VILLAGE OF SHOREWOOD

STANDARD CONSTRUCTION DETAILS

UPDATED APRIL 2017
# Village of Shorewood Construction Standards

Christopher B. Burke Engineering, Ltd.

Last Updated: April 2017

## Pavement, Curb and Gutter, Sidewalks

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<tr>
<th>Detail Name</th>
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<th>Description of Revisions</th>
<th>Revision Date</th>
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<td>PVT-1</td>
<td>Roadway Cross Section (Major Arterial)</td>
<td>Revised to allow for alternative pavement section using geogrid</td>
<td>September 2014</td>
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<tr>
<td>PVT-2</td>
<td>Roadway Cross Section (Major Collector)</td>
<td>Revised to allow for alternative pavement section using geogrid</td>
<td>September 2014</td>
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<td>PVT-3</td>
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<td>September 2014</td>
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<td>Revised to allow for alternative pavement section using geogrid</td>
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<tr>
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<td>No revisions made</td>
<td>June 2007</td>
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<tr>
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<td>No revisions made</td>
<td>June 2007</td>
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<td>PVT-10</td>
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<td>June 2007</td>
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<td>PVT-11</td>
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<td>New detail</td>
<td>June 2007</td>
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<td>PVT-12</td>
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<td>Added ADA/PROWAG requirements and other general notes</td>
<td>March 2017</td>
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<tr>
<td>PVT-13</td>
<td>Not Used</td>
<td>Deleted Handicap Sidewalk Ramp Detail (Reference IDOT Standards)</td>
<td>March 2017</td>
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<td>PVT-14</td>
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<td>September 2014</td>
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<td>PVT-15</td>
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<td>June 2007</td>
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<td>PVT-19</td>
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<td>New detail</td>
<td>October 2009</td>
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<td>PVT-20</td>
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<td>New detail</td>
<td>May 2011</td>
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<td>PVT-21</td>
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<td>New detail</td>
<td>August 2011</td>
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## Storm Sewer System

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<tr>
<th>Detail Name</th>
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<tr>
<td>STM-1</td>
<td>Storm Sewer Installation</td>
<td>No revisions made</td>
<td>June 2007</td>
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<tr>
<td>STM-2</td>
<td>Storm Manhole Type A</td>
<td>New detail; created separate details for storm and sanitary manholes</td>
<td>June 2007</td>
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<tr>
<td>STM-3</td>
<td>Catch Basin Type A</td>
<td>Added note identifying structure wall thickness</td>
<td>June 2007</td>
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<tr>
<td>STM-4</td>
<td>Catch Basin Type C</td>
<td>Added note identifying structure wall thickness</td>
<td>June 2007</td>
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<td>STM-5</td>
<td>Inlet</td>
<td>Deleted Plan View Detail</td>
<td>June 2007</td>
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<tr>
<td>STM-6</td>
<td>Casting Installation and Adjusting</td>
<td>No revisions made</td>
<td>June 2007</td>
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<td>STM-7</td>
<td>Subsurface Drain Tile &amp; Sump Pump Connection</td>
<td>New detail</td>
<td>June 2007</td>
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<td>STM-8</td>
<td>Sump Discharge Service Line</td>
<td>New detail</td>
<td>June 2007</td>
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<tr>
<td>STM-9</td>
<td>Detention Pond Restrictor</td>
<td>Revised to non-clog design</td>
<td>March 2017</td>
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<tr>
<td>STM-10</td>
<td>Not Used</td>
<td>Deleted pipe restrictor detail</td>
<td>March 2017</td>
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## Sanitary Sewer System

<table>
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<tr>
<th>Detail Name</th>
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<tr>
<td>SAN-1</td>
<td>Sanitary Sewer Installation</td>
<td>Added table for required pipe materials; added note for joint requirements for gravity sanitary sewer</td>
<td>June 2007</td>
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<tr>
<td>SAN-2</td>
<td>Sanitary Sewer Manhole</td>
<td>New detail; created separate details for storm and sanitary manholes</td>
<td>June 2007</td>
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<tr>
<td>SAN-3</td>
<td>Sanitary Manhole Frame &amp; Cover</td>
<td>New detail</td>
<td>June 2007</td>
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<tr>
<td>SAN-4</td>
<td>Sanitary Manhole Pipe Connection</td>
<td>No revisions made</td>
<td>June 2007</td>
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<td>SAN-5</td>
<td>Drop Connection</td>
<td>No revisions made</td>
<td>June 2007</td>
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<td>SAN-6</td>
<td>Non-Residential Sewer Service</td>
<td>New detail</td>
<td>June 2007</td>
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<td>SAN-7</td>
<td>Residential Sewer Service</td>
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## Water Distribution System

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<tr>
<td>WTR-1</td>
<td>Water Main Installation</td>
<td>Revised testing requirements per Public Works direction</td>
<td>June 2007</td>
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<td>WTR-2</td>
<td>Thrust Block Installations</td>
<td>No revisions made</td>
<td>June 2007</td>
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<td>WTR-3</td>
<td>Valve Vault</td>
<td>New detail</td>
<td>June 2007</td>
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<td>WTR-4</td>
<td>Pressure Connection Valve Vault</td>
<td>Added reference to detail WTR-5</td>
<td>June 2007</td>
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<td>WTR-5</td>
<td>Valve Vault Frame and Cover</td>
<td>New detail</td>
<td>June 2007</td>
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<td>WTR-6</td>
<td>Fire Hydrant</td>
<td>Revision to allowed manufacturers and new requirement for mechanical joint</td>
<td>September 2014</td>
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<td>WTR-7</td>
<td>Residential Water Service</td>
<td>Revised to show b-box near ROW</td>
<td>March 2017</td>
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<td>WTR-8</td>
<td>Water Sampling Station</td>
<td>New detail</td>
<td>June 2007</td>
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## Electrical System

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<tr>
<th>Detail Name</th>
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<tr>
<td>ELE-1</td>
<td>Ornamental Type Light Pole</td>
<td>Revised catalog numbers to reflect new manufacturer codes and updated specifications</td>
<td>March 2009</td>
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<tr>
<td>ELE-1A</td>
<td>Pedestrian Scale (10') Ornamental Type Light Pole</td>
<td>New Standard</td>
<td>March 2009</td>
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<tr>
<td>ELE-2</td>
<td>Pedestrian Scale Symmetrical Ornamental Type Light Pole</td>
<td>New Standard</td>
<td>March 2009</td>
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<tr>
<td>Detail Name</td>
<td>Standard Name</td>
<td>Description of Revisions</td>
<td>Revision Date</td>
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<tr>
<td>ELE-3A</td>
<td>Roadway Type Light Pole</td>
<td>Revised catalog numbers to reflect new manufacturer codes and updated specifications</td>
<td>April 2009</td>
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<td>ELE-3B</td>
<td>Roadway Type Light Pole with Pedestrian Fixture</td>
<td>New Standard; Revised catalog numbers to reflect new manufacturer codes and updated specifications</td>
<td>April 2009</td>
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<td>ELE-4</td>
<td>Concrete Light Pole Foundation</td>
<td>Consolidated two old details into one</td>
<td>July 2007</td>
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<td>ELE-5</td>
<td>Light Pole Handhole Wiring Diagram</td>
<td>New detail</td>
<td>July 2007</td>
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<td>ELE-6</td>
<td>Splicing Electrical Cables</td>
<td>No revisions made</td>
<td>July 2007</td>
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<td>ELE-7</td>
<td>Conduit Installation</td>
<td>Consolidated old conduit and trench details</td>
<td>July 2007</td>
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<td>ELE-8</td>
<td>Direct Connected Street Light Service Disconnect</td>
<td>Miscellaneous minor revisions</td>
<td>July 2007</td>
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<td>ELE-9</td>
<td>Com-Ed Overhead Connection for Lighting Controller</td>
<td>Miscellaneous minor revisions</td>
<td>July 2007</td>
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<td>ELE-10</td>
<td>Lighting Controller</td>
<td>Revised for consistency with other detail revisions</td>
<td>July 2007</td>
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<td>Street Signs</td>
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<tr>
<td>SGN-1</td>
<td>Sign Standards</td>
<td>Revised Note #3A and 3E</td>
<td>June 2007</td>
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<td>SGN-2</td>
<td>No Parking Sign</td>
<td>No revisions made</td>
<td>June 2007</td>
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<td>SGN-3</td>
<td>Residential Speed Limit Sign</td>
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<td>June 2007</td>
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<td>SGN-4</td>
<td>Sprinkling Sign</td>
<td>No revisions made</td>
<td>June 2007</td>
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<td>SGN-5</td>
<td>5 Ton Weight Limit Sign</td>
<td>No revisions made</td>
<td>June 2007</td>
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<td>SGN-6</td>
<td>Sign Spacing for Typical Residential Subdivision Entrance</td>
<td>New detail</td>
<td>July 2007</td>
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<td>SGN-7</td>
<td>Signage for Future Street Connection</td>
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<td>July 2007</td>
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<td>Miscellaneous Standards</td>
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<td>New detail</td>
<td>June 2007</td>
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<td>MSC-2</td>
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<td>No revisions made</td>
<td>June 2007</td>
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<td>MSC-3</td>
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<td>Revised per Village</td>
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<td>MSC-4</td>
<td>Handicap Stall</td>
<td>New detail</td>
<td>June 2007</td>
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<tr>
<td>MSC-5</td>
<td>Not Used</td>
<td>Deleted double striping detail</td>
<td>March 2017</td>
</tr>
</tbody>
</table>
**NOTES:**

1. **ALL CURBS AND SIDEWALKS SHALL BE**
   **CONSTRUCTED WITH IDOT CLASS "SI" CONCRETE**
   **WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,500**
   **PSI AT 14 DAYS.**
2. **PARKWAYS SHALL BE FINISHED WITH A MINIMUM OF**
   **SIX INCHES OF TOPSOIL.**
3. **TESTING OF SUBGRADE AND ALL ROADWAY**
   **MATERIALS SHALL BE DONE IN ACCORDANCE WITH**
   **THE VILLAGE'S SUBDIVISION ORDINANCE.**
4. **LIME MODIFICATION (OR EQUIVALENT) MAY BE USED TO**
   **REDUCE AGGREGATE SUBBASE THICKNESS AS APPROVED**
   **BY THE VILLAGE ENGINEER.**
5. **STANDARD ROADWAY TYPE LIGHT POLES SHALL BE**
   **INSTALLED WITH AN OPPOSITE CONFIGURATION &**
   **AT 190 FOOT SPACING, UNLESS OTHERWISE DIRECTED BY**
   **THE VILLAGE ENGINEER.**

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**VILLAGE OF SHOREWOOD**

**STANDARD DETAIL**

**FOR**

**ROADWAY CROSS-SECTION**

**MAJOR ARTERIAL**

**DATE: SEPTEMBER 2014**
1. All curbs and sidewalks shall be constructed with IDOT Class "SI" concrete with a minimum compressive strength of 3,500 PSI at 14 days.
2. Parkways shall be finished with a minimum of six inches of topsoil.
3. Testing of subgrade and all roadway materials shall be done in accordance with the Village's Subdivision Ordinance.
4. Lime modification (or equivalent) may be used to reduce aggregate subbase thickness as approved by the Village Engineer.
5. Standard roadway type light poles shall be installed with a single sided configuration & at 125 foot spacing, unless otherwise directed by the Village Engineer.

*Alternate Pavement Section
The following alternate pavement section may be used, with the use of Tensar Triax TX5 Geogrid (or approved equal), as allowed by the Village Engineer:

- 1 1/2" Hot-Mix Asphalt Surface Course, Mix "D", N70
- 2 1/2" Hot-Mix Asphalt Binder Course, IL-19, N70
- 6" Hot-Mix Asphalt Base Course
- 8" Aggregate Subbase Granular Materials, Type B
1. All curbs and sidewalks shall be constructed with IDOT Class "SI" concrete with a minimum compressive strength of 3,500 psi at 14 days.
2. Parkways shall be finished with a minimum of six inches of topsoil.
3. Testing of subgrade and all roadway materials shall be done in accordance with the village's subdivision ordinance.
4. Lime modification (or equivalent) may be used to reduce aggregate subbase thickness as approved by the village engineer.
5. Standard roadway type light poles shall be installed with a single sided configuration & at 175 foot spacing, unless otherwise directed by the village engineer.

