

#### **VILLAGE OF TINLEY PARK**

#### RECORD DRAWING REQUIREMENTS

Record drawings are required to provide a means of schematic verification that the intent of the approved engineering design has been met, thereby substantiating that the health, safety, and welfare aspects of the engineering design have been adequately provided by the construction of the project. Secondly, record drawings serve as a reference tool for future location and maintenance operations. The following requirements will be applied to each set of Record Drawings developed for the Village of Tinley Park.

## 1.1 GENERAL RECORD DRAWING REQUIREMENTS

- A. The first sheet of the set will have a vicinity map with a graphic scale and north arrow.
- B. The first sheet of the set will have the Village approved address and project name.
- C. The first sheet shall have the name, address and contact information of the developer/contractor.
- D. Record drawings shall be submitted as a revised PDF of the original Engineering Plans or as an AutoCAD (version 2018 or newer) file on a zip-drive. Record drawings will have the original data lined through and the Record data added to the drawings. At no time will the original plans be accepted as the Record drawing.
- E. All record drawings for major projects are required to be 24" x 36" and shall bear the name, address, and telephone number of the firm preparing the drawing and the date the record data was added to the original via the revision block.
- F. Surveyor's/Engineer's statement shall verify that the record drawings reflect the true conditions in the field.
- G. Contractor's statement (with original signature on each sheet) shall verify that all construction specifications and product qualities had been met or exceeded.
- H. "Record Drawing" shall be labeled on each sheet in 1-inch high, bold letters.
- l. Street names shall be provided on all streets.
- J. If the utility system is to be private (not to be dedicated to local authority), then indicate on each sheet.
- K. The location and elevation of the benchmarks referenced must be shown on the drawing. If the referenced benchmarks are not within the project limits, then complete descriptions of locations must be provided.
- L. Show all easements within the project limits on the record drawings.



M. All as-constructed elevations must be referenced to the same benchmark datum as the original approved design plans.

# 1.2 ROADWAY RECORD DRAWING REQUIREMENTS

- A. Provide street names and indicate public or private ownership.
- B. Provide roadway details.
  - 1. Centerline profiles and slopes.
  - 2. Horizontal and vertical curve data (including radii).
  - 3. Roadway widths.
  - 4. Right of Way widths.
  - 5. Easements.
  - 6. Soil Boring Locations and Depths.
- C. Provide sidewalk details.
  - 1. Indicate public or private.
  - 2. Provide curb ramp locations and details.
  - 3. Provide slopes.
- D. Provide driveway details including slopes.

## 1.3 WATER SYSTEM RECORD DRAWING REQUIREMENTS

- A. Locate valves, fittings, services (b-boxes), shut-off valves, and fire hydrants in two directions (station and offset). Locations shall be perpendicular to the right-of-way and parallel to the water main.
  - a. Lot lines may be used to locate water services.
  - b. Permanent structures that are properly located may also be used.
  - c. Radial ties are not acceptable.
  - 4. All horizontal distances shall be shown to the nearest foot. All vertical distances shall be shown to the nearest tenth of a foot.
- B. Show all materials, sizes, and types of valves, pipes, and fittings.
- C. Elevations shall be given for the top of all manhole covers and for top of pipe.



- D. Special detail drawings will be required where installations are not shown on approved engineering drawings for whatever reason or where required for clarity.
- E. Show location and elevations for pipes and fittings where changes in direction occur.
- F. Show linear distances along watermain from appurtenance to appurtenance (i.e., valve vault to tee, tee to bend, bend to valve, etc.).
- G. Details for water services deviating from typical installation details of the approved engineering plans shall be noted on the record drawings.

# 1.4 SANITARY SEWER SYSTEM RECORD DRAWING REQUIREMENTS

- A. All piping, wyes, tees, valves, cleanouts, manholes and special cases shall be located in two directions, in the same manner as water locations.
- B. Horizontal dimensions shall be to the nearest foot. Vertica elevations shall be to the nearest hundredth of a foot.
- C. Identify the length, size, material and slope of all piping (i.e., 300 feet of 8" PVC SDR 35 at 0.4%).
- D. Elevations shall be given for top of all manhole covers and for the inverts of all pipes entering/exiting each manhole.
- E. Service laterals are to be identified with location of end service / plug (station and offset measured upstream).
- F. Details for drop manholes deviating form the details on the approved engineering plans shall be indicated on the record drawings.
- G. Provide copies of all testing records and video tapes of all sanitary lines.

## 1.5 FORCE MAINS RECORD DRAWING REQUIREMENTS

- A. Locate all valves, fittings, etc. in two directions in the same manner as water locations.
- B. Locations of fittings shall be shown at all changes in direction.
- C. Elevations shall be given for the top of all manhole covers and for the inverts of all pipes entering/exiting each manhole.
- D. Show all sizes, materials, and types of valves, fittings, pipe, etc.
- E. Special detail drawings will be required where installations are not as shown on the approved drawings for whatever reason.



