STATEMENT OF OBJECTIVES

For

PREMISES WIRING UPGRADE, BUILDING 307

At

Joint Base Lewis-McChord, WA

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1. SCOPE. This Statement of Objectives (SOO) defines the requirements for the Contractor to engineer, furnish, install, and test (EFI&T) a premises wiring upgrade to new NIPR Cat-6 cabling for the building 307 (B307) at Joint Base Lewis-McChord (JBLM), WA. The premises wiring upgrade shall also include: replacing existing racks/rack cabinets and telecom grounding busbar, installing new AC power for the new rack cabinets, relocating existing wall-mount fibers to the new rack cabinets, and providing new Ethernet switch equipment. The Contractor shall remove all existing outdated and abandoned-in-place (AIP) Cat-3/Cat-5 cabling, existing racks/rack cabinets, and any residual materials from the building, and dispose of them accordingly.

2. GENERAL INFORMATION.

2.1 Place of Performance. The place of performance shall be JBLM , WA**.**

2.2 Performance Period. The period of performance for this project shall be determined based on the proposed schedule and the actual contract award date. All work shall be completed within the scheduled timeframe. Any request or justification for changes shall be made to the designated Government Contracting Officer (CO) in writing and must be approved by the Government CO.

2.3 Hours of Operation. The Contractor shall perform routine work during the normal duty hours of the base (normally Monday to Friday, 0730-1630 PST). However, mission requirements may necessitate work outside of normal hours, such as during maintenance windows, nights, and/or weekends, especially if existing services must be interrupted. Any site work requested by the Contractor to be performed outside of normal duty hours shall be coordinated in advance with the Government CO and the designated base Point of Contact (POC) for pre-approval.

2.4 Holidays/Down Days. The Contractor shall not perform work under this contract on federal holidays or site-specific down days unless expressly authorized by the Government CO and coordinated with the base POC.

3. GENERAL REQUIREMENTS. The Contractor shall provide all personnel, transportation, supervision, management, coordination, labor, and other incidentals for the entire premises wiring upgrade project. The Contractor shall coordinate with the base to obtain all necessary supports for successful project completion and to ensure mission continuity during implementation.

3.1 Site Coordination. The Contractor shall coordinate with the base POC a minimum of 10 business days prior to arrival on-site. The Integrated Product Team (IPT) members shall also be identified for this project, including the base POC, Contractor representatives, Government CO, 38 ES program manager, 627 CS/SCXP and SCOI, Directorate of Public Works (DPW), allied supports, and other base personnel as required.

3.2 Project Management. The Contractor shall identify by name a project manager (PM), who shall be the prime Contractor's employee, responsible as the single POC from award to final acceptance. The PM shall remain on site as necessary to ensure successful performance. The Contractor shall identify the PM's range of authority to act for the Contractor relating to daily contract operation.

3.3 Contractor Supervision. The Contractor shall be responsible for supervision of all contract personnel and performance of all Contractor-related functions.

3.4 Personnel Training and Certifications. All Contractor personnel identified to support this requirement shall be trained and/or certified on the systems involved in this effort. The Contractors performing the premises wiring upgrade must be BICSI Installer 2 and/or BICSI Technician certified. The Contractors performing electrical work must be US-licensed electricians. The Contractor shall be able to provide certifications or qualifications upon Government request.

3.5 Safety. The Contractor shall comply with all Federal, State, and Base security and safety laws, regulations, policies, and requirements. If at any time it is determined that equipment is unsafe and/or work is being performed in an unsafe manner, all work will be immediately suspended until the Contractor has corrected the problem to the satisfaction of the base. The Contractor shall meet with the base Safety Officer (SO) immediately upon arrival on site for review of the specific safety requirements prior to implementation.

3.6 Accident/Incident Reporting and Investigation. The Contractor shall record and report all available facts relating to each instance of injury to either Contractor or Government personnel to the base SO or POC unless otherwise stated in the SOO. The Contractor shall secure the scene of any accident and wreckage until released by the accident investigative authority through the base POC. If the Government elects to conduct an investigation of the incident, the Contractor shall cooperate fully and assist the Government personnel until the investigation is completed.

3.7 Security Clearances. There are no security requirements for performance of this project. It is the Government's responsibility to provide escorts. All Contractor personnel shall comply with established security procedures for entering an installation and its facilities. The Contractor personnel working under this project shall not require a security clearance but, as a minimum, shall have a favorable National Agency Check. However, if the proposed solution requires a need for access to Government system(s) requiring a higher security level, the Contractor shall ensure personnel have the proper security requirements at no additional cost to the Government.

3.8 Base Access. The Contractor shall coordinate with the base POC for base access/entry pass requirements and process a Site Visit Access Request Letter to obtain access to the base. This letter shall identify the name, home address, birth date and place, nationality, physical description, passport number, driver's license number or government issued identification (ID), social security number, etc. of the personnel who will be performing work on this project. This information is required to grant access to the base. If required by the base, the Contractor shall provide identification badges for their employees. All Contractor personnel shall wear these badges while on duty on the Government site. The badges shall identify the individual and company name, be clearly and distinctly marked as Contractor, and be in accordance with (IAW) the base regulations.

3.9 Identification/Marking. The Contractor shall clearly mark all Contractor-furnished Property/ Contract-furnished Equipment (CFP/CFE) with their company's name. The Contractor shall place an easily read, very visible sign (minimum 8.5" x 11") on large containers, construction equipment, or un-manned rental vehicles while on the base or Government installation indicating the company name and both the Contractor POCs and local telephone numbers.

3.10 Environmental Management. The Contractor shall comply with most stringent federal, state, local, and base environmental laws and regulations and Air Force policies, instructions, and plans. The Government is not exempt from compliance with environmental laws and regulations. The Contractor shall maintain an awareness of changing environmental regulatory requirements to avoid environmental deficiencies for activities on the base. The prime Contractor shall ensure their sub-contractors, if any, comply with these requirements.

3.11 Permits. The Contractor shall complete and process all permits as required to complete the installation. For example:

- Digging permit, AF Form 103 shall be submitted through the base Civil Engineering (CE) 21 calendar days in advance of any digging, trenching, boring, restoration and/or compacting activities.
- Base CE Work Clearance Request, AF Form 332 and Request for Environmental Impact Analysis, AF Form 813 required to complete the installation shall be submitted through the base CE 21 calendar days in advance of any construction activities.

3.12 System for Award Management (SAM). The Contractor shall report ALL contractor labor hours (including subcontractor labor hours) required for performance of services provided under this contract via a secure data collection site. The contractor is required to completely fill in all required data fields using the following web address https://www.sam.gov (*SAM replaces the previous ECMRA application hosted on http://www.ecmra.mil*.) Reporting inputs will be for the labor executed during the period of performance during each Government fiscal year (FY), which runs October 1 through September 30. While the inputs may be reported any time during the FY, all data shall be reported no later than October 31 of each calendar year. The Contractor may direct questions to the help desk.

3.13 Labor Compliance. The Contractor shall be responsible for complying with all Federal labor laws and with applicable regulations governing installation access.

3.14 In-brief and Out-brief. The Contractor shall conduct an in-brief with the IPT members prior to the start of implementation, as well as an out-brief after project completion. The in-brief shall cover all of the Contractor's implementation plans and necessary support requirements. The out-brief shall cover all equipment installations, implementation results, required maintenance, and warranties, at a minimum.

3.15 Work Area(s). At day's end, the Contractor shall remove all debris and surplus materials from the workplace. Equipment and materials required to complete the work effort may remain on site as long as they are organized/stored in a manner that does not cause a safety hazard.

