

1. GENERAL

1.1. This criteria is intended for use during the design and construction of commissary facilities.

1.2. It also sets basic facilities standards for use in the identification of deficiencies in existing facilities for planning and programming purposes.

2. ORGANIZATION

2.1. This handbook consists of the following parts:

- 2.1.1. Requirements and Guidance
- 2.1.2. As Applicable for Each Section in Division 1 through 16
 - a. Design Criteria Guidance
 - b. Guide Specification
 - c. Design Standard Plates
- 2.1.3. Appendix A - Schedules and Tables.
- 2.1.4. Appendix B - Product Data Sheets
- 2.1.5. Appendix C – Commissioning
- 2.1.6. Appendix D – Interior Décor Design Standards
- 2.1.7. Appendix E – Exterior Building Sign

3. INTENT

3.1. The intent of this Design Criteria Handbook is to have Architect-Engineers (A/E) include all items necessary for the proper execution and completion of the Work by the Contractor awarded the Work.

3.2. The various parts of this handbook, including any graphical representations, are complementary, and what is required by one part shall be as binding as if required by all.

3.3. A/E shall edit all UFGS format guide specifications as applicable to the project and incorporate them into the contract documents.

4. CONVENTION OF MEANING

4.1. In general, this Design Criteria Handbook is written in the imperative mood.

4.2. DeCA Design Criteria is updated quarterly, with the baseline design criteria updated each year in June; at which time Design Criteria, Guide Specifications, and Design Standard Plates will be reviewed for applicability and documents will be re-dated to reflect the current year. Manufacturer product data will be updated as necessary to remain current.

Quarterly updates are identified as follows:

- June updates will be highlighted in "red"
- September updates will be highlighted in "turquoise"
- December updates will be highlighted in "pink"
- March updates will be highlighted in "bright green"

Guide Specification edit notes are highlighted in "yellow"

A summary of revisions for each quarterly Design Criteria Update will be posted on the DeCA Design Criteria website.

4.3. In the interest of brevity, this handbook frequently omits modifying words such as "all" and "any" and articles such as "the" and "an", but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

4.4. Several sections have highlighted text. These areas should be discussed by the project design team and the A/E should edit the text as necessary.

4.5. Several sections identify choices in brackets []. A/E shall edit the choices as applicable to the specific project requirements.

5. DESIGN REQUIREMENTS

5.1. GENERAL

5.1.1. Design a completely functional and operational facility within the parameters of the cost and scope constraints of the project. Should the designer anticipate impending cost overruns, make recommendations to bring the scope and cost within the authorized limitations of the project. Include this information in the design analysis and bring it to the DeCA Project Manager's attention in writing.

5.1.2. Make every effort to reduce utility runs and site preparation requirements through proper design. Include in the bid package identification of support costs outside the 1520 mm (5'-0") line.

5.1.3. Do not use deductive bid items in the bid schedule. Use additive bid items discriminately. DeCA will approve and prioritize any additives.

5.2. ARCHITECTURAL DESIGN:

5.2.1. Design excellence ranks equally with economy of construction and functional efficiency in importance. Recognize that good design does not imply added expense.

5.2.2. Front entrance canopies provide an important architectural element of a store's main facade. The canopy can provide architectural accent to entrance and exit locations and protection from the weather. While DeCA recognizes the importance of canopies to overall design, use them sparingly and primarily to cover entry and exit locations and to enhance the architectural expression of the function within. Avoid excessive lengths and depths. The architectural solution should define a clean front entry/exit area compatible with other installation architecture and nearby community facilities.

5.2.3. The design solution should emphasize compatibility with installation architectural guidelines without unnecessary embellishment. The primary focus for premium building materials, such as brick masonry, should be on the front elevation and others that are prominent to the customer. DeCA encourages the use of CMU block, precast panels, stucco, EIF systems or other similar materials for less prominent elevations. Balance maintainability and durability of exterior building materials with cost considerations.

5.2.4. Include the DeCA Signature Décor exterior sign per Section 10431 and Appendix "E" Exterior Building Sign.

5.3. INTERIOR DESIGN:

5.3.1. The interior design should complement the exterior design philosophy in terms of economy and restraint without sacrificing creativity and a pleasing store environment. Provide the commissary customer with the same standard of quality found in modern commercial food retail operations. The focus should be the product using the interior environment design to strengthen that focus, or act as a backdrop to the product. Customers look for value to their dollar and the interior design should strengthen that image. To the extent practicable, achieve the objectives without embellishment, the perception of extravagance or added expense.

5.3.2. Give professional attention to the selection of colors and finishes. Use accent colors and colored wall fabrics and materials to add interest and/or satisfy specialized requirements such as acoustical control, etc.

5.3.3. Include the DeCA Signature Décor Package within customer areas per Section 10445.

5.3.4. Provide a comprehensive interior design that reflects contemporary design technologies for a commercial retail shopping environment. Specifically, design and integrate the colors, materials and finishes, graphics, signage and lighting considering the following:

- a. Methods of merchandising the product and define the sales area envelope.
- b. Scale and proportion of space.
- c. Integration of lighting systems including, utilization of accent, task and ambient lighting. Use lighting to establish comfortable light levels in the sales area; to highlight specialty areas and product display cases; to supplement materials used for surface enrichment; as a decorative or functional design element over checkout counters; and to illuminate signage. Refer to Section 16500 for required lighting fixtures and illumination level requirements.
- d. Development of a customer information system.
- e. Maintenance of surface finishes.

- f. Color and finishes of equipment.
- g. Consumer behavior/shopping patterns.
- h. Store environmental systems.
- i. Community influences/characteristics.
- j. Ease of cleaning.
- k. Use construction materials to enhance architectural design and details and to enrich building surfaces, graphics, and the color scheme.
- l. Use graphics as a system of visual arts using color, line, pattern, and texture for the purpose of decoration and communication in the shopping environment.
- m. Use customer information systems as a method of organizing and communicating displays and products in the shopping environment. Customer information will include, but not be limited to, the following (Refer to section 10445 for specific details on design requirements):
 - 1. Product information.
 - 2. Department identification.
 - 3. Aisle markers.

5.4. SITE DESIGN:

5.4.1. Provide for all necessary site work. Include in site plans grading, drainage, roads, parking, service area, walks, utilities, area lighting, screened/bermed service areas, lawn, planting, and required underground sprinkler and drip irrigation system. Site building to avoid excessive grading and balance site work. Consider berms only when excess cut is present.

5.4.2. Design access drives and internal site roads to provide convenient and safe access and circulation (including collections, deliveries, and fire protection) within the areas and to discourage through traffic.

5.4.3. Relate pedestrian circulation to parking and facilities. Design the site to facilitate safe and efficient pedestrian movement to and from the parking lot and commissary. Do not site large utility elements such as transformers and cooling towers in areas where they become prominent and conflict with design features.

5.4.4. Refer to Section 02700 for accessibility requirements.

5.4.5. Study roadways, exits, and parking areas to determine the most efficient traffic flow for customers, employees, and trucks. Separate delivery traffic from customer traffic on the site.

