

CITY OF PALM BEACH GARDENS

STANDARDS FOR UTILITY INSTALLATIONS IN PUBLIC RIGHTS-OF-WAY AND EASEMENTS

1. PAVEMENT CUTTING

- (A) All pavement crossings shall be made by jack and bore, directional bore or augering (unless pavement cutting is allowed) and shall contain an adequate casing if required. All jack and bore crossings shall be a continuous operation at the approved location and depth. Any deviation from the above shall be sufficient grounds for work stoppage, plugging the line with concrete and placement of the line at the proper location.
- (B) Open cutting of existing pavement will generally not be allowed, but may be considered under one or more of the following conditions:
- Sub-surface obstructions
 - Extreme high water table
 - Limited space for jacking pits
 - Conditions of roadway surface – including imminent resurfacing and rebuilding
 - Extreme economic hardship
- (C) In any analysis of a request for open cutting, primary consideration shall be given to the safety and convenience of the public. Where open cutting is permitted, replacement of subgrade, subbase, base and asphalt surface courses shall be in accordance with the attached sketches, the latest State of Florida Department of Transportation specifications and/or any special provisions of this permit. When traffic is to be placed on a cut area, a temporary patch with a smooth, all-weather asphalt surface course shall be provided until permanent replacement. Temporary striping shall be placed in the construction area to match that which existed prior to the commencement of construction. At the conclusion of construction, permanent Thermoplastic striping shall be placed on the roadway in accordance with the latest Florida Department of Transportation specifications.
- (D) Residential driveways that are required to be open cut will be replaced from the existing edge of pavement to the right-of-way line or edge of sidewalk, whichever is greater. The Permittee shall warrant all replaced driveways for a period of one (1) calendar year from the date of final acceptance against failure. All failing driveways shall be replaced at the Permittee's expense within twenty (20) days of the City's request.

2. SPECIAL REQUIREMENTS FOR UTILITY INSTALLATION, RESTORATION OF RIGHTS-OF-WAY AND MAINTENANCE OF UTILITY

- (A) All City and private properties shall be restored to current City standards in a manner satisfactory to the City. All areas to be involved in construction shall be video taped by the Permittee prior to beginning the work. A copy of the videotape shall be given to the City.
- (B) At all open cut crossings, unless otherwise authorized by the City, a minimum of one-way traffic shall be maintained during daylight hours, and two-way traffic at night. All

traffic detours shall be restricted to the limits of public rights-of-way consistent with the City's approved Maintenance-of-Traffic plan. A Maintenance-of-Traffic plan, prepared by a certified Contractor, shall be submitted for the City's review with the Right-of-Way Use permit application.

- (C) All necessary signs, flagging personnel and other safety devices shall be used in accordance with the Florida Department of Transportation's Safety Manual and Manual on Uniform Traffic Control Devices.
- (D) All utilities, including side drains, side ditches and storm sewers shall be referenced as to grade and location in Exhibits submitted with the Right-of-Way Use Permit application.
- (E) When deemed necessary, density tests will be required by the City. Criteria for tests shall be as follows:

A minimum of two density tests shall be taken for each six (6) inch lift of subgrade, subbase and base material at each open cut crossing. When the specified compacted base is greater than six (6) inches, the base material shall be placed and compacted in two or more layers. Each layer shall be a maximum of 6" in loose thickness. Proctors for materials used in backfilling, and density tests shall be performed by a certified testing laboratory. The percentage of maximum density required shall be in accordance with the latest edition of the Florida Department of Transportation Standard Specifications at the time the permit is issued. All density tests shall be completed and accepted on each layer prior to additional backfilling. A copy of all completed and accepted density tests shall be furnished to the City prior to final inspection.

- (F) Approved City details are attached to this document which show proper placement when open cut is allowed. In some instances, additional paving shall be required. Replacement of road surface material, other than flexible or concrete pavement, shall be consistent with the existing surface material.
- (G) Prior to the completion of the project, temporary patches shall be installed at the end of each workday and maintained so as to provide a smooth, all-weather surface at all times. Permanent replacement of the temporary patch shall be made as soon as all work within the City's rights-of-ways or easements has been completed. Striping shall be required at all times.
- (H) Where pavement, fill slopes, shoulders and ditches are disturbed, they shall be stabilized as directed by the City in a manner that will afford protection against erosion. Trenched areas outside of the actual roadway shall be restored to current City standards, with replacement material thoroughly rolled or tamped to maximum density. All work shall be performed to the satisfaction of the City.
- (I) All installations shall be constructed in a workmanlike manner, via:
 - (I) Trenches shall be backfilled in a thoroughly compacted manner so no future settling will occur.

