

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
- ALL WORK AND MATERIALS SHALL COMPLY WITH O.S.H.A. STANDARDS.
- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-527-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR IS TO NOTIFY THE UTILITIES OF AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:

APPROXIMATE CONSTRUCTION IMPLEMENTATION	2019-2020	2021-2022	2022-2023	2023-2024	2024-2025
RESIDENTIAL	220	152	260	365	
OFFICE				500,000	
RETAIL				137,000	

ADDITIONAL NOTES: THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-527-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK. THE CONTRACTOR IS TO NOTIFY THE UTILITIES OF AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS.

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APPROXIMATE CONSTRUCTION IMPLEMENTATION

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OFFICE				500,000	
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SITE DEVELOPMENT PLAN PADDOCK POINT - PHASE 3 PARCELS 384; PARCELS C-5, K-2

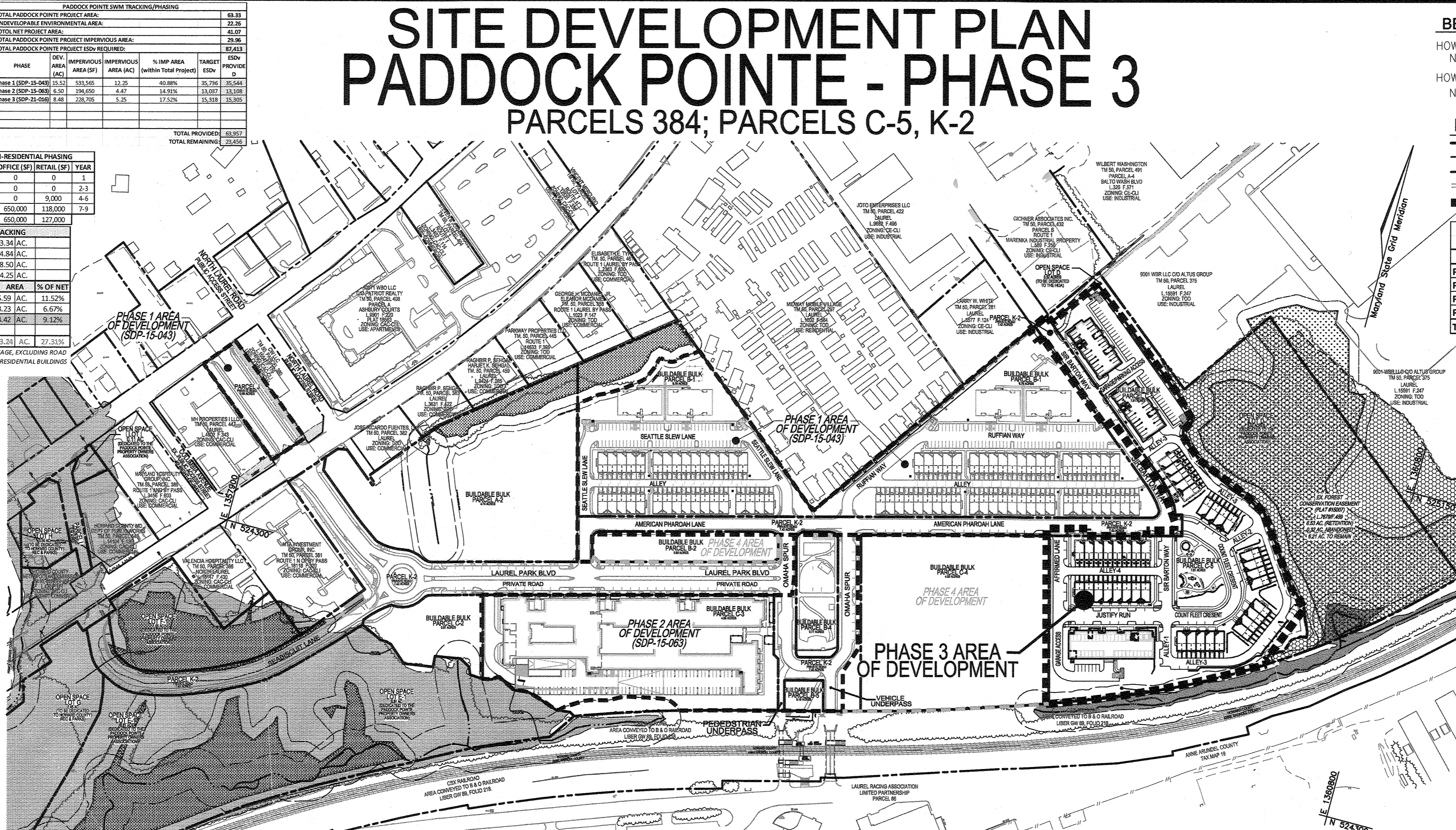
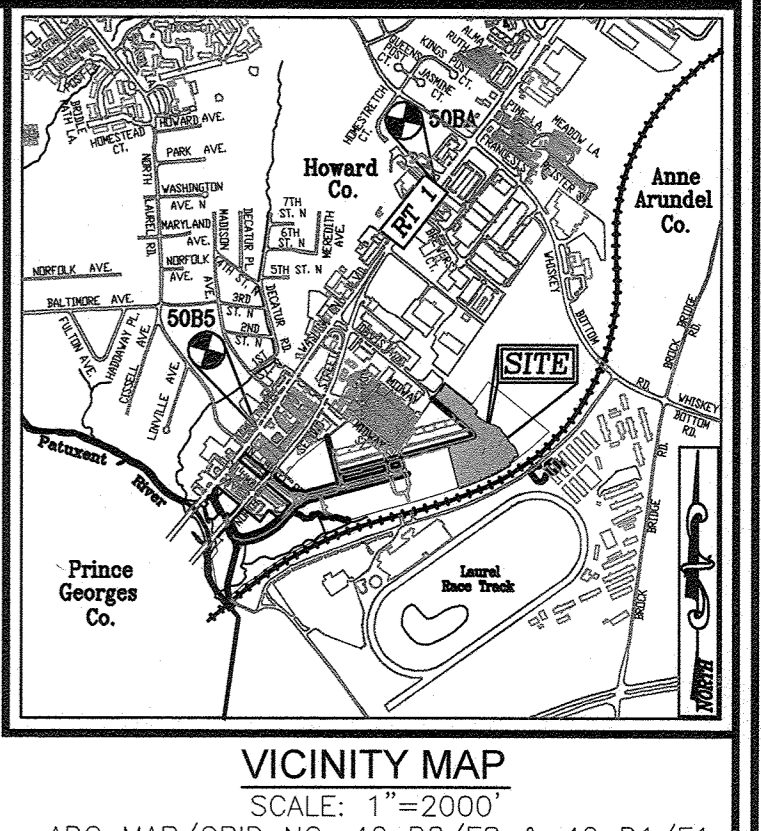
BENCHMARKS

HOWARD COUNTY BENCHMARK - 50BA
N 527561.68 E 1359772.60 ELEV.: 249.44

HOWARD COUNTY BENCHMARK - 50B5
N 524999.37 E 1357925.75 ELEV.: 178.20

LEGEND

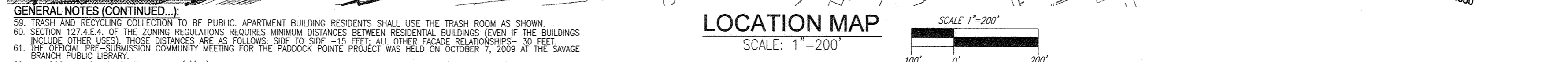
PROPERTY LINE
RIGHT-OF-WAY LINE
ADJACENT PROPERTY LINE
EXISTING CURB AND GUTTER
PHASE 3 DEVELOPMENT AREA



MIHU TRACKING CHART

1000 Total Units x 15% = 150 MIHU Units Req'd

Project/Phase	Units in Phase	MIHU Required	MIHU Provided
Phase 1 (SDP-15-043)	220	33	34
Phase 2 (SDP-15-063)	260	39	39
Phase 3 (SDP-21-016)	152	23	22
Phase 4 (SDP-21-037)	368	55	55
TOTAL	1000	150	150



GENERAL NOTES (CONTINUED...)

- TRASH AND RECYCLING COLLECTION TO BE PUBLIC APARTMENT BUILDING RESIDENTS SHALL USE THE TRASH ROOM AS SHOWN.
- SECTION 127.42.4 OF THE ZONING REGULATIONS REQUIRES MINIMUM DISTANCES BETWEEN RESIDENTIAL BUILDINGS (CHECK FOR CONFLICTS WITH PREVIOUS COMMUNITY DEVELOPMENT PADDOCK POINT PROJECT WAS HELD ON PARCELS 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

GENERAL NOTES (CONTINUED FROM SHEET 01):

- THIS PLAN IS SUBJECT TO WP-16-136 APPROVED 06/20/16; TO WAIVE SECTION 16.102(b)(1)(ii) WHICH PROHIBITS RESIDENTIAL CONDOMINIUMS AND APARTMENT BUILDINGS WITHIN 100 FEET OF THE PROTECTED ENVIRONMENTAL FEATURE BUFFER SECTION 16.102(b)(1)(ii) WHICH PROHIBITS ALL COMMERCIAL, INDUSTRIAL OR APARTMENT BUILDINGS OR LOTS SHALL HAVE A MINIMUM FRONTAGE OF 60 FEET ON A PUBLIC ROAD. APPROVED 12/02/17 WHICH PERMITS A MINIMUM FRONTAGE OF 20 FEET ON A PUBLIC ROAD FOR THE REMOVAL OF AN APARTMENT BUILDING OR THE RECONSTRUCTION OF A SINGLE-FAMILY ATTACHED UNIT. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
- A. ON ALL FUTURE SUBMISSIONS PLANS AND SITE DEVELOPMENT PLANS PROVIDE A BRIEF DESCRIPTION OF WATER PETITION, WP-16-136, AS APPLICABLE TO THIS PROJECT.
- B. ON ALL FUTURE SUBMISSIONS PLANS AND SITE DEVELOPMENT PLANS PROVIDE A BRIEF DESCRIPTION OF WATER PETITION, WP-16-136, AS APPLICABLE TO THIS PROJECT.
- C. APPROVAL OF ANY STATE OF MARYLAND PERMITS REQUIRED FOR THE ENVIRONMENTAL DISTURBANCES, THE MDE TRACKING PERMIT NUMBER AND COMPLIANCE WITH ALL DEADLINES AS ESTABLISHED IN THE MOST RECENT APPROVED APPROPRIATE PHASING CHART SCHEDULE.
- D. COMPLIANCE WITH ALL DEADLINES AS ESTABLISHED IN THE MOST RECENT APPROVED APPROPRIATE PHASING CHART SCHEDULE.
- E. APPROVED TO BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING ON OR BEFORE 02/21/2018.
- F. APPROVAL OF ANY STATE OF MARYLAND PERMITS REQUIRED FOR THE ENVIRONMENTAL DISTURBANCES, THE MDE TRACKING PERMIT NUMBER AND COMPLIANCE WITH ALL DEADLINES AS ESTABLISHED IN THE MOST RECENT APPROVED APPROPRIATE PHASING CHART SCHEDULE.
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- H. THE PROPERTY MANAGEMENT COMPANY THAT MANAGES THE PADDOCK POINT PROPERTY WILL NEED TO MONITOR AND REGULATE THE PARKING TRANSPORTATION ON THE PROPERTY. PARKING SPACES WILL NEED TO BE ASSIGNED TO SPECIFIC RESIDENCE TYPES AND USES. CHANGE OR SPACE NUMBERING WILL NEED TO BE PROVIDED TO REGULATE PARKING FOR BOTH THE RESIDENTIAL AND COMMERCIAL ELEMENTS. A NOTE SHALL BE ADDED TO THE GENERAL NOTES ON THE SITE DEVELOPMENT PLAN AND ZONING ON OR BEFORE 02/21/2018.
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DESCRIPTION SHEET NUMBER

DESCRIPTION	SHEET NUMBER
COVER SHEET	1 OF 34
SITE LAYOUT PLAN	2-3 OF 34
ROAD PROFILES AND DETAILS	4-5 OF 34
DETAILS	6 OF 34
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GRADING, SEDIMENT AND EROSION CONTROL PLAN; SOILS PLAN	8-10 OF 34
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STORM DRAIN DRAINAGE AREA MAP	13 OF 34
STORM DRAIN PROFILES, STRUCTURE SCHEDULES, AND DETAILS	14-16 OF 34
UTILITY UTILITIES	17-18 OF 34
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LANDSCAPE AND AMENITY PLAN, NOTES AND DETAILS	22-23 OF 34
STORMWATER MANAGEMENT PLANTINGS PLAN	24 OF 34
TOD RESIDENTIAL DEVELOPMENT AREA EXHIBIT	25 OF 34
RETAINING WALL DRAWINGS AND DETAILS	26-34 OF 34

SEE SHEET 7 FOR BUILDING FOOTPRINTS, ELEVATIONS AND GARAGE PLANS

PARCEL C-5 OWNER	OWNER	OWNER/DEVELOPER
BEAZER HOUSES, LLC. 6085 MARSHALLE DRIVE, SUITE 350 LAUREL, MD 20775 443-539-8249	TRIPLE BELL FARMS, LLC. 20006 DELAWARE, INC. 198 LAUREL RACE TRACK RD LAUREL, MD 20785 (301) 470-5494	20006 DELAWARE, INC. 198 LAUREL RACE TRACK RD LAUREL, MD 20785 (301) 470-5494

PARKING TABULATION

PROPOSED BUILDING #	REQUIRED PER CODE
#8 DWELLING UNITS @ 2.3 SPACE PER UNIT	65 SPACES
PROPOSED BUILDING #9	
24 DWELLING UNITS @ 2.3 SPACE PER UNIT	56 SPACES
24 DWELLING UNITS @ 2.3 SPACE PER UNIT	56 SPACES
STACKED TOWNHOUSE/CONDO	
76 UNITS @ 2 SPACE PER UNIT	152 SPACES
76 UNITS @ 0.3 SPACE PER UNIT OVERFLOW	23 SPACES
TOTAL SPACES REQUIRED (PER CODE):	352 SPACES

REQUIRED PER PARKING REDUCTION

PROPOSED BUILDING #	REQUIRED PER PARKING REDUCTION
#8 DWELLING UNITS @ 1.80 SPACE PER UNIT	51 SPACES
PROPOSED BUILDING #9	
#24 DWELLING UNITS @ 1.80 SPACE PER UNIT	44 SPACES
PROPOSED BUILDING #8	
#24 DWELLING UNITS @ 1.80 SPACE PER UNIT	44 SPACES
76 UNITS @ 1.50 SPACE PER UNIT	114 SPACES
76 UNITS @ 0.3 SPACE PER UNIT OVERFLOW	23 SPACES
TOTAL SPACES REQUIRED (PER PARKING REDUCTION):	276 SPACES

PROVIDED PARKING

PROPOSED BUILDING #7 GARAGE	24 SPACES
PROPOSED BUILDING #8 GARAGE	24 SPACES
PROPOSED BUILDING #9 GARAGE	24 SPACES
PROPOSED BUILDING #9 GARAGE	24 SPACES
STACKED TOWNHOUSE/CONDO	152 SPACES
TOTAL SPACES PROVIDED:	350 SPACES

PARKING NOTES:

- PARKING PROVIDED IS IN ACCORDANCE WITH SECTION 13.5.3 OF THE HOWARD COUNTY ZONING REGULATIONS.
- THE USE OF THE COMMON PARKING AREAS AND GARAGES SHALL BE CONTROLLED AND MANAGED BY THE PROPERTY MANAGEMENT COMPANY AND/OR HOA AND/OR CONDO ASSOCIATION, WHICH SHALL BE DETERMINED BY THE PROPERTY MANAGEMENT COMPANY AND/OR HOA AND/OR CONDO ASSOCIATION. ANY PARKING INDEMNITIES SHOULD A PARKING SHORTAGE OCCUR FOR THIS PROJECT.
- PARKING TABULATION IS BASED ON PARKING WITH ANALYSIS PREPARED BY THE ASSOCIATES, DATED MAY 13, 2018.
- THE NUMBER OF REQUIRED PARKING SPACES FOR A REDUCTION IN THE NUMBER OF REQUIRED PARKING SPACES ON MARCH 10, 2016 FROM 2.3 AND 2.5 TO 1.8 PER UNIT (1.5x UNIT + 0.3 OVERFLOW/INT.).

PERMIT INFORMATION CHART

SUBMISSION NAME	SECTION/AREA	LOTS/PARCELS	DATE
PADDOCK POINT	SECTION 16.102	2-3	2-17-24
PLAT # OR L/P	BLOCK NO.	ZONE	TAX MAP
P.384 (L108)P.157; PLAT 2440-43;	10	T00	50
WP 2006-1700/2006-18;			
PLAT 2636-50/PLAT 2636-43;			
ELECT. DIST. CENTUS TR.			
6TH			6069.07
SEWER CODE:	2153000		

REVISED SITE DEVELOPMENT PLAN

COVER SHEET

PADDOCK POINTE - PHASE 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
(76 APARTMENT UNITS AND 26 STACKED TOWNHOUSE UNITS) PARCELS C-5 AND K-2

TAX MAP: 50 BLOCK: 10
6TH ELECTION DISTRICT

ZONED: TOD

PARCEL 384
HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21143
P: 410.461.7656 F: 410.461.8961 www.vogel.com

TIMMONS GROUP
PROFESSIONAL ENGINEER

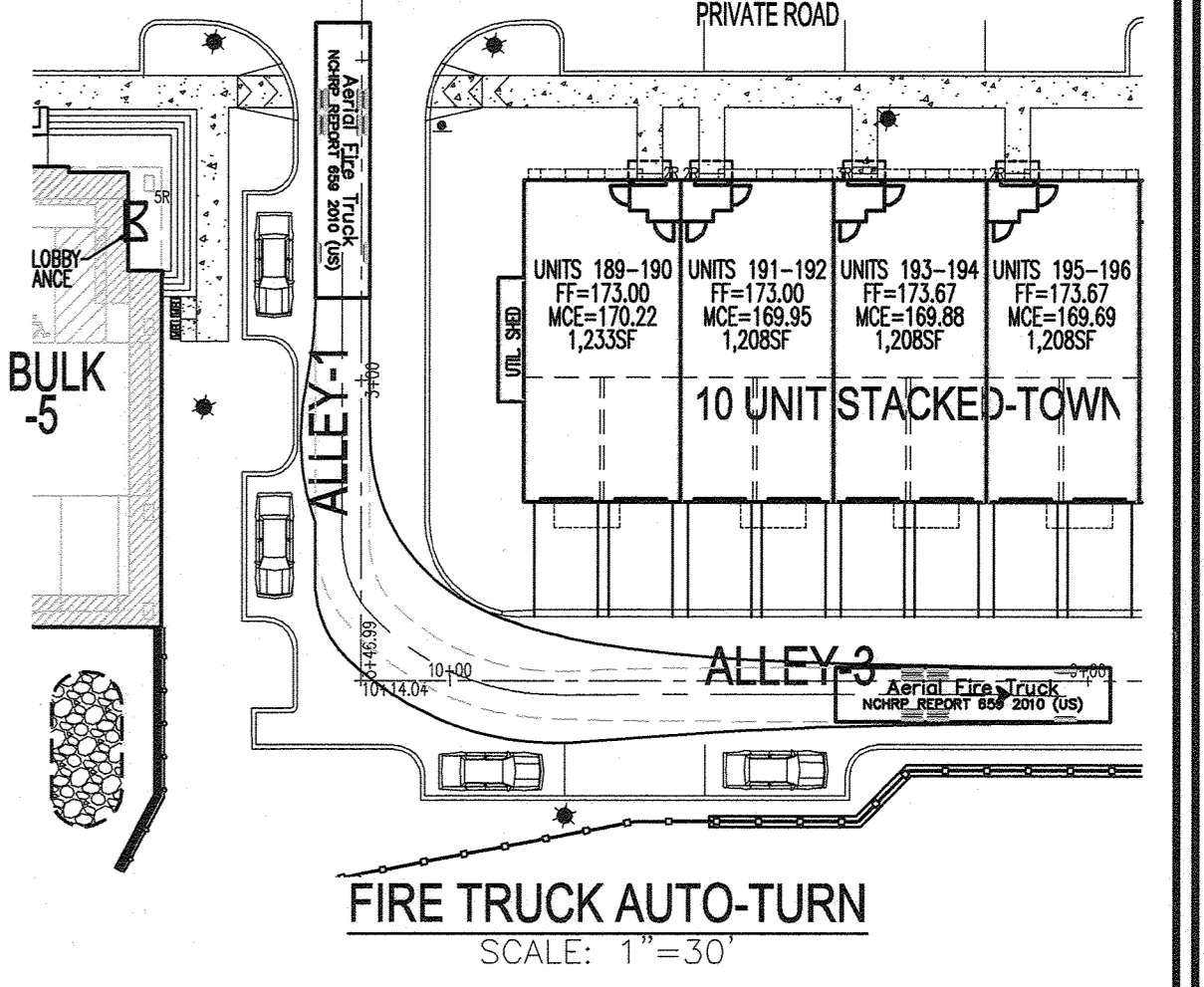
DESIGN BY: DZE/RHV
DRAWN BY: DZE/MP/KG/HR
CHECKED BY: RHV
DATE: FEB. 2024
SCALE: AS SHOWN
W.O. NO.: 07-11/40111

1 SHEET OF 34

ALL STORM DRAINS AND STORMWATER MANAGEMENT FACILITIES INCLUDING FILTERRA AND MODULAR WETLAND TO BE PRIVATELY OWNED AND MAINTAINED.

LEGEND:

- EXISTING CURB AND GUTTER
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING MAILBOX
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING SEWER LINE
- EXISTING TREE LINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- EXISTING STREAM
- EXISTING STREAM BUFFER
- EX. LIMIT OF WETLAND
- EX. WETLAND BUFFER
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- PROPOSED SIDEWALK
- PROPOSED CURB
- PROPOSED STREET LIGHT
- EX. PUBLIC SEWER, WATER AND UTILITY EASEMENT PLAT 25206-25217
- PROPOSED STREET SIGN
- EX. TREES
- PUBLIC WATER AND UTILITY EASEMENT PLAT 25955-68; PLAT 26536-43
- UNMITIGATED 65-69 NOISE CONTOUR FROM CSX RAILROAD
- EX. 100 YEAR PUBLIC FLOODPLAIN DRAINAGE AND UTILITY EASEMENT
- EX. FOREST CONSERVATION EASEMENT (PLAT 2206-17)
- ELECTRIC CHARGING STATION PARKING SPACE



PARCEL C-5 OWNER
BEAZER HOMES, LLC
6085 MARSHALLEE DRIVE, SUITE 350
ELKBRIDGE, MD 21075
443-539-9249

OWNER
TRIPLE BELL FARMS, LLC
198 LAUREL RACE TRACK RD
LAUREL, MD 20725
(301) 470-5494

OWNER/DEVELOPER
20006 DELAWARE, INC.
198 LAUREL RACE TRACK RD
LAUREL, MD 20725
(301) 470-5494

NO.	REVISION	DATE
1	REVISE PLAN FOR BUILDING ARCHITECTURE (UNITS 157-171 & 223-232); AND REVISE WAS HOUSE CONNECTIONS	11/30/23

REVISED SITE DEVELOPMENT PLAN
LAYOUT SHEET

PADDOCK POINTE - PHASE 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
76 APARTMENT UNITS AND 8 STACKED TOWN UNITS

TAX MAP: 50 BLOCK; 10 6TH ELECTION DISTRICT ZONED: TOD PARCEL 384 HOWARD COUNTY, MARYLAND

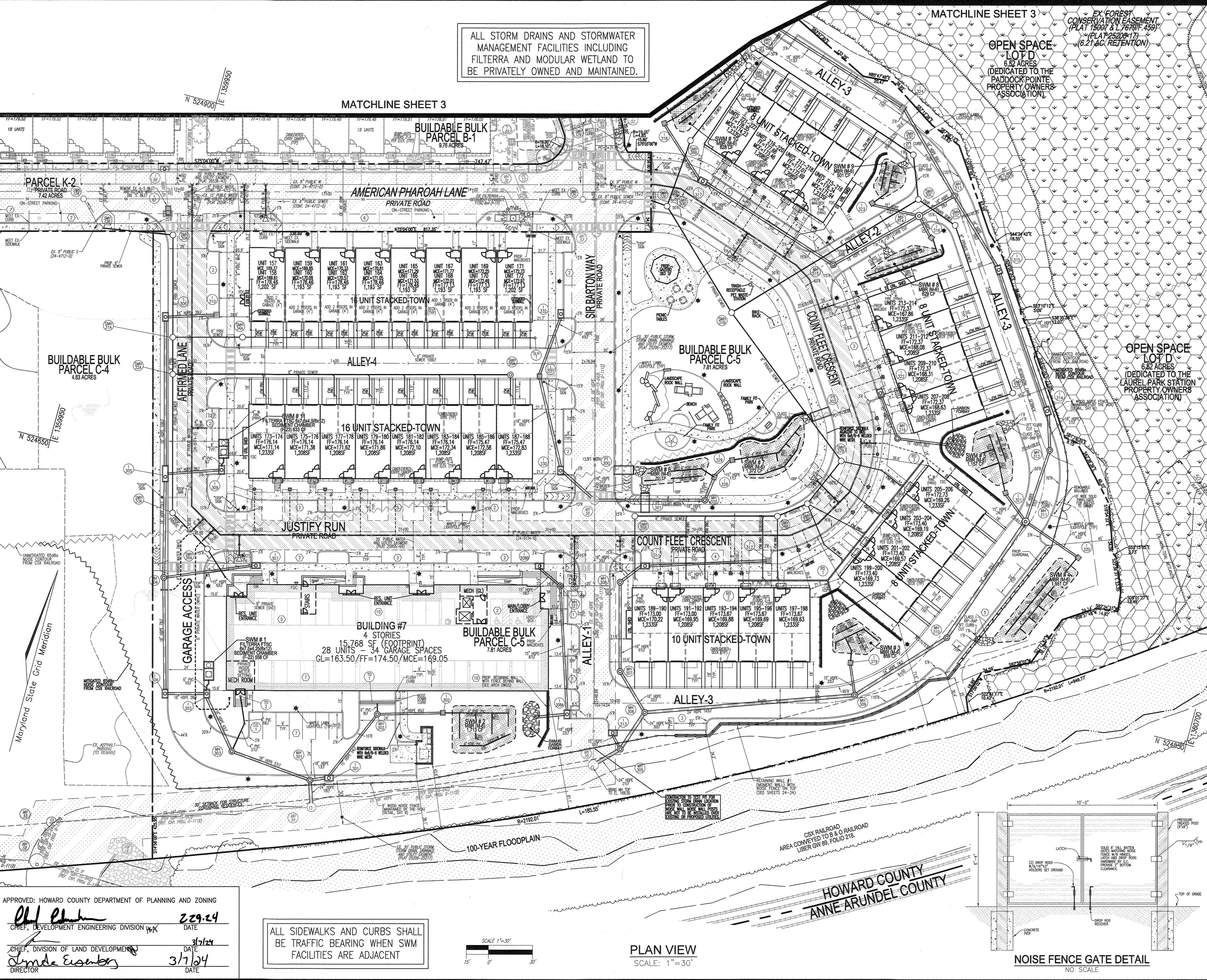
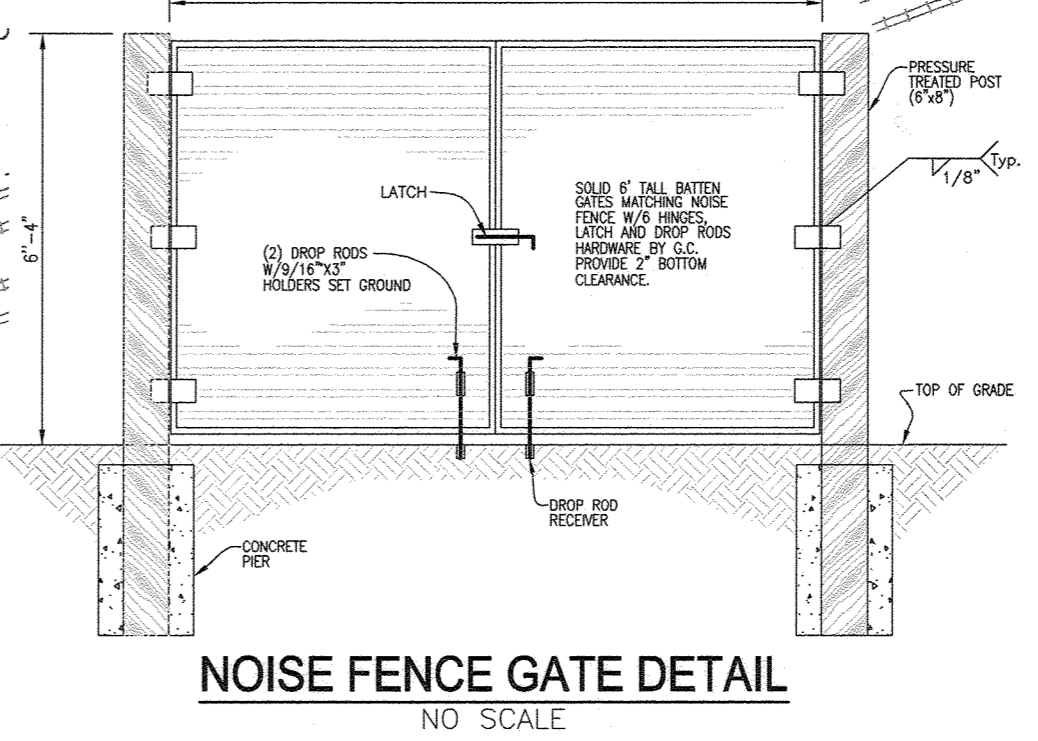
VOGEL ENGINEERING
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 1903 EXPIRATION DATE: 09-27-2024

DESIGN BY: DZE/RHV
DRAWN BY: DZE/MP/KG/JR
CHECKED BY: RHV
DATE: FEB. 2024
SCALE: AS SHOWN
W.O. NO.: 07-11/40111

2 SHEET OF 34

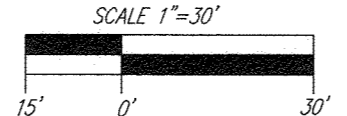


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Phil Elmer
CHIEF, DEVELOPMENT ENGINEERING DIVISION 16K
DATE: 2/29/24

Sydney Eschberg
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 3/7/24
DIRECTOR

ALL SIDEWALKS AND CURBS SHALL BE TRAFFIC BEARING WHEN SWM FACILITIES ARE ADJACENT



PLAN VIEW
SCALE: 1"=30'



ALL STORM DRAINS AND STORMWATER MANAGEMENT FACILITIES INCLUDING FILTERRA AND MODULAR WETLAND TO BE PRIVATELY OWNED AND MAINTAINED.

LEGEND:

	EXISTING CURB AND GUTTER
	EXISTING LIGHT POLE
	EXISTING MAILBOX
	EXISTING SIGN
	EXISTING SANITARY MANHOLE
	EXISTING CLEANOUT
	EXISTING FIRE HYDRANT
	EXISTING WATER LINE
	EXISTING SEWER LINE
	EXISTING TREE LINE
	EXISTING FENCE
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	EXISTING STREAM
	EXISTING STREAM BUFFER
	EX. LIMIT OF WETLAND
	EX. WETLAND BUFFER
	PROPOSED STORM DRAIN
	PROPOSED STORM DRAIN INLET
	PROPOSED SIDEWALK
	PROPOSED CURB
	PROPOSED STREET LIGHT
	EX. PUBLIC SEWER, WATER AND UTILITY EASEMENT PLAT # 25206-25217
	PROPOSED STREET SIGN
	EX. TREES
	PUBLIC SEWER AND UTILITY EASEMENT PLAT # 25206-17
	EX. FOREST CONSERVATION EASEMENT (RETENTION) PLAT # 25206-17
	ELECTRIC CHARGING STATION PARKING SPACE

PARCEL C-5 OWNER	OWNER	OWNER/DEVELOPER
BEAZER HOMES, LLC. 6085 MARSHALEE DRIVE, SUITE 350 ELK RIDGE, MD 21075 443-539-9248	TRIPLE BELL FARMS, LLC. 198 LAUREL RACE TRACK RD. LAUREL, MD 20725 (301) 470-5494	20006 DELAWARE, INC. 198 LAUREL RACE TRACK RD. LAUREL, MD 20725 (301) 470-5494

NO.	REVISION	DATE
1	REVISE PLAN FOR BUILDING ARCHITECTURE (UNITS 157-171 & 223-232); AND REVISE W&S HOUSE CONNECTIONS	11/30/23

REVISED SITE DEVELOPMENT PLAN

LAYOUT SHEET

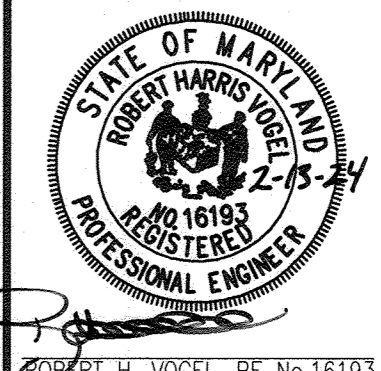
PADDOCK POINTE - PHASE 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
76 APARTMENT UNITS AND 76 STACKED TOWN
PARCELS C-5 & K-2
ZONED: TOD

TAX MAP: 50 BLOCK: 10
6TH ELECTION DISTRICT

VOGEL ENGINEERING

TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com



PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2024

DESIGN BY: DZE/RHV
DRAWN BY: DZE/MP/KG/JR
CHECKED BY: RHV
DATE: FEB. 2024
SCALE: AS SHOWN
W.O. NO.: 07-11/40111

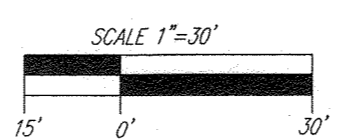
3 SHEET OF 34

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

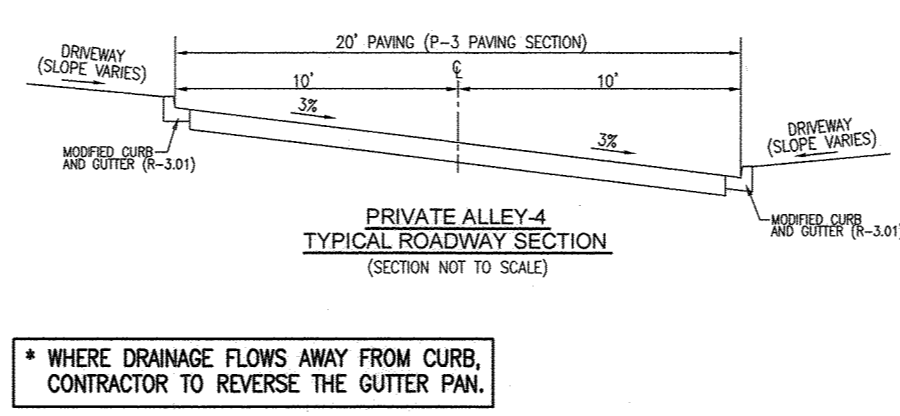
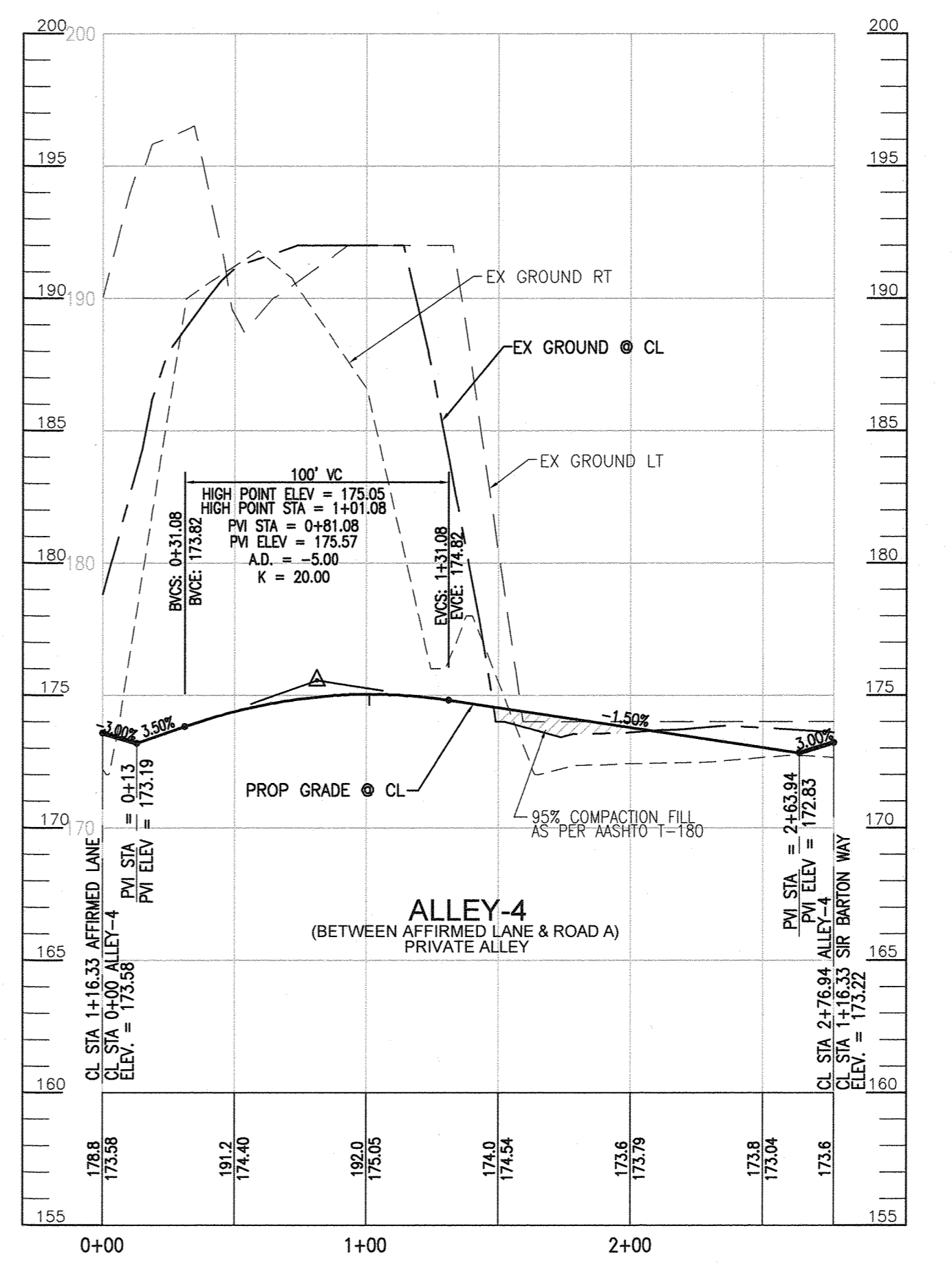
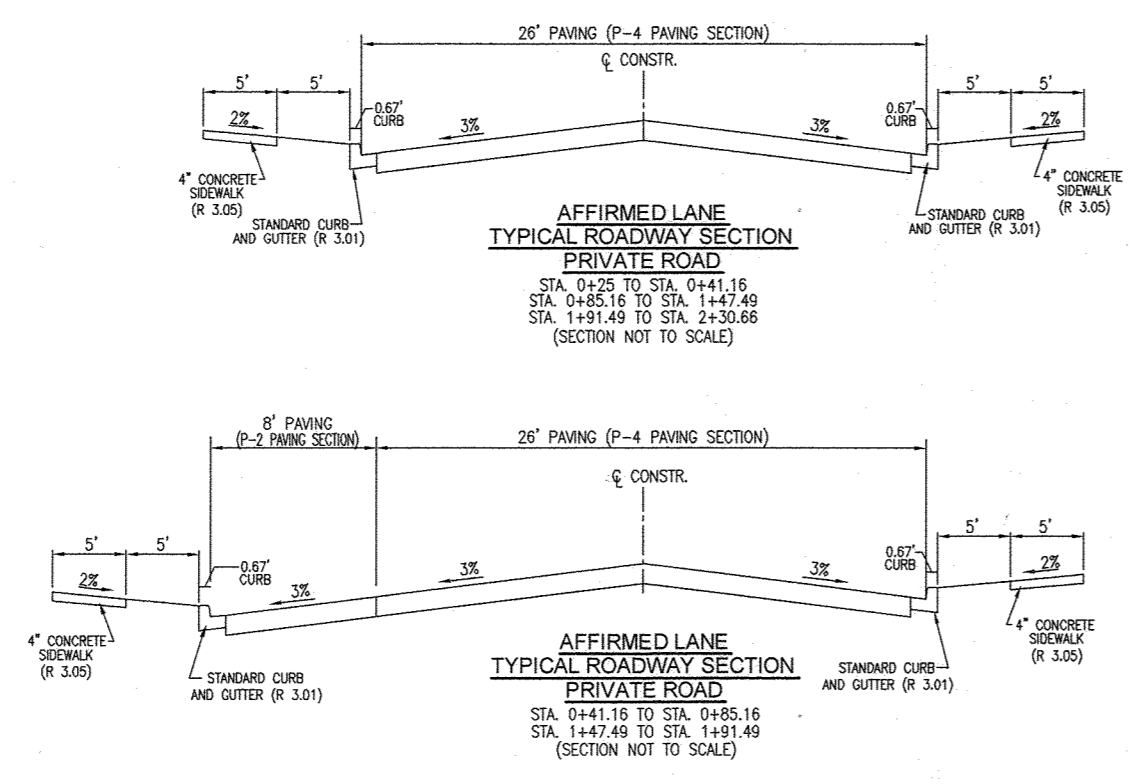
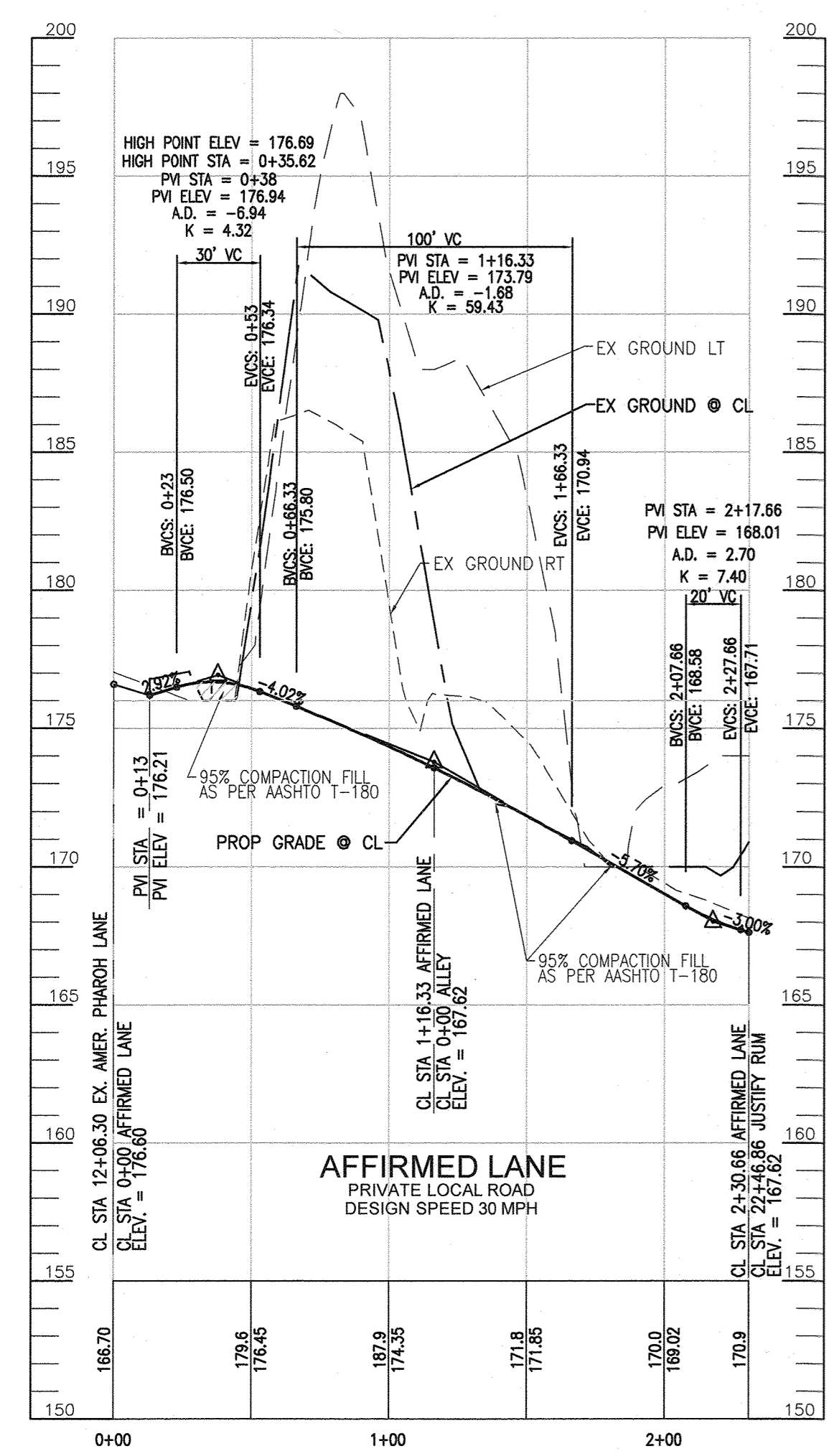
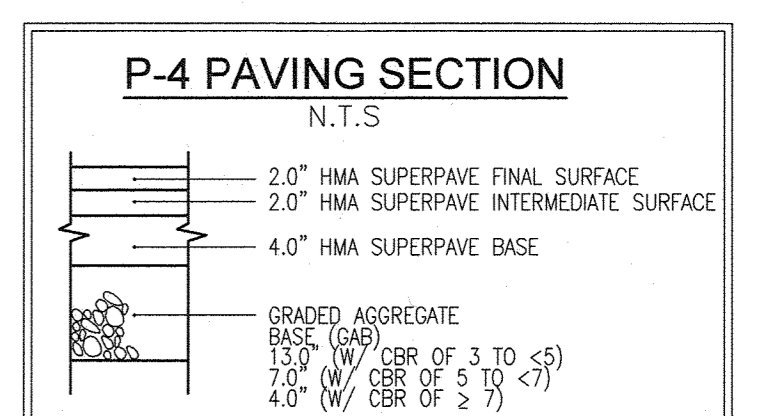
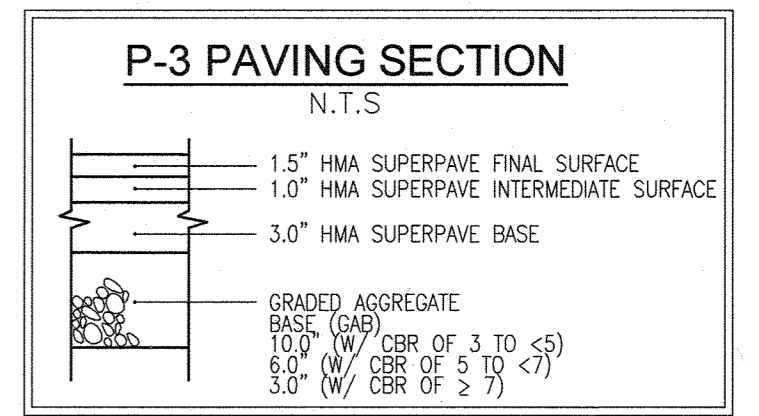
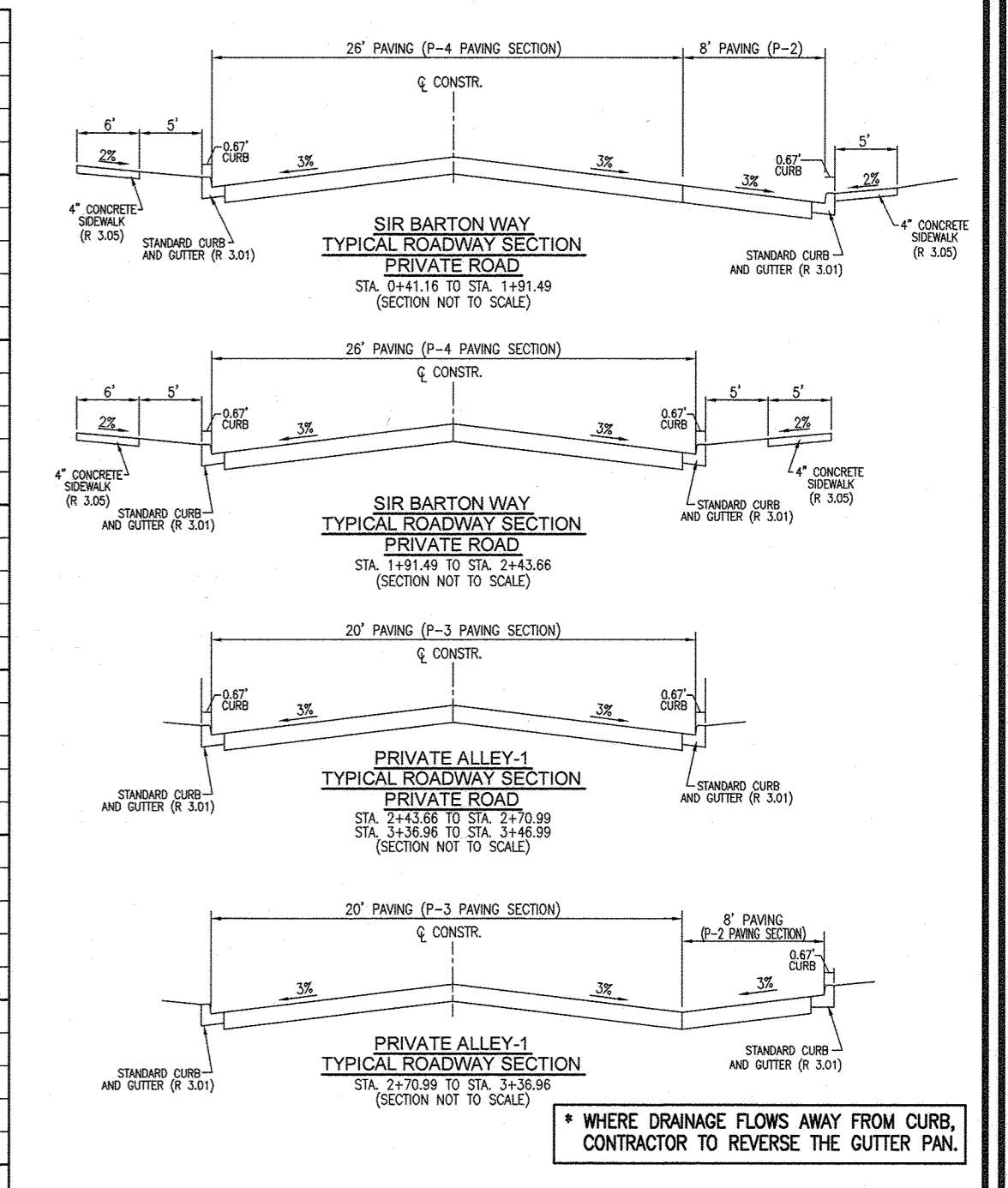
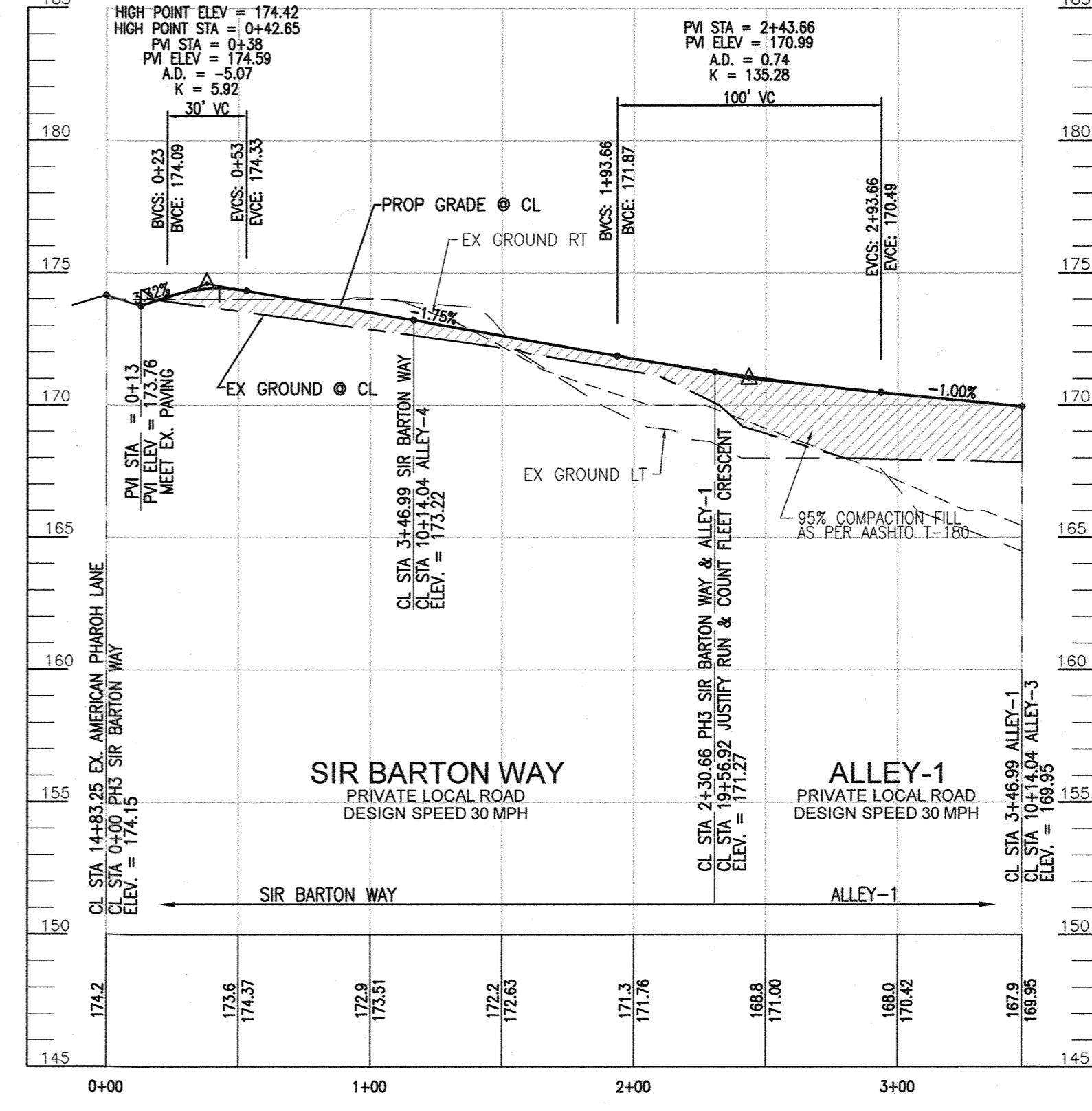
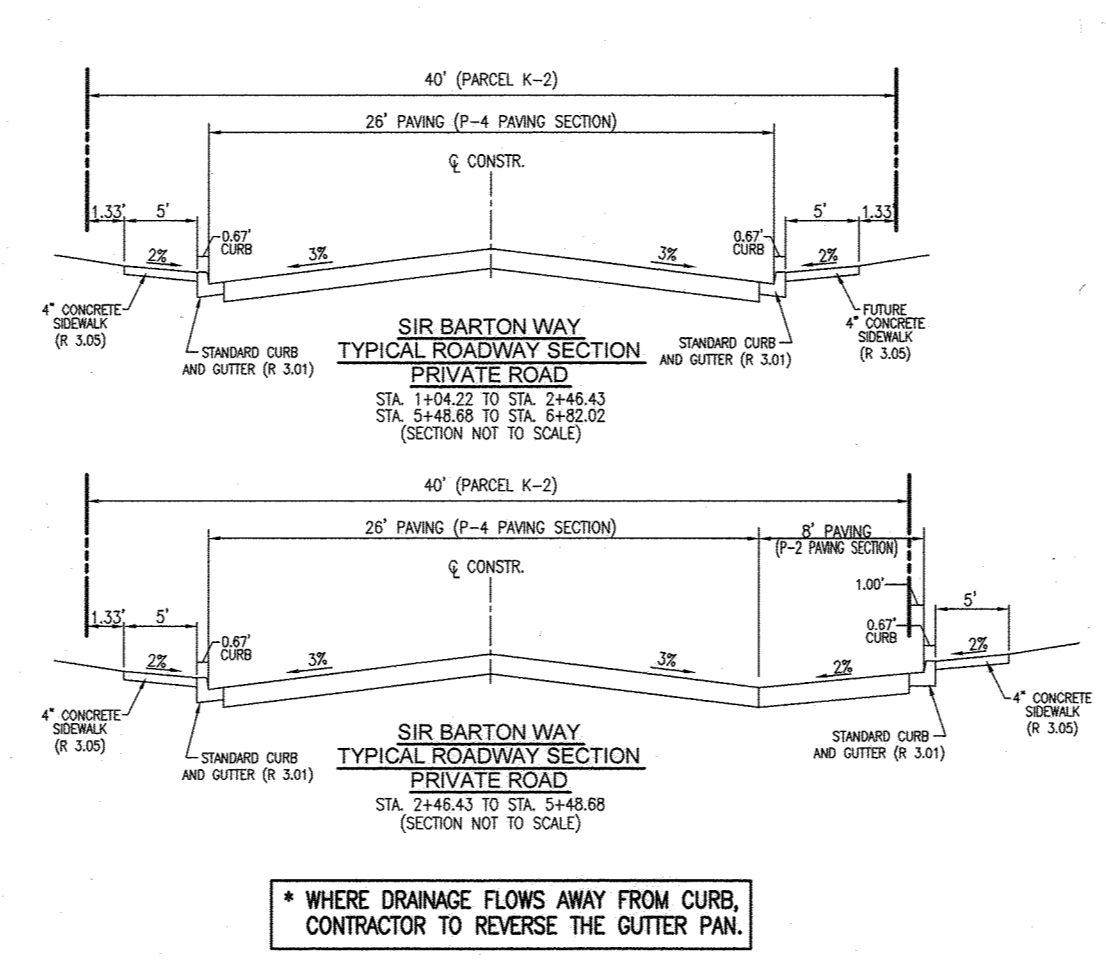
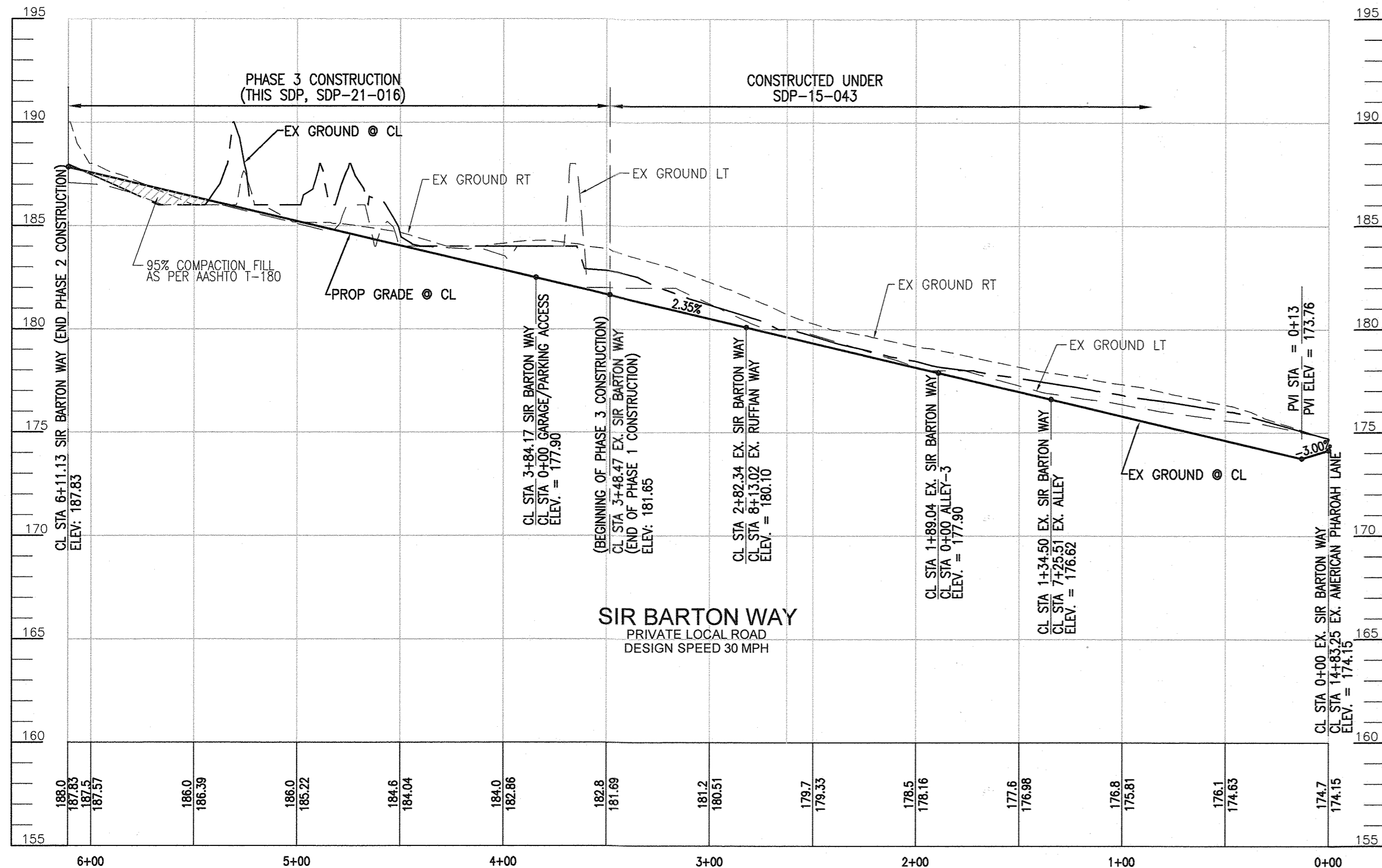
Chad Clark 2/29/24
CHIEF, DEVELOPMENT ENGINEERING DIVISION HX DATE

David Esler 3/7/24
CHIEF, DIVISION OF LAND DEVELOPMENT DATE
DIRECTOR

PLAN VIEW
SCALE: 1"=30'



ALL SIDEWALKS AND CURBS SHALL BE TRAFFIC BEARING WHEN SWM FACILITIES ARE ADJACENT



PARCEL C-5 OWNER
BEAZER HOMES, LLC.
6085 MARSHALLEE DRIVE, SUITE 350
ELK RIDGE, MD 21075
443-539-9249

OWNER
TRIPLE BELL FARMS, LLC.
198 LAUREL RACE TRACK RD
LAUREL, MD 20725
(301) 470-5494

OWNER/DEVELOPER
20006 DELAWARE, INC.
198 LAUREL RACE TRACK RD
LAUREL, MD 20725
(301) 470-5494

NO.	REVISION	DATE
1	REVISE PLAN FOR BUILDING ARCHITECTURE (UNITS 157-171 & 223-232); AND REVISE WAS HOUSE CONNECTIONS	11/30/23

REVISED SITE DEVELOPMENT PLAN
ROAD PROFILES AND DETAILS
Paddock Pointe - Phase 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
76 APARTMENT UNITS AND 6 STACKED TOWN
PARCELS C-5 & K-2
TAX MAP: 50 BLOCK: 10
6TH ELECTION DISTRICT
ZONED: TOD
HOWARD COUNTY, MARYLAND
VOGEL ENGINEERING
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Edman 2-29-24
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Dym de Esparis 3/7/24
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Dym de Esparis 3/1/24
DIRECTOR DATE

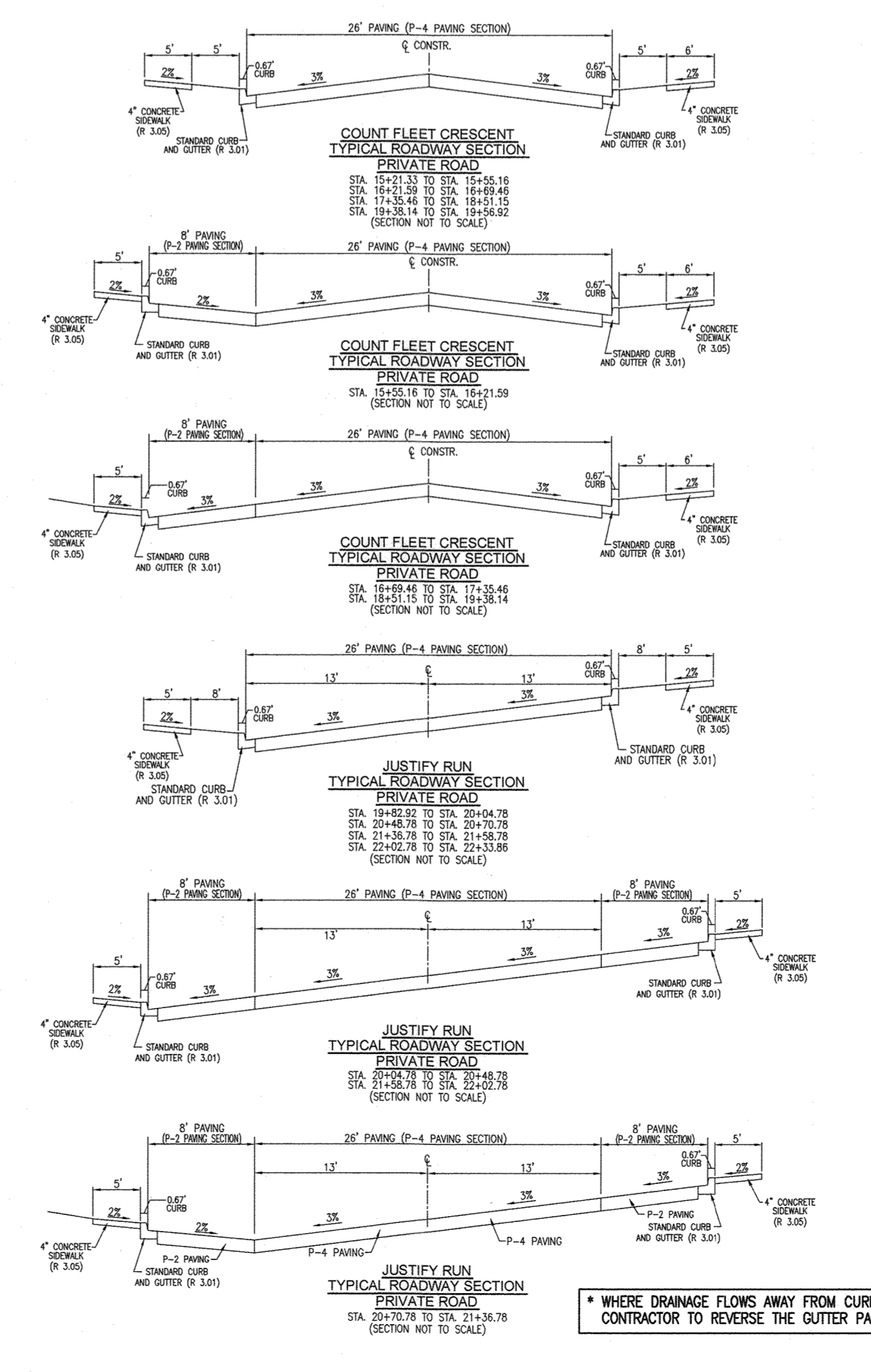
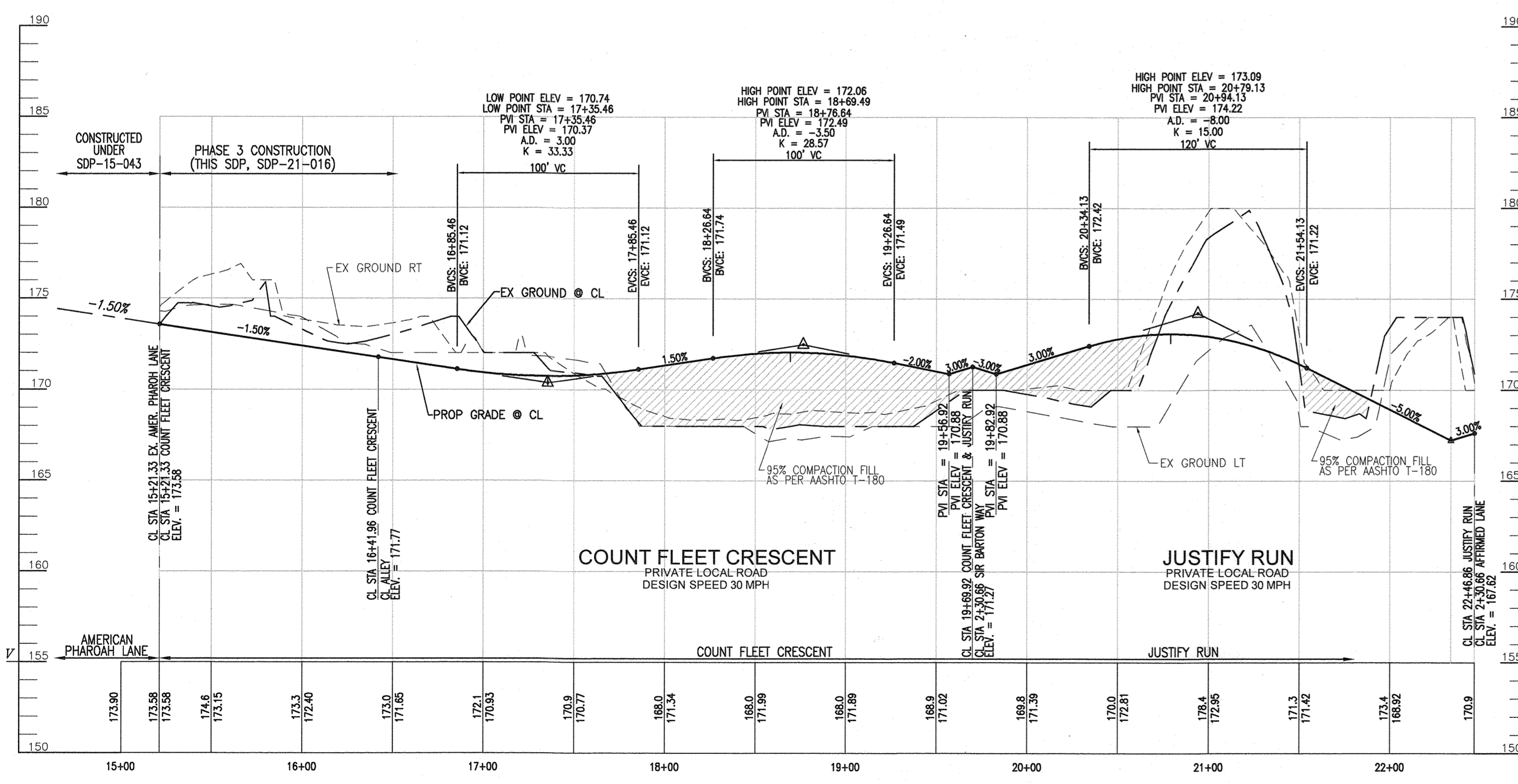
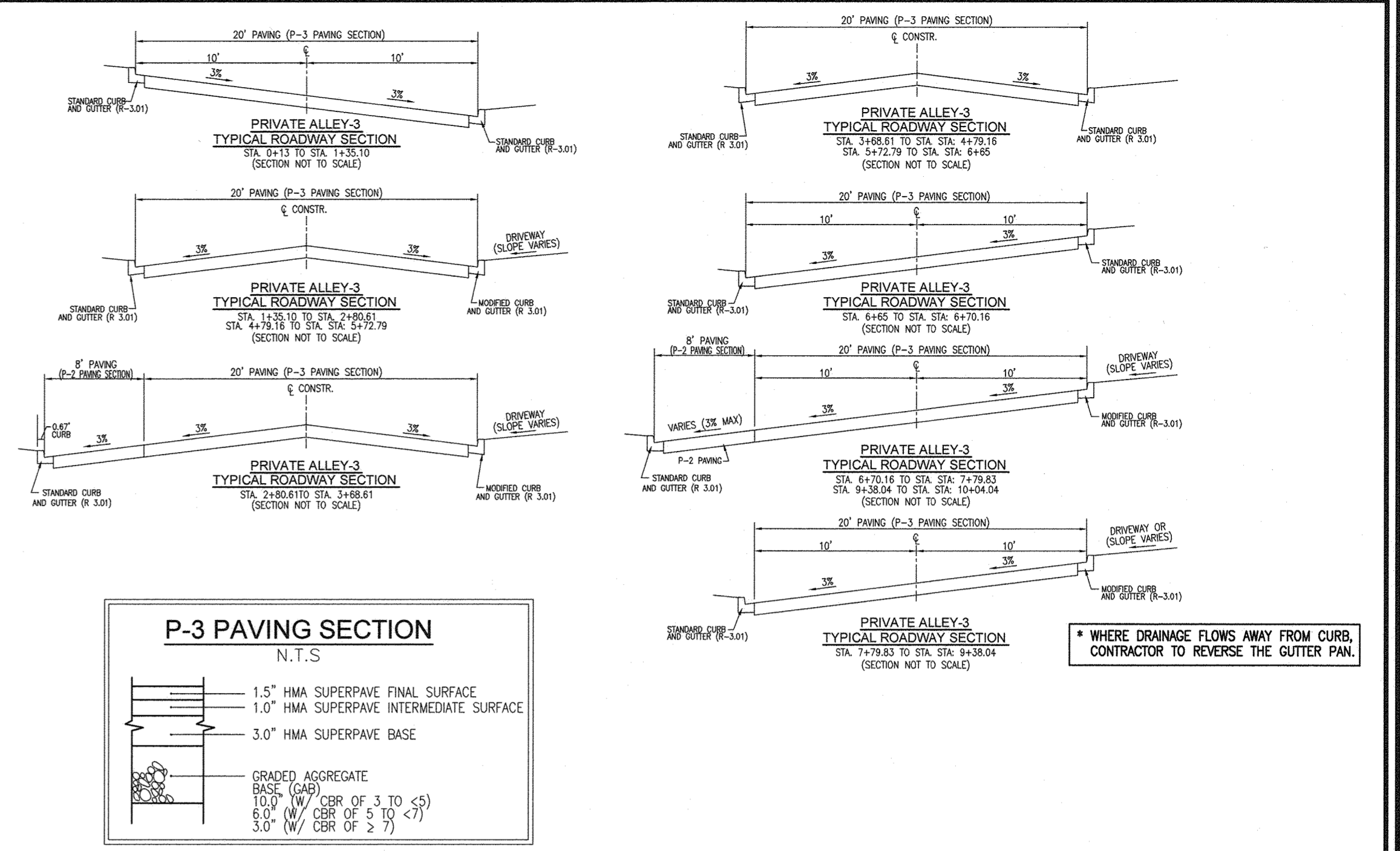
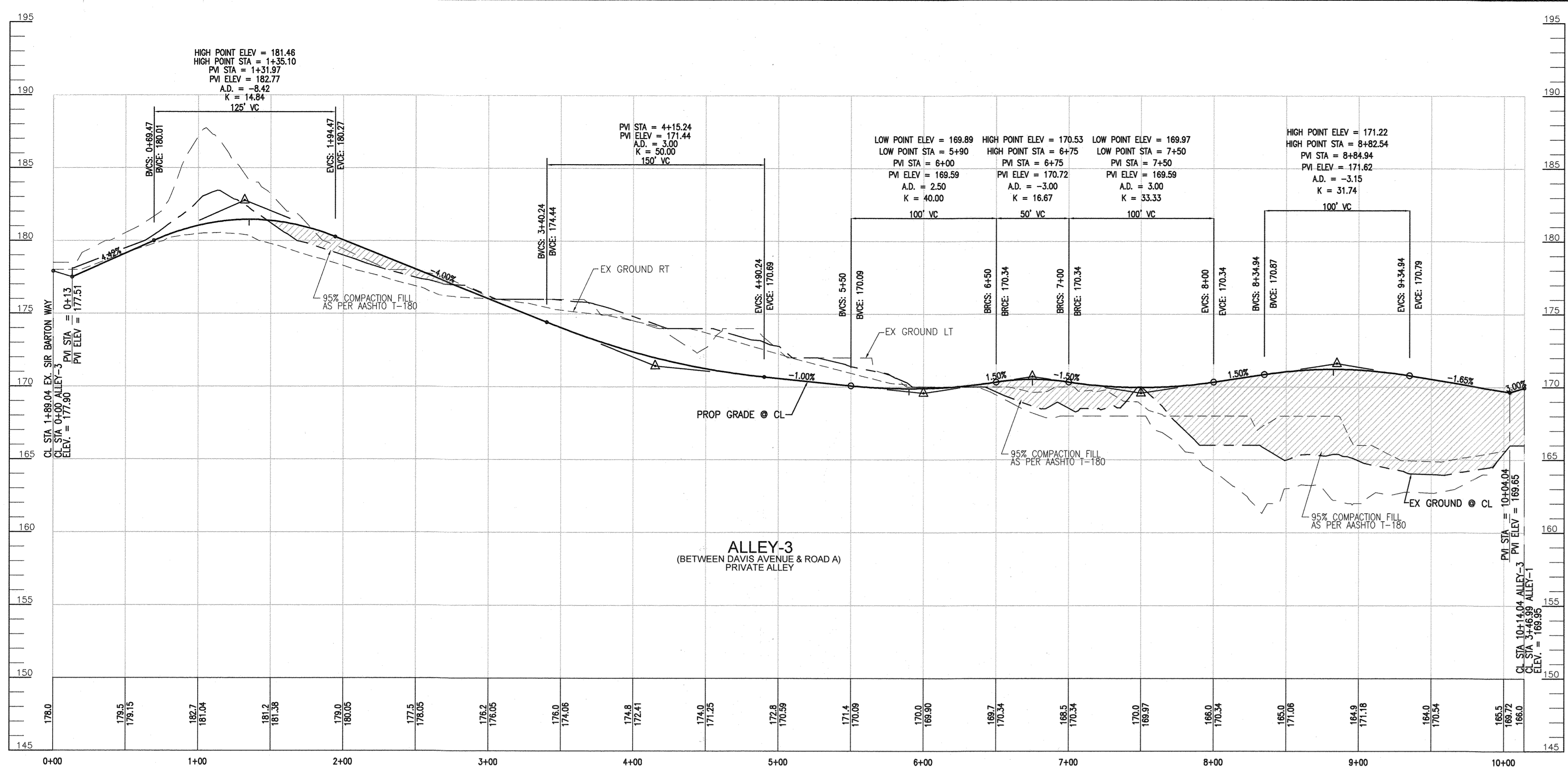
PROFESSIONAL CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16183, EXPIRATION DATE: 09-27-2024