5.5. OTHER DESIGN CONSIDERATIONS:

5.5.1. Carefully evaluate air-conditioning design considerations for the building, such as siting, orientation, the relative values of insulation, reflective glass coatings, in order to reduce the heat load and the resulting total capacity of the air-conditioning plant and its subsequent operating cost. Make studies to establish an optimum balance between costs of these design details in the building structure and savings in the first cost of the mechanical installation and its operating cost during the planned life of the building.

5.5.2. Generally, display cases, refrigeration systems, material-handling equipment (MHE), staging/receiving and storage room racks, and modular furniture will be contractor-furnished, contractor-installed. Specify refrigerated display cases as a single system with associated compressor systems, condensers, power wiring, piping and controls.

5.5.3. Should the designer locate roof drain downspouts in the sales area, enclose them within walls or furring to render them not visible. When located in the staging/receiving area or adjacent to the receiving aisle, design them to not impede full use of racks or locate them where material-handling equipment cannot damage them.

5.5.4. In view of the typically long payback period for active solar energy installation, consider carefully the use of these systems. Kalwall or similar trade names are acceptable features in commissary designs. Where appropriate, consider passive solar design. Consider clerestory windows for use in appropriate areas. With appropriate justification, consider also skylights for use in the staging/receiving area. Analyze skylights with respect to the following criteria: additional construction costs, anticipated electricity consumption savings for lighting, anticipated additional heating and air-conditioning requirements, costs associated with additional controls such as photocells and anticipated maintenance costs (if any). Also address side benefits such as safety during electrical power outages and aesthetics. Describe passive solar design features that present a more expensive

construction technique in the design analysis with appropriate costs, comparisons, and alternatives.

5.5.5. Determine the regional soil treatment requirements for termite protection if required, and specify chemical treatment. Specify full compliance with all local, state and Federal regulations on toxic chemicals and handling, removal and disposal of hazardous materials. Work closely with the installation environmental authorities to ensure all requirements and methods are identified and specified for design and bidding purposes.

5.5.6. Standards of workmanship and selection of materials must achieve the maximum degree of pest exclusion. Place particular emphasis around doors, refrigeration, electrical, heating and air-conditioning duct or conduits particularly where openings are created in outside walls and utility rooms. Require doors fit to tolerances less than 6 mm (1/4 inch) and that exterior doors be fitted with durable weather stripping appropriate to the location and relevant pest considerations. Require sealing utility ducts, piping, and other wall penetrations with caps, metal flashing, masonry grout, escutcheon or other suitable material to exclude rodents. Design of systems should result in minimum interior pest harborage.

5.6. DIFFERING SITE CONDITIONS:

5.6.1. Include provisions in the project design documents which address differing site conditions. Ensure these provisions comply with the latest Federal Acquisition Regulations (FAR) and include the following:

- a. Require the Contractor to promptly, and before disturbing existing conditions, give written notice to the Contracting Officer of (1) subsurface or latent physical conditions at the site which differs materially from those indicated, or (2) unknown physical conditions at the site of an unusual nature, which differ materially from those ordinarily encountered.
- b. The Contracting Officer will investigate the site conditions promptly after receiving the notice. If the conditions do materially differ and cause an increase or decrease in the Contractor's cost of, or the item required for, performing any part of the work, whether or not changed as a result of the conditions, the government will make an equitable adjustment and modify the contract in writing accordingly.
- c. Do not allow any request by the Contractor for an equitable adjustment to the contract unless the Contractor has given the written notice required; provided that the Contracting Officer may extend the time prescribed for giving written notice.
- d. Do not allow any request by the Contractor for an equitable adjustment to the contract for differing site conditions if made after final payment.

5.7. LIFE CYCLE COST

5.7.1. General: Provide a computer analysis justifying the selection of systems and materials as the least life cycle cost alternative, taking into account building aesthetics, geographic location, etc. BLAST, TRACE or other similar computer programs which perform this analysis are acceptable. The analysis should result in the selection of materials with the least building cost over the life cycle of the building.

5.7.2. Life Cycle Cost (LCC): Include a complete analysis for structural, mechanical, refrigeration, electrical, plumbing, and pavements in the analyses. Consider the total life cycle cost where the LCC includes all costs associated with a system over its expected life, including but not limited to construction/procurement, energy, maintenance, operation, repair, alteration, and disposal costs. Use the present value discounting approach described in DOD criteria: Economic Analysis and Program Evaluation for Resource Management and DOD criteria: Economic Procedures Handbook. Specific criteria:

- a. Discount rate: 6 percent net. DeCA prefers use of mid-year factors for cost/savings occurring in a steady stream but end-of-year factors are acceptable.
- b. Analysis period: 12 to 15 years from the Beneficial Occupancy Date.
- c. Base cash flow used in the analysis on the actual calendar dates on which events and costs are projected or scheduled to occur.
- d. Neglect general rate of inflation of the economy as a whole. Calculate rates for energy costs.
- e. Base estimates for all costs on actual prices in effect on the date of study (constant date-of-study dollars).

5.8. FIELD ENGINEERING

5.8.1. Scope: Perform field reconnaissance, surveys, and site investigations, including travel and work required to obtain engineering information and design data for the accomplishment of the project contract documents in

accordance with requirements of this criteria.

5.8.2. Area Traffic Study: Research traffic requirements, indicate anticipated traffic circulation patterns, and provide a traffic flow plan for those areas in and immediately around the new commissary. Consider surface traffic patterns to and from the commissary. Provide recommendations to separate customer from service traffic and pedestrian from vehicular traffic. Also include recommended modifications to the affected existing installation roadways, but do not conduct an installation roads study.

5.8.3. Field Reconnaissance and Surveying: Make a complete survey of the project site recording existing topography, terrain features, location of all utilities above and below ground including sizes and elevations; width of adjacent streets, pavements, sidewalks, curbs and ditches; locations of existing trees, hedges, and other obstructions such as catch basins, manholes, utility poles and fire hydrants. Coordinate with the installation engineer and utility shops to locate and identify all underground utilities in the project site area. Present data as a comprehensive site topographic survey and include in the contract documents.

5.8.4. Engineering Information and Design Data:

- a. Obtain geotechnical engineering services from a qualified geotechnical engineer. The geotechnical engineer should determine the extent and type of investigative studies required. Authorize those investigations that the geotechnical engineer recommends and assume responsibility for areas overlooked by the geotechnical engineer. Provide the geotechnical engineer all information he may require to recommend services, investigate soils conditions, and recommend soils related influences on the project design and specifications.
- b. The geotechnical engineer shall prepare a soils investigation report in a form suitable for inclusion in the bid documents for each general contract bidder.
- c. The soils investigation report shall include the geotechnical engineer's recommendations for building foundations, paving design, corrosive soil conditions, and other soil related construction problems that the geotechnical engineer has identified and recommended for investigation.
- d. The soils investigation report shall include the geotechnical engineer's recommended clearing and earthwork specifications for both materials and workmanship for site work, structure, and below grade utilities suitable for incorporation into the project specifications by reference.
- e. The geotechnical engineer shall prepare an addendum to the soils investigation report following completion of structural and civil engineering. This addendum shall reflect the completed engineering and any modifications developed with the structural or civil engineers during their work. The addendum shall eliminate options contained in the initial report that are no longer available in the context of the completed engineering, so that construction bidders have no confusion on options no longer appropriate.
- f. The soils investigation report shall include detailed recommendations for follow-up and confirmation of soils engineering recommendations to include all tests, observations, and services to be performed during construction and presented in a form suitable for inclusion in the construction contract. In the project specifications, require the contractor to provide these services with his own qualified geotechnical engineer.
- g. Ensure the data results in a complete and comprehensive geotechnical report for inclusion in the contract documents. Prepare other specifications as needed for architectural earthwork not reasonably part of the geotechnical engineer's study.