3.16 Packaging, Handling, Storage, and Transportation. The Contractor shall be responsible for the packaging, handling, storage, transportation, staging, and deployment of any equipment and materials provided as part of this project. The Contractor shall coordinate with the base POC to identify any necessary base support, such as laydown and storage areas, and provide a plan for delivering all materials to the work site. The Contractor shall also be responsible for equipment inventory. The Contractor shall return all government-furnished laydown and storage areas to their original condition upon completion of the project. In addition, the Contractor shall be responsible for off-base disposal of residues and removed equipment IAW the base POC's instructions, Defense

Logistics Agency (DLA) and AFB policies, and federal, state, and local environmental laws and regulations.

3.17 Documentation. The Contractor shall verify the accuracy of all government-furnished documents and drawings. The Contractor shall comply with DoD security provisions and shall not divulge any government-furnished documentation or other knowledge that may be gained to anyone who is not authorized to have access to such information. All Contractor deliverables shall be marked IAW DoDM 5200.01, Vol. 3 & Vol. 4, Information Security, and DoDM 5400.07, Freedom of Information Act Program, unless otherwise directed by the Government.

3.18 Implementation. The Contractor shall have ultimate responsibility for the successful completion of the project. Any work deemed non-compliant shall be reworked immediately at the Contractor's expense. The Contractor shall plan and manage daily operations and activities associated with project performance. The Contractor will employ effective management tools and methods to ensure control of cost, schedule, and performance. The Contractor shall conduct, support, and/or participate in program management and technical reviews, meetings, and conferences, as required, to ensure the effective and efficient execution of this project. The Contractor shall ensure the protection of government property to prevent damage during project performance.

4. SPECIFIC REQUIREMENTS. The Contractor shall provide all equipment, tools, supplies, materials, hardware, licensing, documentation, manuals, and services necessary for the completion of the project. The Contractor shall comply with all current ANSI/TIA telecommunications installation and testing commercial standards, as well as JBLM construction standards. All upgrade equipment, supplies, hardware, and materials shall be new and not refurbished.

4.1 Sustainment. It is required that all purchased equipment be maintainable and supportable for at least five (5) years. Government Re-use Equipment (GRE) does not have to meet this requirement.

4.2 Standards. All installations, including rack cabinets, racks, cabling (communications, power, grounding, etc.), equipment, pathways, raceways, cable management, patch panels, and related hardware/components, shall be IAW the JLBM standards and the standards referenced in Appendix A, Applicable Documents and Standards. In secure areas, all installations shall comply with AFSSI 7702 "Emission Security Countermeasures" and NSTISSAM Tempest/2-95 "NSTISSAM Red/Black Installation Guidelines."

4.3 Labelling. All equipment, rack cabinets, racks, cables, faceplates, patch panels, powers, and relevant components shall be labeled appropriately IAW the JBLM standards and the standards referenced in Appendix B, Labeling Standards, as well as the current version of TIA-606. All labeling shall be completed using a permanent method; handwritten labeling shall not be authorized.

4.4 Rack Cabinet. The Contractor shall remove all existing racks/rack cabinets and associated equipment in the B307 Comm Room as shown in Attachment A, Figure-ATT-5, Existing Racks/Rack Cabinets in B307 Comm Room and coordinate with the base POC and CE prior to removal. The Contractor shall provide three (3) new 19-inch, 42U, 29.53" (W) x 42.13" (D), 4-post, adjustable-depth, floor-mounted, lockable rack cabinets (APC AR3150B2 or equivalent), IAW

the current version of EIA/ECA-310 standard, and securely install it to the true floor at the proposed locations in the Comm Room as shown in Attachment A, Figure ATT-2, B307 Comm Room with New Rack Cabinet Layout. The new rack cabinet shall include ventilated doors, top cover plates with fan module and cable entry brush, M6 screw & cage nut set, vertical potential equalization bonding busbar (vertical rack bonding busbar), rack bonding conductors, horizontal finger duct cable managers with covers, vertical finger duct cable managers with covers, rear vertical PDU/accessory bars, blank panels, and all other associated accessories. All equipment rack rails shall be telecommunications-style rails that are unpainted and have drilled and tapped mounting holes IAW DISN Implementation Standards, Chapters 2.7.20 to 2.7.26. The rack cabinet installation shall align as closely as possible to the new cable ladder to facilitate cabling installation and shall be properly bonded and grounded to the new secondary bonding busbar (SBB) in the Comm Room.

4.5 Rack Cabinet AC Powers. The AC power distribution configuration without uninterruptable power supply (UPS) for each of the new rack cabinets is shown in Attachment A, Figure ATT-4, Typical Rack Cabinet AC Power Distribution Configuration without UPS.

4.5.1 Utility AC Power. The Contractor shall provide two (2) dedicated utilities 240VAC 30A NEMA L6-30R twist-lock single-receptacle outlets and install one (1) for utility AC power in each of the two new rack cabinets RC-01 and 02. The Contractor shall provide and install one (1) dedicated utilities 120VAC 30A NEMA L5-30R twist-lock single-receptacle outlet for utility AC power in the new rack cabinet RC-03. The new utility AC power outlet installation shall include AC circuit breakers and circuit extensions, run in electrical metallic tubing (EMT), from the building's nearest existing utility electrical breaker panel to the receptacle outlets. The Contractor shall coordinate with the base POC and DPW for any removal, modification, and/or installation of electrical power, as well as the provision of AC power source circuits at the utility electrical breaker panel that are capable of supporting a full suite of equipment in each new rack cabinet. All electrical work shall be performed by a US-licensed electrician and comply with all applicable codes and standards, including but not limited to, NEC, NFPA 70, UL Listing, UFC 3-520-01, and base requirements. The Contractor shall properly label all electrical work at the utility electrical breaker panel with room and rack cabinet identification, and at the rack cabinet end with corresponding panel and circuit information.

4.5.2 Power Distribution Unit (PDU). The Contractor shall provide two (2) new TAA-compliant, vertical rack-mount 240VAC 30A NEMA L6-30P PDU (Eaton EMI104-10 or equivalent) and install one (1) in each of the two new rack cabinets RC-01 and 02 for AC power distribution to the rack cabinet equipment. The Contractor shall provide and install one (1) new TAA-compliant, vertical rack-mount 120VAC 30A NEMA L5-30P PDU (Eaton EMI102-10 or equivalent) in the new rack cabinet RC-03.

4.6 Ethernet Switch Equipment. The Contractor shall procure the following new Ethernet switch equipment and provide them to the base POC and 627 CS/SCOI for installation, commissioning, configuration, and integration of the switches into the base network. All the new Ethernet switch equipment must be TAA-compliant. The Contractor shall verify the equipment models with the base POC and 627 CS/SCOI prior to procurement.

