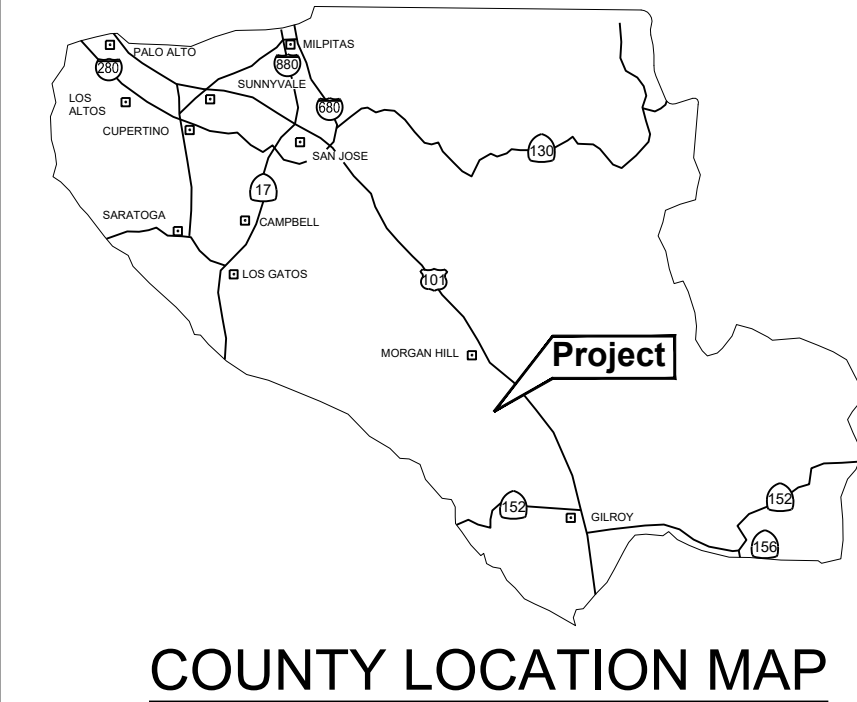
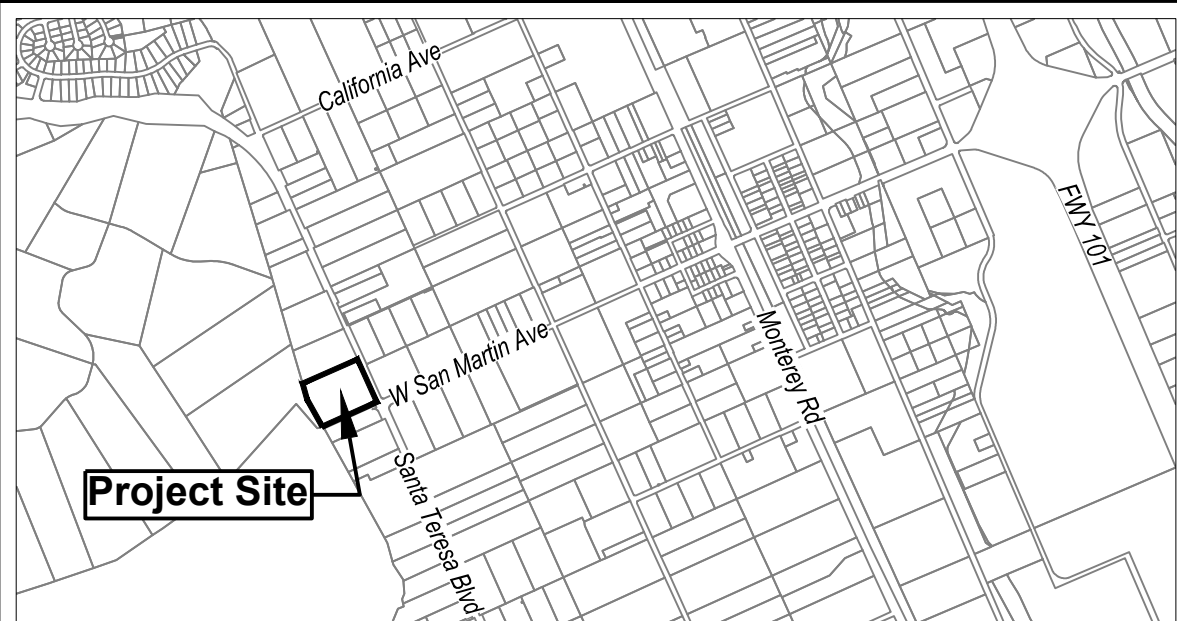




Applicant/Owner:

Raj Durga
12530 Paseo Cerro
Saratoga, CA 95070
847-660-4250
rdurga@icloud.com

Engineer:

David L. Faria, RCE 92432, PLS 9840
Faria Engineering & Surveying
1656 Cienega Road Unit 100
Hollister, CA 95023
602-515-7650
david@fariaengineering.com

Project Information:

APN: 779-18-019
Present Use: Rural Residential
Present Zoning: RR-5AC-sr
Existing Improvements: As Shown
Water: ex well, San Martin Water
Sanitary Sewer: ex OWTS, Proposed OWTS
Gas & Electric: ex PGE
Fire Responsibility Area: SRA (97.4%), LRA (2.6%)
Wildland Urban Interface: In
HCP Area: Rural Development Not Covered
Hazard Zone(s): N/A
Type of Construction: V-B
Occupancy Types: A-2, S-1, R-3, U
Gross Area: 7.641 ac
Net Area: 6.996 ac

Boundary Note: Property lines shown on this plan are based on record data and boundary monumentation measured to date.

Flood Zone: The property lies wholly in Zone D, areas in which flood hazards are undetermined, but possible, per FEMA Firm Panel 06085C0628H & 06085C0609H, effective May 18, 2009.

Basis of Bearings: The bearings shown on this map are based on the centerline of Santa Teresa Blvd as found monumented and recorded as North 25° 04' West, on that record of survey thereof recorded in Book 605 of Maps at Page 17, Santa Clara County Records.

Benchmark: Elevations shown on this plan are based on the top the 8" headwall located 3.1' from the western edge of pavement of Santa Teresa Boulevard.
ELEVATION = 286.63'. (NAVD88)

Landscaping Information:

- No landscaping is proposed.
- All non improved disturbed areas are to be hydroseeded.

Fire Protection Information:

- Fire Protection Systems shall be a deferred submittal.
- Water to be supplied by San Martin Water Company.
- Existing standard hydrant located at the SW corner of Santa Teresa Blvd and W. San Martin Ave.
- Proposed Standard hydrant at the accessory building entrance.
- Existing residence does not have fire sprinklers.
- Property is located in the State Response Area.
- Property is in Wildland Urban Interface (WUI).
- Structures to meet WUI construction requirements.
- Property to maintain defensible space at all times.
- Driveway width will be maintained at 12' minimum with a clear height of 13' 6".
- Existing driveway capable of supporting 75,000 lbs.
- All proposed driveways to be made of an all weather surface capable of supporting 75,000 lbs.
- All proposed driveways shall have a max. slope of 15%.

Structure	Occupancy Type	Construction Type	Size	Max. Height
Residence and Garage	R-3/U	V-B	5,000 SF	35 ft.
ADU and Garage	R-3/U	V-B	1,452 SF	16 ft.
Accessory Structure	A-2 / S-1 / B	V-B	5,000 SF	35 ft.
CC Housing and Garage (5)	R-3	V-B	7,260 SF	35 ft.

Utility Note: Contractor to verify existing utility locations by contacting USA @ 811 or 800-642-2444

Earthwork Quantities				
	Cut	Fill	Max Cut	Max Fill
Residence	255 cy	130 cy	2.00'	1.50'
Residence Driveway	17 cy	60 cy	1.00'	1.50'
ADU	14 cy	51 cy	1.50'	1.50'
Accessory Structure	26 cy	364 cy	1.50'	2.25'
Accessory Driveway	310 cy	2 cy	2.00'	0.50'
CC Housing	2 cy	338 cy	0.50'	1.50'
CC Driveway	334 cy	18 cy	1.50'	1.50'
Stormwater Treatment	308 cy	0 cy	3.00'	0.00'
Total	1,266 cy	963 cy		

Proposed Floor Area	
Proposed Residence and Garage	7,434 SF
Proposed ADU and Garage	1,454 SF
Proposed Accessory Structure	7,011 SF
Proposed Community Care Housing and Garage (5)	7,260 SF
Total Floor Area	23,159 SF

Impervious Area Summary	
Proposed Residence and Patio	7,149 SF
Proposed Residence Driveway	5,661 SF
Proposed ADU	1,485 SF
Proposed ADU Patio	137 SF
Proposed Accessory Structure	5,000 SF
Proposed Accessory Driveway	14,083 SF
Proposed CC Housing (5)	7,425 SF
Proposed CC Housing Patios (5)	685 SF
Proposed AG/CH Housing Driveway	13,555 SF
Total New Impervious Area	55,180 SF

Parking Table - Accessory Structure	
Standard Parking Spaces	20
Van Accessible Spaces	1
Total Proposed Parking Spaces	21

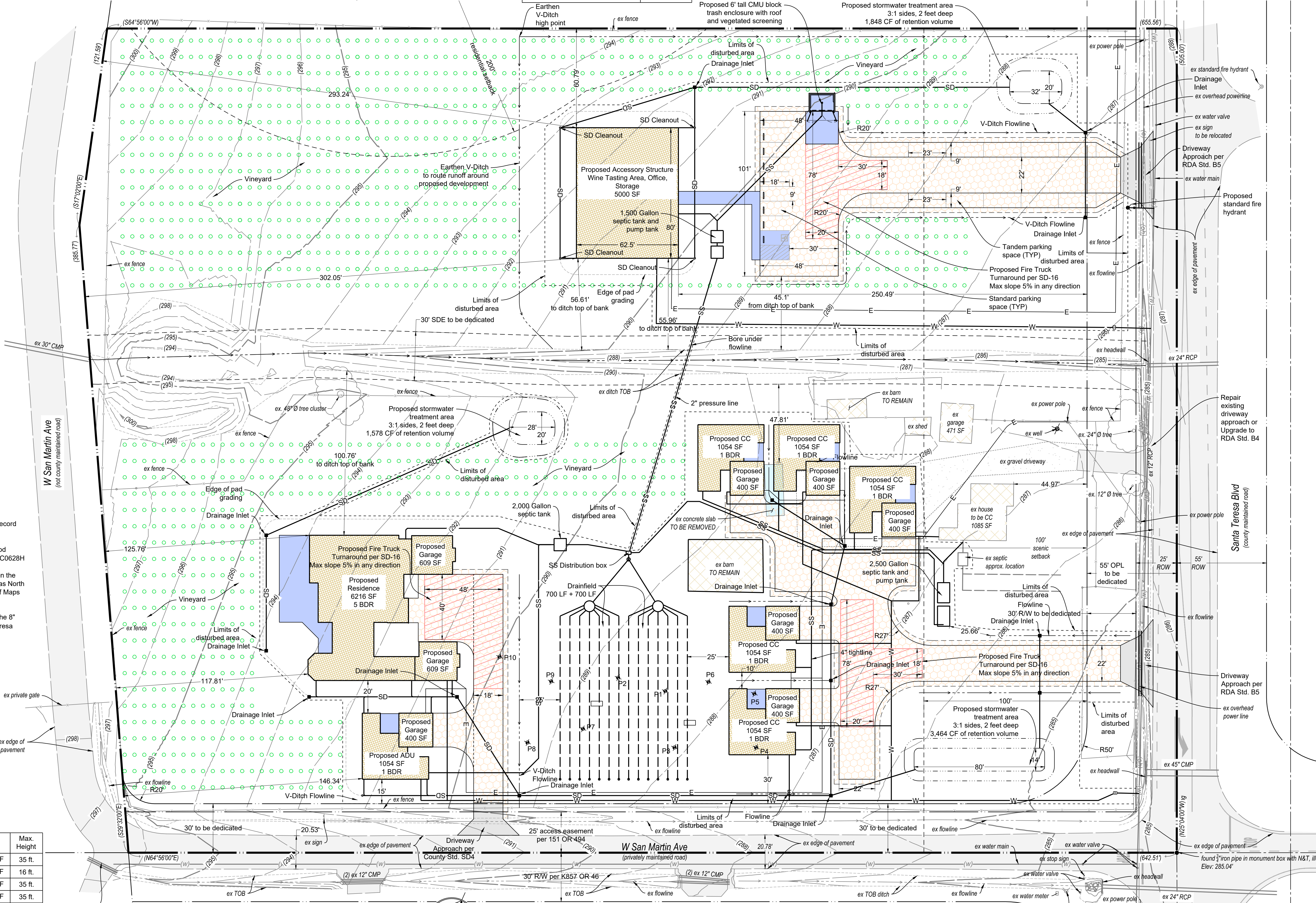
Tree Removal Summary		
#	Species	Size
1	None	None

Parking Table - CC Housing	
Covered Parking in Garages	10
Standard Uncovered Parking Spaces	0
Total Proposed Parking Spaces	10

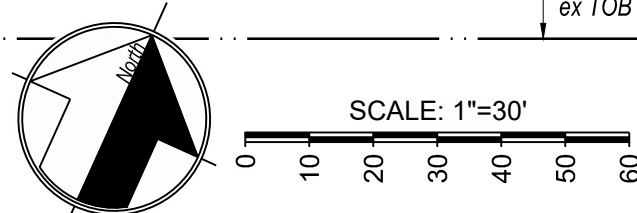
LEGEND

	(ex structure)		(ex pavement)
	(ex concrete)		(ex gravel)
	Proposed Structure		Proposed AC
	Proposed Concrete		Proposed Aggregate Base
	Existing Contour		Proposed Contour