5.9. REFERENCE STANDARDS

5.9.1. DeCA will provide guidance for program development, design, and construction of a commissary facility which will include but not be limited to the following:

- a. DeCA Definitive Floor Plan.
- b. DeCA Design Criteria.
- c. DeCA Guide Specifications.
- d. DeCA Design Standard Plates.
- e. Applicable DoD standards.
- f. Programmed project budget.
- g. Applicable installation maps, base exterior architectural plans, and drawings.

5.9.2. Applicable Standards. Use national codes and regulations for building construction and safety where applicable. In the event of conflicts between criteria, the more stringent shall apply. Edition dates of criteria, codes, and standards listed shall be that current and in effect as of the date of the 100% documents submission.

5.9.3. Provisions of the design shall fully comply with the Uniform Federal Accessibility Standards (UFAS) and applicable provisions of the Americans with Disabilities Act Accessibility Guidelines (ADAAG). Identify features required for accessibility by handicapped on the contract drawings so that no feature be omitted or compromised by change order or on-site conditions during construction. **Locate the standard accessibility emblem next to each design feature, dimension, and piece of equipment shown on the contract drawings or include a list of such features on the drawings.** Locate accessible parking spaces designated to serve commissary customers, employees, and visitors on the shortest accessible route of travel from adjacent parking to an accessible area.

5.9.4. Base selection of materials on the architectural style of existing facilities on the Installation. If no planned or existing architectural style exists, then define the design to the local region.

5.9.5. To the extent practicable, provide fixed windows in offices with exterior walls. Do not provide windows at or near cash control areas that are located on exterior walls. Provide windows at all offices facing sales areas. Designers may use fenestration on entry/exit areas at the front of the store.

5.9.6. Place special attention on the design of interior building surfaces and details in order to:

- a. Eliminate the potential for dust and trash accumulation.
- b. Provide opportunities to highlight areas of like products such as produce, frozen foods, etc. Design interior to accommodate use of colors and decor schemes that accentuate product displays.

5.9.7. DeCA will furnish a definitive floor plan drawing of each proposed commissary facility from which the A-E will develop and produce the individual contract documents for each project. Make no major departure from the basic floor and equipment plans and equipment list unless dictated by differing structural, mechanical, and/or electrical considerations. Make suggestions that will improve the operational functions, enhance appearance, and prove to be economical and advantageous for each project at the appropriate review session. --

5.9.8. Describe technical provisions by commercial standards (CSI format).

5.9.9. To the extent practical, use a modular grid structural system for economy and efficiency. However, exercise great care in selection of initial grid to assure column locations are subordinate to functional considerations of the commissary. To the extent possible, place columns within walls so that all work areas, sales area, and product movement aisles remain free of columns. Do not locate columns within cold storage rooms, in aisles or queuing area, checkout lanes or within refrigerated display cases. Columns are permissible in the Staging/Receiving Area, but locate them between the back-to-back warehouse racks, where applicable or protect exposed columns with concrete filled bumper posts. In the sales area, arrange shelves or display cases to enclose or conceal the columns without a break in the shelving/display run.

5.10. SPECIFICATION OF PREFERENTIAL RECYCLABLE ITEMS:

5.10.1. New DoD policy related to compliance with Executive Order 13423 and Section 6002 of the Resource Conservation and Recovery Act (42 U.S.C. 6962) require Federal agencies establish preference programs for EPA designated items. The current list of EPA designated guideline items is included in Attachment 1. It is Department of Defense Policy to require that 100% of the purchases of these designated items meet or exceed the EPA guidelines. Include as a part of the pre-design investigative study an assessment of the availability and feasibility for use of these guideline materials and appropriate specifications for their use. Exceptions to use of these materials will require you provide written documentation based on one or more of the following conditions:

- a. The product is not available competitively within a reasonable time.
- b. The product does not meet appropriate performance standards.
- c. The product is only available at an unreasonable price.

5.10.2. Additional guidance about the EPA Environmentally Preferable Purchasing Program is available in the Publication Greening the Government, which can be downloaded at the office of Federal Environmental Executive web site www.ofee.gov, or by telephone at (202) 260-1297. Other guidance and direction is available at the EPA's Environmentally Preferable Purchasing Program web site at www.epa.gov/opptintr/epp or by calling the EPA's Pollution Prevention Information Clearinghouse (PPIC) at (202) 260-1023 or FAX at (202) 260-4659.

5.10.3. Refer to <http://www.epa.gov/cpg/index.htm> for further guidance pertaining to the EPA Environmentally Preferable Purchasing Program.

5.11. ENERGY EFFICIENCY AND WATER CONSERVATION AT FEDERAL FACILITIES:

5.11.1. Reference is made to Presidential Memorandum: Environmentally and Economically Beneficial Practices on Federal Landscape Grounds, April 26, 1994, and DUSD (ES)/PP Memorandum of September 23, 1994, same subject. During the design of any project, consider the following mandated requirements:

5.11.2. Design facilities to minimize life-cycle cost of the facility using energy efficiency, water conservation, or solar or other renewable energy technologies.

5.11.3. Implementation of actions to increase environmentally and economically beneficial landscaping practices at Federal facilities and Federally funded projects. Where cost effective, and to the extent practicable, Federal agencies will incorporate the following for Federal grounds and Federally funded projects:

- a. Use regionally native plants and landscaping.
- b. Design, use or promote construction practices that minimize adverse effects on the natural habitat.
- c. Seek to prevent pollution by reducing fertilizer and pesticide use, using integrated pest management techniques, recycling green waste, and minimize runoff.
- d. Implement water efficient practices, such as use of mulches, efficient irrigation systems, audits, use of recycled or reclaimed water (when economically justified), and selecting and siting plants in a manner to conserve water and control soil erosion. Landscape practices, such as use of native shade trees around buildings to reduce heat gains and provide natural wind breaks are also encouraged.
- e. Landscaping that encourages native plants and pollution prevention and water conserving techniques are also encouraged.
- f. Additional information on the designated items is contained in EPA's Environmental Fact Sheet, "EPA Issues Comprehensive Procurement Guideline," April, 1995, EPA530-F-95-010, or by calling EPA's RCRA Hotline at 1-800-424-9646.

5.12. ENVIRONMENTAL DESIGN CONSIDERATIONS

5.12.1. Environmental Considerations. Give special attention to the environmental factors in the design and construction of DOD facilities to eliminate or minimize degradation of the environment IAW Public Law 91-190, National Environment Policy Act; PL 92-500, Federal Water Pollution Control Act; PL 94-580, Resource Conservation and Recovery Act; PL 95-95, Clean Air Act 1977; PL 93-523, Safe Drinking Water Act; Executive Order 11514; and to meet the Federal, State, and local environmental quality standards, particularly with regard to air and water pollution. For projects having pollution abatement features, obtain necessary Environmental Protection Agency (EPA) and other State agency coordination and concurrence, and permits for construction.

