

# **FINAL ENGINEERING INSPECTION CHECKLIST**

This document is intended to set minimum City inspection criteria. Additional criteria may be required.

The Contractor shall use this checklist to perform a preliminary inspection prior to scheduling the final engineering inspection with the City's Engineering Division. It is the Contractor's responsibility to provide personnel to perform the manual aspects of the inspection (i.e., opening manhole lids, turning gate valves, operating fire hydrants, etc.). Some items may not be applicable, depending on the nature of the project.

All documentation must be in possession of the City Engineer or Designee not less than 48 hours prior to a scheduled final inspection.

A. Water Distribution System (check with Coconut Creek, NSID, Parkland Utilities for applicable standards).

City of Parkland Requirements:

1. All features shall be installed according to the approved plans.
2. Fire Hydrants:
  - a. Height (18" to 24" from finished grade to nozzle).
  - b. Direction (5-1/4" nozzle must face accessway).
  - c. Distance (4' minimum to 7' maximum from curb).
  - d. Fire hydrant must be plumb.
  - e. Paint (OSHA reflective traffic yellow burning 1235 or equal).
  - f. Reflective pavement markers (place two (2) in the center of the adjacent drive lane).
  - g. Fire hydrant and fire hydrant gate valve shall be operational.
3. Gate Valves:
  - a. Set to grade.
  - b. Concrete collar per City specifications.
  - c. Gate valves shall be operational.
  - d. Paint (paint valve box lid blue).
  - e. Reflective pavement markers (place one (1) in the center of the adjacent drive lane).

B. Sewage Collection & Transmission System (check with Coconut Creek, NSID, Parkland Utilities for applicable standards).

City of Parkland Requirements:

1. All features shall be installed according to the approved plans.
2. Collection System:
  - a. Manhole rims shall be visible.
  - b. Manhole rims shall be set to grade.
  - c. Manhole rims shall be attached securely.
  - d. Manhole lids shall be free of asphalt.
  - e. Manhole interiors shall be painted with two coats of approved paint.
  - f. Manhole interiors shall be free of infiltration.
  - g. Detection markers shall be placed at all stub-outs.
  - h. Any stub-out not tied into a building shall have a 6"x6"x5' wooden stake as a marker and shall have the top 12" painted green.
  - i. All pipes shall be free of leaks and infiltration.
  - j. Manholes located in grass areas shall have a concrete collar.
  - k. Clean outs shall be set to grade.

C. Drainage System and Grading:

1. All features shall be installed according to the approved plans.
2. Drainage structures, sumps, and pipes shall be free of debris.
3. Catch basins outside paved areas shall have a concrete apron.
4. Outfalls shall be complete and clear of debris.
5. Inlets shall be free of filter fabric.
6. Lake, canal, or ditch banks shall be to grade and slope as per approved plans.
7. Erosion protection measures shall be in effect.
8. Pollution retardant device shall be in place as per approved plans.
9. Flow lines of swales shall be 6" below edge of pavement.
10. Grates shall be secure.
11. Pollution baffles shall be in place as required.
12. Head walls shall be in place.

D. Pavement:

1. All features shall be installed according to the approved plans.
2. Alignments and cross-sections of all paved areas shall conform to the approved plans.
3. Pavement:
  - a. Pavement shall be clean.
  - b. Pavement shall have second lift placed.
  - c. Pavement shall be free of potholes, cracks, and divots.
  - d. Crown and grade of roadway shall conform to approved plans.
  - e. Pavement markings and signage shall conform to the approved plans.
  - f. Curbs shall be free of cracks and shall otherwise conform to the approved plans.
  - g. Expansion joints shall conform to approved plans.
  - h. Wheelchair ramps shall conform to approved plans.
  - i. Parking spaces shall conform to approved plans.
  - j. Sidewalks shall be in compliance with applicable ADA standards (2% cross slope max in any direction, truncated domes where required, etc.).

E. Miscellaneous:

1. Work of other utilities shall be complete.
2. Site lighting and street lighting shall be operational.
3. Street signs and traffic signs shall be in place.
4. Permanent reference monuments (PRM's) with elevations shall be in place.
5. All existing facilities disturbed during construction shall be restored.
6. Other.

FINAL ENGINEER'S CERTIFICATION:

After all required improvements have been installed, the owner shall have the engineer of record submit certification to the City that the improvements have been constructed according to the City of Parkland Code and standard details, ADA requirements, approved plans/specifications and all other requirements set forth by agencies having jurisdiction, based on inspections of the site and review of as-built drawings

AS-BUILT RECORD DRAWINGS:

As-builts shall be signed and sealed by a land surveyor registered in the State of Florida and approved by the engineer of record. As-builts plans shall be submitted as follows; two (2) sets of plans (24"x36", bond paper) and one (1) CD/DVD (or newer technology) containing applicable As-Built data in AutoCAD latest version or compatible (PDF is acceptable in addition to AutoCAD format). Digital File to be compatible with the City's GIS system. The as-builts shall comply with the following requirements:

## STORM DRAINAGE

Record drawings shall include:

Length of pipe runs from center of structure to center of next structure, including the size and type of pipe used;

Type and size of each structure and its location with reference to property lines and/or the street centerline;

Top of rim elevations of grate lid elevations of manholes and invert elevations of all pipes;

Inverts of swales shown at fifty-foot intervals coinciding with pavement interval elevations;

Cross-section drawings of the lakes and canals within and adjacent to the development at two-hundred-foot intervals;

## PAVEMENT

Record drawings shall include:

Finish grades at the edge of finished asphalt and centerline at longitudinal intervals of not more than fifty (50) feet, street intersections and/or all changes in gradient.

Top of rim elevations of all drainage structures.

## EASEMENTS:

Recorded easements shall be provided for the installation of all underground utilities facilities, in conformance with such size and location of easements as may be determined by the city engineer to be compatible with the requirements of all utility companies involved with respect to a particular utility service (if applicable).