Area of Disturbance = 141,926 SF



SLOPE CALCULCS:
S = 1 L (100) = (1)(14297)(100) / 332.839 = 4.30%
L = CONTOUR LINEAR LENGTH
A = AREA IN SQUARE FEET



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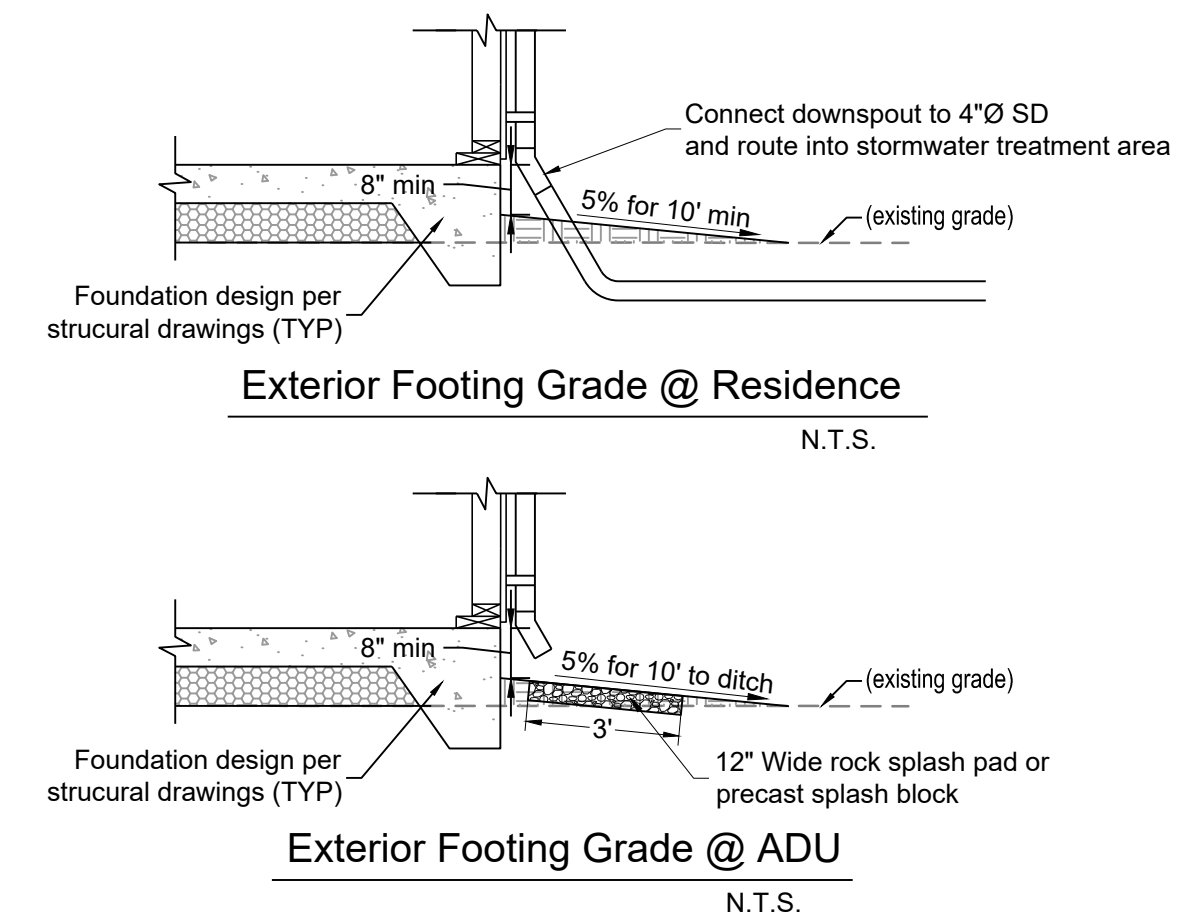
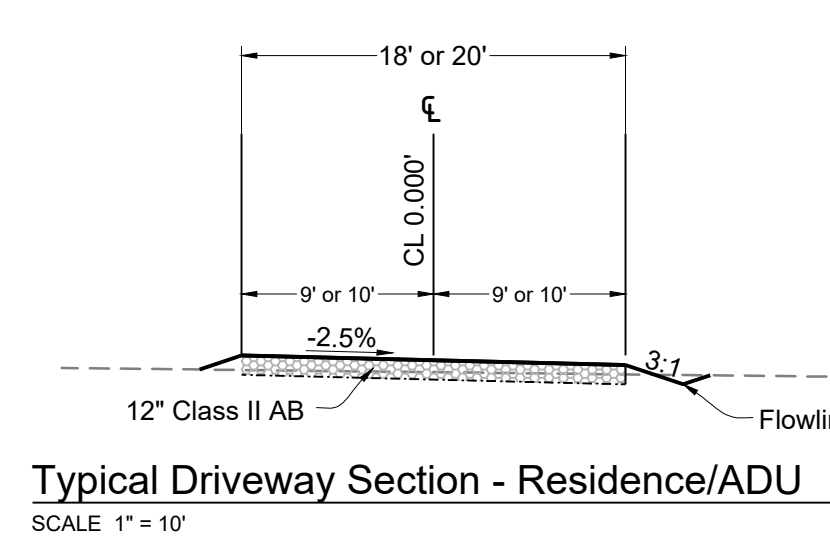
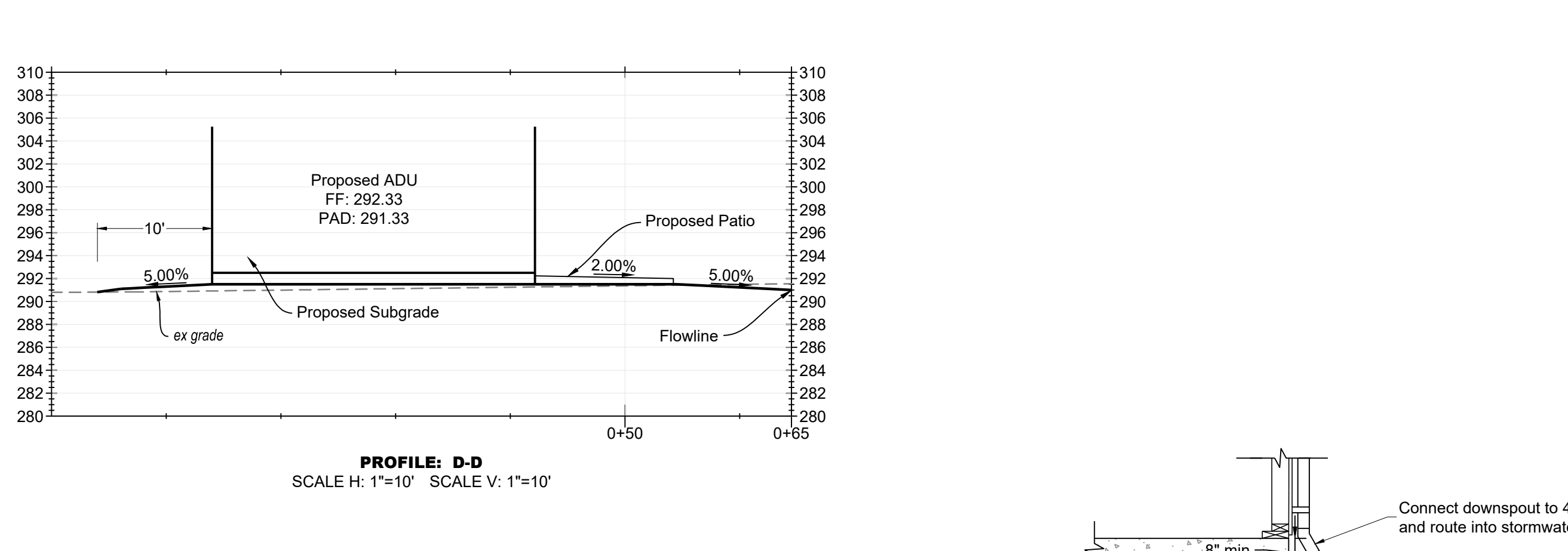
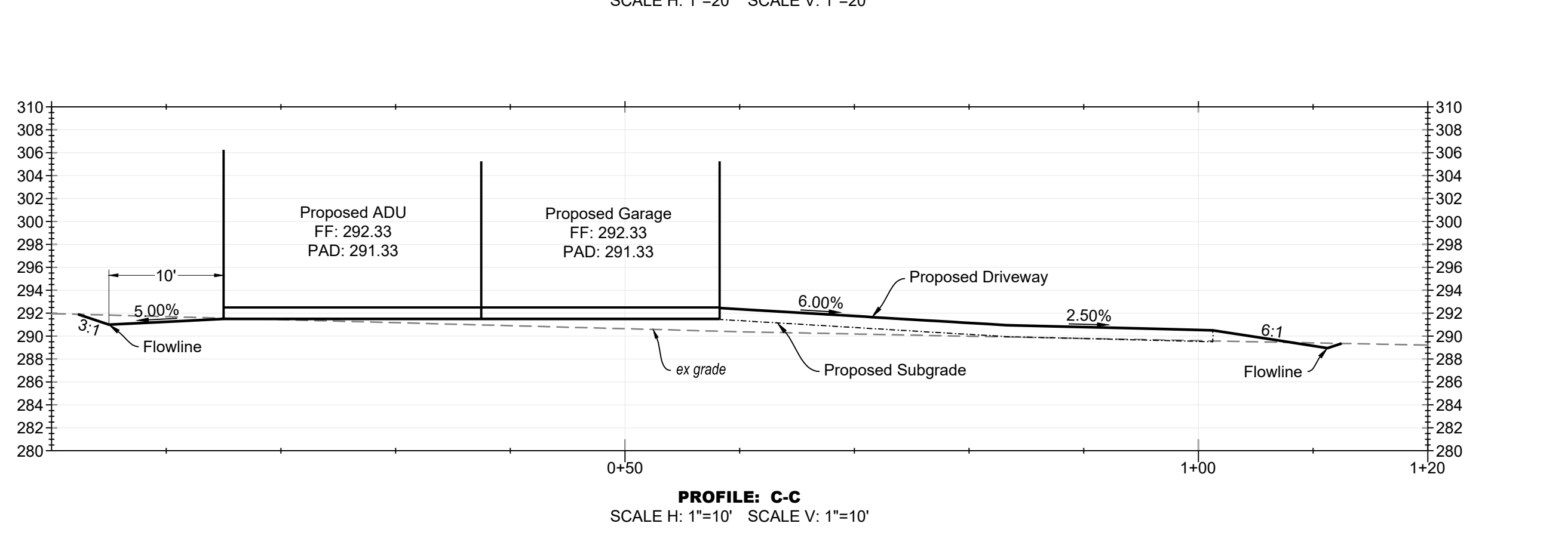
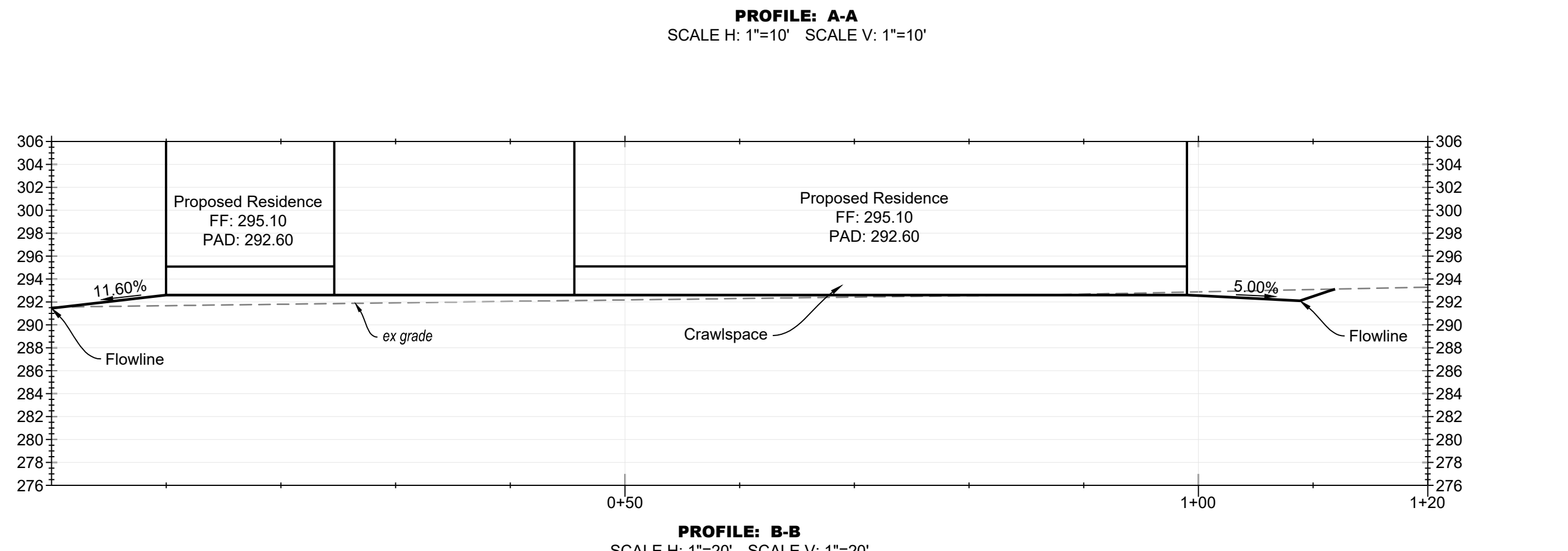
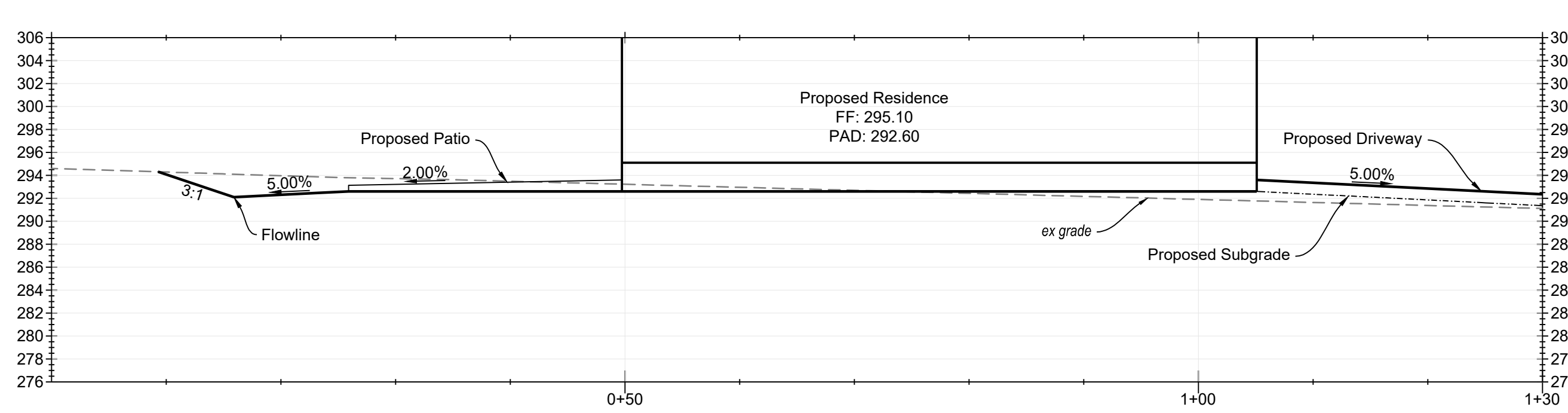
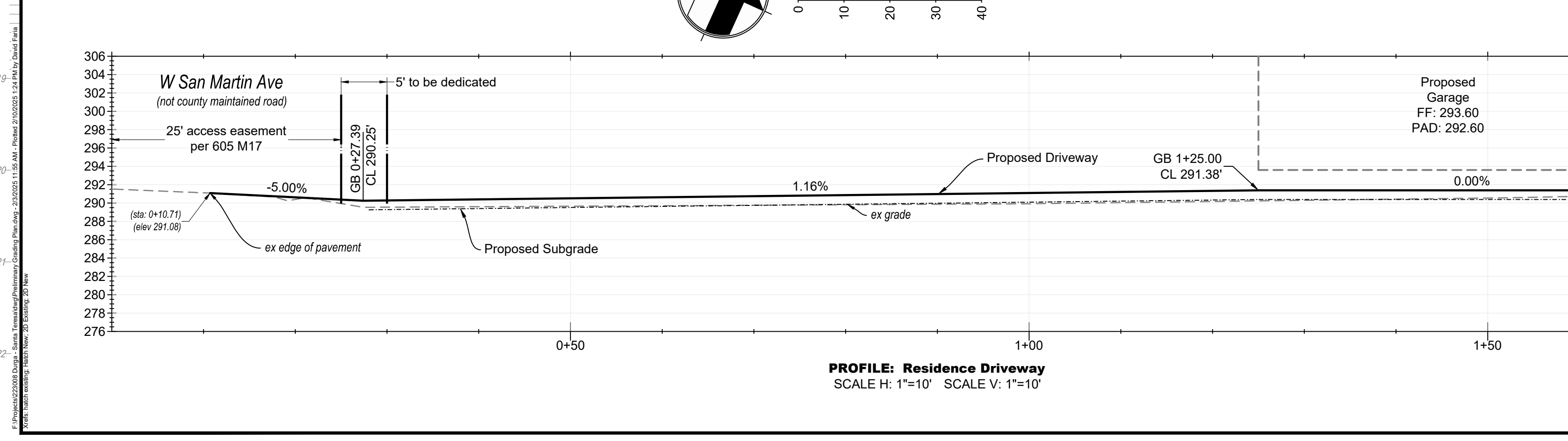
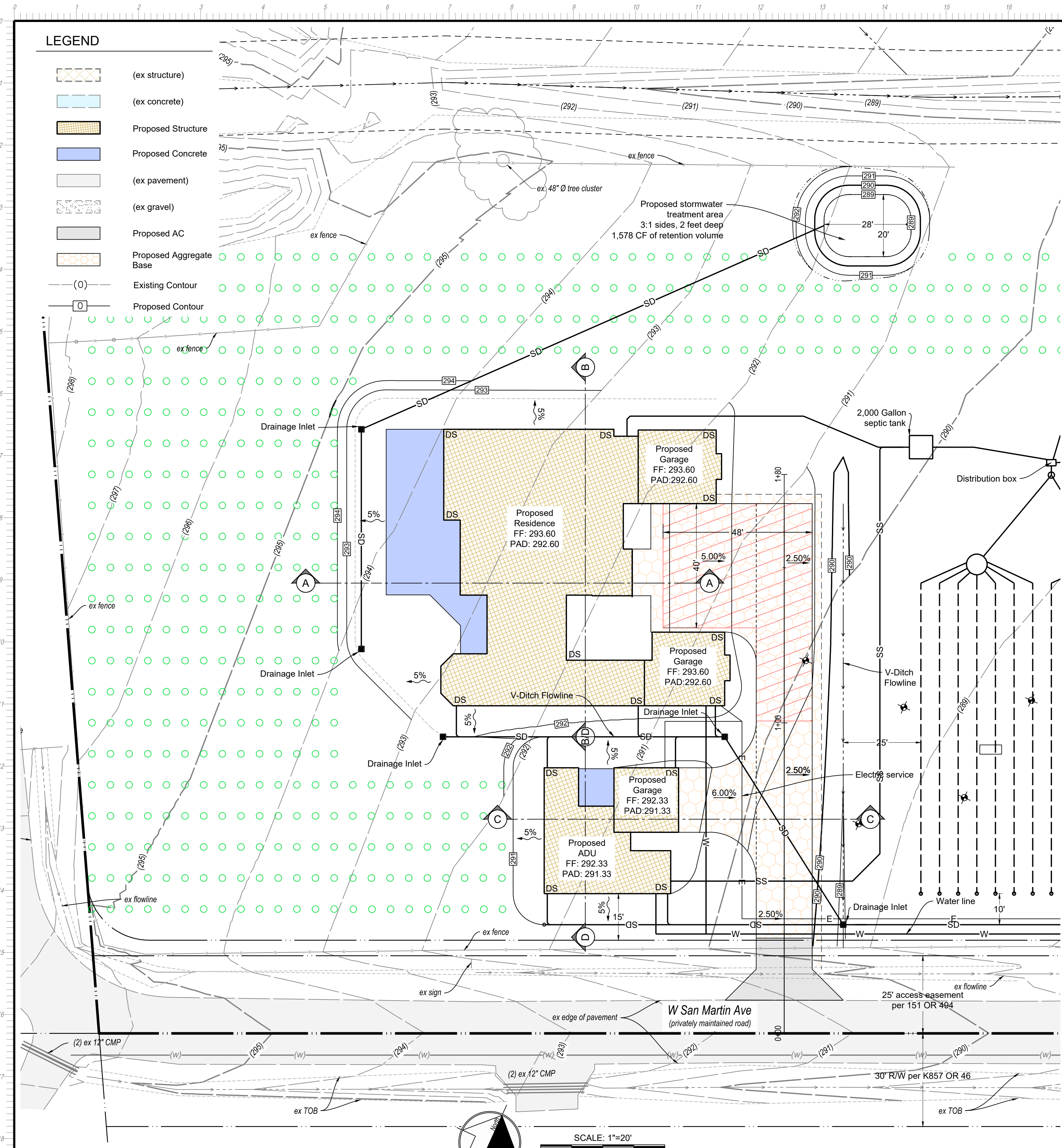
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david@fariaengineering.com
650.515.7650

