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IN REPLY REFER TO:
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From: Commander, Naval Facilities Engineering Command
To: Distribution

Subj: STANDARD PROCEDURE FOR INTEGRATING NMCI SERVICE
INTO THE NAVY, MARINE CORPS, AND RESERVE MILITARY CONSTRUCTION
PROJECTS

Ref: (a) OPNAVINST 11010.20F, Facilities Projects Manual
(b) Navy MCON Programming Directive for POM 06
(c) USMC MCON Programming Directive for POM 06

Attach: (1) FY 04 and Beyond MCON / MCNR NMCI Guidance
(2) FY 03 and Earlier MCON/MCNR NMCI Guidance
(3) MCON / MCNR NMCI Connection Costs Template

1. Reference (a) provides detailed guidance for the administration of facilities projects at DON shore facilities. References (b) and (c) provide detailed guidance for the programming of DON military construction projects. The advent of the Navy and Marine Corps Intranet (NMCI) has generated the need to clarify the telecommunications requirements detailed in these references. Attachments (1), (2), and (3) provide these clarifications.
2. Attachment (1) provides general guidance, specific project development guidance, and defines appropriate design and construction criteria for FY04 and beyond projects.
3. Attachment (2) provides general guidance during the construction process for FY 03 and earlier projects.
4. Attachment (3) can be used to develop estimated building network equipment costs for new buildings that are completed after NMCI cutover of the major claimant. These are preliminary numbers and are subject to change. Since the NMCI contract is dynamic, see SOUTHWESTDIV website (under same title) for latest edition:
<<http://www.efdswww.navfac.navy.mil/05/05I/NMCI.htm>>.
5. The programming directive guidance for PR 07 will incorporate the content of this letter.
6. Points of contact are John W. Peltz, P.E., (757) 322-4208 and Richard J. Cofer, P.E., (757) 322-4447 in the Engineering Innovation and Criteria Office.


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FY 04 and Beyond MCON/MCNR NMCI Guidance

Use this guidance on all Navy and USMC Military Construction (MCON/MCNR) projects for FY 04 and beyond. The guidance may also relate to other facility projects with different funding sources such as UMC and Special Projects and may be applicable to other projects. For FY 03 and earlier projects, see “FY 03 and Earlier MCON/MCNR NMCI Guidance” in Attachment 2.

1.0 General Information

- 1.1 For MCON/MCNR projects, include funding for the telecommunication Inside Plant (ISP), and Outside Plant (OSP) infrastructure for voice, NMCI, and legacy systems.**
 - 1.1.1 ISP infrastructure includes outlets, jacks, cabling, conduit, cable trays, racks, cabinets, building protector assemblies, and passive termination devices such as patch panels and connector blocks.**
 - 1.1.2 OSP infrastructure includes items such as exterior cabling, ductbanks, manholes, and utility poles.**
- 1.2 For MCON/MCNR projects, do not include funding for active devices and equipment supporting voice and data systems. These devices are funded from “Other Procurement Navy” (OPN).**
 - 1.2.1 Active devices and equipment includes items such as computers, phones, switches, routers, multiplexers, and hubs.**
- 1.3 For MCON/MCNR projects, include funding for Protected Distribution Systems (PDS) ISP and OSP infrastructure. PDS is used to protect the transmission of unencrypted classified information such as the Secret Internet Protocol Router Network (SIPRNET).**
 - 1.3.1 Identify SIPRNET and PDS requirements as early as possible in the planning process. Design the PDS in accordance with Appendix E in the latest version of UFC 3-580-10 (currently a draft dated Sept 2003), “Design: Navy and Marine Corp Intranet (NMCI) Standard Construction Practices”. Exterior distribution of classified information is typically accomplished by encryption and exterior PDS would not be required. However, if exterior PDS is needed, then it will considerably increase the cost of the project’s OSP infrastructure.**
 - 1.3.2 Use “Other Procurement Navy” (OPN) to fund active devices and encryption equipment supporting SIPRNET.**

