

STANDARDS FOR CONSTRUCTION AND USE OF PUBLIC RIGHTS-OF-WAY AND EASEMENTS

EFFECTIVE October 19, 2009

CITY OF WEST PALM BEACH ENGINEERING SERVICES DEPARTMENT

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INTRODUCTION

These "Standards for Construction and Use of Public Rights-of- Way and Easements" have been developed and compiled by the Engineering Services Department of the City of West Palm Beach, Florida. The creation of this manual has been authorized by Ordinance Number 4198-09, adopted by the City Commission on March 9, 2009.

These "Standards" became effective March 9, 2009. These "Standards" are meant to amend and supplement those standards previously in effect in the City's Code of Ordinances. This document will be reviewed and revised from time to time by the Engineering Services Department.

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CHAPTER I

TITLE AND INTENT

1. Title

These regulations shall be known as the "Standards for Construction and Use of Public Rights-of-Way and Easements" and shall be referred to as the "Standards."

The rights-of-way within the City of West Palm Beach which these "Standards" apply to are all public rights-of-way within the City including all Florida Department of Transportation (FDOT) roadways and all private roads. On FDOT roadways where these "Standards" conflict with FDOT standards, the FDOT standards will prevail. However, if the City "Standards" contained within have additional requirements, these requirements shall be met.

Easements shall refer to all dedicated public utility easements, whether dedicated by plat or separate recording instrument or prescriptive, or whether said easement is dedicated to one specific entity or all utility companies.

2. Intent

2.1 The intent of these "Standards" is to provide for the safe and orderly use and development of the public rights-of-ways and easements within the City and to see that the public's best interests are served.

These regulations set forth the minimum standards and have been made as broad as possible to serve as standards of quality to maintain uniformity in the utilization of the public rights-of-way and easements. If a specific standard has not been included, the City will refer to FDOT standards.

2.2 Any permit issued prior to the effective date of these "Standards" shall be valid on the terms under which it was issued.

3. Application to Existing Facilities

- 3.1 With the exceptions noted in Section 3.2, the provisions of these "Standards" do not apply to existing facilities within the road rights-of-way or easements but will apply to any extension made after the effective date of these regulations. However, the City reserves the right to require replacement of existing infrastructure to current standards when;
 - The condition of said infrastructure threatens the health, safety and welfare of the public, or
 - Where repeated repairs are causing significant disruption and damage to the City roadway system.

3.2 When the City initiates a roadway project where roads and/or City-owned infrastructures are being constructed or reconstructed to City standards, existing utilities within the right-of-way which conflict with the proposed construction or are inconsistent with current published or adopted standards may have to be modified or relocated to meet the new requirements. These changes, if required, will have to be made in accordance with the latest adopted version of these "Standards," or current industry standards. Relocation and/or reconstruction costs shall be at the expense of each respective utility owner.

When a private entity initiates a roadway project or extensions of existing infrastructure, said private entity shall be required to pay for all relocations, adjustments or extensions of existing utilities in accordance with each utility company policy concerning such matters.

CHAPTER II

GENERAL PROVISIONS

1. <u>Permits Required</u>

An Engineering Services Department permit is required for all construction and most maintenance activities in the public rights-of-way and easements within the City of West Palm Beach. Application shall be made at the Engineering Services Department, 401 Clematis Street, and permits shall be distributed from this location. Allow a minimum of five (5) business days from the time of application to the issuance of a permit. If proposed work is in a Florida Department of Transportation (FDOT) right-of-way, a copy of the approved FDOT permit must be submitted with the application for a City of West Palm Beach Engineering Services Department Right-of-Way Permit.

1.2 Permit Issuance Dates

The permit work start date shall not be in excess of twenty (20) calendar days of the permit issuance date.

1.3 No Construction Before Permit

Except for exemptions provided elsewhere in this section, no construction shall be started until a permit for the proposed activity has been granted. Failure to so comply will result in cessation of operations and the removal of project- related obstructions from the right-of-way until compliance is achieved. Penalties for violation of this section shall be a doubling of the permit fee plus up to \$500 for each day of violation.

1.4 <u>Inspections</u>

Pre-work and Post-work inspections may be required. The permittee is obligated to contact the Engineering Services Department to determine the required inspections and confirm an inspection schedule.

1.5 Emergency Work

None of the above permit procedures shall apply to emergency repair work in the public rights-of-way or easements. Emergency repair work is defined, for the purposes of this manual, as that which must be done immediately upon discovery, in order to protect the public's health, safety and welfare. The work could consist of excavations, aerial work on pole lines or work in an existing manhole system. In the event of an emergency as defined above, repair work may be started without a permit upon verbal notification being given to the Engineering Services Department at (561) 494-1128. If the Engineering Services Department offices are closed, then notification must be given to the Central Operations Center at (561) 822-2210. A permit application shall be prepared and submitted to the Engineering Services Department within two (2) business days of the beginning of the emergency. All work shall comply with these "Standards." Work that can be scheduled ahead of time will not be considered emergency work.

1.6 Franchised Utilities

All franchised utility companies and telecommunications providers shall obtain a right-of-way permit for all construction activities which require excavating a road right-of-way or easement.

Standards for Construction and Use of Rights-of-Way and Easements

Telecommunications companies shall not be charged a fee for permits, per Florida Statutes; however, all applicable penalties will apply for violation of these "Standards". When a franchised utility or telecommunications provider hires a contractor to perform any work on their behalf, the contractor must obtain the right-of-way permit.

Construction plans, signed and sealed by a Florida Registered Professional Engineer, with all other utility facilities indicated, will be required for work that requires excavations, placement of new facilities, or relocation of existing facilities. Please be aware that facilities relocated within easements which are initiated at the request of a property owner, as opposed to a utility initiated request, may require sign-offs from adjacent owners. In case of excavation, the drawings shall show other existing utilities.

Detailed maintenance of traffic plans, specific for each job location, will be required. The use of a flagman or off-duty police officers will be required if conditions warrant in the opinion of the Engineering Services Department.

All applicable industry standards must be met. All City infrastructure, including but not limited to, curbs, driveways, sidewalks, asphalt pavement, base and landscaping shall be warranted for one year after completion of work.

2. <u>General Requirements</u>

2.1 Availability of Approved Plans and Permit

An Engineering Services Department permit must be available at the site when work is in progress. A set of plans for the project, bearing the Engineering Services Department's approval stamp must be located on the job-site whenever work is in progress.

2.2 Ownership of Facilities

All facilities within the public rights-of-way must be owned and maintained by a public service utility, telecommunications provider, franchised utility, or by a political entity competent to function within the State of Florida, and shall remain the liability of the last operating entity until removed.

2.3 Underground Facilities

All underground and in-ground facilities in the public rights-of-way shall be designed and installed so as to safely sustain any legal vehicular loads that might be placed upon them.

- 2.3.1 Prior to placing any underground facility in the public right-of-way, unless otherwise approved by the Engineering Services Department, the permittee shall remove all muck and other deleterious material existing within the zone extending from the ground level to the horizontal plane three feet below the facility's intended location and from the vertical plane two feet beyond one side of the facility's intended location to the vertical plane two feet beyond the opposite side of facility's intended location. Backfill shall be with 3/4 inch washed rock up to the bottom of the new facility. If so doing would endanger an existing facility, the contractor shall de-muck only that area which can be done without such endangerment.
- 2.3.2 In areas to be paved, underground utility lines not yet in service shall be tested by the maintaining agency after the roadway base has been constructed before the wearing course(s) have been placed, to determine serviceability. All damaged or defective portions of such facilities shall be

replaced or repaired and re-tested, and the roadway base restored by said maintaining entity. At that point, the facility shall again be tested for serviceability. This procedure shall be repeated until the facility is determined to be serviceable, after which the wearing course(s) may be placed.

2.3.3 Utilities located underground shall to the extent reasonably possible and practical be maintained as underground lines.

2.4 Utility Facilities Additions and Adjustments

The location or relocation of utility facilities within the City of West Palm Beach shall be made under the supervision and with the approval of the City of West Palm Beach Engineering Services Department. Utilities shall be located or relocated so as to interfere as little as possible with traffic over streets, alleys, sidewalks, bridges and public areas within the City. The City reserves the right to require aesthetic improvements and/or landscape screening.

In the event a property owner within the City requests the relocation of existing above ground utility facilities, that owner shall obtain a written consent from adjacent property owners, as directed by a representative of the City's Engineering Services Department. "Adjacent property owners" may include properties across a street.

2.5 Driving Pipe Under Existing Pavements (Bore and Jack Method)

Each underground utility crossing of paved roads shall be made by the "bore and jack" or directional drilling methods, unless an alternate method is approved by the Engineering Services Department. Proposed open cuts shall be shown on the drawings submitted for approval.

When a pipe is driven through the earth under pavement, jetting, or the use of air or water forced into direct contact with the earth shall be prohibited. Pipe driving shall leave no voids in the underlying earth. This requirement does not prohibit the use of air hammers for driving.

2.5.1 Plans

Plans for bore and jack operation shall include both plan and profile. All existing and proposed facilities shall be shown.

2.5.2 Extraction of Pipe from Bore

The extraction of pipe or conduit from beneath any roadway, generally, is prohibited. If circumstances exist that the pipe must be removed, the roadway must be excavated and restored. Prior approval must be received from the Engineering Services Department.

2.6 Notice Required

If required by the permit conditions, two (2) business day's minimum notice must be given to the Engineering Services Department prior to the start of construction. Two business day's notice is required when scheduling any required tests and/or inspections.

