

# Landscape Specifications

## MPS 302 Forcemain Replacement

### GENERAL LANDSCAPE NOTES:

1. Landscape practices for this project shall conform to all landscape land development codes of Collier County, FL and shall conform to all requirements within the Construction Standards Handbook for Work within the Public Right-of-Way, and the Collier County Utility Standards Manual (Latest Edition).
2. Code required landscape material, species, quantity, and sizes shall be installed as specified. Any deviation or substitution of required plant material shall be approved by the Landscape Architect.
3. Refer to drawings for the limits of construction or property boundary area.
4. The planting plans are a graphic representation for the aesthetic treatment of the designated site. Actual plant material locations will vary to compliment existing vegetation, site conditions, and utility locations.
5. The contractor is responsible for notification of all necessary utility companies 48 hours minimum prior to digging for verification of all underground utilities, irrigation and all other obstructions. Contractor shall coordinate with Owner's representative prior to initiating operations. Should the landscape contractor cause damage to any utilities, necessary repairs shall be made as quickly as practical, at contractor's expense.

***"Call Sunshine 811" 1-800-432-4770 toll free.***

***FL Statute 553.851 (1979) requires minimum 2 days notice.***

6. The contractor shall field verify all information prior to initiating planting installation. All existing planting shall remain intact and undisturbed unless otherwise noted on the plans.
7. Contractor shall report any and all discrepancies between the construction drawings and field conditions to the Owner's representative.
8. The landscape contractor shall coordinate all work and installation timeline with related contractors and with the general construction manager of the project.

### PROJECT SUBMITTALS:

1. The project submittals list will be generated by the landscape architect and must be completed by the contractor and approved by the landscape architect prior to project commencement.
2. All project submittals must be completed and compiled in an easily reproducible form. All submittal sheets must legible or will be refused. Submittal sheets that do not clearly identify the products of materials selected will be refused.
3. Products installed in the project area that are not consistent with the project submittals will be removed and replaced with the products identified in the project submittal package at the contractors expense.

#### PROJECT SCHEDULE:

1. All work shall be completed within the time allotted in the project schedule. The project timeline will be set by the Owner
2. Within seven (7) days of receipt of "Notice to Proceed" the successful bidder will furnish a critical path schedule reflecting the project schedule dates as set on the Construction Schedule. This schedule will include verifiable milestones to enable monitoring of the project schedule during the construction period.

#### SITE REQUIREMENTS:

1. All contractors and subcontractors shall have the most current set of approved construction documents on site at all times.
2. The landscape contractor shall be responsible for the locations and protection of all existing utilities shown, all site utilities not shown, and all proposed utilities as shown in the site civil plan set.
3. The landscape contractor shall comply the conditions of the Right-of-Way permit and with all local, state and federal regulations.
4. The project site shall remain clean and free of debris and trash and shall be cleaned by the landscape contractor at the end of each working day. Site shall remain clean and orderly at all times. All materials, products, and equipment shall be stored in an organized fashion in an area specified by the owner.
5. During construction, crews are required to have at least one (1) project foreman on site who has a current set of landscape plans and is knowledgeable of the project.
6. Landscape contractor shall agree to assume responsibility for job site conditions during the course of construction of this project both during and outside of working hours. Safety of all persons and property shall apply throughout duration of installation work. The landscape contractor shall defend, indemnify and hold the owner harmless from any and all liability, real or alleged, in the connection with the performance of work on this project.

#### INSTALLATION:

#### PLANTING LAYOUT:

1. Landscape contractor shall field stake the proposed re-location of area of effected trees general plant material prior to beginning installation. Landscape architect or Engineer of Record shall review and approve staked locations prior to installation.
2. The landscape contractor shall field adjust location of plant material as necessary to avoid damage to all existing underground utilities and/or existing above ground elements. All changes required shall be completed at the contractor's expense and shall be coordinated with the owner's representative and the landscape architect.
3. Provide a minimum vertical clearance around all tree of 8.5' above the sidewalk/pedestrian paths.

4. Provide a minimum horizontal offset distance of the 2.5' from the back of curb to the trunk diameter of planted trees.

