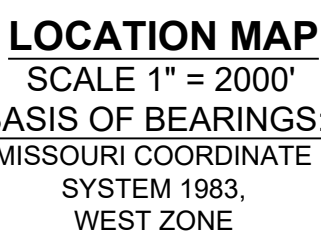
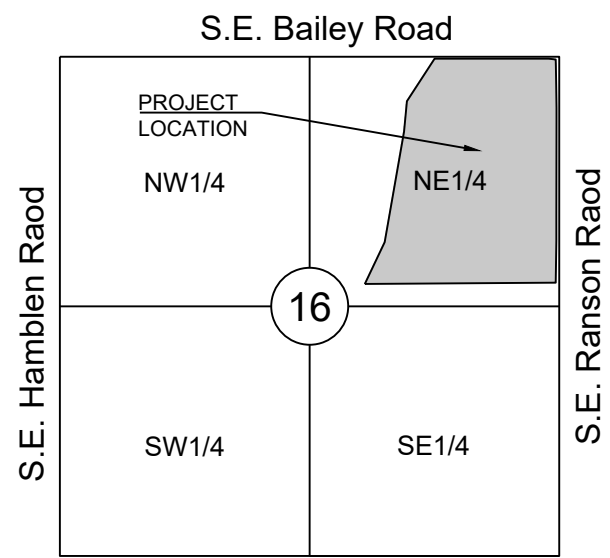


LEGEND:

- A/E - ACCESS EASEMENT
BC - BACK OF CURB
B/B - BACK TO BACK
BM - BENCHMARK
BL or B.L. - BUILDING LINE
CO - CLEANOUT
TJB - TELEPHONE JUNCTION BOX
C&G - CURB AND GUTTER
D/E - DRAINAGE EASEMENT
E/E - ELECTRICAL EASEMENT
EL - ELEVATION
FL - FLOW LINE
G/E - GAS LINE EASEMENT
HDPE - HIGH-DENSITY POLYETHYLENE
L/E - LANDSCAPE EASEMENT
MSFE - MINIMUM SERVICEABLE FLOOR ELEVATION
PVC - POLYVINYL CHLORIDE
P/L - PROPERTY LINE
PUB/E - PUBLIC EASEMENT
RCP - REINFORCED CONCRETE PIPE
ROW or R/W - RIGHT-OF-WAY
S/E - SANITARY SEWER EASEMENT
SL - SERVICE LINE
S/W - SIDEWALK
TE - TOP ELEVATION
U/E - UTILITY EASEMENT
WSE - WATER SURFACE ELEVATION
W/E - WATERLINE EASEMENT

- ASPHALT PAVEMENT - EXISTING
ASPHALT PAVEMENT - PROPOSED
CONCRETE PAVEMENT - EXISTING
CONCRETE SIDEWALK - EXISTING
CONCRETE SIDEWALK - PROPOSED
CURB & GUTTER
CURB & GUTTER - EXISTING
TREE LINE
EXISTING LOT AND R/W LINES
EXISTING PLAT LINES
PROPERTY LINES
RIGHT-OF-WAY
SANITARY SEWER MAIN
SANITARY SEWER MAIN - EXIST.
STORM SEWER
CABLE TV - EXISTING
FIBER OPTIC CABLE - EXISTING
TELEPHONE LINE - EXISTING
ELECTRIC LINE - EXISTING
OVERHEAD POWER LINE - EXIST.
UNDERGROUND ELECTRIC - EX.
GAS LINE - EXISTING
WATERLINE - EXISTING
LIGHT - EXISTING
EXISTING MANHOLE
CLEANOUT
EXISTING SANITARY MANHOLE
PROPOSED SANITARY MANHOLE
EXISTING AREA INLET
EXISTING CURB INLET
EXISTING GRATE INLET
EXISTING JUNCTION BOX
EXISTING STORM MANHOLE



UTILITY CONTACTS:

MISSOURI DEPARTMENT OF TRANSPORTATION (MODOT)
Steve Holloway
600 NE Colbern Road
Lee's Summit, MO 64086
(816) 607-2186

MISSOURI GAS ENERGY (MGE)
Brent Jones
3025 SE Clover Drive
Lee's Summit, MO 64082
(816) 399-9633
brent.jones@spireenergy.com

KANSAS CITY POWER & LIGHT COMPANY (KCP&L)
Ron Dejamette
1300 SE Hamblen Road
Lee's Summit, MO 64081
Office: (816) 347-4316
Cell: (816) 810-5234
ron.dejamette@kcpcl.com

CITY OF LEE'S SUMMIT PUBLIC WORKS
Dena Mezger
220 SE Green Street
Lee's Summit, MO 64063
(816) 969-1800

AT&T
Mark Manion or Marty Loper
500 E. 8th Street, Room 370
Kansas City, MO 64106
(816) 275-2341 or (816) 275-1550

COMCAST CABLE
John Meadows
4700 Little Blue Parkway
Independence, MO 64057
(816) 795-2257

CITY OF LEE'S SUMMIT WATER UTILITIES
Mark Schaufner
1200 SE Hamblen Road
Lee's Summit, MO 64081
(816) 969-1900

STREET, STORMWATER, AND MASTER DRAINAGE PLAN
FOR
MANOR AT BAILEY FARMS, FIRST PLAT
IN THE CITY OF LEE'S SUMMIT
JACKSON COUNTY, MISSOURI

GENERAL NOTES:

- 1. ALL CONSTRUCTION TO FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813.
2. ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE ENGINEERING DEPARTMENT OF THE CITY OF LEE'S SUMMIT, MISSOURI.
3. LINEAL FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS, NOT SLOPE MEASUREMENTS. ALL PAYMENTS SHALL BE MADE ON HORIZONTAL MEASUREMENTS.
4. NO GEOLOGICAL INVESTIGATION HAS BEEN PERFORMED ON THE SITE.
5. THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE TAKEN FROM UTILITY COMPANY RECORDS AND APPARENT FIELD LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 583, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT OF WAY DO SO ONLY AFTER GIVING NOTICE TO, AND OBTAINING THE INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. THE CONTRACTOR MAY ALSO UTILIZE THE FOLLOWING TOLL FREE PHONE NUMBER PROVIDED BY "MISSOURI ONE CALL SYSTEM, INC.": 1-800-DIG-RITE. THIS PHONE NUMBER IS APPLICABLE ANYWHERE WITHIN THE STATE OF MISSOURI. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL NOTIFY ALL THOSE COMPANIES WHICH HAVE FACILITIES IN THE NEAR VICINITY OF THE CONSTRUCTION TO BE PERFORMED. PRIOR TO ORDERING PRECAST STRUCTURES, SHOP DRAWING SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL. AFTER APPROVAL OF THE SHOP DRAWINGS, A COPY OF THE APPROVED AND SIGNED SHOP DRAWINGS SHALL BE PROVIDED TO THE CITY INSPECTOR UPON REQUEST.
7. THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE.
8. CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS THEREFROM SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES.
9. ALL WASTE MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, OR AS DIRECTED BY THE OWNER.
10. ALL EXCAVATIONS SHALL BE UNCLASSIFIED. NO SEPARATE PAYMENT WILL BE MADE FOR ROCK EXCAVATION.
11. THE CONTRACTOR SHALL CONTROL THE EROSION AND SILTATION DURING ALL PHASES OF CONSTRUCTION, AND SHALL KEEP THE STREETS CLEAN OF MUD AND DEBRIS.
12. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED.
13. THE CONTRACTOR SHALL CONTACT DEVELOPMENT SERVICES INSPECTIONS AT: 816-969-1200 TO OBTAIN A DEVELOPMENT SERVICES CONSTRUCTION PERMIT. A MINIMUM 48 HOUR NOTICE SHALL BE GIVEN PRIOR TO PERMIT ISSUANCE.
14. THE CONTRACTOR SHALL CONTACT THE RIGHT OF WAY INSPECTOR AT 816-969-1800 PRIOR TO ANY LAND DISTURBANCE ACTIVITIES WITHIN THE RIGHT OF WAY. THESE ACTIVITIES MAY REQUIRE A PERMIT. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TRAFFIC HANDLING MEASURES NECESSARY TO ENSURE THAT THE GENERAL PUBLIC IS PROTECTED AT ALL TIMES. TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD-LATEST EDITION).

STREET NOTES:

- 1. ALL STREET CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL. ALL APPLICABLE AASHTO STANDARDS HAVE BEEN MET.
2. ALL INSPECTION OF STREET CONSTRUCTION TO BE PERFORMED BY THE CITY OF LEE'S SUMMIT DEVELOPMENT ENGINEERING.
3. CURB RETURN RADII SHALL BE 25' AT BACK OF CURB UNLESS OTHERWISE NOTED.
4. SUBGRADE TO BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
5. ASSUMED DESIGN SPEED = 25 MPH (COLLECTOR).
6. MINIMUM STOPPING SIGHT DISTANCE = 155 FEET.
7. MINIMUM K, SAG CURVE = 28 (14 WITH LIGHTING), CREST CURVE = 12.
8. GRADE INTERSECTIONS TO DRAIN AS SHOWN.
9. SSD = STOPPING SIGHT DISTANCE.
10. ALL ADA SIDEWALK RAMPS SHALL BE CONSTRUCTED BY THE DEVELOPER WITH THE PUBLIC INFRASTRUCTURE.

EARTHWORK:

- 1. It is recommended that a Geotechnical Engineer observe and document all earthwork activities.
2. Contours have been shown at 1-foot or 2-foot intervals, as indicated. Grading shall consist of completing the earthwork required to bring the physical ground elevations of the existing site to the finished grade (or sub-grade) elevations provided on the plans as spot grades, contours or others means as indicated on the plans.
3. The existing site topography depicted on the plans by contouring has been established by aerial photography and field verified by g.p.s. observation near 2-20-19. The contour elevations provided may not be exact ground elevations, but rather interpretations of such. Accuracy shall be considered to be such that not more than 10 percent of spot elevation checks shall be in error by more than one-half the contour interval provided, as defined by the National Map Accuracy Standards. Any quantities provided for earthwork volumes are established using this topography contour accuracy, and therefore the inherent accuracy of any earthwork quantity is assumed from the topography accuracy.
4. Proposed contours are to approximate finished grade.
5. Unless otherwise noted, payment for earthwork shall include backfilling of the curb and gutter, sidewalk and further manipulation of utility trench spoils. The site shall be left in a movable condition and positive drainage maintained throughout.
6. Unless otherwise noted, all earthwork is considered Unclassified. No additional compensation will be provided for rock or shale excavation, unless specifically stated otherwise.
7. Prior to earthwork activities, pre-disturbance erosion and sediment control devices shall be in place per the Storm Water Pollution Prevention plan and/or the Erosion and Sediment Control Plan prepared for this site.
8. All topsoil shall be stripped from all areas to be graded and stockpiled adjacent to the site at an area specified by the project owner or his appointed representative. Vegetation, trash, trees, brush, tree roots and limbs, rock fragments greater than 6-inches and other deleterious materials shall be removed and properly disposed of offsite or as directed by the owner or his appointed representative.
9. Unless otherwise specified in the Geotechnical Report, all fills shall be placed in maximum 6-inch lifts and compacted to 95-percent of maximum density as defined using a standard proctor test (AASHTO T99/ASTM 698).
10. Fill materials shall be per Geotechnical Report and shall not include organic matter, debris or topsoil. All fills placed on slopes greater than 6:1 shall be benched.
11. The Contractor shall be responsible for redistributing the topsoil over proposed turf and landscaped areas to a minimum depth of 6-inches below final grade.
12. All areas shall be graded for positive drainage. Unless noted otherwise the following grades shall apply:
a. Turf Areas - 2.5% Minimum, 4H:1V Maximum
b. Paved Areas - 1.2% Minimum, 5% Maximum
13. All disturbed areas shall be fertilized, seeded and mulched immediately after earthwork activities have ceased. Seeding shall be per the Erosion and Sediment Control Plan and/or Landscape Plan. If not specified seeding shall be per APWA Section 2400, latest edition. Unless otherwise noted, seeding shall be subsidiary to the contract price for earthwork and grading activities.
14. All disturbed areas in the right-of-way shall be sodded.
15. Underdrains are recommended for all paved areas adjacent to irrigated turf and landscaped beds.
16. Contractor shall adhere to the reporting requirements outlined in the Storm Water Pollution Prevention Plan (SWPPP) prepared for this project. Erosion and Sediment control devices shall be properly maintained and kept clean of silt and debris and in good working order. Additional erosion and sediment control measures shall be installed as required.

UTILITIES:

- 1. Existing utilities have been shown to the greatest extent possible based upon information provided to the Engineer. The contractor is responsible for contacting the respective utility companies and field locating utilities prior to construction and identifying any potential conflicts. All conflicts shall immediately be brought to the attention of the Engineer.
2. The contractor shall be responsible for coordinating any required utility relocations. Utilities damaged through the negligence of the contractor shall be repaired at the contractor's expense.
3. Contractor shall verify flow-lines and structure tops prior to construction, and shall notify Engineer of any discrepancies. Provide shop drawings for all precast and manufactured utility structures for review by the Engineer prior to construction of the structures.
4. Utility Separation: Waterlines shall have a minimum of 10 feet horizontal and 2 feet vertical separation from all sanitary sewer lines, manholes, and sanitary sewer service laterals, as measured from edge to edge. If minimum separations can not be obtained, concrete encasement of the sanitary line shall be required 10 feet in each direction of the conflict.
5. Payment for trenching, backfilling, pipe embedment, flowable fill, backfill materials, clean up, seeding, sodding and any other items necessary for the construction of the utility line shall be included in the contract price for the utility installation.
6. The Contractor shall be responsible for contacting respective utility companies 48-hours in advance for the inspection of any proposed utility main extension or service line or service connection to any existing main.
7. Trench spoils shall be neatly placed onsite adjacent to the trench, and compacted to prevent saturation and excess sediment runoff. Unusable materials, excess rock and shale, asphalt, concrete, trees, brush etc. shall be properly disposed of offsite. Materials may be wasted onsite at the direction of the Owner or his appointed representative.
8. All excavation is considered unclassified, unless noted otherwise. Unclassified excavation for utility trenching is subsidiary to the unit price provided for the pipe. Any quantity provided for rock excavation is estimated based on the best information provided to the Project Engineer. The Engineer has the authority to identify and define the physical characteristics to determine the classification. Unit price quantities for rock excavation will be paid at a trench width of the nominal pipe diameter of the installed main plus 18 inches. Contractor is required to dispose of excess rock from their trenches by disposing it in areas as specified by the Project Engineer.

New City Requirements:

Flowable fill required per City specifications at all storm structures.

KCMMB Asphalt specification required for all lifts of street pavement. Fly ash is no longer an option for chemical stabilization. Other acceptable options are cement, lime.

Sheet List Table with columns for Sheet Number and Sheet Title. Includes items like COVER SHEET, GENERAL LAYOUT (NORTH), MASTER DRAINAGE PLAN-GRADING PLAN, etc.

APPROVED BY:

CITY ENGINEER
APPROVED FOR ONE YEAR FROM THIS DATE
DATE

OWNER/DEVELOPER:

CLAYTON PROPERTIES GROUP INC., DBA SUMMIT HOMES
BRADLEY KEMPF
120 SE 30TH STREET
LEE'S SUMMIT, MO 64082
p (816) 246-6700
BRADLEY@SUMMITHOMESKC.COM



MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:

BM JA45, IS A KC METRO ALUMINUM GRS DISK SET IN CONCRETE AND ABOUT 3 INCHES BELOW THE PAVEMENT ON THE SHOULDER OF SE RANSON ROAD. IT IS STAMPED JA45, 1987.
ELEV. = 1046.25

SUMMARY OF QUANTITIES table with columns for ITEM, QUANTITY, and UNITS. Lists items like CLEARING AND GRUBBING, GRADING, ASPHALT PAVEMENT, etc.

Table listing quantities for various materials and structures such as HDPE FLARED END SECTION, RCP, CURB, etc.

SCHLAGEL ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS
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Missouri State Certificate of Authority
#E2002003690-F #LAC200100237 #L5200200859-F

PREPARED BY:
JAMES L. LONG
Professional Engineer
11/30/2023
SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
STREET, STORMWATER, AND MASTER DRAINAGE PLAN
SE BAILEY ROAD AND SE RANSON ROAD
LEE'S SUMMIT, MISSOURI

Table with columns for REVISION DATE, DESCRIPTION, DRAWN BY, CHECKED BY, DATE PREPARED, PROJ. NUMBER. Includes revision history and project details.

COVER SHEET
SHEET 1

PREPARED BY:



11/30/2023
 SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
STREET, STORMWATER, AND MASTER DRAINAGE
PLAN
SE BAILEY ROAD AND SE RANSON ROAD
LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
01/21/2022	City Comments dated 12/19/2021
04/20/2022	City Comments dated 02/14/2022
05/17/2022	City Comments dated 5/11/2022
10/27/2023	Revised Details to current 2023 Details
11/30/2023	Added "New City Requirements" note

GENERAL LAYOUT (NORTH)

SHEET

MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:

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ELEV. = 1046.25

BASIS OF BEARINGS:

MISSOURI STATE PLANE COORDINATE SYSTEM (NAD) 1983, MISSOURI, WEST ZONE

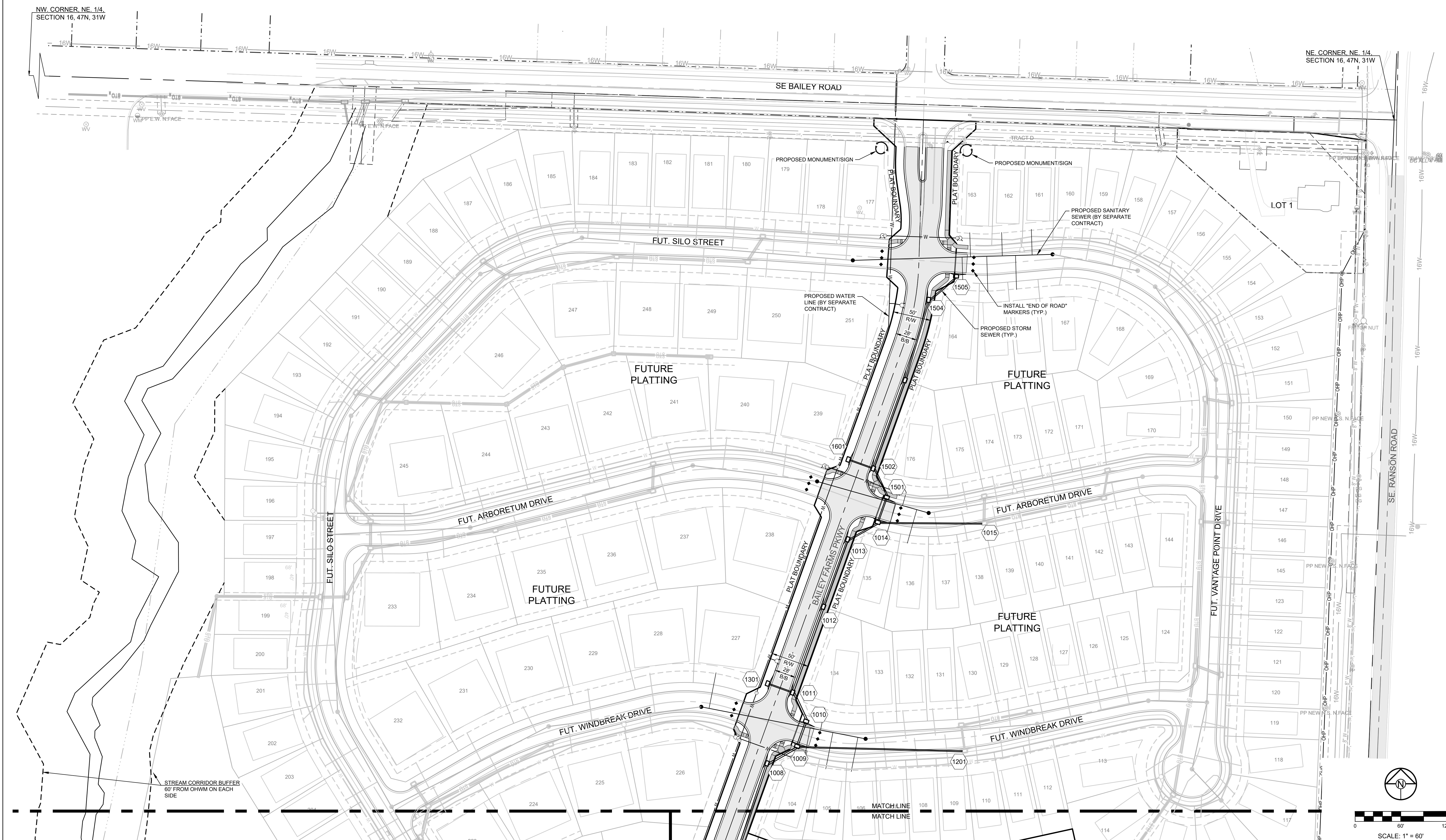
NOTES:

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STREET LEGEND:

- RESIDENTIAL LOCAL
- RESIDENTIAL COLLECTOR



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- RESIDENTIAL LOCAL
- RESIDENTIAL COLLECTOR

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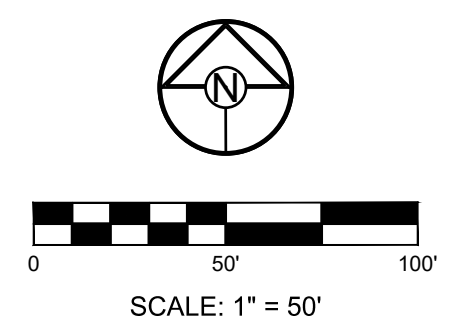
PREPARED BY:

SCHLAGEL & ASSOCIATES, P.A.

**MANOR AT BAILEY FARMS, FIRST PLAT
 STREET, STORMWATER, AND MASTER
 DRAINAGE PLAN
 SE BAILEY ROAD AND SE RANSON ROAD
 LEES SUMMIT, MISSOURI**

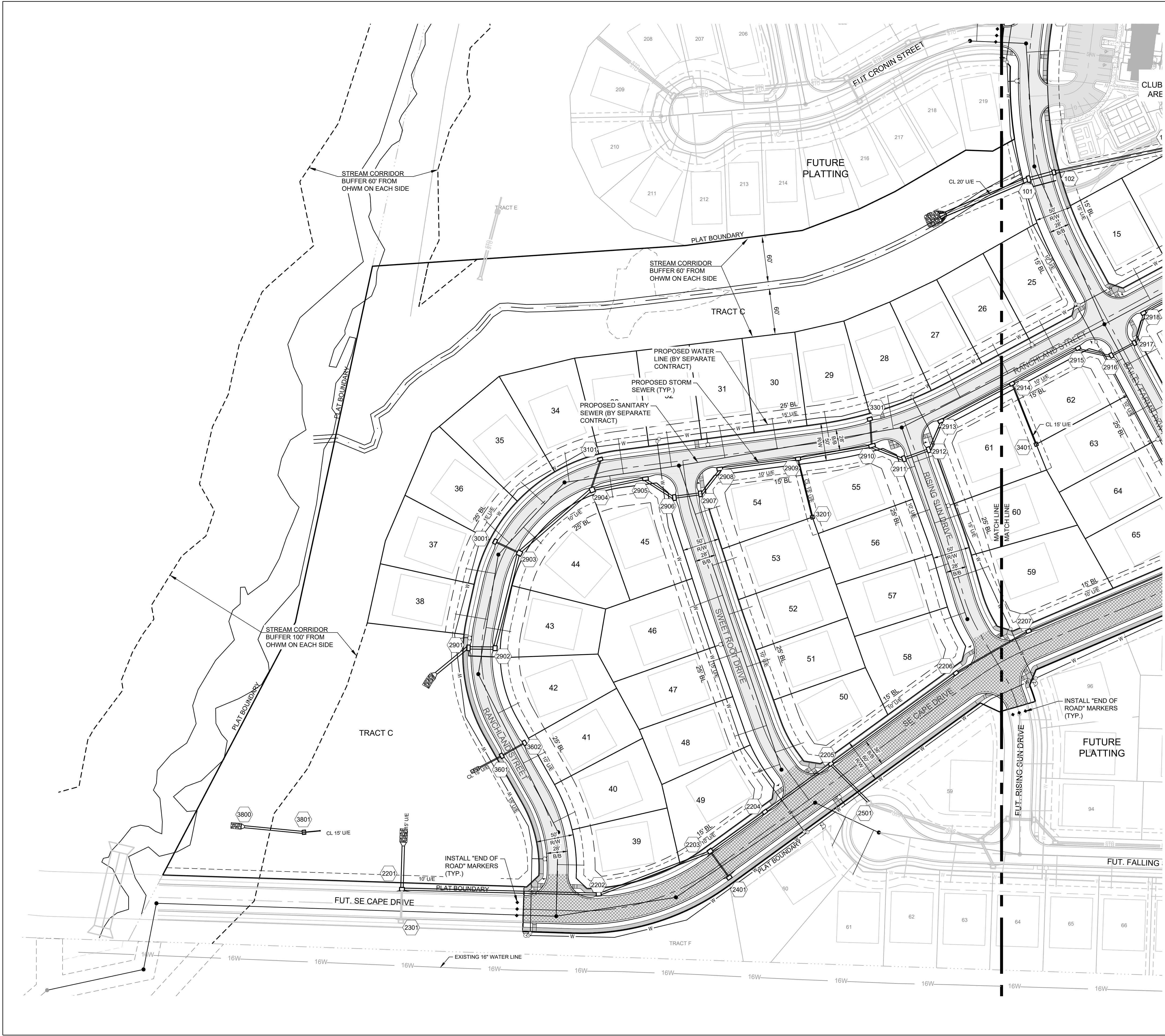
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11/30/2023	Added "New City Requirements" note

GENERAL LAYOUT (EAST)
 SHEET
3



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MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:

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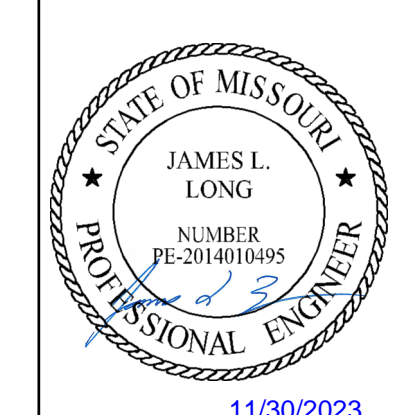
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PREPARED BY:

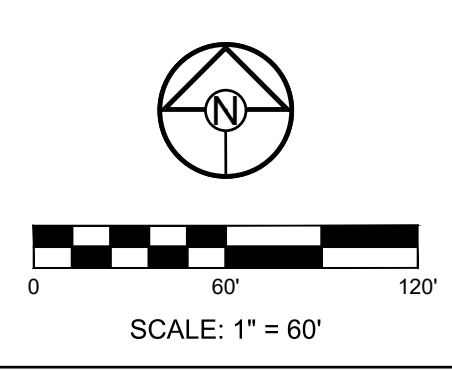


11/30/2023
SCHLAGEL & ASSOCIATES, P.A.

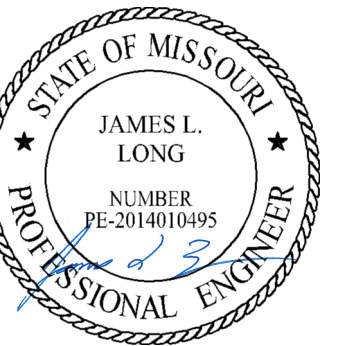
**MANOR AT BAILEY FARMS, FIRST PLAT
STREET, STORMWATER, AND MASTER
DRAINAGE PLAN
SE BAILEY ROAD AND SE RANSON ROAD
LEE'S SUMMIT, MISSOURI**

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10/27/2023	Revised Details to current 2023 Details
11/30/2023	Added "New City Requirements" note

GENERAL LAYOUT (WEST)
SHEET
4



PREPARED BY:



11/30/2023

SCHLAGEL & ASSOCIATES, P.A.

**MANOR AT BAILEY FARMS, FIRST PLAT
 STREET, STORMWATER, AND MASTER
 DRAINAGE PLAN**
**SE BAILEY ROAD AND SE RANSON ROAD
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DRAWN BY: NCA
 CHECKED BY: JLL
 DATE PREPARED: 11/05/2021
 PROJ. NUMBER: 21-130

**MASTER
 DRAINAGE
 PLAN-GRADING
 PLAN (NORTH)**
 SHEET
5

**MISSOURI GEOGRAPHIC REFERENCE SYSTEM
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BASIS OF BEARINGS:

MISSOURI STATE PLANE COORDINATE SYSTEM
 (NAD) 1983, MISSOURI, WEST ZONE

NOTES:

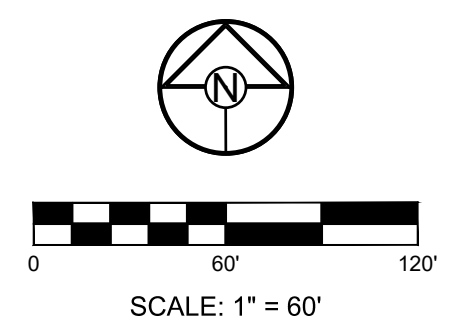
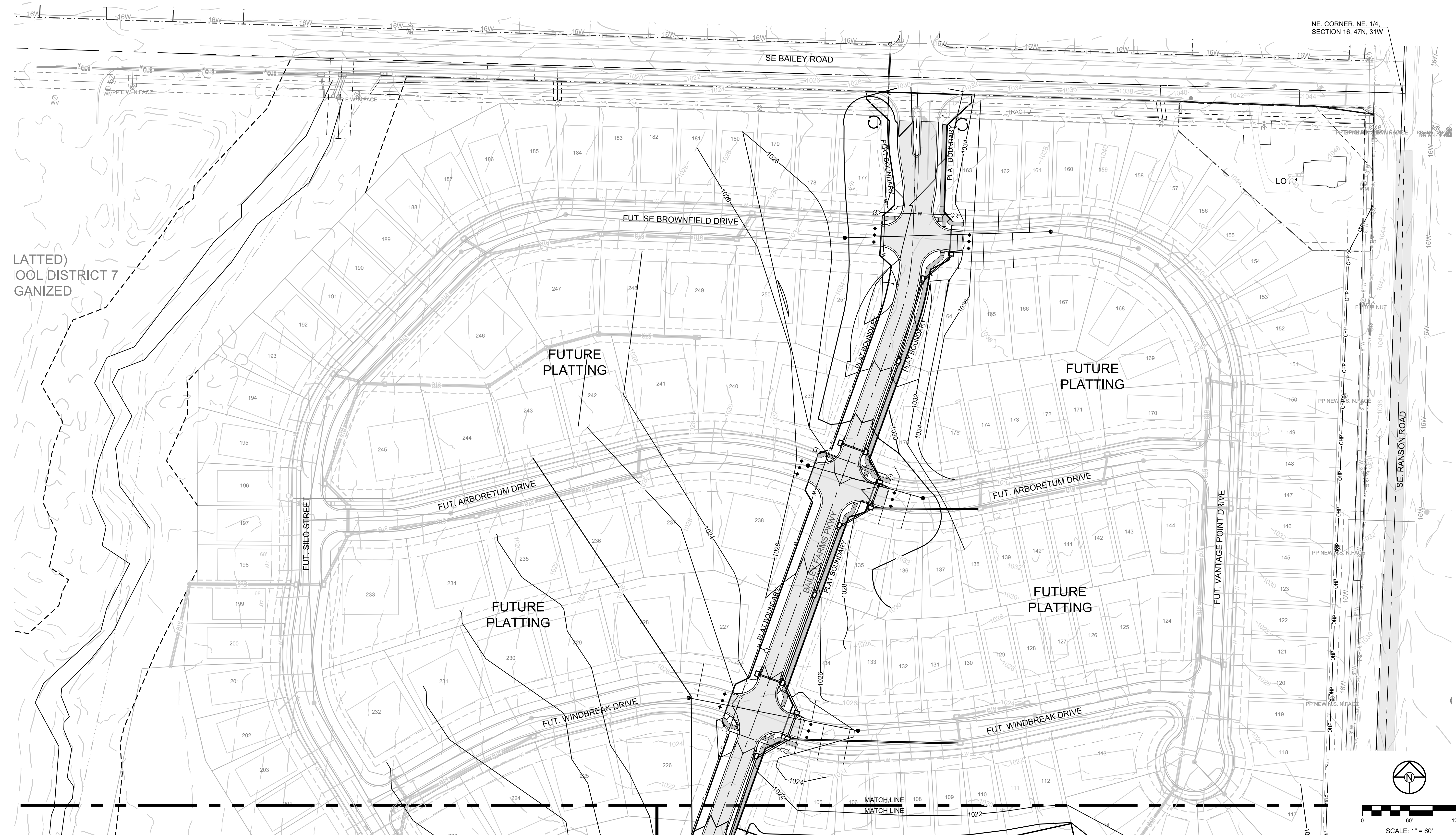
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GRADING LEGEND:

- 1023 --- EXISTING CONTOUR
- 1023 — PROPOSED CONTOUR
- - - - - MWSE

- EL.000.00 DENOTES FINISHED GRADE ELEVATION
- EL.000.00 (EX) DENOTES EXISTING GRADE ELEVATION
- HP 000.00 DENOTES LOT HIGH POINT ELEVATION



MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:

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GRADING LEGEND:

- - - 1023 - - - EXISTING CONTOUR
- 1023 — PROPOSED CONTOUR
- - - MWSE

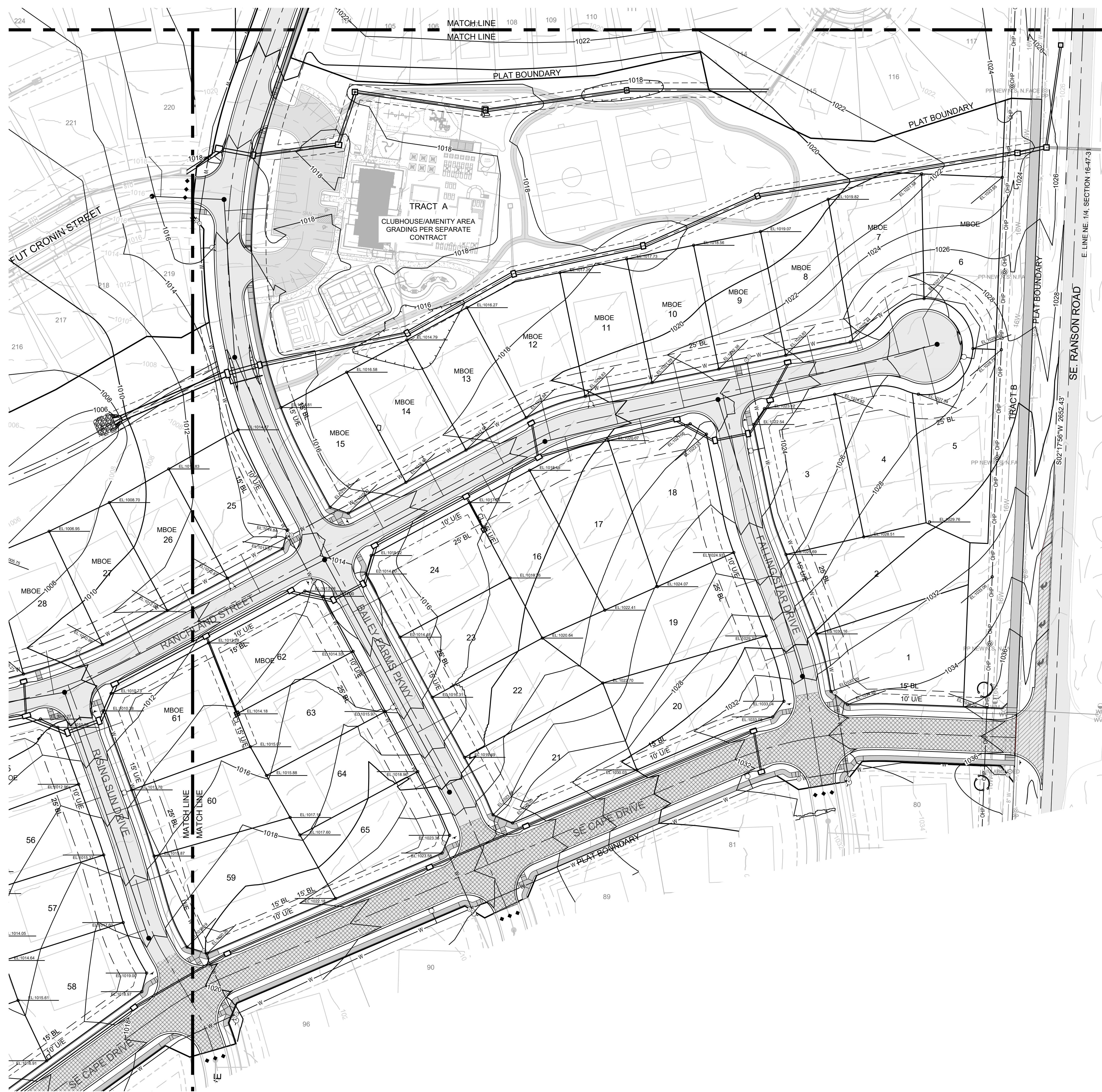
- EL.000.00 DENOTES FINISHED GRADE ELEVATION
- EL.000.00 (EX.) DENOTES EXISTING GRADE ELEVATION
- HP 000.00 DENOTES LOT HIGH POINT ELEVATION

NOTES:

1. MBOE = MINIMUM BUILDING OPENING ELEVATION FOR HOUSES ADJACENT TO ENGINEERED OVERFLOW SWALES SHALL BE MINIMUM 2 FEET ABOVE THE 100 YR WATER SURFACE ELEVATION.
2. EGL = ENERGY GRADE LINE (100 YR)
3. WSE = WATER SURFACE ELEVATION (100 YR)
4. ENGINEERED SWALES TO BE GRADED TO NORMAL DEPTH OF FLOW (WATER SURFACE ELEVATION) OR 1.0 FT, WHICHEVER IS GREATER. MINIMUM SLOPE OF ENGINEERED SWALES SHALL BE AS NOTED.
5. MBOE'S ADJACENT TO SUMPED INLETS SHALL BE A MINIMUM OF 1' ABOVE TOP OF ADJACENT BERM.

LOT TYPE TABLE			LOT TYPE TABLE		
LOT #	BASEMENT TYPE	MBOE	LOT #	BASEMENT TYPE	MBOE
1	STANDARD		34	DAYLIGHT	
2	STANDARD		35	DAYLIGHT	
3	STANDARD		36	WALKOUT	
4	STANDARD		37	WALKOUT	
5	STANDARD		38*	STANDARD	1002
6*	STANDARD	1027	39	STANDARD	
7*	STANDARD	1025	40	STANDARD	
8*	DAYLIGHT	1022	41	STANDARD	
9*	DAYLIGHT	1022	42	STANDARD	
10*	STANDARD	1021	43	STANDARD	
11*	STANDARD	1021	44	STANDARD	
12*	STANDARD	1018	45	STANDARD	
13*	STANDARD	1020	46	WALKOUT	
14*	STANDARD	1020	47	WALKOUT	
15*	STANDARD	1020	48	DAYLIGHT	
16	STANDARD		49	DAYLIGHT	
17	STANDARD		50	STANDARD	
18	STANDARD		51	STANDARD	
19	DAYLIGHT		52	STANDARD	
20	DAYLIGHT		53	STANDARD	
21	STANDARD		54*	STANDARD	1014
22	STANDARD		55*	STANDARD	1014
23	STANDARD		56	STANDARD	
24	STANDARD		57	STANDARD	
25	DAYLIGHT		58	STANDARD	
26*	DAYLIGHT	1009	59	STANDARD	
27*	DAYLIGHT	1009	60	STANDARD	
28*	DAYLIGHT	1008	61*	STANDARD	1017
29*	DAYLIGHT	1008	62*	STANDARD	1017
30*	DAYLIGHT	1007	63	STANDARD	
31*	DAYLIGHT	1007	64	STANDARD	
32*	DAYLIGHT	1005	65	STANDARD	
33*	DAYLIGHT	1005			

* LOTS WHICH REQUIRE AN "AS-GRADED PLOT PLAN" BEFORE OCCUPANCY.



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PREPARED BY:



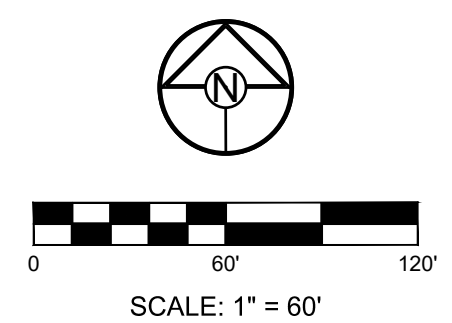
11/30/2023
SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
STREET, STORMWATER, AND MASTER
DRAINAGE PLAN
SE BAILEY ROAD AND SE RANSON ROAD
LEES SUMMIT, MISSOURI

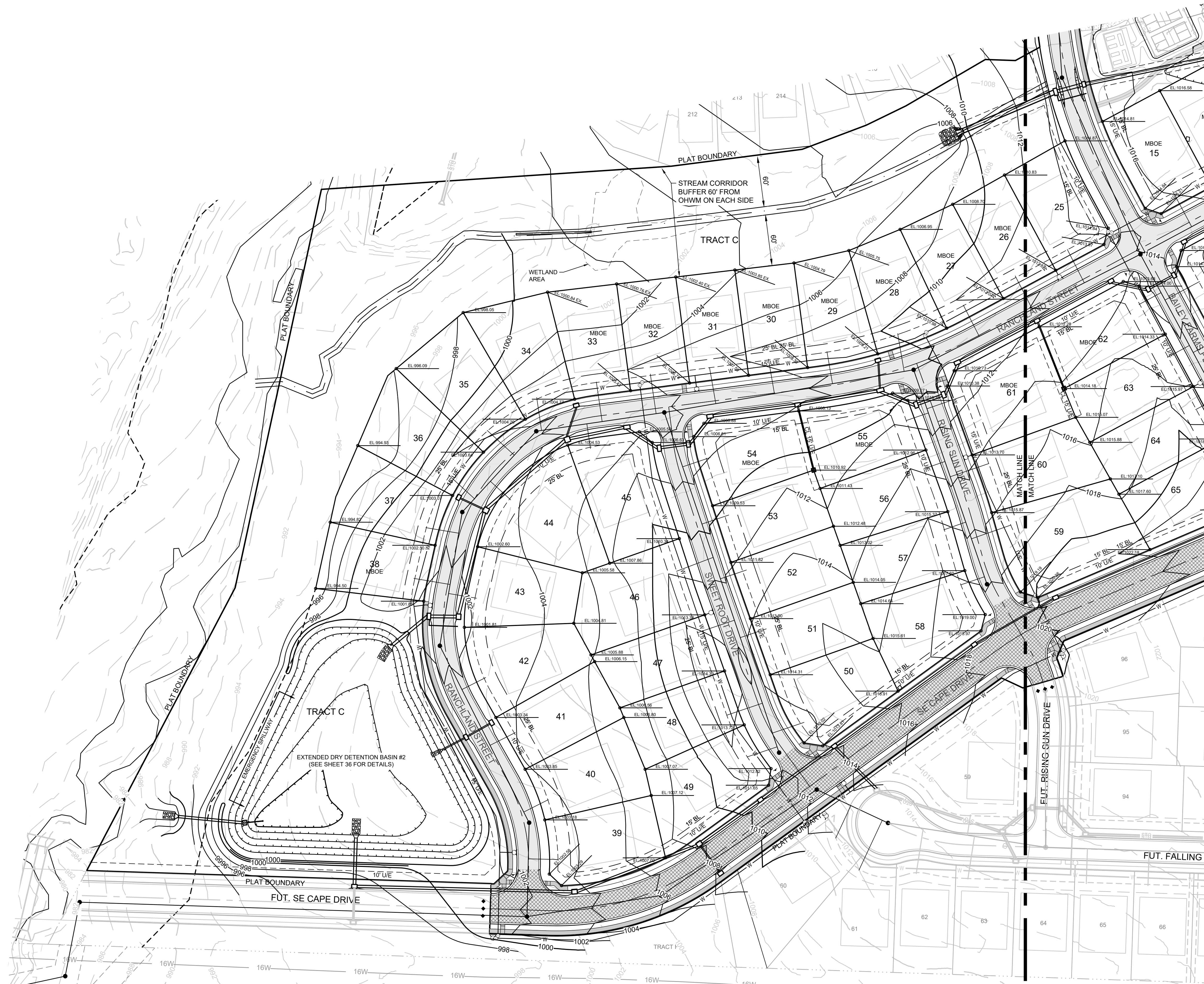
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11/30/2023	Added "New City Requirements" note

MASTER DRAINAGE PLAN-GRADING PLAN (EAST)

SHEET



I:\PROJECTS\2021\121-130\3.0 Design\3.0 DWG Plans\6.0 SS\21-130-SS-GRADE.dwg, MASTER DRAINAGE PLAN-GRADING PLAN (WEST), 11/29/2023 5:09:46 PM, 1:1



MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:

BM JA-45, IS A KC METRO ALUMINUM GRS DISK SET IN CONCRETE AND ABOUT 3 INCHES BELOW THE PAVEMENT ON THE SHOULDER OF SE RANSON ROAD. IT IS STAMPED JA45, 1987.

ELEV. = 1046.25

BASIS OF BEARINGS:

MISSOURI STATE PLANE COORDINATE SYSTEM (NAD) 1983, MISSOURI, WEST ZONE

NOTES:

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GRADING LEGEND:

- 1023 --- EXISTING CONTOUR
- 1023 — PROPOSED CONTOUR
- - - - - MWSE
- EL.000.00 DENOTES FINISHED GRADE ELEVATION
- EL.000.00 (EX.) DENOTES EXISTING GRADE ELEVATION
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NOTES:

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18	STANDARD		51	STANDARD	
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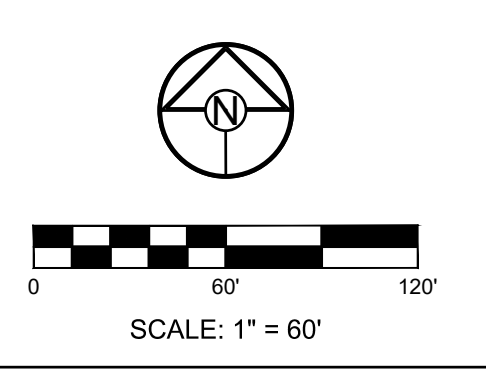
PREPARED BY:

 11/30/2023
 SCHLAGEL & ASSOCIATES, P.A.

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 SE BAILEY ROAD AND SE RANSON ROAD
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MASTER DRAINAGE PLAN-GRADING PLAN (WEST)
 SHEET
7



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ELEV. = 1046.25

BASIS OF BEARINGS:

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- - - - - MWSE
- ↑ A ↑ DENOTES OVERFLOW SWALE
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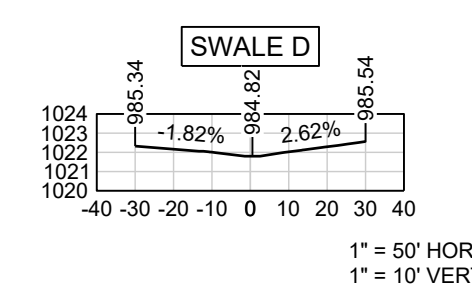
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WEIR CALCULATIONS (Q = CLH^{3/2})

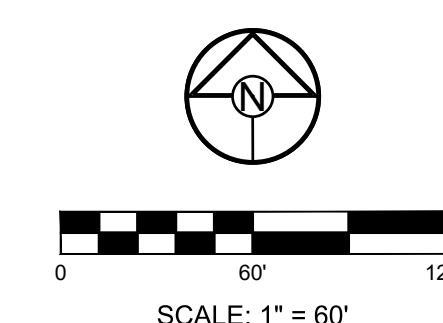
SECTION	DRAINAGE AREA (AC.)	Q100 (CFS)	DESIGN OVERFLOW (CFS)	WEIR ELEVATION	WEIR COEFFICIENT	LENGTH	HEAD REQ'D	WSE
1	6.45	67.40	67.40	1016.56	3.33	10'-0"	1.60	1018.20
2	5.50	57.47	57.47	1016.63	3.33	10'-0"	1.44	1018.10
3	4.95	51.72	51.72	1017.89	3.33	10'-0"	1.34	1019.30
4	4.30	44.93	44.93	1018.84	3.33	10'-0"	1.22	1020.10

RUNOFF CALCULATIONS:
 $Q = K \cdot C \cdot i \cdot A$
 $K_{10} = 1.0 \quad K_{100} = 1.25 \quad C = 0.51$
 $i = \text{INTENSITY } (i_{10} = 7.35" / i_{100} = 10.32")$
DESIGN OVERFLOW = Q_{OVERFLOW} = Q₁₀₀ · Q₁₀
MANNINGS "n" = 0.030 FOR SWALES



100 YEAR OVERFLOW SWALES

SECTION	DRAINAGE AREA (AC.)	Q100 (CFS)	Q10 (CFS)	DESIGN OVERFLOW (CFS)	BED SLOPE (%)	BASE WIDTH (FT.)	SIDE SLOPE	TOP WIDTH (FT.)	NORMAL DEPTH (FT.)	VELOCITY (FPS)	VELOCITY HEAD (FT.)	EGL (FT.)
D-D	4.30	28.29	16.12	12.17	2.00	5	50:1	35.00	0.30	2.03	0.06	0.36



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PREPARED BY:

 JAMES L. LONG
 NUMBER PE-2014010495
 11/30/2023
 SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT STREET, STORMWATER, AND MASTER DRAINAGE PLAN
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11/30/2023	Added "New City Requirements" note

DRAWN BY: NCA
 CHECKED BY: JLL
 DATE PREPARED: 11/05/2021
 PROJ. NUMBER: 21-130

MASTER DRAINAGE PLAN-SWALE GRADING PLAN
 SHEET (EAST)
8

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ELEV. = 1046.25

BASIS OF BEARINGS:

MISSOURI STATE PLANE COORDINATE SYSTEM (NAD) 1983, MISSOURI, WEST ZONE

NOTES:

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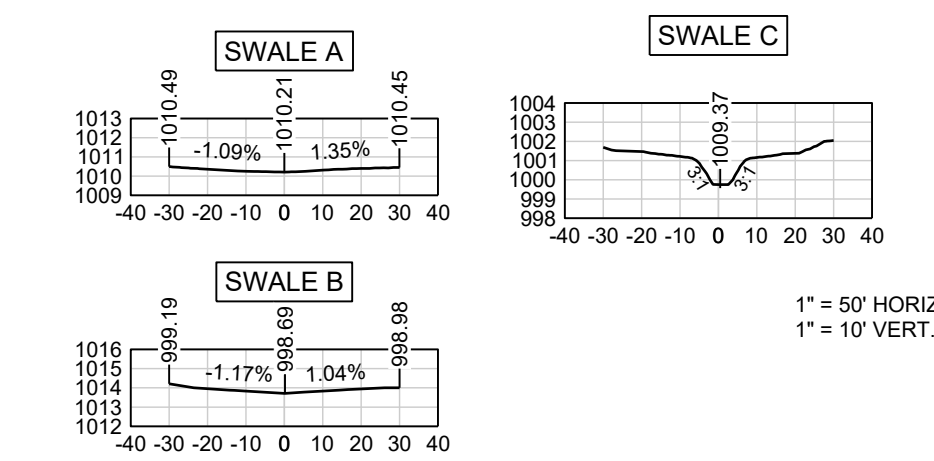
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GRADING LEGEND:

- - - 1023 - - - EXISTING CONTOUR
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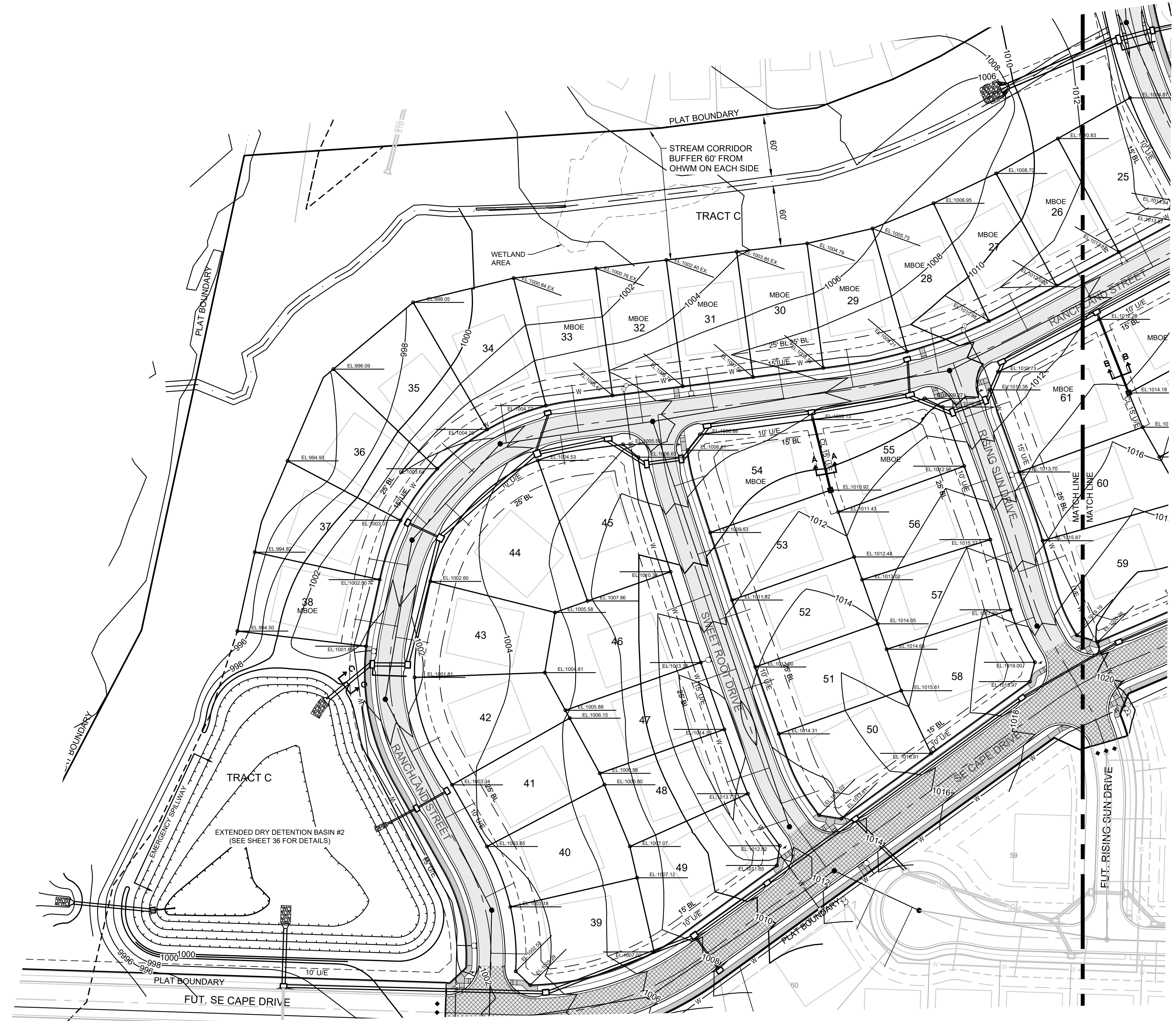
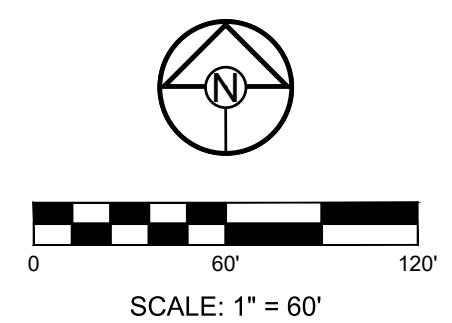
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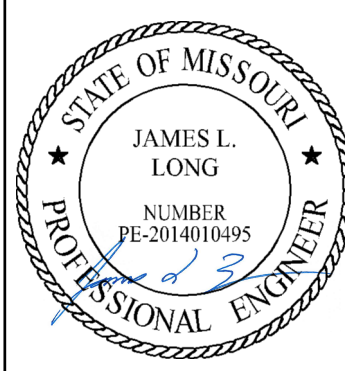


SECTION	DRAINAGE AREA (AC.)	Q100 (CFS)	Q10 (CFS)	DESIGN OVERFLOW (CFS)	BED SLOPE (%)	BASE WIDTH (FT.)	SIDE SLOPE	TOP WIDTH (FT.)	NORMAL DEPTH (FT.)	VELOCITY (FPS)	VELOCITY HEAD (FT.)	EGL (FT.)
A-A	1.10	7.24	4.12	3.12	2.6	--	100:1	30.00	0.15	1.39	0.03	0.18
B-B	0.90	5.92	3.38	2.54	3.5	--	100:1	28.00	0.14	1.30	0.03	0.17
C-C	14.80	97.37	55.48	41.89	2.4	5	3:1	10.58	0.93	5.78	0.52	1.45

RUNOFF CALCULATIONS:
 $Q = K \cdot C \cdot I \cdot A$
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 $\text{DESIGN OVERFLOW} = Q_{\text{OVERFLOW}} = Q_{100} \cdot Q_{10}$
MANNINGS "n" = 0.030 FOR SWALES



PREPARED BY:

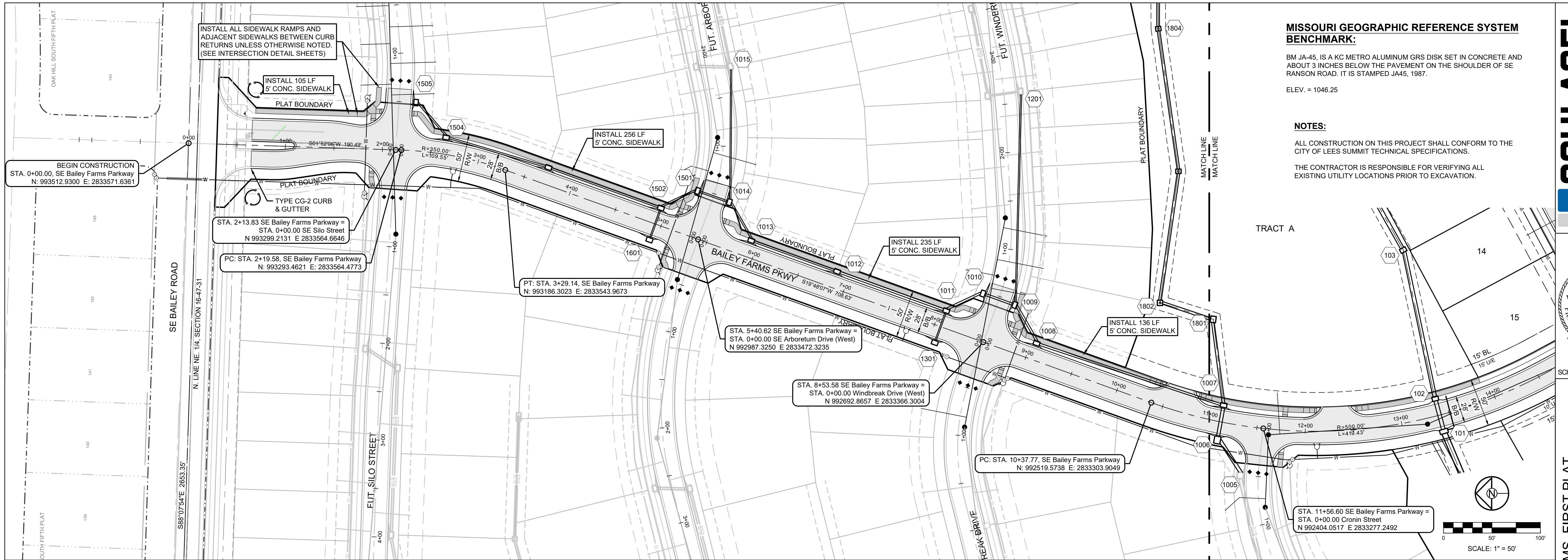


11/30/2023
 SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT STREET, STORMWATER, AND MASTER DRAINAGE PLAN
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MASTER DRAINAGE PLAN-SWALE GRADING PLAN SHEET (WEST)
9



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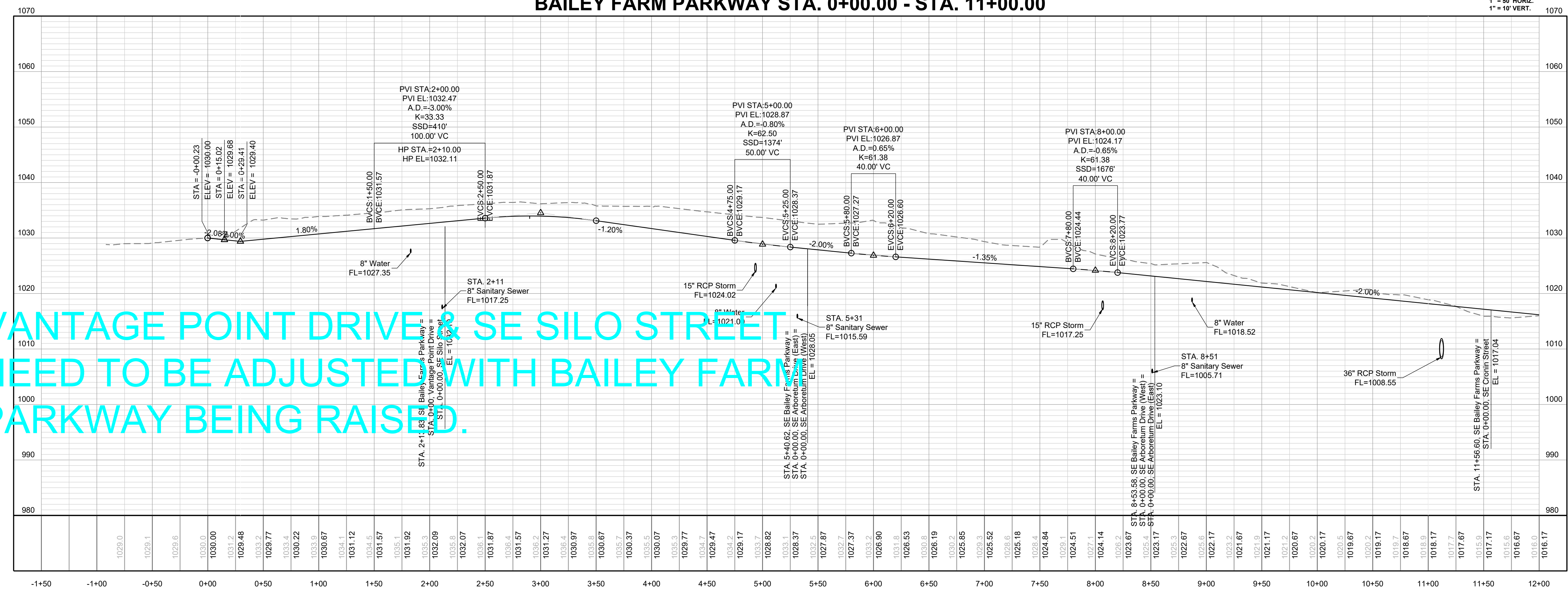
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PREPARED BY:

 JAMES L. LONG
 PROFESSIONAL ENGINEER
 11/30/2023
 SCHLAGEL & ASSOCIATES, P.A.