2.7 Inspections, Tests and Certifications

When indicated by the permit, inspections and tests necessary to insure construction in Standards for Construction and Use of Rights-of-Way and Easements

conformity with the plans and specifications as approved by the Engineering Services Department shall be made by or under the direct supervision of an engineer registered in the State of Florida, or by those individuals who qualify to perform such services under Chapter 471 of the Florida Statutes. The Registered Engineer or individual authorized under Chapter 471 of the Florida Statutes shall carefully observe and inspect all portions of the permitted installation sufficiently to determine that the contractor has substantially complied with all approved plans and specifications related thereto, and shall so certify at the completion of the work.

2.8 Supervision of Construction

The permittee shall keep sufficient competent supervision on the site while work is in progress to ensure that the work is being performed properly and in a safe and orderly manner. A sufficiently competent supervisor shall be able to fluently speak, write, read, and comprehend the English language.

2.9 Performance of Tests

No labor, material or equipment required for testing of facilities, shall be furnished by the Engineering Services Department. The contractor shall perform the test(s) in the presence of the Engineer and an Engineering Services Department representative. If the Engineering Services Department fails to witness a properly scheduled test, the certification of some tests by the Engineer of Record may be accepted at the Engineering Services Department discretion.

2.10 Reports

Any reports relating to construction progress, tests or other matters which may be required by the Engineering Services Department, the Palm Beach County Public Health Unit or the Engineer of Record shall be forwarded to the Engineering Services Department without charge. All final tests and inspections shall be witnessed by a representative of the Engineering Services Department.

2.11 Interruption and Restoration of Services

Adequate provision shall be made for the safe, continuous operation of any utilities, drainage facilities or sanitary sewer facilities encountered during construction. If an interruption of service is required, notification and approval must be received from the affected agency and the Engineering Services Department. If a facility is damaged during construction, the affected utility shall be notified immediately, and all such services and structures shall be satisfactorily restored to the owner's specifications upon completion of the work.

2.12 Disposal of Water from Excavation

Adequate provision shall be made for the satisfactory disposal of water resulting from dewatering or pumping operations or from encounter with water in any manner. All pumps utilized for dewatering shall meet the applicable City Noise Ordinance standards. Generally, gasoline and diesel driven pumps are not to be used outside the normal construction working hours. The method of handling or disposing of such water shall be to pipe the groundwater directly to a catch basin. The discharge line should follow the gutter line to the catch basin. If the discharge line crosses a driveway, a flexible hose section must be installed at said driveway. The pipe must be securely attached at the catch basin and the flow directed to not cause flooding of the pavement around the inlet. Additional permit conditions and guidelines, as issued by the South Florida

Water Management District, may apply.

When a discharge line crosses a public sidewalk that has a parkway, the discharge line shall be placed under the sidewalk. When a discharge line crosses a sidewalk/curb combination, a pedestrian ramp must be constructed over the discharge pipe.

Minor discharges and/or those dewatering operations lasting four (4) hours or less may be relieved of direct piping to an inlet.

Water discharging to the City storm drainage system or directly into the Intracoastal waterway must meet all applicable Federal, State and local water quality standards. The contractor shall be responsible to clean any City structures or pipes into which dirt and debris washes. Fines levied by any regulatory agency, due to a contractor's permitted or unpermitted activity, shall be paid by said contractor whose operation caused the violation.

In compliance with South Florida Water Management District regulations, during a water shortage alert issued by the South Florida Water Management District, a certified test of groundwater to establish chloride content is required prior to discharging of groundwater into a City storm sewer system during dewatering operations. Water chloride levels of 250 mg/l or more cannot be discharged to tidal waters.

2.13 Maintenance of Traffic

When a plan is required for maintenance of traffic, the contractor shall adhere to such plan as approved, in strict accordance with the provisions of the Manual of Uniform Traffic Control Devices, throughout the construction period. Temporary measures must be taken, if necessary, to provide a minimum of one lane of traffic in each direction on each affected road at all times, unless specific permission is obtained from the Engineering Services Department to deviate from this requirement. Contractor must also provide for vehicular access to each home and place of business or assembly abutting the affected right-of-way.

The right-of-way must be maintained by the contractor in safe and maneuverable condition until the permitted work is complete and the right-of-way is restored and accepted for maintenance by the Engineering Services Department. Provisions must be made to control dust. If blowing dust becomes a problem, the project site must be shut down until the problem is corrected.

The provisions of this section shall be in effect under all weather conditions, twenty-four hours per day, every day, from the commencement of work until final acceptance by the Engineering Services Department, except in time of emergency, when the provisions of Section 1.3 of this chapter shall apply.

2.14 <u>Job-Site Safety</u>

All permitted work in rights-of-way must be done in strict accordance with the provisions of the Occupational Safety and Health Administration (OSHA) Regulations, and all other applicable codes. The Contractor shall be solely responsible for job-site safety.

2.15 Removal of Pavement, Drives, Sidewalks, Curbs and Gutters

Edges of permanent type pavement shall be pre-cut straight, clean and square beyond any

damaged base area including well point locations. When the removal of sidewalks, curbs or gutters is necessary for construction, they shall be removed in full sections or a minimum of five feet in length, and all broken edges cut smooth by use of a suitable power saw or other appropriate means.

2.16 <u>Disposition of Excavated Materials</u>

Broken pavement and other debris shall be removed from the site as soon as practical, unless otherwise directed by the Engineering Services Department. Excavated materials shall not be stockpiled in the right-of-way during construction without specific approval of the Engineering Services Department. All excess materials shall be removed from the work site and disposed of legally by the permittee at their own expense.

2.17 Bracing and Shoring

Sheeting, bracing, etc., shall be used as required to support the sides of the excavation and to prevent any movements which can in any way alter the grade of or injure the facility being installed, diminish the width of excavation or otherwise injure or delay the work or endanger personnel, adjacent pavements or other structures. Safety procedures shall be followed and adequate protection shall be furnished to all personnel as required by OSHA. All sheeting or bracing which is not left in place shall be removed in a manner that will not endanger the work, personnel or adjacent structures.

2.18 <u>Traffic and Utility Controls</u>

Excavation for pipe, structures or cable laying operations shall be conducted in a manner that will cause the least interruption to traffic. To the extent possible, fire hydrants, valve boxes, traffic signals, traffic control boxes and traffic signing shall be left unobstructed and accessible during the construction period. When such obstruction is unavoidable, it must be held to the minimum, and the contractor shall give sufficient notice to the affected parties to allow other provisions to be made.

2.19 Backfilling and Compaction

2.19.1 Embankments

Backfill material shall be placed in layers not to exceed eight (8) inches in thickness, with each layer carefully compacted to 98% of maximum density, per AASHTO T-180 and tested, before placing succeeding layers. Swale areas need only be compacted to 95% of maximum density, per AASHTO T-180. Density tests shall be taken at intervals and depths as approved by the Engineering Services Department. Copies of required tests shall be forwarded to the Engineering Services Department.

2.19.2 Pits and Trenches

After a structure, cable, conduit or pipe is acceptably installed, tested and approved, backfilling shall be done with approved material.

In dry trenches, backfill material shall be placed evenly and carefully around and over the pipe in twelve (12) inch maximum layers, each layer being thoroughly compacted, until one foot of cover

exists above the crown of the pipe. The remaining trench portion up to the pavement base shall be back-filled in layers not exceeding eight (8) inches with each layer being compacted and tested at intervals of 100 feet maximum before placing succeeding layers.

Swale areas shall be compacted to 98% of maximum, and testing shall be at the Laboratory testing for the optimum moisture and maximum soil density shall conform to the specifications of AASHTO T-180 (Standard Proctor). Restoration of the roadway shall be in accordance with the standard details.

At the contractor's option, with the approval of the Engineer of Record, and with the Engineering Services Department Construction Coordinator's approval, after the compacted backfill has reached the center line of the newly installed pipe or conduit, the remaining trench backfill may be placed to one foot above the ground water level without interim compaction, provided that the water is allowed to rise in the trench to its natural level and then be pumped down to the pipe invert, at least twice. The balance of the trench backfill must then be placed and compacted as described for dry trenches.

2.19.3 Narrow Trenches

Narrow trenches, not greater than twelve inches (12") in width, may be backfilled with clean fill to a point six inches (6") above the cable or conduit. The remainder of the trench may be filled to a point two inches (2") below the finished roadway surface with a flowable concrete mixture with a compressive strength of 200 psi, placed wet and allowed to set overnight. The top two inches (2") of the trench may be filled with sand when the concrete is wet. The sand shall be removed on the following day and the permanent asphalt patch placed and rolled in, unless other provisions are made with the Engineering Services Department.

2.20 <u>Detection Aids</u>

After non-metallic utilities have been installed, but before backfill has progressed beyond the top of these facilities, approved electro-magnetic location devices or metallic tape shall be placed in the locations specified hereinafter. A metallic cable or pull-wire installed with the conduit at time of construction or as otherwise approved, shall satisfy this requirement.

2.21 Restoration of Right-of-Way

2.21.1 The entire work area utilized for the performance of any permitted work shall be restored by the permittee to the condition equal to or better than that which existed before work began. Flowable fill roadway base is recommended on small patches. It may be required on narrow trenches less than twelve (12) inches in width.

Projects which disturb 40% or more of a roadway (linear footage) per block, the City will require that the entire block be micro-resurfaced, overlaid, or milled and resurfaced. The method of surfacing shall be at the option of the City.

Open cutting of the full width of a roadway, may require the milling and resurfacing of an area equal to the width of the open cut plus two (2) feet on either side as overlap.

