

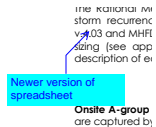
ENG-SF21026-R3-FDR.pdf Markup Summary

5 (7)



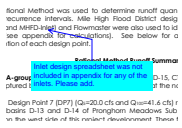
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Existing condition calculations need to be updated based on current criteria. See redlines in appendix.



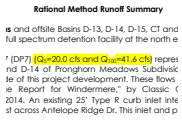
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Newer version of spreadsheet



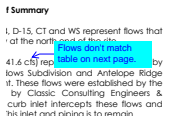
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Inlet design spreadsheet was not included in appendix for any of the inlets. Please add.



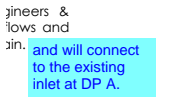
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(Q5=20.0 cfs and Q100=41.6 cfs)



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Flows don't match table on next page.



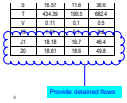
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and will connect to the existing inlet at DP A.



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6 (2)



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Provide detained flows

U4	1.79	2.1	9.9
C5	0.11	0.1	0.5

Tables not verified with this review.

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Tables not verified with this review.

7 (10)

mere supervision, resuming i
 y Basin A and Basin D15 w
 i the pipe flows from existi
 rtheast via 36" RCP storm
 w for flows to be directed
 Basin A1
 oposed 10' Type R at-grade

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Basin A1

ated of a low point on Antelope Ridge
 unlined flows from Basins D-15, offsite
 eding inlet is proposed to be replaced
 be installed on Antelope Ridge Dr. for
 in the need to adjust the existing inlet.
 ll be captured in their entirety by the
 g DP? (DPA Q5=21.0 cfs and Q100=44.9
 cfs). An emergency overflow swale
 to the north and east in the event of

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(DPA Q5=21.0 cfs and Q100=44.9

was escourced by the
 Consulting Engineers &
 point on Antelope Ridge
 s from Basins D-15, offsite
 proposed to be replaced
 in Antelope Ridge. Flows different from
 o adjust the a previous page
 g in their entirety by the
 Q=21.0 cfs and Q=44.9
 nergency overflow swale
 and east in the event of

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Flows different from previous page

resulting in the need to adjust the ex in D15 will be captured in their entri on existing DP7 (DPA Q=21.0 cfs and C storm sewer. An emergency over directed to the north and east in th

in Antelope Ridge Drive

at-grade inlet in Basin A2. The flows words DP-C. This design point capt, Q2 are Q₅=8.8 cfs and Q₁₀₀=19.4 cfs.

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in Antelope Ridge Drive

Plan says inlet is to be modified. Please discuss.

Design Point A replaces Preliminary Drainage. Re Survey, October 2014. 1 Dr. of the existing 10' storm DP7 (shown above) ca in kind 110' R sump is access into the Winderm The flows generated by B

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Plan says inlet is to be modified. Please discuss

Intercepted by Basin A2 and Basin A3 will be intercepted in their entrie. 1 combine with the pipe from storm existing DP7 (DPA Q=21.0 cfs and C Basin to the northeast and DP-C storm sewer. An emergency overli Basin D will allow for flows to be directed to the north and east in the Basin.

at-grade inlet in Basin A2. The flows in a 10' storm pipe to the north towards DP-C. This design point capture in Basin A2 are Q₅=8.8 cfs and Q₁₀₀=19.4 cfs.

at-grade inlet in Basin A3. The flows in a 10' storm pipe to the north towards DP-C. This design point capture in Basin A3 are Q₅=5.2 cfs and Q₁₀₀=11.2 cfs.

at-grade inlet in Basin A4. The flows in a 10' storm pipe to the north towards DP-C. This design point capture in Basin A4 are Q₅=1.7 cfs and Q₁₀₀=3.8 cfs.

at-grade inlet in Basin A5. The flows in a 10' storm pipe to the north towards DP-C. This design point capture in Basin A5 are Q₅=4.3 cfs and Q₁₀₀=11.2 cfs.