BAILEY FARM PARKWAY STA. 0+00.00 - STA. 11+00.00



VANTAGE POINT DRIVE & SE SILO STREET NEED TO BE ADJUSTED WITH BAILEY FARM PARKWAY BEING RAISED.

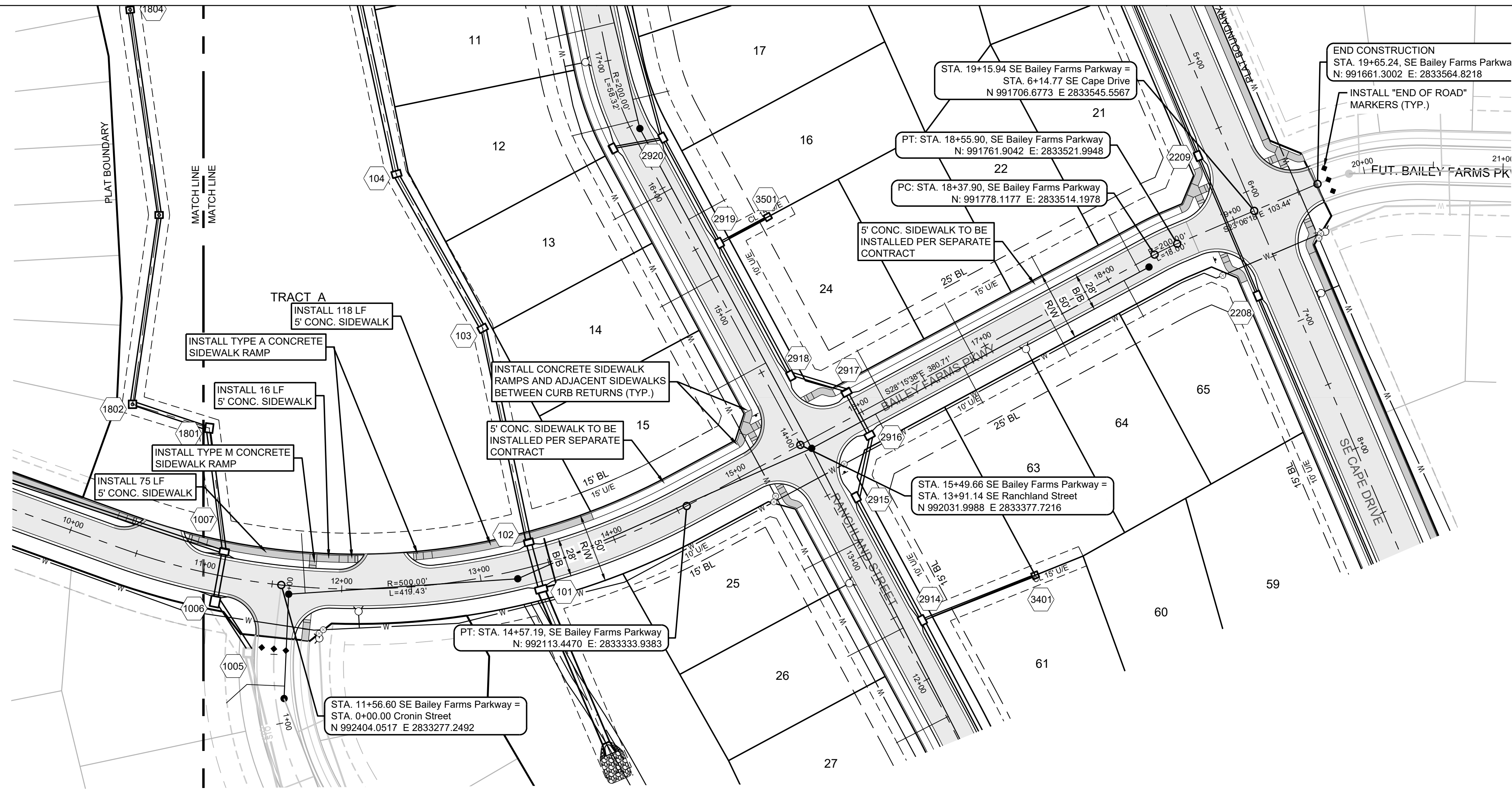
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DRAWN BY:	NCA
CHECKED BY:	JLL
DATE PREPARED:	11/05/2021
PROJ. NUMBER:	21-130

BAILEY FARMS PKWY NORTH PLAN & PROFILE

I:\PROJECTS\2021\21-130\3.0 Design\3.0 DWG Plans\6.0 SS\21-130-SS-PP.dwg, BAILEY FARMS PKWY NORTH PLAN & PROFILE, 11/29/2023 5:11:04 PM, 1:1



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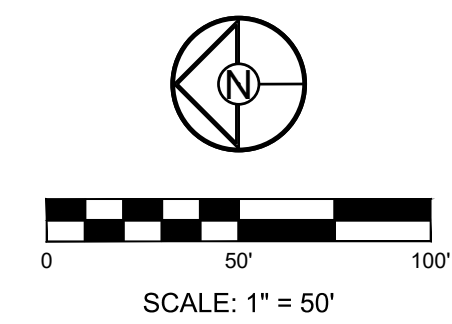
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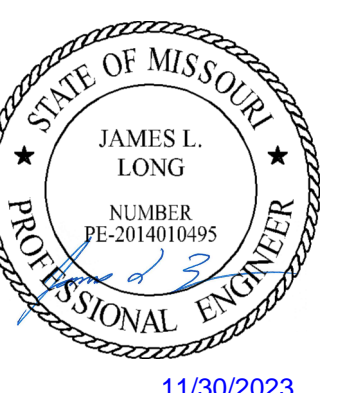
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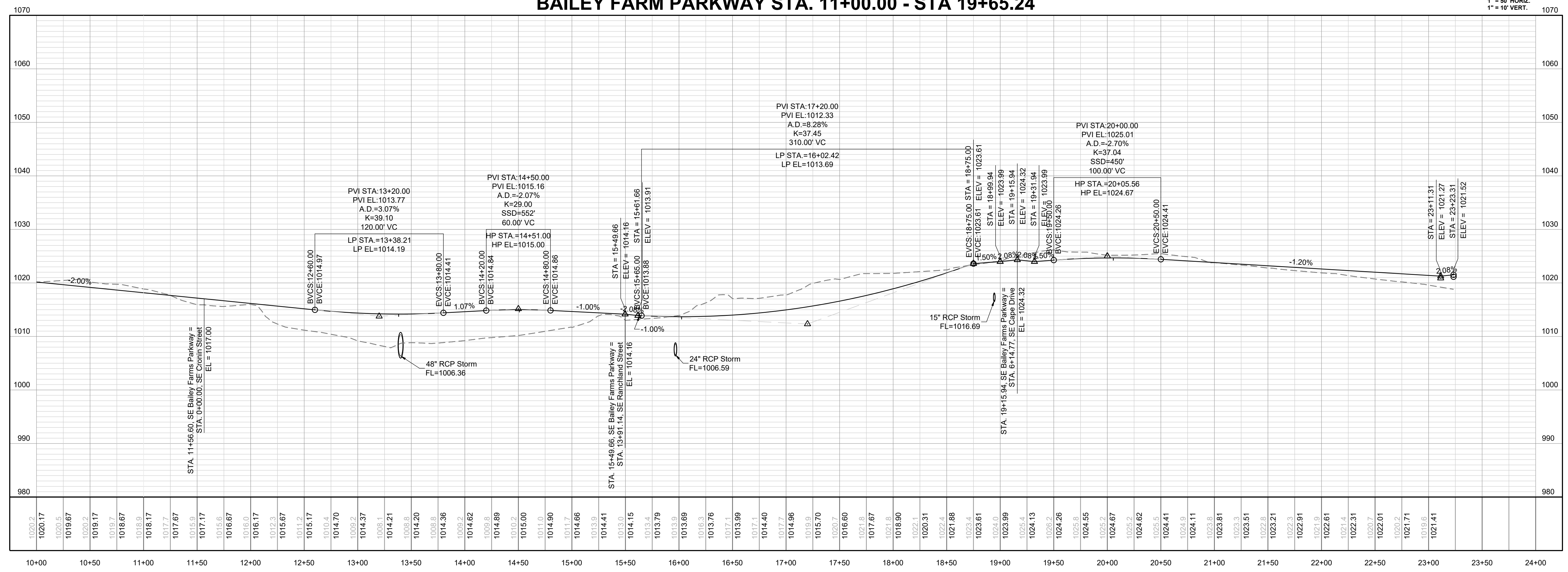
PREPARED BY:



11/30/2023

SCHLAGEL & ASSOCIATES, P.A.

BAILEY FARM PARKWAY STA. 11+00.00 - STA 19+65.24



MANOR AT BAILEY FARMS, FIRST PLAT
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BAILEY FARMS
PKWY SOUTH
PLAN & PROFILE

SHEET

I:\PROJECTS\2021\121-130\3.0 Design\3.0 DWG Plans\6.0 SS\21-130-SS-PP.dwg, BAILEY FARMS PKWY SOUTH, 11/29/2023 5:11:17 PM, 11

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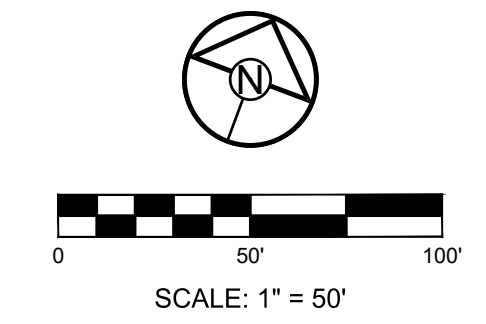
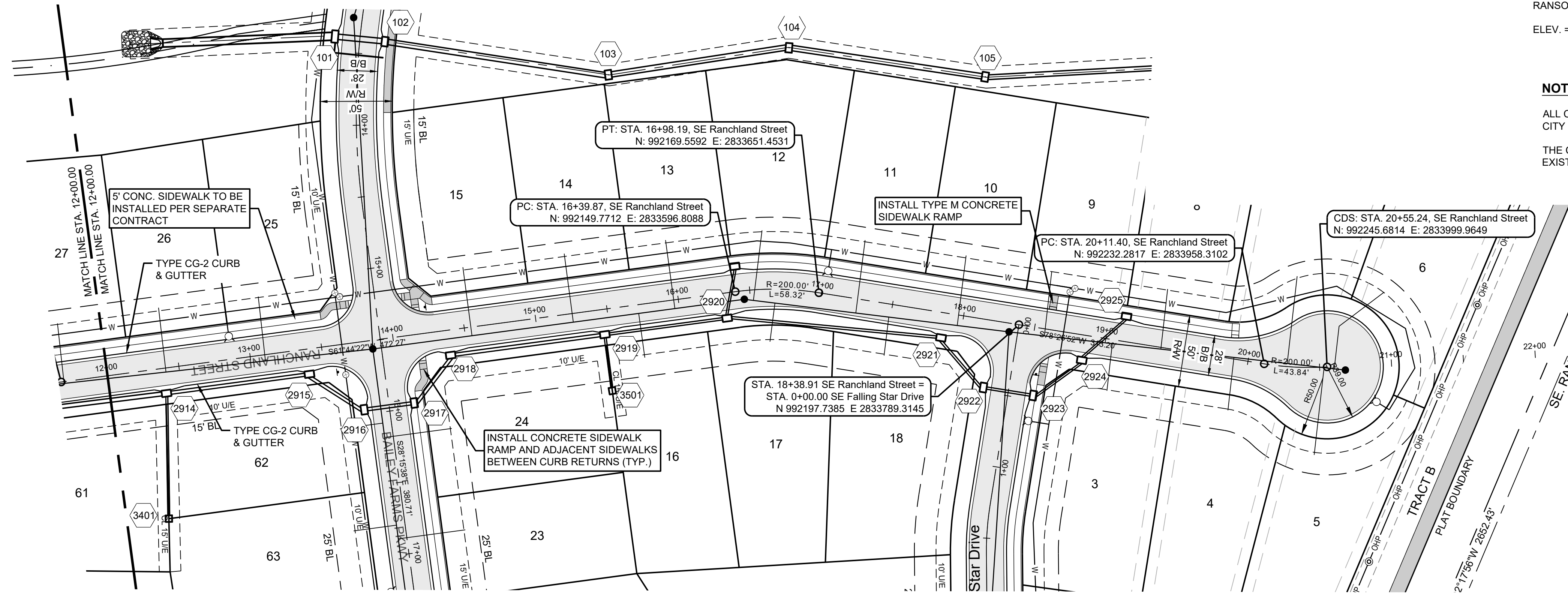
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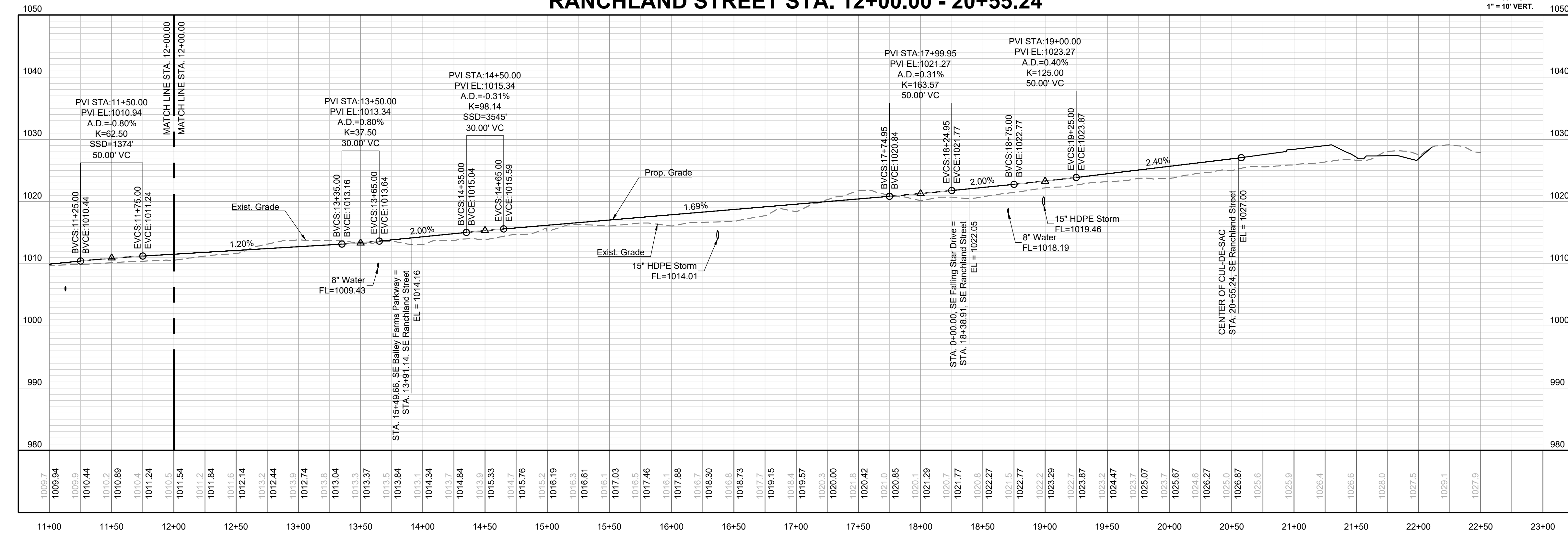
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RANGLAND STREET STA. 12+00.00 - 20+55.24



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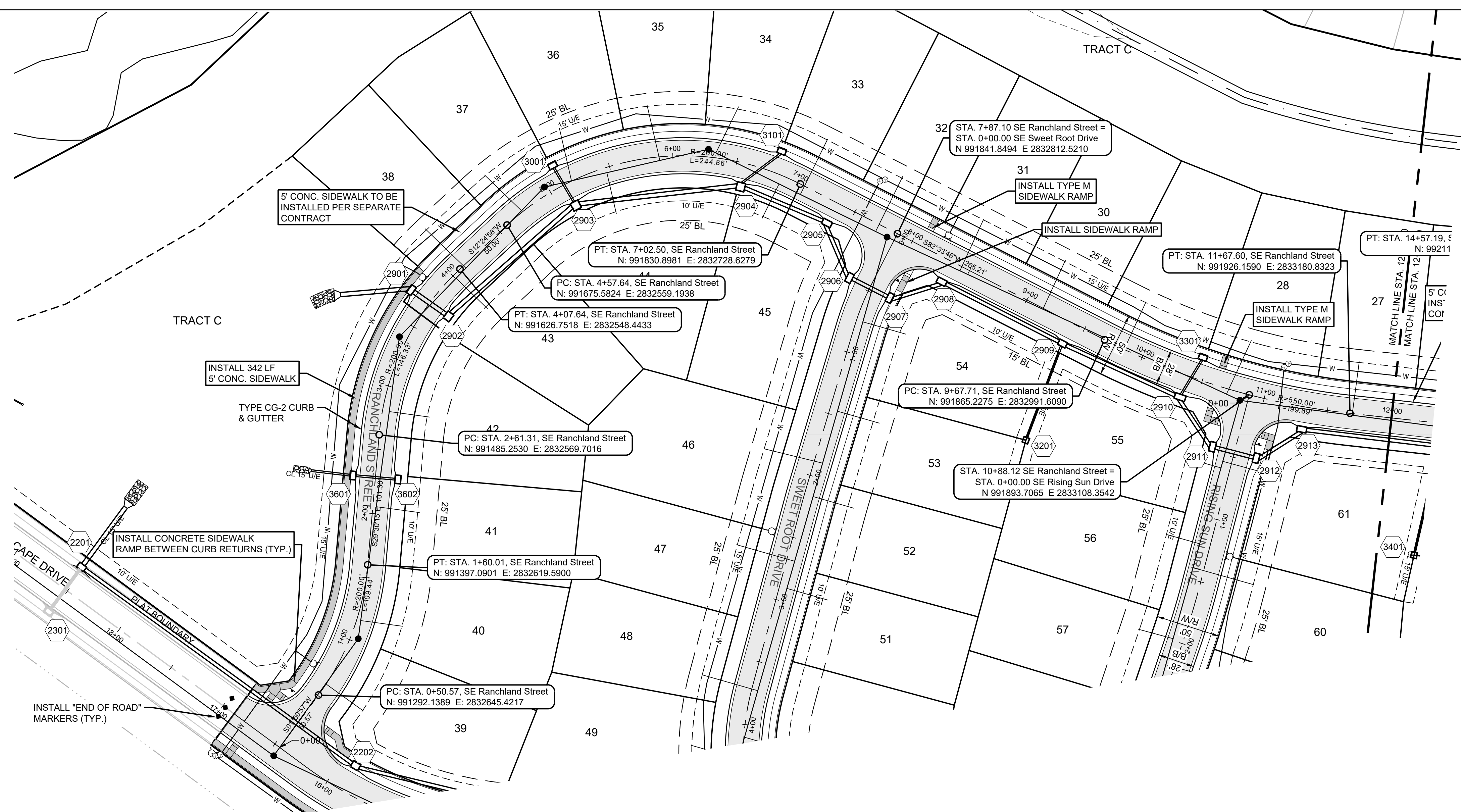
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RANGLAND ST
EAST PLAN &
PROFILE

SHEET
12



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 ELEV. = 1046.25

NOTES:
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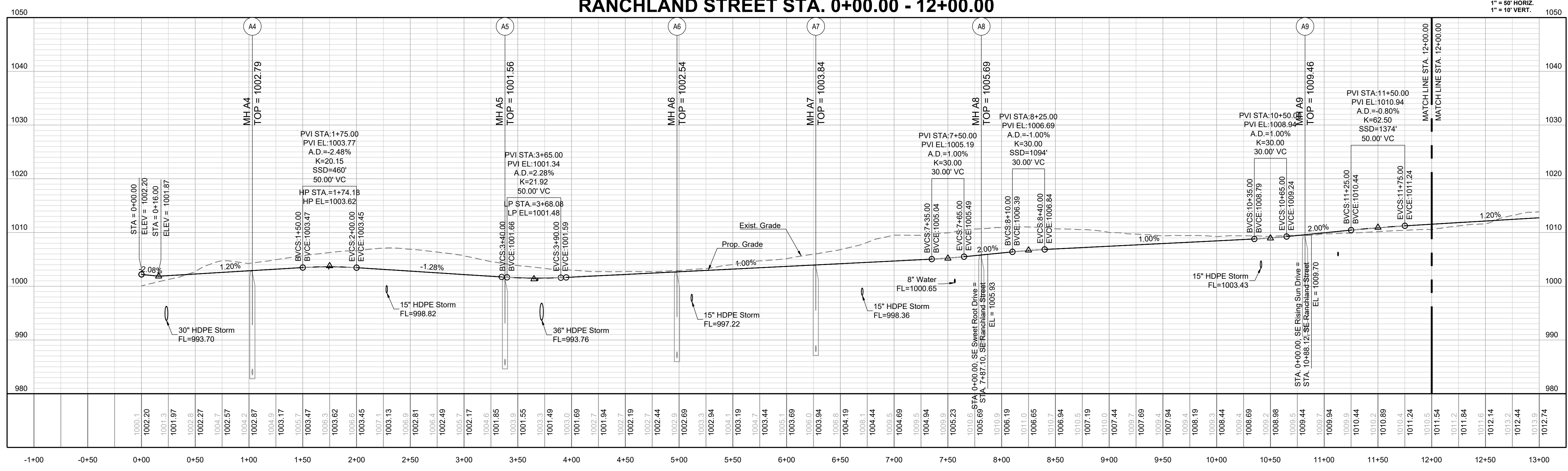
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PREPARED BY:

 JAMES L. LONG
 PROFESSIONAL ENGINEER
 11/30/2023
 SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
 STREET, STORMWATER, AND MASTER
 DRAINAGE PLAN
 SE BAILEY ROAD AND SE RANSON ROAD
 LEE'S SUMMIT, MISSOURI

RANCLAND STREET STA. 0+00.00 - 12+00.00



REVISION DATE	DESCRIPTION
01/21/2022	City Comments dated 12/19/2021
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DRAWN BY: NCA	CHECKED BY: JLL	DATE PREPARED: 11/05/2021	PROJ. NUMBER: 21-130
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RANCLAND ST
 WEST PLAN &
 PROFILE

SHEET
13

MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:

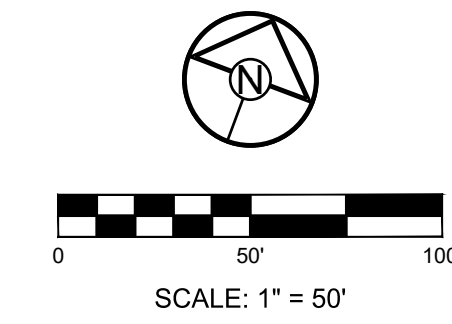
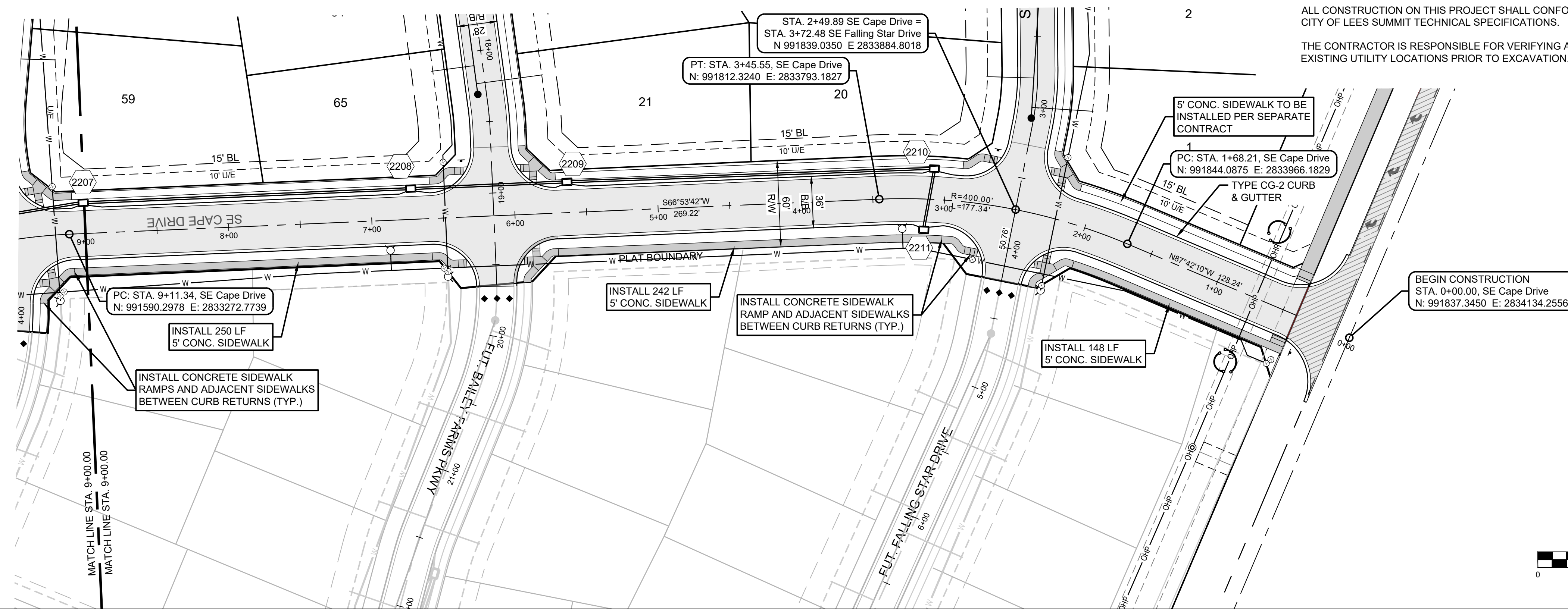
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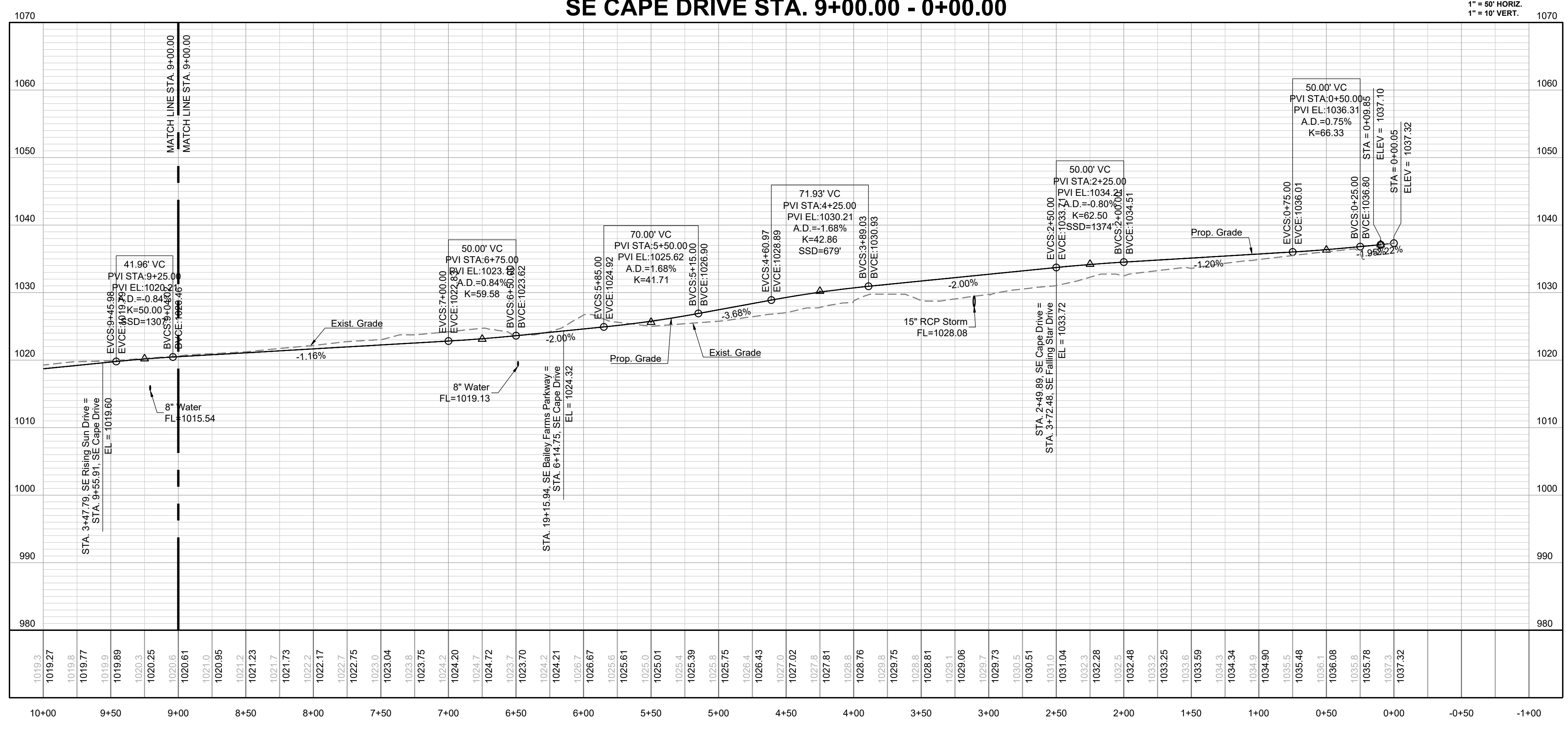
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SE CAPE DRIVE STA. 9+00.00 - 0+00.00



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PREPARED BY:



11/30/2023

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CAPE DR EAST PLAN & PROFILE

SHEET

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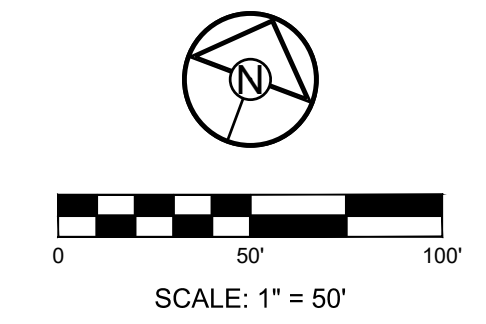
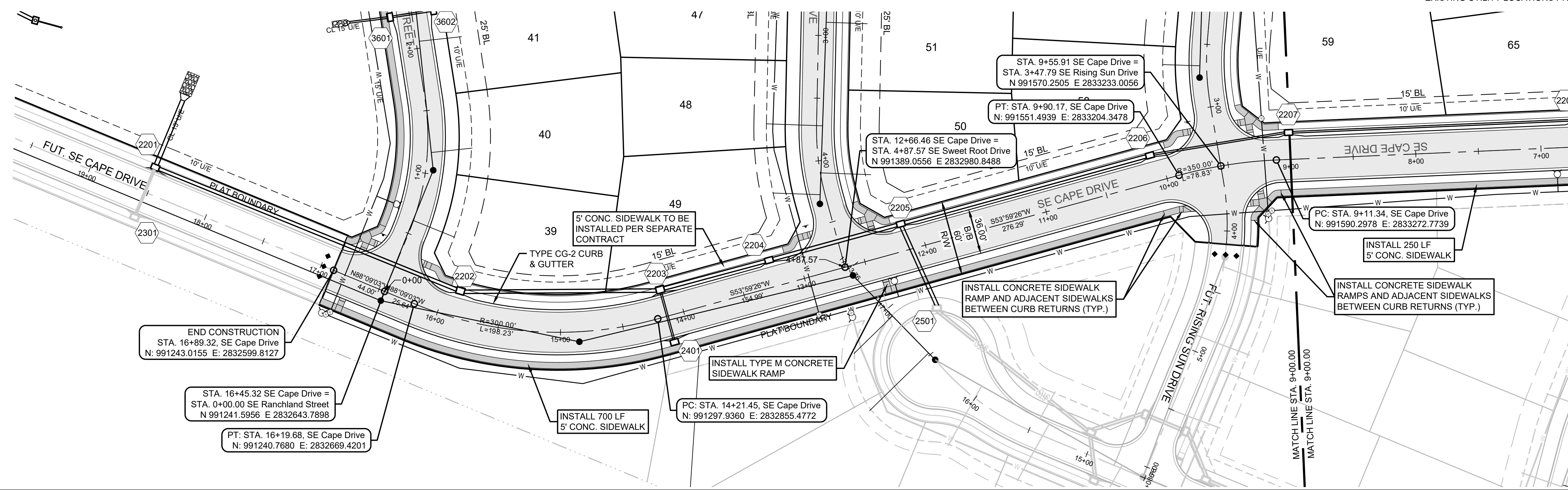
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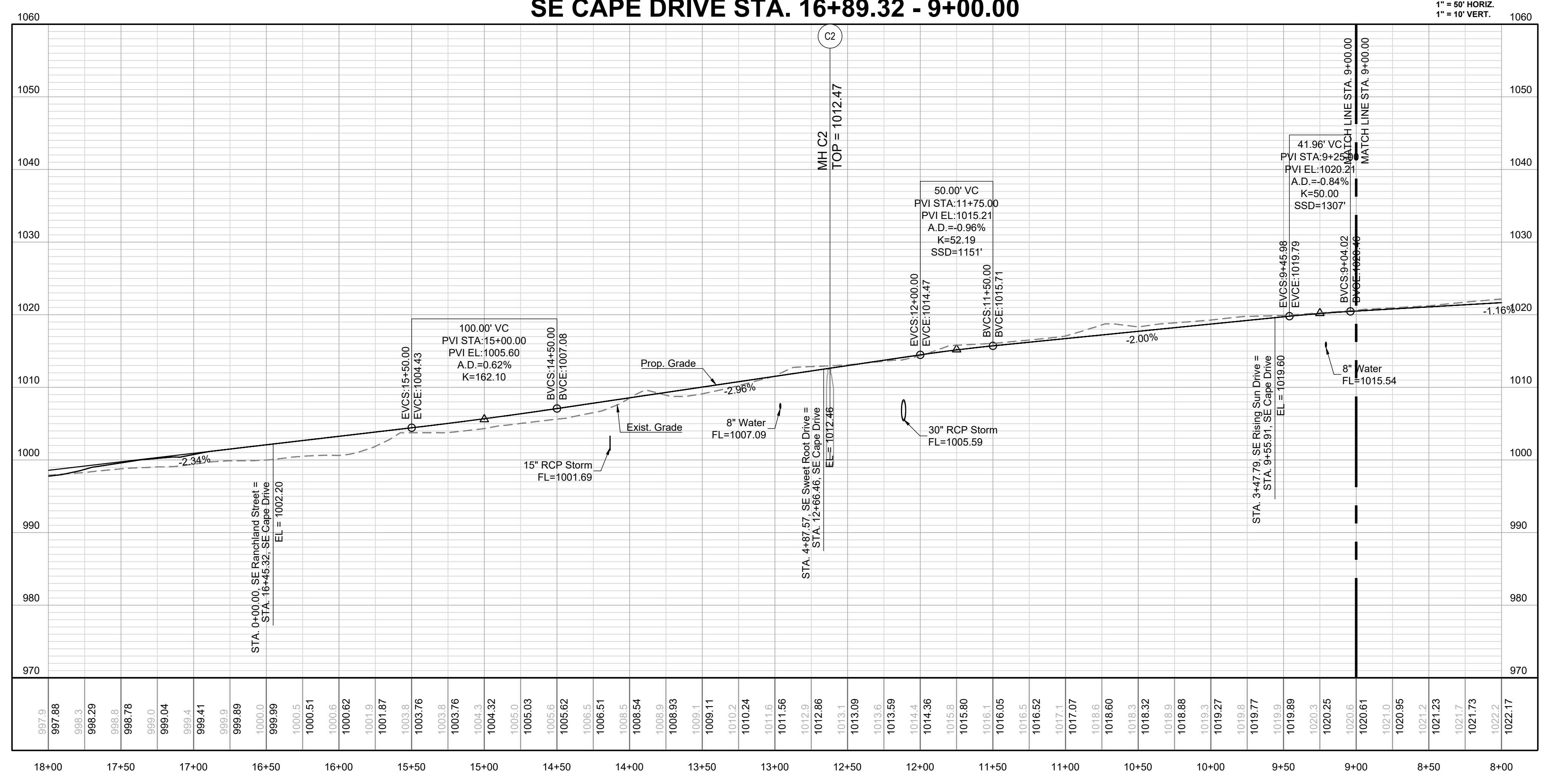
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11/30/2023
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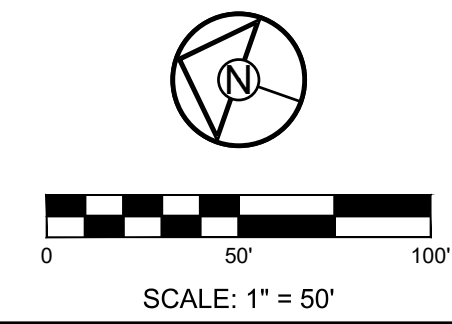
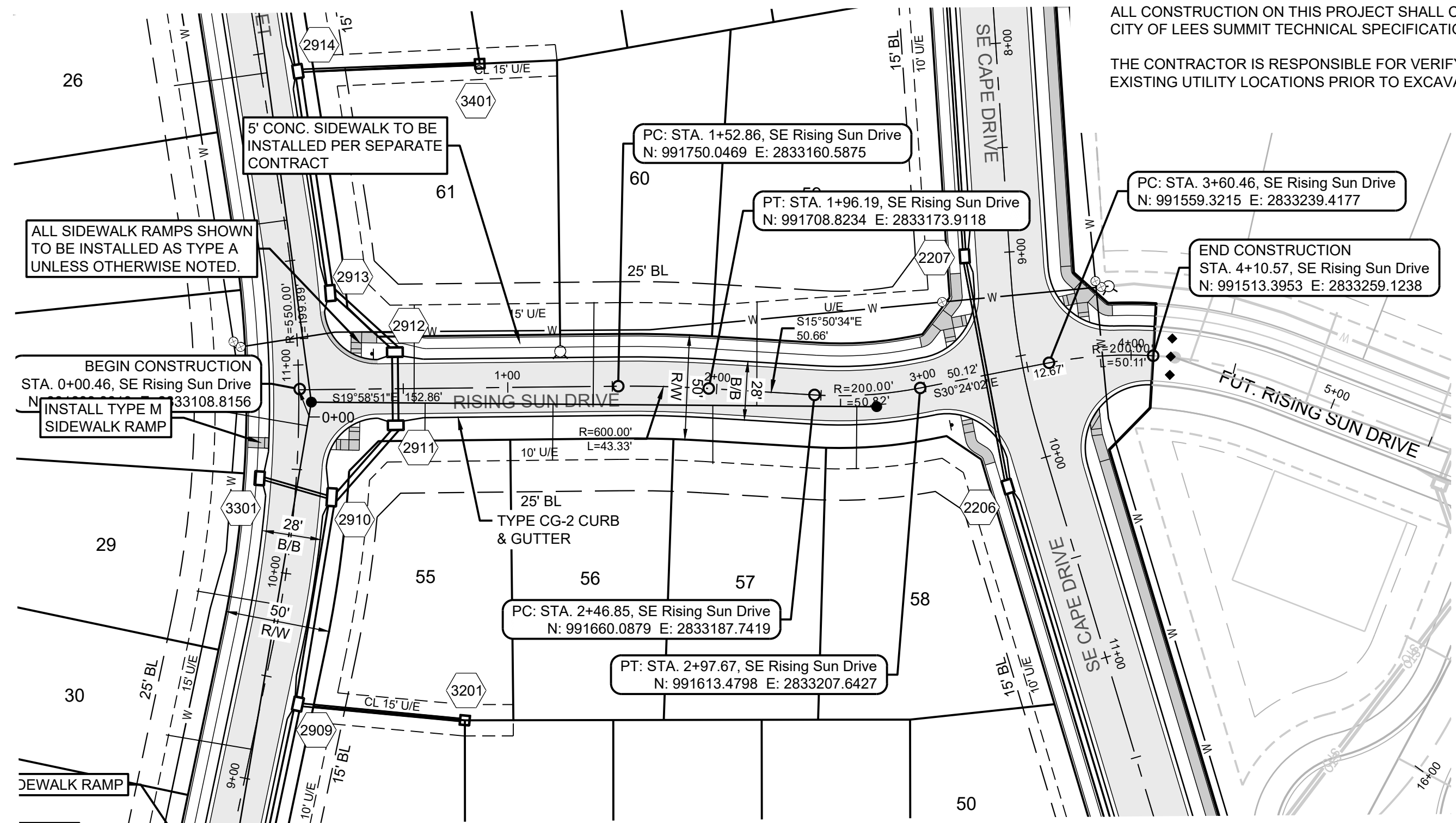
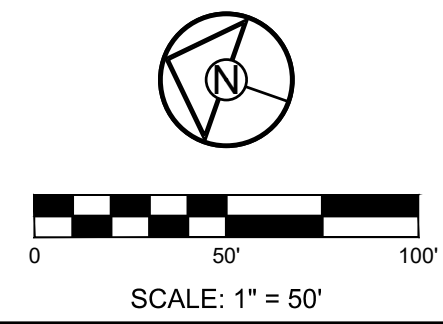
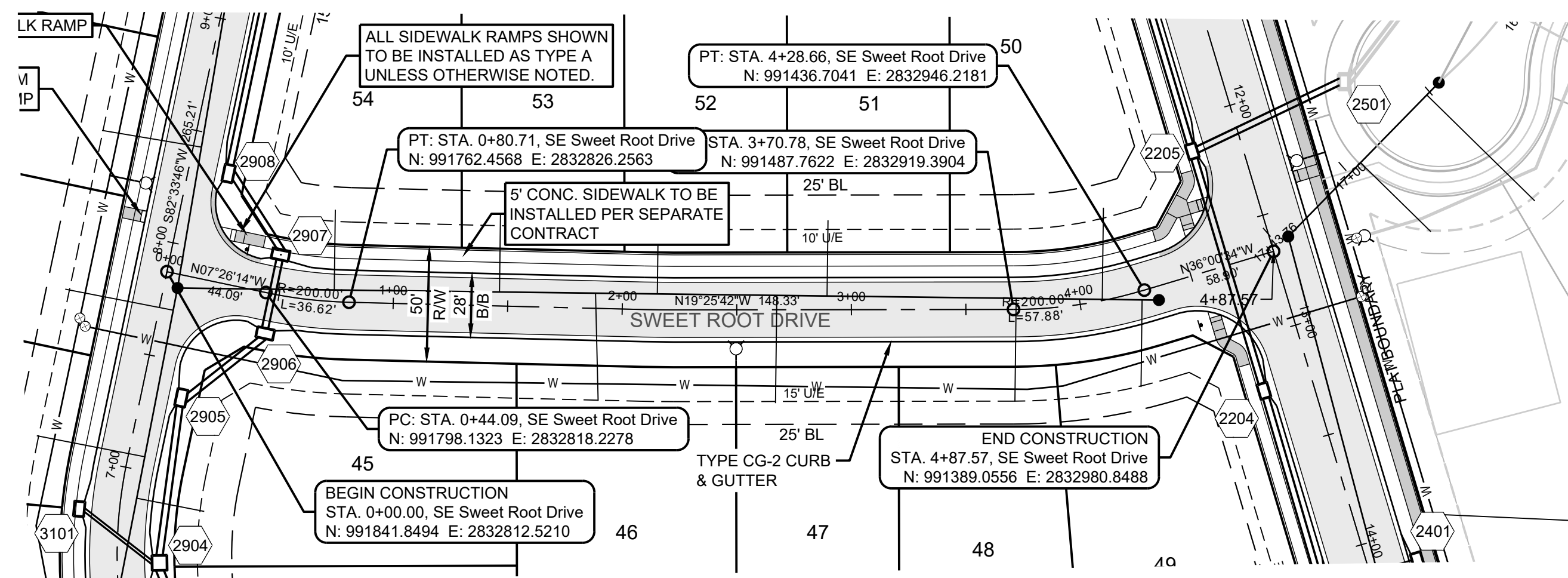
MANOR AT BAILEY FARMS, FIRST PLAT
STREET, STORMWATER, AND MASTER
DRAINAGE PLAN
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CAPE DR WEST
PLAN & PROFILE

SHEET

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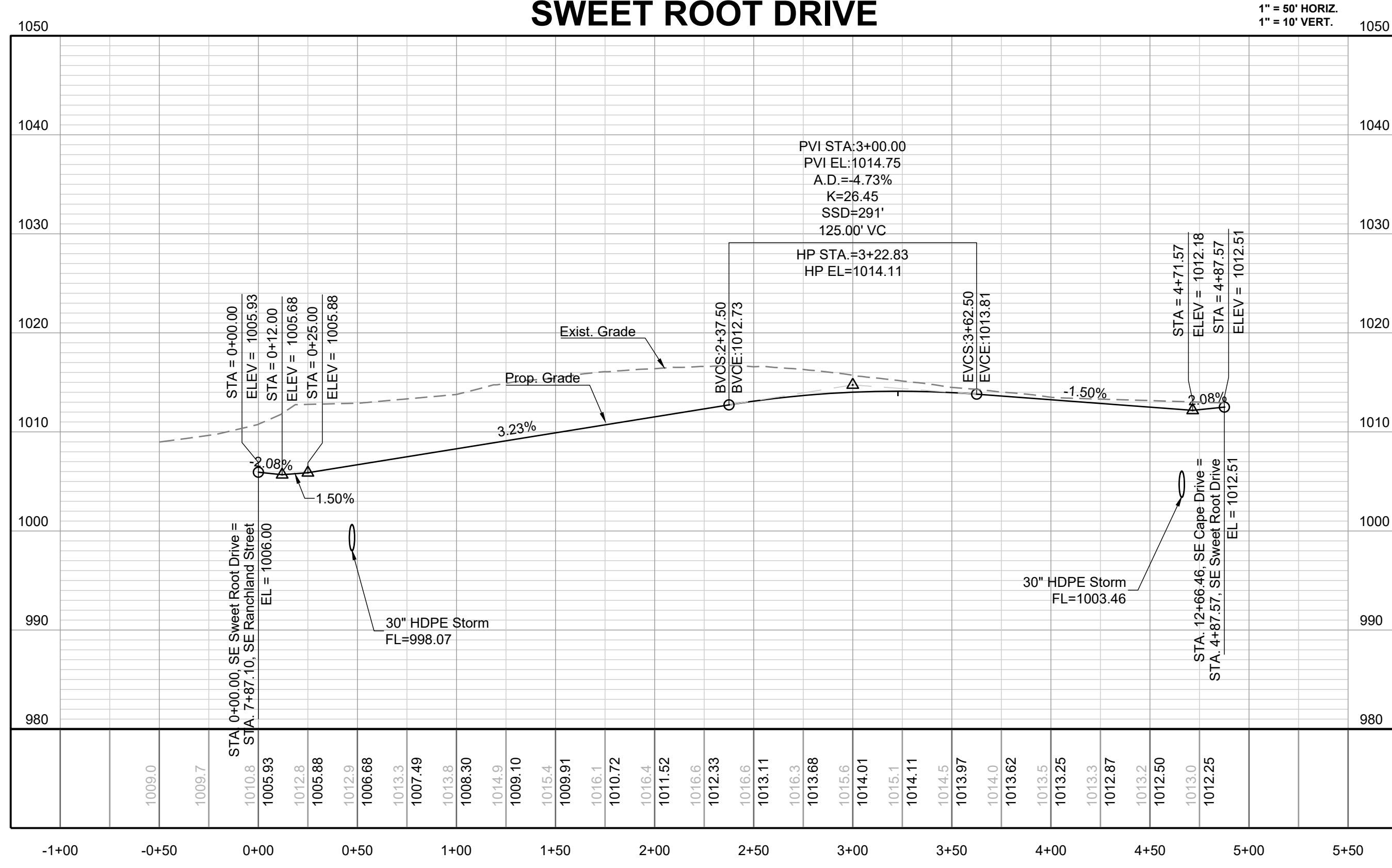
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PREPARED BY:

JAMES L. LONG
NUMBER PE-2014010495
11/30/2023
SCHLAGEL & ASSOCIATES, P.A.

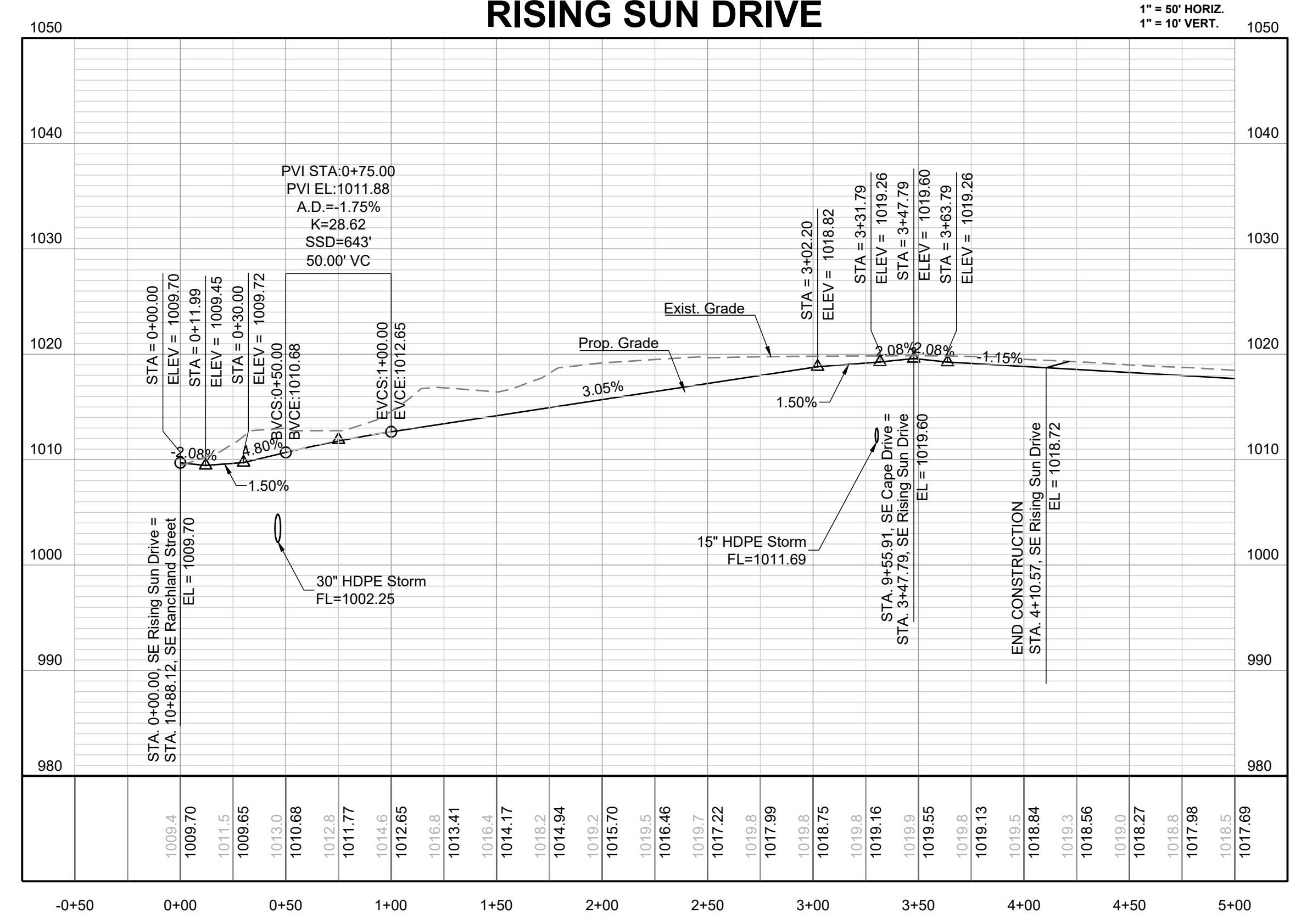
MANOR AT BAILEY FARMS, FIRST PLAT STREET, STORMWATER, AND MASTER DRAINAGE PLAN
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SWEET ROOT DRIVE



1" = 50' HORIZ.
1" = 10' VERT.