DESIGN BY: DZE/RHV
DRAWN BY: DZE/MP/KG/JR
CHECKED BY: RHV
DATE: FEB. 2024
SCALE: AS SHOWN
W.O. NO.: 07-11/40111

4 SHEET OF 34

ROBERT H. VOGEL, PE No.16193



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 2/29/24
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 2/29/24
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 3/7/24
DIRECTOR DATE

PARCEL C-5 OWNER: BEAZER HOMES, LLC. 6085 MARSHALLE DRIVE, SUITE 300 ELKDRIDGE, MD 21075 443-539-9249

OWNER: TRIPLE BELL FARMS, LLC. 198 LAUREL RACE TRACK RD LAUREL, MD 20725 (301) 470-5494

OWNER/DEVELOPER: 20006 DELAWARE, INC. 198 LAUREL RACE TRACK RD LAUREL, MD 20725 (301) 470-5494

NO.	REVISION	DATE
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REVISED SITE DEVELOPMENT PLAN
ROAD PROFILES AND DETAILS
PADDOCK POINTE - PHASE 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
76 APARTMENT UNITS AND 76 STACKED TOWN
PARCELS A & K-2

TAX MAP: 50 BLOCK: 10
6TH ELECTION DISTRICT

ZONED: TOD

PARCEL 384
HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
+
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.611.7656 F: 410.461.8961 www.timmons.com

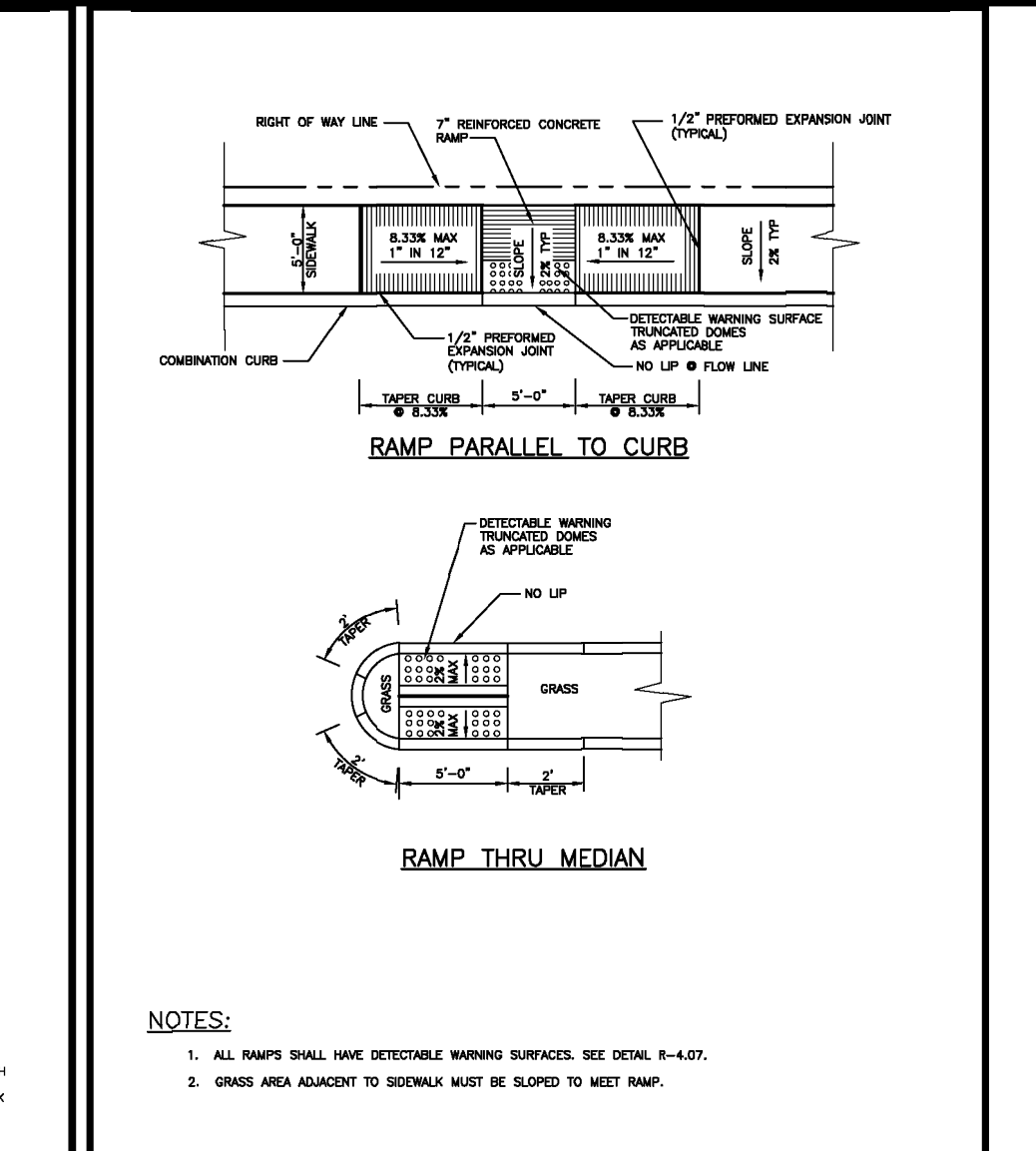
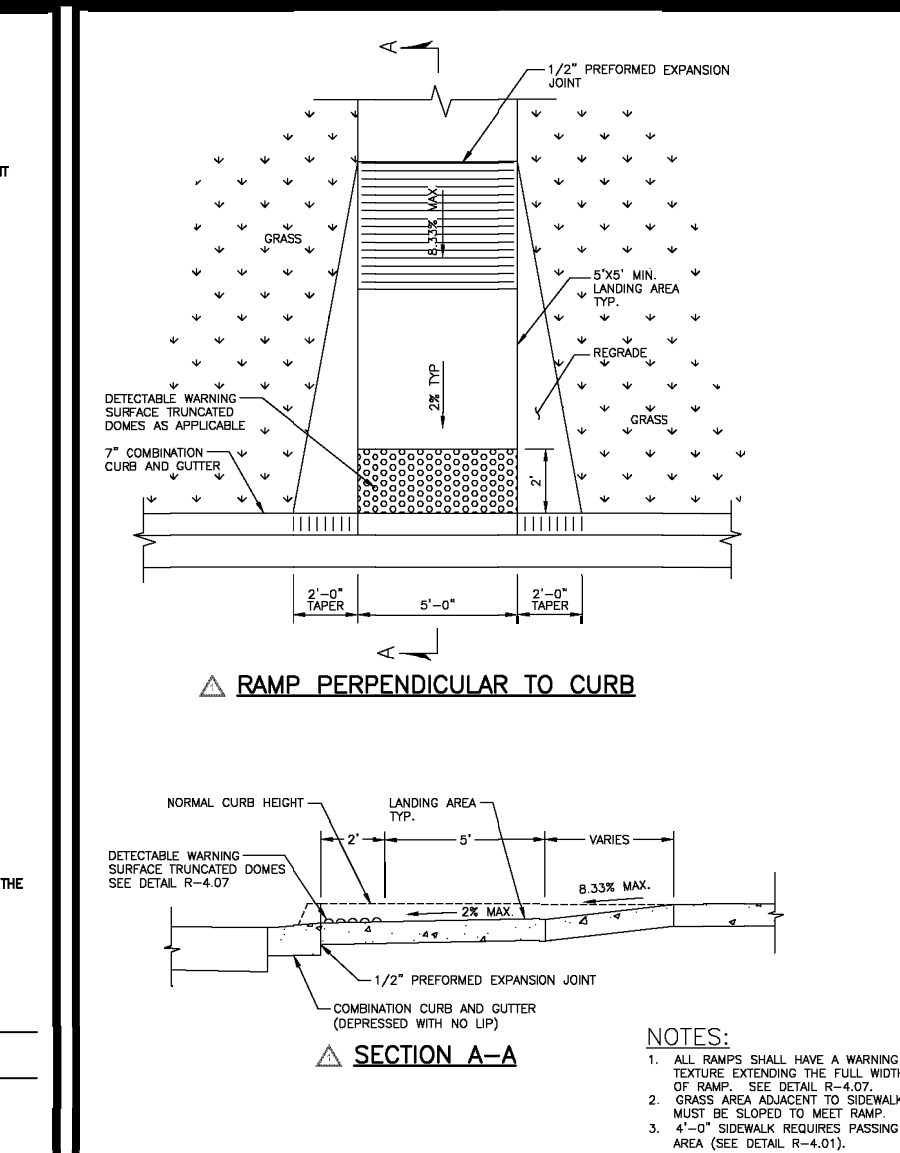
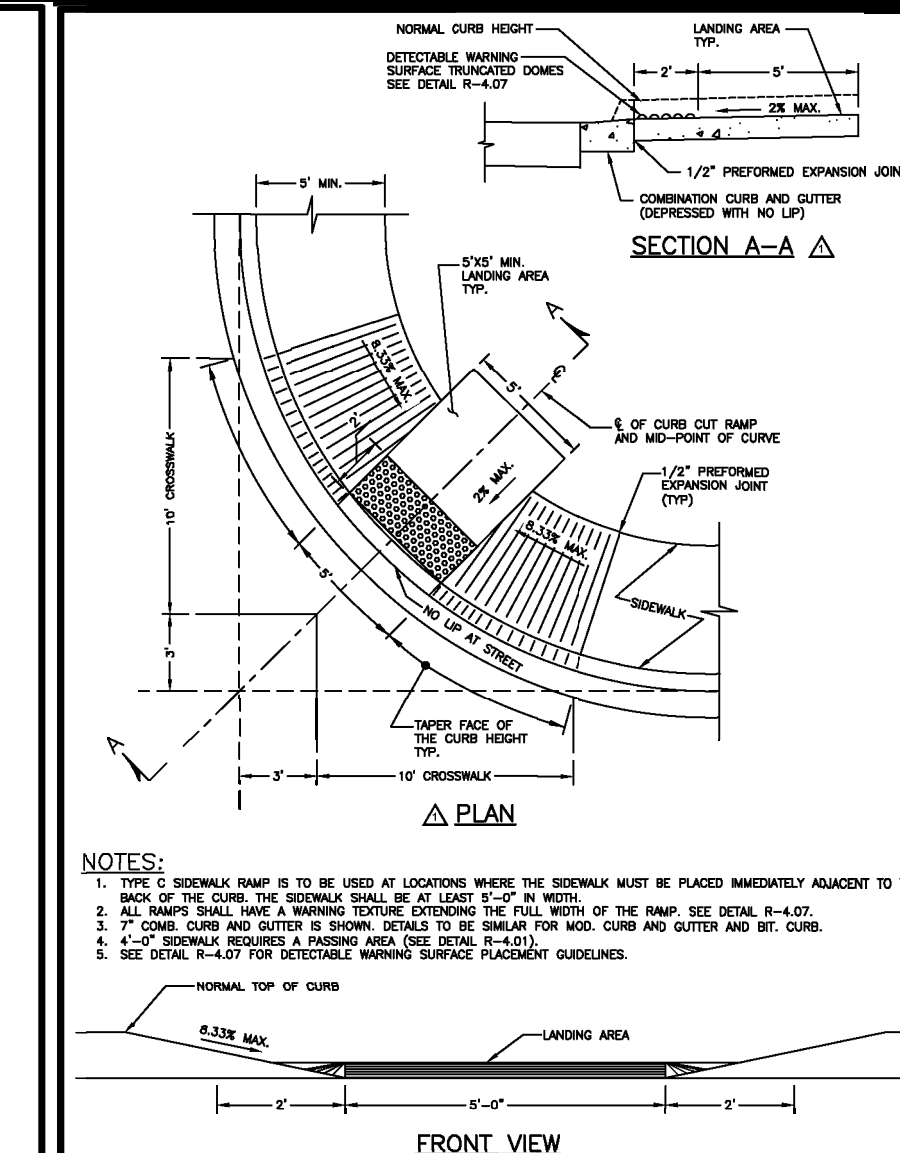
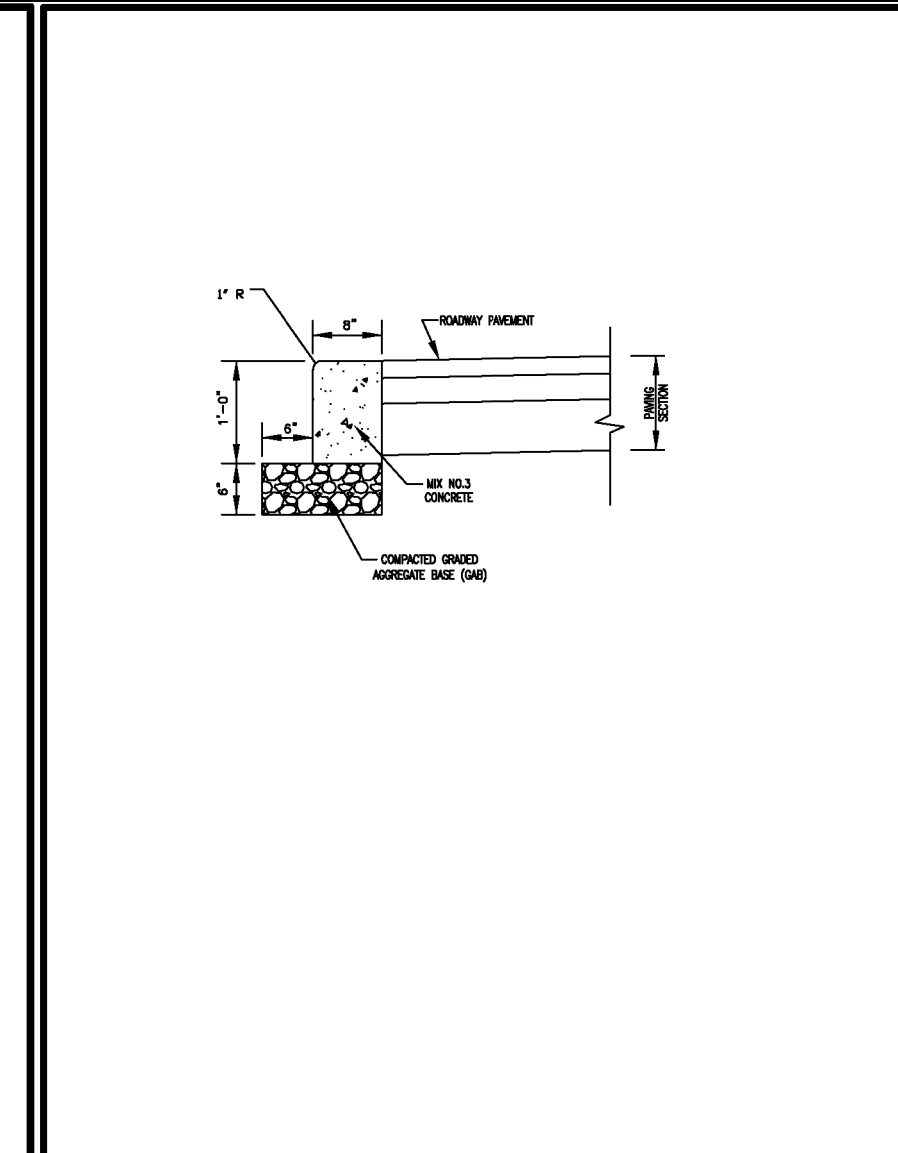
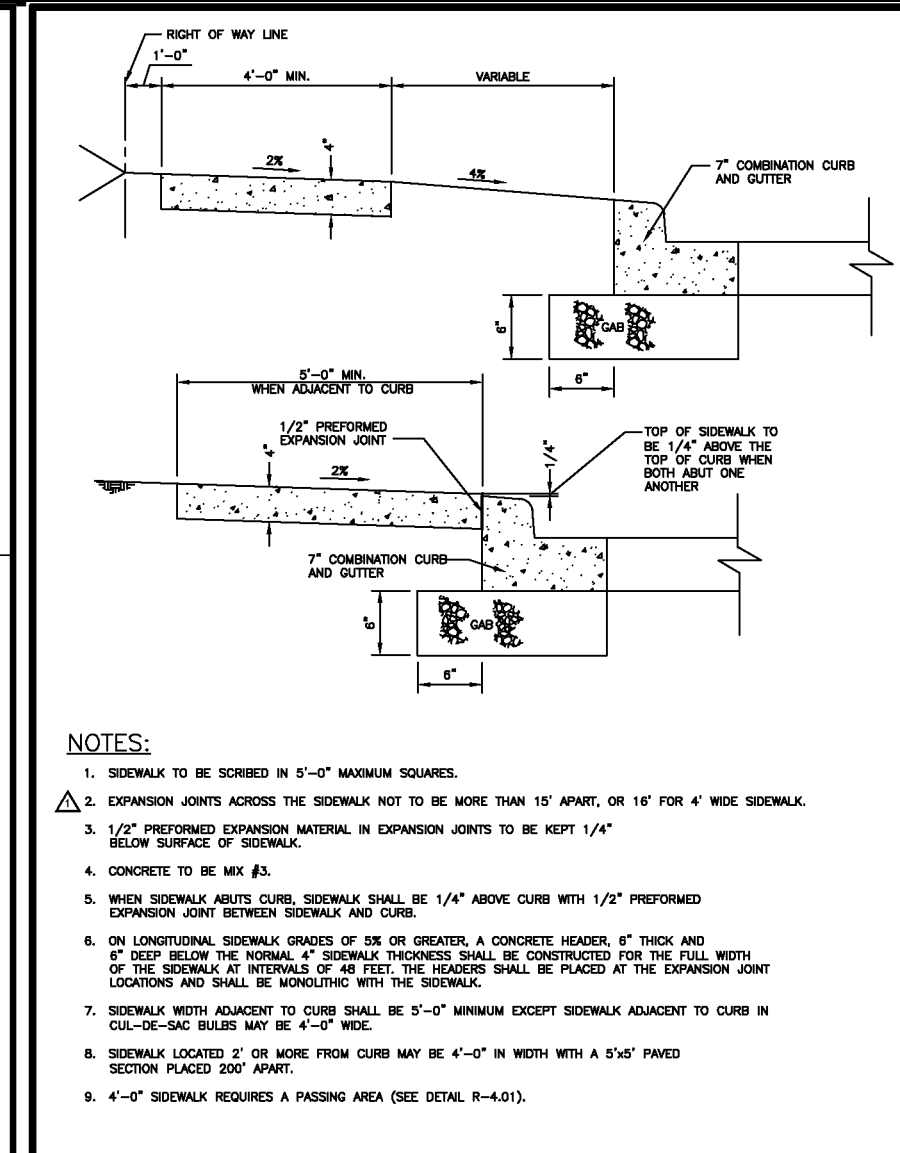
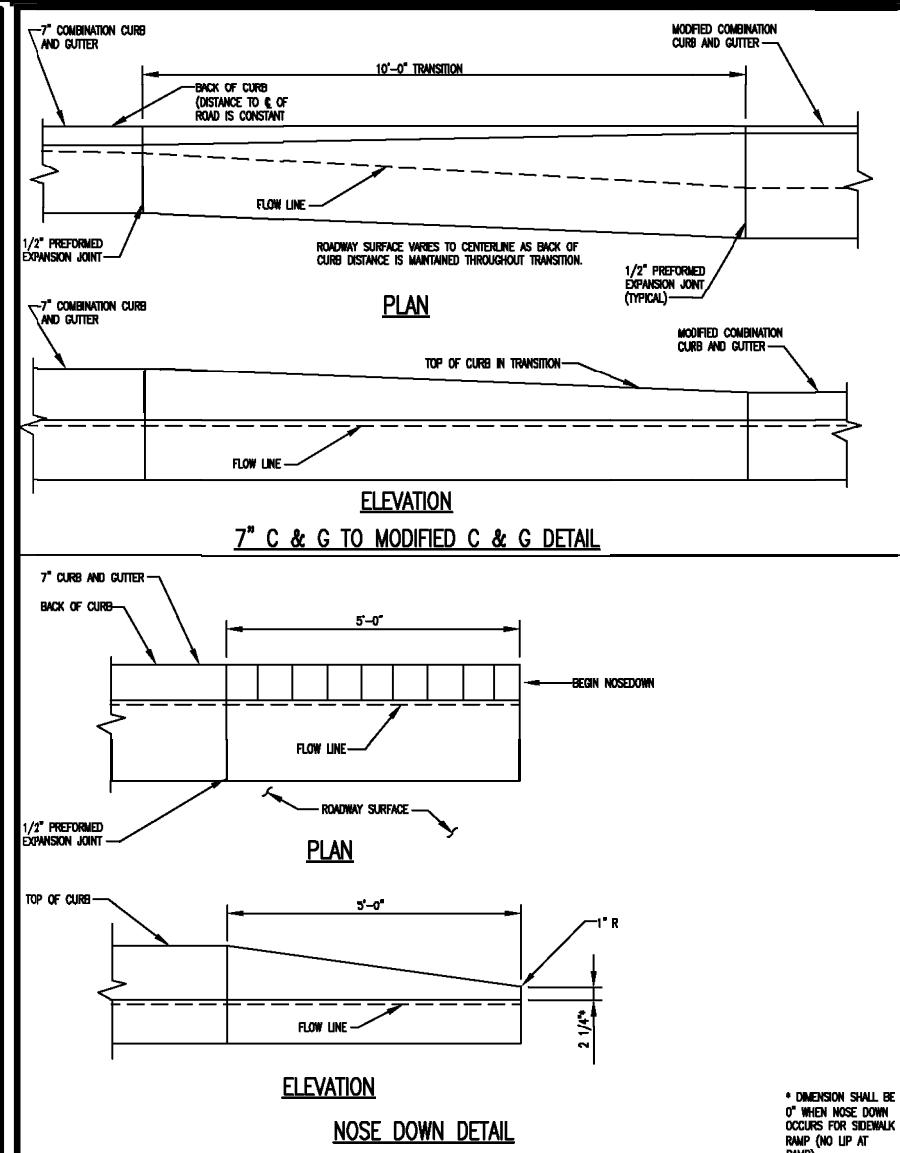
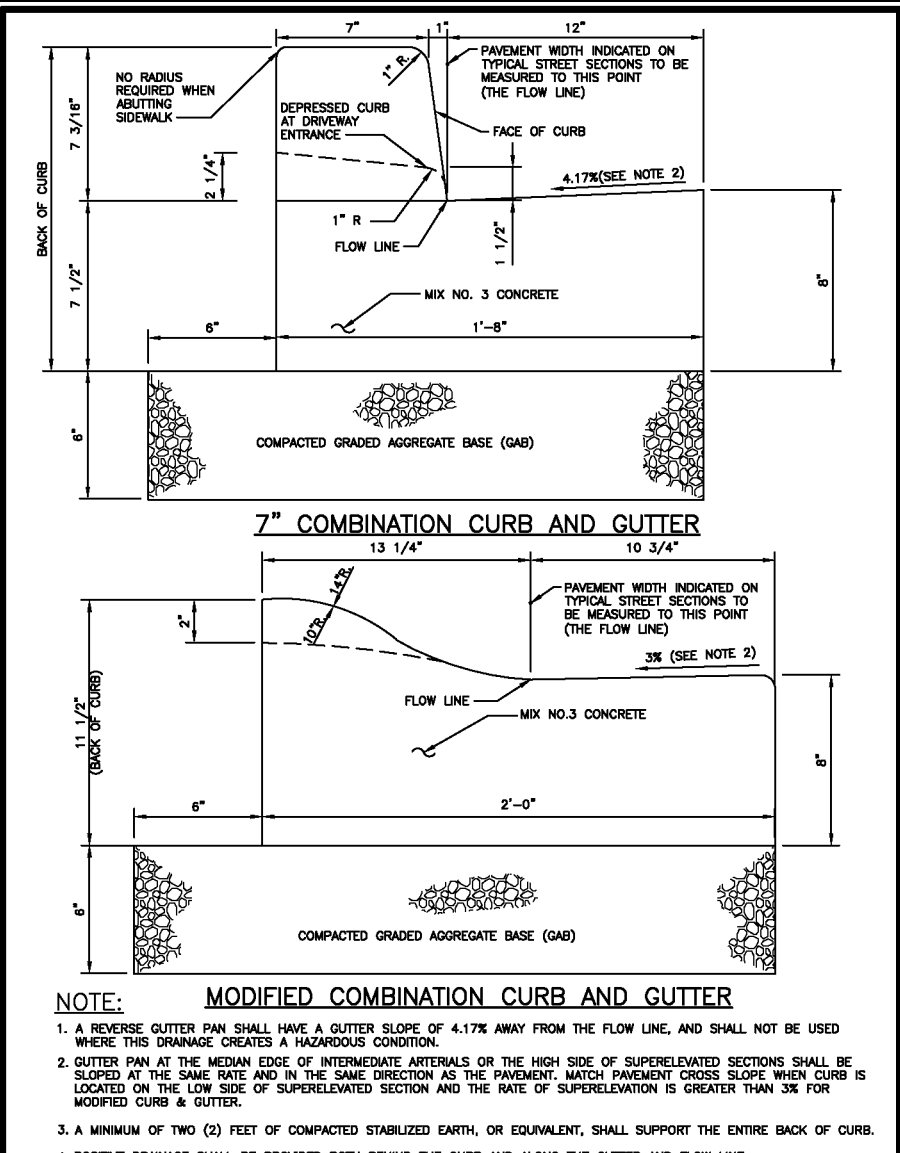
PROFESSIONAL CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19193, EXPIRATION DATE: 09-27-2024

DESIGN BY: DZE/RHV
DRAWN BY: DZE/MP/KG/JR
CHECKED BY: RHV
DATE: FEB. 2024
SCALE: AS SHOWN
W.O. NO.: 07-11/40111

5 SHEET OF 34

ROBERT H. VOGEL, PE No.16193



Howards County, Maryland Department of Public Works Name: <i>Prerna P. S. Ghosh</i> Date: 09/01/2023	Detail CURB AND GUTTER 7\"/>
---	------------------------------------

Howards County, Maryland Department of Public Works Name: <i>Prerna P. S. Ghosh</i> Date: 09/01/2023	Detail CURB AND GUTTER 7\"/>
---	------------------------------------

Howards County, Maryland Department of Public Works Name: <i>Prerna P. S. Ghosh</i> Date: 09/01/2023	Detail CONCRETE SIDEWALK R-3.05
---	---------------------------------------

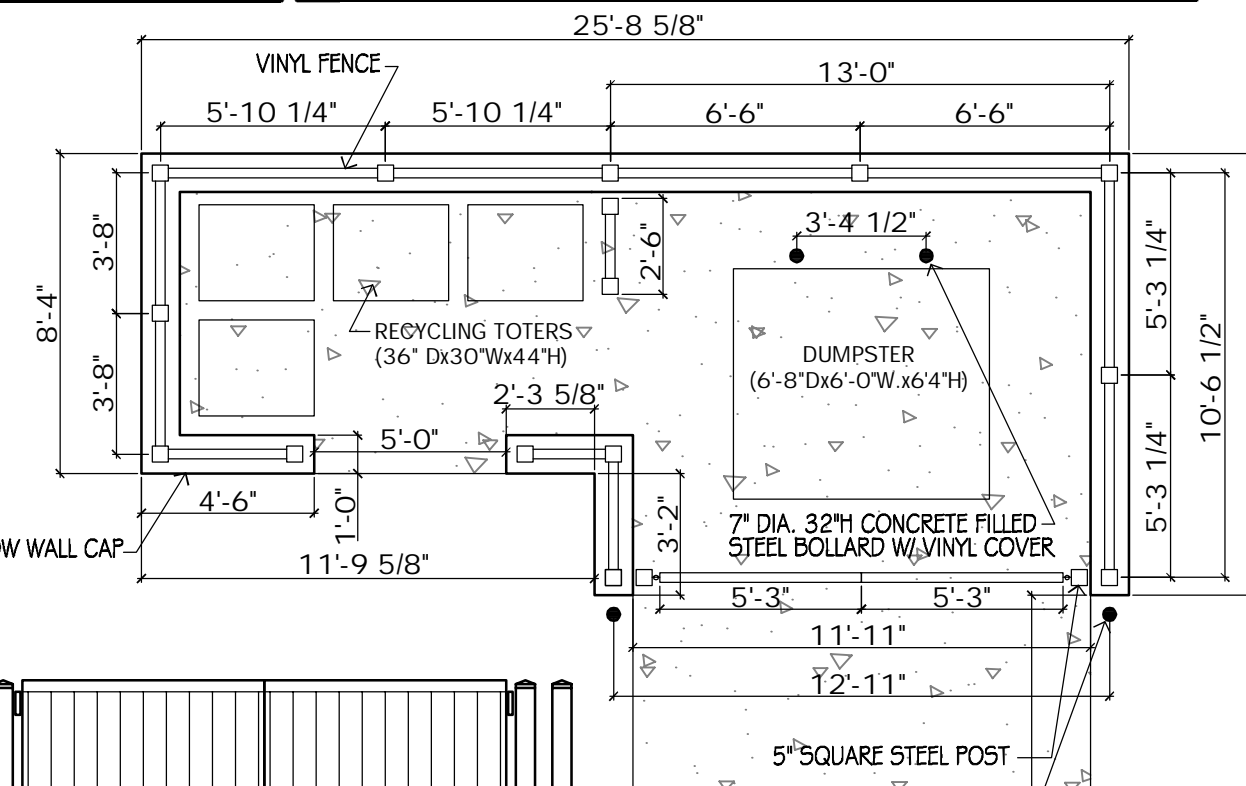
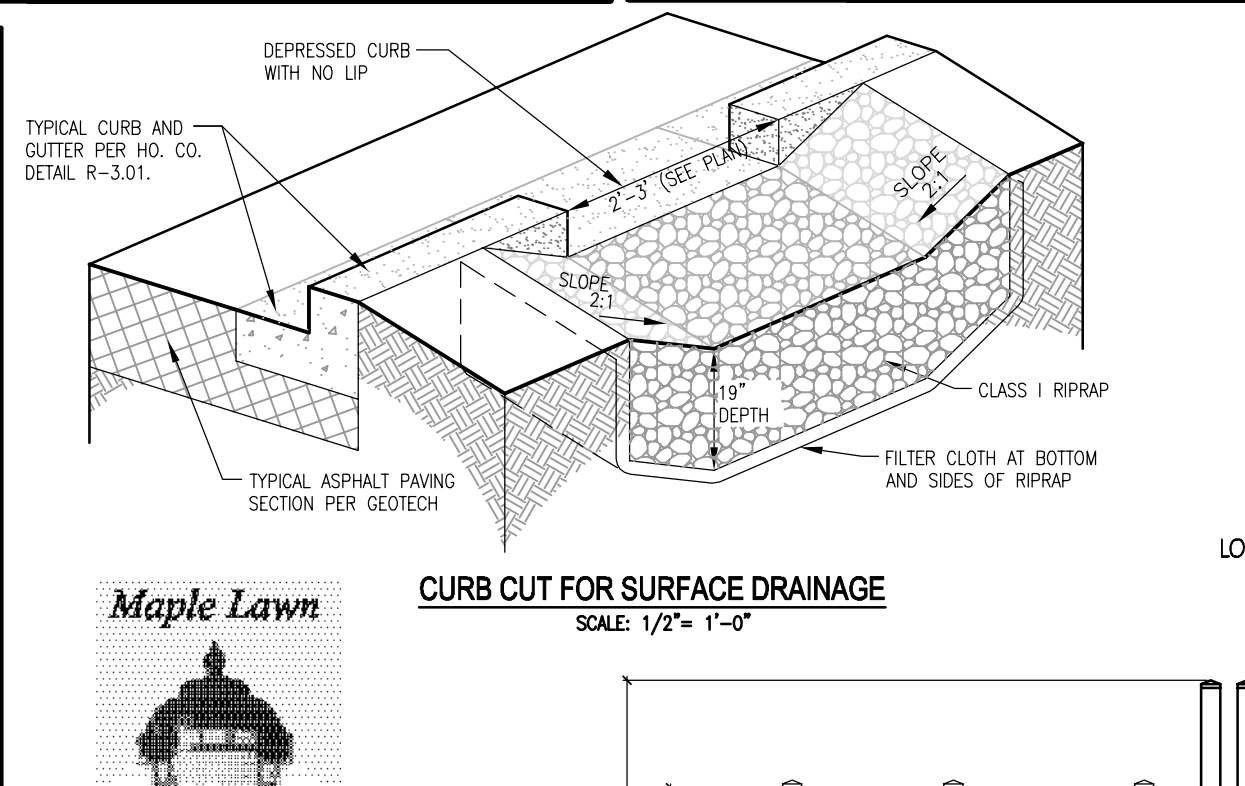
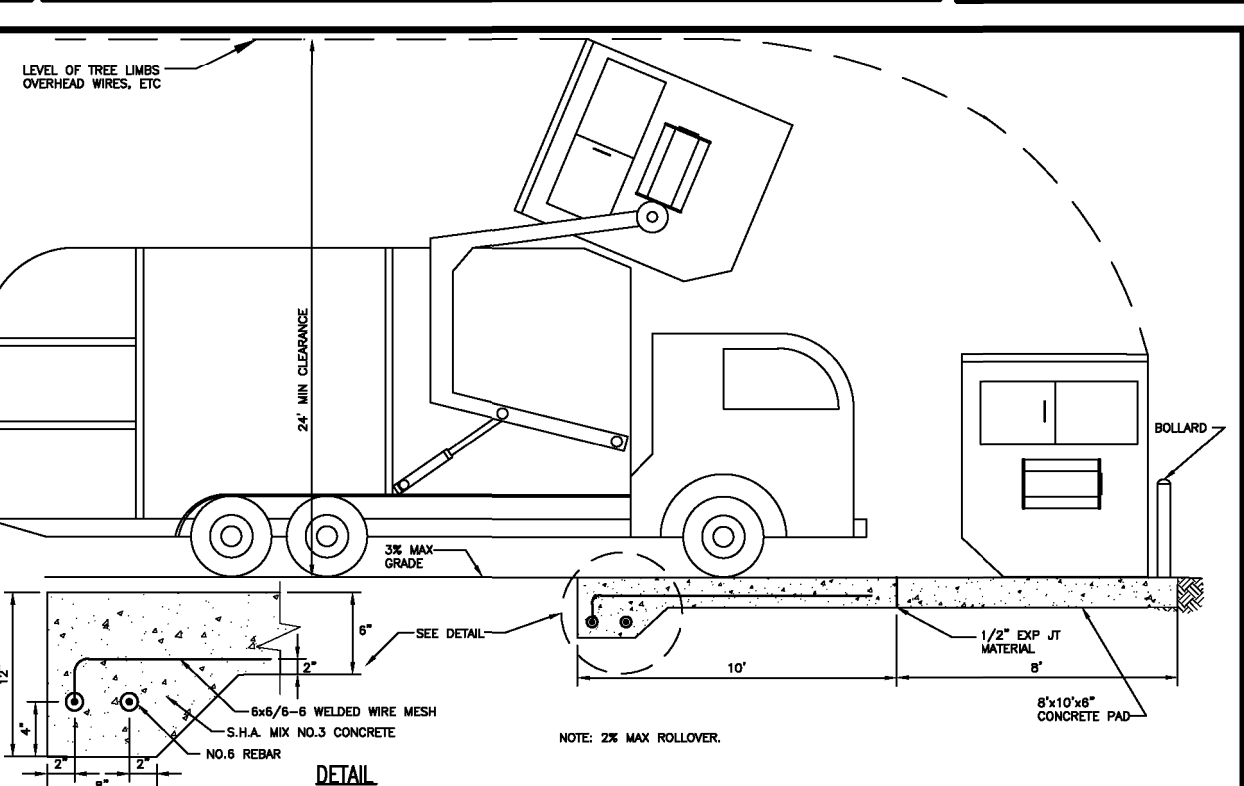
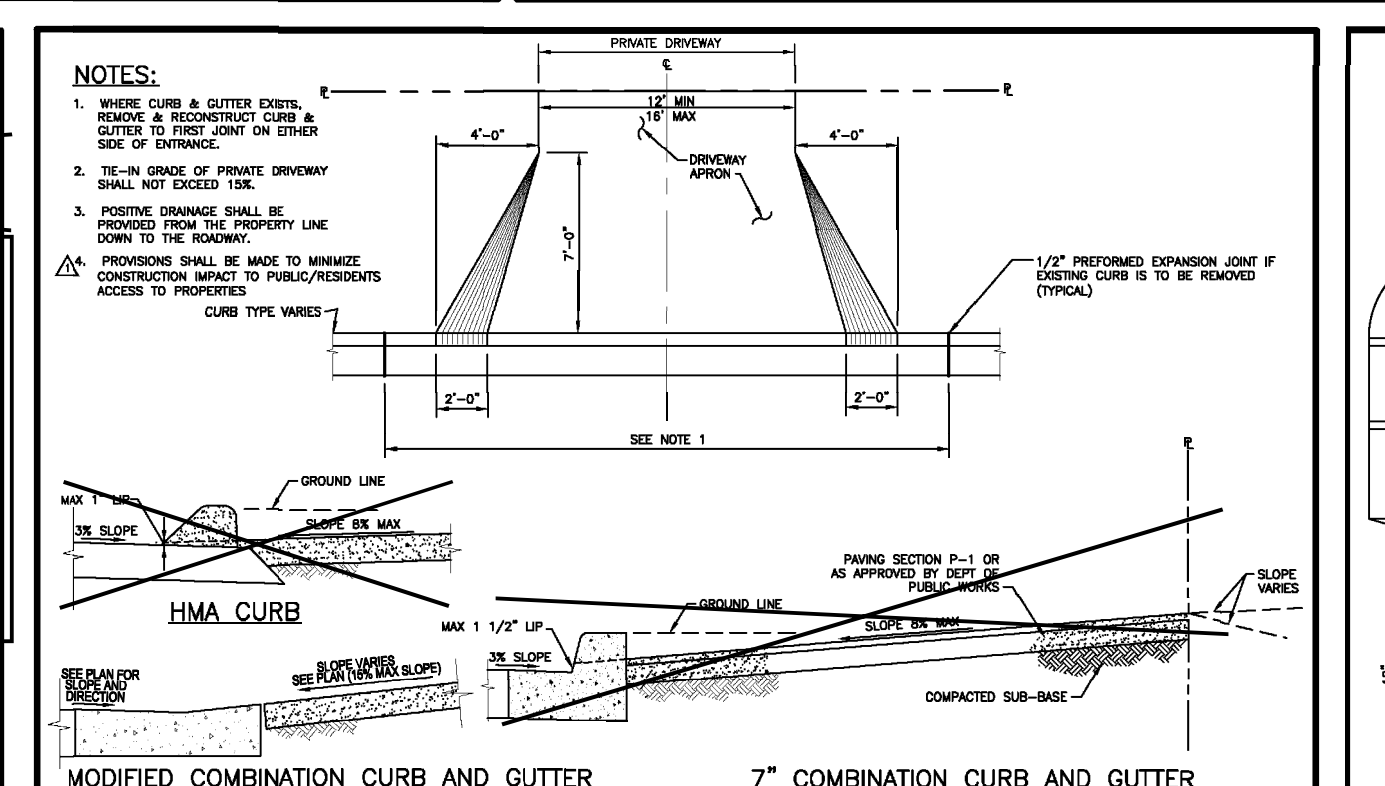
Howards County, Maryland Department of Public Works Name: <i>Prerna P. S. Ghosh</i> Date: 09/01/2023	Detail Curb Flush R-3.07
---	--------------------------------

Howards County, Maryland Department of Public Works Name: <i>Prerna P. S. Ghosh</i> Date: 09/01/2023	Detail SIDEWALK RAMP Type C R-4.04
---	---

Howards County, Maryland Department of Public Works Name: <i>Prerna P. S. Ghosh</i> Date: 09/01/2023	Detail SIDEWALK RAMP Layout & Grading Perpendicular to Curb R-4.05
---	--

Howards County, Maryland Department of Public Works Name: <i>Prerna P. S. Ghosh</i> Date: 09/01/2023	Detail SIDEWALK RAMP Layout & Grading Parallel to Curb & Thru Median R-4.06
---	---

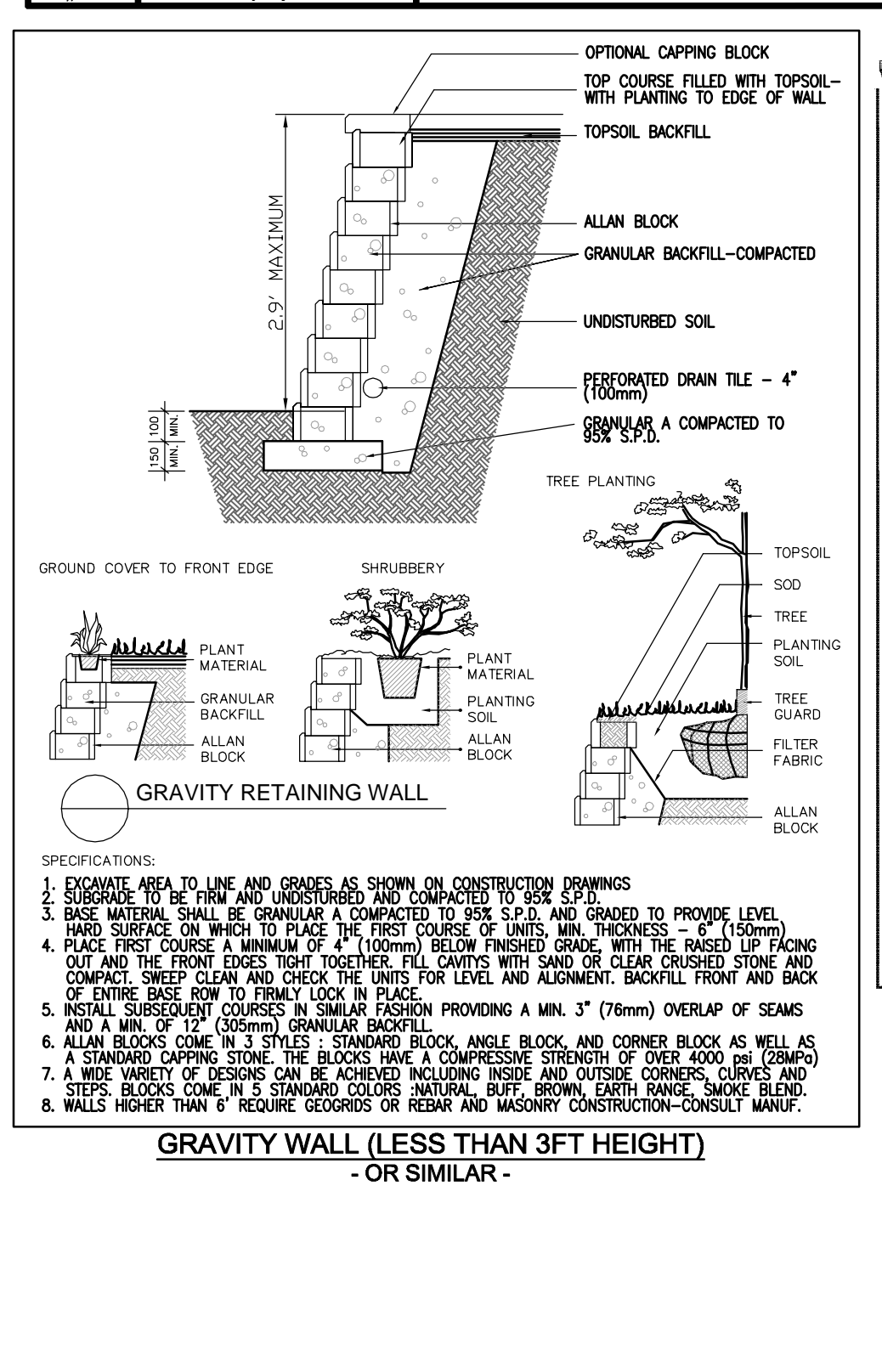
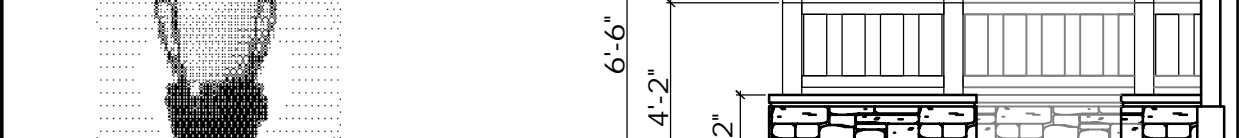
SECTION	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	1 TO 4	5 TO 10	15 TO 20	25 TO 30	35 TO 40	45 TO 50	55 TO 60	65 TO 70	75 TO 80	85 TO 90	95 TO 100
P-1	PARALLEL DRIVEWAY	MIN. SUPERPAVE ASPHALT MIX WITH GAB	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
P-2	PARALLEL DRIVEWAY	MIN. SUPERPAVE ASPHALT MIX WITH GAB	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
P-3	PARALLEL DRIVEWAY	MIN. SUPERPAVE ASPHALT MIX WITH GAB	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
P-4	PARALLEL DRIVEWAY	MIN. SUPERPAVE ASPHALT MIX WITH GAB	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



Howards County, Maryland Department of Public Works Name: <i>Prerna P. S. Ghosh</i> Date: 09/01/2023	Detail PAVING SECTIONS P-1 to P-4 R-2.01
---	---

Howards County, Maryland Department of Public Works Name: <i>Prerna P. S. Ghosh</i> Date: 09/01/2023	Detail RESIDENTIAL DRIVEWAY ENTRANCE Closed Section Roadway Without Sidewalk R-6.05
---	---

Howards County, Maryland Department of Public Works Name: <i>Prerna P. S. Ghosh</i> Date: 09/01/2023	Detail SOLID WASTE SERVICE PAD R-8.03
---	---



Key-Link Fencing & Railing, Inc.
280 John Dr., New Holland, PA 17357
Tel: 888.704.7130 • Fax: 717.355.7139
keylinkonline.com

Fence #412014

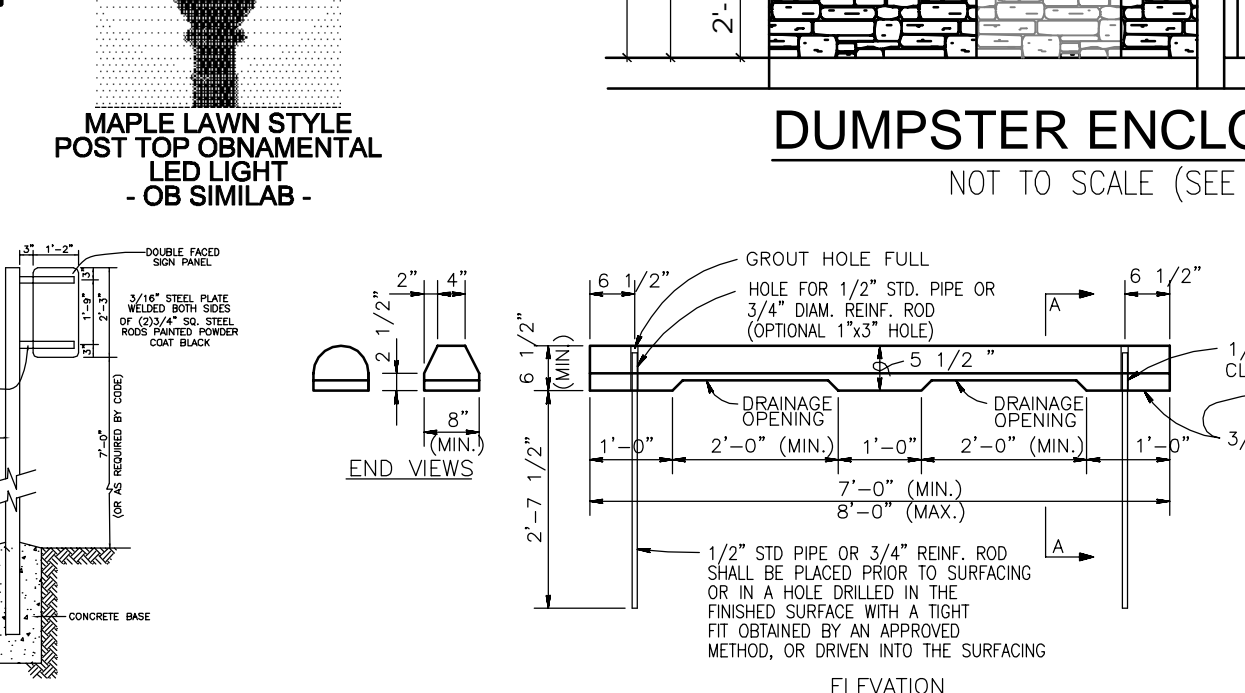
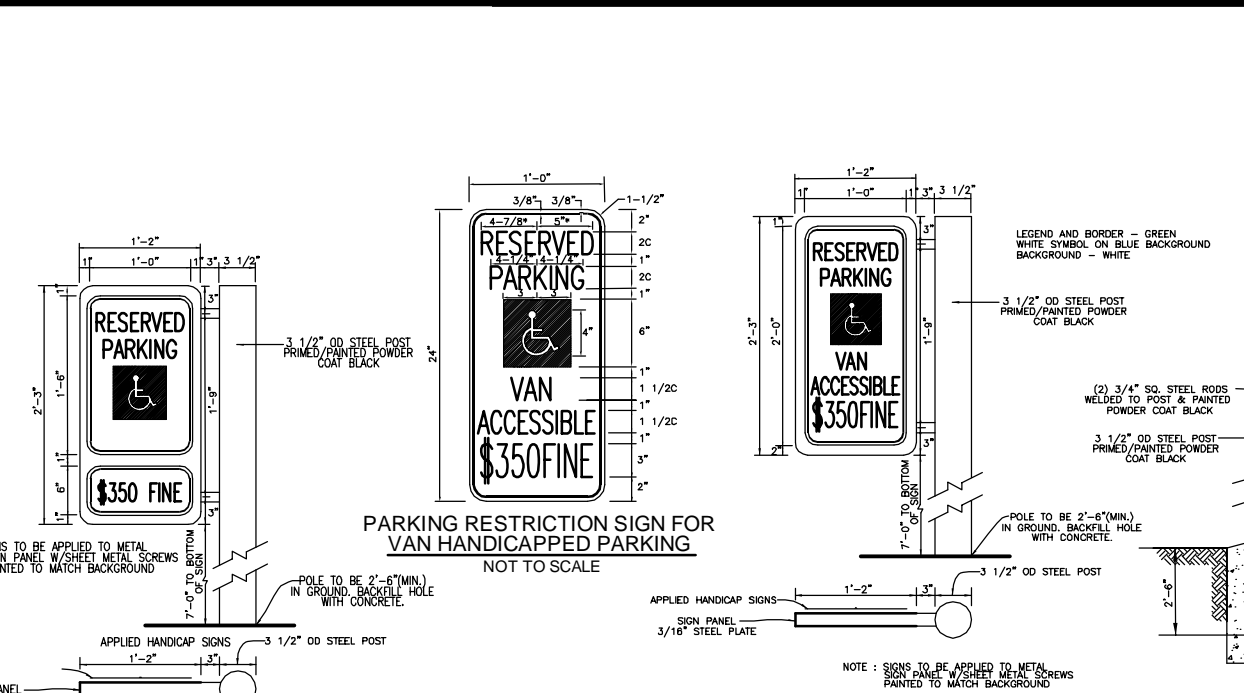
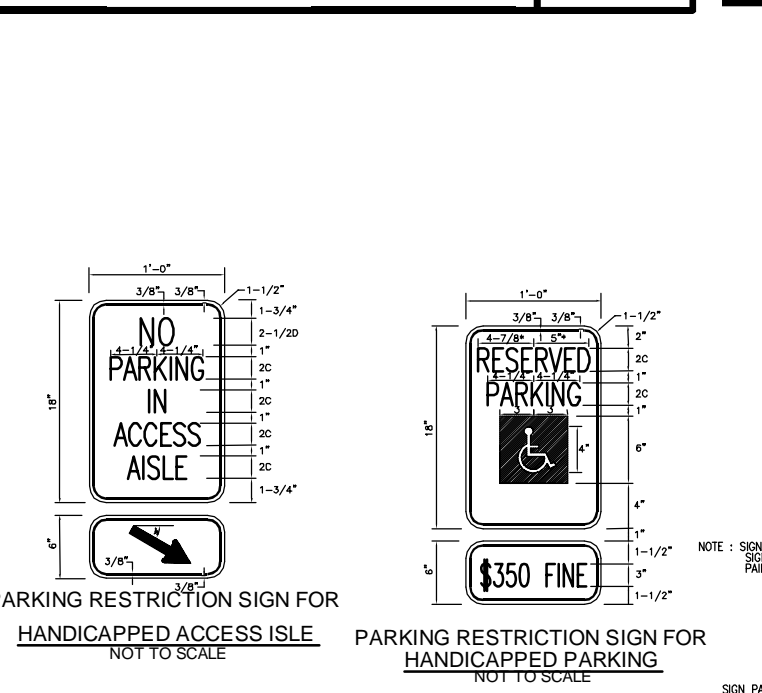
4 - Commercial
1 - Truck Top
2 - Bush Bottom
0 - No Bottom Mid Rail
1 - Thru Top Mid Rail
4 - Quad Picket Top

Stock Color Options: Gloss Black, Gloss White, Gloss Bronze

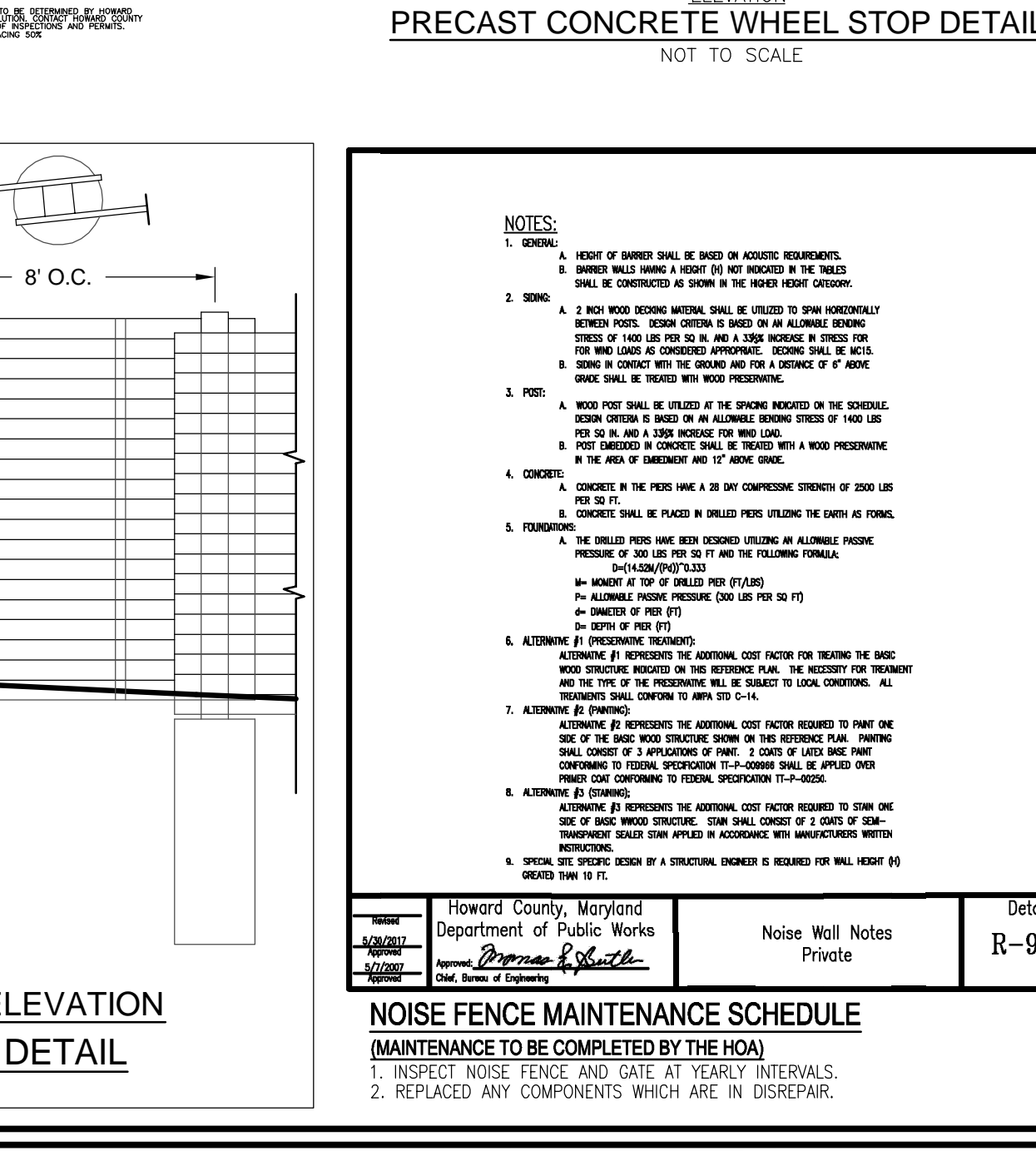
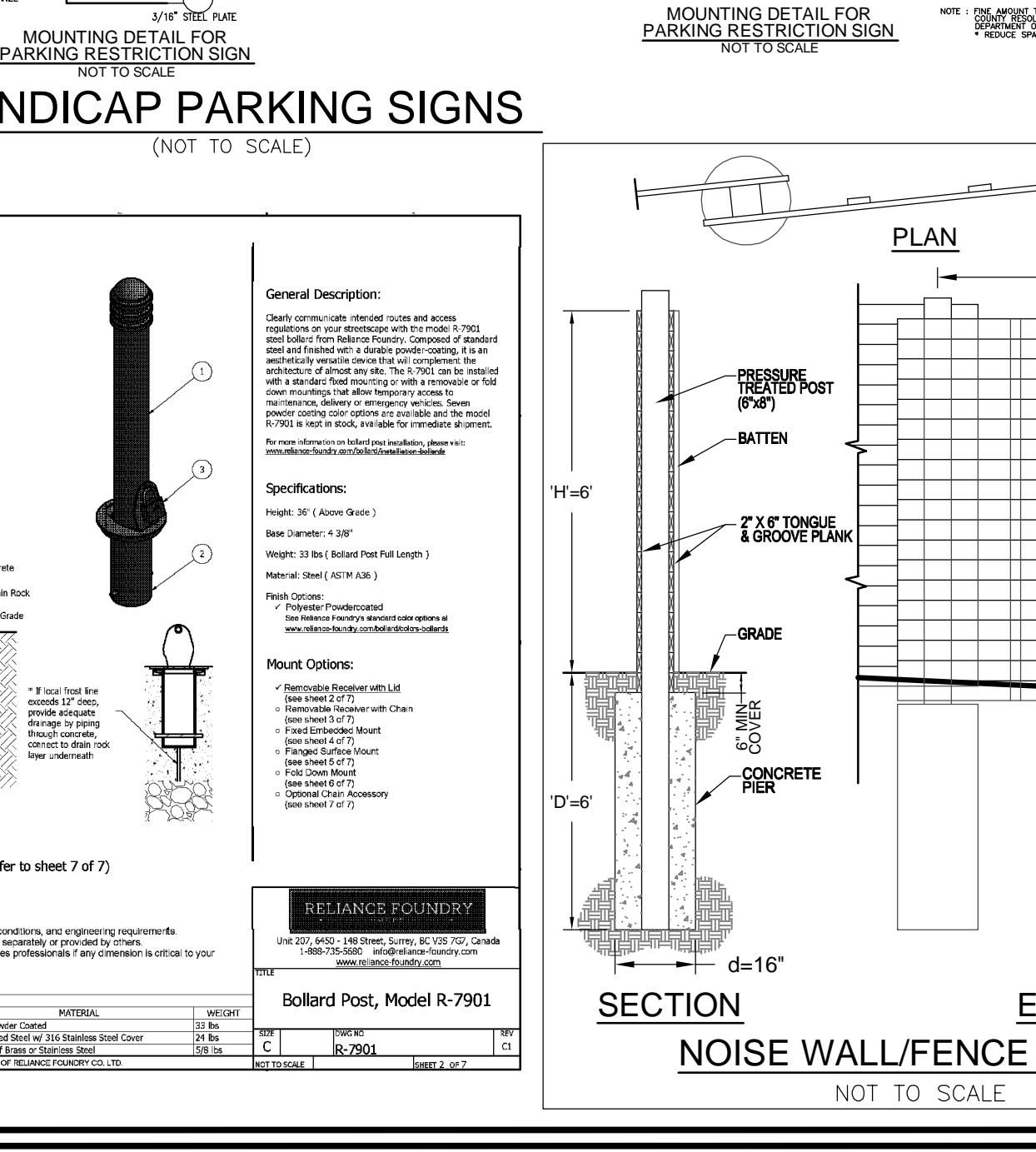
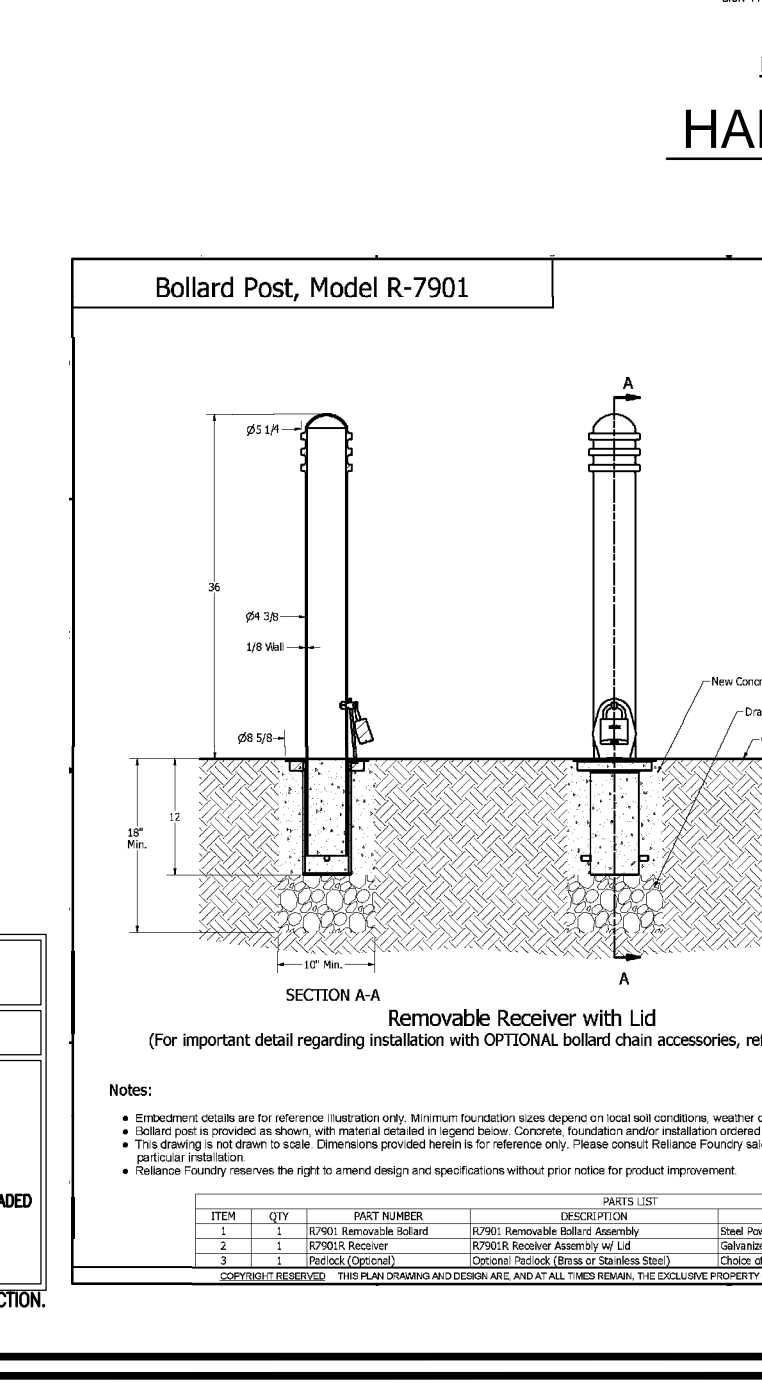
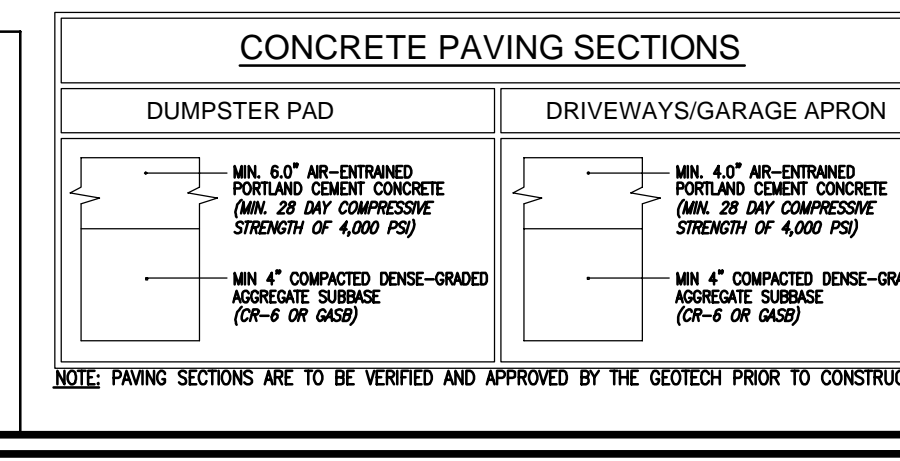
Special Order Color Options: Textured Black, Textured Bronze, Textured Silver, Textured White, Textured Green, Textured Redwood, Textured Gold, Textured Walnut

Post Cap Options: Flat Cap, Ball Cap

Modern & Contemporary Aluminum ORNAMENTAL FENCE DETAIL
LOCATED BEHIND GRAVITY WALLS OVER 30 INCHES IN HEIGHT - OR SIMILAR -



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING Chief, Development Engineering Division Date: 7/12/2022	APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING Chief, Division of Land Development Date: 7/12/2022
---	---



SITE DEVELOPMENT PLAN

SITE DETAILS

Paddock Pointe - Phase 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
16 APARTMENT UNITS & 76 STACKED TOWN
PARCELS C-1 & K-1

TAX MAP: 50 BLOCK: 10
5TH ELECTION DISTRICT

ZONED: TOD
HOWARD COUNTY, MARYLAND
PARCEL 384

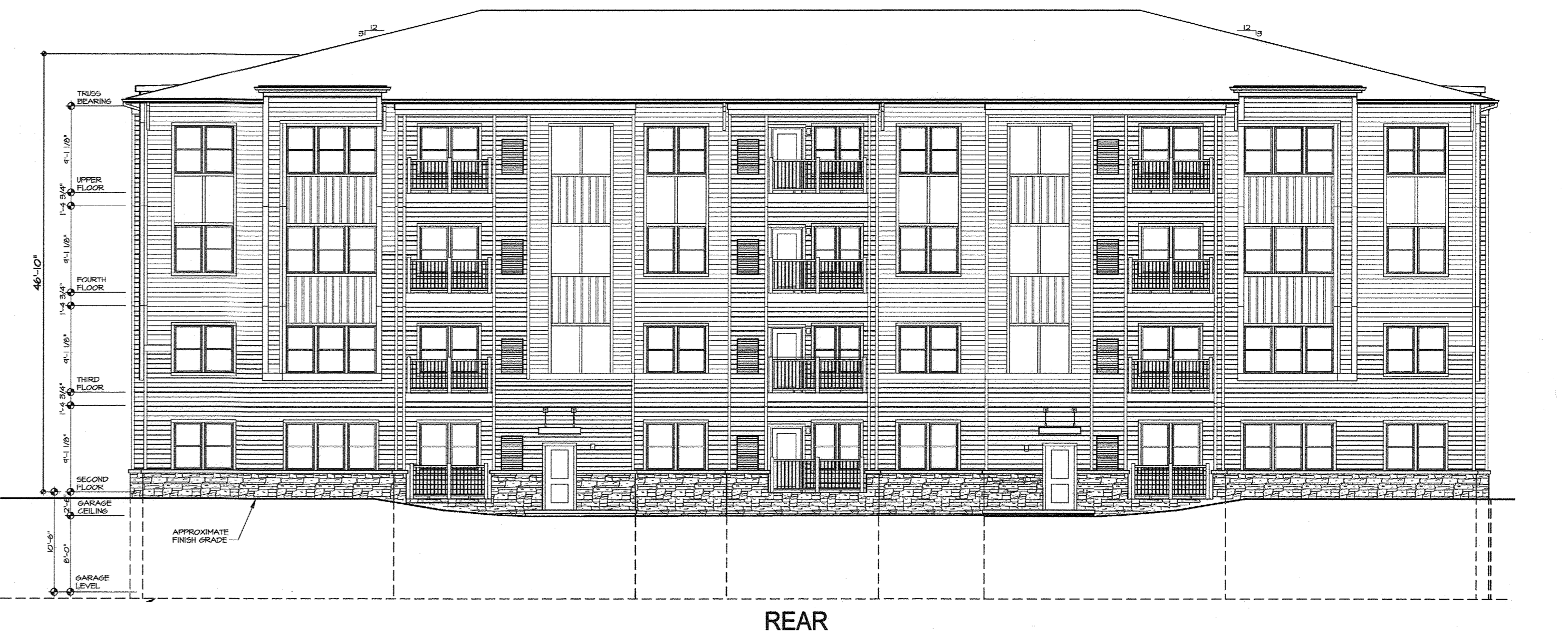
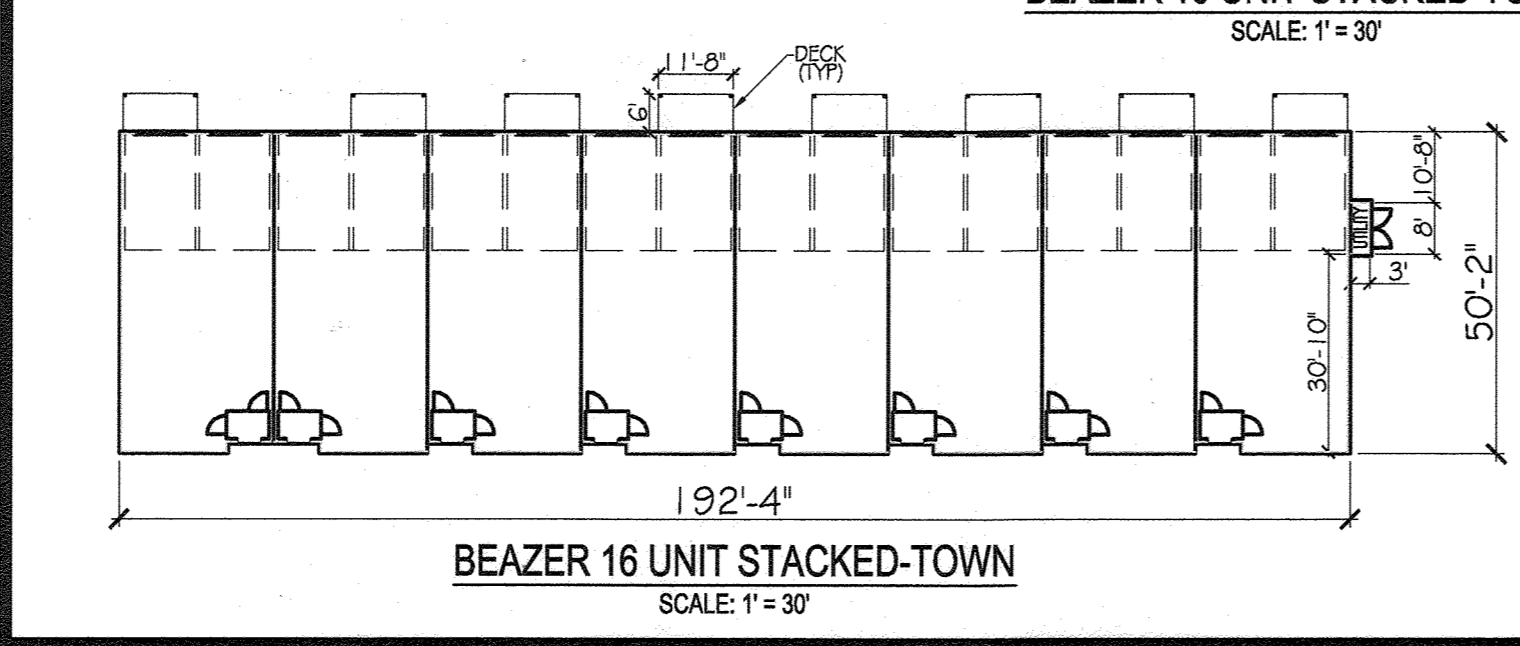
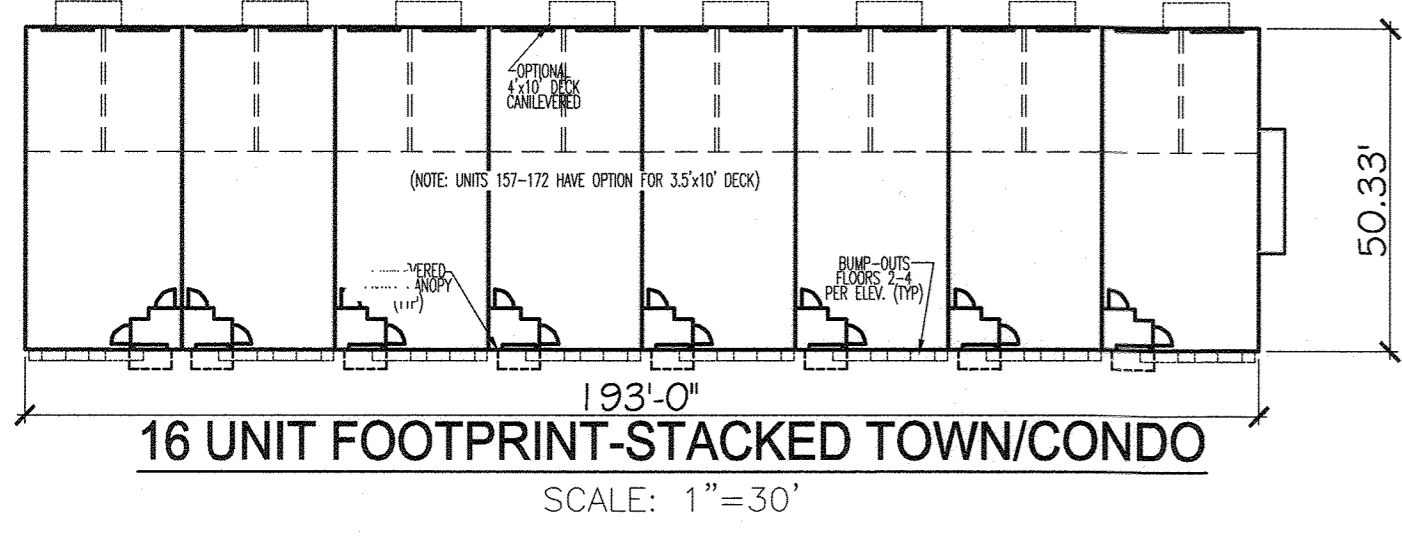
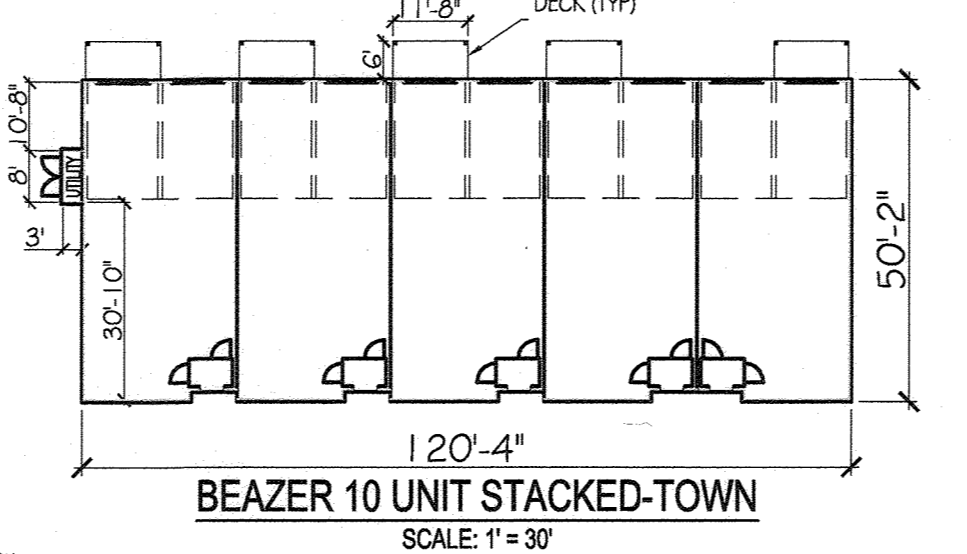
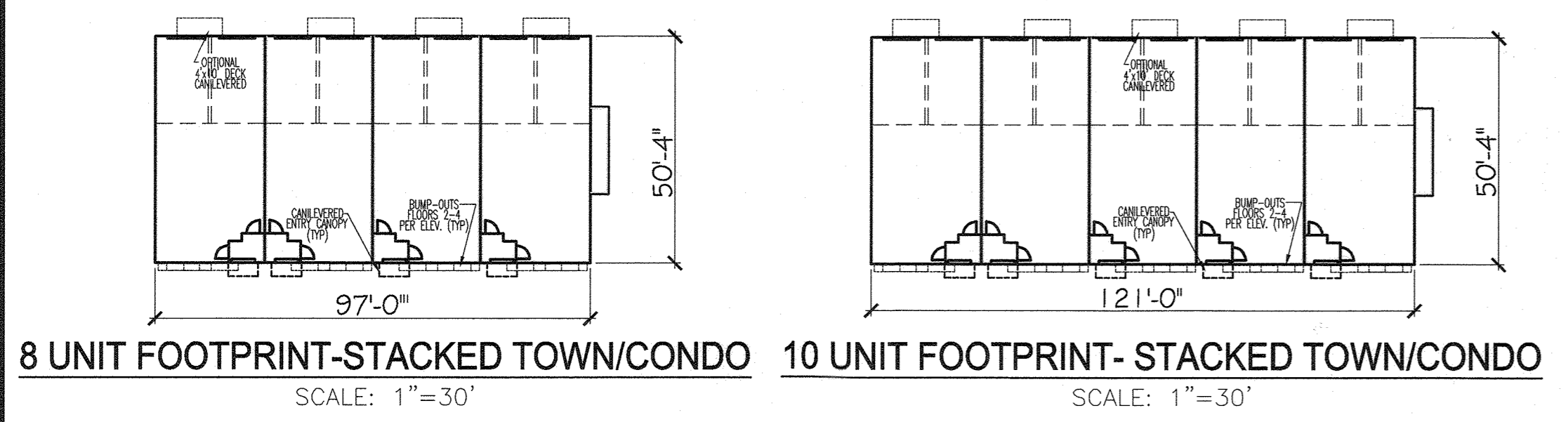
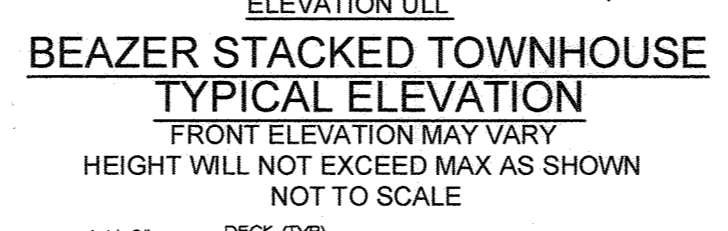
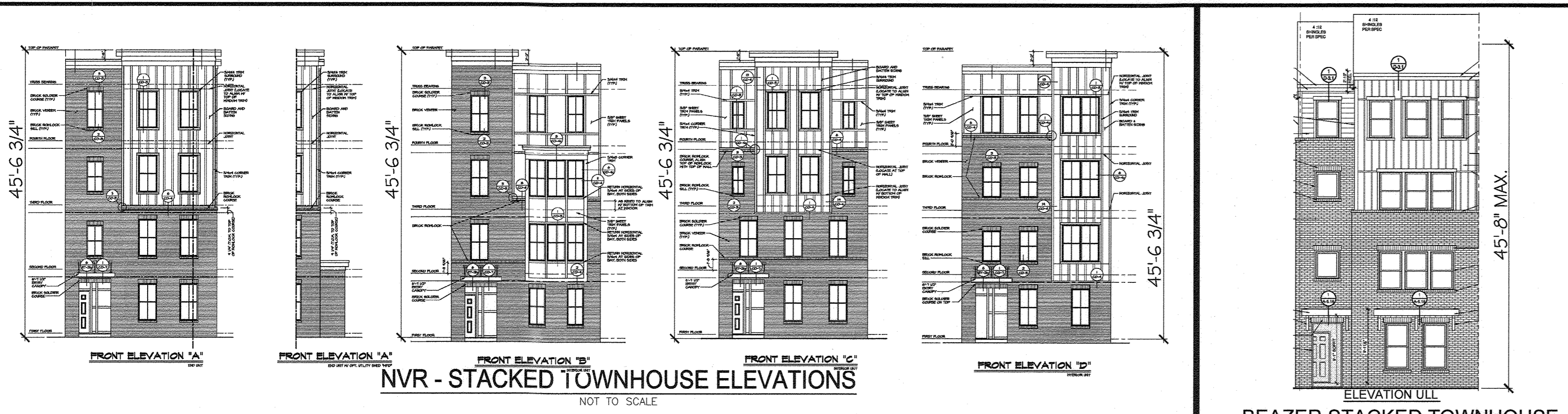
VOGEL ENGINEERING
TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