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From inlet capacity spreadsheet in appendix, double type R inlet can handle 19.4 cfs.

at-grade inlet in Basin A2. The flows in a 10' storm pipe to the south towards DP-C. This design point capture in Basin A2 are Q₅=8.8 cfs and Q₁₀₀=19.4 cfs.

at-grade inlet in Basin A3. The flows in a 10' storm pipe to the north towards DP-C. This design point capture in Basin A3 are Q₅=5.2 cfs and Q₁₀₀=11.2 cfs.

at-grade inlet in Basin A4. The flows in a 10' storm pipe to the north towards DP-C. This design point capture in Basin A4 are Q₅=1.7 cfs and Q₁₀₀=3.8 cfs.

at-grade inlet in Basin A5. The flows in a 10' storm pipe to the north towards DP-C. This design point capture in Basin A5 are Q₅=4.3 cfs and Q₁₀₀=11.2 cfs.

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Q5=5.2 cfs and Q100=11.2 cfs

at-grade inlet in Basin A2. The flows in a 10' storm pipe to the north towards DP-C. This design point capture in Basin A2 are Q₅=8.8 cfs and Q₁₀₀=19.4 cfs.

at-grade inlet in Basin A3. The flows in a 10' storm pipe to the north towards DP-C. This design point capture in Basin A3 are Q₅=5.2 cfs and Q₁₀₀=11.2 cfs.

at-grade inlet in Basin A4. The flows in a 10' storm pipe to the north towards DP-C. This design point capture in Basin A4 are Q₅=1.7 cfs and Q₁₀₀=3.8 cfs.

at-grade inlet in Basin A5. The flows in a 10' storm pipe to the north towards DP-C. This design point capture in Basin A5 are Q₅=4.3 cfs and Q₁₀₀=11.2 cfs.

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For all at-grade inlets, discuss how much of flow is intercepted and how much is flow-by.

Type R at grade inlet in Basin A4. The flows conveyed to the northeast towards a proposed Type R inlet in Basin A4 are Q₅=1.7 cfs and Q₁₀₀=3.8 cfs.

Type 2 storm manhole along Borrowdale Lane, from DPA-DPC, and discharges to the northeast PDI are Q₅=30.4 cfs and Q₁₀₀=66.1 cfs.

Type R inlet in Basin A5. The flows conveyed towards DP-F1 to the south. This inlet in Basin A5. The flows from Basin A5 are Q₅=4.3 cfs and Q₁₀₀=11.2 cfs.

Type R inlet in Basin A6. The flows conveyed towards DP-F1 to the south. This inlet in Basin A6. The flows from Basin A6 are Q₅=4.3 cfs and Q₁₀₀=11.2 cfs.

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Why is this inlet so large?

The combined flows at DP-F1 are Q=38.2 cfs. DP-G is located at a proposed at-grade 5' inlet via an 18" storm pipe and are captured at DP-H1. This inlet captures all the flows from Basin A7. This inlet was missing on the inlet capacity chart in appendix.

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This inlet was missing on the inlet capacity chart in appendix.

8 (2)

This inlet was missing on the inlet capacity chart in appendix. It is located at a proposed at-grade 10' Type R inlet in Basin A8. The flow is conveyed towards DP-H1 to the east. The flow is 13.4 cfs.

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This inlet was missing on the inlet capacity chart in appendix.

The combined flows at DP-K are Q=10.0 cfs. DP-L is located at a proposed at-grade 10' Type R inlet at the low point on the lot. The flow is conveyed towards DP-M1 to the east. The flow is 14.4 cfs. This inlet is shown on at-grade not sump inlet chart. Please update.

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This inlet is shown on at-grade not sump inlet chart. Please update.

9 (6)

The flows from Basins B1 and B2 are Q=11.8 cfs. The flows leave the easterly inlet via a proposed detention facility to the east. The flows are captured by the full spectrum of inlets. These inlets were not shown on inlet charts in appendix.

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Include what flow is for each of these basins.

The combined (undrainable) flows are Q=26.5 cfs. The release rates for Pond 1 are Q=11.8 cfs. These inlets were not shown on inlet charts in appendix.

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These inlets were not shown on inlet charts in appendix.

The combined (undrainable) flows are Q=12.0 cfs and Q=26.5 cfs. The flows are captured by the full spectrum of inlets. These inlets were not shown on inlet charts in appendix.