Durga - Site Plan
13375 Santa Teresa Blvd. - APN 779-18-019

DATE: 1/30/2025
SCALE: 1" = 30'
DRAWN BY: DF
CHECKED BY: DF
JOB NO.
223008
SHEET NO. **1** OF **8**



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5	-	-	-	-	-

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602.515.1600

Preliminary Grading Plan - Residence and ADU

13375 Santa Teresa Blvd. - APN 779-18-019

DATE: 1/30/2025

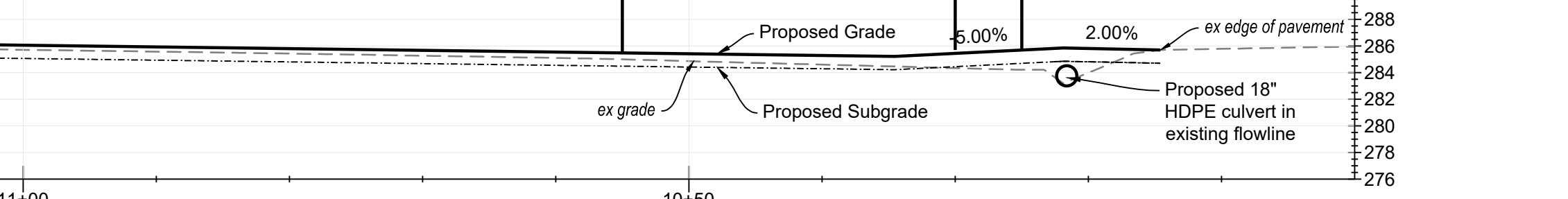
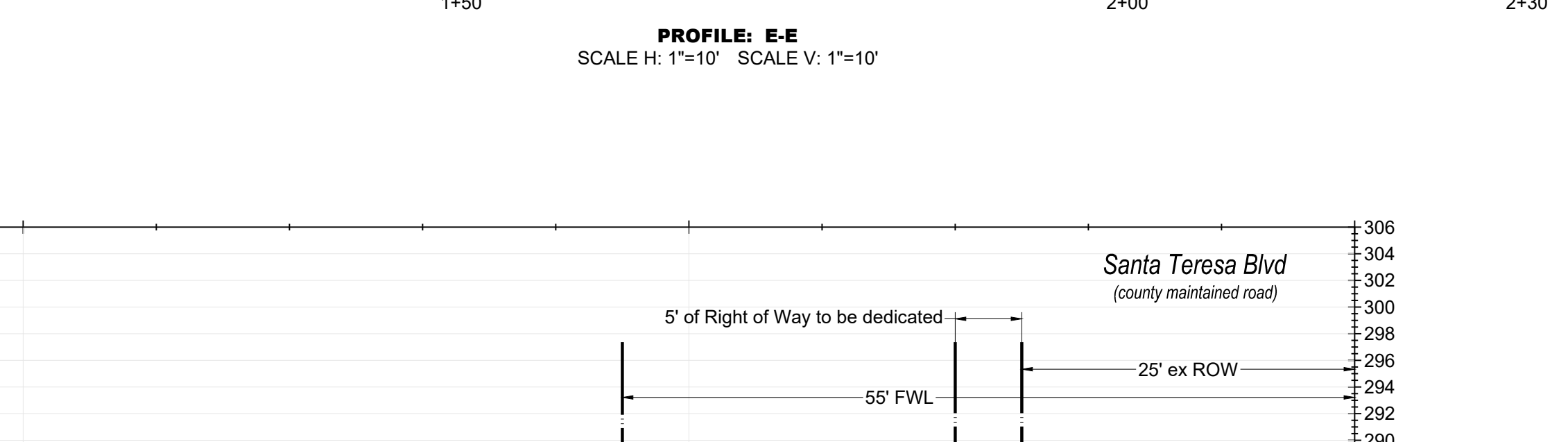
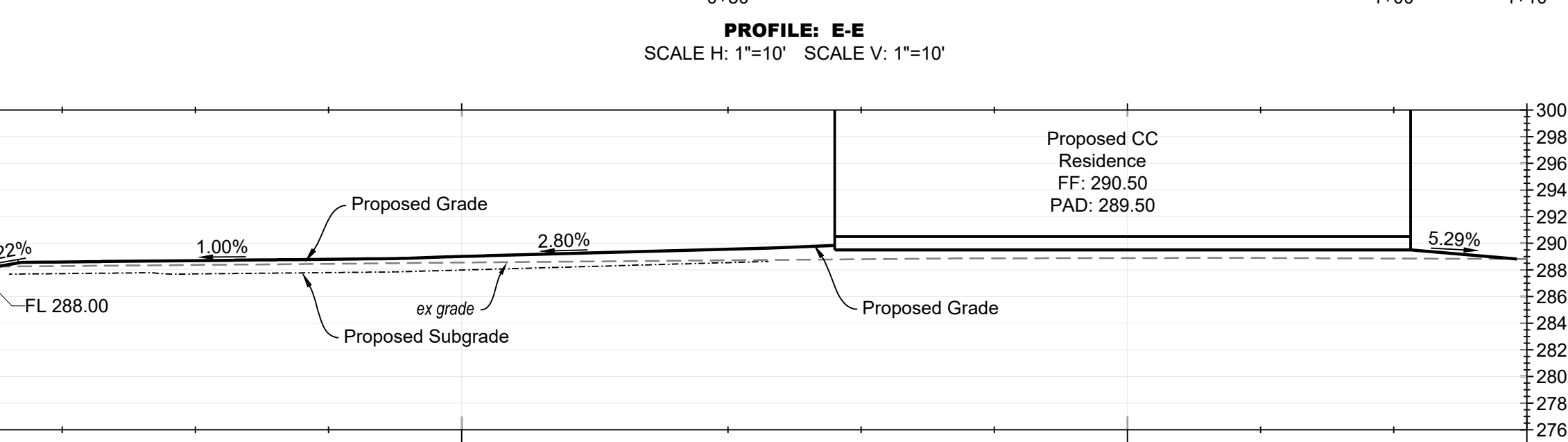
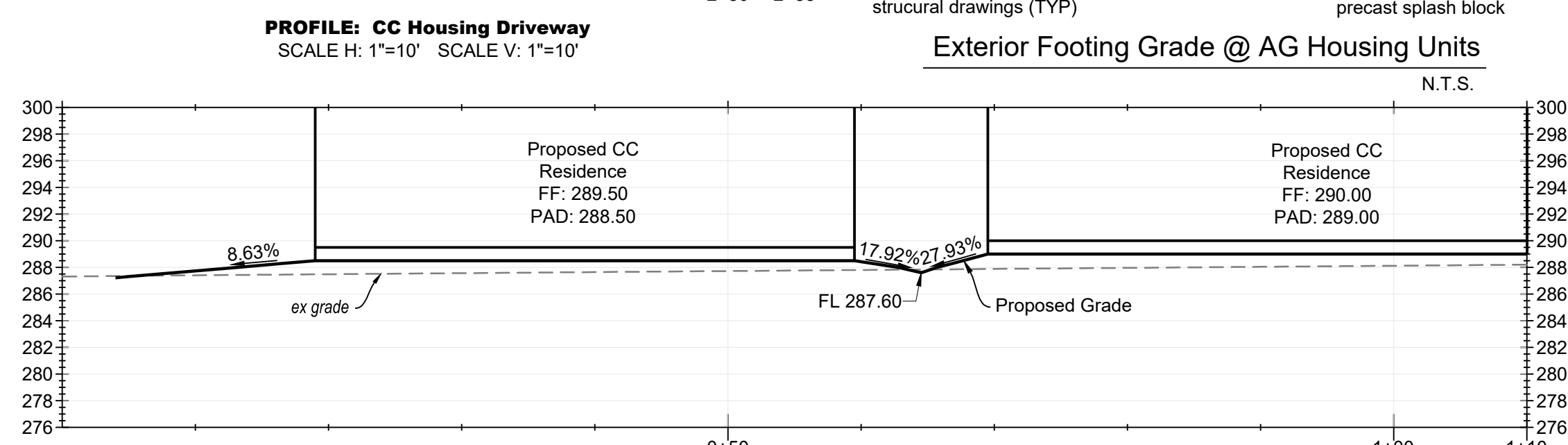
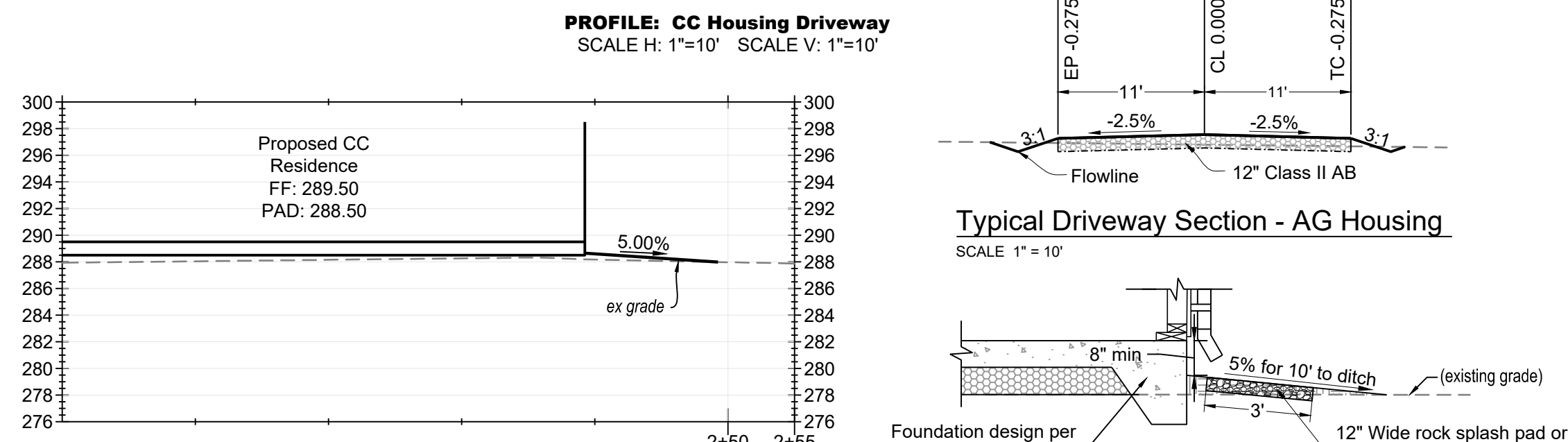
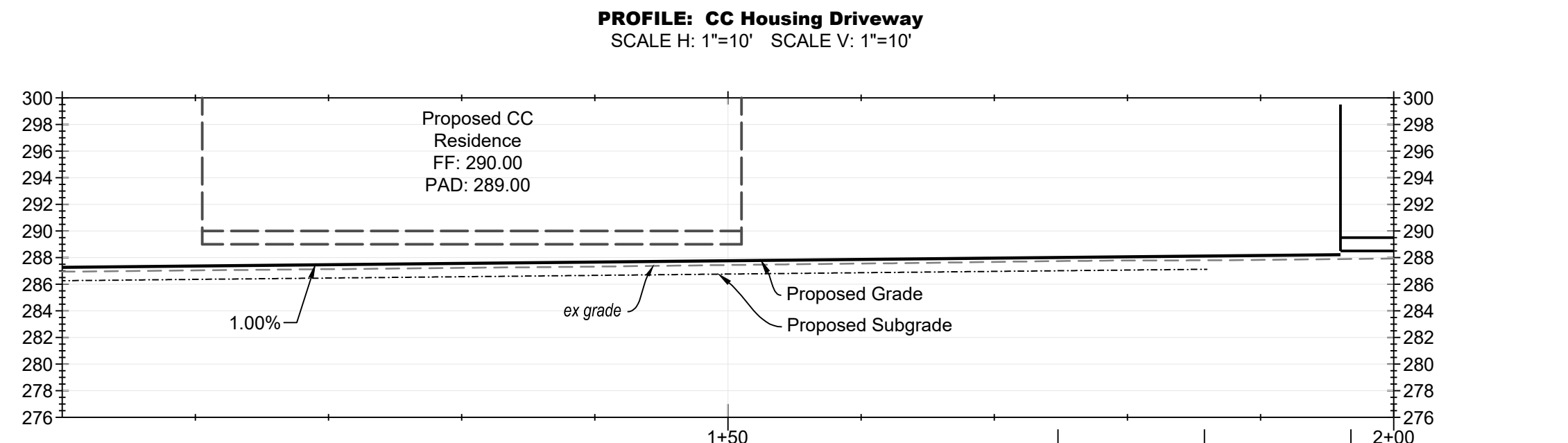
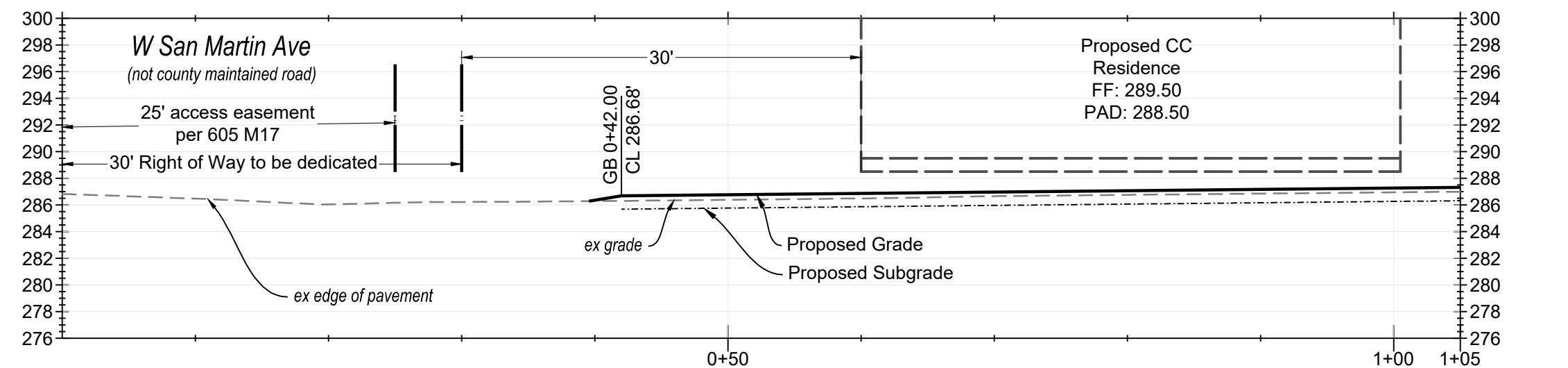
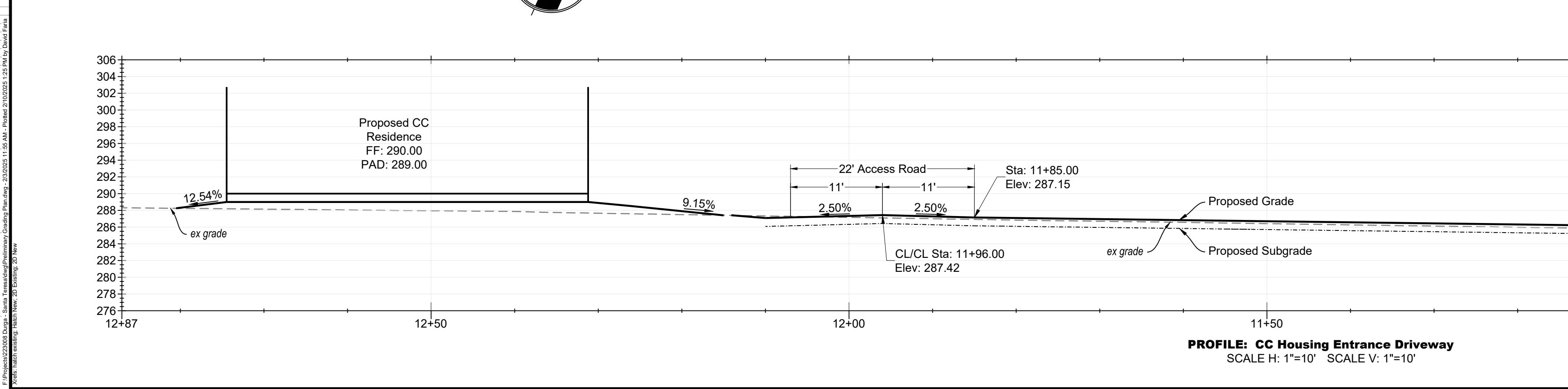
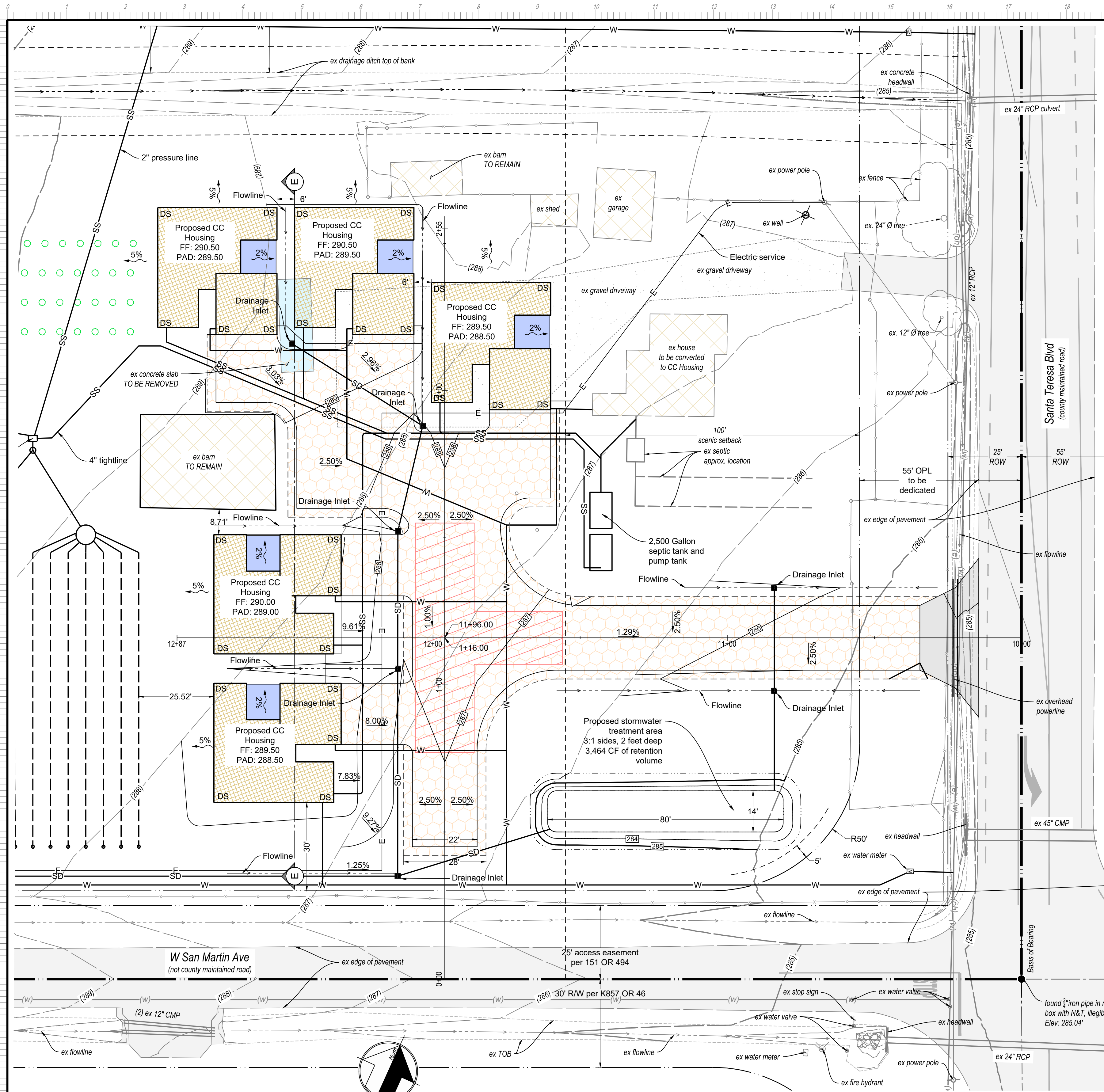
SCALE: 1" = 20'

