

# ATTACHMENT A

## MAG Top 100 Intersections Ranked by Crash Risk Using 2014-18 Crash Data (MAG Region)

| Rank | Agency(ies)                               | Signal Owned & Maintained By | Location                    | Crashes | CF Score | CS Score | CT Score | Final Score |
|------|-------------------------------------------|------------------------------|-----------------------------|---------|----------|----------|----------|-------------|
| 1    | Phoenix                                   | Phoenix                      | 75TH AVE & INDIAN SCHOOL RD | 251     | 1.059    | 1.355    | 1.289    | 1.264       |
| 2    | Phoenix                                   | Phoenix                      | 67TH AVE & INDIAN SCHOOL RD | 273     | 1.152    | 1.321    | 1.181    | 1.244       |
| 3    | Phoenix                                   | Phoenix                      | 67TH AVE & MCDOWELL RD      | 246     | 1.038    | 1.304    | 1.267    | 1.228       |
| 4    | Phoenix                                   | Phoenix                      | 99TH AVE & LOWER BUCKEYE RD | 316     | 1.333    | 1.226    | 0.909    | 1.174       |
| 5    | Glendale                                  | Glendale                     | 51ST AVE & CAMELBACK RD     | 222     | 0.937    | 1.172    | 1.143    | 1.106       |
| 6    | Phoenix/Glendale                          | Phoenix                      | 51ST AVE & MCDOWELL RD      | 201     | 0.848    | 1.088    | 1.230    | 1.063       |
| 7    | Tempe                                     | Tempe                        | RURAL RD & UNIVERSITY DR    | 241     | 1.017    | 1.139    | 0.956    | 1.063       |
| 8    | Phoenix/Glendale                          | Phoenix/Glendale             | 43RD AVE & BETHANY HOME RD  | 194     | 0.819    | 1.078    | 1.158    | 1.033       |
| 9    | Phoenix                                   | Phoenix                      | 75TH AVE & MCDOWELL RD      | 215     | 0.907    | 1.074    | 0.970    | 1.007       |
| 10   | Phoenix                                   | Phoenix                      | 27TH AVE & CAMELBACK RD     | 203     | 0.857    | 1.074    | 0.974    | 0.995       |
| 11   | Glendale                                  | Glendale                     | 51ST AVE & NORTHERN AVE     | 210     | 0.886    | 1.034    | 0.970    | 0.981       |
| 12   | Mesa                                      | Mesa                         | SOUTHERN AVE & STAPLEY DR   | 208     | 0.878    | 1.101    | 0.795    | 0.969       |
| 13   | Phoenix                                   | Phoenix                      | 7TH AVE & INDIAN SCHOOL RD  | 191     | 0.806    | 0.973    | 1.103    | 0.964       |
| 14   | Phoenix                                   | Phoenix                      | 75TH AVE & THOMAS RD        | 192     | 0.810    | 1.010    | 1.008    | 0.960       |
| 15   | Phoenix                                   | Phoenix                      | 35TH AVE & BETHANY HOME RD  | 194     | 0.819    | 0.990    | 1.038    | 0.959       |
| 16   | Phoenix/Glendale                          | Phoenix                      | 43RD AVE & PEORIA AVE       | 196     | 0.827    | 1.061    | 0.885    | 0.958       |
| 17   | Phoenix                                   | Phoenix                      | 35TH AVE & GLENDALE AVE     | 188     | 0.793    | 0.993    | 1.047    | 0.957       |
| 18   | Phoenix/Gilbert/Mesa                      | Phoenix                      | 24TH ST & BASELINE RD       | 204     | 0.861    | 1.000    | 0.918    | 0.945       |
| 19   | Phoenix                                   | Phoenix                      | 51ST AVE & INDIAN SCHOOL RD | 193     | 0.814    | 0.959    | 1.031    | 0.941       |
| 20   | Glendale/Phoenix                          | Glendale                     | 75TH AVE & CAMELBACK RD     | 201     | 0.848    | 0.986    | 0.896    | 0.929       |
| 21   | Phoenix/Glendale                          | Phoenix                      | 43RD AVE & NORTHERN AVE     | 186     | 0.785    | 0.949    | 0.969    | 0.913       |
| 22   | Tempe                                     | Tempe                        | RURAL RD & SOUTHERN AVE     | 198     | 0.835    | 0.980    | 0.846    | 0.910       |
| 23   | Phoenix                                   | Phoenix                      | 43RD AVE & MCDOWELL RD      | 184     | 0.776    | 0.973    | 0.903    | 0.906       |
| 24   | Phoenix                                   | Phoenix                      | 83RD AVE & INDIAN SCHOOL RD | 170     | 0.717    | 0.946    | 1.004    | 0.903       |
| 25   | Glendale                                  | Glendale                     | 59TH AVE & BETHANY HOME RD  | 190     | 0.802    | 0.943    | 0.895    | 0.895       |
| 26   | Glendale                                  | Glendale                     | 59TH AVE & NORTHERN AVE     | 184     | 0.776    | 0.939    | 0.851    | 0.877       |
