US Army Corps
of Engineers
Louisville District

Solicitation For

Multiple Award Task Order Contracts U.S. Army Corps of Engineers Great Lakes and Ohio River Division Mission Boundaries

Ft Campbell Child Development Center Design Build RFP, Fort Campbell, KY P2: 519189

Design-Build Specifications - Vol. 2 Certified Final Design

20 April 2025 W912QR-61034642

MATOC W912QR21D0056 thru 21D0060, 21D0085, 21D0086

All requirements of the base MATOC Volume 1 of 2 shall apply to this Task Order unless noted otherwise.

RRS-A: 1200A Disposition: Permanent

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
P.O. BOX 59
LOUISVILLE, KENTUCKY 40201-0059

REPLY TO
ATTENTION
OF

CELRL-CT 20 April 2026

A&H Ambica JV, LLC
Butt Construction Company, Inc.
Howard W. Pence, Inc.
KUNJ Construction Corp.
SES Construction and Fuel Services, LLC
FUTRON, Inc.
HDD JV

Dear MATOC Contractors

Reference is made to Indefinite Delivery Indefinite Quantity (IDIQ), Numbers W912QR21D0056 through W912QR21D0060, W912QR21D0085 and W912QR21D0086 to provide Design/Build Construction Services within the Great Lakes and Ohio River Division Mission Boundaries.

We request you submit a price proposal for the FTC Renovate Building 3069 CDC, replace HVAC, fire protection and renovate facility to meet new CDC standards at Fort Campbell, KY as detailed in the scope of work, drawings, and specifications posted at the System for Award Management (www.Sam.gov). The documents are available for download at www.Sam.gov only. All vendors must be registered in the SAM database at Sam.gov. The RFP can be found logging into the website as a vendor and searching for the solicitation number W912QR-61034642. The estimated cost range is more than $10,000,000.

The basis for award of this task order will be made based on a Best Value Trade-Off basis. Factors that will be reviewed are offeror's past performance, as found within the Contractor Performance Assessment System (CPARS), in addition to price (base plus all options). Price is considered more important than past performance. The Government will be pulling your CPARS reports and will review quality and timeliness provided on prior jobs similar in scope and magnitude in accordance with the attached scope of work. Your proposal should include a price breakdown and/or labor category table demonstrating the use of the binding rates included in your MATOC contract. The submitted price breakdown should include sufficient detail to allow the Government to verify that your proposed price incorporates the binding rates from your base contract. Any level of effort shown in the submitted information will not be used for evaluation purposes and will be used only to ensure that the proposal is in compliance with the binding rates from the base contract. Proposals that fail to submit a price breakdown or fail to use the binding rates from your MATOC will not be considered. The Government intends to evaluate proposals and award a contract without discussions with offerors. Proposals submitted in response to this RFP shall be good for no less than 120 calendar days.

Award of this project is Subject to the Availability of Funds. Funds are not presently available for this acquisition. No contract award will be made until appropriated funds are made available.

Proposals are due no later than 11:00 AM EST 04 May 2026. Submit your proposal by email to Stephanie.N.Drees@usace.army.mil. Proposals not received by the stated date/time will not be considered. Please acknowledge receipt of this RFP by signing below in the space provided and returning to Stephanie Drees via email at Stephanie.N.Drees@usace.army.mil.

Payment and Performance Bonds will be required for this project. Performance and Payment Bonds are required within 10 days after the date of award. The Notice to Proceed will be issued after receipt and approval of the bonds.

All questions regarding this Request for Proposal (RFP) must be submitted via ProjNet. The website to access this system is www.projnet.org and the bidder inquiry key for this specific project is: NIJV3E-8IYTZ8. Please see ProjNet instructions included in this RFP.

If you have contractual questions, please contact Stephanie Drees at Stephanie.N.Drees@usace.army.mil. If an Offeror believes that the requirements in the RFP contain an error, omission, or are otherwise unsound; the offeror shall immediately notify the Contract Specialist in writing with supporting rationale. All Offerors is reminded that the Government reserves the right to award this RFP based on the initial proposals, as received, without discussion.

Digitally signed by
MOSS.JESSICA.KYUNGHEE.1283799936
Date: 2026.04.20 13:33:26 -04'00'

Jessica K. Moss
Contracting Officer

OFFEROR'S QUESTIONS AND COMMENTS

Technical inquiries and questions relating to proposal procedures or bonds are to be submitted via Bidder Inquiry in ProjNet at http://www.ProjNet.org/ProjNet. As noted below, offerors shall not submit their proposals via ProjNet. Offerors shall submit their proposals in accordance with the provisions stated in the solicitation.

To submit and review bid inquiry items, bidders will need to be a current registered user or self-register into system.

The Solicitation Number is: W912QR-61034642
The Bidder Inquiry Key is: NIJV3E-8IYTZ8

Specific Instructions for ProjNet Bid Inquiry Access:

1. From the ProjNet home page linked above, click on Quick Add on the upper right side of the screen.
2. Identify the Agency. This should be marked as USACE.
3. Key. Enter the Bidder Inquiry Key listed above.
4. Email. Enter the email address you would like to use for communication.
5. Select Continue. A page will then open stating a user account was not found and will ask you to create one using the provided form.
6. Enter your First Name, Last Name, Company, City, State, Phone, Email, Secret Question, Secret Answer, and Time Zone. Make sure to remember your Secret Question and Answer as they will be used from this point on to access the ProjNet system.
7. Select Add User. Once this is completed you are now registered within ProjNet and are currently logged into the system.

Specific Instructions for Future ProjNet Bid Inquiry Access:
1. For future access to ProjNet, you will not be emailed any type of password. You will utilize your Secret Question and Secret Answer to log in.
2. From the ProjNet home page linked above, click on Quick Add on the upper right side of the screen.
3. Identify the Agency. This should be marked as **USACE.**
4. Key. Enter the **Bidder Inquiry Key** listed above.
5. Email. Enter the email address you used to register previously in ProjNet.
6. Select Continue. A page will then open asking you to enter the answer to your Secret Question.
7. Enter your Secret Answer and click Login. Once this is completed you are now logged into the system.

From this page you may view all bidder inquiries or add an inquiry.
Bidders will receive an acknowledgement of their question via email, followed by an answer to their question after it has been processed by our technical team.

Offerors are requested to review the specification in its entirety and to review the Bidder Inquiry System for answers to questions prior to submission of a new inquiry.
The call center operates weekdays from 8AM to 5PM U.S. Central Time Zone (Chicago). The

telephone number for the Call Center is 800-428-HELP.
Offers will NOT be publicly opened. Information concerning the status of the evaluation and/or award will NOT be available after receipt of proposals.

NOTES:
1. Offerors shall not submit their proposals via ProjNet, but in accordance with the provisions stated in the solicitation. Any questions regarding acceptable means of submitting offers shall be made directly to the Contract Specialist identified in the solicitation.

2. Government responses to technical inquiries and questions relating to proposal procedures or bonds that are submitted to ProjNet in accordance with the procedures above are not binding on the Government unless an amendment is issued on Standard Form 30. In the case of any conflicts, the solicitation governs. Any changes or revisions to the solicitation will be made by formal amendment. Government responses will be limited to: (a) Notice that an amendment will be issued; (b) Reference to an existing requirement contained in the solicitation; or (c) Notice that a response is not necessary.

3. The ability to enter technical inquiries and questions relating to proposal procedures or bonds will be disabled five (5) calendar days prior to the closing date stated in the solicitation. No Government responses will be entered into the ProjNet system within two (2) calendar days prior to the closing date stated in the solicitation.

00 10 00

PRICE BREAKOUT SCHEDULE

01/23

OFFEROR'S NAME: _____

CONTRACT LINE-ITEM SCHEDULE

Line Item No.	Description	Unit	Amount
BASE PROPOSAL			
0001	Child Development Center Renovation of B3069 All work, materials, and labor required to accomplish construction of a complete and usable facility excluding options	Job	$ _____
0002	Child Development Center Renovation AE Design in accordance with Louisville USACE Design Guide	Job	$ _____
	Total Base Proposal		$ _____
OPTIONS			
Bid Option 1.	**Resurface Outside Playground:** All work, materials, and labor required to accomplish. construction.	Job	$ _____
	Child Development Center Playground Design fee Option may be exercised within 6 months from issuance of NTP.	Job	$ _____
	Total Option 1		$ _____
Bid Option 2.	**Kitchen:** All Bona Fide Need Kitchen Equipment and finishes including plumbing, electrical and fire requirements. All work, materials, and labor required to accomplish. construction. Option may be exercised within 365 days from issuance of NTP.	Job	$ _____
Bid Option 3.	**Store Front Doors:** New doors except hardware, weather seal, and finger guards which are in base. All work, materials, and labor required to accomplish. construction. Option may be exercised within 6 months from issuance of NTP.	Job	$ _____
Bid Option 4.	**Exterior Doors:** New doors except hardware, weather seal, and finger guards which are in base. All work, materials, and labor required to accomplish. construction. Option may be exercised within 6 months from issuance of NTP.	Job	$ _____

Bid Option 5.	**Interior Doors:** New doors except hardware, and finger guards which are in base. All work, materials, and labor required to accomplish. construction. Option may be exercised within 6 months from issuance of NTP.	Job	$ _____
Bid Option 6.	**Brick Cleaning and Sealing:** All work, materials, and labor required to accomplish. construction. Option may be exercised within 6 months from issuance of NTP.	Job	$ _____
		TOTAL PROPOSAL	**$ _____**

NOTES FOR CONTRACT LINE ITEM (CLIN) SCHEDULE

CLIN 0001 Description – The project consists of renovation of B3069 to bring he facility up to new child development center standards as much a practical.

CLIN 0002 Description – Design for the renovation of B3069 in accordance with the Louisville USACE Design Guide.

Bid Option 1 Description – Provide resurfacing of outside playground areas as outline in the RFP document.

Bid Option 2 Description – Provide new equipment and finishes as outlined in the RFP document.

Bid Option 3 Description – Provide new Store Front Doors and Frames except for Hardware, weather seal and finger guards which are in the base bid.

Bid Option 4 Description – Provide new Exterior Doors and Frames except for Hardware, weather seal and finger guards which are in the base bid.

Bid Option 5 Description – Provide new Interior Doors and Frames except for Hardware, and finger guards which are in the base bid.

Bid Option 6 Description – Provide exterior Brick Cleaning and sealing, does not include fixing cause of efflorescence.

NOTE NO. 1: To better facilitate the receipt and proposal process, all modifications to proposals are to be submitted on copies of the latest Contract Line Item (CLIN) schedules as published in the solicitation or the latest amendment thereto. In lieu of indicating additions/deductions to line items, all Offerors should state their revised prices for each item.

NOTE NO. 2: Offerors must insert a price on all numbered items including options of the CLIN Schedule. Failure to do so may result in the offer being unacceptable.

NOTE NO. 3: In accordance with 52.217-5, Evaluation of Options, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

NOTE NO. 4: Proposals must be good for 120 days except for Bid Options which may be exercised within 6 months from issuance of notice to proceed (NTP) with exception to Bid Option 2 Kitchen Equipment Bona Fide Need which may be exercised within 365 days from issuance of notice to proceed (NTP).

--END OF CLIN SCHEDULE—

SECTION 00 70 00

52.204-27 Prohibition on a ByteDance Covered Application.

As prescribed in 4.2203(c), insert the following clause:

Prohibition on a ByteDance Covered Application (Jun 2023)

(a) Definitions. As used in this clause-

Covered application means the social networking service TikTok or any successor application or service developed or provided by ByteDance Limited or an entity owned by ByteDance Limited.

Information technology, as defined in 40 U.S.C. 11101(6)-

(1) Means any equipment or interconnected system or subsystem of equipment, used in the automatic acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information by the executive agency, if the equipment is used by the executive agency directly or is used by a contractor under a contract with the executive agency that requires the use-

(i) Of that equipment; or

(ii) Of that equipment to a significant extent in the performance of a service or the furnishing of a product;

(2) Includes computers, ancillary equipment (including imaging peripherals, input, output, and storage devices necessary for security and surveillance), peripheral equipment designed to be controlled by the central processing unit of a computer, software, firmware and similar procedures, services (including support services), and related resources; but

(3) Does not include any equipment acquired by a Federal contractor incidental to a Federal contract.

(b) Prohibition. Section 102 of Division R of the Consolidated Appropriations Act, 2023 (Pub. L. 117-328), the No TikTok on Government Devices Act, and its implementing guidance under Office of Management and Budget (0MB) Memorandum M-23-13, dated February 27, 2023, "No TikTok on Government Devices" Implementation Guidance, collectively prohibit the presence or use of a covered application on executive agency information technology, including certain equipment used by Federal contractors. The Contractor is prohibited from having or using a covered application on any information technology owned or managed by the Government, or on any information technology used or provided by the Contractor under this contract, including equipment provided by the Contractor's employees; however, this prohibition does not apply if the Contracting Officer provides written notification to the Contractor that an exception has been granted in accordance with 0MB Memorandum M-23-13.

(c) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (c), in all subcontracts, including subcontracts for the acquisition of commercial products or commercial services.

(End of clause)

52.211-10 Commencement, Prosecution, and Completion of Work (Apr 1984)

The Contractor shall be required to

(a) commence work under this contract within 10 calendar days after the date the Contractor receives the Construction Notice to Proceed (NTP),

(b) prosecute the work diligently, and

(c) all work must be completed within 720 calendar days from Notice to Proceed (NTP).

*The time stated for completion shall include final cleanup of the premises.

(End of Clause)

52.211-12 Liquidated Damages -- Construction (Sept 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of **$5,700.00** for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of Clause)

52.217-5 -- Evaluation of Options.

As prescribed in 17.208(c), insert a provision substantially the same as the following:

Evaluation of Options (Jul 1990)

Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

(End of Provision)

52.217-7 -- Option for Increased Quantity -- Separately Priced Line Item.

The Government may require the delivery of the numbered line item, identified in the Schedule as an option item, in the quantity and at the price stated in the Schedule. The Contracting Officer may exercise the option Reference Price Breakout Schedule. Delivery of added items shall continue at the same rate that like items are called for under the contract unless the parties otherwise agree.

(End of Clause)

52.236-4 Physical Data (Apr 1984)

Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of, or conclusion drawn from the data or information by the Contractor.

(a) The indications of physical conditions on the drawings and in the specifications are the result of site investigations by surveys.

(b) Weather conditions: The Contractor shall make his own investigations as to weather conditions at the site. Data may be obtained from various National Weather Service offices located generally at airports of principal cities, the nearest to this project being: Nashville, TN

(c) Transportation facilities: Access ways shall be investigated by the Contractor to satisfy himself as to their existence and allowable use.

(d) Historical data for all areas may be obtained from:
U. S. Department of Commerce
National Climatic Center
Federal Building
Asheville, N. C. 28801

(End of Clause)

52.236-27 Site Visit (Construction) (Feb 1995) – Alternate I (Feb 1995)

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

(b) An organized site visit has been scheduled for –

07 May 2026 at 1000 CDT

The Point of Contact (POC) for the site visit is:
Laura Villar
Laura.R.Villar@usace.army.mil
931-287-5937

Meet at the site, front entrance of Building 3069, 3069 Bastogne Ave Fort Campbell, KY.
Visitors will need to check in at the Fort Campbell Visitor's Center at Gate 4 for a one day pass the day of the site visit. They will need to show a valid driver's license, vehicle registration and proof of vehicle insurance. At the Visitor's Center they will run a background check. It is recommended that you arrive at least 30 minutes early to the Visitor's Center to allow time for varying processing times.
https://pass.aie.army.mil/steps/branch_selection

(End of provision)

52.246-21 Warranty of Construction (Mar 1994)

(a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (i) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier. This warranty shall continue for a period of 1 year from the date of final acceptance of the work. If the Government takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the Government takes possession.

(b) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Government-owned or controlled real or personal property, when that damage is the result of --

(1) The Contractor's failure to conform to contract requirements; or
(2) Any defect of equipment, material, workmanship, or design furnished.

(c) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(d) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

(e) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

(f) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall –

(1) Obtain all warranties that would be given in normal commercial practice;

(2) Require all warranties to be executed, in writing, for the benefit of the Government, if directed by the Contracting Officer; and

(3) Enforce all warranties for the benefit of the Government, if directed by the Contracting Officer.

(g) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the Government may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(h) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the Government nor for the repair of any damage that results from any defect in Government-furnished material or design.

(i) This warranty shall not limit the Government's rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud.

(End of Clause)

252.236-7001 Contract Drawings and Specifications (Aug 2000)

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer. The Contractor shall—

(1) Check all drawings furnished immediately upon receipt;

(2) Compare all drawings and verify the figures before laying out the work;
(3) Promptly notify the Contracting Officer of any discrepancies;
(4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and
(5) Reproduce and print contract drawings and specifications as needed.

(b) In general—
(1) Large-scale drawings shall govern small-scale drawings; and
(2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(c) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

(d) The work shall conform to the specifications and the contract drawings identified on the following index of drawings: **G-001**

(End of clause)

"General Decision Number: KY20260089 01/30/2026 W912QR-61034642-0000

Superseded General Decision Number: KY20250089

State: Kentucky

Construction Type: Building

County: Christian County in Kentucky.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Modification Number	Publication Date
0	01/02/2026
1	01/30/2026

BOIL0040-001 01/01/2025

	Rates	Fringes
BOILERMAKER	$ 43.85	28.44

ENGI0181-053 06/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Crane)	$ 40.65	19.60

CRANES WITH BOOM 150 FEET & OVER, INCLUDING JIB, SHALL RECEIVE $.75 ABOVE THE WAGE RATE; 250 FEET AND OVER, INCLUDING JIB, SHALL RECEIVE $1.50 ABOVE THE WAGE RATE. ALL CRANES WITH PILING LEADS WILL RECEIVE $.50 ABOVE THE WAGE, REGARDLESS OF BOOM LENGTH.

ENGI0181-054 06/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Drill)	$ 40.65	19.60

ENGI0181-079 06/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Loader)	$ 40.65	19.60

ENGI0181-080 06/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Forklift)	$ 40.65	19.60

ENGI0181-093 06/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR (Oiler)	$ 34.99	19.60

IRON0044-017 06/01/2025

	Rates	Fringes
IRONWORKER, ORNAMENTAL	$ 37.77	23.90

LABO0561-009 04/01/2025

	Rates	Fringes
LABORER (Mason Tender - Brick)	$ 28.89	19.20

LABO1445-002 06/01/2025

	Rates	Fringes
LABORER (Power Tool Operator)	$ 31.35	23.18

PAIN0156-004 04/01/2024

	Rates	Fringes
PAINTER: Spray	$ 30.62	20.30

FOOTNOTE A:
All Structures over 40? $0.75/ hour above base wage
All Structures over 75? $1.50/ hour above base wage
All Structures over 100? $2.50/ hour above base wage

PLUM0184-006 07/01/2025

	Rates	Fringes
PLUMBER	$ 44.26	20.28

PLUM0633-001 08/01/2024

	Rates	Fringes
PIPEFITTER	$ 38.41	22.26

ROOF0106-010 07/01/2025

	Rates	Fringes
ROOFER	$ 30.97	13.91

SFKY0669-002 04/01/2025

Rates Fringes

SPRINKLER FITTER.....$ 44.15 26.08

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* SHEE0020-001 07/01/2025

Rates Fringes

SHEET METAL WORKER (HVAC Duct Installation Only).....$ 40.19 27.33

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* UAVG-KY-0019 01/01/2025

Rates Fringes

ASBESTOS WORKER/HEAT & FROST INSULATOR.....$ 30.94 21.99

SUKY2015-028 06/02/2015

Rates Fringes

BRICKLAYER.....$ 25.09 10.05

CARPENTER (Form Work Only).....$ 25.20 7.12

CARPENTER, Excludes Form Work....$ 21.68 7.20

CEMENT MASON/CONCRETE FINISHER...$ 20.56 9.56

ELECTRICIAN.....$ 30.50 9.21

IRONWORKER, REINFORCING.....$ 27.31 16.86

IRONWORKER, STRUCTURAL.....$ 25.41 7.63

LABORER: Common or General.....$ 18.04 0.00

LABORER: Mason Tender - Cement/Concrete.....$ 19.85 9.87

LABORER: Pipelayer.....$ 15.00 4.08

OPERATOR: Backhoe/Excavator/Trackhoe.....$ 28.01 7.59

OPERATOR: Bulldozer.....$ 24.51 12.72

OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....$ 22.52 4.00

OPERATOR: Roller.....$ 23.60 12.65

PAINTER (Brush and Roller).....$ 17.45 0.34

SHEET METAL WORKER, Excludes HVAC Duct Installation.....$ 36.24 6.89

TILE FINISHER.....$ 15.42 7.24

TILE SETTER.....$ 20.96 0.00

TRUCK DRIVER: Dump Truck.....$ 23.60 8.03

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage

determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date

for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

==========

END OF GENERAL DECISION"

P2: 519189
Fort Campbell, Kentucky
Renovate B3069 CDC

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SECTION 00 80 50.00 06

SPECIAL PROVISIONS
05/2023

PART 1 GENERAL

This section is a supplement to section 00 80 00.00 06 in the base contract. This document will provide additional information or revise base contract requirements for this task order only.

Attachments to this specification are as follows:

Project Sign Details
Project Submittal Register

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

ER 415-1-15	Construction Time Extensions for Weather
EM 385-1-1	(2024) Safety -- Safety and Occupational Health (SOH) Requirements

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1926.59	Hazard Communication

1.2 SUBMITTALS

Government approval/acceptance is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with LRL Section 01 33 00.00 06 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Mechanical/Electrical Room Layout; G

SD-11 Closeout Submittals

Preliminary (Working) As-Built Drawings; G

Final As-Built Drawings; G

CAD Working As-Built Drawings; G

1.3 COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK

Refer to FAR 52.211-12 "LIQUIDATED DAMAGES" in Section 0750 for the amount of Liquidated Damages for the project.

Refer to FAR 52.211-10 "Commencement, Prosecution, and Completion of Work" in Section 0750 for a notification of significant contract dates.

1.3.1 Additional Requirements/Clarifications of Work Included Within the Contract

a. The time stated in FAR 52.211-10 "Commencement, Prosecution, Completion of Work" in Section 0750 for completion shall include as-built drawings, O&M manuals, operational tests/reports/training/instructions, equipment lists.

b. Those areas of the building receiving Government-furnished furniture and IT/Telecom equipment shall be made available for Government installation to begin no less than 60 calendar days prior to the contractor's accepted scheduled Construction Completion Date updated in accordance with FAR 52.211-10 "Commencement, Prosecution, and Completion of Work" in Section 0750. The Contractor shall participate in a Furniture Pre-Installation Building Inspection, Daily Furniture Installation Building Inspections, and a Final Furniture Installation Building Inspection along with the furniture installation supervisor and a Government representative.

c. If the Contractor fails to meet the requirements in paragraph "Requirements for Completion of Designated Areas Prior to Furniture Installation" by the Contractor's accepted scheduled Furniture Installation Start Date,the Contractor shall provide furniture moving and temporary storage that is weatherproof and secure, and shall maintain accountability for all furniture items until Furniture Installation.

1.3.2 Requirements for Completion of Designated Areas Prior to Furniture Installation

a. The Contractor is responsible for access to the building, security and ownership during the furniture and IT/Telecom equipment installation. Facility operation and maintenance during the furniture and IT/Telecom equipment installation is the responsibility of the Contractor.

b. The Government will be installing IT/Telecom equipment, including the telephone switch and individual telephone sets, during the furniture installation period.

c. The Contractor shall be responsible for coordination with its subcontractors and the Government furniture and IT/Telecom installation contractors, as necessary, to accommodate the furniture and IT/Telecom equipment installation.

d. The exterior roads, parking areas, walks, and building entrances shall be sufficiently complete to support the delivery of furniture products by semi-tractor trailers and made available for use to the Government furniture and IT/Telecom installation contractors.

e. All interior building finishes of areas receiving furniture, including all furniture entries, pathways, staging, and storage areas shall be

complete. Completed building finishes shall include all flooring materials and base, interior walls, ceilings, lighting, HVAC systems and controls, doors, doorframes, and trim. All areas are to be cleaned, vacuumed, and an initial waxing applied as appropriate for the installation of furniture.

f. All utilities and systems serving the building shall be fully operational. The HVAC system(s) must be in operation, fully balanced and commissioned.

g. The pre-final building punch inspections shall be performed and punch list items corrected by the Contractor prior to the Government Furniture and IT/Telecom installations.

h. During installation of the furniture and IT/Telecom, the Contractor shall participate in inspections as noted above in paragraph "Additional Requirements/Clarifications of Work Included Within the Contract"(b). Repairs to any damaged areas shall be performed at no additional cost to the Government by the appropriate party as determined by the Government during these inspections.

i. The Contractor shall be responsible for the electrical hookup of the power feed(s) and phone/data wiring to-as well as providing all data/com faceplates and jacks for-all powered modular systems furniture. This work may be coordinated with the Government Furniture and IT/Telecom installation contractors to occur while they continue their installations.

j. The Contractor shall perform the final buffing and waxing of areas after the furniture and IT/Telecom installation contractors have indicated either installation in those areas is complete or that the final buffing and waxing should be performed in certain areas prior to the placement of furniture. The final buffing and waxing of corridors shall be performed by the Contractor after the furniture and IT/Telecom installation contractors have indicated installation is complete for the building.

k. After furniture and IT/Telecom installation by the Government, the Contractor shall perform a complete final cleaning in all impacted areas. Final Inspection and Acceptance may occur only after all furniture and IT/Telecom installation by the Government is complete.

1.4 NATIVE FILES FOR PROPOSAL DEVELOPMENT ON DESIGN/BUILD PROJECT

Included, in addition to the drawings that are part of the solicitation, are Native CAD files in one and only one format that contain limited preliminary notional design concepts and site characteristics that were created during the solicitation development process and are not necessarily all inclusive.

1.5 NOT USED

1.6 CONTRACT DRAWINGS AND SPECIFICATIONS

In addition to DFARS 252.236-7001 "Contract Drawings and Specifications" in Section 00 70 00 the following will apply:

a. After Award or no later than Notice to Proceed (NTP), the Government will furnish the Contractor a compact disk containing all technical

contract documents in electronic media only. This disk will include a complete set of drawing files and technical specification files which have all amendments included. The disk will contain drawing files in PDF format along with technical specifications in PDF format. These PDF files are the contract documents that represent the construction requirements of the contract, and are being provided for the Contractor's use in printing paper copies of contract documents.

b. In addition, native CAD files(this includes, but not limited to, all source files, models, custom fonts and linestyles, plot files, and images used to create the contract drawings) are provided in accordance with the "AS-BUILT DOCUMENTS" paragraph for the Contractor's use in maintaining and preparing as-built plans. If another CAD Program is used other than the Using Agency's System, all native CAD files that were generated with that software and all support files will also be included. Only native files are to be used for As-Built preparation and information.

c. Native files are to be used for As-Built preparation only. The PDF files are the contract documents that represent the construction requirements of the contract.

1.7 NOT USED

1.8 AS-BUILT DOCUMENTS FOR DESIGN BUILD PROJECTS

1.8.1 General

It is the scope of this section to provide guidance to the Contractor on preparing as-built drawings for design-build projects. An as-built drawing is a contract construction drawing revised to reflect the final as-built conditions of the project because of modifications, changes, corrections to the project design required during construction, submittals and extensions of design. The terms "drawings," "contract drawings," "drawing files," "working as-built drawings" and "final as-built drawings" refer to contract drawings that are revised to be used for the "RECORD DRAWING AS-BUILTS".

1.8.2 Withholding

Maintenance of working as-builts is considered part of the value of the facilities being constructed and will not be paid for as a separate line item. All costs in conjunction with periodic as-built maintenance and final preparation shall be considered a subsidiary obligation of the Contractor.

1.8.2.1 Failure to Maintain

If the Contractor fails to maintain the working as-built drawings as specified herein, the Contracting Officer will deduct from the monthly progress payment an amount up to 10% or which, in the Contracting Officer's judgment, represents the estimated cost of bringing the as-built documents up to date. This monthly deduction will continue until an agreement can be reached between the Contracting Officer and the Contractor regarding the accuracy and completeness of working as-built documents. This includes conversion of submittals and other miscellaneous documents.

1.8.2.2 As-Builts Prepared by Contractor

The Contractor is required to prepare and provide final as-built drawings utilizing the native files provided by the Government. If translation is required, the original design models (BIM or CAD) shall be updated to As-Built conditions and then appropriately translated. Updating translated drawings will not be accepted. The contractor shall update the CAD working as-built drawings, in accordance with paragraph "Maintenance of As-Built Drawings", on a quarterly basis and submit them for independent Government review. Both paper and electronic documents shall be available at all times and shall be provided promptly to the Contracting Officer's Representatives when requested. The Contractor shall be responsible for backup of electronic files during construction and for controlling release of information.

The Contractor shall include an activity in the cost-loaded schedule for the final As-Built drawing submittal in the amount defined in the following paragraph. See LRL Section 01 32 01.00 06, PROJECT SCHEDULE, para "Basis for Payment and Cost Loading". This amount shall be withheld and not paid until the final As-Built drawing submittal has been accepted by the Government.

Withholding for the final as-built drawing submittal shall be in the amount of: 1% for contract awards less than $5,000,000; $50,000 for contracts awarded from $5,000,000 to $10,000,000; or $100,000 for contracts awarded greater than $10,000,000. Withholding shall be withheld until the final as-built drawing submittal has been approved and accepted by the Government.

1.8.2.3 Not used.

1.8.3 Maintenance of As-Built Drawings

The Contractor shall revise two (2) sets of paper drawings by red-line process to show the as-built conditions during the prosecution of the project. These as-built marked drawings shall be kept current on a weekly basis and available on the jobsite at all times. Changes in the work from the contract or additional information which is uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes. Changes must be reflected on all sheets that the change affects. The working as-built marked drawings will be jointly reviewed for accuracy and completeness by the Contracting Officer and the Contractor before submission of each monthly pay estimate. The working as-built drawings shall show the following information if applicable to the project, but not be limited thereto:

a. The actual location, kinds and sizes of all sub-surface utility lines. In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered over or obscured, the as-built drawings shall show, by offset dimensions to two permanently fixed surface features, the end of each run including each change in direction. Valves, splice boxes and similar appurtenances shall be located by dimensioning along the utility run from a reference point. The average depth below the surface of each run shall also be recorded.

b. The location and dimensions of any changes within the building structure.

c. The correct, alignments, grade elevations, typical cross section, earthwork, structures, or utilities if any changes were made from contract plans.

d. Additional as-built information that exceeds the detail shown on the Contract Drawings. These as-built conditions include those that reflect structural details, fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations and layouts, equipment, sizes, mechanical and electrical room layouts and other extensions of design, that were not shown in the original contract documents because the exact details were not known until after the time of approved shop drawings. It is recognized that the shop drawing submittals (revised showing as-built conditions) will serve as the as-built record without actual incorporation into the contract drawings. The final as-built construction drawing shall reference the shop drawing file that includes the as-built information. In turn, the shop drawing shall reference the applicable construction as-built drawing. All such shop drawing submittals must include the paper copy and PDF of the drawings.

e. The invert elevations and grades of any drainage structures or ditches installed or affected as part of the project construction.

f. Changes or modifications which result from the final inspection.

g. Not used.

h. Where contract drawings present options, only the option selected for construction shall be shown on the final as-built drawings.

i. Systems designed or enhanced by the Contractor, such as HVAC controls, fire alarms, fire sprinklers, fire protection, fire detection and irrigation systems and other related systems are included in this project, the as-built drawings will include detailed information for all aspects of the systems including wiring, piping, and equipment drawings.

j. Typically, room numbers shown on the contract drawings are selected for design convenience and do not represent the actual numbers intended for use by the end user. Final as-built drawings shall reflect actual room numbers adopted by the end user.

k. Contract modifications (change order price) shall include the Contractor's cost to change working and final as-built drawings to reflect modifications and compliance with the following procedures:

(1) Directions in the modification for posting descriptive changes shall be followed.

(2) A Revision Triangle shall be placed at the location of each deletion.

(3) For new details or sections which are added to a drawing, a Revision Triangle shall be placed by the detail or section title.

(4) For minor changes, a Revision Triangle shall be placed by the area changed on the drawing (each location).

(5) For major changes to a drawing, a Revision Triangle shall be

placed by the title of the affected plan, section, or detail at each location.

(6) For changes to schedules or drawings, a Revision Triangle shall be placed either by the schedule heading or by the change in the schedule.

1.8.4 Computer Aided Design and Drafting (CAD) Drawings

Only personnel proficient in the preparation of CAD drawings shall be employed to prepare and modify the construction drawings or prepare additional new drawings. Additions and corrections to the construction drawings shall be equal in quality to that of the originals. Line work, line weights, lettering, layering conventions, and symbols shall be the same as the original line work, line weights, lettering, layering conventions, and symbols. If additional drawings are required, they shall be prepared using the specified electronic file format applying the same guidance specified for original drawings. Three dimensional (3D) elements shall be placed in files in their proper locations when using 3D files with spatially correct elements. The title block and drawing border to be used for any new final as-built drawings shall be identical to that used on the contract drawings.

1) Additions and corrections to the contract drawings shall be accomplished using CAD media files supplied by the Designers of Record. All work by the Contractor shall be done on files in the format in which they are provided. Translation of files to a different format, for the purpose of As-Built production, and then retranslating back to the format originally provided, will not be acceptable. The Using Agency uses Autodesk AutoCAD CAD software system. The media files will be supplied by the Contractor to the COR on ISO 9660 Format CD-ROM. The Contractor shall be responsible for providing all program files and hardware necessary to prepare final as-built drawings. The Contracting Officer will review final as-built drawings for accuracy and the Contractor shall make all required corrections, changes, additions, and deletions.

2) When final revisions have been completed, the cover sheet drawing shall show the wording "RECORD DRAWING AS-BUILT" followed by the name of the Contractor in letters at least 3/16 inch high. All other contract drawings shall be marked in the bottom right-hand corner of each drawing either "AS-BUILT" drawing denoting no revisions on the sheet, or "REVISED AS-BUILT" denoting one or more revisions. Original contract drawings shall be dated in the revision block.

1.8.5 Not Used

1.8.6 Preliminary (Working) As-Built Drawings Submittal

Six (6)weeks before occupancy of this facility by the Government, the Contractor shall submit one (1) set of the original paper working as-built drawings to the Contracting Officer for review and approval. These working as-built marked drawings shall be neat, legible and accurate. The review by Government personnel will be expedited to the maximum extent possible. If upon review, the working as-built drawings are found to contain errors and/or omissions, they will be returned to the Contractor for corrections. The Contractor shall complete the corrections and return the working as-built marked drawings to the Contracting Officer within 10 calendar

days. Upon approval, the working as-built drawings will be returned to the Contractor for use in preparation of final as-built drawings.

1.8.7 Final As-Built Drawings

The contract drawings shall be modified as may be necessary to correctly show the features of the project as it has been constructed by bringing the contract drawings into agreement with approved working as-built drawings, adding such additional drawings as may be necessary. These final as-built drawings are part of the permanent records of the project and the Contractor shall be responsible for the protection and safety thereof until returned to the Contracting Officer. Any drawings damaged or lost by the Contractor shall be satisfactorily replaced by the Contractor at no expense to the Government.

When electronic CAD files are a part of the as-built process, a set of files shall be provided to the government as a part of the Final As-Built submittal for a review to verify the correctness of the as-built markups and that all changes have been incorporated into the electronic files. Should errors be determined, the contractor shall update the files and provide a corrected set of files within 14 calendar days of receipt of comments. An independent Government review will be made on the accepted files to determine compliance with the As-Built requirements of this section, National CAD Standards, and the AEC CAD Standards; and to verify graphic changes were done properly in preparing the electronic files. This review will require submission of electronic files, containing all the files needed to reproduce the contract drawings, a full size set of contract drawings in PDF format, all shop drawings in PDF format, a scanned copy of the paper markups and the paper markups. Upon receipt of any comments from this independent review, the contractor shall update the electronic files and provide a corrected set of files within 14 calendar days of receipt of the comments.

In the event the Contractor accomplishes additional work which changes the as-built conditions of the facility, after submission and approval of the working as-built drawings, the Contractor shall be responsible for the addition of these changes to the working as-built drawings and also to the final as-built documents.

1.8.8 Title Blocks

Title Blocks shall be clearly marked to indicate final as-built drawings.

1.8.9 Other As-Built Documents

All other documents such as design analysis, catalog cuts or certification documents that are not available in native electronic format shall be scanned and provided in an organized manner in Adobe PDF format.

1.9 EQUIPMENT DATA, O&M, & REPAIR MANUALS WITH FIELD TRAINING REQUIREMENTS

1.9.1 O&M and Repair Manuals

Withholding & Copies
The Contractor shall provide 6 electronic format copies on CD of the Equipment Operating, Maintenance, and Repair Manuals and two complete hard copies; these requirements shall apply even through the Technical Specification section indicates otherwise. The manuals shall be prepared electronically in PDF format containing bookmarks for each table of

contents item. The PDF file shall be referenced in a separate column or linked worksheet in the equipment data excel spreadsheet as described previously. Separate manuals shall be provided for each utility system as defined per the Technical Specification. Operations and Maintenance manuals shall be accepted/approved before field training or 30 calendar days before substantial completion (whichever occurs earlier). An amount of $10,000 shall be withheld until submittal and acceptance/approval of O&M manuals is complete. A draft outline and table of contents shall be submitted for acceptance/approval at 50% contract completion. See paragraph "EQUIPMENT OPERATING, MAINTENANCE,and REPAIR MANUALS" for detail O&M and Repair Manual format.

1.10 AVAILABILITY OF UTILITIES

a. Availability and Use of Utility Services

The Government will not furnish any utilities or sanitary facilities to the contractor for their use even if available at the work site. The contractor is responsible for procuring and/or providing these items themselves or obtaining them from a private entity (utility company). The Contractor shall furnish at no additional cost all utilities, including HVAC, lighting and electrical power, during furniture and IT/Telecom equipment installation and until the facility is turned over to the Government.

The contractor will coordinate with City Light & Power (CLP) for electrical utilities during construction. The contractor will be responsible for a connection fee to ensure temporary electrical services are available during construction. CLP will provide a meter and the associated equipment to ensure energy consumption is accurately captured. The contractor is responsible for coordinating with CLP any additional loads that may impact the exterior electrical services. CLP will make all electrical utility connections but not limited to providing overhead or underground extensions, transformers, switchgear, overcurrent protection, anchors, making all connections and disconnections. CLP will be responsible for maintaining all electrical services to the facility once the electrical utility connections have been completed.

b. Additional Requirements

(1) Drinking Water may not be obtained from existing outlets by Contractor personnel.

(2) Existing Washing Facilities in the building may not be used by Contractor employees.

1.10.1 Alterations to Utilities

Where changes and relocations of utility lines are noted to be performed by others, the Contractor shall give the Contracting Officer at least fifteen (15) calendar days written notice in advance of the time that the change or relocation is required. In the event that, after the expiration of thirty (30) calendar days after the receipt of such notice by the Contracting Officer, such utility lines have not been changed or relocated and delay is occasioned to the completion of the work under contract, the Contractor may be entitled to a time extension equal to the period of time

lost by the Contractor after the expiration of said thirty (30) calendar day period.

Interruptions of Utilities

a. No utility services shall be interrupted by the Contractor to make connections, to relocate, or for any purpose without approval of the Contracting Officer.

b. Request for Permission to shut down services shall be submitted in writing to the Contracting Officer not less than seventeen (17) working days before date of proposed interruption. The request shall give the following information:

(1) Nature of Utility. (Gas, L.P. or H.P., Water, etc.)
(2) Size of line and location of shutoff.
(3) Buildings and services affected.
(4) Hours and date of shutoff.
(5) Estimated length of time services will be interrupted.

c. Services shall not be shut off until receipt of approval of the proposed hours and date from the Contracting Officer.

d. Shutoffs which will cause interruption of Government work operations as determined by the Contracting Officer shall be accomplished during regular non-work hours or on non-work days of the Using Agency without any additional cost to the Government.

e. Operation of valves on water mains will be by persons of that utility. Where shutoff of water lines interrupts service to fire hydrants or fire sprinkler systems, the Contractor shall arrange his operations and have sufficient material and personnel available to complete the work without undue delay or to restore service without delay in event of emergency.

f. Flow in gas mains which have been shut off shall not be restored until the Government inspector has determined that all items serviced by the gas line have been shut off.

1.11 QUANTITY SURVEYS

In addition to the requirements found in FAR 52.236-16 "QUANTITY SURVEYS" in Section 00 70 00 the following will be included.

a. Promptly upon completing a survey, the Contractor shall furnish the originals of all field notes and all other records relating to the survey or to the layout of the work to the Contracting Officer, who shall use them as necessary to determine the amount of progress payments. The Contractor shall retain copies of all such material furnished to the Contracting Officer.

1.12 SUPERINTENDENCE OF SUBCONTRACTORS, SITE SAFETY AND HEALTH OFFICER (SSHO), AND CONSTRUCTION QUALITY CONTROL (CQC)

The QC manager may also serve as the Site Safety and Health Officer (SSHO), The QC manager must meet all SSHO requirements if the QC manager is to serve as the SSHO. All other staff requirements contained in the base contract are still required.

1.13 IDENTIFICATION OF EMPLOYEES

Identification of Employees is required for this task order. See Section 00 80 00.00 06, paragraph "IDENTIFICATION OF EMPLOYEES".

1.14 NOT USED

1.15 NOT USED

1.16 PROJECT SIGN

Version 1:

General. The Contractor shall furnish and erect at the location directed one project sign. See the base MATOC contract for detailed information and the attached Project Sign Details.

Project nomenclature shall be: Child Development Center Building 3069 Renovation

Customer or local sponsor shall be:Fort Campbell Department of Public Works

1.17 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

This provision specifies the procedure for the determination of time extensions for unusually severe weather in accordance with the FAR 52.249-10 "Default (Fixed-Price Construction)". Guidance can also be found in ER 415-1-15, "Construction Time Extensions for Weather". In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

a. The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

b. Indicate the location of the National Weather Service office closest to the site. See: https://www.weather.gov/srh/nwsoffices The Contractor shall make his own investigations and determinations as to weather conditions at the site. Data may be obtained from various National Weather Service offices located generally at airports of principal cities, the nearest to this project being: Nashville, TN.

c. The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.

The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in weather dependent activities.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY
WORK DAYS BASED ON (5) DAY WORK WEEK

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

6 6 6 6 6 4 6 5 4 4 5 6

Upon acknowledgment of the Notice to Proceed (NTP) and continuing throughout the contract, the Contractor will record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled work day. The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated listed above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the FAR 52.249-10 "Default (Fixed-Price Construction)".

1.18 NOT USED

1.19 INTERFERENCE WITH TRAFFIC AND PUBLIC AND PRIVATE PROPERTY

a. The Contractor at all times shall dispose his plant and conduct the work in such manner as to cause as little interference as possible with private and public travel. Damage (other than that resulting from normal wear and tear) to roads, shall be repaired to as good a condition as they were prior to the beginning of work and to the satisfaction of the Contracting Officer.

b. It is the Contractor's responsibility to coordinate the submittal of all Notices to Airman (NOTAM) with the installation and airfield managers prior to and during Construction as necessary to not impede current airfield operations.

1.20 NOT USED

1.21 GOVERNMENT FIELD OFFICE FACILITIES AND SERVICES

Government field office facilities are not required for this task order.

1.22 COMPLIANCE WITH POST/BASE REGULATIONS

Refer to the base MATOC contract for compliance requirements that apply to all Military projects located on military installations.

Ft Campbell requires the following additional compliance:

Fort Campbell has certain restrictions for roadway usage on protected run routes during the day. This information may be available on this website:

The Contractor shall coordinate with Fort Campbell installation for limitations and their requirements regarding Contractor's access at the site.

Contractor may choose to participate in the Fort Campbell RAPIDGate Program to expedite routine access to the installation. The RAPIDGate Program utilizes electronic verification of identity and access privileges at base Access Control Points (ACPs). Questions regarding the RAPIDGate Program can be addressed via email at info@rapidgate.com with the subject

line RE: RAPIDGate Program, or by phone at (270)798-5913.

(1) Enrollment/Registration

To participate, the Contactor shall register for the RAPIDGate Program as follows:

(a) Enroll in the Program by calling 1-877-RAPIDGate (1-877-727-4342). The program will confirm with the installation that the Contractor has legitimate business on the installation.

(b) Following Contractor enrollment, Contractor employees shall register at one of the self-service registration stations at the following locations: ACP 7 Visitor Control Center (Building 7199), ACP 4 Visitor Control Center (Building A5004). The RAPIDGate Program confirms the individual's employment status with the company, and then performs identity authentication and background screening. Qualified employees shall be issued a personalized RAPIDGate ID Card.

(c) Contractors enrolled in the RAPIDGate Program at other installations may request access for Fort Campbell base by calling 1-877-RAPIDGate (1-877-727-4342). Upon approval, previously issued RAPIDGate ID Cards will be activated for use at Fort Campbell base.

(2) Access Privilege Management

(a) RAPIDGate credential holders operating single axle medium to small vehicles or medium to small vehicles towing single axle trailers may enter the installation though any ACP. RAPIDGate credential holders operating multiple axle large commercial vehicles (greater than 27'-0" in length) or towing multiple axle trailers of any type must access the installation through ACP 7 or ACP 10. Access procedures may change at any time due to installation security requirements.

(b) Contractors that do not participate in the RAPIDGate Program shall access the installation through ACP 7. Employees shall go through the inspection area and will be subject to standard access control procedures, security screening and/or vehicle inspections. One day Contractor passes will be issued. Access procedures may change at any time due to installation security requirements.

1.23 CONTRACTOR SECURITY TRAINING/FACILITY ACCESS REQUIREMENTS

General security requirements and guidance:

The security requirements described below apply to all contract personnel (including employees of the prime Contractor ("Contractor") and all subcontractor employees) supporting the performance requirements of this contract. The Contractor is responsible for compliance with these security requirements. Questions regarding security matters shall be addressed to the designated Government representative (e.g., Contracting Officer Representative (COR), Requiring Activity (RA) representative, or Contracting Officer (if a COR or other RA representative is not appointed)). Contract personnel are critical to the overall security and safety of US Army Corps of Engineers (USACE) installations, facilities and activities, and security awareness training contributes to those efforts.

The Department of Defense (DoD) and Army security training requirements specified below, if applicable, are performance requirements; all applicable contract personnel shall complete initial training within 30 days of contract award or the date new contract personnel begin performance on the contract. Within five business days from the completion of training, the Contractor shall provide written documentation (e.g., email or memorandum) to the Government representative. The documentation shall include the names of contract personnel trained and which training they completed; the Contractor shall maintain training records as part of their contract files and be prepared to provide copies of training certificates to the Government representative. Contractor personnel and vehicles are subject to search when entering federal installations. Additionally, all contract personnel shall comply with Force Protection Condition (FPCON) measures, Random Antiterrorism Measures (commonly referred to as "RAMs"), and Health Protection Condition (HPCON) measures. The Contractor is responsible for meeting performance requirements during elevated FPCON and/or HPCON levels in accordance with applicable RA plans and procedures-this includes identifying mission essential and non-mission essential personnel. In addition to the changes otherwise authorized by the changes clause of this contract, should the FPCON or HPCON levels at any individual facility or installation change, the Government may implement security changes that affect contract personnel. The Contractor shall ensure all contract personnel are aware of their security responsibilities, including any site-specific requirements identified in local policies or procedures.

Antiterrorism (AT) Level I training: All contract personnel requiring routine access to Army installations, facilities, and controlled access areas, or requiring network access shall complete initial and annual refresher AT Level I awareness training. Online AT Level I awareness training is available at https://jko.jten.mil/ (website subject to change).

Physical security and access control requirements:
All contract personnel requiring physical access to a federal installation or facility shall comply with the access control procedures of that location. Contract personnel requiring unescorted access to meet contract performance requirements on a DoD installation in the US shall be vetted by the installation/facility Provost Marshal/Directorate of Emergency Services/Security Office using the National Crime Information Center-Interstate Identification Index (commonly referred to as "NCIC-III") and Terrorist Screening Database (commonly referred to as "TSDB"). Contract personnel shall comply with all personal identity verification requirements specified in installation/facility policies and procedures. Contract personnel who do not meet requirements for unescorted access to USACE facilities shall coordinate escorted access with the Government representative, as needed. Contract personnel who receive keys, access cards, or lock combinations that provide access to government-owned property shall comply with key and lock control procedures of the RA.

Suspicious Activity Reporting training (e.g. iWATCH, CorpsWatch, or See Something, Say Something): All contract personnel shall receive initial and annual refresher training from the RA representative on the local suspicious activity reporting program. This locally developed training provides contract personnel with general information on suspicious behavior, and guidance on reporting suspicious activity to the project manager, security representative or law enforcement entity.

Pre-screen candidates using E-Verify Program:

Contractors shall comply with the requirements set forth in FAR clause 52.222-54 Employment Eligibility Verification and FAR Subpart 22.18 in using the E-Verify Program at (https://www.e-verify.gov/) (website subject to change) to meet the contract employment eligibility requirements. Contractors are encouraged to cooperate with Federal and State agencies responsible for enforcing labor requirements to include eligibility for employment under United States immigration laws in accordance with FAR 22.102-1(i). An initial list of verified/eligible candidates shall be provided to the COR no later than three business days after the initial contract award. When contracts are with individuals, the individuals will be required to complete a Form I-9, Employment Eligibility Verification, and submit it to the Contracting Officer to become part of the official contract file.

1.24 NOT USED

1.25 AVAILABILITY OF SAFETY AND HEALTH REQUIREMENTS MANUAL (EM 385-1-1)

As covered by clause 52.236-13 "Accident Prevention" in Section 00 70 00, compliance with EM 385-1-1 is a requirement for this contract. Copies may be downloaded from the following website: https://www.publications.usace.army.mil/USACE-Publications/Engineer-Manuals/

1.26 NOT USED

1.27 RADIOACTIVE MATERIAL/EQUIPMENT

All equipment (e.g. nuclear density gauges) or items containing radioactive material brought onto any military or private installation must be licensed by the Nuclear Regulatory Commission, and or State/Local authorities having jurisdiction. Some locations are considered a non-agreement sites with respect to reciprocity with State permits and special permitting may be required prior to accessing the site with the equipment. Be aware that there may be several week review and processing periods that vary from location to location. Permitting for each site must be evaluated, with a copy of any obtained permit or license submitted to the Contracting Officer and uploaded into RMS.

1.28 CONSTRUCTION HAZARD COMMUNICATION

The Contractor is required to comply with the requirements of the OSHA Hazard Communication Standard in alignment with the Globally Harmonized System (GHS) (29 CFR 1926.59). This standard is designed to inform workers of safe and appropriate methods of working with hazardous substances in the workplace. The standard has five requirements, and every hazardous or potentially hazardous substance used or stored in the work area is subject to all five. They are:

(1) Hazard Classification. Any company which produces or imports a chemical or compound must conduct a hazard classification of the substance to determine its potential health or physical hazard. The hazard evaluation consists of an investigation of all the available scientific evidence about the substance. The Contractor is required to assure that all producers (manufacturer/distributors) have performed these classifications and transmit the required information with any hazardous materials being used or stored on the project site. From the hazard classification, a substance may be classified as a health hazard or a physical hazard. These classifications are then further broken down into hazard categories according to the

severity of the effect:

Health Hazards	**Physical Hazards**
Carcinogens	Combustible liquids
Irritants	Compressed gases
Sensitizers	Explosives
Corrosives	Flammables
Toxic substances	Organic peroxides
Highly toxic substances	Unstable substances
Substances harmful to specific organs or parts of the body	Water-reactive substances

(2) Warning Labels. If a chemical is hazardous or potentially hazardous, the producer or importer must affix a label to every container of that chemical before it leaves his facility. The Contractor must assure these labels are attached and legible. The label must identify the hazard symbol/pictograms, signal words, hazard statements, product name or identifier (identify hazardous ingredients, where appropriate), precautionary statements and pictograms, supplier identification, and supplemental information. If the hazardous substance is transferred to another container, that container must then be labeled, tagged, or marked with the name of the chemical and the appropriate hazard warning. Warning labels shall be replaced immediately if they are defaced or removed.

(3) Safety Data Sheets. The producer or importer must also supply a safety data sheet (SDS) that follows the 16 heading format as defined by GHS. The Contractor must keep these available in the work area where the substance is used, so that the people using the substance can easily review important safety and health information, such as:

(i) Emergency procedures for leaks, spills, fire and first aid.

(ii) Precautions necessary for use, handling, and storage.

(iii) Useful facts about the substance's physical or chemical properties.

(iv) Regulatory information and any other pertinent information including information on preparation and revision of the SDS.

(4) Work Area Specific Training. Because of hazardous substance may react differently depending on how it is used or the environment of the work area, the Contractor must conduct work area specific training; special training which takes the Contractor's operations, environment, and work policies into consideration. Work area training

presents:

The hazardous substances which are present in the work place and the hazards they pose.

Ways to protect against those hazards, such as protective equipment, emergency procedures, and safe handling.

Where the SDS's are kept, and an explanation of the labeling system.

Where the Contractor's written Hazard Communication Program is located.

(5) The Written Hazard Communication Program. In accordance with OSHA and the EM 385-1-1 requirements, the Contractor must prepare a written Hazard Communication Program. This document will be included in the Contractor's Accident Prevention Plan. This document states the hazardous or toxic agent inventory, how the Contractor plans to ensure that hazardous materials are appropriately labeled, how and where SDS's will be maintained, and how employees will be provided with specific information and training.

1.29 MECHANICAL/ELECTRICAL ROOM LAYOUT (LRL)

Detailed mechanical/electrical room layout drawings shall be submitted for approval in accordance with LRL Section 01 33 00.00 06 SUBMITTAL PROCEDURES. Layout drawings shall show location and maintenance clearances for all mechanical/electrical room equipment, and all utility runs/chases for mechanical, electrical, telephone and other similar systems. Drawings shall be submitted at the same time as the submittals for the equipment to be located within the mechanical/electrical room.

1.30 RED ZONE MEETING

Approximately 60 calendar days prior to anticipated Beneficial Occupancy Date (BOD), the Contractor and the Government's project delivery team will conduct what is known as the Red Zone Meeting. See Section 00 80 00.00 06 in the base MATOC contract.

1.31 PARTNERING

In order to most effectively accomplish this contract, the Government proposes to form a partnership with the Contractor to develop a cohesive building team. It is anticipated that this partnership would involve Project Delivery Team members from the Corps of Engineers, Program Sponsor, facility user representatives, the Contractor, primary subcontractors, and the designers. The partnership will draw upon the strength of each organization in an effort to achieve a project that is without any safety mishaps, conforms to the Contract, stays within budget and on schedule.

The Government encourages partnering to be initiated near the beginning of the Contract and endure through the life of the Contract. This partnership would be bilateral in membership and participation will be completely voluntary.

1.32 RESTRICTED ACCESS TO WICKHAM AVENUE

There will be NO crossing of Wickham Avenue by traffic of any kind from 1st Street to 59th Street from 0630-0800 local time, Monday-Friday.

1.33 PROGRESS PHOTOGRAPHS

Consult with Contracting Officer regarding the requirements for photography and authorizations needed.

Digital photographs shall be at least 4 megapixels and in JPEG format, uploaded to RMS no later than 48 hours following obtainment of photography.

Digital photographs are required to be furnished to the COR. The Contractor shall furnish digital photographs depicting the progress of the work during construction and after final inspection by the Contracting Officer of the conditions at the completion of the contract.

Each photograph shall be identified with the date made, contract title and number, location of work, as well as a brief description of work depicted.

No separate payment will be made for these services and all costs in connection thereto shall be considered a subsidiary obligation of the Contractor.

1.34 NOT USED

1.35 NOT USED

1.36 NOT USED

1.37 PROPOSED BETTERMENTS

a. The minimum requirements of the contract are identified in the Request for Proposal. All accepted betterments offered in the proposal become a requirement of the awarded contract.

b. "Betterment" is defined as any component or system which exceeds the minimum requirements stated in the Request for Proposal. This includes all proposed betterments listed in accordance with Submittal Requirements of the RFP, and all Government identified betterments.

c. "Government identified betterments" include the betterments identified on the "List of Accepted Project Betterments" prepared by the Proposal Evaluation Board and made a part of the contract by alteration, and all other betterments identified in the accepted Proposal after award.

1.38 SEQUENCE OF DESIGN/CONSTRUCTION

Fast Track Design Sequence:

a. The Contractor must submit for Government Acceptance a design Quality Control Plan in accordance with LRL Section 01 45 04.10 06, CONTRACTOR QUALITY CONTROL, Paragraph Design Quality Control Plan, before design may proceed.

b. After receipt of Notice to Proceed (NTP), the Contractor shall initiate design, comply with all design submission requirements as covered under Division 01 General Requirements, and obtain Government

review of each submission. The Contractor may begin construction on portions of the work for which the Government has reviewed the final design submission, all Government required revisions have been completed, revised documents have been resubmitted and are deemed satisfactory by the Government. The ACO or COR will notify the Contractor by letter when the design is cleared for construction. The Government will not grant any time extension for any design resubmittal required when, in the opinion of the ACO or COR, the initial submission failed to meet the minimum quality requirements as set forth in the Contract.

c. No payment will be made for any in-place construction until all required submittals have been made, reviewed and are satisfactory to the Government.

1.39 KEY PERSONNEL, SUBCONTRACTORS AND OUTSIDE ASSOCIATES OR CONSULTANTS

In connection with the services covered by this contract, any in-house personnel, subcontractors, and outside associates or consultants will be limited to individuals or firms that were specifically identified and agreed to during negotiations. The Contractor shall obtain the Contracting Officer's written consent before making any substitution for these designated in-house personnel, subcontractors, associates, or consultants.

1.40 REGISTRATION OF DESIGNERS

In addition to the requirements found in FAR 52.236-25 "REGISTRATION OF DESIGNERS" in Section 00 70 00 the following shall be required:

Additional Requirements/Clarifications Designer Registration: The design of architectural, structural, mechanical, electrical, civil, fire protection or other engineering features of the work shall be accomplished or reviewed and approved by designers registered/licensed to practice in the particular professional field involved in a State or possession of the United States, in Puerto Rico, or in the District of Columbia. Each final design submittal drawing and certified final drawings ready for construction shall be signed and sealed by the registered professional (Designer of Record) responsible for the design indicated on the particular sealed sheet.

1.41 DESIGN/BUILD CONTRACT - ORDER OF PRECEDENCE

a. The contract includes the standard contract provisions and schedules current at the time of contract award. It entails (1) the solicitation in its entirety, including all drawings, cuts, and illustrations, and any amendments, and (2) the successful offeror's accepted proposal. The contract constitutes and defines the entire agreement between the Contractor and the Government. No documentation shall be omitted which in any way bears upon the terms of that agreement.

b. In the event of conflict or inconsistency between any of the provisions of this contract, precedence shall be given in the following order:

(1) Betterments: Any portions of the accepted proposal which both conform to and exceed the provisions of the solicitation.

(2) The provisions of the solicitation. (See also FAR 52.236-21 "Specifications And Drawings For Construction".) If the proposal, or any approved design submission, offers to provide any requirement that does not meet the solicitation's specifications and drawings, and that item is not specifically recognized during evaluation as a proposal weakness, it is a deviation. Deviations from the minimum standard of quality required by the solicitation shall not be accepted unless identified and specifically approved by the Contracting Officer in writing. Unless specifically identified and approved by the Contracting Officer, the Contractor must provide the solicitation requirements without additional cost to the Government.

(3) All other provisions of the accepted proposal.

(4) Any design products including, but not limited to, plans, specifications, engineering studies and analyses, shop drawings, equipment installation drawings, etc. These are "deliverables" under the contract and are not part of the contract itself. Design products must conform with all provisions of the contract, in the order of precedence herein.

1.42 DESIGN CONFERENCES

a. Pre-Work: As part of the Pre-work meeting conducted after contract award, key representatives of the Government and the Contractor will review the design submission and review procedures specified herein, discuss the preliminary design schedule and provisions for phase completion of the D/B documents with construction activities (fast tracking), as appropriate, meet with Corps of Engineers Design Review personnel and key Using Agency points of contact and any other appropriate pre-design discussion items.

b. Design Charette: After award of the contract, the Contractor shall visit the site and conduct extensive interviews, and problem solving discussions with the individual users, base personnel, Corps of Engineers personnel to acquire all necessary site information, review user operations, and discuss user needs. The Contractor shall document all discussions. The design shall be finalized as direct result of these meetings.

c. Design Review Conferences: Review conferences will be held on post base for each design for each submittal. The Contractor shall bring the personnel that developed the design submittal to the review conference. The conferences will take place the week after the review is complete.

1.43 RESPONSIBILITY OF THE CONTRACTOR FOR DESIGN

a. The Contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other non-construction services furnished by the Contractor under this contract. The Contractor shall, without additional compensation, correct or revise any errors or deficiency in its designs, drawings, specifications, and other non-construction services and perform any necessary rework or modifications, including any damage to real or personal property, resulting from the design error or omission.

b. The standard of care for all design services performed under this

agreement shall be the care and skill ordinarily used by members of the architectural or engineering professions practicing under similar conditions at the same time and locality. Notwithstanding the above, in the event that the contract specifies that portions of the Work be performed in accordance with a performance standard, the design services shall be performed so as to achieve such standards.

c. Neither the Government's review, approval or acceptance of, nor payment for, the services required under this contact shall be construed to operate as a waiver of any rights under this contract or of any cause of action arising out of the performance of this contract. The Contractor shall be and remain liable to the Government in accordance with applicable law for all damages to the Government caused by the Contractor's negligent performance of any of these services furnished under this contract.

d. The rights and remedies of the Government provided for under this contract are in addition to any other rights and remedies provided by law.

e. If the Contractor is comprised of more than one legal entity, each entity shall be jointly and severally liable hereunder.

1.44 WARRANTY OF DESIGN (FIRM-FIXED PRICE DESIGN-BUILD CONTRACT)

a. The Contractor warrants that the design shall be performed in accordance with the Contract requirements. Design and design related construction not conforming to the Contract requirements shall be corrected at no additional cost to the Government. The standard of care for design is defined in paragraph (b) of UAI Clause 5152.236-9004 "Responsibility of the Contractor for Design".

b. The period of this warranty shall commence upon final completion and the Government's acceptance of the work, or in the case of the Government's beneficial occupancy of all or part of the work for its convenience, prior to final completion and acceptance, at the time of such occupancy.

c. This design warranty shall be effective from the above event through the Statue of Limitations and Statute of Repose, as applicable to the state that the project is located in.

d. The rights and remedies of the Government provided for under this clause are in addition to any other rights and remedies provided in this contract or by law.

1.45 CONSTRUCTOR'S ROLE DURING DESIGN

The Contractor's construction management key personnel shall be actively involved during the design process to effectively integrate the design and construction requirements of this contract. In addition to the typical required construction activities, the constructor's involvement includes, but is not limited to actions such as: integrating the design schedule into the Master Schedule to maximize the effectiveness of fast-tracking design and construction (within the limits allowed in the contract), ensuring contractibility and economy of the design, integrating the shop drawing and installation drawing process into the design, executing the material and equipment acquisition programs to meet critical schedules, effectively interfacing the construction QC program with the design QC

program, and maintaining and providing the design team with accurate, up-to-date redline and as-built documentation. The Contractor shall require and manage the active involvement of key trade subcontractors in the above activities.

1.46 FINAL CLEANING

Clean the premises in accordance with FAR 52.236-12 "Cleaning Up" and additional requirements stated here. Remove stains, foreign substances, and temporary labels from surfaces. Vacuum carpet and soft surfaces. Clean equipment and fixtures to a sanitary condition. Clean or replace filters of operating equipment if cleaning is not possible or practicable. Remove debris from roofs, drainage systems, gutters, and downspouts. Sweep paved areas and rake clean landscaped areas. Remove waste, surplus materials, and rubbish from the site. Remove all temporary structures, barricades, project signs, fences and construction facilities. A list of completed clean-up items shall be submitted on the day of final inspection.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

-- End of Section --

Enclosure 1

1. *Standard Identification Sign:* Note that the 8A minimum width above has been reduced from 8.5A in order to allow ample space between the text and the Army Star logo. Putting extra space between the end of the text and the .7A is permitted for the purpose of having the sign width round to the nearest foot.

2. *Construction Identification Sign:* The new Army Star logo is wider than its predecessor.

Each contractor's safety record is to be posted on Corps managed or supervised construction projects and mounted with the Construction Project Identification sign specified on page 16-2.

The graphic format, color, size and typefaces used on the sign are to be reproduced exactly as specified below. The title with First Aid logo in the top section of the sign, and the performance record captions are standard for all signs of this type. Legend groups 2 and 3 below identify the project and the contractor and are to be placed on the sign as shown.

Safety record numbers are mounted on individual metal plates and are screw-mounted to the background to allow for daily revisions to posted safety performance record.

Special applications or situations not covered in these guidelines should be referred to the district Sign Program Manager.

Legend Group 1: Standard two-line title "Safety is a Job Requirement" with 8" (outside diameter) Safety Green first aid logo.
Color: To match Pantone system 347
Typeface: 3" Helvetica Bold
Color: Black

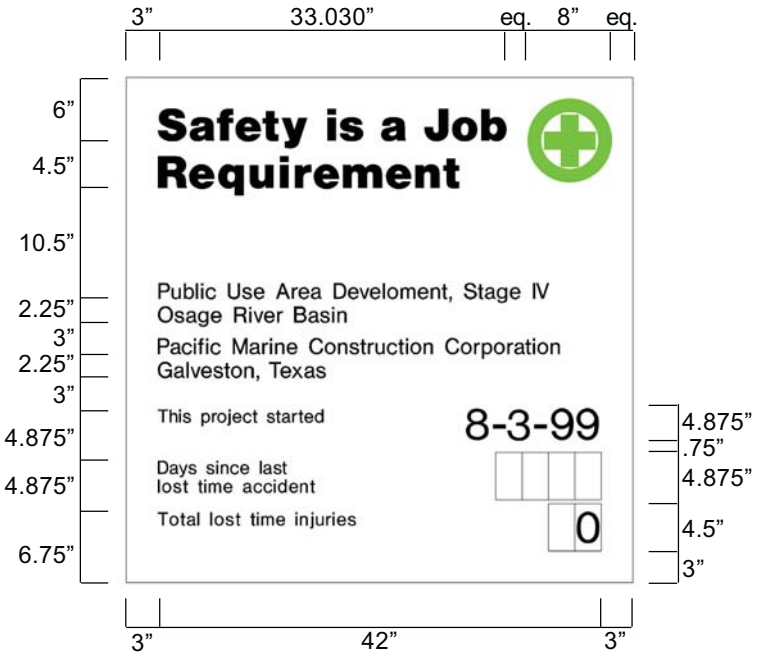
Legend Group 2: One- to two-line project title legend describes the work being done under this contract and name of host project.
Color: Black
Typeface: 1.5" Helvetica Regular
Maximum line length: 42"

Legend Group 3: One- to two-line identification: name of prime contractor and city, state address. Color: Black
Typeface: 1.5" Helvetica Regular
Maximum line length: 42"

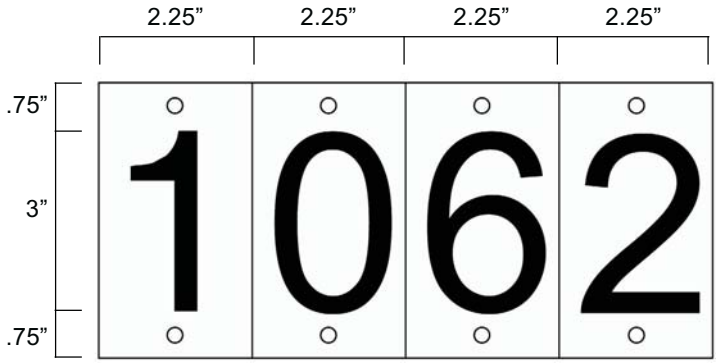
Legend Group 4: Standard safety record captions as shown.
Color: Black
Typeface: 1.25" Helvetica Regular

Replaceable numbers are to be mounted on white .060 aluminum plates and screw-mounted to background.
Color: Black
Typeface: 3" Helvetica Regular
Plate size: 2.5" x 4.5"

All typography is flush left and rag right, upper and lower case with initial capitals only as shown. Letter- and word-spacing to follow Corps standards as specified in Appendix D.



Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
CID-02	various	4'x4'	4"x4"	HDO-3	48"	WH/BK-SG



All Construction Project Identification signs and Safety Performance signs are to be fabricated and installed as described below. The signs are to be erected at a location designated by the contracting officer representative and shall conform to the size, format, and typographic standards shown on pages16-2 thru 16-4. Detailed specifications for HDO plywood panel preparation are provided in Appendix B.

Shown below the mounting diagram is a panel layout grid with spaces provided for project information. Photocopy this page and use as a worksheet when preparing sign legend orders.

For additional information on the proper method to prepare sign panel graphics, contact the district Sign Program Manager.

The sign panels are to be fabricated from .75" High Density Overlay Plywood. Panel preparation to follow HDO specifications provided in Appendix B.

Sign graphics to be prepared on a white nonreflective vinyl film with positionable adhesive backing.

All graphics except for the Communication Red background with Corps Signature on the project sign are to be die-cut or computer-cut nonreflective vinyl, prespaced legends prepared in the sizes and typefaces specified and applied to the background panel following the graphic formats shown on pages 16-2 and 16-3.

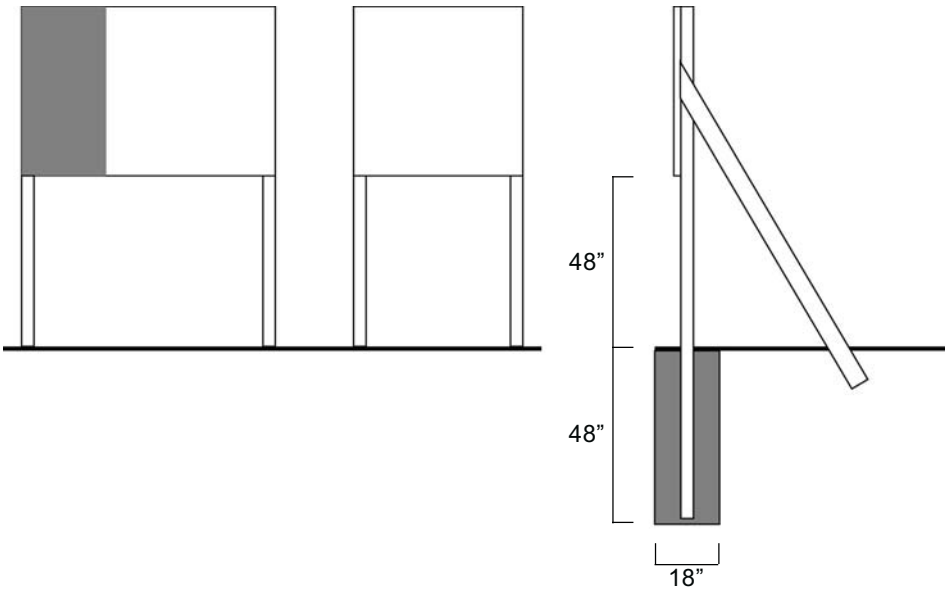
The 2'x 4' Communication Red panel (to match Pantone system 032) with full Corps Signature (reverse version) is to be screen-printed on the white background. Identification of the district or division may be applied under the signature with white cut vinyl letters prepared to Corps standards.

Drill and insert six (6) .375" T-nuts from the front face of the HDO sign panel. Position holes as shown. Flange of T-nut to be flush with sign face.

Apply graphic panel to prepared HDO plywood panel following manufacturers' instructions.

Sign uprights to be structural grade 4" x 4" treated Douglas Fir or Southern Yellow Pine, No.1 or better. Post to be 12' long. Drill six (6) .375" mounting holes in uprights to align with T-nuts in sign panel. Countersink (.5") back of hole to accept socket head cap screw (4" x .375").

Assemble sign panel and uprights. Imbed assembled sign panel and uprights in 4' hole. Local soil conditions and/or wind loading may require bolting additional 2" x 4" struts on inside face of uprights to reinforce installation as shown.



Construction Project Identification Sign
Legend Group 1: Corps Relationship

1. _____
2. _____

Legend Group 2: Division/District Name

1. _____
2. _____

Legend Group 2a: Military/Civil Works Sponsor

1. _____
2. _____

Legend Group 3: Project Title

1. _____
2. _____
3. _____

Legend Group 4: Facility Name

1. _____
2. _____

Legend Group 5: Contractor/A&E

1. _____
2. _____
3. _____
4. _____
5. _____

Legend Group 5b: Contractor/A&E

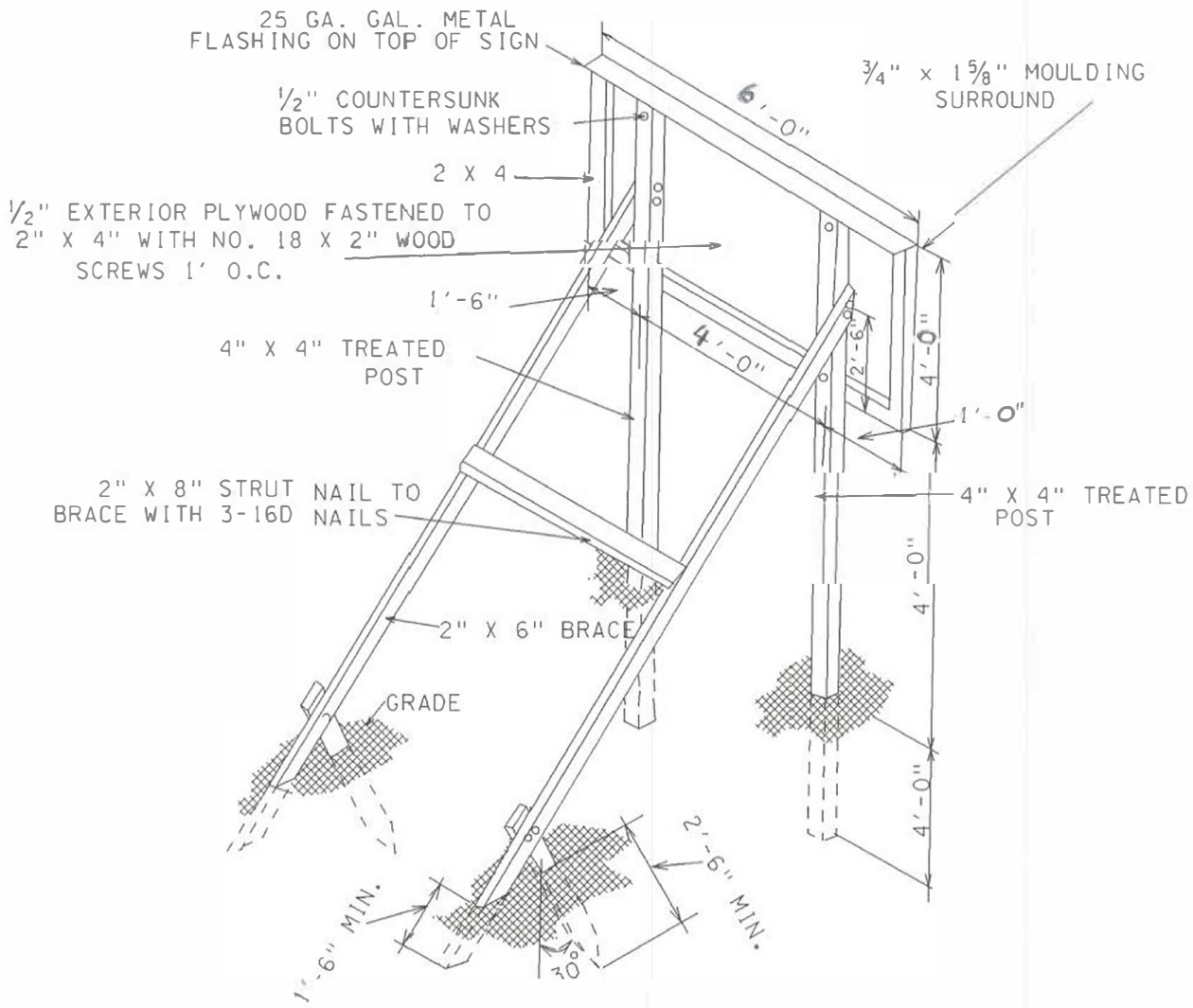
1. _____
2. _____
3. _____
4. _____
5. _____

Safety Performance Sign
Legend Group 2: Project Title

1. _____
2. _____

Legend Group 3: Contractor/A&E

1. _____
2. _____



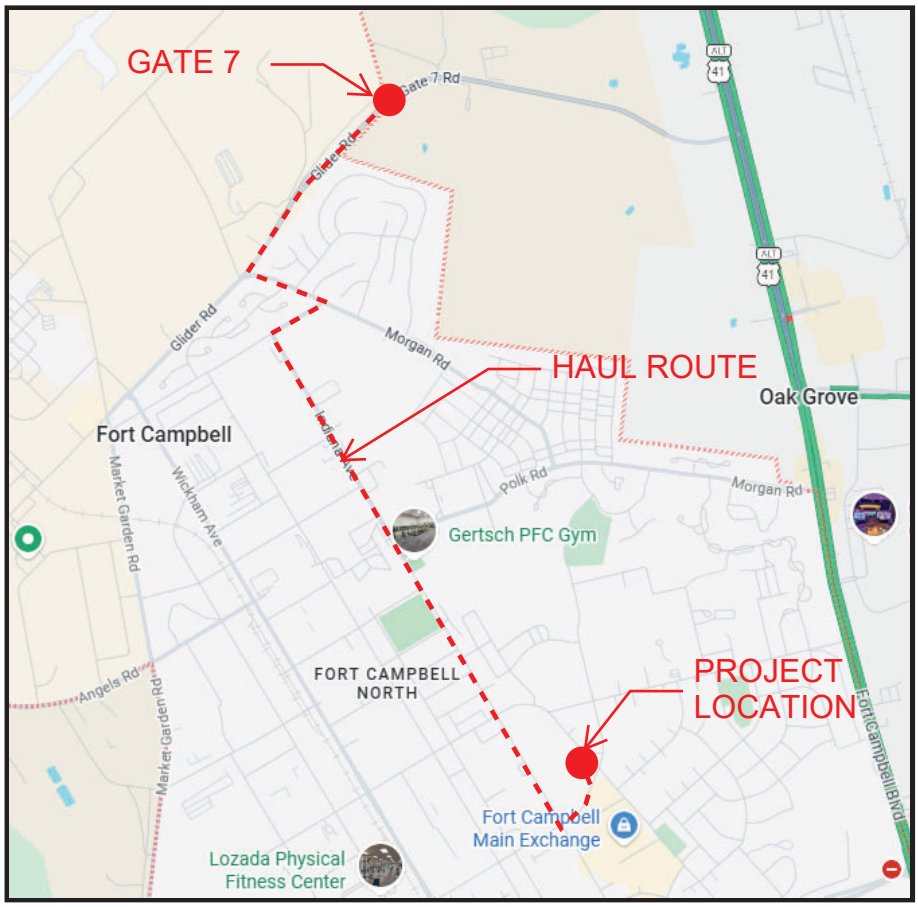
CONSTRUCTION SIGN ISOMETRIC

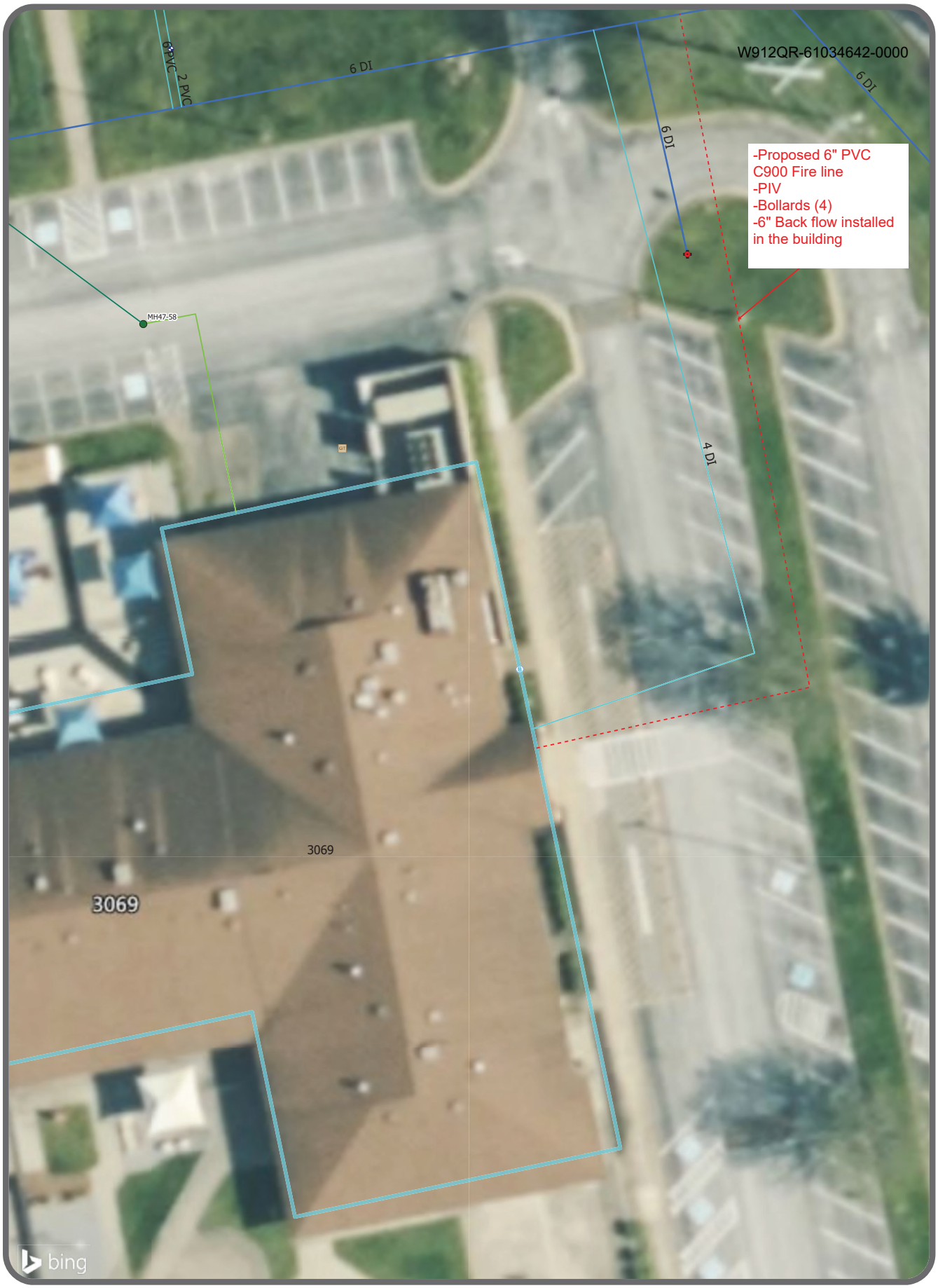
ERECTION DETAILS

FILE: C:°TEMP°SIGN.DGN
DATE: 23-Feb-00 13:55

PROJECT LIMITS AND LAYDOWN AREA

PROJECT HAUL ROUTE





Legend

0 25 50
US Feet

- Hydrants
- Meters
- Water Valves
- Water Service Lines
- Water Main
- GravityMains
- Clean Outs
- Manholes
- Sewer Laterals
- Sewer Force Main

N W E S

Building B3069

Water & Sewer

Jacobs ch2m

SECTION 01 02 10.00 06

PROJECT DESCRIPTION AND DESIGN REQUIREMENTS
09/17

PART 1 DESIGN OBJECTIVES

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only. For references that do not have a year called out, the most current reference version at contract award applies.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI A137.1	Ceramic Tile
ANSI A250.8/SDI 100	Standard Steel Doors and Frames
ANSI/AWWA C105/A21.5	Polyethylene Encasement for Ductile-Iron Pipe Systems
ANSI/AWS D1.1	(2025) Structural Welding Code - Steel
ANSI/BHMA A156.1	Butts and Hinges
ANSI/BHMA A156.2	Bored and Preassembled Locks and Latches
ANSI/BHMA A156.3	Exit Devices
ANSI/BHMA A156.4	Door Controls-Closers
ANSI/BHMA A156.15	Release Devices
ANSI/BHMA A156.16	Auxiliary Hardware
ANSI/BHMA A156.6	Architectural Door trim
ANSI/BHMA A156.21	Thresholds
ANSI/BHMA A156.22	Door Gasketing and Edge Seal Systems
ANSI C2	National Electrical Safety Code

AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)

ASCE 7	Minimum Design Loads for Buildings and Other Structures

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

NEMA PB 1	(2011) Panelboards

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE)

ASHRAE 62.1	(2010; Errata 2011; INT 21 2012) Ventilation for Acceptable Indoor Air Quality
ASHRAE 90.1	(2010; Errata 2011; INT 2-12 2011; Errata 2011, INT 13 2012; Errata 2012) Energy Standard for Buildings except Low-Rise Residential Buildings

ASME INTERNATIONAL (ASME)

ASME A17.1	(2019) Safety Code for Elevators and Escalators

ASTM INTERNATIONAL (ASTM)

ASTM A325	(2010) Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength
ASTM A36	(2008) Carbon Structural Steel
ASTM A490	(2012) Structural Bolts, Alloy Steel, Heat Treated, 150 ksi Minimum Tensile Strength
ASTM A500	(2010a) Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes
ASTM A53	(2012) Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
ASTM A615	(2012) Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
ASTM A653	(2011) Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
ASTM A705	(1995; R 2009) Age-Hardening Stainless Steel Forgings
ASTM A706	(2009b) Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement
ASTM A924	(2010a) Steel Sheet, Metallic-Coated by the Hot-Dip Process
ASTM A992	(2011) Structural Steel Shapes
ASTM C1396	(2024) Gypsum Board

ASTM C475	(2020) Joint Compound and Joint Tape for Finishing Gypsum Board
ASTM C645	(2024) Nonstructural Steel Framing Members
ASTM C646	Steel Drill Screws for the Application of Gypsum Board to Light-Gauge Steel Studs
ASTM C840	(2020) Application and Finishing of Gypsum Board
ASTM D1557	(2012; R 2021) Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3) (2700 kN-m/m3)
ASTM D1751	(2018) Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Non-extruding and Resilient Bituminous Types)
ASTM D1752	(2018) Preformed Sponge Rubber Cork and Recycled PVC Expansion
ASTM E1465	(2017) Radon Control Options for Design and Construction of New Low-Rise Residential Buildings
ASTM E84	(2021a) Surface Burning Characteristics of Building Materials
ASTM F2479	(2017) Standard Guide for Specification, Purchase, Installation and Maintenance of Poured-In-Place Playground Surfacing

INTERNATIONAL BUILDING CODE

IBC	(2024) International Building Code

INTERNATIONAL EXISITNG BUILDING CODE

IEBC	(2024) International Existing Building Code

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA)

ITA	*TIA-568 Commercial; Building Telecommunications Cabling*

ELECTRONIC INDUSTRIES ALLIANCE (EIA)

EIA/TIA 568B	Commercial Building Telecommunications Cabling Standard
EIA/TIA 569	Pathways and Spaces
EIA/TIA 569A	Commercial Buildings Telecommunications Pathways and Spaces

EIA/TIA 569B	Commercial Buildings Telecommunications Pathways and Spaces
EIA/TIA 569C	Commercial Building Telecommunications Wiring Standard
EIA/TIA 607	Grounding and Bonding Requirements NACE INTERNATIONAL (NACE)
NACE SP-0169	Control of External Corrosion on Underground or Submerged Metallic Piping Systems
NACE SP-0286	Electrical Isolation of Cathodically Protected Pipelines
NACE SP-0185	Extruded Polyolefin Resin Coating Systems with Soft Adhesives for Underground or Submerged Pipe

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 1	Fire Code
NFPA 10	Standard for Portable Fire Extinguishers
NFPA 13	Installation of Sprinkler Systems
NFPA 17A	Standard for Wet Chemical Extinguishing Systems
NFPA 20	Installation of Stationary Pumps for Fire Protection
NFPA 24	Installation of Private Fire Service Mains and Their Appurtenances
NFPA 70	National Electrical Code
NFPA 72	National Fire Alarm and Signaling Code
NFPA 80	Fire Doors and Other Opening Protectives
NFPA 90A	Installation of Air-Conditioning and Ventilating Systems
NFPA 101	Life Safety Code
NFPA 780	Installation of Lightning Protection Systems

NIST

ICSSC RP-10	Recommended Practice 10, Standards of Seismic Safety for Existing Federally Owned and Leased Buildings

SUSTAINABILITY

ASDDP	(2017) Army Sustainable Design and Development Policy

UNIFIED FACILITIES CRITERIA (UFC)

UFC 1-200-01	DoD Building Code
UFC 3-120-01	Sign Standards
UFC 3-301-01	Structural Engineering
UFC 3-410-01	HVAC Systems
UFC 3-410-02	DCC For HVAC
UFC 3-420-01	Plumbing Systems
UFC 3-470-01	Lonworks Utility Monitoring
UFC 3-501-01	Electrical Engineering
UFC 3-520-01	Interior Electrical Systems
UFC 3-530-01	Interior and Exterior Lighting and Controls
UFC 3-550-01	Exterior Electrical Power Distribution
UFC 3-575-01	Lightning and Static Electricity Protection Systems
UFC 3-580-01	Telecommunications Building Cabling Systems Planning and Design
UFC 3-600-01	Fire Protection Engineering for Facilities
UFC 4-010-01	DoD Minimum Antiterrorism Standards for Buildings
UFC 4-021-01	Design and O&M: Mass Notification Systems
UFC 4-470-15	Continuous Child Care Facilities

UNDERWRITERS LABORATORIES (UL)

UL 1638	Visual Signaling Appliances - Private Mode Emergency and General Utility Signaling
UL 1971	Signaling Devices for the Hearing Impaired
UL 2017	General-Purpose Signaling Devices and Systems
UL 67	Panelboards

UL 864	Control Units and Accessories for Fire Alarm Systems
UL 869A	Service Equipment

UNITED STATES ARMY CORPS OF ENGINEERS

USACE	(2024) Standard Design Criteria School Age Centers for Children Ages Six Weeks to Five Years of Age Links: https://mrsi.erdc.dren.mil/cos/standard-designs/ https://mrsi.erdc.dren.mil/cos/hnc/cdcu6/

Note: Due to existing conditions and user/USACE requirements some items are in variance to the Standard Design Criteria requirements. See Attachment C for a list of variances.

1.1.1 Description

Design and construction shall comply with the requirements contained in this Request for Proposals (RFP). The design and technical criteria contained and cited in this RFP, the Unified Facilities Guide Specifications (UFGS), and the Unified Facilities Criteria (UFC) establish minimum standards for design and construction quality. The Designers of Record shall use the Unified Facilities Guide Specifications (UFGS), UFC's and the requirements contained in this RFP to fully develop the technical specifications and construction drawings. The objective of this solicitation is to obtain a single, durable, functional building complete and adequate for assignment as a Child Development Center.

Floor plans provided must be followed by the Design/Build Contractor to comply with the Ft. Campbell CDC functional needs.

This contract shall consist of a base bid for the design, demolition, and construction of the interior layout of building 3069, including childcare areas, administrative and operations areas complete with associated utilities, communications, electric, HVAC, and fire protection/alarm system.

Any existing building furniture will be removed, stored and moved back by the contractor.

The as-built drawings for B3069 are available upon request.

The contract also includes the following bid options:

Bid Option 1 Description – Provide resurfacing of outside playground areas as outline in the RFP document.

Bid Option 2 Description – Provide new kitchen equipment and finishes as outlined in the RFP document.

Bid Option 3 Description – Provide new Store Front Doors and Frames except for Hardware, weather seal and finger guards which are in the base bid. These are 2 sets of doors at main entrance to building.

Bid Option 4 Description – Provide new Exterior Doors and Frames except for Hardware, weather seal and finger guards which are in the base bid. Contractor to confirm the number of base bid hardware that does not meet ABA/CDC requirements prior to bidding.

Bid Option 5 Description – Provide new Interior Doors and Frames except for Hardware, and finger guards which are in the base bid. Contractor to confirm the number of base bid hardware that does not meet ABA/CDC requirements prior to bidding

Bid Option 6 Description – Provide exterior Brick Cleaning and sealing, does not include fixing cause of efflorescence.

1.1.2 Scope of Work by Discipline

1.1.2.1 Civil

The existing parking lot, drives, roads, sidewalks, and outdoor storage areas are excluded from the scope of work. The existing sanitary services, domestic water, and parking lot drainage services will not be improved. The existing 4" fire service line shall be replaced with a 6" service. Installation of a 6" double check backflow preventer is required, coordinate location with DPW (Department of Public Works).

The project includes existing toddler playground surfaces. The surface materials shall be compliant with the CPSC Public Playground Safety Handbook and in accordance with ASTM F2479. Replace top layer of surface with thickness required for play structure height.

The project limits and haul route are shown in the specifications behind project sign. The physical training routes and times can be found here: https://home.army.mil/campbell/about/faq/recreation/pt-routes

1.1.2.2 Structural

This project consists of structural support design and modifications to the existing structure for architectural, plumbing, electrical, and mechanical renovations. The existing Building 3069 one-story brick façade facility structural framing system consists of a combination of conventional steel framing and load bearing concrete masonry supported on concrete shallow foundation. Facility usage primarily consists of classrooms, daycare facilities and office rooms.

Roof structure is primarily framed with steel joists and steel beam girders, bearing on CMU walls, supporting a 1-1/2 inch 22-gauge metal deck and an architectural roof. The attic structure consists of joist and V.S. joists substitute framing, bearing on cold-formed metal stud walls, supporting 1/4 inch diamond face plate steel.

The existing ground floor slab consists of 4-inch-thick slab on grade with a vapor barrier, 6" capillary base and compacted granular base, reinforced with temperature and shrinkage steel welded wire mesh. The CMU load-bearing walls are supported by continuous, reinforced concrete footings. Reinforced thickened slab locations are used to support the interior shear walls. The interior shear walls consist of metal stud cross-braced frames which resist the lateral wind and seismic loads on the building.

Modifications are anticipated to be limited to architectural openings in the CMU load-bearing walls and metal stud shear walls. Structural work will involve reinforcing the existing CMU walls and shear walls to accommodate the new floor plan. Structural work shall also include slab demolition and patchwork to incorporate new plumbing as required. All structural modifications will be designed to comply with UFC requirements assigned to Risk Category III facility.

1.1.2.3 Architectural

1.1.2.3.1 Child Development Center (CDC) Design Goals

The DB Contractor shall design and renovate the existing 23,672 GSF CDC Building 3069 for Fort Campbell that will result in an assimilation of the current CDC Standards from the USACE Center of Standardization for Child and Youth Services to the fullest extent possible. https://mrsi.erdc.dren.mil/cos/hnc/cdcu6/

1.1.2.3.2 Exterior Design Objectives

The design intent is to maintain the existing envelope with no new window openings. All exterior doors are to be replaced. The envelope is to be inspected and cleaned. Notify the contracting officer of any portions of the envelope that needs repair. There is some efflorescence noted around various locations that will need to be cleaned. All exterior brick is to be cleaned and sealed.

Roof is not in Scope of Work. No work to existing roof shall be done.

1.1.2.3.3 Interior Architecture

The design intent is to utilize the existing walls of the office block area which includes the vestibule, waiting area, telecommunication closet, reception area with demolished and replaced reception desk millwork, isolation space, isolation toilet, open office area, and existing storage rooms up to the structural wall at the North corridor as well as the existing mechanical room and kitchen. The interior walls of these rooms stated are to remain as-is, and the rooms are to receive new ceiling, flooring, and wall finishes. The remaining spaces in the CDC are to be reconfigured as shown on the conceptual drawings in Appendix A. There are nine Pre-Toddler / Toddler Activity rooms and four Pre-K Activity rooms. These activity rooms have

vision panels in the corridor above the cubbies in addition to a sidelight at the entrance door. Each activity room has toilets and sinks for the children. The ceilings are to be acoustic ceiling tile with heights and Noise Reduction Coefficient (NRC) values as noted in the CDC Standards. Ensure that wall construction maintains the minimum Sound Transmission Class (STC) as noted in the CDC Standards. All finger-guards to be replaced and new for all doors. When placing toilet accessories, be vigilant on locations where they may conflict with sinks and provide adequate clearances for all items.

1.1.2.3.4 Interior Finishes

Proposed finishes to have durability, easy-to-clean surfaces, low maintenance, and have sustainable features such as low VOCs and made of recycled content. Interior walls to be painted epoxy paint with level 4 drywall finish, with low VOCs. General flooring finishes in the building to be luxury vinyl tile with rubber base and sheet vinyl, restrooms to have thru-body porcelain tile flooring with tile base. The facility entrance will have walk-off carpet tiles, and back of house areas to have sealed concrete or resilient flooring with rubber base. At any location where base wraps around an outside corner and the return is less than 4" a preformed base corner shall be used. General ceilings of the building to be acoustical ceiling tile.

Millwork consists of custom-grade units made from plywood framing and high-pressure laminate finish. Counter tops to be made of solid surface quartz at reception desk, restrooms, and lounge areas. Solid surface countertops for Diaper Changing Stations. Tops of half-walls should be finished with solid surface that matches nearby countertops, and edges to be eased. Replace window stools with solid surface and it must be flush with wall

Window treatments include horizontal blinds, shall be coordinated in the SID and therefore, included in the construction project.

1.1.2.3.5 Furniture, Fixtures, and Equipment (FF&E) and Signage

Building 3069 for Fort Campbell that will result in an assimilation of the 2025 CDC Standards from the 'Army Standard for School Age Centers (SAC) For Children Ages Six To Ten Years Of Age: SAC - Comprehensive Furniture, Fixtures, And Equipment (FF&E)' to the fullest extent possible. https://mrsi.erdc.dren.mil/cos/hnc/cdcu6/

General contractor to include demolitions of kitchen equipment and the removal and disposal of existing FFE. Proposed new furniture and equipment to be durable, easy-to-clean, and have sustainable features such as low VOCs, PVC free, and local to the site's region or USA-Made. Provide a Furniture, Fixtures, & Equipment (FF&E) Package for all spaces where appropriate.

FF&E shall be procured by the Government using FF&E Package prepared by the DB Contractor. The DB Contractor shall ensure coordination between the furnishings, fixtures, and equipment in the FF&E Package, finishes in the Structural Interiors Design (SID), government furnished government installed (GFGI) equipment, building structure, and building utilities including location of light switches, electrical outlets, communications outlets, utility panels, and HVAC units within furnished areas. Large area rugs are to be provided where children's activities involving sitting on the floor will

occur, which will be part of the FF&E provided by the Government.

Interior signage for the project shall be Contractor Furnished Contractor Installed (CFCI) and to include room identification for all spaces. Interior signage shall be included in the SID package and shall be provided in accordance with UFC 3-120-01. Signage schedule, plan, and details shall be included in the SID package and in the construction drawings. Interior signage shall comply with the CDC sign standards.

1.1.2.4 Mechanical

1.1.2.4.1 General Overview

The mechanical system for this project consists of selective demolition of existing mechanical systems and providing new mechanical systems in accordance with the architectural layout and the Standard Design Criteria Child Development Centers. Refer to the drawings attached in the RFP for additional information. Provide new air handlers, VAV terminal units, chiller, chilled water pumps and accessories, boilers, boiler pumps and accessories, and controls. Main distribution ductwork and piping can be reused to the greatest extent practical; new branch piping and ductwork are required where new equipment is being installed. All new piping must be copper Type L if 2" or less and steel if 2.5" or larger. Provide galvanized ductwork and double wall if exposed.

1.1.2.4.2 Existing Conditions

The original building design had constant volume, single-zone air handling units (AHUs); however, there was a renovation for variable air volume (VAV) systems in 2010, with final installation in 2012. Condensing boilers provide hot water to AHUs and VAV terminal units for building heating.

Building cooling is currently provided by a temporary air-cooled chiller located outside of the mechanical yard. The previous, permanent air-cooled chiller has been disconnected from the building and is still located inside the mechanical yard.

1.1.2.4.3 Mechanical System Modifications

Based on existing chiller elements failing, replace the existing chiller with a variable speed chiller capable of lower turndown rates. The chilled water pumps and accessories are to be replaced and equipped with Variable Frequency Drives (VFDs). Main chilled water distribution piping in the mechanical room and mezzanine may be reused to the greatest extent possible. Branch chilled water supply and return piping to AHUs and other equipment must be replaced, in addition to valves and other accessories required for proper AHU connection and performance. All piping must be copper Type L if 2" or less and steel if 2.5" or larger.

Evaluate, with calculations, if a chilled water buffer tank is required for the new chiller flow capacity. If required, size the buffer tank per manufacturer's recommendations.

Existing condensing boilers must be replaced. Heating water distribution pumps and accessories must be replaced with units equipped with VFDs. Main

heating water distribution piping in the mechanical room and mezzanine may be reused to the greatest extent possible. Branch heating water supply and return piping to AHUs must be replaced, in addition to valves and other accessories required for proper AHU connection and performance.

All AHUs must be replaced. New units must be equipped with VFDs, and new condensate overflow systems. All VAV terminal units outside of the Mechanical mezzanine corridor must be replaced with new zoning coordinated with the architectural layout. VAV terminal units to be direct duct with hot water reheat coils. Primary ductwork outside of the mechanical mezzanine can be reused to the greatest extent practical. All thermostats must be provided with a transparent, plastic guard box.

The kitchen makeup air unit must be replaced, along with the exhaust fans for the main food cooking hood and the dishwasher hood. The indoor exhaust hoods, ductwork, and roof penetrations for the food preparation and cooking hood must be reused. Coordinate the replacement of the dishwasher hood and ductwork with the food service option. All kitchen exhaust hoods and ductwork must be thoroughly cleaned prior to project completion.

The laundry room dryer exhaust fan and ductwork must be replaced. The roof penetration for the dryer exhaust must also be reused.

Exhaust fans serving restrooms, toilet areas, and janitor closets must be replaced. Existing roof penetrations must be reused to the greatest extent possible. All new roof penetrations must submitted for approval, and they must be installed and sealed watertight.

Two emergency HVAC shutdown buttons must be included with protective covers over the switch. One button must be accessible in the reception desk area. The second button must be placed in a main hallway location such that building occupants do not need to travel more than 200 feet to the nearest shutoff switch.

1.1.2.4.4 Mechanical Controls

All new equipment must have the controls updated to a LonWorks DDC System. The DDC System must have a single front end control and must be capable of integration with a future base-wide system.

1.1.2.4.5 Testing, Adjusting, and Balancing (TAB)

All new equipment will require complete air and water TAB.

1.1.2.4.6 Miscellaneous Equipment

Provide the following miscellaneous systems. Miscellaneous equipment such as split system air conditioning units serving the IT room. Hot water unit heaters and mechanical ventilation serving the mechanical and electrical rooms.

1.1.2.5 Electrical

1.1.2.5.1 General Overview

The electrical system for this project consists of selective demolition of all existing electrical systems and providing new electrical systems in accordance with the architectural layout and the Standard Design Criteria Child Development Centers.

1.1.2.5.2 Existing Conditions

The existing power distribution system is derived from the Base Utility City Light and Power, managed through the Directorate of Public Works (DPW). The overhead 12.47kV Base distribution is tapped and transitioned to underground at a nearby pole and is routed to an adjacent equipment yard to an outdoor enclosure with three (3) 1-phase transformers banked to deliver 500kVA to the existing building 3069. Secondary 480Y/277V service conductors are routed to and terminated at an 800-ampere, 480Y/277V Main Distribution Panel (MDP) located in the mechanical room. 'MDP' feeds large mechanical loads in the facility, the outdoor chiller, and also several appliance panelboards flush-mounted in walls throughout the facility. The 480Y/277V panelboards serve Building Lighting and HVAC equipment.

MDP also feeds an indoor Dry-type 300kVA transformer located in the same room to create a 208Y/120V system. The 208Y/120V secondary conductors are routed to and terminated at a 1000-ampere Distribution Panel (MDP-A) located directly adjacent to 'MDP'. 'MDP-A' serves smaller loads in the mechanical room as well as several appliance panelboards flush-mounted in walls throughout the facility. The 208Y/120V appliance panelboards serve building convenience receptacles and some dedicated equipment.

The 'MDP' and 'MDP-A' both serve Distribution Panelboards located in the commercial kitchen which is directly adjacent to the mechanical room and flush mounted in the staff lounge and corridor walls.

Existing Lighting fixtures throughout the facility include lighting fixtures with fluorescent lamp technology and wall-mounted on/off rocker type switches. Exterior lighting appears the same.

1.1.2.5.3 Electrical System Modifications

The current scope of work includes the complete demolition of all lighting fixtures and controls, and convenience receptacles and all associated branch circuit wiring and conduit back to the source appliance panelboard. Additional demolition work may be required, where there is architectural wall demolition anticipated to build the new daycare spaces. Support for Mechanical equipment removal/replacement is required as well. Based on preliminary design, all mechanical equipment replacements will be load neutral, so electrical is indicated as a disconnect/reconnect of existing equipment feeders. Provide one (1) new feeder to IT room split system and provide one (1) new feeder to stroller storage room as the design progresses.

All existing electrical interior distribution equipment, that includes Distribution Panelboards, Transformers, Appliance Panelboards and associated feeder conductors and conduit are existing to remain and direction is to reuse all equipment unless directed otherwise in drawings. It is recommended,

based on equipment vintage, that the existing devices and panelboards be tested in accordance with NETA guidelines to confirm suitable for repurpose. Any deficient equipment and/or devices must be replaced as part of the renovation effort. The existing outdoor enclosure with three (3) 1-phase transformers will remain as is.

Preliminary Load estimates and Short Circuit Calculations indicate that the existing equipment is adequately rated to accommodate the proposed renovation and the available fault current.

Provide new Wiring Devices (receptacles) and lighting fixtures and controls in accordance with the Standard Design Criteria Child Development Centers dated Feb 2024 room requirements. All receptacles located throughout the facility must be tamper-resistant. Provide new branch circuit conductors and conduit for new receptacles back to existing appliance panelboards for all new receptacle layouts.

All new branch circuit conductors must be type THHN/THWN and installed in EMT conduit. Metal Clad (MC cable) may be used for lighting fixture circuit whips 6’-0” in length or less and in stud-wall partitions for receptacle circuits where approved at the location. Minimum conduit size is ¾-inch, minimum wire size is #12-AWG. Solid Conductor for all wiring #8-AWG and smaller, Stranded conductor for all wiring #6-AWG and larger.

Provide new LED lighting and dimming controls for all spaces as indicated on the drawings in Appendix A. Specialty lighting must be provided as required in the CDC guidelines. Provide new branch circuit conductors and conduit back to existing appliance panelboards for all new lighting fixture layouts.

Select circuit breakers and associated feeder conductors/conduit will be replaced based on the kitchen consultant's replacement efforts. Coordinate the demolition of existing kitchen equipment and as required, provide new device ratings and wire and conduit sizes to accommodate the final kitchen equipment selections.

1.1.2.6 Low Voltage and Communication Systems

The existing 25pr copper and 12 stands of fiber optic entrance communication cables must be maintained for reuse. New Cat6 data and telephone outlets must be provided per CDC room requirements. Provide Cat6 horizontal cable from each outlet to a new 7' x 19" 2-post rack and patch panels located in the existing communications room. Provide a new intercom system with call buttons in each space. The contractor must coordinate the CYS for the removal and reinstallation of the wireless access system.

The existing Video Surveillance system (VSS) system consists of ceiling mounted interior cameras in spaces and wall mounted exterior cameras and has monitoring stations in the directors office and front desk. The existing VSS system must be removed and saved for reinstallation. The Design Build Contractor must coordinate with Army Child & Youth Servies (CYS) for the new VSS layout and reinstall system. The DB Contractor must coordinate with CYS for any new interior and exterior cameras required. Provide new Cat6 VSS cables for all cameras. Provide a conduit for all exposed cable runs. VSS cables run above ceiling must be run in cable tray. The existing VSS server cabinet currently located in the open office area must be reinstalled in a

new location in either a dedicated VSS Server Equipment Room or TR. The contractor must coordinate with CYS for the location of the VSS server rack.

The front desk controls a large monitor for customer viewing in the lobby area. The new layout must include a large monitor for viewing at the front desk.

The front entrance access must be provided in accordance with section 9.7.2.

A duress alarm system consisting of a panic alarm button and control equipment must be provided at the front desk, which must signal to the base security via a dedicated phone line.

1.1.2.7 Plumbing

1.1.2.7.1 General Overview

The plumbing system for this project consists of the selective demolition of existing plumbing fixtures and providing new plumbing fixtures in accordance with the architectural layout and the Standard Design Criteria Child Development Centers. Provide all fixtures, potable cold water, hot water piping and equipment, piping insulation, sanitary waste, and vent piping systems. All potable water will be copper Type L pipe and fittings. Provide plastic PVC pipe, fittings, and solvent cement for sanitary waste piping above and below ground. Provide plastic PVC pipe, fittings, and solvent cement for vent piping. Natural gas pipe and fittings will be Schedule 40 black steel pipe and fittings. Provide a new 3" water service, complete with water meter and reduced pressure type backflow preventer. Additional backflow preventers are required on water make-up lines to mechanical equipment.

1.1.2.7.2 Plumbing Fixtures

Provide floor mounted flush valve water closets with manual operation. Foot pedal flush valves are not permitted. Undermount and wall-mount lavatories must be vitreous china with center set manual faucets. Single compartment stainless steel sinks must include a gooseneck faucet. All restrooms also require a floor drain with a self-priming trap. All new fixtures must be in accordance with ABA requirements.

Electric water coolers for classroom use must be single level only. Electric water coolers installed in hallways, for general use, must be split level, ABA compliant, and include a bottle filler. All mounting heights must be in accordance with the Standard Design Criteria for Child Development Centers.

Emergency eyewash stations must be provided in the laundry room and janitor closets. The laundry room sink faucet must be equipped with an emergency eyewash. The eyewash fixture must include a lever operator to switch between normal faucet flow and emergency eyewash flow. Eyewash stations in the janitor closets must be stand-alone, lever operated, and connected to the sanitary sewer system.

1.1.2.7.3 Domestic Hot Water Heating System

New domestic water heating systems must be provided for the kitchen and general building fixtures. Both domestic water heating systems must store

water at a minimum of 140 Degrees Fahrenheit to minimize the risk of legionella. Thermostatic mixing valves must be used to step down the hot water temperature to 131 degrees Fahrenheit prior to distribution, and each individual fixture is to use a below-deck mounted mixing valve to further temper the water temperature.

1.1.2.7.4 Natural Gas

The existing natural gas service connection is expected to remain.

1.1.2.8 Building Code and Life Safety

All work will be in compliance with UFC 3-600-01 with the International Building Code (IBC), NFPA 101, CDC standard, and Fort Campbell technical guideline criteria as referenced by UFC 3-600-01. All means of egress and protection requirements will be brought up to new construction criteria. The building is construction type IIB. The existing Knox box 3200 will remain at the building entrance from the parking lot.

1.1.2.9 Fire Suppression

The existing partial sprinkler system will be demolished. This includes the 4-inch incoming dedicated sprinkler water line, 4-inch sprinkler riser, all sprinkler pipe, fittings, and sprinklers. Storage rooms, laundry room, mechanical rooms, and kitchen have existing sprinklers. A new automatic wet-pipe sprinkler system will be provided throughout the facility in accordance with UFC 3-600-01, NFPA 13, CDC standard, and Fort Campbell criteria. Installation of a 6" double check backflow preventer is required, coordinate location with DPW (Department of Public Works). A post indicator valve shall be provided exterior to the building in accordance with NFPA 24. The dedicated minimum 6-inch incoming water line will enter the mechanical room. Contractor will determine the wet-pipe sprinkler riser diameter. The single-story building will be a single fire zone. Quick response ordinary temperature sprinklers will be provided throughout the building except, high temperature sprinklers will be provided in the kitchen in accordance with NFPA 13 temperature criteria. Pipe will be black steel and located tight to structure where possible. Sprinkler will be located center of tile. The kitchen suppression system is expected to be reused. System must be inspected and recommissioned.

1.1.2.10 Fire Alarm and Mass Notification

The existing fire alarm system will be demolished and replaced with a new combined fire alarm and mass notification system in accordance with UFC 3-600-01 and UFC 4-021-01 with modifications included in USACE ECB 2018-17. The existing King Fisher fire alarm transceiver and antenna is expected to remain and utilized to communicate to the installation’s receiving station. Equipment must be inspected and recommissioned. Provide pull stations at all exits and coordinate the installation height with the base. Manual pull station covers must be provided and mounted at height in compliance with ABA. The fire alarm system will monitor the sprinkler system, HVAC shutdown, and kitchen suppression system. Provide a strobe at the exterior doors per CDC guideline.

1.1.2.11 Cybersecurity

Designer of Record Qualifications: Upon contract award, Contractor must submit to the Government for their records, a resume for a Cybersecurity Control System Integrator and Network Administrator who meets DOD 8140.01-M and DoD 8570 requirements for Information Assurance Technologist (IAT) Level II. The resume should be submitted to the Government within 14 days after notice to proceed. All certifications must be in effect prior to start of work. Individuals performing cybersecurity design functions will meet certification and skills requirements for IAM Level II Certified Professional outlined in DoD 8140.01-M and DoD 8570 Information Assurance Workforce Improvement Program. It is the responsibility of the A-E to ensure the latest DoD component and installation policies and guidance requirements are met.

Cybersecurity Design Guidance: The Cybersecurity Design shall follow the "Five Steps for Cybersecurity Design" as outlined in the current UFC 4-010-06 guideline for applying Cybersecurity in Design. Design, acquire and execute all control systems (including systems separate from management utility monitoring and control system) in accordance with the most recently released publications, guidelines, and regulations as of contract award.

The DOR will be responsible for determining applicability of all facility-related control systems (FRCS) to the design scope. All cybersecurity system designs must be completed in accordance with Unified Facility Criteria (UFC) 4-010-06 Cybersecurity of Facility Related Control Systems (latest edition as of contract award). These systems may include but are not limited to the following platforms and their sub-systems:

Building Control System (BCS)	Building Automation System (BAS)
Building Control System (BCS)	Building Lighting System
Building Control System (BCS)	Electrical Systems (ES) (Such as local building generators not designed for grid interconnection, high reliability switching from two sources for critical buildings, etc.)
Building Control System (BCS)	Heating, Ventilation, Air Conditioning (HVAC)
Building Control System (BCS)	Cathodic Protection Systems (CPS)
Electronic Security System (ESS)	Video Monitoring Systems/Closed Circuit TV (CCTV)
Electronic Security System (ESS)	Intrusion Detection Systems (IDS)
Electronic Security System (ESS)	Physical Access Control Systems (PACS)
Fire & Life Safety (FLS)	Fire Suppression Systems
Fire & Life Safety (FLS)	Mass Notification System (MNS)
Fire & Life Safety (FLS)	Fire Alarm Reporting System (FARS)

Utility Control System (UCS)	Utility Metering System (Advanced Meters, AMI, etc.)

Reference the Department of Defense Platform IT FRCS Master list for the full list of FRCS. A finalized list of applicable FRCS will be submitted to the Government as required in the initial design phase for approval. After determining the facility related control systems involved, the DOR will be responsible for all designer submissions, deliverables, and functions as outlined in UFC 4-010-06 Chapter 5 Cybersecurity Documentation.

The Cybersecurity Designer of Record (DOR) shall coordinate with the facility owner, SO/AO, as well as all relative FRCS owners and their respective DOR to obtain and incorporate appropriate interconnection and applicable Confidentiality Integrity Availability (C-I-A) Impact Ratings, transport cybersecurity requirements (existing enclave, standalone, etc.), existing authorization status and type of authorization (DIACAP, RMF), local installation cyber requirements, and other items that may impact the security posture of the system or scope and level of work required.

The Confidentiality, Integrity, and Availability Level (C-I-A) shall be based on the organizational mission and details of the control system. The System Owner (SO) and Authorizing Official (AO) are responsible for determining the Confidentiality, Integrity, and Availability (C-I-A) impact levels (LOW, MODERATE, or HIGH) for the control system. Note: The C-I-A impact level may or may not be the same across various systems and is to be determined by the SO/AO. In absence of guidance from the SO/AO, the starting impact ratings for the control system type and facility rating (mission support, mission essential, mission-critical) from the Control System Master List shall be used. Special consideration for the (C-I-A) impact levels must be given based on the classification of the facility, i.e. Mission-Support, Mission-Essential, or Mission-Critical.

The Cybersecurity DOR will conduct a "Cybersecurity Kickoff Meeting" to discuss the design process as outlined in the UFC 4-010-06 with all relevant FRCS design engineers. The meeting will discuss the overall impact the system C-I-A level has on control system design and implementation and establish ongoing coordination between the cybersecurity and control system designers. Note: non-security FRCS should typically prioritize system Availability first, then Integrity, and lastly Confidentiality. FRCS priorities do not always align with IT system priorities; be sure to establish priorities based on the FRCS mission function.

Cybersecurity Design Requirements:

Provide a Basis of Design Narrative indicating criteria and describing requirements for integrating cybersecurity into the design and construction of the facility-related control systems in accordance with UFC 4-010-06, Engineering and Construction Bulletin ECB 2022-2, NIST 800-37, NIST 800-53, and NIST 800-82 to reduce control system vulnerabilities to an acceptable level for the System Owner and the Authorizing Official.

The Basis of Design Narrative must state for each FRCS:

- a description of the system

- System Owner/Authorizing Official
- CIA impact ratings and whether they were received or determined
- identify any connections to enclaves or existing systems
- interconnections to other control systems
- communication protocols
- a description of the overall Control System Architecture
- a list of tailored security controls based on the CIA ratings

Provide Control Correlation Identifier (CCI) lists for each FRCS as an appendix to the Basis of Design Narrative. For each CCI provide input on the impact, responsible party (Designer, Administrator, etc.), Applicability (Applicable, Not Applicable, Impractical, Enclave).

After creating CCI lists, the Cybersecurity DOR must utilize them to create a tailored Unified Facility Guide Specification (UFGS) 25 05 11.xx Cybersecurity for each Facility Related Control System. For systems contained within the same platform possessing the same C-I-A impact level, a single 25 05 11.xx covering all related systems is acceptable. Note: The ".xx" extension is used to differentiate the applicable control system the spec applies to, usually utilizing the first two digits of the corresponding control system spec. (EX: .21 for FLS .23 for BCS etc.)

All Documents shall be coordinated as indicated in Engineering and Construction Bulletin ECB 2022-2 CYBERSECURITY REQUIREMENTS FOR DESIGN AND CONSTRUCTION OF CONTROL SYSTEMS AND INTEGRATED LOW VOLTAGE SYSTEMS FOR PERMANENT AND NON-PERMANENT CONSTRUCTION, dated 07 January 2022.

Working within the guidelines of the UFC 4-010-06, cyber designers will design to manage and minimize failure, reduce extraneous functionality, and minimize life safety risks. Additionally, cyber designers will advise simpler, more secure (physical or electronic) controls wherever possible to minimize risk and dependence on programmable controls. For cybersecurity design requirements, it is assumed that devices will reside in Levels 0 through 4 of the 5-Level Control System Architecture as referred to in UFC 4-010-06 Figure 2-1. DOR will confirm and validate this assumption.

Special consideration may be required for systems that inherit special configuration or installation requirements from existing interconnected systems such as Fire and Life Safety systems (FLS), Electronic Security Systems (ESS), and similar systems. The designer shall coordinate those requirements with the SO and AO.

Cybersecurity Deliverables:

All design submittals and deliverables will be reviewed and approved by the Government at all stages of the design. Upon completion of the Final Design Phase the following deliverables will be required for Government approval before the start of design implementation:

- A complete Basis of Design Narrative
- 25 05 11 specifications covering all applicable control systems within the project scope.
- CCI Lists for each 25 05 11 specification attached to the Basis of Design Narrative as Appendices.

1.1.2.12 Kitchen

The goals for improving the existing kitchen is to improve the safety, efficiency, and capacity of the equipment to the extent possible within the existing footprint. All equipment is to be in compliance with the current CDC Standard Design Criteria. This is to be achieved by providing the following modifications:

1. Replace the existing 10 gallon braising pan with a new 30 gallon electrically heated braising pan having a side mounted fill faucet and an open leg base and electric tilt mechanism.
2. Replace the existing double convection oven and electric hot holding cabinet with a new double full size six pan combination oven/steamer, electrically heated and boilerless steam generator.
3. Replace the existing six burner range with an electric floor model 4-burner induction cook top range having a standard oven base.
4. Add 16 gauge stainless steel undershelves below the two end tables of the center meal assembly table and are to be positioned over the existing open leg cross rails.
5. Four Additional electrical outlets are to be installed: One above the right end of the two compartment sink, one on each end of the center assembly table and one behind the existing microwave oven.

1.1.2.13 Geotechnical

No geotechnical work was performed as part of this RFP development and the contractor is responsible for obtaining all available information needed to conduct the work.

1.2 APPLICABLE CRITERIA

Applicable design and construction criteria is specifically indicated, but not limited to that mentioned in this LRL Section 01 02 10.00 06. Criteria shall be taken from the most current references as of the date of ***issue*** of the RFP, unless noted otherwise. Referenced codes and standards are minimum acceptable criteria. Administrative, contractual, and procedural features of the contract shall be as described in other sections of the RFP.

1.3 SPECIFICATIONS

The technical specifications shall be developed from the Facilities Guide Specifications (UFGS). The Louisville District (LRL) versions of the UFGS shall be used in all cases where applicable. All other specifications shall be the UFGS army edition guide specifications unless otherwise indicated or not available. If not available in UFGS, the Designer of Record shall develop one using a SpecsIntact template. See LRL Section 01 03 00.00 06 DESIGN SUBMISSION REQUIREMENTS AFTER AWARD for further technical specification preparation requirements.

1.4 DESIGN QUALITY

The main objectives of this solicitation are to obtain a Building 3069 including associated site development within funds available, and to maximize

design and materials quality. Design and materials quality is achieved through the integration of utility systems within the building and on the site, selection of building systems for low-cost maintenance and operation, and an overall balance of aesthetics and functionality within the parameters provided herein.

1.5 DESIGN FREEDOM

Requirements stated and illustrated in this RFP are minimums. Innovative, creative, or cost-saving proposals which meet or exceed these requirements are encouraged and shall be considered during the design charette and design submittal reviews. The drawings provided establish project floor area requirements and spatial relationships that have been reviewed for user function and preliminary code compliance. Floor plans may change with government approval to enhance design, comply with codes, incorporate options, include betterments, or support constructability. However, design freedom is limited to the constraints of the CDC Standard Design Guide.

1.6 ENERGY STANDARD COMPLIANCE

The building shall comply with the provisions of ASHRAE 90.1. As a separate part or section of the Design Analysis, demonstrate compliance with ASHRAE 90.1 using calculations, vendor literature, equipment catalog sheets, compliance forms, worksheets, and narrative descriptions of the building envelope, HVAC systems, service water heating, electrical power, lighting, and other equipment and systems.

1.7 ACCESSIBILITY REQUIREMENTS

The Building 3069 facility shall be fully accessible to physically disabled persons and shall conform to the *ABA Accessibility Guidelines for Buildings and Facilities*.

1.8 FORCE PROTECTION & ANTI-TERRORISM CONSIDERATIONS

Project design and construction shall comply with the *Department of Defense Minimum Antiterrorism Standards for Buildings* which is available on the internet at http://www.wbdg.org/ccb/browse_cat.php?o=29&c=4 Unified Facilities Criteria (UFC) for UFC 4-010-01. Mass notification systems shall be in accordance with UFC 4-021-01.

Windows and Doors are grandfathered in and are exempt from ATPF modification requirements.

1.9 HAZARDOUS MATERIALS ABATEMENT

Asbestos abatement is required during demolition. Lead-based paint is not present in the building and shall be considered for worker safety during demolition.

The Designer of Record shall edit UFGS Section 02 82 13.00 10 ASBESTOS ABATEMENT and LRL Section 02 83 13.00 06 LEAD IN CONSTRUCTION for worker safety in removing materials coated with lead-based paint.

1.9.1 Asbestos Survey

The Contractor shall be responsible for conducting new hazardous materials surveys in accordance with state and federal law. The Contractor shall be compensated for removal of any material requiring removal over that indicated in the survey provided herein. All items indicated in the survey and any found during construction that contain asbestos during demolition shall be removed and disposed of in accordance with federal, state, and base requirements.

1.10 PERMITS

The contractor shall be responsible for preparing, filing, and paying for any fees required to obtain all necessary permits for the construction of this project.

1.11 LIFE CYCLE COST ANALYSIS

Life Cycle Cost Analysis (LCCA) calculations must be provided as required by the Louisville District Military Design Guide, Chapter 10. LCCAs must also comply with the requirements of UFC 1-200-02 and UFC 3-410-01.

PART 2 FUNCTIONAL AND AREA REQUIREMENTS

2.1 GENERAL REQUIREMENTS

2.1.1 Gross Area Definition

Gross building area is measured to the outside face of exterior enclosure walls. The gross floor area of the project shall be determined by the DB Contractor's proposal to meet all RFP requirements including minimum net areas indicated in this RFP.

2.1.2 Net Area Definition

Net area is measured to the inside face of the room or space walls.

2.1.3 Net Area Requirements

Minimum net area requirements for programmed spaces are included on the floor plans under the room names. Net areas indicated for building circulation and utility rooms are for guidance only. These spaces shall be sized to accommodate the required function and equipment, comply with code requirements, enhance constructability, and comply with other requirements of the RFP.

2.1.4 Finish Requirements

Room finishes stated in the following paragraphs are the minimum requirements and shall be further developed by the Interior Designer of Record and submitted in SID binders. See Part 5 of this section and LRL Section 01 03 00.00 06 DESIGN SUBMISSION REQUIREMENTS AFTER AWARD.

All floors are to be prepared, including removal of all glues, to receive floor finishes as indicated. Grind concrete floor slab flush where necessary and at locations receiving sealer.

2.1.5 Furniture Requirements

Furniture stated in the following paragraphs are the minimum requirements and shall be further developed by the Interior Designer of Record and submitted in the FFE package. Furniture design to comply with CDC standard: Standard Design Criteria School Age Centers For Children Ages Six Weeks To Five Years Of Age. https://mrsi.erdc.dren.mil/cos/hnc/cdcu6/

2.2 FUNCTIONAL AREA REQUIREMENTS

Building spaces and requirements shall include the following:

2.2.1 Storage Rooms, Existing Storage Rooms 121A and 121B

A general storage, mobility, and supply area shall be provided.

2.2.1.1 Furnishings/Equipment

Shelving shall be provided on at least 2 walls. Four (4) adjustable shelves with heavy-duty standards and brackets will be provided on each wall and shall consist of two (2) 18" deep shelves and two (2) 12" deep shelves. Shelving shall be able to support 100 pounds per lineal foot. On all walls where shelving is provided, a red line must be provided in accordance with storage height limitation line requirements in section 7. Fire protection of the general requirements in the CDC Standard Design Criteria School Age Center For Children Six Weeks To Five Years Of Age.

2.2.1.2 Minimum Finishes

Floor: luxury vinyl tile (LVT).

Base: coved rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: suspended 2x2 acoustical ceiling system.

2.2.1.3 Other Requirements

Dimensions of the room must accommodate the 5' ABA turning circle. Adjustable shelves may encroach on this circle since they can be removed if necessary. Nothing else may encroach on the 5' circle.

2.2.2 Stroller Storage

Space for patron's car seats and strollers.

2.2.2.1 Furnishings/Equipment

Adjustable shelves with heavy-duty standards and brackets will be provided on two walls for storage of car seats. Provide a rod and shelving along one wall for hanging umbrella, strollers, and car seats. Shelves shall be 24" deep. Standards for shelves shall be located so that the top shelf can be no closer than 3-feet from the ceiling.

2.2.2.2 Minimum Finishes

Floor: luxury vinyl tile (LVT).

Base: coved rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).
Ceiling: suspended 2x2 acoustical ceiling system

2.2.3 Video Surveillance System Equipment Room

Video Surveillance System (VSS) monitoring system to deter and reduce the risk of child abuse and protect staff from unwarranted allegations of abuse. Room to accommodate VSS System Equipment Rack (SER) for camera system throughout the facility.

2.2.3.1 Minimum Finishes

Floor: luxury vinyl tile (LVT).

Base: coved rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).
Ceiling: suspended 2x2 acoustical ceiling system

2.2.4 Exterior Storage

Exterior storage to be used for playground toys and equipment storage.

2.2.4.1 Furnishings/Equipment

Four (4) adjustable shelves with heavy duty standards and brackets will be provided on the back wall. Shelves shall be a minimum of 18" deep. Shelves shall be able to support 100 pounds per lineal foot.

2.2.4.2 Minimum Finishes

Floor: concrete.

Base: coved rubber base, rolled goods.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: acoustical tile (ACT).

2.2.4.3 Other Requirements

Dimensions of the room must accommodate the 5' ABA turning circle. Adjustable shelves may encroach on this circle since they can be removed if necessary. Nothing else may encroach on the 5' circle.

2.2.5 Mechanical Room CDC

Dedicated area provided for mechanical equipment to include HVAC and water heating. Mechanical room shall not be used for storage or other purposes. Access shall be limited to authorized personnel through only an exterior double door into the mechanical yard. Room shall be sized to allow adequate clearance, equipment removal, and maintenance. Changes to the provided floor plan to increase or decrease the room area shall be approved by the Contracting Officer. Provide floor openings to accommodate piping and ductwork in vertical shaft spaces as necessary.

2.2.5.1 2.2.5.1 Minimum Finishes

Floor: concrete.

Base: coved rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: exposed structure.

2.2.6 Electrical Room

Dedicated area provided for electrical services and equipment. Electrical room shall not be used for storage or other purposes. Access shall be limited to authorized personnel through a corridor door that opens out with panic hardware per code requirements. Room shall be sized to allow adequate clearance, equipment removal, and maintenance. Changes to the provided floor plan to increase or decrease the room area shall be approved by the Contracting Officer. Provie floor openings to accommodate conduit in vertical shaft spaces as necessary.

2.2.6.1 Minimum Finishes

Floor: concrete.

Base: coved rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: exposed structure.

2.2.7 Communication Room

2.2.7.1 Minimum Finishes

Floor: concrete.

Base: coved rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: exposed structure.

2.2.8 Janitor Closet

Space to store janitor's equipment and cleaning supplies. Dimensions of the room must accommodate the 5-foot ABA turning circle. Adjustable shelves may encroach on this circle since they can be removed if necessary. Nothing else may encroach on the 5-foot circle.

2.2.8.1 Furnishings/Equipment

Adjustable 12" deep shelves with heavy duty standards and brackets will be provided on at least one wall. Shelves shall be able to support 100 pounds per lineal foot. On all walls where shelving is provided, a red line must be provided in accordance with storage height limitation line requirements in section 7. Fire protection of the general requirements in the CDC Standard Design Criteria School Age Center For Children Six Weeks To Five Years Of Age.

2.2.8.2 Minimum Finishes

Floor: quarry tile with epoxy grout.

Base: quarry tile cove base with epoxy grout.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).
Ceiling: Ceiling: suspended 2x2 vinyl faced acoustical tile (moisture resistant) or painted gypsum wallboard.

2.2.8.3 Other Requirements

In the janitor closet, provide one floor-mounted mop basin with wall guards and a mop rack for three mops. SDS to be provided for all hazardous materials and approved by the local Preventive Medicine and Safety authority.

2.2.9 Nursing

Individual private space for a nursing mother to provide care to their child.

2.2.9.1 Furnishings/Equipment

A glider/rocking chair, small side table, and undercounter refrigerator shall be included in the FF&E package. Coordinate and show size and location for paper towel and soap dispensers which shall be provided by the Base Custodial Contractor.

2.2.9.2 Minimum Finishes

Floor: luxury vinyl tile (LVT).

Base: coved rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: suspended 2x2 acoustical ceiling system.

2.2.9.3 Other Requirements

Provide a wall-to-wall 34" high countertop with 4" backsplash, 30-inch deep plastic laminate countertop with one (1) stainless steel sink with gooseneck faucet and one (1) 24" wide, lockable upper wall cabinet keyed to match cabinetry throughout the facility. Space shall be provided for an undercounter refrigerator.

Provide mirror and light above the sink. Provide 24" wide by full length wall mounted mirror. Provide two (2) wall mounted coat hooks, one at 48" AFF and one at 60" AFF.

2.2.10 Public & Staff Men's Toilet Areas

Men's toilet and lavatory facilities shall be provided for use by staff, parents, and visitors. Restroom shall be sized to comply with handicap accessibility requirements.

2.2.10.1 Furnishings/Equipment

Coordinate and show size and location for paper towel, soap, and toilet tissue dispensers which shall be provided by the Base Custodial Contractor.

2.2.10.2 Minimum Finishes

Floor: porcelain tile with epoxy grout.