DRAWN BY: DF

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JOB NO. 223008

SHEET NO. 2 OF 8



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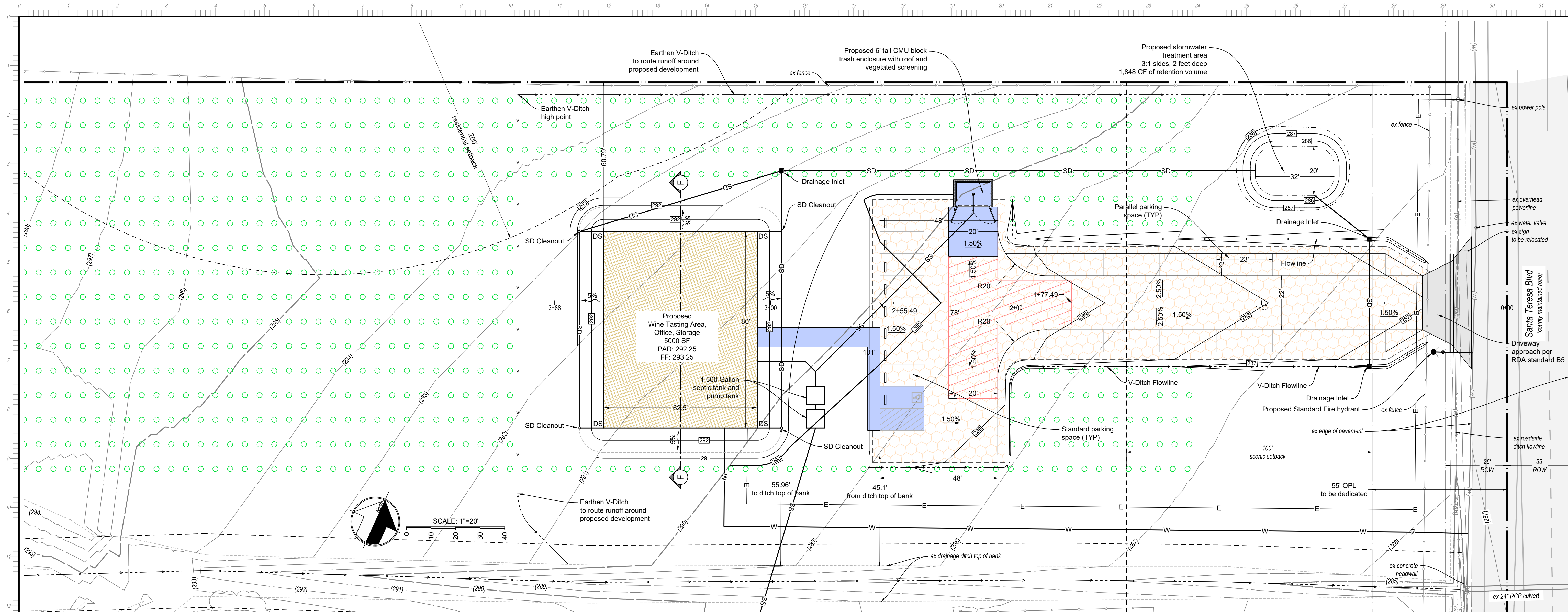
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6602 515-1600
david@fariaing.com

Preliminary Grading Plan - Community Care Housing

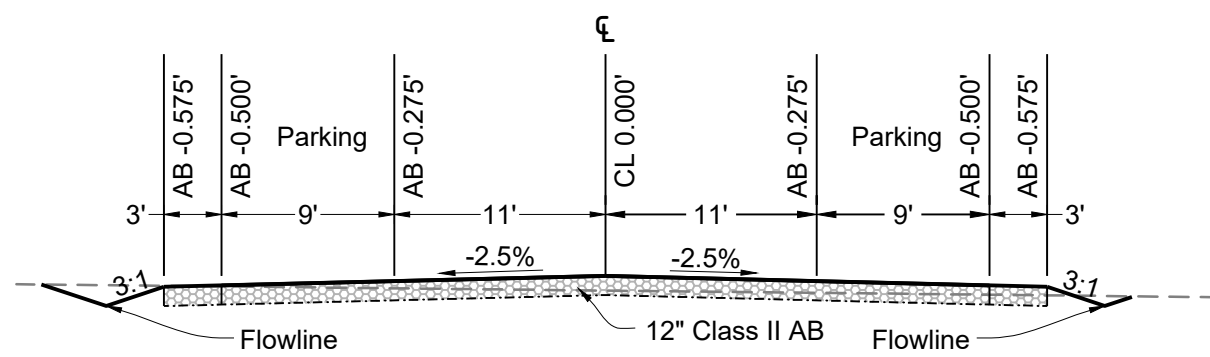
13375 Santa Teresa Blvd. - APN 779-18-019

DATE: 1/30/2025
SCALE: 1" = 30'
DRAWN BY: DF
CHECKED BY: DF
JOB NO.
223008
SHEET NO. 3 OF 8

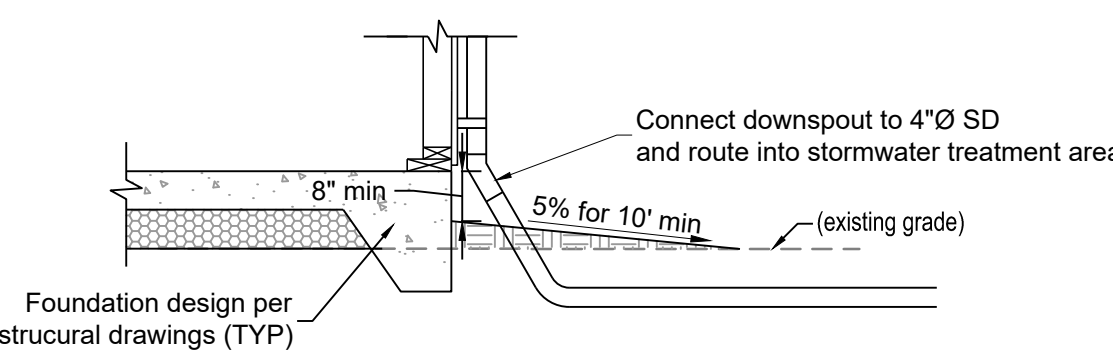


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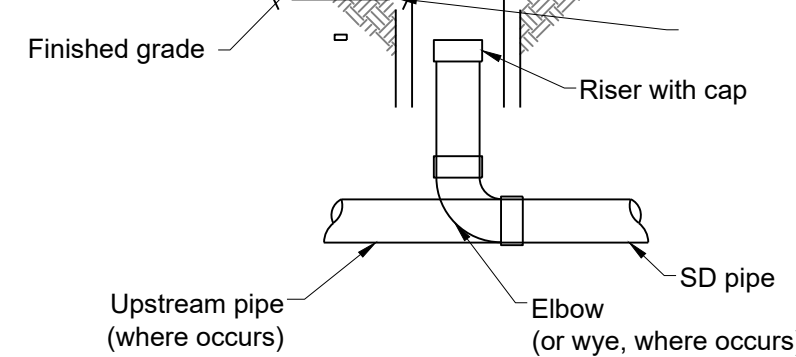
- (ex structure)
- (ex concrete)
- Proposed Structure
- Proposed Concrete
- (0) Existing Contour
- (ex pavement)
- (ex gravel)
- Proposed AC
- Proposed Aggregate Base
- Proposed Contour