| 27   | Phoenix/Glendale                          | Phoenix                      | 43RD AVE & GLENDALE AVE     | 190     | 0.802    | 0.943    | 0.818    | 0.876       |
| 28   | Phoenix                                   | Phoenix                      | 35TH AVE & BELL RD          | 150     | 0.633    | 0.892    | 1.079    | 0.874       |
| 29   | Phoenix                                   | Phoenix                      | 43RD AVE & THOMAS RD        | 187     | 0.789    | 0.889    | 0.917    | 0.871       |
| 30   | Chandler                                  | Chandler                     | ARIZONA AVE & WARNER RD     | 185     | 0.781    | 0.956    | 0.753    | 0.861       |
| 31   | Avondale/Goodyear                         | Avondale                     | DYSART RD & VAN BUREN ST    | 184     | 0.776    | 0.939    | 0.763    | 0.855       |
| 32   | Phoenix                                   | Phoenix                      | 51ST AVE & THOMAS RD        | 171     | 0.722    | 0.922    | 0.835    | 0.850       |
| 33   | Phoenix                                   | Phoenix                      | 35TH AVE & CAMELBACK RD     | 177     | 0.747    | 0.899    | 0.825    | 0.842       |
| 34   | Glendale                                  | Glendale                     | 67TH AVE & GLENDALE AVE     | 164     | 0.692    | 0.831    | 0.986    | 0.835       |
| 35   | Glendale                                  | Glendale                     | 59TH AVE & THUNDERBIRD RD   | 199     | 0.840    | 0.926    | 0.638    | 0.832       |
| 36   | Phoenix                                   | Phoenix                      | I 017 & THUNDERBIRD RD      | 189     | 0.797    | 0.929    | 0.635    | 0.823       |
| 37   | Tempe/Phoenix                             | Tempe                        | 48TH ST & SOUTHERN AVE      | 168     | 0.709    | 0.878    | 0.810    | 0.819       |
| 38   | Peoria                                    | Peoria                       | 83RD AVE & THUNDERBIRD RD   | 176     | 0.743    | 0.895    | 0.742    | 0.819       |
| 39   | Phoenix                                   | Phoenix                      | 32ND ST & THOMAS RD         | 176     | 0.743    | 0.834    | 0.857    | 0.817       |
| 40   | Glendale/Peoria                           | Glendale                     | 83RD AVE & BELL RD          | 214     | 0.903    | 0.861    | 0.629    | 0.814       |
| 41   | Phoenix                                   | Phoenix                      | 35TH AVE & PEORIA AVE       | 158     | 0.667    | 0.804    | 0.971    | 0.811       |
| 42   | Phoenix                                   | Phoenix                      | I 017 & PEORIA AVE          | 194     | 0.819    | 0.838    | 0.701    | 0.799       |
| 43   | Phoenix                                   | Phoenix                      | 19TH AVE & UNION HILLS DR   | 139     | 0.586    | 0.774    | 1.051    | 0.796       |
| 44   | Maricopa County/Tolleson/Avondale/Phoenix | Maricopa County              | 99TH AVE & MCDOWELL RD      | 200     | 0.844    | 0.834    | 0.664    | 0.794       |
| 45   | Phoenix                                   | Phoenix                      | 67TH AVE & THOMAS RD        | 152     | 0.641    | 0.868    | 0.778    | 0.789       |
| 46   | Glendale                                  | Glendale                     | 59TH AVE & BELL RD          | 174     | 0.734    | 0.831    | 0.756    | 0.788       |
| 47   | Avondale/Maricopa County/Goodyear         | Avondale                     | DYSART RD & MCDOWELL RD     | 187     | 0.789    | 0.868    | 0.620    | 0.786       |
| 48   | Phoenix                                   | Phoenix                      | 44TH ST & THOMAS RD         | 166     | 0.700    | 0.770    | 0.904    | 0.786       |
| 49   | Tempe                                     | Tempe                        | APACHE BLVD & RURAL RD      | 173     | 0.730    | 0.804    | 0.799    | 0.784       |
| 50   | Tempe                                     | Tempe                        | BROADWAY RD & RURAL RD      | 175     | 0.738    | 0.878    | 0.640    | 0.784       |
| 51   | Tempe                                     | Tempe                        | BASELINE RD & I 0101        | 188     | 0.793    | 0.861    | 0.597    | 0.778       |
| 52   | Phoenix                                   | Phoenix                      | 19TH AVE & SOUTHERN AVE     | 150     | 0.633    | 0.780    | 0.907    | 0.775       |
| 53   | Phoenix                                   | Phoenix                      | 7TH ST & UNION HILLS DR     | 145     | 0.612    | 0.845    | 0.774    | 0.769       |
| 54   | Glendale/Phoenix                          | Glendale                     | 59TH AVE & CAMELBACK RD     | 173     | 0.730    | 0.831    | 0.655    | 0.762       |
| 55   | Phoenix                                   | Phoenix                      | 43RD AVE & INDIAN SCHOOL RD | 176     | 0.743    | 0.794    | 0.705    | 0.759       |

