

LEGEND	
	TEMPORARY STORAGE AREA FOR EXCESS MATERIAL
	TEMP. CONSTRUCTION ENTRANCE AND STAGING AREA
	CONCRETE WASHOUT AREA
	SILT FOAM DIKE OR STRAW WATTLE - STAKED & INSTALL PER MFR'S RECOMMENDATIONS
	ROCK DITCH CHECK
	STRAW WATTLE OR COIL LOG STAKED & INSTALL PER MFR'S RECOMMENDATIONS
	SILT FENCE (PRIOR TO LAND DISTURBANCE)
	SILT FENCE (DURING CONSTRUCTION)
	SILT SOCK / ROCK SOCK / SOCK WATTLE
	LIMITS OF DISTURBANCE
	EXISTING CONTOURS
	PROPOSED CONTOURS
	GRAVEL FILTER FOR STORM SEWER STRUCTURES ONLY
	BMP PLAN REF. NO.

DISTURBED AREA = 9.74 A.C.

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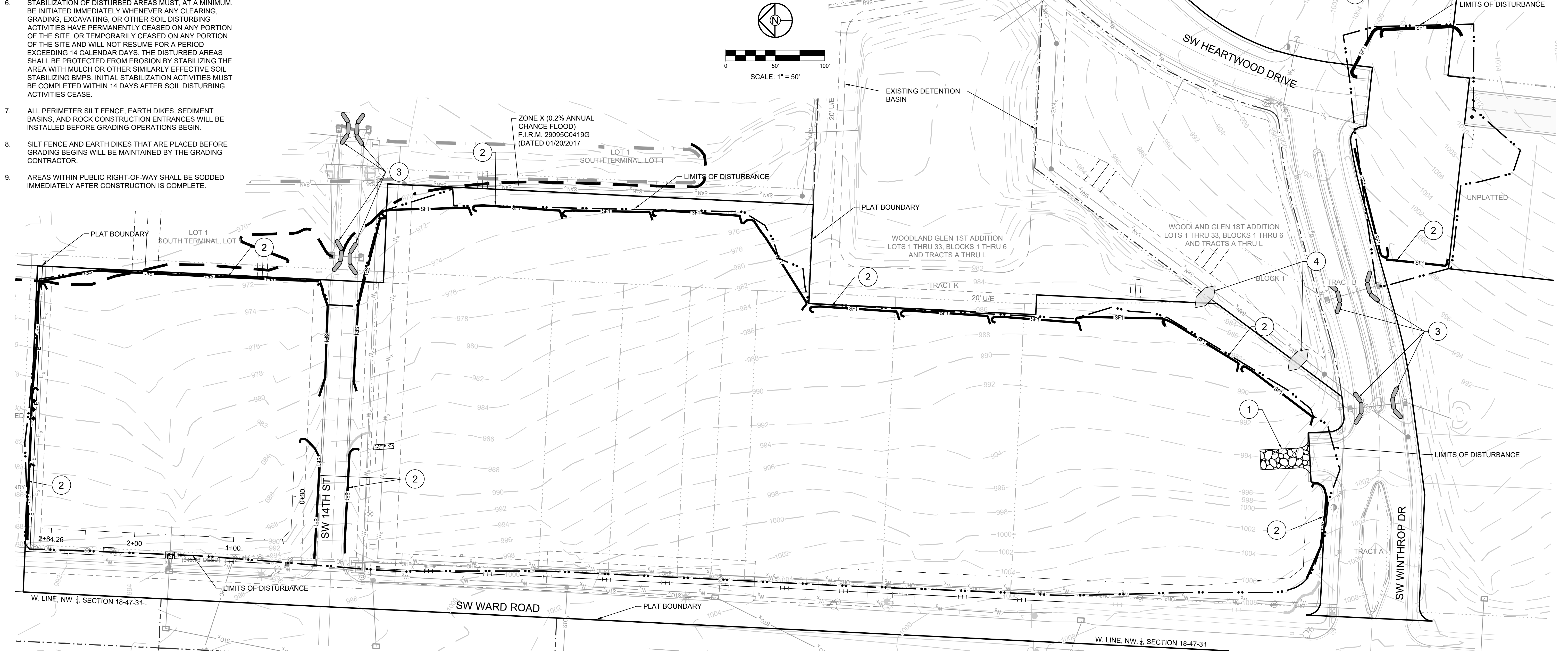
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	4	FOAM SILT DIKE OR ROCK DITCH CHECK	E	PLACE WHERE INDICATED AT EXISTING SWALES AND DRAINAGE COURSES
B - MASS GRADING	5	SEDIMENT BASINS (REF. DETAIL ON SHEET 6)	E	TO BE INSTALLED PRIOR TO DISTURBING ENTIRE SITE.
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D - AFTER PAVING OPERATIONS	9	INLET PROTECTION (SILT FENCE)	D/E	PLACE SILT FENCE AROUND ALL STORM SEWER STRUCTURES / YARD AREA STORM STRUCTURES TO HAVE SILT FENCE REMOVED ONLY WHEN GRADED AREAS HAVE SUFFICIENT GROUND COVER ESTABLISHED
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	12	SEEDING AND MULCHING	E	ALL DISTURBED AREAS PRIOR TO 14 DAYS OF CONSTRUCTION INACTIVITY
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Date: 10/18/2022
 Certified by: RPM
 Title: Design Engineer
 Firm: Schlager and Associates, P.A.



SCHLAGEL
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 Missouri State Certificate of Authority
 #E200200360P #LAC201005237 #S200200895F

WOODLAND GLEN 2ND PLAT
 SANITARY SEWER MAIN EXTENSION
 WARD ROAD AND WINTHROP DRIVE
 LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
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SAN EROS CONT
 PLAN
 SHEET
2

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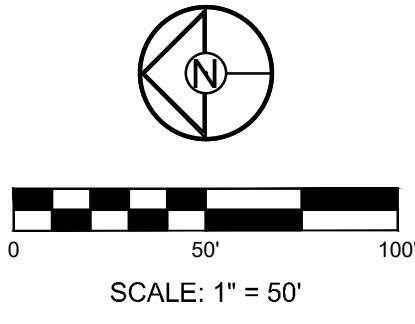
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TOTAL DRAINAGE AREA TO TEMPORARY SEDIMENT TRAP
 EDDB#1 AREA = 2.59 AC.
 EDDB#2 AREA = 4.99 AC.
 EDDB#3 AREA = 1.26 AC.

SEDIMENT VOLUME REQUIRED (3600 CU. FT./AC.)
 EDDB#1 2.59 AC. * 3600 CU.FT./AC. = 9,324 CU.FT.
 EDDB#2 4.99 AC. * 3600 CU.FT./AC. = 17,964 CU.FT.
 EDDB#3 1.26 AC. * 3600 CU.FT./AC. = 4,536 CU.FT.

SEDIMENT VOLUME PROVIDED
 EDDB#1 VOLUME @ 986.90 = 9,537 CU.FT.
 EDDB#2 VOLUME @ 972.10 = 18,904 CU.FT.
 EDDB#3 VOLUME @ 971.70 = 5,225 CU.FT.