- Four (4) Juniper EX4400-48MP Multigigabit 48-port PoE++ Switches, each comes with a preinstalled 1600W AC power supply

- One (1) Juniper EX4400-EM-4S 4-port 1GbE/10GbE SFP+ Network Uplink Module
- Four (4) Juniper 50CM QSFP28 100GB Virtual Chassis Stacking Cables

4.7 Bonding and Grounding. All new rack cabinets with rack bonding busbars, as well as all equipment, cable trays, ladders, and risers, shall be bonded and grounded to the building grounding system IAW Mil-Hdbk-419A, Vol. I and II, or the current version of TIA-607. The Technical Order (TO) 31-10-24, "Installation Practices – Communication Systems Grounding, Bonding, and Shielding," shall also be adhered to. The Contractor shall provide and install one (1) new 2" W x 1/4" T x 12" L secondary bonding busbar (SBB) in the B307 Comm Room. The Contractor shall provide a new, insulated, minimum-sized bonding copper conductor of #3/0 AWG and properly bond and ground the new SBB to the B307's existing primary bonding busbar (PBB) or telecom bonding backbone (TBB), and coordinate with the base POC and CE for locations of the PBB or TBB in the B307. The Contractor shall then provide new, insulated, minimum-sized bonding copper conductors of #6 AWG and properly bond and ground the new rack cabinets' rack bonding busbar to the SBB. All bonding and grounding conductors shall be continuous and routed in the shortest practical straight-line path. The Contractor shall test and document all new or extended grounding points at each new rack cabinet and at any new bonding locations. The Government reserves the right to perform verification testing to ensure compliance.

4.8 Fiber Relocation. The existing wall-mount fiber optic patch panels (FOPPs) are shown in Attachment A, Figure 6, Existing Wall-Mount SM/MM ST FOPPs, and the proposed face equipment layout for each new rack cabinet is shown in Attachment A, Figure ATT-3, Proposed New Rack Cabinet Face Equipment Layout. The Contractor shall relocate two (2) existing 48-port SM/MM ST FOPPs and their associated fiber cables from the current wall-mount locations to the new rack cabinet RC-03 and reconnect the fibers to the same ports on these existing FOPPs. The Contractor shall then provide and install a new 12-port SM ST FOPP in the new rack cabinet RC-01, remove the existing 12-port SM ST FOPP and its associated fiber cable from the current wall-mount location, and reconnect the fibers to the corresponding ports on this new FOPP.

4.9 Structured Cable Pathway. The Contractor shall provide and install all new, necessary cable pathway support hardware for the entire NIPR Cat-6 cable runs, including but not limited to, cable trays, ladders, risers, drop-outs, caddy straps/slings, J-hooks, conduits, ducts, sleeves, raceways, and wireways, IAW industry and installation standards. All penetrations through fire-rated walls, floors, or ceilings shall have fire-stop sleeves installed IAW fire safety codes. The proposed new main above-ceiling Cat-6 cable tray pathway is shown in Attachment A, Figure ATT-1, B307 Premises Wiring Upgrade with New Drop Location Layout, with the basket-type cable tray preferred for this main cable pathway installation. The proposed new cable ladder in the Comm Room is shown in Attachment A, Figure ATT-2, B307 Comm Room with New Rack Cabinet Layout, with the cable ladder size preferred at 12" wide. The Contractor shall ensure that the cable pathway support hardware is properly sized, with the calculated maximum fill ratio and/or non-continuous cable support (J-hooks or caddy straps/slings) intervals IAW UFC 3-580-01. All cable tray, ladder, and riser sections shall be properly bonded together and grounded to the building grounding system.

4.10 Structured Cat-6 Copper Cabling. The layout of the new Cat-6 drop outlets/locations for B307 is shown in Attachment A, Figure ATT-1, and the proposed face equipment layout for each new rack cabinet is shown in Attachment A, Figure ATT-3. There is a total of 198 new NIPR cat-6

dual-drop outlets required for the building, resulting in a total of 396 drop cables. The drop locations indicated on the layout are approximate and not to scale.

4.10.1 The Contractor shall provide all new cables, termination hardware, connections, and other associated components, which must be Cat-6 compliant. All Cat-6 cables shall be unshielded twisted pair (UTP) and made of solid pure copper wire no smaller than 24 AWG. Plenum-rated Cat-6 cables shall be utilized where required by industry and applicable standards.

4.10.2 All Cat-6 cables shall be wired and terminated using the T568B wiring scheme. The Contractor shall verify the wiring scheme with the base POC and 627 CS/SCXP prior to installation. All Cat-6 cable installations shall be tested IAW the current version of TIA-568.2 to meet wiremap, length, and performance specifications.

4.10.3 All Cat-6 cable jackets and outlets, including patch cords, shall adhere to the JBLM color-coding scheme for identifying classification levels or networks (e.g., blue for NIPRNet and red for SIPRNet). The Contractor shall verify the color-coding scheme with the base POC and 627 CS/SCXP prior to installation.

4.10.4 All Cat-6 labeling shall be IAW the JBLM standards or the standards referenced in Appendix B, Labeling Standards. The Contractor shall verify the labeling scheme with the base POC and 627 CS/SCXP prior to installation. All labeling must be completed using a permanent method; handwritten labeling is not authorized.

4.10.5 The Contractor shall provide nine (9) new UTP 48-port Cat-6 patch panels and install four (4) in the new rack cabinet RC-01 and five (5) in the new rack cabinet RC-02. The Contractor shall also install new horizontal cable managers for the patch panels, along with new vertical cable managers, to keep the cable runs and patch cords organized and routed neatly within the new rack cabinets.

4.10.6 Unless otherwise noted, all Cat-6 cables from the new drop locations shall be routed directly through the installed structured cable pathway supports to the new Cat-6 patch panels in the new rack cabinets. These cables shall be terminated at both the Cat-6 patch panels and the faceplates at the drop locations. All Cat-6 cabling shall adhere to the same wiring and termination standards, and no cable run shall exceed 295 ft (90 m) in length.

4.10.7 All Cat-6 cables shall be routed in a structured and orderly manner and secured within cable pathway support hardware. All Cat-6 cables shall be fanned and formed using Velcro straps to support the cabling.

4.10.8 The Contractor shall provide and install new Cat-6 patch cords for cross-connections within the rack cabinet, from the Cat-6 patch panels to the network Ethernet switches for all drops. These patch cords shall be pre-made in the same length or in a variety of lengths.

4.10.9 If surface-mounted raceway is installed on wall surfaces, the surface-mounted raceway shall be secured with appropriate anchor and screw hardware and be “off-white” in color unless otherwise noted. The surface-mounted raceway installed with adhesive tape is not authorized.

4.10.10 The existing cable routes within the walls shall be reused where possible, provided they are within the general location of user drops.

4.10.11 The Contractor shall fire-stop all cable entrances that are cut, drilled, or core-drilled into walls IAW industry and safety codes.

4.10.12 New drop installations shall be positioned at a mounting height above the finished floor IAW the base building codes and Architectural Barriers Act (ABA) compliance to allow for easy access for user patch cord connections (18 in as general practice).

4.10.13 All Cat-6 cables shall be protected from rough or sharp edges and burrs when routed through cable openings. All penetrations into the rack cabinet must be reamed, filed, and fitted with bushings or grommets. No exposed metal edges shall come into contact with the Cat-6 cabling.

4.10.14 The Contractor shall verify the specific required lengths of Cat-6 patch cords from the drop locations' faceplates to user network devices (e.g., laptop, desktop, printer) and provide and install new Cat-6 patch cords for these connections. These patch cords shall be pre-made in a variety of lengths. The Contractor shall ensure that the total length of the cable run, cross-connection patch cord, and user-connection patch cord does not exceed 328 ft (100 m).

4.10.15 The Contractor shall remove the existing outdated and AIP Cat-3/Cat-5 cabling, including any residual materials, from the building. For the voice analog cabling, the Contractor shall coordinate with the base POC and 627 CS/SCXP prior to removal. If the existing cables are removed from a drop location and either no longer need to be replaced with new Cat-6 cables or cannot be replaced, the drop location shall be covered with a blank faceplate.

