Date: 8 / 4 / 25 Permit # 24-0666 C&F 600

Soil Types C LOD 15,740 SF IS 6299 SF I% 40

Soil AVG

Environmental Site Design Plan Review

Determine ESD targets using Environmental Site Design Sizing Criteria per 5.2.2 on page 5.18.

Pe = Rainfall Target from Table 5.3 used to determine ESD goals and size practices

(minimum 1", maximum 2.8") If the reduced RCN (per Table 5.3) reflects "woods in good condition" (green) then Cpv has been satisfied.

Pe = 1 **On the water -Yes (1" Pe) or No**

Where multiple soils types are present, RCN is averaged (see example on page 5.23).

I 40

Rv = .4101 = 0.05 + 0.009(I) where I is percent impervious cover

Qe = .4101 = Runoff depth in inches that must be treated using ESD practices

1 * .4101

Pe x Rv; Rv = the dimensionless volumetric runoff coefficient

ESDv Required = Runoff volume (in cubic feet) used in the design of specific ESD practices

538 = (Pe)(Rv)(A) divided by 12 where A is the drainage area

1 * .4101 * 15740 / 12

ESDv Provided= 571.9 ≈ 572

Required Corrections----------

Verify LOD - 15,740 or 17,230

- top of cistern needs to be below frost line (min 20in).
- verify cistern sizes.
- verify NRTD lengths.

RTD

N1-1 = 60ft. PE = 1÷75 = .0133 × 60 = .799 ≈ .80

.80 × .95 × 315/12 = 19.94 ≈ **20**

Slope > 9-7 = 2/60 = 3.3%

N1-2 = 52ft. PE = 1÷75 = .0133 × 52 = .69

.69 × .95 × 253/12 = 13.88 ≈ **13.9**

Slope = 8.3 - 7 = 1.3/52 = 2.5%

N1-3 = 75ft. PE = 1

1 × .95 × 305/12 = **24.1**

Slope = 9-7 = 2.6%

NRTD

N2-1 = (10ft.) 1 × .95 × 488/12 = **38.6** - Slope = 5.9-5.7 = .2/10 = 2%

N2-2 = (10ft.) 1 × .95 × 484/12 = **38.3** - Slope = 6.4-6.2 = .2/10 = 2%

N2-3 = (37ft.) PE = 26/37 = .70 - .70 × .95 × 620/12 = 34.49 ≈ **34.5** Slope = 9-8.3 = .7/37 = 1.8%

N2-4 = (26ft.) 1 × .95 × 526/12 = **41.6** - Slope = 8.8-8.3 = .5/26 = 1.9%

RWH

M1-1 = max = 1600/7.48 = **213.9**

2.8 × .95 × 1503/12 = 333.16

M1-2 = max = 1100/7.48 = **147**

2.8 × .95 × 1151/12 = 255.1