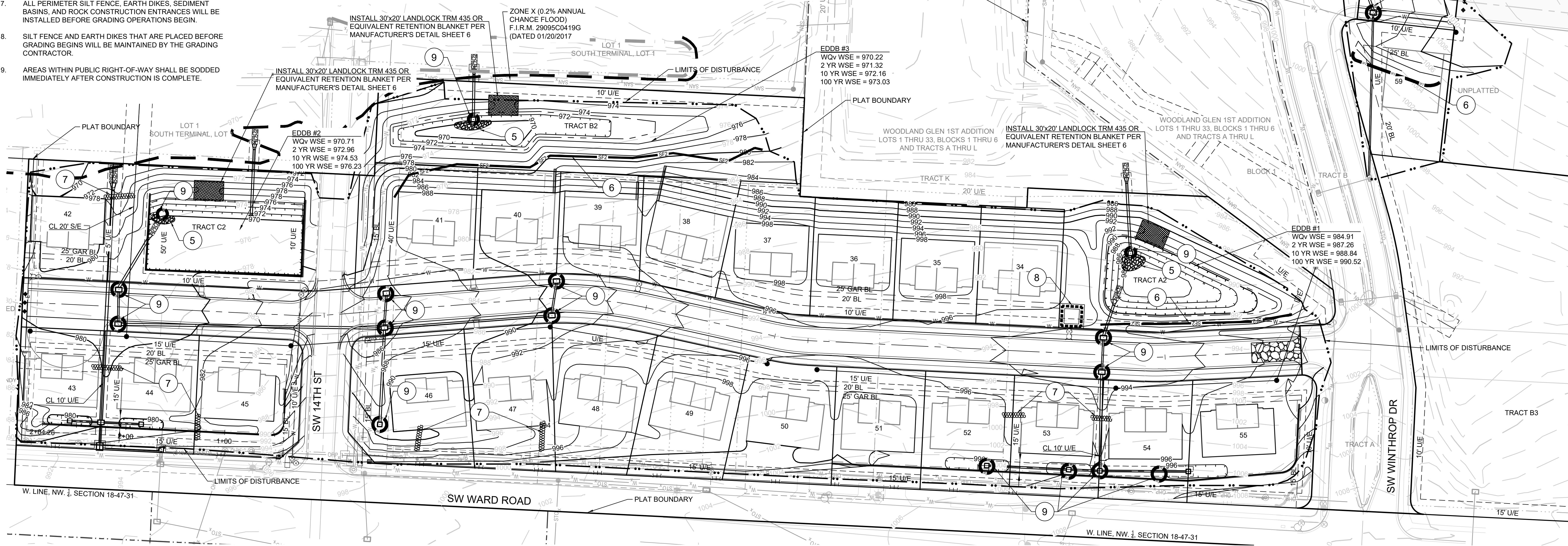


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SAN EROS CONT PLAN
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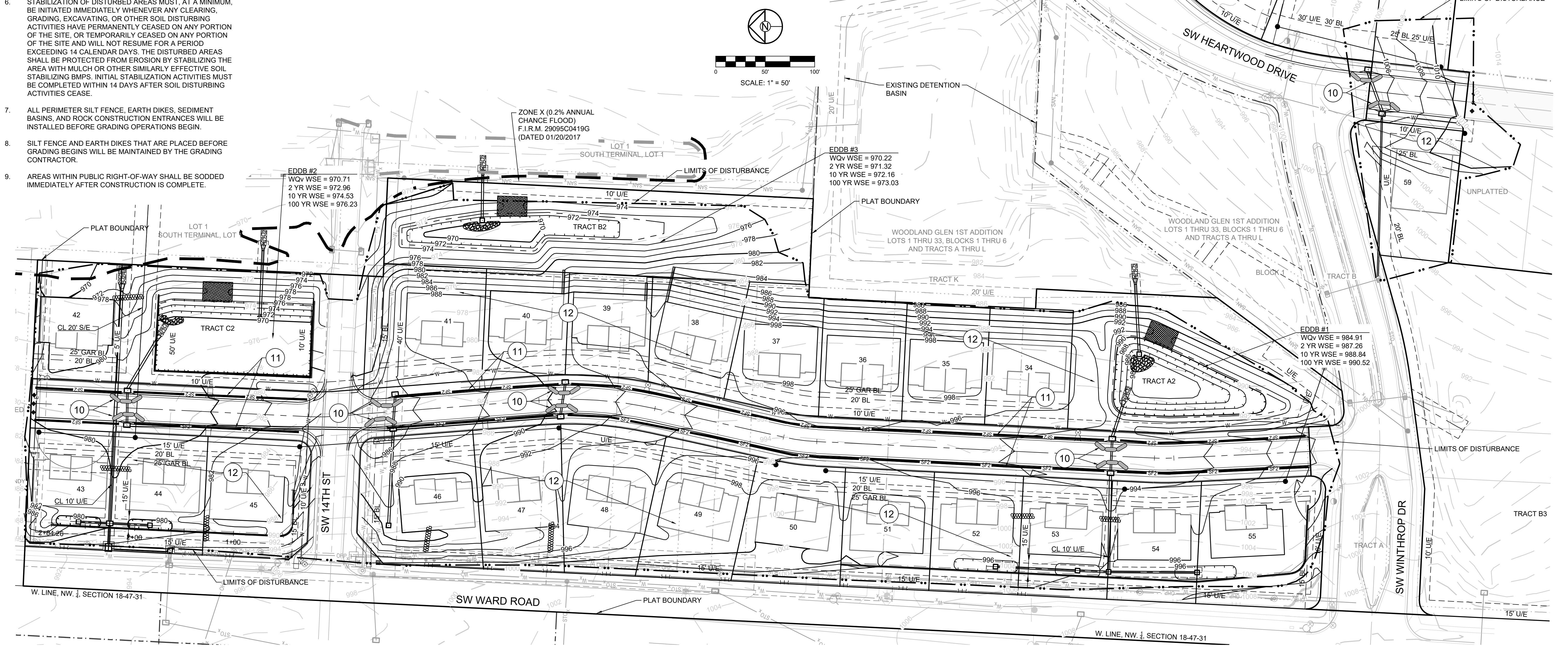
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DRAWN BY: BAL
 CHECKED BY: MAB
 DATE PREPARED: 2-20-2020
 PROJ. NUMBER: 01/20/2022
 18-017

SAN EROS CONT PLAN

SHEET **4**

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PREPARED BY:

SCHLAGEL & ASSOCIATES, P.A.

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SHEET

Notes for Concrete Washout:

- Concrete washout areas shall be installed prior to any concrete placement on site.
- Concrete washout areas shall include a flat substrate pit sized to the amount of concrete to be placed on site. The slopes leading out of the substrate pit shall be 3:1. The vehicle tracking pit shall be sloped towards the concrete washout area.
- Vehicle tracking control is required at the access point to all concrete washout areas.
- Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
- A non-slope impervious liner may be required along the bottom and sides of the substrate pit in sandy or gravelly soils.

Maintenance for Concrete Washout:

- Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
- Concrete washout areas shall be enlarged as necessary to maintain capacity for washed concrete.
- Concrete washout water, wetted pieces of concrete and all other debris in the substrate pit shall be transported from the job site in a water-tight container and disposed of properly.
- Concrete washout areas shall remain in place until all concrete for the project is placed.
- When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topped, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.

Notes for Construction Entrance:

- Avoid locating on steep slopes, at curves on public roads, or down/drift of disturbed areas.
- Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
- If slope towards the public road exceeds 2%, construct a 6- to 8-inch high ridge with 3:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
- Install pipe under the entrance if needed to maintain drainage ditches along public roads.
- Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
- Divert all surface runoff and drainage from the entrance to a sediment control device.
- If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

Maintenance for Construction Entrance:

- Reshape entrance as needed to maintain function and integrity of installation. Top dress with clean aggregate as needed.

CONCRETE WASHOUT

AMERICAN PUBLIC WORKS ASSOCIATION
 KANSAS CITY METRO CHAPTER
 CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT
 STANDARD DRAWING NUMBER ESC-01
 ADOPTED: 10/24/2016

Notes:

- In order to contain water, the ends of the silt fence must be turned uphill (Figure 1).
- Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure 4).
- Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
- Attach fabric to upstream side of post.
- Install posts a minimum of 2' into the ground.
- Trenching will only be allowed for small or difficult installation, where slicing machine cannot be reasonably used.

Maintenance:

- Remove and dispose of sediment deposits when the deposit approaches 1/2 the height of silt fence.
- Repair as necessary to maintain function and structure.

SILT FENCE

AMERICAN PUBLIC WORKS ASSOCIATION
 KANSAS CITY METRO CHAPTER
 SILT FENCE
 STANDARD DRAWING NUMBER ESC-03
 ADOPTED: 10/24/2016

Notes:

- Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2' x 10' (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
- When inlet is completed and curb around filter sock or approved equal should be used (Late Stage Curb Inlet). Show wattles are not approved for curb inlet.
- Contractor to field verify ponding water shall not create a traffic hazard.

Maintenance:

- Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
- Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
- Repair or replace as necessary to maintain function and integrity of installation.

CURB INLET PROTECTION

AMERICAN PUBLIC WORKS ASSOCIATION
 KANSAS CITY METRO CHAPTER
 CURB INLET PROTECTION
 STANDARD DRAWING NUMBER ESC-06
 ADOPTED: 10/24/2016

Notes for Wattles and Biodegradable Log Slope Protection:

- The Slope barriers shall be placed along contour lines, with a short section turned up/drift at each end of the barrier. The maximum length of the slope barrier shall not exceed 250 feet, and the barrier ends need to be staggered.
- Install wattles and biodegradable logs per manufacturer's instructions.
- Spacing of stakes per manufacturer's instructions with 4' max. spacing. Length of stakes shall be a minimum of 2 times the diameter of the log with minimum of 24".

Maintenance for Mulch and Compost Filter Berm:

- Berm shall be reshaped and material added as necessary to maintain function and dimensions.
- Breaches in the berm shall be repaired promptly.

WATTLES AND BIODEGRADABLE LOG

MULCH OR COMPOST FILTER BERMS

AMERICAN PUBLIC WORKS ASSOCIATION
 KANSAS CITY METRO CHAPTER
 WATTLES/BIODEGRADABLE LOG AND MULCH/COMPOST FILTER BERM
 STANDARD DRAWING NUMBER ESC-04
 ADOPTED: 10/24/2016

RECORD DRAWING

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Date: 10/18/2022
 Certified by: RPM
 Title: Design Engineer
 Firm: Schlager and Associates, P.A.

PREPARED BY:

SCHLAGEL & ASSOCIATES, P.A.

WOODLAND GLEN 2ND PLAT
SANITARY SEWER MAIN EXTENSION
WARD ROAD AND WINTHROP DRIVE
LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
4-21-2020	CITY COMMENTS
5-20-2020	CITY COMMENTS
01/12/2021	SCHLAGEL QUANTITIES
05/10/2021	SCH. REGRADE
06/03/2021	ESC SHEETS
06/03/2021	EX. MH 1-TIE IN
2-20-2020	MH C/L UPDATE
01/20/2022	WATER LINE CONFLICT
10/18/2022	AS-BUILTS

SAN EROS DET

SHEET

6

Sediment Basin Design Summary ()**

Design Item	Basin #1	Basin #2	Units	Notes
Site Data:				
Tributary Drainage Area to Pond			Acres	
50% (2 yr) Design Flow			cfs	
4% (25 yr) Design Flow			cfs	
Pond Data:				
Minimum Sediment Storage Volume			cu yd	134 cu yd/acre required minimum
Provided Sediment Storage Volume			cu yd	
Bottom Elevation			ft	Elevation equal to 20% of original design volume
Sediment Cleanout Elevation			ft	Top of dry storage volume
Top of Riser Elevation			ft	at or above 0-2 elevation, 1.0 ft min above principal spillway
Emergency Spillway Elevation			ft	1.0 ft min above Q-25 elevation
Top of Dam Elevation			ft	
Basin Shape Data:				
A = Area at Normal Pool			SF	
L = Length of Flow Path			ft	
We = Effective Width = A/L			ft	
Length to Width Ratio = L/We				
Principal Spillway Data:				
Riser Pipe dia			in	15" min. Size for 2 year flow minimum
Barrel Pipe dia			in	15" min. Size for 2 year flow minimum
Concrete Base Size for Riser Pipe			CY	Size to prevent flotation, 1.25 safety factor required
Skimmer Size				Designer to provide specific details and calculations per application to dealer in 48 to 72 hours
Emergency Spillway Data:				
Design Depth in Spillway			ft	
Design Velocity in Spillway			ft/sec	
Lining Material				Designer to provide specific details and calculations per application

Sediment Basin Notes:

- Interior baffles shall be provided to reduce short-circuiting of the basin. See Sht. ESC-12 for approved baffle options.
- Emergency spillways to be located in a non-fill location when feasible and shall be lined with a non-erodible material such as Riprap or Turf Reinforcement Mat.
- When directed, sediment basins shall be fenced using construction fence or other material for safety reasons and include warning signs, reading: "DANGER - KEEP OUT".

Maintenance:

- Check temporary sediment basins after periods of significant runoff.
- Remove sediment and restore the basin to its original dimensions when sediment accumulates to 20% of the storage capacity.
- Immediately repair any erosion damage to the embankment and outlets.
- Repair and/or replace baffles as necessary to maintain function and integrity of installation.
- Keep outlet, skimmer and pool area free of all trash and other debris.

Notes for Silt Fence Ditch Check:

- Stakes shall be 4" (min.) long and one of the following materials:
 - Hardwood - 1 3/4" x 1 3/4"
 - Southern Pine (No. 2) - 2 3/4" x 2 3/4"
 - Steel (1/2" L or C Section - 35 lbs per 1'-0")
 - Synthetic - same strength as wood stakes.
- Cross pieces shall be of same material as stakes.
- Attach fence fabric securely on 6" centers (max).
- Use of high flow material is acceptable.
- Refer to plan sheets to estimate the length of silt fence required.
- Use support fencing when tributary area is greater than 2.4 acres or when ditch gradient is greater than 2 percent.
- Silt fence shall be in to a 6" minimum depth.
- Elevation of top in points shall be a minimum of 4" higher than the center.

Notes for Wattle and Biodegradable Log Ditch Checks:

- Use as many biodegradable log sections as necessary to ensure water does not flow around and over the check.
- Overlap sections a minimum of 18"
- Stakes shall be per manufacturer's instructions. Length of stakes shall be a minimum of 2 times the diameter of the log or 24" minimum.
- Use Erosion Control (Class 1) (Type C) on the downstream slope when directed by the Engineer.
- Use 1/2" diameter logs when used with Erosion Control (Class 2) (Any type) channel lining as directed by the Engineer.

