

| DEVELOPMENT LENGTH SCHEDULE (INCHES) |                                                             |                         |      |      |      |      |      |      |        |        |        |                          |      |      |      |      |      |                          |        |        |        |      |      |      |      |      |      | SEE NOTE 5 |        |        |        |
|--------------------------------------|-------------------------------------------------------------|-------------------------|------|------|------|------|------|------|--------|--------|--------|--------------------------|------|------|------|------|------|--------------------------|--------|--------|--------|------|------|------|------|------|------|------------|--------|--------|--------|
| BAR SIZE                             | MINIMUM BAR SPACING (INCHES)<br>[MAX(1" db) + db]<br>NOTE 2 | TENSION                 |      |      |      |      |      |      |        |        |        |                          |      |      |      |      |      | COMPRESSION              |        |        |        |      |      |      |      |      |      |            |        |        |        |
|                                      |                                                             | NOTED AS Ld ON DRAWINGS |      |      |      |      |      |      |        |        |        | NOTED AS Ldh ON DRAWINGS |      |      |      |      |      | NOTED AS Ldc ON DRAWINGS |        |        |        |      |      |      |      |      |      |            |        |        |        |
|                                      |                                                             | f <sub>c</sub> (PSI)    |      |      |      |      |      |      |        |        |        | f <sub>c</sub> (PSI)     |      |      |      |      |      | f <sub>c</sub> (PSI)     |        |        |        |      |      |      |      |      |      |            |        |        |        |
|                                      |                                                             | 3000                    | 4000 | 5000 | 6000 | 7000 | 8000 | 9000 | 10,000 | 11,000 | 12,000 | 3000                     | 4000 | 5000 | 6000 | 7000 | 8000 | 9000                     | 10,000 | 11,000 | 12,000 | 3000 | 4000 | 5000 | 6000 | 7000 | 8000 | 9000       | 10,000 | 11,000 | 12,000 |
| #4                                   | 1.500                                                       | 22                      | 19   | 17   | 16   | 15   | 14   | 13   | 12     | 12     | 12     | 11                       | 10   | 9    | 8    | 8    | 7    | 7                        | 6      | 6      | 6      | 11   | 10   | 9    | 9    | 9    | 9    | 9          | 9      | 9      | 9      |
| #5                                   | 1.625                                                       | 28                      | 24   | 22   | 20   | 18   | 17   | 16   | 15     | 15     | 15     | 14                       | 12   | 11   | 10   | 9    | 9    | 8                        | 8      | 8      | 8      | 14   | 12   | 12   | 12   | 12   | 12   | 12         | 12     | 12     | 12     |
| #6                                   | 1.750                                                       | 33                      | 29   | 26   | 24   | 22   | 21   | 19   | 18     | 18     | 18     | 17                       | 15   | 13   | 12   | 11   | 11   | 10                       | 9      | 9      | 9      | 17   | 15   | 14   | 14   | 14   | 14   | 14         | 14     | 14     | 14     |
| #7                                   | 1.875                                                       | 48                      | 42   | 38   | 34   | 32   | 30   | 28   | 27     | 27     | 27     | 20                       | 17   | 15   | 14   | 13   | 12   | 12                       | 11     | 11     | 20     | 17   | 16   | 16   | 16   | 16   | 16   | 16         | 16     | 16     | 16     |
| #8                                   | 2.000                                                       | 55                      | 48   | 43   | 39   | 36   | 34   | 32   | 30     | 30     | 30     | 22                       | 19   | 17   | 16   | 15   | 14   | 13                       | 12     | 12     | 12     | 24   | 18   | 18   | 18   | 18   | 18   | 18         | 18     | 18     | 18     |
| #9                                   | 2.375                                                       | 62                      | 54   | 48   | 44   | 41   | 38   | 36   | 34     | 34     | 34     | 25                       | 22   | 20   | 18   | 17   | 16   | 15                       | 14     | 14     | 14     | 25   | 22   | 21   | 21   | 21   | 21   | 21         | 21     | 21     | 21     |
| #10                                  | 2.625                                                       | 70                      | 61   | 54   | 50   | 46   | 43   | 41   | 39     | 39     | 39     | 28                       | 25   | 22   | 20   | 19   | 18   | 17                       | 16     | 16     | 16     | 28   | 25   | 23   | 23   | 23   | 23   | 23         | 23     | 23     | 23     |
| #11                                  | 2.875                                                       | 78                      | 67   | 60   | 55   | 51   | 48   | 45   | 43     | 43     | 43     | 31                       | 27   | 24   | 22   | 21   | 19   | 18                       | 17     | 17     | 17     | 31   | 27   | 26   | 26   | 26   | 26   | 26         | 26     | 26     | 26     |

