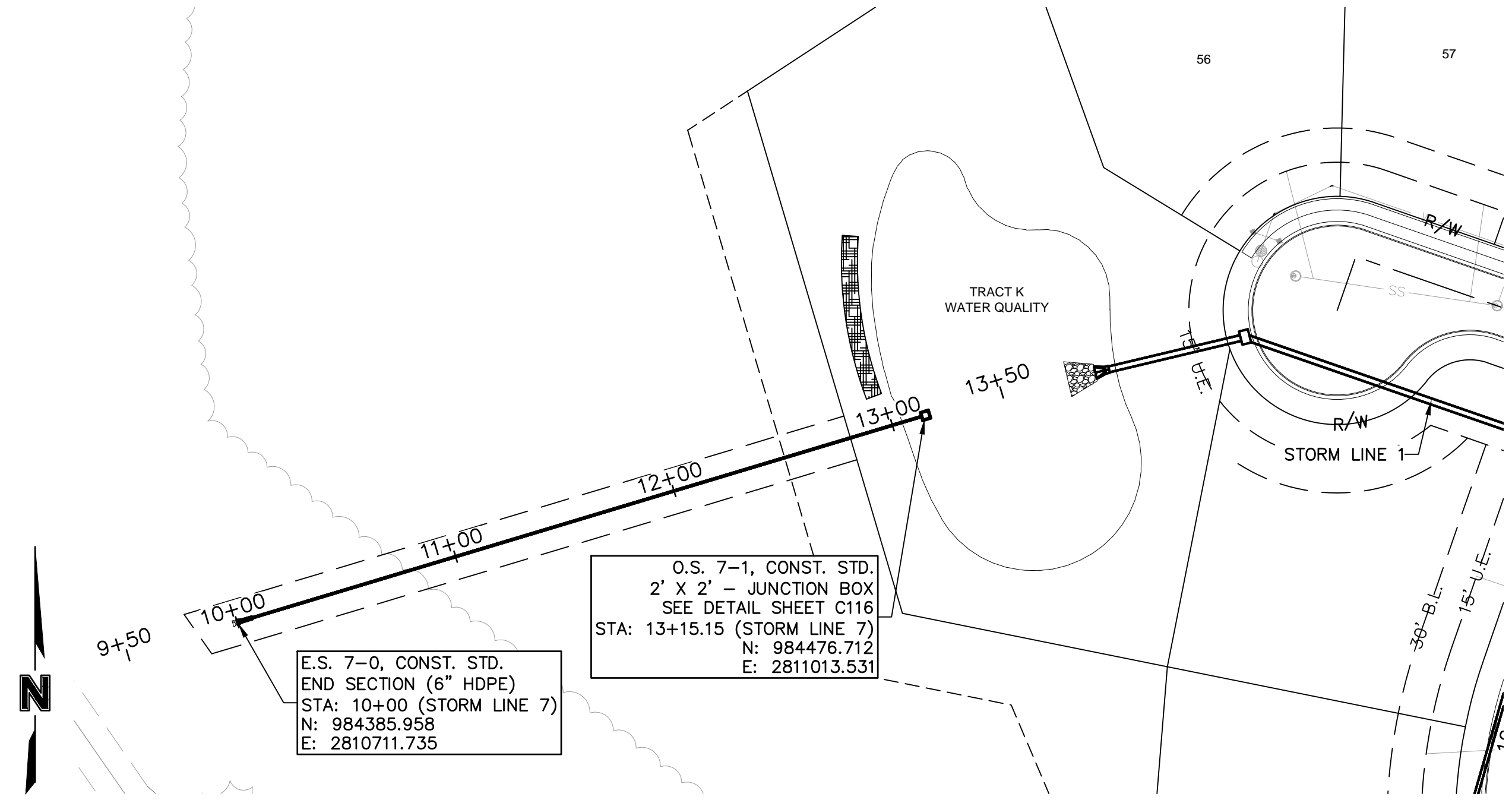
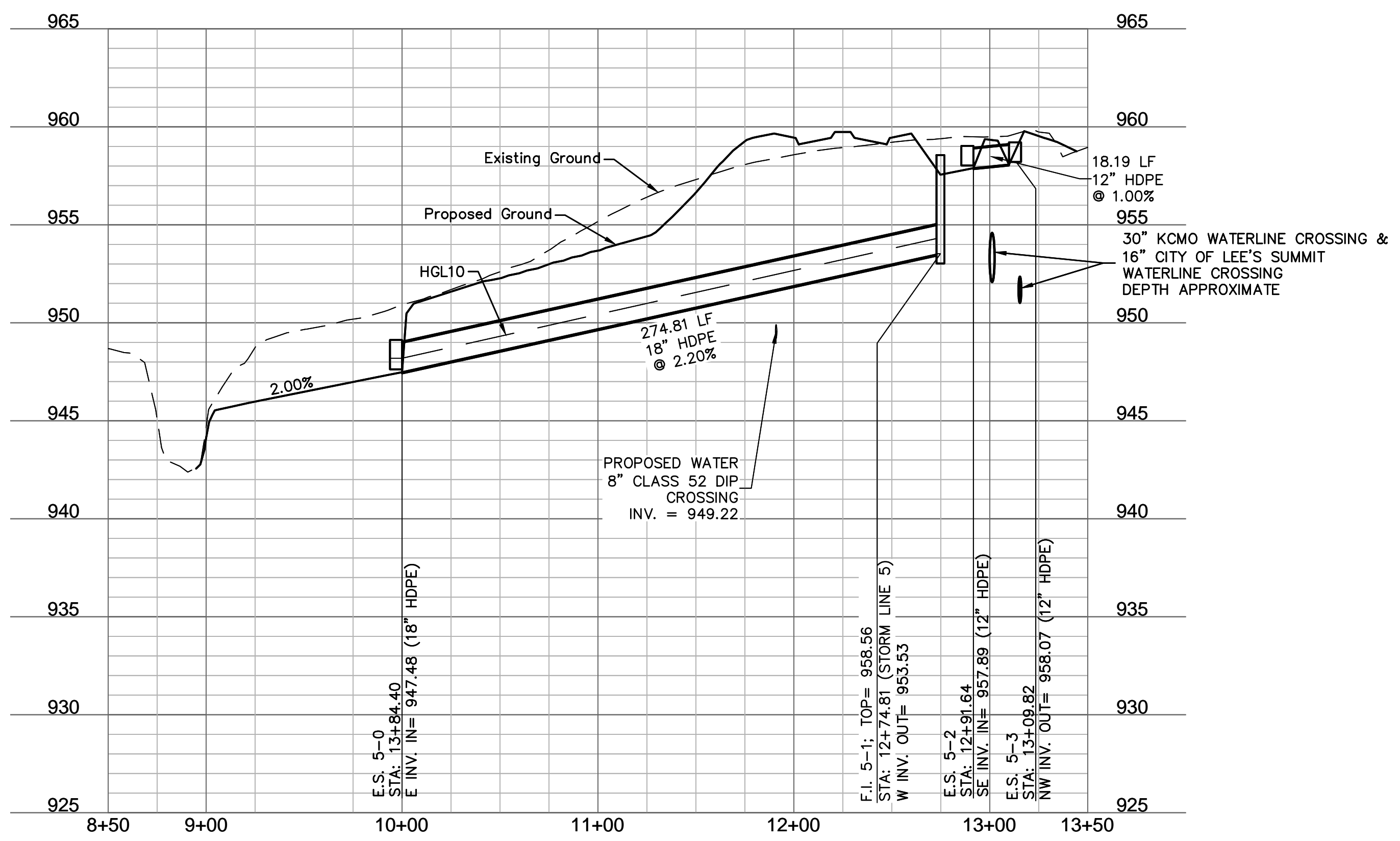


Riprap Calculations							
End Section	Q ₁₀₀ (cfs)	Pipe Diameter (ft)	Class*	D50* (in)	Apron Length (ft)	Apron Depth (ft)	Area (SY)
E.S. 1-0	37.93	2.5	3	10	12.5	2.00	16.2
E.S. 5-0	9.09	1.5	2	6	6	1.65	4.3
E.S. 7-0	0.61	0.5	1	5	2	1.46	0.5

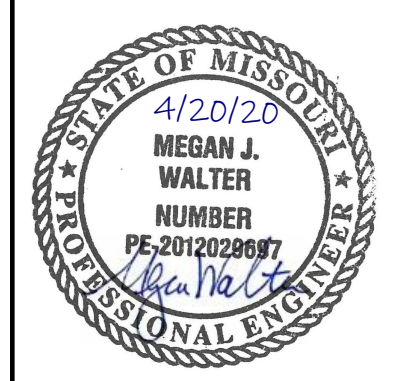
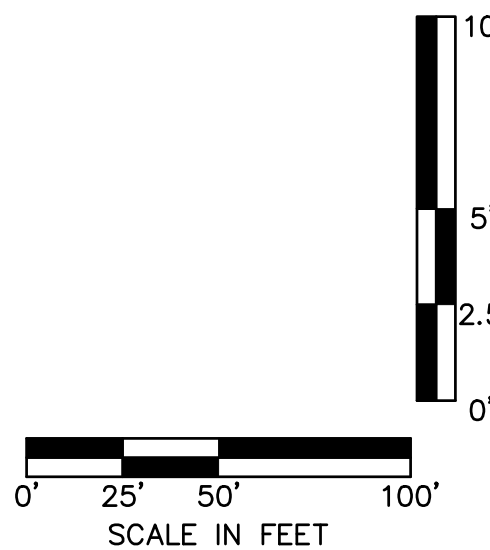
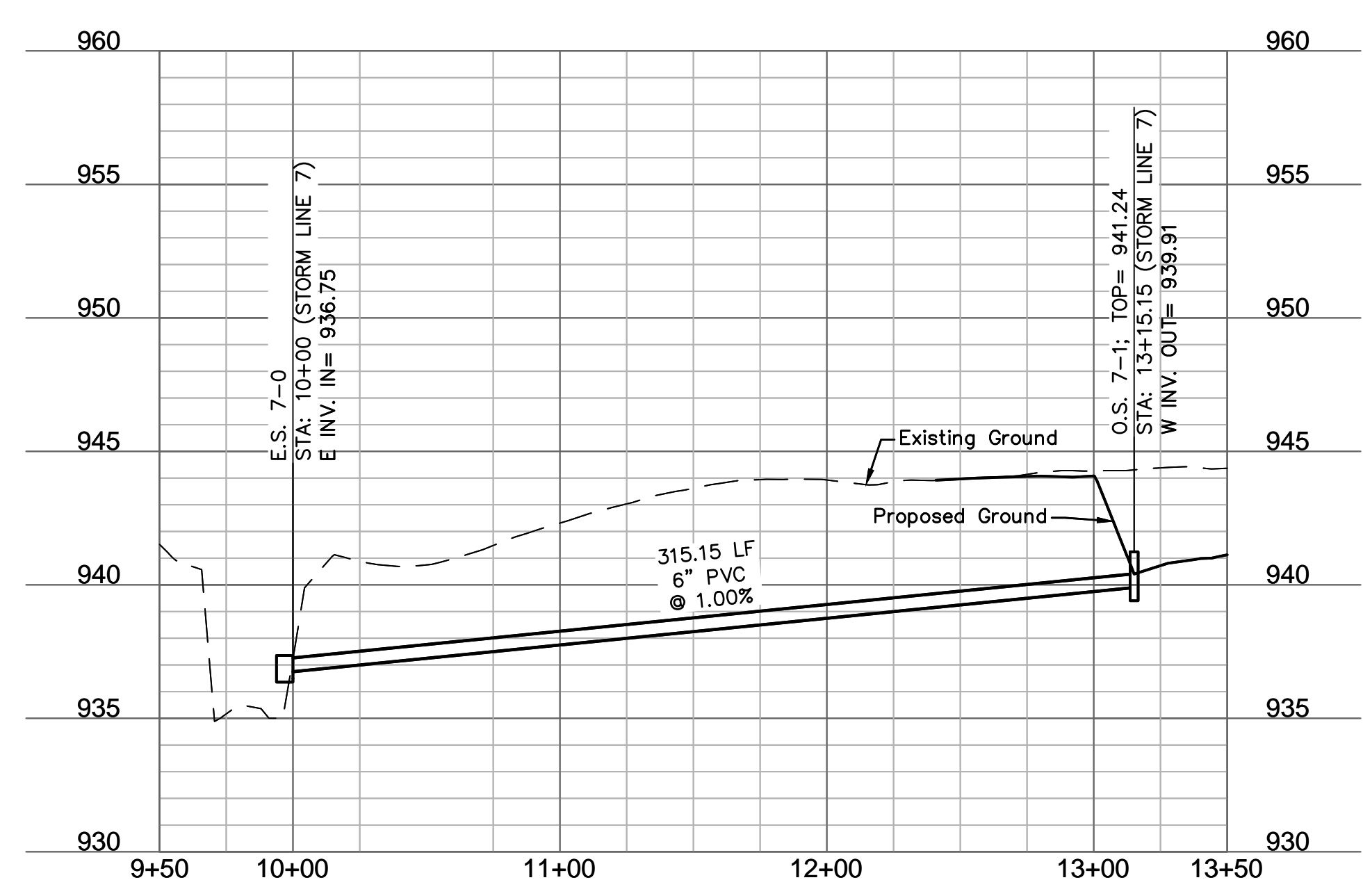
*Per Table 10.1 HEC 14-FHWA-Energy Dissipators Pg. 10-18



STORM LINE 5 (8+50 - 13+50)



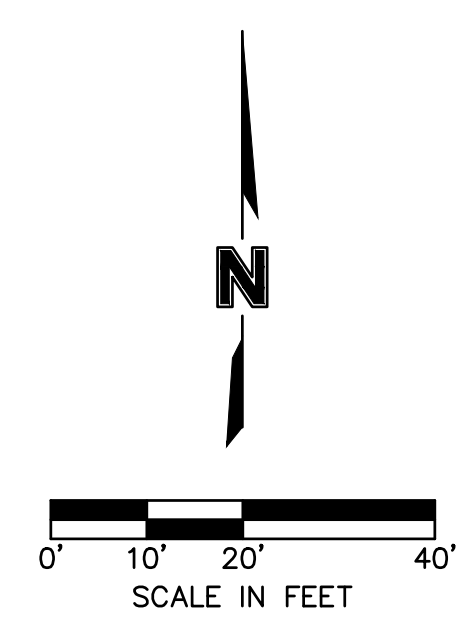
STORM LINE 7 (9+50 - 13+50)