2.21.2 Paved sections shall conform in type, shape, elevation and texture with adjacent paved areas and shall be of at least equal quality. Design mixes for flexible pavements shall be subject to

approval by the Engineering Services Department. All damaged or undermined areas of existing pavement, not previously removed, shall be removed and restored in the specified manner. Where pavement is removed for installation, maintenance or removal of any underground facility, restoration shall be in accordance with the standard details. Equipment shall not travel over loose rock fragments or other hard material lying on sections of pavement which are not to be removed.

- 2.21.3 Swale areas, medians, sidewalks, driveways, etc., shall be restored in kind to a condition equal to or better than that which was disturbed.
- 2.21.4 All benchmarks and Permanent Reference survey markers disturbed during the course of construction shall be replaced at an equal or better level of precision, at the permittee's expense, by a Professional Land Surveyor registered in the State of Florida.

2.22 <u>Record Drawings</u>

When applicable, upon completion of construction and prior to final inspection or commencement of any bonded maintenance period, the Engineer of Record shall furnish to the Engineering Services Department, two (2) full sets of "Record" drawings (minimum 24" x 36"), one (1) corresponding AutoCAD format file, and one (1) corresponding PDF format file, certified in conformity with all applicable Florida Statutes. Specific requirements for various types of installations are detailed in the chapters that follow.

2.23 Abandoned Facilities

All exposed facilities and such underground facilities as may be designated by the Engineering Services Department that are abandoned within the public right-of-way, shall be removed by the owner of the facility unless other provision is approved by the Engineering Services Department. Any abandoned facility allowed to remain in the right-of-way shall continue to be the responsibility of the owner or operator by whom it was last used. Such owner or operator shall be liable for all costs arising from the presence of the abandoned facility in the right-of-way.

2.24 Construction Hours

The days and hours of construction are as follows:

Construction work or other work resulting in noise, vibrations or dust tending to disturb the people or the property within the vicinity thereof shall not begin until the hour of 7:00 a.m. and shall cease at the hour of 7:00 p.m., Monday through Friday, and shall be limited to between the hours of 8:00 a.m. and 8:00 p.m., Saturday and Sunday.

(b) Exceptions.

- (1) It shall be within the discretion of the mayor or his designee when any such construction work shall not create adverse effects on the residents or inhabitants of the city in the vicinity of the construction to grant a written exception to this section.
- (2) The operation of equipment relating to the essential services of the city and equipment operating during emergency conditions shall be exempted from subsection (a) of this section.

2.25 Major Construction Projects

2.25.1 Florida Department of Transportation, franchised utility providers, telecommunication providers and other authorized utility providers are required to follow the City's construction project

communication process as stated below for all major construction projects. Projects or a group of projects affecting the City rights-of-way or easements will be designated "major" by the Engineering Services Department.

- 2.25.2 Florida Department of Transportation, franchised utility providers, telecommunication providers and other authorized utility providers shall provide notice for every major construction project in City rights-of-way and easements to all property owners of record adjacent to the project area by first class mail not less than thirty days prior to the commencement of work. Notification should include information on the nature of the work and contact information of the contractor and associated subcontractors.
- 2.25.3 Florida Department of Transportation, franchised utility providers, telecommunications providers, other authorized utility providers, and permit holders of designated major construction projects are required to submit a status report to the Engineering Services Department Construction Supervisor once a month. The status report shall include progress made during the previous month on the major construction project and anticipated progress for the next month. Status reports may be mailed, hand delivered, faxed, or sent electronically, but must be received by the Construction Supervisor by the first of each and every month for the duration of the project.
- 2.25.4 Each contractor, subcontractor, utility company, telecommunications firm, and the Florida Department of Transportation shall be required to provide to the City 24-hour contact information whenever working within the City rights-of-way. The designated individual or individuals shall be required to respond to the City within a reasonable period of time to address any matters involving work within the rights-of-way.

2.26 Review or Revision of City Standards

Any request for review or revision of these "Standards" shall be made to the Director of Engineering Services in writing, stating the item to be considered and setting forth the objections and suggestions for revision. The Director shall respond in writing as soon as possible thereafter, but in any event, within 30 days after receipt of such request.

2.27 Appeal to City Administrator

If any individual or entity requests a review of these standards as provided in Section 2.26, and disagrees with the decision of the Director of Engineering Services, said individual or entity may appeal to the City Administrator's Office.

CHAPTER III

DEFINITIONS AND STANDARDS

1. Whenever the following terms, or pronouns in place of them, appear in these "Standards", the intent and meaning shall be construed as follows:

Commission - The City Commission of the City of West Palm Beach, Florida

<u>Contractor</u> - The duly qualified person, firm or corporation responsible for the construction of the permitted work.

<u>Driveway Agreement</u> - An agreement by a property owner to restore their driveway which lies within a road right-of-way or easement, if said driveway is excavated for public utility or other municipal purposes. This agreement is required only for driveways not constructed of plainly finished concrete and asphalt. The agreement is required to be recorded in the Palm Beach County Courthouse.

Easement - Land dedicated, deeded, used or to be used for utility or roadway purposes.

<u>Engineer</u> - Engineer of Record (or his representative) whose plans and specifications have been approved by the Engineering Services Department.

<u>Engineering Services Department</u> - The Engineering Services Department of the City of West Palm Beach.

<u>Green Book</u> - The State of Florida, Department of Transportation's "Minimum Standards for Design, Construction and Maintenance of Streets & Highways."

<u>Permit</u> - A City of West Palm Beach Engineering Services Department "Right- of-Way" permit to work within rights-of-ways and easements.

<u>Engineering Services Department Construction Coordinator</u> - An authorized representative of the Engineering Services Department.

<u>Qualified Applicant</u> - Any current City franchise, telecommunications provider, or utility regulated by the Florida Public Service Commission, or other entity so authorized by the City.

Any person, firm, or corporation currently registered to work in the City and certified by the appropriate County or State Licensing Boards or qualified by a currently certified officer of the firm or corporation to perform the class(es) of work in the public rights-of-way for which a permit is being sought.

Resident Project Representative - An authorized representative of the Engineer.

Standards for Construction and Use of Rights-of-Way and Easements

<u>Right-of-Way</u> - Land dedicated, deeded, used, or to be used for a street, alley, walkway, boulevard, drainage facility, access for ingress or egress, or other purpose by the public, certain designated individuals, or governing bodies. (Florida Statutes, Chapter 177, Section 177.031 (16). Easements for roads and related purposes shall be considered as right-of-way.

<u>Standards</u> - The Standards for Construction and Use of Public Rights-of- Way and Easements within the City of West Palm Beach.

<u>Sub-Contractor</u> - A person, firm or corporation duly qualified in the City, having a contract with the contractor.

City – Municipal corporation of the City of West Palm Beach, Florida

<u>Traffic Control Manual</u> - The State of Florida, Manual on Traffic Control and Safe Practices for Street and Highway Construction, Maintenance and Utility Operations.

<u>Utility</u> - For purposes of this document, any water, sewer, gas, drainage, sprinkler or culvert pipe and any electric power, telephone, signal, communication, or cable T.V. conduit or cable, or operator thereof, serving the public, shall be considered a Utility.

<u>Utility Inspector</u> - An authorized field representative of any utility serving the area where work is performed.

CHAPTER IV

PERMITS. FEES AND BONDS

Procedures for Obtaining a Permit

The procedure to secure a permit to perform work within the road rights-of-way or easements will vary dependent upon the complexity and scope of the job.

1.0 General Conditions

- 1.1 Engineering Services Department Right-of-Way Permits will be issued to qualified applicants only. Permits may be issued to the contractor, subcontractor, material supplier or equipment rental company. Necessary application forms will be available at the Engineering Services Department offices and on the City's web page at www.wpb.org/engineering. Forms are to be completed, signed and submitted at the Engineering Services Department office, 401 Clematis Street, West Palm Beach, together with appropriate fees and bonds and approvals of all other agencies having jurisdiction. The application, when signed and dated by the issuing agent for the City, shall constitute the Permit to Construct. A sample of the Right-of-Way Use Permit Application may be found in the Appendix.
- 1.2 Each contractor, subcontractor, utility company, telecommunications firm, and the Florida Department of Transportation shall be required to provide to the City 24-hour contact information whenever working within the City rights-of-way. The designated individual or individuals shall be required to respond to the City within a reasonable period of time to address any matters involving work within the rights-of-way.

2.0 <u>Construction Drawing Review</u>

- 2.1 When application is made, <u>four</u> (4) copies of the applicable plans and specifications should be submitted with the application. The application, along with the plans, will be reviewed by the Engineering Services Department.
- 2.2 For work involving excavation of more than 250 square feet of pavement, work affecting more than one property, requested connections to the City storm drainage system, plans which will alter elevations or locations of curbs, sidewalks, driveways, utility poles or other utility structures, four (4) copies of the application, plans, and specifications must be submitted for review by the Engineering Services Department. All plans must be signed and sealed by an engineer registered in the State of Florida or those individuals who qualify for an exemption as defined in Chapter 471, Florida Statutes.
- 2.3 As soon as circumstances allow, (normally within two weeks), the owner or Engineer will be advised, in writing, of the review status of these drawings and what, if any, items should be revised. If necessary, one copy of each drawing noting all required revisions shall be returned to the applicant with an explanatory letter, or one set of approved drawings will be returned to the Engineer.