4.11 Removal and Disposal. The Contractor shall provide for the removal and disposal of any existing equipment, cabinets, racks, cabling, hardware, and associated termination equipment, including all residues, IAW the base POC's instructions. All removed and excess Automatic Data Processing Equipment (ADPE) shall remain U.S. government property. The Contractor shall retain such equipment as spares for the Government or dispose of them off/on-base IAW the base POC's instructions. The Contractor must ensure compliance with DLA and AFB policies, as well as any relevant federal, state, and local environmental laws and regulations regarding disposal.

4.12 Restoration. The Contractor shall restore all disturbed areas and base property to the "as found" conditions or better after installation. Any wall penetrations shall be restored to meet the NFPA 1, NFPA 70, and/or base standards.

4.13 Service Outages. The Contractor shall be responsible for preventing any unscheduled interruptions of services caused by the Contractor (i.e., cutting or disabling any in-service cables or equipment) that are properly identified. The Contractor shall minimize downtime and interruptions to network services for base customers as much as possible during installation. If the implementation necessitates a disruption of service (e.g., communications, electrical, or other utilities), the Contractor shall coordinate planned outages with the base POC at least 2 calendar days in advance.

4.14 Contractor Furnished Materials. The Contractor shall furnish all new materials for this project, except for equipment and/or hardware currently owned or leased by the Government. The

materials and/or equipment specified by the Contractor must interface properly with existing Government equipment identified for reutilization. Unless otherwise specified, the Contractor shall provide copies of commercial-off-the-shelf (COTS) technical or equipment manuals, warranty documentation, and maintenance procedures for the Contractor-furnished end-item system equipment. The Contractor shall transfer warranties to the Government upon project acceptance.

4.15 Warranty. The Contractor shall provide warranty services for workmanship deficiencies and installed equipment for a minimum period of one (1) year, starting from the date of final acceptance. The Contractor shall provide written procedures and required information for warranty services in the final acceptance form or as an attachment to the final acceptance form at or prior to site acceptance. This information shall include, but is not limited to, written confirmation of the warranty period, as well as phone numbers, contact information, and procedures for technical support, troubleshooting assistance, and replacement of faulty equipment.

4.16 Manuals and Practice. The Contractor shall provide the base POC and 627 CS/SCXP with the latest versions of operation, installation, and maintenance manuals and practices as supplied by the OEM for all new equipment installed for this project.

4.17 Quality Assurance. The Contractor shall provide a Quality Control Plan for the duration of the project. The Contractor's quality assurance evaluator shall assist the Government representative in performing random spot checks and system acceptance tests. The Contractor shall be responsible for identifying system and outside plant deficiencies and/or discrepancies throughout the project. A weekly soft copy report shall be submitted, indicating progress/status and listing any deficiencies and/or discrepancies found, along with actions taken to correct them (CDRL A003). The Government reserves the right to perform inspections of the Contractor's work during any and all phases of the installation.

4.18 Weekly IPT Meeting. The Contractor shall chair a weekly IPT meeting. The Contractor shall provide an agenda and a worldwide "Meet Me" teleconference capability for the duration of the project. The purpose of the IPT meeting is to discuss project progress, any issues encountered, any support needed, and other information essential to ensure the success and timely completion of contract requirements. The Contractor shall record meeting minutes and distribute them IAW CDRL A004.

4.19 Weekly Status Reports. The Contractor shall prepare a weekly status report and distribute it IAW CDRL A003. The purpose of the report is to inform IPT members of project progress, problems encountered, and other topics necessary to ensure the success and timely completion of contract requirements. The Status Report and meeting agenda may be combined, provided that the resulting report contains all required elements and sufficient detail to serve as a project record.

4.20 Project Schedules. The Contractor shall provide a complete milestone schedule that outlines project activities, including time-phased start and completion dates for the project and its associated sub-projects relating to the installation (CDRL A002). The Contractor shall establish a preliminary project schedule/plan and submit it with the technical proposal**.**

4.21 Test Plan. The Contractor shall provide a test plan clearly detailing how the upgraded premises wiring will be pre-tested, in-progress tested, and post-tested (CDRL A005). The Contractor shall test the upgraded premises wiring to demonstrate to the Government that it is

correctly installed, properly functioning, fully compliant with standards, and meet or exceed all performance parameters and specified requirements. These tests shall be completed prior to cutover and placement into service.

4.22 Testing Requirements. The Contractor shall provide all test equipment and personnel required to conduct testing and ensure compliance with the JBLM standards and the standards referenced in Appendix A, Applicable Documents and Standards. During any testing phase, the Government reserves the right to perform any of the inspections and tests conducted by the Contractor to ensure that solutions conform to the prescribed requirements. The Contractor shall provide on-site support during acceptance testing.

4.23 Test Report. The Contractor shall document and provide a test report of all results from the testing completed under the test plan to the base POC and 627 CS/SCXP (CDRL A006).

4.24 As-Built Drawings. The Contractor shall provide clear drawings showing the "as-built" condition in Visio and PDF formats (CDRL A001). The drawings shall depict the details of the entire premises wiring upgrade, including, but not limited to, entrance/equipment/comm room locations, rack cabinets, drop locations, drop outlet numbers, rack elevation, pathways, labeling, cabling, wiring, cross-connections, patch panels, grounding, and other relevant details.

4.25 Final Acceptance/Project Completion. The final acceptance shall conclude upon the successful completion and receipt of all deliverables. The Contractor shall schedule a final project walkthrough with the base POC, Government CO, and 627 CS/SCXP at least five (5) calendar days prior to acceptance. The Government reserves the right to refuse final acceptance until all discrepancies and problems have been resolved to its satisfaction.

4.26 Deliverables. All deliverables are subject to Government acceptance and approval. They shall meet the professional standards and requirements set forth in this SOO. All deliverables shall be produced using software tools and versions recommended and accepted by the Government. The Contractor shall submit the following deliverables:

Table 1. Contract Data Requirement List (CDRL)

CDRL	Data Item Title	**Data Item Title**
A001	As Built	DI-DRPR-80151A/T
A002	Work Schedule	DI-MISC-81382/T
A003	Status Report	DI-MGMT-80368A
A004	Meeting Minutes	DI-ADMIN-81505/T
A005	Cutover and Test Plan	DI-NDTI-80566A/T
A006	Test Report	DI-QCIC-80512

5. GOVERNMENT-FURNISHED PROPERTY, EQUIPMENT, AND SERVICES. The Contractor shall coordinate with the base POC to identify and ensure that all necessary support is provided by the Government prior to implementation. The Government shall support and provide the following for the premises wiring upgrade, including, but not limited to:

- Provide the B307 floor plan layout

APPENDIX A. APPLICABLE DOCUMENTS AND STANDARDS

The Contractor shall comply with all military and commercial standards where applicable. Other commercial standards may apply to individual projects and will be specified in the respective task orders. In the event of a conflict between a commercial document and a Federal or Military Standard, the Federal or Military Standard shall take precedence. It is the Contractor's responsibility to identify and obtain the applicable standards proposed for the project in the SOO.

The following tables are not all-inclusive lists of standards. The Contractor shall obtain and comply with any other applicable manuals not identified in these tables that are required to meet industry standards.