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
AREA INLET AND JUNCTION BOX PROTECTION
STANDARD DRAWING NUMBER ESC-07
ADOPTED: 10/24/2016

LATE STAGE AREA INLET (Area inlets at final grade and existing inlets)

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
AREA INLET AND JUNCTION BOX PROTECTION
STANDARD DRAWING NUMBER ESC-07
ADOPTED: 10/24/2016

SILT FENCE DITCH CHECK
NO SCALE

Notes for Wattle and Biodegradable Log Ditch Checks:

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- Overlap sections a minimum of 18"
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AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
SILT FENCE AND WATTLE/BIODEGRADABLE LOG DITCH CHECKS
STANDARD DRAWING NUMBER ESC-09
ADOPTED: 10/24/2016

EROSION CONTROL INSTALLATION DETAILS

Propex GEOSOLUTIONS
LANDLOK TURF REINFORCEMENT MAT (TRM)
LANDLOK TRM INSTALLATION DETAILS FOR SLOPES

GENERAL NOTES:

- The LANDLOK TRM is a three-dimensional, polypropylene geotextile which is specifically designed for erosion control applications on steep slopes and vegetated embankments. The mat is composed of a dense web of extruded polypropylene fibers forming a honeycomb pattern which is biologically eroded over time and reinforced over time by growing vegetation. The mat is available in two configurations: a standard configuration and a high strength configuration. The high strength configuration is specifically designed for use on slopes with a minimum of 1:1 and a maximum of 3:1. The standard configuration is specifically designed for use on slopes with a minimum of 1:1 and a maximum of 2:1.
- The LANDLOK TRM is a composite of a web reinforced with a fiber. A wattle is then placed on the web and the web is cut and spaced at 3'-0" to 4'-0" between the wattle. The wattle is made of a material that is resistant to erosion and is designed to provide a stable surface for vegetation to grow through. The wattle is made of a material that is resistant to erosion and is designed to provide a stable surface for vegetation to grow through.
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- It is the responsibility of the contractor to ensure that the LANDLOK TRM is installed in accordance with the manufacturer's instructions and the specifications of the contract documents. The contractor shall be responsible for the proper installation and maintenance of the LANDLOK TRM. The contractor shall be responsible for the proper installation and maintenance of the LANDLOK TRM.
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BEFORE INSTALLATION BEGIN:

- Coordinate with a Project Representative. A pre-construction meeting is suggested with the contractor team and a representative from Propex. This meeting should be scheduled to the contractor with at least a week before.
- Define the "Tie-In Method". This will be used to install the LANDLOK TRM. The tie-in method should be defined in the contract documents and the contractor should be responsible for the proper installation and maintenance of the LANDLOK TRM.
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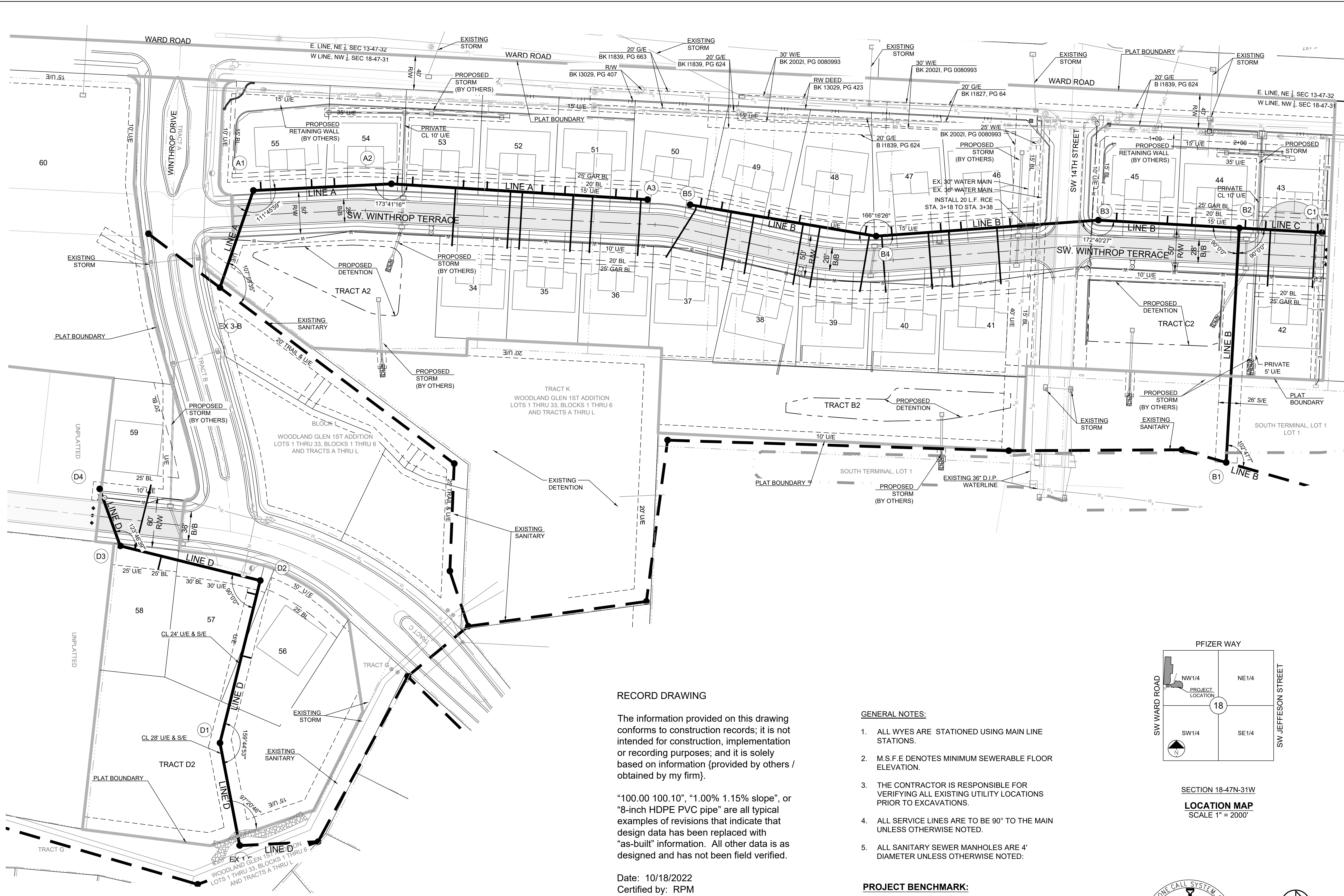
Pin Schedule:

Securing Device	Pin
Horizontal Pin Spacing	2' (0.61 m)
Vertical Pin Spacing	2.0' (0.61 m)
Embedment Depth	PER MANUFACTURER'S INSTRUCTIONS

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
SILT FENCE AND WATTLE/BIODEGRADABLE LOG DITCH CHECKS
STANDARD DRAWING NUMBER ESC-09
ADOPTED: 10/24/2016

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Date: 10/18/2022 Certified by: RPM Title: Design Engineer Firm: Schlager and Associates, P.A.

**WOODLAND GLEN 2ND PLAT
 SANITARY SEWER MAIN EXTENSION
 WARD ROAD AND WINTHROP DRIVE
 LEE'S SUMMIT, MISSOURI**



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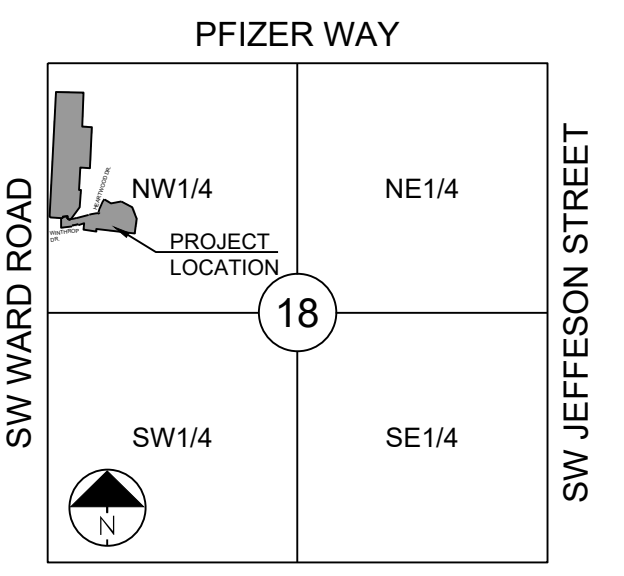
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 Title: Design Engineer
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GENERAL NOTES:

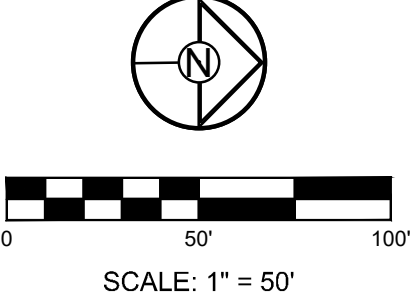
1. ALL WYES ARE STATIONED USING MAIN LINE STATIONS.
2. M.S.F.E DENOTES MINIMUM SEWERABLE FLOOR ELEVATION.
3. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATIONS.
4. ALL SERVICE LINES ARE TO BE 90° TO THE MAIN UNLESS OTHERWISE NOTED.
5. ALL SANITARY SEWER MANHOLES ARE 4' DIAMETER UNLESS OTHERWISE NOTED.

PROJECT BENCHMARK:

SW CORNER NW ¼ SEC. 18-47N-31W, JACKSON COUNTY, MO.
 3" DIAMETER ALUMINUM DISK IN MONUMENT BOX
 M.D.N.R. DOC. NO. 600-65374
 ELEV. 1036.41



SECTION 18-47N-31W
 LOCATION MAP
 SCALE 1" = 2000'



