




LEGEND:




PROJECT LIMITS



PROPOSED DRAINAGE AREA



EXISTING CULVERT



PROPOSED SITE BMP

PROPOSED PROJECT AREA DATA:

PROJECT AREA  
6.7 ACRES ±

OPEN SPACE (PROJECT LIMITS)  
3.50 ACRES ±

MANAGED TURF (PROJECT LIMITS)  
1.25 ACRES ±

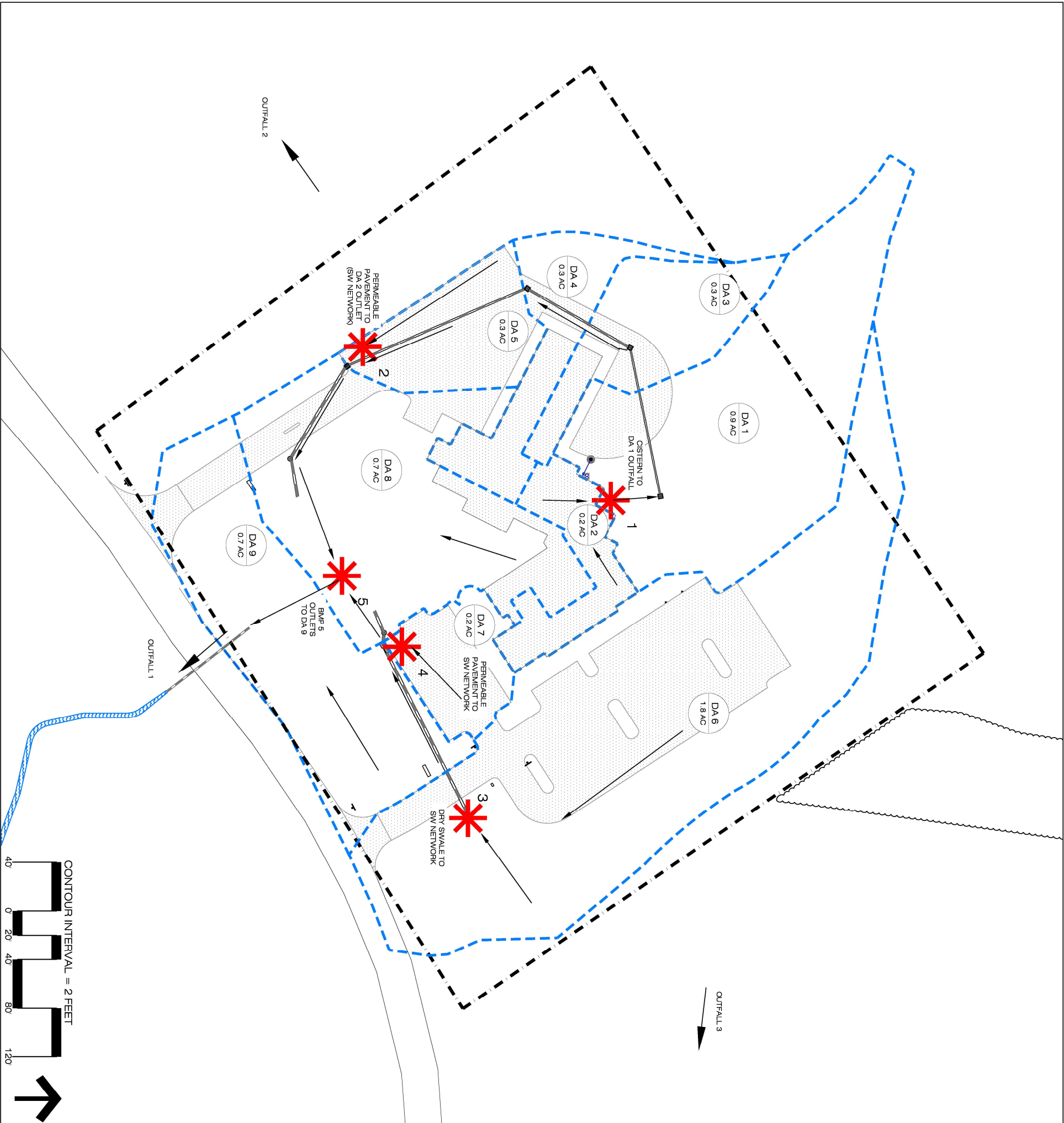
IMPERVIOUS (PROJECT LIMITS)  
1.95 ACRES ±

CURVE NUMBER  
79

| PROPOSED SITE DATA |           |                |                    |                      |                 |                   |
|--------------------|-----------|----------------|--------------------|----------------------|-----------------|-------------------|
| DA                 | AREA (AC) | TREATED IN DA? | TREATMENT          | IMPERVIOUS AREA (AC) | OPEN SPACE (AC) | MANAGED TURF (AC) |
| 1                  | 0.9       | NO             | -                  | 0.10                 | 0.75            | 0.05              |
| 2                  | 0.2       | YES            | CISTERN            | 0.20                 | 0.00            | 0.00              |
| 3                  | 0.3       | NO             | -                  | 0.1                  | 0.20            | 0.00              |
| 4                  | 0.3       | NO             | PERM. -            | 0.15                 | 0.07            | 0.05              |
| 5                  | 0.3       | YES            | PERM. PAVEMENT     | 0.3                  | 0.00            | 0.00              |
| 6                  | 1.8       | YES            | DRY SWALE          | 0.55                 | 0.65            | 0.50              |
| 7                  | 0.2       | YES            | PERM. PAVEMENT     | 0.2                  | 0.00            | 0.00              |
| 8                  | 0.7       | YES*           | EXTENDED DETENTION | 0.2                  | 0.00            | 0.50              |
| 9                  | 0.7       | NO             | -                  | 0.05                 | 0.46            | 0.15              |
| TOTAL              | 5.4       | -              | -                  | 1.95                 | 2.13            | 1.25              |

NOTE: ASSUME 5 MINUTES FOR TIME OF CONCENTRATION FOR EACH WATERSHED. ASSUME ALL SOILS ARE "C."  
\*BIORETENTION IN DA 8 CAPTURES DRAINAGE FROM DAs 1-7 AS WELL. THESE ADDITIONAL AREAS ARE NOT INCLUDED IN THE DA 8 AREA.

| BMP LIST |                         |
|----------|-------------------------|
| ID       | TYPE                    |
| 1        | CISTERN (90% EFFICIENT) |
| 2        | PERMEABLE PAVEMENT L1   |
| 3        | DRY SWALE L2            |
| 4        | PERMEABLE PAVEMENT L1   |
| 5        | EXTENDED DETENTION L1   |



APRIL 2014

SMALLTOWN, VIRGINIA  
DEPARTMENT OF PUBLIC WORKS

SITE PLANNING DIVISION

EXERCISE 4  
T&L COMMERCIAL DEVELOPMENT  
DRAINAGE SCHEMATIC

DEQ TRAINING CASE STUDY

REVISIONS

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|------|----------|----|-------------|
| DATE | APPROVED | BY | DESCRIPTION |
|      |          |    |             |
|      |          |    |             |
|      |          |    |             |
|      |          |    |             |

SCALE 1"=40'

DESIGNED BY: K PROPST  
DRAFTED BY: K PROPST  
CHECKED BY: J SMITH

APPROVED BY PUBLIC WORKS