## 1.6 PUMP STATION RECORD DRAWING REQUIREMENTS

- A. Wetwell size and location shall be shown along with high and low water levels.
- B. Elevations for top, bottom, inverts, adjacent ground and type and size of lines and fittings for all lines entering or leaving the wetwell.
- C. All schedules which show pump, motor and electrical data shall be amended and shall be submitted with wetwell drawings.
- D. All improvements within the pump station boundaries shall be located horizontally and vertically to the nearest tenth of a foot (i.e., valve pit, pump-out, water spigot, wetwell, control panel, bends, fittings, etc.).
- E. Copies of all Operation and Maintenance Manuals (three copies minimum) including pump curves.

### 1.7 DRAINAGE SYSTEM RECORD DRAWING REQUIREMENTS

- A. All drainage structures shall be located by station and offset from right-of-way line.
- B. Elevations shall be given for the top of all manhole covers and for the inverts of all pipes entering/exiting each manhole.
- C. Any on-site field tiles which remain on-site must be identified on record drawings.
- D. Identify size, material, and slope of all piping.
- E. Provide spot elevations and cross sectional information, as well as slope, on all ditches, canals, etc.
- F. "Record" information required on storm water basins shall consist of:
  - 1. Topographic map of the detention area.
  - 2. Location of any underground detention basins.
  - 3. Spot elevation on top of bank to confirm minimum design bank elevation.
  - 4. Observed water elevation at date of the record drawing for wet bottom basins. Cross section showing expected water depth.
  - 5. Include record detail of the outlet control structure including elevations of the top of the control structure, throat, faces, orifices, or underdrain.
  - 6. Location of top of bank and existing water edges at time and date of taking elevations.



- 7. Spot elevations on the bottom of dry bottom basins, or, if requested by the Village Engineer for wet bottom basins.
- 8. A stage/storage table showing the design and as-constructed pond volumes and release rates.
- 9. A signed/sealed statement by a Professional Engineer that the detention pond(s) provides the required detention storage and does not exceed the allowable outflow rate(s) per the approved construction plans and hydrology study. If significantly different than the approved drawings (as determined by the Village Engineer), the engineer must submit a revised hydrology study using the as-constructed conditions in order to document this statement.
- 10. Provide copies of all testing records and video tapes of all storm lines.



## 1.8 FLOODPLAIN RECORD DRAWING REQUIREMENTS

- A. Provide floodplain limits and elevations for 100 year and 500 year floodplain
- B. Provide floodway limits
- C. Provide compensatory storage details consistent with section 1.7 above.

# 1.9 GRADING RECORD DRAWING REQUIREMENTS

- A. Include elevations for property corners, the high or low points, or major break points on all lot lines, and swales.
- B. Include spot elevations on the side property lines at the front and rear lines of the structure extended.
- C. Show contours at a one-foot contour interval. Flat grading may require intermediate contour lines to define swales and drainage patterns.
- D. Locate the lowest adjacent grades (LAGs) to any openings along rear-yard and side-yard swales.
- E. Provide cross-sections, at a maximum spacing of 50 feet, along all 100-year overland flood routes located outside street pavements.

#### 1.10 STRUCTURE RECORD DRAWING REQUIREMENTS

- A. Include as-constructed top of foundation elevations, including all steps in the foundation.
- B. Include as-constructed elevations of basements or walk-outs if present.

#### 1.11 STREET LIGHTING RECORD DRAWING REQUIREMENTS

- A. Provide horizontal ties for light foundations and control cabinets as referenced to the approved plan stationing or coordinates.
- B. Provide location of all light poles with the foundation type and lamp wattage.
- C. Provide underground circuit location.
- D. Service cables and service transformers shall be depicted in schematic form.

#### 1.12 RETAINING WALL RECORD DRAWING REQUIREMENTS

A. Provide signed and sealed shop drawings for all walls 3 feet in height or greater.



- B. Provide verification letter that wall was built in accordance with aforementioned shop drawings.
  - 1. If construction was different provided as built drawings with statement from professional engineer regarding adequacy of wall and conformance to shop drawings.

## 1.13 LANDSCAPING RECORD DRAWING REQUIREMENTS

- A. Name, address and contact information of landscape designer.
- B. All proposed building footprints, seating areas, parking areas, driveways and sidewalks.
- C. Plant list showing quantity, common name, latin name, sizes, notes.
- D. Planting time schedule.
- E. Existing landscape conditions indicating any plant material proposed to be preserved, relocated or removed.
- F. Calculation table showing required and provided plant material for bufferyards, parking lots and parkways.
- G. Plat of Survey.
- H. Acknowledgement of maintenance commitment.
- I. Irrigation location, if any

# 1.14 ELECTRONIC FILE RECORD DRAWING REQUIREMENTS

- A. Include AutoCAD (version 2010 or newer) compatible version of all record information.
- B. Provide separate layers for all utilities.
- C. If available a ESRI GIS file database should be provided.

#### 1.15 ACCEPTANCE OF RECORD DRAWINGS

A. No final occupancy permits, or acceptance of the public utilities by the Village of Tinley Park will proceed until the record drawings have been submitted and approved by the Village Engineer.