| Rank | Agency(ies)                | Signal Owned & Maintained By | Location                    | Crashes | CF Score | CS Score | CT Score | Final Score |
|------|----------------------------|------------------------------|-----------------------------|---------|----------|----------|----------|-------------|
| 56   | Phoenix                    | Phoenix                      | 7TH ST & CAMELBACK RD       | 158     | 0.667    | 0.801    | 0.759    | 0.757       |
| 57   | Phoenix                    | Phoenix                      | 59TH AVE & THOMAS RD        | 164     | 0.692    | 0.838    | 0.658    | 0.756       |
| 58   | Phoenix                    | Phoenix                      | 27TH AVE & BETHANY HOME RD  | 157     | 0.662    | 0.797    | 0.763    | 0.755       |
| 59   | Chandler                   | Chandler                     | DOBSON RD & RAY RD          | 161     | 0.679    | 0.868    | 0.575    | 0.748       |
| 60   | Phoenix/Tempe/Gilbert/Mesa | Phoenix                      | 48TH ST & BASELINE RD       | 170     | 0.717    | 0.814    | 0.639    | 0.746       |
| 61   | Phoenix                    | Phoenix                      | 35TH AVE & MCDOWELL RD      | 154     | 0.650    | 0.787    | 0.742    | 0.742       |
| 62   | Phoenix                    | Phoenix                      | 7TH ST & INDIAN SCHOOL RD   | 164     | 0.692    | 0.787    | 0.691    | 0.739       |
| 63   | Phoenix                    | Phoenix                      | 19TH AVE & GREENWAY RD      | 147     | 0.620    | 0.824    | 0.687    | 0.739       |
| 64   | Phoenix                    | Phoenix                      | 35TH AVE & DUNLAP AVE       | 161     | 0.679    | 0.750    | 0.772    | 0.738       |
| 65   | Phoenix                    | Phoenix                      | 51ST AVE & BASELINE RD      | 146     | 0.616    | 0.780    | 0.765    | 0.735       |
| 66   | Surprise                   | Surprise                     | BELL RD & LITCHFIELD RD     | 180     | 0.759    | 0.780    | 0.619    | 0.735       |
| 67   | Phoenix                    | Phoenix                      | 7TH ST & MCDOWELL RD        | 155     | 0.654    | 0.747    | 0.763    | 0.728       |
| 68   | Scottsdale                 | Scottsdale                   | HAYDEN RD & THOMAS RD       | 168     | 0.709    | 0.834    | 0.518    | 0.724       |
| 69   | Tempe                      | Tempe                        | BASELINE RD & KYRENE RD     | 176     | 0.743    | 0.770    | 0.609    | 0.723       |
| 70   | Phoenix                    | Phoenix                      | 19TH AVE & BELL RD          | 144     | 0.608    | 0.757    | 0.767    | 0.722       |
| 71   | Phoenix                    | Phoenix                      | 44TH ST & MCDOWELL RD       | 163     | 0.688    | 0.743    | 0.704    | 0.719       |
| 72   | Gilbert/Mesa               | Gilbert                      | BASELINE RD & VAL VISTA DR  | 167     | 0.705    | 0.764    | 0.640    | 0.718       |
| 73   | Phoenix                    | Phoenix                      | 35TH AVE & UNION HILLS DR   | 138     | 0.582    | 0.780    | 0.721    | 0.716       |
| 74   | Tempe/Maricopa County      | Tempe                        | BROADWAY RD & PRICE RD      | 166     | 0.700    | 0.777    | 0.608    | 0.716       |
| 75   | Glendale/Phoenix           | Glendale                     | 67TH AVE & CAMELBACK RD     | 148     | 0.624    | 0.760    | 0.697    | 0.710       |
| 76   | Mesa                       | Mesa                         | DOBSON RD & SOUTHERN AVE    | 157     | 0.662    | 0.801    | 0.552    | 0.704       |
| 77   | Phoenix                    | Phoenix                      | 35TH AVE & THOMAS RD        | 143     | 0.603    | 0.689    | 0.830    | 0.703       |
