

METROPOLITAN ST. LOUIS SEWER DISTRICT

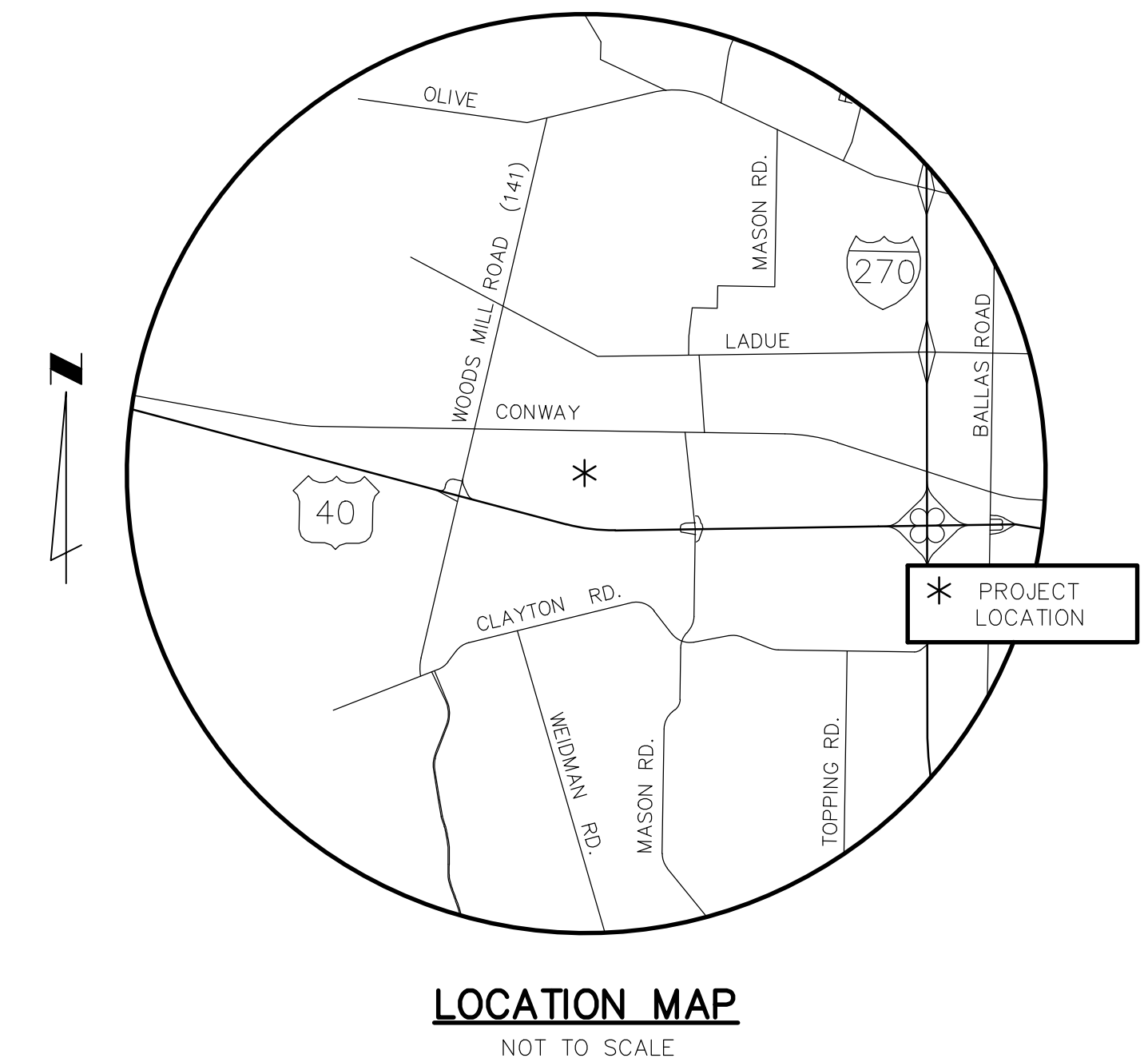
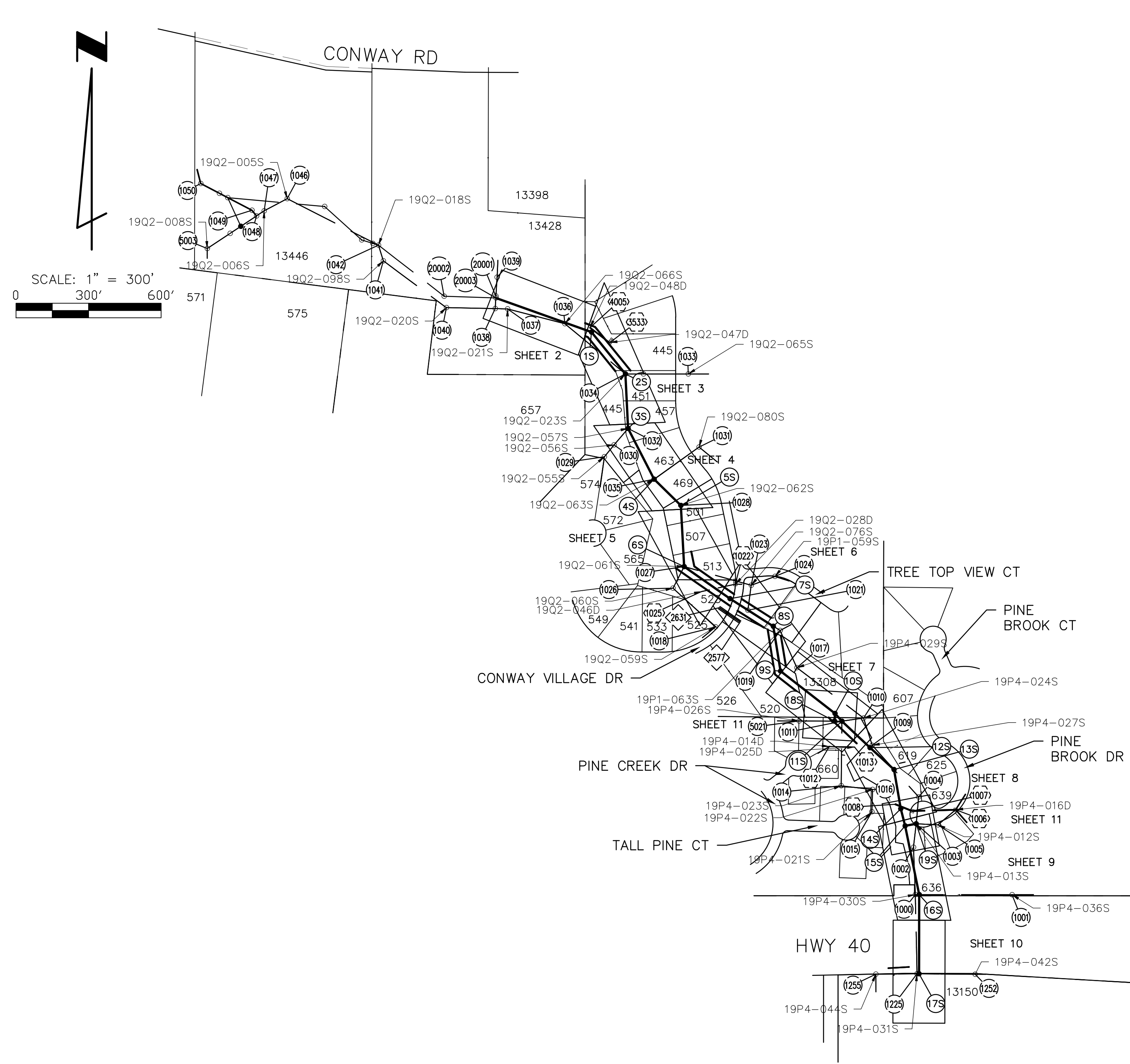
CONWAY VILLAGE SANITARY RELIEF (CONWAY RD TO I-64)

LEGEND

EXISTING		NEW
○	MANHOLE	●
⊗	INLET MANHOLE	⊠
□	INLET	■
▭	DOUBLE INLET	■
○	MANHOLE DESIGNATOR	○
⊗	INLET OR STRUCTURE DESIGNATOR	⊗
◇	OUTLET OR FES DESIGNATOR	◇
⊠	JUNCTION CHAMBER DESIGNATOR	⊠
—	PIPE 6" THRU 18"	—
—	PIPE 21" THRU 108"	—
— x —	FENCE	— x —
— 2'G —	UNDERGROUND UTILITIES	—
—	FLOWLINE OF CREEK OR DITCH	—
—	GUARD RAIL	—
+	TREE	+
●	BUSH	●
—	HEDGE ROW	—
▲	UTILITY METER OR VALVE	▲
●	POWER POLE	●
●	POWER POLE & GUY	●
○	STREET SIGN	○
●	FIRE HYDRANT	●
+	LIGHT STANDARD	+
⊠	MAIL BOX	⊠
○	HOUSE VENT	○
○	TRAFFIC SIGNAL	○
⊠	UTILITY BOX	⊠
△	CONTROL POINT/TRVERSE POINT	△
◇	CONTROL POINT DESIGNATOR	◇
△	TRAVERSE POINT DESIGNATOR	△
●	TEST HOLE	●

NOTE:
UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS. THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS NOT PRESENTLY KNOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UTILITIES LOCATED IN THE FIELD PRIOR TO EXCAVATION OR CONSTRUCTION.

HORIZONTAL CONTROL NOTE AND M.S.D. BENCHMARK:
HORIZONTAL AND VERTICAL CONTROL WAS ESTABLISHED USING "TOPCON HYPER" GPS EQUIPMENT, USING THE MoDOT CONTINUOUSLY OPERATING MIDWEST RTK NETWORK. HORIZONTAL CONTROL IS REPORTED IN NAD-83 AND VERTICAL CONTROL IS REPORTED IN NAVD-88 FIELD WORK WAS PERFORMED DURING THE MONTH OF NOVEMBER 2017.



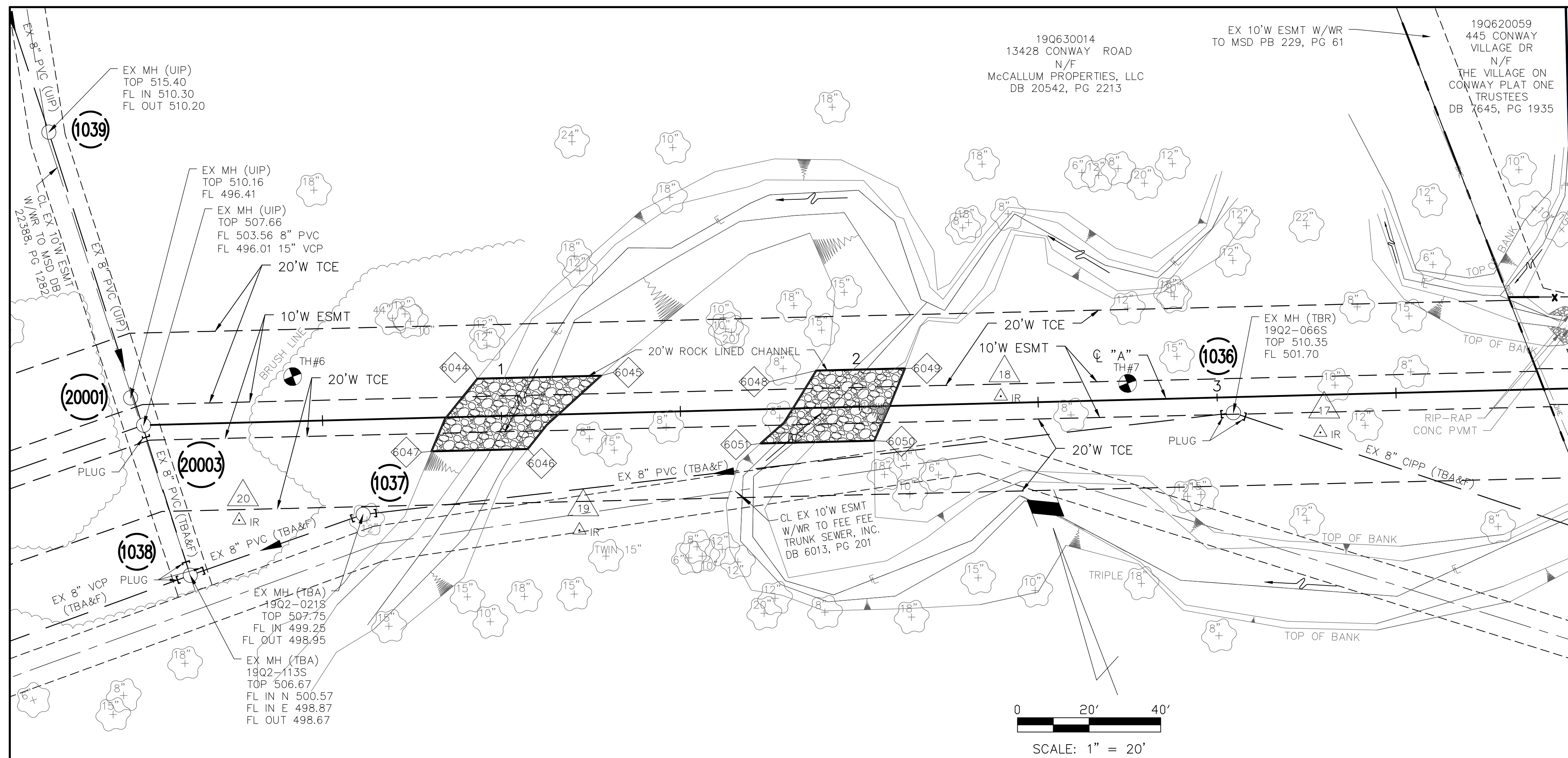
INDEX

SHEET NO.	DESCRIPTION
1	COVER SHEET
2-13	PLAN AND PROFILE
14-15	DETAIL SHEETS

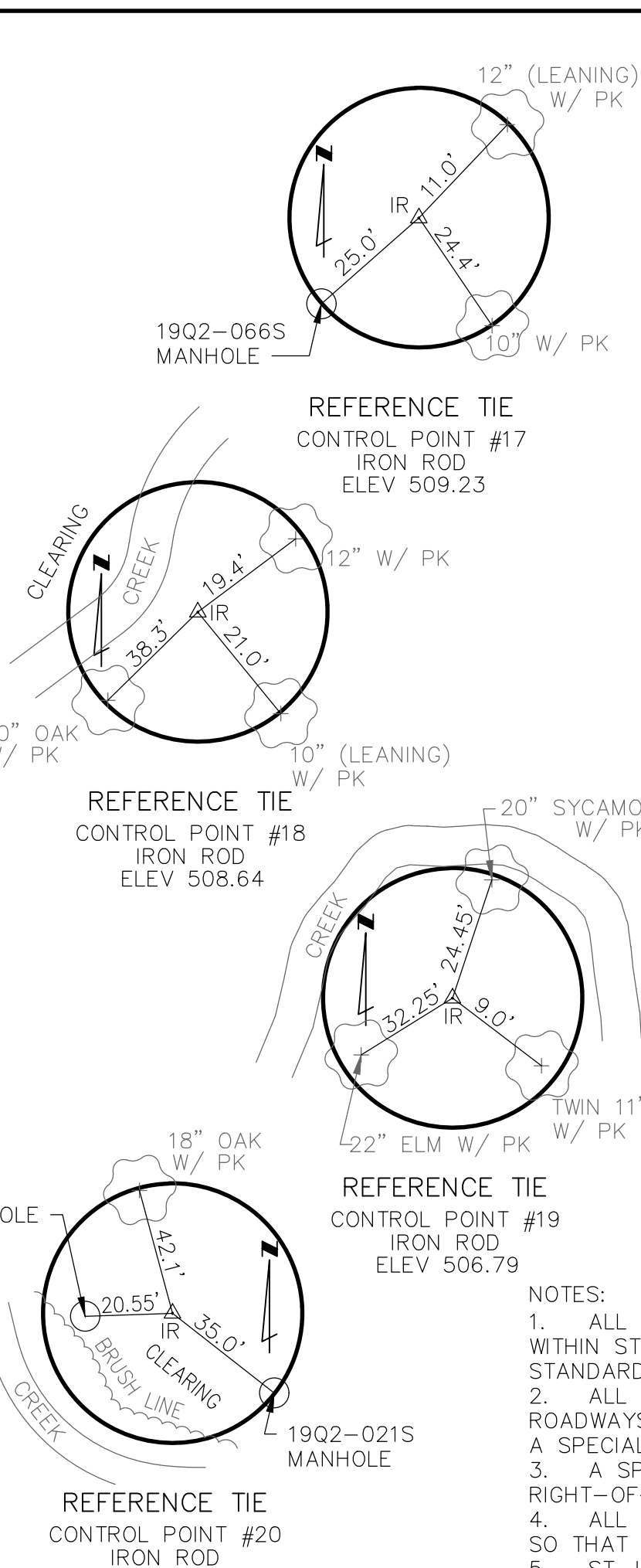
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 911 Washington Ave, Suite 620 St. Louis, Missouri 63101 www.m3eng.com Ph: 314.588.0599 Fx: 314.588.9442 #2009027953	REV.	DATE	DESCRIPTION	BY
	METROPOLITAN ST. LOUIS SEWER DISTRICT CONWAY VILLAGE SANITARY RELIEF (CONWAY RD TO I-64) 12131-015.0 CITY OF TOWN & COUNTRY ST. LOUIS COUNTY, MISSOURI			
 THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY TODD DOUGLAS WILLIAMS, P.E. CIVIL ENGINEER P.E. No. 2000150085 November 25, 2019	Designed	T.D.W.	Date	NOV 2019
	Drawn	M.R.B.	Sheet No.	1 of 15
	Checked	M.S.M.		

wood.
15933 Clayton Road, Suite 215
Ballwin, Missouri 63011
Phone: 636-386-3800 Fax: 636-402-3005
Discipline: Engineering Corporation
Corporate Certificate Of Authority: #2002000326



MATCHLINE CL "A" STA 4+00

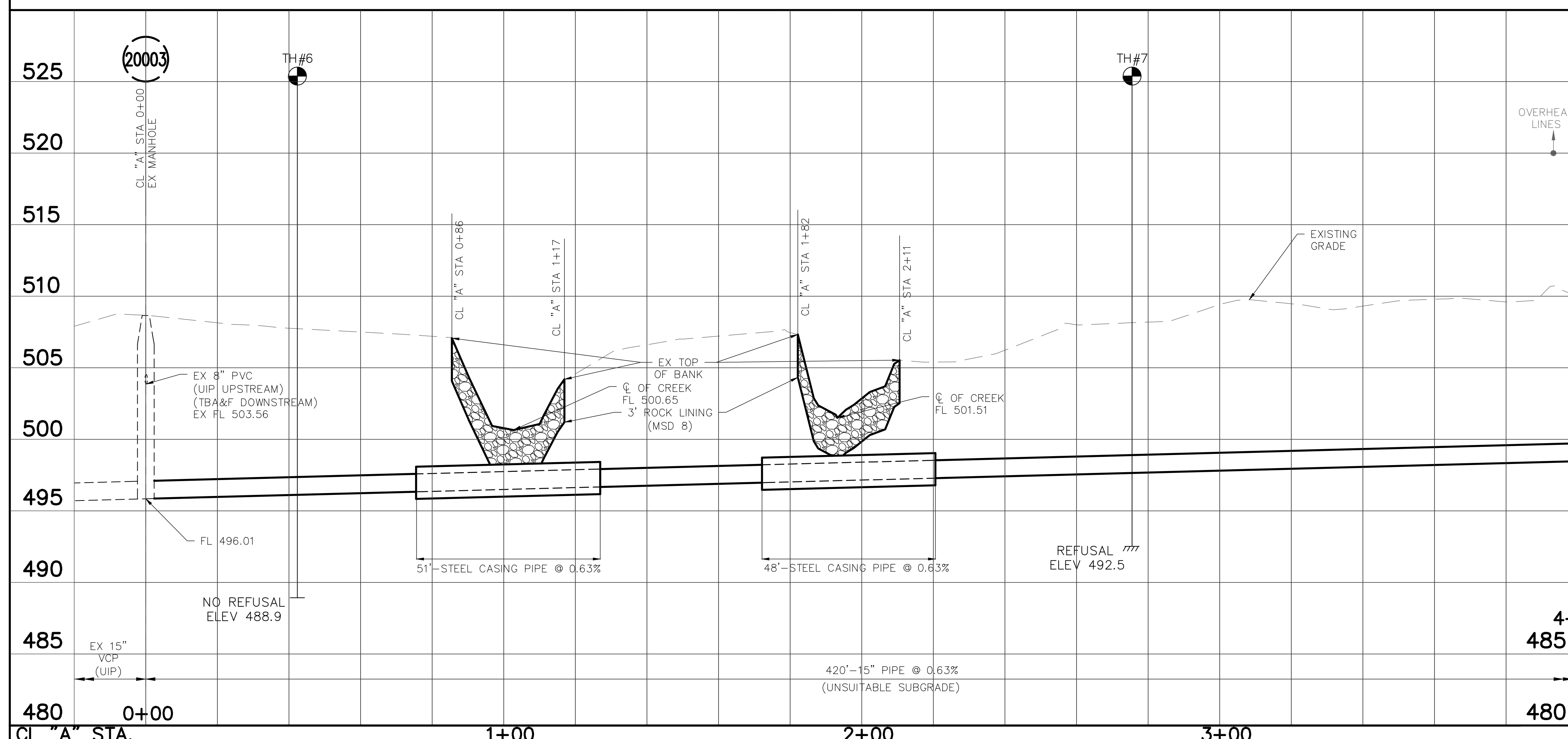
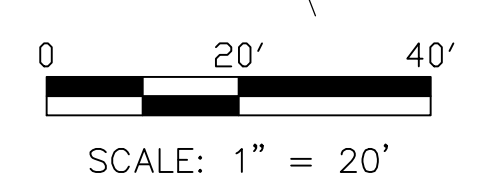


