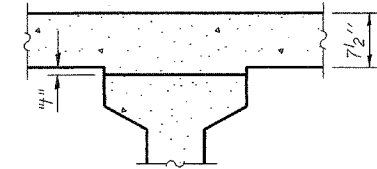
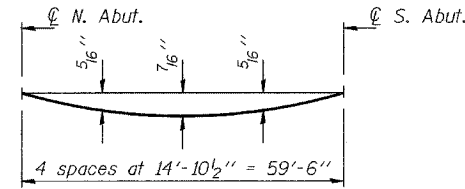


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



|                       |         |                            |           |           |
|-----------------------|---------|----------------------------|-----------|-----------|
| ROUTE NO.             | SECTION | COUNTY                     | SHEET NO. | SHEET NO. |
| FAP 315               | 18B-1   | FULTON                     | 213       | 13 SHEETS |
| FED. ROAD DIST. NO. 7 |         | ILLINOIS FED. AID PROJECT- |           |           |

Contract #88753



**DEAD LOAD DEFLECTION DIAGRAM**

Includes weight of concrete, excluding beams

Note: The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections as shown below.

To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" minus slab thickness, equals the fillet heights "t" above top flanges of beams.

**FILLET HEIGHTS**

**BEAM 1**

| Location  | Station  | Offset  | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------|----------|---------|------------------------------|--|
| Bk N Abut | 8386.000 | -16.250 | 490.010                      | 490.010  |
| ☉ N Abut  | 8387.250 | -16.250 | 490.013                      | 490.013  |
| A         | 8397.250 | -16.250 | 490.040                      | 490.057  |
| B         | 8407.250 | -16.250 | 490.065                      | 490.094  |
| C         | 8417.250 | -16.250 | 490.088                      | 490.125  |
| D         | 8427.250 | -16.250 | 490.110                      | 490.139  |
| E         | 8437.250 | -16.250 | 490.129                      | 490.146  |
| ☉ S Abut  | 8446.750 | -16.250 | 490.146                      | 490.146  |
| Bk S Abut | 8448.000 | -16.250 | 490.148                      | 490.148  |

**BEAM 2**

| Location  | Station  | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------|----------|--------|------------------------------|--|
| Bk N Abut | 8386.000 | -9.750 | 490.133                      | 490.133  |
| ☉ N Abut  | 8387.250 | -9.750 | 490.137                      | 490.137  |
| A         | 8397.250 | -9.750 | 490.163                      | 490.181  |
| B         | 8407.250 | -9.750 | 490.188                      | 490.218  |
| C         | 8417.250 | -9.750 | 490.212                      | 490.248  |
| D         | 8427.250 | -9.750 | 490.233                      | 490.262  |
| E         | 8437.250 | -9.750 | 490.253                      | 490.269  |
| ☉ S Abut  | 8446.750 | -9.750 | 490.270                      | 490.270  |
| Bk S Abut | 8448.000 | -9.750 | 490.272                      | 490.272  |

**BEAM 3**

| Location  | Station  | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------|----------|--------|------------------------------|--|
| Bk N Abut | 8386.000 | -3.250 | 490.235                      | 490.235  |
| ☉ N Abut  | 8387.250 | -3.250 | 490.238                      | 490.238  |
| A         | 8397.250 | -3.250 | 490.265                      | 490.282  |
| B         | 8407.250 | -3.250 | 490.290                      | 490.320  |
| C         | 8417.250 | -3.250 | 490.313                      | 490.350  |
| D         | 8427.250 | -3.250 | 490.335                      | 490.364  |
| E         | 8437.250 | -3.250 | 490.354                      | 490.371  |
| ☉ S Abut  | 8446.750 | -3.250 | 490.371                      | 490.371  |
| Bk S Abut | 8448.000 | -3.250 | 490.374                      | 490.374  |

**☉ ROADWAY AND PROFILE GRADE**

| Location  | Station  | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------|----------|--------|------------------------------|--|
| Bk N Abut | 8386.000 | 0.000  | 490.286                      | 490.286  |
| ☉ N Abut  | 8387.250 | 0.000  | 490.289                      | 490.289  |
| A         | 8397.250 | 0.000  | 490.316                      | 490.333  |
| B         | 8407.250 | 0.000  | 490.341                      | 490.370  |
| C         | 8417.250 | 0.000  | 490.364                      | 490.401  |
| D         | 8427.250 | 0.000  | 490.385                      | 490.415  |
| E         | 8437.250 | 0.000  | 490.405                      | 490.422  |
| ☉ S Abut  | 8446.750 | 0.000  | 490.422                      | 490.422  |
| Bk S Abut | 8448.000 | 0.000  | 490.424                      | 490.424  |

**BEAM 4**

| Location  | Station  | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------|----------|--------|------------------------------|--|
| Bk N Abut | 8386.000 | 3.250  | 490.235                      | 490.235  |
| ☉ N Abut  | 8387.250 | 3.250  | 490.238                      | 490.238  |
| A         | 8397.250 | 3.250  | 490.265                      | 490.282  |
| B         | 8407.250 | 3.250  | 490.290                      | 490.320  |
| C         | 8417.250 | 3.250  | 490.313                      | 490.350  |
| D         | 8427.250 | 3.250  | 490.335                      | 490.364  |
| E         | 8437.250 | 3.250  | 490.354                      | 490.371  |
| ☉ S Abut  | 8446.750 | 3.250  | 490.371                      | 490.371  |
| Bk S Abut | 8448.000 | 3.250  | 490.374                      | 490.374  |