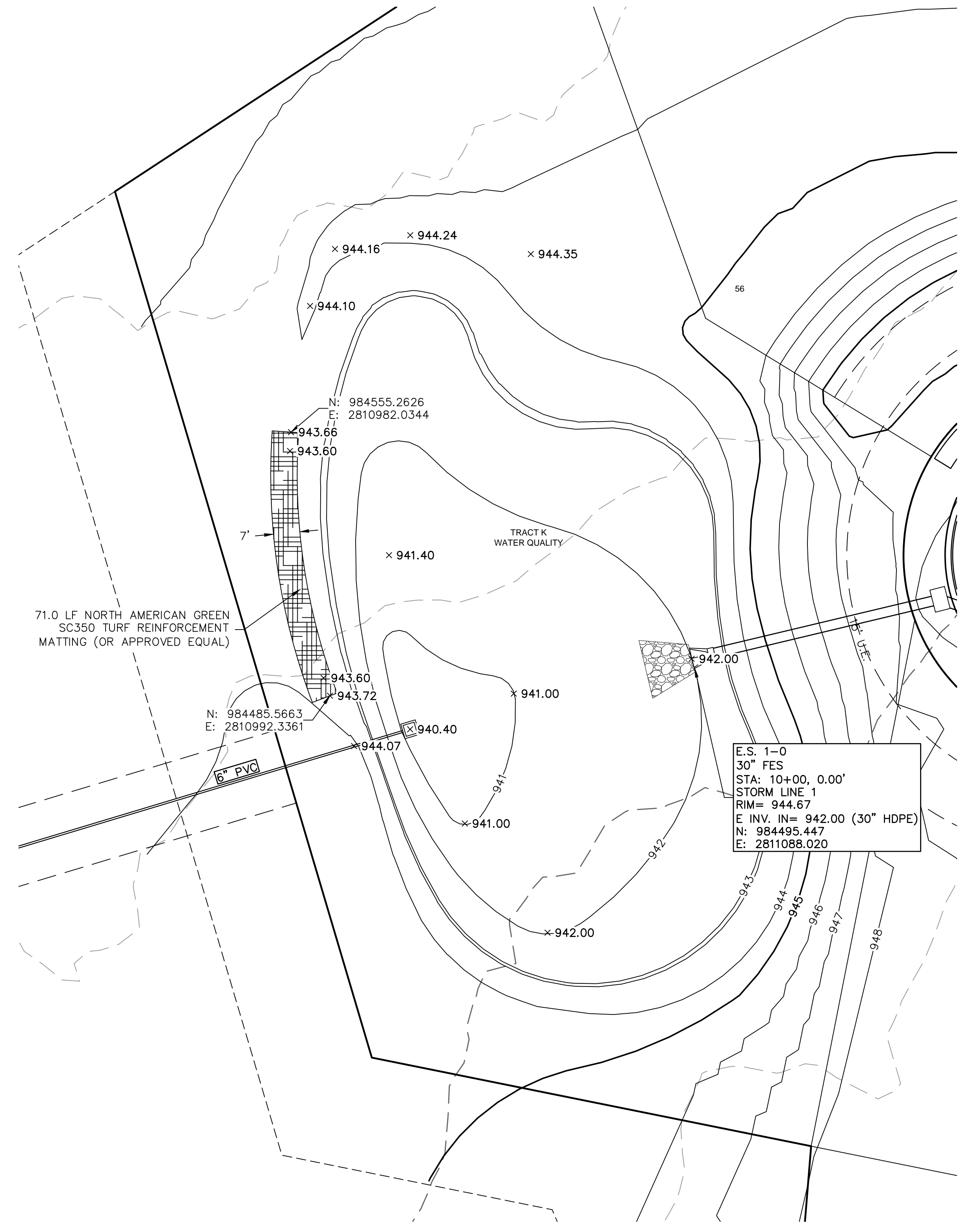
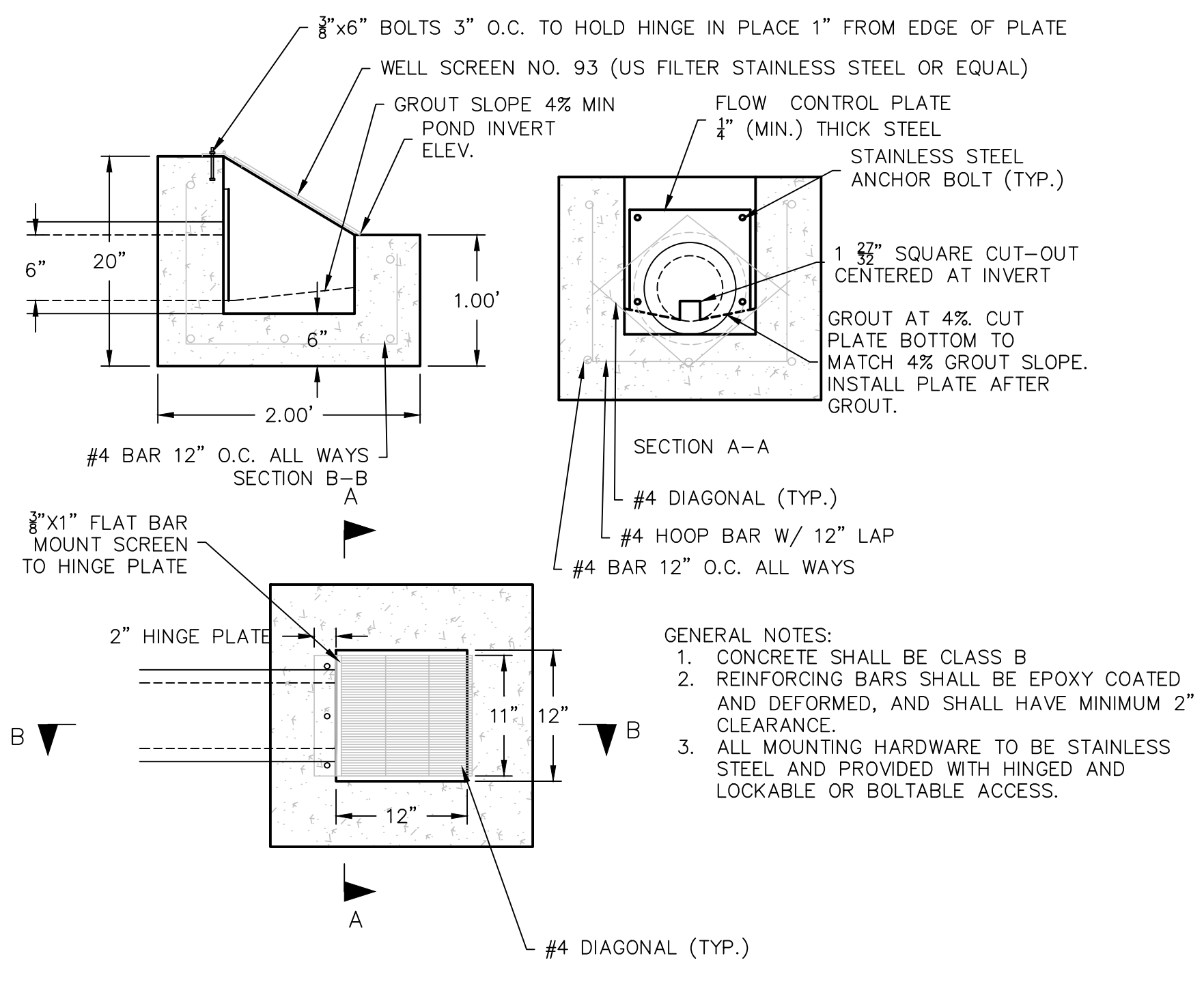
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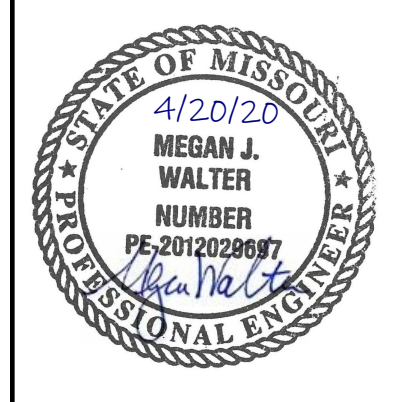
USER: emorton



01 WATER QUALITY POND 2 OULET STRUCTURE



E.S. 1-0
 30" FES
 STA: 10+00, 0.00'
 STORM LINE 1
 RIM= 944.67
 E INV. IN= 942.00 (30" HDPE)
 N: 984495.447
 E: 2811088.020



REV. NO.	DATE	REVISIONS DESCRIPTION	BY

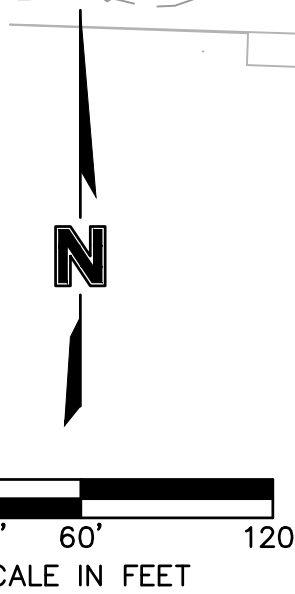
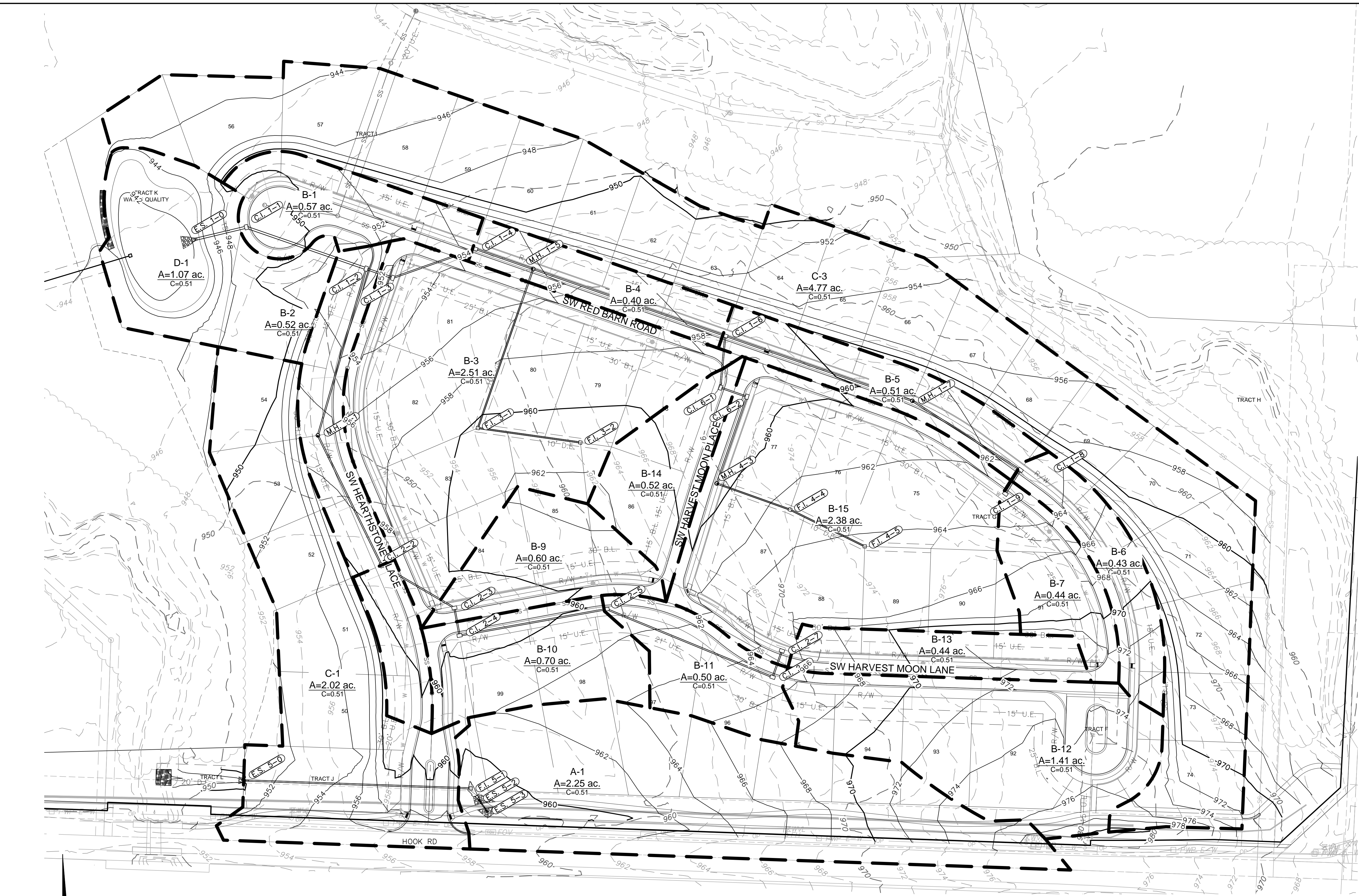
DETENTION BASIN PLAN
 STREET AND STORM SEWER PLANS
 THE RETREAT AT HOOK FARMS
 CONSTRUCTION DOCUMENTS

LEE'S SUMMIT, MO

2020

drawn by: _____ EM
 checked by: _____ EM
 designed by: _____ RB
 QA/QC by: _____ NH
 project no.: 019-4059
 drawing no.: C_GRD02_0194059
 date: 4/20/2020

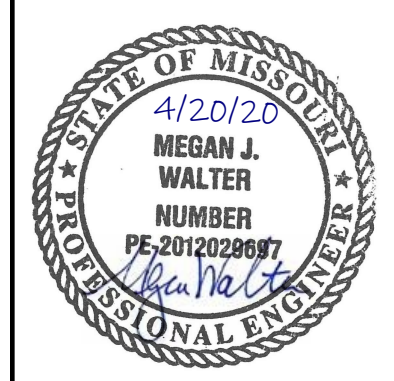
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NOTES:
 1. INDIVIDUAL LOT OWNERS SHALL NOT CHANGE OR OBSTRUCT THE DRAINAGE FLOW LINES OR PATHS ON THE LOTS, AS SHOWN ON THE MASTER DRAINAGE PLAN, UNLESS SPECIFIC APPLICATION IS MADE AND APPROVED BY THE CITY ENGINEER.
 2. PLAT IS LOCATED IN ZONE X, "AREAS OUTSIDE THE 1-PERCENT ANNUAL CHANCE FLOODPLAINS, AREAS OF 1-PERCENT ANNUAL CHANCE SHEET FLOW FLOODING WHERE THE AVERAGE DEPTHS ARE LESS THAN 1 FOOT, AREAS OF 1-PERCENT ANNUAL CHANCE STREAM FLOODING WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1 SQUARE MILE, OR AREAS PROTECTED FROM THE 1-PERCENT ANNUAL CHANCE FLOOD BY LEVEES. NO BASE FLOOD ELEVATIONS OR DEPTHS ARE SHOWN WITHIN THIS ZONE"

3. BUFFER ZONE FOR NATURAL STREAMS IS LOCATED WITHIN PLAT.
 4. MLO ELEVATIONS HAVE BEEN PROVIDED AT EACH LOT CORNER. INTERPOLATION WILL BE ALLOWED BETWEEN CORNER MBOES SHOWN ON THE MASTER DRAINAGE PLAN, DEPENDING ON THE LOCATION OF THE LOWEST OPENING ON THE PROPOSED STRUCTURE.
 5. NO BUILDING PERMITS WILL BE ISSUED UNTIL AN AS-GRADED MASTER DRAINAGE PLAN HAS BEEN SUBMITTED TO THE CITY AND APPROVED BY THE CITY.

