## DRAINAGE NOTES/ASSUMPTIONS

1. EXISTING OFFSITE DRAINAGE BASIN OS-01 DRAINAGE CALCULATED USING THE USGS STREAM STATS PROGRAM. Q = 130 CFS. REFER TO THE ENGINEERING REPORT APPENDIX FOR CALCULATIONS.

## EXISTING ONSITE DRAINAGE BASIN PEAK RUNOFF SUMMARY

**TABLE 1: EXISTING DRAINAGE SUMMARY (25 YEAR-30 MIN STORM)**

| BASIN ID | Area (ac) | Weighted C | Precip. (in/hr) | Q (cfs) |
|---|---|---|---|---|
| EX-01 | 11.94 | 0.33 | 1.93 | 7.61 |
| EX-02A | 3.07 | 0.33 | 2.37 | 2.40 |
| EX-02B | 8.42 | 0.33 | 1.88 | 5.23 |
| EX-03 | 19.17 | 0.33 | 1.62 | 10.27 |

[1] TIME OF CONCENTRATION (Tc) FOR EXISTING BASINS CALCULATED USING THE SCS TR-55 METHOD. REFER TO OUTPUT REPORTS IN DRAINAGE REPORT APPENDIX.

[2] RATIONAL C FACTORS ARE BASED ON THE PERCENT IMPERVIOUS FROM CHAPTER 6 OF THE MHFD - MILE HIGH FLOOD DISTRICT DRAINAGE CRITERIA MANUAL.

[3] RAINFALL INTENSITY IS FROM THE NOAA 14 IDF CURVE FOR NEW CASTLE, CO

## EXISTING LEGEND

- EXISTING CONTOUR
- 7900 — EXISTING CONTOUR INTERVAL
- EXISTING FLOW PATH
- EXISTING DRAINAGE BASIN
- DP # — DESIGN POINT

GRAPHIC SCALE

100 0 50 100 200 400

( IN FEET )
1 inch = 100 ft.

NORTH

Know what's below. Call before you dig.

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SOPRIS ENGINEERING LLC
502 MAIN STREET • SUITE A3 • CARBONDALE CO 81623
(970) 704-0311 • soprisengineering.com

| | |
|---|---|
| DATE: | 09-16-2024 |
| JOB NO. | 33011.01 |
| DESIGNED BY | JPP |
| DRAWN BY | JPP |
| CHECKED BY | YTN |

9 NORTH WILD HORSE
NEW CASTLE, COLORADO

FINAL PLAN

| DATE | REVISION |
|---|---|
| | |

TITLE
EXISTING DRAINAGE EXHIBIT

DRAWING NO.
C-6.0

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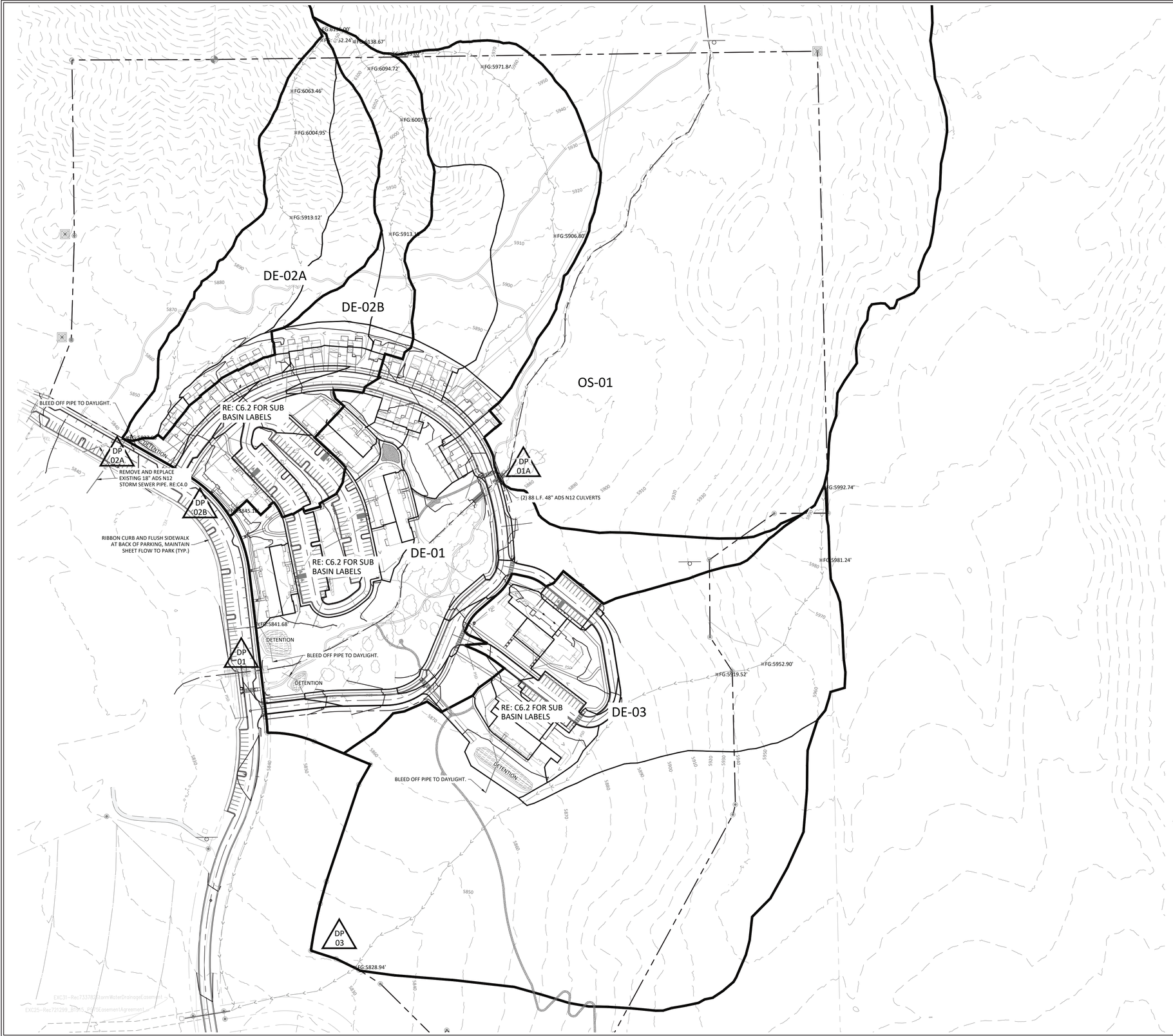