POINT TABLE				
CONTROL POINT #	MSD ID #	NORTHING	EASTING	DESCRIPTION
17		1023865.44	821851.76	IRON ROD
18		1023907.07	821772.13	IRON ROD
19		1023914.58	821648.84	IRON ROD
20		1023951.43	821561.18	IRON ROD

EXISTING STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
1036	1036	19Q2-0665	1023879.33	821831.05	EX MANHOLE
1037	1037	19Q2-021S	1023940.45	821594.05	EX MANHOLE
1038	1038	19Q2-113S	1023942.03	821542.88	EX MANHOLE
1039	1039		1024071.77	821550.66	EX MANHOLE
20001	20001		1023994.28	821545.22	EX MANHOLE
20003	20003		1023985.86	821545.85	EX MANHOLE

ROCK LINING TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
6044			1023964.36	821637.54	ROCK LINING
6045			1023952.68	821670.05	ROCK LINING
6046			1023940.96	821643.54	ROCK LINING
6047			1023950.04	821618.25	ROCK LINING
6048			1023932.34	821726.66	ROCK LINING
6049			1023923.97	821749.96	ROCK LINING
6050			1023918.95	821704.79	ROCK LINING
6051			1023908.21	821734.68	ROCK LINING

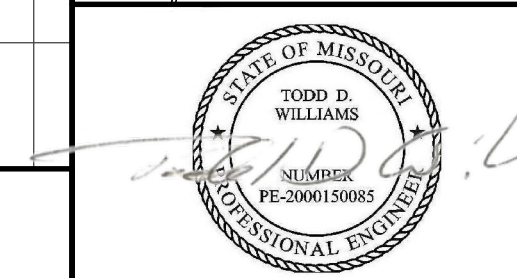
- NOTES:
- ALL RESTORATION WORK (INCLUDING PAVEMENT, SIDEWALKS, CURB RAMPS, ETC.) WITHIN ST. LOUIS COUNTY RIGHT-OF-WAY SHALL BE CONSTRUCTED TO COUNTY STANDARDS.
 - ALL PROPOSED TEMPORARY CONSTRUCTION ACCESS POINTS FROM ST. LOUIS COUNTY ROADWAYS SHALL HAVE ADEQUATE SIGHT DISTANCE PER ST. LOUIS COUNTY STANDARDS. A SPECIAL USE PERMIT SHALL BE OBTAINED FOR ALL TEMPORARY CONSTRUCTION ACCESS.
 - A SPECIAL USE PERMIT SHALL BE OBTAINED FOR ALL WORK WITHIN ST. LOUIS COUNTY RIGHT-OF-WAY PRIOR TO THE START OF ANY WORK.
 - ALL SEDIMENT SHALL BE REMOVED FROM ALL VEHICLES PRIOR TO LEAVING THE SITE SO THAT NO SEDIMENT IS TRACKED ONTO COUNTY ROADS.
 - ST. LOUIS COUNTY STANDARDS FOR SLOPES ARE 3:1 MAXIMUM.
 - ALL DISTURBED GRASS AREAS WITHIN ST. LOUIS COUNTY RIGHT-OF-WAY SHALL BE SODDED.
 - APPLICANT SHALL USE EXTREME CAUTION IN AREAS WHERE TRAFFIC SIGNAL FACILITIES ARE EXISTING. IT IS THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER TO CONTACT THE ST. LOUIS COUNTY DEPARTMENT OF TRANSPORTATION AT (314) 615-0215 A MINIMUM OF 48 HOURS IN ADVANCE OF CONSTRUCTION WORK FOR LOCATING AND SPOTTING EXISTING TRAFFIC SIGNAL CONDUIT. IN THE EVENT THE CONTRACTOR DAMAGES ANY TRAFFIC SIGNAL FACILITIES, REPAIRS SHALL BE MADE AT THE CONTRACTOR'S EXPENSE BY AN ELECTRICAL CONTRACTOR AS DIRECTED BY ST. LOUIS COUNTY. NOTE THAT COUNTY IS NOT ON THE ONE-CALL SYSTEM.
 - ANY ENTITY THAT PERFORMS WORK ON ST. LOUIS COUNTY MAINTAINED PROPERTY SHALL PROVIDE THE COUNTY WITH A CERTIFICATE OF INSURANCE EVIDENCING GENERAL LIABILITY COVERAGE (BODILY INJURY AND PROPERTY DAMAGE) IN THE AMOUNTS SPECIFIED AS THE LIMITS OF LIABILITY SET BY THE STATE FOR PUBLIC ENTITIES. SUCH CERTIFICATE SHALL INCLUDE "ST. LOUIS COUNTY" AS AN ADDITIONAL INSURED AND SHALL BE PROVIDED PRIOR TO THE ISSUANCE OF ANY PERMIT. UPON REQUEST, THE COUNTY WILL PROVIDE THE SPECIFIC COVERAGE AMOUNTS FOR BOTH PER PERSON AND PER OCCURRENCE LIMITS.
 - WHERE PROPOSED WORK IMPACTS EXISTING PEDESTRIAN FACILITIES, CONTINUOUS PEDESTRIAN ACCESS SHALL BE PROVIDED DURING THE CONSTRUCTION PROCESS. PRIOR TO THE START OF CONSTRUCTION, ADEQUATE PEDESTRIAN ACCESS AROUND THE SITE SHALL BE PROVIDED AND VERIFIED. NO EXISTING SIDEWALK SHALL BE REMOVED WITHOUT PROVIDING ADEQUATE PEDESTRIAN FACILITIES AND ROUTES DURING CONSTRUCTION ACTIVITIES. A SIDEWALK CONTINUITY PLAN SHALL BE SUBMITTED FOR APPROVAL PRIOR TO PERMIT ISSUANCE.



MATCHLINE CL "A" STA 4+00

SCALE: 1"=20' HORZ.
1"= 5' VERT.

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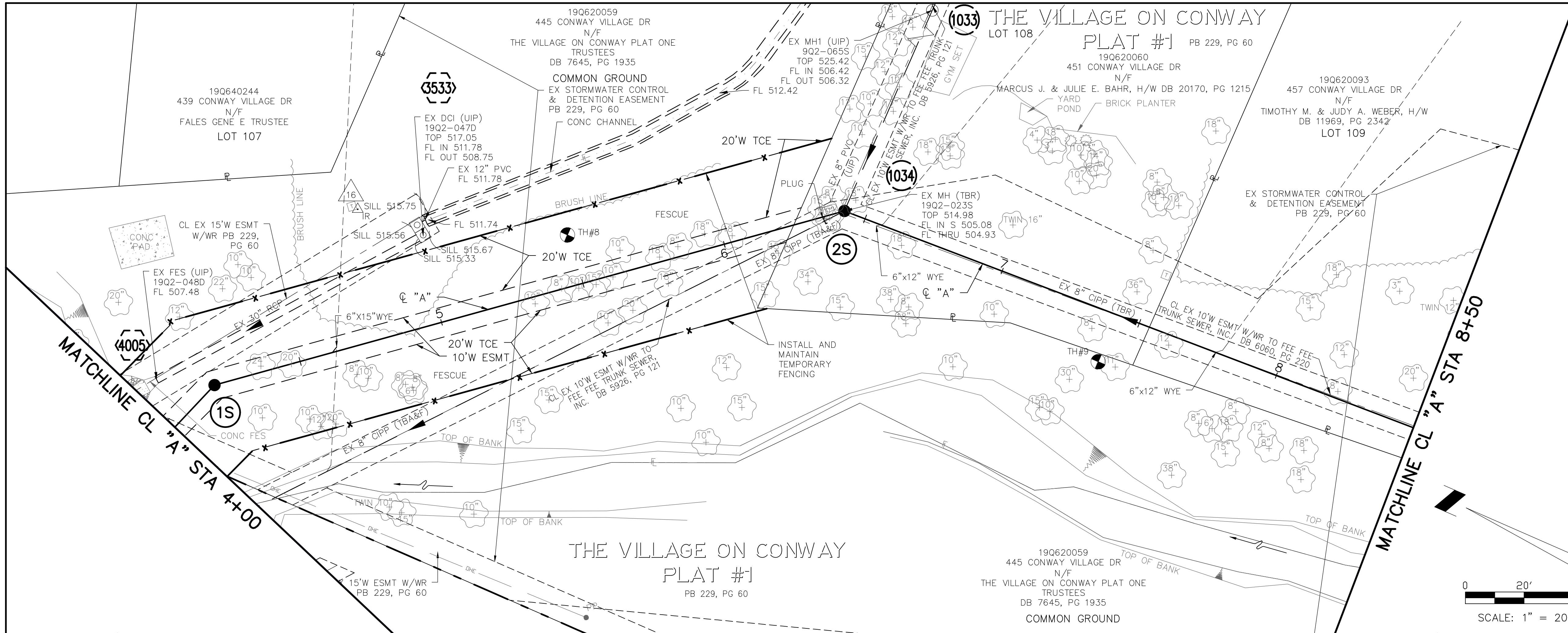
REV.	DATE	DESCRIPTION	BY

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CONWAY VILLAGE
SANITARY RELIEF (CONWAY RD TO I-64)
12131-015.1
CITY OF TOWN & COUNTRY
ST. LOUIS COUNTY, MISSOURI

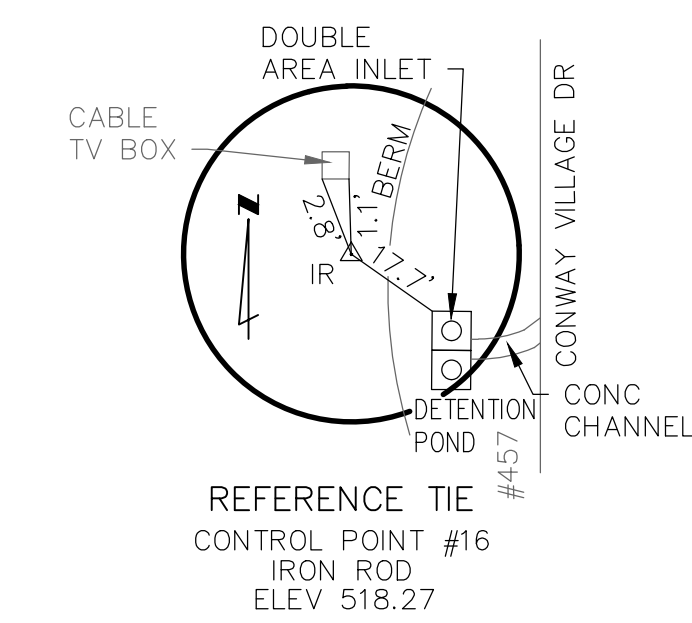
wood.
 15933 Clayton Road, Suite 215
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 Phone: 636-386-3800 Fax: 636-402-3005
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 Corporate Certificate Of Authority: #2002000326

THIS SHEET HAS BEEN SIGNED, SEALED AND ELECTRONICALLY SIGNED BY
TODD DOUGLAS WILLIAMS, P.E.
 CIVIL ENGINEER
 P.E. No. 2000150085
 November 25, 2019

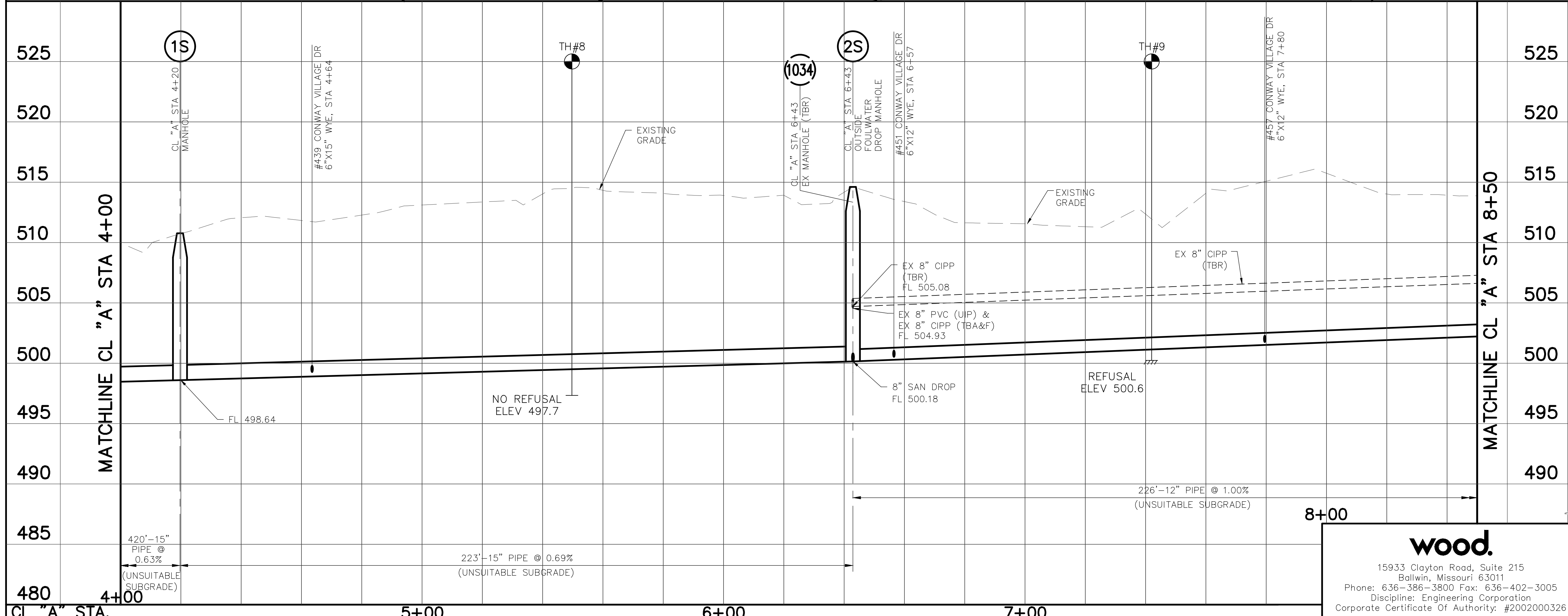
Designed: T.D.W. Date: NOV 2019
 Drawn: M.R.B.
 Checked: M.S.M. Sheet No. 2 of 15



POINT TABLE					
CONTROL POINT #	MSD ID #	NORTHING	EASTING	DESCRIPTION	
16		1023823.95	822015.57	IRON ROD	
EXISTING STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
1033	1033	19Q2-065S	1023671.75	822341.24	EX MANHOLE
1034	1034	19Q2-023S	1023671.73	822081.54	EX MANHOLE
3533	3533	19Q2-047D	1023801.64	822017.60	EX DCI
4005	4005	19Q2-048D	1023863.45	821934.90	EX FES
NEW STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
1S			1023844.67	821941.10	MANHOLE
2S		19Q2-023S	1023671.73	822081.54	MANHOLE



SCALE: 1" = 20'



SCALE: 1"=20' HORZ.
1"= 5' VERT.

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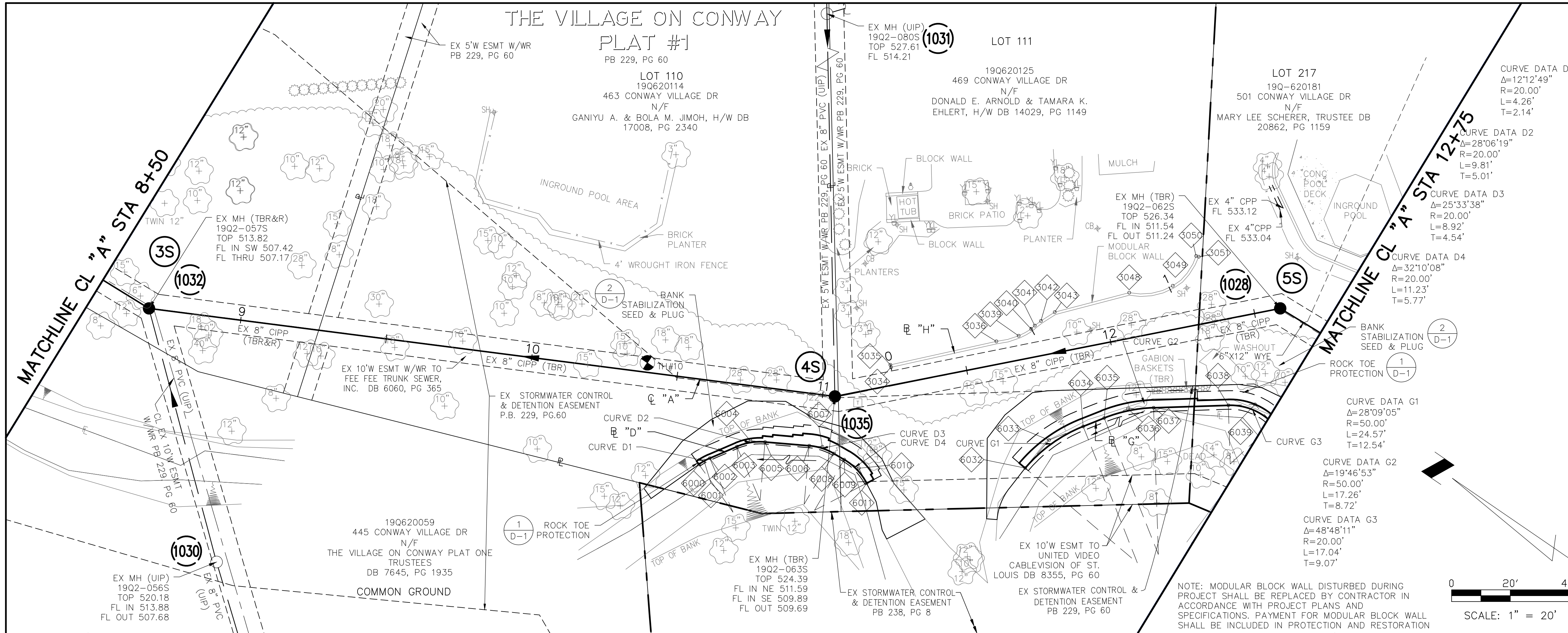
STATE OF MISSOURI
TODD D. WILLIAMS
NUMBER
PE-2000150085
PROFESSIONAL ENGINEER

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Designed T.D.W. Date NOV 2019
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Checked M.S.M. Sheet No 3 of 15

