

**CITY OF ORANGE BEACH
CONSTRUCTION STANDARDS FOR MISCELLANEOUS
CONSTRUCTION, UTILITY EXCAVATION, AND RIGHT-OF-WAY
AND PAVEMENT RESTORATION**

Section 1. Construction plan requirements within public rights-of-way and easements.

Unless the context otherwise requires, the definitions in Chapter 66, Article IV of the Code of Ordinances of the City of Orange Beach apply to these standards.

1.1 *Major projects.*

A. *Major projects within roadway limits:*

(1) Construction plan submittal. Applicants for right-of-way permits shall submit two (2) sets of construction plans and specifications, including the following information for review and approval:

(a) The location of all visible topographic features affected by the project within the right-of-way.

¹(b) Complete plan and profile sheets indicating the horizontal and vertical location of all components of the proposed project and other related information including, but not limited to, pipe and manhole flow line elevations, type and size pipe, and other related structures, profile and other elevations necessary for roadway and right-of-way restoration, and the design details of the proposed construction and pavement and right-of-way restoration will be required for gravity flow systems including sanitary sewer, storm drain and related projects. A plan indicating the location of the proposed project with respect to the centerline, edge of road, and right-of-way, tie-in to nearest street intersection, components and type material used, and dimensions and depth of the proposed installation, will be required for non-gravity flow systems including water distribution systems, gas systems, communication, cable TV and electric power distribution systems, unless otherwise authorized by the Public Works Director.

¹ Note: Complete plan and profile sheets and other information currently required for gravity flow systems will be required for projects submitted after the ordinance is amended to include provisions for the implementation of GIS mapping requirements.

(c) An erosion control plan and best management practices complying with provisions of the City's stormwater management ordinance.

(d) A safety plan to indicate methods to be used to protect the general public from injury, and including the proposed use of barricades, signs, lights, fencing and other barriers.

(e) A traffic control plan complying with all the provisions of the Federal Manual on Uniform Traffic Control Devices, current edition shall be submitted to the Public Works Director.

(f) A landscape plan complying with the City's zoning ordinance.

(g) Complete as-built construction plans of the construction project shall be submitted to the Public Works Director, after final inspection of the project.

B. *Major projects outside roadway limits:*

(1) Construction plan submittal. Applicants for right-of-way permits shall submit two (2) sets of construction plans and specifications, including the following information for review and approval:

(a) The location of all visible topographic features within the right-of-way that will be impacted by the proposed project.

²(b) Complete plan and profile sheets indicating the horizontal and vertical location of all components of the proposed project and other related information including, but not limited to, pipe and manhole flow line elevations, type and size pipe, and other related structures, profile and other elevations necessary for right-of-way restoration and the design details of the proposed construction, including the right-of-way restoration will be required for gravity flow systems including sanitary sewer, storm drain and related projects. A plan indicating the location of the proposed project with respect to the centerline, edge of road, and right-of-way, tie-in to nearest street intersection, components and type material used, and dimensions and depth of the proposed installation, will be required for non-gravity flow systems including water distribution systems, gas

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systems, communication, cable TV and electric power distribution systems, unless otherwise authorized by the Public Works Director.

(c) An erosion control plan with best management practices complying with provisions of the City's stormwater management ordinance.

(d) A safety plan to indicate methods to be used to protect the general public from injury, and including the proposed use of barricades, signs, lights, fencing and other barriers.

(e) A traffic control plan complying with all the provisions of the Manual on Uniform Traffic Control Devices, current edition shall be submitted to the Public Works Director, if any roadway traffic is affected.

(f) A landscape plan complying with the City's zoning ordinance.

(g) Complete as-built construction plans of the construction project shall be submitted to the Public Works Director, after final inspection of the project.

1.2 *Minor projects.*

A. *Minor projects within roadway limits.*

(1) Construction plan submittal. Applicants for right-of-way permits shall submit a plat of the proposed project including the following information:

(a) A plat prepared at a scale acceptable to the Public Works Director to indicate the plan view of the proposed project, location with respect to centerline, edge of roadway, and right-of-way, tie-in to nearest subdivision lot corner or street intersection, components and type material used for the project, and dimensions and depth of proposed installation.

