

SECTION 02100 Site Preparation and Demolition
SECTION 02200 Earthwork
SECTION 02310 Site Concrete
SECTION 02312 Asphaltic Concrete Paving
SECTION 02320 Pavement Markings
SECTION 02850 Water Distribution
SECTION 02700 Sewage and Drainage

SECTION 02100 SITE PREPARATION AND DEMOLITION

PART 1 - GENERAL

1.01 SUMMARY

- A. Obtain and pay for necessary local permits and licenses to accomplish work.
- B. Locate existing utilities.
- C. Inspect and accept existing site conditions.
- D. Install and maintain protective measures (i.e., install warning fence, flags, signs, or other means as designated on plans for the following items) including, but not limited to:
 1. Existing pavement, driveways, sidewalks, utilities, and/or existing storage roads.
 2. All existing storm sewers, pipes & inlets.
 3. All existing utilities stubbed out to site or extending thru site.
 4. Property corners & benchmarks.
- E. Install and maintain all necessary measures to control erosion and sedimentation.
- F. Clear and grub site for new construction within construction limits, protecting items designated above.
- G. Remove and stockpile topsoil if any was placed by Owner's site preparation.
- H. Related work specified in other sections:
 1. Drawings and general provisions of Contract, including General Conditions and other Division 1 Specification sections apply to work of this section.
 2. Topsoil shall comply with Section 02200 Earthwork.

1.02 QUALITY ASSURANCE

- A. Industry Reference Standards:
 1. Section Cross-References: Refer to Division 01 Reference Standards Section.
 2. American Society for Testing and Materials (ASTM): D 448-86 Classification for sizes of aggregate for road and bridge construction.

1.03 PROJECT CONDITIONS

- A. Permits: a copy of the approved City of LaGrange Site Construction/Land Disturbance Permit shall be present on the site during construction.
- B. Any penalties enforced by City of LaGrange, OSHA, EPA, or other agency for violations of regulations set forth by these agencies are the responsibility of the contractor.
- C. Nuisances: Keep dirt, dust, noise and other objectionable nuisances to a minimum. Use temporary enclosures, coverings and sprinkling, or combinations thereof, as necessary to limit dust to lowest practicable level, except do not use water to extent to cause flooding, contaminant runoff or icing.
- D. Traffic: Conduct work to ensure minimum interference with the normal traffic operations, roads, alleys, streets, driveways, sidewalks, access on-alleys, and to adjacent sites occupied or used as traffic facilities.
 1. Do not close or obstruct streets, sidewalks, alleys or other public passageways without permission from authorities having jurisdiction, at no cost to Owner.
 2. Parking by construction crews will be allowed at locations designated by the Owner.
- E. Protection:
 1. Prevent movement and settlement of adjacent structures. Install temporary barriers, fences, guard rails, enclosures, shoring, bracing, planking, and barricades around utilities, landowners and other items that are to remain in place.
 2. Protect bench marks from displacement.
 3. Restore damaged improvements to their original condition as acceptable to Project Engineer and local authorities having jurisdiction, at no cost to Owner.
- F. Contractor is responsible for damage to State roads and public rights-of-way due to his construction activity.

1.04 SUBMITTAL

- A. Field Quality Control Reports: Weekly maintain a copy of the Soil Erosion and Sediment Control Inspection Log.

PART 2 - PRODUCTS

2.01 SEDIMENT DRAINAGE/SILT FURROW

- A. Non-biodegradable, sunlight stabilized, woven polypropylene fabric, type which will retain sediment and reduce water runoff velocity, one of the following by listed manufacturer or approved equal meeting Georgia DOT Qualified Products:
 1. Mifafi 70000 Sedimentation Control Fabric by Mifafi, Inc.
 2. Amoco CEF-1198, CEF-1199, CEF-1380, CEF-2122.
 3. Exon CE 600.
 4. Beltech 755, Beltech 756, Belton Industries.

2.02 CONSTRUCTION ENTRANCE/EXIT TREATMENT

- A. Stone size ASTM D448, size no. 1 (1.5"-3.5" diameter). Minimum pad thickness - 6 inches. Length and width as shown on plans (minimum 20 feet wide by 50 feet in length).

2.03 DRAINAGE FILL

- A. Selected stone or gravel, graded to pass a 3-inch sieve and retained on a 1" sieve.

