

**BY ORDER OF THE COMMANDER
AIR FORCE SPACE COMMAND**



**AIR FORCE SPACE COMMAND
INSPECTION CHECKLIST 32-17**

1 MARCH 2000

Civil Engineering

ENGINEERING FLIGHT

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This checklist reflects Command requirements for Civil Engineer units to prepare for and conduct internal reviews.

SUMMARY OF REVISIONS

This checklist has been revised to update references and reduce the number of critical items, in accordance with recommendations from the CSAF Blue Ribbon Commission, Organizational Evaluations.

1. References have been provided for each critical item. Critical items have been kept to a minimum and are related to public law, safety, security, fiscal responsibility, and/or mission accomplishment. While compliance with non-critical items is not rated, these items help gauge the effectiveness/efficiency of the function.
2. This publication establishes a baseline checklist. The checklist will also be used by the Command IG during applicable assessments. AFSPC checklists will not be supplemented. Units may produce their own standalone checklists as needed to ensure an effective and thorough review of the OJT program. Use the attached checklist as a guide only. Add to or modify each area as needed, but not less stringent than the specified reference, to ensure an effective and thorough review of the unit Engineering Flight program. See [Attachment 1](#).

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The Civil Engineer

Attachment 1

ENGINEERING FLIGHT

Table A1.1. Checklist.

SECTION 1: ENGINEERING MANAGEMENT MISSION STATEMENT: Ensure professional and timely planning and execution of maintenance, repair, minor construction, Military Construction Program (MILCON) and Non-Appropriated Funded (NAF) design and construction requirements in support of both on-base and off-base customers; provide for the comprehensive planning of installation real property assets and institutionalizing facility excellence. <i>NOTE:</i> All references are from AFI 32-1021, unless otherwise noted.			
1.1. NON-CRITICAL ITEMS:	YES	NO	N/A
1.1.1. Do staff members have a copy of the “letter of delegation” for project approval indicating the installation commander’s authority and any authority delegated down the line? (Current AFSPC/CC delegation letter to Wing Commanders and subsequent delegation letters to GSUs)			
1.1.2. Is the BCE providing host installation support to tenant and GSU installations, including preparing programming documents and design engineering services? (AFI 32-1021, para 1.3.7)			
1.1.3. Does the BCE prepare program documentation for the tenant unit’s mission-related project requirements and forward to the host and tenant or support MAJCOM for validation? (AFI 32-1021, para 1.3.7.1)			
1.1.4. Has the BCE developed and maintained a Five-Year Plan for the Wing? (AFI 32-7062_AFSPCSUP1, para 1.3.6.1.8)			
1.1.5. Does the Five-Year Plan incorporate projects at the main operating base, supported sites, and geographically separated units within the Wing where applicable? (AFI 32-7062_AFSPCSUP1, para 4.1.5.2)			
1.1.6. Does the Five-Year Plan incorporate all O&M programs and MILCON projects? (AFI 32-7062_AFSPCSUP1, para 4.1.5.)			
1.1.7. Is the Five Year Plan validated and approved on an annual basis as an action of the Facilities Board, and has a copy of the final document been forwarded to AFSPC/CE annually NLT 1 Dec? (AFI 32-7062_AFSPCSUP1, para 1.3.6.1.8 and 4.1.5.3)			
SECTION 2: ENGINEERING DESIGN MISSION STATEMENT: Ensure professional and timely planning and execution of maintenance, repair, minor construction, Military Construction Program (MILCON) and Non-Appropriated Funded (NAF) design and construction requirements in support of both on-base and off-base customers; provide for the comprehensive planning of installation real property assets and institutionalizing facility excellence. <i>NOTE:</i> All references are from AFI 32-1023, unless otherwise noted.			
2.1. NON-CRITICAL ITEMS:	YES	NO	N/A