*ALTERNATE PAVEMENT SECTION

The following alternate pavement section may be used, with the use of Tensar Triax TX5 Geogrid (or approved equal), as allowed by the village engineer:

- 1 1/2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70
- 2 1/2" HOT-MIX ASPHALT BINDER COURSE, IL-19, N70
- 5" HOT-MIX ASPHALT BASE COURSE
- 8" AGGREGATE SUBBASE GRANULAR MATERIALS, TYPE B

NOTES:

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
ROADWAY CROSS-SECTION
MINOR COLLECTOR

DATE: SEPTEMBER 2014
NOTES:
1. ALL CURBS AND SIDEWALKS SHALL BE CONSTRUCTED WITH IDOT CLASS "SI" CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 14 DAYS.
2. PARKWAYS SHALL BE FINISHED WITH A MINIMUM OF FOUR INCHES OF TOPSOIL.
3. TESTING OF SUBGRADE AND ALL ROADWAY MATERIALS SHALL BE DONE IN ACCORDANCE WITH THE VILLAGE'S SUBDIVISION ORDINANCE.
4. LIME MODIFICATION (OR EQUIVALENT) MAY BE USED TO REDUCE AGGREGATE SUBBASE THICKNESS AS APPROVED BY THE VILLAGE ENGINEER.
5. STANDARD SINGLE HEAD ORNAMENTAL TYPE LIGHT POLES SHALL BE INSTALLED WITH A SINGLE SIDED CONFIGURATION & AT 110 FOOT SPACING, UNLESS OTHERWISE DIRECTED BY THE VILLAGE ENGINEER.

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
ROADWAY CROSS-SECTION
LOCAL
DATE: SEPTEMBER 2014

PVT-4 (local).dgn
**Alternate Pavement Section**

The following alternate pavement section may be used, with the use of Tensar Triax TX5 Geogrid (or approved equal), as allowed by the Village Engineer:

- 2" Hot-Mix Asphalt Surface Course, Mix "D", N70
- 2 1/2" Hot-Mix Asphalt Binder Course, IL-19, N70
- 5" Hot-Mix Asphalt Base Course
- 8" Crushed Aggregate Base Course, Type B

**Notes:**

1. A concrete pavement section alternative may be submitted for review and approval.
2. All curbs and sidewalks shall be constructed with a minimum compressive strength of 3500 psi at 14 days.
3. Parkways shall be finished with a minimum of six inches of topsoil.
4. Testing of subgrade and all roadway materials shall be done in accordance with the Village's subdivision ordinance.
5. Lime modification (or equivalent) may be used to reduce aggregate subbase thickness as approved by the Village Engineer.
GENERAL NOTES:

1. DIMENSIONS SHOWN ARE MINIMUM VALUES. SOIL ANALYSIS AND TRAFFIC COUNTS SHALL BE USED FOR VERIFYING REQUIRED PAVEMENT SECTION.
2. INTEGRAL CURB AND GUTTER SHALL NOT BE PERMITTED WITH RIGID OR COMPOSITE PAVEMENTS.
3. THE FOLLOWING MATERIALS ARE ACCEPTABLE AS BASE COURSE ALTERNATIVES: BITUMINOUS BASE COURSE AND P.C. CONCRETE.
4. LIME MODIFICATION (OR EQUIVALENT) MAY BE USED TO REDUCE AGGREGATE BASE THICKNESS AS APPROVED BY THE VILLAGE ENGINEER.

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
TYPICAL PARKING LOT
PAVEMENT

DATE: SEPTEMBER 2014

PVT-6 (Parking Lot).dgn
NOT TO SCALE

NOTES:
1. ALL CURB AND GUTTER SHALL BE CONSTRUCTED WITH IDOT CLASS SI CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 14 DAYS. PROVIDE AND TEST 3 CYLINDERS FOR EACH DAY'S POUR, OR 50 CUBIC YARDS, WHICHEVER IS LESS.
2. CONTRACTION JOINTS SHALL BE SAW-CUT AT 20' INTERVALS AND CAULKED.
3. PREFORMED EXPANSION JOINTS, 3/4" THICK, SHALL BE PLACED FIVE FEET EITHER SIDE OF STORM STRUCTURES IN CURB AND GUTTER, AT CURB RETURNS AND AT POINTS OF CURVATURE, AT ALL CONNECTIONS BETWEEN NEW AND EXISTING CURB AND GUTTER, AND AT 100' INTERVALS ON TANGENTS.
4. CURB AND GUTTER AT STORM STRUCTURES SHALL BE BOXED-OUT AND HAND-FORMED BETWEEN EXPANSION JOINTS. FORMS SHALL BE PLACED AND INSPECTED BY VILLAGE PRIOR TO POURING CONCRETE. STRUCTURE FRAMES SHALL BE PLACED AND ADJUSTED PRIOR TO THIS INSPECTION.
5. THE FOLLOWING SHALL BE STAMPED IN THE CURB AT THE INDICATED LOCATIONS:
   "W" FOR WATER SERVICES
   "S" FOR SANITARY SEWER SERVICES
   "ST" FOR STORM SEWER SERVICES
   "CO" FOR STORM SEWER SERVICE LINE CLEAN-OUTS
6. DOWELS AT EXPANSION JOINTS SHALL BE CENTERED ON THE JOINT (DRILLED INTO EXISTING CURB AND GUTTER), AND SHALL BE INSTALLED WITH GREASE CAPS ON ONE SIDE.
NOTES:

1. ALL CURB AND GUTTER SHALL BE CONSTRUCTED WITH IDOT CLASS SI CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 14 DAYS. PROVIDE AND TEST 3 CYLINDERS FOR EACH DAY'S POUR, OR 50 CUBIC YARDS, WHICHER IS LESS.

2. CONTRACTION JOINTS SHALL BE SAW-CUT AT 20' INTERVALS AND CAULKED.

3. PREFORMED EXPANSION JOINTS, 3/4" THICK, SHALL BE PLACED FIVE FEET EITHER SIDE OF STORM STRUCTURES IN CURB AND GUTTER, AT CURB RETURNS AND AT POINTS OF CURVATURE, AT ALL CONNECTIONS BETWEEN NEW AND EXISTING CURB AND GUTTER, AND AT 100' INTERVALS ON TANGENTS.

4. CURB AND GUTTER AT STORM STRUCTURES SHALL BE BOXED-OUT AND HAND-FORMED BETWEEN EXPANSION JOINTS. FORMS SHALL BE IN PLACE AND INSPECTED BY VILLAGE PRIOR TO POURING CONCRETE. STRUCTURE FRAMES SHALL BE PLACED AND ADJUSTED PRIOR TO THIS INSPECTION.

5. THE FOLLOWING SHALL BE STAMPED IN THE CURB AT THE INDICATED LOCATIONS:
   - "W" FOR WATER SERVICES
   - "S" FOR SANITARY SEWER SERVICES
   - "ST" FOR STORM SEWER SERVICES
   - "CO" FOR STORM SEWER SERVICE LINE CLEAN-OUTS

6. DOWELS AT EXPANSION JOINTS SHALL BE CENTERED ON THE JOINT (DRILLED INTO EXISTING CURB AND GUTTER), AND SHALL BE INSTALLED WITH GREASE CAPS ON ONE SIDE.
NOTES:
1. DRIVEWAYS SHALL NOT ENCROACH OVER THE PROPERTY LINE EXTENSION IN THE PARKWAY.
2. DRIVEWAYS SHALL NOT BE CONSTRUCTED IN EASEMENTS.
3. ALL AGGREGATE SUB-BASE SHALL BE MECHANICALLY COMPACTED.
4. SIDEWALKS ACROSS DRIVEWAYS SHALL BE MIN. 6" P.C.C. ON 2" CA-6.
5. WELDED WIRE FABRIC (6"X6") OR WIRE MESH SHALL BE INSTALLED IN DRIVEWAYS AND IN SIDEWALKS THROUGH DRIVEWAYS AT 2" ABOVE BOTTOM SLAB.
6. ALL SIDEWALKS AND DRIVEWAYS SHALL BE CONCRETE.
7. SERVICE LATERALS SHALL NOT CONFLICT WITH SIDEWALK AND DRIVEWAYS (SEE DETAIL MSC 3)

DRIVEWAYS (AND SIDEWALKS THROUGH DRIVEWAYS)

P.C.C  
6"

AGG. 2"

CONVENTIONAL CONCRETE

VILLAGE OF SHOREWOOD STANDARD DETAIL FOR TYPICAL RESIDENTIAL DRIVEWAY

DATE: JUNE 2007
1. All concrete shall be IDOT Class "Si" concrete with a minimum compressive strength of 3,500 PSI at 14 days.
2. The subgrade shall be stable and mechanically compacted.
3. All aggregate subbase shall be mechanically compacted.
4. Concrete and base thickness of sidewalk thru driveway shall match that of driveway.
5. Welded wire fabric (6"x6") or wire mesh shall be installed in driveways and in sidewalks through driveways at 2" above bottom slab.
ADAPTIVE/PROWAG COMPLIANCE NOTES:
1. All sidewalks and curb ramps shall be constructed in strict compliance with current IDOT standard details for curb ramps, as well as current ADA and PROWAG regulations. Applicable IDOT standard curb ramp details shall be included in plans submitted to the village for review.
2. Development plans shall include a detail for each curb ramp within the public row with sufficient information to demonstrate compliance with current ADA/PROWAG requirements, including placement of detectable warning, proposed spot elevations, slopes and grade breaks.
3. For development projects, all curb ramps within the public row shall be constructed as part of the roadway construction. The developer and their contractor shall be responsible for ensuring that all curb ramps and sidewalks are fully compliant with current ADA/PROWAG regulations. The village will not accept public improvements until all facilities in the public row have been verified by the village to be in compliant.

GENERAL NOTES:
1. All sidewalks shall be constructed with IDOT class "SI" concrete with a minimum compressive strength of 3,500 psi at 14 days.
2. Prefabricated expansion joints (3/4" thick) shall be constructed in sidewalks every 100 feet and at all abutting driveways and curb and gutter.
3. Tooled contraction joints shall be constructed in sidewalks every five feet.
4. Sidewalk shall have 1/4" per foot cross-slope.
5. Welded wire fabric (6x6/6x6) or fiber mesh shall be installed through driveways at 2" above slab bottom.
6. Formboard requirements: minimum 2" x 6".
7. Use two #4 reinforcing bars, 10' long over all utility trenches for new sidewalk.
8. At driveways, sidewalk PCC and base thickness shall match that of the driveway.

DATE: MARCH 2017
MATCH SLOPE DIRECTION OF EXIST. GRADING (2.0% MAX)

R.O.W. AT 45° ANGLE BEVEL EDGES

8" AGGREGATE BASE COURSE, CA 6

2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50

COMPACTED SUBGRADE

NOTE:

ALL EXISTING SUBGRADE MATERIALS TO BE RE-USED MUST BE TESTED AND COMPACTED AS REQUIRED TO MEET MINIMUM STABILITY REQUIREMENTS.

WIDTH = 8' FOR LOCAL STREETS
10' FOR COLLECTOR STREETS
NOTES:
1. MINIMUM PARKWAY WIDTH SHALL BE 11.0'.
VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
ECCENTRIC CUL-DE-SAC

DATE: JUNE 2007

NOTES:
1. MINIMUM PARKWAY WIDTH SHALL BE 11.0'.
EXISTING SUBBASE (TYP.)
EXISTING BASE (TYP.)
EXISTING BINDER (TYP.)
EXISTING SURFACE (TYP.)

PROPOSED SUBBASE
PROPOSED BASE
PROPOSED BINDER
PROPOSED SURFACE
PROPOSED CURB & GUTTER

EXISTING CURB & GUTTER

FOR WIDENING LESS THAN 8'(2.44M) WHERE COMPACTION IS DIFFICULT, CONCRETE SHALL BE USED.

SECTION A-A

SECTION B-B

VILLAGE OF SHOREWOOD
STANDARD DETAIL FOR BUTT JOINT

DATE: JUNE 2007
...\VIL\PVT-17 (Butt Joint).dgn
GENERAL NOTES:

1. EXISTING TIE BARS SHALL BE EITHER CUT OR REMOVED. MARGINAL BARS SHALL BE CUT.

2. IN LOCATIONS WHERE BITUMINOUS PATCHES WILL BE OVERLAYED WITH BITUMINOUS SURFACE COURSE, STRIP REFLECTIVE CRACK CONTROL TREATMENT SHALL BE APPLIED TO ALL PAVEMENT JOINTS AND CENTERED ALONG THE RESPECTIVE JOINTS.

3. IN LOCATIONS WHERE THE PAVEMENT PATCH WILL NOT BE OVERLAYED, TWO (2) INCHES OF BITUMINOUS SURFACE COURSE SHALL BE LAID IN THE FINAL LIFT OF THE PATCH.

NOTES:

1. THIS DETAIL SHALL BE USED FOR TRENCHING OPERATIONS WITHIN THE PUBLIC RIGHT-OF-WAY THAT ARE WITHIN FIVE (5) FEET OF STREETS, DRIVEWAYS, CURB AND GUTTER, PARKING LOTS AND OTHER PAVED AREAS INTENDED FOR VEHICULAR TRAVEL AS REQUIRED BY THE VILLAGE.

