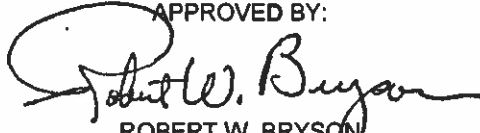


PROJECT UNIT COST ANALYSIS

ESTIMATE OF QUANTITIES
 PROJECT ID 2046-03-90
 W. BURNHAM STREET - INTERSECTION WITH S. 35TH STREET
 LOCAL STREETS
 MILWAUKEE COUNTY

| Item No. | Std. Bid Item No. | Description | Unit | Quantity | Excluded Costs | City Unit | City Total |
|----------|-------------------|--|------|----------|----------------|-------------|-------------|
| 71057 | 658.0215 | Backplates Signal Face 3 Section 12-inch | Each | 4 | \$ 167.28 | \$ 66.52 | \$ 266.08 |
| 71062 | 658.0110 | Traffic Signal Face 3-12 Inch Vertical | Each | 4 | \$ 1,470.53 | \$ 614.63 | \$ 2,458.51 |
| 71066LC | 658.0412 | Pedestrian Signal Face 12-Inch | Each | 8 | \$ 1,392.66 | \$ 322.28 | \$ 2,578.23 |
| 71067 | SPV.0060 | Pedestrian Countdown Signal Face 12-Inch | Each | 8 | \$ 1,382.96 | \$ 321.07 | \$ 2,568.53 |
| 71170 | 655.0250 | Cable Traffic Signal 9-14 AWG | LF | 50 | \$ 35.05 | \$ 3.17 | \$ 158.54 |
| 71190 | SPV.0060 | Mast Arm Fabricated | Each | 2 | \$ 138.31 | \$ 1,560.43 | \$ 3,120.85 |
| 71191 | SPV.0060 | Mast Arm Pole | Each | 2 | \$ 3,623.75 | \$ 2,335.60 | \$ 4,671.20 |
| 71700 | SPV.0060 | Signal Housing Relocated | Each | 2 | \$ 34.20 | \$ 313.50 | \$ 626.99 |

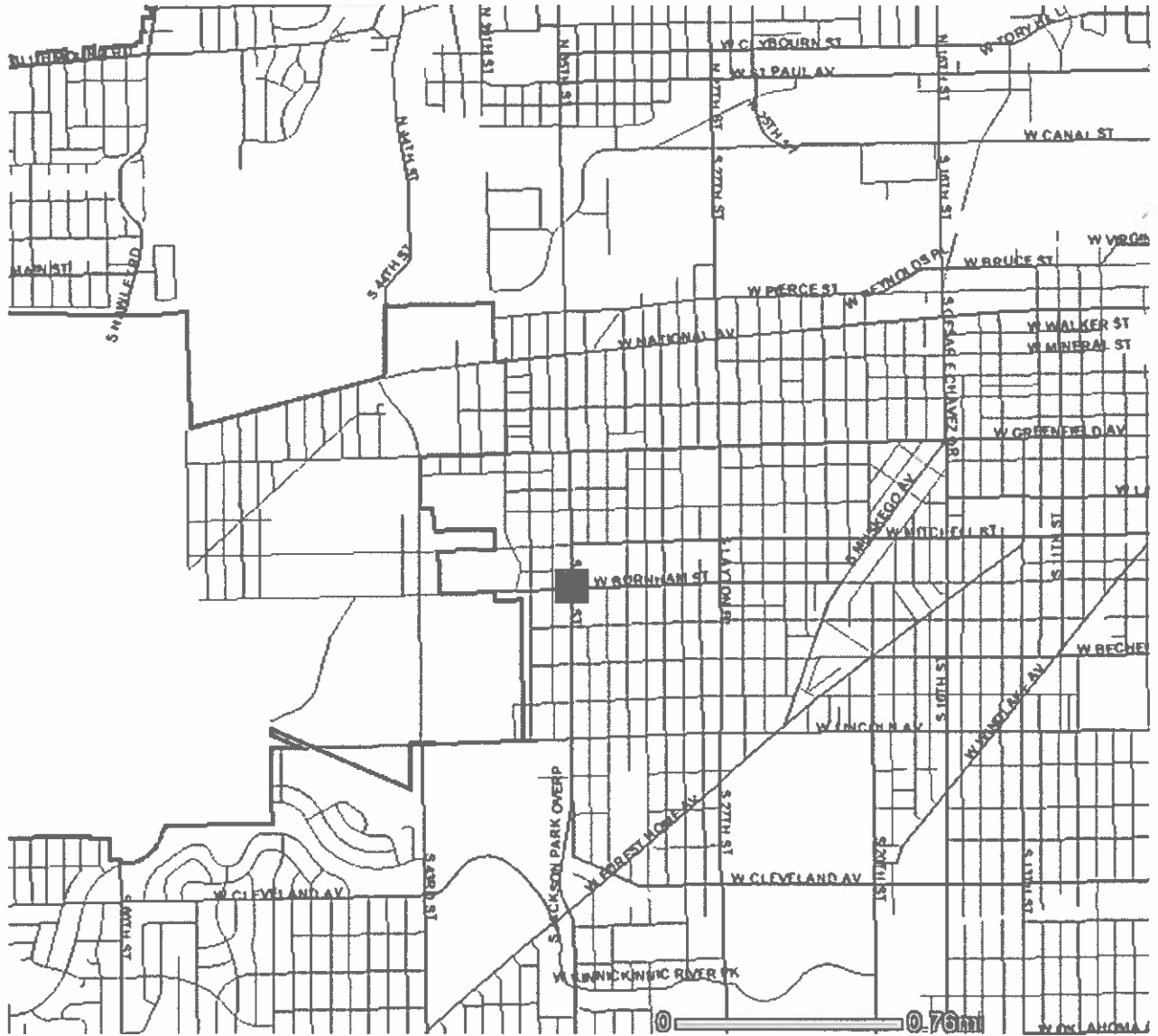
TOTAL CITY COST \$ 16,448.93
 TOTAL EXCLUDED COSTS \$ 8,244.74

APPROVED BY:

 ROBERT W. BRYSON
 CHIEF TRAFFIC AND LIGHTING ENGINEER

TRANSPORTATION SECTION
 TRAFFIC AND LIGHTING DESIGN UNIT
 JOSEPH C. BLAKEMAN
 REVISED: FEBRUARY 25, 2011

* Please note that the Total City Cost includes the embedded costs of mobilization, traffic control, mounting hardware, equipment removal, and construction staking electrical installations which are included in the times used for calculating City Unit Costs on the attached worksheets.