2.04 TOPSOIL

- A. Section cross-reference: Refer to Section 02200 Earthwork, Part 2, Topsoil.

PART 3 - EXECUTION

3.01 EROSION AND SEDIMENT CONTROL

- A. Install erosion and sediment control devices as shown on drawing and details.
- B. Contractor shall inspect erosion control measures at the end of each working day to ensure measures are functioning properly. In addition, erosion and sediment control measures shall be inspected within 72 hours of every rainfall. A log of signed inspections shall be maintained at the site and updated on a weekly basis.
- C. Maintain erosion control during construction until permanent pavement, planting or final stabilization of natural area is effective. Erosion control on natural areas is effective when the following conditions are met:
 1. Additional erosion control measures where needed are installed by Project Engineer and City of LaGrange for active site conditions and a check of project.
 2. Plan and execute protection by methods that control erosion, silt, fill, borrow and existing areas.
 3. Schedule operations so bare soil surface will be disturbed for the shortest possible time.
 4. Maintain areas as possible to minimize soil transport through surface flow.

2.01

- 4. Where steep slopes or abrupt grade changes occur, install temporary diversion berm or dike at top of slope to direct water flow to a control point to be transported down slope in a slope dike. In all cases, do not allow water to flow uncontrolled down slope.

E. Construction Entrance/Exit Treatment:

- 1. Prior to any other construction, a stabilized construction entrance treatment as shown in plans shall be constructed at each point of entry to or exit from the site. This is to be located as shown on drawings or as necessary as deemed by Project Engineer.
- 2. The construction exit shall be maintained in a condition which will prevent tracking or flow of mud onto public right-of-way. This may require periodic top dressing of exit with additional stone, as conditions demand.
- 3. All materials spilled, dropped, washed or tracked from vehicle or site onto public roadway or into storm drainage system must be removed immediately.

F. Storm Drainage System:

- 1. Repair and/or clean any structures used to trap sediment including inlet sediment traps and silt fencing.

G. Ground Cover: Protect all exposed sloping soils until construction of permanent surface begins.

- 1. Use straw or other mulches, temporary seeding, plastic sheaths, fiber mats, or other effective erosion treatments acceptable to City of LaGrange.
- 2. Install permanent grass and other landscape plantings and materials, including mulching or hydroseeding for use as stabilizers; maintain until ground cover planting is effective for erosion control.

H. Sediment Barriers/Inlet Sediment Traps:

- 1. Install at all locations as shown on plans and where water flows from construction areas in accordance with Erosion Control Plan. Maintain ground drainage structures until end of construction activities.
- 2. Arrange to create ponding behind barriers; remove accumulated sediments and maintain ponding capacity during construction.
- 3. Place silt barriers on access is obtained during clearing. No grading shall be done until all barrier installation is completed.
- 4. The contractor shall remove accumulated silt when the silt is within 12" of the top of the silt fence.
- 5. Silt barriers to be placed as shown on the plans and in accordance with all other specifications.
- 6. After permanent grass cover and landscaping have been established, silt fence and appurtenances and dispose of properly.

I. Temporary Grading:

- 1. All disturbed areas shall be stabilized with temporary seeding as soon as possible with construction period. Graded slopes on which no construction activity is scheduled shall be seeded as soon as grading operations are completed on area by area basis.
- 2. Grading limits shall be extended to existing ground.

J. Repair washed and eroded areas; reestablish grades to required density, elevations, profiles, and contours.

K. Contractor is responsible for monitoring downstream conditions throughout the construction period and clearing any debris and sediment resulting from the construction.

3.02 SITE CLEARING

- A. General: Remove any trees, shrubs, stumps, bushes, vines, undergrowth, dead wood, grass and other vegetation, improvements, or obstruction from the construction area except as otherwise designated on the drawings to remain. Relocate or store vegetation in accordance with landscape requirements. Remove such items elsewhere on site or premises as specifically indicated. Removal includes digging out stumps and roots.

B. Topsoil Activity:

- 1. Strip topsoil to whatever depths encountered in a manner that will not interrupting of subsoil or other objectionable material.
 - a. Remove heavy growths of grass from areas before stripping.
 - b. Where trees are indicated to be left standing, strip topsoil no closer than the drip line of the tree to prevent damage to main root system.
- 2. Stockpile topsoil in pile piles at locations approved by Project Engineer and Landscape Architect. Construct storage piles to freely drain surface water. Cover piles with plastic to prevent wind blown dust. Do not stockpile to depth exceeding eight feet. Install silt fence at top of slope of stockpile to prevent topsoil storage pile.
- 3. Dispose of unusable or excess topsoil same as waste material, herein specified.
- 4. Screen topsoil before reuse on site.