Base: porcelain cove base tile with epoxy grout.

Walls: porcelain tile with epoxy grout up to 60" AFF, epoxy painted gypsum wallboard above (water-based epoxy with low VOCs).

Ceiling: suspended 2x2 vinyl faced acoustical tile (moisture resistant)

2.2.10.3 Other Requirements

Provide floor mounted toilets, quartz vanity with porcelain lavatory, a single mirror, a semi-recessed waste receptacle, and wall mounted grab bars for the handicapped accessible toilet.

A wall-mounted fold-down diaper station shall be provided in each public toilet room adjacent to the Waiting Area.

2.2.11 Public & Staff Women's Toilet Areas

Women's toilet and lavatory facilities shall be provided for use by staff, parents, and visitors. Restroom shall be sized to comply with handicap accessibility requirements.

2.2.11.1 Furnishings/Equipment

Coordinate and show size and locations for paper towel, soap, and toilet tissue dispensers which shall be provided by the Base Custodial Contractor.

2.2.11.2 Minimum Finishes

Floor: porcelain tile with epoxy grout.

Base: porcelain coved tile with epoxy grout.

Walls: porcelain tile with epoxy grout up to 60" AFF, painted gypsum wallboard above.

Ceiling: suspended 2x2 vinyl faced acoustic tile (moisture resistant)

2.2.11.3 Other Requirements

Provide floor mounted toilets, quartz vanity with porcelain lavatory, a single mirror, a semi-recessed waste receptacle, and wall mounted grab bars for the handicapped accessible toilet.

A wall-mounted fold-down diaper station shall be provided in each public toilet room adjacent to the Waiting Area.

2.2.12 Existing Isolation Area

Serves as a rest area for sick children.

2.2.12.1 Furnishings/Equipment

Provide sufficient space for a small cot. Undercounter medical refrigerator.

2.2.12.2 Other Requirements

Provide new interior finishes, new counter, lockable upper cabinet casework, and space under counter for medical refrigerator.

2.2.12.3 Minimum Finishes

Floor: luxury vinyl tile (LVT).

Base: coved rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: suspended 2x2 acoustical ceiling system

2.2.13 Existing Iso. Tlt.

Isolation toilet and lavatory facilities shall be provided for use by sick children. This toilet may also be used by the adult staff. Restroom sized to comply with handicap accessibility requirements.

2.2.13.1 Furnishings/Equipment

Coordinate and show size and location for paper towel, soap, and toilet tissue dispensers with shall be provided by the Base Custodial Contractor.

2.2.13.2 Minimum Finishes

Floor: porcelain tile with epoxy grout.

Base: porcelain bullnose tile with epoxy grout.

Walls: porcelain tile with epoxy grout up to 60" AFF, epoxy painted gypsum wallboard above (water-based epoxy with low VOCs).

Ceiling: suspended 2x2 vinyl faced acoustical tile (moisture resistant)

2.2.13.3 Other Requirements

Provide floor mounted toilets, quartz vanity with porcelain lavatory.

2.2.14 Administrative Open Office CDC

Provide administrative office space for CDC management staff.

2.2.14.1 Furnishings/Equipment

Room shall accommodate freestanding systems furniture for each person to include one desk and one return. FF&E Package shall further coordinate with User for adequate storage unit requirements.

2.2.14.2 Minimum Finishes

Floor: carpet tile or luxury vinyl tile (LVT).

Base: rubber base, rolled goods (straight or coved, respectively). Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA

or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: suspended 2x2 acoustical ceiling system.

2.2.15 Administrative Private Offices

Provide a private office for the Director and Associate Director.

2.2.15.1 Furnishings/Equipment

Room shall accommodate freestanding systems furniture for one desk, one return one desk chair, and one side chair. FF&E Package shall further coordinate with User for adequate storage unit requirements.

2.2.15.2 Minimum Finishes

Floor: carpet tile or luxury vinyl tile (LVT).

Base: rubber base, rolled goods (straight or coved, respectively). Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: suspended 2x2 acoustical ceiling system.

2.2.16 Admin Storage CDC

A general storage area shall be provided.

2.2.16.1 Furnishings/Equipment

Design for Admin storage area shall be further coordinated with User for adequate storage requirements. Provide shelves on as many walls of the storage rooms as possible while maintaining adequate circulation space. A minimum of adjustable shelves with heavy duty standards and brackets will be provided on each wall. Shelving shall be minimum 12” deep and shall be able to support 100 pounds per lineal foot. On all walls where shelving is provided, a red line must be provided in accordance with storage height limitation line requirements in section 7. Fire protection of the general requirements in the CDC Standard Design Criteria School Age Center For Children Six Weeks To Five Years Of Age.

2.2.16.2 Minimum Finishes

Floor: luxury vinyl tile (LVT).

Base: coved rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: suspended 2x2 acoustical ceiling system.

2.2.17 Staff Lounge

Provide a break area for staff, directly accessible from the corridor.

2.2.17.1 Furnishings/Equipment

Microwave, coffee maker (plumbed or unplumbed), and refrigerator with ice maker shall be included in the FF&E package.

Half-height, "z-locker", lockable (padlocks) wall lockers, with sloped tops secured to the wall, with a minimum size of 15"x15", shall be provided in the area (total of 18 two-tier locker units minimum). 36 total staff would be able to use the lockers. Each locker unit shall be 72" H. Lockers shall be sealed to the adjacent walls and floor. Z-lockers shall be lockable with individual padlocks, not with combination, keypad, or keyed locks.

2.2.17.2 Minimum Finishes

Floor: luxury vinyl tile (LVT).

Base: coved rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: suspended 2x2 acoustical ceiling system.

2.2.17.3 Other Requirements

Provide space, a water supply line, and power for two full-size refrigerator with ice maker and two microwaves. Provide one stainless steel sink with gooseneck faucet. Include 30-inch deep plastic laminate base and wall cabinets with metal hardware for storage and solid surfacing countertop with integral coved backsplash. Counters will be 34" high.

2.2.18 Vestibule

Vestibule to be new. See section 1.1.1 for base bid and bid option 3.

2.2.18.1 Minimum Finishes

Floor: recessed walk-off mat tile

Base: straight rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: suspended 2x2 acoustical ceiling system

2.2.19 Lobby

The lobby serves as the main entrance and waiting area for parents, children, and visitors. Shall be adjacent to the central reception desk and the entry. Shall also have direct access to the Public and Staff Toilets.

2.2.19.1 Furnishings/Equipment

Room shall accommodate five people in one seating group consisting of sofa, chairs, and tables with lamps. Provide reception desk with quartz work counter at ADA accessible height and quartz transaction ledge.

2.2.19.2 Minimum Finishes

Floor: luxury vinyl tile (LVT).

Base: coved rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: suspended 2x2 acoustical ceiling system; gypsum wallboard soffit accent above reception desk.

2.2.19.3 Other Requirements

At reception desk, provide laminate base millwork with quartz countertop. Grommets with covers are to be provided in the 30" AFF lower counter area. In addition, one (1) grommet with cover shall be provided in the lower counter on the side where no upper counter is provided. Two (2) pencil drawers shall be built in. Provide location at reception desk for entry door buzzer and electronic lock release. Provide counter height, ABA compliant swing gate. Swing gate to match reception desk in finish and material. Swing of gate shall not interfere with corridor traffic and shall swing open 90 degrees minimum in both directions.

2.2.20 Corridors

Unless otherwise required, provide minimum 6'-0" wide main and entry corridors with secondary corridors sized to accommodate door latch clearances and code requirements.

2.2.20.1 Minimum Finishes

Floor: luxury vinyl tile (LVT).

Base: coved rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: suspended 2x2 acoustical ceiling system.

Special Requirements: Provide wall mounted bulletin boards and art rails utilizing tackles strips at 36” (915 mm) AFF along the corridor walls for each Activity Room.

2.2.21 Kitchen

Commercial grade facility designed for use by staff to meet the food service needs of children, 6 weeks to 5 years of age, in accordance with the United States Department of Agriculture and Preventive Medicine Regulations.

2.2.21.1 Furnishings/Equipment

Kitchen Equipment shall be commercial equipment NSF approved. Kitchen equipment will comply with UFC 3-600-01, equipment will be contractor furnished and contractor installed (CFCI). All equipment must be designed and installed in accordance with the Technical Bulletin Medical (TB) Med 530 Tri-service Food Code. Kitchen designs are provided in the standard designs. The final kitchen design must be verified by a certified kitchen designer in accordance with TB Med 530 Tri-service Food Code and in coordination with IMCOM G9 CYS and the Preventive Medicine Proponent.

2.2.21.2 Minimum Finishes

Floor: quarry tile with epoxy grout.

Base: quarry cove tile with epoxy grout. Walls: wall tile with epoxy grout.

Ceiling: suspended 2x2 vinyl faced acoustical tile (moisture resistant)

2.2.21.3 Other Requirements

All outside corners of interior walls shall be protected stainless steel corner protective guards extending at least 72" AFF. Provide space, a water supply line, and power for two full-size refrigerator with ice maker and two microwaves. Provide one stainless steel sink with gooseneck faucet. Include 30-inch deep plastic laminate base and wall cabinets with metal hardware for storage and solid surfacing countertop with integral coved backsplash.

2.2.22 Laundry Room

Area to launder and fold clothes and linens. Commercial grade, side by side laundry equipment to be CFCI. Area also serves as a space to store janitor’s equipment and cleaning supplies. Shelves and cabinetry are required to store janitorial and cleaning products in a secure, locked area away from areas where children’s activities take place. SDS to be provided for all hazardous materials and approved by the local Preventive Medicine and Safety authority.

Provide a storage lockset. Key lock from the outside, outside lever is always locked, but always open from the inside.

2.2.22.1 Minimum Finishes

Floor: Flooring shall be a quarry tile or other hard, durable, non-porous, non-slip surface (luxury vinyl tile (LVT)). Alternatives to quarry tile must be submitted for approval prior to completion of design documents. An epoxy grout shall be used and shall be sealed or treated to avoid stains.

Base: coved rubber base, rolled goods or quarry tile cove base with epoxy grout. Rubber base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking. Alternatives to quarry tile must be submitted for approval prior to completion of design documents.

Walls: epoxy painted gypsum wallboard (EPGB - water-based epoxy with low VOCs).

Salient characteristics include easy to clean, repairable, easy to maintain, and durable. Walls shall be able to withstand the warm humid environment and shall be able to withstand being bumped by laundry carts and mop buckets. Where the mop sink is located, a wainscot that is impervious to water and able to withstand daily sanitizing is required. This material shall extend at least 18” (457mm) horizontally in both directions past the edge of the equipment.

Ceiling: suspended 2x2 vinyl faced acoustical ceiling tile (moisture resistant

Salient characteristics include easy to clean, ease of access to mechanical system above ceiling, moisture resistant, and easy to repair. Aluminum Acoustical Ceiling Grid with the size not exceeding 2’ by 2’ and supporting vinyl faced acoustical ceiling panels or painted gyp bd.

Door frame: Frame, door, and hardware to have a 45-minute fire rating in accordance with NFPA 80. Both door and frame shall have proper label indicating rating. Door shall be provided with self-closing device.

2.2.22.2 Furnishings/Equipment

Laundry is to have a minimum of two washing machines and two drying machines. Lockable metal storage. Option for folding table and laundry cart.

Dryer vents shall be individually and directly vented to the outside. A non-inline booster fan shall be provided for each dryer vent in accordance with the latest version of the International Mechanical Code (IMC). Provide a wall-mounted rack, over the mop sink, for hanging mops.

2.2.22.3 Cabinetry

Countertop and cabinet construction shall comply with General Cabinetry in Section 4 (Architectural) of General Requirements above. Salient features include ease of cleaning, maintenance, and repair with hard and smooth surface. Minimum 6’ (1.8m) wide base and wall cabinets with one (1) undermounted, stainless steel, 22” (559mm) x 18” (457mm) x 10” (254mm) deep utility sink with a goose neck faucet. Countertop shall be 34” (864mm) AFF. Install upper cabinets wall to wall above the washers and dryers.

2.2.22.4 Other Requirements

A janitor floor sink (mop basin), separate laundry tub, and an undermounted, stainless steel, 22” (559mm) x 18” (457mm) x 10” (254mm) deep utility sink with a goose neck faucet at the counter are required.

2.2.23 Infant/Pre-Toddler Preschool/Pre-K/Kinder Activity Rooms

Activity Room functions for childcare that includes eating, sleeping, playing, and other activities.

2.2.23.1 Furnishings/Equipment

Refer to the standards: Comprehensive Furniture, Fixtures, And Equipment (FF&E) Child Development Centers For Children Ages Six Weeks To Five Years Of Age (2024)

2.2.23.2 Minimum Finishes

Floor: sheet vinyl flooring.

Base: straight rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: suspended 2x2 acoustical ceiling system

2.2.23.3 Other Requirements

Provide interior entry from main corridor and exterior access to infant play area. Areas need a 3'-6" wide sign-in desk with 6 lockable storage units (each keyed separately) in an overhead cabinet, and an adjacent 18" wide coat closet shall be provided.

8-foot wide base and wall cabinets with 2 stainless steel sinks. Sinks shall be separated as much as possible and shall be provided with gooseneck faucets. Sink bowls shall be a minimum of 21" W x 15-3/4" D x 8"H. Space shall be provided for an under-counter refrigerator. Base cabinets shall be lockable and may not have a protruding handle. All base cabinets in the facility shall be keyed alike.

Provide toilet areas and storage (see Infant/Pre-Toddler Preschool/Pre-Kinder Toilet Area Section and Infant/Pre-Toddler Preschool/Pre-Kinder Storage Rooms Section). Provide waterline as required for drinking fountain on the wall outside the toilet area, mounted 17" AFF to the rim. Provide diaper changing table and food preparation/art counter/sink area. A diaper changing mockup will be prepared by the contractor and approved by the government before ordering.

2.2.24 Infant/Pre-Toddler Preschool/Pre-K/Kinder Storage Rooms

A general storage, mobility, and supply area shall be provided.

2.2.24.1 Furnishings/Equipment

Shelving shall be situated along three (3) the walls. A minimum of (3) adjustable shelves with heavy-duty standards and brackets will be provided on each wall. At least one (1) 18" deep shelf and two (2) 12" deep shelves shall be provided on each wall. Shelving shall be able to support 100 pounds per lineal foot. Racks shall be government furnished and installed.

2.2.24.2 Minimum Finishes

Floor: sheet vinyl flooring.

Base: straight rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: suspended 2x2 acoustical ceiling system

2.2.24.3 Other Requirements

Dimensions of the room must accommodate the 5' ABA turning circle. Adjustable shelves may encroach on this circle since they can be removed if necessary. Nothing else may encroach on the 5' circle.

2.2.25 Infant/Pre-Toddler Preschool/Pre-K/Kinder Toilet Area

Infant/Pre-Toddler Preschool/Pre-K/Kinder toilet areas shall be provided for use by classroom occupants. Restroom shall be sized to comply with children's use accessible requirements.

2.2.25.1 Furnishings/Equipment

Coordinate and show size and location for paper towel, soap, and toilet tissue dispensers which shall be provided by the Base Custodial Contractor.

2.2.25.2 Minimum Finishes

Floor: porcelain tile with epoxy grout.

Base: porcelain bullnose tile with epoxy grout.

Walls: porcelain tile with epoxy grout up to 60" AFF, epoxy painted gypsum wallboard above (water-based epoxy with low VOCs).

Ceiling: suspended 2x2 vinyl faced acoustical tile (moisture resistant)

2.2.25.3 Other Requirements

Provide two (2) pediatric floor water closets (10"-11" to rim), two (2) child wall mounted lavatories (17" to rim), and a mirror above each lavatory. Mirrors shall be a tempered safety glass mirror, with stainless steel surround, including clear film applied to mirrored surface to retain glass pieces, if broken. Provide toilet seats for pediatric water closets.

Provide diaper changing station approximately 24" D x 60" long solid surface cabinet with sink integral to diaper changing surface, and retractable stairs with a handrail.

Dual flush toilets are allowed; however, automatic flush valves are NOT allowed. For the sinks in the toilet area faucets shall be pre-mixed single front push control that meets ABA requirements. Water shall run for at least 15-20 seconds.

Provide laminate base millwork with quartz countertop with one undercounter-mounted porcelain lavatory. Provide a semi-recessed waste receptacle and floor-supported, overhead braced toilet partitions with solid phenolic finish between toilets.

2.2.26 Active Play Room

An active indoor play area for CDC children to utilize during inclement weather/temperature extremes.

2.2.26.1 Minimum Finishes

Floor: athletic (multi-purpose floor) Gerflor Taraflex Multiuse 6.2 4331 Natural or approved equal

Base: straight rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs). Athletic all padding mechanically attached to all walls to protect users, minimum height of 60” AFF.

Ceiling: suspended 2x2 acoustical ceiling system

2.2.26.2 Other Requirements

Provide toilet area and storage (see Active Play Room Toilet Area and Active Play Room Storage Rooms Section). Provide protective covers over all sprinkler heads, fire alarm/MNS strobe lights and speakers, exit signs, and fire alarm manual pull stations.

2.2.27 Active Play Storage Room

Storage room to support the Active Play Room.

2.2.27.1 Furnishings/Equipment

A minimum of four (4) adjustable shelves with heavy-duty standards and

brackets will be provided on 3 walls. At least two (2) 18" deep shelves and two (2) 12" deep shelves shall be provided. Shelving shall be able to support 100 pounds per lineal foot. On all walls where shelving is provided, a red line must be provided in accordance with storage height limitation line requirements in section 7. Fire protection of the general requirements in the CDC Standard Design Criteria School Age Center For Children Six Weeks To Five Years Of Age.

2.2.27.2 Minimum Finishes

Floor: sheet vinyl flooring.

Base: straight rubber base, rolled goods. Base shall be seamless except at inside corners. Base shall be sealed to floor with USDA or NSF approved caulking.

Walls: epoxy painted gypsum wallboard (water-based epoxy with low VOCs).

Ceiling: suspended 2x2 acoustical ceiling system

2.2.28 Active Play Room Toilet Area

A child ABA-compliant toilet area for CDC children.

2.2.28.1 Furnishings/Equipment

A mirror is required above the lavatory. Mirror shall be a tempered safety glass mirror, with stainless steel surround, including clear film applied to mirrored surface to retain glass pieces, if broken.

2.2.28.2 Minimum Finishes

Floor: porcelain tile with epoxy grout.

Base: porcelain coved tile with epoxy grout.

Walls: On all walls, a minimum 48” (1220mm) tall ceramic or porcelain tile wainscot is required.

Ceiling: suspended 2x2 acoustical ceiling system

2.3 CIRCULATION AREA REQUIREMENTS

Building circulation spaces and requirements shall be as follows:

UTILITY AREA REQUIREMENTS

Building utility spaces and requirements shall be as follows (see other Parts in this section for specific mechanical and electrical requirements):

2.2.29 Mechanical Room

Dedicated area provided for mechanical equipment including HVAC and water heating. Mechanical room must not be used for storage or other purposes.

Access must be limited to authorized personnel through only an exterior double door into the mechanical yard. Room must be sized to allow adequate clearance, equipment removal, and maintenance. Changes to the provided floor plan to increase or decrease the room area must be approved by the Contracting Officer. Provide floor openings to accommodate piping and ductwork in vertical shaft spaces as necessary.

2.2.29.1 Minimum Finishes

Floor: concrete hardener.

Base: coved rubber base, rolled goods.

Walls: painted gypsum board and/or painted CMU.

Ceiling: as required by code.

2.2.30 Electrical Room

Dedicated area provided for electrical service equipment. Electrical room must not be used for storage or other purposes. Access must be limited to authorized personnel through a corridor door that opens out with panic hardware per code requirements. Room must be sized to allow adequate clearance, equipment removal, and maintenance. Changes to the provided floor plan to increase or decrease the room area must be approved by the Contracting Officer. Provide floor openings to accommodate conduit in vertical shaft spaces as necessary.

2.2.30.1 Minimum Finishes

Floor: concrete hardener.

Base: coved rubber base, rolled goods.

Walls: painted gypsum board and/or painted CMU.

Ceiling: painted gypsum board.

2.2.31 Communications Room

Dedicated area provided for communications service equipment. Communications room shall not be used for storage or other purposes. Access shall be limited to authorized personnel through a corridor door. Room shall be sized to allow adequate clearance, equipment removal, and maintenance. Changes to the provided floor plan to increase or decrease the room area shall be approved by the Contracting Officer. Provide floor openings to accommodate conduit in vertical shaft spaces as necessary.

2.2.31.1 Minimum Finishes

Floor: concrete hardener.

Base: coved rubber base, rolled goods.

Walls: painted gypsum board and/or painted CMU.

Ceiling: painted gypsum board.

PART 3 SITE PLANNING AND DESIGN

3.1 EXISTING CONDITIONS

The project is located within the area adjacent Indiana Ave. at Fort Campbell. The site is the south Child Development Center near intersection of Currahee St. and Bastogne Ave. which is approximately less than 1 acre of site disturbance. The site currently is developed with the existing facility, parking lot, landscaping, grass, and trees.

3.2 SITE DEVELOPMENT PLAN (NOT USED)

3.3 CIRCULATION AND PARKING

Utilize existing circulation and parking.

3.3.1 Vehicular Parking

Utilize existing vehicle parking.

3.4 DEFINITIONS (NOT USED)

PART 4 SITE ENGINEERING

4.1 GENERAL

Site development associated with the Child Development Center building consists of the playground surfaces, and utility service replacement. For guidance relating to the site planning and design, refer to TM 5-803-14 (https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/tm5_803_14.pdf)

4.1.1 Materials

As a minimum design criteria all materials shall conform with the applicable sections of the State of Kentucky.

4.1.2 Standoff **Distances**

Not Used

4.1.3 Site Survey

Not Used

4.1.4 Notification Prior to Excavation

Notification shall be minimum 30 days prior to the planned excavation to allow processing. The Contractor shall submit Form 103, BCE Work Request (Dig Permit), and obtain approval prior to excavation. The government shall mark out known existing underground utilities in the work area. The marked

location of the existing utilities is approximate. Excavation by power driven equipment is not permitted within three (3) feet of either side of the marked utility. Hand excavate on each side of the indicated obstruction and continue until uncovered or clearance for the new grade is assured.

Report damage to underground utilities or subsurface construction immediately to the Contracting Officer. Damage to marked utilities shall be satisfactorily repaired or replaced by the DB Contractor at no additional cost to the government. Damage to unmarked utilities shall be repaired or replaced by the DB Contractor and be subject to an equitable adjustment in the contract amount. Repair is defined as permanent, code compliant measures as approved by the Contracting Officer.

4.2 DEMOLITION

This project playground surface demolition is required by the DB Contractor as indicated by the Designer of Record. Any waste excavation shall be disposed of off-site.

4.3 SIDEWALKS

Not Used

4.4 SOILS

Not Used

4.5 SEDIMENT AND EROSION CONTROL

Not Used

4.5.1 Lawn Establishment

Not Used

4.6 CATHODIC PROTECTION

Not Used

4.7 WATER DISTRIBUTION SYSTEM

The design and installation (including materials) of the water distribution system for the site shall be in accordance with UFGS Section 33 11 00 WATER DISTRIBUTION and LRL Section 31 00 00.00 06 EARTHWORK, which shall be developed by the Designer of Record.

The contractor must determine domestic and fire demands for the facility and must verify the design of all components of the domestic and fire protection supply systems. Water mains at the site appear to be of adequate size to satisfy both domestic and fire flow requirements. Minimum main size for fire protection piping to building is 6 in.

Fire hydrants and valves shall conform to the requirements of UFGS Section 33 11 00 WATER DISTRIBUTION. Fire hydrants must be provided so that all parts of

the facilities can be reached by hose lines not over 350 ft long. All distances shall be calculated along the closest route that the fire apparatus must travel (i.e.; along the curb or access lane). A fire hydrant shall be located within 150 ft from any fire department connection provided. Existing fire hydrants may be included for spacing requirements. New fire hydrants shall be added as necessary to meet the spacing requirements. Hydrant laterals shall be 6 in minimum size, and shall not exceed 50 ft in length, and shall have an underground shutoff valve. Valve box, at each lateral, shall be located within 10 ft of the hydrant, and shall not be located where obstructed by parked vehicles, shrubbery, etc. Guard post barriers shall be provided where hydrant locations are subject to vehicle damage.

The building must be provided with a separate service and main shutoff valve, readily accessible to maintenance and emergency personnel. Shutoff valves in walks are prohibited. Existing water service lines and mains during construction must remain in service, uninterrupted. A water flow test was witnessed by Black and Veatch and yielded the following results dated 10/09/2024 from test hydrant NE corner B3069 located at the site with flow hydrants SW corner B3069:53 psig static pressure, 1007 gpm flow at a residual pressure of 47 psig. The fire flow data sheets are available in Appendix B.

PART 5 ARCHITECTURAL & INTERIOR DESIGN

5.1 CHILD DEVELOPMENT CENTER (CDC) DESIGN GOALS

The DB Contractor shall design and renovate the existing 23,672 GSF CDC Building 3069 for Fort Campbell that will result in an assimilation of the current CDC Standards from the USACE Center of Standardization for Child and Youth Services to the fullest extent possible. https://mrsi.erdc.dren.mil/cos/hnc/cdcu6/

5.1.1 Exterior Design Objectives

Refer to Part 2 Functional and Area requirements.

5.1.2 Interior Architecture

Refer to Part 2 Functional and Area requirements.

5.1.3 Interior Finishes

Refer to Part 2 Functional and Area requirements.

5.1.4 Furniture and Equipment

Refer to Part 2 Functional and Area requirements.

5.2 APPLICABLE CODES AND STANDARDS

Except as specified otherwise in the RFP, design and construction of facilities shall comply with the latest editions (as of the date of the RFP issue) of the following. Major criteria references for building design are listed below; additional requirements are included throughout the RFP.

National Fire Codes, published by the National Fire Protection Association (NFPA), including NFPA 101.

International Building Code (IBC).

ABA Accessibility Guidelines for Buildings and Facilities

UFC 3-600-01(www.wbdg.org/ccb/browse)

5.3 IBC OCCUPANCY AND BUILDING TYPE CLASSIFICATIONS

Occupancy classification, construction type, allowable areas, maximum building height, and fire separation requirements shall comply with the requirements of the UFC 3-600-01.

5.4 ROOM NOISE CRITERIA AND SOUND ATTENUATION

Room noise criteria establishes acceptable background sound in rooms over the frequency range 16 Hz to 4000 Hz, particularly measuring rumbling, rattling, buzzing, hissing, and humming from building mechanical and electrical systems. Rooms shall not exceed the Room Criteria (RC) as specified by the ASHRAE Handbook and CDC Guidelines. All RC ratings shall be neutral (N). Designers of Record shall determine adequate construction requirements to achieve the limits stated in the CDC standards.

5.4.1 Noise Testing

Test all rooms with all building systems operating. Measure the sound pressure level in dB referenced to 20 micro Pascals.

5.4.2 Noise Test Reports

Report the results of the tests by plotting the sound pressure level in each octave band from 32 to 4000 Hertz on Room Criterion Curve sheets published by ASHRAE. Provide an individual plot for each room and a narrative discussion explaining the test results.

5.5 SOUND ATTENUATION

As a minimum, all gypsum board partitions separating spaces shall be provided with 3-inch thickness of sound attenuation insulation and shall extend to the roof deck unless otherwise indicated.

5.6 EXTERIOR DESIGN

5.6.1 Exterior Walls

No exterior work beyond cleaning is required.

5.6.2 Miscellaneous Exterior Elements

All louvers, exhaust fans, and other exterior elements shall be factory finished to match the trim color. Use of exterior wood with painted finish is prohibited.

5.6.3 Exterior Signage

Exterior signage for the project shall be provided to include building number signs on the front and side elevations, building identification signage in front of the building, and handicap parking signage. Building identification signage shall match characteristics of those on adjacent buildings. Exterior signage shall be provided in accordance with the Sign Standard, UFC 3-120-01 available at https://www.wbdg.org/ccb/browse_cat.php?c=4.

5.6.4 Exterior Steel Doors and Frames

Existing exterior steel doors and frames are to be replaced. See Section 1.1.1 for base bid and bid option 4.

5.6.5 Exterior Aluminum Storefront Doors and Frames

Use existing exterior aluminum storefront doors and frames. See Section 1.1.1 for base bid and bid option 3.

5.6.6 Exterior Door Hardware

Existing exterior door hardware is to be replaced. See Section 1.1.1 for base bid and bid option 4.

5.6.6.1 Hinges

Hinges shall comply with ANSI/BHMA A156.1; template, full mortise, heavy duty, ball bearing, minimum size 4-1/2" x 4-1/2", non-ferrous base metal, non-removable pins.

5.6.6.2 Locksets

Locksets shall comply with ANSI/BHMA A156.2. InstaKey is to be used for this project.

5.6.6.3 Exit (Panic) Devices

Exit devices shall comply with ANSI/BHMA A156.3; heavy-duty touch-pad type, through-bolted mounting. Listed and labeled for panic protection based on UL 305.

5.6.6.4 Closers

Closers shall comply with ANSI/BHMA A156.4; series C02000, Grade 1, hydraulic, factory-sized, and adjustable to meet field conditions, mounted on interior of doors. Include overhead hold-open capability on exterior door closers.

5.6.6.5 Auxiliary Hardware

Auxiliary hardware shall comply with ANSI/BHMA A156.16. Provide wall or floor stops for all exterior doors. Provide other hardware as necessary for a complete installation.

5.6.6.6 Kick Plates

Kick plates shall comply with ANSI/BHMA A156.6 and shall be non-ferrous metal.

5.6.6.7 Thresholds

Thresholds shall comply with ANSI/BHMA A156.21 and *ABA Accessibility Guidelines for* Buildings *and Facilities*. Thresholds shall be non-ferrous metal and shall be provided at all exterior doors.

5.6.6.8 Weatherstripping

Weatherstripping shall comply with ANSI/BHMA A156.22 and shall be provided at all exterior doors.

5.6.7 Exterior Windows

Exterior windows are to remain. Clean all windows (incl. glazing and frame). All operable windows shall receive aluminum insect screens with frames to match window frames. Hardware shall be metal, finished to match window frames. Interior windowsills shall be solid surfacing material.

The windows shown on the preliminary elevations and described here are considered the minimum extent of window coverage required. Further development of the building elevations may require additional windows and window types.

5.6.8 Thermal Insulation

Provide exterior wall and roof/ceiling assemblies with thermal transmittance (U-values) required to comply with the proposed energy calculations for the project. Insulation shall not be installed directly on top of suspended acoustical panel ceilings. Also see Part 7 THERMAL PERFORMANCE. This only applies if exterior walls are damaged or removed during construction.

5.6.8.1 Thermal Bridging

A thermal bridge (or cold bridge) occurs when a thermally conductive material such as a metal stud, steel frame, or concrete beam, slab, or column) penetrates or bypasses the exterior insulation system. Design the building envelope to align all insulating elements such as the continuous wall insulation from top of footing to roof insulation, insulated glazing, and insulated doors. Wrap insulation around roof overhangs. Disconnect window and door sills from interior construction. Utilize thermally broken window and door frames. Provide details to eliminate thermal bridges, particularly at floor slabs, roof/wall intersections, steel lintels, relief angles, metal through wall flashings, and building corners.

5.7 INTERIOR DESIGN OBJECTIVES

Interior design for the project shall enhance the environment emphasizing durable materials and furnishings that can be easily maintained and replaced.

The structural interior design (SID) for finishes shall be included in the construction contract. The Furniture, Fixtures, & Equipment (FF&E) Package shall be purchased and installed by the Government through a separate contract. Appropriate personnel shall be interviewed by the Interior Designer of Record to determine appropriate color schemes, furniture styles, and furniture items desired. Finishes indicated under the Functional Area Requirements paragraph of this specification section shall determine the minimum types of finishes required for each space. Additional finishes shall be provided to fully develop the SID.
Interior doors to remain where indicated on drawings. Provide new doors where indicated on drawings. See section 1.1.1 for base bid and bid option 5.

5.8 STRUCTURAL INTERIOR DESIGN (SID)

Minimum interior finishes and wall types are indicated in this specification for each space in the project. Items not specifically identified shall be coordinated in the SID and provided based on suitability of use, durability, and aesthetic character. Corner guards shall be provided on all outside corners and coordinated with the SID. The Interior Designer or Record shall develop the SID binders in accordance with requirements from in the appendices. The SID shall closely coordinate with the FF&E Package items.

5.8.1 Concrete Floors

All exposed concrete floors shall be sealed. The concrete floor sealer shall have a minimum 5-year warranty.

5.8.2 Entrance Carpet

Entrance carpet shall be a tufted textured loop, needlepunch nylon and polyester product containing 8% post-industrial content, utilizing a graphlar bitumen backing system which incorporates recycled content. Carpet shall be 100% solution dyed, minimum 40.5 ounces per square yard.

5.8.3 Ceramic Tile

Ceramic tile shall comply with ANSI A137.1, Section 6.3. Installation shall follow the recommendations of *Tile Council of America (TCA) Handbook* for Ceramic Tile Installation.

Ceramic tile material shall contain 70% recycled solid waste as defined by the EPA's Comprehensive Procurement Guideline (CPG) program and the EPA's RMAN's. Recycled material shall be a combination of post-consumer recycled glass, post-industrial grinding paste, and post-industrial mining waste.

Mounting of 2-inch x 2-inch tiles shall require factory mounting. Grout release shall be used. Provide cultured marble thresholds under doors where a ceramic tile floor meets a different floor finish. Substrate for wall tile shall be mortar setting bed or cement backer board; gypsum board shall not be used as a substrate for wall tile.

5.8.4 Interior Walls and Partitions

Comply with requirements of applicable codes. Non-combustible construction is

preferable, even where combustible materials are allowed by code. Wall finish materials shall be as specified in functional and area requirements listed in this specification section.

5.8.4.1 Gypsum Wallboard

Comply with ASTM C1396. Minimum panel thickness shall be 5/8-inch. Provide Type X panels in fire-rated assemblies. Provide moisture resistant panels where ceramic tile is not used. Joint treatment shall be per ASTM C475. Screws shall be per ASTM C646. Drywall installation shall be per ASTM C840.

5.8.5 Ceilings

Comply with requirements of applicable codes. Non-combustible construction is preferable, even where combustible materials are allowed by code. Ceiling finish materials shall be as specified in functional and area requirements listed in this specification section. Minimum ceiling height shall be 9 feet AFF unless otherwise indicated or shown. Gypsum board soffits shall be used to accent areas such as the reception desk in the lobby area and shall be minimum 8 feet AFF.

5.8.6 Casework

The general casework requirements indicated on the drawings shall be further developed in accordance with information obtained during interviews of Ft. Campbell personnel to determine specific storage and usage requirements. Drawers, doors, hardware, locks, shelving, and counters shall be provided and detailed to meet these specific requirements. Bulkheads to be provided above all upper cabinets. Finishes shall be coordinated with the SID.

5.8.6.1 Vanities for Restrooms

Vanities provided for restrooms shall be wall-hung countertops with aprons. Exposed piping at accessible lavatories shall be insulated in conformance with *ABA Accessibility Guidelines for Buildings and Facilities*. Countertop and apron shall be quartz material with integral coved backsplash. Porcelain sinks shall be undercounter mounted.

5.8.6.2 Casework for Break Room and Kitchen

Provide manufactured unitized kitchen cabinets; or provide architectural cabinets complying with AWI Quality Standards, Section 400, Custom Grade cabinets with high-pressure decorative laminate finish, meeting NEMA LD3 standards. Vertical laminate shall be nominal 0.028" thick. Door and drawer edges shall be heavy-duty 3-mm extruded polyvinyl chloride with self-locking serrated tongue. Countertop shall be quartz material with waterfall front edge and integral coved backsplash.

5.8.7 Window Treatments

Window treatments including horizontal blinds, shall be coordinated in the SID and therefore, included in the construction project.

5.8.7.1 Mini-Blinds

Provide horizontal aluminum mini-blinds at windows, coordinating with user requirements. Mini-blinds shall have one-inch wide x .008-inch thick slats with anti-static, anti-microbial polyester baked enamel finish. Window treatments to be cordless. Provide heavy duty 1" x 1-1/2" steel headrail, and tubular steel bottom rail finished to match slats.

5.8.8 Interior Signage

Interior signage for the project shall be provided to include room identification for all spaces. Interior signage shall be included in the SID and shall be provided in accordance with UFC 3-120-01. Signage schedule, plan, and details shall be included in the SID and in the construction drawings. Interior signage shall comply with the Ft. Campbell and CDC Standards.

5.8.9 Special Protection

Provide surface-mounted, high impact integral color rigid vinyl corner guards at all outside corners of gypsum board walls. In Kitchen, provide stainless-steel corner guards at all outside corners of ceramic tile walls. In restrooms and toilet areas, provide metal trim with rounded edge at all outside corners to protect wall tiling.

5.8.10 Luxury Vinyl Tile

Luxury Vinyl Tile (LVT) shall be a minimum to ASTM F1700 Class III printed film with a minimum wear layer thickness of 30 mil. Provide tile with a factory protective finish that enhances cleanability and durability.

5.8.11 Sheet Vinyl

Sheet Vinyl (SV) shall be a minimum 1/8" thick, conforming to ASTM F 1066, Class 2 through pattern, Composition 1, asbestos free, with color and pattern uniformly distributed throughout thickness of the tile.

5.9 PHYSICAL SECURITY REQUIREMENTS

The project shall comply with the *DOD Minimum Antiterrorism Standards for Buildings*. The B3069 facility is classified as a inhabited building.

PART 6 STRUCTURAL DESIGN

6.1 GENERAL

No particular structural system is selected or recommended by the government; therefore, the structural design is the contractor's responsibility within the parameters given in this Section 01 02 10.00 06.

The criteria established herein shall be used for the determination of structural loads, the analysis and design of all structural systems, and the construction of all structural systems. All structural calculations shall be checked and initialed by a registered engineer other than the original design

engineer. Construction documents (drawings and specifications) shall be sealed and signed by a Professional Engineer registered to perform work in the jurisdiction.

Not knowing the exact final cost and assuming we'll be in Seismic Design Category D, the trigger for a full upgrade is 50% of the replacement cost per RP-10. Building 3069 renovations shall follow the guidelines set in 4-010-01 DoD Minimum Antiterrorism Standards for Buildings. Given that the structures are set behind a controlled perimeter, structural renovations to meet standoff and blast requirements are not required per section 3.2. However, any exterior glazing that is replaced shall meet the requirements set by section 1-6.2.3 and Standard 10 per UFC 4-010-01. Building 3069 is considered risk category III and an existing structure in terms of UFC 4-023-03; therefore, progressive collapse is not required per section 3.7 of UFC 4-010-01.

6.2 DESIGN STANDARDS, CODES, AND CRITERIA

Design and construction of the structural systems shall comply with the latest editions (as of the issue date of the RFP) of the following standards, codes, and criteria. Where the criteria conflict, the most stringent requirement(s) shall apply.

International Building Code (IBC), 2024.

International Existing Building Code (IEBC), 2024.

ACI 318-25: *Building Code Requirements for Reinforced Structural Concrete.*

ANSI/AISC 360-22: *Specification for Structural Steel Buildings.*

ANSI/ASCE 7-22: *Minimum Design Loads for Buildings and Other Structures.*

AISI S100-16: *North American Specification for the Design of Cold-Formed Steel Structural Members,* 2016.

SDI Steel Deck Institute, *Floor Deck Design Manual*, 2nd Edition. SDI Steel Deck Institute, *Diaphragm Design Manual*, 4th Edition. UFC 1-200-01, change 4, *DoD Building Code*, 2024.

UFC 3-301-01, change 3, *Structural Engineering*, 2025.

UFC 4-010-01, change 3, *DoD Minimum Antiterrorism Standards for Buildings*, 2024.

TMS 402-22 *Building Code Requirements and Specifications for Masonry Structures.*

AWS D1.1/D1.1M *Structural Welding Code*, 2025.

6.2.1 Minimum Live Load Requirements

Minimum live load requirements shall be computed using the project design

standards, codes and criteria, but shall not be less than the following:

First Floor Corridors	100 psf
Roof	20 psf
Mechanical Room	125 psf or actual weight of equipment

6.2.2 Wind Loads

The wind loads shall be designed using ASCE 7 Exposure Category C.

6.2.3 Snow Loads

The snow loads shall be designed using ASCE 7. Ground snow load shall be 24 psf min.

6.2.4 Seismic Loads

The seismic loads shall be designed using ASCE 7, for the following minimum requirements:

Risk Category III

Occupancy Importance Factor = 1.25

Site Class – D (to be validated by end delegated engineer)

Seismic Design Category – D (to be validated by end delegated engineer)

6.2.5 Construction Drawings

All drawings shall be composed in accordance with and shall provide information as required by the *International Building Code*, IBC, Chapter 16 - Structural Design, Section 1603 - Construction Documents.

6.3 STRUCTURAL COMPONENTS AND SYSTEMS.

All structural components and systems shall comply with the requirements of the applicable standards, codes, and criteria as well as industry standards and commonly accepted methods of practice. Logical alternative foundations and framing methods should be considered when selecting an appropriate structural system. Non-combustible construction is preferable, even where combustible materials are allowed. Wood shall not be used for any structural members.

Elements To Be Evaluated And Addressed.

Total Life Cycle cost effectiveness of the system.

Constructability.

Experience level of local contractors and labor force.

Availability and use of local materials.

6.3.1 Building Foundations

Combined footings, continuous footings, and spread footings shall be used.

Final footing sizes and thicknesses shall be determined in accordance with the contractor's geotechnical report recommendations.

6.3.1.1 Combined Footings

Minimum width shall be in accordance with the contract documents but not less than 3'-0".

6.3.1.2 Continuous Footings

Minimum width shall be in accordance with the contract documents but not less than 2'-0".

6.3.1.3 Spread Footings

Minimum size shall be in accordance with the contract documents but not less than 3'-0" in any direction.

6.3.2 Ground Floor Slab Systems

Floating type, soil supported slab-on-grade shall be used. The minimum slab thickness shall be 0'-5". Reinforcing bars shall be used in lieu of welded wire fabric. Final slab thickness shall be determined in accordance with the contractor's geotechnical report recommendations.

6.3.3 Load Bearing Walls

Materials of construction for vertical load bearing walls shall be reinforced masonry, reinforced concrete (cast in place or precast) walls (for the Armory and Weapons Vault), or metal stud walls. Wood stud walls shall not be used.

6.3.4 Non-Load Bearing Walls

Materials of construction for non-load bearing walls shall be metal stud wall or reinforced masonry walls. Wood stud walls shall not be used.

6.3.5 Shear Walls

Materials of construction for shear walls shall be reinforced masonry, reinforced concrete (cast in place or precast) walls, or metal stud walls. Wood stud walls shall not be used.

6.3.1 Vertical Framing Members

Materials of construction for vertical framing members subject to axial compression, eccentric compression, or combined axial compression and flexure shall be limited to structural steel columns, reinforced concrete (cast in place or precast) columns, or reinforced masonry pilasters. Wood columns shall not be used.

6.3.2 Horizontal Framing Members

Materials of construction for horizontal framing members subject to uniaxial flexure without axial forces and torsion, flexure in combination with axial

tension or compression and/or torsion, or biaxial flexure shall be limited to roof decks (constructability), floor decks (diaphragms), structural steel beams, structural steel trusses, bar joists, cold-formed steel framing, cold-formed steel trusses, or reinforced concrete (cast in place or precast) beams.

6.3.3 Material Properties and Parameters

6.3.3.1 Concrete

All structural reinforced concrete shall be normal weight. The 28-day minimum ultimate compressive strength shall be 4000 psi. Calcium chloride shall not be used in any concrete. All concrete exposed to weather shall be air-entrained.

6.3.3.2 Concrete Masonry Units

The compressive strength of masonry on the net area shall be 2000 psi.

6.3.3.3 Concrete Masonry Grout

The 28-day minimum compressive strength of grout used in masonry shall be 2000 psi.

6.3.3.4 Reinforcing Steel

Reinforcing steel shall be Grade 60 and conform to ASTM A615 or ASTM A706.

6.3.3.5 Structural Steel

Structural Steel shall conform to the following specifications:

W-Shapes	ASTM A992, 50 ksi
HSS-Shapes: round	ASTM A500, Grade C, 50 ksi
rectangular	ASTM A500, Grade C, 50 ksi
Steel Pipe	ASTM A53, Grade B, 35 ksi
All other Shapes, plates, Rods, and Anchor Bolts	ASTM A36, 36 ksi
Steel Deck	ASTM A653, 33 ksi

6.3.5.1 Cold-Formed Steel.

All structural members shall be formed from corrosion-resistant steel in accordance with ASTM A653. Members and accessories shall be galvanized in conformance with ASTM A924.

6.4 STRUCTURAL CONNECTIONS AND JOINTS

All structural connections, joints, and details shall comply with the requirements of the applicable standards, codes, and criteria.

6.4.1 Structural Steel Connections

6.4.1.1 Connection Bolts

Bolts shall conform to ASTM A325-N.

6.4.1.2 Welds

Welding electrodes shall be E70XX.

6.4.1.3 Column Ends

Column bases and spliced ends shall be milled or sawcut to provide full bearing.

6.4.2 Cold-Formed Steel Connections.

6.4.2.1 Blocking

End blocking shall be provided where joist ends are not otherwise restrained from rotation.

6.4.2.2 Stiffeners

Web stiffeners shall be provided at all joist-bearing locations and/or at all points of concentrated loading.

6.4.3 Contraction Joints

6.4.3.1 Joints in Slabs

Contraction joints, whether sawed, grooved, or preformed, shall extend into the slab to a depth of one-fourth the slab thickness.

6.4.3.2 Joints in Walls

Cast in Place Concrete Walls: The thickness of the wall at a contraction joint shall be reduced by 20%-25%. Contraction joints in walls shall be spaced at a maximum of 20'-0" O.C.

Reinforced Masonry Walls: Joints shall be placed at the greater of 24 inches or 40 bar diameters from the edge of an opening. Joints shall not be placed at the edges of openings.The maximum spacing of joints in masonry walls shall be as specified in the following tables:

Table 6-1 Spacing for Joints in CMU Walls

Vertical Spacing of Joint Reinforcement (2-#9 Wires) (in)	Maximum Ratio of Panel Length to Wall Height (L/H)	Maximum Spacing of Contraction Joints (ft)

Unreinforced	2	18
16	3	24
8	4	30

Notes:
1. These spacings are based on moisture-controlled, type 1, concrete masonry in intermediate humidity conditions (ASTM C 90). The designer should adjust the joint spacing for local conditions. The recommended spacing may be increased 6 ft in humid climates and decreased 6 ft in arid climates.
2. Joint reinforcement shall be cold-drawn deformed wire with a minimum 9-gage longitudinal wire size.
3. L is the horizontal distance between joints. H is generally the vertical distance between structural supports.
4. The spacing shall be reduced 50% near masonry-bonded corners or other similar conditions where one end of the masonry panel is restrained.
5. Unreinforced walls are not recommended for walls exposed

Table 6-1 Spacing for Joints in CMU Walls

to view where control of cracking is important.

Table 6-2 Maximum Spacing of Vertical Expansion Joints in Brick Walls

Expansion Joint Width (in)	W x in	Maximum Spacing of Joints
3/8	3/16	22
1/2	1/4	30
3/4	3/8	44
1 (max)	1/2	60

Notes:
1. Provide expansion joints at 6 to 10 ft from corners.
2. Recommended joint locations:
   a. At regular intervals as noted in table above.
   b. At changes in wall height or thickness.
   c. Near wall intersections in "L", "T", and "U"-shaped buildings at approximately 6 to 10 ft from corners.
   d. At points of stress concentration.
   e. At edges of openings.

6.4.4 Construction Joints

6.4.4.1 Joints In Slabs

Construction joints shall be butt-type with continuous reinforcing through the joint, butt-type with dowels, or butt-type with tie bars.

6.4.4.2 Joints In Walls

Wall construction joints shall not detract from the appearance of the structure. Joints shall be inconspicuous or hidden by rustification strips. Rustification strips shall be V-shaped, rectangular, or beveled. In reinforced masonry walls, joints shall be placed at the greater of 24 inches or 40 bar diameters from the edge of an opening. Joints shall not be placed at the edges of openings.

6.4.5 Isolation Joints

6.4.5.1 Joint Material

Isolation joint fillers shall consist of 1/8" thick strips of neoprene, synthetic rubber, or approved substitute, extending the full depth of the slab.

Expansion/Contraction joint filler shall consist of minimum 1/2" premolded material conforming to ASTM D1751 or ASTM D1752.

6.5 SPECIAL REQUIREMENTS

6.5.1 AISC Certification Requirements for Fabrication

All fabrication of structural steel shall be accomplished by an AISC certified Category Std fabricating plant/facility.

6.5.2 AISC Certification Requirements for Erection

All erection of structural steel shall be accomplished by an AISC certified Category CSE erecting company.

6.5.3 ACI Certification Requirements for Concrete Batching, Placing, and Finishing

Contractor Quality Control personnel assigned to concrete construction shall be ACI certified workmen in the following trades:

Concrete Field Testing Technician - Grade I

Concrete Laboratory Testing Technician - Grade I or II

Concrete Construction Inspector

Reinforced Concrete Special Inspector Flatwork Finisher and Technician

6.5.4 PCI Certification Requirements for Manufacturing

The precast concrete manufacturing plant shall be certified by the Precast/Prestressed Concrete Institute Plant Certification Program. Manufacturer shall be certified at the time of bidding. Certification shall be in the following product groups and categories:

C1 - Precast Concrete Products (non-prestressed)

C2 - Prestressed Hollow-Core and Repetitive Products

6.5.5 PCI Qualifications and Requirements for Erection

The erecting company shall be regularly engaged for at least five years in the erection of precast structural concrete similar to the requirements of the various design possibilities for this project.

6.5.6 Seismic and Special Inspection Requirements

The requirements for the preparation of construction drawings, the construction of the structural systems, the installation of architectural, electrical, mechanical and fire protection components, and the inspection of the structural system and the architectural, electrical, mechanical and fire protection components are established in the following codes and specifications.

International Building Code, IBC - Chapter 17-Structural Tests and Special Inspections (which includes Paragraph 1707.6 Architectural Components, and Paragraph 1707.7 Mechanical and Electrical Components)

LRL Section 01 45 04.10 06 *CONTRACTOR QUALITY CONTROL* – Paragraph Special Inspection for Seismic-Resisting Systems (which includes Paragraph Architectural Components, and Paragraph Mechanical and Electrical Components)

NFPA 13 and Annexes - Standard for the Installation of Sprinkler Systems

UFGS Section 13 48 00-Seismic Protection for Miscellaneous Equipment

UFGS Section 21 13 13 Wet Pipe Sprinkler System, Fire Protection

UFGS Section 13 48 00.00 10-Seismic Protection for Mechanical Equipment

UFGS Section 26 05 48.00 10-Seismic Protection for Electrical Equipment

PART 7 THERMAL PERFORMANCE

7.1 THERMAL CHARACTERISTICS

Building construction shall conform to the current version of ASHRAE 90.1. All buildings shall be classified as non-residential. R and U values shall be calculated in accordance with ASHRAE methods.

7.2 THERMAL INSULATION

Thermal insulation shall have a flame-spread rating of 25 or less and a smoke-development rating of 50 or less, exclusive of the vapor barrier, when tested in accordance with ASTM E84. A vapor barrier shall be provided on the warm-in-winter side of exterior wall and ceiling insulation, except in humid areas as defined below. Polyurethane is allowed as an insulation material for slabs and outside concrete or unit masonry walls. It is prohibited as an injected insulation material in walls or floor cavities or within the building envelope. This only applies if exterior walls are damaged or removed during construction.

7.3 HUMID AREA DESIGN

An effective vapor barrier is critical to limiting moisture flow into occupied spaces. Interior surfaces of ceilings and exterior walls shall be covered with materials which allow escape of water vapor from inside the walls into the conditioned space to prevent the growth of mold on interior surfaces. The vapor barrier shall have a maximum perm rating of 0.5, and shall be located on the outside face of the exterior wall or ceiling insulation.

7.4 AIR INFILTRATION

To limit air infiltration, buildings shall be sealed with an air infiltration barrier, installed in accordance with the manufacturer's recommendations. The building envelope shall be caulked, gasketed, weatherstripped or otherwise sealed: around window and door frames, between wall cavities and frames, between walls and ceiling and roof, between walls and floors, at access doors and panels, at utility penetrations through walls, floors, and roofs, and at any other exterior envelope joint which may be a source of air leakage. These steps shall constitute tight building construction. (UFGS Section 07 27 10.00 10 BUILDING AIR BARRIER SYSTEM and if testing is required also use UFGS Section 07 05 23 PRESSURE TESTING AN AIR BARRIER SYSTEM FOR AIR TIGHTNESS.) This only applies if exterior walls are damaged or removed during construction.

PART 8 PLUMBING

8.1 DESIGN STANDARDS AND CODES

Plumbing system must be installed in accordance with the International Plumbing Code (IPC), UFC 3-420-01, the Louisville District Military Design Guide (LDMDG), the CDC Standards from the USACE Center of Standardization for Child and Youth Services, and UFGS Section 22 00 00 PLUMBING, GENERAL PURPOSE.

8.2 DESIGN CALCULATIONS

The calculations outlined in the Louisville District Military Design Guide must be performed at each design phase. Plumbing calculations include, but are not limited to the following:

- Determine Total Quantity and Type of Plumbing Fixtures
- Cold Water Distribution and Pipe Size
- Domestic Hot Water Distribution and Pipe Size
- Sanitary Distribution and Pipe Size
- Vent Distribution and Pipe Size
- Natural Gas Capacity and Pipe Size
- Domestic Water Heater Sizing
- Domestic Hot Water Expansion Tank Sizing
- Domestic Hot Water Recirculation Pump Sizing

8.2.1 Hot Water Heater Calculations

The domestic water heater calculations must be based on the methods described in the American Society of Plumbing (ASPE) Volume I, Fundamentals of Plumbing Design. Submit calculations for determining storage capacity and recovery rate. Hot water delivered to toilet facilities must not exceed 100 F. A hot water circulating system must be designed for all hot water systems.

8.2.2 Domestic Water Booster Pump

Calculations must be performed to determine the available static pressure at the most remote fixture per the IPC and UFC 3-420-01. Coordinate the site static pressure with the results of a hydrant flow test. If the static pressure available at the most remote fixture is not sufficient for fixture operation, a domestic water booster pump is required.

8.2.3 Piping

Design must be based on the International Plumbing Code for domestic water, sanitary waste, and vent piping. All domestic water piping must be sized in accordance with methods outlined in the International Plumbing Code, and limit the water velocity in the pipe to a maximum of 8 ft/sec for cold water and 5 ft/sec for hot water. An isometric diagram of the water system must be included in the design submittal. An isometric diagram of the sanitary sewer system (including vent piping) must be included in the design submittal.

8.2.4 Calculations

Detailed calculations for the plumbing system must be included in the Design Analyses required by this Request for Proposal.

8.3 EQUIPMENT

Plumbing equipment to be installed in this project must be in accordance with the requirements of UFGS Section 22 00 00 PLUMBING, GENERAL PURPOSE. Designer shall indicate clearly which equipment is to be installed in the different buildings in the project. Equipment to be installed in the gas systems of this project must be in accordance with the requirements of UFGS Section 33 51 15 NATURAL GAS/LIQUID PETROLEUM GAS DISTRIBUTION.

8.3.1 Domestic Hot Water

Domestic water heaters and storage tanks must store hot water at 140°F. Thermostatic mixing valves must be set to deliver 131°F water to the building distribution piping. The recirculation rate must be calculated such that the temperature of recirculated hot water is a minimum temperature of 122°F.

Each individual hot water fixture in the building must have a deck mounted mixing valve to step down the hot water temperature per section 8.2.1.

8.3.2 Domestic Water Booster Pump

Domestic water booster pump systems, if required, must be installed per the requirements of UFGS section 22 00 00 PLUMBING, GENERAL PURPOSE.

8.3.3 Emergency Eyewash Stations

Emergency eyewash stations must be installed per the requirements of UFGS section 22 00 00 PLUMBING, GENERAL PURPOSE.

8.4 FIXTURES

Plumbing fixtures for this project must be in accordance with the requirements of UFGS Section 22 00 00 PLUMBING, GENERAL PURPOSE. All fixture dimensions and mounting height requirements must comply with CDC Standard Design Criteria room by room descriptions. Provide manual flush valve operation for toilet fixtures per CDC Standard Design Criteria.

8.5 PIPING SYSTEMS

Piping materials for the plumbing systems and compressed air piping shall be as required by UFGS Section 22 00 00 PLUMBING, GENERAL PURPOSE, and the piping shall be installed in accordance with the requirements of that specification. Piping materials for the gas piping system shall be as required by UFGS Section 33 51 15 NATURAL GAS/LIQUID PETROLEUM GAS DISTRIBUTION and 23 11 20 FACILITY GAS PIPING and the piping must be installed in accordance with the requirements of that specification.

8.6 WATER HAMMER ARRESTERS

Water hammer arresters must be sized and located per the requirements of UFC 3-420-01. Commercial type water hammer arrestors must be used. Vertical capped pipe columns are not permitted.

8.7 PIPING INSULATION

Insulation for the plumbing system must be installed in accordance with the requirements of UFGS Section 23 07 00 THERMAL INSULATION FOR MECHANICAL SYSTEMS and ASHRAE 90.1.

PART 9 ELECTRICAL SYSTEMS

9.1 DESIGN STANDARDS AND CODES

The electrical design for building 3069 must be in accordance with the latest version of the following, as of the RFP issue date:

a. ANSI C2, National Electrical Safety Code

b. EIA/TIA 568B, Commercial Building Telecommunications Wiring Standard

c. EIA/TIA 569A, Commercial Building Standard for Telecommunications Pathways and Spaces

d. UFC 3-580-01 Telecommunications Building Cabling Systems Planning and Design

e. UFC 3-600-01 Fire Protection Engineering for Facilities

f. FM 11-486-5, Telecommunications Engineering - Outside Plant Telephone

g. Illuminating Engineering Society (IES) Lighting Handbook

h. Illuminating Engineering Society (IES) Publication RP-20-84- Lighting for Parking Facilities

i. Installation Information Infrastructure Architecture (I3A) Design and Implementation Guide

j. NFPA 70, National Electrical Code

k. NFPA 72, Standard for designing, installing, inspecting, testing and maintaining fire alarm and emergency communications systems to protect life and property

l. NFPA 780, Standard for the Installation of Lighting protection Systems

m. NFPA 101, Life Safety Code

n. NFPA 110, Standard for Emergency and Standby Power Systems

o. UFC 3-501-01, Electrical Engineering

p. UFC 3-520-01, Interior Electrical Systems

q. UFC 3-530-01, Design: Interior and Exterior Lighting and Controls

r. UFC 3-550-01, Exterior Electrical Power Distribution

s. UFC 3-575-01, Lightning and Static Electricity Protection Systems

t. Standard Design Criteria Child Development Centers

9.2 DESIGN CALCULATIONS

Provide calculations for the following:

9.2.1 Interior Lighting

Provide updated calculations for each room or area for both normal and for emergency/egress lighting, if so equipped. Standard lighting levels must be in accordance with IES recommendations, and the emergency/egress lighting levels must be in accordance with NFPA 101. The emergency/egress lighting calculations must indicate the average, the minimum, and the uniformity of each area. Preliminary Calculations have been included. Building construction must conform to the current version of ASHRAE 90.1.

9.2.2 Exterior Lighting

Provide calculations for all site lighting to include parking areas, walkways, and security. Lighting levels must be in accordance with IES recommendations and the emergency/egress lighting levels must be in

accordance with NFPA 101.Preliminary Calculations have been included.

9.2.3 Load Analysis

Provide updated analysis for building 3069 to include connected and estimated demand. Separate loads by categories such as lighting, receptacles, HVAC, special equipment, etc.

9.2.4 Short Circuit Analysis

Provide updated short circuit calculations for electrical system(s).

9.2.5 Voltage Drop

Provide calculations to verify voltage drops. Do not exceed limits as given in UFC 3-501-01.

9.2.6 Coordination

Provide data to verify proper protection and coordination is provided for the equipment/system(s).

9.2.7 Lightning Protection Risk Assessment

Provide a risk assessment for the building, in accordance with NFPA 780.

9.3 MATERIALS AND EQUIPMENT

All materials and equipment must be the standard catalogued products of manufacturers regularly engaged in the production of such equipment and material, and must be the manufacturer's latest design. All equipment and material must conform to the requirements of American National Standards Institute (ANSI), American Society of Testing and Materials (ASTM), National Electrical Manufacturer's Association (NEMA), National Fire Protection Association (NFPA) or other national trade association as applicable. Where standards exist, materials and equipment must bear the label and be listed by Underwriters Laboratories, Inc. (UL) or other recognized testing organization.

9.3.1 Space Requirements

Electrical space must be provided for all electrical equipment. Space must provide clearances and working areas as required by codes. Coordinate location to consider factors such as ease of maintenance, vicinity to loads being served and accessibility.

9.3.2 Wiring

Must be copper and must be run in conduit. Use solid copper wire for sizes No. 8 AWG and smaller diameter, and Class B, stranded copper wire for sizes No. 6 AWG and larger diameter. Minimum size for branch circuit wiring must be No. 12 AWG. Circuits must be provided with a green ground wire. Minimum interior conduit size shall be 1/2". Other requirements must be in accordance with UFGS Section 26 20 00, INTERIOR DISTRIBUTION SYSTEM

9.3.2.1 Electric Outlets

Housekeeping receptacles must be tamper proof and provided every 25 feet in corridors and in open, non-administrative, areas. Receptacles must be provided for all HVAC installations in accordance with NFPA 70, Par. 210.63. A GFCI weather proof receptacle must be provided, outside, at each entry to each building (main entrance and each corridor entrance). All receptacle circuits must be provided with dedicated neutrals. Unless otherwise noted, all receptacles are duplex, mounted 48 inches above finished floor unless noted otherwise. Provide receptacles in accordance with Standard Design Criteria Child Development Centers.

9.3.3 Motors

Motors must be high-energy efficient type. Motors larger than one-half horse power must be three phase. Motors one-third horsepower and smaller must be single phase. Motor starters for mechanical and special equipment must be furnished as an integral part of the mechanical or special systems.

9.3.3.1 Motor Efficiencies

All motors motor have efficiency ratings per the Energy Policy Act of 2005 (EPACT 2005). Applications which require definite purpose, special purpose, special frame, or special mounted polyphase induction motors are excluded from these efficiency requirements. Motors provided as an integral part of motor driven equipment are excluded from this requirement if a minimum seasonal or overall efficiency requirement is indicated for that equipment by the provisions of another section.

9.3.4 Service Distribution Equipment

Panelboards for use as service disconnecting means must additionally conform to UL 869A and have a short-circuit current rating as required by calculations.

9.3.4.1 Distribution Panels and Panelboards

The existing system distribution panels and panelboards are anticipated to be reused; however, during the design phase testing of existing electrical equipment must be performed by an independent third-party agency. If unfavorable test results are identified, replacement of equipment must be required and could result in additional scope and associated work. Receptacle and other miscellaneous loads must be served from 120/208V 3 phase 4-wire panelboards centrally located. If the evaluation of the existing electrical distribution system indicates that the existing dry-type transformer does not have the required capacity for the renovated building, a 3 Phase, delta/wye, dry-type transformer must be provided to transform 480 V power to 208/120 V. Transformer must be sized for a minimum of 15% future expansion. Distribution panels must be of the circuit breaker type and must have bolt-on breakers, main lugs only or main breakers as required and copper bus. Panelboards must be for molded case thermal magnetic circuit breakers and must be 42 circuit size. Distribution panels and panelboards must be NEMA 1 type construction. Install surface mounted panelboards in unfinished areas of buildings. Install

flush or semi-flush panelboards in other areas. All panels must be sized for a minimum of 10% future expansion. Provide spare 1P circuit breakers and spaces for future expansion.

9.4 INTERIOR LIGHTING

Lighting systems must be established in accordance with NFPA 101, UFC 3-530-01 and the IES Handbook. Lighting in occupied areas must be color corrected with a Color Rendering Index (CRI) of 85 or better. For energy conservation dual switch, automatic dimming/daylighting controls, or occupancy sensors must be provided as applicable. Interior lighting and controls must be provided in accordance with Standard Design Criteria Child Development Center.

Interior lighting must be provided by two independent systems. Normal lighting must be powered by the building equipment power system. Emergency egress lighting must be powered by 90-minute battery packs/ballasts. Batteries must be nickel-cadmium type.

9.4.1 Normal Lighting

Lighting branch circuits must be 12 AWG (THWN) and loaded to no more than 16 amps maximum. Circuits must be fed from 20 amp single pole circuit breakers in 277/480 volt lighting panels. Control of each room must be by switches located at entrances to the room.

9.4.1.1 Office Areas, Corridors, and Restrooms

Normal lighting in office areas must generally be provided by recessed LED fixtures operating on 277 VAC, electronic drivers. Task lighting must be provided in the Systems Furniture Areas and where the Using Agency directs critical work requires additional lighting. Areas without suspended ceilings must be provided with surface or pendant mounted fixtures.

9.4.1.2 Conference Rooms

Specialized lighting must be provided to accommodate conferencing, video, screen presentations, teaching, etc., as coordinated with the user.

9.4.2 Emergency Egress Lighting

Emergency egress lighting and exit lights must generally be provided by LED fixtures with integral battery packs and chargers. Lighting must be provided in accordance with NFPA 101. Exit signs must be "red LED" type.

9.5 EXTERIOR LIGHTING

Exterior lighting (parking lot, building, etc.) must be in accordance with UFC 3-530-01. Lighting must be LED. Parking lot lighting is existing to remain. All building entrances must be illuminated to 10 footcandles. Contractor must submit photometric layout of exterior areas showing point-by-point light intensity levels for the designed lighting layout.

9.6 TELECOMMUNICATIONS

Installation shall be in accordance with the "*Installation Information Infrastructure Architecture (I3A) Design and Implementation Guide*," and other requirements as follows. Cable and jacks shall be Category 6 per EIA/TIA 568B. Provide wiring from outlet jack to termination on applicable PATCH-PANEL. Follow requirements of ANSI/EIA/TIA 569B for telecommunications closets and equipment rooms. For specialized circuits, such as pay phones, coordinate with the local telephone company. Provide electrical and telephone outlets installed per the *ABA Accessibility Guidelines for Buildings and Facilities* to accommodate TTD's and other devices. When systems furniture is installed as part of the construction contract, insure that systems furniture specifications include ANSI/ EIA/TIA 568B and ANSI/EIA/TIA 569A cabling and raceway standards. The communications requirements shall be provided on separate sheets from other electrical systems in the plans.

9.6.1 Telecommunications Outlet Locations

Provide a minimum of one dual (telephone/data) *outlet* at each work station in administrative areas. Coordinate outlet locations with furniture arrangement. Provide single telephone outlets at wall phone height in all Mechanical, Electrical, Communication and service area rooms. The building shall have CATV outlets located in the Break Room. Outlet Locations as described above is a minimum requirement and shall be adjusted per user requirements.

9.6.2 Interior Requirements

Include all features into project design and contract documents specifications as they apply. Work shall be performed as stated in the following paragraphs. Any additional standards shall conform to the ANSI/TIA/EIA Standard. Provide outlets in accordance with Standard Design Criteria Child Development Centers dated Sept 2024.

9.6.2.1 Building Infrastructure

6. Cable Tray

   Wire basket cable tray shall be used to provide a centralized cable management/distribution system. During actual design, an optimal fill ratio of 40% shall be planned for. Under no circumstances shall a ratio of 60% be exceeded.

7. Conduit

   Electrical metallic tubing (EMT) conduit shall be installed from the central cable distribution system, whether cable tray, to each outlet. Conduit for standard Administrative outlets or any dual jack/connector outlets shall be a minimum of 1" EMT conduit. Conduit for single jack/connector outlets (wall phone, pay phone, CATV) shall be 1" EMT conduit. If a cable tray is not used due to low outlet count, individual conduits shall be installed from the telecommunications closet to each outlet.

   All empty conduit routed to outlet boxes shall be provided with a pull cord.

8. Other

Distribution systems utilizing "D" rings or "J" hooks shall not be installed, as these systems do not properly support and protect the cable.

Require same contractor to install both cable and conduit for Category 6 wiring. Also require a hard copy of the Category 6 cable test.

Pull boxes shall be placed in conduit runs where a continuous conduit length exceeds 100', or where there are more than two 90-degree bends. Pull boxes shall be placed in straight, aligned runs of conduit and not be used in lieu of a bend.

9.6.2.2 Telecommunications Closets

9. Closet Doors

All closet doors shall open out, vice opening in, to allow maximum interior closet space utilization.

10. Closet Locations

Closets shall be dedicated spaces not shared with other functions (i.e., electrical rooms, mechanical rooms, etc.). Closets shall be located centrally as possible to ensure the maximum cable distance to an outlet shall not exceed 90 meters (295 feet). Rooms containing transformers, air handling unit, etc., shall be avoided if at all possible. All telecommunications closets shall be lockable to limit access.

11. Closet Climate Control

Each telecommunications closet shall be climatically controlled to protect all installed equipment. Rooms shall be provided with positive pressure to keep dust out of the room. Information system equipment shall not be installed in spaces where moisture, liquid, or gaseous spillage, or other contaminants may be present.

9.6.2.3 Wiring

12. Copper Cable

Horizontal cable: Two 4-pair, 24 AWG, 100 ohm, Category 6, solid unshielded twisted pair (UTP) cables shall be installed to each standard dual jack outlet and one 4-pair, 24 AWG, 100 ohm, Category 6, solid, UTP cable shall be installed to each single jack outlet identified in the chart below, "Minimum Communications Outlets in Defined Spaces". Use only cable that has passed the UL LAN Cable Certification Program and is labeled with the UL acceptable markings. Termination shall be performed using an eight pin (RJ45 type) jack. All terminations shall be wired in accordance with the pin configuration as follows: Pin 1 - Orange / Pin 2 - Orange White / Pin 3 - Green White / Pin 4 - Blue White / Pin 5 - Blue / Pin 6 - Green / Pin 7 - Brown / Pin 8 - Brown White. One cable shall be designated for voice and one for data. Data cable shall have a blue outer jacket and voice cables shall have a gray outer jacket.

Vertical cable: Multi pair voice riser cable shall meet the requirements of EIA/TIA 568B for Category 6, unshielded twisted pair cable. Conductors shall be solid untinned copper 24 AWG. The voice riser cable shall be terminated in the same equipment rack as the voice distribution cable terminations. Provide at least two cable pairs within the riser cable for every outlet connected to the closet served by the riser cable.

Cable Length: Copper data cable length shall be limited to 295' from the TC to an outlet in accordance with EIA/TIA 568B. If the telecommunications closet is centrally located, plan a minimum of 120 feet of cable from the telecommunications closet to each outlet. For a non-centrally located telecommunications close, adjust the average cable length as required (measure if necessary).

13. Cable TV

Cable TV shall be a broadband coaxial cable system utilizing RG-6 coaxial cable. Cable TV wiring shall not be permitted in communications manholes and ducts.

9.6.2.4 Telecommunications Outlets

14. Outlet Box

For standard administrative outlets and hospital outlets use a 4-11/16" by 4-11/16" electrical box installed flush with the wall surface. For single jack outlets (wall phones, pay phones, CATV) use a standard single gang electrical box flush mounted with the wall surface.

15. Face Plates

For standard administrative outlets use a full outlet face plate with locations for all copper cable and, if used, fiber optic cable jacks/connectors; optionally, use a single gang outlet face plate installed over a reducing ring with locations for all copper cable and, if used, fiber optic cable jacks/connectors. For single gang outlet boxes, use a single gang outlet plate with the proper jacks/connectors, and if required, mounting lugs for all phones.

16. Outlet Locations

17. Outlet Types

Each connector shall be labeled, as to identity/function, on the outlet faceplate.

Administrative Outlet. Two-8 pin modular (RJ45 type) connectors in a single or double gang outlet faceplate, one connector dedicated to voice use and one dedicated to data use.

Furniture Outlet. Three 8-pin modular (RJ45 type) connectors in a modular furniture outlet faceplate with outlet box extender, one connector dedicated to voice use, and two connectors dedicated to data use. Connector voice and data dedication shall be reassigned as requirements

dictate.

Wall Outlet. One 8-pin modular (RJ45 type) connector in a single gang outlet faceplate with mounting lugs dedicated to voice use.

Pay Phone Outlet. One 8-pin modular (RJ45 type) connector in a single gang outlet faceplate with mounting lugs dedicated to voice use.

Coaxial Cable Outlet. One "F" type connector, dedicated to CATV, VSS or other video or data use.

9.6.2.5 Connectors

Coaxial connectors shall be "F" type connectors; use other type connectors if specifically required by the user (i.e., BNC).

Copper Connectors shall be unkeyed, 8-pin modular EIA/TIA CAT 6 rated and wired per T568B.

18. Copper Termination

    All distribution (horizontal or workstation) copper cable used for voice and/or data circuits shall be terminated on 110 type Category 6 compliant termination panels mounted in 19" racks.

19. Copper Voice Patch Cables

    Voice patch cable shall have a standard 8-pin/8-position connector on one end and a termination compatible with the incoming voice circuit block/panel on the other end. There is no requirement for voice patch cable to be category compliant.

20. Copper Data Patch Cables

    Data patch cables shall be four pair, stranded, 24 AWG, Category 6 cable, factory assembled.

21. Power

    A minimum of two dedicated 20-ampere, 120-volt AC outlets shall be installed with each equipment rack or cabinet to provide power for the installed equipment. An additional outlet shall be placed on each wall in the telecommunications closet.

22. Grounding

    All telecommunications closets shall be connected to a single point building ground in accordance with EIA/TIA 607. Water service lines shall not be used.

23. Other

    4'x8'x3/4" plywood backboard with cross connect blocks is to be provided in communications room. Metal cabinets are not to be provided. Backboards to be sized per EIA/TIA standards.

    All TC shall have illumination levels of 50 footcandles measured 39" above the finished floor.

9.6.3 Exterior Requirements

NA, Existing to remain.

9.7 SECURITY SYSTEMS

9.7.1 Video Surveillance System

The existing VSS system consists of ceiling mounted interior cameras in spaces and wall mounted exterior cameras. The existing VSS system must be removed, stored, and reinstalled per direction from Army Child & Youth Services. New Cat6 VSS cables and conduit must be provided to each relocated and new camera. VSS cables run above the ceiling must be run in cable tray. Coordinate with CYS the location of all interior and exterior cameras. The cameras will be digital. No analog cameras are required.

The VSS system equipment rack must be located in the VSS Equipment Room. If there is no VSS Equipment Room, the VSS system equipment rack must be located within the TR.

The VSS Parental Viewing Monitor (PVM) must be mounted, so it is visible from the reception desk.

Provide the VSS in accordance with the Child Development Center (CDC) Standard Design Criteria September 2024.

9.7.2 Access Control System

A controlled access system must be provided for control of access to front entrance. The system must use keyed lock/keypad on the exterior vestibule doors. The system must be consistent with the Installation standards.

Provide an ABA compliant buzzer type access system at the inner entry set of doors. Provide an electronic lock system that must include control access into the facility at the reception desk, manual override to allow the doors to unlock from interior and “Tell-Tale” light to indicate if doors are locked or unlocked.

9.7.3 Intrusion Detection System

A duress alarm system consisting of a panic alarm button and control equipment must be provided at the front desk, which must signal to the base security via a dedicated phone line. The duress alarm button must not be located near any other buttons to avoid false alarms. Coordinate with Garrison to confirm requirements for tie-in to the Directorate of Emergency Services (DES) system.

Exit notification system with keyed manual override is required for all exterior doors that do not exit directly into a fenced area, except for the main entrance and the kitchen delivery door. These alarms must provide immediate notification without delay.

Provide the intrusion detection system in accordance with the CDC Standard Design Criteria September 2024.

9.8 CABLE TELEVISION (CATV) SYSTEM

Refer to the "*Installation Information Infrastructure Architecture (I3A) Design and Implementation Guide*". For additional requirements, see section on Telecommunications.

PART 10 HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)

10.1 DESIGN STANDARDS AND CODES

The HVAC design must be in accordance with the International Mechanical Code (IMC), UFC 3-401-01, UFC 3-410-01, the Louisville District Military Design Guide (LDMDG), and the CDC Standards from the USACE Center of Standardization for Child and Youth Services.

10.2 DESIGN CALCULATIONS

The calculations outlined in the Louisville District Military Design Guide must be performed at each design phase. HVAC calculations include, but are not limited to the following:

- Determine Heating and Cooling Loads
- Sizing Major HVAC Equipment,
    - Chiller
    - Boiler
    - Distribution Pumps
    - Heating and Chilled Water Buffer Tanks
    - Heating and Chilled Water Expansion Tanks
    - Heating and Chilled Water Pipe Sizing
    - Air Handling Units
    - Variable Air Volume Terminal Units
    - Ductwork Sizing
    - Split System Cooling Units
    - Exhaust Fans
- Psychrometric Analysis
    - Full-load condition
    - Worst-case part load condition
- Ventilation and Exhaust Rates
- Building Pressurization

10.2.1 Heat loss and heat gain calculations

Heating and cooling loads must be in accordance with the current edition of the ASHRAE Handbook of Fundamentals. Computer-generated load calculations must be provided and must include complete input and output summaries. Equipment must be sized to meet the total load determined by computer calculation. Equipment may be oversized to no more than 115 percent of the computer-generated load. Design must be based on weather data shown in Table 10-1 below. Building cooling loads must be calculated using the temperatures shown in Table 10-1 for "Maximum Design Temperature." In addition to calculating the cooling load at maximum design temperature, cooling load calculations must also be made at maximum dew point temperatures or for low temperature, high humidity conditions to determine the greatest dehumidification load that may be encountered. Cooling coils must be sized

using the temperatures shown in Table 10-1 for "Maximum Dew Point". Room air flow requirements must be computed based on the individual room load. Values for internal cooling loads must be included in the computerized load calculations in accordance with ASHRAE recommendations. Minimum space heating and ventilation must be provided in spaces normally unoccupied, such as equipment rooms.

Provide a simplified floor plan showing how the building is zoned for heating and cooling. Identify areas served by each air system. Room names or numbers used in the calculations must match the floor plan. Maximum Space Relative Humidity is 50% (Refer to UFC 3-410-01).

Table 10-1 - Weather Data

Type of Design /Design Information	Inch/pound
Heating	
Indoor Design Temperature	70°F
Unoccupied Space Design Temperature	55°F
Outdoor Design Temperature (99%)	16.5°F
Minimum Space Heating Design Temperature	55°F
Maximum Design Temperature Cooling	
Indoor Design Temperature	75°F
Outdoor Design Dry Bulb Temperature (1%)	94.6°F
Outdoor Design Wet Bulb Temperature (1% MCWB)	75.7°F
Maximum Dew Point Dehumidification Temperature Cooling	
Indoor Design Temperature	75°F
Outdoor Design Dry Bulb Temperature (0.4%)	83.3°F
Outdoor Design Dewpoint Bulb Temperature (0.4%)	77°F

Inch-pound data are based on degree days Fahrenheit to a base of 65° F.

10.2.1.1 Load Design Criteria

The internal loads must be designed for the space type and activity level per standard design criteria. The total number of occupants must be coordinated with the architectural and interiors layout. Lighting loads must be included for the actual quantity provided. Any additional equipment, such as computers, refrigerators, and kitchen equipment furnished under this contract must also be included in the appropriate space.

The ASHRAE Handbook of Fundamentals may be used to establish minimum sensible and latent heat gains of occupants and equipment. The following list of heat gains is an example of establishing these minimum heat gain loads and is not all inclusive of all interior heat gains of the building. A detailed list of all occupants, occupant activity levels, and equipment must be developed during the design phase of the project.

Interior Heat Gains:

- Adult Office Work
  - Sensible Heat Gain = 250 BTU/h
  - Latent Heat Gain = 150 BTU/h

- Child - Light Activity
  - Sensible Heat Gain = 190 BTU/h
  - Latent Heat Gain = 115 BTU/h
- Child - Active
  - Sensible Heat Gain = 535 BTU/h
  - Latent Heat Gain = 820 BTU/h
- Refrigerator
  - Sensible Heat Gain = 430 BTU/h
  - Latent Heat Gain = 0.0 BTU/h
- Office Workstation (1 Desktop Computer, 2 Monitors)
  - Sensible Heat Gain = 105 W/workstation
  - Latent Heat Gain = 0.0 W

10.2.1.2 Occupancy Schedule

The following occupancy schedule must be used at a minimum:

- Weekday
  - 50% occupied between 0700-0800
  - 100% occupied between 0800-1700
  - 50% occupied between 1700-1800
  - Unoccupied otherwise
- Weekend
  - The building is unoccupied

10.2.2 Ventilation air

Ventilation air quantities for each building must be calculated using the Indoor Air Quality Procedure outlined in ASHRAE 62.1. Outside air quantities must be sufficient to meet ventilation requirements and maintain a positive pressure relative to the outdoors in the rooms, interior corridors, offices, conference rooms, lobby and similar occupied areas. Ventilation air for mechanical rooms must be introduced into the space using supply fans. Mechanical room supply fans must be operated by a thermostat so that the fan operates when the space temperature rises above 85°F. Storage areas must be ventilated using transfer air from adjacent spaces at a minimum rate of 0.06 cubic feet per minute (cfm) per square foot.

Toilets, Lockers, and Utility Closets. Maintain these areas at a negative pressure relative to adjacent areas by exhausting air transferred from these adjacent areas to the outdoors. Where possible, the heating equipment capacity or energy consumption must not be increased by these areas.

10.2.3 Piping calculations

Calculations must be provided for pressure drop calculations for all piping systems, including head loss calculations for all pumps. Control valve flow coefficient (Cv) calculations for each control valve must be included in the head loss calculations for all piping systems.

10.2.4 Duct calculations

Calculations must be provided for sizing all duct systems, including static pressure drop calculations for all fans. Ductwork layout drawings must also be provided to indicate all fittings and devices to substantiate

calculations.

10.3 MECHANICAL SYSTEMS

10.3.1 Administrative/Office and any other Room

Administrative/Office and any other rooms not listed in the subparagraphs below must be provided with heating and cooling. Each room must be provided with individual room control of the heating and cooling systems. Heating and cooling shall be accomplished using a variable air volume system for comfort control in each office or area as required. Ductwork must be used and installed for both supply and return air, no air plenums are permitted. Air handling units must be provided with hydronic heating and cooling coils. Air handling units and VAV boxes must be controlled as described in paragraph CONTROLS. Provide exhaust fans for toilet/shower/locker room exhausts.

In lieu of providing a VAV box for each individual room, the following rooms may be grouped together on an individual VAV boxes as listed below:

VAV Box: SHIFT SPVRS

VAV Box: CLASSROOM

VAV Box: CORRIDORS, VENDING, RESTROOMS AND JAN CLOSET

10.3.2 Storage Mobility/Supply

General Storage Mobility/Supply rooms must be heated and ventilated. Heating must be provided using hydronic unit heaters for storage room. Unit heaters must be controlled as described in paragraph CONTROLS.

10.3.3 Communication Rooms/Closets

Communication rooms/closets are required to be provided with independent conditioned air and humidity control, due to electronic equipment provided within the spaces. Each room is required to have individual thermostats for comfort control. Controls must be developed by the Designer of Record in accordance with paragraph CONTROLS.

10.3.4 KITCHEN EXHAUST AND MAKEUP AIR SYSTEMS

Kitchen exhaust fans must be UL 705 and NFPA 96. Equipment sizing per the requirements of the International Mechanical Code (IMC). Kitchen makeup air unit must be sized per the IMC. Kitchen exhaust fans and makeup air units must be installed per UFGS Section 23 30 00 HVAC AIR DISTRIBUTION.

10.3.5 Hydronic Heating/Cooling System

Provide hydronic system to supply necessary water to mechanical systems, such as heating and cooling coils, convectors and VAV boxes. The building must be provided with a central heating and air conditioning system. Systems must be designed, installed, balanced, and adjusted to distribute heat and cooling to all habitable rooms, as well as bathrooms, in proportion to the calculated load requirements of these spaces.

10.4 AIR DISTRIBUTION CENTRAL EQUIPMENT

Air handling units and exhaust fans for the buildings in the project must be installed in accordance with the requirements of UFGS Section 23 30 00 HVAC AIR DISTRIBUTION. Rooftop air handling units must not be used.

Air handling units providing ventilation air must comply with UFC 3-410-01 for humidity control. The dew point temperature of supply air from equipment providing ventilation air must never be above 55 degrees Fahrenheit. Utilize humidity sensors tied to AHU controls to control indoor air relative humidity.

10.5 CENTRAL HEATING EQUIPMENT

Heating for each building in the project must be provided by gas-fired fire tube boilers installed in accordance with the requirements of UFGS Section 23 52 00 HEATING BOILERS.

10.6 CENTRAL COOLING EQUIPMENT

Cooling for each building in the project must be provided by air-cooled package chillers installed in accordance with the requirements of UFGS Section 23 64 10 WATER CHILLERS, VAPOR COMPRESSION TYPE. Chilled water system must be designed to the proper amount of propylene glycol to prevent freezing.

10.7 AIR DISTRIBUTION SYSTEMS

Duct work components (including diffusers, registers, and grilles) must be installed in accordance with the requirements of UFGS Section 23 30 00 HVAC AIR DISTRIBUTION.

Ductwork must not be routed through unconditioned spaces.

10.8 HYDRONIC DISTRIBUTION SYSTEMS

Pumps, air separators, expansion tanks, and miscellaneous specialties must be installed in accordance with the requirements of UFGS Section 23 52 00 HEATING BOILERS and UFGS Section 23 64 26 CHILLED, CHILLED-HOT, and CONDENSER WATER PIPING SYSTEMS.

10.9 PIPING SYSTEMS

Piping systems must be installed in accordance with the requirements of UFGS Sections 23 52 00 HEATING BOILERS, UFGS Section 23 64 26 CHILLED, CHILLED-HOT, AND CONDENSER WATER PIPING SYSTEMS, and UFGS Section 23 30 00 HVAC AIR DISTRIBUTION.

Chilled water and heating water pipes must not be routed through unconditioned spaces or electrical/communication rooms.

All existing chilled and hot water pipes that are reused in the final design must be flushed and cleaned prior to final installation.

Chilled water and heating water pipes must not be routed through unconditioned spaces or electrical/communication rooms.

All existing chilled and hot water pipes that are reused in the final design must be flushed and cleaned prior to final installation.

10.10 INSULATION

Pipe, duct, and equipment insulation must be installed in accordance with requirements of UFGS Section 23 07 00 THERMAL INSULATION FOR MECHANICAL SYSTEMS.

10.11 EQUIPMENT PADS

Equipment pads must be a minimum of 4 inches thick and have 6-inch clearance from the edge of equipment dimensions. Equipment pad installation must be in accordance with requirements of UFGS Section 23 30 00 HVAC AIR DISTRIBUTION.

10.12 NOISE AND VIBRATION CONTROL

Installation of equipment must comply with UFC 3-450-01 Noise and Vibration Control and ASHRAE Application Handbook, Chapter – Noise and Vibration Control. Ensure any space whose function could be impaired by excessive noise has a specified noise criteria.

10.13 CONTROLS

Control systems must be DDC systems and shall be installed in accordance with UFGS Section 23 09 23.01 LONWORKS DIRECT DIGITAL CONTROL FOR HVAC AND OTHER BUILDING CONTROL SYSTEMS, developed by the Designer of Record. Control system schematic diagrams for systems to be used in this project are to be developed by the Designer of Record using UFC 3-410-02 and UFC 3-470-01.

10.14 TESTING, ADJUSTING AND BALANCING

Testing, adjusting and balancing of each HVAC system must be accomplished in accordance with the requirements of LRL Section 23 05 93.00 06 TESTING, ADJUSTING, AND BALANCING OF HVAC.

Sound level testing must be included for spaces that are subject to excessive noise and have specified noise criteria.

All ductwork is required to undergo duct air leakage testing in accordance with UFC 3-410-01.

10.15 COMMISSIONING

Commissioning of all HVAC systems and equipment, including controls, must be commissioned in accordance with the requirements of LRL Section 01 46 00.00 06 TOTAL BUILDING COMMISSIONING (Contractor CxA).

10.16 TRAINING

The Contractor must conduct training courses for the operation of all HVAC

systems and individual items of equipment in accordance with the requirements of all UFGS/LRL Specification Sections included in the project specification set.

PART 11 FIRE PROTECTION

11.1 DESIGN STANDARDS AND CODES

The fire protection design must be in accordance UFC 3-600-01 and with the current versions of the International Building Code and the National Fire Protection Association (NFPA) standards and codes as defined by UFC 3-600-01. The building Mass Notification System design must be in accordance with UFC 4-021-01 and USACE ECB 2018-17. Provide fire protection design in accordance with Fort Campbell Design Guidelines and CDC Standards from the USACE Center of Standardization for Child and Youth Services.

11.2 FIRE PROTECTION ENGINEER

The contractor must provide the services of a qualified fire protection engineer (QFPE). All Design Documents, (i.e. Building Code/Life Safety Analysis, plans, specifications, and calculations) developed for Part 11 of this specification must be prepared by, or under the supervision of the design/build contractor's Qualified Fire Protection Engineer (QFPE). An individual can serve as QFPE as a licensed professional engineer (P.E.) who has passed the fire protection engineering written examination administered by the National Council of Examiners for Engineering and Surveying (NCEES) and has relevant fire protection engineering experience.

Installation drawings, shop drawings or working plans, calculations, other required pre-construction documentation and as-built drawings must be prepared by, or under the direct supervision of a National Institute for Certification in Engineering Technologies (NICET) engineering technician as specified below. NICET engineering technicians must hold a current certification as an engineering technician in the field of Fire Protection Engineering Technology with level certification in the appropriate subfield as listed below:

Water Based System Layout	NICET Level IV
Fire Alarm System	NICET Level IV

The fire protection engineer must be an integral part of the design team and must be involved in all aspects of the design of the fire protection system. The Qualified Fire Protection Engineer of Record (QFPE) must witness all final tests for the fire protection systems.

11.3 FIRE PROTECTION AND LIFE SAFETY ANALYSIS

11.3.1 Submittal

The fire protection engineer must submit a design analysis in accordance with UFC 3-600-01. The analysis must be submitted with the interim design submittal and must be in full coordination with the drawings and specifications. The Design Analysis must address site design, life safety, fire protection system design considerations, and all aspects included in UFC

3-600-01.

11.3.2 Site Design

A code compliance site plan that clearly shows the features listed in UFC 3-600-01 (e.g. building separation and clearances, fire department access, fire water supply, location of all fire hydrants and distances to the fire department connections, fire pumps, etc.).

11.3.3 Life Safety Floor Plan and Code Summary Plan

The fire protection engineer and architectural Designer of Record must perform and coordinate a fire protection and life safety code review of the proposed facility design in accordance with UFC 3-600-01.

The code review must be submitted with each submittal. The code review must be based on new construction criteria and include type of construction; height and area limitations; classification of occupancy; building separation or exposure protection; specific compliance with NFPA codes and the IBC; requirements for fire-rated walls, doors, fire dampers, etc.; analysis of automatic suppression systems and protected areas; water supplies; smoke control systems; fire alarm system, including connection to the base-wide system; fire detection system; standpipe systems; fire extinguishers; interior finish ratings; and other pertinent fire protection data.

Provide life safety floor plans indicating egress travel distances, occupancy hazard areas, ratings and locations of fire-resistive assemblies, fire extinguisher locations, fire alarm pull box locations, exit sign locations, emergency light locations, heat/smoke detector locations, visual fire alarm signal locations, fire alarm locations, fire department connection, and other data necessary to exhibit compliance with life safety code requirements at each submission. Submittals must comply with Louisville Design Guide submittal requirements for life safety and fire protection.

11.4 WATER SUPPLY

11.4.1 Hydrant Test

Current hydrant flow test data must be used in the hydraulic analysis and as the basis for the design of the sprinkler system, underground supply mains, and fire hydrants. For bidding purposes the contractor can use the following preliminary data gathered on 10 October, 2024 but this must be confirmed by a test performed or witnessed by the QFPE: 53 psig static pressure, 1007 gpm flow at a residual pressure of 47 psig, obtained from test hydrant located at the site. The water flow data sheets are available in the Appendix B labeled "Fire Flow Data" provided with this RFP.

11.4.2 Service Lateral(s)

Service laterals must be equipped with a PIV (post indicator valve) and must be adjacent to public access areas such as parking areas or roadways for year round access. The piping must extend 5 feet outside of building(s) to civil portion of the work. The fire water supply must be IAW UFC 3-600-01 and NFPA 24 except as modified in this document.

11.4.3 Backflow Prevention

Service laterals serving fire suppression systems must have a double-check backflow preventer (BFP). Installation of a 6" double check backflow preventer is required, coordinate location with DPW (Department of Public Works).

11.4.4 Fire Hydrant Locations

Fire hydrants exist and are spaced around the building site as required by UFC 3-600-01. Verify and indicate in the Design Analysis, if existing hydrants are located and spaced within the requirements of UFC 3-600-01 for the building site.

11.5 SPRINKLER SYSTEM

11.5.1 Wet Pipe Sprinkler System

The building must be protected by a wet pipe sprinkler system. Sprinkler systems must be designed and installed in accordance with UFC 3-600-01. UFC 3-600-01 must govern over any conflicts. Design density, area of coverage and hose stream demand for sprinkler systems must be in accordance with UFC 3-600-01. Provide hydraulic calculations in the Design Analysis to support design of the system. Designer of Record must ensure that the fire department connection check valve is located a minimum of 4 feet from an exterior wall to prevent frost penetration. Demolish the existing 4 inch sprinkler riser and all associated partial sprinkler system throughout the facility. Contractor will determine the wet-pipe sprinkler system riser diameter. Coordinate a new incoming minimum 6 inch water line per UFC 3-600-01.

11.5.2 Sprinklers

Sprinklers must be installed in accordance with the requirements of UFC 3-600-01 and the most current and applicable UFGS. All sprinklers located in finished areas must be concealed type with white cover plate, extended coverage sprinklers are not permitted. All areas without a finished ceiling must be provided with upright sprinklers. Walls in storage rooms must have a red painted line located at 18” below the lowest part of the sprinkler(s).

11.5.3 Seismic Requirements

Seismic bracing of the wet pipe sprinkler system for earthquake protection is required. Provide seismic bracing and restraint in accordance with NFPA 13 and Annexes - (most current edition).

11.6 KITCHEN SUPPRESSION SYSTEM

The existing R-102 wet chemical 3-gallon fire suppression system is anticipated to be retained for use with the existing hood. The existing system must be tested in accordance with NFPA 17A, and all deficiencies are corrected, as applicable. The system must be in compliance with UFGS 21 23 00 WET CHEMICAL FIRE EXTINGUISING SYSTEMS. Kitchen suppression system must be tested with the new fire alarm system to ensure all required conditions are

properly reporting to the new fire alarm control panel. Provide a manual release station adjacent to the hood.

11.7 FIRE ALARM AND MASS NOTIFICATION SYSTEM

Remove the existing system and provide a complete, supervised, noncoded, analog/addressable fire alarm and mass notification system conforming to NFPA 72, UL 864, and UL 2017, NFPA 101, UFC 3-600-01 and with UFC 4-021-01 and USACE ECB 2018-17. The audible notification appliance network consists of speakers located to provide intelligible instructions at all locations in the building. The Mass Notification System announcements must take priority over all other audible announcements of the system, including the output of the fire alarm system in a normal or alarm state. When a mass notification announcement is activated during a fire alarm, all fire alarm system functions must continue in an alarm state except for the output signals of the fire alarm audible and visual notification appliances. Speakers integrated with strobes must be used for annunciation. Visual notification appliances must conform to the applicable requirements of UL 1971 and conform to the Architectural Barriers Act (ABA). Fire Alarm Notification and Mass Notification Appliances must have clear high intensity optic lens, xenon flash tubes, and be marked "ALERT" in red letters. Manual pull stations must be located near each exit, adjacent to the FACP/MNCP, and along each path of egress. Manual pull stations must be provided with covers and mounted at height to meet ABA requirements. Water flow indicators must be used to monitor sprinkler risers. Water flow alarms must transmit a signal to Central Station. Tamper monitoring switches must be located on the sprinkler control valves. An alarm must release magnetic door holders and must activate dampers and shutdown fans. Smoke detectors must be located throughout the building, including one above the FA/MNCP as required. Air handling unit starters must be equipped with normally closed contacts for fire alarm system interface to avoid unit shutdown with electrical power removed from the fire alarm panel. Initiation of a detector, sprinkler flow switch, or manual pull station must sound all alarms in the building, shut down air handlers, and signal via existing King Fisher panel and antenna radio transmission.

11.7.1 Fire Alarm System

Fire alarm system must be compatible with the existing Fire Lite MS-960OUDLS. The central alarm panel must be located in an occupied central location to be identified by the building owner. Addressable smoke detectors and pull stations must be utilized in accordance with NFPA 72. Provide As-Built schematic drawings in a document cabinet next to the fire alarm and MNS panel. Additionally, clearly mark the location of all fire alarm junction boxes. Provide 48 hours of backup power. Shunt trip power to kitchen equipment before discharge. Monitor the post indicator valve.

11.7.2 Transmitter and Antenna

Reuse the existing King Fisher Fire Alarm transmitter and associated antenna.

PART 12 SUSTAINABLE DESIGN

Per UFC 1-200-02 Table 1-1 Building Compliance Requirements and Thresholds, this project does not meet minimum requirements for HPSB Compliance Tracking or Third-Party Certification (see table below for minimum requirements).

Designer must also incorporate LRL Guide specification Section 01 33 29-00-06 into their design.

-- End of Section --

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SECTION 01 03 00.00 06

DESIGN SUBMISSION REQUIREMENTS AFTER AWARD
05/20

PART 1 GENERAL

1.1 INTRODUCTION

This section contains information needed after the successful Offeror has been selected. This information is provided to all Offerors as an outline of the Design requirements to be anticipated after award.

The information contained in this section applies to the design required for FT Campbell CDC Building 3069 RENOVATION.

1.2 DESIGNER OF RECORD

The Design/Build (DB) Contractor shall identify the Designer of Record for each area of work, also to be indicated in the Design Quality Control Plan. One Designer of Record may be responsible for more than one area. All areas of design disciplines including architectural, structural, mechanical, electrical, fire protection, shall be accounted for by a listed, Professional Registered, Designer of Record. The Designers of Record shall stamp, sign, and date each design drawing submitted under their responsible discipline for the 100% Design; Corrected Final Design; and Released for Construction Design submittals.

Designers of Record shall be employees of, or contracted directly by, the Prime Contractor, or shall be an employee of an independent design firm that is contracted directly by the Prime Contractor. The Designer of Record shall not be an owner, employee, agent, or consultant of a construction sub-contractor hired for this project.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 CONTRACTOR'S GENERAL DESIGN REQUIREMENTS AFTER AWARD

3.1.1 Design Quality Control Plan

The DB Contractor must submit for Government Acceptance, a Design Quality Control Plan in accordance with LRL Section 01 45 04.10 06 CONTRACTOR QUALITY CONTROL before design may proceed.

3.1.2 Pre-Work Conference

See LRL Section 00 80 50.00 06 SPECIAL PROVISIONS, paragraph DESIGN CONFERENCES.

3.1.3 Design Charette

The DB Contractor shall arrange for and conduct a design charette within 30 days after NTP at Child Development Center Building 3069 at Fort Campbell. All Designers of Record shall participate in the charette.

An agenda, charette goals, meeting place, and meeting time shall be provided to charette participants at least 10 days prior to the meeting. Charette goals shall include production of the following items prior to adjourning the charette to assure all participants agree with the contractor's intended design direction:
Schematic design and narrative outlying the following: Site laydown area, equipment layout/ clearences.

Within 14 days after the charette, charette meeting minutes, including drawings developed during the charette, shall be prepared in Word format by the DB Contractor and provided to all charette participants by email. The charette minutes shall be included in the Design Analysis for record.

3.1.4 Design Submittals for Fast Track

Design Submittals for Fast Track: The DB Contractor shall design and detail a complete and useable facility as outlined in this solicitation. The DB Contractor may propose up to Two design/construction "parts" or "breaks" in the Project Schedule to facilitate fast track. The "parts" indicated in this specification are for example only.

Each "part" of this project shall be provided in a minimum of two formal review submittals, 65% design and 100% design. Each "part" shall be packaged separately from other "parts" or color coded through the entire project to assure that each "part" is adequately reviewed and completed in its entirety. "Parts" shall not have repeat drawings or specifications from other "parts".

Once established by the DB Contractor and accepted by the Government in the project schedule, the design/construction breaks for the "parts" shall not change without approval by the Contracting Officer. The design submittals shall include specifications, drawings, and design analysis, that pertain to the "part" submitted.

The following design and construction break-out "parts" are for example only. The DB Contractor may propose up to Two "parts" using the same series of submittals for each "part".

PART I Includes design for demolition and long lead items with:
- 65% Design Submittal
- 100% Design Submittal
- Corrected Final Design Submittal
- Released for Construction documents

PART II Includes design for all work not accomplished with Part I with:
- 65% Design Submittal
- 100% Design Submittal
- Corrected Final Design Submittal
- Released for Construction documents

3.1.5 Design Requirements

The design shall be completed in accordance with the requirements, codes, and standards itemized in LRL Section 01 02 10.00 06 PROJECT DESCRIPTION AND DESIGN REQUIREMENTS and further detailed in other sections in this RFP document.

3.1.6 NOT USED

3.1.7 Design Documents Released for Construction

The DB Contractor shall provide a complete set of construction drawings, specifications, and design analysis, as defined in this RFP. This LRL Section 01 03 00.00 06 provides instructions for preparing design documents, Released for Construction, which differ from industry standard procedures, requiring a more complete and extensive analysis and documentation than is customary in private practice.

3.2 SUBMISSION OF DESIGN DOCUMENTS

The DB Contractor shall submit design documents with cover letter by overnight mail at each design submittal. The letter shall indicate the project name, due date for comments to be provided in DrChecks, and where/when the review meeting will be held.

The DB Contractor shall independently prepare and submit for review a complete design in "parts" for fast track. The DB Contractor's Designers of Record shall independently confirm and be responsible for the technical accuracy and adequacy of all aspects of the project design. The submission requirements outlined herein are the MINIMUM requirements. The Government may request that additional data be included in the design analysis and drawings for record through review comments to support design decisions.

3.2.1 Design Review Meetings

Formal Design Reviews shall be held at FT Campbell CDC Building 3069 for the following milestone meetings, similar for each designed "part" proposed by the DB Contractor:

Each Part: 65% Design Submittal
100% Design Submittal

Design reviews shall not be taken as an approval or acceptance and do not relieve the DB Contractor from responsibility for compliance with the RFP solicitation, code regulations, or betterments, either listed with the DB Contractor's proposal or identified during the proposal evaluation.

3.2.2 Construction NTP

The DB Contractor shall submit a set of corrected final hardcopy drawings, specifications, and design analysis to the Contracting Officer for the any one "part". Construction for any one "part" may not proceed until the Government has verified the incorporation of resolutions of all review comments for that "part".

If all comments are satisfied and the Government accepts the Corrected Final Design documents for that "part", this set can become the Released for Construction documents. Non-critical comments, as determined by the Contracting Officer, can be resolved by a document change issued by the Designer of Record.

If critical changes are still required to satisfy comments, the Contracting Officer may request a new set of documents for consideration as the Released for Construction documents. The DB Contractor will be

notified in writing when the design has been cleared for construction and accepted by the Government.

Until the Released for Construction documents have been issued for any one "part" of the construction, any construction work performed for that "part" shall be at the DB Contractor’s expense and risk and shall be subject to inspection and correction of any non-conforming work. No progress payments will be made for such work under FAR 52.232-5, PAYMENTS UNDER FIXED PRICE CONSTRUCTION CONTRACTS, subparagraph (b) Progress Payments, until the Released for Construction documents have been issued and the work inspected and accepted by the Government in accordance with FAR 52.246-12, INSPECTION OF CONSTRUCTION.

3.2.3 Design Submittal Delivery

Document quantities and delivery addresses are specified at the end of this specification section for each required submittal.

3.2.4 Drawing Requirements

Computer-Aided Design and Drafting (CADD) drawings shall be organized and easily referenced electronically, presenting complete construction information. The DB Contractor shall prepare the drawings with the expectation that the Corps of Engineers, in the role of supervision, can construct the facility with any contractor.

Drawings shall be complete. Avoid unnecessary graphics, duplicate views, notes, and repetitive details. Do not include any details not applicable to the project and minimize blank page space. Do not include details of standard products or items adequately covered by specifications.

Detail the drawings such that conformance with the RFP can be confirmed, and to the extent that shop drawings can be checked. Do not use shop drawings as design drawings. Drawings shall include room finish schedules, corresponding color/finish/special items schedules, and exterior finish schedules that agree with the submitted SID binders.

The DB Contractor shall follow the latest release of the A/E/C CADD STANDARDfor presentation graphics, level/layer assignments, electronic file naming, and standard symbology. The standard is located on internet site,.

The design documents shall consist of drawings on a 34" x 22" format. The DB Contractor shall use the Corps of Engineers standard sheet border, available by download on internet site,, on all drawings with the appropriate DB Contractor firm name included within the title block area.

3.2.4.1 CADD System Requirements

Prepare all CADD drawings with the Using Agency's Computer-Aided Design and Drafting (CADD) system indicated in LRL Section 00 80 50.00 06 SPECIAL PROVISIONS, paragraph AS-BUILT DOCUMENTS FOR DESIGN BUILD PROJECTS.

3.2.4.2 Electronic Drawing Files (PDF)

In addition to the native CADD files, provide separate electronic drawing files for each project drawing in Adobe 6.0 or newer pdf format. Each file shall contain all the data for one complete drawing, including the date, submittal phase, and border. Each drawing file shall be completely

independent of any data in any other file.

3.2.4.3 Drawing Index

Provide an index of drawings sheet in CADD as part of the drawing set, and an electronic list in Microsoft Excel of all drawings required for the submittal. Include the electronic file name, the sheet reference number, the sheet number, and the sheet title, containing the data for each drawing.

3.2.4.4 Hard Copies

Submitted hard copy drawings shall be plotted directly from the electronic PDF files and copied for quantities and sizes indicated in the distribution list at the end of this specification section. The original hard copy sheets shall be stamped and signed by the Designers of Record for 100% Design, Corrected Final Design, and Released for Construction documents, with copies provided for distribution from this set.

3.2.5 Specifications

3.2.5.1 Specification Format

Provide project specifications in electronic document files using the SpecsIntact system and format. The designers are expected to learn to properly use this system to generate printouts of indexes, submittal registers, automatic page numbering, automatic paragraph numbering, and specifications with mark-ups. Indexes, submittal registers, paragraph numbering, and formatting are created through the print command of the system.

The SpecsIntact system can be loaded from the Whole Building Design Guide (WBDG) internet site, . A teaching tutorial is provided with the system.

The master UFG specifications can be loaded from the same WBDG site.

Louisville District (LRL) versions of the guide specifications can be loaded from the district internet site,, select"Louisville District Guide Specs".

3.2.5.2 Page Numbering

Provide page numbering at the bottom of each page for each specification section. The page number shall incorporate the specification section number (e.g. Section 01 03 00.00 06 Page 1).

3.2.5.3 Editing

The DB Contractor shall submit marked-up or final draft technical specifications as required for design submittals. **Technical requirements** provided in this RFP indicate minimum requirements that shall be used by the Designers of Record to develop the corresponding UFGS. The Designers of Record shall edit appropriate Unified Facilities Guide Specifications (UFGS) in preparation of the **technical specifications** for the project. The Louisville District (LRL) versions of the technical guide specifications shall be used in all cases where they are applicable. All other specifications shall be the UFGS army edition guide specifications unless otherwise noted or allowed by the Government. Use only this specification source for the project.

No additions or deletions shall be made to the products and execution methods of the UFGS unless allowed by the Government or instructions herein. When editing the UFGS, the Designers of Record shall fill in all blanks, make choices indicated by brackets, delete entire paragraphs pertaining to items not required in the project, and follow all recommendations in the hidden "Notes".

The technical requirements in the form of discipline specifications included in this RFP shall be used to develop the technical specifications for the project by the Designers of Record.

If the design is based on a specific product, the specification shall consist of the important features of the product in addition to the product and manufacturer. The specification shall be detailed enough such that another product meeting the specification could be substituted and it would not adversely impact the project.

3.2.5.4 Divisions 00 and 01

The DB Contractor shall not edit or reproduce Divisions 00 and 01. To assure consistency, copies of Division 00 and 01 shall not be included with the technical specifications; only the contract documents shall be used for Divisions 00 and 01. Divisions 00 and 01 are contract requirements; therefore, can only be changed by contract modification.

3.2.5.5 Hard Copies

Submitted hard copy documents shall be printed directly from the electronic specification files including an index of all specifications and, for each specification section, a specification index, the body of the specification, and the specification's submittal register. Provide adequate copies for quantities indicated in the distribution list at the end of this specification section.

3.2.5.6 Submittal Register

Develop the submittal requirements during construction at the design phase of the contract by producing a DB Contractor Submittal Register using the SpecsIntact system. The DB Contractor shall be responsible for listing all required submittals necessary to insure the project requirements are met. The submittal register shall identify submittal items such as shop drawings, manufacturer's literature, certificates of compliance, material samples, guarantees, test results, etc. that the DB Contractor shall submit for review and action during the life of the construction contract to the Designers of Record and Government.

In addition to submittals specifically identified with "G" in the UFG Specifications, submittals considered *critical* by the Designer of Record shall be marked as "G" in the specifications after the appropriate submittal. All submittals with "G" designation shall be approved by the Designer of Record prior to purchase and installation. Submittals with no designation shall default to being submitted for information only (FIO), and shall be reviewed by the Designers of Record for compliance to the design. See Division 1 specifications in the RFP Package for additional construction submittal requirements.

The Contractor shall place all the Submittal Register pages for each specification in an appendix of the 65%, 100%, corrected final, and

released for construction specifications.

3.2.6 Electronic Data

Electronic data of the drawings and specifications documents must be provided with each submittal. Data shall be on ISSO 9660 compact disc(s).

3.2.7 Design Analysis

The Designers of Record shall prepare a design analysis for record and review to support decisions made during the design process in accordance with the ER 1110-345-700; ENGINEERING AND DESIGN - DESIGN ANALYSIS, DRAWINGS AND SPECIFICATIONS, which is available on the internet at the following website:

http://www.publications.usace.army.mil/USACEPublications/EngineerRegulations.aspx
The design analysis shall be assembled as a single document with the following information included:

Table of Contents
Design Quality Control Plan
Site Design Narrative
Architectural and Interior Design Narrative
Structural Design Narrative
Mechanical Design Narrative
Electrical Design Narrative
Fire Protection/Life Safety Code Review
AT/FP Review and Certification
Civil Calculations
Structural Calculations
Plumbing Calculations
Mechanical Calculations
Electrical Calculations
Meeting Minutes and Official Correspondence
All Annotated Review Comments (those received in the previous review)
DD Form 1354 Building Information Checklist

The narratives shall provide a complete explanation of the basis for design including a scope of work, applicable criteria, floor area analysis including gross and net areas compared to the RFP, seismic analysis, economic factors influencing system choices, results of field investigations, operation and maintenance requirements, and any other items that warrant special attention.

Design calculations shall be computed and checked by separate individuals. Include designer and checker with firm name on calculations. Show all design loads and conditions. List the source of loading conditions, formulas, and references. Explain assumptions and conclusion.

3.2.8 As-Built Documents

Provide as-built drawings and specifications in accordance with LRL Section 00 80 50.00 06, SPECIAL PROVISIONS, paragraph AS-BUILT DOCUMENTS FOR DESIGN BUILD PROJECTS.

3.3 DESIGN REVIEW & ACCEPTANCE REQUIREMENTS

3.3.1 Review Period

The Government requires 28 calendar days of review time for each design submittal phase of each part, including the Corrected Final Design. The Project Schedule must allow 28 calendar days after the Government's receipt of documents for review for each design submittal. If the submittal is considered incomplete by the Contracting Officer (not including required items as indicated in the paragraph above), the 28 day review period will start over upon the Government's receipt of the complete submittal.

The Project Schedule shall allow adequate time for mailing, designers receipt and review of comments, coordination and occurrence for a review meeting, acceptance by reviewers of comment resolutions, correction of the documents by all designers for the following submittal, and backchecking for corrections in accordance with comment resolutions by the DB Contractor prior to the following submittal.

DrChecks shall be used by the contractor and designers of record to monitor progress in comment resolution and respond to all comments from government reviewers.

3.3.2 DrChecks Review Comments

Review sets shall be distributed by the DB Contractor as shown on the attached distribution list. Copies of DrChecks comments shall be provided by the DB Contractor at review meetings to discuss preliminary responses. Designers of Record shall be prepared to discuss the comments at the meetings since the comments are immediately available in the DrChecks system. Review meetings shall be held at FT Campbell CDC Building 3069.

The DB Contractor shall keep the minutes of the meetings. The DB Contractor shall monitor DrChecks to assure all comments (including comments made on previous review submittals) are annotated and agreed to by the designers and reviewers prior to the next submittal. The DrChecks comments and responses shall be printed and included in the design analysis for record with meeting minutes.

The Government's review will likely result in a significant number of comments. Reviewers will expect coordination between Design Analysis calculations and the submitted design. Reviewers will also focus on the design submittal's satisfaction of the RFP Package, previously made review comments, and UFGS requirements.

The Designers of Record shall answer each comment in DrChecks with a formal response prior to the next submittal, clearly indicating what action will be taken and what drawing/specification will change. Designers of Record are encouraged to directly contact reviewers to discuss and agree to the formal comment responses rather than relying only on DrChecks and review meetings to discuss comments. With the next submittal, reviewers will backcheck answers to the comments against the submittal, in addition to reviewing additional design work.

Comments that, in the DB Contractor's opinion, require effort outside the scope of the contract will be clearly indicated as such in DrChecks. The DB Contractor shall not proceed with work outside the contract until a modification to the contract is properly executed.

3.3.2.1 ProjNet/DrChecks Initial Account Set-Up

To initialize an office's use of DrChecks, choose a POC within the office and call one of the LRL POCs (Jennifer Lopp 502-315-6465 or Mona Waldeck 502-315-6448), and request a new office be set-up through ProjNet. ProjNet will issue the POC an office Vendor ID to distribute to others in the office. Individuals can then go to the **www.projnet.org** website and register as a first time user with this Vendor ID. Upon registration, each user will be given a personal password to the DrChecks system.

Once the office and individuals are registered, the COE project manager or lead reviewer can assign the individuals and/or offices to the specific project for review. At this point, persons assigned can make comments, annotate comments, and close comments, depending on their particular assignment.

3.3.2.2 DrChecks Reviewer Role

The role of the reviewer is to review the submittal and enter comments into the DrChecks system. To enter comments:

1. Log into DrChecks.

2. Click on the appropriate project.

3. Click on the appropriate review (65%, 100%, etc.). An Add comment screen will appear.

4. Select or fill out the appropriate sections (particularly comment discipline and type of document for sorting) of the comment form and enter the comment in the space provided.

5. Click the Add Comment button. The comment will be added to the database and a fresh screen will appear for the next comment you have.

6. Once comments are all entered, exit DrChecks by choosing "My Account" and then Logout.

3.3.2.3 DrChecks Comment Evaluation

The role of the designers of record is to evaluate and respond to the comments entered by reviewers. To respond to comments:

1. Log into DrChecks.

2. Click on the appropriate project.

3. Under “Evaluate” click on the number under “Pending”.

4. Locate the comments that require your evaluation. (Note: If you know the comment number you can use the Quick Pick window on your home page in DrChecks; enter the number and click on go.)

5. Select the appropriate evaluation (concur, non-concur, for information only, or check and resolve) and add the response.

6. Click on the Add button. The evaluation will be added to the database and a fresh screen will appear with the next comment.

7. Once evaluations are all entered, exit DrChecks by choosing "My Account" and then Logout.

3.3.2.4 DrChecks Backcheck

Reviewers will backcheck comment annotations against new submittals to verify that the designers' responses are acceptable and completed. To backcheck comments:

1. Log into DrChecks.

2. Click on the appropriate project.

3. Under “My Backcheck” click on the number under “Pending”.

4. If you agree with the designer’s response select “Close Comment” and add a closing response if desired.

5. If you do not agree with the designer’s response or the submittal does not reflect the response given, select “Issue Open”, enter additional information.

6. Click on the Add button. The backcheck will be added to the database and a fresh screen will appear with the next comment.

7. Once backchecks are all entered, exit DrChecks by choosing "My Account" and then Logout.

The review is completed when there are no pending comments to be evaluated and there are no pending or open comments under backcheck.

3.3.3 Review Comments

Review sets will be distributed by the DB Contractor as shown on the attached distribution list. Comments will be made available to the Designers of Record prior to the review meetings. Review meetings to discuss the comments and preliminary responses will be held at FT Campbell CDC Building 3069. The DB Contractor shall keep the minutes of the meetings. The DB Contractor shall collect and organize comments to assure all comments are annotated and agreed to by the designers and reviewers prior to the next submittal. The comments and responses shall be printed and included in the design analysis for record with meeting minutes.

The Government's review will likely result in a significant number of comments. The Designers of Record shall respond to comments, clearly indicating what action will be taken and what drawing/spec will change. Designers of Record are encouraged to directly contact reviewers to discuss and agree to the formal comment responses rather than relying only on review meetings to discuss comments. With the next submittal, reviewers will backcheck answers to the comments against the submittal, in addition to reviewing additional design work.

Comments that, in the DB Contractor's opinion, require effort outside the scope of the contract will be clearly indicated as such in the comment annotation. The DB Contractor shall not proceed with work outside the contract until a modification to the contract is properly executed.

3.3.4 Design Acceptance

The Government's review shall be considered a quality assurance review rather than a quality control review. The DB Contractor shall provide internal quality control as required by the DB Contractor's Design Quality Control Plan (LRL Section 01 45 04.10 06 CONTRACTOR QUALITY CONTROL) before the design is submitted to the Government. The DB Contractor's entire design team shall agree with the submitted design documents before submitting to the Government. Each design submittal shall be stamped "approved" by the DB Contractor, major constructors, and each designer of record involved, prior to submission for review. The Government's review or acceptance of design documents does not relieve the DB Contractor of his responsibility to provide a safe, functional project in accordance with the terms of the contract.

All copies of drawings submitted for the 100%, Corrected Final, and Released for Construction documents shall show signatures and seals by the Designers of Record. Quality control procedures shall consist of design and/or checking by the registered Designers of Record and an Independent Technical Review completed by a separate design professional. Complete names of designers and independent reviewers shall appear in each drawing title block to signify their review and approval.

3.3.5 Project Design Progress Meetings

The DB Contractor (including appropriate design representatives) shall participate in project design progress meetings at FT Campbell CDC Building 3069 and/or through phone conferences as dictated by the Contracting Officer. The DB Contractor shall be responsible for preparation and distribution of meeting minutes to all subcontractors, designers of record, and the Contracting Officer. Meeting requirements include the following:

Monthly Design Progress Meetings - At a minimum, the Construction Project Manager, Design Project Manager, and appropriate Design Professionals shall attend.

Additional meetings may be required, if in the Government's opinion, they are required to facilitate the design process.

3.4 DESIGNER REQUIREMENTS DURING CONSTRUCTION

Notice-to-Proceed for construction for any Part will be provided in writing from the Contracting Officer to the DB Contractor after that "part" of design has been completed and approved by the Designers of Record, all comments pertaining to that "part" have been cleared through DrChecks, the Corrected Final documents have been reviewed by the Government, and any corrections made to the satisfaction of the Designers of Record and the Government reviewers.

3.4.1 Documents Released for Construction

As the first item of work after notice to proceed is given for construction to begin on any "part", the DB Contractor shall furnish to the Government 4 sets 11"x17" and 4 full size 22"x34" sets of the Released for Construction drawings for that "part", and 4 sets of the Released for Construction specifications for that "part". Each part's set of drawings and specifications shall be clearly marked for the "part" included and as "Released for Construction" and stamped by responsible Designers of

Record. At no time shall drawings or specifications NOT marked "Released for Construction" be used on the site for construction.

Provide "Released for Construction" hardcopy drawings, specifications, and design analysis. Also provide native CADD files, drawing pdf files, native specification files, specification pdf files, and design analysis pdf files on CD. See Distribution List for quantity and distribution.

3.4.2 Construction and Design Progress

Construction shall only be allowed on work for which the design has been reviewed and approved by the Designers of Record and accepted by Government reviewers.

3.4.3 Construction Progress Meetings

The DB Contractor (including appropriate design representatives) shall participate in project progress meetings at FT Campbell CDC Building 3069. The DB Contractor shall be responsible for preparation and distribution of meeting minutes to all subcontractors, designers of record, and the Contracting Officer. Meeting minutes shall include a list of those in attendance and notes from any site visits after the meeting with the designers of record. Meeting requirements include the following:

(1) Weekly Coordination Meetings - At a minimum, the Construction Project Manager, Project Superintendent, Design Project Manager, and appropriate sub-contractors shall attend.

(2) Additional meetings may be required, if in the Government's opinion, they are needed to facilitate the construction process.

3.4.4 Site Visits

The Designers of Record shall be required to visit the site during construction, prior to and during critical work. Site visits shall be scheduled with the Contracting Officer for a minimum of 3 site visits per discipline for appropriate Designers of Record for which work is taking place.

3.4.5 Construction Submittals

The Designers of Record shall review and approve all project construction submittals.

3.4.6 Pre-Inspection Meeting (Red Zone)

The contractor shall participate in the pre-inspection meeting (Red Zone Meeting) 45 days prior to the Building Occupancy Date (BOD).

3.5 100% SUBMISSION REQUIREMENTS

The 100% design submission shall consist of 100% complete drawings, specifications, and design analysis for utilities, architectural, structural, mechanical, HVAC direct digital controls, and electrical. The government will NOT accept the design submittal for review if any of these items are not provided at 100% completion.

The 100% design submission shall consist of drawings, specifications, and design analysis for each "part" submitted. The government will NOT accept

the design submittal "part" for review if any of the following items are not provided at 100% completion.

3.5.1 Drawings

Submit 11"x17" review drawings complete with all RFP requirements incorporated into the documents to provide a 100% design for utilities, architectural, structural, mechanical, HVAC direct digit controls and electricaleach "part" submitted.

All drawings submitted shall be designed and/or checked by licensed professionals in the applicable area of expertise (Designers of Record). Each 100% Design Drawing shall bear the seal of the licensed professional responsible for the design work on that drawing (Designers of Record).

3.5.2 Design Analysis

The Design Professional shall prepare an independent Design Analysis and calculations necessary to confirm and support all design documents submitted for acceptance. The designers of record shall prepare an independent design analysis with calculations necessary to confirm and support all design work submitted. For parts including sitework, site specific civil calculations shall be included. For parts including structural work, structural calculations shall be included. For parts including architectural work, life safety and building code analysis and building floor area analysis shall be included. For parts including mechanical work, HVAC analysis and calculations, and sprinkler system analysis shall be included. For parts including electrical work, electrical load analysis and calculations, electrical short circuit and protective device coordination analysis and calculations shall be included. Provide hardcopy design analysis.

3.5.3 Specifications

Specifications shall be 100% complete for all disciplines. Specifications and indexes shall be provided clean, using SpecsIntact with all tags, deletions, and underlines turned off. Provide hardcopy specifications.

3.5.4 Submittal Register

The DB Contractor shall prepare the Submittal Register using the SpecsIntact program and submit it with the 100% design specifications (see LRL Section 01 33 00.00 06 SUBMITTAL PROCEDURES). Submittals for each specification section shall be included in the submittal register.

3.5.5 Preparation of DD Form 1354 (Transfer of Real Property)

This form itemizes the types, quantities and costs of various equipment and systems that comprise the project, for the purpose of transferring the new construction project from the Corps Construction Division to the Installation's inventory of real property. The "DD Form 1354 Building Information Checklist" from UFC 1-300-08, Appendix D is included in the appendices to be completed by the DB Contractor. The completed checklist shall be submitted with the 100% design in the Design Analysis.

Near project construction completion, the DB Contractor shall coordinate with the Contracting Officer to provide this checklist, updated for the as-built conditions including information such as manufacturers and model numbers for equipment installed. The Government will use this checklist

to complete the final DD 1354 upon completion of construction.

3.5.6 NOT USED

3.6 DESIGN SUBMITTAL DISTRIBUTION LIST

Each submittal reviewer copy shall include all items for any one design submittal, ie. hardcopy drawings of size indicated below (11x17 if not indicated), specifications, and design analysis. Provide CDs w/ drawings, specifications, and design analysis files.

SID and FF&E binders will be **returned** to the DB Contractor after each review for revisions. Reviewers will not insert/exchange pages/boards for revisions.

The 100% completed design binders, and any changes to the binders during construction, will be mailed to those listed below for record and reference. The DB Contractor shall retain one copy for field use.

Note: 100% for SID and FF&E represents the corrected final, completing shortly after the Released For Construction Design submittal.

Submittal Reviewers	Copies Required
USACE Louisville District Design Project Engineer: William Firisin 600 Dr. Martin Luther King Jr. Place Room 414 Louisville, KY 40202	1
USACE Louisville District Project Manager: Erich Hoehler USACE, Louisville District 600 Dr. Martin Luther King Jr. Place Room 314 Louisville, KY 40202	1
USACE CDC Center of Standardization Ms. Michael R. Johnson USACE Engineering and Support Center, Huntsville Redstone Gateway (RG 300) Redstone Arsenal, AL 35808	1
MWR Child and Youth Services Mark Ryales Child & Youth Services Coordinator 2601 Indiana Street FT Campbell, KY 42223	2
FT Campbell DPW: Catherine Everett, Master Planner 3709 Polk Road Suite. B FT Campbell, KY 42223	1
USACE FT Campbell: Laura Villar, Resident Engineer FT Campbell Resident Office Louisville District US Army Corps of Engineers 3709 Polk Road Suite B FT Campbell, KY 42223	2

SID/FF&E Binder Reviewers	Copies Required

USACE CDC Center of Standardization 1
Ms. Michael R. Johnson
USACE Engineering and Support Center, Huntsville
Redstone Gateway (RG 300)
Redstone Arsenal, AL 35808

MWR Child and Youth Services
Mark Ryales 2
Child & Youth Services Coordinator
2601 Indiana Street
FT Campbell, KY 42223

FT Campbell DPW: 1
Catherine Everett, Master Planner
3709 Polk Road Suite. B
FT Campbell, KY 42223

USACE FT Campbell: 2
Laura Villar, Resident Engineer
FT Campbell Resident Office
Louisville District
US Army Corps of Engineers
3709 Polk Road Suite B
FT Campbell, KY 42223

USACE Louisville District 1
SID/FF&E Binder Reviewers
USACE, Louisville District
600 Dr. Martin Luther King Jr. Place Room 314
Louisville, KY 40202

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PART 2 PRODUCTS

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SECTION 01 42 00

SOURCES FOR REFERENCE PUBLICATIONS
05/24

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization (e.g., ASTM B564 Standard Specification for Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided.

U.S. ARMY CORPS OF ENGINEERS (USACE)
CRD-C DOCUMENTS available on Internet:
http://www.wbdg.org/ffc/army-coe/standards
Order Other Documents from:
Official Publications of the Headquarters, USACE
E-mail: hqpublications@usace.army.mil
Internet: http://www.publications.usace.army.mil/
or
https://www.hnc.usace.army.mil/Missions/Engineering-Directorate/TECHINFO/
U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)
1200 Pennsylvania Avenue, N.W.
Washington, DC 20004
Ph: 202-564-4700
Internet: https://www.epa.gov
--- Some EPA documents are available only from:
National Technical Information Service (NTIS)
5301 Shawnee Road
Alexandria, VA 22312
Ph: 703-605-6060 or 1-800-363-2068
Fax: 703-605-6880
TDD: 703-487-4639
E-mail: info@ntis.gov
Internet: https://www.ntis.gov/

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)
8601 Adelphi Road
College Park, MD 20740-6001
Ph: 866-272-6272
Internet: https://www.archives.gov/
Order documents from:

Superintendent of Documents
U.S. Government Publishing Office (GPO)
732 N. Capitol Street, NW
Washington, DC 20401
Ph: 202-512-1800 or 866-512-1800
Bookstore: 202-512-0132
Internet: https://www.gpo.gov/

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

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SECTION 01 45 00.15 10

RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM)

11/23

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-- End of Section Table of Contents --

SECTION 01 45 00.15 10

RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM)
11/23

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this section to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2024) Safety -- Safety and Occupational Health (SOH) Requirements

1.2 MEASUREMENT AND PAYMENT

The work of this section is not measured for payment. The Contractor is responsible for the work of this section, without any direct compensation other than the payment received for contract items.

1.3 CONTRACT ADMINISTRATION

The Government will use the Resident Management System (RMS) to assist in its monitoring and administration of this contract. The Government accesses the system using the Government Mode of RMS (RMS GM) and the Contractor accesses the system using the Contractor Mode (RMS CM). The term RMS will be used in the remainder of this section for both RMS GM and RMS CM. The joint Government-Contractor use of RMS facilitates electronic exchange of information and overall management of the contract. The Contractor accesses RMS to record, maintain, input, track, and electronically share information with the Government throughout the contract period in the following areas:

Administration
Finances
Quality Control
Submittal Monitoring
Scheduling
Closeout
Import/Export of Data

1.3.1 Correspondence and Electronic Communications

For ease and speed of communications, exchange correspondence and other documents in electronic format to the maximum extent feasible. Some documents such as correspondence, including pay requests and payrolls, may be required in paper format with original signatures. Paper documents will govern in the event of discrepancy with the electronic version. Contracting Officer will determine which documents require submission of paper copies.

1.3.2 Other Factors

Other portions of this document have a direct relationship to the reporting accomplished through RMS. Particular attention is directed to FAR 52.236-15 Schedules for Construction Contracts; FAR 52.232-27 Prompt Payment for Construction Contracts; FAR 52.232-5 Payments Under Fixed-Priced Construction Contracts; Section 01 32 01.00 06 PROJECT SCHEDULE; Section 01 33 00.00 06 SUBMITTAL PROCEDURES; Section 01 35 26.00 06 GOVERNMENTAL SAFETY REQUIREMENTS; and Section 01 45 04.10 06 QUALITY CONTROL.

1.4 RMS SOFTWARE

RMS is a web based application. Download, install and be able to utilize the latest version of RMS within 7 calendar days of receipt of the Notice to Proceed. RMS software, user manuals, access and installation instructions, program updates and training information are available from the RMS website (https://rms.usace.army.mil). The Government and the Contractor will have different access authorities to the same contract database through RMS. The common database will be updated automatically each time a user finalizes an entry or change.

1.5 CONTRACT DATABASE - GOVERNMENT

The Government will enter the basic contract award data in RMS prior to granting the Contractor access. The Government entries into RMS will generally be related to submittal reviews, correspondence status, and Quality Assurance(QA)comments, as well as other miscellaneous administrative information.

1.6 CONTRACT DATABASE - CONTRACTOR

Contractor entries into RMS establish, maintain, and update data throughout the duration of the contract. Contractor entries generally include prime and subcontractor information, daily reports, submittals, RFI's, schedule updates and payment requests. RMS includes the ability to import attachments and export reports in many of the modules, including submittals. The Contractor responsibilities for entries in RMS typically include the following items:

1.6.1 Administration

1.6.1.1 Contractor Information

Enter all current Contractor administrative data and information into RMS within 7 calendar days of receiving access to the contract in RMS. This includes, but is not limited to, Contractor's name, address, telephone numbers, management staff, and other required items.

1.6.1.2 Subcontractor Information

Enter all missing subcontractor administrative data and information into RMS CM within seven calendar days of receiving access to the Contract in RMS or within seven calendar days of the signing of the subcontractor agreement for agreements signed at a later date. This includes name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor is listed separately for each trade to be performed.

1.6.1.3 Correspondence

Identify all Contractor correspondence to the Government with a serial number. Prefix correspondence initiated by the Contractor's site office with "S". Prefix letters initiated by the Contractor's home (main) office with "H". Letters are numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C" or "RFP".

1.6.1.4 Equipment

Enter and maintain a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates in accordance with Section 01 45 04.10 06 QUALITY CONTROL.

1.6.1.5 Reports

Track the status of the project using the reports available in RMS. The value of these reports reflects the quality of the data input. These reports include but are not limited to the Progress Payment Request worksheet, Quality Control (QC) comments, Deficiency Tracking Log, Submittal Register Status, and Three-Phase Control worksheets.

1.6.1.6 Request For Information (RFI)

Create and track all Requests For Information (RFI) in the RMS Administration Module for Government review and response. Provide status at weekly progress meeting in accordance with Section 01 32 01.00 06 PROJECT SCHEDULE.