- 2.4 When the drawings are approved, application for a permit to construct may be made. Construction drawing approvals shall be void after six months unless an Engineering Services Department permit to construct the approved facilities is in effect.
- 2.5 In the event that applicable standards, regulations or laws change subsequent to construction drawing approval, but prior to permit issuance, revised plans must be submitted for approval under the new requirements.
- 2.6 Plan approval is based primarily upon the information contained thereon. Subsequent minor revisions may be indicated upon approved prints, but such changes must be signed and dated by representatives of the Engineer of Record and the Engineering Services Department, prior to the contractor proceeding with the revision.
- 2.7 City plan approvals and permits notwithstanding, all installations in public rights-of-way shall be in accordance with requirements of City of West Palm Beach minimum construction standards.
- 3.0 Fees and Bonds
- 3.1 No permit will be issued for work in any right-of-way until the required fees have been paid, and all required Performance and Maintenance Bonds have been posted. Construction shall not commence within any right-of-way until applicant has obtained all necessary approvals and permits and has notified the Engineering Services Department of same.
- 3.2 The Construction Permit fee, Occupancy fee, Construction Parking fee, Performance and Maintenance Bond and any other applicable charges, when required, shall be determined by the Engineering Services Department. Fee and bond amounts shall be based upon rates and conditions as approved by the City Commission. See Appendix "C" for list of applicable charges.
- Permit fees and other applicable fees and charges may be paid in the form of cash or check. Checks should be payable to the City of West Palm Beach.
- 3.4 Performance and Maintenance Bonds may be posted in the form of cash, Certified Checks, Letters of Credit or Surety Bonds. Said bonds shall be irrevocable and shall indemnify the City against costs of restoring or maintaining the public right-of-way due to or arising from failure of the permittee to properly complete the work, to pay fully for labor, material or equipment supplied for the project, or for a failure in the right-of-way related to the permitted installation, for a period of one year after the permitted work is complete and accepted by the Engineering Services Department. The Bond or Letter of Credit format required by the City is available at the Engineering Services Department offices and on the City's web page www.wpb.org/engineering.

The amount of the bond shall be no less than 110% of the estimated value of the work to be performed.

4.0 Permit Expiration

4.1 Permits are valid for the dates noted on the permit, unless other provisions have been made with

the Engineering Services Department.

- 4.2 If permittee wishes to begin, continue, or resume work after permit expiration, a new permit must be obtained with all current conditions and regulations having to be met including new plan approval. A new permit fee will be charged.
- 4.3 Permits will expire upon completion of the permitted work and acceptance of the installation, including restoration of the right-of-way by the owner, operator, all regulatory agencies involved, and the Engineering Services Department.

CHAPTER V

PAVING AND DRAINAGE - GENERAL REQUIREMENTS

1. Permits

Permits for construction, modification or maintenance of roadways, sidewalks, drainage or related facilities shall be granted only after the following requirements have been met:

- Paving and drainage plans must have been reviewed and approved by the Engineering Service Department in conjunction with submittal of application for permit.
- 1.2 The provisions of Chapter IV of this document.
- 2. Permit Fees and Bonds
- 2.1 Permit fees and bonds will be charged in accordance with the provisions of Chapter IV, Section 3, Fees and Bonds.
- 2.2 No bonds shall be required for driveway connections to paved roadways.
- 3. <u>Plans and Specifications</u>
- 3.1 All plans shall be submitted on white prints with blue or black lines. In addition to the proposed project, they shall show all existing facilities as well as all other planned facilities sufficiently to permit assessment of the compatibility of the proposed work and the existing systems.
- Plans must be submitted on 24" x 36" sheets, except that for small projects plans may be submitted on 11" x 17" size paper, provided that scale requirements are met.
- 3.3 Any general area layout shall be prepared at a scale of 100 feet or less to the inch. Detailed plans shall be prepared at a scale of 40 feet or less to the inch. Design drawings shall include both plans and profiles where the facility is being installed is not matching the existing, or other facilities are in the area and a profile is warranted to detail potential conflicts. When profiles are drawn, they shall be to the same horizontal scale as the plan.
- 3.4 Dimensions of rights-of-way widths shall be indicated.
- 3.5 All plans shall show suitable legends.
- 3.6 New pavement shall be indicated by notes and/or light shading.
- 3.7 Cross-sections and/or typical sections or proposed road and drainage construction, shall show dimensions, materials and purposes of all existing (to remain) facilities as well as all proposed facilities within the right-of-way.
- 4. Drainage Standards
- 4.1 Drainage plans must meet the requirements of the City of West Palm Beach Code of Ordinances and comply with the City's adopted level of service as described in City of West Palm Beach Code of Ordinances.

CHAPTER VI

ROADWAY TECHNICAL REQUIREMENTS

1. Roadways

1.1 <u>Minimum Design Criteria</u>

As a minimum, roads and/or streets and related facilities shall be designed in substantial accordance with the latest edition of the "Manual of Minimum Standards for Design, Construction and Maintenance for Streets & Highways" and the Utility Accommodation Guide, as published by the State of Florida, and the provisions of the City of West Palm Beach Minimum Construction Standards.

1.2 Construction Criteria

Construction materials and methods shall meet the requirements of the latest edition of the Florida Department of Transportation "Standard Specifications for Road and Bridge Construction" and supplements, except as modified herein.

1.2.1 <u>Temporary Facilities</u>

Temporary facilities, unrelated to any on-going construction in the right-of-way, and intended to provide an essential service for a period of time not to exceed one year, may be constructed in the right-of-way, contingent upon Engineering Services Department approval of project plans and specifications, and issuance of a Right-of-Way Permit. There will be no relaxation of safety requirements, but lighter duty construction will be allowed, where public interests will not suffer.

In cases where temporary facilities must be constructed to provide or maintain an essential feature around portions of a public right-of- way for public safety or convenience during construction, such temporary facility must be clearly drawn in sufficient detail on standard size drafting sheets, and submitted to the Engineering Services Department for review and approval prior to implementation.

1.3 <u>Typical Sections</u>

At the option of the design engineer, sketches of proposed typical sections may be submitted to the Engineering Services Department for approval prior to beginning the preparation of plans, and shall show or note all existing conditions or facilities that might influence a proper engineering evaluation of the proposed project.

1.4 Subgrades

All material supporting the roadway and shoulders shall have a minimum LBR of 40. The subgrade shall be compacted to 98% of maximum dry density as per AASHTO T180. Where unsuitable materials exist below a proposed roadway, demucking or installation of filter fabric will be required to provide adequate support of the roadway.

Stabilized subgrades will be considered for full depth asphalt bases or for bases less than 8" thick upon recommendation of a registered professional engineer.

1.5 Bases

1.5.1 Material

Limerock or crushed concrete bases shall be ten inches (10") thick. Limerock of the Miami formation shall be used, having a minimum percentage of carbonates of calcium and magnesium of 70, unless otherwise approved. Crushed concrete shall have a maximum size of 1". Full depth asphalt base will be considered upon recommendation of a registered professional engineer. No other base material is allowed.

1.5.2. <u>Base Density Requirements</u>

Base material shall be compacted to a density of not less than 98% of maximum dry density as determined by AASHTO T-180 under all paved areas.

Base course construction shall not be started until all underground construction in the vicinity has been tested and accepted.

1.6 <u>Wearing (Surface) Courses</u>

Surface courses are to be of asphaltic concrete construction in one or two lifts as determined by the Engineering Services Department.

Bottom Course - 1" thick (D.O.T.) Type S-III

Top Course - 1" thick Type S-III

A tack coat shall be used between paving courses, and a prime coat shall be used on the finished rock base.

Wearing courses shall not be placed until all under-ground utilities are installed and accepted, and, when requested, a finished Rock Survey has been submitted to the Engineering Services Department and accepted.

1.7 Curb/Gutter

All curb elements shall have a foundation or "pad" with a minimum LBR ratio of 70 and shall be at least 4" in thickness, extending 6" (min.) beyond the edges of the concrete, compacted to 98% of maximum density, per AASHTO T-180, unless otherwise approved.

1.8 Swales

Bottom of swales, measured from top of turf, shall be at least four inches (4") below the edge of adjoining pavement. Swales shall be compacted to 98% of maximum density, per AASHTO T-180.

1.9 Drainage

1.9.1 All drainage pipe installations in rights-of- ways and easements shall be of reinforced concrete, conforming to ASTM specification C. The minimum size pipe to be used shall be 15" diameter. Ductile iron, PVC, and HDPE may be substituted upon approval of the Engineering Services Department.

- 1.9.2 Perforated corrugated aluminum pipe may be substituted for slotted reinforced concrete pipe upon approval by the Engineering Services Department, but may not be used in the water table.
- 1.9.3 All drainage pipe in the public right-of-way shall have a minimum of 24" of cover, unless otherwise approved by the Engineering Services Department.
- 1.9.4. Drainage manholes shall be not less than four (4) feet inside dimension between opposing walls and shall meet the requirements of ASTM Standard C-478. Walls shall be not less than six inches (6") thick. Top and bottom slabs shall be not less than eight inches (8") thick.

1.10 Sidewalks

Sidewalks shall be of Portland Cement Concrete, a minimum of 3,000 psi, four inches (4") thick, and five feet (5.0') wide. Sidewalks shall extend across driveways, at which locations they shall have a minimum thickness of 6". Any necessary obstruction shall be placed so as to maintain the maximum clear width and meet the requirements of the Americans with Disabilities Act. Sidewalks shall be maintained by the City. The abutting properties shall maintain driveways, including the sidewalk sections.

Sidewalks shall have a transverse slope of 2% per foot down toward the swale or gutter and shall be given transverse broom finish. Special surface treatments such as pavers, tile, etc., and paint are not permitted.

Ramps for people with disabilities shall be placed at all corners and crosswalks.

Decorative driveway surfaces will be permitted in areas where sidewalks do not exist. A "driveway agreement" must be recorded in the Palm Beach County Clerk of Courts.. A sample copy of a driveway agreement is in the Appendix.