- 1.3.3 Establishing the PDS requirements, as well as developing and submitting the “PDS Approval Request” to SPAWARSYSCOM is considered planning and cannot be funded by MCON/MCNR projects. The development and submission of the required documentation is an activity responsibility and must be in accordance with IA PUB 5239-22, Information Assurance Protected Distribution System (PDS) Publication.
 - 1.3.3.1 The Activity POC and the Regional Engineer shall coordinate with SPAWARSYSCOM and with the EFD/EFA Project Manager with regards to the encryption requirements validation and equipment availability.
 - 1.3.3.2 SPAWARSYSCOM Code PMW 161 provides funding and purchases all encryption equipment. NOTE: New encryption equipment has a long lead time. This should be planned for if new equipment is required. Contact Garnet Smith, PMW 161, for guidance at (619) 524-7334 or via email to garnet.smith@navy.mil
- 1.3.4 Submitting “Request for Final Approval” of the PDS and classified system, including the funding, is an Activity responsibility and must be in accordance with IA PUB 5239-22, Information Assurance Protected Distribution System (PDS) Publication.
- 1.4 For MCON/MCNR projects, do not include funding for NMCI service connection or the recurring NMCI “seat” cost. MCON/MCNR will only provide the ISP/OSP infrastructure to support the Activity’s seat requirements.
 - 1.4.1 An NMCI seat is defined as any location where NMCI service will be ordered that will either be a permanent location for a computer (such as a typical workstation) or a location for a portal outlet where portal devices may be plugged in on a temporary or rotational basis (such as a work area in an aircraft hanger).
 - 1.4.1.1 A Batchelor Quarters (BQ) will have data outlets in each room; however, they will not have NMCI seats in every room. Instead, the NMCI connections will be limited to administration spaces that are required to connect to the NMCI network. Coordinate the requirements with the local BQ managers and the latest NAVFAC criteria on BQs.

1.4.1.2 The NMCI contract is currently limited to data only. Telephone (voice) service is an option in the NMCI contract that has not yet been implemented. Therefore, voice services must be coordinated with the Base Communications Officer (BCO) or G6 (USMC BCO).

1.4.2 Moving of personnel is not part of a MCON/MCNR project and is not paid for with MCON/MCNR funds. Program Managers must plan for numerous activities with respect to NMCI and the movement of personnel into a new facility. NMCI move-planning guidance can be found on the NMCI Services Help Desk at: http://www.nmci-isf.com/helpdesk_reqforms.htm.

1.4.3 NMCI is currently limited to supporting CAT 5e cabling to the work area (desktop). Requiring CAT 6 or fiber optic cable to the desktop will add additional cost to the project and is not supported by MCON/MCNR funding.

2.0 Planning (DD 1391 Development):

- 2.1 Include the ISP and OSP infrastructure in the MCON/MCNR project.
- 2.2 Coordinate with Navy activity Base Communications officer (BCO), G6 (USMC BCO), and NMCI Contractor for outside plant points of connection for voice, NMCI, and legacy systems.
- 2.3 Provide one telecommunication room for every 10,000 SF of usable space on each floor of a facility. In accordance with the latest version of UFC 3-580-10, each room shall be a dedicated NMCI/telecom room with a minimum size of 80 SF (10 feet x 8 feet) each. This space is in addition to the basic P-80 scope calculation. This additional scope (SF) shall be noted in the block 11 discussion of the total requirement to ensure the total scope (SF) is realized. Provide the spaces with independent heating and cooling (HVAC) systems. The HVAC systems are considered an additional cost and should be identified in block 9 of the DD 1391 as “built-in equipment” and described in block 10.
- 2.4 Include SIPRNET and PDS requirements in block 10 of the DD 1391. Interior and exterior PDS are considered an additional cost and should be identified in block 10.
- 2.5 Include an NMCI equipment and connection cost in “Equipment Under Other Appropriation” in Block 12b of the DD 1391 (OPN \$) to provide equipment in the new facility while still maintaining the existing network. Estimate this cost using the “MCON /MCNR NMCI Connection Costs Template” in Attachment 3. These are preliminary numbers and are

subject to change. See SOUTHWESTDIV website for latest edition: <http://www.efds.w.navy.mil/05/05I/NMCI.htm>. Include the number of NMCI seats in the cost description and identify the line as "NMCI connection cost; XXX seats.". Note: This line item may not be displayed in the Budget Book DD 1391 if it is less than \$1M.

3.0 Design and Construction:

The facility designer must coordinate with the Navy activity Base Communications Officer (BCO) or with the G6 (USMC BCO), and NMCI Site Manager/or NMCI Design Engineer during each design phase for voice, NMCI, and legacy system requirements.

The following paragraph is included in the draft of UFC-3-580-10, Design: Navy and Marine Corps Intranet (NMCI) Standard Construction Practices.