| 78   | Phoenix                    | Phoenix                      | 35TH AVE & NORTHERN AVE     | 143     | 0.603    | 0.767    | 0.668    | 0.701       |
| 79   | Phoenix                    | Phoenix                      | 19TH AVE & NORTHERN AVE     | 134     | 0.565    | 0.662    | 0.906    | 0.699       |
| 80   | Phoenix                    | Phoenix                      | 19TH AVE & DUNLAP AVE       | 118     | 0.498    | 0.642    | 1.010    | 0.698       |
| 81   | Phoenix                    | Phoenix                      | 16TH ST & THOMAS RD         | 142     | 0.599    | 0.713    | 0.766    | 0.698       |
| 82   | Phoenix                    | Phoenix                      | 16TH ST & CAMELBACK RD      | 161     | 0.679    | 0.764    | 0.584    | 0.698       |
| 83   | Phoenix                    | Phoenix                      | 19TH AVE & CAMELBACK RD     | 130     | 0.549    | 0.659    | 0.903    | 0.692       |
| 84   | Phoenix                    | Phoenix                      | 27TH AVE & INDIAN SCHOOL RD | 132     | 0.557    | 0.679    | 0.854    | 0.692       |
| 85   | Phoenix                    | Phoenix                      | 35TH AVE & SOUTHERN AVE     | 126     | 0.532    | 0.693    | 0.848    | 0.691       |
| 86   | Phoenix/Glendale           | Phoenix                      | 51ST AVE & THUNDERBIRD RD   | 142     | 0.599    | 0.784    | 0.574    | 0.685       |
| 87   | Phoenix                    | Phoenix                      | 52ND ST & MCDOWELL RD       | 134     | 0.565    | 0.679    | 0.813    | 0.684       |
| 88   | Phoenix                    | Phoenix                      | 27TH AVE & NORTHERN AVE     | 137     | 0.578    | 0.706    | 0.740    | 0.683       |
| 89   | Phoenix                    | Phoenix                      | 28TH DR & PEORIA AVE        | 135     | 0.570    | 0.689    | 0.781    | 0.682       |
| 90   | Phoenix                    | Phoenix                      | 59TH AVE & INDIAN SCHOOL RD | 142     | 0.599    | 0.753    | 0.622    | 0.682       |
| 91   | Phoenix                    | Phoenix                      | 44TH ST & CAMELBACK RD      | 134     | 0.565    | 0.669    | 0.817    | 0.680       |
| 92   | Phoenix/Mesa               | Phoenix                      | 40TH ST & BROADWAY RD       | 145     | 0.612    | 0.740    | 0.615    | 0.677       |
| 93   | Glendale/Phoenix           | Glendale                     | 83RD AVE & CAMELBACK RD     | 154     | 0.650    | 0.703    | 0.651    | 0.677       |
| 94   | Phoenix                    | Phoenix                      | 24TH ST & THOMAS RD         | 151     | 0.637    | 0.736    | 0.586    | 0.674       |
| 95   | Phoenix                    | Phoenix                      | 59TH AVE & MCDOWELL RD      | 147     | 0.620    | 0.743    | 0.589    | 0.674       |
| 96   | Phoenix                    | Phoenix                      | 16TH ST & INDIAN SCHOOL RD  | 126     | 0.532    | 0.672    | 0.816    | 0.673       |
| 97   | Phoenix                    | Phoenix                      | 7TH ST & BROADWAY RD        | 131     | 0.553    | 0.736    | 0.654    | 0.670       |
| 98   | Glendale                   | Glendale                     | 67TH AVE & BELL RD          | 145     | 0.612    | 0.699    | 0.665    | 0.669       |
| 99   | Phoenix                    | Phoenix                      | 7TH ST & GREENWAY PKWY      | 136     | 0.574    | 0.709    | 0.662    | 0.664       |
| 100  | Phoenix                    | Phoenix                      | 7TH ST & BETHANY HOME RD    | 151     | 0.637    | 0.723    | 0.557    | 0.660       |