PROJECT LOCATION MAP



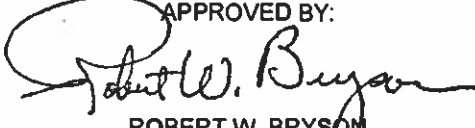
PROJECT ID 2046-03-90
2012 HSIP GRANT
WEST BURNHAM STREET - INTERSECTION WITH SOUTH 35TH STREET
CITY OF MILWAUKEE - DEPT. OF PUBLIC WORKS

PROJECT UNIT COST ANALYSIS

ESTIMATE OF QUANTITIES
 PROJECT ID 2100-13-90
 N. 35TH ST. & W. VLIET ST. AND N. 35TH ST. & W. CENTER ST.
 LOCAL STREETS
 MILWAUKEE COUNTY

| Item No. | Std. Bid Item No. | Description | Unit | Quantity | Excluded Costs | City Unit | City Total |
|----------|-------------------|--|------|----------|----------------|-------------|-------------|
| 71055 | 658.0225 | Backplates Signal Face 5 Section 12-inch | Each | 1 | \$ 63.15 | \$ 87.84 | \$ 87.84 |
| 71057 | 658.0215 | Backplates Signal Face 3 Section 12-inch | Each | 7 | \$ 292.75 | \$ 66.52 | \$ 465.66 |
| 71062 | 658.0110 | Traffic Signal Face 3-12 Inch Vertical | Each | 11 | \$ 4,043.97 | \$ 614.63 | \$ 6,760.92 |
| 71066LC | 658.0412 | Pedestrian Signal Face 12-Inch | Each | 16 | \$ 2,785.32 | \$ 322.28 | \$ 5,156.46 |
| 71067 | SPV.0060.001 | Pedestrian Countdown Signal Face 12-Inch | Each | 16 | \$ 2,765.93 | \$ 321.07 | \$ 5,137.07 |
| 71190 | SPV.0060.002 | Mast Arm Fabricated | Each | 3 | \$ 207.46 | \$ 1,560.42 | \$ 4,681.26 |
| 71191 | SPV.0060.003 | Mast Arm Pole | Each | 3 | \$ 5,435.63 | \$ 2,335.60 | \$ 7,006.80 |

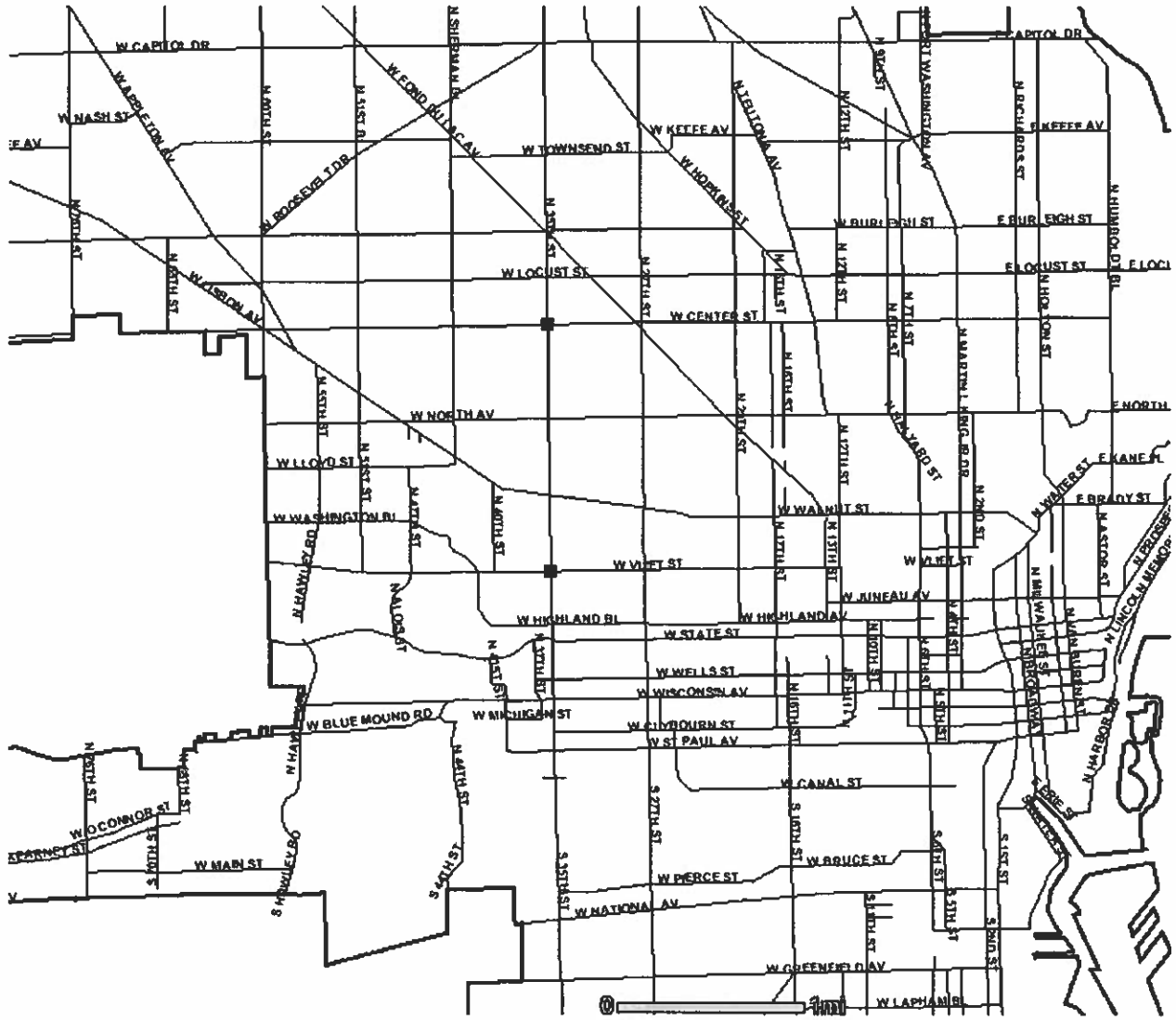
TOTAL CITY COST \$ 29,296.01
 TOTAL EXCLUDED COSTS \$ 15,594.21