5.12.2. Air and Water.

5.12.2.1. Water Pollution Abatement Facilities - Design of waste water treatment facilities shall ensure compliance with the Environmental Protection Agency's National Pollution Discharge Elimination System (NPDES) permits. Industrial waste treatment facilities to be connected to the sanitary systems shall meet current EPA pretreatment standards and comply with requirements of DOD regulations. Address secondary containment and other requirements for fuel storage tanks.

5.12.2.2. Water Quality Permits - The installation will obtain a Permit to Construct, when required by State or local authority. Evaluate water treatment projects to determine permit requirements.

5.12.2.3. Assemblage of Permit Data - Assemble the necessary data to enable the construction contractor, working in coordination with the installation, to apply for a Clean Water Act Authority to Construct Permit. Include instructions and drafts of the proposed project's necessary permit applicable documents. Meet with the applicable permitting authority (State and/or local) to determine the specific requirements for the project. Advise the installation and DeCA of all meetings to allow both to establish their need to attend. The Clean Air lists specific procedures.

5.12.2.4. Clean Air Act Amendments of 1977 - The 1977 amended Clean Air Act (CAA) requires DOD facilities to comply with State procedural requirements concerning permits for military construction projects. Evaluate the project to determine whether or not permits are required pursuant to the Clean Air Act Amendments of 1977. If required, provide instructions to the Contractor on how to coordinate with the installation to obtain permits, where required, to construct facilities that emit pollutants.

- a. Assembly of Permit Data: Assemble the necessary permitting application data to enable the Contractor to submit draft documents to the installation to apply for a CAA Authority to Construct Permit. This includes the review of the proposed project against the governing air quality regulation

and preparation of the necessary permit application documents. To accomplish this, meet with applicable permitting authority (EPA, State, and/or local) to determine the specific requirements for this project. Advise the installation and DeCA of all meetings to allow both to establish their need to attend. The construction contractor will submit a rough draft of the permit data to the installation for review and coordination. After approval, prepare the final package, including any draft letters of transmittal and a summary of the permit costs. If a permit is not required, so indicate.

b. Filing of the Application - The installation will file the application with the permitting authorities.

c. Specific Procedures :

1. Ensure the contract specifications identify that the installation will sign and transmit all correspondence to permitting agencies.
2. Provide the following information and data with the Early Preliminary Design submittal at the 30 percent design stage where the final design only is authorized, or as early in the design as possible.
 - a. Permitting authority (Federal, State and/or local).
 - b. Type permit required (construction and/or operation).
 - c. Procedure and time necessary to process permit application(s).
 - d. Fee schedule to include filing/application fees, charges for actual emissions, and fees relative to testing of abatement equipment toward insuring compliance with air quality standard.
3. Discuss your approach for obtaining permits (including whom to contact, when, etc) with the installation prior to initiating any communications with the permitting authorities as well as copies of any correspondence.
4. Carefully examine environmental factors during design and during studies of alternative means of satisfying requirements. For those projects for which environmental statements have been written or are being written, incorporate the environmental mitigation measures specified in the draft/final environmental statement into the project design. The Council on Environmental Quality Regulations, Nov 29, 1978, part 1605, apply.
5. In accordance with the provisions of the National Historic Preservation Act of 1966 and Executive Order 11593, preserve eligible historic, scenic and archaeological sites and other areas of special interest to the extent practical.
6. Project siting must consider the facility locations with respect to applicable criteria for accident hazard zones and CNR, NEF, or LDN noise contours. Incorporate provisions for noise attenuation, where required, in the design.
7. Water conserving landscape designs should incorporate plants that are drought resistant and/or require low amounts of water. Consider irrigation systems of drip irrigation/emitter type. Consider low maintenance design in lieu of lawn or vegetative ground cover.
8. In accordance with Public Law 91-190, the design shall consider those measures necessary to mitigate construction activities, i.e., existing trees and ground cover shall be preserved by minimizing grading.
9. Abide by the provisions of the Endangered Species Act PL 95-632 (92 Stat. 3751) relating to wildlife and plant life and critical habitats.
10. Design, where appropriate, shall be in accordance with Executive Order 11990, Protection of Wetlands.

5.12.3. Environmental Permitting Action: See sample A-E Statement of Work for Environmental Permitting (See Attachment).

5.12.3.1. Unless specifically requested to do otherwise, investigate the need for, and provide complete unsigned permit application forms to the Contracting Officer as deemed necessary by the investigation. Accomplish this as early as possible to allow regulatory agencies adequate time to evaluate and process the application.

5.12.3.2. Submit a completed Environmental Permits Status Matrix (see Attachment) to the Contracting Officer.

5.12.4. Consider and propose other alternatives which provide more effective solutions to environmental issues or present more cost-effective options.

5.12.5. DeCA Policy on Management of Asbestos:

5.12.5.1. Asbestos in building facilities is managed because of potential adverse human health effects. Asbestos must be removed or controlled if it is in a location and condition that constitutes a health hazard or a potential health hazard or it is otherwise required by law. The hazard determination must be made by a professional trained to make such determinations. While removal is a remedy, in many cases management alternatives (such as encapsulation) within the building are acceptable and cost-effective methods of managing asbestos in-place. The key to dealing with asbestos is knowledge of its location and condition and having a management plan to prevent asbestos-containing materials that continue to serve their intended purpose from becoming a health hazard. There is no alternative to such management, because DeCA does not have the resources to remove and dispose of all asbestos in all the facilities under its management. Most asbestos is not now nor will it become a health hazard if it is properly managed. Statutory or regulatory requirements that result in removal or management of asbestos are based on human exposure or the potential for human exposure (i.e., National Emission Standards for Hazardous Air Pollutants (NESHAP) = no visible emissions, OSHA = number of airborne fibers per cc). Professional judgment based on exposure levels or potential exposure levels must be the primary determinant of what should be done with asbestos. Asbestos containing materials must be analyzed to determine the most prudent course in terms of removal or management in-place and cost that will be incurred as a result:

5.12.5.2. It is DeCA policy that whenever Commissary facilities or other facilities are demolished as part of construction, or components of a facility are removed during construction, an inspection and survey must be performed to determine the amount of asbestos containing materials, lead-based paints, and PCB containing electrical components that may be present.

5.12.5.3. The following specific policies apply to asbestos containing materials:

- a. Asbestos will be removed if the protection of human health, as determined by a qualified professional, requires removal (e.g., exposed friable asbestos within a building) in accordance with applicable health laws, regulations, and standards.
- b. When asbestos is present but no immediate action is planned, a plan for managing the asbestos in-place using commonly accepted standards, criteria, and procedures to assure sufficient protection of human health and the environment, in accordance with applicable and developing health standards, will be developed.
- c. A thorough survey for asbestos (including review of facility records, visual inspection, and where appropriate as determined by the Bio-environmental Engineer and the installation engineer, (intrusive inspection) will be conducted prior to any major construction on commissary facilities.
- d. Encapsulated asbestos in a building structure, friable or not, is not regarded as hazardous waste, nor does encapsulation within the structure of a building constitute "storing" or "disposing of" hazardous waste. However, it is not DeCA's policy to use encapsulation as a form of abatement, unless specifically approved in advance.
- e. Friable asbestos, or asbestos that will probably become friable, will be properly disposed of in a landfill or other disposal facility properly permitted for friable asbestos disposal.
- f. The final determination regarding the disposition of asbestos will be dependent on the plan for disposal and any planned continued use of the building.