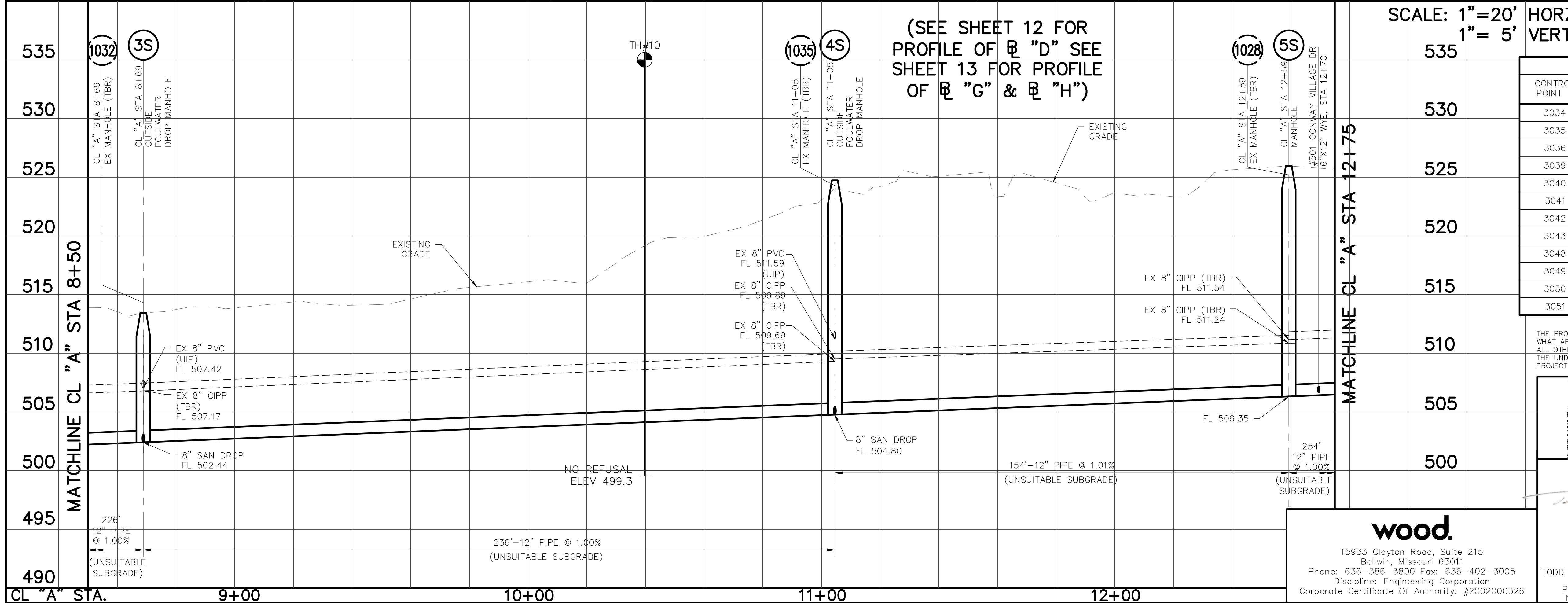
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POINT TABLE				
CONTROL POINT #	MSD ID #	NORTHING	EASTING	DESCRIPTION
6000		1023261.36	822154.67	PC CURVE D1
6001		1023260.63	822156.68	PI CURVE D1
6002		1023259.48	822158.49	PT CURVE D1
6003		1023254.11	822166.99	PC CURVE D2
6004		1023251.44	822171.22	PI CURVE D2
6005		1023247.09	822173.69	PT CURVE D2
6006		1023233.97	822181.15	PC CURVE D3
6007		1023230.03	822183.39	PI CURVE D3
6008		1023225.50	822183.71	PT CURVE D3
6009		1023221.42	822184.00	PC CURVE D4
6010		1023215.67	822184.40	PI CURVE D4
6011		1023210.58	822181.69	PT CURVE D4
6032		1023168.91	822216.52	PC CURVE G1
6033		1023167.62	822228.99	PI CURVE G1
6034		1023160.63	822239.39	PT CURVE G1
6035		1023156.33	822245.80	PC CURVE G2
6036		1023151.47	822253.03	PI CURVE G2
6037		1023144.44	822258.20	PT CURVE G2
6038		1023123.90	822273.30	PC CURVE G3
6039		1023116.59	822278.72	PI CURVE G3

EXISTING STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
1028	1028	1902-062S	1023127.99	822310.55	EX MANHOLE
1030	1030	1902-056S	1023378.18	822034.27	EX MANHOLE
1031	1031	1902-080S	1023369.35	822385.82	EX MANHOLE
1032	1032	1902-057S	1023446.03	822092.52	EX MANHOLE
1035	1035	1902-063S	1023236.24	822199.98	EX MANHOLE

NEW STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
3S		1902-057S	1023446.03	822092.52	MANHOLE
4S		1902-063S	1023236.24	822199.98	MANHOLE
5S		1902-062S	1023127.99	822310.55	MANHOLE



SCALE: 1"=20' HORZ.
1"=5' VERT.

MODULAR BLOCK WALL POINT TABLE					
CONTROL POINT #	NORTHING	EASTING	TOP OF WALL ELEVATION	BASE OF WALL ELEVATION	DESCRIPTION
3034	1023226.07	822218.97	526.25	525.42	WALL FACE/BOTTOM
3035	1023226.71	822219.53	526.24	525.74	WALL BACK/TOP
3036	1023201.44	822246.57	527.25	522.91	WALL BACK/TOP
3039	1023196.26	822252.44	527.36	522.86	WALL BACK/TOP
3040	1023194.06	822256.76	527.35	522.69	WALL BACK/TOP
3041	1023193.67	822258.38	527.37	522.79	WALL BACK/TOP
3042	1023192.84	822260.92	527.26	523.01	WALL BACK/TOP
3043	1023190.67	822266.02	527.36	523.36	WALL BACK/TOP
3048	1023173.46	822285.87	527.50	524.75	WALL BACK/TOP
3049	1023162.56	822296.18	527.40	524.98	WALL BACK/TOP
3050	1023161.72	822309.06	527.51	527.18	WALL BACK/TOP
3051	1023160.83	822309.34	527.84	527.26	WALL FACE/BOTTOM

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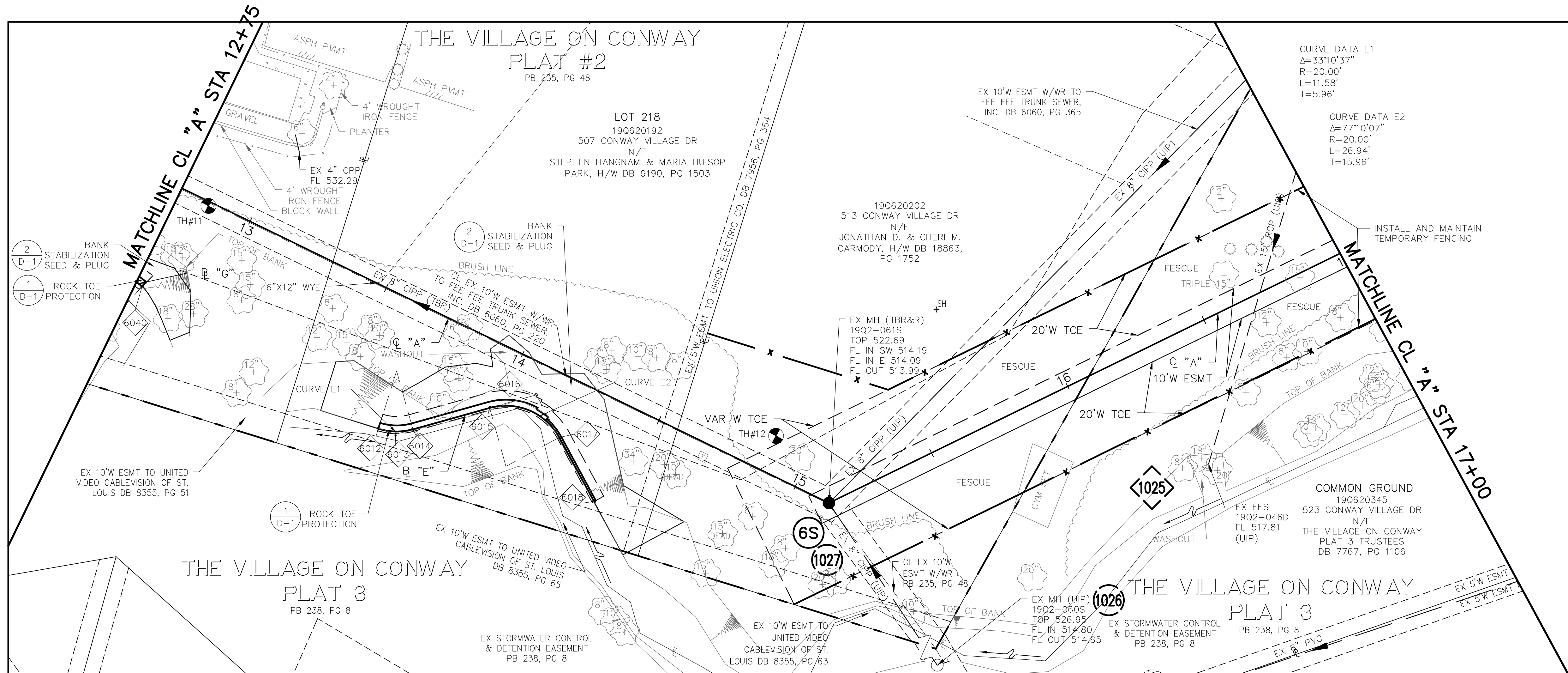
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CITY OF TOWN & COUNTRY
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Designed T.D.W. Date NOV 2019
 Drawn M.R.B.
 Checked M.S.M. Sheet No. 4 of 15

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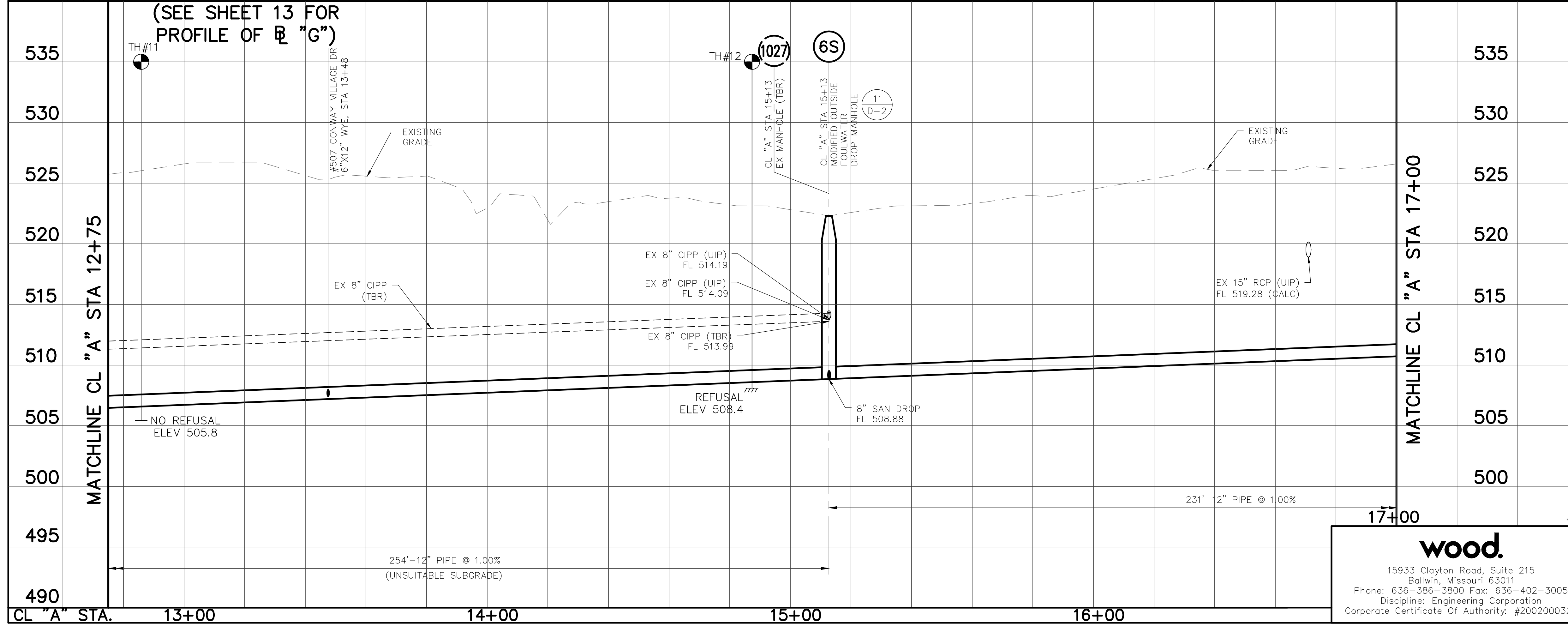
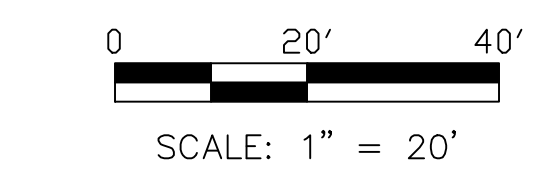


POINT TABLE				
CONTROL POINT #	MSD ID #	NORTHING	EASTING	DESCRIPTION
6012		1023016.78	822273.51	PC CURVE E1
6013		1023010.94	822274.70	PI CURVE E1
6014		1023006.70	822278.89	PT CURVE E1
6015		1022988.01	822297.35	PC CURVE E2
6016		1022976.66	822308.56	PI CURVE E2
6017		1022963.21	822299.98	PT CURVE E2
6018		1022942.94	822287.07	PI
6040		1023107.73	822276.72	PT CURVE G3

EXISTING STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
1025	1025	1902-046D	1022771.64	822396.21	EX FES
1026	1026	1902-060S	1022785.71	822328.33	EX MANHOLE
1027	1027	1902-061S	1022874.91	822324.24	EX MANHOLE

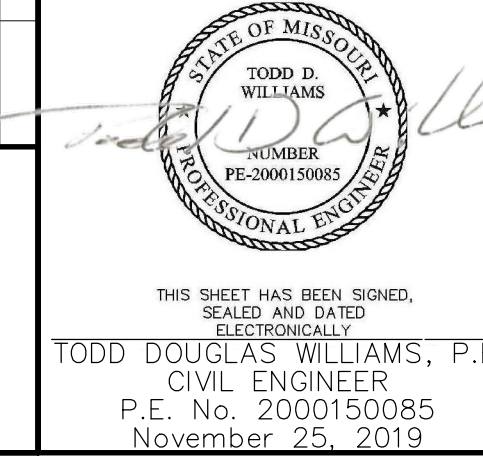
NEW STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
6S	6S	1902-061S	1022874.91	822324.24	MANHOLE

(SEE SHEET 12 FOR PROFILE OF \varnothing "E")



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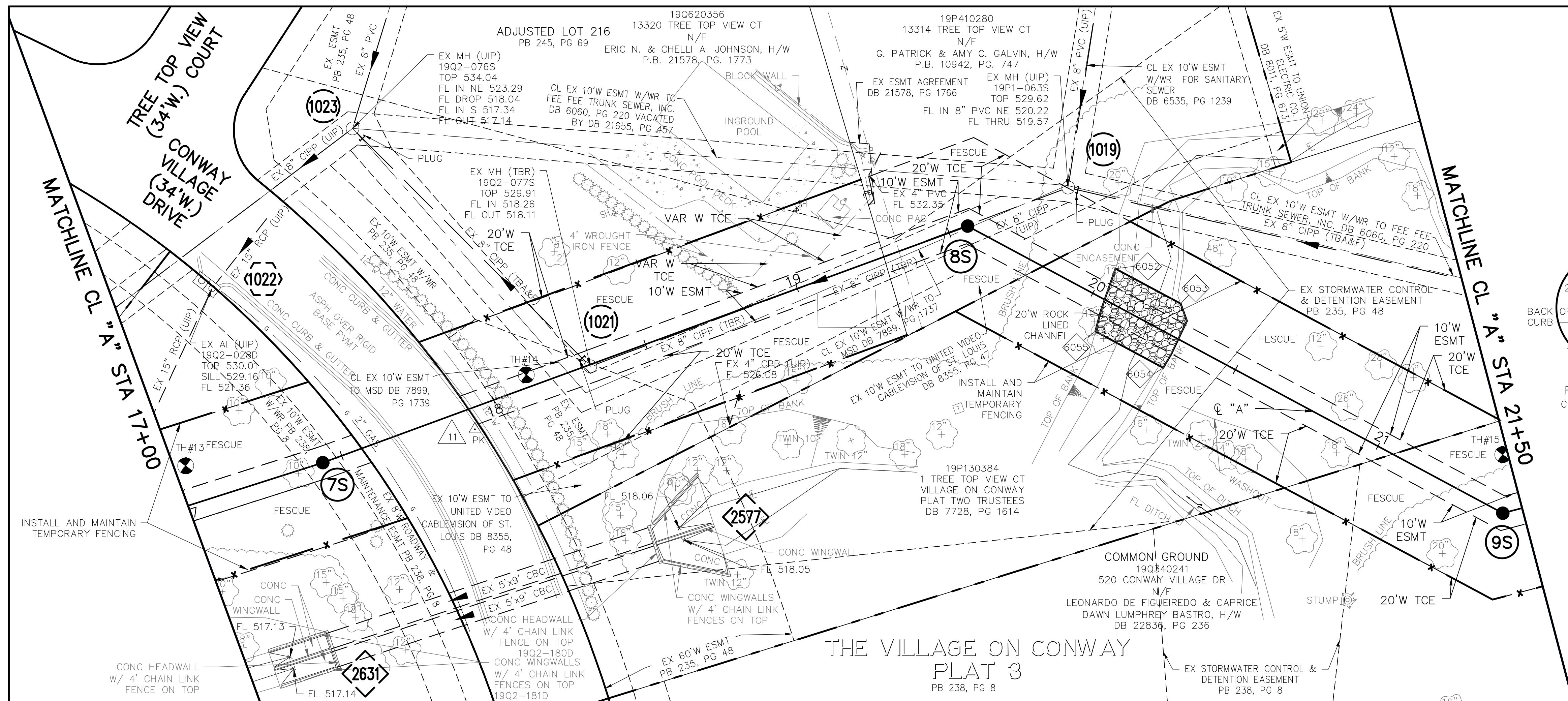


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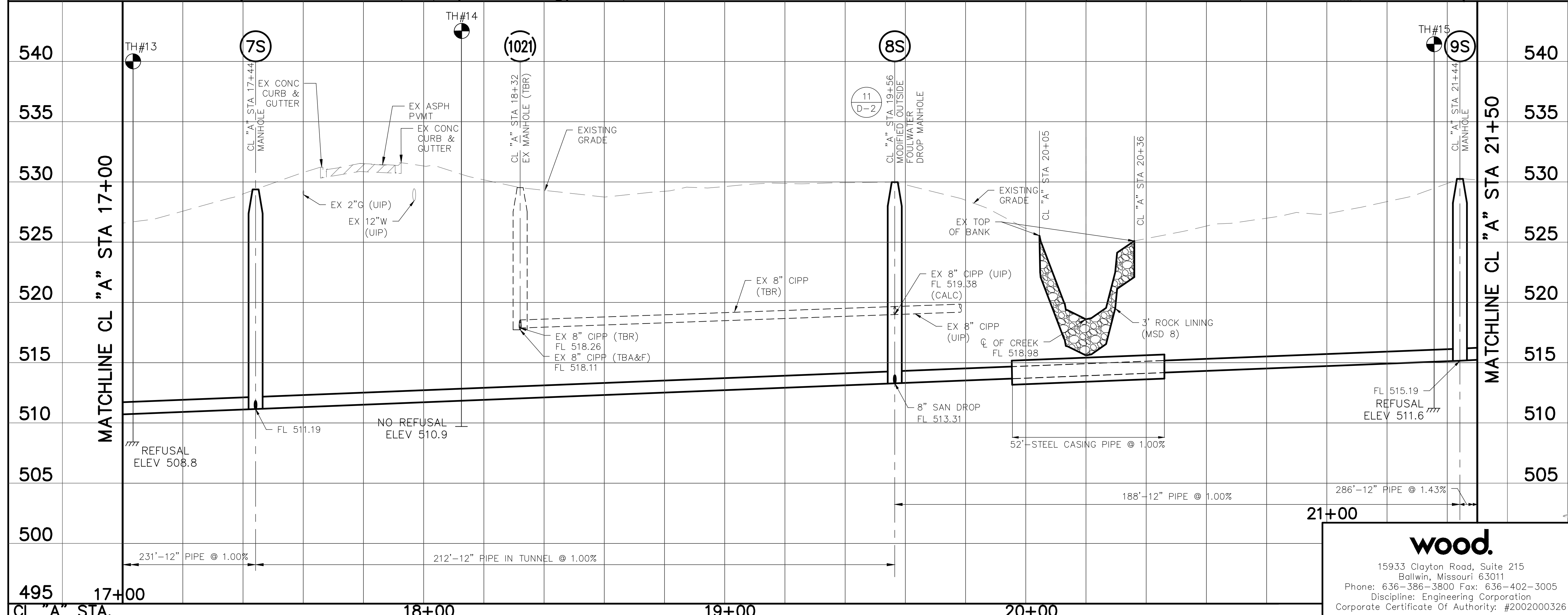
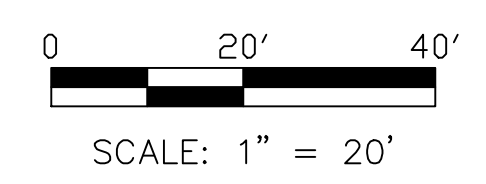
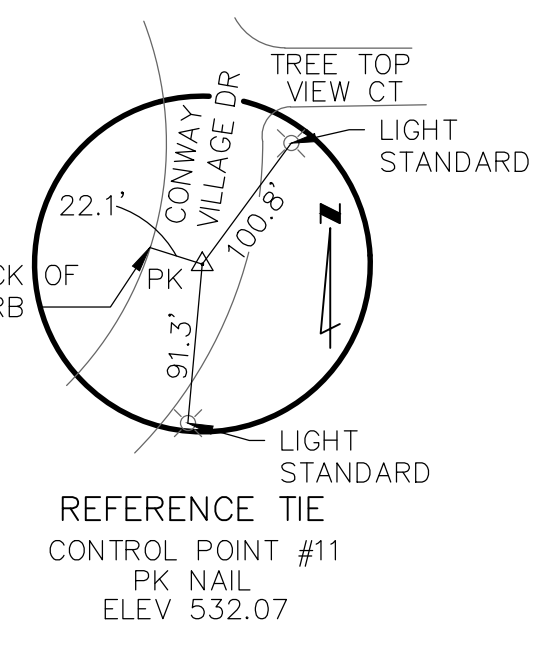
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 Discipline: Engineering Corporation
 Corporate Certificate Of Authority: #2002000326



POINT TABLE					
CONTROL POINT #	MSD ID #	NORTHING	EASTING	DESCRIPTION	
11		1022711.16	822550.63	PK NAIL	
EXISTING STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
1019	1019	19P1-0635	1022610.72	822721.23	EX MANHOLE
1021	1021	19Q2-0775	1022694.60	822587.71	EX MANHOLE
1022	1022	19Q2-028D	1022804.18	822535.88	EX AREA INLET
1023	1023	19Q2-0765	1022797.64	822601.61	EX MANHOLE
2577	2577	19Q2-180D	1022797.64	822601.61	EX FES
2631	2631	19Q2-181D	1022771.64	822396.21	EX FES
NEW STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
	7S		1022742.29	822513.88	MANHOLE
	8S		1022628.20	822692.94	MANHOLE
	9S		1022442.86	822722.76	MANHOLE
ROCK LINING TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
6052			1022583.90	822710.20	ROCK LINING
6053			1022561.31	822713.83	ROCK LINING
6054			1022577.06	822691.04	ROCK LINING
6055			1022553.56	822694.82	ROCK LINING



SCALE: 1"=20' HORZ.
1"= 5' VERT.