APPROVED BY:

 ROBERT W. BRYSON
 CHIEF TRAFFIC AND LIGHTING ENGINEER

TRANSPORTATION SECTION
 TRAFFIC AND LIGHTING DESIGN UNIT
 JOSEPH C. BLAKEMAN
 REVISED: MARCH 7, 2011

* Please note that the Total City Cost includes the embedded costs of mobilization, traffic control, mounting hardware, equipment removal, and construction staking electrical installations which are included in the times used for calculating City Unit Costs on the attached worksheets.

PROJECT LOCATION MAP



■ TRAFFIC SIGNAL IMPROVEMENT LOCATION

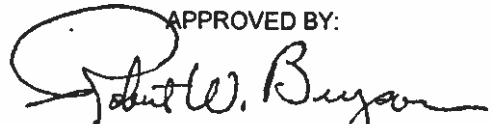
PROJECT ID 2100-13-90
 2012 HSIP GRANT
 N. 35TH ST. & W. VLIET ST.
 N. 35TH ST. & W. CENTER ST.
 LOCAL STREETS
 CITY OF MILWAUKEE - DEPT. OF PUBLIC WORKS

PROJECT UNIT COST ANALYSIS

ESTIMATE OF QUANTITIES
PROJECT ID 2100-13-91
N. 35TH ST. & W. WISCONSIN AVE. INTERSECTION
USH 18
MILWAUKEE COUNTY

| Item No. | Std. Bid Item No. | Description | Unit | Quantity | Excluded Costs | City Unit | City Total |
|----------|-------------------|--|------|----------|----------------|-------------|-------------|
| 71055 | 658.0225 | Backplates Signal Face 5 Section 12-inch | Each | 1 | \$ 63.15 | \$ 87.84 | \$ 87.84 |
| 71057 | 658.0215 | Backplates Signal Face 3 Section 12-inch | Each | 2 | \$ 83.64 | \$ 66.53 | \$ 133.06 |
| 71060 | 658.0120 | Traffic Signal Face 5-12 Inch Vertical | Each | 2 | \$ 1,127.46 | \$ 1,008.32 | \$ 2,016.64 |
| 71062 | 658.0110 | Traffic Signal Face 3-12 Inch Vertical | Each | 14 | \$ 5,146.87 | \$ 614.63 | \$ 8,604.79 |
| 71066LC | 658.0412 | Pedestrian Signal Face 12-Inch | Each | 8 | \$ 1,392.66 | \$ 322.28 | \$ 2,578.23 |
| 71067 | SPV.0060.001 | Pedestrian Countdown Signal Face 12-Inch | Each | 8 | \$ 1,382.96 | \$ 321.07 | \$ 2,568.53 |
| 71171 | 655.0260 | Cable Traffic Signal 12-14 AWG | LF | 110 | \$ 103.03 | \$ 3.41 | \$ 374.73 |
| 71173 | SPV.0090.001 | Cable Traffic Signal 20-14 AWG | LF | 190 | \$ 318.66 | \$ 4.15 | \$ 787.96 |
| 71190 | SPV.0060.002 | Mast Arm Fabricated | Each | 2 | \$ 138.31 | \$ 1,560.43 | \$ 3,120.85 |
| 71191 | SPV.0060.003 | Mast Arm Pole | Each | 2 | \$ 3,623.75 | \$ 2,335.60 | \$ 4,671.20 |
| 71197 | SPV.0060.004 | Signal Standard 13' | Each | 1 | \$ 663.44 | \$ 1,108.05 | \$ 1,108.05 |
| 71198 | SPV.0060.005 | Signal Standard 1' Extension | Each | 1 | \$ 57.09 | \$ 106.51 | \$ 106.51 |

