

SUMMIT ORCHARD LOT 4

INFRASTRUCTURE IMPROVEMENTS

SANITARY SEWER PLANS

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI
SEC.31 TWP. 48N, RNG. 31W
SEC.36 TWP. 48N, RNG. 32W

GENERAL NOTES

1. UTILITIES: Locations of existing utilities are shown for information only and are not guaranteed to be either accurate or complete. It is the Contractor's responsibility to contact all utilities and obtain utility staking prior to construction. No utilities on private property are shown. Contact Missouri One Call at 1-800-DIG-RITE, 1-800-344-7483.
2. SOIL BORINGS: No soil boring information is included in the specifications. If the Contractor deems soils investigation necessary for use in preparing his bid, he shall do so at his own expense, and he shall be responsible for any and all permits, rights of entry, and restoration in accordance with the specifications.
3. DEVIATIONS FROM PLANS OR SPECIFICATIONS: Any deviations in the location or number of facilities noted for installation on these plans, or extension or rerouting the utilities constructed under these plans, requires the written authorization of the Owner's Representative before proceeding. Items installed in conflict with the plans and specifications and without such approval will not be approved for payment.
4. SITE ACCESS: The Contractor shall provide access to the work at any time for the owner, engineer, and state or local officials. The Contractor shall maintain access to existing parking lots and shall adhere to MUTCD requirements in Part 6 Temporary Traffic Control for maintaining traffic control during construction.
5. SAFETY: Safety on the job is the sole responsibility of the Contractor. The Contractor is responsible to replace and maintain proper barricades and/or fences to prevent injury to his and other personnel and the public. The Contractor shall leave such barricades and/or fences in place at any time he is absent from the job site.
6. All pavements, sidewalks, abandoned sewers, pipelines, excess earthwork, or other obstructions to construction that are removed, shall become the property of the Contractor unless specifically noted, and shall be disposed of by the Contractor in accordance with state regulations.
7. Removals of portions of pavement, curb gutters, sidewalk, and other similar improvements shall be removed to an existing joint if one is within 18". If there is no existing joint, a joint shall be sawed to minimum depth of 2" with true line and vertical face prior to removal.
8. All power poles, telephone poles, guy wires, and other utilities shall be relocated by owner of the facility unless noted otherwise.
9. The Contractor shall be responsible for the replacement of any property monuments (irons) removed or destroyed by his construction. Monuments being reset shall be placed by a Professional Land Surveyor, licensed to practice in the State of Missouri.
10. All disturbed areas shall be fertilized, seeded, and mulched in accordance with the specifications. The Contractor shall control all sediment run-off from leaving the project by using control features such as silt fences, or other means as directed by the City of Lee's Summit Design and Construction Manual, Ordinance No. 5813, Section 5100.
11. LAYOUT and DIGITAL DRAWINGS (civil) will be available to the successful contractor after award of the contract upon their request. Digital info will be in ACAD 2013 format.



Know what's below.
Call before you dig.

UTILITY CONTACTS

LOCATES: MISSOURI ONE CALL SYSTEM	811/800-DIG-RITE
WATER & SEWER: CITY OF LEE'S SUMMIT	816-969-1940
ELECTRIC: KANSAS CITY POWER & LIGHT	816-471-5275
GAS: SPIRE	816-969-2298
CABLE TV: COMCAST CABLEVISION TIME WARNER	816-795-1100 816-358-8833
TELEPHONE: SBC/AT&T	800-464-7928



SITE LOCATION MAP

APPROVED RECORD
DRAWING

These plans have been reviewed
for accuracy by the Development
Services Staff

SHEET INDEX:

C001	COVER
C002	OVERALL PLAN/NOTES
C201-C202	LINE A PLAN/PROFILE
C203-C204	LINE B PLAN/PROFILE
C501	DETAILS

DEVELOPER

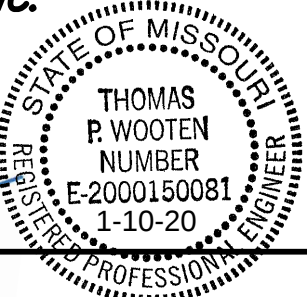
Townsend Summit, LLC
11311 McCormick Road, Suite 470
Hunt Valley, Maryland 21031
PH (816) 251-4100
CONTACT: Steve Rich

ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL, ORDINANCE NO. 5813. PORTIONS OF THE KANSAS CITY APWA SPECIFICATIONS HAVE BEEN INCORPORATED INTO THE LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL. THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL IS THE FINAL AUTHORITY.

PREPARED & SUBMITTED BY:

ANDERSON ENGINEERING, INC.
COLUMBIA, MISSOURI

Thomas P. Wooten
Thomas P. Wooten, P.E.
Missouri: P.E. No E-2000150081



Summary of Quantities			
Item No.	Description	Units	Quantity
1	8" PVC Sewer	LF	834
2	6" PVC Sewer	LF	560 612
3	6" DIP Sewer	LF	40 0
4	Sanitary Manhole	EA	4
5	Sanitary Service Connection - Line A	EA	9
6	Sanitary Service Connection - Line B	EA	4
7	Sanitary Cleanout	EA	1
8	Connection to Existing Manhole	EA	2

NO.		DESCRIPTION		BY		DATE		DRAWING INFO	
1		ESI's 1,2,3		TPW		6-28-19		JEN	
2		Sanitary Sewer As Built		JEN		1-9-20		TPW	
								E-2000150081	
								4-11-2019	
								FIELD BOOK:	
								JOB NUMBER:	19C010001

SUMMIT ORCHARD LOT 4
INFRASTRUCTURE IMPROVEMENTS
SANITARY SEWER PLANS

COVER

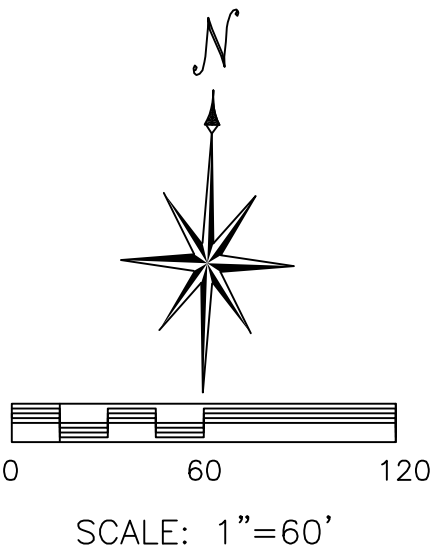
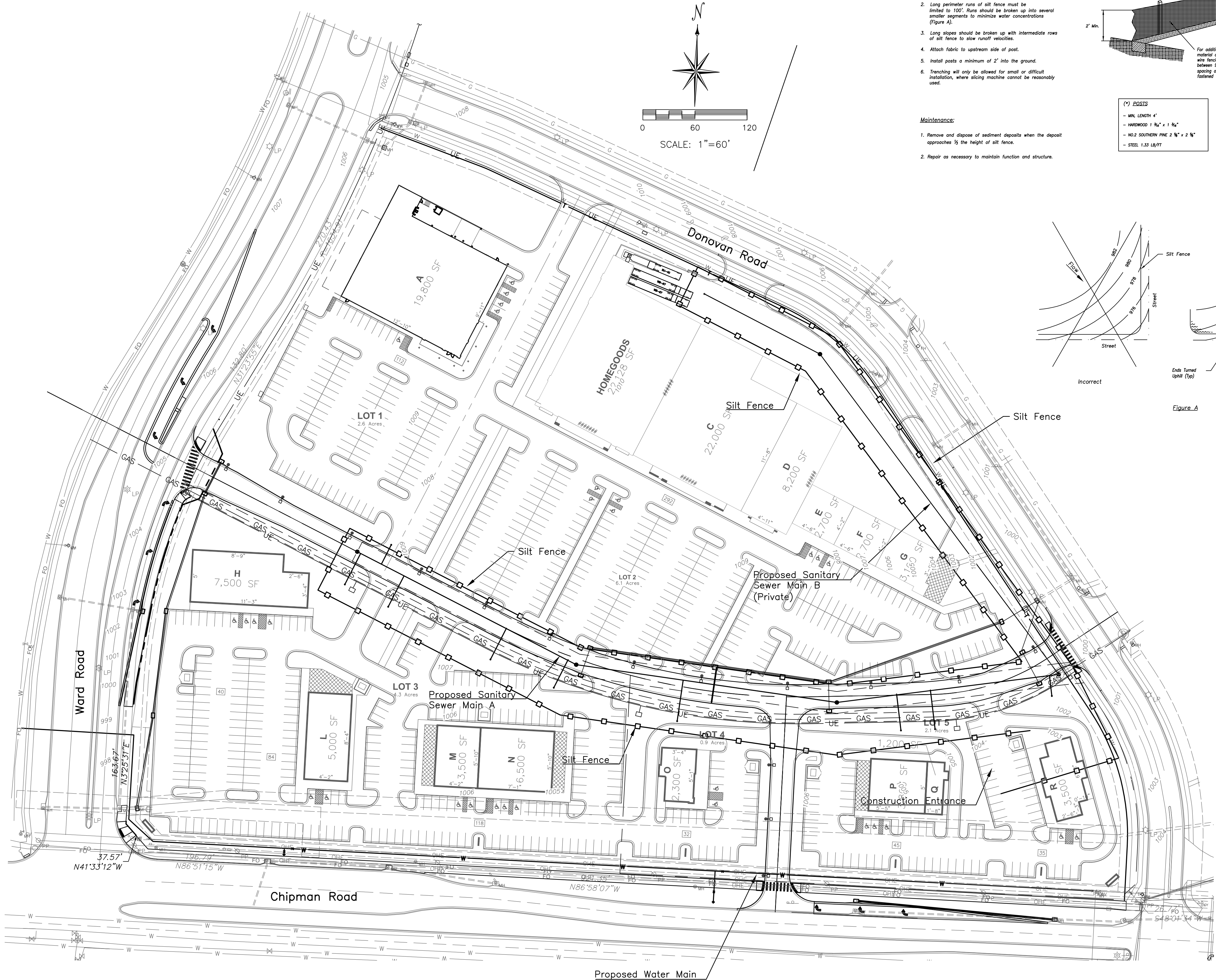
LEE'S SUMMIT, MISSOURI