1.6.2 Finances

1.6.2.1 Pay Activity Data

Develop and enter a list of pay activities in conjunction with the project schedule in accordance with Section 01 32 01.00 06 PROJECT SCHEDULE. The sum of pay activities equals the total Contract amount, including modifications. Each pay activity must be assigned to a Contract Line Item Number (CLIN). The sum of the activities assigned to a CLIN equals the amount of each CLIN.

1.6.2.2 Payment Requests

Prepare all progress payment requests using RMS. Update the work completed under the Contract at least monthly, measured as percent or as specific quantities. After the update, generate a payment request and prompt payment certification using RMS. Submit the signed prompt payment certification and payment request as well as supporting data, either electronically or by hard copy.

1.6.3 Quality Control (QC)

Enter and track implementation of the 3-phase QC Control System, QC testing, transferred and installed property and warranties in RMS. Link each deficiency and QC test to a pay activity. Prepare daily reports, identify and track deficiencies, document progress of work, and support other Contractor QC requirements in RMS. Maintain all data on a daily basis. Ensure that RMS reflects all quality control methods, tests and actions contained within the Contractor Quality Control (CQC) Plan and

Government review comments. Provide within seven calendar days of Government acceptance of the CQC Plan.

1.6.3.1 Quality Control (QC) Reports

The Contractor's Quality Control (QC) Daily Report in RMS is the official report. The Contractor can use other supplemental formats to record QC data, but information from any supplemental formats are to be consolidated and entered into the RMS QC Daily Report. Any supplemental information may be entered into RMS as an attachment to the report. QC Daily Reports must be finalized and signed in RMS within 24 hours after the date covered by the report.

1.6.3.2 Deficiency Tracking

Use the QC Daily Report Module to enter and track deficiencies. Deficiencies identified and entered into RMS by the Contractor or the Government will be sequentially numbered with a QC or QA prefix for tracking purposes. Enter each deficiency into RMS the same day that the deficiency is identified. Monitor, track and resolve all QC and QA entered deficiencies. A deficiency is not considered to be corrected until the Government indicates concurrence in RMS.

1.6.3.3 Three-Phase Control Meetings

Maintain scheduled and actual dates and times of preparatory and initial control meetings in RMS, and upload meeting minutes of the meetings. Worksheets for the three-phase control meetings are generated within RMS.

1.6.3.4 Labor and Equipment Hours

Enter labor and equipment exposure hours on a daily basis. Roll up the labor and equipment exposure data into a monthly exposure report.

1.6.3.5 Accident/Safety Reporting

Both the Contractor and the Government enter safety related comments in RMS as a deficiency. The Contractor must monitor, track and show resolution for safety issues in the QC Daily Report area of the RMS QC Module. In addition, follow all reporting requirements for accidents and incidents as required in EM 385-1-101 35 26.00 06 GOVERNMENTAL SAFETY REQUIREMENTS and as required by any other applicable Federal, State or local agencies.

1.6.3.6 Definable Features of Work

Enter each feature of work, as defined in the approved CQC Plan, into the RMS QC Module. A feature of work may be associated with a single or multiple pay activities, however a pay activity is only to be linked to a single feature of work.

1.6.3.7 Activity Hazard Analysis

Import activity hazard analysis electronic document files into the RMS QC Module utilizing the document package manager. Prepare activity hazard analysis in accordance with Section 01 35 26.00 06 GOVERNMENT SAFETY REQUIREMENTS.

1.6.4 Submittal Management

Enter all current submittal register data and information into RMS within seven calendar days of receiving access to the Contract in RMS. Contractor is responsible for entering Activity Numbers for each submittal item corresponding to their Schedule. Group electronic submittal documents into transmittal packages to send to the Government, except very large electronic files, samples, spare parts, mock ups, color boards, or where hard copies are specifically required. Track transmittals and update the submittal register in RMS on a daily basis throughout the duration of the Contract.

Enter all submittals as listed in the approved design's submittal register within 30 calendar days of design approval for construction.

Contractor may request submittals to be added to RMS throughout the lifecycle of the project. Approval/disapproval of Contractor requests is at the discretion of the Contracting Officer. Submittals entry into RMS must be updated daily or as practical for performance of the Contract, as approved by the Contracting Officer.

1.6.5 Schedule

Enter and update the contract project schedule in RMS by either manually entering all schedule data or by importing the Standard Data Exchange Format (SDEF) file, based on the requirements in Section 01 32 01.00 06 PROJECT SCHEDULE.

1.6.6 Closeout

Closeout documents, processes and forms are managed and tracked in RMS by both the Contractor and the Government. Ensure that all closeout documents are entered, completed and documented within RMS.

1.7 IMPLEMENTATION

Use of RMS as described in the preceding paragraphs is mandatory. Ensure that sufficient resources are available to maintain contract data within the RMS system. RMS is an integral part of the Contractor's required management of quality control.

1.8 NOTIFICATION OF NONCOMPLIANCE

Take corrective action within seven calendar days after receipt of notice of RMS non-compliance by the Contracting Officer.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section --

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04/20

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PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

EPA SW-846	(Third Edition; Update IV) Test Methods for Evaluating Solid Waste: Physical/Chemical Methods

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2024) Safety -- Safety and Occupational Health (SOH) Requirements
ER 200-2-2	(1988) Environmental Quality - Procedures for Implementing NEPA

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910	Occupational Safety and Health Standards
29 CFR 1910.120	Hazardous Waste Operations and Emergency Response
29 CFR 1915	Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment
29 CFR 1926	Safety and Health Regulations for Construction
29 CFR 1926.1101	Asbestos
29 CFR 1926.62	Lead
40 CFR 112	Oil Pollution Prevention
40 CFR 152	Pesticide Registration and Classification Procedures
40 CFR 152 - 186	Pesticide Programs
40 CFR 241	Guidelines for Disposal of Solid Waste
40 CFR 243	Guidelines for the Storage and Collection of Residential, Commercial, and

	Institutional Solid Waste
40 CFR 258	Subtitle D Landfill Requirements
40 CFR 260	Hazardous Waste Management System: General
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 261.7	Residues of Hazardous Waste in Empty Containers
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 262.31	Standards Applicable to Generators of Hazardous Waste-Labeling
40 CFR 262.34	Standards Applicable to Generators of Hazardous Waste-Accumulation Time
40 CFR 263	Standards Applicable to Transporters of Hazardous Waste
40 CFR 264	Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 265	Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 266	Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities
40 CFR 268	Land Disposal Restrictions
40 CFR 273	Standards for Universal Waste Management
40 CFR 273.2	Standards for Universal Waste Management - Batteries
40 CFR 273.3	Standards for Universal Waste Management - Pesticides
40 CFR 273.4	Standards for Universal Waste Management - Mercury Containing Equipment
40 CFR 273.5	Standards for Universal Waste Management - Lamps
40 CFR 279	Standards for the Management of Used Oil
40 CFR 300	National Oil and Hazardous Substances Pollution Contingency Plan
40 CFR 300.125	National Oil and Hazardous Substances Pollution Contingency Plan - Notification

	and Communications
40 CFR 355	Emergency Planning and Notification
40 CFR 372-SUBPART D	Specific Toxic Chemical Listings
40 CFR 403	General Pretreatment Regulations for Existing and New Sources of Pollution
40 CFR 50	National Primary and Secondary Ambient Air Quality Standards
40 CFR 60	Standards of Performance for New Stationary Sources
40 CFR 61	National Emission Standards for Hazardous Air Pollutants
40 CFR 63	National Emission Standards for Hazardous Air Pollutants for Source Categories
40 CFR 64	Compliance Assurance Monitoring
40 CFR 745	Lead-Based Paint Poisoning Prevention in Certain Residential Structures
40 CFR 761	Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions
40 CFR 82	Protection of Stratospheric Ozone
49 CFR 171	General Information, Regulations, and Definitions
49 CFR 172	Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements
49 CFR 173	Shippers - General Requirements for Shipments and Packagings
49 CFR 178	Specifications for Packagings

1.2 DEFINITIONS

1.2.1 Class I and II Ozone Depleting Substance (ODS)

Class I ODS is defined in Section 602(a) of The Clean Air Act. A list of Class I ODS can be found on the EPA website at the following weblink. http://www.epa.gov/ozone/science/ods/classone.html.

Class II ODS is defined in Section 602(s) of The Clean Air Act. A list of Class II ODS can be found on the EPA website at the following weblink. http://www.epa.gov/ozone/science/ods/classtwo.html.

1.2.2 Contractor Generated Hazardous Waste

Contractor generated hazardous waste is materials that, if abandoned or disposed of, may meet the definition of a hazardous waste. These waste streams would typically consist of material brought on site by the Contractor to execute work, but are not fully consumed during the course of construction. Examples include, but are not limited to, excess paint thinners (i.e. methyl ethyl ketone, toluene), waste thinners, excess paints, excess solvents, waste solvents, excess pesticides, and contaminated pesticide equipment rinse water.

1.2.3 Electronics Waste

Electronics waste is discarded electronic devices intended for salvage, recycling, or disposal.

1.2.4 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally or historically.

1.2.5 Environmental Protection

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2.6 Hazardous Debris

As defined in paragraph SOLID WASTE, debris that contains listed hazardous waste (either on the debris surface, or in its interstices, such as pore structure) in accordance with 40 CFR 261. Hazardous debris also includes debris that exhibits a characteristic of hazardous waste in accordance with 40 CFR 261.

1.2.7 Hazardous Materials

Hazardous materials as defined in 49 CFR 171 and listed in 49 CFR 172.

Hazardous material is any material that: Is regulated as a hazardous material in accordance with 49 CFR 173; or requires a Safety Data Sheet (SDS) in accordance with 29 CFR 1910.120; or during end use, treatment, handling, packaging, storage, transportation, or disposal meets or has components that meet or have potential to meet the definition of a hazardous waste as defined by 40 CFR 261 Subparts A, B, C, or D. Designation of a material by this definition, when separately regulated or controlled by other sections or directives, does not eliminate the need for adherence to that hazard-specific guidance which takes precedence over this section for "control" purposes. Such material includes ammunition, weapons, explosive actuated devices, propellants, pyrotechnics, chemical and biological warfare materials, medical and pharmaceutical supplies, medical waste and infectious materials, bulk fuels, radioactive materials,

and other materials such as asbestos, mercury, and polychlorinated biphenyls (PCBs).

1.2.8 Hazardous Waste

Hazardous Waste is any material that meets the definition of a solid waste and exhibit a hazardous characteristic (ignitability, corrosivity, reactivity, or toxicity) as specified in 40 CFR 261, Subpart C, or contains a listed hazardous waste as identified in 40 CFR 261, Subpart D.

1.2.9 Installation Pest Management Coordinator

Installation Pest Management Coordinator (IPMC) is the individual officially designated by the Installation Commander to oversee the Installation Pest Management Program and the Installation Pest Management Plan.

1.2.10 Land Application

Land Application means spreading or spraying discharge water at a rate that allows the water to percolate into the soil. No sheeting action, soil erosion, discharge into storm sewers, discharge into defined drainage areas, or discharge into the "waters of the United States" must occur. Comply with federal, state, and local laws and regulations.

1.2.11 Municipal Separate Storm Sewer System (MS4) Permit

MS4 permits are those held by installations to obtain NPDES permit coverage for their stormwater discharges.

1.2.12 National Pollutant Discharge Elimination System (NPDES)

The NPDES permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

1.2.13 Oily Waste

Oily waste are those materials that are, or were, mixed with Petroleum, Oils, and Lubricants (POLs) and have become separated from that POLs. Oily wastes also means materials, including wastewaters, centrifuge solids, filter residues or sludges, bottom sediments, tank bottoms, and sorbents which have come into contact with and have been contaminated by, POLs and may be appropriately tested and discarded in a manner which is in compliance with other state and local requirements.

This definition includes materials such as oily rags, "kitty litter" sorbent clay and organic sorbent material. These materials may be land filled provided that: It is not prohibited in other state regulations or local ordinances; the amount generated is "de minimus" (a small amount); it is the result of minor leaks or spills resulting from normal process operations; and free-flowing oil has been removed to the practicable extent possible. Large quantities of this material, generated as a result of a major spill or in lieu of proper maintenance of the processing equipment, are a solid waste. As a solid waste, perform a hazardous waste determination prior to disposal. As this can be an expensive process, it is recommended that this type of waste be minimized through good housekeeping practices and employee education.

1.2.14 Pesticide

Pesticide is any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant or desiccant.

1.2.15 Pesticide Treatment Plan

A plan for the prevention, monitoring, and control to eliminate pest infestation.

1.2.16 Pests

Pests are arthropods, birds, rodents, nematodes, fungi, bacteria, viruses, algae, snails, marine borers, snakes, weeds and other organisms (except for human or animal disease-causing organisms) that adversely affect readiness, military operations, or the well-being of personnel and animals; attack or damage real property, supplies, equipment, or vegetation; or are otherwise undesirable.

1.2.17 Project Pesticide Coordinator

The Project Pesticide Coordinator (PPC) is an individual who resides at a Civil Works Project office and who is responsible overseeing of pesticide application on project grounds.

1.2.18 Regulated Waste

Regulated waste are solid wastes that have specific additional federal, state, or local controls for handling, storage, or disposal.

1.2.19 Sediment

Sediment is soil and other debris that have eroded and have been transported by runoff water or wind.

1.2.20 Solid Waste

Solid waste is a solid, liquid, semi-solid or contained gaseous waste. A solid waste can be a hazardous waste, non-hazardous waste, or non-Resource Conservation and Recovery Act (RCRA) regulated waste. Types of solid waste typically generated at construction sites may include:

1.2.20.1 Debris

Debris is non-hazardous solid material generated during the construction, demolition, or renovation of a structure that exceeds 2.5-inch particle size that is: a manufactured object; plant or animal matter; or natural geologic material (for example, cobbles and boulders), broken or removed concrete, masonry, and rock asphalt paving; ceramics; roofing paper and shingles. Inert materials may not be reinforced with or contain ferrous wire, rods, accessories and weldments. A mixture of debris and other material such as soil or sludge is also subject to regulation as debris if the mixture is comprised primarily of debris by volume, based on visual inspection.

1.2.20.2 Green Waste

Green waste is the vegetative matter from landscaping, land clearing and

grubbing, including, but not limited to, grass, bushes, scrubs, small trees and saplings, tree stumps and plant roots. Marketable trees, grasses and plants that are indicated to remain, be re-located, or be re-used are not included.

1.2.20.3 Material not regulated as solid waste

Material not regulated as solid waste is nuclear source or byproduct materials regulated under the Federal Atomic Energy Act of 1954 as amended; suspended or dissolved materials in domestic sewage effluent or irrigation return flows, or other regulated point source discharges; regulated air emissions; and fluids or wastes associated with natural gas or crude oil exploration or production.

1.2.20.4 Non-Hazardous Waste

Non-hazardous waste is waste that is excluded from, or does not meet, hazardous waste criteria in accordance with 40 CFR 263.

1.2.20.5 Recyclables

Recyclables are materials, equipment and assemblies such as doors, windows, door and window frames, plumbing fixtures, glazing and mirrors that are recovered and sold as recyclable. It also includes commercial-grade refrigeration equipment with Freon removed, household appliances where the basic material content is metal, clean polyethylene terephthalate bottles, cooking oil, used fuel oil, textiles, high-grade paper products and corrugated cardboard, stackable pallets in good condition, clean crating material, and clean rubber/vehicle tires. Metal meeting the definition of lead contaminated or lead based paint contaminated may not be included as recyclable if sold to a scrap metal company. Paint cans that meet the definition of empty containers in accordance with 40 CFR 261.7 may be included as recyclable if sold to a scrap metal company.

1.2.20.6 Surplus Soil

Surplus soil is existing soil that is in excess of what is required for this work, including aggregates intended, but not used, for on-site mixing of concrete, mortars, and paving. Contaminated soil meeting the definition of hazardous material or hazardous waste is not included and must be managed in accordance with paragraph HAZARDOUS MATERIAL MANAGEMENT.

1.2.20.7 Scrap Metal

This includes scrap and excess ferrous and non-ferrous metals such as reinforcing steel, structural shapes, pipe, and wire that are recovered or collected and disposed of as scrap. Scrap metal meeting the definition of hazardous material or hazardous waste is not included.

1.2.20.8 Wood

Wood is dimension and non-dimension lumber, plywood, chipboard, hardboard. Treated or painted wood that meets the definition of lead contaminated or lead based contaminated paint is not included. Treated wood includes, but is not limited to, lumber, utility poles, crossties, and other wood products with chemical treatment.

1.2.21 Surface Discharge

Surface discharge means discharge of water into drainage ditches, storm sewers, creeks or "waters of the United States". Surface discharges are discrete, identifiable sources and require a permit from the governing agency. Comply with federal, state, and local laws and regulations.

1.2.22 Wastewater

Wastewater is the used water and solids from a community that flow to a treatment plant.

1.2.22.1 Stormwater

Stormwater is any precipitation in an urban or suburban area that does not evaporate or soak into the ground, but instead collects and flows into storm drains, rivers, and streams.

1.2.23 Waters of the United States

Waters of the United States means Federally jurisdictional waters, including wetlands, that are subject to regulation under Section 404 of the Clean Water Act or navigable waters, as defined under the Rivers and Harbors Act.

1.2.24 Wetlands

Wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Official determination of whether or not an area is classified as a wetland must be done in accordance with the WETLANDS DELINEATION MANUAL and Wetland Supplement.

1.2.25 Universal Waste

The universal waste regulations streamline collection requirements for certain hazardous wastes in the following categories: batteries, pesticides, mercury-containing equipment (for example, thermostats), and lamps (for example, fluorescent bulbs). The rule is designed to reduce hazardous waste in the municipal solid waste (MSW) stream by making it easier for universal waste handlers to collect these items and send them for recycling or proper disposal. These regulations can be found at 40 CFR 273.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submittals with an "S" are for inclusion in the Sustainability Notebook, in conformance with LRL Section 01 33 29.00 06 SUSTAINABILITY REPORTING. Submit the following in accordance with LRL Section 01 33 00.00 06 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Solid Waste Management Permit; G

Regulatory Notifications; G

Environmental Protection Plan; G

Dirt and Dust Control Plan; G

Employee Training Records; G

Environmental Manager Qualifications; G

Notice Of Soil Treatment; G

Stormwater Pollution Prevention Plan (Swppp); G

SD-06 Test Reports

Laboratory Analysis

Inspection Reports

Solid Waste Management Report; G

SD-07 Certificates

Employee Training Records; G

Certificate of Competency

SD-11 Closeout Submittals

Stormwater Pollution Prevention Plan Compliance Notebook; G

Stormwater Notice of Termination (for NPDES coverage under the general permit for construction activities); G

Waste Determination Documentation; G

Disposal Documentation for Hazardous and Regulated Waste; G

Assembled Employee Training Records; G

Solid Waste Management Permit; G

Solid Waste Management Report; G

Hazardous Waste/Debris Management; G

Regulatory Notifications; G

Sales Documentation; G

Contractor Certification

1.4 ENVIRONMENTAL PROTECTION REQUIREMENTS

Provide and maintain, during the life of the contract, environmental protection as defined. Plan for and provide environmental protective measures to control pollution that develops during construction practice.

Plan for and provide environmental protective measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the project. Protect the environmental resources within the project boundaries and those affected outside the limits of permanent work during the entire duration of this Contract. Comply with federal, state, and local regulations pertaining to the environment, including water, air, solid waste, hazardous waste and substances, oily substances, and noise pollution.

Tests and procedures assessing whether construction operations comply with Applicable Environmental Laws may be required. Analytical work must be performed by qualified laboratories; and where required by law, the laboratories must be certified.

1.4.1 Conformance with the Environmental Management System

Perform work under this contract consistent with the policy and objectives identified in the installation's Environmental Management System (EMS). Perform work in a manner that conforms to objectives and targets of the environmental programs and operational controls identified by the EMS. Support Government personnel when environmental compliance and EMS audits are conducted by escorting auditors at the Project site, answering questions, and providing proof of records being maintained. Provide monitoring and measurement information as necessary to address environmental performance relative to environmental, energy, and transportation management goals. In the event an EMS nonconformance or environmental noncompliance associated with the contracted services, tasks, or actions occurs, take corrective and preventative actions. In addition, employees must be aware of their roles and responsibilities under the installation EMS and of how these EMS roles and responsibilities affect work performed under the contract.

Coordinate with the installation's EMS coordinator to identify training needs associated with environmental aspects and the EMS, and arrange training or take other action to meet these needs. Provide training documentation to the Contracting Officer. The Installation Environmental Office will retain associated environmental compliance records. Make EMS Awareness training completion certificates available to Government auditors during EMS audits and include the certificates in the Employee Training Records. See paragraph EMPLOYEE TRAINING RECORDS.

1.5 NOT USED

1.6 QUALITY ASSURANCE

1.6.1 Not Used

1.6.2 Regulatory Notifications

Provide regulatory notification requirements in accordance with federal, state and local regulations. In cases where the Government will also provide public notification (such as stormwater permitting), coordinate with the Contracting Officer. Submit copies of regulatory notifications to the Contracting Officer within 30 days prior to commencement of work activities. Typically, regulatory notifications must be provided for the following (this listing is not all-inclusive): demolition, renovation, NPDES defined site work, construction, removal or use of a permitted air emissions source, and remediation of controlled substances (asbestos, hazardous waste, lead paint).

1.6.3 Environmental Brief

Attend an environmental brief to be included in the preconstruction meeting. Provide the following information: types, quantities, and use of hazardous materials that will be brought onto the installation; and types and quantities of wastes/wastewater that may be generated during the Contract.

Prior to initiating any work on site, meet with the Contracting Officer and installation Environmental Office to discuss the proposed Environmental Protection Plan (EPP). Develop a mutual understanding relative to the details of environmental protection, including measures for protecting natural and cultural resources, required reports, required permits, permit requirements (such as mitigation measures), and other measures to be taken.

1.6.4 Environmental Manager

Appoint in writing an Environmental Manager for the project site. The Environmental Manager is directly responsible for coordinating contractor compliance with federal, state, local, and installation requirements. The Environmental Manager must ensure compliance with Hazardous Waste Program requirements (including hazardous waste handling, storage, manifesting, and disposal); implement the EPP; ensure environmental permits are obtained, maintained, and closed out; ensure compliance with Stormwater Program requirements; ensure compliance with Hazardous Materials (storage, handling, and reporting) requirements; and coordinate any remediation of regulated substances (lead, asbestos, PCB transformers). This can be a collateral position; however, the person in this position must be trained to adequately accomplish the following duties: ensure waste segregation and storage compatibility requirements are met; inspect and manage Satellite Accumulation areas; ensure only authorized personnel add wastes to containers; ensure Contractor personnel are trained in 40 CFR requirements in accordance with their position requirements; coordinate removal of waste containers; and maintain the Environmental Records binder and required documentation, including environmental permits compliance and close-out. Submit Environmental Manager Qualifications to the Contracting Officer.

1.6.5 Employee Training Records

Prepare and maintain Employee Training Records throughout the term of the contract meeting applicable 40 CFR requirements. Provide Employee Training Records in the Environmental Records Binder. Submit these Assembled Employee Training Records to the Contracting Officer at the conclusion of the project, unless otherwise directed.

Train personnel to meet EPA and state requirements. Conduct environmental protection/pollution control meetings for personnel prior to commencing construction activities. Contact additional meetings for new personnel and when site conditions change. Include in the training and meeting agenda: methods of detecting and avoiding pollution; familiarization with statutory and contractual pollution standards; installation and care of devices, vegetative covers, and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control; anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants; recognition and protection of archaeological sites, artifacts, waters of the United States, and

endangered species and their habitat that are known to be in the area.

1.6.5.1 Pest Control Training

Trained personnel in pest control. Conduct a pest control meeting for personnel prior to commencing construction activities. Conduct additional meetings for new personnel and when site conditions change. Include in the training and meeting agenda: methods of detecting and pest infestation; familiarization with statutory and contractual pest control standards; installation and care of devices, and instruments, if required, for monitoring purposes to ensure adequate and continuous pest control; anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants; recognition and protection of waters of the United States, and endangered species and their habitat that are known to be in the area. Provide a Certificate of Competency for the personnel who will be conducting the pesticide application and management of pest control.

1.6.6 Non-Compliance Notifications

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with federal, state or local environmental laws or regulations, permits, and other elements of the Contractor's EPP. After receipt of such notice, inform the Contracting Officer of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions will be granted or equitable adjustments allowed for any such suspensions. This is in addition to any other actions the Contracting Officer may take under the contract, or in accordance with the Federal Acquisition Regulation or Federal Law.

1.7 ENVIRONMENTAL PROTECTION PLAN

The purpose of the EPP is to present an overview of known or potential environmental issues that must be considered and addressed during construction. Incorporate construction related objectives and targets from the installation's EMS into the EPP. Include in the EPP measures for protecting natural and cultural resources, required reports, and other measures to be taken. Meet with the Contracting Officer or Contracting Officer Representative to discuss the EPP and develop a mutual understanding relative to the details for environmental protection including measures for protecting natural resources, required reports, and other measures to be taken. Submit the EPP within fifteen (15) days after notice to proceed and not less than ten (10) days before the preconstruction meeting. Revise the EPP throughout the project to include any reporting requirements, changes in site conditions, or contract modifications that change the project scope of work in a way that could have an environmental impact. No requirement in this section will relieve the Contractor of any applicable federal, state, and local environmental protection laws and regulations. During Construction, identify, implement, and submit for approval any additional requirements to be included in the EPP. Maintain the current version onsite.

The EPP includes, but is not limited to, the following elements:

1.7.1 General Overview and Purpose

1.7.1.1 Descriptions

A brief description of each specific plan required by environmental permit or elsewhere in this Contract such as stormwater pollution prevention plan, spill control plan, solid waste management plan, wastewater management plan, air pollution control plan, contaminant prevention plan, pesticide treatment plan, traffic control plan, Hazardous, Toxic and Radioactive Waste (HTRW) Plan, Non-Hazardous Solid Waste Disposal Plan,.

1.7.1.2 Duties

The duties and level of authority assigned to the person(s) on the job site who oversee environmental compliance, such as who is responsible for adherence to the EPP, who is responsible for spill cleanup and training personnel on spill response procedures, who is responsible for manifesting hazardous waste to be removed from the site (if applicable), and who is responsible for training the Contractor's environmental protection personnel.

1.7.1.3 Procedures

A copy of any standard or project-specific operating procedures that will be used to effectively manage and protect the environment on the project site.

1.7.1.4 Communications

Communication and training procedures that will be used to convey environmental management requirements to Contractor employees and subcontractors.

1.7.1.5 Contact Information

Emergency contact information contact information (office phone number, cell phone number, and e-mail address).

1.7.2 General Site Information

1.7.2.1 Drawings

Drawings showing locations of proposed temporary excavations or embankments for haul roads, stream crossings, jurisdictional wetlands, material storage areas, structures, sanitary facilities, storm drains and conveyances, and stockpiles of excess soil.

1.7.2.2 Work Area

Work area plan showing the proposed activity in each portion of the area and identify the areas of limited use or nonuse. Include measures for marking the limits of use areas, including methods for protection of features to be preserved within authorized work areas and methods to control runoff and to contain materials on site, and a traffic control plan.

1.7.2.3 Documentation

A letter signed by an officer of the firm appointing the Environmental

Manager and stating that person is responsible for managing and implementing the Environmental Program as described in this contract. Include in this letter the Environmental Manager's authority to direct the removal and replacement of non-conforming work. Per LRL Section 01 45 04.10 06, Contractor Quality Control and more specifically paragraph Construction Quality Control Organization, the Environmental Manager shall be included as part of the CQC organization.

1.7.3 Not Used

1.7.4 Not Used

1.7.5 Stormwater Management and Control

a. Ground cover

b. Erodible soils

c. Temporary measures

(1) Structural Practices

(2) Temporary and permanent stabilization

d. Effective selection, implementation and maintenance of Best Management Practices (BMPs).

1.7.6 Protection of the Environment from Waste Derived from Contractor Operations

Control and disposal of solid and sanitary waste. Control and disposal of hazardous waste.

If the project is located on a military installation, management procedures for hazardous waste to be generated shall be followed. The elements of those procedures will coincide with the Installation Hazardous Waste Management Plan. The Contracting Officer will provide a copy of the Installation Hazardous Waste Management Plan. For all projects, as a minimum, include the following:

a. List of the types of hazardous wastes expected to be generated

b. Procedures to ensure a written waste determination is made for appropriate wastes that are to be generated

c. Sampling/analysis plan, including laboratory method(s) that will be used for waste determinations and copies of relevant laboratory certifications

d. Methods and proposed locations for hazardous waste accumulation/storage (that is, in tanks or containers)

e. Management procedures for storage, labeling, transportation, and disposal of waste (treatment of waste is not allowed unless specifically noted)

f. Management procedures and regulatory documentation ensuring disposal of hazardous waste complies with Land Disposal Restrictions (40 CFR 268)

g. Management procedures for recyclable hazardous materials such as lead-acid batteries, used oil, and similar

h. Used oil management procedures in accordance with 40 CFR 279; Hazardous waste minimization procedures

i. Plans for the disposal of hazardous waste by permitted facilities; and Procedures to be employed to ensure required employee training records are maintained.

1.7.7 Prevention of Releases to the Environment

Procedures to prevent releases to the environment

Notifications in the event of a release to the environment

1.7.8 Regulatory Notification and Permits

List what notifications and permit applications must be made. Some permits require up to 180 days to obtain. Demonstrate that those permits have been obtained or applied for by including copies of applicable environmental permits. The EPP will not be approved until the permits have been obtained.

1.7.9 Clean Air Act Compliance

1.7.9.1 Haul Route

Submit truck and material haul routes along with a Dirt and Dust Control Plan for controlling dirt, debris, and dust on Installation roadways. As a minimum, identify in the plan the subcontractor and equipment for cleaning along the haul route and measures to reduce dirt, dust, and debris from roadways.

1.7.9.2 Pollution Generating Equipment

Identify air pollution generating equipment or processes that may require federal, state, or local permits under the Clean Air Act. Determine requirements based on any current installation permits and the impacts of the project. Provide a list of all fixed or mobile equipment, machinery or operations that could generate air emissions during the project to the Installation Environmental Office (Air Program Manager).

1.7.9.3 Stationary Internal Combustion Engines

Identify portable and stationary internal combustion engines that will be supplied, used or serviced. Comply with 40 CFR 60 Subpart IIII, 40 CFR 60 Subpart JJJJ, 40 CFR 63 Subpart ZZZZ, and local regulations as applicable. At minimum, include the make, model, serial number, manufacture date, size (engine brake horsepower), and EPA emission certification status of each engine. Maintain applicable records and log hours of operation and fuel use. Logs must include reasons for operation and delineate between emergency and non-emergency operation.

1.7.9.4 Refrigerants

Identify management practices to ensure that heating, ventilation, and air conditioning (HVAC) work involving refrigerants complies with 40 CFR 82

requirements. Technicians must be certified, maintain copies of certification on site, use certified equipment and log work that requires the addition or removal of refrigerant. Any refrigerant reclaimed is the property of the Government, coordinate with the Installation Environmental Office to determine the appropriate turn in location.

1.7.9.5 Air Pollution-engineering Processes

Identify planned air pollution-generating processes and management control measures (including, but not limited to, spray painting, abrasive blasting, demolition, material handling, fugitive dust, and fugitive emissions). Log hours of operations and track quantities of materials used.

1.7.9.6 Monitoring

For the protection of public health, monitor and control contaminant emissions to the air from Hazardous, Toxic, and Radioactive Waste remedial action area sources to minimize short-term risks that might be posed to the community during implementation of the remedial alternative in accordance with the following.

a. Perimeter Air Contaminant of Concern

b. Time Averaged Perimeter Action Levels

Concentration

Time

c. Perimeter Sampling/Monitoring Location(s)

d. Monitoring Instruments/Sampling and Analysis Methods

e. Staffing

1.7.9.7 Compliant Materials

Provide the Government a list of and SDSs for all hazardous materials proposed for use on site. Materials must be compliant with all Clean Air Act regulations for emissions including solvent and volatile organic compound contents, and applicable National Emission Standards for Hazardous Air Pollutants requirements. The Government may alter or limit use of specific materials as needed to meet installation permit requirements for emissions.

1.8 LICENSES AND PERMITS

Obtain licenses and permits required for the construction of the project and in accordance with FAR 52.236-7 - Permits and Responsibilities. Notify the Government of all general use permitted equipment the Contractor plans to use on site. This paragraph supplements the Contractor's responsibility under FAR 52.236-7 - Permits and Responsibilities. Part 4 of this Section provides a list of typical preconstruction permits.

1.9 ENVIRONMENTAL RECORDS BINDER

Maintain on-site a separate three-ring Environmental Records Binder and submit at the completion of the project. Make separate parts within the binder that correspond to each submittal listed under paragraph CLOSEOUT SUBMITTALS in this section.

1.10 PESTICIDE DELIVERY, STORAGE, AND HANDLING

1.10.1 Delivery and Storage

Deliver pesticides to the site in the original, unopened containers bearing legible labels indicating the EPA registration number and the manufacturer's registered uses. Store pesticides according to manufacturer's instructions and under lock and key when unattended.

1.10.2 Handling Requirements

Formulate, treat with, and dispose of pesticides and associated containers in accordance with label directions and use the clothing and personal protective equipment specified on the labeling for use during each phases of the application. Furnish SDSs for pesticide products.

1.11 SOLID WASTE MANAGEMENT PERMIT

Provide the Contracting Officer with written notification of the quantity of anticipated solid waste or debris that is anticipated or estimated to be generated by construction. Include in the report the locations where various types of waste will be disposed or recycled. Include letters of acceptance from the receiving location or as applicable; submit one copy of the receiving location state and local Solid Waste Management Permit or license showing such agency's approval of the disposal plan before transporting wastes off Government property.

1.11.1 Solid Waste Management Report

Monthly, submit a solid waste disposal report to the Contracting Officer. For each waste, the report will state the classification (using the definitions provided in this section), amount, location, and name of the business receiving the solid waste.

1.12 NOT USED

1.13 NOT USED

1.14 FACILITY HAZARDOUS WASTE GENERATOR STATUS

Fort Campbell is designated as a Large Quantity Generator. Meet the regulatory requirements of this generator designation for any work conducted within the boundaries of this Installation. Comply with provisions of federal, state, and local regulatory requirements applicable to this generator status regarding training and storage, handling, and disposal of construction derived wastes.

1.15 SUBCONTRACTORS

Ensure compliance with this section by subcontractors.

1.16 PAYMENT

No separate payment will be made for work covered under this section. Payment of fees associated with environmental permits, application, and/or notices obtained by the Contractor, and payment of all fines/fees for violation or non-compliance with Federal, State, Regional and local laws and regulations are the Contractor's responsibility. All costs associated with this section must be included in the contract price.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 PROTECTION OF NATURAL RESOURCES

Minimize interference with, disturbance to, and damage to fish, wildlife, and plants, including their habitats. Prior to the commencement of activities, consult with the Installation Environmental Office, regarding rare species or sensitive habitats that need to be protected. The protection of rare, threatened, and endangered animal and plant species identified, including their habitats, is the Contractor's responsibility.

Preserve the natural resources within the project boundaries and outside the limits of permanent work. Restore to an equivalent or improved condition upon completion of work that is consistent with the requirements of the Installation Environmental Office or as otherwise specified. Confine construction activities to within the limits of the work indicated or specified.

3.1.1 Not Used

3.1.2 Not Used

3.1.3 Not Used

3.2 STORMWATER

Do not discharge stormwater from construction sites to the sanitary sewer. If the water is noted or suspected of being contaminated, it may only be released to the storm drain system if the discharge is specifically permitted. Obtain authorization in advance from the Installation Environmental Office for any release of contaminated water.

3.2.1 Stormwater Pollution Prevention Plan (SWPPP)

In accordance with the National Pollutant Discharge Elimination System (NPDES) Permit, a Storm Water Pollution Prevention Plan (PPP) is required for this project. This plan shall be developed by the Contractor as part of the design process and must meet the erosion and sediment control requirements for the State of Kentucky. The Plan must identify the controls that will be used and include design, inspection, and maintenance information. A site plan with the existing and proposed grading shall be included, showing the controls being utilized. The permanent stabilization practices (permanent seeding, mulching, sodding, plants, erosion control blanket, riprap, etc.) shall be shown on the final grading plan, with temporary controls (temporary gravel construction entrance/exit, silt fences, straw bales, temporary diversions, sediment

basins or traps, etc.) shown on the existing grading plan. Use of straw bales alone is not considered an effective method of sediment control. Prior to the start of construction, the Contractor shall submit the SWPPP to the Contracting Officer for review and acceptance. The SWPPP must address compliance with all State laws regarding historic preservation and endangered species with State Letters attached. Along with the SWPPP submittal, the Contractor shall provide a check made payable to the applicable agencies for all costs of the NPDES permit application. Once the SWPPP is approved by the Contracting Officer, the NOI will be prepared by the Corps of Engineers, utilizing information contained in the approved SWPPP. A Notice of Intent (NOI) will be forwarded to the State and applicable agencies by the Corps of Engineers. Commencement/start of construction (ground disturbing activity) by the Contractor CANNOT start prior to the NPDES Permit and the letter of compliance being received. A copy of both the SWPPP and NPDES Permit must be kept at the construction site. Any changes made to the plan must be documented and approved by the Contracting Officer. Note, the SWPPP is a part of the total Pollution Prevention Plan that the Contractor is responsible for preparing.

Contractor shall submit to the State and/or applicable agencies a Notice of Termination (NOT) when the construction activities for the project have been completed, and when the contractor no longer has any storm water discharges associated with the construction activity, or when the contractor is no longer the operator of the facilities. Elimination of all storm water discharges associated with the construction activities occurs when disturbed soils at the construction site have been finally stabilized and temporary erosion and sediment control measures have been removed. Final stabilization means that all soil-disturbing activities at the site have been completed, and that, where applicable, a uniform perennial vegetative cover with a density of 70% of the cover for unpaved areas and areas not covered by permanent structures has been established, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed. The 70% density of cover for unpaved areas shall be considered the minimum acceptable cover for the completed project area. Other States and/or applicable agencies may have a more restrictive percentage of cover required and if so, the Contractor shall be required to adhere to those requirements for release or acceptance of the permit(s) in those project locations. The NOT submittal and any subsequent approval or correspondences received from the State or applicable agencies shall be submitted by the Contractor to the Contracting Officer's Representative.

3.2.2 Construction General Permit Requirements

3.2.2.1 General

Under the terms and conditions of the permit, install, inspect, maintain BMPs, prepare stormwater erosion and sediment control inspection reports, and submit SWPPP inspection reports. Maintain construction operations and management in compliance with the terms and conditions of the general permit for stormwater discharges from construction activities.

3.2.2.2 Inspection Reports

Submit "Inspection Reports" to the Contracting Officer in accordance with EPA and the State of KentuckyConstruction General Permit.

3.2.2.3 Stormwater Pollution Prevention Plan Compliance Notebook

Create and maintain a three ring binder of documents that demonstrate compliance with the Construction General Permit. Include a copy of the permit Notice of Intent, proof of permit fee payment, SWPPP and SWPPP update amendments, inspection reports and related corrective action records, copies of correspondence with the EPA and the State Permitting Agency, and a copy of the permit Notice of Termination in the binder. At project completion, the notebook becomes property of the Government. Provide the compliance notebook to the Contracting Officer.

3.2.2.4 Stormwater Notice of Termination for Construction Activities

Submit a Notice of Termination to the Contracting Officer for approval once construction is complete and final stabilization has been achieved on all portions of the site for which the permittee is responsible. Once approved, submit the Notice of Termination to the appropriate state or federal agency.

3.2.3 Erosion and Sediment Control Measures

Provide erosion and sediment control measures in accordance with state and local laws and regulations. Preserve vegetation to the maximum extent practicable.

Erosion control inspection reports may be compiled as part of a stormwater pollution prevention plan inspection reports.

3.2.3.1 Not Used

3.2.3.2 Sediment Control Practices

Implement sediment control practices to divert flows from exposed soils, temporarily store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Implement sediment control practices prior to soil disturbance and prior to creating areas with concentrated flow, during the construction process to minimize erosion and sediment laden runoff.

3.2.4 Work Area Limits

Mark the areas that need not be disturbed under this Contract prior to commencing construction activities. Mark or fence isolated areas within the general work area that are not to be disturbed. Protect monuments and markers before construction operations commence. Where construction operations are to be conducted during darkness, any markers must be visible in the dark. Personnel must be knowledgeable of the purpose for marking and protecting particular objects.

3.2.5 Contractor Facilities and Work Areas

Place field offices, staging areas, stockpile storage, and temporary buildings in areas designated on the drawings or as directed by the Contracting Officer. Move or relocate the Contractor facilities only when approved by the Government. Provide erosion and sediment controls for onsite borrow and spoil areas to prevent sediment from entering nearby waters. Control temporary excavation and embankments for plant or work areas to protect adjacent areas.

3.2.6 Municipal Separate Storm Sewer System (MS4) Management

Comply with the Installation's MS4 permit requirements.

3.3 SURFACE AND GROUNDWATER

3.3.1 Not Used

3.3.2 Waters of the United States

Do not enter, disturb, destroy, or allow discharge of contaminants into waters of the United States.

3.4 PROTECTION OF CULTURAL RESOURCES

3.4.1 Not Used

3.4.2 Not Used

3.5 AIR RESOURCES

Equipment operation, activities, or processes will be in accordance with 40 CFR 64 and state air emission and performance laws and standards.

3.5.1 Preconstruction Air Permits

Notify the Air Program Manager, through the Contracting Officer, at least 6 months prior to bringing equipment, assembled or unassembled, onto the Installation, so that air permits can be secured. Necessary permitting time must be considered in regard to construction activities. Clean Air Act (CAA) permits must be obtained prior to bringing equipment, assembled or unassembled, onto the Installation.

3.5.2 Oil or Dual-fuel Boilers and Furnaces

Provide product data and details for new, replacement, or relocated fuel fired boilers, heaters, or furnaces to the Installation Environmental Office (Air Program Manager) through the Contracting Officer. Data to be reported include: equipment purpose (water heater, building heat, process), manufacturer, model number, serial number, fuel type (oil type, gas type) size (MMBTU heat input). Provide in accordance with paragraph PRECONSTRUCTION AIR PERMITS.

3.5.3 Burning

Burning is prohibited on the Government premises.

3.5.4 Class I and II ODS Prohibition

Class I and II ODS are Government property and must be returned to the Government for appropriate management. Coordinate with the Installation Environmental Office to determine the appropriate location for turn in of all reclaimed refrigerant.

3.5.5 Accidental Venting of Refrigerant

Accidental venting of a refrigerant is a release and must be reported immediately to the Contracting Officer.

3.5.6 EPA Certification Requirements

Heating and air conditioning technicians must be certified through an EPA-approved program. Maintain copies of certifications at the employees' places of business; technicians must carry certification wallet cards, as provided by environmental law.

3.5.7 Dust Control

Keep dust down at all times, including during nonworking periods. Sprinkle or treat, with dust suppressants, the soil at the site, haul roads, and other areas disturbed by operations. Dry power brooming will not be permitted. Instead, use vacuuming, wet mopping, wet sweeping, or wet power brooming. Air blowing will be permitted only for cleaning nonparticulate debris such as steel reinforcing bars. Only wet cutting will be permitted for cutting concrete blocks, concrete, and bituminous concrete. Do not unnecessarily shake bags of cement, concrete mortar, or plaster.

3.5.7.1 Particulates

Dust particles, aerosols and gaseous by-products from construction activities, and processing and preparation of materials (such as from asphaltic batch plants) must be controlled at all times, including weekends, holidays, and hours when work is not in progress. Maintain excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and other work areas within or outside the project boundaries free from particulates that would exceed 40 CFR 50, state, and local air pollution standards or that would cause a hazard or a nuisance. Sprinkling, chemical treatment of an approved type, baghouse, scrubbers, electrostatic precipitators, or other methods will be permitted to control particulates in the work area. Sprinkling, to be efficient, must be repeated to keep the disturbed area damp. Provide sufficient, competent equipment available to accomplish these tasks. Perform particulate control as the work proceeds and whenever a particulate nuisance or hazard occurs. Comply with state and local visibility regulations.

3.5.7.2 Abrasive Blasting

Blasting operations cannot be performed without prior approval of the Installation Air Program Manager. The use of silica sand is prohibited in sandblasting.

Provide tarpaulin drop cloths and windscreens to enclose abrasive blasting operations to confine and collect dust, abrasive agent, paint chips, and other debris.Perform work involving removal of hazardous material in accordance with 29 CFR 1910.

3.5.8 Odors

Control odors from construction activities. The odors must be in compliance with state regulations and local ordinances and may not constitute a health hazard.

3.6 WASTE MINIMIZATION

Minimize the use of hazardous materials and the generation of waste. Include procedures for pollution prevention/ hazardous waste minimization

in the Hazardous Waste Management Section of the EPP. Obtain a copy of the installation's Pollution Prevention/Hazardous Waste Minimization Plan for reference material when preparing this part of the EPP. If no written plan exists, obtain information by contacting the Contracting Officer. Describe the anticipated types of the hazardous materials to be used in the construction when requesting information.

3.6.1 Salvage, Reuse and Recycle

Identify anticipated materials and waste for salvage, reuse, and recycling. Describe actions to promote material reuse, resale or recycling. To the extent practicable, all scrap metal must be sent for reuse or recycling and will not be disposed of in a landfill.

Include the name, physical address, and telephone number of the hauler, if transported by a franchised solid waste hauler. Include the destination and, unless exempted, provide a copy of the state or local permit (cover) or license for recycling.

3.6.2 Nonhazardous Solid Waste Diversion Report

Maintain an inventory of nonhazardous solid waste diversion and disposal of construction and demolition debris. Submit a report to the Contracting Officer on the first working day after each fiscal year quarter, starting the first quarter that nonhazardous solid waste has been generated. Include the following in the report:

Construction and Demolition (C&D) Debris Disposed	_____ cubic yards,tons, cubic meters as appropriate
C&D Debris Recycled	_____ cubic yards, tons, cubic meters as appropriate
Total C&D Debris Generated	_____ cubic yards, tons, cubic meters as appropriate
Waste Sent to Waste-To-Energy Incineration Plant (This amount should not be included in the recycled amount)	_____ cubic yards, tons, cubic meters as appropriate

3.7 WASTE MANAGEMENT AND DISPOSAL

3.7.1 Waste Determination Documentation

Complete a Waste Determination form (provided at the pre-construction conference) for Contractor-derived wastes to be generated. All potentially hazardous solid waste streams that are not subject to a specific exclusion or exemption from the hazardous waste regulations (e.g. scrap metal, domestic sewage) or subject to special rules, (lead-acid batteries and precious metals) must be characterized in accordance with the requirements of 40 CFR 261 or corresponding applicable state or local regulations. Base waste determination on user knowledge of the processes and materials used, and analytical data when necessary. Consult with the Installation environmental staff for guidance on specific requirements. Attach support documentation to the Waste Determination form. As a

minimum, provide a Waste Determination form for the following waste (this listing is not inclusive): oil- and latex -based painting and caulking products, solvents, adhesives, aerosols, petroleum products, and containers of the original materials.

3.7.1.1 Sampling and Analysis of Waste

3.7.1.1.1 Waste Sampling

Sample waste in accordance with EPA SW-846. Clearly mark each sampled drum or container with the Contractor's identification number, and cross reference to the chemical analysis performed.

3.7.1.1.2 Laboratory Analysis

Follow the analytical procedure and methods in accordance with the 40 CFR 261. Provide analytical results and reports performed to the Contracting Officer.

3.7.1.1.3 Not Used

3.7.2 Solid Waste Management

3.7.2.1 Solid Waste Management Report

Provide copies of the waste handling facilities' weight tickets, receipts, bills of sale, and other sales documentation. In lieu of sales documentation, a statement indicating the disposal location for the solid waste that is signed by an employee authorized to legally obligate or bind the firm may be submitted. The sales documentation Contractor certification must include the receiver's tax identification number and business, EPA or state registration number, along with the receiver's delivery and business addresses and telephone numbers. For each solid waste retained for the Contractor's own use, submit the information previously described in this paragraph on the solid waste disposal report. Prices paid or received do not have to be reported to the Contracting Officer unless required by other provisions or specifications of this Contract or public law.

3.7.2.2 Control and Management of Solid Wastes

Pick up solid wastes, and place in covered containers that are regularly emptied. Do not prepare or cook food on the project site. Prevent contamination of the site or other areas when handling and disposing of wastes. At project completion, leave the areas clean. Employ segregation measures so that no hazardous or toxic waste will become co-mingled with non-hazardous solid waste. Haul waste materials to the landfill site designated by the Contracting Officer. Comply with site procedures. Solid waste disposal offsite must comply with most stringent local, state, and federal requirements, including 40 CFR 241, 40 CFR 243, and 40 CFR 258.

Manage hazardous material used in construction, including but not limited to, aerosol cans, waste paint, cleaning solvents, contaminated brushes, and used rags, in accordance with 49 CFR 173.

3.7.3 Chemicals and Chemical Wastes

Dispense chemicals ensuring no spillage to the ground or water. Perform and document periodic inspections of dispensing areas to identify leakage

and initiate corrective action. This documentation will be periodically reviewed by the Government. Collect chemical waste in corrosion resistant, compatible containers. Collection drums must be monitored and removed to a staging or storage area when contents are within 150 mm(6 inches) of the top. Wastes will be classified, managed, stored, and disposed of in accordance with Federal, State, and local laws and regulations.

3.7.4 Control and Management of Hazardous Waste

Do not dispose of hazardous waste on Government property. Do not discharge any waste to a sanitary sewer, storm drain, or to surface waters or conduct waste treatment or disposal on Government property without written approval of the Contracting Officer.

3.7.4.1 Hazardous Waste/Debris Management

Identify construction activities that will generate hazardous waste or debris. Provide a documented waste determination for resultant waste streams. Identify, label, handle, store, and dispose of hazardous waste or debris in accordance with federal, state, and local regulations, including 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, 40 CFR 265, 40 CFR 266, and 40 CFR 268.

Manage hazardous waste in accordance with the approved Hazardous Waste Management Section of the EPP. Store hazardous wastes in approved containers in accordance with 49 CFR 173 and 49 CFR 178. Hazardous waste generated within the confines of Government facilities is identified as being generated by the Government. Prior to removal of any hazardous waste from Government property, hazardous waste manifests must be signed by personnel from the Installation Environmental Office. Do not bring hazardous waste onto Government property. Provide the Contracting Officer with a copy of waste determination documentation for any solid waste streams that have any potential to be hazardous waste or contain any chemical constituents listed in 40 CFR 372-SUBPART D.

3.7.4.2 Waste Storage/Satellite Accumulation/90 Day Storage Areas

Accumulate hazardous waste at satellite accumulation points and in compliance with 40 CFR 262.34 and applicable state or local regulations. Individual waste streams will be limited to 55 gallons of accumulation (or 1 quart for acutely hazardous wastes). If the Contractor expects to generate hazardous waste at a rate and quantity that makes satellite accumulation impractical, the Contractor may request a temporary 90 day accumulation point be established. Submit a request in writing to the Contracting Officer and provide the following information (Attach Site Plan to the Request):

Contract Number	_____
Contractor	_____
Haz/Waste or Regulated Waste POC	_____
Phone Number	_____
Type of Waste	_____
Source of Waste	_____
Emergency POC	_____
Phone Number	_____

Contract Number	_____
Location of the Site	_____

Attach a Waste Determination form for the expected waste streams. Allow ten (10) working days for processing this request. Additional compliance requirements (e.g. training and contingency planning) that may be required are the responsibility of the Contractor. Barricade the designated area where waste is being stored and post a sign identifying as follows:

"DANGER - UNAUTHORIZED PERSONNEL KEEP OUT"

3.7.4.3 Hazardous Waste Disposal

3.7.4.3.1 Responsibilities for Contractor's Disposal

Provide hazardous waste manifest to the Installations Environmental Office for review, approval, and signature prior to shipping waste off Government property.

3.7.4.3.1.1 Services

Provide service necessary for the final treatment or disposal of the hazardous material or waste in accordance with 40 CFR 260, local, and state, laws and regulations, and the terms and conditions of the Contract within sixty (60) days after the materials have been generated. These services include necessary personnel, labor, transportation, packaging, detailed analysis (if required for disposal or transportation, include manifesting or complete waste profile sheets, equipment, and compile documentation).

3.7.4.3.1.2 Samples

Obtain a representative sample of the material generated for each job done to provide waste stream determination.

3.7.4.3.1.3 Analysis

Analyze each sample taken and provide analytical results to the Contracting Officer. See paragraph WASTE DETERMINATION DOCUMENTATION.

3.7.4.3.1.4 Labeling

Determine the Department of Transportation's (DOT's) proper shipping names for waste (each container requiring disposal) and demonstrate to the Contracting Officer how this determination is developed and supported by the sampling and analysis requirements contained herein. Label all containers of hazardous waste with the words "Hazardous Waste" or other words to describe the contents of the container in accordance with 40 CFR 262.31 and applicable state or local regulations.

3.7.4.3.2 Not Used

3.7.4.4 Universal Waste Management

Manage the following categories of universal waste in accordance with federal, state, and local requirements and installation instructions:

a. Batteries as described in 40 CFR 273.2

b. Lamps as described in 40 CFR 273.5

c. Mercury-containing equipment as described in 40 CFR 273.4

d. Pesticides as described in 40 CFR 273.3

Mercury is prohibited in the construction of this facility, unless specified otherwise, and with the exception of mercury vapor lamps and fluorescent lamps. Dumping of mercury-containing materials and devices such as mercury vapor lamps, fluorescent lamps, and mercury switches, in rubbish containers is prohibited. Remove without breaking, pack to prevent breakage, and transport out of the activity in an unbroken condition for disposal as directed.

3.7.4.5 Electronics End-of-Life Management

Recycle or dispose of electronics waste, including, but not limited to, used electronic devices such computers, monitors, hard-copy devices, televisions, mobile devices, in accordance with 40 CFR 260-262, state, and local requirements, and installation instructions.

3.7.4.6 Disposal Documentation for Hazardous and Regulated Waste

Contact the Contracting Officer for the facility RCRA identification number that is to be used on each manifest.

3.7.5 Releases/Spills of Oil and Hazardous Substances

3.7.5.1 Response and Notifications

Exercise due diligence to prevent, contain, and respond to spills of hazardous material, hazardous substances, hazardous waste, sewage, regulated gas, petroleum, lubrication oil, and other substances regulated in accordance with 40 CFR 300. Maintain spill cleanup equipment and materials at the work site. In the event of a spill, take prompt, effective action to stop, contain, curtail, or otherwise limit the amount, duration, and severity of the spill/release. In the event of any releases of oil and hazardous substances, chemicals, or gases; immediately (within 15 minutes) notify the Installation Fire Department, the Installation Command Duty Officer, the Installation Environmental Office, the Contracting Officer and the state or local authority.

Submit verbal and written notifications as required by the federal (40 CFR 300.125 and 40 CFR 355), state, local regulations and instructions. Provide copies of the written notification and documentation that a verbal notification was made within tewnty (20) days. Spill response must be in accordance with 40 CFR 300 and applicable state and local regulations. Contain and clean up these spills without cost to the Government.

3.7.5.2 Clean Up

Clean up hazardous and non-hazardous waste spills. Reimburse the Government for costs incurred including sample analysis materials, clothing, equipment, and labor if the Government will initiate its own spill cleanup procedures, for Contractor- responsible spills, when: Spill cleanup procedures have not begun within one hour of spill

discovery/occurrence; or, in the Government's judgment, spill cleanup is inadequate and the spill remains a threat to human health or the environment.

3.7.6 Mercury Materials

Immediately report to the Environmental Office and the Contracting Officer instances of breakage or mercury spillage. Clean mercury spill area to the satisfaction of the Contracting Officer.

Do not recycle a mercury spill cleanup; manage it as a hazardous waste for disposal.

3.7.7 Wastewater

3.7.7.1 Disposal of wastewater must be as specified below.

3.7.7.1.1 Treatment

Do not allow wastewater from construction activities, such as onsite material processing, concrete curing, foundation and concrete clean-up, water used in concrete trucks, and forms to enter water ways or to be discharged prior to being treated to remove pollutants. Dispose of the construction- related waste water in accordance with 40 CFR 403, state, regional, and local laws and regulations.

3.7.7.1.2 Surface Discharge

Surface discharge in accordance with federal, state, and local laws and regulations.

3.7.7.1.3 Not Used

3.8 HAZARDOUS MATERIAL MANAGEMENT

Include hazardous material control procedures in the Safety Plan, in accordance with LRL Section 01 35 26.00 06 GOVERNMENTAL SAFETY REQUIREMENTS. Address procedures and proper handling of hazardous materials, including the appropriate transportation requirements. Do not bring hazardous material onto Government property that does not directly relate to requirements for the performance of this contract. Submit an SDS and estimated quantities to be used for each hazardous material to the Contracting Officer prior to bringing the material on the installation. Typical materials requiring SDS and quantity reporting include, but are not limited to, oil and latex based painting and caulking products, solvents, adhesives, aerosol, and petroleum products. Use hazardous materials in a manner that minimizes the amount of hazardous waste generated. Containers of hazardous materials must have National Fire Protection Association labels or their equivalent. Certify that hazardous materials removed from the site are hazardous materials and do not meet the definition of hazardous waste, in accordance with 40 CFR 261.

3.9 PREVIOUSLY USED EQUIPMENT

Clean previously used construction equipment prior to bringing it onto the project site. Equipment must be free from soil residuals, egg deposits from plant pests, noxious weeds, and plant seeds. Consult with the U.S. Department of Agriculture jurisdictional office for additional cleaning requirements.

3.10 CONTROL AND MANAGEMENT OF ASBESTOS-CONTAINING MATERIAL (ACM)

Manage and dispose of asbestos containing waste in accordance with 40 CFR 61and UFGS Section 08 82 00 ASBESTOS REMEDIATION. Manifest asbestos containing waste and provide the manifest to the Contracting Officer. Notifications to the state and Installation Air Program Manager are required before starting any asbestos work.

3.11 CONTROL AND MANAGEMENT OF LEAD-BASED PAINT (LBP)

Manage and dispose of lead-contaminated waste in accordance with 40 CFR 745 and UFGS Section 02 83 00 LEAD REMEDIATION. Manifest any lead-contaminated waste and provide the manifest to the Contracting Officer. For the purposes of this contract, all painted surfaces are assumed to contain lead and as such must be handled in accordance with 29 CFR 1926.62.

3.12 CONTROL AND MANAGEMENT OF POLYCHLORINATED BIPHENYLS (PCBS)

Manage and dispose of PCB-contaminated waste in accordance with 40 CFR 761 and UFGS Section 02 84 33 REMOVAL AND DISPOSAL OF POLYCHLORINATED BIPHENYLS (PCBS).

3.13 CONTROL AND MANAGEMENT OF LIGHTING BALLAST AND LAMPS CONTAINING PCBS

Manage and dispose of contaminated waste in accordance with 40 CFR 761.

3.14 MILITARY MUNITIONS

In the event military munitions, as defined in 40 CFR 260, are discovered or uncovered, immediately stop work in that area and immediately inform the Contracting Officer.

A. Recognize- recognize the hazard and do not touch, disturb, or move the item as it could detonate with movement of ground vibrations.

B. Retreat - stop work, mark the general location, and have everyone retreat from the area.

C. Report - report the situation immediately to the appropriate local emergency authority) i.e. call 911 or the equivalent on DOD Installations), providing as much information as possible about the items encountered. USACE Safety Office. And installation staff as appropriate.

3.15 PETROLEUM, OIL, LUBRICANT (POL) STORAGE AND FUELING

POL products include flammable or combustible liquids, such as gasoline, diesel, lubricating oil, used engine oil, hydraulic oil, mineral oil, and cooking oil. Store POL products and fuel equipment and motor vehicles in a manner that affords the maximum protection against spills into the environment. Manage and store POL products in accordance with EPA 40 CFR 112, and other federal, state, regional, and local laws and regulations. Use secondary containments, dikes, curbs, and other barriers, to prevent POL products from spilling and entering the ground, storm or sewer drains, stormwater ditches or canals, or navigable waters of the United States. Describe in the EPP (see paragraph ENVIRONMENTAL

PROTECTION PLAN) how POL tanks and containers must be stored, managed, and inspected and what protections must be provided. Storage of oil, including fuel, on the project site is not allowed. Fuel must be brought to the project site each day that work is performed.

3.15.1 Used Oil Management

Manage used oil generated on site in accordance with 40 CFR 279. Determine if any used oil generated while onsite exhibits a characteristic of hazardous waste. Used oil containing 1,000 parts per million of solvents is considered a hazardous waste and disposed of at the Contractor's expense. Used oil mixed with a hazardous waste is also considered a hazardous waste. Dispose in accordance with paragraph HAZARDOUS WASTE DISPOSAL.

3.15.2 Oil Storage Including Fuel Tanks

Provide secondary containment and overfill protection for oil storage tanks. A berm used to provide secondary containment must be of sufficient size and strength to contain the contents of the tanks plus 5 inches freeboard for precipitation. Construct the berm to be impervious to oil for 72 hours that no discharge will permeate, drain, infiltrate, or otherwise escape before cleanup occurs. Use drip pans during oil transfer operations; adequate absorbent material must be onsite to clean up any spills and prevent releases to the environment. Cover tanks and drip pans during inclement weather. Provide procedures and equipment to prevent overfilling of tanks. If tanks and containers with an aggregate aboveground capacity greater than 1320 gallons will be used onsite (only containers with a capacity of 55 gallons or greater are counted), provide and implement a SPCC plan meeting the requirements of 40 CFR 112. Do not bring underground storage tanks to the installation for Contractor use during a project. Submit the SPCC plan to the Contracting Officer for approval.

Monitor and remove any rainwater that accumulates in open containment dikes or berms. Inspect the accumulated rainwater prior to draining from a containment dike to the environment, to determine there is no oil sheen present.

3.16 INADVERTENT DISCOVERY OF PETROLEUM-CONTAMINATED SOIL OR HAZARDOUS WASTES

If petroleum-contaminated soil, or suspected hazardous waste is found during construction that was not identified in the Contract documents, immediately notify the Contracting Officer. Do not disturb this material until authorized by the Contracting Officer.

3.17 PEST MANAGEMENT

In order to minimize impacts to existing fauna and flora, coordinate with the Installation Pest Management Coordinator (IPMC) or Project Pesticide Coordinator (PPC), through the Contracting Officer, at the earliest possible time prior to pesticide application. Discuss integrated pest management strategies with the IPMC orPPC and receive concurrence from the IPMC orPPC through the Contracting Officer prior to the application of any pesticide associated with these specifications. Provide Installation Project Office Pest Management personnel the opportunity to be present at meetings concerning treatment measures for pest or disease control and during application of the pesticide. The use and management of pesticides

are regulated under 40 CFR 152 - 186. The Contractor shall submit, in writing, to the Contracting Officer, a Notice of Soil Treatment, seven (7) days before the required soil treatment agents are applied, to assure that DOD Certified Pest Control Personnel are present during soil treatment applications. All soil treatment applications must be in the presence of DOD Certified Pest Control personnel.

3.17.1 Pesticide Delivery and Storage

Deliver pesticides to the site in the original, unopened containers bearing legible labels indicating the EPA registration number and the manufacturer's registered uses. Store pesticides according to manufacturer's instructions and under lock and key when unattended.

3.17.2 Pesticide Handling Requirements

Formulate, treat with, and dispose of pesticides and associated containers in accordance with label directions and use the clothing and personal protective equipment specified on the labeling for use during all phases of the application. Furnish Material Safety Data Sheets (MSDS) for all pesticide products.

3.17.3 Qualifications

For the application of pesticides, use the services of a subcontractor whose principal business is pest control. The subcontractor must be licensed and certified in the state where the work is to be performed.

3.17.4 Application

Apply pesticides using a state-certified pesticide applicator in accordance with EPA label restrictions and recommendation. The certified applicator must wear clothing and personal protective equipment as specified on the pesticide label. The Contracting Officer will designate locations for water used in formulating. Do not allow the equipment to overflow. Inspect equipment for leaks, clogging, wear, or damage and repair prior to application of pesticide.

3.17.5 Pesticide Treatment Plan

Include and update a pesticide treatment plan, as information becomes available. Include in the plan the sequence of treatment, dates, times, locations, pesticide trade name, EPA registration numbers, authorized uses, chemical composition, formulation, original and applied concentration, application rates of active ingredient (that is, pounds of active ingredient applied), equipment used for application and calibration of equipment. Comply with 40 CFR 152-189, state, regional, and local pest management record-keeping and reporting requirements as well as any additional Installation Project Office specific requirements in conformance with DA AR 200-1 Chapter 5, Pest Management, Section 5-4 "Program requirements" for data required to be reported to the Installation.

3.18 CHLORDANE

Evaluate excess soils and concrete foundation debris generated during the demolition of housing units or other wooden structures for the presence of chlordane or other pesticides prior to reuse or final disposal.

3.19 SOUND INTRUSION

Make the maximum use of low-noise emission products, as certified by the EPA. Blasting or use of explosives are not permitted without written permission from the Contracting Officer, and then only during the designated times.

Keep construction activities under surveillance and control to minimize environment damage by noise. Comply with the provisions of the State of Kentucky rules.

3.20 RADON MITIGATION SYSTEMS

Passive radon mitigation systems shall be incorporated into the building design of all new inhabited structures. The Contract shall specifically identify if any typically uninhabited structures require passive radon mitigation systems. The design shall include provisions to permit installation of exhaust fans, if necessary, after testing the building under occupied conditions. Criteria for radon mitigation in new construction is specified in EPA 625-R-96-016, (1994, Third Printing with Addenda)"Radon Prevention in Design and Construction of Schools and Other Large Buildings.

3.21 POST CONSTRUCTION CLEANUP

Clean up areas used for construction in accordance with FAR 52.236-12 - Cleaning Up. Unless otherwise instructed in writing by the Contracting Officer, remove traces of temporary construction facilities such as haul roads, work area, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work. Grade parking area and similar temporarily used areas to conform with surrounding contours.

PART 4 ENVIRONMENTAL PERMITS AND COMMITMENTS

4.1 LIST OF PRECONSTRUCTION PERMITS

Obtaining and complying with all environmental permits and commitments required by Federal, State, regional, local, and Installation/Facility environmental laws and regulations are the Contractor's responsibility. Prior to beginning of construction, the Contractor shall, upon review of the project and this specification section, make a list of all permits and construction-related commitments/and requirements required for the duration of the construction phase to be attached to the Environmental Protection Plan, or other similar documentation if an Environmental Protection Plan is not required. The Contractor, in conjunction with the Designer of Record (DOR), shall prepare a List of Preconstruction Permits (LOPP) with construction-related commitments/and requirements. The LOPP shall include, but is not be limited to the following: permit name, the address of the permitting agency, cost of submittal/Permit fee, and the name of the permitee. The LOPP should also include specifics of each permit such as the purpose/reason permit is needed, regulatory requirements, applicability to the project, schedule for obtaining permit, and other information such as authorized or permit restrictions. The LOPP should also list specific commitments (i.e., dust control measures, tree cutting restrictions, erosion control measures) that are not inherent to a specific permit or may apply to multiple permits, or are required for proper construction and compliance.

4.2 ENVIRONMENTAL REGULATIONS AND OTHER DOCUMENTS THAT MAY CONTAIN INFORMATION TO IDENTIFY PRECONSTRUCTION PERMITS AND CONSTRUCTION-RELATED COMMITMENTS

4.2.1 National Environmental Policy Act (NEPA)

The National Environmental Policy Act establishes policies and goals for the protection of the environment. The NEPA process includes systematic examination of possible and probable environmental consequences of implementing a Proposed Action. USACE projects should be in compliance with AR 200-2, Chapter 2 - National Environmental Policy Act and the Decision Process. ER 200-2-2 provides additional guidance on NEPA documentation. It is the responsibility of the Contractor to obtain and review copies of NEPA documentation related to the project prior to beginning of construction. This may include but is not limited to the Record of Environmental Consideration (REC), an Environmental Assessment (EA), a Finding of No Significant Impact (FONSI), an Environmental Impact Statement (EIS), a Life Cycle Environmental Document (LCED), a Record of Decision (ROD), and a Categorical Exclusion (CX). These documents may also contain commitments, such Environmental Impacts and Minimization/Avoidance Measures for the Proposed Action that must be followed and incorporated into the Environmental Protection Plan or other appropriate documentation, and included in the LOPP.

4.2.2 Endangered Species Act

Construction should be completed in compliance with the Endangered Species act of 1973 and Army Regulation AR 200-3, Chapter 11 - Endangered/Threatened Species Guidance. The Endangered Species Act provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they reside. In the case that a proposed construction action could be harmful to a threatened or endangered species or its habitat, the Contractor will be required to review and follow federal, state, regional, and local regulations pertaining to threatened and endangered species. For work taking place on a military installation, the Contractor will be required to obtain and review a copy of any Endangered Species Management Plans (ESMP) or other related commitments from the appropriate base personnel, or State Fish and Wildlife personnel relative to the Installation.

Projects that may affect threatened or endangered species will likely have had a Biological Evaluation and may also have a Biological Assessment completed for the action. The Biological Evaluation and Biological Assessment provides site-specific information regarding potential impacts to federally threatened or endangered species in compliance with Section 7 (a)(2) of the Endangered Species Act. If a Biological Evaluation or a Biological Assessment has been completed for the proposed action, the Contractor should obtain and review it and use it to help develop species specific protection measures to be included in the Environmental Protection Plan.

If a threatened or endangered species is encountered during construction, the Contractor should immediately stop construction in the area and contact the appropriate authorities. Even if endangered species are not located at a construction site, the facility ESMP may have avoidance measures required of any construction at the facility. The Contractor should thoroughly review and follow requirements of the ESMP.

4.2.3 National Historic Preservation Act

The National Historic Preservation Act is intended to protect the nations historic and cultural resources. Section 106 of the National Historic Preservation Act requires any government agency with jurisdiction over an undertaking to take into account its effects on any district, site, building, structure, or object included on or eligible for inclusion on the National Register. Construction should be completed in compliance with the National Historic Preservation Act. It is the responsibility of the Contractor to obtain and review a copy of any pertinent Integrated Cultural Resources Management Plan from the appropriate authorities. If at any time during construction cultural resources are discovered, the Contractor will immediately stop any construction that may damage the newly discovered resource. It is the responsibility of the Contractor to review any additional State, regional, or local regulations and obtain necessary permits.

4.2.4 Clean Water Act

The Clean Water Act is the primary federal law of the United States governing water pollution. The purpose of the Clean Water Act is to eliminate release of high amounts of pollution into waters of the United States.

4.2.4.1 National Pollutant Discharge Elimination System (NPDES)
Section 402 of the Clean Water Act authorizes the National Pollutant Discharge Elimination System (NPDES) permit program. Compliance with NPDES will be required on any construction project with at least one acre of land disturbance. The Government has already acquired the NPDES permit for this construction activity. It is the responsibility of the Contractor to determine if a general permit has been issued covering construction activities. Additionally, the Contractor is to follow the NPDES and Notice of Intent (NOI) requirements throughout the construction duration. In compliance with NPDES, a Storm Water Pollution Prevention Plan (SWPPP) or a Soil Erosion and Sediment Control Plan must be in place and followed for the duration of construction. A Storm Water Best Management Practices (SWBMP) Plan should also be included as part of the Environmental Protection Plan. After construction is finished, a Notice of Termination must be submitted within thirty (30) days after all land disturbing activity is complete.

4.2.4.2 Section 404 Permit for Dredge/Fill Operations

Construction resulting in the discharge of fill or dredge material into wetlands or waters of the United States must be authorized by a permit pursuant to section 404 of the Clean Water Act. It is the responsibility of the Contractor to obtain and review the Federal, State, or Regional general permits pertaining to construction, or to obtain an individual permit if construction activity is not covered by a general permit.

4.2.4.3 Waste Water Discharge Permits

NPDES authorizes permitting requirements for waste water discharge. Any non-exempt facilities that will discharge waste water to the local sanitary sewer system (ex. on-site concrete plant, on-site sewage treatment plant, water treatment plant, equipment wash rack) will require permits in accordance with any Federal, State, regional, and local regulations.

4.2.4.4 Not Used

4.2.5 Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) is the principal Federal law of the United States covering the disposal of solid and hazardous waste. The RCRA also provides regulation on underground storage tanks (USTs). The objectives of the RCRA are to protect human health and the environment from potential hazards of waste disposal, to conserve energy and natural resources, to reduce waste generation, and to ensure wastes are managed in an environmentally sound way. Construction should be completed in compliance with RCRA Part C (hazardous waste) and RCRA Part D non-hazardous solid wastes).

4.2.5.1 Solid Waste Disposal

The Contractor is responsible for including a Solid Waste Minimization Plan and a Contaminant Prevention Plan as part of the Environmental Protection Plan. These plans are to ensure the proper handling of solid waste generated during construction. In general, the Contractor is required to divert a minimum of 60 percent of solid waste generated during construction from landfills, but this amount may vary between Installations. Refer to the UFGS SECTION 01 74 19 CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT for more information regarding solid waste disposal and requirements. It is the responsibility of the Contractor to obtain a Solid Waste Permit or a Beneficial Reuse Permit from the State and local authorities.

4.2.5.2 Hazardous Waste Disposal

Hazardous wastes are as defined in 40 CFR 261. The Contractor is responsible for developing a Spill Control Plan to be included in the Environmental Protection Plan. The Contractor may be required to obtain a Hazardous Waste Generator ID# from the EPA, and additional permitting requirements may have to be met in accordance with State, regional, and local regulations. If during construction any asbestos, lead based paint, Polychlorinated biphenyl, or any other material or substance hazardous to human health is encountered, that portion of work should be stopped immediately, the contracting officer should be contacted, and all necessary precautions to avoid human harm should be taken.

4.2.5.2.1 Asbestos Containing Materials

The contractor will need to perform a thorough survey of the area undergoing renovation in accordance with NESHAPs regulation prior to any renovation/demolition activities. All asbestos containing materials removal, handling, transport and disposal will be handled as part of the contract. All activities involving asbestos will need to be performed in accordance the Construction Industry standard 29 CFR 1926.1101 and all applicable Federal, State and local regulations.

4.2.5.2.2 Lead Based Paint

All painted surfaces are assumed to contain lead and must be handled in accordance with the OSHA Lead in Construction Standard 29 CFR 1926.62 and LRL Section 02 83 13.00 06 Lead in Construction.

4.2.5.3 Not Used

4.2.6 Safe Drinking Water Act (SDWA)

The purpose of the Safe Drinking Water Act (SDWA) is to protect public drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells. Construction should be completed in compliance with requirements of the Safe Drinking Water Act, as stated by Army Regulation AR 200-1, Chapter 4 - Environmental Asset Management.

4.2.6.1 Not Used

4.2.6.2 Groundwater Protection

The Contractor will be required to develop and adhere to a groundwater protection plan for any construction that could result in groundwater contamination. The groundwater protection plan should be included as part of the Environmental Protection Plan. The Contractor should review Federal, State, regional, and local regulations concerning groundwater protection and obtain permits required by regulations. If the Contractor is required to use underground injection to dispose of fluids in the ground, and underground injection control permit will be required, which will likely be issued by the State. The Contractor should coordinate with State authorities to insure that proper permitting is obtained and applicable regulations are followed.

4.2.7 Occupational Safety and Health Act

The Occupational Safety and Health Act is the primary federal law governing occupational health and safety in the workplace. Its main goal is to ensure that employers provide employees with an environment free from recognized hazards, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions.
Many states have their own Occupational Safety and Health requirements which are at least as strict as the Federal requirements. The Contractor should adhere to 29 CFR 1926 which regulates construction activities as well as follow safety and health requirements specified in EM 385-1-1.

4.2.7.1 Employee Right to Know

Employee Right to Know is an Occupational Safety and Health Administration (OSHA) regulation giving employees the right to know information about the hazards they may be exposed to in the workplace, or on a construction site. The Contractor should be in compliance with OSHA standards during the duration of construction. The Contractor should make available material safety data sheets (MSDS) on any hazardous material or product that may be present on the construction site. These sheets should include such information such as the specific product, hazards and safety risks related to the product, storage and disposal requirements, protective equipment requirements, and emergency response procedures.

4.2.7.2 Occupational Exposure Limits (OELs)

The United States Army Corps of Engineers (USACE) uses enforceable occupational exposure limits (OELs) to protect employees against potential health effects of exposure to hazardous substances. The OELs are regulatory limits on the amount (concentration) of a substance in the air, or on the skin. It is the responsibility of the Contractor to ensure that

the construction site remains within the OELs set by USACE. EM 385-1-1 defines the OELs as the most stringent standard published between the most recently published American Conference of Governmental Industrial Hygienists (ACGIH) guideline "Threshold Limit Values and Biological Exposure Indices," and the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs) as defined by 29 CFR 1910, 29 CFR 1915, and 29 CFR 1926.

4.2.7.3 Confined Spaces

A confined space has limited or restricted means for entry or exit, and is not designed for continuous employee occupancy. This includes areas such as underground vaults, tanks, storage bins, manholes, pits, silos, process vessels, and pipelines. A confined space may require a special permit for work to take place. A permit-required confined space as described by OSHA is a confined space with any of the following characteristics: contains or has the potential to contain a hazardous atmosphere; contains a material that has the potential to engulf an entrant; has walls that converge inward or floors that slope downward and taper into a smaller area which could trap or asphyxiate an entrant; or contains any other recognized safety or health hazard, such as unguarded machinery, exposed live wires, or heat stressors. The Contractor should follow Federal, State, regional and local regulations and obtain necessary permits in regards to work in confined spaces.

4.2.8 Not Used

4.2.9 Not Used

4.2.10 Not Used

4.2.11 Air Quality Permits

The Contractor is responsible for developing a dirt and dust control plan prior to construction. It is the responsibility of the Contractor to obtain any State, Regional, and Local permits relating to air quality during construction. A permit may be required if there is any issue with emissions release during construction, detectable levels of radon, or dirt and dust control issues. Also, the Contractor may be required to obtain a permit for the use of any equipment with combustible sources. Appropriate radon mitigation measures should be used during construction in accordance with 29 CFR 1910.

4.2.12 Excavation Permit

In addition to the Notice of Intent (NOI), an excavation permit from State, regional, local governments, and/or the facility/Installation may be required before excavation can commence on the project site. It is the responsibility of the Contractor to review State, regional, and local regulations pertaining to excavation and to obtain any necessary permits prior to initiation of construction.

4.2.13 Vegetation and Revegetation Permit

Any construction activity that involves vegetation removal or re-vegetation may require a vegetation permit from State, regional, and local authorities. It is the responsibility to review State, regional, and local regulations pertaining to vegetation prior to construction and to follow through with responsibilities stated in the regulations.

Vegetation removal or vegetation plans may be restricted or limited by the presence of threatened or endangered species or by a pest management requirements. If the project could affect threatened and endangered species or is covered by a pest management plan, the Contractor may have special vegetation requirements to follow. These requirements would be included in the appropriate facility management plans or by Fish and Wildlife Service regulations.

4.2.14 Not Used

4.2.15 Not Used

4.2.16 Noise Permits

Some local and state jurisdictions may enforce noise ordinances. Construction activity may be in violation of these ordinances and could require permit to exceed the ordinance levels. It is the responsibility of the Contractor to review local regulations regarding noise pollution and to obtain necessary permits prior to the initiation of construction.

4.2.17 Pesticide Permits

Some construction projects may require the use of pesticides for pest control. If a pesticide is to be used on a construction site, the Contractor is responsible for following procedures in the area Integrated Pest management plan (IMPM). Pest control measures must be in compliance with AR200-1, Chapter 5 - Pest Management. Obtainment of Federal, State, regional, or local permits required for the use of a pesticide is the responsibility of the Contractor.

4.2.18 Munitions and Explosives of Concern (MEC)/Unexploded Ordnance (UXO)

In the event military munitions, as defined in 40 CFR 260, are discovered or uncovered, the Contractor will immediately stop work in that area and immediately inform the Contracting Officer. Any construction on a site that has the possibility of the existence of MEC or UXO must be coordinated through the Center of Expertise.

4.2.19 Driveway / Curb Cut Permit

The construction of a driveway connecting to a public road may require permitting. The contractor should review all State, regional, and local regulations pertaining to driveway construction and curb cutting and obtain any necessary permits. In addition to driveway and curb cut Permits, a right-of-way Permit to be obtained by the Contractor may also be required if a sidewalk will be temporarily obstructed during the construction of a driveway entrance.

4.2.20 Demolition/Renovation Permit

Construction projects that require the demolition or renovation of structures may require the Contractor to obtain permitting. The National Emission Standards for Hazardous Air Pollutants (NESHAP) are stationary source standards for hazardous air pollutants. Hazardous air pollutants (HAPs) are those pollutants that are known or suspected to cause cancer or other serious health effects. Building demolition could release HAPs such as asbestos into the air if proper regulations aren't followed. The presence of HAPs on a construction site will require the Contractor to develop appropriate plans for the removal of such pollutants prior to

demolition, and may require additional permitting from State, regional, and local authorities.

Other considerations such as proper utility disconnection and safe building demolition are also considered and may require permits. If any demolition activity interferes with the public right-of-way, an obstruction permit will also need to be obtained from the appropriate authorities. It is the responsibility of the Contractor to follow all Federal, State, regional, and local regulations and obtain the appropriate permits dealing with building demolition and right-of-way obstruction.

4.2.21 Utility Permits

Any project that requires utility construction or connection will likely require a permit from local authorities. It is the responsibility of the contractor to review all local regulations and obtain all permits and fees relating to utility construction and connections. Utility installations that will likely require permitting are electric, gas, drinking water, communication, and sanitary sewer utility installations. The Contractor is responsible for contacting the provider for each of the utilities and coordinate permitting and installation with the utility providers.

4.2.22 Not Used

4.2.23 Construction Permit

New construction may require a construction or building permit from State, regional, or local authorities prior to the beginning of construction. It is the responsibility of the Contractor to review State, regional and local laws and regulations and to obtain a construction permit if required.

4.2.24 Permit Variances

State, regional, and local authorities may allow modifications to be made in areas covered by existing permits. The permitting agency may be able to issue a permit variance for either a temporary or one-time exceedance of conditions specified in the existing permit. The Contractor should coordinate with permitting authorities if a variance will be necessary for the completion of the project.

-- End of Section --

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SECTION 01 74 19

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL
02/19, CHG 3: 11/21

PART 1 GENERAL

1.1 DEFINITIONS

1.1.1 Co-mingle

The practice of placing unrelated materials together in a single container, usually for benefits of convenience and speed.

1.1.2 Construction Waste

Waste generated by construction activities, such as scrap materials, damaged or spoiled materials, temporary and expendable construction materials, and other waste generated by the workforce during construction activities.

1.1.3 Demolition Debris/Waste

Waste generated from demolition activities, including minor incidental demolition waste materials generated as a result of Intentional dismantling of all or portions of a building, to include clearing of building contents that have been destroyed or damaged.

1.1.4 Disposal

Depositing waste in a solid waste disposal facility, usually a managed landfill or incinerator, regulated in the US under the Resource Conservation and Recovery Act (RCRA).

1.1.5 Diversion

The practice of diverting waste from disposal in a landfill or incinerator, by means of eliminating or minimizing waste, or reuse of materials.

1.1.6 Final Construction Waste Diversion Report

A written assertion by a material recovery facility operator identifying constituent materials diverted from disposal, usually including summary tabulations of materials, weight in short-ton.

1.1.7 Recycling

The series of activities, including collection, separation, and processing, by which products or other materials are diverted from the solid waste stream for use in the form of raw materials in the manufacture of new products sold or distributed in commerce, or the reuse of such materials as substitutes for goods made of virgin materials, other than fuel.

1.1.8 Reuse

The use of a product or materials again for the same purpose, in its original form or with little enhancement or change.

1.1.9 Salvage

Usable, salable items derived from buildings undergoing demolition or deconstruction, parts from vehicles, machinery, other equipment, or other components.

1.1.10 Source Separation

The practice of administering and implementing a management strategy to identify and segregate unrelated waste at the first opportunity.

1.2 CONSTRUCTION WASTE (INCLUDES DEMOLITION DEBRIS/WASTE)

Divert a minimum of 60 percent by weight of the project construction waste and demolition debris/waste from the landfill or incinerator. Follow applicable industry standards in the management of waste. Apply sound environmental principles in the management of waste. (1) Practice efficient waste management when sizing, cutting, and installing products and materials and (2) use all reasonable means to divert construction waste and demolition debris/waste from landfills and incinerators and to facilitate the recycling or reuse of excess construction materials.

1.3 CONSTRUCTION WASTE MANAGEMENT

Implement a Construction Waste Management Program for the project. Take a pro-active, responsible role in the management of construction waste, recycling process, disposal of demolition debris/waste, and require all subcontractors, vendors, and suppliers to participate in the Construction Waste Management Program. Establish a process for clear tracking, and documentation of construction waste and demolition debris/waste.

1.3.1 Implementation of Construction Waste Management Program

Develop and document how the Construction Waste Management Program will be implemented in a Construction Waste Management Plan. Submit a Construction Waste Management Plan to the Contracting Officer for approval. Construction waste and demolition debris/waste materials include un-used construction materials not incorporated in the final work, as well as demolition debris/waste materials from demolition activities or deconstruction activities. In the management of waste, consider the availability of viable markets, the condition of materials, the ability to provide material in suitable condition and in a quantity acceptable to available markets, and time constraints imposed by internal project completion mandates.

1.3.2 Oversight

The Quality Control Manager, as specified in Section 01 45 00 QUALITY CONTROL, is responsible for overseeing and documenting results from executing the Construction Waste Management Plan for the project.

1.3.3 Special Programs

Implement special programs involving rebates or similar incentives related

to recycling of construction waste and demolition debris/waste materials. Retain revenue or savings from salvaged or recycling, unless otherwise directed. Ensure firms and facilities used for recycling, reuse, and disposal are permitted for the intended use to the extent required by federal, state, and local regulations.

1.3.4 Special Instructions

Provide on-site instruction of appropriate separation, handling, recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the projects. Designation of single source separating or commingling will be clearly marked on the containers.

1.3.5 Waste Streams

Delineate waste streams and characterization, including estimated material types and quantities of waste, in the Construction Waste Management Plan. Manage all waste streams associated with the project. Typical waste streams are listed below. Include additional waste steams not listed:
<OLG>
<OLI>Land Clearing Debris</OLI>

<OLI>Asphalt</OLI>

<OLI>Masonry and CMU</OLI>

<OLI>Concrete</OLI>

<OLI>Metals (Includes, but is not limited to, banding, stud trim, ductwork, piping, rebar, roofing, other trim, steel, iron, galvanized, stainless steel, aluminum, copper, zinc, bronze.)</OLI>

<OLI>Wood (nails and staples allowed)</OLI>

<OLI>Glass</OLI>

<OLI>Paper</OLI>

<OLI>Plastics (PET, HDPE,PVC,LDPE,PP,PS, Other)</OLI>

<OLI>Gypsum</OLI>

<OLI>Non-hazardous paint and paint cans</OLI>

<OLI>Carpet</OLI>

<OLI>Ceiling Tiles</OLI>

<OLI>Insulation</OLI>

<OLI>Beverage Containers</OLI>
</OLG>
1.4 SUBMITTALS

Government approval is required for submittals with a "G" or "S" classification. Submittals not having a "G" or "S" classification are for information only. When used, a code following the "G" classification identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL

PROCEDURES:

SD-01 Preconstruction Submittals

Construction Waste Management Plan; G

SD-06 Test Reports

Quarterly Reports

Annual Report

SD-11 Closeout Submittals

Final Construction Waste Diversion Report; G

1.5 MEETINGS

Conduct Construction Waste Management meetings. After award of the Contract and prior to commencement of work, schedule and conduct a meeting with the Contracting Officer to discuss the proposed Construction Waste Management Plan and to develop a mutual understanding relative to the management of the Construction Waste Management Program and how waste diversion requirements will be met.

The requirements of this meeting may be fulfilled during the coordination and mutual Understanding meeting outlined in Section 01 45 00 QUALITY CONTROL. At a minimum, discuss and document waste management goals at following meetings:

<OLG>
<OLI>Preconstruction meeting.</OLI>

<OLI>Regular site meetings.</OLI>

<OLI>Work safety meeting (if applicable).</OLI>
</OLG>

1.6 CONSTRUCTION WASTE MANAGEMENT PLAN

Submit Construction Waste Management Plan not less than 60 calendar days before scheduled final site or building design approval. Revise and resubmit Construction Waste Management Plan until it receives final approval from the Contracting Officer, in order for construction to begin. Manage demolition debris/waste or deconstruction materials in accordance with the approved construction waste management plan.

An approved Construction Waste Management Plan will not relieve the Contractor of responsibility for compliance with applicable environmental regulations or meeting project cumulative waste diversion requirement. Ensure all subcontractors receive a copy of the approved Construction Waste Management Plan. The plan demonstrates how to meet the project waste diversion requirement. Also, include the following in the plan:

<OLG>
<OLI>Identify the names of individuals responsible for waste management and waste management tracking, along with roles and responsibilities on the project.</OLI>

<OLI>Actions that will be taken to reduce solid waste generation, including coordination with subcontractors to ensure awareness and participation.</OLI>

<OLI>Description of the regular meetings to be held to address waste

management.</OLI>

<OLI>Description of the specific approaches to be used in recycling/reuse of the various materials generated, including the areas on site and equipment to be used for processing, sorting, and temporary storage of materials.</OLI>

<OLI>Name of landfill and incinerator to be used.</OLI>

<OLI>Identification of local and regional re-use programs, including non-profit organizations such as schools, local housing agencies, and organization that accept used materials such as material exchange networks and resale stores. Include the name, location, phone number for each re-use facility identified, and provide a copy of the permit or license for each facility.</OLI>

<OLI>List of specific materials, by type and quantity, that will be salvaged for resale, salvaged and reused on the current project, salvaged and stored for reuse on a future project, or recycled. Identify the recycling facilities by name, address, and phone number.</OLI>

<OLI>Identification of materials that cannot be recycled or reused with an explanation or justification, to be approved by the Contracting Officer.</OLI>

<OLI>Description of the means by which materials identified in item (g) above will be protected from contamination.</OLI>

<OLI>Description of the means of transportation of the recyclable materials (whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler and removed from the site).</OLI>

<OLI>Copy of training plan for subcontractors and other services to prevent contamination by co-mingling materials identified for diversion and waste materials.</OLI>

<OLI>Identification of at least 5 construction or demolition material streams for diversion.
</OLI>

<OLI>Detailed plan and distribution of waste diversion between buildings, when project is a part of a campus.</OLI>

<OLI>Facilities or subcontractors offering construction waste transport on-site or off-site must ensure that proper shipping orders, bill of lading, manifests, or other shipping documents containing waste diversion information meet requirements of 40 CFR 273 Universal Waste Management, 49 CFR 173 Shippers - General Requirements for Shipments and Packagings, and 49 CFR 178 Specifications for Packaging. Individuals signing manifests or other shipping documents should meet the minimum training requirements.</OLI>

<OLI>List each supplier who delivers construction materials, in bulk, or package products in returnable containers or returnable packaging, or have take-back programs. List each program and the applicable material to actively monitor and track to assist in meeting waste diversion requirements on the project.</OLI>

<OLI>Identify local jurisdiction requirements for waste management. Include local requirements and points of contact.</OLI>

</OLG>

Distribute copies of the waste management plan to each subcontractor, Quality Control Manager , and the Contracting Officer.

1.7 RECORDS (DOCUMENTATION)

1.7.1 General

Maintain records to document the types and quantities of waste generated and diverted though re-use, recycling and sale to third parties; through disposal to a landfill or incinerator facility. Provide explanations for materials not recycled, reused or sold. Collect and retain manifests, weight tickets, sales receipts, and invoices specifically identifying diverted project waste materials or disposed materials.

1.7.2 Accumulated

Maintain a running record of materials generated and diverted from landfill disposal, including accumulated diversion rates for the project. Make records available to the Contracting Officer during construction or incidental demolition activities. Provide a copy of the diversion records to the Contracting Officer upon completion of the construction, incidental demolitions or minor deconstruction activities.

1.8 REPORTS

1.8.1 General

Maintain current construction waste diversion information on site for periodic inspection by the Contracting Officer. Include in the quarterly reports, annual reports and final reports: the project name, contract information, information for waste generated, diverted and disposed of for the current reporting period and show cumulative totals for the project. Reports must identify quantifies of waste by type and disposal method. Also include in each report, supporting documentation to include manifests, weigh tickets, receipts, and invoices specifically identifying the project and waste material type and weighted sum.

1.8.2 Quarterly Reporting

Provide cumulative reports at the end of each quarter (December, March, June, and September, corresponding with the federal fiscal year for reporting purposes). Submit quarterly reports not later than 15 calendar days after the preceding quarter has ended. Submit Quarterly Reports to the appropriate office or identified point of contact.

1.8.3 Annual Reporting

Provide a cumulative construction waste diversion report annually. Submit annual report not later than 30 calendar days after the preceding fourth quarter has ended. Provide copy of annual construction waste diversion report to the installation POC.

1.9 FINAL CONSTRUCTION WASTE DIVERSION REPORT

A Final Construction Waste Diversion Report is required at the end of the project. Provide Final Construction Waste Diversion Report 60 days prior to the Beneficial Occupancy Date (BOD). The final Construction Waste Diversion Report must be included in the Sustainability eNotebook in

accordance with Section 01 33 29 SUSTAINABILITY REQUIREMENTS AND REPORTING.

1.10 COLLECTION

Collect, store, protect, and handle reusable and recyclable materials at the site in a manner which prevents contamination, and provides protection from the elements to preserve their usefulness and monetary value. Provide receptacles and storage areas designated specifically for recyclable and reusable materials and label them clearly and appropriately to prevent contamination from other waste materials. Keep receptacles or storage areas neat and clean.

Train subcontractors and other service providers to either separate waste streams or use the co-mingling method as described in the Construction Waste Management Plan. Handle hazardous waste and hazardous materials in accordance with applicable regulations and coordinate with Section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS and Section 02 81 00 TRANSPORTATION AND DISPOSAL OF HAZARDOUS MATERIALS. Separate materials by one of the following methods described herein:

1.10.1 Source Separation Method

Separate waste products and materials that are recyclable from trash and sort as described below into appropriately marked separate containers and then transport to the respective recycling facility for further processing. Deliver materials in accordance with recycling or reuse facility requirements (e.g., free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process). Separate materials into the category types as defined in the Construction Waste Management Plan.

1.10.2 Co-Mingled Method

Place waste products and recyclable materials into a single container and then transport to an authorized recycling facility, which meets all applicable requirements to accept and dispose of recyclable materials in accordance with all applicable local, state and federal regulations. The Co-mingled materials must be sorted and processed in accordance with the approved Construction Waste Management Plan.

1.10.3 Other Methods

Other methods proposed by the Contractor may be used when approved by the Contracting Officer.

1.11 DISPOSAL

Control accumulation of waste materials and trash. Recycle or dispose of collected materials off-site at intervals approved by the Contracting Officer and in compliance with waste management procedures as described in the waste management plan. Except as otherwise specified in other sections of the specifications, dispose of in accordance with the following:

1.11.1 Reuse

Give first consideration to reusing construction and demolition materials as a disposition strategy. Recover for reuse materials, products, and components as described in the approved Construction Waste Management

Plan. Coordinate with the Contracting Officer to identify onsite reuse opportunities or material sales or donation available through Government resale or donation programs. Sale of recovered materials may be allowed on the Installation. Consider the use of surplus industrial supply broker services, who match entities with reusable or repurpose industrial materials with entities with need of such materials.

1.11.2 Recycle

Recycle non-hazardous construction and demolition/debris materials that are not suitable for reuse. Track rejection of contaminated recyclable materials by the recycling facility. Rejected recyclables materials will not be counted as a percentage of diversion calculation. Recycle all fluorescent lamps, HID lamps, mercury (Hg) -containing thermostats and ampoules, and PCBs-containing ballasts and electrical components as directed by the Contracting Officer. Do not crush lamps on site as this creates a hazardous waste stream with additional handling requirements.

1.11.3 Not Used

1.11.4 Waste

Dispose by landfill or incineration only those waste materials with no practical use, economic benefit, or recycling opportunity.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used. -- End of Section --

APPENDIX A – CONCEPTUAL DRAWINGS

W912QR-61034642-0000

US Army Corps of Engineers ®
LOUISVILLE DISTRICT

Ft. Campbell, KY
Building 3069

PN519189

VACINITY MAP
NTS

SOLICITATION NO.: -
CONTRACT NO.: -
ISSUE DATE: MARCH 2026
VOLUME: 1

SHEET LIST

SHEET	SHEET NAME
G-001	COVER SHEET
S-103	LINTEL FRAMING PLAN
AD-100	DEMOLITION PLAN
AE-101	OVERALL FLOOR PLAN
AE-101A	FLOOR PLAN - AREA A
AE-101B	FLOOR PLAN - AREA B
AE-101C	FLOOR PLAN - AREA C
AE-102	MEZZANINE PLAN
AE-120	OVERALL CEILING PLAN
AE-201	INTERIOR ELEVATIONS
AF101	OVERALL FINISH PLAN
AF102	FINISH PLAN - AREA A
AF103	FINISH PLAN - AREA B
AF104	FINISH PLAN - AREA C
AF601	INTERIOR FINISH SCHEDULE
AF602	INTERIOR FINISH LEGEND
K-001	FOODSERVICE EQUIPMENT PLAN & SCHEDULE
K-002	FOODSERVICE ROUGH-IN PLANS
K-003	FOODSERVICE EQUIPMENT DETAILS
M-110	HVAC PLAN
M-120	MEZZANINE PLAN
M-400	HVAC ENLARGED PLANS
E-001	ELECTRICAL ABBREVIATIONS LEGENDS & NOTES
E-002	ELECTRICAL LEGEND & NOTES
ED101	POWER DEMOLITION PLAN
ED102	LIGHTING DEMOLITION PLAN
ED401	MECHANICAL ROOM DEMOLITION PLAN
ED402	MEZZANINE DEMOLITION PLAN
ED403	EQUIPMENT YARD DEMOLITION PLAN
ED601	ONE LINE DEMOLITION
EL601	LIGHTING DETAILS
EP101	ELECTRICAL BRANCH CIRCUITING CRITERIA PLAN
EP401	ENLARGED POWER PLAN
EP402	ENLARGED POWER PLAN
EP403	MEZZANINE POWER PLAN
EP404	CORRIDOR POWER AND LIGHTING PLAN
EP405	MEZZANINE POWER PLAN
EP406	EQUIPMENT YARD PLAN
EP601	ONE LINE NEW WORK
P-110	PLUMBING PLAN
P-600	PLUMBING SCHEDULES
T-001	TELECOM LEGEND
T-101	FIRST FLOOR TELECOM PLAN
T-501	TELECOM DETAILS

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: M KHALIL
DRAWN BY: M KHALIL
CHECKED BY: D WALLACE
SUBMITTED BY: M POE
SIZE: ANSI D
ISSUE DATE: MARCH 2026
SOLICITATION NO.: -
CONTRACT NO.: -
OPTION TITLE 1
OPTION FIELD 1
OPTION TITLE 2
G-001.DWG

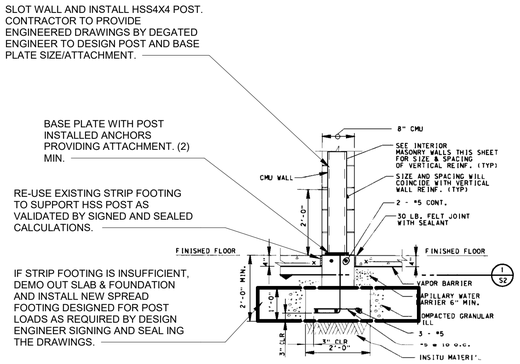
US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING PLACE
LOUISVILLE, KY 40202

BLACK & VEATCH | Stantec
BLACK & VEATCH AND STANTEC JOINT VENTURE
11401 LAMAR AVENUE, OVERLAND PARK, KS 66211
(770) 421-8199 BLACKVEATCH.COM

Ft. Campbell, KY
Building 3069
PN519189
COVER SHEET

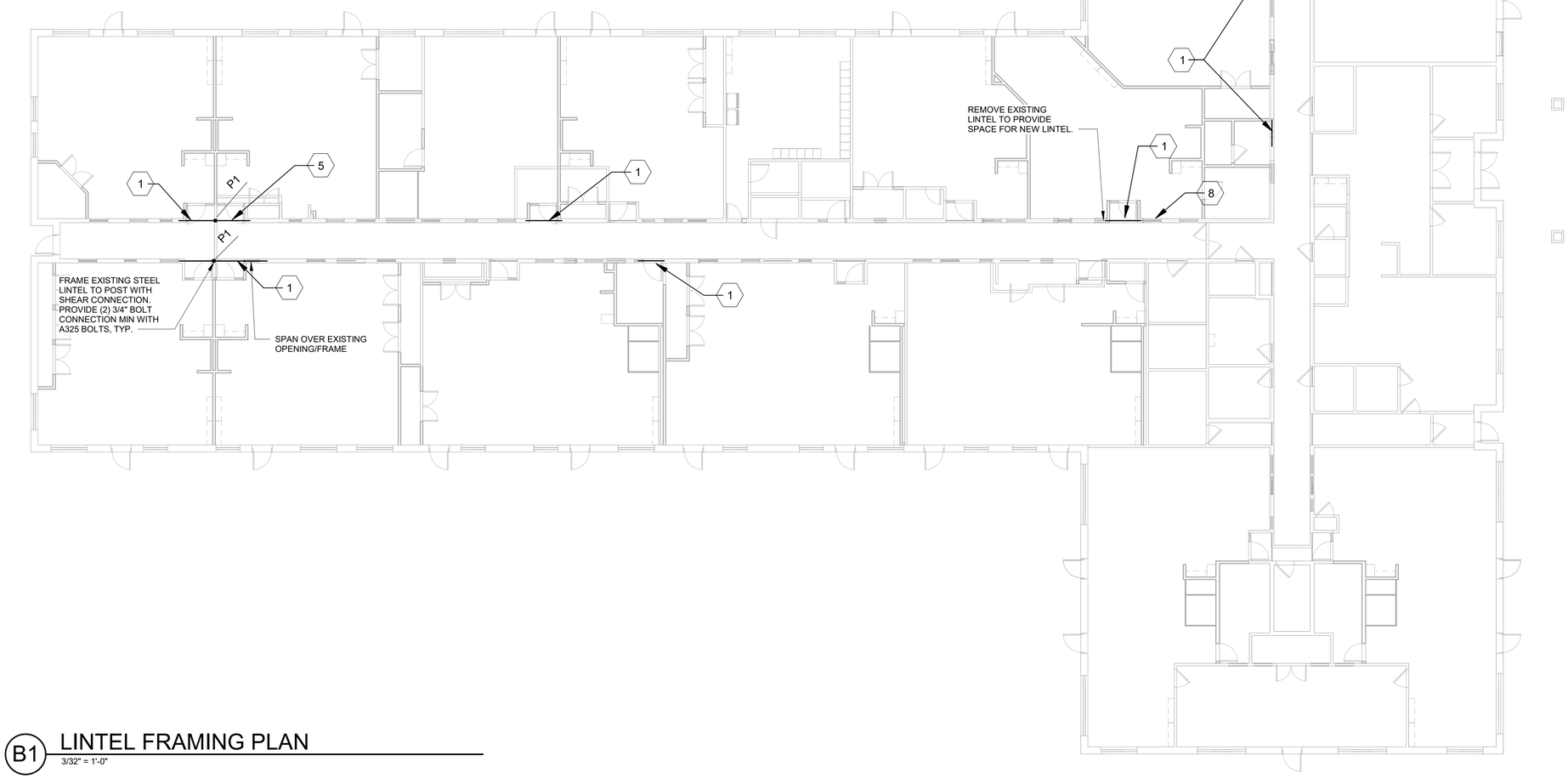
SHEET ID
G-001

CERTIFIED FINAL SUBMITTAL



K1 WALL FOOTING RETROFIT AT POST P1

3/4" = 1'-0"



B1 LINTEL FRAMING PLAN

3/32" = 1'-0"

GENERAL NOTES

1. SEE AS-BUILT DRAWINGS DATED MAY OF 1990 FOR EXISTING CONDITIONS.
2. THE STRUCTURAL INTENT FOR THIS PROJECT CONSISTS OF PROVIDING SCOPING DOCUMENTS WITH ACCORDANCE WITH THE ARCHITECTURAL LAYOUT. ALL STRUCTURAL DESIGN NOTED WILL NEED TO HAVE SIGNED/SEALED FULLY COORDINATED CONSTRUCTION DOCUMENTS PRIOR TO CONSTRUCTION. THESE ARE NOT FINAL CONSTRUCTION DOCUMENTS.
3. PLANS ARE BASED ON EXISTING AS-BUILT DRAWINGS. CONTRACTOR MUST FIELD VERIFY EXTENT OF DEMOLITION BASED ON EXISTING CONDITIONS, AND NOTIFY THE CONTRACTING OFFICER OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. ALL EXISTING ROOF PENETRATIONS ARE TO BE RE-USED IN CURRENT DESIGN. THIS IS SUBJECT TO CHANGE BY FIELD CONDITIONS/CONTINUATION IN DESIGN. FOR NEW PENETRATIONS IN EXISTING 1 1/2" METAL DECK, PROVIDE STRUTURAL STEEL ANGLE FRAMES SUPPORTED AT EXISTING BAR JOIST FOR ALL OPENINGS GREATER THAN 6" OR GREATER THAN (1) FLUTE WIDTH.
5. LINTELS ARE NOT REQUIRED TO BE STEEL AND IS SUBJECT TO THE END DESIGN ENGINEER. PROVIDE FULLY SIGNED AND SEALED DESIGN CALCULATIONS/DRAWINGS FOR NEW STEEL LINTEL/RETROFIT.

SHEET KEYNOTES

1. NEW LINTEL EXTENDING 8" MIN EACH END. PROVIDE POSITIVE ATTACHMENT AT ENDS AND GROUT MASONRY 3 COURSE SOLID MIN. BELOW BEARING.
2. EXISTING STEEL LINTEL (W8x24 PER EXISTING DRAWINGS), SHORE EXISTING WALL, MEZZANINE, OR ANY STRUCTURE REQUIRED TO INSTALL NEW LINTEL.
3. PROVIDE HSS COLUMN CENTERED IN GYPSUM WALL TO RESUPPORT EXISTING W8 LINTEL AND PROVIDE ATTACHMENT TO NEW STEEL LINTEL.
4. ALL DEISGN OF LINTEL SUPPORTS FOR NEW OPENINGS IN COORIDOR SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER. NEW DESIGN DRAWINGS SHALL BE PROVIDED FOR NEW STRUCTURAL SCOPE OUTLINED.
5. SUPPORT NEW LINTELS CONCENTRIALLY LOADED AT NEW STEEL POST PROVIDED.
6. P1 DENOTES NEW STEEL POST REQUIRED TO SUPPORT STEEL LINTEL. ENGINEER TO DESIGN NEW FOOTING OR CHECK THAT THE EXISTING STRIP FOOTING HAS ADDEQUATE BEARING/STRENGTH NEW NEW POST LOAD.
7. DOOR OPENING SHIFTING OPENING SIZE. EXISTING STEEL WF LINTEL TO SHORT AND WILL NEED TO BE REMOVED AFTER MEZZANINE STRUCTURE AND WALL HAVE BEEN SHORED/RE-SUPPORTED. PROVIDE NEW WF STEEL LINTEL AND INFILL MASONRY WALL BY TOOTHING IN CMU BLOCK.. GROUT WALL SOLID.
8. PROVIDE MASONRY INFILL FROM UNDERSIDE OF EXISTING OPENING TO FOUNDATION. SELECTIVE DEMO CONCRETE SLAB AS REQUIRED TO INSTALL CMU BLOCK WALL TO FOUNDATION. PROVIDE POSITIVE ANCHORAGE AT FOUNDATION. TOOTH IN MASONRY AT ENDS TO PROVIDE RUNNING BOND.
9. PROVIDE ADDITIONAL FRAMING TO SUPPORT NEW ACCESS HATCH. COORDINATE WITH ARCH. DWGS.

LEGEND

PLAN NORTH

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: | ISSUE DATE: MARCH 2026
DRAWN BY: | SOLICITATION NO.:
CHECKED BY: | CONTRACT NO.:
SUBMITTED BY: | OPTION TITLE 1 / OPTION FIELD 1
SIZE: ANSI D | OPTION TITLE 2 / S-103.DWG

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING PLACE
LOUISVILLE, KY 40202

BLACK & VEATCH | Stantec
BLACK & VEATCH AND STANTEC JOINT VENTURE
11401 LAMAR AVENUE, OVERLAND PARK, KS 66211
(770) 421-8100 BLACKVEATCH.COM

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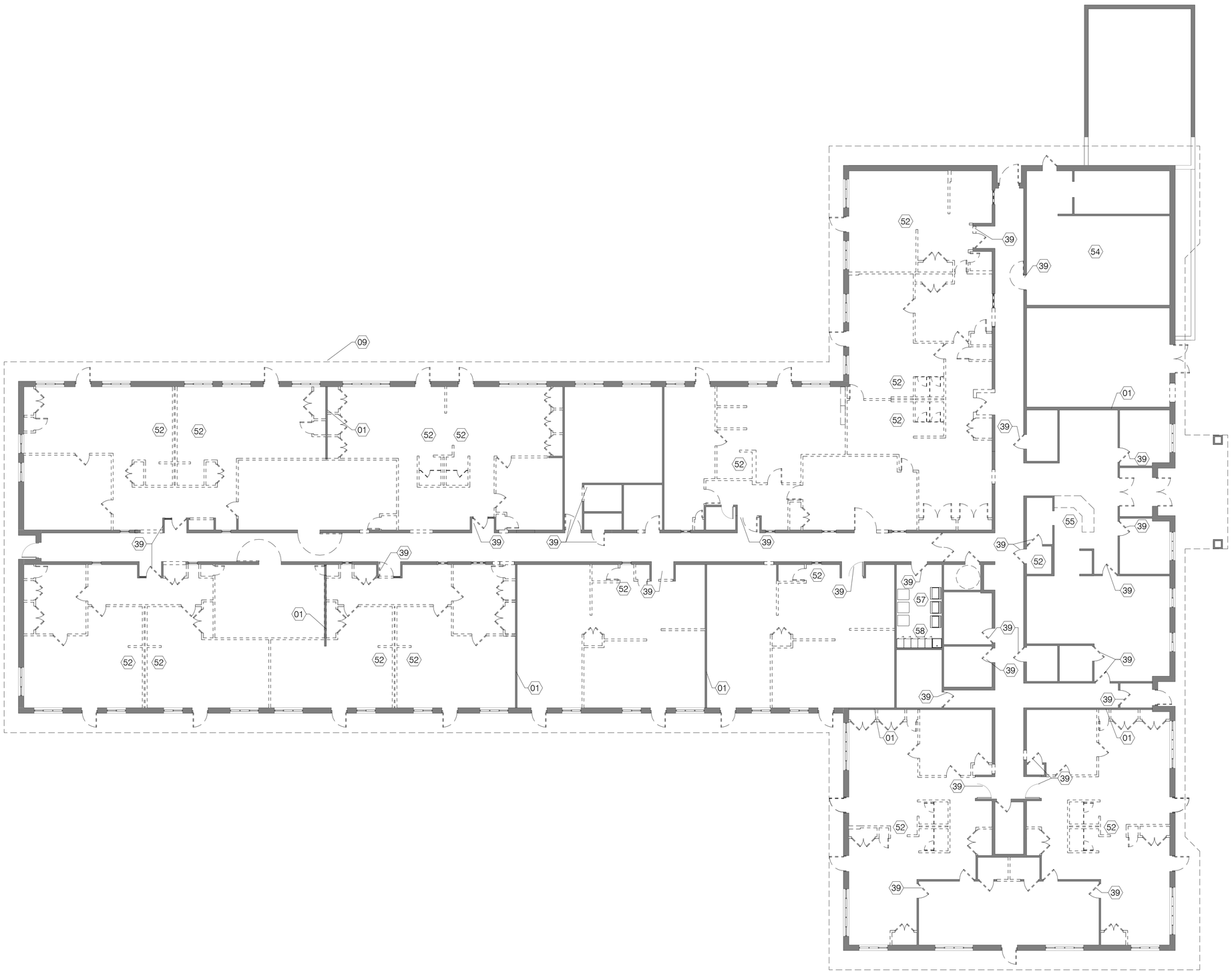
Building 3069
PN519189

LINTEL FRAMING PLAN

SHEET ID
S-103

CERTIFIED FINAL SUBMITTAL

W912QR-61034642-0000



A1 DEMOLITION PLAN
3/32" = 1'-0"

GENERAL NOTES

A. ALL EXTERIOR DOORS TO BE REPLACED.

B. ALL FLOORING FINISHES AND ADHESIVES TO BE REMOVED.

C. ALL STORAGE ROOMS TO HAVE SHELVING PER CDC STANDARD DESIGN, TYP.

D. ALL CEILINGS TO BE DEMOLISHED AND REMOVED.

SHEET KEYNOTES

- 01 EXISTING SHEAR WALL
- 09 ROOF LINE ABOVE
- 39 EXISTING DOOR TO REMAIN UNDER BASE BID. REPLACE HARDWARE.
- 51 EXISTING UTILITY SINK, CABINETS AND COUNTERTOP TO BE DEMOLISHED
- 52 EXISTING PLUMBING FIXTURES, PARTITIONS AND CEILINGS TO BE DEMOLISHED
- 54 REFER TO K-001 FOR KITCHEN DEMO
- 55 EXISTING DESK TO BE DEMOLISHED
- 57 EXISTING WASHER AND DRYER TO REMOVED
- 58 EXISTING CABINETS, COUNTER AND SINK TO BE DEMOLISHED

LEGEND

EXISTING TO REMAIN

EXISTING TO BE REMOVED

PLAN NORTH

0 5.375' 10.75' 21.5'

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING PLACE
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BLACK & VEATCH AND STANTEC JOINT VENTURE
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Stantec

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CHECKED BY: D VAN LOON
SUBMITTED BY: M POE
SIZE: ANSI D
ISSUE DATE: MARCH 2026
SOLICITATION NO.: -
CONTRACT NO.: -
OPTION TITLE 1 OPTION FIELD 1
OPTION TITLE 2 AD-100.DWG

Ft. Campbell, KY
Building 3069
PN519189

DEMOLITION PLAN

SHEET ID
AD-100

CERTIFIED FINAL SUBMITTAL

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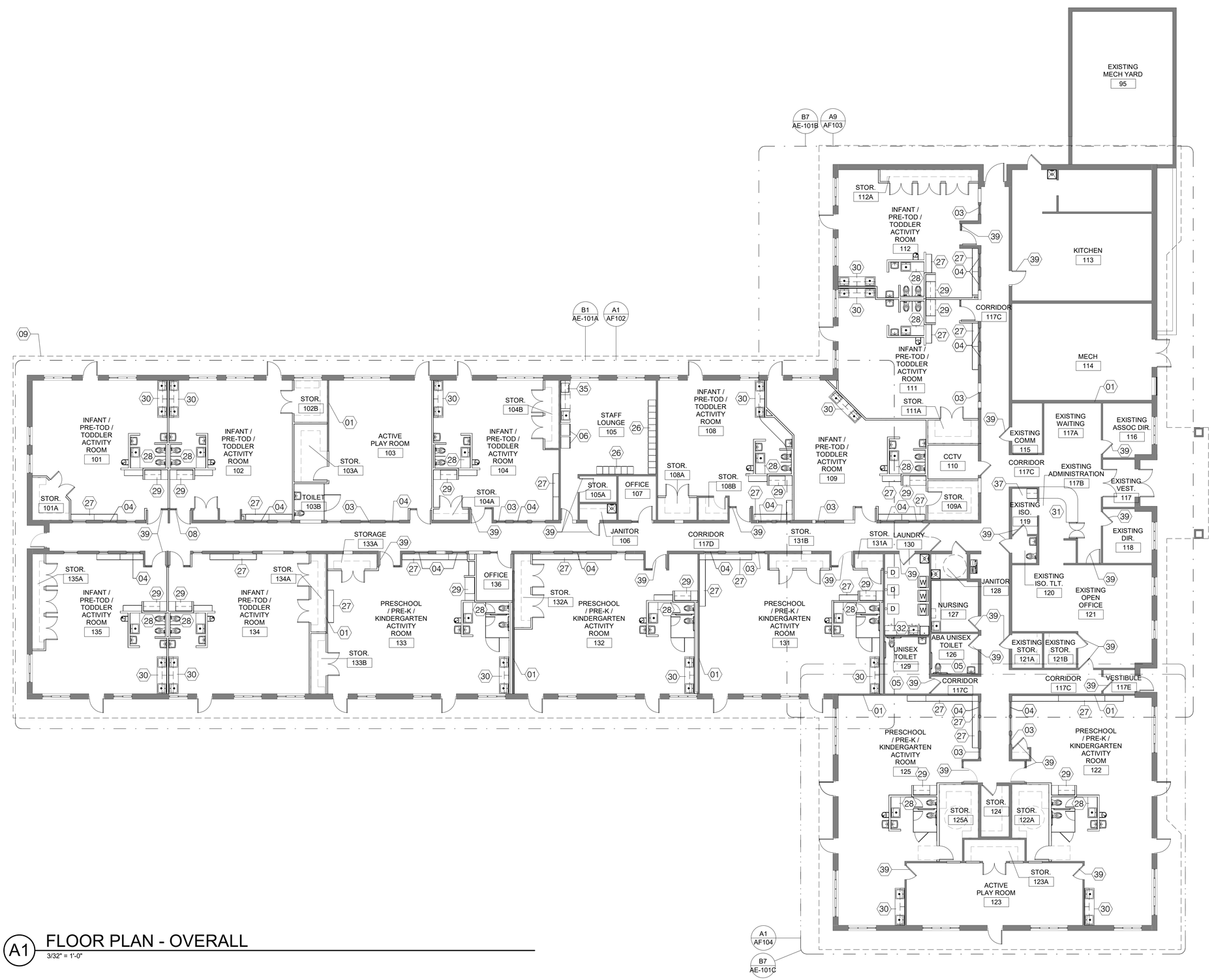

A1 FLOOR PLAN - OVERALL

3/32" = 1'-0"

GENERAL NOTES

A. ALL EXTERIOR DOORS TO BE REPLACED.

B. ALL FLOORING FINISHES AND ADHESIVES TO BE REMOVED.

C. ALL STORAGE ROOMS TO HAVE SHELVING PER CDC STANDARD DESIGN, TYP.

D. ALL CEILINGS TO BE DEMOLISHED AND REMOVED.

SHEET KEYNOTES

- 01 EXISTING SHEAR WALL
- 03 NEW VIEW WINDOW
- 04 NEW VISION PANEL
- 05 WALL MOUNTED FOLD DOWN DIAPER STATION
- 06 REFRIGERATOR
- 07 SHELVING PER CDC STANDARD DESIGN, TYP.
- 08 GLAZED DOOR WITH SIDELITE, TYP.
- 09 ROOF LINE ABOVE
- 26 Z-LOCKERS
- 27 CUBBIES
- 28 DIAPER CHANGING STATION, CASEWORK
- 29 SIGN-IN DESK
- 30 FOOD PREP/ARTS & CRAFTS CABINETS W UNDERCOUNTER REFRIGERATOR
- 31 NEW RECEPTION DESK
- 32 NEW UTILITY SINK, CABINETS AND COUNTERTOP
- 34 NEW 12"D SHELVING W HEAVY DUTY STANDARDS AND BRACKETS
- 35 (2) MICROWAVES
- 36 UPPER AND LOWER CABINETS, SINK, AND U.C. REFRIGERATOR
- 37 UPPER CABINET, COUNTER, AND U.C. MEDICAL REFRIGERATOR
- 38 NEW W/D TO BE PROVIDED AS REQUIRED BU SDC STANDARDS IN CONTRACTOR'S FFE PACKAGE
- 39 EXISTING DOOR TO REMAIN UNDER BASE BID. REPLACE HARDWARE.
- 40 NEW UPPER AND LOWER CABINETS WITH UNDERMOUNTED SINK

LEGEND

EXISTING TO REMAIN

NEW CONSTRUCTION

PLAN NORTH

0 16' 32' 64'

SCALE: 1/32"=1'-0

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: M KHALIL
DRAWN BY: M KHALIL
CHECKED BY: M KHALIL
SUBMITTED BY: M POE
SIZE: ANSI D
ISSUE DATE: MARCH 2026
SOLICITATION NO.: -
CONTRACT NO.: -
OPTION TITLE 1
OPTION FIELD 1
OPTION TITLE 2
AE-101.DWG

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING PLACE
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Ft. Campbell, KY
Building 3069

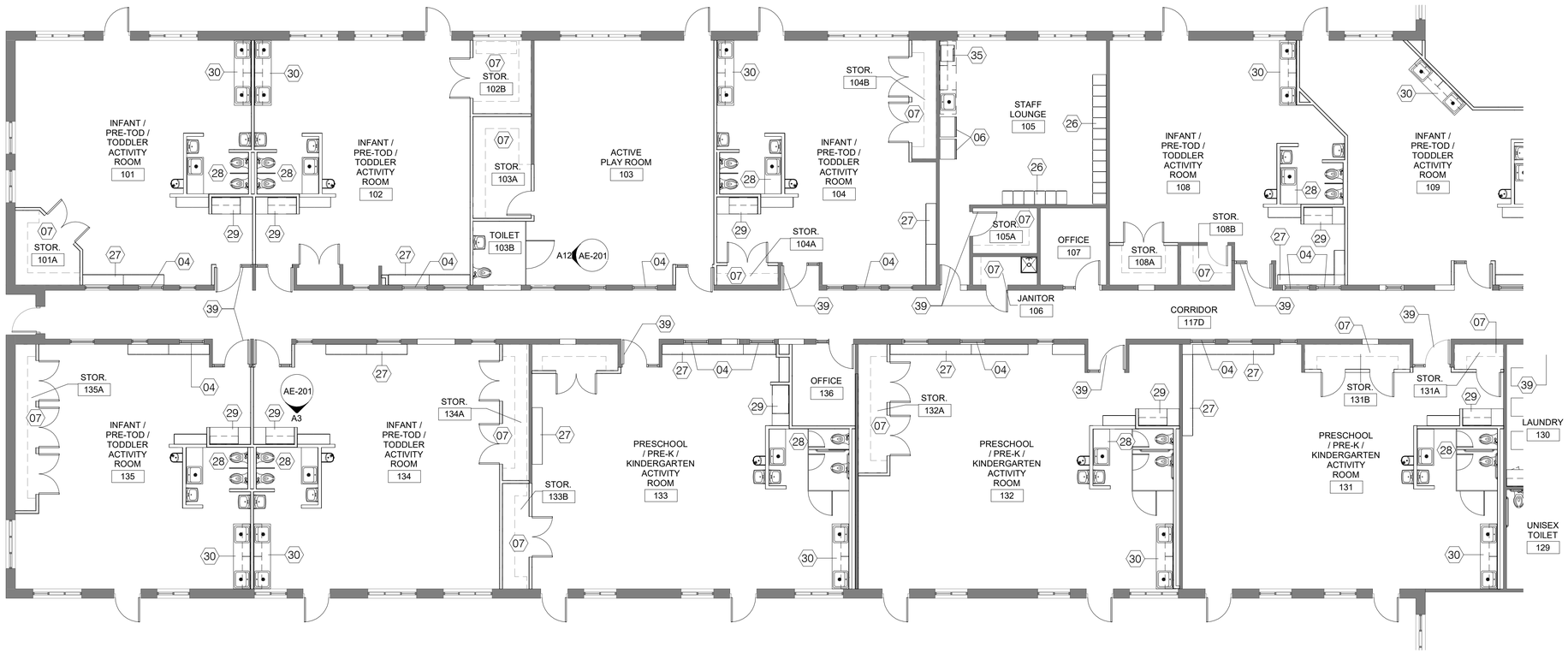
PN519189

OVERALL FLOOR PLAN

SHEET ID

AE-101

CERTIFIED FINAL SUBMITTAL



B1 ENLARGED FLOOR PLAN - AREA A

1/8" = 1'-0"

GENERAL NOTES

A. ALL EXTERIOR DOORS TO BE REPLACED.

B. ALL FLOORING FINISHES AND ADHESIVES TO BE REMOVED.

C. ALL STORAGE ROOMS TO HAVE SHELVING PER CDC STANDARD DESIGN, TYP.

D. ALL CEILINGS TO BE DEMOLISHED AND REMOVED.

SHEET KEYNOTES

01 EXISTING SHEAR WALL
03 NEW VIEW WINDOW
04 NEW VISION PANEL
05 WALL MOUNTED FOLD DOWN DIAPER STATION
06 REFRIGERATOR
07 SHELVING PER CDC STANDARD DESIGN, TYP.
08 GLAZED DOOR WITH SIDELITE, TYP.
09 ROOF LINE ABOVE
26 Z-LOCKERS
27 CUBBIES
28 DIAPER CHANGING STATION, CASEWORK
29 SIGN-IN DESK
30 FOOD PREP/ARTS & CRAFTS CABINETS W UNDERCOUNTER REFRIGERATOR
31 NEW RECEPTION DESK
32 NEW UTILITY SINK, CABINETS AND COUNTERTOP
34 NEW 12"D SHELVING W HEAVY DUTY STANDARDS AND BRACKETS
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37 UPPER CABINET, COUNTER, AND U.C. MEDICAL REFRIGERATOR
38 NEW W/D TO BE PROVIDED AS REQUIRED BU SDC STANDARDS IN CONTRACTOR'S FFE PACKAGE
39 EXISTING DOOR TO REMAIN UNDER BASE BID. REPLACE HARDWARE.
40 NEW UPPER AND LOWER CABINETS WITH UNDERMOUNTED SINK

LEGEND

EXISTING TO REMAIN

NEW CONSTRUCTION

PLAN NORTH

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MARCH 2026
SOLICITATION NO.: -
CONTRACT NO.: -
OPTION TITLE 1
OPTION FIELD 1
OPTION TITLE 2
AE-101A.DWG

DESIGNED BY: M KHALIL
DRAWN BY: M KHALIL
CHECKED BY: D VANHOOK
SUBMITTED BY: M POE
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS
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FLOOR PLAN - AREA A

SHEET ID

AE-101A

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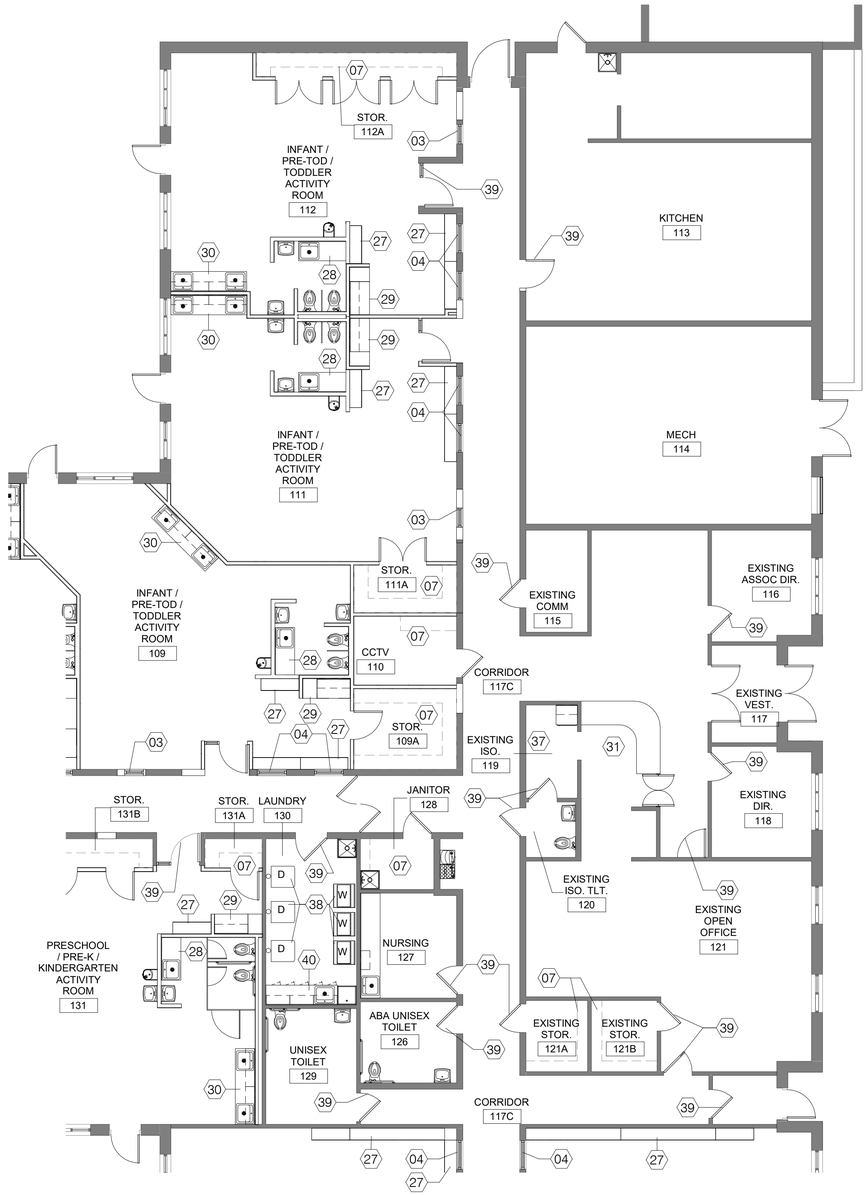

B7 ENLARGED FLOOR PLAN - AREA B

1/8" = 1'-0"

GENERAL NOTES

A. ALL EXTERIOR DOORS TO BE REPLACED.

B. ALL FLOORING FINISHES AND ADHESIVES TO BE REMOVED.

C. ALL STORAGE ROOMS TO HAVE SHELVING PER CDC STANDARD DESIGN, TYP.

D. ALL CEILINGS TO BE DEMOLISHED AND REMOVED.

SHEET KEYNOTES

- 01 EXISTING SHEAR WALL
- 03 NEW VIEW WINDOW
- 04 NEW VISION PANEL
- 05 WALL MOUNTED FOLD DOWN DIAPER STATION
- 06 REFRIGERATOR
- 07 SHELVING PER CDC STANDARD DESIGN, TYP.
- 08 GLAZED DOOR WITH SIDELITE, TYP.
- 09 ROOF LINE ABOVE
- 26 Z-LOCKERS
- 27 CUBBIES
- 28 DIAPER CHANGING STATION, CASEWORK
- 29 SIGN-IN DESK
- 30 FOOD PREP/ARTS & CRAFTS CABINETS W UNDERCOUNTER REFRIGERATOR
- 31 NEW RECEPTION DESK
- 32 NEW UTILITY SINK, CABINETS AND COUNTERTOP
- 34 NEW 12"D SHELVING W HEAVY DUTY STANDARDS AND BRACKETS
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- 37 UPPER CABINET, COUNTER, AND U.C. MEDICAL REFRIGERATOR
- 38 NEW W/D TO BE PROVIDED AS REQUIRED BU SDC STANDARDS IN CONTRACTOR'S FFE PACKAGE
- 39 EXISTING DOOR TO REMAIN UNDER BASE BID. REPLACE HARDWARE.
- 40 NEW UPPER AND LOWER CABINETS WITH UNDERMOUNTED SINK

LEGEND

EXISTING TO REMAIN

NEW CONSTRUCTION

PLAN NORTH

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: M KHALIL
DRAWN BY: M KHALIL
CHECKED BY: D WALDRON
SUBMITTED BY: M POE
SIZE: ANSI D
ISSUE DATE: MARCH 2026
SOLICITATION NO.: -
CONTRACT NO.: -
OPTION TITLE 1
OPTION FIELD 1
OPTION TITLE 2
AE-101B.DWG

US ARMY CORPS OF ENGINEERS
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(770) 421-8199 SUBMITTALS@CKM

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PN519189

FLOOR PLAN - AREA B

SHEET ID

AE-101B

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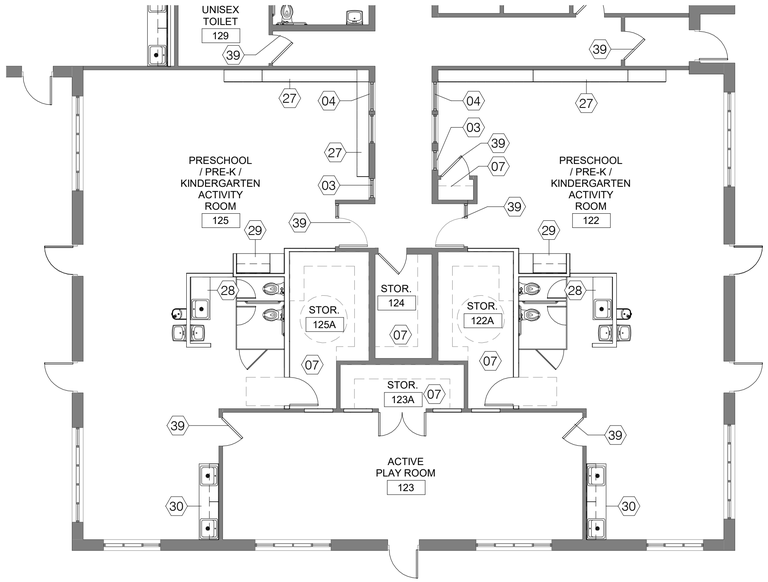

B7 ENLARGED FLOOR PLAN - AREA C
1/8" = 1'-0"

GENERAL NOTES

A. ALL EXTERIOR DOORS TO BE REPLACED.

B. ALL FLOORING FINISHES AND ADHESIVES TO BE REMOVED.

C. ALL STORAGE ROOMS TO HAVE SHELVING PER CDC STANDARD DESIGN, TYP.

D. ALL CEILINGS TO BE DEMOLISHED AND REMOVED.

SHEET KEYNOTES

01 EXISTING SHEAR WALL
03 NEW VIEW WINDOW
04 NEW VISION PANEL
05 WALL MOUNTED FOLD DOWN DIAPER STATION
06 REFRIGERATOR
07 SHELVING PER CDC STANDARD DESIGN, TYP.
08 GLAZED DOOR WITH SIDELITE, TYP.
09 ROOF LINE ABOVE
26 Z-LOCKERS
27 CUBBIES
28 DIAPER CHANGING STATION, CASEWORK
29 SIGN-IN DESK
30 FOOD PREP/ARTS & CRAFTS CABINETS W UNDERCOUNTER REFRIGERATOR
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38 NEW W/D TO BE PROVIDED AS REQUIRED BU SDC STANDARDS IN CONTRACTOR'S FFE PACKAGE
39 EXISTING DOOR TO REMAIN UNDER BASE BID. REPLACE HARDWARE.
40 NEW UPPER AND LOWER CABINETS WITH UNDERMOUNTED SINK

LEGEND

EXISTING TO REMAIN

NEW CONSTRUCTION

PLAN NORTH

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MARCH 2026
SOLICITATION NO.: -
CONTRACT NO.: -
OPTION TITLE 1
OPTION FIELD 1
OPTION TITLE 2
AE-101C.DWG

DESIGNED BY: M KHALIL
DRAWN BY: M KHALIL
CHECKED BY: D VANLOON
SUBMITTED BY: M POE
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS
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600 DR. MARTIN LUTHER KING PLACE
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BLACK & VEATCH | Stantec
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FLOOR PLAN - AREA C

SHEET ID
AE-101C

CERTIFIED FINAL SUBMITTAL

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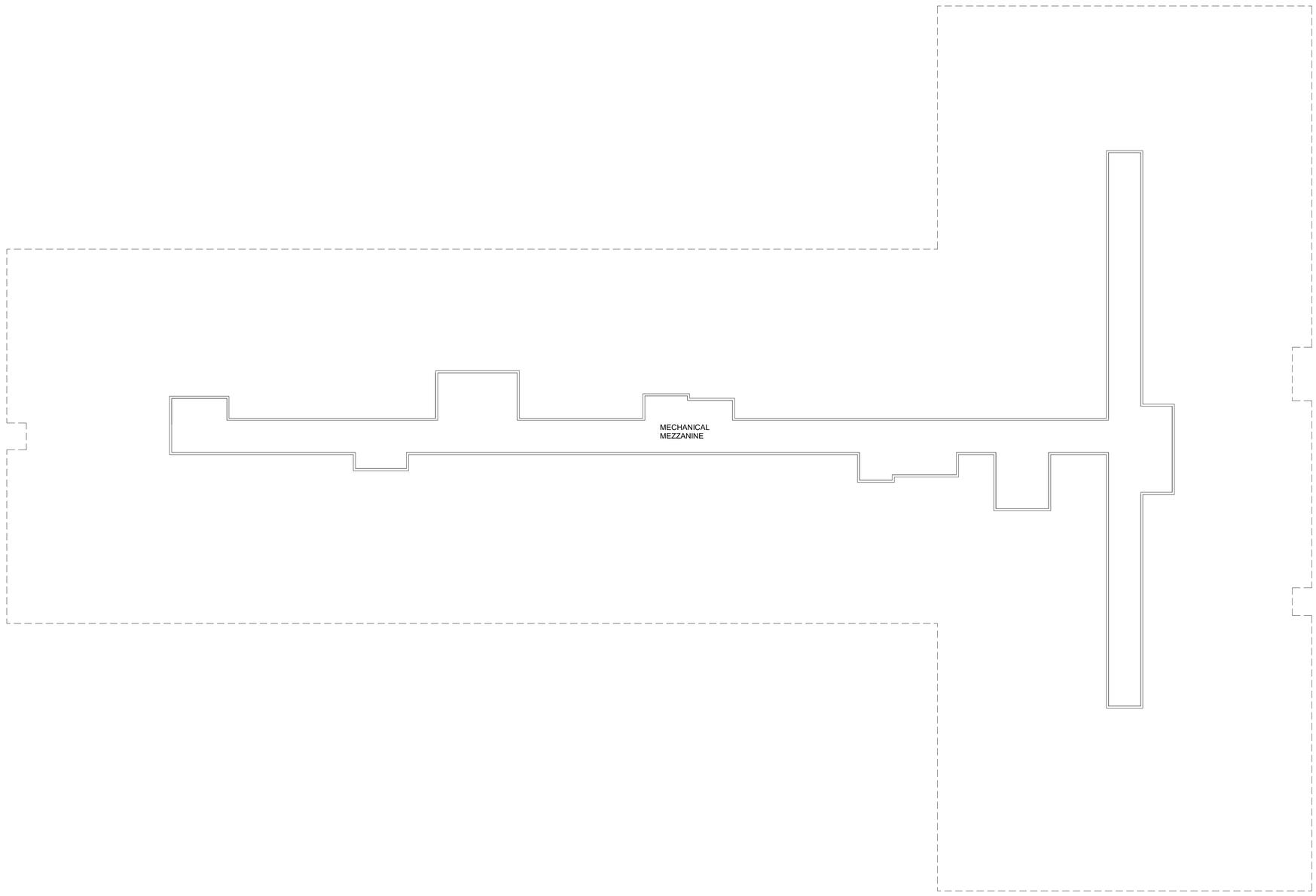

A1 MEZZANINE PLAN
3/32" = 1'-0"

GENERAL NOTES

SHEET KEYNOTES

LEGEND

EXISTING TO REMAIN

NEW CONSTRUCTION

PLAN NORTH

0 5.375' 10.75' 21.5'

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MARCH 2026
SOLICITATION NO.: -
CONTRACT NO.: -
OPTION TITLE 1
OPTION FIELD 1
OPTION TITLE 2
AE-102.DWG

DESIGNED BY: M KHALIL
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CHECKED BY: D VANHOOK
SUBMITTED BY: M POE
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING PLACE
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MEZZANINE PLAN

SHEET ID

AE-102

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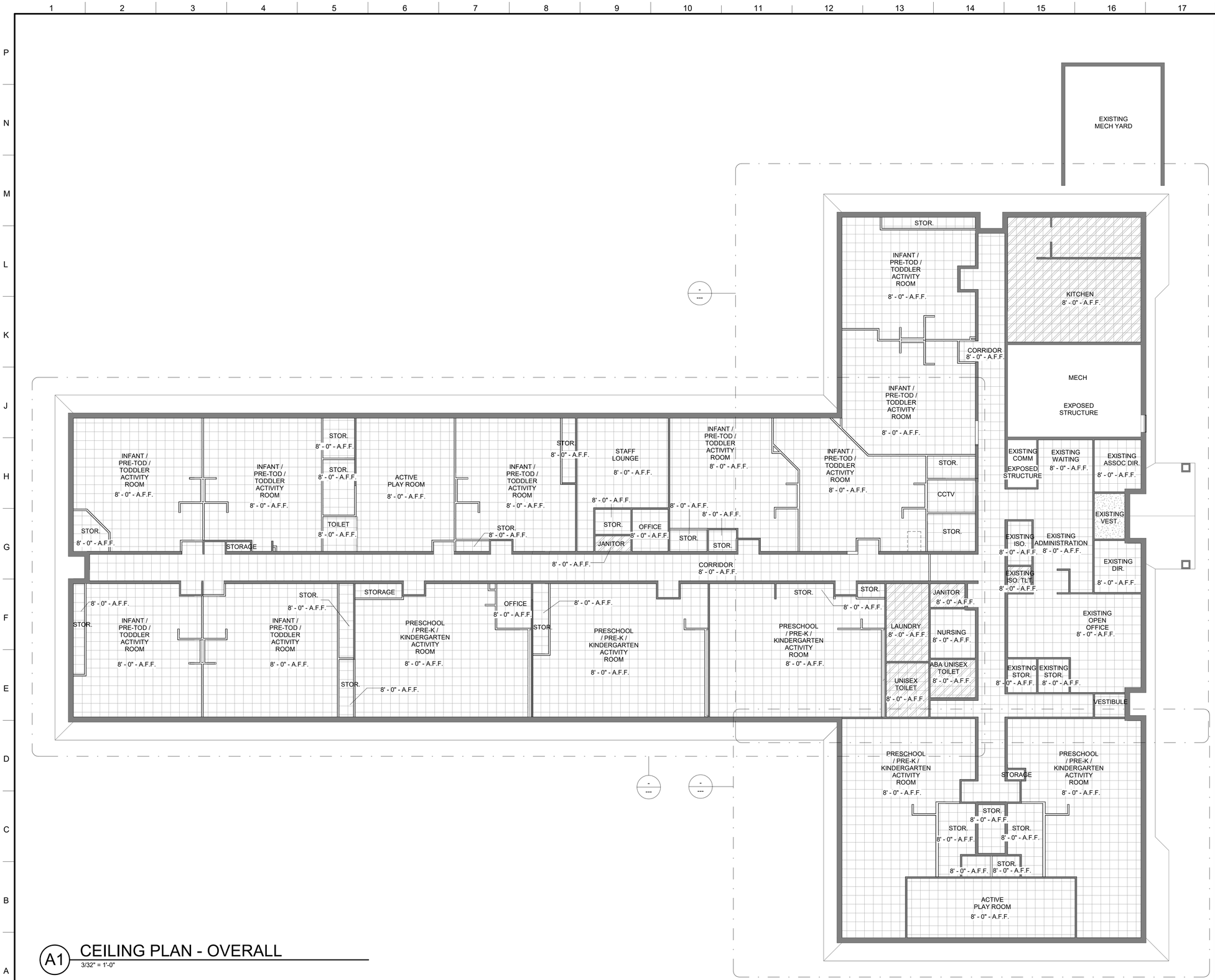

A1 CEILING PLAN - OVERALL

3/32" = 1'-0"

GENERAL NOTES

SHEET KEYNOTES

LEGEND

ACOUSTIC CEILING TILE

VINYL FACED ACOUSTICAL CEILING TILE, MOISTURE RESISTANT

GYPSUM WALL BOARD

PLAN NORTH

0 5.375' 10.75' 21.5'

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: M KHALIL
DRAWN BY: M KHALIL
CHECKED BY: D MAULDIN
SUBMITTED BY: M POE
SIZE: ANSI D
ISSUE DATE: MARCH 2026
SOLICITATION NO.: -
CONTRACT NO.: -
OPTION TITLE 1
OPTION FIELD 1
OPTION TITLE 2
AE-120.DWG

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Building 3069

PN519189

OVERALL CEILING PLAN

SHEET ID

AE-120

CERTIFIED FINAL SUBMITTAL

COUNTERTOP AND CABINET CONSTRUCTION FOR SIGN-IN DESKS TO COMPLY WITH GENERAL CABINETRY IN GENERAL
REQUIREMENTS OF STANDARD DESIGN CRITERIA CHILD DEVELOPMENT CENTERS FOR CHILDREN AGES 6 WEEKS – 5 YEARS, FEBRUARY 2023 EDITION.
THE TYPICAL SIGN-IN DESK IN THE ACTIVITY ROOMS IS ILLUSTRATED BELOW:

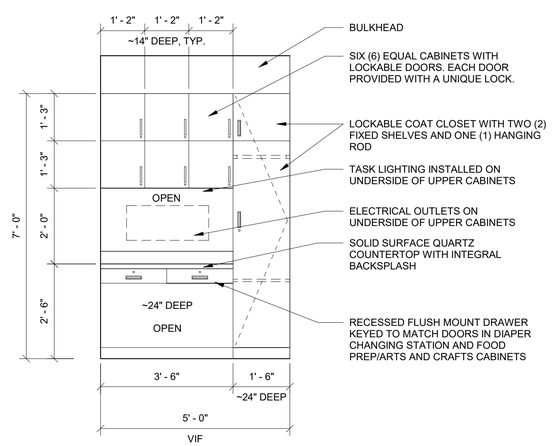
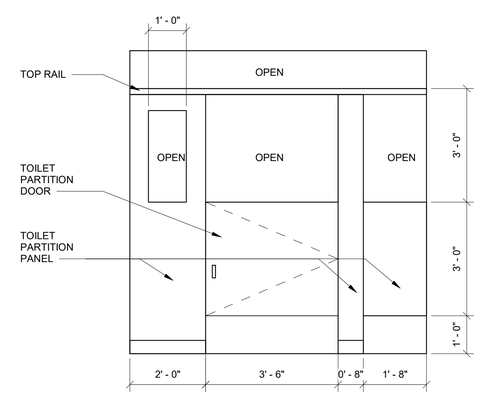


PHOTO REFERENCE OF SIGN-IN DESK

PHOTO REFERENCE OF SIGN-IN DESK

A3 ELEVATION - SIGN-IN DESK

1/2" = 1'-0"



A12 ELEVATION - ACTIVE PLAY ROOM 103 TOILET PARTITION

1/2" = 1'-0"

GENERAL NOTES

A. SEE FINISH FINISH LEGEND FOR MATERIAL SELECTION.
B. ELIMINATE SHARP CORNERS/EDGES ON MILLWORK WITH RADIUSED CORNERS UP TO 48" AFF.
C. SEE ELECTRICAL UNDER GENERAL REQUIREMENTS FOR MORE INFORMATIN ON RECEPTACLE REQUIREMENTS.