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

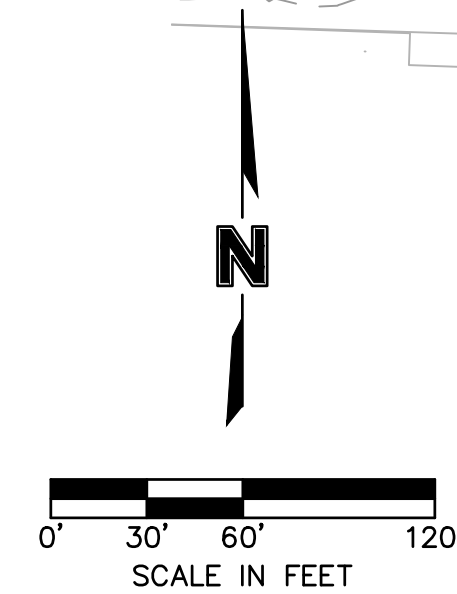


REV. NO.	DATE	REVISIONS DESCRIPTION

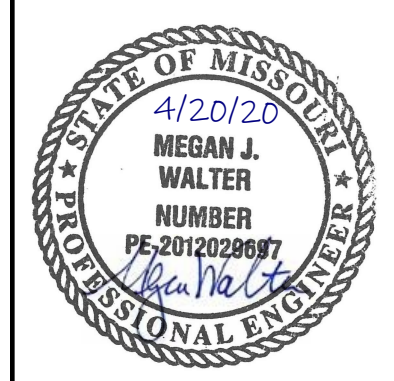
BY: _____
 DRAINAGE PLAN
 STREET AND STORM SEWER PLANS
 THE RETREAT AT HOOK FARMS
 CONSTRUCTION DOCUMENTS
 LEE'S SUMMIT, MO
 2020



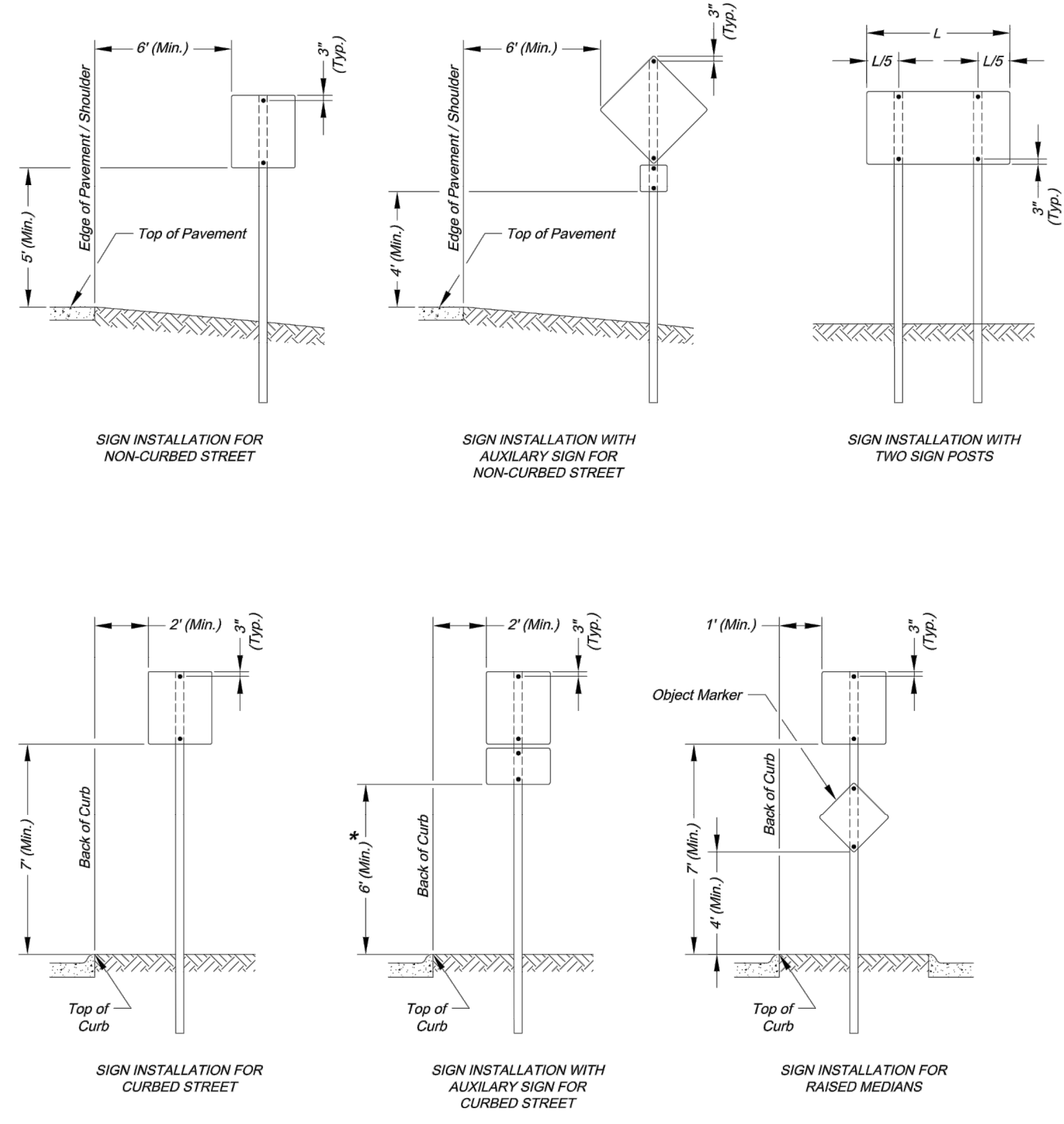
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- NOTES:**
- INDIVIDUAL LOT OWNERS SHALL NOT CHANGE OR OBSTRUCT THE DRAINAGE FLOW LINES OR PATHS ON THE LOTS, AS SHOWN ON THE WATER DRAINAGE PLAN, UNLESS SPECIFIC APPLICATION IS MADE AND APPROVED BY THE CITY ENGINEER.
 - PLAT IS LOCATED IN ZONE X, "AREAS OUTSIDE THE 1-PERCENT ANNUAL CHANCE FLOODPLAINS, AREAS OF 1-PERCENT ANNUAL CHANCE SHEET FLOOD FLOODING WHERE THE AVERAGE DEPTHS ARE LESS THAN 1 FOOT, AREAS OF 1-PERCENT ANNUAL CHANCE STREAM FLOODING WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1 SQUARE MILE, OR AREAS PROTECTED FROM THE 1-PERCENT ANNUAL CHANCE FLOOD BY LEVEES. NO BASE FLOOD ELEVATIONS OR DEPTHS ARE SHOWN WITHIN THIS ZONE"
 - BUFFER ZONE FOR NATURAL STREAMS IS LOCATED WITHIN PLAT.
 - NO BUILDING PERMITS WILL BE ISSUED UNTIL AN AS-GRADED MASTER DRAINAGE PLAN HAS BEEN SUBMITTED TO THE CITY AND APPROVED BY THE CITY.
 - INTERPOLATION WILL BE ALLOWED BETWEEN THE RIGHT AND LEFT SIDE MBOES SHOWN ON THE MASTER DRAINAGE PLAN, DEPENDING ON THE LOCATION OF THE LOWEST OPENING ON THE PROPOSED STRUCTURE.
 - SWALES TO BE CONSTRUCTED BETWEEN EACH OF THE LOTS 75-84, 92-94 TO DRAIN TOWARDS THE ROADWAY.
 - RMLO - REAR MINIMUM LOW OPENING
FMLO - FRONT MINIMUM LOW OPENING
- LOT TYPES:**
 S - STANDARD
 D - DAYLIGHT
 W - WALKOUT



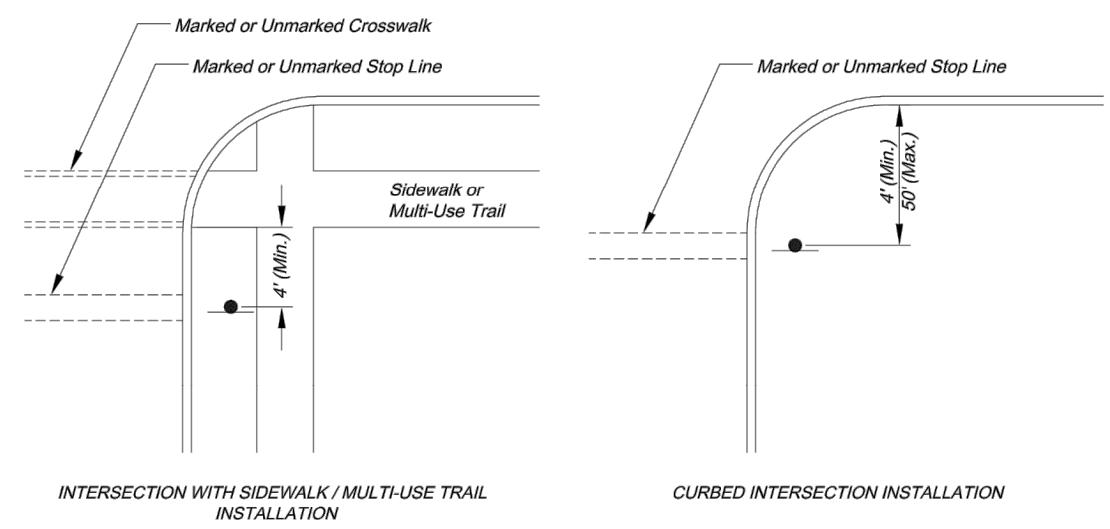
REV. NO.	DATE	REVISIONS DESCRIPTION



SIGN MOUNTING DETAILS

* The height to the bottom of a sign when it is located in a pedestrian walkway or extends into a walkway shall be a minimum of 60 inches above the walkway.

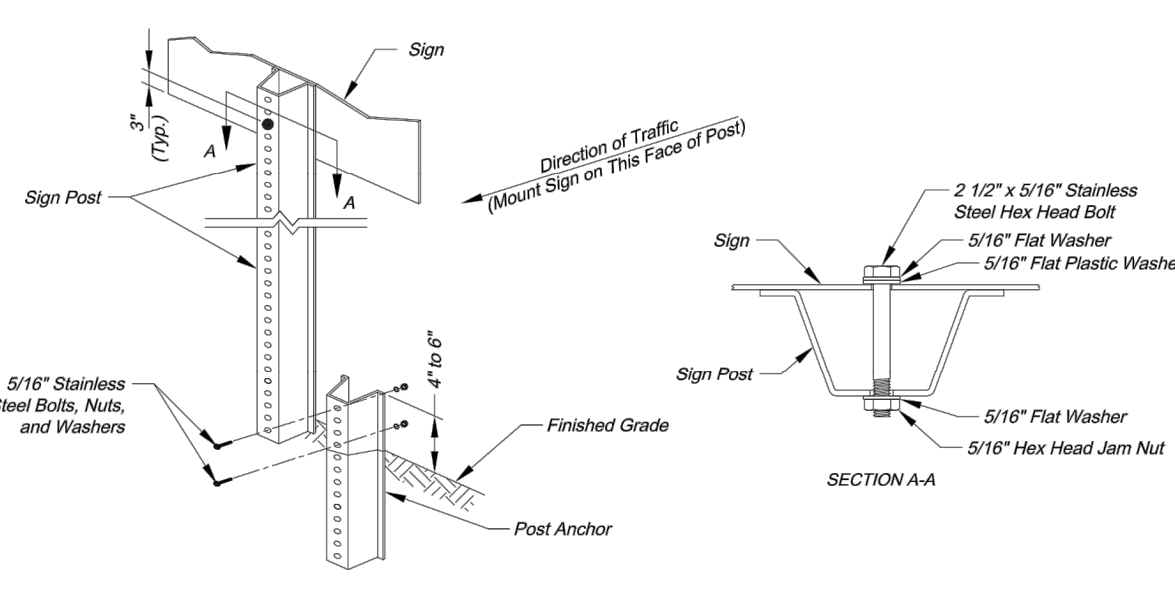
NOTE:
1. Generally, the sign mounting height should not be more than 1' greater than the minimum mounting height.