DEVELOPMENT LENGTH SCHEDULE NOTES:

1. WHERE MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST BELOW THE DEVELOPMENT LENGTH, MULTIPLY  $l_d$  BY 1.3.
2. WHERE STIRRUPS OR TIES ARE NOT PRESENT THROUGHOUT  $l_d$ , MINIMUM BAR SPACING MUST BE INCREASED TO  $[\text{MAX}(1", db) + 2db]$  FOR SCHEDULED VALUES TO BE APPLICABLE.

| FOOTING/MAT REINFORCEMENT<br>LAP SPLICE LENGTH SCHEDULE (INCHES) |                              |                        |       |                        |       |                        |       |                        |       |                        |       |                        |       |                         |       | SEE NOTE 5 |
|------------------------------------------------------------------|------------------------------|------------------------|-------|------------------------|-------|------------------------|-------|------------------------|-------|------------------------|-------|------------------------|-------|-------------------------|-------|------------|
| BAR SIZE                                                         | MINIMUM BAR SPACING (INCHES) | TENSION LAP (LTS)      |       |                        |       |                        |       |                        |       |                        |       |                        |       |                         |       |            |
|                                                                  |                              | f <sub>c</sub> = 4 KSI |       | f <sub>c</sub> = 5 KSI |       | f <sub>c</sub> = 6 KSI |       | f <sub>c</sub> = 7 KSI |       | f <sub>c</sub> = 8 KSI |       | f <sub>c</sub> = 9 KSI |       | f <sub>c</sub> = 10 KSI |       |            |
|                                                                  |                              | TOP BARS               | OTHER | TOP BARS               | OTHER | TOP BARS               | OTHER | TOP BARS               | OTHER | TOP BARS               | OTHER | TOP BARS               | OTHER | TOP BARS                | OTHER |            |
| #4                                                               | 5.500                        | 20                     | 15    | 18                     | 14    | 16                     | 13    | 15                     | 12    | 14                     | 12    | 13                     | 12    | 13                      | 12    |            |
| #5                                                               | 5.375                        | 25                     | 19    | 22                     | 17    | 20                     | 16    | 19                     | 14    | 18                     | 14    | 17                     | 13    | 16                      | 12    |            |
| #6                                                               | 5.250                        | 29                     | 23    | 26                     | 20    | 24                     | 19    | 22                     | 17    | 21                     | 16    | 20                     | 15    | 19                      | 15    |            |
| #7                                                               | 5.125                        | 43                     | 33    | 38                     | 29    | 35                     | 27    | 32                     | 25    | 30                     | 23    | 29                     | 22    | 27                      | 21    |            |
| #8                                                               | 5.000                        | 49                     | 37    | 44                     | 34    | 40                     | 31    | 37                     | 28    | 35                     | 27    | 33                     | 25    | 31                      | 24    |            |
| #9                                                               | 4.875                        | 63                     | 49    | 57                     | 44    | 52                     | 40    | 48                     | 37    | 45                     | 35    | 42                     | 33    | 40                      | 31    |            |
| #10                                                              | 4.750                        | 82                     | 63    | 74                     | 57    | 67                     | 52    | 62                     | 48    | 58                     | 45    | 55                     | 42    | 52                      | 40    |            |
| #11                                                              | 4.625                        | 104                    | 80    | 93                     | 72    | 85                     | 65    | 79                     | 61    | 74                     | 57    | 69                     | 54    | 66                      | 51    |            |