(b) An erosion control plan with best management practices complying with provisions of the City's stormwater management ordinance.

(c) A safety plan to indicate methods to be used to protect the general public from injury, and including the proposed use of barricades, signs, lights, fencing and other barriers.

(d) A traffic control plan complying with all the provisions of the Manual on Uniform Traffic Control Devices, current edition, shall be submitted to the Public Works Director, if any roadway traffic is affected.

(e) Complete as-built construction plans of the construction project shall be submitted to the Public Works Director, after final inspection of the project.

B. *Minor projects outside roadway limits.*

(1) Construction plan submittal. Applicants for right-of-way permits shall submit a plat of the proposed project including the following information:

(a) A plat prepared at a scale acceptable to the Public Works Director to indicate the plan view of the proposed project, location with respect to edge of roadway, centerline, and right-of-way, tie-in to nearest subdivision lot corner or street intersection, components and type material used, dimensions and depth of proposed excavation.

(b) An erosion control plan with best management practices complying with provisions of the City's stormwater management ordinance.

(c) A safety plan to indicate methods to be used to protect the general public from injury, and including the proposed use of barricades, signs, lights, fencing and other barriers.

(d) A traffic control plan complying with all the provisions of the Manual on Uniform Traffic Control Devices, current edition, shall be submitted to the Public Works Director, if any impact on traffic movement is involved.

(e) A landscape plan complying with the City's zoning ordinance.

(f) Complete as-built construction plans of the construction project shall be submitted to the Public Works Director, after final inspection of the project.

1.3 *Small projects.* The applicant will not be required to submit a construction plan or plat for small projects. However, a location sketch will be required for approval of small projects. Any pavement or areas in the right-of-way that are disturbed, shall be restored in conformance with these Technical Standards.

Section 2. Notification procedures for major and minor projects.

Except for emergencies, the following notification procedures will be followed for major and minor projects, prior to the commencement of any construction activities:

A. The one call line location center will be notified forty-eight (48) hours prior to any excavation. The location of all utilities shall be verified before commencing construction.

B. The Public Works Director shall be notified twenty-four (24) hours prior to commencing any construction activity involving major and minor projects within roadway limits.

C. The Public Works Director will be notified seventy-two (72) hours prior to the closure of any roadway or interruption in traffic flow.

D. A written notice will be distributed to each occupant of premises adjacent to the project site five (5) days prior to commencing construction activity relating to major projects.

Section 3. Inspection.

Public Works Department personnel will conduct periodic inspections of utility construction, right-of-way and pavement restoration. The contractor will schedule a final inspection for major and minor projects when construction is complete.

Section 4. Trench excavation and general underground construction requirements for major and minor projects.

4.1 Excavation.

A. Trench excavation methods shall be used to keep the width of the trench to a minimum. Extra wide excavation to accommodate equipment will not be permitted. Sheeting, bracing and other trench restraint system will be used to keep trench width to a minimum and to comply with OSHA regulations.

B. *Hazardous materials.* The applicant will comply with all federal, state, and local laws, regarding hazardous material. For purposes of this section, hazardous material shall mean any material, substance or waste which, because of its quantity, concentration, or physical or chemical characteristics, is deemed to pose a present or potential hazard to human health, safety or to the environment.

C. *Utility construction.* The construction of utilities will be in conformance with the plans which constitute a part of the approval permit.

(1) Depth requirements for underground installation:

(a) Within roadway limits. The minimum clear depth for open cut installation, and jacking, boring, and pushing operations shall be thirty-six (36) inches, unless otherwise authorized or directed by the Public Works Director.

(b) Outside roadway limits and driveways. The minimum clear depth for open cut installation and jacking, boring, and pushing

operations shall be thirty (30) inches, unless otherwise authorized or directed by the Public Works Director.

D. Housekeeping and removal of excavated material. The applicant shall keep the area surrounding the excavation clean (including trash, loose materials or other debris).