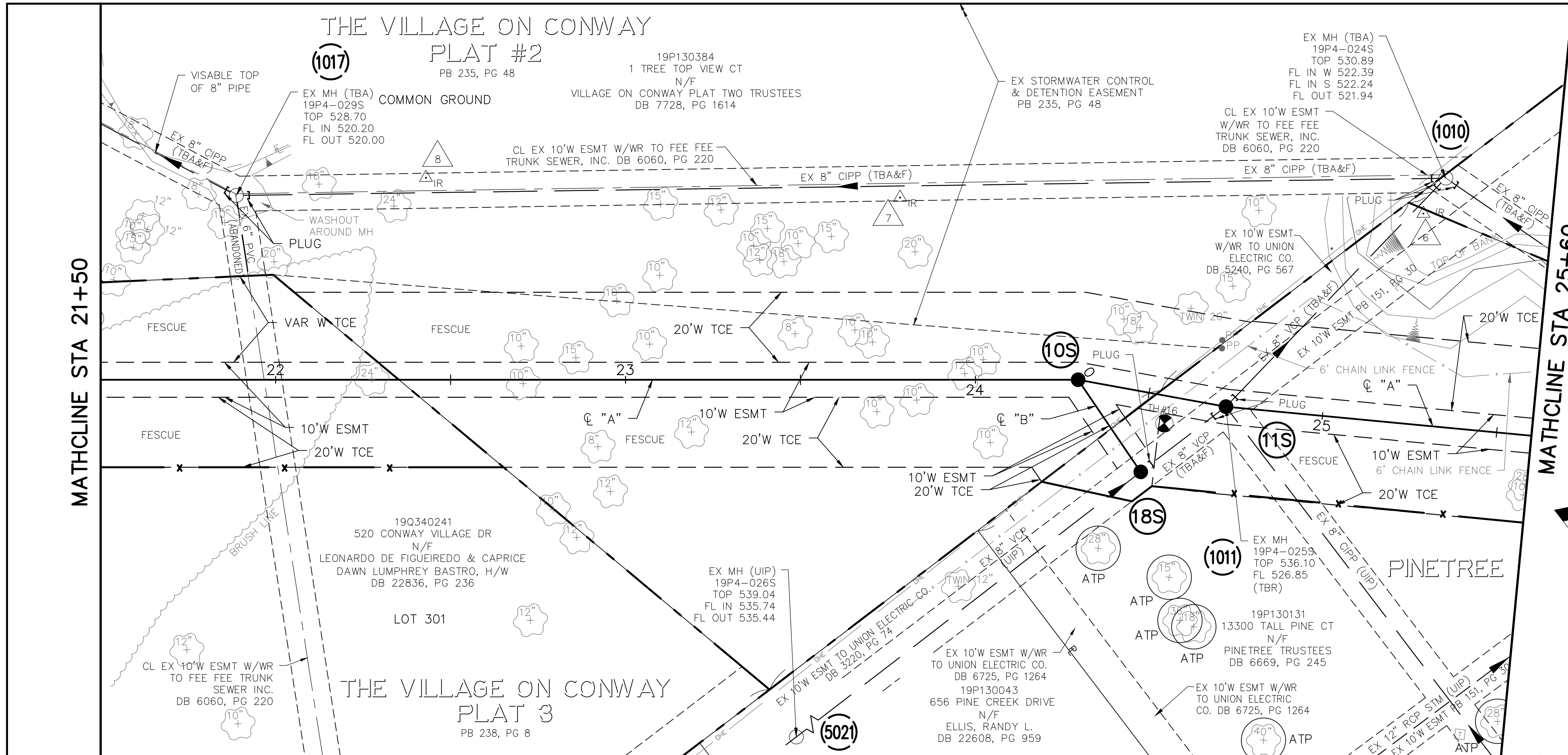
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Designed T.D.W. Date NOV 2019
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 Checked M.S.M.

wood.

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Corporate Certificate Of Authority: #200200326



POINT TABLE				
CONTROL POINT #	MSD ID #	NORTHING	EASTING	DESCRIPTION
6		1022244.40	823055.16	IRON ROD
7		1022339.86	822939.94	IRON ROD
8		1022427.53	822836.48	IRON ROD

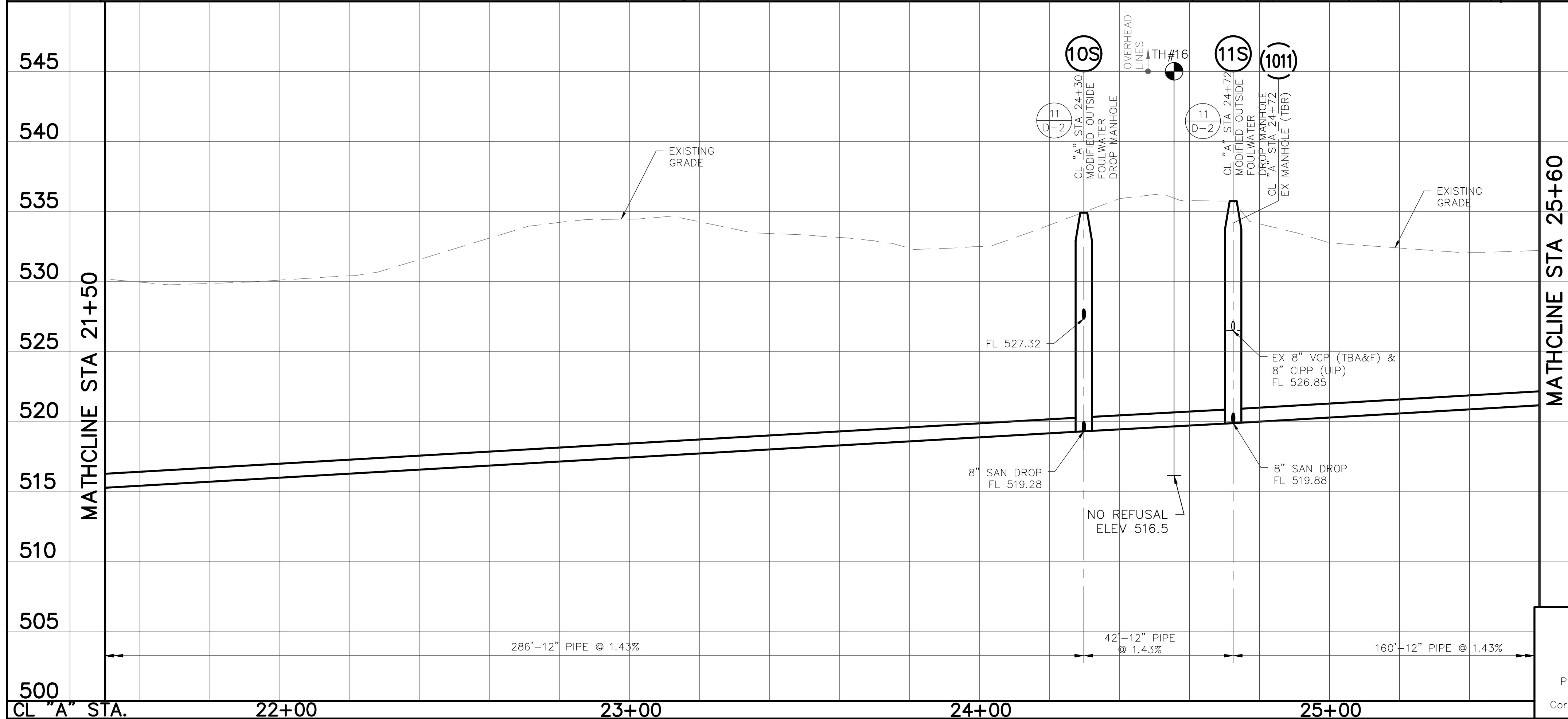
EXISTING STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
1010	1010	19P4-024S	1022248.50	823066.45	EX MANHOLE
1011	1011	19P4-025S	1022235.52	822976.75	EX MANHOLE
1017	1017	19P4-029S	1022456.81	822790.59	EX MANHOLE
5021	5021	19P4-026S	1022236.57	822799.56	EX MANHOLE

NEW STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
	10S		1022267.53	822948.13	MANHOLE
	11S		1022235.52	822976.75	MANHOLE
	18S		1022235.76	822946.10	MANHOLE

REFERENCE TIE CONTROL POINT #6 IRON ROD ELEV 528.50

REFERENCE TIE CONTROL POINT #7 IRON ROD ELEV 530.03

REFERENCE TIE CONTROL POINT #8 IRON ROD ELEV 529.86



SCALE: 1"=20' HORZ.
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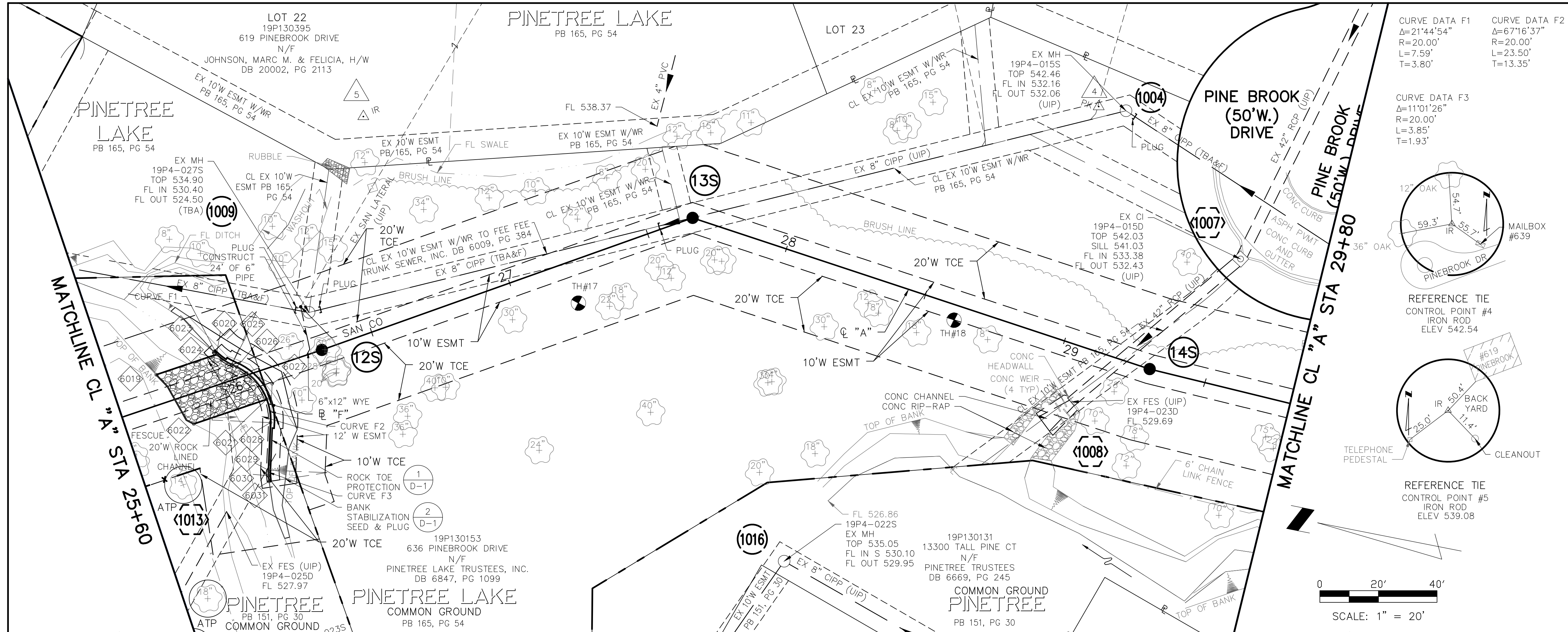
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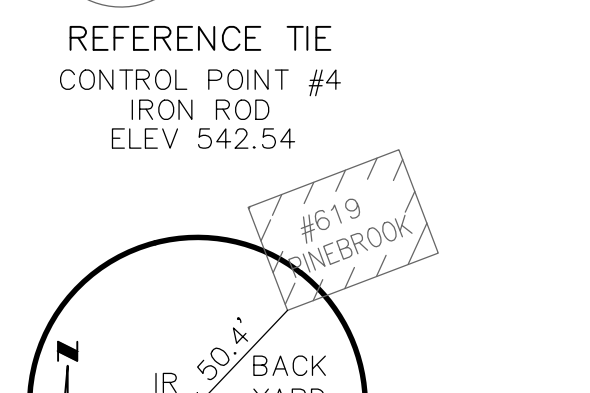
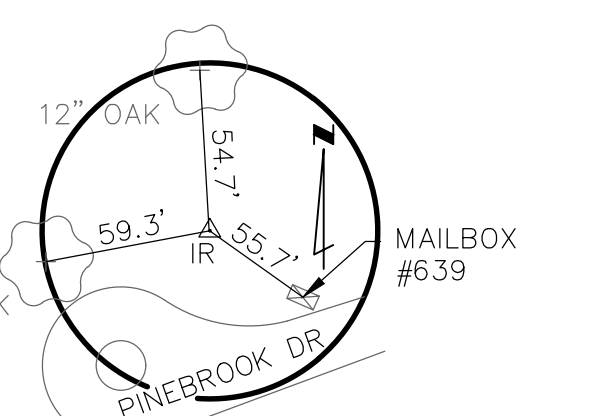
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 CIVIL ENGINEER
 P.E. No. 2000150085
 November 25, 2019



CURVE DATA F1
 $\Delta=21'44.54"$
 $R=20.00'$
 $L=7.59'$
 $T=3.80'$

CURVE DATA F2
 $\Delta=67'16.37"$
 $R=20.00'$
 $L=23.50'$
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CURVE DATA F3
 $\Delta=11'01.26"$
 $R=20.00'$
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 $T=1.93'$

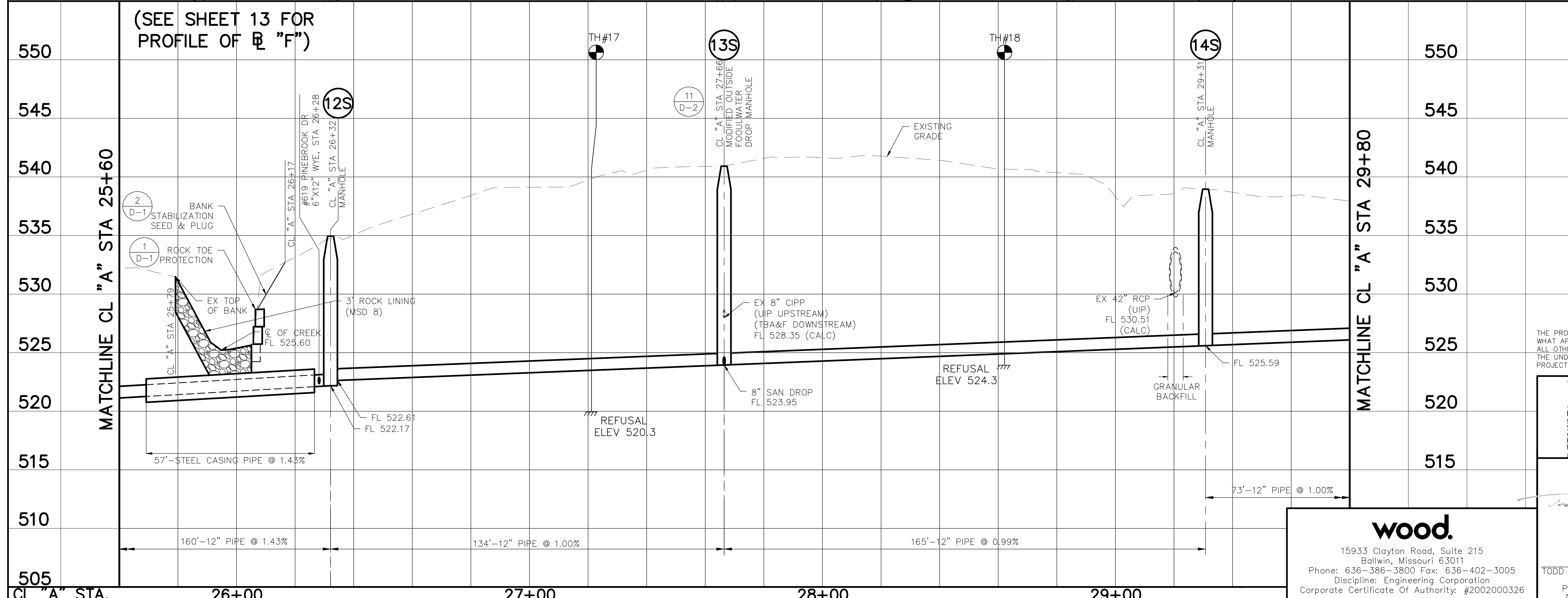


POINT TABLE				
CONTROL POINT #	MSD ID #	NORTHING	EASTING	DESCRIPTION
4		1021931.09	823290.98	PK NAIL
5		1022150.96	823169.89	IRON ROD
6023		1022158.27	823075.07	PC CURVE F1
6024		1022154.68	823073.83	PI CURVE F1
6025		1022150.80	823074.02	PT CURVE F1
6026		1022148.86	823074.12	PC CURVE F2
6027		1022135.52	823074.79	PI CURVE F2
6028		1022129.78	823062.81	PT CURVE F2
6029		1022122.72	823048.15	PC CURVE F3
6030		1022121.89	823046.41	PI CURVE F3
6031		1022120.73	823044.86	PT CURVE F3

EXISTING STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
1004	1004	19P4-015S	1021922.20	823294.08	EX MANHOLE
1007	1007	19P4-015D	1021863.87	823267.85	EX CURB INLET
1008	1008	19P4-023D	1021892.02	823197.59	EX FES
1009	1009	19P4-027S	1022135.84	823102.15	EX MANHOLE
1013	1013	19P4-025D	1022128.68	823028.99	EX FES
1016	1026	19P4-022S	1021952.83	823103.54	EX MANHOLE

NEW STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
12S			1022126.00	823092.94	MANHOLE
13S			1022035.53	823192.23	MANHOLE
14S			1021873.58	823220.10	MANHOLE

ROCK LINING TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
6019			1022171.88	823058.84	ROCK LINING
6020			1022156.96	823074.67	ROCK LINING
6021			1022134.64	823069.19	ROCK LINING
6022			1022152.66	823050.08	ROCK LINING



