
SECTION 097700 - SPECIAL WALL SURFACES - PRESERVED GARDENS / MOSS WALLS
SECTION 097753 - PLANT WALL SYSTEMS - PRESERVED GARDENS / MOSS WALLS

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide the work of this Section in accordance with the requirements of the Contract Documents.
 - 1. This Section includes but is not limited to Preserved Garden Installation
 - 2. May include Pre-framed Boxes or On-site millwork picture Framing

1.2 ACTION SUBMITTALS

- A. A. Product Data: Manufacturer's standard catalog, Specification Document, Health Product Declaration completed in accordance with v2.3, as required, for installation and integration with other work for each type of product indicated.
- B. B. Care Instructions: Manufacturer's standard Care Instructions & Display Recommendations
- C. C. LEED Submittals
 - 1. Product Data for Credit IEQ 4.1: For adhesives and glues used at Project site, documentation including printed statement of VOC content.
 - 2. Product Data for Credit IEQ 4.4: For composite wood products, documentation indicating that product contains no urea formaldehyde
 - 3. Product Data for Credit(s) MR 4: For products having recycled content, documentation indicating percentages by weight of postconsumer and pre-consumer recycled content
 - 4. Product Data for Credit MR 5: For products and materials required to comply with requirements for regional materials, certificates indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating distance to Project, cost for each regional material, and fraction by weight that is considered regional
 - 5. Certificates for Credit MR 6 and Credit MR 7: Chain-of-custody certificates indicating that composite wood products comply with forest certification requirements.
 - 1. Include documentation that manufacturer is certified for chain of custody by an FSC-accredited certification body. Include statement indicating cost for each certified wood product
 - 2. Include statement indicating cost for each certified wood product
- D. D. Shop Drawings: Submit shop drawings taking artists work and fleshing out the design intent for architect's review and approval. Do not fabricate work until approval has been received and VIF is complete. Include final shop drawings with dimensions for installation and integration with other work.
 - 1. Include elevations and wall sections
- E. E. Design Sketches/Rendering: Created in coordination with Architect (and/or Owner) following the Tier and plant selection of choice

1.3 CLOSEOUT SUBMITTALS

- A. Maintenance Instructions: Furnish maintenance instructions and recommended procedures for maintenance of preserved garden system, for use during construction and for use by the CLIENT after acceptance of the work.

1.4**QUALITY ASSURANCE**

- A. Manufacturer/Fabricator: A firm with no less than 8 years' experience in producing preserved garden systems similar to that indicated for this Project and whose products have a record of successful in-service performance, as well as sufficient production capacity to produce required units complying with the requirements of this Section
- B. Compliance with Buy American Act (when deemed necessary)
- C. Installer Qualifications: Garden on the Wall certified technicians
- D. Plant Requirements: Provide quality, size, species, and variety of interior plants with Health Product Declaration completed in accordance with the HPD Standard version 2.3 and offering 100% Bio-Based Test Results per ASTM 6866 to ensure no off-gassing
- E. Mockups: Before fabricating and installing, build mockups for the approved design required to verify selections made under sample submittals, and to demonstrate aesthetic effects and qualities of material fabrication and execution. Build mockups to comply with the following requirements, using materials indicated for the completed Work:
 - 1. Demonstrate the proposed range of aesthetic effects per design submittal and workmanship.
 - 2. Obtain Architect's approval of mockups before starting garden panel fabrication.
 - 3. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.

1.5**PROJECT MANAGEMENT**

- A. Project Team: Architects and graphic designers of provider should work in collaboration with the design team of the project for successful in-service performance for seamless integration of garden elements with surrounding elements using necessary submittals, shop tickets, as built drawings, design renderings
- B. Pre-Installation: Project admin team and installation crew lead connect and iron out details for installation with general contractor for successful completion of project
- C. Logistics of crating: On agreed schedule with the general contractor, Garden on the Wall project team ships the special constructed baker tray type of crating to the job site, where GC accepts the crate on behalf of Garden on the Wall teams.
- D. Logistics of crew mobilization: On agreed schedule with the general contractor, Garden on the Wall technicians are mobilized to the site for opening the crates, taking our garden / planter panels, installing the garden panels and attending to seams for seamless look that will last over 10 years.

