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| RUNOFF COLLECTION POINT |                  |                              | DRAINAGE AREA      |                      |                     | STORMWATER RUNOFF |                           |                           | PROPOSED STORM SEWER     |                          |                           | SLOPE OF HYDRAULIC  |                        |                         | DEPTH OF FLOW                      |                                               |                        | ACTUAL FLOW           |                    |                             | HEAD LOSS                 |                                 |                           | PIPE ELEVATION                 |                              |                              | FULL/PARTIAL FLOW          |                                 |                               |      |         |    |      |    |
|-------------------------|------------------|------------------------------|--------------------|----------------------|---------------------|-------------------|---------------------------|---------------------------|--------------------------|--------------------------|---------------------------|---------------------|------------------------|-------------------------|------------------------------------|-----------------------------------------------|------------------------|-----------------------|--------------------|-----------------------------|---------------------------|---------------------------------|---------------------------|--------------------------------|------------------------------|------------------------------|----------------------------|---------------------------------|-------------------------------|------|---------|----|------|----|
| Downstream Station      | Upstream Station | Distance Between Points (ft) | Drainage Area Name | Incarn. Area (acres) | Accum. Area (acres) | Runoff Coeff. "C" | Incarn. Intensity (in/hr) | Incarn. Intensity (in/hr) | Accum. Intensity (in/hr) | Accum. Intensity (in/hr) | Pipe or Box Diameter (in) | Round Diameter (in) | Rectangular Width (ft) | Rectangular Height (ft) | Proposed Storm Sewer Slope (ft/ft) | Hydraulic Gradient Based on Pipe Size (ft/ft) | Full Capacity (c.f.s.) | Flow of Capacity (ft) | Depth of Flow (ft) | Actual Flow Velocity (ft/s) | Q100 Flow Velocity (ft/s) | Head Loss Coeff. K <sub>L</sub> | Head Loss at Station (ft) | Pipe Flowline Elev. Downstream | Pipe Flowline Elev. Upstream | Top of Pipe Elev. Downstream | Top of Pipe Elev. Upstream | H <sub>g</sub> Elev. Downstream | H <sub>g</sub> Elev. Upstream | Flow |         |    |      |    |
| 1                       | 2                | 3                            | 4                  | 5                    | 6                   | 7                 | 8                         | 9                         | 10                       | 11                       | 12                        | 13                  | 14                     | 15                      | 16                                 | 17                                            | 18                     | 19                    | 20                 | 21                          | 22                        | 23                              | 24                        | 25                             | 26                           | 27                           | 28                         | 29                              | 30                            | 31   | 32      | 33 | 34   | 35 |
| Storm Sewer Line E      |                  |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    |      |    |
| 8+37.00                 | 8+37.00          | 81.00                        | Inlet              | 0.22                 | 0.22                | 0.75              | 0.17                      | 9.80                      | 1.62                     | 1.62                     | 24                        | -                   | -                      | 0.0023                  | 0.0001                             | 10.85                                         | 0.02                   | 2.88                  | 0.51               | 1.25                        | 0.01                      |                                 | 545.17                    | 545.17                         | 547.17                       | 547.17                       | 546.45                     | 546.44                          |                               |      | PARTIAL |    |      |    |
| 7+56.00                 | 7+56.00          | 46.00                        | 60 Wye             | 0.33                 | 0.55                | 0.75              | 0.41                      | 9.80                      | 2.43                     | 4.04                     | 24                        | -                   | -                      | 0.0023                  | 0.0003                             | 10.85                                         | 0.84                   | 3.21                  | 1.29               | 0.50                        | 0.02                      |                                 | 544.98                    | 544.98                         | 546.98                       | 546.98                       | 546.44                     | 546.41                          |                               |      | PARTIAL |    |      |    |
| 7+10.00                 | 7+10.00          | 89.00                        | 60 Wye             | 0.32                 | 0.87                | 0.75              | 0.65                      | 9.80                      | 2.35                     | 6.39                     | 24                        | -                   | -                      | 0.0023                  | 0.0008                             | 10.85                                         | 1.10                   | 3.60                  | 2.04               | 0.50                        | 0.05                      |                                 | 544.88                    | 544.88                         | 546.88                       | 546.88                       | 546.40                     | 546.35                          |                               |      | PARTIAL |    |      |    |
| 6+21.00                 | 6+21.00          | 203.00                       | 60 Wye             | 0.38                 | 1.25                | 0.75              | 0.94                      | 9.80                      | 2.79                     | 9.19                     | 30                        | -                   | -                      | 0.0023                  | 0.0005                             | 19.67                                         | 1.37                   | 3.81                  | 1.87               | 0.50                        | 0.02                      |                                 | 544.67                    | 544.17                         | 547.17                       | 546.67                       | 546.28                     | 546.25                          |                               |      | PARTIAL |    |      |    |
| 4+18.00                 | 4+18.00          | 109.00                       | 60 Wye             | 0.40                 | 1.65                | 0.75              | 1.24                      | 9.80                      | 2.94                     | 12.13                    | 30                        | -                   | -                      | 0.0023                  | 0.0009                             | 19.67                                         | 1.59                   | 4.09                  | 2.47               | 0.50                        | 0.07                      |                                 | 543.71                    | 543.71                         | 546.21                       | 546.21                       | 546.15                     | 546.08                          |                               |      | PARTIAL |    |      |    |