- (2) The Permittee shall submit copies of density test reports performed by a certified testing laboratory. Density test reports shall be furnished prior to final inspection.
- (3) The finished surface of the excavated area shall be replaced to current City standards, unless otherwise specified by the City.
- (4) At the expense of the Permittee, all excess material acquired from the City rights-of-way shall either be, at the discretion of the City, hauled to a designated City site within the City limits, or hauled to a licensed disposal site.
- (J) Correspondence regarding construction activities shall be directly with the Permittee or their consultants, and not through a contractor or subcontractor.
- (K) At such locations where City signs and reflectors will interfere with the proposed construction, the Permittee or their consultants will notify the City twenty-four (24) hours in advance of the interference. Any signs or reflectors damaged, destroyed, removed or relocated shall be replaced by the Permittee. Temporary signage shall be maintained at all times. Permanent signage shall be replaced as quickly as possible.
- (L) All trees and/or shrubbery damaged or disturbed during construction shall be replaced by the Permittee at their expense as directed by the City. All debris shall be removed by the Permittee at their expense at the end of each day.
- (M) Grassing and mulching operations shall be phased. The phasing plan shall be reviewed and approved by the City. All requirements regarding grassing and mulching shall be in accordance with the current Florida Department of Transportation specifications. Any yards or parts of rights-of-way in front of private property that have a grass mat shall be re-sodded with like sod, or otherwise, to the satisfaction of the City.
- (N) The indiscriminate cutting of trees or disfiguring of any feature of scenic value shall not be permitted.
- (O) All utilities installed, including the placement of communication facilities in public rights-of-way shall be in accordance with Chapter 62 of the City's Code of Ordinances.

3. LOCATION CRITERIA FOR UTILITIES

- (A) All utilities shall be installed in accordance with the latest editions of the Federal Standards as listed in the Florida Public Service Commission Rule 25-12.05 as amended by Order No. 5221 issued by the Commission September 17, 1971, with any subsequent modifications thereto, the National Electrical Code, the State of Florida Department of Transportation's Safety Manual and the Department's Manual on Uniform Traffic Control Devices, the Florida Department of Environmental Protection, and the Palm Beach County Public Health Unit.
- (B) All utilities shall be installed in accordance with generally accepted codes and local utility standards.

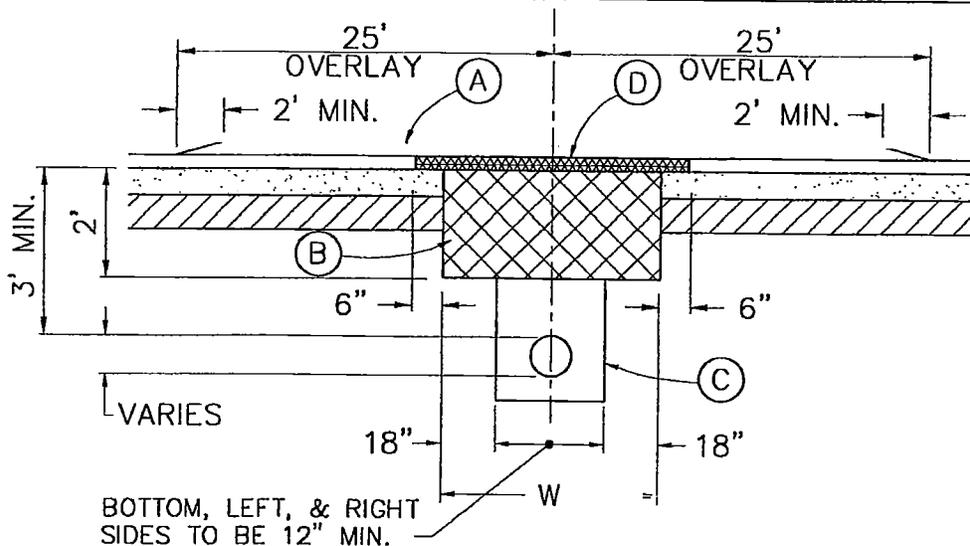
- (C) It shall be the Permittee's responsibility to resolve all conflicts with previously installed utilities at their own expense. This may require relocating previously installed utilities.
- (D) All utility installations shall maintain a minimum clearance of 12" over or under culverts, and shall be protected unless otherwise approved by the City.
- (E) Where possible, the edges of the excavation shall be at least five (5) feet from the edge of the pavement. This requires that the utility be placed a sufficient distance from the pavement to allow five (5) feet between the pavement and the excavation. Permission from the City is required if this is not possible.