NOTE: Since 2016, MAG has applied a more refined process using geolocation to accurately identify intersection crashes, thereby consolidating crash numbers at a few locations that may have been previously reported as separate intersections in different jurisdictions. This eliminates an error in data for crashes reported at intersections with shared jurisdiction/ownership or crashes at one intersection being recorded under two jurisdictions, based on the reporting officer's agency.

#### Definitions:

**Rank** - Numerical representation of the locations place sorted highest to lowest of all locations Final Score.

**Agency/ies** - Local agency where intersection is located. Multiple agencies are shown where the agency boundary runs through the intersection.

**Signal Owned & Maintained By** - Agency that owns and maintains the signal

**Crashes** - Total number of reported crashes at the location during the five-year analysis period (also referred to as Crash Frequency).

**CF Score** - Crash Frequency Score: the ratio of the crash frequency at the intersection to the highest intersection crash frequency for the region.

**CS Score** - Crash Severity Score: the ratio of the crash severity value for the intersection to the maximum crash severity value for the region.

**CT Score** - Crash Type Score: the ratio between CT Cost at a particular intersection to maximum of CT Cost at all intersections in the region.

(For a description of CS and CT scores see MAG Network Screening Methodology for Intersections)

**Final Score** - Weighted Intersection Safety Score (ISS) = 25% Crash Frequency Score + 50% Crash Severity Score + 25% Crash Type Score.

A detailed description of the Intersection Safety Score is provided in the document "MAG Network Screening Methodology for Intersections", available at the following link:

<http://azmag.gov/LinkClick.aspx?fileticket=L0IMsuxQNYU%3d&tabid=527&portalid=0&mid=3809>