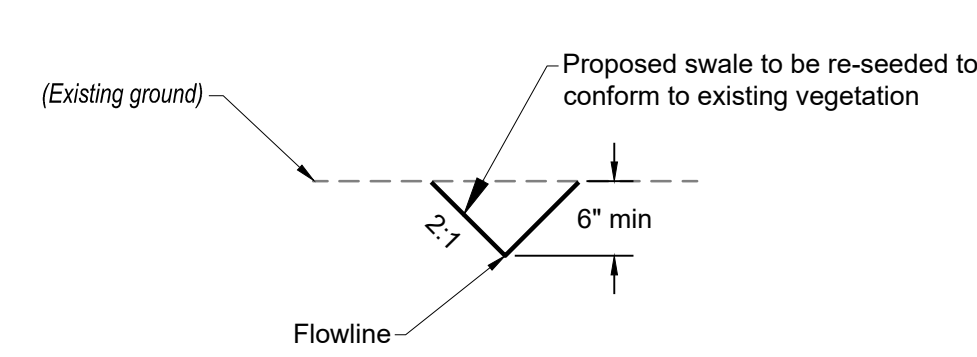
Typical Driveway Section - Accessory Structure
SCALE 1" = 10'



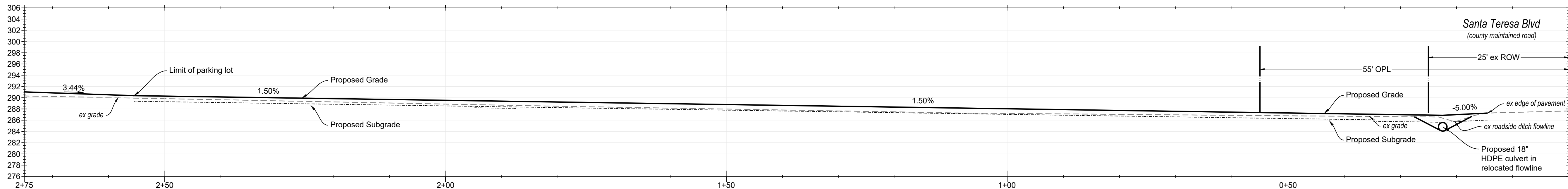
Exterior Footing Grade @ Structure
N.T.S.



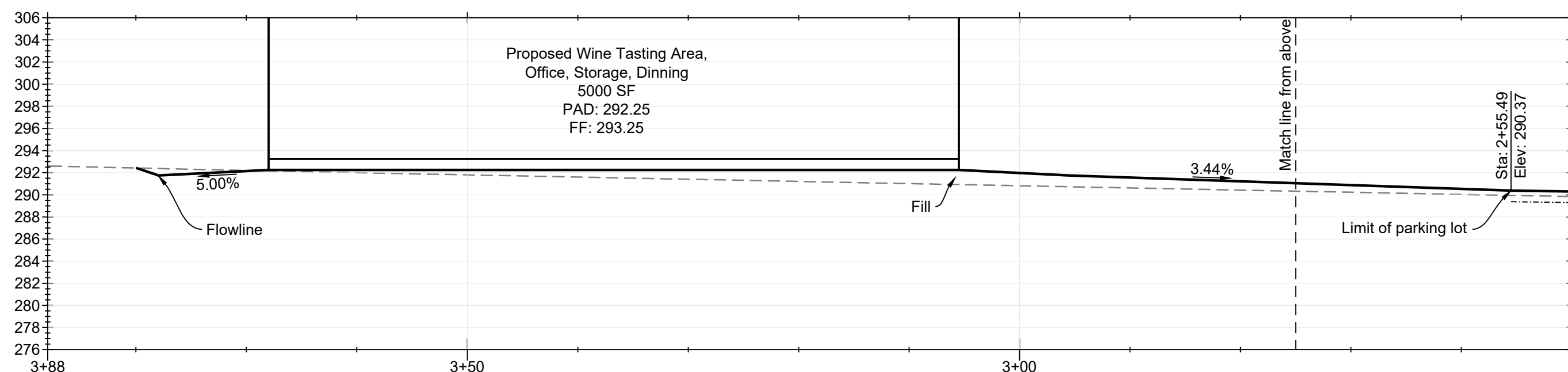
Standard Clean-out Detail
N.T.S.



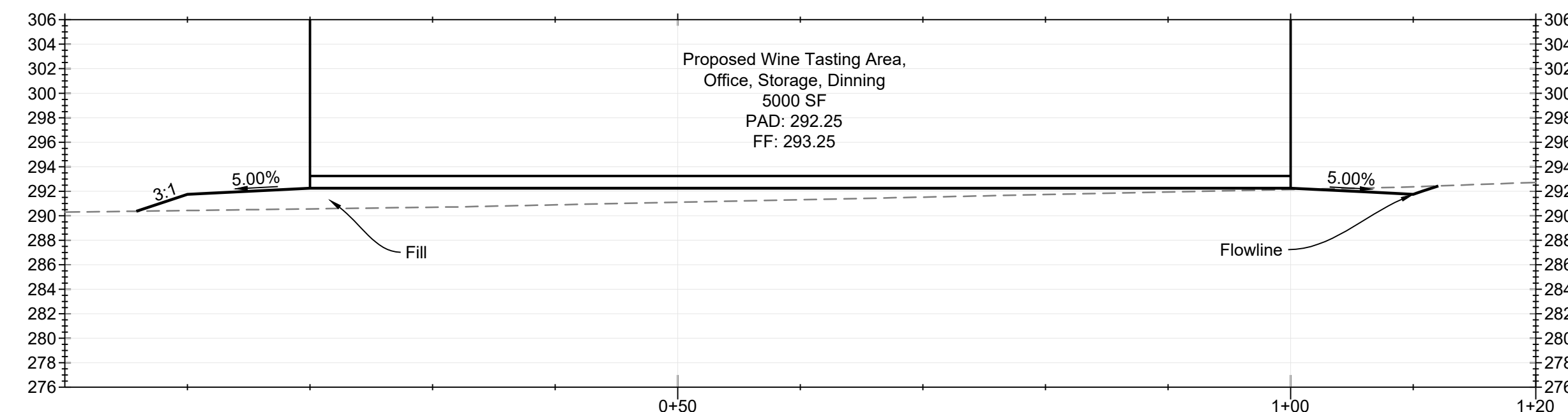
Typical Ditch Section
N.T.S.



PROFILE: Accessory Driveway
SCALE H: 1"=10' SCALE V: 1"=10'



PROFILE: Accessory Driveway
SCALE H: 1"=10' SCALE V: 1"=10'



PROFILE: F-F
SCALE H: 1"=10' SCALE V: 1"=10'

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david@fariaing.com

Preliminary Grading Plan - Accessory Structure

13375 Santa Teresa Blvd. - APN 779-18-019

DATE: 1/30/2025
SCALE: 1" = 30'
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CHECKED BY: DF
JOB NO.
223008
SHEET NO.
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OF
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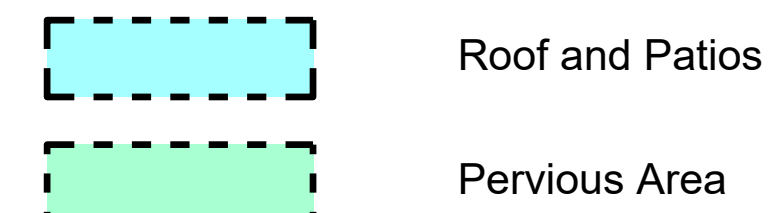
Legend - DMA 1



DMA 1 - Retention Volume Calculation

Total Area = 41,381 SF
 Pervious Area = 22,298 SF
 Impervious Area = 19,083 SF
 Fraction of site that is impervious (i) = 0.461
 Runoff Coefficient = 0.315
 95th Percentile Rainfall Depth = 1.7" = 0.142'
 Minimum Retention Volume = 1,848 cubic feet

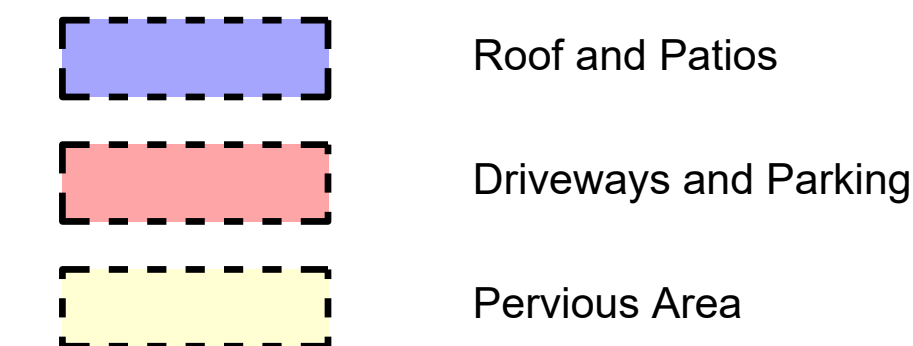
Legend - DMA 2



DMA 2 - Retention Volume Calculation

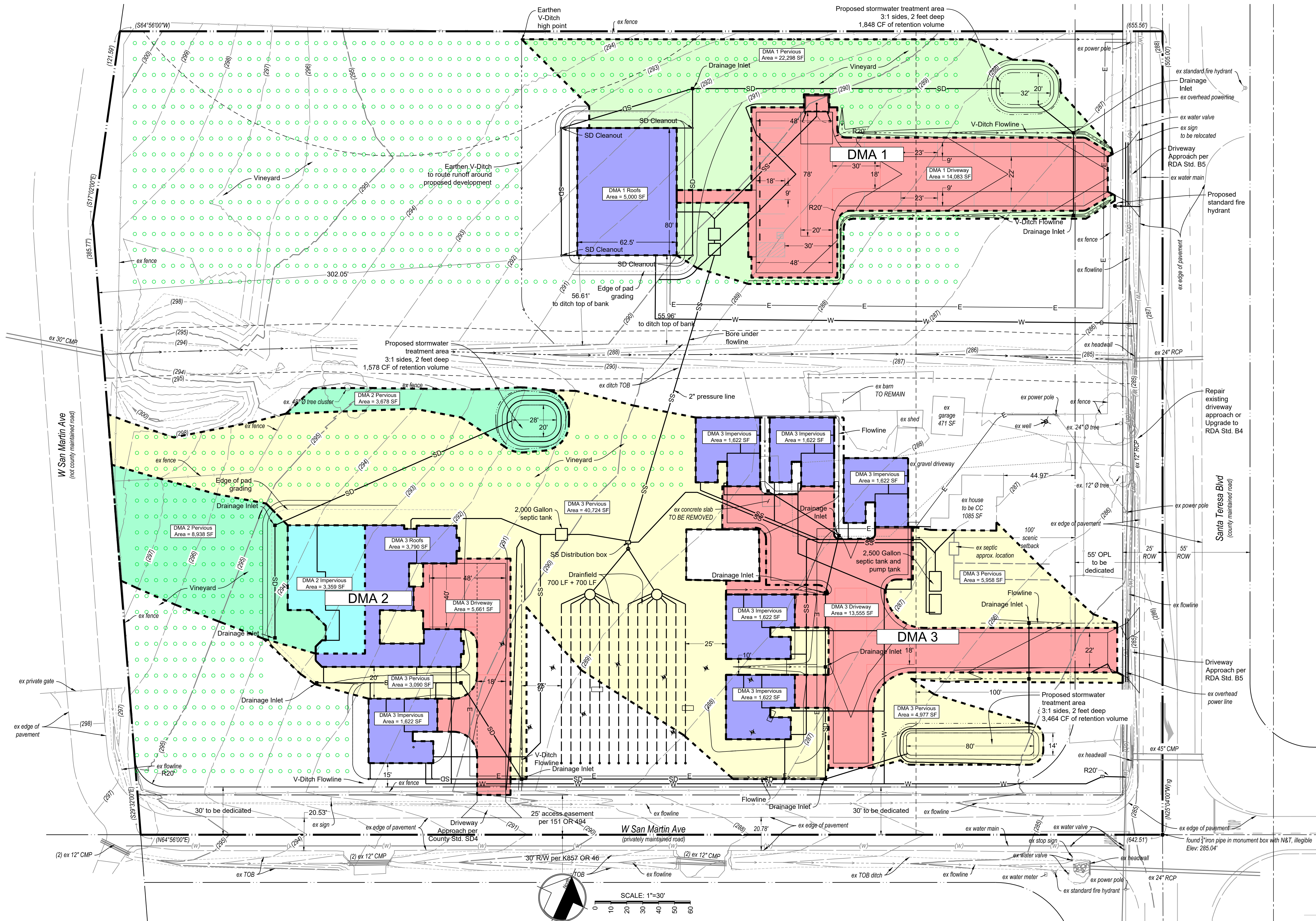
Total Area = 15,975 SF
 Pervious Area = 12,616 SF
 Impervious Area = 3,359 SF
 Fraction of site that is impervious (i) = 0.266
 Runoff Coefficient = 0.207
 95th Percentile Rainfall Depth = 1.7" = 0.142'
 Minimum Retention Volume = 468 cubic feet

Legend - DMA 3



DMA 3 - Retention Volume Calculation

Total Area = 88,959 SF
 Pervious Area = 54,749 SF
 Impervious Area = 32,738 SF
 Fraction of site that is impervious (i) = 0.368
 Runoff Coefficient = 0.262
 95th Percentile Rainfall Depth = 1.7" = 0.142'
 Minimum Retention Volume = 3,301 cubic feet