CONTROL SIGN LOCATION

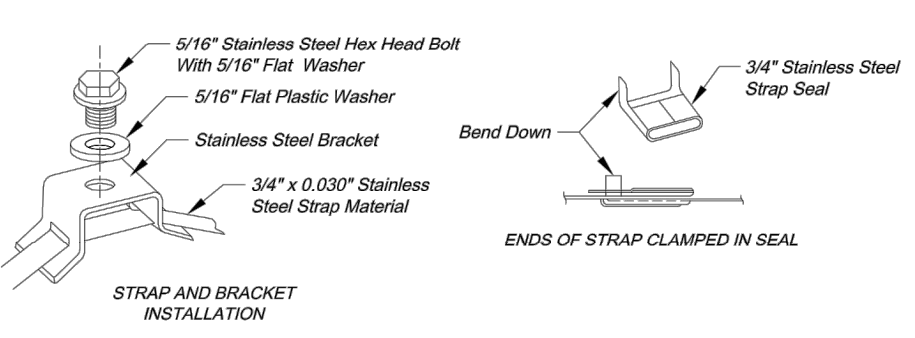
MEDIAN SIGN LOCATION

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



U-STEEL POST NOTES:

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



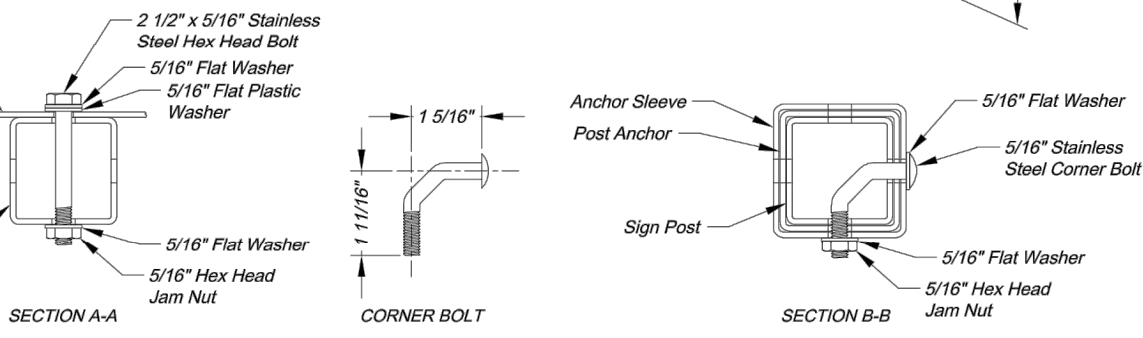
STRAP TYPE SIGN SUPPORT DETAILS

1. Signs on metal poles shall be attached with two brackets and stainless steel bands.
2. Holes in sign for attachment to the mounting brackets shall be offset a minimum of 2 inches from the edge of the sign.
3. Holes in sign shall be located such that the sign is level.
4. All strap, bracket, and seal materials should be Type 201 stainless steel.

- PERMANENT SIGNING GENERAL NOTES:
1. All signing shall be in accordance with the latest edition of the *Manual on Uniform Traffic Control Devices (MUTCD)*.
 2. The Contractor is responsible for avoiding any and all utilities when installing sign posts, whether the utility is indicated on the plans or not.
 3. All workmanship and materials shall be subject to the inspection and approval of the Public Works Department of the City of Lee's Summit.
 4. The Contractor shall stake the location of all sign posts to be installed. The City Inspector shall inspect the staking prior to installation. Minor relocation to avoid conflicts may be allowed with the approval of the City Traffic Engineer or designer.
 5. Signs shown to be installed on the side of metal poles 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.
 6. All post mounted signs shall be installed with breakaway anchors according to the Standard Drawings.
 7. 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 shall be responsible for removing and storing any signs that are to be reinstalled on the project. All equipment shall be reinstalled in good condition.
 8. Existing permanent signs and posts removed by the Contractor for construction purposes which are not to be reinstalled shall be delivered to the City's Public Works Maintenance Facility (1971 SE Hamden Road). The Contractor shall be responsible for removing and storing equipment in good condition and is fully responsible for the equipment until it is delivered.
 9. 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 erected in reflectorized drums (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.

SQUARE STEEL POST INSTALLATION SEQUENCE:

1. Sign post anchor driven partially into the ground using a drive cap with a sledge or power equipment.
2. Anchor sleeve slipped over anchor and drive into the ground together with the sign post anchor.
3. Insert sign post into the post anchor and bolt in place.



SQUARE STEEL POST NOTES:

1. 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 38" Square Steel Post
Anchor Sleeve - 12 Ga. 2 1/2" x 2 1/2" x 18" Square Steel Post
2. 14 Gauge posts must meet a certified minimum yield strength of 60,000 psi.
3. 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.
4. The maximum area for one sign post is 9.0 square feet. A sign or combination of signs with an area greater than 9.0 square feet will require two posts. Also, signs with a width greater than 36" (not including 36" x 36" diamond shaped signs) will require two posts.

CITY OF LEE'S SUMMIT
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
LEE'S SUMMIT, MISSOURI 64063
PHONE: (816) 989-1800 FAX: (816) 989-1809

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

Drawn By: AS
Checked By: JW
Date: 08/26/2009
Project# 1

CITY OF LEE'S SUMMIT
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
LEE'S SUMMIT, MISSOURI 64063
PHONE: (816) 989-1800 FAX: (816) 989-1809

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

Drawn By: AS
Checked By: JW
Date: 08/26/2009
Project# 2

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4/20/20
MEGAN J. WALTER
NUMBER
PE-2012028697

REV. NO.	DATE	REVISIONS DESCRIPTION

BY

REVISIONS

2020

LEES SUMMIT, MO

SIGNAGE DETAILS
STREET AND STORM SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

drawn by: EM
checked by: EM
designed by: RB
QA/QC by: NH
project no.: 019-4059
drawing no.: C_DTL00_0194059
date: 4/20/2020

SHEET C120
21 OF 53

STANDARD ABBREVIATION LISTS

Named Streets		Numbered Streets	
Avenue	AVE	First	ST
Boulevard	BLVD	Second	ND
Circle	CR	Third	RD
Creek	CR	Fourth to Tenth	TH
Court	CT		
Crossing	XING		
Drive	DR		
Highway	HWAY		
Lane	LN		
Parkway	PKWY		
Place	PL		
Road	RD		
Street	ST		
Terrace	TER		
Trail	TRL		
Way	WAY		

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"			
D3-1 (SP-3)	9" x 9"			
D3-1 (SP-4)	9" x 9"			
D3-1 (SP-5)	9" x 9"			
D3-1 (SP-6)	9" x 9"			

STREET NAME SIGN BLANK DETAILS

For Mounting on Square Steel Posts

NAMED STREET NAME SIGN DETAIL

* Use Highway Series B (All Caps) in lieu of series C if necessary to fit text on a 36" sign blank.

NUMBERED STREET NAME SIGN DETAIL

PROJECT SIGN DETAILS

PRIVATE STREET TAG DETAIL

NOTES:
 1. For all street name signs, the legend shall be white and the background shall be green.
 2. 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.
 3. The "PRIVATE STREET" tag should be added to the end of street name signs to indicate where a street that is outside the right-of-way intersects a public street. The background for the "PRIVATE STREET" tag shall be yellow.

SQUARE STEEL POST MOUNTING DETAILS

PLAN VIEW

WING BRACKET MOUNTING DETAILS

NOTES:
 1. Wing bracket shall be an L-shaped cantilever of T-beam rigid frame 380-3 aluminum alloy construction.
 2. Mount each wing bracket to metal pole using two 3/4" wide stainless steel straps.
 3. One wing bracket shall be installed per each sign. Cross brackets are not allowed.

STREET NAME SIGNS MOUNTED BACK TO BACK

(Major Street Mounted Above Minor Street)

LOWEST STREET NAME SIGN FACE MOUNTED PERPENDICULAR TO OTHER SIGN FACE

SIGNS INSTALLED SEPARATELY

SIGNS INSTALLED WITH OTHER SIGNS

CITY OF LEE'S SUMMIT
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DIVISION
 220 SE GREEN STREET
 LEE'S SUMMIT, MO 64116
 PHONE: (816) 869-1800 FAX: (816) 869-1809

Project: STREET NAME SIGN DETAILS
 Sheet Name: STANDARD DRAWING SW-3

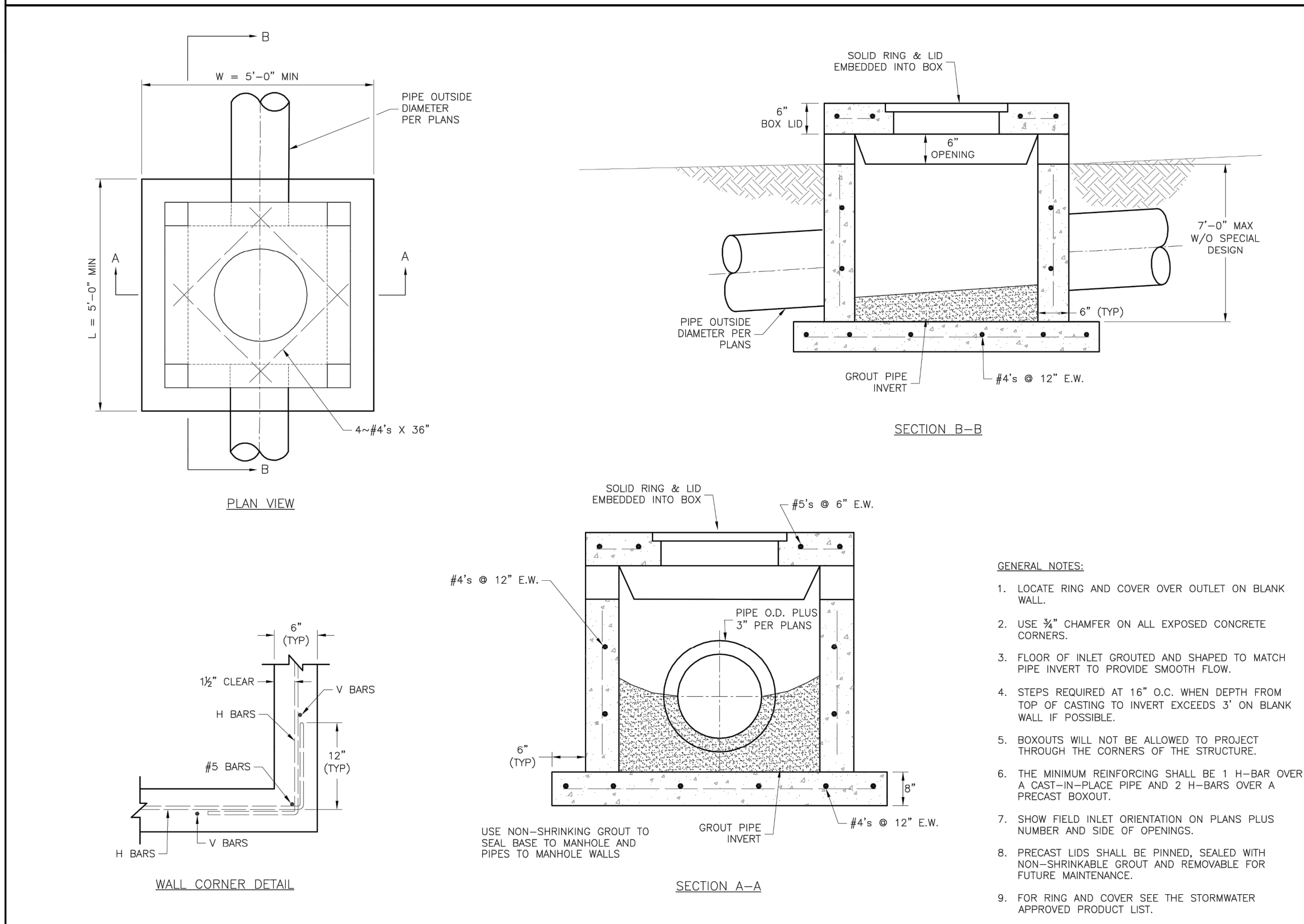
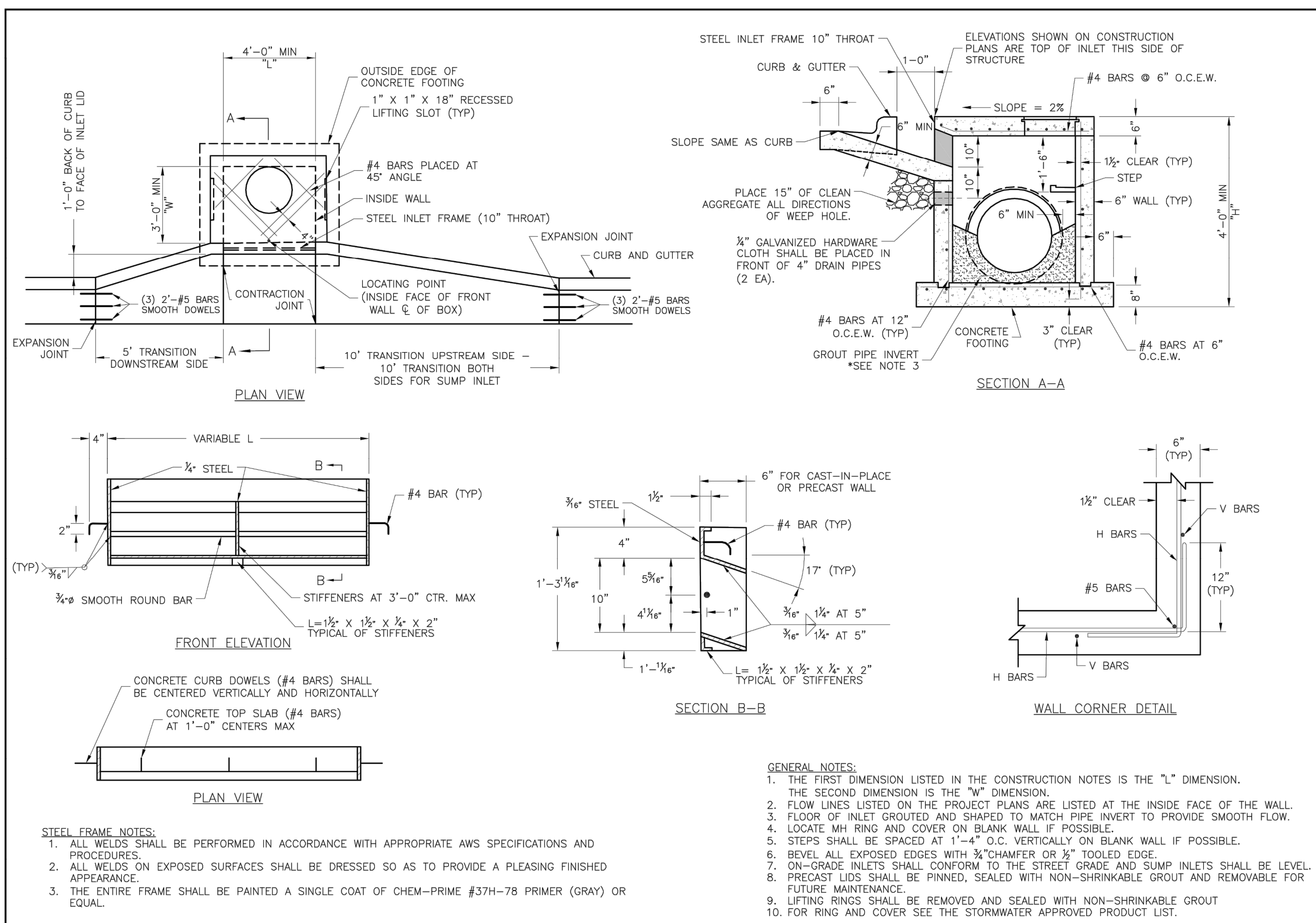
Drawn By: AS
 Checked By: JW
 Date: 08/28/2009
 Project#