SHEET NUMBER
C001
1 OF 7

EMPLOYEE OWNED

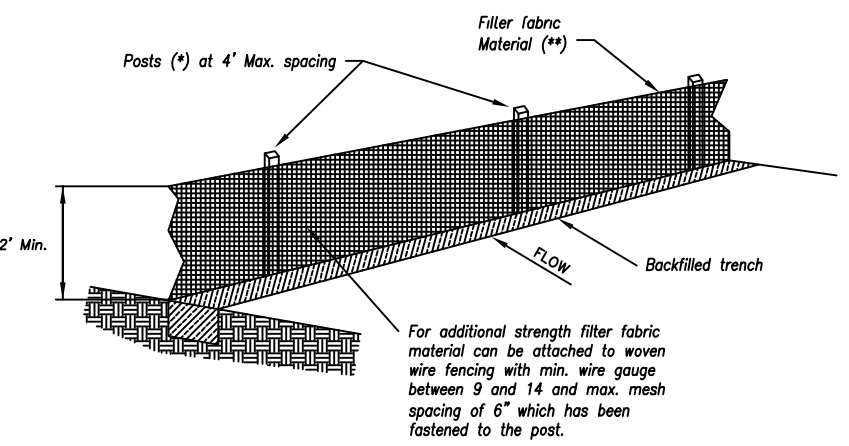
ENGINEERS - SURVEYORS - LABORATORIES - DRILLING
4240 PHILIPS FARM RD, STE. 101 - COLUMBIA, MO 65201 - PHONE (573) 387-5476
A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION
MISSOURI CERTIFICATE OF AUTHORITY #000062 EXPIRES 12/31/2019

Apr 11, 2019 - 8:13pm Plotted By: Jhus Z:\AE-COL\1-Projects\180010001 - Township Lot 4 CID Infrastructure\DWG\Summit Orchards Plans - C002.dwg Layout: C002 San



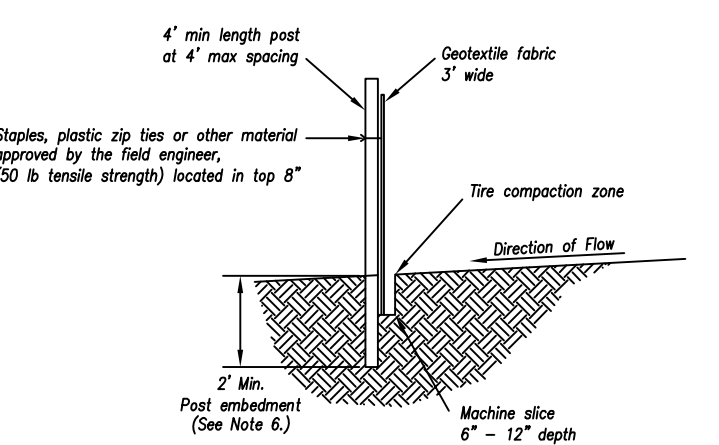
- Notes:**
1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
 2. Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
 3. Long slopes should be broken up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

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



- (*) POSTS**
- MIN. LENGTH 4'
 - HARDWOOD 1 3/4" x 1 3/4"
 - NO. 2 SOUTHERN PINE 2 3/4" x 2 3/4"
 - STEEL 1.33 LB/FT

() - Geotextile Fabric** shall meet the requirements of AASHTO M288



SILT FENCE DETAILS
Not to Scale

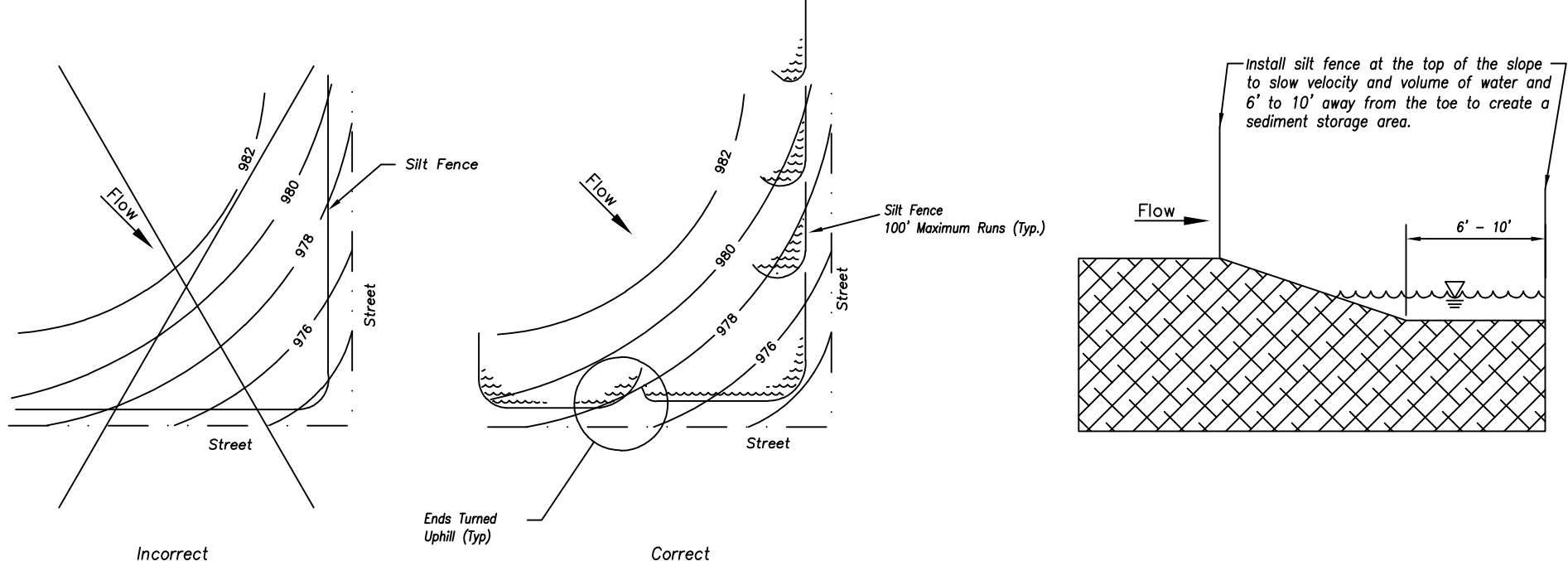
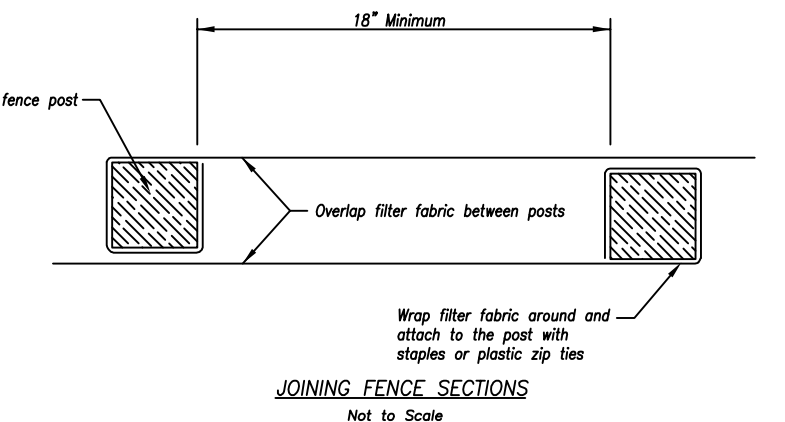


Figure A

SILT FENCE LAYOUT
Not to Scale



1 SILT FENCE DETAIL
C002 APWA ESC-03
N.T.S.

**APPROVED RECORD
DRAWING**

These plans have been reviewed
for accuracy by the Development
Services Staff

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MISSOURI CERTIFICATE OF AUTHORITY #000062 EXPIRES 12/31/2019

REVISIONS		DRAWING INFO.	
NO.	DESCRIPTION	BY	DATE
		JEN	
		TPW	
		LICENSE NO.	
		DATE:	4-11-19
		FIELD BOOK:	19CO10001
		JOB NUMBER:	