#### PLANTING:

1. All plant material shall be installed in a sound, workmanlike manner and according to accepted good planting procedures. All elements of landscaping shall be installed so as to meet all applicable ordinances and code requirements.
2. Contractor shall ensure drainage and percolation of all planting pits prior to installation of plant material. Contractor is responsible for replacement of all plants lost due to inadequate drainage conditions.
3. Contractor to replace rejected plant material within one week (5 Business days) of notice.
4. Landscape contractor shall refer to the landscape planting details, plant list, general notes and the planting specifications for complete landscape planting instructions. Notify landscape architect of any and all discrepancies prior to construction or installation.
5. The landscape contractor shall refer to the landscape planting details, plant list, general notes and the planting specifications for complete landscape planting instructions. Notify landscape architect of any and all discrepancies prior to installation.
6. The landscape contractor shall coordinate all planting work with irrigation contractor. The landscape contractor shall be responsible for all hand watering as required to supplement irrigation watering and/or rainfall. The landscape contractor shall be responsible for hand watering in all planting areas, regardless of the status of existing or protest irrigation.
7. The landscape contractor shall re-grade all areas disturbed by plant removal, relocation and or installation work. The landscape contractor shall replace (by Equal size and quality) any and all existing plant material disturbed or damaged during utility installation, landscape site preparation, and installation activities.
8. Proper guying and tree staking practices required. No nails, crews, wires, tec., shall be permitted to penetrate outer surface of relocated trees. Trees subjected to this practice shall be replaced at the contractor's expense.
9. All wooden stakes, braces and battens shall be painted/stained dark green prior to application. Touch up all exposed cuts in the field without marring or marking plant materials.
10. The contractor is responsible for complete maintenance of all planting areas (including watering, spraying, mulching, mowing, fertilizing, etc.) through the course of the project and throughout a 90-day establishment period following notice of substantial completion by the owner. The project will not b accepted or deemed substantially complete by zones of phases (unless otherwise noted on the plans.)

#### SOIL PREPARATION AND SOIL MIX:

1. The contractor shall bear all costs of testing of soils, amendments, etc., associated with the work and included in the specifications. Prior to commencement of the landscape planting work, the contractor shall provide complete soil tests for the installation area.

- a. Before replacing topsoil, rake subsoil surface clear of stones (1 inch diameter and larger), debris rubbish, deleterious materials and all remaining construction debris to a depth of 6". Contaminated soils shall be removed and replaced to their full depths and extents.
  - b. Establish or reestablish rough grades insuring positive flow and aesthetic land-form shapes shown in the grading plans. Scarify subsoil to a depth of 3 inches once rough grade has been established.
  - c. Contractor to apply an approved pre-emergent herbicide in accordance with manufacturer's rate and specifications.
  - d. Planting soil mix for tree, shrubs, and groundcovers shall consist of a thoroughly blended mixture of:
    - i. TREES  
70% Clean D.O.T. Sand  
30% Approved Topsoil Mix
  - e. Smooth all prepared soil mixes to within 4 inches below top of surrounding pavement edges. Contractor to provide smooth and uniform depth of topsoil mixture to a minimum, of 12 inches below grade in areas to be sodded. Finish all prepared topsoil areas to be smooth, even surface ensuring a minimum of 3% positive drainage away from structures and eliminate any low areas which may collect water. Topsoil shall not be extremely acidic or alkaline, nor contain toxic substances which may be harmful to plant growth. The pH shall be corrected prior to delivery in the range of 5.5 to 7.0. If necessary after placement the contractor shall apply appropriate approved soil additives adjusting soil pH to ensure a pH range between 5.5-7.0.
2. Initial installation fertilization:
- a. General fertilization requirements:
    - i. TREES  
8-6-6 Plus minor elements — min 50% slow release  
LB. fertilizer per inch caliper  
Apply at root ball perimeter, not at base of trunk.
  - b. The cost for landscape fertilizer as described above shall be included in the landscaping line-item cost to ensure initial establishment.
  - c. Any fertilizer substitutions must be approved by Landscape Architect.
  - d. Fertilizer used for sod establishment shall be appropriate for specific species of sod installed.
  - e. Liquid fertilizer may be utilized for initial establishment of sod or areas installed using sprigging method.
  - f. Fungicide treatment shall be included in sod installation and grow-in establishment price.