| 3+09.00                 | 3+09.00          | 103.00                       | 60 Wye             | 0.30                 | 1.95                | 0.75              | 1.46                      | 9.80                      | 2.21                     | 14.33                    | 30                        | -                   | -                      | 0.0023                  | 0.0012                             | 19.67                                         | 1.74                   | 4.27                  | 2.92               | 0.50                        | 0.08                      |                                 | 543.45                    | 543.45                         | 545.95                       | 545.95                       | 545.99                     | 545.90                          |                               |      | PARTIAL |    |      |    |
| 2+06.00                 | 2+06.00          | 106.00                       | 60 Wye             | 0.26                 | 2.21                | 0.75              | 1.66                      | 9.80                      | 1.91                     | 16.24                    | 30                        | -                   | -                      | 0.0023                  | 0.0016                             | 19.67                                         | 1.86                   | 4.41                  | 3.31               | 0.50                        | 0.10                      |                                 | 543.22                    | 543.22                         | 545.72                       | 545.72                       | 545.78                     | 545.67                          |                               |      | PARTIAL |    |      |    |
| Storm Sewer Lat "E-1"   |                  |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    |      |    |
| 1+19.69                 | 1+19.69          | 19.69                        | Inlet              | 0.26                 | 0.26                | 0.75              | 0.20                      | 9.80                      | 1.91                     | 1.91                     | 18                        | -                   | -                      | 0.0250                  | 0.0003                             | 16.61                                         | 0.06                   | 6.94                  | 1.08               | 1.25                        | 0.02                      |                                 | 544.21                    | 544.21                         | 545.71                       | 545.71                       | 545.81                     | 545.78                          |                               |      | FULL    |    |      |    |
| 1+00.00                 | 1+00.00          |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    | FULL |    |
| Storm Sewer Lat "E-2"   |                  |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    |      |    |
| 1+34.84                 | 1+34.84          | 34.84                        | Inlet              | 0.30                 | 0.30                | 0.75              | 0.23                      | 9.80                      | 2.21                     | 2.21                     | 18                        | -                   | -                      | 0.0300                  | 0.0004                             | 18.19                                         | 0.04                   | 7.80                  | 1.25               | 1.25                        | 0.03                      |                                 | 545.00                    | 545.00                         | 546.50                       | 546.50                       | 546.03                     | 546.00                          |                               |      | PARTIAL |    |      |    |
| 1+00.00                 | 1+00.00          |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    | FULL |    |
| Storm Sewer Lat "E-3"   |                  |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    |      |    |
| 1+14.11                 | 1+14.11          | 14.11                        | Inlet              | 0.40                 | 0.40                | 0.75              | 0.30                      | 9.80                      | 2.94                     | 2.94                     | 18                        | -                   | -                      | 0.0500                  | 0.0008                             | 23.49                                         | 0.04                   | 10.23                 | 1.66               | 1.25                        | 0.05                      |                                 | 544.91                    | 544.91                         | 546.41                       | 546.41                       | 546.22                     | 546.16                          |                               |      | PARTIAL |    |      |    |
| 1+00.00                 | 1+00.00          |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    | FULL |    |
| Storm Sewer Lat "E-4"   |                  |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    |      |    |
| 1+14.02                 | 1+14.02          | 14.02                        | Inlet              | 0.38                 | 0.38                | 0.75              | 0.29                      | 9.80                      | 2.79                     | 2.79                     | 18                        | -                   | -                      | 0.0520                  | 0.0007                             | 23.95                                         | 0.05                   | 10.07                 | 1.66               | 1.25                        | 0.05                      |                                 | 545.40                    | 545.40                         | 546.90                       | 546.90                       | 546.33                     | 546.29                          |                               |      | PARTIAL |    |      |    |
| 1+00.00                 | 1+00.00          |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    | FULL |    |
| Storm Sewer Lat "E-5"   |                  |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    |      |    |
| 1+34.47                 | 1+34.47          | 34.47                        | Inlet              | 0.32                 | 0.32                | 0.75              | 0.24                      | 9.80                      | 2.35                     | 2.35                     | 18                        | -                   | -                      | 0.0108                  | 0.0005                             | 10.92                                         | 0.03                   | 3.25                  | 1.33               | 1.25                        | 0.03                      |                                 | 545.50                    | 545.50                         | 547.00                       | 547.00                       | 546.45                     | 546.42                          |                               |      | PARTIAL |    |      |    |
| 1+00.00                 | 1+00.00          |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    | FULL |    |
| Storm Sewer Lat "E-6"   |                  |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    |      |    |