| FOUNDATION WALL REINFORCEMENT - HORIZONTAL INSIDE BARS |                              |                        |                        |                        |                        |                        |                        |                         |                         |                         |                   |
|--------------------------------------------------------|------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------|
| LAP SPLICE LENGTH SCHEDULE (INCHES)                    |                              |                        |                        |                        |                        |                        |                        |                         |                         |                         |                   |
|                                                        |                              | SEE NOTE 5             |                        |                        |                        |                        |                        |                         |                         |                         |                   |
| BAR SIZE                                               | MINIMUM BAR SPACING (INCHES) | TENSION (LTS)          |                        |                        |                        |                        |                        |                         |                         |                         | COMPRESSION (LCS) |
|                                                        |                              | f <sub>c</sub> = 4 KSI | f <sub>c</sub> = 5 KSI | f <sub>c</sub> = 6 KSI | f <sub>c</sub> = 7 KSI | f <sub>c</sub> = 8 KSI | f <sub>c</sub> = 9 KSI | f <sub>c</sub> = 10 KSI | f <sub>c</sub> = 11 KSI | f <sub>c</sub> = 12 KSI |                   |
| #4                                                     | 5.500                        | 20                     | 18                     | 16                     | 15                     | 14                     | 13                     | 13                      | 13                      | 13                      | 15                |
| #5                                                     | 5.375                        | 25                     | 22                     | 20                     | 19                     | 18                     | 17                     | 16                      | 16                      | 16                      | 19                |
| #6                                                     | 5.250                        | 29                     | 26                     | 24                     | 22                     | 21                     | 20                     | 19                      | 19                      | 19                      | 23                |
| #7                                                     | 5.125                        | 48                     | 43                     | 39                     | 36                     | 34                     | 32                     | 31                      | 31                      | 31                      | 27                |
| #8                                                     | 5.000                        | 61                     | 54                     | 50                     | 46                     | 43                     | 41                     | 39                      | 39                      | 39                      | 30                |
| #9                                                     | 4.875                        | 75                     | 67                     | 61                     | 57                     | 53                     | 50                     | 47                      | 47                      | 47                      | 34                |
| #10                                                    | 4.750                        | 91                     | 82                     | 75                     | 69                     | 65                     | 61                     | 58                      | 58                      | 58                      | 39                |
| #11                                                    | 4.625                        | 109                    | 97                     | 89                     | 82                     | 77                     | 73                     | 69                      | 69                      | 69                      | 43                |

| FOUNDATION WALL REINFORCEMENT - HORIZONTAL OUTSIDE BARS |                              |                        |                        |                        |                        |                        |                        |                         |                         |                         | SEE NOTE 5        |
|---------------------------------------------------------|------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------|
| LAP SPLICE LENGTH SCHEDULE (INCHES)                     |                              |                        |                        |                        |                        |                        |                        |                         |                         |                         |                   |
| BAR SIZE                                                | MINIMUM BAR SPACING (INCHES) | TENSION (LTS)          |                        |                        |                        |                        |                        |                         |                         |                         | COMPRESSION (LCS) |
|                                                         |                              | f <sub>c</sub> = 4 KSI | f <sub>c</sub> = 5 KSI | f <sub>c</sub> = 6 KSI | f <sub>c</sub> = 7 KSI | f <sub>c</sub> = 8 KSI | f <sub>c</sub> = 9 KSI | f <sub>c</sub> = 10 KSI | f <sub>c</sub> = 11 KSI | f <sub>c</sub> = 12 KSI |                   |
| #4                                                      | 5.500                        | 20                     | 18                     | 16                     | 15                     | 14                     | 13                     | 13                      | 13                      | 13                      | 15                |
| #5                                                      | 5.375                        | 25                     | 22                     | 20                     | 19                     | 18                     | 17                     | 16                      | 16                      | 16                      | 19                |
| #6                                                      | 5.250                        | 29                     | 26                     | 24                     | 22                     | 21                     | 20                     | 19                      | 19                      | 19                      | 23                |
| #7                                                      | 5.125                        | 43                     | 38                     | 35                     | 32                     | 30                     | 29                     | 27                      | 27                      | 27                      | 27                |
| #8                                                      | 5.000                        | 49                     | 44                     | 40                     | 37                     | 35                     | 33                     | 31                      | 31                      | 31                      | 30                |
| #9                                                      | 4.875                        | 63                     | 57                     | 52                     | 48                     | 45                     | 42                     | 40                      | 40                      | 40                      | 34                |
| #10                                                     | 4.750                        | 82                     | 74                     | 67                     | 62                     | 58                     | 55                     | 52                      | 52                      | 52                      | 39                |
| #11                                                     | 4.625                        | 104                    | 93                     | 85                     | 79                     | 74                     | 69                     | 66                      | 66                      | 66                      | 43                |