DESIGN BY: DZE/RHV
DRAWN BY: DZE/KG/MP
CHECKED BY: RHV
DATE: JUNE 2022
SCALE: AS SHOWN
W.O. NO.: 07-11/40111

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2022

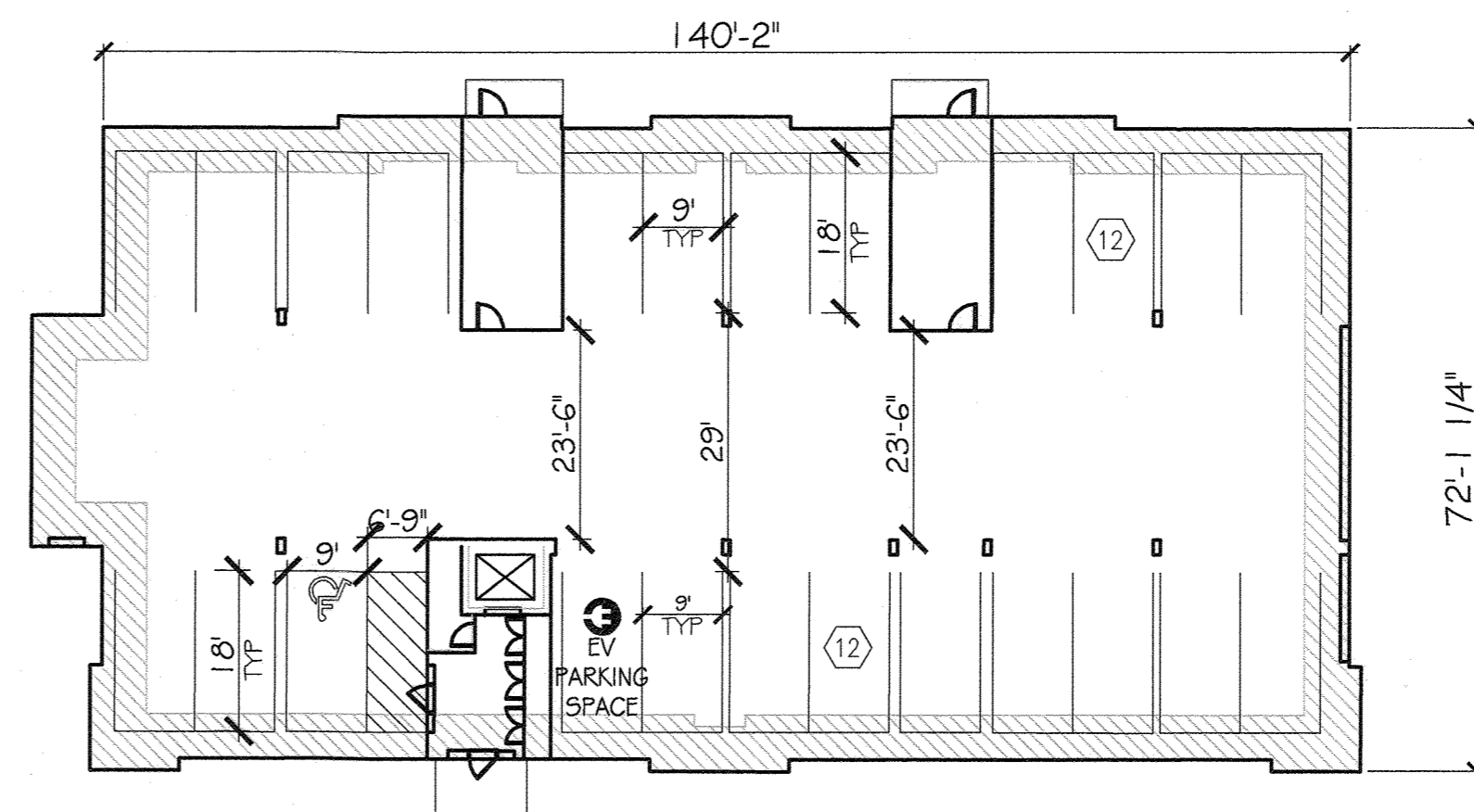
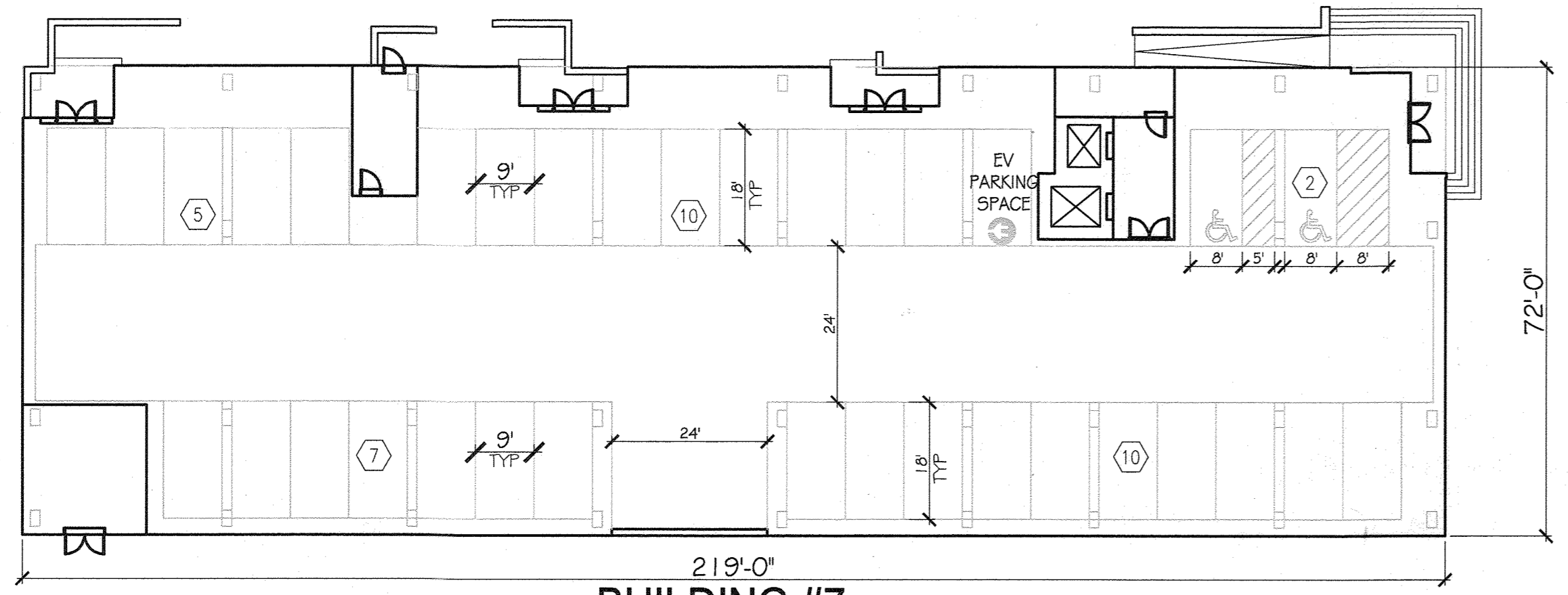
6 SHEET OF 34



BUILDING #8 & #9 (ELEVATION)
NOT TO SCALE



BUILDING #7 FRONT ELEVATION
NOT TO SCALE



BUILDING #8 & #9 FOOTPRINT
10,290 SF (FOOTPRINT)
BUILDING #8 FF=192.10
BUILDING #9 FF=197.60
24 GARAGE SPACES
SCALE: 1"=20'

PARCEL C-5 OWNER BEAZER HOMES, LLC. 6085 MARSHALLEE DRIVE, SUITE 350 198 LAUREL RACE TRACK RD ELKBRIDGE, MD 21075 443-530-9249

OWNER TRIPLE BELL FARMS, LLC. 20006 DELAWARE, INC. 198 LAUREL RACE TRACK RD LAUREL, MD 20725 (301) 470-5494

OWNER/DEVELOPER 20006 DELAWARE, INC. 198 LAUREL RACE TRACK RD LAUREL, MD 20725 (301) 470-5494

NO.	REVISION	DATE
1	REVISE PLAN FOR BUILDING ARCHITECTURE (UNITS 157-171 & 223-232); AND REVISE WAS HOUSE CONNECTIONS	11/30/23

REVISED SITE DEVELOPMENT PLAN

BUILDING ELEVATIONS GARAGE LAYOUTS

Paddock Pointe - Phase 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
76 APARTMENT UNITS AND 76 STACKED TOWN PARCELS C-5 & K-2

TAX MAP: 50 BLOCK: 10
6TH ELECTION DISTRICT

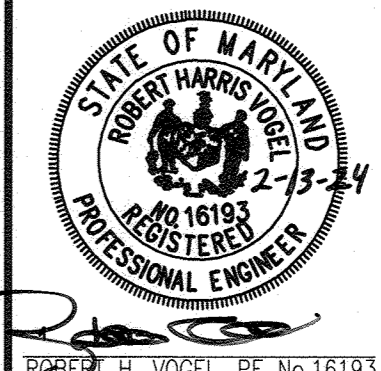
ZONED: TOD

PARCEL 384
HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com



PROFESSIONAL CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2024

DESIGN BY: DZE/RHV
DRAWN BY: DZE/MP/KG/JR
CHECKED BY: RHV
DATE: FEB. 2024
SCALE: AS SHOWN
W.O. NO.: 07-11/40111

7 OF 34

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 2/29/24
CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 3/7/24
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 3/7/24
DIRECTOR

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- +40.58 EXISTING SPOT ELEVATION
- +42.89 EXISTING CURB AND GUTTER
- EXISTING LIGHT POLE
- EXISTING UTILITY POLE
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- EXISTING TREELINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- EXISTING STREAM
- EXISTING STREAM BUFFER
- EX. WETLAND BUFFER
- EX. LIMIT OF WETLAND
- EX. TREES
- PUBLIC 100 YR FLOODPLAIN
- SUPER SILT FENCE
- SILT FENCE
- LIMIT OF DISTURBANCE
- CURB INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- EARTH DIKE / CLEAN WATER DIVERSION DIKE
- EX. PUBLIC SEWER, WATER AND UTILITY EASEMENT PLAT 25206-25217
- BAFFLE
- GABION PROTECTION
- REMOVABLE PUMP STATION
- EX. FOREST CONSERVATION EASEMENT (RETENTION) PLAT 25206-17
- DRAINAGE DIVIDE

SEDIMENT CONTROL NOTES:

1. SEDIMENT CONTROLS INTERRUPTED BY INSTALLATION OF UTILITY LINES ARE TO BE REPAIRED IMMEDIATELY.
2. MANHOLE COVERS NOT TO BE LOCATED IN CURB OR GUTTER PAN.
3. LOCATE STOCKPILES AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED. SEE STABILIZATION SPECS.
4. SILT FENCE SHALL BE CURVED UPHILL AT 35 FT. INTERVALS WHEREVER IT RUNS DOWNHILL.
5. SILT FENCE IS TO BE REPLACED WITH SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
6. DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
7. EITHER TEMPORARY OR PERMANENT SEEDING AND STABILIZATION IS TO BE PERFORMED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR AT THE INTERVALS PROVIDED IN THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, WHICHEVER IS MORE STRINGENT.
8. EARTH BERMS ARE TO BE CONVERTED TO MACADAM BERMS AS NEEDED OR DIRECTED BY THE CID INSPECTOR.

EXISTING UTILITIES NOTE:
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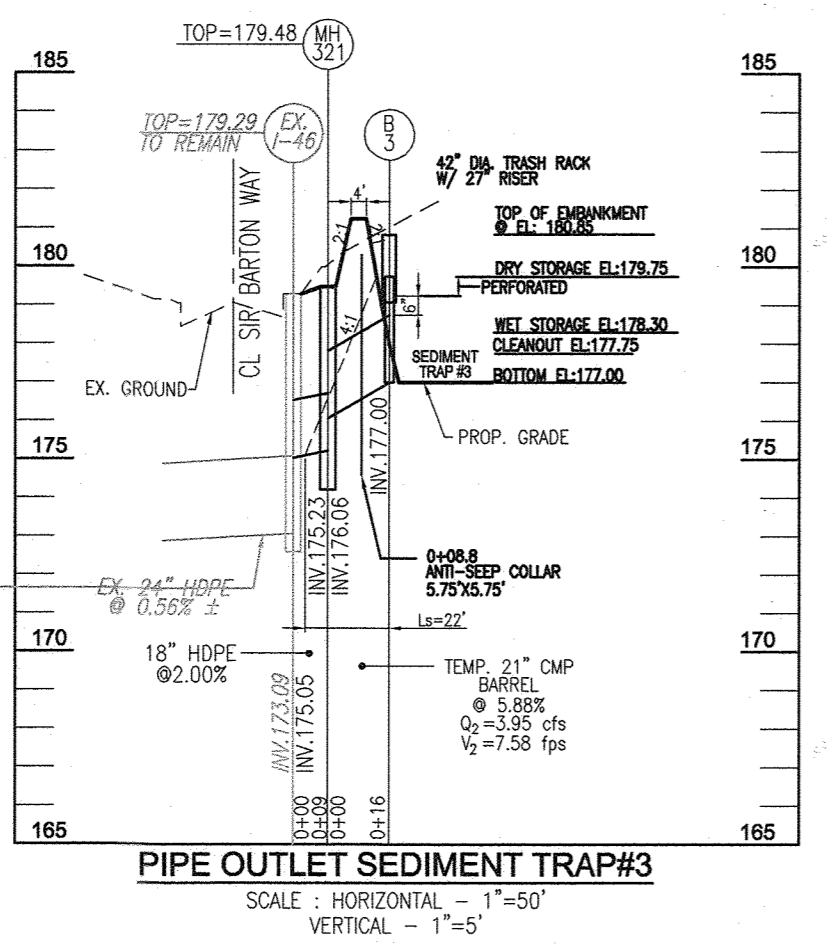
CONTRACTOR SHALL TEST PIT TO VERIFY EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES. TO MAINTAIN UNINTERRUPTED SERVICE AND TO PROVIDE REQUIRED CLEARANCES FOR ALL PROPOSED UTILITIES. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.

SOILS LEGEND
HOWARD COUNTY SOILS MAP #28

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE	HYDRO
EAC	EVESBORO LOAMY SAND, 2 TO 10 PERCENT SLOPES	A	0.49	YES	NO
Fs	FALLSTON SANDY LOAM, 0 TO 2 PERCENT SLOPES	D	0.24	NO	YES
RUSSET	RUSSETT AND BELLEVILLE SOILS, 2 TO 5 PERCENT SLOPES	C	0.43	YES	NO
UHB	UORIENTS, LOAMY, 0 TO 5 PERCENT SLOPES	C	0.24	NO	NO
UHD	URBAN LAND-UORIENTS COMPLEX, 0 TO 15 PERCENT SLOPES	D	0.28	NO	NO

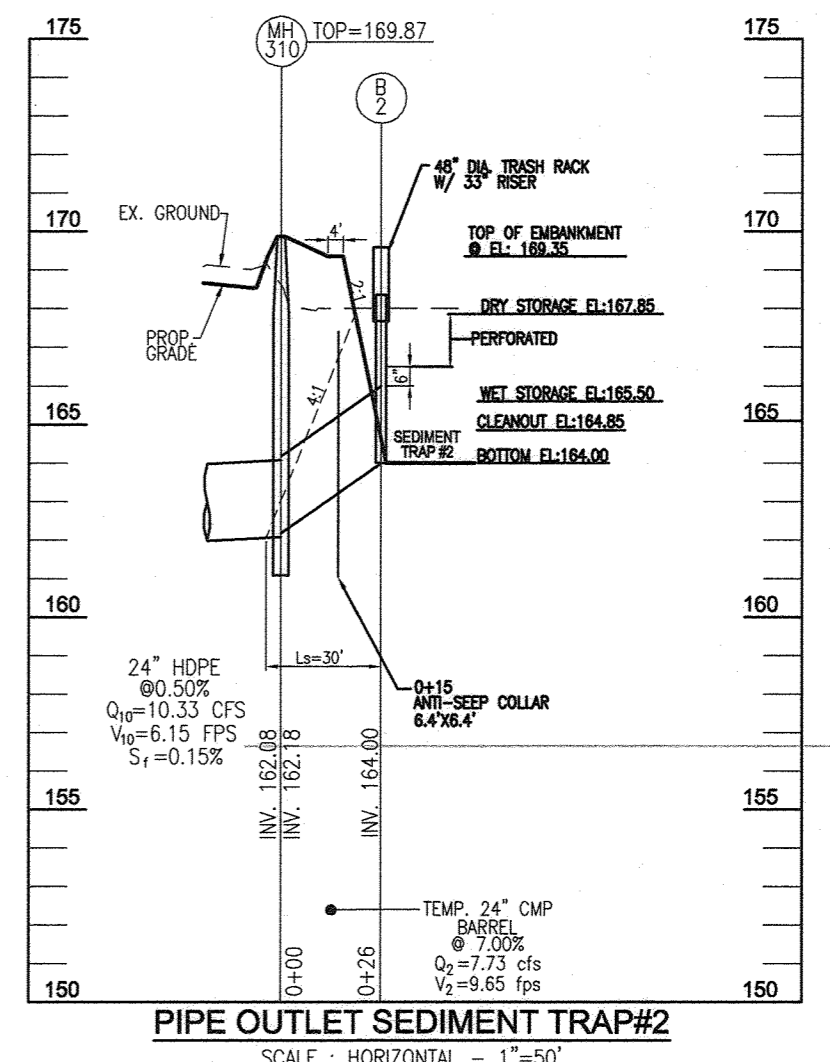
SOILS NOTE:
HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

NOTE:
1. ACCELERATED STABILIZATION MAY BE REQUIRED BY THE APPROVAL AUTHORITY.



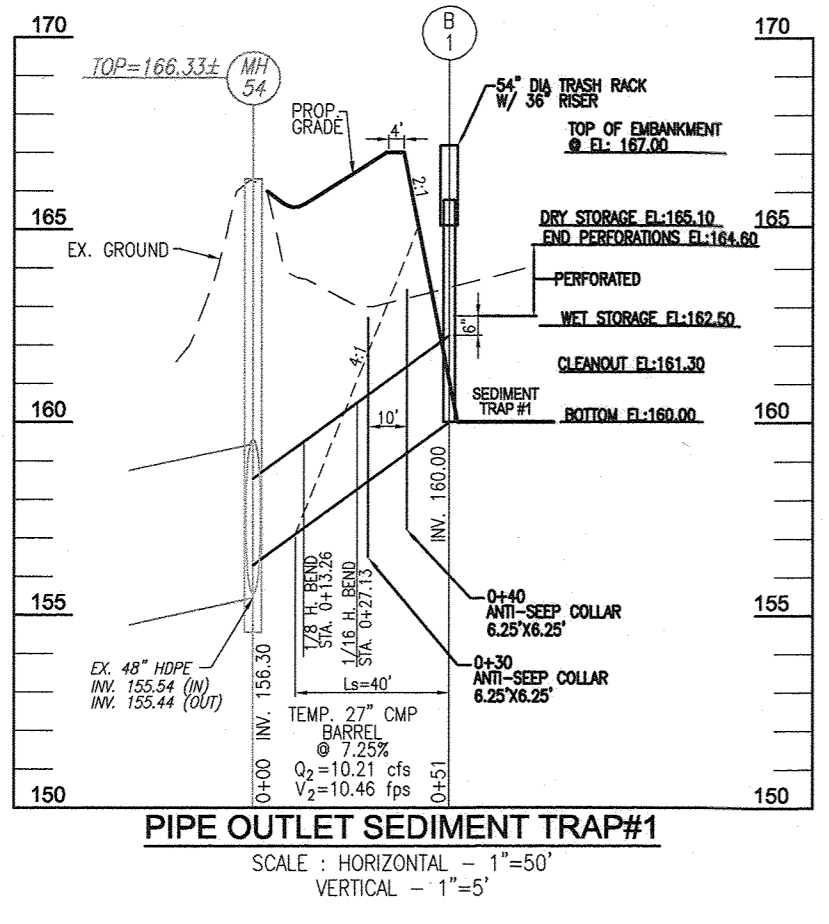
SEDIMENT TRAP #3
PIPE OUTLET (ST-1)

DRAINAGE AREA - INITIAL	=	1.62 AC
DRAINAGE AREA - FINAL	=	1.62 AC
TOTAL STORAGE REQUIRED	=	5,832 CF
WET STORAGE REQUIRED	=	2,916 CF
DRY STORAGE REQUIRED	=	2,916 CF
TOTAL STORAGE PROVIDED	=	2,954 CF
WET STORAGE PROVIDED	=	1,477 CF
DRY STORAGE PROVIDED	=	1,477 CF
BOTTOM OF TRAP EL.	=	177.00
BOTTOM TRAP DIM.	=	APPROX. 35.5'x57' (SEE PLAN)
RISER CREST/DRY STORAGE EL.	=	177.75
CLEANOUT EL.	=	177.75
TOP OF EMBANKMENT	=	181.25
EMBANKMENT TOP WIDTH	=	21
PRINCIPAL SPILLWAY MATERIAL	=	CMP
RISER DIAMETER	=	27 IN
BARREL DIAMETER	=	21 IN
TRASH RACK DIAMETER	=	21 IN
TRASH RACK HEIGHT	=	21 IN
ANTI-SEEP COLLAR DIMENSIONS	=	(1) 5.75'x5.75'
OUTLET PROTECTION LENGTH	=	N/A - CONNECT TO EX. H-146
OUTLET PROTECTION WIDTH/DEPTH	=	N/A - CONNECT TO EX. H-146



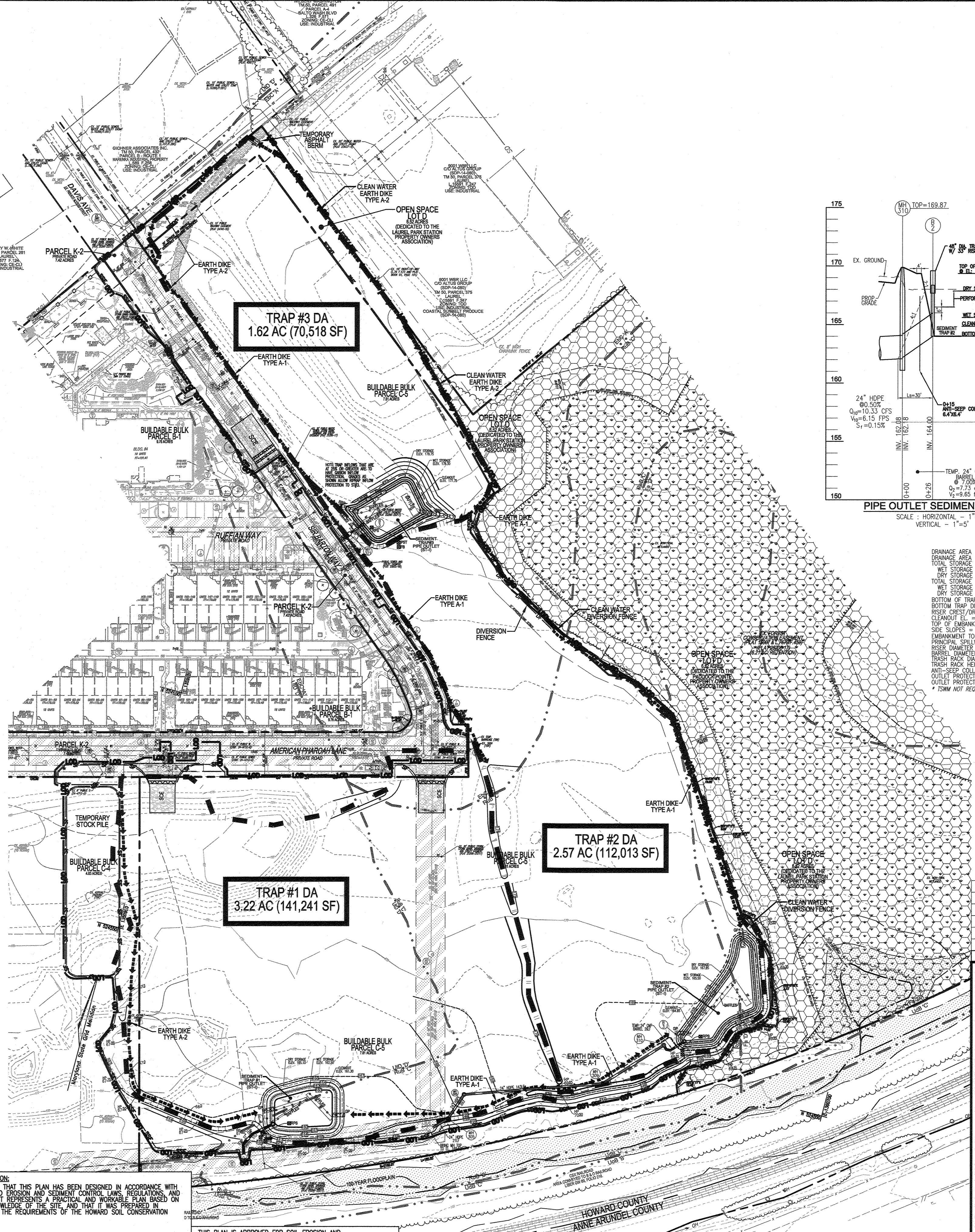
SEDIMENT TRAP #2
PIPE OUTLET (ST-1)

DRAINAGE AREA - INITIAL	=	2.57 AC
DRAINAGE AREA - FINAL	=	2.57 AC
TOTAL STORAGE REQUIRED	=	9,267 CF
WET STORAGE REQUIRED	=	4,634 CF
DRY STORAGE REQUIRED	=	4,634 CF
TOTAL STORAGE PROVIDED	=	14,070 CF
WET STORAGE PROVIDED	=	7,035 CF
DRY STORAGE PROVIDED	=	7,035 CF
BOTTOM OF TRAP EL.	=	164.00
BOTTOM TRAP DIM.	=	APPROX. 115'x37' (SEE PLAN)
RISER CREST/DRY STORAGE EL.	=	167.85
CLEANOUT EL.	=	167.85
TOP OF EMBANKMENT	=	169.35
EMBANKMENT TOP WIDTH	=	4
PRINCIPAL SPILLWAY MATERIAL	=	CMP
RISER DIAMETER	=	33 IN
BARREL DIAMETER	=	27 IN
TRASH RACK DIAMETER	=	27 IN
TRASH RACK HEIGHT	=	27 IN
ANTI-SEEP COLLAR DIMENSIONS	=	(1) 6.4'x4.8'
OUTLET PROTECTION LENGTH	=	N/A - ULTIMATELY CONNECTS TO EX. H-55
OUTLET PROTECTION WIDTH/DEPTH	=	N/A - ULTIMATELY CONNECTS TO EX. H-55



SEDIMENT TRAP #1
PIPE OUTLET (ST-1)

DRAINAGE AREA - INITIAL	=	3.22 AC
DRAINAGE AREA - FINAL	=	3.22 AC
TOTAL STORAGE REQUIRED	=	11,592 CF
WET STORAGE REQUIRED	=	5,796 CF
DRY STORAGE REQUIRED	=	5,796 CF
TOTAL STORAGE PROVIDED	=	15,386 CF
WET STORAGE PROVIDED	=	7,693 CF
DRY STORAGE PROVIDED	=	7,693 CF
BOTTOM OF TRAP EL.	=	180.00
BOTTOM TRAP DIM.	=	APPROX. 60'x35' (SEE PLAN)
RISER CREST/DRY STORAGE EL.	=	183.10
CLEANOUT EL.	=	183.10
TOP OF EMBANKMENT	=	187.00
EMBANKMENT TOP WIDTH	=	21
PRINCIPAL SPILLWAY MATERIAL	=	CMP
RISER DIAMETER	=	36 IN
BARREL DIAMETER	=	27 IN
TRASH RACK DIAMETER	=	27 IN
TRASH RACK HEIGHT	=	27 IN
ANTI-SEEP COLLAR DIMENSIONS	=	(2) 6.25'x6.25'
OUTLET PROTECTION LENGTH	=	N/A - CONNECT TO EX. H-54
OUTLET PROTECTION WIDTH/DEPTH	=	N/A - CONNECT TO EX. H-54



PARCEL C-5 OWNER	OWNER	OWNER/DEVELOPER
BEAZER HOMES, LLC. 6085 MARSHALLE DRIVE, SUITE 350 ELK RIDGE, MD 20725 443-539-9248	TRIPLE BELL FARMS, LLC. 198 LAUREL RACE TRACK RD LAUREL, MD 20725 (301) 470-5494	20006 DELAWARE, INC. 198 LAUREL RACE TRACK RD LAUREL, MD 20725 (301) 470-5494

NO.	REVISION	DATE
1	REVISE PLAN FOR BUILDING ARCHITECTURE (UNITS 157-171 & 223-232); AND REVISE WAS HOUSE CONNECTIONS	11/30/23

REVISED SITE DEVELOPMENT PLAN
INITIAL GRADING AND SEDIMENT CONTROL PLAN; TRAP DRAINAGE AREA MAP
PADDOCK POINTE - PHASE 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
76 APARTMENT UNITS AND 76 STACKED TOWNHOUSES
PARCELS C-5 & K-2
TAX MAP: 50 BLOCK: 10
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HOWARD COUNTY, MARYLAND
PARCEL 384

VOGEL ENGINEERING
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3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

DESIGN BY: DZE/RHV
DRAWN BY: DZE/MP/KS/UR
CHECKED BY: RHV
DATE: FEB. 2024
SCALE: AS SHOWN
W.O. NO.: 07-11/40111

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DUV LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2024

8 SHEET OF 34

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Chad Edwards 2-29-24
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 2/29/24

James Eschberg 3/7/24
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 3/7/24
DIRECTOR

OWNER/DEVELOPER CERTIFICATION:
I/WE CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

Blair A. Knauff 2/13/24
OWNER/DEVELOPER SIGNATURE
DATE: 2/13/24
PRINTED NAME & TITLE: BLAIR A. KNAUFF VP. LAND DEV.

DESIGNER CERTIFICATION:
I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, AND THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Robert H. Vogel 2-13-24
DESIGNER'S SIGNATURE
DATE: 2-13-24
PRINTED NAME: ROBERT H. VOGEL
MD REGISTRATION NO. 16193
R.L.S., OR R.L.A. (circle one)

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Alexander Butcher 02/26/24
HOWARD S.C.D. DATE: 02/26/24

PLAN VIEW
SCALE: 1"=60'

ALL STORM DRAINS AND STORMWATER MANAGEMENT FACILITIES INCLUDING FILTERRA AND MODULAR WETLAND TO BE PRIVATELY OWNED AND MAINTAINED.

ALL SIDEWALKS AND CURBS SHALL BE TRAFFIC BEARING WHEN SWM FACILITIES ARE ADJACENT

LEGEND:

	EXISTING CONTOUR		PUBLIC 100 YR FLOODPLAIN
	PROPOSED CONTOUR		SUPER SILT FENCE
	EXISTING SPOT ELEVATION		SILT FENCE
	EXISTING CURB AND GUTTER		LIMIT OF DISTURBANCE
	PROPOSED CURB AND GUTTER		CURB INLET PROTECTION
	EXISTING UTILITY POLE		STABILIZED CONSTRUCTION ENTRANCE
	EXISTING LIGHT POLE		EARTH DIKE / CLEAN WATER DIVERSION DIKE
	EXISTING MAILBOX		EX. PUBLIC SEWER, WATER AND UTILITY EASEMENT PLAT 25206-25217
	EXISTING SIGN		EX. FOREST CONSERVATION EASEMENT (RETENTION) PLAT 25206-17
	EXISTING SANITARY MANHOLE		
	EXISTING SANITARY LINE		
	EXISTING CLEANOUT		
	EXISTING FIRE HYDRANT		
	EXISTING WATER LINE		
	PROPOSED STORM DRAIN		
	PROPOSED STORM DRAIN INLET		
	EXISTING TREE LINE		
	EXISTING FENCE		
	PROPERTY LINE		
	RIGHT-OF-WAY LINE		
	SOILS BOUNDARY		
	EXISTING STREAM		
	EXISTING STREAM BUFFER		
	EX. WETLAND BUFFER		
	EX. LIMIT OF WETLAND		
	PROPOSED STREET LIGHT		
	PROPOSED SIDEWALK		
	PROPOSED STREET SIGN		
	DEAD END BARRICADE		
	STREET TREES		
	EROSION CONTROL MATTING (1.50L/71.2)		
	EX. TREES		
	PUBLIC WATER AND UTILITY EASEMENT PLAT 22955-58 PLAT 26535-43		
	UNMITIGATED 50db NOISE CONTOUR FROM CSX RAILROAD		

- #### SEDIMENT CONTROL NOTES:
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NO.	REVISION	DATE
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GRADING AND SOIL EROSION AND SEDIMENT CONTROL PLAN; SOILS PLAN

PADDOCK POINTE - PHASE 3
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TAX MAP: 50 BLOCK: 10
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ZONED: TOD

PARCEL 384
HOWARD COUNTY, MARYLAND

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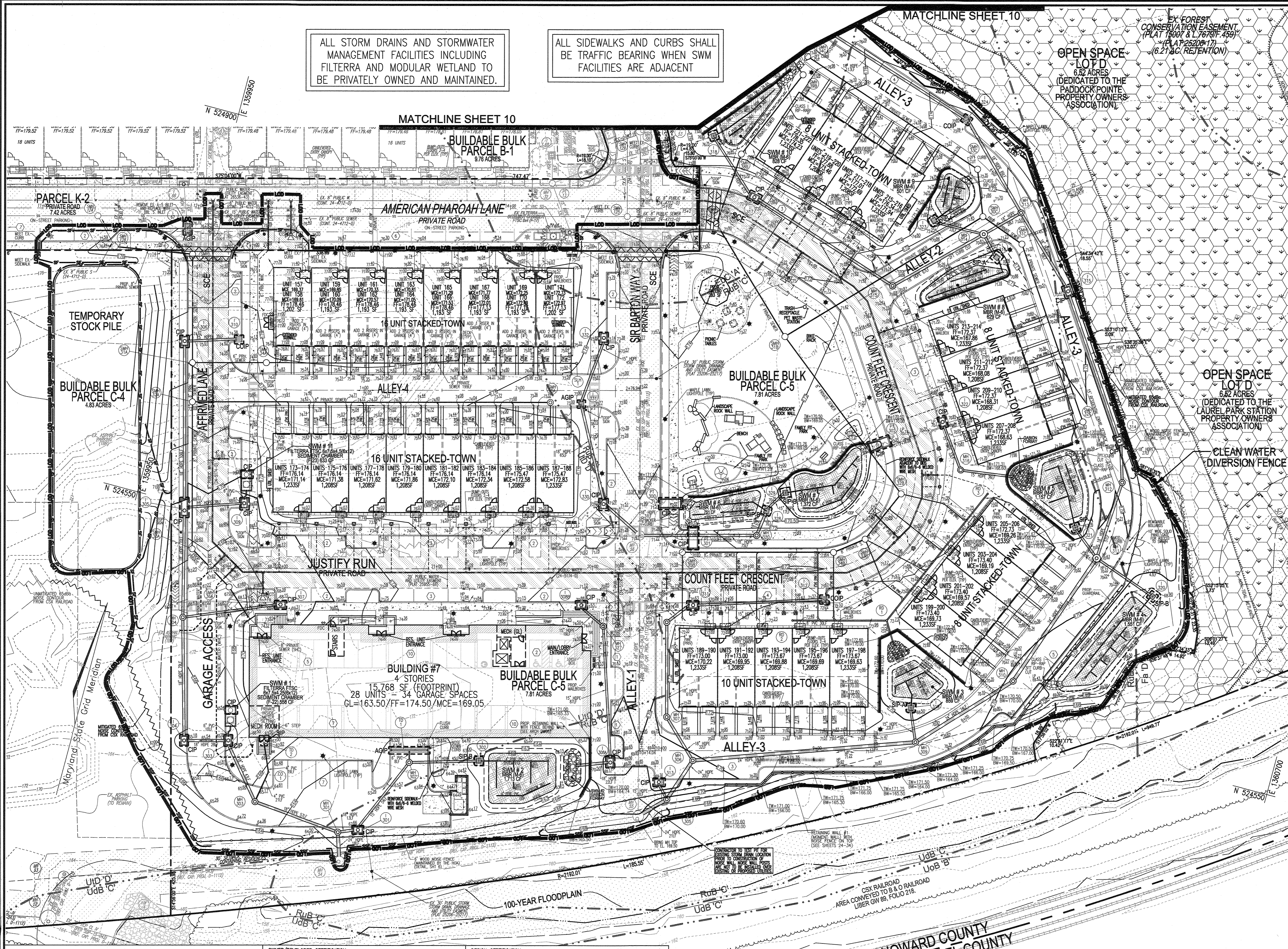
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P: 410.461.7656 F: 410.461.8961 www.timmons.com

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DESIGN BY: DZE/RHV
DRAWN BY: DZE/MP/KS/JR
CHECKED BY: RHV
DATE: FEB. 2024
SCALE: AS SHOWN
W.O. NO.: 07-11/40111

9 OF 34



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad P. ... 2-29-24
CHIEF, DEVELOPMENT ENGINEERING DIVISION

... 3/1/24
CHIEF, DIVISION OF LAND DEVELOPMENT

... 3/1/24
DIRECTOR

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Baron A. Knapp 2/15/24
OWNER/DEVELOPER SIGNATURE
PRINTED NAME & TITLE

DESIGN CERTIFICATION:
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Robert H. Vogel 2-13-24
DESIGNER'S SIGNATURE
PRINTED NAME
DATE

MD REGISTRATION NO. 16193
R.L.S., OR R.L.A. (circle one)

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Alexander Butcher 02/24/24
HOWARD S.C.D. DATE

PLAN VIEW
SCALE: 1"=30'

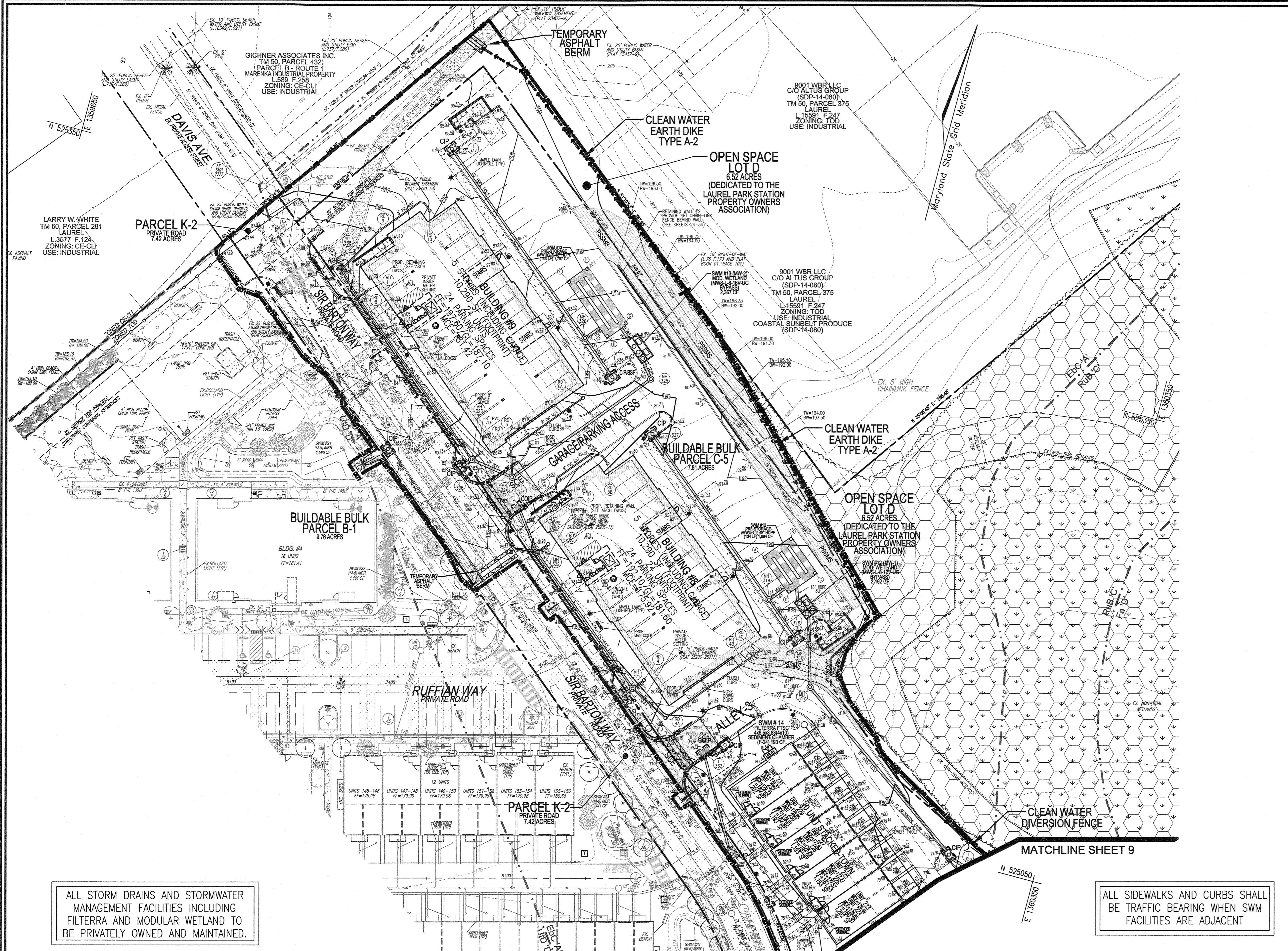
SCALE 1"=30'
15' 0' 30'

SOILS LEGEND

HOWARD COUNTY SOILS MAP #28

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE	HYDRO
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UDB	URBAN LAND-UDORHENTS COMPLEX, 0 TO 15 PERCENT SLOPES	D	0.28	NO	NO

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LEGEND:

	EXISTING CONTOUR		EX. FOREST CONSERVATION EASEMENT (RETENTION) PLAT 25206-17
	PROPOSED CONTOUR		SUPER SILT FENCE
	EXISTING SPOT ELEVATION		SILT FENCE
	EXISTING CURB AND GUTTER		LIMIT OF DISTURBANCE
	PROPOSED CURB AND GUTTER		CURB INLET PROTECTION
	EXISTING UTILITY POLE		STABILIZED CONSTRUCTION ENTRANCE
	EXISTING LIGHT POLE		EARTH DIKE / CLEAN WATER DIVERSION DIKE
	EXISTING MAILBOX		EX. PUBLIC SEWER, WATER AND UTILITY EASEMENT PLAT 25206-25217
	EXISTING SIGN		EXISTING TREE LINE
	EXISTING SANITARY MANHOLE		EXISTING FENCE
	EXISTING SANITARY LINE		PROPERTY LINE
	EXISTING CLEANOUT		RIGHT-OF-WAY LINE
	EXISTING FIRE HYDRANT		SOILS BOUNDARY
	EXISTING WATER LINE		EXISTING STREAM
	PROPOSED STORM DRAIN		EXISTING STREAM BUFFER
	EXISTING TREE LINE		EX. WETLAND BUFFER
	EXISTING FENCE		EX. LIMIT OF WETLAND
	PROPERTY LINE		PROPOSED STREET LIGHT
	RIGHT-OF-WAY LINE		PROPOSED SIDEWALK
	SOILS BOUNDARY		PROPOSED STREET SIGN
	EXISTING STREAM		DEAD END BARRICADE
	EXISTING STREAM BUFFER		STREET TREES
	EX. WETLAND BUFFER		EROSION CONTROL MATTING (1.50L/FT ²)
	EX. LIMIT OF WETLAND		PROPOSED STREET SIGN
	PROPOSED STREET LIGHT		DEAD END BARRICADE
	PROPOSED SIDEWALK		STREET TREES
	PROPOSED STREET SIGN		EX. TREES
	DEAD END BARRICADE		PUBLIC SEWER AND UTILITY EASEMENT PLAT 25206-58
	STREET TREES		
	EROSION CONTROL MATTING (1.50L/FT ²)		
	PROPOSED STREET SIGN		
	DEAD END BARRICADE		
	STREET TREES		
	EX. TREES		
	PUBLIC SEWER AND UTILITY EASEMENT PLAT 25206-58		

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- LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED. SEE STABILIZATION SPECS.
- SILT FENCE SHALL BE CURBED UPHILL AT 35 FT. INTERVALS WHEREVER IT RUNS DOWNHILL.
- SILT FENCE IS TO BE REPLACED WITH SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
- DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
- EITHER TEMPORARY OR PERMANENT SEEDING AND STABILIZATION IS TO BE PERFORMED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR AT THE INTERVALS PROVIDED IN THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, WHICHEVER IS MORE STRINGENT.
- EARTH BERMS ARE TO BE CONVERTED TO MACADAM BERMS AS NEEDED OR DIRECTED BY THE CID INSPECTOR.

EXISTING UTILITIES NOTE:

EXISTING UTILITIES SHOWN ON THESE PLANS HAVE BEEN LOCATED FROM EXISTING SITE DEVELOPMENT PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER EXTENSION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION ONLY.

CONTRACTOR SHALL TEST PIT TO VERIFY EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES. TO MAINTAIN UNINTERRUPTED SERVICE AND TO PROVIDE REQUIRED CLEARANCES FOR ALL PROPOSED UTILITIES ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.

PARCEL C-5 OWNER	OWNER	OWNER/DEVELOPER
BEAZER HOMES, LLC 6085 MARSHALLEE DRIVE, SUITE 350 ELKRIEVE, MD 21075 443-539-9249	TRIPLE BELL FARMS, LLC 198 LAUREL RACE TRACK RD LAUREL, MD 20725 (301) 470-5494	20006 DELAWARE, INC. 198 LAUREL RACE TRACK RD LAUREL, MD 20725 (301) 470-5494

NO.	REVISION	DATE
1	REVISE PLAN FOR BUILDING ARCHITECTURE (UNITS 157-171 & 223-232); AND WATER AND SEWER EXTENSION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION ONLY.	11/30/23
	REVISE W&S HOUSE CONNECTIONS	

REVISED SITE DEVELOPMENT PLAN
GRADING AND SOIL EROSION AND SEDIMENT CONTROL PLAN; SOILS PLAN
PADDOCK POINTE - PHASE 3
 (FORMERLY KNOWN AS LAUREL PARK STATION)
 76 APARTMENT UNITS AND 76 STACKED TOWN HOUSE UNITS ON PARCELS C-1, C-2, C-3, C-4, C-5, C-6, C-7, C-8, C-9, C-10, C-11, C-12, C-13, C-14, C-15, C-16, C-17, C-18, C-19, C-20, C-21, C-22, C-23, C-24, C-25, C-26, C-27, C-28, C-29, C-30, C-31, C-32, C-33, C-34, C-35, C-36, C-37, C-38, C-39, C-40, C-41, C-42, C-43, C-44, C-45, C-46, C-47, C-48, C-49, C-50, C-51, C-52, C-53, C-54, C-55, C-56, C-57, C-58, C-59, C-60, C-61, C-62, C-63, C-64, C-65, C-66, C-67, C-68, C-69, C-70, C-71, C-72, C-73, C-74, C-75, C-76, C-77, C-78, C-79, C-80, C-81, C-82, C-83, C-84, C-85, C-86, C-87, C-88, C-89, C-90, C-91, C-92, C-93, C-94, C-95, C-96, C-97, C-98, C-99, C-100

TAX MAP: 50 BLOCK: 10
 6TH ELECTION DISTRICT

ZONED: TOD
 PARCEL 384
 HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8951 www.timmons.com

DESIGN BY: DZE/RHV
 DRAWN BY: DZE/MP/KG/JR
 CHECKED BY: RHV
 DATE: FEB. 2024
 SCALE: AS SHOWN
 W.O. NO.: 07-11/40111

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2024

ROBERT H. VOGEL, PE No. 16193

10 SHEET OF 34

ALL STORM DRAINS AND STORMWATER MANAGEMENT FACILITIES INCLUDING FILTERRA AND MODULAR WETLAND TO BE PRIVATELY OWNED AND MAINTAINED.

ALL SIDEWALKS AND CURBS SHALL BE TRAFFIC BEARING WHEN SWM FACILITIES ARE ADJACENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 2-29-24

CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 3/7/24

DIRECTOR
 DATE: 3/7/24

OWNER/DEVELOPER CERTIFICATION:
 I/WE CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

OWNER/DEVELOPER SIGNATURE
 B. A. KOWALSKI
 DATE: 2/13/24

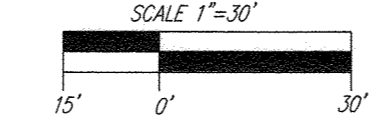
DESIGN CERTIFICATION:
 I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT I REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT I WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

DESIGNER'S SIGNATURE
 ROBERT H. VOGEL
 DATE: 2-13-24

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD S.C.D.
 DATE: 02/24/24

PLAN VIEW
 SCALE: 1"=30'



SOILS LEGEND

HOWARD COUNTY SOILS MAP #28

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE	HYDRO
EBC	EYESBORD LOAMY SAND, 2 TO 10 PERCENT SLOPES	A	0.49	YES	NO
F9	FALLSINGTON SANDY LOAM, 0 TO 2 PERCENT SLOPES	D	0.24	NO	YES
RUB	RUSSETT AND BELTSVILLE SOILS, 2 TO 8 PERCENT SLOPES	C	0.43	YES	NO
LUB	LEWISBOROUGH, LOMY, 0 TO 5 PERCENT SLOPES	C	0.24	NO	NO
LUD	LEWISBOROUGH, LUDOROTHENS COMPLEX, 0 TO 15 PERCENT SLOPES	D	0.28	NO	NO

SOILS NOTE:
 HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS

DEFINITION: THE PREPARATION OF SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION. PURPOSE: TO PREPARE DISTURBED SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION. CRITERIA: 1. TEMPORARY STABILIZATION... 2. PERMANENT STABILIZATION... 3. TOPSOILING... 4. SOIL AMENDMENTS...

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

DEFINITION: THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER. PURPOSE: TO PREPARE DISTURBED SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION. CRITERIA: 1. SEEDING... 2. MULCHING... 3. SEEDING AND MULCHING...

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

DEFINITION: TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS. PURPOSE: TO PREPARE DISTURBED SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION. CRITERIA: 1. SEEDING... 2. MULCHING... 3. SEEDING AND MULCHING...

TEMPORARY SEEDING SUMMARY table with columns: NO, SPECIES, APPLICATION RATE (LB/AC), SEEDING DATES, SEEDING DEPTHS, FELLER RATE (10-20-20), and LIME RATE.

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION. DEFINITION: TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR MORE THAN 6 MONTHS. PURPOSE: TO PREPARE DISTURBED SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION. CRITERIA: 1. SEEDING... 2. MULCHING... 3. SEEDING AND MULCHING...

HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

1. A PRE-CONSTRUCTION MEETING SHALL OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS... 2. THE CONSTRUCTION INSPECTOR SHALL BE PRESENT... 3. THE CONSTRUCTION INSPECTOR SHALL BE PRESENT...

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

DEFINITION: A STOCKPILE AREA IS AN AREA WHERE MATERIAL IS STORED FOR A PERIOD OF TIME. PURPOSE: TO PREPARE DISTURBED SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION. CRITERIA: 1. STOCKPILE AREA... 2. STOCKPILE AREA... 3. STOCKPILE AREA...

PERMANENT SEEDING SUMMARY

PERMANENT SEEDING SUMMARY table with columns: NO, SPECIES, APPLICATION RATE (LB/AC), SEEDING DATES, SEEDING DEPTHS, FELLER RATE (10-20-20), and LIME RATE.

STANDARDS AND SPECIFICATIONS FOR DUST CONTROL

DEFINITION: CONTROLLING THE SUSPENSION OF DUST PARTICLES FROM CONSTRUCTION ACTIVITIES. PURPOSE: TO PREPARE DISTURBED SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION. CRITERIA: 1. DUST CONTROL... 2. DUST CONTROL... 3. DUST CONTROL...

SEEDMENT CONTROL NOTES:

1. SEEDMENT CONTROL INTERRUPTED BY INSTALLATION OF UTILITY LINES ARE TO BE REPAIRED IMMEDIATELY. 2. MANHOLE COVERS NOT TO BE LOCATED IN CURB OR CUTTER PAN. 3. LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEEDMENT CONTROL INSPECTOR...

SEEDMENT CONTROL NOTES:

1. DURING GRADING AND AFTER EACH RAINFALL, CONTRACTOR WILL INSPECT AND PROVIDE NECESSARY MAINTENANCE TO THE SEDIMENT CONTROL MEASURES ON THIS PLAN. 2. MANHOLE COVERS NOT TO BE LOCATED IN CURB OR CUTTER PAN. 3. LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEEDMENT CONTROL INSPECTOR...

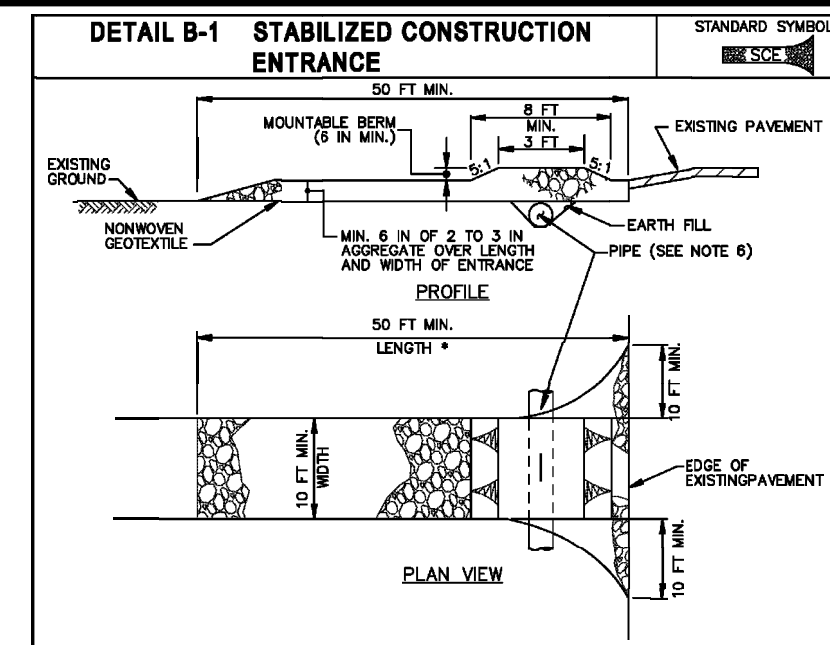
Table with columns: Plant Species, Seeding Rate, Seeding Depth, Recommended Seeding Rates by Plant Hardiness Zone, and Fertilizer Rate.

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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. Chief, Development Engineering Division. Chief, Division of Land Development. Director.

OWNER/DEVELOPER CERTIFICATION. I HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT PROJECT... DESIGNER'S SIGNATURE: ROBERT H. VOGEL.

SEEDMENT CONTROL NOTES: 1. DURING GRADING AND AFTER EACH RAINFALL, CONTRACTOR WILL INSPECT AND PROVIDE NECESSARY MAINTENANCE TO THE SEDIMENT CONTROL MEASURES ON THIS PLAN. 2. MANHOLE COVERS NOT TO BE LOCATED IN CURB OR CUTTER PAN...



CONSTRUCTION SPECIFICATIONS: 1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. 2. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. 3. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN...

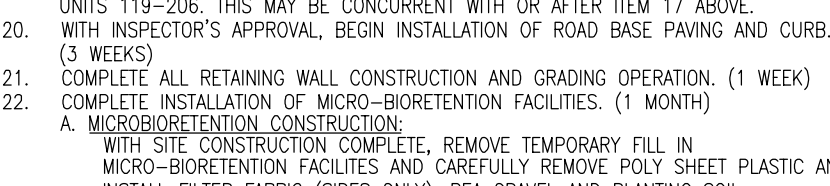
Table with columns: Maryland Standards and Specifications for Soil Erosion and Sediment Control, and Maryland Department of Environment.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT (1 DAY). 2. DEVELOPER/CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION MEETING WITH THE SEDIMENT CONTROL INSPECTOR PRIOR TO ANY LAND DISTURBANCE. 3. OBTAIN PERMIT TO EXCAVATE AND/OR CONSTRUCT FROM THE COUNTY DIVISION...

PHASE 1 - INITIAL AND INTERMEDIATE CONSTRUCTION PHASE. 1. INSTALL STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTAIN BERM (1 DAY). 2. CLEAR AND GRUB FOR THE INSTALLATION OF ALL PERMITTER CONTROLS. 3. DAY 1: INSTALL PERMETER FENCE USED AS A MINIMUM OF 2 INCHES ABOVE THE NOTCH ELEVATION...

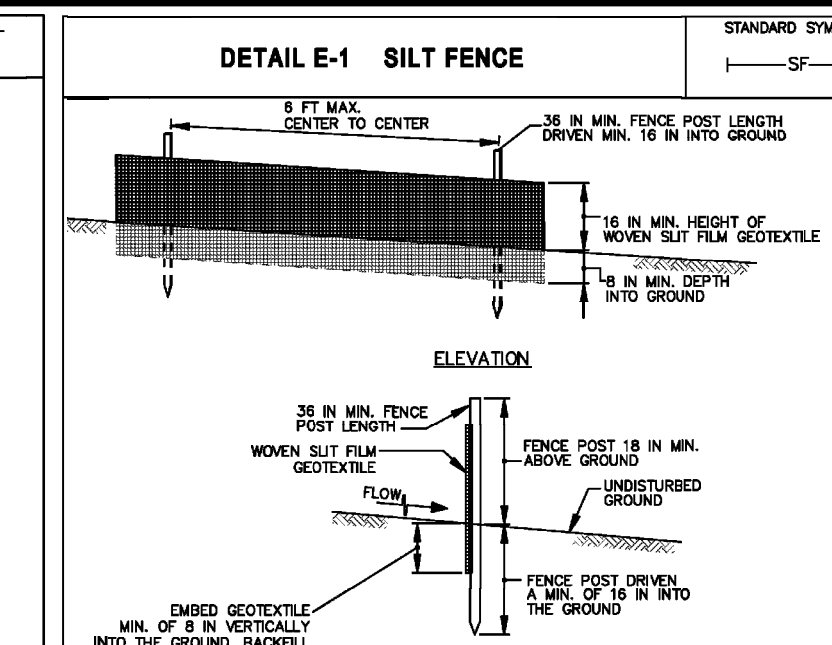
PHASE 2 - FINAL CONSTRUCTION PHASE. 1. ADJUST PERMETER CONTROLS INCLUDING SILT FENCE AND SUPER SILT FENCE (3 DAYS). 2. CONTINUE GRADING AND INSTALLATION OF REMAINING SITE UTILITIES IN AREAS WHERE TRAPS HAVE BEEN FULLED...



CONSTRUCTION SPECIFICATIONS: 1. USE 36 INCH MONUMENT POSTS DRIVEN 18 INCH INTO GROUND AND NO MORE THAN 4 FEET APART. 2. USE 36 INCH MONUMENT POSTS DRIVEN 18 INCH INTO GROUND AND NO MORE THAN 4 FEET APART. 3. USE 36 INCH MONUMENT POSTS DRIVEN 18 INCH INTO GROUND AND NO MORE THAN 4 FEET APART...



CONSTRUCTION SPECIFICATIONS: 1. USE 36 INCH MONUMENT POSTS DRIVEN 18 INCH INTO GROUND AND NO MORE THAN 4 FEET APART. 2. USE 36 INCH MONUMENT POSTS DRIVEN 18 INCH INTO GROUND AND NO MORE THAN 4 FEET APART. 3. USE 36 INCH MONUMENT POSTS DRIVEN 18 INCH INTO GROUND AND NO MORE THAN 4 FEET APART...



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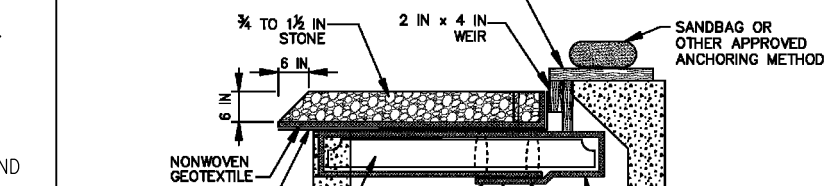
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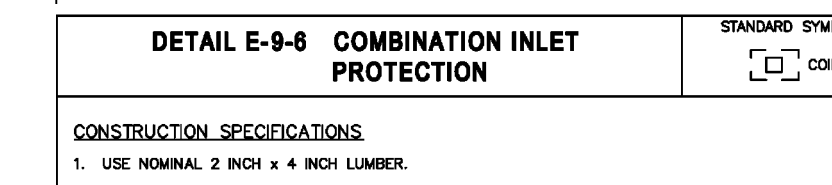
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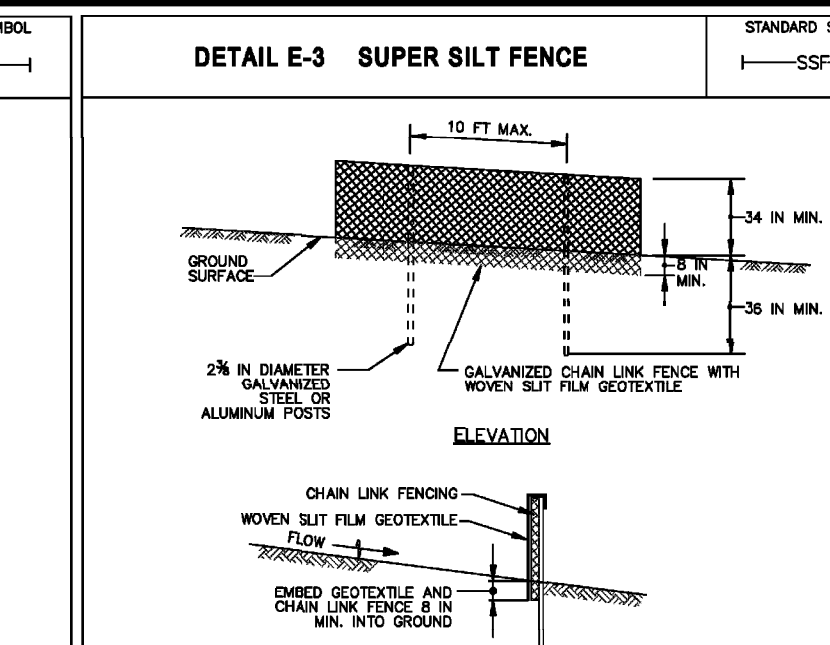
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CONSTRUCTION SPECIFICATIONS: 1. INSTALL 2x4x8x16 GALVANIZED STEEL POSTS OF 6000 NODULAR IRON WITH THICKNESS AND 60 FOOT LENGTH SPACING NO FURTHER THAN 10 FEET APART. 2. DRIVE THE POSTS A MINIMUM OF 36 INCH INTO THE GROUND...

Table with columns: Maryland Standards and Specifications for Soil Erosion and Sediment Control, and Maryland Department of Environment.

SEQUENCE OF CONSTRUCTION

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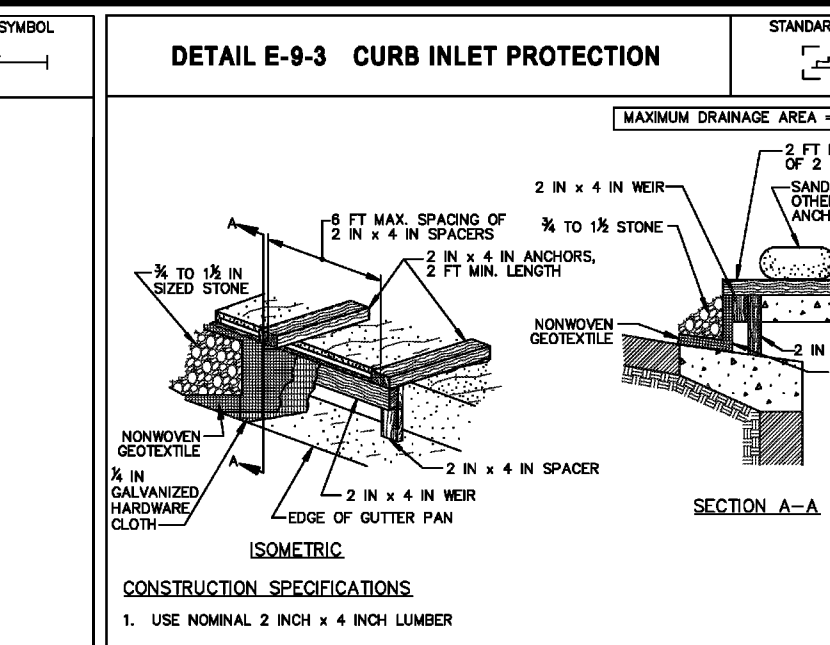
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CONSTRUCTION SPECIFICATIONS: 1. USE NOMINAL 2 INCH x 4 INCH LUMBER. 2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS. 3. NAIL THE 2x4 NAIL TO 2 INCH LONG VERTICAL SPACERS (MINIMUM 6 FEET APART). 4. ATTACH A CONTINUOUS PIECE OF 3/8 GALVANIZED HARDWARE CLOTH WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE TYPICAL OPENING TO THE 2x4 NAIL, EXTENDING IT 2 FEET BEYOND THE OPENING ON EACH SIDE...

Table with columns: Maryland Standards and Specifications for Soil Erosion and Sediment Control, and Maryland Department of Environment.

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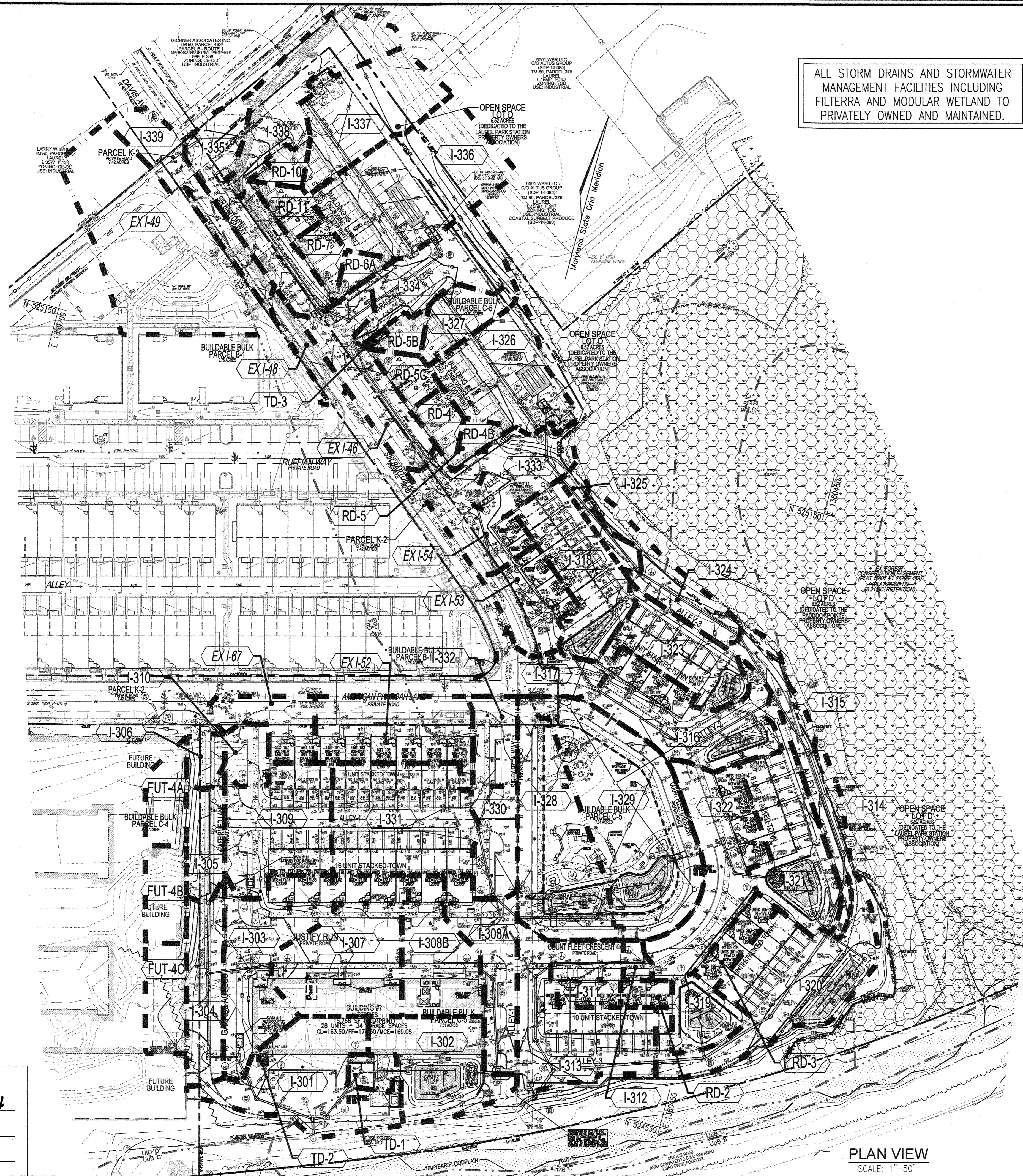


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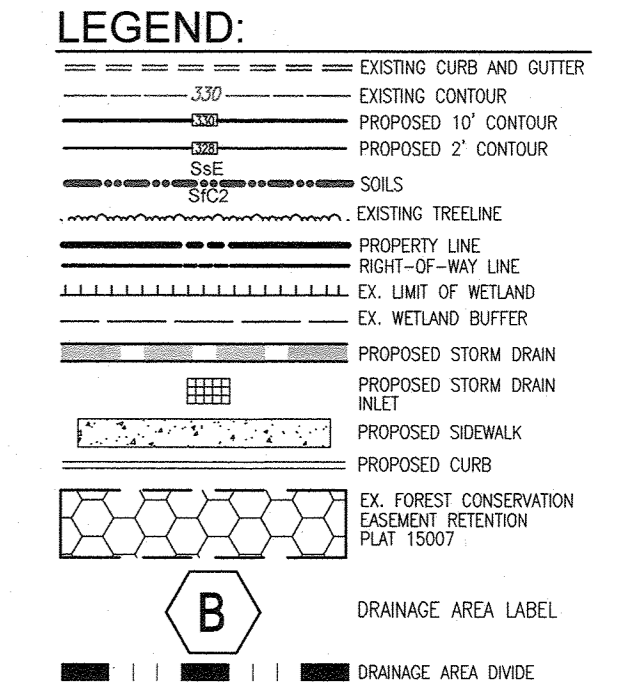
OWNER: TRIPLE BELT FARMS, LLC. OWNER/DEVELOPER: 2000E DELAWARE, INC. SITE DEVELOPMENT PLAN: SEDIMENT AND EROSION CONTROL NOTES & DETAILS. Paddock Pointe - Phase 3 (FORMERLY KNOWN AS LAUREL PARKATION) 60 APARTMENT PARCELS C-1 & K-1. VOGEL ENGINEERING. TIMMONS GROUP. 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043. P. 410.461.7666. F. 410.461.8961. www.timmons.com. DESIGN BY: DZE/BHV. DRAWN BY: DZE/KG/MF. CHECKED BY: RHV. DATE: JUNE 2022. SCALE: AS SHOWN. W.O. NO.: 07-11/40111. SHEET 11 OF 34. PROFESSIONAL CERTIFICATE: ROBERT H. VOGEL, PE No.16193.