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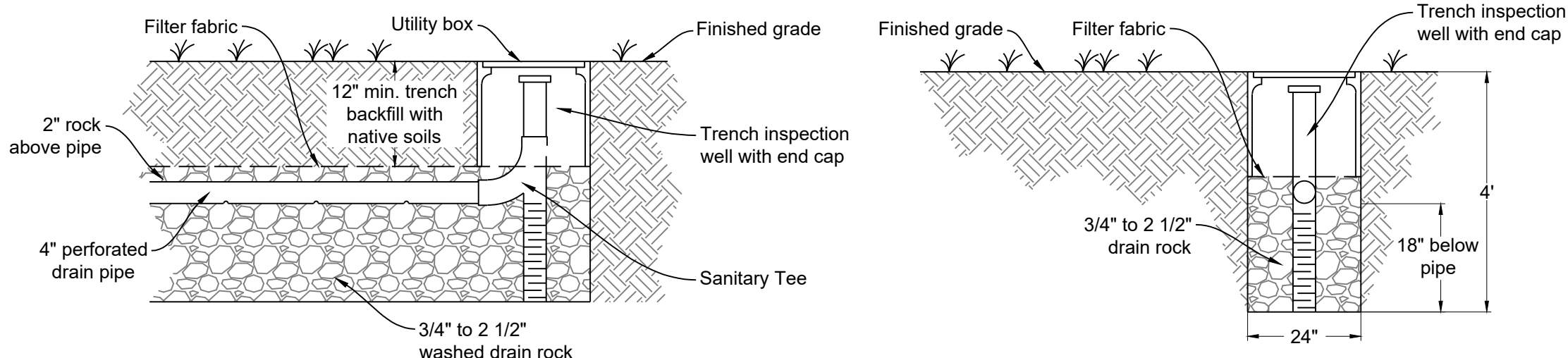
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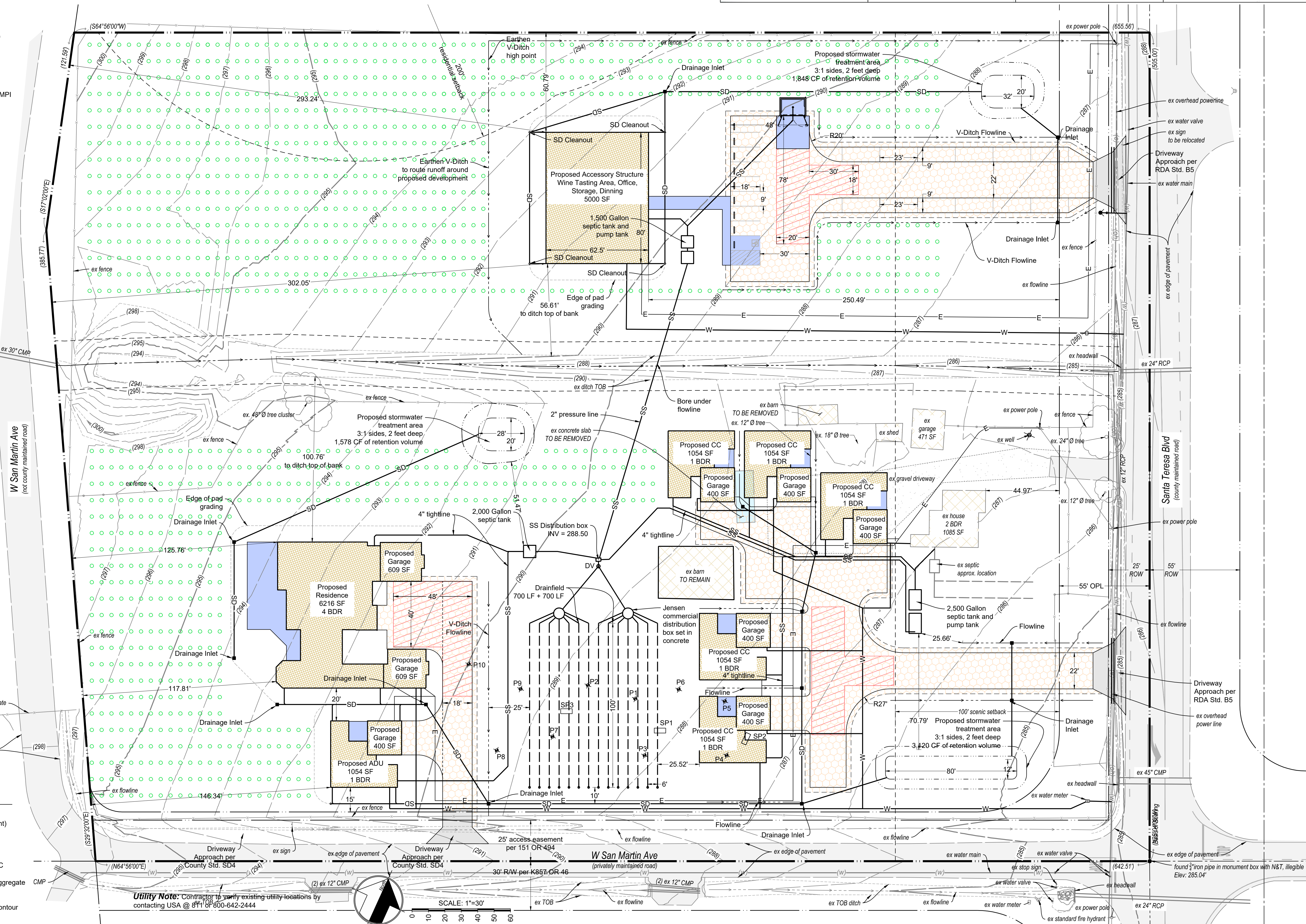
Stormwater Management Plan
13375 Santa Teresa Blvd. - APN 779-18-019

DATE: 1/30/2025
 SCALE: 1" = 30'
 DRAWN BY: DF
 CHECKED BY: DF
 JOB NO. **223008**
 SHEET NO. **5**
 OF **8**



Trench Detail - End View

	(ex structure)		(ex pavement)
	(ex concrete)		(ex gravel)
	Proposed Structure		Proposed AC
	Proposed Concrete		Proposed Aggregate Base
	Existing Contour		Proposed Contour



02/03/2025 9:57am

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DAVID L. FARIA

No. 92432

EXP. 06-30-2025

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signature field to be provided upon approval

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(602) 515-7650

OWTS Plan

13375 Santa Teresa Blvd. - APN 779-18-019

DATE: 1/30/2025

SCALE: 1" = 30'

DRAWN BY: DF

CHECKED BY: DF

JOB NO.

223008

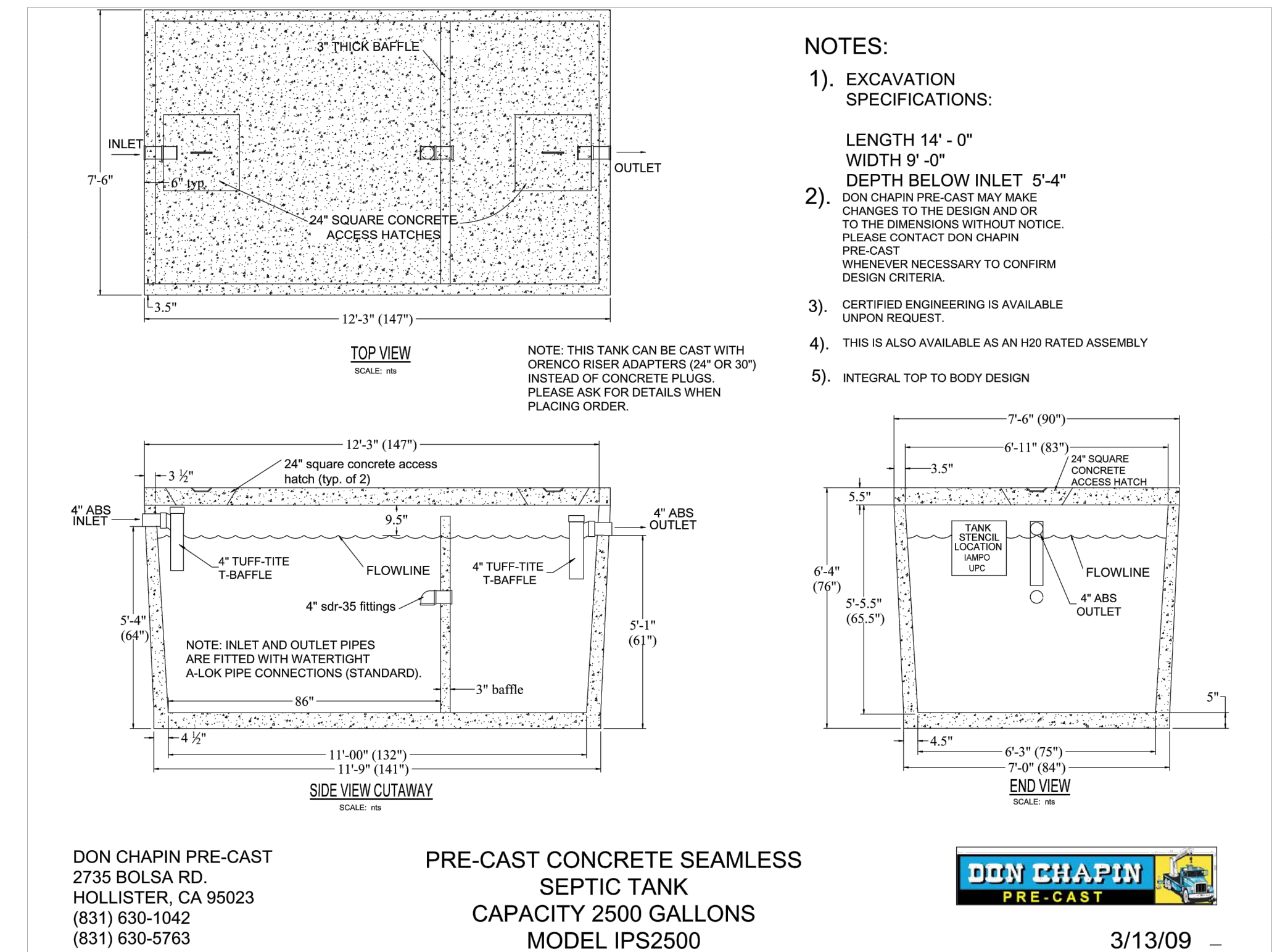
SHEET NO.

6

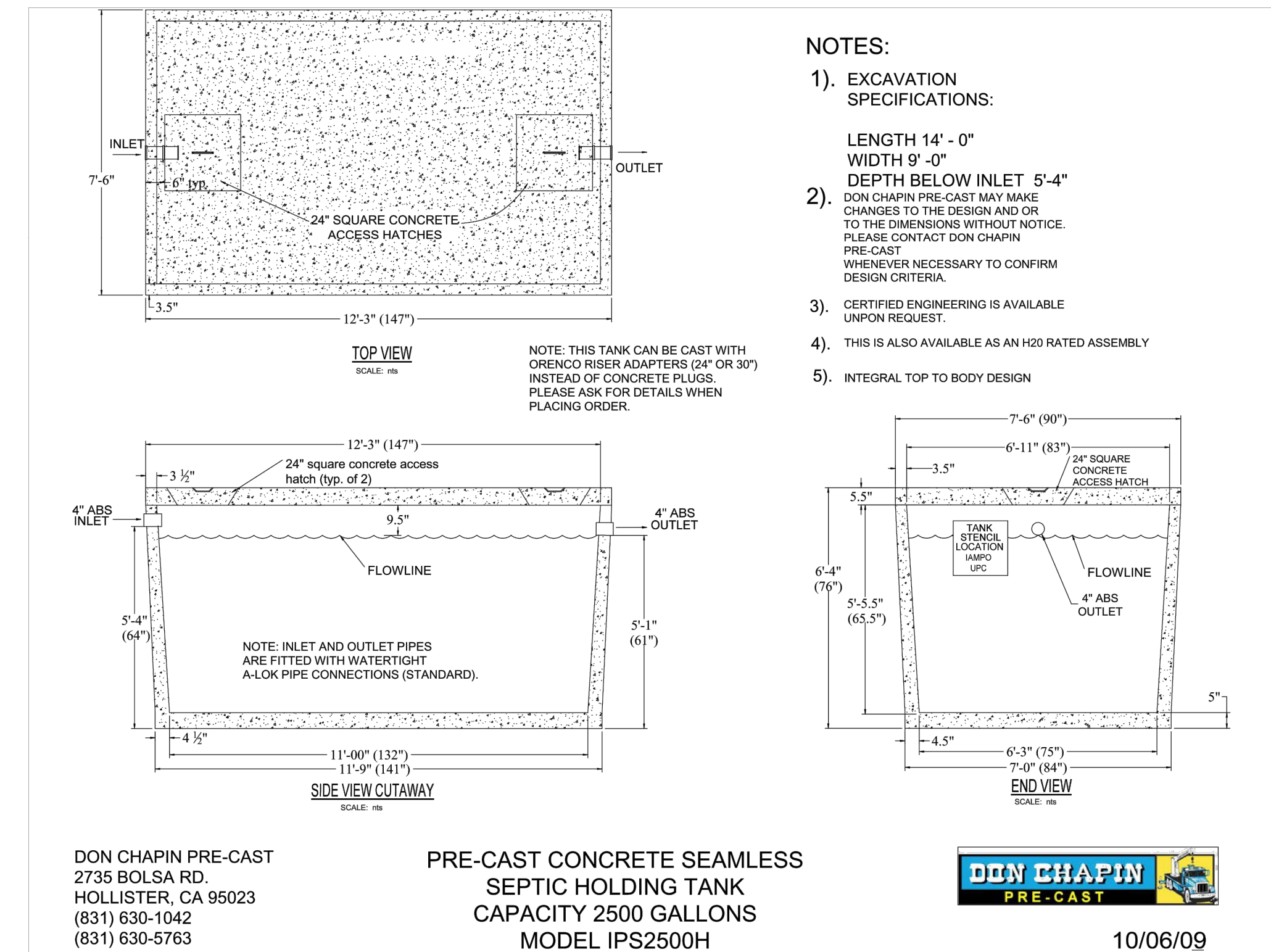
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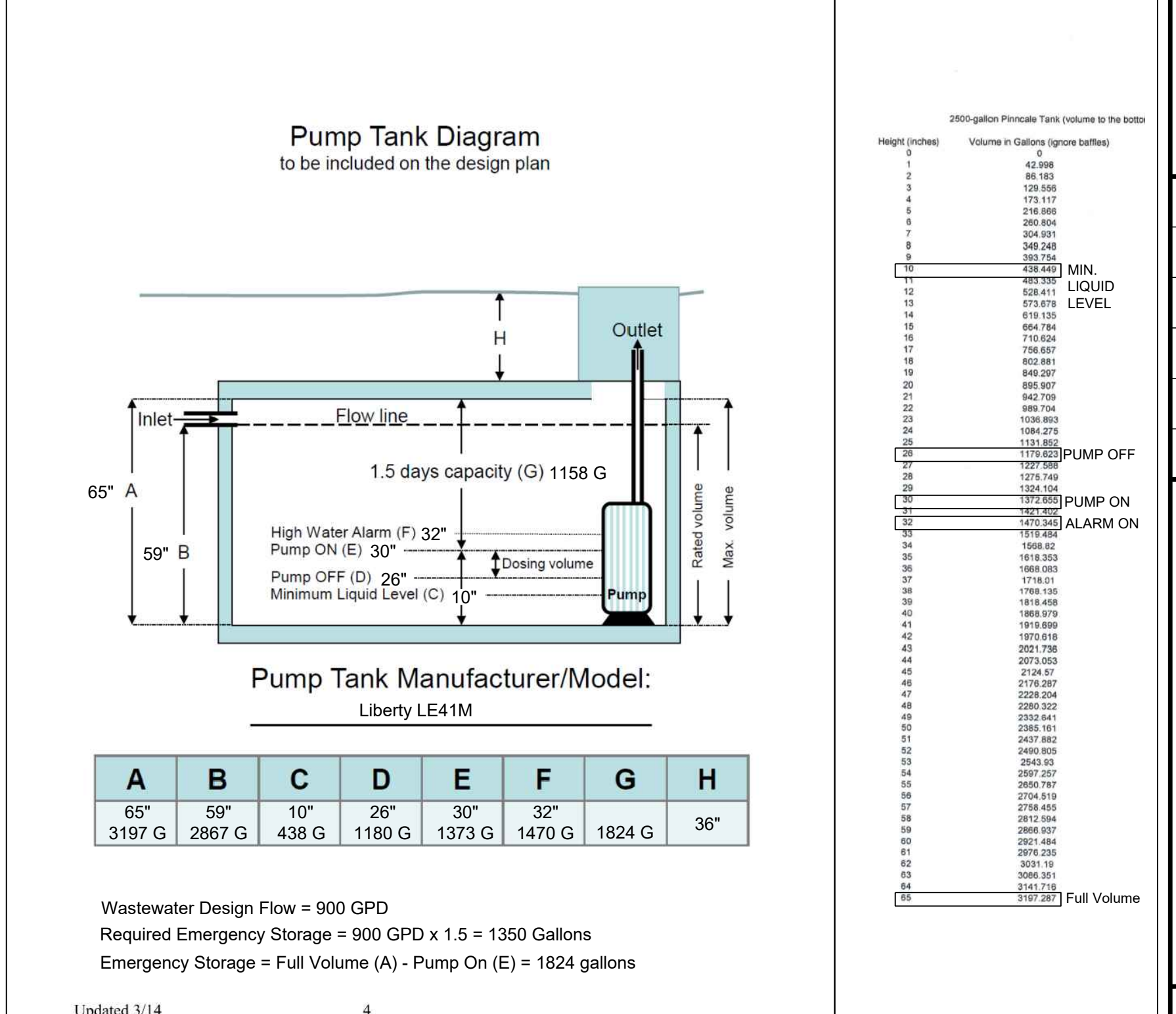
2500 GALLON SEPTIC TANK