1.6**DELIVERY, STORAGE, AND HANDLING**

- A. Inspect preserved garden system packaging after delivery for signs of damage during transit. Confirm correct quantity and sizing of components prior to installation process.
- B. Protect preserved garden system packaging from damage during delivery, storage and handling from damage, spoilage and deterioration.
 - 1. Store preserved unassembled garden panels, in their original packaging in dry space with climate-controlled conditions and per manufacturer's Care Instructions & Display Recommendations.

- C. Do not deliver preserved garden system until painting and similar operations that could damage woodwork have been completed in installation areas. If woodwork must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Field Conditions" Article.

1.6 FIELD CONDITIONS

- A. Environmental Limitations: Do not deliver or install paneling until building is enclosed, wet work is completed, and HVAC system is operating and will maintain temperature between at occupancy levels 60 and 85 deg F and relative humidity less than 70 percent during the remainder of the construction period. Obtain and comply with Manufacturer's and Installer's coordinated advice for optimum temperature and humidity conditions for woodwork during its storage and installation. Do not install work until these conditions have been attained and stabilized.
- B. Inspect and confirm that the wall behind the preserved garden system is rigid, and if requested prior, has fire retardant treated plywood blocking properly placed to receive green wall panel systems and fasteners. Otherwise, fire treated plywood blocking is not a must for the garden wall system.
 - 1. Verify that the structure can bear the load of the preserved garden system (1.5 pounds per sqft)
- C. Protect installed panels from damage by adjacent work.

1.7 COORDINATION

- A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that preserved garden panels can be supported and installed as indicated.

1.8 PROJECT WARRANTY

- A. Warranty: Manufacturer's warranty should offer coverage against defects in materials and workmanship, including deterioration, discoloration and dislodging for a period of 7 years from substantial completion.
- B. Preserved Gardens and Moss Walls shall require no water, misting or irrigation, no light or soil and retain their "fresh-cut" state, original vivid color, form and softness for a minimum of 7 years from substantial completion. Display Recommendation Document of Manufacturer should be referred

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Structural Requirements: Provide Preserved Garden Wall systems capable of withstanding the effects of gravity loads as follows:

1. Structure shall support 2 lb/sq ft and dead loads of preserved garden panels system weight.
- B. Fire Resistance: Provide products tested to comply with the following fire resistance rating when tested in accordance with ASTM E84.
 1. Flame Spread Rating: 25 or less to offer Class 1 and Class A classification
 2. Smoke Developed Rating: 50 or less to offer Class 1 and Class A classification

2.2 PRODUCTS: ACCEPTABLE PRODUCTS / MANUFACTURER - GW-01

- A. Acceptable Manufacturer: Garden on the Wall
- B. Substitution: Not permitted
- C. Requests for substitution will be considered, if the substitute offers compatible product assurances such as 100% Bio-based Test, Compliance with CDPH VOC Standards, HPD v.2.3 with 100 ppm disclosure for whole garden system, and if the substitute offers compatible longevity (10 - 12 years), aesthetic qualities and similar take-back program as Garden on the Wall. Substitution should offer rejuvenation program for extended life cycle and free of charge fix to gardens if damaged
- D. Basis of Design: Specific design to be determined in collaboration with Garden on the Wall and design team, using the Design Brochures of Garden on the Wall as design inspiration
- E. Basis of Relocation: Garden panels should be installed with relocation in mind. If necessary, garden panels should be able to be moved to the new location by the provider.

2.3 COMPONENTS FOR PRESERVED GARDENS / MOSS WALLS

General: Provide garden panels consisting of 100% natural plants and flower foliage, harvested, and preserved through a process that replaces the sap with a plant based and biodegradable preservative liquid, without toxic components verified with Health Product Declaration completed in accordance with the HPD Standard version 2.3. Utilize preserved gardens with the Tier and Plant Selection agreed upon by Owner and Architect.