ALL STORM DRAINS AND STORMWATER MANAGEMENT FACILITIES INCLUDING FILTERRA AND MODULAR WETLAND TO PRIVATELY OWNED AND MAINTAINED.

SD Drainage Area Chart			
DRAINAGE AREA NO	DRAINAGE AREA (AC)	C FACTOR	IMP %
I-301	0.29	0.68	71%
I-302	0.21	0.48	42%
I-303	0.26	0.70	74%
I-304	0.14	0.65	65%
I-305	0.09	0.55	50%
I-306	0.04	0.53	47%
I-307	0.30	0.78	87%
I-308A	0.17	0.68	72%
I-308B	0.18	0.78	86%
I-309	0.25	0.75	83%
I-310	0.05	0.62	60%
I-311	0.09	0.75	83%
I-312	0.02	0.65	69%
I-313	0.27	0.75	82%
I-314	0.08	0.55	50%
I-315	0.07	0.48	41%
I-316	0.25	0.63	66%
I-317	0.11	0.66	73%
I-318	0.21	0.64	70%
I-319	0.08	0.19	0%
I-320	0.35	0.63	64%
I-321	0.24	0.60	60%
I-322	0.26	0.62	64%
I-323	0.16	0.69	75%
I-324	0.10	0.46	44%
I-325	0.04	0.57	61%
I-326	0.23	0.74	84%
I-327	0.08	0.71	80%
I-328	0.32	0.55	54%
I-329	0.45	0.48	43%
I-330	0.11	0.64	66%
I-331	0.32	0.82	94%
I-332	0.08	0.62	67%
I-333	0.12	0.44	43%
I-334	0.18	0.49	50%
I-335*	0.20	0.55	59%
I-336*	0.37	0.47	47%
I-337*	0.23	0.46	46%
I-338*	0.21	0.24	16%
I-339*	0.13	0.76	55%
TD-1	0.03	0.64	67%
TD-2	0.002	0.86	100%
TD-3	0.003	0.63	69%
RD-2	0.03	0.86	100%
RD-3	0.06	0.86	100%
RD-4	0.05	0.86	100%
RD-4C	0.03	0.86	100%
RD-5B	0.03	0.86	100%
RD-5C	0.05	0.86	100%
RD-6A	0.03	0.86	100%
RD-7	0.05	0.86	100%
RD-10	0.03	0.86	100%
RD-11	0.05	0.86	100%
EX-146	0.17	0.64	70%
EX-148	0.05	0.78	89%
EX-149*	0.49	0.38	28%
EX-152	0.22	0.74	81%
EX-153	0.12	0.63	68%
EX-154	0.15	0.59	64%
I-67	0.10	0.75	82%
FUT-4A	0.08	0.86	100%
FUT-4B	0.08	0.86	100%
FUT-4C	0.09	0.86	100%
PT-300	0.10	0.73	79%
PT-301	0.06	0.74	80%
PT-302	0.19	0.72	77%

* INCLUDES ADJACENT INDUSTRIAL AREA



PARCEL C-5 OWNER
BEAZER HOMES, LLC
6085 MARSHALLE DRIVE, SUITE 350
ELK RIDGE, MD 21075
443-539-9249

OWNER
TRIPLE BELL FARMS, LLC
198 LAUREL RACE TRACK RD
LAUREL, MD 20725
(301) 470-5494

OWNER/DEVELOPER
2006 DELAWARE, INC.
198 LAUREL RACE TRACK RD
LAUREL, MD 20725
(301) 470-5494

NO.	REVISION	DATE
1	REVISE PLAN FOR BUILDING ARCHITECTURE (UNITS 157-171 & 223-232); AND REVISE W&S HOUSE CONNECTIONS	11/30/23

REVISED SITE DEVELOPMENT PLAN
STORM DRAIN DRAINAGE AREA MAP
PADDOCK POINTE - PHASE 3
 (FORMERLY KNOWN AS LAUREL PARK STATION)
 76 APARTMENT UNITS AND 76 STACKED TOWN UNITS

TAX MAP: 50 BLOCK: 10
6TH ELECTION DISTRICT

ZONED: TOD

PARCEL 384
HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Clark 2-29-24
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

James Fisher 3-7-24
CHIEF, DIVISION OF LAND DEVELOPMENT DATE
DIRECTOR

PROFESSIONAL CERTIFICATE

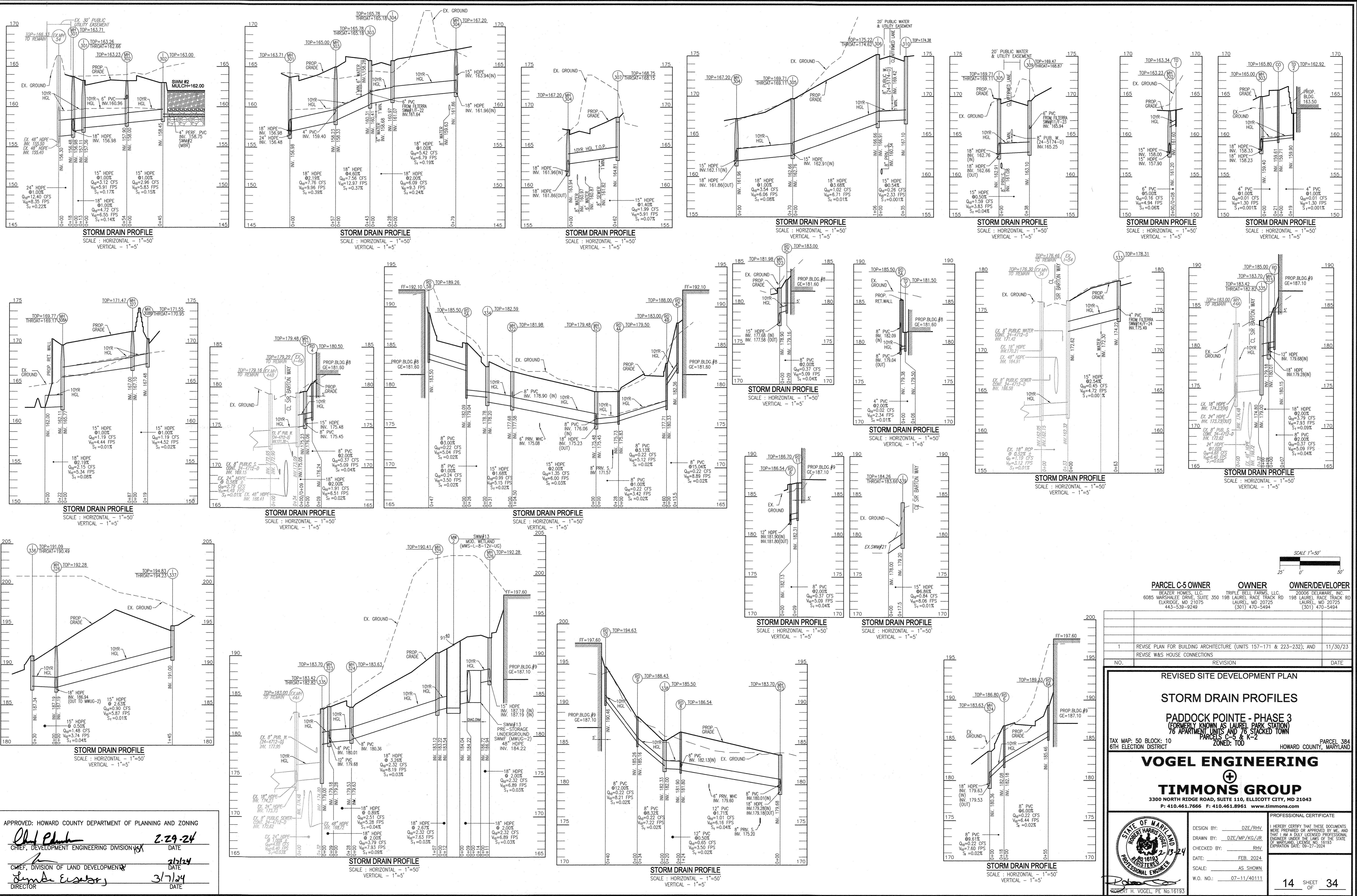
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18193, EXPIRATION DATE: 09-27-2024

DESIGN BY: DZE/RHV
 DRAWN BY: DZE/MP/KS/JR
 CHECKED BY: RHV
 DATE: FEB. 2024
 SCALE: AS SHOWN
 W.O. NO.: 07-11/40111

13 SHEET OF 34

ROBERT H. VOGEL, PE No.16193

PLAN VIEW
SCALE: 1"=50'



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Plunk 2/29/24
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Demetri Euseby 3/7/24
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
 DIRECTOR

PARCEL C-5 OWNER: BEAZER HOMES, LLC
 6085 MARSHALLEE DRIVE, SUITE 350 198 LAUREL RACE TRACK RD
 ELKROIDE, MD 21075 443-539-9249

OWNER: TRIPLE BELL FARMS, LLC
 196 LAUREL RACE TRACK RD
 LAUREL, MD 20725 (301) 470-5494

OWNER/DEVELOPER: 20006 DELAWARE, INC.
 196 LAUREL RACE TRACK RD
 LAUREL, MD 20725 (301) 470-5494

NO.	REVISION	DATE
1	REVISE PLAN FOR BUILDING ARCHITECTURE (UNITS 157-171 & 223-232); AND REVISE W&S HOUSE CONNECTIONS	11/30/23

REVISED SITE DEVELOPMENT PLAN
STORM DRAIN PROFILES
PADDOCK POINTE - PHASE 3
 (FORMERLY KNOWN AS LAUREL PARK STATION)
 76 APARTMENT UNITS AND 8 STACKED TOWN
 PARKS AND K-2
 ZONED: TOD

TAX MAP: 50 BLOCK: 10
 6TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND
 PARCEL 384

VOGEL ENGINEERING
 +
TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

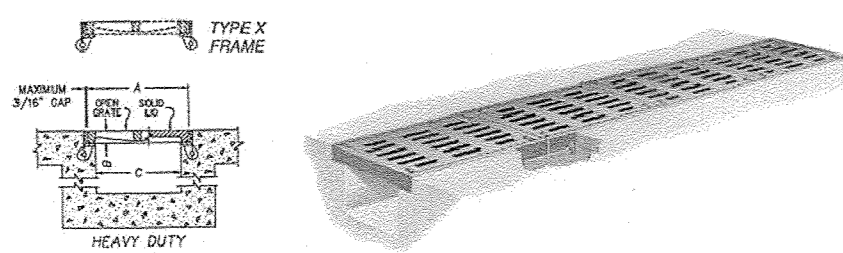
PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 16193 EXPIRATION DATE: 09-27-2024

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 W.O. NO.: 07-11/40111

14 SHEET OF 34

ROBERT H. VOGEL, PE No.16193

R-4990-CX



General schematic shows may not apply to all designs. Use and in design, pipe, manholes, and setting weights vary on different sizes and styles. If your project has design restrictions, contact your sales representative or product engineering.

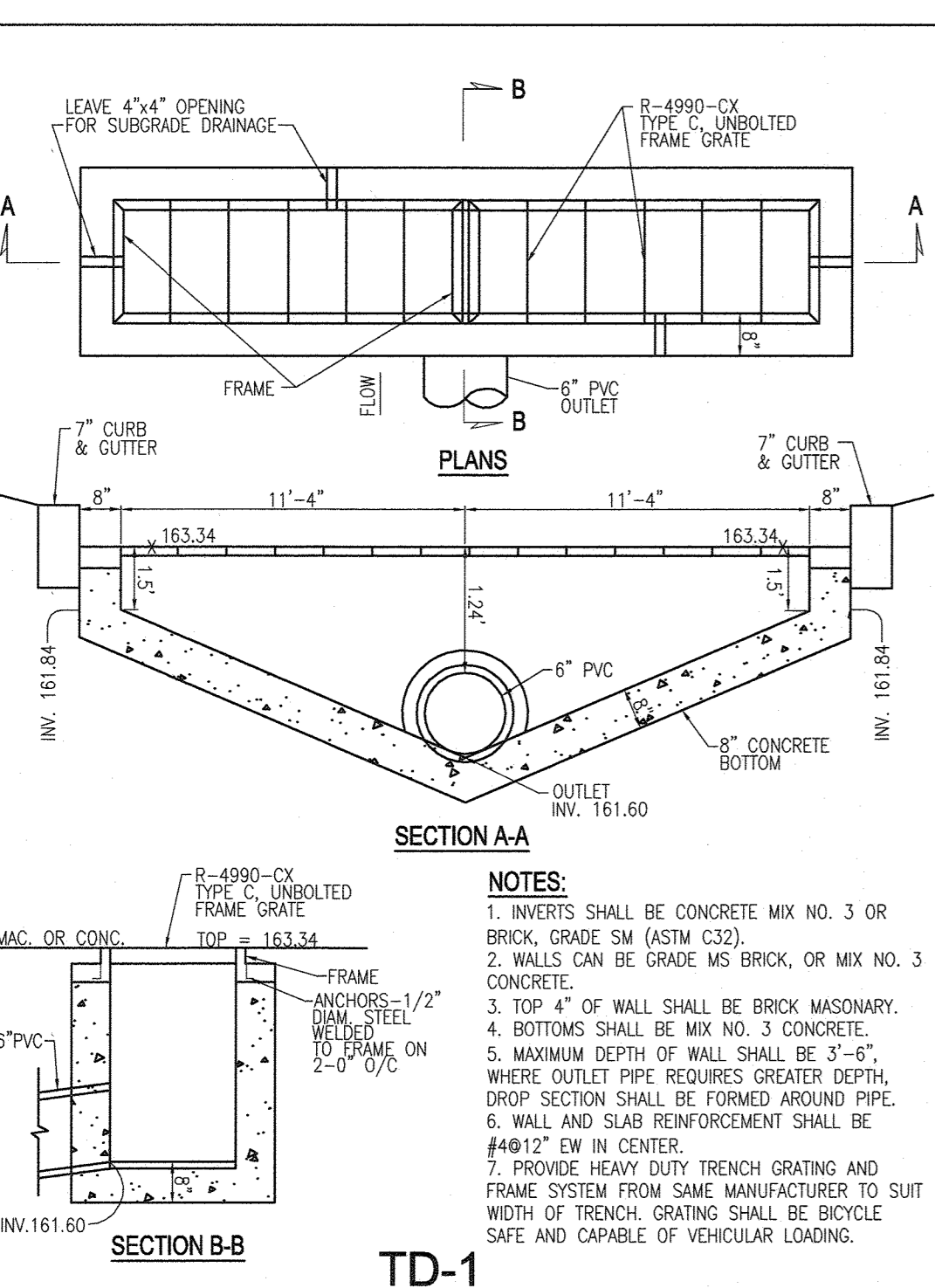
Illustrating Type C bolted trench. Bolted trench sections are furnished in 24' standard lengths. When bolted trench is furnished, they are shipped assembled. At PVC TIME should the units be disassembled during installation. When removing covers, do not use or create 180 degree or less angles. They may lose alignment and proper bearing may occur.

You may need to scroll horizontally to view all table columns.

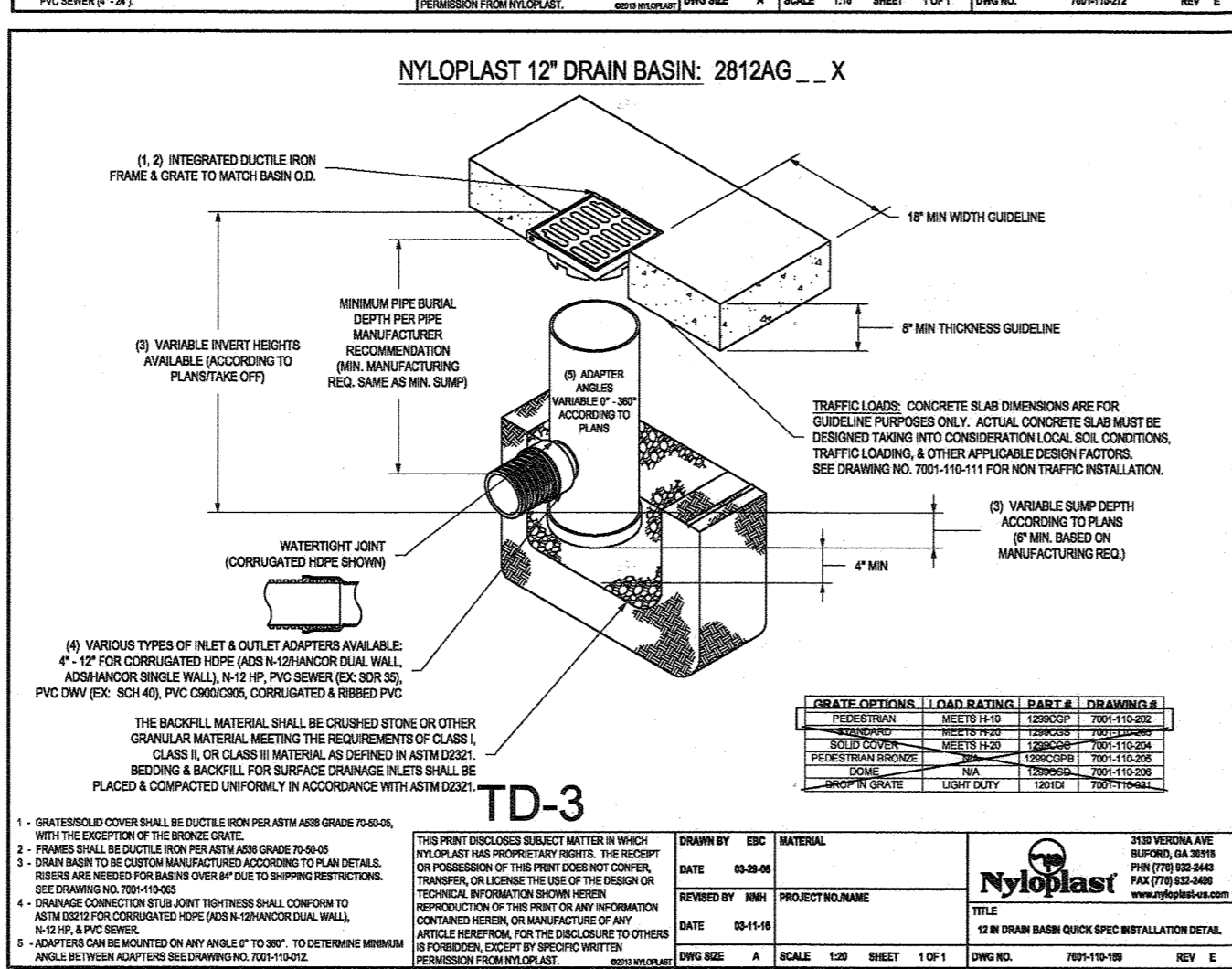
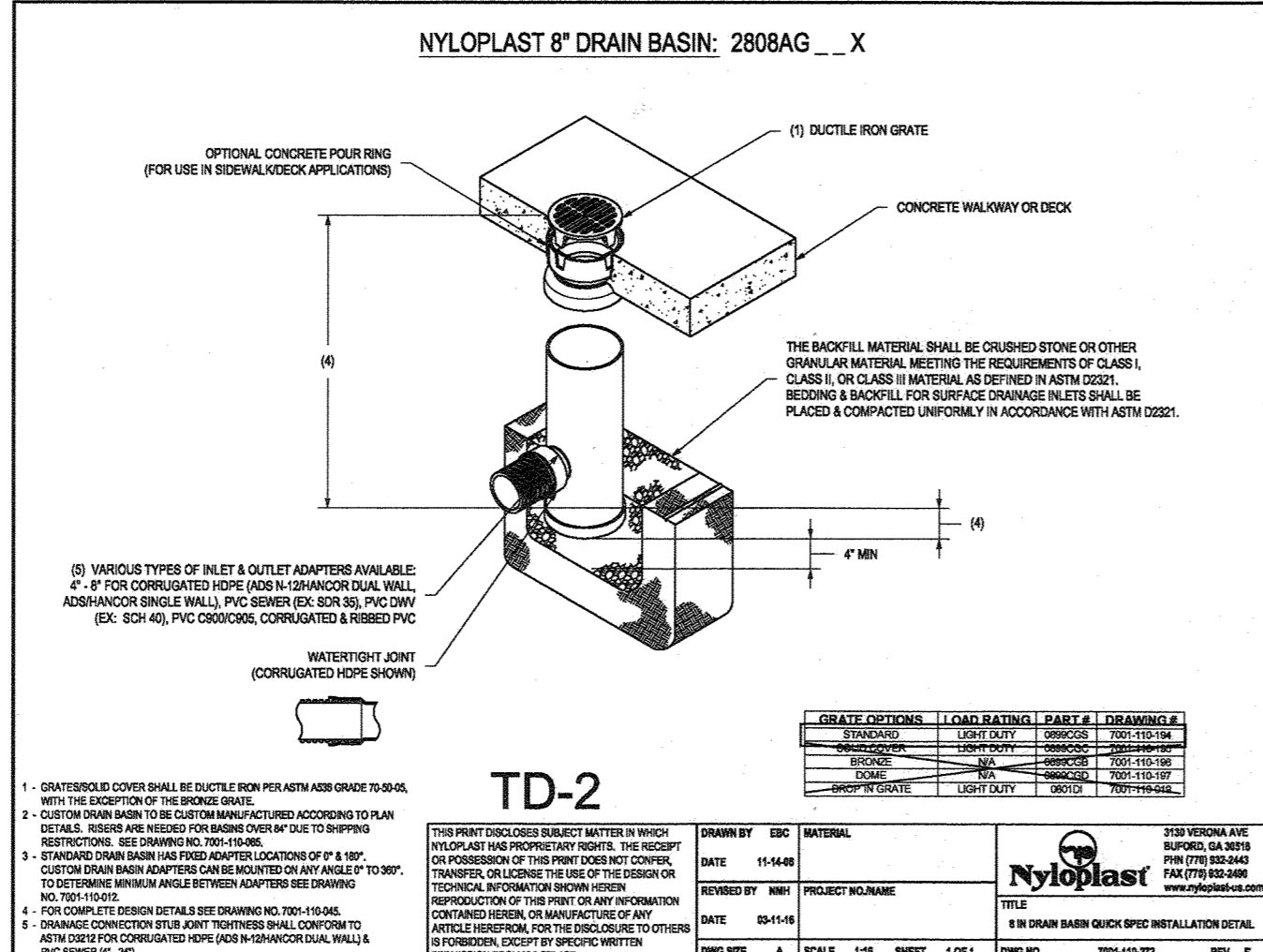
Gate	Trench	Grate	Seat	Frame	Frame	Type A	Type C	Type L	Type P	Type Q	Type D	River/Walk	Tidal Wave	Carriage Wall	Grass Key
Width	Length	Depth	Length	Type	Length	Grate	Grate	Grate	Grate	Grate	Solid Lid	Grate	Grate	Grate	Grate
12	10	23.78	1.5	24	B	X	X	X	X	X	X	X	X	X	X

All dimensions are listed in inches unless otherwise noted.

TD-1



- NOTES:**
- INVERTS SHALL BE CONCRETE MIX NO. 3 OR BRICK, GRADE SM (ASTM C33).
 - WALLS CAN BE GRADE MS BRICK, OR MIX NO. 3 CONCRETE.
 - TOP 4" OF WALL SHALL BE BRICK MASONRY.
 - BOTTOMS SHALL BE MIX NO. 3 CONCRETE.
 - MAXIMUM DEPTH OF WALL SHALL BE 3'-6", WHERE OUTLET PIPE REQUIRES GREATER DEPTH, DROP SECTION SHALL BE FORMED AROUND PIPE.
 - WALL AND SLAB REINFORCEMENT SHALL BE #4@12" EW IN CENTER.
 - PROVIDE HEAVY DUTY TRENCH GRATING AND FRAME SYSTEM FROM SAME MANUFACTURER TO SUIT WIDTH OF TRENCH. GRATING SHALL BE BICYCLE SAFE AND CAPABLE OF VEHICULAR LOADINGS.



STORM DRAIN PIPE SCHEDULE

Size	Class	Total Length
4"	PERF. PVC (SWM)	54
6"	SOLID PVC	19
8"	SOLID PVC	54
12"	PVC	144
15"	HDPE	1543
18"	HDPE	1725.5
24"	HDPE	381
48"	HDPE (SWM)	277

* The total length of pipe is linear feet only.

HDPE is to be smooth interior. Contractor shall install pipe in accordance with manufacturer's specifications.

STORM DRAIN STRUCTURE SCHEDULE

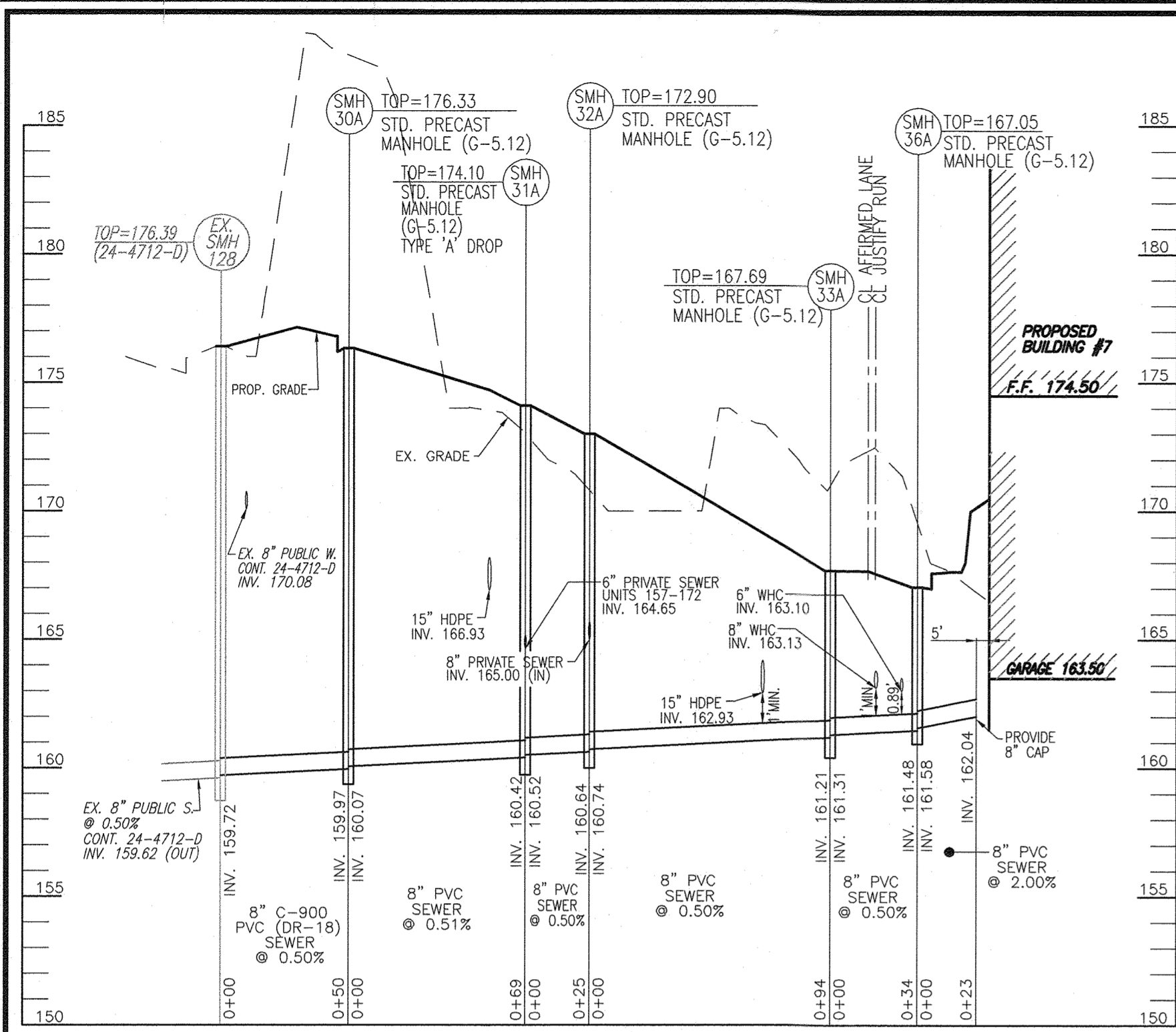
STR #	TYPE	INV. IN	INV. OUT	TOP ELEV	DETAIL	LOCATION	REMARKS
EX. I-46	EX. A-5 INLET	175.05	173.09	173.29	D-4.02	E= 1360699.90 N= 525094.84	CONNECT 18" HDPE
EX. I-54	EX. A-5 INLET	172.46	162.32	176.46	D-4.02	E= 1360162.13 N= 525078.09	CONNECT 18" HDPE
EX. I-67	DOUBLE 'S' INLET	168.17	176.70	D-4.25	E= 1359933.01 N= 524870.03		REPLACE A-5 WITH DBL 'S' INLET
I-301	A-5	157.36	157.11	163.26	D-4.02	E= 1360142.57 N= 524477.54	
I-302	'S'	158.75	158.45	163.00	D-4.24	E= 1360206.12 N= 524540.29	
I-303	A-5	161.64 / 160.41	160.31	165.78	D-4.02	E= 1360047.53 N= 524511.20	
I-304	A-5	161.07	160.97	165.78	D-4.02	E= 1360202.15 N= 524503.89	
I-305	A-10	162.91 / 162.76	162.66	169.71	D-4.03	E= 1359992.20 N= 524546.16	
I-306	A-5	165.91	166.66	175.23	D-4.02	E= 1359954.26 N= 524750.93	
I-307	A-5	164.81	168.75	D-4.02	E= 1358790.90 N= 524243.88		
I-308	A-5	167.38	171.48	D-4.02	E= 1360243.87 N= 524653.60		
I-308A	A-5	165.77	162.11	169.77	D-4.02	E= 1360287.87 N= 524651.16	
I-308B	A-5	167.48	171.48	D-4.02	E= 1360243.87 N= 524653.60		
I-309	A-5	165.94	163.10	169.47	D-4.02	E= 1360218.06 N= 524660.48	
I-310	SINGLE 'WR' INLET	167.10	174.98	D-4.32	E= 1359987.44 N= 527761.20		
I-311	A-5	167.13	166.88	171.23	D-4.02	E= 1360313.10 N= 524672.06	
I-312	SINGLE 'WR' INLET	167.87	171.37	D-4.32	E= 1360393.47 N= 524697.23		
I-313	A-5	164.12	169.71	D-4.02	E= 1360321.26 N= 524556.94		
I-314	A-5	163.92	163.82	170.19	D-4.02	E= 1360550.19 N= 524644.36	
I-315	A-5	164.63	164.43	171.01	D-4.02	E= 1360405.44 N= 524925.36	
I-316	'S'	165.81	165.41	169.76	D-4.24	E= 1360443.57 N= 524937.57	
I-317	A-5	169.75	169.50	173.35	D-4.02	E= 1360283.56 N= 524934.48	
I-318	'S'	172.5	172.10	176.75	D-4.24	E= 1360248.03 N= 524956.62	
I-319	'S'	164.25	164.15	168.50	D-4.24	E= 1360465.17 N= 524944.71	
I-320	'S'	164.65	164.55	168.90	D-4.24	E= 1360556.39 N= 524763.60	
I-321	'S'	163.81	163.25	167.76	D-4.24	E= 1360537.19 N= 524783.40	
I-322	A-5	167.21	170.71	D-4.02	E= 1360437.45 N= 524826.65		
I-323	'S'	167.60	167.50	171.85	D-4.24	E= 1360398.69 N= 524949.77	
I-324	SINGLE 'WR' INLET	169.35	172.85	D-4.32	E= 1360402.07 N= 525074.71		
I-325	A-5	174.78	174.68	178.38	D-4.02	E= 1360294.76 N= 525052.52	
I-326	A-5	188.70	187.72	D-4.02	E= 1360167.07 N= 525156.52		
I-327	A-5	185.33	190.13	D-4.02	E= 1360046.12 N= 525259.16		
I-328	A-5	165.92 / 164.83	164.58	170.17	D-4.24	E= 136033.07 N= 524742.47	
I-329	'S'	165.30	165.00	169.50	D-4.24	E= 1360351.83 N= 524756.86	
I-330	A-5	167.64	167.54	171.87	D-4.02	E= 1360240.83 N= 524719.88	
I-331	'S'	169.19	168.94	172.90	D-4.24	E= 1360210.11 N= 524778.94	
I-332	A-5	169.84	173.74	D-4.02	E= 1360213.48 N= 524822.83		
I-333	DOUBLE 'WR' INLET	175.49	174.22	178.31	D-4.32	E= 1360212.55 N= 525074.71	
I-334	SINGLE 'WR' INLET	178.78	178.20	182.59	D-4.32	E= 1359976.44 N= 525193.02	
I-335	A-5	179.00	174.80	183.42	D-4.02	E= 1359934.69 N= 525207.35	
I-336	A-5	187.34	191.09	D-4.02	E= 1360012.57 N= 525287.09		
I-337	A-5	191.00	194.83	D-4.02	E= 1359877.79 N= 525399.25		
I-338	YARD INLET	182.33	182.00	185.50	D-4.11	E= 1359930.39 N= 525306.11	
I-339	A-5	179.20	184.26	D-4.02	E= 1359887.76 N= 525206.94		

STORM DRAIN STRUCTURE SCHEDULE

STR #	TYPE	INV. IN	INV. OUT	TOP ELEV	DETAIL	LOCATION	REMARKS
EX. MH-44A	4" MANHOLE	174.48 / 174.23	173.73	183.00	G-5.12	E= 1359919.27 N= 525179.28	
EX. MH-54	MSHA 72" MANHOLE	155.50 / 156.30	155.40	166.33	MD-384.05	E= 1360136.22 N= 524455.30	CONNECT 24" HDPE
EX. MH-55	MSHA 84" MANHOLE	157.50 / 160.42	157.40	167.75	MD-384.07	E= 1360314.07 N= 524532.47	ADJUST TOP EL. TO 169.80
EX. MH-56	MSHA 72" MANHOLE	160.20 / 167.23 / 163.56	160.10	171.13	MD-384.05	E= 1360227.23 N= 524708.09	ADJUST TOP EL. TO 171.61
MH-301	4" MANHOLE	156.98 (2)	156.48	163.23	G-5.12	E= 1360130.49 N= 524472.77	
MH-302	4" MANHOLE	161.20 / 158.00	157.90	163.23	G-5.12	E= 1360163.31 N= 524527.83	
MH-303	4" MANHOLE	159.40 / 158.33	158.23	165.00	G-5.12	E= 1360074.18 N= 524477.73	
MH-304	4" MANHOLE	163.94 / 161.96	161.86	167.20	G-5.12	E= 1359996.89 N= 524579.70	
MH-305	4" MANHOLE	164.00 / 160.63	160.53	168.00	G-5.12	E= 1360339.01 N= 524547.59	
MH-306	4" MANHOLE	165.55 / 160.88	160.78	169.86	G-5.12	E= 1360338.64 N= 524575.96	
MH-307	4" MANHOLE	165.97	166.87	171.90	G-5.12	E= 1360316.24 N= 524598.48	
MH-308	4" MANHOLE	166.88	166.88	171.05	G-5.12	E= 1360299.61 N= 524657.10	
MH-309	4" MANHOLE	163.93 / 161.71	161.81	170.93	G-5.13	E= 1360473.64 N= 524624.15	
MH-310	4" MANHOLE	162.18	162.08	169.87	G-5.12	E= 1360523.97 N= 524678.19	
MH-311	5" MANHOLE	163.01 / 162.76 / 164.12	162.66	170.59	G-5.13	E= 1360555.43 N= 524768.06	
MH-312	4" MANHOLE	163.88	163.88	169.81	G-5.12	E= 1360558.76 N= 524819.11	
MH-313	4" MANHOLE	167.60 / 164.93	164.83	171.60	G-5.12	E= 1360451.27 N= 524969.07	
MH-314	5" MANHOLE	167.17 / 165.17 / 165.32	165.07	171.02	G-5.13	E= 1360431.67 N= 524949.71	
MH-315	4" MANHOLE	167.14	167.04	171.14	G-5.12	E= 1360383.96 N= 524962.50	
MH-316	4" MANHOLE	167.04	166.94	170.88	G-5.12	E= 1360456.52 N= 524800.08	
MH-317	4" MANHOLE	177.35	177.25	181.35	G-5.12	E= 1360183.23 N= 525131.30	
MH-318	4" MANHOLE	178.99	178.89	188.00	G-5.12	E= 1360176.76 N= 525157.09	
MH-319	4" MANHOLE	182.97 (2)	182.72	188.28	G-5.12	E= 1360144.01 N= 525177.71	
MH-320	4" MANHOLE	164.41	164.31	172.14	G-5.12	E= 1360341.02 N= 524725.66	
MH-321	4" MANHOLE	176.06 / 175.45 / 175.48	175.23	178.48	G-5.12	E= 1360075.43 N= 525011.94	
MH-322	4" MANHOLE	178.90 / 177.68	177.58	181.88	G-5.12	E= 1359995.07 N= 525168.74	
MH-323	4" MANHOLE	180.01 / 179.68 / 179.28	179.18	183.70	G-5.12	E= 1359940.53 N= 525214.37	
MH-324	4" MANHOLE	180.36 / 179.93	179.53	183.63	G-5.12	E= 1359987.96 N= 525210.15	
MH-325	4" MANHOLE	183.22	183.12	190.41	G-5.12	E= 1360036.15 N= 525232.11	
MH-326	4" MANHOLE	187.19 (2)	186.94	192.28	G-5.12	E= 1359989.51 N= 525306.28	
MH-327	4" MANHOLE	167.10	167.00	171.47	G-5.12	E= 1360260.90 N= 524644.26	

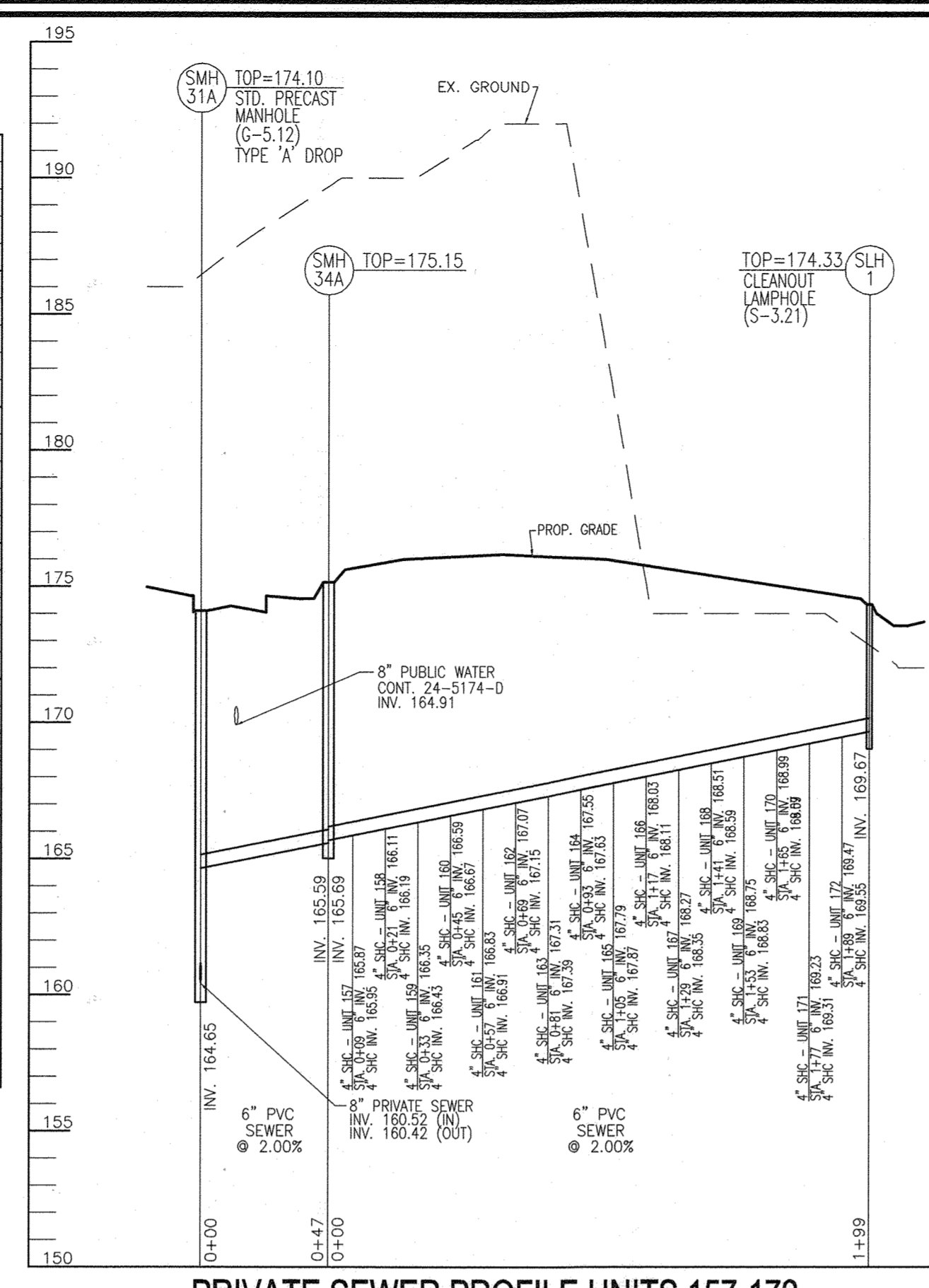
STORM DRAIN STRUCTURE SCHEDULE

STR #	TYPE	INV. IN	INV. OUT	TOP ELEV	DETAIL	LOCATION	REMARKS
PT-300	FLOW THROUGH INLET	171.56	170.88	172.32	D-4.35	E= 1360282.28 N= 524731.20	
PT-301	FLOW THROUGH INLET	170.95	170.37	171.62	D-4.35	E= 1360302.03 N= 524713.53	
PT-302	FLOW THROUGH INLET	170.35	169.75	171.11	D-4.35	E= 1360401.95 N= 524802.52	
TD-1	NEENAH TRENCH DRAIN	161.84	161.60	163.34	-	E= 1360161.27 N= 524535.49	SEE DETAIL ON THIS SHEET
TD-2	8" NYLOPLAST DRAIN GRATE	-	169.50	162.92	-	E= 1360070.21 N= 524535.34	SEE DETAIL ON THIS SHEET
TD-3	8" NYLOPLAST DRAIN GRATE	-	179.50	181.50	-	E= 1360001.19 N= 525205.38	SEE DETAIL ON THIS SHEET
CO-1	CLEANOUT	159.71	159.61	165.80	-	E= 1360007.74 N= 524498.16	
RD-1	CLEANOUT	169.40 / 167.98	167.88	172.84	-	E= 1360435.73 N= 524694.59	
RD-2	CLEANOUT	-	170.00	172.32	-	E= 1360377.29 N= 524679.00	
RD-3	CLEANOUT	-	168.50	171.90	-	E= 1360477.15 N= 524789.87	
RD-4	CLEANOUT	-	176.24	180.50	-	E= 1360061.08 N= 525108.73	
RD-4A	CLEANOUT	175.83	175.73	179.50	-	E= 1360100.27 N= 525089.19	
RD-4B	CLEANOUT	-	183.50	189.26	-	E= 1360023.71 N= 525234.05	
RD-4C	CLEANOUT	-	162.36	168.00	-	E= 1360147.29 N= 525145.70	
RD-5A	CLEANOUT	182.09 / 179.38	179.04	185.50	-	E= 1359996.44 N= 525209.14	
RD-5B	CLEANOUT	-	183.50	189.26	-	E= 1360023.71 N= 525234.05	
RD-5C	CLEANOUT	-	178.16	183.00	-	E= 1360000.76 N= 525175.57	
RD-5	CLEANOUT	182.18	182.08	186.80	-	E= 1359982.63 N= 525227.35	
RD-6A	CLEANOUT	-	185.46	189.33	-	E= 1359998.04 N= 525269.80	
RD-7	CLEANOUT	-	180.				



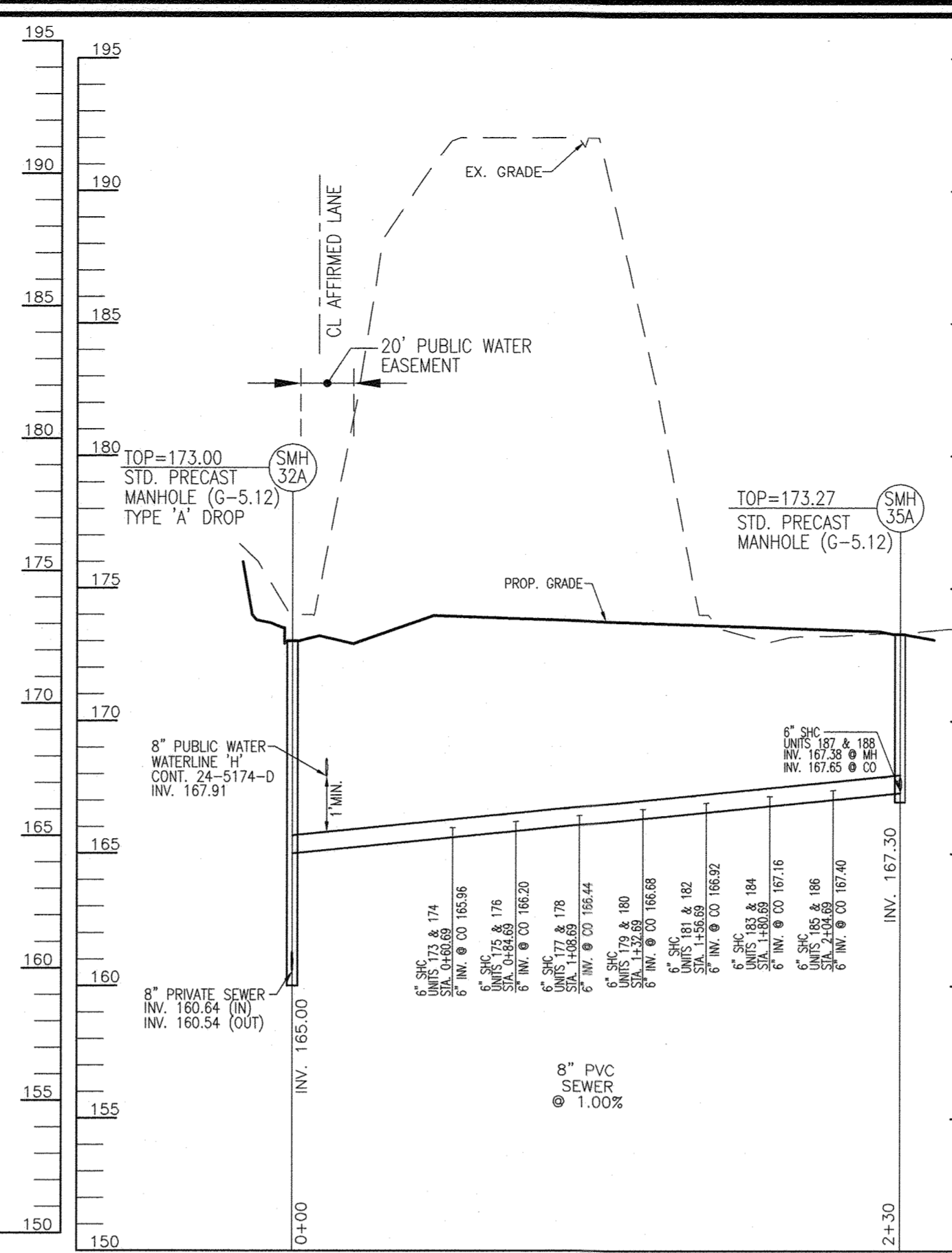
PRIVATE SEWER MAIN PROFILE

SCALE: 1"=50 HORIZ.
1"=5" VERT.



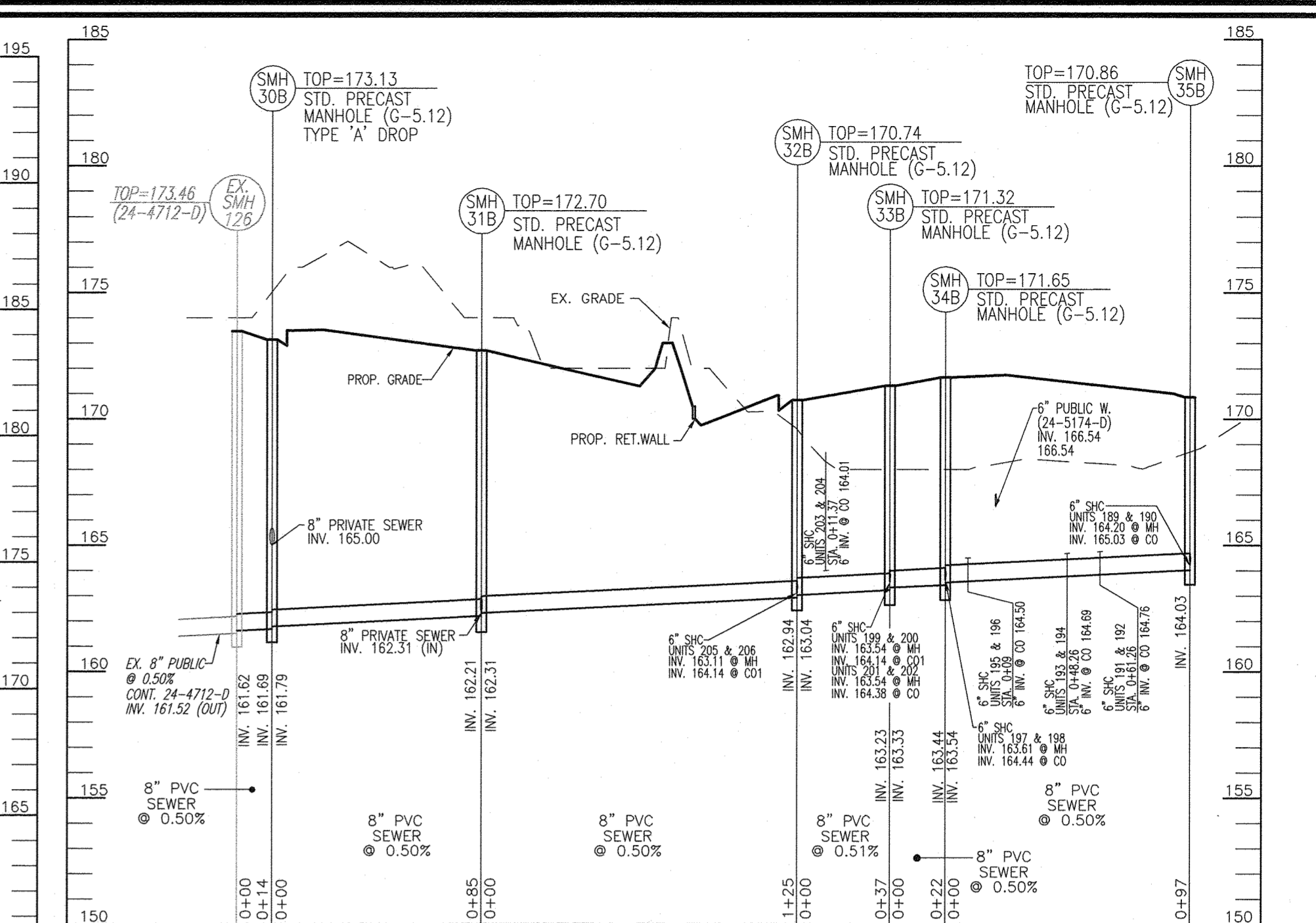
PRIVATE SEWER PROFILE UNITS 157-172

SCALE: 1"=50 HORIZ.
1"=5" VERT.



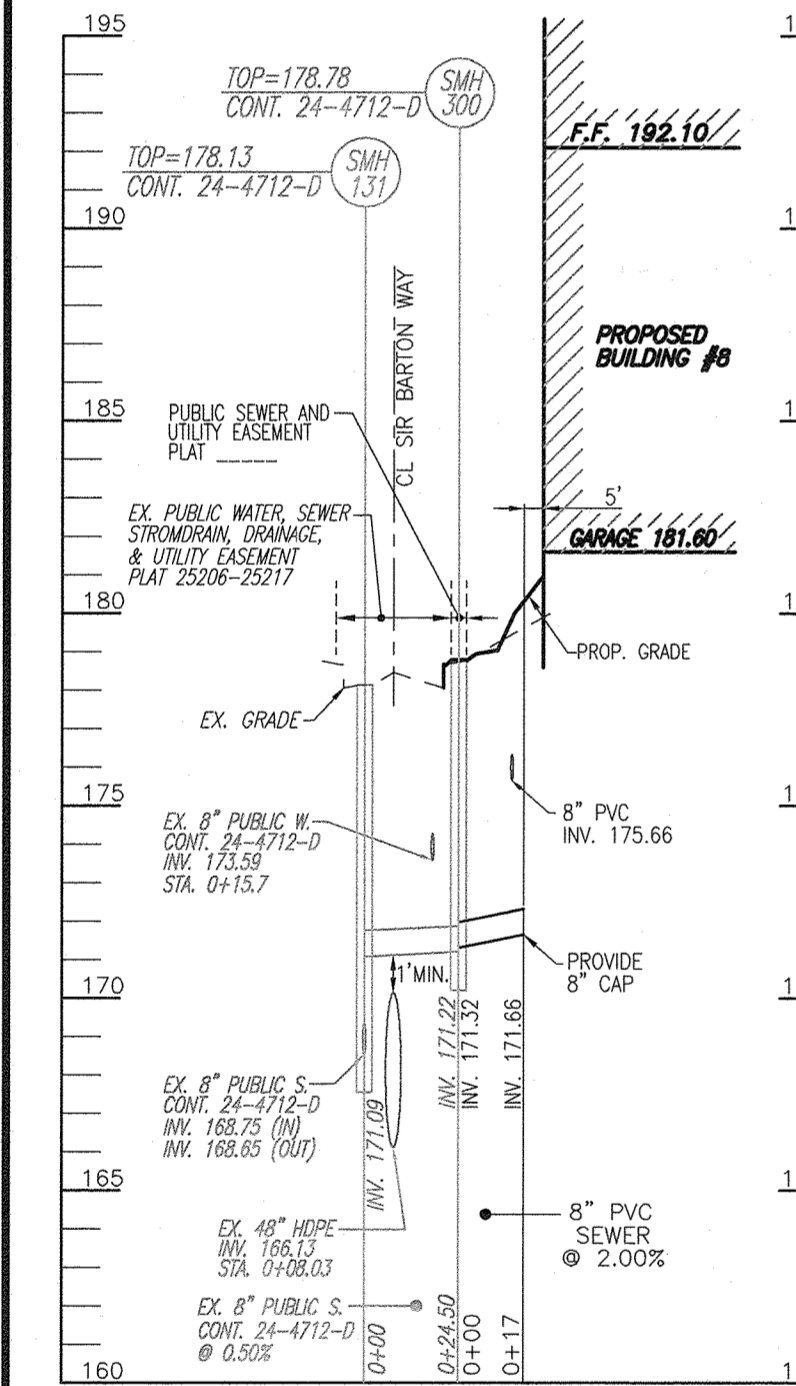
PRIVATE SEWER MAIN PROFILE

SCALE: 1"=50 HORIZ.
1"=5" VERT.



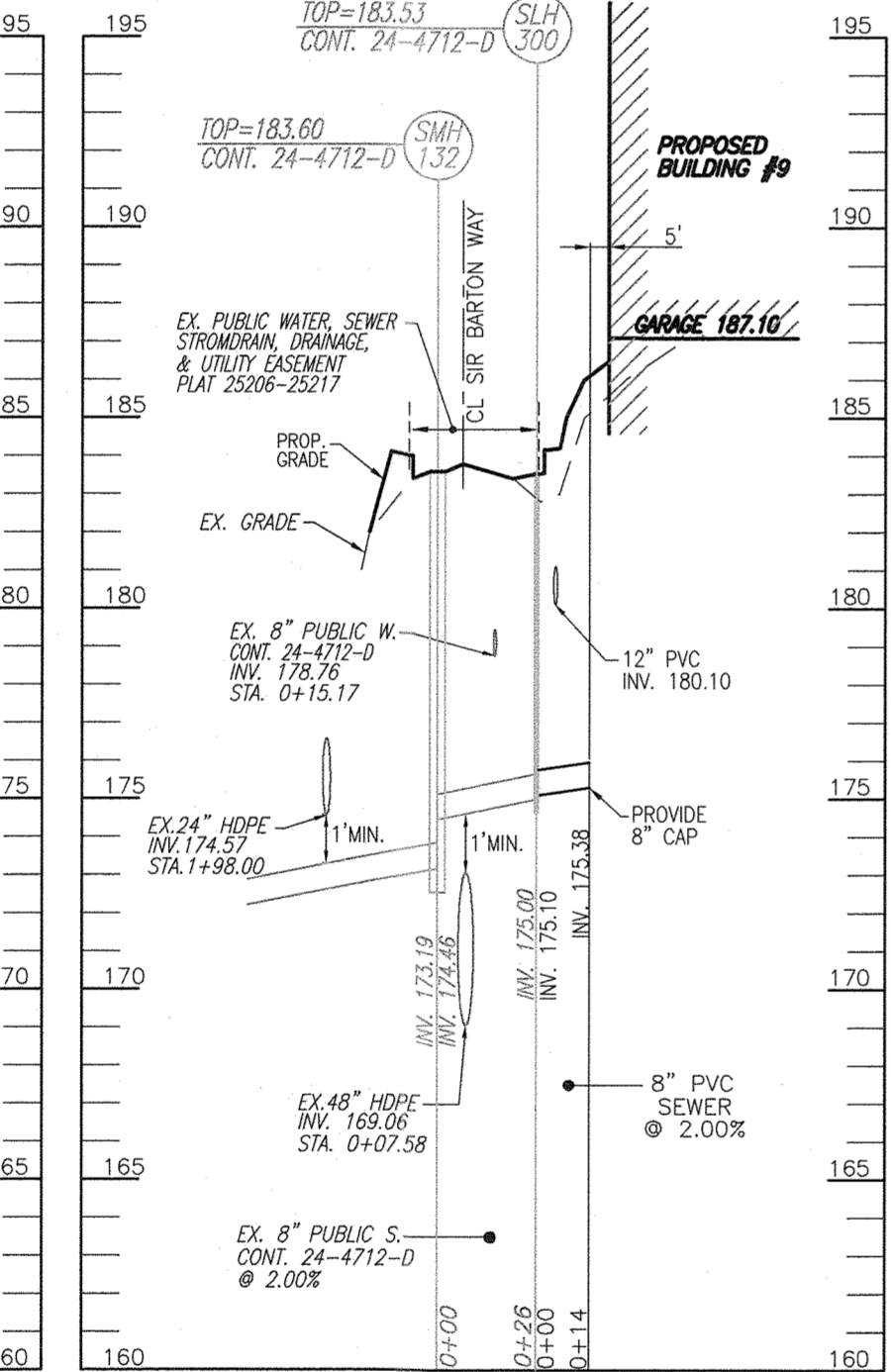
PRIVATE SEWER MAIN PROFILE

SCALE: 1"=50 HORIZ.
1"=5" VERT.



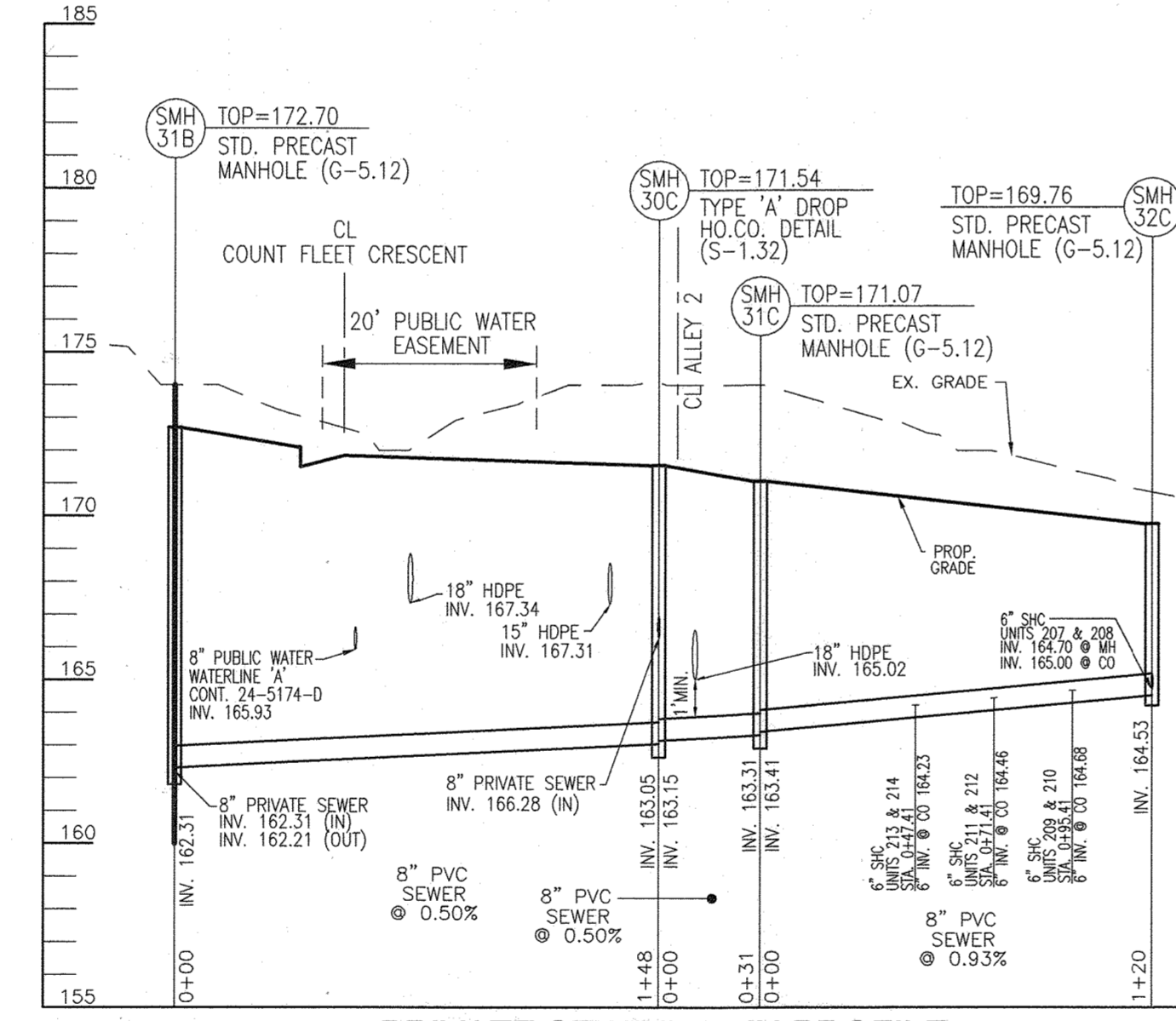
PRIVATE SEWER MAIN PROFILE

SCALE: 1"=50 HORIZ.
1"=5" VERT.



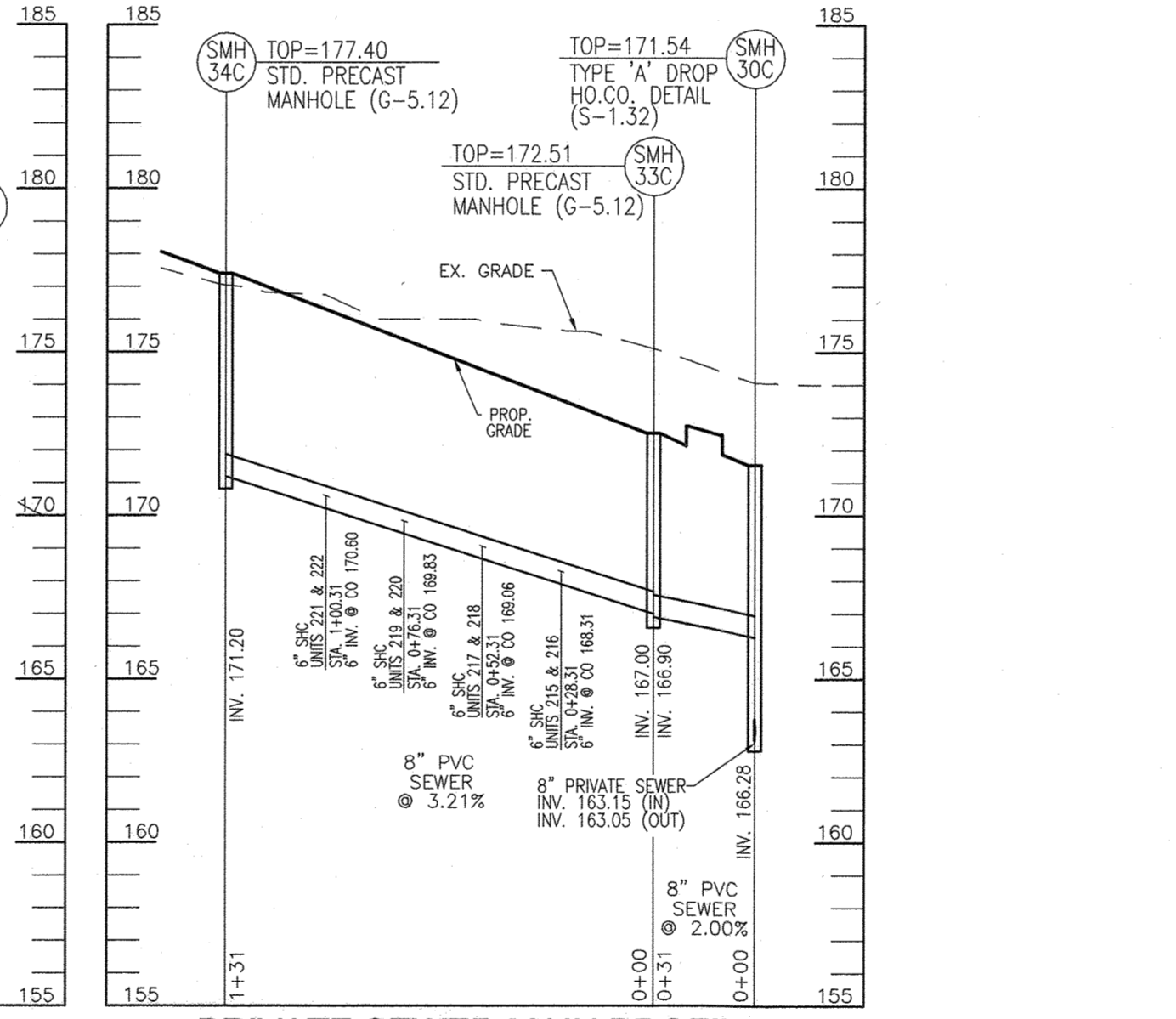
PRIVATE SEWER MAIN PROFILE

SCALE: 1"=50 HORIZ.
1"=5" VERT.



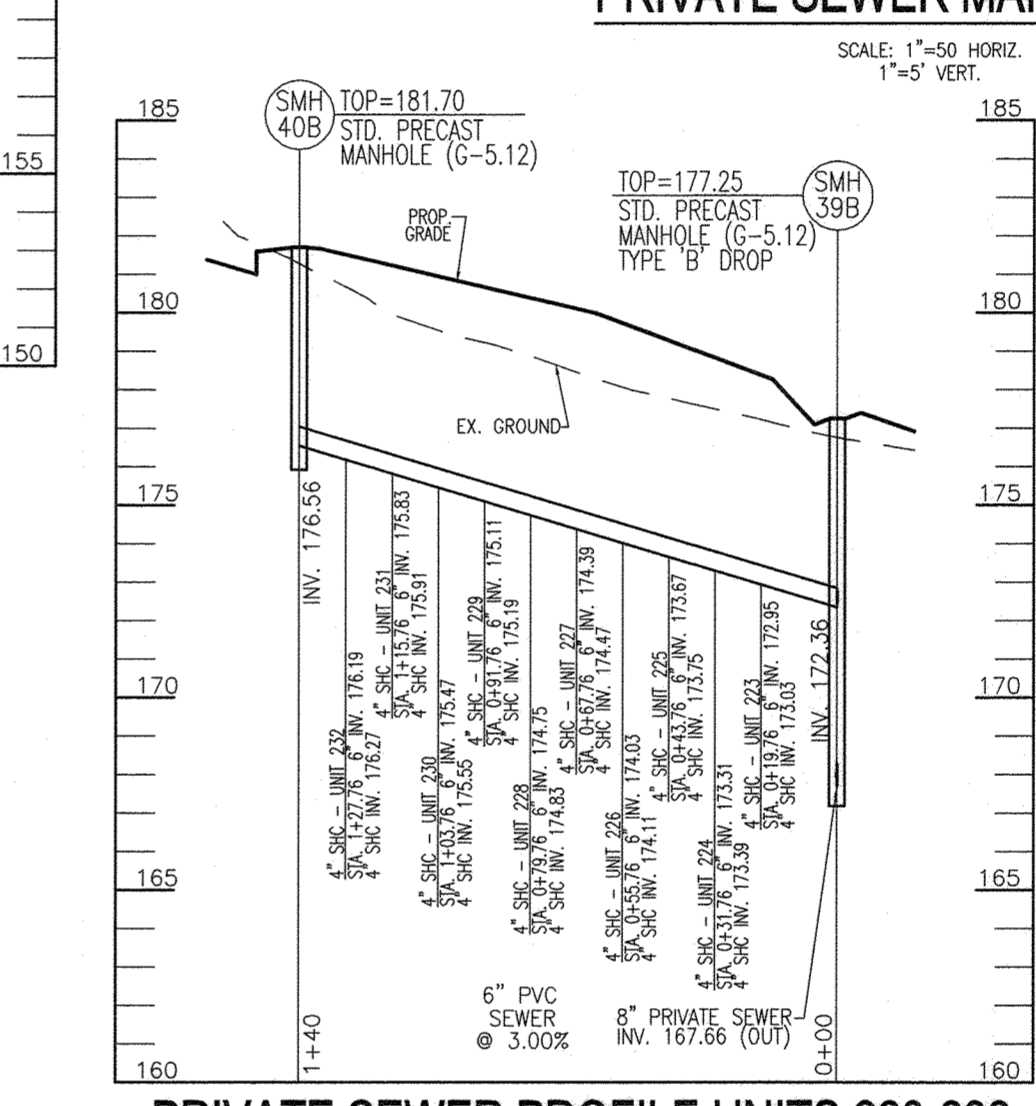
PRIVATE SEWER MAIN PROFILE

SCALE: 1"=50 HORIZ.
1"=5" VERT.



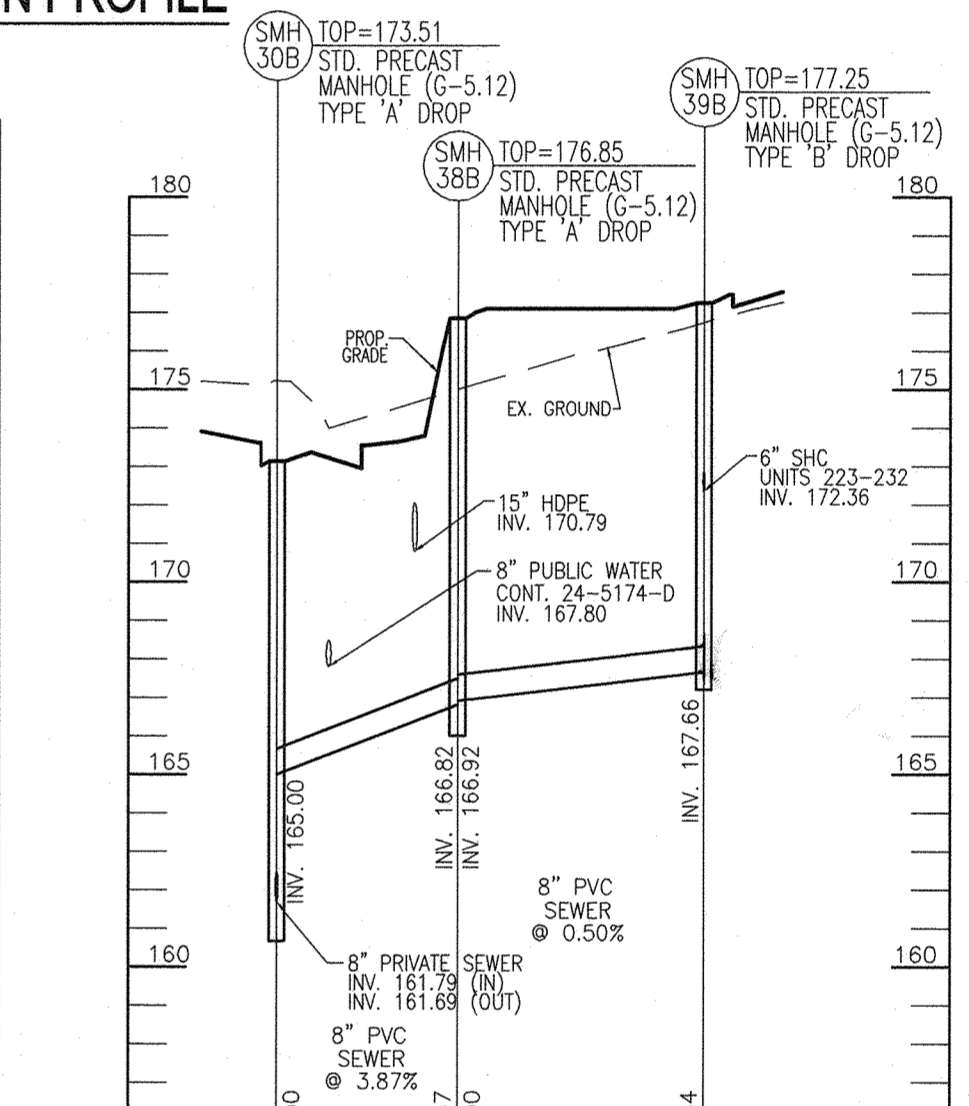
PRIVATE SEWER MAIN PROFILE

SCALE: 1"=50 HORIZ.
1"=5" VERT.



PRIVATE SEWER PROFILE UNITS 223-232

SCALE: 1"=50 HORIZ.
1"=5" VERT.