4. MAGNETIC TAPE

It shall be the responsibility of the utility company or its agent to provide magnetic tape under the following conditions:

All buried, non-metallic utility piping which cannot be located with a metal detector device must be overlain, within the pipe trench, with continuous magnetic (metal marking) tape. The tape shall be located a minimum distance of twelve (12) inches above the top of the pipe.

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- A. OVERLAY 25.0' FROM CENTER LINE OF TRENCH BOTH SIDES OF OPEN CUT WITH 1" MINIMUM TYPE S-III ASPHALT OR MATCH EXISTING SURFACE MATERIAL WHEN POSSIBLE.
- B. CONSTRUCT 2.0' DEEP x WIDTH AND LENGTH OF TRENCH WITH CEMENTED COQUINA OR LIMEROCK. SEE SPECIFICATIONS #2 BELOW FOR COMPACTION REQUIREMENTS.
- C. PROVIDE CLEAN BACKFILL. BACKFILL SHALL BE REPLACED IN LIFTS NOT GREATER THAN 6" LOOSE THICKNESS. EACH LIFT SHALL BE MECHANICALLY COMPACTED TO A MINIMUM 100% DENSITY AS DETERMINED BY AASHTO T-99, METHOD "C" OR 98% DENSITY AS DETERMINED BY AASHTO T-180.
- D. DITCH WIDTH (W)+12", MATCH EXISTING TYPE AND THICKNESS OF ASPHALT OR USE TYPE S-III.

NOTES:

- 1. REPLACED BASE MATERIAL OVER DITCH SHALL BE AS SHOWN ABOVE.
- 2. BASE MATERIAL SHALL BE PLACED IN LIFTS NOT GREATER THAN 6" LOOSE THICKNESS. EACH LIFT SHALL BE THOROUGHLY MECHANICALLY COMPACTED TO 98% DENSITY AS DETERMINED BY AASHTO T-180.
- 3. ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE LAPPED AND FEATHERED.
- 4. ALL PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED.
- 5. SURFACE MATERIAL WILL BE CONSISTENT WITH EXISTING SURFACE OR AS OTHERWISE DIRECTED (TYPE S-III) AND PLACED IN ACCORDANCE WITH FDOT REQUIREMENTS.
- 6. A MINIMUM OF TWO DENSITY TESTS SHALL BE TAKEN FOR EACH SIX (6) INCH LIFT OF SUBGRADE AT EACH OPEN CUT CROSSING. WHEN THE SPECIFIED COMPACTED BASE IS GREATER THAN SIX (6) INCHES, THE BASE SHALL BE CONSTRUCTED IN TWO OR MORE LAYERS. EACH LAYER SHALL BE A MAXIMUM OF 6" LOOSE THICKNESS. PROCTORS AND DENSITY TESTS ON MATERIALS USED IN BACKFILLING SHALL BE PERFORMED BY A CERTIFIED TESTING LABORATORY. THE PERCENTAGE OF MAXIMUM DENSITY REQUIRED SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. A COPY OF ALL COMPLETED AND ACCEPTED DENSITY TESTS SHALL BE FURNISHED TO THE PUBLIC WORKS DIRECTOR'S OFFICE PRIOR TO FINAL INSPECTION.
- 7. NO "OPEN CUT" WILL BE PERMITTED BEFORE THE FEASIBILITY OF JACK AND BORE HAS BEEN REVIEWED.
- 8. ROAD CLOSURES WILL REQUIRE A FIVE (5) WORKING DAY NOTICE TO THE CITY'S PUBLIC WORKS DEPARTMENT AND PRIMARY NEWSPAPER PRIOR TO BEGINNING THE WORK.