RISING SUN DRIVE



1" = 50' HORIZ.
1" = 10' VERT.

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CHECKED BY: JLL
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PROJ. NUMBER: 21-130

SWEET ROOT DR & RISING SUN DR PLAN & PROFILE
SHEET
16

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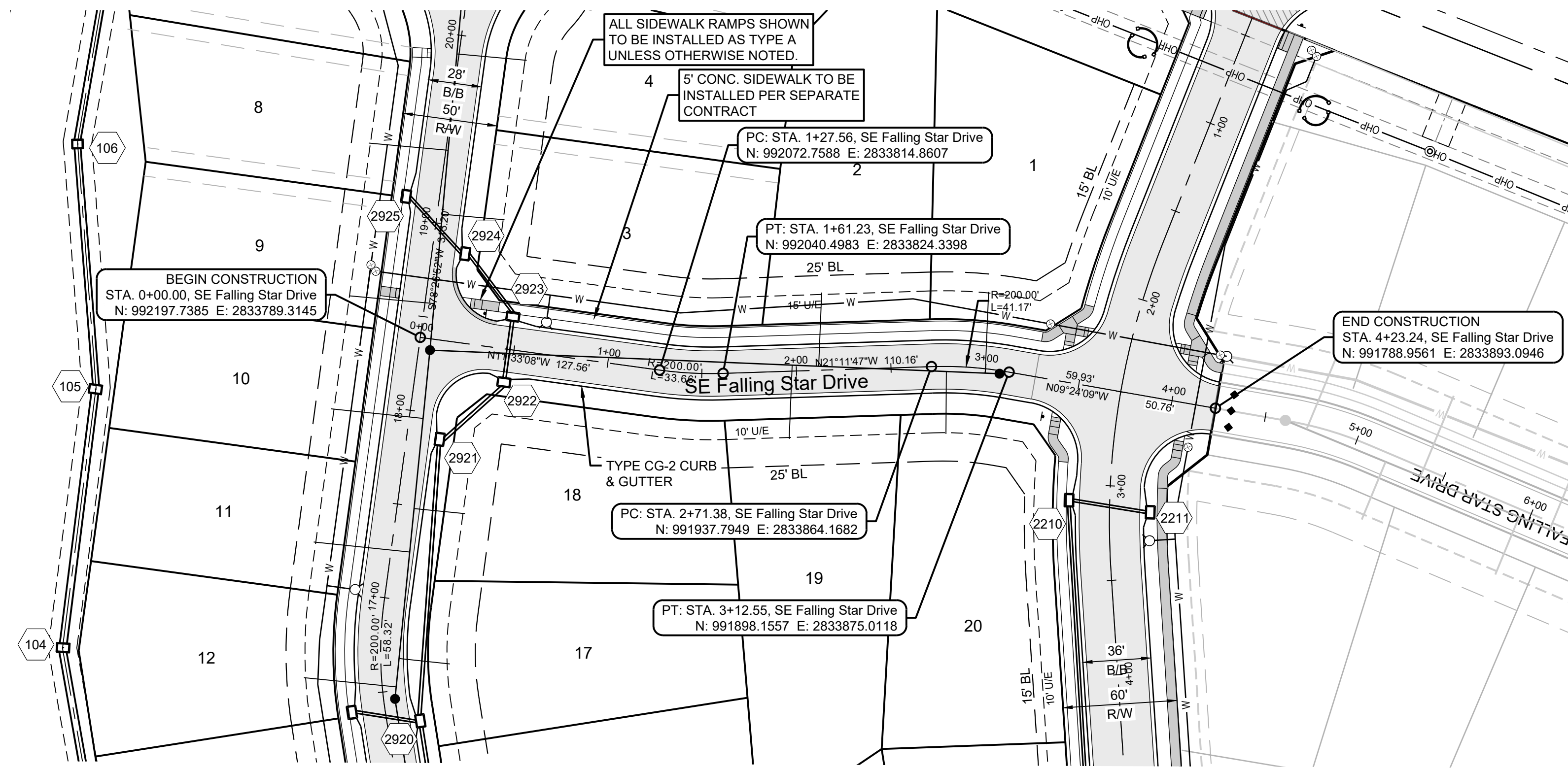
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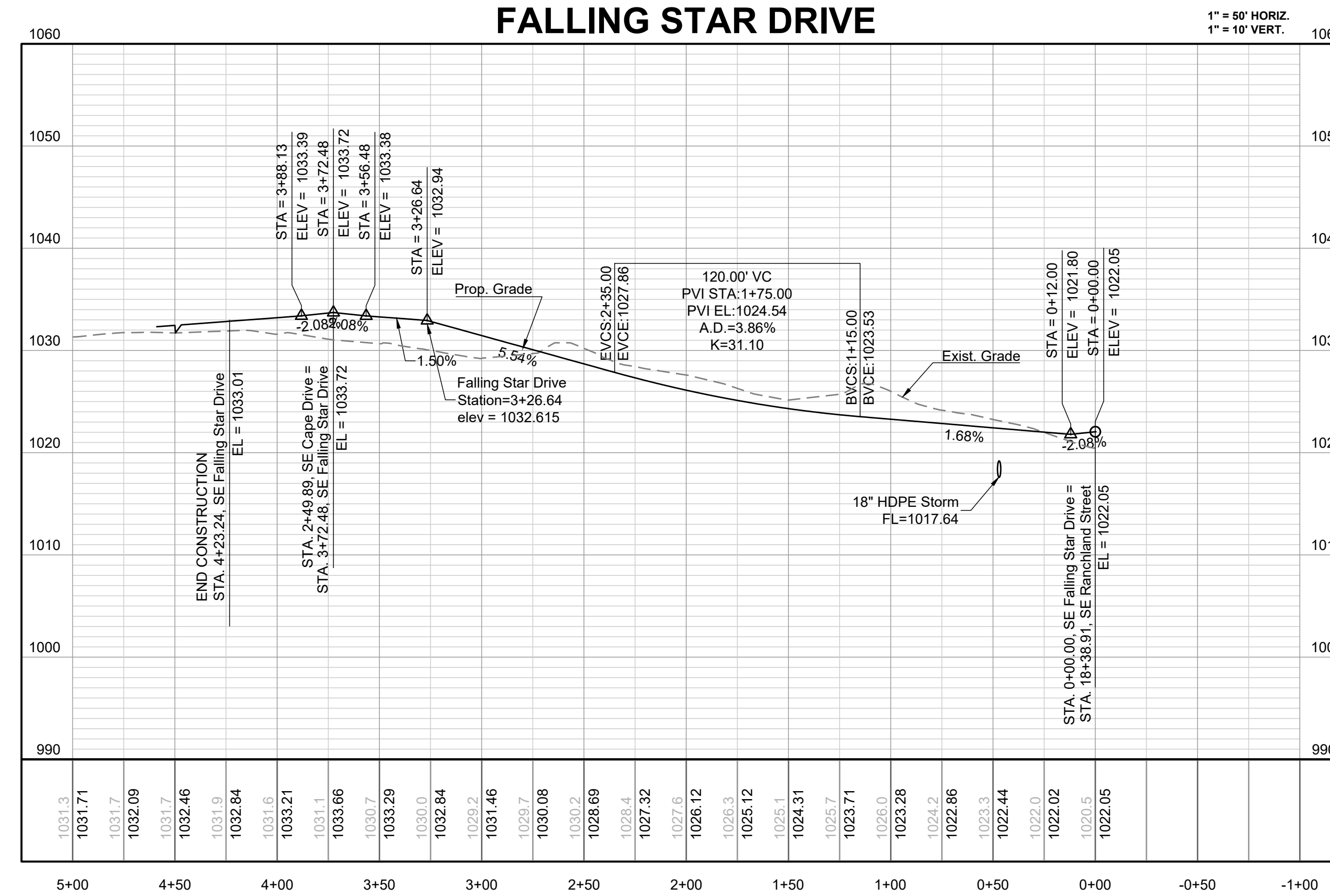
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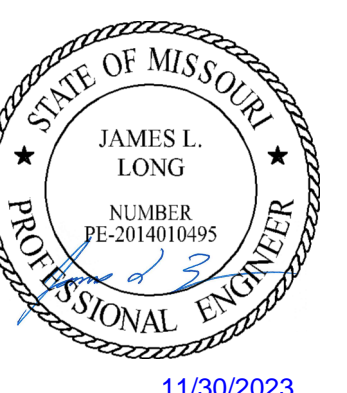


FALLING STAR DRIVE



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PREPARED BY:



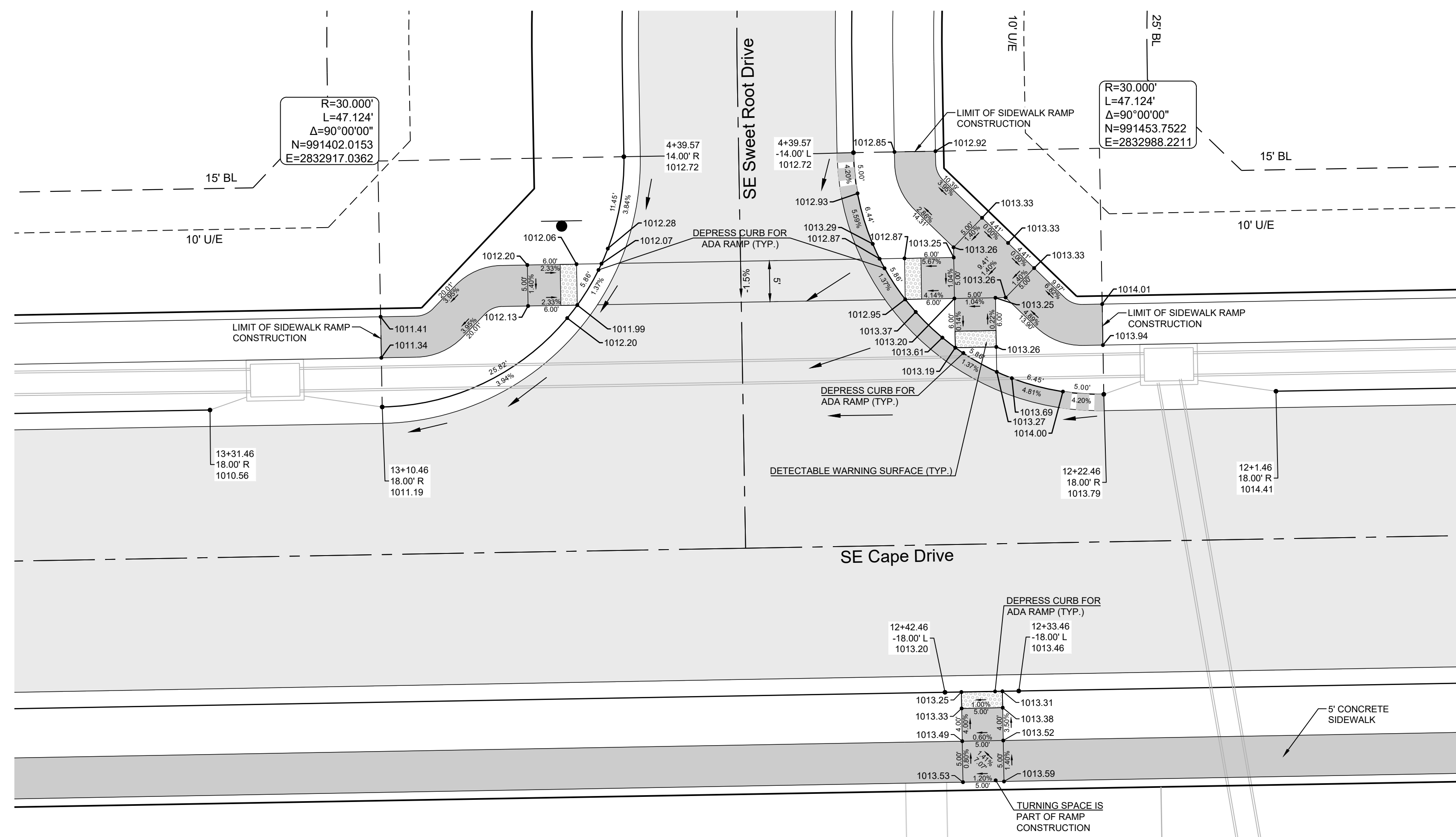
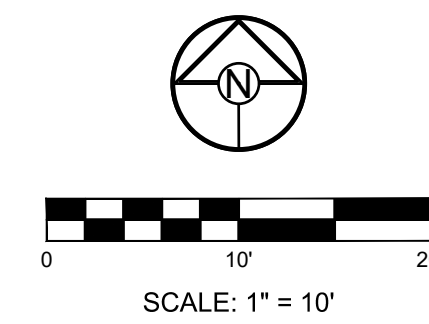
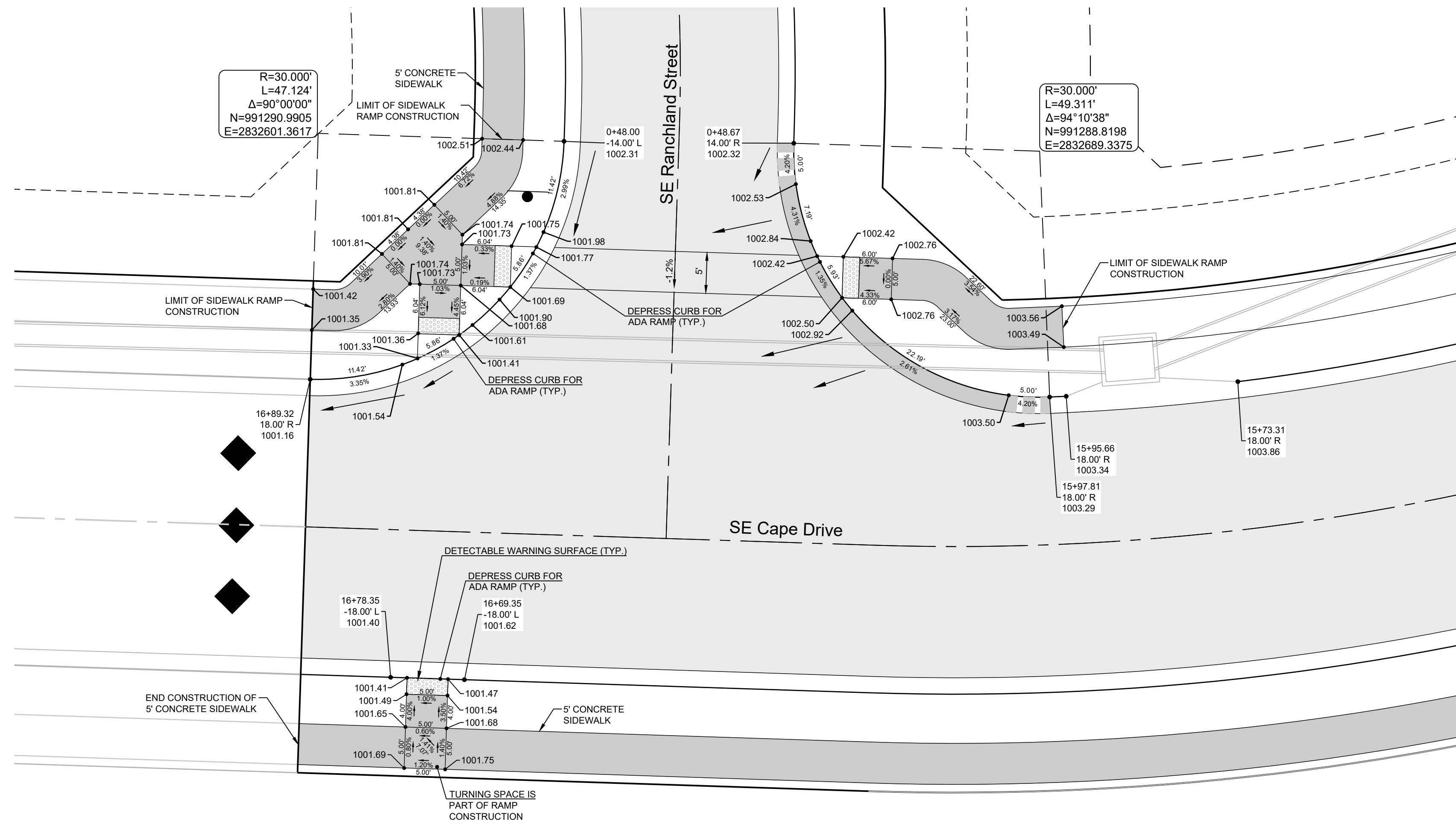
SCHLAGEL & ASSOCIATES, P.A.

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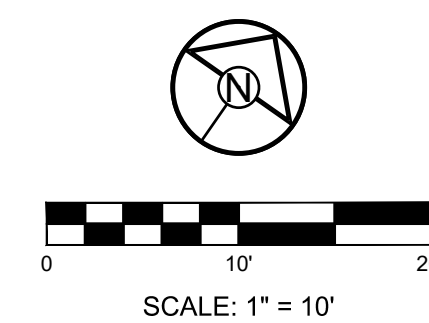
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SHEET
17



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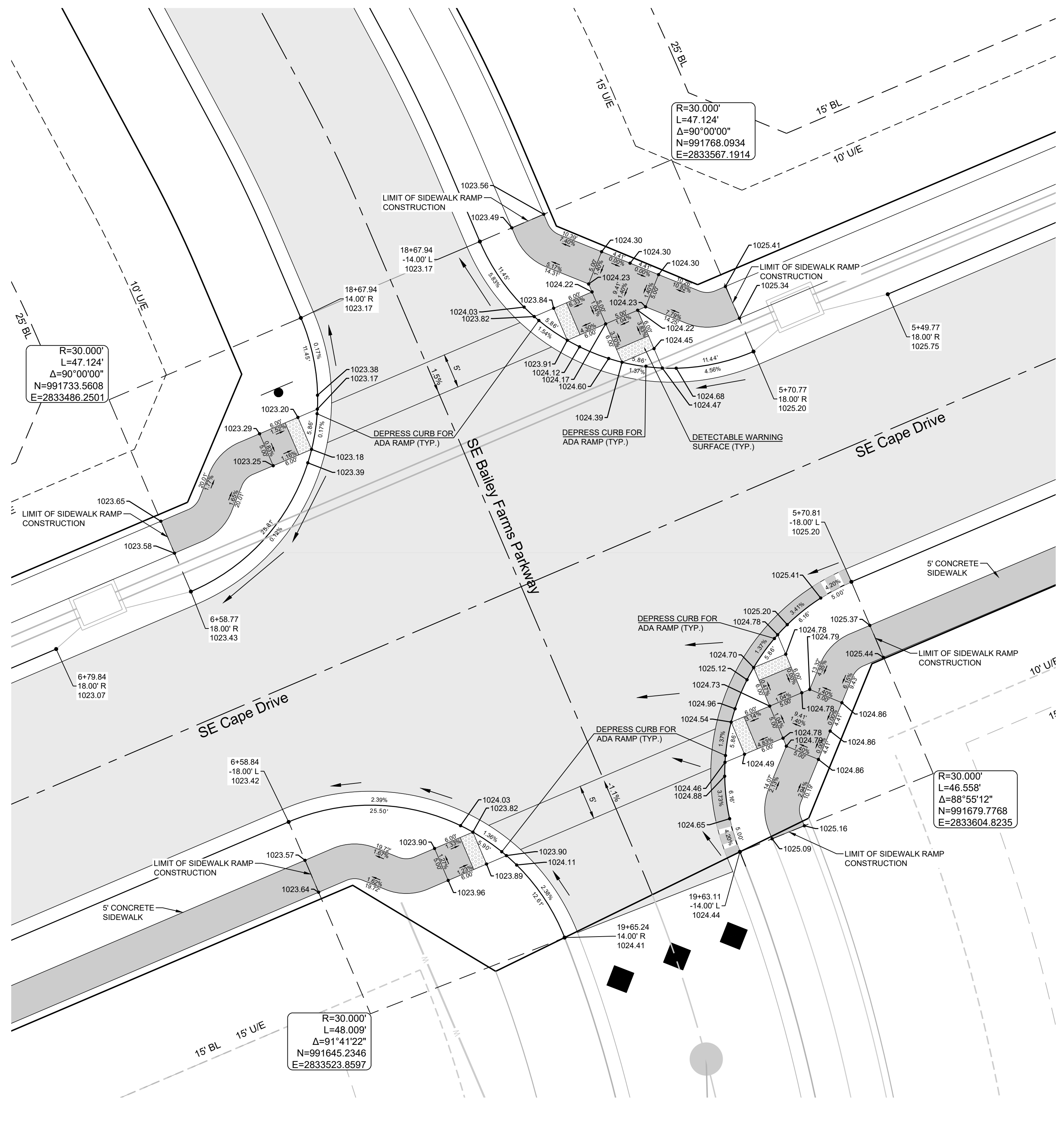
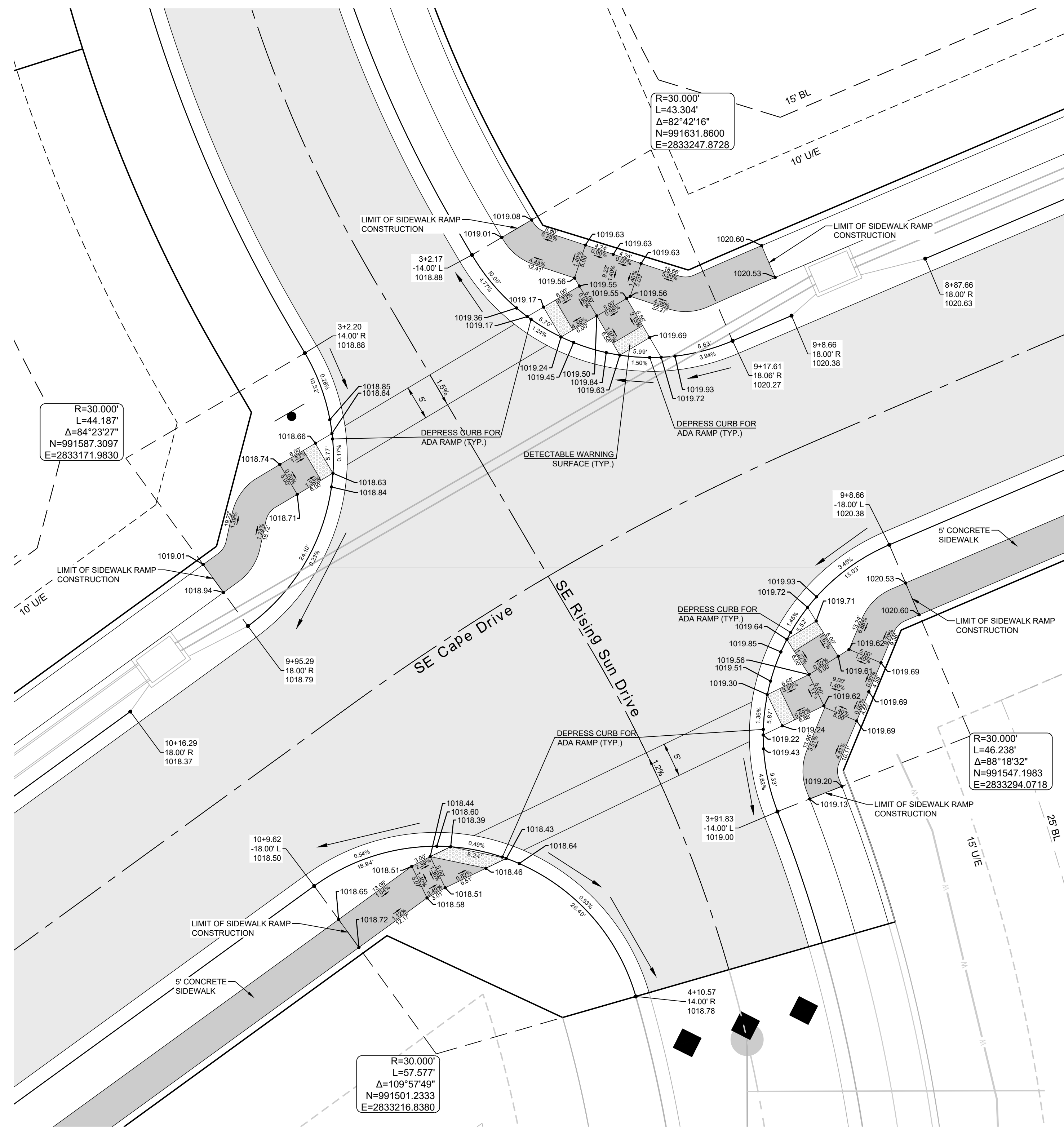
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	TYPE "CG-2" DRY CURB & GUTTER
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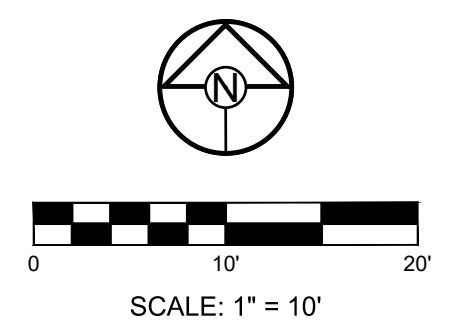
DRAWN BY: NCA
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 DATE PREPARED: 11/05/2021
 PROJ. NUMBER: 21-130

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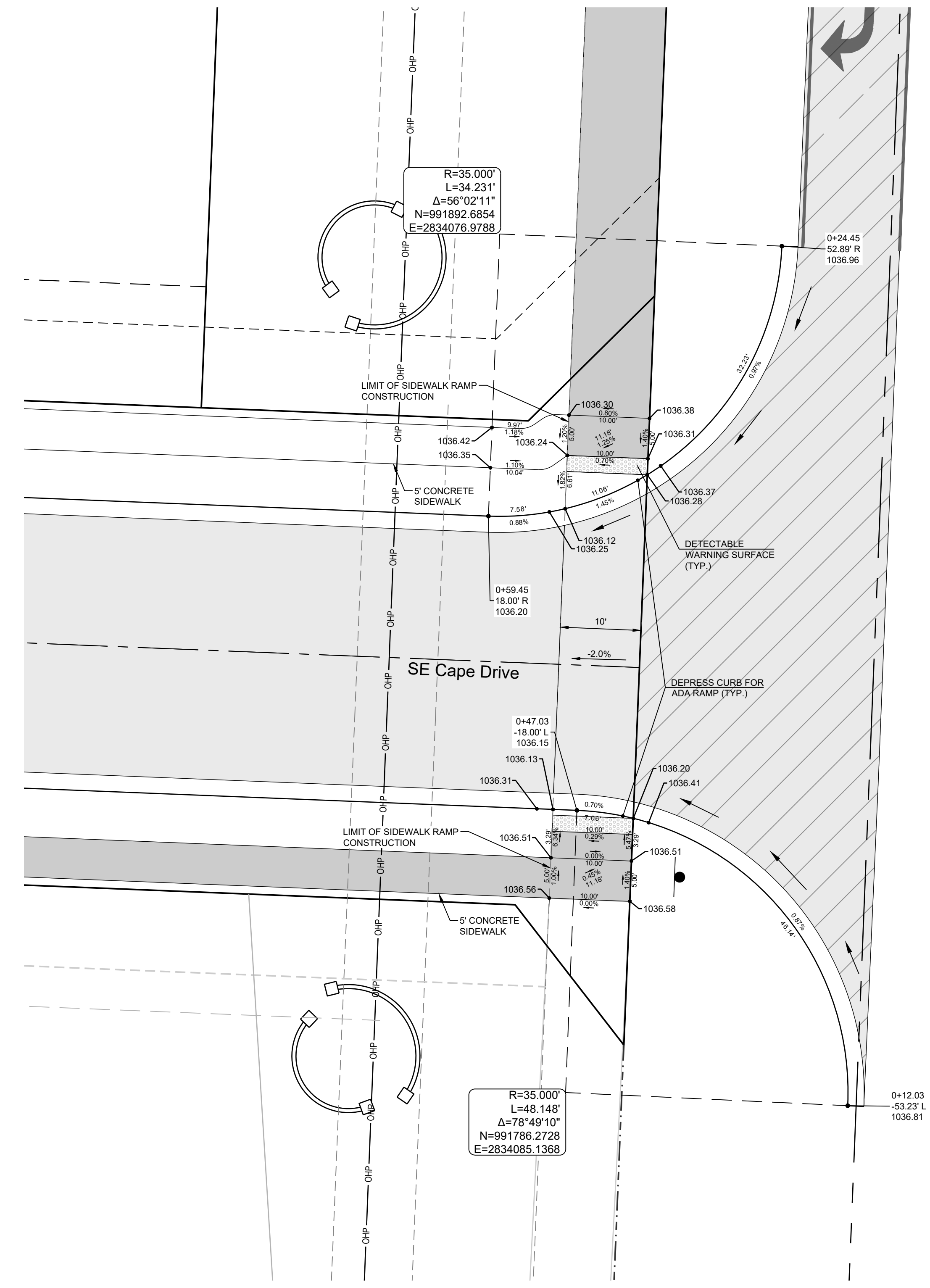
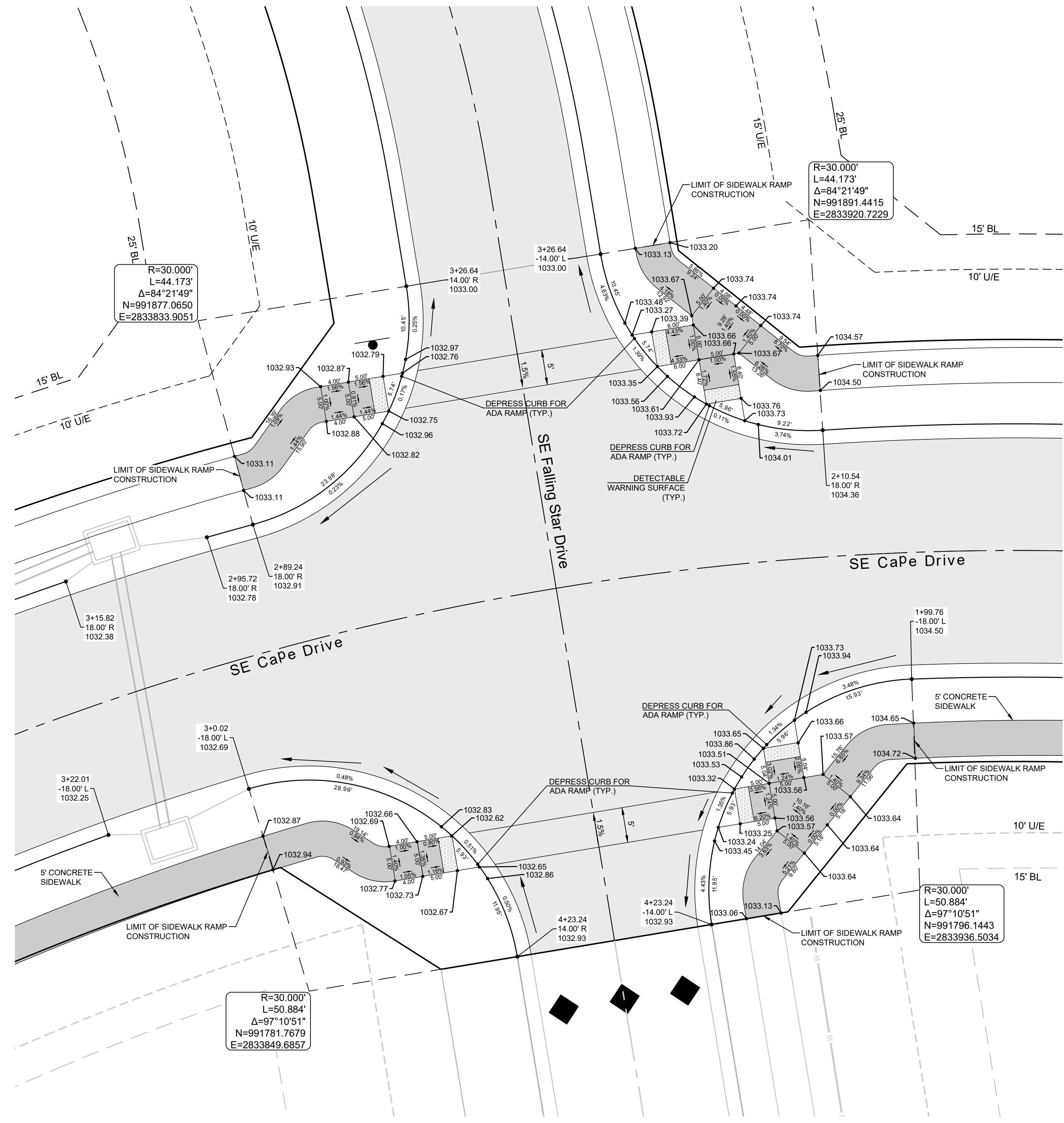
MANOR AT BAILEY FARMS, FIRST PLAT
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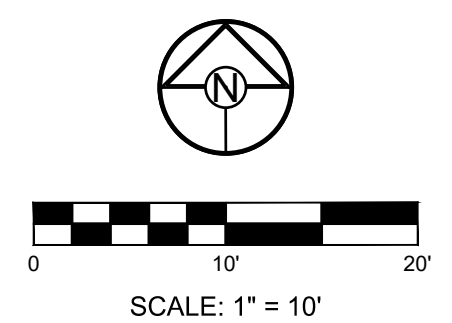
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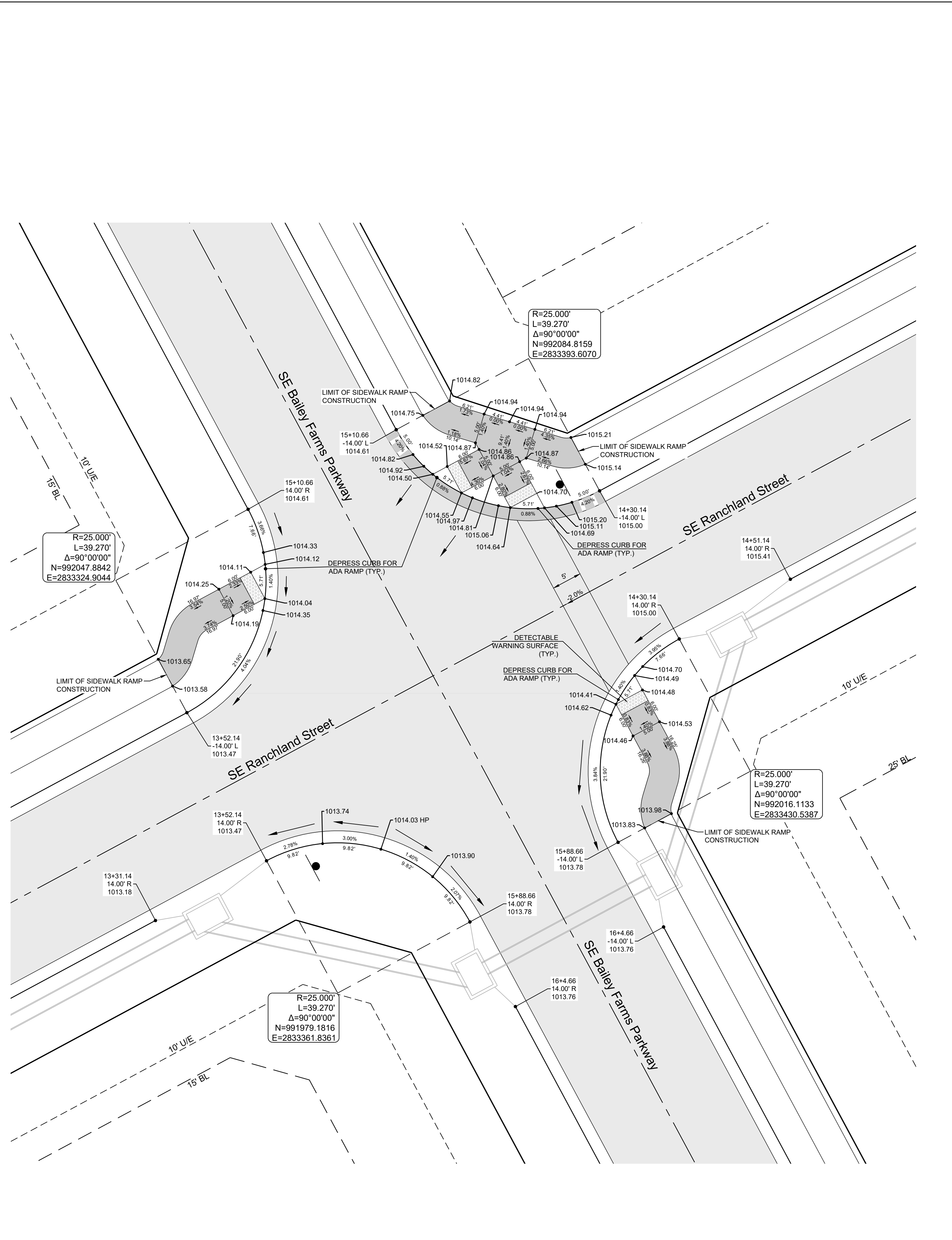
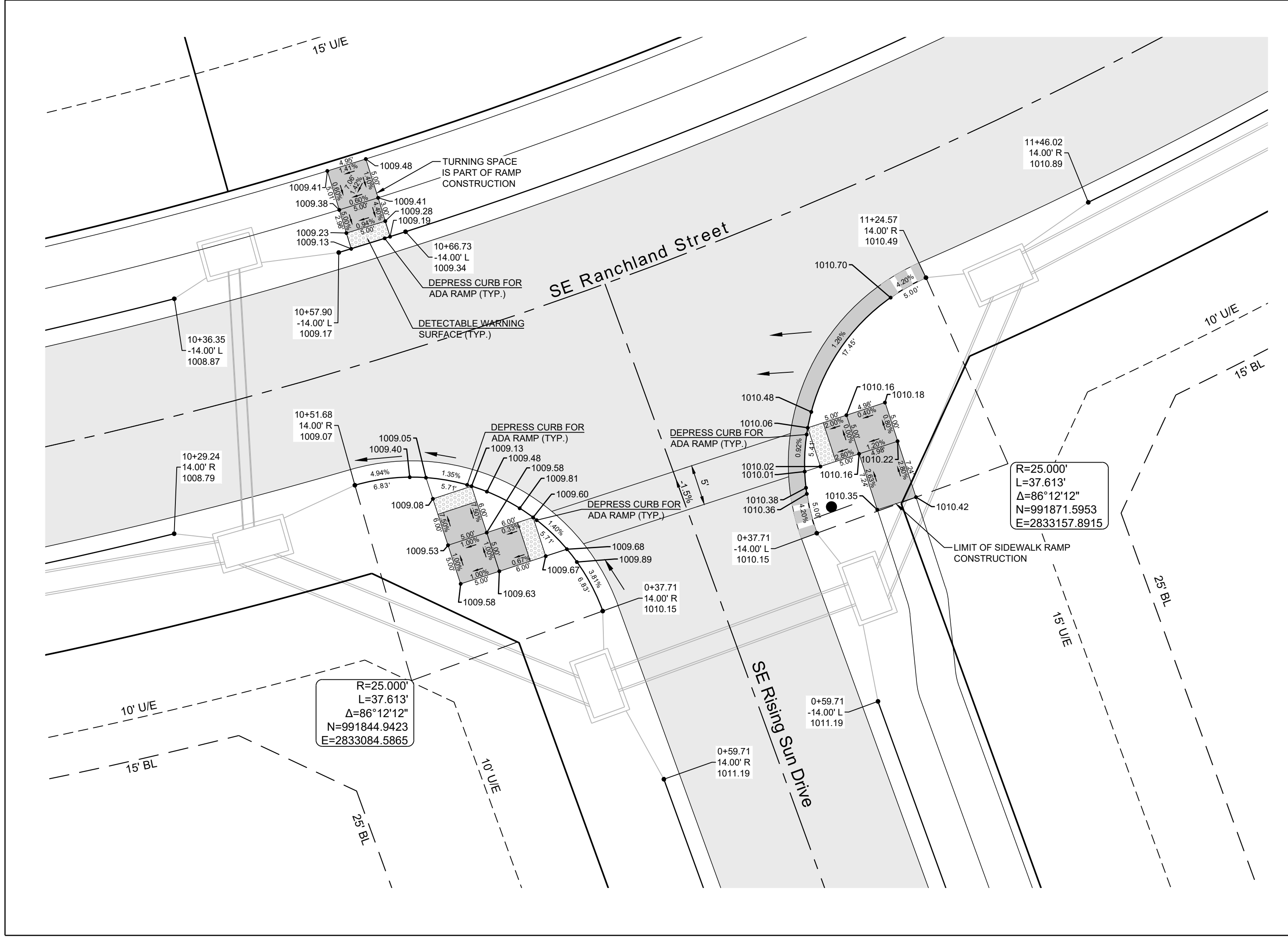
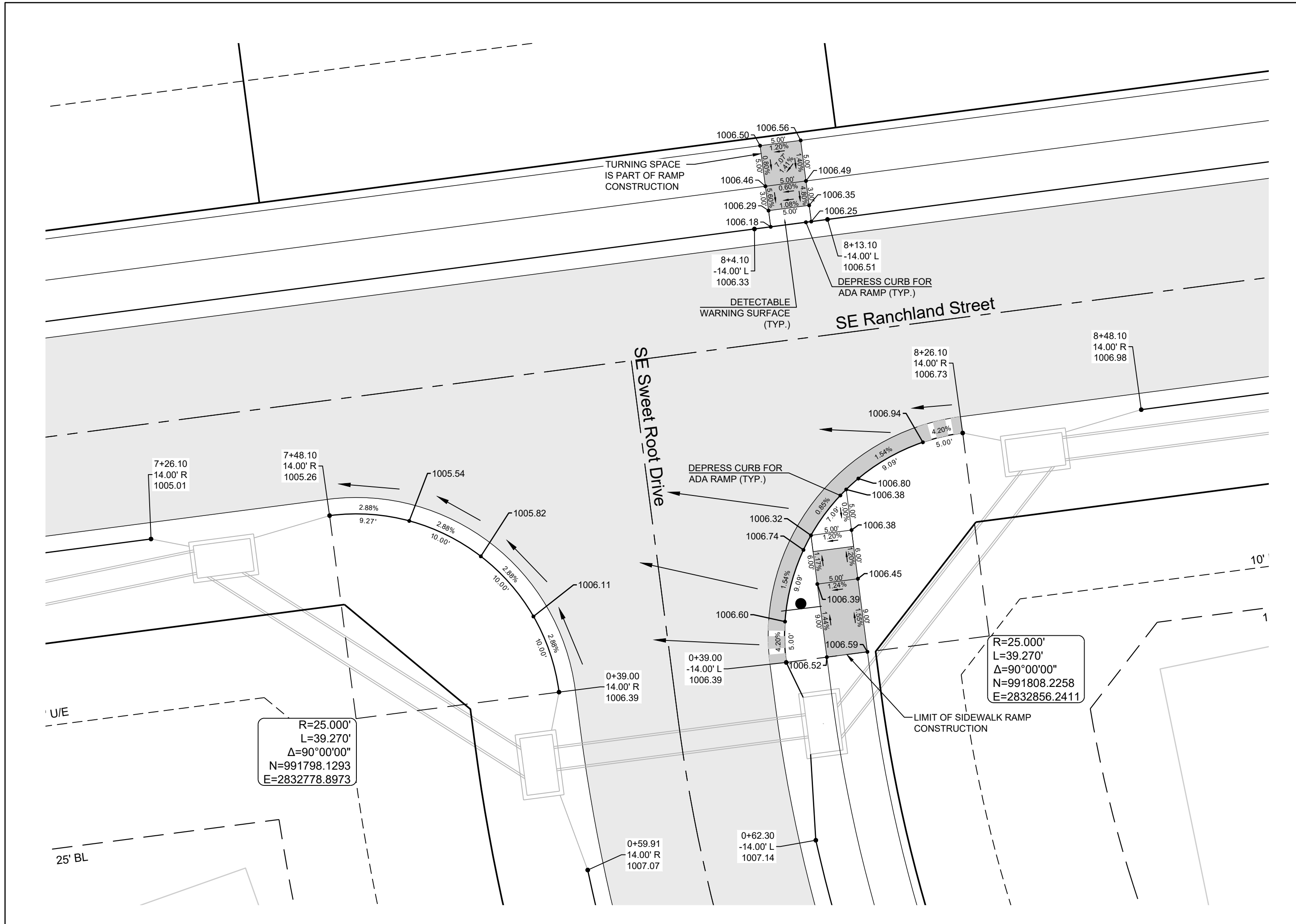
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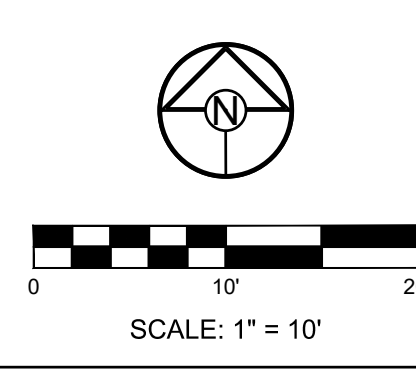
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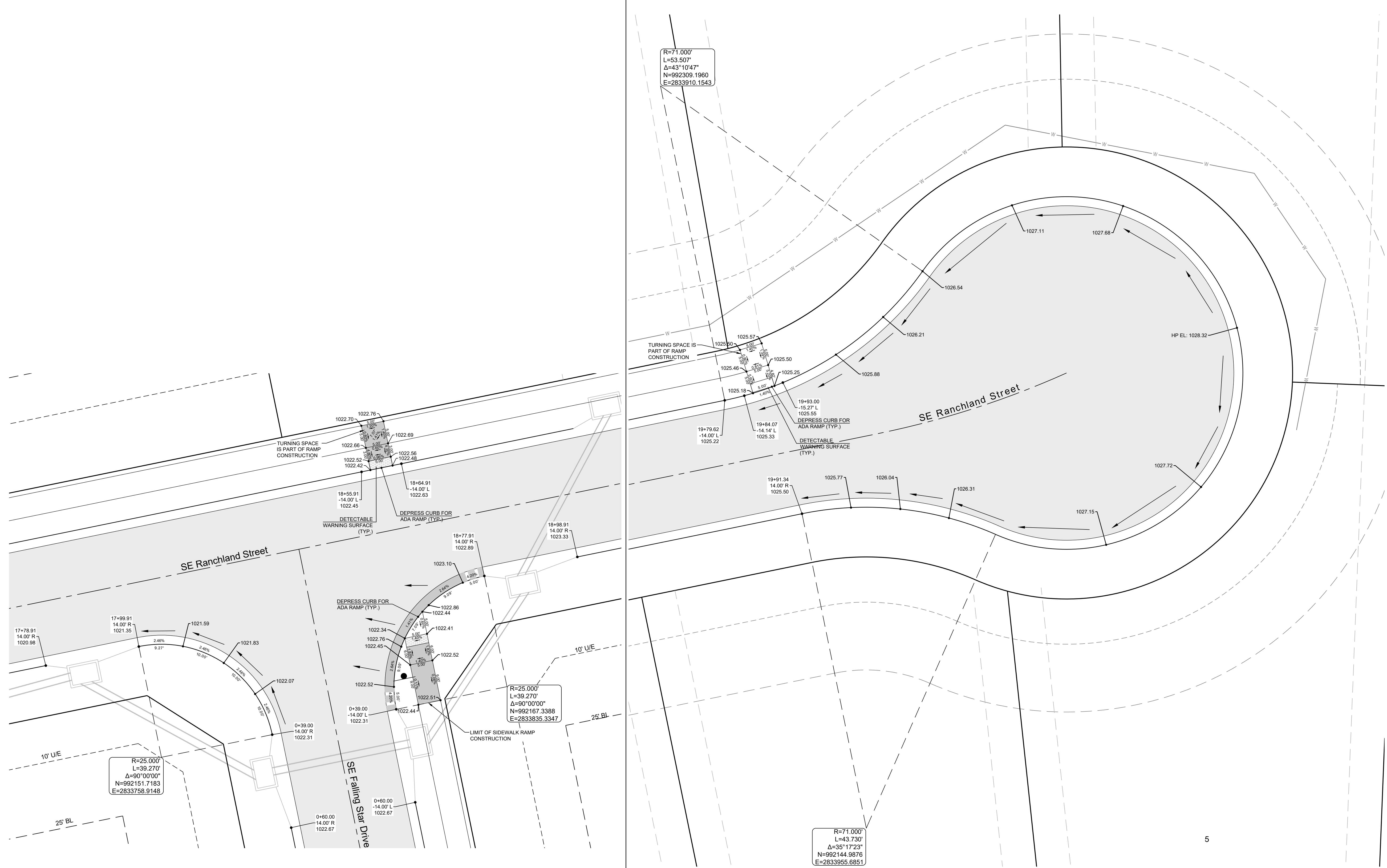
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MANOR AT BAILEY FARMS, FIRST PLAT
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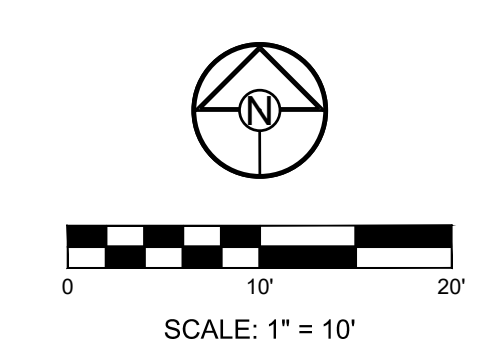
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CURB LEGEND

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PREPARED BY:

JAMES L. LONG
NUMBER PE-2014010495
11/30/2023
SCHLAGEL & ASSOCIATES, P.A.