PRIVATE SEWER MAIN PROFILE

SCALE: 1"=50 HORIZ.
1"=5" VERT.

PARCEL C-5 OWNER: BEAZER HOMES, LLC. 6085 MARSHALEE DRIVE, SUITE 350 198 LAUREL RACE TRACK RD ELKROIDE, MD 21075 443-539-9249

OWNER: TRIPLE BELL FARMS, LLC. 301 470-5494

OWNER/DEVELOPER: 2006 DELAWARE, INC. 198 LAUREL RACE TRACK RD LAUREL, MD 20775 (301) 470-5494

NO.	REVISION	DATE
1	REVISE PLAN FOR BUILDING ARCHITECTURE (UNITS 157-171 & 223-232); AND REVISE W&S HOUSE CONNECTIONS	11/30/23

REVISED SITE DEVELOPMENT PLAN

UTILITY PROFILES

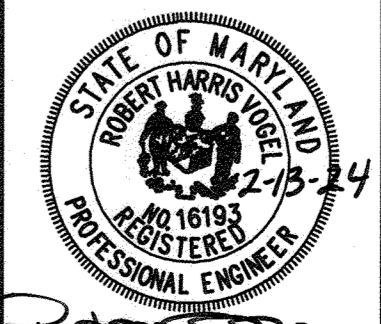
Paddock Pointe - Phase 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
76 APARTMENT UNITS AND 76 STACKED TOWN HOMES AND 2 R-2

TAX MAP: 50 BLOCK: 10 6TH ELECTION DISTRICT

VOGEL ENGINEERING

TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com



DESIGN BY: DZE/RHV
DRAWN BY: DZE/MP/KG/JR
CHECKED BY: RHV
DATE: FEB. 2024
SCALE: AS SHOWN
W.O. NO.: 07-11/40111

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 16193 EXPIRATION DATE: 09-27-2024

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

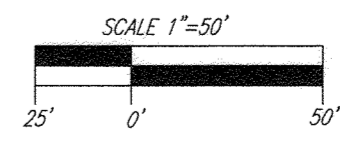
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 2/29/24

 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 3/7/24
 DIRECTOR

SMH No.	TYPE	LOCATOIN	TOP ELEV.	INV. IN	INV. OUT	REMARKS
SMH-30A	STD. PRECAST MH (G-5.12)	N= 524805.91 E= 1359944.79	176.33	160.07	159.97	
SMH-31A	STD. PRECAST MH (G-5.12)	N= 524738.67 E= 1359960.67	174.10	164.65/160.52	160.42	TYPE 'A' DROP MANHOLE
SMH-32A	STD. PRECAST MH (G-5.12)	N= 524714.69 E= 1359969.12	172.90	165.00/160.74	160.64	TYPE 'A' DROP MANHOLE
SMH-33A	STD. PRECAST MH (G-5.12)	N= 524623.76 E= 1359993.37	167.69	161.31	161.21	
SMH-34A	STD. PRECAST MH (G-5.12)	N= 524751.09 E= 1360008.50	176.15	166.69	165.59	
SMH-35A	STD. PRECAST MH (G-5.12)	N= 524773.86 E= 1360191.05	173.27	161.58	167.30	
SMH-36A	STD. PRECAST MH (G-5.12)	N= 524806.29 E= 1360022.54	167.05	161.58	161.48	
SMH-30B	STD. PRECAST MH (G-5.12)	N= 524811.79 E= 1360294.35	173.13	161.79/165.00	161.69	TYPE 'A' DROP MANHOLE
SMH-31B	STD. PRECAST MH (G-5.12)	N= 524853.32 E= 1360325.56	172.70	162.31(2)	162.21	
SMH-32B	STD. PRECAST MH (G-5.12)	N= 524775.34 E= 1360423.61	170.74	163.04	162.94	
SMH-33B	STD. PRECAST MH (G-5.12)	N= 524741.38 E= 1360408.85	171.32	163.33	163.23	
SMH-34B	STD. PRECAST MH (G-5.12)	N= 524727.96 E= 1360391.43	171.65	163.54	163.44	
SMH-35B	STD. PRECAST MH (G-5.12)	N= 524702.94 E= 1360297.63	170.88	164.03	164.03	
SMH-36B	STD. PRECAST MH (G-5.12)	N= 524858.94 E= 1360293.37	176.85	166.82	166.82	
SMH-39B	STD. PRECAST MH (G-5.12)	N= 525018.16 E= 1360293.40	172.25	167.36	167.36	TYPE 'B' DROP MANHOLE
SMH-40B	STD. PRECAST MH (G-5.12)	N= 525107.71 E= 1360185.79	181.70	176.56	176.56	
SMH-30C	STD. PRECAST MH (G-5.12)	N= 524960.40 E= 1360428.25	171.54	166.28/163.15	163.05	TYPE 'A' DROP MANHOLE
SMH-31C	STD. PRECAST MH (G-5.12)	N= 524949.88 E= 1360456.98	171.07	163.41	163.31	
SMH-32C	STD. PRECAST MH (G-5.12)	N= 524850.10 E= 1360524.38	169.76	164.01	164.01	
SMH-33C	STD. PRECAST MH (G-5.12)	N= 524880.81 E= 1360411.10	172.51	167.00	166.90	
SMH-34C	STD. PRECAST MH (G-5.12)	N= 525030.17 E= 1360293.24	177.40	171.20	171.20	
SLH-1	CLEANOUT LAMPHOLE (S-3.21)	N= 524802.37 E= 1360200.78	174.33	-	169.67	

SIZE	TYPE / CLASS	TOTAL LENGTH
8"	PVC (DR-35)	1474
8"	C-900 PVC (DR-18)	50
6" (SHC)	PVC	651
4" (SHC)	PVC	180

THE TOTAL LENGTH OF PIPE IS LINEAR FEET ONLY
CONTRACTOR SHALL INSTALL PIPE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.



PRIVATE SHC CHART - NVR UNITS											
UNIT NO.	TYPE	6" INV. @ MAIN/HH	DIST TO CO	6" INV. @ CO1	6" INV. @ CO2	4" INV. @ CO	4" INV. @ HOUSE (SFT OFFSET)	DIST TO BACK OF HOUSE	ELEV. @ BACK OF HOUSE	MCE	HOUSE F.F. ELEVATION
173	SHC	165.69	13.33	165.96		165.98	166.02	55.33	168.64	171.14	176.14
174	SHC					167.48	167.54				
175	SHC	165.93	13.33	166.20		166.22	166.26	55.33	168.88	171.38	176.14
176	SHC					167.72	167.78				
177	SHC	166.17	13.33	166.44		166.46	166.50	55.33	169.12	171.62	176.14
178	SHC					167.96	168.02				
179	SHC	166.41	13.33	166.68		166.70	166.74	55.33	169.36	171.86	176.14
180	SHC					168.20	168.26				
181	SHC	166.65	13.33	166.92		166.64	166.68	55.33	169.60	172.10	176.14
182	SHC					168.44	168.50				
183	SHC	166.89	13.33	167.16		167.18	167.22	55.33	169.84	172.34	176.14
184	SHC					168.68	168.74				
185	SHC	167.13	13.33	167.40		167.42	167.46	55.33	170.08	172.58	176.14
186	SHC					168.92	168.98				
187	SHC	167.38	13.33	167.65		167.67	167.71	55.33	170.33	172.83	176.14
188	SHC					169.17	169.23				
189	SHC	164.20	41.65	165.03		165.05	165.09	55.33	167.72	170.22	173.00
190	SHC					166.55	166.61				
191	SHC	163.93	41.65	164.76		164.78	164.82	55.33	167.45	169.95	173.00
192	SHC					166.28	166.34				
193	SHC	163.86	41.65	164.69		164.71	164.75	55.33	167.38	169.88	173.67
194	SHC					166.21	166.27				
195	SHC	163.67	41.65	164.50		164.52	164.56	55.33	167.19	169.69	173.67
196	SHC					166.02	166.08				
197	SHC	163.61	41.65	164.44		164.46	164.50	55.33	167.13	169.63	173.67
198	SHC					165.96	166.02				
199	SHC	163.54	30.00	164.14	164.54	164.56	164.60	55.33	167.23	169.73	173.40
200	SHC					166.06	166.12				
201	SHC	163.54	42.13	164.38		164.40	164.44	55.33	167.07	169.57	173.40
202	SHC					165.90	165.96				
203	SHC	163.18	41.30	164.01		164.03	164.07	55.33	166.69	169.19	173.40
204	SHC					165.53	165.59				
205	SHC	163.11	28.10	163.67	164.09	164.11	164.15	55.33	166.76	169.26	172.73
206	SHC					165.61	165.65				
207	SHC	164.70	15.00	165.00		165.02	165.06	55.33	166.13	168.63	172.37
208	SHC					166.52	166.58				
209	SHC	164.38	15.00	164.68		164.70	164.74	55.33	165.81	168.31	172.37
210	SHC					166.20	166.26				
211	SHC	164.16	15.00	164.46		164.48	164.52	55.33	165.59	168.09	172.37
212	SHC					165.98	166.04				
213	SHC	163.93	15.00	164.23		164.25	164.29	55.33	165.36	167.86	172.37
214	SHC					165.75	165.81				
215	SHC	168.01	15.00	168.31		168.33	168.37	55.33	169.44	171.94	176.34
216	SHC					169.83	169.89				
217	SHC	168.76	15.00	169.06		169.08	169.12	55.33	170.19	172.69	177.01
218	SHC					170.58	170.64				
219	SHC	169.53	15.00	169.83		169.85	169.89	55.33	170.96	173.46	177.68
220	SHC					171.35	171.41				
221	SHC	170.30	15.00	170.60		170.62	170.66	55.33	171.73	174.23	178.35
222	SHC					172.12	172.18				

NOTE: ALL SLOPES ARE 2%

PRIVATE SHC CHART - BEAZER UNITS												
UNIT NO.	TYPE	6" INV. @ MAIN/HH	STA FROM DOWNHILL	SLOPE OF MAIN	6" INV. @ SHC	4" INV. @ SHC	LF TO HOUSE	SHCSLOPE	4" INV. @ HOUSE (SFT OFFSET)	HOUSE F.F. ELEVATION	TOP OF DRIVEWAY ELEV.	MCE
157	SHC		0+09.00		165.87	165.95			166.07	178.46	176.97	169.37
158	SHC		0+21.00		166.11	166.19			166.31	178.46	176.97	169.85
159	SHC		0+33.00		166.35	166.43			166.55	178.46	176.97	169.85
160	SHC		0+45.00		166.59	166.67			166.79	178.46	176.97	170.09
161	SHC		0+57.00		166.83	166.91			167.03	178.46	176.97	170.33
162	SHC		0+69.00		167.07	167.15			167.27	178.46	176.97	170.57
163	SHC		0+81.00		167.31	167.39			167.51	178.46	176.97	170.81
164	SHC	165.69	0+93.00	2.00%	167.55	167.63	5.65	2.00%	167.75	178.46	176.97	171.05
165	SHC		1+05.00		167.79	167.87			167.99	178.46	176.97	171.29
166	SHC		1+17.00		168.03	168.11			168.23	178.46	176.97	171.53
167	SHC		1+29.00		168.27	168.35			168.47	177.13	175.97	171.77
168	SHC		1+41.00		168.51	168.59			168.71	177.13	175.97	172.01
169	SHC		1+53.00		168.75	168.83			168.95	177.13	175.64	172.25
170	SHC		1+65.00		168.99	169.07			169.19	177.13	175.64	172.49
171	SHC		1+77.00		169.23	169.31			169.43	177.13	175.64	172.73
172	SHC		1+89.00		169.47	169.55			169.67	177.13	175.64	172.97
223	SHC		0+19.76		172.95	173.03			173.04	180.30	179.48	176.34
224	SHC		0+31.76		173.31	173.39			173.40	180.30	179.48	176.70
225	SHC		0+43.76		173.67	173.75			173.76	181.63	180.47	177.06
226	SHC		0+55.76		174.03	174.11			174.12	181.63	180.47	177.42
227	SHC	172.36	0+67.76	3.00%	174.39	174.47	7.86	2.00%	174.48	182.96	181.47	177.78
228	SHC		0+79.76		174.75	174.83			174.84	182.96	181.47	178.14
229	SHC		0+91.76		175.11	175.19			175.20	182.96	181.47	178.50
230	SHC		1+03.76		175.47	175.55			175.56	182.96	181.47	178.86
231	SHC		1+15.76		175.83	175.91			175.92	182.96	181.47	179.22
232	SHC		1+27.76		176.19	176.27			176.28	182.96	181.47	179.58

PRIVATE WATER PIPE SCHEDULE		
SIZE	TYPE / CLASS	TOTAL LENGTH
6"	C-800 PVC	56
8" (WHC)	C-800 PVC	299
4" (WHC)	C-800 PVC	182

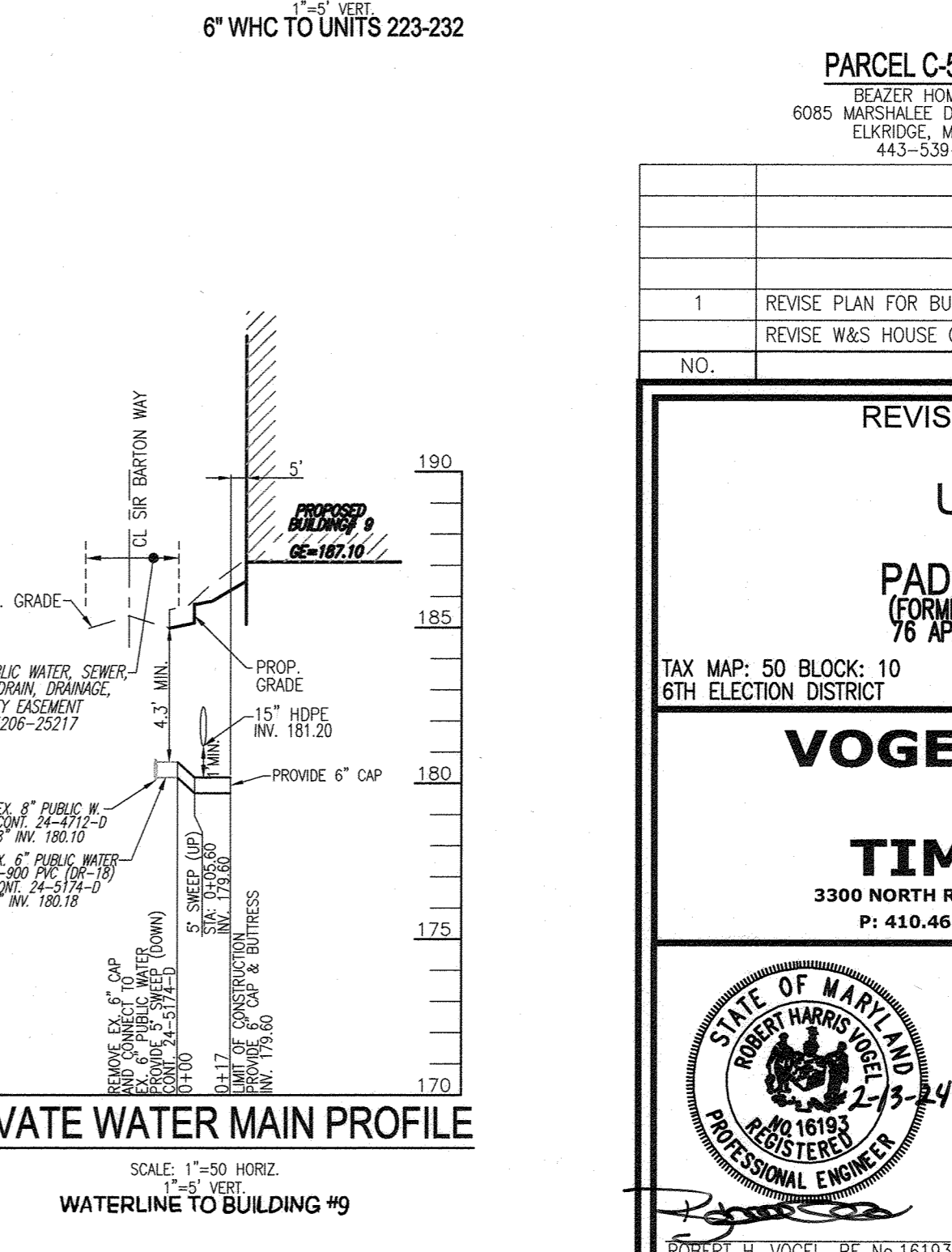
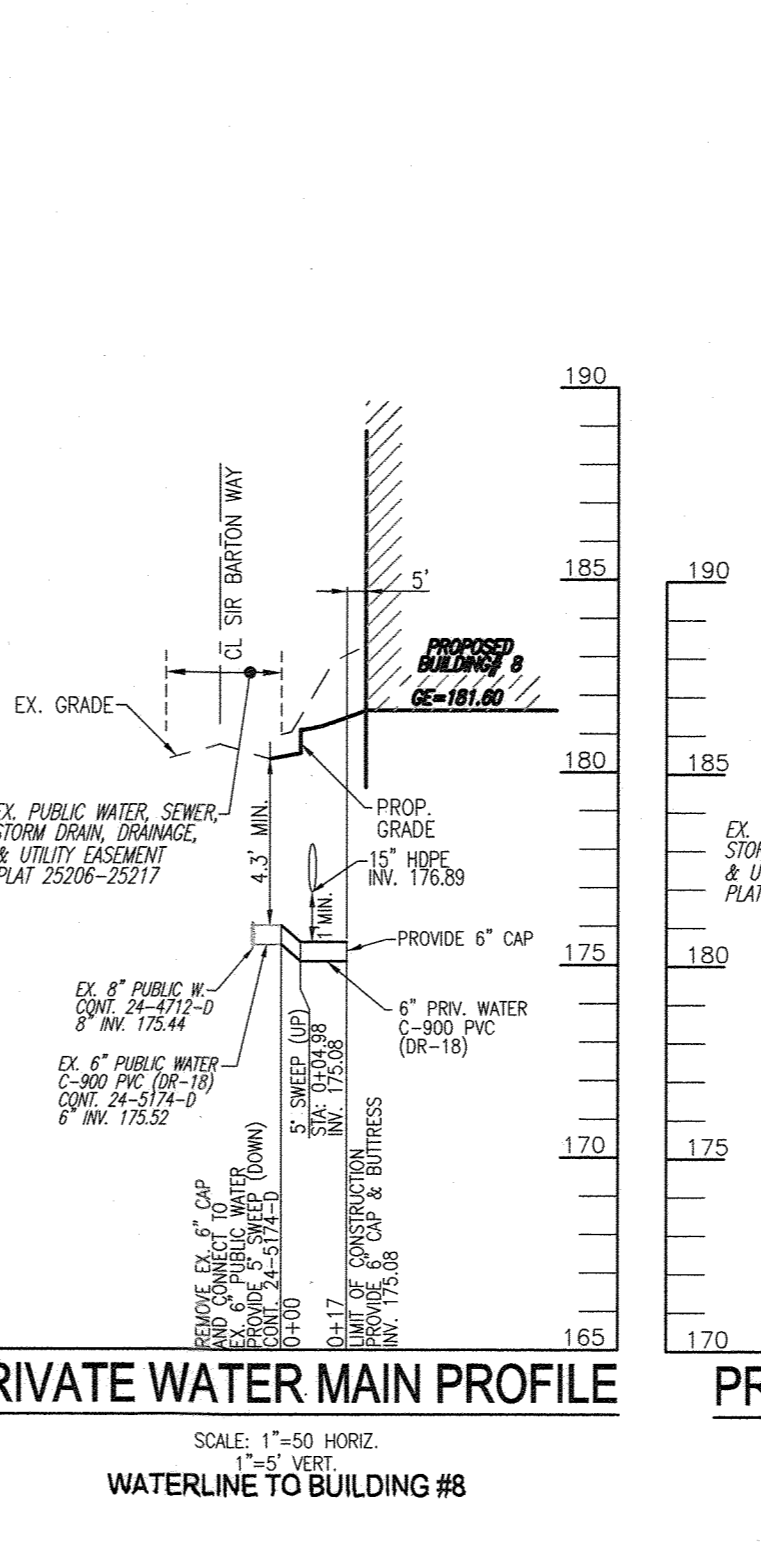
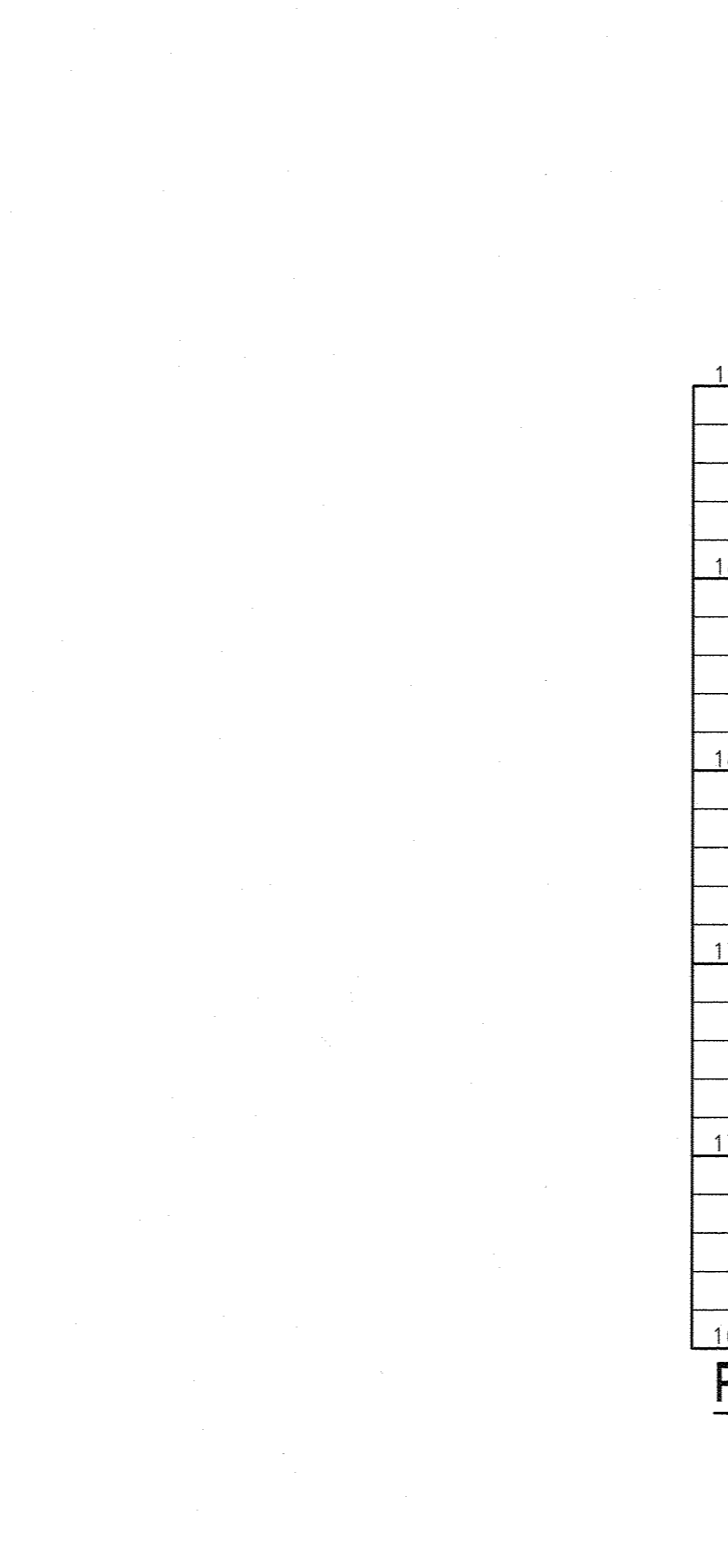
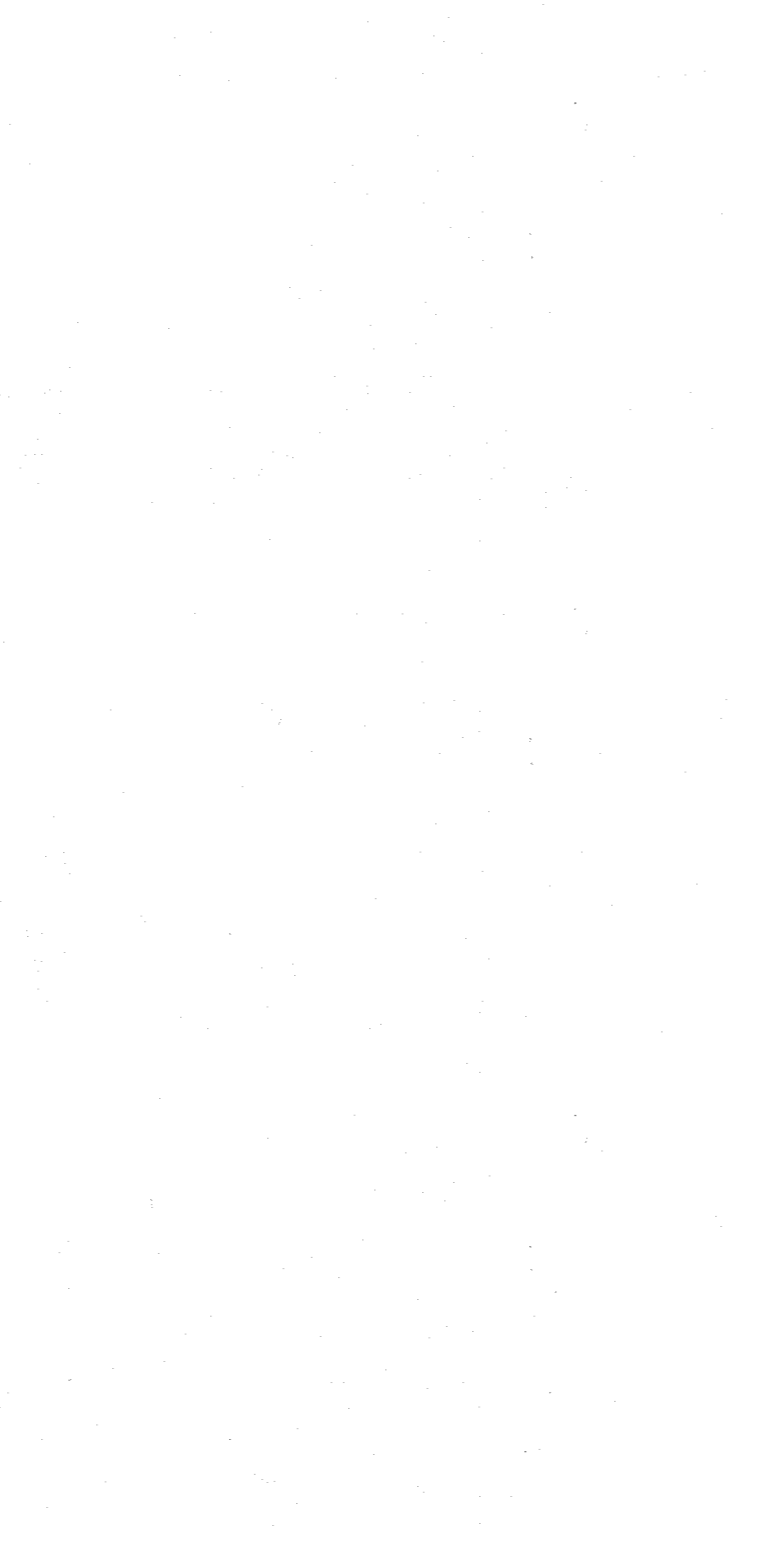
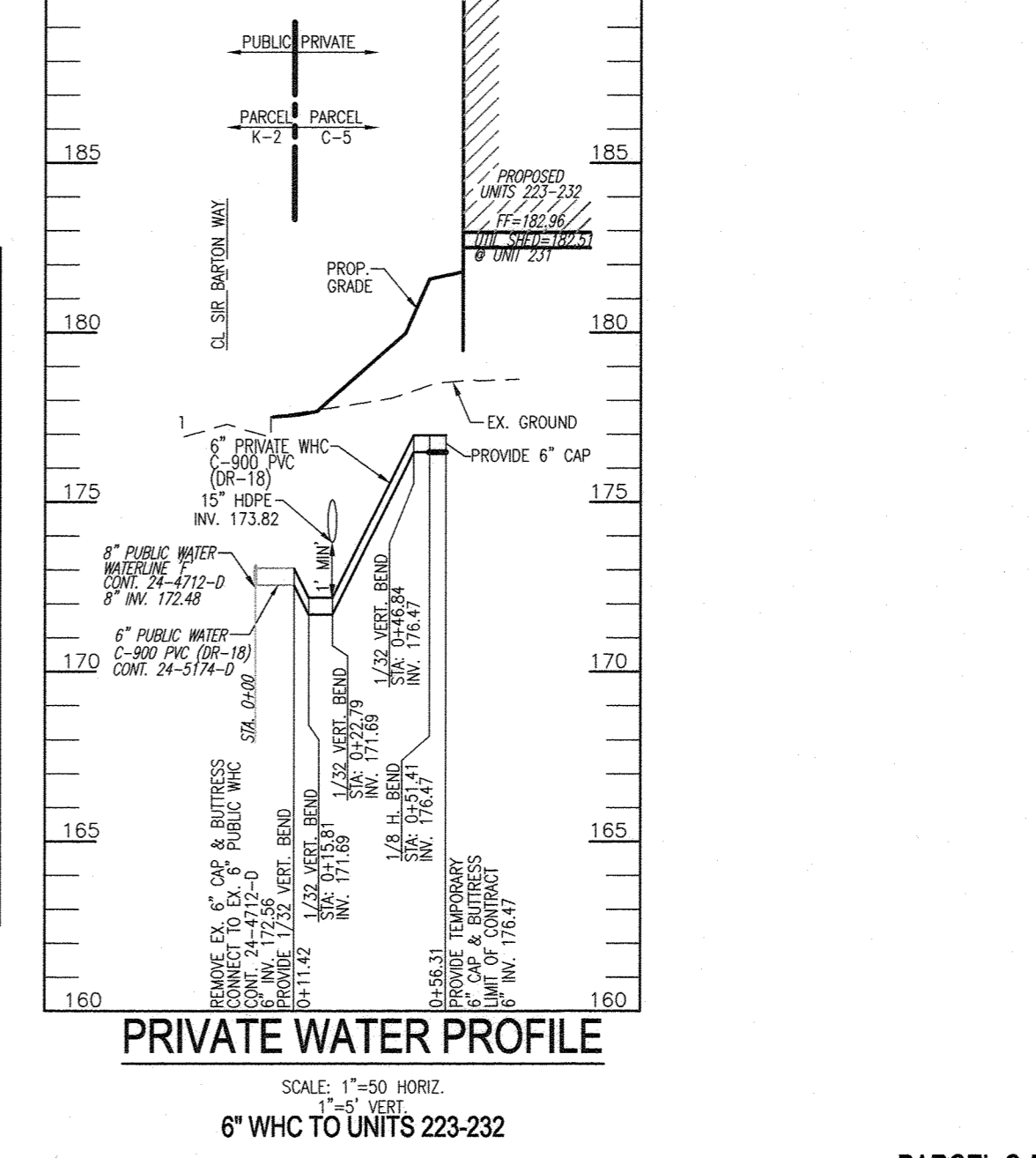
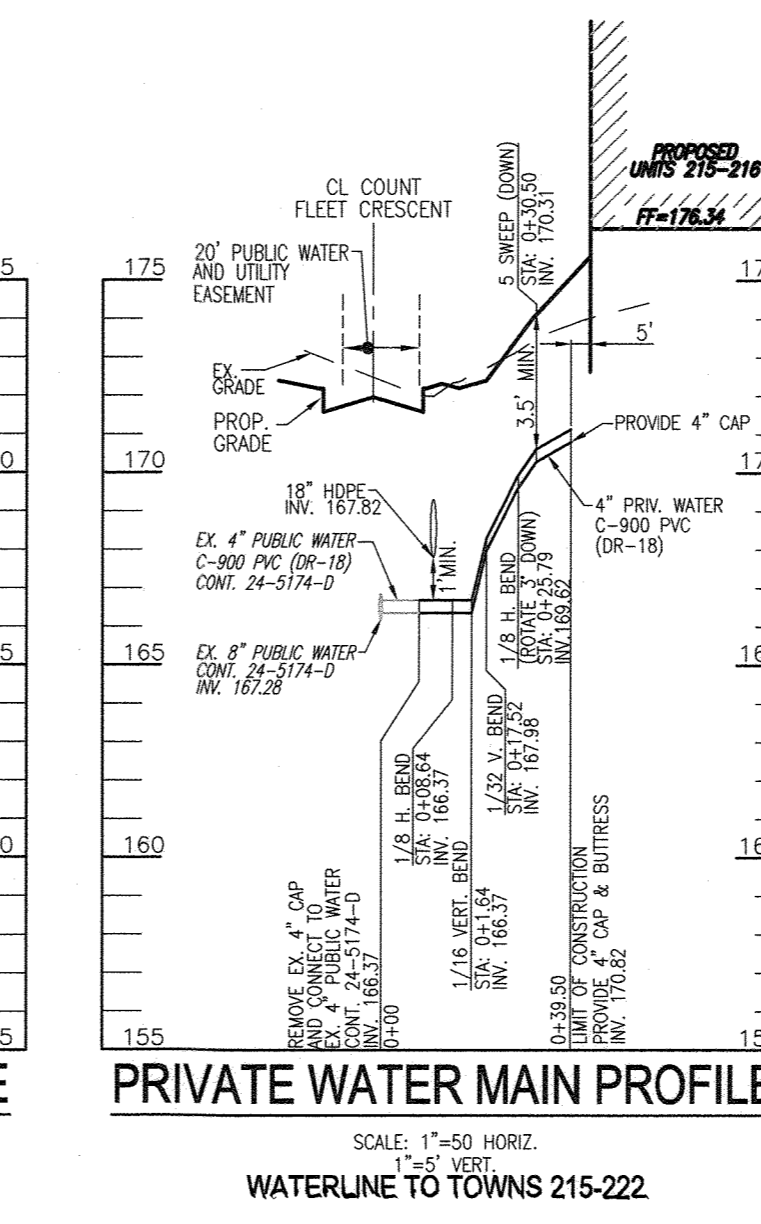
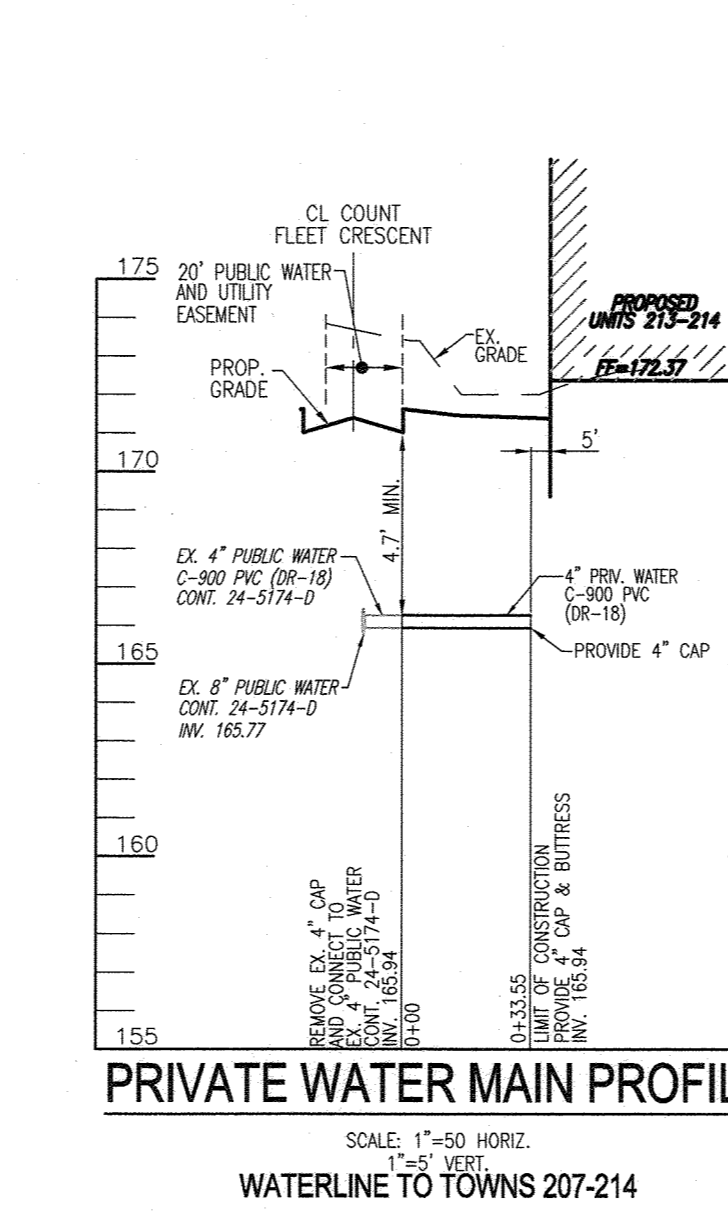
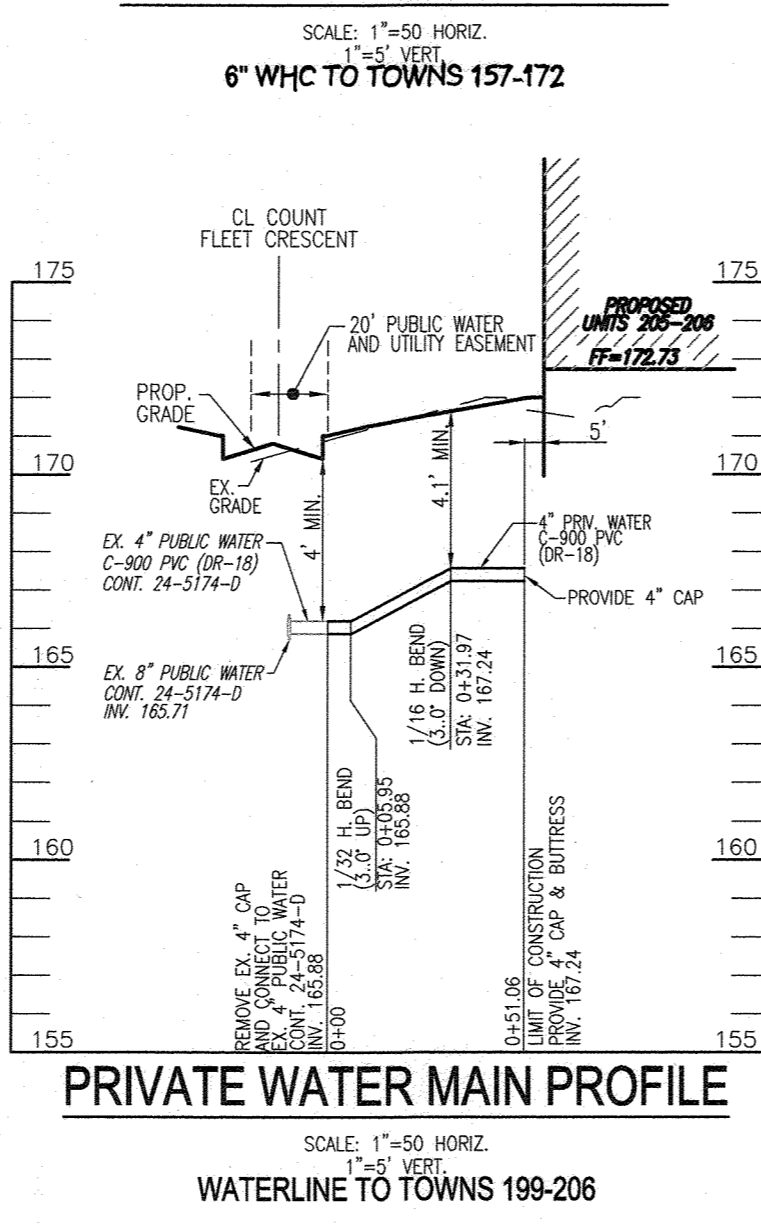
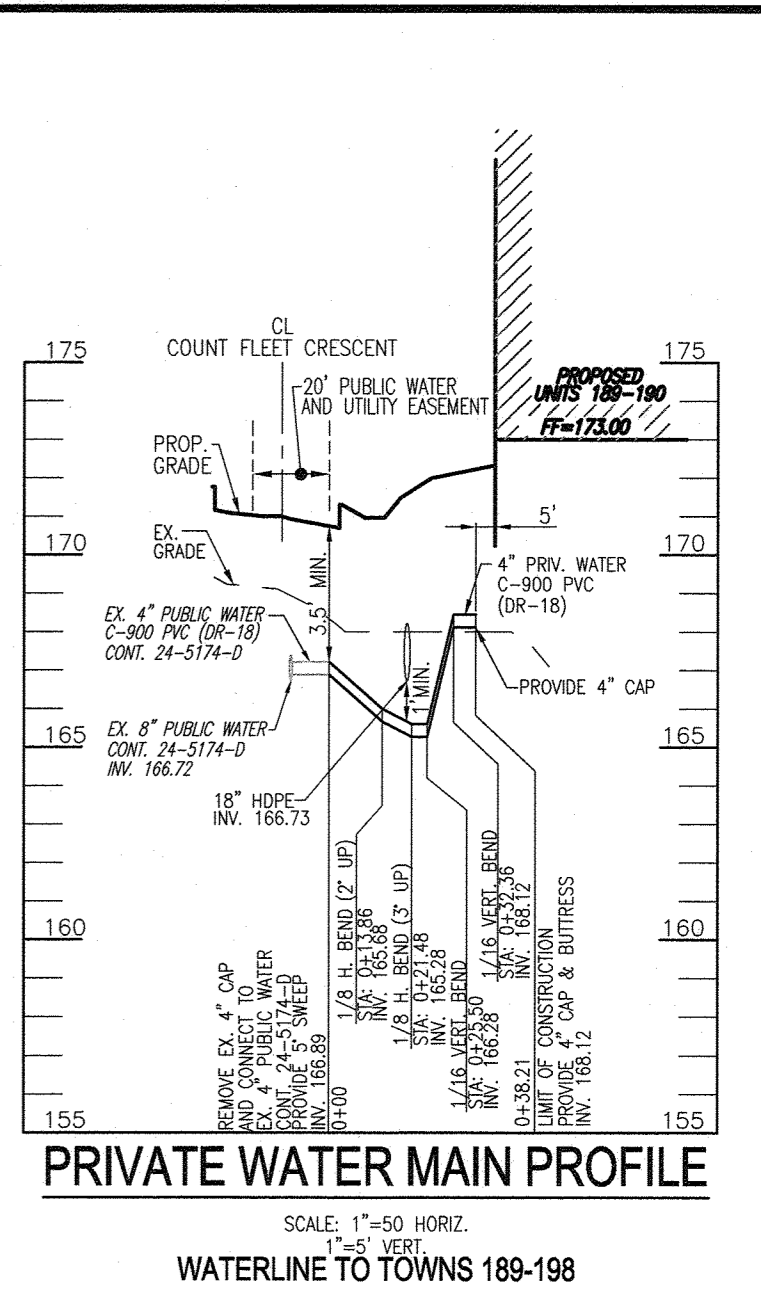
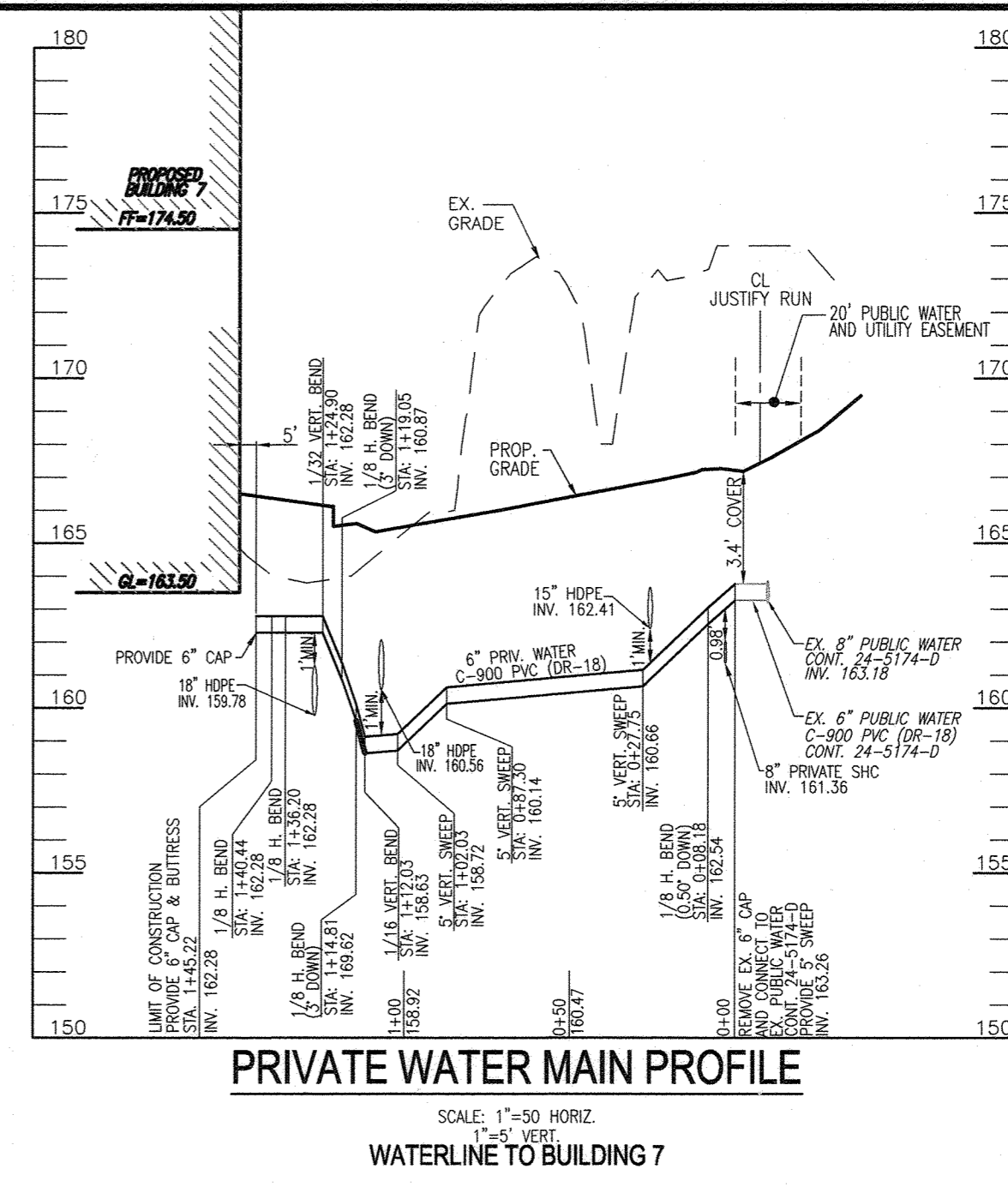
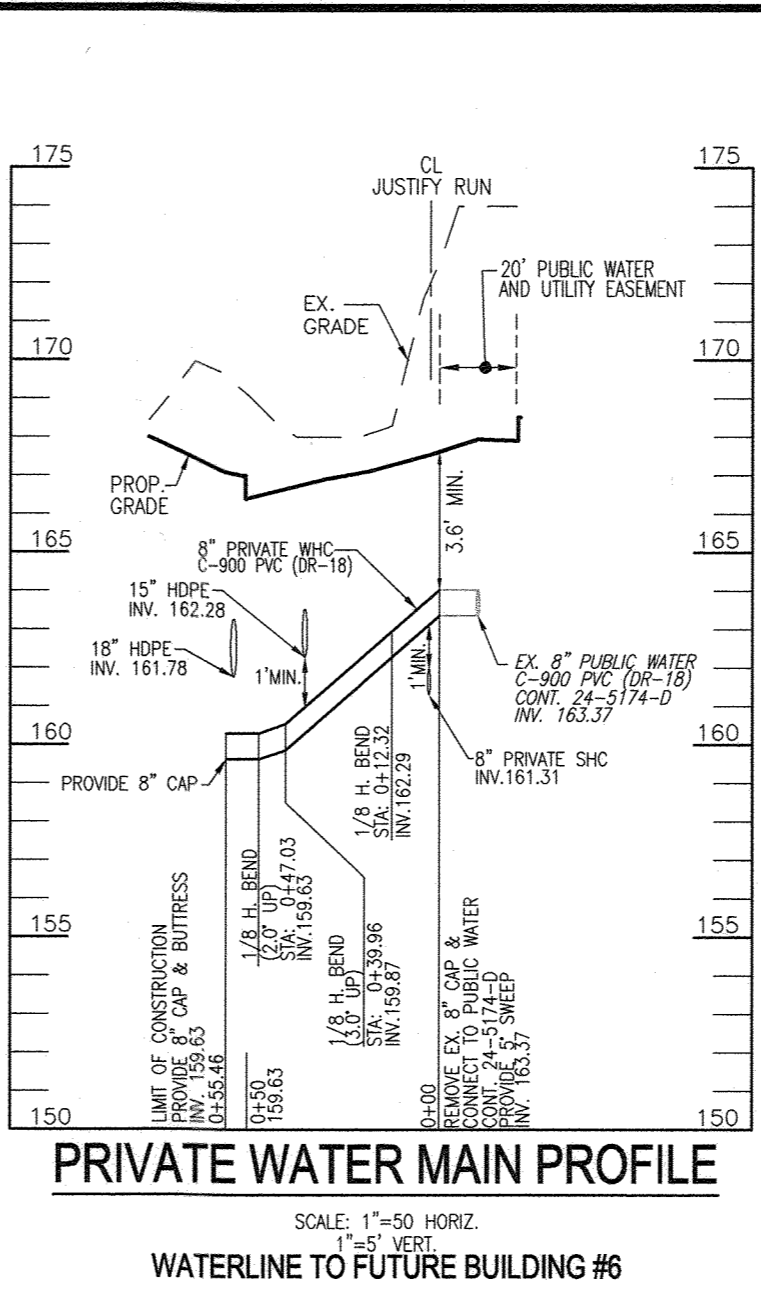
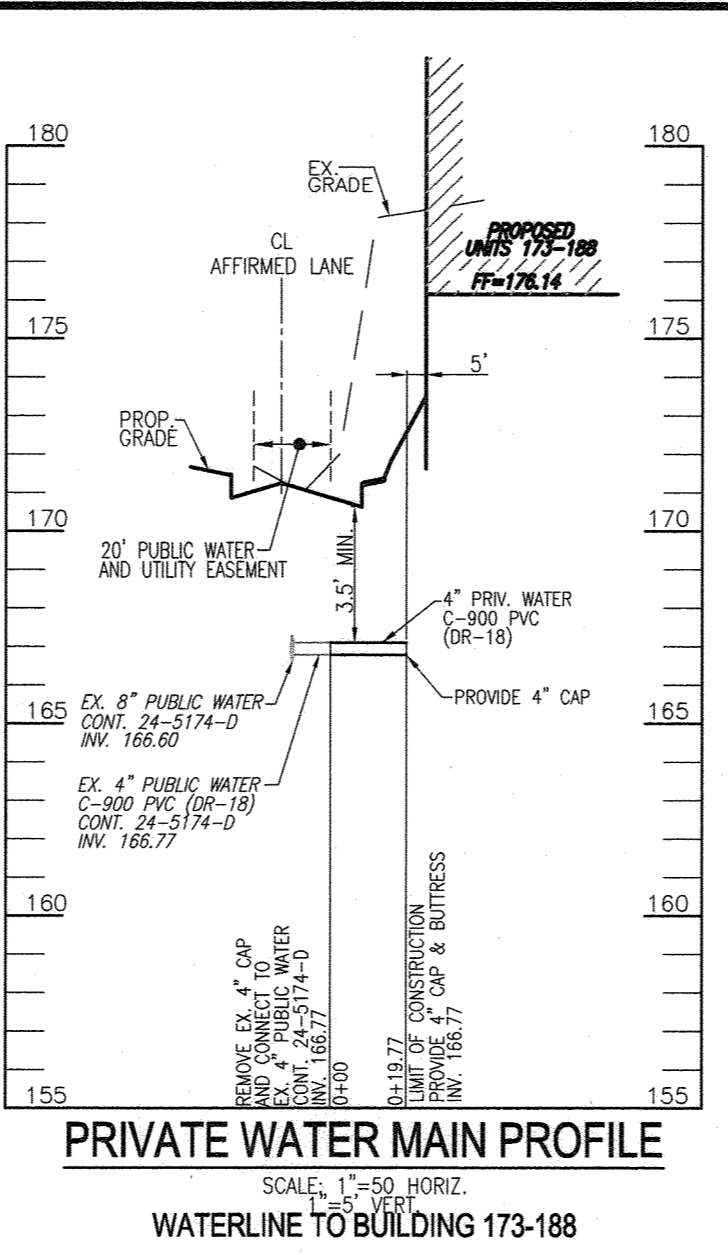
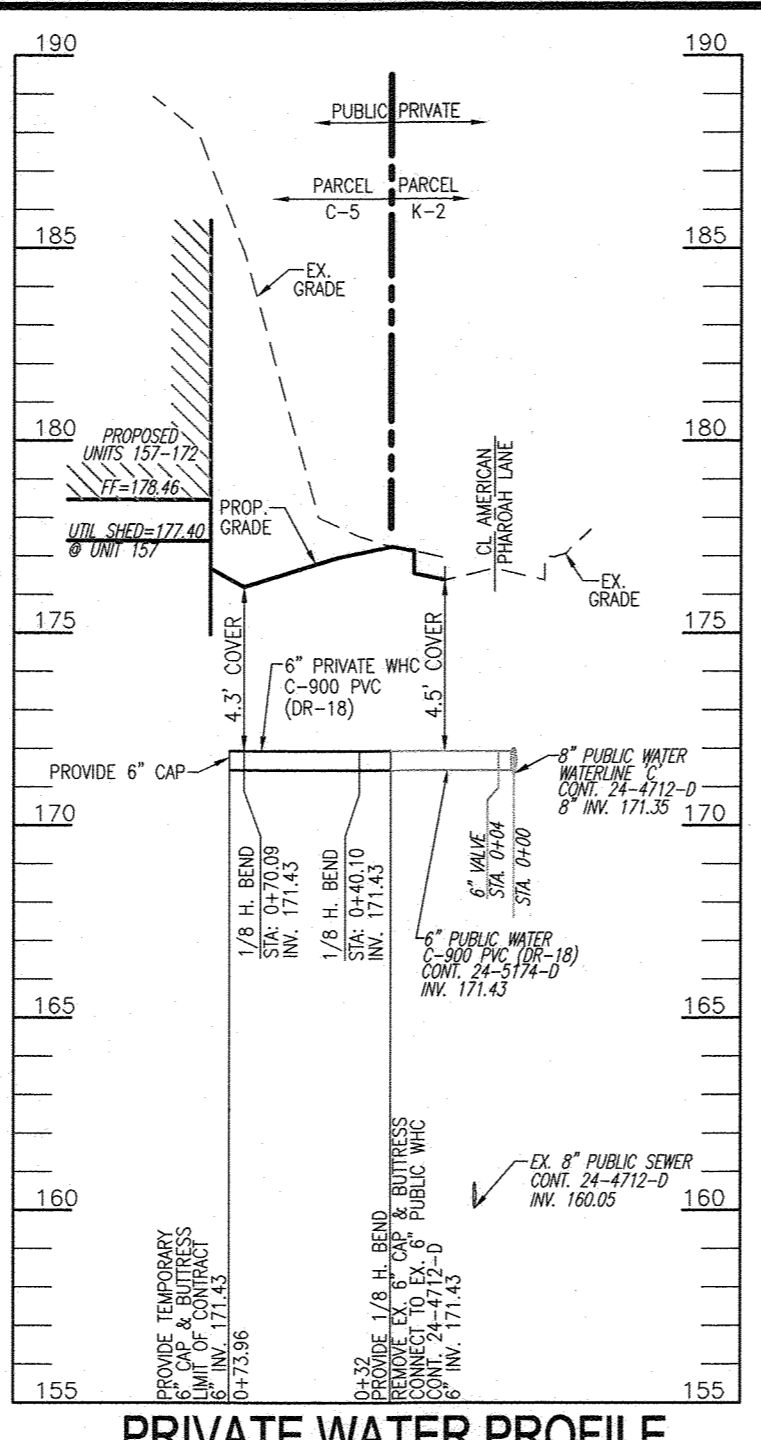
THE TOTAL LENGTH OF PIPE IS LINEAR FEET ONLY.
CONTRACTOR SHALL INSTALL PIPE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 2-29-24
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 3/1/24
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 3/7/24
DIRECTOR DATE



PARCEL C-5 OWNER: BEAZER HOMES, LLC. 6085 MARSHALLEE DRIVE, SUITE 350 198 LAUREL RACE TRACK RD ELKRODE, MD 21078 443-539-9249

OWNER: TRIPLE BELL FARMS, LLC. 198 LAUREL RACE TRACK RD LAUREL, MD 20725 (301) 470-5494

OWNER/DEVELOPER: 20006 DELAWARE, INC. 198 LAUREL RACE TRACK RD LAUREL, MD 20725 (301) 470-5494

1 REVISE PLAN FOR BUILDING ARCHITECTURE (UNITS 157-171 & 223-232); AND 11/30/23

2 REVISE W/S HOUSE CONNECTIONS

NO. REVISION DATE

REVISED SITE DEVELOPMENT PLAN

UTILITY PROFILES

PADDOCK POINTE - PHASE 3 (FORMERLY KNOWN AS LAUREL PARK STATION) 76 APARTMENT PARCELS AND 76 STACKED TOWN PARCELS A AND K-2

TAX MAP: 50 BLOCK: 10 ZONED: TOD PARCEL 384 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7656 F: 410.461.8961 www.timmons.com

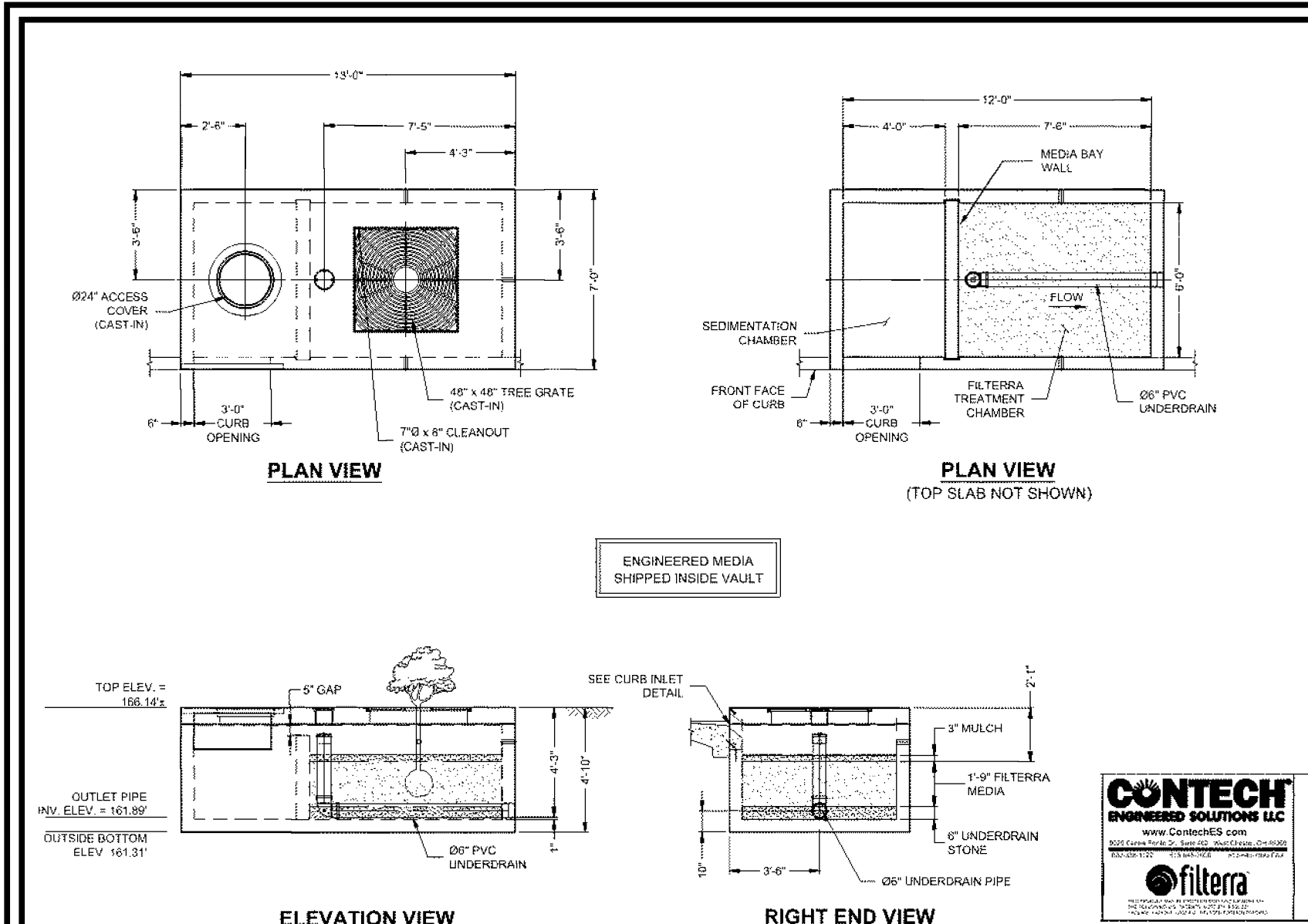
PROFESSIONAL CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 16193 EXPIRATION DATE: 09-27-2024

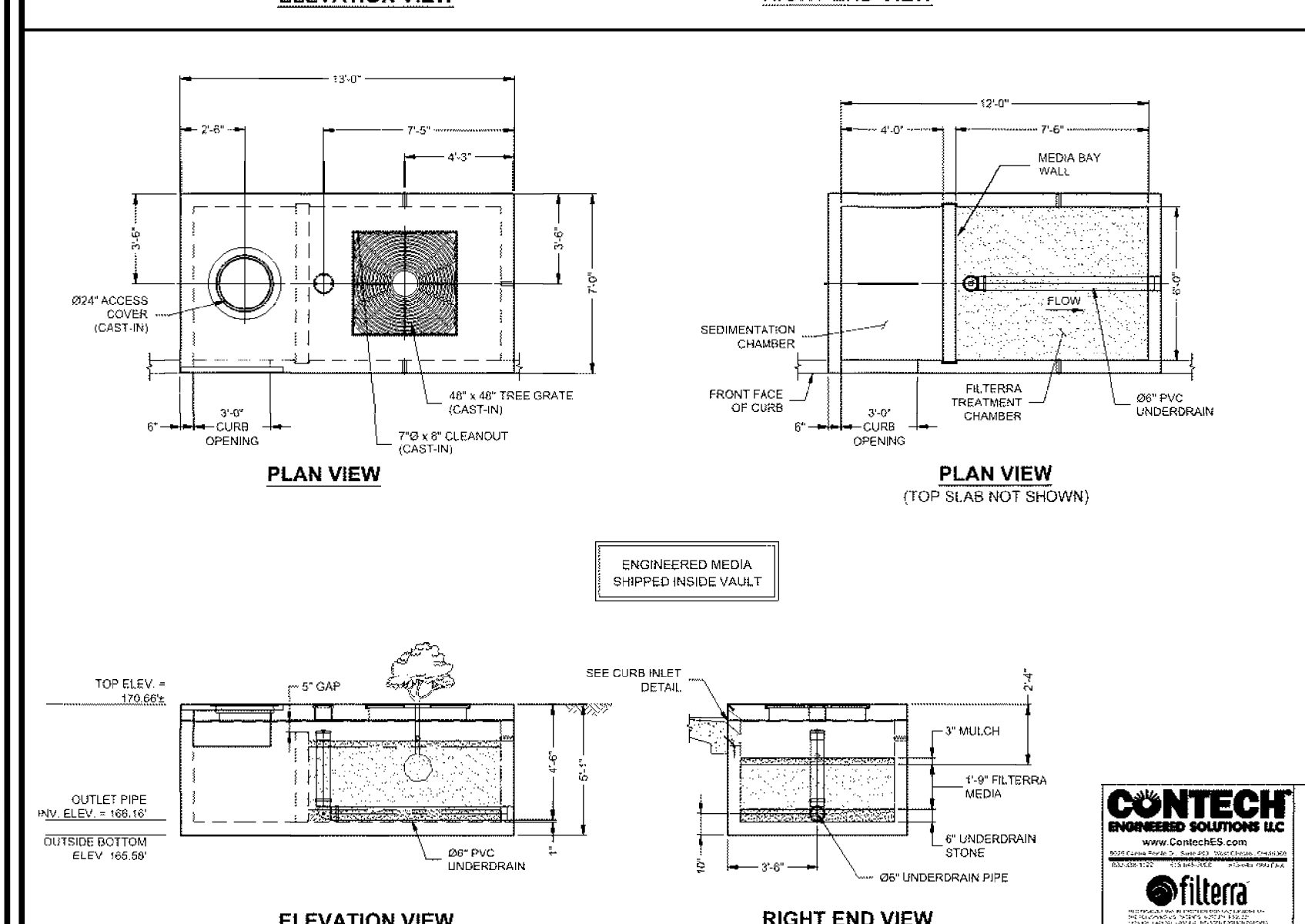
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DRAWN BY: DZE/MP/KS/JR
CHECKED BY: RHV
DATE: FEB. 2024
SCALE: AS SHOWN
W.O. NO.: 07-11/40111

18 SHEET OF 34

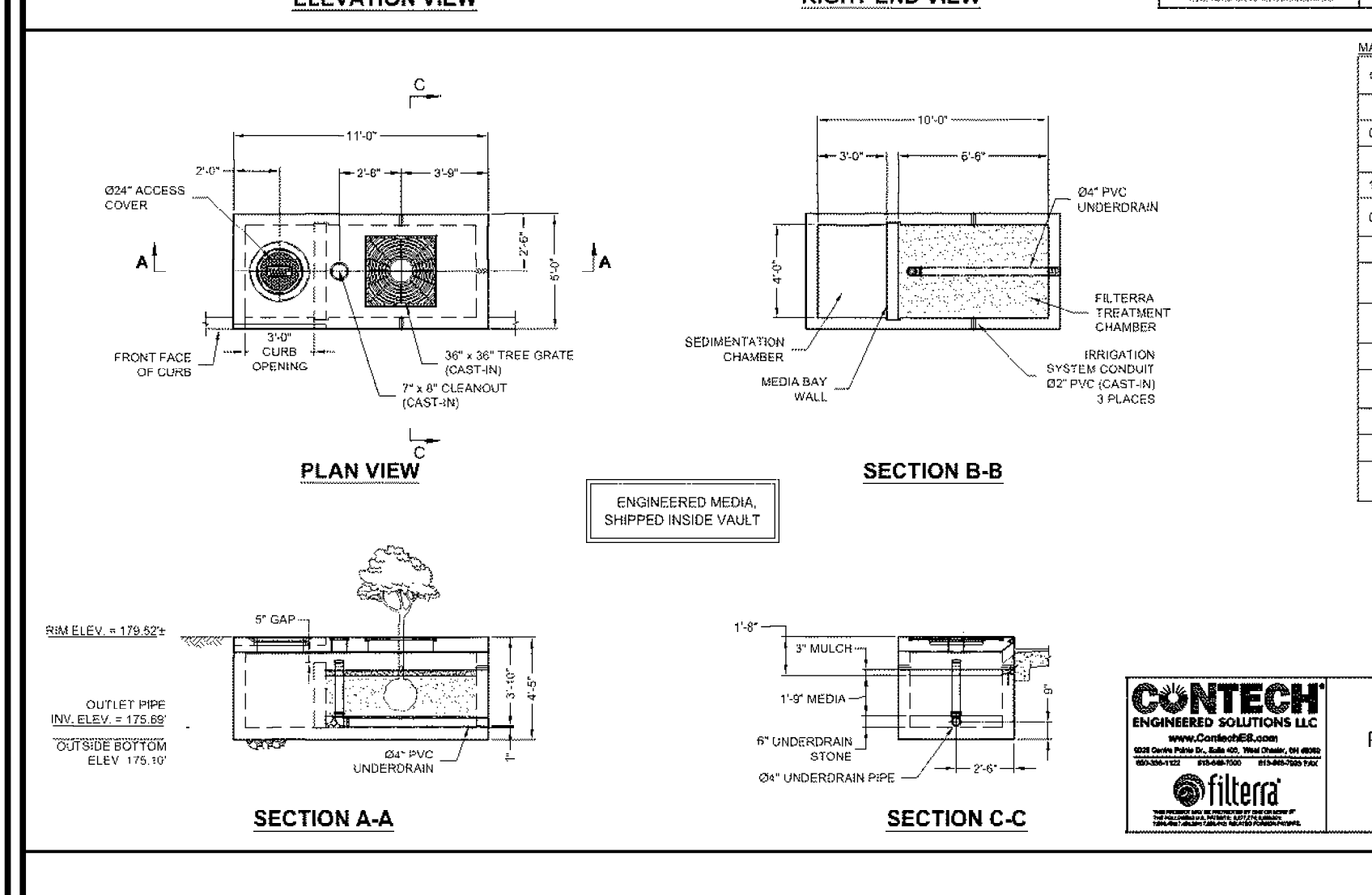
ROBERT H. VOGEL, PE No.16193



COUNT	DESCRIPTION	INSTALLED BY
1	PLANT: SEE INSTALLATION NOTE F	CONTECH
0.42 CY	MULCH: SEE INSTALLATION NOTE F	CONTECH
2.82 CY	STANDARD FILTER MEDIA	CONTECH
0.83 CY	1/2" #4 ROUND AGGREGATE UNDERDRAIN STONE	CONTECH
1	1" FILTER FLOUNT CLUST	CONTECH
1	48" x 48" TREE GRATE FRAME (CAST-IN) GALV.	CONTECH
1	48" x 48" TREE GRATE WITH 1" OPENING	CONTECH
1	3" x 3" CLEANOUT (CAST-IN)	CONTECH
1	3" x 3" ACCESS FRAME & COVER LHM #1402989	CONTECH
3	3" PVC IRRIGATION CONDUIT	CONTECH
1	SEALANT FOR JOINTS (NSMAG) (CAST-IN)	CONTECH
4 LF	6" PERFORATED UNDERDRAIN	CONTECH



COUNT	DESCRIPTION	INSTALLED BY
1	PLANT: SEE INSTALLATION NOTE F	CONTECH
0.42 CY	MULCH: SEE INSTALLATION NOTE F	CONTECH
2.82 CY	STANDARD FILTER MEDIA	CONTECH
0.83 CY	1/2" #4 ROUND AGGREGATE UNDERDRAIN STONE	CONTECH
1	1" FILTER FLOUNT CLUST	CONTECH
1	36" x 36" TREE GRATE FRAME (CAST-IN) GALV.	CONTECH
1	36" x 36" TREE GRATE WITH 1" OPENING	CONTECH
1	3" x 3" CLEANOUT (CAST-IN)	CONTECH
1	3" x 3" ACCESS FRAME & COVER LHM #1402989	CONTECH
3	3" PVC IRRIGATION CONDUIT	CONTECH
1	SEALANT FOR JOINTS (NSMAG) (CAST-IN)	CONTECH
4 LF	6" PERFORATED UNDERDRAIN	CONTECH



COUNT	DESCRIPTION	INSTALLED BY
1	PLANT: SEE GENERAL NOTE 6	CONTECH
0.24 CY	MULCH: SEE GENERAL NOTE 6	CONTECH
1	ENERGY DISSIPATION ROCK LAYER	CONTECH
1.88 CY	STANDARD FILTER MEDIA	CONTECH
0.46 CY	1/2" #4 ROUND AGGREGATE UNDERDRAIN STONE	CONTECH
1	1" FILTER FLOUNT CLUST	CONTECH
1	36" x 36" TREE GRATE FRAME (CAST-IN) GALV.	CONTECH
1	36" x 36" TREE GRATE WITH 1" OPENING	CONTECH
1	6" x 6" CLEANOUT (F) (CAST-IN)	CONTECH
1	6" x 6" ACCESS FRAME & COVER LHM #1402989	CONTECH
3	3" PVC IRRIGATION CONDUIT	CONTECH
1	SEALANT FOR JOINTS (NSMAG) (CAST-IN)	CONTECH
3.5 LF	2 1/2" x 2 1/2" x 1/4" CURB NOSING (CAST-IN)	CONTECH

FROM	TO	ELEV. AT INLET	ELEV. AT OUTLET	INVERT DIFFERENCE	INVERT SLOPE	INVERT LENGTH	INVERT INVERT
SWM11/F-22	1-333	165.54	161.89	4.25	0.025	161.64	161.64
SWM11/F-23	1-309	170.66	166.16	4.50	0.025	166.94	166.94
SWM11/F-24	1-333	178.92	175.52	3.83	0.025	175.49	175.49

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED FILTERRA DEVICES

ACTIVATION

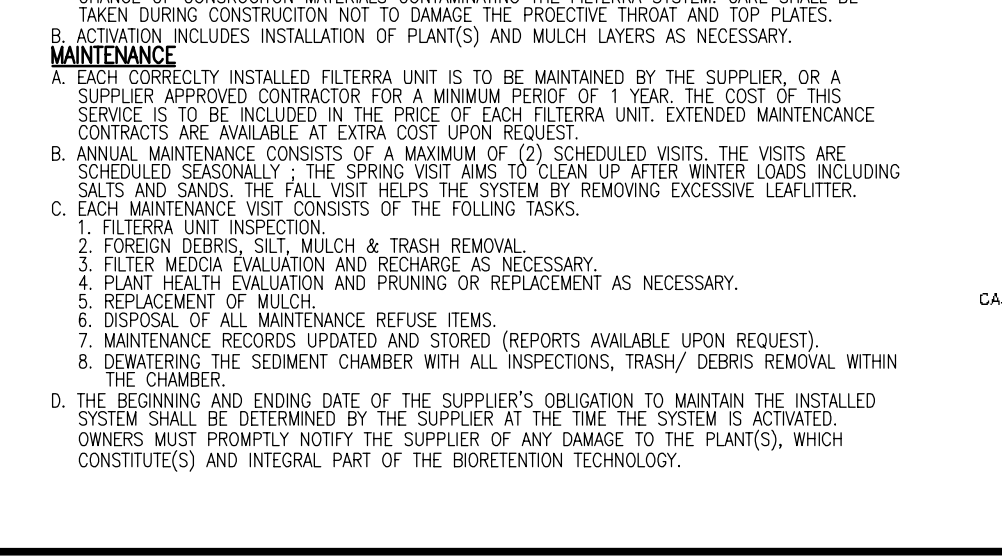
A. ACTIVATION OF THE FILTERRA UNIT IS PERFORMED ONLY BY THE SUPPLIER. PURCHASE IS FOR THE SUPPLIER'S USE. THE SUPPLIER SHALL BE RESPONSIBLE FOR THE ACTIVATION OF THE SYSTEM. THE SUPPLIER SHALL BE RESPONSIBLE FOR THE ACTIVATION OF THE SYSTEM. THE SUPPLIER SHALL BE RESPONSIBLE FOR THE ACTIVATION OF THE SYSTEM.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

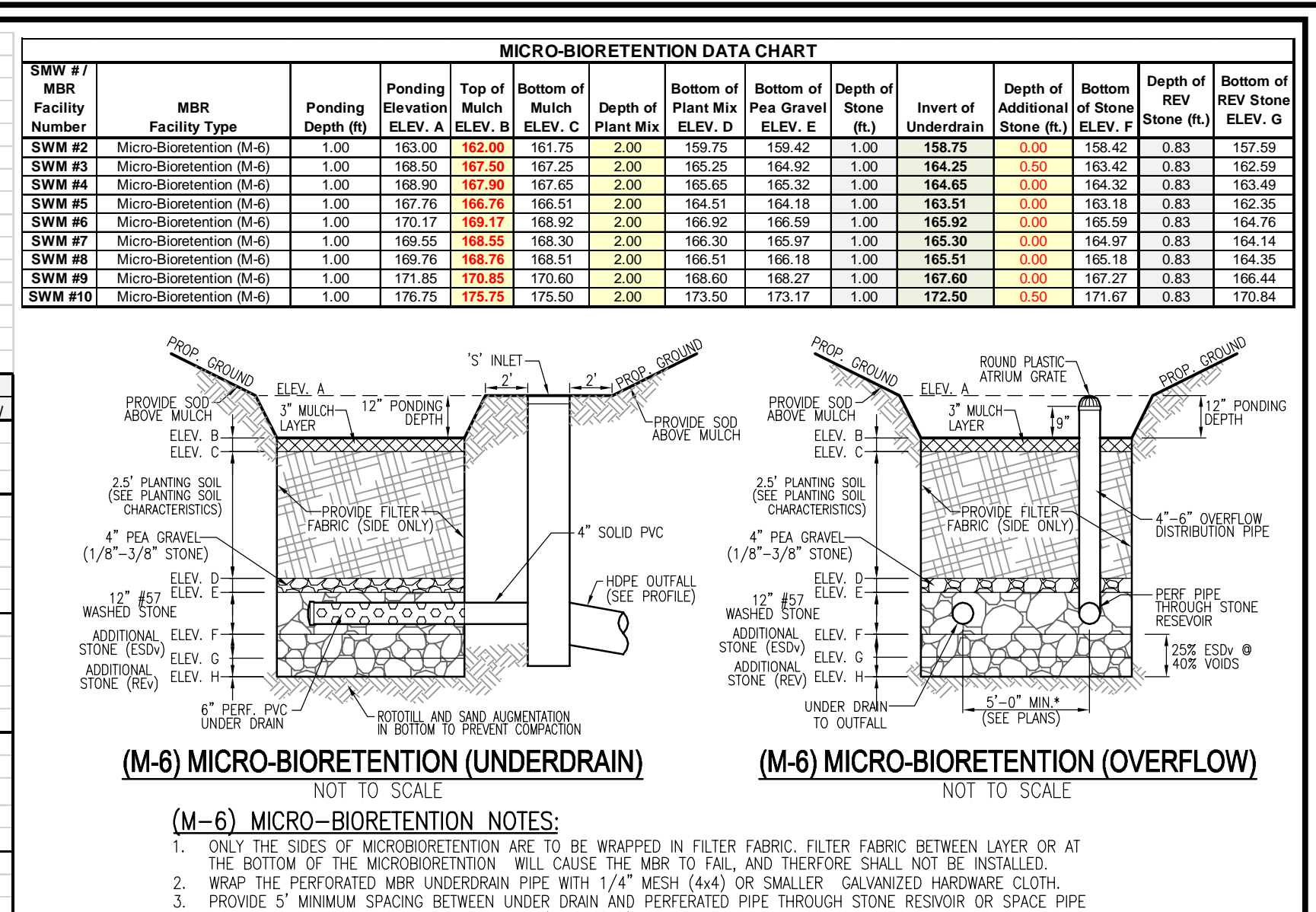
Chief, Development Engineering Division: *Chad Edmondson* 7/12/2022

Chief, Division of Land Development: *Angie Brown* 7/12/2022

Director: *Sharon D'Amico*



SWM#	MBR	Ponding Depth (ft)	Ponding Elevation (ft)	Top of Mulch (ft)	Bottom of Mulch (ft)	Depth of Plant Mix (ft)	Bottom of Plant Mix (ft)	Bottom of Pea Gravel (ft)	Depth of Stone (ft)	Invert of Underdrain (ft)	Depth of Additional Stone (ft)	Bottom of Stone (ft)	Depth of Rev (ft)	Bottom of Rev Stone (ft)
SWM#2	Micro-Bioretenion (M-6)	1.00	163.00	162.90	161.75	2.00	159.75	159.42	1.00	158.79	0.00	158.42	0.83	157.59
SWM#3	Micro-Bioretenion (M-6)	1.00	168.50	167.90	166.25	2.00	164.25	164.25	1.00	164.25	0.00	163.42	0.83	162.59
SWM#4	Micro-Bioretenion (M-6)	1.00	168.90	167.90	166.65	2.00	166.65	166.32	1.00	166.65	0.00	165.82	0.83	164.99
SWM#5	Micro-Bioretenion (M-6)	1.00	167.78	166.78	166.51	2.00	164.51	164.18	1.00	163.51	0.00	163.18	0.83	162.35
SWM#6	Micro-Bioretenion (M-6)	1.00	173.17	172.57	171.00	2.00	169.00	168.67	1.00	168.00	0.00	167.17	0.83	166.34
SWM#7	Micro-Bioretenion (M-6)	1.00	169.55	168.55	168.30	2.00	166.30	165.97	1.00	165.30	0.00	164.47	0.83	163.64
SWM#8	Micro-Bioretenion (M-6)	1.00	169.78	168.78	168.51	2.00	166.51	166.18	1.00	165.51	0.00	164.68	0.83	163.85
SWM#9	Micro-Bioretenion (M-6)	1.00	177.85	177.25	175.60	2.00	173.60	173.27	1.00	172.60	0.00	171.77	0.83	170.94
SWM#10	Micro-Bioretenion (M-6)	1.00	176.75	175.75	175.50	2.00	173.50	173.17	1.00	172.50	0.00	171.67	0.83	170.84



(M-6) MICRO-BIORETENTION (UNDERDRAIN)

(M-6) MICRO-BIORETENTION (OVERFLOW)

(M-6) MICRO-BIORETENTION NOTES:

- ONLY THE SIDES OF MICROBIOTRETENTION ARE TO BE WRAPPED IN FILTER FABRIC. FILTER FABRIC BETWEEN LAYER OR AT THE BOTTOM OF THE MICROBIOTRETENTION WILL CAUSE THE MBR TO FAIL, AND THEREFORE SHALL NOT BE INSTALLED.
- WRAP THE PERFORATED MBR UNDERDRAIN PIPE WITH 1/4" MESH (4x4) OR SMALLER GALVANIZED HAWTHORNE CLOTH.
- PROVIDE 5" MINIMUM SPACING BETWEEN UNDER DRAIN AND PERFORATED PIPE THROUGH STONE RESERVOIR OR SPACE PIPE EQUALLY ACROSS BOTTOM FOR SMALL BIOS. (SEE PLANS)

Material	Specification	Size	Notes
Plantings	See Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil	loamy sand (60 - 65%) & compost (35 - 40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2974)	n/a	
Mulch	shredded hardwood	n/a	aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	pea gravel: ASTM-D-448	No. 8 OR NO. 9 (1/8" TO 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile			
Gravel (underdrains and infiltration berms)	AAASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" to 3/4")	PE Type I nonwoven
Underdrain piping	F 758, Type PS 28 or AAASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary with 1/4" mesh (4x4) or smaller galvanized hardware cloth.
Poured in place concrete (if required)	MSHA Mix No. 3; F _c = 3500 psi @ 28 days, normal weight, air-entrained, reinforcing to meet ASTM-615-60	n/a	on-site testing of poured-in-place concrete required; 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved State or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 330.8/8.9; vertical loading [H-10 or H-20]; allowable horizontal loading (based on soil pressure); and analysis of potential cracking.
Sand	AAASHTO M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Gypstone (AAASHTO #10) are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

FILTERRA GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR FABRICATION DRAWINGS WITH DETAILS, STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE.
- CONTECH'S QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- STRUCTURE SHALL MEET PEDESTRIAN (300 PSF) LIVE LOAD WITH HS-20 SURCHARGE AND 1.5 LOAD AT THE CURB INLET, ASSUMING EARTH COVER OF 0'-4" AND GRADEWATER ELEVATION AT OR BELOW FINISH GRADE ELEVATION. ENGINEER TO CONFORM ACTUAL GROUNDWATER ELEVATION.
- FILTERRA STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857, SIAJ C-918 and 401-318 LOAD FACTOR DESIGN METHOD.
- PLANT, MULCH AND DISPERSION ROCKS SUPPLIED BY CONTECH AND DELIVERED AT TIME OF SYSTEM ACTIVATION. PLANT SELECTION SHALL BE DONE BY THE ENGINEER OF RECORD IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.