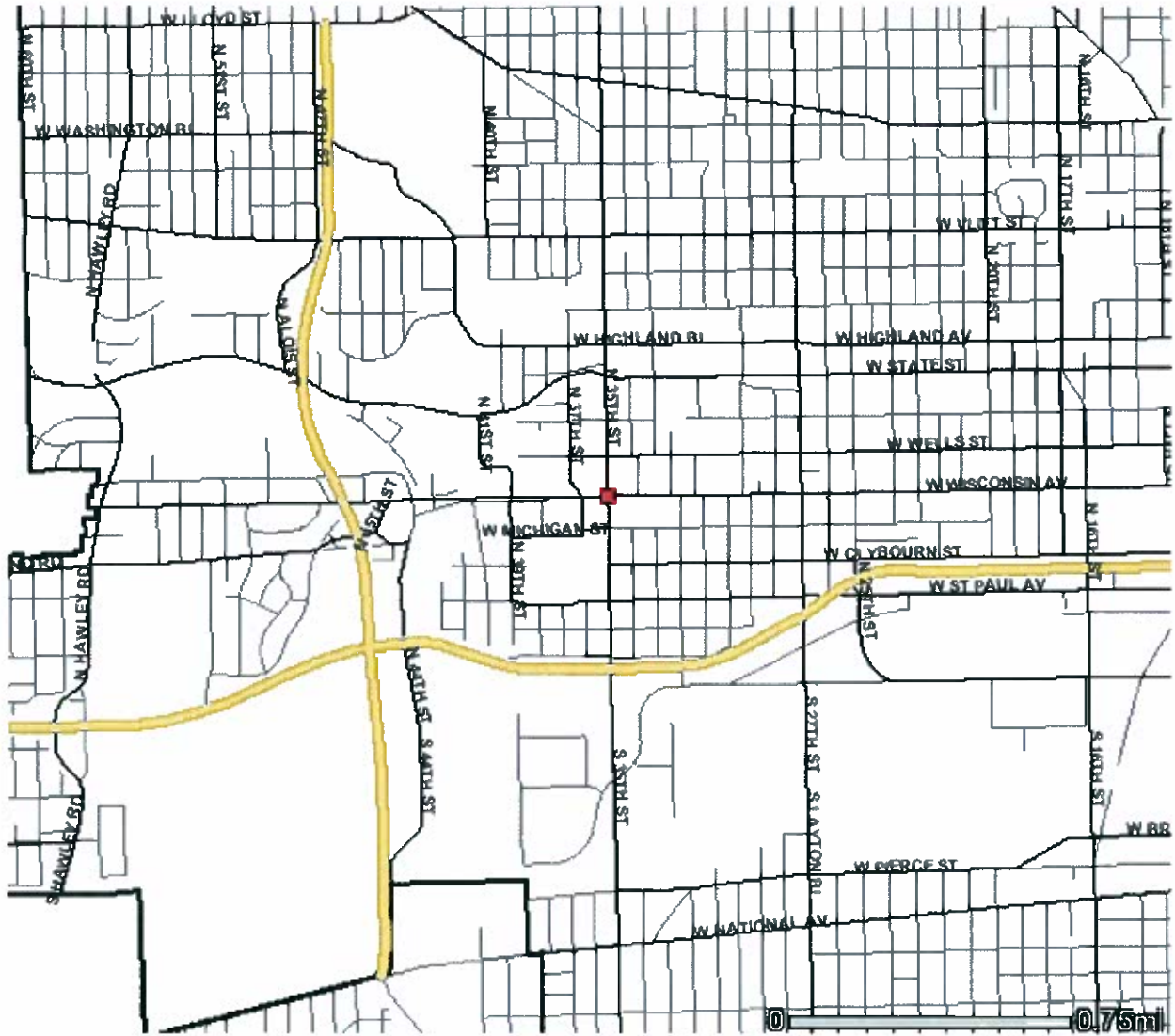
TOTAL CITY COST \$ 26,158.39
TOTAL EXCLUDED COSTS \$ 14,101.02

APPROVED BY:

 ROBERT W. BRYSON
 CHIEF TRAFFIC AND LIGHTING ENGINEER

TRANSPORTATION SECTION
 TRAFFIC AND LIGHTING DESIGN UNIT
 JOSEPH C. BLAKEMAN
 REVISED: MARCH 7, 2011

* Please note that the Total City Cost includes the embedded costs of mobilization, traffic control, mounting hardware, equipment removal, and construction staking electrical installations which are included in the times used for calculating City Unit Costs on the attached worksheets.

PROJECT LOCATION MAP



■ TRAFFIC SIGNAL IMPROVEMENT LOCATION

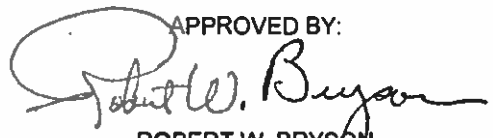
PROJECT ID 2100-13-91
2012 HSIP GRANT
N. 35TH ST. & W. WISCONSIN AVE. INTERSECTION
USH 18
CITY OF MILWAUKEE - DEPT. OF PUBLIC WORKS

PROJECT UNIT COST ANALYSIS

ESTIMATE OF QUANTITIES
 PROJECT ID 2645-08-90
 W. CAPITOL DR. AT 7TH ST. & N. 76TH ST. AT W. GRANTOSA DR.
 STH 181 AND STH 190
 MILWAUKEE COUNTY

| Item No. | Std. Bid Item No. | Description | Unit | Quantity | Excluded Costs | City Unit | City Total |
|----------|-------------------|--|-------|----------|----------------|-----------|-------------|
| 71031 | 204.0155 | Removing Concrete Sidewalk | SY | 14 | \$ 3.16 | \$ 6.52 | \$ 91.21 |
| 71032 | 602.0410 | Concrete Sidewalk 5-inch | Sq Ft | 150 | \$ 240.92 | \$ 7.90 | \$ 1,184.41 |
| 71065 | 658.0500 | Pedestrian Push Buttons | Each | 6 | \$ 243.45 | \$ 139.37 | \$ 836.24 |
| 71145 | 652.0230 | Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch | LF | 30 | \$ 13.83 | \$ 7.52 | \$ 225.62 |
| 71155 | 652.0900.S | Loop Detector Slots | LF | 630 | \$ 1,561.79 | \$ 7.42 | \$ 4,673.93 |
| 71156 | SPV.0090 | Cable Traffic Signal Loop Lead-In | LF | 1,360 | \$ 495.41 | \$ 2.83 | \$ 3,854.53 |
| 71170 | 655.0250 | Cable Traffic Signal 9-14 AWG | LF | 30 | \$ 21.03 | \$ 3.17 | \$ 95.14 |
| 71195 | SPV.0060 | Signal Standard 5' | Each | 2 | \$ 976.94 | \$ 933.06 | \$ 1,866.12 |