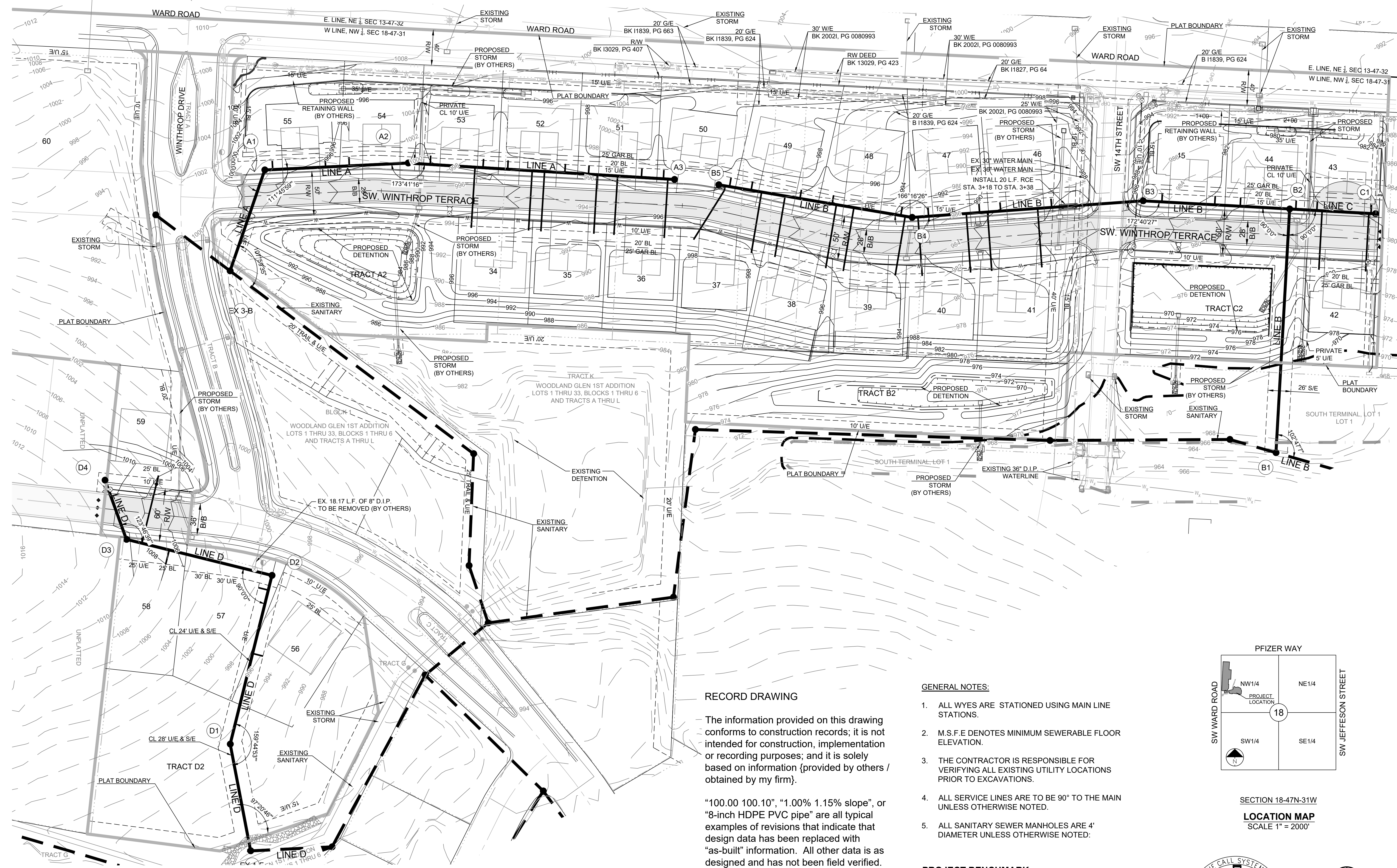
REVISION DATE	DESCRIPTION
4-21-2020	CITY COMMENTS
5-20-2020	SCHLAGEL QUANTITIES
01/12/2021	SCH. REGRADE
05/10/2021	ESC SHEETS
06/03/2021	EX. MH 1-7 TIE IN
10/07/2021	MH C.I. UPDATE
10/08/2022	WATER LINE CONFLICT
10/18/2022	AS-BUILTS

GENERAL LAYOUT

SHEET

I:\PROJECTS\2018\18-0713.0 Design\3.0 DWG Plans\7.0 SMI\18-017 GEN LAY GRAD PLAN.dwg, 10/18/2022, 3:00:27 PM, 1-1

**WOODLAND GLEN 2ND PLAT
 SANITARY SEWER MAIN EXTENSION
 WARD ROAD AND WINTHROP DRIVE
 LEE'S SUMMIT, MISSOURI**



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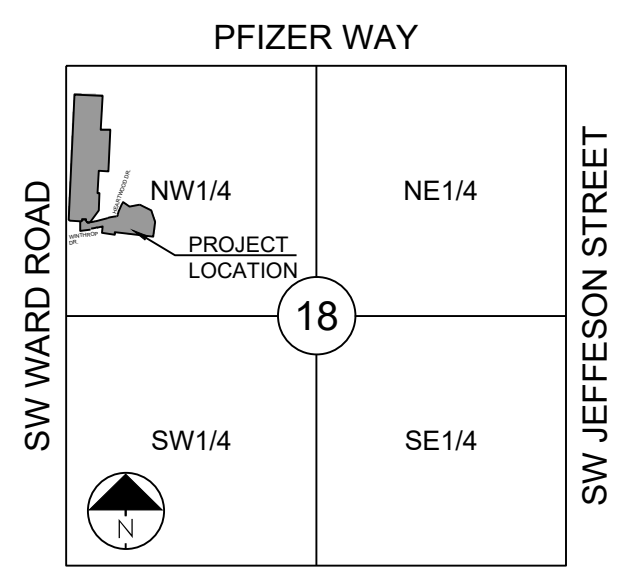
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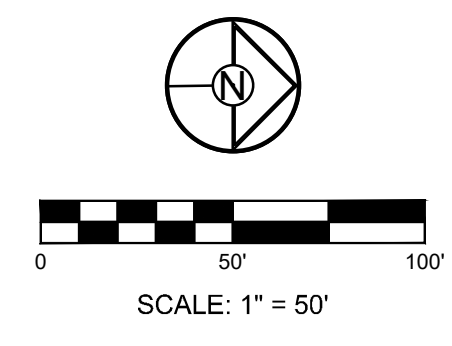
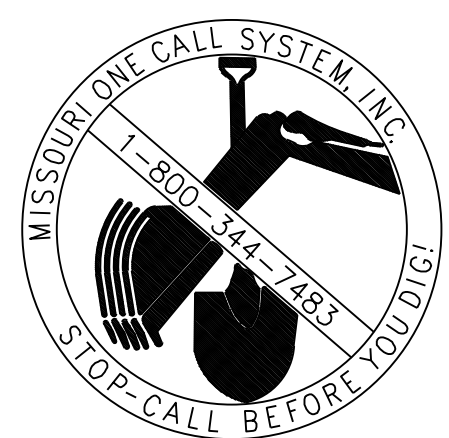
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PROJECT BENCHMARK:

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 3" DIAMETER ALUMINUM DISK IN MONUMENT BOX
 M.D.N.R. DOC. NO. 600-65374
 ELEV. 1036.41



SECTION 18-47N-31W
LOCATION MAP
 SCALE 1" = 2000'



REVISION DATE	DESCRIPTION
4-21-2020	CITY COMMENTS
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01/12/2021	SCHLAGEL QUANTITIES
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10/08/2021	MH/C1 UPDATE
01/20/2022	WATER LINE CONFLICT
10/18/2022	AS-BUILTS

DRAWN BY: BAL
 CHECKED BY: MAB
 DATE PREPARED: 2-20-2020
 PROJ. NUMBER: 18-017

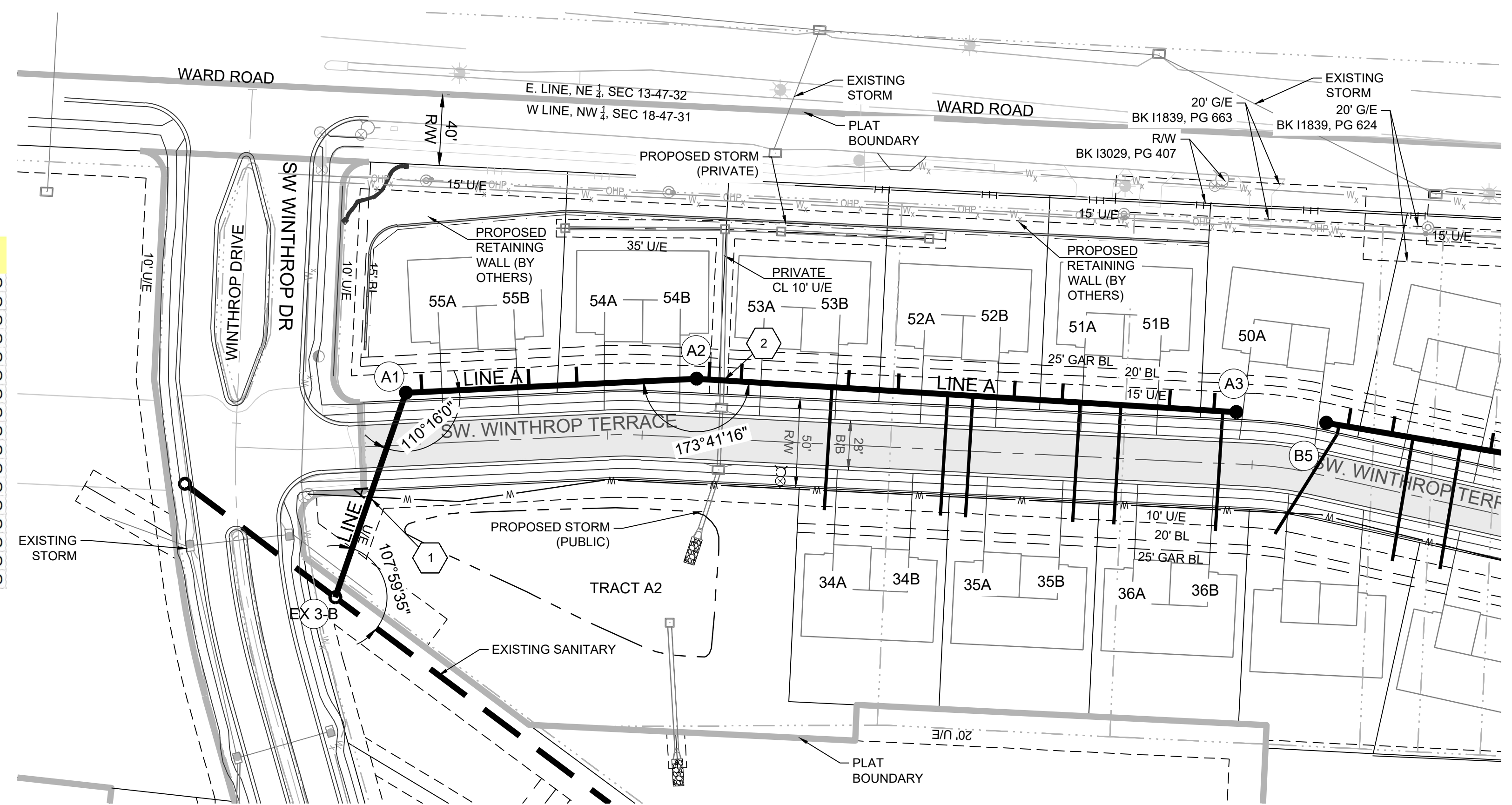
GRADING PLAN

SHEET

I:\PROJECTS\2018\18-017\3.0 Design\3.0 DWG Plans\7.0 SMI\18-017 GEN LAY GRAD PLAN.dwg, 10/18/2022, 3:05:52 PM, 1-1