5.12.6. A-E Services for Hazardous Materials Survey/Inspection and Abatement Design:

5.12.6.1. If required by AE SOW, provide an environmental investigation and abatement design for hazardous materials impacted by the proposed construction to include but not be limited to Asbestos Containing Materials, lead based paints, and existing fluorescent light fixtures for PCB in ballasts. Provide a written detailed report of findings along with recommended design for abatement.

5.12.6.2. Part A - Investigative: Provide environmental survey services to determine the existence of hazardous materials within the limits of the proposed construction project. This survey shall include field reconnaissance by a licensed and accredited inspector qualified to inspect the facility and site for asbestos materials, lead contaminated paint, and PCB contaminated light ballasts. It will begin by the contractor reviewing available documents, including as-built construction documents, prior surveys by the installation, lab results, prior management actions, and briefing key personnel before commencing work. It will also include records of communications with state and local regulatory agencies to clarify the nature and scope of

required coordination, approval, permitting, and licensing actions required for work to be performed. AE assumes all responsibility for payment of any fees to state and local agencies associated with the investigation/survey and/or design of abatement actions. Conduct survey in a manner to avoid any conflict with on-going store operations and coordinate in advance with the contracting officer. Sample and test any materials found to be suspect of containing asbestos and lead to determine levels of contamination. Test a minimum of three samples of each homogeneous material suspected of containing asbestos. Bulk samples will be analyzed by an independent, licensed and accredited testing laboratory which participates in the National Voluntary Laboratory Accreditation Program (NVLAP) administered by the National Institute of Standards and Technology (NIST). Once a sample tests positive for hazardous components in a specific homogeneous area, further testing of other samples of the same material from that homogeneous area is not required. Identify locations of samples to depict the specific location at the building or site. Base any determination of potential PCB containing light ballasts on name plate data and serial numbers cross-referenced against manufacturer's information.

5.12.6.3. Part B - Analysis and Reporting: After all field inspection, sampling, and testing have been completed, prepare a comprehensive report indicating the results of inspection and laboratory tests. Include in the written report of findings a table of asbestos containing materials (materials containing more than 1 percent asbestos), if present, sample analysis results and a floor plan and photographs to show sample locations. At the discretion of the Government, retest lab results indicating the presence of asbestos material in levels of 5 percent or less using more accurate point counting methods. Upon completion and acceptance of the inspector's report, address appropriate design actions including an analysis of the potential risk of hazardous material that may be encountered during the renovation phase of the project and a recommended method of abatement of these materials. Have an experienced Licensed Asbestos Consultant prepare the report. Finally, include in the report recommended procedures and required actions and a detailed cost estimate for required abatement actions.

5.12.6.4. Part C - Abatement Design: Prepare an abatement design for all materials identified for removal or disposal in the survey report described above. Have a person licensed and accredited to perform such work in the state where the work is to be performed prepare the design. Coordinate the results of this abatement design into the demolition work associated with construction or renovations to the commissary. Consider phasing of the abatement work an integral part of the phasing of construction so to not disrupt commissary operations. Include in the abatement plan drawings, details, and specifications defining and delineating the physical quantity of the work. Additionally, describe in the contract specifications the technical and qualitative aspects of the work to meet and/or exceed minimum regulatory requirements. Include in the design documents a requirement that the abatement contractor's submittal show proof of insurance, licenses, training, medical certificates, and worker protection measures necessary to comply with federal, state, and local laws and regulations. Require the abatement contractor to identify a competent person responsible for overseeing all work. Require that a licensed and accredited air monitoring technician provide independent air monitoring as part of the asbestos abatement procedures. Clearly state in the design documents will that the contractor assumes all responsibility for regulatory permits, fees and fines levied as a result of his work. Final completion of all work shall be contingent upon government acceptance of the procedures for abatement and documentation of approved disposal of all hazardous waste materials. Require that a final government walk-through be scheduled at the completion of all abatement work to assure work has been performed according to plans and applicable federal, state and local laws and regulations. Require the contractor provide statements certifying this before undertaking to apply lock-down or other materials that cover or encapsulate any remaining residue (see Attachment 5). Upon completion and acceptance of all work, require the contractor provide the government's representative with a complete record of all abatement actions as a permanent record file to be maintained by the installation.

5.12.6.5. Include in the design specifications for all new work, provisions requiring the construction contractor to verify that the new construction does not contain asbestos materials or lead-based paints. See sample certification form.

5.12.7. Minimum Requirements for Design of Asbestos Abatement Projects for Commissary Facilities: See the attached provisions which outline the minimum requirements for protection of public health and safety required for acceptable design of asbestos abatement work associated with commissary construction projects. This outline does not constitute complete and sufficient specifications for an asbestos abatement project and is intended only as an aid to design. The more detailed requirements stipulated in the plan and specifications for a particular abatement project shall take precedence over these limited provisions.

Sample Statement of Work for Environmental Permitting

ARCHITECT-ENGINEER
STATEMENT OF WORKADD/ALTER COMMISSARY
INSTALLATION NAME

ENVIRONMENTAL PERMITTING

1. Environmental Considerations: Pay special attention to the environmental factors in the design and construction of DoD facilities to eliminate or minimize degradation of the environment in accordance with Public Law and to meet all federal, state and local environmental quality standards, particularly with regard to air and water pollution.

2. A-E Requirements.

2.1. Determine what environmental permits are required, if any. If applicable, also provide to the installation the name, address and a point of contact for each of the various agencies required. For the permitting authorities to accomplish this, meet with the applicable permitting authorities (EPA, state and/or local) to determine the specific requirements for this project.

2.2. Identify necessary data for the installation to file with the permitting authorities. This will include the review of the proposed project against the governing regulation and preparation of the necessary permit application documents. To accomplish this, you may have to meet with the applicable permitting authority (EPA, State and/or Local) to determine the specific requirements for this project. Advise the installation of all scheduled meetings to allow it to establish its need to attend. Submit a rough draft of the permit data to the installation for review and coordination. After approval, prepare a list of required actions, identifying appropriate authorities, and providing projected submittal and approval events and estimated lead times. Also prepare a summary of the projected permit costs, including procedural costs as well as additional construction costs. If a permit is not required, so indicate.