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SUMMIT ORCHARD LOT 4
INFRASTRUCTURE IMPROVEMENTS
SANITARY SEWER PLANS

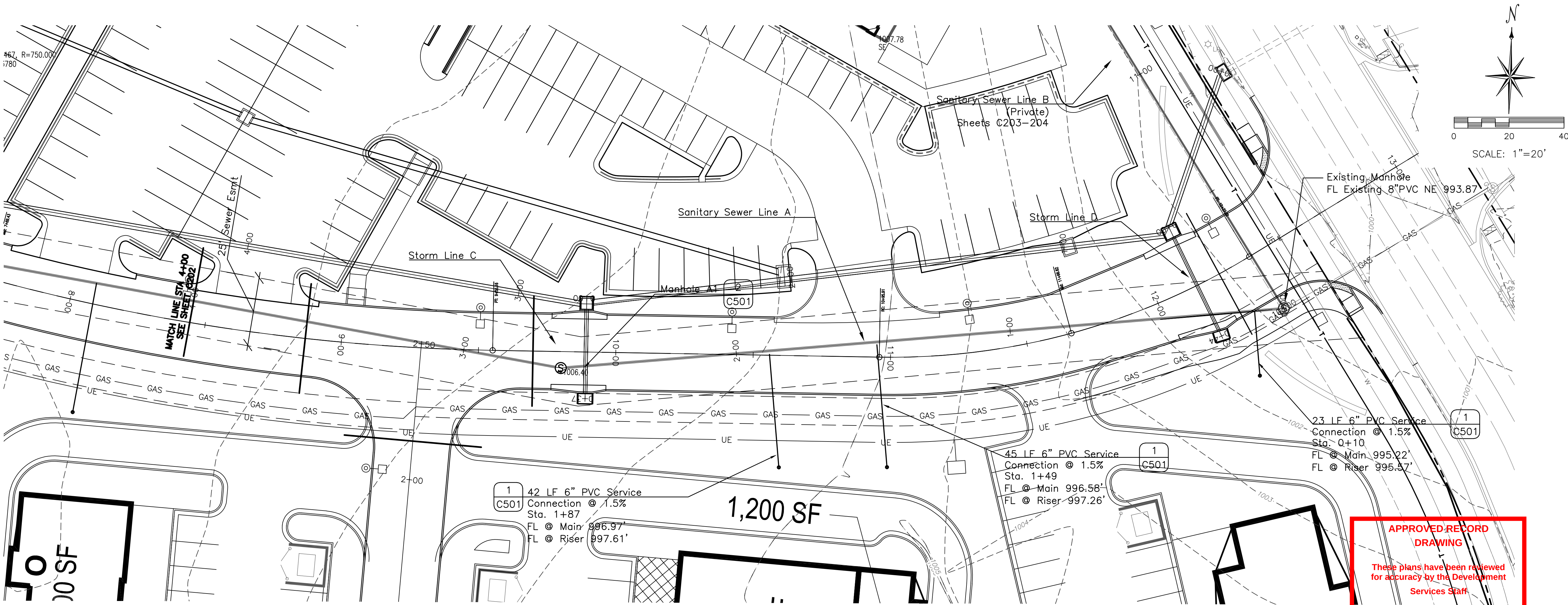
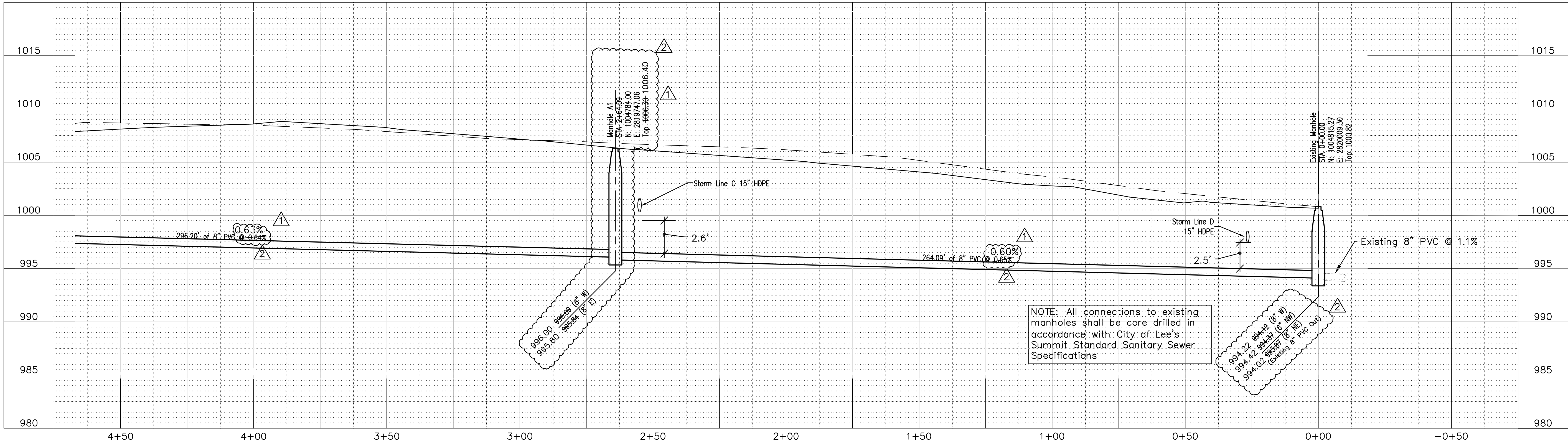
OVERALL PLAN/NOTES

LEE'S SUMMIT, MISSOURI

STATE OF MISSOURI
THOMAS P. WOOTEN
REGISTERED PROFESSIONAL ENGINEER
NUMBER E-2000150081
4-17-19

SHEET NUMBER
C002
2 OF 7

Jan 10, 2020 -- 9:59am Plotted By: twot Z:\AE-COL\1-Projects\19sc010001 - Townsend Lot 4 CID Infrastructure\DWG\Summit Orchards Plans - Sanitary.dwg Layout: C201



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SUMMIT ORCHARD LOT 4
INFRASTRUCTURE IMPROVEMENTS
SANITARY SEWER PLANS