"1-2 Scope... Appropriate NMCI subject matter experts are available from the NMCI Contractor to assist Department of the Navy (DoN) designers and planners upon request. Contact the base NMCI Site Manager for the point of contact (POC) in the NMCI Base Area Network / Local Area Network (BAN/LAN) design team. The POC was formerly referred to as the Network and Communications Engineer (NCE). POC information is located on the SOUTHWESTDIV website at <http://www.efds.w.navy.mil/05/05I/NMCI.htm>."

3.1 Design shall be in accordance with the following criteria:

- 3.1.1 UFC 3-500-10, "Design: General Electrical Requirements" (09/03)
- 3.1.2 Draft UFC 3-580-10, "Design: Navy and Marine Corp Intranet (NMCI) Standard Construction Practices" (09/03).
- 3.1.3 Draft UFC 3-580-1, "Design: Interior Telecommunication Systems" (Replacement for MH 1012/3, 08/03).
- 3.1.4 Draft UFC 3-580-2, "Design: Exterior Telecommunication Systems" (Replacement for draft MH 1012/4, target 1/04).

3.2 Design / Build projects:

Include the following in the Design / Build RFP:

- 3.2.1 "In addition to the EIA/TIA standards for telecommunications, the architectural, structural, mechanical, plumbing, electrical and fire protection designs shall comply with the guidance in the latest

version of UFC-3-580-10 (currently a Draft, dated Sept 2003), entitled 'Design: Navy and Marine Corps Internet (NMCI) Standard Construction Practices'."

3.2.2 "The NMCI contractor shall be allowed access to the facility towards the end of construction (finishes 90% complete, rough-in 100% complete, Inside Plant (ISP) / Outside Plant (OSP) infrastructure in place) to provide equipment in the telecommunications rooms and make final connections. The construction contractor will be required to coordinate his efforts with the NMCI contractor to facilitate joint use of building spaces during the final phases of construction. After the Resident Officer in Charge of Construction (ROICC) has facilitated coordination meetings between the two contractors, the construction contractor shall, within one week, incorporate this effort of additional contractor coordination into his construction schedule to demonstrate his plan for maintaining the contract duration."

3.3 Design-Bid-Build projects:

3.3.1 Include the following in the design contract scope of work:

"In addition to the TIA/EIA standards for telecommunications, the architectural, structural, mechanical, plumbing, electrical and fire protection designs shall comply with the guidance in the latest version of UFC-3-580-10 (currently a Draft, dated Sept 2003), entitled 'Design: Navy and Marine Corps Internet (NMCI) Standard Construction Practices'."

3.3.2 Add the following requirements to the construction contract documents:

"The NMCI contractor shall be allowed access to the facility towards the end of construction (finishes 90% complete, rough-in 100% complete, Inside Plant (ISP) / Outside Plant (OSP) infrastructure in place) to install equipment in the telecommunications rooms and make final connections. The construction contractor will be required to coordinate his efforts with the NMCI contractor to facilitate joint use of building spaces during the final phases of construction. After the Resident Officer in Charge of Construction (ROICC) has facilitated coordination meetings between the two contractors, the construction contractor shall, within one week, incorporate this effort of additional contractor coordination into his construction schedule to demonstrate his plan for maintaining the contract duration."

FY 03 and Earlier MCON/MCNR NMCI Guidance

1.0 General Information

Because of recent **NMCI** contract modifications, the following scenarios on construction contracts that have already been awarded should be considered and change orders to the existing facility contracts may be required. (Note: **MCON/MCNR** can only fund infrastructure and not **NMCI** equipment).

- 1.1 If any FY-03 and Earlier project is still in design phase, refer to Attachment 1, “FY-04 and Beyond **MCON/MCNR** Guidance” for additional design information.
- 1.2 In many cases, FY-03 and earlier facility construction contracts will be complete prior to end of **NMCI** cutover. If the new tenants in the building will become **NMCI** users for the first time in this new building and **NMCI** has not wired their old building for **NMCI** service, then the new building equipment and connecting the new building to **NMCI** is covered in the basic contract. No additional Contract Line Item Number (**CLIN**) modifications to the **NMCI** contract should be required. This assumes that the **NMCI** Contractor will be able to accomplish this work in time to meet the end of the facility construction contract phase.