Sample Environmental Permits Status Matrix

ENVIRONMENTAL PERMITS STATUS MATRIX
(TO BE COMPLETED BY 30% DESIGN SUBMITTAL)

PERMIT TYPE	PERMIT REQUIRED Y/N AND NUMBER	PERMIT FOR	LOCAL JURISDICTION CONTACTED AND DATE	SUBMITTAL REQUIREMENTS	IF YES, TIME REQUIRED FOR PERMIT	PERMIT FEE
AIR QUALITY						
WATER QUALITY						
SOLID WASTE						
HAZARDOUS WASTE 1/						
STORM WATER EROSION CONTROL PLAN						
COASTAL ZONE MANAGEMENT						
FLOOD PLAIN/ DREDGE AND FILL						
OTHER 2/						

1/ Include underground tank permits for fuels and other hazardous materials.

2/ Includes any permitting requirements not specifically categorized in the matrix, such as FAA coordination, etc.

Sample Contractor Certification upon Completion of Abatement Work

CERTIFICATION OF COMPLETED ABATEMENT

As authorized representative of the contractor, I hereby certify and attest that I have completed abatement work on project _____

At _____, Contract Number _____ Description
Location Number

In accordance with the contract provisions, federal, state and local regulations and have disposed of all waste and debris associated with this work at a landfill or disposal site authorized and licensed to accept such wastes. Copies of project logs and documents, landfill receipts and waste manifests are attached. At completion of all work, the work area was visually inspected and found to be free and clear of all visual signs of asbestos materials and that clearance air quality monitoring and sample analysis under aggressive air disturbance conditions was found to be within permissible levels for space re-occupancy.

The contractor's representative further accepts and acknowledges that the contractor assumes all responsibilities for latent defects attributable to his failure to follow prescribed procedures or failure to properly abate the required conditions as described in the contract.

by: _____
Signature, Contractor or Authorized Representative Date

Printed Name

Printed Title and Firm

GOVERNMENT INSPECTOR'S CERTIFICATION

The Government's Inspector hereby certifies that he has accompanied the Contractor's Representative on his visual inspection and reviewed the results of his final clearance air quality monitoring and verifies that, to the best of his knowledge and belief, the above representations by the Contractor's Representative are true and correct.

By: _____
Signature Date

Printed Name

Printed Title and Firm

Sample Contractor Certification Upon Completion of New Construction

ENVIRONMENTAL CERTIFICATION
ACCOMPANYING COMPLETION OF NEW CONSTRUCTION

As authorized representative of the Contractor, I hereby certify and attest, to the best of my knowledge that the construction completed under the contract (Government Contract No. _____) is free and clear of building materials and products containing regulated quantities of asbestos and/or lead-based paints. I have determined the above based on product labels, manufacturer's information, submittal documents for specified materials, and other information available to me. The Contractor's representative further acknowledges and accepts that if it is later found that the Contractor has intentionally defrauded or misrepresented these facts, and then the Contractor assumes total and complete liability for fines, penalties and/or abatement and removal of these materials at the direction of the Government.

by: _____
Signature, Contractor or Authorized Representative Date

Printed Name

Printed Title and Firm

GOVERNMENT INSPECTOR'S CERTIFICATION

The Government's Inspector hereby certifies and attests that, to the best of knowledge and belief, the above representations by the Contractor's representative are true and correct.

by: _____
Signature Date

Printed Name

Printed Title and Firm

SAMPLE OUTLINE COVERING MINIMUM REQUIREMENTS FOR INVESTIGATIVE SURVEY AND DESIGN OF ASBESTOS ABATEMENT PROJECTS FOR COMMISSARY FACILITIES

SAMPLE OUTLINE

1. Design Inspections Sampling:

1.01. Inspections must be performed by accredited and licensed inspectors. The inspection survey reports must be signed by the inspector, dated, and include, if applicable, the accreditation number.

1.02. Laboratory testing of sample surveys must be performed by licensed and accredited labs and must be signed by the laboratory.

1.03. The inspection survey must visually inspect, as a minimum, all areas of the commissary facility or site to be affected by the project and identify the locations of all suspected asbestos containing building material (ACBM).

1.04. The inspection must identify all homogeneous areas of suspected ACBM.

1.05. The inventory must include the locations of the homogeneous areas where samples are collected, the exact location where each bulk sample is collected, the dates the samples were collected and a description of the sampling methodology.

1.06. The inspection shall classify and give reasons for classification in the written assessment the asbestos containing building materials and assumed ACBM according to condition (damaged, significantly damaged, potential for damage, potential for significant damage, friable or non-friable).

1.07. The written assessment must include:

Location and amount of material, both on terms of total quantity and as a percentage of the functional space.

Condition of material.

1. Type of damage or significant damage.
2. Severity of damage.
3. Extent of damage.
4. Accessibility.
5. Potential for disturbances.
6. Known or suspected causes of damage.

Preventive measures which might eliminate the reasonable likelihood to undamaged ACBM from being significantly damaged.

Appropriate recommendations for design of abatement actions and/or recommendations for in-place management of ACBM.

1.08. Inspection sampling protocols, must, as a minimum, comply with Asbestos Hazard Emergency Response Act (AHERA) guidelines provided in 40 CFR 763 Subchapter E.

1.09. The overall inspection effort must include reviewing the results of previous installations surveys.

1.10. Statements of Work for inspection shall not be structured in times that specifically limit the number of survey samples that will be taken. The number of samples required will be limited by the number and type of homogeneous areas to be sampled. For example, for surfacing material, the "3-5-7 Rule" will be used. However, the lab analysis can be stipulated only to "test" until the first positive" for each homogeneous material.

1.11. The Statement of Work for inspection and sampling of asbestos material must require separate sampling of each layer of material of a homogeneous area. For example, mastics must be separated from floor tiles and roofing materials and joint components separated from wallboard.

1.12. Sample results yielding 5 percent or less of asbestos material must be retested using point counting method.

SAMPLE OUTLINE COVERING MINIMUM REQUIREMENTS FOR INVESTIGATIVE SURVEY AND DESIGN OF ASBESTOS ABATEMENT PROJECTS FOR COMMISSARY FACILITIES

2. Design Specifications:

- 2.01. The plans and specifications must reference provisions of appropriate federal, state and local laws, regulations and procedures applicable to the specific work to be accomplished.
- 2.02. The plans and specifications for abatement work, including inspections must be prepared and signed by a person licensed and accredited to perform the work in the appropriate jurisdiction.
- 2.03. The plans and specifications must be signed by an accredited and licensed asbestos project designer.
- 2.04. The design for asbestos abatement actions must include drawings, which as a minimum address the location, quantity and condition of asbestos containing materials to be abated and identifies critical elements of work containment areas and work procedures.
- 2.05. Specifications for abatement work should be based on some acceptable standard. Usually this might be the installation's guide specification for abatement work. If no local standards are available, the National Institute of Building Sciences (NIBS) has published the not widely accredited industry standard specification which is available both in hard copy and computer disk.
- 2.06. The containment areas for specific abatement phases of work should be identified on the plans.
- 2.07. Entry/exit points to these containment areas need to be defined.
- 2.08. The decontamination room needs to be defined and shown on the plans.
- 2.09. Waste loading areas need to be defined in the plans.
- 2.10. Removal methods should be described in detail.
 - It is DeCA's policy that wet methods will be used and specified unless alternate methods are specifically detailed in the design analysis and approved by DeCA.
 - Procedures should require immediate bagging of removed equipment.
 - Specifications should require daily clean up.
- 2.11. Specifications should address security and access to containment areas.
- 2.12. Specifications must stipulate posting of entry/exit points.
- 2.13. Specifications must require Contractor notification to the appropriate state and local agency at least 10 days before work commences. The notification procedures must be coordinated with and consistent with the local installation procedures.
- 2.14. Provisions for contractor notification of employees and others in the general work area must be covered.
- 2.15. If abatement work is linked to other work, then it must be integrated into the project's overall phasing plan.
- 2.16. The contract documents must describe in detail the contractor's provisions for assuring worker protection and sealing off of work areas.
- 2.17. The minimum requirements for personnel protective gear and types of masks to be used need to be defined in the contract documents.
- 2.18. The specifications must require the contractor to prepare and file a safety/fire emergency egress plan.
- 2.19. The design specifications must address, as a minimum the following:
 - The contractor's licenses and accreditation to perform such work.
 - The contractor's proof of insurances.
 - Certificate of training for employees.
 - Medical clearances.
 - Designation and credentials of a "competent person" designated to oversee workers.
- 2.20. Provisions must be included in the design documents to lock out all mechanical/electrical systems in the work