2. CONTROLLED LOW-STRENGTH MATERIAL (CLSM) SHALL BE IN ACCORDANCE WITH SECTION 593 OF THE IDOT SPECIFICATIONS AND SECTION 20-3.03 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS, LATEST VERSIONS.

3. THERMAL PROTECTION SHALL BE PROVIDED PER IDOT STANDARD SPECIFICATIONS AND AS DIRECTED BY THE VILLAGE.
NOTE: PRIOR TO FINAL ACCEPTANCE OF A SUBDIVISION BY THE VILLAGE, CRACK SEALING OF ALL PUBLIC ROADWAYS IN ACCORDANCE WITH THIS DETAIL SHALL BE COMPLETED TO THE SATISFACTION OF THE ENGINEER.

SPECIFICATIONS:
THIS WORK SHALL CONSIST OF CLEANING EXISTING ROADWAY CRACKS AND PLACING RUBBER SEALANT AT THE LOCATIONS DESIGNATED BY THE ENGINEER.

THE SEALING COMPOUND SHALL BE THE RUBBER-ASPHALT HOT-POURED TYPE CONFORMING TO THE FOLLOWING SPECIFICATION IN EFFECT AT THE TIME OF THE CONTRACT.

FEDERAL SPECIFICATIONS SS-S-1401
ASTM D-3405
POURING TEMPERATURE - 370°F
SAFE HEATING TEMPERATURE - 390°F
EXCEEDS REQUIREMENTS OF: ASTM-D-1190, AASHTO-M-173, SS-S-164

THE CONTRACTOR SHALL SUBMIT THE MANUFACTURER'S SPECIFICATIONS FOR THE HOT-POURED RUBBER-ASPHALT MATERIAL AT LEAST SEVEN (7) DAYS PRIOR TO THE START OF ANY WORK. THE POURING TEMPERATURE OF THE CRACK SEALER SHALL BE 370°F. CRACK FILLING MATERIAL SHALL BE PLACED ONLY WHEN THE CRACKS ARE IN A DRY CONDITION AND WEATHER CONDITIONS ARE FAVORABLE. THE CRACK FILLER MAY BE PLACED WHEN AIR TEMPERATURES IN THE SHADES ARE 40°F AND THE FORECAST IS FOR RISING TEMPERATURE.

ALL CRACKS AND JOINTS UP TO 1-½ INCHES IN WIDTH SHALL BE SEALED. PRIOR TO APPLICATION OF THE HOT-POURED RUBBER-ASPHALT MATERIAL, ALL CRACKS AND JOINTS TO BE SEALED SHALL BE ROUTED. ALL CRACKS LESS THAN ½ INCH WIDE SHALL BE ROUTED TO A MINIMUM DEPTH OF ONE INCH. CRACKS THAT ARE BORNE BY EXCESSIVE "ALLIGATED" AREAS SHALL NOT BE ROUTED AS THIS MAY POP LOOSE THE SURROUNDING ASPHALT. THESE AREAS SHALL BE BLOWN CLEAN AND SEALED WITHOUT ROUTING. STREETS HAVING A CONCRETE SURFACE SHALL NOT REQUIRE ROUTING OF THE CRACKS PRIOR TO CLEANING AND SEALING.

ROUTING OF CRACKS SHALL BE FOLLOWED BY CLEANING OF THE CRACKS WITH FORCED AIR. THE SEALANT MATERIAL SHALL BE APPLIED IMMEDIATELY FOLLOWING THE CLEANING OF THE CRACKS.

THE HOT-POURED RUBBER-ASPHALT MATERIAL SHALL BE MELTED AND MIX-AGITATED TO THE PROPER TEMPERATURE, RATE AND TIME AS RECOMMENDED BY THE APPLICABLE MANUFACTURER'S SPECIFICATIONS. THIS SEALANT MATERIAL SHALL BE FORCED INTO THE CRACK OR JOINT UNTIL FULL, LEAVING NO EXCESSIVE SAGS OR Voids IN APPLIED MATERIAL ALONG THE CRACK. TO ENSURE FULL DEPTH PENETRATION, THE SEALANT SHALL BE "SQUEEGEED" ALONG THE CRACK WITH A "V" SHAPED SQUEEGEE, TO PROVIDE A "BAND AID" TYPE EFFECT ALONG WITH THE CRACK DESIGN. THESE AREAS SHALL BE BLOWN CLEAN AND SEALED WITHOUT ROUTING. STREETS HAVING A CONCRETE SURFACE SHALL NOT REQUIRE ROUTING OF THE CRACKS PRIOR TO CLEANING AND SEALING.

A COVER CONSISTING OF DRY SAND APPROVED BY THE ENGINEER SHALL BE APPLIED IMMEDIATELY TO THE HOT-POURED RUBBER-ASPHALT SEALANT TO MINIMIZE TRACKING BY VEHICULAR TRAFFIC.

CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE AND SEQUENCE OF STREETS TO BE CRACK SEALED AT LEAST SEVEN (7) DAYS PRIOR TO THE START OF ANY WORK.

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
PAVEMENT CRACK SEALING

DATE: MAY 2011
1. AT LOCATIONS WHERE ONLY A PORTION OF DRIVEWAY APRON IS TO BE REMOVED, NEW DRIVEWAY PAVEMENT SHALL BE CONCRETE AND SHALL BE PINNED TO THE EXISTING DRIVEWAY APRON WITH #4 REBAR A MINIMUM OF 6" INTO THE EXISTING SLAB. AFTER INSTALLATION, REBAR SHALL PROTRUDE FROM EXISTING DRIVEWAY PAVEMENT A MINIMUM OF 6". SIX (6) REBAR SHALL BE EVENLY SPACED IN EACH DRIVEWAY, STARTING 6" FROM EITHER DRIVEWAY EDGE.

2. FORMBOARD REQUIREMENTS: MINIMUM 2" X 6".

3. WELDED WIRE FABRIC (6"X6") OR WIRE MESH SHALL BE INSTALLED IN NEW DRIVEWAY PAVEMENT AT 2" ABOVE BOTTOM SLAB PER STD. DETAIL PVT-10.

4. PREFORMED EXPANSION JOINTS (3/4" THICK) SHALL BE CONSTRUCTED AT LOCATIONS WHERE NEW DRIVEWAY PAVEMENT ABUTS CURB AND GUTTER.

5. ALL AGGREGATE SUBBASE SHALL BE MECHANICALLY COMPACTED.
IDOT CA-7
UNDER OR WITHIN
5 FEET
HORIZONTALLY OF
PAVEMENT,
SIDEWALK, CURB
& GUTTER OR
DRIVEWAYS, OR
WHERE INDICATED
ON PLANS

EXCAVATED MATERIALS,
COMPACTED TO 85%
MODIFIED PROCTOR
MAXIMUM DENSITY,
EXCEPT WHERE CA-7
IS REQUIRED

STORM SEWER SHALL BE
REINFORCED CONCRETE
PIPE, COMPLYING WITH
ASTM C76, CLASS IV, WITH
RUBBER RING GASKET
JOINTS MEETING ASTM
C443. WHERE ELLIPTICAL
PIPE IS USED, IT SHALL
COMPLY WITH ASTM C507.

5-6" MIN. COVER

NOTE:
1. STORM SEWER SHALL BE TELEVISION FOLLOWING COMED AND
NICOR UNDERGROUND UTILITIES AND PRIOR TO THE ISSUANCE
OF THE FIRST CERTIFICATE OF FINAL OCCUPANCY.
NOTE:
1. MANHOLE BARREL JOINTS SHALL BE TONGUE AND GROOVE TYPE WITH TWO ROWS OF EXTRUDIBLE PREFORMED PLASTIC GASKET MATERIAL (BUTYL ROPE).
2. INTERIOR JOINTS SHALL BE "BUTTERED" WITH NON-SHRINK GROUT.
3. STORM MANHOLES SHALL HAVE A WALL THICKNESS OF 6" FOR 5' DIAMETER STRUCTURES AND 7" FOR 6' DIAMETER STRUCTURES
4. SEE CASTING INSTALLATION AND ADJUSTING DETAIL FOR CASTING REQUIREMENTS.
ROTATE CB TOP SECT. AS NECESSARY TO ACHIEVE OPTIMAL CASTING ALIGNMENT

NOTES:
1. SEE CASTING INSTALLATION AND ADJUSTMENT DETAIL FOR CASTING REQUIREMENTS.
2. INTERIOR JOINTS SHALL BE "BUTTERED" WITH NON-SHRINK GROUT.
3. STRUCTURE SHALL COMPLY WITH ASTM C478.
4. $T = \text{STRUCTURE INSIDE DIAMETER} + 1''$ ($5''$ MINIMUM)

STEPS SHALL BE COPOLYMER POLYPROPYLENE PLASTIC WITH A CONTINUOUS 1/2 -INCH STEEL REINFORCEMENT AS MANUFACTURED BY M.A. INDUSTRIES, INC., OR APPROVED EQUAL

DRAINAGE FABRIC 18'' WIDE MIRAFI 140S OR APPROVED EQUAL

SECTION
FABRIC

PLAN

MORTAR WEEP HOLES LOWER THAN 6’’ BELOW FRAME

1'' DIA. WEEP HOLES (6 EACH) AT 60° TYPICAL

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
catch basin type a

DATE: JUNE 2007
NOTES:
1. FRAMES AND LIDS TO BE AS SHOWN IN GENERAL NOTES.
2. CATCH BASINS TO BE OF PRECAST REINFORCED CONCRETE CONSTRUCTION ONLY.
3. FOR ADJUSTMENTS, USE ONLY PRECAST CONCRETE ADJUSTING RINGS, MAXIMUM OF 8" TOTAL HEIGHT.
4. ADJUSTING RINGS AND FRAMES TO BE JOINED WITH MORTAR.
5. FOR RIM AND PIPE INVERT ELEVATIONS, REFER TO PLANS.
6. T = STRUCTURE INSIDE DIAMETER +1" (MINIMUM 5").
CONCRETE FILLET BEDDING

NOTES:
1. SEE CASTING INSTALLATION AND ADJUSTMENT DETAIL FOR CASTING REQUIREMENTS.
2. INTERIOR JOINTS SHALL BE "BUTTERED" WITH NON-SHRINK GROUT.
3. STRUCTURE SHALL COMPLY WITH ASTM C478.

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR INLET

DATE: JUNE 2007
NOTES:
1. THERE SHALL BE A MAXIMUM OF 2 ADJUSTING RINGS WITH A MAXIMUM TOTAL HEIGHT OF 12".
2. ALL STRUCTURES IN CURB AND GUTTER OR PAVED AREAS SHALL USE PREFORMED RUBBER ADJUSTING RINGS.
3. IF THE CASTING MUST BE INSTALLED ON A SLOPE, PREFORMED RUBBER TAPERED RINGS MAY BE USED.
4. ADJUSTING RINGS 2" OR LESS IN THICKNESS SHALL BE PREFORMED RUBBER.
5. THE FOLLOWING CASTING, OR APPROVED EQUAL, SHALL BE UTILIZED AS INDICATED:
   A. SANITARY MANHOLES: EAST JORDAN IRON WORKS #1050, EX HD WATERTIGHT LID WITH CONCEALED PICKHOLE, O-RING GASKETS, AND "SHOREWOOD" AND "SANITARY" CAST IN LID.
   B. WATER VALVE VAULTS: EAST JORDAN IRON WORKS #1050, EX HD WATERIGHT LID WITH CONCEALED PICKHOLE, O-RING GASKETS, AND "SHOREWOOD" AND "WATER" CAST IN LID.
   C. STORM MANHOLES: EAST JORDAN IRON WORKS #1050, EX HD LID WITH CONCEALED PICKHOLE, AND "SHOREWOOD" AND "STORM" CAST IN LID, FOR LIDS INDICATED AS "SOLID" ON PLANS. FOR LIDS INDICATED AS "OPEN" ON PLANS, USE THE SAME CASTING, BUT WITH A TYPE M1 RADIAL FLAT GRATE.
   D. DRAINAGE STRUCTURES IN AREAS WITH UNPAVED SURFACES: EAST JORDAN IRON WORKS 6527.
   E. DRAINAGE STRUCTURES IN MOUNTABLE CURB AND GUTTER: EAST JORDAN IRON WORKS #7171 WITH TYPE M1 GRATE.
   F. DRAINAGE STRUCTURES IN BARRIER CURB AND GUTTER: EAST JORDAN IRON WORKS #7210 WITH TYPE M2 GRATE.
SECTION A-A

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
SUBSURFACE DRAIN TILE
& SUMP PUMP CONNECTION

DATE: JUNE 2007

NOTES:
1. SEE DETAIL STM-8 FOR RESIDENTIAL SUMP DISCHARGE SERVICE LINE.

FINISH GRADE

EXISTING DRAINAGE STRUCTURE WITH CASTING

NON-SHRINK MORTAR COLLAR

PROPOSED PERFORATED DRAIN TILE

CONNECTION HOLE SHALL BE CORE DRILLED.