#### LANDSCAPE PLANT MATERIAL:

1. Contractor is to submit to the landscape architect the grower's and / or state inspection certificate for plant material two (2) weeks before commencement of work.
2. All plant material shall be protected during transport and delivery to job site with shade cloth or within box truck, or other acceptable means of windburn prevention.
3. Contractor shall be responsible for plants meeting specification as noted prior to installation. Contractor shall immediately remove all plant material from the project that does not conform. To specifications.
4. Landscape contractor shall verify all quantities of plant material from the plant legend to the drawings. Quantities from the drawings shall govern unless otherwise noted.
5. All sod and plant material must be healthy, vigorous material, free of pests and diseases. All plant material shall be in full and strict accordance to Florida No. 1 Grade, according to the "Grades and Standards for Nursery Plants", published by the Florida Department of Agriculture and Consumer Services. Plant materials in some instances shall exceed No. 1 Grade, in order to meet the minimum requirements of this project.
6. Any substitution in size, quantity, and or plant material must be approved by the landscape architect. All plants will be subject to approval by landscape architect before planting can begin.
7. Canopy tress of all sizes are to be selectively pruned after planting to remove inner twig growth, open up the center and expose major branches.
8. New plant material to be installed will be field adjusted to accommodate existing plant material such as overhead canopy trees, understory trees and shrubs or groundcover. This will insure existing plant material to remain in its natural state. Therefor no existing plant material will be altered by removing, cutting, trimming or destroying in order to install new plant material.
9. All re-located landscape areas to be irrigated with a fully automated irrigation system (refer to Irrigation Plans).

#### EXOTIC VEGETATION REMOVAL:

1. All Category 1 Exotics, as defined in the latest exotic plant list published by the Florida Exotic Pest Plant Council, must be removed from the entire platted phase of development. Landscape contractor responsible for clearing and removal of all Category 1 Exotics in the area to be revegetation prior to installing new native vegetation species.
2. Exotics within the project areas shall be physically removed, or the tree cut down to grade and the stump treated with an herbicide. The base shall be treated with an U.S. Environmental Protection Agency approve herbicide and a visual tracer dye shall be applied. 3

#### REQUIRED YARD MAINTENANCE AND REPLACEMENT STANDARDS:

1. Replacement trees shall have a guarantee of 80% survivability for a period of no less than three years and shall be of the same species and size as the deceased trees.

#### IRRIGATION:

1. Contractor shall not willfully install the irrigation as shown on the drawings when it is obvious in the field that conditions exist that might not have been considered in the design process. For example: obstructions, grade differences, water levels dimensional differences, etc. Refer to the landscape plan to avoid conflicts with proposed trees or shrubs.
2. Piping may sometimes be indicated as being located in unlikely areas: i.e., outside property lines, under pavement, etc. This is done for graphic clarity only. Whenever possible, piping is to be installed in open, green areas.
3. Pipe sizes shall conform to those on the drawing. Substituting with smaller pipe sizes will not be permitted.
4. Mainline to be installed with a minimum of 24" depth of cover, lateral lines are to be installed with a minimum of 12" depth of cover.
5. Install all heads a minimum of 12" from any structures.
6. Location of all sprinkler heads shall be site adjusted to minimize water overthrow onto walkways. Use pressure regulators on all valves to prevent fogging.
7. Install drip tubing at grade and cover with mulch. Typical spacing for drip tubing is 12"-18" on center. Spacing to be determined by plant layout. Refer to the landscape plan. Anchor tubing every 6' with 12" long plastic tubing stakes. Install flush valves at all tubing dead ends. install air/vacuum relief valves at high points of every section.
8. The rain shut off device shall be installed to meet local codes and/or minimum manufacturer's recommendations.
9. The irrigation contractor shall prepare an AS—BUILT drawing on reproducible paper showing all main line piping, control wires and valves by showing exact measurements from hard surfaces.

#### SUBSTANTIAL COMPLETION:

1. Contractor to request inspection of project in writing. If all work is satisfactory and complete in accordance with conditions of contract documents, then the owner and landscape architect shall declare substantially complete. Substantial completion constitutes the beginning of the guarantee period and the 90-day establishment period of maintenance.
2. Landscape contractor to guarantee plant material for a one (1) year period following date of substantial completion. Prior to issuing substantial completion notice the contractor shall submit to the owner three (3) copies of As—Built plans/documents.
3. Maintenance Period: The landscape contractor is responsible for complete maintenance of all planting areas (including watering, spraying, mulching, mowing, fertilizing, etc.) through the course of the project throughout a 90-day establishment period after substantial completion notice by the owner. The project will not be accepted or deemed substantially complete by zones of phases unless otherwise noted on the plans.