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INTERSECTION
DETAILS 5 OF 8
SHEET
22

PREPARED BY:



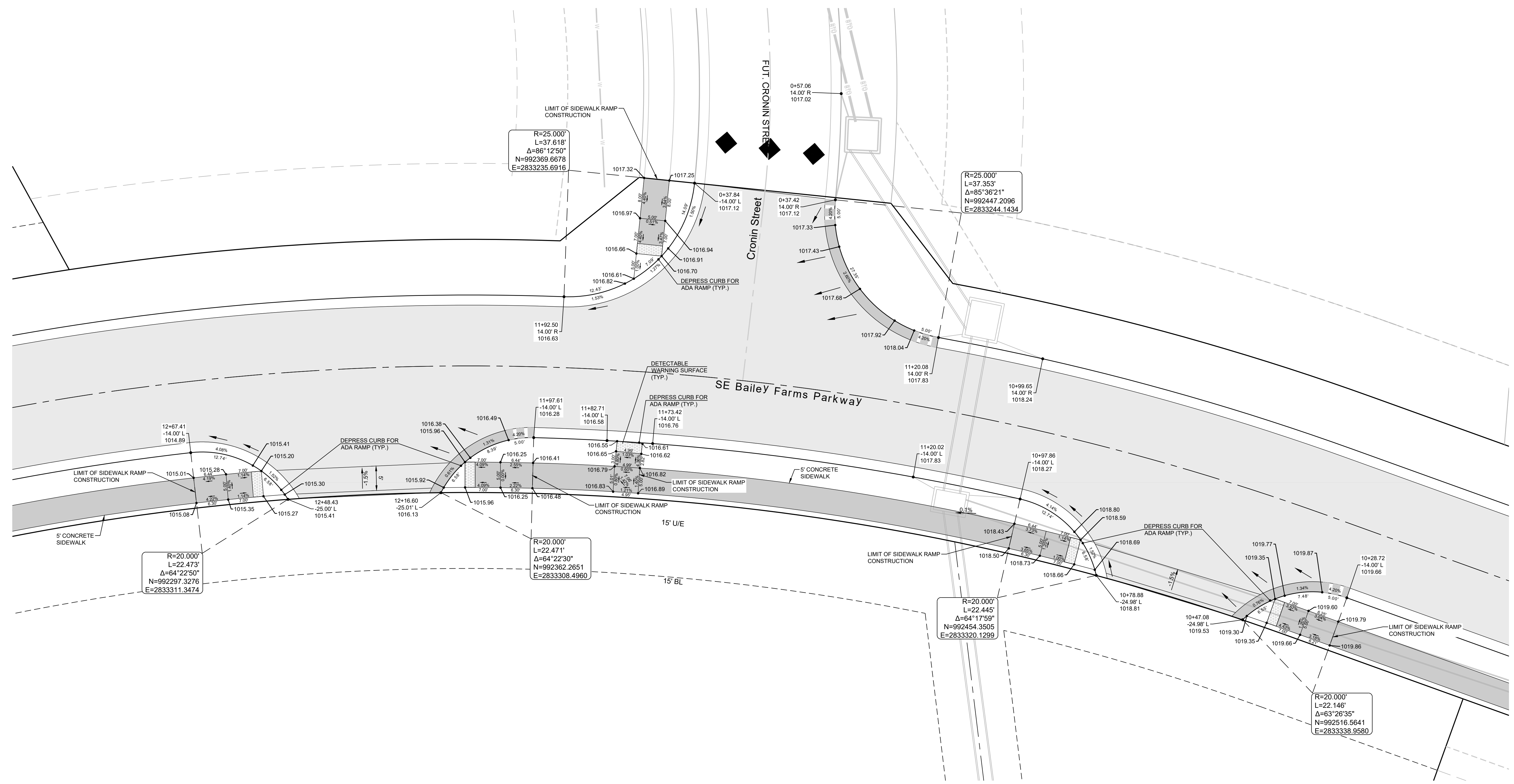
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**MANOR AT BAILEY FARMS, FIRST PLAT
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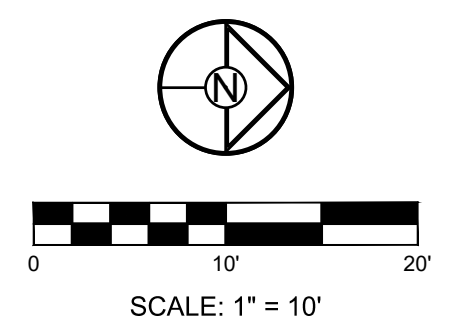
**INTERSECTION
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SHEET
23



CURB LEGEND

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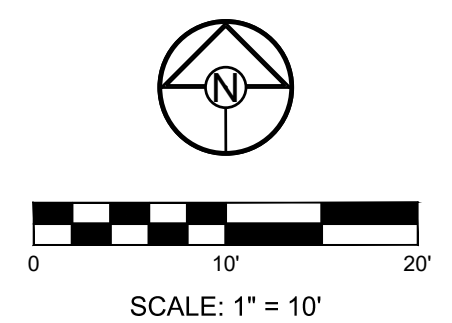
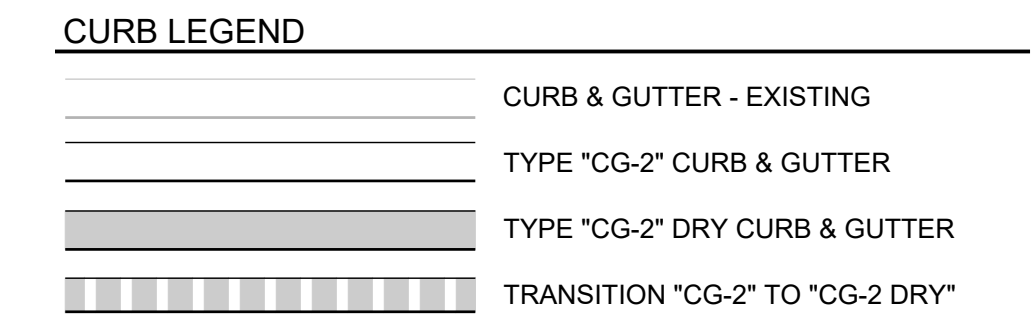
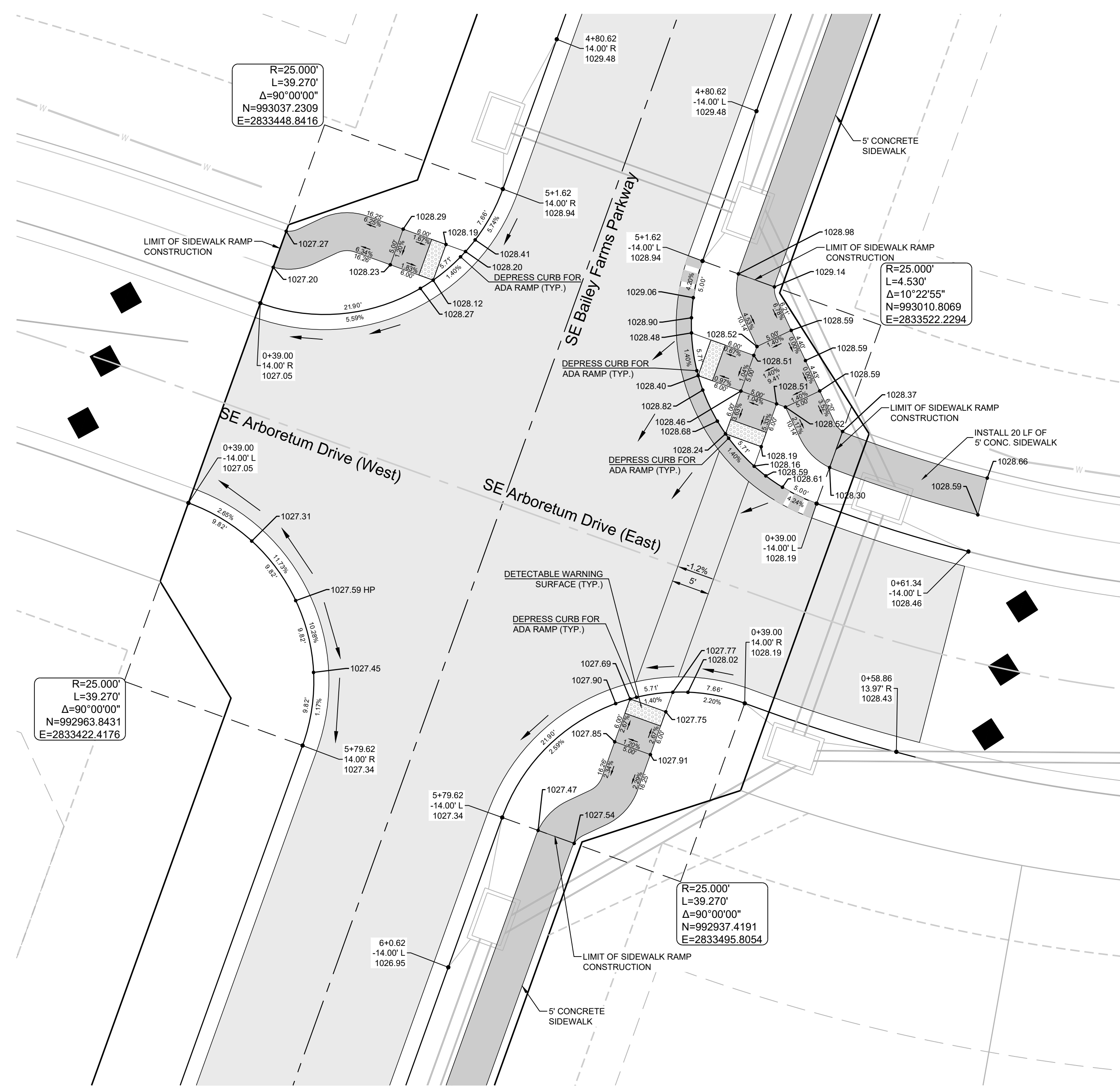
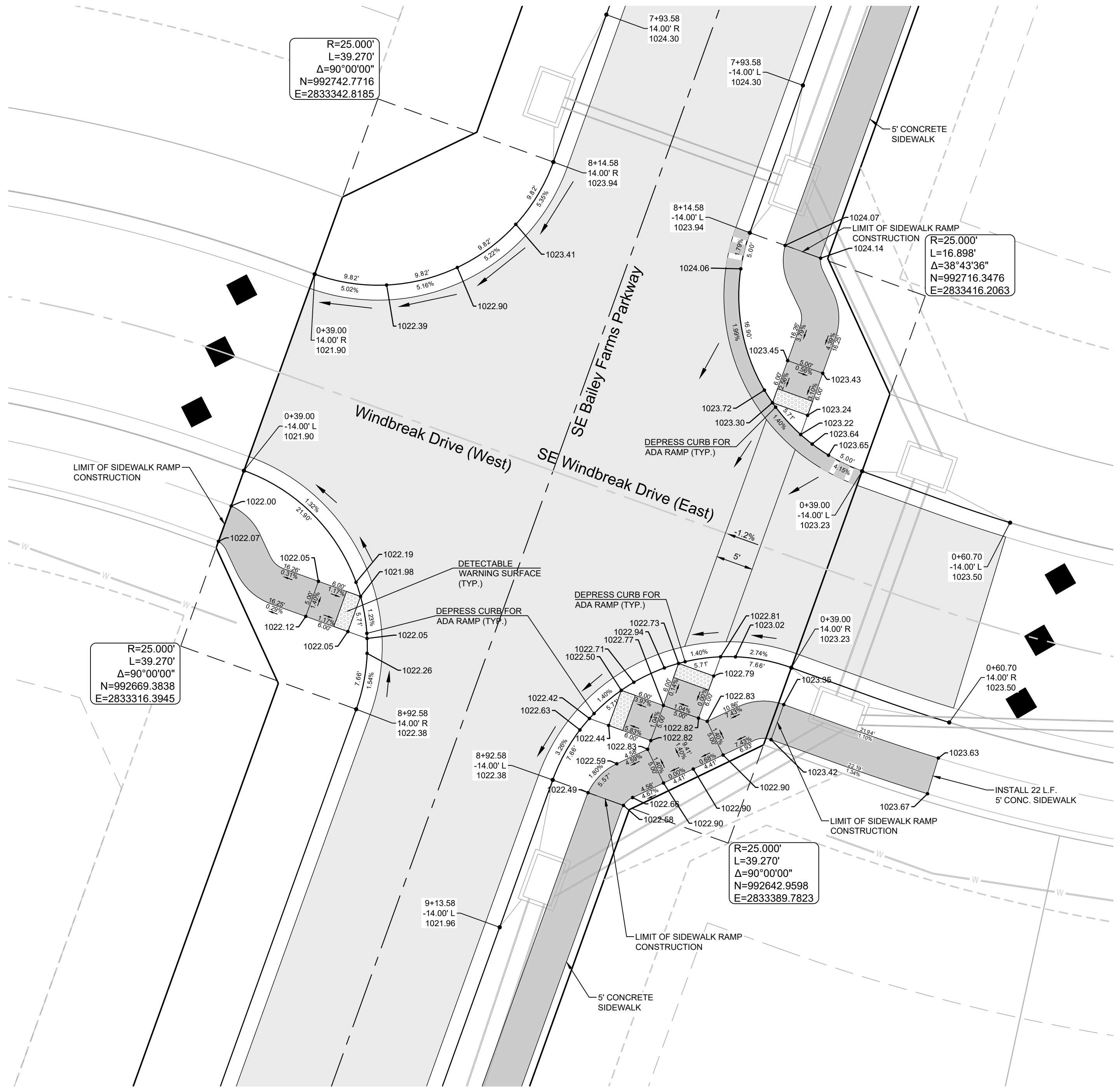
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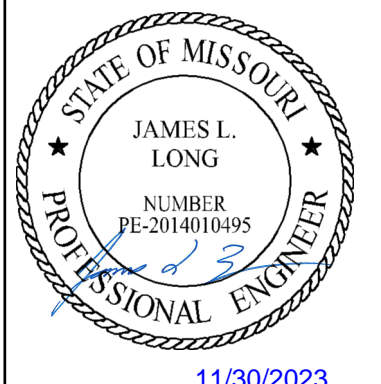
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CHECKED BY:	JLL
DATE PREPARED:	11/05/2021
PROJ. NUMBER:	21-130

INTERSECTION DETAILS 7 OF 8

SHEET
24

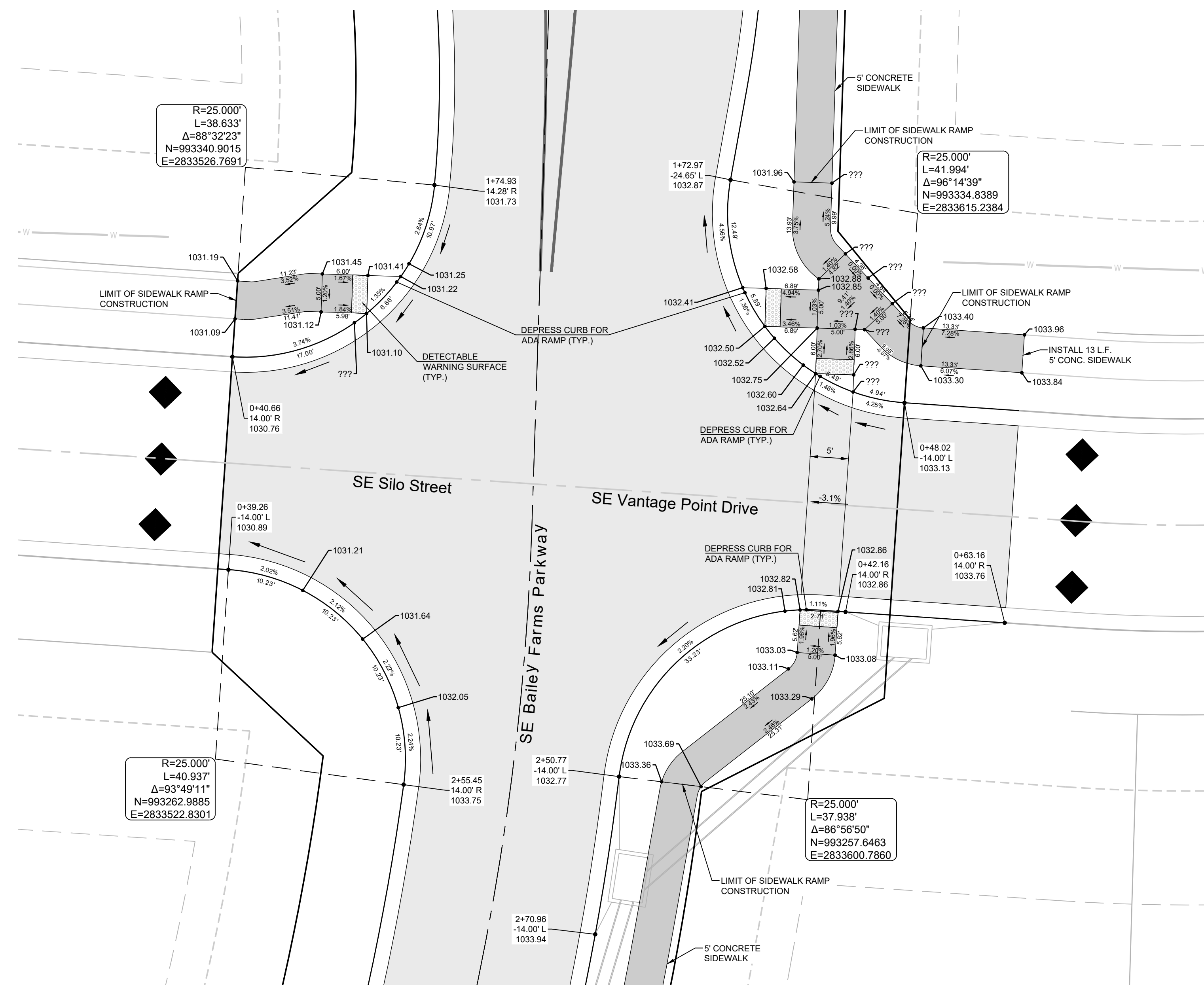


PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
 STREET, STORMWATER, AND MASTER
 DRAINAGE PLAN
 SE BAILEY ROAD AND SE RANSON ROAD
 LEE'S SUMMIT, MISSOURI



R=25.000'
 L=38.633'
 Δ=88°32'23"
 N=993340.9015
 E=2833526.7691

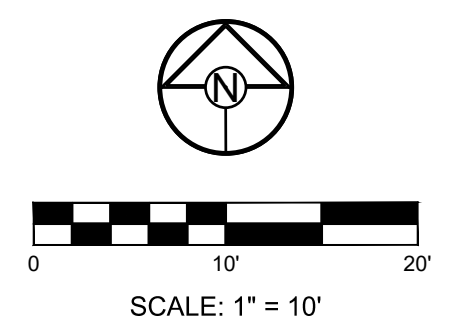
R=25.000'
 L=41.994'
 Δ=96°14'39"
 N=993334.8389
 E=2833615.2384

R=25.000'
 L=40.937'
 Δ=93°49'11"
 N=993262.9885
 E=2833522.8301

R=25.000'
 L=37.938'
 Δ=86°56'50"
 N=993257.6463
 E=2833600.7860

CURB LEGEND

	CURB & GUTTER - EXISTING
	TYPE "CG-2" CURB & GUTTER
	TYPE "CG-2" DRY CURB & GUTTER
	TRANSITION "CG-2" TO "CG-2 DRY"



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INTERSECTION
 DETAILS 8 OF 8

SHEET
25

****NEED TO BE UPDATED PER NEW STREET PROFILE AND SECTION. NO LONGER CROWNED NORTH OF INTERSECTION. WILL NEED DRY CURB.**

PREPARED BY:



11/30/2023

SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
 STREET, STORMWATER, AND MASTER
 DRAINAGE PLAN
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MASTER
 DRAINAGE
 PLAN-DRAINAGE
 MAP

SHEET

26

**MISSOURI GEOGRAPHIC REFERENCE SYSTEM
 BENCHMARK:**

BM JA-45, IS A KC METRO ALUMINUM GRS DISK SET IN CONCRETE AND ABOUT 3 INCHES BELOW THE PAVEMENT ON THE SHOULDER OF SE RANSON ROAD. IT IS STAMPED JA45, 1987.

ELEV. = 1046.25



PREPARED BY:



11/30/2023

SCHLAGEL & ASSOCIATES, P.A.

**MANOR AT BAILEY FARMS, FIRST PLAT
 STREET, STORMWATER, AND MASTER
 DRAINAGE PLAN**
**SE BAILEY ROAD AND SE RANSON ROAD
 LEE'S SUMMIT, MISSOURI**

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STORM LAYOUT SHEET

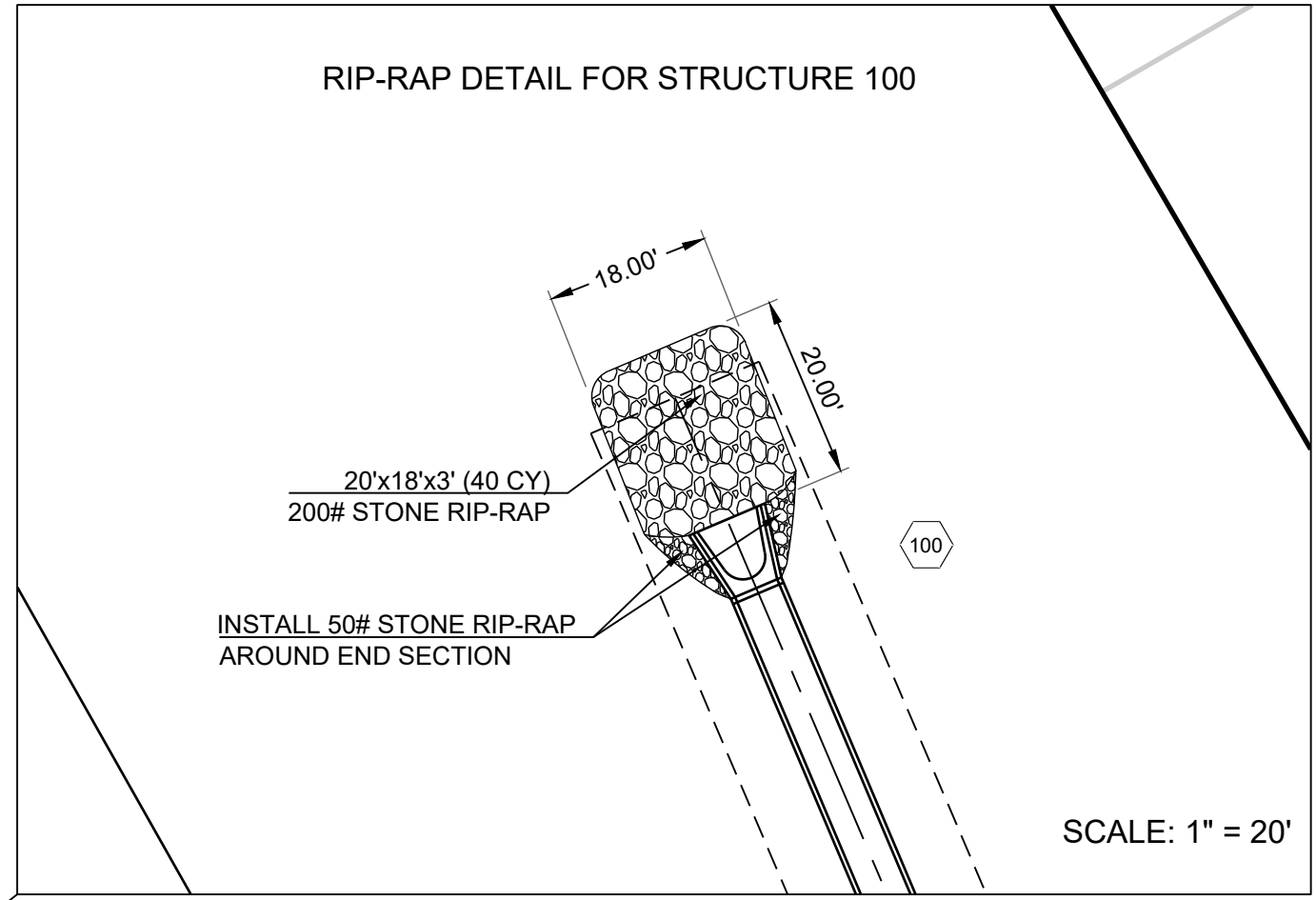
SHEET

29

**MISSOURI GEOGRAPHIC REFERENCE SYSTEM
 BENCHMARK:**

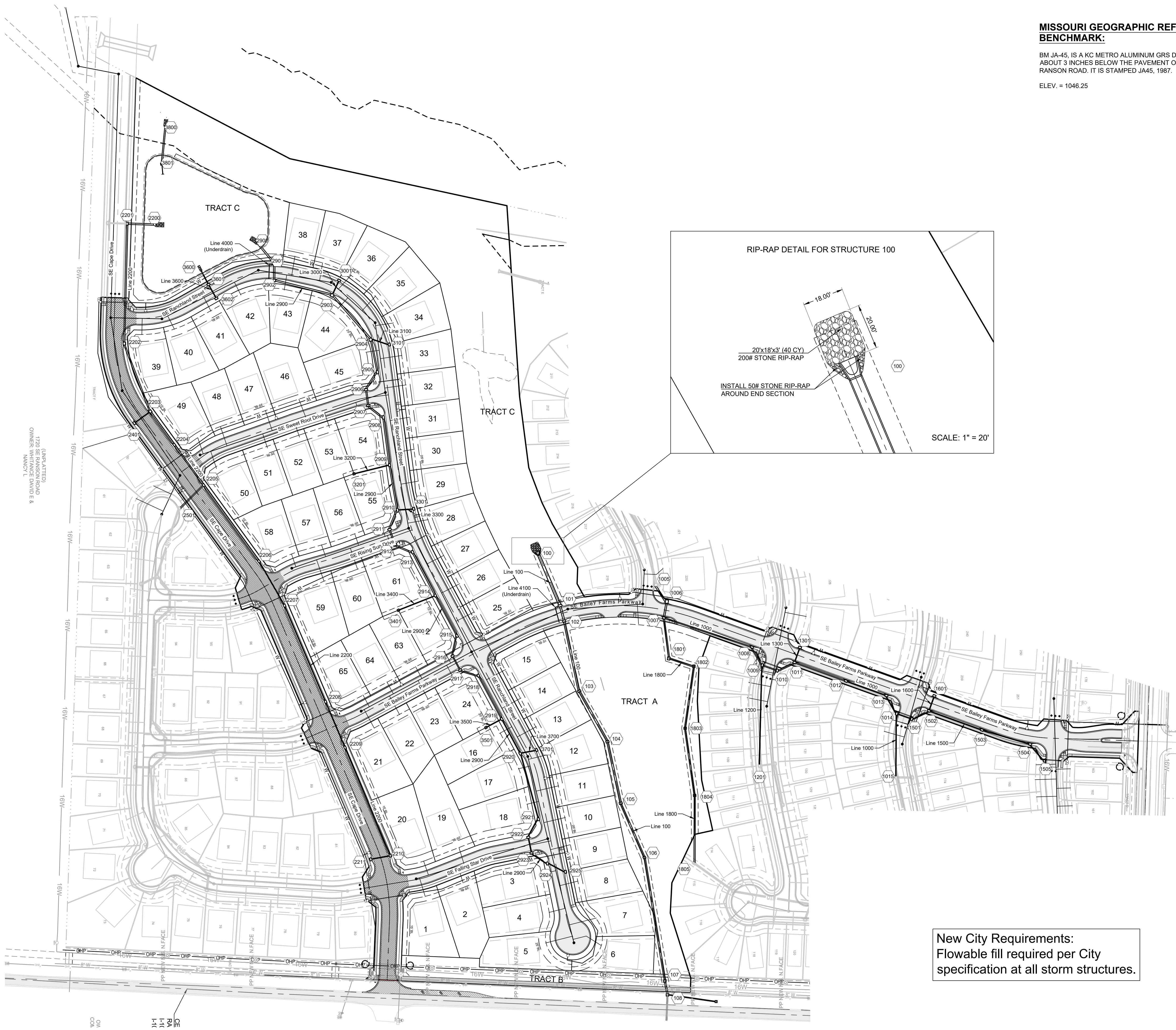
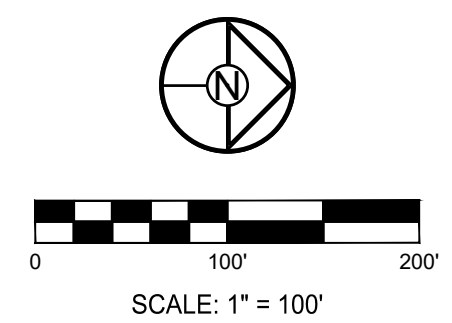
BM JA-45, IS A KC METRO ALUMINUM GRS DISK SET IN CONCRETE AND ABOUT 3 INCHES BELOW THE PAVEMENT ON THE SHOULDER OF SE RANSON ROAD. IT IS STAMPED JA45, 1987.

ELEV. = 1046.25



SCALE: 1" = 20'

**New City Requirements:
 Flowable fill required per City
 specification at all storm structures.**



Storm Sewer Construction Notes		Storm Sewer Construction Notes		Storm Sewer Construction Notes		Storm Sewer Construction Notes	
Structure	Notes	Structure	Notes	Structure	Notes	Structure	Notes
100	STA 0+00.00, LINE 100 INSTALL 60"x38" ELLIPTICAL FLARED END SECTION W/ TOEWALL, STONE RIP-RAP PER CALCULATIONS AND DETAIL ON SHEETS 29 & 30. PLACE FILTER FABRIC PRIOR TO INSTALLATION OF RIP-RAP. N 992171.1666 E 2833163.6507	1502	STA 0+76.62, LINE 1500 INSTALL 6 X 4 CURB INLET N 993025.6174 E 2833504.7109	2401	STA 0+43.50, LINE 2400 INSTALL 6 X 4 CURB INLET N 991285.2443 E 2832874.5843	2919	STA 13+12.17, LINE 2900 INSTALL 6 X 4 CURB INLET N 992089.9747 E 2833522.5319
101	STA 1+20.22, LINE 100 INSTALL 8 X 4 CURB INLET N 992217.7689 E 2833274.4662	1503	STA 1+99.99, LINE 1500 INSTALL 6 X 4 CURB INLET N 993141.6955 E 2833546.5060	2900	STA 0+00.00, LINE 2900 INSTALL 36" HDPE FLARED END SECTION W/ TOEWALL STONE RIP-RAP PER CALCULATIONS ON THIS SHEET. PLACE FILTER FABRIC PRIOR TO INSTALLATION OF RIP-RAP. N 991557.9304 E 2832483.4095	2920	STA 13+97.90, LINE 2900 INSTALL 6 X 4 CURB INLET N 992130.5693 E 2833598.0484
102	STA 1+54.92, LINE 100 INSTALL 6 X 4 CURB INLET N 992226.6806 E 2833308.0048	1504	STA 3+10.05, LINE 1500 INSTALL 6 X 4 CURB INLET N 993247.3035 E 2833577.4814	2901	STA 0+55.11, LINE 2900 INSTALL 7 X 4 CURB INLET N 991591.8580 E 2832526.8418	2921	STA 15+47.08, LINE 2900 INSTALL 6 X 4 CURB INLET N 992170.1793 E 2833741.8725
103	STA 3+11.70, LINE 100 INSTALL 4 X 6 AREA INLET OPEN TO EAST & WEST N 992259.7048 E 2833461.2715	1505	STA 3+57.59, LINE 1500 INSTALL 6 X 4 CURB INLET N 993278.3247 E 2833613.5110	2902	STA 0+90.65, LINE 2900 INSTALL 6 X 5 CURB INLET N 991591.3800 E 2832562.3788	2922	STA 15+92.48, LINE 2900 INSTALL 6 X 4 CURB INLET N 992148.1860 E 2833781.5813
104	STA 4+38.53, LINE 100 INSTALL 4 X 6 AREA INLET OPEN TO EAST & WEST N 992321.4650 E 2833572.0437	1601	STA 0+35.00, LINE 1600 INSTALL 6 X 4 CURB INLET N 993037.4744 E 2833471.7805	2903	STA 2+21.62, LINE 2900 INSTALL 6 X 6 CURB INLET N 991718.3363 E 2832594.5530	2923	STA 16+27.48, LINE 2900 INSTALL 6 X 4 CURB INLET N 992155.1952 E 2833815.8723
105	STA 5+76.29, LINE 100 INSTALL 4 X 6 AREA INLET OPEN TO EAST & WEST N 992350.5970 E 2833706.6929	1801	STA 0+89.25, LINE 1800 INSTALL 6 X 5 CURB INLET N 992455.7295 E 2833389.8227	2904	STA 3+50.34, LINE 2900 INSTALL 6 X 6 CURB INLET N 991802.8445 E 2832691.6475	2924	STA 16+69.20, LINE 2900 INSTALL 6 X 4 CURB INLET N 992190.0053 E 2833838.8670
106	STA 7+06.18, LINE 100 INSTALL 4 X 5 AREA INLET OPEN TO EAST & WEST N 992402.4544 E 2833825.7762	1802	STA 1+46.77, LINE 1800 INSTALL 5 X 5 AREA INLET OPEN TO WEST N 992510.6717 E 2833406.8565	2905	STA 4+22.96, LINE 2900 INSTALL 7 X 4 CURB INLET N 991817.7010 E 2832762.7279	2925	STA 17+12.69, LINE 2900 INSTALL 6 X 4 CURB INLET N 992229.4680 E 2833857.1594
107	STA 9+80.33, LINE 100 INSTALL 5 X 5 AREA INLET OPEN TO NORTH & SOUTH N 992447.2522 E 2834096.2481	1804	STA 4+32.41, LINE 1800 INSTALL 4 X 5 AREA INLET OPEN TO EAST & WEST N 992512.4022 E 2833689.7112	2906	STA 4+69.06, LINE 2900 INSTALL 7 X 4 CURB INLET N 991792.4838 E 2832801.3167	3001	STA 0+36.04, LINE 3000 INSTALL 6 X 4 CURB INLET N 991733.7839 E 2832561.9957
108	STA 10+11.03, LINE 100 INSTALL 5 X 5 AREA INLET OPEN TO NORTH & SOUTH N 992452.9450 E 2834126.4126	2200	STA 0+00.00, LINE 2200 INSTALL 36" HDPE FLARED END SECTION W/ TOEWALL, RIP-RAP PER CALCULATIONS ON THIS SHEET. PLACE FILTER FABRIC PRIOR TO INSTALLATION OF RIP-RAP. N 991327.3945 E 2832439.4592	2907	STA 5+04.06, LINE 2900 INSTALL 7 X 4 CURB INLET N 991797.5101 E 2832835.9575	3101	STA 0+42.21, LINE 3100 INSTALL 6 X 4 CURB INLET N 991843.7051 E 2832702.2407
1006	STA 6+59.91, LINE 1000 INSTALL 6 X 7 CURB INLET N 992451.5445 E 2833265.3333	2201	STA 0+57.66, LINE 2200 INSTALL 6 X 4 CURB INLET N 991269.7620 E 2832437.6651	2908	STA 5+46.14, LINE 2900 INSTALL 7 X 4 CURB INLET N 991830.6451 E 2832861.8866	3201	STA 0+80.24, LINE 3200 INSTALL 4 X 4 AREA INLET OPEN TO SOUTH N 991766.3570 E 2832985.4852
1007	STA 6+96.40, LINE 1000 INSTALL 6 X 4 CURB INLET N 992444.9605 E 2833301.2276	2202	STA 3+20.33, LINE 2200 INSTALL 6 X 5 CURB INLET N 991263.4178 E 2832700.2555	2909	STA 6+51.51, LINE 2900 INSTALL 6 X 4 CURB INLET N 991844.2850 E 2832966.3748	3301	STA 0+35.88, LINE 3300 INSTALL 6 X 4 CURB INLET N 991897.3265 E 2833062.2122
1008	STA 8+99.76, LINE 1000 INSTALL 6 X 4 CURB INLET N 992638.0120 E 2833365.1496	2203	STA 4+79.63, LINE 2200 INSTALL 6 X 5 CURB INLET N 991320.4319 E 2832849.0093	2910	STA 7+51.78, LINE 2900 INSTALL 8 X 4 CURB INLET N 991861.7646 E 2833065.1045	3401	STA 0+97.07, LINE 3400 INSTALL 4 X 4 AREA INLET OPEN TO SOUTH N 991863.6555 E 2833284.2079
1009	STA 9+45.15, LINE 1000 INSTALL 6 X 4 CURB INLET N 992660.4783 E 2833404.5928	2204	STA 5+69.63, LINE 2200 INSTALL 6 X 4 CURB INLET N 991372.9359 E 2832922.1001	2911	STA 7+97.81, LINE 2900 INSTALL 7 X 4 CURB INLET N 991844.3006 E 2833107.6969	3501	STA -0+00.00, LINE 3500 INSTALL 15" HDPE FLARED END SECTION W/ TOEWALL, RIP RAP PER CALCULATIONS ON THIS SHEET. PLACE FILTER FABRIC PRIOR TO INSTALLATION OF RIP-RAP. N 991432.6176 E 2832942.3388
1010	STA 9+80.13, LINE 1000 INSTALL 6 X 4 CURB INLET N 992693.4028 E 2833416.4136	2205	STA 6+78.63, LINE 2200 INSTALL 6 X 4 CURB INLET N 991437.0192 E 2833010.2723	2912	STA 8+32.81, LINE 2900 INSTALL 7 X 4 CURB INLET N 991856.2603 E 2833140.5901	3600	STA 0+32.25, LINE 3600 INSTALL 6 X 4 CURB INLET N 991447.7092 E 2832570.8388
1011	STA 10+21.84, LINE 1000 INSTALL 6 X 4 CURB INLET N 992731.1581 E 2833398.6878	2206	STA 8+84.80, LINE 2200 INSTALL 6 X 4 CURB INLET N 991558.2303 E 2833177.0469	2913	STA 8+74.66, LINE 2900 INSTALL 7 X 4 CURB INLET N 991894.7557 E 2833156.9999	3601	STA 0+67.25, LINE 3600 INSTALL 6 X 4 CURB INLET N 991464.9462 E 2832601.3001
1012	STA 11+41.59, LINE 1000 INSTALL 6 X 4 CURB INLET N 992843.8261 E 2833439.2551	2207	STA 9+96.91, LINE 2200 INSTALL 6 X 4 CURB INLET N 991614.2629 E 2833274.1572	2914	STA 9+81.89, LINE 2900 INSTALL 6 X 4 CURB INLET N 991944.5365 E 2833251.9792	3701	STA 0+36.41, LINE 3700 INSTALL 6 X 4 CURB INLET N 992166.1499 E 2833590.3378
1013	STA 12+35.81, LINE 1000 INSTALL 6 X 4 CURB INLET N 992932.4714 E 2833471.1727	2208	STA 12+25.74, LINE 2200 INSTALL 6 X 4 CURB INLET N 991704.0584 E 2833484.6295	2915	STA 10+82.06, LINE 2900 INSTALL 6 X 4 CURB INLET N 991991.9636 E 2833340.2058	3800	STA 0+00.00, LINE 3800 INSTALL 30" HDPE FLARED END SECTION W/ TOEWALL RIP-RAP PER CALCULATIONS ON THIS SHEET. PLACE FABRIC PRIOR TO INSTALLATION OF RIP-RAP. N 991353.2980 E 2832227.5333
1014	STA 12+81.30, LINE 1000 INSTALL 6 X 4 CURB INLET N 992954.9660 E 2833510.7144	2209	STA 13+34.81, LINE 2200 INSTALL 6 X 4 CURB INLET N 991746.8584 E 2833584.9487	2916	STA 11+27.45, LINE 2900 INSTALL 6 X 4 CURB INLET N 991982.3151 E 2833394.5613	3801	STA 0+79.74, LINE 3800 INSTALL DETENTION BASIN STRUCTURE N 991345.6595 E 2832306.9104
1301	STA 0+35.00, LINE 1300 INSTALL 6 X 4 CURB INLET N 992743.0150 E 2833365.7574	2210	STA 15+91.33, LINE 2200 INSTALL 6 X 4 CURB INLET N 991845.8318 E 2833821.6124	2917	STA 11+62.45, LINE 2900 INSTALL 6 X 4 CURB INLET N 991998.8870 E 2833415.3894		
1501	STA 0+34.99, LINE 1500 INSTALL 6 X 4 CURB INLET N 992987.9421 E 2833522.4132	2211	STA 16+34.73, LINE 2200 INSTALL 6 X 4 CURB INLET N 991803.2166 E 2833829.8138	2918	STA 12+04.17, LINE 2900 INSTALL 6 X 4 CURB INLET N 992038.8385 E 2833427.4053		

Outlet Properties:			Channel Properties															
Structure	Pipe Size (ft)	Q(25) (cfs)	V (ft/s)	Tw (ft)	Outlet Pipe Froude # (V/gD^0.5)	Outlet Protection Required?	Downstream Channel/Swale Section	Slope (%)	Side Slope (H:V)	Bottom Width (ft)	V (ft/s)	A (ft^2)	P (ft)	R (ft)	Normal Depth (ft)	Top Width (ft)	Average Shear Stress (lb/ft^2)	Min. Radius (ft)
100	4.00	106.00	9.56	1.60	1.33	YES	1.00	1.20	4.00	12.00	4.79	17.21	20.74	0.83	1.06	20.48	0.62	55.41
2200	3.00	55.05	7.23	1.20	0.20	YES	N/A							N/A			N/A	N/A
2900	3.00	62.61	7.23	1.20	0.20	YES	N/A							N/A			N/A	N/A
3600	1.25	5.96	8.06	0.50	0.35	YES	N/A							N/A			N/A	N/A
3800	2.50	66.61*	13.57	1.00	0.42	YES	N/A							N/A			N/A	N/A

Outlet/Channel Properties		Rip-Rap Dimensions													
Outlet Structure	Pipe Size (ft)	Downstream Channel/Swale Section	V Pipe (ft/s)	V Swale (ft/s)	Average Shear Stress (lb/ft^2)	W Calculated (ft)	W USED (ft)	L Calculated (ft)	L (min.) 3'D (ft)	L (max.) 10'D (ft)	L USED (ft)	D50 Calculated (ft)	Size (W/L) USED (d50/ft)	Critical Shear Stress (lb/ft^2)	T (ft)
100	4.00	1.00	9.56	4.79	0.62	20.48	20	18.18	12.00	40.00	24	0.60	2.00 (200#)	6.91	3.00
2200	3.00	N/A	7.23	0.00	N/A	9.00	10	n/a	9.00	30.00	18	0.34	1.00 (50#)	4.00	2.00
2900	3.00	N/A	7.23	0.00	N/A	9.00	10	n/a	9.00	30.00	18	0.34	1.00 (50#)	4.00	2.00
3600	1.25	N/A	8.06	0.00	N/A	5.25	6	n/a	3.75	12.50	14	0.42	1.00 (50#)	4.00	2.00
3800	2.50	N/A	13.57	0.00	N/A	7.50	8	n/a	7.50	25.00	14	1.20	2.00 (200#)	6.91	3.00



PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
 14920 West 107th Street • Lenexa, Kansas 66215
 (913) 492-5158 • Fax: (913) 492-8400
 WWW.SCHLAGELASSOCIATES.COM
 Missouri State Certificates of Authority
 #E200200800-F #LAC2001005237 #LS200200869-F

PREPARED BY: JAMES L. LONG
 NUMBER FE-2014010495
 11/30/2023
 SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
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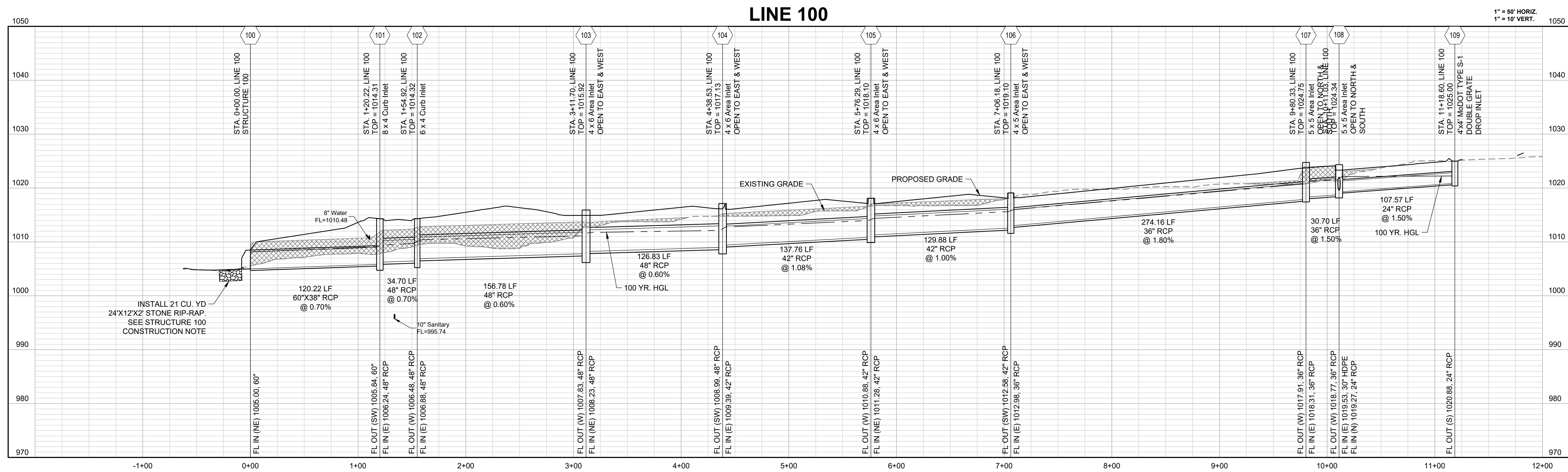
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STORM STRUCTURE LIST

SHEET
 30

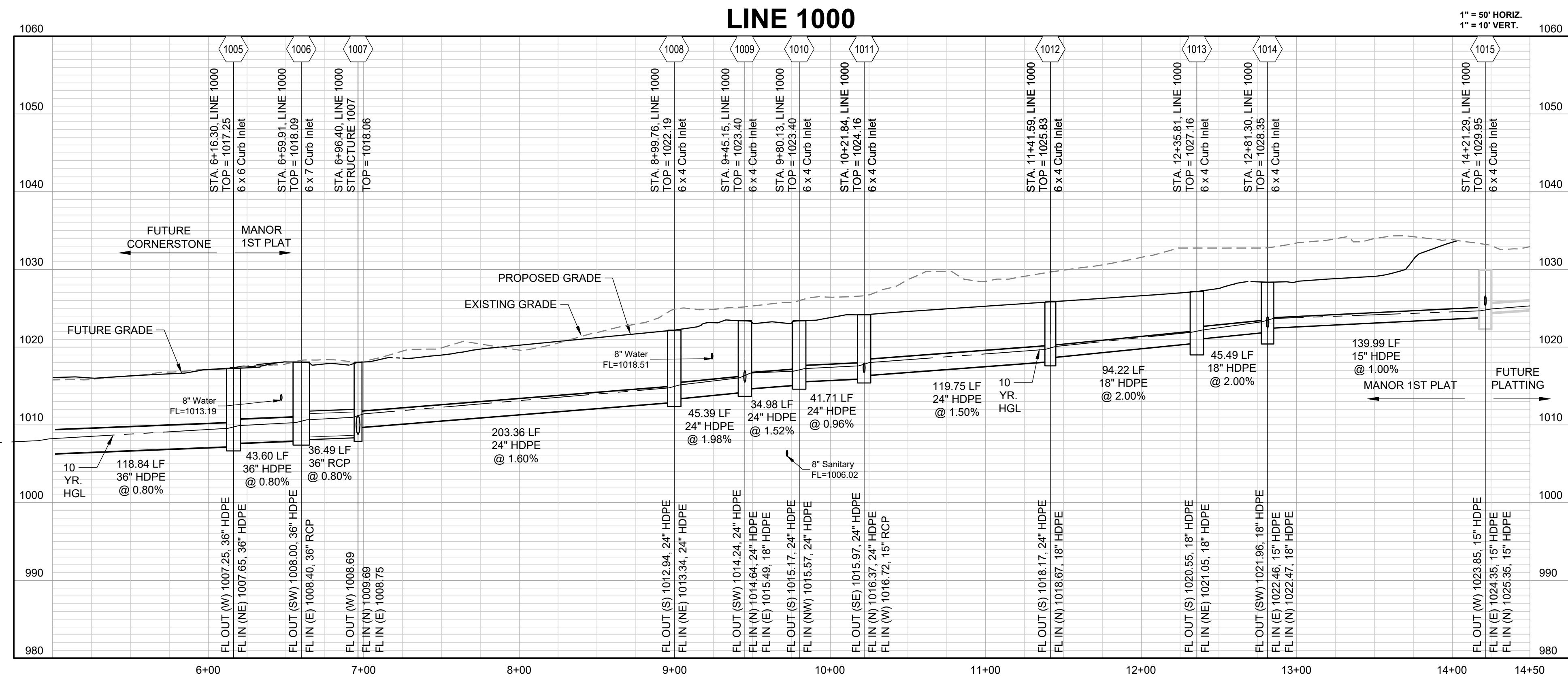
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INSTALL 21 CU. YD
24'X12'X2' STONE RIP-RAP.
SEE STRUCTURE 100
CONSTRUCTION NOTE

10-YEAR HGL ———
100-YEAR HGL - - - - -

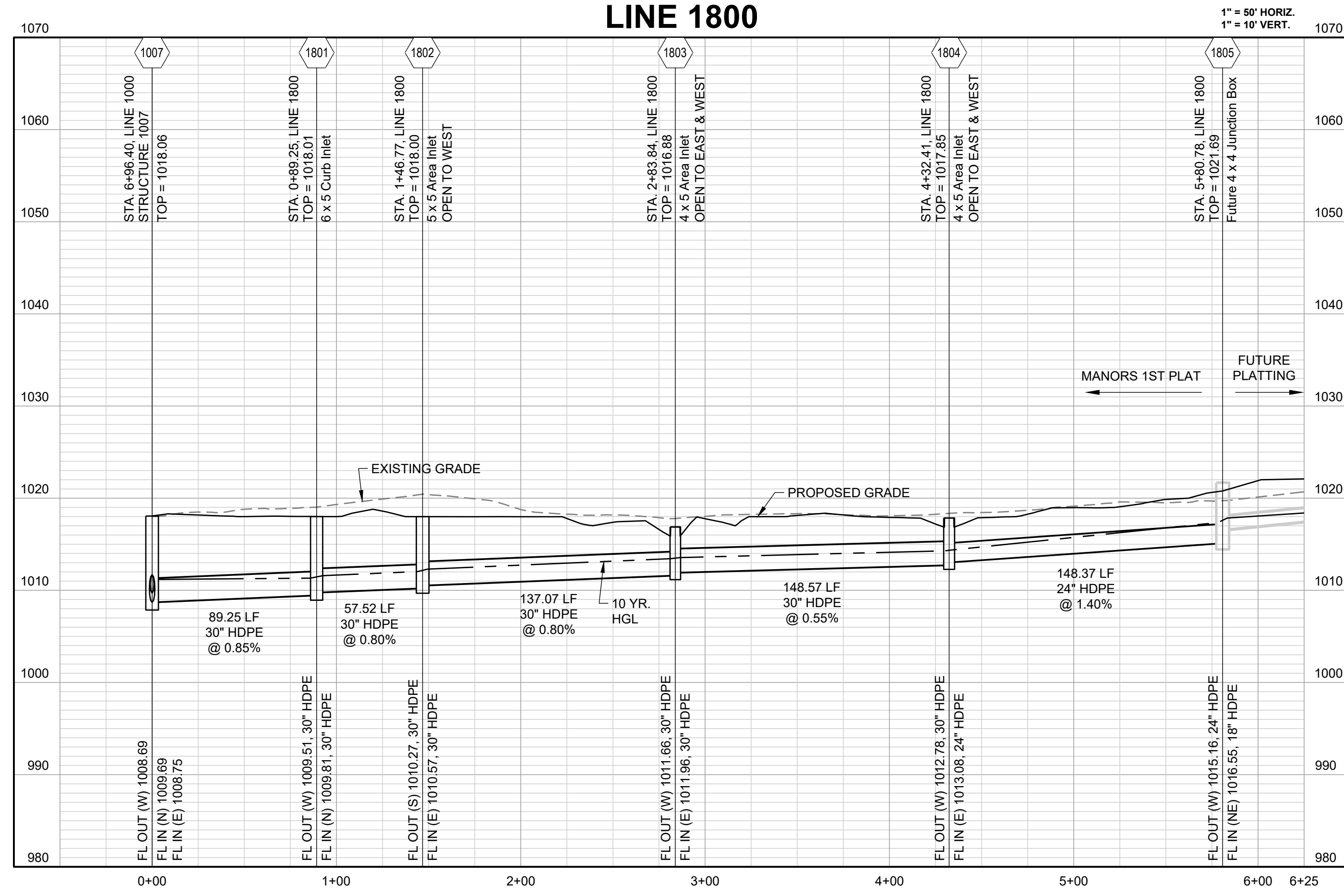
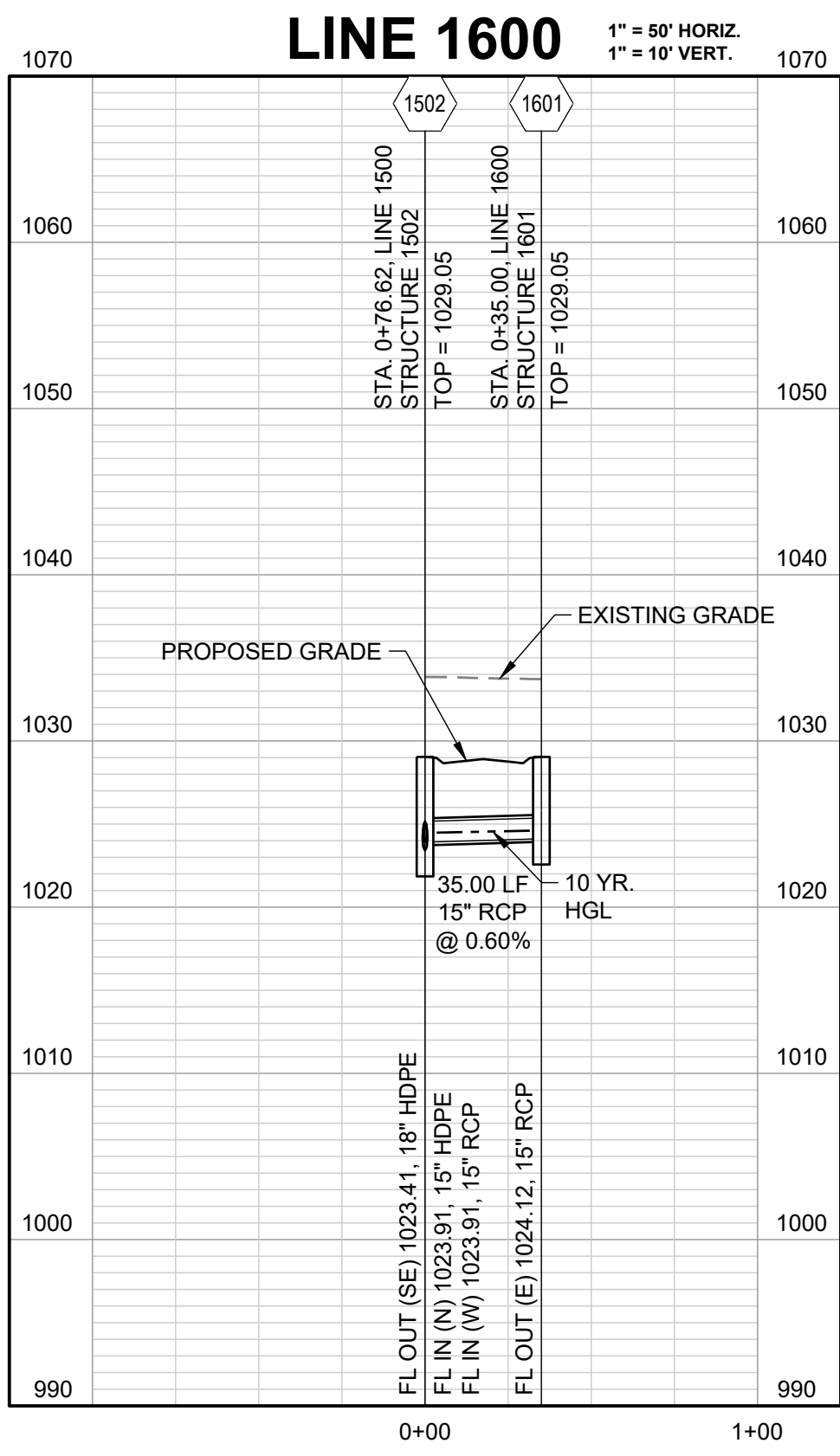
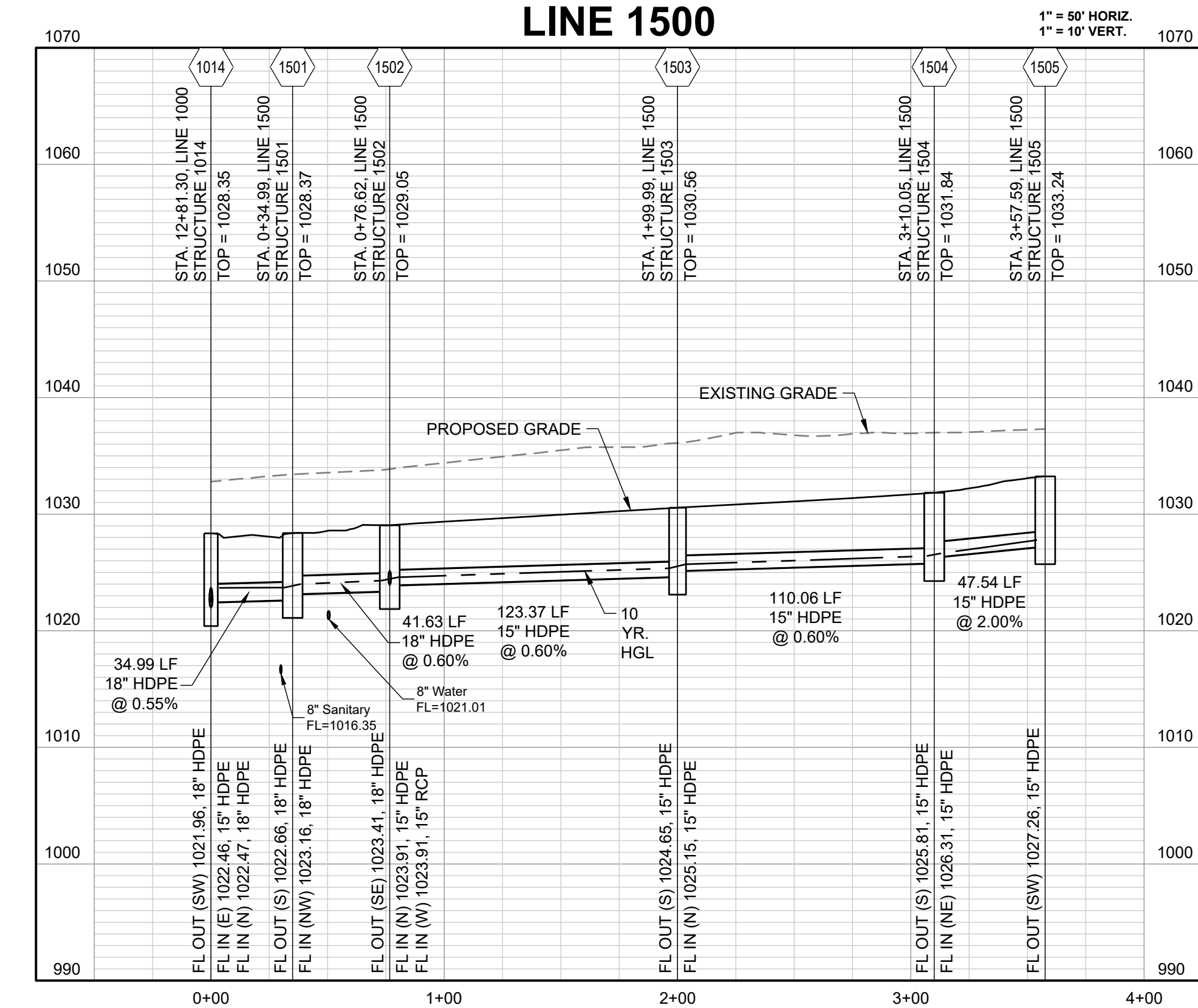
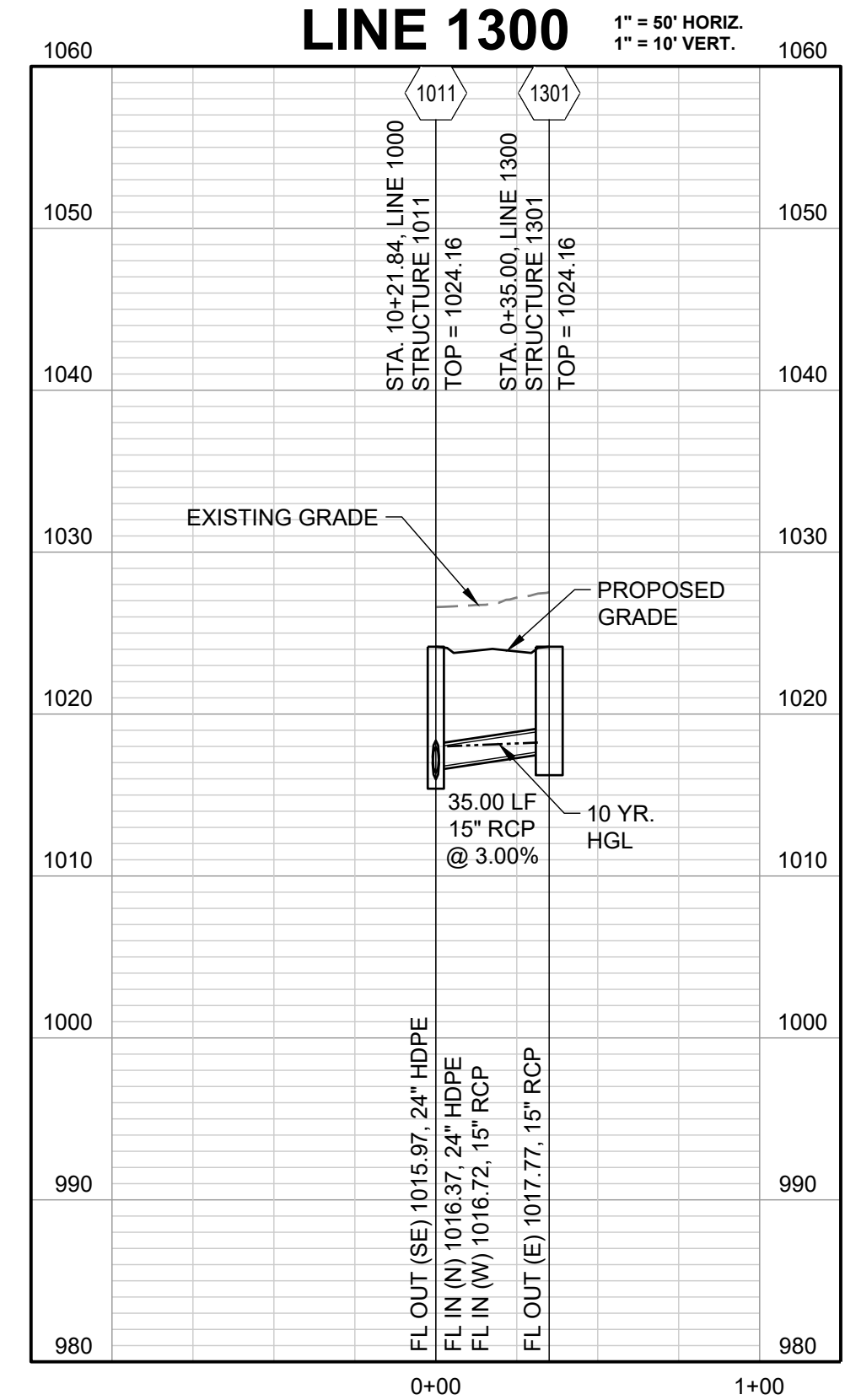
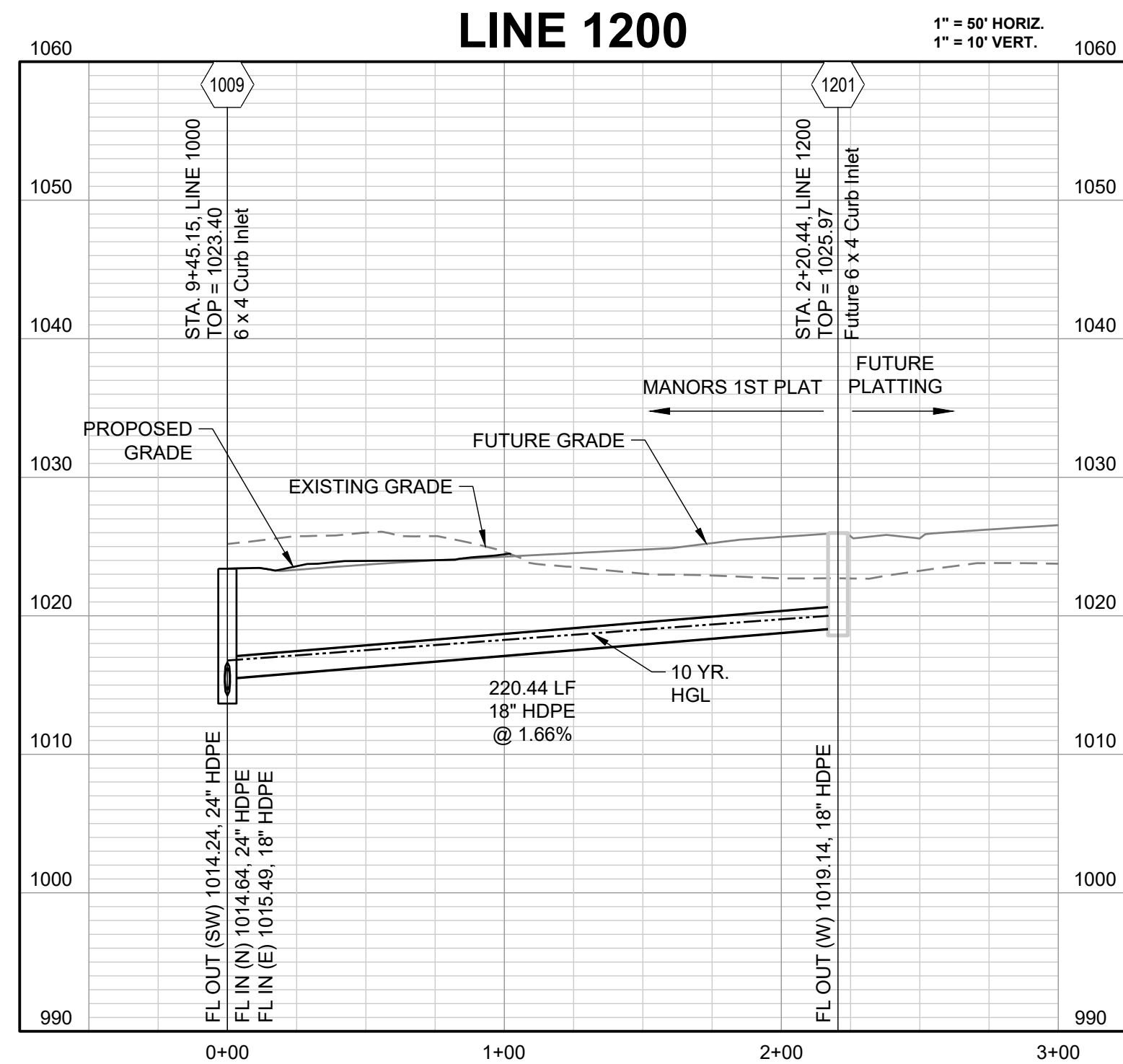
 COMPACTED FILL TO BE PLACED A MINIMUM OF
18" ABOVE TOP OF PIPE PRIOR TO PIPE EXCAVATION