Table A-1. Federal Government Standards

NUMBER	TITLE	WEBSITE OR LOCATION
OSHA	Occupational Safety and Health Administration (OSHA)	http://www.osha.gov
OSHA CFR 29 Part 1910-268 - (1988)	Telecommunications	
EPA	Environmental Protection Agency (EPA)	http://www.epa.gov/
EPA	EPA Rules, Regulations, and Legislation	
ABA/ADA	Architectural Barriers/Americans with Disabilities Acts	
DODD 5220.22	DOD Industrial Security Program Directive	
DOD JTA ver. 4	Department of Defense Joint Technical Architecture	
AFI 31-101	The Air Force Installation Security Plan	

Table A-2. Military Standards

NUMBER	TITLE
MIL-STD-188-154A	Subsystem, Equipment, and Interface Standards for Common Long Haul and Tactical Telecommunications Control Facilities
MIL-STD-188-124B	Grounding, Bonding and Shielding for Common Long Haul/Tactical Communications Systems
MIL-HDBK 419A, Vol. I and II	Grounding, Bonding, and Shielding for Electronic Equipment and Facilities
MIL-HDBK-232A	Red/Black Engineering Installation Guidelines
MIL-HDBK-411B	Power and the Environment for Sensitive DoD Electronic Equipment
AFI 32-1065	Grounding Bonding and Shielding for Electronic Equipment and Facilities
AFI 91-203	Air Force Consolidated Occupational Safety Instruction
MIL-HDBK-1857	Grounding, Bonding and Shielding Design Practices
MIL-HDBK-454B	General Guidelines for Electronics Equipment
UFC 3-580-01	Telecommunications Interior Infrastructure Planning and Design
Local Standards	Joint Base Lewis-McChord Construction Standards

(Copies of the above documents may be obtained from the Naval Publications and Forms Center (NPFC 105), 5801 Tabor Ave, Philadelphia PA 19120.)

Table A-3. Commercial Standards and Manuals

NUMBER	TITLE	WEBSITE OR LOCATION
BICSI TDM Manual	Building Industry Consulting Service International, Inc. (BICSI) Telecommunications Distribution Methods (TDM) Manual	http://www.bicsi.org/
NFPA 70	National Fire Protection Association (NFPA) National Electric Code (NEC)	http://www.nfpa.org/
NFPA 72	National Fire Alarm Code	
EIA/ECA-310-E	Racks, Panels and Associated Equipment	http://www.eia.org/ http://www.tiaonline.org/
TIA-526-7	Measurement of Optical Power Loss of Installed Single-mode Fiber Cable Plant	
TIA-526-14-B	Optical Power Loss Measurement of Installed Multimode Fiber Cable Plant	
ANSI/TIA 568.0-E	Generic Telecommunications Cabling for Customer Premises	
ANSI/TIA-568.1-E	Commercial Building Telecommunications Cabling Standard	
ANSI/TIA-568.2-E	Balanced Twisted-Pair Telecommunications Cabling and Components Standard	
ANSI/TIA-568.3-E	Optical Fiber Cabling Components Standard	
ANSI/TIA 569-E	Telecommunications Pathways and Spaces Standard	
TIA-570-D	Residential Telecommunications Infrastructure Standard	
TIA-598-C	Optical Fiber Cable Color Coding	
ANSI/TIA-606-C	Administration/Labelling Standards for the Telecommunications Infrastructure of Commercial	
TIA/EIA-607-D	Generic Telecommunications Grounding and Bonding (Earthing) for Customer Premises	
TIA-758-B	Customer-owned Outside Plant Telecommunications Infrastructure	
ANSI/TIA-862-D	Structured Cabling Infrastructure Standard for Intelligent Building System	
ANSI/TIA-942-C	Telecommunications Infrastructure Standard for Data Centers	
ANSI/NECA/BICSI -002	Data Center Design and Implementation Best Practices	
RUS Bulletin 1751F-801	Electrical Protection Fundamentals	
RUS Bulletin 1753F-201 (PC-4)	RUS Standard for Acceptance Tests and Measurements of Telecommunications Plant	
RUS Bulletin 1753F-207 (PE-	REA Specification for Terminating Cables	
TIA-604 Series	Fiber Optic Connector Intermateability Standard (FOCIS)	

APPENDIX B. LABELING STANDARDS

B.1 LAN Faceplate Labeling.

B.1.1 Two Position UTP Wall Plate.

ROOM Actual room number from the facility drawings at time of design.

TELECOM ROOM (TR) Actual TR or Equipment Room where the end of the wall plate cables terminate. In existing facilities with no TR numbers, the TR room identifier shall be floor number, room number where room number starts with the letter A with additional TR labeled B, C etc.

RACK # Actual Rack number that contains the patch panel where the cable terminates.
PATCH PANEL # Actual patch panel number.
PORT #'s Actual port numbers in the patch panel.

The bottom position of the UTP wall plate shall be marked with the Room Number that the wall plate is installed. This information is reflected in the site cable plan.

Top Position Example:

110-1-1-1, 2
TR 110
Rack # 1
Patch Panel # 1
Port #'s 1, 2 (On the patch panel)

Bottom Position Example:

32 = Room Number (Actual room # from the cable plan and facility drawings at time of design)

Top Position Example: (no comm. room identifier)

1A-1-1-1, 2 = TR 1A, Rack # 1, Patch Panel # 1, Port #'s 1, 2 (On the patch panel)

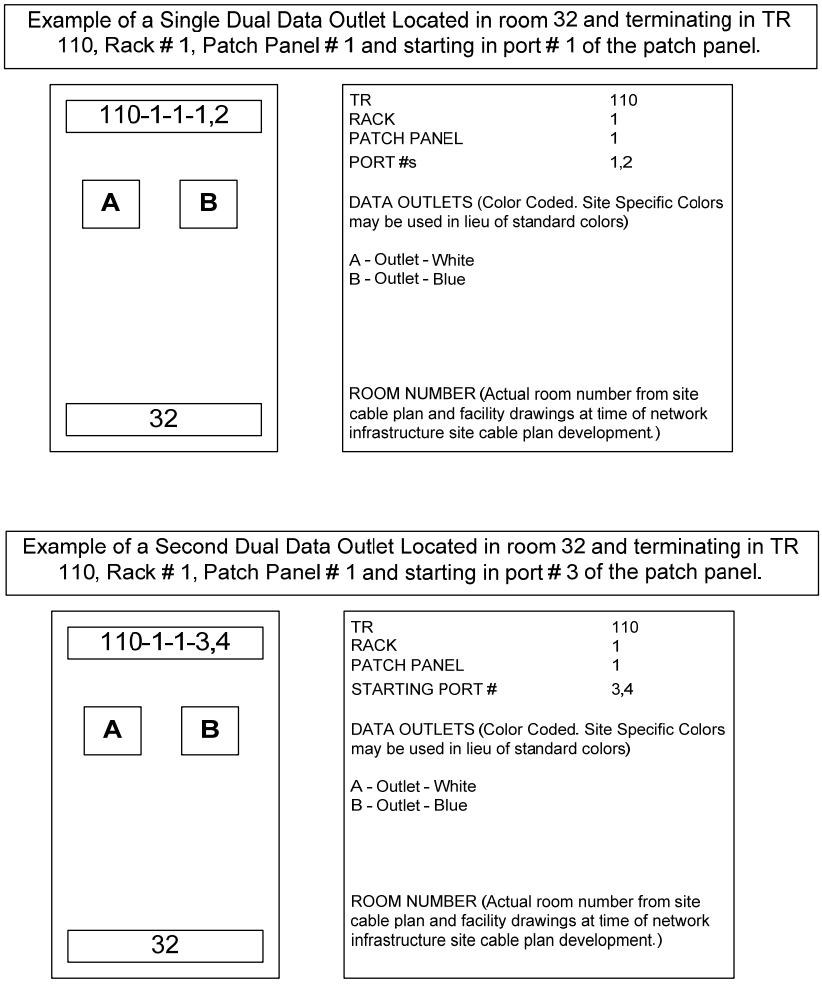


Figure B-1. Two-Position Wall Plate Numbering Scheme

B.1.2 Four Position Wall Plate.

