

| Run    | Inverts | From   | Additional Drop | Invert | Depth |
|--------|---------|--------|-----------------|--------|-------|
| CB-A1  | 429.00  |        |                 | 423.77 | 7.83  |
| CB-A2  | 429.00  | CB-A1  |                 | 421.69 | 7.91  |
| CB-A3  | 429.00  | CB-A2  | 0.36            | 413.31 | 9.02  |
| CB-A4  | 418.74  | CB-A3  | 2.61            | 408.62 | 12.47 |
| FES-A5 | 397.00  | CB-A4  |                 | 397.00 |       |
| FES-B1 | 401.50  |        |                 | 401.50 |       |
| CB-B2  | 415.57  | CB-B4  |                 | 399.28 | 20.72 |
| CB-B3  | 415.57  | FES-B1 |                 |        |       |
| CB-B4  | 415.57  |        |                 | 424.73 | 6.09  |
| CB-B5  | 422.32  | CB-B3  |                 | 418.35 | 8.24  |
| CB-B6  | 420.30  |        |                 | 410.50 | 9.49  |
| MF-B6  | 396.00  | CB-B6  |                 |        |       |
| CB-B7  | 418.10  | CB-B5  | 0.51            | 399.22 | 20.28 |
| FES-B7 | 391.00  | MF-B6  |                 | 391.00 |       |
| TI-C1  | 419.00  |        |                 | 413.00 | 6.00  |
| CB-C2  | 418.00  | TI-C1  | 11.00           | 406.43 | 17.57 |
| FES-C3 | 394.19  | CB-C2  |                 | 394.00 |       |
| TI-B1  | 419.00  |        |                 | 415.50 | 3.50  |
| CB-D2  | 411.20  |        |                 | 403.20 | 12.60 |
| FES-D3 | 396.17  | CB-D2  |                 | 396.00 |       |
| CB-E1  | 419.00  |        |                 | 414.50 | 4.50  |
| FES-E2 | 397.10  | CB-E1  |                 | 397.00 |       |
| CB-F1  | 419.40  |        |                 | 406.70 | 12.70 |
| FES-F2 | 406.50  | CB-F1  |                 | 406.50 |       |
| TI-G1  | 429.10  |        |                 | 422.73 | 5.37  |
| CB-G2  | 429.20  | TI-G1  |                 | 422.39 | 6.81  |
| CB-G3  | 427.19  | CB-G2  |                 | 417.71 | 9.39  |
| TI-G4  | 425.00  | CB-G3  | 1.50            | 413.31 | 11.49 |
| MF-G5  | 417.46  | TI-G4  | 14.00           | 397.66 | 19.80 |
| FES-G6 | 396.33  | MF-G5  |                 | 396.00 |       |
| FES-H1 | 419.00  |        |                 | 419.00 |       |
| FES-H2 | 419.00  |        |                 | 419.00 |       |
| FES-I1 | 423.40  |        |                 | 423.40 |       |
| MF-I2  | 418.48  | FES-I1 |                 | 418.38 | 0.12  |
| FES-J3 | 411.01  | MF-I2  |                 | 411.01 |       |

- ### Grading Notes
1. Initiate erosion control sequence before beginning clearing and grading operations.
  2. Clear areas to be graded of all vegetation. Protect vegetation beyond grading limits.
  3. Strip topsoil to full depth in areas to be graded and stockpile.
  4. Compact all fill areas to 95% of maximum density.
  5. All banks and swale side slopes shall be graded with no greater than 2:1 slopes.
  6. All areas are to be graded so that no areas of standing water occur.
  7. Proposed spot elevations are shown at finished grade (gutter flow line elevation, where applicable).
  8. Graded area on this project is approximately 13.6 acres.
  9. Operator shall field verify existing topography in relation to the proposed grades to ensure drainage in the directions indicated on the plan.

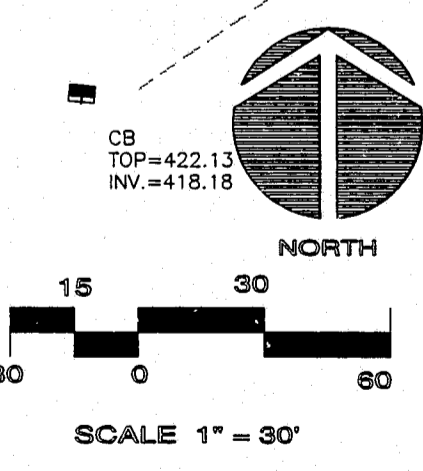
### LEGEND

- BW BOTTOM OF WALL ELEVATION
- TW TOP OF WALL ELEVATION
- BP BREAK POINT
- TPF TREE PROTECTION FENCE
- WETLANDS BOUNDARY
- OUTLET PROTECTION

### Outlet Protection

| structure number | pipe dia. (d <sub>o</sub> ) | stone thickness | beginning width (3d <sub>o</sub> ) | ending width | length       |
|------------------|-----------------------------|-----------------|------------------------------------|--------------|--------------|
| FES-A5           | 15"                         | 10" class B     | 24"                                | 45"          | 19'          |
| FES-B7           | 42"                         | 10" class B     | 24"                                | 10.5'        | 12'          |
| FES-C3           | 15"                         | 10" class B     | 24"                                | 45"          | 20'          |
| FES-D3           | 15"                         | 4" class A      | 12"                                |              | 16'          |
| FES-E2           | 15"                         | 4" class A      | 12"                                |              | see sheet II |
| FES-F2           | 15"                         | 4" class A      | 12"                                | 45"          | 14'          |
| FES-G6           | 24"                         | 10" class B     | 24"                                | 72"          | 29'          |
| FES-H2           | 15"                         | 3" class A      | 12"                                | 45"          | 14'          |
| FES-J3           | 18"                         | 10" class B     | 24"                                | 54"          | 29'          |
| FES-K2           | 24"                         | 6" class B      | 24"                                | 72"          | 17'          |

ALL CLASS B STONE HAS A 4" #57 STONE BED



| REV. NO. | DESCRIPTION | DATE |
|----------|-------------|------|
|          |             |      |
|          |             |      |
|          |             |      |

| DESIGNED | TCC |
|----------|-----|
|          |     |
|          |     |
|          |     |

**MCKIM & CREED**  
 ENGINEERS • PLANNERS • SURVEYORS  
 WILMINGTON, NORTH CAROLINA    RALEIGH, NORTH CAROLINA  
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**WATERFORD FOREST APARTMENTS**  
**CARY, NC**

**GRADING AND**  
**STORM DRAINAGE**

|                      |                           |              |
|----------------------|---------------------------|--------------|
| DATE: 21 MAR 95      | SCALE: HORIZONTAL: 1"=30' | SHEET NO. 10 |
| MCE PROJ. #0976-0007 | VERTICAL: 1"=30'          | OF: 27       |
| DWG FILE #568P4601   |                           |              |