2.1.1. Are architect-engineer (A/E) fees for producing contract plans and specifications limited to six percent of the estimated cost of the construction project? (Para 3.3.1 and Title 10 USC, section 9540b)			
2.1.2. Are designs of new facilities in harmony with the installation's Facilities Excellence Plan? (para 1.3)			
2.1.3. Are standardized structural, mechanical and electrical systems and equipment used wherever practical? (para 1.5)			
2.1.4. Is the design and construction quality used for the facility suitable for the appropriate class of construction? (para 1.6.1 thru 1.6.3)			
2.1.5. Is all maintenance, repair, rehabilitation, alteration or construction work to a district, site, building, structure or object coordinated with the installation's Historic Preservation Plan for possible affects? (Para 1.7.3)			
2.1.6. When practical, are commercial standards used instead of government-developed standards and specifications? (para 1.8.)			
2.1.7. Do projects comply with Air Force standards for design/construction and Military Handbook 1190? (para 1.9)			
2.1.8. If applicable Air Force standards are not available, do projects comply with the current edition of the Uniform Building Code? (para 1.9)			
2.1.9. Are design decisions based on life-cycle cost considerations? (para 1.12)			
2.1.10. As Engineering Technical Letters (ETLs) are directive in nature and apply to all levels of command and all facilities constructed on Air Force installations except family housing, are the ETLs available for use? (para 2.1.2)			
2.1.11. Do A/E pre-selection and selection boards decide the specific professional qualifications and capabilities necessary to accomplish the statement-of-work? (para 3.5.1)			
2.1.12. Do the A/E pre-selection and selection boards consider the following evaluation factors listed in FAR 36.602-1 and DFARS 236.602-1? (para 3.5.2)			
2.1.12.1. Professional qualifications			
2.1.12.2. Specialized experience and technical competence			
2.1.12.3. Capacity for timely accomplishment of work			
2.1.12.4. Past performance			
2.1.12.5. Geographic location			
2.1.12.6. Volume of work the candidate has accomplished			
2.1.13. Is the chairperson of each board a registered professional engineer or architect? (para 3.5.5)			
2.1.14. Are measures in place to prevent any person from serving as a voting member on both boards? (para 3.5.6)			

2.1.15. Are the most current letters on approval authority delegation for A/E selection available? (para 3.6 and AFSPC/CE letters delegating authority)			
2.1.16. Is a Requirements and Management Plan (RAMP) prepared for each MILCON project on the installation? (para 4.2.4)			
2.1.17. Is the BCE correctly using Operations and Maintenance (O & M) funds to support advanced planning for MILCON projects? (para 5.5)			
2.1.18. Is the user involved in the design review process to ensure functional adequacy of the project? (Para 5.6)			
2.1.19. If a completely designed project has been delayed 120 days or more from going to the base contracting office, have the BCE, Contracting Officer and user jointly completed a design review before sending the package to contracting? (Para 5.6.3)			
2.1.20. Do all construction projects conform to Executive Order 11988, Flood Plains Management and 11990, Protection of Wetlands? (para 5.6.4)			
2.1.21. For MILCON designs, has the BCE verified the project satisfies mission needs, complies with the General Plan and meets environmental engineering along with maintenance requirements? (para 5.27)			
2.1.22. Are construction management responsibilities accomplished? (para 6.8)			
2.1.23. Are the procedures for inspecting, transferring and accepting constructed facilities followed? (para 6.10 thru 6.12)			
2.1.24. Does the BCE ensure quality assurance procedures are followed? (para 6.14)			
2.1.25. Do BCE personnel perform 1-year warranty evaluations? (para 6.15)			
SECTION 3: SIMPLIFIED ACQUISITION OF BASE ENGINEERING RESOURCES- MISSION STATEMENT: Ensure professional and timely planning and execution of maintenance, repair, minor construction, Military Construction Program (MILCON) and Non-Appropriated Funded (NAF) design and construction requirements in support of both on-base and off-base customers; provide for the comprehensive planning of installation real property assets and institutionalizing facility excellence. NOTE: All references are from the Simplified Acquisition of Base Engineer Resources (SABER) implementation guide, dated May 1992.			
3.1. CRITICAL ITEMS:	YES	NO	N/A
3.1.1. Is documentation, including cost comparisons, justifications and installation commander's approval available prior to issuing a DO that exceeds \$500,000? (Page 7)			
3.2. NON-CRITICAL ITEMS:	YES	NO	N/A