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STORM
PROFILES 1

SHEET
31



10-YEAR HGL - - - - -

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PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

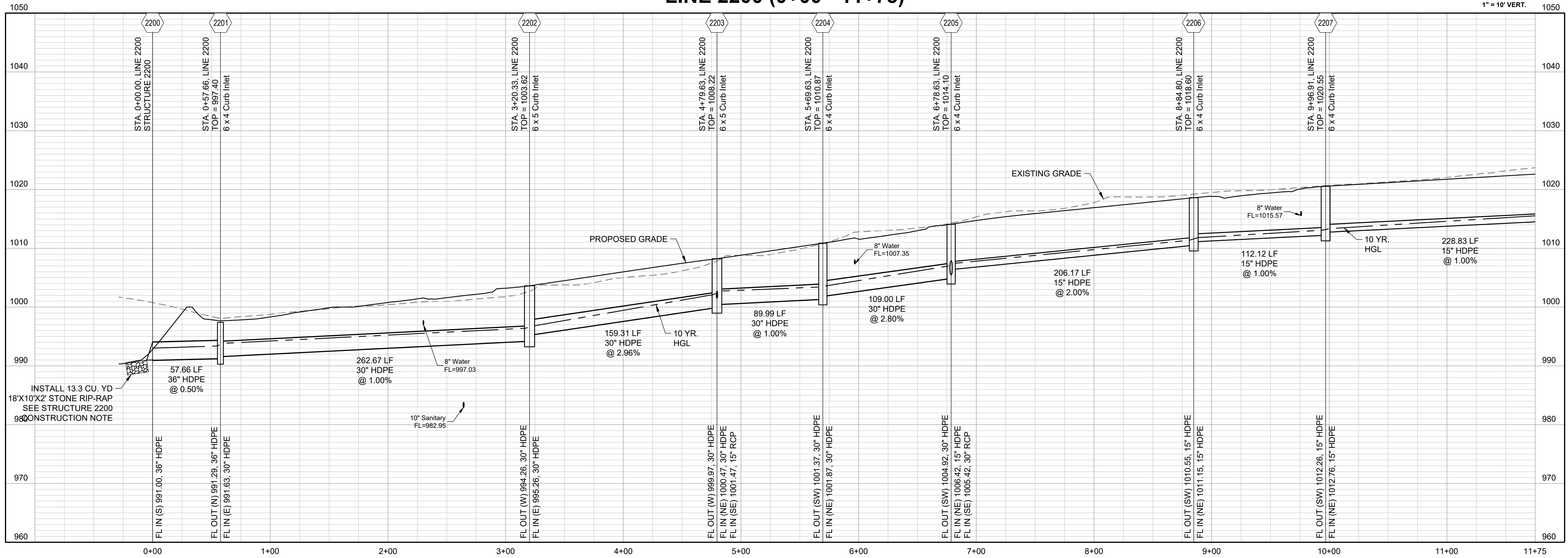
MANOR AT BAILEY FARMS, FIRST PLAT
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STORM
 PROFILES 3

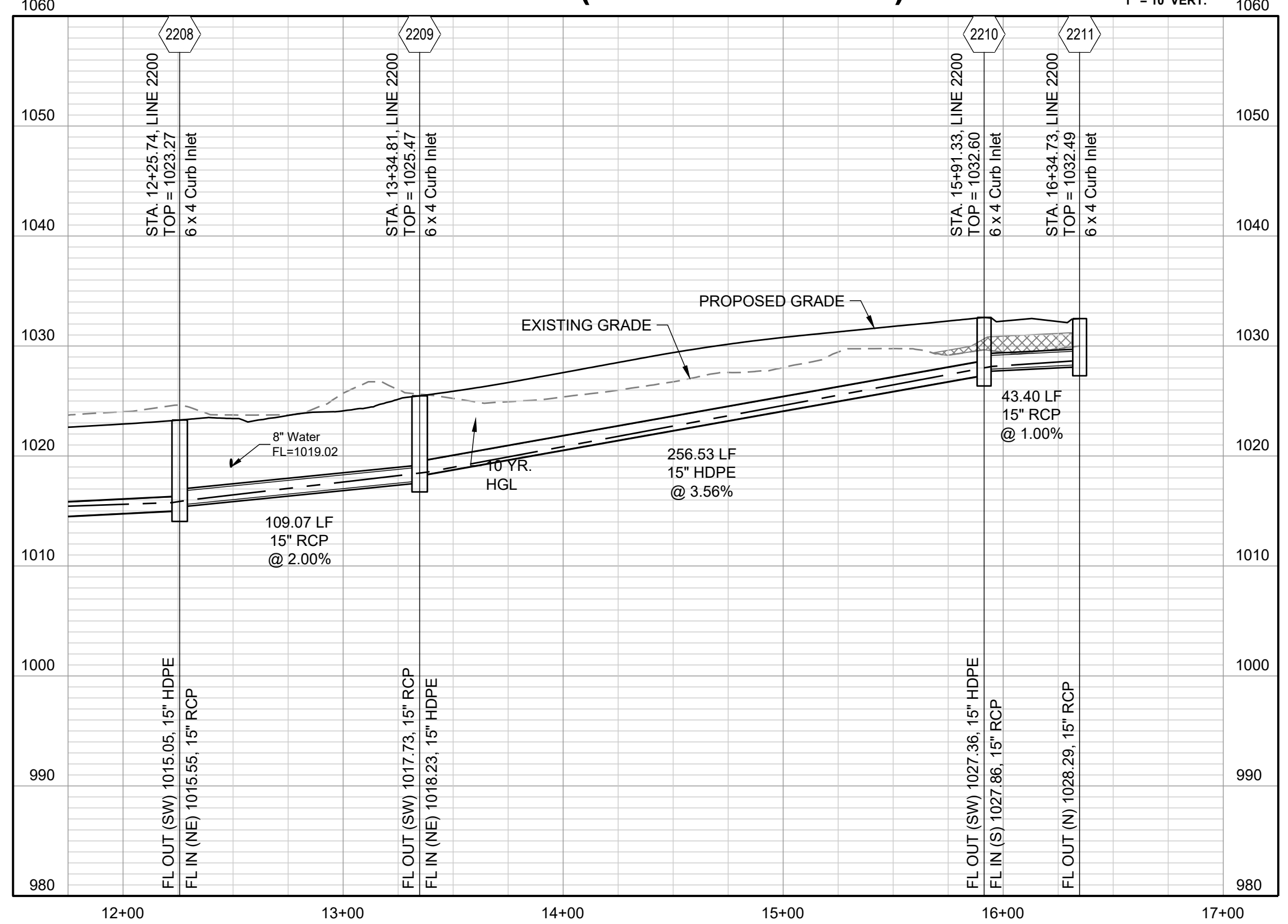
SHEET
33

LINE 2200 (0+00 - 11+75)

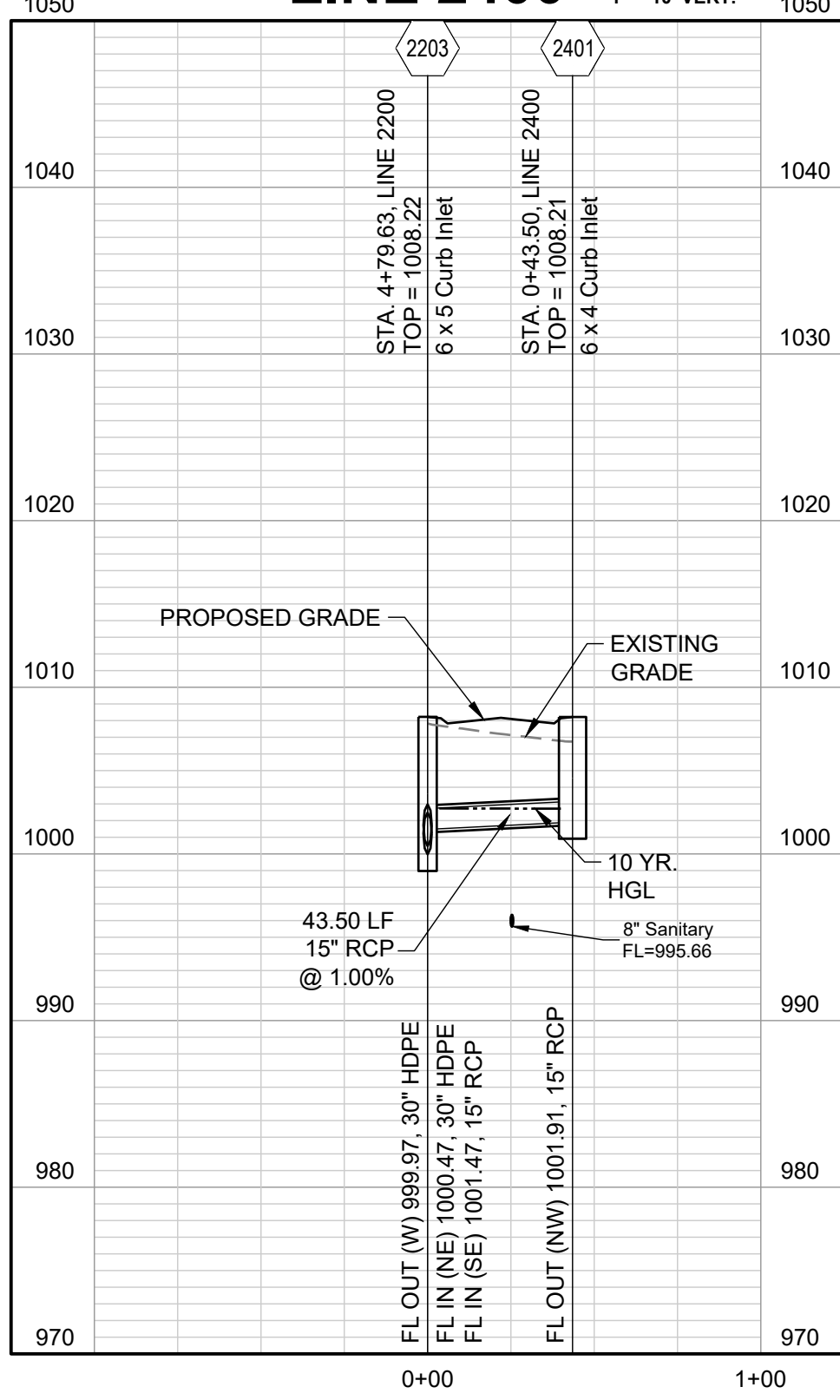


COMPACTED FILL TO BE PLACED A MINIMUM OF 18\"/>

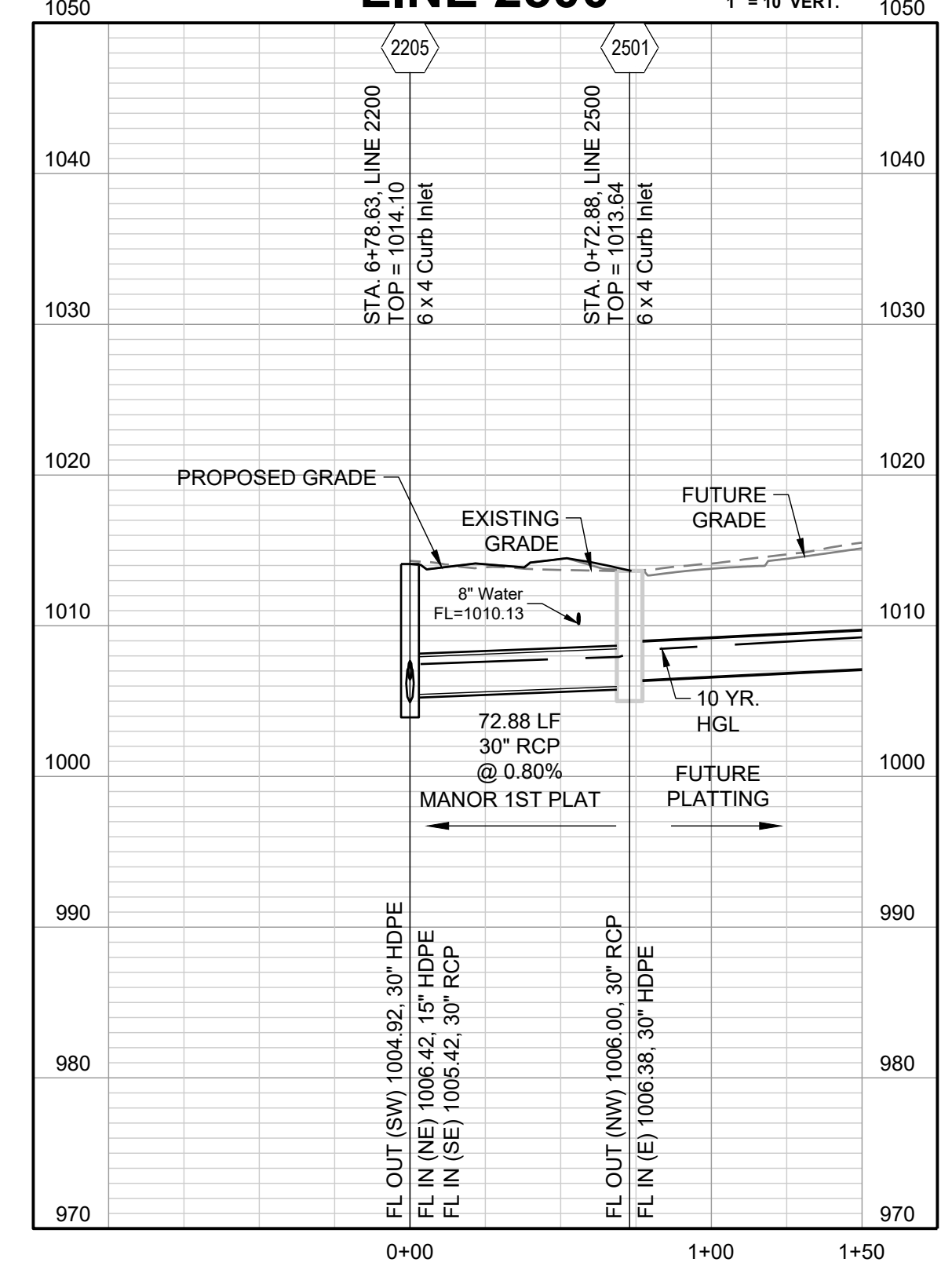
LINE 2200 (11+75 - 16+34.73)



LINE 2400



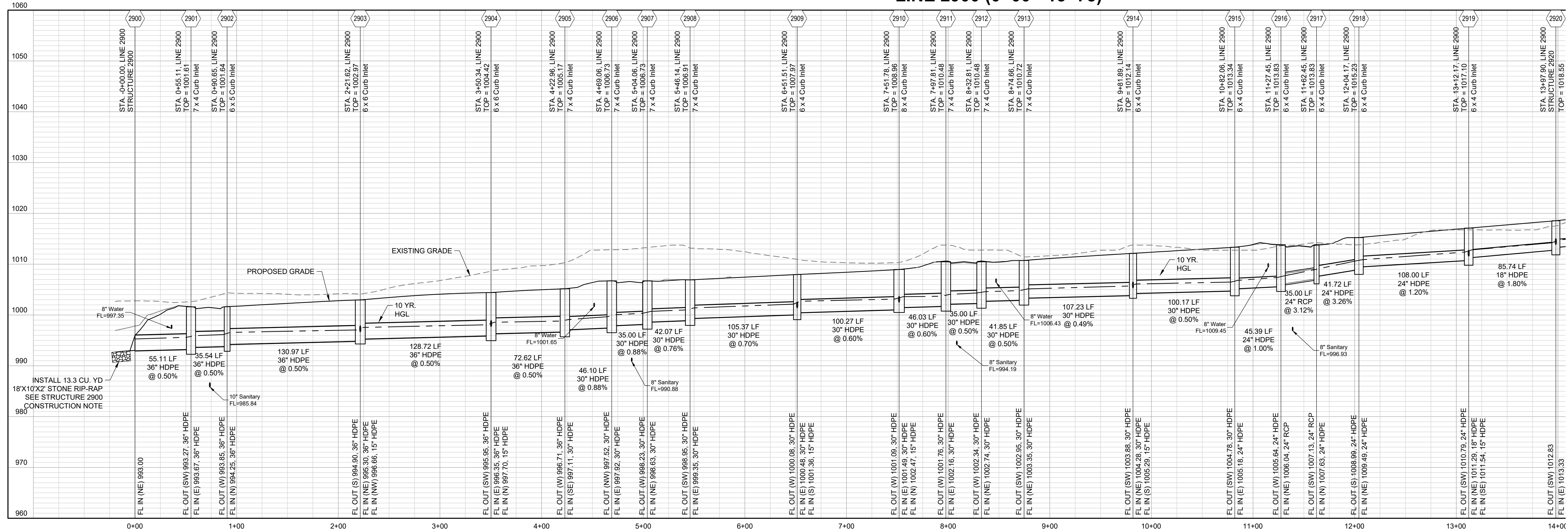
LINE 2500



10-YEAR HGL - - - - -

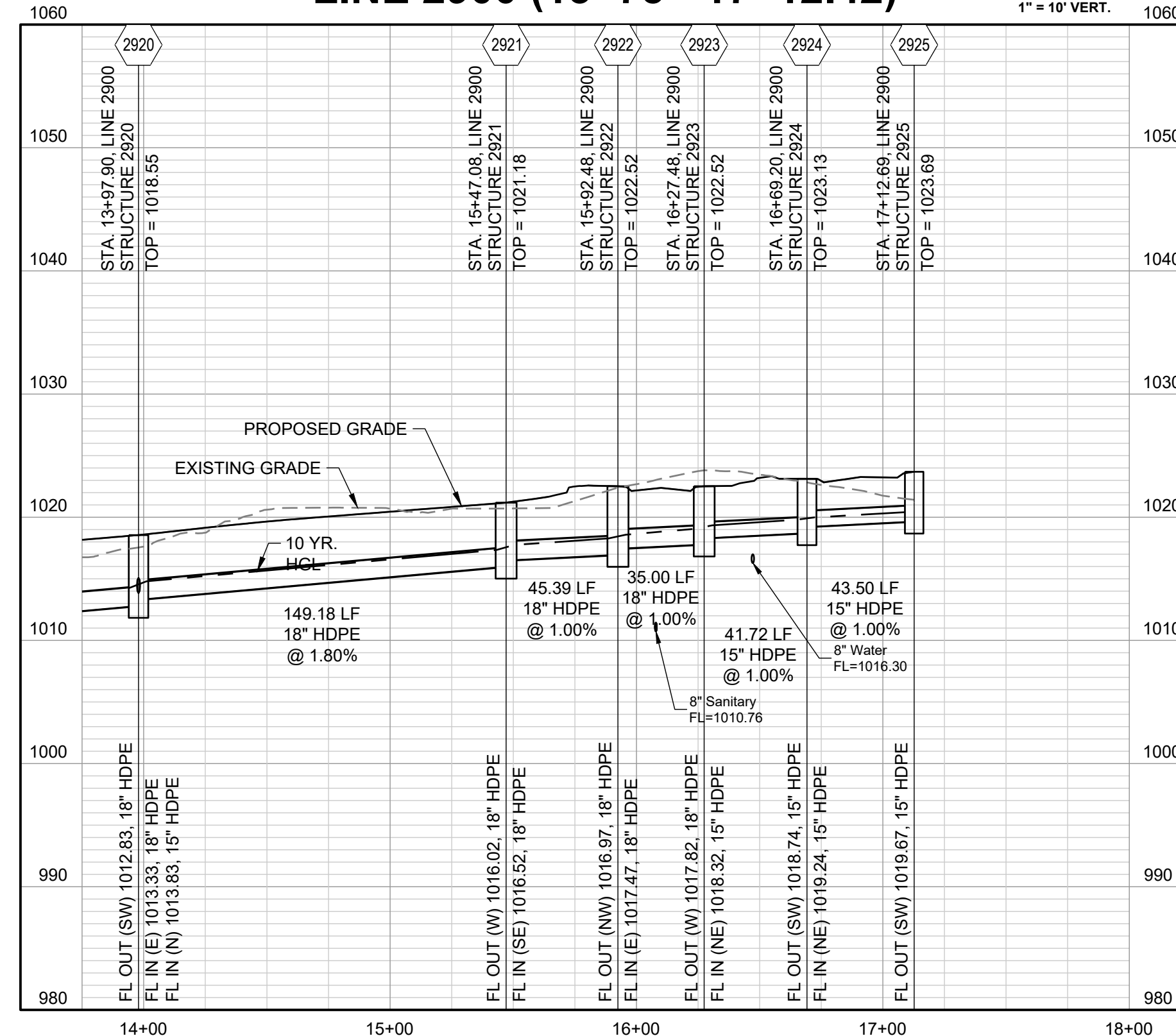
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LINE 2900 (0+00 - 13+75)

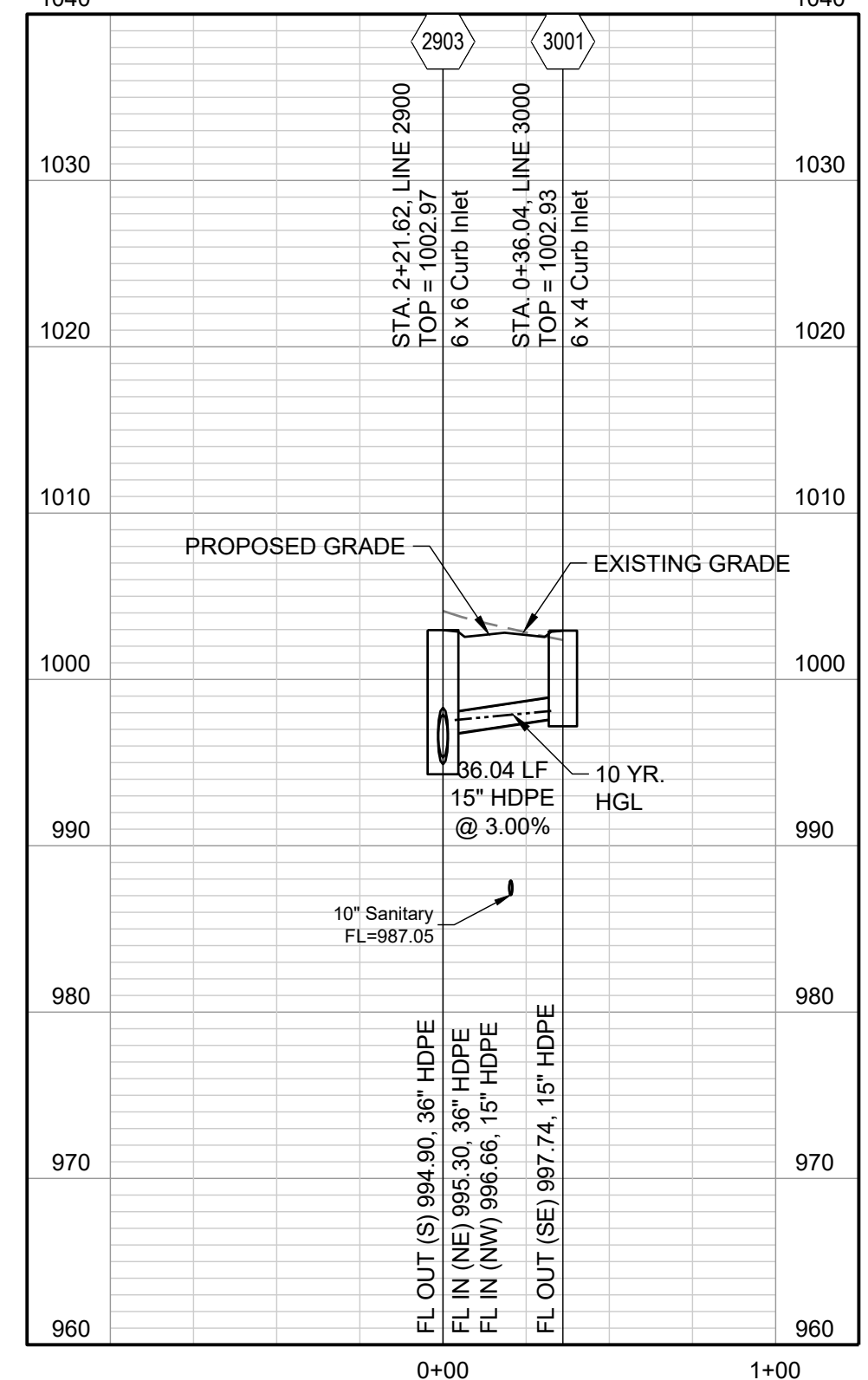


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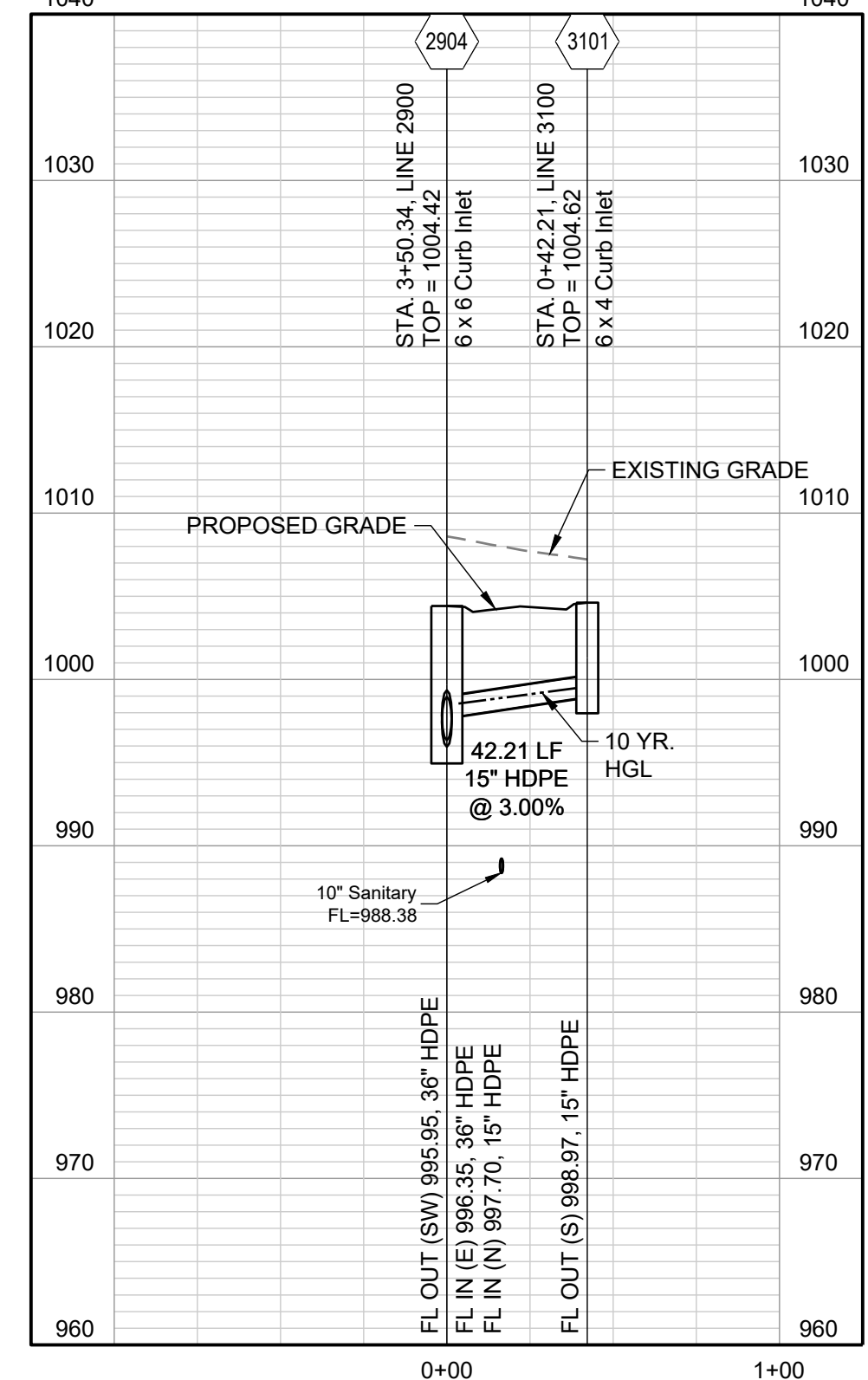
LINE 2900 (13+75 - 17+12.42)



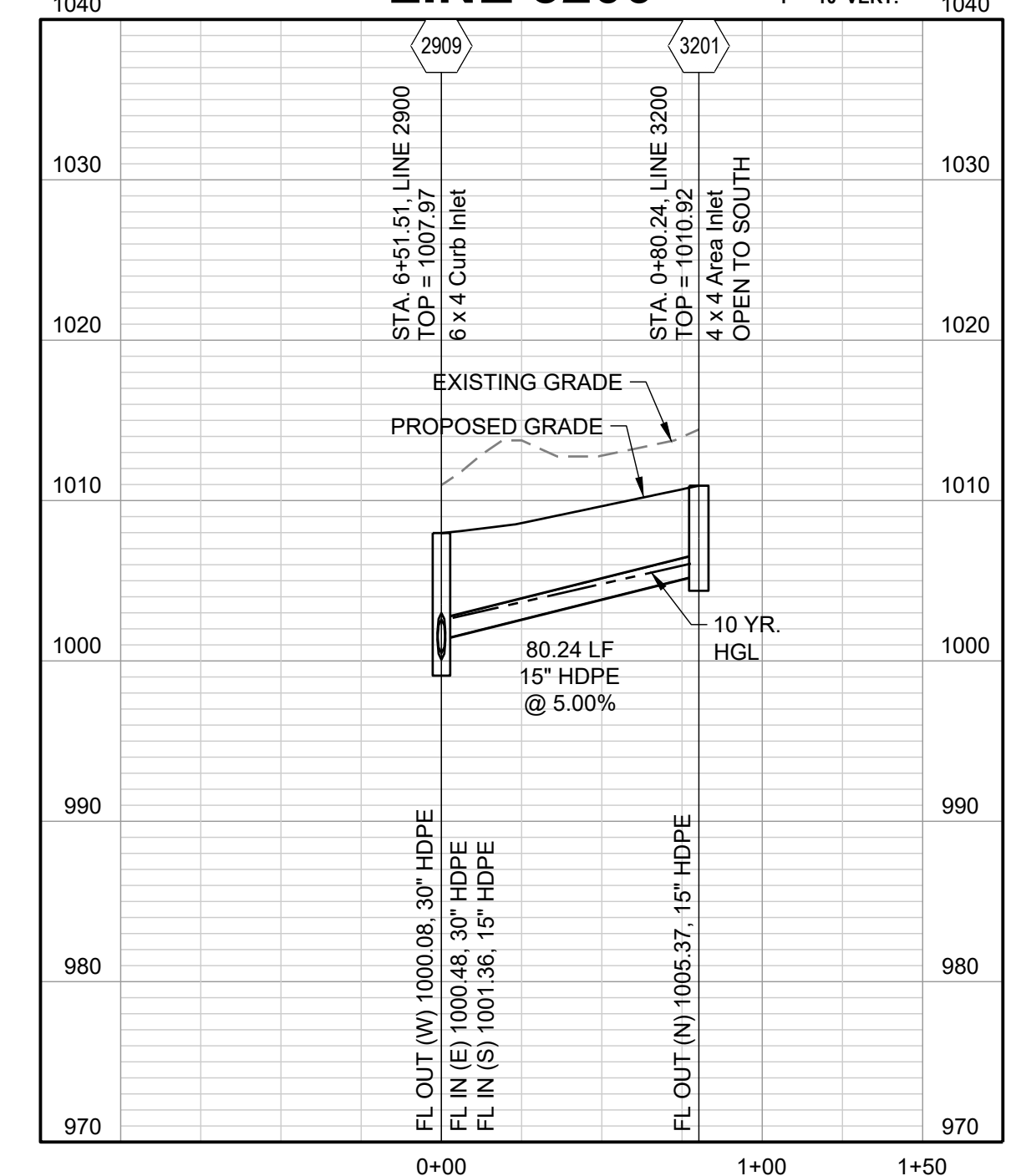
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LINE 3100



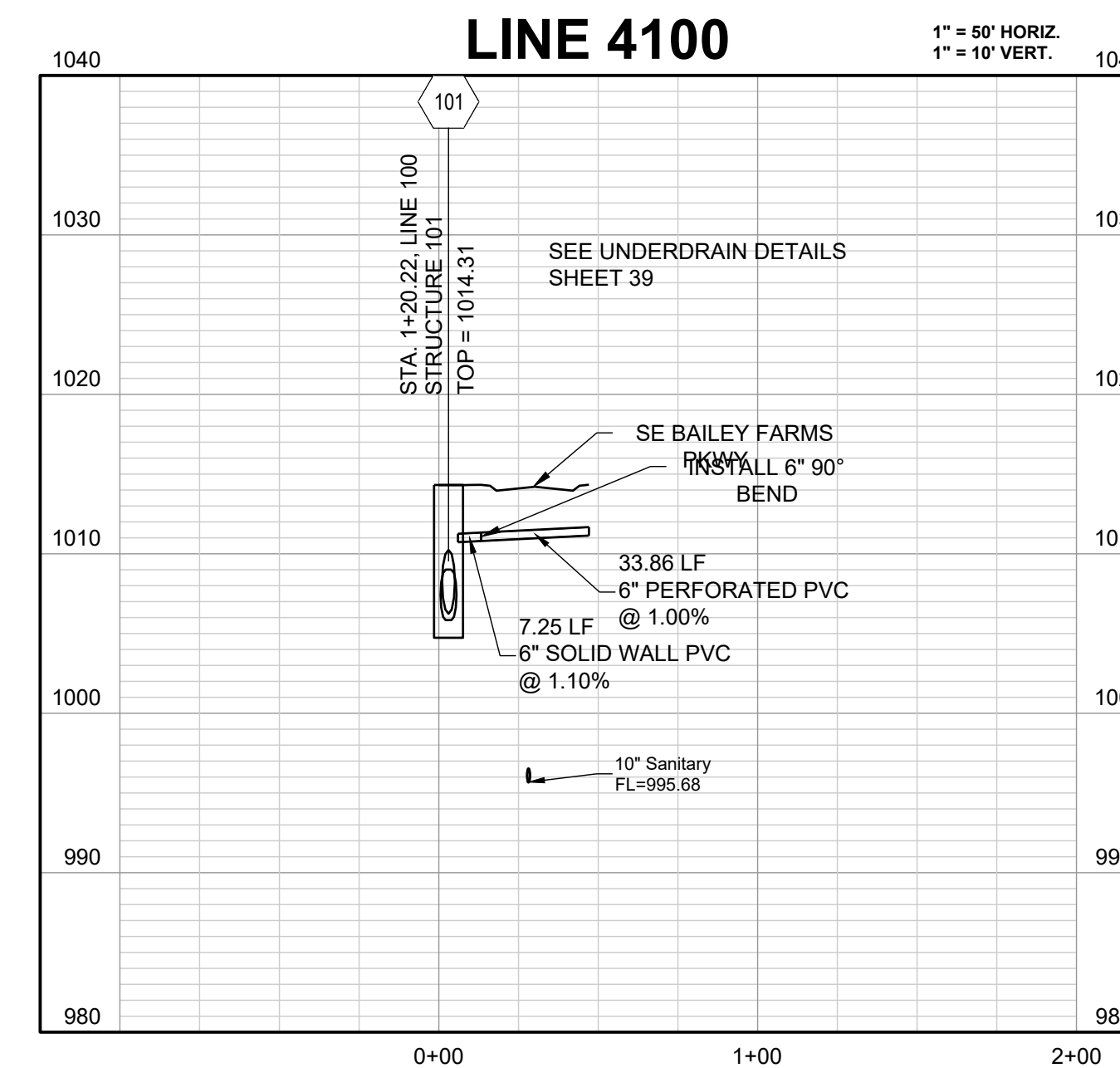
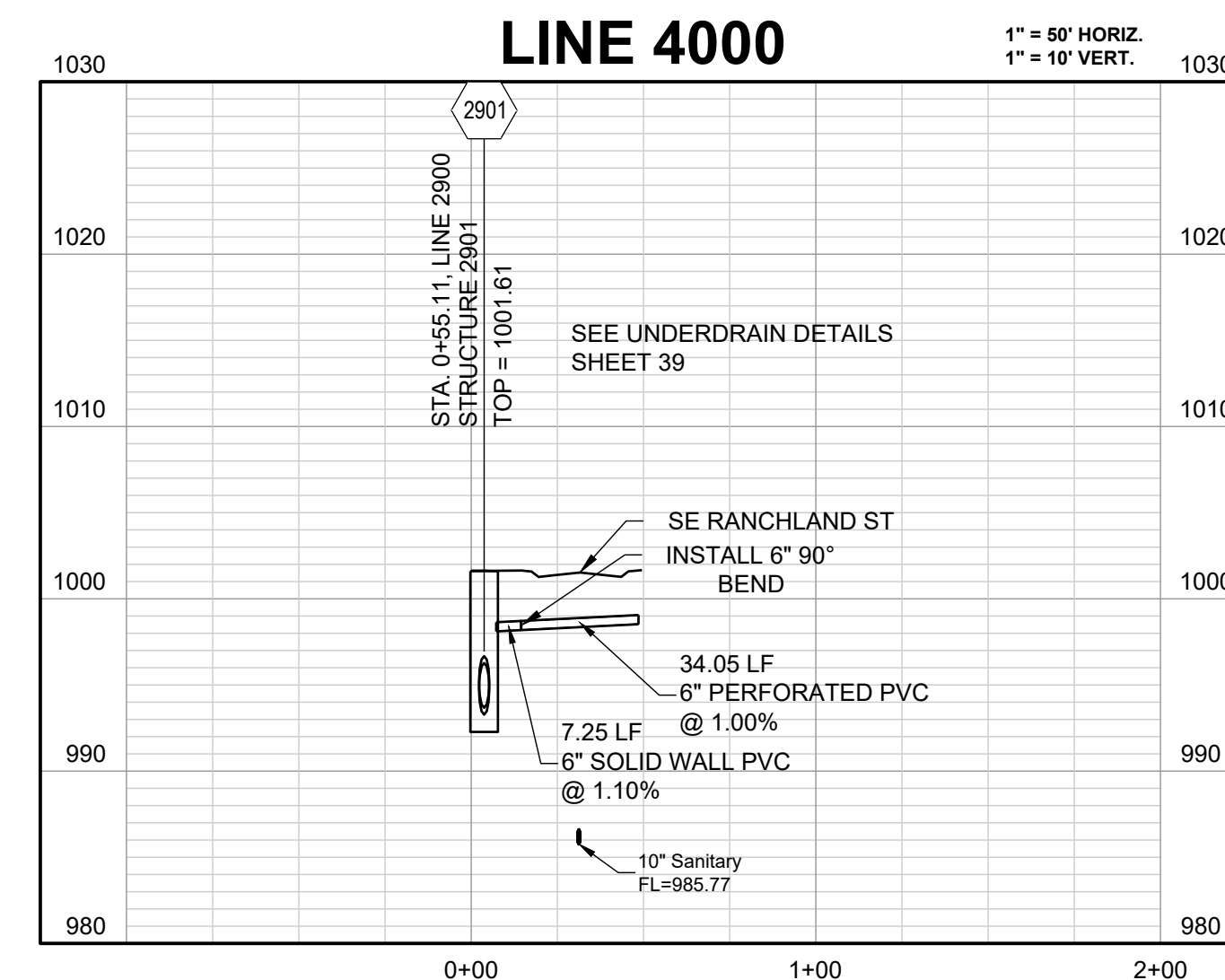
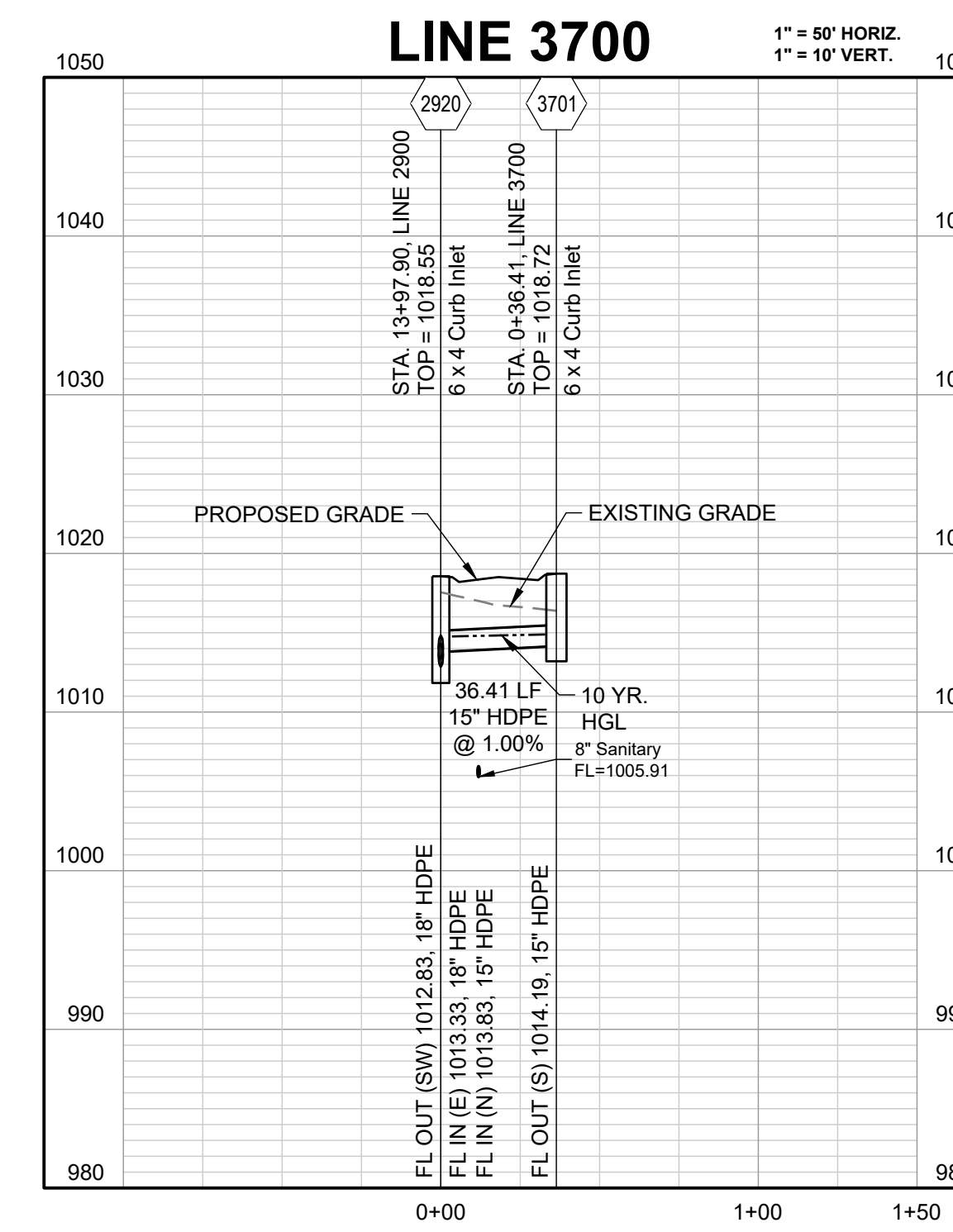
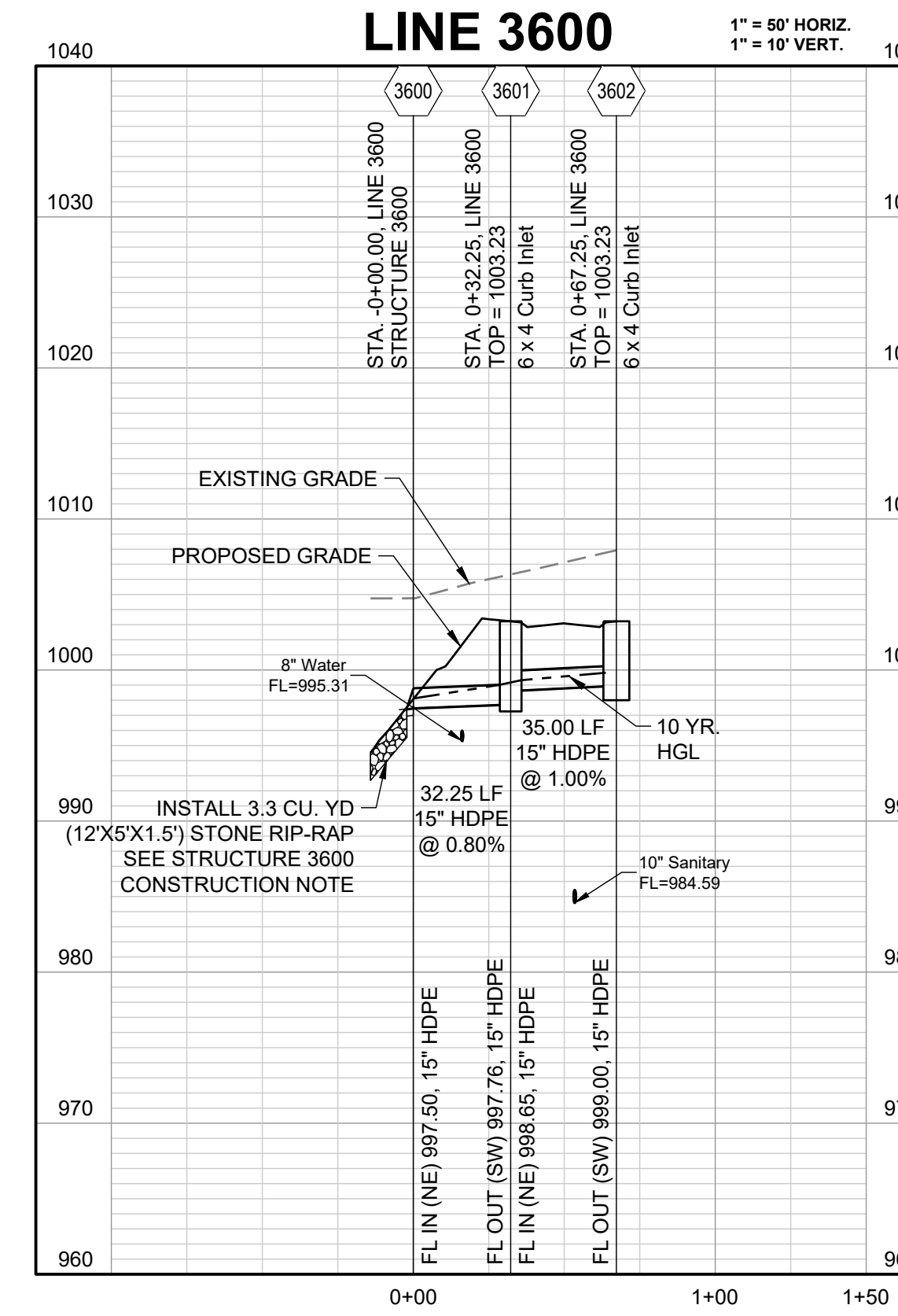
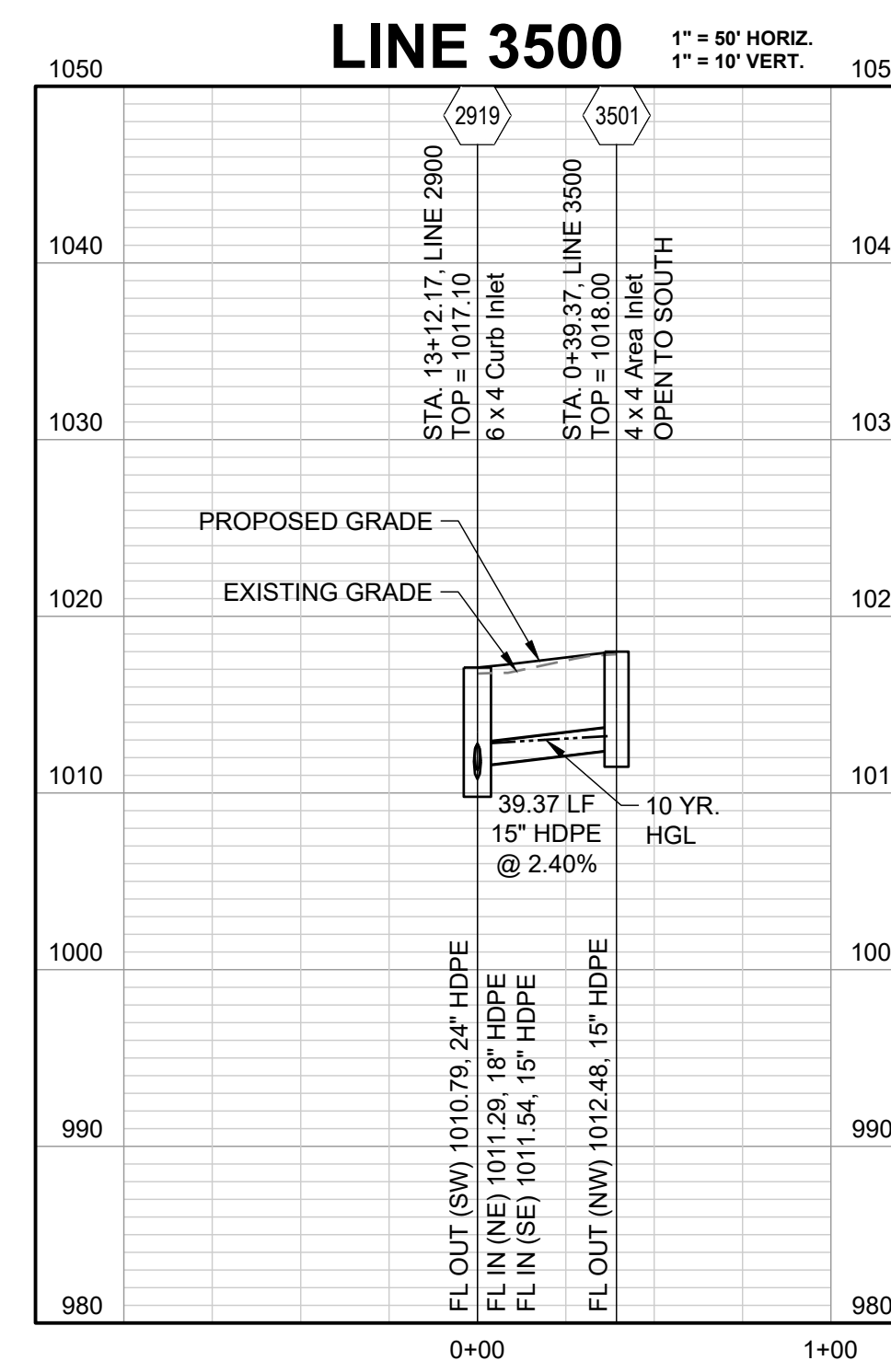
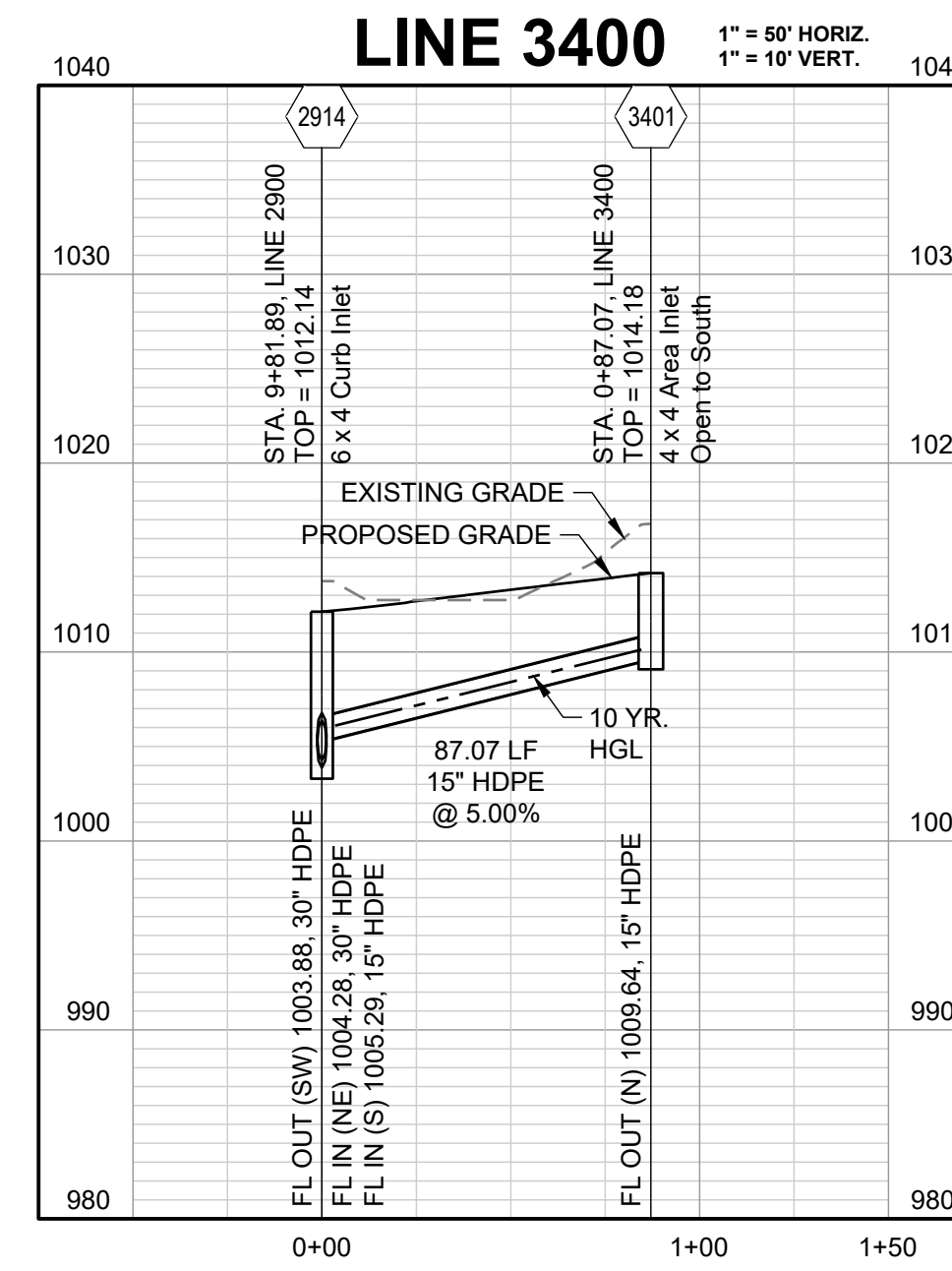
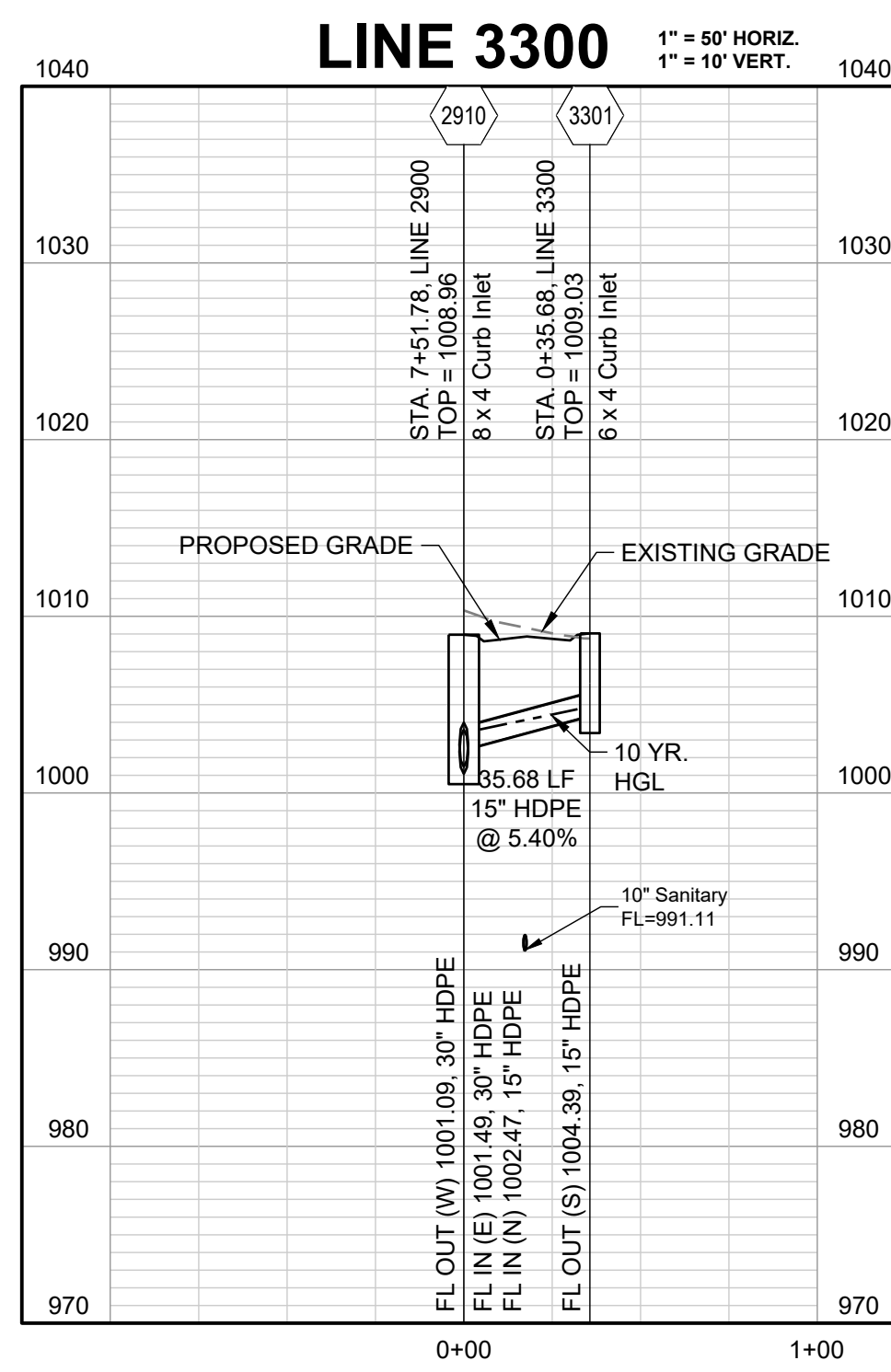
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REVISION DATE	DESCRIPTION
01/21/2022	City Comments dated 12/19/2021
04/20/2022	City Comments dated 02/14/2022
05/17/2022	City Comments dated 5/11/2022
10/27/2023	Revised Details to current 2023 Details
11/30/2023	Added "New City Requirements" note