LINE A PLAN/PROFILE

LEE'S SUMMIT, MISSOURI

SHEET NUMBER
C201
3 OF 7

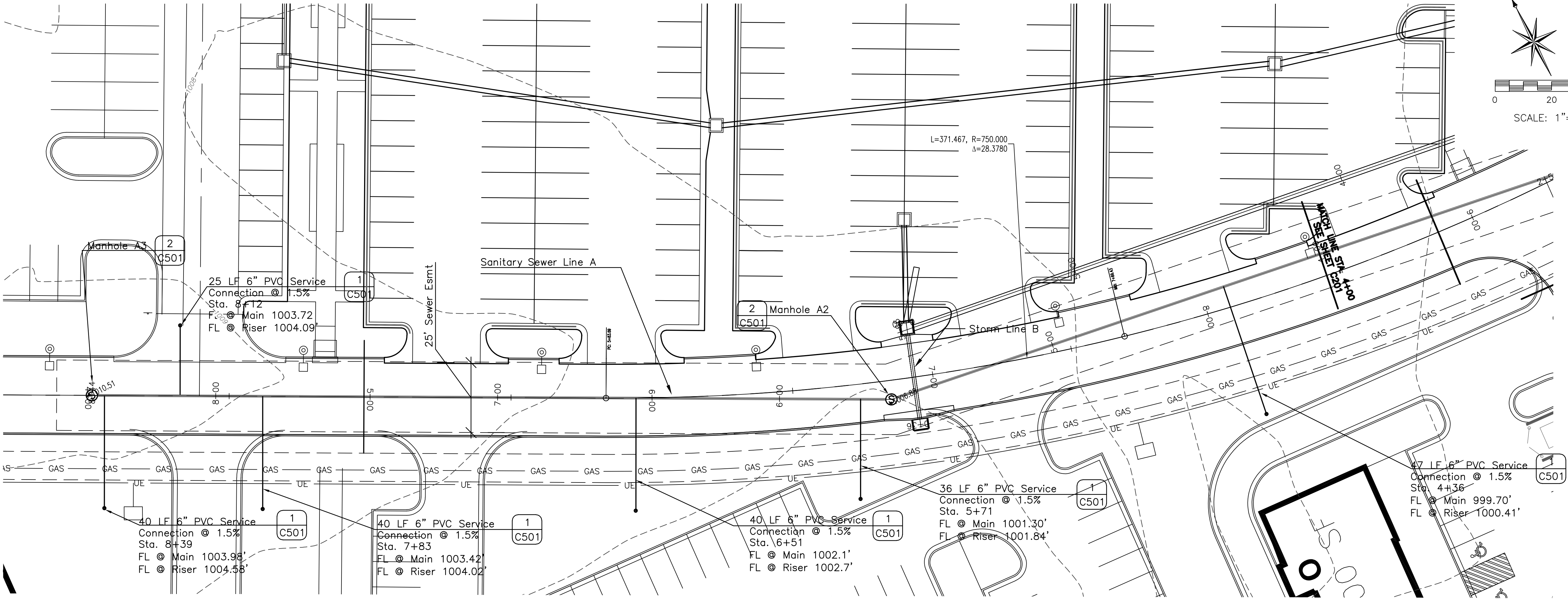
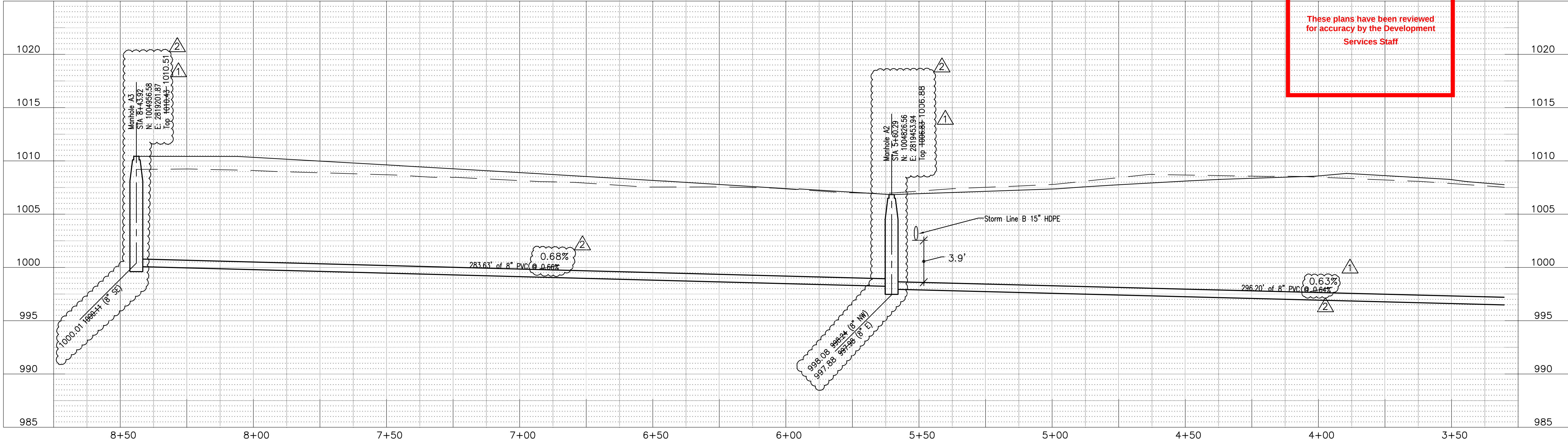
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2		Sanitary Sewer As Built		JEN		1/9/20		CHECK BY:	TPW
								LICENSE NO.	E-2000150081
								DATE:	4-11-2019
								FIELD BOOK:	
								JOB NUMBER:	19CO10001

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Jan 09, 2020 - 1:54pm Plotted By: jhus C:\Users\jhus\Desktop\ref\Summit Orchards Plans - Sanitary.dwg Layout: C202



SHEET NUMBER
C202
4 OF 7

THOMAS P. WOOTEN
REGISTERED PROFESSIONAL ENGINEER
E-2000150081
1-10-20
Thomas P. Wooten

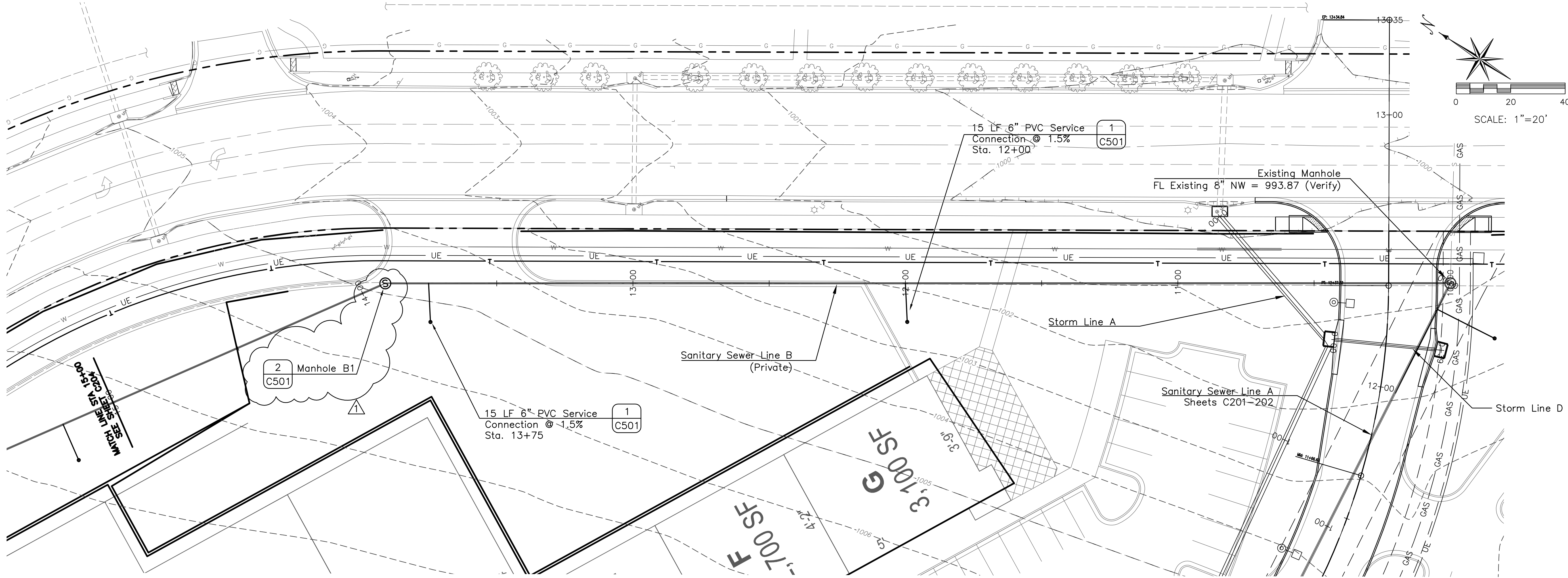
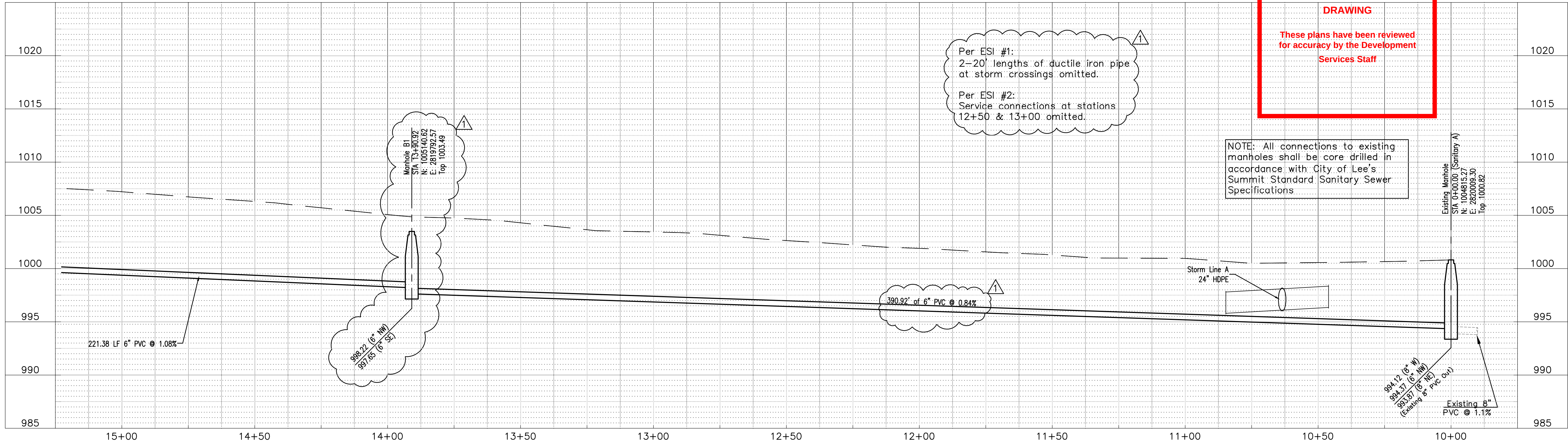
SUMMIT ORCHARD LOT 4
INFRASTRUCTURE IMPROVEMENTS
SANITARY SEWER PLANS
LINE A PLAN/PROFILE
LEE'S SUMMIT, MISSOURI

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1		ESI's 1,2,3		TPW		6-28-19		DRAWN BY:	JEN
2		Sanitary Sewer As Built		JEN		1/9/20		CHECK BY:	TPW
								LICENSE NO.	E-2000150081
								DATE:	4-11-2019
								FIELD BOOK:	
								JOB NUMBER:	19CO10001

