SCGP Master Plan Requirements

A. GENERAL

1. The goal of the Master Plan is to present a comprehensive, long-range development plan for the State Veterans Cemetery.

2. The objective of the Master Plan is to provide an orderly, professional, and aesthetic development plan, with associated cost estimates, for the entire cemetery site.

3. The Master Plan shall be detailed enough to enable the State to proceed directly into preparation of Design Development for each phase of cemetery development.

B. PLANNING APPROACH

1. The development of the Master Plan is an interactive process between SCGS, the State and the A/E. The Master Plan shall incorporate the elements listed in the Scope of Work for the project.

2. The site analysis process shall evaluate all man-made and natural site features. The A/E will document findings of the analysis in the Site Characteristics Report.

3. Relationships between structures, circulation, and site features shall be combined to produce both a functional and aesthetic plan. The plan shall reflect the history of the region, the culture of the people and veterans of the area. Materials used shall convey strength, permanence, and reflect the regional design vernacular.

C. SUBMISSIONS

1. Topographic, Utility, and Landscape Surveys: The A/E shall obtain professional surveying services from licensed surveyors to provide a topographic, utility, and landscape survey of the entire site. All elevations will be based on U.S.C. &G. Survey benchmarks. A permanent U.S.C. &G. Benchmark shall be established on the cemetery site if none exists, as well as permanent property corner monuments. The topographic survey shall include all features affecting site development, such as contours at an appropriate interval approved by VA (approximate interval is 150 mm (.5 feet) to 1500 mm (5 feet)). Significant stands and prominent trees/plant materials will be shown with size and specie identification. All property lines, building line setbacks, and any leases, rights-of-way or easements within the limits of this survey shall be located and shown. Surrounding land uses and property owners by name, historic/archaeological sites, and natural features (lakes, rivers, flood plains, wetlands, etc.) shall be identified on the survey drawings. The locations and sizes of any utilities will be shown. The survey plans shall be made part of the Master Plan drawing set.

    a. Format: Use two scales: 1:400 (approximately 1" = 30'), and the largest conventional engineering scale (i.e., 1:1200 (1" = 100') or 1:2400 (1" =

200'), etc.) that allows the entire cemetery site to fit on a single sheet. Show survey information compositely on a single sheet, hard-line finish, on an Ortho Photo Base Topo Map. Also provide survey information compositely at a scale of 1:400 (approximately 1" = 30'). Use match lines for orientation and alignment.

b. Site Characteristics Report: The A/E shall prepare a report of site characteristics from an analysis of the Environmental Assessment (EA), data gathered from personal site visits and the topographic, utility, and landscape surveys. The site analysis process should reflect an understanding of all natural systems of the site. The report shall document the analysis process and shall contain:

2. Graphic and narrative description of the cemetery site.

3. Graphic and narrative description of the vicinity relationships with the cemetery site. The resulting vicinity map will also be used in the set of Master Plan drawings.

4. Site Analysis Plans that illustrate:

   a. Significant constraints for construction and burials that must be considered during the planning of the site. Include site and utility constraints in adjacent off-site areas (steep grades [15% slope is maximum for interment areas], flood plains, rock outcroppings, etc.).

   b. Potential entrances - public and maintenance. Plans must show the primary access routes to and around the property with notations of any traffic control signals and future plans for adjacent development and roadway improvements that might affect the site and proposed cemetery.

   c. Potential site organization - burial, maintenance and staff. Public traffic includes funeral attendees and cemetery visitors. Maintenance traffic includes headstone delivery, soil spoils, grounds maintenance supplies and equipment and casketed remains, after the committal service.

   d. On-site utility service studies consisting of establishing requirements and preparing initial designs for: Electrical service and distribution, natural gas service and distribution, water supply and distribution, potable/non-potable irrigation, site drainage, sanitary sewer system and disposal, process waste water treatment for irrigation, storm water collection and disposal, security, pollution control, site illumination, and communications systems.

   e. Off-site utility studies including: Location, size and adequacy of utilities serving the site, the requirements for connections to the utilities, planning for off-site utility extensions, and design of off-site utility extensions.

   f. Format: 210 mm x 297 mm*(8-1/2" x 11") narrative report with 297 mm x 420 mm*(11" x 17") fold-out graphics, as needed. Provide a large format drawing that summarizes the site analysis as part of the Master Plan

drawing set. Large format drawings will meet the same requirements as topographic, utility and landscape survey drawings.