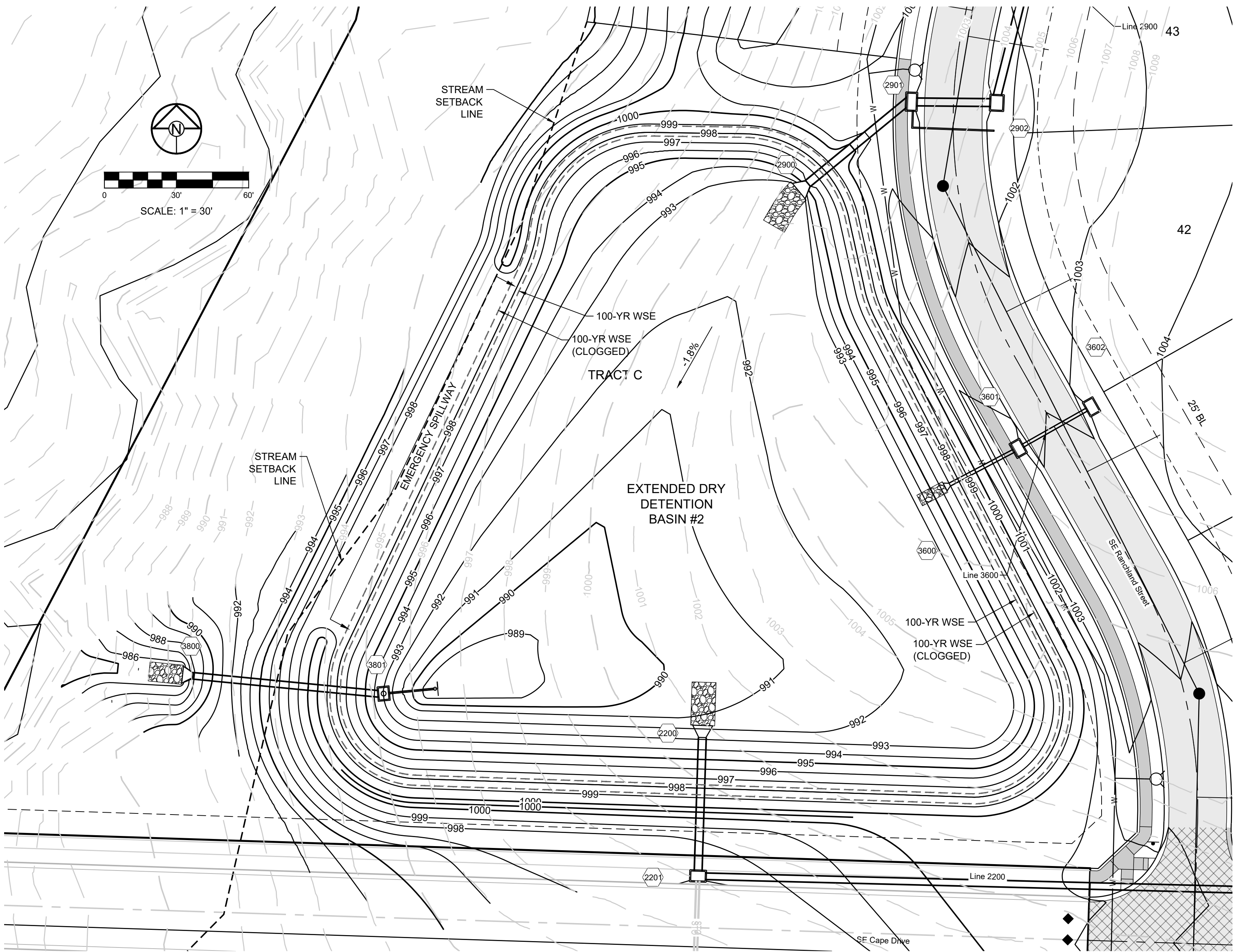
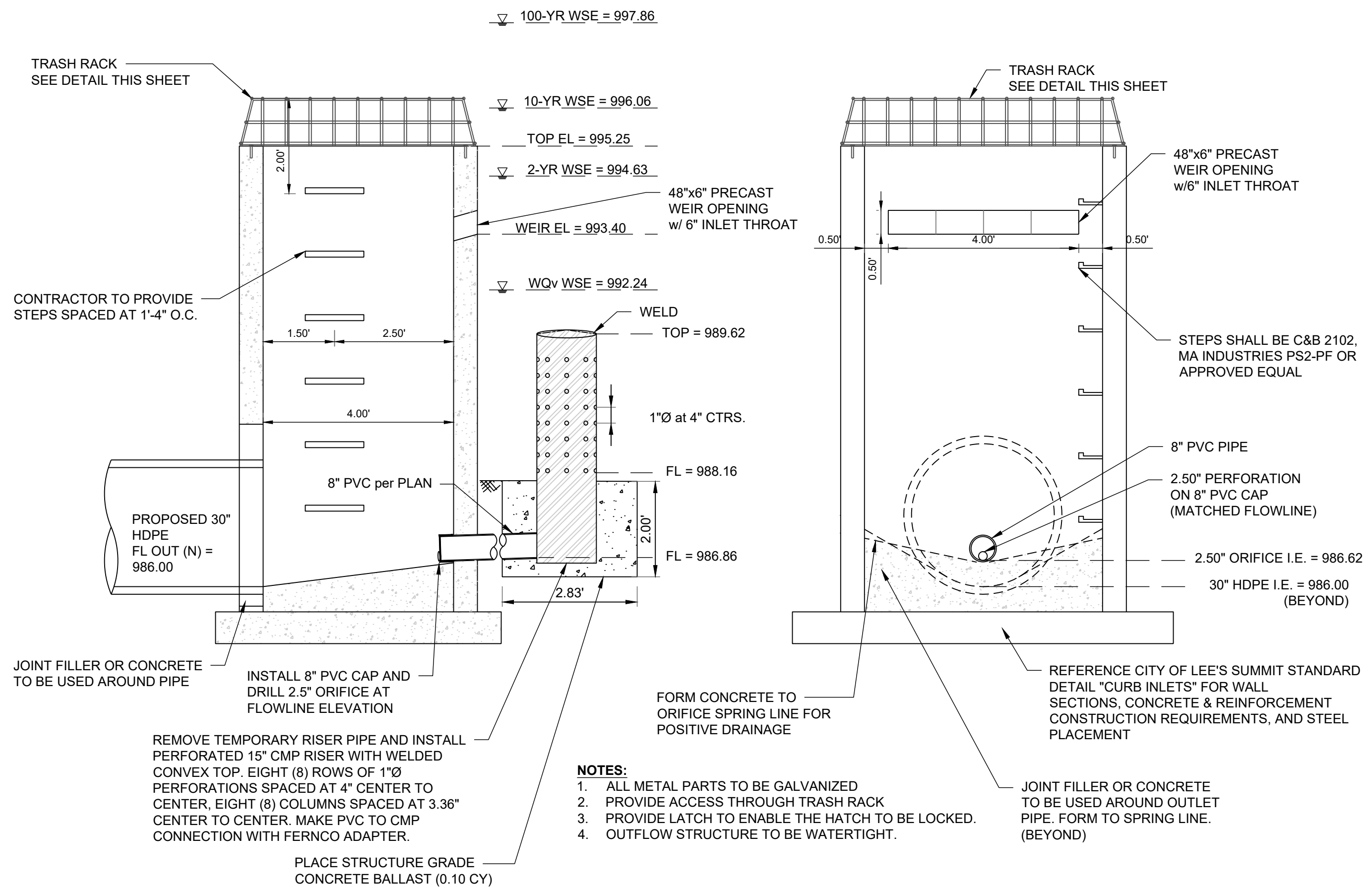
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10-YEAR HGL -----

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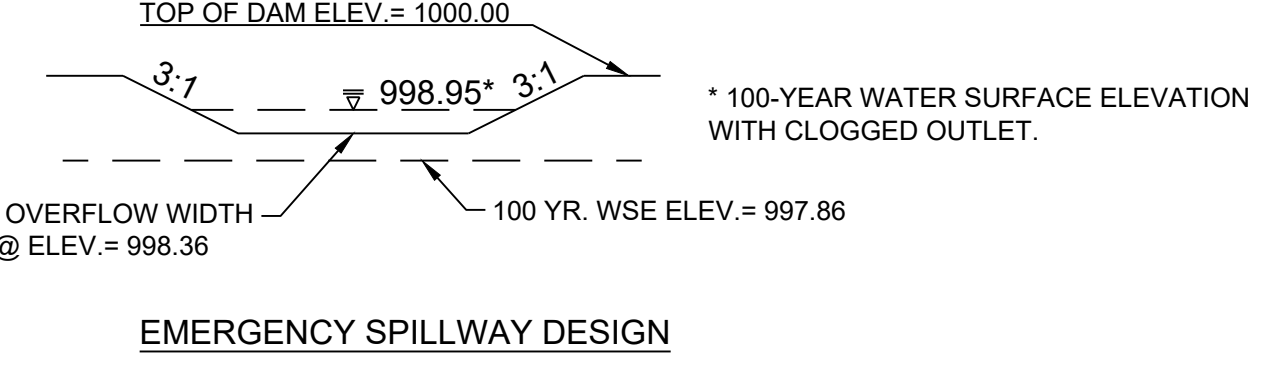
DETECTION STORAGE:
100 YEAR, 24 HR. RAINFALL - MAXIMUM WSE = 997.86
(SEE FINAL STORMWATER MGMT. PLAN)

EMERGENCY SPILLWAY FLOWLINE SET AT 0.5 FEET ABOVE MAX. WSE, SPILLWAY ELEV. = 998.36

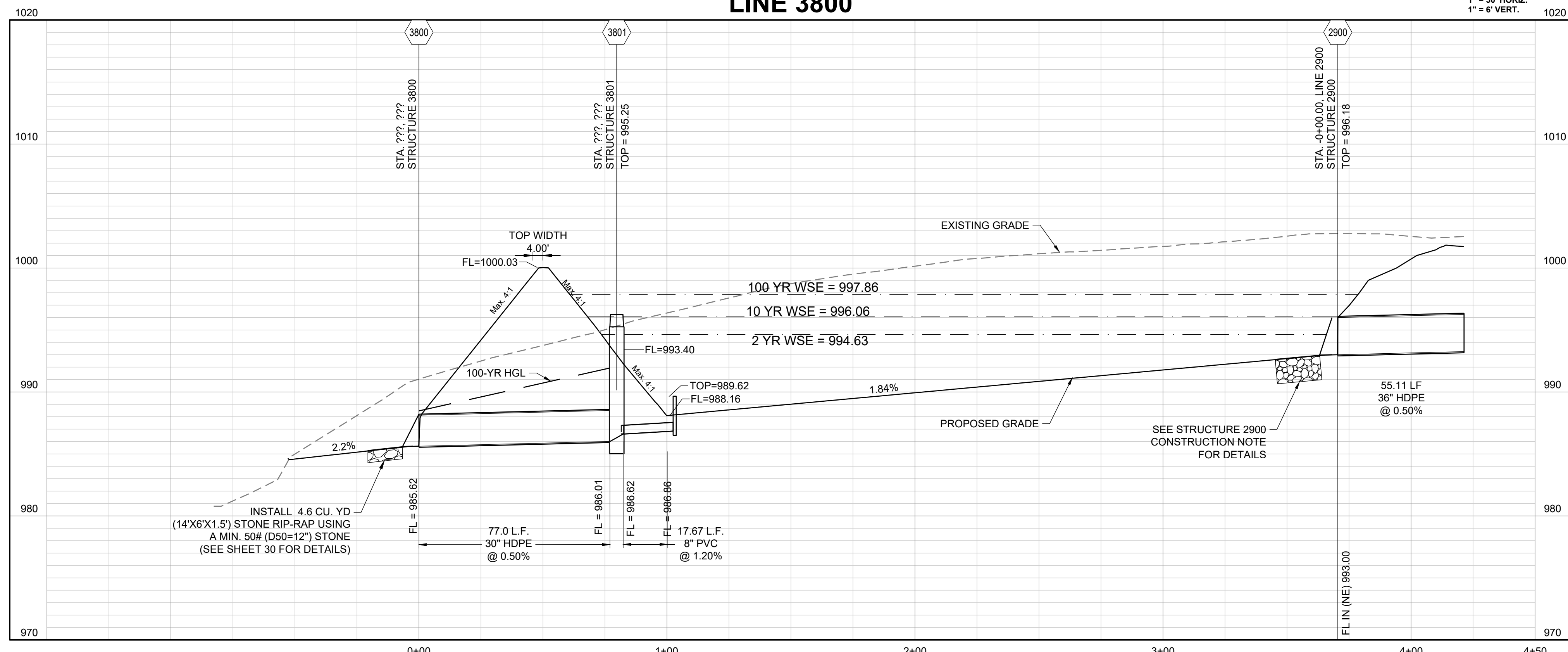
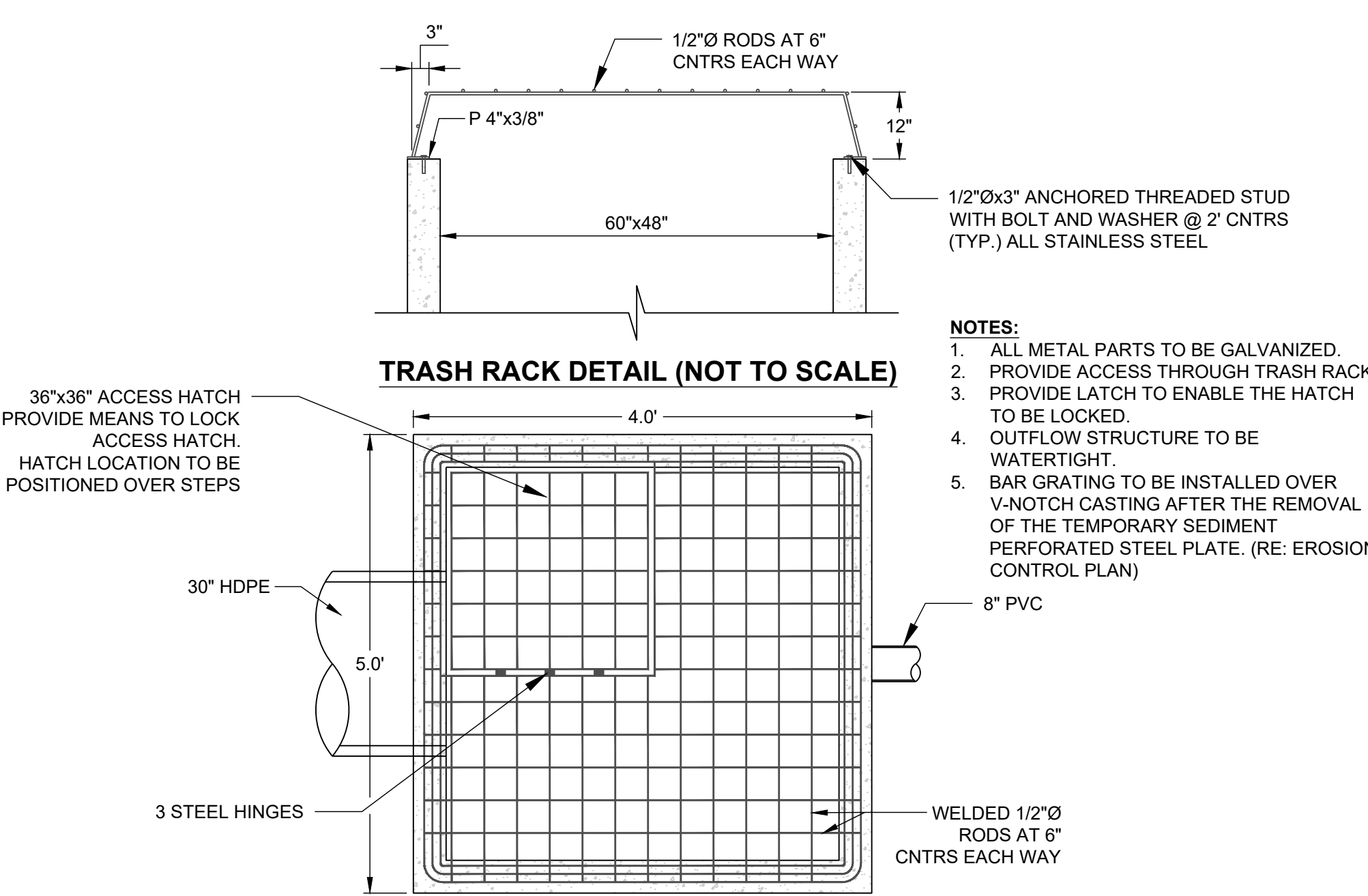
EMERGENCY SPILLWAY DESIGN:
Q(100) = 232.03 CFS, Q = CLH^{3/2}, C = 3.33,
L = 155 FT., 232.03 CFS = 3.33 * 155 FT.^{3/2} (H^{3/2}(3/2)), H = 0.59 FT

**WATER SURFACE ELEVATION THROUGH SPILLWAY = 998.95
+ ONE (1) FOOT OF FREEBOARD = 999.95
SET BASIN TOP AT 1000.00**

DESIGN STORM	VOLUME (CUBIC FEET)
2-YEAR	122,558
10-YEAR	189,935
100-YEAR	285,540



NOTE:
DETECTION / SEDIMENT BASIN SHALL BE CONSTRUCTED ALONG WITH ALL OTHER EROSION CONTROL AND SEDIMENT CONTROL DEVICES AND PRIOR TO ANY INFRASTRUCTURE BEING CONSTRUCTED.



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DRAWN BY: NCA
CHECKED BY: JLL
DATE PREPARED: 11/05/2021
PROJ. NUMBER: 21-130

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REVISION DATE	DESCRIPTION
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GEN-1
 STANDARD DETAILS
 CITY OF LEE'S SUMMIT, MO
 LEE'S SUMMIT, JACKSON COUNTY, MO
 PUBLIC WORKS ENGINEERING DIVISION | 230 S GREEN STREET | LEE'S SUMMIT, MO 64643

GEN-3A
 STANDARD DETAILS
 CITY OF LEE'S SUMMIT, MO
 LEE'S SUMMIT, JACKSON COUNTY, MO
 PUBLIC WORKS ENGINEERING DIVISION | 230 S GREEN STREET | LEE'S SUMMIT, MO 64643

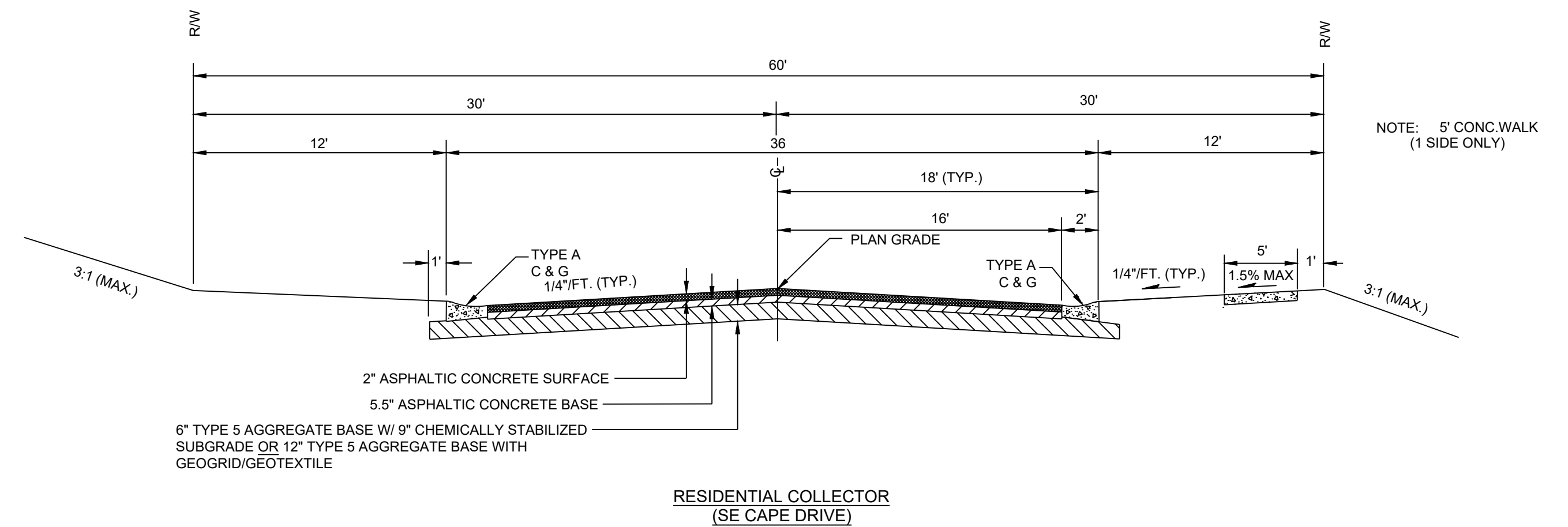
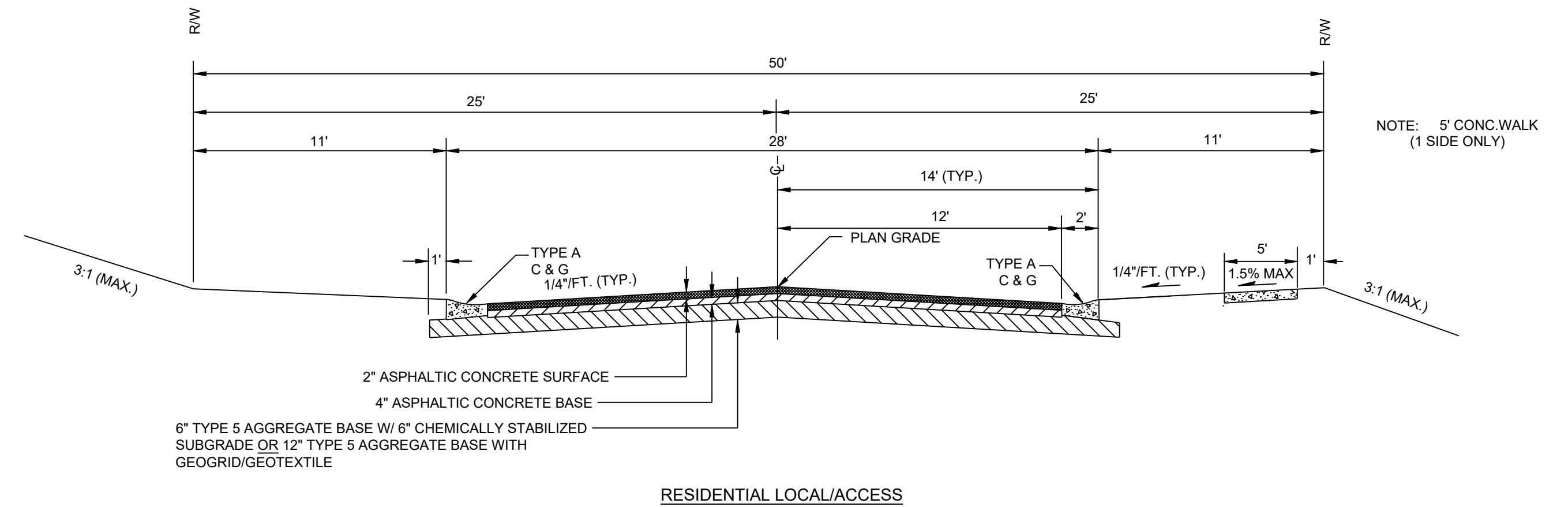
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 STANDARD DETAILS
 CITY OF LEE'S SUMMIT, MO
 LEE'S SUMMIT, JACKSON COUNTY, MO
 PUBLIC WORKS ENGINEERING DIVISION | 230 S GREEN STREET | LEE'S SUMMIT, MO 64643

GEN-3B
 STANDARD DETAILS
 CITY OF LEE'S SUMMIT, MO
 LEE'S SUMMIT, JACKSON COUNTY, MO
 PUBLIC WORKS ENGINEERING DIVISION | 230 S GREEN STREET | LEE'S SUMMIT, MO 64643

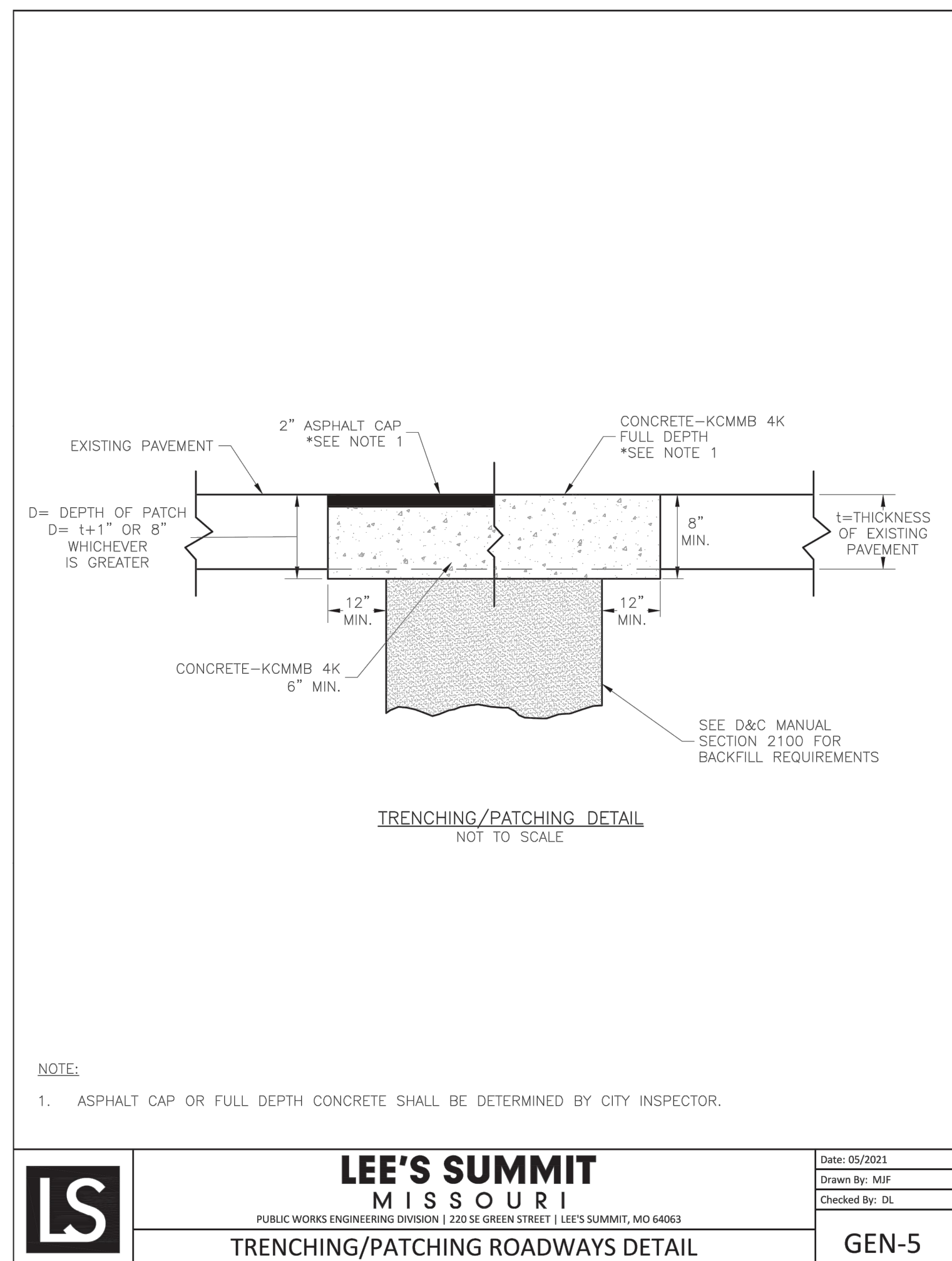
TABLE LS-2: MINIMUM ASPHALT PAVEMENT THICKNESSES

Street Classification	Pavement Option	AC Surface (in.)	AC Base (in.)	Aggregate Base (in.)	Chemical Subgrade Stabilization (in.)	Geogrid / Geotextile ⁽¹⁾
Residential Local/Access	A	2	4	6	6	--
	B	2	4	12	--	Geogrid / Geotextile
Residential Collector	A	2	5.5	6	9	--
	B	2	5.5	12	--	Geogrid / Geotextile
Commercial Industrial Local/Collector	A	2	7.5	6	9	--
	B	2	7.5	12	--	Geogrid / Geotextile

Notes:
 (1) Geogrid shall be polypropylene material and Geotextile shall be woven, polypropylene as shown in the City's Approved Products List

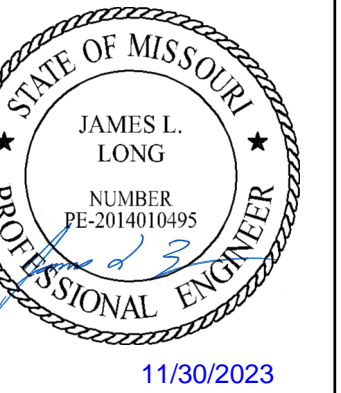


LSS200 17 July 2020



LS	LEE'S SUMMIT MISSOURI <small>PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063</small>	Date: 05/2021
	TRENCHING/PATCHING ROADWAYS DETAIL	Drawn By: MJF Checked By: DL
		GEN-5

PREPARED BY:



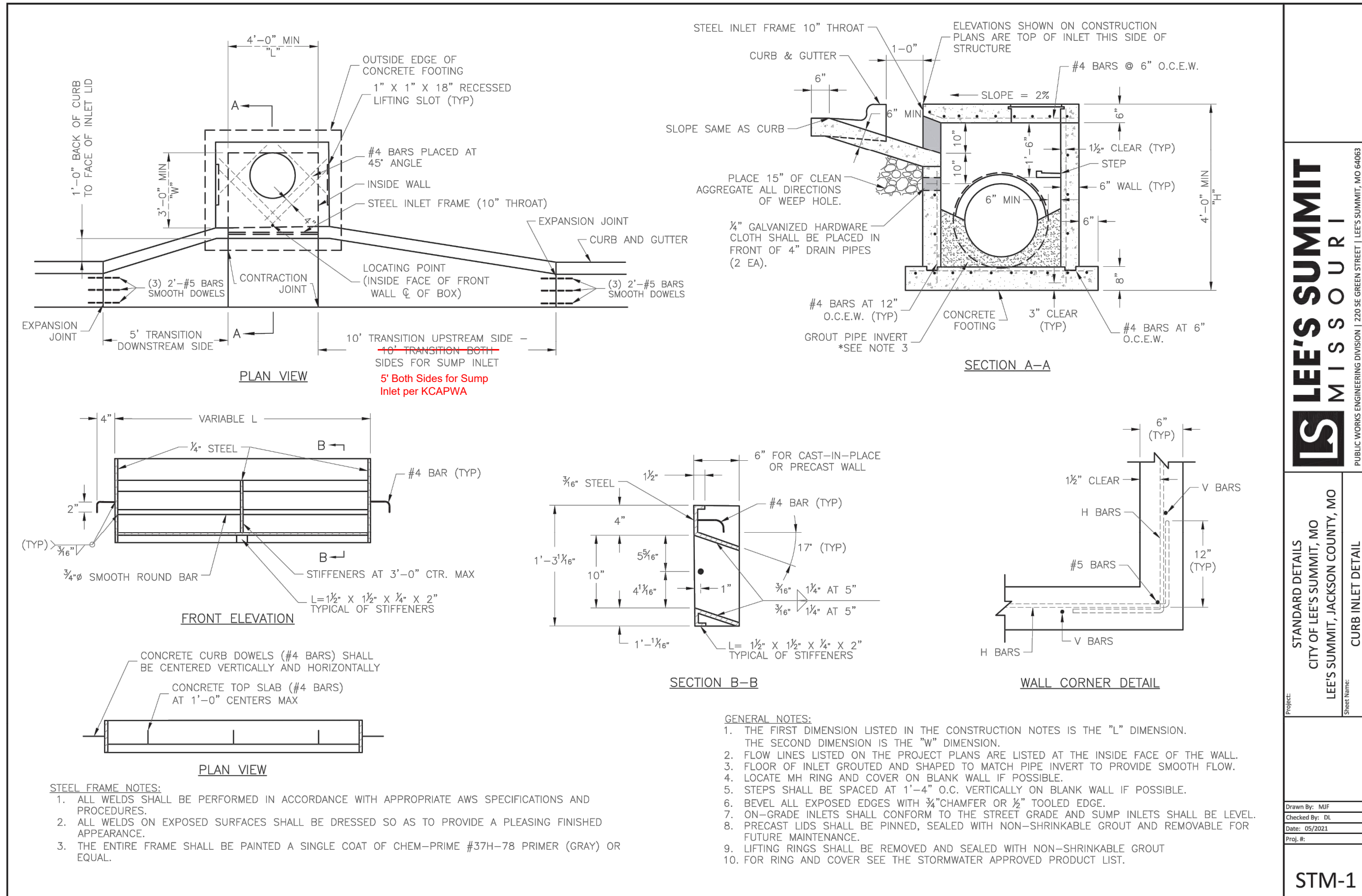
SCHLAGEL & ASSOCIATES, P.A.

**MANOR AT BAILEY FARMS, FIRST PLAT
STREET, STORMWATER, AND MASTER
DRAINAGE PLAN
SE BAILEY ROAD AND SE RANSON ROAD
LEE'S SUMMIT, MISSOURI**

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**STREET DETAILS
2**

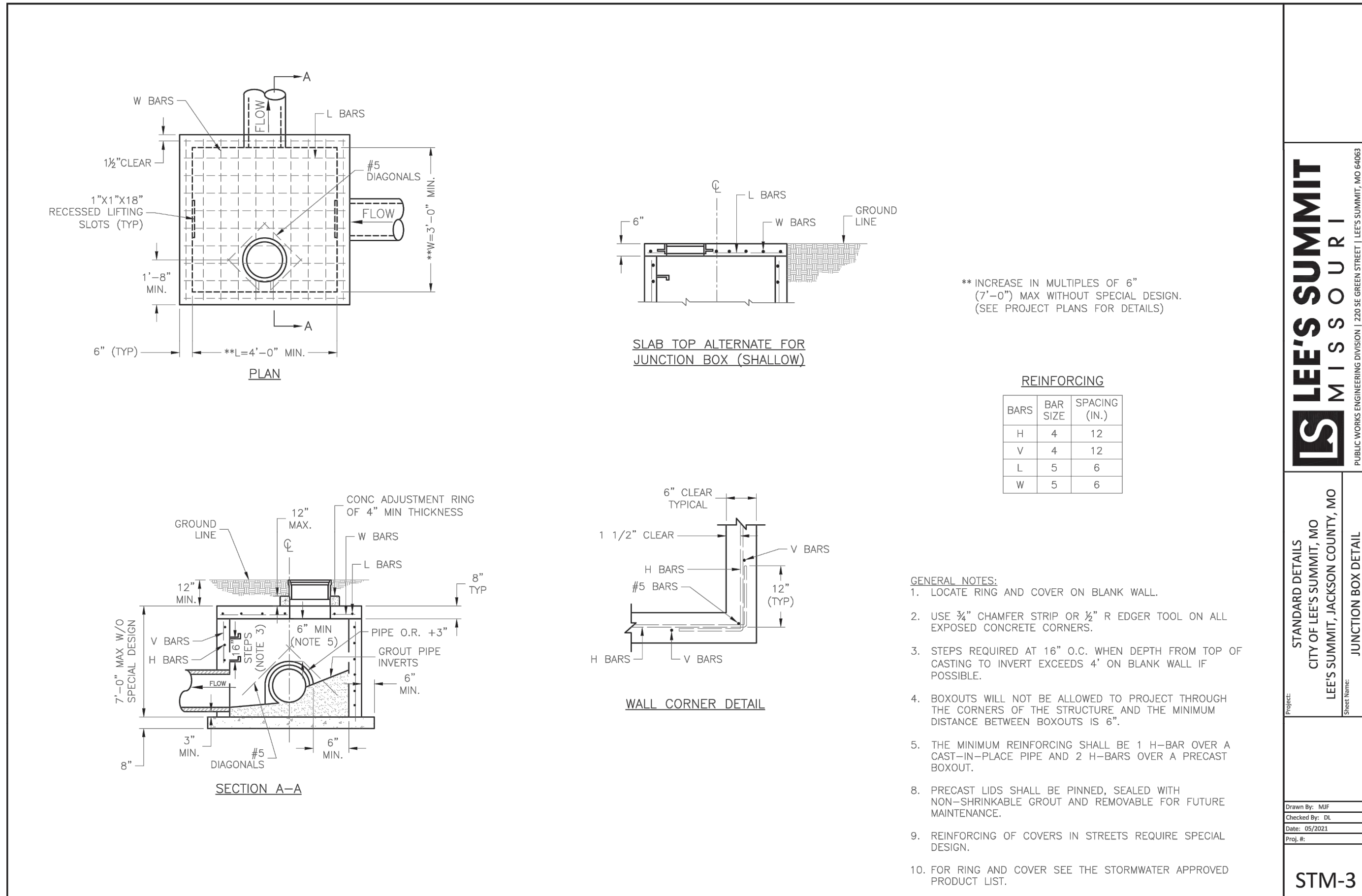
SHEET
38



LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64663

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

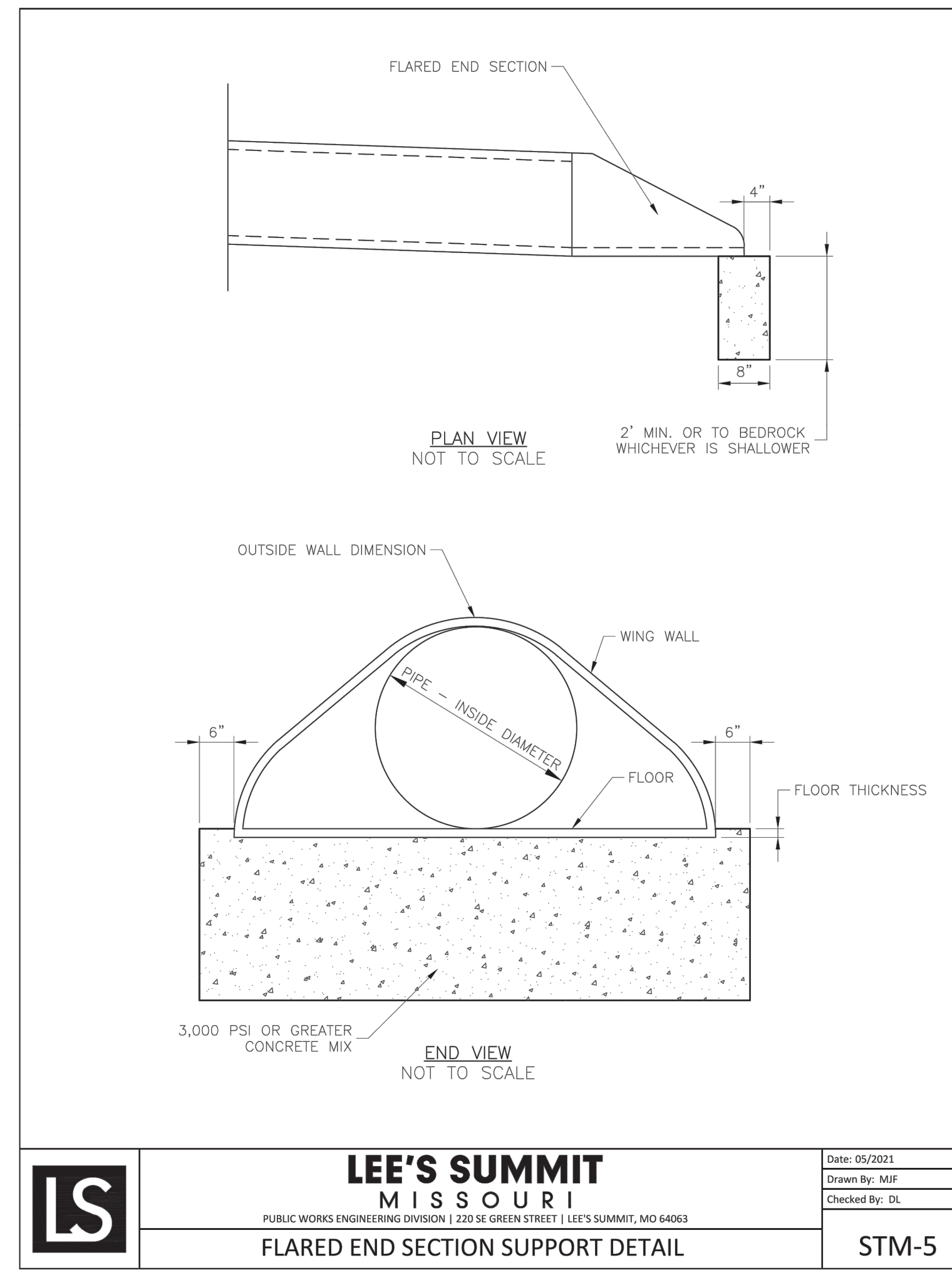
Drawn By: MIF
Checked By: DL
Date: 05/2021
Proj. #: STM-1



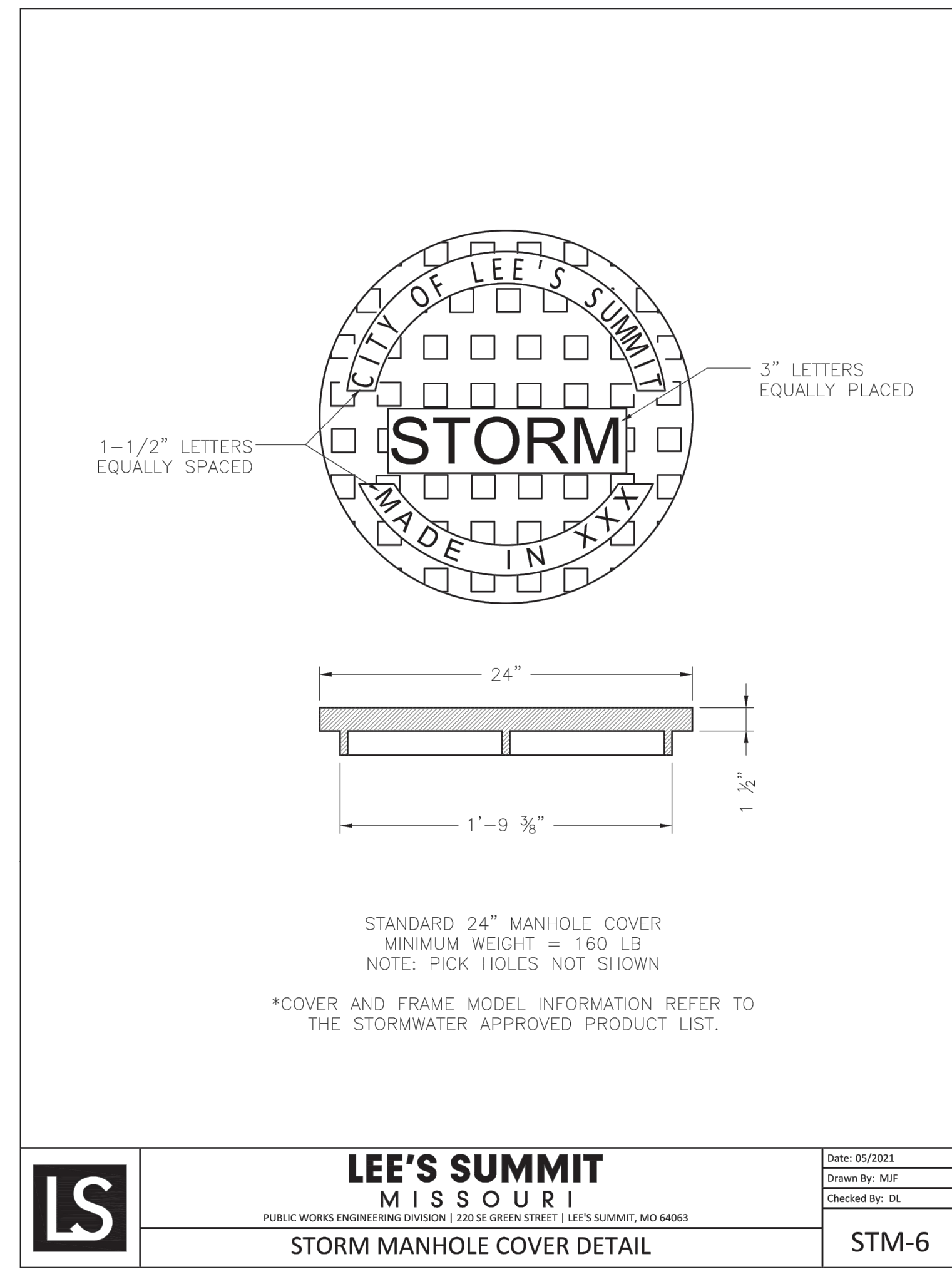
LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64663

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

Drawn By: MIF
Checked By: DL
Date: 05/2021
Proj. #: STM-3



STM-5



STM-6

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Missouri State Certificates of Authority
#E200200360P #LAC2001005237 #LS200200869F

PREPARED BY:
JAMES L. LONG
PROFESSIONAL ENGINEER
NUMBER PE-2014010495
11/30/2023
SCHLAGEL & ASSOCIATES, P.A.