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Q5=12.0 cfs and Q100=26.5 cfs

64. The flows at the top of the future stage by report. This words the south detention 26.5 cfs. **Flows don't match plan.** was generated by the concrete swale along the lot side flows are directed to the 38ly. Flows generated by this

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Flows don't match plan

isin **B4.**
ws are

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B4


B5?
in R4

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B5?


10 (3)

4" CMP culvert crossing at M ins C1 & C2, detained flows refileffite flows from MDDP DP-1X. Tl 2.4 cfs. **a portion of which** were 1 the MDDP flows can be four by Classic Consulting Engineers

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s, a portion of which

64. The flows at the top of the future stage by report. This words the south detention 26.5 cfs. **Flows don't match plan.** was generated by the concrete swale along the lot side flows are directed to the 38ly. Flows generated by this

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If used, SCS needs to be the whole basin

64. The flows at the top of the future stage by report. This words the south detention 26.5 cfs. **Flows don't match plan.** was generated by the concrete swale along the lot side flows are directed to the 38ly. Flows generated by this

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Compare to the MDDP flows here.

Need analysis check of this existing inlet with current flows.
existing area inlet in Basin C3. The flows in that connects to the existing storm system flows to the south. This design point reflects it is released by the south detention facility, o

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Need analysis check of this existing inlet with current flows.

List basin flows
in N. Carefree Cir., the flows from Basins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 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

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List basin flows

List flows
by the existing to improve road. The flows then leave converging with the flows from DP-11 via an existing 24" storm DP-20 in offsite Basin NC is ultimately traveling to

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List flows

Include discussion on proposed storm sewer design & impact to existing systems (current design flow vs previous design flow)

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Include discussion on proposed storm sewer design & impact to existing systems (current design flow vs previous design flow)

Include statement that ponds will be designed to full spectrum detention criteria

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Include statement that ponds will be designed to full spectrum detention criteria

Each forebay should be designed per area directed to it.

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Each forebay should be designed per area directed to it.

12 (3)

... See further discussion of the existing Marksheffel culvert structure with El Paso County criteria, the modified Type C outlet structure if necessary will release the WQCV over a 40-hour period with release rate of 0.002 cfs.

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Include calculation in appendix for sizing riprap in spillway. See Ch 13 Eqn 13-9 in City DCM

... flows from the 'B' basins. With rain undeveloped, future flow of pond presented in this report.

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Appendix shows 58.8%.

... releases the flow of a reduced flow rate with the use of a 12 storm pipe. The pipe releases into a ditch that conveys it south under Marksheffel Rd. other which the flow continues. See further discussion of the existing Marksheffel culvert structure.

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How do these release rates compare to those in the previous report by Classic?

13 (1)

Update table per spreadsheet

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Update table per spreadsheet

14 (2)

The table above indicates that by depth the proposed Wadsworth Filing No. 1, alteration of the unimproved culvert condition, and all within the water catchment area.

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Include discussion on design of proposed swales and analysis of existing ditches (velocities, depths, freeboard, etc)

... existing historic flow rates from both filltop subdivision to the north, the fill is improved from the existing 4000.

Subject: Callout
Page Index: 14
Date: 12/27/2021 1:43:47 PM
Author: CDurham
Color: ■
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Space:
Page Label: 14

What happens at Marksheffel (overtop road, inundates channel, etc)

Embankments should be on the B Pace County Engineer Criteria Manual, the B Pace geotechnical report requires

Include section on Maintenance

Subject: Text Box
Page Index: 15
Date: 12/27/2021 1:44:09 PM
Author: CDurham
Color: ■
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Page Label: 15

Include section on Maintenance

Include cost estimate

10.0 DRAINAGE/BRIDGE FEES
The project lies within the Sand Creek drainage basin and is previous drainage/bridge fees are required prior to recording of

Subject: Text Box
Page Index: 16
Date: 12/27/2021 1:44:28 PM
Author: CDurham
Color: ■
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Page Label: 16

Include cost estimate

calculated as follows:
seems high - per App. L Table 3-1, 53%?
previous
obvious
previous
: acres

Subject: Callout
Page Index: 16
Date: 12/29/2021 12:02:50 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 16

seems high - per App. L Table 3-1, 53%?