| 2+52.00                 | 2+52.00          | 72.00                        | Inlet              | 0.27                 | 0.27                | 0.75              | 0.20                      | 9.80                      | 1.98                     | 1.98                     | 24                        | -                   | -                      | 0.0020                  | 0.0001                             | 10.12                                         | 0.13                   | 3.01                  | 0.63               | 1.25                        | 0.01                      |                                 | 545.29                    | 545.29                         | 547.29                       | 547.29                       | 546.47                     | 546.46                          |                               |      | PARTIAL |    |      |    |
| 1+80.00                 | 1+80.00          | 33.71                        | 60 Wye             | 0.06                 | 0.33                | 0.75              | 0.25                      | 9.80                      | 0.44                     | 2.43                     | 24                        | -                   | -                      | 0.0020                  | 0.0001                             | 10.12                                         | 0.63                   | 2.66                  | 0.77               | 0.50                        | 0.01                      |                                 | 545.14                    | 545.14                         | 547.14                       | 547.14                       | 546.46                     | 546.45                          |                               |      | PARTIAL |    |      |    |
| 1+46.29                 | 1+46.29          | 46.29                        | 45 Bend            | 0.00                 | 0.33                | 0.75              | 0.25                      | 9.80                      | 0.00                     | 2.43                     | 24                        | -                   | -                      | 0.0020                  | 0.0001                             | 10.12                                         | 0.63                   | 2.66                  | 0.77               | 0.50                        | 0.00                      |                                 | 545.08                    | 545.08                         | 547.08                       | 547.08                       | 546.45                     | 546.44                          |                               |      | PARTIAL |    |      |    |
| 1+00.00                 | 1+00.00          |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    | FULL |    |
| Storm Sewer Line "F"    |                  |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    |      |    |
| 4+52.00                 | 4+52.00          | 214.00                       | Inlet              | 1.50                 | 1.50                | 0.75              | 1.13                      | 9.80                      | 11.03                    | 11.03                    | 24                        | -                   | -                      | 0.0030                  | 0.0024                             | 12.39                                         | 1.39                   | 4.55                  | 3.51               | 1.25                        | 0.24                      |                                 | 543.49                    | 543.49                         | 545.49                       | 545.49                       | 545.78                     | 545.54                          |                               |      | FULL    |    |      |    |
| 2+38.00                 | 2+38.00          | 138.00                       | 60 Wye             | 0.87                 | 2.37                | 0.75              | 1.78                      | 9.80                      | 6.39                     | 17.42                    | 30                        | -                   | -                      | 0.0025                  | 0.0018                             | 20.61                                         | 1.89                   | 4.63                  | 3.55               | 0.50                        | 0.08                      |                                 | 542.85                    | 542.35                         | 545.35                       | 544.85                       | 544.95                     | 544.95                          |                               |      | PARTIAL |    |      |    |
| 1+00.00                 | 1+00.00          |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    | FULL |    |
| Storm Sewer Lat "F-1"   |                  |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    |      |    |
| 1+05.74                 | 1+05.74          | 5.74                         | Inlet              | 0.87                 | 0.87                | 0.75              | 0.65                      | 9.80                      | 6.39                     | 6.39                     | 18                        | -                   | -                      | 0.0750                  | 0.0037                             | 28.77                                         | 0.34                   | 13.81                 | 3.62               | 1.25                        | 0.25                      |                                 | 543.28                    | 543.28                         | 544.78                       | 544.78                       | 545.31                     | 545.05                          |                               |      | FULL    |    |      |    |
| 1+00.00                 | 1+00.00          |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    | FULL |    |
| Storm Sewer Line H      |                  |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    |      |    |
| 4+37.50                 | 4+37.50          | 337.50                       | Outfall            | 0.46                 | 0.46                | 0.75              | 0.35                      | 9.80                      | 3.38                     | 3.38                     | 18                        | -                   | -                      | 0.0025                  | 0.0010                             | 6.25                                          | 0.72                   | 3.32                  | 1.91               | 1.25                        | 0.07                      |                                 | 545.09                    | 545.09                         | 546.59                       | 546.59                       | 546.51                     | 546.44                          |                               |      | PARTIAL |    |      |    |
| 1+00.00                 | 1+00.00          |                              |                    |                      |                     |                   |                           |                           |                          |                          |                           |                     |                        |                         |                                    |                                               |                        |                       |                    |                             |                           |                                 |                           |                                |                              |                              |                            |                                 |                               |      |         |    | FULL |    |

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 DATE: 02/18/09  
 SCALE: N/A  
 SHEET: 10 OF 20