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SUMMIT ORCHARD LOT 4

INFRASTRUCTURE IMPROVEMENTS

SANITARY SEWER PLANS

LEE'S SUMMIT, MISSOURI

STATE OF MISSOURI

THOMAS P. WOOTEN

REGISTERED PROFESSIONAL ENGINEER

E-2000150081

6-28-19

SHEET NUMBER

C203

5 OF 7

NO.		DESCRIPTION		BY		DATE		DRAWN BY:	
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								CHECK BY:	
								E-2000150081	
								LICENSE NO.	
								4-11-2019	
								DATE:	
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								19C010001	

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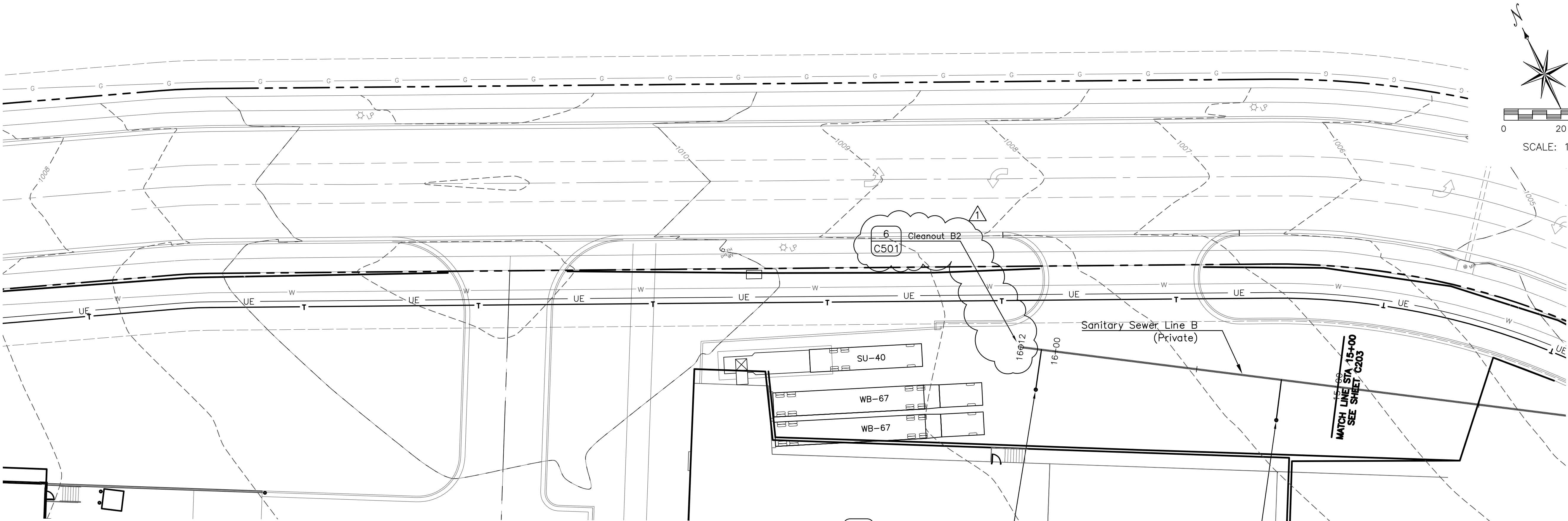
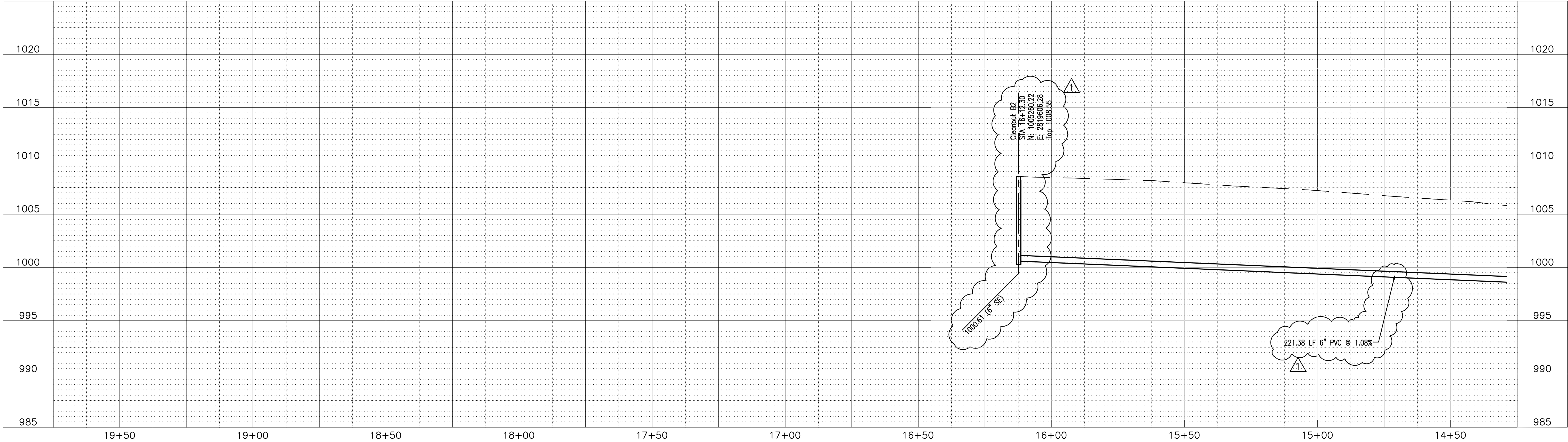
ENGINEERS SURVEYORS LABORATORIES DRILLING

4240 PHILIPS FARM RD. STE. 101 COLUMBIA, MO 65201 PHONE (573) 387-5476

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Jun 28, 2019 - 10:50am Plotted By: CO Eng2 G:\AE-coc\1--Projects\--Projects\9c010001 - Townsend Lot 4 CID Infrastructure\dwg\Summit Orchards Plans - Sanitary.dwg Layout: C204