FILTERRA INSTALLATION NOTES

- ANY SIDE-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE FILTERRA STRUCTURE. SPREADER BAR WITH SUFFICIENT CABLE IS REQUIRED FOR SAFETY AND REDUCTION OF DAMAGE TO CONCRETE STRUCTURE.
- CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO SUPPLY AND INSTALL INLET PROTECTION BAR IF REQUIRED BY LOCAL JURISDICTION.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT FILTERRA MEDIA FROM CONSTRUCTION-RELATED RUNOFF.
- CONTECH IS RESPONSIBLE FOR ACTIVATION OF THE SYSTEM WHICH INCLUDES PLANTING OF THE SPECIFIED PLANT, MULCH INSTALLATION, AND PLACING OF DISPERSION ROCK. ACTIVATION ONLY OCCURS WHEN THE SITE IS FULLY STABILIZED WITH FINAL PAVEMENT INSTALLED AND SWEEP CLEAN OF CONSTRUCTION SEDIMENT.
- CONTRACTOR TO MAINTAIN AND FILED OPERATIONS AT 513-645-7770 TO THE SCHEDULE ACTIVATION.
- IT IS RECOMMENDED THAT ALL FILTERRA UNITS BE WATERED BY IRRIGATION LINES OR SPRINKLER SYSTEMS ON A REGULAR BASIS. FILTERRA UNITS MAY BE EQUIPPED WITH IRRIGATION HOLES FOR NEW OR EXISTING IRRIGATION LINES UPON REQUEST.

OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3), MICRO-BIORETENTION (M-6), RAIN GARDENS (M-7), BIOTRETENTION SWALE (M-8), AND ENHANCED FILTERS (M-9)

- THE OWNER SHALL MAINTAIN THE PLANT MATERIALS AND SUBSTITUTES WITHIN THE MICROBIOTRETENTION PRACTICES THEY MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BENZENE, CHLORINE, COPPER, CHROMIUM, CADMIUM, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER SECTION 15.02(B)(1) OF THE PLANTING SOIL.
- THE OWNER SHALL REMOVE PLANT MATERIALS AND SUBSTITUTES FROM THE SITE AT THE END OF EACH YEAR. PLANT MATERIALS AND SUBSTITUTES SHALL BE REMOVED FROM THE SITE AT THE END OF EACH YEAR. PLANT MATERIALS AND SUBSTITUTES SHALL BE REMOVED FROM THE SITE AT THE END OF EACH YEAR.
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APPENDIX B.A.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION BERMS

1. MATERIAL SPECIFICATIONS

THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.A.1.

2. FILTERING MEDIA OR PLANTING SOIL

THE SOIL SHALL BE A UNIFORM MIX FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTITUTES SHALL BE USED OR DAMAGED WITHIN THE MICROBIOTRETENTION PRACTICES THEY MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BENZENE, CHLORINE, COPPER, CHROMIUM, CADMIUM, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER SECTION 15.02(B)(1) OF THE PLANTING SOIL.

3. COMPACTION

IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIOTRETENTION PRACTICES AND THE REQUIRED BACKFILL, WHEN POSSIBLE. USE OF COMPACTOR HOES TO REMOVE ORANGE SOIL IS PRACTICES ARE DETAILED USING LOWER. THE CONTRACTOR SHOULD USE WHEEL TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TUFF TIRES. USE OF EQUIPMENT WITH HOLLOW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH-PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION, RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.

4. PLANT MATERIAL

RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A.2.3.

5. PLANT INSTALLATION

COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS. MULCH SHOULD BE 2" TO 4" DEEP. MULCH SHOULD BE PLACED IN SURROUNDING SOIL TO A UNIFORM DEPTH. MULCH SHOULD BE PLACED IN SURROUNDING SOIL TO A UNIFORM DEPTH. MULCH SHOULD BE PLACED IN SURROUNDING SOIL TO A UNIFORM DEPTH.

OWNER
TRIPLE BELL FARMS, LLC
198 LAUREL RACE TRACK RD
LAUREL, MD 20725
(301) 470-5494

OWNER/DEVELOPER
20006 DELAWARE, INC.
198 LAUREL RACE TRACK RD
LAUREL, MD 20725
(301) 470-5494

SITE DEVELOPMENT PLAN

STORMWATER MANAGEMENT NOTES AND DETAILS

PADDOCK POINTE - PHASE 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
20 APARTMENT PARCELS C-1 & K - RACKED TOWN

TAX MAP: 50 BLOCK: 10
5TH ELECTION DISTRICT

ZONED: TOD

PARCEL 384
HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE

DESIGN BY: DZE/RHV
DRAWN BY: DZE/KG/MP
CHECKED BY: RHV
DATE: JUNE 2022
SCALE: AS SHOWN
W.D. NO.: 07-11/40111

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2022.

STATE OF MARYLAND
ROBERT H. VOGEL, P.E. No. 16193

20 SHEET OF 34

SITE SPECIFIC DATA

PROJECT NUMBER: 12052
 PROJECT NAME: PADDOCK POINT PHASE 2
 PROJECT LOCATION: HOWARD COUNTY, MD
 STRUCTURE ID: MW-1
 TREATMENT REQUIRED: MW-1
 VOLUME BASED (CF): N/A
 FLOW BASED (CFS): 0.475
 TREATMENT HQL AVAILABLE (FT): 4.86
 PEAK BYPASS REQUIRED (CFS) - IF APPLICABLE: 1.99

PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	179.84	HOPE	18"
INLET PIPE 2	N/A	N/A	N/A
OUTLET PIPE	179.34	HOPE	18"

PRE-TREATMENT: BIOTRANSFORMATION
 DISCHARGE: 188.04
 SURFACE LOAD: H-20
 FRAME & COVER: 24" x 30" x 30" x 48" x 30"
 METAL/MEDIA VOLUME (CY): 6.97
 GRASS SIZE (OAL INCHES): #2.88"

NOTES: PRELIMINARY NOT FOR CONSTRUCTION. 151 SQ FT WETLAND MEDIA SURFACE AREA PROVIDED, MINIMUM.

INSTALLATION NOTES

- CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO DELIVER AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THE DRAWING AND THE MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.
- UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROJECT ENGINEER'S RECOMMENDED BASE SPECIFICATIONS.
- CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE (PIPS CANNOT INTERFERE BEYOND FLUSH) WITH INSIDE OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL PIPES SHALL BE SEALED WATER-TIGHT PER MANUFACTURER'S STANDARD CONNECTION DETAIL.
- CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL PIPES, RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO GROUT ALL MANHOLES AND HATCHES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
- VEGETATION SUPPLIED AND INSTALLED BY OTHERS. ALL UNITS WITH VEGETATION MUST HAVE DRIP OR SPRAY IRRIGATION SUPPLIED AND INSTALLED BY OTHERS.
- CONTRACTOR RESPONSIBLE FOR CONTACTING BIO CLEAN FOR CLEAN UP ACTIVATION OF UNIT. MANUFACTURER'S WARRANTY IS VOID WITHOUT PROPER ACTIVATION BY A BIO CLEAN REPRESENTATIVE.

GENERAL NOTES

- MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT BIO CLEAN.

INTERNAL BYPASS DISCLOSURE:
 THE DESIGN AND CAPACITY OF THE PEAK CONVEYANCE METHOD TO BE REVIEWED AND APPROVED BY THE ENGINEER OF RECORD. HQL(S) AT PEAK FLOW SHALL BE ASSESSED TO ENSURE NO UPSTREAM FLOODING. PEAK HQL AND BYPASS CAPACITY SHOWN ON DRAWING ARE USED FOR GUIDANCE ONLY.

TREATMENT FLOW (CFS)	0.475
OPERATING HEAD (FT)	4.7
PRE-TREATMENT LOADING RATE (GPM/SF)	2.8
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

SITE SPECIFIC DATA

PROJECT NUMBER: 12052
 PROJECT NAME: PADDOCK POINT PHASE 2
 PROJECT LOCATION: HOWARD COUNTY, MD
 STRUCTURE ID: MW-2
 TREATMENT REQUIRED: MW-2
 VOLUME BASED (CF): N/A
 FLOW BASED (CFS): 0.635
 TREATMENT HQL AVAILABLE (FT): 4.88
 PEAK BYPASS REQUIRED (CFS) - IF APPLICABLE: 2.32

PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	184.04	HOPE	18"
INLET PIPE 2	N/A	N/A	N/A
OUTLET PIPE	183.54	HOPE	18"

PRE-TREATMENT: BIOTRANSFORMATION
 DISCHARGE: 191.40
 SURFACE LOAD: H-20
 FRAME & COVER: 24" x 30" x 48" x 30"
 METAL/MEDIA VOLUME (CY): 9.38

NOTES: PRELIMINARY NOT FOR CONSTRUCTION. 201 SQ FT WETLAND MEDIA SURFACE AREA PROVIDED, MINIMUM.

INSTALLATION NOTES

- CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO DELIVER AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THE DRAWING AND THE MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.
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- CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE (PIPS CANNOT INTERFERE BEYOND FLUSH) WITH INSIDE OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL PIPES SHALL BE SEALED WATER-TIGHT PER MANUFACTURER'S STANDARD CONNECTION DETAIL.
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GENERAL NOTES

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Pre-Storage Detention Pipe Calculation

SWM AREA	FACILITY TYPE	FACILITY NO.	REQ. VOL (CF)	PIPE SIZE (IN)	AREA OF PIPE (SQ FT)	PIPE STORAGE PROVIDED (LF)	PRE-STORAGE VOL. PROVIDED (CF)
SWM#12	MOD. WETLAND	MWUG-1	1,644	48	12.57	130.82	1,684
SWM#13	MOD. WETLAND	MWUG-1	1,775	48	12.57	141.29	1,797

ALL STORM DRAINS AND STORMWATER MANAGEMENT FACILITIES INCLUDING FILTERRA AND MODULAR WETLAND TO BE PRIVATELY OWNED AND MAINTAINED.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Designed by: *Chad Edmondson* 7/12/2022
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Checked by: *Angie Brown* 7/12/2022
 CHIEF, DIVISION OF LAND DEVELOPMENT

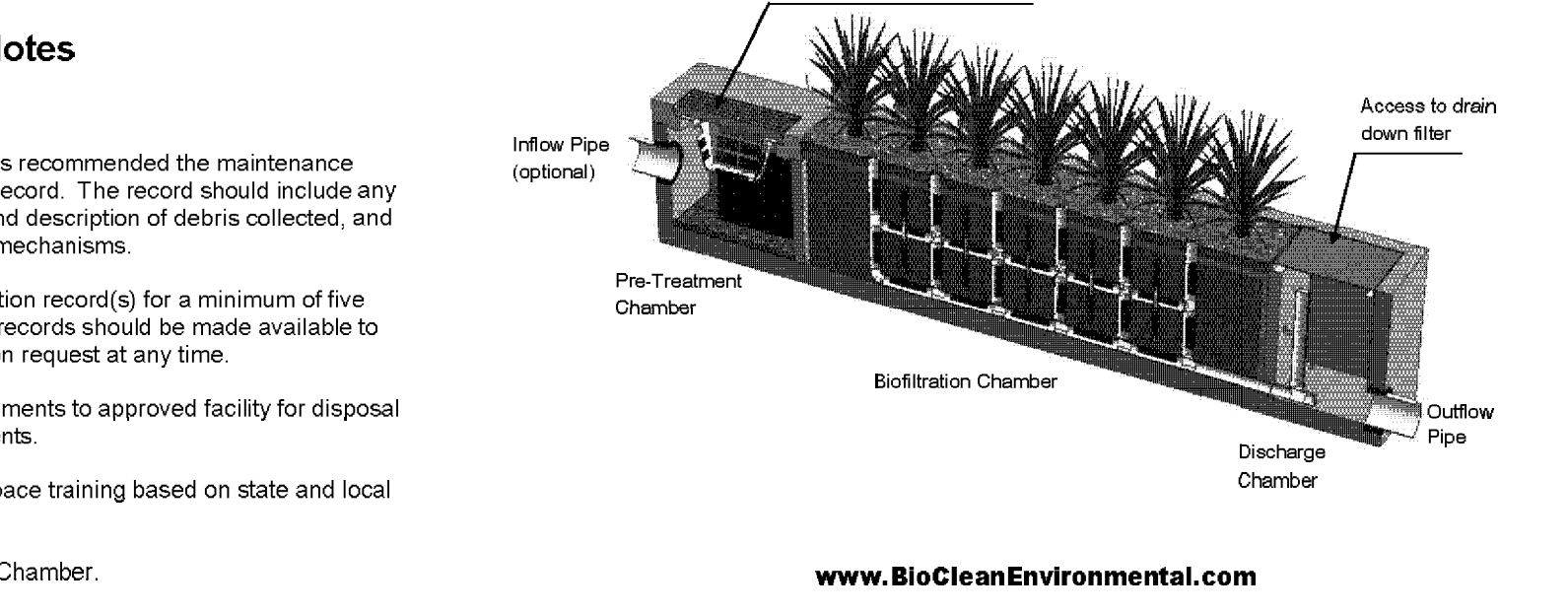
7/12/2022
 DIRECTOR

Maintenance Notes

- Following maintenance and/or inspection, it is recommended the maintenance operator prepare a maintenance/inspection record. The record should include any maintenance activities performed, amount and description of debris collected, and condition of the system and its various filter mechanisms.
- The owner should keep maintenance/inspection record(s) for a minimum of five years from the date of maintenance. These records should be made available to the governing municipality for inspection upon request at any time.
- Transport all debris, trash, organics and sediments to approved facility for disposal in accordance with local and state requirements.
- Entry into chambers may require confined space training based on state and local regulations.
- No fertilizer shall be used in the Biofiltration Chamber.



A Forterra Company



www.BioCleanEnvironmental.com

PIPE CONNECTION STANDARD DETAIL

INSTALLATION NOTES

- ALL CONNECTION PIPES SUPPLIED AND INSTALLED BY CONTRACTOR. MODULAR WETLAND UNIT WILL BE DELIVERED WITH A TRIPLE GROUT AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUPPLY PIPE AND ALL LABOR AND MATERIAL TO CONNECT PIPE AND SEAL UNIT WATER TIGHT INCLUDING BUT NOT LIMITED TO GROUT, CONCRETE LUG, REBAR, PLUG, ANCHORS, COUPLER, FITTINGS AND/OR ALL SUPPORT AND CONNECTING HARDWARE.
- ALL CONNECTIONS ARE TO BE FLUSH WITH THE INSIDE SURFACE OF THE CONCRETE STRUCTURE. CLEAN NOT INTERFERE BEYOND FLUSH. ALL PIPE FLOWLINES SHALL BE FLUSH WITH INSIDE FLOOR UNLESS SPECIFIED OTHERWISE.
- ALL GROUT AND/OR CONCRETE SHALL BE NON-SHINK AND MEET OR EXCEED LOCAL PIPE CONNECTION STANDARDS.
- REFER TO AGENCY SPECIFICATIONS WHERE APPLICABLE.

PROPRIETARY AND CONFIDENTIAL:
 THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE SOLE PROPERTY OF FILTERRA AND ITS CHAIRMAN. THIS DOCUMENT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN CONSENT OF FILTERRA.

Maintenance Guidelines for Modular Wetland System - Linear

BioClean A Forterra Company

Maintenance Summary

- Remove Trash from Screening Device - average maintenance interval is 6 to 12 months.
 - (5 minute average service time)
- Remove Sediment from Separation Chamber - average maintenance interval is 12 to 24 months.
 - (10 minute average service time)
- Replace Cartridge Filter Media - average maintenance interval 12 to 24 months.
 - (10-15 minute per cartridge average service time)
- Replace Drain Down Filter Media - average maintenance interval is 12 to 24 months.
 - (5 minute average service time)
- Trim Vegetation - average maintenance interval is 6 to 12 months.
 - (Service time varies)

Screening Device

- Remove grate or manhole cover to gain access to the screening device in the Pre-Treatment Chamber. Vault type units do not have screening device. Maintenance can be performed without entry.
- Remove all pollutants collected by the screening device. Removal can be done manually or with the use of a vacuum truck. The hose of the vacuum truck will not damage the screening device.
- Screening device can easily be removed from the Pre-Treatment Chamber to gain access to separation chamber and media filters below. Replace grate or manhole cover when completed.

Separation Chamber

- Perform maintenance procedures of screening device listed above before maintaining the separation chamber.
- With a pressure washer spray down pollutants accumulated on walls and cartridge filters.
- Vacuum out Separation Chamber and remove all accumulated pollutants. Replace screening device, grate or manhole cover when completed.

Cartridge Filters

- Perform maintenance procedures on screening device and separation chamber before maintaining cartridge filters.
- Enter separation chamber.
- Unscrew the two bolts holding the lid on each cartridge filter and remove lid.
- Remove each of 4 to 8 media cages holding the media in place.
- Spray down the cartridge filter to remove any accumulated pollutants.
- Vacuum out old media and accumulated pollutants.
- Reinstall media cages and fill with new media from manufacturer or outside supplier. Manufacturer will provide specification of media and sources to purchase.
- Replace the lid and tighten down bolts. Replace screening device, grate or manhole cover when completed.

Drain Down Filter

- Remove hatch or manhole cover over discharge chamber and enter chamber.
- Unlock and lift drain down filter housing and remove old media block. Replace with new media block. Lower drain down filter housing and lock into place.
- Exit chamber and replace hatch or manhole cover.

TYPICAL ACCESS MANHOLE DETAIL FOR UNDERGROUND SWM FACILITY

(NOT TO SCALE)

CROSS SECTION E-F UNDERGROUND PRE-STORAGE FACILITY (SWM#12)
 SCALE: 1"=6"

CROSS SECTION E-F UNDERGROUND PRE-STORAGE FACILITY (SWM#12)
 SCALE: 1"=6"

CROSS SECTION E-F UNDERGROUND PRE-STORAGE FACILITY (SWM#13)
 SCALE: 1"=6"

CROSS SECTION E-F UNDERGROUND PRE-STORAGE FACILITY (SWM#13)
 SCALE: 1"=6"

MANHOLE CAP DETAIL
 SCALE: N.T.S.

NOTES:

- THE CONCRETE CAP (BASE COLLARS) SHALL BE SIZED AND DESIGNED BY OTHERS SO THAT THE LOADS ARE TRANSMITTED TO THE SOIL, AND NOT THE REBAR.
- THE CONCRETE CAP SHALL BE SIZED TO PROVIDE AN ADEQUATE BOTTOM AREA BASED ON THE ALLOWABLE BEARING CAPACITY OF THE SOIL.
- THE FLEXIBLE JOINT MATERIAL (REINFORCED POLYURETHANE) TO BE USED ENOUGH SO THAT THE CONCRETE CAN WORK TOGETHER WITH THE REBAR CORRELATIONS.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED UNDERGROUND FACILITIES

- THE UNDERGROUND STORMWATER MANAGEMENT FACILITY IS PRIVATELY OWNED AND IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO PERIODICALLY INSPECT AND CLEAN THE FACILITY TO MAINTAIN ITS OPERATION AND FUNCTION.
- THE UNDERGROUND STORMWATER MANAGEMENT FACILITY SHALL BE INSPECTED YEARLY AT A MINIMUM AND AFTER ESPECIALLY SEVERE STORM EVENTS.
- WHEN SEDIMENT ACCUMULATION OF MORE THAN 2" IS OBSERVED OR ANY DEBRIS THAT MIGHT OBSTRUCT THE OUTFALL IS OBSERVED, THE FACILITY SHALL BE CLEANED.
- THE FACILITY SHALL BE CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS. NOTIFYING THEM OF THE SPILL AND CLEANUP OPERATION.
- THE SEDIMENT AND DEBRIS SHALL BE REMOVED FROM THE UNDERGROUND STORMWATER MANAGEMENT FACILITY BY VACUUM TRUCK OR OTHER MANUAL MEANS. THE OWNER SHALL FOLLOW PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIAL AND LIQUID.
- THE INLET AND OUTLET PIPES SHALL BE CHECKED FOR ANY OBSTRUCTIONS AT LEAST ONCE EVERY SIX (6) MONTHS. IF OBSTRUCTIONS ARE FOUND, THE OWNER SHALL HAVE THEM REMOVED AND PROPERLY DISPOSED OF.

UNDERGROUND PRE-STORAGE FACILITY (SWM#12)

SCALE: 1"=10'

UNDERGROUND PRE-STORAGE FACILITY (SWM#13)

SCALE: 1"=10'

OWNER
 TRIPLE BELL FARMS, LLC
 198 LAUREL RACE TRACK RD
 LAUREL, MD 20725
 (301) 470-5494

OWNER/DEVELOPER
 20006 DELAWARE, INC.
 198 LAUREL RACE TRACK RD
 LAUREL, MD 20725
 (301) 470-5494

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN

STORMWATER MANAGEMENT NOTES AND DETAILS

PADDOCK POINTE - PHASE 3

(FORMERLY KNOWN AS LAUREL PARK STATION)
 76 APARTMENT UNITS TO BE PACKED TOWN
 PARCELS C-1 & K-1

TAX MAP: 50 BLOCK: 10
 6TH ELECTION DISTRICT

ZONED: TOD

PARCEL 384
 HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE

DESIGN BY: DZE/RHV
 DRAWN BY: DZE/KG/MP
 CHECKED BY: RHV
 DATE: JUNE 2022
 SCALE: AS SHOWN
 W.O. NO.: 07-11/40111

STATE OF MARYLAND
 ROBERT H. VOGEL, PE No. 16193
 REGISTERED PROFESSIONAL ENGINEER

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. EXPIRATION DATE: 09-27-2022

21 OF 34

PRIVATE STREET TREE CALCULATIONS			
STREET NAME	LINEAR FEET	NO. REQUIRED	NO. PROVIDED
AFRIMED LANE (1 SIDE)	185/40	5	5
COUNT FLEET CRESCENT & JUSTIFY RUN (71x2)	1,422/40	36	36
SIR BARTON WAY (598 ONE SIDE + 216x2)	1030/40	26	26
TOTALS		67	67

PRIVATE STREET TREE PLANT LIST				
KEY	QUAN	BOTANICAL NAME	SIZE	REM.
QC	55	QUERCUS COCCINEA SCARLET OAK	2 1/2"-3" CAL.	B & B
ZS	1	ZELKOVA SERRATA 'VILLAGE GREEN' VILLAGE GREEN JAPANESE ZELKOVA	2.5"-3" CAL.	B & B
QR	11	QUERCUS ROBUR 'FASTIGIATA' COLUMNAR ENGLISH OAK	2.5"-3" CAL.	B & B
TOTAL	67			

SCHEDULE 'A' PERIMETER LANDSCAPE EDGE							
CATEGORY	ADJACENT TO PERIMETER	1	2	3	4A	4B	4C
PERIMETER FRONTAGE DESIGNATION		174	368	554	49	49	49
LANDSCAPE TYPE							
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER							
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)		No	No	No	No	No	No
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)		No	No	No	No	No	No
NUMBER OF PLANTS REQUIRED		1:60	1:40	1:60	1:60	1:60	1:60
SHADE TREES		1:10	1:10	1:10	1:10	1:10	1:10
EVERGREEN TREES		1:10	1:10	1:10	1:10	1:10	1:10
SHRUBS		1:10	1:10	1:10	1:10	1:10	1:10
NUMBER OF PLANTS PROVIDED		3	7	10	1	1	1
SHADE TREES		3	7	10	1	1	1
EVERGREEN TREES		3	7	10	1	1	1
SHRUBS		3	7	10	1	1	1
OTHER TREES (2:1 SUBSTITUTION)		3	7	10	1	1	1
SHRUBS (10:1 SUBSTITUTION)		3	7	10	1	1	1
DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED							
TOTALS							

PLANT LIST - SCHEDULE 'A' (PERIMETER)				
SYMB.	KEY	QUANTITY	BOTANICAL NAME	CAT
ZS	16	16	ZELKOVA SERRATA 'VILLAGE GREEN' VILLAGE GREEN JAPANESE ZELKOVA	B & B
QC	7	7	QUERCUS COCCINEA SCARLET OAK	B & B
PS	15	15	FINUS STROBUS EASTERN WHITE PINE	B & B
TOTAL		38		

SCHEDULE 'B' PARKING LOT INTERNAL LANDSCAPING	
NUMBER OF PARKING SPACES	98
NUMBER OF TREES REQUIRED (1:10)	10
NUMBER OF TREES PROVIDED	10
SHADE TREES	10
OTHER TREES (2:1 SUBSTITUTION)	10

PLANT LIST - SCHEDULE 'B' (PARKING LOT)				
KEY	QUAN	BOTANICAL NAME	SIZE	CAT
ST	10	GLEDITSIA TRICANTHOS F. NERMIS 'IMPCOLE' IMPERIAL HONEY LOCUST	2.5"-3" CAL.	B & B
TOTAL	10			

LANDSCAPE SCHEDULE 'C'	
NUMBER OF DWELLING UNITS	76 SFA / 76 APT
NUMBER OF TREES REQUIRED (1:1 DU SFA / 1:3 DU APT)	76 SFA / 26 APT 102 TOTAL
NUMBER OF TREES PROVIDED	80
SHADE TREES	44
OTHER TREES (2:1 SUBSTITUTION)	44
SHRUBS (10:1 SUBSTITUTION)	0

PLANT LIST - SCHEDULE 'C' (RESIDENTIAL)				
KEY	QUAN	BOTANICAL NAME	SIZE	CAT
BN	18	BETULA NAGRA 'BNMTT' DURR-HEAT RIVER BIRCH	10"-12" HT.	B & B
AB	36	ACER BUERGERIANUM TRIDENT MAPLE	2.5"-3" CAL.	B & B
QR	26	QUERCUS ROBUR 'FASTIGIATA' COLUMNAR ENGLISH OAK	2.5"-3" CAL.	B & B
PS	18	FINUS STROBUS EASTERN WHITE PINE	6'-8" HT.	B & B
CC	13	CERIS CHANDONENSIS EASTON REDBUD	1.5"-2" CAL.	B & B
MS	13	MANGOLIA X SOULANGIANA SAUCEUR MANGOLIA	6'-8" HT.	B & B
TOTAL	124			
	44	LARGE SHADE OTHER TREES		

GENERAL NOTES:

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. THE REQUIRED PARKING AND PERIMETER LANDSCAPING SHALL BE MAINTAINED IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.
- THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
- SHOULD ANY TREE DESIGNATED FOR PRESERVATION FOR WHICH LANDSCAPE CREDIT IS GIVEN, DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR WITH A REPLACEMENT TREE OF THE SAME HEIGHT, SPREAD, AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE HOWARD COUNTY LANDSCAPE MANUAL.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
- FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
- CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

LANDSCAPE SCHEDULE NOTES:

- AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENTS, BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.
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- CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 2/29/24
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

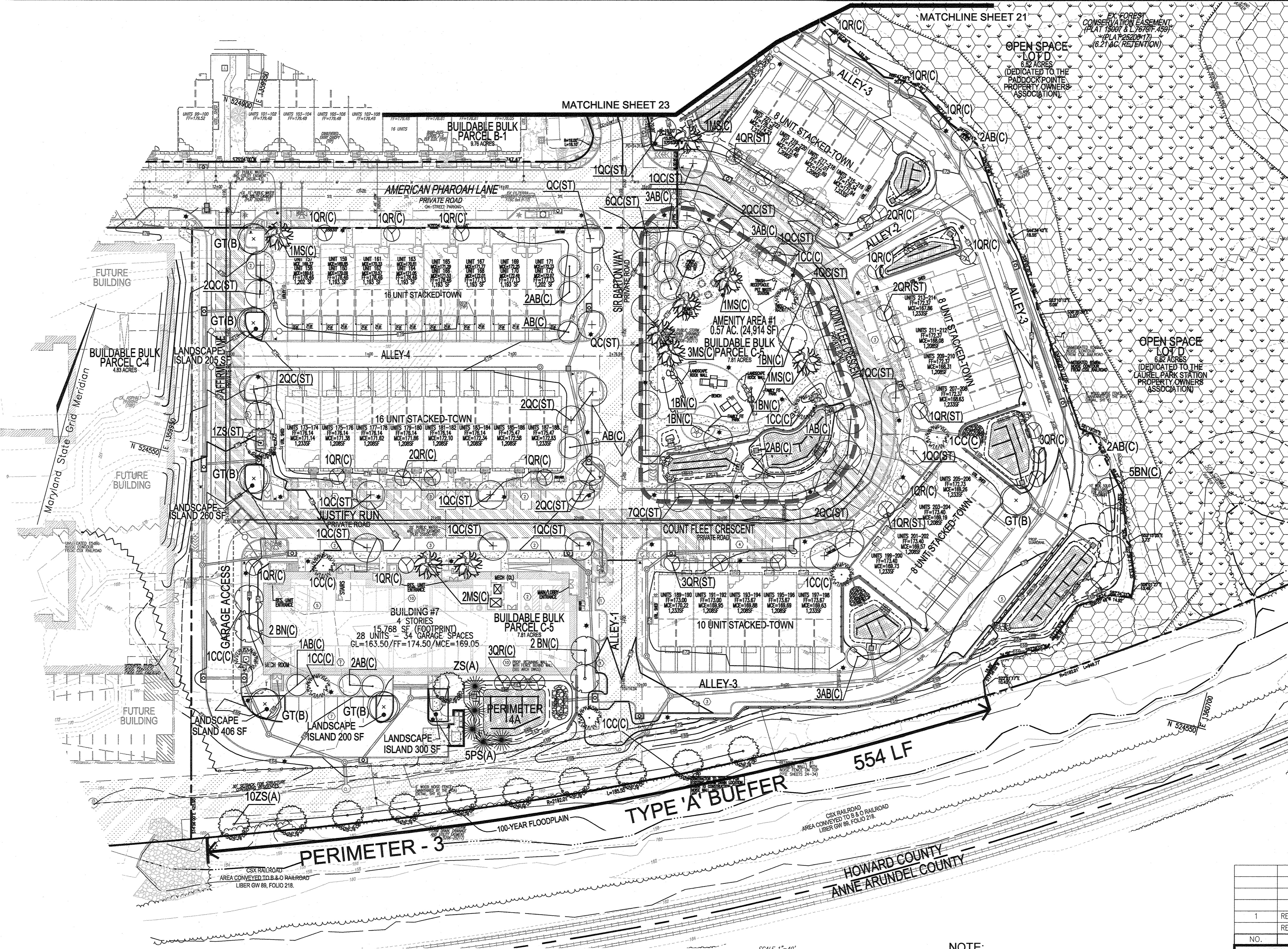
[Signature] 3/1/24
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 3/7/24
 DIRECTOR DATE

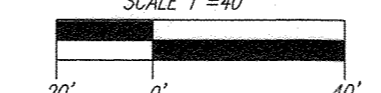
DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

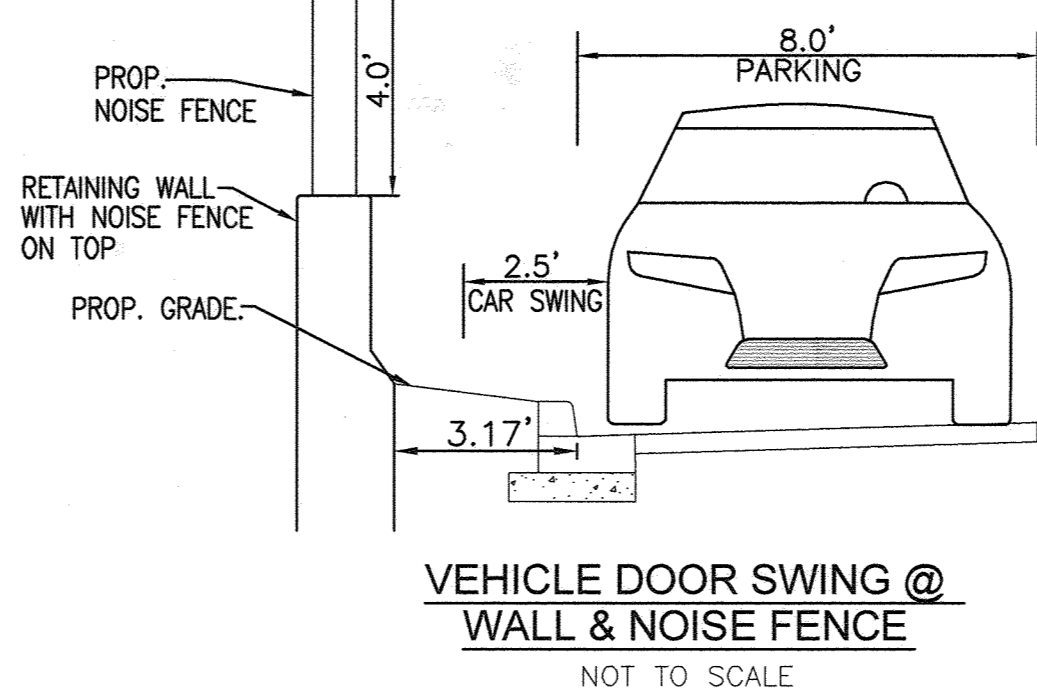
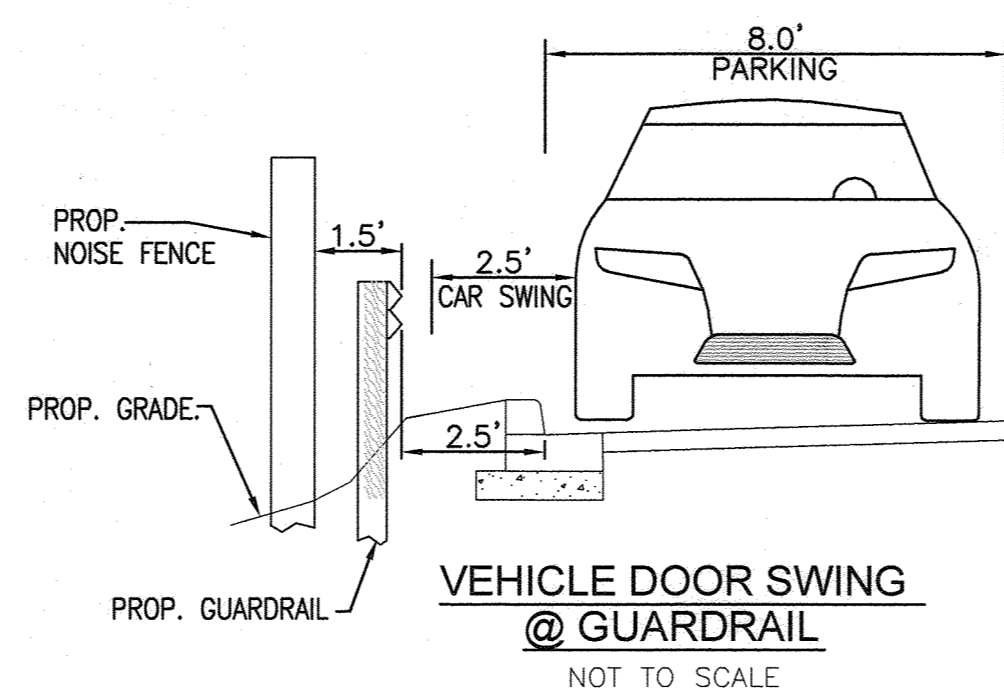
[Signature] 2/13/24
 SIGNATURE OF DEVELOPER DATE



LANDSCAPE PLAN
SCALE: 1"=40'



NOTE:
1. SEE SHEET 23 FOR AMENITY DETAILS.



LEGEND:

- EXISTING CURB AND GUTTER
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING SEWER LINE
- EXISTING TRENCH
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- EXISTING STREAM
- EXISTING STREAM BUFFER
- EX. LIMIT OF WETLAND
- EX. WETLAND BUFFER
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- PROPOSED SIDEWALK
- PROPOSED CURB
- PROPOSED STREET LIGHT
- PROPOSED STREET SIGN
- EX. TREES
- PUBLIC WATER AND UTILITY EASEMENT PLAT 25206-25217
- EX. STREET TREES
- EX. 100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT
- PROPOSED SHADE TREES
- PROPOSED STREET TREES
- PROPOSED EVERGREEN TREES
- PERIMETER DESIGNATION / TYPE

PARCEL C-5 OWNER BEAZER HOMES, LLC
 6085 MARSHALLEE DRIVE, SUITE 350 198 LAUREL RACE TRACK RD
 LAUREL, MD 20725 443-539-9249

OWNER TRIPLE BELL FARMS, LLC
 301 470-5494

OWNER/DEVELOPER 20006 DELAWARE, INC.
 198 LAUREL RACE TRACK RD
 LAUREL, MD 20725 (301) 470-5494

NO.	REVISION	DATE
1	REVISE PLAN FOR BUILDING ARCHITECTURE (UNITS 157-171 & 223-232); AND REVISE W&S HOUSE CONNECTIONS	11/30/23

**REVISED SITE DEVELOPMENT PLAN
LANDSCAPE AND AMENITY PLAN;
NOTES AND DETAILS**

PADDOCK POINTE - PHASE 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
76 APARTMENT UNITS AND 76 STACKED TOWN PARCELS C-5 & K-2

TAX MAP: 50 BLOCK: 10 ZONED: TOD PARCEL 384
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7656 F: 410.461.8951 www.timmons.com

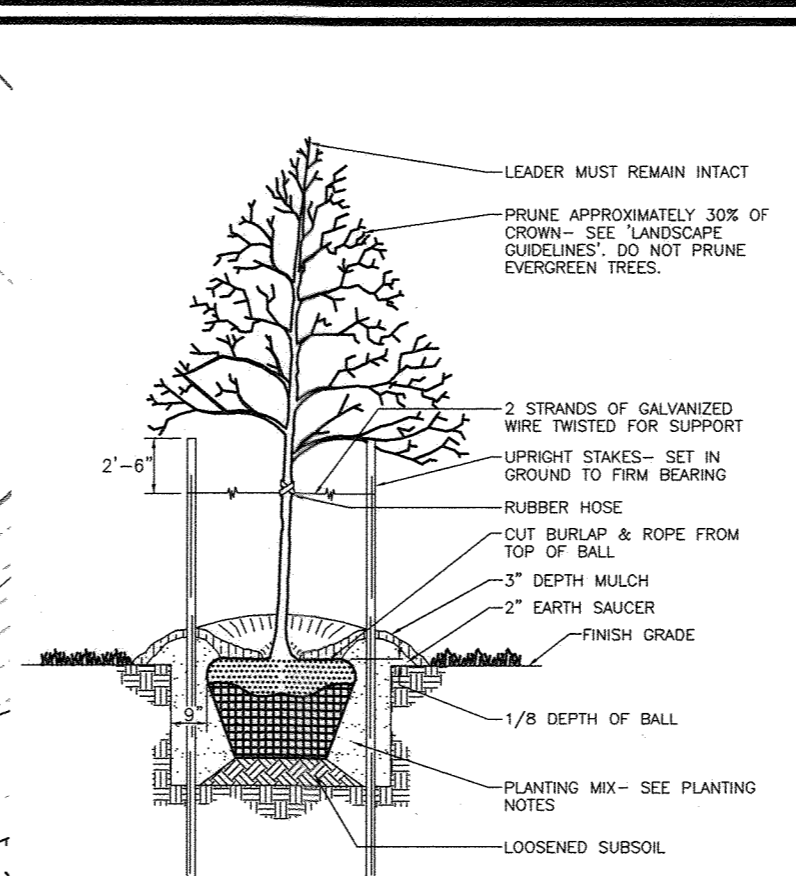
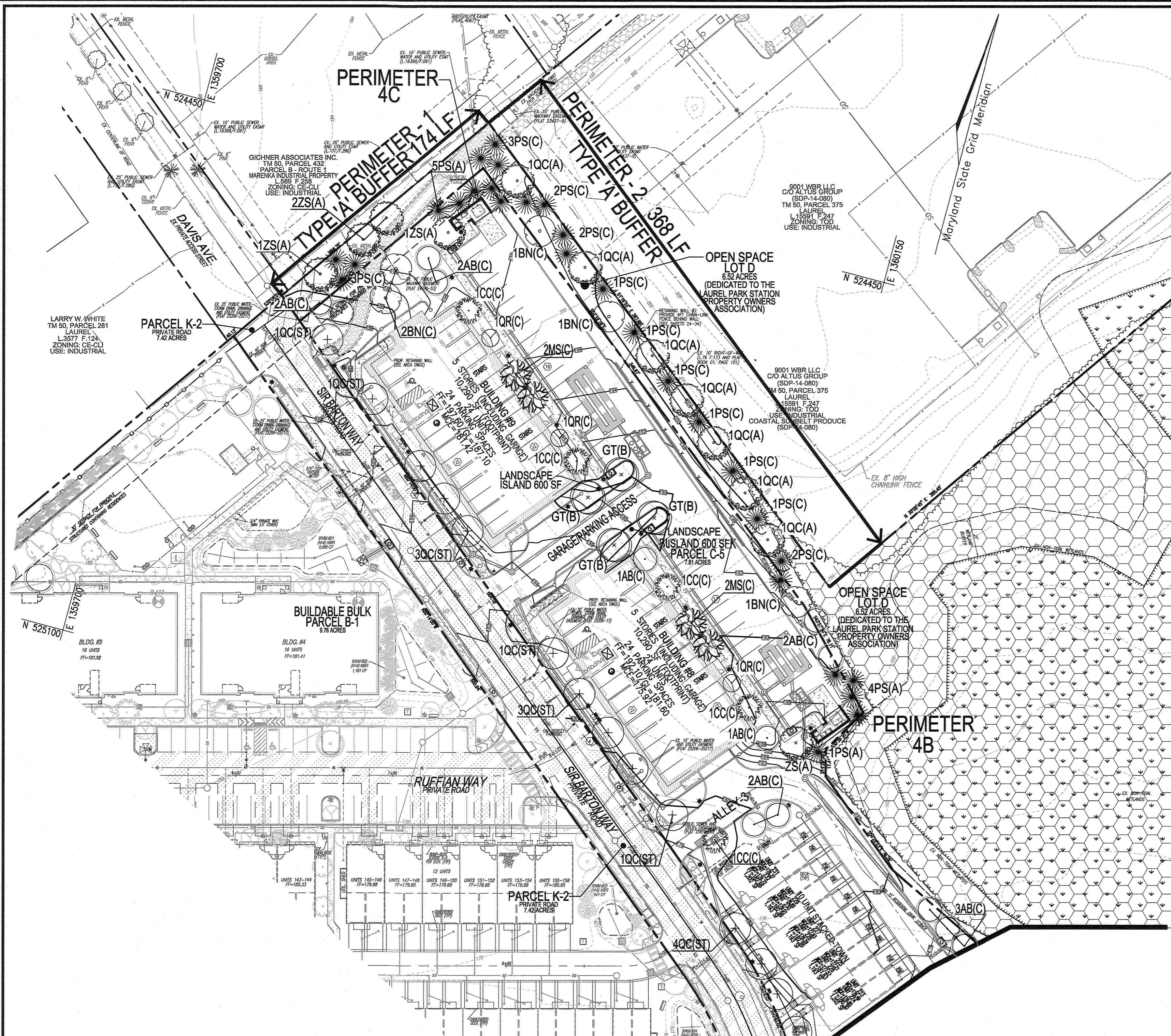


PROFESSIONAL CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. EXPIRATION DATE: 09-27-2024

DESIGN BY: DZE/RHV
 DRAWN BY: DZE/MP/KS/JR
 CHECKED BY: RHV
 DATE: FEB. 2024
 SCALE: AS SHOWN
 W.O. NO.: 07-11/40111

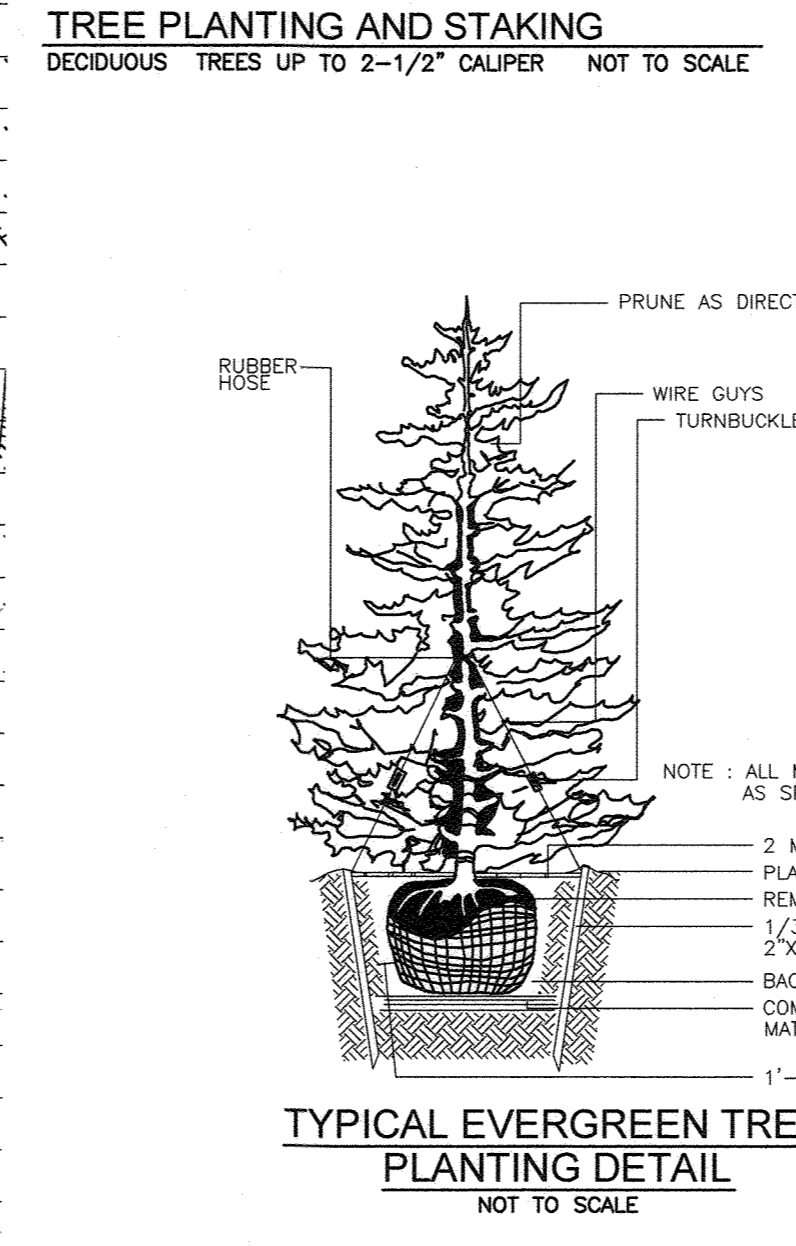
22 SHEET OF 34



NOTES:

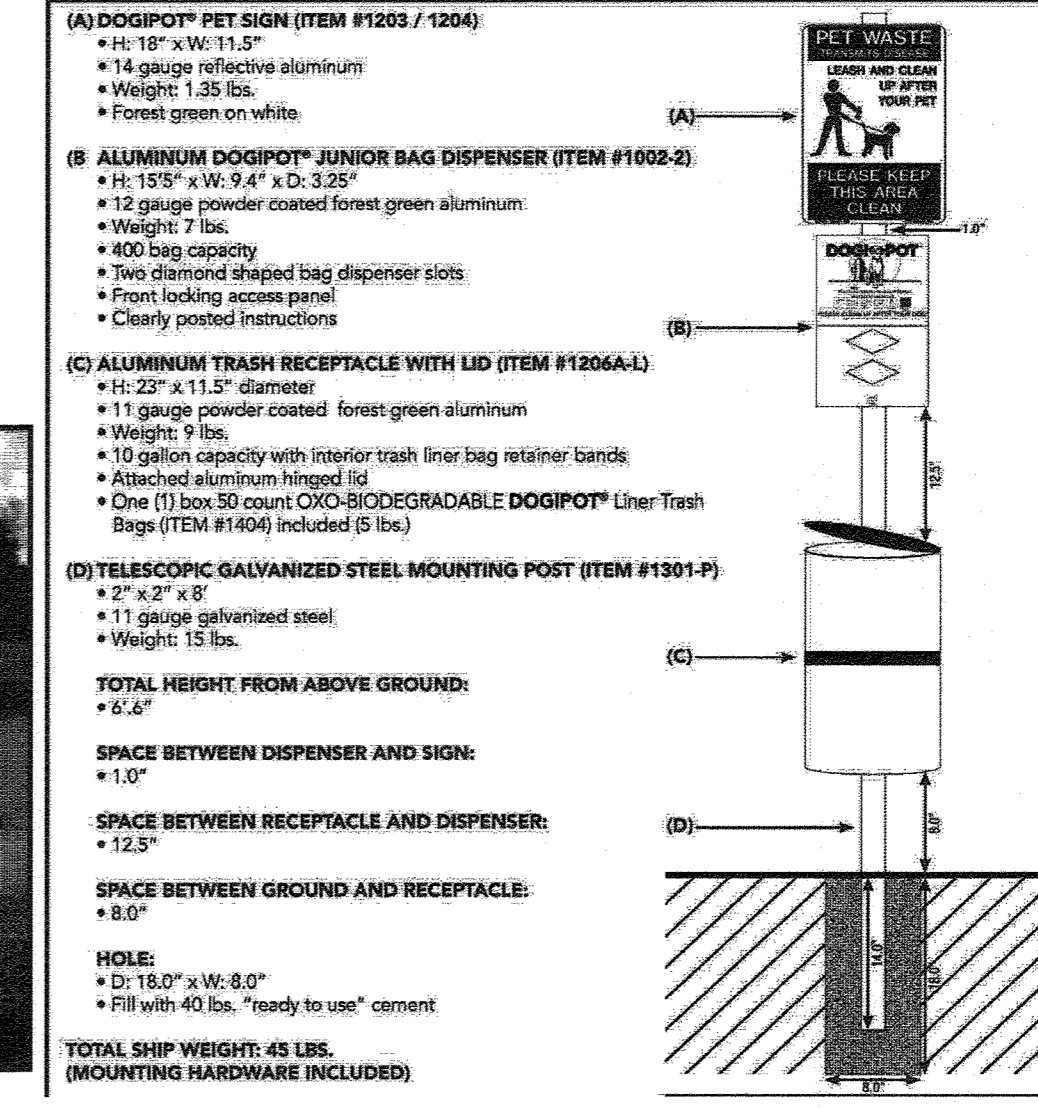
- SEE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE - WASHINGTON METROPOLITAN AREAS" FOR ALL MATERIAL, PRODUCT, AND PROCEDURE SPECIFICATIONS.
- SEE "LANDSCAPE GUIDELINES" FOR SUPPORTING TREES LARGER THAN 2-1/2" CALIPER.
- PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS.
- KEEP MULCH 1" FROM TRUNK.
- SEE ARCHITECTURAL PLANS FOR ADDITIONAL PLANTINGS WHICH EXCEED HOWARD COUNTY MINIMUM REQUIREMENTS.
- TREES ARE NOT TO BE PLANTED OVER PRIVATE SEWAGE EASEMENT.

TREE PLANTING AND STAKING
DECIDUOUS TREES UP TO 2-1/2" CALIPER NOT TO SCALE



TYPICAL EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE

ALL ALUMINUM DOGIPOT® PET STATION (ITEM #1003A-L) SPECIFICATION, INSTALLATION AND OPERATION SHEET



PET WASTE STATION
OR SIMILAR

(A) DOGIPOT® PET SIGN (ITEM #1205 / 1204)

- H: 18" x W: 11.5"
- 14 gauge reflective aluminum
- Weight: 1.35 lbs.
- Forest green on white.

(B) ALUMINUM DOGIPOT® JUNIOR BAG DISPENSER (ITEM #1002-2)

- H: 19.5" x W: 9.4" x D: 3.25"
- 12 gauge powder coated forest green aluminum
- Weight: 7 lbs.
- 400 bag capacity
- Two diamond shaped bag dispenser slots
- Front locking access panel
- Clearly posted instructions

(C) ALUMINUM TRASH RECEPTACLE WITH LID (ITEM #1206A-L)

- H: 23" x W: 11.5" diameter
- 11 gauge powder coated forest green aluminum
- Weight: 9 lbs.
- 10 gallon capacity with interior trash liner bag retainer bands
- Attached aluminum hinged lid
- One (1) box 50 count OXO-BIODEGRADABLE DOGIPOT® Liner Trash Bags (ITEM #1404) included (65 lbs.)

(D) TELESCOPIC GALVANIZED STEEL MOUNTING POST (ITEM #1301-P)

- 2" x 2" x 8'
- 11 gauge galvanized steel
- Weight: 15 lbs.

TOTAL HEIGHT FROM ABOVE GROUND:
• 6'-6"

SPACE BETWEEN DISPENSER AND SIGN:
• 1'-0"

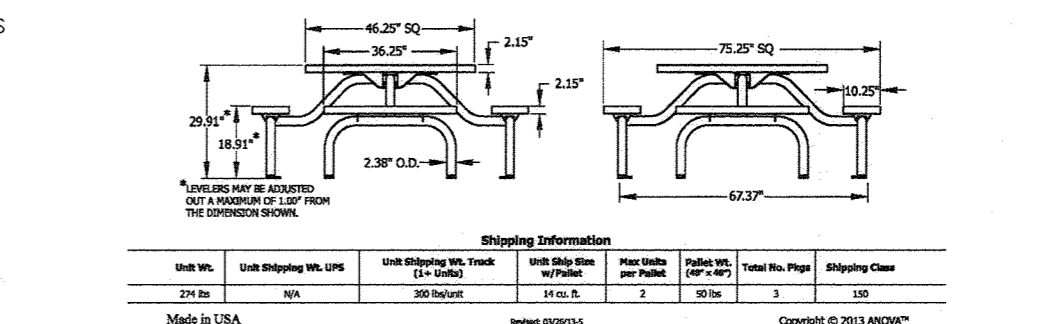
SPACE BETWEEN RECEPTACLE AND DISPENSER:
• 12.5"

SPACE BETWEEN GROUND AND RECEPTACLE:
• 6'-0"

HOLES:

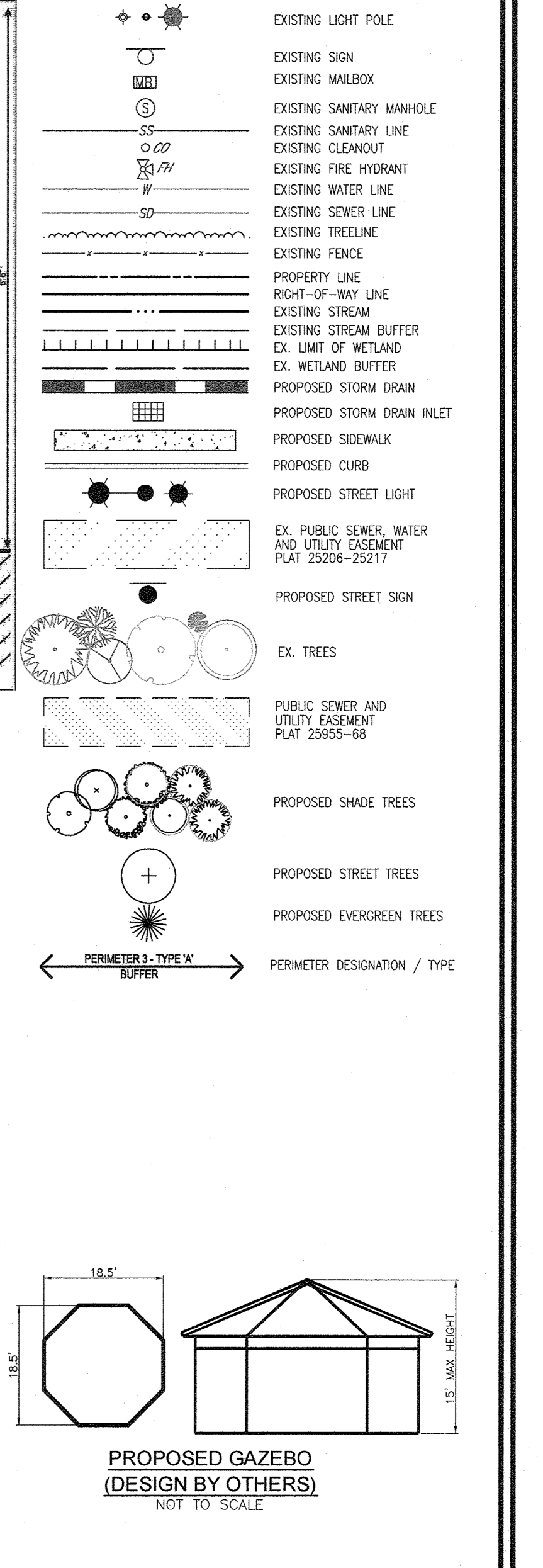
- 2" x 18.0" x W: 8-0"
- Fill with 40 lbs. "ready to use" cement

TOTAL SHIP WEIGHT: 45 LBS. (MOUNTING HARDWARE INCLUDED)



PICNIC TABLE
OR SIMILAR

LEGEND:



Paddock Pointe Overall Public Amenity Area Chart

PLAN	AMENITY #	AREA (SF)	AREA (AC)
Paddock Pointe SDP-15-043 PHASE 1 (220 UNITS) TOTAL	2.64 AC.	2.21 AC.	
Paddock Pointe SDP-15-063 PHASE 2 (260 UNITS) TOTAL	1.37 AC.	0.84 AC.	
Paddock Pointe SDP-21-016 PHASE 3 (152 UNITS) TOTAL	0.57 AC.	*0.27 AC.	

* TO BE PROVIDED IN FUTURE PHASES.