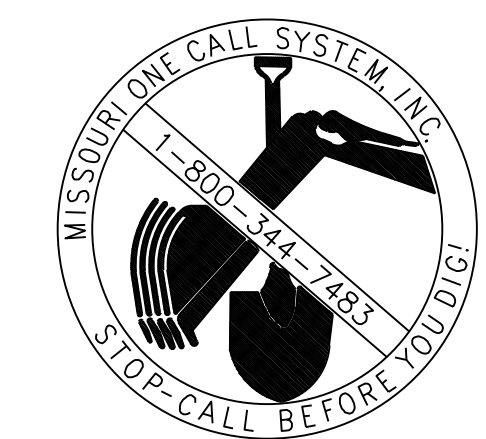
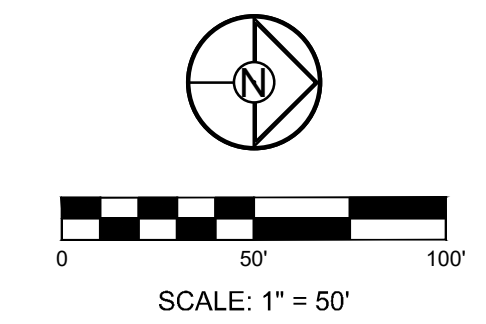
Lot No.	WYE STA	Stub Length (L.F.)	Stub Slope (%)	Riser Length (L.F.)	As-Built EOS Elev	MSFE Elev	Cleanout
34A	359.84	69	1.30	0.00	984.31	987.31	NO
34B	424.84	68	1.30	0.00	984.95	987.95	NO
35A	438.84	67	1.30	2.00	986.49	989.49	NO
35B	498.84	67	1.30	0.00	985.68	988.68	NO
36A	521.84	67	1.30	0.00	985.92	988.92	NO
36B	578.84	67	1.30	0.00	986.49	989.49	NO
50A	573.84	8	1.30	3.00	987.79	990.79	NO
51B	548.84	9	1.30	2.00	986.84	989.84	NO
51A	488.84	9	1.30	2.00	986.24	989.24	NO
52B	461.84	10	1.30	0.00	984.57	987.57	NO
52A	396.84	10	1.30	0.00	983.91	986.91	NO
53B	368.84	10	1.30	0.00	983.63	986.63	NO
53A	308.84	10	1.30	0.00	983.02	986.02	NO
54B	290.84	10	1.30	0.00	982.84	985.84	NO
54A	217.03	9	1.30	2.00	983.24	986.24	NO
55B	190.03	6	1.30	6.00	985.72	988.72	NO
55A	130.03	6	1.30	6.00	985.04	988.04	NO

ID	SAN ELEV.	STORM/WATER ELEV.	SAN SIZE	STORM/WATER SIZE	VERTICAL SEPARATION	RCE/CRCE REQUIRED?
1	978.97	991.38	8" PCV	8" PVC	11.68	NO
2	982.58	988.78	8" PCV	15" HDPE	5.49	NO



- GENERAL NOTES:**
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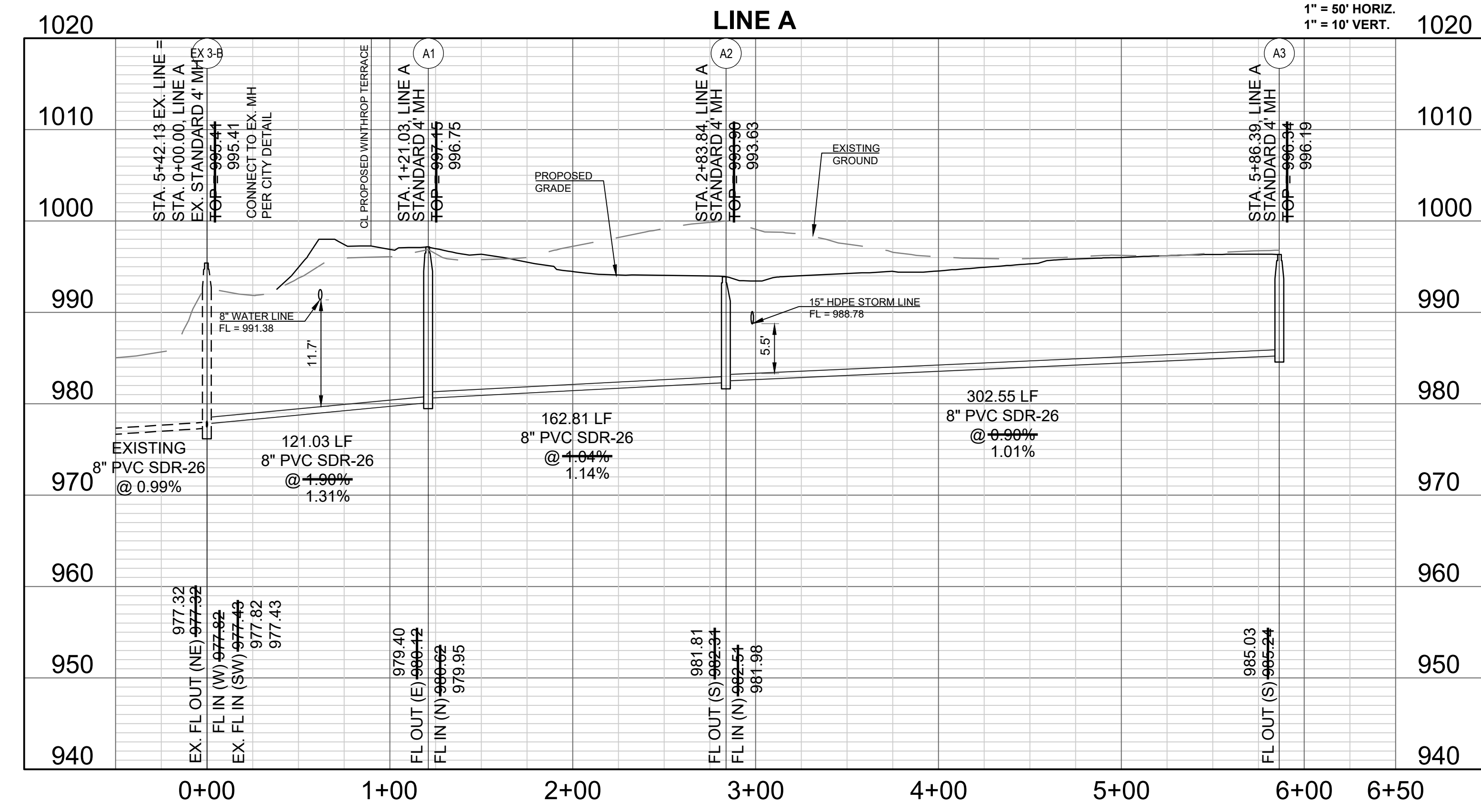
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SCHLAGEL
 ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
 14920 West 107th Street • Lenexa, Kansas 66215
 (913) 492-5158 • Fax: (913) 492-8400
 WWW.SCHLAGELASSOCIATES.COM
 Missouri State Certificates of Authority
 #E20020360CF #LAC201005237 #LS20020889F

**WOODLAND GLEN 2ND PLAT
 SANITARY SEWER MAIN EXTENSION
 WARD ROAD AND WINTHROP DRIVE
 LEE'S SUMMIT, MISSOURI**

Structure Name	Structure Northing	Structure Easting
A1	992504.4316	2818397.8530
A2	992667.0525	2818389.9810
A3	992969.0240	2818408.6667
EX 3-B	992465.0382	2818512.2921



RECORD DRAWING

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 Firm: Schlagel and Associates, P.A.

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01/20/2022	WATER LINE CONFLICT
10/18/2022	AS-BUILTS

DRAWN BY: BAL
 CHECKED BY: MAB
 DATE PREPARED: 2-20-2020
 PROJ. NUMBER: 18-017

LINE A PLAN AND PROFILE

SHEET

9

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PROJECT BENCHMARK:

SW CORNER NW 1/4 SEC. 18-47N-31W, JACKSON COUNTY, MO.
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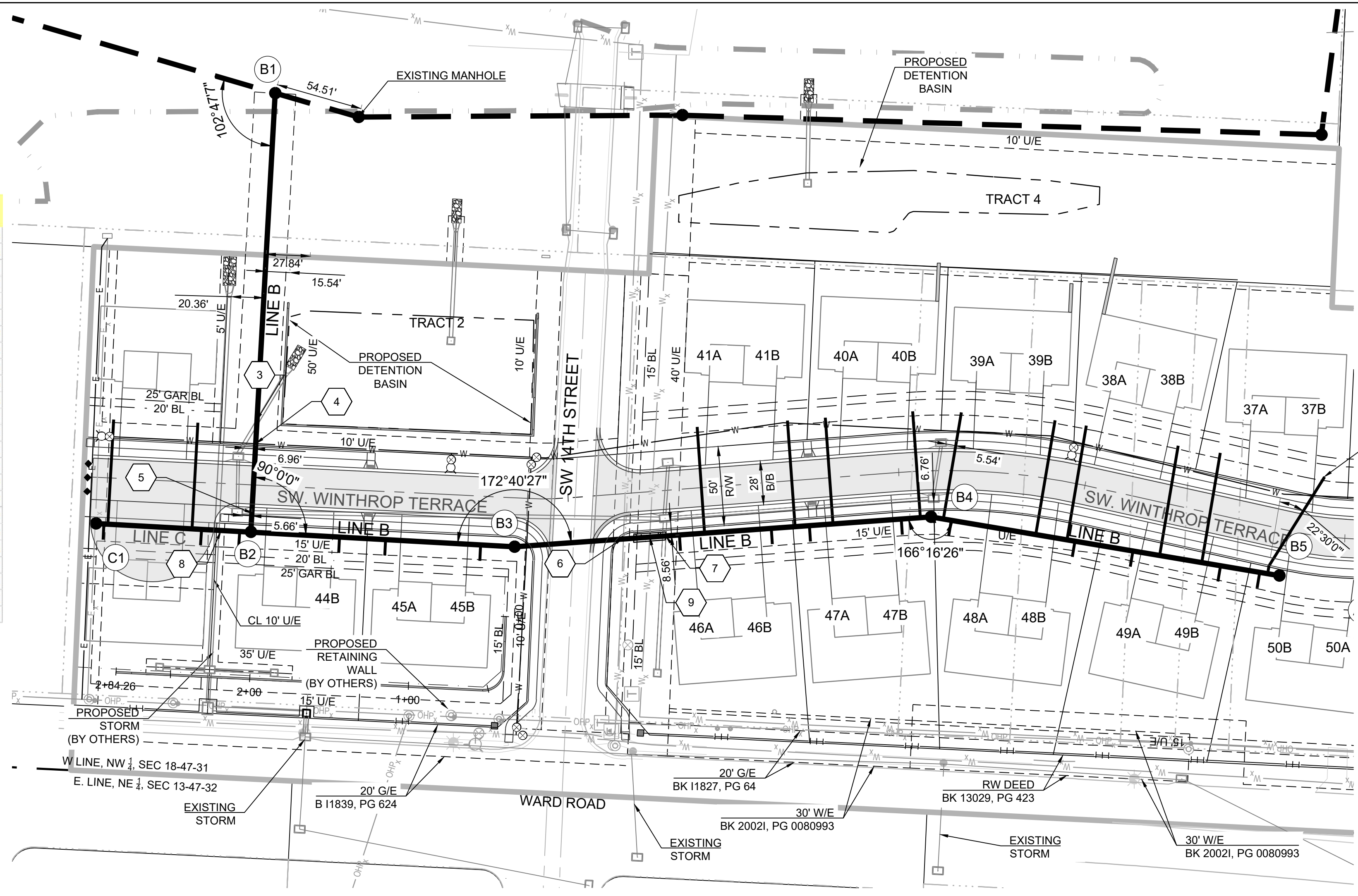
GENERAL NOTES:

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- M.S.F.E DENOTES MINIMUM SEWERABLE FLOOR ELEVATION.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATIONS.
- ALL SERVICE LINES ARE TO BE 90° TO THE MAIN UNLESS OTHERWISE NOTED.
- ALL SANITARY SEWER MANHOLES ARE 4' DIAMETER UNLESS OTHERWISE NOTED:

Lot No.	WYE STA	Stub Length (L.F.)	Stub Slope (%)	Riser Length (L.F.)	As-Built EOS Elev	MSFE Elev	Cleanout
37B	920.89	71	1.30	0.00	986.79	989.79	NO
37A	878.89	70	1.30	0.00	984.64	987.64	NO
38B	851.89	70	1.30	0.00	983.26	986.26	NO
38A	792.89	70	1.30	4.00	983.08	986.08	NO
39B	772.89	71	1.30	3.00	981.36	984.36	NO
39A	713.89	64	1.30	5.00	979.68	982.68	NO
40B	699.18	63	1.30	5.00	978.91	981.91	NO
40A	644.18	64	1.30	4.00	977.65	980.65	NO
41B	620.18	64	1.30	4.00	977.41	980.41	NO
41A	563.18	64	1.30	4.00	976.83	979.83	NO
44B	332.84	10	1.30	0.00	969.46	972.46	NO
45A	361.84	9	1.30	2.00	971.51	974.51	NO
45B	421.84	10	1.30	0.00	971.46	974.46	NO
46A	547.18	6	1.30	6.00	977.32	980.32	NO
46B	605.18	7	1.30	4.00	976.52	979.52	NO
47A	629.18	4	1.30	8.00	979.55	982.55	NO
47B	687.18	5	1.30	7.00	979.44	982.44	NO
48A	718.89	4	1.30	8.00	981.28	984.28	NO
48B	797.89	6	1.30	6.00	983.91	986.91	NO
49A	834.89	6	1.30	6.00	985.80	988.80	NO
49B	890.89	7	1.30	4.00	987.26	990.26	NO
50B	915.89	8	1.30	3.00	987.84	990.84	NO
50A	573.84	8	1.30	3.00	987.79	990.79	NO
51B	548.84	9	1.30	2.00	986.84	989.84	NO

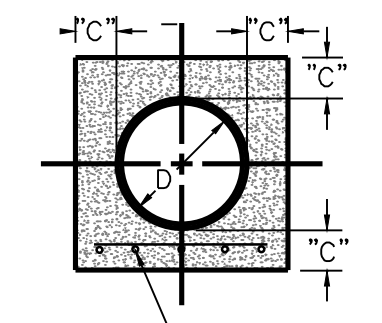
SANITARY CROSSING TABLE

ID	SAN ELEV.	ELEV.	SAN SIZE	STORM/WATER SIZE	SEPARATION	RCE/CRCE REQUIRED?
3	964.33	970.18	8" PVC	30" HDPE	5.14	NO
4	964.67	974.85	8" PVC	8" PVC	9.46	NO
5	965.88	971.53	8" PVC	24" HDPE	4.94	NO
6	973.04	978.16	8" PVC	36" DIP	4.03	NO
7	973.70	978.65	8" PVC	15" HDPE	4.38	NO
9	972.15	974.1	8" PVC	30" DIP	1.10	RCE



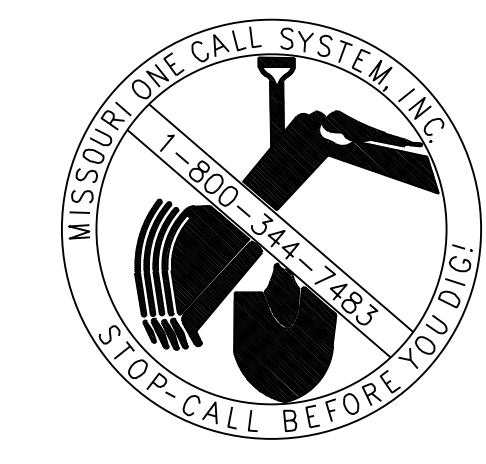
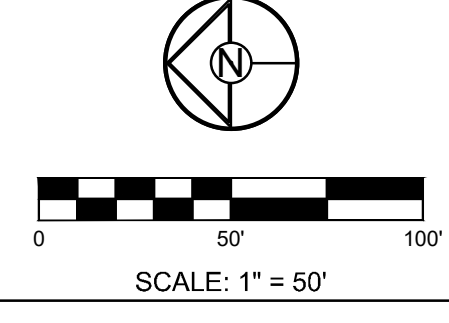
INSTALL 5 L.F. OF 6" PVC THEN 6" 22.5° BEND THEN 65 L.F. OF 6" PVC

"C" = 6" for pipe 18" & less
 8" for pipe 21" thru 36"



Reinforcing by Engineer as follows:
 RCE & Cradle:
 #4 Bars @ 6" Ctrs. Longitudinally,
 #4 Bars @ 24" Ctrs. Transverse.

Reinforced Concrete Encasement (RCE)



WOODLAND GLEN 2ND PLAT
 SANITARY SEWER MAIN EXTENSION
 WARD ROAD AND WINTHROP DRIVE
 LEE'S SUMMIT, MISSOURI

Structure Table

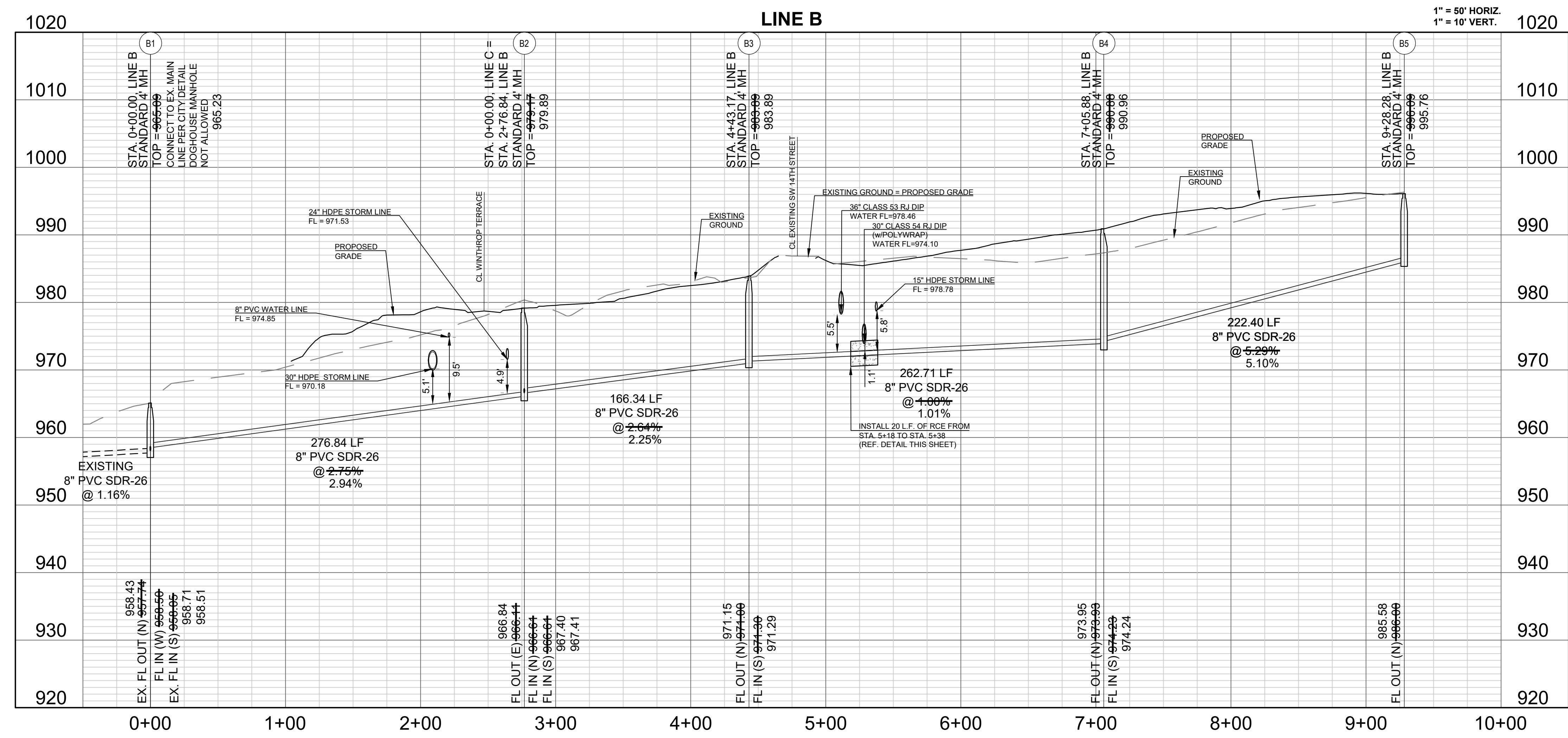
Structure Name	Structure Northing	Structure Easting
B1	993651.2313	2818718.4949
B2	993666.6637	2818442.0890
B3	993500.5868	2818432.8165
B4	993238.5614	2818451.7377
B5	993019.2687	2818414.6635

RECORD DRAWING

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"100.00 100.10", "1.00% 1.15% slope", or "8-inch HDPE PVC pipe" are all typical examples of revisions that indicate that design data has been replaced with "as-built" information. All other data is as designed and has not been field verified.

Date: 10/18/2022
 Certified by: RPM
 Title: Design Engineer
 Firm: Schlager and Associates, P.A.



REVISION DATE	DESCRIPTION
4-21-2020	CITY COMMENTS
5-20-2020	CITY COMMENTS
01/12/2021	SCHLAGEL QUANTITIES
05/10/2021	SCH. REGRADE
06/03/2021	ESC SHEETS
10/07/2021	EX. MH 1-7 TIE IN
10/08/2021	MH/C.I. UPDATE
01/20/2022	WATER LINE CONFLICT
10/18/2022	AS-BUILTS