3.03 UTILITIES

- A. Contact local utility companies 72 hours minimum prior to start of demolition and/or excavation work. Confirm verbal notices and written notices. Verify locations of all utilities entering construction area and their locations on site.
- B. Coordinate and cooperate with the City of LaGrange utility departments and other utility companies, adjacent property owners, and other building trades in maintaining, protecting, rerouting or extending of utilities passing through work area which serve structures located on project site or adjacent properties. Pay all fees associated with service taps, service extensions or relocations.

3.04 DEMOLITION

- A. General:
 1. If departures from drawing requirements are deemed necessary by Contractor, submit details and reasons thereof to Project Engineer for action. Justify all departures without prior written approval of Project Engineer.
 2. Repair and replace all demolition work performed in excess to that required, at no cost to Owner. Repair or replacement shall match and meet original condition, and finish existing adjacent areas.

B. Backfill and compact areas as needed and open pile holes resulting from demolition operations. Comply with requirements set forth in Section 02200, Earthwork, for backfill materials, compaction and test.

C. Adjacent site, including demolition area, to meet adjacent existing conditions and to provide positive drainage. Leave all clean surfaces acceptable for performance of adjacent work operations.

D. Demolish any existing remaining buildings and other structures and remove debris.

3.05 CLEAN UP AND

TRASH REMOVAL

- A. Transport trash, rubbish and debris daily from site and dispose of legally.
 1. Remove and promptly dispose of contaminated, vermin infested, and pungent materials encountered.
 2. Do not burn or bury materials on site, unless otherwise approved by Project Engineer and local authorities having jurisdiction.

B. Remove tools, equipment and protection when work is complete and when authorized to do so by local authorities having jurisdiction.

C. Remove and dispose of erosion control devices after landscaping is in place and ground cover is established at completion of project.

END OF SECTION

SECTION 02200

EARTHWORK

PART 1 - GENERAL

1.01 SUMMARY

- A. Excavation, placement and compaction of material on the site to obtain the lines and grades shown on the drawings.
- B. Related work specified in other sections:
 1. Drawings and general provisions of Contract, including General Conditions and other Division 1 Specification sections apply to work of this section.
 2. The verification, location, and removal of any utilities necessary but not shown on the drawing shall comply with Section 02100, Site Preparation and Demolition.
 3. Topsoil shall be stripped and stockpiled in accordance with Section 02100, Site Preparation and Demolition.

1.02 QUALITY ASSURANCE

- A. All work shall comply with City of LaGrange development standards.
- B. Field Quality Control:
 1. Testing and Inspection: Contractor will obtain and pay for the services of an independent commercial testing laboratory for performing field quality control testing of soils during construction.
 2. Refer to Part 3 - Execution section, entitled "Field Quality Control."
- C. Industry Reference Standards:
 1. Standard Specifications for Construction of Roads and Bridges, State of Georgia Department of Transportation, 1993 Edition, Division 200, Earthwork.

1.03 SUBMITTAL

- A. Test Reports:
 1. Field density (compaction) test reports of each test mode.
 2. Optimum moisture-maximum density curves for each test.

1.04 PROJECT CONDITIONS

- A. Inspection:
 1. Examine drawings or survey and site for discrepancies between actual grades and contours and those shown on survey, before starting work. Report all discrepancies in writing to Project Engineer.
 2. No extra compensation will be allowed for discrepancies between conditions shown on drawings and actual conditions existing at project site.
- B. Excavation Classification:
 1. Excavation is unclassified and includes: Excavation to extent of subgrade elevations and bottom of utility trenches shown on drawings or specified, regardless of character of materials and obstructions encountered.
 2. Unusable Material Excavation:
 - a. Excavation and disposal of unusable material below subgrade elevation.
 - b. All costs incurred for removal, off-site disposal and replacement of unusable soil materials below design subgrade elevations will be included in a unit price for unclassified excavation.
 - c. Contractor to estimate and include a quantity for unusable material in bid. State price separate from total contract amount.
 3. A cut and fill balance has not been made. Contractor is responsible for establishing quantity of additional fill required or excess that must be hauled away. No additional compensation will be made for importation of additional material or for disposal of surplus material off site.
- C. Existing Utilities:
 1. Locations indicated are approximate and provided for contractor's information only. There may be other utilities not shown on the plans. The Contractor assumes responsibility for locations shown and shall be the responsible party for the Contractor to verify all locations of all utilities within the limits of work. All proposed main existing utilities shall be the sole responsibility of the Contractor.
 2. Perform exploratory work to verify location of existing utilities. Contractor will assume no responsibility for hazardous conditions, gases, and obstructions existing out of the performance of this verification.
 3. Excavation, shoring and other protective devices, or destroyed, replace at no cost to Owner.
- D. Keep dirt, dust, noise, and other objectionable nuisances to a minimum.