0 1' 2' 4'
SCALE: 1/2"=1'-0

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MARCH 2026
SOLICITATION NO.: -
CONTRACT NO.: -
OPTION TITLE 1
OPTION FIELD 1
OPTION TITLE 2
AE-201 DWG

DESIGNED BY: N GRULLON
DRAWN BY: N GRULLON
CHECKED BY: J BROWN
SUBMITTED BY: M POE
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
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PN519189

INTERIOR ELEVATIONS

SHEET ID
AE-201

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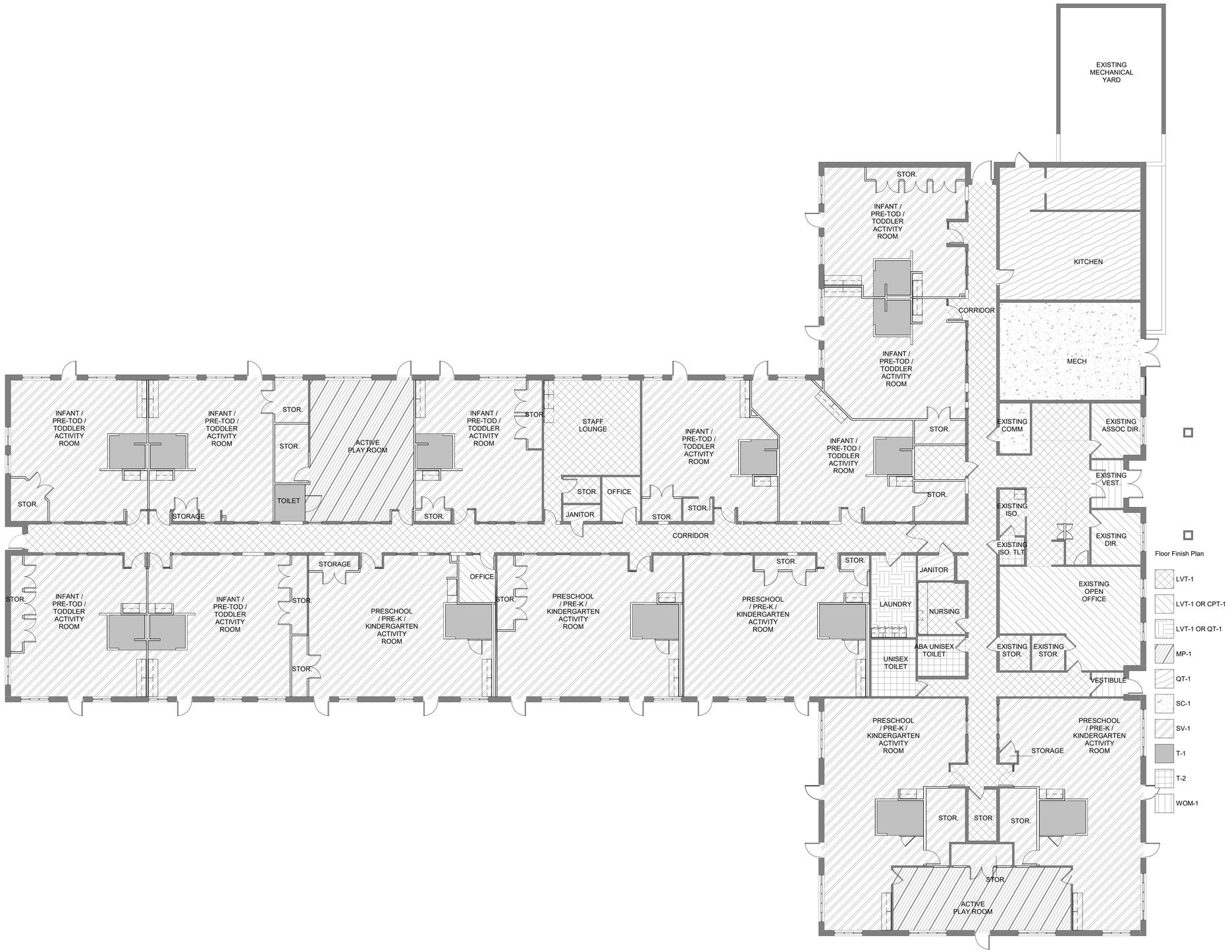

A1 FINISH PLAN - OVERALL

3/32" = 1'-0"

GENERAL NOTES

A. REFER TO AF601 FOR INTERIOR FINISH SCHEDULE
B. REFER TO AF602 FOR INTERIOR FINISH LEGEND.
C. ALL FINISHES TO MEET CDC STANDARD DESIGN
D. PROVIDE FLOORING TRANSITIONS AT ALL FLOOR MATERIAL CHANGES, U.O.N.
E. PROVIDE CORNER GUARDS AT ALL EXPOSED OUTER CORNERS, U.O.N.
F. PROVIDE NEW FINGER GUARDS AT ALL DOORS, U.O.N. PART OF DOOR SPECIALY ACCESSORIES.
G. ON ALL WALLS WHERE SHELVING IS PROVIDED, A RED LINE MUST BE PROVIDED IN ACCORDANCE WITH STORAGE HEIGHT LIMITATION LINE REQUIREMENTS IN SECTION 7. FIRE PROTECTION OF THE GENERAL REQUIREMENTS IN THE CDC STANDARD DESIGN CRITERIA

LEGEND

LVT-1 or CPT-1
SV-1
SC-1
LVT-1 or T-1
T-1
Q-1
LVT-1
T-2
LVT-1 or QT-1
MP-1
WOM-1

PLAN NORTH

0 16' 32' 64'

SCALE: 1/32"=1'-0

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: N GRULLON
DRAWN BY: N GRULLON
CHECKED BY: J BROWN
SUBMITTED BY: M POE
SIZE: ANSI D
ISSUE DATE: MARCH 2026
SOLICITATION NO.: -
CONTRACT NO.: -
OPTION TITLE 1
OPTION FIELD 1
OPTION TITLE 2
AF101.DWG

US ARMY CORPS OF ENGINEERS
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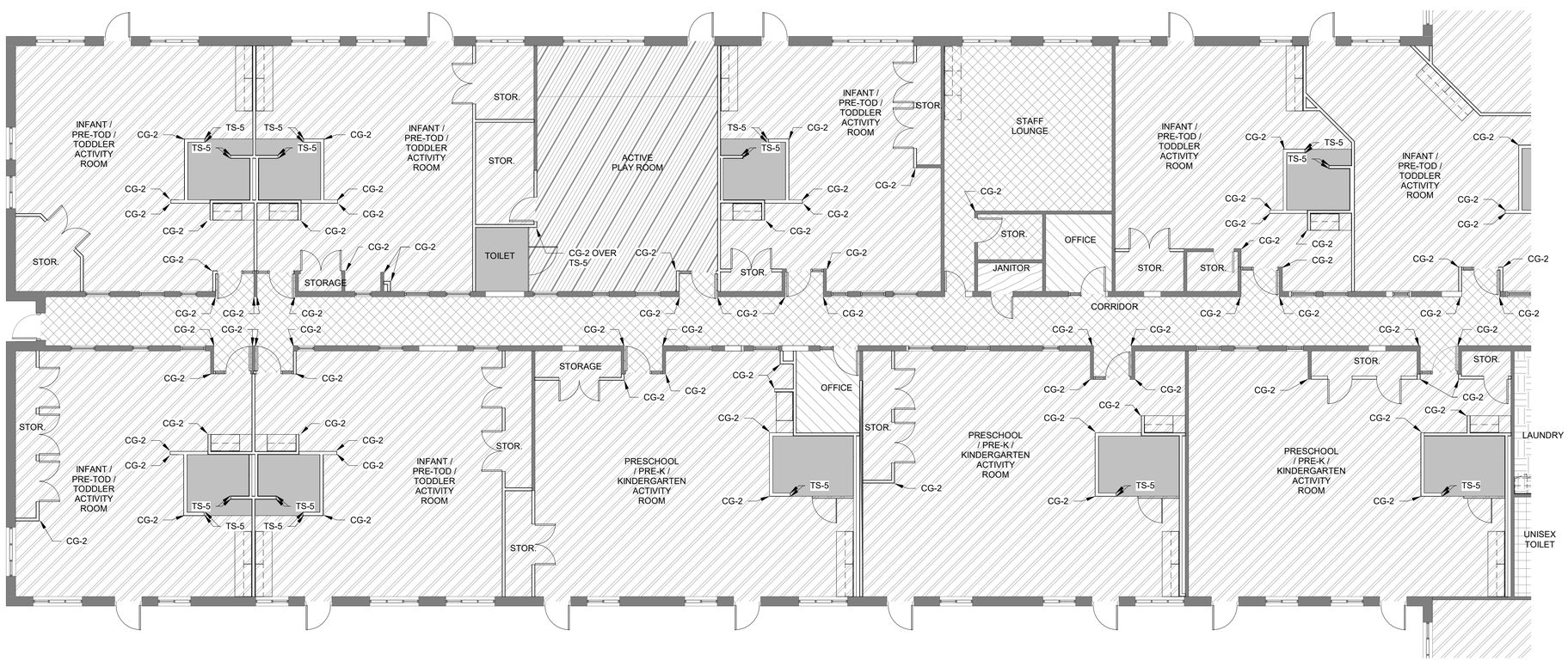
Ft. Campbell, KY
Building 3069
PN519189
OVERALL FINISH PLAN

SHEET ID
AF101

CERTIFIED FINAL SUBMITTAL

W912QR-61034642-0000



A1 FINISH PLAN - AREA A

1/8" = 1'-0"

GENERAL NOTES

A. REFER TO AF601 FOR INTERIOR FINISH SCHEDULE
B. REFER TO AF602 FOR INTERIOR FINISH LEGEND.
C. ALL FINISHES TO MEET CDC STANDARD DESIGN
D. PROVIDE FLOORING TRANSITIONS AT ALL FLOOR MATERIAL CHANGES, U.O.N.
E. PROVIDE CORNER GUARDS AT ALL EXPOSED OUTER CORNERS, U.O.N.
F. PROVIDE NEW FINGER GUARDS AT ALL DOORS, U.O.N. PART OF DOOR SPECIALY ACCESSORIES.
G. ON ALL WALLS WHERE SHELVING IS PROVIDED, A RED LINE MUST BE PROVIDED IN ACCORDANCE WITH STORAGE HEIGHT LIMITATION LINE REQUIREMENTS IN SECTION 7. FIRE PROTECTION OF THE GENERAL REQUIREMENTS IN THE CDC STANDARD DESIGN CRITERIA

SHEET KEYNOTES

LEGEND

LVT-1 or CPT-1	SV-1	SC-1
LVT-1 or T-1	T-1	Q-1
LVT-1	T-2	LVT-1 or QT-1
MP-1	WOM-1	

PLAN NORTH

0 4' 8' 16'

SCALE: 1/8"=1'-0

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MARCH 2026
SOLICITATION NO.: -
CONTRACT NO.: -
OPTION TITLE 1
OPTION FIELD 1

DESIGNED BY: N GRULLON
DRAWN BY: N GRULLON
CHECKED BY: L BROWN
SUBMITTED BY: M POE
SIZE: ANSI D
OPTION TITLE 2
AF102 DWG

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING PLACE
LOUISVILLE, KY 40202

BLACK & VEATCH Stantec
BLACK & VEATCH AND STANTEC JOINT VENTURE
11401 LAMAR AVENUE, OVERLAND PARK, KS 66211
(770) 421-8789 SERVICES@BV.COM

Ft. Campbell, KY
Building 3069
PN519189

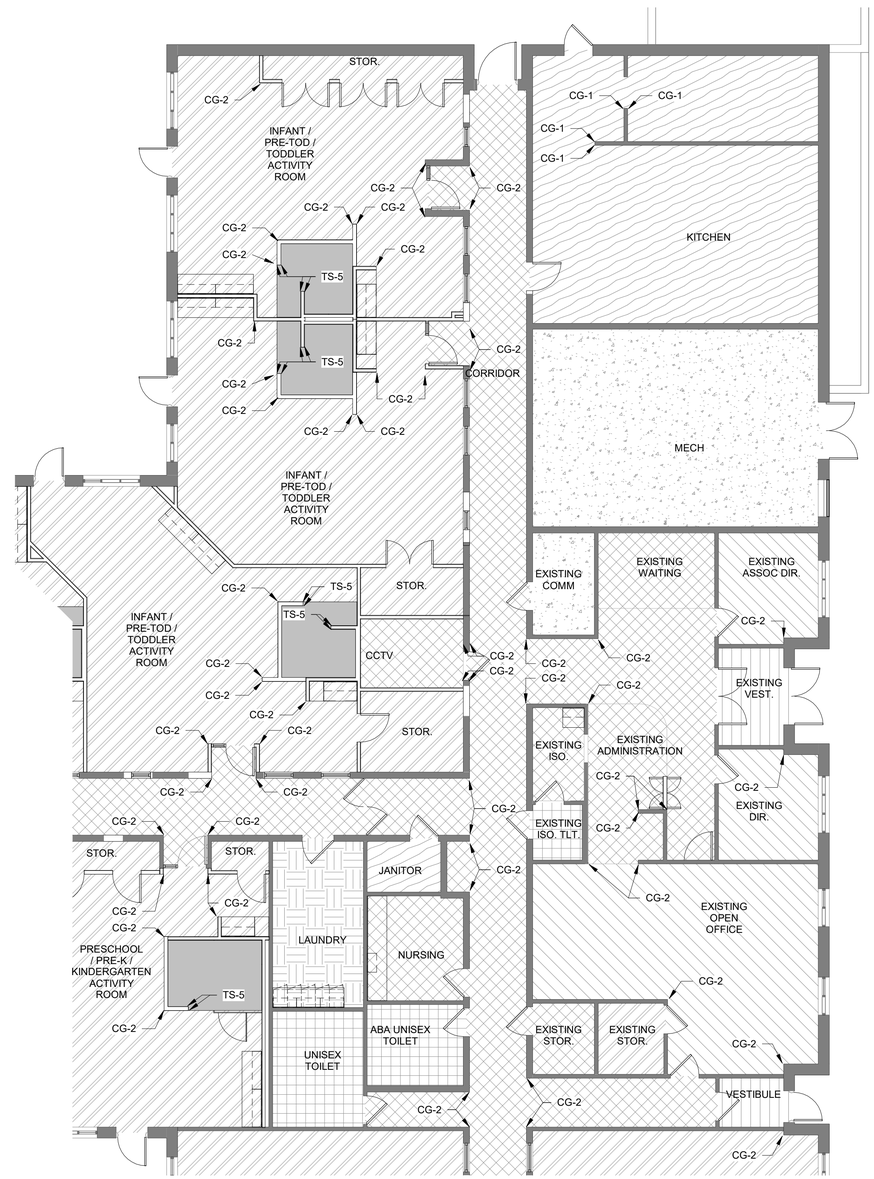
FINISH PLAN - AREA A

SHEET ID

AF102

CERTIFIED FINAL SUBMITTAL

W912QR-61034642-0000



A9 FINISH PLAN - AREA B

1/8" = 1'-0"

GENERAL NOTES

A. REFER TO AF601 FOR INTERIOR FINISH SCHEDULE
B. REFER TO AF602 FOR INTERIOR FINISH LEGEND.
C. ALL FINISHES TO MEET CDC STANDARD DESIGN
D. PROVIDE FLOORING TRANSITIONS AT ALL FLOOR MATERIAL CHANGES, U.O.N.
E. PROVIDE CORNER GUARDS AT ALL EXPOSED OUTER CORNERS, U.O.N.
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LEGEND

LVT-1 or CPT-1	SV-1	SC-1
LVT-1 or T-1	T-1	Q-1
LVT-1	T-2	LVT-1 or QT-1
MP-1	WOM-1	

PLAN NORTH

0 4' 8' 16'

SCALE: 1/8"=1'-0

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

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LOUISVILLE DISTRICT
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LOUISVILLE, KY 40202

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11401 LAMAR AVENUE, OVERLAND PARK, KS 66211
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DESIGNED BY: N GRULLON
DRAWN BY: N GRULLON
CHECKED BY: J BROWN
SUBMITTED BY: M POE
SIZE: ANSI D
ISSUE DATE: MARCH 2026
SOLICITATION NO.: -
CONTRACT NO.: -
OPTION TITLE 1
OPTION FIELD 1
OPTION TITLE 2
AF103.DWG

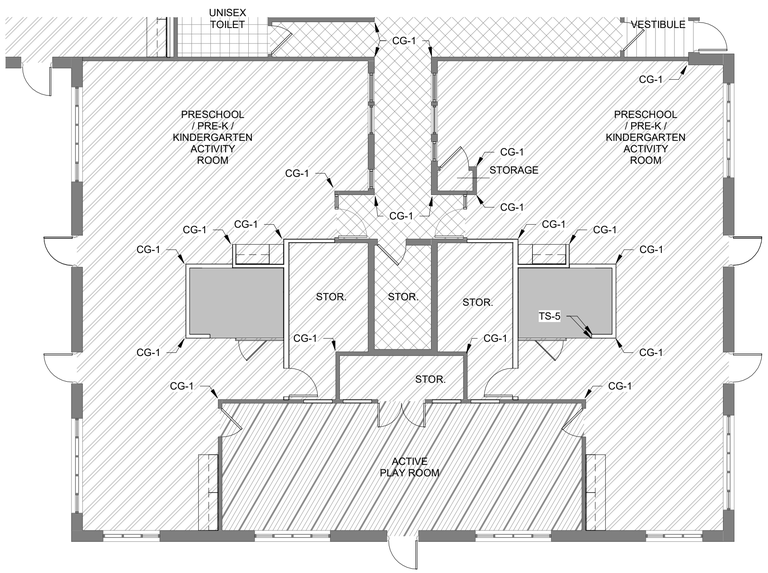
Ft. Campbell, KY
Building 3069
PN519189

FINISH PLAN - AREA B

SHEET ID

AF103

CERTIFIED FINAL SUBMITTAL



A1 FINISH PLAN - AREA C

1/8" = 1'-0"

GENERAL NOTES

A. REFER TO AF601 FOR INTERIOR FINISH SCHEDULE
B. REFER TO AF602 FOR INTERIOR FINISH LEGEND.
C. ALL FINISHES TO MEET CDC STANDARD DESIGN
D. PROVIDE FLOORING TRANSITIONS AT ALL FLOOR MATERIAL CHANGES, U.O.N.
E. PROVIDE CORNER GUARDS AT ALL EXPOSED OUTER CORNERS, U.O.N.
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G. ON ALL WALLS WHERE SHELVING IS PROVIDED, A RED LINE MUST BE PROVIDED IN ACCORDANCE WITH STORAGE HEIGHT LIMITATION LINE REQUIREMENTS IN SECTION 7. FIRE PROTECTION OF THE GENERAL REQUIREMENTS IN THE CDC STANDARD DESIGN CRITERIA

LEGEND

LVT-1 or CPT-1	SV-1	SC-1
LVT-1 or T-1	T-1	Q-1
LVT-1	T-2	LVT-1 or QT-1
MP-1	WOM-1	

PLAN NORTH

0 4' 8' 16'

SCALE: 1/8"=1'-0

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MARCH 2026
SOLICITATION NO.: -
CONTRACT NO.: -
OPTION TITLE 1
OPTION FIELD 1
OPTION TITLE 2
AF-104.DWG

DESIGNED BY: N GRULLON
DRAWN BY: N GRULLON
CHECKED BY: J BROWN
SUBMITTED BY: M POE
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING PLACE
LOUISVILLE, KY 40202

BLACK & VEATCH | Stantec
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(770) 421-8199 SUBMITTAL@BV.COM

Ft. Campbell, KY
Building 3069
PN519189
FINISH PLAN - AREA C

SHEET ID
AF104

CERTIFIED FINAL SUBMITTAL

W912QR-61034642-0000

ROOM FINISH SCHEDULE

NO.	NAME	FLOOR FINISH	FLOOR GROUT	WALL BASE	WALL FINISHES NORTH	WALL FINISHES EAST	WALL FINISHES SOUTH	WALL FINISHES WEST	WALL GROUT	CEILINGS MATERIAL	MILLWORK COUNTER	MILLWORK BASE	MILLWORK UPPER	COMMENTS
LEVEL 01														
95	EXISTING MECH YARD	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	
101	INFANT / PRE-TOD / TODDLER ACTIVITY ROOM	SV-1	GR-1	B-1	PT	PT	PT	PT	GR-2	ACT-1	SS-1	PL-2	PL-2	TILED FLOOR T-1 AND WALLS T-2 AT TOILET AREA
101A	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
102	INFANT / PRE-TOD / TODDLER ACTIVITY ROOM	SV-1	GR-1	B-1	PT	PT	PT	PT	GR-2	ACT-1	SS-1	PL-2	PL-2	TILED FLOOR T-1 AND WALLS T-2 AT TOILET AREA
102A	STORAGE	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
102B	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
103	ACTIVE PLAY ROOM	MP-1	- - -	B-1	PT, WP-1	PT, WP-1	PT, WP-1	PT, WP-1	- - -	ACT-1	- - -	- - -	- - -	
103A	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
103B	TOILET	T-1	GR-1	TB-1	T-3	T-3	T-3	T-3	GR-2	ACT-2	- - -	- - -	- - -	
104	INFANT / PRE-TOD / TODDLER ACTIVITY ROOM	SV-1	GR-1	B-1	PT	PT	PT	PT	GR-2	ACT-1	SS-1	PL-2	PL-2	TILED FLOOR T-1 AND WALLS T-2 AT TOILET AREA
104A	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
104B	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
105	STAFF LOUNGE	LVT-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	Q-1	- - -	PL-1	
105A	STOR.	LVT-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
106	JANITOR	QT-1	GR-1	TB-2	PT	PT	PT	PT	- - -	ACT-2	- - -	- - -	- - -	PROVIDE FRP-1 AT MOP SINK ADJACENT WALLS
107	OFFICE	LVT-1 OR CPT-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
108	INFANT / PRE-TOD / TODDLER ACTIVITY ROOM	SV-1	GR-1	B-1	PT	PT	PT	PT	GR-2	ACT-1	SS-1	PL-2	PL-2	TILED FLOOR T-1 AND WALLS T-2 AT TOILET AREA
108A	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
108B	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
109	INFANT / PRE-TOD / TODDLER ACTIVITY ROOM	SV-1	GR-1	B-1	PT	PT	PT	PT	GR-2	ACT-1	SS-1	PL-2	PL-2	TILED FLOOR T-1 AND WALLS T-2 AT TOILET AREA
109A	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
110	CCTV	LVT-1		B-1	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
111	INFANT / PRE-TOD / TODDLER ACTIVITY ROOM	SV-1	GR-1	B-1	PT	PT	PT	PT	GR-2	ACT-1	SS-1	PL-2	PL-2	TILED FLOOR T-1 AND WALLS T-2 AT TOILET AREA
111A	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
112	INFANT / PRE-TOD / TODDLER ACTIVITY ROOM	SV-1	GR-1	B-1	PT	PT	PT	PT	GR-2	ACT-1	SS-1	PL-2	PL-2	TILED FLOOR T-1 AND WALLS T-2 AT TOILET AREA
112A	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
113	KITCHEN	QT-1	GR-1	TB-2	T-4	T-4	T-4	T-4	- - -	ACT-2	- - -	- - -	- - -	
114	MECH	SC-1	- - -	B-2	PT	PT	PT	PT	- - -	EXP. STRUC.	- - -	- - -	- - -	
115	EXISTING COMM	SC-1	- - -	B-2	PT	PT	PT	PT	- - -	EXP. STRUC.	- - -	- - -	- - -	
116	EXISTING ASSOC DIR.	LVT-1 OR CPT-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
117	EXISTING VEST.	WOM-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
117A	EXISTING WAITING	LVT-1		B-1	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -		
117B	EXISTING ADMINISTRATION	LVT-1		B-1	PT	PT	PT	PT	- - -	ACT-1	Q-1	PL-1	- - -	
117C	CORRIDOR	LVT-1	- - -	B-1	PT	PT	PT	PT	- - -	ACT-1	Q-1	PL-1	PL-1	
117D	CORRIDOR	LVT-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
117E	VESTIBULE	WOM-1												
118	EXISTING DIR.	LVT-1 OR CPT-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
119	EXISTING ISO.	LVT-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
120	EXISTING ISO. TLT.	T-2	GR-1	TB-1	T-3	T-3	T-3	T-3	GR-2	ACT-1	- - -	- - -	- - -	
121	EXISTING OPEN OFFICE	LVT-1 OR CPT-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
121A	EXISTING STOR.	LVT-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
121B	EXISTING STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
122	PRESCHOOL / PRE-K / KINDERGARTEN ACTIVITY ROOM	SV-1	GR-1	B-1	PT	PT	PT	PT	GR-2	ACT-1	SS-1	PL-2	PL-2	TILED FLOOR T-1 AND WALLS T-2 AT TOILET AREA
122A	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
122B	STORAGE	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
123	ACTIVE PLAY ROOM	MP-1	- - -	B-1	PT, WP-1	PT, WP-1	PT, WP-1	PT, WP-1	- - -	ACT-1	- - -	- - -	- - -	
123A	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
124	STOR.	LVT-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
125	PRESCHOOL / PRE-K / KINDERGARTEN ACTIVITY ROOM	SV-1	GR-1	B-1	PT	PT	PT	PT	GR-2	ACT-1	SS-1	PL-2	PL-2	TILED FLOOR T-1 AND WALLS T-2 AT TOILET AREA
125A	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
126	ABA UNISEX TOILET	T-2	GR-1	TB-1	T-3	T-3	T-3	T-3	- - -	ACT-2	- - -		- - -	
127	NURSING	LVT-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	Q-1	PL-1	PL-1	
128	JANITOR	QT-1	GR-1	TB-2	PT	PT	PT	PT	- - -	ACT-2	- - -	- - -	- - -	PROVIDE FRP-1 AT MOP SINK ADJACENT WALLS
129	UNISEX TOILET	T-2	GR-1	TB-1	T-3	T-3	T-3	T-3	- - -	ACT-1	- - -	- - -	- - -	
130	LAUNDRY	LVT-1 OR QT-1	GR-1	TB-2	PT	PT	PT	PT	- - -	ACT-2	- - -	- - -	- - -	PROVIDE FRP-1 AT EYEWASH WALL
131	PRESCHOOL / PRE-K / KINDERGARTEN ACTIVITY ROOM	SV-1	GR-1	B-1	PT	PT	PT	PT	GR-2	ACT-1	SS-1	PL-2	PL-2	TILED FLOOR T-1 AND WALLS T-2 AT TOILET AREA
131A	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
131B	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
132	PRESCHOOL / PRE-K / KINDERGARTEN ACTIVITY ROOM	SV-1	GR-1	B-1	PT	PT	PT	PT	GR-2	ACT-1	SS-1	PL-2	PL-2	TILED FLOOR T-1 AND WALLS T-2 AT TOILET AREA
132A	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
133	PRESCHOOL / PRE-K / KINDERGARTEN ACTIVITY ROOM	SV-1	GR-1	B-1	PT	PT	PT	PT	GR-2	ACT-1	SS-1	PL-2	PL-2	TILED FLOOR T-1 AND WALLS T-2 AT TOILET AREA
133A	STORAGE	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
133B	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
134	INFANT / PRE-TOD / TODDLER ACTIVITY ROOM	SV-1	GR-1	B-1	PT	PT	PT	PT	GR-2	ACT-1	SS-1	PL-2	PL-2	TILED FLOOR T-1 AND WALLS T-2 AT TOILET AREA
134A	STOR.	SV-1	- - -	B-1	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
135	INFANT / PRE-TOD / TODDLER ACTIVITY ROOM	SV-1	GR-1	B-1	PT	PT	PT	PT	GR-2	ACT-1	SS-1	PL-1	PL-2	TILED FLOOR T-1 AND WALLS T-2 AT TOILET AREA
135A	STOR.	SV-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	
136	OFFICE	LVT-1 OR CPT-1	- - -	B-2	PT	PT	PT	PT	- - -	ACT-1	- - -	- - -	- - -	

GENERAL NOTES

A. REFER TO AF601 FOR INTERIOR FINISH SCHEDULE
B. REFER TO AF602 FOR INTERIOR FINISH LEGEND.
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US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MARCH 2026
SOLICITATION NO.: .
CONTRACT NO.: .
OPTION TITLE 1
OPTION FIELD 1
OPTION TITLE 2
AF601 DWG

DESIGNED BY: N GRULLON
DRAWN BY: N GRULLON
CHECKED BY: J HEDVIK
SUBMITTED BY: M POE
SIZE: ANSI D

US ARMY CORPS OF ENGINEERS
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Ft. Campbell, KY
Building 3069
PN519189

INTERIOR FINISH SCHEDULE

SHEET ID
AF601

SEAL

CERTIFIED FINAL SUBMITTAL

FINISH LEGEND

TYPE MARK	MATERIAL	REMARKS
BASE FINISHES		
B-1	RUBBER WALL BASE, COVE	AT ANY LOCATION WHERE BASE WRAPS AROUND AND THE RETURN IS LESS THAN 4", A PREFORMED CORNER BASE SHALL BE USED
B-2	RUBBER WALL BASE, STRAIGHT	AT ANY LOCATION WHERE BASE WRAPS AROUND AND THE RETURN IS LESS THAN 4", A PREFORMED CORNER BASE SHALL BE USED
TB-1	PORCELAIN TILE BASE	
TB-2	QUARRY TILE BASE	
CEILING FINISHES		
ACT-1	ACOUSTICAL CEILING TILE	
ACT-2	VINYL FACED ACOUSTICAL TILE, MOISTURE RESISTANT	
DOORS		
FG-1	FINGER GUARDS, ROLLER TYPE (DOOR SPECIALTY ACCESSORY)	
PT-6	METAL DOOR/FRAME PAINT	
WD-1	WOOD DOOR, STAINED	
FLOOR FINISHES		
CPT-1	CARPET	
LVT-1	LUXURY VINYL TILE	
MP-1	ATHLETIC MULTI-PURPOSE FLOOR	
SC-1	SEALED CONCRETE	
SV-1	SHEET VINYL	
T-1	PORCELAIN FLOOR TILE	
T-2	QUARRY TILE	
WOM-1	RECESSED WALK-OFF MAT	
MILLWORK		
PL-1	PLASTIC LAMINATE	
PL-2	PLASTIC LAMINATE	
PLE-1	PLASTIC LAMINATE EDGING	
Q-1	SOLID SURAFACE QUARTZ COUNTERTOP, RADIUSED CORNERS	
SS-1	SOLID SURAFACE, DIAPER CHANGING STATIONS, RADIUSED CORNERS	
MISCELLANEOUS FINISHES		
GR-1	EPOXY FLOOR GROUT	
GR-2	EPOXY WALL GROUT	
Q-2	SOLID SURAFACE QUARTZ WINDOW SILLS, TO MATCH Q-1, FLUSH WITH WALLS AND EASED EDGES	
TP-1	TOILET PARTITIONS	
TS-1	TRANSITION STRIPS - SHEET VINYL/LVT TO SEALED CONCRETE	
TS-2	TRANSITION STRIPS - SHEET VINYL/LVT TO ATHLETIC FLOOR	
TS-3	TRANSISTION STRIPS - QUARRY TILE TO SHEET VINYL	
TS-4	TRANSITION STRIPS - TILE TO ATHLETIC FLOOR	
TS-5	TRANSITION STRIPS - TILED WALL CORNERS AT RESTROOMS, ROUNDED EDGE	
PAINT FINISHES		
PT-1	FIELD PAINT, EPOXY	
PT-2	ACCENT PAINT, EPOXY	
PT-3	FIELD PAINT, EPOXY	
PT-4	ACCENT PAINT, EPOXY	
PT-5	FIELD CEILING PAINT	
WALL FINISHES		
T-3	PORCELAIN WALL TILE, RESTROOMS	
T-4	CERAMIC WALL TILE, KITCHEN	
WP-1	ATHLETIC WALL PADDING	PROVIDE AT ACTIVE PLAY ROOMS, MINIMUM HEIGHT OF 60" AFF.
WALL PROTECTION		
CG-1	STAINLESS STEEL CORNER GUARD	MECHANICALLY FASTENED AND CAULKED
CG-2	RIGID VINYL CORNER GUARD, RADIUSED CORNER, 48" AFF	MECHANICALLY FASTENED AND CAULKED
FRP-1	FIBER REINFORCED PANELS	PROVIDE AT MOP SINK ADJACENT WALLS. PROVIDE AT LAUNDRY EYE WASH WALL.
WINDOW TREATMENT		
WT-1	WINDOW TREATMENT, MINI-BLINDS, CORDLESS	LOCATED AT ALL EXTERIOR WINDOWS

GENERAL NOTES

A. REFER TO AF601 FOR INTERIOR FINISH SCHEDULE
B. REFER TO AF602 FOR INTERIOR FINISH LEGEND.
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US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: N GRULLON
DRAWN BY: N GRULLON
CHECKED BY: J BROWN
SUBMITTED BY: M POE
SIZE: ANSI D
ISSUE DATE: MARCH 2026
SOLICITATION NO.: -
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OPTION TITLE 1
OPTION FIELD 1
OPTION TITLE 2
AF602.DWG

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING PLACE
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11401 LAMAR AVENUE, OVERLAND PARK, KS 66211
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Ft. Campbell, KY
Building 3069
PN519189

INTERIOR FINISH LEGEND

SHEET ID
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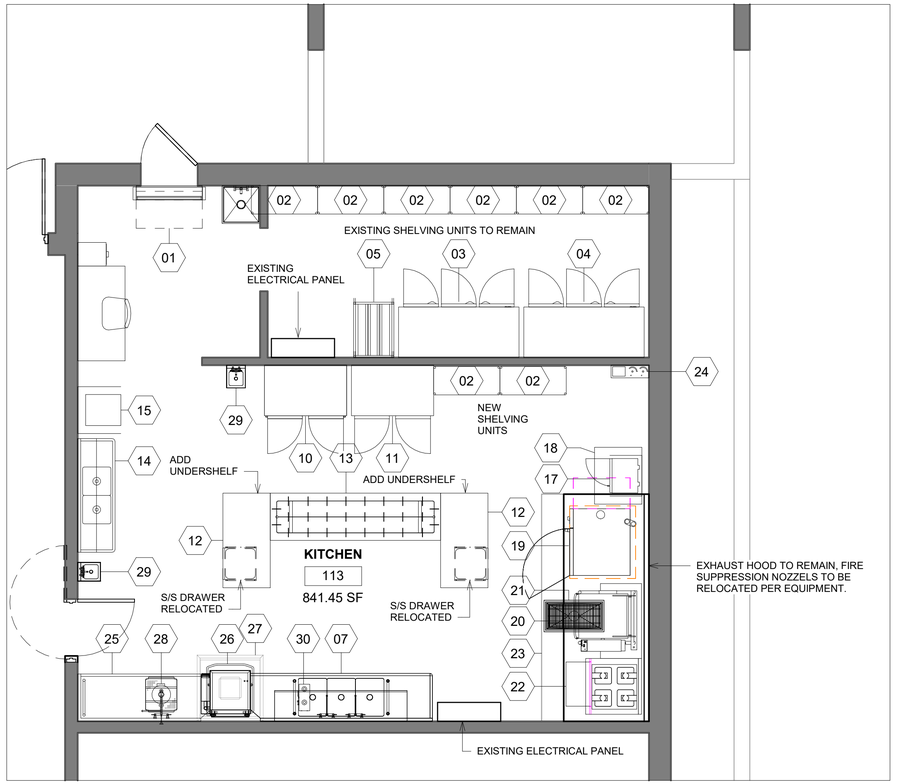
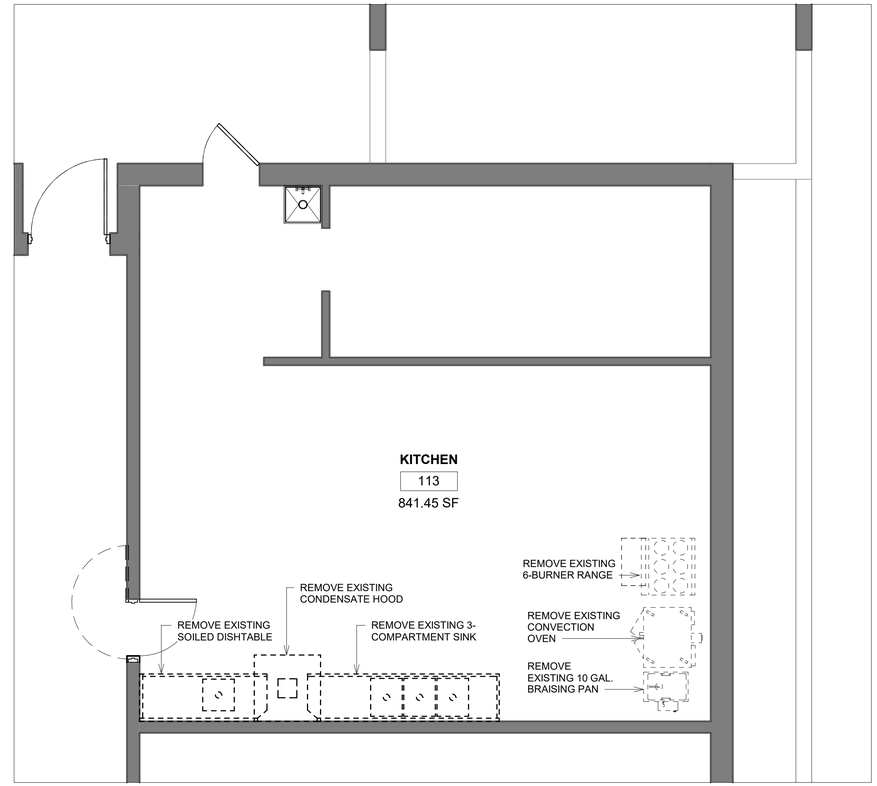


1 K-001 FOOD SERVICE EQUIPMENT PLAN
1/4" = 1'-0"



2 K-001 FOOD SERVICE DEMO PLAN
1/4" = 1'-0"

ELECTRICAL LOADS ARE BASED ON MANUFACTURER'S INFORMATION. MINIMUM CIRCUIT AMPACITY AND OVERCURRENT PROTECTION TO BE DETERMINED BY CODE REQUIREMENTS AND/OR MANUFACTURER'S DIRECTIONS.

EXISTING EQUIPMENT:

TRADES TO DISCONNECT KITCHEN EQUIPMENT IN KITCHEN.

FOOD SERVICE EQUIPMENT CONTRACTOR TO MOVE & SET IN PLACE THOSE ITEMS INDICATED AS RESET.

CONTRACTOR TO REMOVE ALL EXISTING EQUIPMENT. EQUIPMENT NOT REUSED MUST BE RETURNED TO THE GOVERNMENT/OWNER.

THE DATA ON EXISTING EQUIPMENT IS THE BEST AVAILABLE AT THE TIME THESE DRAWINGS WHERE PREPARED, AND IS OFFERED FOR PLANNING PURPOSES ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL DATA PRIOR TO ROUGHING-IN UTILITIES FOR EXISTING EQUIPMENT.

ABBREVIATIONS

ABV.	ABOVE
A.F.F.	ABOVE FINISHED FLOOR
CTR.	COUNTER MOUNTED
C.W.	COLD WATER
E.C.	ELECTRICAL CONTRACTOR
F.D.	FLOOR DRAIN
F.S.	FLOOR SINK
F.S.E.C.	FOOD SERVICE EQUIPMENT CONTRACTOR
G.C.	GENERAL CONTRACTOR
H.W.	HOT WATER
I.W.	INDIRECT WASTE
M.C.	MECHANICAL CONTRACTOR
N.I.K.C.	NOT IN KITCHEN CONTRACT
S/S	STAINLESS STEEL
ST.	STUB
U.C.	UTILITY CHASE
W.	WASTE

FOODSERVICE EQUIPMENT SCHEDULE

						ELECTRICAL							PLUMBING								
QTY	ITEM	DESCRIPTION	MANUFACTURER	MODEL	ITEM	ELECTRICAL A.F.F.	KW	HP	AMPS	VOLTS	PHASE	NEMA	HW SIZE	HW/A.F.F.	CW SIZE	CW/A.F.F.	IW	DRAIN TYPE	DW	DW A.F.F.	REMARKS
1	01	AIR CURTAIN, UNHEATED	MARS AIR	LPN242-1UA-OB	01	ABV.			2.4	120	1	DIRECT									MICROSWITCH AT DOOR
8	02	DRY STORAGE SHELVING UNIT	EXISTING	RESET	02																(6) EXISTING, (2) NEW
1	03	3 SECTION, REACH-IN FREEZER	EXISTING	RESET	03	24"			8.4	120	1	5-15P									VERIFY UTILITIES WITH OWNER
1	04	3 SECTION, REACH-IN REFRIGERATOR	TRAULSEN	G30010	04	24"			8.4	120	1	5-15P									CASTERS
1	05	CAN RACK	EXISTING	RESET	05																
1	06	NOT USED	-	-	06																
1	07	DISHTABLE, W/ POTSINKS	ADVANCE TABCO	DTC-3-1824-120L-MOD	07								2@1/2"	14"	2@1/2"	14"		F.S.			(2) FAUCET, (3) LEVER WASTE, REFER TO EQUIPMENT DETAILS
1	08-09	NOT USED	-	-	08-09																
1	10	2 SECTION, REACH-IN REFRIGERATOR	EXISTING	RESET	10	24"		1/3	7.4	120	1	5-15P									VERIFY UTILITIES WITH OWNER
1	11	2 SECTION, REACH-IN FREEZER	EXISTING	RESET	11	24"		3/4	11.2	120	1	5-15P									VERIFY UTILITIES WITH OWNER
2	12	WORKTABLE	EXISTING	RESET	12																RELOCATE DRAWER, ADD UNDERSHELF
1	13	WORKTABLE W/TABLE MOUNT POT RACK	EXISTING	RESET	13																
1	14	TWO-COMPARTMENT SINK	EXISTING	RESET	14								1/2"	14"	1/2"	14"	2"	F.S.			DISPOSER PROVISION
1	15	ICE MAKER W/BIN	EXISTING	RESET	15	24"			5.2	120	1	5-15P			3/8"	14"	1"	F.S.			VERIFY UTILITIES WITH OWNER
1	16	NOT USED	-	-	16																
1	17	MICROWAVE OVEN	EXISTING	RESET	17	24"			15.0	120	1	5-20P									VERIFY UTILITIES WITH OWNER
1	18	WORKTABLE	EXISTING	RESET	18																
1	19	COMBI OVEN, DBL STACKED	RATIONAL AG	ICP 6-FULL ON 6-FULL E	19	24"/50"	2@22.4			208	3	(2) DIRECT			2@3/4"	48"		F.T.	2"		WATER FILTER, STACKING KIT
1	20	TILTING BRAISING PAN, 30 GALLON	GROEN	BPP-30EC	20	24"			32.0	208	3	15-50P	1/2"	14"	1/2"	14"		F.T.			SINGLE PANTRY FAUCET, FLANGED FEET
1	21	FLOOR TROUGH	IMC TEDDY	ASFT-1836-PFG	21														4"		
1	22	INDUCTION RANGE	GARLAND	GME36M-I20C	22	24"			82.2	208	3	DIRECT									
1	23	EXHAUST HOOD	EXISTING	RESET	23																
1	24	FIRE SUPPRESSION SYSTEM	EXISTING	RESET	24																ADJUST PER NEW EQUIPMENT
1	25	SOILED DISHTABLE	ADVANCE TABCO	DTS-S30-84R-MOD	25								1/2"	14"	1/2"	14"	2"	F.S.			PRE-RINSE UNIT, PROVISION FOR DISPOSER, REFER TO DETAILS
1	26	DISHWASHER, DOOR TYPE	EXISTING	RESET	26	24"			45.4	208	3	DIRECT	3/4"	14"	3/4"	14"	2"	F.S.			VERIFY UTILITIES WITH OWNER
1	27	CONDENSATE HOOD	CAPTIVEAIRE	VHB	27	ABV.			20.0	120	1	DIRECT									VENTILATION: 12"X12", 600 CFM, -0.25" S.P.
1	28	SINK DISPOSER	EXISTING	RESET	28	18"		2		208	3	DIRECT			1/2"	14"			2"		VERIFY UTILITIES WITH OWNER
2	29	HAND SINK, WALL MOUNT	EXISTING	RESET	29								1/2"	14"	1/2"	14"			2"		VERIFY UTILITIES WITH OWNER
1	30	SANITIZING SINK HEATERS	EXISTING	RESET	30	18"			25.0	208	3	DIRECT									VERIFY UTILITIES WITH OWNER

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: AG
DRAWN BY: AG
CHECKED BY: AG
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: MARCH 2026
SOLICITATION NO.:
CONTRACT NO.:
OPTION TITLE 1
OPTION FIELD 1
OPTION TITLE 2
K-001.DWG

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING PLACE
LOUISVILLE, KY 40202

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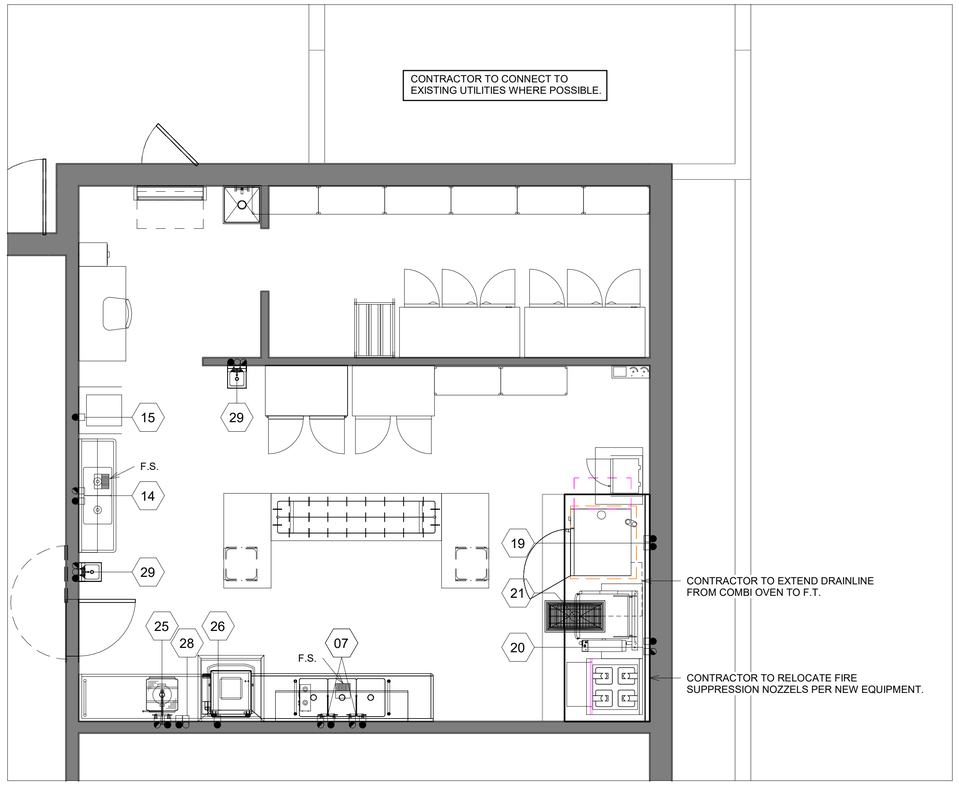
Ft. Campbell, KY
Building 3069

PN519189

FOODSERVICE EQUIPMENT PLAN & SCHEDULE

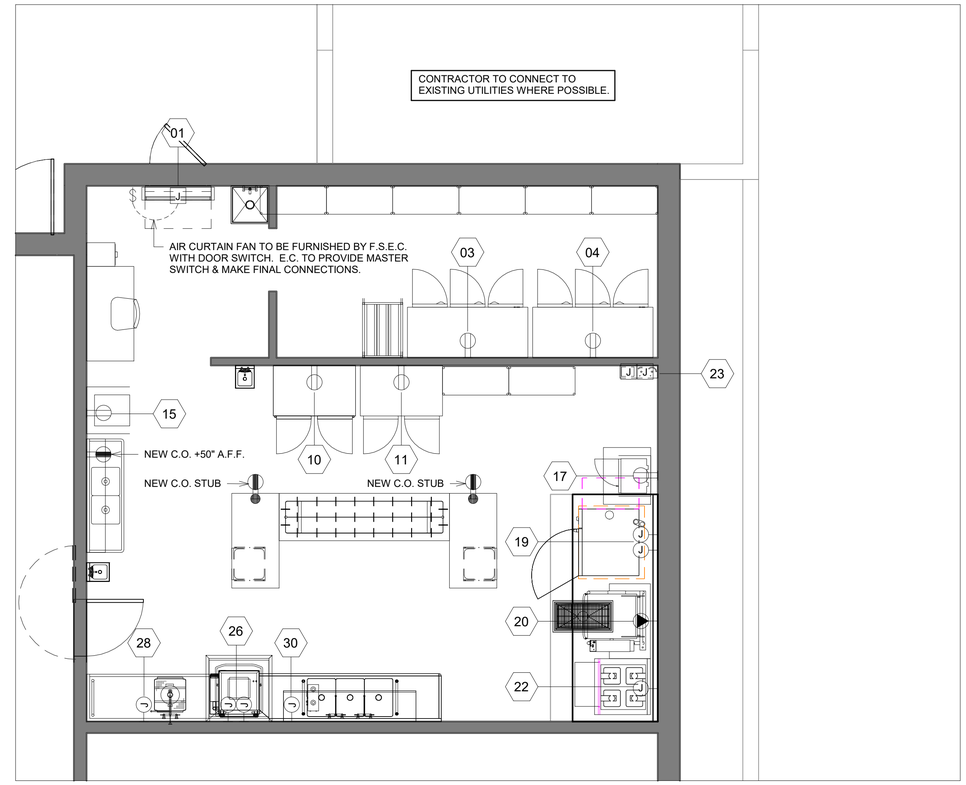
SHEET ID
K-001

CERTIFIED FINAL SUBMITTAL



1 FOOD SERVICE PLUMBING PLAN
K-002

1/4" = 1'-0"



2 FOOD SERVICE ELECTRICAL PLAN
K-002

1/4" = 1'-0"

MECHANICAL SYMBOLS

HOT WATER (HW)	
COLD WATER (CW)	
WASTE (W)	
FD	FLOOR DRAIN
FS	FLOOR SINK - OPEN
FS	FLOOR SINK W/HALF GRATE

PLUMBING ROUGHING IN NOTES

THIS PLAN IS INTENDED TO SHOW UTILITY REQUIREMENTS AND APPROXIMATE ROUGHING-IN LOCATIONS ONLY. DO NOT USE FOR ACTUAL ROUGHING-IN. FOR FINAL ROUGH-IN LOCATIONS SEE DIMENSIONED PLANS PROVIDED BY FOOD SERVICE EQUIPMENT CONTRACTOR.

WHERE EXPOSED PIPES AND CONDUITS ARE NECESSARY, THEY SHOULD BE MOUNTED 1 TO 2 INCHES OFF THE WALL AND 6 INCHES OFF THE FLOOR TO ALLOW FOR CLEANING.

PLUMBING NOTES

PLUMBING TRIM SUCH AS FAUCETS AND SINK WASTES SHALL BE FURNISHED WITH EQUIPMENT BY FOOD SERVICE EQUIPMENT CONTRACTOR. PLUMBER TO PROVIDE SERVICE, STOP VALVES, P-TRAPS, ETC., AND MAKE FINAL CONNECTIONS.

BOOSTER HEATER SHALL BE FURNISHED BY FOOD SERVICE EQUIPMENT CONTRACTOR WITH/PRESS. REDUCING VALVE TEMP/PRESSURE GAUGE AND SHOCK ABSORBER LOOSE FOR FINAL CONNECTION BY PLUMBER.

DISPOSERS SHALL BE FURNISHED BY FOOD SERVICE EQUIPMENT CONTRACTOR WITH FLOW CONTROL VALVE, SOLENOID, AND VACUUM BREAKER. PLUMBER TO PROVIDE INTERCONNECTING PIPING AND MAKE FINAL CONNECTIONS.

FIRE CONTROL SYSTEM: CONTRACTOR TO RELOCATE FIRE SUPPRESSION NOZZELS PER EQUIPMENT.

MECHANICAL NOTES

EXHAUST HOOD IS EXISTING TO REMAIN. H.V.A.C. CONTRACTOR TO PROVIDE EXHAUST FAN, BUILDING DUCTWORK AND MAKE FINAL CONNECTIONS BASED ON NEW EQUIPMENT LINE UP.

DISHMACHINE CONDENSATE HOOD SHALL BE FURNISHED BY FOOD SERVICE EQUIPMENT CONTRACTOR. H.V.A.C. CONTRACTOR TO FURNISH FANS AND BUILDING DUCTWORK AND MAKE FINAL CONNECTION TO COLLAR ON TOP OF HOOD.

ELECTRICAL SYMBOLS

J	J-BOX, FLUSH IN WALL
J	J-BOX FROM ABOVE
	WATERPROOF CONDUIT STUB
	DUPLEX OUTLET
	CONVENIENCE OUTLET, UNASSIGNED
F	FLOOR MOUNTED OUTLET BY E.C.
	SPECIAL OUTLET TO MATCH EQUIPMENT
	MOTOR

ELECTRICAL ROUGHING IN NOTES

THIS PLAN IS INTENDED TO SHOW UTILITY REQUIREMENTS AND APPROXIMATE ROUGHING-IN LOCATIONS ONLY. DO NOT USE FOR ACTUAL ROUGHING IN. FOR FINAL ROUGH-IN LOCATIONS SEE DIMENSIONED PLANS PROVIDED BY FOOD SERVICE EQUIPMENT CONTRACTOR.

WHERE EXPOSED PIPES AND CONDUITS ARE NECESSARY, THEY SHOULD BE MOUNTED 1 TO 2 INCHES OFF THE WALL AND 6 INCHES OFF THE FLOOR TO ALLOW FOR CLEANING.

ELECTRICAL NOTES

EXHAUST HOODS IS EXISTING TO REMAIN.

DISPOSERS SHALL BE FURNISHED BY FOOD SERVICE EQUIPMENT CONTRACTOR WITH SOLENOID VALVE AND AUTO REVERSING CONTROL CENTER WITH MAGNETIC STARTER (S) AND START/STOP BUTTONS FOR FINAL CONNECTION BY ELECTRICAL CONTRACTOR.

AIR CURTAIN FAN TO BE FURNISHED BY F.S.E.C. WITH DOOR SWITCH. E.C. TO PROVIDE MASTER SWITCH & MAKE FINAL CONNECTIONS.

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OPTION TITLE 2
K-002.DWG
ISSUE DATE: MARCH 2026
SOLICITATION NO.:
CONTRACT NO.:
OPTION TITLE 1
OPTION FIELD 1

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING PLACE
LOUISVILLE, KY 40202

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FOOD SERVICE ROUGH-IN PLANS

SHEET ID
K-002

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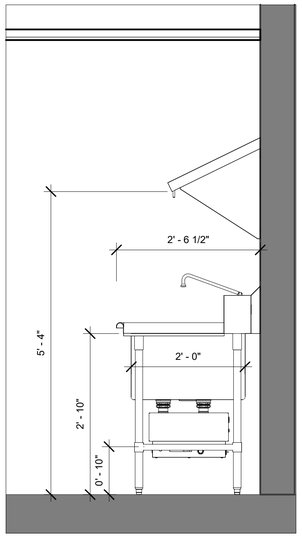
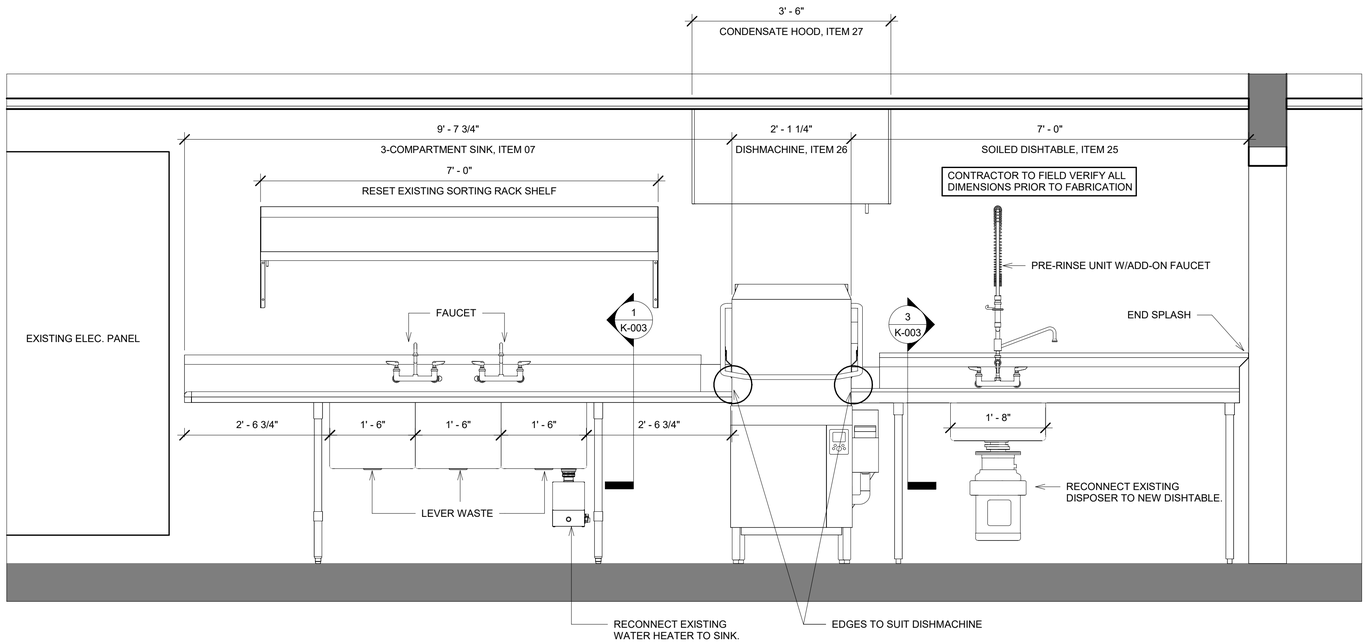
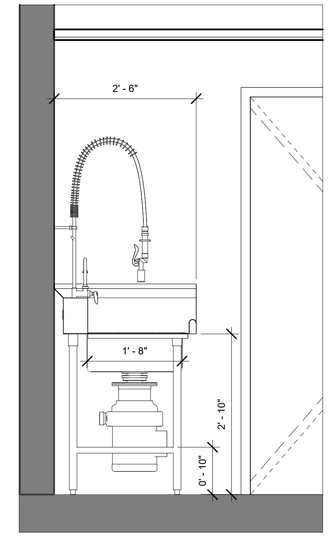


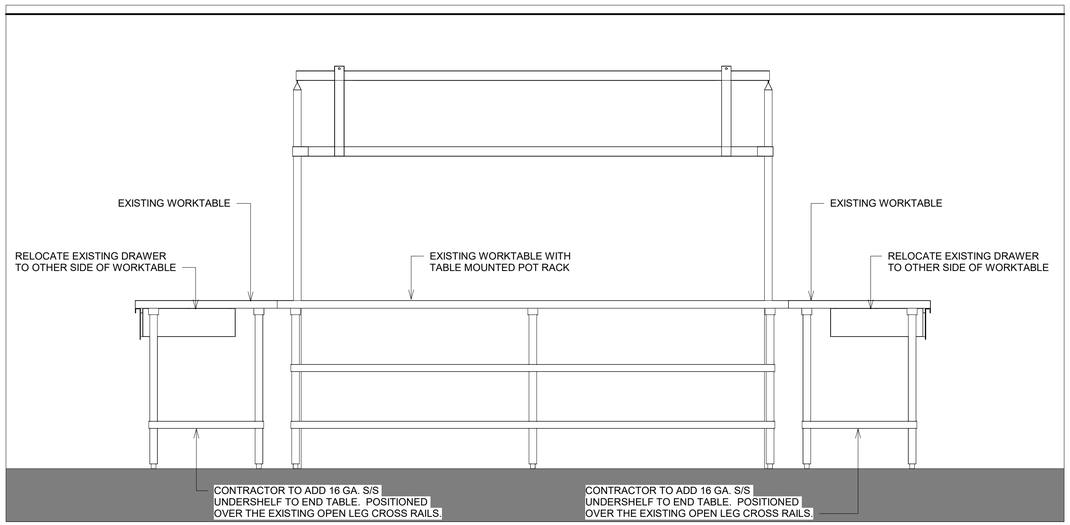
1 K-003 3-COMP SINK SECTION
3/4" = 1'-0"



2 K-003 DISHTABLE ASSEMBLY
3/4" = 1'-0"



3 K-003 SOILED TABLE SECTION
3/4" = 1'-0"



4 K-003 WORKTABLE DETAIL
3/4" = 1'-0"

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OPTION FIELD 1
OPTION TITLE 2
K-003.DWG

US ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING PLACE
LOUISVILLE, KY 40202

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FOOD SERVICE EQUIPMENT DETAILS

SHEET ID
K-003

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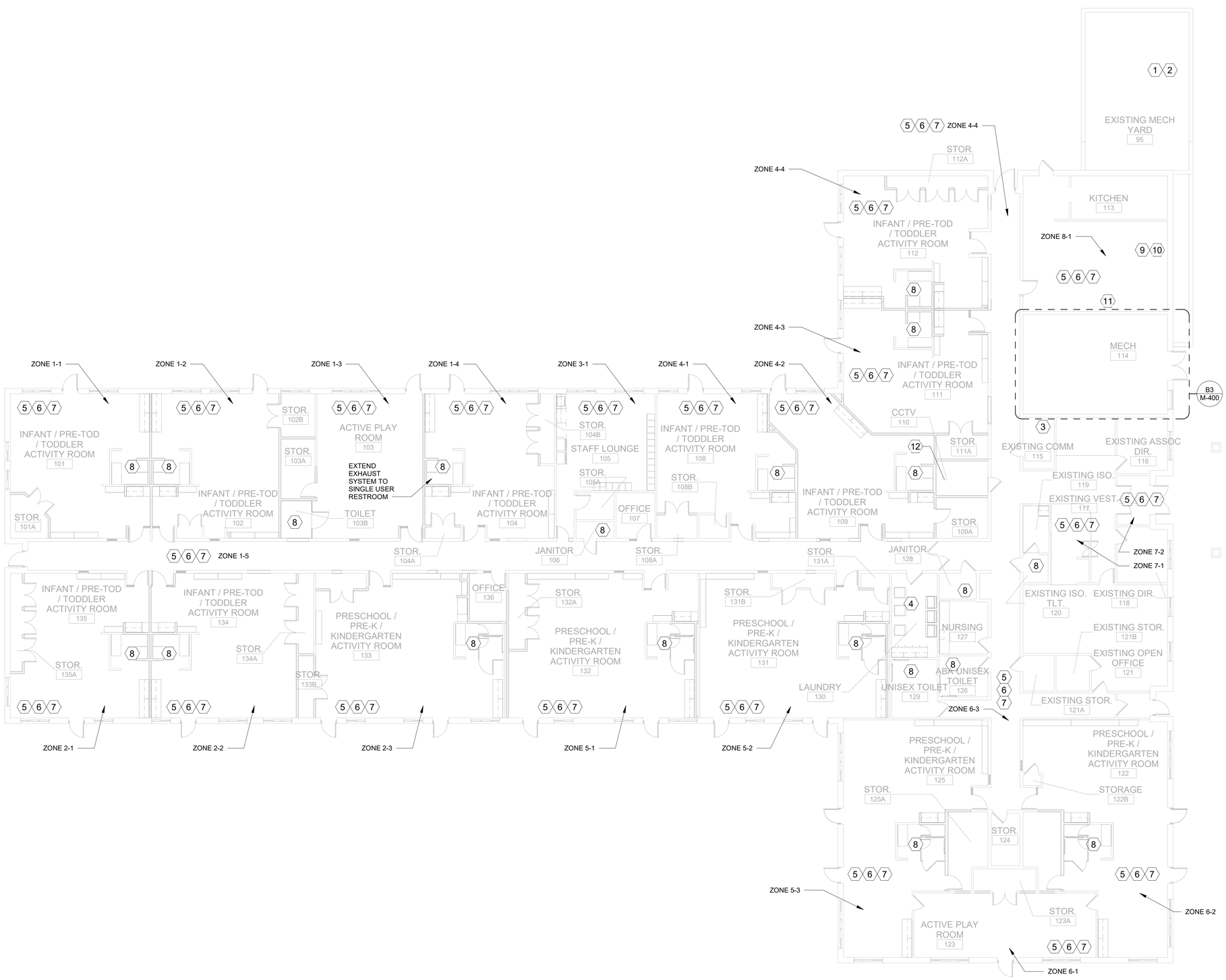

A1 MECHANICAL FLOOR PLAN - OVERALL

3/32" = 1'-0"

GENERAL NOTES

1. SEE AS-BUILT DRAWINGS DATED MAY OF 1990 FOR EXISTING CONDITIONS.
2. THE MECHANICAL INTENT FOR THIS PROJECT CONSISTS OF SELECTIVE DEMOLITION OF EXISTING MECHANICAL SYSTEMS AND PROVIDING NEW MECHANICAL SYSTEMS IN ACCORDANCE WITH THE ARCHITECTURAL LAYOUT AND THE STANDARD DESIGN CRITERIA FOR CHILD DEVELOPMENT CENTERS.
3. PLANS ARE BASED ON EXISTING AS BUILT DRAWINGS AND NON-DESTRUCTIVE FIELD INVESTIGATION. CONTRACTOR MUST FIELD VERIFY EXTENT OF DEMOLITION BASED ON EXISTING CONDITIONS AND NOTIFY THE CONTRACTING OFFICER OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. PROVIDE ALL DUCTWORK, DUCTWORK INSULATION, AND VAV TERMINAL UNITS ABOVE THE CEILING; REUSE OF DUCTWORK LOCATED IN THE MEZZANINE IS ACCEPTABLE. ALL DUCTWORK MUST BE G90 GALVANIZED.
5. PROVIDE HOT WATER PIPING, CHILLED WATER PIPING, AND PIPING INSULATION ABOVE THE CEILING; REUSE OF PIPING IN THE MEZZANINE IS ACCEPTABLE. ALL PIPING MUST BE COPPER TYPE L IF 2" OR SMALLER, AND STEEL IF 2.5" OR LARGER.
6. ALL EXISTING EQUIPMENT AND NEW EQUIPMENT MUST BE PROVIDED WITH BUILDING DDC CONTROLS AND INTEGRATION FOR FUTURE CONNECTION TO A BASEWIDE SYSTEM. ALL NEW CONTROLS MUST BE COMPATIBLE WITH EXISTING CONTROL SYSTEM. FINAL BUILD OUT MUST HAVE A SINGLE FRONT END CONTROL FOR THE END USERS.
7. NEW ROOF PENETRATIONS MUST BE LIMITED TO THE GREATEST EXTENT POSSIBLE.
8. ALL EXISTING EQUIPMENT AND NEW EQUIPMENT WILL REQUIRE COMPLETE AIR AND WATER TAB.

SHEET KEYNOTES

1. DEMOLISH AND REPLACE EXISTING AIR COOLED CHILLER WITH A VARIABLE SPEED CHILLER CAPABLE OF 10:1 TURNDOWN.
2. CHILLED WATER SUPPLY AND RETURN PIPES FROM MECHANICAL ROOM TO EQUIPMENT YARD ARE TO BE REUSED TO THE GREATEST EXTENT PRACTICAL.
3. PROVIDE DEDICATED DX MINI-SPLIT AIR CONDITIONING UNIT.
4. DEMOLISH AND REPLACE DRYER EXHAUST SYSTEM. REUSE ROOF PENETRATION.
5. REUSE DUCTWORK ABOVE CEILING TO GREATEST EXTENT PRACTICAL. DEMOLISH DUCTWORK AS NEEDED TO SUPPORT NEW ARCHITECTURAL LAYOUT. ALL FLEXIBLE PRIMARY AIR DUCTWORK MUST BE REPLACED.
6. DEMOLISH EXISTING TERMINAL UNIT AND PROVIDE A SINGLE DUCT VAV BOX WITH HOT WATER REHEAT. PROVIDE MEDIUM PRESSURE DUCTWORK TO THE ASSOCIATED AIR HANDLING UNIT.
7. DEMOLISH AND REPLACE ALL HOT WATER BRANCH PIPING TO SINGLE DUCT VAV BOXES.
8. DEMOLISH AND REPLACE EXISTING EXHAUST SYSTEM COMPLETE WITH DISTRIBUTION DUCTWORK, GRILLES, AND ROOF MOUNTED EXHAUST FANS. REUSE ROOF PENETRATIONS TO THE GREATEST EXTENT PRACTICAL.
9. DEMOLISH AND REPLACE EXISTING KITCHEN EXHAUST FAN AND CONTROLS WITH A UL-705 GREASE LADEN EXHAUST FAN SERVING KITCHEN HOOD. REUSE OF DUCTWORK AND HOOD IS ANTICIPATED.
10. DEMOLISH AND REPLACE EXISTING MAKE-UP AIR UNIT AND CONTROLS SERVING EXISTING KITCHEN HOOD. REUSE OF DUCTWORK AND HOOD IS ANTICIPATED, THOROUGHLY CLEAN HOOD PRIOR TO PROJECT COMPLETION.
11. DEMOLISH AND REPLACE EXISTING EXHAUST FAN AND CONTROLS SERVING THE DISHWASHER HOOD. COORDINATE REPLACEMENT OF DISHWASHER EXHAUST HOOD AND DUCTWORK WITH FOOD SERVICE PACKAGE OPTIONS.
12. EXTEND EXHAUST FROM CCTV SERVER RACK OUTSIDE. PROVIDE MAKEUP AIR DIRECTLY TO CCTV SERVER ROOM.

PLAN NORTH

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MARCH 2026
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY: R. TROUT
DRAWN BY: J. WEBER
CHECKED BY: M. MICHAUX
SUBMITTED BY: M. POE
SIZE: ANSI D
M-110.DWG

US ARMY CORPS OF ENGINEERS

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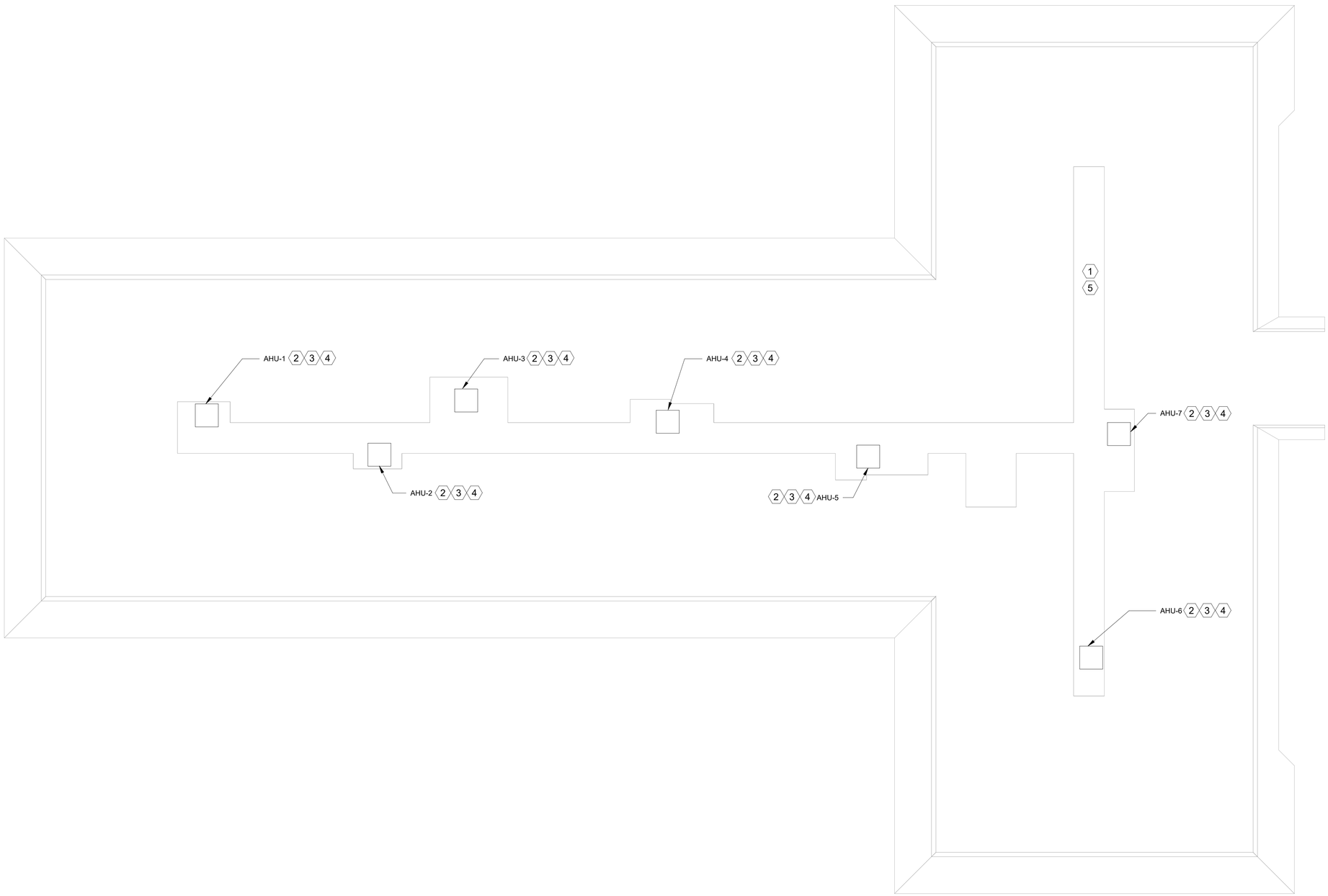

MECHANICAL PLAN - MEZZANINE

A1

NTS

GENERAL NOTES

1. SEE AS-BUILT DRAWINGS DATED MAY OF 1990 FOR EXISTING CONDITIONS.
2. THE MECHANICAL INTENT FOR THIS PROJECT CONSISTS OF SELECTIVE DEMOLITION OF EXISTING MECHANICAL SYSTEMS AND PROVIDING NEW MECHANICAL SYSTEMS IN ACCORDANCE WITH THE ARCHITECTURAL LAYOUT AND THE STANDARD DESIGN CRITERIA FOR CHILD DEVELOPMENT CENTERS.
3. PLANS ARE BASED ON EXISTING AS BUILT DRAWINGS AND NON-DESTRUCTIVE FIELD INVESTIGATION. CONTRACTOR MUST FIELD VERIFY EXTENT OF DEMOLITION BASED ON EXISTING CONDITIONS AND NOTIFY THE CONTRACTING OFFICER OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. PROVIDE ALL DUCTWORK, DUCTWORK INSULATION, AND VAV TERMINAL UNITS ABOVE THE CEILING; REUSE OF DUCTWORK LOCATED IN THE MEZZANINE IS ACCEPTABLE. ALL DUCTWORK MUST BE G90 GALVANIZED.
5. PROVIDE HOT WATER PIPING, CHILLED WATER PIPING, AND PIPING INSULATION ABOVE THE CEILING; REUSE OF PIPING IN THE MEZZANINE IS ACCEPTABLE. ALL PIPING MUST BE COPPER TYPE L IF 2" OR SMALLER, AND STEEL IF 2.5" OR LARGER.
6. ALL EXISTING EQUIPMENT AND NEW EQUIPMENT MUST BE PROVIDED WITH BUILDING DDC CONTROLS AND INTEGRATION FOR FUTURE CONNECTION TO A BASEWIDE SYSTEM. ALL NEW CONTROLS MUST BE COMPATIBLE WITH EXISTING CONTROL SYSTEM. FINAL BUILD OUT MUST HAVE A SINGLE FRONT END CONTROL FOR THE END USERS.
7. NEW ROOF PENETRATIONS MUST BE LIMITED TO THE GREATEST EXTENT POSSIBLE.
8. ALL EXISTING EQUIPMENT AND NEW EQUIPMENT WILL REQUIRE COMPLETE AIR AND WATER TAB.

SHEET KEYNOTES

1. REUSE EXISTING CHILLED AND HOT WATER MAIN DISTRIBUTION PIPING TO THE GREATEST EXTENT PRACTICAL.
2. REUSE EXISTING DUCTWORK IN THE ATTIC AND MEZZANINE TO THE GREATEST EXTENT PRACTICAL.
3. DEMOLISH AND REPLACE VAV AIR HANDLING UNIT, CONDENSATE DRAIN PAN, AND CONDENSATE PIPING.
4. DEMOLISH AND REPLACE ISOLATION VALVES, BALANCE VALVES, CONTROL VALVES, PT PORTS, AND CHILLED AND HOT WATER PIPING BETWEEN AIR HANDLERS AND MAIN DISTRIBUTION PIPING.
5. MEZZANINE WALKWAY MUST REMAIN CLEAR SUCH THAT THERE IS A PATH TO ALL EQUIPMENT AND CONTROLS.

PLAN NORTH

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MARCH 2026
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY: R. TROUT
DRAWN BY: J. WEBER
CHECKED BY: M. KRCOLA
SUBMITTED BY: M. POE
SIZE: ANSI D
M-120.DWG

US ARMY CORPS OF ENGINEERS

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Project Name
Project Number

MEZZANINE PLAN

SHEET ID

M-120

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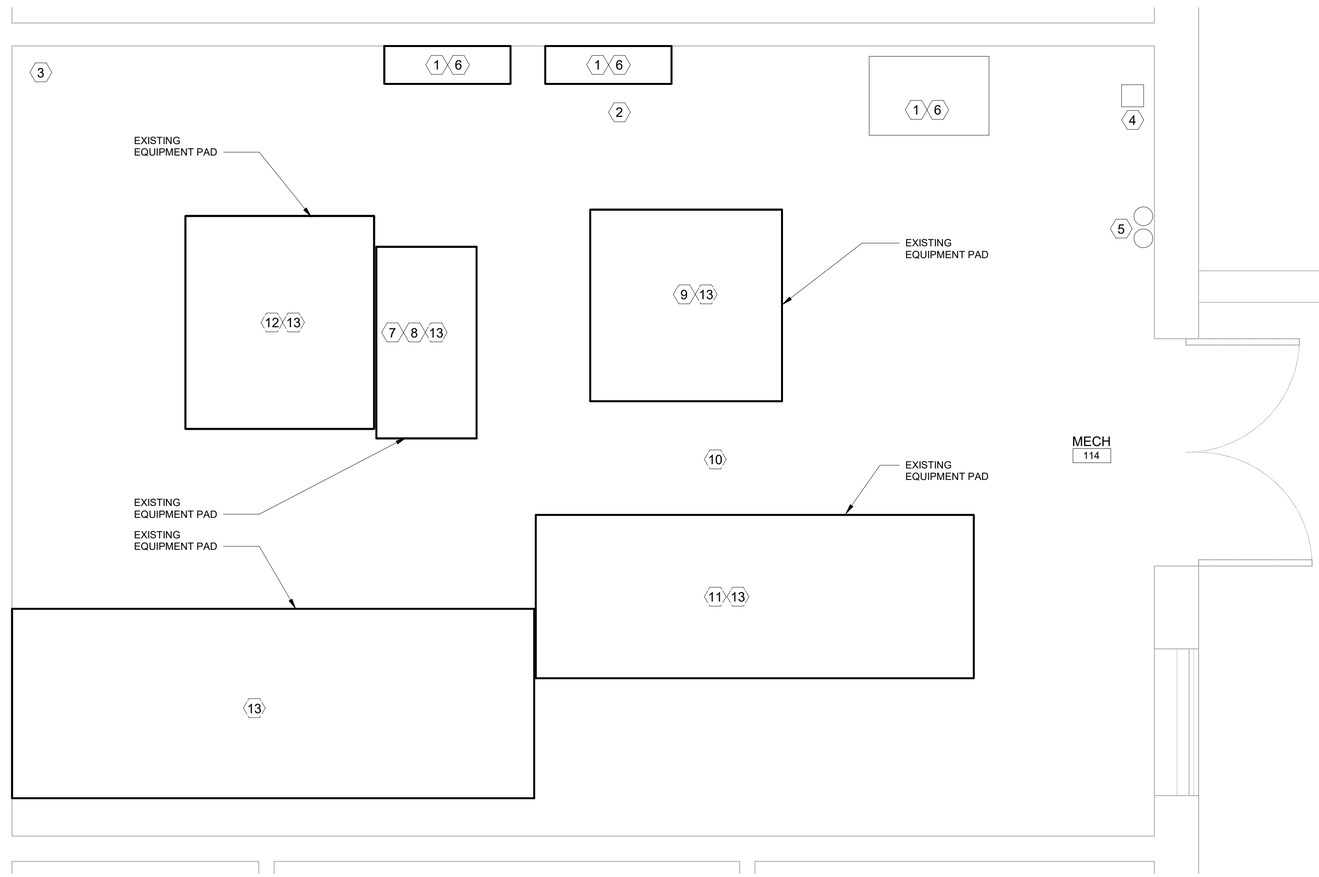

B3 MECHANICAL ROOM
1/2" = 1'-0"

GENERAL NOTES

1. SEE AS-BUILT DRAWINGS DATED MAY OF 1990 FOR EXISTING CONDITIONS.
2. THE MECHANICAL INTENT FOR THIS PROJECT CONSISTS OF SELECTIVE DEMOLITION OF EXISTING MECHANICAL SYSTEMS AND PROVIDING NEW MECHANICAL SYSTEMS IN ACCORDANCE WITH THE ARCHITECTURAL LAYOUT AND THE STANDARD DESIGN CRITERIA FOR CHILD DEVELOPMENT CENTERS.
3. PLANS ARE BASED ON EXISTING AS BUILT DRAWINGS AND NON-DESTRUCTIVE FIELD INVESTIGATION. CONTRACTOR MUST FIELD VERIFY EXTENT OF DEMOLITION BASED ON EXISTING CONDITIONS AND NOTIFY THE CONTRACTING OFFICER OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. PROVIDE ALL DUCTWORK, DUCTWORK INSULATION, AND VAV TERMINAL UNITS ABOVE THE CEILING; REUSE OF DUCTWORK LOCATED IN THE MEZZANINE IS ACCEPTABLE. ALL DUCTWORK MUST BE G90 GALVANIZED.
5. PROVIDE HOT WATER PIPING, CHILLED WATER PIPING, AND PIPING INSULATION ABOVE THE CEILING; REUSE OF PIPING IN THE MEZZANINE IS ACCEPTABLE. ALL PIPING MUST BE COPPER TYPE L IF 2" OR SMALLER, AND STEEL IF 2.5" OR LARGER.
6. ALL EXISTING EQUIPMENT AND NEW EQUIPMENT MUST BE PROVIDED WITH BUILDING DDC CONTROLS AND INTEGRATION FOR FUTURE CONNECTION TO A BASEWIDE SYSTEM. ALL NEW CONTROLS MUST BE COMPATIBLE WITH EXISTING CONTROL SYSTEM. FINAL BUILD OUT MUST HAVE A SINGLE FRONT END CONTROL FOR THE END USERS.
7. NEW ROOF PENETRATIONS MUST BE LIMITED TO THE GREATEST EXTENT POSSIBLE.
8. ALL EXISTING EQUIPMENT AND NEW EQUIPMENT WILL REQUIRE COMPLETE AIR AND WATER TAB.

SHEET KEYNOTES

1. CONFIRM WITH ELECTRICAL DRAWINGS THE EXTENT OF PANELS AND EQUIPMENT THAT ARE EXISTING TO REMAIN. MECHANICAL EQUIPMENT LAYOUT MUST COMPLY WITH ALL APPLICABLE CLEARANCE REQUIREMENTS FOR ELECTRICAL EQUIPMENT.
2. DEMOLISH AND REPLACE SUSPENDED VAV AIR HANDLING UNIT. DEMOLISH AND REPLACE CHILLED AND HOT WATER PIPING AND ASSOCIATED ACCESSORIES SERVING AIR HANDLER, CONDENSATE DRAIN PANS, AND CONDENSATE PIPING.
3. DEMOLISH EXISTING AIR COMPRESSOR.
4. DEMOLISH UNIT HEATER. PROVIDE NEW HEATING AND VENTILATION FOR MECHANICAL ROOM.
5. CHILLED WATER SUPPLY AND RETURN PIPES FROM MECHANICAL ROOM TO EQUIPMENT YARD ARE TO BE REUSED TO THE GREATEST EXTENT PRACTICAL.
6. CHILLED AND HEATING WATER ARE NOT PERMITTED TO CROSS OVER ELECTRICAL PANELS OR EQUIPMENT.
7. DEMOLISH AND REPLACE CHILLED WATER EXPANSION TANK AND CHILLED WATER CHEMICAL TREATMENT EQUIPMENT. EXPANSION TANK MUST BE CONNECTED TO THE SYSTEM ON THE SUCTION SIDE OF THE NEW CHILLED WATER PUMPS.
8. DEMOLISH AND REPLACE HEATING WATER EXPANSION TANK AND HEATING WATER CHEMICAL TREATMENT EQUIPMENT. EXPANSION TANK MUST BE CONNECTED TO THE SYSTEM ON THE SUCTION SIDE OF THE NEW HEATING WATER PUMPS.
9. DEMOLISH AND REPLACE CHILLED WATER PUMPS, AIR SEPARATOR, VALVES, AND ACCESSORIES. PROVIDE PUMPS WITH VFDS.
10. DEMOLISH AND REPLACE HEATING WATER PUMPS, AIR SEPARATOR, VALVES, AND ACCESSORIES. PROVIDE PUMPS WITH VFDS.
11. DEMOLISH AND REPLACE HEATING WATER BOILERS AND BUFFER TANK.
12. CALCULATIONS MUST BE PROVIDED TO SIZE A CHILLED WATER BUFFER TANK. SIZE THE BUFFER TANK PER CHILLER MANUFACTURER RECOMMENDATIONS.
13. REUSE EQUIPMENT PADS TO GREATEST EXTENT PRACTICAL. DEMOLISH AND REPLACE EQUIPMENT PADS AS NEEDED TO FACILITATE COORDINATION AMONG MECHANICAL EQUIPMENT, PLUMBING EQUIPMENT, FIRE PROTECTION PANELS AND EQUIPMENT, AND ELECTRICAL PANELS AND EQUIPMENT. CLEARANCE FOR MAINTENANCE ACCESS MUST BE CONSIDERED IN ADDITION TO EQUIPMENT AND PANEL DIMENSIONS.

PLAN NORTH

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MARCH 2026
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY: R. TROUT
DRAWN BY: J. WEBER
CHECKED BY: M. MICHULA
SUBMITTED BY: M. POE
SIZE: ANSI D
M-400 DWG

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Enter address here
Project Name
Project Number

HVAC ENLARGED PLANS

SHEET ID
M-400

CERTIFIED FINAL SUBMITTAL

ONE-LINE

480V 100kVA 208/120V	POWER TRANSFORMER WITH DELTA CONNECTED PRIMARY AND GROUNDED WYE CONNECTED SECONDARY
	CONNECTION
	SAFETY DISCONNECT SWITCH, 3-POLE, HORSEPOWER RATED
	CURRENT TRANSFORMER
	SURGE ARRESTER
OL	THERMAL OR ELECTRONIC OVERLOADS, AS SPECIFIED
	FUSE
	FUSED SWITCH
	DISCONNECT SWITCH
	BUS - RATINGS AS INDICATED
	EQUIPMENT ENCLOSURE
	ETHERNET
	SYSTEM LINK (SOFTWARE OR DATA LINK)
	POWER, CT, OR PT CONNECTION
	CONTROL CONNECTION
	POWER RECEPTACLE
U	UTILITY
G	INDICATING LIGHT WITH COLOR (G=GREEN, R=RED, W=WHITE)
	CIRCUIT BREAKER
	TRANSFORMER
OC	THERMAL OVERLOADS
	CAPACITOR
	EXTERNAL WIRING
	COMBINATION MOTOR STARTER NEMA SIZE AS INDICATED
CP	CONTROL PANEL
VFD	VARIABLE FREQUENCY DRIVE

A	AMPERES
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
A/M	AUTO/MANUAL SWITCH
AM	AMMETER
AMC	AUTO-MANUAL CONTROL
AMP	AMPERE
AWG	AMERICAN WIRE GAUGE
C	CLOSE, CONDUIT
COMM	COMMUNICATION
CP	CONTROL PANEL
CT	STATION CURRENT TRANSFORMER
CU	COPPER
CV	CABLE VAULT
EMT	ELECTRICAL METALLIC TUBING
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HVAC	HEATING, VENTILATION, AIR
KVA	KILOVOLT AMPERES
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
NO	NUMBER, NORMALLY OPEN
NTS	NOT TO SCALE
OL	OVERLOAD
PIR	PASSIVE INFRARED MOTION SENSOR
PT	POTENTIAL TRANSFORMER
T	TRANSFORMER
TP	TRANSFORMER PRIMARY
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
V	VOLTAGE
VAV	VARAIBLE AIR VOLUME BOX
VFD	VARIABLE FREQUENCY DRIVE
W	WHITE, WIRE, WIDTH, WEST
W/	WITH
WP	WEATHERPROOF
XFMR	TRANSFORMER

GENERAL NOTES

1. REFER TO ARCHITECTURAL FOR WALL TYPES INCLUDING FIREWALLS.
2. ALL ELECTRICAL WORK AND MATERIAL IS NEW, AND PROVIDED BY THE CONTRACTOR UNLESS INDICATED OTHERWISE.
3. ALL NON-CURRENT CARRYING METAL PARTS OF EQUIPMENT, LIGHTING FIXTURES, ETC., MUST BE GROUNDED BY MEANS OF GREEN INSULATED GROUND WIRE IN RACEWAY WITH SUPPLY CONDUIT MUST BE ELECTRICALLY CONTINUOUS AND GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, ARTICLE 250.
4. THE ELECTRICAL INSTALLATION MUST COMPLY WITH THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE AND OTHER GOVERNMENT ORDINANCES.
5. ALL ELECTRICAL EQUIPMENT MUST BE UL LABELED.
6. COORDINATE ALL ELECTRICAL WORK WITH OTHER TRADES.
7. CONTRACTOR MUST PROVIDE PULL BOXES AS NECESSARY FOR CABLE PULLING AND TO MEET THE NEC.
8. ALL ELECTRICAL EQUIPMENT AND RACEWAYS MUST BE SEISMICALLY QUALIFIED AND SUPPORTED PER THE SEISMIC REQUIREMENTS IN THE SPECIFICATIONS.
9. DRIP PANS MUST BE PROVIDED BELOW ALL PIPING OR DUCTWORK THAT IS INSTALLED ABOVE ELECTRICAL EQUIPMENT.
10. THE CONTRACTOR MUST COORDINATE MOTOR STARTER/VFD, POWER CIRCUIT, OVERCURRENT PROTECTION, AND DISCONNECT SIZES WITH THE ACTUAL EQUIPMENT TO BE PROCURED.
11. COORDINATE THE INSTALLATION OF NEW OR REPLACEMENT WIRING DEVICES IN KITCHEN ETC WITH THE END-USER AND KITCHEN CONSULTANT AS THE DESIGN PROGRESSES.
12. ALL EXISTING ELECTRICAL PANELS MUST HAVE A LOCKABLE DOOR. REPLACE ANY LOCKING MECHANISM ON ENCLOSURE IF ANY ARE BROKEN.

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MAR 2026
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY: S. TEREFE
DRAWN BY: B. MARSHALL
CHECKED BY: D. MYERS
SUBMITTED BY:
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ELECTRICAL ABBREVIATIONS LEGENDS & NOTES

SHEET ID
E-001

CERTIFIED FINAL SUBMITAL

W912QR-61034642-0000

POWER

#(1-3) DENOTES KEYNOTE CIRCUIT TO PANEL
1 (CIRCUIT A: LIGHTING FIXTURE)
2 (CIRCUIT B: CIRCUIT RECEPTACLES)
3 (CIRCUIT C: GFCI CIRCUIT RECEPTACLES)
UNLESS NOTED OTHERWISE

CONDUIT OF VARIOUS TYPES (CABLE TYPE THHN/THWN UNLESS NOTED OTHERWISE):
- EXPOSED (HIDDEN FROM VIEW IN ARCHITECTURALLY FINISHED SPACES)
- CONCEALED CONDUIT (ROUTED IN OR BELOW CONCRETE/SLAB)

CONDUIT TERMINATION IN TRAY OR TRENCH WITH BUSHING

CONDUIT TURNING DOWN (NOT TO SCALE)

CONDUIT TURNING UP (NOT TO SCALE)

CONDUIT PASSING THROUGH ELEVATION (NTS)

CONDUIT FITTING

CONDUIT CAP/TRANSITION FROM CONDUIT TO DIRECT BURIED CABLE

JUNCTION BOX, SIZED PER NEC
- TB= PROVIDED WITH TERMINAL BLOCK

CABLE TRAY (SIZE AS INDICATED)

CABLE TRAY TURNING DOWN (SIZE AS INDICATED)

CABLE TRAY TURNING DOWN(SIZE AS INDICATED)

COMBINATION MOTOR STARTER. NEMA SIZE 1 UNO. INSTALL SO DISCONNECT SWITCH OPERATING HANDLE IN THE "ON" POSITION IS 5'-3" AFF, UNLESS OTHERWISE NOTED

DISCONNECT SWITCH, 3P, 30A UNLESS OTHERWISE NOTED. INSTALL SO OPERATING HANDLE IN THE "ON" POSITION IS 5'-3" AFF, UNLESS OTHERWISE NOTED

MOTOR

NEMA 5-20R TAMPER PROOF (TP) POWER DUPLEX RECEPTACLE, 48" AFF UNO

'U' DENOTES RECEPTACLE WITH INTERNAL USB CHARGING PORTS

'C' DENOTES RECEPTACLE, MOUNTED 6" ABOVE COUNTER OR BACKSPLASH

'GFCI' DENOTES GROUND FAULT CIRCUIT INTERRUPTER

PLANS SHOW COMBINATION DEVICES

NEMA L6-30R
TWIST LOCK POWER RECEPTACLE, 1'-6" AFF UNO
30AMP, 3P, 208V

ELECTRICAL EQUIPMENT AS NOTED ON PLANS (SWITCHGEAR, PANELBOARD, TRANSFORMER, ETC.)

NEMA 5-20R, TAMPER PROOF (TP) DUPLEX RECEPTACLE, WEATHER PROTECTED RECEPTACLE "GFCI"

JUNCTION BOX

LIGHTING

LIGHT FIXTURE (DIMENSIONS MAY VARY)

INDICATES LIFE SAFETY (WHEN APPLICABLE)

RECESSED CAN LIGHT - LED

WALL MOUNTED, EXTERIOR LED FIXTURE, TYPE AS INDICATED

WALL MOUNTED, EXIT FIXTURE WITH LED LAMPS, TYPE AS INDICATED. FILLED ARROW INDICATES PATH OF EGRESS. IF APPLICABLE, FILLED QUADRANT INDICATES SHOWN FACE.

CEILING OR SURFACE MOUNTED EXIT FIXTURE WITH LED LAMPS, TYPE AS INDICATED. FILLED ARROW INDICATES PATH OF EGRESS. IF APPLICABLE, FILLED QUADRANT INDICATES SHOWN FACE.

S_a SWITCH CONTROLS FIXTURE MARKED WITH SUBSCRIPT INDICATED

S_{LV1} LOW VOLTAGE MOMENTARY CONTACT LIGHTING CONTROL PUSHBUTTON STATION (AESTHETIC WALLPOD) WITH BRUSHED ALUMINUM COVERPLATE - MOUNT 48" AFF

S_{LV2} LOW VOLTAGE MOMENTARY CONTACT LIGHTING CONTROL PUSHBUTTON STATION WITH RAISE/LOWER DIMMING (AESTHETIC WALLPOD) WITH BRUSHED ALUMINUM COVERPLATE - MOUNT 48" AFF

S_{LV3} LOW VOLTAGE MOMENTARY CONTACT LIGHTING CONTROL 4-SCENE PUSHBUTTON STATION WITH RAISE/LOWER DIMMING (AESTHETIC WALLPOD) WITH BRUSHED ALUMINUM COVERPLATE - MOUNT 48" AFF

EB EMERGENCY BATTERY UNIT WITHOUT HEADS

OUTDOOR DUAL REMOTE HEADS

MISCELLANEOUS

CROSS HATCHED EQUIPMENT / DEVICES MUST BE DEMOLISHED

EXTENT OF EXISTING BUILDING

'U' DENOTES RECEPTACLE WITH INTERNAL USB CHARGING PORTS

FUTURE COMPONENTS

NEW WORK

EXISTING WORK (SCREENED)

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: S. TEREFE
DRAWN BY: B. MARSHALL
CHECKED BY: D. MYERS
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: MAR 2026
SOLICITATION NO.:
CONTRACT NO.:
E-002.DWG

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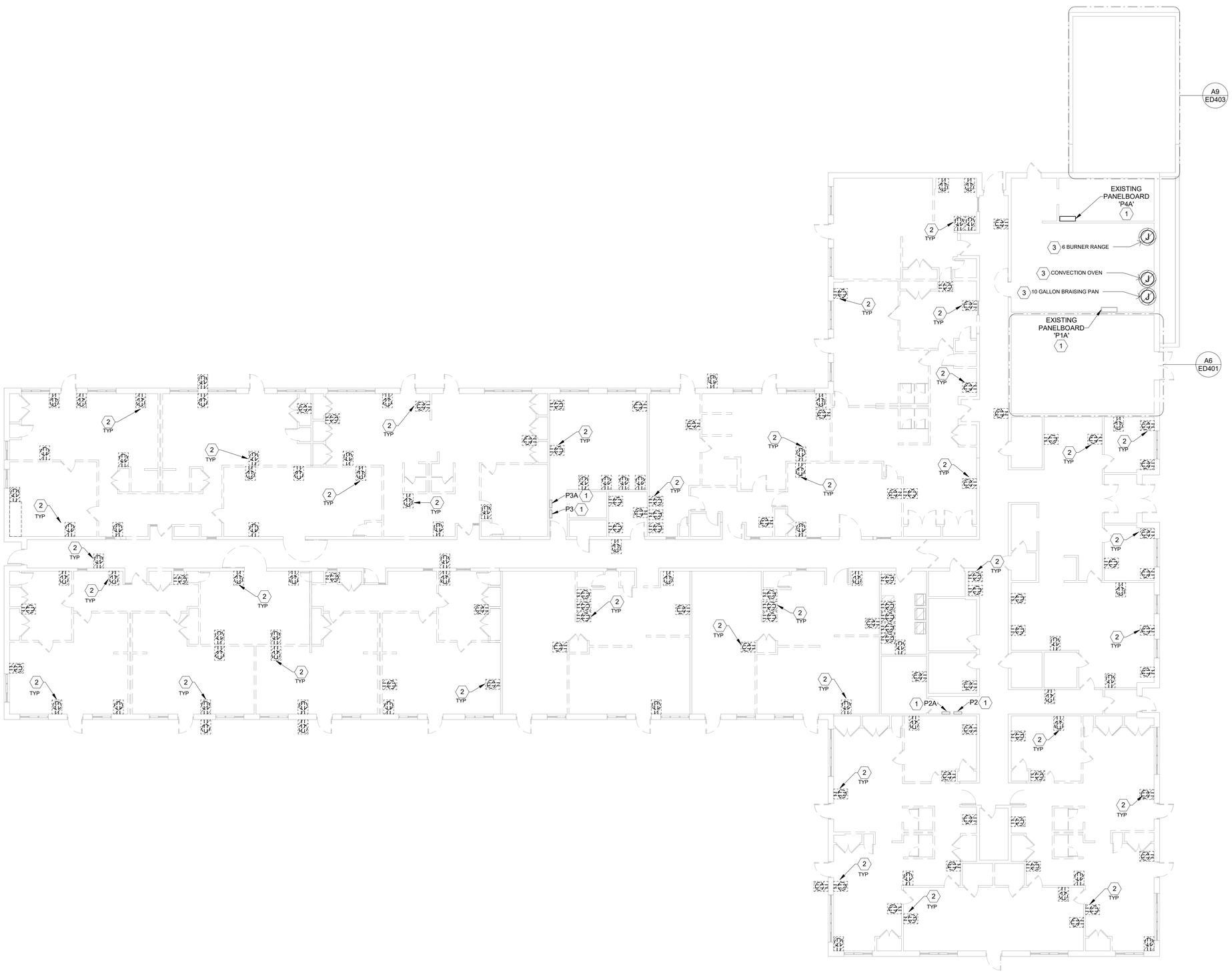
ELECTRICAL LEGEND & NOTES

SHEET ID
E-002

CERTIFIED FINAL SUBMITTAL



A1 POWER DEMOLITION PLAN
3/32" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET E-001 THROUGH E-002 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.
2. REFER TO SHEET ED601 FOR DEMOLITION SINGLE LINE DIAGRAM.
3. REFER TO ARCHITECTURAL SHEETS FOR MORE INFORMATION ON INTERIOR DEMOLITION.
4. ALL VAV BOXES TO BE REMOVED AND REPLACED IN KIND. DISCONNECT ALL WIRING AND RETAIN FOR RE-USE. EXISTING CIRCUITS MAY NEED TO BE EXTENDED TO NEW BOX LOCATIONS. TO BE DETERMINED AS DESIGN PROGRESSES. REFER TO MECHANICAL DRAWINGS FOR VAV LOCATIONS.

SHEET KEYNOTES

1. ALL PANELBOARDS AND FEEDER CONDUCTORS AND CONDUIT TO REMAIN FOR RE-USE, UNLESS INDICATED OTHERWISE ON THE DRAWING.
2. COMPLETELY DEMOLISH ELECTRICAL POWER EQUIPMENT AND WIRING DEVICES AS INDICATED. DEMOLITION WORK MUST INCLUDE, BUT NOT LIMITED TO: WIRING DEVICES (POWER), OUTLET BOX, PULL BOXES, POWER POLES, SURFACE MOUNTED RACEWAY, AND ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE.
3. EXISTING KITCHEN EQUIPMENT TO BE REMOVED/REPLACED. REMOVE POWER CONNECTION, CONTROLS, AND ALL ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE.

LEGEND

DEMOLITION
EXISTING WORK (SCREENED)

PLAN NORTH

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MAR 2026
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY: S. TEREFE
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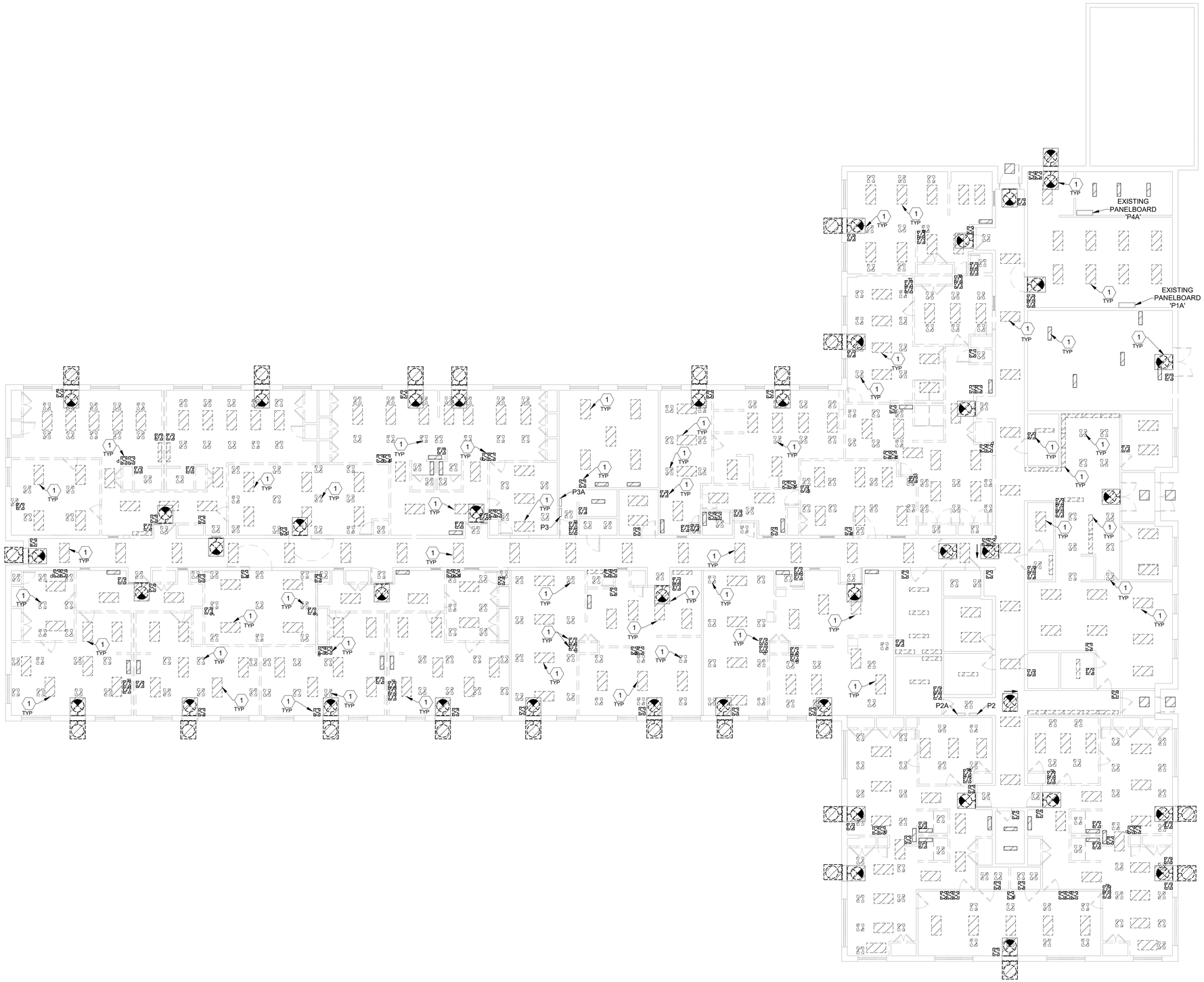
POWER DEMOLITION PLAN

SHEET ID
ED101

CERTIFIED FINAL SUBMITAL

W912QR-61034642-0000



A1 LIGHTING DEMOLITION PLAN
3/32" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET E-001 THROUGH E-002 FOR LEGEND, ABBEVIATIONS, AND GENERAL NOTES
2. REFER TO SHEET ED601 FOR DEMOLITION SINGLE LINE DIAGRAM
3. REFER TO ARCHITECTURAL SHEETS FOR MORE INFORMATION ON INTERIOR DEMOLITION.

SHEET KEYNOTES

1. COMPLETELY DEMOLISH ELECTRICAL LIGHTING FIXTURES AND CONTROLS AS INDICATED. DEMOLITION WORK MUST INCLUDE, BUT NOT LIMITED TO: LIGHTING FIXTURES, CONTROLS AND SWITCHES, BATTERY UNIT EQUIPMENT, EXIT SIGNS AND ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE.

LEGEND

DEMOLITION
EXISTING WORK (SCREENED)

PLAN NORTH

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: S. TEREFE
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CHECKED BY: D. MATHEWS
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SIZE: ANSI D
ISSUE DATE: MAR 2026
SOLICITATION NO.:
CONTRACT NO.:
ED102.DWG

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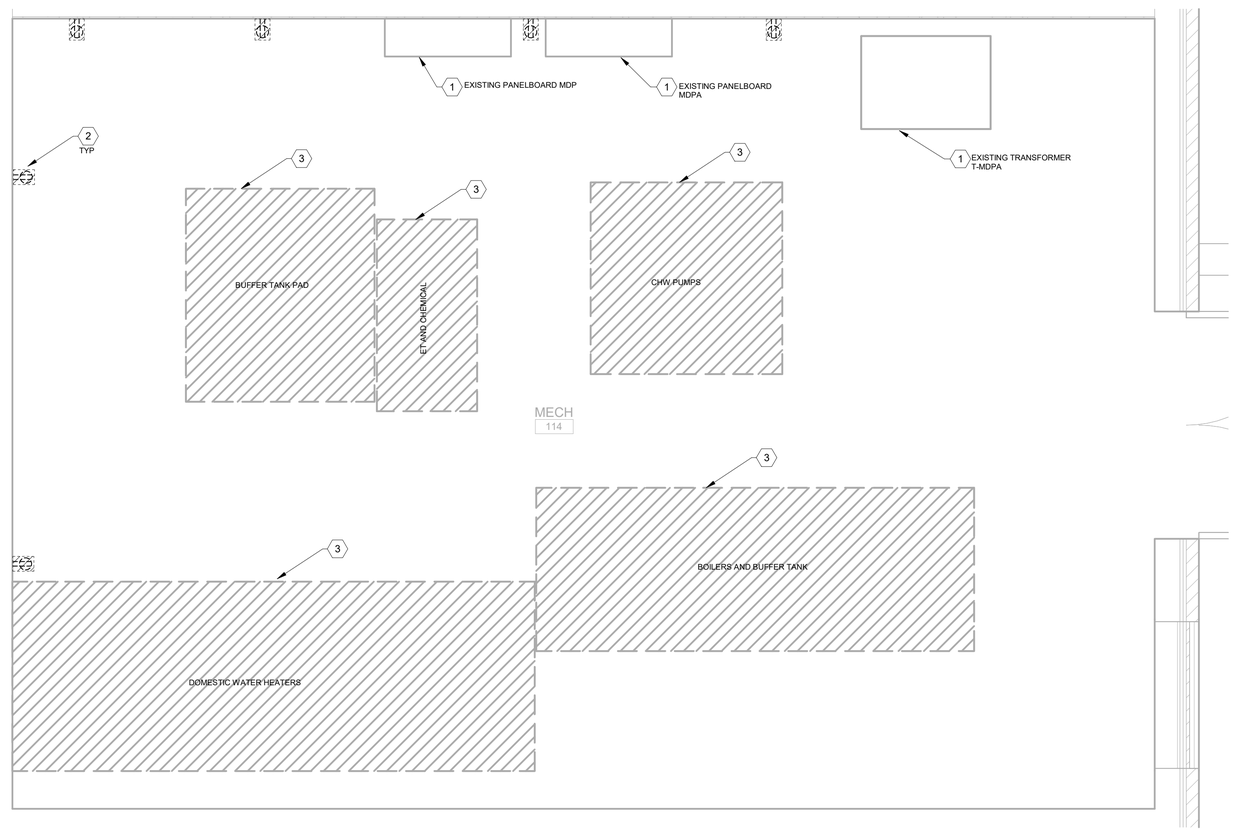
LIGHTING DEMOLITION PLAN

SHEET ID
ED102

CERTIFIED FINAL SUBMITAL

W912QR-61034642-0000



A6 MECHANICAL ROOM DEMOLITION PLAN

1/2" = 1'-0"

0 1' 2' 4'

GENERAL NOTES

1. REFER TO SHEET E-001 THROUGH E-002 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.
2. REFER TO SHEET ED601 FOR DEMOLITION SINGLE LINE DIAGRAM.
3. REFER TO ARCHITECTURAL SHEETS FOR MORE INFORMATION ON INTERIOR DEMOLITION.
4. SEE SHEET ED102 FOR LIGHTING DEMOLITION IN THE MECHANICAL ROOM.

SHEET KEYNOTES

1. ALL PANELBOARDS AND FEEDER CONDUCTORS AND CONDUIT TO REMAIN FOR RE-USE, UNLESS INDICATED OTHERWISE ON THE DRAWING.
2. COMPLETELY DEMOLISH ELECTRICAL POWER AND LIGHTING EQUIPMENT AND WIRING DEVICES AS INDICATED. DEMOLITION WORK MUST INCLUDE, BUT NOT LIMITED TO: WIRING DEVICES (POWER), OUTLET BOXES, PULL BOXES, POWER POLES, SURFACE MOUNTED RACEWAY, LIGHTING FIXTURES, CONTROLS, AND EXIT SINAGE (SEE DWG E102 FOR LOCATION AND QUANTITY) AND ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE.
3. EXISTING MECHANICAL EQUIPMENT TO BE REMOVED/REPLACED. WIRE ALL MECHANICAL ROOM EQUIPMENT AND MECHANICAL ROOM LIGHTING TO EXISTING PANELBOARDS 'MDP' AND 'MDP-A' AND TERMINATE ON SPARE CIRCUIT BREAKERS. REPLACE CIRCUIT BREAKERS AND WIRING/CONDUIT AS REQUIRED TO ACCOMMODATE NAMEPLATE INFORMATION FOR REPLACEMENT EQUIPMENT. NEW CIRCUIT BREAKERS MUST MATCH EXISTING PANELBOARD MANUFACTURER AND AIC RATING. FURNISH AND INSTALL NEW CONDUCTORS AND CONDUIT AS REQUIRED BASED ON FINAL EQUIPMENT SELECTIONS. PRELIMINARY REPLACEMENT EQUIPMENT IDENTIFIED TO HAVE THE SAME NAMEPLATE RATINGS WITH SCOPE BEING DISCONNECT/RECONNECT OF EXISTING CONDUCTORS.

LEGEND

DEMOLITION

EXISTING WORK (SCREENED)

PLAN NORTH

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MAR 2026
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY: S. TEREFE
DRAWN BY: B. MARSHALL
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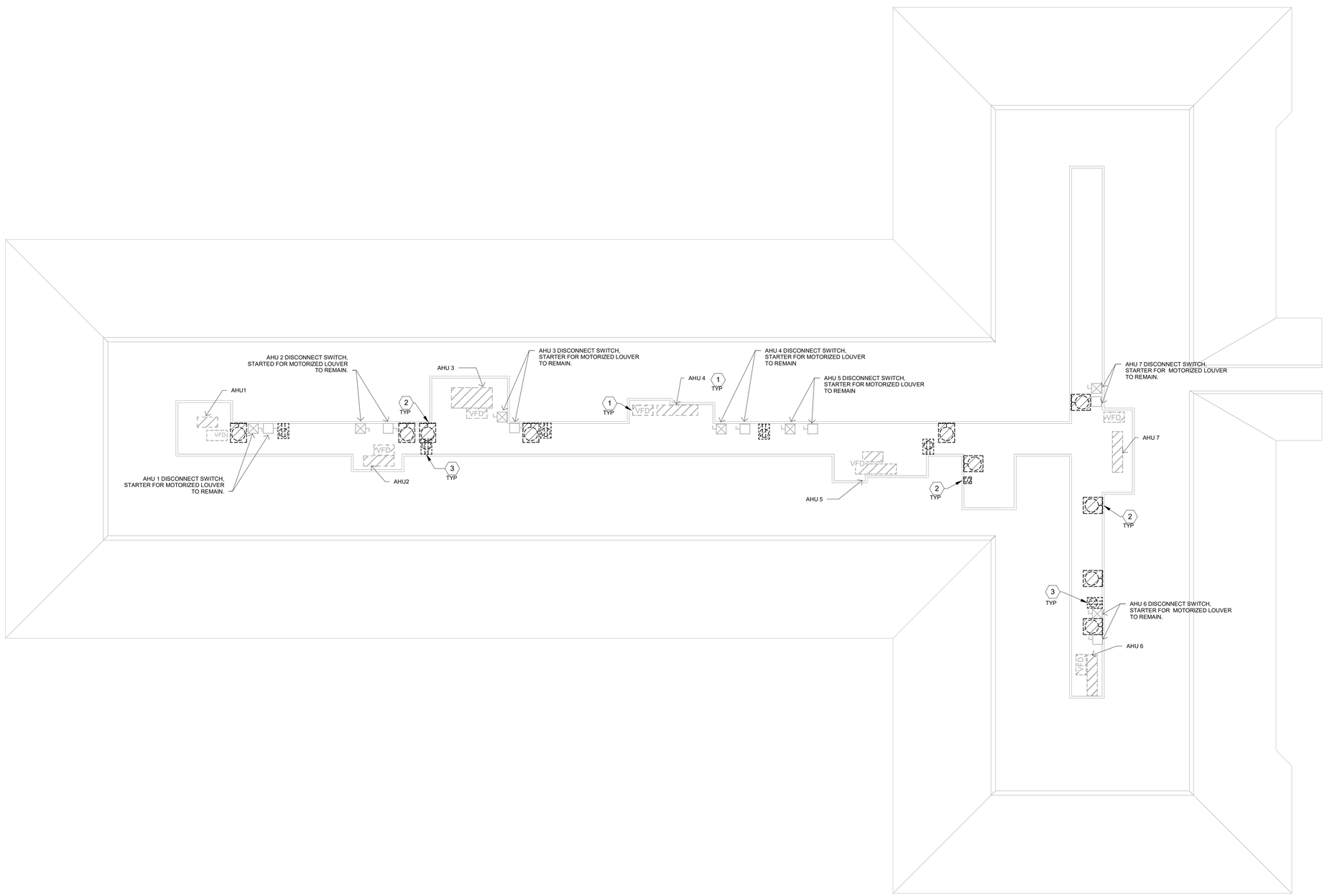
MECHANICAL ROOM DEMOLITION PLAN

SHEET ID

ED401

CERTIFIED FINAL SUBMITTAL

W912QR-61034642-0000



A1 MEZZANINE DEMOLITION PLAN

3/32" = 1'-0"

0 8' 16' 32'

GENERAL NOTES

1. REFER TO SHEET E-001 THROUGH E-002 FOR LEGEND, ABBEVIATIONS, AND GENERAL NOTES.
2. REFER TO SHEET ED601 FOR DEMOLITION SINGLE LINE DIAGRAM.
3. REFER TO ARCHITECTURAL SHEETS FOR MORE INFORMATION ON INTERIOR DEMOLITION.

SHEET KEYNOTES

1. EXISTING MECHANICAL EQUIPMENT AND VFD TO BE REMOVED/REPLACED. REMOVE POWER CONNECTION, AND RETAIN FOR REUSE.
2. COMPLETELY DEMOLISH ELECTRICAL LIGHTING FIXTURES AND CONTROLS AS INDICATED. DEMOLITION WORK MUST INCLUDE, BUT NOT LIMITED TO: LIGHTING FIXTURES, CONTROLS AND SWITCHES, BATTERY UNIT EQUIPMENT, EXIT SIGNS AND ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE.
3. COMPLETELY DEMOLISH ELECTRICAL POWER EQUIPMENT AND WIRING DEVICES AS INDICATED. DEMOLITION WORK MUST INCLUDE, BUT NOT LIMITED TO: WIRING DEVICES (POWER), OUTLET BOXES, PULL BOXES, POWER POLES, SURFACE MOUNTED RACEWAY, AND ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE.