1 OF 3
3

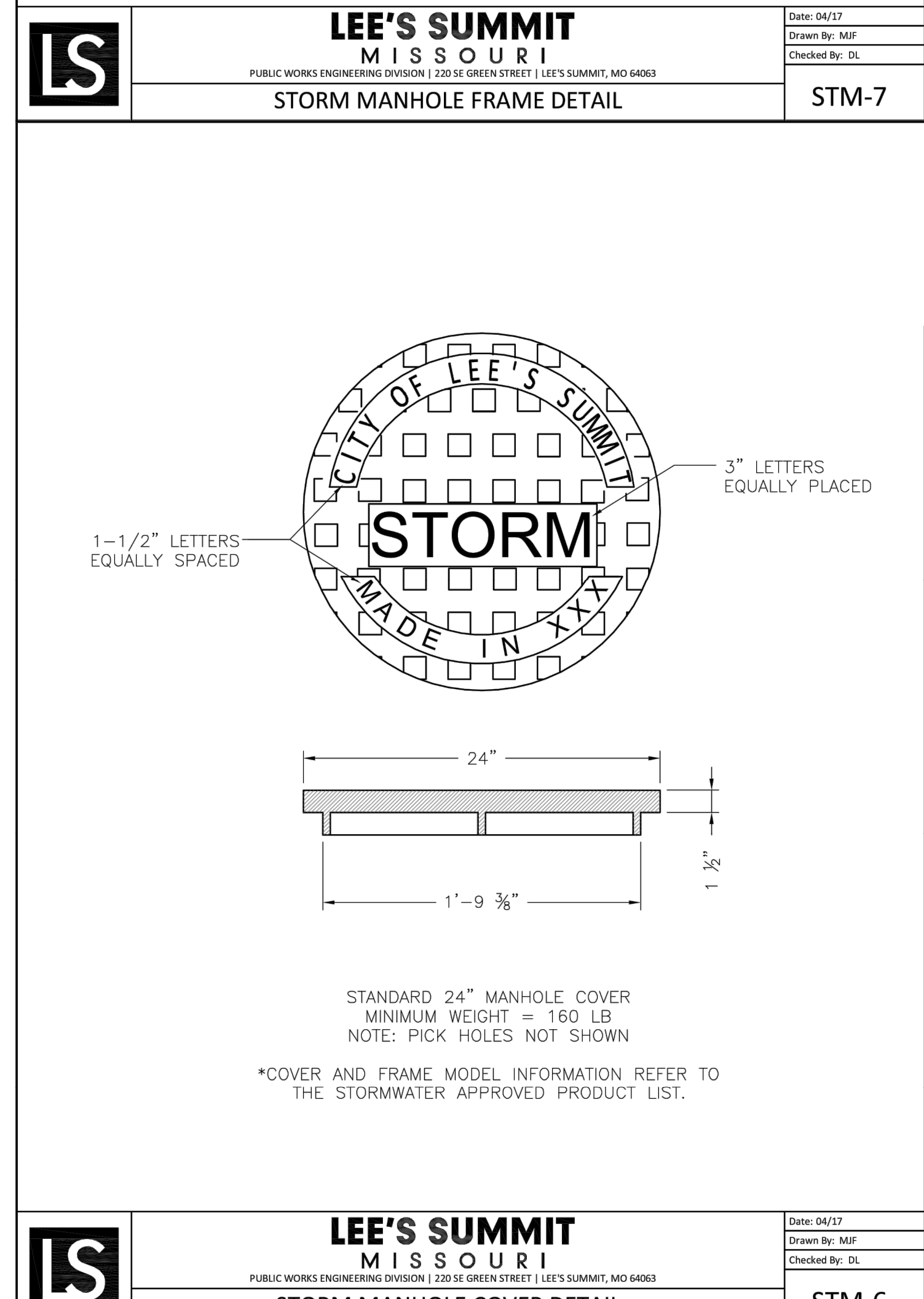
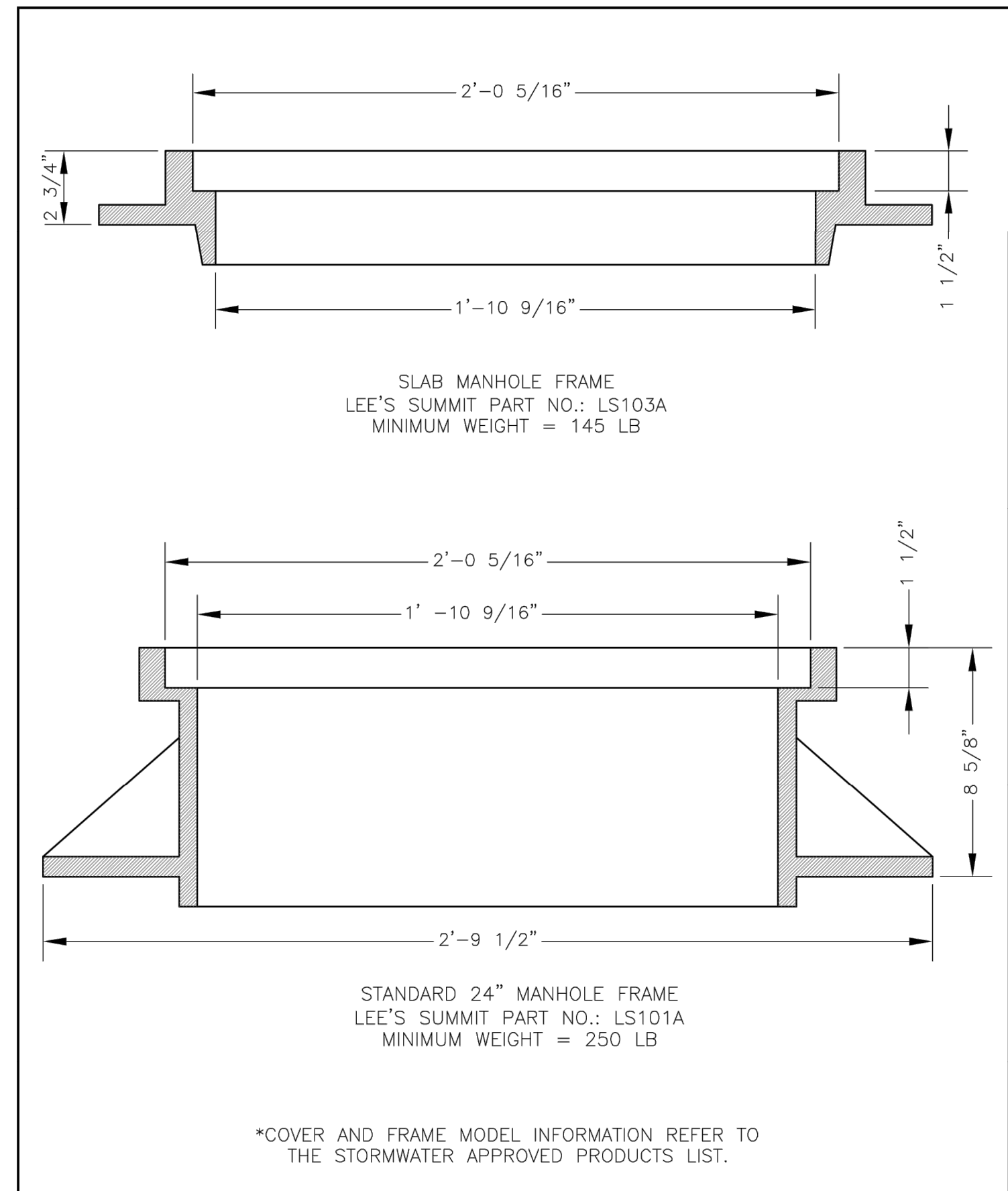


REV. NO.	DATE	REVISIONS DESCRIPTION

SIGNAGE DETAILS STREET AND STORM SEWER PLANS THE RETREAT AT HOOK FARMS CONSTRUCTION DOCUMENTS	2020	REVISIONS
drawn by: _____ EM checked by: _____ EM designed by: _____ RB QA/QC by: _____ NH project no.: 019-4059 drawing no.: C_DTL00_0194059 date: 4/20/2020		
SHEET C121 22 OF 53		



LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO Sheet Name:	CURB INLET DETAIL
	Drawn By: MIF Checked By: DL Date: 04/17 Date: 04/17 Date:	STM-1
	STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO Sheet Name:	FIELD INLET DETAIL
	Drawn By: MIF Checked By: DL Date: 04/17 Date: 04/17 Date:	STM-2



LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	STORM MANHOLE COVER DETAIL
Date: 04/17 Drawn By: MIF Checked By: DL	STM-6

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STATE OF MISSOURI
 4/20/20
 MEGAN J. WALTER
 NUMBER
 PE-2012028697
 Professional Engineer

REV. NO.	DATE	REVISIONS DESCRIPTION

BY

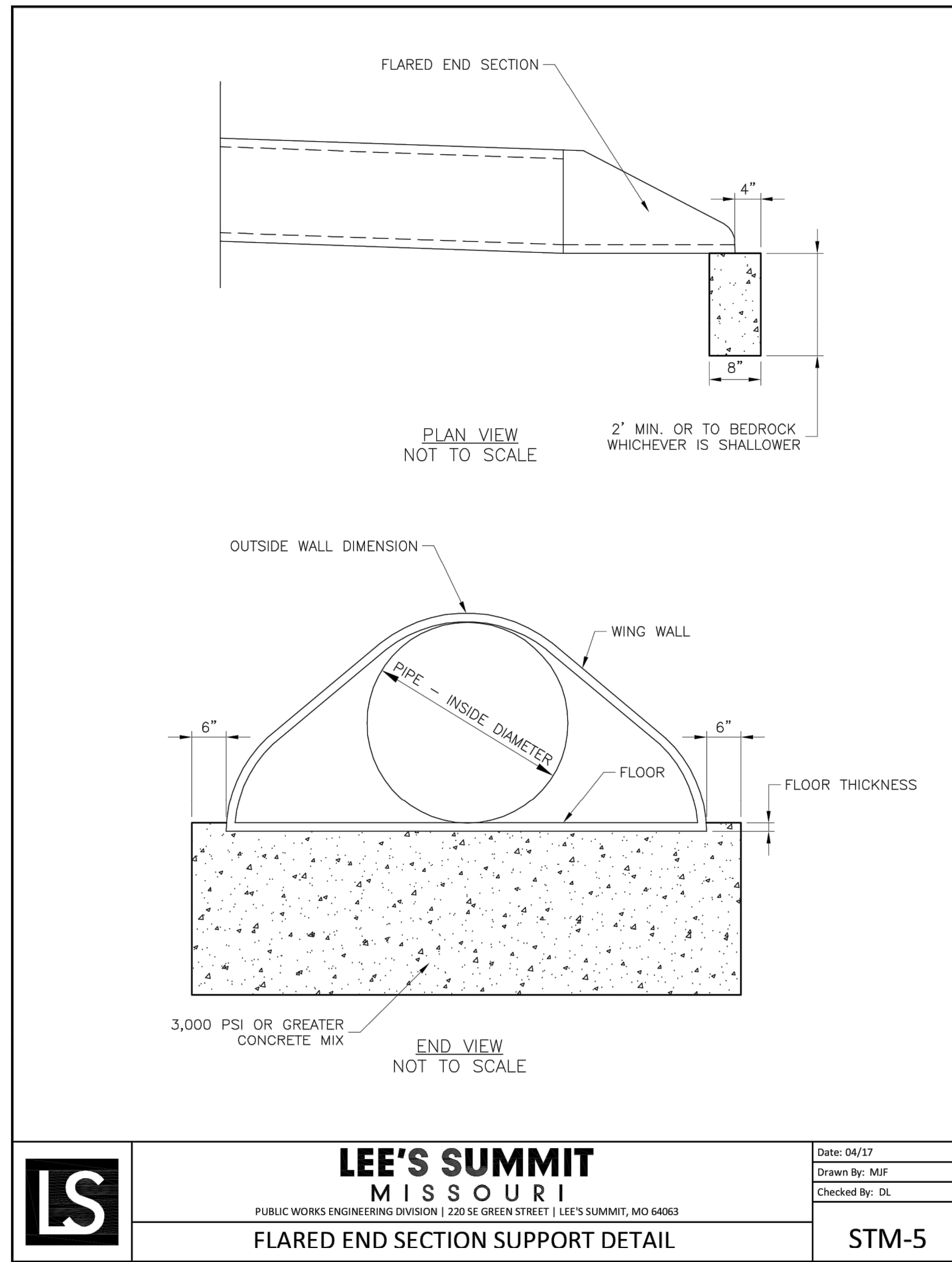
STORM DETAILS
 STREET AND STORM SEWER PLANS
 THE RETREAT AT HOOK FARMS
 CONSTRUCTION DOCUMENTS