ROOM Actual room number from the facility drawings at time of design.

TELECOM ROOM (TR) Actual TR or Equipment Room where the end of the wall plate cables terminate. In existing facilities with no Telecom Room (TR) numbers the TR room identifier shall be floor number, room number where room number starts with the letter A with additional TR labeled B, C etc.

RACK # Actual Rack number that contains the patch panel where the cable terminates.
PATCH PANEL # Actual patch panel number.
PORT #'s Actual port numbers in the patch panel.

The bottom position of the wall plate shall be marked with the Room Number that the wall plate is installed. This information is reflected in the site cable plan.

Top Position Example:

110-1-1-1, 2, 3, 4
TR 110
Rack # 1
Patch Panel # 1
Port #'s 1,2,3,4 (On the patch panel)

Bottom Position Example:

32 = Room Number (Actual room # from the cable plan and facility drawings at time of design)

Top Position Example: (no comm. room identifier)

1A-1-1-1, 2, 3, 4 = TR 1A, Rack # 1, Patch Panel # 1, Port #'s 1,2,3,4 (On the patch panel)

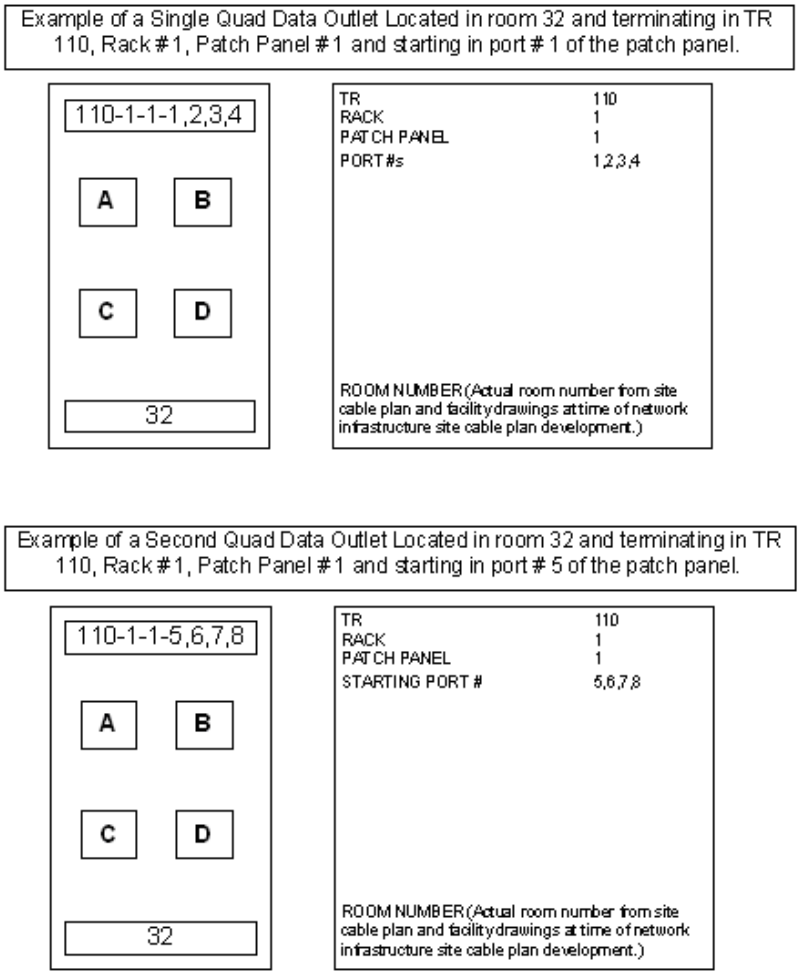


Figure B-2. Four-Position Wall Plate Numbering Scheme

B.2 Patch Panel Labeling

Patch panel shall be labeled using the following format. Room number (actual room where user wall plate is located), face plate number, jack designator, 110-1 A B C D.

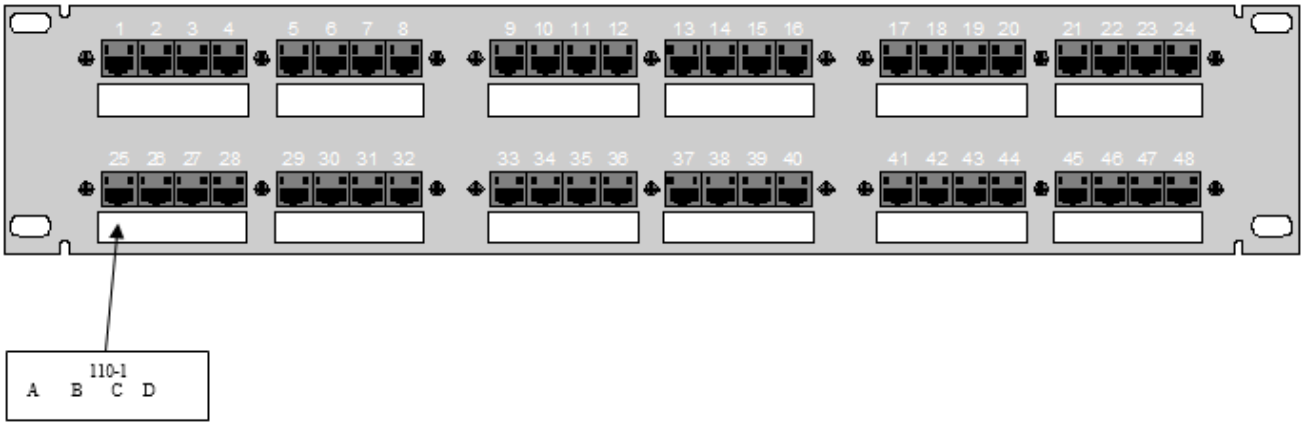


Figure B-4. Patch Panel Numbering Scheme

B.3 Fiber Marking.

B.3.1 Fiber Optic Distribution Panel (FODP)/Fiber Optic Patch Panel (FOPP) Marker.

All new FODPs or FOPPs shall be marked to identify those that terminate fibers, using the following formats:

Inter-building fiber backbone:

FOPP [Building #] (or FODP [Building #])
FO [Route: Source Building# - Destination Building#], [Strand Count] [Fiber Type]

Intra-building fiber backbone:

TIE FOPP [Room #]
TIE FO [Route: Source Room# - Destination Room#], [Strand Count] [Fiber Type]

Example:

FOPP B395
FO B395 - B1203, 1-12 SM

TIE FOPP R100
TIE FO R100 – R122, 1-12 SM

B.3.2 Fiber Cable Marker Tag.