2500 GALLON PUMP TANK



2500 GALLON PUMP TANK FLOAT SETTINGS



PUMP SYSTEM WORKSHEET

PUMP SYSTEM WORKSHEET

Applicant: David Faria Date: 10/04/2024
Owner: Rai Durga File No.:
Site Address: 13375 Santa Teresa Blvd City: San Martin APN: 779-18-019
Designer (RHS or RCE): David Faria
Number of bedrooms: 6 one bedroom units Total square footage of living space:
Septic tank size: 2500 G Installed drainfield: 651 LF Expansion drainfield: 651 LF

Elevation of highest drainfield (ft) = 288.50
Elevation of pump-off (ft) = 280.25
Total lift (ft) (Head) = 8.25 (A)

TIGHT LINE
Diameter of tight line (inches) = 2"
Length of tight line from pump to upper drainfield (ft) = 253' (B)

FITTINGS

No. of Fittings	Pipe Length Equivalent (ft)	Total Pipe Equivalent (ft)
3 90° standard elbow	X = 6	= 18
6 45° standard elbow	X = 2.5	= 15
1 90° long radius elbow	X = 55	= 55
1 other fittings	X = 13	= 13
1 gate valve (fully open)	X = 13	= 13
1 check valve (conventional swing)	X = 13	= 13
TOTAL		101 (C)

Total Length of Pipe = B + C = 354' (D)

CALCULATIONS:

Friction Loss in Pipes and Fittings:
(D/100 ft) x 2.75 = 9.375 (E) Head in Feet

Required Pump Size:
8.25 (A) + 9.38 (E) = 17.63 (F) Total Pumping Head in Feet

Pump Size:
(F) versus GPM = Pump Size (refer to pump curve)

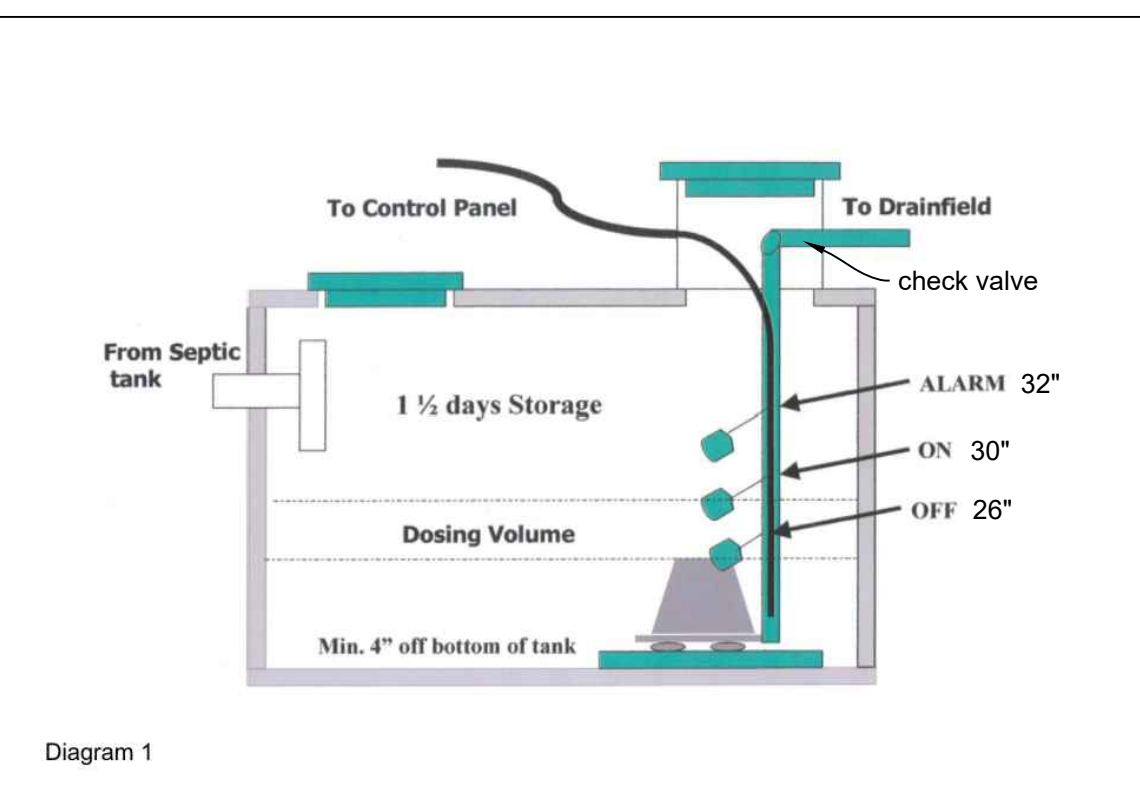
Pump Model:
40 GPM at 17.5 (G) (ft of head from pump curve) Manufacturer/Model: LIBERTY LE41

Required Capacity in Gallons
Dosing Volume: 193 G
Storage Capacity (1 1/2 days): 1824 G
Pump Displacement: 173 G
Volume from tank to pump base: 2500 G
Total tank capacity: 2500 G

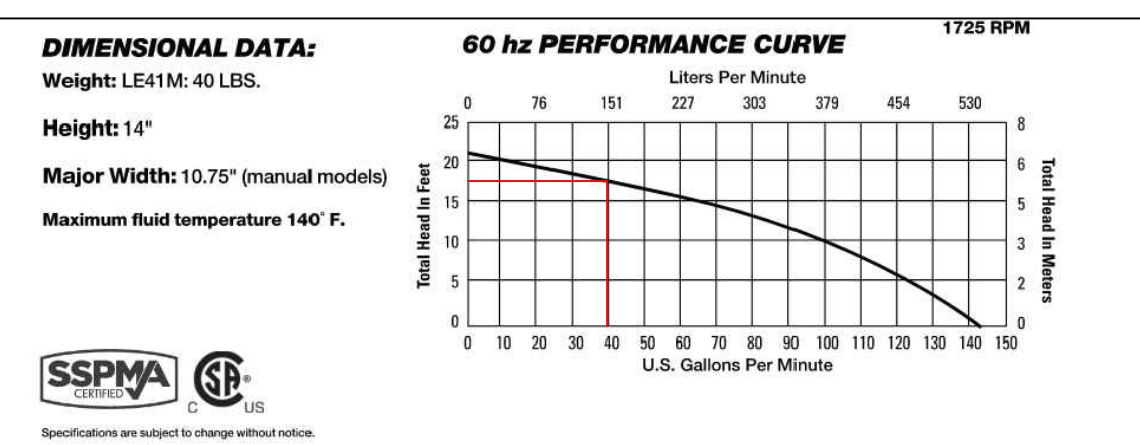
Pump Tank Information
Manufacturer: Don Chapin Size: 2500 G Gallons per inch, SEE VOLUME CHART

Updated 3/14

2500 GALLON PUMP TANK DIAGRAM



PUMP CURVE



CONTROL PANEL FOR PUMP TANK



Model 112 - Single phase, simplex motor controller control.

Part #	Pre-configured Panels for Easy Ordering
1071824	112W114A5A10E
1071825	112W114A5A10E
1071823	112W114A5A10E17G
1071822	112W114A5A10E17G
1071843	112W114A5A10E17G
1075046	112W114A5A10E17G

112	1	W	1	4	10E
CONTROL PANEL	ALARM	ENCLOSURE	STARTING DEVICE	PUMP FULL LOAD AMP	FLOAT SWITCH APPLICATION
ALARM PACKAGE	✓ 112 Single Phase Simplex	✓ 1 Alarm Package (includes test/normal/silence switch, fuse, and light, horn & float)	✓ 1 W Weatherproof NEMA 4X (engineered thermoplastic)	✓ 4 Magnetic Motor Controller 120/208/240V	✓ 10E Float Switch
STARTING DEVICE	✓ 1 W Weatherproof NEMA 4X (engineered thermoplastic)	✓ 1 Magnetic Motor Controller 120/208/240V	✓ 1 7-1/2 FLA	✓ 1 20-30 FLA (Enclosure Update Required)	✓ 10E Float Switch
PUMP FULL LOAD AMPS	0-7 FLA	1-7 FLA	1-7 FLA	1-7 FLA	1-7 FLA
LOAD AMPS	1-7 FLA	1-7 FLA	1-7 FLA	1-7 FLA	1-7 FLA
PUMP DISCONNECT	✓ 4 Circuit Breaker 120/208/240V	✓ 4 Circuit Breaker 120/208/240V	✓ 4 Circuit Breaker 120/208/240V	✓ 4 Circuit Breaker 120/208/240V	✓ 4 Circuit Breaker 120/208/240V
FLOAT SWITCH APPLICATION	✓ 10E Float Switch	✓ 10E Float Switch	✓ 10E Float Switch	✓ 10E Float Switch	✓ 10E Float Switch

112	1	W	1	4	10E
CONTROL PANEL	ALARM	ENCLOSURE	STARTING DEVICE	PUMP FULL LOAD AMP	FLOAT SWITCH APPLICATION
ALARM PACKAGE	✓ 112 Single Phase Simplex	✓ 1 Alarm Package (includes test/normal/silence switch, fuse, and light, horn & float)	✓ 1 W Weatherproof NEMA 4X (engineered thermoplastic)	✓ 4 Magnetic Motor Controller 120/208/240V	✓ 10E Float Switch
STARTING DEVICE	✓ 1 W Weatherproof NEMA 4X (engineered thermoplastic)	✓ 1 Magnetic Motor Controller 120/208/240V	✓ 1 7-1/2 FLA	✓ 1 20-30 FLA (Enclosure Update Required)	✓ 10E Float Switch
PUMP FULL LOAD AMPS	0-7 FLA	1-7 FLA	1-7 FLA	1-7 FLA	1-7 FLA
LOAD AMPS	1-7 FLA	1-7 FLA	1-7 FLA	1-7 FLA	1-7 FLA
PUMP DISCONNECT	✓ 4 Circuit Breaker 120/208/240V	✓ 4 Circuit Breaker 120/208/240V	✓ 4 Circuit Breaker 120/208/240V	✓ 4 Circuit Breaker 120/208/240V	✓ 4 Circuit Breaker 120/208/240V
FLOAT SWITCH APPLICATION	✓ 10E Float Switch	✓ 10E Float Switch	✓ 10E Float Switch	✓ 10E Float Switch	✓ 10E Float Switch

112	1	W	1	4	10E
CONTROL PANEL	ALARM	ENCLOSURE	STARTING DEVICE	PUMP FULL LOAD AMP	FLOAT SWITCH APPLICATION
ALARM PACKAGE	✓ 112 Single Phase Simplex	✓ 1 Alarm Package (includes test/normal/silence switch, fuse, and light, horn & float)	✓ 1 W Weatherproof NEMA 4X (engineered thermoplastic)	✓ 4 Magnetic Motor Controller 120/208/240V	✓ 10E Float Switch
STARTING DEVICE	✓ 1 W Weatherproof NEMA 4X (engineered thermoplastic)	✓ 1 Magnetic Motor Controller 120/208/240V	✓ 1 7-1/2 FLA	✓ 1 20-30 FLA (Enclosure Update Required)	✓ 10E Float Switch
PUMP FULL LOAD AMPS	0-7 FLA	1-7 FLA	1-7 FLA	1-7 FLA	1-7 FLA
LOAD AMPS	1-7 FLA	1-7 FLA	1-7 FLA	1-7 FLA	1-7 FLA
PUMP DISCONNECT	✓ 4 Circuit Breaker 120/208/240V	✓ 4 Circuit Breaker 120/208/240V	✓ 4 Circuit Breaker 120/208/240V	✓ 4 Circuit Breaker 120/208/240V	✓ 4 Circuit Breaker 120/208/240V
FLOAT SWITCH APPLICATION	✓ 10E Float Switch	✓ 10E Float Switch	✓ 10E Float Switch	✓ 10E Float Switch	✓ 10E Float Switch

SEPTIC TANK ABANDONMENT PROCEDURES

County of Santa Clara

Department of Environmental Health

Consumer Protection Division

1555 Burger Drive, Suite 300

San Jose, CA 95122-1616

Phone (408) 918-3400 Fax (408) 258-5881

Website: www.ehinfo.org Email: deheh@ehs.scgov.org

Septic Tank Abandonment Procedures

If the septic tank is being abandoned as part of a public sanitary sewer connection, the septic tank abandonment inspection may be conducted by the County of Santa Clara Building Department for the unincorporated areas, or by local jurisdictions building department. Please contact the applicable jurisdiction to determine if their agency will conduct the abandonment inspection prior to submitting to DEH.

To abandon a septic tank, you must first obtain a permit from the Santa Clara County Department of Environmental Health Land Use Program at www.ehinfo.org/wastewater. The application and site plan with location of the septic tank to be abandoned can be submitted to deheh@ehs.scgov.org. An invoice for the permit will be emailed to the applicant, and must be paid prior to making an appointment.

Call (408) 918-3400 to speak to a Land Use Specialist to schedule an inspection. The Land Use Program must be notified a minimum of two (2) working days prior to commencement of work.

If you are replacing a septic tank with a new one, obtain a septic repair permit with the Santa Clara County Land Use Program at www.ehinfo.org/wastewater.

To destroy a septic tank in place:

- Septic tank must be pumped by a permitted hauler and receipt must be submitted for review. Pumping into the public sanitary sewer system is not allowed.
- Septic tank lids must be removed from property.
- A minimum 4-inch diameter hole must be made in the bottom of each septic tank compartment or the bottom of the septic tank must be broken up to allow for drainage.
- The septic tank inlet and outlet pipes must be plugged, capped, or cut off.
- Call for inspection.
- After inspection, backfill septic tank with 1-foot of drain rock, then backfill with compacted soil or cement slurry.

To remove a septic tank:

- Septic tank must be pumped by a permitted hauler, and receipt must be submitted for review. Pumping into the public sanitary sewer system is not allowed.
- Septic tank lids and tank must be removed from property.
- Call for inspection.
- After inspection, backfill hole with soil and compact as needed for future project development needs.