2020

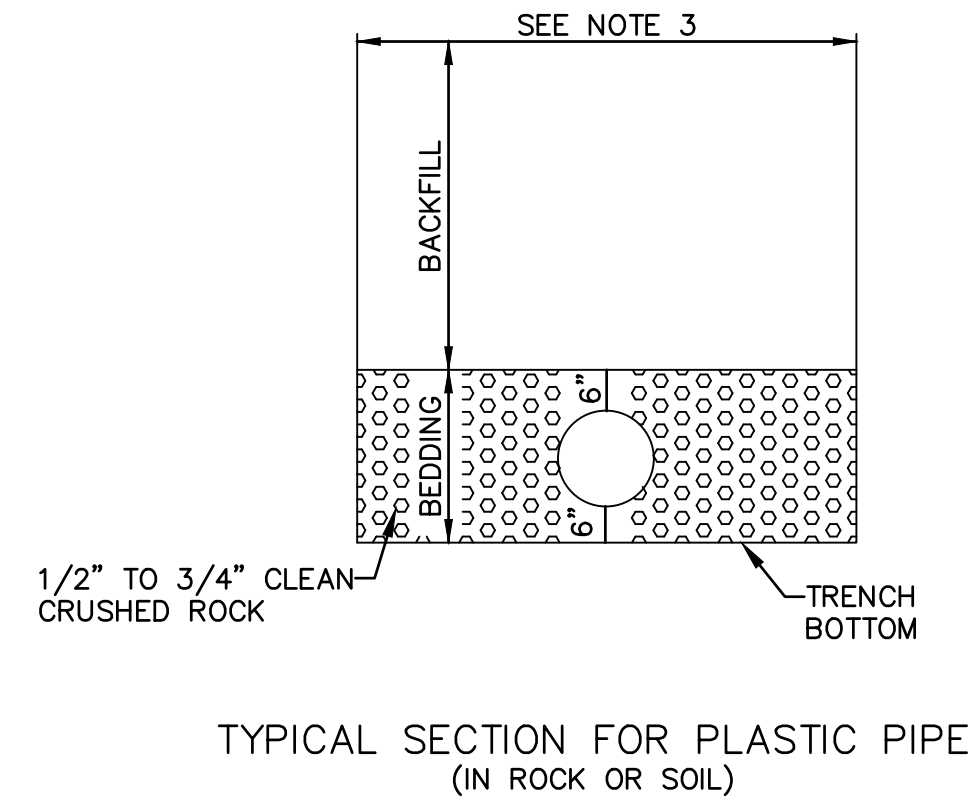
LEE'S SUMMIT, MO

drawn by: EM
 checked by: EM
 designed by: RB
 QA/QC by: NH
 project no.: 019-4059
 drawing no.: C_DTL00_0194059
 date: 4/20/2020

SHEET C122
 23 OF 53



LS	LEE'S SUMMIT MISSOURI <small>PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063</small>	<small>Date: 04/17</small>
	FLARED END SECTION SUPPORT DETAIL	<small>Drawn By: MJF</small>
	STM-5	<small>Checked By: DL</small>



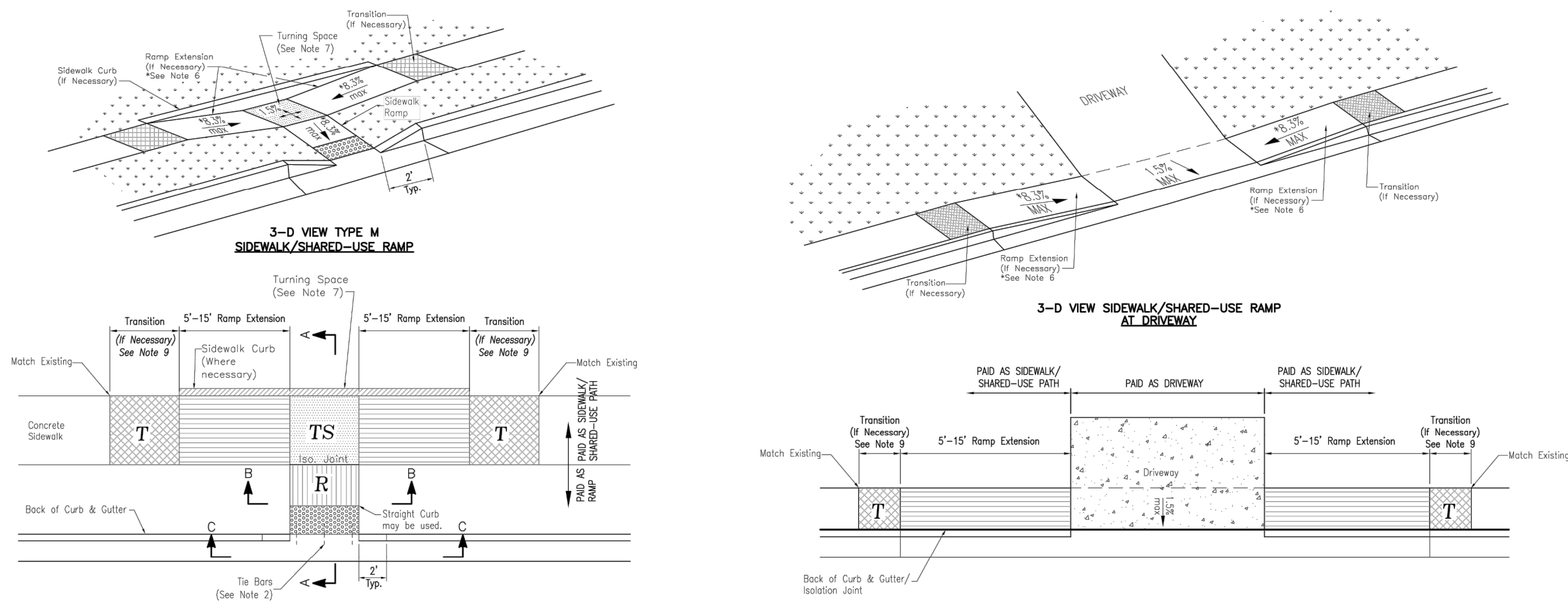
1. BACKFILL SHALL BE JOB EXCAVATED MATERIAL FREE FROM DEBRIS AND STONES COMPACTED TO 90% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698 FOR BACKFILL UNDER PAVEMENT (EXISTING OR PROPOSED).
2. TRENCH BANKS MAY BE CUT BACK ON SLOPES IN ACCORDANCE WITH CURRENT OSHA REGULATIONS, BUT ONLY IN AREAS WHERE THE INCREASED TRENCH WIDTH WILL NOT INTERFERE WITH SURFACE FEATURES. SLOPES MUST NOT EXTEND BELOW TOP OF BEDDING.
3. MINIMUM AND MAXIMUM WIDTHS SHALL BE IN ACCORDANCE WITH PIPE MANUFACTURER'S RECOMMENDATION AS APPROVED ON ENGINEERING PLANS.



REV. NO.	DATE	REVISIONS DESCRIPTION	BY

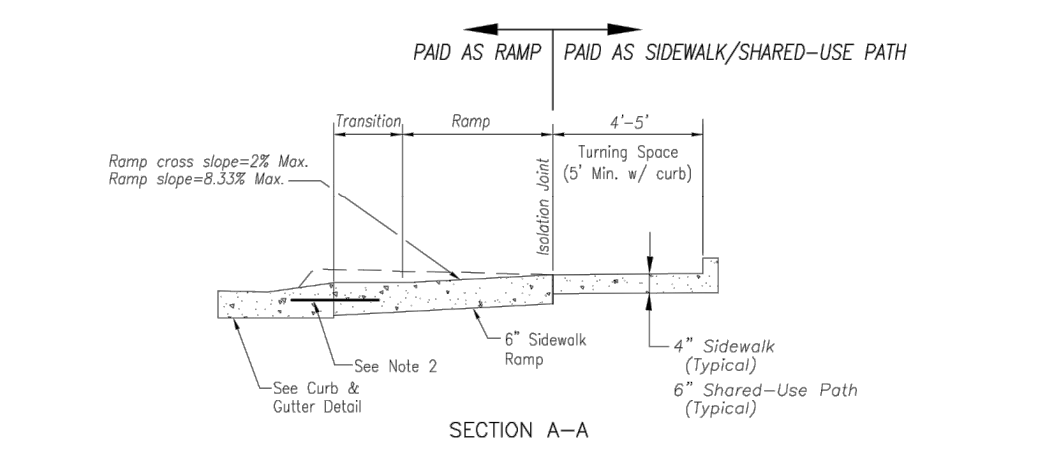
STORM DETAILS	2020
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THE RETREAT AT HOOK FARMS	
CONSTRUCTION DOCUMENTS	
LEE'S SUMMIT, MO	

drawn by:	EM
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date:	4/20/2020