DRAIN TILE PIPE SHALL BE 4" DIA. SCHEDULE 40 P.V.C.

TOPSOIL

6" MIN.

6" MIN.

3/4" WASHED AGG. MIN. 6" AROUND PIPE.

PERFORATIONS (DRAIN TILE ONLY)

NON-WOVEN GEOTEXTILE FABRIC

4" DIAMETER DRAIN TILE OR SUMP PUMP PIPE

STM-7
NOTES:
1. SUMP PUMP CONNECTION LINES SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35 CONFORMING TO ASTM D-3034, SIZE AS INDICATED ON THE PLANS.
2. TRUNK LINES SHALL BE INSTALLED A MINIMUM OF THIRTY (30) INCHES BELOW THE TOP OF CURB AND FOLLOW THE CURB LINE FOR GRADE, AND SHALL BE LOCATED 2 FEET BEHIND THE FRONT PROPERTY LINE.
3. 10 GAUGE UNDERGROUND FEEDER TRACER WIRE SHALL BE INSTALLED IMMEDIATELY ABOVE THE TRUNK LINES AND SHALL TERMINATE AT THE CLEANOUTS OR STUBS. TRACER WIRE SHALL BE STRAPPED TO ALL STUBS AND CLEANOUTS AND SHALL EXTEND CONTINUOUSLY ALONG ALL PIPES, STUBS, AND CLEANOUTS. ADEQUATE WIRE SHALL BE LEFT IN ALL STRUCTURES TO ALLOW IT TO BE RAISED ABOVE THE FRAME. TRACER WIRE SHALL BE LOOPED BACK TO THE SERVICE STUB AND SHALL BE EXTENDED UP THROUGH THE CLEANOUT TO SURFACE GRADE. SPLICES IN TRACER WIRE SHALL USE A NO. 8 SPLIT BOLT SEALED WITH SELF-VULCANIZING TAPE.
4. UNDERGROUND CONTRACTOR SHALL ROTATE ELBOWS TO INSTALL SERVICE STUBS AS SHOWN IN TEMPORARY LOCATION.
5. HOUSE CONTRACTOR SHALL ROTATE ELBOWS TO INSTALL SERVICES AS SHOWN IN FINISHED LOCATION.
6. ALL CONNECTIONS TO INLETS, CATCH BASINS, OR MANHOLES FOR SERVICE STUBS OF SUMP PUMP MAINLINES SHALL BE CORED AND NOT SAWCUT.
7. PRIOR TO FINAL ACCEPTANCE OF THE SUMP PUMP COLLECTION SYSTEM, THE ENTIRE SYSTEM SHALL BE TELEVISIONED. A COPY OF THE VIDEO TAPE SHALL BE DELIVERED TO THE PUBLIC WORKS DEPT. AND ANY OBSTRUCTIONS SHALL BE REPAIRED.

VILLAGE OF SHOREWOOD
STANDARD DETAIL FOR
SUMP DISCHARGE SERVICE LINE

DATE: JUNE 2007
**Notes:**

1. Restrictor Orifices shall be cast into the concrete weir wall.
2. Watertight connections required between structure and pipe and structure walls/base and weir wall conforming to ASTM C-923.
3. Coated cast iron manhole steps shall be provided in each chamber at 16" on center.
4. Exterior joints shall be wrapped with MACWRAP or approved equal.

**Table to be completed by designer and included in plans for each project**

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**Village of Shorewood Standard Detail for Detention Pond Restrictor Structure**

**Date:** March 2017

*Village of Shorewood*
1. JOINTS FOR GRAVITY SANITARY SEWER SHALL USE PUSH ON BELL AND SPIGOT TYPE WITH RUBBER RING GASKETS CONFORMING TO ASTM D3034 FOR SDR 26 APPLICATIONS AND ASTM D3034 FOR AWWA C900 AND C905 APPLICATIONS.

2. GRAVITY SANITARY SEWER FITTINGS SHALL COMPLY WITH ASTM D2241 SDR 26, AWWA C900 DR 18, OR AWWA DR 25 DEPENDANT UPON DEPTH. THE FITTINGS SHALL BE MADE WITH MANUFACTURER’S STANDARD PIPE BELLS AND GASKETS. GRAVITY SANITARY SEWER RISERS AND SERVICE PIPE AND FITTINGS SHALL COMPLY WITH ASTM D2241 SDR 26, AWWA C900, OR AWWA C905 DEPENDANT UPON DEPTH.

3. WHERE INDICATED ON THE PLANS, SANITARY SEWER PRESSURE PIPE SHALL COMPLY WITH ASTM D2241 FOR 160 PSI PRESSURE RATED PIPE SDR 26, MADE OF TYPE 1, GRADE 1 POLYVINYL CHLORIDE CONFORMING TO ASTM D1784. JOINTS SHALL USE PUSH-ON BELL AND SPIGOT TYPE WITH RUBBER RING SEAL GASKETS CONFORMING TO ASTM D3139.

4. PRESSURE SANITARY SEWER FITTINGS SHALL BE FACTORY FABRICATED WITH ATTACHED MAIN LINE COUPLING, WITH SAME RATING AS PIPE. PRESSURE SANITARY SEWER RISERS AND SERVICE PIPE AND FITTINGS SHALL COMPLY WITH ASTM D2241, 160 PSI PRESSURE RATED, SDR 26 PIPE. SEPARATE NOTIFICATION SHALL BE PROVIDED TO PUBLIC WORKS DEPARTMENT PRIOR TO INSTALLING PRESSURE SANITARY SEwers.

5. ALL SANITARY SEWERS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH ARTICLE 31-1.11B(3) OF THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN ILLINOIS, FIFTH EDITION; AND DEFLECTION TESTED IN ACCORDANCE WITH ARTICLE 31-1.11B(4) OF THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN ILLINOIS, FIFTH EDITION. DEFLECTION TESTING SHALL BE DONE NO SOONER THAN 30 DAYS AFTER THE PIPE HAS BEEN BACKFILLED. NO SOONER THAN 30 DAYS AFTER SEWERS HAVE BEEN INSTALLED, THEY SHALL BE INSPECTED BY CLOSED CIRCUIT COLOR TELEVISION TO DETERMINE IF ANY PIPE INSTALLATION DEFECTS HAVE OCCURRED, AND TO DETERMINE THE LOCATION OF SERVICES. ONE COPY OF THE VIDEOTAPE AND WRITTEN INSPECTION REPORT SHALL BE FURNISHED TO THE VILLAGE.

6. SEWER PLUGS SHALL BE INSTALLED AT DOWNSTREAM ENDS OF ALL NEW SEWERS AND LEFT IN PLACE UNTIL VILLAGE ACCEPTS SEWERS. SEWER PLUGS SHALL BE INSTALLED AT UPSTREAM ENDS OF NEW SEWERS AT THE END OF EACH DAY’S WORK.
**VILLAGE OF SHOREWOOD**

**STANDARD DETAIL**

**FOR**

**SANITARY SEWER MANHOLE**

**DATE: JUNE 2007**

---SAN-2 (Sanitary Sewer Manhole).dgn

---SAN-2 (sanitary sewer manhole).dgn

**NOTE:**

1. SANITARY MANHOLES SHALL HAVE WATERSTOP GASKETS CAST TO STRUCTURES AT ALL PIPE PENETRATIONS. (SEE MANHOLE PIPE CONNECTION DETAIL)
2. SANITARY MANHOLES SHALL HAVE CRETEX INTERNAL CHIMNEY ALS AND PARSONS RAINTOWNER INSERTS.
3. SANITARY MANHOLES SHALL HAVE INTEGRAL BASES.
4. MACWRAP EXTERNAL JOINT SEALING BANDS IN ACCORDANCE TH ASTM C-877, OR APPROVED EQUIVALENT, MUST BE PROVIDED AT NITARY MANHOLE JOINTS.
5. INTERIOR JOINTS SHALL BE "BUTTERED" WITH NON-SHRINK GROUT.
6. STORM MANHOLES SHALL HAVE A WALL THICKNESS OF 6" FOR 5" AMETER STRUCTURES AND 7" FOR 6" DIAMETER STRUCTURES.
7. SANITARY MANHOLES SHALL PASS VACUUM-TESTING PER ASTM C-1244.
8. SEE CASTING INSTALLATION AND ADJUSTING DETAIL FOR CASTING REQUIREMENTS.
1) Ductile iron shall be grade 60-40-18 and shall be tested in accordance with federal specifications.
2) All frames and covers shall have machined horizontal and vertical bearing surfaces. Pick holes shall not create openings in the cover.
3) The manhole covers shall have raised letters as shown.
4) Minimum weights for castings as shown.
5) Dimensions for castings are comparable to East Jordan 1022-3 or Neenah R-1772-CVH.
6) Waterproof, bolt-down frame and cover shall be used as noted on the plans. Neenah R-1916-F1 or East Jordan iron works 1040-ZPT (or approved equal).
WHEN PLACING FIELD-POURED INVERT CHANNELS, PACK ANNULAR SPACES WITH EXTRUDIBLE PREFORMED PLASTIC GASKET MATERIAL TO PREVENT INVERT CONCRETE FROM ENTERING SPACE BETWEEN PIPE AND FLEXIBLE BOOT.

INSTALL PIPE IN ACCORDANCE WITH BOOT MFR'S INST. OR CLAMP SECURELY IN ACCORDANCE WITH BOOT MFR'S INSTRUCTIONS. USE A MINIMUM OF 2 STAINLESS STEEL CLAMPS.

FLEXIBLE BOOTS MEETING ASTM C923 CLAMP-ON TYPE (CAST-IN BOOT SHOWN; PRESSED-IN BOOT ALSO PERMITTED)

FLEXIBLE BOOTS MEETING ASTM C923 "A-LOCK" TYPE

CLAMP SECURELY IN ACCORDANCE WITH BOOT MFR'S INSTRUCTIONS. USE A MINIMUM OF 2 STAINLESS STEEL CLAMPS.

WHEN PLACING FIELD-POURED INVERT CHANNELS, PACK ANNULAR SPACES WITH EXTRUDIBLE PREFORMED PLASTIC GASKET MATERIAL TO PREVENT INVERT CONCRETE FROM ENTERING SPACE BETWEEN PIPE AND FLEXIBLE BOOT.

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR SANITARY MANHOLE PIPE CONNECTION

DATE: JUNE 2007
FLOW

ALL PIPING SHOWN SHALL BE DUCTILE IRON CLASS 52 M.J. PIPE AND MEGALUG FITTINGS

8" MIN. CLASS SI CONC. ENCASEMENT TO TOP OF BEND

FOR INCOMING PIPE SMALLER THAN 12", USE VERTICAL PIPE OF SAME DIAMETER. FOR INCOMING PIPE 12" TO 18" USE 12" VERTICAL PIPE. SEE PLANS FOR PIPES LARGER THAN 18".

NO SCALE

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR DROP CONNECTION

DATE: JUNE 2007

SAN-5
VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
NON-RESIDENTIAL
SEWER SERVICE

DATE: JUNE 2007

_\SAN-6 (Non-Residential Sewer Service).dgn
NOTES:
1. IF $\phi < 45^\circ$ USE PVC PUSH-ON JOINT WYE, P.V.C. ELBOW, P.V.C. RISER PIPE & P.V.C. TOP ELBOW.

2. IF $\phi > 45^\circ$ USE DUCTILE IRON M.J. TEE WITH P.V.C./DUCTILE TRANSITION GASKET, DUCTILE IRON RISER PIPE AND DUCTILE IRON TOP ELBOW.

3. ALL PVC PIPE AND FITTINGS SHALL BE ASTM D3034, SDR 26, WITH ELASTOMERIC GASKET TYPE JOINTS COMPLYING WITH ASTM F477 AND ASTM D3212, OR PRESSURE-RATED PIPE AND FITTINGS PER ASTM D2241 AS NOTED ON THE PLANS.

4. A MINIMUM DISTANCE OF 3 FT IS REQUIRED BETWEEN 45° BENDS.

5. TRENCH BACKFILL SHALL BE INSTALLED PER SANITARY SEWER INSTALLATION DETAIL.
NOTES:

1. PRESSURE AND LEAKAGE TESTS AND CHLORINATION SHALL BE COORDINATED WITH VILLAGE UTILITY FOREMAN.

2. MAINS SHALL BE PRESSURE TESTED AT A MINIMUM PRESSURE OF 150 PSI FOR TWO HOUR WITHOUT PRESSURE LOSS OR FURTHER PRESSURE APPLICATION. TEST SHALL BE PERFORMED IN ACCORDANCE WITH AWWA C600 AND AWWA C603. IF MAINS TO BE TESTED INCLUDE CONCRETE THRUST BLOCKING, DO NOT BEGIN TEST UNTIL AT LEAST 5 DAYS AFTER THE INSTALLATION OF THE THRUST BLOCKING.