AGE/BRIDGE FEES
lies within the Sand Creek Drainage Basin and is previous drainage/bridge fees are required prior to recording of
nd Creek Drainage Basin fees are as follows:
\$18,841.00 = \$20,387
8.339/impervious acre
imperviousness for this subdivision is calculated as follows:
residential subdivision 65% impervious
open space 0% impervious
44.6% impervious

Subject: Callout
Page Index: 16
Date: 12/29/2021 12:04:31 PM
Author: dsdrice
Color: ■
Layer:
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Page Label: 16

\$20,387

DRAINAGE/BRIDGE FEES
ct lies within the Sand Creek Drainage Basin and is previous drainage/bridge fees are required prior to recording of
Sand Creek Drainage Basin fees are as follows:
\$18,841.00 = \$8,339
4.383/impervious acre
imperviousness for this subdivision is calculated as follows:
residential subdivision 65% impervious
open space 0% impervious
44.6% impervious
44.6% impervious = 23.23 impervious acres

Subject: Callout
Page Index: 16
Date: 12/29/2021 12:04:53 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 16

\$8,339

acres of 44.6% impervious = 23.23 impervious acres, the following fees are due:
acres x \$18,841.00 = \$437,646.80 drainage
acres x \$8,339.00 = \$193,701.86 bridge
is considered as an open space tract; payment of Tract B will require a replat in proposed impervious acreage.

Subject:
Page Index: 16
Date: 12/29/2021 12:06:10 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 16

\$18,841.00 = \$437,646.80

acres at 44.6% impervious = 23.23 impervious acres, the following fees are due:
 acres x \$18,841.00 = \$437,446.80 drainage
 acres x \$8,339.00 = \$193,701.86 bridge
 is considered as an open space tract; placement of Tract B will require a replat; a proposed impervious acreage.

Subject: \$8,339.00 = \$193,701.86
Page Index: 16
Date: 12/29/2021 12:06:13 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 16

23.23 AC
 23.23 AC

Subject: 23.23
Page Index: 16
Date: 12/29/2021 12:06:18 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 16

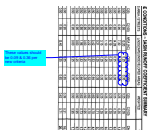
23.23 AC
 23.23 AC

Subject: 23.23
Page Index: 16
Date: 12/29/2021 12:06:21 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 16

The percent imperviousness for this subdivision is:
 35.74 acres residential subdivision 44.6%
 14.54 acres open lands 0%
 52.07 acres 44.6%
 52.07 acres at 44.6% impervious = 23.23 impervious
 Therefore, the following fees are due:
 23.23 acres x \$18,841.00 = \$437,446.80 drainage
 23.23 acres x \$8,339.00 = \$193,701.86 bridge
 Tract B is considered as an open space tract if

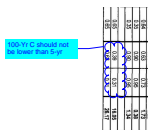
Subject: 52.07 acres at 44.6% impervious = 23.23
Page Index: 16
Date: 12/29/2021 12:06:26 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 16

63 (2)



Subject: Cloud+
Page Index: 63
Date: 12/27/2021 1:45:55 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 63

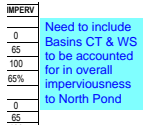
These values should be 0.09 & 0.36 per new criteria



Subject: Cloud+
Page Index: 63
Date: 12/27/2021 1:46:52 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 63

100-Yr C should not be lower than 5-yr

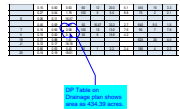
147 (1)



Subject: Text Box
Page Index: 147
Date: 12/27/2021 1:53:38 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 147

Need to include Basins CT & WS to be accounted for in overall imperviousness to North Pond

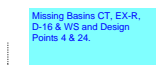
152 (1)



Subject: Cloud+
Page Index: 152
Date: 12/27/2021 1:55:04 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 152

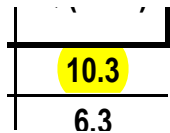
DP Table on Drainage plan shows area as 434.39 acres.

153 (5)



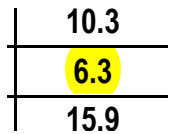
Subject: Text Box
Page Index: 153
Date: 12/27/2021 1:56:16 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 153

Missing Basins CT, EX-R, D-16 & WS and Design Points 4 & 24.