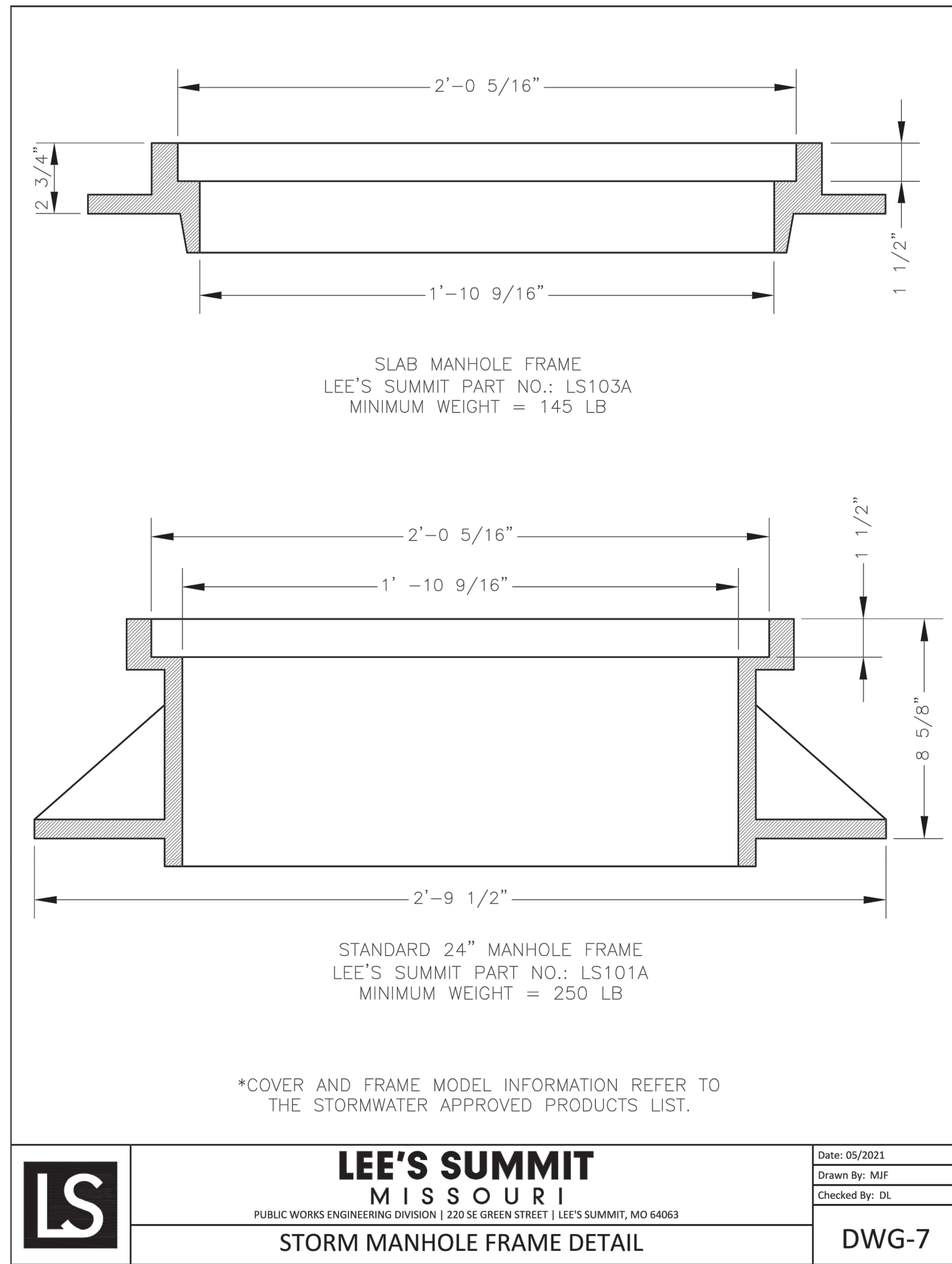
MANOR AT BAILEY FARMS, FIRST PLAT
STREET, STORMWATER, AND MASTER
DRAINAGE PLAN
SE BAILEY ROAD AND SE RANSON ROAD
LEE'S SUMMIT, MISSOURI

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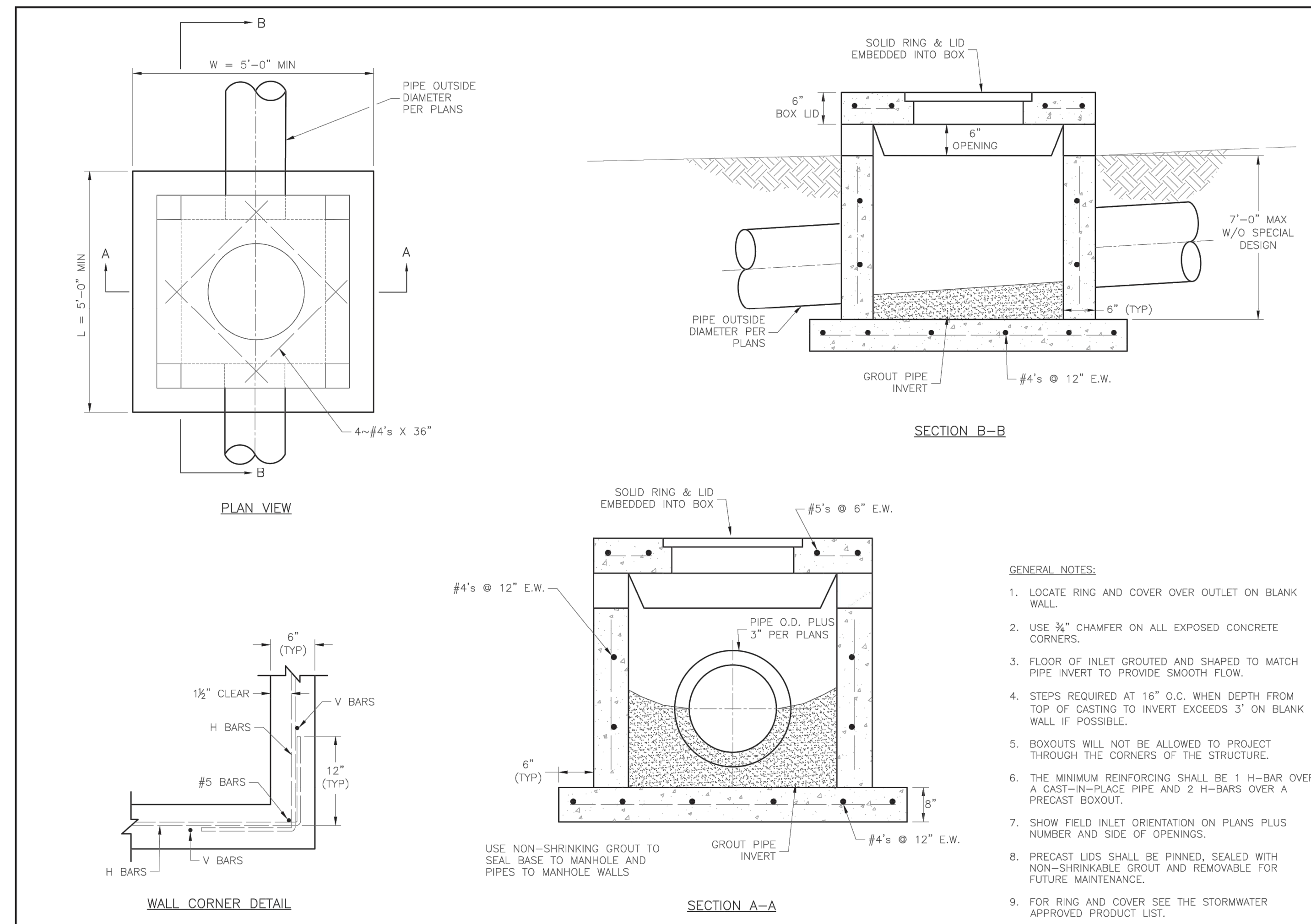
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CHECKED BY: JLL
DATE PREPARED: 11/05/2021
PROJ. NUMBER: 21-130

STORM DETAILS
1

SHEET
39



LS	LEE'S SUMMIT MISSOURI	Date: 05/2023
	PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64663	Drawn By: MIF
	STORM MANHOLE FRAME DETAIL	Checked By: DL
	DWG-7	



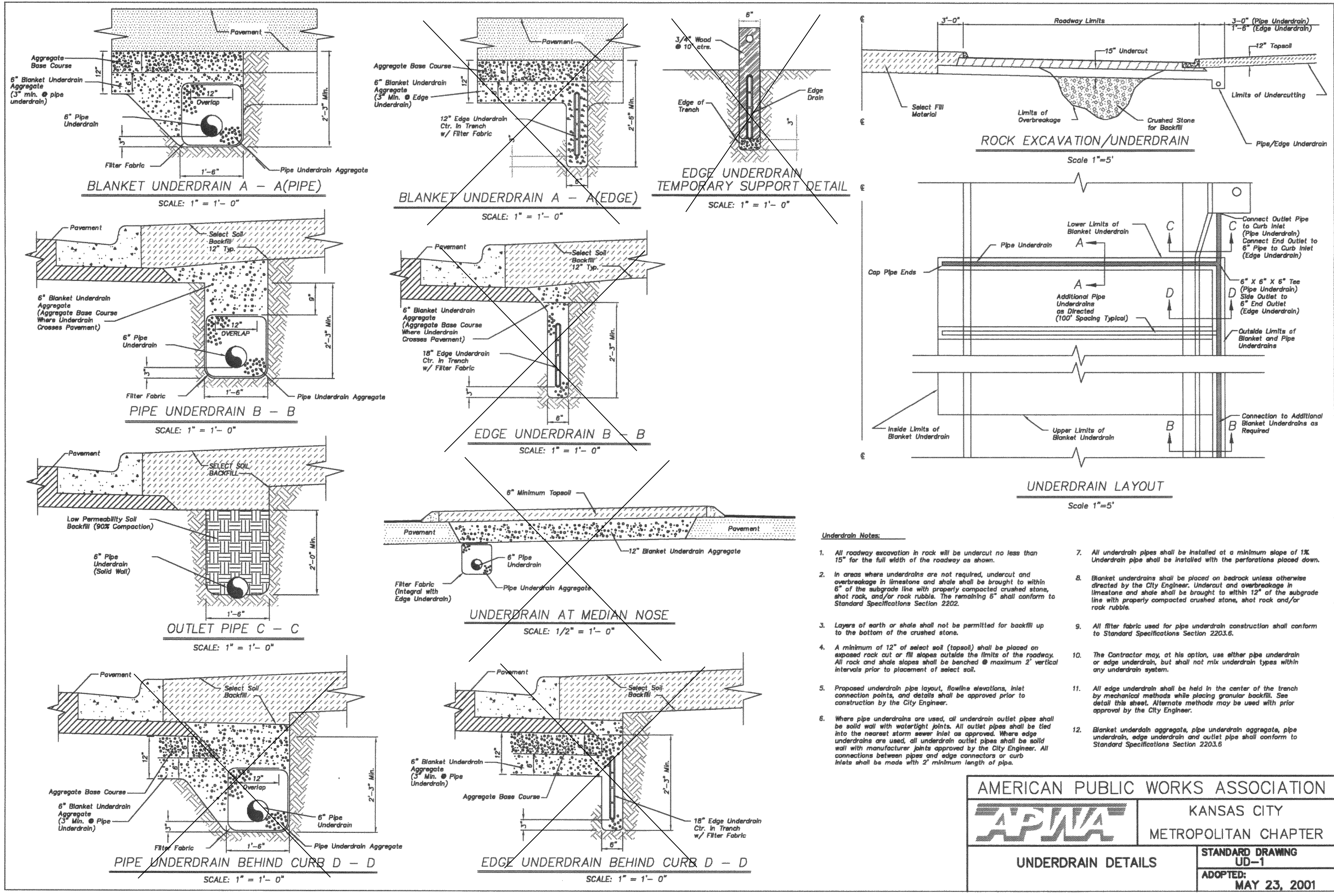
- GENERAL NOTES:**
1. LOCATE RING AND COVER OVER OUTLET ON BLANK WALL.
 2. USE 3/4" CHAMFER ON ALL EXPOSED CONCRETE CORNERS.
 3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
 4. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 3' ON BLANK WALL IF POSSIBLE.
 5. BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS OF THE STRUCTURE.
 6. THE MINIMUM REINFORCING SHALL BE 1 H-BAR OVER A CAST-IN-PLACE PIPE AND 2 H-BARS OVER A PRECAST BOXOUT.
 7. SHOW FIELD INLET ORIENTATION ON PLANS PLUS NUMBER AND SIDE OF OPENINGS.
 8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON-SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
 9. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

LS	LEE'S SUMMIT MISSOURI	PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64663
STANDARD DETAILS	CITY OF LEE'S SUMMIT, MO	FIELD INLET DETAIL
LEE'S SUMMIT, JACKSON COUNTY, MO	PROJECT NUMBER:	DATE:
DRAWN BY: MIF	CHECKED BY: DL	DATE: 05/2023
PROJ. #:	SHEET #:	DWG-7
STM-2	2	DWG-7


**MANOR AT BAILEY FARMS, FIRST PLAT
STREET, STORMWATER, AND MASTER
DRAINAGE PLAN**

**SE BAILEY ROAD AND SE RANSON ROAD
LEE'S SUMMIT, MISSOURI**

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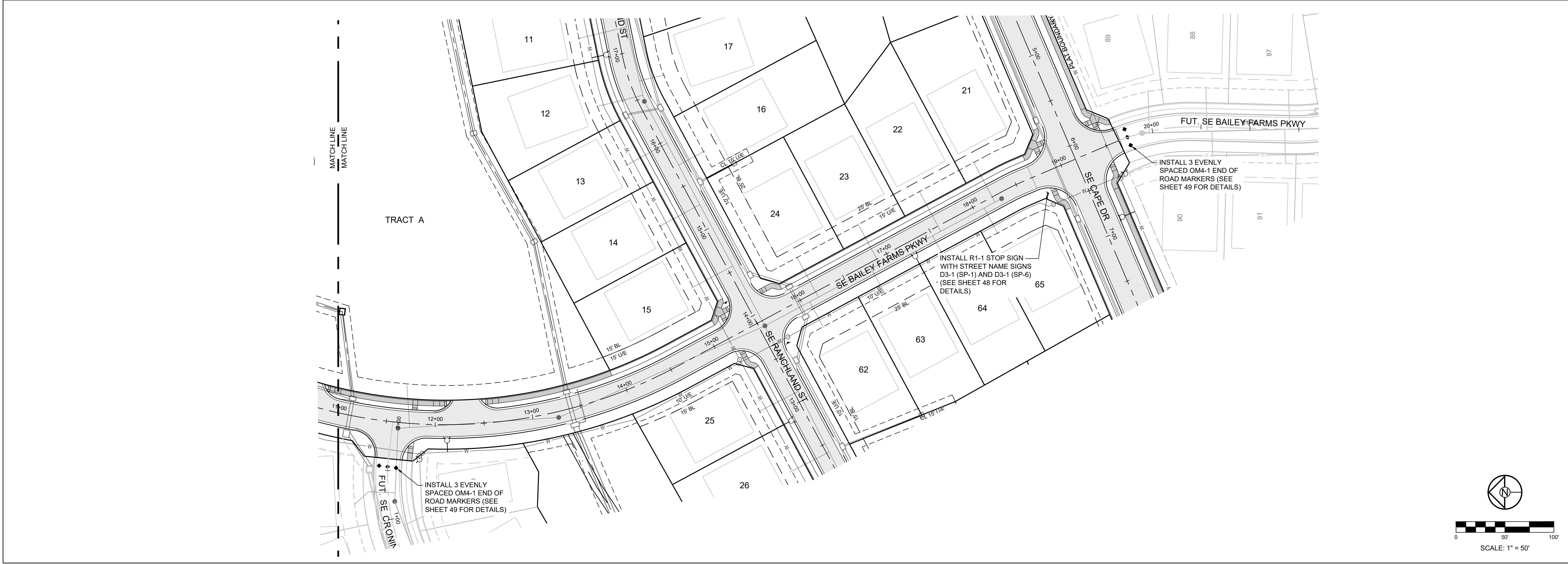
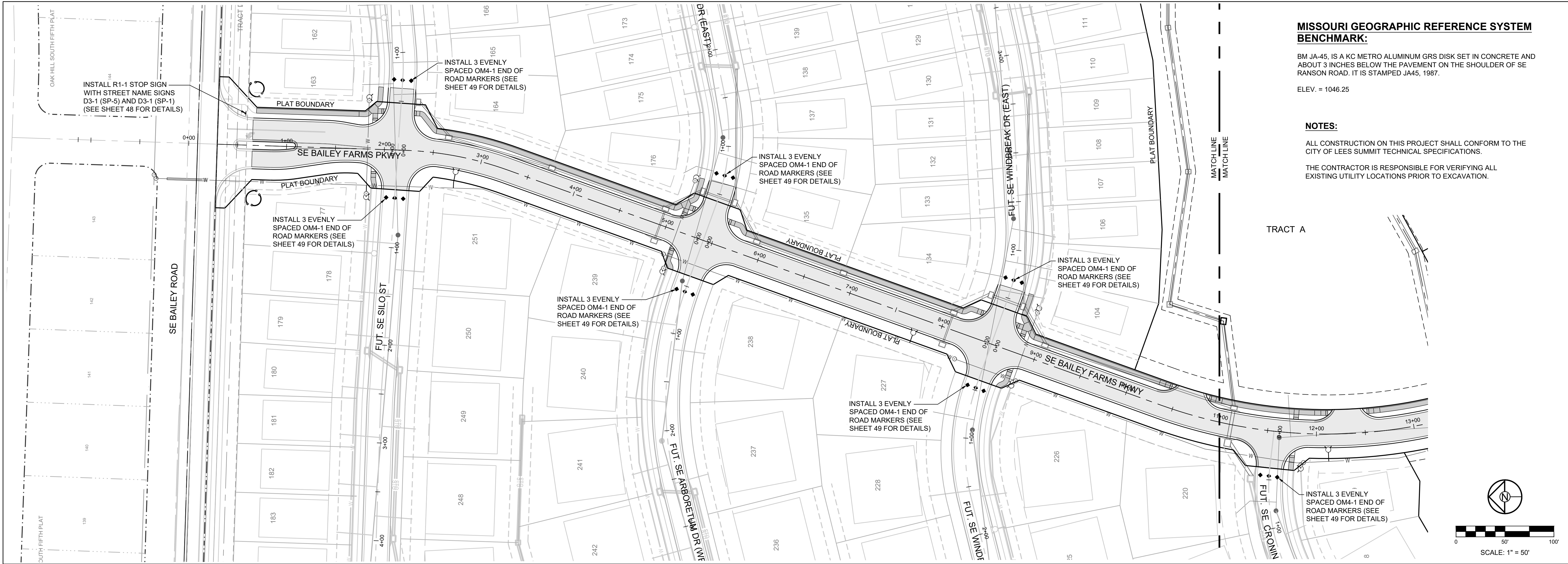
- Underdrain Notes:**
- All roadway excavation in rock will be undercut no less than 15" for the full width of the roadway as shown.
 - In areas where underdrains are not required, undercut and overbreakage in limestone and shale shall be brought to within 6" of the subgrade line with properly compacted crushed stone, shot rock, and/or rock rubble. The remaining 6" shall conform to Standard Specifications Section 2202.
 - Layers of earth or shale shall not be permitted for backfill up to the bottom of the crushed stone.
 - A minimum of 12" of select soil (topsoil) shall be placed on exposed rock cut or fill slopes outside the limits of the roadway. All rock and shale slopes shall be benched @ maximum 2' vertical intervals prior to placement of select soil.
 - Proposed underdrain pipe layout, flowline elevations, inlet connection points, and details shall be approved prior to construction by the City Engineer.
 - 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 inlet as approved. Where edge underdrains are used, all underdrain outlet pipes shall be solid wall with manufacturer joints approved by the City Engineer. All connections between pipes and edge connectors or curb inlets shall be made with 2' minimum length of pipe.
 - All underdrain pipes shall be installed at a minimum slope of 1%.
 - Blanket underdrains shall be placed on bedrock unless otherwise directed by the City Engineer. Undercut and overbreakage in limestone and shale shall be brought to within 12" of the subgrade line with properly compacted crushed stone, shot rock and/or rock rubble.
 - All filter fabric used for pipe underdrain construction shall conform to Standard Specifications Section 2203.6.
 - The Contractor may, at his option, use either pipe underdrain or edge underdrain, but shall not mix underdrain types within any underdrain system.
 - All edge underdrain shall be held in the center of the trench by mechanical methods while placing granular backfill. See detail this sheet. Alternate methods may be used with prior approval by the City Engineer.
 - Blanket underdrain aggregate, pipe underdrain aggregate, pipe underdrain, edge underdrain and outlet pipe shall conform to Standard Specifications Section 2203.6

AMERICAN PUBLIC WORKS ASSOCIATION

 KANSAS CITY
 METROPOLITAN CHAPTER
 UNDERDRAIN DETAILS
 STANDARD DRAWING
 UD-1
 ADOPTED:
 MAY 23, 2001

REVISION DATE	DESCRIPTION
01/21/2022	City Comments dated 12/19/2021
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MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:
 BM JA-45, IS A KC METRO ALUMINUM GRS DISK SET IN CONCRETE AND ABOUT 3 INCHES BELOW THE PAVEMENT ON THE SHOULDER OF SE RANSON ROAD. IT IS STAMPED JA45, 1987.
 ELEV. = 1046.25

NOTES:
 ALL CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO THE CITY OF LEES SUMMIT TECHNICAL SPECIFICATIONS.
 THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.

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 #E200200360P #LAC2001005237 #LS2002008695F

PREPARED BY:

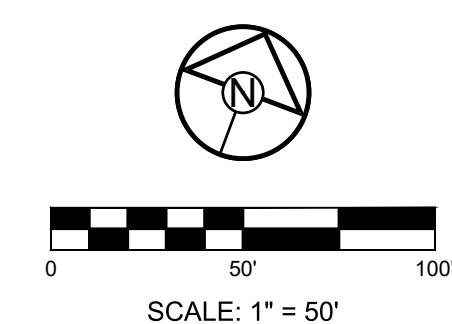
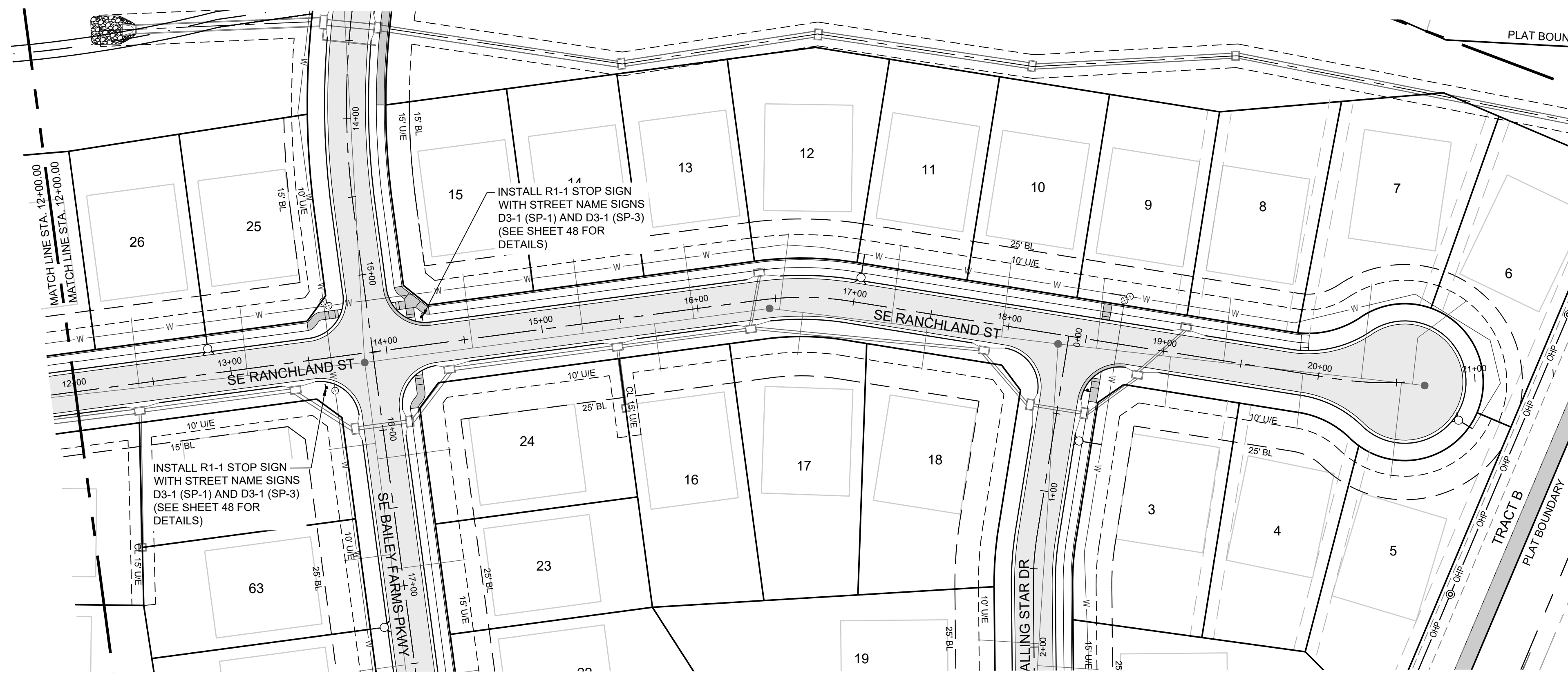
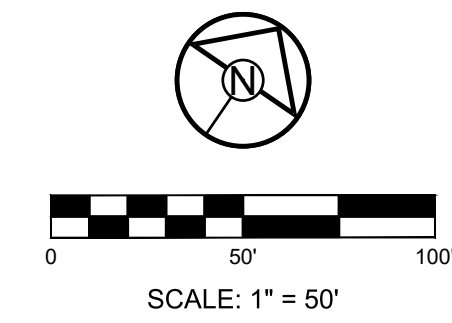
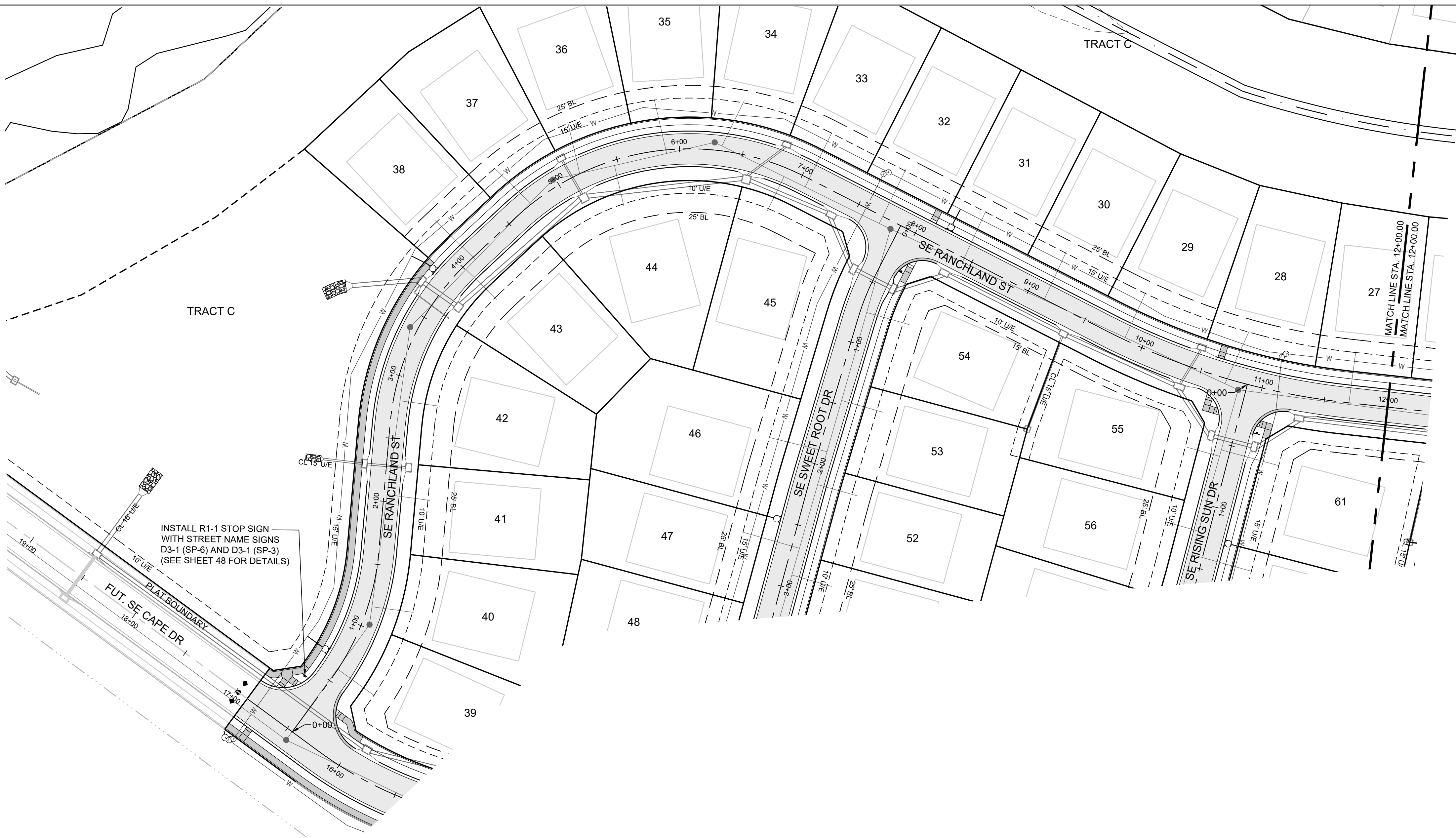
 11/30/2023
 SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
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 DRAINAGE PLAN
 SE BAILEY ROAD AND SE RANSON ROAD
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DRAWN BY: NCA
 CHECKED BY: JLL
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SE BAILEY FARMS PKWY SIGNAGE PLAN
 SHEET
42



MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:
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PREPARED BY:

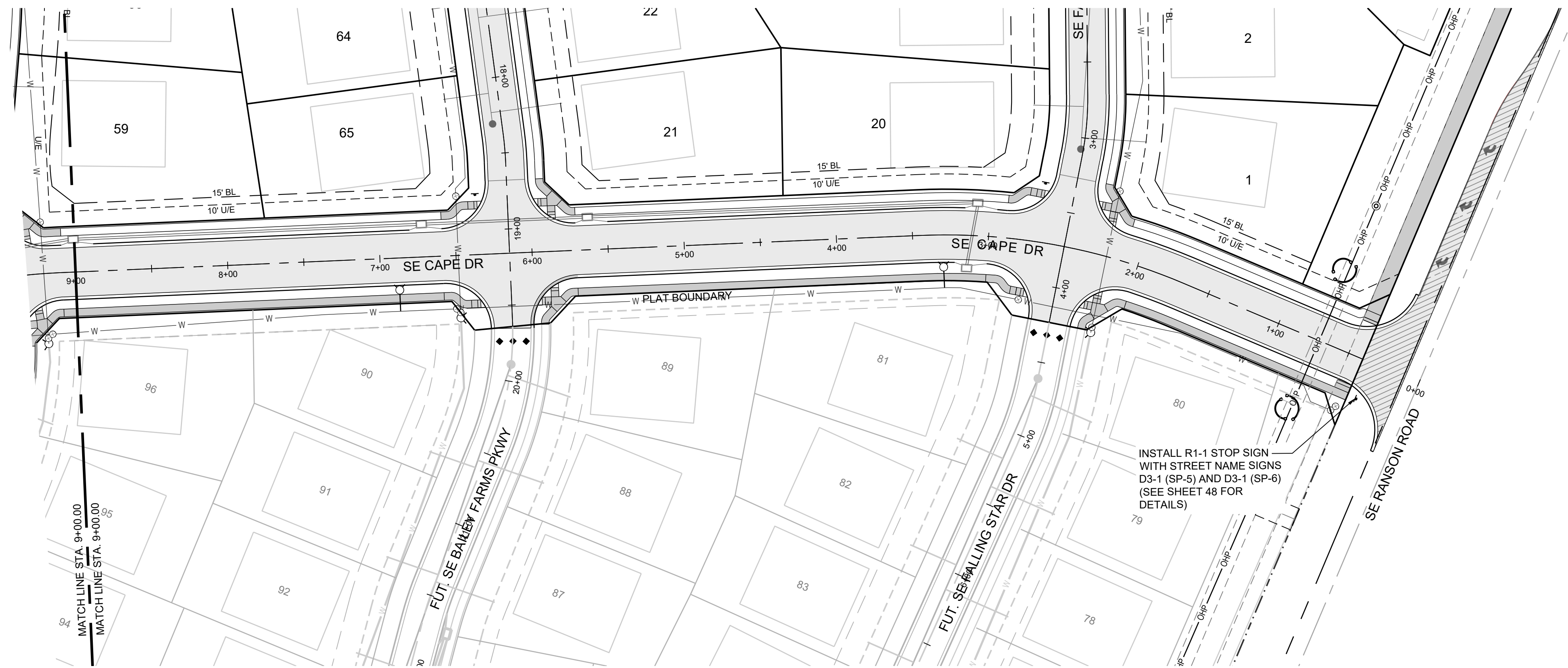
 JAMES L. LONG
 NUMBER PE-2014010495
 PROFESSIONAL ENGINEER
 11/30/2023
 SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
 STREET, STORMWATER, AND MASTER
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 SE BAILEY ROAD AND SE RANSON ROAD
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SE RANGLAND ST SIGNAGE PLAN

SHEET
43



MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:

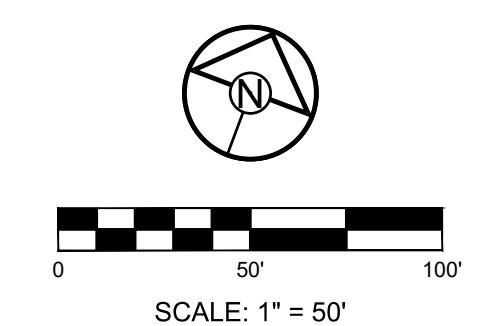
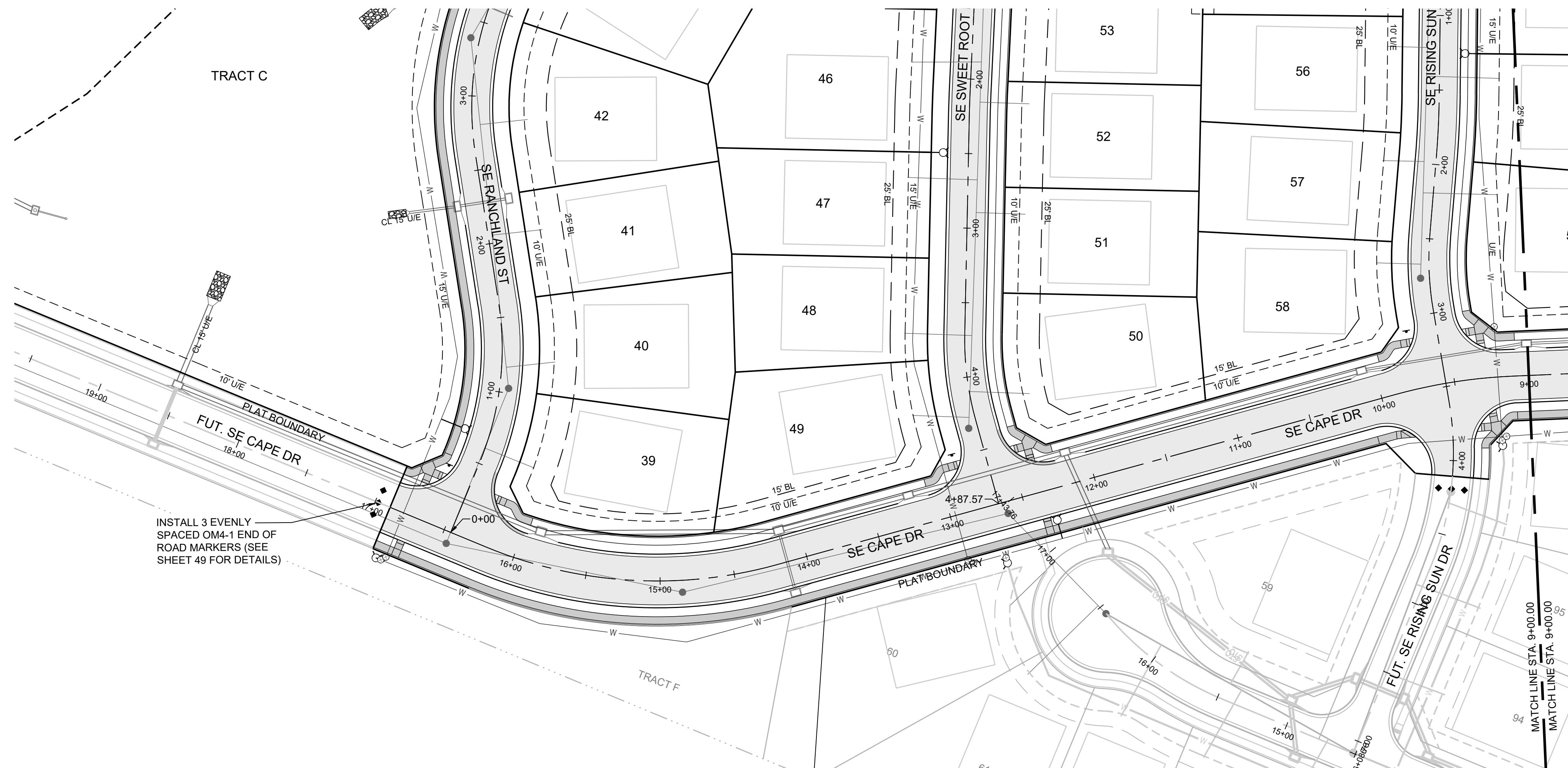
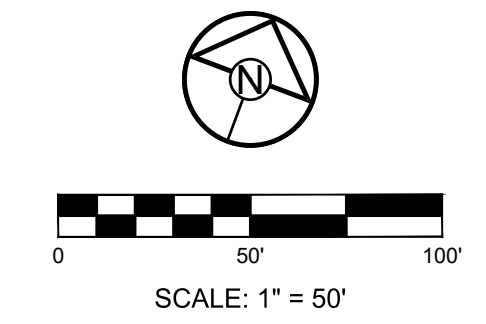
BM JA-45, IS A KC METRO ALUMINUM GRS DISK SET IN CONCRETE AND ABOUT 3 INCHES BELOW THE PAVEMENT ON THE SHOULDER OF SE RANSON ROAD. IT IS STAMPED JA45, 1987.

ELEV. = 1046.25

NOTES:

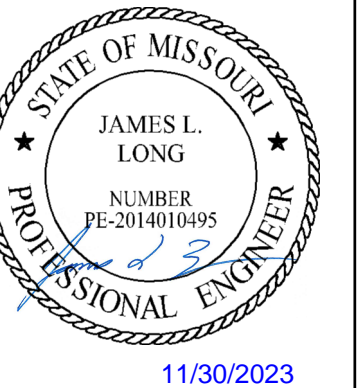
ALL CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO THE CITY OF LEES SUMMIT TECHNICAL SPECIFICATIONS.

THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.



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Missouri State Certificates of Authority
#E2002003690-F #LAC2001005237 #LS2002008695-F

PREPARED BY:



11/30/2023

SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
STREET, STORMWATER, AND MASTER
DRAINAGE PLAN
SE BAILEY ROAD AND SE RANSON ROAD
LEE'S SUMMIT, MISSOURI

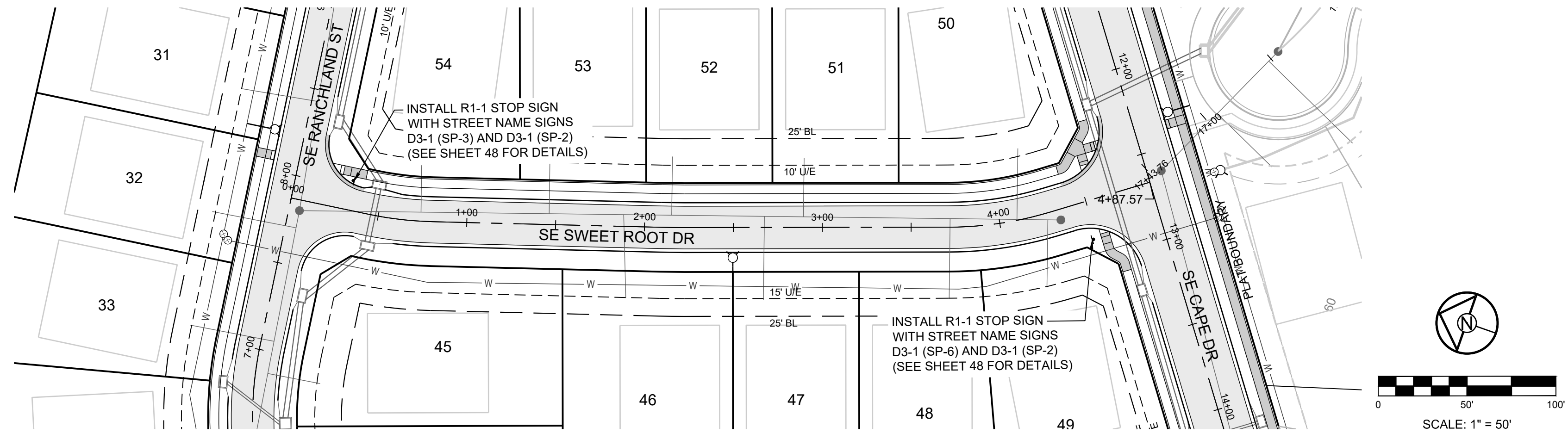
REVISION DATE	DESCRIPTION
01/21/2022	City Comments dated 12/19/2021
04/20/2022	City Comments dated 02/14/2022
05/17/2022	City Comments dated 5/11/2022
10/27/2023	Revised Details to current 2023 Details
11/30/2023	Added "New City Requirements" note

DRAWN BY: NCA
CHECKED BY: JLL
DATE PREPARED: 11/05/2021
PROJ. NUMBER: 21-130

SE CAPE DR
SIGNAGE PLAN

SHEET

44



MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:

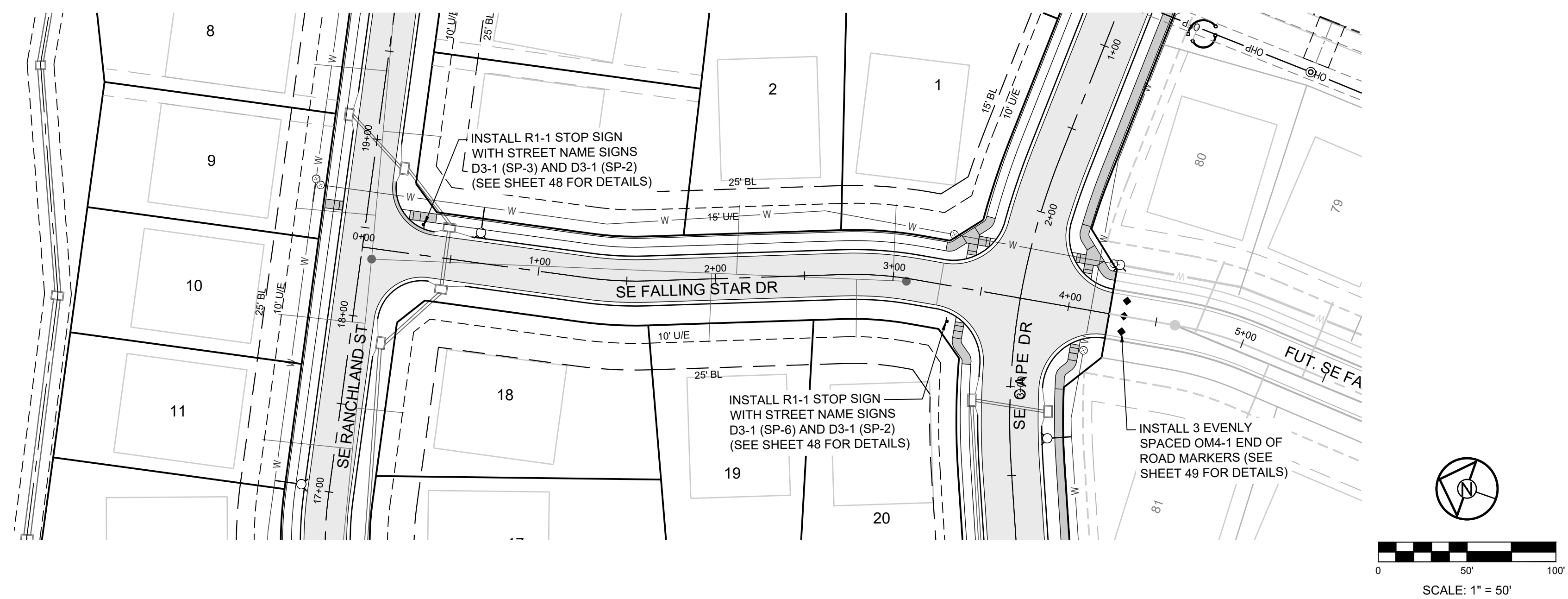
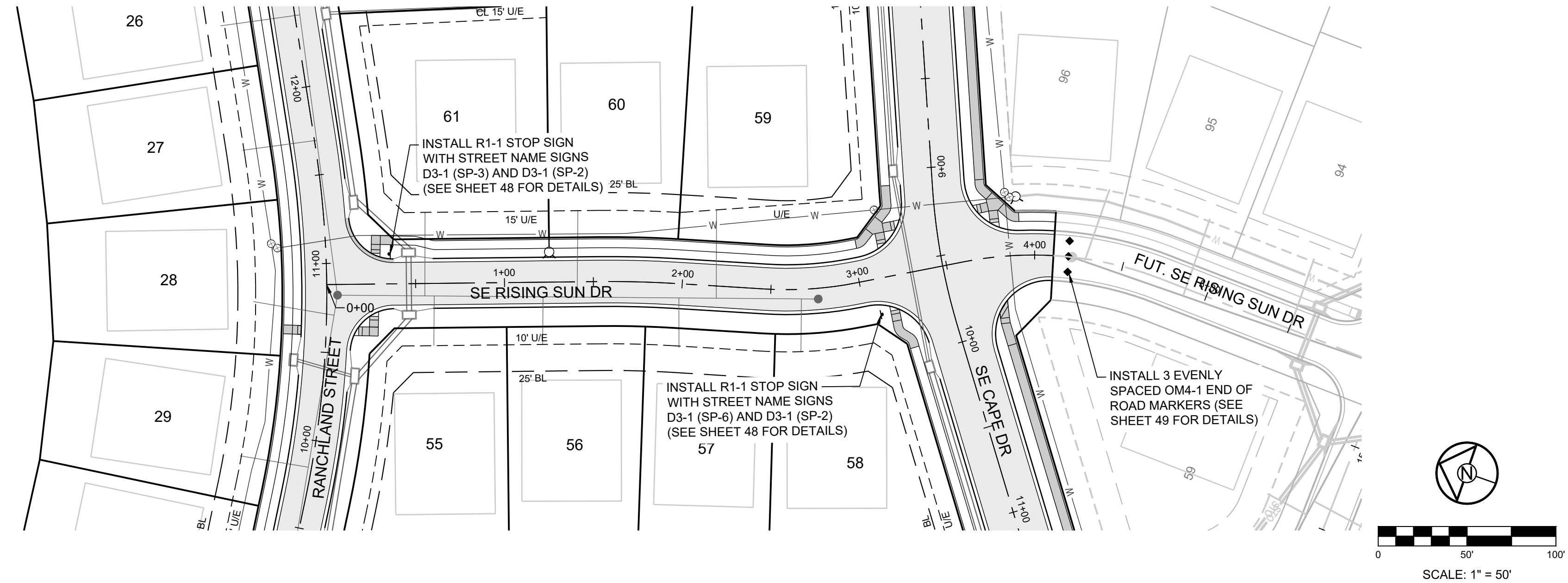
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PREPARED BY:

11/30/2023
 SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
 STREET, STORMWATER, AND MASTER
 DRAINAGE PLAN
 SE BAILEY ROAD AND SE RANSON ROAD
 LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
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DRAWN BY:	NCA
CHECKED BY:	JLL
DATE PREPARED:	11/05/2021
PROJ. NUMBER:	21-130

SE SWEET ROOT DR RISING SUN DR FALLING STAR DR SIGNAGE PLAN

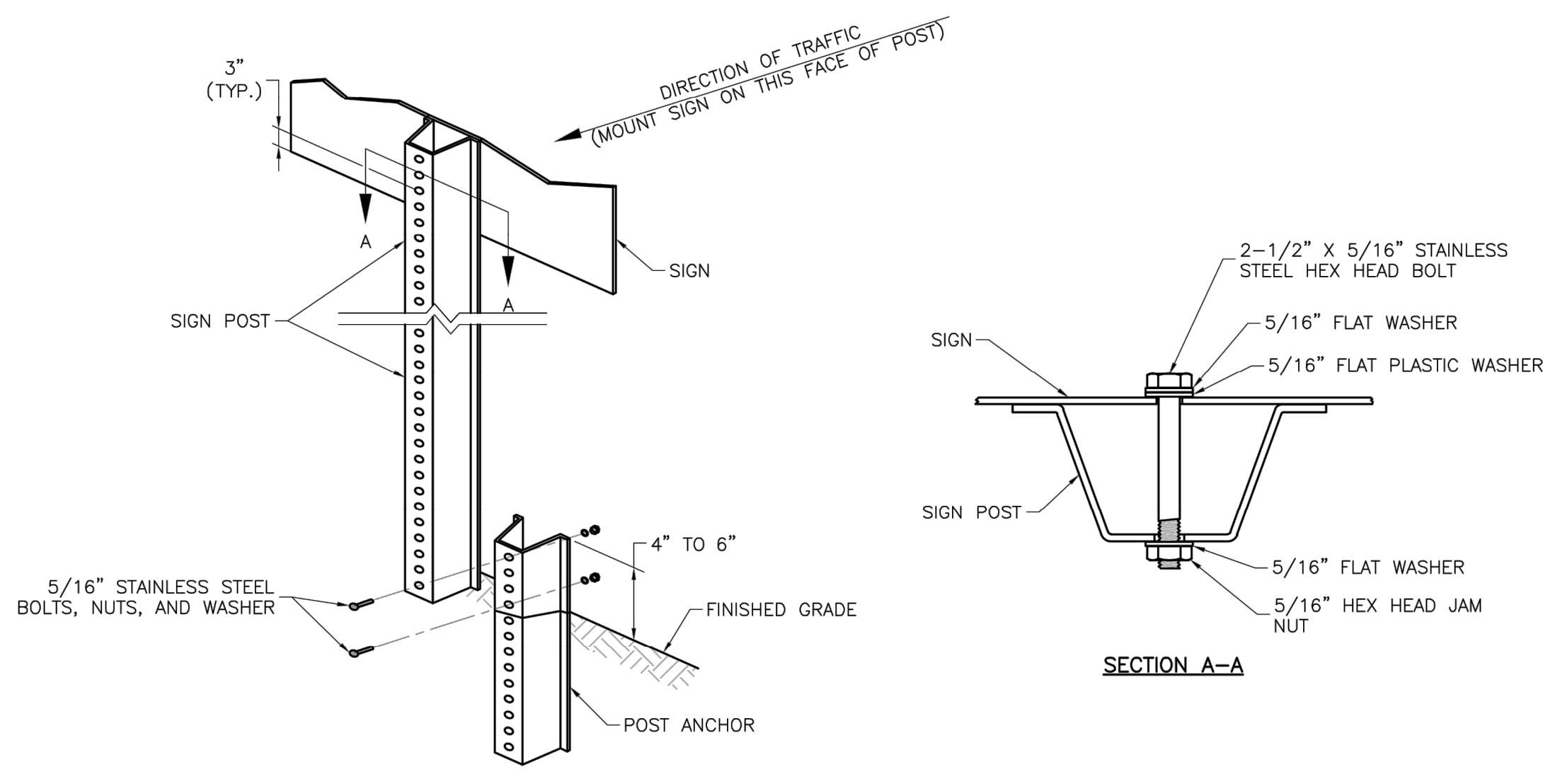
REVISION DATE	DESCRIPTION
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05/17/2022	Reviewed Details to current 2023 Details
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11/30/2023	Added "New City Requirements" note

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:
 POST DETAILS

Drawn By: BWC
 Checked By: MP
 Date: 01/2020
 Proj. #:

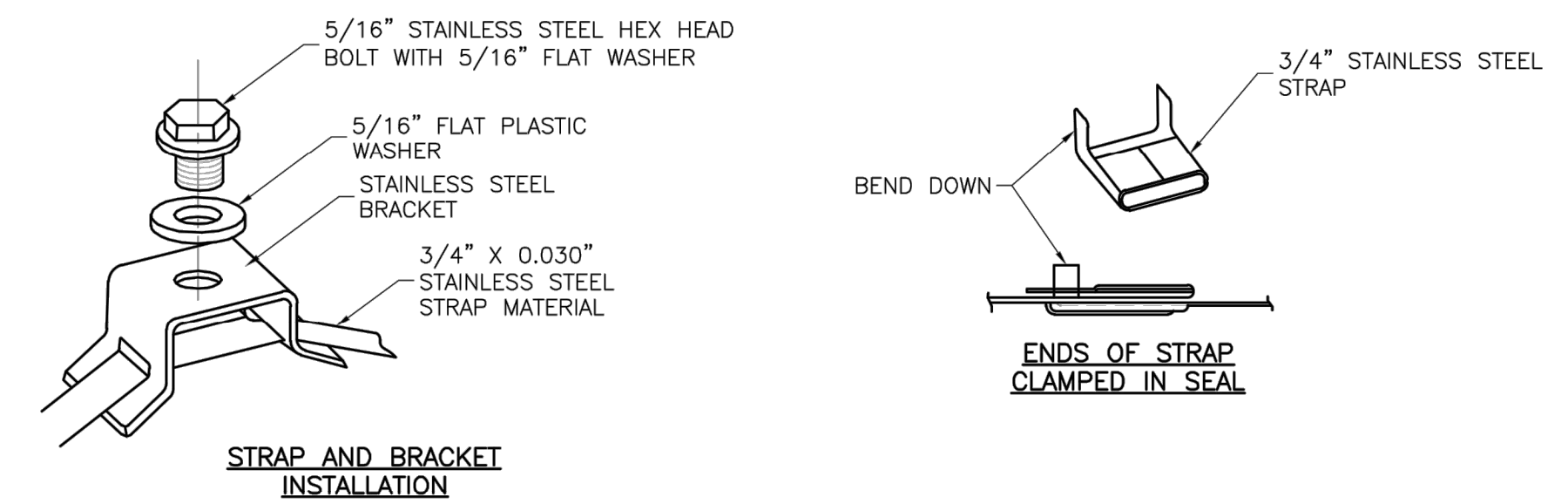
SN-2



U-STEEL POST DETAILS

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

NOTES:

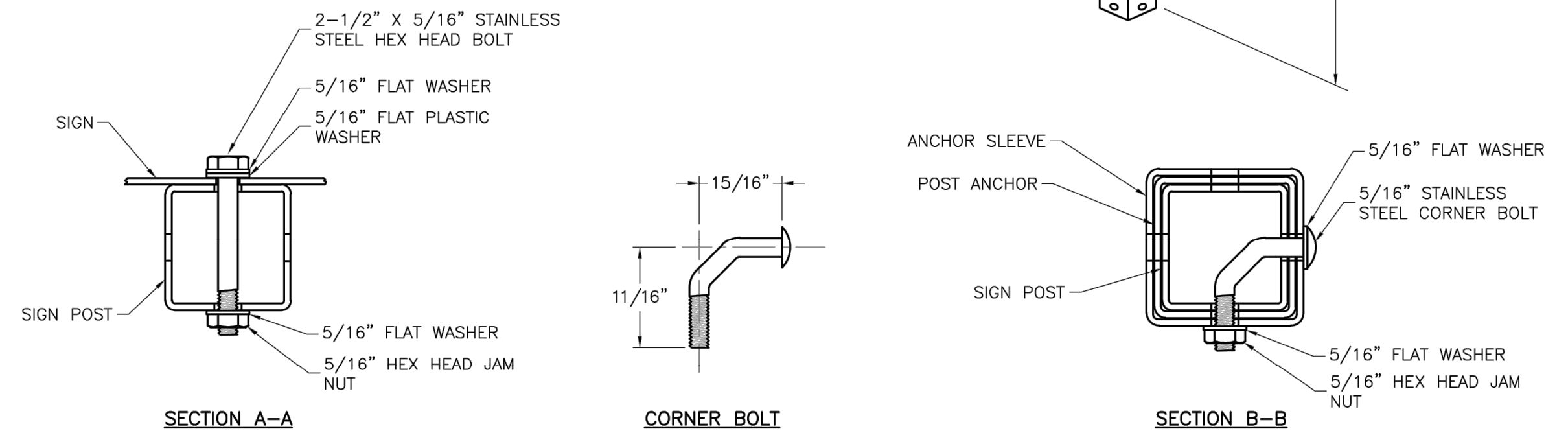
1. SIGNS ON METAL POLES SHALL BE ATTACHED WITH TWO BRACKETS AND STAINLESS STEEL BANDS.
2. HOLES IN SIGN FOR ATTACHMENT TO THE MOUNTING BRACKETS SHALL BE OFFSET A MINIMUM OF 2 INCHES FROM THE EDGE OF THE SIGN.
3. HOLES IN SIGN SHALL BE LOCATED SUCH THAT THE SIGN IS LEVEL.
4. ALL STRAP, BRACKET, AND SEAL 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.
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 WILL BE REQUIRED TO REPLACE THE DAMAGED MATERIALS WITH NEW SIGNS OR POSTS AT THE CONTRACTOR'S EXPENSE. 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 HAMBLER 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:

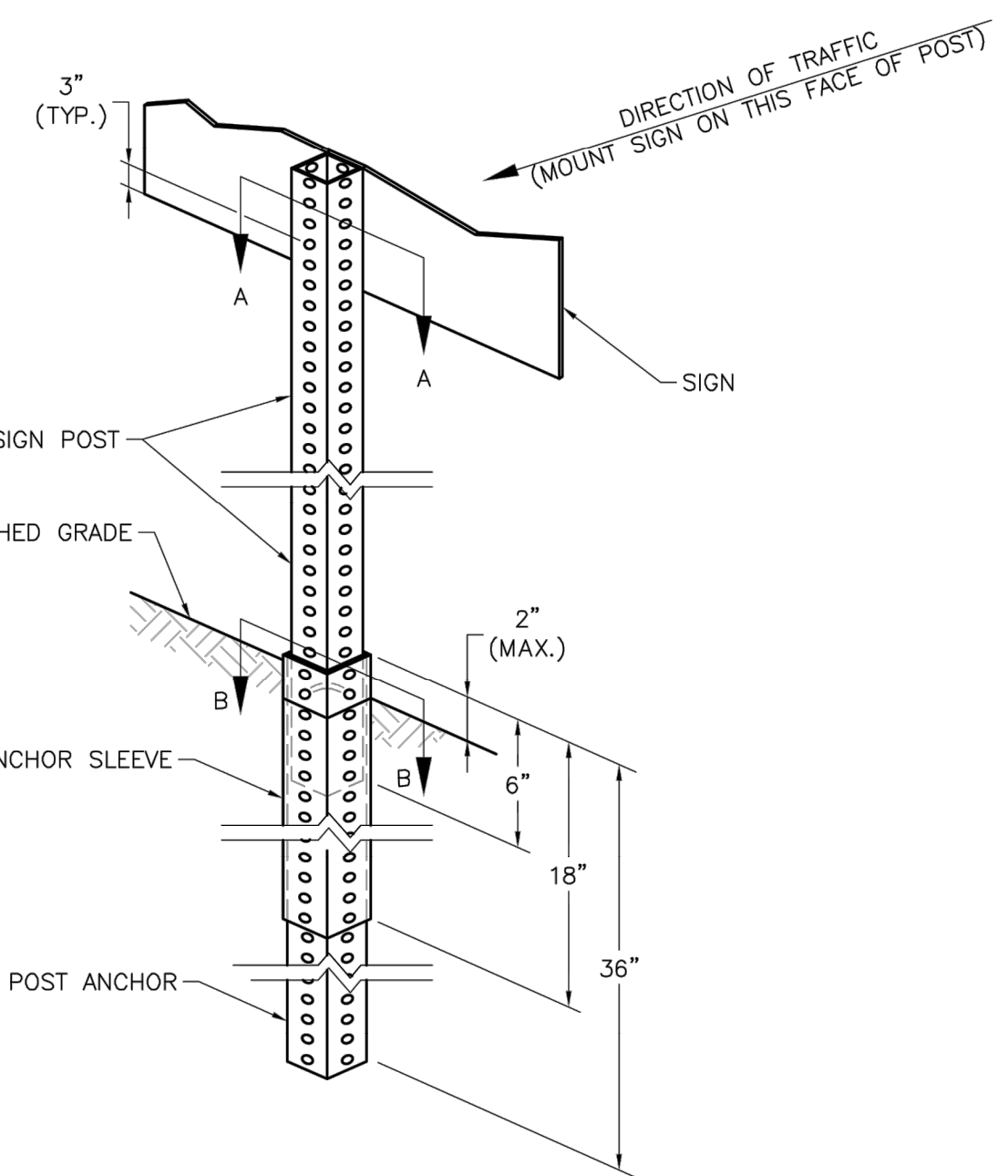
1. SIGN POST ANCHOR DRIVEN PARTIALLY INTO THE GROUND USING A DRIVE CAP WITH A SLEDGE OR POWER EQUIPMENT.
2. ANCHOR SLEEVE SLIPPED OVER ANCHOR AND DRIVE INTO THE GROUND TOGETHER WITH THE SIGN POST ANCHOR.
3. INSERT SIGN POST INTO THE POST ANCHOR AND BOLT IN PLACE.