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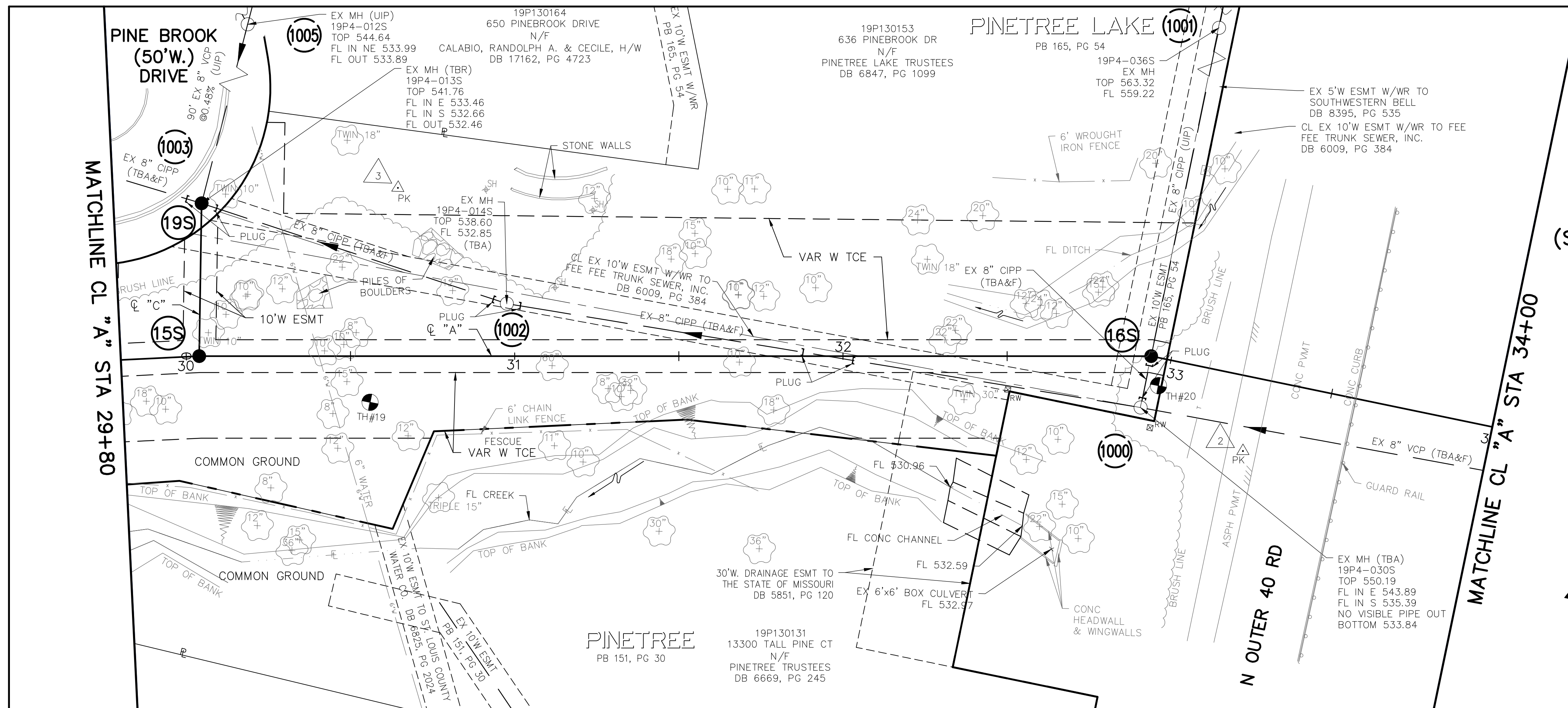


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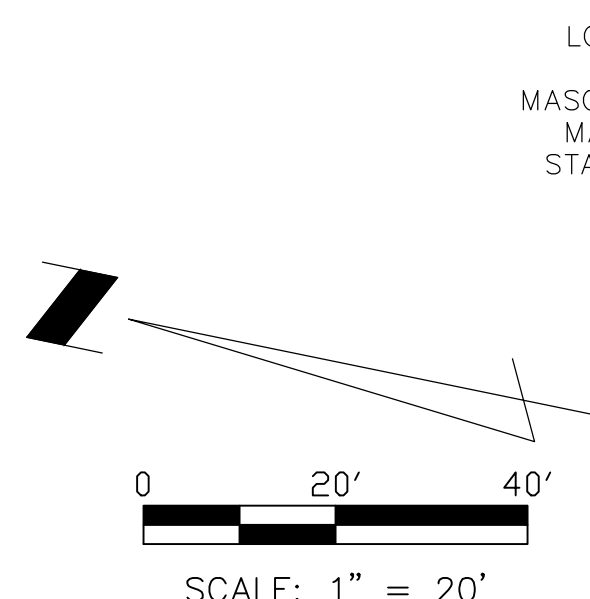
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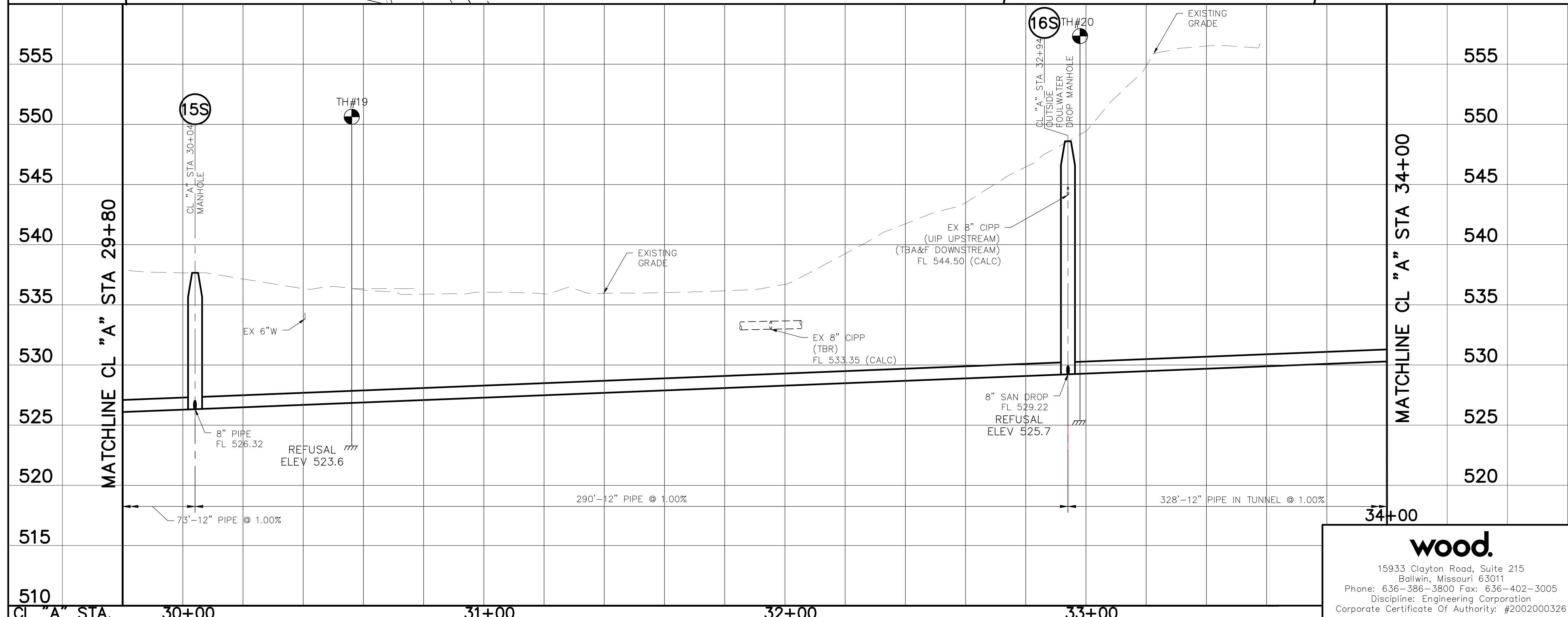
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(SEE SHEET 11 FOR
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OF CL "C")

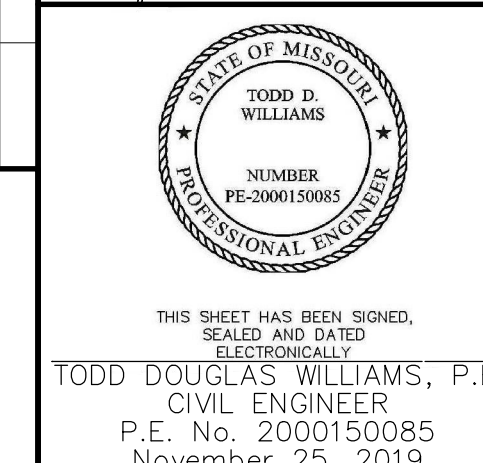


POINT TABLE					
CONTROL POINT #	MSD ID #	NORTHING	EASTING	DESCRIPTION	
2		1021485.34	823273.74	PK NAIL	
3		1021753.56	823300.61	PK NAIL	
EXISTING STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
1000	1000	19P4-030S	1021518.54	823280.45	EX MANHOLE
1001	1001	19P4-036S	1021517.97	823680.42	EX MANHOLE
1002	1002	19P4-014S	1021714.00	823272.72	EX MANHOLE
1003	1003	19P4-013S	1021811.19	823283.98	EX MANHOLE
1005	1005	19P4-012S	1021806.74	823373.90	EX MANHOLE
NEW STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
	15S		1021802.55	823238.22	MANHOLE
	16S		1021518.52	823296.45	MANHOLE
	19S	19P4-013S	1021811.19	823283.98	MANHOLE



SCALE: 1"=20' HORZ.
1"= 5' VERT.

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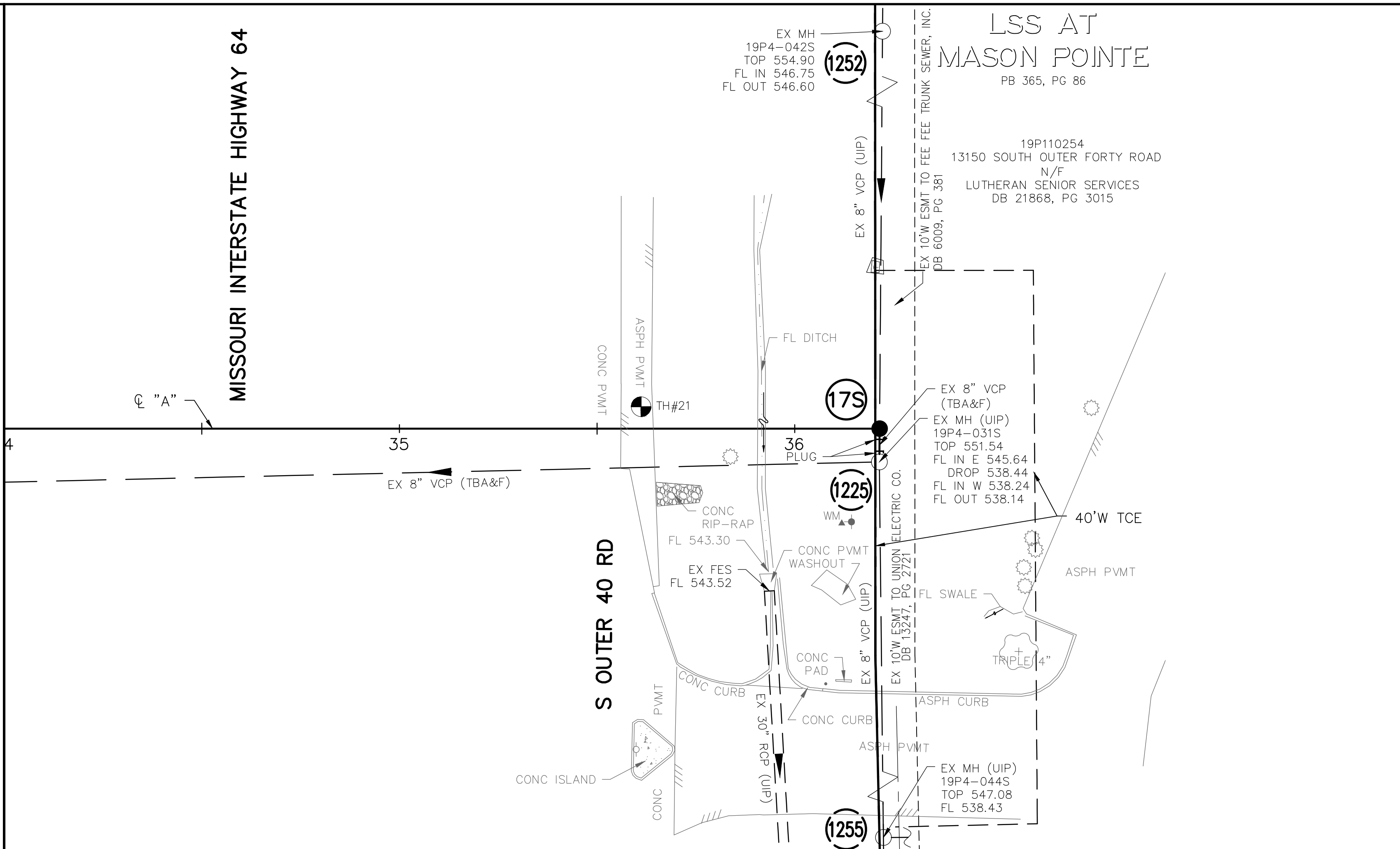
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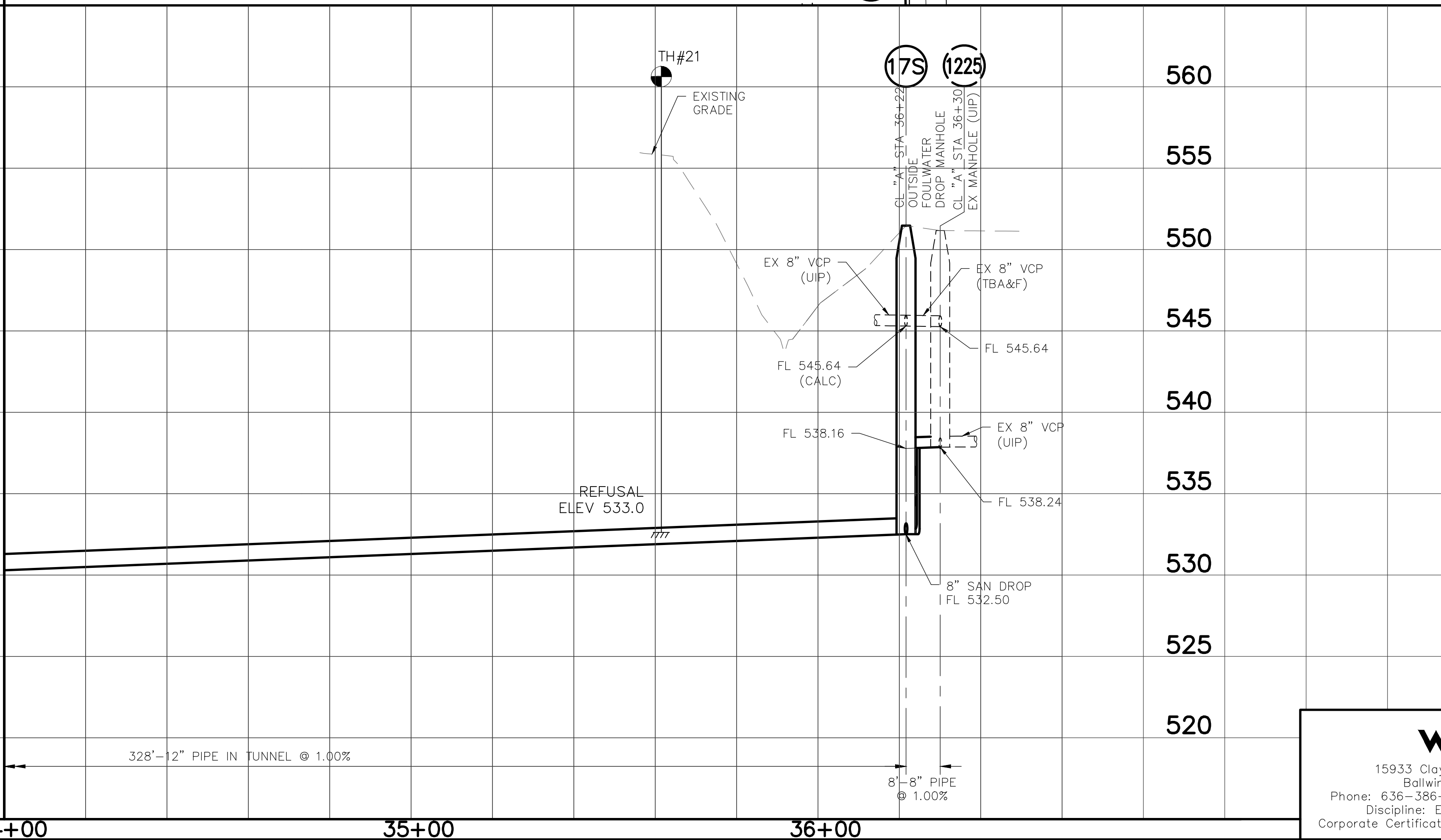
MATCHLINE CL "A" STA 34+00



EXISTING STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
1225	1225	19P4-031S	1021190.98	823287.29	EX MANHOLE
1252	1252	19P4-042S	1021188.64	823528.01	EX MANHOLE
1255	1255	19P4-044S	1021189.53	823117.33	EX MANHOLE

NEW STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
	17S		1021190.90	823295.71	MANHOLE