1.11 Grassing

Any grassed areas disturbed by construction or maintenance activities shall be sodded to equal or better condition than that which existed prior to the permitted activity.

1.12 Restoration

The entire work area utilized for the performance of any permitted work shall be restored by the permittee.

1.13 "Record" Drawings & Certifications

If required, "record" drawings of the finished rock base must be submitted to the Engineering Services Department for approval before proceeding with asphalt pavement. These drawings must be signed and sealed by a Land Surveyor registered in the State of Florida, and must show finished rock base elevations and offsets at center line, edge of pavement, plus elevations of bottom of swale or flow line of gutter, top of curb and right-of- way line, at high and low points, intersections and breaks in grade. Elevations shall be verified and shown at intervals not to exceed 300 feet measured along the profile grade line.

Compaction must be verified by an independent certified Engineering Testing Laboratory by making Field Density Tests of each layer of compacted material at prescribed intervals before the succeeding layer is placed. Test reports and rock "Record Drawings" must be submitted to the Engineering Services Department before paving operations begin.

1.14 Final Inspection and Acceptance

After construction is completed and all certifications, record drawings and other required documents have been submitted to the Engineering Services Department, and accepted, but before the one-year Bonded Maintenance period begins, the permittee shall request a final inspection of the project. The Engineering Services Department and all other interested parties shall jointly perform such inspection to determine the acceptability of the project for maintenance. Following the inspection, any noted defects will be corrected by the permittee, after which the Engineering Services Department and other maintaining agencies, will issue a notice of acceptance. This will mark the start of the one-year warrantee period.

2. <u>Pavement Marking/Signing</u>

2.1 Pavement Markings - General

The design and construction of pavement marking systems shall be in accordance with the following standards:

Florida D.O.T. Standard Specifications Florida Roadway and Traffic Design Standards Manual on Uniform Traffic Control Devices

2.1.1 Pavement Marking Plan

Pavement marking and signing plans shall be submitted to the Engineering Services Department for review and approval as part of the total paving and drainage package. These plans shall show all new markings including tie-ins to existing markings. Removals of existing markings shall be shown. Materials shall be specified. The location of raised reflective pavement markers shall be identified.

2.1.2 Permanent Pavement Markings

Permanent pavement markings shall consist of alkyd-based thermoplastic or inlaid preformed plastic material. All such materials shall be fully reflectorized.

2.1.3 Temporary Pavement Markings

Temporary pavement markings may be used during intermediate phases of road construction or where overlayment or further construction of the road is to occur. Temporary markings shall consist of paint or traffic tape. All such markings shall be fully reflectorized.

2.1.4 Removal of Old Pavement Markings

Old pavement markings shall be covered by a pavement overlay prior to installing new markings. Old markings can be painted over with black paint as a temporary measure only.

2.1.5 Construction/Resurfacing

Pavement markings (either permanent or temporary) shall be installed on the project as soon as practicable following paving. In the event that a road is placed in service, the temporary or permanent pavement striping shall be applied by the end of each day's operation unless precluded by inclement weather, in which case it shall be striped during the next daylight period. Any road placed in service without striping shall have the traffic lanes delineated in accordance with the "United States Department of Transportation Manual of Uniform Traffic Control Devices."

2.2 Signs - General

The design and construction of traffic signs shall be in accordance with the following standards:

Florida D.O.T. Standard Specifications Florida Roadway and Traffic Design Standards Manual on Uniform Traffic Control Devices.

2.2.1 Signing Plan

Signing and pavement marking plans shall be submitted to the Engineering Services Department for review and approval, as part of the total paving and drainage submittal. The plan shall show all new signs and all existing signs to remain.

2.2.2 Materials

All "STOP," "YIELD," "DO NOT ENTER," and "WRONG WAY" signs and street name signs shall be fabricated entirely with High Intensity reflective sheeting. Other signs shall be fabricated using engineering grade materials. Post-mounted signs shall be mounted on single or double steel U-Channel posts. Tubular posts shall not be used.

2.2.3. Maintenance of Signs During Construction

It shall be the contractor's responsibility to place and maintain all required temporary signing throughout the life of the project.

CHAPTER VII

WATER DISTRIBUTION AND SEWAGE COLLECTION SYSTEM GENERAL REQUIREMENTS

1. Permits

- 1.1 Permits for construction or maintenance of water distribution and sewage collection systems or the additions thereto, shall be granted only after the following requirements have been completed:
- 1.1.1 A subdivision plat, easements or right-of-way for the area of the proposed construction has been recorded in the Palm Beach County Clerk's Office. This requirement shall not apply to the installation of lines in or through areas already platted or within dedicated rights-of-way, or within easements or rights-of-way extending across undeveloped areas.
- 1.1.2 Water and sewer plans must be submitted to the Engineering Services Department for review and approval with paving and drainage plans, on projects that require such work.
- 1.1.3 Project plans, if any, technical specifications shall be approved by the Engineering Services Department.

2. Fees and Bonds

2.1 The separate bond amounts and fees are to be computed in accordance with the provisions of Chapter IV, Section 3 of these "Standards."

2.2 Re-Inspection and Re-Testing Fees

- 2.2.1 A re-inspection and/or re-testing fee will be charged each time an inspection of the Engineering Services Department Construction Coordinator must visit any jobsite to re-inspect or re-test any installation or portion thereof that has failed to meet City requirements on a previous test or scheduled inspection.
- 2.2.2 Notice of cancellation of any test(s) or scheduled inspection(s) must be given at least four (4) working hours, prior to the scheduled time. Failure to do so will result in the test or inspection being counted as a failure, and a re-test or re-inspection fee being charged upon re-scheduling of same.
- 2.2.3 The re-inspection fee shall be as established in the Engineering Services Department Fee Directory for each re-inspection of any item.
- 2.2.4 The re-test fee shall be as established in the Engineering Services Department Fee Directory for each re-test of any item.

3. Plans and Specifications

- 3.1 Three sets of plans that have been signed and sealed by a Professional Engineer licensed in the State of Florida shall be submitted to the Engineering Services Department for review and approval.
- 3.2 Accessible Benchmarks shall be listed on all plans, using the latest revision to N.G.V.D.

- 3.3 All plans shall be submitted on white prints with blue or black lines. In addition to the proposed project, they shall show all existing adjacent utilities as well as all other known planned utilities sufficiently to permit judging of the compatibility of the proposed work with the existing and planned systems. All plans must be submitted on 24" x 36" sheets. Small projects may be submitted on 11" x 17" paper, provided that scale requirements are met.
- 3.4 General layout plans shall be on a scale of 100 feet or less to the inch. Detailed plans shall be on a scale of 40 feet or less to the inch. Sewer profiles shall be the same horizontal scale as the plans.
- 3.5 Dimensions of rights-of-way and easement widths shall be indicated. All plans show suitable legends.
- 3.6 The detailed plans shall show water and/or sewer main materials, sizes, and their dimensioned locations. They shall also show the locations of valves, hydrants, manholes, tees, wyes and approximate locations of house connections. Each building/property shall have its own sewer lateral. As-builts shall station each house service sewer lateral.
- 3.7 Existing pavements shall be indicated and dimensioned. Proposed cuts in pavement shall be shown and noted.
- 3.8 When locations of existing utilities cannot be determined, this shall be so noted.
- 3.9 Service laterals which are to be installed during the original installation of main(s) shall be indicated on original plans. Plans for services to be installed as a separate project, after installation of main(s), shall be noted and explained.
- 3.10 All street names, street addresses, lot numbers and block numbers shall be shown.
- 3.11 Specifications for the proposed work shall be submitted with the plans.

CHAPTER VIII

WATER DISTRIBUTION SYSTEM - TECHNICAL REQUIREMENTS

1. Jurisdiction

The City of West Palm Beach Public Utilities Department provides potable water to the City of West Palm Beach and to neighboring communities through franchise agreement. All water distribution technical requirements must meet the City of West Palm Beach Utilities Department standards. The City's Engineering Services Department administers compliance with Public Utilities Department standards and may be contacted at (561) 494-1040.

NOTE: The placement of backflow prevention devices within the City's road rights-of-way is prohibited. Backflow prevention devices are to be set on private property, but remain close enough to the water meter to meet the City of West Palm Beach requirements.

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CHAPTER IX

SEWAGE COLLECTION SYSTEM - TECHNICAL REQUIREMENTS

1. Standards

All sewage collections systems in the public rights-of-way and easements shall be in accordance with the following Standards, specifications and regulations, except as modified by these Standards. All installations also shall be in accordance with the manufacturer's recommendations.

- 1.1 Palm Beach County Public Health Unit, Florida Department of Health and Rehabilitative Services and Department of Environmental Protection.
- 1.2 Recommended Standards for Sewage Works (10 State Standards)
- 1.3 American Water Works Association Standards (AWWA)
- 1.4 State of Florida Department of Transportation's "Utility Accommodation Guide."
- 1.5 American National Standards Institute (ANSI)
- 1.6 American Society for Testing Materials (ASTM)
- 2. Materials
- 2.1 <u>Pipe</u>

Gravity sewers and house connections shall be of PVC, or ductile iron pipe.