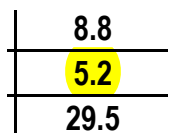
Subject: Highlight
Page Index: 153
Date: 12/27/2021 1:56:26 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 153

10.3



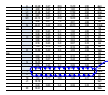
Subject: Highlight
Page Index: 153
Date: 12/27/2021 1:56:28 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 153

6.3



Subject: Highlight
Page Index: 153
Date: 12/27/2021 1:56:33 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 153

5.2



Subject: Cloud+
Page Index: 153
Date: 12/27/2021 1:57:17 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 153

Missing information

154 (4)

22.6
 13.2

Subject: Highlight
Page Index: 154
Date: 12/27/2021 1:56:50 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 154

22.6

22.6
 13.2
 34.2

Subject: Highlight
Page Index: 154
Date: 12/27/2021 1:56:52 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 154

13.2

34.2
 9.1
 7.1

Subject: Highlight
Page Index: 154
Date: 12/27/2021 1:56:56 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 154

9.1

19.4
 11.2
 63.5

Subject: Highlight
Page Index: 154
Date: 12/27/2021 1:56:59 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 154

11.2

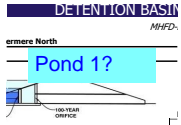
155 (1)

Full review not performed on storm system inlet sizing due to possible changes in flows with edits to "C-values" in hydrology calculations. Review will be completed at next submittal.

Subject: Text Box
Page Index: 155
Date: 12/21/2021 2:57:31 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 155

Full review not performed on storm system& inlet sizing due to possible changes in flows with edits to "C-values" in hydrology calculations. Review will be completed at next submittal.

205 (1)



Subject: Text Box
Page Index: 205
Date: 12/27/2021 9:16:05 AM
Author: CDurham
Color: ■
Layer:
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Page Label: 205

Pond 1?

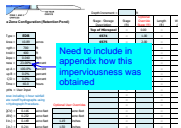
207 (1)



Subject: Callout
Page Index: 207
Date: 12/21/2021 3:00:29 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 207

This should be ~1

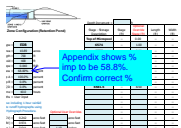
210 (1)



Subject: Callout
Page Index: 210
Date: 12/21/2021 3:01:50 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 210

Need to include in appendix how this imperviousness was obtained

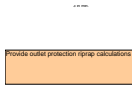
215 (1)



Subject: Callout
Page Index: 215
Date: 12/21/2021 3:03:31 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 215

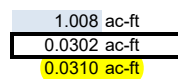
Appendix shows % imp to be 58.8%. Confirm correct %

220 (3)



Subject: Engineer
Page Index: 220
Date: 12/27/2021 2:26:54 PM
Author: dotprete
Color: ■
Layer:
Space:
Page Label: 220

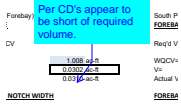
Provide outlet protection riprap calculations



Subject: Highlight
Page Index: 220
Date: 12/27/2021 2:41:25 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 220

0.0310 ac-ft

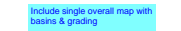
H



Subject: Callout
Page Index: 220
Date: 12/27/2021 2:41:55 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 220

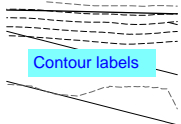
Per CD's appear to be short of required volume.

221 (21)



Subject: Text Box
Page Index: 221
Date: 12/21/2021 3:28:21 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

Include single overall map with basins & grading



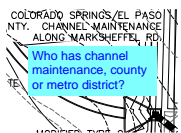
Subject: Text Box
Page Index: 221
Date: 12/21/2021 3:28:35 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

Contour labels



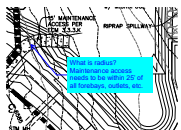
Subject: Text Box
Page Index: 221
Date: 12/21/2021 3:36:12 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

All storm infrastructure needs to be labeled as public or private.



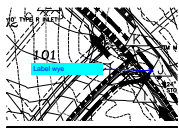
Subject: Text Box
Page Index: 221
Date: 12/22/2021 1:16:22 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

Who has channel maintenance, county or metro district?