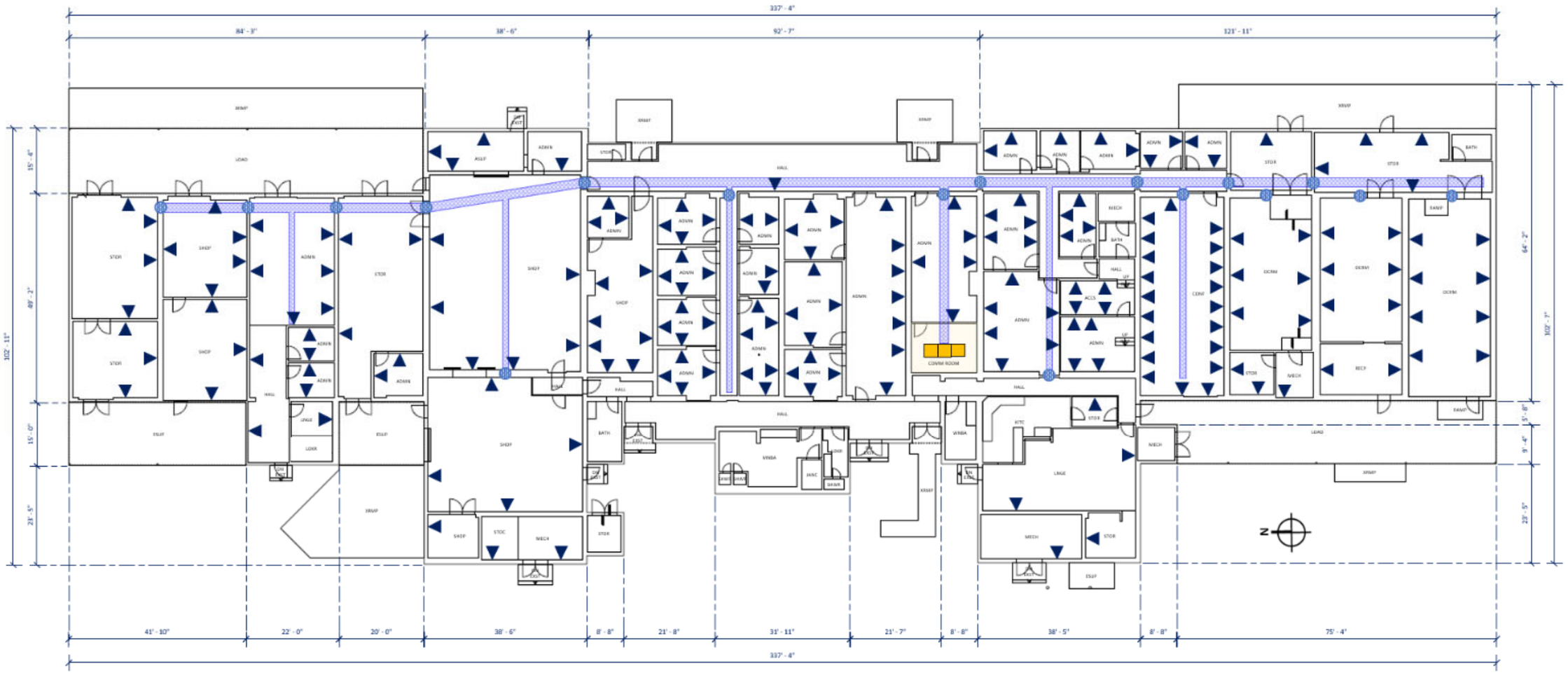
All fiber cables shall be tagged and marked to identify their size, type, cable number, and strand count, using the following format:

Example:

12L8.3F
FO B395 – B1203, 1-12 SM

First line: “12” stands for Fiber Count. “L” stands for Loose Tube Buffer or (“T”) for Tight Tube Buffer. “8.3” stands for Single Mode. “F” stands for Filled Core (otherwise leave blank).

ATTACHMENT A. LAYOUT DRAWINGS



New wall-mount NIPR Cat-6 dual-drop outlet. These include adding new Cat-6 drops and replacing existing Cat-3/Cat-5 drops.

Proposed new concrete/sheetrock wall penetration

Proposed new main above-ceiling cable pathway support (Basket cable tray preferred where possible)

B307 Comm Room

New 19-inch, 42U, 29.53" (W) x 42.13" (D), 4-post, adjustable-depth, floor-mounted, lockable rack cabinet to be installed in B307 Comm Room. All new Cat-6 drops in B307 shall be routed as homerun to these rack cabinets via cable pathway support.

Building B307: Total is 198 new NIPR Cat-6 dual-drop outlets/locations, resulting in a total of 396 drop cables.