1 15 LF 6" PVC Service
C501 Connection @ 1.5%
Sta. 16+05

1 15 LF 6" PVC Service
C501 Connection @ 1.5%
Sta. 15+20

**APPROVED RECORD
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Services Staff

SUMMIT ORCHARD LOT 4
INFRASTRUCTURE IMPROVEMENTS
SANITARY SEWER PLANS
LINE B PLAN/PROFILE
LEE'S SUMMIT, MISSOURI

STATE OF MISSOURI
THOMAS P. WOOTEN
NUMBER
E-2000150081
6-28-19
PROFESSIONAL ENGINEER

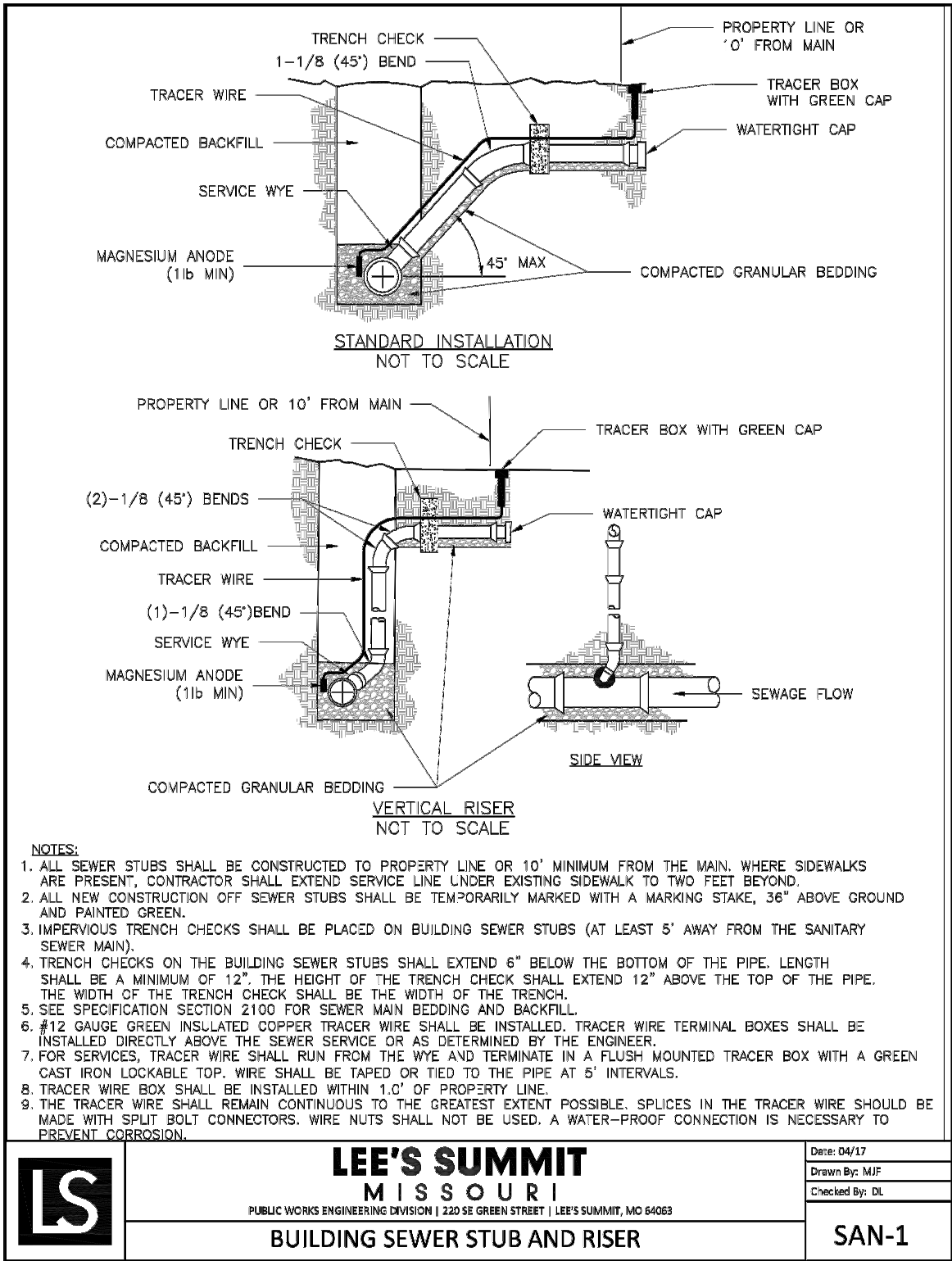
SHEET NUMBER
C204
6 OF 7

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				LICENSE NO.	E-2000150081
				DATE:	4-11-2019
				FIELD BOOK:	
				JOB NUMBER:	19CO10001
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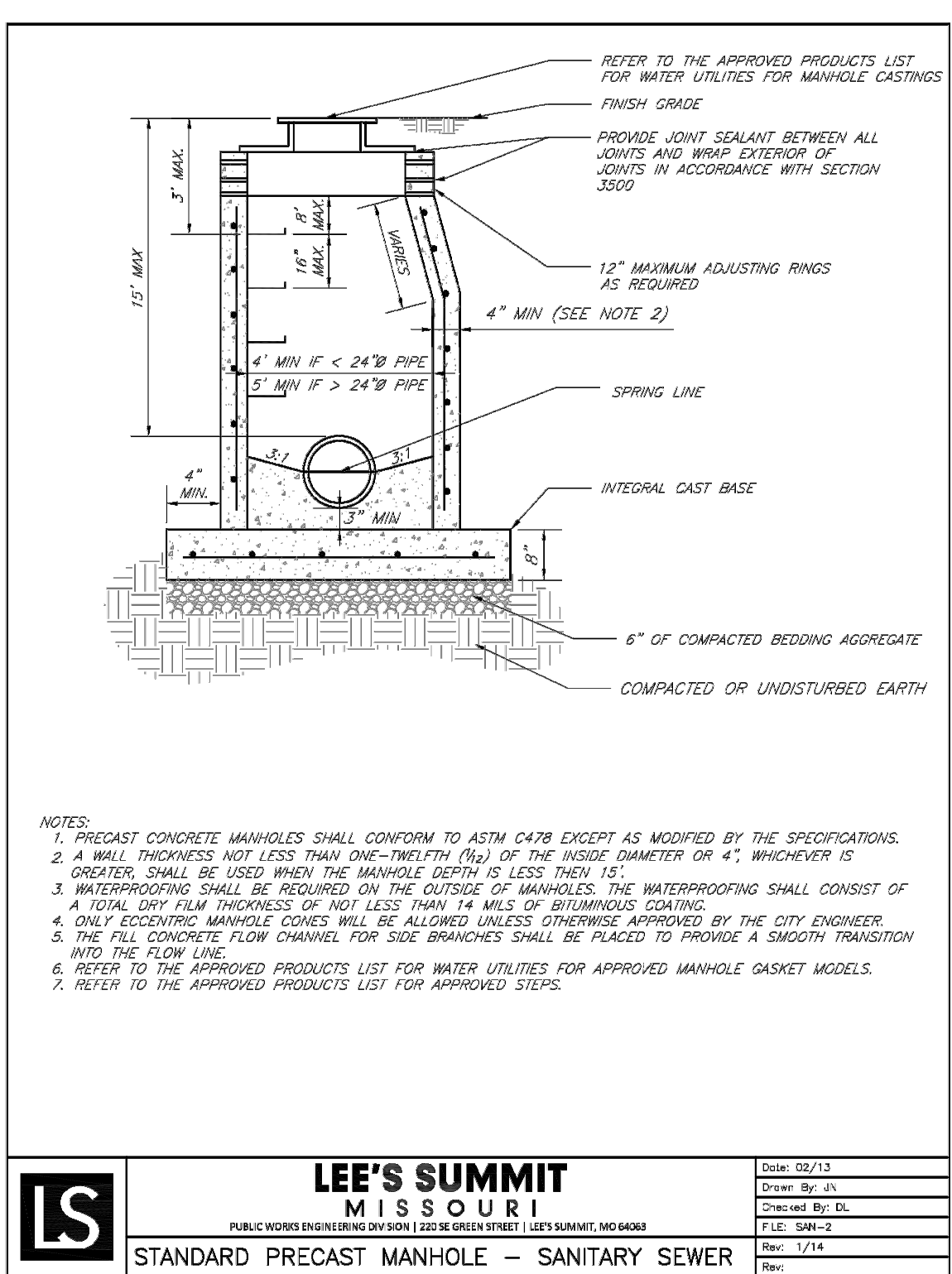
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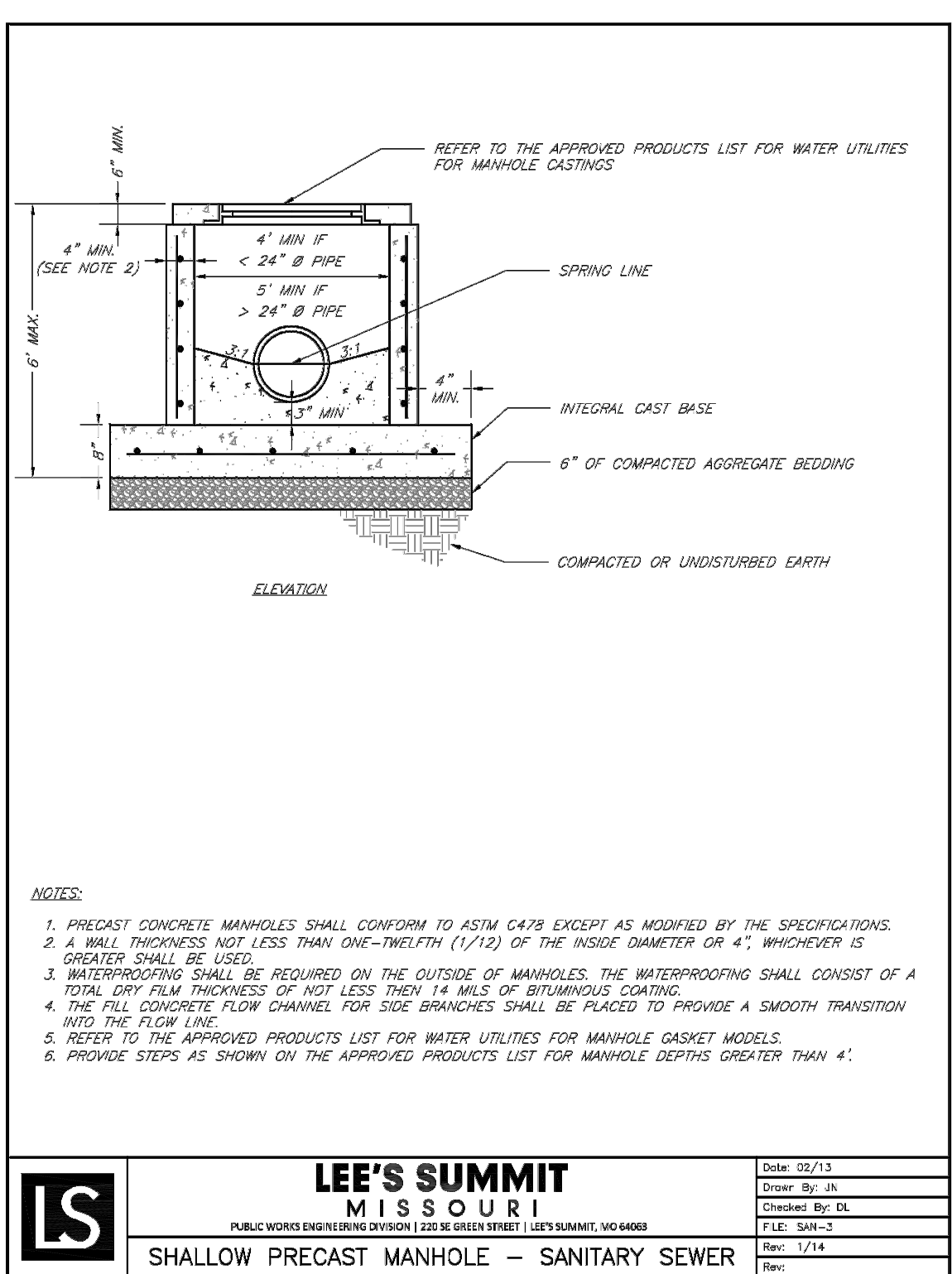
Apr 11, 2019 - 8:20pm Plotted By: jhus Z:\4E-C01\1-Projects\156010001 - Townsend Lot 4 C01 Infrastructure\DWG\156010001-Cov Log Det Sanitary.dwg Layout: C501