3.2.1. Are independent Government cost estimates based on the unit price book (UPB) developed? (Page 2)			
3.2.2. Does the UPB reflect local construction costs? (Page 3)			
3.2.3. If the delivery orders are adjusted for costs using a computer coefficient, is the adjustment based on an accepted industry index? (Page 3)			
3.2.4. Does the BCE use the SABER program to reduce the shop work order and contract backlogs requiring non-complex maintenance, repair and minor construction work? (Page 6)			
3.2.5. Is the SABER program not used to perform non-personnel services in conflict with the Service Contract Act? (Page 6)			
3.2.6. Do the delivery orders (DOs) follow the basic policy guidelines for SABER to include:			
3.2.6.1. A scope of \$2,000 to \$500,000? (Page 5)			
3.2.6.2. Minimum design requirements? (Page 5)			
3.2.6.3. Maximum of 10% pre-priced items – 25% with installation commander approval? (AFFARS Appx DD, par DD-104 dated Jun97)			
3.2.7. Do A/E or in-house design efforts reflect minimum design requirements for their use in the SABER program? (Page 8)			
3.2.8. Is documentation, including cost comparisons, justifications and the installation commander’s approval available prior to issuing a DO that exceeds the allowable percentage of pre-priced items? (Page 8)			
SECTION 4: FACILITIES EXCELLENCE MISSION STATEMENT: Ensure professional and timely planning and execution of maintenance, repair, minor construction, Military Construction Program (MILCON) and Non-Appropriated Funded (NAF) design and construction requirements in support of both on-base and off-base customers; provide for the comprehensive planning of installation real property assets and institutionalizing facility excellence. NOTE: All references are from the AFSPC Facilities Excellence Program and Standards Handbook - AFSPCH 32-1004, dated 2 Jan 96 and the AFSPC Facilities Excellence 2000 guide			
4.1. NON-CRITICAL ITEMS:	YES	NO	N/A
4.1.1. Does the installation have a current (updated within the last year) Facilities Excellence Plan (FEP)? (para 1.2.5.1)			
4.1.2. Does the FEP include definitive standards? (para 1.2.2.1.3)			
4.1.3. Does the FEP include all projects, prioritized by year and facility, for the following two years? (1.2.4.1)			
4.1.4. Has a procedure been established to ensure the standards are incorporated into all projects?			
4.1.5. Does the FEP remain stable despite changes in the installation leadership?			
4.1.6. Does all facility work recently accomplished conform to the standards in the FEP?			

4.1.7. Does the general, overall exterior appearance convey the policy that a professional military image is maintained throughout the installation as facilities are constructed or modified? (para 6.1.1.1)			
4.1.8. Do facility Structural Interior Designs (SID) and Comprehensive Interior Designs (CID) conform to the standards found in HQ AFCEE Interior Design Presentation Format Handbook? (para 7.3.2.1.)			
SECTION 5: COMPREHENSIVE PLANNING MISSION STATEMENT: Ensure professional and timely planning and execution of maintenance, repair, minor construction, Military Construction Program (MILCON) and Non-Appropriated Funded (NAF) design and construction requirements in support of both on-base and off-base customers; provide for the comprehensive planning of installation real property assets and institutionalizing facility excellence. NOTE: All references are from AFI 32-7062, Comprehensive Planning; AFI 32-7060, Interagency and Intergovernmental Coordination for Environmental Planning; AFI 32-7063, Air Installation Compatible Use Program and AFI 34-6002, Housing Community Plans as noted.			
5.1. NON-CRITICAL ITEMS:	YES	NO	N/A
5.1.1. To ensure compatibility, does the installation coordinate the Comprehensive Plan with planning activities and programs prepared by local, regional, state and national agencies which influence the installation? (AFI 32-7060, para 1.3.1 and AFI 32-7062, para 2.1)			
5.1.2. Does the installation with an active runway, maintain an Air Installation Compatible Use Program? (AFI 32-7062, para 1.3.4.2)			
5.1.3. Does the installation have a current Housing Community Plan (HCP) based on the latest housing market analysis requirements (AFI 32-6002)			
5.1.4. Are appropriate comprehensive plan documents developed, maintained, and implemented to optimize facility investments in support of installation mission requirements? (AFI 32-7062, para 1.3.6 and AFSPCI32-7062 para 1.3.6.1)			
SECTION 6: NONAPPROPRIATED FUND FACILITIES MISSION STATEMENT: Ensure professional and timely planning and execution of maintenance, repair, minor construction, Military Construction Program (MILCON) and Non-Appropriated Funded (NAF) design and construction requirements in support of both on-base and off-base customers; provide for the comprehensive planning of installation real property assets and institutionalizing facility excellence. NOTE: All references are from AFI 32-1022, Planning and Programming Non-appropriated Fund Facility Construction Projects, unless otherwise stated			
6.1. NON-CRITICAL ITEMS:	YES	NO	N/A
6.1.1. Does the BCE participate in the Needs Assessment Survey before finalizing the scope, functional layout and cost of a non-appropriated fund Services facility? (para 2.2)			