LINE B PLAN AND PROFILE

SHEET
10

**WOODLAND GLEN 2ND PLAT
 SANITARY SEWER MAIN EXTENSION
 WARD ROAD AND WINTHROP DRIVE
 LEE'S SUMMIT, MISSOURI**

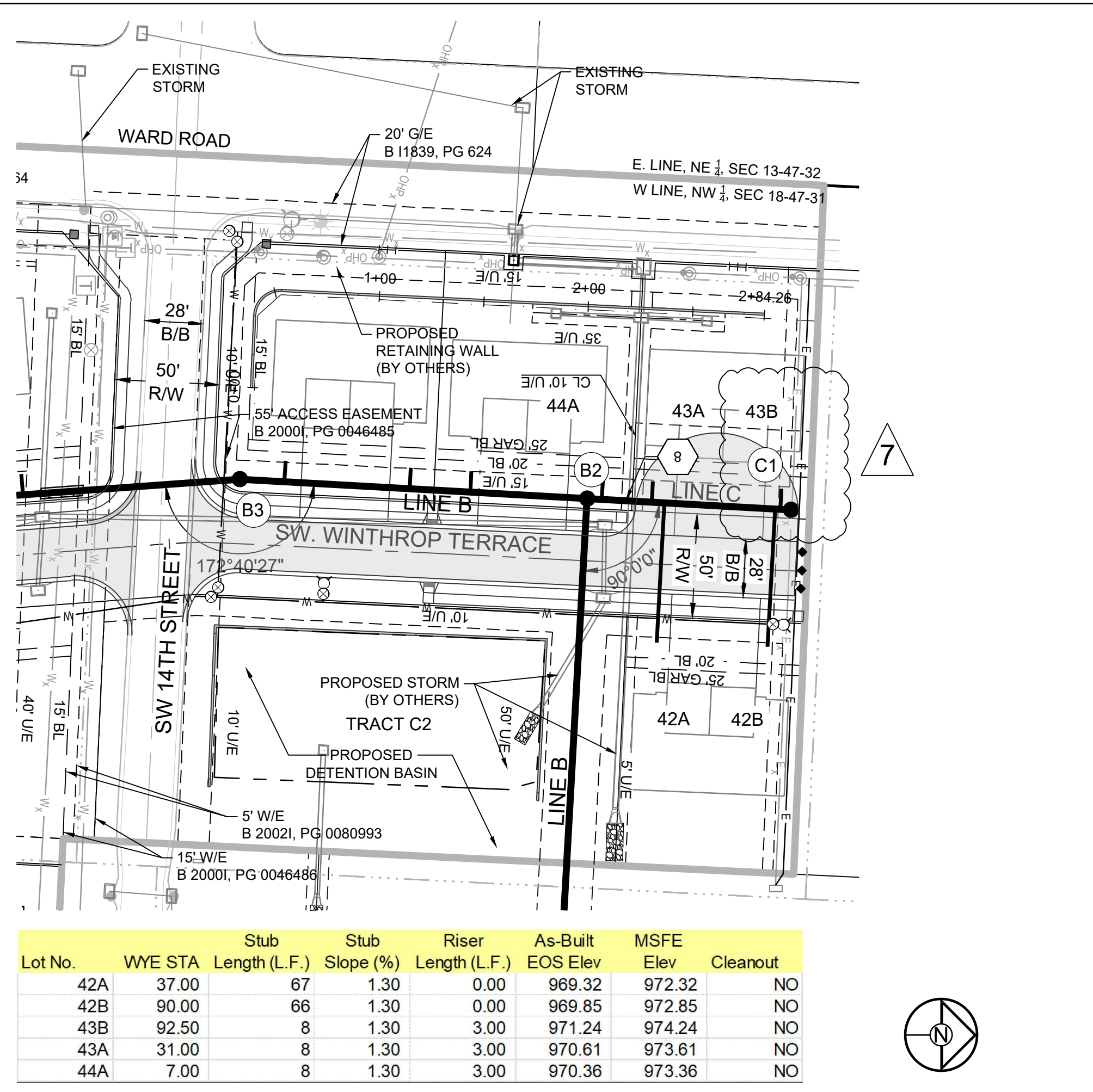
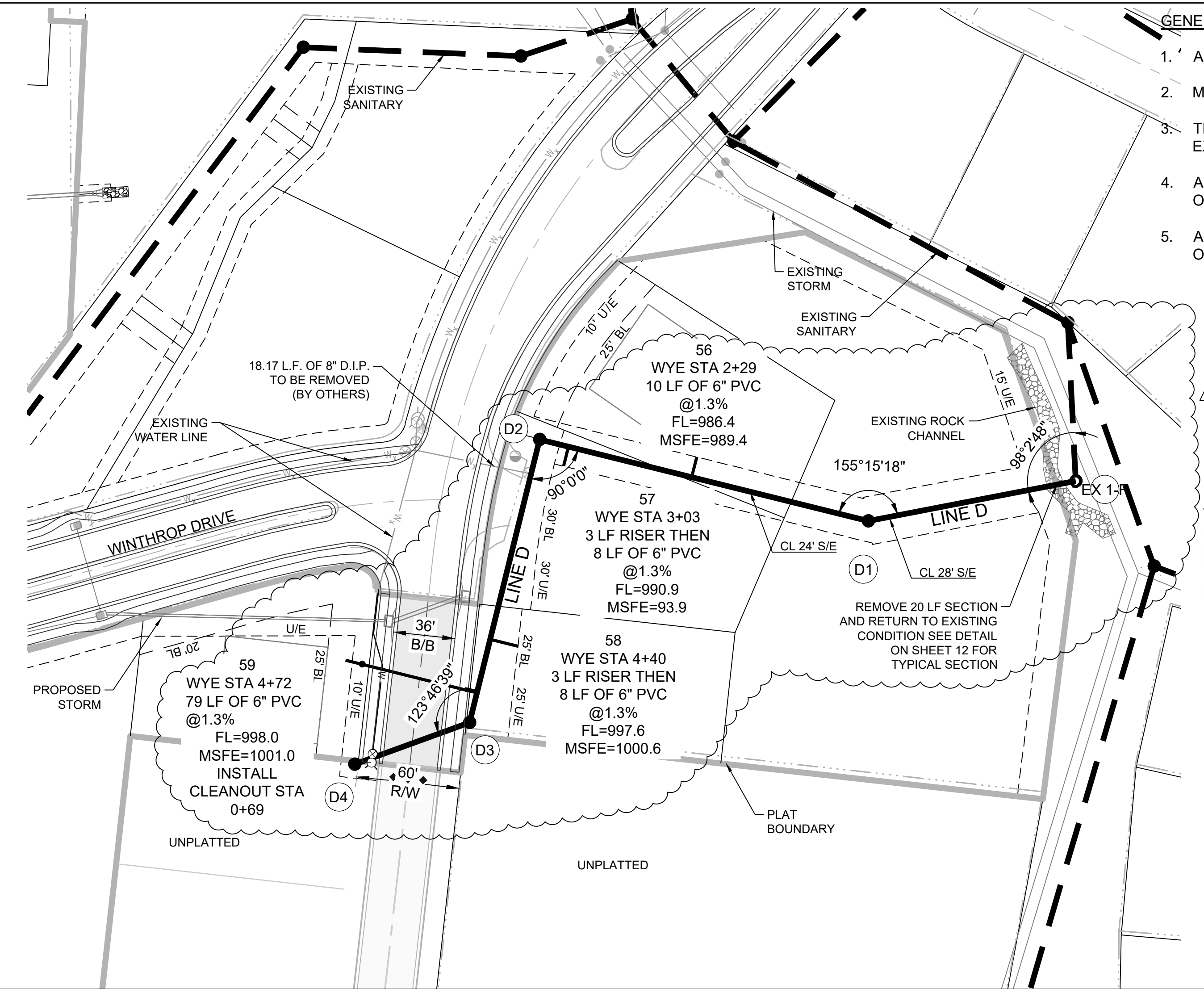
REVISION DATE	DESCRIPTION
4-21-2020	CITY COMMENTS
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05/10/2021	SCH. REGRADE
06/03/2021	ESC SHEETS
10/07/2021	EX. MH 1-7 TIE IN
12/08/2021	MH/C1 UPDATE
01/20/2022	WATER LINE CONFLICT
10/18/2022	AS-BUILTS

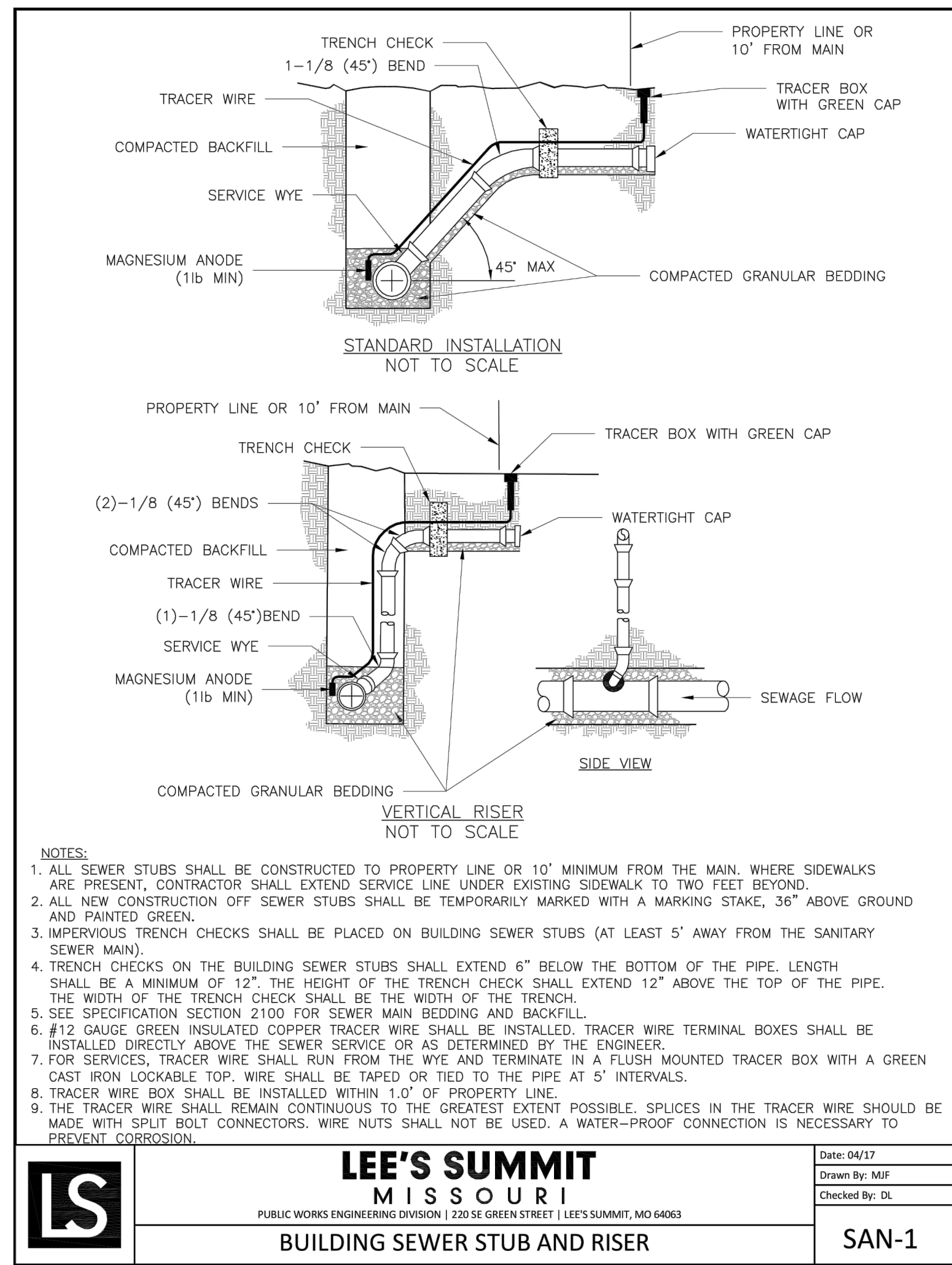
LINE C-D PLAN AND PROFILE

SHEET

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PROJECT BENCHMARK:
 SW. CORNER NW 1/4 SEC. 18-47N-31W, JACKSON COUNTY, MO.
 3" DIAMETER ALUMINUM DISK IN MONUMENT BOX
 M.D.N.R. DOC. NO. 600-65374
 ELEV. 1036.41



