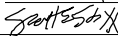


| REINFORCEMENT BARS - ENGLISH (METRIC)  |                         |                                                    |                                  |                                                  |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
|----------------------------------------|-------------------------|----------------------------------------------------|----------------------------------|--------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Bar<br>Size<br><br>English<br>(metric) | Dia.<br><br>in.<br>(mm) | Cross-<br>Sectional<br>Area<br>sq. in.<br>(sq. mm) | Weight<br><br>lbs./ft.<br>(kg/m) | SPACING, in. (mm)                                |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
|                                        |                         |                                                    |                                  | 4 (100)                                          | 4½ (115)        | 5 (125)         | 5½ (140)        | 6 (150)         | 6½ (165)        | 7 (175)         | 7½ (190)        | 8 (200)         | 8½ (215)        | 9 (225)         | 10 (250)        | 11 (275)        | 12 (300)        |
|                                        |                         |                                                    |                                  | AREA OF STEEL PER FOOT (METER), sq. in. (sq. mm) |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 3<br>(10)                              | 0.375<br>(9.5)          | 0.110<br>(71)                                      | 0.376<br>(0.560)                 | 0.330<br>(710)                                   | 0.293<br>(617)  | 0.264<br>(568)  | 0.240<br>(507)  | 0.220<br>(473)  | 0.203<br>(430)  | 0.189<br>(406)  | 0.176<br>(374)  | 0.165<br>(355)  | 0.155<br>(330)  | 0.147<br>(316)  | 0.132<br>(284)  | 0.120<br>(258)  | 0.110<br>(237)  |
| 4<br>(13)                              | 0.500<br>(12.7)         | 0.196<br>(129)                                     | 0.668<br>(0.944)                 | 0.588<br>(1290)                                  | 0.523<br>(1122) | 0.470<br>(1032) | 0.428<br>(921)  | 0.392<br>(860)  | 0.362<br>(782)  | 0.336<br>(737)  | 0.314<br>(679)  | 0.294<br>(645)  | 0.277<br>(600)  | 0.261<br>(573)  | 0.235<br>(516)  | 0.214<br>(469)  | 0.196<br>(430)  |
| 5<br>(16)                              | 0.625<br>(15.9)         | 0.307<br>(199)                                     | 1.043<br>(1.552)                 | 0.921<br>(1990)                                  | 0.819<br>(1730) | 0.737<br>(1592) | 0.670<br>(1421) | 0.614<br>(1327) | 0.567<br>(1206) | 0.526<br>(1137) | 0.491<br>(1047) | 0.461<br>(995)  | 0.433<br>(926)  | 0.409<br>(884)  | 0.368<br>(796)  | 0.335<br>(724)  | 0.307<br>(663)  |
| 6<br>(19)                              | 0.750<br>(19.1)         | 0.442<br>(284)                                     | 1.502<br>(2.235)                 | 1.326<br>(2840)                                  | 1.179<br>(2470) | 1.061<br>(2272) | 0.964<br>(2029) | 0.884<br>(1893) | 0.816<br>(1721) | 0.758<br>(1623) | 0.707<br>(1495) | 0.663<br>(1420) | 0.624<br>(1321) | 0.589<br>(1262) | 0.530<br>(1136) | 0.482<br>(1033) | 0.442<br>(947)  |
| 7<br>(22)                              | 0.875<br>(22.2)         | 0.601<br>(387)                                     | 2.044<br>(3.042)                 | 1.803<br>(3870)                                  | 1.603<br>(3365) | 1.442<br>(3096) | 1.311<br>(2764) | 1.202<br>(2580) | 1.110<br>(2345) | 1.030<br>(2211) | 0.962<br>(2037) | 0.902<br>(1935) | 0.848<br>(1800) | 0.801<br>(1720) | 0.721<br>(1548) | 0.656<br>(1407) | 0.601<br>(1290) |
| 8<br>(25)                              | 1.000<br>(25.4)         | 0.785<br>(510)                                     | 2.670<br>(3.973)                 | 2.355<br>(5100)                                  | 2.093<br>(4435) | 1.884<br>(4080) | 1.713<br>(3543) | 1.570<br>(3400) | 1.449<br>(3091) | 1.346<br>(2914) | 1.256<br>(2684) | 1.178<br>(2550) | 1.108<br>(2372) | 1.047<br>(2267) | 0.942<br>(2040) | 0.856<br>(1855) | 0.785<br>(1700) |
| 9<br>(29)                              | 1.128<br>(28.7)         | 1.000<br>(645)                                     | 3.400<br>(5.060)                 | 3.000<br>(6450)                                  | 2.667<br>(5609) | 2.400<br>(5160) | 2.182<br>(4607) | 2.000<br>(4300) | 1.846<br>(3909) | 1.714<br>(3686) | 1.600<br>(3395) | 1.500<br>(3225) | 1.412<br>(3000) | 1.333<br>(2867) | 1.200<br>(2580) | 1.091<br>(2345) | 1.000<br>(2150) |
| 10<br>(32)                             | 1.270<br>(32.3)         | 1.267<br>(819)                                     | 4.303<br>(6.404)                 | 3.801<br>(8190)                                  | 3.379<br>(7122) | 3.041<br>(6552) | 2.764<br>(5850) | 2.534<br>(5460) | 2.339<br>(4964) | 2.172<br>(4680) | 2.027<br>(4311) | 1.901<br>(4095) | 1.789<br>(3809) | 1.689<br>(3640) | 1.520<br>(3276) | 1.382<br>(2978) | 1.267<br>(2730) |
| 11<br>(36)                             | 1.410<br>(35.8)         | 1.561<br>(1006)                                    | 5.313<br>(7.907)                 | 4.683<br>(10060)                                 | 4.163<br>(8748) | 3.746<br>(8048) | 3.406<br>(7186) | 3.122<br>(6707) | 2.882<br>(6097) | 2.676<br>(5749) | 2.498<br>(5295) | 2.342<br>(5030) | 2.204<br>(4679) | 2.081<br>(4471) | 1.873<br>(4024) | 1.703<br>(3658) | 1.561<br>(3353) |

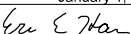
 Illinois Department of Transportation

APPROVED January 1, 2009



ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2009



ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

| DATE   | REVISIONS                     | AREAS OF<br>REINFORCEMENT BARS |
|--------|-------------------------------|--------------------------------|
| 1-1-09 | Switched units to             |                                |
|        | English (metric).             |                                |
|        |                               |                                |
| 1-1-07 | Deleted metric table.         | STANDARD 001001-02             |
|        | Soft converted English table. |                                |
|        |                               |                                |