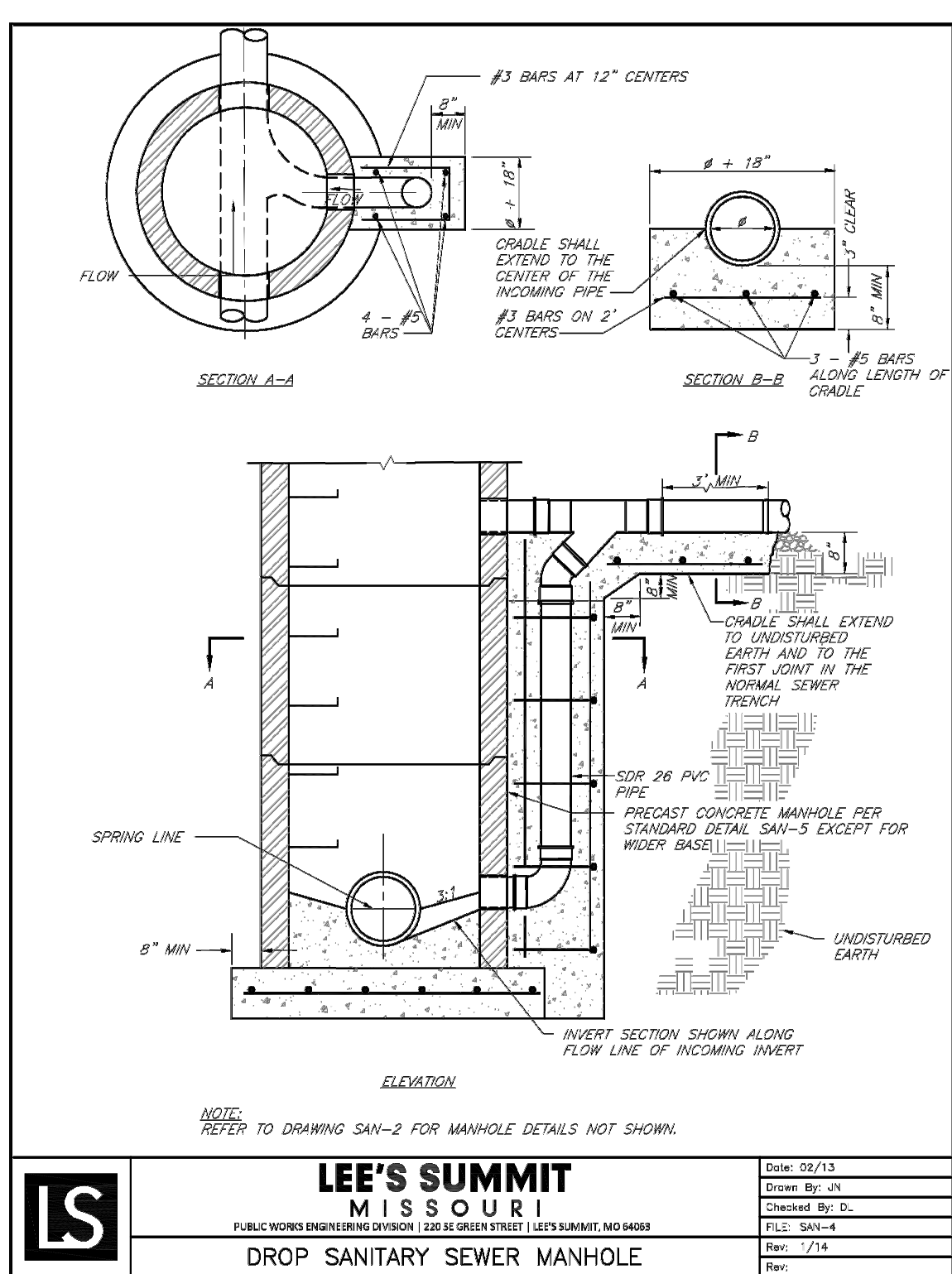
1 BUILDING SEWER
C501 STUB AND RISER
N.T.S.



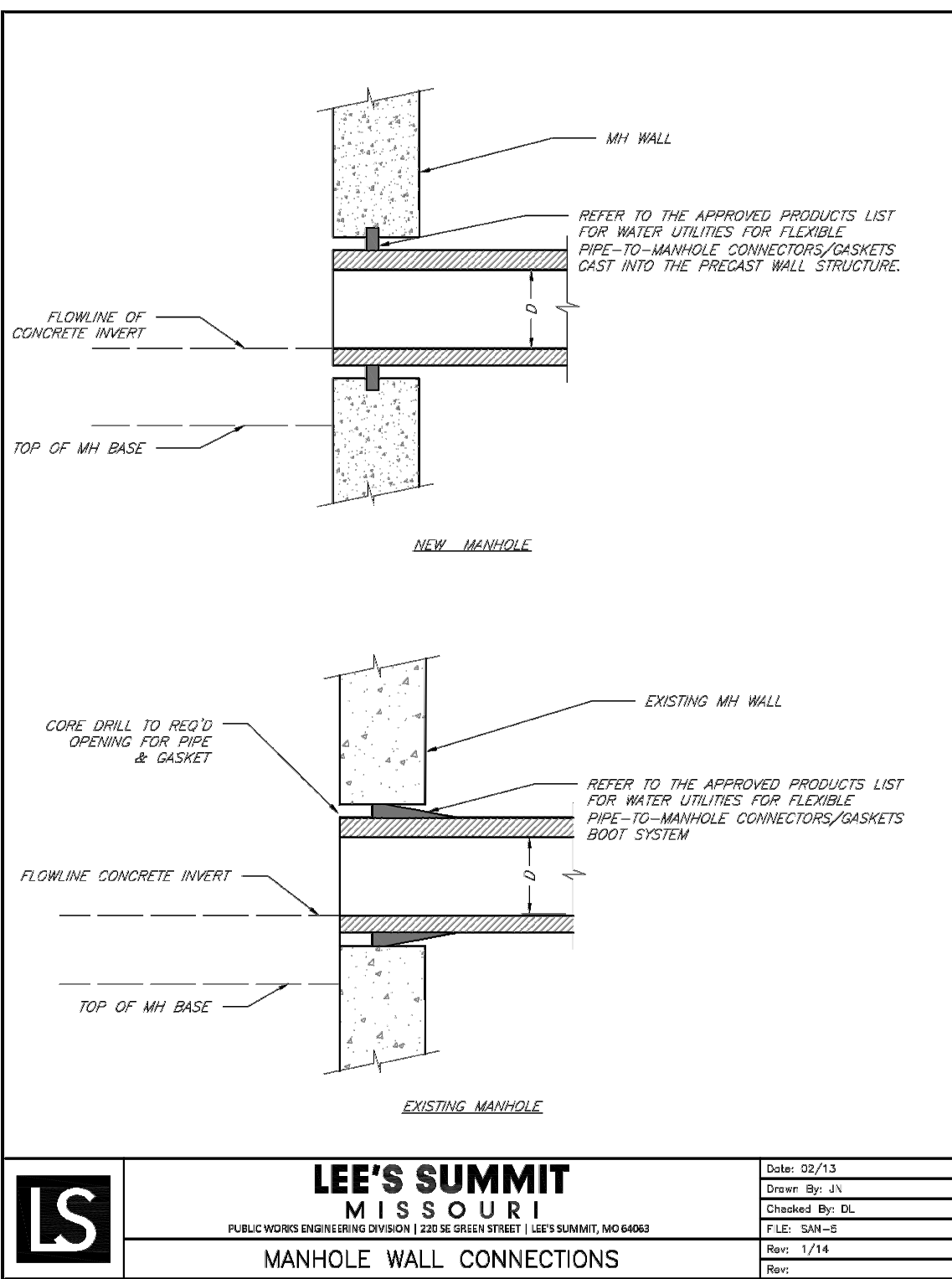
2 STD PRECAST MANHOLE
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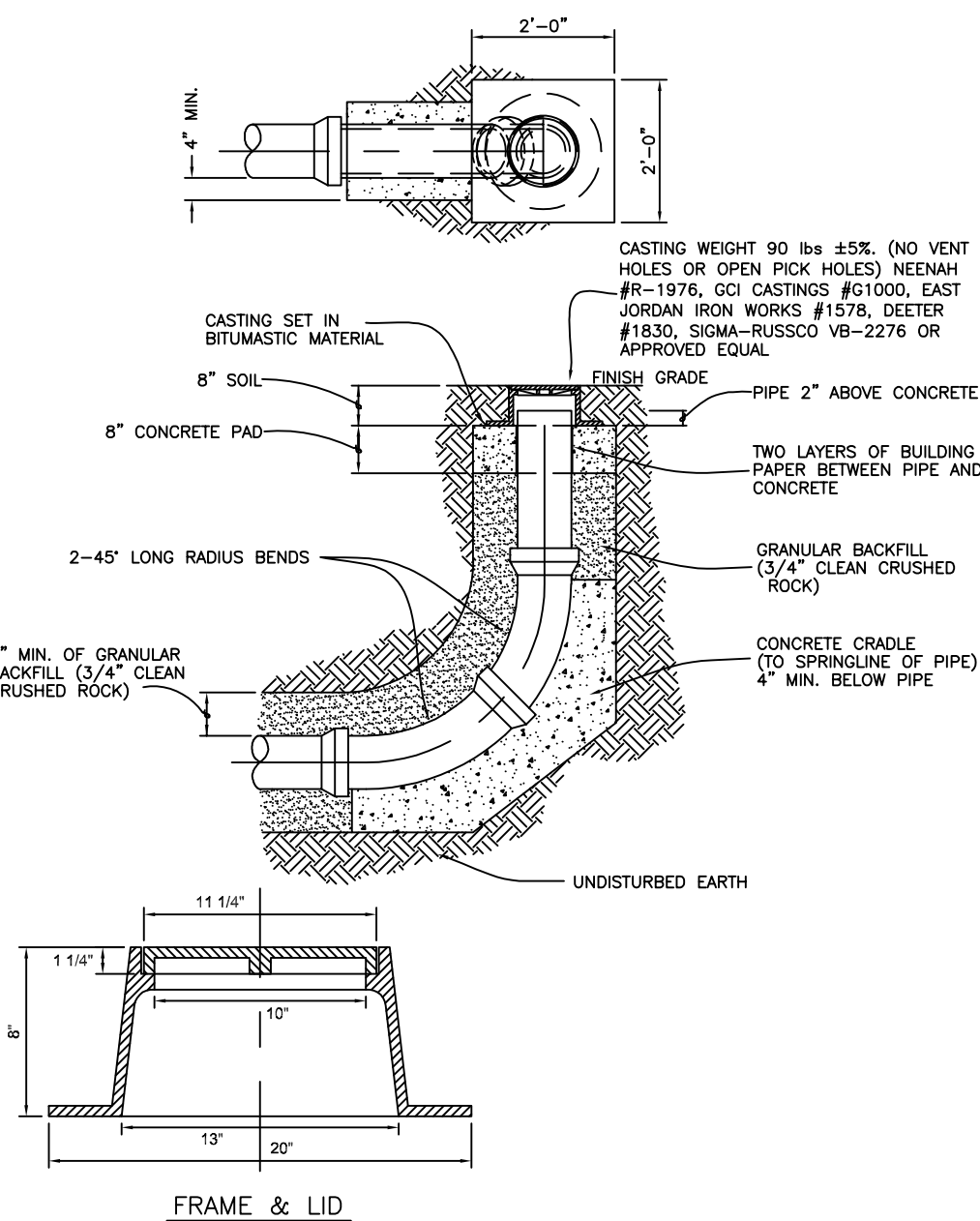
3 SHALLOW PRECAST MANHOLE
C501 N.T.S.