SAMPLE OUTLINE COVERING MINIMUM REQUIREMENTS FOR INVESTIGATIVE SURVEY AND DESIGN OF ASBESTOS ABATEMENT PROJECTS FOR COMMISSARY FACILITIES

area before the contractor will be permitted to start abatement. These provisions must also insure that lock out procedures remain in effect until all abatement work is completed and final clearances provided.

2.21. Provisions must be included in the specifications to address protective seal for any plumbing, electrical, mechanical or operating equipment remaining in the contaminated area.

2.22. Specifications must require a hot/cold shower with water filtration system be provided in the decontamination chamber for abatement workers.

2.23. Specifications must include provisions for a small vision window(s)/small Plexiglas panel(s) to provide viewing for a government representative to observe the entire work area at all times from outside the contaminant area.

2.24. The specifications must make the contractor responsible for all state/local permits, notification and fees. Additionally, the contractor assumes responsibility for any fines incurred as a result of their actions.

2.25. The contractor for all abatement projects will be required to provide a certification in form similar to the attached that certifies that all abatement work is free and clear of asbestos, lead paint and other defined hazardous materials.

2.26. The specifications must describe air monitoring techniques. At least four separate areas must be covered.

The work area.

Output of Negative Pressure System. These systems will use high efficiency particulate air (HEPA) filters.

Worker equipment/clean room.

Personnel air monitoring.

2.27. The air monitoring must be performed by someone qualified to do the work but not be controlled or hired by the contractor. Provisions may be included in the documents for the contractor to submit a list to the government of qualified independent air monitoring consultants for the government to select from. The government could either pay this separately or deduct from the overall contract amount, depending on how it is specified.

2.28. The specification must require the contractor to provide proof of manifesting and acceptance of all disposed asbestos containing material from a licensed transporter and approved landfill licensed to accept such wastes. Waste disposal manifests should be included with post job submittals.

2.29. The required contractor controls what will be in place for the duration of the abatement need to be specified in detail.

2.30. The specifications must require negative air pressure to be maintained at all times in the work area from start to finish (before abatement start until after the work has been inspected and accepted).

2.31. The specification for final clearance must be quite specific, but yet, not so inflexible or to allow a variety of acceptable methods. One possible work sequence is provided in the Appendix.

2.32. Once visible quantities of asbestos have been removed, the contract documents must require the contractor to "lock down" any removing minuscule quantities of asbestos within an approved lock down material.

2.33. Contract specifications must include provisions which require the contractor to build a permanent record file of all submittals, licenses, certifications, and notifications related to completion of work to be turned over to the government in a three ring binder for indefinite retention.

2.34. As a general rule, DeCA policy will not permit covering over asbestos containing material such as floor tile. Specific exceptions to this policy will be addressed in the design criteria and required prior DeCA approval.

3. Final Clearance Procedures for Asbestos Abatement: The procedures for final clearance of the work area for re-occupancy must be quite specific but are not so inflexible as to not allow a variety of methods. One possible work sequence for final clearance is provided below.

SAMPLE OUTLINE COVERING MINIMUM REQUIREMENTS FOR INVESTIGATIVE SURVEY AND DESIGN OF ASBESTOS ABATEMENT PROJECTS FOR COMMISSARY FACILITIES

- 3.01. Complete removal of asbestos surfacing material
 - 3.02. Remove gross contamination from equipment and surfaces including poly liners using wet wiping techniques and HEPA vacuuming. Top layer of poly can be sealed with lock-down material.
 - 3.03. Using aggressive air monitoring techniques (use at leaf blower on surfaces), the air is tested to show air quality is above safe levels.
 - 3.04. The Government's representative inspects conditions of any remaining visible signs and either accepts conditions of completed removal or gets contractor to correct deficiencies.
 - 3.05. Remove top layer of poly. It is folded inward to form an easily disposed bundle with the hazardous material.
 - 3.06. Spray lock-down material in abated surfaces.
 - 3.07. Remove remaining layer of poly sheeting as before.
 - 3.08. Inspect and clean all debris and tools.
 - 3.09. Wet clean walls and floors, HEPA vacuum.
 - 3.10. Wait overnight and repeat procedures.
 - 3.11. Visually inspect and reclean any areas found unclear.
 - 3.12. Perform final clearance with aggressive air monitoring techniques (Use air blower). Air monitoring done by an independent, accredited and licensed air monitoring technician hired by the Government.
 - 3.13. Shut down HEPA filtration unit.
 - 3.14. Remove critical barriers.
 - 3.15. Receive and accept contractor's final submittals of completed work and certifications of this.
4. Environmental Certifications: The AE shall include as part of the construction documents, whether it be new construction or addition/alteration, a statement prohibiting the use of asbestos materials and lead-based paints. The following is a sample contract provision:

Construction Free and Clear of Asbestos for Materials or Lead-Based Paints: The contractor shall be prohibited from use of any asbestos construction materials or lead-based paints in completing this project as determined by the manufacturer's labels or submittal literature. At the conclusion of this project, the contractor shall provide the Government with written certification that this is true and correct.

END OF SECTION

Note: Use the checklist as a general review for the design of addition/alteration projects to assure the design gives adequate care and concern to phasing issues.