LEGEND

DEMOLITION

PLAN NORTH

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MAR 2026
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY: S. TEREFE
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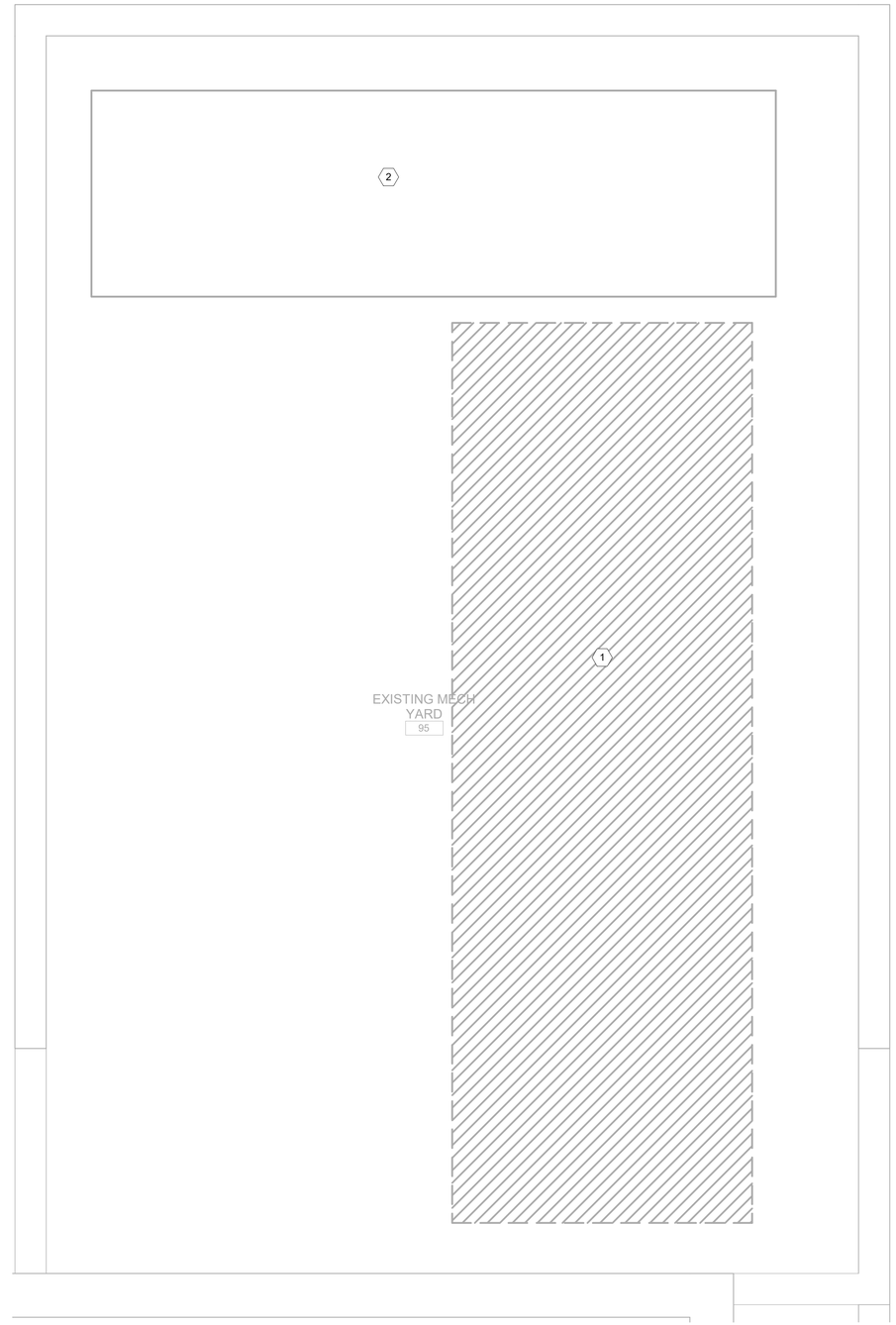
MEZZANINE DEMOLITION PLAN

SHEET ID
ED402

CERTIFIED FINAL SUBMITAL

W912QR-61034642-0000



A9 EQUIPMENT YARD DEMOLITION PLAN

1/2" = 1'-0"

0 1' 2' 4'

GENERAL NOTES

1. REFER TO SHEET E-001 THROUGH E-002 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.
2. REFER TO SHEET ED601 FOR DEMOLITION SINGLE LINE DIAGRAM.
3. REFER TO ARCHITECTURAL SHEETS FOR MORE INFORMATION ON INTERIOR DEMOLITION.
4. REFER TO SHEET EP405 FOR NEW WORK EQUIPMENT YARD PLAN

SHEET KEYNOTES

1. EXISTING CHILLER TO BE REMOVED/REPLACED. DISCONNECT EXISTING WIRING TO EQUIPMENT AND RETAIN FOR REUSE.
2. EXISTING UTILITY (CLP) OWNED TRANSFORMER BANK AND OUTDOOR ENCLOSURE TO REMAIN.

LEGEND

DEMOLITION

EXISTING WORK

PLAN NORTH

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

US ARMY CORPS OF ENGINEERS

DESIGNED BY: S. TEREFE
DRAWN BY: B. MARSHALL
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SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: MAR 2026
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CONTRACT NO.:
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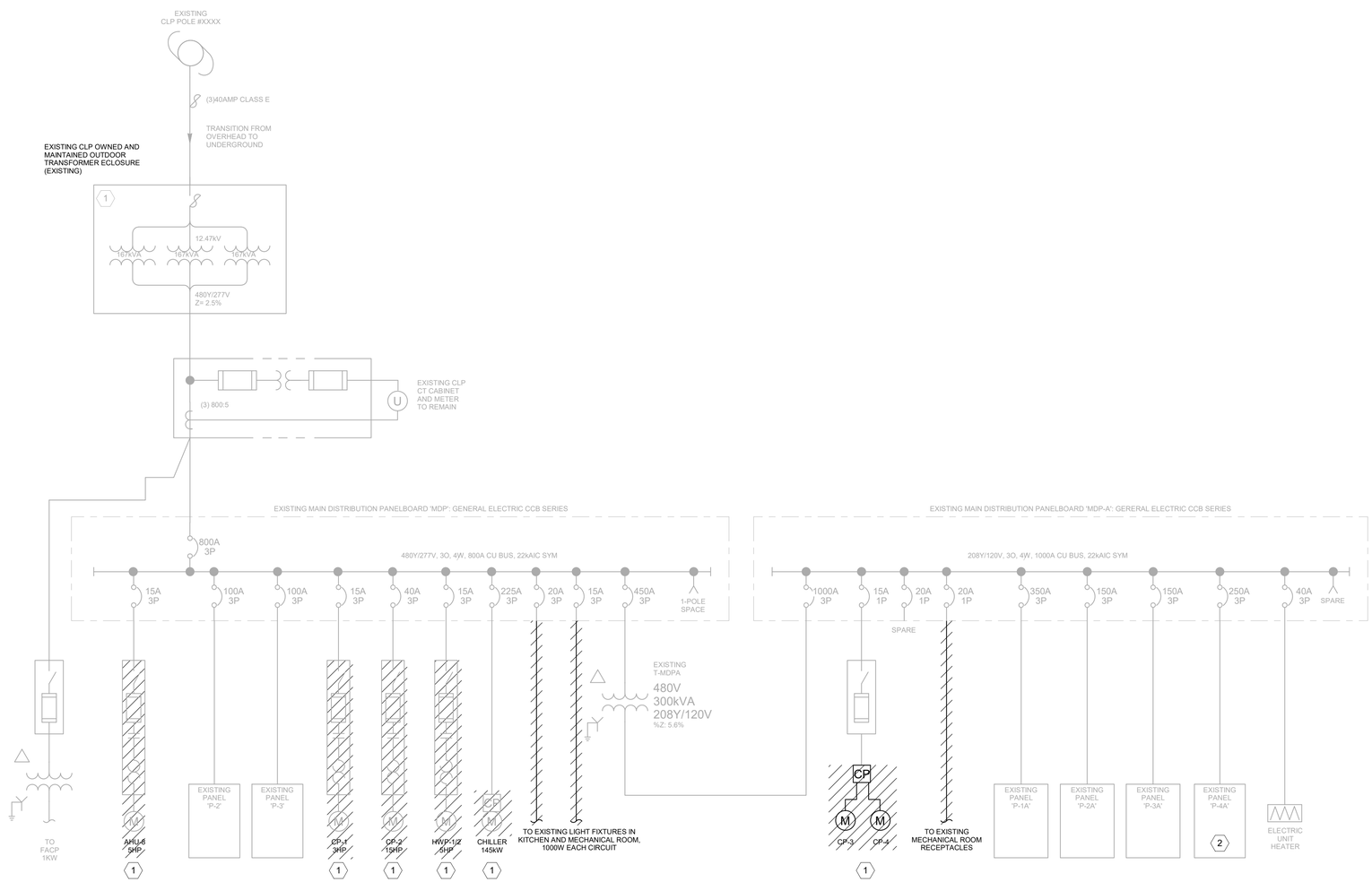
EQUIPMENT YARD DEMOLITION PLAN

SHEET ID

ED403

CERTIFIED FINAL SUBMITAL



A3 ONE LINE DEMOLITION
NTS

GENERAL NOTES

1. REFER TO SHEET E-001 THROUGH E-002 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.
2. REFER TO ARCHITECTURAL SHEETS FOR MORE INFORMATION ON INTERIOR DEMOLITION.

SHEET KEYNOTES

1. EXISTING HVAC EQUIPMENT TO BE REMOVED/REPLACED. DISCONNECT EXISTING WIRING TO EQUIPMENT AND RETAIN FOR REUSE.
2. REMOVE EXISTING 250 AMP, 3 POLE MAIN CIRCUIT BREAKER.

LEGEND

DEMOLITION

EXISTING WORK (SCREENED)

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MAR 2026
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY: S. TEREFE
DRAWN BY: B. MARSHALL
CHECKED BY: D. MEYERS
SUBMITTED BY:
SIZE: ANSI D
ED601.DWG

US ARMY CORPS OF ENGINEERS

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BLACK & VEATCH AND STANTEC JOINT VENTURE
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Stantec

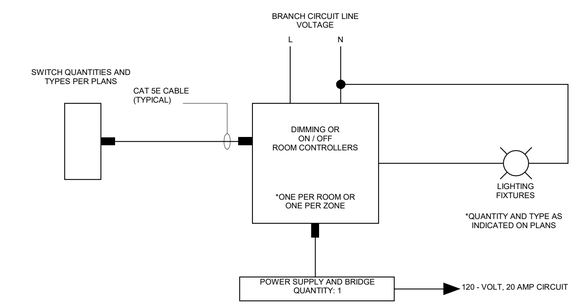
Ft. Campbell, KY
Building 3069
PN519189

ONE LINE DEMOLITION

SHEET ID
ED601

CERTIFIED FINAL SUBMITTAL

W912QR-61034642-0000



A12 TYPICAL LIGHTING CONTROLS WIRING SCHEMATIC

NTS

GENERAL NOTES

1. REFER TO SHEET E-001 THROUGH E-002 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

US ARMY CORPS OF ENGINEERS

BLACK & VEATCH | Stantec

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SUBMITTED BY:

SIZE: ANSI D

ISSUE DATE: MAR 2026

SOLICITATION NO.:

CONTRACT NO.:

EL601.DWG

Ft. Campbell, KY

Building 3069

PN519189

LIGHTING DETAILS

SHEET ID

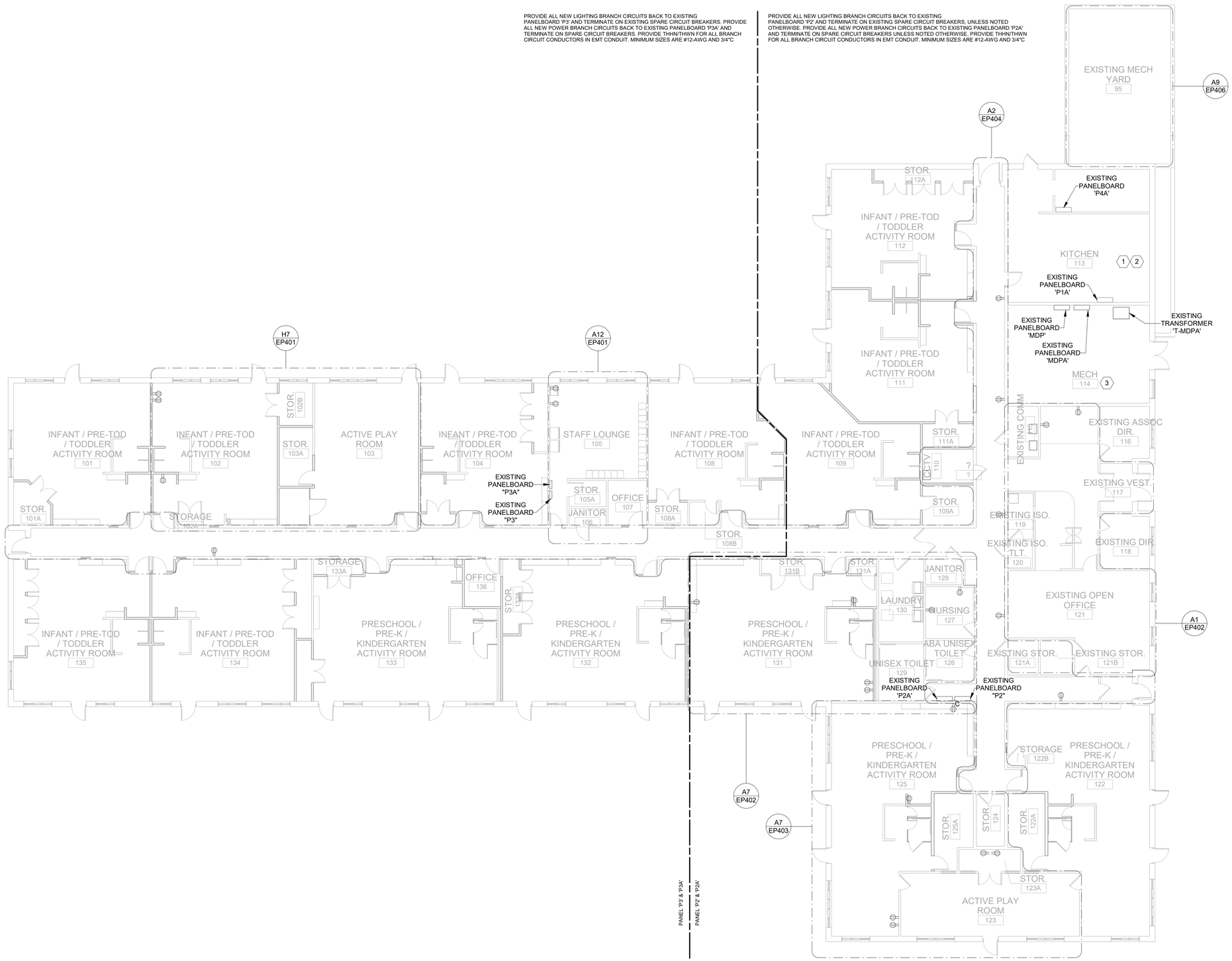
EL601

CERTIFIED FINAL SUBMITAL

W912QR-61034642-0000

PROVIDE ALL NEW LIGHTING BRANCH CIRCUITS BACK TO EXISTING PANELBOARD 'P3' AND TERMINATE ON EXISTING SPARE CIRCUIT BREAKERS. PROVIDE ALL NEW POWER BRANCH CIRCUITS BACK TO EXISTING PANELBOARD 'P3A' AND TERMINATE ON SPARE CIRCUIT BREAKERS. PROVIDE THHN/THWN FOR ALL BRANCH CIRCUIT CONDUCTORS IN EMT CONDUIT. MINIMUM SIZES ARE #12-AWG AND 3/4"C

PROVIDE ALL NEW LIGHTING BRANCH CIRCUITS BACK TO EXISTING PANELBOARD 'P2' AND TERMINATE ON EXISTING SPARE CIRCUIT BREAKERS, UNLESS NOTED OTHERWISE. PROVIDE ALL NEW POWER BRANCH CIRCUITS BACK TO EXISTING PANELBOARD 'P2A' AND TERMINATE ON SPARE CIRCUIT BREAKERS UNLESS NOTED OTHERWISE. PROVIDE THHN/THWN FOR ALL BRANCH CIRCUIT CONDUCTORS IN EMT CONDUIT. MINIMUM SIZES ARE #12-AWG AND 3/4"C



ELECTRICAL BRANCH CIRCUITING CRITERIA PLAN

A1

3/32" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET E-001 THROUGH E-002 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.
2. REFER TO SHEET EP601 FOR ONE-LINE DIAGRAM.
3. FOR ALL REPLACEMENT VAV BOXES, EXTEND BRANCH CIRCUITING WIRING AND CONDUIT TO NEW LOCATION AND TERMINATE. NEW VAV LOCATION TO BE DETERMINED AS THE DESIGN PROGRESSES. REFER TO MECHANICAL DRAWINGS FOR VAV LOCATION.
4. CIRCUIT ALL EXTERIOR RECEPTACLES TO 20A/1P CIRCUIT BREAKERS IN 208Y/120V PANELBOARD. FURNISH AND INSTALL 2#12 & 1#12G IN 3/4"C HOMERUN BACK TO PANELBOARD. MAXIMUM EIGHT DUPLEX RECEPTACLES PER CIRCUIT. SHEET EP101 COVERS CIRCUIT CRITERIA AND PANELBOARD LOCATION.

SHEET KEYNOTES

1. WIRE ALL NEW KITCHEN EQUIPMENT AND KITCHEN LIGHTING TO EXISTING KITCHEN PANELBOARDS 'P4A' AND 'P1A'
2. COORDINATE FINAL KITCHEN EQUIPMENT SELECTION ELECTRICAL REQUIREMENTS FOR MANUFACTURER RECOMMENDED OVERCURRENT AND CABLE SIZE. NEW CIRCUIT BREAKERS MUST MATCH EXISTING PANELBOARD MANURACTURER AND AIC RATING. SIZE CONDUIT FOR MANFACTURER'S RECOMMENDED CABLE SIZE.
3. SEE SHEET ED401 FOR MECHANICAL ROOM NEW WORK KEYNOTES

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

US ARMY CORPS OF ENGINEERS

DESIGNED BY: S. TEREFE
DRAWN BY: B. MARSHALL
CHECKED BY: D. MEYERS
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: MAR 2026
SOLICITATION NO.:
CONTRACT NO.:
EP101.DWG

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Stantec

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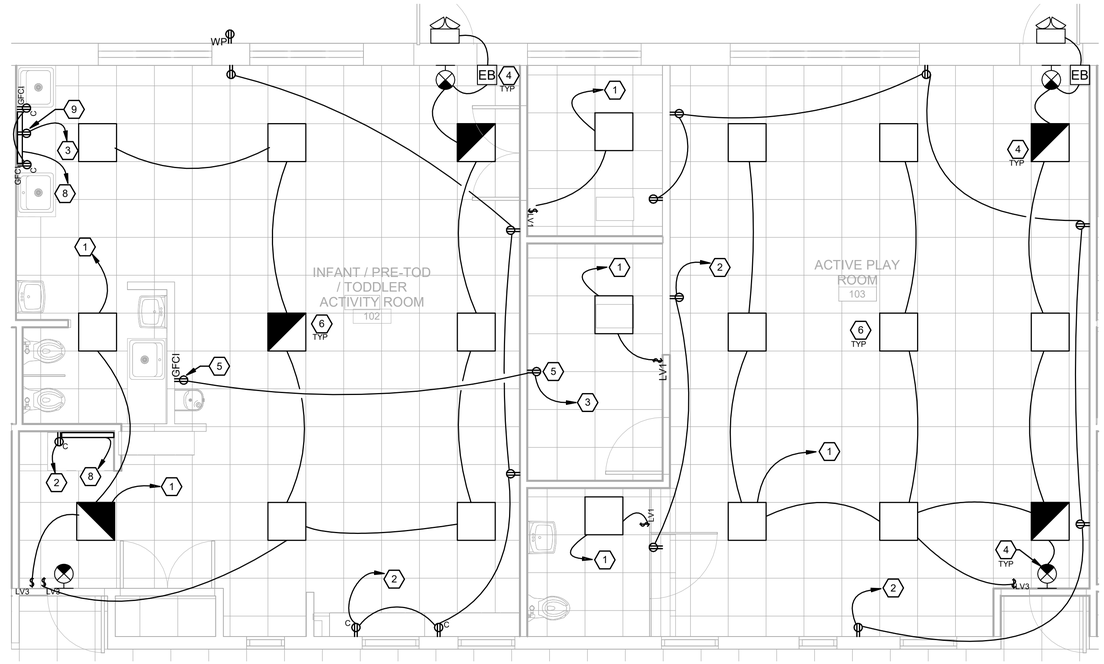
ELECTRICAL BRANCH CIRCUITING CRITERIA PLAN

SHEET ID
EP101

SEAL

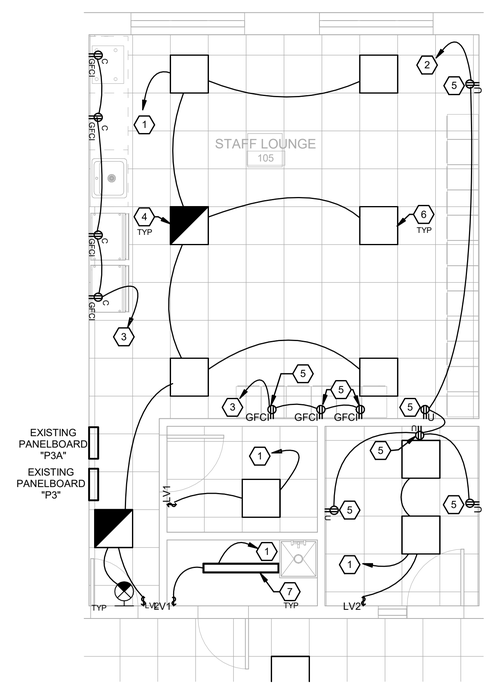
CERTIFIED FINAL SUBMITAL



INFANT / PRE-TOD / TODDLER ACTIVITY ROOM AND ACTIVE PLAY ROOM A

H7 1/4" = 1'-0"

0 2' 4' 8'



STAFF LOUNGE 105 AND OFFICE 107

A12 1/4" = 1'-0"

0 2' 4' 8'

GENERAL NOTES

1. REFER TO SHEET E-001 THROUGH E-002 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.
2. REFER TO SHEET EP601 FOR ONE-LINE DIAGRAMS.
3. REFER TO EP101 FOR PANEL LOCATION AND CIRCUITING CRITERIA.
4. FOR ALL REPLACEMENT VAV BOXES, EXTEND BRANCH CIRCUITING WIRING AND CONDUIT TO NEW LOCATION AND TERMINATE. NEW VAV LOCATION TO BE DETERMINED AS THE DESIGN PROGRESSES. REFER TO MECHANICAL DRAWINGS FOR VAV LOCATION.
5. REFER TO EL601 FOR TYPICAL LIGHTING CONTROLS WIRING SCHEMATIC.

SHEET KEYNOTES

1. CIRCUIT A: CIRCUIT LIGHTING FIXTURES IN TWO ROOMS TO SPARE 20A/1P CIRCUIT BREAKERS 480Y/277V PANELBOARD. FURNISH AND INSTALL 2#12 & 1#12G IN 3/4"C HOMERUN BACK TO PANELBOARD. SEE SHEET E101 FOR CIRCUIT CRITERIA AND PANELBOARD LOCATION.
2. CIRCUIT B: CIRCUIT RECEPTACLES IN EACH ROOM TO SPARE 20A/1P CIRCUIT BREAKERS IN 208Y/120V PANELBOARD. FURNISH AND INSTALL 2#12 & 1#12G IN 3/4"C HOMERUN BACK TO PANELBOARD. MAXIMUM SIX DUPLEX RECEPTACLES PER CIRCUIT. SEE SHEET E101 FOR CIRCUIT CRITERIA AND PANELBOARD LOCATION.
3. CIRCUIT C (GFCI CIRCUIT): CIRCUIT GFCI RECEPTACLES IN EACH ROOM TO SPARE 20A/1P CIRCUIT BREAKERS IN 208Y/120V PANELBOARD. FURNISH AND INSTALL 2#12 & 1#12G IN 3/4"C HOMERUN BACK TO PANELBOARD. MAXIMUM EIGHT DUPLEX GFCI RECEPTACLES PER CIRCUIT. SEE SHEET E101 FOR CIRCUIT CRITERIA AND PANELBOARD LOCATION.
4. LIGHTING FIXTURES SHOWN WITH SHADING INDICATES FIXTURES TO INCLUDE AN EMERGENCY BATTERY BACK UP DRIVER. ALL FIXTURES LOCATED IN CORRIDOR LOBBIES AND COMMON AREAS, BATTERY UNITS, AND EXIT SIGNS MUST BE TREATED AS EMERGENCY NIGHT LIGHTS ON UNSWITCHED CIRCUITS. ALL EMERGENCY LIGHT FIXTURES LOCATED IN OCCUPIED SPACES (TODDLER ROOMS, INFANT ROOMS, ETC.) MUST BE SWITCHED. PROVIDE AN ADDITIONAL UNSWITCHED HOT CONDUCTOR TO THE BATTERY PORTION OF THE DRIVER.
5. RECEPTACLE TO BE MOUNTED AT 1'-6" AFF.
6. PROVIDE RECESSED 2X2 VOLUMETRIC LED TROFFER, WITH CURVED SMOOTH ACRYLIC DIFFUSER; NOMINAL 3300 LUMEN OUTPUT, 3500K, 82 CRI, 0-10V DIMMING.
7. PROVIDE LINEAR 4 FOOT LED LUMINAIRE WITH FLAT DIFFUSE ACRYLIC LENS; NOMINAL 3000 LUMENS OUTPUT, 3500K, MINIMUM 80 CRI, 277V DRIVER.
8. CIRCUIT 33 IN: LED UNDER-CABINET LIGHT WITH INTEGRAL ON/OFF SWITCH TO SPARE 20A/1P CIRCUIT BREAKERS IN 208Y/120V PANELBOARD. FURNISH AND INSTALL 2#12 & 1#12G IN 3/4"C HOMERUN BACK TO PANELBOARD.
9. PROVIDE ISOLATED GFCI RECEPTACLE FOR UNDER CABNET MINI FRIDGE.

PLAN NORTH

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MAR 2026
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY: S. TEREFE
DRAWN BY: B. MARSHALL
CHECKED BY: D. MYERS
SUBMITTED BY:
SIZE: ANSI D
EP401 DWG

US ARMY CORPS OF ENGINEERS

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(770) 521-8199 SAMUEL.GOM

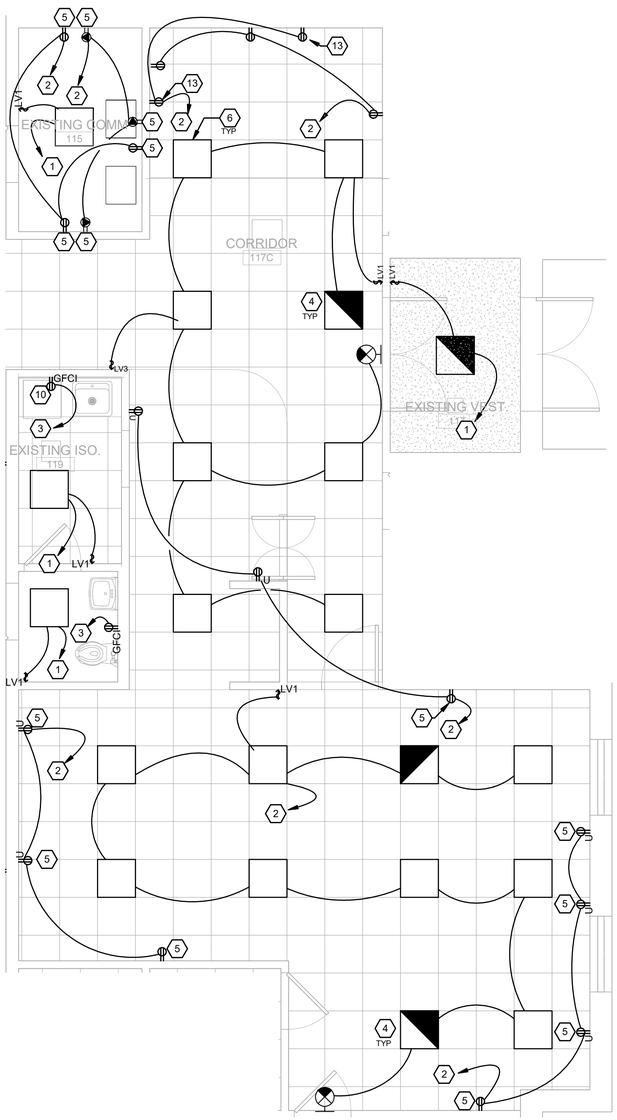
Ft. Campbell, KY
Building 3069
PN519189

ENLARGED POWER PLAN

SHEET ID

EP401

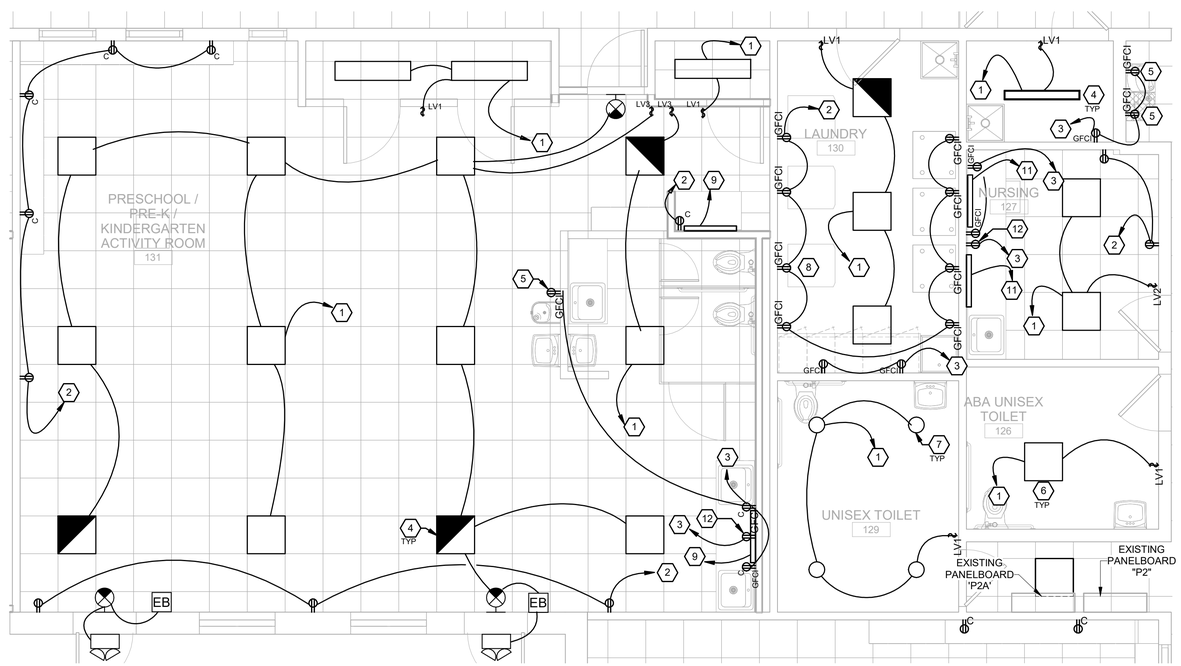
CERTIFIED FINAL SUBMITTAL



OPEN OFFICE 121, EXISTING ASSOC. DIR. 116 AND EXISTING DIR. 118 OFFICE AND RECEP DESK

A1

1/4" = 1'-0"



INFANT / PRE-TOD / TODDLER ACTIVITY ROOM AND ACTIVE PLAY ROOM B

A7

1/4" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET E-001 THROUGH E-002 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.
2. REFER TO SHEET EP601 FOR ONE-LINE DIAGRAMS.
3. REFER TO EP101 FOR PANEL LOCATION AND CIRCUITING CRITERIA.
4. FOR ALL REPLACEMENT VAV BOXES, EXTEND BRANCH CIRCUITING WIRING AND CONDUIT TO NEW LOCATION AND TERMINATE. NEW VAV LOCATION TO BE DETERMINED AS THE DESIGN PROGRESSES. REFER TO MECHANICAL DRAWINGS FOR VAV LOCATION.
5. REFER TO EL601 FOR TYPICAL LIGHTING CONTROLS WIRING SCHEMATIC.
6. FOR MINI-SPLIT AC UNIT, FURNISH AND INSTALL BRANCH CIRCUITING WIRING AND CONDUIT TO LOCATION AND TERMINATE. AC UNIT LOCATION TO BE DETERMINED AS THE DESIGN PROGRESSES. REFER TO MECHANICAL DRAWING FOR LOCATIONS.

SHEET KEYNOTES

1. CIRCUIT A: CIRCUIT LIGHTING FIXTURES IN TWO ROOMS TO SPARE 20A/1P CIRCUIT BREAKERS 480Y/277V PANELBOARD. FURNISH AND INSTALL 2#12 & 1#12G IN 3/4"C HOMERUN BACK TO PANELBOARD. SEE SHEET E101 FOR CIRCUIT CRITERIA AND PANELBOARD LOCATION.
2. CIRCUIT B: CIRCUIT RECEPTACLES IN EACH ROOM TO SPARE 20A/1P CIRCUIT BREAKERS IN 208Y/120V PANELBOARD. FURNISH AND INSTALL 2# 12 & 1#12G IN 3/4"C HOMERUN BACK TO PANELBOARD. MAXIMUM SIX DUPLEX RECEPTACLES PER CIRCUIT. SEE SHEET E101 FOR CIRCUIT CRITERIA AND PANELBOARD LOCATION.
3. CIRCUIT C (GFCI CIRCUIT): CIRCUIT GFCI RECEPTACLES IN EACH ROOM TO SPARE 20A/1P CIRCUIT BREAKERS IN 208Y/120V PANELBOARD, FURNISH AND INSTALL 2#12 & 1#12G IN 3/4"C HOMERUN BACK TO PANELBOARD. MAXIMUM EIGHT DUPLEX GFCI RECEPTACLES PER CIRCUIT. SEE SHEET E101 FOR CIRCUIT CRITERIA AND PANELBOARD LOCATION.
4. LIGHTING FIXTURES SHOWN WITH SHADING INDICATES FIXTURES TO INCLUDE AN EMERGENCY BATTERY BACK UP DRIVER. ALL FIXTURES LOCATED IN COORIDOOR LOBBIES AND COMMON AREAS, BATERY UNITS, AND EXIT SIGNS MUST BE TREATED AS EMERGENCY NIGHT LIGHTS ON UNSWITCHED CIRCUITS. ALL EMERGENCY NIGHT LIGHTS ON UNSWITCHED CIRCUITS; ALL EMERGENCY LIGHT FIXTURES LOCATED IN OCCUPIED SPACES (TODDLER ROOMS, INFANT ROOMS, ETC.) MUST BE SWITCHED. PROVIDE AN ADDITIONAL UNSWITCHED HOT CUNDUCTOR TO THE BATTERY PORTION OF THE DRIVER.
5. RECEPTACLE TO BE MOUNTED AT 1'-6" AFF.
6. PROVIDE RECESSED 2X2 VOLUMETRIC LED TROFFER, WITH CURVED SMOOTH ACRYLIC DIFFUSER; NOMINAL 3300 LUMEN OUTPUT, 3500K, 82 CRI, 0-10V DIMMING.
7. PROVIDE LINEAR 4 FOOT LED LUMINAIRE WITH FLAT DIFFUSE ACRYLIC LENS; NOMINAL 3000 LUMENS OUTPUT, 3500K, MINIMUM 80 CRI, 277V DRIVER.
8. COORDINATE FINAL WASHER/DRYER RECEPTACLE AND CIRCUITING CRITERIA WITH FINAL APPLIANCE SELECTIONS
9. CIRCUIT 33 IN. LED UNDER-CABINET LIGHT WITH INTEGRAL ON/OFF SWITCH TO SPARE 20A/1P CIRCUIT BREAKERS IN 208Y/120V PANELBOARD, FURNISH AND INSTALL 2#12 & 1#12G IN 3/4"C HOMERUN BACK TO PANELBOARD.
10. PROVIDE ISOLATED GFCI RECEPTACLE FOR MEDICAL REFRIGERATOR.
11. CIRCUIT 42 IN. LED UNDER-CABINET LIGHT WITH INTEGRAL ON/OFF SWITCH TO SPARE 20A/1P CIRCUIT BREAKERS IN 208Y/120V PANELBOARD, FURNISH AND INSTALL 2#12 & 1#12G IN 3/4"C HOMERUN BACK TO PANELBOARD.
12. PROVIDE ISOLATED GFCI RECEPTACLE FOR UNDER CABNET MINI FRIDGE.
13. PROVIDE DEDICATED RECEPTACLE FOR PVM AND WALL MOUNTED TVS IN THE RECEPTION WAITING AREA.

PLAN NORTH

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MAR 2026
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY: S. TEREFE
DRAWN BY: B. MARSHALL
CHECKED BY: D. MEYERS
SUBMITTED BY:
SIZE: ANSI D
EP402.DWG

US ARMY CORPS OF ENGINEERS

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Stantec
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Ft. Campbell, KY
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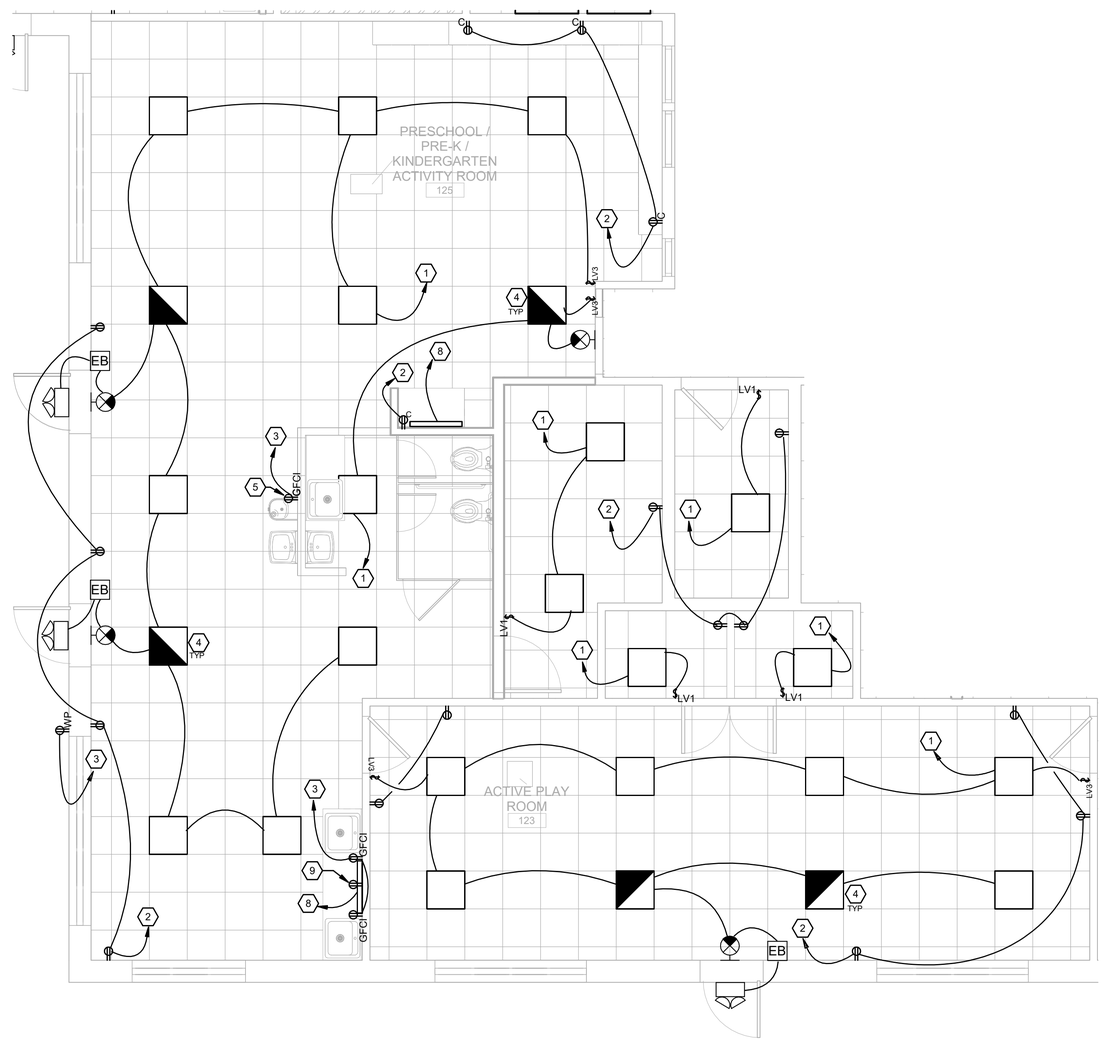
PN519189

ENLARGED POWER PLAN

SHEET ID

EP402

CERTIFIED FINAL SUBMITAL



INFANT / PRE-TOD / TODDLER ACTIVITY ROOM AND ACTIVE PLAY ROOM C

A7

1/4" = 1'-0"

0 2' 4' 8'

GENERAL NOTES

1. REFER TO SHEET E-001 THROUGH E-002 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.
2. REFER TO SHEET EP601 FOR ONE-LINE DIAGRAMS.
3. REFER TO EP101 FOR PANEL LOCATION AND CIRCUITING CRITERIA.
4. FOR ALL REPLACEMENT VAV BOXES, EXTEND BRANCH CIRCUITING WIRING AND CONDUIT TO NEW LOCATION AND TERMINATE. NEW VAV LOCATION TO BE DETERMINED AS THE DESIGN PROGRESSES. REFER TO MECHANICAL DRAWINGS FOR VAV LOCATION.
5. REFER TO EL601 FOR TYPICAL LIGHTING CONTROLS WIRING SCHEMATIC.

SHEET KEYNOTES

1. CIRCUIT A: CIRCUIT LIGHTING FIXTURES IN TWO ROOMS TO SPARE 20A/1P CIRCUIT BREAKERS 480Y/277V PANELBOARD. FURNISH AND INSTALL 2#12 & 1#12G IN 3/4"C HOMERUN BACK TO PANELBOARD. SEE SHEET E101 FOR CIRCUIT CRITERIA AND PANELBOARD LOCATION.
2. CIRCUIT B: CIRCUIT RECEPTACLES IN EACH ROOM TO SPARE 20A/1P CIRCUIT BREAKERS IN 208Y/120V PANELBOARD. FURNISH AND INSTALL 2# 12 & 1#12G IN 3/4"C HOMERUN BACK TO PANELBOARD. MAXIMUM SIX DUPLEX RECEPTACLES PER CIRCUIT. SEE SHEET E101 FOR CIRCUIT CRITERIA AND PANELBOARD LOCATION.
3. CIRCUIT C (GFCI CIRCUIT): CIRCUIT GFCI RECEPTACLES IN EACH ROOM TO SPARE 20A/1P CIRCUIT BREAKERS IN 208Y/120V PANELBOARD. FURNISH AND INSTALL 2#12 & 1#12G IN 3/4"C HOMERUN BACK TO PANELBOARD. MAXIMUM EIGHT DUPLEX GFCI RECEPTACLES PER CIRCUIT. SEE SHEET E101 FOR CIRCUIT CRITERIA AND PANELBOARD LOCATION.
4. LIGHTING FIXTURES SHOWN WITH SHADING INDICATES FIXTURES TO INCLUDE AN EMERGENCY BATTERY BACK UP DRIVER. ALL FIXTURES LOCATED IN COORIDOOR LOBBIES AND COMMON AREAS, BATERY UNITS, AND EXIT SIGNS MUST BE TREATED AS EMERGENCY NIGHT LIGHTS ON UNSWITCHED CIRCUITS. ALL EMERGENCY NIGHT LIGHTS ON UNSWITCHED CIRCUITS. ALL EMERGENCY LIGHT FIXTURES LOCATED IN OCCUPIED SPACES (TODDLER ROOMS, INFANT ROOMS, ETC.) MUST BE SWITCHED. PROVIDE AN ADDITIONAL UNSWITCHED HOT CUNDUCTOR TO THE BATTERY PORTION OF THE DRIVER.
5. RECEPTACLE TO BE MOUNTED AT 1'-6" AFF.
6. PROVIDE RECESSED 2X2 VOLUMETRIC LED TROFFER, WITH CURVED SMOOTH ACRYLIC DIFFUSER; NOMINAL 3300 LUMEN OUTPUT, 3500K, 82 CRI, 0-10V DIMMING.
7. PROVIDE LINEAR 4 FOOT LED LUMINAIRE WITH FLAT DIFFUSE ACRYLIC LENS; NOMINAL 3000 LUMENS OUTPUT, 3500K, MINIMUM 80 CRI, 277V DRIVER.
8. CIRCUIT 33 IN. LED UNDER-CABINET LIGHT WITH INTEGRAL ON/OFF SWITCH TO SPARE 20A/1P CIRCUIT BREAKERS IN 208Y/120V PANELBOARD, FURNISH AND INSTALL 2#12 & 1#12G IN 3/4"C HOMERUN BACK TO PANELBOARD.
9. PROVIDE ISOLATED GFCI RECEPTACLE FOR UNDER CABNET MINI FRIDGE.

PLAN NORTH

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MAR 2026
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY: S. TEREFE
DRAWN BY: B. MARSHALL
CHECKED BY: D. WILKES
SUBMITTED BY:
SIZE: ANSI D
EP403.DWG

US ARMY CORPS OF ENGINEERS

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PN519189

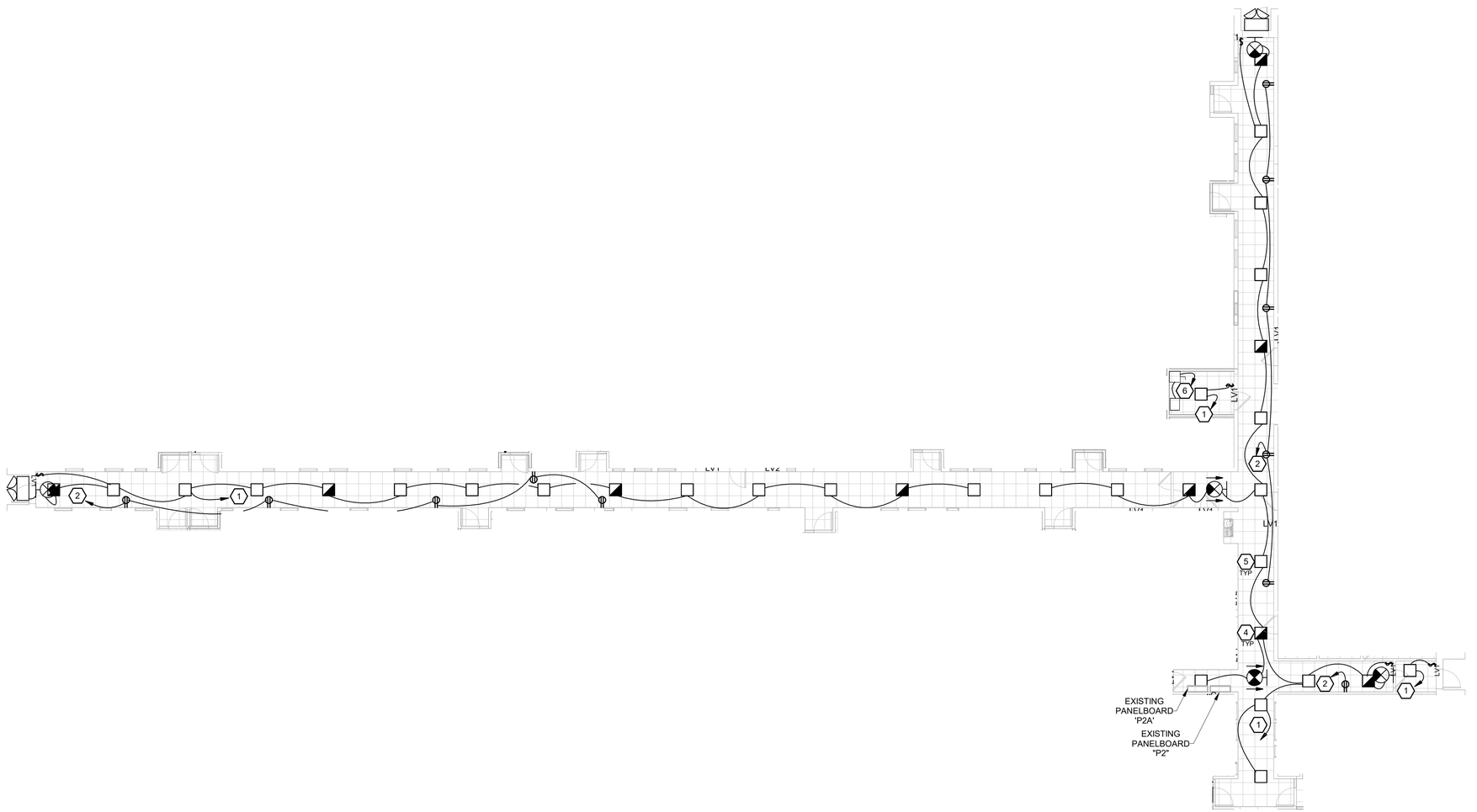
ENLARGED POWER PLAN

SHEET ID

EP403

CERTIFIED FINAL SUBMITAL

W912QR-61034642-0000



A2 CORRIDOR POWER AND LIGHTING PLAN

3/32" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET E-001 THROUGH E-002 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.
2. REFER TO SHEET EP601 FOR ONE-LINE DIAGRAMS.
3. REFER TO EP101 FOR PANEL LOCATION AND CIRCUITING CRITERIA.
4. FOR ALL REPLACEMENT VAV BOXES, EXTEND BRANCH CIRCUITING WIRING AND CONDUIT TO NEW LOCATION AND TERMINATE. NEW VAV LOCATION TO BE DETERMINED AS THE DESIGN PROGRESSES. REFER TO MECHANICAL DRAWINGS FOR VAV LOCATION.
5. REFER TO EL601 FOR TYPICAL LIGHTING CONTROLS WIRING SCHEMATIC.

SHEET KEYNOTES

1. CIRCUIT A: CIRCUIT LIGHTING FIXTURES IN HALLWAY TO SPARE 20A/1P CIRCUIT BREAKERS 480Y/277V PANELBOARD. FURNISH AND INSTALL 2#12 & 1#12G IN 3/4"C HOMERUN BACK TO PANELBOARD. SEE SHEET E101 FOR CIRCUIT CRITERIA AND PANELBOARD LOCATION.
2. CIRCUIT B: CIRCUIT RECEPTACLES IN HALLWAY TO SPARE 20A/1P CIRCUIT BREAKERS IN 208Y/120V PANELBOARD. FURNISH AND INSTALL 2#12 & 1#12G IN 3/4"C HOMERUN BACK TO PANELBOARD. MAXIMUM SIX DUPLEX RECEPTACLES PER CIRCUIT. SEE SHEET E101 FOR CIRCUIT CRITERIA AND PANELBOARD LOCATION.
3. NOT USED
4. LIGHTING FIXTURES SHOWN WITH SHADING INDICATES FIXTURES TO INCLUDE AN EMERGENCY BATTERY BACK UP DRIVER. ALL FIXTURES LOCATED IN COORIDOOR LOBBIES AND COMMON AREAS, BATERY UNITS, AND EXIT SIGNS MUST BE TREATED AS EMERGENCY NIGHT LIGHTS ON UNSWITCHED CIRCUITS. ALL EMERGENCY NIGHT LIGHTS ON UNSWITCHED CIRCUITS. ALL EMERGENCY LIGHT FIXTURES LOCATED IN OCCUPIED SPACES (TODDLER ROOMS, INFANT ROOMS, ETC.) MUST BE SWITCHED. PROVIDE AN ADDITIONAL UNSWITCHED HOT CUNDUCTOR TO THE BATTERY PORTION OF THE DRIVER.
5. PROVIDE RECESSED 2X2 VOLUMETRIC LED TROFFER, WITH CURVED SMOOTH ACRYLIC DIFFUSER; NOMINAL 3300 LUMEN OUTPUT, 82 CRI, 0-10V DIMMING.
6. CIRCUIT CCTV SERVER CABINET IN HALLWAY TO SPARE 35A/2P CIRCUIT BREAKER ON MDP-A 208Y/120V PANELBOARD. FURNISH AND INSTALL 3#10 & 1#10G IN 3/4"C HOMERUN BACK TO PANELBOARD. PROVIDE AND INSTALL 60A 2-POLE NON-FUSIBLE DISCONNECT SWITCH WITHIN SIGHT OF EQIPMENT. SEE SHEET E101 FOR CIRCUIT CRITERIA AND PANELBOARD LOCATION.

PLAN NORTH

SEAL

US Army Corps of Engineers ®

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US ARMY CORPS OF ENGINEERS

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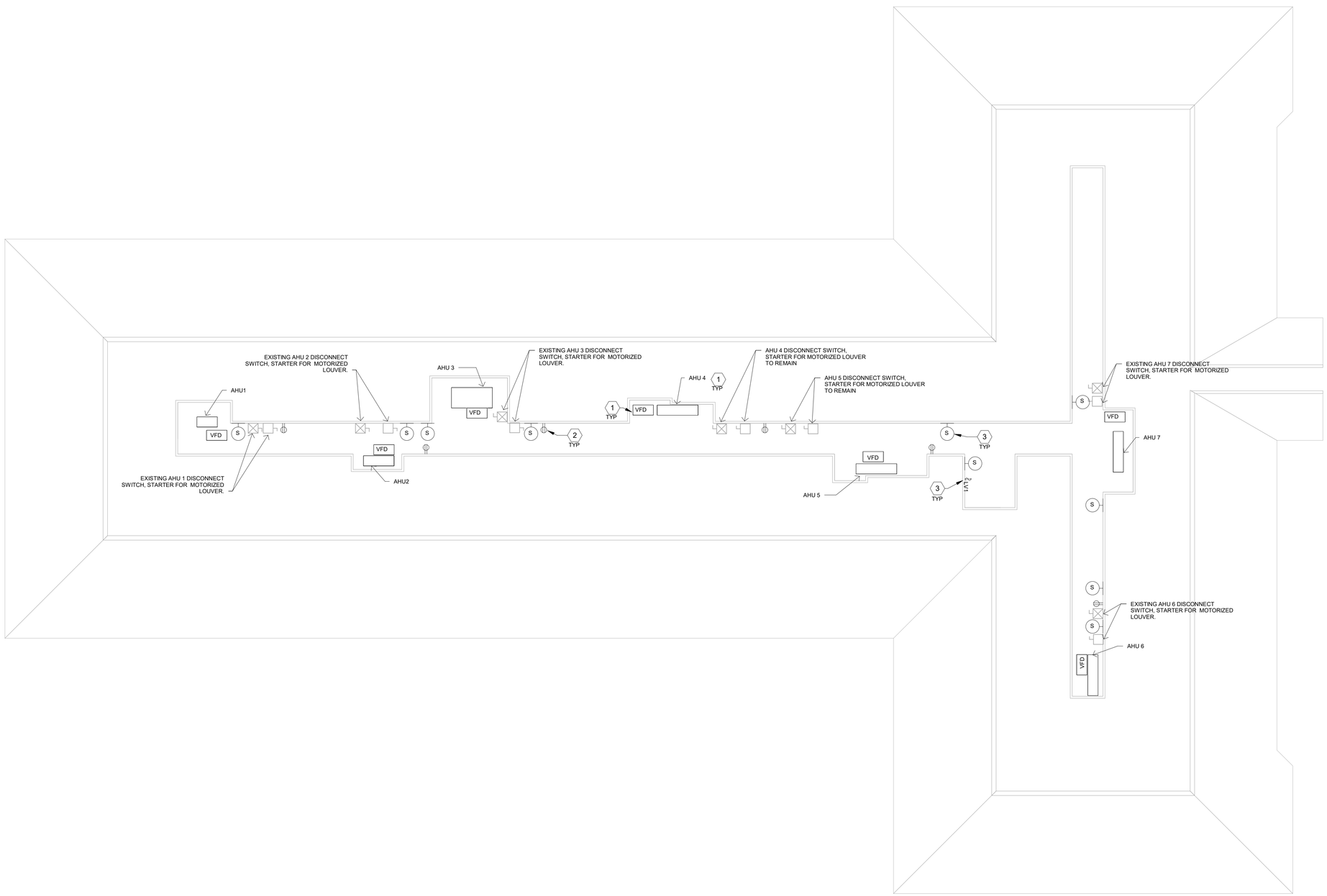
PN519189

CORRIDOR POWER AND LIGHTING PLAN

SHEET ID

EP404

CERTIFIED FINAL SUBMITAL



A1 MEZZANINE POWER PLAN

3/32" = 1'-0"

0 8' 16' 32'

PLAN NORTH

GENERAL NOTES

1. REFER TO SHEET E-001 THROUGH E-002 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES
2. REFER TO SHEET EP601 FOR SINGLE-LINE DIAGRAM.

SHEET KEYNOTES

1. RECONNECT REPLACEMENT AHU EQUIPMENT. EXTEND EXISTING WIRING AND CONDUIT TO NEW LOCATION AND TERMINATE. NEW WIRE AND CONDUIT TO MATCH EXISTING.
2. FURNISH AND INSTALL NEW RECEPTACLE AT EXISTING LOCATION. EXTEND EXISTING WIRE AND CONDUIT AND TERMINATE.
3. FURNISH AND INSTALL A NEW DEVICE OR LED STRIP FIXTURE, EXTEND EXISTING WIRE AND CONDUIT AND TERMINATE.

US Army Corps of Engineers ®

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SUBMITTED BY:
SIZE: ANSI D
EP405.DWG

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MEZZANINE POWER PLAN

SHEET ID
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SEAL

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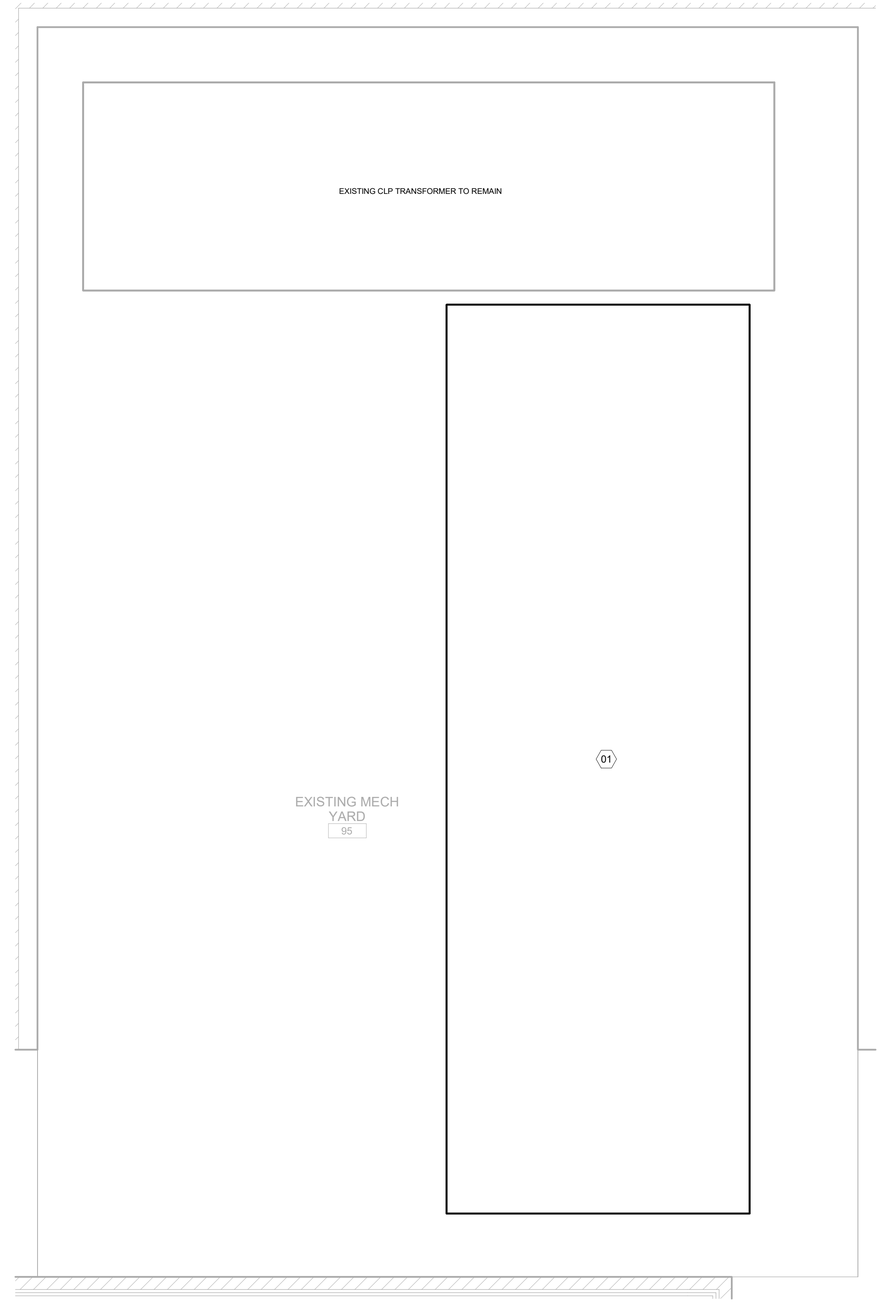

A9 EQUIPMENT YARD PLAN
1/2" = 1'-0"

0 2' 4' 8'

GENERAL NOTES

1. REFER TO SHEET E-001 THROUGH E-002 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES
2. REFER TO SHEET EP601 FOR SINGLE-LINE DIAGRAM.
3. REFER TO EP101 FOR PANEL LOCATION AND CIRCUITING CRITERIA.

SHEET KEYNOTES

1. REPLACEMENT OUTDOOR CHILLER, EXTEND EXISTING WIRING AND CONDUIT TO REPLACEMENT CHILLER LOCATION AND TERMINATION.

LEGEND

NEW WORK

EXISTING WORK (SCREENED)

PLAN NORTH

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

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SIZE: ANSI D
ISSUE DATE: MAR 2026
SOLICITATION NO.:
CONTRACT NO.:
EP406.DWG

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EQUIPMENT YARD PLAN

SHEET ID

EP406

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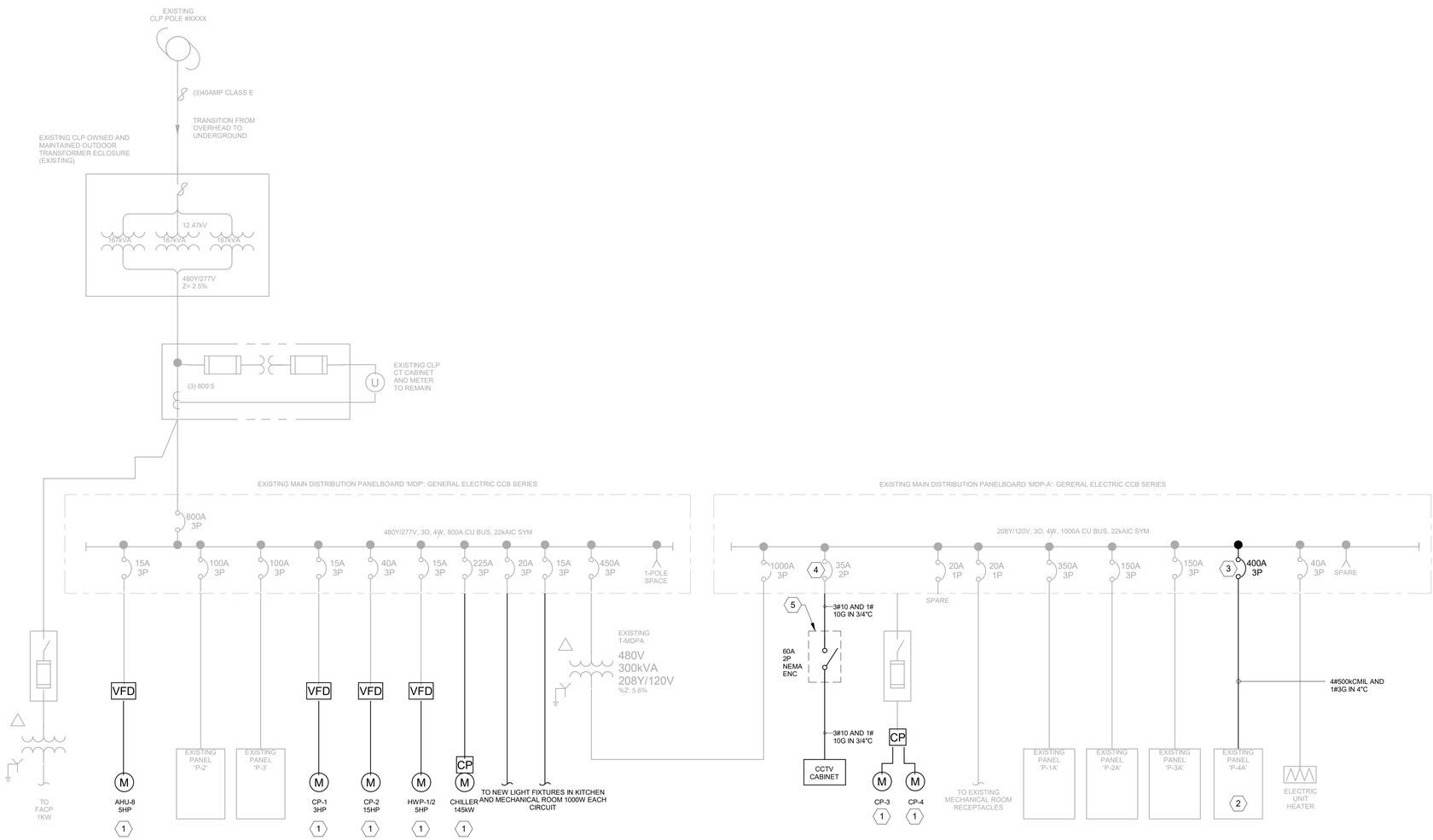

A4 ONE LINE NEW WORK
NTS

GENERAL NOTES

1. REFER TO DWG E-001 THROUGH E-002 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.

SHEET KEYNOTES

1. RECONNECT REPLACEMENT HVAC EQUIPMENT. EXTEND EXISTING WIRING AND CONDUIT TO NEW LOCATION AND TERMINATE. NEW WIRE AND CONDUIT TO MATCH EXISTING.
2. FURNISH AND INSTALL 400-AMP, 3-POLE FEEDER MAIN CIRCUIT BREAKER IN PANEL P4A. CIRCUIT BREAKER MUST MATCH EXISTING PANELBOARD MANUFACTURER AND AIC RATING.
3. FURNISH AND INSTALL 400-AMP, 3-POLE FEEDER CIRCUIT BREAKER IN PANEL MDP-A. CIRCUIT BREAKER MUST MATCH EXISTING PANELBOARD MANUFACTURER AND AIC RATING.
4. FURNISH AND INSTALL 35-AMP, 2-POLE FEEDER CIRCUIT BREAKER IN PANEL MDP-A. CIRCUIT BREAKER MUST MATCH EXISTING PANELBOARD MANUFACTURER AND AIC RATING.
5. FURNISH AND INSTALL 60-AMP, 2-POLE, SINGLE-THROW, NEMA 1 NON-FUSIBLE DISCONNECT SWITCH WITHIN SIGHT OF EQUIPMENT IN CCTV ROOM.

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ONE LINE NEW WORK

SHEET ID
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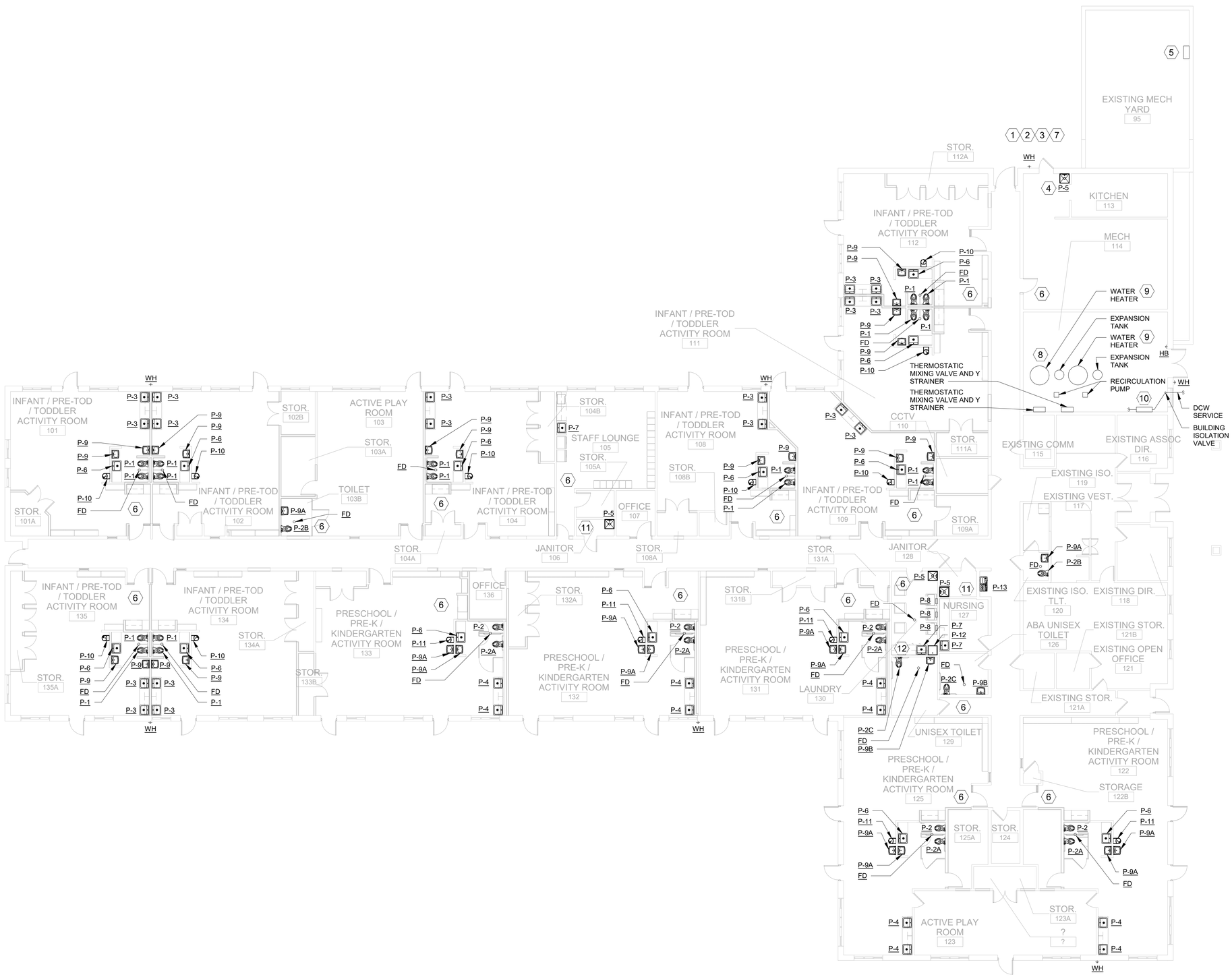

A1 PLUMBING PLAN - OVERALL

3/32" = 1'-0"

GENERAL NOTES

1. SEE AS-BUILT DRAWINGS DATED MAY OF 1990 FOR EXISTING CONDITIONS.
2. THE PLUMBING INTENT FOR THIS PROJECT CONSISTS OF SELECTIVE DEMOLITION OF EXISTING PLUMBING SYSTEMS AND PROVIDING NEW PLUMBING SYSTEMS/FIXTURES IN ACCORDANCEWITH THE ARCHITECTURAL LAYOUT, AND THE STANDARD DESIGN CRITERIA FOR CHILD DEVELOPMENT CENTERS (INCLUDING MOUNTING HEIGHTS).
3. PLANS ARE BASED ON EXISTING AS-BUILT DRAWINGS AND NON-DESTRUCTIVE FIELD INVESTIGATION. CONTRACTOR MUST FIELD VERIFY EXTENT OF DEMOLITION BASED ON EXISTING CONDITIONS, AND NOTIFY THE CONTRACTING OFFICER OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. SANITARY PIPING MAY BE RE-USED TO THE GREATEST EXTENT AS PRACTICABLE. SAWCUT EXISTING SLAB PER ARCHITECTURAL PLUMBING FIXTURE LAYOUT. CONNECT TO EXISTING SANITARY MAINS BELOW SLAB AND CONNECT NEW VENT PIPING TO EXISTING VENT THROUGH ROOFS.
5. THE DOMESTIC WATER SERVICE HAS SUFFICIENT CAPACITY TO HANDLE THE TOTAL SUPPLY FIXTURE LOAD. CONTRACTORS MUST VERIFY, WITH CALCULATIONS, IF THE AVAILABLE SITE STATIC PRESSURE IS SUFFICIENT TO OPERATE BUILDING FIXTURES WITHOUT THE AID OF A DOMESTIC WATER BOOSTER PUMP.
6. CONTRACTOR MUST VERIFY CONNECTION POINTS FOR ALL PIPING.
7. SANITARY WASTE (W) PIPING MUST BE ROUTED BELOW SLAB, UNLESS NOTED OTHERWISE.
8. SANITARY VENT (V) PIPING MUST BE ROUTED TIGHT TO STRUCTURE, UNLESS NOTED OTHERWISE.
9. DOMESTIC WATER PIPING (DCW, DHW, DHWR) MUST BE ROUTED TIGHT TO STRUCTURE, UNLESS NOTED OTHERWISE.

SHEET KEYNOTES

1. COORDINATE SANITARY PIPING LEAVING THE BUILDING WITH STRUCTURAL AS NEEDED. COORDINATE ROUTING WITH GRADE BEAM, PILE CAP, AND STEM WALL.
2. CONTRACTOR MUST SCAN THE SLAB TO DETERMINE BELOW GRADE PIPING AND PROVIDE A REPORT. TRACER WIRE MAY BE REQUIRED IN THE PIPE TO PROPERLY SCAN THE PIPE ROUTING. THE REPORT MUST INCLUDE IF THE MATERIAL IS METALLIC OR PLASTIC, A DESCRIPTION OF THE SCANNING PROCESS, AND THE PIPE ROUTING ON AN ARCHITECTURAL PLAN FOR REFERENCE. THIS SCAN AND REPORT IS INTENDED TO ASSIST WITH REDUCING THE LIMITS OF SAW CUTTING.
3. CLEAN AND INSPECT THE EXISTING SANITARY PIPING SYSTEM SERVING BUILDING 3069. INSPECT USING TELEVISION CAMERA WITH VIDEO AND CLEAN USING POWER RODDER. THE WASTE PIPING LOCATED WITHIN THE BUILDING, INCLUDING 5FT OUTSIDE THE BUILDING, MUST BE CLEANED AND INSPECTED. AT THE COMPLETION OF THIS WORK, SUBMIT THE VIDEO ALONG WITH A WRITTEN REPORT DOCUMENTING ISSUES ENCOUNTERED.
4. COORDINATE MOP SINK REPLACEMENT WITH FOOD SERVICE OPTION.
5. EXISTING NATURAL GAS METER AND ASSOCIATED COMPONENTS ARE INTENDED TO REMAIN. CONTRACTOR TO VERIFY CAPACITY AND BUILDING SERVICE PRESSURE TO VERIFY THE EXISTING METER AND REGULATORS ARE CAPABLE OF HANDLING THE TOTAL NATURAL GAS DEMANDED.
6. PROVIDE ISOLATION VALVE ON EACH SERVICE LINE (DCW,DHW,DHWR).
7. THE EXISTING GREASE INTERCEPTOR IS EXISTING TO REMAIN. CLEAN EXISTING GREASE INTERCEPTOR.
8. DEMOLISH EXISTING DOMESTIC WATER HEATERS, EXPANSION TANKS, STORAGE TANKS, RECIRCULATION PUMPS, AND THERMOSTATIC MIXING VALVES.
9. REPLACE EXISTING DOMESTIC WATER HEATERS WITH CONDENSING TYPE NATURAL GAS WATER HEATERS. PROVIDE SEPERATE WATER HEATER, EXPANSION TANKS, THERMOSTATIC MIXING VALVES, STRAINERS, AND RECIRCULATION PUMPS FOR SERVICE TO THE KITCHEN AND SERVICE TO THE REST OF THE BUILDING. NEW EQUIPMENT LAYOUT MUST BE COORDINATED WITH MECHANICAL EQUIPMENT.
10. PROVIDE DOMESTIC WATER SERVICE WATER METER AND REDUCED PRESSURE ZONE TYPE BACKFLOW PREVENTER. ADDITIONAL BACKFLOW PREVENTERS MUST BE PROVIDED ON MAKEUP-WATER CONNECTIONS TO MECHANICAL EQUIPMENT. COORDINATE BACKFLOW PREVENTER LOCATION AND MAINTENANCE ACCESS SPACE WITH MECHANICAL EQUIPMENT.
11. PROVIDE A WALL-MOUNTED EMERGENCY EYEWASH STATION.
12. PROVIDE AN EMERGENCY EYEWASH STATION INSTALLED ON LAUNDRY SINK FAUCET.

PLAN NORTH

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MARCH 2026
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY: R. TROUT
DRAWN BY: J. WEBER
CHECKED BY: M. MCCALL
SUBMITTED BY: M. POE
SIZE: ANSI D
P-110.DWG

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PLUMBING PLAN

SHEET ID
P-110

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PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	MATERIAL	SIZE (IN)	MOUNTING HEIGHT	FLOW RATE	PIPE SIZES				NOTES
						W	V	DHW	DCW	
FD	FLOOR DRAIN (SELF PRIMING)	-	-	-	-	2" MIN	-	-	-	-
P-1	FLOOR MOUNTED WATER CLOSET (INFANT CHILD HEIGHT)	VITREOUS CHINA	-	SEAT @ 10-11" AFF	1.28 GPF	3"	2"	-	1"	1
P-2	FLOOR MOUNTED WATER CLOSET (PRESCHOOL CHILD HEIGHT)	VITREOUS CHINA	-	SEAT @ 13-14" AFF	1.28 GPF	3"	2"	-	1"	1
P-2A	FLOOR MOUNTED WATER CLOSET (ABA PRESCHOOL CHILD HEIGHT)	VITREOUS CHINA	-	SEAT @ 10-11" AFF	1.28 GPF	3"	2"	-	1"	1
P-2B	FLOOR MOUNTED WATER CLOSET (ISOLATION ROOM HEIGHT)	VITREOUS CHINA	-	SEAT @ 15" AFF	1.28 GPF	3"	2"	-	1"	1
P-2C	FLOOR MOUNTED WATER CLOSET (ABA ADULT HEIGHT)	VITREOUS CHINA	-	SEAT @ 17" AFF MIN 19" AFF MAX	1.28 GPF	3"	2"	-	1"	1
P-3	SINK (INFANT ROOM)	STAINLESS STEEL	-	COUNTER	0.5 GPM	1-1/2"	1-1/4"	3/4"	3/4"	2, 3
P-4	SINK (PRESCHOOL ROOM)	STAINLESS STEEL	-	COUNTER	0.5 GPM	1-1/2"	1-1/4"	3/4"	3/4"	2, 3
P-5	MOP SINK	MOLDED STONE	-	FLOOR	-	3"	1-1/2"	3/4"	3/4"	4
P-6	DIAPER CHANGING STATION SINK INTEGRAL WITH UNIT (ABA COMPLIANT)	-	-	COUNTER	1.5 GPM	1-1/2"	1-1/2"	3/4"	3/4"	2, 3
P-7	SINK SINGLE COMPARTMENT UNDERMOUNT (ABA COMPLIANT)	STAINLESS STEEL	-	COUNTER	1.5 GPM	1-1/2"	1-1/2"	3/4"	3/4"	2, 3
P-8	WASHER CONNECTIONS BOX	-	-	-	-	3"	2"	3/4"	1"	9
P-9	WALL HUNG LAVATORY (ABA INFANT CHILD HEIGHT)	VITREOUS CHINA	-	17" AFF	0.5 GPM	1-1/2"	1-1/2"	3/4"	3/4"	6, 7
P-9A	WALL HUNG LAVATORY (ABA PRESCHOOL CHILD HEIGHT)	VITREOUS CHINA	-	20" AFF	0.5 GPM	1-1/2"	1-1/2"	3/4"	3/4"	6, 7
P-9B	WALL HUNG LAVATORY (ABA ADULT HEIGHT)	VITREOUS CHINA	-	34" AFF MAX	0.5 GPM	1-1/2"	1-1/2"	3/4"	3/4"	6, 7
P-10	DRINKING FOUNTAIN	STAINLESS STEEL	-	17" AFF	-	1-1/2"	1-1/2"	-	3/4"	5
P-11	DRINKING FOUNTAIN	STAINLESS STEEL	-	22" AFF	-	1-1/2"	1-1/2"	-	3/4"	5
P-12	LAUNDRY TUB W/ FAUCET	-	-	FLOOR	-	1-1/2"	1-1/2"	3/4"	3/4"	10
P-13	ELECTRIC WATER COOLER DUAL HEIGHT W/ BOTTLE FILLER	STAINLESS STEEL	-	ORIFICES @ 36" AND 38" TO 43"	-	1-1/2"	1-1/2"	-	3/4"	5
WH	WALL HYDRANT	-	-	18" ABOVE GRADE	-	-	-	-	3/4"	11
HB	HOSE BIBB	-	-	18" AFF	-	-	-	-	3/4"	8

NOTES:

1. PROVIDE FLOOR MOUNTED FLUSH VALVE WATER CLOSET, ELONGATED OPEN FRONT SEAT.
2. PROVIDE WITH ASSE 1070 COMPLIANT BELOW DECK MIXING VALVE, MV-2
3. PROVIDE AN UNDERMOUNT UNIT WITH ADJUSTABLE P-TRAP WITH DRAIN PIPING TO VERTICAL VENT STACK. FAUCET MUST BE GOOSENECK TYPE WITH AERATOR, AND THREE HOLE DECK MOUNT FACET WITH WRISTBLADE HANDLES.
4. PROVIDE PRE-CAST TERRAZZO FLOOR-MOUNTED MOP SINK. PROVIDE BRASS BODY DRAINS WITH NICKEL BRONZE STRAINERS CAST INTEGRAL WITH TERRAZZO. PROVIDE STAINLESS STEEL RIM GUARD FOR MOP SINK. PROVIDE WALL MOUNTED CHROME-PLATED BRASS EXPOSED HOT AND COLD WATER FAUCET, ASME A112.18.1, WALL-MOUNTED COPPER ALLOY FAUCET WITH 3/4" HOSE THREAD (ON SPOUT), WALL GUARD, HOSE, AND HOSE BRCKET. PROVIDE SERVICE FAUCET WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACKET, PAIL HOOK, AND STAINLESS STEEL MOP HANGER.
5. PROVIDE WITH VANDAL RESISTANT PUSH BUTTON. UNIT MUST BE STAINLESS STEEL AND CERTIFIED LEAD-FREE.
6. PROVIDE TRAP AND SUPPLY PIPE INSULATION GUARD.
7. PROVIDE WALL MOUNTED LAVATORY WITH DECK MOUNT FAUCET, GRID STRAINER, AND FRONT PUSH BUTTON OPERATOR. USE LEVER OR WRIST BLADE OPERATOR FOR ADULT SIZE LAVATORY FAUCET.
8. PROVIDE HOSE BIBB WITH AN INTEGRAL VACUUM BREAKER, SHUT-OFF VALVE, AND 3/4" HOSE CONNECTION.
9. FIRE RATED BOX WITH DRAIN KIT, QUARTER TURN SUPPLY VALVES WITH HOSE CONNECTIONS AND INTEGRAL SHOCK ARRESTORS WITH DEEP SEAL TRAP, NICKEL BRONZE STRAINER, AND BARRIER TYPE TRAP SEAL PROTECTION DEVICE (TRAP GUARD); 8" DIAMETER STRAINER.
10. PLASTIC, FLOOR SUPPORTED, WALL SECURED, SINGLE COMPARTMENT WITH DECK MOUNTED SWING SPOUT CENTERSET FAUCET AND DRAIN FITTING WITH STRAINER.
11. PROVIDE FREEZEPROOF, RECESSED WALL HYDRANT WITH AN INTEGRAL VACUUM BREAKER, SHUT-OFF VALVE, AND 3/4" HOSE CONNECTION.

PLAN NORTH

SEAL

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

ISSUE DATE: MARCH 2026
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY: R. TROUT
DRAWN BY: J. WEBER
CHECKED BY: M. MCCALLA
SUBMITTED BY: M. POE
SIZE: ANSI D
P-600.DWG

US ARMY CORPS OF ENGINEERS

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Project Name
Project Number

PLUMBING SCHEDULES

SHEET ID

P-600

CERTIFIED FINAL SUBMITTAL

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TELECOMMUNICATIONS

1	[NON-SECURE] VOICE/DATA OUTLET, SINGLE GANG FACEPLATE, CATEGORY 6A, FLUSH MOUNTED 1'-6" AFF, UNO (SEE DETAIL H1/SHEET T-501)
2	[NON-SECURE] TV, SINGLE GANG FACEPLATE, CATEGORY 6A, FLUSH MOUNTED 1'-6" AFF, UNO (SEE DETAIL A2/SHEET T-501)
1	[NON-SECURE] VOICE OUTLET, SINGLE GANG, INTERCOM MOUNTING PLATE, CATEGORY 6A, FLUSH MOUNTED 4'-0" AFF, UNO (SEE DETAIL H1/SHEET T-501)
48"	[NON-SECURE] DATA/INTERCOM OUTLET [DEVICE, i.e, ROOM SCHEDULING DISPLAY], WITH CATEGORY 6A, FLUSH MOUNTED 4'-0" AFF, UNO (SEE DETAIL H1/SHEET T-501)
W	[NON-SECURE] VOICE OUTLET, SINGLE GANG, WALL-PHONE MOUNTING PLATE, CATEGORY 6A, FLUSH MOUNTED 4'-0" AFF, UNO (SEE DETAIL A1/SHEET T-501)
2	[NON-SECURE] WIFI OUTLET, CATEGORY 6A, CEILING MOUNTED, UNO (SEE DETAIL H1/SHEET T-501)
	WIRE BASKET CABLE TRAY
	WIRE BASKET CABLE TRAY - TURNING UP
	WIRE BASKET CABLE TRAY - TURNING DOWN
	VERTICAL CABLE TRAY
	CONDUIT TURNING DOWN
	CONDUIT TURNING UP
	EXPOSED CONDUIT (HIDDEN FROM VIEW IN ARCHITECTURALLY FINISHED SPACES)
— J — J —	NON-CONTINUOUS SUPPORTS
	CONDUIT SLEEVE
	FIRE STOPPING PENETRATION ASSEMBLY

GENERAL NOTES

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MARK	DESCRIPTION	DATE

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DESIGNED BY: C. BEARD
DRAWN BY: W. BRYANT
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SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: MAR 2026
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CONTRACT NO.:
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TELECOM LEGEND

SHEET ID

T-001

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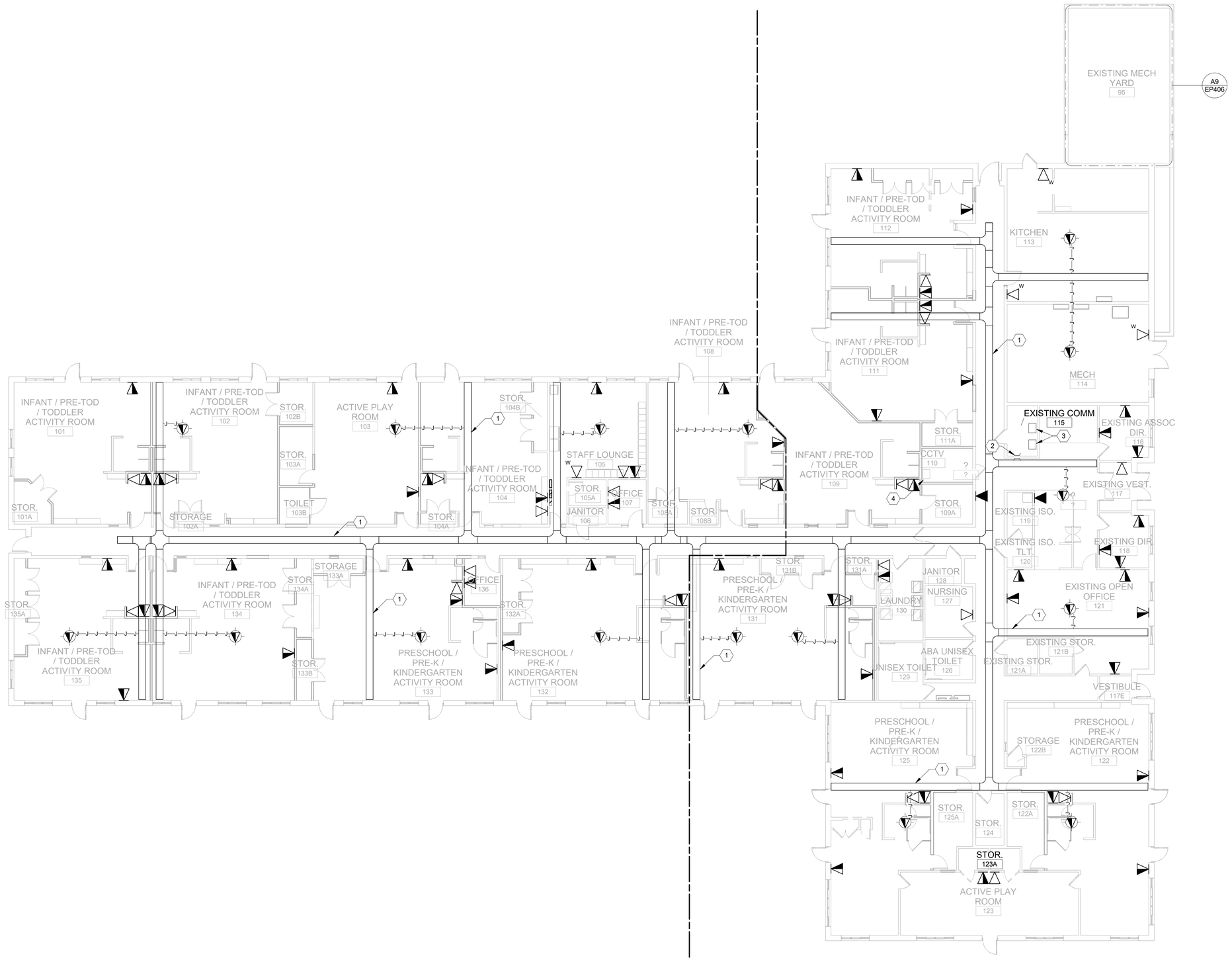

A1 FIRST FLOOR TELECOM PLAN
3/32" = 1'-0"

GENERAL NOTES

1. SEE SHEET T-001 FOR LEGEND.
2. J HOOKS ARE ALLOWED FOR WIRELESS ACCESS POINTS ONLY.

SHEET KEYNOTES

1. 18" X 4" WIRE BASKET TRAY.
2. FIRE STOPPING PENETRATION ASSEMBLY.
3. TWO NEW 19" RACKS.
4. AV CABINET REUSE EXISTING CABINET. COORDINATE WITH OWNER ON EXACT PLACEMENT.

LEGEND

PLAN NORTH

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DESIGNED BY: C. BEARD
DRAWN BY: W. BRYANT
CHECKED BY: C. Howard
SUBMITTED BY:
SIZE: ANSI D
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FIRST FLOOR TELECOM PLAN

SHEET ID
T-101

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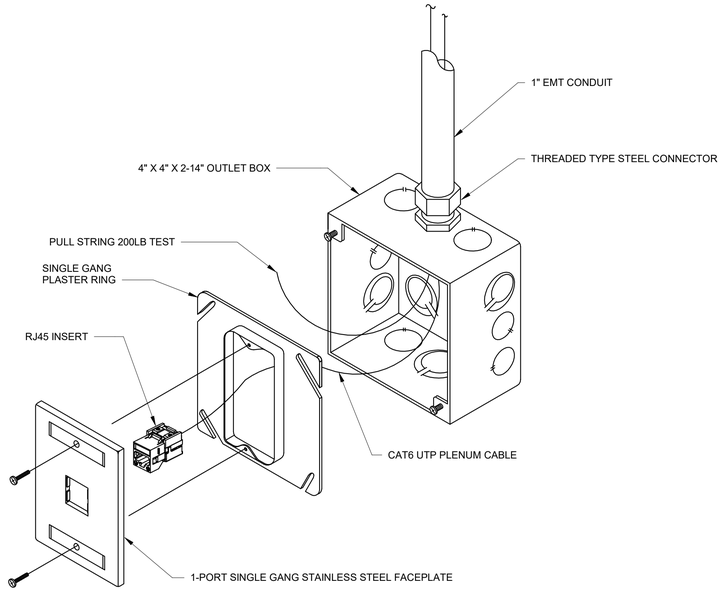
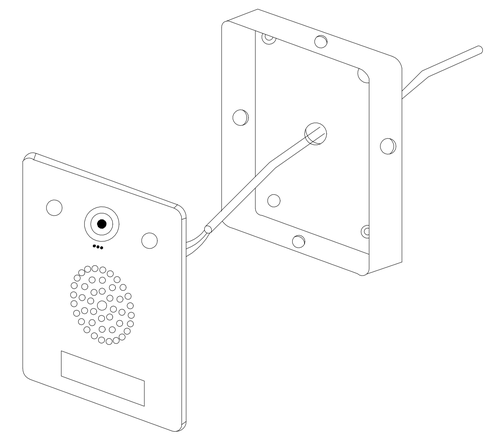


1-PORT WALL MOUNT OUTLET

H1 1- PORT INTERCOM

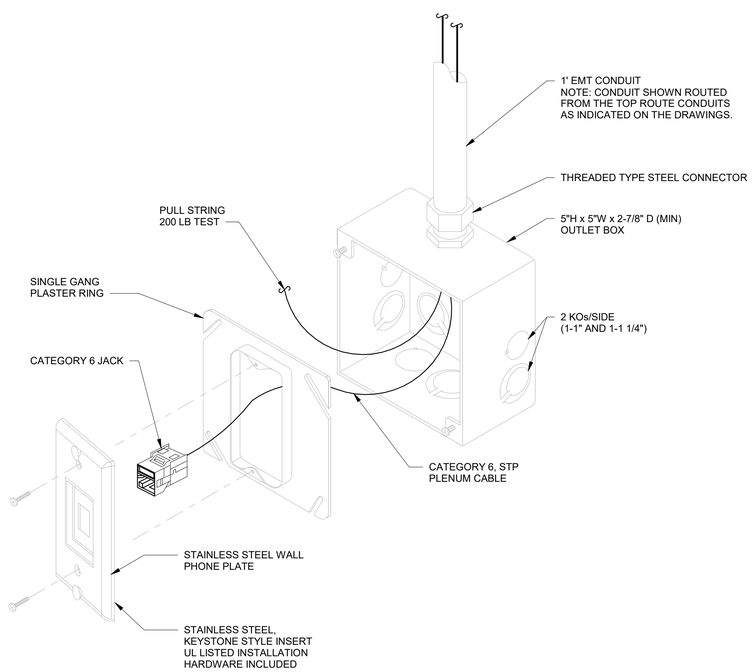
1" = 1'-0"

48"



H10 INTERCOM DETAIL

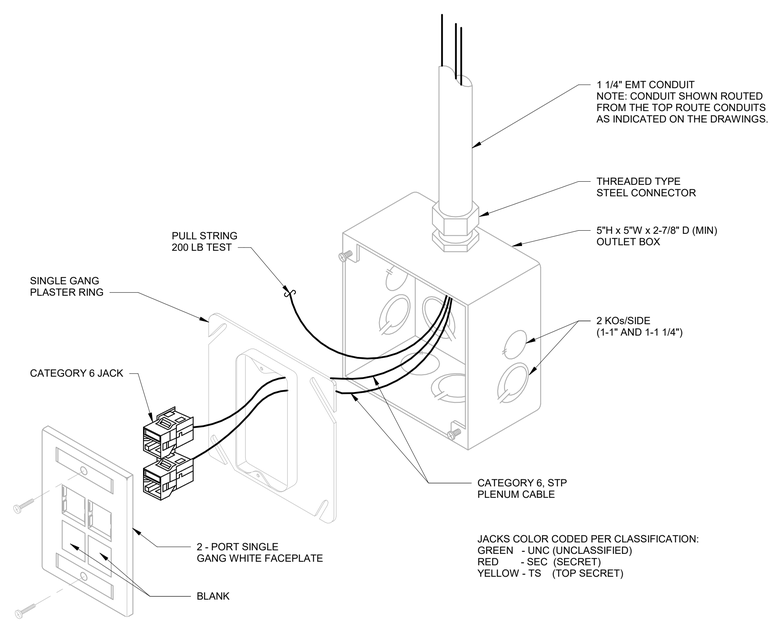
1" = 1'-0"



A1 WALL PHONE OUTLET DETAIL

12" = 1'-0"

W



A10 2 - PORT WALL MOUNT OUTLET DETAIL

12" = 1'-0"

GENERAL NOTES

1. SEE SHEET T-001 FOR LEGEND.

US Army Corps of Engineers ®

MARK	DESCRIPTION	DATE

DESIGNED BY: C. BEARD
DRAWN BY: W. BRYANT
CHECKED BY: Chandler
SUBMITTED BY:
SIZE: ANSI D
ISSUE DATE: MAR 2026
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TELECOM DETAILS

SHEET ID

T-501

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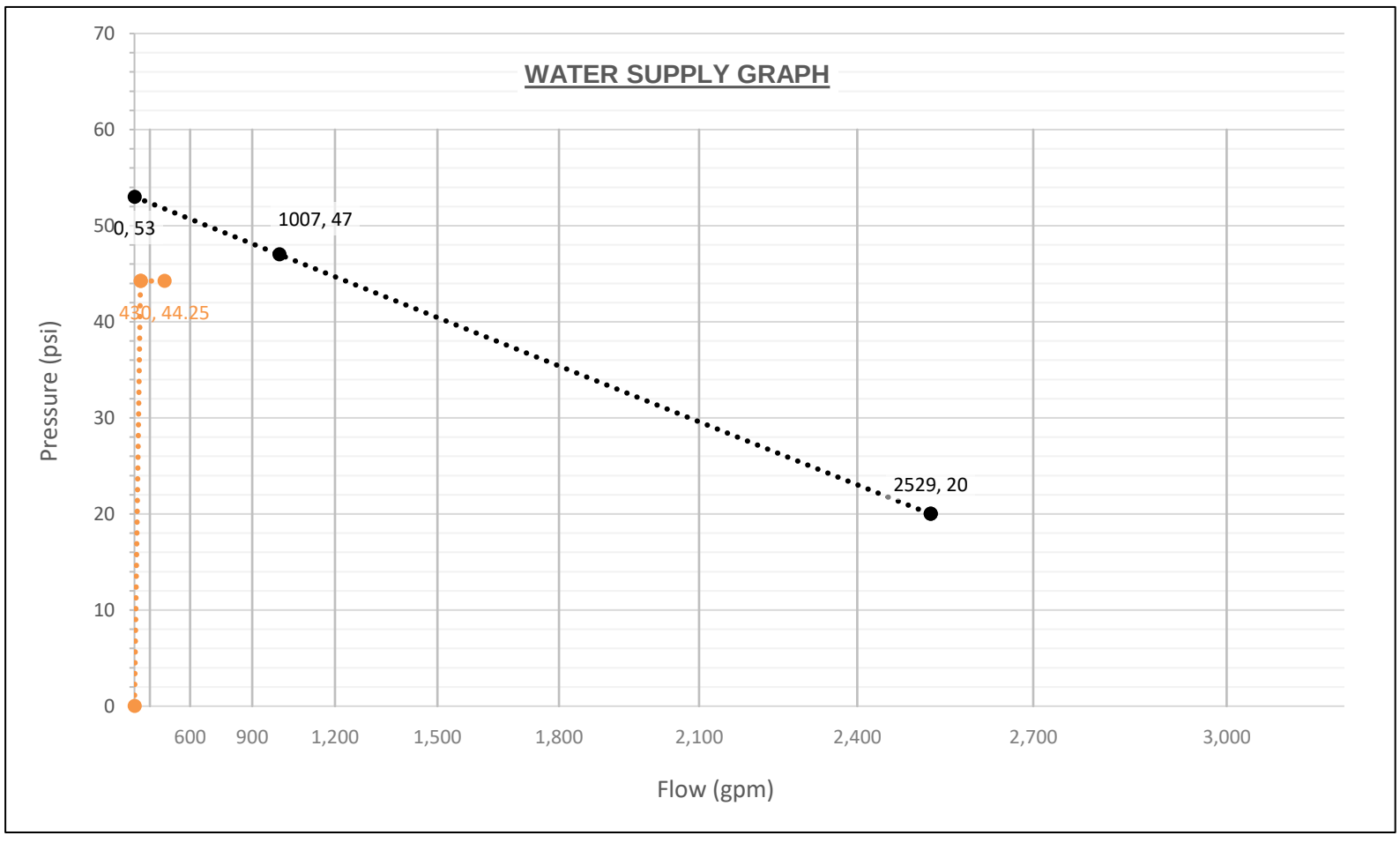
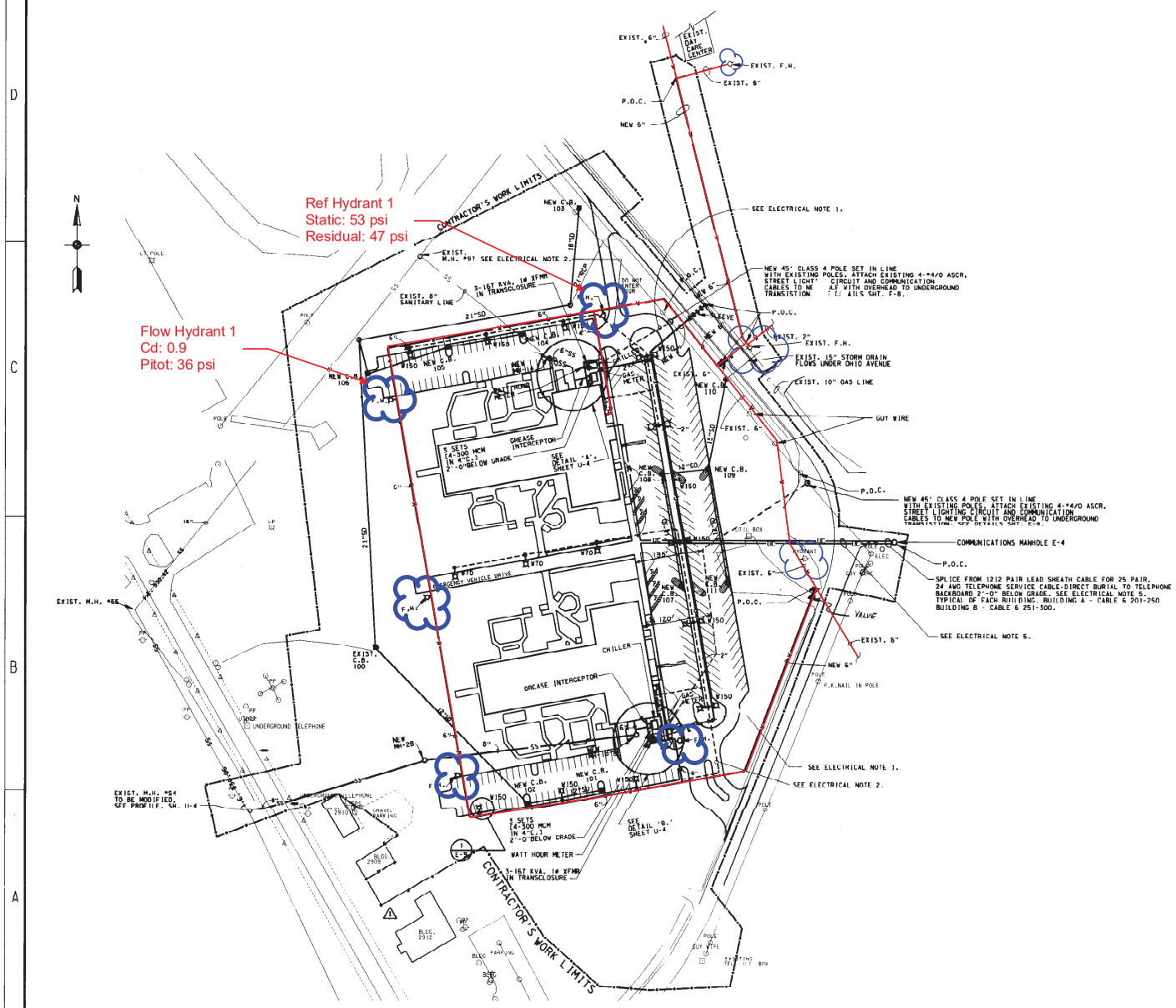
APPENDIX B – FIRE FLOW DATA

WATER SUPPLY ANALYSIS

Project: DB RFP - Ft Campbell CDC

TEST HYDRANT		
Hydrant Number:	-	
Static Pressure:	53	psi
Residual Pressure:	47	psi
FLOW HYDRANT		
Hydrant Number:	-	
Pitot Pressure:	36	psi
Number of Outlets:	1	outlets
Outlet Diameter:	2.5	inch
Outlet Coefficient:	0.9	
Total Flow:	**1007**	**gpm**
EMERGENCY RESPONSE		
Pressure at Fire Flow:	20	psi
Expected Flow at 20 psi:	**2,529**	**gpm**
SYSTEM INFORMATION		
System Demand	44.25	psi
System Flow	430	gpm
Hose Included	250	gpm





ELECTRICAL NOTES:

1. ELECTRICAL SERVICE SHALL BE INSTALLED IN CONCRETE ENCASED DUCT BANK WITH 3 - #2, 15 KV IN 4" CONDUIT AND 1 - 4" CONDUIT SPARE. SERVICE ENTRANCE FROM TRANSFORMER SHALL BE INSTALLED IN RIGID STEEL CONDUIT.
2. PARKING LOT LIGHTING CIRCUIT SHALL BE INSTALLED IN PVC CONDUIT, RIGID STEEL UNDER PAVEMENT.
3. PARKING LOT LIGHTING FIXTURES SHALL BE MOUNTED ON 30' ALUMINUM POLE INSTALLED ON REINFORCED CONCRETE BASE SEE DETAIL SHEET E-3.
4. PARKING LOT LIGHTING SHALL BE CONTROLLED BY PHOTOCELL.
5. COMMUNICATIONS CABLE SHALL BE DIRECT BURIED FROM MANHOLE E-4 TO 5'-0" BEYOND BUILDING PERIMETER WITH THE EXCEPTION OF 4" RIGID STEEL CONDUIT UNDER PAVEMENT AND FROM 5'-0" OUTSIDE BUILDING PERIMETER TO TELEPHONE BACKBOARD.
6. ALL ELECTRICAL LINES MUST HAVE A MIN. COVER OF 24".
7. COMMUNICATION LINES MUST HAVE A MIN. COVER OF 18".
8. FOR ELECTRICAL UTILITY DETAILS. SEE SHEETS E-8.

NOTES:

1. APPROXIMATE LOCATIONS OF ALL KNOWN UNDERGROUND UTILITIES ARE SHOWN ON UTILITY PLANS.
2. PRIOR TO BEGINNING CONSTRUCTION OF UTILITY WORK CONTRACTOR SHALL, ALONG WITH BASE UTILITY REPRESENTATIVE, FIELD MARK ACTUAL LOCATIONS OF ALL UNDERGROUND UTILITIES WITHIN PROJECT AREA.
3. CARE SHALL BE EXERCISED TO AVOID DAMAGE TO UTILITIES. REPAIR AND/OR RELOCATION OF UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. ALL UTILITY RELOCATIONS SHALL BE COORDINATED WITH BASE UTILITY REPRESENTATIVE AND SHALL BE DONE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.
5. UNLESS NOTED OTHERWISE, ALL SURFACE FEATURES (INCLUDING TREES & VEGETATION) DISTURBED DURING CONSTRUCTION SHALL BE EITHER SALVAGED AND REUSED OR REPLACED IN KIND AT ORIGINAL LOCATIONS.
6. NATURAL GAS LINES MUST HAVE A MIN. COVER OF 24".
7. ALL WATER AND FIRE LINES MUST HAVE A MIN. COVER OF 30".
8. FOR UTILITY SEISMIC DETAILS, SEE SHEET M 12.
9. EXISTING FIRE HYDRANT HAS A STATIC PRESSURE OF 55 PSIG, RESIDUAL PRESSURE OF 34 PSIG, AND A DISCHARGE FLOW OF 1310 GPM.
10. APPROXIMATE PRESSURE OF GAS MAIN IS 28 PSIG.

Revisions			
Symbol	Descriptions	Date	Approved
1	CONTRACTOR'S W/L REVISED(AMDT.NO.0001)	11JUN90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: J.F.A., F.E.D./M.A.J.
Drawn by: W.L.M., T.H., J.Y.A., H.E.H.
Checked by: C. JONES, R.L. PEPPER, J.E. FLEMING
Reviewed by: L.J. COX, J.L. GREULICH
Approved by: LARRY D. MARTIN

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

UTILITY SITE PLAN

Scale: 1" = 60'
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: U-1
Sheet 19 of 107

RECORD DRAWING "AS BUILT"

ZGO:[40.77]FCC6XU01.DGN:1
DATE = 7-JUN-90, 08:03:15

W912QR-61034642-0000

Preliminary Hydraulic Analysis

System Type:	Wet
Hazard Classification:	Light
Ceiling Height:	Up to 30 ft

Design Demand:	0.1	gpm
Design Area:	1500	sqft
Hose Demand:	250	gpm
K-Factor (k):	5.6	
Balancing Factor:	1.2	

Fire Water Demand (Q):	**430**	**gpm**

Minimum Water Volume/Storage Required:	**25800**	**gallons**

Estimated Underground Fire Main Friction Loss:			**0.78 psi**
C-Factor (C):	100	*	
Pipe Internal Diameter (d):	6.06	in	
Length of Pipe (L):	75	ft	

*NFPA 13 Table 28.2.4.8.1

$$P = L \times \frac{4.52 \times Q^{1.85}}{C^{1.85} \times d^{4.87}}$$

Backflow Preventer Loss:			**8 psi**
Double Check Backflow Preventer		*	

*UFC 3-600-01 Section 9-6.3.5

Vertical Head Loss:			**4.33 psi**
Height of remote sprinkler above finished floor:	10	ft	

$$P_{Vertical} = H_{Above\ floor} \times \Delta P_{Elevation\ Loss\ Constant}$$

Remote Sprinkler Head Pressure Requirement:			**16.14 psi**	*(Note: 7 psi minimum)*
Area per Sprinkler Head:	225	sqft	*	

*NFPA 13 Table 10.2.4.2.1(b)

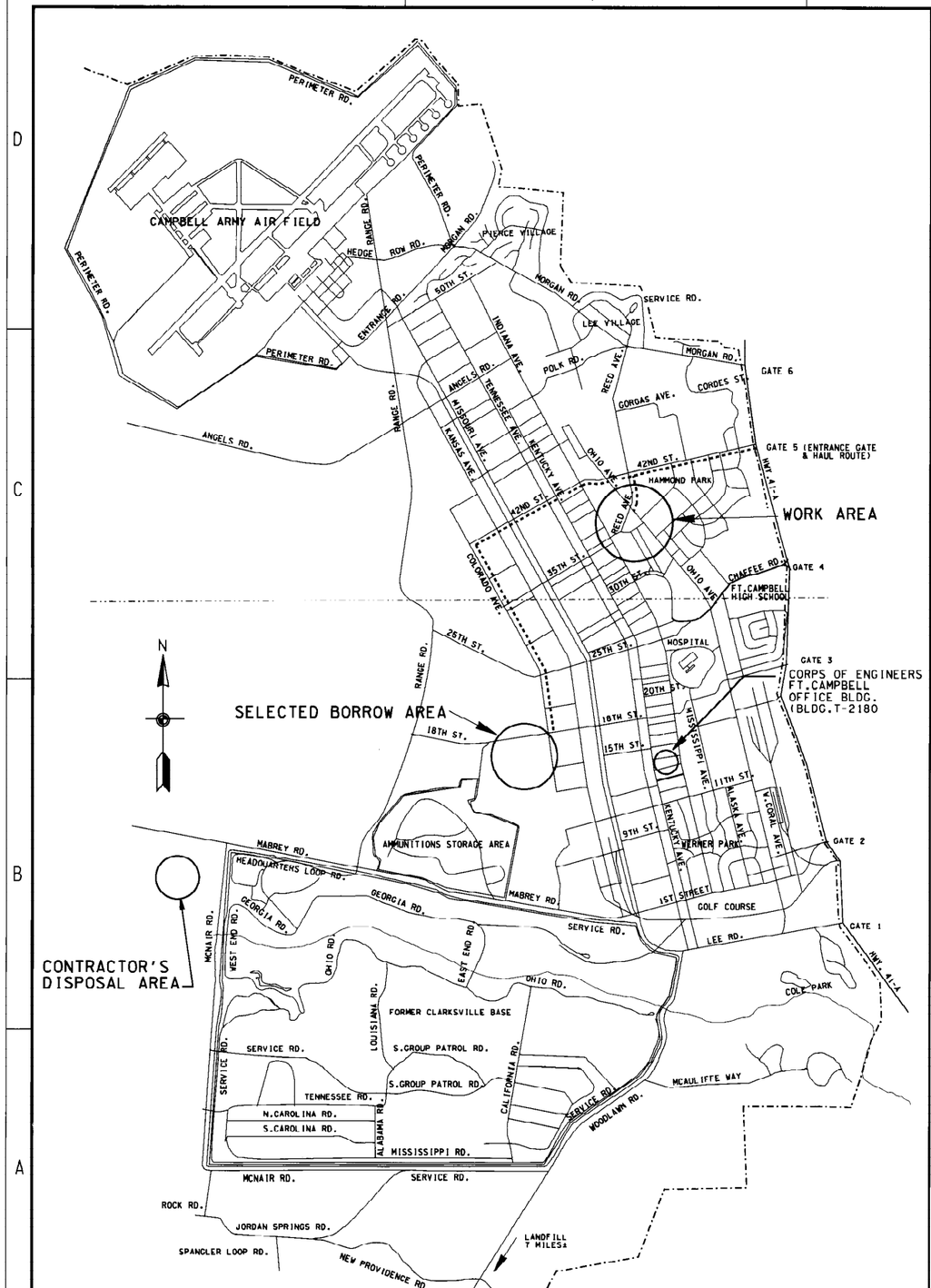
$$P_{Remote} = [\frac{Q}{k}]^2$$

System Loss:	**15**	**psi**

System Demand Total:	**44.25**	**psi**

$$P_{Total} = P_{Backflow} + P_{Vertical} + P_{Remote} + P_{System}$$

APPENDIX C – AS-BUILT DRAWINGS



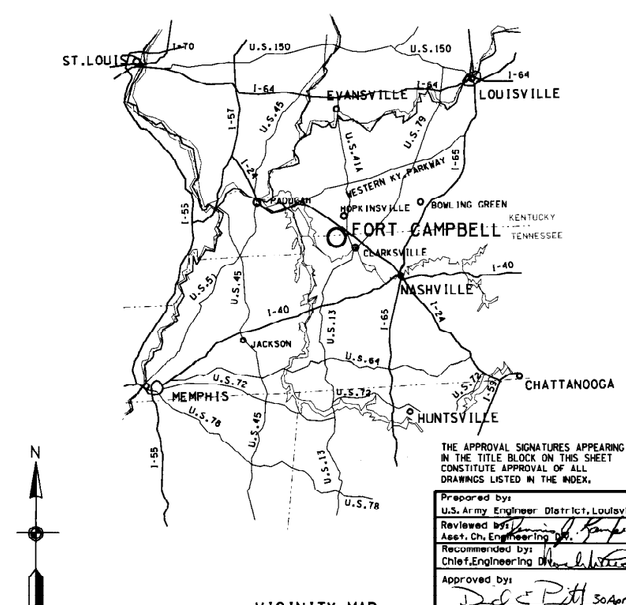
LOCATION MAP

Sheet Ref #	Sheet No.	Sheet Title
		GENERAL
		COVER SHEET
X-1	1	LOCATION & VICINITY MAPS AND INDEX
X-2	2	STANDARD ABBREVIATIONS
X-3	3	STANDARD SYMBOLS
		CIVIL
C-1	4	DEMOLITION PLAN
C-2	5	SITE PLAN
C-2A	6	SITE PLAN - BID ADDITIVE #1
C-3	7	GRADING PLAN
C-3A	8	GRADING PLAN - BID ADDITIVE #1
C-4	9	PLAYGROUND SITE PLAN & DETAILS
C-5	10	STORM SEWER PROFILES
C-6	11	SITE DETAILS
C-7	12	SITE DETAILS
C-8	13	FENCE & DETAILS
C-9	14	NON-REINFORCED RIGID PAVEMENT JOINT DETAILS
		FOUNDATION AND MATERIALS
F-1	15	SOIL CLASSIFICATION
F-2	16	BORING LOGS
F-3	17	BORING LOGS
F-4	18	BORING LOG
		UTILITY
U-1	19	UTILITY SITE PLAN
U-2	20	UTILITY DETAILS
U-3	21	UTILITY DETAILS
U-4	22	UTILITY DETAILS & SANITARY PROFILES
		LANDSCAPING
L-1	23	LANDSCAPE PLAN & SCHEDULE
L-2	24	PLAYGROUND BLDGS & DETAILS
L-3	25	AREA 1 PLAYGROUND/LANDSCAPE PLAN BLDG "A"
L-4	26	AREA 2 PLAYGROUND/LANDSCAPE PLAN BLDG "A"
L-5	27	PLAYGROUND EQUIPMENT
		ARCHITECTURAL
A-1	28	FLOOR PLAN BLDG A
A-2	29	FLOOR PLAN BLDG B
A-3	30	ROOM FINISH SCHEDULES BLDG A & B
A-4	31	ROOM FINISH SCHEDULES BLDG A & B
A-5	32	ROOM FINISH SCHEDULES BLDG A & B
A-6	33	ATTIC FLOOR PLAN & PARTITION PLAN
A-7	34	ADMIN & LAUNDRY MODULES
A-8	35	KITCHEN MODULE
A-9	36	INFANT MODULE
A-10	37	TODDLER MODULE
A-11	38	PRESCHOOL MODULE
A-12	39	COMPOSITE MODULE
A-12A	40	COMPOSITE MODULE
A-13	41	SMALL MULTI-AGE & LOUNGE MODULES
A-14	42	LARGE MULTI-AGE MODULE
A-15	43	ROOF PLAN/DETAILS
A-16	44	ELEVATIONS BLDG A
A-17	45	BUILDING SECTION & DETAILS
A-18	46	WALL SECTIONS
A-19	47	WALL SECTIONS AND DETAILS
A-20	48	REFLECTED CEILING PLAN
A-21	49	DOOR SCHEDULE
A-22	50	DOOR & FRAME TYPES & WINDOW ELEVATIONS
A-23	51	DOOR AND WINDOW DETAILS
A-24	52	MISCELLANEOUS DETAILS
A-25	53	FIRESTOPPING & SEALANT DETAILS
A-26	54	SIGNAGE PLAN & DETAILS
A-27	55	SIGNAGE SCHEDULE
		STRUCTURAL
S-0	56	STRUCTURAL GENERAL NOTES
S-1	57	FOUNDATION PLAN BUILDING A
S-1A	58	FOUNDATION PLAN BUILDING B
S-2	59	FOUNDATION DETAILS
S-3	60	ROOF FRAMING PLAN BUILDING A
S-4	61	ATTIC FRAMING PLAN BUILDING A
S-5	62	FRAMING DETAILS
S-6	63	FRAMING DETAILS
S-7	64	FRAMING DETAILS
S-8	65	LINTEL SCHEDULE & DETAILS
S-9	66	CANOPY DETAILS
S-10	67	MASONRY SEISMIC DETAILS
		MECHANICAL
M-1	68	HVAC PLAN
M-2	69	HEATING/COOLING PIPING PLAN
M-3	70	MECHANICAL DETAILS
M-4	71	MECHANICAL DETAILS
M-5	72	MECHANICAL DETAILS
M-6	73	MECHANICAL DETAILS
M-7		NOT USED
M-8	74	MECHANICAL SCHEDULES BLDGS "A" & "B"
M-9	75	FIRE PROTECTION PLAN
M-10	76	CONTROL DIAGRAM & SCHEMATICS
M-11	77	CONTROL DIAGRAM & SCHEMATICS
M-12	78	UTILITY SEISMIC DETAILS
M-13	79	SEISMIC DETAILS
		PLUMBING
P-1	80	PLUMBING-PARTIAL DISTRIBUTION PLAN AND SCHEDULES
P-2	81	PLUMBING-PARTIAL DISTRIBUTION PLAN
P-3	82	PLUMBING INFANT MODULES NOS. 1 & 2
P-4	83	PLUMBING TODDLER MODULE NO.1
P-5	84	PLUMBING TODDLER MODULE NO.2
P-6	85	PLUMBING PRESCHOOL MODULE
P-7	86	PLUMBING COMPOSITE MODULES NOS.1 & 2
P-8	87	PLUMBING COMPOSITE MODULE 3
P-9	88	PLUMBING SMALL MULTI AGE MODULE
P-10	89	PLUMBING LARGE MULTI-AGE MODULE
P-11	90	PLUMBING LAUNDRY & LOUNGE MODULES
P-12	91	PLUMBING ADMIN./ KITCHEN
P-13	92	PLUMBING-MISCELLANEOUS DETAILS
		ELECTRICAL
E-1	93	PARTIAL LIGHTING PLAN
E-2	94	PARTIAL LIGHTING PLAN
E-3	95	PARTIAL LIGHTING PLAN
E-4	96	PARTIAL LIGHTING PLAN
E-5	97	PARTIAL POWER PLAN
E-6	98	PARTIAL POWER PLAN
E-7	99	ENLARCED POWER PLANS
E-8	100	ELECTRICAL DETAILS
E-9	101	ELECTRICAL DETAILS
E-10	102	FIRE ALARM RISER DIAGRAM
E-11	103	PANEL SCHEDULES
E-12	104	CATHODIC PROTECTION PLAN
E-13	105	LIGHT FIXTURE SCHEDULE & LEGEND
E-14	106	RISER DIAGRAMS
		LIFE SAFETY & FIRE PROTECTION
FP-1	107	LIFE SAFETY / FIRE PROTECTION PLAN

△ BID ADDITIVE #1. ALL WORK SHOWN IN BOLD PRINT ON SHEETS C-2A AND C-3A SHALL BE INCLUDED AS BID ADDITIVE #1. A DESCRIPTION OF WORK IS AS FOLLOWS: NEW BITUMINOUS ACCESS ROAD WHICH INCLUDES ALL GRADING AND DRAINAGE WORK ASSOCIATED WITH ACCESS ROAD AND NEW LIGHTS ADJACENT TO NEW ACCESS ROAD.

SCOPE OF WORK

WORK UNDER THIS CONTRACT SHALL CONSIST OF CONSTRUCTING (2) SIMILAR 303 CAPACITY CHILD DEVELOPMENT CENTERS WITH REQUIRED FIRE PROTECTION SYSTEMS, KITCHEN EQUIPMENT, AND PLAYGROUND EQUIPMENT. ALSO INCLUDED IS ASSOCIATED SITE WORK CONSISTING OF DEMOLITION OF AN EXISTING BUILDING, SITE PREPARATION, UTILITIES, PAVING, SIDEWALKS, FENCING, EXTERIOR LIGHTING, AND LANDSCAPING.



VICINITY MAP

THE APPROVAL SIGNATURES APPEARING IN THE TITLE BLOCK ON THIS SHEET CONSTITUTE APPROVAL OF ALL DRAWINGS LISTED IN THE INDEX.

LEGEND

-·-·-·-·-	FORT CAMPBELL BOUNDARY LINE
— — —	COUNTY LINE
-··-··-	STATE LINE
- - - - -	HAUL ROUTE

Revisions

Symbol	Descriptions	Date	Approved
△	AMDT #0001- BID ADDITIVE #0001	11 JUN 90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Prepared by: U.S. Army Engineer District, Louisville
Reviewed by: Asst. Ch. Engineering Div.
Recommended by: Chief, Engineering Div.
Approved by: 30 Apr 90
COL, Corps of Engineers Date:
Approved for Functional Adequacy by:
Date:

Designed by: POHL
Drawn by: GUILLAUME/LOEHR
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

LOCATION & VICINITY MAPS AND INDEX

Scale: NO SCALE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet Reference number: X-1
Sheet 1 of 107

RECORD DRAWING "AS BUILT"

SFB: DACA 27-90-B-0064
BLDGS 3069 & 3071

ZQ0:(40,77)FCC6XX01.DGN:1
DATE = 30-APR-90, 09:38:21
USER = JIMJ

W912QR-61034642-0000

US Army Corps
of Engineers
Louisville District

CHILD DEVELOPMENT CENTER

BLDGS #3069 & 3071

FORT CAMPBELL, KENTUCKY

P.N. 380 F.Y. 90

SFB# DACA 27-90-B-0064

CONTRACT # DACA27-91-C-0073

F-740-14-05
SHEET 1A
RECORD DRAWING "AS BUILT"

&	AND
@	AT
AB	ANCHOR BOLT
ABSW	AIR BREAK SWITCH
ABV	ABOVE
A/C	AIR CONDITIONING
ACST	ACOUSTIC
ADDL	ADDITIONAL
ADJ	ADJACENT, ADJUSTABLE
AFB	AIR FORCE BASE
A.F.F.	ABOVE FINISHED FLOOR
AFFF	AQUEOS FILM FORMING FOAM
AGGR	AGGREGATE
AL	ALUMINUM
ALTN	ALTERNATE
AMP	AMPERE
AP	ACCESS PANEL
APPROX	APPROXIMATELY
ARCH	ARCHITECTURE
ASPH	ASPHALT
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
ATTEN	ATTENUATE
AUTO	AUTOMATIC
AUX	AUXILIARY
AVG	AVERAGE
AWG	AMERICAN WIRE GAGE
BD	BOARD
BLDG	BUILDING
BLK	BLOCK
BM	BEAM, BENCH MARK
BOT	BOTTOM
BRG	BEARING
BRK	BRICK
BSMT	BASEMENT
BTU	BRITISH THERMAL UNIT
BUR	BUILT - UP ROOF
CAP	CAPACITY, CAPACITOR
C-C	CENTER TO CENTER
CEM	CEMENT
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CHG	CHARGE
CHW	CHILLED WATER
CI	CAST IRON
CIP	CAST IRON PIPE
CKT	CIRCUIT
CLG	CEILING
CLO	CLOSET
CLR	CLEAR
CLWG	CLEAR WATER GLASS
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CND	CONDUIT
CNDS	CONDENSATE
CO	CLEANOUT
CLWG	CLEAR WIRE GLASS
CW	COLD WATER
COL	COLUMN
CONC	CONCRETE
COND	CONDUCTOR, CONDENSER
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUOUS, CONTROL
CONTD	CONTINUED
CONV	CONVERTER
COP	COPPER
CORR	CORRUGATE
CPE	CHLORINATED POLYETHYLENE
CPLG	COUPLING
CSPE	CHLOROSULFONATED POLYETHYLENE
CSK	COUNTERSINK
CT	CERAMIC TILE
CTR	CENTER
CU	CUBIC
CU FT	CUBIC FEET
CU YD	CUBIC YARD
CUR	CURRENT
D	DEEP
DB	DRY BULB
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DISC	DISCONNECT
DISCH	DISCHARGE
DL	DEAD LOAD
DN	DOWN
DOD	DEPARTMENT OF DEFENSE
DPNL	DISTRIBUTION PANEL
DR	DOOR
DS	DOWNSPOUT
DWG	DRAWING
E	EAST
EA	EACH
EF	EACH FACE
EL	ELEVATION
ELEC	ELECTRIC
ELEV	ELEVATE, ELEVATOR
EMER	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENTR	ENTRANCE
EPDM	ETHELENE PROPOLENE DIANENE MONOMER
EQL.	EQUAL
EQUPT.	EQUIPMENT
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EXST	EXISTING
EXP	EXPANSION
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
F	FAHRENHEIT, FACE
FD	FLOOR DRAIN
FDN	FOUNDATION
FDR	FEEDER
FEXT	FIRE EXTINGUISHER
FFE	FINISH FLOOR ELEVATION
FHC	FIRE HOSE CABINET
FHY	FIRE HYDRANT
FIG	FIGURE
FL	FLOOR
FLA	FULL - LOAD AMPERES
FLEX	FLEXIBLE
FLL	FLOW LINE
FLMB	FLAMMABLE
FLOUR	FLOURESCENT
FNSH	FINISH
FR	FRAME
FRP	FIBERGLASS REINFORCED POLYESTER
FRT	FIRE RETARDENT TREATMENT
FS	FULL SIZE
FG	FORT, FOOT, FEET
FTG	FOOTING
FU	FUSE
F.W.G.	FEET WATER GUAGE
GA	GAGE
GAL	GALLON
GALV	GALVANIZED
GL	GLASS
GND	GROUND
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GR	GRADE
GSU	GLAZED STRUCTURAL UNIT
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
HB	HOSE BIB
HDW	HARDWARE
HGT	HEIGHT
H.I.D.	HIGH INTENSITY DISCHARGE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HORSEPOWER, HIGH PRESSURE
HR	HOUR
HTG	HEATING
HTR	HEATER
HW	HOT WATER
HVY	HEAVY
ID	INSIDE DIAMETER
IDENT	IDENTIFICATION
IN	INCH
INCAND	INCANDESCENT
INSUL	INSULATION
INTR	INTERIOR
INVT	INVERT
I.W.G.	INCHES WATER GUAGE
JT	JOINT
J	JOIST
JB	JUNCTION BOX
JC	JANITOR CLOSET
JCT	JUNCTION
KCP	KEENE'S CEMENT PLASTER
KIT	KITCHEN
KO	KNOCK OUT
KV	KILOVOLT
KVA	KILOVOLT - AMPERE
KW	KILOWATT
LA	LIGHTNING ARRESTOR
LAV	LAVATORY
LB	POUND
LG	LENGTH, LONG
LIQ	LIQUID
LP	LOW PRESSURE
LTG	LIGHTING
LV	LOW VOLTAGE
MACH	MACHINE
MAINT	MAINTENANCE
MAN	MANUAL
MFR	MANUFACTURE
MATL	MATERIAL
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
MECH	MECHANICAL
MET	METAL
MH	MANHOLE
MIN	MINIMUM, MINUTE
MISC	MISCELLANEOUS
MK	MARK
MN	MAIN
MO	MOTOR-OPERATED, MASONRY OPENING, MONTH
MOD	MODEL (FOR GENERAL USE ONLY), MODIFY
M.O.D.	MOTOR OPERATED DAMPER
MP	MEDIUM PRESSURE
MT	MOUNT
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
N	NORTH
N.B.P.	NITRILE THERMOPLASTIC (FOR FUTURE FIRE RATING)
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEUT	NEUTRAL
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN, NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPN	OPERATION
OPNG	OPENING
OPP	OPPOSITE
OVHD	OVERHEAD
PB	PULL BOX, PUSH BUTTON
PH	PHASE
PI	POINT OF INTERSECTION
PIB	POLYISOBUTLENE
PIV	POST INDICATOR VALVE
PL	PLATE
PLAS	PLASTER
PLYWD	PLYWOOD
PNL	PANEL
POL	POLISH
PR	PAIR
PRELIM	PRELIMINARY
PRESS	PRESSURE
PRI	PRIMARY
PS	PULL SWITCH
PSF	POUND FORCE PER SQUARE FOOT
PSI	POUND FORCE PER SQUARE INCH
P.T.	PRESERVATIVE TREATMENT
PT	POINT
PT'D	PAINTED
P.U.F.	POLYURETHANE FOAM
PVC	POINT OF VERTICAL CURVE, POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
QT	QUARRY TILE, QUART
QTY	QUANTITY
QUAL	QUALITY
R	RISER, RADIUS
RA	RETURN AIR
RAD	RADIUS
RCP	REINFORCED CONCRETE PIPE
RCPT	RECEPTACLE
RD	ROAD, ROOF DRAIN
RDC	REDUCE
RDCN	REDUCTION
REINF	REINFORCE
REQD	REQUIRED
RET	RETAIN
REV	REVISION
RM	ROOM
R.O.	ROUGH OPENING
RND	ROUND
RPM	REVOLUTIONS PER MINUTE
S	SOUTH
SAN	SANITARY
SCHED	SCHEDULE
SECT	SECTION
SVCE	SERVICE
SGL	SINGLE
SH	SHEET
SIM	SIMILAR
SLP	SLOPE
SMH	SANITARY MANHOLE
SOL	SOLENOID
SP	SINGLE POLE, SPACING, SPARE
SPEC	SPECIFICATION
SPR	SINGLE PLY ROOF
SPRT	SUPPORT
SQ	SQUARE
SQ FT	SQUARE FOOT
S.S.T.	STAINLESS STEEL
ST	STEAM, STREET
STA	STATION
STD	STANDARD
STL	STEEL
STOR	STORAGE
ST PR	STATIC PRESSURE
STR	STRAIGHT, STRENGTH, STREAM
STRL	STRUCTURAL
SUSP	SUSPEND
SW	SWITCH
SYS	SYSTEM
T	TOILET
TAN	TANGENT
T & B	TOP AND BOTTOM
TBM	TEMPORARY BENCH MARK
TC	TOP OF CURB
TEL	TELEPHONE
TEMP	TEMPERATURE
TERM	TERMINAL
THK	THICK
THR	THRESHOLD
THRU	THROUGH
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TOW	TOP OF WALL
TSCT	THIN SET CEREMIC TILE
TYP	TYPICAL
UGND	UNDERGROUND
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
US	UNITED STATES
UTIL	UTILITY
V	VOLT, VALVE
VAC	VACUUM
VC	VITRIFIED CLAY
VCP	VITRIFIED CLAY PIPE
VCT	VINYL COMPOSITION TILE
VD	VOLUME DAMPER
VEL	VELOCITY
VENT	VENTILATION
VERT	VERTICAL
VEST	VESTIBULE
VOL	VOLUME
VS	VENT STACK
VTR	VENT THROUGH ROOF
W	WEST, WATT, WIDTH, WASTE
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD, WINDOW DIMENSION
WDO	WINDOW
WI	WROUGHT IRON
WL	WATER LEVEL
WS	WASTE STACK, WATER SURFACE
WT	WEIGHT
WTHPRF	WEATHERPROOF
WTR	WATER
WWM	WELDED WIRE MESH
XBRA	CROSS BRACING
XFMR	TRANSFORMER
XSTR	EXTRA STRONG
YD	YARD
YR	YEAR

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: STANDARD
Drawn by: STANDARD
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

STANDARD ABBREVIATIONS

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: X-2
Sheet 2 of 107

RECORD DRAWING "AS BUILT"

ZGO:[40,77]FCC6XX02.DGN;2
DATE = 26-APR-90, 16:15:46
USER = JIMJ

HEATING, VENTILATING AND AIR CONDITIONING

FANS, HEATERS AND VENTILATORS:

- CENTRIFUGAL ROOF EXHAUST FAN AND DESIGNATION
- CENTRIFUGAL WALL EXHAUST FAN AND DESIGNATION — EF-2
- PROPELLER TYPE — EF-3
- WALL MOUNTED FAN AND DESIGNATION
- CONVECTOR AND DESIGNATION — C-1
- RADIATOR AND DESIGNATION — R-1
- CENTRIFUGAL CEILING EXHAUST FAN AND DESIGNATION
- UNIT HEATER - HORIZONTAL AND DESIGNATION — UH-2
- UNIT HEATER - VERTICAL AND DESIGNATION — UH-3
- UNIT VENTILATOR

DUCT WORK

- AIR DEFLECTOR
- DIRECTION OF FLOW
- DUCT-FIRST FIGURE WIDTH, SECOND DEPTH — 20X12
- EXHAUST DUCT SECTION — 20X12
- EXHAUST INLET
- SUPPLY OUTLET
- TURNING VANES
- MOTOR OPERATED DAMPER — M.D. PLAN
- VOLUME CONTROL DAMPER (MANUAL) — VD ELEVATION
- RECIRCULATION DUCT SECTION — 20X12
- REGISTER OR GRILLE AND CFM CAPACITY - SIDE WALL — 20X12(REG)(GR) 700 CFM
- FLEXIBLE CONNECTIONS
- OUTSIDE AIR DUCT SECTION — 20 X 12
- INCLINED DROP IN RESPECT TO AIR FLOW
- INCLINED RISE IN RESPECT TO AIR FLOW
- OTHER DUCTS SECTION — E (LABEL) KITCHEN OR GALLEY EXH.
- OUTSIDE AIR INTAKE LOUVER — 20X12(REG)(GR) 700 CFM
- DAMPER — FD, SD, FD/SD
  - FD--FIRE DAMPER
  - SD--SMOKE DAMPER
  - FD/SD--COMBINATION FIRE & SMOKE DAMPER

PIPE FITTINGS AND SPECIALTIES

CONNECTION TYPES: FLANGED, SCREWED, BELL & SPIGOT, WELDED, SOLDERED

NOTES:
SCREWED END REPRESENTATION MAY BE USED FOR ALL TYPES OF CONNECTIONS PROVIDED THE TYPE OF CONNECTION IS COVERED BY DRAWING LEGEND, NOTE OR SPECIFICATIONS.

