

15 NOVEMBER 2000



Civil Engineering

**DESIGN AND CONSTRUCTION STANDARDS -
USER GROUPS**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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OPR: 92 CES/CECC (Mr. Craig A. Popp)
Supersedes Fairchild AFB Instruction 32-015,
26 June 1997

Certified by: 92 CES/CC (Lt Col Juan Ibanez Jr.)
Pages: 7
Distribution: F

This instruction establishes project user groups, consisting of users, customers, and other base organizations that are actively involved with the design and construction phases of projects in the military construction (MILCON) and major nonappropriated fund (NAF) programs. Military family housing and other large facility construction or renovation projects will have user groups established at the discretion of the wing commander.

SUMMARY OF REVISIONS

This revision adds clarifying verbiage to the introduction and purpose paragraphs, changes “user group” to lower case throughout the instruction, updates office names/symbols/phone numbers of user group membership, adds an Antiterrorism/Force Protection member to the user group, adds clarifying verbiage to responsibilities of user group members, updates the list of typical design review stages, adds various items to the User Group Checklist. A “[” indicates revised material since the last edition.

1. PURPOSE. Establish a method of project review to ensure users, customers and other base organizations are actively involved with the design and construction phases of projects in the MILCON and major NAF programs. Military Family Housing and other large facility construction or renovation projects will have user groups established at the discretion of the wing commander as recommended by the civil engineer. All POL and flight line projects will have an established user group.

2. GENERAL. A user group is composed of facility users, engineers, designers, inspectors, and representatives of support organizations having an interest in the project. User groups will be assembled before development of the first draft of the requirements document (RD) is completed. If both co-chairpersons are not able to attend a scheduled user group meeting, the meeting will be canceled and rescheduled for a later date.

3. ASSIGNMENTS.

3.1. Listed below is the project's user group membership:

- 3.1.1. User Co-chairperson is the respective group commander.
- 3.1.2. Technical Co-chairperson, Assistant Civil Engineer, 92 CES/ACE, ext 2291.
- 3.1.3. User Unit Representative(s), as appointed by the User Co-chairperson.
- 3.1.4. Chief Engineer, 92 CES/CEC, ext 5847.
- 3.1.5. Base Project Manager, as assigned by Chief of Contract Development, 92 CES/CECC, ext 5847.
- 3.1.6. Base Construction Manager, as assigned by Chief, Contract Execution, 92 CES/CECE, ext 5847.
- 3.1.7. Civil Engineer Operations Representative(s), as assigned by Commander, Operations Flight, 92 CES/CEO, ext 2711.
- 3.1.8. Base Fire Department Representative (Technical Services), 92 CES/CEFT, ext 5135.
- 3.1.9. Wing Safety Office Representative(s) (Explosive, Flying and/or Ground Safety, as appropriate), 92 ARW/SE, ext 2141.
- 3.1.10. Environmental Specialist, as assigned by Chief, Environmental Flight, 92 CES/CEV, ext 2313.
- 3.1.11. Security Forces Representative, 92 SFS/CEM, ext 2115.
- 3.1.12. Antiterrorism/Force Protection Representative, 92 SFS/SFO, ext 5549.
- 3.1.13. Communications Representative, 92 CS/SCXP, ext 5487.
- 3.1.14. Bioenvironmental Engineer, 92 ADS/SGGB, ext 2391.
- 3.1.15. Contract Programmer, as assigned by Chief of Program Development, 92 CES/CECP, ext 5847.
- 3.1.16. 92d Logistics Group representative, as appropriate, 92 LG/CC, 5362.

3.2. Appointment of the User and Technical Co-chairpersons shall be in writing by 92 ARW/CC.

4. RESPONSIBILITIES.

4.1. User group members will participate in the design and construction phases of major projects. The group will meet regularly to review ongoing design/construction efforts and incorporate users' and other organizations' requirements into the project scope. The responsibilities of the group should include the following:

4.1.1. During design:

- 4.1.1.1. Participate in developing the RD.
- 4.1.1.2. Participate in the project definition phase to include the charrette (if held).
- 4.1.1.3. Review design submittals as appropriate for expertise of the individual members. The attached checklist can be used as guidance. Discuss any concerns with the facility design

among group members. If needed, justify changes in requirements to the user group co-chairpersons.

4.1.1.4. Attend design review conferences (typically held at the 10%, 30%, 60%, and 90% design stages). Present comments to the user group, who will recommend the action to be taken on each comment by the designer. The user group co-chairpersons will resolve conflicts or disagreements in the proposed action.

4.1.1.5. Monitor progress of comprehensive interior design and ensure furnishings are budgeted for and procured in coordination with facility completion date.