C. Excavation:

- 1. Locations indicated are approximate and provided for contractor's information only. There may be other utilities not shown on the plans. The Contractor assumes responsibility for locations shown and shall be the responsible party for the Contractor to verify all locations of all utilities within the limits of work. All proposed main existing utilities shall be the sole responsibility of the Contractor.
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- 3. Excavation, shoring and other protective devices, or destroyed, replace at no cost to Owner.

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F. Topsoil: Topsoil is defined as friable clay loam surface soil found to a depth of not less than 4". Satisfactory topsoil is reasonably free of subsoil clay lumps, stones and other objects over 2" diameter, and without weeds, roots, and other objectionable material.

3.03 GRADING

2.02 EQUIPMENT

- A. Provide type acceptable to Project Engineer suitable for use intended with proven capability to perform work in an acceptable manner. Consult Project Engineer prior to use of equipment and document Engineer recommendations in writing.
 1. Use steel sheepsfoot rollers or similar type equipment for compaction operations, except compact small and inaccessible areas with vibra plates, vibrator impact compactors, vibratory rollers, or similar type equipment.
 2. Use rubber-tired pneumatic compaction equipment for sealing off compacted areas.
 3. Use rubber-tired compactor or similar type approved equipment with minimum 15 tons static weight for proofrolling.

PART 3 - EXECUTION

3.01 FIELD QUALITY CONTROL

- A. Testing and Inspection Services: Contractor will retain the services of a Geotechnical Engineering Service (GES) to perform observations, inspections and testing during execution of site work. Geotechnical Engineering Services include, but are not limited to:
 1. Visual Observation by GES: After stripping the site of topsoil, organics, large root systems, trash, and demolition debris, the site is to be observed by GES, and any localized pockets of organics, large root systems or remnants or previous construction identified and removed or discarded off-site or stockpiled for future use in landscaped areas.
 2. Proofrolling: In the presence of GES, at-grade areas and other areas should be proofrolled with a heavily loaded dump truck, tractor, or similar piece of rubber-tired equipment.
 3. In-place Density Tests: In-place density tests will be performed for each parking bay and driveway by the GES. Tests shall be performed at vertical increments of 2 feet or less for each 2,000-5,000 square feet of surface area. Test every 150 LF per 2-foot vertical increment of utility trench backfill.

3.02 PREPARATION

- A. Conform to dimensions and elevations indicated on the plans. Do not exceed plus or minus five-hundredths of one-foot variation from design grade structures shown.
- B. Dewatering:
 1. Prevent ground and surface water from entering into excavations, from flooding parking areas and surrounding properties, and from collecting and ponding in areas in connection with required erosion control measures. Provide and maintain all temporary drainage facilities to prevent excess water from collecting in areas.
 2. Install pumps, sumps and suction and discharge piping as necessary to comply with requirements specified herein.
 3. Install temporary drainage from ground indicators to channel water away from excavations.
 4. Leave no sumps or other water collecting devices on site if any water collecting devices are used.
 5. If water is encountered during footing and pile driving operations, install pumps of suitable capacity to pump out water. While excavations are being made and during construction, water shall be pumped out to a drainage and construction site stormwater drainage in compliance with local and state requirements for dewatering specified herein.