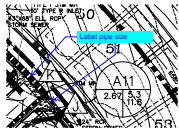
Subject: Callout
Page Index: 221
Date: 12/27/2021 9:11:47 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

What is radius? Maintenance access needs to be within 25' of all forebays, outlets, etc.



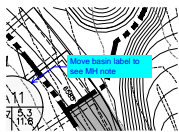
Subject: Callout
Page Index: 221
Date: 12/27/2021 9:03:16 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

Label wye



Subject: Callout
Page Index: 221
Date: 12/27/2021 9:03:24 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

Label pipe size



Subject: Callout
Page Index: 221
Date: 12/27/2021 9:05:32 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

Move basin label to see MH note

Label inlets as sump or at-grade

Subject: Text Box
Page Index: 221
Date: 12/27/2021 9:06:19 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

Label inlets as sump or at-grade

Include match lines on all sheets

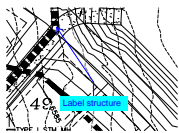
Subject: Text Box
Page Index: 221
Date: 12/27/2021 9:07:02 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

Include match lines on all sheets



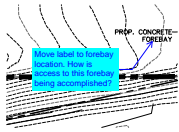
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Page Index: 221
Date: 12/27/2021 9:11:14 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

Label pipe size



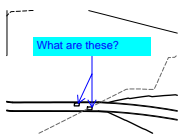
Subject: Callout
Page Index: 221
Date: 12/27/2021 9:11:44 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

Label structure



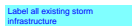
Subject: Callout
Page Index: 221
Date: 12/27/2021 9:25:11 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

Move label to forebay location. How is access to this forebay being accomplished?



Subject: Callout
Page Index: 221
Date: 12/27/2021 9:13:27 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

What are these?



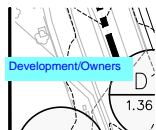
Subject: Text Box
Page Index: 221
Date: 12/27/2021 11:31:37 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

Label all existing storm infrastructure



Subject: Text Box
Page Index: 221
Date: 12/27/2021 11:28:47 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

Development/Owners



Subject: Text Box
Page Index: 221
Date: 12/27/2021 11:28:57 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

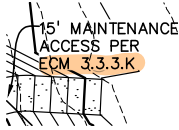
Development/Owners

Label high and low points

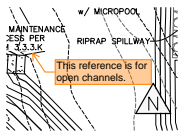


Subject: Text Box
Page Index: 221
Date: 12/27/2021 11:31:50 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 221

Label high and low points

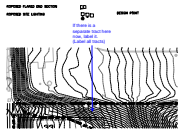


Subject: Engineer
Page Index: 221
Date: 12/27/2021 1:27:17 PM
Author: dotprete
Color: ■
Layer:
Space:
Page Label: 221



Subject: Engineer
Page Index: 221
Date: 12/27/2021 1:27:28 PM
Author: dotprete
Color: ■
Layer:
Space:
Page Label: 221

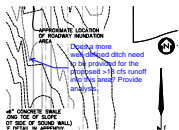
This reference is for open channels.



Subject: Callout
Page Index: 221
Date: 12/29/2021 10:03:24 AM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 221

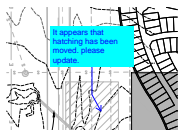
If there is a separate tract here now, label it. (Label all tracts)

222 (12)



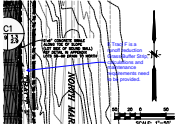
Subject: Callout
Page Index: 222
Date: 12/21/2021 12:32:03 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 222

Does a more well-defined ditch need to be provided for the proposed >18 cfs runoff into this area? Provide analysis.



Subject: Callout
Page Index: 222
Date: 12/21/2021 12:31:44 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 222

It appears that hatching has been moved. please update.



Subject: Callout
Page Index: 222
Date: 12/21/2021 12:32:48 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 222

If Tract F is a runoff reduction Grass Buffer Strip, calculations and maintenance requirements need to be provided.



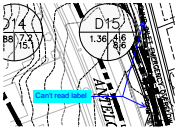
Subject: Callout
Page Index: 222
Date: 12/21/2021 3:29:58 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 222

Label ex inlet & pipe



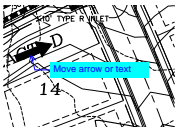
Subject: Callout
Page Index: 222
Date: 12/21/2021 3:38:14 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 222

Label pipe size, material, etc - Stay/removed?