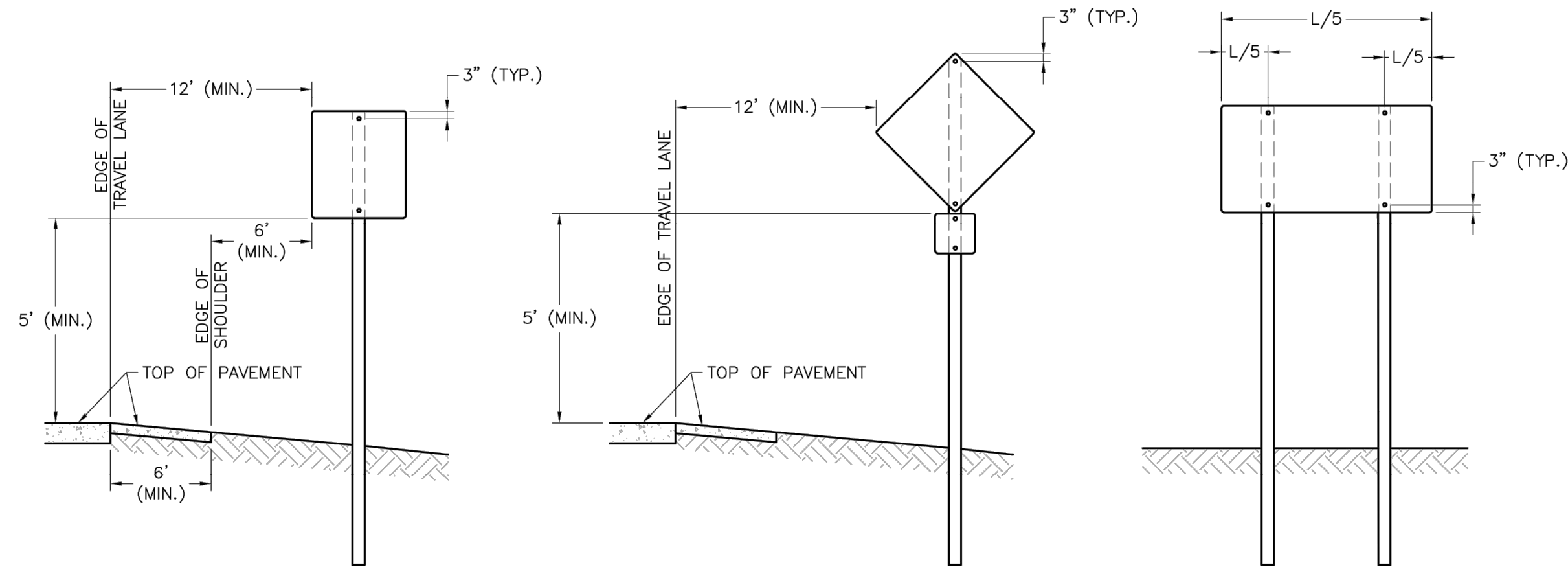


SQUARE STEEL POST DETAILS

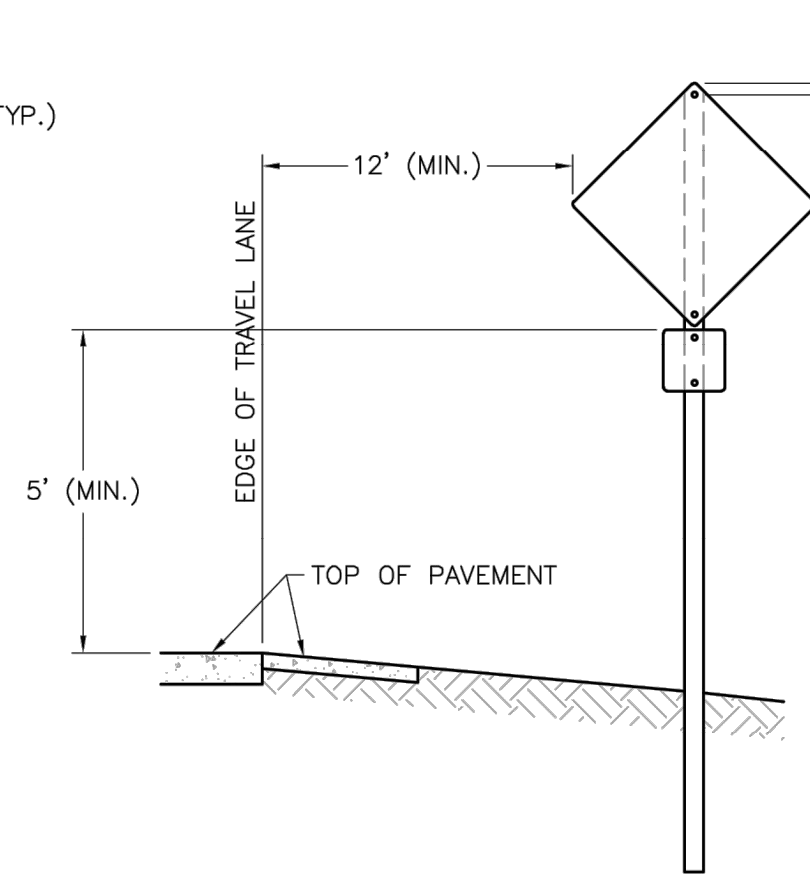
NOTES:

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 1/4" X 2 1/4" X 36" SQUARE STEEL POST
 ANCHOR SLEEVE - 12 GA. 2 1/2" X 2 1/2" X 18" SQUARE STEEL POST
2. 14 GA. 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 OR EQUAL TO 48" (NOT INCLUDING 36" X 36" DIAMOND SHAPED SIGNS) WILL REQUIRE TWO POSTS.

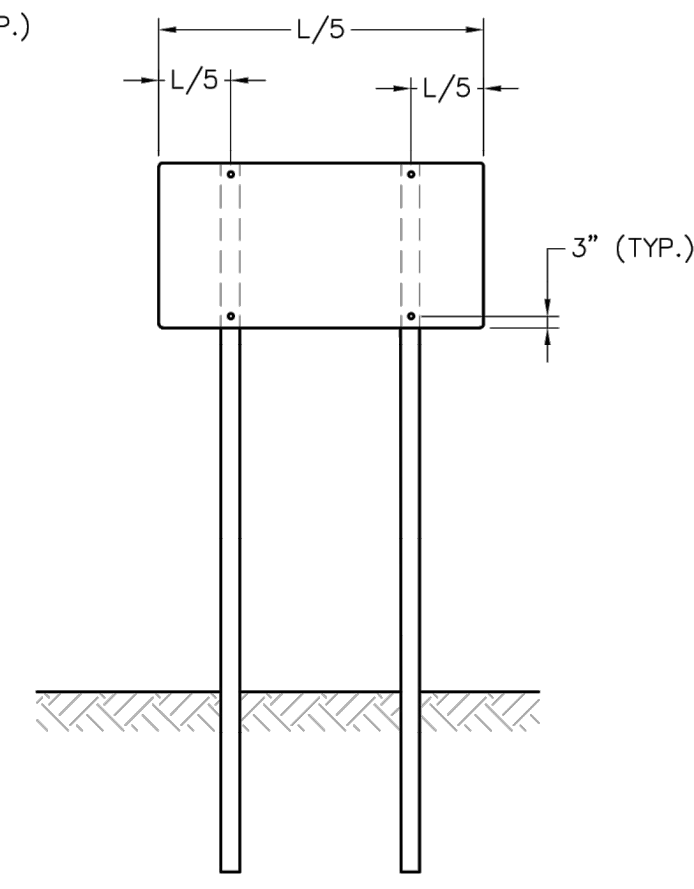




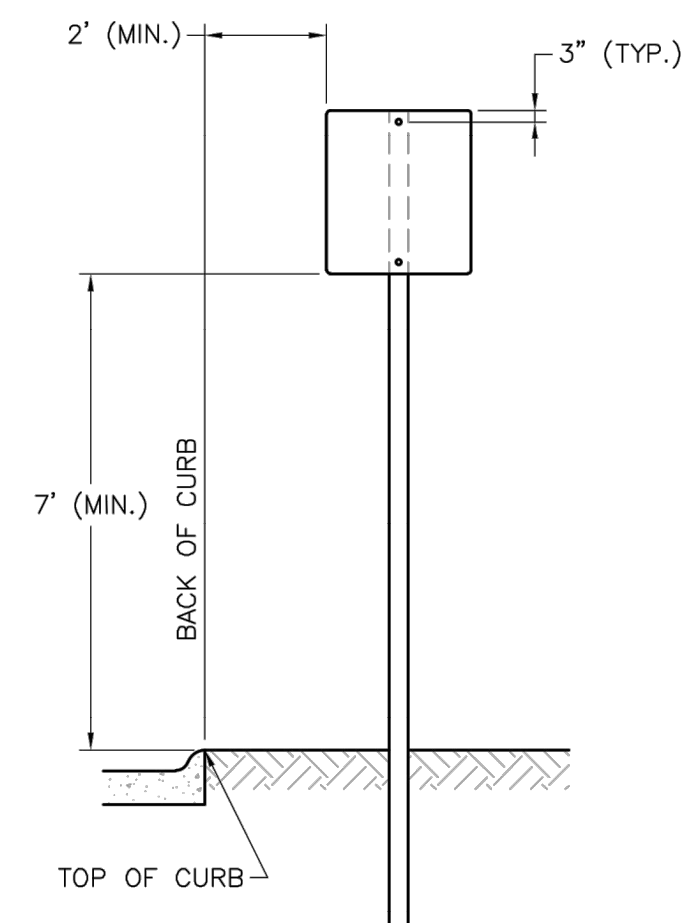
SIGN INSTALLATION FOR NON-CURBED STREET



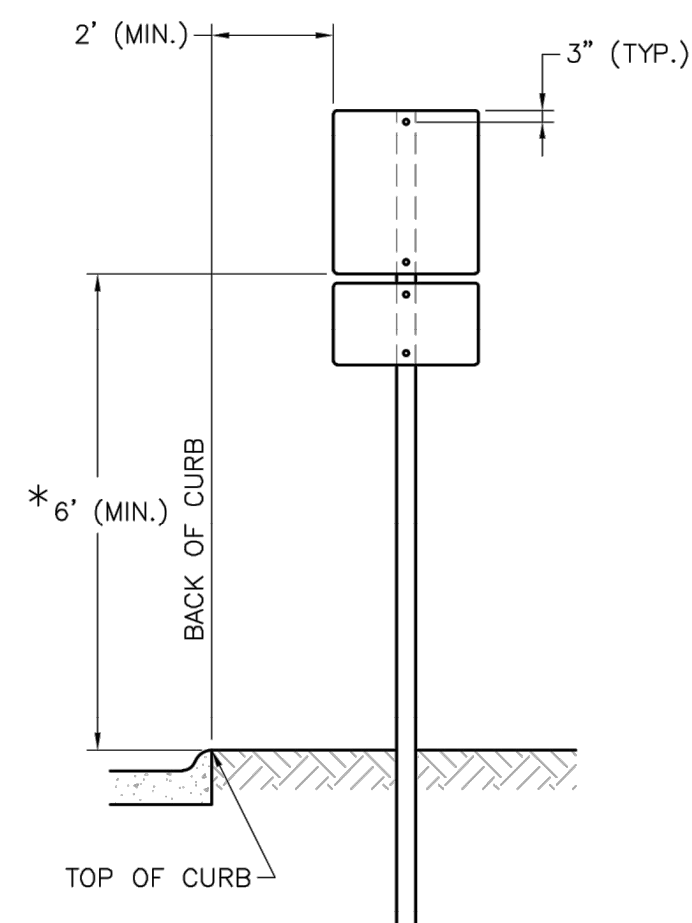
SIGN INSTALLATION WITH AUXILIARY SIGN FOR NON-CURBED STREET



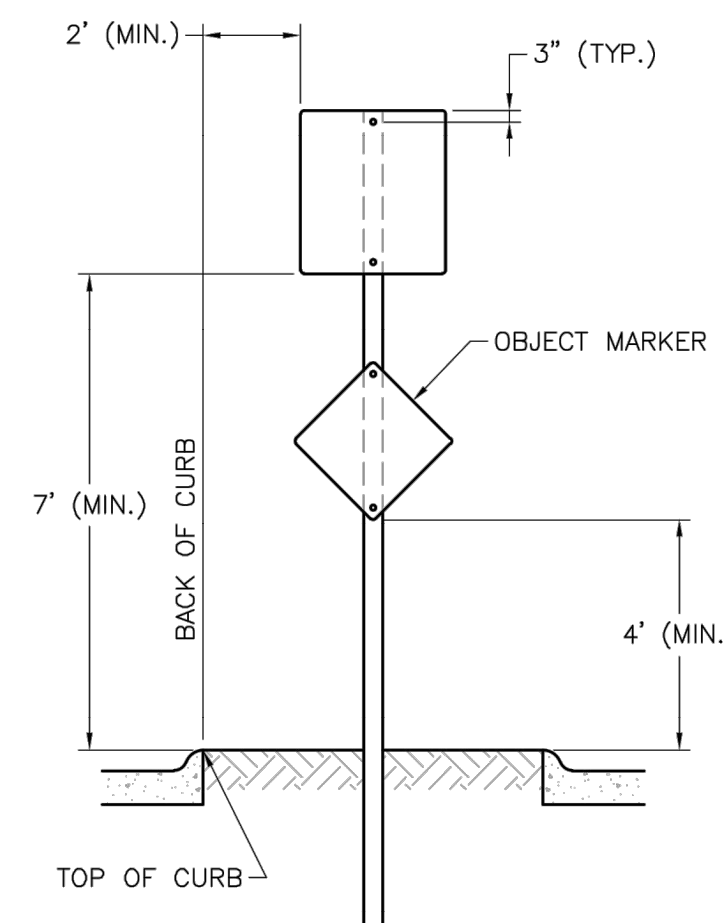
SIGN INSTALLATION WITH TWO SIGN POSTS



SIGN INSTALLATION FOR CURBED STREET



SIGN INSTALLATION WITH AUXILIARY SIGN FOR CURBED STREET

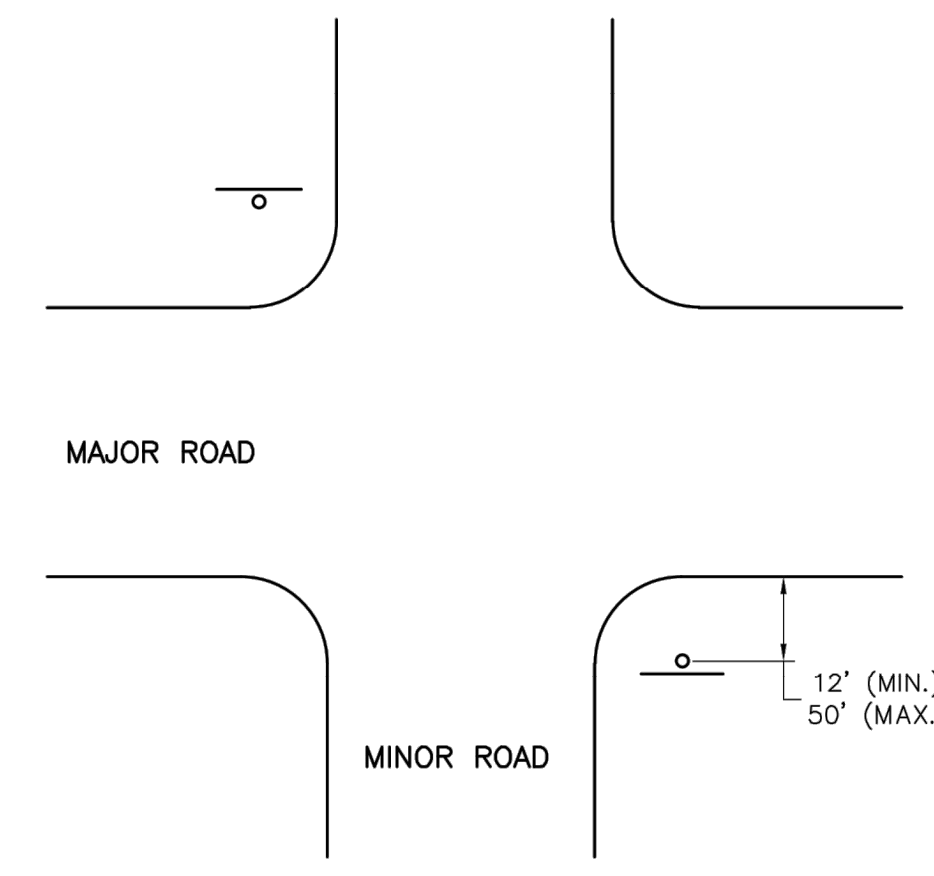


SIGN INSTALLATION FOR RAISED MEDIANS

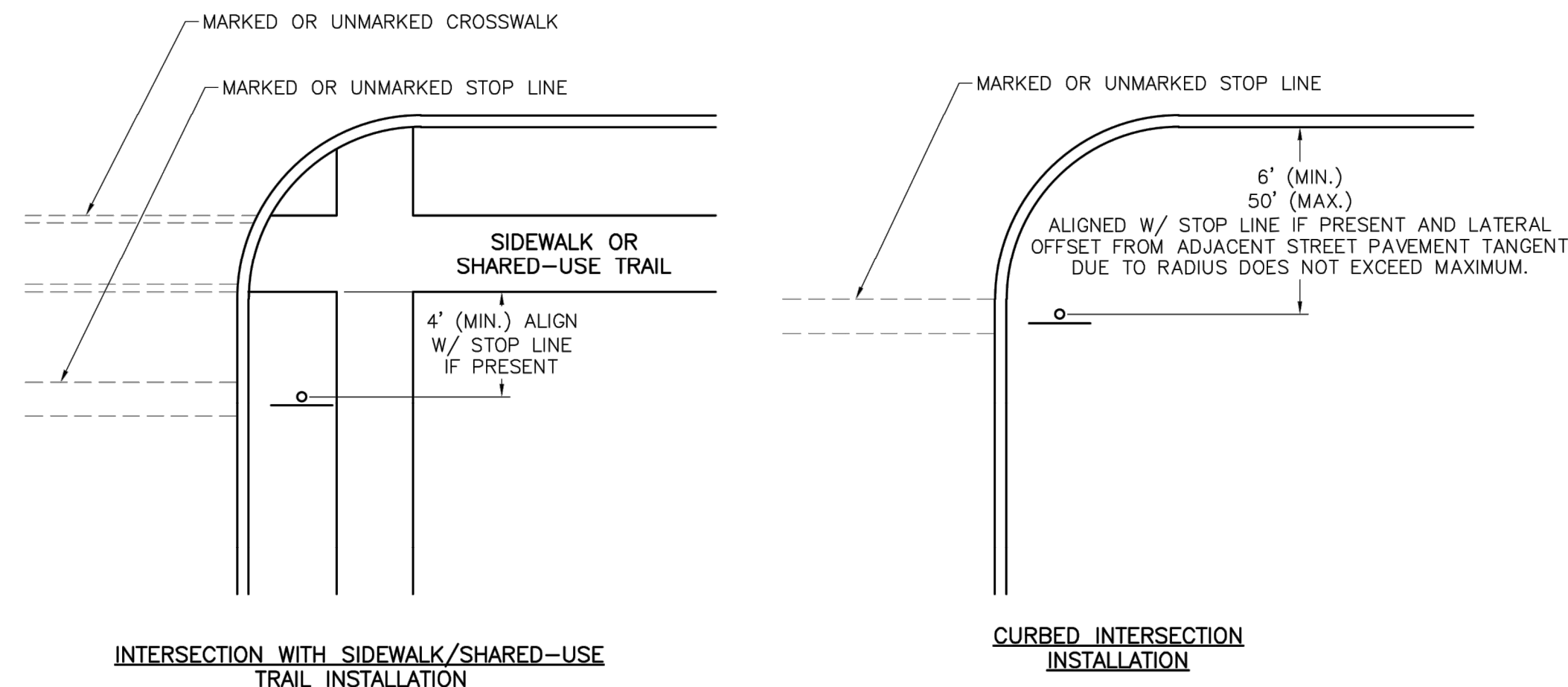
SIGN MOUNTING DETAILS

NOTES:

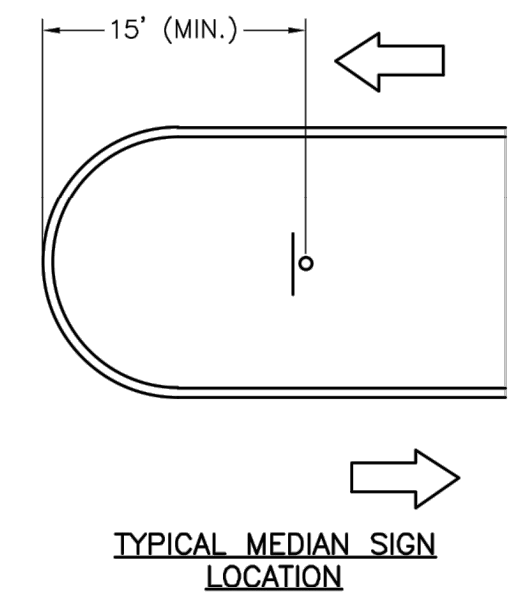
1. GENERALLY, THE SIGN MOUNTING HEIGHT SHOULD NOT BE MORE THAN 1" GREATER THAN THE MINIMUM MOUNTING HEIGHT.
2. *THE HEIGHT TO THE BOTTOM OF A SIGN WHEN IT IS LOCATED IN A PEDESTRIAN WALKWAY OR EXTENDS INTO A WALKWAY SHALL BE A MINIMUM OF 80 INCHES ABOVE THE WALKWAY.



NON-CURBED INTERSECTION INSTALLATION



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.

LEE'S SUMMIT MISSOURI

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
SIGN MOUNTING DETAILS

Project: MANOR AT BAILEY FARMS, FIRST PLAT STREET, STORMWATER, AND MASTER DRAINAGE PLAN
Sheet Name: SE BAILEY ROAD AND SE RANSON ROAD LEE'S SUMMIT, MISSOURI
Drawn By: BWC
Checked By: MP
Date: 01/2020
Proj. #:

SN-1

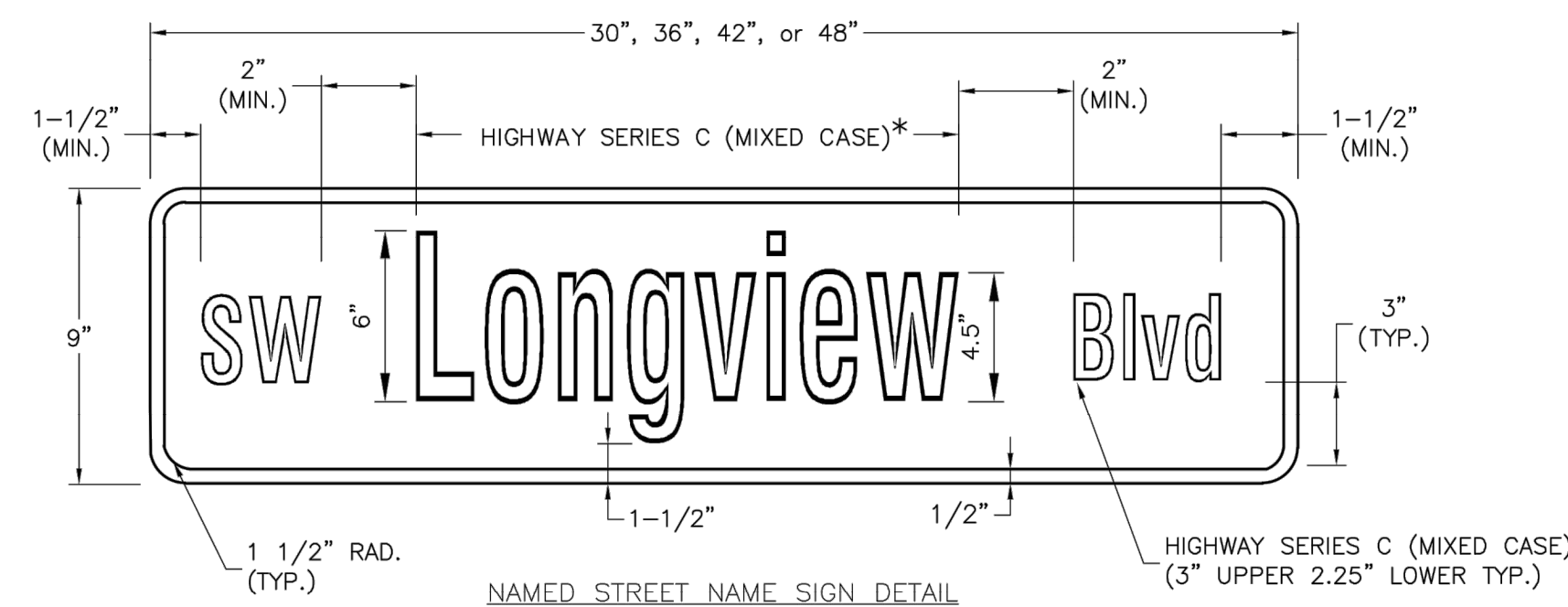
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11/30/2023	Added "New City Requirements" note

DRAWN BY: NCA
CHECKED BY: JLL
DATE PREPARED: 11/05/2021
PROJ. NUMBER: 21-130

STANDARD ABBREVIATION LISTS

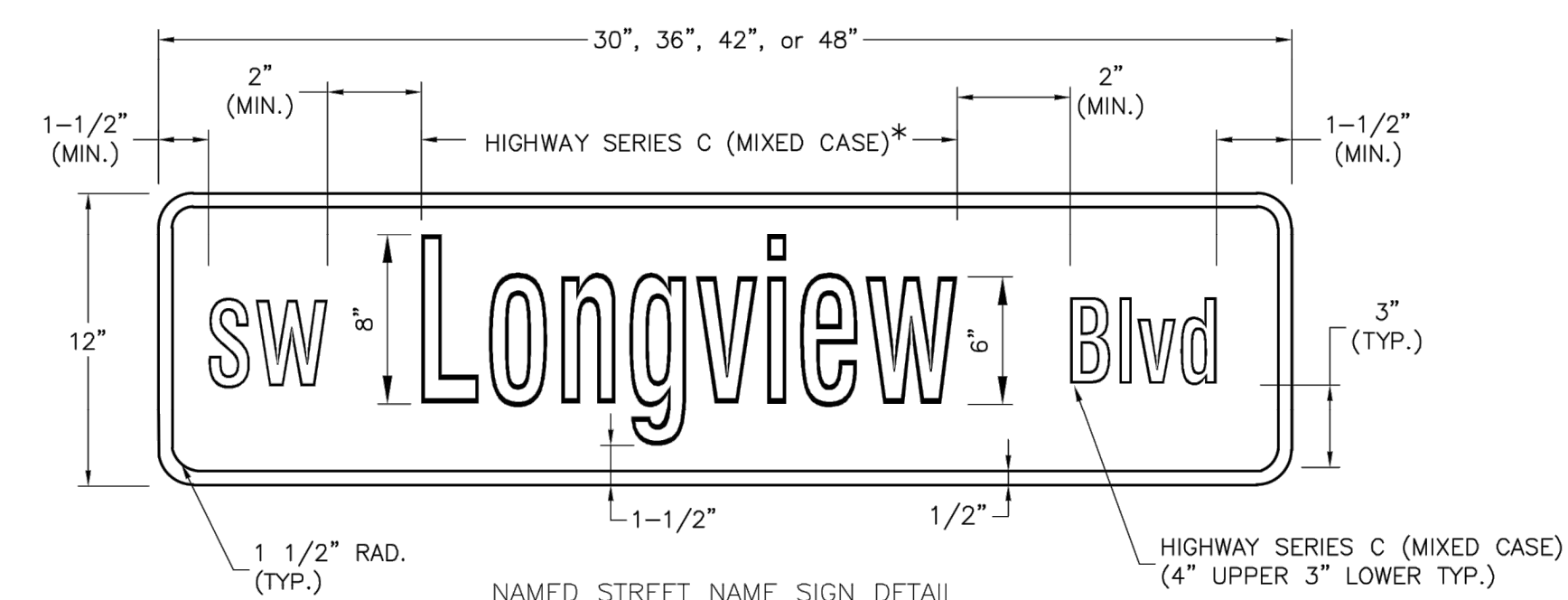
NAMED STREETS	
AVENUE	Ave
BOULEVARD	Blvd
CIRCLE	Cir
CREEK	Cr
COURT	Ct
CROSSING	Xing
DRIVE	Dr
HIGHWAY	Hwy
LANE	Ln
PARKWAY	Pkwy
PLACE	Pl
ROAD	Rd
STREET	St
TERRACE	Ter
TRAIL	Trl
WAY	Way

NUMBERED STREETS	
FIRST	ST
SECOND	ND
THIRD	RD
FOURTH TO TENTH	TH



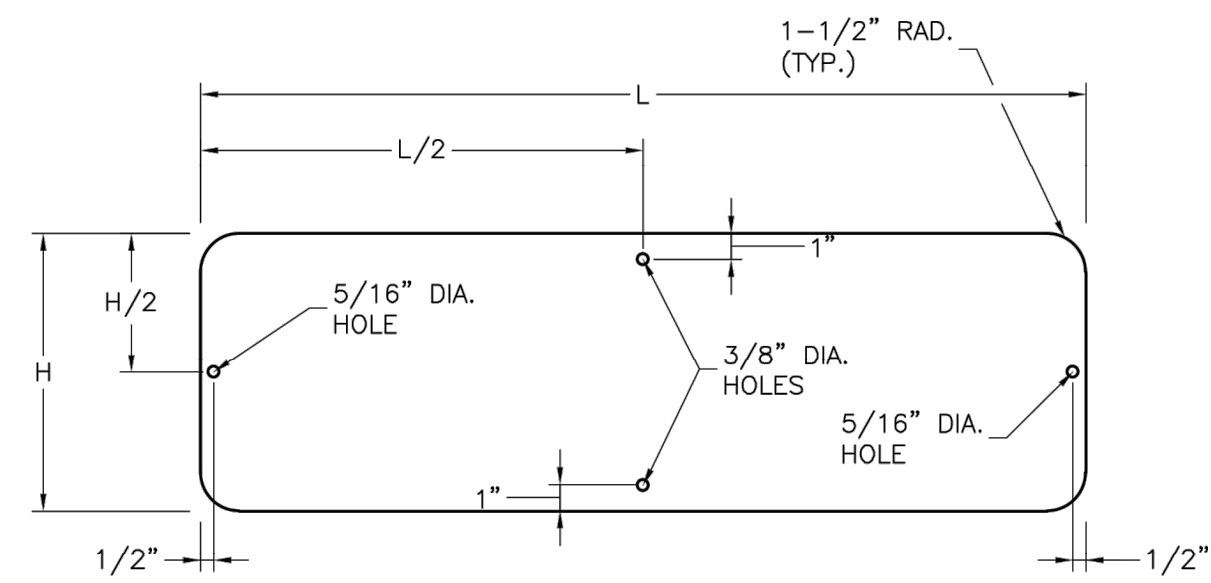
NAMED STREET NAME SIGN DETAIL
 * USE HIGHWAY SERIES B (MIXED CASE) IN LIEU OF SERIES C IF NECESSARY TO FIT TEXT ON A 36" SIGN BLANK.

STREET NAME SIGN FACE DETAILS
 POST MOUNTED 2-LANE ALL SPEEDS AND MULTI-LANE UNDER 40 MPH

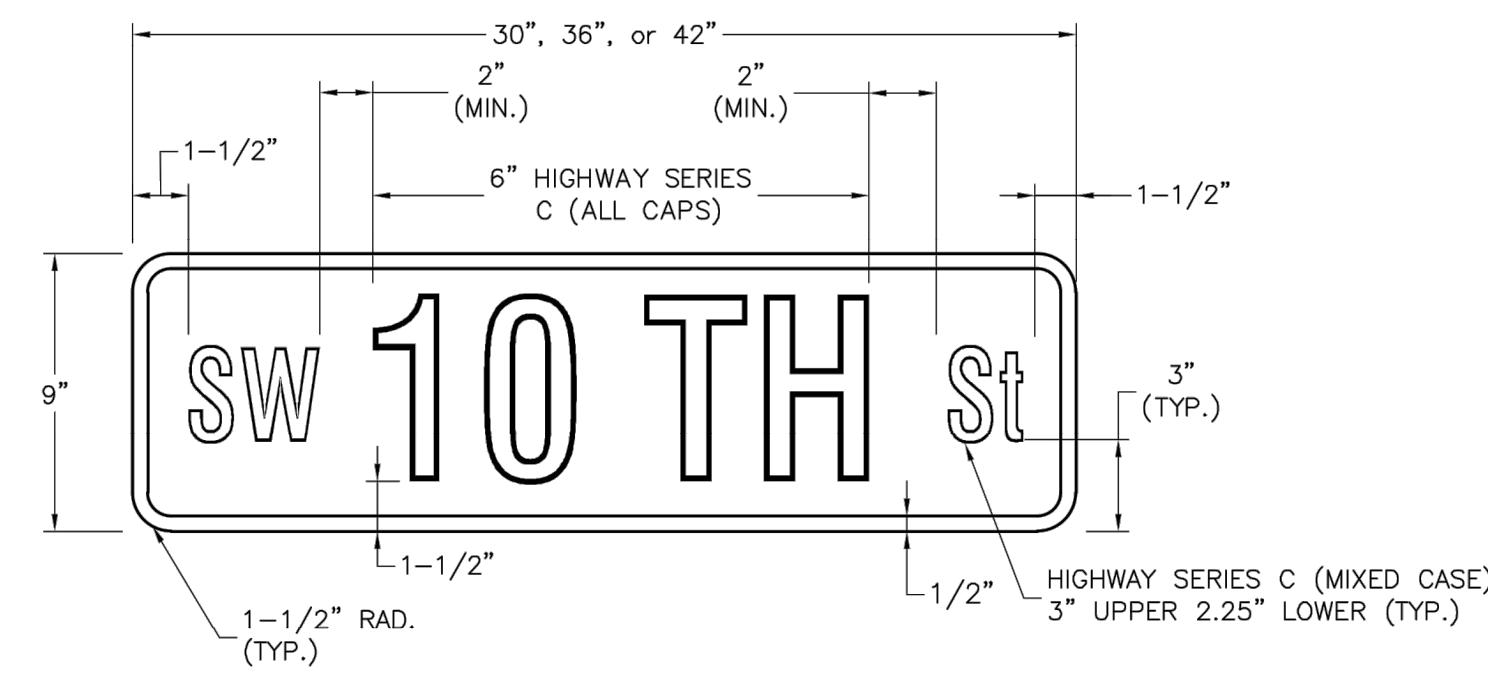


NAMED STREET NAME SIGN DETAIL
 * USE HIGHWAY SERIES B (MIXED CASE) IN LIEU OF SERIES C IF NECESSARY TO FIT TEXT ON A 36" SIGN BLANK.

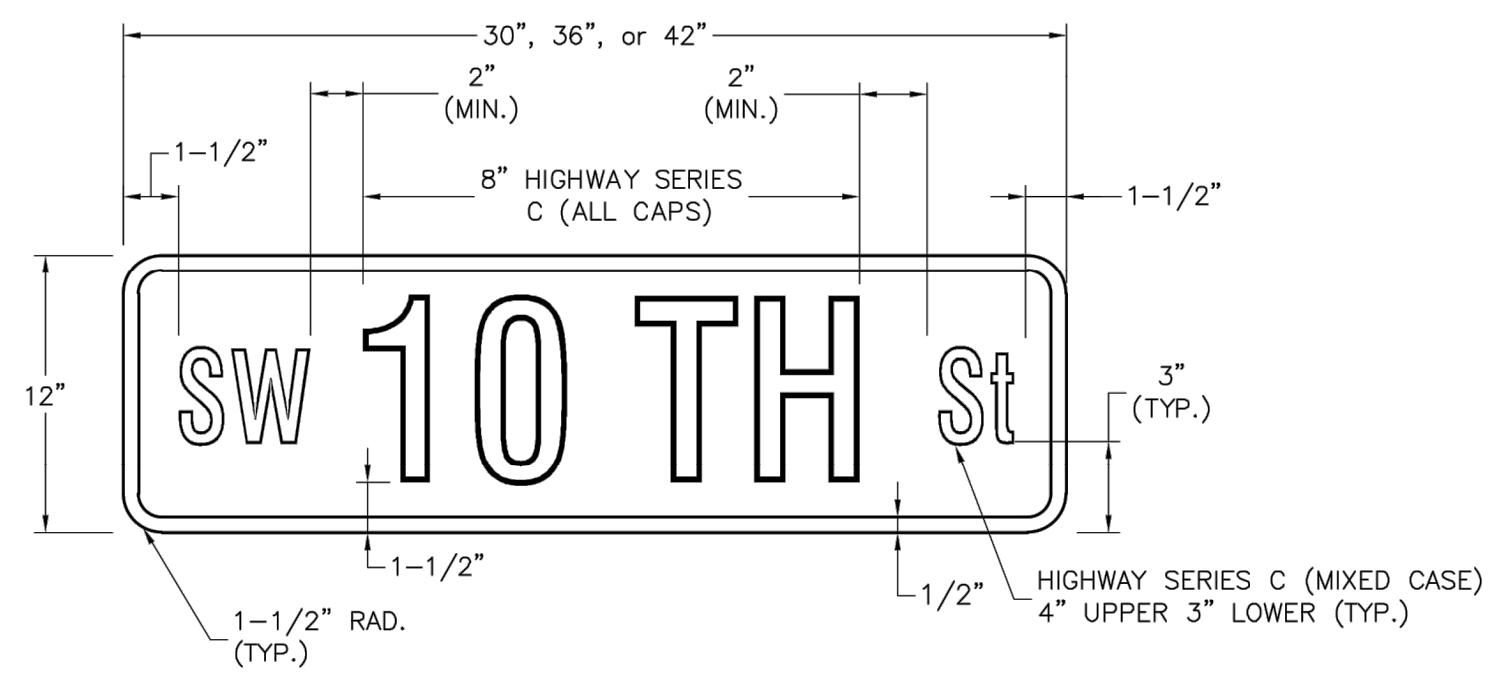
STREET NAME SIGN FACE DETAILS
 POST MOUNTED MULTI-LANE GREATER THAN 40 MPH



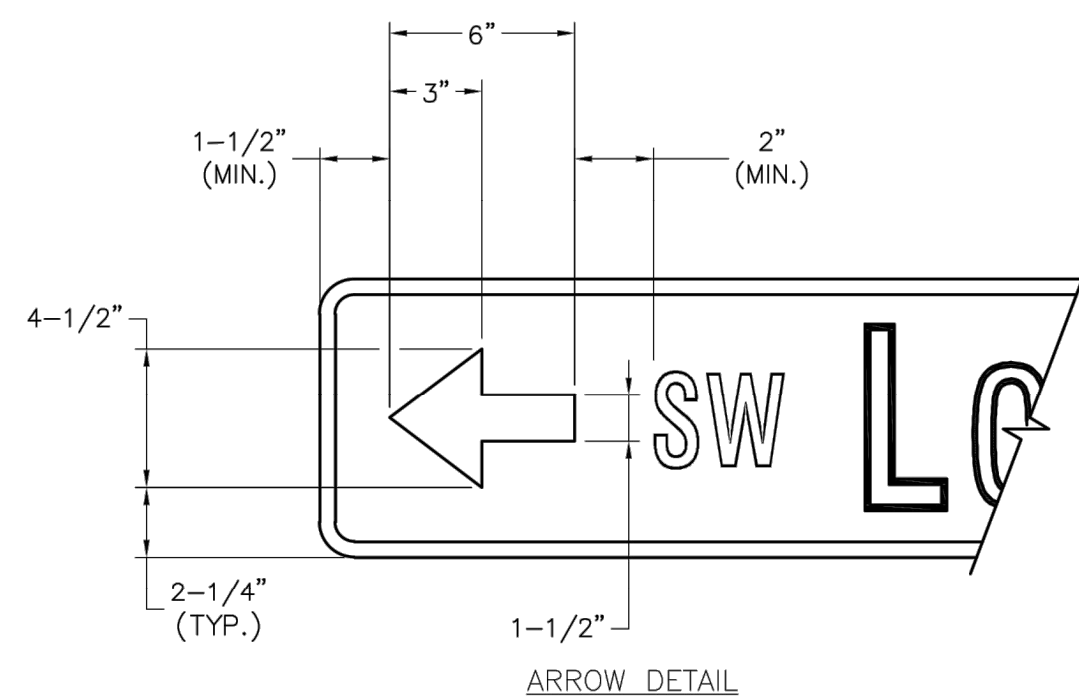
STREET NAME SIGN BLANK DETAILS
 FOR MOUNTING ON SQUARE STEEL POSTS



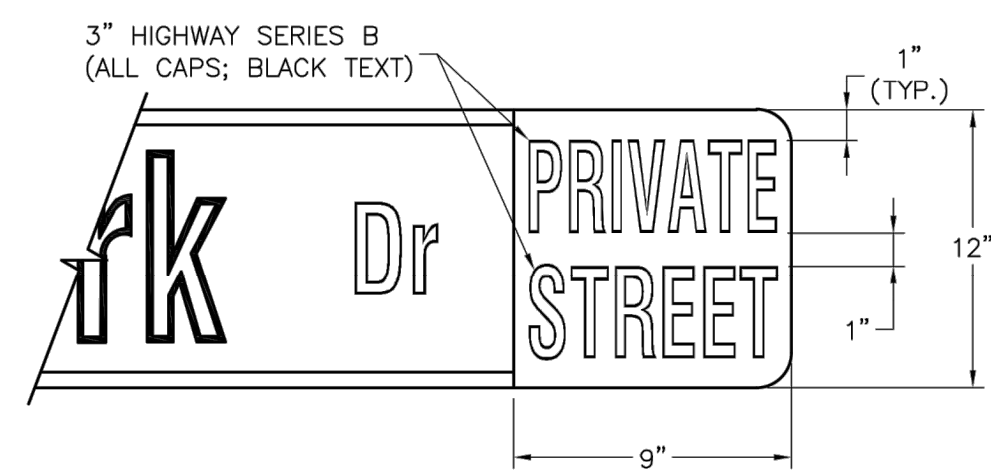
NUMBERED STREET NAME SIGN DETAIL
 STREET NAME SIGN FACE DETAILS
 POST MOUNTED 2-LANE ALL SPEEDS AND MULTI-LANE UNDER 40 MPH



NUMBERED STREET NAME SIGN DETAIL
 STREET NAME SIGN FACE DETAILS
 POST MOUNTED MULTI-LANE GREATER THAN 40 MPH



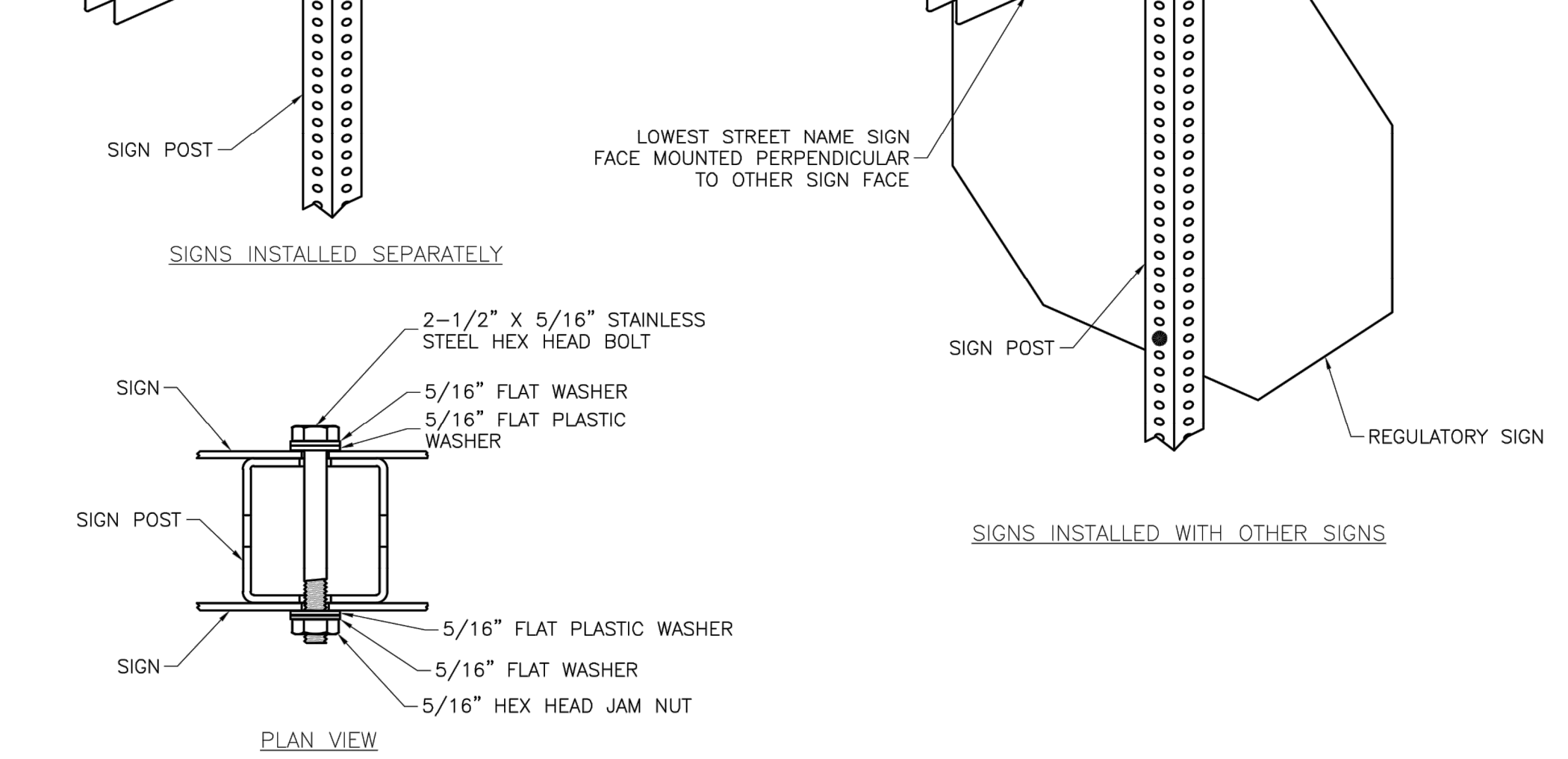
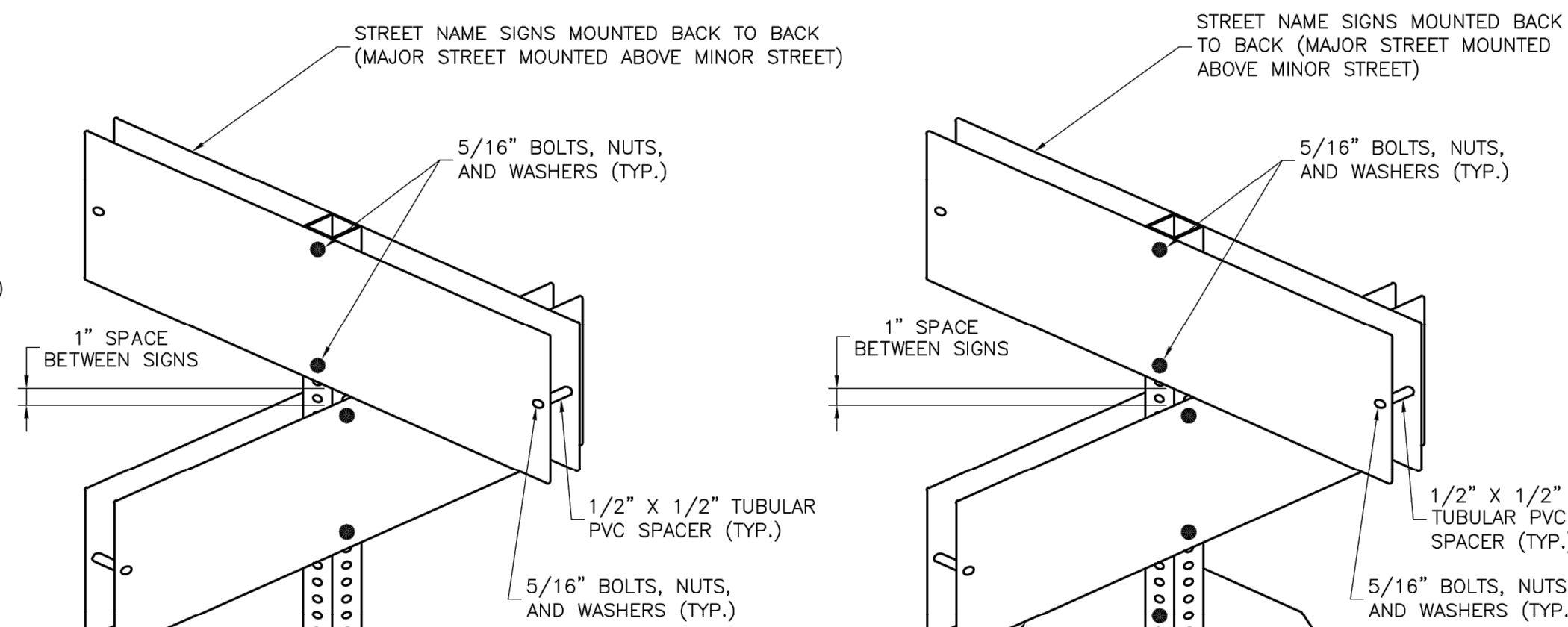
ARROW DETAIL



PRIVATE STREET TAG DETAIL

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 IS OUTSIDE THE RIGHT-OF-WAY INTERSECTS A PUBLIC STREET. THE BACKGROUND FOR THE "PRIVATE STREET" TAG SHALL BE YELLOW.
- MULTI-LANE IS DEFINED AS HAVING 2 LANES OR MORE IN EACH DIRECTION, EXCLUDING TURN LANES.
- OVERHEAD SIGN DETAILS MAY BE FOUND ON THE SIGNAL HEAD MOUNTING DETAIL.



SQUARE STEEL POST MOUNTING DETAILS

STREET NAME SIGN INVENTORY

66"	48"
SE Bailey Farms Pkwy D3-1 (SP-1)	SE Ranchland St D3-1 (SP-3)
54"	36"
SE Falling Star Dr D3-1 (SP-2)	SE Ranson Rd D3-1 (SP-5)
54"	36"
SE Sweet Root Dr D3-1 (SP-2)	SE Bailey Rd D3-1 (SP-5)
54"	30"
SE Rising Sun Dr D3-1 (SP-2)	SE Cape Dr D3-1 (SP-6)

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: STREET NAME SIGN DETAILS

Drawn By: BWC
 Checked By: MP
 Date: 01/2020
 Proj. #:

SN-3

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 ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
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 #E2002003600-F #LAC2001005237 #LS200200869-F

PREPARED BY:

 11/30/2023
 SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
 STREET, STORMWATER, AND MASTER
 DRAINAGE PLAN
 SE BAILEY ROAD AND SE RANSON ROAD
 LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
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04/20/2022	City Comments dated 02/14/2022
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10/27/2023	Revised Details to current 2023 Details
11/30/2023	Added "New City Requirements" note

STREET NAME SIGN DETAILS (SN-3)

SHEET
48



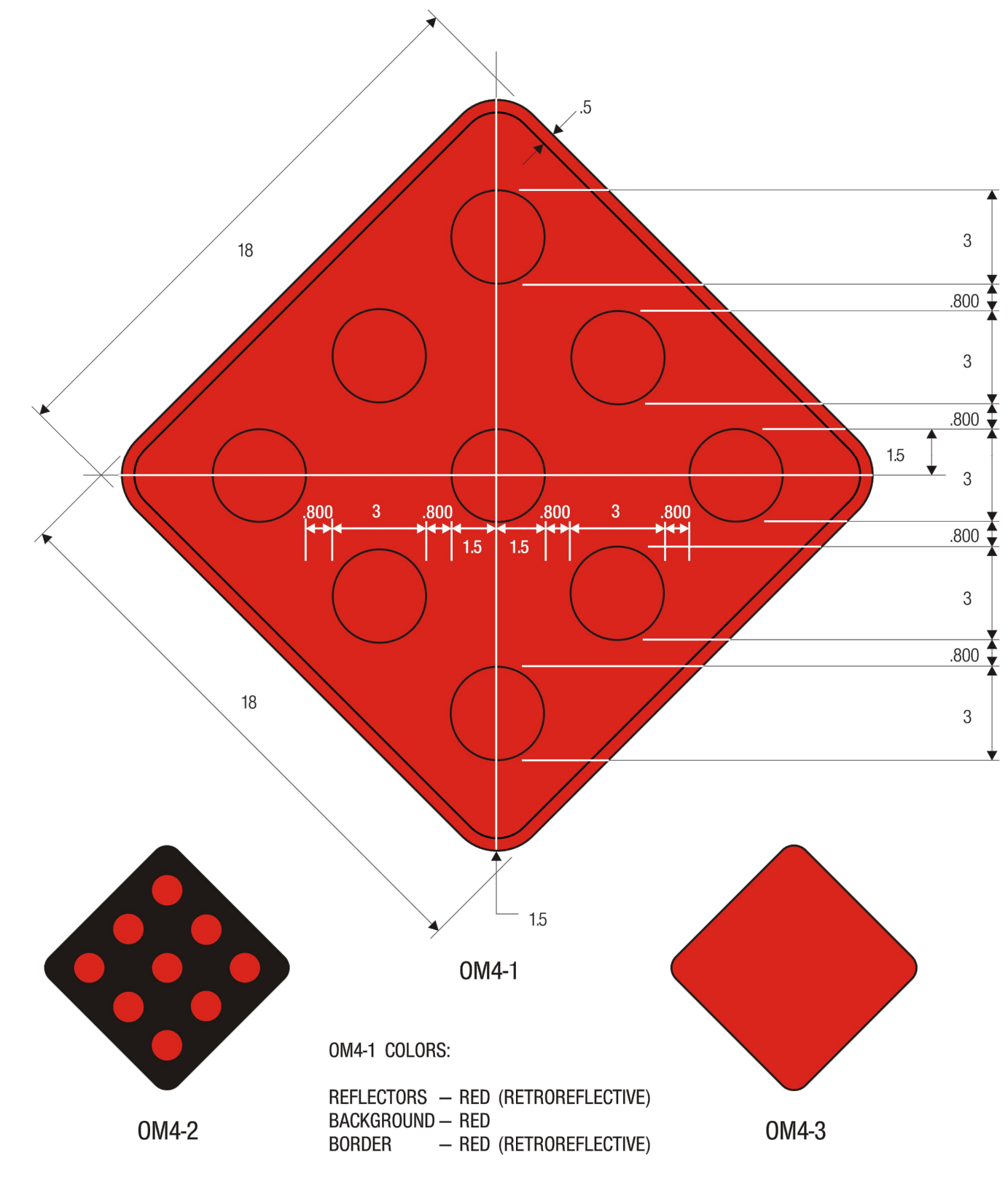
SCHLAGEL
ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS

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(913) 492-5158 • Fax: (913) 492-8400
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PREPARED BY:
11/30/2023
SCHLAGEL & ASSOCIATES, P.A.

MANOR AT BAILEY FARMS, FIRST PLAT
STREET, STORMWATER, AND MASTER
DRAINAGE PLAN
SE BAILEY ROAD AND SE RANSON ROAD
LEE'S SUMMIT, MISSOURI

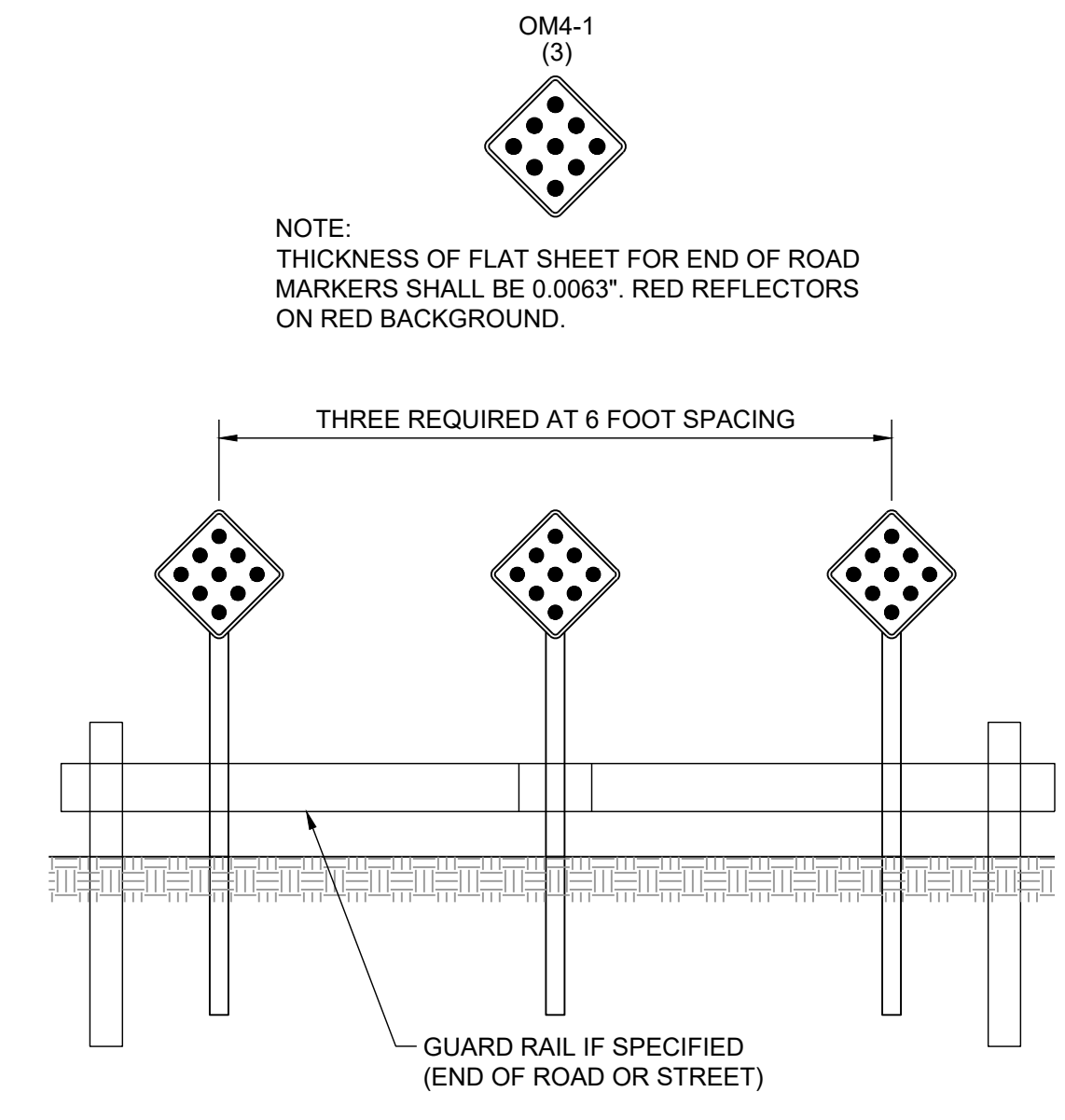


- OM4-1 COLORS:
REFLECTORS - RED (RETROREFLECTIVE)
BACKGROUND - RED
BORDER - RED (RETROREFLECTIVE)
- OM4-2 COLORS:
REFLECTORS - RED (RETROREFLECTIVE)
BACKGROUND - BLACK
- OM4-3 COLORS:
SIGN PANEL - RED (RETROREFLECTIVE)

11-4



30"
R1-1
STOP SIGN



REVISION DATE	DESCRIPTION
01/21/2022	City Comments dated 12/19/2021
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05/17/2022	City Comments dated 5/11/2022
10/27/2023	Revised Details to current 2023 Details
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OM-4 SIGN DETAILS

SHEET
49