- 2.1.1 All ductile iron pipe and cast iron fittings conveying or transmitting raw sewage shall be designed for a minimum working pressure of 100 psi.
- 2.1.2 Ductile iron pipe shall conform with current ANSI/AWWA standards. Minimum wall thickness shall be class 50. All pipe shall be epoxy lined.
- 2.1.3 PVC non-pressure pipe shall conform to the minimum requirements of the applicable ASTM standard, wall thickness class SDR-26.
- 2.2 Joints
- 2.2.1 Joints for ductile iron pipe shall be bell and spigot type.
- 2.2.2 Joints for PVC non-pressure pipe shall be of the bell and spigot, push-on, rubber gasket type only. No solvent weld or threaded joints will be permitted.
- 2.3 Manholes
- 2.3.1 Precast reinforced concrete manholes shall conform to the requirements of ASTM C478 and the following modifications thereto:

- 2.3.1.1 Minimum wall thickness shall be eight inches (8").
- 2.3.1.2 Minimum inside diameter of base sections shall be four feet (48").
- 2.3.1.3 The precast base shall be a minimum of eight inches (8") thick and be cast monolithically with the bottom section of the manhole wall. The base slab shall extend a minimum of four inches (4") from the outside wall of the manhole.
- 2.3.1.4 The minimum height of base sections shall be three feet (3') from the bottom of base slab, except that under special conditions, the height may be decreased to 18", contingent upon prior approval of the Engineering Services Department.
- 2.3.1.5 Manhole sections shall be joined with a mastic compound or a round compression ring of neoprene material set in annular spaces cast into the spigot end of a bell and spigot type joint. The mastic compound or ring shall be uniformly compressed between the positioned sections so as to form a water-tight joint. After the sections are assembled, the remaining space in the joint shall be pointed up and filled with dense cement mortar and finished so as to make a smooth, continuous surface inside and outside the wall sections.
- 2.3.1.6 Precast manholes shall terminate at such elevations as will permit installation of a minimum of one (1) and maximum of three (3) precast riser rings under the manhole frame to make allowance for future street grade adjustment.
- 2.3.1.7 Brick for manhole construction shall not be allowed. Riser rings are allowed, as provided in the Engineering Services Department Approved Materials List.
- 2.3.1.8 Drop connections will be required when the vertical distance between pipe inverts exceeds eighteen (18) inches. Drop connection bases, where required, shall be cast monolithically with the manhole base. Drop encasement shall be fully dowelled to the manhole base and walls.
- 2.3.1.9 Outside drop connections are preferred, but inside drop connections will be allowed. Maximum allowable inside drop shall be eighteen (18) inches. Drop connections must be constructed in accordance with provisions of the Water Pollution Control Federation's "Manual of Practice # 9."
- 2.3.1.10 Two (2) coats of a minimum thickness of protective material shall be applied to the entire outside and inside surface of the manhole at the jobsite, after inspection. This material shall be applied in accordance with Engineering Services Department Approved Materials List and the manufacturer's specifications. The coats shall be contrasting colors so as to be easily verified. The outside of the manhole shall be coated prior to being placed in the ground, and the inside shall be coated after final inspection.
- 2.3.1.11 Influent and effluent sewer lines shall be grouted in place using a waterproof, non-shrinking grout, acceptable to the Engineering Services Department. All openings and joints shall be sealed watertight. Special watertight seals shall be considered for specific installations as approved by the Engineering Services Department.
- 2.3.1.12 The lid and frame shall be as provided in the Engineering Services Department Approved Materials List, unless otherwise approved by the Engineering Services Department.

- 2.3.1.13 All concrete and mortar used in manhole construction shall have Type II cement (A.C.I.).
- 2.3.1.14 All precast manhole sections, as delivered to the jobsite, shall be unpatched and shall bear the stamp of a certified Engineering Testing Laboratory, signed and dated, certifying that the manhole sections meet the requirements of ASTM Standard C478, and of this document for concrete strength, steel reinforcement area and placement, and appearance when manufactured. All manhole sections will be subject to inspection at the jobsite by the Engineering Services Department Construction Coordinator to verify conformity with requirements of ASTM-C478 and of this document.
- 2.3.1.15 Approved manhole adaptor couplings shall be required when using PVC pipe.
- 2.4 Fittings
- 2.4.1 All cast iron fittings shall meet the requirements of ANSI/AWWA Standard C111/A21.10.
- 2.4.2 PVC fittings shall be of monolithic or factory fabricated (solvent weld) construction in accordance with ASTM D-3034 and the type specified by the manufacturer of the pipe being used. No non-factory solvent welds or threaded joints will be permitted.
- 2.5 Service Laterals
- 2.5.1 All service laterals shall be installed to the property line with a clean out.
- 2.5.2 Service laterals requiring cuts into pavement after installation of the main and paving of the roadway, will require separate permit fees and bonds and shall be avoided, if possible.
- 2.5.3 Service laterals may not be stubbed into man-holes except at terminal manholes and where approved by the Engineering Services Department. The invert of the lateral at the manhole shall meet a shaped concrete invert that will conduct the effluent without turbulence to the invert at the outflow of the manhole.
- 2.6 <u>Service Connections</u>
- 2.6.1 Each lot, tract, residence or business shall have an individual house connection. Each service lateral shall include a clean-out section having a clean-out plug. The minimum size pipe between the main line and the wye shall be six inches (6"), and the clean-outs shall be located as near to the right-of-way line as is practical for each residence or business connection.
- 2.7 Location
- 2.7.1 Gravity sewer lines shall be installed at the center of the right-of-way, unless otherwise approved by the Engineering Services Department. The separation, encasement and other factors concerning the placing of water and sanitary sewer facilities in the same right-of-way, shall be addressed in accordance with the applicable standards of all agencies having jurisdiction.

2.8 Cover

2.8.1 The minimum cover on all sanitary sewer mains and services shall be 36" for ductile iron and 36" for PVC materials. The slope of sanitary house connections shall be considered in determining sewer main cover.

2.9 Construction Procedures and Installation of Facilities

All construction procedures, sewer installations, restorations and pipe detection aids shall be in accordance with the provisions of Chapter II of this document.

2.10 <u>Testing of Facilities</u>

2.10.1 The Engineering Services Department and the Engineer of Record shall both be represented at all tests of sewer lines in the public right-of-way. The Engineer of Record must certify all test results to the City. The Engineering Services Department representative shall indicate concurrence with the test results by countersigning the test report at the conclusion of the test. In the event that the Engineering Services Department shall fail to witness such a properly scheduled event, the certification of the Engineer of Record may be considered for acceptance.

2.10.2 Mandrel Testing of Lines

At the discretion of the Engineering Services Department, the contractor may be required to test designated lines for excessive deflection. The deflection gauge is sized to pass through a pipe with no more than 7.5% reduction in diameter due to manufacturing and installation imperfections. Any line through which the gauge will not pass will not be accepted until the line is corrected sufficiently to allow the test gauge to pass.

2.10.3 <u>Visual & Television Inspection</u>

On completion of each block or section of sewer, or at such other times as the Engineer of Record may direct, the block or section of sewer is to be cleaned, tested and inspected. Each section of the sewer is to show, on examination from either end, a full circle of light between manholes. The portion of the system being inspected shall be water tight, neatly constructed, with the manhole tops set permanently to exact position and grade. All defects disclosed by the inspection are to be corrected. Broken or cracked pipes are to be replaced, all deposits removed and the sewers left true to line and grade, entirely clean and ready for use. After all other testing have been successfully completed, a television inspection of any or all lines may be made at the expense of the Town. Any defect disclosed during this inspection must be corrected by the Contractor, at his expense, before the lines can be accepted by the Engineering Services Department.

3. <u>Certification and Record Drawings</u>

3.1 The Engineer of Record on each project shall be responsible for observation of construction and shall inspect same for conformity to the approved plans and specifications. Upon completion of the project, he shall furnish the required project documents to the Engineering Services Department, the Palm Beach County Public Health Unit and to any other agencies so requiring, certifying that construction of the project had been carried out in substantial conformance to the approved plans and specifications.

- 3.2 <u>Prior to final inspection</u>, the Engineer of Record shall furnish one set of certified Record drawings to the Engineering Services Department at no charge.
- 3.3 Accurate house connection dimensions shall be shown on the plans. Main and terminal point locations, elevations of stubs or laterals, and locations and elevations of all changes in direction and slope shall also be shown.
- 3.4 The drawings submitted under the preceding paragraph must bear the certification of the Engineer of Record that the installation conforms substantially to the design, has passed all required tests, and that the inspection of the installation during construction was conducted under the supervision of the Engineer of Record or his representative.

All required reports and certifications must be received by the Engineering Service Department <u>prior</u> to final inspection.

- 3.5 In addition to the above requirements, record drawings shall indicate the size, material location and elevation of all underground utilities encountered during construction.
- 3.6 All locative information and dimensions shall be certified by a land surveyor registered in the State of Florida.
- 3.7 The record drawings shall also contain all rim elevations, invert elevations and structure numbers.

4. Service Connections

Service connections shall not be made until the entire down- stream system has been tested and accepted by the Engineering Services Department, the Palm Beach County Health Unit, and all other agencies having jurisdiction.

5. Abandoned Facilities

The provisions of Chapter II, Section 2.23 of this document shall apply.

6. <u>Conflict Manholes</u>

Conflict manholes involving sanitary sewers are to be avoided, if possible. Under extreme conditions, with the written permission of the Engineering Services Department and the approval of all other bodies having jurisdiction, they may be employed, but must conform to the requirements of Section 2.3 of this Chapter and to the detail in the Appendix.

CHAPTER X

LANDSCAPING

1. General

With the exception of grass and low ground cover (i.e., those plants that left unattended will not exceed 30" in height), landscaping within the road rights-of-way and/or easements must obtain a permit from the Engineering Services Department.

2. Standards

All landscaping within the public right-of-way shall be in accordance with the Florida Department of Transportation's "Manual of Minimum Standards for Design, Construction and Maintenance for Streets and Highways" and City of West Palm Beach Code of Ordinance.