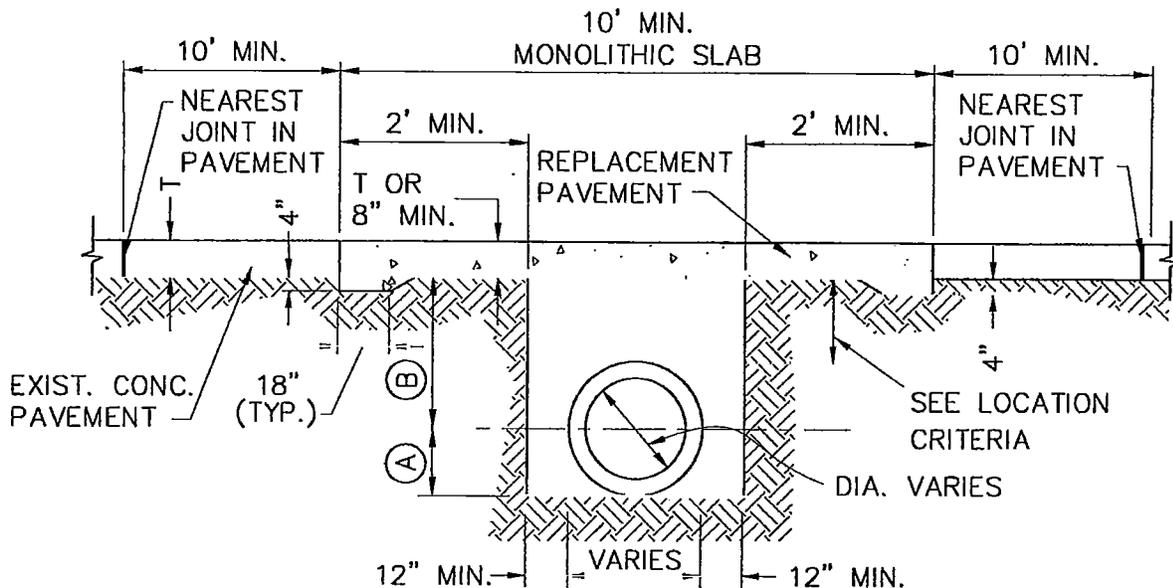
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FLEXIBLE PAVEMENT REPLACEMENT
 OPEN-CUT DETAIL

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THE BACKFILL FOR (A) AND (B) SHALL BE PLACED IN MAXIMUM 6" LAYERS (COMPACTED THICKNESS) AND SHALL BE COMPACTED TO 98% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.

- (A) THE PERMITTEE SHALL PROVIDE ADEQUATE COMPACTED FILL BENEATH THE HAUNCHES OF THE PIPE, USING MECHANICAL TAMPS SUITABLE FOR THIS PURPOSE. THIS COMPACTION APPLIES TO THE MATERIAL PLACED BENEATH THE HAUNCHES OF THE PIPE AND ABOVE ANY BEDDING REQUIRED.
- (B) THE PERMITTEE SHALL PROVIDE A WELL COMPACTED BED AND FILL ALONG THE SIDES OF THE PIPE TO A POINT INDICATING THE BOTTOM OF REPLACEMENT PAVEMENT.

GENERAL NOTES:

1. 3000 P.S.I. CONCRETE, BY USE OF HIGH EARLY STRENGTH CEMENT, TO BE USED FOR REPLACEMENT, OR OTHER APPROVED HIGH STRENGTH, FAST SET MATERIALS.
2. CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED TO CONFORM WITH ADJOINING SLABS.
3. BACKFILL MATERIAL SHALL BE EITHER OF THE SAME TYPE AND COMPOSITION AS THE MATERIAL REMOVED, OR OF EQUAL OR GREATER STRUCTURAL ADEQUACY. MATERIALS CONTAMINATED WITH DELETERIOUS SUBSTANCES DURING EXCAVATION SHALL NOT BE USED.
4. FLOWABLE FILL MAY BE USED IN LIEU OF COMPACTED MATERIAL.
5. A MINIMUM OF TWO DENSITY TESTS SHALL BE TAKEN FOR EACH SIX (6) INCH LIFT OF COMPACTED BACKFILL AT EACH OPEN CUT CROSSING. PROCTORS AND DENSITY TESTS ON MATERIALS USED IN BACKFILLING SHALL BE PERFORMED BY A CERTIFIED TESTING LABORATORY. THE PERCENTAGE OF MAXIMUM DENSITY REQUIRED SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. A COPY OF ALL COMPLETED AND ACCEPTED DENSITY TESTS SHALL BE FURNISHED TO THE PUBLIC WORKS DIRECTOR'S OFFICE PRIOR TO FINAL INSPECTION.
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