3. AFTER COMPLETING A SATISFACTORY PRESSURE TEST, THE WATER MAIN SHALL BE LEAKAGE TESTED FOR 24 HOURS AT SYSTEM PRESSURE, IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.
1. PROVIDE PRECAST OR CAST-IN-PLACE IDOT CLASS SI CONCRETE THRUST BLOCKS OF ADEQUATE SIZE AND THRUST BEARING SURFACE TO PREVENT MOVEMENT OF PIPELINE UNDER PRESSURE.

2. PLACE THE BASE AND THRUST BEARING SIDES OF THRUST BLOCK DIRECTLY AGAINST UNDISTURBED EARTH.

3. PLACE THRUST BLOCKING SO THE FITTING JOINTS WILL BE ACCESSIBLE FOR REPAIR.

4. ALL FITTINGS SHALL HAVE MECHANICAL JOINTS WITH MEGA-LUG RETAINER GLANDS BY EBAA IRON, AND DURATRON SAC-NUTS ON 50% OF ALL BOLTS.
1) Valve must align with the center of vault openings.

2) Cones must be concentric with valves 12" and smaller.

3) Butterfly valves and pressure tap valves require eccentric cones.

4) When adjustments are necessary, they shall be performed with a maximum of two (2) precast concrete rings set in a bed of preformed non-hardening mastic material (Conseal CS-102B, or approved equal) to a maximum height of 12".

5) Manhole steps shall be at 16" O.C. copolymer polypropylene plastic with continuous 1/2" steel reinforcement by M.A. Industries, Inc. or approved equal.

6) Duration sac-nuts shall be used on 50% of all bolts.

7) All hardware shall be stainless steel.

8) Use 4'-0" diameter for water main sizes 8" or less,
   Use 5'-0" diameter for water main sizes 10" thru 20",
   Use 6'-0" diameter for water main sizes greater than 20".

Butterfly valves shall:

9) Have a cast iron body, and be rubber-seated, tight-closing type suitable for buried service.

10) Have ANSI Class 125 standard flange or Victaulic coupling ends.

11) Have valve shaft of either 18-8 or type 304 stainless steel, extended through valve disc and body into operator.

12) Have a fully enclosed, sealed, grease-packed integral geared manual operator with a 2-inch square operating nut.

Village of Shorewood
Standard Detail
for
Valve Vault

Date: June 2007
NOTES:

1. ECCENTRIC CONE REQUIRED
2. USE 4'-0" DIAMETER
   FOR WATER MAIN SIZES 8" OR LESS,
   USE 5'-0" DIAMETER
   FOR WATER MAIN SIZES 10" THRU 20",
   USE 6'-0" DIAMETER
   FOR WATER MAIN SIZES GREATER THAN 20"
3. TAPPING OF WATER MAINS SHALL BE DONE ONLY IN THE
   PRESENCE OF AN AUTHORIZED VILLAGE REPRESENTATIVE,
   AND AFTER 48 HOURS PRIOR NOTICE TO THE VILLAGE.
4. DURATION SAC-NUTS SHALL BE USED ON 50% OF
   ALL BOLTS.

EXTRUDIBLE PREFORMED
PLASTIC GASKET
(TYPICAL ALL
SECTION JOINTS)

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
PRESSURE CONNECTION
VALVE VAULT

DATE: JUNE 2007
1) DUCTILE IRON SHALL BE GRADE 60-40-18 AND SHALL BE TESTED IN ACCORDANCE WITH FEDERAL SPECIFICATIONS.

2) ALL FRAMES AND COVERS SHALL HAVE MACHINED HORIZONTAL AND VERTICAL BEARING SURFACES. PICK HOLES SHALL NOT CREATE OPENINGS IN THE COVER.

3) THE MANHOLE COVERS SHALL HAVE RAISED LETTERS AS SHOWN.

4) DIMENSIONS FOR CASTINGS ARE COMPARABLE TO EAST JORDAN 1022-3 OR NEENAH R-1772-C.

5) LIDS AND FRAMES TO MEET AASHTO H-20 LOADING SPECIFICATIONS.

6) ALL CASTINGS SHALL BE SHOP PAINTED WITH ASPHALTIC BASE PAINT.
NOTES:
1. ALL BOLTS & NUTS BELOW GRADE ON FIRE HYDRANT SHALL BE STAINLESS STEEL.
2. ALL BOLTS & NUTS ON AUXILIARY VALVE SEAL PLATE AND BONNET SHALL BE STAINLESS STEEL.
3. THRUST BLOCKING SHALL BE CONSTRUCTED SO HYDRANT DRAIN HOLE IS NOT OBSTRUCTED.
4. HYDRANT SHALL BE PAINTED ACE BRAND RUST STOP SAFETY RED.

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
FIRE HYDRANT
DATE: SEPTEMBER 2014
WATER MAIN INSTALLATION DETAIL.

1. TRENCH BACKFILL SHALL BE INSTALLED PER WATER MAIN INSTALLATION DETAIL.
2. PLACE AND HAND-TAMP AT LEAST 1/4 CUBIC YARDS OF SAND AROUND CORPORATION STOP.
3. MINIMUM DISTANCE BETWEEN SERVICE TAPS SHALL BE 18 INCHES.
4. MINIMUM RESIDENTIAL SERVICE DIAMETER SHALL BE 1".
5. SERVICES SHALL NOT BE LOCATED WITHIN DRIVEWAYS.
6. ALL SERVICES TO BE ABANDONED OR RELOCATED SHALL BE CLOSED AT THE CORP STOP AND RE-TAPPED.
7. SEE DETAIL MSC-3 FOR SERVICE LATERAL LOCATIONS.

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
RESIDENTIAL WATER SERVICE
DATE: MARCH 2017

SPLCABBREVS
1) SAMPLING STATION SHALL BE GIL INDUSTRIES MODEL EH101-50 OR APPROVED EQUAL.

2) LOCATION OF SAMPLING STATION SHALL BE DETERMINED DURING FINAL ENGINEERING OF THE PROPOSED DEVELOPMENT.

3) CONTRACTOR SHALL HAVE SAMPLING STATION STAKED FOR LOCATION AND ELEVATION AND APPROVED BY THE VILLAGE PRIOR TO INSTALLATION.
1. Light pole assembly shall be Sun Valley Detail No. CS-4092 Rev. 9, or approved equal.

2. Direct connected light poles shall be provided with 120V button-type photoelectric cell.

3. Upon final acceptance of public lighting improvements by the Village, developer/contractor shall provide a non-refundable cash deposit equivalent to 10% of the total construction cost of the light pole standards and fixtures for future Village lighting maintenance purposes.

4. See Sheet 2 of 2 for specifications.

Village of Shorewood Standard Detail for Ornamental Type Light Pole

Sheet 1 of 2

Date: March 2009
SPECIFICATIONS:

LUMINARIE: HOUSING AND DOOR FRAME-HEAVY WALL CAST ALUMINUM CONSTRUCTION WITH REMOVABLE BALLAST TRAY FOR EASY BALLAST ACCESS, REFLECTOR-HEAVY WALL ALUMINUM CONSTRUCTION.

OPTICS: SEGMENTED REFLECTOR AND CLEAR ACRYLIC DIFFUSER. TWIN ASSEMBLY-TYPE III (ASYMMETRIC) LIGHT DISTRIBUTION. SINGLE ASSEMBLY-TYPE III (ASYMMETRIC) LIGHT DISTRIBUTION.

LAMP HOLDER: MOGUL BASE, PORCELAIN.

LAMP: 150 W. H.P.S.- PUBLIC STREET
250 W. H.P.S.- COMMERCIAL APPLICATION

BALLAST: H.P.F./C.W.A. AUTOTRANSFORMER, -20° STARTING TEMPERATURE.
(MULTI-TAP VOLTAGE, WIRED FOR 120V.)

ARM: DURABLE CORROSION RESISTANT, CAST, AND EXTRUDED ALUMINUM CONSTRUCTION.

SHAFT: 16 FLUTES TAPERED ALUMINUM SHAFT (.188 WALL THICK.)
HAS 7” BUTT TAPERING TO 4.5” TOP. SHAFT PROVIDED WITH INTERNAL REINFORCING SLEEVE FOR GREATER STRUCTURAL SUPPORT. SLEEVE AND SHAFT WELDED TO BASE.

BASE: ONE PIECE CORROSION RESISTANT, DURABLE CAST ALUMINUM CONSTRUCTION. MINIMUM .210 WALL THICKNESS, BASE CONSISTS OF A SMOOTH, TAPERED BOTTOM SECTION, AND A HIGHLY DETAILED, DECORATIVE FLUTED SECTION, A DECORATIVE CAST ALUMINUM COLLAR AND FLUTED HAND HOLE COVER CONTOURED TO BASE DESIGN. HAND HOLE COVER SUPPLIED WITH TAMPER RESISTANT HARDWARE. GROUNDING LUG PROVIDED INSIDE BASE OPPOSITE HAND HOLE.

ANCHORAGE: (4) 1”X36” FULLY GALVANIZED ANCHOR BOLTS. EACH BOLT SUPPLIED WITH TWO NUTS AND TWO WASHERS.

FINISH: ELECTROSTATICALLY APPLIED BAKED ON TEXTURED ACRYLIC ENAMEL-HIGH GLOSS (COLOR: BLACK).

NOTE: 1. HAND HOLE COVER TO READ “VILLAGE OF SHOREWOOD”.
2. POLE ASSEMBLY RATED FOR 90 M.P.H. SUSTAINED WIND LOADS PLUS 1.3 WIND GUST.
3. OPTIONS:
   - SPEAKER BRACKET
   - BANNER ARMS (ROTATABLE OR FIXED) SPECIFY.
   - FLAG HOLDER (ROTATABLE OR FIXED) SPECIFY.
   - GFI

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
ORNAMENTAL TYPE LIGHT POLE
SHEET 2 OF 2
DATE: MARCH 2009
1. LIGHT POLE ASSEMBLY SHALL BE SUN VALLEY DETAIL NO. CS-5198 REV. 1, OR APPROVED EQUAL.

2. DIRECT CONNECTED LIGHT POLES SHALL BE PROVIDED WITH 120V BUTTON-TYPE PHOTOELECTRIC CELL.

3. UPON FINAL ACCEPTANCE OF PUBLIC LIGHTING IMPROVEMENTS BY THE VILLAGE, DEVELOPER/CONTRACTOR SHALL PROVIDE A NON-REFUNDABLE CASH DEPOSIT EQUIVALENT TO 10% OF THE TOTAL CONSTRUCTION COST OF THE LIGHT POLE STANDARDS AND FIXTURES FOR FUTURE VILLAGE LIGHTING MAINTENANCE PURPOSES.

4. SEE SHEET 2 OF 2 FOR SPECIFICATIONS.
SPECIFICATIONS:

FIXTURE: HOUSING - HEAVY WALL CAST ALUMINUM CONSTRUCTION, LUMINAIRE SUPPLIED WITH AN ALUMINUM HOOD, A DECORATIVE GASKETED HINGED CAGE AND A CAST ALUMINUM FITTER.

OPTICS: PRECISELY DESIGNED UPPER BOROSILICATE PRISMATIC GLASS REFLECTOR REDIRECTS UPWARD LIGHT DOWNWORD TOWARD THE PRECISELY DESIGNED PRISM STRUCTURE OF THE LOWER BOROSILICATE GLASS REFRACTOR TO PROVIDE A TYPE III (ASYMMETRIC) LIGHT DISTRIBUTION.

LAMP HOLDER: MEDIUM BASE PORCELAIN.
LAMP: 70 W. H.P.S.

BALLAST: H.P.F./C.W.A. AUTOTRANSFORMER, -20° STARTING TEMPERATURE. (MULTI-TAP VOLTAGE)

SHAFT: 4" DIA. EXTRUDED FROM 6063 ALLOY ALUMINUM. HEAT TREATED TO PRODUCE A T6 TEMPER. WALL THICKNESS .188 MINIMUM. DECORATIVE SHAFT HAS EVENLY SPACED HIGHLY DETAILED RAISED VERTICAL FLUTES EXTENDING THE ENTIRE LENGTH OF THE SHAFT. SHAFT IS CIRCUMFERENTIALLY WELDED TO BASE.

BASE: ONE PIECE CORROSION RESISTANT, DURABLE CAST ALUMINUM CONSTRUCTION, MINIMUM .210 WALL THICKNESS, BASE CONSISTS OF A SMOOTH, TAPERED BOTTOM SECTION, AND A HIGHLY DETAILED, DECORATIVE FLUTED SECTION, A DECORATIVE CAST ALUMINUM COLLAR AND A FLUTED HAND HOLE COVER CONTOURED TO BASE DESIGN. HAND HOLE COVER SUPPLIED WITH TAMPER RESISTANT HARDWARE. GROUNDING LUG PROVIDED INSIDE BASE OPPOSITE HAND HOLE.