5.2 *Backfill material.*

A. Backfill material for major projects will be select granular soil material approved by the geotechnical engineering company or the Public Works Director. Excavated material from the trench will not be used unless approved. Material excavated from utility poles, guy wire installation, replacing existing poles and routine pole inspections may be used for backfill.

B. Backfill material for minor projects within the roadway shall be comprised of crushed stone material up to subgrade elevation, unless otherwise approved by the Public Works Director. Backfill material for other areas will be select granular soil material approved by a geotechnical engineering company or the Public Works Director.

C. Installation of backfill material:

(1) Backfilling of the excavated area shall follow closely behind the installation project.

(2) The backfill material shall be compacted at near optimum moisture content, in layers not exceeding six (6) inches compacted thickness, to a density of not less than ninety-five (95) percent, unless otherwise approved by the geotechnical engineering company. Mechanical tampers shall be used unless another method of compaction is approved. Jetting will not be permitted. The backfill material shall be installed uniformly and brought up evenly in layers for the full length of the trench.

D. Geotechnical testing and compaction for major and minor projects:

(1) *Major projects.* A geotechnical engineering company will perform compaction tests at intervals of no more than 200 feet along the main trench line. Tests will be conducted at the installation of service lines within these limits where directed by the Public Works Director. The geotechnical engineering company will perform tests at as many levels of backfill installation, and lateral locations to certify that compaction requirements have been achieved. Documented test reports will be prepared and submitted to the Public Works Director before any right-of-way restoration proceeds.

(2) *Minor projects.* Compaction tests may be requested for minor projects at specific locations. In-house geotechnical engineers may be employed for performing compaction tests for minor projects.

E. General public safety: Every effort will be taken by the contractor to protect the safety, health and welfare of the general public and to insure compliance with the safety and traffic plans submitted with the permit applications.

F. Steel plates may be required by the Public Works Director in congested or heavily traveled areas to cover open trenches. Temporary patching will be required for any trench excavation in the roadway prior to opening the area to traffic.

G. For major projects a construction sign will be placed adjacent to the utility construction area where traffic flow is to be obstructed. The sign(s) will be placed seventy-two (72) hours prior to construction, at least every five hundred (500) feet along the project. The name of the utility involved and phone numbers that may be contacted on a twenty-four (24) hour basis to be shown on the sign(s).

Section 5. Right-of-way restoration within roadways.

All construction procedures and materials utilized will be in compliance with Alabama Department of Transportation standard Specifications for Highway Construction current edition. A geotechnical engineering company will be retained by the utility company or permittee, to conduct field testing to document and certify that all materials and compaction efforts are in compliance with Alabama Department of Transportation Standard Specifications for Highway Construction, latest edition and procedures specified in the Public Work Department's design details for right-of-way restoration.

5.1 Major projects.

5.1.1. Asphalt road surface.

A. Base construction.

(1) Granular soil, sand clay base. The base course of the affected lanes shall be reconstructed full width.

(2) Bituminous base, stone base. The base course of the affected lanes may be patched with equivalent base material if the structural integrity of the roadway has not been affected by the project, as determined by the geotechnical company. Otherwise, the base of the affected lanes shall be reconstructed full width.

B. Wearing surface. The full width of the roadway surface shall be resurfaced within the limits of the project. Existing traffic stripping and markings will be replaced.

5.1.2. Asphalt roadway surface overlay on existing concrete pavement.

A. Base construction. The existing concrete street may be patched with concrete, if the structural integrity of the roadway has not been affected by the project, as determined by the

geotechnical engineering company. Otherwise, the affected panels of the existing concrete street shall be constructed.

B. Wearing surface. The full width of the roadway surface shall be resurfaced within the limits of the project. Existing traffic stripping and markings will be replaced.

5.1.3. *Concrete roadway surface.*

A. Base construction. The base course of the affected lanes shall be reconstructed full width as determined by the geotechnical company.

B. Concrete pavement. The entire roadway panel sections of the affected lanes shall be reconstructed. If the structural integrity of the roadway has been significantly affected by the project, the Public Works Director may require the entire concrete surface, within the project limits, to be reconstructed full width. Existing traffic stripping and markings will be replaced.