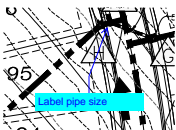
Subject: Callout
Page Index: 222
Date: 12/21/2021 3:37:33 PM
Author: CDurham
Color: ■
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Space:
Page Label: 222

Can't read label



Subject: Callout
Page Index: 222
Date: 12/21/2021 3:37:53 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 222

Move arrow or text



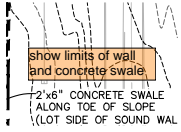
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Page Index: 222
Date: 12/27/2021 8:51:23 AM
Author: CDurham
Color: ■
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Space:
Page Label: 222

Label pipe size



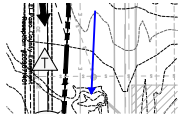
Subject: Text Box
Page Index: 222
Date: 12/27/2021 11:29:11 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 222

Development/Owners

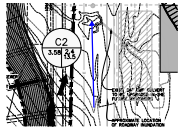


Subject: Engineer
Page Index: 222
Date: 12/27/2021 1:03:21 PM
Author: dotprete
Color: ■
Layer:
Space:
Page Label: 222

show limits of wall and concrete swale

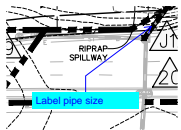


Subject: Arrow
Page Index: 222
Date: 12/29/2021 10:00:57 AM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 222



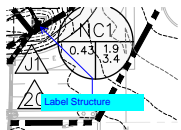
Subject: Arrow
Page Index: 222
Date: 12/29/2021 10:00:57 AM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 222

223 (4)



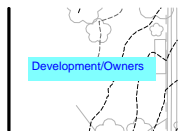
Subject: Callout
Page Index: 223
Date: 12/27/2021 9:34:57 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 223

Label pipe size



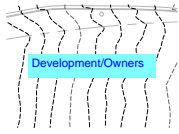
Subject: Callout
Page Index: 223
Date: 12/27/2021 9:35:07 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 223

Label Structure



Subject: Text Box
Page Index: 223
Date: 12/27/2021 11:29:21 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 223

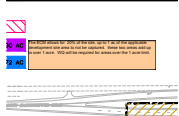
Development/Owners



Subject: Text Box
Page Index: 223
Date: 12/27/2021 11:29:28 AM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 223

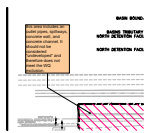
Development/Owners

224 (5)



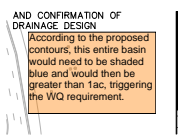
Subject: Engineer
Page Index: 224
Date: 12/27/2021 12:29:16 PM
Author: dotprete
Color: ■
Layer:
Space:
Page Label: 224

The ECM allows for 20% of the site, up to 1 ac of the applicable development site area to not be captured. these two areas add up to over 1 acre. WQ will be required for areas over the 1 acre limit.



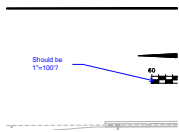
Subject: Engineer
Page Index: 224
Date: 12/27/2021 12:29:11 PM
Author: dotprete
Color: ■
Layer:
Space:
Page Label: 224

this area includes an outlet pipes, spillways, concrete wall, and concrete channel. It should not be considered "undeveloped" and therefore does not meet the WQ exclusion.



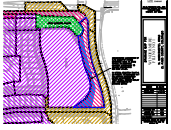
Subject: Engineer
Page Index: 224
Date: 12/29/2021 9:56:38 AM
Author: dotprete
Color: ■
Layer:
Space:
Page Label: 224

According to the proposed contours, this entire basin would need to be shaded blue and would then be greater than 1ac, triggering the WQ requirement.



Subject: Callout
Page Index: 224
Date: 12/29/2021 9:56:34 AM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 224

Should be 1"=100'?



Subject: Area Measurement

78,656.54 sf

Page Index: 224

Date: 12/29/2021 9:57:44 AM

Author: dsdrice

Color: ■

Layer:

Space:

Page Label: 224