ANCHORAGE: (4) 3/4"X18" FULLY GALVANIZED ANCHOR BOLTS. EACH BOLT SUPPLIED WITH TWO NUTS AND TWO WASHERS.

FINISH: POLYESTER POWDER COAT - HIGH GLOSS (COLOR: BLACK)

NOTE: 1. HAND HOLE COVER TO READ "VILLAGE OF SHOREWOOD".
2. POLE ASSEMBLY RATED FOR 90 M.P.H. SUSTAINED WIND LOADS PLUS 1.3 WIND GUST.
3. OPTIONS:
   - SPEAKER BRACKET
   - BANNER ARMS (ROTATABLE OR FIXED) SPECIFY.
   - FLAG HOLDER (ROTATABLE OR FIXED) SPECIFY.
   - GFI

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
PEDESTRIAN SCALE (10')
ORNAMENTAL TYPE
LIGHT POLE
SHEET 2 OF 2
DATE: MARCH 2009
NOTE:

1. LIGHT POLE ASSEMBLY SHALL BE SUN VALLEY DETAIL NO. CS-5201 REV. 1, OR APPROVED EQUAL.

2. DIRECT CONNECTED LIGHT POLES SHALL BE PROVIDED WITH 120V BUTTON-TYPE PHOTOELECTRIC CELL.

3. UPON FINAL ACCEPTANCE OF PUBLIC LIGHTING IMPROVEMENTS BY THE VILLAGE, DEVELOPER/CONTRACTOR SHALL PROVIDE A NON-REFUNDABLE CASH DEPOSIT EQUIVALENT TO 10% OF THE TOTAL CONSTRUCTION COST OF THE LIGHT POLE STANDARDS AND FIXTURES FOR FUTURE VILLAGE LIGHTING MAINTENANCE PURPOSES.

4. SEE SHEET 2 OF 2 FOR SPECIFICATIONS.

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
PEDESTRIAN SCALE
SYMMETRICAL
ORNAMENTAL TYPE
LIGHT POLE
SHEET 1 OF 2
DATE: MARCH 2009
SPECIFICATIONS:

LUMINAIRE: DURABLE CORROSION RESISTANT CAST ALUMINUM. HOUSING TOP HINGES FOR EASY RE-LAMPING. LUMINAIRE SUPPLIED WITH CLEAR ACRYLIC DIFFUSER.

OPTICS: SEGMENTED HORIZONTAL REFLECTOR COMBINES WITH CLEAR ACRYLIC DIFFUSER TO PRODUCE TYPE III (ASYMMETRIC) LIGHT DISTRIBUTION.

LAMP HOLDER: MEDIUM BASE, PORCELAIN.

LAMP: 70 W. H.P.S.

BALLAST: H.P.F./C.W.A. AUTOTRANSFORMER,-20° STARTING TEMPERATURE. (MULTI-TAP VOLTAGE, SPECIFY VOLTAGE)

SHAFT: 16 FLUTES TAPERED ALUMINUM SHAFT (.188 WALL THICK,) HAS 6” BUTT TAPERING TO 4.6” TOP. SHAFT PROVIDED WITH INTERNAL REINFORCING SLEEVE FOR GREATER STRUCTURAL SUPPORT. SLEEVE AND SHAFT WELDED TO BASE.

BASE: ONE PIECE CORROSION RESISTANT, DURABLE CAST ALUMINUM CONSTRUCTION. MINIMUM .210 WALL THICKNESS. BASE CONSISTS OF A SMOOTH, TAPERED BOTTOM SECTION, AND A HIGHLY DETAILED, DECORATIVE FLUTED SECTION, A DECORATIVE CAST ALUMINUM COLLAR AND FLUTED HAND HOLE COVER CONTOURED TO BASE DESIGN. HAND HOLE COVER SUPPLIED WITH TAMPER RESISTANT HARDWARE. GROUNDING LUG PROVIDED INSIDE BASE OPPOSITE HAND HOLE.

ANCHORAGE: (4) 3/4”X24” FULLY GALVANIZED ANCHOR BOLTS. EACH BOLT SUPPLIED WITH TWO NUTS AND TWO WASHERS.

FINISH: POLYESTER POWDER COAT - HIGH GLOSS (COLOR: BLACK)

NOTE: 1. HAND HOLE COVER TO READ “VILLAGE OF SHOREWOOD”.
2. POLE ASSEMBLY RATED FOR 90 M.P.H. SUSTAINED WIND LOADS PLUS 1.3 WIND GUST.
3. OPTIONS:
   - SPEAKER BRACKET
   - BANNER ARMS (ROTATABLE OR FIXED) SPECIFY.
   - FLAG HOLDER (ROTATABLE OR FIXED) SPECIFY.
   - GFI
SPECIFICATIONS:

ARMS: STEEL CONSTRUCTION, 2.375 O.D. (.154 WALL THICK.)

SHAFT: 16 FLUTES TAPERED STEEL SHAFT (.188 WALL THICK.) HAS 9" BUTT TAPERING TO 4.6" TOP, MINIMUM YIELD STRENGTH 55,000 P.S.I. HAND HOLE IS PROVIDED WITH COVER, SHAFT PROVIDED WITH 2.5"X5" HAND HOLE AT 18" FROM SHAFT BOTTOM.

BASE PLATE: FABRICATED FROM STRUCTURAL QUALITY HOT ROLLED STEEL BASE TElescOPES AND IS CIRCUMFERENTIALLY WELDED TO SHAFT.

DECORATIVE BASE: TWO PIECE WRAPAROUND, CORROSION RESISTANT, DURABLE CAST ALUMINUM CONSTRUCTION, MINIMUM .225 WALL THICKNESS. BASE CONSISTS OF A SMOOTH TAPERED BOTTOM SECTION AND A DECORATIVE TAPERED FLUTED SECTION WITH EVENLY SPACED RAISED VERTICAL FLUTES. BASE IS FURNISHED WITH A CONTOURED, FLUTED FLUSH HAND HOLE AND COVER, HAND HOLE COVER SUPPLIED WITH TAMPER RESISTANT HARDWARE. (4) 1/4"-20 SET SCREWS PROVIDED TO SECURE DECORATIVE BASE TO SHAFT.

ANCHORAGE: (4) 1/4"X48" FULLY GALVANIZED ANCHOR BOLTS. EACH BOLT SUPPLIED WITH TWO NUTS AND TWO WASHERS.

FINISH: ELECTROSTATICALLY APPLIED BAKED ON TEXTURED ACRYLIC ENAMEL-HIGH GLOSS (COLOR: BLACK)

NOTES:
1. LIGHT POLE ASSEMBLY SHALL BE SUN VALLEY DETAIL NO. CS-4105 REV. 5, OR APPROVED EQUAL.
2. HAND HOLE COVER TO READ "VILLAGE OF SHOREWOOD".
3. VIBRATION DAMPENER PROVIDED INSIDE OF POLE.
4. POLE ASSEMBLY RATED FOR 90 M.P.H. SUSTAINED WIND LOADS PLUS 1.3 WIND GUST.
5. BREAK AWAY BANNER ARMS PROVIDED AS REQUIRED.
6. DUPLex REC. PROVIDED AS REQUIRED.
7. FIXTURE HEAD SHALL BE GE LIGHTING SYSTEMS #DC####OA21FM31-SPECIAL BLACK.
WHERE ** = WATTAGE

(POLE CROSS SECTION) 16 FLUTES

HAND HOLE PROVIDED WITH COVER

1/4"X1/2" DIA. BOLT CIRCLE

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
ROADWAY TYPE LIGHT POLE

DATE: APRIL 2009
SPECIFICATIONS:
LUMINAIRE: HOUSING AND DOOR FRAME—HEAVY WALL CAST ALUMINUM CONSTRUCTION WITH REMOVABLE BALLAST TRAY FOR EASY BALLAST ACCESS. REFLECTOR—HEAVY WALL ALUMINUM CONSTRUCTION.
OPTICS: CLEAR PATTERNED ACRYLIC REFRACTOR, TYPE V (SYMMETRIC) OR TYPE III (ASYMMETRIC) LIGHT DISTRIBUTION.
LAMP HOLDER: MOGUL BASE, PORCELAIN.
LAMP: 150 W. H.P.S. (BY OTHERS)
BALLAST: H.P.F./C.W.A. AUTOTRANSFORMER, -20°F STARTING TEMPERATURE. (MULTI-TAP VOLTAGE)
ARMS: STEEL CONSTRUCTION, 2.375 O.D. (.154 WALL THICK.)
SHAFT: 16 FLUTE TAPERED STEEL SHAFT (.188 WALL THICK.) HAS 9” BUTT TAPERING TO 4.6” TOP, MINIMUM YIELD STRENGTH 55,000 P.S.I. HAND HOLE IS PROVIDED WITH COVER, SHAFT PROVIDED WITH 2.5”X5” HAND HOLE AT 18” FROM SHAFT BOTTOM,
BASE PLATE: FABRICATED FROM STRUCTURAL QUALITY HOT ROLLED STEEL BASE TELESCOPES AND IS CIRCUMFERENTIALLY WELDED TO SHAFT.
DECORATIVE BASE: TWO PIECE WRAPAROUND, CORROSION RESISTANT, DURABLE CAST ALUMINUM CONSTRUCTION. MINIMUM .025 WALL THICKNESS, BASE CONSISTS OF A SMOOTH TAPERED BOTTOM SECTION AND A DECORATIVE TAPERED FLUTED SECTION WITH EVENLY SPACED RAISED VERTICAL FLUTED BASE IS FURNISHED WITH A CONTOURED, FLUTED FLUSH HAND HOLE AND COVER, HAND HOLE COVER SUPPLIED WITH TAMPER RESISTANT HARDWARE. (4) 1/4”-20 SET SCREWS PROVIDED TO SECURE DECORATIVE BASE TO SHAFT.
ANCHORAGE: (4) 1/4”X48” FULLY GALVANIZED ANCHOR BOLTS. EACH BOLT SUPPLIED WITH TWO NUTS AND TWO WASHERS.
FINISH: ELECTROSTATICALLY APPLIED BAKED ON TEXTURED ACRYLIC ENAMEL-HIGH GLOSS (COLORS BLACK)
NOTES: 1. LIGHT POLE ASSEMBLY TO BE SUN VALLEY DETAIL NO. CS-1400 REV. 5, OR APPROVED EQUAL.
2. HAND HOLE COVER TO READ “VILLAGE OF SHOREWOOD”.
3. VIBRATION DAMPENER PROVIDED INSIDE OF POLE.
4. POLE ASSEMBLY RATED FOR 90 M.P.H. SUSTAINED WIND LOADS PLUS 1.3 WIND GUST.
5. BREAK AWAY BANNER ARMS PROVIDED AS REQUIRED.
6. DUPLEX REC. PROVIDED AS REQUIRED.
7. FIXTURE HEAD SHALL BE GE LIGHTING SYSTEMS #MCB**-0A21FCM31-SPECIAL BLACK, WHERE ** = WATTAGE

(POLE CROSS SECTION) 16 FLUTES

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR ROADWAY TYPE LIGHT POLE WITH PEDESTRIAN FIXTURE

DATE: APRIL 2009
NOTES:
1. GROUND ROD SHALL BE CAST INTO CONCRETE FOUNDATION WITH 8 FEET IN CONTACT WITH SOIL & SHALL BE INCIDENTAL TO THE FOUNDATION.

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<tr>
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</table>
PHASE CONDUCTOR
GROUND CONDUCTOR
NEUTRAL CONDUCTOR

1. CONNECTOR KIT METHOD WITH 6A FUSES INSIDE A TWO POLE FUSE HOLDER AND INSULATING BOOTS
2. NO. 10 A.W.G. THWN WIRE
3. MULTIPLE COMPRESSION FITTINGS (SPLICE)
4. CONCRETE FOUNDATION
5. WIRE AS SHOWN ON PLANS
6. UNIT DUCT IN PVC RACEWAY
7. POLE GROUND LUG
8. #6 GROUND WIRE MECHANICALLY CLAMPED TO GROUND ROD
9. 5/8" DIA. x 10' GROUND ROD

NOTES:
1. TWIN HEADED LIGHT POLES HAVE SEPARATE FUSING & CIRCUIT FOR SECOND FIXTURE.
2. DIRECT CONNECTED LIGHT POLES HAVE 120 VOLT LUMINAIRES.