5. Geotechnical Soil Survey for Burials: The A/E shall obtain a report of subsurface investigations to include seismic data and geologic formations, analysis of soil fertility, organic content, and pH measurement. Depths to rock, ground water, and the existence of aquifers and perched water tables or springs and percolation locations will be identified. Soil pits and borings shall be accomplished to a depth of 8 feet below existing grade or to bedrock. Soil pits and/or borings shall be made in as many areas as the A/E considers necessary and as VA approves in order to obtain a good understanding of the soil and rock conditions of the site for double- or single-depth burial. Identify rock strata and prepare a profile illustrating their depth below surface. Study the depth of ground water during wet and dry periods.

    a. Format: 210 mm x 297 mm*(8-1/2" x 11") narrative report with 297 mm x 420 mm*(11" x 17") fold out graphics, as needed. Drawings indicating locations of borings and soil analysis shall be made part of the MP set. Large format drawings will meet the same requirements as topographic, utility and landscape survey drawings.

6. Show the location of proposed structures, interment areas, and design elements. Study subsurface conditions for the suitability of burials in five foot single depth and seven foot double-depth gravesites. Show spot grades for critical areas, proposed on-site roadways, parking areas, primary entrances and exits, and any other site/building features. Indicate the primary access routes to and around the site along with notations of any proposed future plans for roadway improvements, traffic control signals, or other traffic circulation changes that might affect the existing site and proposed planning. Indicate proposed land utilization for the entire site, pedestrian and vehicular circulation, utility systems, ecological requirements, planting concepts, grading, and phasing.

7. Roadway system, including horizontal layout.

8. Grading and drainage plan with rough grading of roads and interment areas, proposed first floor elevations of the architectural elements and special site features and other critical grades.

9. A phasing plan for the entire site, illustrating the distinct phases and their priority, based on demographic projections.

10. Burial sections, numbered and illustrating limits of gravesites and approximate yield (number of gravesites per section).

11. Planting plan indicating location of plant masses.

12. Irrigation layout of main lines, submains, a typical lateral block layout, master valves and valve concept.

13. Signage system including layout plan and sign design.

14. Architectural concept with floor plans and elevations. Draw all floor plans at an appropriate scale which will permit an entire floor plan to fit on a standard VA sheet, normally 1:100 (1/8" = 1'-0") or 1:50 (1/4" = 1'-0"), one building per sheet. Indicate on the drawings the size of all spaces listed in the Square Footage Requirements of the Scope of Work. Show on the floor plan the net program area required for each area and the actual designed area. Indicate the total gross area of each building. Floor plans will be reviewed for accessibility to disabled persons and adaptability to furnishings.

15. Describe the interior design scheme and submit a floor plan indicating generic furniture placement.

16. Describe natural gas and water sources, disposal methods of sewage and storm water, and proposed natural gas, domestic water, irrigation, storm drainage, and sanitary sewage systems. Indicate if on-site water or sewage treatment is necessary. Describe gasoline and fuel oil facilities. Indicate if existing utilities and equipment can be used.

17. Provide letters (Memoranda of Understanding) from all affected utilities stating availability and connection potential.

18. If wells are required for water source, install test well and obtain water analysis and expected yield in gallons per minute. Cost of test well will be a reimbursable to the A/E contract.

19. Determine presence of any existing electrical service and related major equipment, and ascertain its capacity to supply the new load. Show on an electrical site plan the location of major existing and proposed service equipment including power transformers, switches, etc.

20. SCGP Space Program Analysis VA40-0895-3 for Phase 1 (gross building area take-off of each occupiable building).

21. Provide a description of the heating, ventilating and air conditioning (HVAC) systems and equipment in accordance with latest ASHRAE Standards and VA criteria. Investigate the availability of utilities (natural or propane gas, electricity, steam, or hot water) for the HVAC equipment and provide description of their status. Indicate the tentative locations of HVAC equipment, including any outdoor equipment.

22. Where buildings are involved, show location of mechanical and electrical equipment rooms and closets on the floor plans.

23. Master Plan Cost Estimate Summary Sheet.

24. Cost Estimate Summary Sheets: For Phase 1 (buildings and sitework).

25. Cost Estimate Summary Sheets: For other phases (buildings and sitework).