- A. Multi-Panel Garden Components
 1. Preserved moss, foliage and plants, arranged to comply with artist sketches and/or rendering and approved makeup created in coordination with Architect and Owner, submitted for approval. See "Action Submittals".
 2. Adhesive to offer full curing prior to installation, and offer nonflammable test results
 3. Plywood Backing to offer FSC Certification and Chain of Custody
- B. Pre-Framed Garden Components
 1. Preserved moss, foliage and plants, arranged to comply with artist sketches and/or rendering and approved makeup created in coordination with Architect and Owner, submitted for approval. See "Action Submittals".
 2. Adhesive to offer full curing prior to installation, and offer nonflammable test results
 3. Plywood Backing to offer FSC Certification and Chain of Custody
 4. Wood Trim to cover the edges of the garden, that is hung by the help of a wood cleat.

C. Planter Insert Components

1. Preserved moss, foliage and plants, arranged to comply with artist sketches and/or rendering and approved makeup created in coordination with Architect and Owner, submitted for approval. See "Action Submittals".
2. Adhesive to offer full curing prior to installation, and offer nonflammable test results
3. Plywood Backing to offer FSC Certification and Chain of Custody
4. Special Foam to offer fire retardant specs

2.4 FABRICATION GENERAL

- A. Complete fabrication, including assembly, finishing, and hardware application, to maximum extent possible, before shipment to Project site. Disassemble components only as necessary for shipment and installation. Verify that various parts fit as intended and check measurements of assemblies against field measurements indicated on Shop Drawings before disassembling for shipment.
- B. Shop cut openings, to maximum extent possible, penetrants, fixtures and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings.
- C. Preserved moss, preserved plants, and preserved foliage (flowers and etc) are attached on the Plywood substrate using special adhesive
- D. Acclimation is necessary for curing the adhesive, and fusing all elements connect to each other to ensure no delamination
- E. Moss types to be used in fabrication (as specified by design team) are Flat (Sheet) Moss and Ball Moss (Spherical, pillow shaped moss)
- F. Lichen types to be used in fabrication (as specified by design team) are Reindeer Lichen in Dark Green, Apple Green, Olive Green, Forest Green, and Natural colors.
- G. Preserved Plant types to be used in fabrication (as specified by design team) are Eucalyptus Series, Forest Series, Grass Series and Fern Series
- H. Preserved Flower types to be used in fabrication (as specified by design team) are Diosmi and Hydrangea in the colors that are shown available in Plant Library of Garden on the Wall.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine finish surfaces, substrates and project conditions to verify that substrates are acceptable for the installation of preserved garden system.

- B. Do not start installation work until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install wall panels in accordance with manufacturer's written installation instructions and rules and regulations of Building Codes, local, state and federal codes.
- B. Assemble work and complete fabrication at Project site to the extent that it was not completed in the shop.
- C. Install work level, plumb, true, and straight to a tolerance of 1/4 inch in 96 inches, with no variations in flushness of adjoining surfaces.
- D. Anchor work to anchors or blocking built in or directly attached to substrates. Secure to grounds, with screws, French cleats, and blind nailing as required for complete installation.

3.3 FIELD QUALITY CONTROL

- A. When work is completed, inspect the work to determine if it is acceptable. Where inspected work does not comply with requirements, replace rejected work with acceptable materials that comply with these specifications.

3.4 PROTECTION

- A. Provide final protection and maintain conditions, in a manner acceptable to fabricator and Installer that ensures exposed horizontal surfaces are without damage or deterioration at the time of Substantial Completion.

3.5 ADJUSTING AND CLEANING

- A. Repair damaged and defective work or replace.
- B. Clean preserved gardens so they are accepted at final completion.
- C. Remove all excess materials, debris and equipment from the site. Repair any damage that has resulted from installation.

END OF SECTION