PIPE FITTINGS:

- BASE ELBOW
- BRUSHING
- CLEANOUT — C.O.
- CROSS
- DOUBLE BRANCH ELBOW
- ELBOW - 45 DEGREES
- ELBOW - 90 DEGREES
- ELBOW - LONG RADIUS
- ELBOW - TURNED DOWN
- ELBOW - TURNED UP
- FLOOR DRAIN — FD
- HOSE OR LAWN FAUCET, WALL HYDRANT AND DESIGNATION — HB
- LATERAL
- OPEN SIGHT DRAIN — OSD
- REDUCER - CONCENTRIC
- REDUCER - ECCENTRIC
- REDUCING ELBOW
- REDUCING FLANGE
- SIDE OUTLET ELBOW OUTLET - DOWN
- SIDE OUTLET ELBOW OUTLET - UP
- SIDE OUTLET TEE OUTLET - DOWN
- SIDE OUTLET TEE OUTLET - UP
- SINGLE SWEEP TEE
- SLEEVE
- SPRINKLER HEAD
- SPRINKLER RISER AND SIZE — 4"
- TEE
- TEE OUTLET - DOWN
- TEE OUTLET - UP
- UNION - FLANGED
- UNION SCREWED
- FLOW METER
- BACKFLOW PREVENTER
- WATER HAMMER ARRESTER

VALVES

CONNECTION TYPES: FLANGED, SCREWED, BELL & SPIGOT, WELDED, SOLDERED

NOTES:
SCREWED END REPRESENTATION MAY BE USED FOR ALL TYPES OF CONNECTIONS PROVIDED THE TYPE OF CONNECTION IS COVERED BY DRAWING LEGEND, NOTE OR SPECIFICATIONS.

- ANGLE GATE
- ANGLE HOSE STOP CHECK
- ANGLE NEEDLE
- ANGLE RELIEF
- ANGLE RELIEF - ADJUSTABLE
- ANGLE STOP CHECK
- ANGLE STOP HOSE
- ANGLE STOP
- BACK PRESSURE
- BALL CHECK
- BOILER SAFETY
- CROSS TOP
- DIAPHRAM
- GATE STOP HOSE
- GATE
- GATE - DECK OPERATED
- GATE - LOCKED CLOSED
- GATE - LOCKED OPEN
- BALANCING VALVE

BUILDING PIPING

NOTE:
WHENEVER SYMBOLICAL REPRESENTATION IS NECESSARY TO DISTINGUISH BETWEEN SERVICES, THE FOLLOWING SYMBOLS SHALL BE USED EXCEPT THAT THE PRINCIPAL SYSTEM ON ANY PIPING DRAWING MAY BE INDICATED BY A SOLID LINE IF DESIRED WHEN SUCH INDICATION WILL NOT CAUSE CONFLICT.

- COLD WATER
- COMPRESSED AIR — A
- FIRE — F
- FOAM SOLUTION — FOAM
- GAS — G
- GASOLINE — GASO
- HOT WATER
- HOT WATER RETURN OR RECIRCULATING — R
- HYDROGEN — HY
- NITROUS OXIDE — N2O
- OXYGEN — OX
- PNEUMATIC — PN
- ROOF DRAIN — RD
- SALT WATER — SW
- SANITARY SEWER — SS
- STORM DRAIN — SD
- TEMPERED WATER
- VACUUM — V
- VENT
- WASTE LINE (ABOVE & BELOW GRADE)

SPRINKLERS

- MAIN SUPPLIES
- BRANCH AND HEAD
- DRAIN — SP

MATERIAL SYMBOLS

- WOOD IN ROUGH
- WOOD FINISH
- PLYWOOD
- STEEL OR METAL
- CERAMIC TILE
- MINERAL WOOL (FIRESTOP MATERIAL)
- GRANULAR/GRAVEL FILL
- BRICK
- CMU
- ORIGINAL EARTH
- FILL EARTH
- CONCRETE
- GROUT/GYP. BD.
- ROCK
- RIGID INSULATION
- BLANKET OR BATT OR LOOSE FILL INSULATION
- SPRAY APPLIED INSUL.

TOPOGRAPHIC SYMBOLS

	NEW	EXISTING
GAS LINE	G	G
INDUSTRIAL WASTE LINE	IW	IW
POWER LINE - AERIAL	P	P
POWER LINE - UNDERGROUND	UP	UP
POWER LINES DUCTS	PD (3"-4")	PD
SANITARY SEWER LINE	SS	SS
FORCE MAIN	FM	FM
STEAM LINE	S	S
STORM DRAINAGE LINE	SD	SD
TELEPHONE LINE - UNDERGROUND	TU	TU
TELEPHONE LINE - AERIAL	T	T
TELEPHONE DUCTS	TD (2"-4")	TD
TELEPHONE AND POWER - AERIAL	PT	PT
WATER LINE	W	W
FIRE MAIN	F	F
EDGE OF GRAVEL		
SUBDRAIN	SD	SD
CLEANOUT	C.O.	C.O.
FIRE HYDRANT		
INLET		
LIFT STATION		
MANHOLE		
POST INDICATOR VALVE		
POWER POLE		
POWER POLE WITH GUY		
SPIGOT		
VALVE		
CONTOUR	555	555
BENCHMARK		
RIPRAP		
SPOT ELEVATION	x-555	x-555
CONTRACTOR WORK LIMITS		
CHAIN LINK FENCE		
FLOW DIRECTION	FLOW	
BORING		
HEADWALL	HW	
CUT & SLOPE INDICATORS		

ELECTRICAL SYMBOLS

- INCANDESCENT LIGHTING FIXTURE LETTER DESIGNATES TYPE — C
- FLUORESCENT LIGHTING FIXTURE LETTER DESIGNATES TYPE — C
- FLUORESCENT LIGHTING FIXTURE WITH EMERGENCY BALLAST PACK LETTER DESIGNATES TYPE — C
- EMERGENCY LIGHTING
- EXIT LIGHT ARROW INDICATE DIRECTION OF EXIT
- SINGLE RECEPTACLE
- DUPLEX RECEPTACLE MOUNTED 18" AFF UNLESS NOTED OTHERWISE
- WEATHERPROOF RECEPTACLE — WP
- CHILDPROOF RECEPTACLE MOUNTED 54" ABOVE FINISHED FLOOR MOUNTED 18" AFF IN CORRIDORS AND RECEPTION AREAS — C
- RANGE RECEPTACLE — R
- DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER
- SPECIAL PURPOSE RECEPTACLE 208 VOLT, 20 AMP
- TELEVISION MOUNTED 54" AFF UNLESS NOTED OTHERWISE — TV
- BRANCH CIRCUIT: CONCEALED IN WALL OR CEILING — OR
- HOME RUN TO PANEL BOARD INDICATE NUMBER OF ARROWS. ANY CIRCUIT WITHOUT FURTHER DESIGNATION INDICATES TWO CURRENT CARRYING CONDUCTORS FOR A GREATER NUMBER OF WIRES INDICATE AS: /// (3 WIRES), //// (4 WIRES), ETC.
- SINGLE POLE SWITCH MOUNTED 54" ABOVE FINISHED FLOOR — S
- THREE WAY SWITCH MOUNTED 54" ABOVE FINISHED FLOOR — S_3
- DIMMER SWITCH MOUNTED 54" ABOVE FINISHED FLOOR — S_D
- LIGHTING PANEL — PAN ID
- POWER PANEL — PAN ID
- FIRE ALARM BELL — F
- FIRE ALARM HORN - EXTERIOR — F
- FIRE ALARM PULL STATION — F
- SMOKE DETECTOR — S
- SMOKE DETECTOR - DUCT MOUNT — DS
- FIRE ALARM REMOTE ANNUNCIATOR — FARA
- FIRE ALARM CONTROL PANEL — FACP
- DISCONNECT SWITCH
- TELEPHONE
- UNIT HEATER
- JUNCTION BOX — J
- MOTOR SUBSCRIPT DESIGNATES HORSEPOWER — M ½
- MAGNESIUM ANODE
- TEST STATION WITH MAGNESIUM ANODE
- FRACTIONAL HORSEPOWER MANUAL MOTOR STARTER
- COMBINATION STARTER / NON-FUSED OR FUSED DISCONNECT SWITCH
- SPRINKLER FLOW SWITCH — FS
- OS & Y VALVETAMPER SWITCH — TS
- INTERCOM MASTER STATION — M
- INTERCOM REMOTE STATION — I
- LIGHTING CONTACTOR — C
- TIME CONTROLLER — T
- REMOTE KEYPAD — K
- DURESS SWITCH — D
- MAGNETIC DOOR CONTACTS
- MAGNETIC DOOR HOLDER TIED IN WITH FIRE ALARM SYSTEM
- 30 WATT WEATHERPROOF SIREN WITH TAMPERPROOF METAL ENCLOSURE
- CHIME — CH
- PUSHBUTTON

ADDITIONAL SYMBOLS

ARCHITECTURAL REPRESENTATIONS

- BATHTUB
- BIDET — B
- DRINKING FOUNTAIN (PEDESTAL TYPE) — DF
- DRINKING FOUNTIAN (THROUGH TYPE)
- DRINKING FOUNTAIN (WALL TYPE) — DF
- ELECTRIC WATER COOLER — EWC
- GAS OUTLET — G
- GREASE SEPARATOR — G
- HOSE RACK — HR
- HOT WATER TANK — HWT
- LAUNDRY TRAY
- LAVATORY
- CENTER LINE
- COLUMN CENTER LINES — A, 1
- PLATE — PL
- ROUND/DIAMETER
- SQUARE
- ROOM NUMBER — 110
- DOOR NUMBER — 110
- WINDOW TYPE — A
- SERVICE SINK — S
- SHOWER HEAD
- SHOWER STALL
- SINK (COUNTER TOP OR RIMS RIM)
- SITZ BATH — SB
- URINAL (WALL TYPE)
- URINAL (FLOOR TYPE)
- WATER CLOSET (FLOOR MOUNT TYPE)
- WATER CLOSET (WALL MOUNT TYPE)
- WATER CLOSET (TANK TYPE)
- DOMESTIC WATER HEATER — DWH
- ELEVATION MARKER
- TRAVEL DISTANCE — 75'
- FIRE RATED PARTITION EXTENDING TO UNDERSIDE OF ROOF DECK — A
- INTERIOR SIGNAGE MARK — S
- MISC. ACCESSORIES — S
- FIRE EXTINGUISHER — FE

CROSS REFERENCING

- DETAIL MARKER — 2/5
- BUILDING SECTION MARKER — 1/2
- ELEVATION MARKER — 3/5
- WALL SECTION MARKER — 2/3
- 1/2" ø
- DETAIL NO. — 3
- SHEET NO. ON WHICH DETAIL IS DRAWN — 4
- SECTION NO. — 1
- SHEET NO. ON WHICH SECTION IS DRAWN — A-7

Revisions			
Symbol	Descriptions	Date	Approved

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

US Army Corps of Engineers

STANDARD SYMBOLS

Designed by: STANDARD
Drawn by: STANDARD
Checked by:
Reviewed by:
Approved by:

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: X-3
Sheet 3 of 107

RECORD DRAWING "AS BUILT"

W912QR-61034642-0000

CONTRACTOR'S WORK LIMITS

CINDER TRACK

BUILDING A FF. ELEV. 551.00
FOR FLOOR PLAN, SEE SH. A-1

BUILDING B FF. ELEV. 551.00
FOR FLOOR PLAN, SEE SH. A-2

EXISTING 21" RCP STORM DRAIN TO BE REMOVED TO LOCATION OF NEW M.H. SEE U-1

8" SANITARY LINE & MANHOLES TO BE REMOVED

EXISTING 21" RCP STORM DRAIN TO BE REMOVED TO LOCATION OF EXISTING C.B. AND PLUGGED.

EXIST. WOOD BUILDING #3001 (OPEN ATTENNA) FOUNDATION AND ASPHALT ENTRANCE TO BE REMOVED.

EXIST. TREES TO REMAIN

EXISTING 15" RCP HEADWALL TO BE REMOVED AND REPLACED WITH NEW CATCH BASIN

END EXIST. 2" WATER LINE REMOVAL

REMOVE EXISTING LIGHT POLE

REMOVE EXISTING SERVICE FROM BUILDING 3001

EXISTING 15" RCP AND HEADWALL TO BE REMOVED

EXIST. 6" WATER LINE TO REMAIN

REMOVE EXISTING LIGHT POLES AND SERVICE

REMOVE EXISTING 2" WATER LINE AND CAP BOTH ENDS

EXISTING 7' FENCE & GATE TO BE REMOVED AND PARTIALLY REPLACED. SEE SITE PLAN SH. C-2

EXISTING 12" CMP TO BE REMOVED

LEGEND

AREAS REQUIRING DEMOLITION

GRAPHIC SCALE

SCALE: 1" = 50'

Revisions			
Symbol	Descriptions	Date	Approved
1	CONTRACTOR'S W/L REVISED(AMDT.NO.0001)	11JUN90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: J. ALLISON
Drawn by: R. GUILLAUME
Checked by: C. JONES
Reviewed by: LARRY D. MARTIN
Approved by: LARRY D. MARTIN

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380
FY 90

DEMOLITION PLAN

Scale: 1"=50'
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: C-1
Sheet 4 of 107

RECORD DRAWING "AS BUILT"

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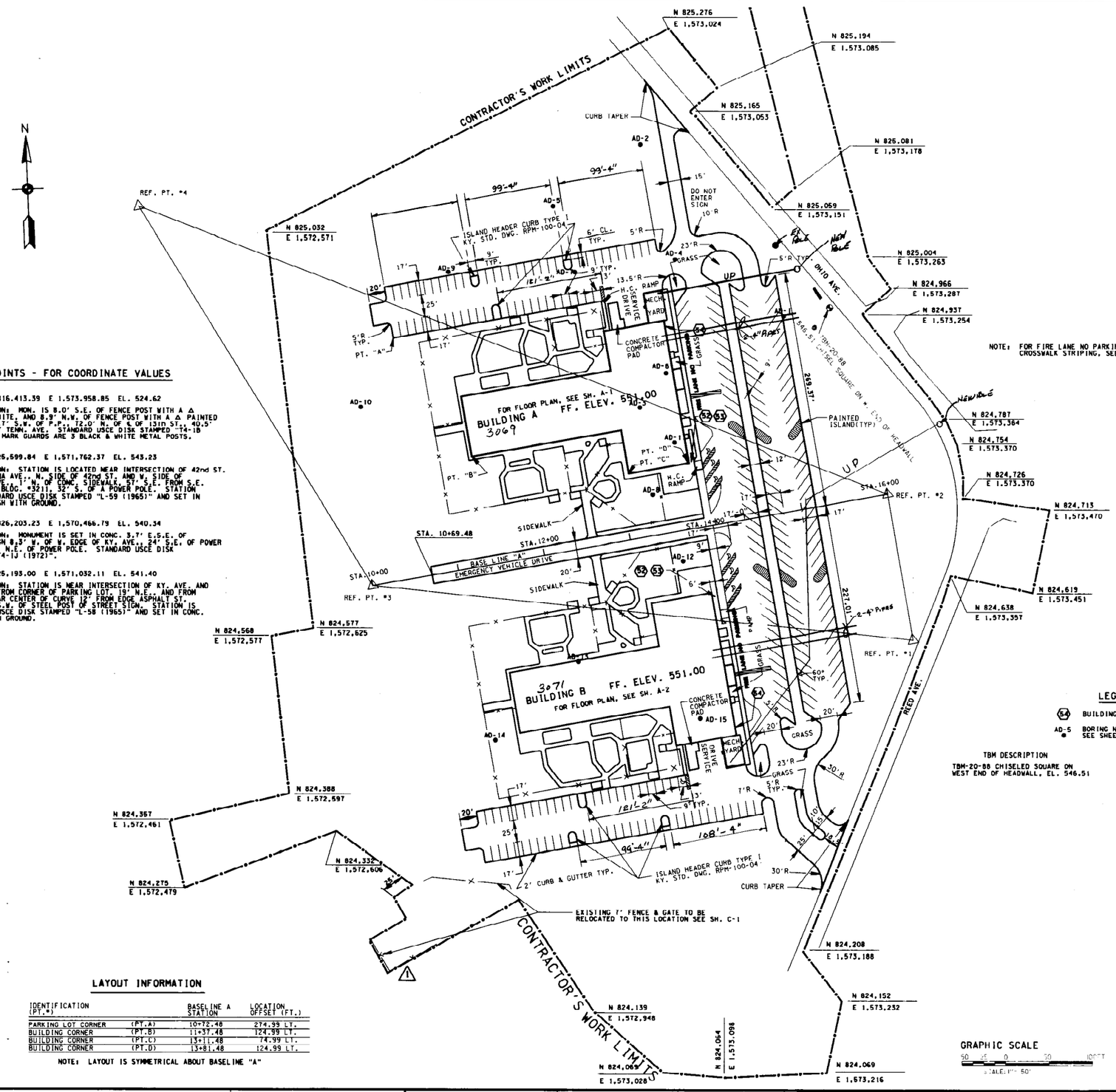

POINTS - FOR COORDINATE VALUES

T4-1B N 816,413.39 E 1,573,958.85 EL. 524.62

DESCRIPTION: MON. IS 8.0' S.E. OF FENCE POST WITH A △ PAINTED WHITE, AND 8.9' N.W. OF FENCE POST WITH A △ PAINTED WHITE. 12.7' S.W. OF P.P., 72.0' N. OF ℄ OF 13TH ST., 40.5' W. OF ℄ OF TENN. AVE. STANDARD USCE DISK STAMPED "T4-1B (1972)". MARK GUARDS ARE 3 BLACK & WHITE METAL POSTS.

L-59 N 825,599.84 E 1,571,762.37 EL. 543.23

DESCRIPTION: STATION IS LOCATED NEAR INTERSECTION OF 42nd ST. AND INDIANA AVE., N. SIDE OF 42nd ST. AND W. SIDE OF INDIANA AVE. 17' N. OF CONC. SIDEWALK, 57' S.E. FROM S.E. CORNER OF BLDG. #3211, 32' S. OF A POWER POLE. STATION IS A STANDARD USCE DISK STAMPED "L-59 (1965)" AND SET IN CONC. FLUSH WITH GROUND.

T4-1J N 826,203.23 E 1,570,466.79 EL. 540.34

DESCRIPTION: MONUMENT IS SET IN CONC. 3.7' E.S.E. OF STREET SIGN 8.3' W. OF W. EDGE OF KY. AVE., 24' S.E. OF POWER POLE 42.7' N.E. OF POWER POLE. STANDARD USCE DISK STAMPED "T4-1J (1972)".

L-58 N 825,193.00 E 1,571,032.11 EL. 541.40

DESCRIPTION: STATION IS NEAR INTERSECTION OF KY. AVE. AND 42nd ST. FROM CORNER OF PARKING LOT, 19' N.E. AND FROM CORNER NEAR CENTER OF CURVE 12' FROM EDGE ASPHALT ST. IT IS 3' S.W. OF STEEL POST OF STREET SIGN. STATION IS STANDARD USCE DISK STAMPED "L-58 (1965)" AND SET IN CONC. FLUSH WITH GROUND.

LAYOUT INFORMATION

IDENTIFICATION (PT.#)		BASELINE A STATION	LOCATION OFFSET (FT.)
PARKING LOT CORNER	(PT.A)	10+72.48	274.99 LT.
BUILDING CORNER	(PT.B)	11+37.48	124.99 LT.
BUILDING CORNER	(PT.C)	13+11.48	74.99 LT.
BUILDING CORNER	(PT.D)	13+81.48	124.99 LT.

NOTE: LAYOUT IS SYMMETRICAL ABOUT BASELINE "A"

Revisions			
Symbol	Descriptions	Date	Approved
1	CONTR. W/L & FENCE REVISED(AMDT.NO.0001)	11JUN90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
US Army Corps of Engineers
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

SITE PLAN

Designed by: J. ALLISON
Drawn by: B. ALLEN
Checked by: C. JONES
Reviewed by: LARRY D. MARTIN
Approved by: LARRY D. MARTIN

Scale: 1"=50'
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: C-2
Sheet 5 of 107

RECORD DRAWING "AS BUILT"

BLDGS 3069 & 3071

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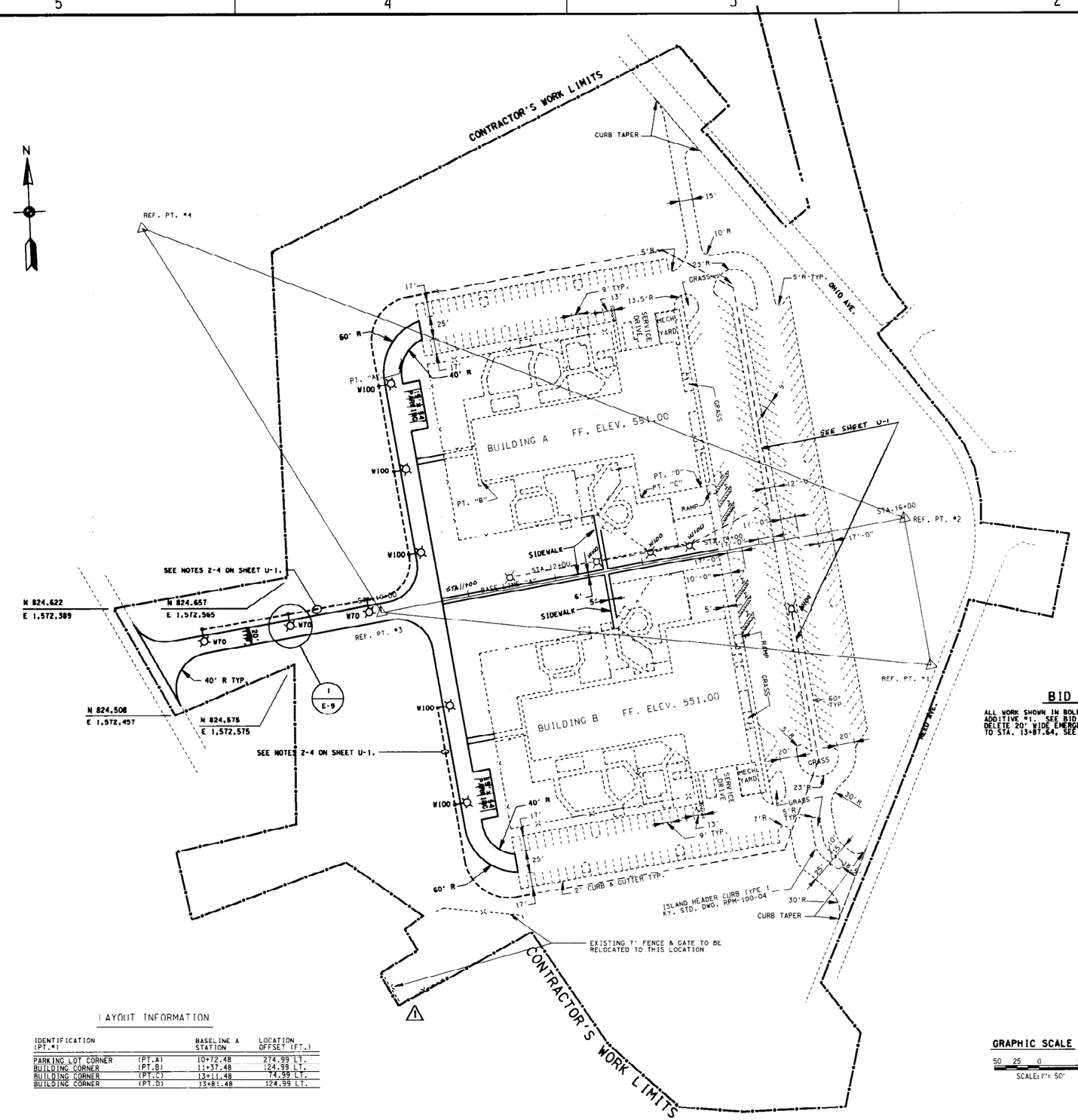

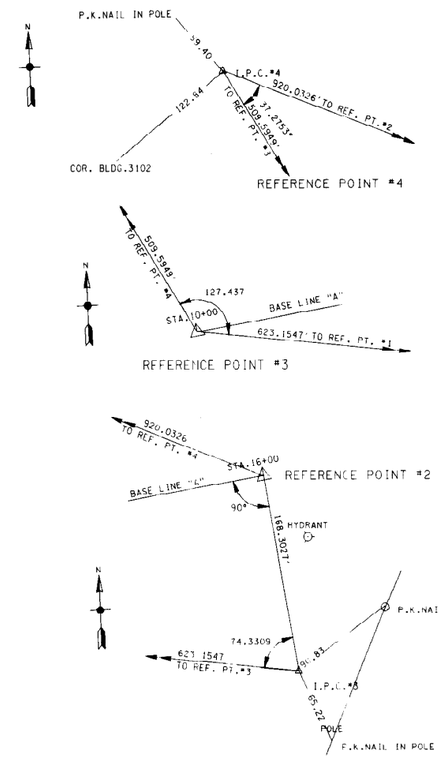

BID ADDITIVE #1

ALL WORK SHOWN IN BOLD PRINT TO BE INCLUDED IN BID ADDITIVE #1. SEE BID SHEET IN SPECS. FOR DESCRIPTION OF WORK. DELETE 20' WIDE EMERGENCY VEHICLE DRIVE FROM STA. 10+69.48 TO STA. 13+87.64, SEE SH. C-2.

LAYOUT INFORMATION

IDENTIFICATION (PT.#)		BASELINE A STATION	LOCATION OFFSET (FT.)
PARKING LOT CORNER	(PT.A)	10+72.48	274.99 LT.
BUILDING CORNER	(PT.B)	11+37.48	124.99 LT.
BUILDING CORNER	(PT.C)	13+11.48	74.99 LT.
BUILDING CORNER	(PT.D)	13+81.48	124.99 LT.

GRAPHIC SCALE

50 25 0 50 100FT

SCALE: 1"= 50'

Revisions			
Symbol	Descriptions	Date	Approved
1	CONTR. W/L & FENCE REVISED(AMDT.NO.0001)	11JUN90	

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380
FY 90

SITE PLAN
BID ADDITIVE #1

Designed by: J. ALLISON, M. JUST
Drawn by: B. ALLEN
Checked by: C. JONES
Reviewed by: LARRY D. MARTIN
Approved by: LARRY D. MARTIN
Scale: 1"=50'
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: C-2A
Sheet 6 of 107

RECORD DRAWING "AS BUILT"

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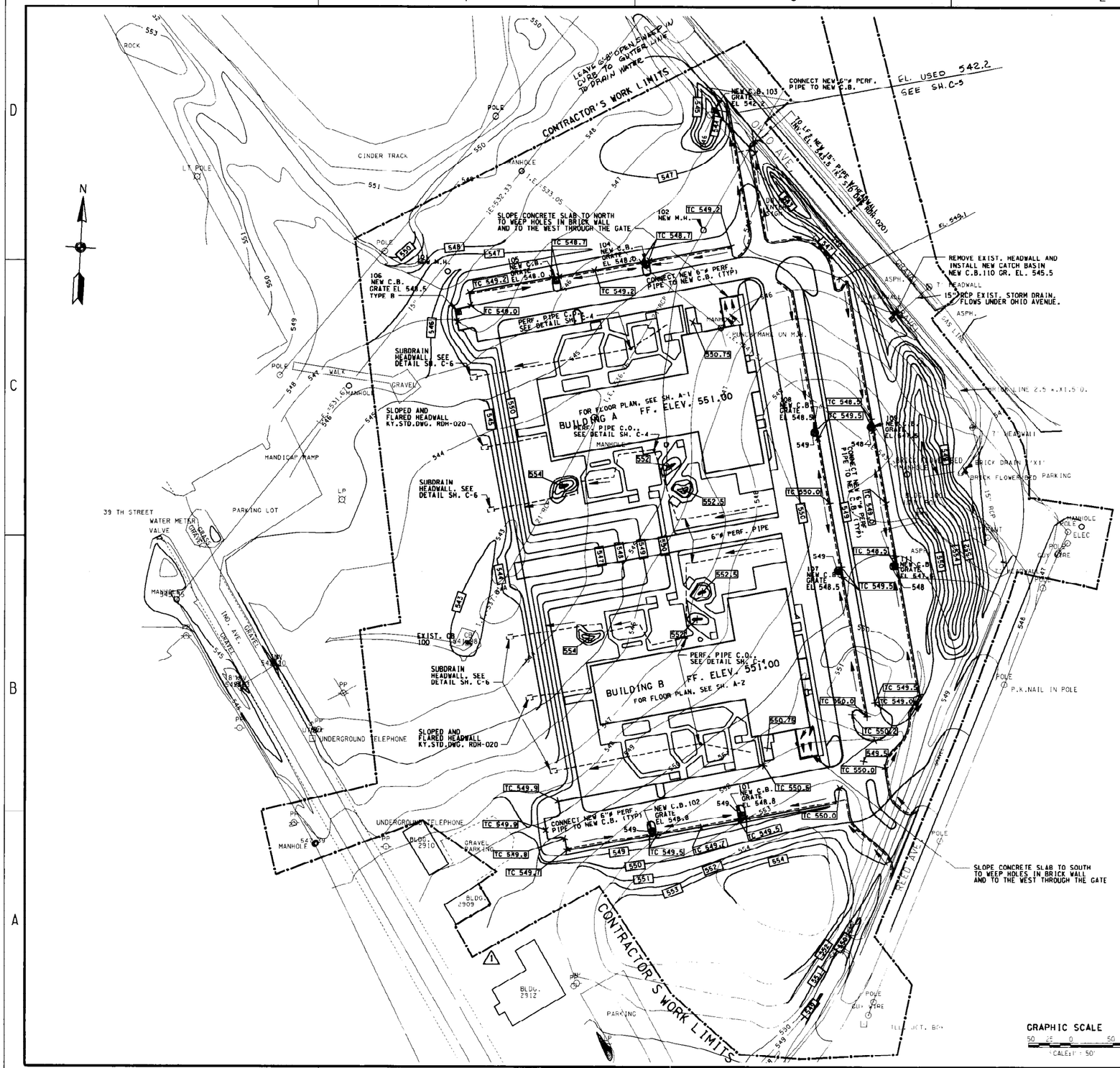

LEGEND

NEW 6"ø PERFORATED PIPE WITH DRAINAGE DIRECTION INDICATORS

NOTE:
THE PERFORATED PIPE SHALL HAVE A MIN. SLOPE OF 0.0015 FT/FT AND ALL OPEN ENDS NOT CONNECTED TO A CATCH BASIN SHALL BE CAPPED.

SEE SHEET C-4 FOR LOCATION OF DRAINAGE SYSTEM FOR ROOF DRAINS.

Revisions			
Symbol	Descriptions	Date	Approved
1	CONTR. W/L & GRADING REVISED(AMDT.NO.0001)	11JUN90	

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

GRADING PLAN

Designed by: ALLISON
Drawn by: LOEHR
Checked by: C. JONES
Reviewed by: LARRY D. MARTIN
Approved by: LARRY D. MARTIN

Scale: 1"=50'
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: C-3
Sheet 7 of 107

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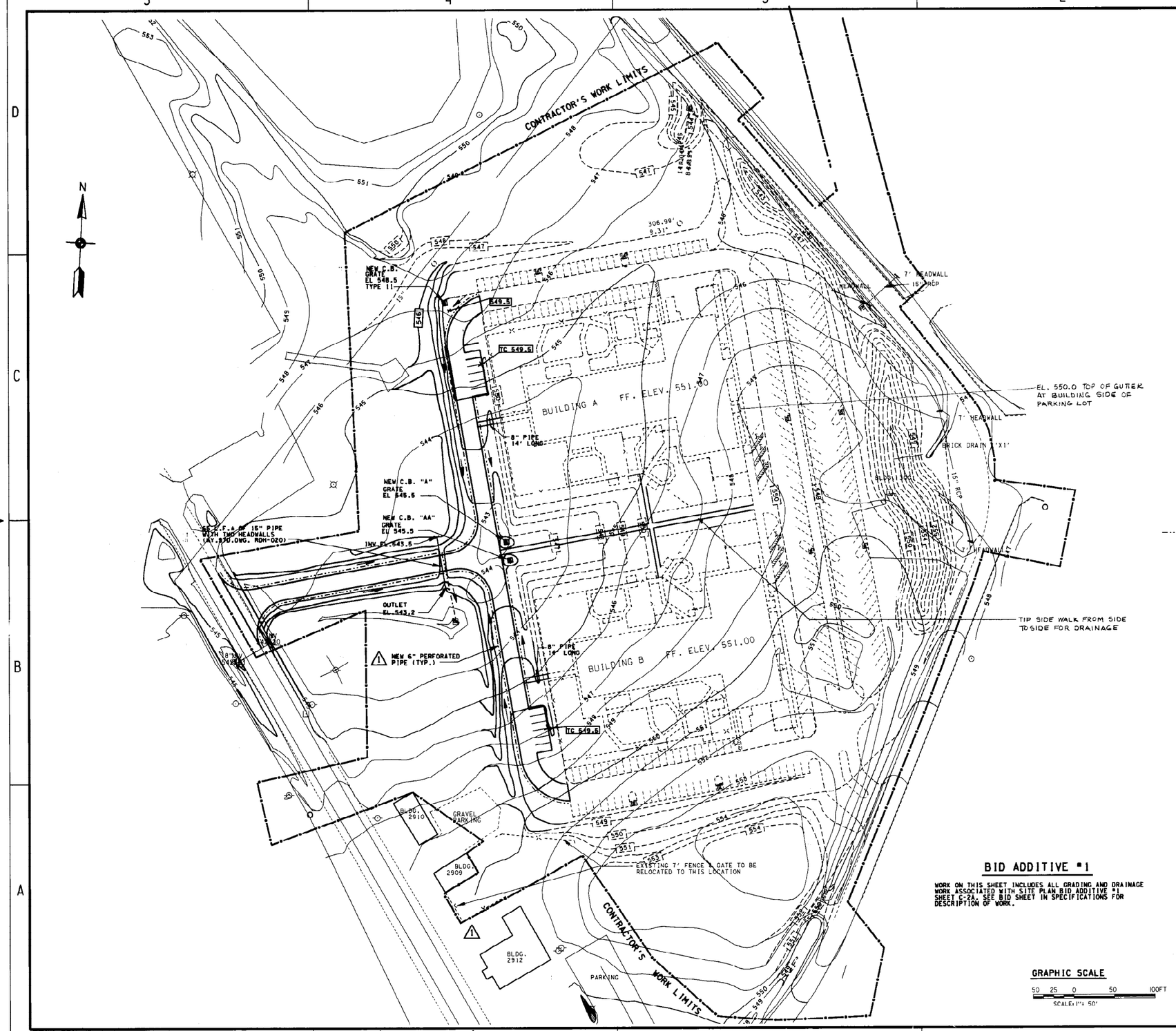

LEGEND

NEW 6" ø PERFORATED PIPE WITH DRAINAGE DIRECTION INDICATOR

NOTE:
THE PERFORATED PIPE SHALL HAVE A MIN. SLOPE OF 0.0015 FT/FT AND ALL OPEN ENDS NOT CONNECTED TO A CATCH BASIN SHALL BE CAPPED.

BID ADDITIVE #1

WORK ON THIS SHEET INCLUDES ALL GRADING AND DRAINAGE WORK ASSOCIATED WITH SITE PLAN BID ADDITIVE #1 SHEET C-2A. SEE BID SHEET IN SPECIFICATIONS FOR DESCRIPTION OF WORK.

GRAPHIC SCALE
50 25 0 50 100FT
SCALE: 1"= 50'

Revisions			
Symbol	Descriptions	Date	Approved
1	CONTR. W/L & GRADING REVISED(AMDT.NO.0001)	11JUN90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

GRADING PLAN
BID ADDITIVE #1

Designed by: ALLISON	Scale: 1"=50'
Drawn by: LOEHR	Date: MAY 1990
Checked by: C. JONES	Sheet reference number: C-3A
Reviewed by: LARRY D. MARTIN	Drawing Code: F-740-14-05
Approved by: LARRY D. MARTIN	Sheet 8 of 107

RECORD DRAWING "AS BUILT"

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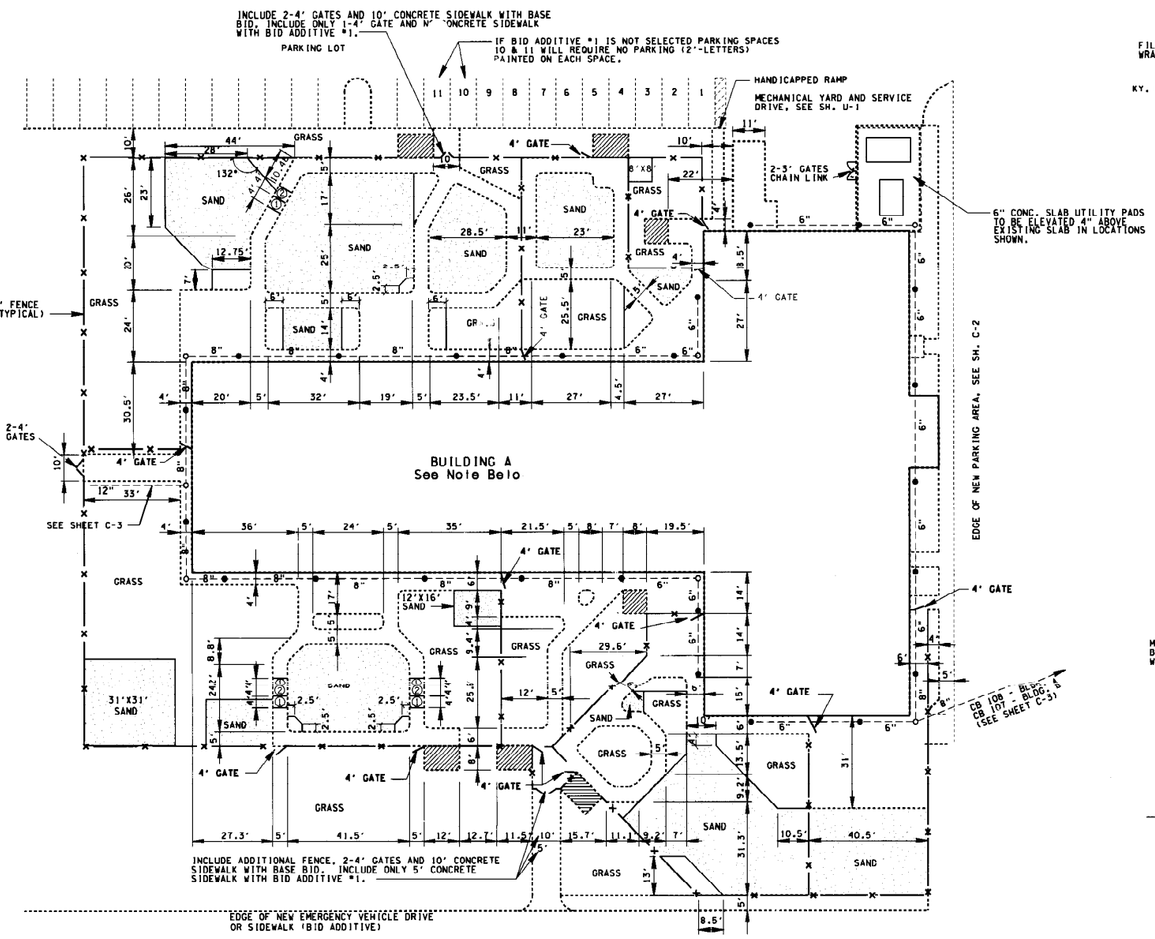


PLAYGROUND SITE PLAN

SCALE: 1"=20'

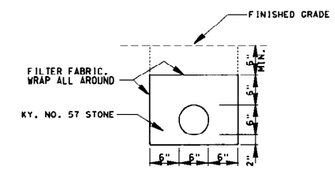
NOTE: THE PLAYGROUND FOR BUILDING B IS TYPICAL TO A EXCEPT SYMMETRICAL ABOUT BASELINE A.

LEGEND

- CONCRETE STORAGE BLDG. PADS. SEE ARCH. SHEETS
- ROOF DRAIN
- CLEANOUT
- ROOFDRAIN
- CONCRETE
- SAND

NOTES:

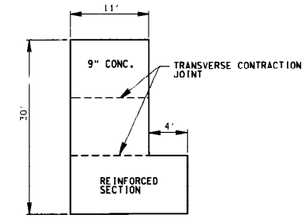
1. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE CONTRACTING OFFICER A JOINT PATTERN FOR ALL THE CONCRETE SIDEWALKS INSTALLED.
2. CONTRACTOR SHALL FIELD VERIFY POINT LOADS OF INSTALLED PLAYGROUND EQUIPMENT AND INSTALLED ANCHOR LOCATIONS. ANCHOR POINTS WILL NOT BE PERMITTED CLOSER THAN 1' IN ANY DIRECTION TO A JOINT INTERSECTION. JOINT PATTERNS SHALL BE REVISED IF ANCHORS ARE CLOSER.
3. A THICKENED EDGE EXPANSION JOINT WILL BE USED AT ALL PAVEMENT ABUTTING OTHER STRUCTURES AND A THICKENED EDGE AT ALL INTERIOR FREE EDGES. CONSTRUCTION JOINTS SHALL RUN NORTH-SOUTH AND CONTRACTION JOINTS SHALL RUN EAST-WEST.



SUBDRAIN DETAIL

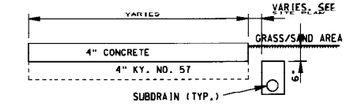
NO SCALE

NOTE: FOR LOCATION OF SUBDRAINS. SEE SH. C-3.



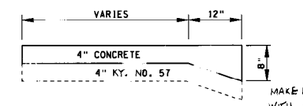
TRASH COMPACTOR PAD JOINT PATTERN

NO SCALE



TYPICAL CONCRETE SECTION

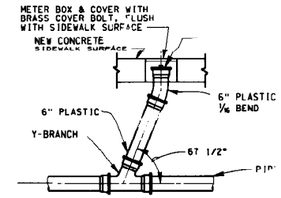
NO SCALE



MAKE MACHINE PADS MIN. OF 6" THICK WITH THICKEND EDGES AND RE-INFORCED WITH HEAVY GUAGE WIRE TOP EL. 100.33

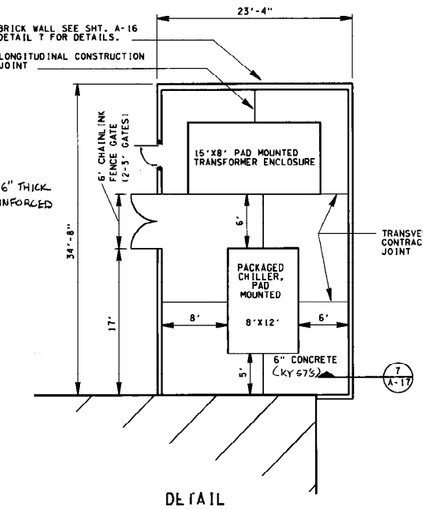
THICKENED EDGE DETAIL

NO SCALE



CLEANOUT DETAIL

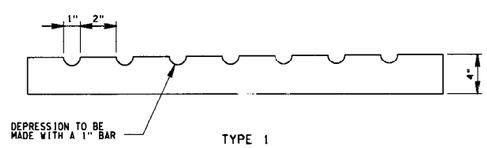
NO SCALE



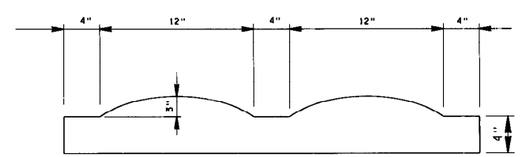
DETAIL MECHANICAL YARD

NOT TO SCALE

20 10 0 20 40FT
SCALE: 1" = 20'



TYPE 1 ①



TYPE 2 ②

VARIOUS CONCRETE SIDEWALK SURFACES

(LOCATIONS SHOWN ON PLAYGROUND SITE PLAN)

NO SCALE

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
US Army Corps of Engineers
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

PLAYGROUND SITE PLAN & DETAILS

Designed by: J. ALLISON
Drawn by: E. HIBBS
Checked by: C. Jones
Reviewed by:
Approved by:
Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: C-4
Sheet 9 of 107

RECORD DRAWING "AS BUILT"

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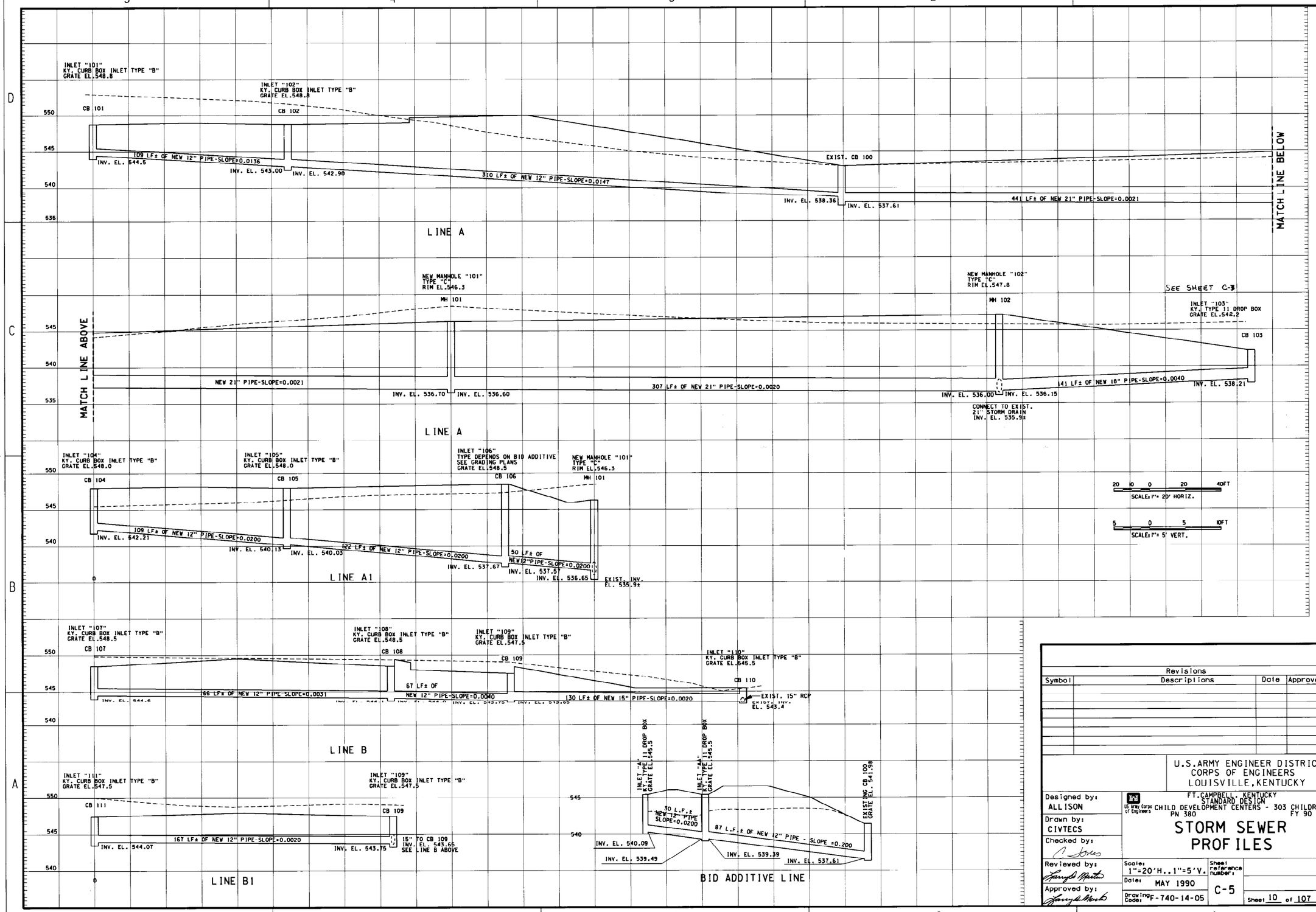
DATE = 1-MAY-90, 14:
USER = CHUCKR



Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

US Army Corps of Engineers

STORM SEWER PROFILES

Designed by: ALLISON
Drawn by: CIVTECS
Checked by:
Reviewed by:
Approved by:

Scale: 1"=20'H., 1"=5'V.
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: C-5
Sheet 10 of 107

RECORD DRAWING "AS BUILT"

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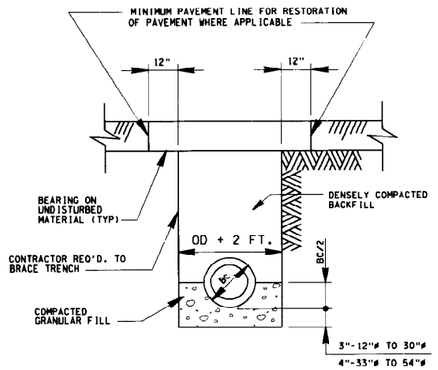
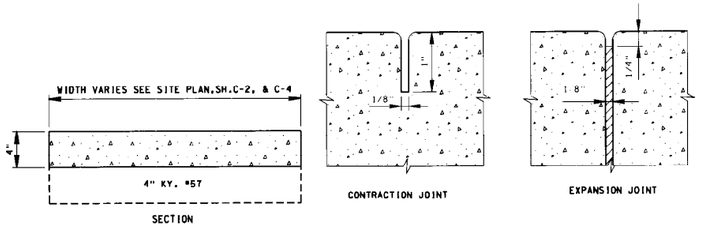


DETAIL SHOWING CLASS "B" BEDDING FOR ALL PIPES

NO SCALE

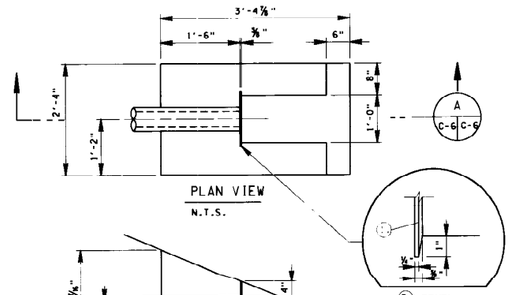


SIDEWALK DETAILS

(NO SCALE)

NOTES:

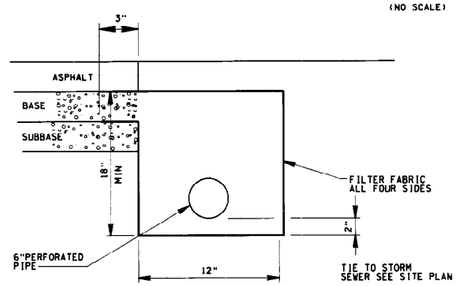
1. PROVIDE TRANSVERSE CONTRACTION JOINTS @ INTERVALS NOT IN EXCESS OF 5'-0" O.C.
2. EXPANSION JTS. SHALL BE PLACED @ 30' INTERVALS.
3. SIDEWALKS ADJACENT TO BUILDINGS TO HAVE MINIMUM TRAVERSE SLOPE OF ¼"/FT. AWAY FROM BUILDINGS.



SUBDRAIN HEADWALL

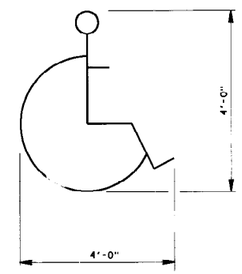
SEE SHEET C-3 FOR LOCATION

1. EXPANDED STEEL MESH (FLATTENED) SHALL WAVE OPENINGS OF APPROX. ½" X 1" AND WEIGH .82 LBS. PER SQ. FT. THE MESH SHALL EXTEND A MIN. OF 1" ABOVE THE O.D. OF THE PIPE, AND IS A BARRIER FOR RODENTS, ETC.
2. THE SLOT IS TO BE CONSTRUCTED SO THAT THE MESH CAN BE REMOVED FOR CLEANOUT PURPOSES.
3. BEVEL PERMITTED FOR EASY REMOVAL.



PERFORATED PIPE SUBDRAIN DETAIL

NO SCALE



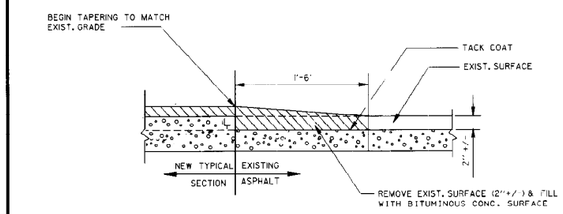
HANDICAPPED PARKING SYMBOL STRIPING DETAIL

NO SCALE

SYMBOL TO BE PAINTED ON ALL HANDICAPPED PARKING SPACES

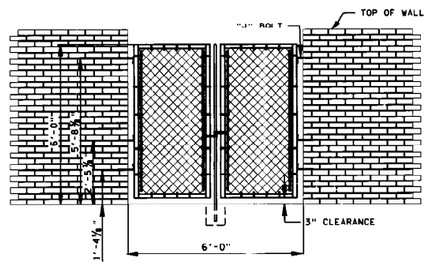
NOTE:

1. HINGES (1/2"ø×6½"L) TO BE EMBEDDED IN WALL 4½" & 4½" TOP "J" BOLTS POINT DOWN. BOTTOM 2-"J" BOLTS POINT UP EACH SIDE.
2. "J" BOLT HING LOCATIONS ARE APPROXIMATE. "J" BOLTS MUST BE PLACED IN MORTAR JOINT.



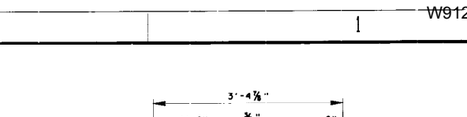
PAVEMENT MATCH DETAIL

NO SCALE



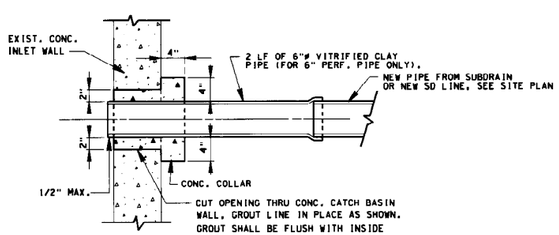
6'L X 6'H SWING GATE AT ENTRANCE TO MECHANICAL YARD

NOT TO SCALE



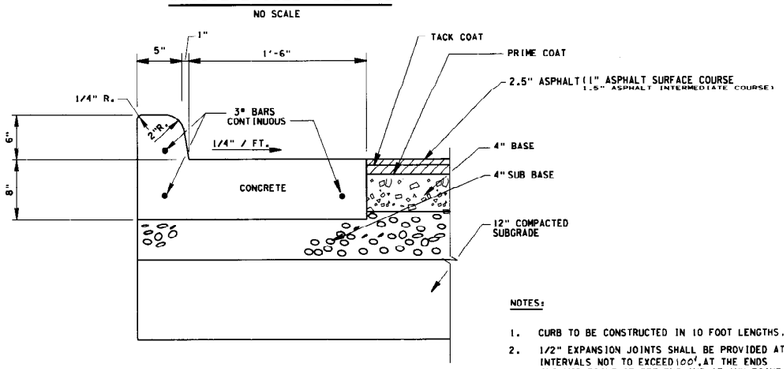
CURB TAPER DETAIL

NO SCALE



CONCRETE COLLAR DETAIL

NO SCALE

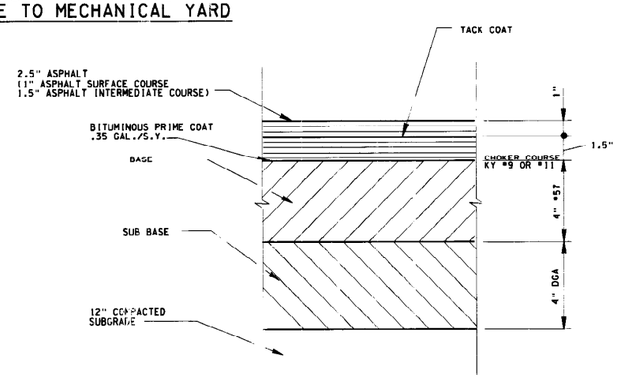


NOTES:

1. CURB TO BE CONSTRUCTED IN 10 FOOT LENGTHS.
2. 1/2" EXPANSION JOINTS SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 100', AT THE ENDS AND MID-POINT OF RETURNS AND AT ANY POINT WHERE THE NEW CURB ABUTS OTHER CONCRETE STRUCTURES.

TYPICAL CURB & GUTTER DETAIL

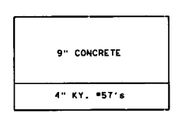
NO SCALE



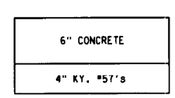
ACCESS ROAD (BID ADDITIVE), PARKING AREA AND EMERGENCY VEHICLE DRIVE

TYPICAL PAVEMENT SECTIONS

NO SCALE



DUMPSTER PAD



MECHANICAL YARD

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

US Army Corps of Engineers

SITE DETAILS

SHEET 1 OF 2

Designed by: ALLISON			
Drawn by: CADD			
Checked by: C Jones			
Reviewed by: Larry L Marks	Scale: AS SHOWN	Sheet reference number: C-6	
Approved by: Larry L Marks	Date: MAY 1990		
	Drawing Code: F-740-14-05		Sheet 11 of 107

RECORD DRAWING "AS BUILT"

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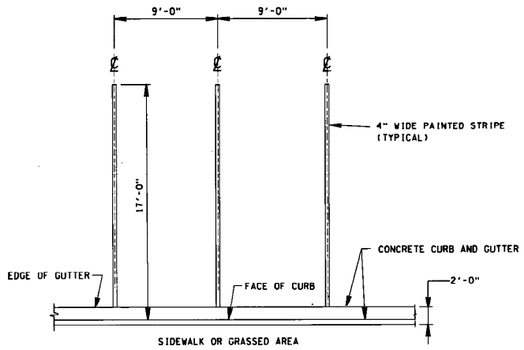
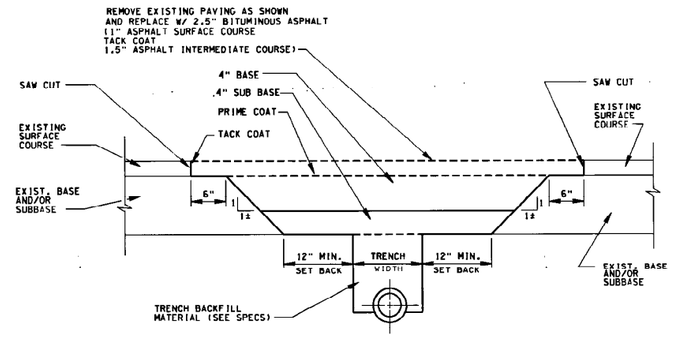


TYPICAL 90° PARKING SPACE STRIPING

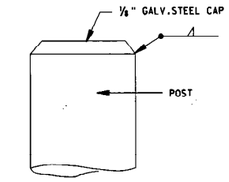
NOT TO SCALE

NOTE:
1. ALL PAINTED STRIPES SHALL BE WHITE.



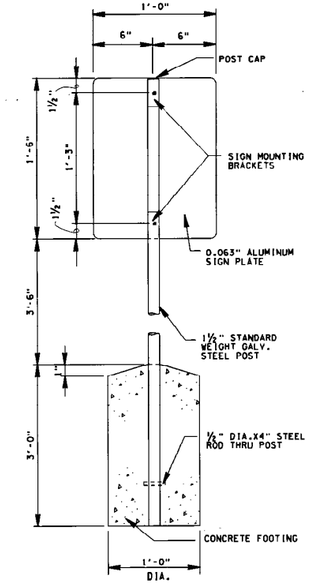
REPLACEMENT OF FLEXIBLE PAVING (DUE TO TRENCHING)

NO SCALE



WELDED POST CAP

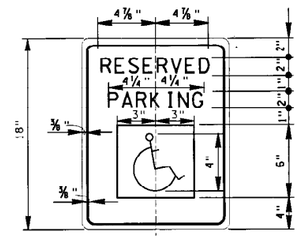
NOT TO SCALE



SIGN INSTALLATION

NOT TO SCALE

NOTE: SIGN TO BE INSTALLED AT BACK EDGE OF SIDEWALK ALONG ℄ OF EACH HANDICAP SPACE.



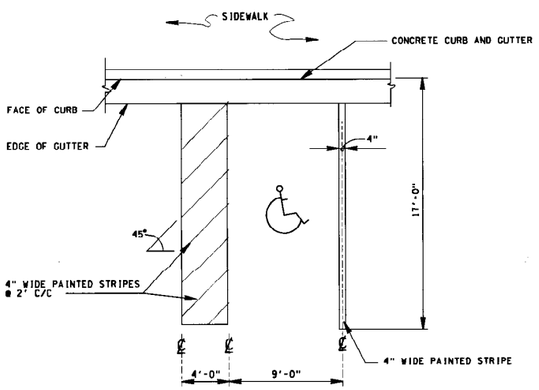
COLORS: LEGEND & BORDER- GREEN
BACKGROUND-WHITE

SIGN DETAIL

NOT TO SCALE

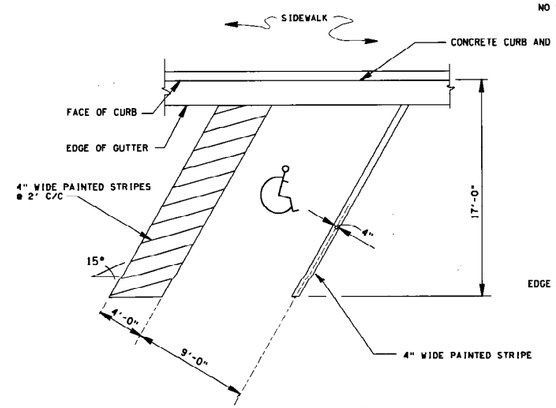
HANDICAPPED PARKING DETAILS

NOT TO SCALE



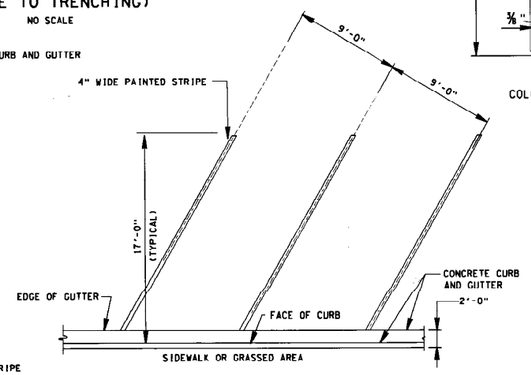
TYPICAL 90° HANDICAPPED PARKING SPACE STRIPING

NOT TO SCALE



TYPICAL 60° HANDICAPPED PARKING SPACE STRIPING

NOT TO SCALE



TYPICAL 60° PARKING SPACE STRIPING

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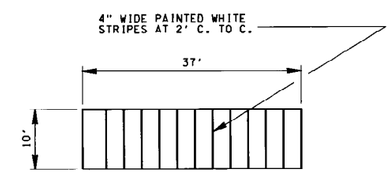
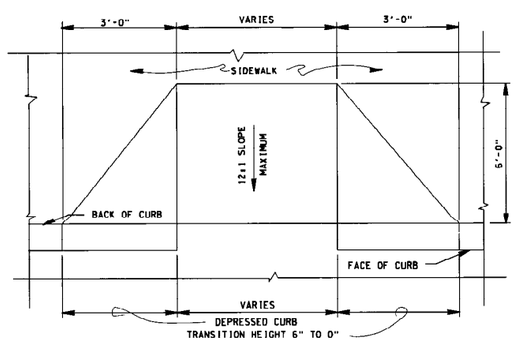
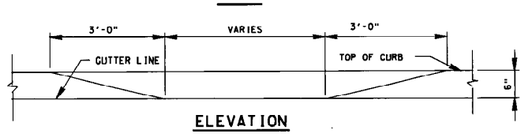


CROSSWALK STRIPING

(TYPICAL TWO LOCATIONS)
NOT TO SCALE



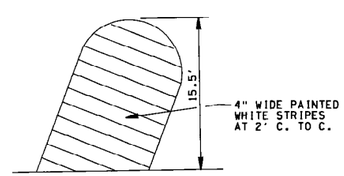
PLAN



ELEVATION

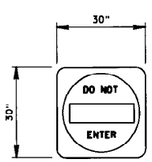
HANDICAPPED RAMP

NOT TO SCALE



PAINTED ISLAND STRIPING PLAN

NOT TO SCALE

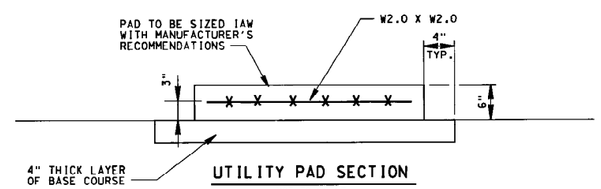


NOTE:
SIGN TO BE INSTALLED AT NORTH END OF PARKING LOT. SEE SITE PLAN

COLORS: CIRCLE-RED
LETTERS, BORDER - WHITE

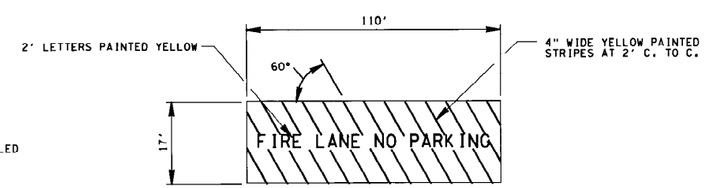
SIGN DETAIL

NOT TO SCALE



UTILITY PAD SECTION

NOT TO SCALE



TYPICAL FIRE LANE STRIPING PLAN

(TWO LOCATIONS)
NOT TO SCALE

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
US Army Corps of Engineers
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

SITE DETAILS

SHEET 2 OF 2

Designed by: ALLISON
Drawn by: CHUCK
Checked by:
Reviewed by:
Approved by:

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: C-7
Sheet 12 of 107

RECORD DRAWING "AS BUILT"

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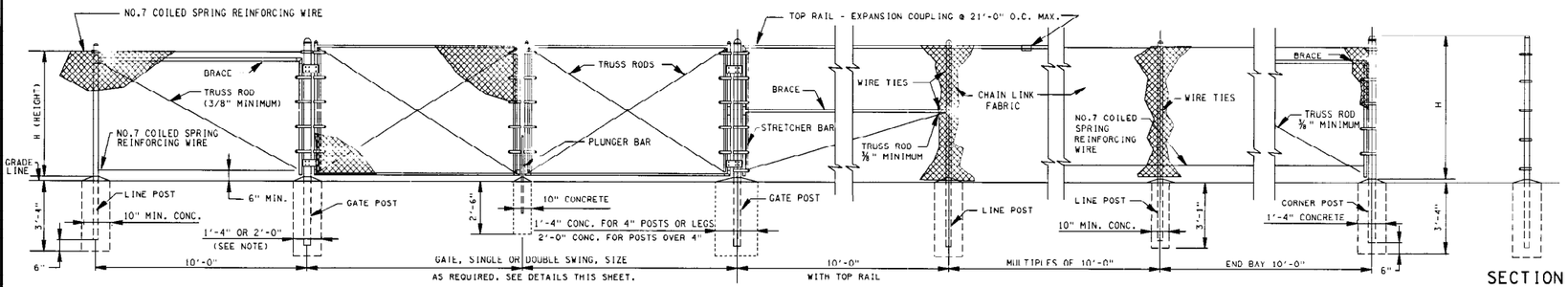
USER = CHUCKR

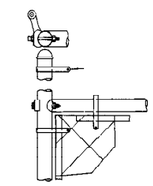


CHAIN LINK FABRIC FENCE TYPE FE-5

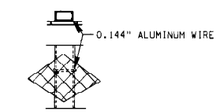
SCALE 3/8" = 1'-0"

SECTION

GENERAL NOTES

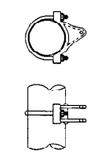


GATE FRAME HINGE

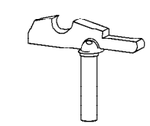


LINE POST ATTACHMENTS

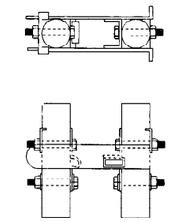
NO SCALE



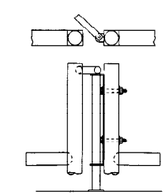
POST HINGE



GATE KEEPER
(TO HOLD GATE OPEN)



LATCH ASSEMBLY



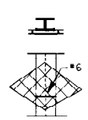
DROP BAR ASSEMBLY

SWING GATE DETAILS

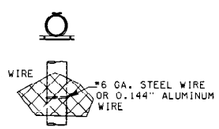
NO SCALE

CLAMP FOR BRACE RAIL ROUND POST

CLAMP FOR BRACE RAIL H - BEAM

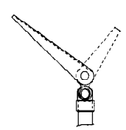


H - BEAM

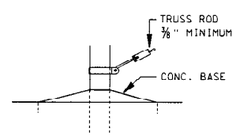


ROUND POST

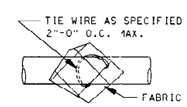
LINE POST ATTACHMENTS



TOP RAIL BARB WIRE ARMS

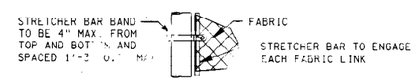


TRUSS ROD & BAND

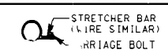


WIRE TIES FOR TOP OR BRACE RAIL

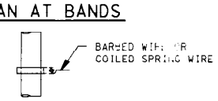
FASTENING DETAILS - FOR TUBULAR POST OR H - COLUMNS



DETAIL - END OR GATE POST



PLAN AT BANDS



BAND FOR WIRE STRETCHING

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: STANDARD
Drawn by: CADD
Checked by: C Jones
Reviewed by:
Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

FENCE & DETAILS

TYPE FE-5

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: C-8
Sheet 13 of 107

RECORD DRAWING "AS BUILT"

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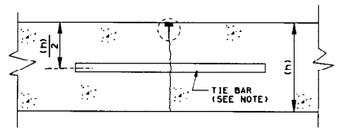
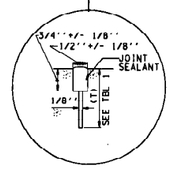


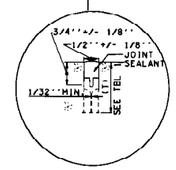
NO.5 DEF. STEEL TIE BARS 2'-6" LONG AND SPACED 2'-6" ON CENTERS. USED ONLY IN JOINTS ADJACENT TO FREE EDGES

LONGITUDINAL

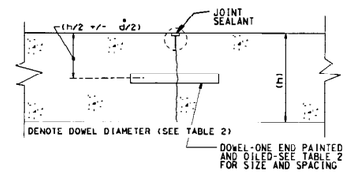


NON-ASORPTIVE MATERIAL REQUIRED TO PREVENT JOINT SEALANT FROM FLOWING INTO SAWCUT

SAWED



PREFAB METAL FORM FILLER



TRANSVERSE

NOTE:
NON-ABSORPTIVE SEPARATION MEDIUM WILL BE USED BETWEEN FED. SPEC. SS-S-00200 JOINT SEALANT & UNDERLYING ASPHALT IMPREGNATED FIBERBOARD OR OTHER ASPHALT FILLED MATERIAL. SEE SPECIFICATION C-02580

TABLE 1

PAVEMENT THICKNESS (h), INCHES	DEPTH OF CONTRACTION JT.(T), INCHES
6	1½
9	2¼

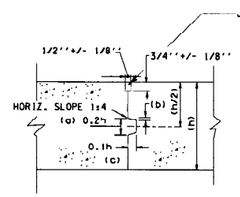
TABLE 2

PAVEMENT THICKNESS (h) - INCHES	DOWEL SIZE & SPACING - INCHES			
	DIAMETER-d		LENGTH	SPACING
	SOLID BAR	EX STR PIPE	l	S
6	¾	-	16"	12" O.C.
9	1	-	16"	12" O.C.

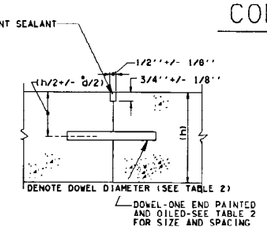
NOTE: EITHER ONE PIECE OR THREADED SPLIT TYPE DOWELS MAY BE USED.

NOTE:
REINFORCING AND DOWELS REQUIRED FOR MISMATCHED JOINTS AND ODD SHAPED SLABS

CONTRACTION JOINTS



KEYED LONGITUDINAL



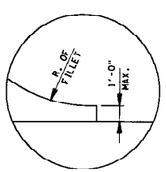
DOWELED TRANSVERSE OR LONGITUDIN

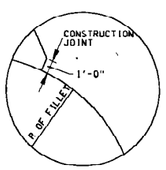
TABLE 3

PAVEMENT THICKNESS (h), INCHES	KEYED JOINT DIMENSIONS - INCHES		
	a	b	c
6	1¼	¼	⅜
9	1¾	¼	⅜

NOTE:
REINFORCING IS REQUIRED AS IDENTIFIED ON PLANS AND FOR ODD SHAPED SLABS AND OR SLABS WITH MISMATCHED JOINTS. OTHERWISE REINFORCMENT IS NOT REQUIRED. REINFORCING SHALL BE 6x6-W2.5xW2.5 WELDED WIRE FABRIC.

CONSTRUCTION JOINTS

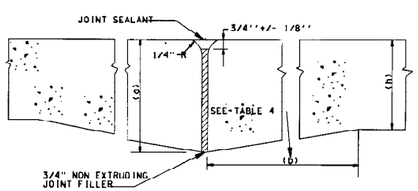




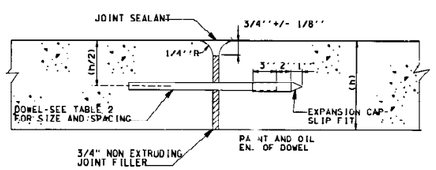
JOINT TO INTERSECT EDGE OF FILLET ON RADIUS OF FILLET

JOINT INTERSECTION DETAILS

NO SCALE:



LONGITUDINAL



TRANSVERSE

EXPANSION JOINTS

TABLE 4

PAVEMENT THICKNESS (h), INCHES	JOINT DIMENSIONS	
	(a)	(b)
6	7 1/2"	7'-6"
9	11 1/4"	10'-0"

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 360 FY 90

US Army Corps of Engineers

Designed by: ALLISON
Drawn by: CADD
Checked by: C. Jones
Reviewed by: Larry L. Martin
Approved by: Larry L. Martin

NON-REINFORCED RIGID PAVEMENT JOINT DETAILS

Scale: NO SCALE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: C-9
Sheet 14 of 107

RECORD DRAWING "AS BUILT"

ZGO:[40,77]JTDTLS.DWG
DATE = 1-MAY. 90, 14:54:14
USER = CHUCKR

UNIFIED SOIL CLASSIFICATION
(INCLUDING IDENTIFICATION AND DESCRIPTION)

MAJOR DIVISIONS (1)	(2)		GROUP SYMBOLS (3)	TYPICAL NAMES (4)	FIELD IDENTIFICATION PROCEDURES (EXCLUDING PARTICLES LARGER THAN 3 INCHES AND BASING FRACTIONS ON ESTIMATED WEIGHTS) (5)	INFORMATION REQUIRED FOR DESCRIBING SOILS (6)
COARSE-GRAINED SOILS. MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE. (FOR VISUAL CLASSIFICATION, THE ¼ IN. SIZE MAY BE USED AS EQUIVALENT TO THE NO. 4 SIEVE SIZE)	GRAVELS. MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE.	CLEAN GRAVELS (LITTLE OR NO FINES)	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OF NO FINES.	WIDE RANGE IN GRAIN SIZES AND SUBSTANTIAL AMOUNTS OF ALL INTERMEDIATE PARTICLE SIZES.	FOR UNDISTURBED SOILS ADD INFORMATION ON STRATIFICATION, DEGREE OF COMPACTNESS, CEMENTATION, MOISTURE CONDITIONS AND DRAINAGE CHARACTERISTICS.
			GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES.	PREDOMINANTLY ONE SIZE OR A RANGE OF SIZES WITH SOME INTERMEDIATE SIZES MISSING.	
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES.	NONPLASTIC FINES OF FINES WITH LOW PLASTICITY (FOR IDENTIFICATION PROCEDURES SEE ML BELOW)	
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES.	PLASTIC FINES (FOR IDENTIFICATION PROCEDURES SEE CL BELOW).	GIVE TYPICAL NAME; INDICATE APPROXIMATE PERCENTAGES OF SAND AND GRAVEL, MAX. SIZE, ANGULARITY, SURFACE CONDITION, AND HARDNESS OF THE COARSE GRAINS; LOCAL OR GEOLOGIC NAME AND OTHER PERTINENT DESCRIPTIVE INFORMATION; AND SYMBOL IN PARENTHESES.
	SANDS. MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE.	CLEAN SANDS (LITTLE OR NO FINES)	SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES.	WIDE RANGE IN GRAIN SIZE AND SUBSTANTIAL AMOUNTS OF ALL INTERMEDIATE PARTICLE SIZES.	
			SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES.	PREDOMINANTLY ONE SIZE OR A RANGE OF SIZES WITH SOME INTERMEDIATE SIZES MISSING.	
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)	SM	SILTY SANDS, SAND-SILT MIXTURES.	NONPLASTIC FINES OR FINES WITH PLASTICITY (FOR IDENTIFICATION PROCEDURES SEE ML BELOW).	EXAMPLE: SILTY SAND, GRAVELLY; ABOUT 20% HARD, ANGULAR GRAVEL PARTICLES ½ IN. MAXIMUM SIZE; ROUNDED AND SUBANGULAR SAND GRAINS COARSE TO FINE; ABOUT 15% NONPLASTIC FINES WITH LOW DRY STRENGTH; WELL COMPACTED AND MOIST IN PLACE, ALLUVIAL SAND; (SM).
			SC	CLAYEY SANDS, AND-CLAY MIXTURES.	PLASTIC FINES (FOR IDENTIFICATION PROCEDURES SEE CL BELOW).	
FINE-GRAINED SOILS. MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE. THE NO. 200 SIEVE SIZE IS ABOUT THE SMALLEST PARTICLE VISIBLE TO THE NAKED EYE.	SILTS AND CLAYS. LIQUID LIMIT LESS THAN 50				IDENTIFICATION PROCEDURES ON FRACTION SMALLER THAN NO. 40 SIEVE SIZE. DRY STRENGTH (CRUSHING CHARACTERISTICS) / DILATANCY (REACTION TO SHAKING) / TOUGHNESS (CONSISTENCY NEAR PL)	
			ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY.	NONE TO SLIGHT / QUICK TO SLOW / NONE	GIVE TYPICAL NAME, INDICATE DEGREE AND CHARACTER OF PLASTICITY, AMOUNT AND MAXIMUM SIZE OF COARSE GRAINS, COLOR IN WET CONDITION, ODOR IF ANY, LOCAL OR GEOLOGIC NAME AND OTHER PERTINENT DESCRIPTIVE INFORMATION AND SYMBOL IN PARENTHESES.
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS.	MEDIUM TO HIGH / NONE TO VERY SLOW / MEDIUM	
			OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY.	SLIGHT TO MEDIUM / SLOW / SLIGHT	
	SILTS AND CLAYS. LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS.	SLIGHT TO MEDIUM / SLOW TO NONE / SLIGHT TO MEDIUM	FOR UNDISTURBED SOILS ADD INFORMATION ON STRUCTURE, STRATIFICATION, CONSISTENCY IN UNDISTURBED AND REMOLDED STATES, MOISTURE AND DRAINAGE CONDITIONS.
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS.	HIGH TO VERY HIGH / NONE / HIGH	
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASITICITY, ORGANIC SILTS.	MEDIUM TO HIGH / NONE TO VERY SLOW / SLIGHT TO MEDIUM	EXAMPLE: CLAYEY SILT, BROWN, SLIGHTLY PLASTIC, SMALL PERCENTAGE OF FINE SAND, NUMEROUS VERTICAL ROOT HOLES, FIRM AND DRY IN PLACE, LOESS, (ML).
HIGHLY ORGANIC SOILS			PT	PEAT AND OTHER HIGHLY ORGANIC SOILS.	READILY IDENTIFIED BY COLOR, ODOR, SPONGY FEEL AND FREQUENTLY BY FIBROUS TEXTURE.	

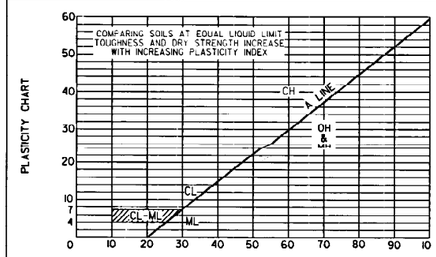
LABORATORY CLASSIFICATION CRITERIA (7)

USE GRAIN-SIZE CURVE IN IDENTIFYING THE FRACTIONS AS GIVEN UNDER FIELD IDENTIFICATION.

DETERMINE PERCENTAGES OF GRAVEL AND SAND FROM GRAIN-SIZE CURVE. DEPENDING ON PERCENTAGE OF FINES (FRACTION SMALLER THAN NO. 200 SIEVE SIZE) COARSE-GRAINED SOILS ARE CLASSIFIED AS FOLLOWS:
LESS THAN 5% — GW, GP, SW, SP.
MORE THAN 12% — GM, GC, SM, SC.
5% TO 12% — BORDERLINE CASES REQUIRING USE OF DUAL SYMBOLS.

- $C_U = \frac{D_{60}}{D_{10}}$ GREATER THAN 4
- $C_C = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ BETWEEN ONE AND 3
- NOT MEETING ALL GRADATION REQUIREMENTS FOR GW
- ATTERBERG LIMITS BELOW "A" LINE WITH PI LESS THAN 4
- ATTERBERG LIMITS ABOVE "A" LINE WITH PI GREATER THAN 7
- ABOVE "A" LINE WITH PI BETWEEN 4 AND 7 ARE BORDERLINE CASES REQUIRING USE OF DUAL SYMBOLS.

- $C_U = \frac{D_{60}}{D_{10}}$ GREATER THAN 6
- $C_C = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ BETWEEN ONE AND 3
- NOT MEETING ALL GRADATION REQUIREMENTS FOR SW
- ATTERBERG LIMITS BELOW "A" LINE WITH PI LESS THAN 4
- ATTERBERG LIMITS ABOVE "A" LINE WITH PI GREATER THAN 7
- LIMITS PLOTTING IN HATCHED ZONE WITH PI BETWEEN 4 AND 7 ARE BORDERLINE CASES REQUIRING USE OF DUAL SYMBOLS.



PLASTICITY CHART

FOR LABORATORY CLASSIFICATION OF FINE-GRAINED SOILS

LEGEND

F = FILL
T = TOP SOIL
OB = OVERBURDEN (SEE GENERAL NOTE 4)
SS = SANDSTONE
SH = SHALE
SLS = SILTSTONE
LS = LIMESTONE
GN = GRANITE
CO = COAL
UC = UNDERCLAY
IC = INDURATED CLAY
DOL = DOLOMITE
CON = CONGLOMERATE
QTZ = QUARTZ
RQD = ROCK QUALITY DESIGNATION
NOD = NODULES
GRAV = GRAVEL OR GRAVELLY
LT = LIGHT
DK = DARK
SL = SLIGHTLY
MOD = MODERATELY
MED = MEDIUM
COMP = COMPACT
HD = HARD
TR = TRACE
WP = WELL POINT
(W) = WEATHERED
W/ = WITH
GR = GRAIN
OCC = OCCASIONAL
BD = BEDDED OR BEDS
INTBD = INTERBEDDED
LAM = LAMINAE
XLTN = CRYSTALLINE
ARGIL = ARGILLACEOUS
V = VERY
BLK = BLACK
BR = BROWN
GRY = GRAY
BLU = BLUE
YEL = YELLOW

OB/P = OPEN BEDDING PLANE
CAL = CALCAREOUS
CARBO = CARBONACEOUS
FREQ = FREQUENT
FOS = FOSSILIFEROUS
FRAG = FRAGMENTS
DIAG = DIAGONAL
ALT = ALTERNATING
VERT = VERTICAL
HOR = HORIZONTAL
FRAC = FRACTURE
X-BD = CROSSBEDDING
SP = SHEAR PLANE
V/J = VERTICAL JOINT
JT = JOINT
SOL = SOLUTION

= CAVITY (OPEN OR FILLED)

MICA = MICACEOUS
STY = STYLOLITIC
B/P = BEDDING PLANE
F/W = FREE WATER
H/A = HIGH ANGLE
▼ = GROUND WATER, ELEV. & DATE (SEE GENERAL NOTE 2)
WC = WATER CONTENT (EXPRESSED IN % DRY WEIGHT) AT TIME OF DRILLING
PIEZ = PIEZOMETER
** = X-RAY DIFFRACTION ANALYSIS (SEE GENERAL NOTE 10)

TERMS FOR HARDNESS OF BEDROCK

VERY SOFT OR PLASTIC- CAN BE INDENTED EASILY WITH THUMB.

SOFT- CAN BE SCRATCHED WITH FINGERNAIL.

MODERATELY HARD- CAN BE SCRATCHED EASILY WITH KNIFE; CANNOT BE SCRATCHED WITH FINGERNAIL.

HARD- DIFFICULT TO SCRATCH WITH KNIFE.

VERY HARD- CANNOT BE SCRATCHED WITH KNIFE.

WEATHERING

SEVERE WEATHERING - LOSS OF ROCK COHERANCE, MATERIAL CAN BE REMOVED BY HAND TOOLS.

MODERATE WEATHERING - MATERIAL MAY BE OXIDIZED BUT MOST PHYSICAL CHARACTERISTIC REMAIN. OCCASIONAL BLOCKS MAY BE REMOVED WITH HAND TOOLS.

SLIGHT WEATHERING - MATERIAL GENERALLY FRESH, WITH VARIOUS DEGREES OF WEATHERING ALONG JOINTS AND BEDDING.

DESCRIPTIVE TERM	SIZE
BOULDER	> 8 INCHES
COBBLE	3 INCHES TO 8 INCHES
COARSE GRAVEL	3/4 INCH TO 3 INCH
FINE GRAVEL	1/4 INCH TO 3/4 INCH
COARSE SAND	2 MM TO 1/4 INCH
MEDIUM SAND	0.4 MM TO 2 MM
FINE SAND	0.075 MM TO 0.4 MM

GENERAL NOTES

1. REFUSAL IS DEFINED AS THE POINT BEYOND WHICH FURTHER PENETRATION WAS IMPRACTICAL WITH THE EXPLORATION METHOD USED. SEE "METHODS OF EXPLORATION" THIS SHEET INDICATING MEANS BY WHICH THE BORINGS WERE ADVANCED.
2. WATER ELEVATIONS INDICATED (▼ IN CORE (C), STANDARD PENETRATION (SPT), FISHTAIL (F), DENISON (U) AND WASH (W) BORINGS MAY HAVE BEEN INFLUENCED BY DRILLING OPERATIONS AND SHOULD NOT BE CONSTRUED AS INDICATING THE TRUE GROUND WATER LEVEL.
3. GROUND WATER LEVELS WILL VARY IN ACCORDANCE WITH RAINFALL AND STREAM STAGES, THEREFORE ACTUAL LEVEL OF GROUND WATER ON ANY DATE OTHER THAN THAT SHOWN ON THE LOGS MUST BE DETERMINED BY SEPARATE OBSERVATIONS. THE OMISSION OF GROUND WATER ELEVATIONS SHALL NOT NECESSARILY BE CONSTRUED AS INDICATING THE ABSENCE OF GROUND WATER AT A PARTICULAR BORING LOCATION.
4. WHEREVER THE METHOD OF EXPLORATION PRECLUDED THE POSSIBILITY OF RECOVERING SAMPLES ABOVE ROCK, SUITABLE FOR EXAMINATION OR TESTS, THE MATERIAL IS DENOTED AS OVERBURDEN.
5. CLASSIFICATIONS AND PHYSICAL CHARACTERISTICS OF SOIL AND ROCK AS SHOWN ON THE LOGS WERE DETERMINED IN THE FIELD AND LATER SUPPLEMENTED BY ANALYSIS MADE BY THE DISTRICT GEOLOGIST AND THE LABORATORY TECHNICANS.
6. FIELD BOOKS, FIELD LOGS, LABORATORY LOGS (PRESENTING THE RESULTS OF LABORATORY TESTS FOR SHEAR, CONSOLIDATION, PERMEABILITY, ETC. WHEN PERFORMED) AND EDITED LOGS MAY BE VIEWED IN THE OFFICE OF THE DISTRICT ENGINEER, U.S. ARMY ENGINEER DISTRICT, LOUISVILLE, CORPS OF ENGINEERS, FEDERAL OFFICE BUILDING, LOUVILLE, KY. FAILURE OF THE CONTRACTOR TO AVAIL HIMSELF OF THE INFORMATION REPRESENTED BY THE BORING LOGS, INCLUDING LABORATORY TEST RESULTS, SHALL NOT BE GROUNDS FOR A CLAIM THAT THE GOVERNMENT WITHELD INFORMATION ON SUBSURFACE CONDITIONS.
7. THE TERM "LOST WATER" AS SHOWN ON THE LOGS INDICATES A QUANTITY OF DRILLING WATER LOST IN THE DRILL HOLE.
8. DRIVE SAMPLES WERE TAKEN WITH A 1 3/8" I.D.-2" O.D. X 24"-18" SPLIT SPOON SAMPLER USING A 140# HAMMER WITH A 30" DROP, UNLESS OTHERWISE INDICATED ON GRAPHIC LOGS.
9. CORE HOLES WERE COMPLETED BY AN NXM OR NQ WIRE LINE SIZE CORE BARREL WITH DIAMOND BIT, UNLESS OTHERWISE INDICATED ON THE GRAPHIC LOG.
10. WATER CONTENT (WC) AS SHOWN ON GRAPHIC LOG REPRESENTS THE MOISTURE CONTENT OF MATERIAL ON DATE MADE.
11. "X-RAY DIFFRACTION ANALYSIS" PERFORMED ON SAMPLES DENOTED BY DOUBLE ASTERISK.
12. TOP OF GROUND SHOWN ON THE GRAPHIC LOGS IS THE ELEVATION AT THE TIME OF DRILLING. THE ELEVATION MAY HAVE CHANGED SINCE THAT TIME.
13. OPTIMUM MOISTURE WAS OBTAINED BY STANDARD PROCTOR OR CE 55 COMPACTION TESTS IN ACCORDANCE WITH EM 110-2-1906, APP. VI OR MIL. STD. 621A METHOD 100 RESPECTIVELY, AS NOTED ON BORING LOG.
14. THE LETTER DESIGNATION USED BEFORE BORING NUMBER INDICATES THE METHOD OF EXPLORATION FOR EXAMPLE: DC=DRIVE SAMPLER AND CORE BORING.

DC-10 *BORING NO. & DATE MADE
7-26-56

15. GENERAL NOTES 5 AND 6 MAY NOT BE APPLICABLE WHEN EXPLORATION AND TESTING IS PERFORMED BY OTHERS.

METHODS OF EXPLORATION

SPT = STANDARD PENETRATION TEST
VEL = SEISMIC
BA = BUCKET AUGER
S = SHELBY TUBE OR PISTON SAMPLER
HA = HAND AUGER
A = POWER AUGER
C = CORE BORING
D = DRIVE SAMPLER
F = FISHTAIL
U = UNDISTURBED DENSION
W = WASH BORING
T = TRENCH
TP = TEST PIT
R = ROCK BIT
P = PROBE ROD
HSA = HOLLOW STEM AUGER

SAMPLE TYPE

DS = DRIVE SAMPLE (SPT)
S = UNDISTURBED SHELBY TUBE
A = AUGER
F = FISHTAIL
U = UNDISTURBED DENISON
CU = UNDISTURBED CUBE
C = CORE

TERMS FOR THICKNESS OF BEDDING

PARTING	< 0.02
BAND	0.02'-0.2'
THIN BED	0.2'-0.5'
MEDIUM BED	0.5'-1.0'
THICK BED	1.0'-3.0'
MASSIVE	> 3.0'

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

SOIL CLASSIFICATION

Designed by: STANDARD
Drawn by: D. THOMAS
Checked by: R.L. MASTERSON
Reviewed by: D.L. TUPMAN
Approved by: Larry D. Martin

Scale: NONE
Date:
Drawing Code: F-740-14-05
Sheet reference number: F-1
Sheet 15 of 107

RECORD DRAWING "AS BUILT"

Z00E40,773FC06XF01D9N2
DATE = 27-APR-90, 16:02:56
USER = CHUCK N

BORING NO. AD-1

PROJECT FT CAMPBELL: CHILD DEV CENTER
DATE: START 4/19/88 COMPLETE 4/19/88
LOCATION: N 824,335 E 1,573,165
DRILLING AGENCY ORLED-G BK 897 PG 25
DRILLER: HOWARD INSPECTOR: BLACK
DRILL TYPE: MOBILE B-61
DRILL METHOD SPT 6.75" HSA
THICKNESS OF OVERBURDEN 16.5'
DEPTH CORED INTO ROCK
TOTAL DEPTH OF BORING 16.5'
DIR. OF BORING ✓ VERT. __ INCLINED __ DEG

INSTRUMENTATION INSTALLED N/A
SURFACE ELEVATION 545.0'
DATUM FOR SURFACE EL. CONTOUR

ELEV.	SOIL CLASSIFICATION	USCS CLASSIFICATION	BLOWS PER 6-INCH	MOISTURE CONTENT (%)	SAMPLE NUMBER	SAMPLE TYPE	GROUNDWATER-FLUID LOSS	PERCENT RECOVERY/RQD	LABORATORY RESULTS AND REMARKS	DEPTH SCALE
545.0	SURFACE COVER-									
544.2	Topsoil: Reddish brn silty CLAY w/roots, moist, SOFT	T								
	Red w/lt tr of gry fat CLAY w/tr of v small chert frags, wet, STIFF	CH	4 4 6	24	1	DS		1.5		5
			3 4 7	25	2			1.5		
			4 5 6	25	3			1.5		
533.0			4 5 8	26	4			1.5		10
	Red w/lt tr of gry fat CLAY w/tr of v small chert frags, wet, STIFF	CH	5 6 9	24	5			1.5		
528.5	Boring terminated		5 6 6	24	6			1.5		15

SYMBOLS: ▽-WATER LEVEL AT COMPLETION DRY ▼-WATER LEVEL __ HOURS AFTER COMPLETION >-PARTIAL LOSS OF DRILL FLUID >>-TOTAL LOSS OF DRILL FLUID

BORING NO. AD-2

PROJECT FT CAMPBELL: CHILD DEV CENTER
DATE: START 4/19/88 COMPLETE 4/19/88
LOCATION: N 825,130 E 1,573,000
DRILLING AGENCY ORLED-G BK 897 PG 23
DRILLER: HOWARD INSPECTOR: BLACK
DRILL TYPE: MOBILE B-61
DRILL METHOD SPT 6.75" HSA
THICKNESS OF OVERBURDEN 16.5'
DEPTH CORED INTO ROCK
TOTAL DEPTH OF BORING 16.5'
DIR. OF BORING ✓ VERT. __ INCLINED __ DEG

INSTRUMENTATION INSTALLED N/A
SURFACE ELEVATION 545.0'
DATUM FOR SURFACE EL. CONTOUR

ELEV.	SOIL CLASSIFICATION	USCS CLASSIFICATION	BLOWS PER 6-INCH	MOISTURE CONTENT (%)	SAMPLE NUMBER	SAMPLE TYPE	GROUNDWATER-FLUID LOSS	PERCENT RECOVERY/RQD	LABORATORY RESULTS AND REMARKS	DEPTH SCALE
545.0	SURFACE COVER-									
544.2	Topsoil: Reddish brn silty CLAY w/roots, moist, SOFT	T								
	Brownish red w/tr of gry sl silty CLAY w/tr off v small chert frags, damp-wet, STIFF	CL	3 5 7	22	1			1.2		
540.5										
	Red fat CLAY w/tr v small chert frags, wet, STIFF	CH	4 5 6	23	2	DS		1.5		5
			4 7 9	24	3			1.5		
			4 6 8	24	4			1.5		10
			3 6 8	29	5			1.5		
528.5	Boring terminated		5 7 8	27	6			1.5		15

SYMBOLS: ▽-WATER LEVEL AT COMPLETION DRY ▼-WATER LEVEL __ HOURS AFTER COMPLETION >-PARTIAL LOSS OF DRILL FLUID >>-TOTAL LOSS OF DRILL FLUID

BORING NO. AD-3

PROJECT FT CAMPBELL: CHILD DEV CENTER
DATE: START 4/19/88 COMPLETE 4/19/88
LOCATION: N 824,830 E 1,573,200
DRILLING AGENCY ORLED-G BK 897 PG 25
DRILLER: HOWARD INSPECTOR: BLACK
DRILL TYPE: MOBILE B-61
DRILL METHOD SPT 6.75" HSA
THICKNESS OF OVERBURDEN 16.5'
DEPTH CORED INTO ROCK
TOTAL DEPTH OF BORING 16.5'
DIR. OF BORING ✓ VERT. __ INCLINED __ DEG

INSTRUMENTATION INSTALLED N/A
SURFACE ELEVATION 548.0'
DATUM FOR SURFACE EL. CONTOUR

ELEV.	SOIL CLASSIFICATION	USCS CLASSIFICATION	BLOWS PER 6-INCH	MOISTURE CONTENT (%)	SAMPLE NUMBER	SAMPLE TYPE	GROUNDWATER-FLUID LOSS	PERCENT RECOVERY/RQD	LABORATORY RESULTS AND REMARKS	DEPTH SCALE
548.0	SURFACE COVER-									
547.2	Topsoil: Reddish brn silty CLAY w/roots, moist, SOFT	T								
	Red w/tr of gry fat CLAY w/tr of v small chert frags, damp-wet, MED STIFF-STIFF	CH	3 6 7	22	1	DS		1.5		
			5 7 10	25	2			1.5		5
			4 7 9	23	3			1.5		
			4 5 5	24	4			1.5		10
			4 5 8	23	5			1.5		
531.5	Boring terminated		5 6 8	24	6			1.5		15

SYMBOLS: ▽-WATER LEVEL AT COMPLETION DRY ▼-WATER LEVEL __ HOURS AFTER COMPLETION >-PARTIAL LOSS OF DRILL FLUID >>-TOTAL LOSS OF DRILL FLUID

BORING NO. AD-4

PROJECT FT CAMPBELL: CHILD DEV CENTER
DATE: START 4/19/88 COMPLETE 4/19/88
LOCATION: N 825,000 E 1,573,615
DRILLING AGENCY ORLED-G BK 897 PG 26
DRILLER: HOWARD INSPECTOR: BLACK
DRILL TYPE: MOBILE B-61
DRILL METHOD SPT 6.75" HSA
THICKNESS OF OVERBURDEN 16.5'
DEPTH CORED INTO ROCK
TOTAL DEPTH OF BORING 16.5'
DIR. OF BORING ✓ VERT. __ INCLINED __ DEG

INSTRUMENTATION INSTALLED N/A
SURFACE ELEVATION 546.0'
DATUM FOR SURFACE EL. CONTOUR

ELEV.	SOIL CLASSIFICATION	USCS CLASSIFICATION	BLOWS PER 6-INCH	MOISTURE CONTENT (%)	SAMPLE NUMBER	SAMPLE TYPE	GROUNDWATER-FLUID LOSS	PERCENT RECOVERY/RQD	LABORATORY RESULTS AND REMARKS	DEPTH SCALE
546.0	SURFACE COVER-									
545.2	Topsoil: Reddish brn silty CLAY w/roots, moist, SOFT	T								
	Reddish brn w/tr gry sl silty CLAY w/tr of v small chert frags, wet, STIFF	CL	4 4 8	24	1			1.5		
			3 4 5	24	2	DS		1.5		5
539.0										
	Brownish red sl silty CLAY w/v small chert frags wet, MED STIFF-STIFF	CL	4 4 4	24	3			1.5		
			3 4 5	22	4			1.5		10
534.5										
	Red w/tan fat CLAY w/v small chert frags, wet, STIFF	CH	5 5 8	22	5			1.5		
529.5	Boring terminated		5 6 8	23	6			1.5		15

SYMBOLS: ▽-WATER LEVEL AT COMPLETION DRY ▼-WATER LEVEL __ HOURS AFTER COMPLETION >-PARTIAL LOSS OF DRILL FLUID >>-TOTAL LOSS OF DRILL FLUID

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: DURRETT
Drawn by: DUGGINS
Checked by: E.E. Durrett
Reviewed by: D.E. Kiefer
Approved by: Larry A. Mattox

US Army Corps of Engineers
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

BORING LOGS

AD-1, AD-2, AD-3, AD-4

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference numbers: F-2
Sheet 16 of 107

RECORD DRAWING "AS BUILT"

ZGO:[40,77]FCC6XF02.DGN;1
DATE = 27-APR-90, 16:05:02
USER = CHUCKR

BORING NO. AD-5

PROJECT FT CAMPBELL: CHILD DEV CENTER
DATE: START 4/19/88 COMPLETE 4/19/88
LOCATION: N 825,760 E 1,572,900
DRILLING AGENCY ORLED-G BK 897 PG 26
DRILLER: HOWARD INSPECTOR: BLACK
DRILL TYPE: MOBILE B-61
DRILL METHOD SPT 6.75" HSA
THICKNESS OF OVERBURDEN 16.5'
DEPTH CORED INTO ROCK
TOTAL DEPTH OF BORING 16.5'
DIR. OF BORING X VERT. INCLINED DEG

INSTRUMENTATION INSTALLED N/A
SURFACE ELEVATION 546.0'
DATUM FOR SURFACE EL. CONTOUR

ELEV.	SOIL CLASSIFICATION	USCS CLASSIFICATION	BLOWS PER 6-INCH	MOISTURE CONTENT (%)	SAMPLE NUMBER	SAMPLE TYPE	GROUNDWATER-FLUID LOSS	PERCENT RECOVERY/RQD	LABORATORY RESULTS AND REMARKS	DEPTH SCALE
546.0	SURFACE COVER-									
545.2	Topsoil: Reddish brn silty CLAY w/roots, moist, MED STIFF	T								
	Red w/tr of gry fat CLAY w/tr of v small roots & chert frags, moist, MED STIFF-STIFF	CH	4 5 7	23	1	DS		1.5		5
			5 5 8	25	2			1.5		
539.0										
	Red w/occ gry fat CLAY w/occ small-med chert frags, wet, STIFF	CH	5 6 9	27	3			1.5		
536.5										
	Red w/tan fat CLAY w/small-medium chert frags, wet, V STIFF	CH	6 8 9	24	4			1.5		10
			6 9 10	21	5			1.5		
531.5										
	Brn w/gry sl silty CLAY w/occ tr red fat CLAY, cherty, damp, V STIFF	CL	6 10 12	19	6			1.5		15
529.5	Boring terminated									

SYMBOLS: ▽-WATER LEVEL AT COMPLETION DRY ▼-WATER LEVEL HOURS AFTER COMPLETION >-PARTIAL LOSS OF DRILL FLUID >>-TOTAL LOSS OF DRILL FLUID

BORING NO. AD-6

PROJECT FT CAMPBELL: CHILD DEV CENTER
DATE: START 4/19/88 COMPLETE 4/19/88
LOCATION: N 824,870 E 1,573,030
DRILLING AGENCY ORLED-G BK 897 PG 24
DRILLER: HOWARD INSPECTOR: BLACK
DRILL TYPE: MOBILE B-61
DRILL METHOD SPT 6.75" HSA
THICKNESS OF OVERBURDEN 16.5'
DEPTH CORED INTO ROCK
TOTAL DEPTH OF BORING 16.5'
DIR. OF BORING X VERT. INCLINED DEG

INSTRUMENTATION INSTALLED N/A
SURFACE ELEVATION 546.0'
DATUM FOR SURFACE EL. CONTOUR

ELEV.	SOIL CLASSIFICATION	USCS CLASSIFICATION	BLOWS PER 6-INCH	MOISTURE CONTENT (%)	SAMPLE NUMBER	SAMPLE TYPE	GROUNDWATER-FLUID LOSS	PERCENT RECOVERY/RQD	LABORATORY RESULTS AND REMARKS	DEPTH SCALE
546.0	SURFACE COVER-									
545.2	Topsoil: Reddish brn silty CLAY w/roots, moist, SOFT	T								
	Dk red fat CLAY w/tr of v small chert frags, damp-wet, STIFF-V STIFF	CH	3 3 6	22	1	DS		1.5		5
			4 5 6	25	2			1.5		
			4 6 7	24	3			1.5		
			4 5 7	24	4			1.5		10
			5 6 9	23	5			1.5		
			5 7 9	25	6			1.5		15
529.5	Boring terminated									

SYMBOLS: ▽-WATER LEVEL AT COMPLETION DRY ▼-WATER LEVEL HOURS AFTER COMPLETION >-PARTIAL LOSS OF DRILL FLUID >>-TOTAL LOSS OF DRILL FLUID

BORING NO. AD-7

PROJECT FT CAMPBELL: CHILD DEV CENTER
DATE: START 4/19/88 COMPLETE 4/19/88
LOCATION: N 824,985 E 1,572,925
DRILLING AGENCY ORLED-G, BK897, PG23
DRILLER: HOWARD INSPECTION: BLACK
DRILL TYPE: MOBILE B-61
DRILL METHOD 6.75" HSA, SPT
THICKNESS OF OVERBURDEN 16.5
DEPTH CORED INTO ROCK 0.0
TOTAL DEPTH OF BORING 16.5
DIR. OF BORING X VERT. INCLINED DEG

INSTRUMENTATION INSTALLED DNA
SURFACE ELEVATION 543.0
DATUM FOR SURFACE EL. CONTOUR

ELEV.	SOIL CLASSIFICATION	USCS CLASSIFICATION	BLOWS PER 6-INCH	MOISTURE CONTENT (%)	SAMPLE NUMBER	SAMPLE TYPE	GROUNDWATER-FLUID LOSS	PERCENT RECOVERY/RQD	LABORATORY RESULTS AND REMARKS	DEPTH SCALE
543.0	SURFACE COVER-									
542.2	Topsoil: Reddish brn silty CLAY w/roots, moist, MOD SOFT	T								
	Reddish brn sl silty CLAY w/small roots & tr v small chert frags, wet, STIFF	CL	3 4 5	26	1	DS		1.5		5
538.5										
	Brownish red sl silty CLAY w/tr v small chert frags, wet, V STIFF	CL	5 7 9	22	2			1.5		
			3 5 7	22	3			1.5		
533.5										
	Red fat CLAY w/tr v small chert frags, wet, STIFF	CH	4 7 9	24	4			1.5		10
			6 8 13	24	5			1.5		
			6 7 11	24	6			1.5		15
526.5	Boring terminated									

SYMBOLS: ▽-WATER LEVEL AT COMPLETION DRY ▼-WATER LEVEL HOURS AFTER COMPLETION >-PARTIAL LOSS OF DRILL FLUID >>-TOTAL LOSS OF DRILL FLUID

BORING NO. AD-8

PROJECT FT CAMPBELL: CHILD DEV CENTER
DATE: START 4/19/88 COMPLETE 4/19/88
LOCATION: N 824,730 E 1,573,015
DRILLING AGENCY ORLED-G BK 897 PG 24
DRILLER: HOWARD INSPECTOR: BLACK
DRILL TYPE: MOBILE B-61
DRILL METHOD SPT 6.75" HSA
THICKNESS OF OVERBURDEN 16.5'
DEPTH CORED INTO ROCK
TOTAL DEPTH OF BORING 16.5'
DIR. OF BORING X VERT. INCLINED DEG

INSTRUMENTATION INSTALLED N/A
SURFACE ELEVATION 547.0'
DATUM FOR SURFACE EL. CONTOUR

ELEV.	SOIL CLASSIFICATION	USCS CLASSIFICATION	BLOWS PER 6-INCH	MOISTURE CONTENT (%)	SAMPLE NUMBER	SAMPLE TYPE	GROUNDWATER-FLUID LOSS	PERCENT RECOVERY/RQD	LABORATORY RESULTS AND REMARKS	DEPTH SCALE
547.0	SURFACE COVER-									
546.2	Topsoil: Reddish brn silty CLAY w/roots, moist, SOFT	T								
	Red w/tr of gry fat CLAY w/tr of v small chert frags, wet, STIFF-V STIFF	CH	4 5 7	26	1	DS		1.5		5
			6 7 11	24	2			1.5		
			4 10 12	26	3			1.1		
537.0										
	Red w/tan & gry fat CLAY w/occ small-medium chert frags, wet, V STIFF-HARD	CH	5 7 12	27	4			1.5		10
			6 8 16	29	5			1.5		
532.5										
	Red w/tan & gry fat CLAY, v cherty, wet, HARD	CH	6 10 22	21	6			1.5		15
530.5	Boring terminated									

SYMBOLS: ▽-WATER LEVEL AT COMPLETION DRY ▼-WATER LEVEL HOURS AFTER COMPLETION >-PARTIAL LOSS OF DRILL FLUID >>-TOTAL LOSS OF DRILL FLUID

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: DURRETT
Drawn by: DUGGINS
Checked by: S.G. Durrett
Reviewed by: D.E. Kieper
Approved by: Larry A. Hoch

US Army Corps of Engineers
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 30

BORING LOGS

AD-5, AD-6, AD-7, AD-8

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: F-3
Sheet 17 of 107

RECORD DRAWING "AS BUILT"

ZGO:[40,77]FCC6XFC' DCN
DATE = 1-MAY-90, 14:21:49
USER = JIMJ

BORING NO. AD-9

PROJECT FT CAMPBELL: CHILD DEV CENTER
DATE: START 4/20/88 COMPLETE 4/20/88
LOCATION: N 824,985 E 1,572,780
DRILLING AGENCY DRILLED-G BK 837 PG 27
DRILLER: HOWARD INSPECTOR: BLACK
DRILL TYPE: MOBILE B-61
DRILL METHOD SPT 6.75" HSA
THICKNESS OF OVERBURDEN 54.2'
DEPTH CORED INTO ROCK
TOTAL DEPTH OF BORING 54.2'
DIR. OF BORING ✓ VERT. ___ INCLINED ___ DEG

INSTRUMENTATION INSTALLED N/A
SURFACE ELEVATION 545.0'
DATUM FOR SURFACE EL. CONTOUR

ELEV.	SOIL CLASSIFICATION	USCS CLASSIFICATION	BLOWS PER 6 INCH	MOISTURE CONTENT (%)	SAMPLE NUMBER	SAMPLE TYPE	GROUNDWATER-FLUID LOSS	PERCENT RECOVERY/RQD	LABORATORY RESULTS AND REMARKS	DEPTH SCALE
545.0	SURFACE COVER-									
	Topsoil: Reddish brn silty	T								
544.2	CLAY w/roots, moist, MED SOFT									
	Reddish brn sl silty CLAY w/occ small roots & tr v small chert frags, wet, STIFF	CL	4 6 8	24	1			1.5		
540.5										5
	Dk red fat CLAY w/tr v small chert frags, wet, STIFF	CH	4 5 7	26	2			1.5		
			4 6 9	29	3			1.5		
535.5										
	Red w/tan & gry fat CLAY w/occ small-medium chert frags, wet, V STIFF-HARD	CH	6 10 12	26	4			1.5		10
			8 20 26	27	5			1.5		
			11 13 23	26	6			1.5		15
525.0						SS				
	Red w/tan & gry mottling fat CLAY, wet, V STIFF	CH	8 9 10	27	7			1.5		20
522.0										
	Red gry & tan fat CLAY, wet, V STIFF	CH	6 6 10	20	8			1.5		25
517.0										
	Red w/gry sl silty CLAY w/num small-medium chert frags, moist, V STIFF	CL	6 11 14	25	9			0.8		30
										35
509.0										
										40

BORING NO. AD-9
CONTINUED

ELEV.	SOIL CLASSIFICATION	USCS CLASSIFICATION	BLOWS PER 6 INCH	MOISTURE CONTENT (%)	SAMPLE NUMBER	SAMPLE TYPE	GROUNDWATER-FLUID LOSS	PERCENT RECOVERY/RQD	LABORATORY RESULTS AND REMARKS	DEPTH SCALE
	Dk red w/occ tan & gry fat CLAY w/occ small chert frags, wet, V STIFF	CH	8 12 14	33	10			1.2		
499.0										45
	Dk red fat CLAY w/occ chert frags, wet, V STIFF	CH	13 9 11	29	11			1.5		50
	Top of Rock-Limestone									
490.8	Boring terminated-Auger refusal									

SYMBOLS: ▽-WATER LEVEL AT COMPLETION DRY
▼-WATER LEVEL HOURS AFTER COMPLETION
>-PARTIAL LOSS OF DRILL FLUID
>>-TOTAL LOSS OF DRILL FLUID

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: DURRETT
Drawn by: DUGGINS
Checked by: S. L. Durrett
Reviewed by: D.E. Kiefer
Approved by: Terry A. Mack

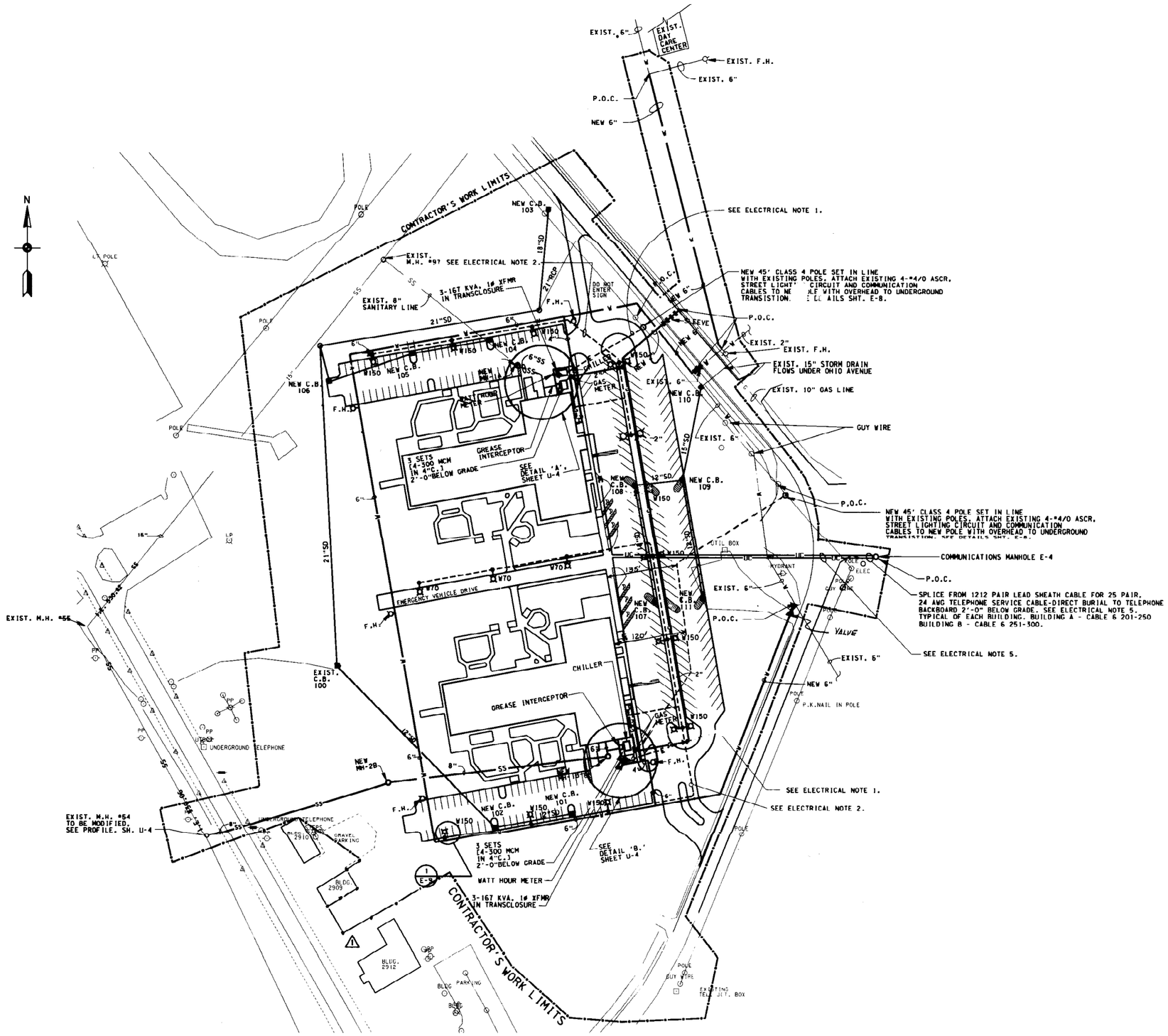
US Army Corps of Engineers
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

BORING LOG
AD-9

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: F-4
Sheet 18 of 107

RECORD DRAWING "AS BUILT"

PGO:[40,77]FCC6XF04.DGN;1
DATE = 27-APR-90, 16:07:53
USER = CHUCKR



ELECTRICAL NOTES:

1. ELECTRICAL SERVICE SHALL BE INSTALLED IN CONCRETE ENCASED DUCT BANK WITH 3 - #2, 15 KV IN 4" CONDUIT AND 1 - 4" CONDUIT SPARE. SERVICE ENTRANCE FROM TRANSFORMER SHALL BE INSTALLED IN RIGID STEEL CONDUIT.
2. PARKING LOT LIGHTING CIRCUIT SHALL BE INSTALLED IN PVC CONDUIT, RIGID STEEL UNDER PAVEMENT.
3. PARKING LOT LIGHTING FIXTURES SHALL BE MOUNTED ON 30' ALUMINUM POLE INSTALLED ON REINFORCED CONCRETE BASE SEE DETAIL SHEET E-9.
4. PARKING LOT LIGHTING SHALL BE CONTROLLED BY PHOTOCELL.
5. COMMUNICATIONS CABLE SHALL BE DIRECT BURIED FROM MANHOLE E-4 TO 5'-0" BEYOND BUILDING PERIMETER WITH THE EXCEPTION OF 4" RIGID STEEL CONDUIT UNDER PAVEMENT AND FROM 5'-0" OUTSIDE BUILDING PERIMETER TO TELEPHONE BACKBOARD.
6. ALL ELECTRICAL LINES MUST HAVE A MIN. COVER OF 24".
7. COMMUNICATION LINES MUST HAVE A MIN. COVER OF 18".
8. FOR ELECTRICAL UTILITY DETAILS. SEE SHEETS E-8.

NOTES:

1. APPROXIMATE LOCATIONS OF ALL KNOWN UNDERGROUND UTILITIES ARE SHOWN ON UTILITY PLANS.
2. PRIOR TO BEGINNING CONSTRUCTION OF UTILITY WORK CONTRACTOR SHALL, ALONG WITH BASE UTILITY REPRESENTATIVE, FIELD MARK ACTUAL LOCATIONS OF ALL UNDERGROUND UTILITIES WITHIN PROJECT AREA.
3. CARE SHALL BE EXERCISED TO AVOID DAMAGE TO UTILITIES. REPAIR AND/OR RELOCATION OF UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. ALL UTILITY RELOCATIONS SHALL BE COORDINATED WITH BASE UTILITY REPRESENTATIVE AND SHALL BE DONE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.
5. UNLESS NOTED OTHERWISE, ALL SURFACE FEATURES (INCLUDING TREES & VEGETATION) DISTURBED DURING CONSTRUCTION SHALL BE EITHER SALVAGED AND REUSED OR REPLACED IN KIND AT ORIGINAL LOCATIONS.
6. NATURAL GAS LINES MUST HAVE A MIN. COVER OF 24".
7. ALL WATER AND FIRE LINES MUST HAVE A MIN. COVER OF 30".
8. FOR UTILITY SEISMIC DETAILS, SEE SHEET M-12.
9. EXISTING FIRE HYDRANT HAS A STATIC PRESSURE OF 55 PSIG. RESIDUAL PRESSURE OF 34 PSIG. AND A DISCHARGE FLOW OF 1310 GPM.
10. APPROXIMATE PRESSURE OF GAS MAIN IS 28 PSIG.

GRAPHIC SCALE

60 30 0 60 120FT

SCALE: 1"= 60'

Revisions			
Symbol	Descriptions	Date	Approved
1	CONTRACTOR'S W/L REVISED(AMDT.NO.0001)	11JUN90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: J.F.A., F.E.D./M.A.J.
Drawn by: W.L.M., T.H.,T.V.A.H.,E.H.
Checked by: C. JONES, R.L. PEPPER, J.E. FLEMING
Reviewed by: L.J. COX, J.L. GREULICH
Approved by: LARRY D. MARTIN

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380
FY 90

UTILITY SITE PLAN

Scale: 1' = 60'
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: U-1
Sheet 19 of 107

RECORD DRAWING "AS BUILT"

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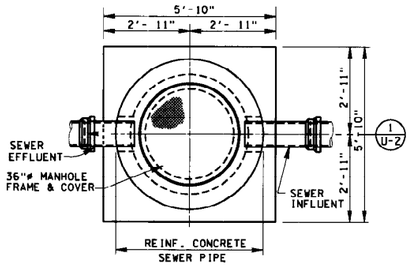
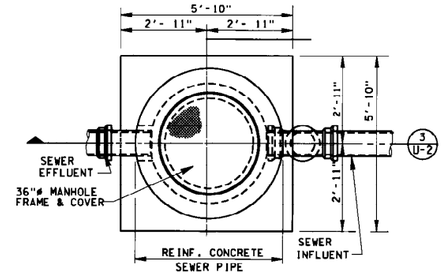


PLAN
SCALE: ½" = 1'-0"



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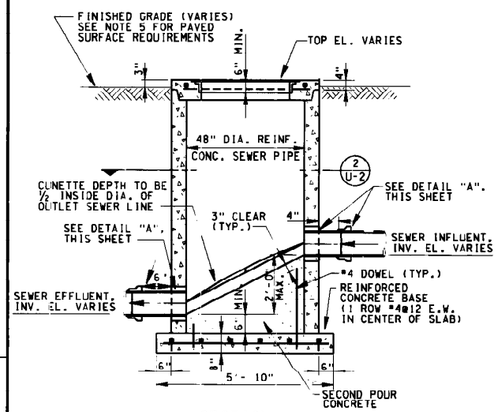
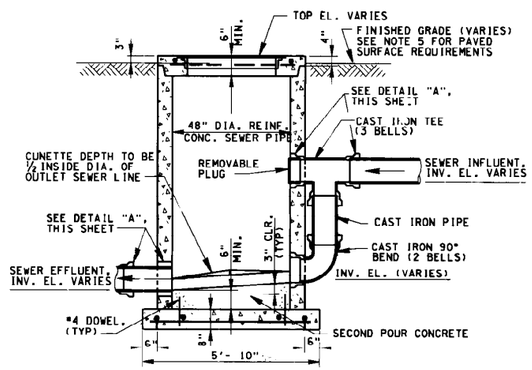
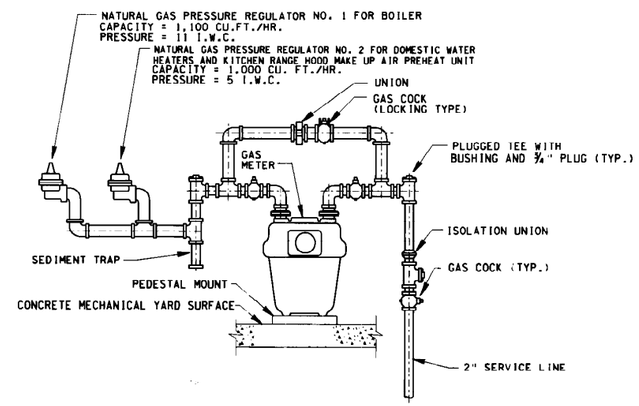


SECTION
SCALE: ½"=1'-0" 1 U-2

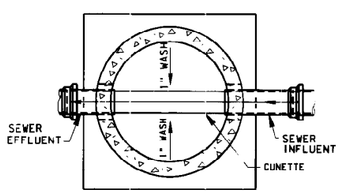


SECTION 3 U-2

STANDARD DROP MANHOLE DETAIL
SCALE: ½"=1'-0"

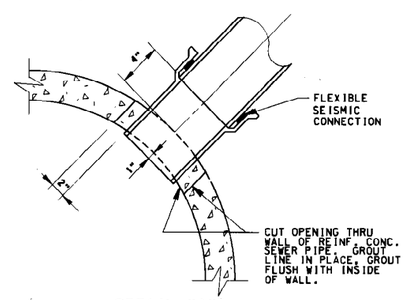


GAS METER AND REGULATOR DETAIL
NO SCALE



SECTION 2 U-2
SCALE: ½"=1'-0"

STANDARD MANHOLE DETAIL
SCALE: ½"=1'-0"



DETAIL "A"
SCALE: 1½"=1'-0"
INFLUENT SHOWN (EFFLUENT SIMILAR)

GRAPHIC SCALES

SCALE: 1/2"=1'-0"

SCALE: 1/2"=1'-0"

NOTES (STANDARD AND DROP MANHOLES):

1. FOR PIPE TYPE, SIZE, INVERT ELEVATIONS AND OTHER PERTAINING ELEVATIONS, SEE APPLICABLE PROFILE.
2. FOR PIPE ANGULAR ALIGNMENT, SEE APPLICABLE PLAN.
3. CAST IRON TEE FOR DROP MANHOLE SHALL BE ONE PIPE SIZE LARGER THAN INCOMING SEWER IN ORDER THAT SEWER PIPE WILL FIT INTO CAST IRON HUB.
4. A POURED IN-PLACE MANHOLE MAY BE USED IN LIEU OF A PRECAST CONCRETE PIPE IF STEEL REINFORCEMENT DESIGN IS FURNISHED FOR APPROVAL.
5. MANHOLES LOCATED IN PAVED AREAS SHALL HAVE ROADWAY WEIGHT TYPE COVERS WITH 30" MINIMUM ACCESS CLEARANCE, CAPABLE OF SUPPORTING 16,000 LBS. WHEEL LOAD AND SHALL BE MOUNTED ON A CLASS "A" PRECAST CONCRETE OR BRICK RING. PAVED SURFACE SURROUNDING MANHOLE COVER TO BE FLUSH AT COVER AND SLOPE AWAY FROM COVER 1" IN 2 FT.

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: F.E. DIXON
Drawn by: W.L. MERCER
Checked by: J.E. Fleming
Reviewed by: Larry H. Cox
Approved by: Tanya A. Martin

US Army Corps of Engineers
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 305 CHILDREN
PN 380 FY 90

UTILITY DETAILS

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: U-2
Sheet 20 of 107

RECORD DRAWING "AS BUILT"

DGN:E40,77JFCC6XU02.DGN;1
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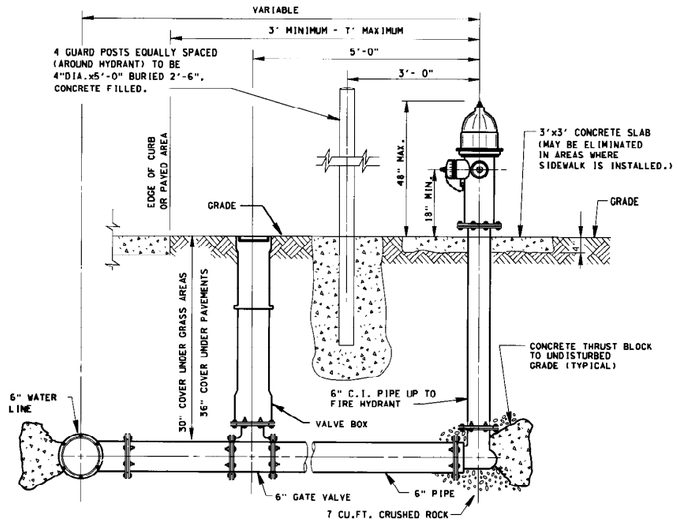
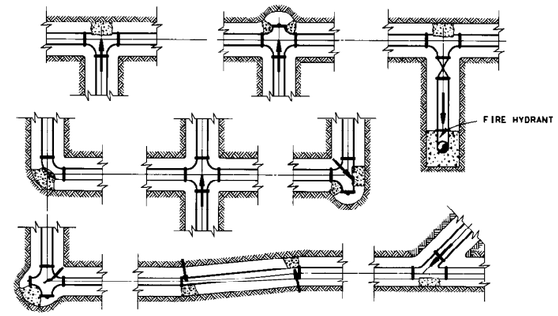
USER = VANDAM



DETAIL-FIRE HYDRANT CONNECTION

SCALE: NONE

NOTE:
SEE SPECIFICATIONS FOR ADDITIONAL SEISMIC DETAILS.

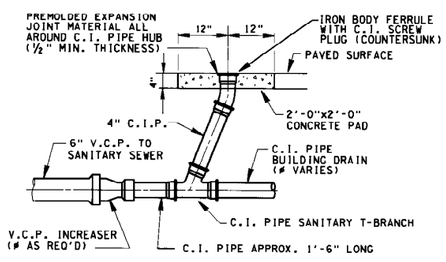


DETAIL - THRUST BLOCK LOCATIONS

SCALE: NONE

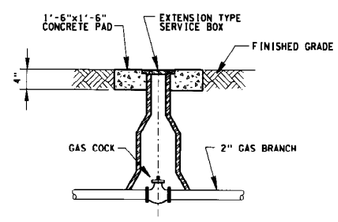
AREA OF BEARING OF CONC. BLOCKS				
PIPE SIZE (IN.)	SQUARE FEET			
	1/4 BEND	1/8 BEND	1/16 BEND	T'S/PLUGS/CAPS
6	6	3	2	4
8	10	5	3	7
10	15	8	4	11
12	21	11	6	15
14	28	15	8	20
16	36	19	10	25
18	45	24	13	32
20	53	29	15	38
24	75	41	21	53

NOTE:
THRUST BLOCKS SHALL BE INSTALLED ON WATER DISTRIBUTION LINES OF 6" DIAMETER AND LARGER IN THE MANNER SHOWN.