C. Dewatering:

- 1. Perform proofrolling over entire area prior to receiving fill material, but after topsoil is removed, in presence of Geotechnical Engineering Service.
- 2. Make the number of passes over the exposed soils shown on each area. Use minimum 15 tons static weight rubber-tired compactor or similar type approved for proofrolling acceptable to Project Engineer and/or GES.

a. Sols which are observed to rut or deflect excessively under a moving load shall be undercut and replaced with properly compacted fill. Undercutting of the rutted area shall be at least 6 inches more than the rut depth. All proof-rolling and undercutting activities shall be witnessed by representative of the geotechnical engineer and should be performed during a period of dry weather.

b. After stripping, excavating where required, and proof-rolling, but prior to placing fill on pavement base, the exposed soils should be scarified and then processed to a moisture content between two percentage points below and three percentage points above the standard Proctor optimum. Subgrade soils should be recompacted to a dry density for a depth of at least 88 percent of the standard Proctor maximum dry density for a depth of at least 6 inches below the surface.

c. After subgrade preparation and inspection have been completed, fill placement may begin. Fill materials should be free of organic or other deleterious materials, have a maximum particle size of 3 inches, and have a liquid limit less than 50 and plasticity index less than 30. If a fine-grained (silt or clay) soil is used for fill, very close moisture content control will be required to achieve the recommended degree of compaction. Fine-grained structural fill should be compacted to at least 95 percent of standard Proctor maximum dry density as determined by ASTM D698.

d. Fill placement is expected to replace any undercut soils, and/or to raise site grades (if needed). Fill should be placed in loose lifts not exceeding 9 inches in thickness. The fill should be compacted to a minimum of 98% of the standard Proctor maximum dry density (per ASTM D-698). The moisture content at the time of placement and compaction should be within +/- .2 percent points of the soil's optimum moisture content as determined by the standard Proctor test. If necessary, if moisture must be added, it should be uniformly applied and thoroughly mixed into the soil by disk rolling or scarifying. Each lift of compacted engineered fill should be tested by the Geotechnical Engineer and accepted before prior to placement of subsequent lifts. If compacted material is found to be deleterious or disturb previously proofrolled areas to an extent that they become soft and unstable or are rendered unusable, perform additional proofrolling before starting filling operations. If necessary, remove material to a depth and extent required and replace with approved compacted fill as specified above. Reusability to be determined by Project Engineer. Remedial work to be at Contractor's expense.

e. Proofrolling should not be performed in areas of high ground water.

F. Following topsoil stripping and proofrolling operations, but before making or placing of fill and backfill, ground surfaces shall be free of all trash; debris; loose, frozen, wet or soft soil, and other undesirable surface materials.

3.03 GRADING

A. Remove excess topsoil from site and stockpile only to amount necessary to complete work. Specification cross reference: Refer to section 02100, Site Preparation and Demolition, Site Clearing Section.

B. Rough grade to required profiles, contours, elevations and subgrade levels as shown on drawings, with allowances made for depths required for placement of topsoil and construction of paving, walks, and equipment and building slabs or pads.

C. Control grading on site; slope ground to prevent water from running into excavated areas of building or damaging other structures; and so entire project is well-drained and free from water pockets.

D. Provide uniform levels and slopes between elevations shown on drawings, and between elevations shown and existing finished grades shown to be maintained. Round abrupt changes in slopes.

E. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of Project Engineer. Unauthorized excavation, as well as remedial work directed by Project Engineer, shall be at no additional cost to Owner. Under footings, or retaining walls, fill unauthorized excavation by extending indicated bottom elevations to footing base to excavation bottom, without altering specified top elevations. Concrete fill may be used to bring elevations to production, when acceptable to Project Engineer. Elsewhere, light compact unauthorized excavations as specified for outside of excavation of same classification, unless otherwise directed by Project Engineer.

F. After cuts are made, scarify cut area a minimum of 12" in depth to compact to specified density for area.

G. ES is sole judge as to when specified compaction densities have been obtained. However, the contractor is responsible to obtain and maintain a log of the Subsoil Exploration performed for the project.

H. Contractor is responsible for protecting, at his expense, all existing utilities, including areas with underground utilities. Remove and replace, or scarify and sprinkle (as needed), and recompact deficient compacted fill. Density testing should be performed on recommended minimum one foot passes. Areas less than 12" deep. Place acceptable material in horizontal lifts not exceeding 8" in loose depth, with each lift extending for entire length and width of each area being filled. Do not place material on surfaces that are muddy, frozen, or otherwise unsuitable for compaction for each lift.

I. Disturb each layer of soil to break down oversize clods, to thoroughly mix to uniform density and achieve proper compaction.