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
LIGHT POLE HANDHOLE
WIRING DIAGRAM
DATE: JULY 2007
HEAT-SHRINKABLE CAP WITH FACTORY APPLIED WATERPROOF SEALANT, (SIZED TO ACCOMMODATE NUMBER OF CABLES)

TRIMMED CABLES

COMMISSION TYPE COPPER SLEEVE (SIZED FOR ACTUAL NUMBER OF CABLES AND MFG. SUGGESTED CRIMP TOOL USED)

SEALANT TAPE OR INSERT (AROUND AND THROUGH CROTCH SPACE)

ELECTRIC CABLES IN CONDUIT (SIZE & NUMBER AS NOTED ON CONTRACT DRAWINGS)

#10 AWG ELECTRIC CABLE TO LUMINAIRE

EXPOSED SEALANT

VILLAGE OF SHOREWOOD
STANDARD DETAIL FOR SPLICING ELECTRIC CABLES

DATE: JULY 2007
STREET CROSSING

① CONDUIT SHALL BE HEAVY WALL RGS CONDUIT.
② CONDUIT SHALL EXTEND A MINIMUM OF 2 FT. BEYOND BACK OF CURB.
③ CONDUIT SHALL BE A MINIMUM OF 30" BELOW CURB BOTTOM.

TRENCH CROSS SECTION

- TRENCH BACKFILL
- RED WARNING TAPE 6" WIDE
- CONDUIT/DUCT SIZES AS SHOWN ON PLANS
- 12" MAXIMUM WIDTH EXCEPT AS APPROVED BY THE VILLAGE

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
CONDUIT INSTALLATION

DATE: JULY 2007
**GENERAL NOTES:**

1. DISCONNECT ENCLOSURE SHALL BE LOCATED A MINIMUM OF 10' FROM COM ED TRANSFORMER/PEDESTAL.

2. INSTALL CONDUIT TO WITHIN 3' FROM COM ED TRANSFORMER/PEDESTAL WITH SUFFICIENT CABLE/DUCT COILED UP, CONNECTION BY COM ED.

3. UNDERGROUND CONDUIT SHALL BE INSTALLED IN EASEMENTS OR RIGHT-OF-WAY ONLY. CONTRACTOR SHALL SUBMIT A WIRING DIAGRAM TO THE VILLAGE FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION, AND SHALL SUBMIT AN AS-BUILT CONDUIT PLAN AFTER CONSTRUCTION.

4. PROVIDE GROUND RODS AT SERVICE DISCONNECT AND AT EACH LUMINAIRE AS SHOWN. PROVIDE EQUIPMENT GROUNDING CONDUCTOR IN RUN(S) TO LUMINAIRE(S) PER NEC.

5. SPLICE CONDUCTORS IN POLE BASE(S) USING COMPRESSION SLEEVES PER VILLAGE OF SHOREWOOD STANDARD DETAIL.

6. PROVIDE DUAL IN-LINE FUSEHOLDERS WITH 6A TIME-LAG FUSES IN POLE BASE(S) FOR EACH LUMINAIRE. USE THWN-*#10 STRANDED COPPER WIRE IN POLE(S) FROM HANDHOLE TO THE LUMINAIRE(S).

7. USE PVC SCH 80 CONDUIT FOR ALL INSTALLATION WITHIN RIGHT-OF-WAYS.

---

**VILLAGE OF SHOREWOOD STANDARD DETAIL**

**FOR DIRECT CONNECTED STREET LIGHT SERVICE DISCONNECT**

**DATE:** JULY 2007
NOTES:

1. ALL WORK SHALL CONFORM TO COM ED'S BOOK OF "INFORMATION AND REQUIREMENTS FOR THE SUPPLY OF ELECTRIC SERVICE."

2. CONTRACTOR TO PROVIDE CONDUIT BUSHING AND SEALING COMPOUND.
VILLAGE OF SHOREWOOD

STANDARD DETAIL FOR

LIGHTING CONTROLLER

SHEET 1 OF 4

DATE: JULY 2007
<table>
<thead>
<tr>
<th>ITEM</th>
<th>SPECIFICATION</th>
<th>MFG/MODEL NO. OR EQUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) MAIN CIRCUIT BREAKER</td>
<td>100 AMPERE, 2P, 240V RATING, 22K AIC</td>
<td>SIEMENS NO. ED42B100</td>
</tr>
<tr>
<td>2) LAMPHOLDER CIRCUIT BREAKER</td>
<td>20 AMPERE, 1P, 120V RATING, 22K AIC</td>
<td>SIEMENS NO. ED41B020</td>
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<td>3) PHOTOELECTRIC CONTROL CIRCUIT BREAKER</td>
<td>15 AMPERE, 1P, 120V RATING, 22K AIC</td>
<td>SIEMENS NO. ED41B015</td>
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<td>4) AUXILIARY RELAY</td>
<td>120 V OPERATED DPDT 60 HZ COIL 600V 2 N.O. &amp; 2 N.C. CONTACTS</td>
<td>MAGNECRAFT NO. 389FXBC1-120A</td>
</tr>
<tr>
<td>5) CABINET RECEPTACLE AND BOX</td>
<td>COMMERCIAL GRADE GFCI 20A/120V, MOUNTED IN A WEATHERPROOF CAST ALUMINUM SINGLE GANG BOX WITH WEATHERPROOF COVER</td>
<td>RECEPT: LEVITON NO. 8899, BOX: APPLETON NO. WSM150 COVER: APPLETON NO. WHG1</td>
</tr>
<tr>
<td>6) CABINET LIGHT &amp; BOX</td>
<td>120V WEATHERPROOF LAMPHOLDER MOUNTED IN A CAST ALUMINUM BOX &amp; EXT. GRADE 100W LAMP</td>
<td>RAB NO. VX100DG</td>
</tr>
<tr>
<td>7) CONTACTOR</td>
<td>100 AMPERE, 2P, 120V COIL, MECH HELD</td>
<td>SQUARE D NO. 8903SQ010V02</td>
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<tr>
<td>8) BRANCH LINE CIRCUIT BREAKERS</td>
<td>5-30 AMPERE, 2P, 240V RATING, 22K AIC</td>
<td>SIEMENS NO. ED42B030</td>
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<tr>
<td>9) POWER DISTRIBUTION BLOCK</td>
<td>600 VOLT, INSULATED, SIZE AS REQUIRED</td>
<td>MARATHON</td>
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<tr>
<td>10) SERVICE CABLES</td>
<td>3-600V (XLP-TYPE USE) NO. 2</td>
<td>N/A</td>
</tr>
<tr>
<td>11) LAMPHOLDER WIRE</td>
<td>2-600V MTW NO. 12</td>
<td>N/A</td>
</tr>
<tr>
<td>12) CONTROL WIRE</td>
<td>2-600V MTW NO. 12</td>
<td>N/A</td>
</tr>
<tr>
<td>13) SURGE ARRESTER</td>
<td>10 K AMPERE RATING</td>
<td>SQUARE D NO. SDSA 1175</td>
</tr>
<tr>
<td>14) PHOTOELECTRIC CONTROL WIRE</td>
<td>3-600V MTW NO. 12</td>
<td>3-600V XLP NO. 12</td>
</tr>
<tr>
<td>15) DOOR SWITCH</td>
<td>20A/120V, DOOR MOUNTED SNAP ACTION TYPE PLUNGER SWITCH</td>
<td>OMRON NO. A-20GQ-K</td>
</tr>
<tr>
<td>16) HAND-AUTO-OFF CONTROL SWITCH</td>
<td>20A, 3 POS. MTD IN CAST ALUM. ENCLOSURE</td>
<td>SQUARE D NO. 9001 KYK 111</td>
</tr>
<tr>
<td>17) PHOTOCCELL</td>
<td>120V, MTD. ON CABINET, DELAY TYPE, SPST-NC</td>
<td>FISHER PIERCE NO. FPFA-105M-120V</td>
</tr>
</tbody>
</table>

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
LIGHTING CONTROLLER
SHEET 2 OF 4
DATE: JULY 2007
NOTES

1. CABINETS SHALL BE FABRICATED FROM 0.125-INCH SHEET TYPE 5052-H32 ALUMINUM, FORMED AND ARC WELDED ASSEMBLY.
2. ALL SCREWS AND HARDWARE SHALL BE PLATED, GALVANIZED, OR MADE OF BRASS, ALUMINUM OR STAINLESS STEEL.
3. NAME PLATE SHALL HAVE ENGRAVED 0.75-INCH HIGH LETTERS FILLED IN BLACK: “STREET LIGHTING.”
4. CABINET SHALL BE PRIMED AND PAINTED AS SPECIFIED. FINISH COAT SHALL BE RAL6005 GREEN POWDER PAINT.
5. ELECTRIC UTILITY METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET AS SHOWN ON THE PANEL LAYOUT DIAGRAM.
6. THE COMPLETED CONTROLLER WITH ALL OF ITS COMPONENTS SHALL BE UL LISTED AS AN “ENCLOSED INDUSTRIAL CONTROL PANEL UNDER UL508A.”
7. METAL MOUNTING PANEL SHALL BE #10 GAUGE GALVANIZED SHEET STEEL FLANGED BACK 0.75-INCHES ID ON 4 SIDES.
8. CIRCUIT BREAKERS, CONTACTORS AND OTHER COMPONENTS SHALL BE MOUNTED ON 0.125-INCH THICK GLASTIC INSULATION BACK PANEL.
9. ALL DEVICES SHALL BE FRONT REMOVABLE.
10. BUS BAR SHALL HAVE 22 LUG TERMINALS SIZED TO ACCOMMODATE REQUIRED WIRE SIZES. NEUTRAL BUS SHALL BE PAINTED WHITE. GROUND BUS SHALL BE PAINTED GREEN.
11. ALL LUGS SHALL BE COPPER SCREWS AND CONNECTORS, SPRING HELD.
12. ALL WIRING TERMINATIONS SHALL BE RATED NOT LESS THAN 75 DEGREE CENTIGRADE.
13. ALL CONTROL WIRING SHALL BE 600V MACHINE TOOL WIRE TYPE MTW.
14. ALL POWER WIRING SHALL BE 600V TYPE RHH/RHW.
15. A LAMINATED COPY OF THE CIRCUIT SCHEMATIC DIAGRAM SHALL BE ATTACHED TO THE INSIDE OF THE CONTROLLER.
16. ALL 120 VOLT SYSTEM AND ALL CONTROL WIRING SHALL BE #12 AWG STRANDED UNLESS OTHERWISE INDICATED.
17. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
18. CONNECTION OF SURGE ARRESTOR TO LINE SIDE OF MAIN CIRCUIT BREAKER SHALL NOT BE “DOUBLE LUGGED.”
GROUND FIELD DETAIL (TYP.)

12"x12" GREEN POLYMER CONCRETE ACCESS WELL WITH "GROUND" LOGO EMBOSSED IN COVER, TYP. OF 3

1/4" x 10' COPPERCLAD GROUND ROD MIN. 1'-0" BELOW GRADE (TYP.) EXOTHERMIC WELD, TYP.

NO. 6 COPPER GROUND WIRE (TYP., EACH LEG)

NO. 6 COPPER GROUND WIRE TO LIGHTING CONTROLLER GROUND BUS

GROUND FIELD DETAIL (TYP.)
1. SIGN POSTS
   A. ALL SIGN POSTS SHALL BE MADE OF A SQUARE TWO PIECE UNISTRUT TELESUR AND SHALL BE 12-GAUGE HOT DIPPED GALVANIZED STEEL.
   B. THE BASE POST SHALL BE A MINIMUM OF 36 INCHES IN LENGTH AND SHALL MEASURE A MINIMUM OF 2 INCHES O.D. SQUARE. THE SIGN POST LENGTH SHALL VARY DEPENDING ON THE SIGN IN ORDER TO MAINTAIN A DISTANCE OF A MINIMUM OF 7 FEET FROM GRADE TO THE BOTTOM OF THE SIGN AND SHALL MEASURE A MINIMUM OF 1 3/4 INCHES O.D. SQUARE.
   C. THE BASE POST SHALL BE DRIVEN PLUMB INTO UNDISTURBED SOIL WITH A MAXIMUM OF 3 INCHES ABOVE GRADE. THE TOP OF THE POST SHALL NOT BE DISTORTED OR DAMAGED FROM DRIVING IT INTO THE SOIL.
   D. THE ASSEMBLY SHALL BE SECURED WITH A GALVANIZED OR EQUAL BOLT, FLAT WASHER, AND LOCK NUT. THE END OF BOLT IS TO BE PEENED OVER SO THE LOCK NUT CANNOT BE REMOVED.