Note: These drop locations are approximate and not scaled

Figure ATT-1. B307 Premises Wiring Upgrade with New Drop Location Layout

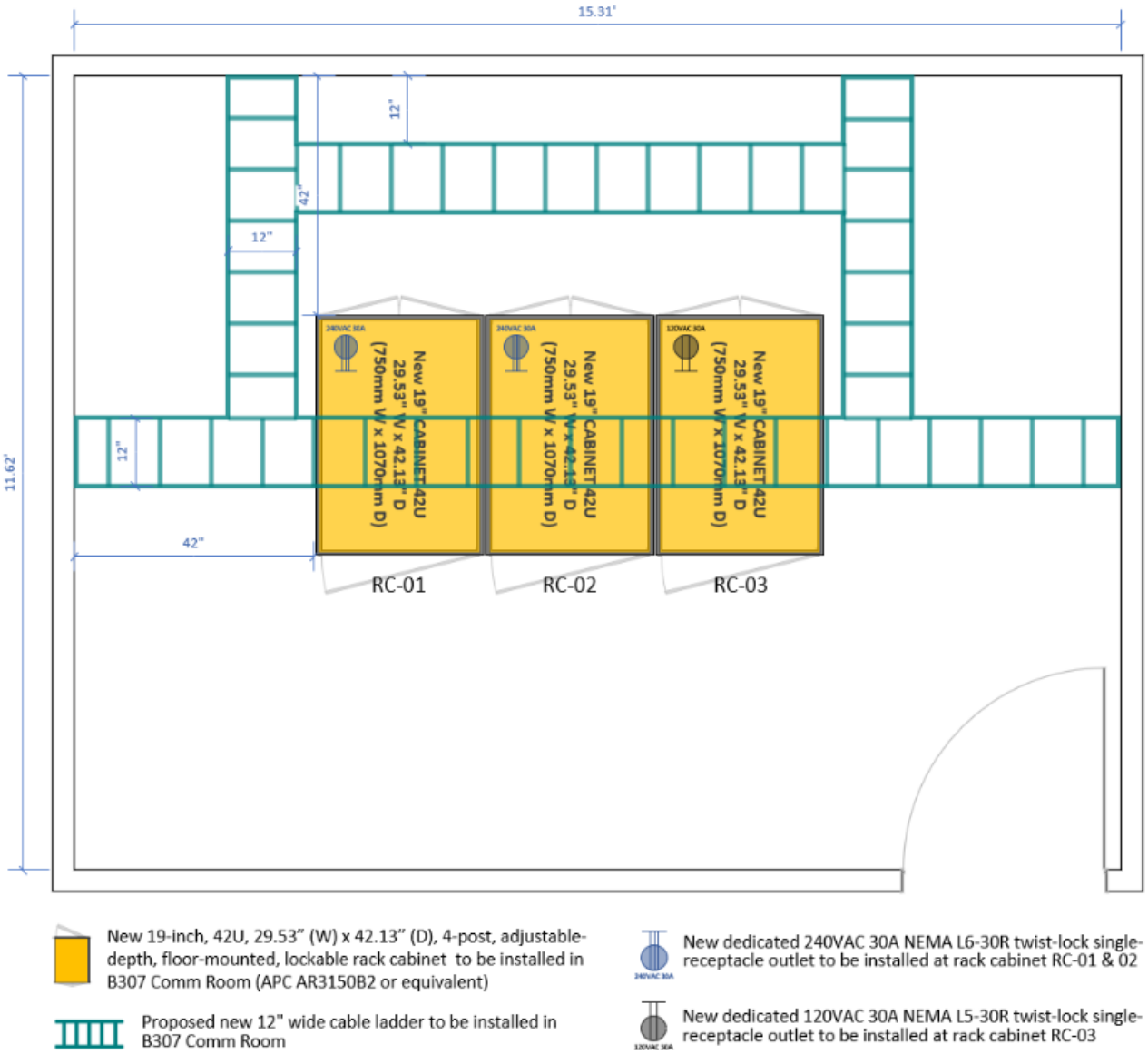


Figure ATT-2. B307 Comm Room with New Rack Cabinet Layout

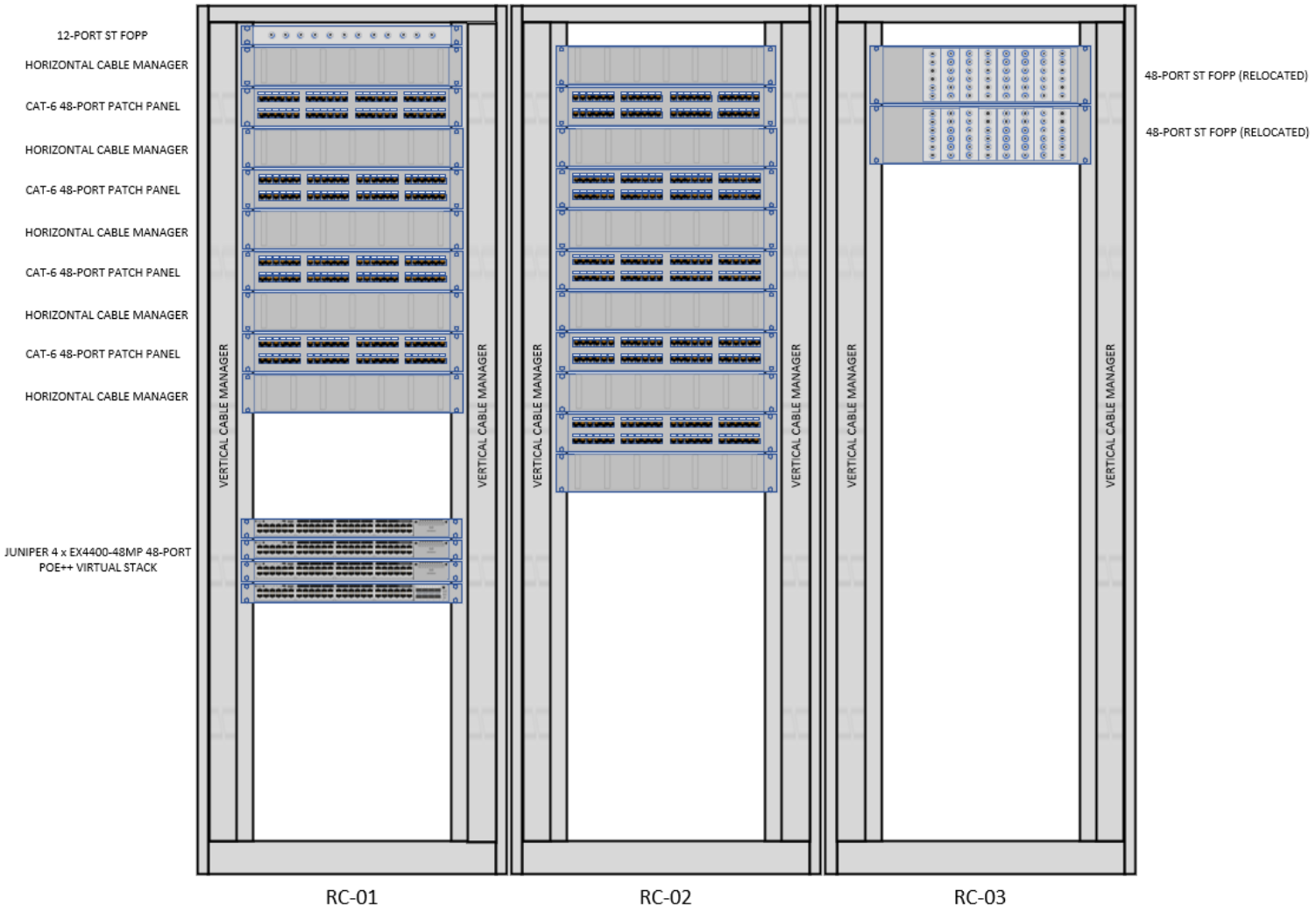


Figure ATT-3. Proposed New Rack Cabinet Face Equipment Layout

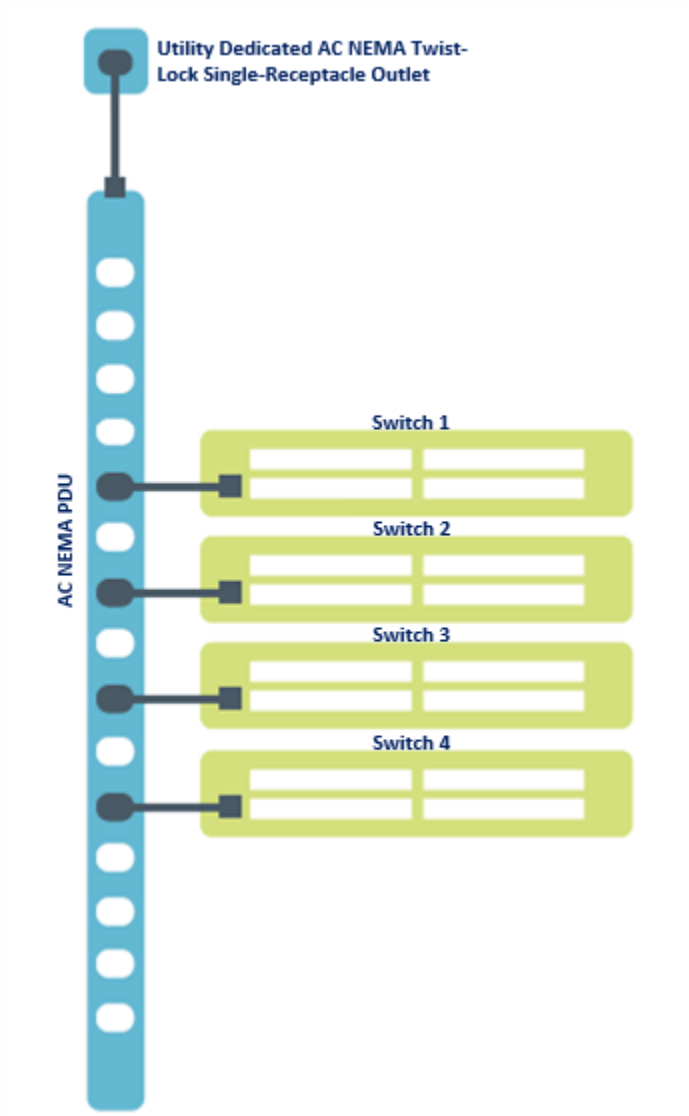


Figure ATT-4. Typical Rack Cabinet AC Power Distribution Configuration without UPS

Figure ATT-5. Existing Racks/Rack Cabinets in B307 Comm Room

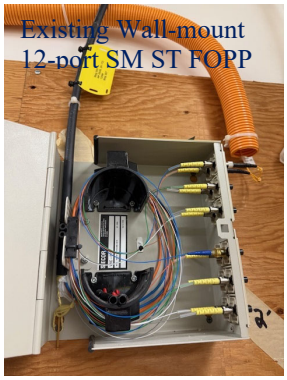


Figure ATT-6. Existing Wall-Mount SM/MM ST FOPPs