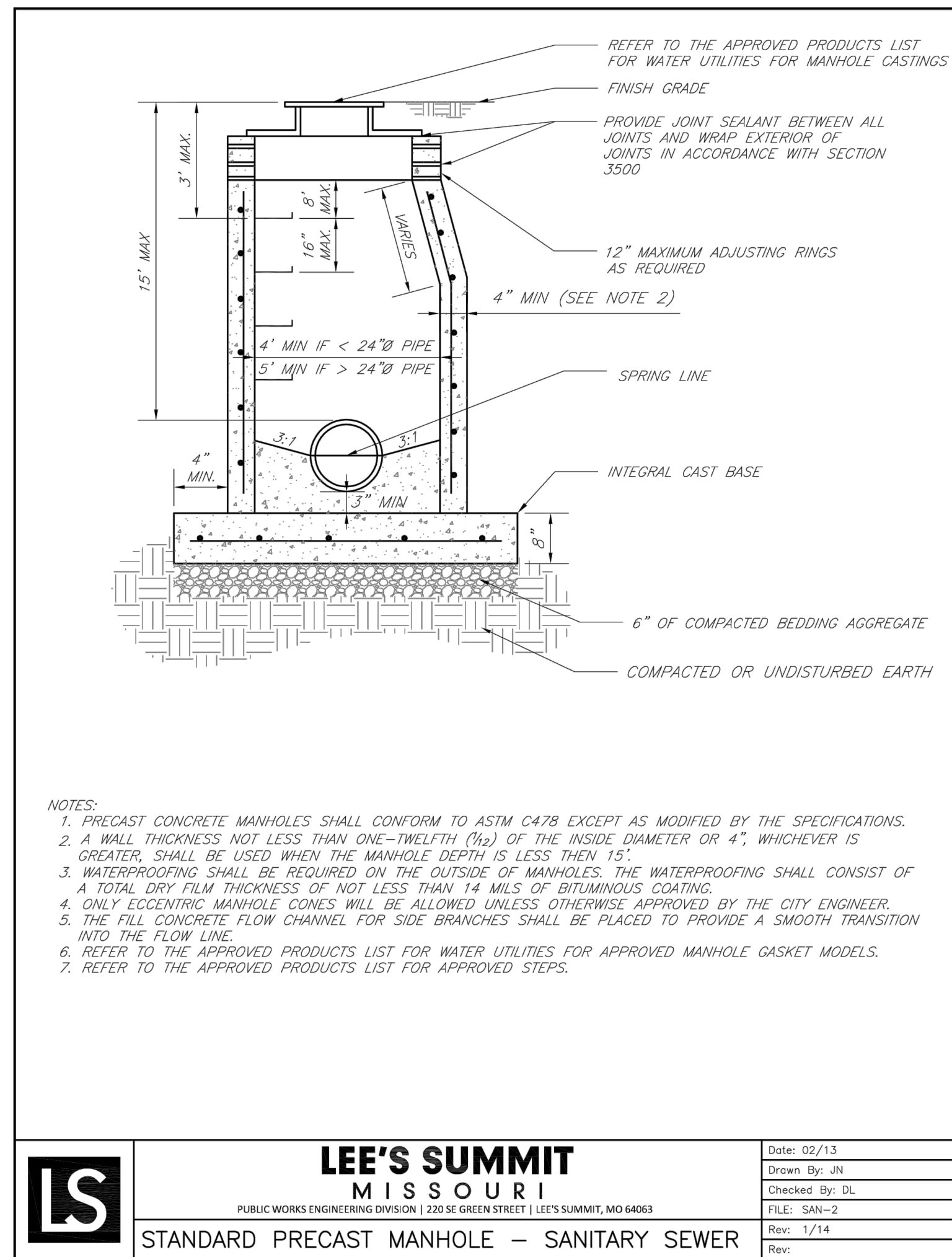


LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

BUILDING SEWER STUB AND RISER

Date: 08/21
Drawn By: MJF
Checked By: DL

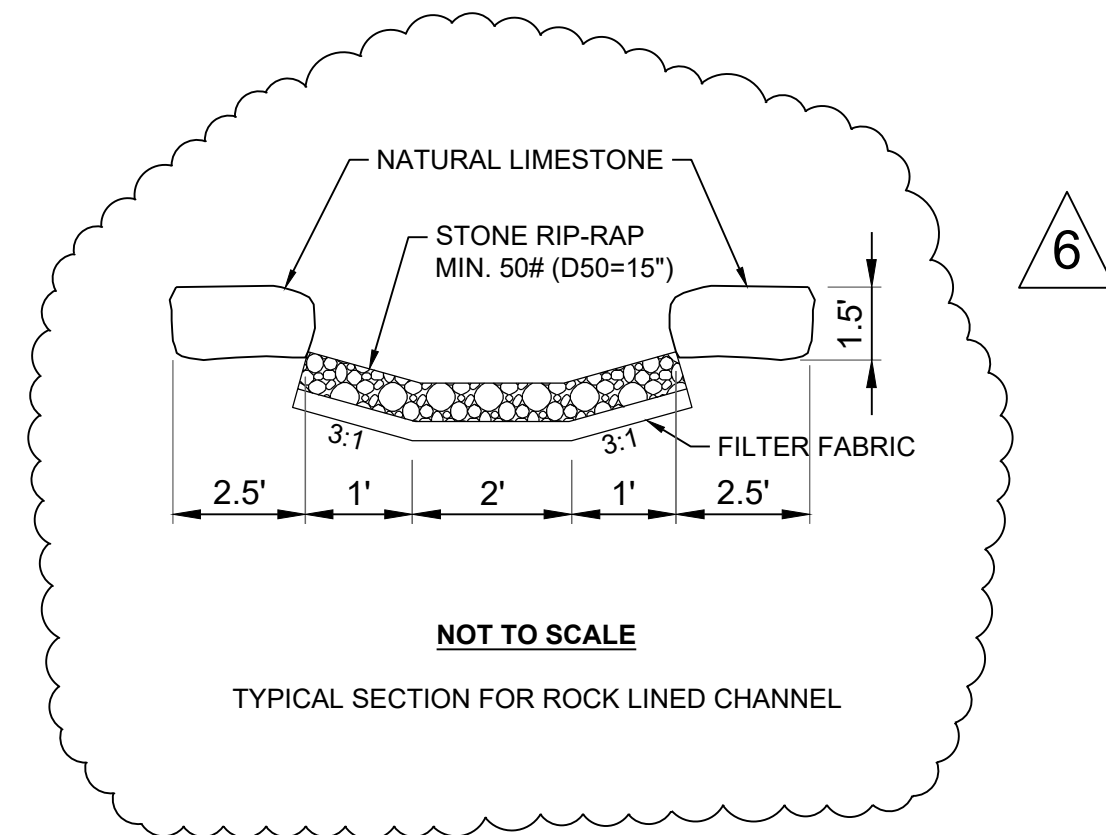
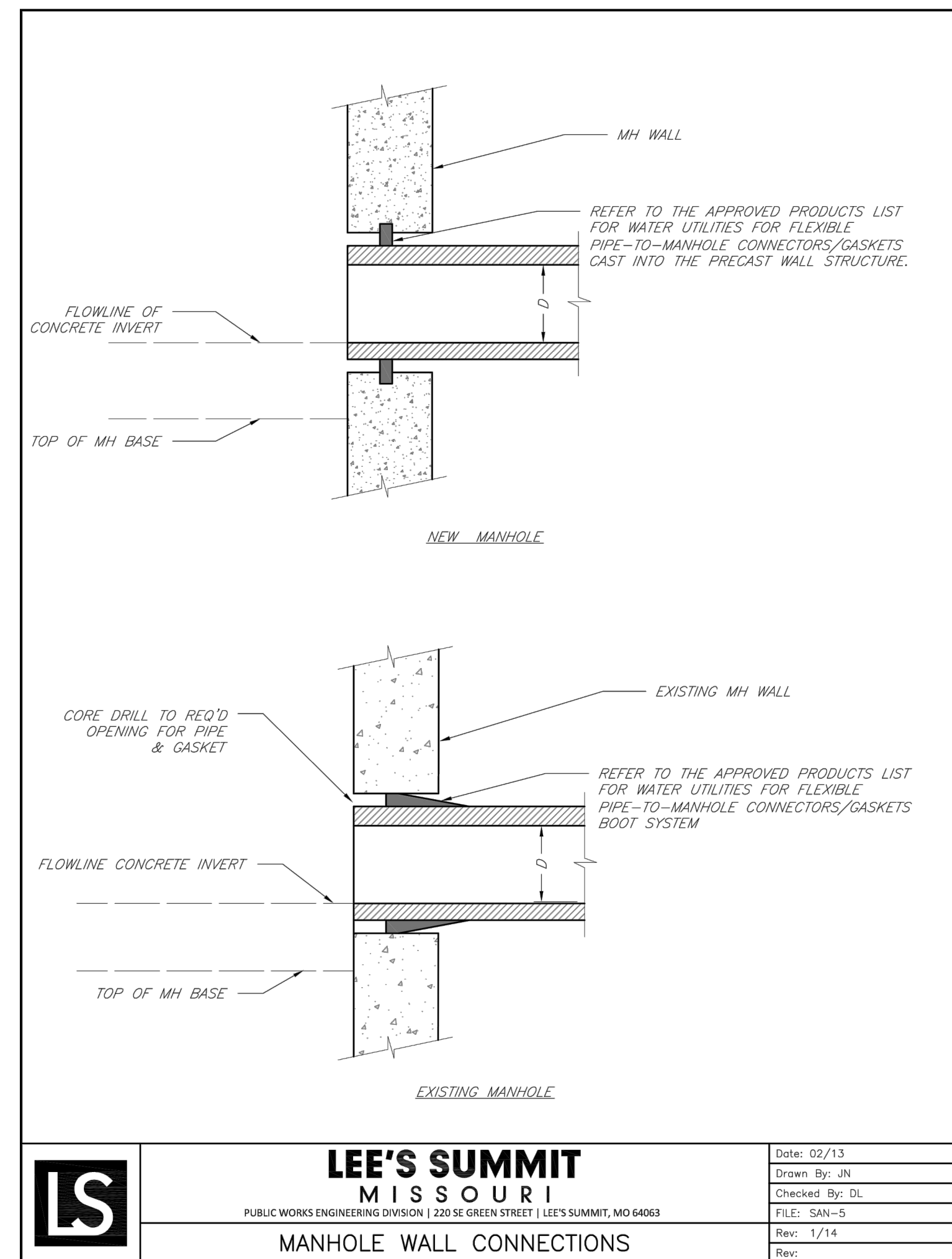
SAN-1



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

STANDARD PRECAST MANHOLE - SANITARY SEWER

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: SAN-2
Rev: 1/14



WOODLAND GLEN 2ND PLAT
SANITARY SEWER MAIN EXTENSION
WARD ROAD AND WINTHROP DRIVE
LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
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10/07/2021	EX. MH 1-7 TIE IN
12/08/2021	MH C1 UPDATE
01/20/2022	WATER LINE CONFLICT
10/18/2022	AS-BUILTS

SANITARY DETAILS

SHEET
12

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Title: Design Engineer
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I:\PROJECTS\2018\18-07\3.0 Design\3.0 DWG Plans\7.0 SAN DETAILS.dwg - 10/18/2022 9:13:20 PM, 1:1