## DEVELOPED DRAINAGE BASIN PEAK RUNOFF SUMMARY

**TABLE 2: DEVELOPED DRAINAGE SUMMARY (25 YEAR-30 MIN STORM)**

| BASIN ID | Area (ac) | Weighted C | Precip. (in/hr) | Q (cfs) |
|---|---|---|---|---|
| DE-01 | 8.58 | Varies | Varies per Tc | 7.48 |
| DE-02A | 4.16 | Varies | Varies per Tc | 3.09 |
| DE-02B | 4.79 | Varies | Varies per Tc | 3.36 |
| DE-03 | 18.87 | Varies | Varies per Tc | 9.83 |

[1] TIME OF CONCENTRATION (Tc) FOR EXISTING BASINS CALCULATED USING THE SCS TR-55 METHOD. Tc FOR PROPOSED BASINS ASSUMED EQUAL TO 10 MINUTES EXCEPT FOR 100% IMPERVIOUS SUB-BASINS WHERE Tc = 5 MINUTES, REFER TO OUTPUT REPORTS IN DRAINAGE REPORT APPENDIX.

[2] RATIONAL C FACTORS ARE BASED ON THE PERCENT IMPERVIOUS FROM CHAPTER 6 OF THE MHFD - MILE HIGH FLOOD DISTRICT DRAINAGE CRITERIA MANUAL. REFER TO OUTPUT REPORTS IN DRAINAGE REPORT APPENDIX.

[3] RAINFALL INTENSITY IS FROM THE NOAA 14 IDF CURVE FOR NEW CASTLE, CO

## DEVELOPED DRAINAGE DETENTION RUNOFF SUMMARY

**DESIGN POINT SUMMARY - DEVELOPED DETENTION**

| DESIGN PT I.D. | EX $Q_{25}$ (cfs) | DET $Q_{25}$ (cfs) | DET. REQ. (cf) | DET. PROV. (cf) | +/- Q (cfs) |
|---|---|---|---|---|---|
| 1 | 7.61 | 7.48 | 4,861 | 4,861 | -0.13 |
| 2A | 2.40 | 3.09 | 0 | 0 | 0.69 |
| 2B | 5.23 | 3.36 | 1,153 | 1,153 | -1.87 |
| 3 | 10.27 | 9.83 | 0 | 2,708 | -0.44 |

[1] TIME OF CONCENTRATION (Tc) FOR EXISTING BASINS CALCULATED USING THE SCS TR-55 METHOD. Tc FOR PROPOSED BASINS ASSUMED EQUAL TO 10 MINUTES EXCEPT FOR 100% IMPERVIOUS SUB-BASINS WHERE Tc = 5 MINUTES

[2] RATIONAL C FACTORS ARE BASED ON THE PERCENT IMPERVIOUS FROM CHAPTER 6 OF THE MHFD - MILE HIGH FLOOD DISTRICT DRAINAGE CRITERIA MANUAL.

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## PROPOSED LEGEND

- PROPOSED CONTOUR
- 7900 — PROPOSED CONTOUR INTERVAL
- PROPOSED FLOW PATH
- PROPOSED DRAINAGE BASIN
- DP # — DESIGN POINT

## GRAPHIC SCALE

100 0 50 100 200 400

( IN FEET )
1 inch = 100 ft.

NORTH

## OFFSITE DRAINAGE LEGEND

- EXISTING GIS CONTOUR
- OFFSITE DRAINAGE BASIN
- TRAVEL PATH FOR Tc COMPUTATIONS
- DP # — DESIGN POINT
- EXISTING FLOW ARROW

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| DRAWN BY | JPP |
| CHECKED BY | YTN |

# 9 NORTH WILD HORSE
# NEW CASTLE, COLORADO

FINAL PLAN

| DATE | REVISION |
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TITLE
DEVELOPED DRAINAGE EXHIBIT

DRAWING NO.
C-6.1

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## DRAINAGE SUB-BASIN NOTE:

1. DRAINAGE SUB-BASINS SHOWN HERE GRAPHICALLY. REFER TO REPORT APPENDIX FOR DETAILED ROUTING, RUNOFF, FLOW RATES, TIME OF CONCENTRATION, ETC.

## PROPOSED LEGEND

- PROPOSED CONTOUR
- 7900 PROPOSED CONTOUR INTERVAL
- PROPOSED FLOW PATH
- PROPOSED DRAINAGE BASIN
- DP # DESIGN POINT

## OFFSITE DRAINAGE LEGEND

- EXISTING GIS CONTOUR
- OFFSITE DRAINAGE BASIN
- TRAVEL PATH FOR Tc COMPUTATIONS
- DP # DESIGN POINT
- EXISTING FLOW ARROW

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# 9 NORTH WILD HORSE
# NEW CASTLE, COLORADO

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|---|---|
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TITLE
DEVELOPED DRAINAGE SUB-BASINS

DRAWING NO.
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