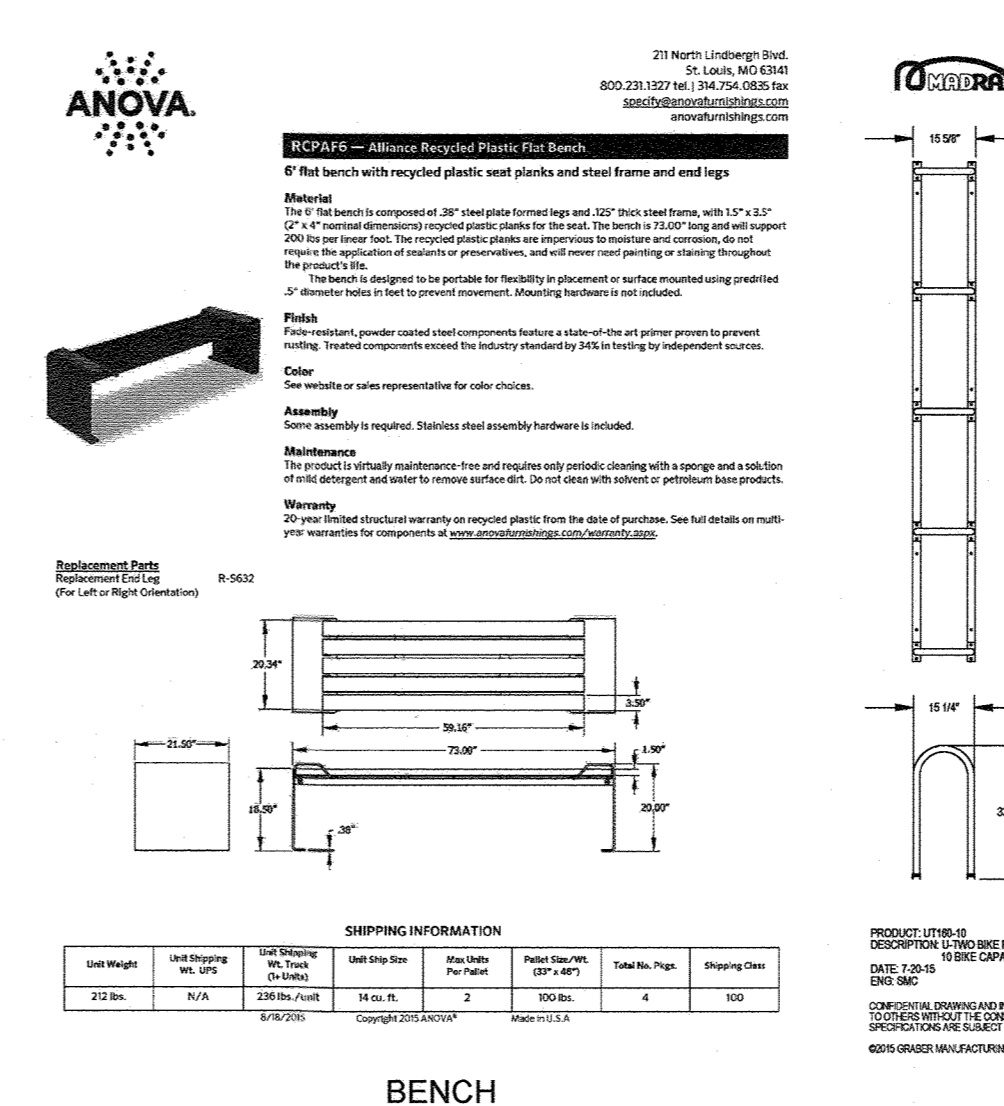
PUBLIC AMENITY AREA CHART

AMENITY #	AREA (SF)	AREA (AC)
1	24,914	0.57
TOTALS:	24,914	0.57

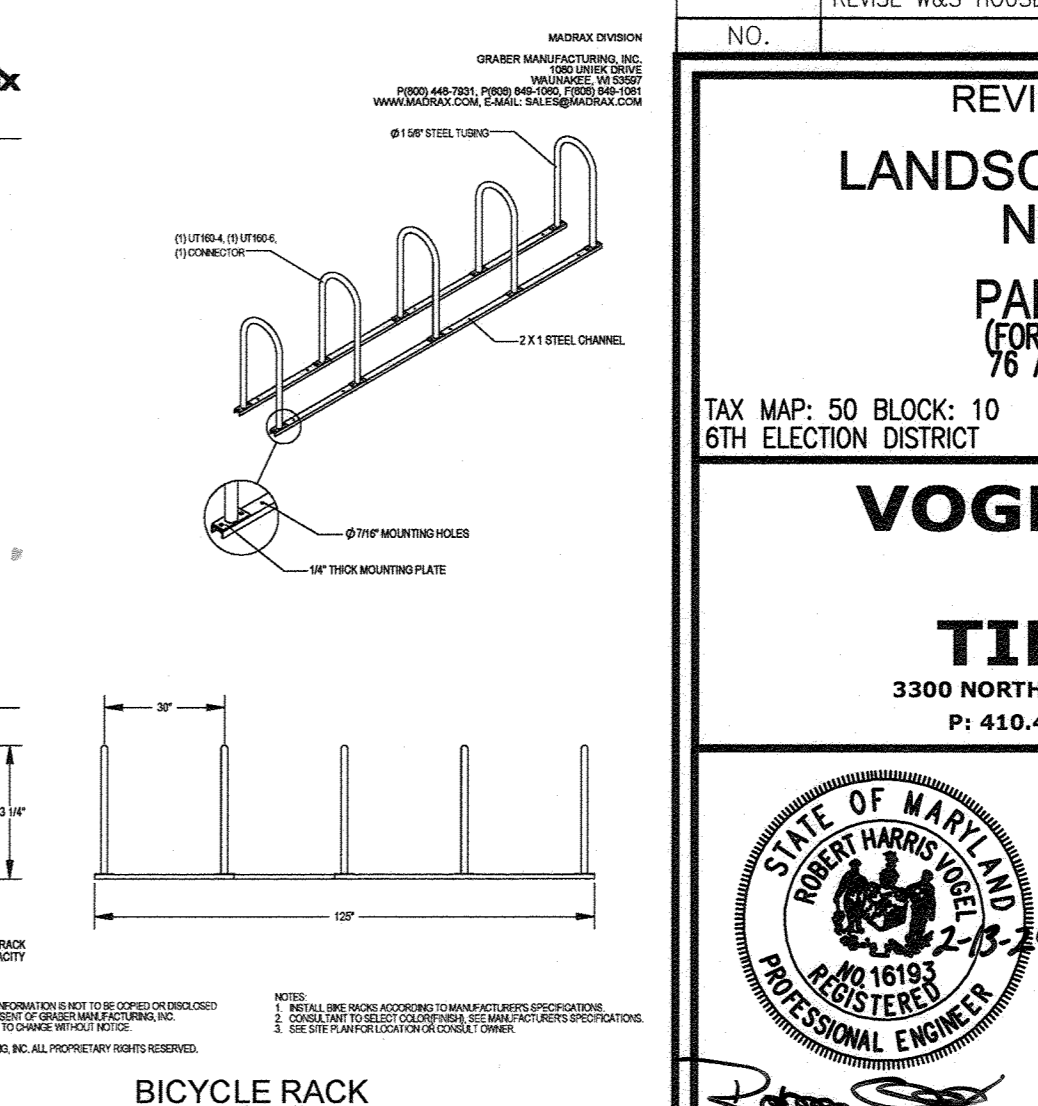
PARCEL C-5 OWNER
BEAZER HOMES, LLC.
6085 MARSHALLE DRIVE, SUITE 350
LAUREL, MD 20725
443-539-9249

OWNER
TRIPLE BELL FARMS, LLC.
198 LAUREL RACE TRACK RD
LAUREL, MD 20725
(301) 470-5494

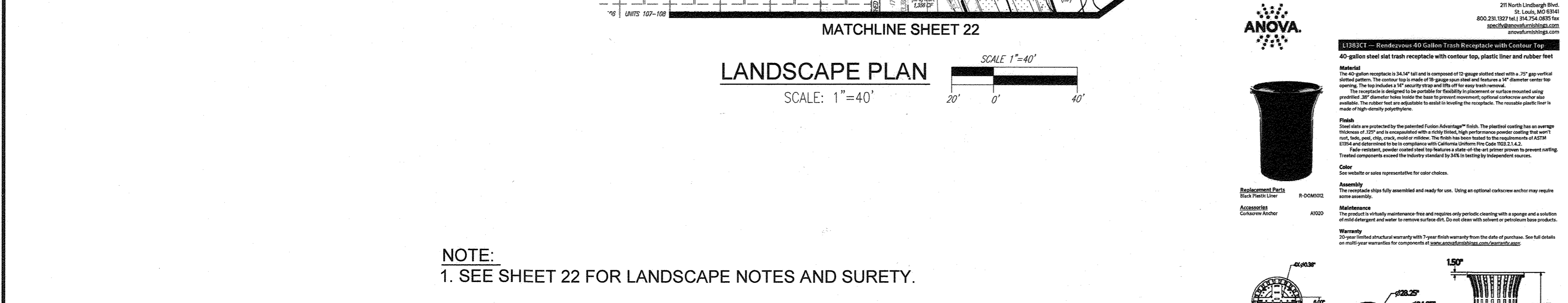
OWNER/DEVELOPER
20006 DELAWARE, INC.
198 LAUREL RACE TRACK RD
LAUREL, MD 20725
(301) 470-5494



TRASH RECEPTACLE
OR SIMILAR



BICYCLE RACK
OR SIMILAR



NOTE:
1. SEE SHEET 22 FOR LANDSCAPE NOTES AND SURETY.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

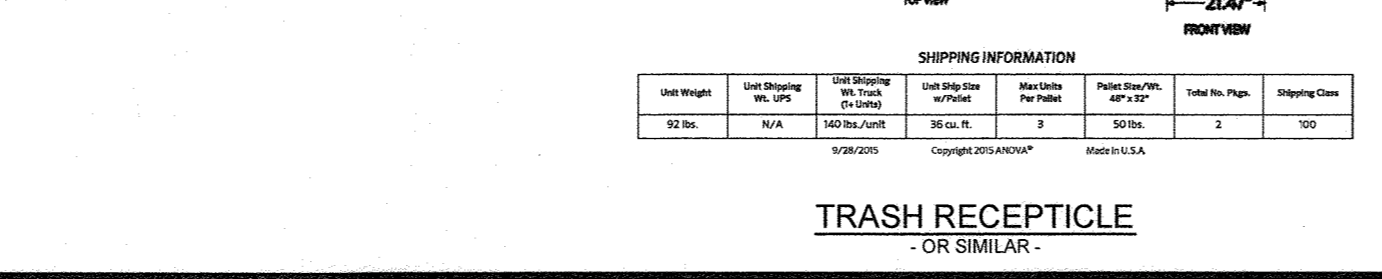
Chad Plank
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 2/29/24

Shirley E. Crumley
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 3/17/24

DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Robert H. Vogel
SIGNATURE OF DEVELOPER
DATE: 2/13/24



REVISED SITE DEVELOPMENT PLAN
LANDSCAPE AND AMENITY PLAN; NOTES AND DETAILS
Paddock Pointe - PHASE 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
76 APARTMENT UNITS, 3 STACKED TOWN PARCELS C-3, C-5 & K-2
ZONED: TOD
TAX MAP: 50 BLOCK: 10
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

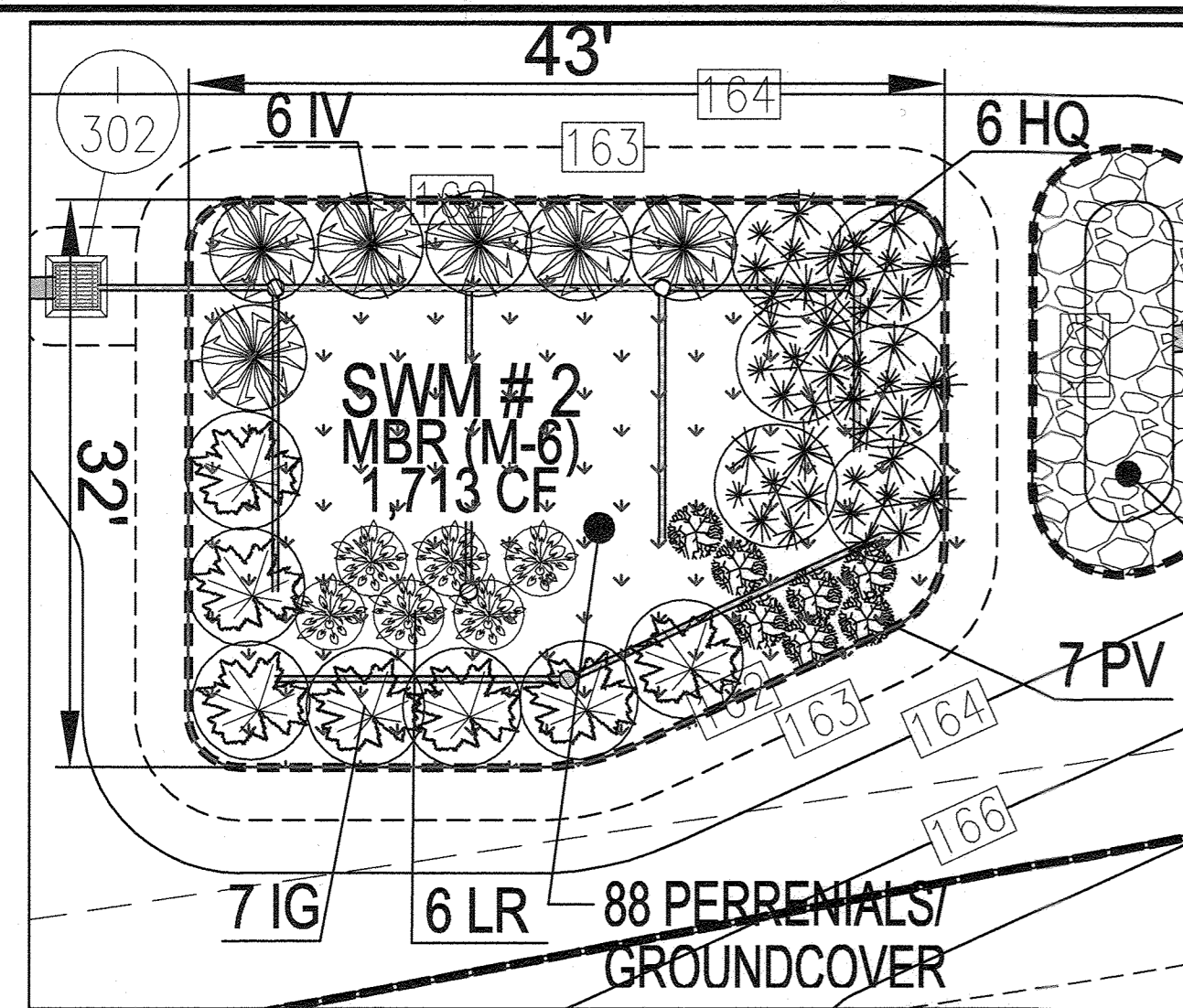
VOGEL ENGINEERING
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

TIMMONS GROUP
PROFESSIONAL CERTIFICATE

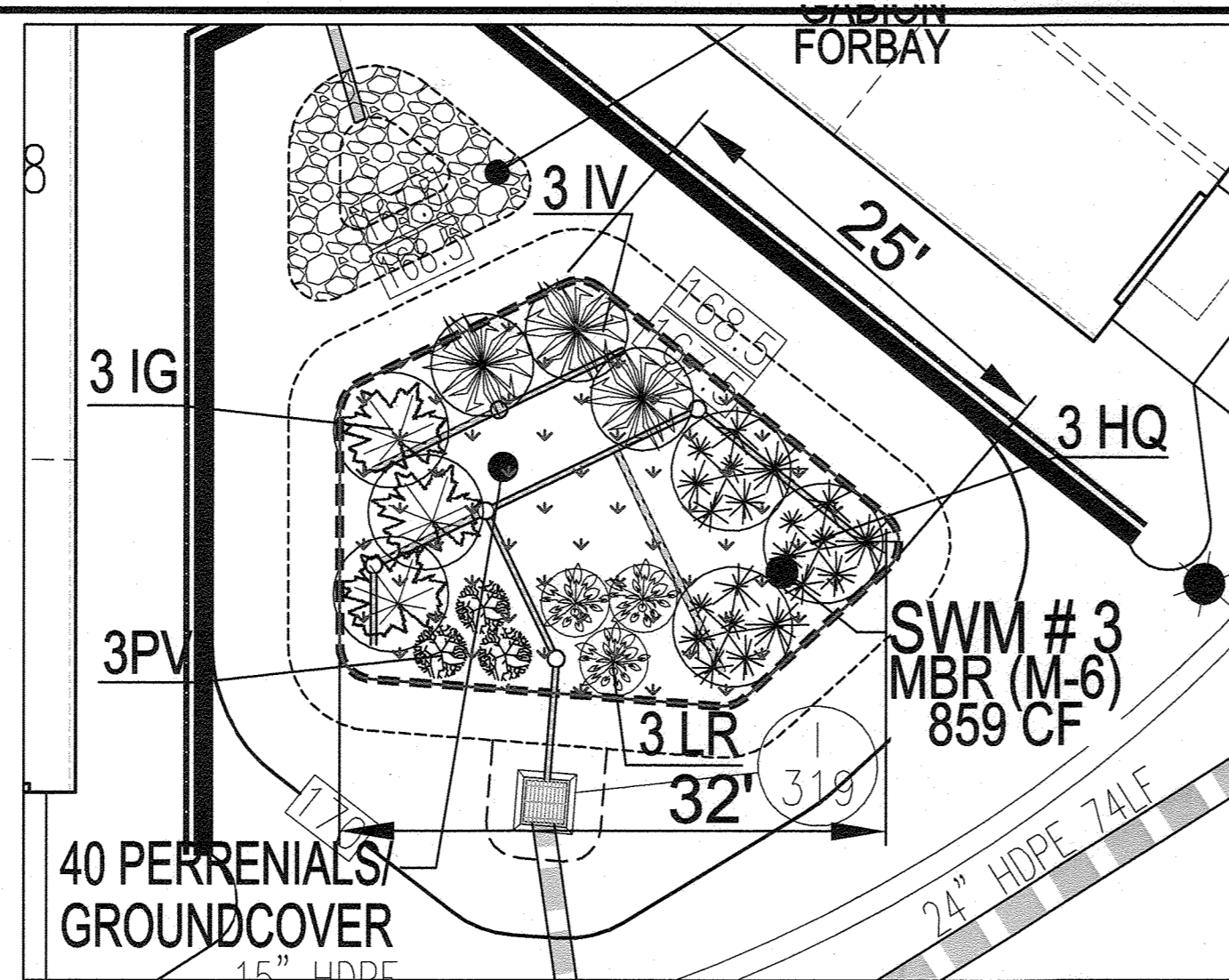
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DRAWN BY: DZE/MP/KS/UR
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DATE: FEB. 2024
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W.O. NO.: 07-11/40111

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EXPIRATION DATE: 09-27-2024

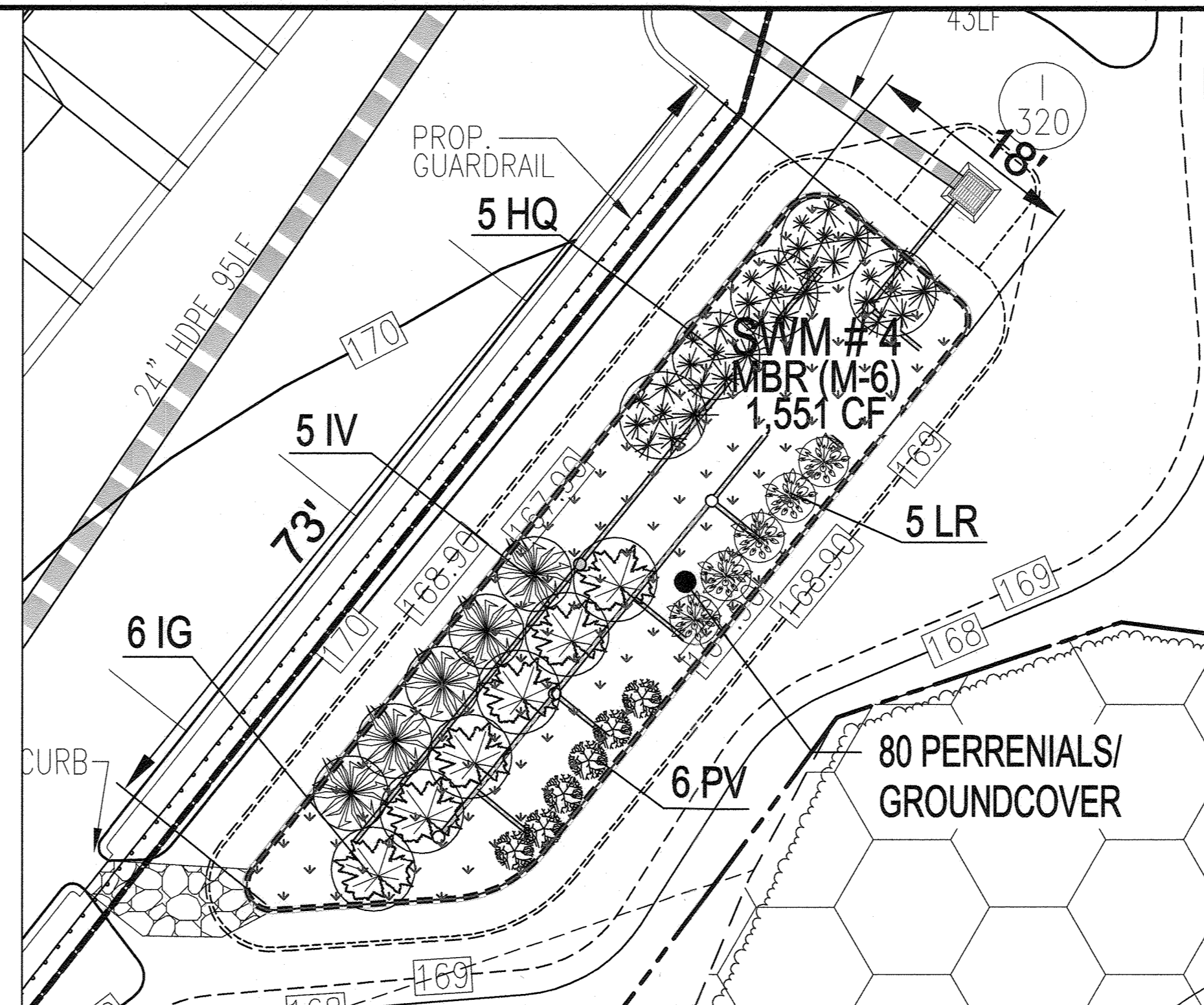
23 SHEET OF 34



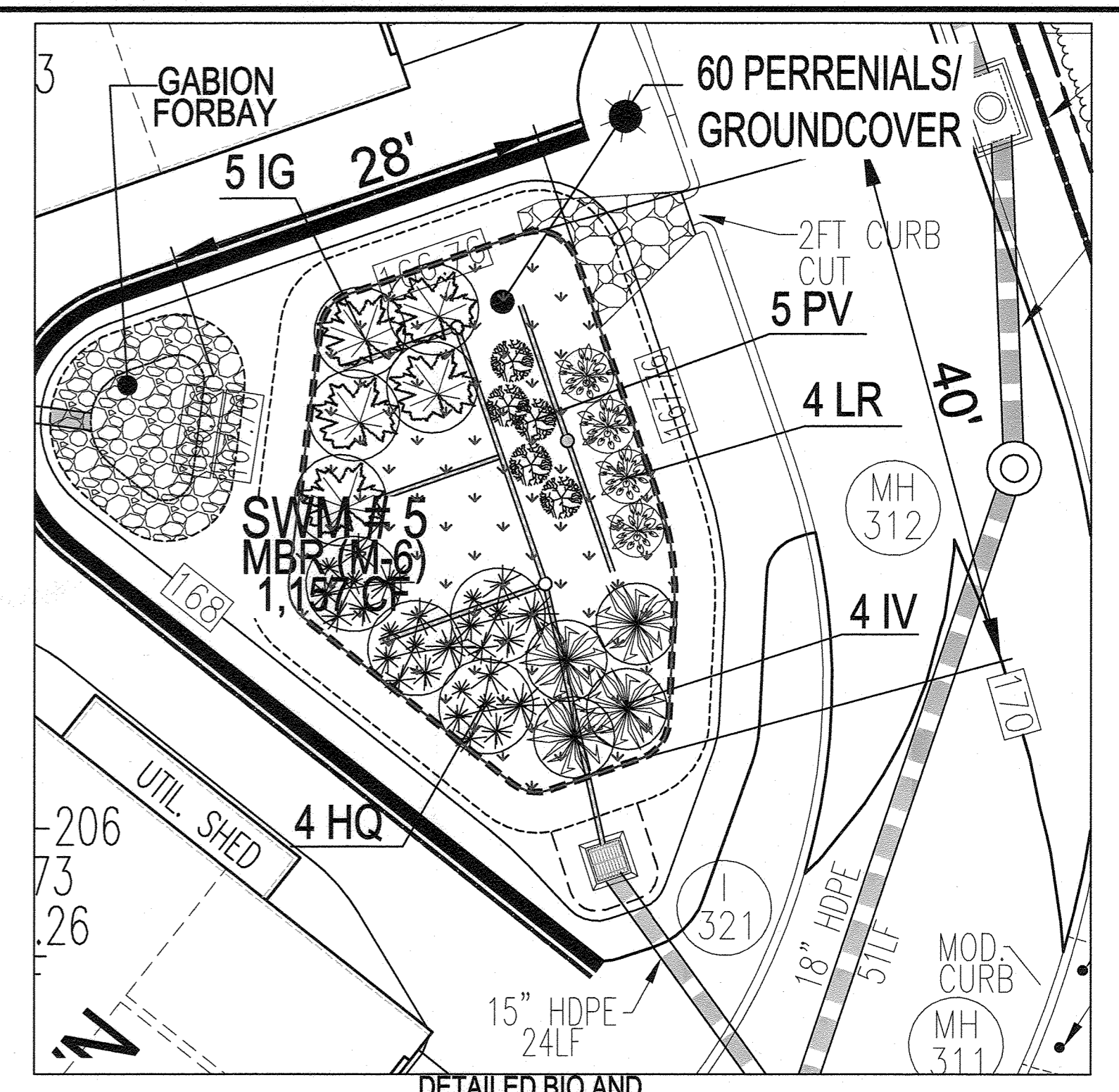
DETAILED BIO AND PLANTING PLAN (SWM #2)
SCALE: 1" = 10'



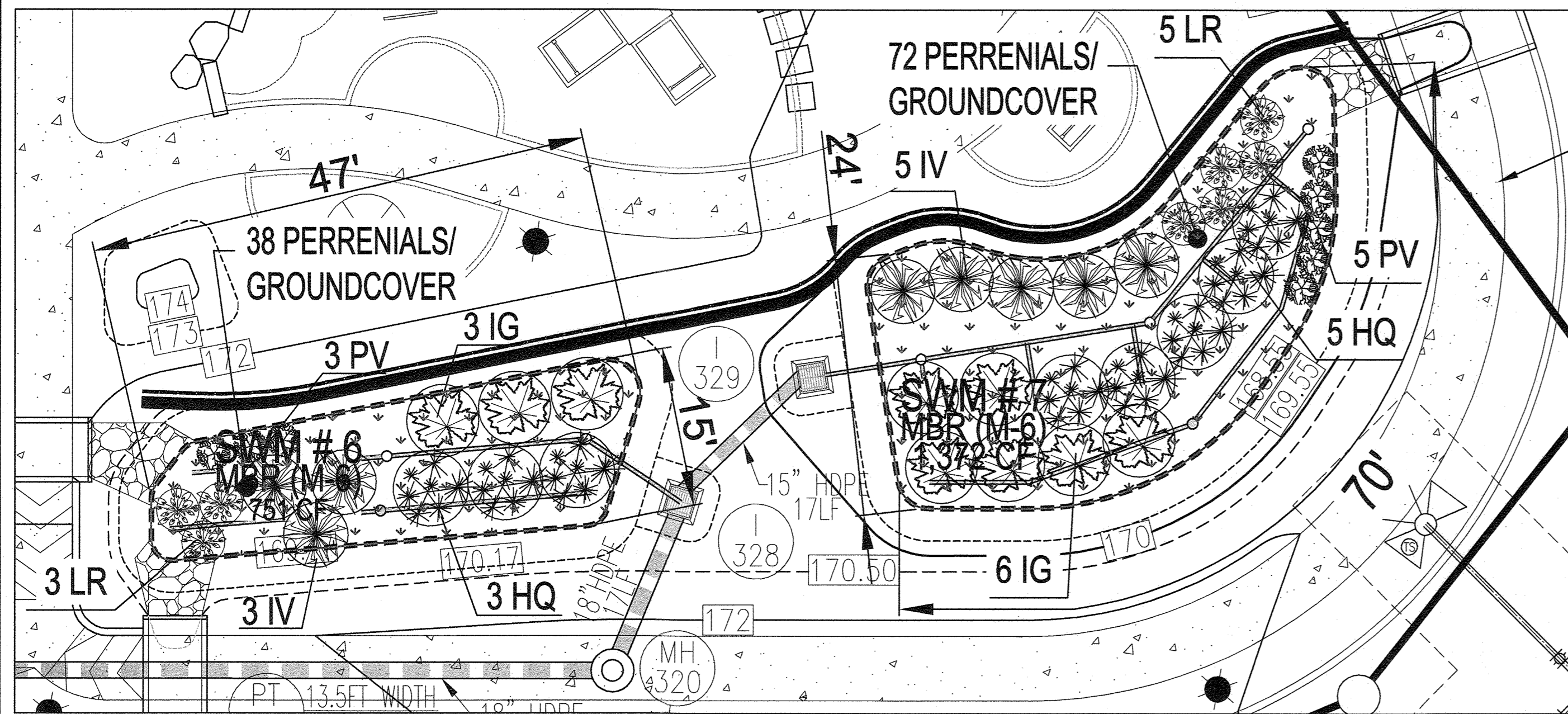
DETAILED BIO AND PLANTING PLAN (SWM #3)
SCALE: 1" = 10'



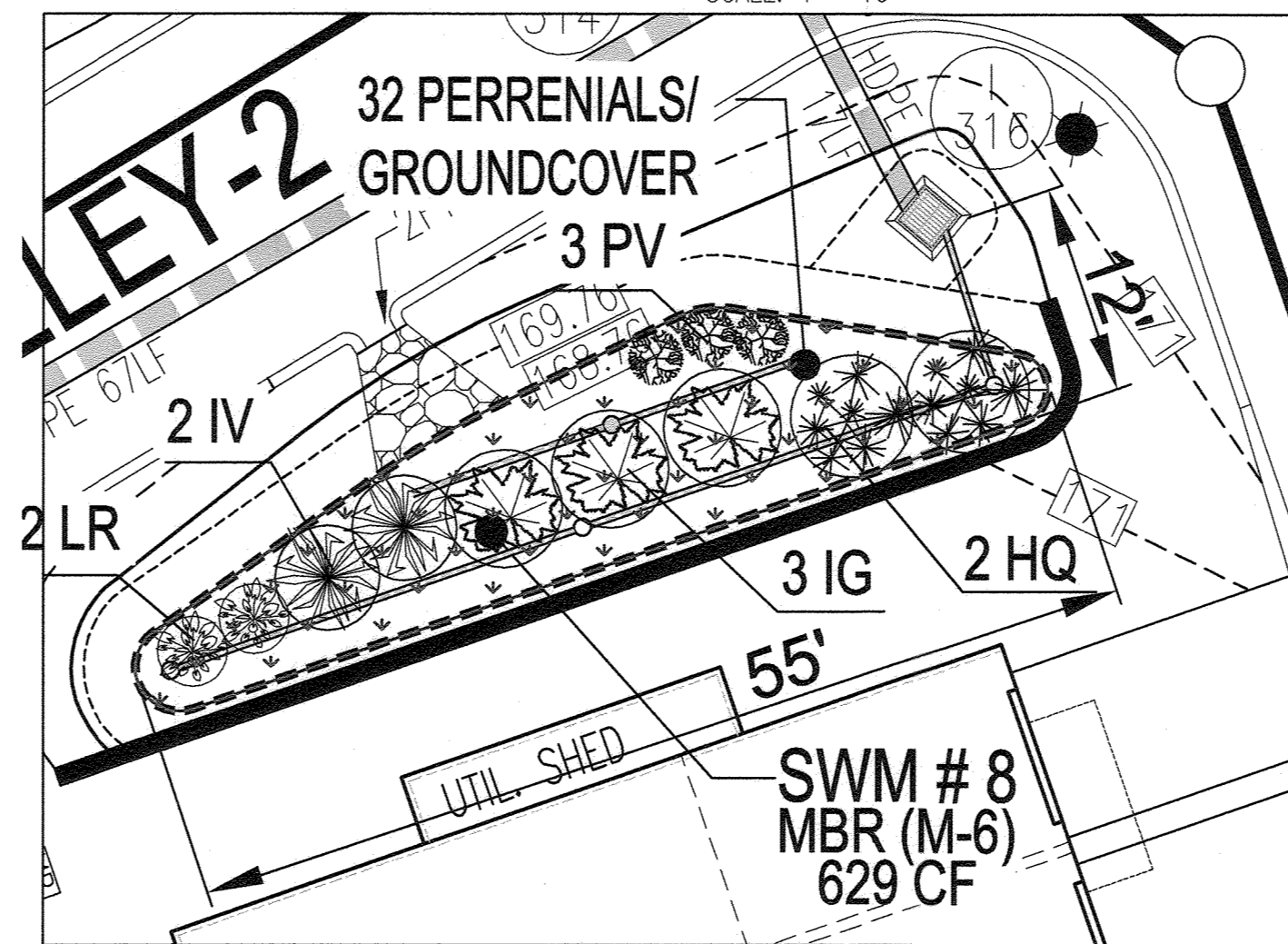
DETAILED BIO AND PLANTING PLAN (SWM #4)
SCALE: 1" = 10'



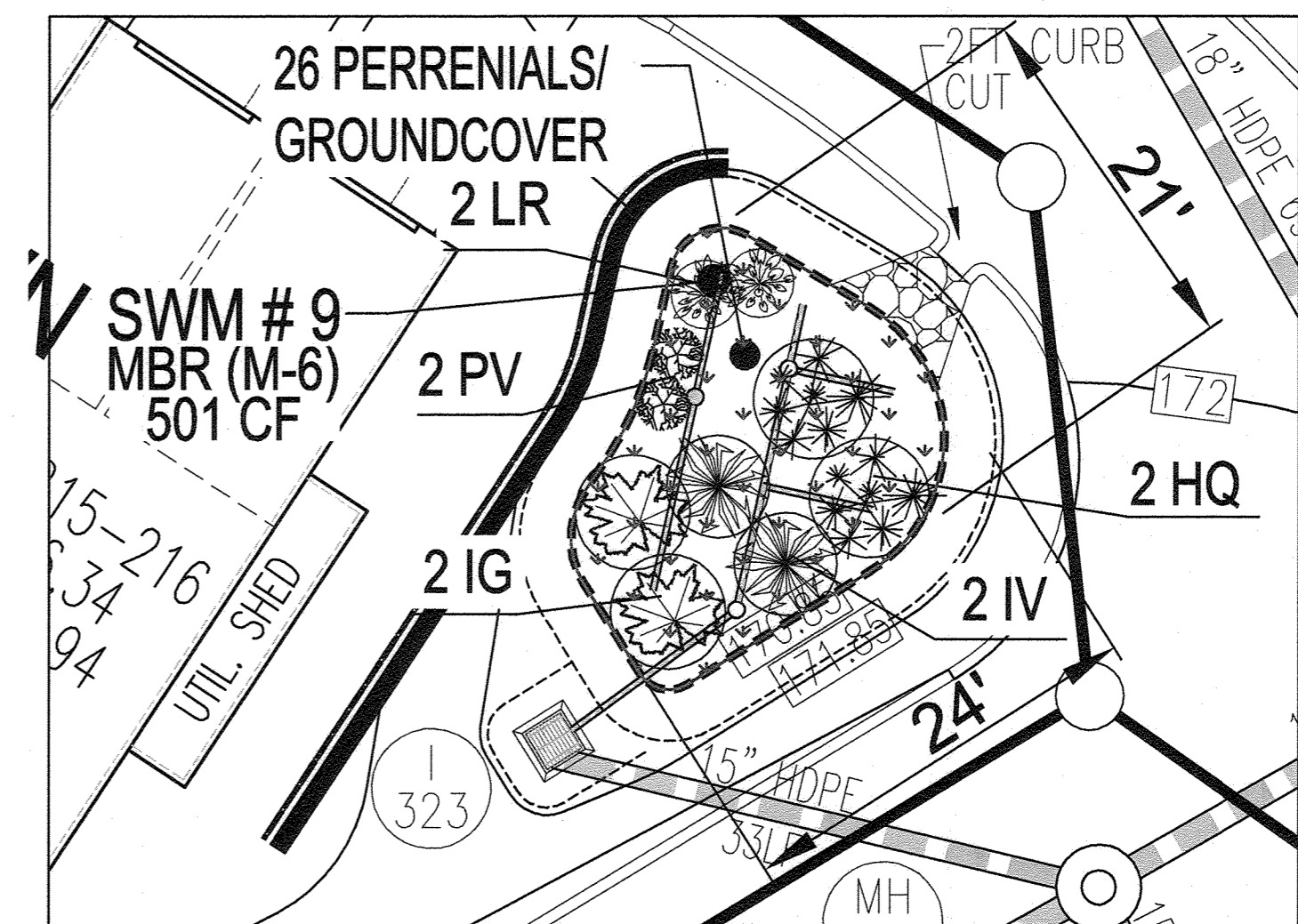
DETAILED BIO AND PLANTING PLAN (SWM #5)
SCALE: 1" = 10'



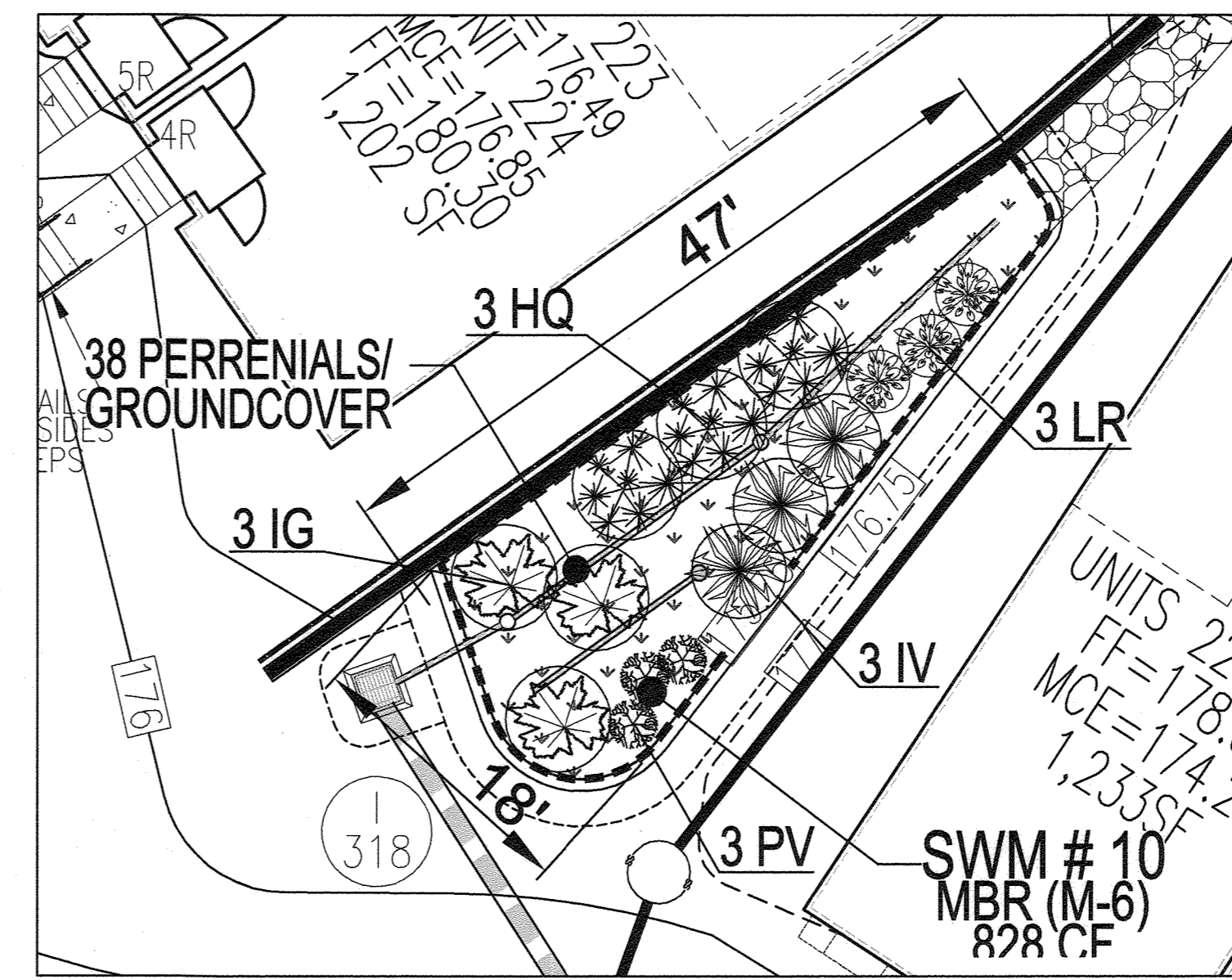
DETAILED BIO AND PLANTING PLAN (SWM #6 & 7)
SCALE: 1" = 10'



DETAILED BIO AND PLANTING PLAN (SWM #8)
SCALE: 1" = 10'



DETAILED BIO AND PLANTING PLAN (SWM #9)
SCALE: 1" = 10'



DETAILED BIO AND PLANTING PLAN (SWM #10)
SCALE: 1" = 10'

PERENNIALS/GROUNDCOVER PLANTING SCHEDULE				
LEGEND	QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
	237	BAPTISIA AUSTRALIS FALSE INDIGO	4" POT	12"-15" O.C. FOR SIDES AND BOTTOM OF MBR. MIX ALL VARIETIES IN A RANDOMIZED PATTERN THROUGHOUT. PLANT IN GROUPS OF NO LESS THAN 3 PLANTS PER CLUMP.
	237	ACORUS GRAMINEUS 'OGON' GOLDEN VARIEGATED SWEET FLAG	1 QT.	

BIORETENTION PLANTING SCHEDULE (SHRUB/ORNAMENTAL GRASSES)				
LEGEND/KEY	QTY	BOTANICAL NAME/COMMON NAME	SIZE	SPACING
	38	ILEX GLABRA 'SHAMROCK' INKBERRY HOLLEY	1 GALLON	18" O.C.
	33	ITEA VIRGINICA 'HENRY'S GARNETT' VIRGINIA SWEETSPICE	1 GALLON	18" O.C.
	33	HYDRANGEA QUERCIFOLIA OAKLEAF HYDRANGEA	1 GALLON	30" O.C.
	33	LEUCOTHOE RACEMOSA FETTERBUSH	1 GALLON	30" O.C.
	37	PANICUM VIRGATUM SWITCHGRASS	1 GALLON	36" O.C.

MICRO-BIORETENTION PLANTING REQUIREMENTS												
MBR #	LF	AREA	STEMS REQUIRED (0.0229)	PLANTINGS PROVIDED					PERENNIALS/GROUND COVER PROVIDED			
				IG	IV	HQ	LR	PV	BA	AG	TOTAL	
SWM#2	139	1,285	30	32	7	6	6	6	7	44	44	88
SWM#3	93	579	14	15	3	3	3	3	3	20	20	40
SWM#4	169	1,163	27	27	6	5	5	5	6	40	40	80
SWM#5	113	868	20	22	5	4	4	4	5	30	30	60
SWM#6	111	564	13	15	3	3	3	3	3	19	19	38
SWM#7	140	1,029	24	26	6	5	5	5	5	36	36	72
SWM#8	118	472	11	12	3	2	2	2	3	16	16	32
SWM#9	74	376	9	10	2	2	2	2	2	13	13	26
SWM#10	113	558	13	15	3	3	3	3	3	19	19	38
TOTALS	1,070	6,894	161	174	38	33	33	33	37	237	237	474

BIORETENTION AREAS ARE TO BE PLANTED BASED ON A MINIMUM DENSITY OF 1000 STEMS PER PLANTED ACRE (0.0229 STEMS PER SQUARE FOOT).

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Plunk
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 2/29/24

Lynda Eisenberg
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 3/7/24

ALL STORM DRAINS AND STORMWATER MANAGEMENT FACILITIES INCLUDING FILTERRA AND MODULAR WETLAND TO BE PRIVATELY OWNED AND MAINTAINED.

PARCEL C-5 OWNER: BEAZER HOMES, LLC. 6085 MARSHALLE DRIVE, SUITE 350 ELKRIEDE, MD 21075. 443-538-9249

OWNER: TRIPLE BELL FARMS, LLC. 198 LAUREL RACE TRACK RD LAUREL, MD 20725. (301) 470-5494

OWNER/DEVELOPER: 20006 DELAWARE, INC. 198 LAUREL RACE TRACK RD LAUREL, MD 20725. (301) 470-5494

NO.	REVISION	DATE
1	REVISE PLAN FOR BUILDING ARCHITECTURE (UNITS 157-171 & 223-232); AND REVISE WAS HOUSE CONNECTIONS	11/30/23

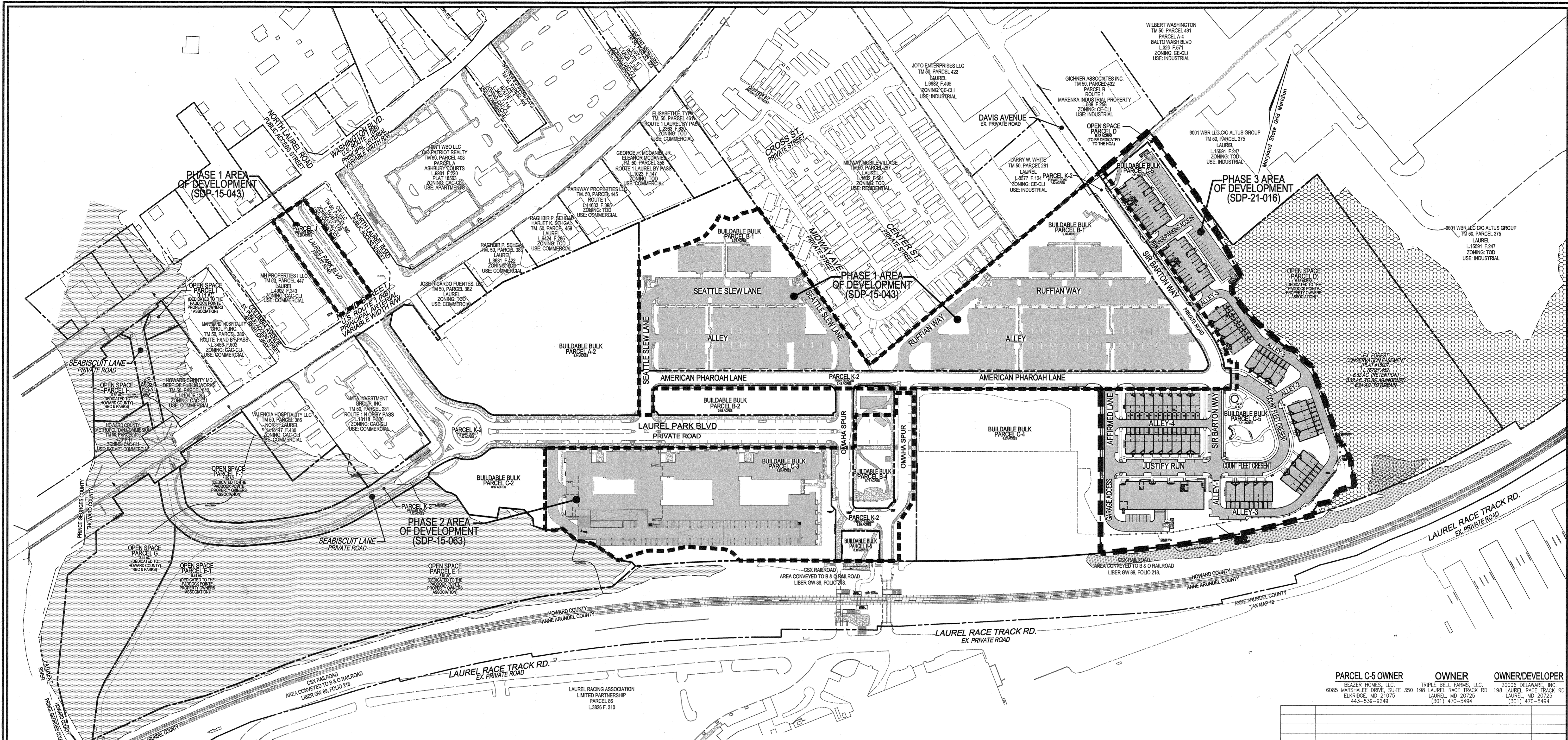
REVISED SITE DEVELOPMENT PLAN
STORMWATER MANAGEMENT PLANTINGS PLAN
PADDOCK POINTE - PHASE 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
76 APARTMENT UNITS AND 76 STACKED TOWN
PARCELS C-3 & K-2
ZONED: TOD
TAX MAP: 50 BLOCK: 10
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2024

DESIGN BY: DZE/RHV
DRAWN BY: DZE/MP/KS/UR
CHECKED BY: RHV
DATE: FEB. 2024
SCALE: AS SHOWN
W.O. NO.: 07-11/40111

24 SHEET OF 34



PLAN VIEW
SCALE: 1"=120'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Blumh 2-29-24
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Debra Esposito 3/7/24
CHIEF, DIVISION OF LAND DEVELOPMENT DATE
DIRECTOR

TOD RESIDENTIAL DEVELOPMENT TRACKING		
GROSS AREA (PADDOCK POINTE PROJECT)	63.34 AC.	
MINUS FLOODPLAIN & STEEP SLOPES	14.84 AC.	
DEVELOPABLE ACREAGE (NET)	48.50 AC.	
50% OF DEVELOPABLE AREA (NOT TO EXCEED)	24.25 AC.	
PHASE/PROJECT	AREA	% OF NET
PHASE 1 RESIDENTIAL AREA (SDP-15-043)	5.59 AC.	11.52%
PHASE 2 RESIDENTIAL AREA (SDP-15-063)	3.23 AC.	6.67%
PHASE 3 RESIDENTIAL AREA (SDP-21-016)	4.42 AC.	9.12%
TOTAL	13.24 AC.	27.31%

* NO MORE THAN 50% OF THE DEVELOPABLE AREA ACREAGE, EXCLUDING ROAD RIGHT OF WAY AND OPEN SPACE SHALL BE DEVOTED TO RESIDENTIAL BUILDINGS AND PARKING.

LEGEND

■ TOD RESIDENTIAL AREA

■ 100-YR FLOODPLAIN

PARCEL C-5 OWNER: BEAZER HOMES, LLC. 6085 MARSHALLEE DRIVE, SUITE 350 ELKRODGE, MD 21075. 443-539-9249

OWNER: TRIPLE BELL FARMS, LLC. 198 LAUREL RACE TRACK RD. LAUREL, MD 20725. (301) 470-5494

OWNER/DEVELOPER: 20006 DELAWARE, INC. 198 LAUREL RACE TRACK RD. LAUREL, MD 20725. (301) 470-5494

NO.	REVISION	DATE
1	REVISE PLAN FOR BUILDING ARCHITECTURE (UNITS 157-171 & 223-232); AND REVISE W&S HOUSE CONNECTIONS	11/30/23

REVISED SITE DEVELOPMENT PLAN
RESIDENTIAL DEVELOPMENT AREA EXHIBIT

PADDOCK POINTE - PHASE 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
76 APARTMENT UNITS AND 76 STACKED TOWN UNITS
PARCELS C-5 & K-2

TAX MAP: 50 BLOCK: 10
6TH ELECTION DISTRICT

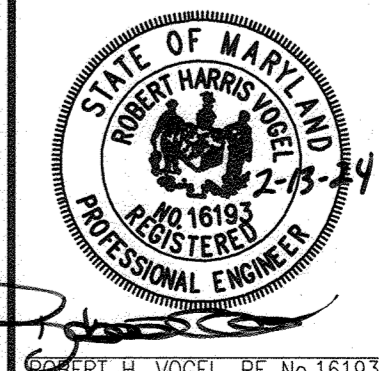
ZONED: TOD

PARCEL 384
HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7656 F: 410.461.8951 www.timmons.com



DESIGN BY: DZE/RHV
DRAWN BY: DZE/MP/KS/JR
CHECKED BY: RHV
DATE: FEB. 2024
SCALE: AS SHOWN
W.O. NO.: 07-11/40111

PROFESSIONAL CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2024

25 OF 34

SEGMENTAL CONCRETE BLOCK RETAINING WALL

PART 1: GENERAL

1.01 DESCRIPTION

- A. WORK SHALL CONSIST OF FURNISHING AND CONSTRUCTION OF A SEGMENTAL RETAINING WALL SYSTEM IN ACCORDANCE WITH THESE SPECIFICATIONS AND IN REASONABLY CLOSE CONFORMITY WITH THE LINES, GRADES, DESIGN, AND DIMENSIONS SHOWN ON THE PLANS.
- B. WORK INCLUDES PREPARING FOUNDATION SOIL, FURNISHING AND INSTALLING LEVELING PAD, UNIT FACING SYSTEM, UNIT DRAINAGE FILL AND REINFORCED BACKFILL TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS.
- C. WORK INCLUDES FURNISHING AND INSTALLING GEOGRID SOIL REINFORCEMENT OF THE TYPE, SIZE, LOCATION, AND LENGTHS DESIGNATED ON THE CONSTRUCTION DRAWINGS.

1.02 DELIVERY, STORAGE AND HANDLING

- A. CONTRACTOR SHALL CHECK ALL MATERIALS UPON DELIVERY TO ASSURE THAT THE PROPER TYPE, GRADE, COLOR, AND CERTIFICATION HAS BEEN RECEIVED.
- B. CONTRACTOR SHALL PROTECT ALL MATERIALS FROM DAMAGE DUE TO JOB SITE CONDITIONS AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. DAMAGED MATERIALS SHALL NOT BE INCORPORATED INTO THE WORK.

PART 2: PRODUCTS

2.01 SEGMENTAL CONCRETE RETAINING WALL UNITS

- A. SEGMENTAL CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING ARCHITECTURAL REQUIREMENTS:

FACE COLOR - COLOR MAY BE SPECIFIED BY THE OWNER.

FACE FINISH - HARD SPLIT IN ANGULAR TRI-PLANE OR STRAIGHT FACE CONFIGURATION. OTHER FACE FINISHES WILL NOT BE ALLOWED WITHOUT WRITTEN APPROVAL OF OWNER.

BOND CONFIGURATION - RUNNING WITH BONDS NOMINALLY LOCATED AT MIDPOINT IN VERTICALLY ADJACENT UNITS, IN BOTH STRAIGHT AND CURVED ALIGNMENTS.

EXPOSED SURFACES OF UNITS SHALL BE FREE OF CHIPS, CRACKS OR OTHER IMPERFECTIONS WHEN VIEWED FROM A DISTANCE OF 20 FEET UNDER DIFFUSED LIGHTING.

- B. SEGMENTAL CONCRETE UNITS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C1372 - STANDARD SPECIFICATIONS FOR SEGMENTAL RETAINING WALL UNITS.

- C. SEGMENTAL CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING STRUCTURAL AND GEOMETRIC REQUIREMENTS MEASURED IN ACCORDANCE WITH ASTM C140 SAMPLING & TESTING CONCRETE MASONRY UNITS.

COMPRESSIVE STRENGTH = 3000 PSI MINIMUM;
ABSORPTION = 8% MAXIMUM (6% MAXIMUM IN NORTHERN STATES) FOR STANDARD WEIGHT AGGREGATES;

DIMENSIONAL TOLERANCES = ±1/8" FROM NOMINAL UNIT DIMENSIONS NOT INCLUDING ROUGH SPLIT FACE ± 3/8" FROM NOMINAL UNIT HEIGHT. UNIT SIZE - 8" (H) X 18" (W) X 12" (D) MINIMUM FOR COMPAC III UNITS; UNIT SIZE - 8" (H) X 16" (W) X 18" (D) MINIMUM FOR STANDARD UNITS.

INTER-UNIT SHEAR STRENGTH - 1000 PLF MINIMUM AT 2 PSI NORMAL PRESSURE, AT 2 PSI NORMAL FORCE.

[GEOGRID/UNIT PEAK CONNECTION STRENGTH - 1000 PLF MINIMUM.]

- D. SEGMENTAL CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING CONSTRUCTABILITY REQUIREMENTS:

VERTICAL SETBACK = 1/8"± PER COURSE (NEAR VERTICAL) OR 1"± PER COURSE PER TYPICAL WALL SECTION; ALIGNMENT AND GRID ATTACHING MECHANISM; FIBERGLASS PINS, TWO PER UNIT MINIMUM; MAXIMUM HORIZONTAL GAP BETWEEN ERECTED UNITS SHALL BE 1/2 INCH.

2.02 SHEAR AND REINFORCEMENT PIN CONNECTORS

- A. SHEAR AND REINFORCEMENT PIN CONNECTORS SHALL BE 1/2 INCH DIAMETER THERMOSET ISOPHTHALIC POLYESTER RESIN PULTRUDED FIBERGLASS REINFORCEMENT RODS OR EQUIVALENT TO PROVIDE CONNECTION BETWEEN VERTICALLY AND HORIZONTALLY ADJACENT UNITS AND GEOSYNTHETIC REINFORCEMENT WITH THE FOLLOWING REQUIREMENTS: FLEXURAL STRENGTH IN ACCORDANCE WITH ASTM D4476: 128,000 PSI MINIMUM; SHORT BEAM SHEAR IN ACCORDANCE WITH ASTM D4475: 6,400 PSI MINIMUM.

- B. SHEAR CONNECTORS SHALL BE CAPABLE OF HOLDING THE GEOGRID IN THE PROPER DESIGN POSITION DURING GRID PRE-TENSIONING AND BACKFILLING.

2.03 BASE LEVELING PAD MATERIAL

- A. MATERIAL SHALL CONSIST OF A COMPACTED #57 CRUSHED STONE BASE OR CONCRETE AS SHOWN ON THE CONSTRUCTION DRAWINGS.

2.04 UNIT DRAINAGE FILL

- A. UNIT DRAINAGE FILL SHALL CONSIST OF #57 CRUSHED STONE.

2.05 REINFORCED BACKFILL

- A. REINFORCED BACKFILL SHALL BE TYPE SM, FREE OF DEBRIS AND MEET THE FOLLOWING GRADATION TESTED IN ACCORDANCE WITH ASTM D422 AND MEET OTHER PROPERTIES SHOWN ON THE PLAN:

SIEVE SIZE	PERCENT PASSING
1 1/2 INCH	100
3/4 INCH	100-75
NO. 40	0-60
NO. 200	0-35

PLASTICITY INDEX (PI) <15 AND LIQUID LIMIT <40, PER ASTM D4318.

- B. MATERIAL CAN BE SITE EXCAVATED SOILS WHERE THE ABOVE REQUIREMENTS CAN BE MET. UNSUITABLE SOILS FOR BACKFILL (HIGHLY PLASTIC CLAYS OR ORGANIC SOILS) SHALL NOT BE USED IN THE REINFORCED SOIL MASS.

- C. CONTRACTOR SHALL SUBMIT REINFORCED FILL SAMPLE AND LABORATORY TEST RESULTS FOR APPROVAL PRIOR TO THE USE OF ANY REINFORCED BACKFILL MATERIAL.

2.06 GEOGRID SOIL REINFORCEMENT

- A. GEOSYNTHETIC REINFORCEMENT SHALL CONSIST OF GEOGRIDS MANUFACTURED SPECIFICALLY FOR SOIL REINFORCEMENT APPLICATIONS AND SHALL BE MANUFACTURED FROM HIGH TENACITY POLYESTER (PET) YARN.

2.07 DRAINAGE PIPE

- A. THE DRAINAGE PIPE SHALL BE PERFORATED CORRUGATED HDPE PIPE MANUFACTURED IN ACCORDANCE WITH ASTM D1248.

2.08 GEOTEXTILE FILTER FABRIC

- A. WHEN REQUIRED, FILTER FABRIC SHALL BE A NEEDLE-PUNCHED NONWOVEN FABRIC MEETING REQUIREMENTS OF AASHTO M288.

PART 3: EXECUTION

3.01 EXCAVATION

- A. CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS. OWNER'S REPRESENTATIVE SHALL BE RESPONSIBLE FOR INSPECTING AND APPROVING THE SUBGRADE PRIOR TO PLACEMENT OF LEVELING MATERIAL OR FILL SOILS.

3.02 BASE LEVELING PAD

- A. LEVELING PAD MATERIAL SHALL BE PLACED TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS, TO A MINIMUM THICKNESS OF 6 INCHES AND EXTEND LATERALLY A MINIMUM OF 6" IN FRONT AND BEHIND THE SEGMENTAL WALL UNIT.

- B. LEVELING PAD SHALL BE PREPARED TO INSURE FULL CONTACT TO THE BASE SURFACE OF THE CONCRETE UNITS.

- C. COMPACT TO MINIMUM 95% OF STANDARD PROCTOR DENSITY PER ASTM D698.

3.03 SEGMENTAL UNIT INSTALLATION

- A. FIRST COURSE OF UNITS SHALL BE PLACED ON THE LEVELING PAD AT THE APPROPRIATE LINE AND GRADE. ALIGNMENT AND LEVEL SHALL BE CHECKED IN ALL DIRECTIONS AND INSURE THAT ALL UNITS ARE IN FULL CONTACT WITH THE BASE AND PROPERLY SEATED.

- B. PLACE THE FRONT OF UNITS SIDE-BY-SIDE. DO NOT LEAVE GAPS BETWEEN ADJACENT UNITS. LAYOUT OF CORNERS AND CURVES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

- C. INSTALL SHEAR/CONNECTING DEVICES PER MANUFACTURER'S RECOMMENDATIONS.

- D. PLACE AND COMPACT DRAINAGE FILL WITHIN AND BEHIND WALL UNITS. NOT LESS THAN 1.3 CU. FT. OF DRAINAGE FILL SHALL BE USED FOR EACH SQ. FT. OF WALL FACE, UNLESS NOTED OTHERWISE.

- E. PLACE AND COMPACT REINFORCED BACKFILL SOIL BEHIND DRAINAGE FILL. FOLLOW WALL ERECTION AND DRAINAGE FILL CLOSELY WITH BACKFILL.

- F. MAXIMUM STACKED VERTICAL HEIGHT OF WALL UNITS, PRIOR TO UNIT DRAINAGE FILL AND BACKFILL PLACEMENT AND COMPACTATION, SHALL NOT EXCEED TWO COURSES.

3.04 STRUCTURAL GEOGRID INSTALLATION

- A. GEOGRID SHALL BE ORIENTED WITH THE HIGHEST STRENGTH AXIS PERPENDICULAR TO THE WALL ALIGNMENT.

- B. GEOGRID REINFORCEMENT SHALL BE PLACED AT THE STRENGTHS, LENGTHS, AND ELEVATIONS SHOWN ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE ENGINEER.

- C. THE GEOGRID SHALL BE LAID HORIZONTALLY ON COMPACTED BACKFILL AND ATTACHED TO THE SEGMENTAL WALL UNIT PINS AND WITHIN 1 INCH OF THE FACE OF THE UNITS. PLACE THE NEXT COURSE OF SEGMENTAL CONCRETE UNITS OVER THE GEOGRID. THE GEOGRID SHALL BE PULLED TAUT, AND ANCHORED PRIOR TO BACKFILL PLACEMENT ON THE GEOGRID.

- D. GEOGRID REINFORCEMENTS SHALL BE CONTINUOUS THROUGHOUT THEIR EMBEDMENT LENGTHS AND PLACED

SIDE-BY-SIDE TO PROVIDE 100% COVERAGE AT EACH LEVEL. SPLICED CONNECTIONS BETWEEN SHORTER PIECES OF GEOGRID OR GAPS GREATER THAN 2 INCHES BETWEEN ADJACENT PIECES OF GEOGRID ARE NOT PERMITTED.

3.05 REINFORCED BACKFILL PLACEMENT

- A. REINFORCED BACKFILL SHALL BE PLACED, SPREAD, AND COMPACTED IN SUCH A MANNER THAT MINIMIZES THE DEVELOPMENT OF SLACK IN THE GEOGRID AND INSTALLATION DAMAGE TO GEOGRID.

- B. REINFORCED BACKFILL SHALL BE PLACED AND COMPACTED IN LIFTS NOT TO EXCEED 6 INCHES WHERE HAND OPERATED COMPACTION EQUIPMENT IS USED, OR 8 - 10 INCHES WHERE HEAVY COMPACTION EQUIPMENT IS USED. LIFT THICKNESS SHALL BE DECREASED TO ACHIEVE THE REQUIRED DENSITY AS REQUIRED.

- C. REINFORCED BACKFILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D698. THE MOISTURE CONTENT OF THE BACKFILL MATERIAL PRIOR TO AND DURING COMPACTION SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT EACH LAYER AND SHALL BE + 0% TO - 3% OF OPTIMUM.

- D. ONLY LIGHTWEIGHT HAND-OPERATED COMPACTION EQUIPMENT SHALL BE ALLOWED WITHIN 3 FEET FROM THE BACK OF THE SEGMENTAL CONCRETE UNIT.

- E. TRACKED CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY UPON THE GEOGRID REINFORCEMENT. A MINIMUM FILL THICKNESS OF 6 INCHES IS REQUIRED PRIOR TO OPERATION OF TRACKED VEHICLES OVER THE GEOGRID. TRACKED VEHICLE TURNING SHOULD BE KEPT TO A MINIMUM TO PREVENT TRACKS FROM DISPLACING THE FILL AND DAMAGING OR DISPLACING THE SEGMENTAL CONCRETE UNITS OR GEOGRID.

- F. RUBBER Tired EQUIPMENT MAY PASS OVER GEOGRID REINFORCEMENT AT SLOW SPEEDS, LESS THAN 10 MPH. SUDDEN BRAKING AND TURNING SHALL BE AVOIDED.

- G. AT THE END OF EACH DAY'S OPERATION, THE CONTRACTOR SHALL SLOPE THE LAST LIFT OF REINFORCED BACKFILL AWAY FROM THE WALL UNITS TO DIRECT RUNOFF AWAY FROM WALL FACE. THE CONTRACTOR SHALL NOT ALLOW SURFACE RUNOFF FROM ADJACENT AREAS TO ENTER THE WALL CONSTRUCTION SITE.

3.06 CAP INSTALLATION

- A. PRIOR TO PLACEMENT OF CAP UNITS, THE UPPER SURFACE OF THE TOP COURSE WALL UNITS SHALL BE CLEANED OF SOIL AND ANY OTHER MATERIAL.

- B. CAP UNITS SHALL BE GLUED TO UNDERLYING UNITS WITH AN ALL-WEATHER EXTERIOR CONSTRUCTION ADHESIVE RECOMMENDED BY THE MANUFACTURER.

3.07 FIELD QUALITY CONTROL

- A. THE OWNER SHALL ENGAGE INSPECTION AND TESTING SERVICES, INCLUDING INDEPENDENT LABORATORIES, TO PROVIDE QUALITY ASSURANCE AND TESTING SERVICES DURING CONSTRUCTION.

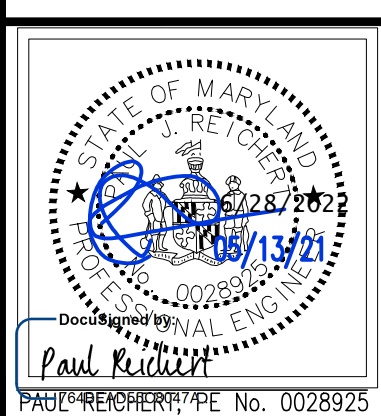
- B. AS A MINIMUM, QUALITY ASSURANCE TESTING SHOULD INCLUDE FOUNDATION SOIL INSPECTION, RETAINED SOIL AND BACKFILL TESTING, VERIFICATION OF DESIGN PARAMETERS, AND OBSERVATION OF CONSTRUCTION FOR GENERAL COMPLIANCE WITH DESIGN DRAWINGS AND SPECIFICATIONS.

OWNER TRIPLE BELL FARMS, LLC. 198 LAUREL RACE TRACK RD. LAUREL, MD 20725 (301) 470-5494	OWNER/DEVELOPER 20006 DELAWARE INC. 198 LAUREL RACE TRACK RD. LAUREL, MD 20725 (301) 470-5494
--	--

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
RETAINING WALL CONSTRUCTION DETAILS
PADDOCK POINT - PHASE 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
396 APARTMENT UNITS AND 76 STACKED TOWN
PARCELS C-1 & K-1
ZONED: TOD
TAX MAP: 50 BLOCK: 10
6TH ELECTION DISTRICT
PARCEL 384
HOWARD COUNTY, MARYLAND

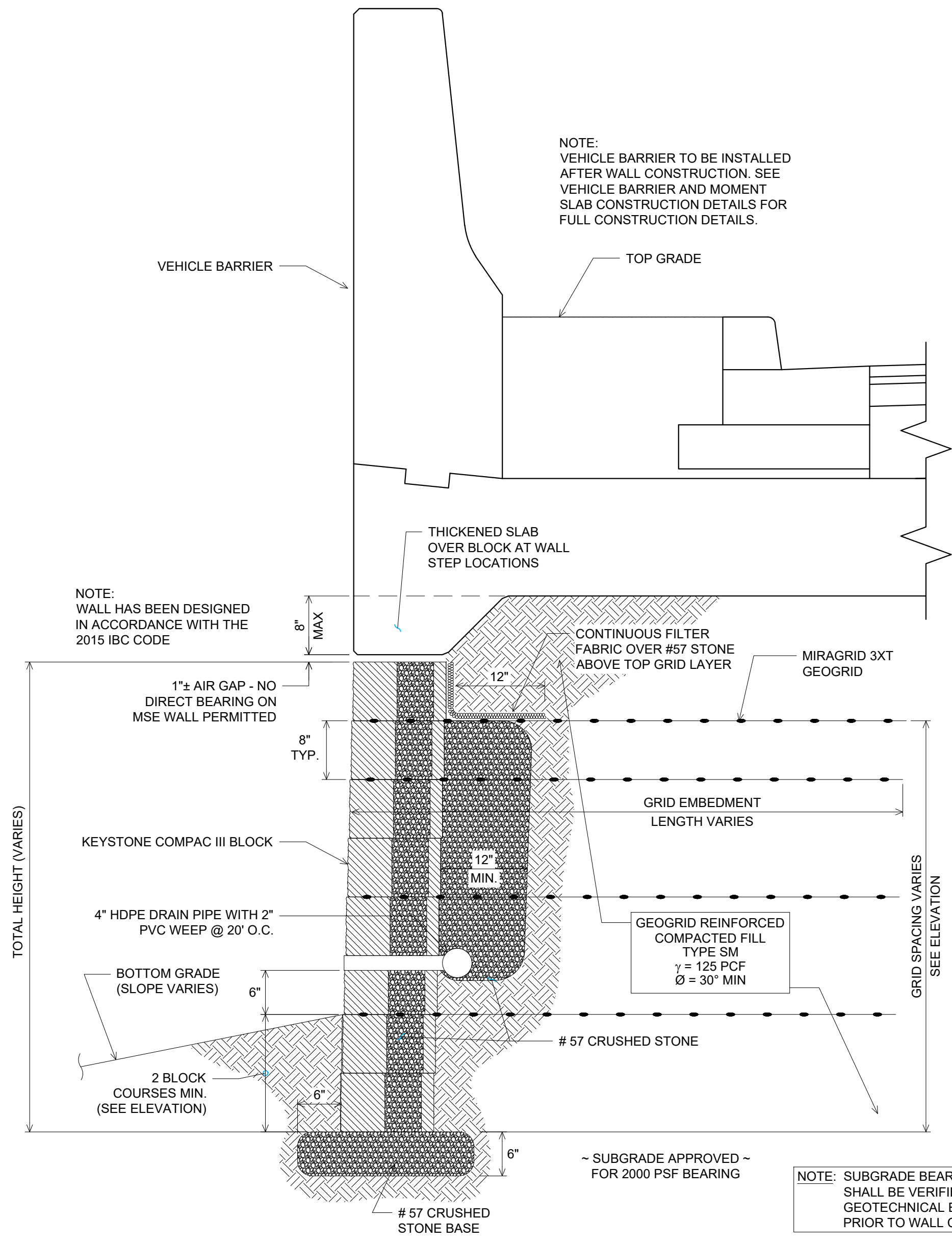
HILLIS-CARNES
ENGINEERING ASSOCIATES
10975 Guilford Road, Suite A Annapolis Junction, Maryland
Phone: (410) 880-4788 www.hceas.com Fax: (410) 880-4098



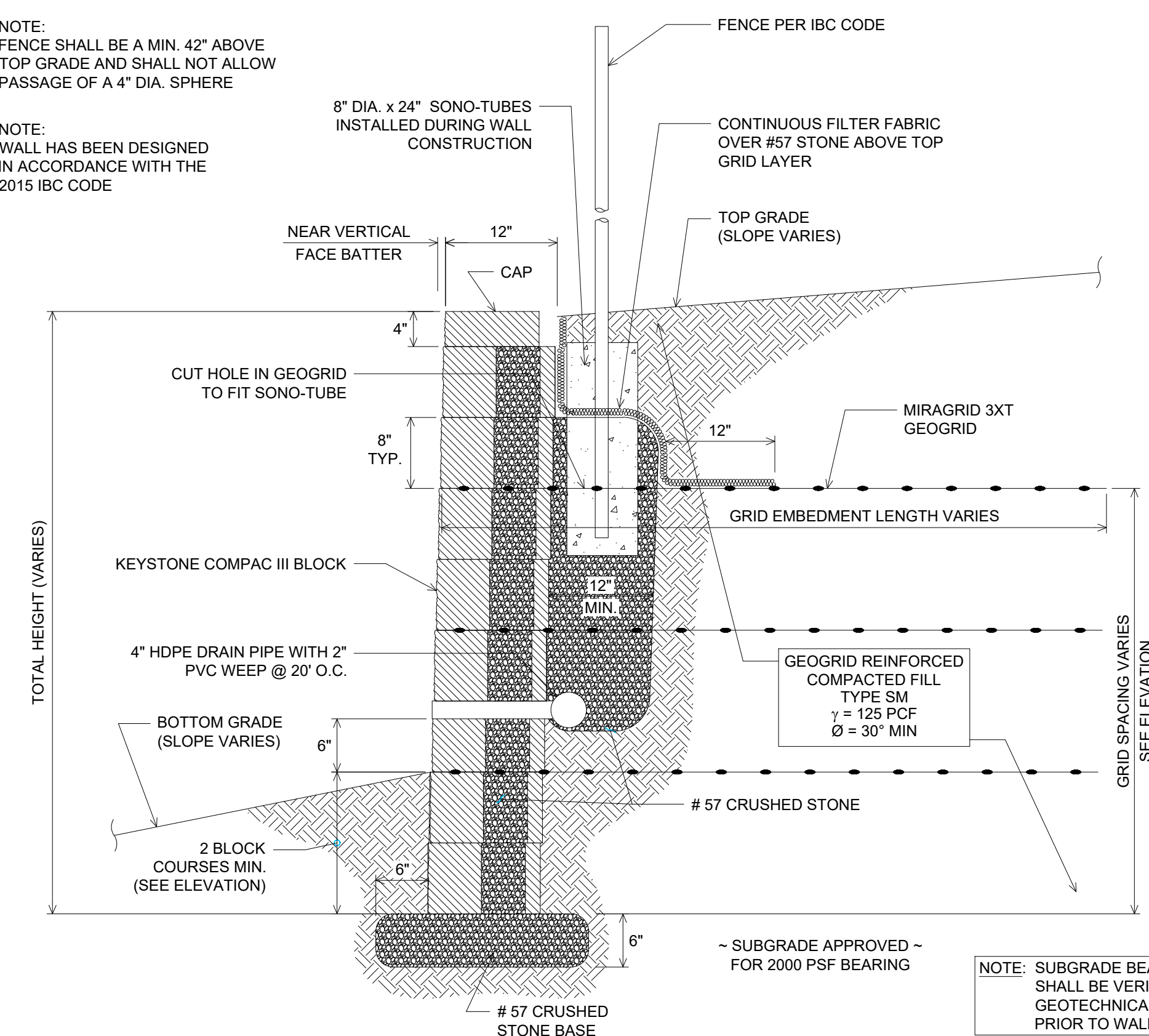
PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 0028925 EXPIRATION DATE: 01-15-2024

DESIGN BY: JE/AM
DRAWN BY: AM
CHECKED BY: HM
DATE: JUNE 2022
SCALE: AS NOTED
HCEA JOB NO.: 20631A

27 SHEET **34**
OF



TYPICAL WALL #1 SECTION
N.T.S.



TYPICAL WALL #2 SECTION
N.T.S.

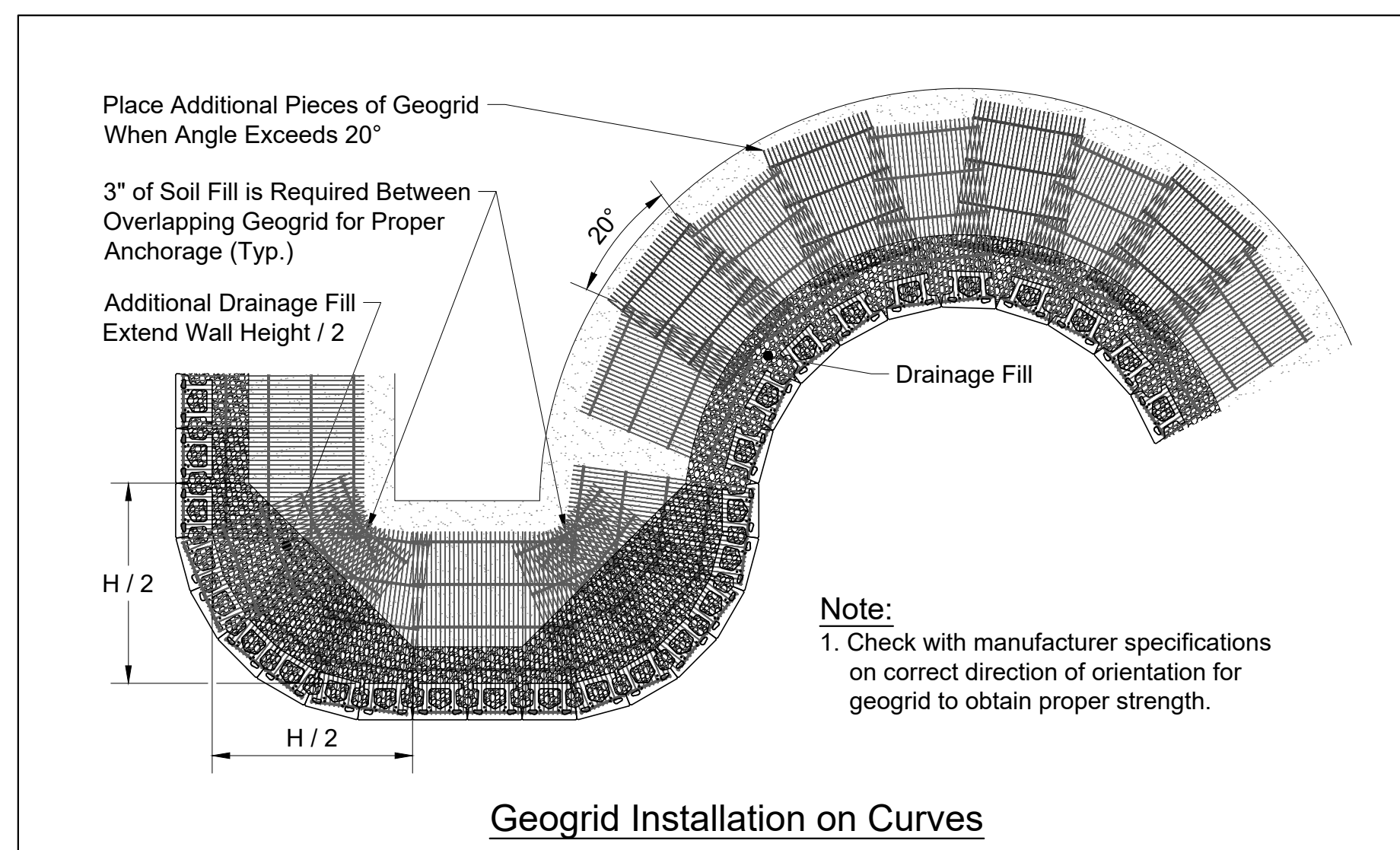
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division: *Chad Edmondson* 7/12/2022

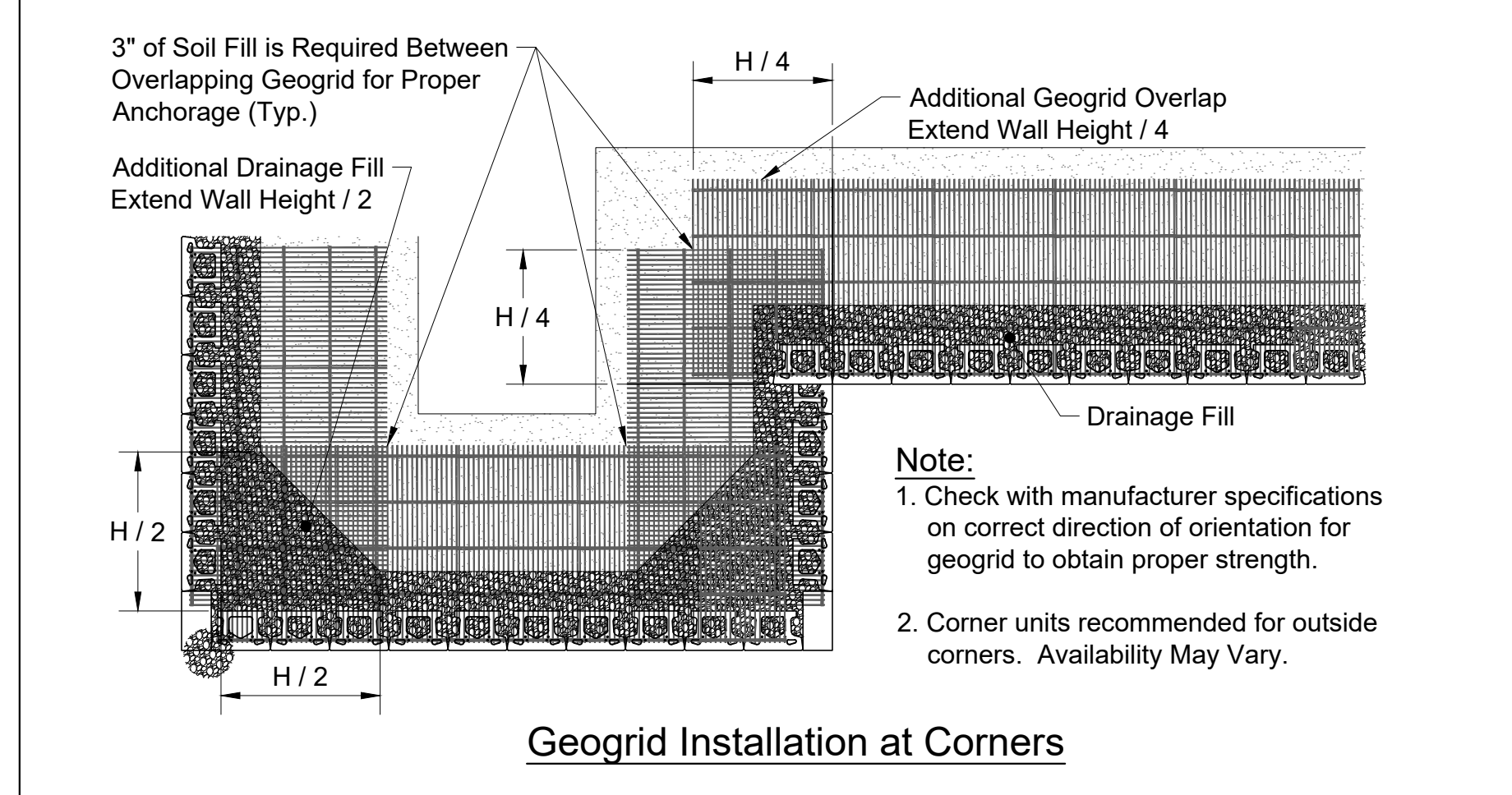
Chief, Division of Land Development: *Angy Brown* 7/12/2022

Director: *Angy Brown*

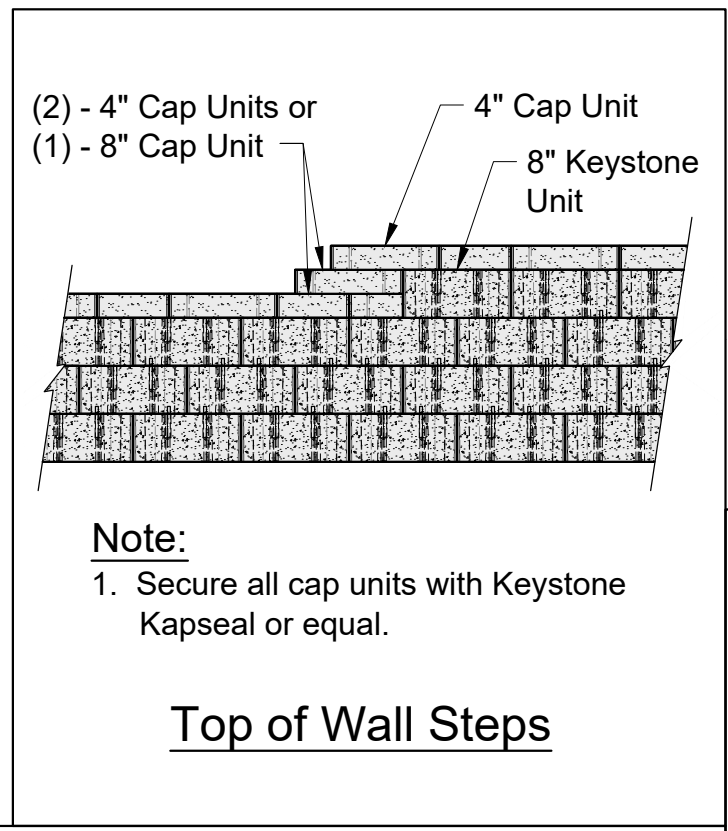
NOTE: SUBGRADE BEARING CAPACITY SHALL BE VERIFIED BY A GEOTECHNICAL ENGINEER PRIOR TO WALL CONSTRUCTION.