If the timing does not work out, then the Government can either wait for the **NMCI** Contractor to complete the work or the Government can complete the **NMCI** Contractor responsibilities and turn it over to **NMCI** when the Contractor is ready to make the connection to the network.

- 1.3 In some cases, FY-03 and earlier facility construction contracts will be completed after the end of **NMCI** cutover. If the majority of tenants in the new building are already **NMCI** users, then the new building will require a **CLIN** to the **NMCI** contract to provide at least the network equipment and connection to the **NMCI** network. In this case, the following modification to the existing facility contract will be required (if not already included in the contract documents):

“The **NMCI** contractor shall be allowed access to the new building towards the end of the new building construction (finishes 90% complete, rough-in 100% complete, Inside Plant (**ISP**) / Outside Plant (**OSP**) infrastructure in place) to install equipment in the telecommunications rooms and make final connections. The construction contractor will be required to coordinate his efforts with **NMCI** contractor to facilitate joint use of building spaces during the final phases of construction. After the Resident Officer in Charge of Construction (**ROICC**) has facilitated coordination meetings between the two contractors, the construction contractor shall, within one week, incorporate this effort of additional contractor coordination into his construction schedule to demonstrate his plan for maintaining the contract duration”.

- 1.4 Contact the **NMCI Program Management Office Facilities Team**, via Curt Kronberg at 619-532-1182 or at curt.kronberg@navy.mil for guidance on other specific scenarios.

MCON / MCNR NMCI Connection Costs Template

1. This guide is applicable for new buildings that are completed after NMCI cutover of the major claimant. For other scenarios, see the NMCI modification P-00062. These are preliminary numbers and are subject to change. See SOUTHWESTDIV website for latest edition: <http://www.efdswww.navfac.navy.mil/05/051/NMCI.htm>.
2. **BUILDING NETWORK EQUIPMENT COSTS (other than MCON/MCNR funding): ***

i. Unclassified.

	Secure Seats	Non-Secure Seats	Non-Secure Seats with SIPRNET
Number of Seats	Estimated Cost	Estimated Cost	Estimated Cost
1-100	\$ 20,000	\$ 40,000	\$ 60,000
101-200	\$ 25,000	\$ 40,000	\$ 60,000
201-300	\$ 35,000	\$ 50,000	\$ 60,000
301-400	\$ 50,000	\$ 50,000	\$ 75,000
401-500	\$ 75,000	\$ 75,000	\$ 75,000

ii. Classified.

Secure seats (SIPRNET) may require separate equipment, separate cabinets, and hardening of the communication closets.

- a. The table below provides the estimated additional costs for providing classified seat service.
- b. SPAWARSCOM Code PMW 161 provides funding and purchases all encryption equipment. Therefore, the cost of encryption equipment is not included in the table below.
- c. Use of encryption equipment may reduce the PDS requirement. NOTE: Establishing the PDS requirements should be clarified during the 1391 development process.

	Single Story Structures	Two Story Structures	Three or more Story Structures
Number of Classified Seats	Estimated Cost	Estimated Cost	Estimated Cost
1-100	\$ 15,000	\$ 30,000	\$ 45,000
101-200	\$ 20,000	\$ 30,000	\$ 45,000
201-300	\$ 30,000	\$ 40,000	\$ 45,000

* This covers purchase and installation of NMCI network equipment in building closets and does not include other costs related to Move-Add-Change scenarios. Other combinations can be interpolated. These costs do not include the security hardening required for the rooms containing the classified seats. The hardening costs are included in the MCON / MCNR Project.

3. **CONNECTIVITY COST PER SEAT (other than MCON/MCNR funding):**

- \$ 150.00 per seat (*this cost includes inspecting cable outlets, ringing out installed cables, connecting cables to network equipment and insuring final connectivity to the network*)

4. **INSIDE CABLE PLANT (ISP) AND OUTSIDE CABLE PLANT (OSP) (MCON/MCNR funding):**

- ISP and OSP should already be included in the MCON/MCNR construction project. See UFC 3-580-10, "Design: NMCI Standard Construction Practice".

5. **NMCI EQUIPMENT AND CONNECTION COSTS IN "EQUIPMENT UNDER OTHER APPROPRIATIONS":**

- **A. Building Network Equipment Costs**
 - i. **Unclassified** \$ _____
 - ii. **Classified (if required)** \$ _____
- **B. Connectivity Cost per Seat X # Seats** \$ _____
- **Total** \$ _____