4.1.1.6. When possible, review the ready-to-advertise design to ensure comments and critical design items have been included.

4.1.2. During construction:

4.1.2.1. Establish a schedule with the civil engineer project manager to periodically visit construction sites. User groups should use the checklist during these visits.

4.1.2.2. Promptly identify to the user group co-chairpersons deficiencies or work no longer needed

JUAN IBANEZ, JR., Lt Col, USAF
Commander

Attachment 1**USER GROUP CHECKLIST**Miscellaneous:

Construction phasing/joint occupancy
Equipment layout/delivery schedule
One-time access into building for installation of oversized equipment
Security system/type/panel locations
TEMPEST/EMP/RFI requirements
Wheel loads for pavement design
Interior loads/safes/computers/special equipment
Raised flooring/height/location
Equipment support utility routing:
Compressed air/chilled water/electrical
Hoists/cranes/type/location/capacity/speeds
User-furnished equipment/user or contractor installed
Existing facility items to be retained by the user/Government prior to demolition
Future expansion plans (sizing HVAC/electrical)
Contractor provided training
Utility outage restrictions/elect/heat/water/etc.
Location of contractor's storage/staging area(s)
Sole source material requirements/justification
Maintenance Issues

Exterior:

Architectural compatibility – roofs/exterior walls/screen walls/painting exterior appurtenances/etc.
Doors - roll-up/telescoping/garage type/double/etc.
Loading docks/ramps
Lights - parking/building/pedestrian walkway
Control switch type/location
Signs - color/number
Sidewalk - location

Landscaping

Lawn sprinkler system/hose bibbs

Flagpole/lighting

Parking - adequate number/location

Security - fencing/gates/guard shack/entry control points

Antiterrorism/Force Protection measures

Electrical service entrance location/overhead/underground

Canopies

Airfield criteria – setbacks from runway/taxiways/aprons, height restrictions, etc.

Explosive safety clear zones

Architectural:

Functional relationships

Room layout/walls/doors

Systems furniture/comprehensive interior design (coordinate with electrical/communication connection points)

Handicapped requirements

Relocatable partitions

Flooring: carpet/tile/special covering/raised floors

Vaults/classified cleared rooms/type/level of classification

Door location/swing

Door locks - cipher/key/other

Window locations

Projection booths/rear screen capability

Room signs/bulletin boards/chalkboards

Louvers in doors/walls/location

Directory in lobby

Entry-control requirements

Storage/interior/exterior/location/special requirements

Mechanical:

Heating/ventilation/exhaust/air-conditioning/EMCS control system(s)

Special mechanical equipment/required location/special temperature and humidity requirements

Thermostat/humidistat control location

Adequate clearance to suspended duct/mechanical equipment

Special utilities/air/gas/chemical/meters/location

Floor drains/grease traps/location

Lavatories/showers/eyewash/faucets/locations

Refrigerated drinking fountains/locations

Water softener required

Location of diffusers

Special handling of industrial waste/paint thinners/acids

Mechanical room size/location

Fire Protection:

AFFF/deluge/other special suppression system

Fire sprinkler system

Fire alarm transmitter

Fire control panel/annunciator location

Electrical:

Light switches/locations/number

Emergency controls/switch/location

Electrical outlet type/location/number/load (factor in systems furniture)

Floor outlets/type/location/number/load (factor in systems furniture)

Panel requirements/location

Explosion proof requirements:

Switches/outlets/fixtures/locations/number/load

Dedicated power for computer/location/number/load

Special power/type/location/load

Grounding requirements/single point/isolated/static

Clocks/other wall-mounted equipment/location

Type of equipment requiring back-up power:

Emergency generator

Uninterruptible Power Source

Communications:

Radios/antenna/intercom

Public address/volume control/microphone/location

Entrance intercoms

Telephones for entrance to restricted areas

Telephone/computer outlet locations (factor in systems furniture)

Telephone board location

Spare cable pairs required

Hazardous environment area classification/requirements

Conditioned electrical power requirements

Lighting intensity/color correction/room use

Light fixture type/location/function

Task lighting type/location/function

Klaxon requirements – NAOC/B-52 crew alert (separate requirements for each)

User Requirements:

Room Signs – provide room names

Keying requirements – masters/submasters/etc.

Systems furniture – budget/order/delivery/setup/compatibility with interior design

Computers/Telephones – AF Form 3215 to identify telephone/computer requirements/budget/purchase/delivery/setup

Service Contracts – budget/identify requirements/initiate action for custodial/grounds maintenance/refuse collection/etc.

Special equipment - – budget/order/delivery/setup (projectors/security cameras/audio systems/etc.

Ribbon Cutting – plan/schedule/send invitations/etc.