CLEANOUT ON PAVED SURFACE DETAIL (TYPICAL)

SCALE: 3/4" = 1'= 0"



GAS SERVICE ISOLATION VALVE DETAIL

NO SCALE

GRAPHIC SCALE

SCALE: 1/2"=1'-0"

SCALE: 3/4"= 1'-0"

Revisions			
Symbol	Descriptions	Date	Approved

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: F.E. DIXON
Drawn by: W.L. MERCER
Checked by: JE Flemming
Reviewed by:
Approved by:

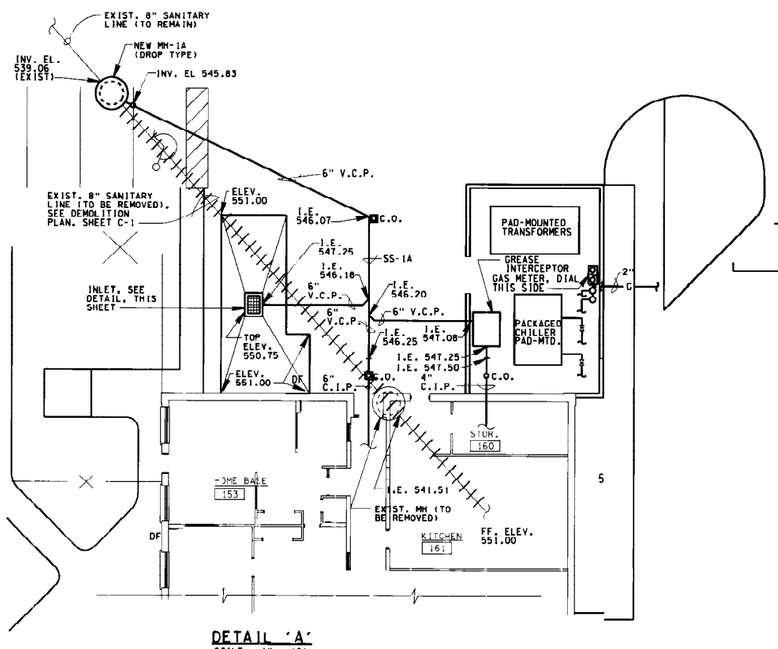
US Army Corps of Engineers

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

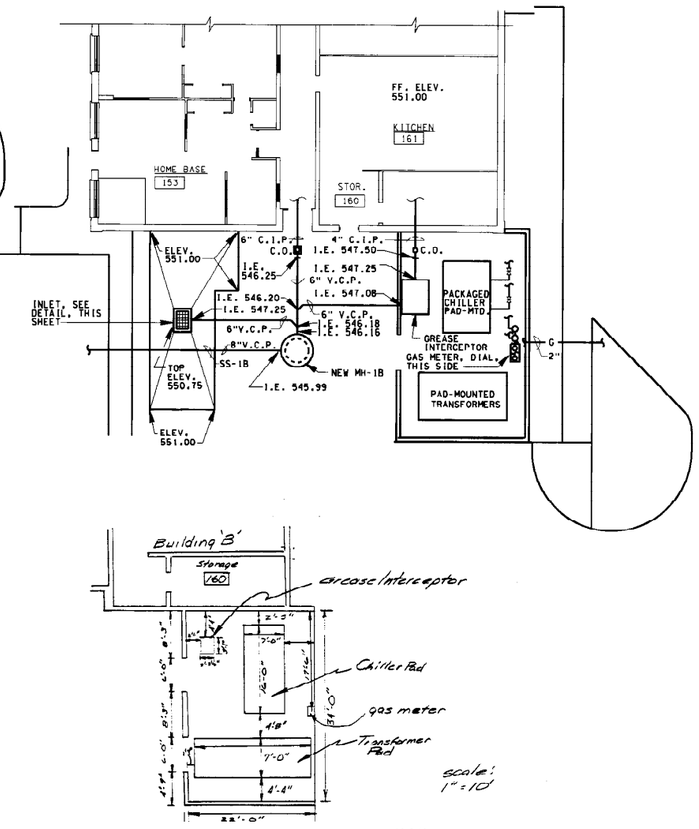
UTILITY DETAILS

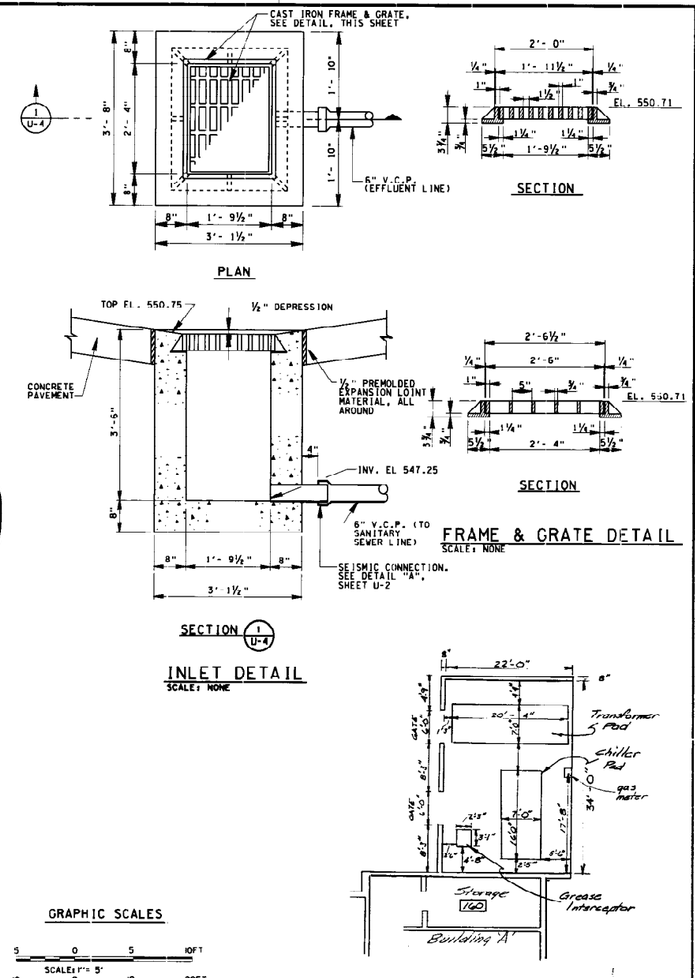
Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: U-3
Sheet 21 of 107

RECORD DRAWING "AS BUILT"



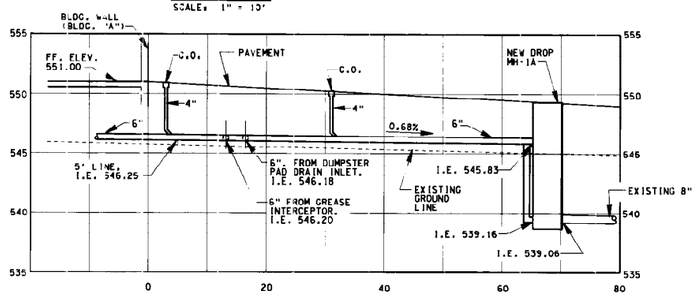
DETAIL 'A'
SCALE: 1" = 10'





MECHANICAL YARD LAYOUT "B"

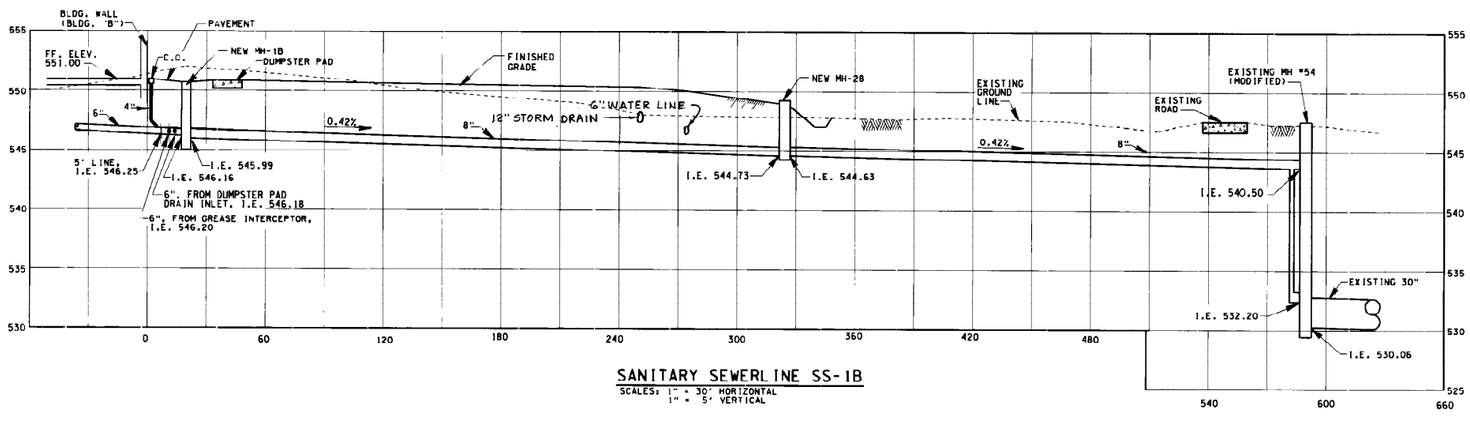
MECHANICAL YARD LAYOUT "A"
(BUILDING "A" AS SHOWN)
SCALE: 1" = 10'



SANITARY SEWERLINE SS-1A
SCALES: 1" = 10' HORIZONTAL
1" = 5' VERTICAL

GRAPHIC SCALES

SCALE: 1" = 5'
SCALE: 1" = 10'
SCALE: 1" = 30'



SANITARY SEWERLINE SS-1B
SCALES: 1" = 30' HORIZONTAL
1" = 5' VERTICAL

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 30 CHILDREN
PN 360 FY 90

Designed by: F.E. DIXON
Drawn by: T. HIBBS
Checked by: J.E. Fleming
Reviewed by: R.J. Cox
Approved by: [signature]

UTILITY DETAILS & SANITARY PROFILES

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet Reference number: U-4
Sheet 22 of 107

RECORD DRAWING "AS BUILT"

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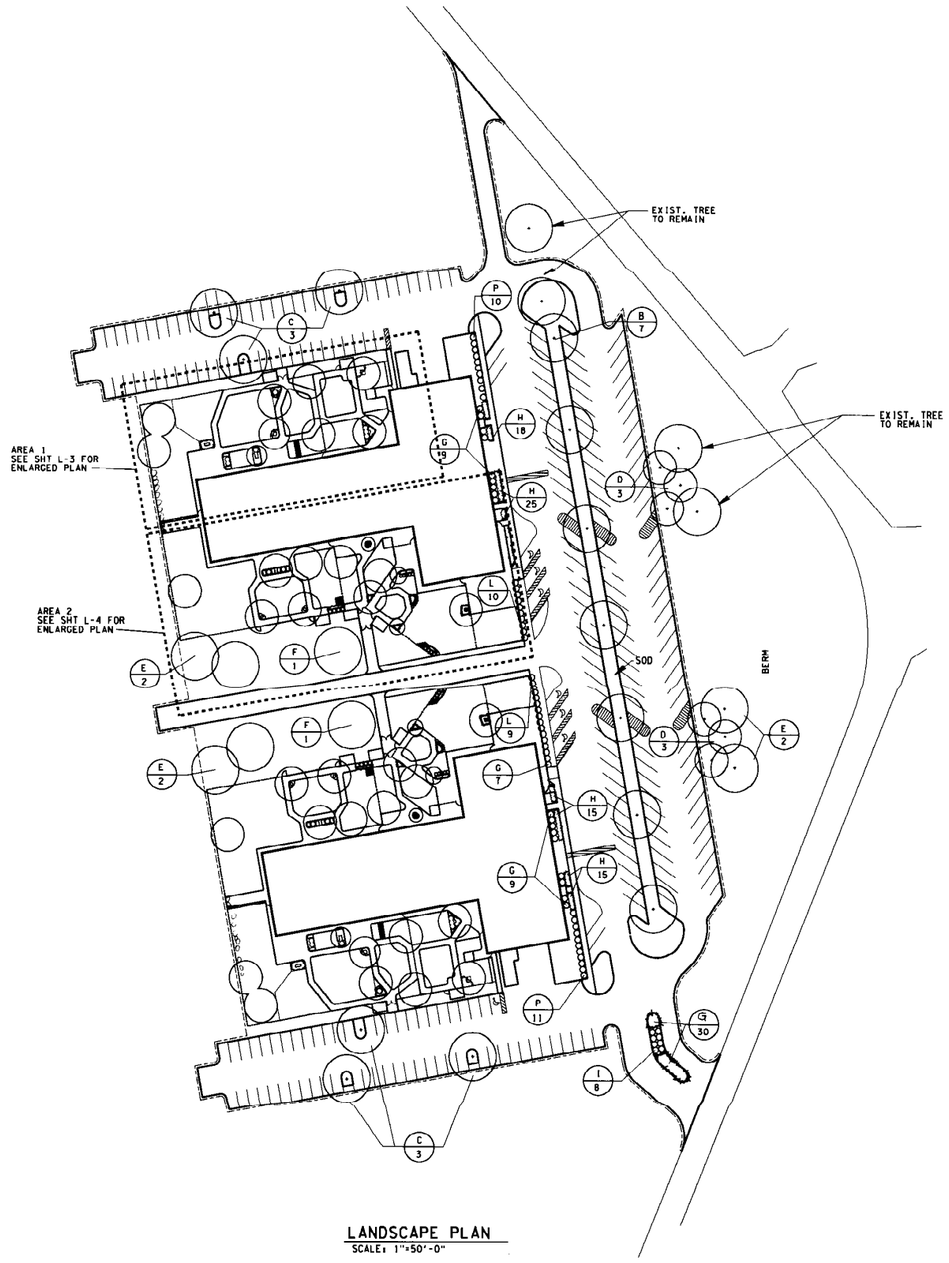
USER = WANDM



LANDSCAPE PLAN
SCALE: 1"=50'-0"

PLANTING SCHEDULE △1

KEY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	QTY.
		TREES			
A	PYRIUS CALLERYANA ARISTROCRAT	BRADFORD PEAR	1½ - 2 GAL.	B & B	12
B	GLEDNSIA TRIACANTHOS YNERMIS SHADEMASTER	SHADEMASTER HONEYLOCUST	1½ - 2 GAL.	B & B	15
C	LIRIODENDRON TULIPIFERA	YELLOW POPLAR	2½ - 3 GAL.	B & B	18
D	MAGNOLIA GRANDIFLORA	EVERGREEN MAGNOLIA	1½ - 2 GAL.	B & B	6
E	TSUGA CANADENSIS	CANADIAN HEMLOCK	2½ - 3 GAL.	B & B	6
F	TILIA CORDATA	LITTLE LEAF LINDEN	2½ - 3 GAL.	B & B	8
		SHRUBS			
G	AUCUBA JAPONICA	JAPENESE AUCUBA	3'-4'	CONTAINER	36
H	ABELIA GANIFLORA	ABELIA	3'-4'	CONTAINER	151
I	FORSYTHIA	FORSYTHIA ARNOLD DWARF	3'-4'	CONTAINER	22
J	CHAMAECYPARIS ABTUSIA (NANA GRACILIS)	DWARF HINOKI FALSE CYPRESS	3'-4'	CONTAINER	132
K	NOT USED				
L	LONICERA FRAGRANTISSIMA	WINTER HONEYSUCKLE	3' 4'	CONTAINER	31
M	NOT USED				
N	MAGNOLIA STARLATA	STAR MAGNOLIA	4'-5'	B & B	8
O	NOT USED				
P	PHOTINIAX FRASERI	FRASERI PHOTINIA	4'-5'	CONTAINER	41
Q	VIBURNUM CARLESII	KOREAN SPICE VIBURUM	3'-4'	CONTAINER	12
		GROUNDCOVER			
R	AJUGA REPTANS	CARPET BULGE	3" HT.	POT/FLAT	90
S	PACHYSANDRA TERMINALIS	JAPANESE SPURGE	3" HT.	POT/FLAT	144

LEGEND

(C / 3) PLANT KEY / QUANITY

---- SOD LIMITS, 3' AROUND ALL PAVED AREAS INCLUDING ALL OF THE PLAYGROUND AREAS

GENERAL NOTE:
1. LANDSCAPING FOR PLAYGROUND AREAS IS SHOWN ON SHT. L-3.

GRAPHIC SCALE
50 25 0 50 100FT
SCALE: 1"= 50'

Revisions

Symbol	Descriptions	Date	Approved
△1	(AMDT. #0003) QTY. CHANGES	31 AUG 90	JGP/LMC JMK

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380
FY 90

LANDSCAPE PLAN & SCHEDULE

Designed by: RINGENBERG
Drawn by: WARREN
Checked by: DOUG POHL
Reviewed by: GARRY MINTER
Approved by: LARRY D. MARTIN

Scale: 1"=50'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: L-1

Sheet 23 of 107

RECORD DRAWING "AS BUILT"

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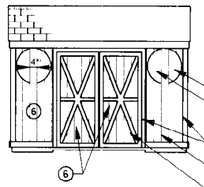
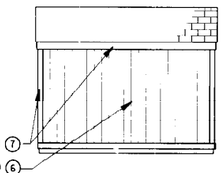
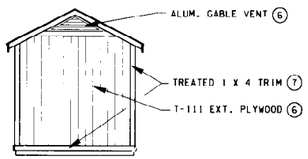


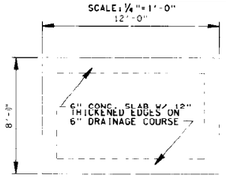
STORAGE BUILDING
FRONT ELEVATION
SCALE: ¼"=1'-0"



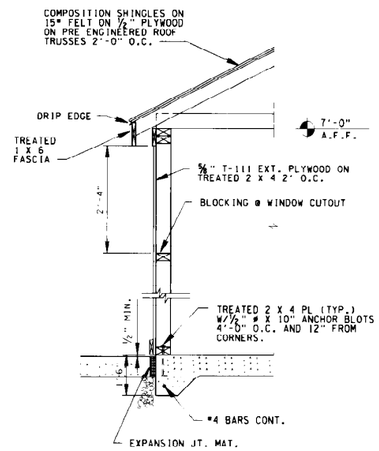
STORAGE BUILDING
REAR ELEVATION
SCALE: ¼"=1'-0"



STORAGE BUILDING
TYP.END ELEVATION
SCALE: ¼"=1'-0"

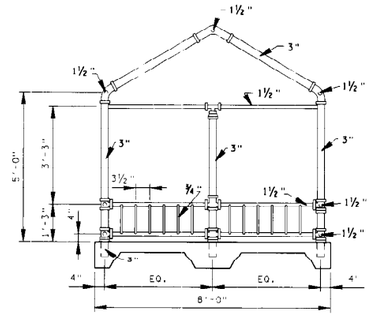


PLAN
SCALE: ¼"=1'-0"



WALL SECTION
SCALE: ¾"=1'-0"

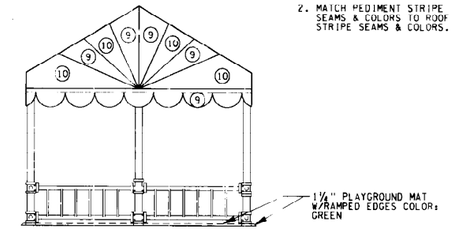
STORAGE BUILDING PLANS & DETAILS
SEE SHEETS L-3 & L-4 FOR LOCATIONS



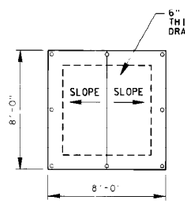
CRAWL CANOPY ELEVATION
SCALE: ½"=1'-0"

NOTES:
1. ALL FRAMING MEMBERS SHALL BE SCHEDULE 40 PVC GREY PIPE WITH WRITING REMOVED FROM EACH MEMBER.
2. ALL FRAMING MEMBERS SHALL BE SOLVENT WELDED INTO PLACE.
3. FABRICATION SHALL COMPLY WITH REQUIREMENTS OF NATIONAL PLUMBING CODE.
4. CONCRETE SHALL BE COVERED WITH PLAYGROUND MAT.

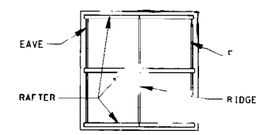
CANOPY NOTES:
1. FABRICATE PEDIMENT ENDS WITH WIND-RELIEF FLAPS & VELCRO TAB CLOSINGS.
2. MATCH PEDIMENT STRIPE SEAMS & COLORS TO ROOF STRIPE SEAMS & COLORS.



CRAWL CANOPY ELEVATION
SCALE: ½"=1'-0"



FOUNDATION PLAN
SCALE: ¼"=1'-0"

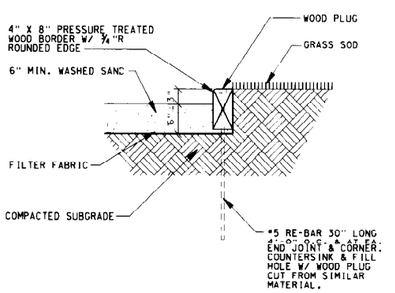


PVC FRAMING PLAN
SCALE: ¼"=1'-0"

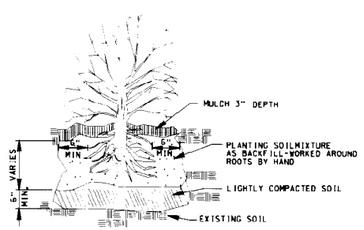
CRAWL CANOPY PLANS & DETAILS
SEE SHEET L-4 FOR LOCATION

(9) INDICATES PAINT COLORS, SEE EXTERIOR COLOR SCHEDULE SHT A-4.

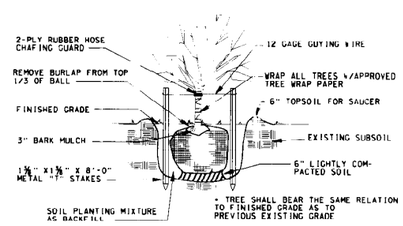
GRAPHIC SCALES



TYPICAL SECTION THRU
LANDSCAPING TIMBER
NOT TO SCALE
(1 / L-2)



CONTAINER PLANTING DETAIL
NOT TO SCALE



TREE PLANTING DETAIL
NOT TO SCALE

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: RINGENBERG
Drawn by: WARREN
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTER - 503 CHILDREN
PN 380 FY 90

PLAYGROUND BUILDINGS & DETAILS

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: L-2
Sheet 24 of

RECORD DRAWING "AS BUILT"

ZCD:[40,17,CC6XLC2.DGN]
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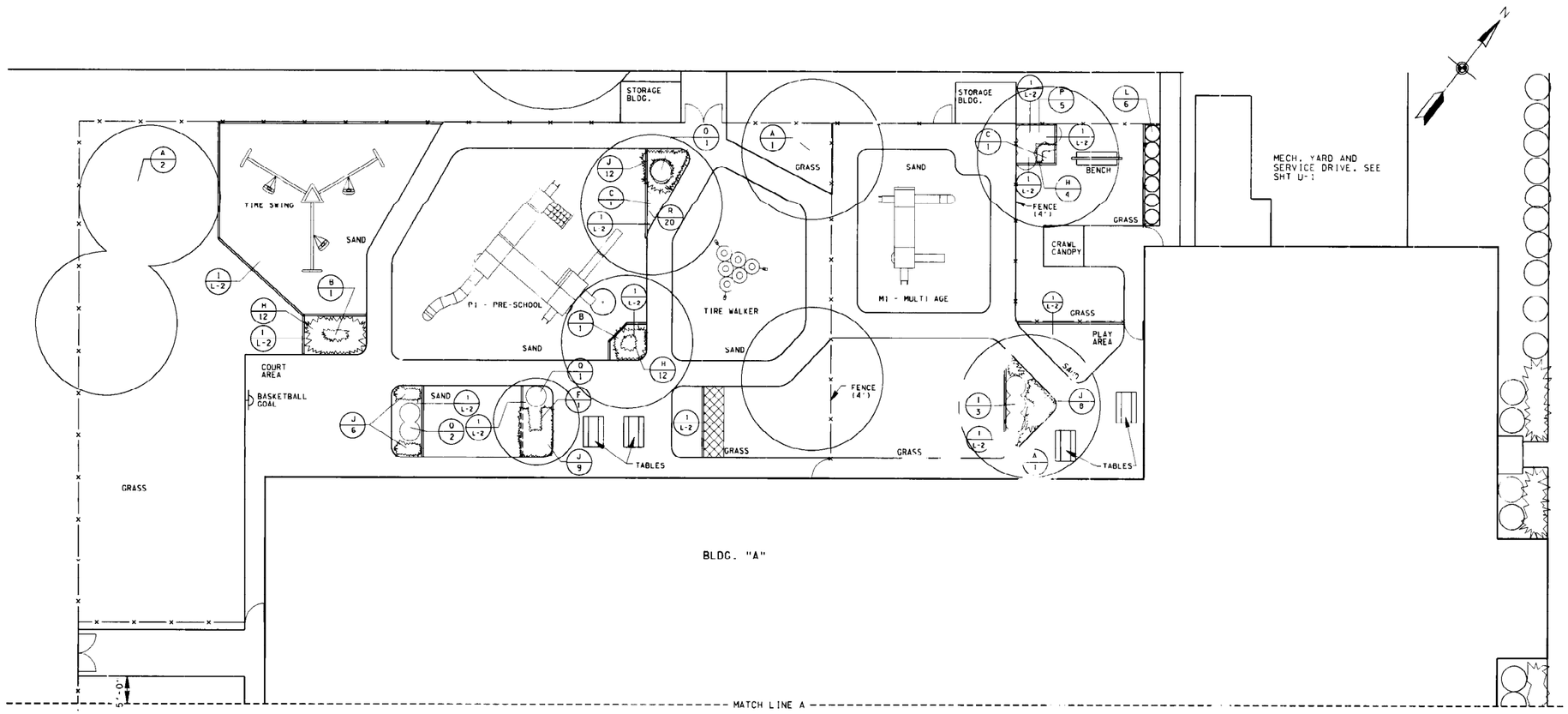
USER = JIM

W912QR-61034642-0000



AREA 1 PLAYGROUND / LANDSCAPE OF BLDG. "A"

SCALE: 1"=10'-0"

GRAPHIC SCALE

LEGEND

GROUNDCOVER

PERENNIAL/ANNUAL PLANTING BED (PLANTS PROVIDED & INSTALLED BY USER)

INDICATES LANDSCAPE TIMBERS, SEE DTL 1 SHT L-2.

NOTES:

1. SOD ALL GRASS AREAS.
2. MODULAR UNIT DETAILS SHOWN ON SHT. L-5.

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

Designed by: D. POHL

Drawn by: C. WARREN

Checked by: Henry Batteker

Reviewed by: Gary Minton

Approved by: Larry L. Ma-L

AREA 1 PLAYGROUND / LANDSCAPE PLAN BUILDING A

Scale: 1"=10'-0"

Date: MAY 1990

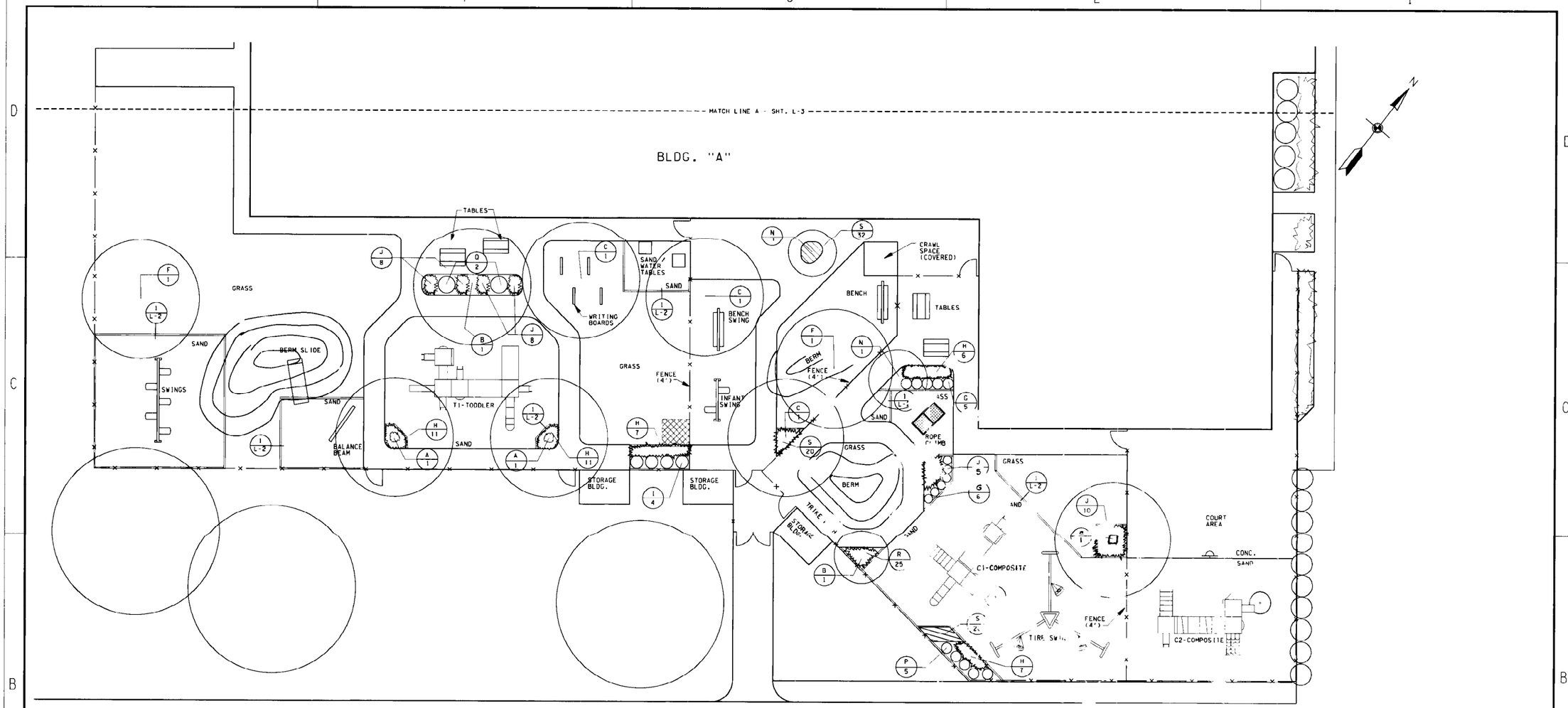
Drawing Code: F-740-14-05

Sheet reference number: L-3

Sheet 25 of 10

RECORD DRAWING "AS BUILT"

W912QR-61034642-0000



GRAPHIC SCALE

AREA 1 PLAYGROUND / LANDSCAPE OF BLDG. "A"

SCALE: 1"=10'-0"

LEGEND

GROUNDCOVER

PERENNIAL/ANNUAL PLANTING BED (PLANTS PROVIDED & INSTALLED BY USER)

INDICATES LANDSCAPE TIMBERS, SEE DTL 1 SHT L-2.

NOTES:

1. SOD ALL GRASS AREAS.
2. MODULAR UNIT DETAILS SHOWN ON SHT. L-5.

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: D. POHL

Drawn by: C. WARREN

Checked by:

Reviewed by:

Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

AREA 2 PLAYGROUND / LANDSCAPE PLAN BUILDING "A"

Scale: 1" 10'-0"

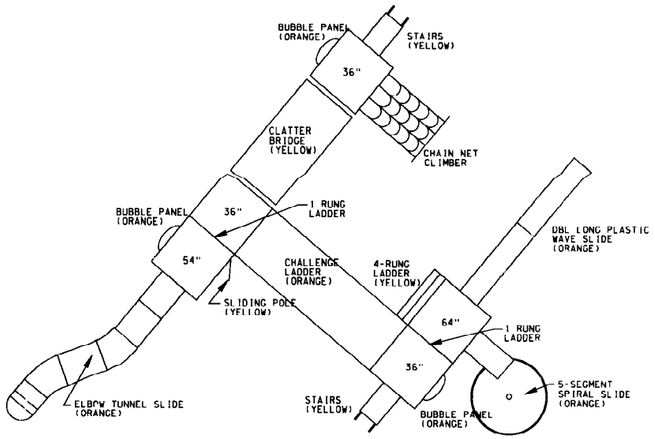
Date: MAY 1990

Drawing Code: F-740-14-05

Sheet reference number: L-4

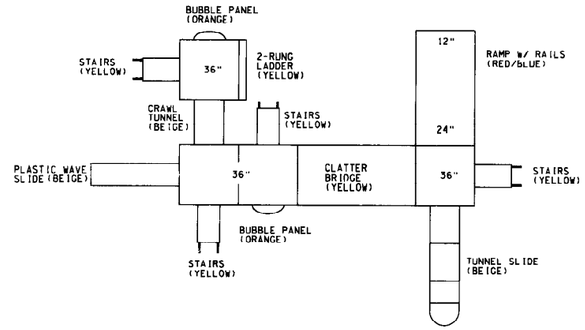
Sheet 26 of 1[illegible]7

RECORD DRAWING "AS BUILT"



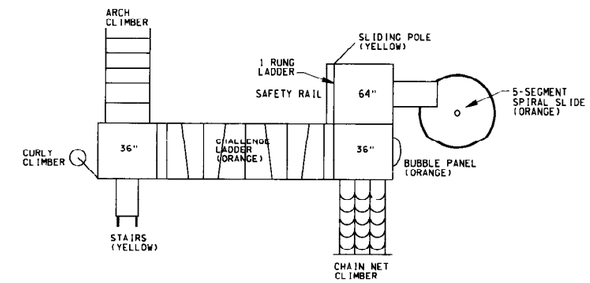
P1 - PRE-SCHOOL (3-5 YRS.)

YELLOW - RAILING/PIPE
BEIGE - POST



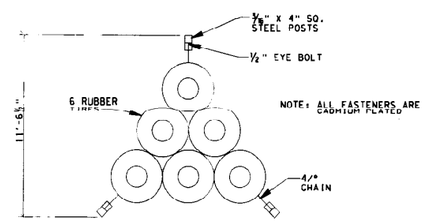
T1 - TODDLER (18 MO.-3 YR.)

RED - RAILING/PIPE
BLUE - POST



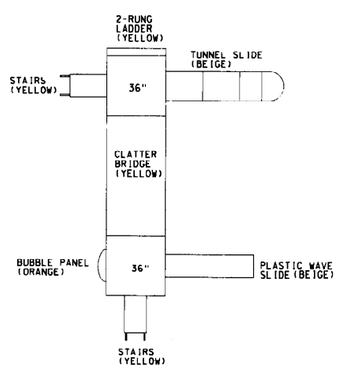
C2 - COMPOSITE (6-12YRS.)

GREEN - RAILING/PIPE
BEIGE - POST



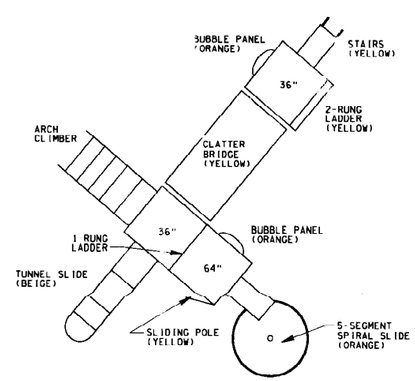
TIRES ARE FASTENED W/1/2" BOLTS & 3/8" STEEL PLATES.

TIRE WALKER



M1 - MULTI-AGE (18 MO.-3 YR.)

GREEN - RAILING/PIPE
BEIGE - POST



C1 - COMPOSITE (3-5 YRS.)

RED - RAILING/PIPE
BLUE - POST

GRAPHIC SCALE

4 3 2 1 4

SCALE: 1/4"=1'-0"

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: RINGENBERG
Drawn by: WARREN
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 203 CHILDREN
PN 380
FY 90

PLAYGROUND EQUIPMENT

Scale: 1/4"=1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: L-5
Sheet 27 of 107

RECORD DRAWING "AS BUILT"

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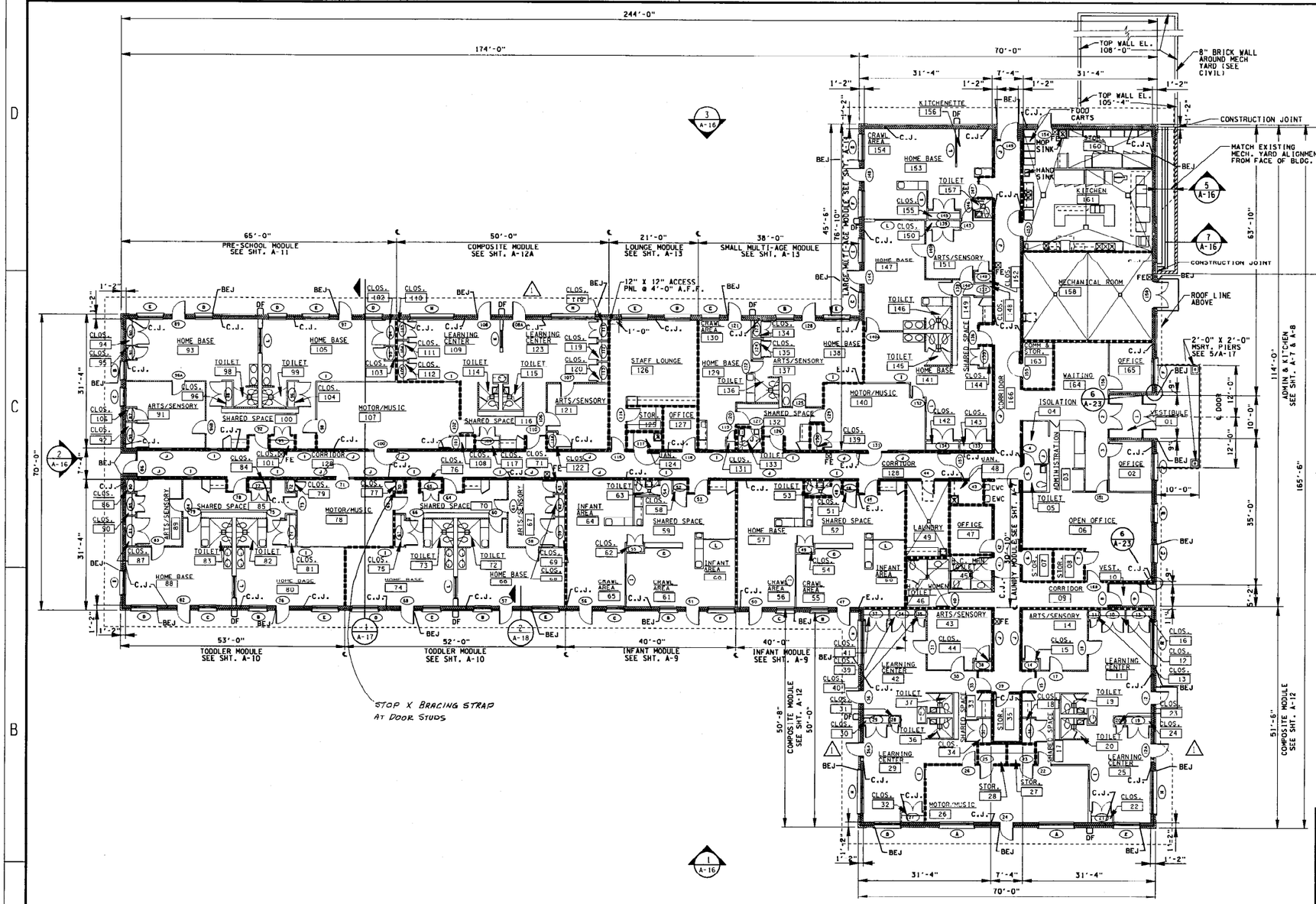
USER = JIMU



FLOOR PLAN-BLDG. A

SCALE: 1/32" = 1'-0"

FINISH FLOOR EL. 100'-0" = 551.0' ABOVE MEAN SEA LEVEL.

REFERENCE NORTH FOR ROOM FINISH REFERENCES ONLY

LEGEND

FE	FIRE EXTINGUISHER CABINET
E.J.	EXPANSION JOINT
C.J.	CONTROL JOINT
BEJ	BRICK EXPANSION JOINT (SEE ELEVATIONS SHT. A-16)
FD	FLOOR DRAIN (COORDINATE LOCATIONS WITH ALL EFFECTED TRADES.)
EWC	ELECTRIC WATER COOLER
DF	DRINKING FOUNTAIN
	1 HR. RATED PARTITIONS

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF STUD OR CMU UNLESS NOTED OTHERWISE.
2. ALL INTERIOR PARTITIONS ARE 4" (ACTUAL DIMENSION) METAL STUDS UNLESS NOTED OTHERWISE.
3. VENEER PLASTER CONTROL JOINTS SHALL BE CO-LOCATED WITH CMU CONTROL JOINTS.
4. 4'-0" HIGH PARTITION SEE 18/A-24.
5. BUILDING "B" IS OPPOSITE HAND AND IS SHOWN ON SHT A-2.

GRAPHIC SCALE

8 0 8 16FT

SCALE: 3/32"= 1'-0"

Revisions

Symbol	Descriptions	Date	Approved
2	CASE AE: STRUCTURAL WALL CHANGES	15 APR 92	
1	(AMDT. #0003) DOORS ADDED	31 AUG 90	

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

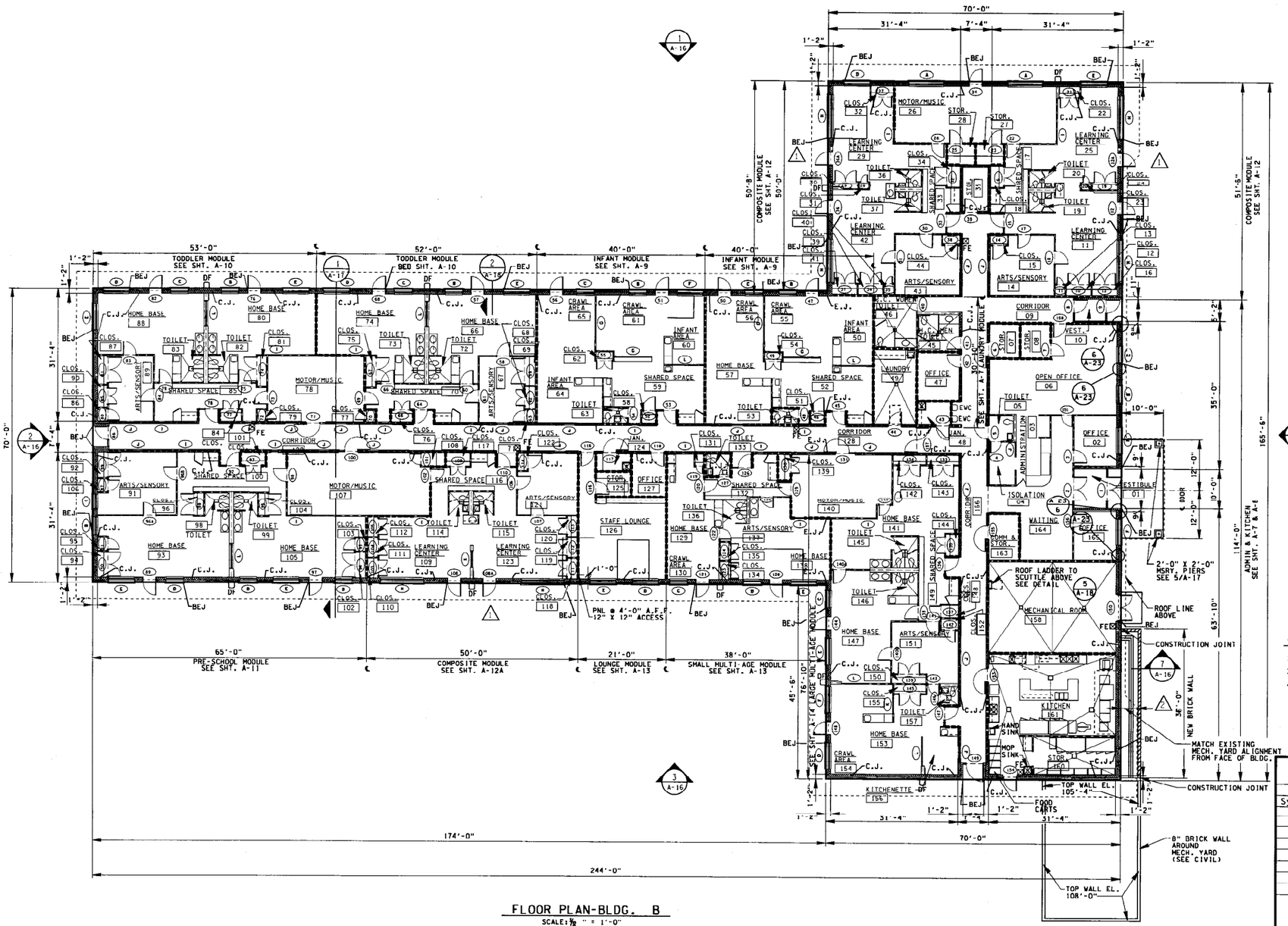
US Army Corps of Engineers

FLOOR PLAN BLDG A

Designed by:	D. POHL
Drawn by:	J. JAGGERS
Checked by:	HENRY B. THOBEN
Reviewed by:	GARRY MINTER
Approved by:	LARRY D. MARTIN
Scale:	1/32 "=1'-0"
Date:	MAY 1990
Drawing Code:	F-740-14-05
Sheet reference number:	A-1
Sheet	28 of 107

RECORD DRAWING "AS BUILT"

FILE: /usr/und/proj/fac6/fac6xa01.dgn
DATE: 15-Apr-92 10:00



FLOOR PLAN-BLDG. B

SCALE: 1/32" = 1'-0"

FINISH FLOOR ELEVATION 100'-0" =551'-0"

REFERENCE NORTH FOR ROOM FINISH REFERENCES ONLY

LEGEND

- ☒ FE — FIRE EXTINGUISHER CABINET
- E.J. — EXPANSION JOINT
- C.J. — CONTROL JOINT
- BEJ — BRICK EXPANSION JOINT (SEE ELEVATIONS SHT. A-16)
- ☐ FD — FLOOR DRAIN (COORDINATE LOCATIONS WITH ALL EFFECTED TRADES.)
- ☐ EWC — ELECTRIC WATER COOLER
- ☐ DF — DRINKING FOUNTAIN
- ▬▬ — 1 HR. RATED PARTITIONS

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF STUD OR CMU UNLESS NOTED OTHERWISE.
2. ALL INTERIOR PARTITIONS ARE 4" (ACTUAL DIMENSION) METAL STUDS UNLESS NOTED OTHERWISE.
3. VENEER PLASTER CONTROL JOINTS SHALL BE CO-LOCATED WITH CMU CONTROL JOINTS.
4. ▬▬ 4'-0" HIGH PARTITION SEE 18/A-24.

GRAPHIC SCALE

8 0 8 16FT

SCALE: 3/32"= 1'-0"

Revisions

Symbol	Descriptions	Date	Approved
2	CASE AE: STRUCTURAL WALL CHANGES	15 APR 92	
1	(AMDT #0003) DOORS ADDED	31 AUG 90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
US Army Corps of Engineers
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

FLOOR PLAN BLDG. B

Designed by: D. POHL
Drawn by: J. JACCERS
Checked by: HENRY B. THOBEN
Reviewed by: GARRY MINTER
Approved by: LARRY D. MARTIN

Scale: 1/32" = 1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-2
Sheet 29 of 107

RECORD DRAWING "AS BUILT"

FILE: /usr/und/proj/fcc6/fcc6xa02.dgn
DATE: 15-Apr-92 10:28

ROOM NO.	ROOM NAME	FLOOR MAT'L	FLOOR COLOR	BASE MAT'L	BASE COLOR	WAINSCOT MAT'L	WAINSCOT COLOR	WALL - WEST MAT'L	WALL - WEST FINISH	WALL - WEST COLOR	WALL - NORTH MAT'L	WALL - NORTH FINISH	WALL - NORTH COLOR	WALL - EAST MAT'L	WALL - EAST FINISH	WALL - EAST COLOR	WALL - SOUTH MAT'L	WALL - SOUTH FINISH	WALL - SOUTH COLOR	CEILING MAT'L	CEILING COLOR	CEILING HEIGHT	REMARKS
01	VESTIBULE	VCT	2	VINYL	3	---	---	STORE FRONT	---	---	GWB	VWC	5	STORE FRONT	---	---	GWB	VWC	5	GWB/P	37	8'-0"	
02	OFFICE	VCT	2	VINYL	3	---	---	GWB	VWC	5	GWB	VWC	5	GWB	VWC	5	GWB	VWC	5	SAP	6	8'-0"	
03	ADMINISTRATION	VCT	2	VINYL	3	---	---	GWB	VWC	5	GWB	VWC	5	GWB	VWC	5	GWB	VWC	5	SAP	6	8'-0"	RECEPTION COUNTERS & CABINETS PL 16; REVEAL PL 18; TACKBOARD 25
04	ISOLATION	SV	1	SV	1	---	---	PLASTER	VWC	5	GWB	P	34	GWB	VWC	5	GWB	VWC	5	SAP	6	8' 0"	
05	TOILET	SV	1	SV	1	---	---	PLASTER	P	37	GWB	P	32	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	
06	GENERAL OFFICE	VCT	2	VINYL	3	---	---	PLASTER	VWC	5	GWB	VWC	5	GWB	VWC	5	GWB	VWC	5	SAP	6	8'-0"	
07	STORAGE	VCT	2	VINYL	3	---	---	PLASTER	P	37	GWB	P	37	PLASTER	P	37	PLASTER	P	37	GWB/P	37	8'-0"	SHELVING 37
08	STORAGE	VCT	2	VINYL	3	---	---	GWB	P	37	GWB	P	37	PLASTER	P	37	PLASTER	P	37	GWB/P	37	8'-0"	SHELVING 37
09	CORRIDOR	VCT	2	VINYL	3	---	---	GWB	VWC	5	GWB	VWC	5	GWB	VWC	5	GWB	VWC	5	SAP	6	8'-0"	RUB STRIP 56
10	VESTIBULE	VCT	2	VINYL	3	---	---	STORE FRONT	---	---	GWB	VWC	5	STORE FRONT	---	---	GWB	VWC	5	GWB/P	37	8'-0"	
11	LEARNING CENTER	SV	1	SV	1	---	---	---	---	---	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BAFFLE 40B
12	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
13	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
14	ART/SENSORY	SV	1	SV	1	---	---	PLASTER	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BASE CABINET PL 16
15	CLOSET	SV	1	SV	1	---	---	PLASTER	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB/P	37	8'-0"	SHELVING 37
16	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
17	SHARED SPACE	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	RECEPTION DESK PL 16; TACKBOARD 29; CUBBY PL 16
18	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
19	TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	VANITY & CABINET PL 16; TOILET PARTITION 52
20	TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	TOILET PARTITION 52
21	NOT USED																						
22	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
23	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
24	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
25	LEARNING CENTER	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	
26	MOTOR/MUSIC	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	WALL IMPACT MAT 49C
27	STORAGE	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	
28	STORAGE	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	
29	LEARNING CENTER	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BAFFLE 40C
30	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
31	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
32	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
33	SHARED SPACE	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	RECEPTION DESK PL 14; TACKBOARD PL 27, CUBBY PL 14
34	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
35	STORAGE	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
36	TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	TOILET PARTITION 52
37	TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8' 0"	VANITY & CABINET PL 14; TOILET PARTITION 52
38	NOT USED																						
39	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
40	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
41	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
42	LEARNING CENTER	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	---	---	---	GWB	P	37	SAP	6	8'-0"	BAFFLE 40B
43	ART/SENSORY	SV	1	SV	1	---	---	---	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	SAP	6	8'-0"	BASE CABINET PL 14
44	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
45	MEN'S TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB/P	37	8'-0"	TOILET PARTITION 54; LAV. COUNTER 51
46	WOMEN'S TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	TOILET PARTITION 53; LAV. COUNTER 50
47	OFFICE	VCT	2	VINYL	3	---	---	VWC	P	5	GWB	VWC	5	PLASTER	VWC	5	GWB	VWC	5	SAP	6	8'-0"	
48	JANITOR	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	PLASTER	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
49	LAUNDRY	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	BASE CABINET PL COLOR 17 UPPER SHELVING PL 18
50	INFANT AREA	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BAFFLE 40B; DIAPER STATION PL15
51	CLOSET	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
52	SHARED SPACE	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	RECEPTION DESK PL 14; VANITY KITCHEN BASE & UPPER CABINET 14; TACKBOARD 27; CUBBY PL 15
53	TOILET	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	33	GWB	P	37	GWB/P	37	8'-0"	UPPER CABINET PL 28
54	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
55	CRAWL AREA	PSV	4	PSV	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SAP	6	8'-0"	WHITE PVC RAILING; BAFFLE 40A
56	CRAWL AREA	PSV	4	PSV	4	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	WHITE PVC RAILING; BAFFLE 40B
57	HOME BASE	SV	1	PSV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	DIAPER STATION PL 14; BAFFLE 40B
58	CLOSET	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
59	SHARED SPACE	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	RECEPTION DESK PL 14; VANITY KITCHEN BASE & UPPER CABINET 14; TACKBOARD 27; CUBBY PL 15

INTERIOR COLOR SCHEDULE - BLDG. A AND B

MATERIAL	PATTERN TEXTURE	MANUFACTURER NO.	MANUFACTURER
1 SEAMLESS VINYL (SV)	-	BEST OF BOTH WORLDS #86001	ARMSTRONG CUSTOM CORLON-WITH 4"COVED BASE FORMED FROM SHEET FLOORING
2 VINYL COMPOSITION TILE (VCT)	- -	IMPERIAL MODERN #5185) MELLOW SAND #205	ARMSTRONG-EXCELON TILE TYPE IV, COMP I
3 4" H. VINYL BASE			MERCER
4 PADDED SEAMLESS VINYL FLOORING (PSV)	LONFOAM-VINYL	#281	LONSEAL, INC. 4" COVED BASE
5 VINYL WALL COVERING (VWC)	HONEY BEIGE	VERANDA VER-2680	J.M. LYNNE CO., INC.
6 SUSP. ACOUSTICAL PANEL CLG. (SAP)	MAXIMUM TEXTURE	#MT-454 CODE #42538 SIZE: 24" x 24" x 3/4"	CELOTEX-TEXTURE-TONE NONDIRECTIONAL TILE
7 NOT USED			
8 NOT USED			
9 NOT USED			
10 NOT USED			
11 NOT USED			
12 PLASTIC LAMINATE (PL)	MISSION WHITE MATTE FINISH	#933	FORMICA
13 PLASTIC LAMINATE (PL)	LIGHT VERMILLION-VELVET FINISH	#91M32	WESTINGHOUSE MICARTA
14 PLASTIC LAMINATE (PL)	APPOLLO BLUE-VELVET FINISH	#90M43	WESTINGHOUSE MICARTA
15 PLASTIC LAMINATE (PL)	SUNFLOWER YELLOW VELVET FINISH	#91M34	WESTINGHOUSE MICARTA
16 PLASTIC LAMINATE (PL)	FOREST GREEN-VELVET FINISH	#92M95	WESTINGHOUSE MICARTA
17 PLASTIC LAMINATE (PL)	CEDAR BARK TEXTURED FINISH	#834-T	LAMINART
18 PLASTIC LAMINATE (PL)	BISQUE-VELVET FINISH	91M71	WESTINGHOUSE MICARTA
19 PLASTIC LAMINATE (PL)	CARDINAL RED	#52M03	WESTINGHOUSE MICARTA
20 NOT USED			
21 NOT USED			
22 NOT USED			
23 NOT USED			
24 NOT USED			
25 TACKBOARD WITH BROWN #555T TEE EDGE	BEACH EARTH TONE PATTERN	E01	GREENSTEEL, INC.

NOTE,

1. MANUFACTURERS REFERENCED ARE INTENDED TO ESTABLISH PATTERN, TEXTURE AND COLORS ONLY, AND ARE NOT INTENDED TO LIMIT SELECTION FROM OTHER MANUFACTURERS. WHEN ALTERNATE SELECTIONS ARE SUBMITTED, SUBMITTAL SHALL INCLUDE MATERIALS LISTED FOR COMPARISON.
2. ROOM FINISH SCHEDULE AS SHOWN IS FOR BUILDING A ONLY. BUILDING B ROOM FINISH SCHEDULE IS OPPSITE HAND.

ABBREVIATIONS

SV - SEAMLESS VINYL	GWB - GYP. WALL BOARD
VCT - VINYL COMP. TILE	P - PAINT
PSV - PADDED SEAMLESS VINYL SHEET FLOORING	SAP - SUSP. ACOUS. PANELS
	PL - PLASTIC LAMINATE
EC/ST- EXPOSED CONCRETE STEEL TROWEL FIN.	CMU CONCRETE MASONRY UNIT
VWC - VINYL WALL COVER'G.	QTB - QUARRY TILE BASE
QT - QUARRY TILE	

GENERAL NOTES

1. ALL MODULE CORNER GUARDS TO BE COLOR 55
2. ALL PAINT (P) TO BE ENAMEL EGGSHELL OR SEMI-GLOSS, UNLESS OTHERWISE INDICATED.
3. NOT USED
4. ALL INTERIOR WINDOW STOOLS PL-COLOR 12.
5. PROVIDE HORIZ. MINI-BLINDS AT ALL EXTERIOR & INTERIOR WINDOWS.
6. VINYL FLOORING SHALL HAVE NO SEAMS IN TOILET AREAS.

Revisions			
Symbol	Descriptions	Date	Approved

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: R. MEYER
Drawn by: D. THOMAS
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

ROOM FINISH SCHEDULES BLDG A & B

Scale: NONE
Date: MAY 1990
Sheet reference number: A-3
Drawing Code: F-740-14-05
Sheet 30 of 107

RECORD DRAWING "AS BUILT"

ZGO:[40,773]FCC6XA03.DGN;1
DATE : 26-APR-90, 16:56:50
USER - JIMJ

ROOM NO.	ROOM NAME	FLOOR MAT'L	FLOOR COLOR	BASE MAT'L	BASE COLOR	WAINSCOT MAT'L	WAINSCOT COLOR	WALL - WEST MAT'L	WALL - WEST FINISH	WALL - WEST COLOR	WALL - NORTH MAT'L	WALL - NORTH FINISH	WALL - NORTH COLOR	WALL - EAST MAT'L	WALL - EAST FINISH	WALL - EAST COLOR	WALL - SOUTH MAT'L	WALL - SOUTH FINISH	WALL - SOUTH COLOR	CEILING MAT'L	CEILING COLOR	CEILING HEIGHT	REMARKS
60	INFANT AREA	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	DIAPER STATION PL 14; BAFFLE 40B
61	CRAWL AREA	PSV	4	PSV	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SAP	6	8'-0"	WHITE PVC RAILING
62	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
63	TOILET	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	33	GWB	GWB	37	GWB/P	37	8'-0"	UPPER CABINET PL 15
64	INFANT AREA	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	DIAPER STATION PL 14; BAFFLE 40B
65	CRAWL AREA	PSV	4	PSV	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SAP	6	8'-0"	WHITE PVC RAILING; BAFFLE 40B
66	HOME BASE	SV	1	PSV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BAFFLE 40C
67	ART/SENSORY	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BAFFLE 40C; BASE CABINET PL 16
68	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
69	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
70	SHARED SPACE	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	RECEPTION DESK PL 16; TACKBOARD 29; CUBBY PL 16
71	CLOSET	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
72	TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	VANITY, UPPER CABINET, & DIAPER STATION PL 16; TOILET PARTITION 52
73	TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	VANITY, UPPER CABINET, & DIAPER STATION PL 15; TOILET PARTITION 52
74	HOME BASE	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BAFFLE 40C
75	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
76	CLOSET	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
77	CLOSET	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
78	MOTOR/MUSIC	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	WALL IMPACT MATS TO MATCH 49C
79	CLOSET	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
80	HOME BASE	SV	4	PSV	4	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BAFFLE 40C
81	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
82	TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	TOILET PARTITION 52
83	TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	VANITY & DIAPER STATION PL 15; TOILET PARTITION 52
84	CLOSET	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
85	SHARED SPACE	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	TACKBOARD 29; RECEPTION DESK PL 16; CUBBY PL 16
86	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
87	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
88	HOME BASE	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BAFFLE 40C
89	ARTS/SENSORY	SV	1	SV	1	---	---	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BASE CABINET PL 16; BAFFLE 40C
90	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
91	ARTS/SENSORY	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	SAP	6	8'-0"	BASE CABINET PL 15
92	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
93	HOME BASE	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BAFFLE 40A
94	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
95	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
96	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
97	NOT USED																						
98	TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	VANITY & UPPER CABINET PL 19; TOILET PARTITION 52
99	TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	VANITY & UPPER CABINET PL 15; TOILET PARTITION 52
100	SHARED SPACE	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	SAP	6	8'-0"	RECEPTION DESK PL 19; TACKBOARD 26; CUBBY PL 19
101	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB/P	37	8'-0"	SHELVING 37
102	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
103	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
104	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
105	HOME BASE	SV	4	PSV	4	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BAFFLE 40A
106	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
107	MOTOR/MUSIC	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	SAP	6	8'-0"	WALL IMPACT MATS TO MATCH 49A
108	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB/P	37	8'-0"	SHELVING 37
109	LEARNING CENTER	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BAFFLE 40C
110	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
111	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
112	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
113	NOT USED																						
114	TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	VANITY & CABINET PL 14; TOILET PARTITION 52
115	TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	TOILET PARTITION 52

INTERIOR COLOR SCHEDULE - BLDG. A AND BLDG. B

MATERIAL	PATTERN TEXTURE	MANUFACTURER NO.	MANUFACTURER
26 TACKBOARD WITH BROWN *555T TEE EDGE	REGIMENTAL RED PAN-A-ROC	*5191	GREENSTEEL
27 TACKBOARD WITH BROWN *555T TEE EDGE	BLUE GROTTO PAN-A-ROC	*4042	GREENSTEEL
28 TACKBOARD WITH BROWN *555T TEE EDGE	PAPAYA PAN-A-ROC	*1461	GREENSTEEL
29 TACKBOARD WITH BROWN *555T TEE EDGE	BITTER GREEN PAN-A-ROC	*7036	GREENSTEEL
30 TACKBOARD WITH BROWN *555T TEE EDGE	POPPY PAN-A-ROC	*5059	GREENSTEEL
31 STAIN, INTERIOR WOOD DOORS (FACTORY FINISH)	INTERIOR STAIN 241 PENETRATING	*24171 PICKLING WHITE	BENJAMIN MOORE PAINTS
31A WOOD CAPS & CRAWL ENCLOSURE BASE	MATCH INTERIOR WOOD DOORS AS ABOVE		
32 NOT USED			
33 NOT USED			
34 NOT USED			
35 NOT USED			
36 NOT USED			
37 PAINT (P)	MILKY WHITE	*2510	PITTSBURGH
38 NOT USED			
39 PAINT (P) INT. DOOR FRAMES	ARABIAN BEIGE	*2406	PITTSBURGH
40A CEILING BAFFLE FABRIC	2100	*411 VERMILLION ACCENT RED	SONOTROL-ARMSTRONG SEE 12/A-17
40B CEILING BAFFLE FABRIC	2100	*420 COBALT ACCENT BLUE	SONOTROL-ARMSTRONG SEE 12/A-17
40C CEILING BAFFLE FABRIC	2100	*151 PARSLEY GREEN	SONOTROL-ARMSTRONG SEE 12/A-17
41 NOT USED			
42 MINI BLINDS, 1" SLATS	ALABASTER	112	LEVOLOR
43 PLASTIC LAMINATE (PL)	TAN COASTAL OAK VELVET FINISH	43M73	WESTINGHOUSE-MICARTA
44 NOT USED			
45 NOT USED			
46 6" X 6" QUARRY TILE (QT) ABRASIVE	QUARRY NATURALS/ FIRE FLASH	*NO2	AMERICAN OLEAN
47 5"H X 6" QUARRY TILE (QTB)	QUARRY NATURALS/ FIRE FLASH	*NO2	AMERICAN OLEAN
48 QUARRY TILE GROUT-EPOXY (QTG)	SABLE	*A0	AMERICAN OLEAN
49 WALL IMPACT MATS (49A)	VINYL COVERED PANELS	--- SEE 17/A-24	AALCO MANUFACTURING CO.
(49B)	RED	---	AALCO MANUFACTURING CO.
(49B)	BLUE	---	AALCO MANUFACTURING CO.
(49C)	YELLOW	---	AALCO MANUFACTURING CO.
50 PLASTIC LAMINATE (PL)	CONCH SHELL-VELVET FINISH	*91M78	WESTINGHOUSE-MICARTA
51 PLASTIC LAMINATE (PL)	CLOUD BLUE-VELVET FINISH	*52M14	WESTINGHOUSE-MICARTA
52 METAL TOILET PARTITION	WHITE	*96	SANYMETAL
53 METAL TOILET PARTITION	RED	*42	SANYMETAL
54 METAL TOILET PARTITION	BLUE	*23	SANYMETAL
55 CORNER GUARDS, SURFACE MOUNTED	SSM-20 PEBBLETTE TEXTURE	*100 EGGSHELL	ACROVYN-C/S GROUP
56 WALL RUB STRIP 6" WIDTH	.060 RUB STRIP	*102 DESERT SAND	ACROVYN-C/S GROUP
57 CORNER GUARDS, SURFACE MOUNTED	SSM-25 PEBBLETTE TEXTURE	*180 ROPE WALNUT	ACROVYN-C/S GROUP

NOTE:

1. MANUFACTURERS REFERENCED ARE INTENDED TO ESTABLISH PATTERN, TEXTURE AND COLORS ONLY, AND ARE NOT INTENDED TO LIMIT SELECTION FROM OTHER MANUFACTURERS. WHEN ALTERNATE SELECTIONS ARE SUBMITTED, SUBMITTAL SHALL INCLUDE MATERIALS LISTED FOR COMPARISON.
2. ROOM FINISH SCHEDULE AS SHOWN IS FOR BUILDING A ONLY. BUILDING B ROOM FINISH IS OPPOSITE HAND.

EXTERIOR COLOR SCHEDULE - BLDG. A AND BLDG. B

MATERIAL	PATTERN/ TEXTURE	MANUFACTURER NO.	MANUFACTURER
1. BRICK	GRADE SW ASTMC 216 WIRECUT	*370 W/C 80% *371 W/C 20% (BLEND) AUTUMN BLEND	TAYLOR CLAY PRODUCTS SALISBURY, N.C.
2. MORTAR	KOSMORTAR COLOR: OCHRE	*6	KOSMO CEMENT CO.
3. SHINGLES	COLOR: CEDAR BLEND RUSTIC STYLE W/LOOK OF WOOD SHAKES	~~TIMBERLINE~~ SEE ROYAL SHINGLE CLASS A	"GAF"
4. PAINT - ALL ROOF FIXTURES EXTERIOR DOORS, FRAMES & TRIM	BLACK CHOCOLATE	*7611	PITTSBURGH
5. EXTERIOR ANODIZED ALUMINUM WINDOWS (FACTORY FINISHED)	DARK BRONZE TO MATCH ITEM #4		
6. PLAYGROUND STORAGE BLDG. SIDING	COLOR: BEECH NUT	*3607	PITTSBURGH
7. PLAYGROUND STORAGE BLDG. BARN-TYPE TRIM	COLOR: BLUE BRIO	*4065	PITTSBURGH
8. CHAIN LINK FENCE	P.V.C. COATING COLOR: BROWN		
9. OUTDOOR CRAWL AREA CANOPY FABRIC W/WATER-PROOF COATING	SUNSURE SOLIDS TEXTILENE	*T88A05019	TWITCHELL
10. OUTDOOR CRAWL AREA CANOPY FABRIC W/WATER-PROOF COATING	SUNSURE SOLIDS TEXTILENE	*T88A05038	TWITCHELL

ROYAL SOVERIEGN SHINGLES SUBMITTED AND APPROVED ACCORDING TO SECTION C-07311, PARA 2.1.3

TIMBERLINE SHINGLES DO NOT MEET SPECIFICATION REQUIREMENTS

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: D. POHL
Drawn by: D. THOMAS
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

ROOM FINISH SCHEDULES BLDG A & B

Scale: NONE
Date: MAY 1990
Sheet reference number: A-4
Drawing Code: F-740-14-05
Sheet 31 of 107

RECORD DRAWING "AS BUILT"

ZGO:[40,77]FCCGXA04.DGN;1
DATE = 26-APR-90, 16:58:13
USER = JIMJ

ROOM NO.	ROOM NAME	FLOOR MAT'L	FLOOR COLOR	BASE MAT'L	BASE COLOR	WAINSCOT MAT'L	WAINSCOT COLOR	WALL - WEST MAT'L	WALL - WEST FINISH	WALL - WEST COLOR	WALL - NORTH MAT'L	WALL - NORTH FINISH	WALL - NORTH COLOR	WALL - EAST MAT'L	WALL - EAST FINISH	WALL - EAST COLOR	WALL - SOUTH MAT'L	WALL - SOUTH FINISH	WALL - SOUTH COLOR	CEILING MAT'L	CEILING COLOR	CEILING HEIGHT	REMARKS
116	SHARED SPACE	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	SAP	6	8'-0"	RECEPTION DESK PL 16;TACKBOARD 29;CUBBY PL 16
117	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB/P	37	8'-0"	SHELVING 37
118	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
119	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
120	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
121	ARTS/SENSORY	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	SAP	6	8'-0"	BASE CABINET PL 14
122	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB/P	37	8'-0"	SHELVING 37
123	LEARNING CENTER	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BAFFLE 40B
124	JANITOR	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB/P	37	8'-0"	SHELVING 37
125	STORAGE	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
126	STAFF LOUNGE	SV	1	SV	1	---	---	GWB	VWC	5	GWB	VWC	5	GWB	VWC	5	GWB	VWC	5	SAP	37	8'-0"	BASE & UPPER CABINET PL 43; COUNTER PL 18
127	OFFICE	VCT	2	VINYL	3	---	---	GWB	VWC	5	GWB	VWC	5	GWB	VWC	5	PLASTER	VWC	5	SAP	6	8'-0"	
128	CORRIDOR	VCT	2	VINYL	3	---	---	PLASTER	VWC	5	PLASTER	VWC	5	---	---	---	PLASTER	VWC	5	SAP	6	8'-0"	RUB STRIP 56
129	HOME BASE	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	SAP	6	8'-0"	KITCHEN BASE & UPPER CABINET PL 19; BAFFLE 40A
130	CRAWL AREA	PSV	4	PSV	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SAP	6	8'-0"	WHITE PVC RAILING;BAFFLE 40A
131	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB/P	37	8'-0"	SHELVING 37
132	SHARED SPACE	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	SAP	6	8'-0"	RECEPTION DESK PL 15; TACKBOARD 28; CUBBY PL 15
133	TOILET	SV	1	SV	1	---	---	GWB	P	33	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB/P	37	8'-0"	CABINET PL 18
134	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
135	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
136	TOILET	SV	1	SV	1	---	---	---	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	DIAPER STATION PL 19; TOILET PARTITION 52
137	ARTS/SENSORY	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BASE CABINET PL 15
138	HOME BASE	SV	4	PSV	4	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BAFFLE 40A; VANITY & CABINET PL 15
139	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB/P	37	8'-0"	SHELVING 37
140	MOTOR/MUSIC	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	SAP	6	8'-0"	WALL IMPACT MATS 49B
141	HOME BASE	SV	4	PSV	4	---	---	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB	P	37	SAP	6	8'-0"	BAFFLE 40C
142	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB/P	37	8'-0"	SHELVING 37
143	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB/P	37	8'-0"	SHELVING 37
144	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
145	TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	VANITY & CABINETS PL 15; TOILET PARTITIONS 52
146	TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	VANITY, CABINETS & DIAPER STATION PL 16; TOILET PARTITION 52
147	HOME BASE	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	SAP	6	8'-0"	BAFFLE 40C
148	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
149	SHARED SPACE	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB	P	37	SAP	6	8'-0"	RECEPTION DESK PL 15; TACKBOARD 28; CUBBY PL 15
150	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
151	ARTS/SENSORY	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB	P	37	SAP	6	8'-0"	BASE CABINET PL 15
152	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
153	HOME BASE	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB	P	37	SAP	6	8'-0"	DIAPER STATION PL 15; BAFFLE 40C
154	CRAWL AREA	PSV	4	PSV	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	SAP	6	8'-0"	WHITE PVC RAILING; BAFFLE 40C
155	CLOSET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
156	KITCHENETTE	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB	P	37	SAP	6	8'-0"	KITCHEN CABINETS PL 15
157	TOILET	SV	1	SV	1	---	---	GWB	P	37	GWB	P	37	PLASTER	P	37	GWB	GWB	37	GWB/P	37	8'-0"	UPPER CABINET PL 12
158	MECHANICAL ROOM	EC/ST	---	VINYL	3	---	---	CMU	P	37	GWB	P	37	GWB	P	37	GWB	P	37	EXPOSED JOISTS	TIGHT TO STRUCT.		SPRAY APPLIED FIRE PROOFING (1) HR RATED
159	NOT USED																						
160	STORAGE	QT/QTB	46/48	QTB/QTB	46/48	---	---	GWB	P	37	PLASTER	P	37	PLASTER	P	37	PLASTER	P	37	GWB/P	37	8'-0"	SHELVING COLOR 37; CORNER GUARD COLOR 57
161	KITCHEN	QT/QTG	46/48	QTB/QTG	47/48	---	---	PLASTER	P	37	PLASTER	P	37	PLASTER	P	37	GWB	P	37	GWB/P	37	8'-0"	STAINLESS STEEL UPPER & BASE CABINETS
162	NOT USED																						
163	COMM. & STORAGE	VCT	2	VINYL	3	---	---	PLASTER	P	37	GWB	P	37	GWB	P	37	GWB	P	37	GWB/P	37	8'-0"	SHELVING 37
164	WAITING	VCT	2	VINYL	3	---	---	GWB	TACK BD VWC	25 5	GWB	TACK BD VWC	25 5	GWB	VWC	5	GWB	VWC	5	SAP	6	8'-0"	
165	OFFICE	VCT	2	VINYL	3	---	---	GWB	VWC	5	GWB	VWC	5	GWB	VWC	5	GWB	VWC	5	SAP	6	8'-0"	
166	CORRIDOR	VCT	2	VINYL	3	---	---	PLASTER	VWC	5	PLASTER	VWC	5	PLASTER	VWC	5	GWB	VWC	5	SAP	6	8'-0"	* SEE NOTE 2; RUB STRIP 56

NOTE:

1. MANUFACTURERS REFERENCED ARE INTENDED TO ESTABLISH PATTERN, TEXTURE AND COLORS ONLY, AND ARE NOT INTENDED TO LIMIT SELECTION FROM OTHER MANUFACTURERS. WHEN ALTERNATE SELECTIONS ARE SUBMITTED, SUBMITTAL SHALL INCLUDE MATERIALS LISTED FOR COMPARISON.

2. TACKBOARD ON NORTH WALL LEADING TO CORRIDOR *166 AND WEST WALL OF WAITING *164 TO BE COLOR 25.

3. ROOM FINISH SCHEDULE AS SHOWN IS FOR BUILDING A ONLY. BUILDING B ROOM FINISH SCHEDULE IS OPPOSITE HAND.

Revisions			
Symbol	Descriptions	Date	Approved

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: D. POHL
Drawn by: D. THOMAS
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

ROOM FINISH SCHEDULES BLDG A & B

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-5
Sheet 32 of 107

RECORD DRAWING "AS BUILT"

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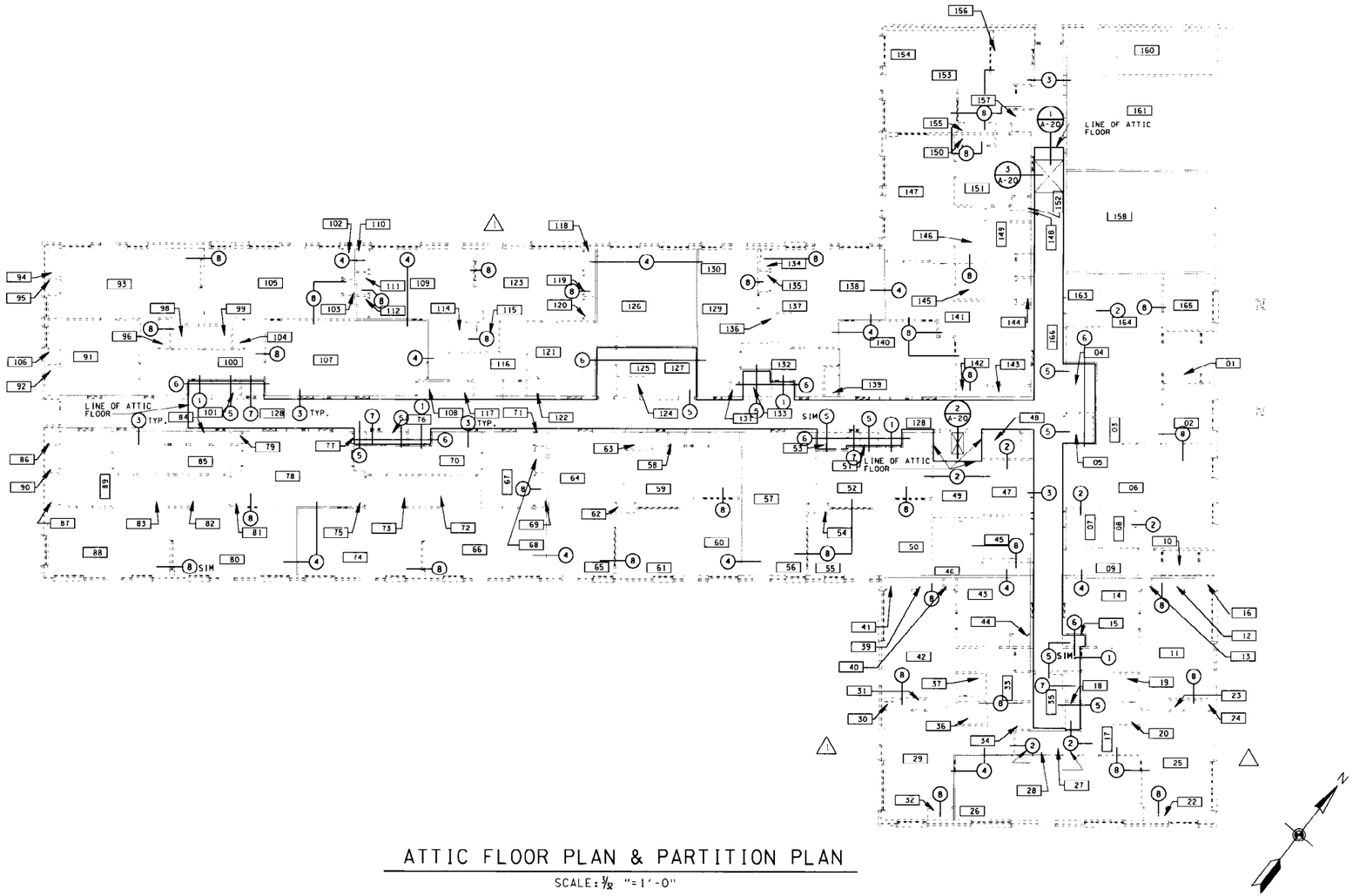

ATTIC FLOOR PLAN & PARTITION PLAN

SCALE: 3/32 "=1'-0"

LEGEND

- (0) INDICATES A DETAIL MARKER. ALL DETAILS INDICATED AS SUCH ARE SHOWN ON SHEET A-19, UNLESS OTHERWISE NOTED.
- INDICATES PARTITION EXTENDING TO DECK ABOVE.
- INDICATES FIRST FLOOR PARTITIONS (BELOW ATTIC LEVEL.)
- INDICATES LINE OF ATTIC FLOOR.

GRAPHIC SCALES

8 0 8 16

Revisions			
Symbol	Descriptions	Date	Approved
1	(AMDT #0003) DOORS ADDED	3: AUG 90	

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS 303 CHILDREN
PN 380 FY 90

US Army Corps of Engineers

Designed by: D. POHL
Drawn by: J. JAGGERS
Checked by: HENRY B. THOBEN
Reviewed by: GARRY MINTER
Approved by: LARRY D. MARTIN

ATTIC FLOOR PLAN & PARTITION PLAN

Scale: 3/32 "=1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-6
Sheet 33 of 107

RECORD DRAWING "AS BUILT"

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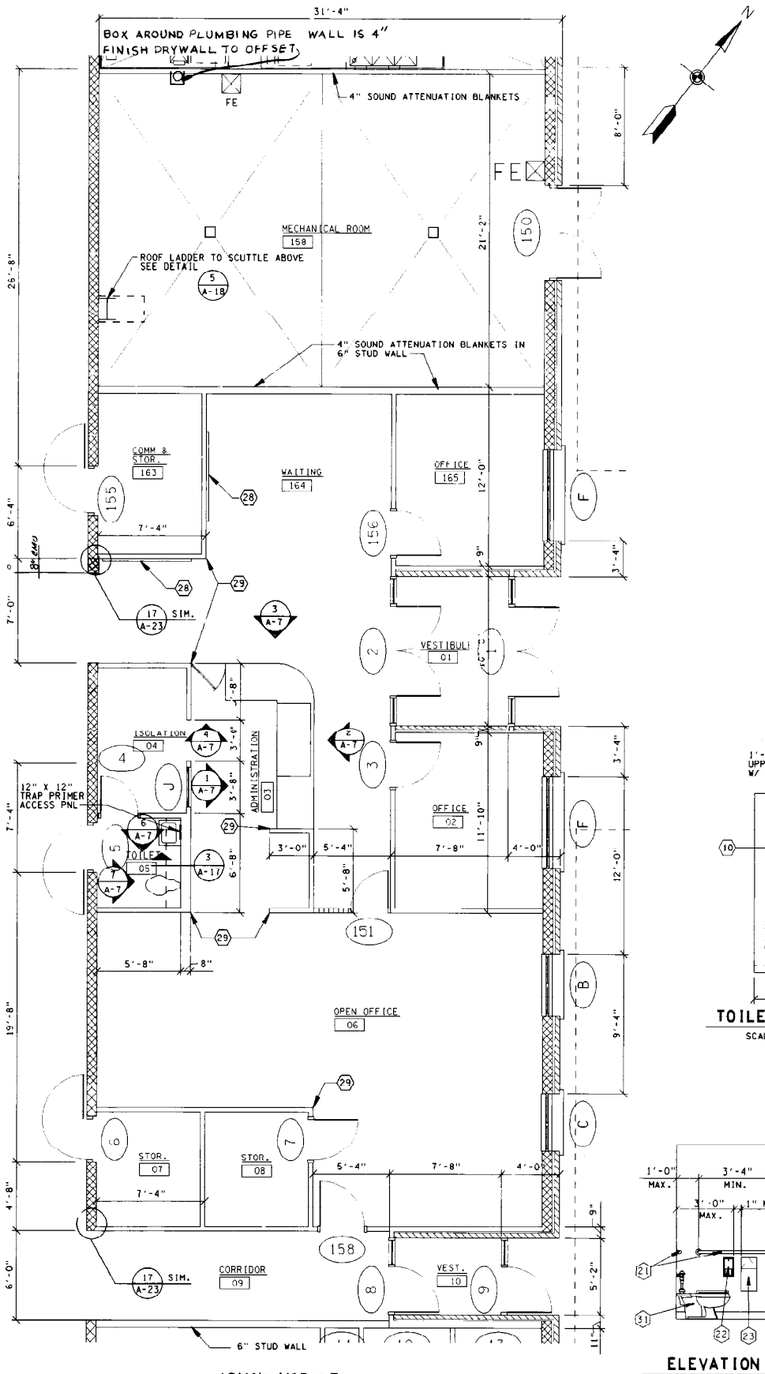
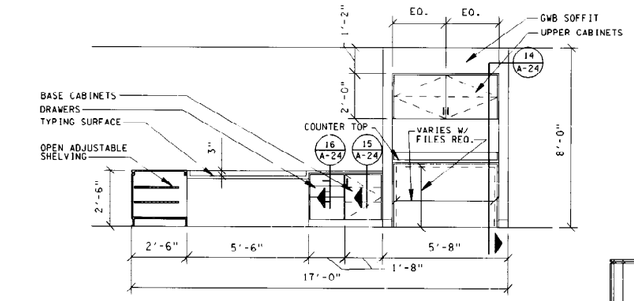
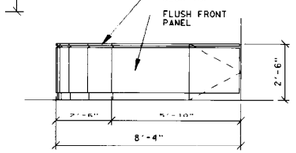


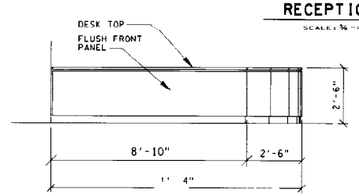
ADMIN MODULE
SCALE: 1/4"=1'-0"



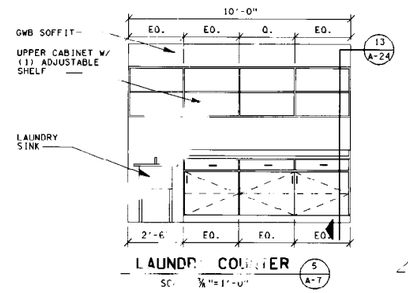
RECEPTION DESK 1 A-7
SCALE: 3/8"=1'-0"



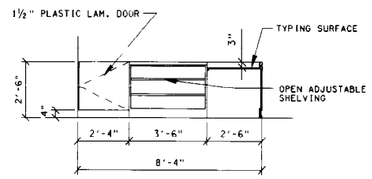
RECEPTION DESK 3 A-7
SCALE: 3/8"=1'-0"



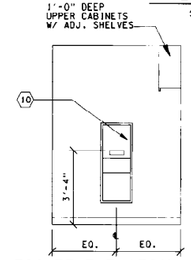
RECEPTION DESK 2 A-7
SCALE: 3/8"=1'-0"



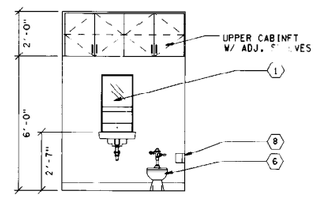
LAUNDRY COUNTER 5 A-7
SCALE: 3/8"=1'-0"



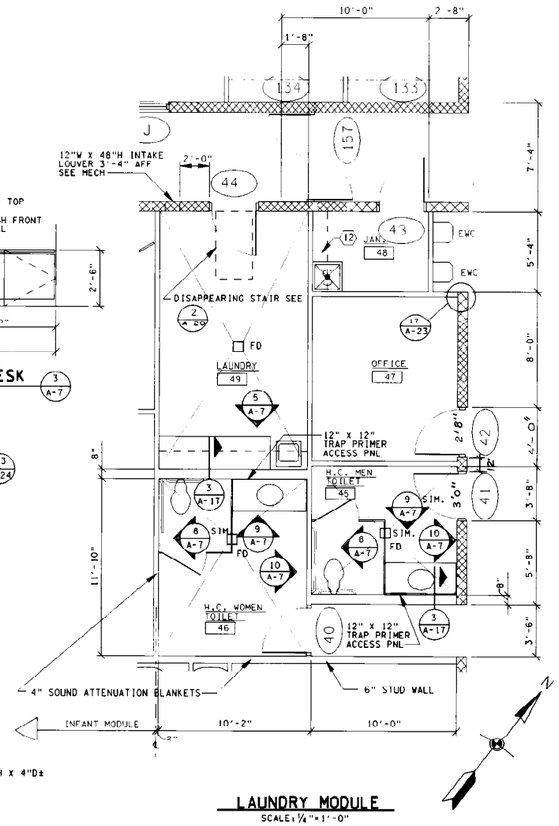
RECEPTION DESK 4 A-7
SCALE: 3/8"=1'-0"



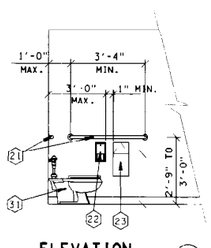
TOILET ELEVATION 6 A-7
SCALE: 3/8"=1'-0"



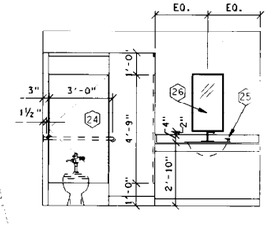
TOILET 7 A-7
SCALE: 3/8"=1'-0"



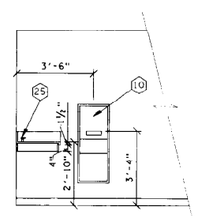
LAUNDRY MODULE
SCALE: 1/4"=1'-0"



ELEVATION 8 A-7
SCALE: 3/8"=1'-0"



ELEVATION 9 A-7
SCALE: 3/8"=1'-0"



ELEVATION 10 A-7
SCALE: 3/8"=1'-0"

LEGEND

1. MIRROR/SOAP DISPENSER 17"W X 30"H X 4"D±
2. VANITY MIRROR 28" X 60"
3. DIAPER STATION MIRROR 10" X 32"
4. CRAWL AREA MIRROR 16" X 60"
5. VANITY MIRROR 24" X 36"
6. ADULT TOILET (TOILET SEAT 15" A.F.F.)
7. PEDIATRIC TOILET TOILET SEAT 10" A.F.F.)
8. TOILET PAPER DISPENSER (ADULT 20" A.F.F.)
9. TOILET PAPER DISPENSER (PEDRIATRIC 14" A.F.F.)
10. PAPER TOWEL DISPENSER/DISPOSAL 12"W X 26"H X 4"D ±
11. PAPER TOWEL DISPENSER 15" X 11" X 4" ± MOUNT 30" A.F.F. TO ℄
12. (4) 2'-0" DEEP SHELVES ON ADJUSTABLE SHELF STANDARDS-START AT 4'-0" A.F.F.
13. (6) 1'-6" DEEP SHELVES ON ADJUSTABLE SHELF STANDARDS.
14. TACK BOARD
15. TOILET PARTITION SCREEN 36"W X 36"H.
16. WASTE RECEPTACLE 6 GAL. CAPACITY 18"H X 14"W X 6"D MOUNT 20" A.F.F. FROM TOP.
17. TOILET PARTITION DOOR & JAMB 36"T (24"W DOOR).
18. PEDIATRIC LAVATORY MOUNT 17" A.F.F.
19. MIRROR 18"W X 30"T MOUNT 24" A.F.F. FROM BOTTOM.
20. MIRROR 4'-0"W X 2'-6"H.
21. GRAB BARS
22. SURFACE MOUNTED TOILET PAPER DISPENSER (SINGLE) 5⅞"W X 10¾"H X 5⅞"D.
23. SURFACE MOUNTED SANITARY NAPKIN & TAMPON DISPOSER 10¾"W X 15¼"H X 4"D (RM 46).
24. TOILET PARTITION DOOR & JAMB (32"W DOOR).
25. COUNTER MOUNTED SOAP DISPENSER.
26. MIRROR APPROX. 17⅛"W X 30⅝"H.
27. COAT HOOKS
28. TACK BOARD 92"T X 72"W SEE AND ROOM FINISH SCHEDULE (12 A-24)
29. CORNER GUARD (4'-0" TALL)
30. PEDIATRIC TOILET (TOILET SEAT 13" A.F.F.)
31. HANDICAP TOILET (TOILET SEAT 18" A.F.F.)

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF STUD OR CMU UNLESS NOTED OTHERWISE.
2. ALL INTERIOR PARTITIONS ARE 4" (ACTUAL DIMENSION) METAL STUDS UNLESS NOTED OTHERWISE.
3. VENEER PLASTER CONTROL JOINTS SHALL BE CO-LOCATED WITH CMU CONTROL JOINTS.
4. 4'-0" HIGH PARTITION SEE 18/A-24.
5. BUILDING "B" ADMIN & LAUNDRY MODULES ARE OPPOSITE HAND AND ARE SHOWN ON SHT A-2.

SCALE: 1/4"=1'-0"
SCALE: 3/8"=1'-0"

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: D. POHL
Drawn by: J. JAGGERS
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDPEN
PN 380
FY 90

ADMIN & LAUNDRY MODULES

Scale: 1/4"=1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-7
Sheet 34 of 07

RECORD DRAWING "AS BUILT"

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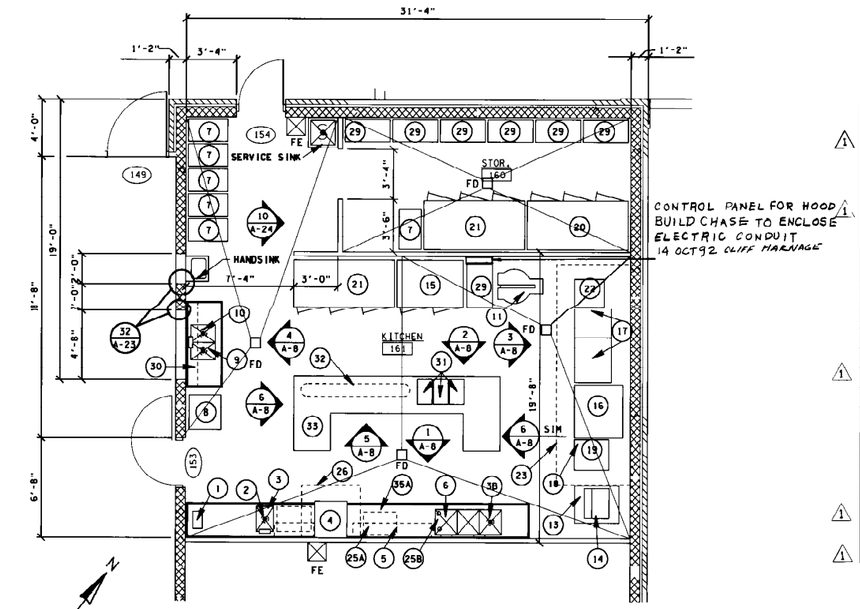
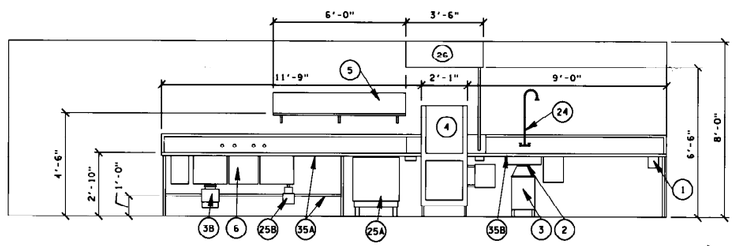


KITCHEN MODULE
SCALE: 1/4"=1'-0"

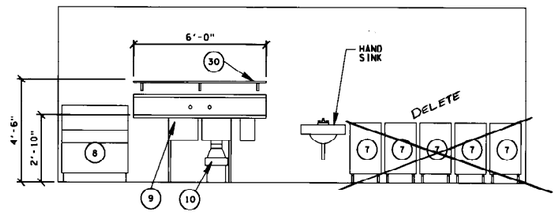
EQUIPMENT SCHEDULE • ALL EQUIPMENT SHALL HAVE POLISHED STAINLESS STEEL EXTERIOR SURFACES EXCEPT FOR ITEM *8

GENERAL								ELECTRICAL						MECHANICAL			
			DIMENSIONS											WATER			
ITEM NO.	QTY	DESCRIPTION	WIDTH NOT	DEPTH TO	HEIGHT EXCEED	REMARKS	SIMILAR TO TO MODEL	VOLT	CYCLES	PHASE	HP	AMP	REMARKS	HOT	COLD	REMARKS	ITEM NO.
1	1	UTENSIL PRESOAK SINK	8"	14"	8"												1
2	1	PRE-RINSE SINK	20"	20"	5"									1/2"	1/2"		2
3	1	GARBAGE DISPOSAL					INSINKERATOR SS150	208	60	3	1 1/4	5.2	INCLUDE CC202 CONTROLS		1/2"		3
4	1	DISHWASHER	26 1/4"	29 1/4"	67 1/2"		HOBART AM 14	208	60	3	1		5.0 KW				4
5	1	WALL SHELVING, TYPE A		12"		SEE DETAIL 12, SHT. A-8											5
6	1	3-COMPARTMENT POT/PAN SINK	18"	20"	20"	WITH FAUCETS								3/4"	3/4"		6
7		NOT USED															7
8	1	ICE MAKER	30"	28"	41"	110 # HALF CUBES PER DAY	MANITOWAC AY1044	115	60	1	1/4	8.6	HARDWIRE		1/4"	W/CARTRIGE TYPE FILTER	8
9	1	2-COMPARTMENT PREP SINK	16"	20"	12"	6'-0" LONG, W/ FAUCETS											9
10	1	GARBAGE DISPOSAL					INSINKERATOR SS150	208	60	3	1 1/4	5.2	INCLUDE CC202 CONTROLS		1/2"		10
11	1	CUTTER MIXER					HOBART HCM450	208	60	3	5						11
12		NOT USED															12
13	1	WORK TABLE	36"	30"	34"		TARCO SS303										13
14	1	CONVEYOR TOASTER	16"	24"	19"	720 SLICES PER HOUR	VULCAN T1121	208	60	1		14	2.9 KW				14
15	1	2 SECTION REFRIGERATOR					HOBART OS2	120	60	1	1/2	11.2	976 W				15
16	1	CONVECTION OVEN	39 3/8"	42 1/4"	56 1/8"	SS STAND WITH EQUIPMENT RACK BELOW	VULCAN ET-8R	208	60	3	1/2		16.5 KW				16
17	1	RANGE- SIX OPEN BURNERS, TWO OVENS AND BROILER GRIDDLE	63"	31 1/2"	72"		VULCAN E60FB	208	60	3			34.8 KW				17
18	1	SUPPORT STAND FOR #19	28"	24 1/2"	18"	CLEVELAND RANGE	* STD -28										18
19	1	TILTING SKILLET				CLEVELAND RANGE	* SET 16	208	60	3		18.4	6.0 KW				19
20	1	3-SECTION REFRIGERATOR	82 1/8"	39" CLR	76 5/8"		HOBART OS3	120	60	1	1/2	12	AMP MAX DRAW SINGLE RECP.			NO PLUMBING CONNECTIONS	20
21	2	3-SECTION FREEZER	82 1/2"	39" CLR	76 5/8"		HOBART OSF3 120/208	60	1	1/2	8.6	AMP MAX DRAW SINGLE RECP.				NO PLUMBING CONNECTIONS	21
22	1	CONVECTION STEAMER	24"	24"	62"	WT-400 WATER TREATER	CLEVELAND 6-CEM36	208	60	3.2			36 KW				22
23	1	COOKING EQUIPMENT HOOD	15'-0"	5'-0"		SEE DETAIL 9, SHT. A-8											23
24	1	PRE-RINSE SPRAY			40"		T & S B133							1/2"	1/2"		24
25A	1	BOOSTER HEATER				W/PILOT LITE & TEMP GAGE	HATCO S15	208	60	3		18	15 KW	3/4"		3/4" / 140 DEG F	25A
25B	1	SINK HEATER				W/PILOT LITE & TEMP GAGE	HATCO 3CS9	208	60	3			9 KW			3/4" / 180 DEG F	25B
26	1	STAINLESS STEEL CONDENSATE HOOD	3'-6"	4'-0"		SEE DETAIL 10, SHT. A-8											26
27		NOT USED															27
28		NOT USED															28
29	7	WIRE SHELVING	21"	36"	72"	W/ 4 SHELVES EACH	METRO 2136NC										29
30	2	WALL SHELVING, TYPE B		12"		SEE DETAIL 13, SHT. A-8											30
31	3	HOT FOOD PANS	12"	20"	6"		DELFIELD 8145-3	208	60	1		14.4	3KW TANK			1" DRAIN LINE & MANIFOLD	31
32	1	POT & PAN RACK				8'-0" LONG SEE DETAIL 11, SHT. A-8											32
33	1	CHEF'S COUNTER				14'-0" LONG											33
34		NOT USED															34
35A	1	CLEAN DISH TABLE				SEE DETAIL 8, SHT. A-8											35A
35B	1	SOILED DISH TABLE				SEE DETAIL 8, SHT. A-8											35B
36		NOT USED															36

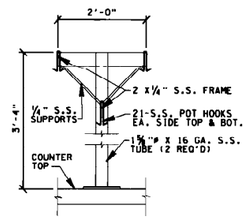
GENERAL NOTES:
1. ALL DIMENSIONS ARE TO FACE OF STUD OR CMU UNLESS NOTED OTHERWISE.
2. ALL INTERIOR PARTITIONS ARE 4" (ACTUAL DIMENSION) METAL STUDS UNLESS NOTED OTHERWISE.
3. VENEER PLASTER CONTROL JOINTS SHALL BE CO-LOCATED WITH CMU CONTROL JOINTS.
4. 4'-0" HIGH PARTITION SEE 18/A-24.
5. BUILDING "B" KITCHEN MODULE IS OPPOSITE HAND AND IS SHOWN ON SHT A-2.



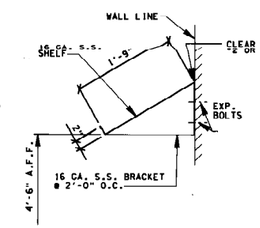
DISHWASHING ELEVATION (1/A-8)
SCALE: 3/8"=1'-0"



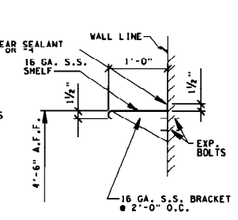
PREP SINK ELEVATION (4/A-8)
SCALE: 3/8"=1'-0"



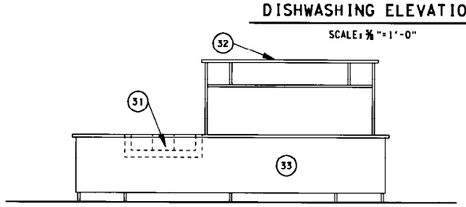
BAKER'S RACK (11/A-8)
SCALE: 1 1/2"=1'-0"



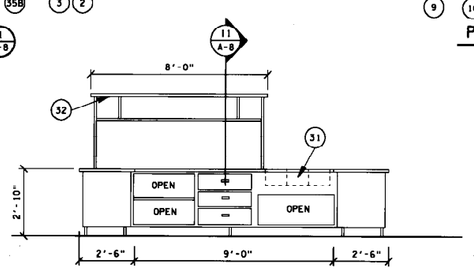
TYPE "A" S.S. SHELF (12/A-8)
SCALE: 1"=1'-0"



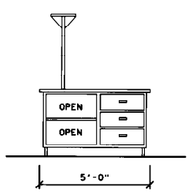
TYPE "B" S.S. SHELF (13/A-8)
SCALE: 1"=1'-0"



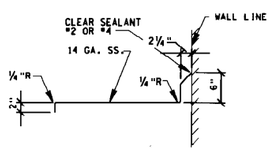
BACK DISH COUNTER ELEVATION (2/A-8)
SCALE: 3/8"=1'-0"



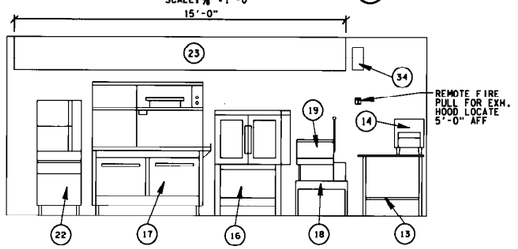
FRONT DISH COUNTER ELEVATION (5/A-8)
SCALE: 3/8"=1'-0"



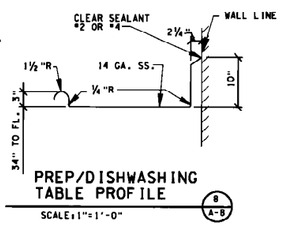
END DISH COUNTER (6/A-8)
SCALE: 3/8"=1'-0"



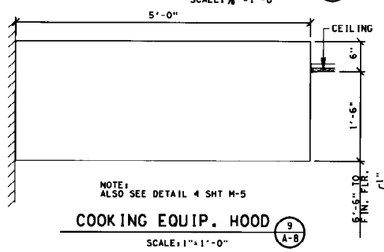
COUNTER TOP PROFILE (7/A-8)
SCALE: 1"=1'-0"



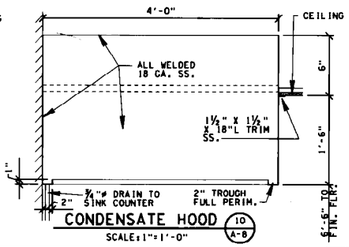
COOK LINE ELEVATION (3/A-8)
SCALE: 3/8"=1'-0"



PREP/DISHWASHING TABLE PROFILE (8/A-8)
SCALE: 1"=1'-0"



COOKING EQUIP. HOOD (9/A-8)
SCALE: 1"=1'-0"



CONDENSATE HOOD (10/A-8)
SCALE: 1"=1'-0"

Revisions			
Symbol	Descriptions	Date	Approved
1	(ADMT #0003) SCHEDULE REVISED	31 AUG 90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

KITCHEN MODULE

Designed by: D. POHL
Drawn by: J. JAGGERS
Checked by: HENRY B. THOBEN
Reviewed by: GARRY MINTER
Approved by: LARRY D. MARTIN
Scale: 1/4"=1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-8
Sheet 35 of 107

RECORD DRAWING "AS BUILT"

ZOO: (40,77)FCC6XA08.DGN;1
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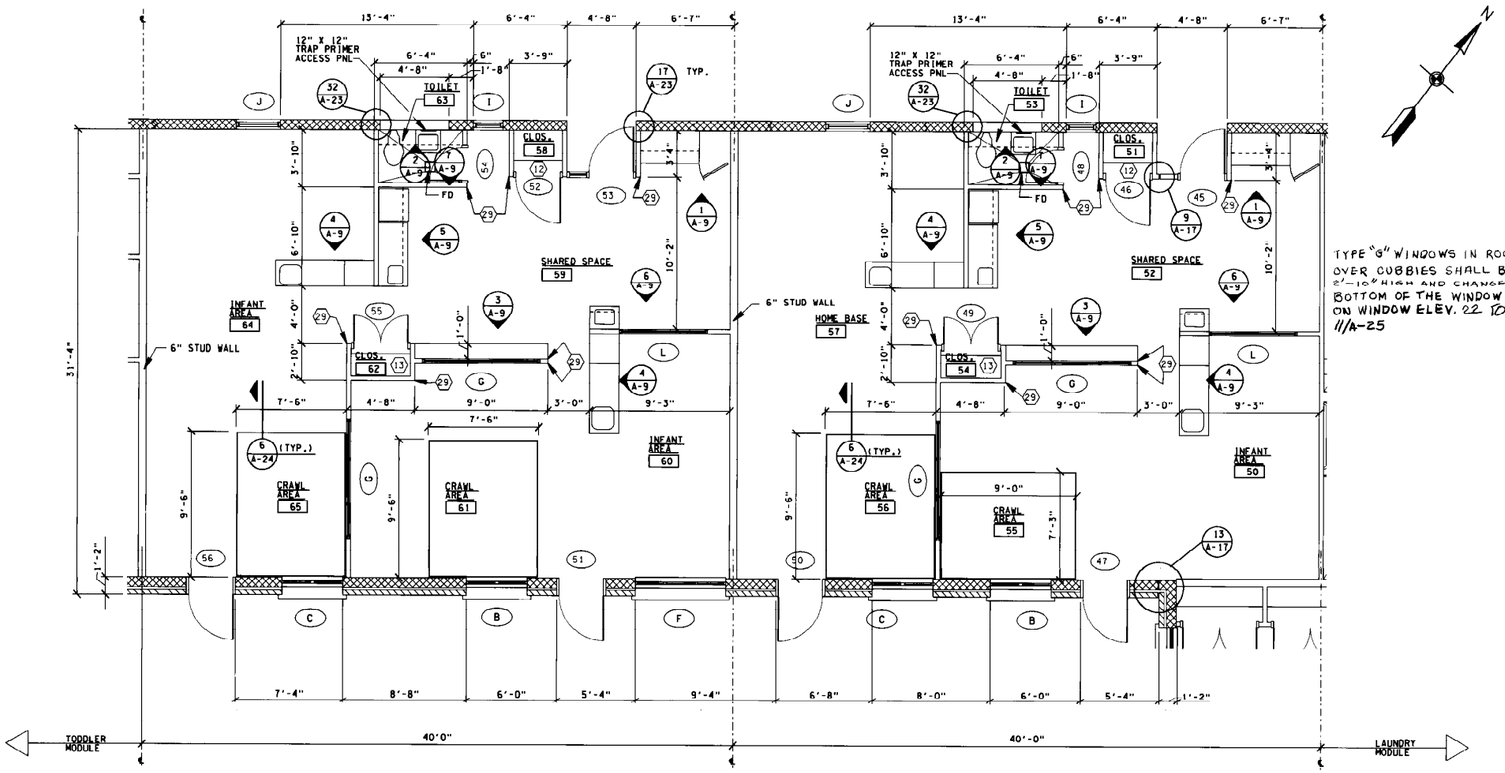
USER = CHARMAINEW



TYPE "G" WINDOWS IN ROOMS 52 AND 59 – THAT ARE OVER CUBBIES SHALL BE CUT DOWN FROM 4'-10" TO 2'-10" HIGH AND CHANGE THE ELEVATION TO THE BOTTOM OF THE WINDOW FROM 2'-0" AFF AS SHOWN ON WINDOW ELEV. 22 TO 4'-6" AFF AS PER DETAIL 11/A-25

INFANT MODULES

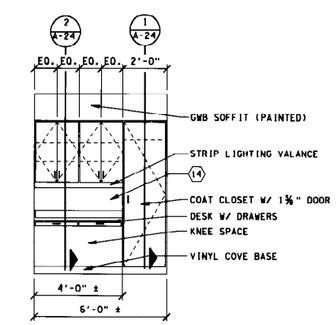
SCALE: ¼"=1'-0"

LEGEND

1. MIRROR/SOAP DISPENSER 17"W X 30"H X 4"D±
2. VANITY MIRROR 28" X 60"
3. DIAPER STATION MIRROR 10" X 32"
4. CRAWL AREA MIRROR 16" X 60"
5. VANITY MIRROR 24" X 36"
6. ADULT TOILET (TOILET SEAT 15" A.F.F.)
7. PEDIATRIC TOILET (TOILET SEAT 10" A.F.F.)
8. TOILET PAPER DISPENSER (ADULT 20" A.F.F.)
9. TOILET PAPER DISPENSER (PEDRIATRIC 14" A.F.F.)
10. PAPER TOWEL DISPENSER/DISPOSAL 12"W X 26"H X 4"D ±
11. PAPER TOWEL DISPENSER 15" X 11" X 4" ± MOUNT 30" A.F.F. TO ℄
12. (4) 2'-0" DEEP SHELVES ON ADJUSTABLE SHELF STANDARDS-START AT 4'-0" A.F.F.
13. (6) 1'-6" DEEP SHELVES ON ADJUSTABLE SHELF STANDARDS.
14. TACK BOARD
15. TOILET PARTITION SCREEN 36"W X 36"H.
16. WASTE RECEPTACLE 6 GAL. CAPACITY 18"H X 14"W X 6"D MOUNT 20" A.F.F. FROM TOP.
17. TOILET PARTITION DOOR & JAMB 36"T (24"W DOOR).
18. PEDIATRIC LAVATORY MOUNT 17" A.F.F.
19. MIRROR 18"W X 30"T MOUNT 24" A.F.F. FROM BOTTOM.
20. MIRROR 4'-0"W X 2'-6"H.
21. GRAB BARS
22. SURFACE MOUNTED TOILET PAPER DISPENSER (SINGLE) 5⅜"W X 10⅜"H X 5⅞"D.
23. SURFACE MOUNTED SANITARY NAPKIN & TAMPON DISPOSER 10⅝"W X 15½"H X 4"D (RM 46).
24. TOILET PARTITION DOOR & JAMB (32"W DOOR).
25. COUNTER MOUNTED SOAP DISPENSER.
26. MIRROR APPROX. 17⅛"W X 30⅝"H.
27. COAT HOOKS
28. TACK BOARD 92"T X 72"W SEE (12/A-24) AND ROOM FINISH SCHEDULE
29. CORNER GUARD (4'-0" TALL)
30. PEDIATRIC TOILET (TOILET SEAT 13" A.F.F.)
31. HANDICAP TOILET (TOILET SEAT 18" A.F.F.)

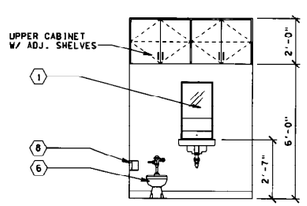
GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF STUD OR CMU UNLESS NOTED OTHERWISE.
2. ALL INTERIOR PARTITIONS ARE 4" (ACTUAL DIMENSION) METAL STUDS UNLESS NOTED OTHERWISE.
3. VENEER PLASTER CONTROL JOINTS SHALL BE CO-LOCATED WITH CMU CONTROL JOINTS.
4. ▭▭▭ 4'-0" HIGH PARTITION SEE 18/A-24.
5. BUILDING "B" INFANT MODULE IS OPPOSITE HAND AND IS SHOWN ON SHT A-2.



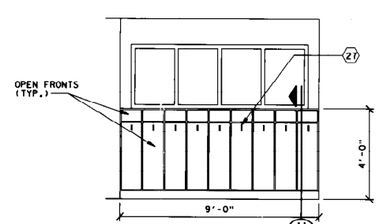
RECEPTION DESK (1/A-9)

SCALE: ⅜"=1'-0"



TOILET (2/A-9)

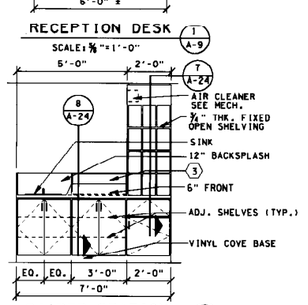
SCALE: ⅜"=1'-0"



CUBBIES (3/A-9) (11/A-24)

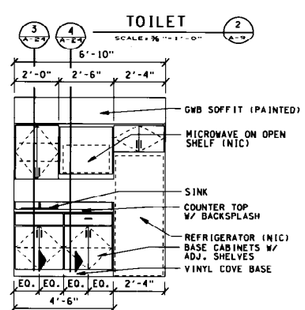
SCALE: ⅜"=1'-0"

SEE DETAIL FOR WINDOW SIZE AND LOCATION 3 JAN 92 CHM



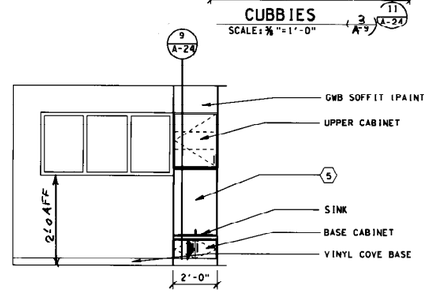
DIAPER STATION (4/A-9)

SCALE: ⅜"=1'-0"



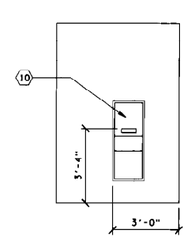
KITCHENETTE (5/A-9)

SCALE: ⅜"=1'-0"



VANITY (6/A-9)

SCALE: ⅜"=1'-0"



ELEVATION (7/A-9)

SCALE: ⅜"=1'-0"

SCALE: 1/4"=1'-0"

SCALE: 3/8"= 1'-0"

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: D. POHL
Drawn by: J. JAGGERS
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

INFANT MODULE

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-9
Sheet 36 of 107

RECORD DRAWING "AS BUILT"

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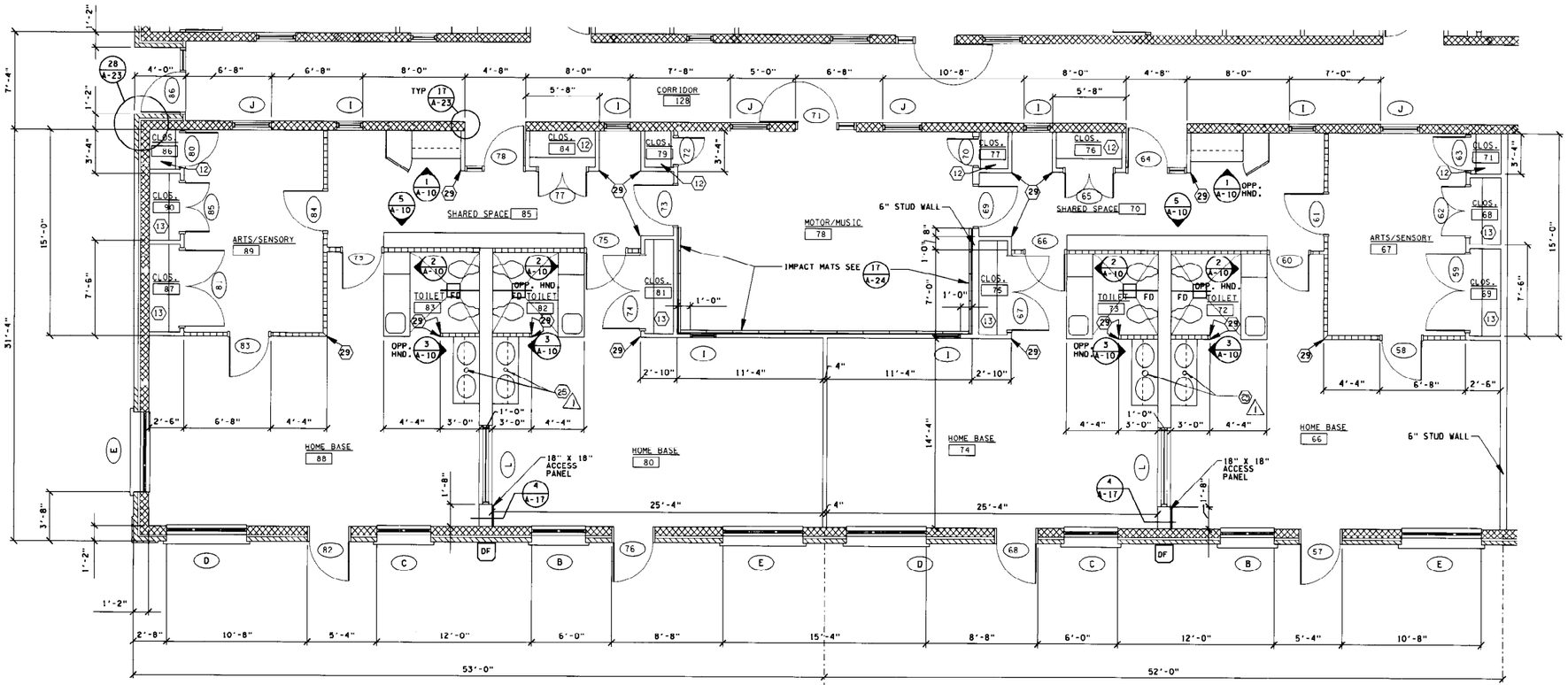
DATE = 27-APR-90, 08:57:21
USER = JJMJ

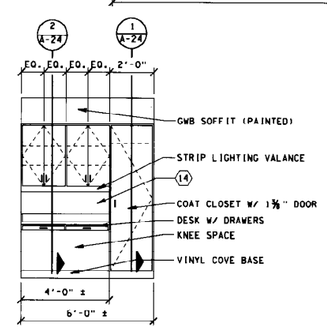


TODDLER MODULE

SCALE: 1/4"=1'-0"

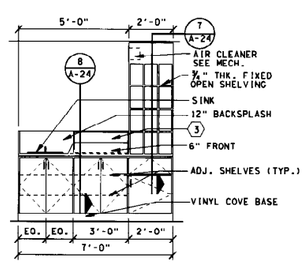
LEGEND

1. MIRROR/SOAP DISPENSER 17"W X 30"H X 4"D±
2. VANITY MIRROR 28" X 60"
3. DIAPER STATION MIRROR 10" X 32"
4. CRAWL AREA MIRROR 16" X 60"
5. VANITY MIRROR 24" X 36"
6. ADULT TOILET (TOILET SEAT 15" A.F.F.)
7. PEDIATRIC TOILET (TOILET SEAT 10" A.F.F.)
8. TOILET PAPER DISPENSER (ADULT 20" A.F.F.)
9. TOILET PAPER DISPENSER (PEDRIATRIC 14" A.F.F.)
10. PAPER TOWEL DISPENSER/DISPOSAL 12"W X 26"H X 4"D ±
11. PAPER TOWEL DISPENSER 15" X 11" X 4" ± MOUNT 30" A.F.F. TO ℄
12. (4) 21'-0" DEEP SHELVES ON ADJUSTABLE SHELF STANDARDS-START AT 4'-0" A.F.F.
13. (6) 12'-0" DEEP SHELVES ON ADJUSTABLE SHELF STANDARDS.
14. TACK BOARD
15. TOILET PARTITION SCREEN 36"W X 36"H.
16. WASTE RECEPTACLE 6 GAL. CAPACITY 18"H X 14"W X 6"D MOUNT 20" A.F.F. FROM TOP.
17. TOILET PARTITION DOOR & JAMB 36"T (24"W DOOR).
18. PEDIATRIC LAVATORY MOUNT 17" A.F.F.
19. MIRROR 18"W X 30"T MOUNT 24" A.F.F. FROM BOTTOM.
20. MIRROR 4'-0"W X 2'-6"H.
21. GRAB BARS
22. SURFACE MOUNTED TOILET PAPER DISPENSER (SINGLE) 5⅝"W X 10⅜"H X 5⅝"D.
23. SURFACE MOUNTED SANITARY NAPKIN & TAMPON DISPOSER 10¾"W X 15⅛"H X 4"D (RM 46).
24. TOILET PARTITION DOOR & JAMB (32"W DOOR).
25. COUNTER MOUNTED SOAP DISPENSER.
26. MIRROR APPROX. 17⅛"W X 30⅝"H.
27. COAT HOOKS
28. TACK BOARD 92"T X 72"W SEE 12/A-24 AND ROOM FINISH SCHEDULE
29. CORNER GUARD (4'-0" TALL)
30. PEDIATRIC TOILET (TOILET SEAT 13" A.F.F.)
31. HANDICAP TOILET (TOILET SEAT 18" A.F.F.)



RECEPTION DESK

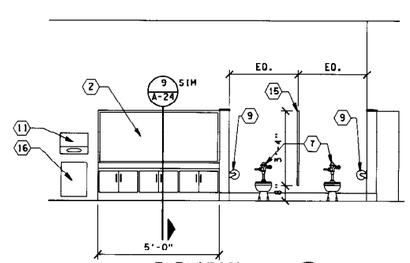
1/A-10



DIAPER STATION

SCALE: ⅜"=1'-0"

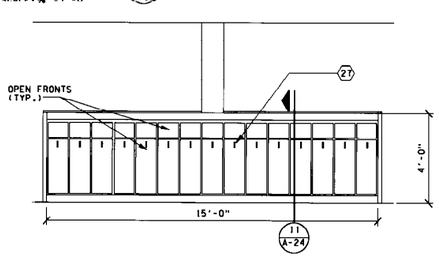
2/A-10



ELEVATION

SCALE: ⅜"=1'-0"

3/A-10



CUBBIES

SCALE: ⅜"=1'-0"

5/A-10

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF STUD OR CMU UNLESS NOTED OTHERWISE.
2. ALL INTERIOR PARTITIONS ARE 4" (ACTUAL DIMENSION) METAL STUDS UNLESS NOTED OTHERWISE.
3. VENEER PLASTER CONTROL JOINTS SHALL BE CO-LOCATED WITH CMU CONTROL JOINTS.
4. ▭▭▭ 4'-0" HIGH PARTITION SEE 18/A-24.
5. BUILDING "B" TODDLER MODULE IS OPPOSITE HAND AND IS SHOWN ON SHT A-2.

GRAPHIC SCALE

SCALE: 1/4"=1'-0"

SCALE: 3/8"= 1'-0"

Revisions			
Symbol	Descriptions	Date	Approved
1	(CASE AC) SOAP DISPENSERS ADDED	14 NOV 91	JDP

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: D. POHL
Drawn by: J. JAGGERS
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

TODDLER MODULE

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-10
Sheet 37 of 107

RECORD DRAWING "AS BUILT"

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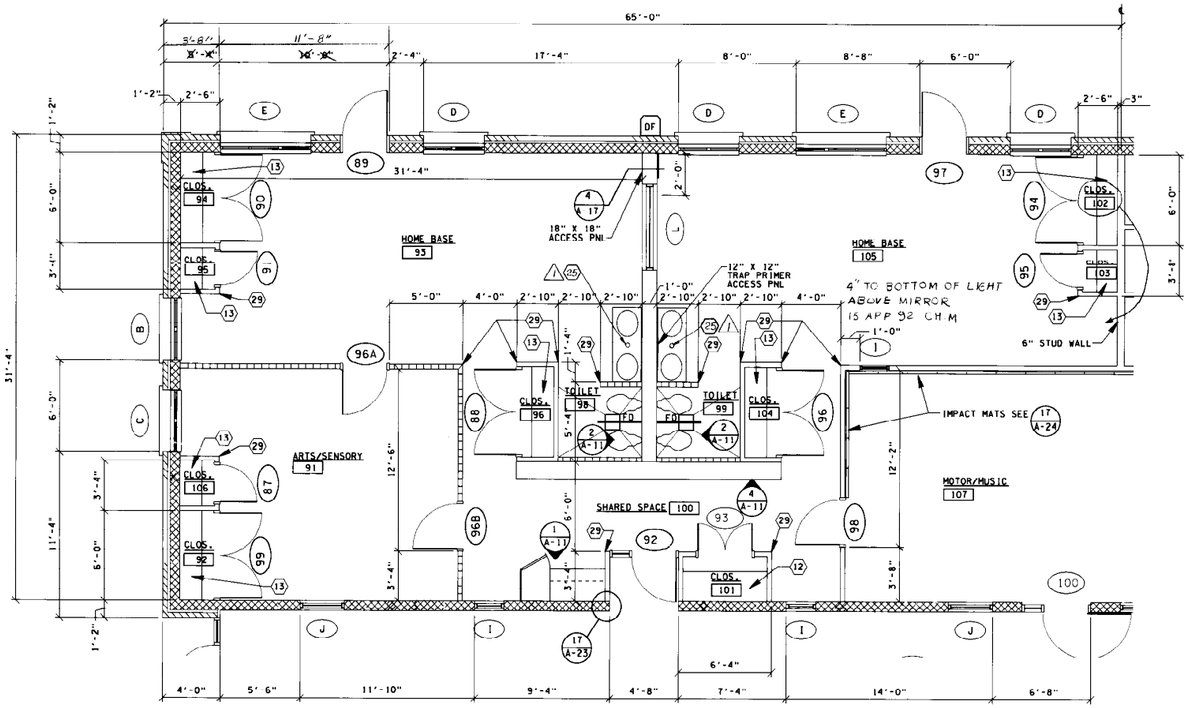


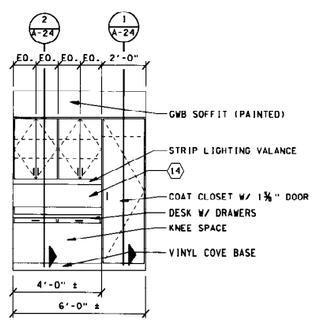
RELOCATE 102 TO SOUTHEAST CORNER
MOVE 103 TO NORTH AS NEEDED
CH. M. / CLIFF HARNACE 3 FEB 92

PRESCHOOL MODULE

SCALE: 1/4"=1'-0"

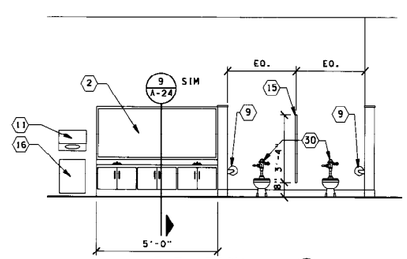
LEGEND

1. MIRROR/SOAP DISPENSER 17"W X 30"H X 4"D±
2. VANITY MIRROR 28" X 60"
3. DIAPER STATION MIRROR 10" X 32"
4. CRAWL AREA MIRROR 16" X 60"
5. VANITY MIRROR 24" X 36"
6. ADULT TOILET (TOILET SEAT 15" A.F.F.)
7. PEDIATRIC TOILET (TOILET SEAT 10" A.F.F.)
8. TOILET PAPER DISPENSER (ADULT 20" A.F.F.)
9. TOILET PAPER DISPENSER (PEDRIATRIC 14" A.F.F.)
10. PAPER TOWEL DISPENSER/DISPOSAL 12"W X 26"H X 4"D ±
11. PAPER TOWEL DISPENSER 15" X 11" X 4" ± MOUNT 30" A.F.F. TO ℄
12. (4) 2'-0" DEEP SHELVES ON ADJUSTABLE SHELF STANDARDS START AT 4'-0" A.F.F.
13. (6) 1'-0" DEEP SHELVES ON ADJUSTABLE SHELF STANDARDS.
14. TACK BOARD
15. TOILET PARTITION SCREEN 36"W X 36"H.
16. WASTE RECEPTACLE 6 GAL. CAPACITY 18"H X 14"W X 6"D MOUNT 20" A.F.F. FROM TOP.
17. TOILET PARTITION DOOR & JAMB 36"T (24"W DOOR).
18. PEDIATRIC LAVATORY MOUNT 17" A.F.F.
19. MIRROR 18"W X 30"T MOUNT 24" A.F.F. FROM BOTTOM.
20. MIRROR 4'-0"W X 2'-6"H.
21. GRAB BARS
22. SURFACE MOUNTED TOILET PAPER DISPENSER (SINGLE) 5⅝"W X 10⅜"H X 5⅞"D.
23. SURFACE MOUNTED SANITARY NAPKIN & TAMPON DISPOSER 10¾"W X 15⅛"H X 4"D (RM 46).
24. TOILET PARTITION DOOR & JAMB (32"W DOOR).
25. COUNTER MOUNTED SOAP DISPENSER.
26. MIRROR APPROX. 17½"W X 30⅝"H.
27. COAT HOOKS
28. TACK BOARD 92"T X 72"W SEE 12/A-24 AND ROOM FINISH SCHEDULE
29. CORNER GUARD (4'-0" TALL)
30. PEDIATRIC TOILET (TOILET SEAT 13" A.F.F.)
31. HANDICAP TOILET (TOILET SEAT 18" A.F.F.)



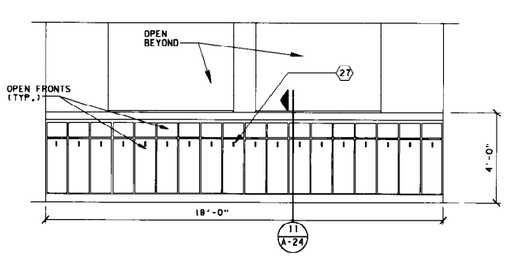
RECEPTION DESK

SCALE: ¾"=1'-0"



ELEVATION

SCALE: ¾"=1'-0"



CUBBIES

SCALE: ⅜"=1'-0"

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF STUD OR CMU UNLESS NOTED OTHERWISE.
2. ALL INTERIOR PARTITIONS ARE 4" (ACTUAL DIMENSION) METAL STUDS UNLESS NOTED OTHERWISE.
3. VENEER PLASTER CONTROL JOINTS SHALL BE CO-LOCATED WITH CMU CONTROL JOINTS.
4. 4'-0" HIGH PARTITION SEE 18/A-24.
5. BUILDING "B" TODDLER MODULE IS OPPOSITE HAND AND IS SHOWN ON SHT A-2.