1. ____ Will the contractor be responsible for providing a detailed project phasing schedule that he is required to follow during construction (e.g., CPM with two step phasing - overall phasing at the outset plus specific phasing schedules due at the start of each progress period)?
2. ____ Are important milestones specifically identified for the contractor to include in his project phasing schedule? Is the contractor provided guidance on a minimal number of significant construction milestones to include on his phasing schedule or is a specific list of milestones provided?
3. ____ Do the contract provisions provide for liquidated damages if the contractor fails to meet significant milestones that are critical to store operations? In setting the amount of liquidated damages, were the following costs considered:
 - 3.1. ____ Cost of Government full time construction inspection services?
 - 3.2. ____ Cost of government administration?
 - 3.3. ____ Potential loss of additional surcharge that can be attributed to delays in project completion?
4. ____ Is the contractor responsible for providing a safety plan specifically addressing contractor safety measures to insure the safety and protection of his work force as well as for commissary customers and employees from construction activity?
5. ____ Have the contractor's work and storage areas been specifically identified and confined only to areas required for efficient and effective construction?
6. ____ Are there stringent provisions for daily clean up of all work and storage areas, inclusive of weed and grass control within the construction limits?
7. ____ Are construction work and materials storage areas sufficiently barricaded, screened or partitioned off at all times to preclude mingling of patron and construction activities?
8. ____ Are there definite provisions to allow for continuation of vehicular traffic throughout the area of construction in a safe and efficient manner?
 - 8.1. ____ Are there adequate barriers and markings for smooth vehicular flow?
 - 8.2. ____ Is there space for vehicular turn around between parking and contractor's work area?
 - 8.3. ____ Is proper traffic control signage for safe movement of vehicles being maintained at all times?
 - 8.4. ____ Are there provisions to maintain handicapped and VIP reserved parking spaces during construction?
9. ____ Can service and product deliveries be maintained throughout the period of construction?
10. ____ Do the temporary entrance-ways offer safe and efficient patron movement, including:
 - 10.1. ____ Handicapped access?
 - 10.2. ____ Protection from the weather?
 - 10.3. ____ Cart storage?
 - 10.4. ____ Obstruction-free corridors?
11. ____ Are there adequate provisions to insure safe movement of pedestrians and shopping carts from available parking areas into and out of the store throughout the period of construction?
 - 11.1. ____ Are barriers and protected corridors provided to isolate patrons from construction activities?
 - 11.2. ____ If utility trenches and pavement cuts are required in pedestrian and vehicular areas, do the design documents require immediate resurfacing to prevent any hazard to pedestrians and motorists?
12. ____ Will there be adequate fire egress from the store throughout construction?
13. ____ Will there be adequate provisions to insure store security throughout the period of construction, including temporary barriers?
14. ____ Do temporary partitions and enclosures provide sufficient protection against weather and dust to prevent damage to store interiors and product, and is the contractor made responsible for any damages that may occur?
15. ____ Are alarms and switches being relocated, as necessary, to temporary walls?

16. ____ Is the contractor required to maintain Heating Ventilating and Air conditioning (HVAC) in the sales and administrative areas throughout construction?
17. ____ Is the time sequence for contractor installation of government-furnished equipment specifically identified and phased to coordinate with government acquisition schedules?
18. ____ Will manufacturer's representatives be available for the initial start up, calibration and testing of contractor-furnished equipment?
19. ____ Are there provisions to ensure a safe can be located, installed and secured in the cashier's office?
20. ____ Is the sequencing of equipment replacement, sales area remodeling, and processing area remodeling consistent with efficient store operations?
- 20.1. ____ Can perishable processing and storage activities be maintained throughout the period of construction?
- 20.2. ____ What provisions will insure the minimum amount of time required to change-out or relocate refrigerated display equipment? Is this work being accomplished without disruption of service to other refrigerated equipment areas?
21. ____ Are refrigerated storage areas being constructed or modified with minimal impact on other refrigerated storage areas?
22. ____ If down time is required in refrigerated storage and display areas to accomplish work, is the store to be provided adequate notice (10 days minimum) to adjust product deliveries?
23. ____ What provisions have been identified for partial inspection, acceptance, and warranty of completed work?
- 23.1. ____ How much time is the contractor allotted to correct punch list items?
- 23.2. ____ Are there provisions to control future payments until punch list items are corrected?
- 23.3. ____ Do the contract documents clearly indicate when warranty periods begin?
- 23.4. ____ What is the procedure specified for turnover of equipment operating manuals, warranties, and servicing information?
- 23.5. ____ What procedures have been identified for base real property acceptance (DD 1354 preparation) of completed work?
24. ____ Are utility modifications and site work phased in such a manner to insure minimal disruption to present service?
25. ____ Does the design and construction process ensure total coordination on all pertinent aspects of phasing with:
- 25.1. ____ The installation engineer?
- 25.2. ____ The installation fire department?
- 25.3. ____ The installation security (military) police?
- 25.4. ____ The store manager?
- 25.5. ____ The DeCA Region?
- 25.6. ____ DeCA/FOA-END and Equipment office?
26. ____ Is the disposition of removed equipment specifically addressed and consistent with GFE acquisition plans? Does this equipment become the property of the contractor? The following is a partial list of some of the more frequent equipment items that need to be addressed:
- 26.1. ____ Cash registers.
- 26.2. ____ Scales.
- 26.3. ____ Checkout stands.
- 26.4. ____ Refrigerated display cases.
- 26.5. ____ Shelving.
- 26.6. ____ Sinks.
- 26.7. ____ Compressors/condensers.
- 26.8. ____ Warehouse racks.

27. ____ Has a specific list of government-furnished equipment been identified by the Region and HQ DeCA/OC? Is existing equipment, fixtures, and material being reutilized where designated?
28. ____ Have site plans been coordinated with the installation and if applicable, AAFES or NEXCOM for land utilization, impact on parking, and overall constructability with the master development plans for the area?
29. ____ Is the contractor responsible for ensuring that adequate ventilation will be maintained in all areas throughout the period of construction, including protection from noxious fumes and vapors that may occur during construction?
30. ____ Is issue of weather days and extensions for adverse weather specifically addressed to allow the Contracting Officer a rationale and defensible method for evaluating a contractor's claim for adverse weather conditions?
31. ____ Has the A-E reviewed the signed Memorandum of Understanding (MOU) between DeCA and the installation and coordinated the contract documents to specifically identify procedures and responsibilities with the installation?
- 31.1. ____ Are host installation responsibilities as agreed to for demolition, utilities extension, and environmental cleanup clearly defined?
- 31.2. ____ Do the contract documents address latent, unforeseen conditions such as buried asbestos materials and clarify responsibilities for dealing with them as agreed between DeCA and the installation?
32. ____ Does the project design and phasing plan clearly delineate which areas of the store will be available for use at all times?
33. ____ Does the A-E Statement of Work include adequate provisions in the investigative Phase (Services A) to identify potential environmental compliance actions required as part of the project? Are provisions included to sample and test potentially hazardous materials?
34. ____ Ensure A-E documents verify power requirements to support "temporary" refrigerated trailers for produce, meat, dairy products during phasing as applicable.
35. ____ Ensure contract documents make contractor fully responsible for dismantling, moving and reassembly of office furniture and equipment between phases.
36. ____ Ensure contract documents (phasing) require contractor to install "temporary" connections to all building systems so as to provide "zero-downtime" throughout all phases of construction.
37. ____ Sound attenuation blankets and dust barriers should be provided at all temporary 51 mm (2") x 102 mm (4") stud walls which enclose the sales area.
38. ____ Ensure that fire detection/suppression capabilities are maintained at all times during construction.
39. ____ Ensure that the required handicapped parking spaces are provided at all times.
40. ____ Ensure that contract documents include design and physical layout department moves, to include furniture and equipment, and mechanical, electrical and plumbing support.
41. ____ Contractor's phasing requirements shall comply fully with the project construction management/quality assurance plan.
42. ____ Ensure that all phasing elements, to include temporary moves, are included in the network analysis system.