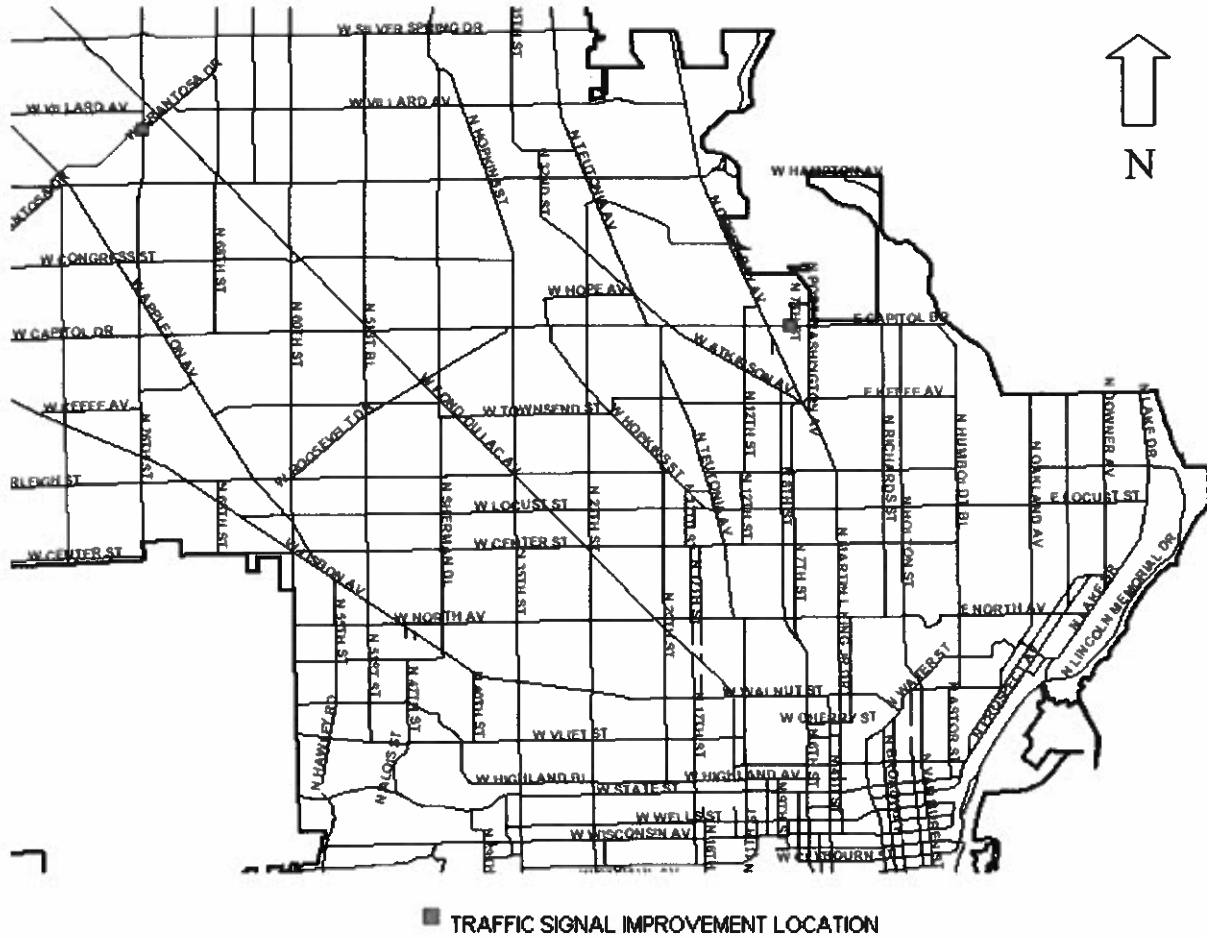
TOTAL CITY COST \$ 11,551.58
 TOTAL EXCLUDED COSTS \$ 3,553.37

APPROVED BY:

 ROBERT W. BRYSON
 CHIEF TRAFFIC AND LIGHTING ENGINEER

TRANSPORTATION SECTION
 TRAFFIC AND LIGHTING DESIGN UNIT
 JOSEPH C. BLAKEMAN
 REVISED: MARCH 4, 2011

* Please note that the Total City Cost includes the embedded costs of mobilization, traffic control, mounting hardware, equipment removal, and construction staking electrical installations which are included in the times used for calculating City Unit Costs on the attached worksheets.

PROJECT LOCATION MAP



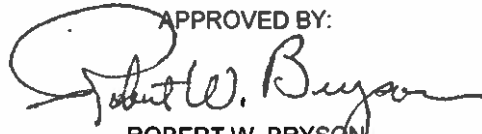
PROJECT ID 2645-08-90
2012 HSIP GRANT
W. CAPITOL DRIVE (STH 190) AT 7TH ST. &
N. 76TH ST. (STH 181) AT W. GRANTOSA DR.
CITY OF MILWAUKEE - DEPT. OF PUBLIC WORKS