MATCHLINE CL "A" STA 34+00



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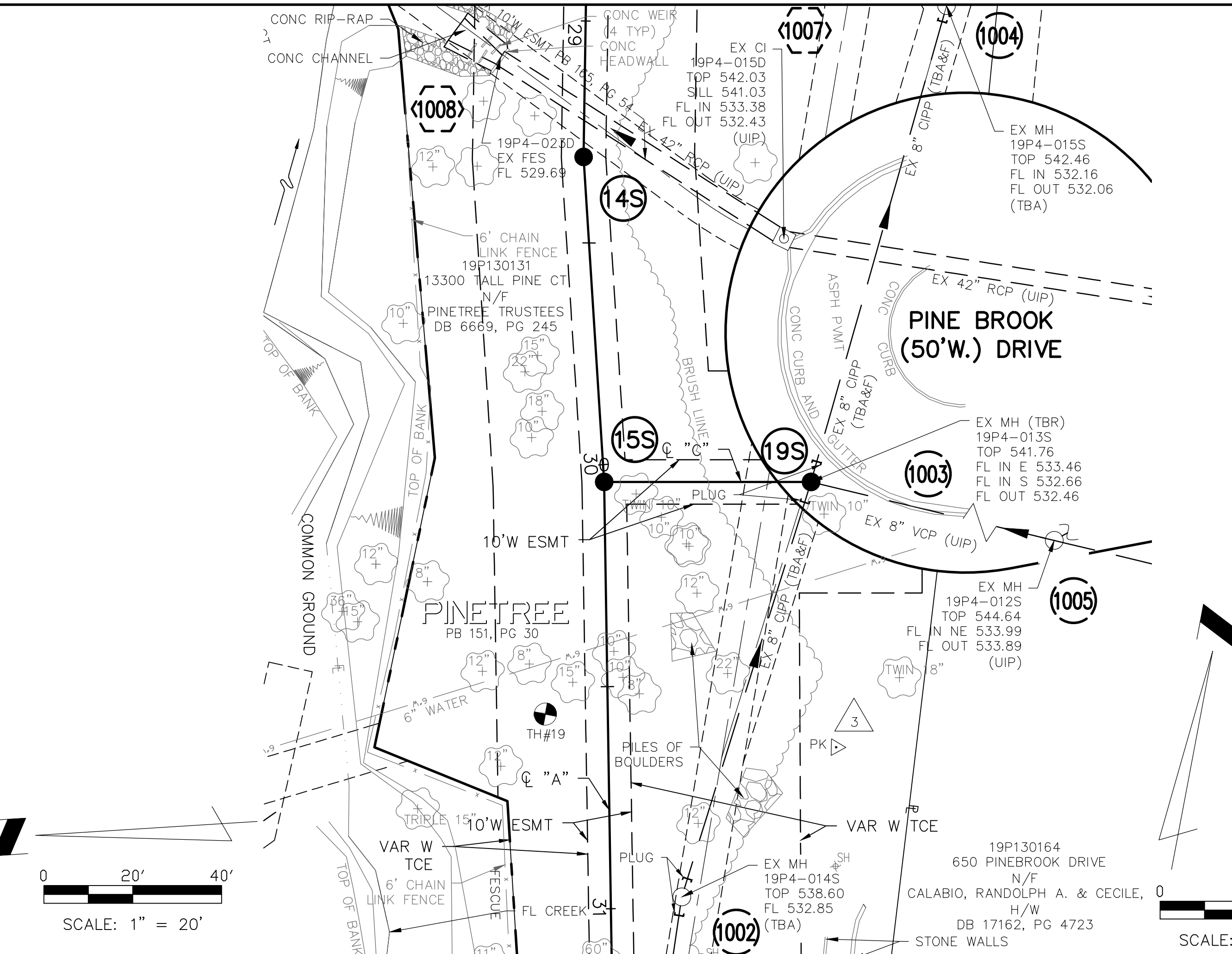
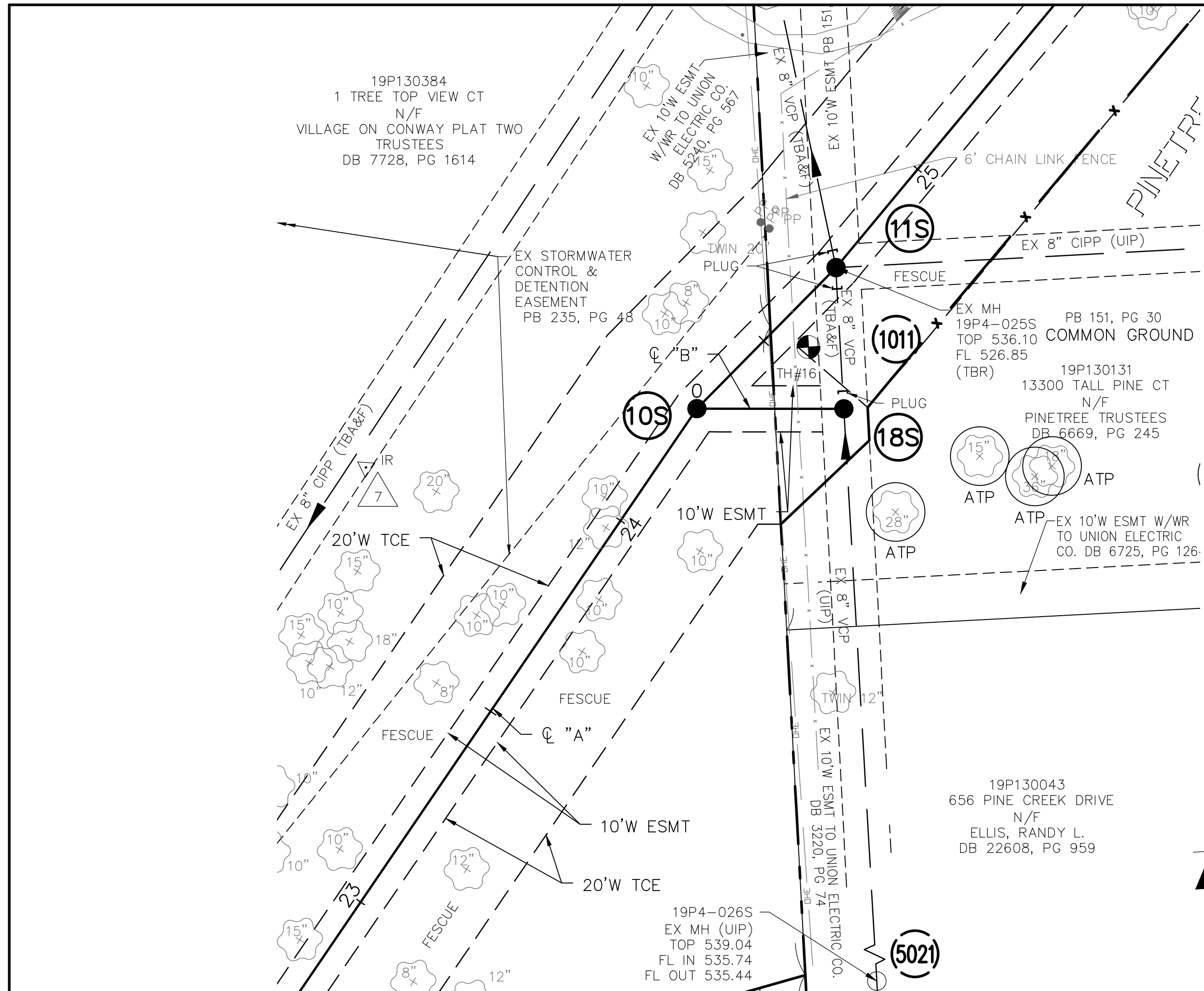
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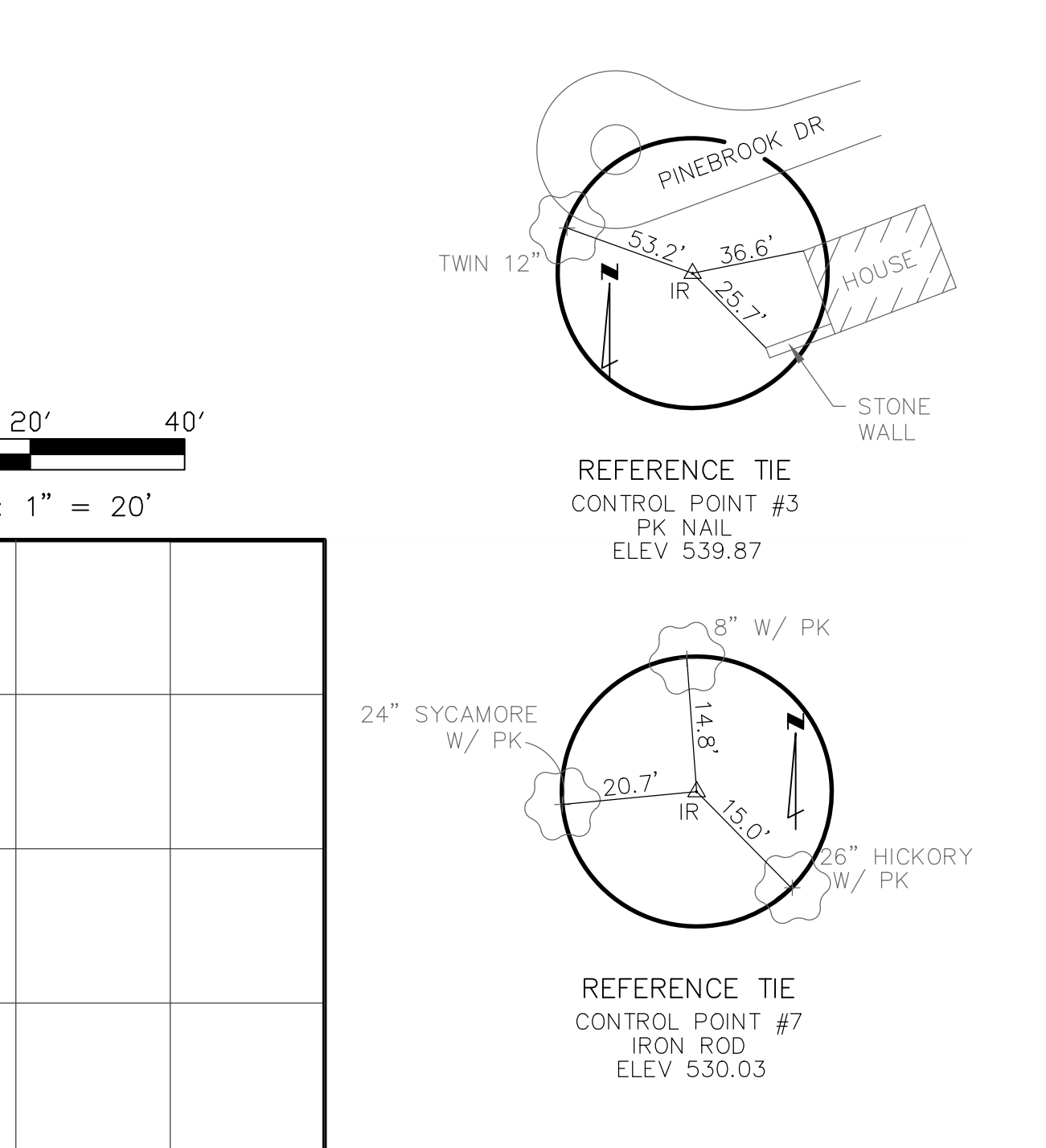
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POINT TABLE					
CONTROL POINT #	MSD ID #	NORTHING	EASTING	DESCRIPTION	
3		1021753.56	823300.61	PK NAIL	
7		1022339.86	822939.94	IRON ROD	
EXISTING STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
1002	1002	19P4-014S	1021714.00	823272.72	EX MANHOLE
1003	1003	19P4-013S	1021811.19	823283.98	EX MANHOLE
1004	1004	19P4-015S	1021922.20	823294.08	EX MANHOLE
1005	1005	19P4-012S	1021806.74	823373.90	EX MANHOLE
1007	1007	19P4-015D	1021863.87	823267.85	EX CURB INLET
1008	1008	19P4-023D	1021892.02	823197.59	EX FES
1011	1011	19P4-025S	1022235.52	822976.75	EX MANHOLE
5021	5021	19P4-026S	1022236.57	822799.56	EX MANHOLE
NEW STRUCTURE TABLE					
PT. #	I.D.	MSD ID #	NORTHING	EASTING	DESCRIPTION
	10S		1022267.53	822948.13	MANHOLE
	11S	19P4-025S	1022235.52	822976.75	MANHOLE
	14S		1021873.58	823220.10	MANHOLE
	15S		1021802.55	823238.22	MANHOLE
	18S		1022235.76	822946.10	MANHOLE
	19S	19P4-013S	1022181.19	823283.98	MANHOLE



CL "B" STA.	0+00	CL "C" STA.	0+00
550	(SEE SHEET 7 FOR PLAN & PROFILE OF CL "A")	550	550
545	CL "A" STA 24+30 CL "B" STA 0+00 OUTSIDE FOUROWATER DROP MANHOLE	545	545
540	OVERHEAD LINES	540	540
535	EXISTING GRADE	535	535
530	CL "B" STA 0+32 MANHOLE	530	530
525	EX 8" VCP (TBA&F) DOWNSTREAM) (UIP UPSTREAM) FL 527.95 (CALC)	525	525
520	FL 527.32	520	520
515	8" SAN DROP FL 519.28	515	515
510	32'-8" PIPE @ 2.00%	510	510
505		505	505
		CL "C" STA.	0+00

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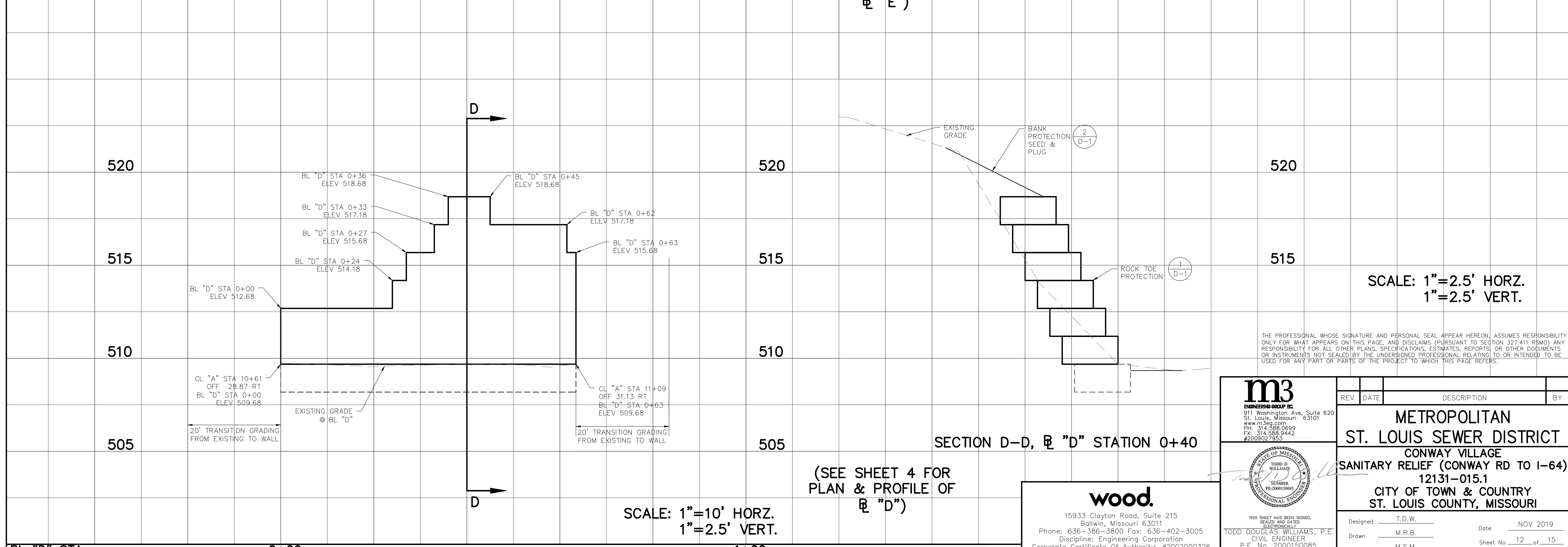
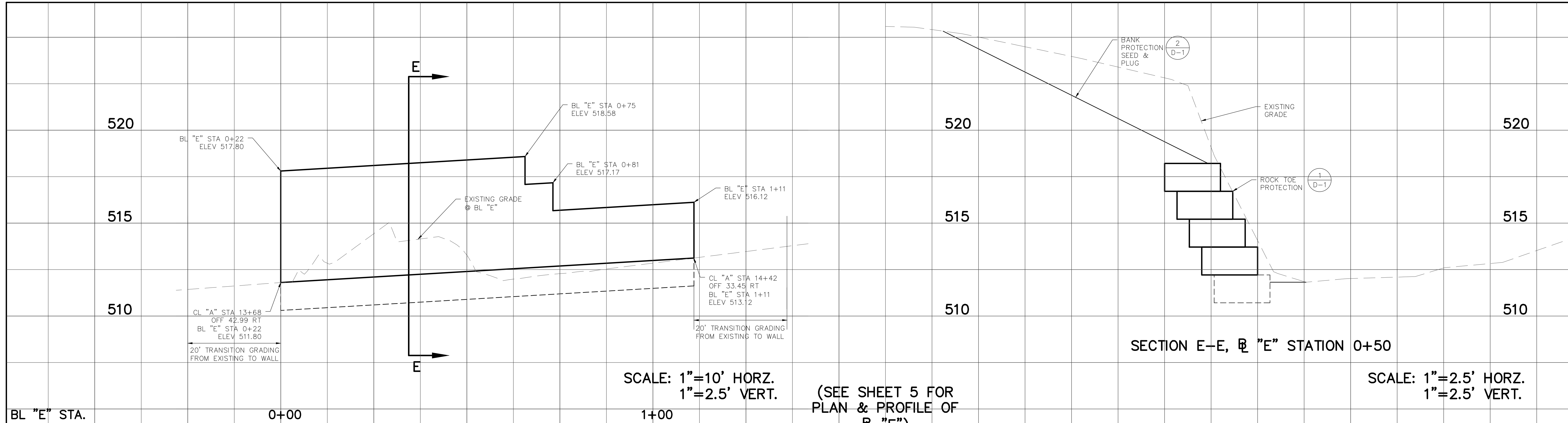
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CIVIL ENGINEER
P.E. No. 2000150085
November 25, 2019

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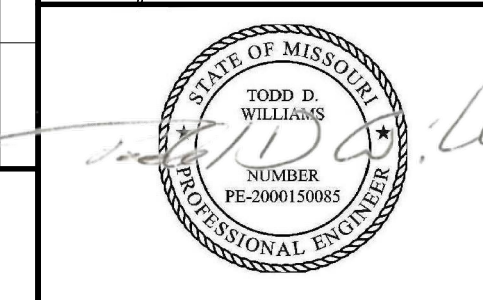
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CONWAY VILLAGE
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12131-015.1
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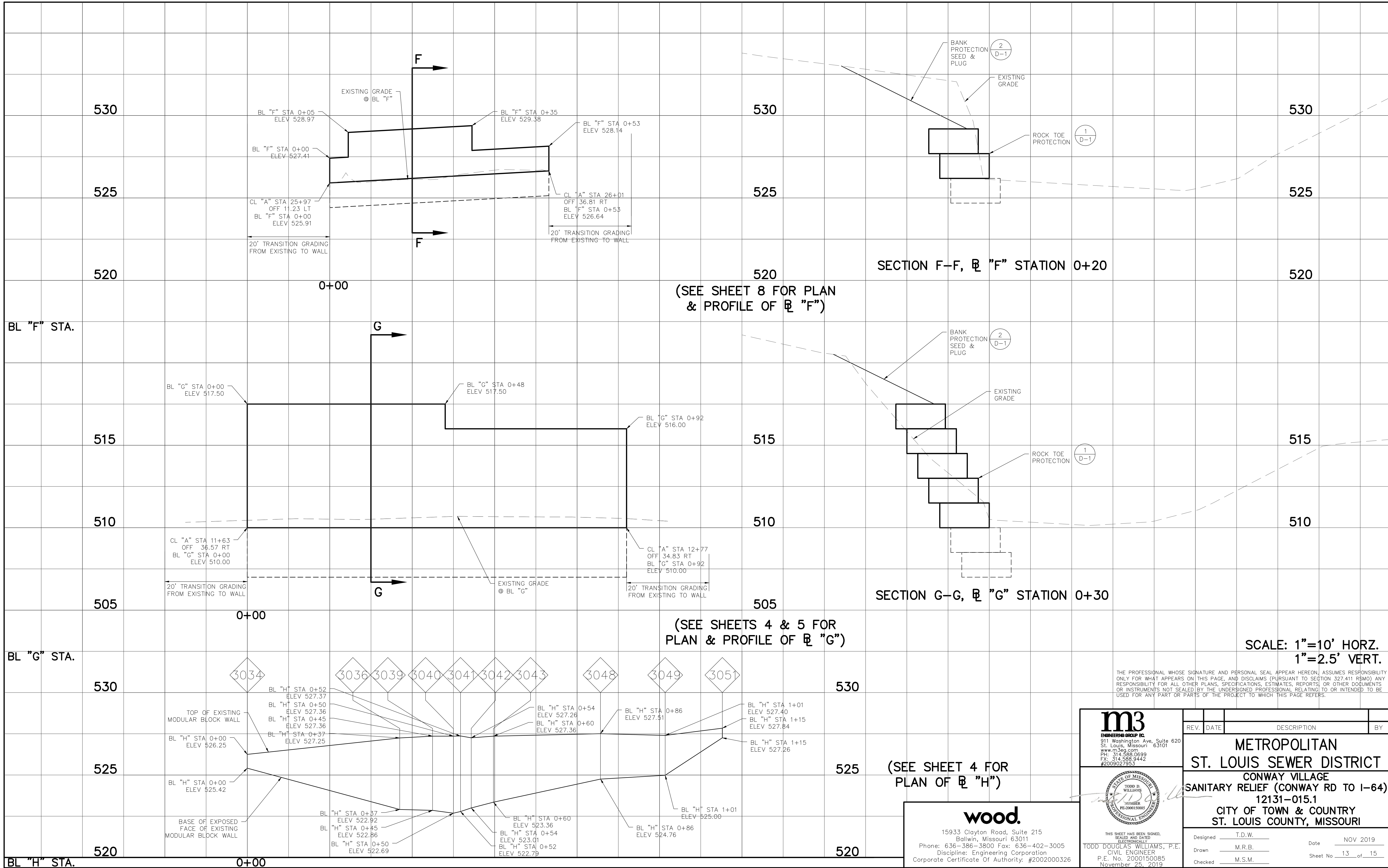
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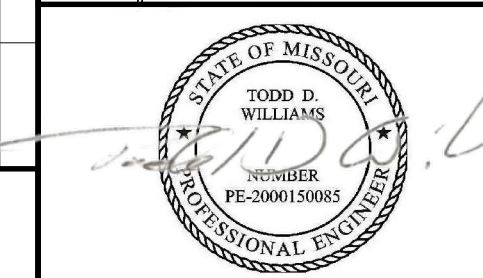
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CIVIL ENGINEER
P.E. No. 2000150085
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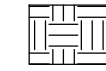
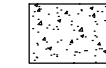