J. Maintain positive surface slope to allow runoff and to prevent ponding of surface water. If surface water ponds, dewater. Remove all scattered or disturbed soil before placing additional fill material.

K. Number of compaction equipment passes required is dependent upon degree of compaction specified. Overlap rolling passes to completely cover areas of fill.

L. Minimum 3" in depth shall be 80% of Standard Proctor Maximum Dry Density.

M. Under Lawn and Unpaved Areas: Nonstructural "Controlled Fill", minimum 3" in depth shall be 80% of Standard Proctor Maximum Dry Density.

N. Utility Trenches: Structural "Controlled Fill" 98% of Standard Proctor Maximum Dry Density.

O. Others not specified: Nonstructural "Controlled Fill", minimum 3" in depth shall be 80% of Standard Proctor Maximum Dry Density.

P. Trench Excavation:

- 1. Provide open cut excavation except short sections which may be trenched if approved by Project Engineer and demonstrated by Contractor that pipe, cable, or duct can be properly installed, backfilled, and compacted.
- 2. Excavate to necessary width, depth, and alignment for proper installation, backfilling, and compaction.
- 3. Side slopes of excavation shall be suitable for backfilling a sufficient distance from banks to avoid overloading and cave-ins. Excavations shall be backfilled and compacted to meet local codes and ordinances having jurisdiction. Shore and brace where sloping is not possible because of space restrictions or stability of soil.
- 4. Maintain slopes and slopes of excavation in safe condition until completion. Cut trench banks as nearly vertical as practicable, but to safety standards of governing authorities and/or OSHA's "Construction Standards for Excavations". Stockpile material suitable for backfilling a sufficient distance from banks to avoid overloading and cave-ins. Excavations shall be backfilled and compacted to meet local codes and ordinances having jurisdiction. Shore and brace where sloping is not possible because of space restrictions or stability of soil.
- 5. Excavate to the line and grade shown. The excavations shall not be carried closer than to within two inches of final grade until the pipe is ready to be installed. The remaining two inches shall be removed by fine graders just ahead of the pipe laying operation.
- 6. Trench bottoms shall be accurately graded to provide uniform bearing and support for each pipe section on undisturbed soil along full pipe length, except for areas where necessary to excavate for bell holes and for seating pipe joints. Dig holes and depressions for joints after trench bottom has been graded so pipe rests on prepared bottom for full length. Remove all stones to avoid point bearing.
- 7. Remove rock, wet or otherwise unstable or unacceptable material encountered 6" below depths indicated and replace with sand, gravel, or concrete.

C. Shoring and Bracing:

- 1. Provide materials for shoring and bracing, such as sheet piling, uprights, stringers, and cross-braces in good serviceable condition.
- 2. Establish requirements for trench shoring and bracing to comply with local codes or authorities having jurisdiction.
- 3. Maintain shoring and bracing in excavations regardless of time period excavations will be open. Carry down shoring and bracing as excavation progresses.

D. Backfilling:

- 1. Do not backfill until utilities systems have been installed, inspected, tested, and accepted by City of LaGrange inspectors.
- 2. Backfill bottom of trench to a point of at least one foot over the top of pipe barrel shall be placed by hand in four-inch layers and thoroughly tamped into place around the pipe. Extreme care shall be exercised to the level one foot above pipe barrel to insure that no damage is caused to the pipe or that its alignment or grade is not disturbed. In any work where backfilling is required, completed in lifts not exceeding four inches. No rock greater than three inches in diameter shall be placed within one foot of any utility. Compaction requirements shall comply with Section 3.05.
- 3. Restore ground surface, pavement, base courses, and compacted subgrade disturbed by utility systems trenching and backfilling work to their original condition, construction, and finish.

3.05 COMPACTION AND FILL MATERIAL LOCATION:

A. Under Building, Driveway Areas, Sidewalks, Paving, and Curb and Gutter Areas: Structural "Controlled Fill", 98% of Standard Proctor Maximum Dry Density. A depth greater than 12 inches, at least 85 percent of Standard Proctor Maximum Dry Density. Granular soils should be compacted to at least 100 percent of the Standard Proctor Density.

B. Under Lawn and Unpaved Areas: Nonstructural "Controlled Fill", minimum 3" in depth shall be 80% of Standard Proctor Maximum Dry Density.

C. Utility Trenches: Structural "Controlled Fill" 98% of Standard Proctor Maximum Dry Density.