2. SIGNS
   A. STREET NAME SIGN BLADES SHALL BE 9-INCH WIDE EXTRUDED ALUMINUM WITH WHITE DIAMOND GRADE SHEETING. STREET NAMES SHALL BE MADE OF 6 INCH SERIES “B” LETTERS. THE STREET DESIGNATION SUFFIX SHALL BE MADE OF 3 INCH SERIES “B” LETTERS. THE LETTERS SHALL BE PLACED STRAIGHT AND EVENLY SPACED.
   C. STOP SIGNS (R1-1) SHALL BE 30-INCH WITH DIAMOND GRADE VIP SHEETING. THE “ALL WAY” PLACARD (R1-4) SHALL BE APPLIED TO ALL STOP SIGNS AT ALL WAY STOP INTERSECTIONS.
   D. STOP SIGNS (R1-1) SHALL BE 36-INCH WITH DIAMOND GRADE VIP SHEETING AT ALL INTERSECTIONS WITH U.S. ROUTE 52 AND ILLINOIS ROUTE 59.
   E. YIELD SIGNS (R1-2) SHALL BE 36-INCH WITH DIAMOND GRADE VIP SHEETING.
   F. SPEED LIMIT SIGNS FOR LOCAL ROADS SHALL HAVE BLACK LETTERING AND BORDERS ON A WHITE BACKGROUND WITH DIAMOND GRADE VIP SHEETING.
      1. SPEED LIMIT SIGNS FOR LOCAL ROADS SHALL BE 24-INCH X 36-INCH WITH “RESIDENTIAL” “25 MPH” “UNLESS OTHERWISE POSTED” TEXT.
      2. SPEED LIMIT SIGNS (R2-1) FOR COLLECTOR STREETS SHALL BE 24-INCH X 30-INCH.
G. WEIGHT LIMIT - 5 TONS (R12-1) SIGNS SHALL HAVE BLACK LETTERING AND BORDERS ON A WHITE BACKGROUND AND SHALL BE 24-INCH X 30-INCH WITH DIAMOND GRADE VIP SHEETING.

H. SPRINKLING RESTRICTION SIGNS SHALL HAVE BLACK LETTERING AND BORDERS ON A WHITE BACKGROUND AND SHALL BE 24-INCH X 30-INCH WITH DIAMOND GRADE VIP SHEETING WITH "SPRINKLING ALLOWED" "6AM TO 10AM" "6PM TO 10PM" "ODD/EVEN" TEXT.

I. NO PARKING ON VILLAGE STREETS AFTER 2 INCH SNOWFALL SIGNS SHALL HAVE RED LETTERING AND BORDERS ON A WHITE BACKGROUND AND SHALL BE 24-INCH X 30-INCH WITH DIAMOND GRADE VIP SHEETING.

3. HARDWARE AND INSTALLATION
   A. ALL BANDING, BUCKLES AND CLIPS SHALL BE STAINLESS STEEL AND POWDER-COATED BLACK. BANDING SHALL HAVE A MINIMUM OF 1 INCH WIDTH AND SHALL HAVE A MINIMUM OF 30 THOUSANDS INCH THICKNESS.

   B. ALL STREET NAME SIGNS SHALL BE MOUNTED ON A STREET LIGHT POLE USING A 14 INCH WING BRACKET FOR BLADES UNDER 36 INCHES AND A 24 INCH WING BRACKET FOR BLADES 36 INCHES OR OVER. ALL WING BRACKETS SHALL BE MADE FOR EXTRUDED BLADES; MOUNTED TO STREET LIGHT POLES WITH THREE BANDS; SECURED USING 5/16 INCH BY 1 INCH GALVANIZED BOLTS OR EQUAL, WITH A FLAT WASHER AND LOCK NUT; AND BE PLACED A MINIMUM OF 12 FEET ABOVE GRADE ON THE LIGHT POLE. REGULATORY SIGNS SHALL BE MOUNTED WITH VANDAL-PROOF HARDWARE.

   C. ALL STREETS NAME SIGNS SHALL BE PLACED A MINIMUM OF 12 FEET FROM GRADE AND PLACED PARALLEL TO THE STREET NAMED.

   D. ALL SIGN INSTALLATIONS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2003 EDITION AND SHALL BE CONSISTENT WITH THE APPROVED TRAFFIC CONTROL, STRIPING, AND SIGNAGE PLANS. IN THE CASE OF A CONFLICT, THE VILLAGE OF SHOREWOOD CODE SHALL TAKE PRECEDENCE.

   E. FOR NEW SUBDIVISION CONSTRUCTION, PERMANENT STREET SIGNS MAY BE MOUNTED ON A TEMPORARY POST WITH A MINIMUM OF 2-POUND GREEN OR GALVANIZED U POST AND WITH A MINIMUM LENGTH OF 12 FEET. STREET SIGNS AND REGULATORY SIGNS ARE TO BE ERECTED PRIOR TO THE ISSUANCE OF THE FIRST BUILDING PERMIT. THE SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED SIGNAGE PLAN. THE DEVELOPER IS SOLELY RESPONSIBLE FOR THE MAINTENANCE OF THE SIGN INSTALLATIONS UNTIL THE VILLAGE ACCEPTS THE SIGNS. ALL PERMANENT SIGNS SHALL BE INSTALLED ON PERMANENT MOUNTS AT THE TIME OF ROADWAY SURFACE PLACEMENT.

   F. ALL SIGNS ON TEMPORARY POSTS WILL BE TRANSFERRED TO A LIGHT POLE OR A SQUARE POST WHERE THERE IS NO LIGHT POLE. SIGNS MUST BE TRANSFERRED TO THE POLE/POST AT THE TIME STREET LIGHTING IS INSTALLED OR AT THE REQUEST OF THE VILLAGE.
AFTER 2-INCH SNOWFALL STREETS ON VILLAGE PARKING NO SGN-2 (no parking).dgn

24"

30"

VILLAGE OF SHOREWOOD STANDARD DETAIL FOR NO PARKING SIGN

DATE: JUNE 2007
NOTES:

1. PREFERRED LETTER SIZES NOTED.

2. PLACE ABOVE WEIGHT LIMIT SIGN ON SAME POST.
NOTE:
1. THIS SIGN IS TO BE DELIVERED TO THE PUBLIC WORKS DEPARTMENT, NOT INSTALLED.
NOTE: PLACE UNDERNEATH SPEED LIMIT SIGN ON SAME POST.
VILLAGE OF SHOREWOOD

SIGN SPACING
FOR
TYPICAL RESIDENTIAL
SUBDIVISION ENTRANCE

DATE: JULY 2007

VILLAGE STANDARD
NO PARKING SIGN

VILLAGE STANDARD
WEIGHT LIMIT SIGN OVER
SPRINKLING SIGN

VILLAGE STANDARD
SPEED LIMIT SIGN

END CURB RETURN

TO RESIDENTIAL
SUBDIVISION

25'
75'
75'

NOTE:
TO BE MOUNTED ON TYPE III BARRICADES BELOW ROAD CLOSED SIGN.

VILLAGE OF SHOREWOOD
SIGNAGE FOR FUTURE STREET CONNECTION
DATE: JULY 2007

SGN-7 (Signage for future).dgn
NOTES:
1. PERMANENT CONCRETE MONUMENTS SHALL BE PLACED AT ALL CORNERS AND CHANGES IN BEARING OF THE EXTERIOR BOUNDARY.

2. A MINIMUM OF ONE PERMANENT BENCHMARK SHALL BE ESTABLISHED FOR EACH 50 ACRES, OR FRACTION THEREOF, SUBDIVIDED, AT A LOCATION DESIGNATED ON THE CONSTRUCTION PLANS AND APPROVED BY THE VILLAGE ENGINEER.
1. CASING PIPE SHALL BE NEW PIPE CONFORMING TO ASTM C139 GRADE A WITH CONTINUOUS FIELD-WELDED BUTT JOINTS IN ACCORDANCE WITH AWWA C206, A MINIMUM YIELD STRENGTH OF 35,000 PSI, AND THE FOLLOWING MINIMUM WALL THICKNESS:

<table>
<thead>
<tr>
<th>NOMINAL PIPE SIZE - INCHES</th>
<th>UNDER HIGHWAY</th>
<th>UNDER RAILROAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNDER 14</td>
<td>0.188</td>
<td>0.2500</td>
</tr>
<tr>
<td>14 AND 16</td>
<td>0.250</td>
<td>0.3125</td>
</tr>
<tr>
<td>18</td>
<td>0.250</td>
<td>0.3125</td>
</tr>
<tr>
<td>20</td>
<td>0.250</td>
<td>0.3750</td>
</tr>
<tr>
<td>24</td>
<td>0.312</td>
<td>0.4375</td>
</tr>
<tr>
<td>30</td>
<td>0.312</td>
<td>0.5000</td>
</tr>
<tr>
<td>36</td>
<td>0.375</td>
<td>0.5625</td>
</tr>
<tr>
<td>42</td>
<td>0.375</td>
<td>0.563</td>
</tr>
<tr>
<td>48</td>
<td>0.375</td>
<td>0.625</td>
</tr>
<tr>
<td>54</td>
<td>0.500</td>
<td>0.719</td>
</tr>
<tr>
<td>60</td>
<td>0.575</td>
<td>0.781</td>
</tr>
<tr>
<td>66</td>
<td>0.650</td>
<td>0.875</td>
</tr>
<tr>
<td>72</td>
<td>0.650</td>
<td>0.938</td>
</tr>
</tbody>
</table>


3. PROVIDE CARRIER PIPE SUPPORT SYSTEM TO POSITION CARRIER PIPE AT THE INDICATED ELEVATION AND SLOPE WITHIN THE CASING, USING POWERSEAL CASING CHOCK MODEL 4810 STAINLESS STEEL SPACERS CONSISTING OF 4 GAUGE TYPE 304 STAINLESS STEEL SHELLS, PVC LINER, HIGH MOLECULAR WEIGHT POLYMER RUNNERS, AND STAINLESS STEEL BOLTS AND LOCK NUTS, OR APPROVED EQUAL. A MINIMUM OF THREE SPACERS SHALL BE PROVIDED PER CARRIER PIPE LENGTH, ON 6-FOOT CENTERS.

4. FILL ANNULAR SPACE BETWEEN CARRIER AND CASING PIPES FOR ALL PIPES EXCEPT WATER MAINS WITH PEA GRAVEL.

5. CONSTRUCT END SEALS WITH CONCRETE BRICK LAID LENGTHWISE WITH MORTAR OR PREMANUFACTURED RUBBER END SEALS MADE SPECIFICALLY FOR THIS PURPOSE.

6. FILL VOIDS AROUND EXTERIOR OF CASING PIPE WITH MEARL GEOFOAM LIQUID CONCENTRATE LOW DENSITY CELLULAR CONCRETE GROUT HAVING A MINIMUM NET DENSITY OF 45 PCF AND A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 160 PSI.

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
CASING PIPE

DATE: JUNE 2007
NOTES:

1.) THE END OF EACH WATER SERVICE SHALL BE MARKED WITH A BLUE 4”X4” POST AND STAMPED "W" ON CURB.

2.) THE END OF EACH SANITARY SEWER SERVICE SHALL BE MARKED WITH A GREEN 4”X4” POST AND STAMPED "S" ON THE CURB.

3.) BOTH SERVICE LATERALS SHALL BE LOCATED WITHIN 30 FEET OF A PROPERTY LINE. SERVICES SHALL NOT BE INSTALLED IN SIDE YARD PUBLIC UTILITY AND/OR DRAINAGE EASEMENTS.

4.) DRIVEWAY LOCATION SHALL BE ON OPPOSITE SIDE OF LOT FROM SERVICE LATERALS.

5.) BUFFALO BOXES SHALL BE LOCATED BETWEEN BACK OF SIDEWALK AND PROPERTY LINE.

6.) WATER SERVICE AND SANITARY SERVICE SHALL HAVE A MINIMUM 10 FOOT HORIZONTAL SEPARATION.

7.) PARKWAY TREES SHALL NOT BE PLANTED WITHIN 10 FEET OF ANY SERVICE.
STANDARD IL DESIGN

NOTE:
1. A HIGH QUALITY YELLOW PAINT RECOMMENDED BY THE PAINT MANUFACTURER FOR PAVEMENT STRIPING SHALL BE USED.
2. REFER TO THE VILLAGE ORDINANCE FOR MINIMUM REQUIRED NUMBER OF HANDICAP STALLS.
3. HANDICAP LOGO SHALL BE INSTALLED USING YELLOW PAINT.

THE ARROW SHOULD BE OMITTED WHERE THERE IS ONLY ONE SPACE. THE ARROW MAY ALSO BE MADE TO POINT IN ONLY ONE DIRECTION. THE SIGN MUST BE SUPPLEMENTED WITH THE ILLINOIS STANDARD R7-I101 PLATE GIVING THE AMOUNT OF THE FINE FOR ILLEGALLY PARKING IN THE RESERVED SPACE(S).

THIS PLATE MAY BE MOUNTED DIRECTLY BELOW THE R7-8 SIGN OR COMBINED WITH THAT SIGN ON A SINGLE 12" BY 24" PANEL.

VILLAGE OF SHOREWOOD
STANDARD DETAIL
FOR
HANDICAP STALL

DATE: JUNE 2007