Geogrid Installation on Curves



Geogrid Installation at Corners

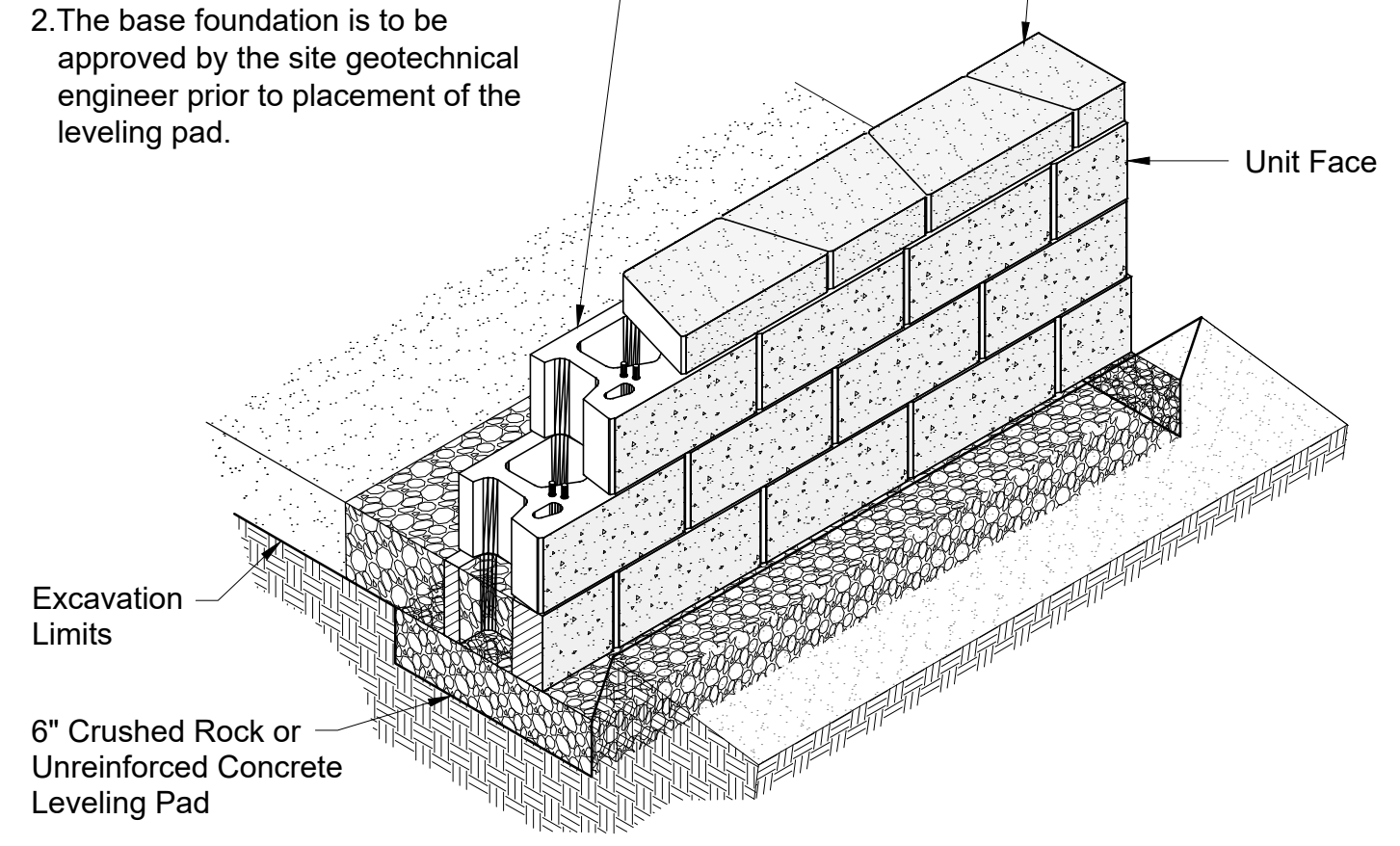


Top of Wall Steps

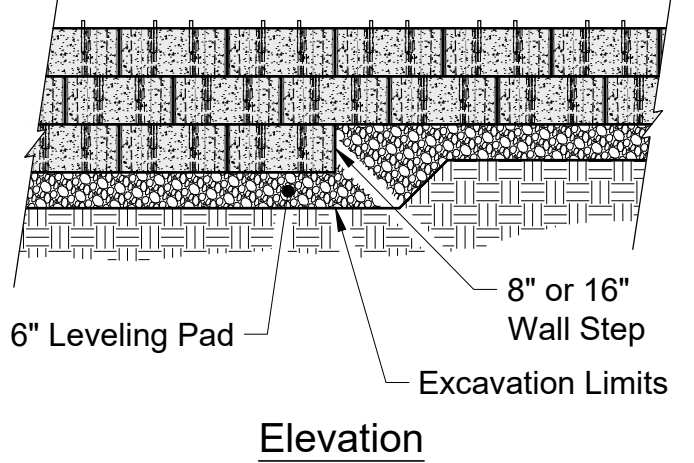
Base Leveling Pad Notes:

- The leveling pad is to be constructed of crushed stone or 2,000 psi± unreinforced concrete.
- The base foundation is to be approved by the site geotechnical engineer prior to placement of the leveling pad.

Compac III Unit	Universal Cap Unit
*Width: 18"	*Width: 18" / 12"
*Depth: 12"	*Depth: 10 1/2"
*Height: 8"	*Height: 4"
*Weight: 75 lbs	*Weight: 49 lbs

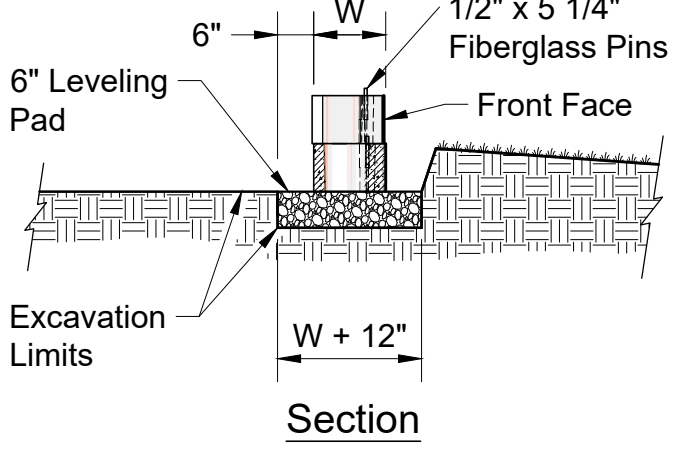


Compac III Unit/Base Pad Isometric Section View

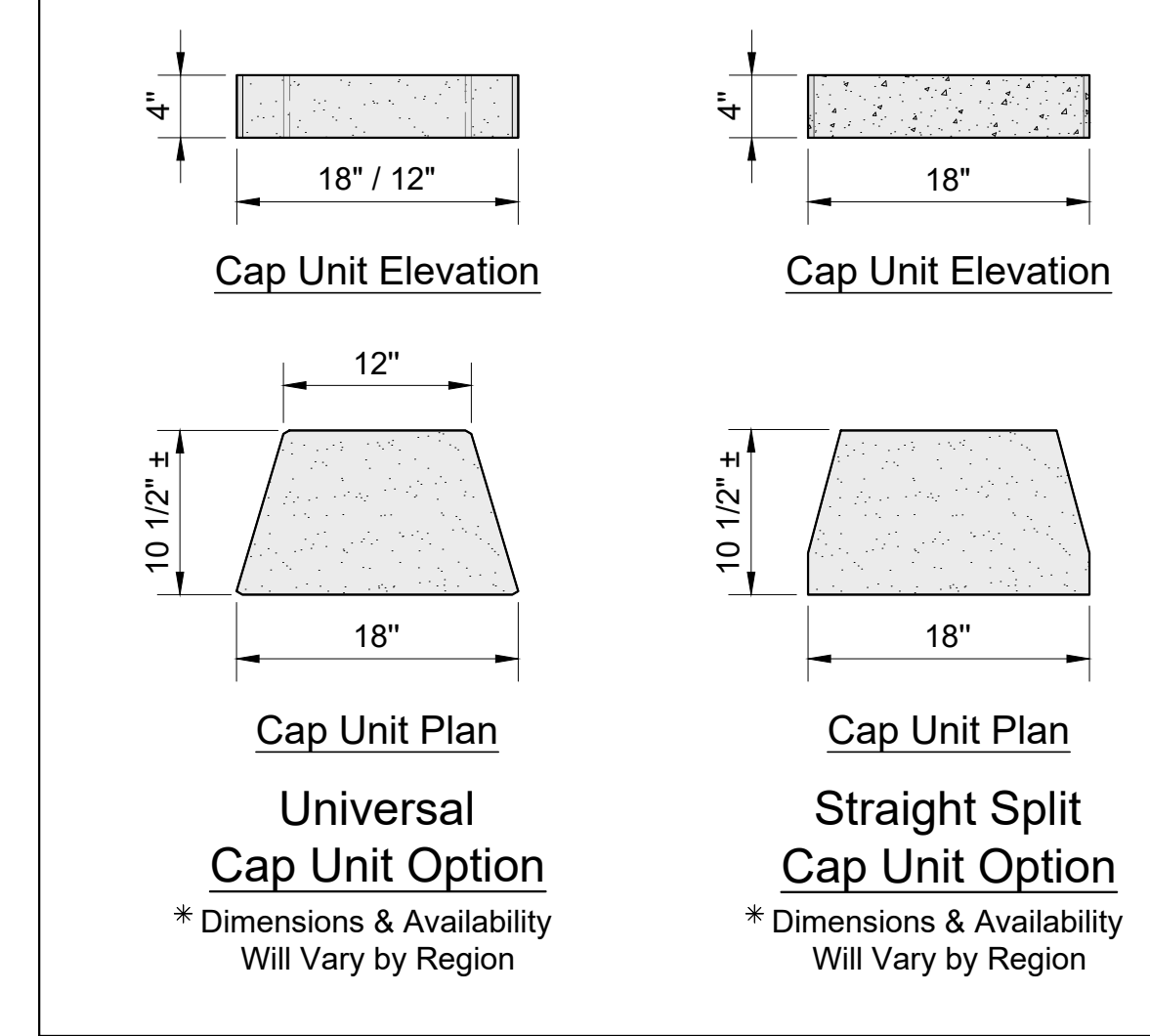


Elevation

Note:
1. The leveling pad is to be constructed of crushed stone or 2000 psi ± unreinforced concrete.

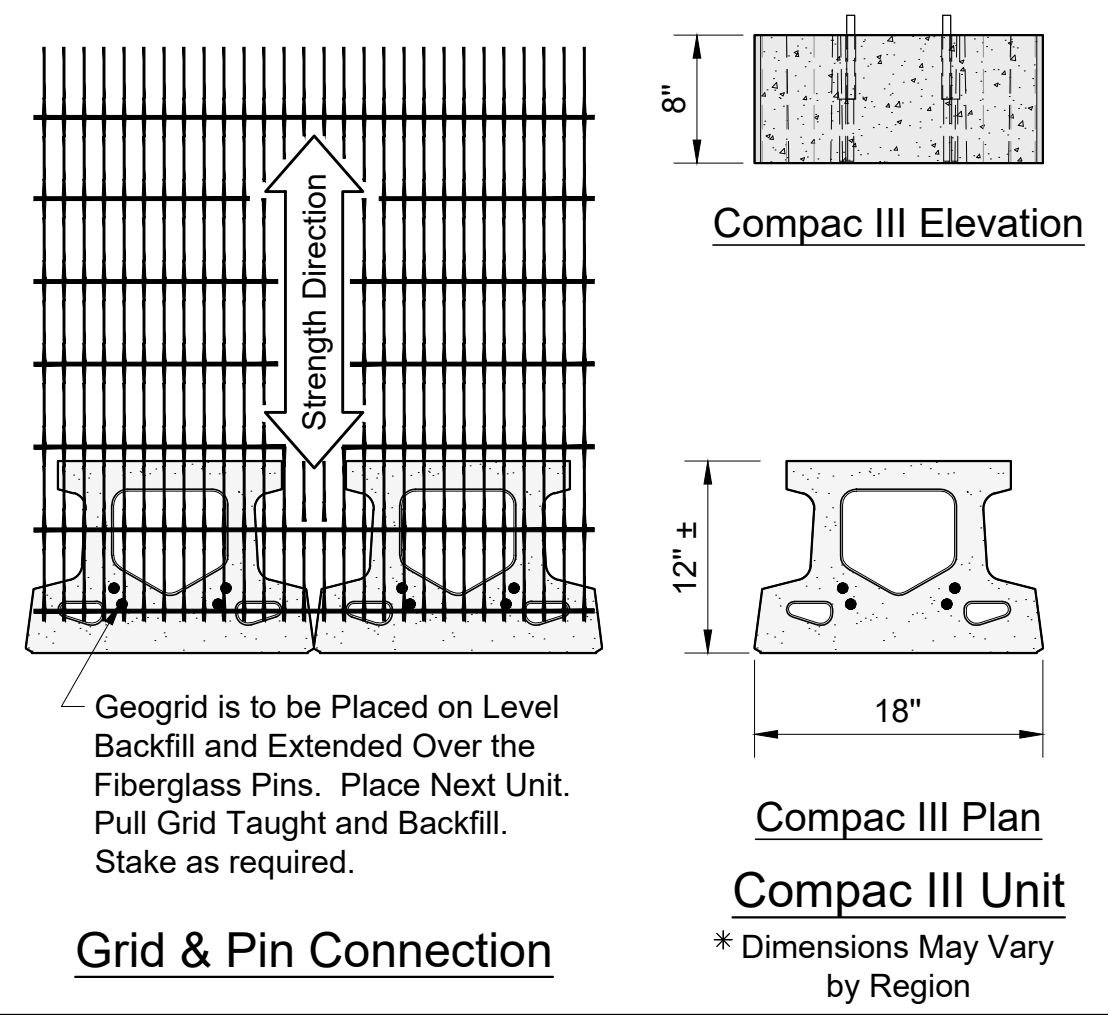


Leveling Pad Detail



Universal Cap Unit Option
* Dimensions & Availability Will Vary by Region

Straight Split Cap Unit Option
* Dimensions & Availability Will Vary by Region



Grid & Pin Connection

COMPAC III UNIT - STRAIGHT FACE DETAILS

NO.	REVISION	DATE

OWNER	OWNER/DEVELOPER
TRIPLE BELL FARMS, LLC. 198 LAUREL RACE TRACK RD LAUREL, MD 20725 (301) 470-5494	20006 DELAWARE INC. 198 LAUREL RACE TRACK RD LAUREL, MD 20725 (301) 470-5494

SITE DEVELOPMENT PLAN
RETAINING WALL CONSTRUCTION DETAILS
PADDOCK POINTE - PHASE 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
396 APARTMENT UNITS AND 76 STACKED TOWN
PARCELS C-1 & K-1
ZONED: TOD
TAX MAP: 50 BLOCK: 10
6TH ELECTION DISTRICT

HILLIS-CARNES ENGINEERING ASSOCIATES
10975 Guilford Road, Suite A Annapolis Junction, Maryland
Phone: (410) 880-4788 www.hcea.com Fax: (410) 880-4098

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 0028925 EXPIRATION DATE: 01-15-2024

DESIGN BY: JE/AM
DRAWN BY: AM
CHECKED BY: HM
DATE: JUNE 2022
SCALE: AS NOTED
HCEA JOB NO.: 20631A

28 SHEET OF 34

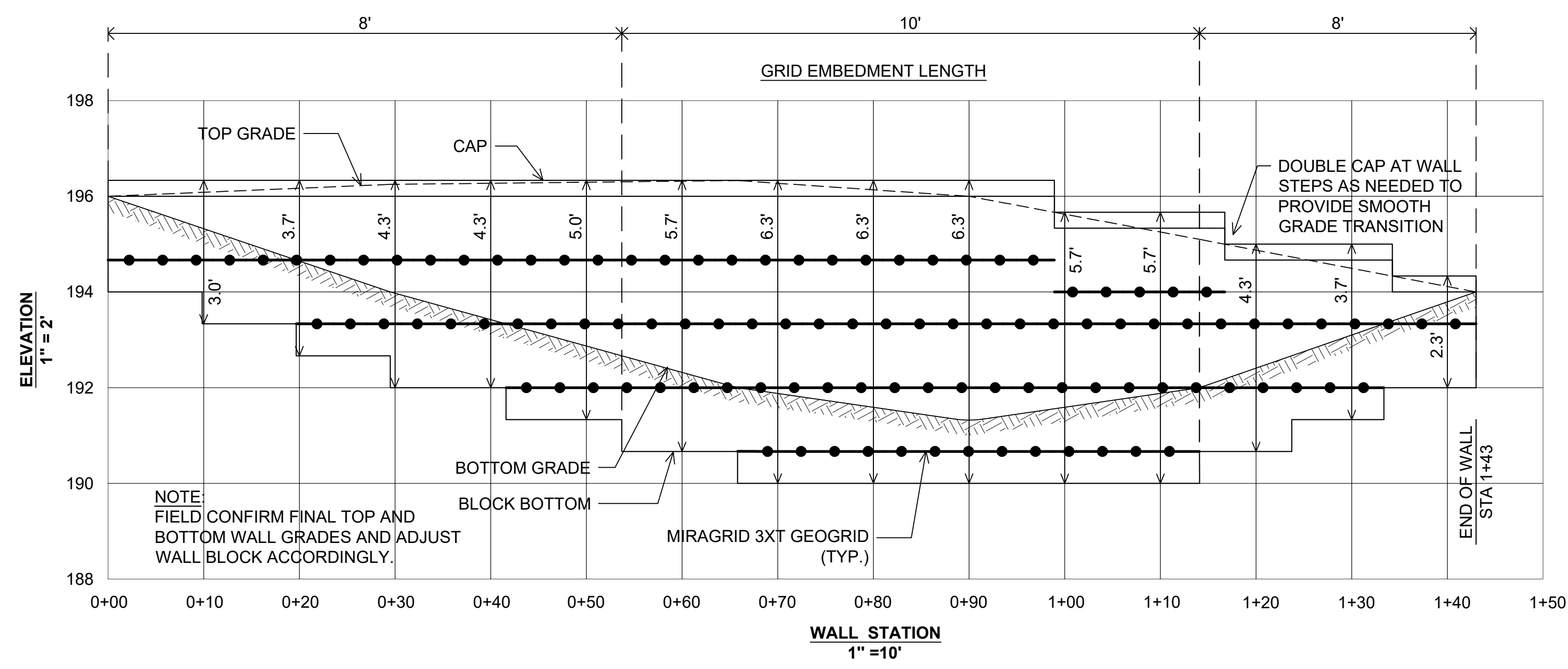
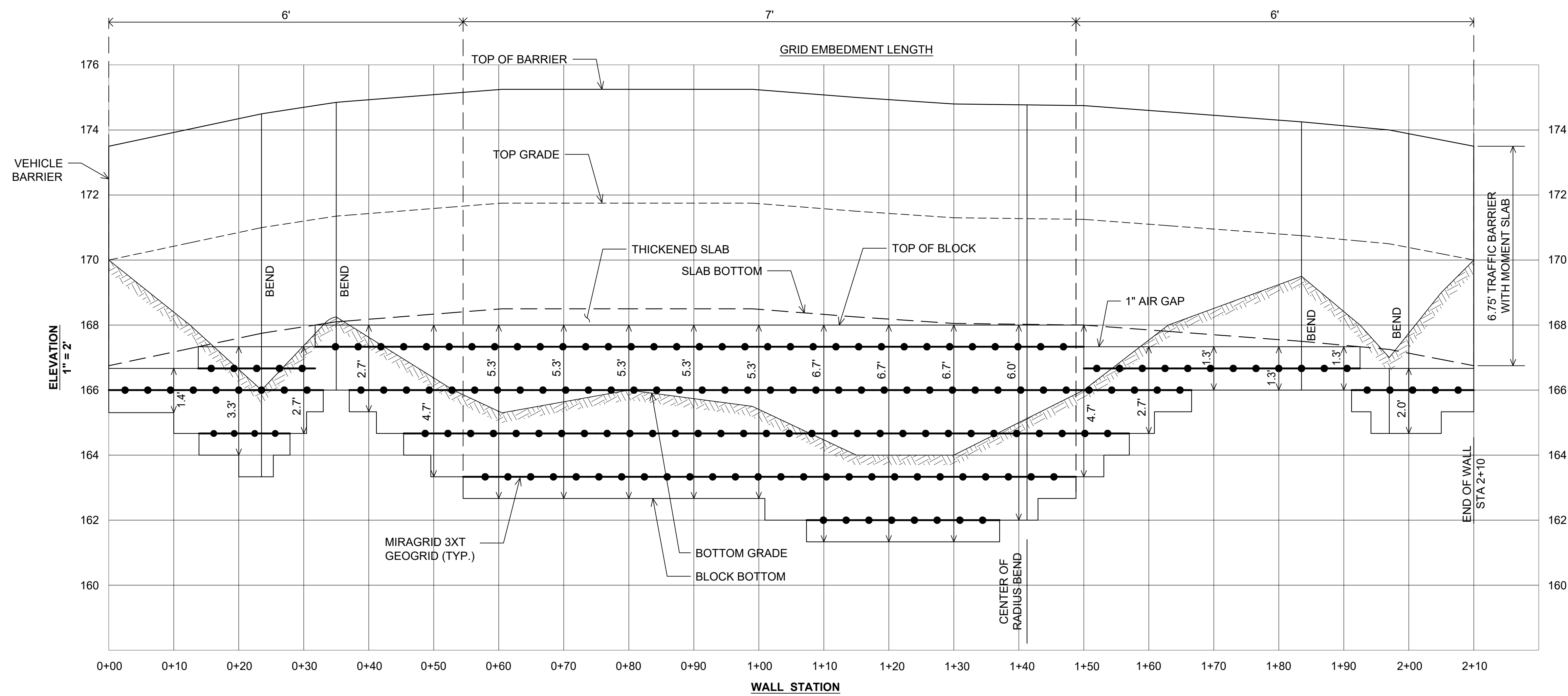
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

7/12/2022

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT

DIRECTOR



NOTE: FIELD CONFIRM FINAL TOP AND BOTTOM WALL GRADES AND ADJUST WALL BLOCK ACCORDINGLY.

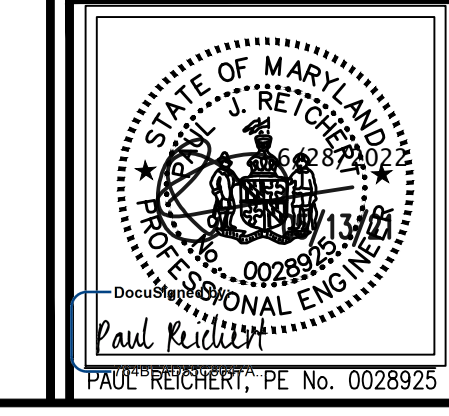
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(301) 470-5494

OWNER/DEVELOPER
20006 DELAWARE INC.
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NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
RETAINING WALL #1 & #2 ELEVATIONS
Paddock Pointe - Phase 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
396 APARTMENT UNITS AND 76 STACKED TOWN
PARCELS C-1 & K-1
ZONED: TOD
TAX MAP: 50 BLOCK: 10
6TH ELECTION DISTRICT
PARCEL 384
HOWARD COUNTY, MARYLAND

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29 SHEET **34**
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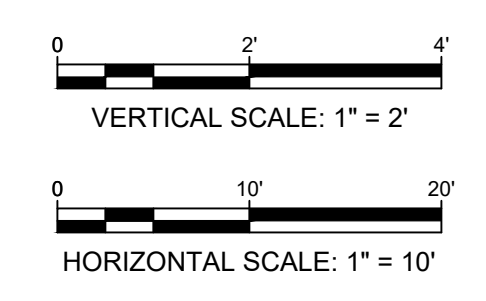
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

7/12/2022

CHIEF, DEVELOPMENT ENGINEERING DIVISION
7/12/2022

CHIEF, DIVISION OF LAND DEVELOPMENT
7/12/2022

DIRECTOR



GENERAL NOTES

CONTRACTOR RESPONSIBILITIES: THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE, AND TO ENSURE THE STABILITY OF THE BUILDING AND ITS COMPONENT PARTS, AND THE ADEQUACY OF TEMPORARY OR INCOMPLETE CONNECTIONS, DURING ERECTING. THIS INCLUDES THE ADDITION OF ANY SHORING, SHEETING, TEMPORARY GUYS, BRACING OR TIEDOWNS THAT MIGHT BE NECESSARY. SUCH MATERIAL IS NOT SHOWN ON THE DRAWINGS. IF APPLIED, THEY SHALL BE REMOVED AS CONDITIONS PERMIT AND SHALL REMAIN THE CONTRACTOR'S PROPERTY. THE ENGINEER HAS NO EXPERTISE IN, AND TAKES NO RESPONSIBILITY FOR, CONSTRUCTION MEANS AND METHODS OR JOBSITE SAFETY DURING CONSTRUCTION. PROCESSING AND/OR APPROVED SUBMITTALS MADE BY THE CONTRACTOR WHICH MAY CONTAIN INFORMATION RELATED TO CONSTRUCTION METHODS OF SAFETY ISSUES, OR PARTICIPATION IN MEETINGS WHERE SUCH ISSUES MIGHT BE DISCUSSED, SHALL NOT BE CONSTRUED AS VOLUNTARY ASSUMPTION BY THE ENGINEER OF ANY RESPONSIBILITY OF EACH CONTRACTOR TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION. THE ENGINEER IS NOT ENGAGED IN, AND DOES NOT SUPERVISE CONSTRUCTION.

CONTROLLED FILL AND BACKFILL: SAMPLES OF ALL MATERIALS THAT THE CONTRACTOR PROPOSES TO USE FOR COMPACTED FILL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER. COMPACTED FILL SHALL CONSIST OF LOCAL MATERIAL FREE OF DELETERIOUS MATTER AND CLASSIFIED SP, SW, SM, SC, GP, GW, GM, OR GC PER ASTM D-2487. THE CONTROL OF THE MOISTURE FOR PLACING THE FILL WILL BE BASED ON THE RESULTS OF COMPACTION TESTS PER ASTM D-1557. ALL COMPACTED FILL SHALL HAVE A DENSITY OF AT LEAST 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557. PRIOR TO PLACEMENT OF ANY FILLS, THE SITE SHALL BE STRIPPED OF ALL TOPSOIL, VEGETATION, ROCKS, AND ORGANIC MATERIALS AND THE EXPOSED SUBGRADE SHALL BE COMPACTED IN PLACE TO A CONFIRMED DENSITY OF 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY. FILL MATERIAL SHALL BE PLACED IN LOOSE LIFTS NOT EXCEEDING 8" IN THICKNESS AND SHALL BE MIXED, SPREAD AND PLACED IN SUCH A WAY AS TO PRODUCE A UNIFORM THICKNESS OF MATERIAL AFTER PLACING. EACH LAYER OF FILL SHALL BE COMPACTED WITH A MINIMUM OF 6 COMPLETE PASSES ON ALL PORTIONS OF THE SURFACE OF EACH LIFT OF FILL BY RUBBER-TIRED ROLLERS, SHEEPS-FOOT ROLLERS OR OTHER MECHANICAL EQUIPMENT APPROVED BY THE GEOTECHNICAL ENGINEER. COMPACTED FILL PLACED WITHIN 4 FEET OF STRUCTURES AND PIPES SHOULD BE PLACED IN HORIZONTAL LIFTS NOT TO EXCEED 4 INCHES THICKNESS AND COMPACTED WITH HAND TAMPERERS OR LIGHT COMPACTION EQUIPMENT TO THE SAME STANDARD. HEAVY COMPACTION EQUIPMENT SHOULD NOT BE ALLOWED WITHIN 4 FEET OF STRUCTURES UNLESS A MINIMUM 2 FEET DEPTH OF FILL COVERS THE STRUCTURES. WHENEVER IN PLACE DENSITIES ARE FOUND BELOW ACCEPTABLE LIMITS, ADDITIONAL ROLLING TO PRODUCE THE SPECIFIED DENSITIES SHALL BE REQUIRED. THE CONTRACTOR SHALL TAKE ALL MEASURES REQUIRED TO PROVIDE FOR FREE DRAINAGE OF THE SITE AND TO PREVENT PONDING OF WATER. SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. PLACING OF FILL CONTAINING ORGANIC MATTER, PLACING OF FILL WITH MOISTURE CONTENT TOO HIGH OR TOO LOW FOR PROPER COMPACTION; PLACING OF FILL WHEN FREE WATER IS STANDING ON THE EXISTING FILL SURFACE; PLACING OF FILL IN A FROZEN CONDITION OR ON TOP OF FROZEN MATTER WILL NOT BE PERMITTED. THE SOILS ENGINEER SHALL SUPERVISE THE PLACING OF THE COMPACTED FILL AND ALL THE MATERIAL AND EQUIPMENT USED FOR THIS PURPOSE AND SHALL MAKE SUCH SOILS TESTS AS MAY BE REQUIRED FOR THE COMPLETION OF THE WORK PERFORMING AT LEAST 6 IN PLACE DENSITY TESTS DURING EACH EIGHT HOUR SHIFT.

FOUNDATIONS-SPREAD FOOTINGS: BOTTOM OF ALL FOOTINGS SHALL BE A MINIMUM OF 2'-0" BELOW ORIGINAL GRADE OR PLACED IN APPROVED COMPACTED FILL. BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 3'-0" BELOW FINISHED GRADE. A SOIL BEARING CAPACITY OF 2000 PSF WAS USED IN THE FOUNDATION DESIGN, AND MUST BE FIELD VERIFIED BY A REGISTERED GEOTECHNICAL ENGINEER. IF SOIL OF THIS BEARING CAPACITY IS NOT ENCOUNTERED AT THE ELEVATIONS INDICATED ON THE CONTRACT DRAWINGS, FOOTINGS SHALL BE LOWERED OR INCREASED IN SIZE AS DIRECTED BY THE STRUCTURAL ENGINEER. ELEVATIONS SHOWN ON PLAN ARE TO THE BOTTOM OF THE FOOTINGS.

CONCRETE: ALL CONCRETE WORK SHALL CONFORM TO ALL THE PROVISIONS OF THE "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301) AND TO THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318). ALL STRUCTURAL CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4500 PSI UNLESS NOTED OTHERWISE. ADDITIONALLY, THE CONCRETE SHALL CONFORM TO ALL THE PROVISIONS OF "RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING" (ACI 305) AND "RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING" (ACI 306). ALL FORMWORK SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE "FORMWORK FOR CONCRETE" SPECIAL PUBLICATION NO. 4 AND ACI'S "STANDARD RECOMMENDED PRACTICE FOR CONCRETE FORMWORK" (ACI-347). ALL CONCRETE EXPOSED TO THE WEATHER SHALL HAVE AN AIR ENTRAINMENT OF 6% +/- 1%. THE MAXIMUM WATER CEMENT RATIO W/C SHALL NOT EXCEED 0.58 FOR ALL CONCRETE EXCEPT CONCRETE EXPOSED TO WEATHER WHICH SHALL NOT EXCEED 0.45. NO ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL BE PERMITTED. THE MAXIMUM SLUMP OF ALL CONCRETE SHALL BE 4". ALL CONCRETE SHALL BE CURED WITH LIQUID SEALING COMPOUND CONFORMING TO ASTM C-309, TYPE I AND FEDERAL SPECIFICATION TT-C-000800 OR OTHER APPROVED METHOD WHICH IS COMPATIBLE WITH FLOORING ADHESIVES AND OTHER SURFACE TREATMENTS. ALL CONCRETE LEFT EXPOSED AT THE COMPLETION OF THE PROJECT SHALL BE TREATED WITH A CLEAR, PENETRATING ACRYLIC BASE POLYMER CAPABLE OF PREVENTING INFILTRATION OF WATER BORNE CHLORIDES SUCH AS "CONSPEC CURE & SEAL WB" BY DAYTON SUPERIOR CORPORATION OR APPROVED EQUAL. LOADS GREATER THAN THE DESIGN LIVE LOADS SHALL NOT BE PLACED ON THE STRUCTURE. A CONCRETE STRUCTURE MAY NOT SUPPORT ITS DESIGN LIVE LOAD FOR 28 DAYS. CONTRACTOR SHALL SUPPORT ADJACENT STRUCTURES, UTILITIES, AND EXCAVATIONS AS REQUIRED FOR COMPLETION OF WORK. ONE SET OF COMPRESSIVE TEST CYLINDERS FOR EACH 100 CUBIC YARDS POURED, BUT NOT LESS THAN ONE SET FOR EACH DAY'S POUR AND EACH CLASS OF CONCRETE, ALONG WITH SLUMP TESTS SHALL BE PERFORMED BY A TESTING LABORATORY APPROVED BY THE STRUCTURAL ENGINEER. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL TEMPORARY FORMWORK INCLUDING STRIPPING PROCEDURES FOR CONCRETE FLAT SLABS, SHEETING, SHORING, UNDERPINNING, ETC. SEALED BY A REGISTERED PROFESSIONAL ENGINEER AS PART OF THE CONTRACTOR'S WORK.

REINFORCING STEEL: REINFORCING STEEL SHALL BE DEFORMED BARS IN ACCORDANCE WITH ASTM A-615, GRADE 60. BENDS ARE TO BE FABRICATED AS PER DETAILS. PLACE MAIN REINFORCING STEEL SO AS TO PROVIDE 3" MINIMUM COVER FOR FOUNDATIONS POURED ON EARTH, 2" MINIMUM COVER FOR BEAMS AND COLUMNS, 3/4" MINIMUM COVER FOR SLABS AND 1 1/2" FOR ALL REBAR IN EXPOSED CONCRETE (EXCEPT AS OTHERWISE DETAILED).

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 7/12/2022

 CHIEF, DIVISION OF LAND DEVELOPMENT DATE 7/12/2022

 DIRECTOR DATE

GENERAL NOTES

STRUCTURAL LUMBER: STRUCTURAL WOOD POSTS SHALL BE NO.1 SOUTHERN YELLOW PINE WITH A MAXIMUM WATER CONTENT OF 19% AND THE FOLLOWING MINIMUM PROPERTIES:

Fb = 1,350 PSI Fc = 375 PSI
 Ft = 900 PSI Fc = 825 PSI
 Fv = 165 PSI E = 1,500,000 PSI

STRUCTURAL WOOD STUDS AND PLATES SHALL BE NO.1 SOUTHERN YELLOW PINE WITH A MAXIMUM WATER CONTENT OF 19% AND THE FOLLOWING MINIMUM PROPERTIES:

Fb = 1,350 PSI Fc = 565 PSI
 Ft = 875 PSI Fc = 1,550 PSI
 Fv = 175 PSI E = 1,600,000 PSI

ALL WOOD USED IN WALL CONSTRUCTION SHALL BE PRESSURE PRESERVATIVE TREATED WITH MCA PRESERVATIVE TO A MINIMUM NET RETENTION OF 0.15PCF (2.40kg/m³) OR CCA PRESERVATIVE TO A MINIMUM NET RETENTION OF 0.40PCF (6.41kg/m³) IN ACCORDANCE WITH AMERICAN WOOD PROTECTION ASSOCIATION (AWPA) STANDARDS U1 AND T1. LUMBER SHALL BE KILN-DRIED TO 19% MOISTURE CONTENT AFTER TREATMENT. COAT ALL CUT SURFACES OF TREATED LUMBER WITH AN APPROVED PRESERVATIVE. ALL CONNECTIONS INCLUDING PLATES, DOWELS, BOLTS AND NAILS EXPOSED TO THE WEATHER SHALL BE STAINLESS STEEL OR HOT-DIPPED GALVANIZED. ALL CONNECTIONS TO PRESSURE TREATED WOOD SHALL BE STAINLESS STEEL OR HOT-DIPPED GALVANIZED PER ASTM A-653M, DESIGNATION G185 COATING.

INSPECTION: ALL WORK SPECIFIED HEREIN SHALL BE INSPECTED IN ACCORDANCE WITH THE BUILDING CODE AND ALL LOCAL ORDINANCES. THE OWNER OR CONTRACTOR SHALL HIRE AN EXPERIENCED QUALIFIED INSPECTOR TO PERFORM ALL REQUIRED INSPECTION WORK. INSPECTION SHALL CONSIST OF VISUAL OBSERVATIONS OF MATERIALS, EQUIPMENT OR CONSTRUCTION WORK FOR THE PURPOSE OF ASCERTAINING THAT THE WORK IS IN SUBSTANTIAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND WITH THE DESIGN INTENT. THE ENGINEER WILL NOT PERFORM THE REQUIRED INSPECTION AS PART OF THIS PRESENT CONTRACT WITH THE ARCHITECT/OWNER. UNDER THIS PRESENT CONTRACT, THE ENGINEER MAY VISIT THE SITE TO ASCERTAIN GENERAL CONFORMANCE TO THE CONTRACT DOCUMENTS. HOWEVER, SUCH VISITS SHALL NOT BE RELIED UPON BY OTHERS AS ACCEPTANCE OF THE WORK, NOR SHOULD IT BE CONSTRUED TO RELIEVE THE CONTRACTOR IN ANY WAY FROM HIS OBLIGATIONS AND RESPONSIBILITIES UNDER THE CONSTRUCTION CONTRACT. HOWEVER, IF DESIRED, HILLIS-CARNES ENGINEERING ASSOCIATES MAY BE HIRED UNDER A SEPARATE CONTRACT TO PERFORM THIS INSPECTION WORK.

DESIGN WITHOUT CONSTRUCTION REVIEW: IT IS AGREED THAT IF HILLIS-CARNES ENGINEERING ASSOCIATES' PROFESSIONAL SERVICES DO NOT EXTEND TO OR INCLUDE THE REVIEW OR SITE OBSERVATION OF THE CONTRACTOR'S WORK OR PERFORMANCE, THEN THE OWNER WILL DEFEND, INDEMNIFY AND HOLD HARMLESS HILLIS-CARNES ENGINEERING ASSOCIATES, FROM ANY CLAIM OR SUIT WHATSOEVER, INCLUDING BUT NOT LIMITED TO ALL PAYMENTS, EXPENSES OR COSTS INVOLVED, ARISING FROM OR ALLEGED TO HAVE ARISEN FROM THE CONTRACTOR'S PERFORMANCE OR THE FAILURE OF THE CONTRACTOR'S WORK TO CONFORM TO THE DESIGN INTENT AND THE CONTRACT DOCUMENTS. HILLIS-CARNES ENGINEERING ASSOCIATES, AGREES TO BE RESPONSIBLE FOR ITS OWN OR ITS EMPLOYEES' NEGLIGENT ACTS, ERRORS OR OMISSIONS.

OWNERSHIP OF DOCUMENTS: THE CONTRACTOR ACKNOWLEDGES THESE PLANS AND SPECIFICATIONS PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, AS INSTRUMENTS OF PROFESSIONAL SERVICE. NEVERTHELESS, THE PLANS AND SPECIFICATIONS PREPARED UNDER THIS AGREEMENT SHALL REMAIN THE PROPERTY OF HILLIS-CARNES ENGINEERING ASSOCIATES UPON COMPLETION OF THE WORK. THE CONTRACTOR AGREES TO HOLD HARMLESS AND INDEMNIFY HILLIS-CARNES ENGINEERING ASSOCIATES, AGAINST ALL DAMAGES, CLAIMS, AND LOSSES, INCLUDING DEFENSE COSTS, ARISING OUT OF ANY REUSE OF THE PLANS AND SPECIFICATIONS WITHOUT THE WRITTEN AUTHORIZATION OF HILLIS-CARNES ENGINEERING ASSOCIATES

DESIGN DATA:
 fc = 3000 PSI (MOMENT SLAB)
 fc = 4500 PSI (VEHICLE BARRIER & NOISE WALL)
 fy = 60000 PSI

IMPACT LOADS:
 TL-3 EQUIVALENT STATIC LOAD = 10,000 LBS.

SNOW LOAD:
 GROUND SNOW LOAD Pg = 25 PSF
 SNOW LOAD IMPORTANCE FACTOR I = 1.0
 SNOW EXPOSURE FACTOR Ce = 1.0
 THERMAL FACTOR Ct = 1.2
 FLAT ROOF SNOW LOAD Pf = 21 PSF

WIND LOAD:
 BASIC WIND SPEED 115 MPH
 BUILDING CATEGORY II
 WIND EXPOSURE B
 INTERNAL PRESSURE COEFFICIENT ±0.18
 TOPOGRAPHY FACTOR 1.0
 DIRECTIONALITY FACTOR 0.85

EARTHQUAKE LOAD:
 RISK CATEGORY II
 IMPORTANCE FACTOR (Ie) 1.00
 SITE CLASS D
 Ss 0.121g
 S1 0.051g
 SDS 0.129g
 SD1 0.081g
 SEISMIC DESIGN CATEGORY B
 SEISMIC FORCE RESISTING SYSTEM:
 ORDINARY CONCRETE SHEAR WALLS
 RESPONSE MODIFICATION FACTOR (R) 4.0
 Cs = SDS / (R * Ie) 0.03225
 DESIGN BASE SHEAR 20.3 KIPS
 EQUIVALENT LATERAL FORCE DESIGN METHOD

OWNER
 TRIPLE BELL FARMS, LLC.
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 LAUREL, MD 20725
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NO.	REVISION	DATE

SITE DEVELOPMENT PLAN

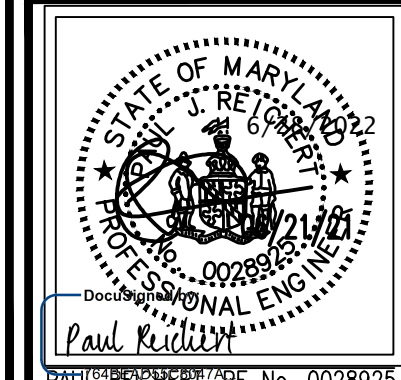
GENERAL NOTES

PADDOCK POINTE - PHASE 3
 (FORMERLY KNOWN AS LAUREL PARK STATION)
 396 APARTMENT UNITS AND 76 STACKED TOWN
 PARCELS C-1 & K-1

TAX MAP: 50 BLOCK, 10 PARCEL 384
 6TH ELECTION DISTRICT ZONED: TOU HOWARD COUNTY, MARYLAND

HILLIS-CARNES ENGINEERING ASSOCIATES

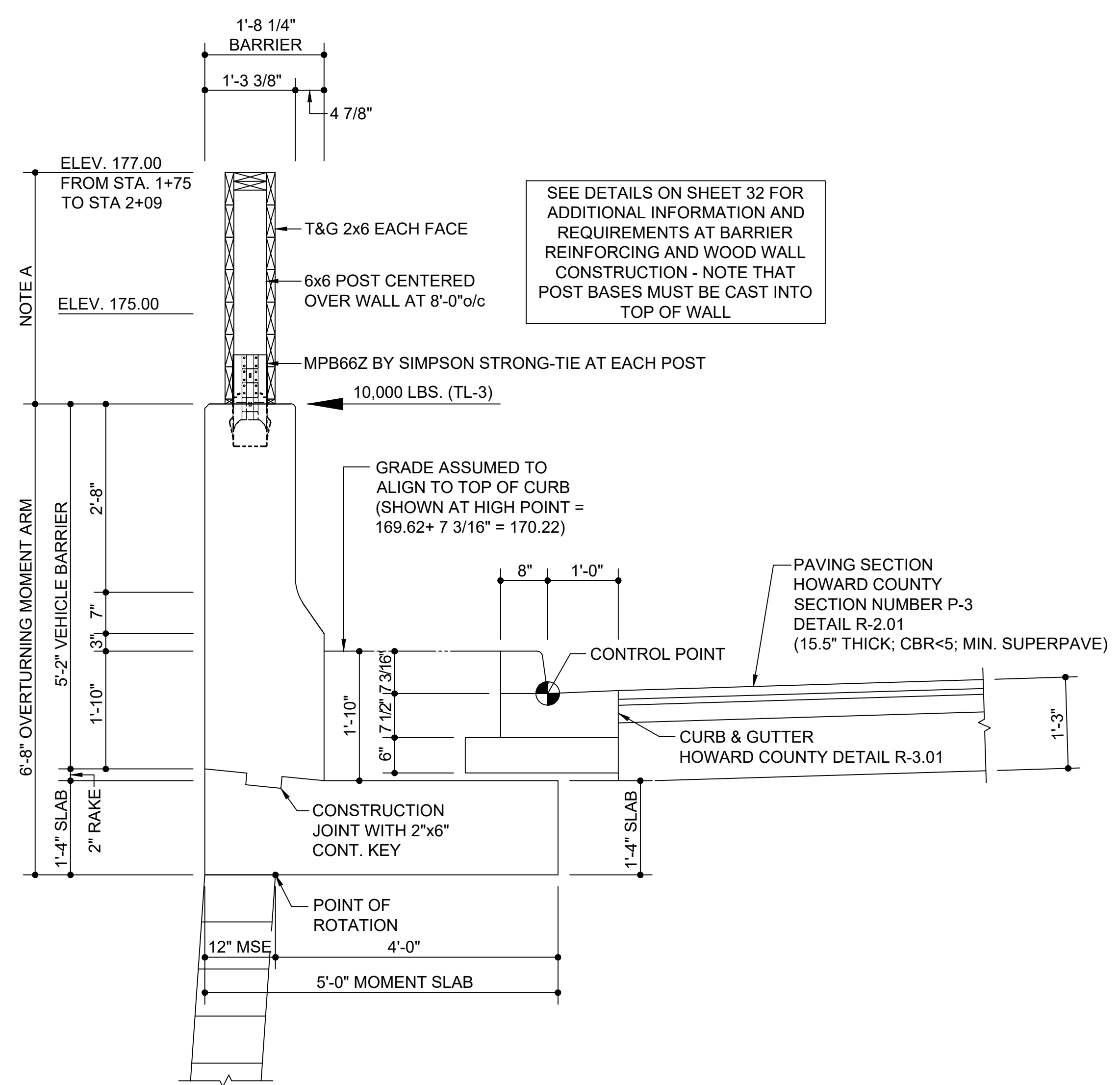
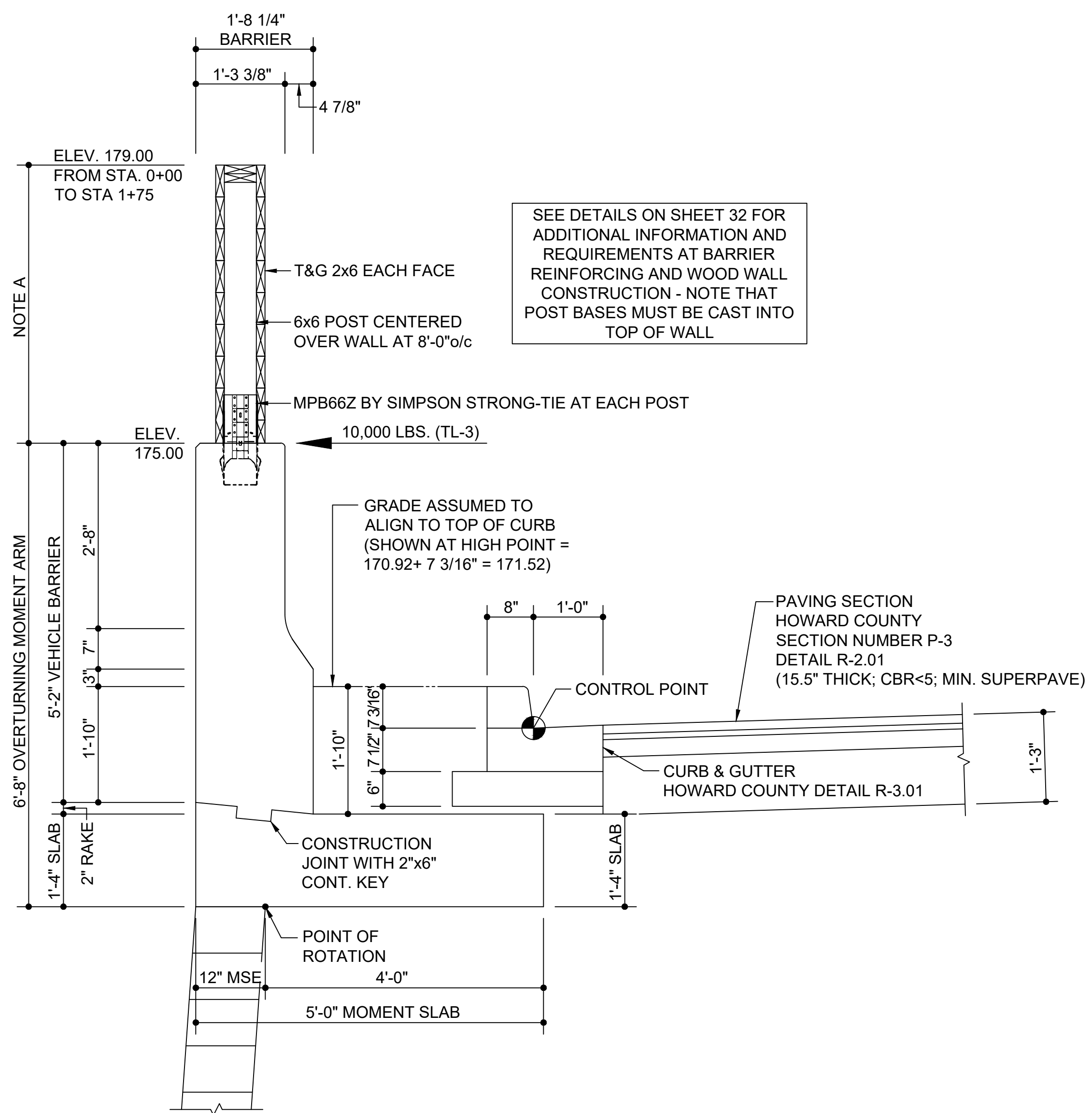
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DESIGN BY: _____ CRS
 DRAWN BY: _____ CRS
 CHECKED BY: _____ JRE
 DATE: _____ JUNE 2022
 SCALE: 3/4" = 1'-0"
 HCEA JOB NO.: 20631A

30 SHEET **34**
 OF



- SHEET NOTES:**
1. CONTROLLING POINT OF SECTION IS LOW POINT OF CONCRETE GUTTER AT CURB AS DENOTED IN THESE DETAILS - SEE CIVIL DRAWINGS FOR CONTROL POINT ELEVATIONS.
 2. MOMENT SLAB ELEVATION VARIES.
 3. ELEVATION TOP OF MOMENT SLAB SHALL BE 1'-2 13/16" BELOW CONTROL POINT ELEVATION.
 4. ELEVATION BOTTOM OF MOMENT SLAB SHALL BE 2'-6 13/16" BELOW CONTROL POINT ELEVATION.
 5. SITE GRADING SHALL PROVIDE POSITIVE DRAINAGE TO AVOID PONDING AT VEHICLE BARRIERS - SEE CIVIL DRAWINGS FOR SITE GRADING REQUIREMENTS.
 6. STRUCTURAL WOOD POSTS SHALL BE NO.1 SOUTHERN YELLOW PINE WITH A MAXIMUM WATER CONTENT OF 19% AND THE FOLLOWING MINIMUM PROPERTIES:

Fb = 1,350 PSI	Fc = 375 PSI
Ft = 900 PSI	Fc = 825 PSI
Fv = 165 PSI	E = 1,500,000 PSI
 7. STRUCTURAL WOOD GIRTS, BOARDS, AND BATTENS SHALL BE NO.1 SOUTHERN YELLOW PINE WITH A MAXIMUM WATER CONTENT OF 19% AND THE FOLLOWING MINIMUM PROPERTIES:

Fb = 1,350 PSI	Fc = 565 PSI
Ft = 875 PSI	Fc = 1,550 PSI
Fv = 175 PSI	E = 1,600,000 PSI
 8. ALL WOOD USED IN WALL CONSTRUCTION SHALL BE PRESURE PRESERVATIVE TREATED WITH MCA PRESERVATIVE TO A MINIMUM NET RETENTION OF 0.15PCF (2.40kg/m³) OR CCA PRESERVATIVE TO A MINIMUM NET RETENTION OF 0.40PCF (6.41kg/m³) IN ACCORDANCE WITH AMERICAN WOOD PROTECTION ASSOCIATION (AWPA) STANDARDS U1 AND T1. LUMBER SHALL BE KILN-DRIED TO 19% MOISTURE CONTENT AFTER TREATMENT.
 9. COAT ALL CUT SURFACES OF TREATED LUMBER WITH AN APPROVED PRESERVATIVE.
 10. ALL CONNECTIONS INCLUDING PLATES, DOWELS, BOLTS AND NAILS EXPOSED TO THE WEATHER SHALL BE STAINLESS STEEL OR HOT-DIPPED GALVANIZED.

NOTE A:
 CONCRETE VEHICLE BARRIER WALL IS DESIGNED TO MASH STANDARDS TEST LEVEL TL-3 AND BARRIER HEIGHT ABOVE GRADE IS HELD TO 3'-6" IN THIS DETAIL. PER CLIENT REQUEST, WOOD NOISE WALL IS TO BE ATTACHED TO TOP OF WALL. ELEVATION TOP OF NOISE WALL SHALL BE 179.00 BETWEEN STATIONS 0+00 AND 1+75 AND ELEVATION TOP OF NOISE WALL SHALL BE 177.00 BETWEEN STATIONS 1+75 AND 2+09. THEREFORE, THE DISTANCE BETWEEN THE TOP OF THE VEHICLE BARRIER AND THE TOP OF THE NOISE WALL WILL VARY ALONG THE LENGTH OF THE WALL.

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① VEHICLE BARRIER DIMENSIONS AT STA 0+80 (HIGH POINT OF ROAD)

② VEHICLE BARRIER DIMENSIONS AT STA 2+10 (LOW POINT OF ROAD)

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

7/12/2022

CHIEF, DEVELOPMENT ENGINEERING DIVISION

7/12/2022

CHIEF, DIVISION OF LAND DEVELOPMENT

7/12/2022

DIRECTOR

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN

MOMENT SLAB DETAILS

PADDOCK POINT - PHASE 3
 (FORMERLY KNOWN AS LAUREL PARK STATION)
 396 APARTMENT UNITS AND 76 STACKED TOWN
 PARCELS C-1 & K-1

TAX MAP: 50 BLOCK: 10 PARCEL 384
 6TH ELECTION DISTRICT ZONED: TOD HOWARD COUNTY, MARYLAND

HILLIS-CARNES
ENGINEERING ASSOCIATES

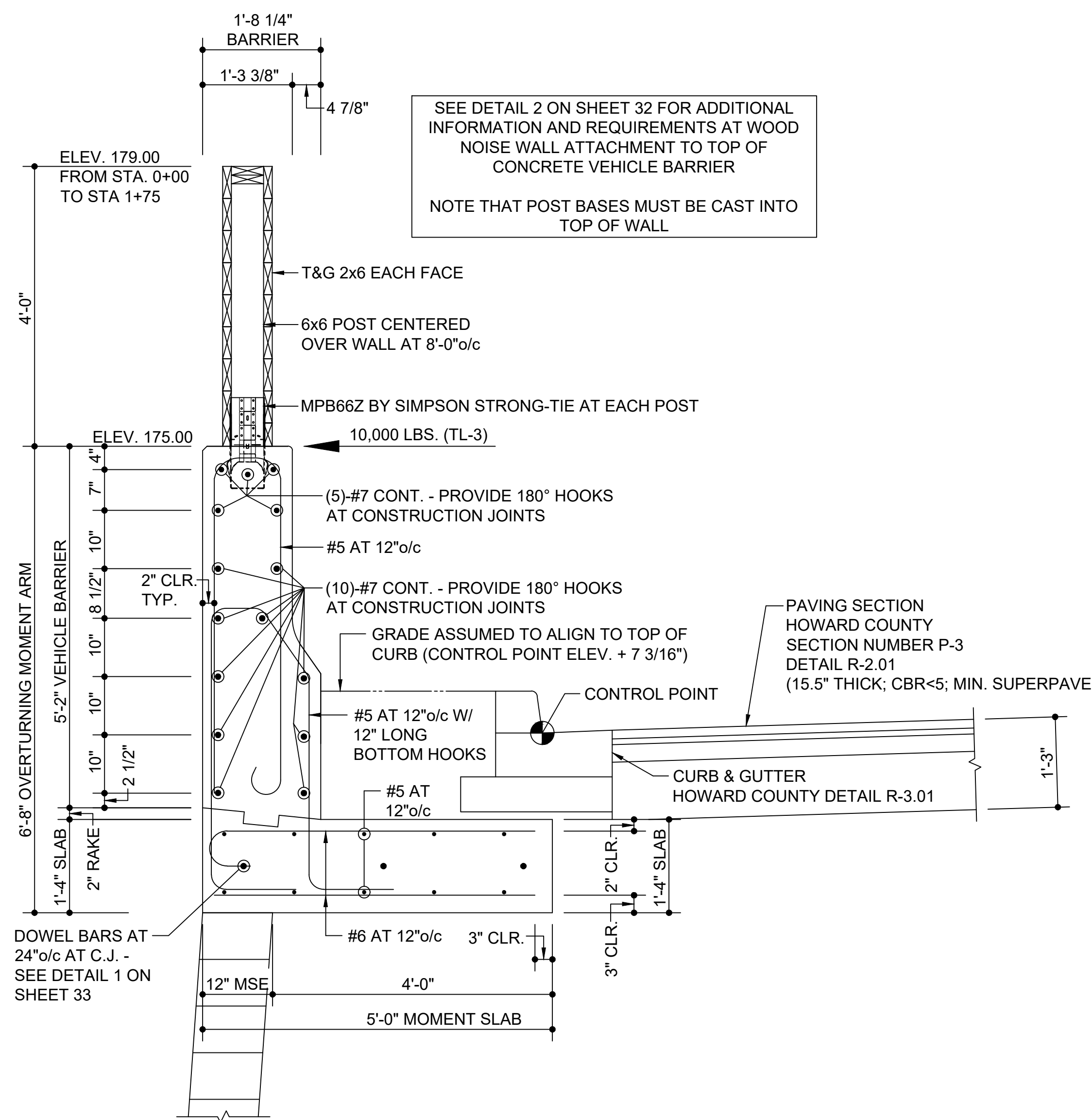
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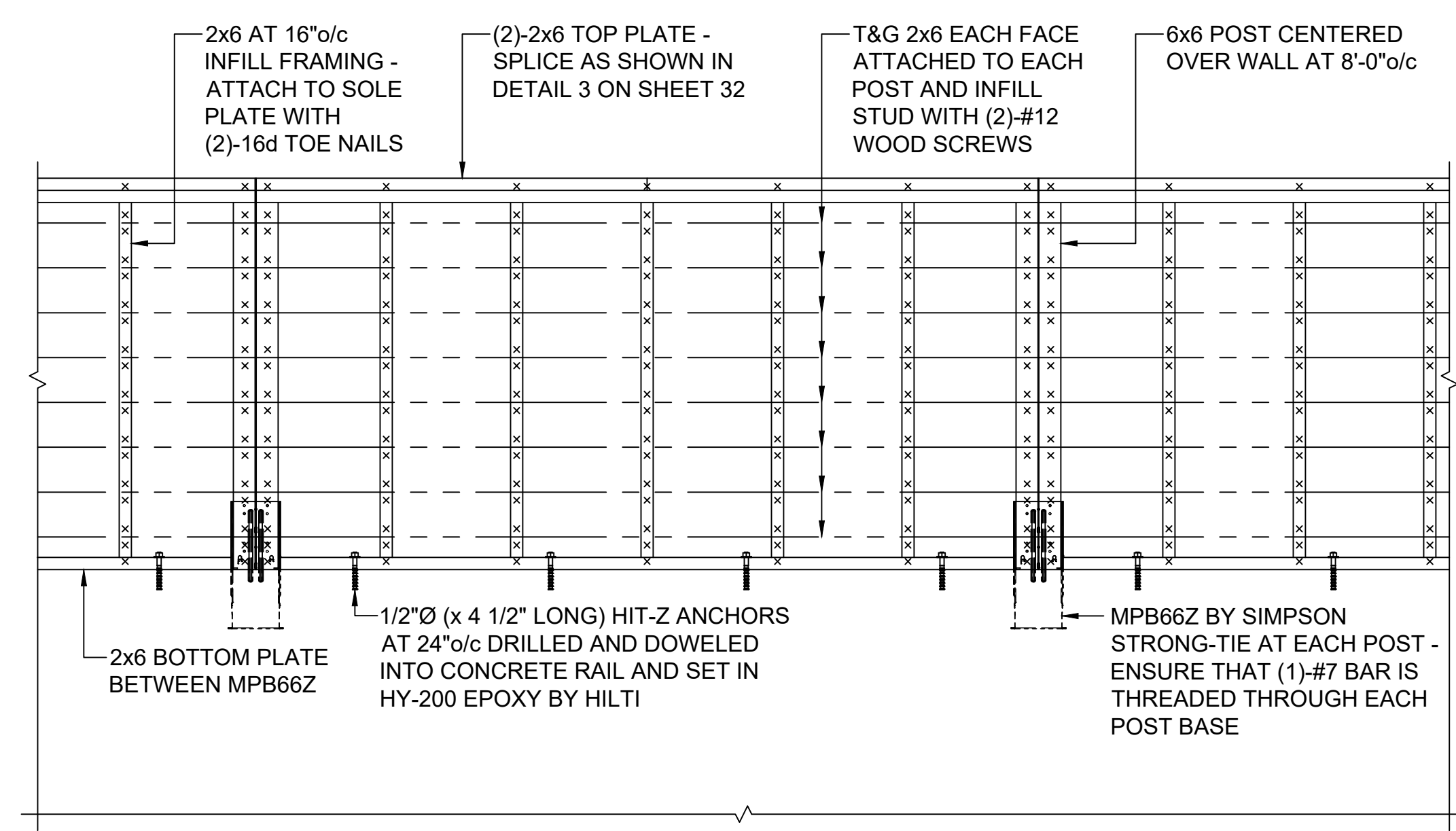
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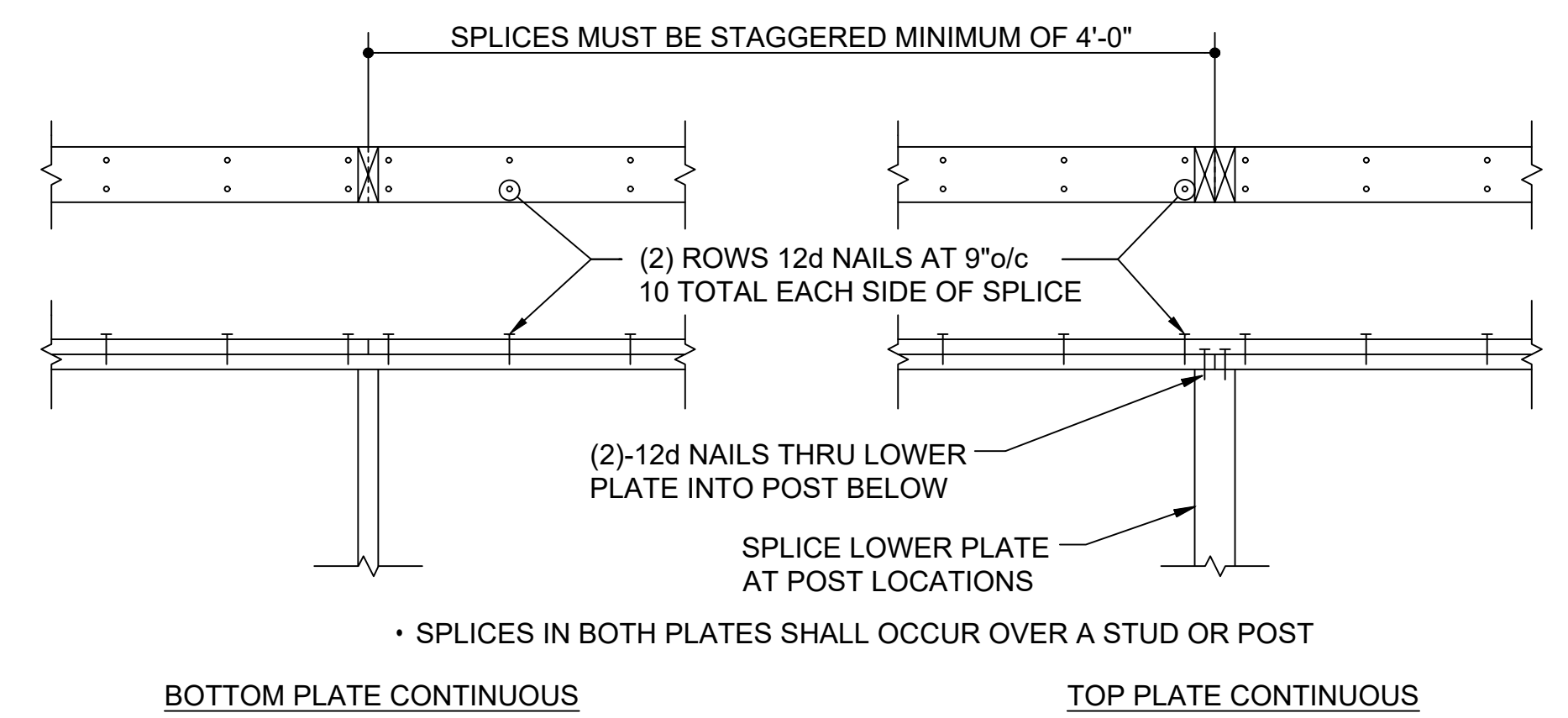
31 SHEET **34**
OF



1 NOISE WALL, BARRIER WALL AND MOMENT SLAB REINFORCING AT ROADWAY HIGH POINT (STATION 0+80.0)



2 ELEVATION - NOISE WALL ATTACHMENT TO BARRIER WALL



3 TYPICAL TOP PLATE SPLICE

- SHEET NOTES:**
1. CONTROLLING POINT OF SECTION IS LOW POINT OF CONCRETE GUTTER AT CURB AS DENOTED IN THESE DETAILS - SEE CIVIL DRAWINGS FOR CONTROL POINT ELEVATIONS.
 2. MOMENT SLAB ELEVATION VARIES.
 3. ELEVATION TOP OF MOMENT SLAB SHALL BE 1'-2 13/16" BELOW CONTROL POINT ELEVATION.
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NO.	REVISION	DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

7/12/2022

CHIEF, DEVELOPMENT ENGINEERING DIVISION

7/12/2022

CHIEF, DIVISION OF LAND DEVELOPMENT

7/12/2022

DIRECTOR

7/12/2022

SITE DEVELOPMENT PLAN

MOMENT SLAB DETAILS

Paddock Pointe - Phase 3
(FORMERLY KNOWN AS LAUREL PARK STATION)
396 APARTMENT UNITS AND 76 STACKED TOWN
PARCELS C-1 & K-1

TAX MAP: 50 BLOCK: 10 PARCEL 384
6TH ELECTION DISTRICT ZONED: TOD HOWARD COUNTY, MARYLAND

HILLIS-CARNES
ENGINEERING ASSOCIATES

10975 Guilford Road, Suite A Annapolis Junction, Maryland
Phone: (410) 880-4788 www.hcea.com Fax: (410) 880-4098

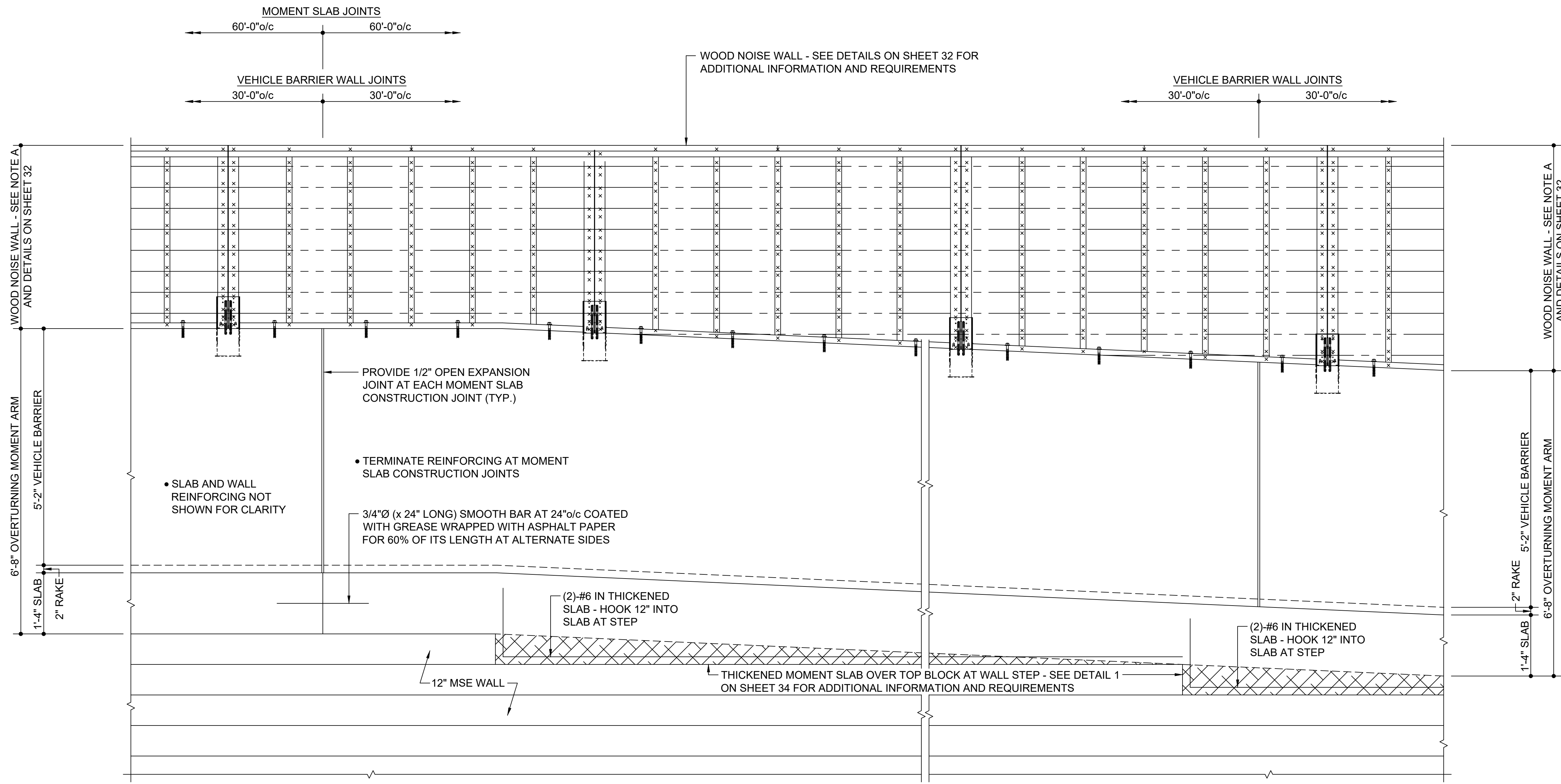
PROFESSIONAL CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 0028925 EXPIRATION DATE: 01-15-2024

DESIGN BY: CRS
DRAWN BY: CRS
CHECKED BY: JRE
DATE: JUNE 2022
SCALE: 3/4" = 1'-0"
HCEA JOB NO.: 20631A

32 SHEET OF 34

PAUL REICHERT, PE No. 0028925



1 ELEVATION - JOINTS IN VEHICLE BARRIER AND MOMENT SLAB

- SHEET NOTES:**
- CONTROLLING POINT OF SECTION IS LOW POINT OF CONCRETE GUTTER AT CURB AS DENOTED IN THESE DETAILS - SEE CIVIL DRAWINGS FOR CONTROL POINT ELEVATIONS.
 - MOMENT SLAB ELEVATION VARIES.
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NOTE A:
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7/12/2022

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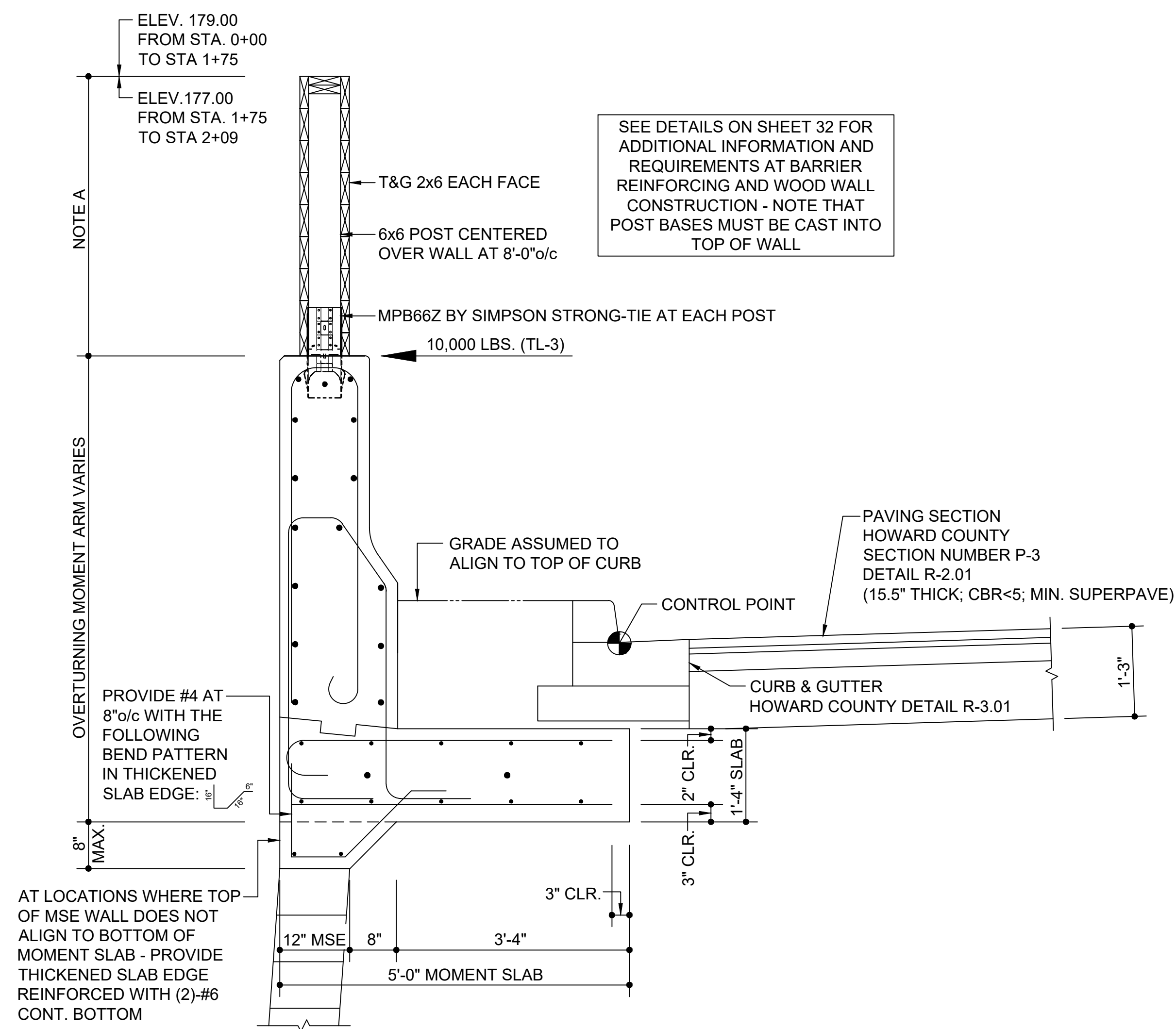
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33 SHEET **34**
 OF



SEE DETAILS ON SHEET 32 FOR ADDITIONAL INFORMATION AND REQUIREMENTS AT BARRIER REINFORCING AND WOOD WALL CONSTRUCTION - NOTE THAT POST BASES MUST BE CAST INTO TOP OF WALL

NOTE A:
OVERTURNING MOMENT ARM VARIES
8" MAX.

PROVIDE #4 AT 8" o/c WITH THE FOLLOWING BEND PATTERN IN THICKENED SLAB EDGE:
AT LOCATIONS WHERE TOP OF MSE WALL DOES NOT ALIGN TO BOTTOM OF MOMENT SLAB - PROVIDE THICKENED SLAB EDGE REINFORCED WITH (2)-#6 CONT. BOTTOM

DETAIL NOTES:
NOTE THAT THIS DETAIL APPLIES ONLY AT LOCATIONS WHERE TOP OF MSE WALL IS NOT ALIGN TO BOTTOM OF MOMENT SLAB AS PER TYPICAL MOMENT SLAB DETAILS - STEP SLAB EDGE AS REQUIRED TO MAINTAIN TOP OF WALL PROFILE AND PROVIDE Z-BARS AS REQUIRED TO MAINTAIN CONTINUITY OF #6 LONGITUDINAL REINFORCING BARS
SEE TYPICAL DETAILS FOR ALL OTHER INFORMATION

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① THICKENED SLAB EDGE AT STEP IN TOP OF MSE WALL

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division: *Chad Edmondson* 7/12/2022

Chief, Division of Land Development: *Ray Stamen* 7/12/2022

Director: *Ray Stamen*

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