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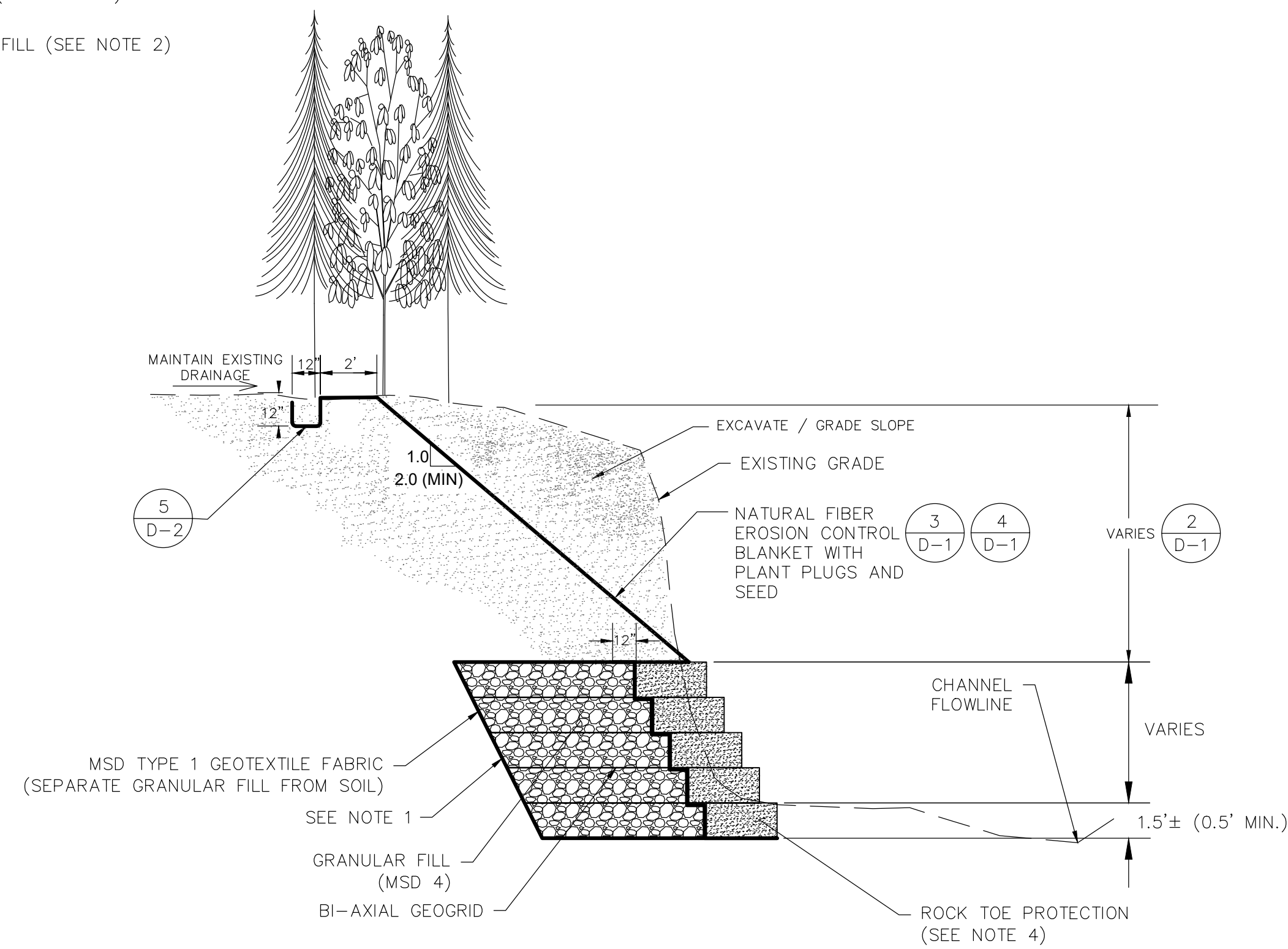
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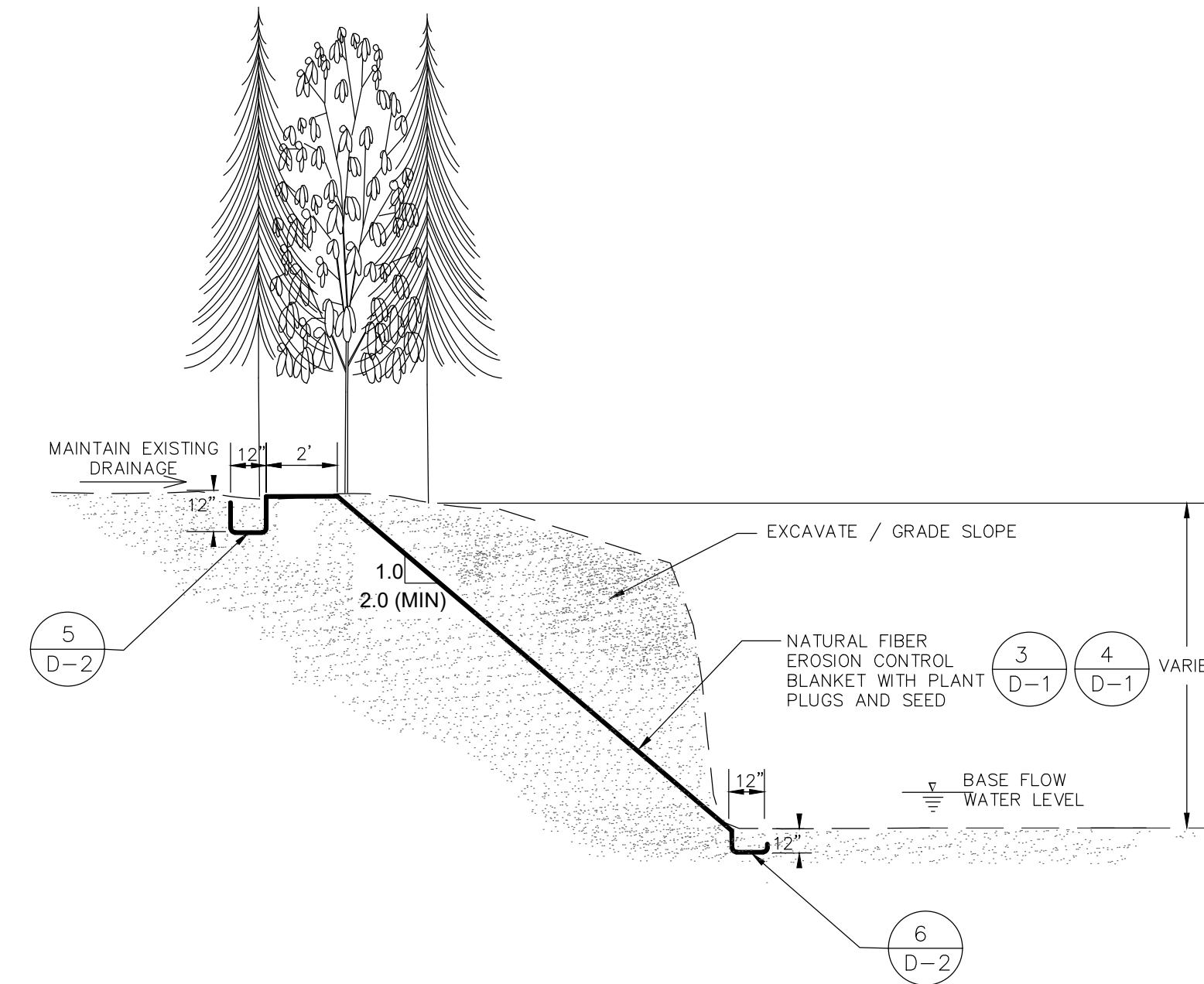
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-  COMPACTED EARTH FILL (SEE NOTE 5)
-  COMPACTED ENGINEERED FILL (SEE NOTE 2)
-  GRANULAR FILL (MSD 4)



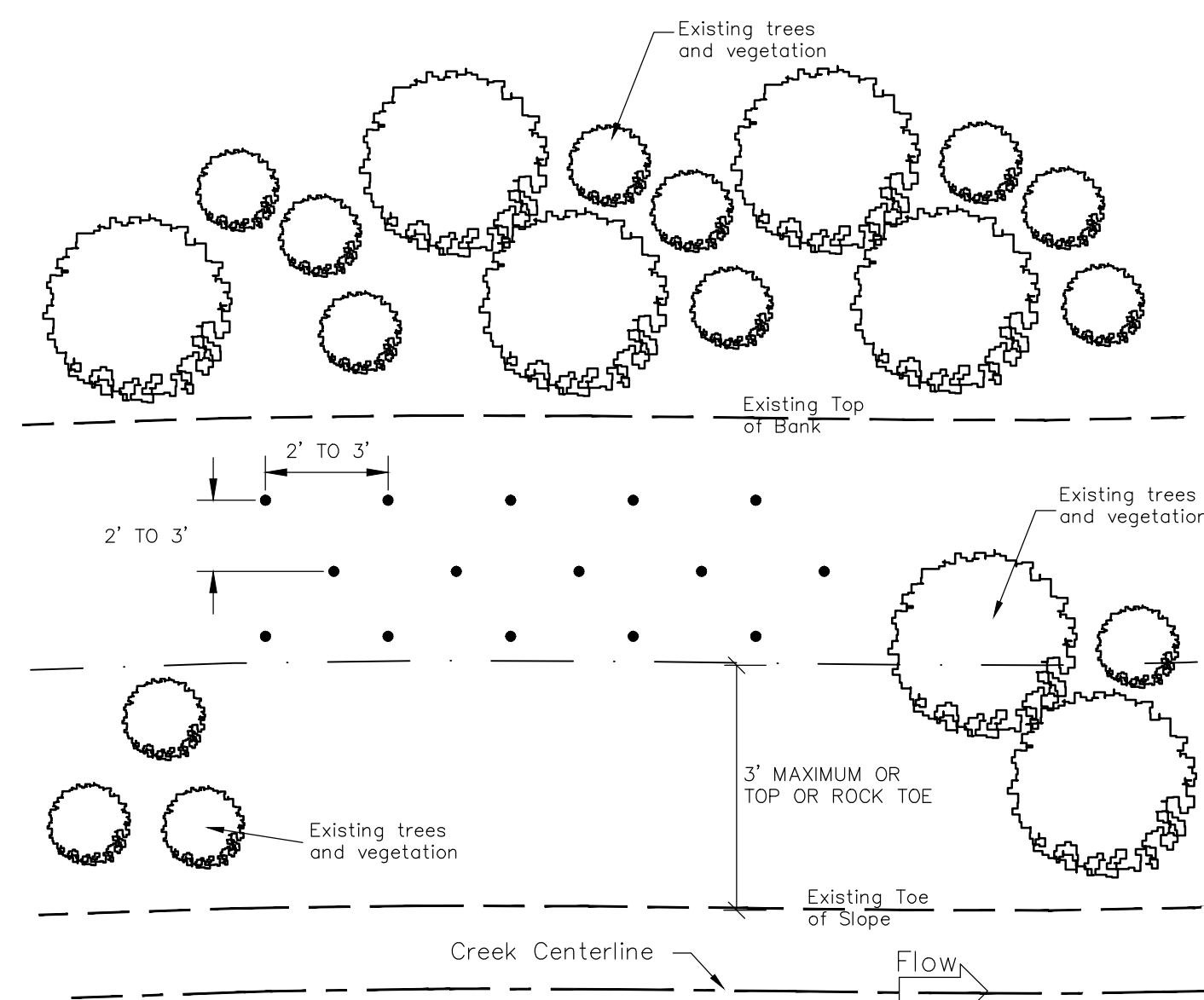
NOTES:

1. EXCAVATION SLOPE FACE SHALL BE NO STEEPER THAN 1(H):1(V) OR PER OSHA REQUIREMENTS. BENCHING OF THE EXCAVATED FACE IN ACCORDANCE WITH OSHA IS AN ACCEPTABLE ALTERNATIVE.
2. THE FACE OF THE SLOPE SHALL BE SEEDED WITH A NATIVE GRASS MIXTURE PROVIDED IN THE TECHNICAL SPECIFICATIONS. PLANT PLUGS PLANTINGS SHALL BE PLACED IN SLOPE FACE PER DETAILS 3 & 4 ON THIS SHEET. SLOPE OF FACE SHALL BE 2(H):1(V).
3. ROCK TOE PROTECTION CONSISTS OF STONE UNITS PER TECHNICAL SPECIFICATIONS. EACH ROW OF THE TOE WALL IS STAGGERED 8 INCHES. ANCHOR GEOGRID TO STONE UNIT PER DETAIL 9, D-2. IN THE EVENT UNSUITABLE SOILS ARE ENCOUNTERED, OVER-EXCAVATE 1-FOOT BELOW THE LOWEST ELEVATION OF THE ROCK TOE PROTECTION AND BACKFILL WITH MSD 4 GRANULAR FILL AS SPECIFIED BY THE TECHNICAL SPECIFICATIONS, OR AS DIRECTED BY THE DISTRICT.
4. EARTH FILL SHALL BE COMPACTED TO 90% MODIFIED PROCTOR (MINIMUM).

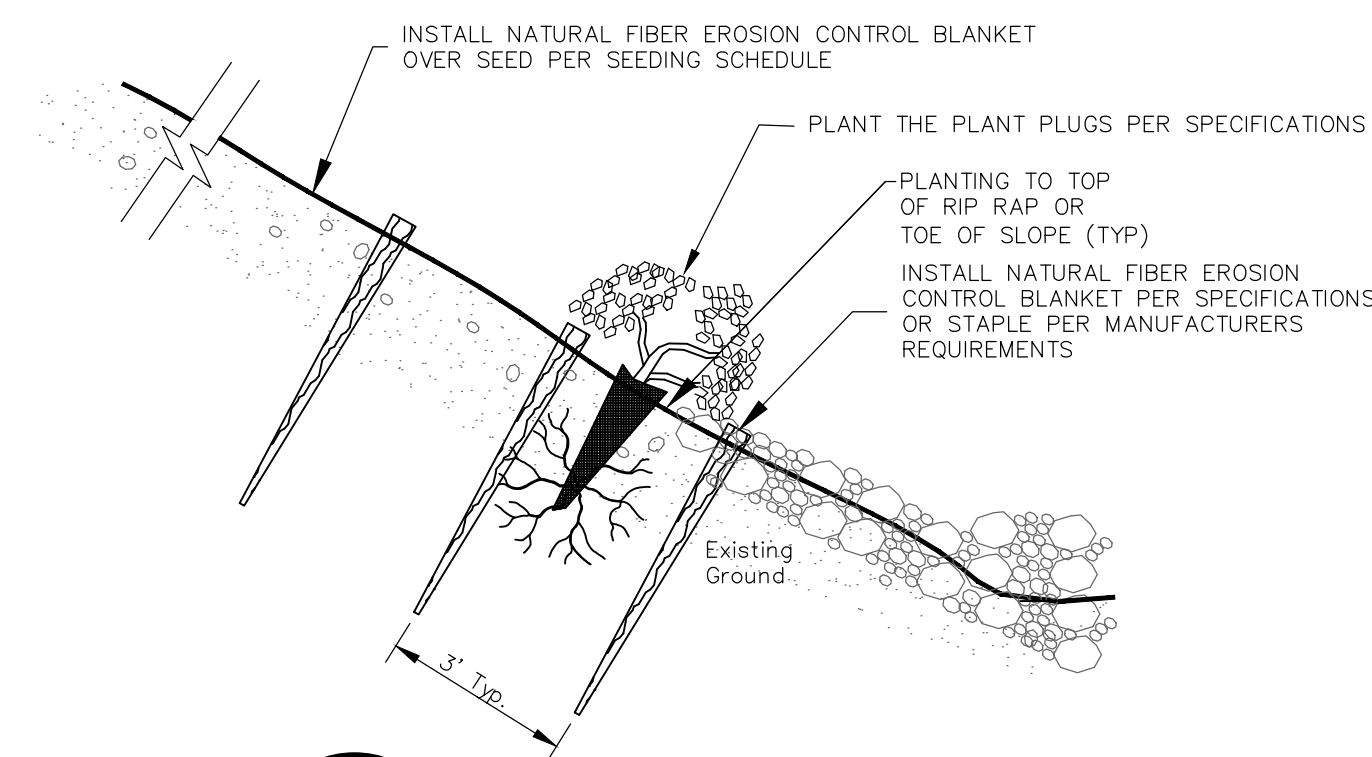


2
D-1 **BANK PROTECTION SEED & PLUG**
NOT TO SCALE

1
D-1 **TYPICAL HALF SECTIONS THROUGH BANK**
NOT TO SCALE




3
D-1 **PATTERN FOR PLUG PLANTING**
NOT TO SCALE

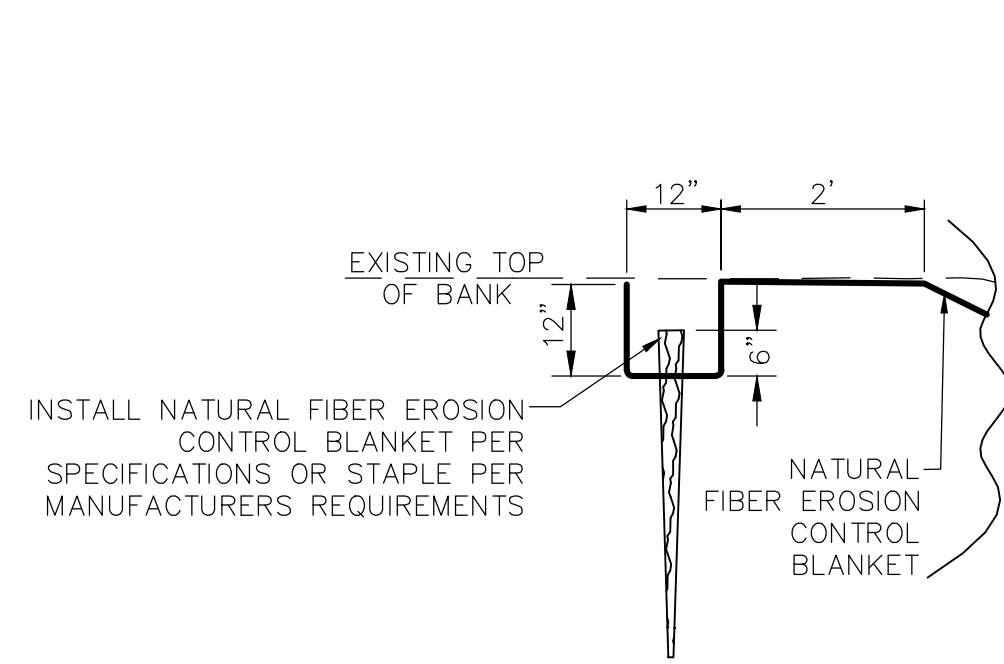


4
D-1 **PLANT PLUG DETAIL**
NOT TO SCALE

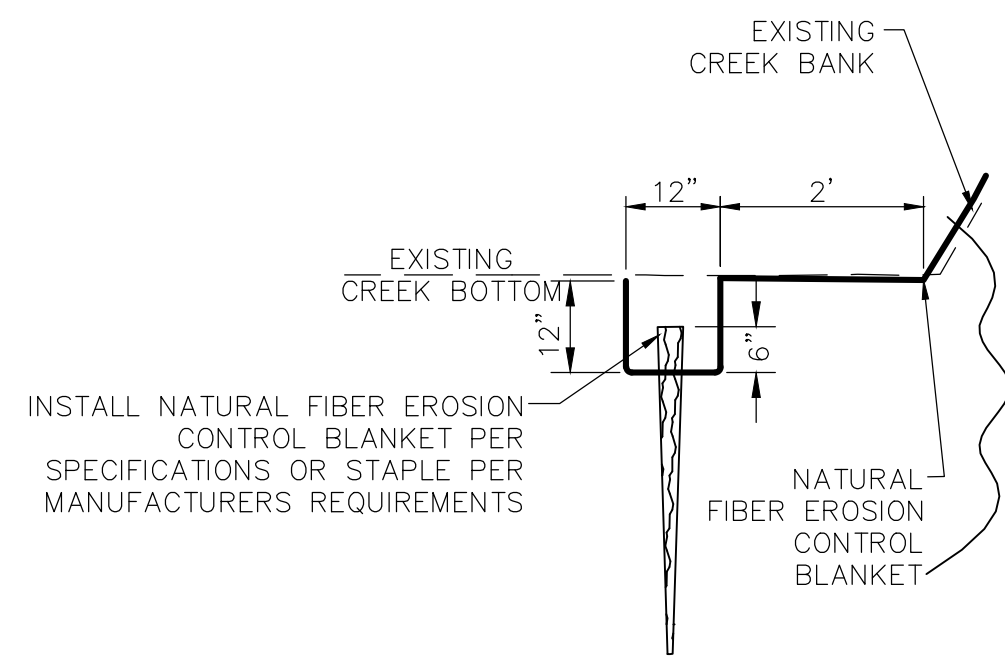
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	METROPOLITAN ST. LOUIS SEWER DISTRICT CONWAY VILLAGE SANITARY RELIEF (CONWAY RD TO I-64) 12131-015.1 CITY OF TOWN & COUNTRY ST. LOUIS COUNTY, MISSOURI			
 TODD D. WILLIAMS NUMBER PE-200015008 PROFESSIONAL ENGINEER	Designed	T.D.W.	Date	NOV 2019
	Drawn	M.R.B.	Checked	M.S.M.
	THIS SHEET HAS BEEN SIGNED, SCALED AND DATED ELECTRONICALLY. TODD DOUGLAS WILLIAMS, P.E. CIVIL ENGINEER P.E. No. 2000120085 November 25, 2019		Sheet No.	14 of 15