02/03/2025 8:57 AM

FOR PLANCHHECK ONLY



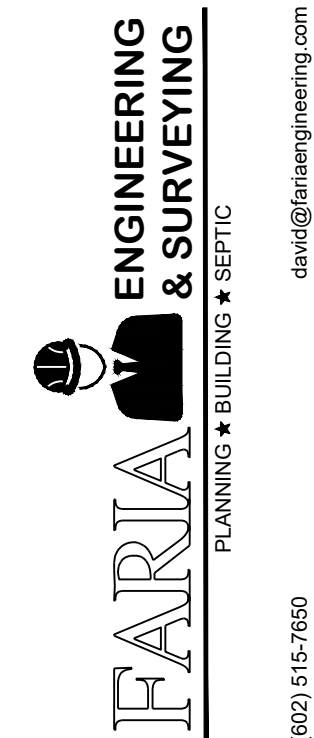
FOR PLANCHHECK ONLY

signature must be printed and signed

REVISIONS	BY
1	-
2	-
3	-
4	-
5	-

REVISIONS

BY



PLANNING • BUILDING • SEPTIC

6502 515-1650

OWTS 2500 Gallon Tank and Pump Details
13375 Santa Teresa Blvd. - APN 779-18-019

DATE: 1/30/2025

SCALE: N/A

DRAWN BY: DF

CHECKED BY: DF

JOB NO.

223008

SHEET NO.

7

OF

8

NOTES:

- 1). EXCAVATION SPECIFICATIONS:

LENGTH 9' - 0"
WIDTH 9' - 0"
DEPTH BELOW INLET 5' - 4"
- 2). DON CHAPIN PRE-CAST MAY MAKE CHANGES TO THE DESIGN AND OR TO THE DIMENSIONS WITHOUT NOTICE. PLEASE CONTACT DON CHAPIN PRE-CAST WHENEVER NECESSARY TO CONFIRM DESIGN CRITERIA.
- 3). CERTIFIED ENGINEERING IS AVAILABLE UPON REQUEST.
- 4). THIS IS ALSO AVAILABLE AS AN H20 RATED ASSEMBLY
- 5). INTEGRAL TOP TO BODY DESIGN

TOP VIEW
SCALE: 1/8"

NOTE: THIS TANK CAN BE CAST WITH ORENCO RISER ADAPTERS (24" OR 30") INSTEAD OF CONCRETE PLUGS. PLEASE ASK FOR DETAILS WHEN PLACING ORDER.

SIDE VIEW CUTAWAY
SCALE: 1/8"

NOTE: INLET AND OUTLET PIPES ARE FITTED WITH WATERTIGHT A-LOK PIPE CONNECTIONS (STANDARD).

DON CHAPIN PRE-CAST

2/12/09

NOTES:

- 1). EXCAVATION SPECIFICATIONS:
 LENGTH 9' - 0"
 WIDTH 9' - 0"
 DEPTH BELOW INLET 5' - 4"
 DON CHAPIN PRE-CAST MAY MAKE CHANGES TO THE DESIGN AND OR TO THE DIMENSIONS WITHOUT NOTICE. PLEASE CONTACT DON CHAPIN PRE-CAST WHENEVER NECESSARY TO CONFIRM DESIGN CRITERIA.
- 2). CERTIFIED ENGINEERING IS AVAILABLE UPON REQUEST.
- 3). THIS IS ALSO AVAILABLE AS AN AHD RATED ASSEMBLY
- 4). INTEGRAL TOP TO BODY DESIGN

NOTE: THIS TANK CAN BE CAST WITH ORENDO RISER ADAPTERS (24" OR 30") INSTEAD OF CONCRETE PLUGS. PLEASE ASK FOR DETAILS WHEN PLACING ORDER.

TOP VIEW
SCALE: 1/8" = 1'-0"

SIDE VIEW CUTAWAY
SCALE: 1/8" = 1'-0"

NOTE: INLET AND OUTLET PIPES ARE FITTED WITH WATERTIGHT A-LOK PIPE CONNECTIONS (STANDARD).

END VIEW
SCALE: 1/8" = 1'-0"

Pump Tank Diagram

to be included on the design plan

1.5 days capacity (G) 1158 G

High Water Alarm (F) 32"
Pump On (E) 30"
Pump Off (D) 26"
Minimum Liquid Level (C) 10"

Dosing volume

Pump

Outlet

Inlet

Flow line

Raked volume

Max. volume

65" A

59" B

H

Height (feet)	Volume in Gallons (ignore suffix)
0	0
1	26,695
2	51,647
3	77,601
4	103,854
5	130,108
6	156,623
7	183,219
8	209,996
9	236,955
10	264,000
11	291,232
12	318,522
13	345,771
14	372,982
15	400,146
16	428,274
17	456,366
18	484,422
19	512,442
20	540,427
21	568,377
22	596,293
23	624,175
24	652,022
25	679,835
26	707,614
27	735,359
28	763,071
29	790,750
30	818,396
31	845,919
32	873,419
33	900,896
34	928,350
35	955,781
36	983,189
37	1010,574
38	1037,936
39	1065,275
40	1092,591
41	1119,884
42	1147,154
43	1174,402
44	1201,627
45	1228,829
46	1256,008
47	1283,164
48	1310,297
49	1337,407
50	1364,494
51	1391,558
52	1418,599
53	1445,617
54	1472,612
55	1500,584
56	1528,533
57	1556,459
58	1584,362
59	1612,242
60	1640,099
61	1667,933
62	1695,744
63	1723,532
64	1751,297
65	1779,039
66	1806,758
67	1834,454
68	1862,127
69	1889,777
70	1917,404
71	1945,008
72	1972,589
73	2000,147
74	2027,682
75	2055,194
76	2082,682
77	2110,147
78	2137,588
79	2165,006
80	2192,400
81	2219,771
82	2247,118
83	2274,442
84	2301,743
85	2329,020
86	2356,274
87	2383,505
88	2410,713
89	2437,898
90	2465,060
91	2492,199
92	2519,315
93	2546,408
94	2573,478
95	2600,525
96	2627,549
97	2654,550
98	2681,528
99	2708,483
100	2735,415
101	2762,325
102	2789,212
103	2816,076
104	2842,917
105	2869,735
106	2896,530
107	2923,302
108	2950,051
109	2976,777
110	3003,481
111	3030,162
112	3056,821
113	3083,458
114	3110,073
115	3136,666
116	3163,237
117	3189,785
118	3216,310
119	3242,813
120	3269,294
121	3295,753
122	3322,189
123	3348,603
124	3375,095
125	3401,565
126	3428,013
127	3454,439
128	3480,843
129	3507,225
130	3533,585
131	3560,023
132	3586,439
133	3612,833
134	3639,205
135	3665,555
136	3691,883
137	3718,189
138	3744,473
139	3770,735
140	3796,976
141	3823,195
142	3849,392
143	3875,567
144	3901,720

PUMP SYSTEM WORKSHEET

Applicant David Faria Date 10/04/2024
 Owner Rai Durag File No. _____
 Site Address 13375 Santa Teresa Blvd City San Martin APN 79-18-019
 Designer RCRIS or RCB David Faria
 Number of bedrooms Winery Building Total square footage of living space _____
 Septic tank size 1500 G Installed drainfield 700 LF Expansion drainfield 700 LF

Elevation of highest drainfield (ft) 288.50
 Elevation of pump-off (ft) = 285.50
 Total lift (ft Head) = 5.00 (A)

TIGHT LINE
 Diameter of tight line (inches) 2"
 Length of tight line from pump to upper drainfield (ft) 188' (B)

FITTINGS

	<u>No. of Fittings</u>	<u>Pipe Length Equivalent (ft)</u>	<u>Total Pipe Equivalent (ft)</u>
		<u>See chart</u>	
3 90° standard elbow	X	=	<u>18</u>
45° standard elbow	X	=	<u>2.5</u>
90° long radius elbow	X	=	
1 other fittings	X	=	<u>55</u>
gate valve (fully open)	X	=	
1 check valve	X	=	<u>13</u>
(conventional swing)			
		TOTAL=	<u>101</u> (C)

Total Length of Pipe = B + C = 234' (D)

CALCULATIONS:

Friction Loss in Pipes and Fittings:
 (D/100 ft) x 8.82 (friction loss per chart) = 8.91 (E) Head in Feet

Required Pump Size:
5.00 (A) + 8.91 (E) = 13.91 (F) Total Pumping Head in Feet

Pump Size:
 (F) versus GPM = Pump Size (refer to pump curve)

Pump Model: (Attach Pump Curve)
75_GPM at 14_(G) (ft of head: from pump curve) Manufacturer/Model LIBERTY LE41

Required Capacity in Gallons
 Dosing Volume 120 G
 Storage Capacity (1 ½ days) 1142 G
 Pump Displacement 104 G
 Volume from tank bottle to pump base 1500 G
 Total tank capacity

Pump Tank Information
 Manufacturer Don Chapin Size 1500 G Gallons per inch SEE VOLUME CHART

Updated 3/14

5

DIMENSIONAL DATA:
 Weight: LE41M: 40 LBS.
 Height: 14"
 Major Width: 10.75" (manual models)
 Maximum fluid temperature 140° F.

60 hz PERFORMANCE CURVE

1725 RPM

Flow (GPM)	Flow (LPM)	Total Head (feet)	Total Head (meters)
0	0	21	6.1
25	95	20	5.9
50	190	19	5.7
70	267	17	5.1
100	378	15	4.6
125	473	13	3.9
150	568	10	3.0

Model 112 CONTROL PANEL

Single Phase Simplex Motor Contactor Control

Panel layout may vary with options.

This latest generation Model 112 control panels control one 120, 208, or 240 VAC single phase pump in water and sewage installations. The panel includes a new innovative simplex controller for pump control and alarm; including float status LEDs, control/alarm power on/off switch with LED Indicator, pump run LED, HOA switch, auxiliary contacts and more!

The Model 112 control panels were built in pump and float out of sequence detection. In addition, there are three user selectable field programmable options: alarm steady state or flashing, alarm auto reset or manual reset; and optional seal failure alarm beacon plus auto activation. Simplex controller features include:

- Touch safe circuit board housing and low voltage 24 VDC float circuits
- Alarm (field programmable to flash)
- Alarm automatic reset: (field programmable to manual alarm reset)
- Float out of sequence: (field programmable)
- Pump controller failure detection
- Controller protected by three auto resettable fuses (control, alarm, and pump 1)

Note: SJE Rhombus recommends separate pump and control/alarm power sources.

COMPONENTS

1. Enclosure measures 10 x 8 x 4 inches (25 x 20 x 10 cm) NEMA 4X (ultraviolet stabilized thermoplastic) for indoor or outdoor use
2. Integral padlockable latch for indoor and/or outdoor
3. Manual mounting feet for indoor or outdoor use
4. Simplex controller provides pump and alarm control, elevated in the enclosure for easy access and field wiring
 - a. HOA switch for manual control of the pump
 - b. Pump run green LED indicator
 - c. Control power ON/OFF switch
 - d. Pump ON green LED indicator
 - e. Float push-to-test buttons
 - f. Float status red LED indicators
 - g. Auxiliary alarm relays Form C
 - h. Option: adjustable seal failure circuit and red ending indicator (must select option SJE when ordering)
5. Magnetic motor contactor
6. Ground lug
7. Circuit breaker
8. Red LED beacon provides 360° visual check of alarm condition - Note: NEMA 1 style utilizes a door mounted indicator in lieu of a beacon
9. Alarm horn provides audible warning of alarm condition (85 to 88 decibel rating) - Note: NEMA 1 style utilizes an internally mounted buzzer in lieu of horn (Not shown)
10. Exterior alarm test/silence/normality switch allows horn to be silenced in an alarm condition; alarm automatically resets once alarm condition has been cleared (Not shown)

Notes: Options, voltage, and amp range selected may change enclosure size and component layout.

Other options available.
Schematic/Wiring Diagram and Pump Specification Label are located inside the panel.

SJE RHOMBUS.

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B.35

Part #		Pre-configured Packages for Easy Ordering				
1278204	1	W/24VDC 5A/5A/10E				
1278183	1	12V/12V/24V/5A/10E				
1278283	1	12V/12V/16H/6A/10E/17G				
1278222	1	12V/12V/16H/6A/10E/17G				
1278181	1	12V/12V/16H/6A/10E/17G				
1278046	1	12V/12V/16H/6A/10E/17G				

112	1	W	1	4	6140E
CONTROL PANEL	✓	ALARM	INCL. BATTERY	STARTING DEVICE	ALARM BATTERY
Model 112 Base Price (includes Alarm Package)					
ALARM PACKAGE	✓	1	Simple Phase Simpler	1	Model 112 Base Price (includes Alarm Package)
ENCLOSURE & MOUNTING	✓	1	Alarm Package (includes total normal alarm switch, fuse, red, light, horn & horn)	1	Endless Towing
STARTING DEVICE	✓	1	Weatherproof, NEMA 4X, Engineered (electromechanical)	1	Shake Down and Pump Disconnect
PUMP FILL	✓	1	Magnetic Motor Controller 120/208/240V	1	Pump Full Load Amps
PUMP FILL	✓	1	0 - 0.7 FLA	1	Total Options
PUMP FILL	✓	1	1 - 17.5 FLA	1	Enclosure Space
PUMP FILL	✓	1	2 - 10 FLA	1	TOTAL LIST PRICE
PUMP DISCONNECT	✓	1	H - 20 FLA (Enclosure Option Required)	1	
FLUID SWITCH APPLICATION	✓	1	4 - Circuit Breaker 120/208/240V	1	
	✓	1	2 - HPS - Pump Down (select Option 170 below - 3 Roats by default when selected)	1	
	✓	1	L - Fluids - Pump Up (select Option 170 below - 3 Roats by default when selected)	1	
	✓	1	X - No Fluids	1	

ENCLOSURE UPSIZE: If you selected three or more of the ♦ options or one ♦♦ option, add a one-time charge for enclosure upsize.

OPTIONS	DESCRIPTION	OPTIONS	DESCRIPTION
5	Thermal Circuit/Heat Sensor Auto Reset (see paragraph with thermal switch below)	170	20 S/E Mille/Master™ / Pipe Clamp (3 Roats) - Mechanical
6	Sea Failure Circuit & Red Indicator (2 wire) (Normally Open)	191	TSA (Test Off) Automatics Switch and Pump Run Light through Door Mounted
6A	Auxiliary Alarm Contact: Form C (included as standard)	194	HSA (Hold On/Off/Automatic) Switch and Pump Run Light through Door Mounted
8	Elapsed Time Meter	19X	Door Mounted Pump Run Indicator
9	Event Counter/ Cycle Counter		
9A	Pump Overload - Specify Amperage after Number 9 (normally 12 amp)		
	Example: 912A = 12 amp pump		
10E	LOCKABLE CASE: NEMA 4X (included as standard)		
10K	Lighting Alarm		
10K	Anti-contamination heater		
12E	Main Disconnect Switch, line, mounted through door, non-fused, protected in the OIP position, not in the "On" position (must select Circuit Breaker)	20 - 20 FLA	
15A	Control Alarm Circuit Breaker	20 - 20 FLA	

For additional control options, please contact Technical Support at techsupport@slern.com

DAT# NUMBER	DESCRIPTION
130006	3 Flow & 20 S/E Mille/Master™ Pipe Clamp - Normally Open
1278095	2 Flow & 20 Sensor Heat/ Mercury Pump Clamp - Normally Open
1278097	3 Flow Kit, 20 Sensor/ Mercury Pump Clamp - Normally Open

*Flow Kit 20 Sensor and part numbers are only available while ordering with a 112 control panel.