6.1.2. Are requirements appropriately planned and phased? (para 5.1.3)			
6.1.3. Are designs for NAF projects completed with NAF funds, except in those approved cases in which appropriated funds can be used? (para 5.2.1.2)			
6.1.4. Has the project been identified for the proper fund source? (para 3.2)			
6.1.5. Has every attempt been made to award for construction in the year of appropriation? (para 6.3.1)			
6.1.6. Has every attempt been made to construct to within 125% of the programmed amount? (para 6.5.1)			
SECTION 7. PROGRAMS DIVISION MISSION STATEMENT: Plans, validates, and programs all requirements for the Military Construction Program (MILCON), Real Property Maintenance Activities (RPMA), and other capital investment in the POM. Coordinates and integrates Civil Engineer budgets. Advocates and distributes resources assuring programs meet AFSPC and HQ USAF investment policy and program objectives. Assures the readiness of engineering forces including Explosive Ordnance Disposal (EOD), Disaster Preparedness, Fire Protection, and Prime BEEF programs.			
7.1. CRITICAL ITEMS:	YES	NO	N/A
7.1.1. Do Program Managers ensure anti-terrorism protective strategies are integrated in new and existing facility maintenance, repair, minor construction, and MILCON? (HQ USAF/CE memorandum dated 3 Dec 96 on Anti-terrorism Protective Features for Facilities and Installations)			
7.1.2. Are all projects approved at the proper level (based on dollar amount and work classification) in accordance with HQ AFSPC/CE Delegation of Project Approval Memo (5 Mar 97), 10 USC 2811, and AFI 32-1032 para. 4.4 (1 Sep 99)?			
7.2. NON-CRITICAL ITEMS:			
7.2.1. Is the PCMS database/ACES updated on a regular basis?	YES	NO	N/A
7.2.2. Are DD Forms 1391, Military Construction Project Data, reviewed and validated according to AFI 32-1021 para. 3.4 (12 May 94)?			
7.2.3. Are Military Construction projects prioritized according to the current Base General Plan?			
7.2.4. Are projects checked for development in accordance with MAJ-COM directions dated January 1994?			
7.2.5. Has a procedure been established for coordinating and tracking Requirements Documents and other planning documents to ensure all project requirements have been identified?			

7.2.6. Do base level programmers have copies of <u>Air Force Space Command Handbook for O&M Construction Program Planning & Execution</u> (HQ AFSPC/CEPP, January 1999) and the <u>AFSPC Military Construction Project Development Guide</u> (February 1999)?			
7.1.2.7. Are project files and documents maintained according to AFI 37-133, <i>Records Disposition, Volume 1, Responsibilities and Procedures, Volume 2, Standards</i> ?			
7.1.2.8. Are installations requesting and getting permission for temporary and relocatable facilities in accordance with AFI 32-1021, Chapter 6?			
7.1.2.9. Are installations keeping a current inventory of temporary and relocatable facilities in accordance with HQ USAF/ILE memo on Delegation of Authority to Extend Temporary Use Facilities (26 Apr 99) and SAF/MII memo on Delegation of Authority to Extend Temporary Use Facilities to MAJCOM/CEs (10 Feb 99)?			
7.1.2.10. Are the applicable documents listed in AFI 32-1022, Attachment 4, properly maintained for project approval and funding support for Nonappropriated Fund facilities?			
7.1.2.11. Are all applicable documents listed in Air Force Manual 32-10138, Chapter 4, included in the submittal package for MILCON projects?			
7.1.2.12. Is there a local system to track MAJCOM metrics?			
7.1.3. Is a procedure established to review MILCON priorities and get official approved project listing? (AFI 32-1021, para 3.8.2)			
7.1.4. Do installation programmers ensure no additional new work is programmed for a newly constructed facility within 12 months of BOD or 24 months (minor construction projects only) of funding without MAJCOM approval? (AFI 32-1032, para 3.4.2, para 5.3)			
7.1.5. Are economic analyses accomplished for all projects over \$2M (or are waivers obtained for such projects), and are these included in project packages submitted to MAJCOM for approval? (AFI 65-501, para 2.2)			