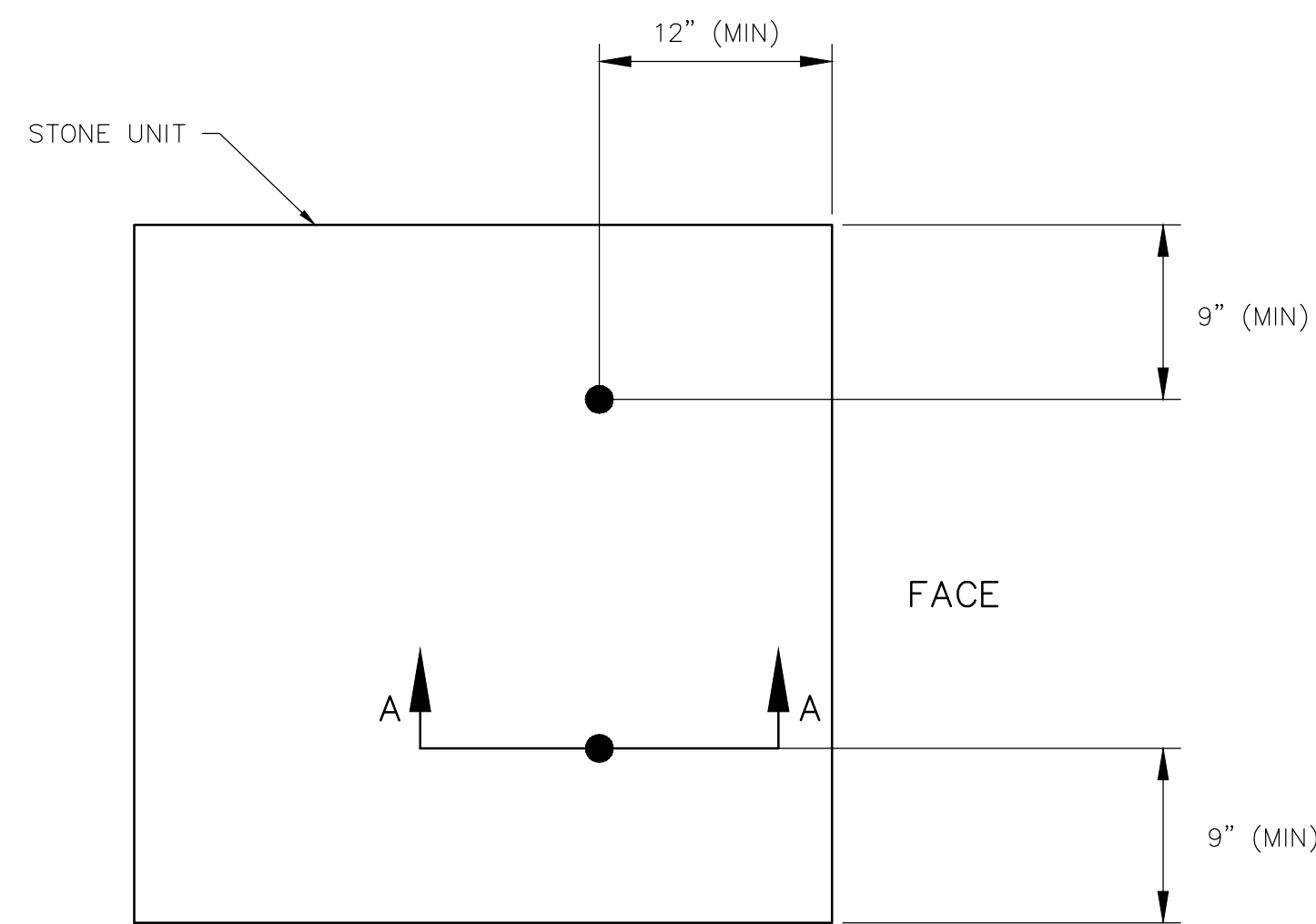
wood.
 15933 Clayton Road, Suite 215
 Bolwin, Missouri 63011
 Phone: 636-386-3800 Fax: 636-402-3005
 Discipline: Engineering Corporation
 Corporate Certificate Of Authority: #2002000326



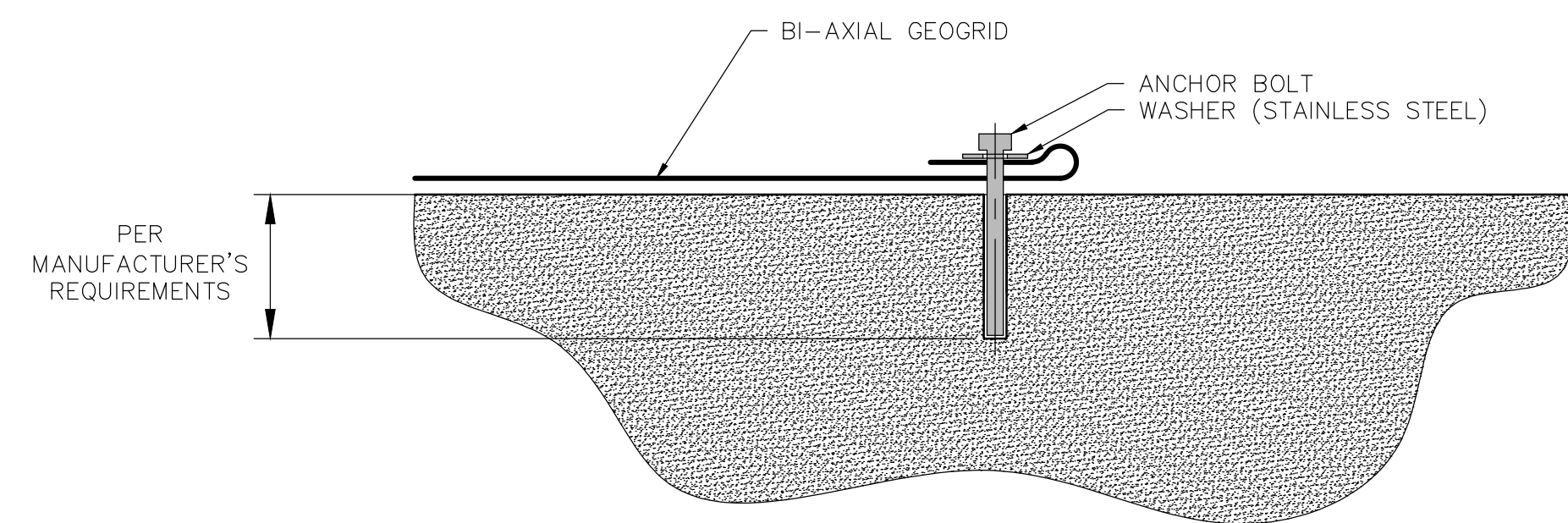
5
D-2 **NATURAL FIBER EROSION CONTROL BLANKET ANCHOR DETAIL (TOP OF BANK)**
NOT TO SCALE



6
D-2 **NATURAL FIBER EROSION CONTROL BLANKET ANCHOR DETAIL (TOE OF SLOPE)**
NOT TO SCALE

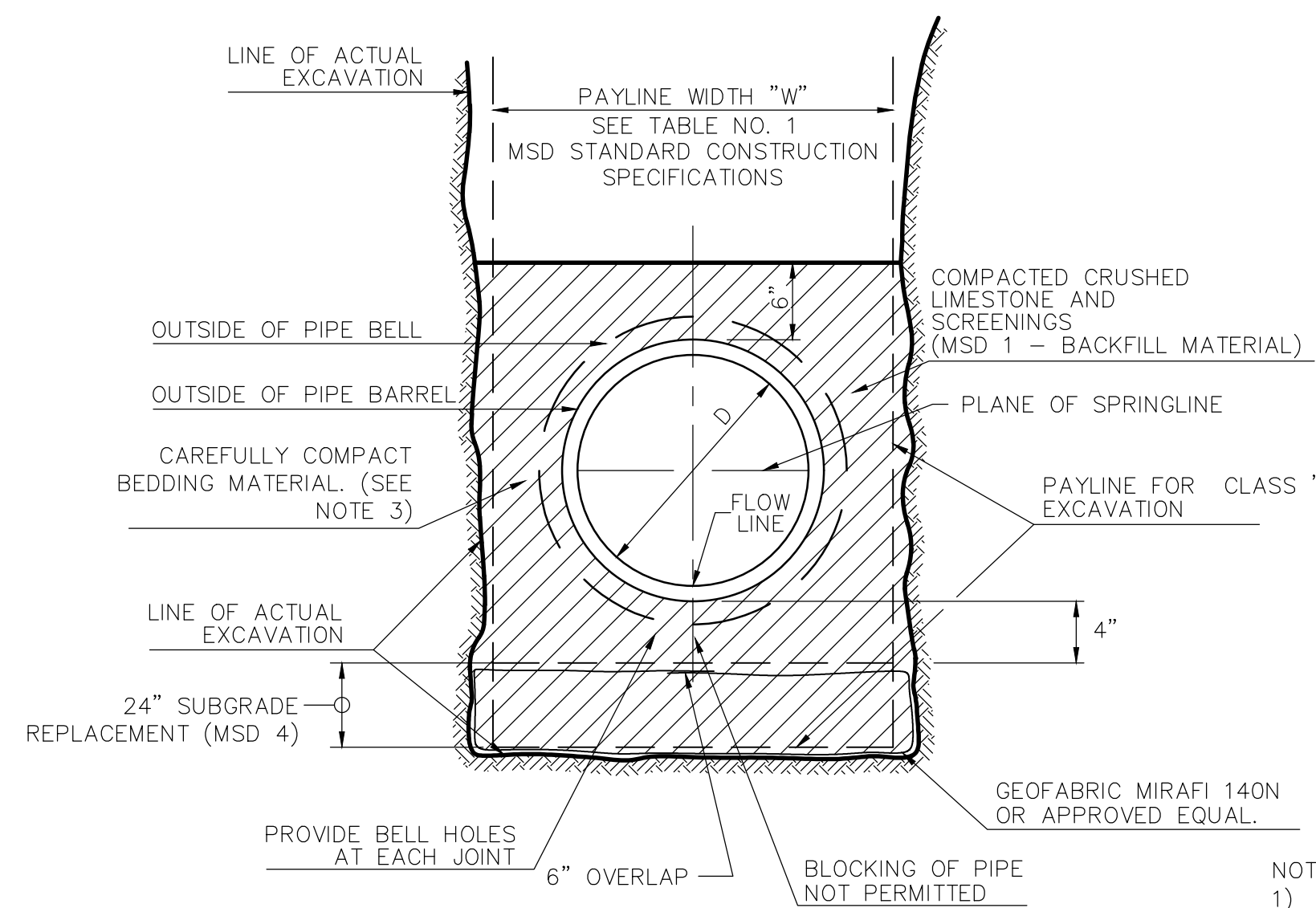


TOP VIEW



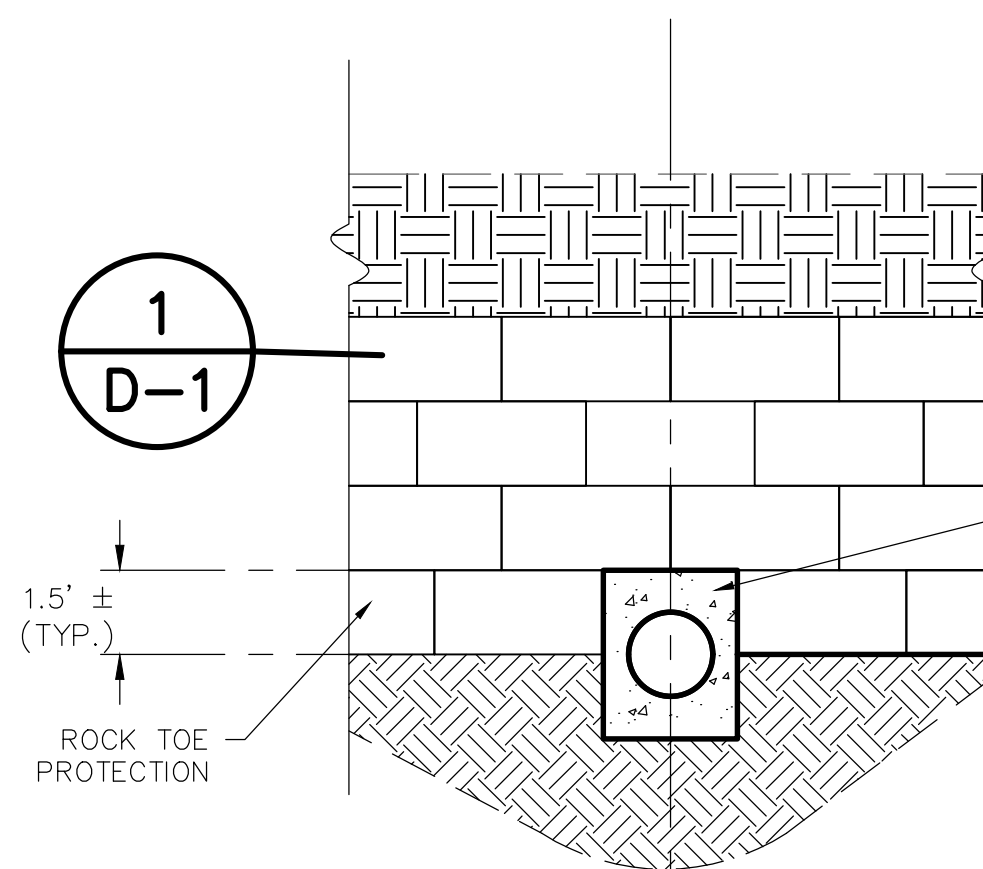
SECTION A-A

7
D-2 **ANCHORING GEOGRID TO STONE UNIT**
NOT TO SCALE

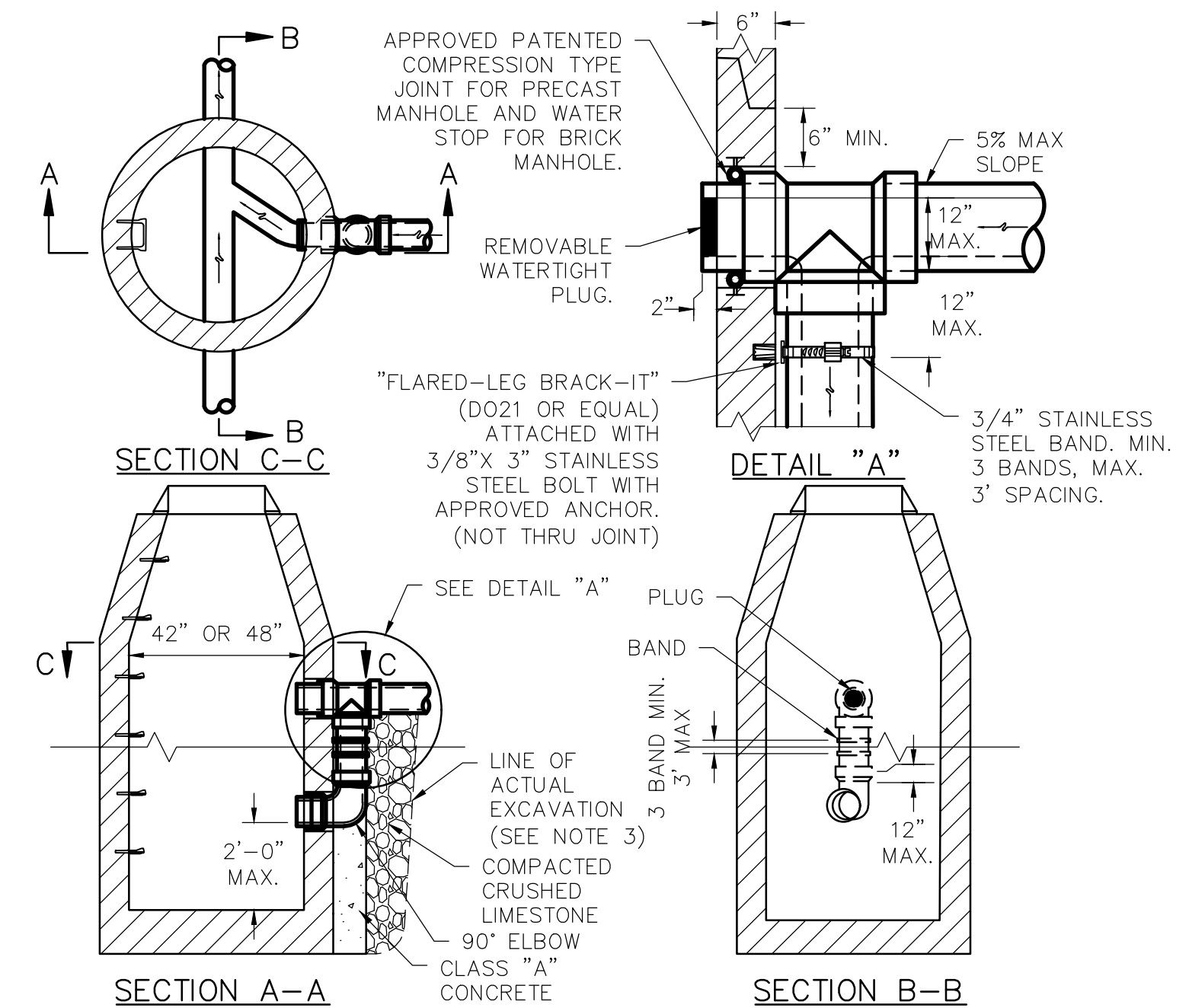


- NOTES:
1. CHECK GRADE OF PIPE AFTER COMPACTION TO INSURE THE DESIRED FLOWLINE HAS NOT CHANGED.
 2. ANY TRENCH BRACING USED BELOW THE TOP OF PIPE SHALL BE LEFT IN PLACE.
 3. BEDDING SHALL BE COMPACTED WITH HAND OPERATED VIBRATORY COMPACTORS OR SIMILAR EQUIPMENT. JETTING OF BEDDING WILL NOT BE ALLOWED.

8
D-2 **SPECIAL PIPE BEDDING DETAIL**
NOT TO SCALE

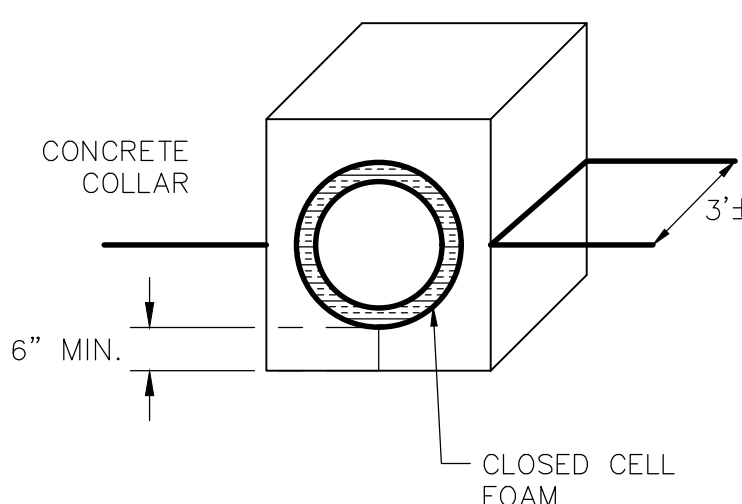


9
D-2 **UNSUITABLE SUBGRADE SPECIAL PIPE BEDDING**
NOT TO SCALE



- NOTES:
- 1) THE MINIMUM INSIDE DIAMETER FOR THE BASE AND RISER SECTIONS SHALL BE 42" FOR 8" DIAMETER SANITARY SEWERS AND A MINIMUM INSIDE DIAMETER OF 48" FOR ALL SANITARY AND COMBINED SEWERS LARGER THAN 8" DIAMETER.
 - 2) DIAMETER OF DROP PIPE FOR COMBINED SEWERS AND SANITARY SEWERS IS SAME AS INCOMING 8", 10" OR 12" PIPE SEWER UNLESS OTHERWISE SHOWN ON PROJECT PLANS. FOR SEWERS 15" THROUGH 24", A DROP IS NOT TO BE USED. RATHER, CONNECT TO MANHOLE AT OR WITHIN 24" ABOVE ITS FLOWLINE.
 - 3) IF EXCAVATED SPACE OUTSIDE OF DROP PIPE EXCEEDS ONE (1) FOOT, PROVIDE 6" CLASS "A" CONCRETE ENCASEMENT ON INCOMING LINE

11
D-2 **MODIFIED OUTSIDE FOULWATER DROP**
NOT TO SCALE



1
D-1

wood.
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	Designed: T.D.W. Date: NOV 2019 Drawn: M.R.B. Sheet No. 15 of 15 Checked: M.S.M.

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 CIVIL ENGINEER
 P.E. No. 2000150085
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