5.1.4. *Unpaved roadway surface.* The entire roadway shall be surfaced with six (6) inches of stone within project limits.

5.2 *Minor projects.*

5.2.1. *Asphalt roadway surface (sixteen (16) square feet or greater).* For transverse service lines and miscellaneous installation and repair projects within excavated areas sixteen (16) square feet or greater, the entire width of the lane disturbed will be resurfaced from a point measured five (5) feet from the edge of the excavation each way longitudinally along the centerline of the roadway. If more than one (1) lane is disturbed, the entire width of the disturbed lanes will be resurfaced. If the replacement pavement is more than seventy (70) feet long or more than ten (10) percent of the roadway area within a block is affected, the entire roadway will be resurfaced within the block. Existing traffic stripping and markings will be replaced.

5.2.2. *Asphalt roadway surface (less than sixteen (16) square feet).* For miscellaneous construction involving excavated areas less than sixteen (16) square feet, the area from the edge of the excavation extending one (1) foot outside the perimeter of the cut area will be resurfaced. If more than one (1) lane is disturbed, the entire width of the disturbed lanes will be resurfaced. If the replacement pavement is more than seventy (70) feet long or more than ten (10) percent of the roadway area within a block is affected, the entire roadway will be resurfaced within the block. Existing traffic stripping and markings will be replaced.

5.2.3. *Concrete roadway surface.* The entire affected roadway panel sections, including base course, will be reconstructed joint to joint. Existing traffic stripping and markings will be replaced.

5.2.4. *Unpaved roadway surface.* The entire roadway width will be surfaced with six (6) inches of stone from a point five (5) feet measured longitudinally along the roadway from the center of the excavation each way.

5.3. *Jacking, boring, pushing, tunneling, retrofitting and pipe lining projects.* Any pavement damage caused by these types of projects will be restored in conformance with provisions of sections 4, 5, and 6. Any existing pavement damage relating to the replacement, retrofitting, or pipe line of damaged utilities will be restored in conformance with sections 4, 5, and 6.

Section 6. Right-of-way and easement restoration outside roadway areas.

6.1. *Driveways.*

6.1.1. *Asphalt.*

A. Asphalt driveways affected by the construction project shall be replaced from the right-of-way line to the curb or edge of road.

B. Construction of asphalt driveways will comply with Alabama Department of Transportation Standard Specifications for Highway Construction, current edition, section 416.

6.1.2. *Concrete.*

A. Construction of concrete driveways affected by the construction project shall be replaced to the nearest control joint.

B. Construction of concrete driveways will comply with Alabama Department of Transportation Standard Specifications for Highway Construction, current edition, section 618.

6.2. *Concrete sidewalks.*

A. Concrete sidewalks affected by the construction project will be replaced to the nearest control joint in the affected construction area. Joints will be sawed unless at an expansion joint.

B. Construction of sidewalks will comply with Alabama Department of Transportation Standard Specifications for Highway Construction, current edition, section 618.

6.3. *Curb and gutter.*

A. Concrete curb and gutter, affected by the construction project, will be replaced from joint to joint in the affected area.

B. Construction will comply with Alabama Department of Transportation Standard Specifications for Highway Construction, current edition, section 623.

6.4. *Miscellaneous structures.*

A. All walls, steps and other miscellaneous structures, affected by the construction, will be replaced as required by the Public Works Director.

6.5. *Drainage systems and structures.*

A. All disturbed drainage channels, structures, and pipe systems will be replaced as required by the Public Works Director.

6.6. *Unpaved areas.*

A. All established lawn areas affected by the construction project will be replaced with similar type landscape materials which were existing prior to the project. Other areas will be restored with approved sod. The Public Works Director may approve top-soil and seeding where circumstances warrant.

B. Any existing survey monument (i.e., benchmark, centerline right-of-way monument, or property corner), affected by the construction project, will be replaced in compliance with the City's subdivision regulations. Placement of the survey monument shall be performed by a licensed land surveyor.