PROJECT UNIT COST ANALYSIS

**ESTIMATE OF QUANTITIES
PROJECT ID 2645-09-90
VEHICLE AND PEDESTRIAN DETECTION AT NINE LOCAL STREET INTERSECTIONS
LOCAL STREETS
MILWAUKEE COUNTY**

| Item No. | Std. Bid Item No. | Description | Unit | Quantity | Excluded Costs | City Unit | City Total |
|----------|-------------------|--|-------|----------|----------------|-----------|--------------|
| 71030 | 204.0155 | Removing Concrete Sidewalk | SY | 31 | \$ 7.00 | \$ 6.52 | \$ 202.01 |
| 71031 | 602.0505 | Curb Ramp Detectable Warning Field Yellow | Sq Ft | 8 | \$ 226.23 | \$ 34.57 | \$ 276.55 |
| 71032 | 602.0410 | Concrete Sidewalk 5-Inch | Sq Ft | 279 | \$ 448.09 | \$ 7.90 | \$ 2,202.97 |
| 71065 | 658.0500 | Pedestrian Push Buttons | Each | 27 | \$ 1,095.52 | \$ 139.37 | \$ 3,763.06 |
| 71145 | 652.0230 | Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch | LF | 35 | \$ 16.13 | \$ 7.52 | \$ 263.22 |
| 71155 | 652.0900.S | Loop Detector Slots | LF | 2,365 | \$ 5,862.90 | \$ 7.42 | \$ 17,545.71 |
| 71156 | SPV.0090.001 | Cable Traffic Signal Loop Lead-In | LF | 4,955 | \$ 1,804.98 | \$ 2.83 | \$ 14,043.53 |
| 71170 | 655.0250 | Cable Traffic Signal 9-14 AWG | LF | 45 | \$ 31.54 | \$ 3.17 | \$ 142.69 |
| 71172 | SPV.0090.002 | Cable Traffic Signal 17-14 AWG | LF | 190 | \$ 261.10 | \$ 3.84 | \$ 730.40 |
| 71173 | SPV.0090.003 | Cable Traffic Signal 20-14 AWG | LF | 120 | \$ 201.26 | \$ 4.15 | \$ 497.65 |
| 71195 | SPV.0060.001 | Signal Standard 5' | Each | 3 | \$ 1,465.42 | \$ 933.07 | \$ 2,799.21 |

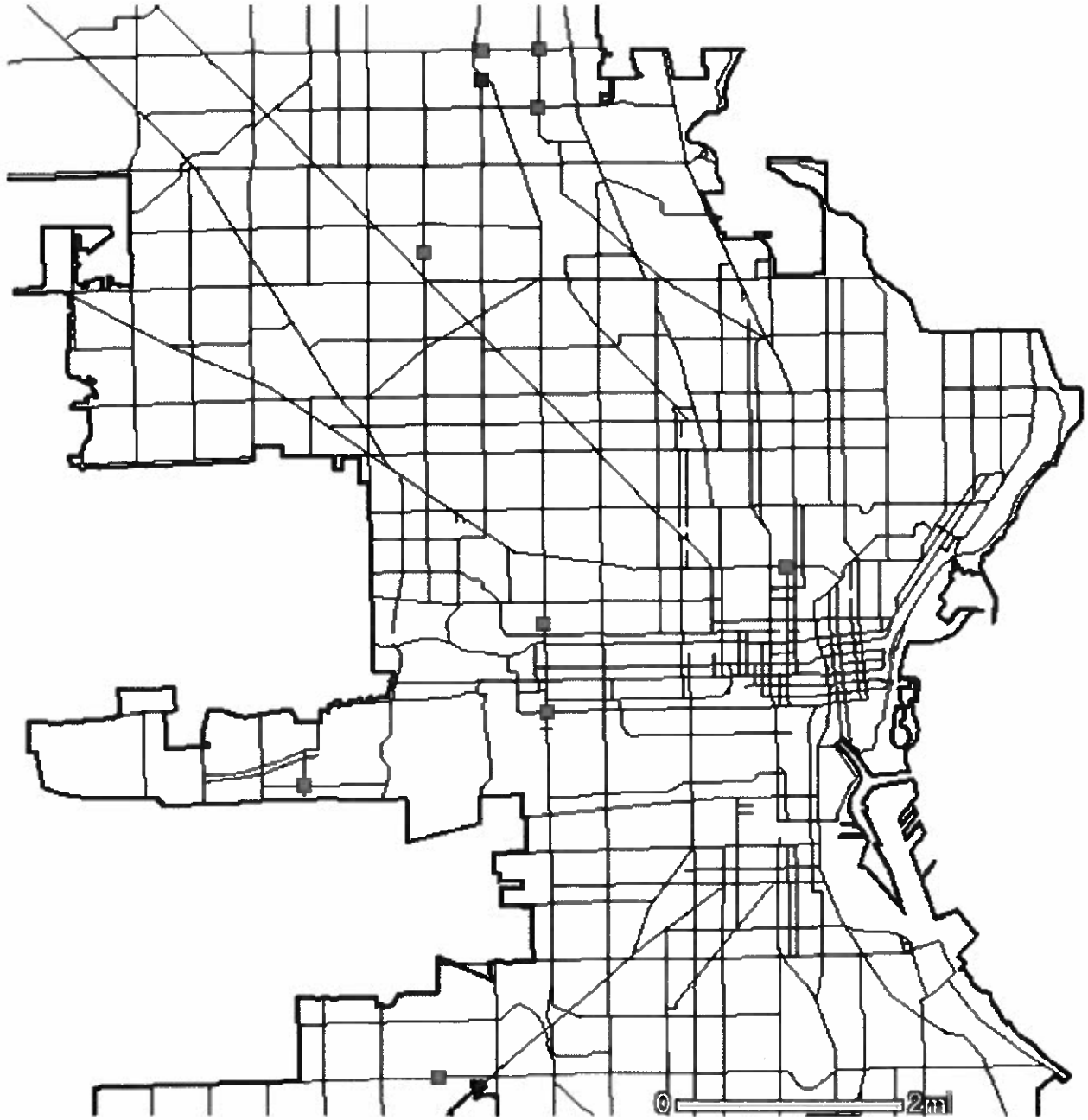
TOTAL CITY COST \$ 39,785.47
TOTAL EXCLUDED COSTS \$ 11,186.94

APPROVED BY:

 ROBERT W. BRYSON
 CHIEF TRAFFIC AND LIGHTING ENGINEER

TRANSPORTATION SECTION
 TRAFFIC AND LIGHTING DESIGN UNIT
 JOSEPH C. BLAKEMAN
 REVISED: MARCH 9, 2011

* Please note that the Total City Cost includes the embedded costs of mobilization, traffic control, mounting hardware, equipment removal, and construction staking electrical installations which are included in the times used for calculating City Unit Costs on the attached worksheets.