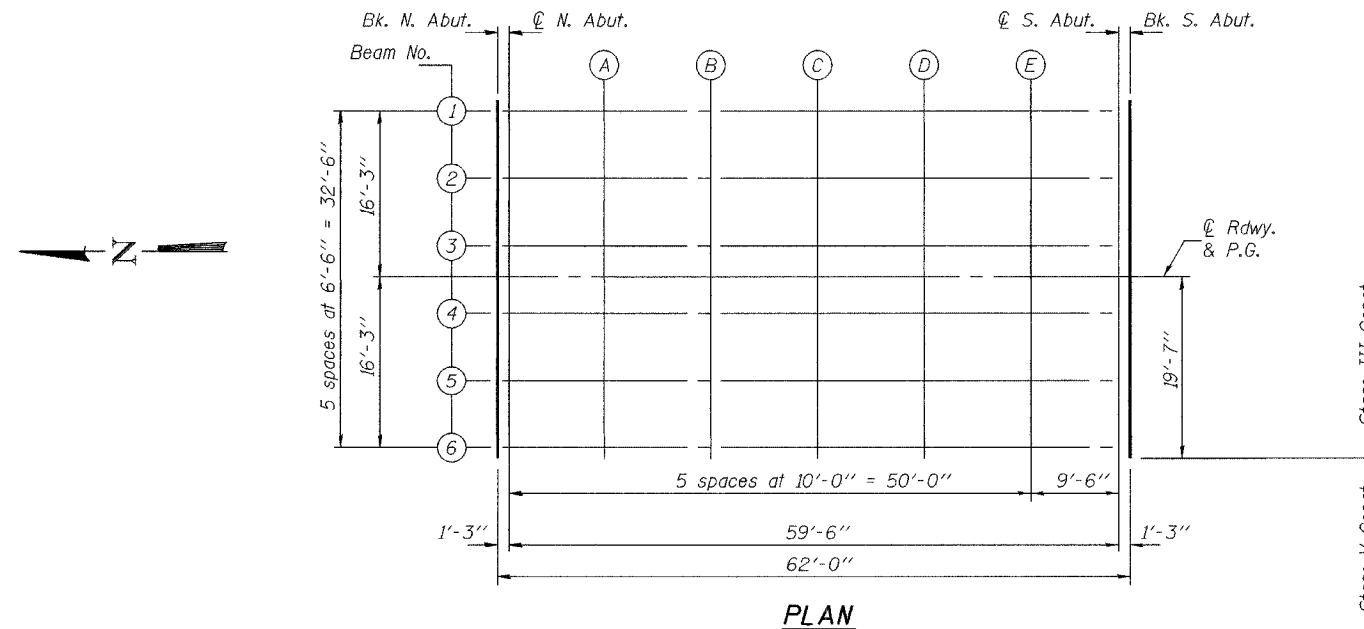
**BEAM 5**

| Location  | Station  | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------|----------|--------|------------------------------|--|
| Bk N Abut | 8386.000 | 9.750  | 490.133                      | 490.133  |
| ☉ N Abut  | 8387.250 | 9.750  | 490.137                      | 490.137  |
| A         | 8397.250 | 9.750  | 490.163                      | 490.181  |
| B         | 8407.250 | 9.750  | 490.188                      | 490.218  |
| C         | 8417.250 | 9.750  | 490.212                      | 490.248  |
| D         | 8427.250 | 9.750  | 490.233                      | 490.262  |
| E         | 8437.250 | 9.750  | 490.253                      | 490.269  |
| ☉ S Abut  | 8446.750 | 9.750  | 490.270                      | 490.270  |
| Bk S Abut | 8448.000 | 9.750  | 490.272                      | 490.272  |

**BEAM 6**

| Location  | Station  | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------|----------|--------|------------------------------|--|
| Bk N Abut | 8386.000 | 16.250 | 490.010                      | 490.010  |
| ☉ N Abut  | 8387.250 | 16.250 | 490.013                      | 490.013  |
| A         | 8397.250 | 16.250 | 490.040                      | 490.057  |
| B         | 8407.250 | 16.250 | 490.065                      | 490.094  |
| C         | 8417.250 | 16.250 | 490.088                      | 490.125  |
| D         | 8427.250 | 16.250 | 490.110                      | 490.139  |
| E         | 8437.250 | 16.250 | 490.129                      | 490.146  |
| ☉ S Abut  | 8446.750 | 16.250 | 490.146                      | 490.146  |
| Bk S Abut | 8448.000 | 16.250 | 490.148                      | 490.148  |

Note: All stations are using Back stationing. For station equation, see Plan on sheet 1 of 13.



**PLAN**

|          |                 |
|----------|-----------------|
| DESIGNED | Stephen M. Ryan |
| CHECKED  | Sital J. Bhakta |
| DRAWN    | R. Doty BMC     |
| CHECKED  | SMR/SJB         |

|          |                     |                |
|----------|---------------------|----------------|
| EXAMINED | Thomas J. Donagabbi | April 11, 2005 |
| PASSED   | Ralph E. Anderson   |                |

PI-E 9-1-03

**TOP OF SLAB ELEVATIONS**  
F.A.P. RT. 315 SEC. 18B-1  
FULTON COUNTY  
STATION 84+17.00  
STRUCTURE NO. 029-0060