

Engineering Considerations and Instructions to Field Personnel (ECIFP)
REPAIR WAREHOUSE FOR KC46A ADAL B1816
Joint Base McGuire-Dix-Lakehurst, New Jersey

1. Connections to the existing domestic water, sanitary, and vent piping within the building must be field verified. The location of the existing piping shown on the plans is approximate and based on the limited as-built drawings.
2. The locations of two new vent penetrations through the roof have been coordinated with the solar panel shop drawings, but the contractor must field verify these penetrations to ensure the vents do not interfere with the final installed solar panel layout.
3. The invert of the new 6" sanitary lateral into the fire pump room is critical. Existing utilities located outside of the building limit the invert at which the sanitary may leave the building. This must be closely coordinated between the site and building contractors.
4. Storage Room 118 may be used for lubricant storage, however, this room does not have an explosion proof designation requirement.
5. At the specific request of the JBDML Fire Protection Engineer, fire suppression piping must be seismically braced in accordance with NFPA 13, regardless of the seismic design category.
6. At the specific request of JBDML, the use of in-rack sprinklers were avoided in the fire suppression design. ESFR sprinklers must be used instead and must be designed in accordance with the Contract Documents and the applicable codes/standards.
7. As agreed upon with the JBDML Fire Protection Engineer, the Automatic Storage and Retrieval Systems, or Kardex Racks, must have a sprinkler at the top in accordance with the Contract Documents and the applicable codes/standards.
8. The base has recognized that during the demolition of the existing fire tanks, and construction of the new fire water tanks, B1816 and B1811 will not have any fire water; thus both would have no working fire sprinkler systems. B1816 is understood to be unoccupied during the duration of construction, so the risk is minimal. B1811 will have occupants inside during the duration of construction, so there will be risk. The base is aware of this and has taken on this risk.
9. JBDML requires the Fire Alarm system to be a Monaco MAAP-X system. All devices/appliances must be compatible with this system.
10. The required Common Intelligibility Score (CIS) for this facility is 0.8. The three warehouse areas have hard walls and high ceiling surfaces, thus causing excessive sound reflections. It will be impossible to reach a CIS of 0.8 in all of the warehouse

areas. These areas are permitted to have a lower CIS score if permitted by the JBDML FPE. At a minimum, the code allows the building occupants to walk 33 feet before the CIS score of 0.8 must be achieved. The JBDML FPE is aware of this and will work with the contractor to come up with reasonable expectations upon commissioning/inspection.

11. At the specific request of JBDML, an exterior carbon monoxide strobe with a blue light must be provided at Vestibule 100A adjacent to the Knox Box.
12. The feed to the fire pump transformer (T1816-FP) is run from the 500kVA transformer due to base not wanting to splice existing conduit in MH1816A by the Fire Pump room. By running a new duct bank from the 500kVA transformer to T1816-FP, two new manholes will be added but another spare conduit is included in the run to the 1500kVA transformer. This was the preferred design by base.
13. XFMR-1816-04 was to be located as close as possible to the telecom room without being in the telecom room. The closest location available without being located in a secure room, forklift room or office space was in the central storage area.
14. The subgrade preparation for the water tanks indicated in general notes and detail D3/S501 was related to the concept design and provides a minimum method to achieve a 2000psf bearing pressure, but the contractor must evaluate the bearing pressure and related settlement with the components of the selected tank and foundation system as part of their delegated design.
15. Placement of dowels at the slab joints in the warehouse as noted on plan and shown in A9/S-501 is critical to ensure the joints don't move differentially, therefore coordination of layout of joints prior to placing concrete must be completed.
16. The precise alignment and depth of underground utilities between B1816 and B1811 could not be confirmed due to lack of available utility mapping. Contract documents require the KTR to field verify with test pits prior to excavation.
17. The top layer of soil surrounding the existing water tanks is saturated. This water is the accumulated leakage from the existing tanks. During geotechnical investigations, no groundwater was encountered within the substrata extending down 100 feet below the tanks. Dewatering, if any, is expected to be confined to management of the top layer of saturated soil.
18. The secure room is designed compliant with Department of Defense Manual, 5200.01, Volume 3, per the requirements in Appendix 3, and is intended to function as a secure room, not a vault. The design has been reviewed and approved by USACE Protective Design Center to serve as a secure room.
19. The main scope of the exterior elevations is limited to the replacement of gutters and downspouts.
20. A new Fire Pump Room (123) is in the plan Northwest corner of the building and will have the only new exterior doors for the project. (There is no additional scope for the remaining existing exterior doors.)

21. There are a several roof penetrations to accommodate new mechanical exhaust fans, and a new lightning protection system, but no other roof work is part of the scope.
22. At the West Elevation, there are two new louvers required to be cut into the existing metal panel system. These openings need to be carefully coordinated with the proposed mechanical equipment.
23. The warehouse racks/shelving/carousel/Kardex are FFE.
24. The Tire Carousels are being relocated from B1757 and it is the KTR's responsibility to patch existing holes in B1757 once the carousels have been disassembled.
25. The forklifts to be used in the main warehouse area – Bulk Storage (119), Shipping & Receiving (119A) and Tire Storage (119B) – are not intended to service Storage (120). (The forklifts cannot navigate the existing ramps up to Storage (120)).
26. For Storage (120) only the WAV forklift vehicle (Work Assist Vehicle), will be used.
27. MRSP (114) – The ICU 90 conveyor has access from an exterior overhead door for forklift access. The overhead door and the adjacent personnel door are not considered part of the life-safety egress plan.
28. The following items were discussed but deemed not part of the original scope and are therefore not included in the design: roof snow guards, replacement of toilet partitions, replacement or repair of existing exterior hollow metal or storefront doors.

End Memorandum