PROJECT LOCATION MAP



- PROJECT IMPROVEMENT LOCATION
- INTERSECTION REMOVED FROM PROJECT

PROJECT ID 2645-09-90
2012 HSIP GRANT
VEHICLE AND PEDESTRIAN DETECTION
NINE LOCAL STREET INTERSECTIONS
CITY OF MILWAUKEE - DEPT. OF PUBLIC WORKS

PROJECT UNIT COST ANALYSIS

ESTIMATE OF QUANTITIES

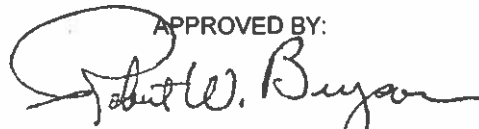
PROJECT ID 2984-08-97

TWO CONNECTING HIGHWAY INTERSECTIONS - W. CONGRESS ST. & N. 76TH ST. (STH 181), W. WELLS (USH 18) & N. 35TH ST. INTERSECTIONS
USH 18 AND STH 181
MILWAUKEE COUNTY

| Item No. | Std. Bid Item No. | Description | Unit | Quantity | Excluded Costs | City Unit | City Total |
|----------|-------------------|--|------|----------|----------------|-------------|-------------|
| 71055 | 658.0225 | Backplates Signal Face 5 Section 12-inch | Each | 1 | \$ 63.15 | \$ 87.84 | \$ 87.84 |
| 71057 | 658.0215 | Backplates Signal Face 3 Section 12-inch | Each | 3 | \$ 125.47 | \$ 66.53 | \$ 199.58 |
| 71062 | 658.0110 | Traffic Signal Face 3-12 Inch Vertical | Each | 7 | \$ 2,573.43 | \$ 614.63 | \$ 4,302.41 |
| 71170 | 655.0250 | Cable Traffic Signal 9-14 AWG | LF | 50 | \$ 35.05 | \$ 3.17 | \$ 158.54 |
| 71171 | 655.0260 | Cable Traffic Signal 12-14 AWG | LF | 40 | \$ 37.46 | \$ 3.41 | \$ 136.26 |
| 71172 | SPV.0090.001 | Cable Traffic Signal 17-14 AWG | LF | 60 | \$ 82.45 | \$ 3.84 | \$ 230.67 |
| 71173 | SPV.0090.002 | Cable Traffic Signal 20-14 AWG | LF | 380 | \$ 637.32 | \$ 4.15 | \$ 1,575.92 |
| 71190 | SPV.0060.001 | Mast Arm Fabricated | Each | 4 | \$ 276.62 | \$ 1,560.42 | \$ 6,241.69 |
| 71191 | SPV.0060.002 | Mast Arm Pole | Each | 3 | \$ 5,435.63 | \$ 2,335.60 | \$ 7,006.80 |
| 71198 | SPV.0060.003 | Signal Standard 1' Extension | Each | 4 | \$ 228.37 | \$ 106.49 | \$ 425.97 |
| 71700 | SPV.0060.004 | Signal Housing Relocated | Each | 4 | \$ 68.40 | \$ 313.49 | \$ 1,253.97 |

TOTAL CITY COST \$ 21,619.65
TOTAL EXCLUDED COSTS \$ 9,563.35

APPROVED BY:

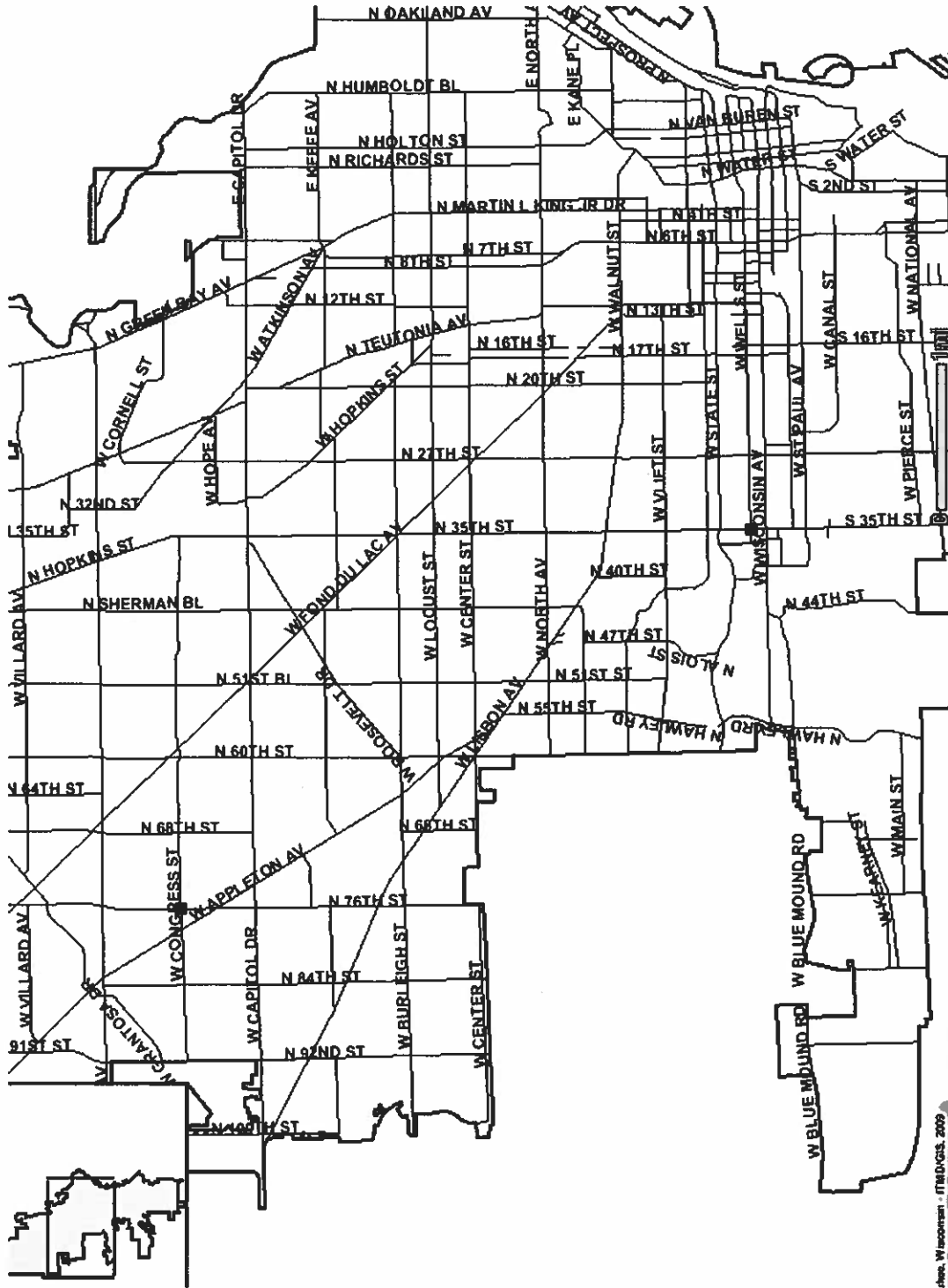


ROBERT W. BRYSON
CHIEF TRAFFIC AND LIGHTING ENGINEER

TRANSPORTATION SECTION
TRAFFIC AND LIGHTING DESIGN UNIT
JOSEPH C. BLAKEMAN
REVISED: FEBRUARY 24, 2011

* Please note that the Total City Cost includes the embedded costs of mobilization, traffic control, mounting hardware, equipment removal, and construction staking electrical installations which are included in the times used for calculating City Unit Costs on the attached worksheets.

PROJECT LOCATION MAP



Auto. Wisconsin - ITMD-GIS, 2009

■ Proposed Signal Improvement Location

PROJECT ID 2984-08-97
2012 HSIP GRANT

TWO CONNECTING HIGHWAY INTERSECTIONS
W. CONGRESS ST. & N. 76TH ST. (STH 181) AND W. WELLS ST. & N. 35TH ST. (USH 18)
CITY OF MILWAUKEE - DEPT. OF PUBLIC WORKS

PROJECT UNIT COST ANALYSIS

ESTIMATE OF QUANTITIES

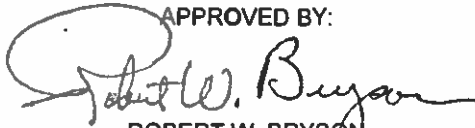
PROJECT ID 2984-08-99

11 INTERSECTIONS CITYWIDE - VARIOUS CITY OF MILWAUKEE LOCATIONS
LOCAL STREETS
MILWAUKEE COUNTY

| Item No. | Std. Bid Item No. | Description | Unit | Quantity | Excluded Costs | City Unit | City Total |
|----------|-------------------|--|------|----------|----------------|-------------|--------------|
| 71057 | 658.0215 | Backplates Signal Face 3 Section 12-inch | Each | 29 | \$ 1,212.80 | \$ 66.52 | \$ 1,929.07 |
| 71062 | 658.0110 | Traffic Signal Face 3-12 Inch Vertical | Each | 42 | \$ 15,440.60 | \$ 614.63 | \$ 25,814.35 |
| 71081 | SPV.0060.001 | PV Traffic Signal Face 3-12 Inch (312M) | Each | 1 | \$ 1,192.22 | \$ 1,488.61 | \$ 1,488.61 |
| 71145 | 652.0230 | Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch | LF | 10 | \$ 4.61 | \$ 7.52 | \$ 75.21 |
| 71172 | SPV.0090.001 | Cable Traffic Signal 17-14 AWG | LF | 200 | \$ 274.83 | \$ 3.84 | \$ 768.82 |
| 71173 | SPV.0090.002 | Cable Traffic Signal 20-14 AWG | LF | 500 | \$ 838.57 | \$ 4.15 | \$ 2,073.56 |
| 71190 | SPV.0060.002 | Mast Arm Fabricated | Each | 29 | \$ 2,005.49 | \$ 1,560.42 | \$ 45,252.27 |
| 71191 | SPV.0060.003 | Mast Arm Pole | Each | 28 | \$ 50,732.54 | \$ 2,335.60 | \$ 65,396.79 |
| 71198 | SPV.0060.004 | Signal Standard 1' Extension | Each | 16 | \$ 913.48 | \$ 106.49 | \$ 1,703.86 |

TOTAL CITY COST \$ 144,502.54
TOTAL EXCLUDED COSTS \$ 72,615.14

APPROVED BY:


 ROBERT W. BRYSON
 CHIEF TRAFFIC AND LIGHTING ENGINEER

TRANSPORTATION SECTION
 TRAFFIC AND LIGHTING DESIGN UNIT
 JOSEPH C. BLAKEMAN
 REVISED: FEBRUARY 24, 2011

* Please note that the Total City Cost includes the embedded costs of mobilization, traffic control, mounting hardware, equipment removal, and construction staking electrical installations which are included in the times used for calculating City Unit Costs on the attached worksheets.

PROJECT LOCATION MAP



PROJECT ID 2984-08-99
 2012 HSIP GRANT
 11 INTERSECTIONS CITYWIDE
 VARIOUS CITY OF MILWAUKEE LOCATIONS
 CITY OF MILWAUKEE - DEPT. OF PUBLIC WORKS