3. <u>Materials</u>

All plant material shall be Florida Grade No. 1 or better at time of planting, as set forth in the Florida Department of Agriculture's "Grade Standards for Nursery Plants."

4. Installation

- 4.1 Landscaping shall be planted in such a manner as to not restrict sight distance or drainage flow.
- 5. Tree Removal, Relocation, or Trimming
- Trees planted in the public sidewalk or within 8' of a pedestrian pathway shall have a minimum clear trunk (CT) of eight (8) feet at time of planting. In all other locations, minimum OA tree heights shall be twelve (12) feet at time of planting.
- 5.2 Trees within the road right-of-way are public property, unless installed as private property under permit.
- 5.3 The removal, relocation, or trimming of a tree within the road rights-of-way and/or easements must obtain a permit from the Engineering Services Department.
- 5.4 Removal of a tree for any purpose shall require the in-kind replacement of the existing canopy or trunk diameter at DBH. (i.e. 30' of existing canopy requires the equivalent canopy replacement at time of planting) Replacement is not required for removal of invasive species. Mitigation methodology is at the discretion of the City Arborist or Horticulturist. Replacement tree species must be approved by the City Arborist or Horticulturist
- 8.5 Relocation of a tree for any purpose does not require mitigation. The relocated tree must be warranted for one (1) year to insure survivability. If the tree dies for any reason during the warranty period, the tree must be mitigated as described in section 5.3. The City may require a warranty bond.
- 5.6 Trimming of a tree for any purpose shall require a permit granted by the Engineering Services Department. Additionally, the work must be approved by a City Arborist or Horticulturist.

CHAPTER XI

LANDSCAPE IRRIGATION - TECHNICAL REQUIREMENTS

1. Standards

All landscape irrigation systems constructed in the public right-of-way shall be in accordance with the "American Water Works Association Standards for Pressure Pipes," and shall be installed in accordance with the manufacturer's recommendations.

All irrigation systems shall be constructed to minimize water usage and to promote conservation whenever possible.

2. Materials

- 2.1 Irrigation pipe and fittings 4" in diameter and larger shall be PVC. PVC shall conform to AWWA C-900 with a minimum wall thickness of DR series 35*. Solvent-weld joints are not permitted in these sizes of PVC. Galvanized steel pipe shall conform to AWWA Standard C201 or C202, Schedule 40.
- 2.2 Irrigation pipe and fittings under 4" in diameter shall be of PVC conforming to AWWA Standard C900 Class 150*, conforming to AWWA C201 or C202, Schedule 40.

3. <u>Installation</u>

- 3.1 Irrigation pipes under paved areas shall be carried in PVC, Schedule 40, and shall have a minimum of 36" cover. (30" if in galvanized steel sleeve.)
- 3.2 All mains and headers in unpaved areas shall have a minimum of 30" cover. Branches shall have a minimum of 12" cover.
- 3.3 Solvent-weld joints are not permitted for pipe sizes 4" in diameter and larger.
- 3.4 All electrically operated valves shall be 24-volt (or less) actuated.
- 3.5 No rock or other objectionable material shall be in contact with or within 6" of any irrigation pipe.
- 3.6 The applicable provisions of Chapter II of these "Standards" shall govern the work in the right-of-way.

CHAPTER XII

MISCELLANEOUS PROVISIONS

In addition to the standards previously outlined, there are numerous "special conditions" required of construction and maintenance operations taking place within the City. Described below are the special conditions normally required of permitted operations. Due to site specifics, the actual permit conditions may vary.

Backflow Prevention Devices

All backflow prevention devices required for the potable water system and fire protection are to be located on private property and out of all rights-of-way and easements.

Best Management Practices (BMPs)

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce pollution into the Town's storm water collection system and thence to the waters of the United States. BMPs also include practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Completion of Work

Until the right-of-way is fully restored to original or better condition following construction/excavation activities the restoration is not complete and the associated permit may not be closed. This condition includes restoration of sidewalks, medians, and roads.

Construction Access/Temporary Driveways

During construction of a new house, the general contractor shall designate access points to the property. Temporary driveways shall be constructed of concrete or asphalt and maintained throughout the project so that there will be no tripping hazard to pedestrians. Vehicle traversing of any unprotected area of curbing, median or sidewalk, is prohibited. The intent of this section is to minimize damage to the existing sidewalks and curbs. It shall be the contractor's responsibility to restore all sidewalks, curbs and driveways to City standards prior to the property receiving its Certificate of Occupancy.

Construction Dumpsters

Placement of construction dumpsters within the road right-of- way is allowed by permit only. This includes the temporary placement during pick-up and delivery of dumpsters. Damage to any City infrastructure, i.e., curbs, sidewalks, roadways, landscaping, drainage facilities, etc., shall be repaired by the contractor who secured the dumpster service.

Construction Parking

All vehicles belonging to personnel working on or visiting a construction site from the date of the issuance of the permit to the date of the issuance of the certificate of occupancy shall be parked on the construction site at all times. If the site is limited, then the contractor must initiate "car and/or truck pooling." A site plan may be required to illustrate that the site is being fully and efficiently used for construction material storage and parking.

All contractor's equipment shall be parked on the construction site. If the contractor cannot park equipment on the site, or in the event all vehicles described herein cannot be parked on the site, a right-of-way permit will be required to park said equipment or vehicles in the public right-of-way. The contractor must apply for a permit or permits from the Engineering Services Department.

Failure to comply with the aforementioned conditions may result in suspension, fines, or in the case of repeat offenses, the cancellation of the violator's permit. Penalty for parking in the right-of-way in violation of this section shall be as established in the Engineering Services Department Fee Directory. Penalties may be appealed in writing within twenty (20) days of the date of issuance to the Director of Engineering Services who shall act on said appeal within twenty (20) days of the date of receipt of the appeal. In the event an appeal is denied, the decision of the Director may be appealed in writing within twenty (20) days of the Director's decision to the City Administrator which shall act on the appeal within thirty (30) days of receipt of the appeal in writing.

Curbs

All curbs shall be installed per City standards or at the direction of the Engineering Services Department. Whenever properties are developed or redeveloped fifty percent (50%) or more of assessed value as assessed by the Property Appraiser, the existing condition or absence of the curb shall be brought to Code at that time. The type of curb shall be determined by the Engineering Services Department.

Demolition

The Construction Services Department issues permits for demolition. Prior to obtaining a demolition permit, a plot plan of the property and a written description of the work is required to be reviewed by the Engineering Services Department. The plan will indicate what measures will be taken to protect the pavements, curbs, medians, and sidewalks in the right-of-way adjacent to the property; and the measures that will be taken for erosion control to prevent migration of debris, dirt, dust, and water from the property to the right-of-way and storm drainage system.

Detours/Lane Closures

Work at certain locations on major arteries within the City will require the use of off-duty police officers to assist with traffic control. The owner/contractor shall be responsible to pay for off-duty police assistance. Please contact the Engineering Services Department at 561-494-1040 to obtain rates of pay per hour, minimum time required and to schedule police assistance.

Dewatering

Permit applications for dewatering must state the purpose of the dewatering request; i.e., construction of a new swimming pool, swimming pool repair/resurfacing, excavation for subgrade construction, underground utility repair, etc. No water may be discharged directly onto the street. All water must be discharged through a closed conduit and/or flexible hose to a discharge point designated by the Engineering Services Department. Pumping systems must be flushed onsite to produce only clear water before being connected to the discharge system leading to the City storm water system. Water used to flush the system must be retained on-site. An Engineering Services Department Construction Coordinator must be on the job site to observe start-up of dewatering discharge to the City storm water system.

Driveways and Driveway Approaches

The City Traffic Engineer, or their designee, shall review and approve the location of driveways for all properties within the City of West Palm Beach. The siting of these driveways shall conform to the following conditions or criteria:

For corner lot properties where there is new construction or that are being substantially renovated and which adjoin a major roadway, the driveway shall be located on the minor roadway beginning at a minimum distance of 30-feet from the major street curbline or edge of pavement. In instances where an existing property is being renovated and the foot print of the structure and garage is remaining the same, driveways leading to the major thoroughfare rather than the side street may be maintained. However, site visibility criteria must be reviewed and that site visibility to the maximum extent possible be established. This may require relocation or elimination of existing walls, fences, trees and/or hedges.

All driveways shall have minimum sight visibility triangles established measuring eight feet by 15 feet on each side of the driveway. The eight-foot dimension shall be measured perpendicular to the edge of the roadway and the fifteen-foot dimension shall be measured along the roadway from the outside edge of driveway.

When deemed necessary, the City Traffic Engineer, or their designee may require that an engineering analysis be conducted to determine the proper sight visibility triangle or to establish other criteria on a site-specific basis.

A plot plan showing measurements indicating the width of driveway and/or approach(es) and the distance from edge of driveway/approach(es) to property line and a structural drawing of any portion of work done in the right-of-way must be submitted with the application for a right-of-way permit. All driveways shall be a minimum distance of six feet (6') from the property line. A separation between that part of the driveway located on private property and that portion of driveway lying within the limits of the right-of-way shall be installed as required by the Engineer Services Department. This separation may be made with a cold joint, expansion joint, wood strip or other material as may be specified and approved by the Engineer Services Department.

Driveways that abut roads without curbs shall, prior to installation of driveway, install a header curb or drop vertical curb across the front of the entire driveway. In addition, driveways of loose gravel shall install, at a minimum, a two foot (2') wide by six inch (6") thick concrete gravel stop across the entire front of the driveway.