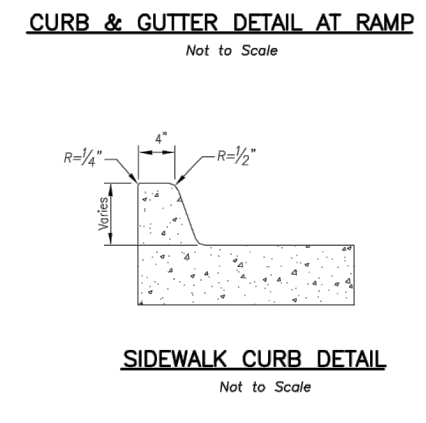


TYPE M SIDEWALK/SHARED-USE RAMP
Not to Scale

SIDEWALK/SHARED USE RAMP AT DRIVEWAY WITH ADJOINING CURB

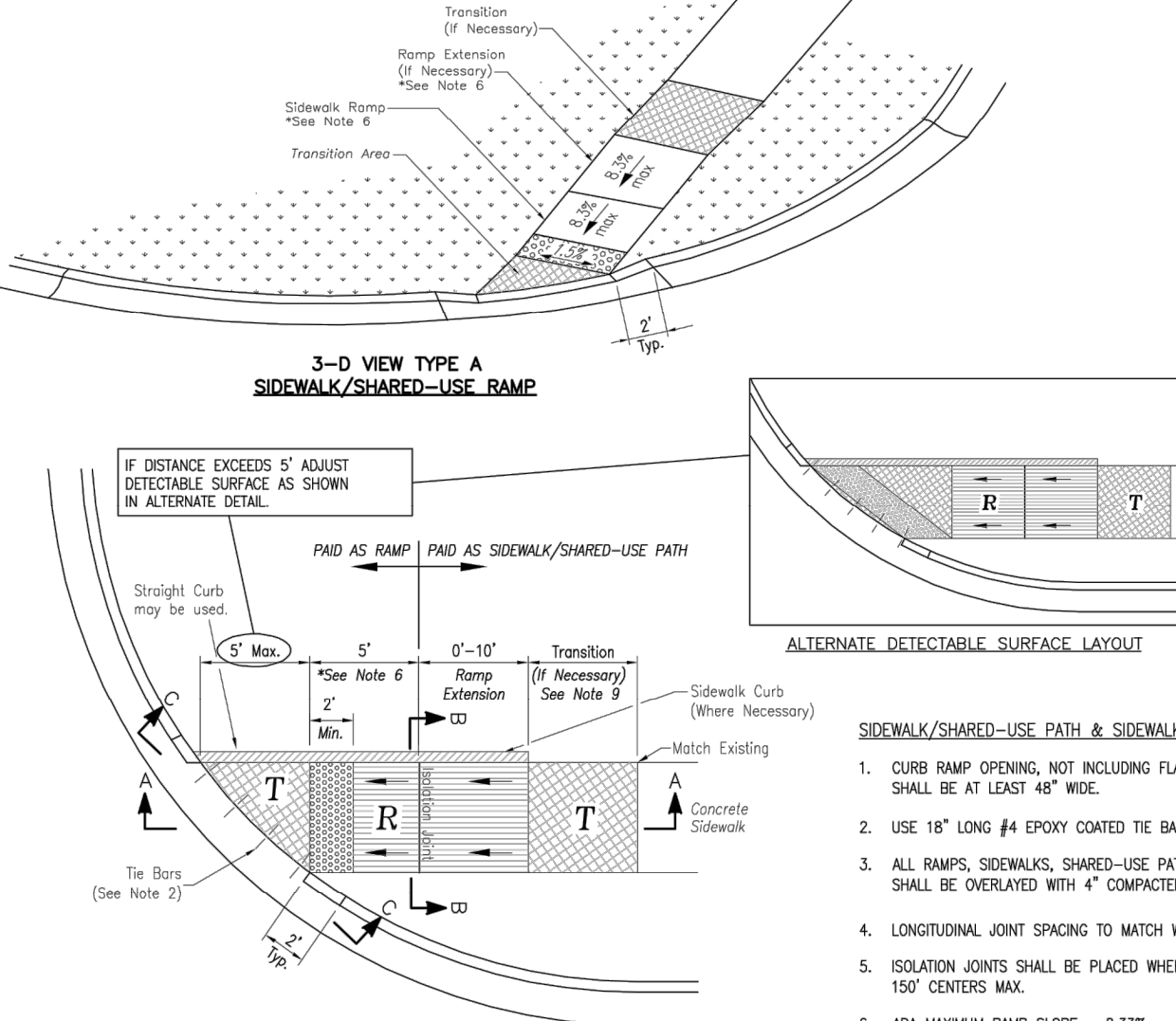


TYPE M SIDEWALK RAMP
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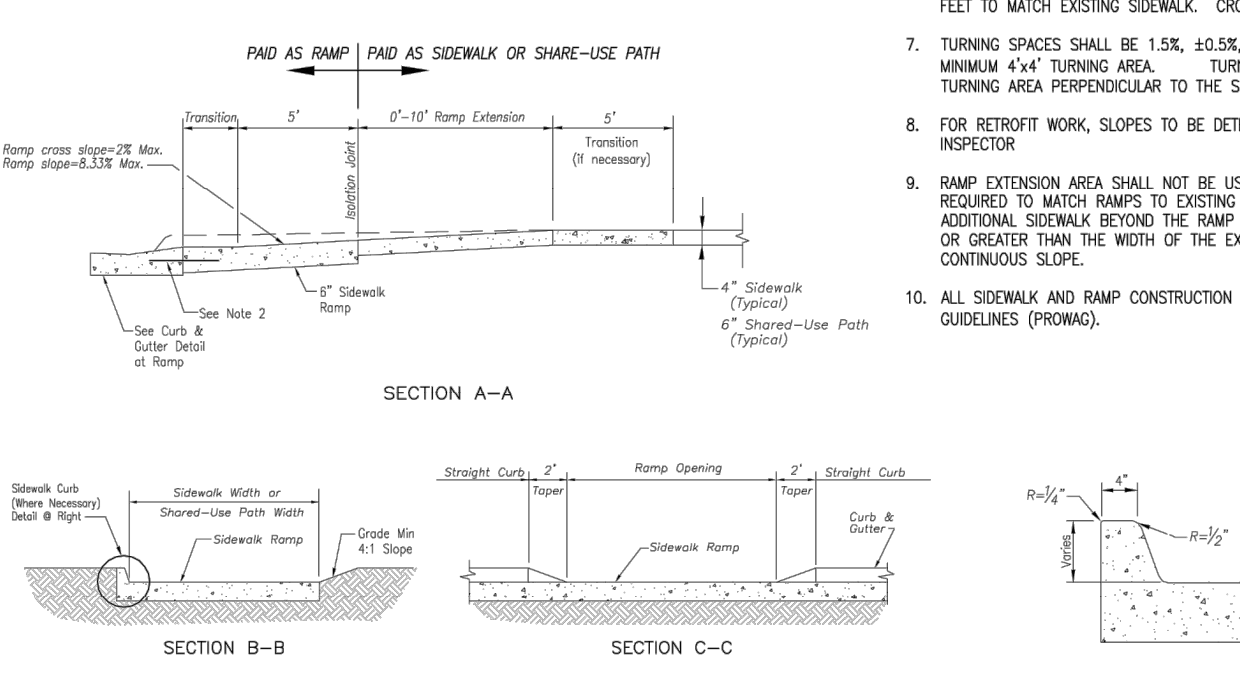


SIDEWALK CURB DETAIL
Not to Scale

- SIDEWALK/SHARED-USE PATH & SIDEWALK/SHARED-USE RAMP NOTES:**
- CURB RAMP OPENING, NOT INCLUDING FLARES, SHALL MATCH EXISTING SIDEWALK WIDTH AND OPENING SHALL BE AT LEAST 48" WIDE.
 - USE 18" LONG #4 EPOXY COATED TIE BARS @ 24" O.C. EMBED TIE BARS 9" IN EACH DIRECTION.
 - ALL RAMP, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
 - LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
 - ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 150' CENTERS MAX.
 - ADA MAXIMUM RAMP SLOPE = 8.33%
ADA MAXIMUM CROSS SLOPE = 2.0%
***ROADWAY EXCEPTION:** WHERE EXISTING ROAD PROFILE GRADE DOES NOT ALLOW RAMP TO MEET RAMP SLOPE REQUIREMENT OF 8.33% OR LESS, THE RAMP SHALL BE EXTENDED TO A LENGTH OF 15 FEET TO MATCH EXISTING SIDEWALK. CROSS SLOPE OF RAMP SHALL BE 1.5%, ±0.5%.
 - TURNING SPACES SHALL BE 1.5% ±0.5% SLOPE IN ANY DIRECTION. TURNING SPACES SHALL HAVE A MINIMUM 4'x4' TURNING AREA. TURNING SPACES, WITH A SIDEWALK CURB, SHALL HAVE A 5' TURNING AREA PERPENDICULAR TO THE SIDEWALK CURB.
 - FOR RETROFIT WORK, SLOPES TO BE DETERMINED IN FIELD BY CONTRACTOR AND APPROVED BY CITY INSPECTOR.
 - RAMP EXTENSION AREA SHALL NOT BE USED AS TRANSITION TO EXISTING SIDEWALK. ANY TRANSITIONS REQUIRED TO MATCH RAMP TO EXISTING SIDEWALK SHALL REQUIRE REMOVAL AND REPLACEMENT OF ADDITIONAL SIDEWALK BEYOND THE RAMP AREA. SIDEWALK TRANSITION LENGTH SHALL BE EQUAL TO OR GREATER THAN THE WIDTH OF THE EXISTING SIDEWALK. RAMP EXTENSIONS SHALL BE A CONTINUOUS SLOPE.
 - ALL SIDEWALK AND RAMP CONSTRUCTION SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).



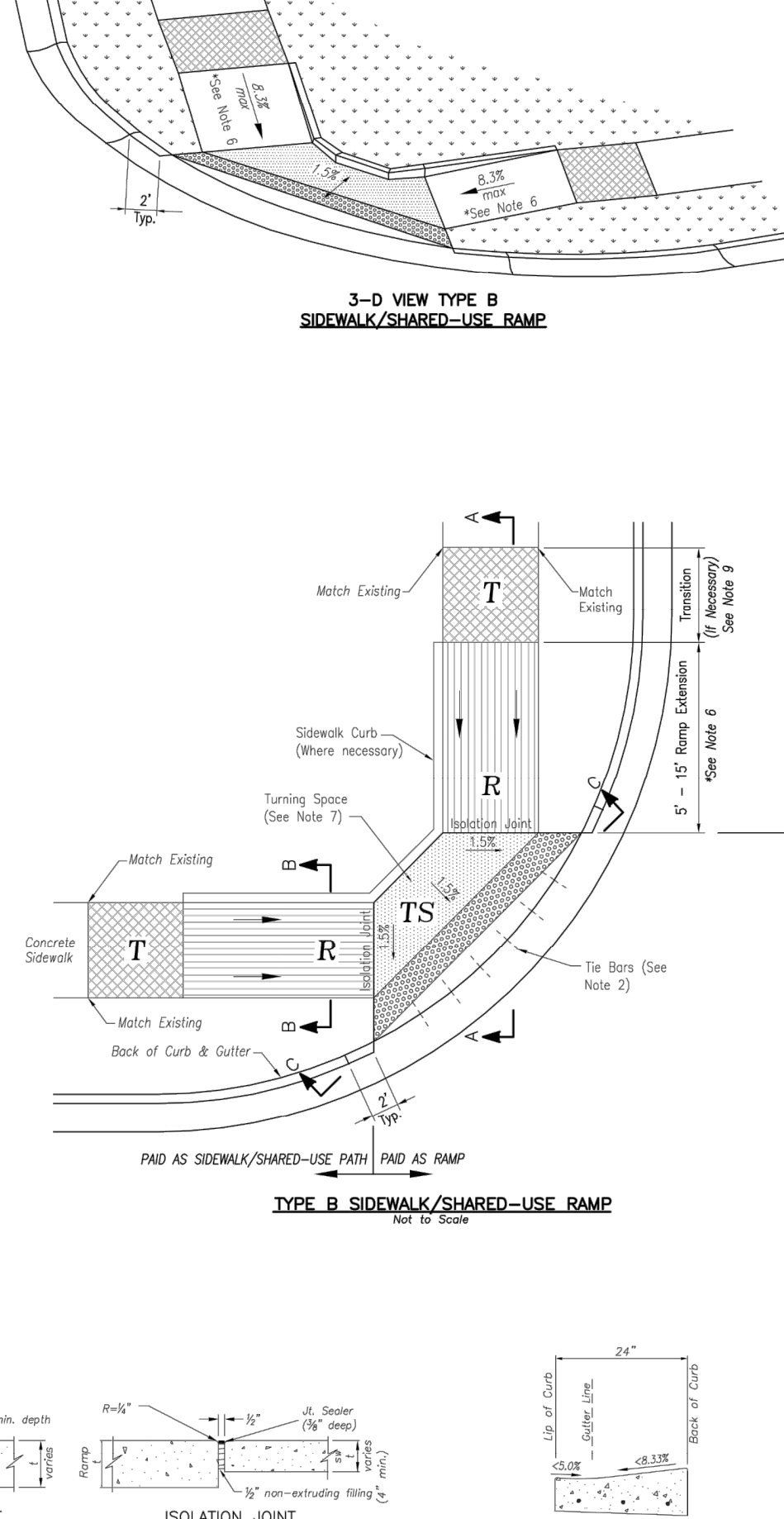
TYPE A SIDEWALK/SHARED-USE RAMP
Not to Scale



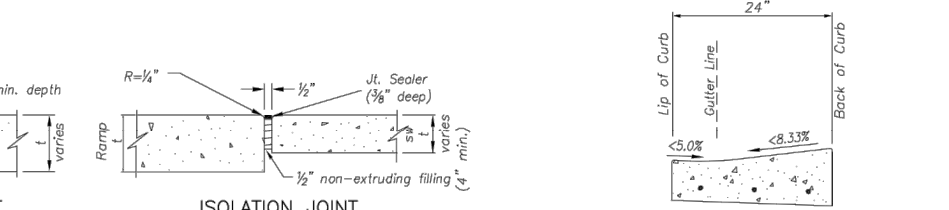
TYPE A & B SIDEWALK RAMP
Not to Scale

- SIDEWALK/SHARED-USE PATH & SIDEWALK/SHARED-USE RAMP NOTES:**
- CURB RAMP OPENING, NOT INCLUDING FLARES, SHALL MATCH EXISTING SIDEWALK WIDTH AND OPENING SHALL BE AT LEAST 48" WIDE.
 - USE 18" LONG #4 EPOXY COATED TIE BARS @ 24" O.C. EMBED TIE BARS 9" IN EACH DIRECTION.
 - ALL RAMP, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
 - LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
 - ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 150' CENTERS MAX.
 - ADA MAXIMUM RAMP SLOPE = 8.33%
ADA MAXIMUM CROSS SLOPE = 2.0%
***ROADWAY EXCEPTION:** WHERE EXISTING ROAD PROFILE GRADE DOES NOT ALLOW RAMP TO MEET RAMP SLOPE REQUIREMENT OF 8.33% OR LESS, THE RAMP SHALL BE EXTENDED TO A LENGTH OF 15 FEET TO MATCH EXISTING SIDEWALK. CROSS SLOPE OF RAMP SHALL BE 1.5%, ±0.5%.
 - TURNING SPACES SHALL BE 1.5% ±0.5% SLOPE IN ANY DIRECTION. TURNING SPACES SHALL HAVE A MINIMUM 4'x4' TURNING AREA. TURNING SPACES, WITH A SIDEWALK CURB, SHALL HAVE A 5' TURNING AREA PERPENDICULAR TO THE SIDEWALK CURB.
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 - ALL SIDEWALK AND RAMP CONSTRUCTION SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).

SIDEWALK CURB DETAIL
Not to Scale



TYPE B SIDEWALK/SHARED-USE RAMP
Not to Scale



CONTRACTION JOINT, JOINT DETAILS, ISOLATION JOINT, CURB & GUTTER DETAIL AT RAMP
Not to Scale

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 230 SE GREEN STREET | LEE'S SUMMIT, MO 64083

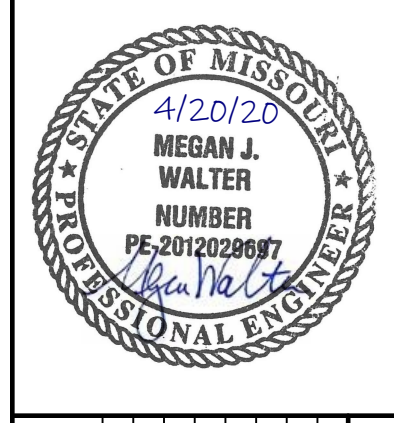
STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
SHEET NO. ADA RAMP RETROFIT DETAIL

GEN-3B

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 230 SE GREEN STREET | LEE'S SUMMIT, MO 64083