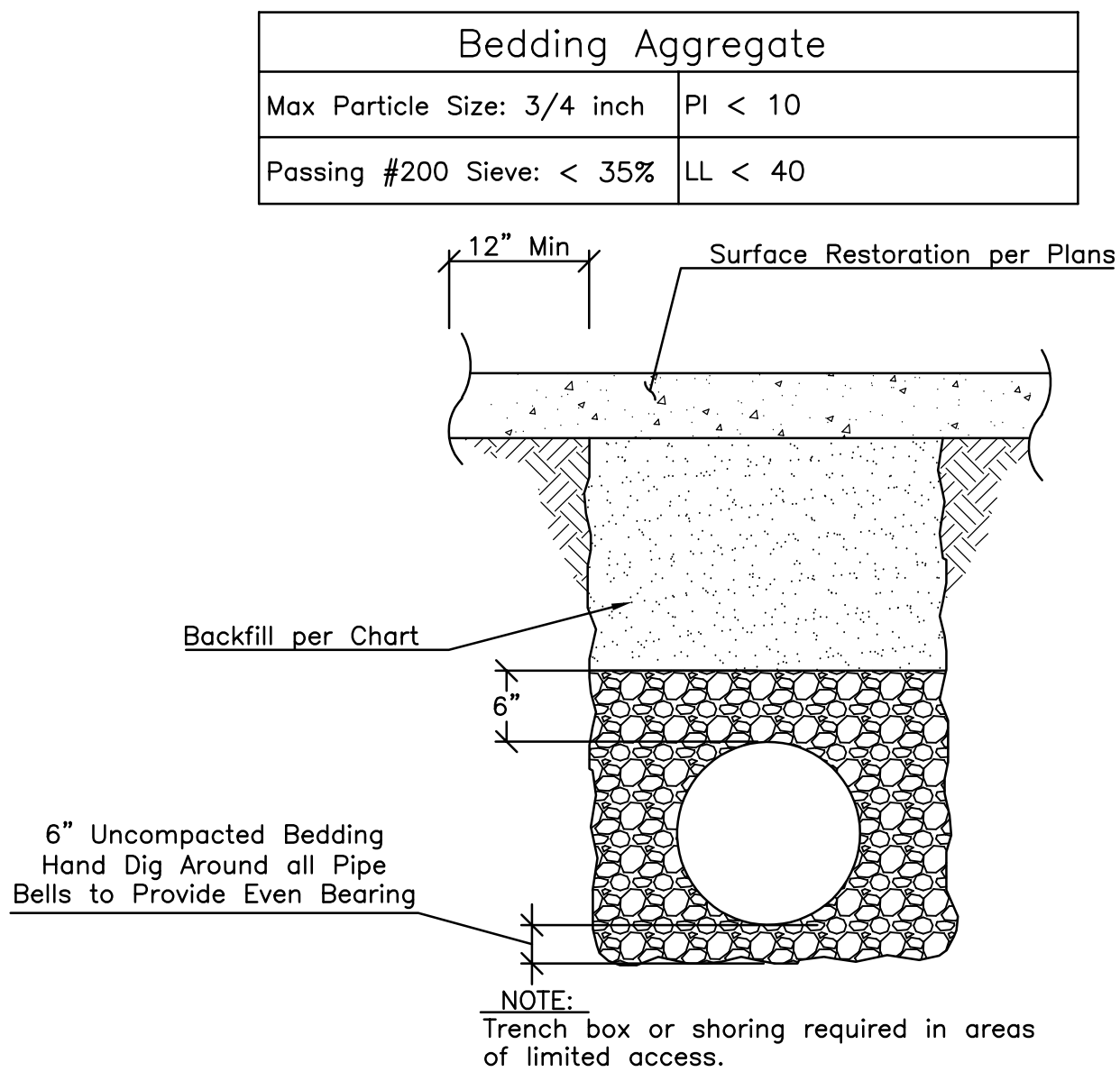
4 DROP SANITARY SEWER
C501 MANHOLE
N.T.S.



5 MANHOLE WALL
C501 CONNECTIONS
N.T.S.



6 CLEANOUT
C501 N.T.S.



7 METHOD OF BEDDING PIPE
C501 N.T.S.

BACKFILL		
Trench Location	Requirement	Compaction
Paved areas within street or alley right of way	Trenches 24" on less in width: Type A flowable fill Trenches 24"-48" wide: Type A flowable fill or dense, well-graded aggregate base material. Aggregate base material shall meet the requirements for MoDOT Types 1 or 5, or APWA 2202.2 Trenches greater than 48" wide: Suitable material as specified for earth embankment in APWA Standard Specifications, Section 2102.2.C	95% Standard Proctor
Lawn	Suitable material as specified for earth embankment in APWA Standard Specifications, Section 2102.2.C Suitable backfill material may also be other trench backfill material (flowable fill or aggregate base) depending on site conditions, trench widths, or at the direction of the City's on-site Inspector.	90% Standard Proctor

**APPROVED RECORD
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SUMMIT ORCHARD LOT 4
INFRASTRUCTURE IMPROVEMENTS
SANITARY SEWER PLANS
DETAILS
LEE'S SUMMIT, MISSOURI

STATE OF MISSOURI
REGISTERED PROFESSIONAL ENGINEER
THOMAS P. WOOTEN
NUMBER
E-2000150081
4-17-19

Thomas P. Wooten

SHEET NUMBER
C501
7 OF 7

REVISIONS		DRAWING INFO	
NO.	DESCRIPTION	BY	DATE
		JEN	
		TPW	
		E-2000150081	
		4-11-2019	
		FIELD BOOK:	
		JOB NUMBER:	19C010001

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