If any driveway approach located within the right-of-way is other than plain asphalt or concrete, the property owner must submit a recorded Driveway Agreement before a permit for the work will be issued. A Driveway Agreement is an agreement by a property owner to restore their driveway which lies within a road right-of-way or easement, if said driveway is excavated for public utility or other municipal purposes. The agreement is required to be recorded by the property owner with the Palm Beach County Clerk of Circuit Courts.

Form work and other preparation for construction of driveways and approaches within the right-of-way will be inspected by an Engineering Services Department Construction Coordinator before laying of asphalt or concrete. A 24 hour notice is required for all Engineering Services Department inspections.

Driveways, Abandoned

As a condition for construction on a property, all abandoned driveways shall be removed with the curb, driveway and asphalt pavement restored at the owner's expense.

Easements

Placement of structures, walls, fences, slabs, turf blocks, private utility service lines, mechanical equipment, trees, hedges or other obstacles that would restrict access and maintenance of public utilities within the easement is prohibited unless an Easement Consent Form completed from each public utility has been properly executed and submitted to the Engineering Services Department. Additionally, a Revocable Easement Utilization Permit must be executed by the person or entity seeking to construct such prohibited obstacles within the easement. The Revocable Easement Utilization Permit must be fully executed by the person or entity seeking to construct such prohibited obstacles within the easement and the City of West Palm Beach. The properly executed Permit must be filed within the public records of Palm Beach County Clerk of the Circuit Court at the applicant's expense. The City of West Palm Beach, at its sole discretion, shall have the ability to reject any request regarding usage of easement(s) for the purpose of placement of obstacles therein regardless of the written opinion of any applicable public utility as indicated within an approved Easement Consent Form or otherwise.

Erosion Into Roadways and Drainage Systems

During construction and demolition activities, suitable methods must be employed to prevent wind and water carried dirt and debris from being deposited onto the roadway or into the storm drainage system. At the time of building/right-of-way/demolition permit application, the contractor shall submit an Erosion Control Plan for review and approval by the Public Works Department. In accordance with the National Pollutant Discharge Elimination System (NPDES) Program administered by the Florida Department of Environmental Protection (DEP) for the United States Environmental Protection Agency, Best Management Practices (BMPs) shall be employed on every construction project to prevent wind and/or water carried sediment from entering the Town's municipal storm drainage system. Upon the approval of the Engineering Services Department, the downstream catch basin(s) shall be covered with filter fabric and in the case of open throated catch basins, sand bags shall be placed to block the openings. During rainfall events, the contractor will be responsible to restrict all debris from the storm system. This includes material caught on the filter fabric or debris clogging the catch basin. The filter fabric shall be removed, cleaned and replaced after each rainfall event.

For excavations off the roadways, whether on public or privately-owned land, BMPs shall be employed to prevent sediment from reaching the City roadway system. Typical methods employed include grassed berms, staked turbidity screens and/or excavated areas filled with 3/4 inch stone. The selected BMP shall be described with the permit application.

Contractor shall immediately clean up the rights-of-way of any dirt or debris which has migrated from a construction site. It shall be the responsibility of the offending party to clean any storm or sanitary sewer system of dirt and debris which has migrated from a construction site.

Excavation in the Right-of-Way or Easements

Before excavating in any right-of-way or easement (including pavement, sidewalks, medians, or curbs) the permittee must cause to be located any and all underground utilities in the vicinity of the proposed excavation.

To obtain locations for all utilities underground that may include electric, telephone, gas, water, cable TV or City of West Palm Beach utilities that include sanitary sewer, storm sewer, street lighting and traffic control call SUNSHINE STATE ONE CALL at 1-800-432-4770 from Monday thru Friday between the hours of 6:00 a.m. and 5:00 p.m. A minimum of two (2) business day notice is required for any field locate.

Exfiltration Trenches

The use of exfiltration trenches (french drains) for stormwater retention is encouraged. The seasonal high water table elevation to be used for design calculations shall be 3.0 NGVD, as determined by the South Florida Water Management District.

Fines

Failure to comply with the Engineering Services Department Standards will result in fines per offense, until the deficiency is corrected. All fines must be paid within twenty (20) business days of formal written notice by the City. Failure to promptly pay fines may result in the City refusing to issue building/right-of-way permits on future applications.

Hurricane Preparedness

Upon issuance of a hurricane watch by the National Weather Service, all projects underway within the road rights-of-way and easements shall be immediately secured. All excavations shall be backfilled, and all paved/concreted areas that are disturbed, temporary paved. All construction materials, barricades, and signing shall be secured. All construction vehicles and trailers must be removed from the roadways. Permittee's are required to follow the provisions of a City of West Palm Beach Severe Weather Advisory immediately upon issuance.

Landscaping Maintenance

Minor landscaping operations such as hedge trimming, cutting grass, edging, tree trimming, etc., which does not obstruct traffic will not require a permit. However, working along the edge of a roadway will require the placement of a 2' x 2' "WORKERS AHEAD" sign and 36" traffic cones.

A right-of-way permit is required for major landscaping work which requires vehicles to block any portion of the roadway. This includes, but is not limited to, cranes, tree cranes, bucket trucks, skid-steer loaders, end loaders, backhoes, fork lifts, and equipment hauler/transports for any of these. Metal tracked equipment is prohibited from operating in the right-of-way without a permit. This includes loading and unloading of the equipment onto or off of an equipment transport vehicle. Advance warning signs and traffic cones will be required.

Laterals - See Sanitary Sewer Service Laterals

Material Storage in Right-of-Way

In general, the storage of materials within the road right- of-way is prohibited. Temporary placement of palletized materials may be allowed if a permit is secured.

Obstructions

No obstructions that will impede traffic or create a hazard to the public are allowed in public or private right-of-ways. Placement of concrete pyramids, concrete buttons, speed bumps, posts, stones, or boulders within the City's rights-of-ways is prohibited.

Permits from Other Agencies

In order to receive a right-of-way permit, all permits must be secured from all applicable agencies, including but not limited to the Florida Department of Transportation, Palm Beach County Public Health Unit, Florida Department of Environmental Protection, Palm Beach County Department of Environmental Resources Management and the City of West Palm Beach Construction Services Department.

Pressure Cleaning/Sandblasting

Permits for pressure cleaning and sandblasting must provide for pedestrian safety and adequate protection from debris and sand from entering the storm drainage system. At the end of each day, the right-of-way shall be swept clean and filter fabric removed from each catch basin cover.

Pre-Work Meetings

On significant construction projects, at the option of the Engineering Services Department, the applicant for a right-of-way permit may be required to coordinate a jobsite meeting to discuss a pending construction project. Pre-work meeting minutes shall be taken and distributed to all in attendance by the entity requesting the permit.

Protection of Existing Facilities

It shall be the responsibility of all persons utilizing the rights-of-way and easements to protect existing City infrastructure from damage. When damage occurs, full replacement is required. No patching, grinding or skim coats will be allowed on concrete. Asphalt surfaces shall be cut out and patched or overlaid at the option of the Engineering Services Department.

Renovations to Property

When fifty percent (50%) or more of a property is being renovated, the sidewalk, driveway, and curbs must be inspected by the Engineering Services Department for deficiencies. The property owner will be responsible to correct any deficiencies noted by removing and replacing to bring the affected sidewalks, driveway, and/or curbs up to current City standards.

Repeat Violations

Owners, Contractors, and individuals who repeatedly violate these standards may be denied permits on future right-of-way applications.

Sanitary Sewer Service Laterals

It is the property owner's responsibility to maintain any service lateral or privately owned force main up to connection to the City's gravity or force main line, which is or may be, located in the right-of-way or easement. If at any time the sewer lateral (including during new construction or substantial remodel) is found to be defective; i.e., connected to the storm sewer system, incorrect main connection, cracked, or otherwise in poor condition, the owner/developer will be required to bring sewer lateral up to code immediately. Old clay lines or metal laterals must be replaced with PVC up to the main. All abandoned laterals to a property shall be removed.

Scaffolding

On jobs which require the erection of scaffolding over the sidewalk, a pedestrian walkway must be maintained under said scaffolding. The minimum dimensions of this walkway shall be 4 feet wide and 8 feet high, clear dimensions. Adequate lighting must be installed. Provisions must be made to prevent debris from falling onto the sidewalk or roadway.

The City Traffic Engineer must approve the structural adequacy of the scaffolding and the electrical lighting plan.

Surveys

For all new structure construction, and for major structure remodeling, the Engineering Services Department requires:

- a. A topographical survey of the property just prior to starting work.
- b. A topographical drawing showing proposed or modified structures, landscaping and surface grade elevation contours.
- c. An "as-built" record topographical survey signed and sealed by a licensed land surveyor is to be submitted upon completion of work to the Engineering Services Department.

Temporary Pavement Patches

Excavated roadways shall be patched with asphalt for vehicular traffic at the end of each work day, unless otherwise approved by the Engineering Services Department.

Use of Rights-of-Way as Work Area

It is not permitted to utilize the right-of-way for fabrication of any materials for use on a construction project being undertaken on private property. All such work activities shall take place on the private property.

Work Area Traffic Control

Projects which will block a moving lane of traffic will require a flagman and/or an off-duty police officer. A detailed Maintenance of Traffic plan will be required. Said plan must be approved by the Engineering Services Department prior to the issuance of a permit.

Yard Trash Placement

Placement of yard trash is specifically prohibited in the paved portion of any Florida Department of Transportation right-of-way or paved portions of any City of West Palm Beach right-of-way within the City.

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APPENDICES

- A -Application for Right-of-Way Permit
- **B** -Permit Fee Directory (10/01/08)

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