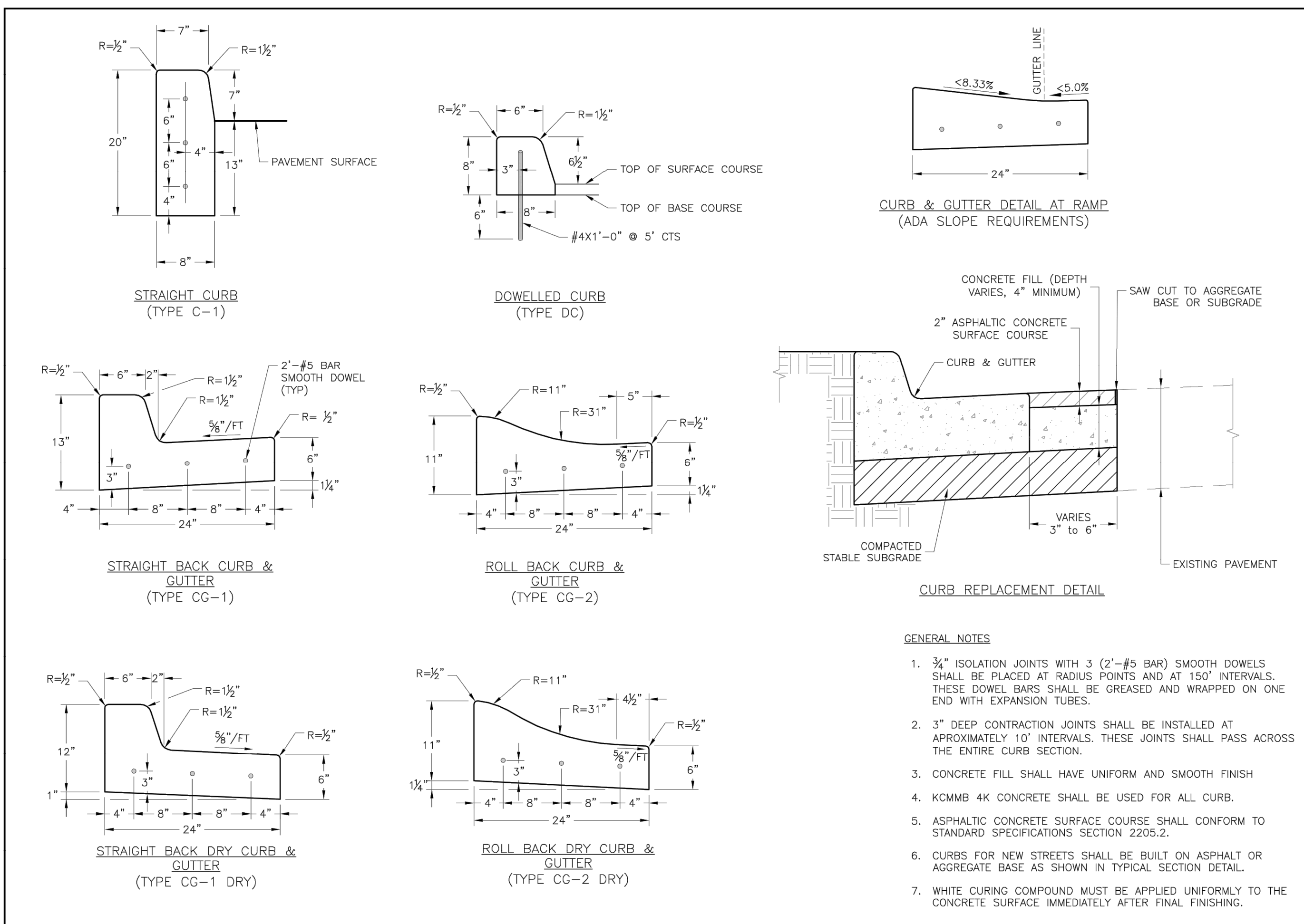
STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
SHEET NO. ADA RAMP RETROFIT DETAIL

GEN-3A



REV. NO.	DATE	REVISIONS DESCRIPTION	BY

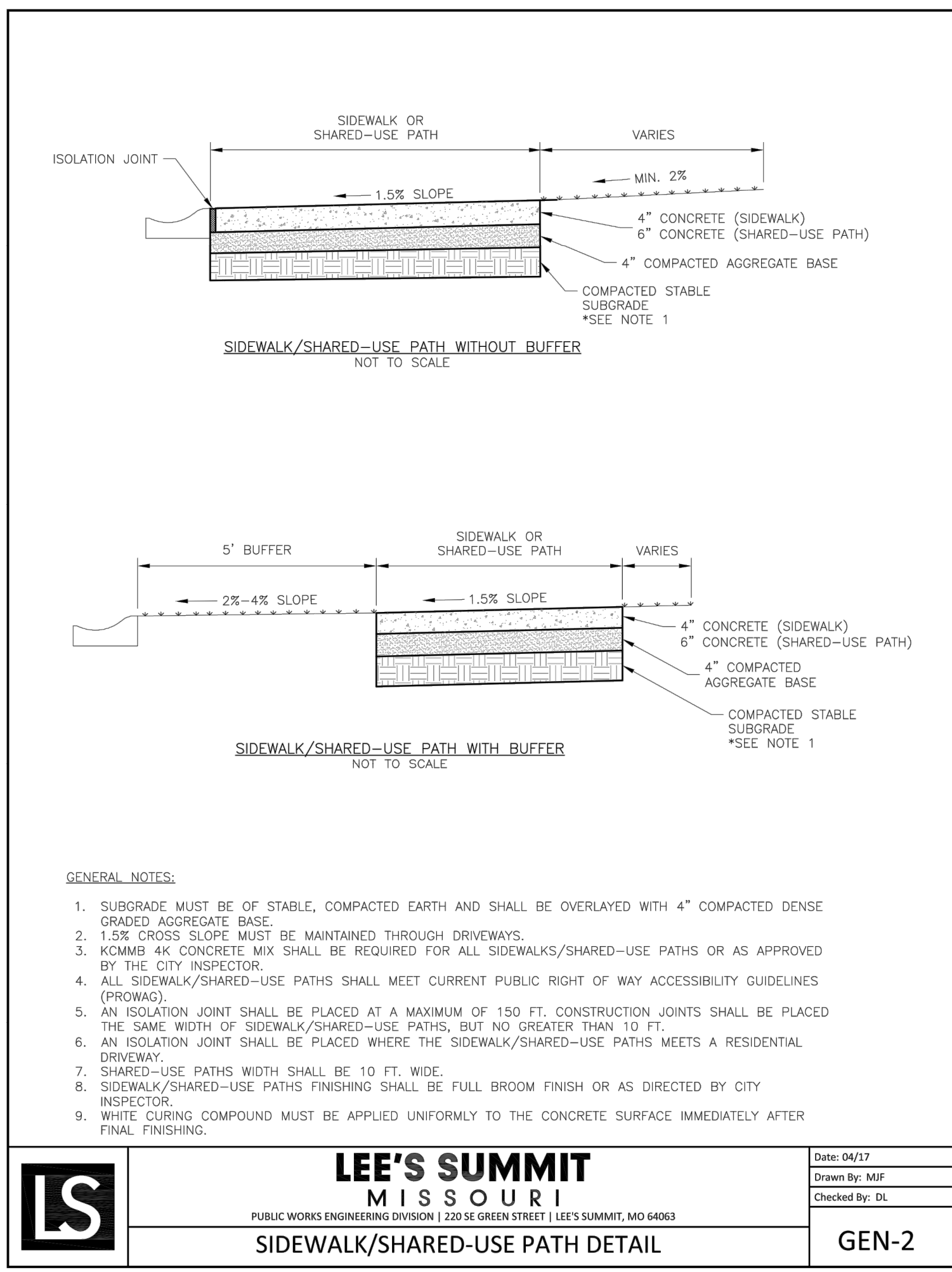
REV. NO.	DATE	REVISIONS DESCRIPTION	BY



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

STANDARD DETAILS
 CITY OF LEE'S SUMMIT, MO
 LEE'S SUMMIT, JACKSON COUNTY, MO
 SHEET NAME: CURB & GUTTER DETAIL

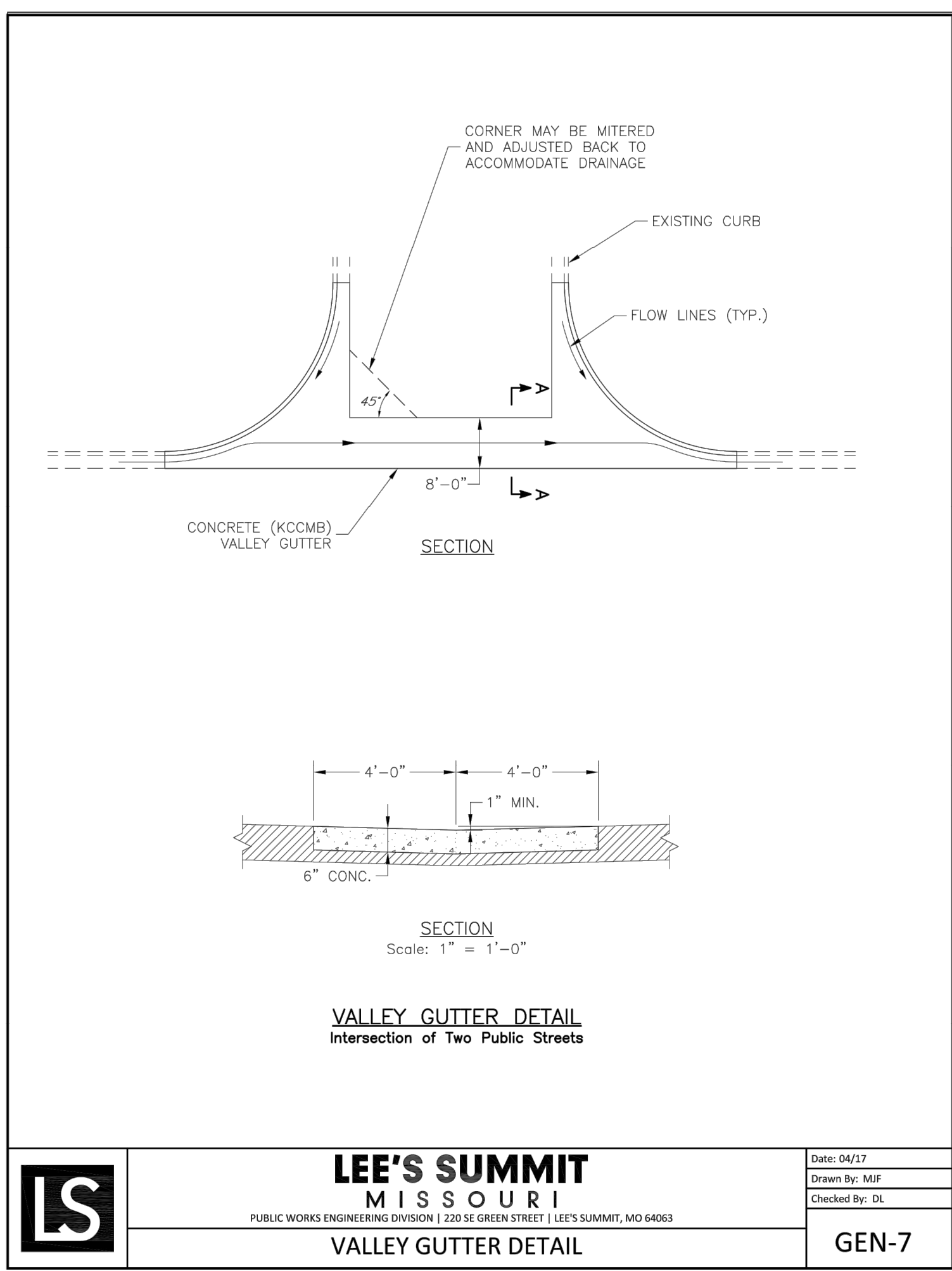
Drawn By: MJF
 Checked By: DL
 Date: 04/17
 Proj. #: GEN-4



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

Date: 04/17
 Drawn By: MJF
 Checked By: DL

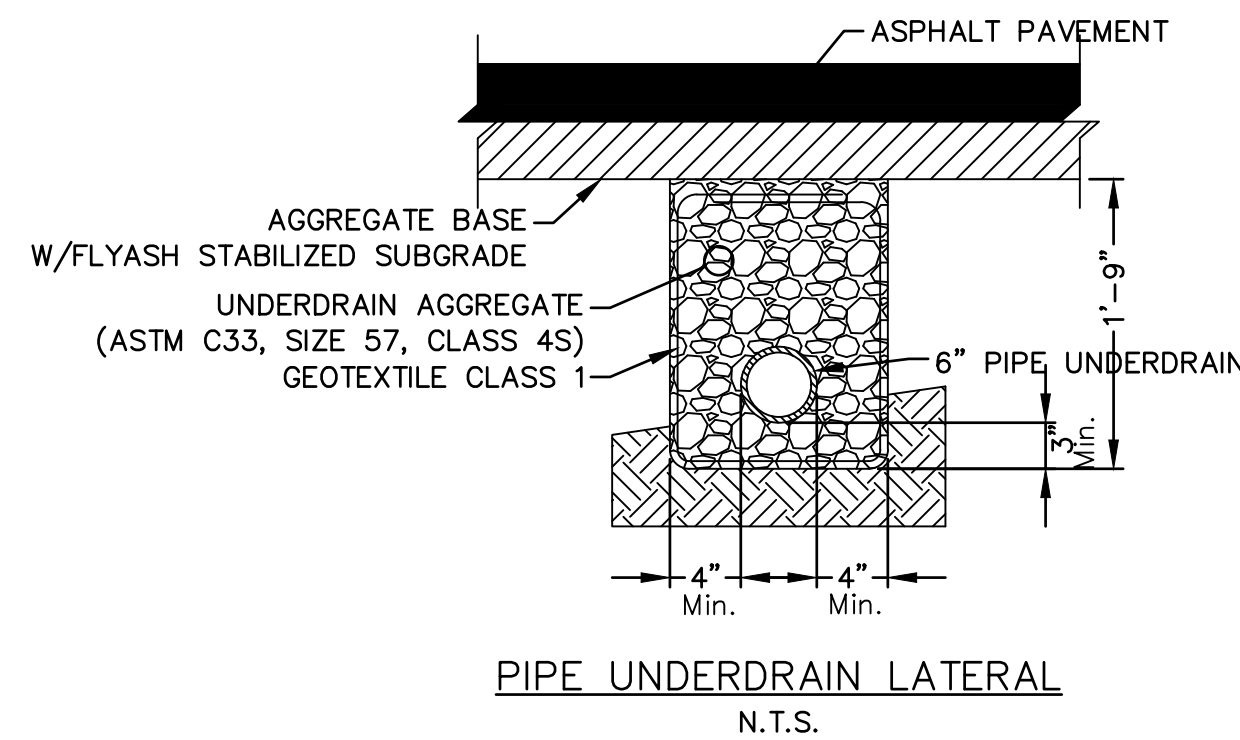
GEN-2



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

Date: 04/17
 Drawn By: MJF
 Checked By: DL

GEN-7



- NOTES:**
- Where Pipe Underdrains are used, all Underdrain Outlet Pipes shall be solid wall with watertight joints. All Outlet 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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STATE OF MISSOURI
 4/20/20
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 PROFESSIONAL ENGINEER

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STREET DETAILS
 STREET AND STORM SEWER PLANS
 THE RETREAT AT HOOK FARMS
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2020
 LEE'S SUMMIT, MO

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