GRAPHIC SCALE

SCALE: 1/4"=1'-0"

SCALE: 3/8"= 1'-0"

Revisions			
Symbol	Descriptions	Date	Approved
1	(CASE AL) SOAP DISPENSERS ADDED	19 NOV 91	JDP

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: D. POHL
Drawn by: J. JAGGERS
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

PRESCHOOL MODULE

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-11
Sheet 38 of 107

RECORD DRAWING "AS BUILT"

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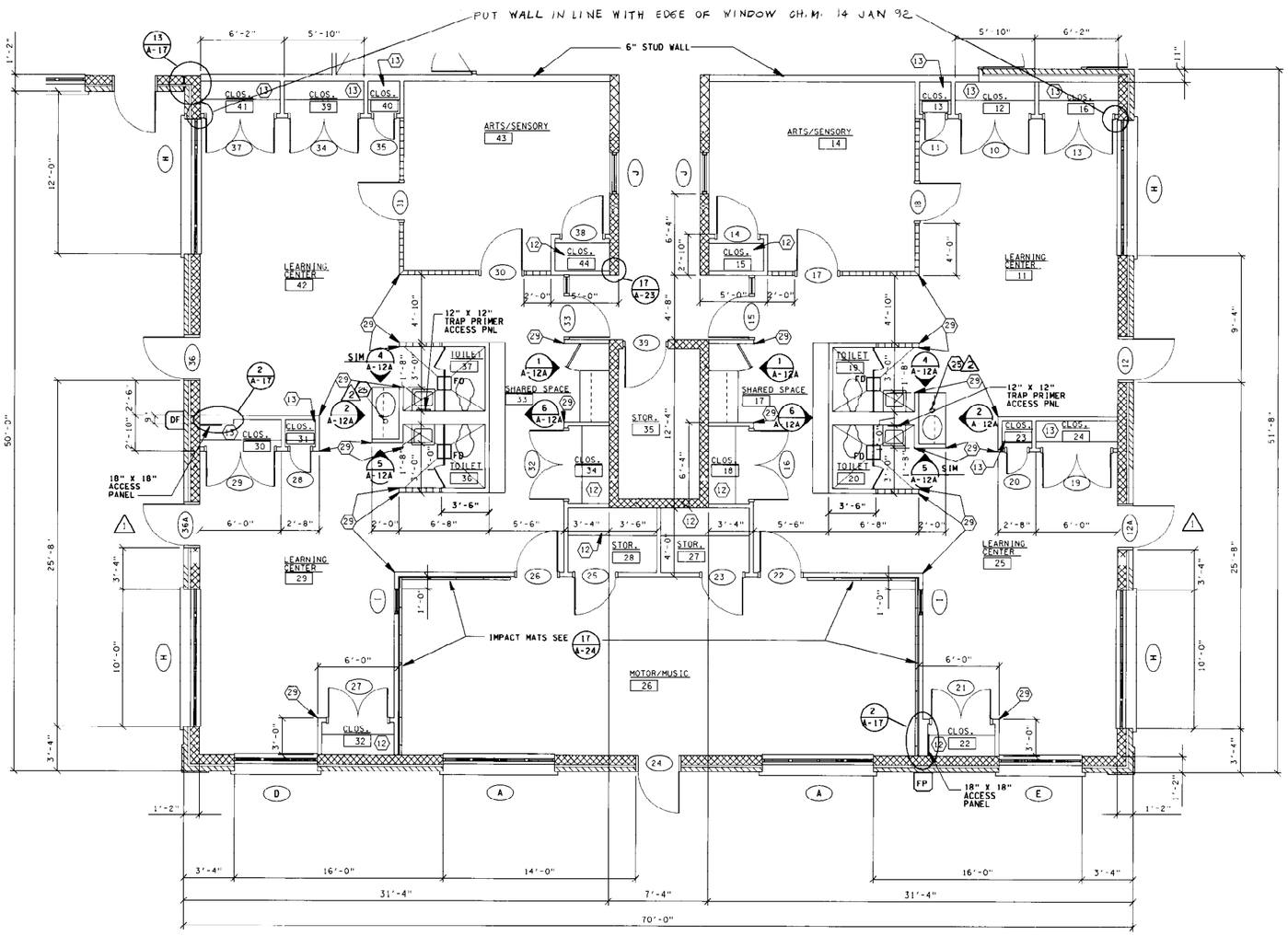


COMPOSITE MODULE
SCALE: 1/4"=1'-0"

LEGEND

1. MIRROR/SOAP DISPENSER 17"W X 30"H X 4"D±
2. VANITY MIRROR 28" X 60"
3. DIAPER STATION MIRROR 10" X 32"
4. CRAWL AREA MIRROR 16" X 60"
5. VANITY MIRROR 24" X 36"
6. ADULT TOILET (TOILET SEAT 15" A.F.F.)
7. PEDIATRIC TOILET (TOILET SEAT 10" A.F.F.)
8. TOILET PAPER DISPENSER (ADULT 20" A.F.F.)
9. TOILET PAPER DISPENSER (PEDRIATRIC 14" A.F.F.)
10. PAPER TOWEL DISPENSER/DISPOSAL 12"W X 26"H X 4"D ±
11. PAPER TOWEL DISPENSER 15" X 11" X 4" ± MOUNT 30" A.F.F. TO ℄
12. (4) 2'-0" DEEP SHELVES ON ADJUSTABLE SHELF STANDARDS-START AT 4'-0" A.F.F.
13. (6) 1'-6" DEEP SHELVES ON ADJUSTABLE SHELF STANDARDS.
14. TACK BOARD
15. TOILET PARTITION SCREEN 36"W X 36"H.
16. WASTE RECEPTACLE 6 GAL. CAPACITY 18"H X 14"W X 6"D MOUNT 20" A.F.F. FROM TOP.
17. TOILET PARTITION DOOR & JAMB 36"T (24"W DOOR).
18. PEDIATRIC LAVATORY MOUNT 17" A.F.F.
19. MIRROR 18"W X 30"T MOUNT 24" A.F.F. FROM BOTTOM.
20. MIRROR 4'-0"W X 2'-6"H.
21. GRAB BARS
22. SURFACE MOUNTED TOILET PAPER DISPENSER (SINGLE) 5¾"W X 10⅜"H X 5¼"D.
23. SURFACE MOUNTED SANITARY NAPKIN & TAMPON DISPOSER 10¾"W X 15⅛"H X 4"D (RM 46).
24. TOILET PARTITION DOOR & JAMB (32"W DOOR).
25. COUNTER MOUNTED SOAP DISPENSER.
26. MIRROR APPROX. 17⅛"W X 30⅜"H.
27. COAT HOOKS
28. TACK BOARD 92"T X 72"W SEE 12/A-24 AND ROOM FINISH SCHEDULE
29. CORNER GUARD (4'-0" TALL)
30. PEDIATRIC TOILET (TOILET SEAT 13" A.F.F.)
31. HANDICAP TOILET (TOILET SEAT 18" A.F.F.)

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF STUD OR CMU UNLESS NOTED OTHERWISE.
2. ALL INTERIOR PARTITIONS ARE 4" (ACTUAL DIMENSION) METAL STUDS UNLESS NOTED OTHERWISE.
3. VENEER PLASTER CONTROL JOINTS SHALL BE CO-LOCATED WITH CMU CONTROL JOINTS.
4. 4'-0" HIGH PARTITION SEE 18/A-24.
5. BUILDING "B" COMPOSITE MODULE IS OPPOSITE HAND AND IS SHOWN ON SHT A-2.

4 3 2 1 0 4
SCALE: 1/4"=1'-0"

Revisions

Symbol	Descriptions	Date	Approved
2	(CASE AC) SOAP DISPENSERS ADDED	14 NOV 91	JDD HBP
1	(AMDT #0003) DOORS & DIMENSIONS ADDED	31 AUG 90	JDD HBP SMK

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

COMPOSITE MODULE

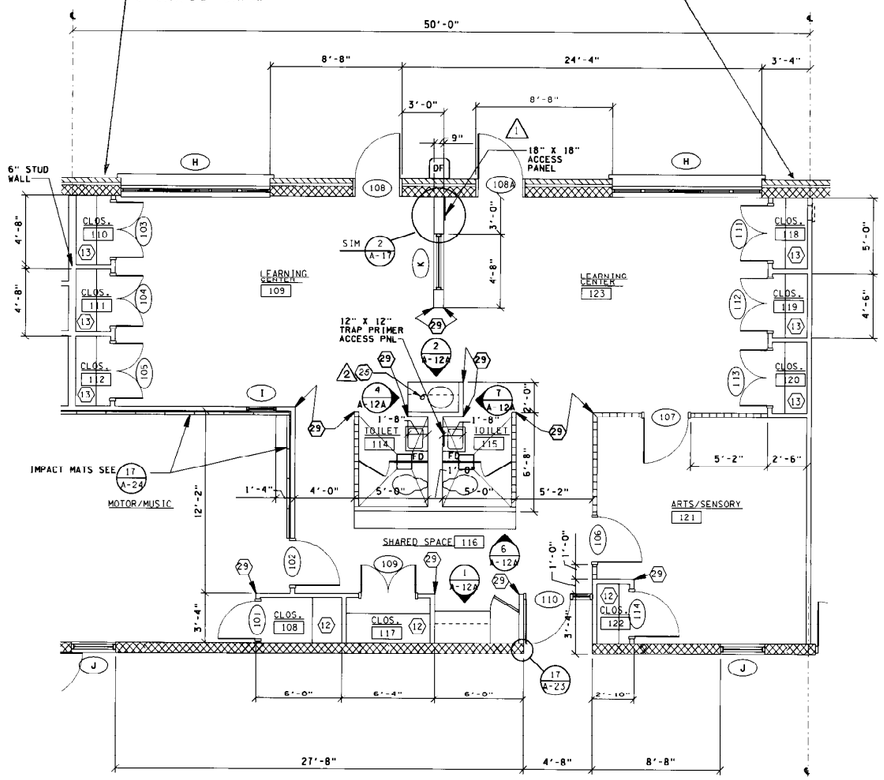
Designed by: D. POHL
Drawn by: J. JAGGERS
Checked by: HARRY B. THOBEN
Reviewed by: GARRY MINTER
Approved by: LARRY D. MARTIN

Scale: 1/4"=1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-12
Sheet 39 of 107

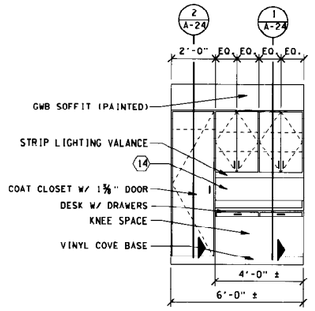
RECORD DRAWING "AS BUILT"

ZGO:[40,77]FCCGXA12.DGN;1
DATE = 28-AUG-90, 17:02:34
USER = CHARMAINEW

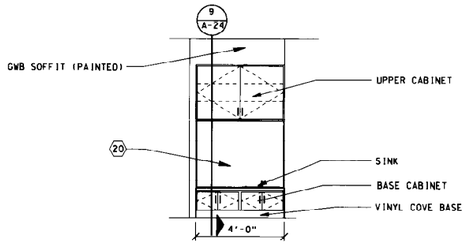
PUT CLOSET # 118 AND 119 AND 110 AND 111 PER DOOR DIMENSIONS
FILL REST OF WALL WITH CLOSET # 120 AND 112 AND NEW DOOR/FRAME
5 JAN 92 CH. M.



COMPOSITE MODULE
SCALE: 1/4"=1'-0"



RECEPTION DESK
SCALE: 3/8"=1'-0"



VANITY
SCALE: 3/8"=1'-0"

LEGEND

1. MIRROR/SOAP DISPENSER 17"W X 30"H X 4"D±
2. VANITY MIRROR 28" X 60"
3. DIAPER STATION MIRROR 10" X 32"
4. CRAWL AREA MIRROR 16" X 60"
5. VANITY MIRROR 24" X 36"
6. ADULT TOILET (TOILET SEAT 15" A.F.F.)
7. PEDIATRIC TOILET (TOILET SEAT 10" A.F.F.)
8. TOILET PAPER DISPENSER (ADULT 20" A.F.F.)
9. TOILET PAPER DISPENSER (PEDRIATRIC 14" A.F.F.)
10. PAPER TOWEL DISPENSER/DISPOSAL 12"W X 26"H X 4"D ±
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12. (4) 2'-0" DEEP SHELVES ON ADJUSTABLE SHELF STANDARDS-START AT 4'-0" A.F.F.
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15. TOILET PARTITION SCREEN 36"W X 36"H.
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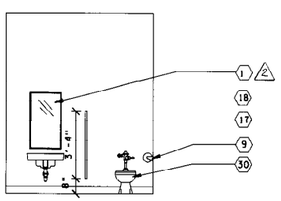
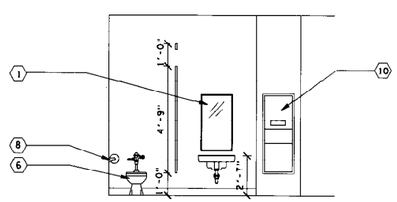
17. TOILET PARTITION DOOR & JAMB (24"W DOOR).
18. PEDIATRIC LAVATORY MOUNT 17" A.F.F.
19. MIRROR 18"W X 30"T MOUNT 24" A.F.F. FROM BOTTOM.
20. MIRROR 4'-0"W X 2'-6"H.
21. GRAB BARS
22. SURFACE MOUNTED TOILET PAPER DISPENSER (SINGLE) 5 7/8"W X 10 7/8"H X 5 7/8"D.
23. SURFACE MOUNTED SANITARY NAPKIN & TAMPON DISPOSER 10 7/8"W X 15 1/8"H X 4"D (RM 46).
24. TOILET PARTITION DOOR & JAMB (32"W DOOR).
25. COUNTER MOUNTED SOAP DISPENSER.
26. MIRROR APPROX. 17 1/8"W X 30 5/8"H.
27. COAT HOOKS
28. TACK BOARD 92"T X 72"W SEE 12 A-24 AND ROOM FINISH SCHEDULE
29. CORNER GUARD (4'-0" TALL)
30. PEDIATRIC TOILET (TOILET SEAT 13" A.F.F.)
31. HANDICAP TOILET (TOILET SEAT 18" A.F.F.)

GENERAL NOTES:

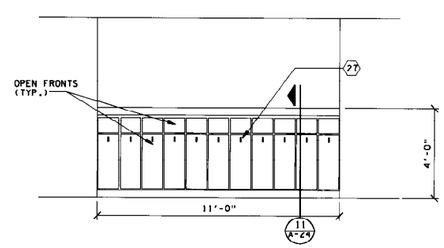
1. ALL DIMENSIONS ARE TO FACE OF STUD OR CMU UNLESS NOTED OTHERWISE.
2. ALL INTERIOR PARTITIONS ARE 4" (ACTUAL DIMENSION) METAL STUDS UNLESS NOTED OTHERWISE.
3. VENEER PLASTER CONTROL JOINTS SHALL BE CO-LOCATED WITH CMU CONTROL JOINTS.
4. ▭▭▭: 4'-0" HIGH PARTITION SEE 18/A-24.
5. BUILDING "B" COMPOSITE MODULE IS OPPOSITE HAND AND IS SHOWN ON SHT A-2.



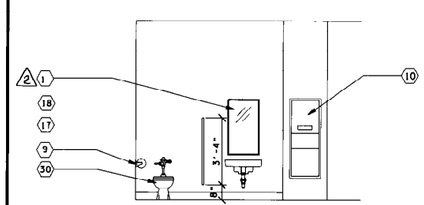
ELEVATION
SCALE: 3/8"=1'-0"



ELEVATION
SCALE: 3/8"=1'-0"



CUBBIES
SCALE: 3/8"=1'-0"



ELEVATION
SCALE: 3/8"=1'-0"

Revisions

Symbol	Descriptions	Date	Approved
2	(CASE AC) SOAP DISPENSER ADDED	14 NOV 91	
1	(AMDT #0003) DOOR & DIMENSION ADDED	31 AUG 90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: D. POHL
Drawn by: J. JAGGERS
Checked by: HARRY B. THOBEN
Reviewed by: GARRY MINTER
Approved by: LARRY D. MARTIN

US Army Corps of Engineers
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

COMPOSITE MODULE

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-12A
Sheet 40 of 107

RECORD DRAWING "AS BUILT"

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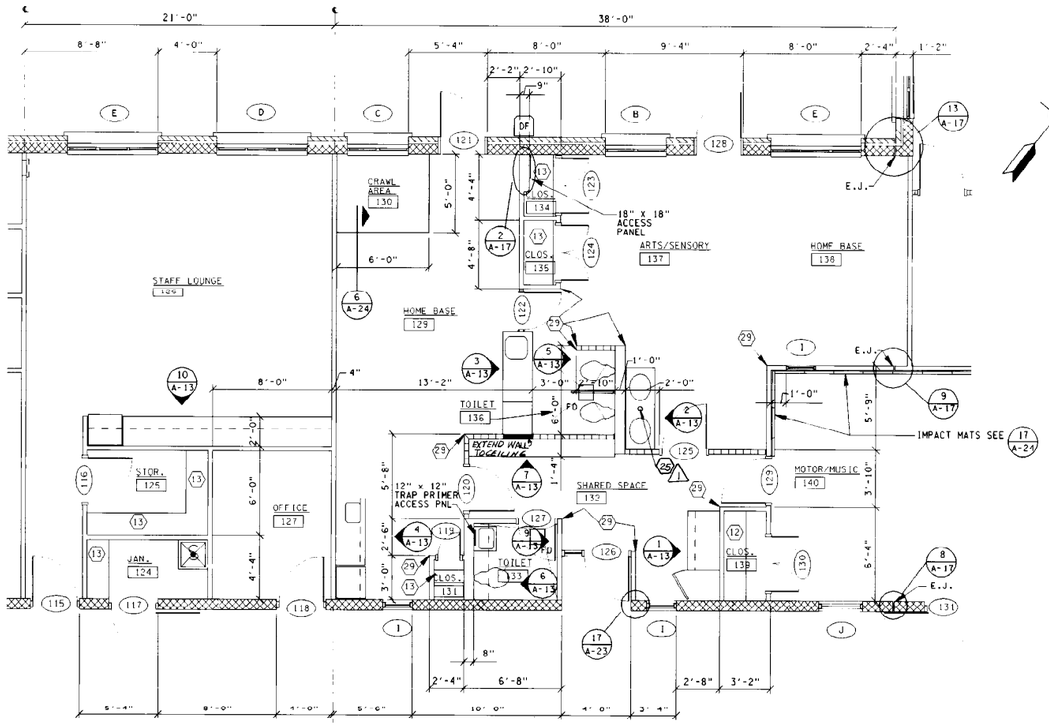
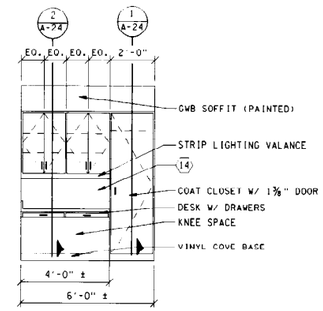


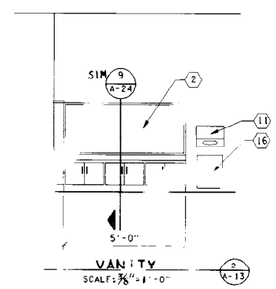
SMALL MULTI AGE & LOUNGE MODULES

SCALE: 1/4"=1'-0"



RECEPTION DESK

SCALE: 3/8"=1'-0"



VANITY

SCALE: 3/8"=1'-0"

LEGEND

1. MIRROR/SOAP DISPENSER 17"W X 30"H X 4"D±
2. VANITY MIRROR 28" x 60"
3. DIAPER STATION MIRROR 10" X 32"
4. CRAWL AREA MIRROR 16" X 60"
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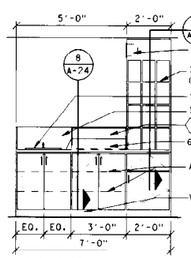
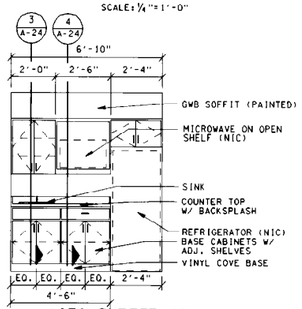
7. PEDIATRIC TOILET (TOILET SEAT 10" A.F.F.)
8. TOILET PAPER DISPENSER (ADULT 20" A.F.F.)
9. TOILET PAPER DISPENSER (PEDIATRIC 14" A.F.F.)
10. PAPER TOWEL DISPENSER/DISPOSAL 12"W X 26"H X 4"D ±
11. PAPER TOWEL DISPENSER 15" X 11" X 4" ± MOUNT 30" A.F.F. TO ℄
12. (4) 2'-0" DEEP SHELVES ON ADJUSTABLE SHELF STANDARDS-START AT 4'-0" A.F.F.
13. (6) 1'-6" DEEP SHELVES ON ADJUSTABLE SHELF STANDARDS.
14. TACK BOARD
15. TOILET PARTITION SCREEN 36"W X 36"H.
16. WASTE RECEPTACLE 6 GAL. CAPACITY 18"H X 14"W X 6"D MOUNT 20" A.F.F. FROM TOP.
17. TOILET PARTITION DOOR & JAMB 36"T (24"W DOOR).
18. PEDIATRIC LAVATORY MOUNT 17" A.F.F.
19. MIRROR 18"W X 30"T MOUNT 24" A.F.F. FROM BOTTOM.
20. MIRROR 4'-0"W X 2'-6"H.
21. GRAB BARS
22. SURFACE MOUNTED TOILET PAPER DISPENSER (SINGLE) 5 3/8"W X 10 3/8"H X 5 7/8"D.
23. SURFACE MOUNTED SANITARY NAPKIN & TAMPON DISPOSER 10 3/4"W X 15 1/2"H X 4"D (RM 46).
24. TOILET PARTITION DOOR & JAMB (32"W DOOR).
25. COUNTER MOUNTED SOAP DISPENSER.
26. MIRROR APPROX. 17 1/8"W X 30 3/4"H.
27. COAT HOOKS
28. TACK BOARD 92"T X 72"W SEE 12/A-24 AND ROOM FINISH SCHEDULE
29. CORNER GUARD (4'-0" TALL)
30. PEDIATRIC TOILET (TOILET SEAT 13" A.F.F.)
31. HANDICAP TOILET (TOILET SEAT 18" A.F.F.)



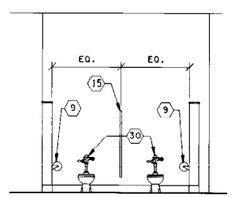
DIAPER STATION

SCALE: 3/8"=1'-0"



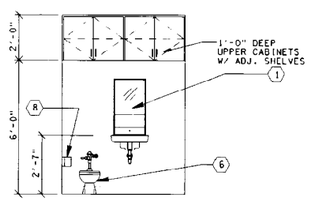
KITCHENETTE

SCALE: 3/8"=1'-0"



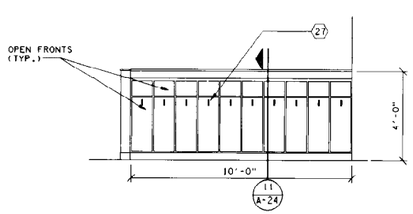
PEDIATRIC TOILET

SCALE: 3/8"=1'-0"



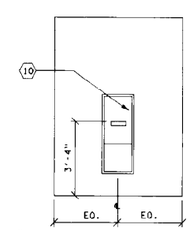
ADULT TOILET

SCALE: 3/8"=1'-0"



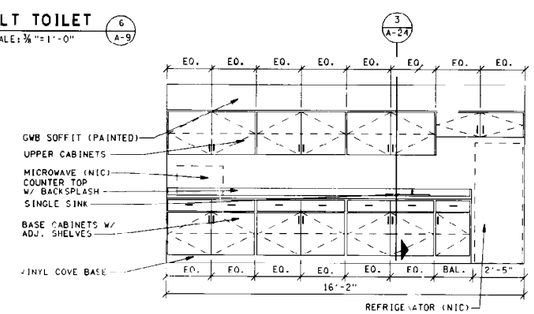
CUBBIES

SCALE: 3/8"=1'-0"



TOILET ELEVATION

SCALE: 3/8"=1'-0"



KITCHENETTE

SCALE: 3/8"=1'-0"

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF STUD OR CMU UNLESS NOTED OTHERWISE.
2. ALL INTERIOR PARTITIONS ARE 4" (ACTUAL DIMENSION) METAL STUDS UNLESS NOTED OTHERWISE.
3. VENEER PLASTER CONTROL JOINTS SHALL BE CO-LOCATED WITH CMU CONTROL JOINTS.
4. 4'-0" HIGH PARTITION SEE 18/A-24.
5. BUILDING "B" SMALL MULTI AGE & LOUNGE MODULE IS OPPOSITE HAND AND IS SHOWN ON SHT A-2.

SCALE: 3/8"=1'-0"

Revisions			
Symbol	Descriptions	Date	Approved
△	(CASE AC) SOAP DISPENSER ADDED	14 NOV 91	JDP HBT

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: D. POHL
Drawn by: J. JAGGERS
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

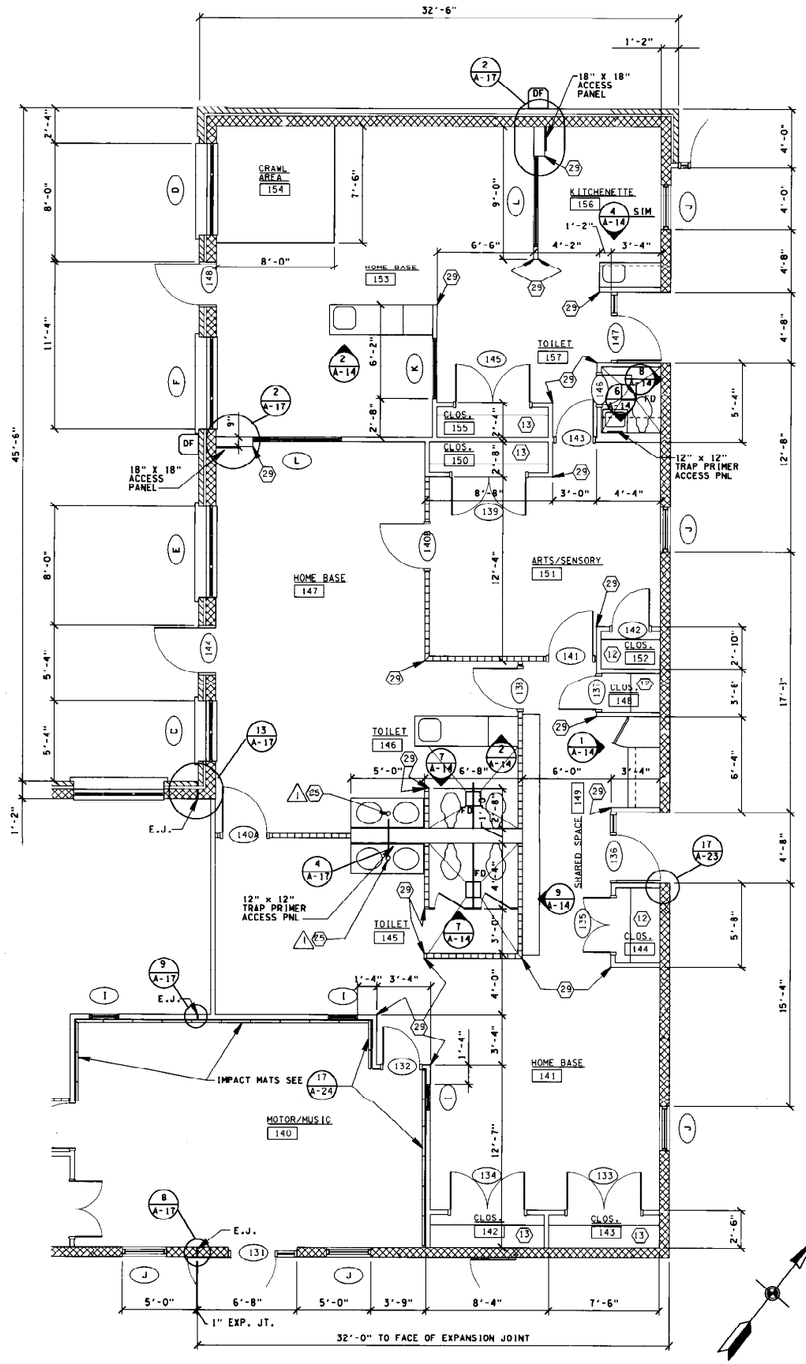
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

SMALL MULTI-AGE & LOUNGE MODULES

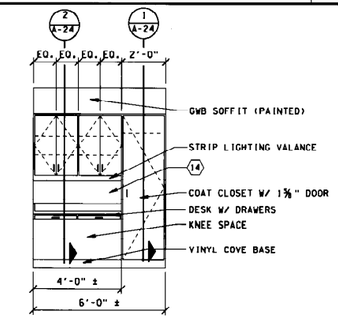
Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-13
Sheet 41 of 107

RECORD DRAWING "AS BUILT"

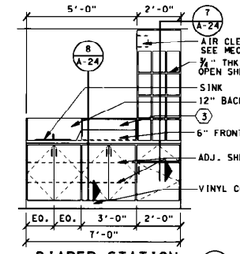
ZGO:E40,77JFCC6XA13.DGN:1
DATE = 1-MAY-90, 14:38:29
USER = JIMJ



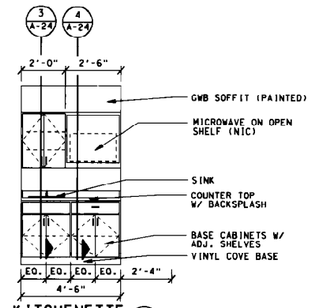
LARGE MULTI-AGE MODULE
SCALE: 1/4"=1'-0"



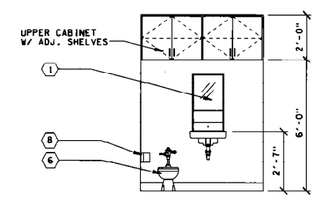
RECEPTION DESK
SCALE: 3/8"=1'-0"



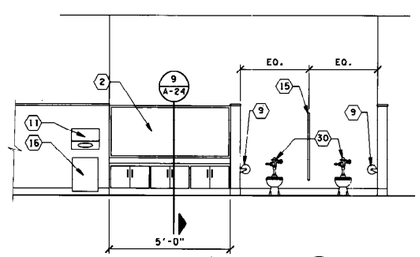
DIAPER STATION
SCALE: 3/8"=1'-0"



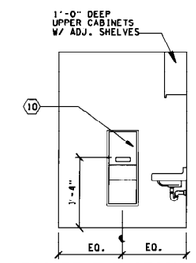
KITCHENETTE
SCALE: 3/8"=1'-0"



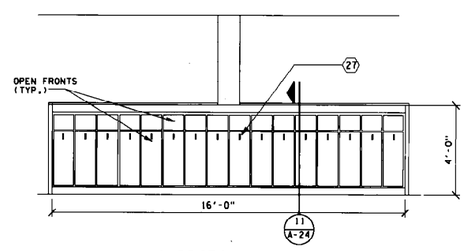
TOILET
SCALE: 3/8"=1'-0"



ELEVATION
SCALE: 3/8"=1'-0"



TOILET ELEVATION
SCALE: 3/8"=1'-0"



CUBBIES
SCALE: 3/8"=1'-0"

LEGEND

1. MIRROR/SOAP DISPENSER 17"W X 30"H X 4"D±
2. VANITY MIRROR 28" X 60"
3. DIAPER STATION MIRROR 10" X 32"
4. CRAWL AREA MIRROR 16" X 60"
5. VANITY MIRROR 24" X 36"
6. ADULT TOILET (TOILET SEAT 15" A.F.F.)
7. PEDIATRIC TOILET (TOILET SEAT 10" A.F.F.)
8. TOILET PAPER DISPENSER (ADULT 20" A.F.F.)
9. TOILET PAPER DISPENSER (PEDRIATRIC 14" A.F.F.)
10. PAPER TOWEL DISPENSER/DISPOSAL 12"W X 26"H X 4"D ±
11. PAPER TOWEL DISPENSER 15" X 11" X 4" ± MOUNT 30" A.F.F. TO ℄
12. (4) 2'-0" DEEP SHELVES ON ADJUSTABLE SHELF STANDARDS-START AT 4'-0" A.F.F.
13. (6) 1'-6" DEEP SHELVES ON ADJUSTABLE SHELF STANDARDS.
14. TACK BOARD
15. TOILET PARTITION SCREEN 36"W X 36"H.
16. WASTE RECEPTACLE 6 GAL. CAPACITY 18"H X 14"W X 6"D MOUNT 20" A.F.F. FROM TOP.
17. TOILET PARTITION DOOR & JAMB 36"T (24"W DOOR).
18. PEDIATRIC LAVATORY MOUNT 17" A.F.F.
19. MIRROR 18"W X 30"T MOUNT 24" A.F.F. FROM BOTTOM.
20. MIRROR 4'-0"W X 2'-6"H.
21. GRAB BARS
22. SURFACE MOUNTED TOILET PAPER DISPENSER (SINGLE) 5 3/8"W X 10 3/8"H X 5 7/8"D.
23. SURFACE MOUNTED SANITARY NAPKIN & TAMPON DISPOSER 10 3/8"W X 15 1/2"H X 4"D (RM 46).
24. TOILET PARTITION DOOR & JAMB (32"W DOOR).
25. COUNTER MOUNTED SOAP DISPENSER.
26. MIRROR APPROX. 17 1/8"W X 30 5/8"H.
27. COAT HOOKS
28. TACK BOARD 92"T X 72"W SEE 12/A-24 AND ROOM FINISH SCHEDULE
29. CORNER GUARD (4'-0" TALL)
30. PEDIATRIC TOILET (TOILET SEAT 13" A.F.F.)
31. HANDICAP TOILET (TOILET SEAT 18" A.F.F.)

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF STUD OR CMU UNLESS NOTED OTHERWISE.
2. ALL INTERIOR PARTITIONS ARE 4" (ACTUAL DIMENSION) METAL STUDS UNLESS NOTED OTHERWISE.
3. VENEER PLASTER CONTROL JOINTS SHALL BE CO-LOCATED WITH CMU CONTROL JOINTS.
4. 4'-0" HIGH PARTITION SEE 18/A-24.
5. BUILDING "B" LARGE MULTI AGE MODULE IS OPPOSITE HAND AND IS SHOWN ON SHT A-2.

SCALE: 1/4"=1'-0"
SCALE: 3/8"= 1'-0"

Revisions

Symbol	Descriptions	Date	Approved
1	(CASE AC) SOAP DISPENSER ADDED	14 NOV 91	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

US Army Corps of Engineers

LARGE MULTI-AGE MODULE

Designed by: D. POHL
Drawn by: J. JAGGERS
Checked by:
Reviewed by:
Approved by:

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-14
Sheet 42 of 107

RECORD DRAWING "AS BUILT"

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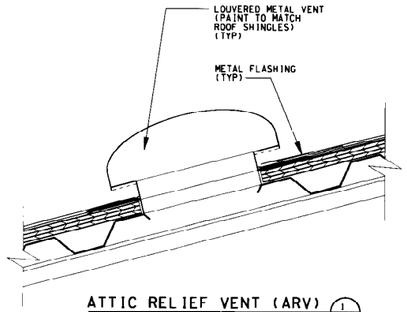
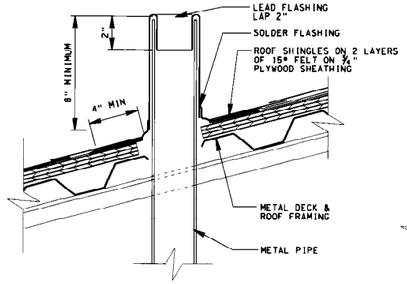
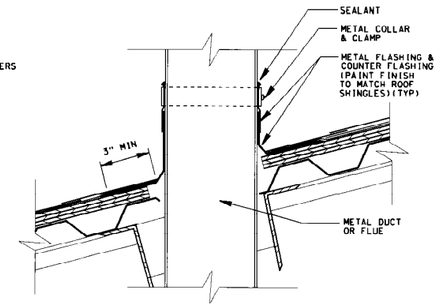
USER = JIMJ



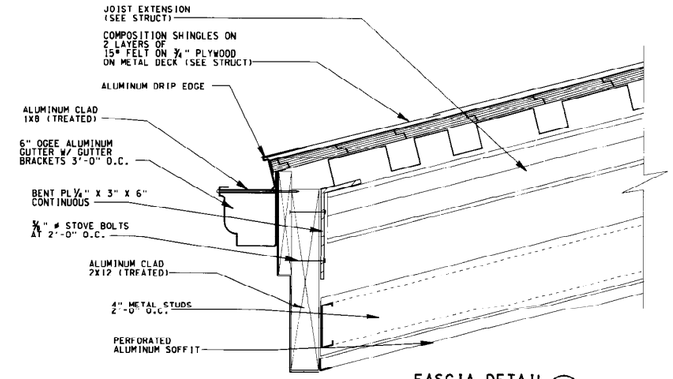
ATTIC RELIEF VENT (ARV) (1 / A-15)
SCALE: 3" = 1'-0"



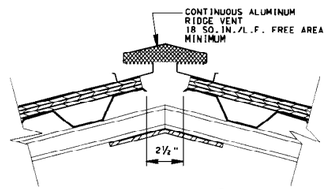
VENT THRU ROOF (VTR) (2 / A-15)
SCALE: 3" = 1'-0"



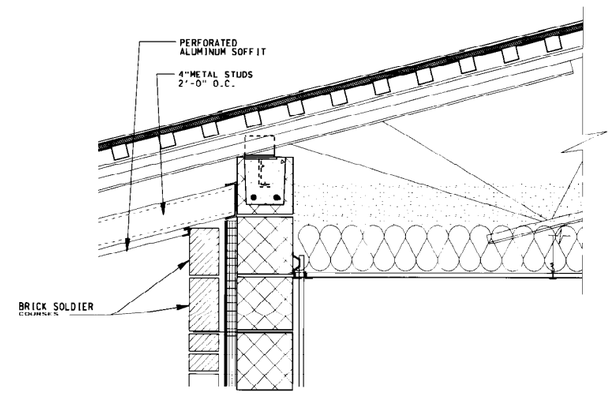
DUCT / FLUE FLASHING (DWH, B-1) (3 / A-15)
SCALE: 3" = 1'-0"



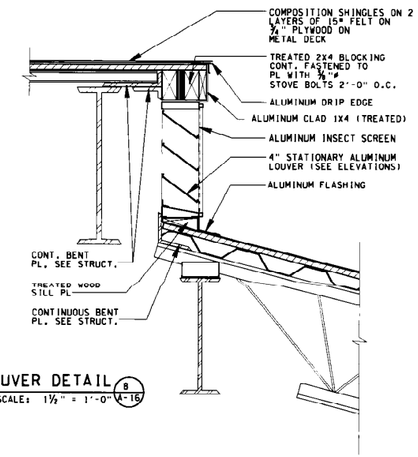
FASCIA DETAIL (4 / A-18)
SCALE: 3" = 1'-0"



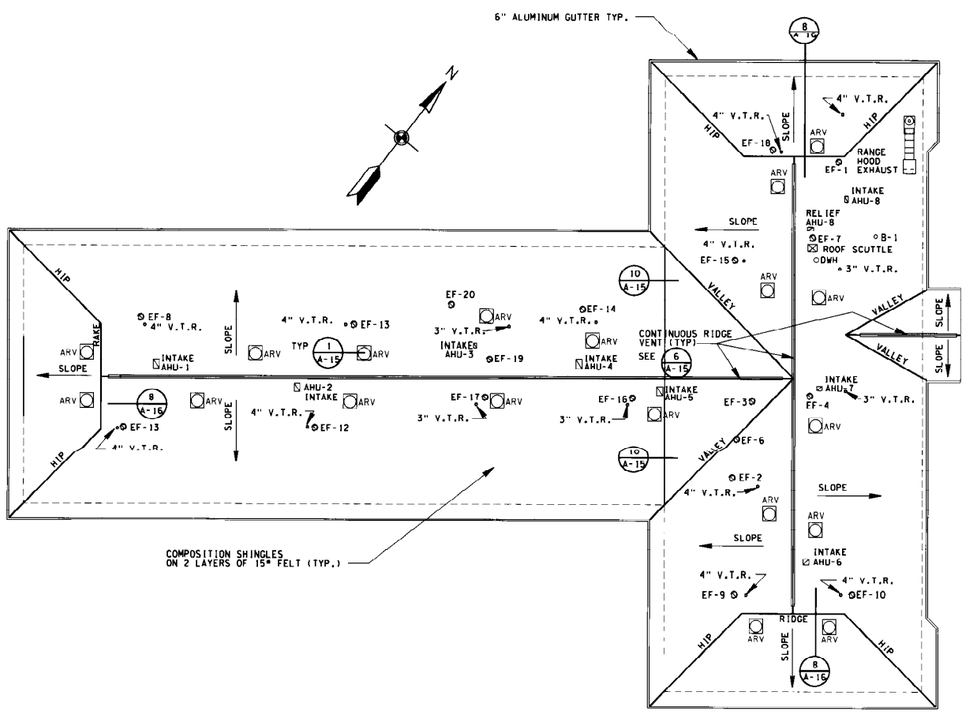
RIDGE DETAIL (6 / A-15)
SCALE: 3" = 1'-0"



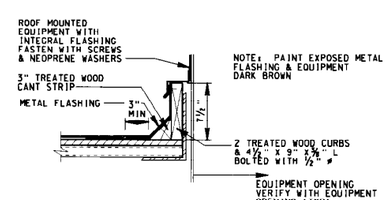
SOFFIT DETAIL (7 / A-18)
SCALE: 1½" = 1'-0"



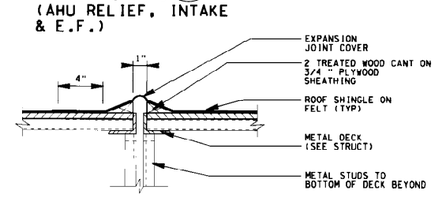
LOUVER DETAIL (8 / A-16)
SCALE: 1½" = 1'-0"



ROOF PLAN BLDG A
SCALE: 1/8" = 1'-0"



ROOF CURB (9 / A-15)
SCALE: 1½" = 1'-0"
(AHU RELIEF, INTAKE & E.F.)



ROOF EXPANSION JOINT (E.J.) COVER (10 / A-15)
SCALE: 1½" = 1'-0"

GRAPHIC SCALES

SCALE: 1/4" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 3" = 1'-0"

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: D. POHL
Drawn by: M. MIRZAIAN
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

ROOF PLAN / DETAILS

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-15
Sheet 43 of 107

RECORD DRAWING "AS BUILT"

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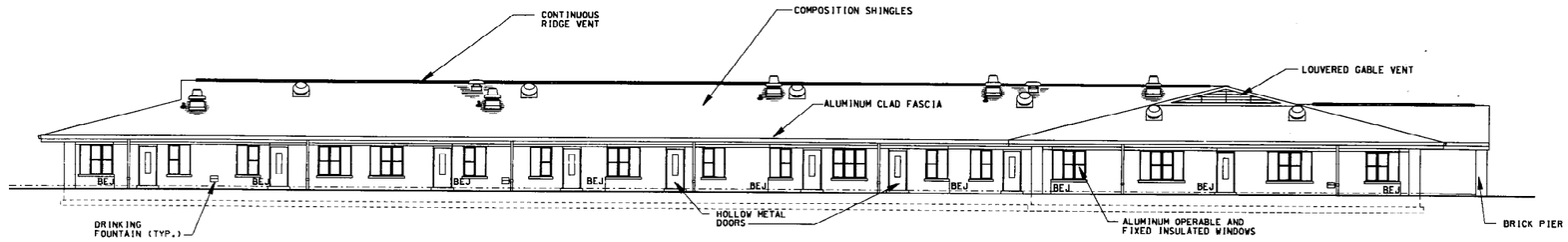
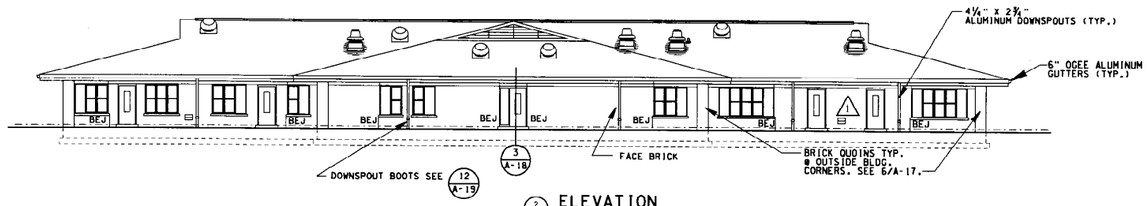
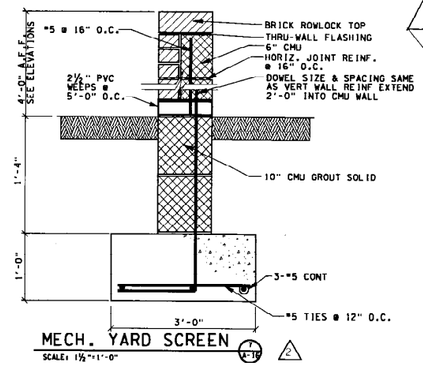


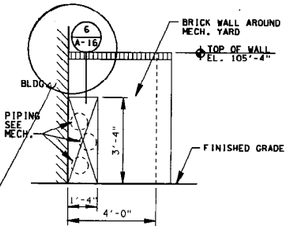
1 ELEVATION
3/32 "=1'-0"
• A-2,A-3



2 ELEVATION
3/32 "=1'-0"
• A-2,A-3



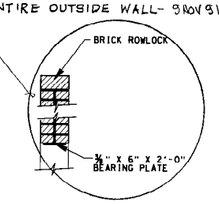
MECH. YARD SCREEN 7 A-16
SCALE: 1½"=1'-0"



5 PARTIAL ELEVATION
3/8"=1'-0"
• A-1,A-2

CLIFF HARNAGE DIRECTED LUKE TO MAKE THIS WALL 10" THICK DETAIL 7/A-17

CLIFF ALSO SAID TO PUT BRICK LEDGE ON ENTIRE OUTSIDE WALL- 9NOV91 LUKE



6 A-16 SECTION
3/4"=1'-0"

3 ELEVATION
3/32 "=1'-0"
• A-2,A-3

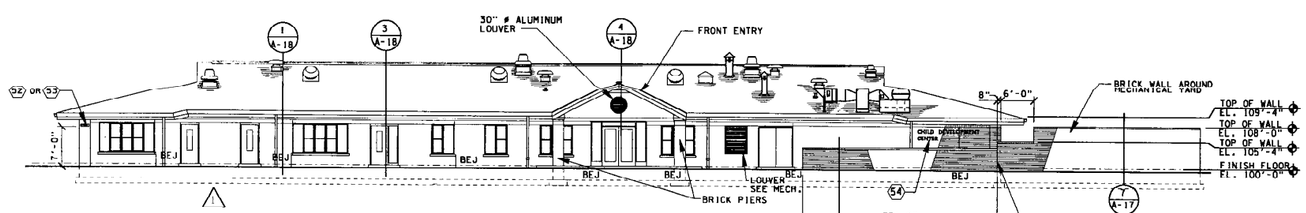
GENERAL NOTES:

1. BUILDING "B" ELEVATIONS ARE SIMILAR AND OPPOSITE HAND. SEE FLOOR PLAN SHT. A-2.

1 0 1 2FT
SCALE: 3/4"= 1'-0"

2 0 2 4FT
SCALE: 3/8"= 1'-0"

8 0 8 16FT
SCALE: 3/32"= 1'-0"



4 ELEVATION
3/32 "=1'-0"
• A-2,A-3

Revisions			
Symbol	Descriptions	Date	Approved
2	CASE AE: STRUCTURAL WALL CHANGES	15 APR 92	
1	(AMDT #0003) DOORS ADDED	31 AUG 90	

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: D.POHL
Drawn by: J.JAGGERS
Checked by: HENRY B. THOBEN
Reviewed by: GARRY MINTER
Approved by: LARRY D. MARTIN

US Army Corps of Engineers

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

ELEVATIONS
BLDG A

Scale: 3/32 " = 1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-16
Sheet 44 of 107

RECORD DRAWING "AS BUILT".

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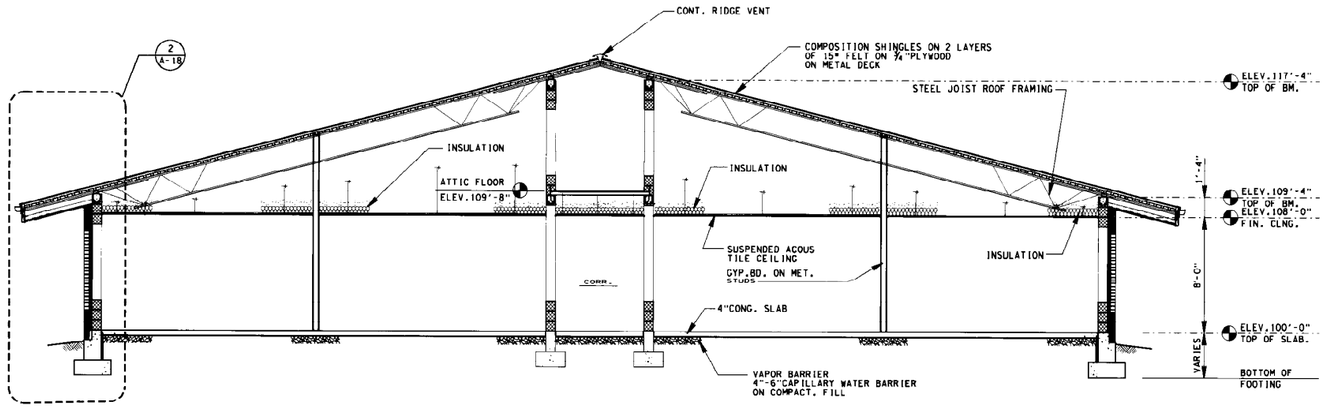
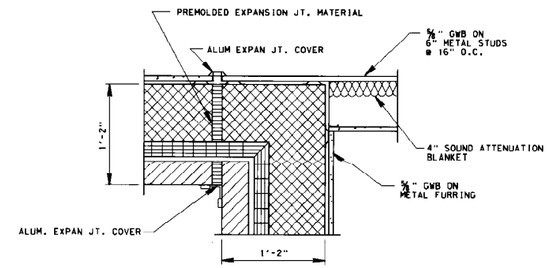
DATE: 15-Apr-92 09:29



BUILDING SECTION

1 — SCALE: ¼"=1'-0"

• A-1, A-2



EXPANSION JT. DETAIL

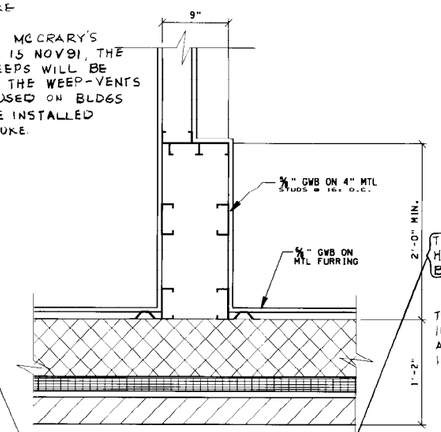
13 — SCALE: 1½"=1'-0"

• A-9, A-13, A-14

CLIFF HARNAGE DIRECTED LUKE TO MAKE THIS WALL 10" THICK AS PER 7/A-17

PUT BRICK LEDGE ON ENTIRE OUTSIDE WALL 5 NOV 91 LUKE

AS PER CHAS MCCRARY'S DIRECTION ON 15 NOV 91, THE 2½" PVC WEEPS WILL BE OMITTED AND THE WEEP-VENTS LIKE THOSE USED ON BLDGS A & B WILL BE INSTALLED 15 NOV 91 LUKE.



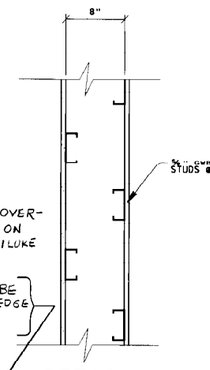
THIS ROWLOCK WILL OVERHANG THE WALL ½" ON BOTH SIDES 15 NOV 91 LUKE

THIS FLASHING WILL BE INSTALLED AT BRICK LEDGE AS IN BLDGS A & B 15 NOV 91 LUKE

DETAIL

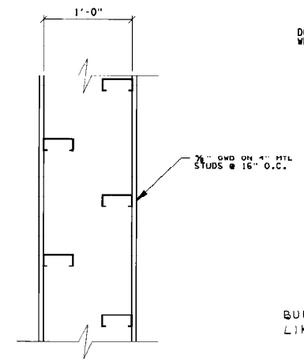
2 — SCALE: 1½"=1'-0"

• A-12, A-13, A-14



DETAIL

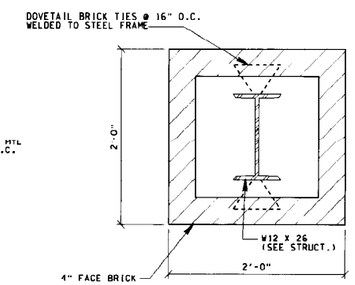
3 — SCALE: 1½"=1'-0"



DETAIL

4 — SCALE: 1½"=1'-0"

• A-10, A-11, A-14

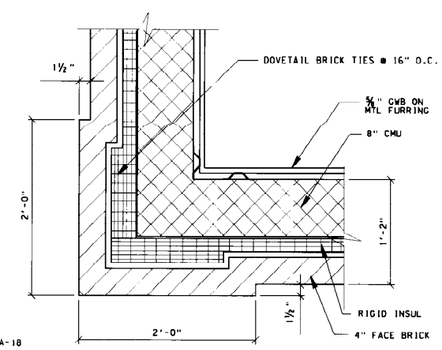


BUILD WALL STRAIGHT UP TO LOOK LIKE A COLLUMN 10 SEPT 91

DETAIL

5 — SCALE: 1½"=1'-0"

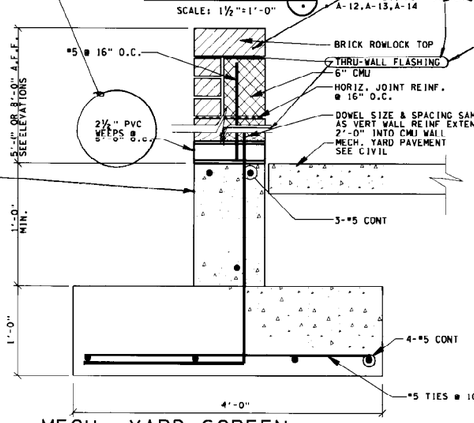
• A-1, A-18



QUOIN DETAIL

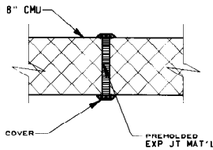
6 — SCALE: 1½"=1'-0"

DELETE THIS COMPLETLY CHAS. MCCRARY 12 JULY 91



MECH. YARD SCREEN

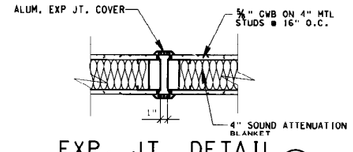
7 — SCALE: 1½"=1'-0"



EXP. JT. DETAIL

8 — SCALE: 1½"=1'-0"

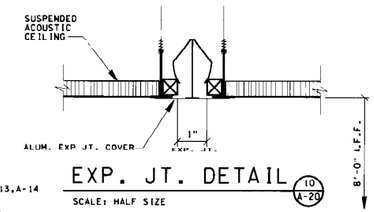
• A-13, A-14



EXP. JT. DETAIL

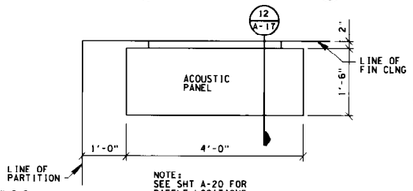
9 — SCALE: 1½"=1'-0"

• A-9, A-13, A-14



EXP. JT. DETAIL

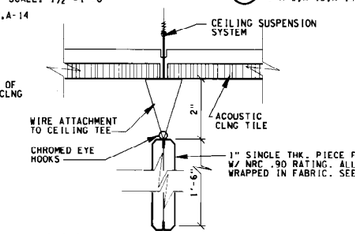
10 A-20 — SCALE: HALF SIZE



NOTE: SEE SHT A-20 FOR BAFFLE LOCATIONS

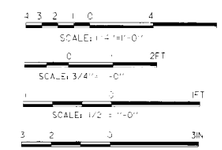
ACOUSTIC BAFFLE

11 A-20 — SCALE: ¾"=1'-0"



ACOUSTIC BAFFLE

12 A-17 — SCALE: HALF SIZE



Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: D. POHL
Drawn by: J. JAGGERS
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380

BUILDING SECTION & DETAILS

Scale: AS NOTED
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-17
Sheet 45 of 107

RECORD DRAWING "AS BUILT"

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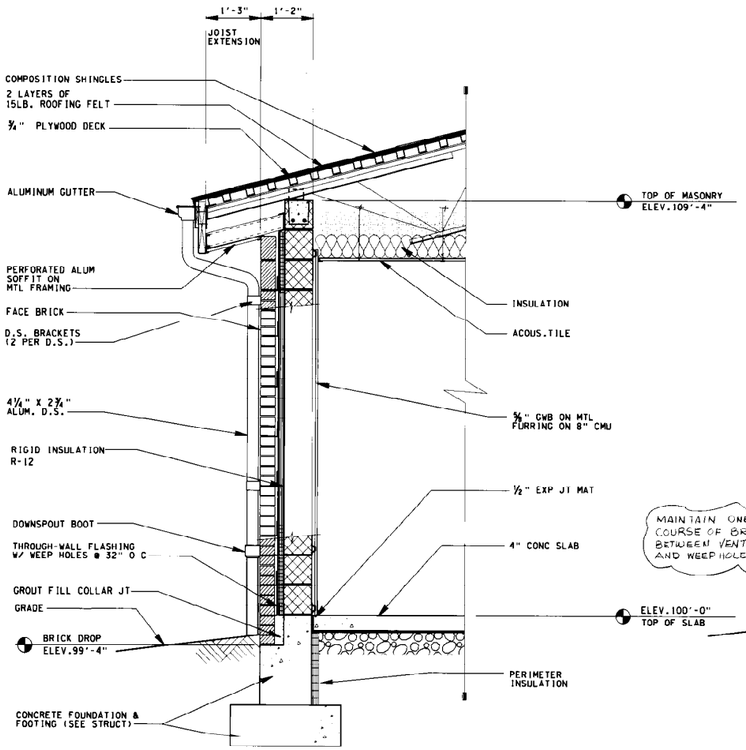
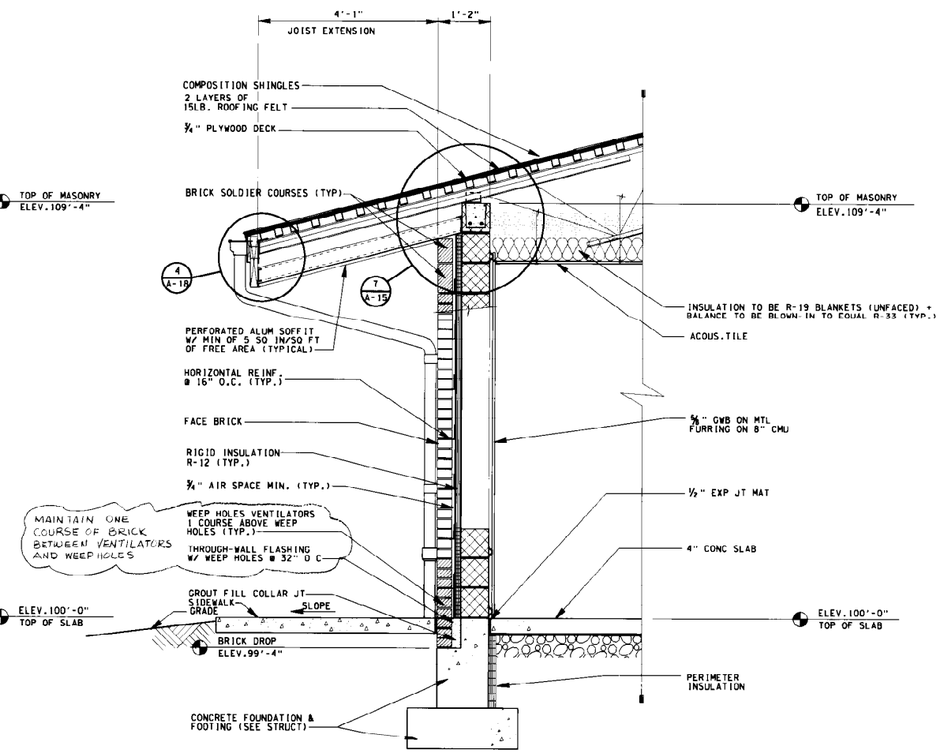
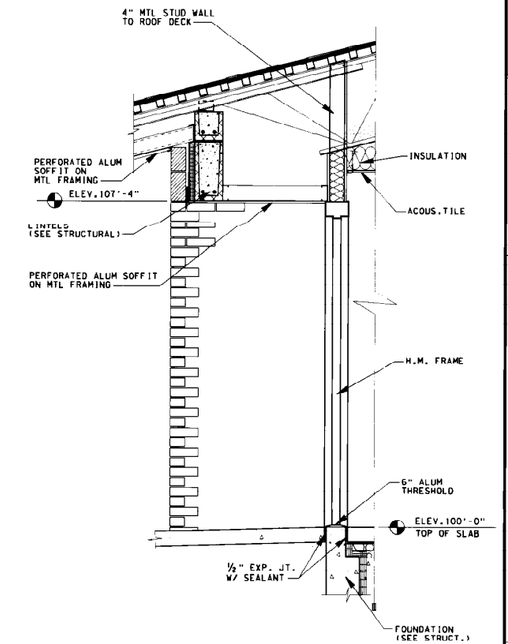


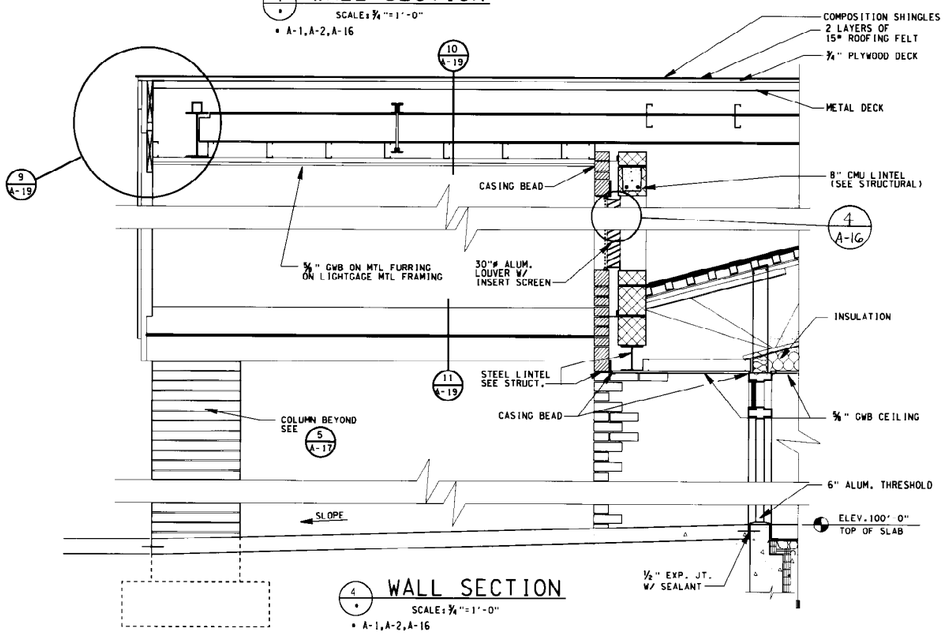
1 WALL SECTION
SCALE: ¾"=1'-0"
• A-1,A-2,A-16



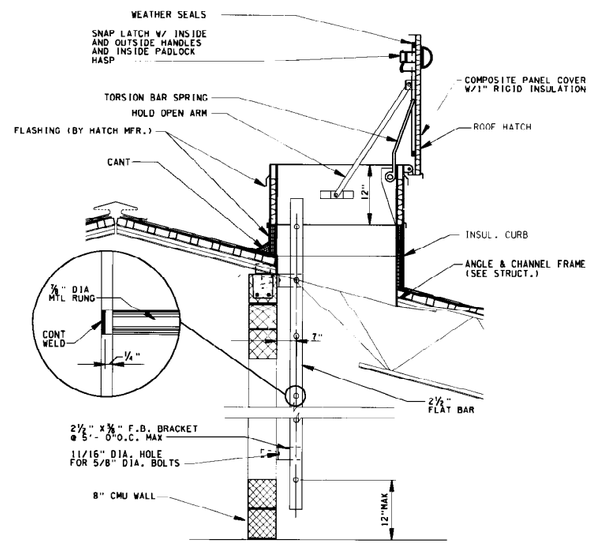
2 WALL SECTION
SCALE: ¾"=1'-0"
• A-1,A-2,A-16



3 WALL SECTION
SCALE: ¾"=1'-0"
• A-1,A-2,A-16



4 WALL SECTION
SCALE: ¾"=1'-0"
• A-1,A-2,A-16



ROOF SCUTTLE AND LADDER DETAIL 5 A-7
SCALE: 1"=1'-0"
NOTE: LADDER WIDTH TO BE 1'-8"

1 0 1 2FT
SCALE: 3/4"= 1'-0"

Revisions			
Symbol	Descriptions	Date	Approved

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

US Army Corps of Engineers

WALL SECTIONS

Designed by: D. POHL
Drawn by: J. JAGGERS
Checked by:
Reviewed by:
Approved by:

Scale: ¾"=1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-18
Sheet 46 of 107

RECORD DRAWING "AS BUILT"

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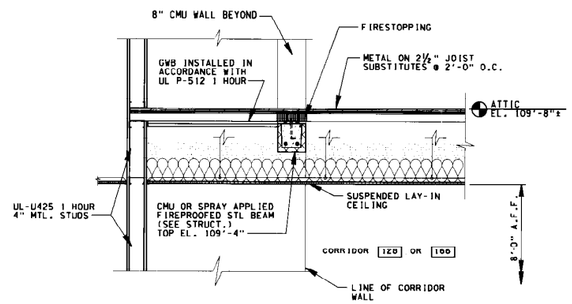
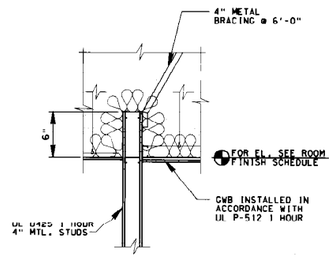
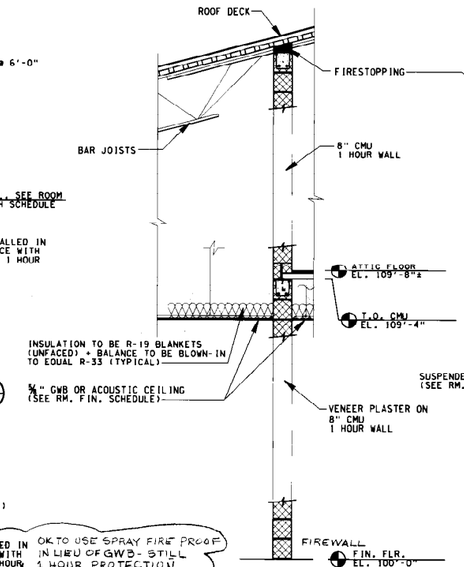


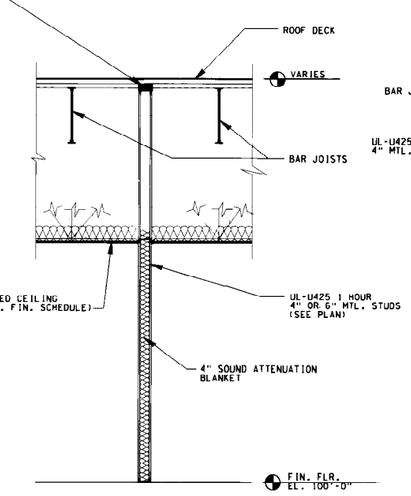
PARTITION DETAIL (1 / A-6)
SCALE: ¾"=1'-0"



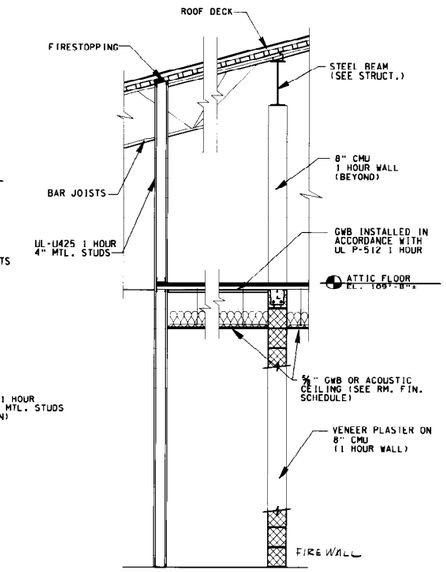
PARTITION DETAIL (2 / A-6)
SCALE: ¾"=1'-0"



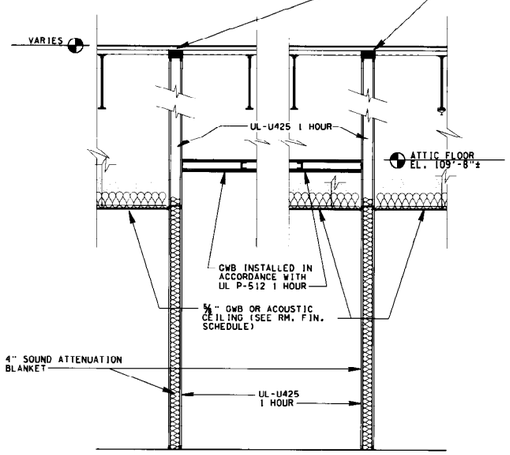
PARTITION DETAIL (3 / A-6)
SCALE: ½"=1'-0"



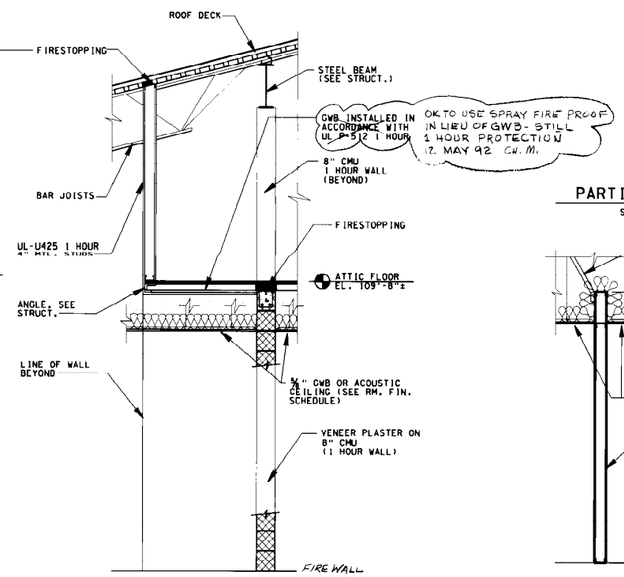
PARTITION DETAIL (4 / A-6)
SCALE: ½"=1'-0"



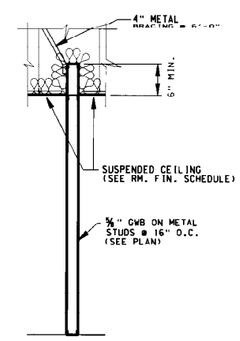
PARTITION DETAIL (5 / A-6)
SCALE: ½"=1'-0"



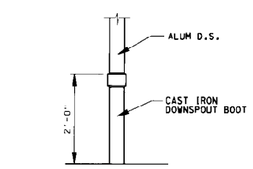
PARTITION DETAIL (6 / A-6)
SCALE: ½"=1'-0"



PARTITION DETAIL (7 / A-6)
SCALE: ½"=1'-0"

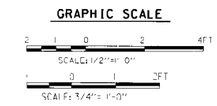


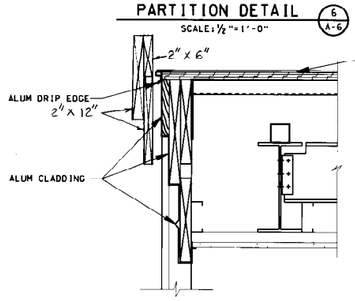
PARTITION DETAIL (8 / A-6)
SCALE: ½"=1'-0"



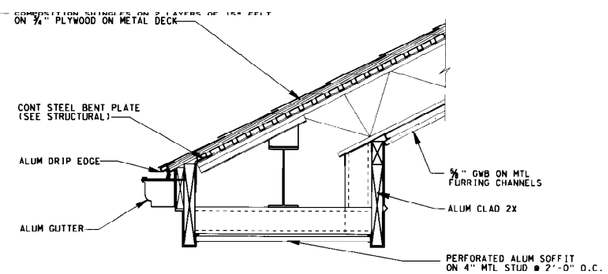
DOWNSPOUT BOOT (12 / A-16)
NTS

GRAPHIC SCALE

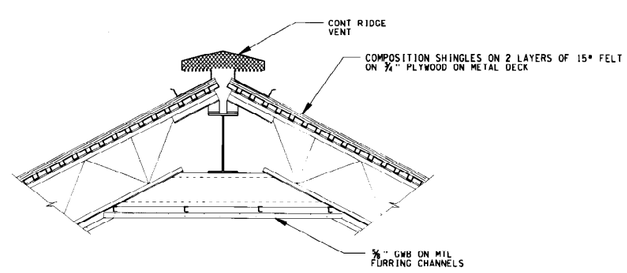




DETAIL (9 / A-18)
SCALE: 1½"=1'-0"



DETAIL (10 / A-18)
SCALE: 1½"=1'-0"



DETAIL (11 / A-18)
SCALE: 1½"=1'-0"

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: D. POHL
Drawn by: J. JAGGERS
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

WALL SECTIONS AND DETAILS

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-19
Sheet 47 of 107

RECORD DRAWING "AS BUILT"

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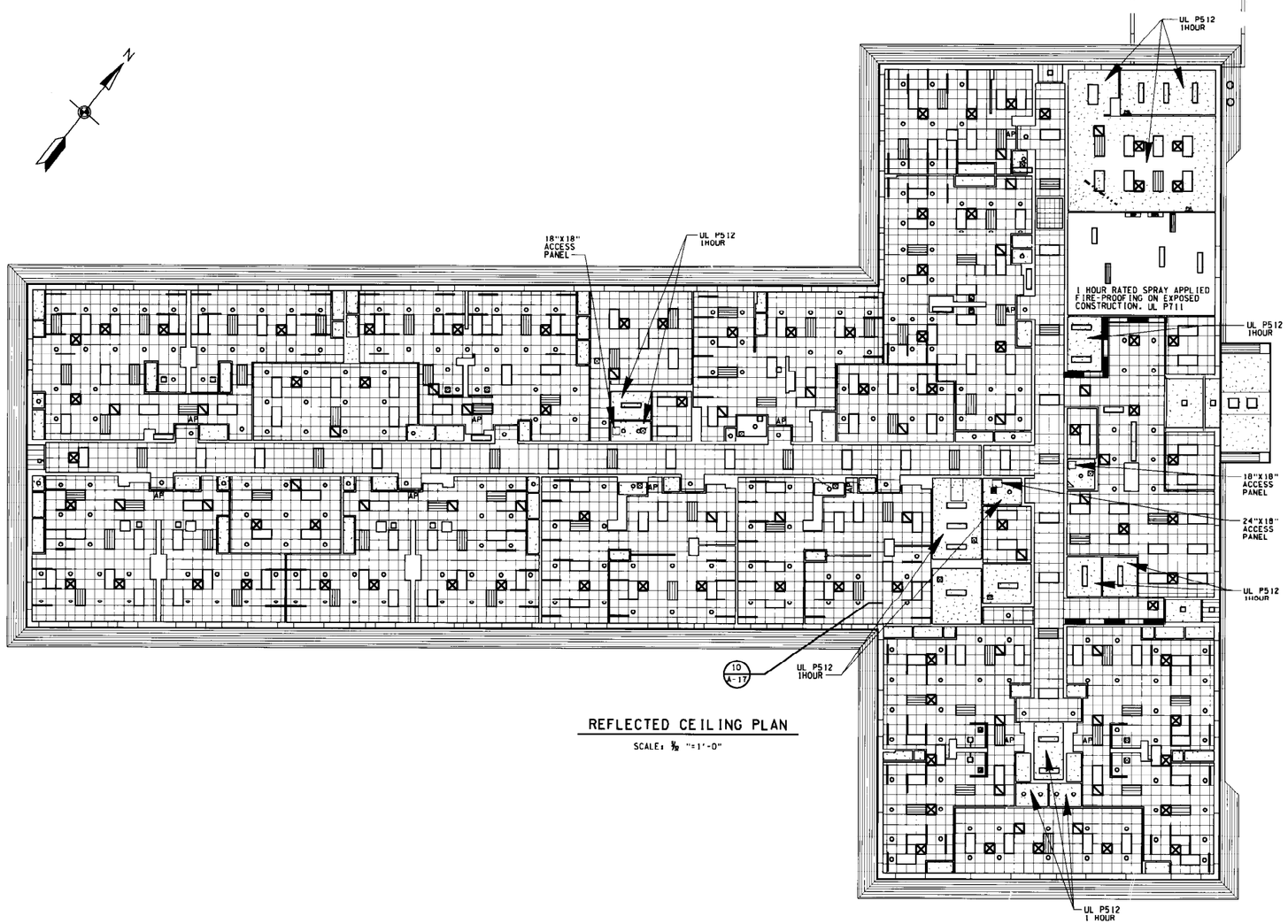
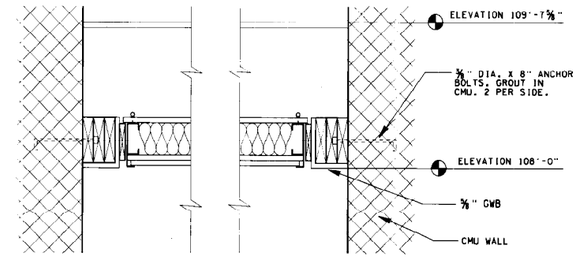


REFLECTED CEILING PLAN

SCALE: 3/32 "=1'-0"



HATCH DETAIL 3/A-20

SCALE: 1 1/2" = 1'-0"

Contract No. DACA27-91-C-0073
Case No. AC - "Criteria Compliance Revisions"
Modification No: P00003
Page 2 of 3

14. Description of Modification: Continued

(Sheet 40), A-13 (Sheet 41), A-14 (Sheet 42), A-21 (Sheet 49), A-22 (Sheet 50), E-5 (Sheet 98), and E-6 (Sheet 99):

a. Replace all regular insulated glazing with tempered insulated glazing at doors and window units as shown on the above drawings and as described in the attached revised and referenced specification Section 0-08810.

b. Replace 34 each regular glass mirrors with laminated glass mirrors as indicated on the above drawings.

c. Add 12 each counter mounted soap dispensers at the child height sinks as indicated on the above drawings.

d. Furnish and install four each Mirror/Soap Dispensers (Type #1) in lieu of the four each 18" x 30" Mirrors (Type #19) as indicated on the above drawings.

e. Raise the location of the panic bar hardware mounting to 44" AFF at all exit doors (35 locations) as indicated on the above drawings.

f. Raise all receptacles in the corridors from 18" AFF to 54" AFF as indicated on the above drawings.

g. Relocate 31 smoke detectors and add two additional smoke detectors as indicated on the above drawings.

h. Revise Door Nos. 43, 44, and 117 to Type [illegible]

i. Remove the installed door frame at Door No. 86 which was originally shown to be a 3'-0" door/frame and replace it with a 3'-4" door and frame.

The quantities shown are for Building A. Changes to both Building and Building B will be required.

It is understood and agreed that the contract price will be increased by the lump-sum amount of $19,100.00 which is hereby

LEGEND

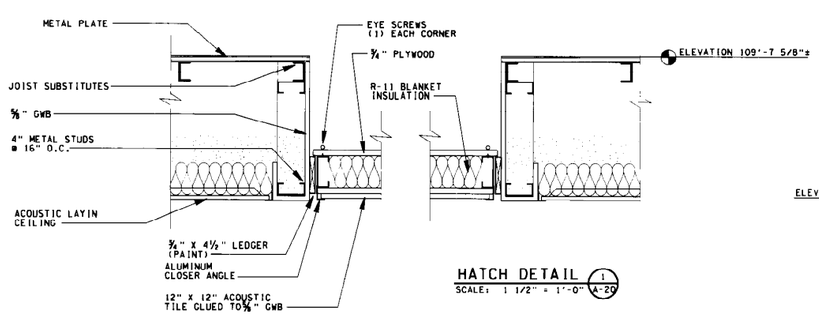
AP ACOUSTIC CEILING ACCESS PANEL (SEE SPECS)

—— SOUND BAFFLES SEE DETAILS 11 & 12 SHEET A-17.

GRAPHIC SCALE

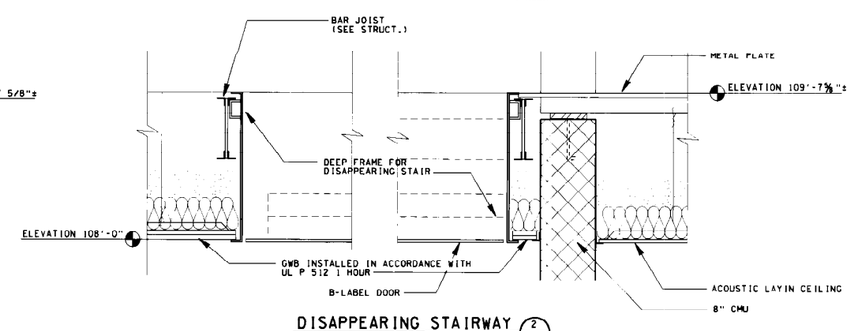
8 0 8 16FT

SCALE: 3/32"= 1'-0"



HATCH DETAIL 1/A-20

SCALE: 1 1/2" = 1'-0"



DISAPPEARING STAIRWAY 2/A-20

SCALE: 1 1/2" = 1'-0"

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: D. POHL
Drawn by: J. JAGGERS
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

REFLECTED CEILING PLAN

Scale: 3/32 "=1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-20
Sheet 48 of 107

RECORD DRAWING "AS BUILT"

ZGO:[40,77]FCC6XA20.DGN:1
DATE = 27-APR-90, 09:56:23
USER = JIMJ

DOOR SCHEDULE

DOOR NO.	DOOR SIZE WIDTH	HEIGHT	TKNS	TYPE	MAT'L	FINISH	COLOR	OPENINGS GLASS	LOUVER	FRAME TYPE	FINISH	COLOR	DETAILS* H	J	S	FIRE RATING	H.W. SET	REMARKS
1	PR. 3'-0"	7'-0"	1¾"	E	H.M.	PAINT	38	3/4- INSU	---	6	PAINT	38	5/A18	7	5/A18	---	3	
2	PR. 3'-0"	7'-0"	1¾"	E	H.M.	PAINT	38	¼" TEMP	---	6	PAINT	38	5/A18	8	5/A18	---	3	
3	2'-8"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	6	
4	2'-8"	7'-0"	1¾"	A	WOOD	STAIN	31	---	---	1	PAINT	39	18	12	-	20 MIN	14	
5	2'-8"	7'-0"	1¾"	A	WOOD	STAIN	31	---	---	1	PAINT	39	20	19	-	20 MIN	13	
6	2'-8"	7'-0"	1¾"	A	WOOD	STAIN	31	---	---	1	PAINT	39	20	19	-	¾HR	6	
7	2'-8"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	¾HR	6	
8	3'-0"	7'-0"	1¾"	E	H.M.	PAINT	38	¼" TEMP	---	4	PAINT	38	9	8	-	---	2	
9	3'-0"	7'-0"	1¾"	E	H.M.	PAINT	38	¾" INSU	---	4	PAINT	38	5/A18	7	5/A18	---	2	
10	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
11	1'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
12	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
13	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
14	2'-8"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
15	3'-0"	7'-0"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	5	PAINT	39	3.18	17	4.15	---	5	
16	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
17	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
18	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
19	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
20	1'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
21	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
22	2'-8"	6'-8"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	5	PAINT	39	18	12	-	¾HR	5	
23	2'-8"	6'-8"	1¾"	D	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	20 MIN	6	
24	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
25	2'-8"	6'-8"	1¾"	D	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	20 MIN	6	
26	2'-8"	6'-8"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	2	PAINT	39	18	12	-	¾HR	6	
27	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
28	1'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
29	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
30	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
31	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
32	PR. 2'-6"	6'-8"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	18	12	-	---	8	
33	3'-0"	7'-0"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	5	PAINT	39	3.18	17	4.15	¾HR	5	
34	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
35	1'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
36	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
37	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
38	2'-8"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
39	3'-0"	7'-0"	1¾"	A	WOOD	STAIN	31	---	---	1	PAINT	39	20	19	-	20 MIN	6	
40	3'-0"	6'-8"	1¾"	F	WOOD	STAIN	31	---	12" X 12"	2	PAINT	39	18	12	-	---	10	UNDERCUT DOOR ¾"
41	3'-0"	7'-0"	1¾"	F	WOOD	STAIN	31	---	12" X 12"	1	PAINT	39	20	19	-	---	10	UNDERCUT DOOR ¾"
42	2'-8"	7'-0"	1¾"	A	WOOD	STAIN	31	---	---	1	PAINT	39	20	19	-	¾HR	6	
43	2'-8"	7'-0"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	1	PAINT	39	20	19	-	20 MIN	6	
44	3'-0"	7'-0"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	1	PAINT	39	20	19	-	20 MIN	6	
45	3'-0"	7'-0"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	5	PAINT	39	3.18	17	4.15	¾HR	5	
46	3'-0"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
47	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
48	2'-2"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	13	
49	PR. 1'-10"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
50	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
51	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
52	2'-8"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
53	3'-0"	7'-0"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	5	PAINT	39	3.18	17	4.15	¾HR	5	
54	2'-2"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	13	
55	PR. 1'-10"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
56	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
57	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
58	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
59	PR. 3'-0"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
60	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
61	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
62	PR. 1'-10"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
63	2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
64	3'-0"	7'-0"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	5	PAINT	39	3.18	17	4.15	¾HR	5	
65	PR. 1'-10"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
66	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
67	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
68	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
69	2'-8"	6'-8"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	2	PAINT	39	18	12	-	¾HR	6	
70	2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
71	3'-0"	7'-0"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	5	PAINT	39	20	19	22.23	¾HR	5	
72	2'-0"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
73	2'-8"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	6	
74	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
75	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
76	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
77	PR. 1'-10"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
78	3'-0"	7'-0"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	5	PAINT	39	3.18	17	4.15	¾HR	5	
79	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
80	2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
81	PR. 3'-0"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
82	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
83	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
84	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
85	PR. 1'-10"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
86	3'-4"	7'-0"	1¾"	E	H.M.	PAINT	38	¾" INSU	---	3	PAINT	38	5/A18	29	5/A18	---	2	
87	2'-8"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
88	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
89	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
90	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
91	2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
92	3'-0"	6'-8"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	5	PAINT	39	3.18	17	4.15	¾HR	5	
93	PR. 1'-10"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
94	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
95	2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
96	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
96A	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
96B	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
97	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	

DOOR SCHEDULE

DOOR NO.	DOOR SIZE WIDTH	HEIGHT	TKNS	TYPE	MAT'L	FINISH	COLOR	OPENINGS GLASS	LOUVER	FRAME TYPE	FINISH	COLOR	DETAILS* H	J	S	FIRE RATING	H.W. SET	REMARKS
98	2'-8"	6'-8"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	2	PAINT	39	18	12	-	---	6	
99	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
100	3'-0"	7'-0"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	5	PAINT	39	20	19	22.23	¾HR	5	
101	2'-6"	6'-8"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	2	PAINT	39	18	12	-	---	7	
102	2'-8"	6'-8"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	2	PAINT	39	18	12	-	¾HR	6	
103	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
104	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
105	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
106	2'-8"	3'-4"	1¾"	A	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
107	2'-8"	3'-4"	1¾"	A	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
108	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
109	PR. 1'-10"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
110	3'-0"	6'-8"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	5	PAINT	39	3.18	17	5.14	¾HR	5	
111	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
112	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
113	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
114	2'-8"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
115	3'-0"	7'-0"	1¾"	A	WOOD	STAIN	31	---	---	1	PAINT	39	20	19	-	¾HR	6	
116	2'-8"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	20 MIN	6	
117	2'-8"	7'-0"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	1	PAINT	39	20	19	-	20 MIN	6	
118	2'-8"	7'-0"	1¾"	A	WOOD	STAIN	31	---	---	1	PAINT	39	20	19	-	¾HR	6	
119	1'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
120	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
121	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
122	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
123	PR. 1'-10"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
124	PR. 1'-10"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
125	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
126	3'-0"	6'-8"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	5	PAINT	39	3.18	17	5.14	¾HR	5	
127	2'-4"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	1	PAINT	39	18	12	-	---	13	
128	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
129	2'-8"	6'-8"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	1	PAINT	39	18	12	-	20 MIN	6	
130	PR. 1'-10"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	1	PAINT	39	18	12	-	---	8	
131	3'-0"	7'-0"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	5	PAINT	39	20	19	22.23	¾HR	5	
132	2'-8"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	6	
133	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
134	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
135	PR. 1'-10"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
136	3'-0"	6'-8"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	5	PAINT	39	3.18	17	5.14	¾HR	5	
137	2'-4"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
138	2'-8"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
139	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
140A	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
140B	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
141	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	---	9	
142	2'-8"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	7	
143	2'-8"	6'-8"	1¾"	B	WOOD	STAIN	31	¼" TEMP	---	2	PAINT	39	18	12	-	---	7	
144	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
145	PR. 2'-6"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	8	
146	2'-2"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12		---	13	
147	3'-0"	6'-8"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	5	PAINT	39	3.18	17	5.14	¾HR	5	
148	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38	1	3	2	---	1	
149	4'-0"	7'-0"	1¾"	E	H.M.	PAINT	38	¾" INSU	---	3	PAINT	38	5/A18	29	5/A18	---	2	
150	PR. 3'-0"	7'-0"	1¾"	A	H.M.	PAINT	38	---	---	1	PAINT	39	1	3	2	---	4	
151	2'-8"	3'-4"	1¾"	C	WOOD	STAIN	31	---	---	---	PAINT	39	-	11	-	-	9	
152	NOT USED																	
153	3'-0"	7'-0"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	1	PAINT	39	18	17	31	¾HR	5	
154	3'-6"	7'-0"	1¾"	B	H.M.	PAINT	38	---	---	1	PAINT	39	1	3	2	---	1	
155	3'-0"	7'-0"	1¾"	A	WOOD	STAIN	31	---	---	1	PAINT	39	20	19	-	20 MIN	6	
156	2'-8"	6'-8"	1¾"	A	WOOD	STAIN	31	---	---	2	PAINT	39	18	12	-	---	6	
157	PR. 2'-10"	7'-0"	1¾"	E	WOOD	STAIN	31	¼" TEMP	---	7	PAINT	39	24	30	-	---	11	TWO-WAY DOOR
158	3'-0"	7'-0"	1¾"	B	WOOD	STAIN	31	¼" WIRE	---	1	PAINT	39	18	12	-	¾HR	6	
12A	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38				---		
36A	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38				---		
108A	3'-0"	7'-0"	1¾"	D	H.M.	PAINT	38	¾" INSU	---	1	PAINT	38				---		

NOTE:
MAXIMUM DOOR UNDERCUT TO BE NO GREATER THAN ⅜" UNLESS NOTED OTHERWISE.

* FRAME DETAILS ARE FOUND ON SHEET A-23 UNLESS OTHERWISE INDICATED.

Revisions			
Symbol	Descriptions	Date	Approved
2	(CASE AC) DOORS # 43, 44, 86 & 117 REVISED	14 NOV 91	
1	(AMDT #0003) DOORS ADDED	31 AUG 90	JDP LMC JMK

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: D. POHL
Drawn by: M.M./J.J.
Checked by: HENRY B. THOBEN
Reviewed by: GARRY MINTER
Approved by: LARRY D. MARTIN

US Army Corps of Engineers

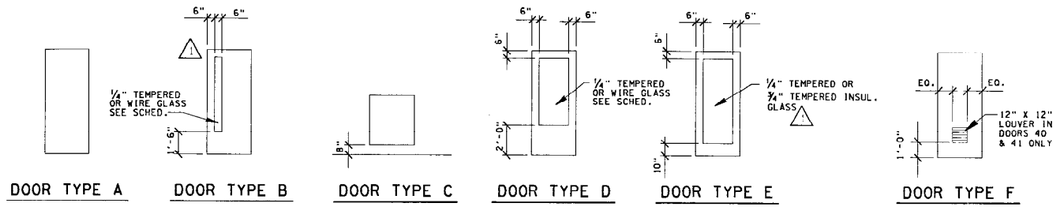
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

DOOR SCHEDULE

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference numbers: A-21
Sheet 49 of 107

RECORD DRAWING "AS BUILT"

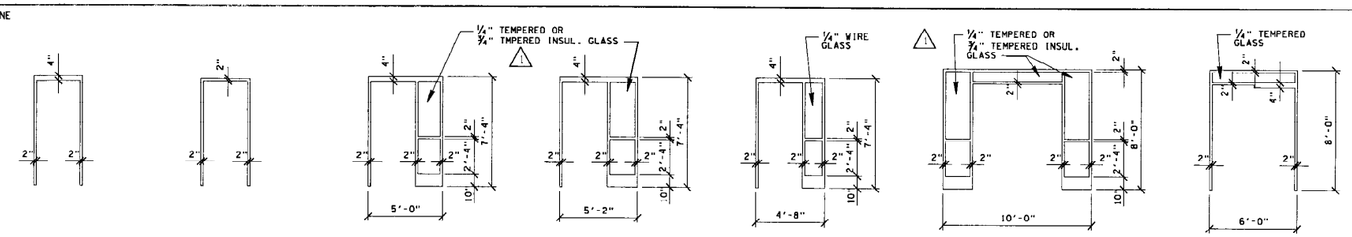
FILE: /usr/ung/proj/fcc6/fcc6xa21.dgn
DATE: 1-Nov-91 12:53



DOOR TYPE A | DOOR TYPE B | DOOR TYPE C | DOOR TYPE D | DOOR TYPE E | DOOR TYPE F

DOOR TYPES:

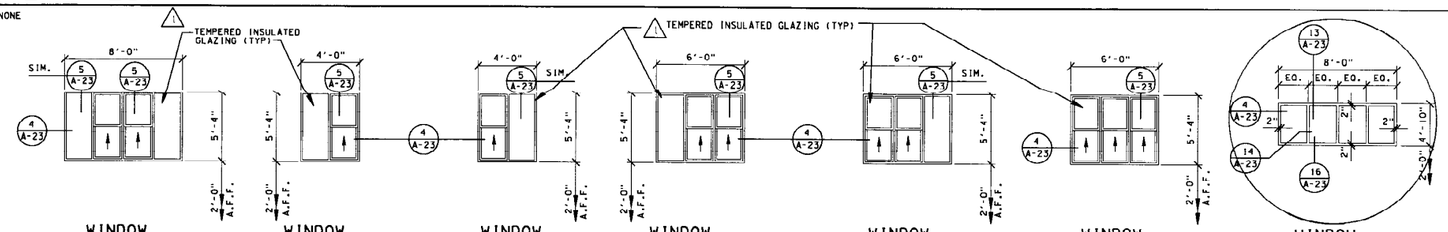
SCALE: NONE



FRAME TYPE 1 HOLLOW METAL | FRAME TYPE 2 HOLLOW METAL | FRAME TYPE 3 HOLLOW METAL | FRAME TYPE 4 HOLLOW METAL | FRAME TYPE 5 HOLLOW METAL | FRAME TYPE 6 HOLLOW METAL | FRAME TYPE 7 HOLLOW METAL

FRAME TYPES:

SCALE: NONE

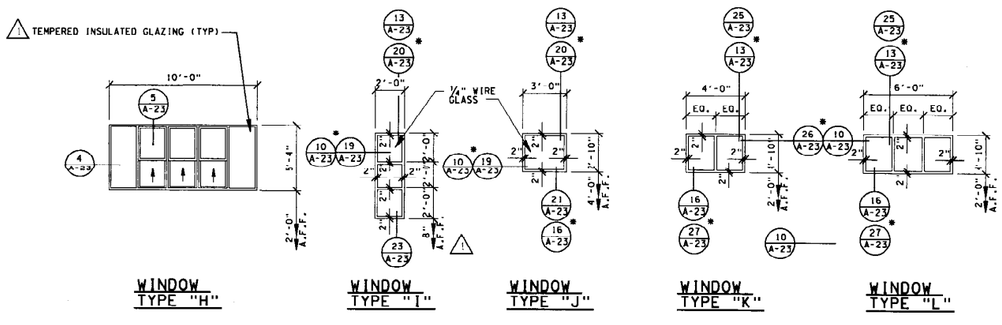


AS PER WRITTEN NOTE A-9

WINDOW TYPE "A" | WINDOW TYPE "B" | WINDOW TYPE "C" | WINDOW TYPE "D" | WINDOW TYPE "E" | WINDOW TYPE "F" | WINDOW TYPE "G"

NOTES:
1. EXTERIOR WINDOWS SHALL BE BRONZE INSULATED ALUMINUM GLAZED UNITS WITH U-.32 MIN.
2. OPERABLE EXTERIOR ALUMINUM UNITS SHALL BE PROVIDED WITH INSECT SCREENS.
3. SEE PLANS FOR WINDOW LOCATIONS.
4. SEE SHT. A-21 FOR DOOR FRAME LOCATIONS.

4 3 2 1 0 4
SCALE: 1/4"=1'-0"



WINDOW TYPE "H" | WINDOW TYPE "I" | WINDOW TYPE "J" | WINDOW TYPE "K" | WINDOW TYPE "L"

* SEE PLAN FOR WALL THICKNESS & LOCATION

WINDOW ELEVATIONS:

SCALE: NONE

Revisions			
Symbol	Descriptions	Date	Approved
1	(CASE *AC) NOTE REVISED	14 NOV 91	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

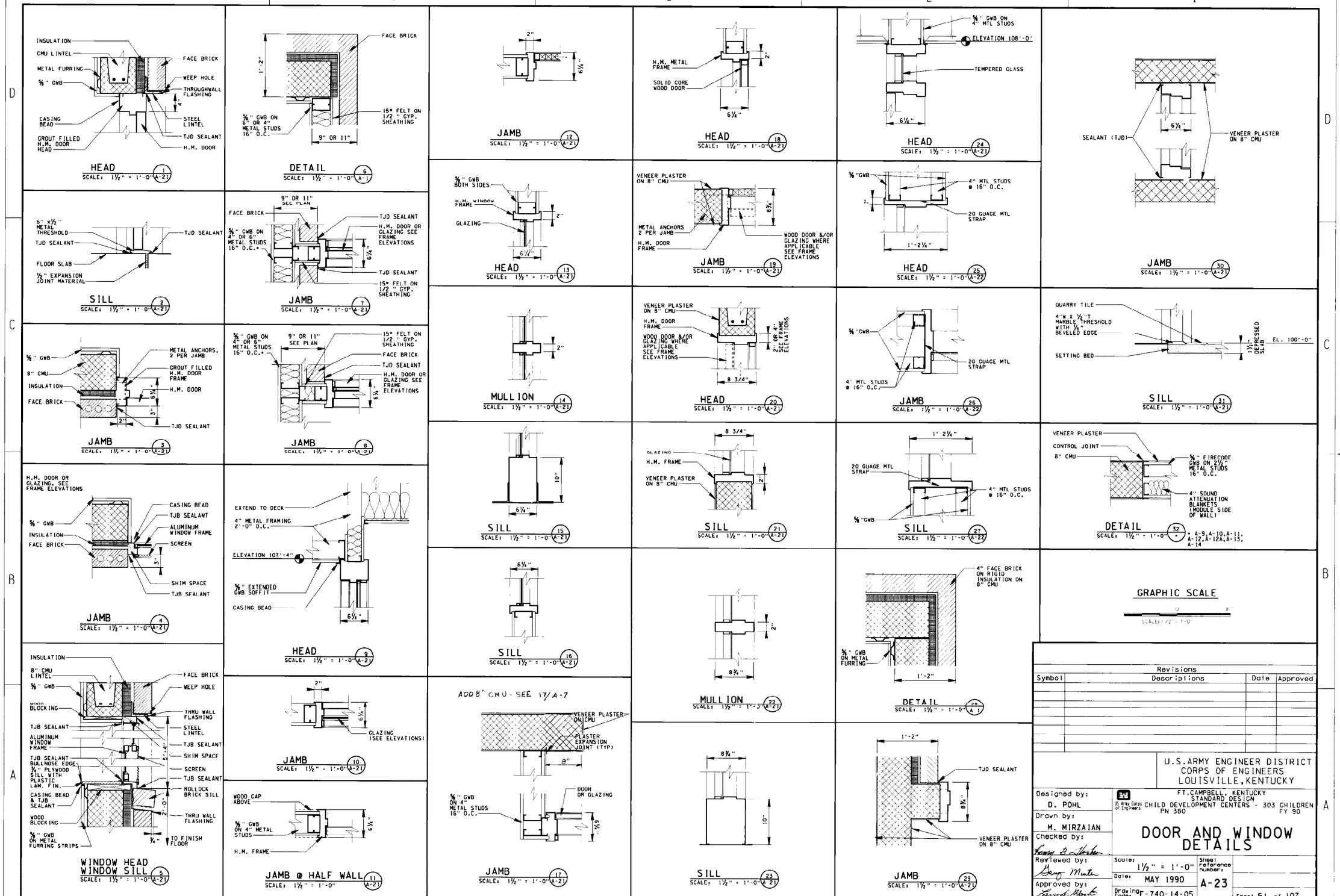
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

DOOR & FRAME TYPES & WINDOW ELEVATIONS

Designed by: D. POHL	Scale: NONE	Sheet reference number: A-22	
Drawn by: M.M./J.J.	Date: MAY 1990		
Checked by: HENRY B. THOBEN	Drawing Code: F-740-14-05		Sheet 50 of 107
Reviewed by: GARRY MINTER			
Approved by: LARRY D. MARTIN			

RECORD DRAWING "AS BUILT"

FILE: /usr/una/proj/fcc6/fcc6xa22.dgn
DATE: 12-Nov-91 15:07



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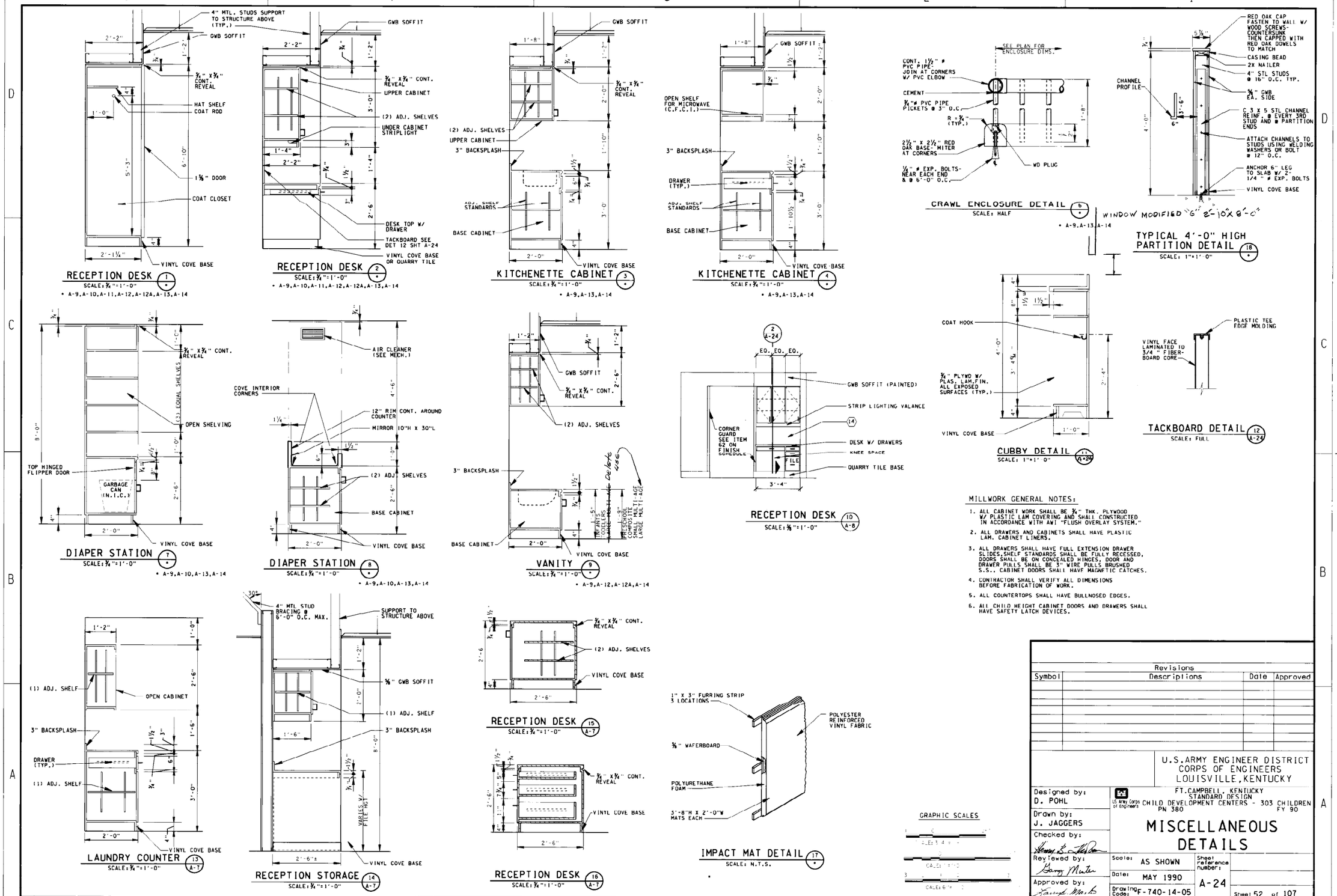
USER = JIMJ



MILLWORK GENERAL NOTES:

1. ALL CABINET WORK SHALL BE ¾" THK. PLYWOOD W/ PLASTIC LAM COVERING AND SHALL CONSTRUCTED IN ACCORDANCE WITH AWI "FLUSH OVERLAY SYSTEM."
2. ALL DRAWERS AND CABINETS SHALL HAVE PLASTIC LAM. CABINET LINERS.
3. ALL DRAWERS SHALL HAVE FULL EXTENSION DRAWER SLIDES.SHELF STANDARDS SHALL BE FULLY RECESSED, DOORS SHALL BE ON CONCEALED HINGES, DOOR AND DRAWER PULLS SHALL BE 3" WIRE PULLS BRUSHED S.S.. CABINET DOORS SHALL HAVE MAGNETIC CATCHES.
4. CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE FABRICATION OF WORK.
5. ALL COUNTERTOPS SHALL HAVE BULLNOSED EDGES.
6. ALL CHILD HEIGHT CABINET DOORS AND DRAWERS SHALL HAVE SAFETY LATCH DEVICES.

Revisions			
Symbol	Descriptions	Date	Approved

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

US Army Corps of Engineers

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

Designed by: D. POHL
Drawn by: J. JAGGERS
Checked by:
Reviewed by:
Approved by:

MISCELLANEOUS DETAILS

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-24
Sheet 52 of 107

RECORD DRAWING "AS BUILT"

ZGO:[40,77]FCC6XA24.DGN;1
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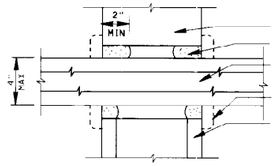
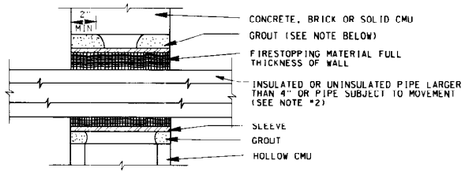
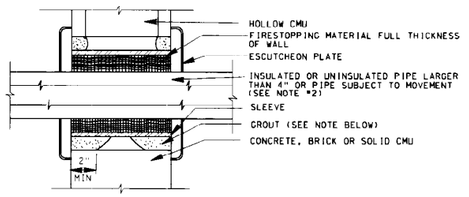
USER = JIMJ



TYPICAL SMALL PIPE DETAIL



LARGE PIPE NOT EXPOSED TO VIEW



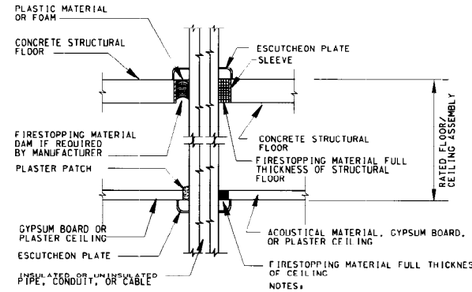
LARGE PIPE EXPOSED TO VIEW

NOTES:

1. THE GROUT CAN BE ELIMINATED ON CONCRETE WALLS THAT HAVE THE SLEEVE CAST INTO THE WALL
2. INSULATED OR UNINSULATED PIPING PENETRATING TIME-RATED ASSEMBLIES SHALL BE FIRESTOPPED AS LISTED IN THE FIRESTOPPING SPECIFICATIONS.

PIPE PENETRATIONS AT CONCRETE AND MASONRY RATED WALLS

N.T.S.

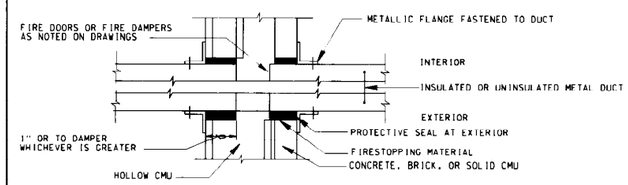


NOTES:

1. ANY COMBINATION OF FLOOR AND CEILING FIRESTOPPING METHODS MAY BE USED
2. INSULATED OR UNINSULATED PIPING PENETRATING TIME-RATED ASSEMBLIES SHALL BE FIRESTOPPED AS LISTED IN THE FIRESTOPPING SPECIFICATIONS.

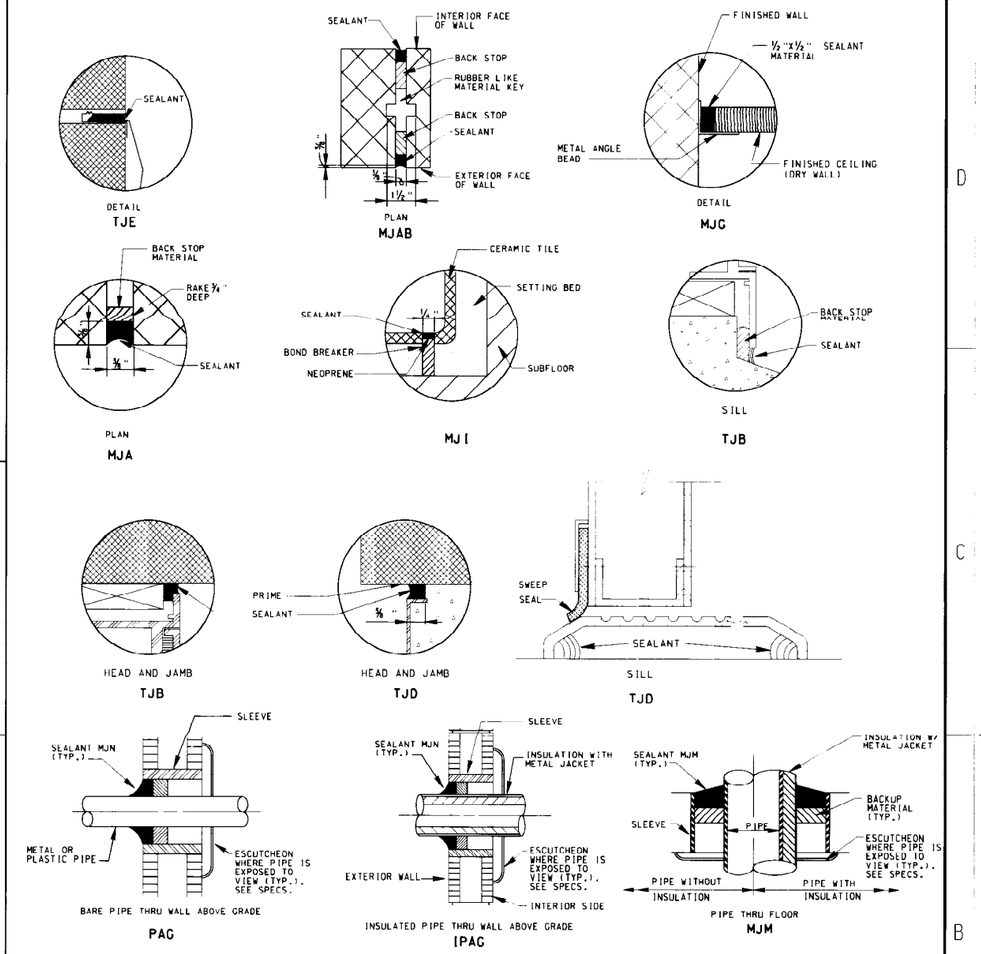
PIPE PENETRATION AT RATED FLOOR / CEILINGS

N.T.S.



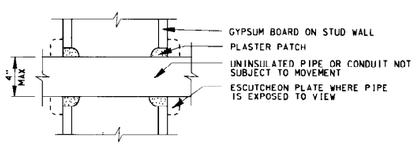
DUCT PENETRATION AT CONCRETE OR MASONRY RATED WALLS

N.T.S.

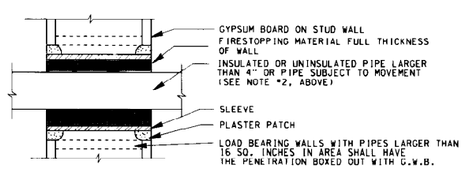


TYPICAL JOINT SEALANT DETAILS FOR NON FIRE RATED CONSTRUCTION

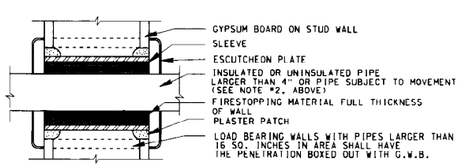
N.T.S.



TYPICAL SMALL PIPE DETAIL



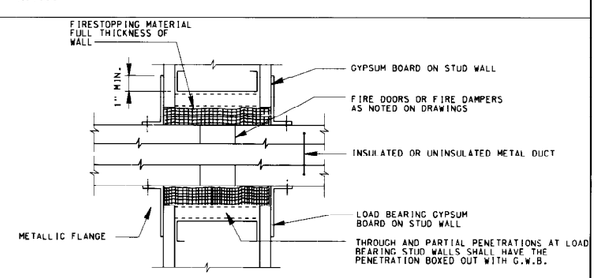
LARGE PIPE NOT EXPOSED TO VIEW



LARGE PIPE EXPOSED TO VIEW

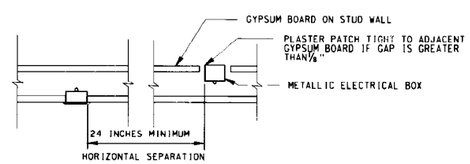
PIPE PENETRATIONS AT G.W.B. RATED WALLS

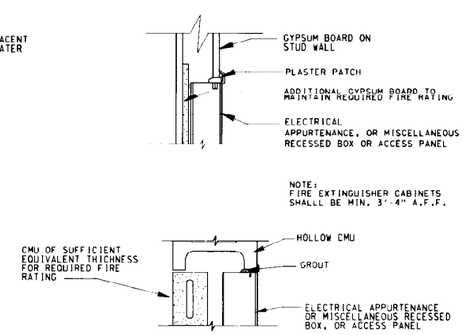
N.T.S.



DUCT PENETRATION AT G.W.B. RATED WALLS

N.T.S.





MISCELLANEOUS RATED WALL PENETRATIONS

N.T.S.

PLAN

N.T.S.

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

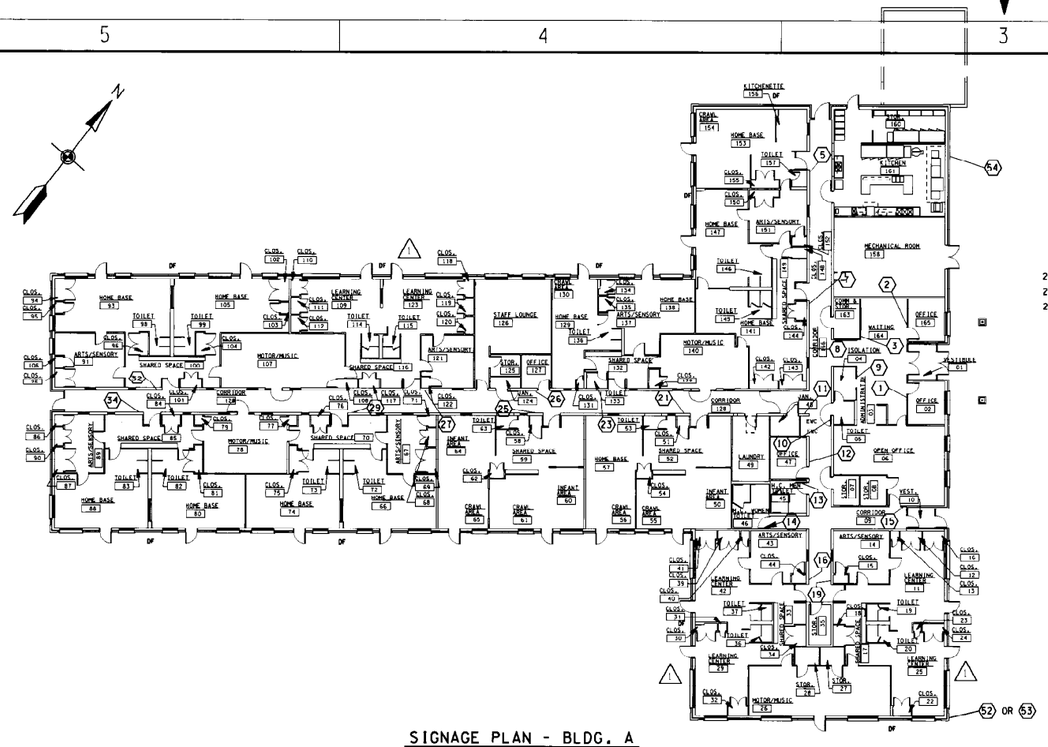
FIRESTOPPING & SEALANT DETAILS

Designed by: STANDARD
Drawn by: STANDARD
Checked by:
Reviewed by:
Approved by:

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-25
Sheet 53 of 107

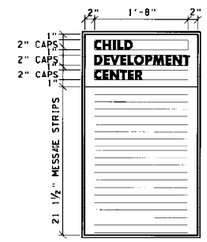
RECORD DRAWING "AS BUILT"

ZG0:140.77:CC6XA25.DGN
DATE = 27-APR-90, 10:26:18
USER = JIMJ

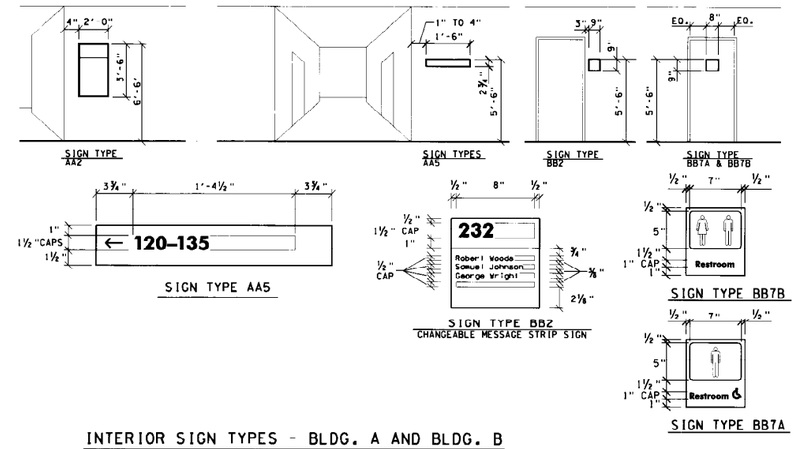


SIGNAGE PLAN - BLDG. A
SCALE: 1/16"=1'-0"

NOTE:
SIGNAGE LOCATIONS SHOWN ARE FOR BUILDING A.
BUILDING B SIGNAGE SHALL BE IDENTICAL,
BUT OPPOSITE HAND.

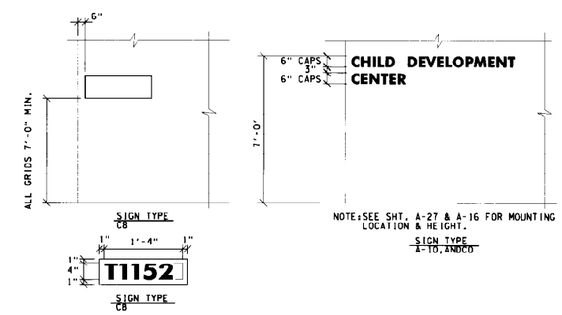


SIGN TYPE AA2



SIGN TYPE AA2
SIGN TYPE AA5
SIGN TYPE AA5
SIGN TYPE BB2
SIGN TYPE BB7A & BB7B
SIGN TYPE BB2
CHANGEABLE MESSAGE STRIP SIGN
SIGN TYPE BB7B
SIGN TYPE BB7A

INTERIOR SIGN TYPES - BLDG. A AND BLDG. B
NO SCALE



SIGN TYPE C8
NOTE: SEE SHT. A-27 & A-16 FOR MOUNTING LOCATION & HEIGHT.
SIGN TYPE A-10, ANDCO
SIGN TYPE C8

EXTERIOR SIGN TYPES - BLDG. A AND BLDG. B
NO SCALE

GRAPHIC SCALE
16 12 8 4 0 16 32FT
SCALE: 1/16"=1'-0"

Revisions			
Symbol	Descriptions	Date	Approved
1	(AMDT #0003) DOORS ADDED	31 AUG 90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: R. MEYER
Drawn by: SPIVEY
Checked by: HENRY B. THOBEN
Reviewed by: GARRY MINTER
Approved by: LARRY D. MARTIN

US Army Corps of Engineers
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

SIGNAGE PLAN & DETAILS

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-26
Sheet 54 of 107

RECORD DRAWING "AS BUILT"

ZGO:[40,77]FCC6XA26.DGN;1
DATE = 28-AUG-90, 15:28:20
USER = CHARMAINEW

INTERIOR SIGNAGE SCHEDULE - BLDG. A & B

SIGN NO.	SIGN TYPE	MESSAGE	GRAPHICS COLOR	BKGRD COLOR	SIZE	REMARKS
1	BB2	02	*54 APCO GRAPHITE	*43 APCO PUTTY	9" X 9"	COORDINATE MESSAGE WITH CONTRACTING OFFICER. PROVIDE BLANK WINDOW MESSAGE INSERTS.
2	BB2	165	*54 APCO GRAPHITE	*43 APCO PUTTY	9" X 9"	COORDINATE MESSAGE WITH CONTRACTING OFFICER. PROVIDE BLANK WINDOW MESSAGE INSERTS.
3	AA2	CHILD DEVELOPMENT CENTER OFFICE 02 OPEN OFFICE 06 OFFICE 47 OFFICE 127 OFFICE 165 HOURLY INFANT 153 HOURLY TODDLER/PRESCHOOL 149 HOURLY INFANT/TODDLER/ PRESCHOOL 132 PART DAY COMPOSITE 17 33 PART DAY PRESCHOOL 116 FULL DAY INFANT 52 59 FULL DAY TODDLER 70 85 FULL DAY PRESCHOOL 100	*27 APCO DEEP GREEN *A2 APCO BLACK	*A43 APCO PUTTY *A43 APCO PUTTY	24" X 6" 24" X 1"	HEADER MESSAGE DIRECTORY STRIPS MESSAGES TO BE COORDINATED WITH CONTRACTING OFFICER.
4	NOT USED					
5	BB2	153 HOURLY INFANT	*54 APCO GRAPHITE	*43 APCO PUTTY	9" X 9"	WINDOW MESSAGE STRIP INSERTS (2) PRINTED
6	NOT USED					
7	BB2	149 HOURLY TODDLER PRESCHOOL	*54 APCO GRAPHITE	*43 APCO PUTTY	9" X 9"	WINDOW MESSAGE STRIP INSERTS (3) PRINTED
8	AA5	↑ MODULES 52, 59, 70, 85, 100, 116, 132 ← MODULES 17, 33 RESTROOMS MODULES 149, 153 →	*54 APCO GRAPHITE	*43 APCO PUTTY	16" X 18"	MODULAR SIGN PANEL STRIPS
9	BB2	04 ISOLATION	*54 APCO GRAPHITE	*43 APCO PUTTY	9" X 9"	WINDOW MESSAGE STRIP INSERT (1) PRINTED
10	BB7B	(PICTOGRAPH--MALE/FEMALE) RESTROOM	*54 APCO GRAPHITE	*43 APCO PUTTY	9" X 9"	
11	AA5	↑ MODULES 17, 33 RESTROOMS MODULES 52, 59, 70, → 85, 100, 116, 132	*54 APCO GRAPHITE	*43 APCO PUTTY	10" X 18"	MODULAR SIGN PANEL STRIPS
12	BB2	47	*54 APCO GRAPHITE	*43 APCO PUTTY	9" X 9"	COORDINATE MESSAGE WITH CONTRACTING OFFICER. BLANK WINDOW MESSAGE STRIP INSERTS
13	BB7A	(PICTOGRAPH--MALE/HANDICAPPED) MEN	*54 APCO GRAPHITE	*43 APCO PUTTY	9" X 6"	
14	BB7A	(PICTOGRAPH--FEMALE/HANDICAPPED) WOMEN	*54 APCO GRAPHITE	*43 APCO PUTTY	9" X 6"	
15	BB2	06	*54 APCO GRAPHITE	*43 APCO PUTTY	9" X 9"	COORDINATE MESSAGE WITH CONTRACTING OFFICER. BLANK WINDOW MESSAGE STRIP INSERTS
16	BB2	33 PART DAY COMPOSITE	*54 APCO GRAPHITE	*43 APCO PUTTY	9" X 9"	WINDOW MESSAGE STRIP INSERTS (2) PRINTED
17	NOT USED					
18	NOT USED					
19	BB2	17 PART DAY COMPOSITE	*54 APCO GRAPHITE	*43 APCO PUTTY	9" X 9"	WINDOW MESSAGE STRIP INSERT (2) PRINTED
20	NOT USED					
21	BB2	52 FULL DAY INFANT	*54 APCO GRAPHITE	*43 APCO PUTTY	9" X 9"	WINDOW MESSAGE STRIP INSERT (2) PRINTED
22	NOT USED					
23	BB2	132 HOURLY INFANT TODDLER PRESCHOOL	*54 APCO GRAPHITE	*43 APCO PUTTY	9" X 9"	WINDOW MESSAGE STRIP INSERTS (4) PRINTED
24	NOT USED					
25	BB2	59 FULL DAY INFANT	*54 APCO GRAPHITE	*43 APCO PUTTY		WINDOW MESSAGE STRIP INSERTS (2) PRINTED
26	BB2	127	*54 APCO GRAPHITE	*43 APCO PUTTY		COORDINATE MESSAGE WITH CONTRACTING OFFICER. PROVIDE BLANK WINDOW MESSAGE INSERTS.
27	BB2	116 PART DAY PRESCHOOL	*54 APCO GRAPHITE	*43 APCO PUTTY	9" X 9"	WINDOW MESSAGE STRIP INSERTS (2) PRINTED
28	NOT USED					
29	BB2	70 FULL DAY TODDLER	*54 APCO GRAPHITE	*43 APCO PUTTY		WINDOW MESSAGE STRIP INSERTS (2) PRINTED
30	NOT USED					
31	NOT USED					
32	BB2	100 FULL DAY PRESCHOOL	*54 APCO GRAPHITE	*43 APCO PUTTY		WINDOW MESSAGE STRIP INSERTS (2) PRINTED
33	NOT USED					

INTERIOR SIGNAGE SCHEDULE - BLDG. A & B

SIGN NO.	SIGN TYPE	MESSAGE	GRAPHICS COLOR	BKGRD COLOR	SIZE	REMARKS
34	BB2	85	*54 APCO GRAPHITE	*43 APCO PUTTY		
		FULL DAY TODDLER				WINDOW MESSAGE STRIP INSERTS (2) PRINTED

EXTERIOR SIGNAGE SCHEDULE - BLDG. A AND B

SIGN NO.	SIGN TYPE	MESSAGE	GRAPHICS COLOR	BKGRD COLOR	SIZE	REMARKS
52	C8 GRID 3	3069	WHITE	DARK	6" x 18"	BACKGROUND COLOR TO MATCH FED. STD. 595A, COLOR *36118 BLDG. NO. TO BE COORDINATED WITH CONTRACTING OFFICER. SEE SHTS C-2,A-16 & A-26 FOR HEIGHT AND LOCATION.
53	C8 GRID 3	3071	WHITE	CHARCOAL DARK CHARCOAL	6" x 18"	
54	ANDCO A-10	CHILD DEVELOPMENT CENTER			6"H X8.25" EA. LETTER	PROJECTED-MOUNT ALUMIUM LETTERS WITH BAKED ENAMEL FINISH. LETTER STYLE: ANDCO MICROGRAMMA BOLD 2001. FINISH TO BE SELECTED FROM MANUFACTURER'S STANDARD COLORS. SEE SHEETS C-2,A-16 & A-26 FOR HEIGHT & LOCATION.

NOTE:

1. MANUFACTURERS REFERENCED ARE INTENDED TO ESTABLISH COLOR AND FINISH ONLY, AND ARE NOT INTENDED TO LIMIT SELECTION OF COLORS AND FINISHES FROM OTHER MANUFACTURERS. WHEN ALTERNATE SELECTIONS ARE SUBMITTED, SUBMITTAL SHALL INCLUDE MATERIALS LISTED FOR COMPARISON.
2. EXTERIOR SIGNAGE *52 AND *53 ARE BLDG. IDENTIFICATION NUMBERS FOR BLDGS. A AND B. CONTRACTING OFFICER TO COORDINATE WHICH BLDG. SHALL RECEIVE EACH NUMBER.
3. INTERIOR SIGNAGE SCHEDULE IS FOR BLDG A. BLDG. B SIGNAGE LOCATIONS TO BE OPPOSITE HAND
4. MESSAGES SHOWN ON DRAWINGS ARE FOR EXAMPLE ONLY.

Revisions

Symbol	Descriptions	Date	Approved

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: D. POHL
Drawn by: SPIVEY/J.J.
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers
FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

SIGNAGE SCHEDULE

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: A-27
Sheet 55 of 107

RECORD DRAWING "AS BUILT"

ZGO:[40,77]FCC6XA27.DGN;1
DATE = 27-APR-90, 10:31:05
USER = JJMJ

GENERAL NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE PROJECT DRAWINGS AND SPECIFICATIONS.
2. UNLESS OTHERWISE SHOWN OR NOTED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATION AND PLACEMENT OF ANY INSERTS, HANGERS, PIPE SLEEVES OR HOLES REQUIRED FOR MECHANICAL OR ELECTRICAL EQUIPMENT.
3. THE STRUCTURAL DESIGN DATA:

DESIGN LOADS:

ROOF LIVE LOAD	20 PSF
ROOF DEAD LOAD	19.5 PSF
INSULATION	2.4 PSF
ASPHALT SHINGLES	2 PSF
1516 UNDERLAYMENT	1 PSF
METAL ROOF DECK	1.8 PSF
¾" SHEATHING	2.3 PSF
JOIST FRAMING	3 PSF
SUSPENDED CEILING	2 PSF
ELECTRICAL	2 PSF
MECHANICAL	2 PSF
MISCELLANEOUS	1 PSF
TEMPERATURE DIFFERENTIAL	100° F
MAXIMUM HOIST LOAD	2000 lb

WIND LOADS:

BASIC WIND SPEED . . . . . 70 MPH EXPOSURE CATEGORY "C"

SEISMIC ZONE 2

FORCE FACTORS: I=1.25, Z=0.375, K=1.33, CS=0.14

ALLOWABLE NET SOIL BEARING

COLUMN FOOTINGS	3500 PSF
CONTINUOUS FOOTINGS	3000 PSF
FROST DEPTH FOR DESIGN	18 INCHES
STRUCTURAL STEEL	ASTM A36
CONCRETE	f'c=3000 PSI AT 28 DAYS
CONCRETE MASONRY	f'm=1350 PSI MORTAR TYPE S
REINFORCING STEEL	GRADE 60

4. DEFLECTION CRITERIA FOR DESIGN:

ROOF FRAMING	SPAN/240
GIRTS (LATERAL)	SPAN/180

5. VERIFY SIZE AND LOCATION OF ROOF OPENINGS WITH MECHANICAL CONTRACTOR.
6. ANY VARIATION FROM DIMENSIONS SHOWN MUST BE APPROVED BY THE CONTRACTING OFFICER.
7. REINFORCING DETAILING AND PLACEMENT SHALL CONFORM TO ACI 318 AND ACI 315, EXCEPT WHERE OTHERWISE INDICATED.

GENERAL NOTES FOR CONCRETE MASONRY:

1. ALL CONCRETE MASONRY SHALL BE DESIGNED AND PLACED IN ACCORDANCE WITH THE LATEST CODES OF THE AMERICAN CONCRETE INSTITUTE (ACI 531-79(83)) IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS.
2. UNLESS OTHERWISE NOTED, ALL CONCRETE MASONRY UNITS (CMU) SHALL HAVE A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI ON NET AREA.
3. ALL MASONRY BOND BEAMS, LINTELS AND BLOCKS WITH EMBEDDED ANCHOR BOLTS WILL BE FILLED WITH 2500 PSI GROUT.
4. UNLESS OTHERWISE NOTED, LAP SPLICES OR EMBEDMENT LENGTHS OR REINFORCING SHALL BE 40 DIAMETERS OR 24 INCHES, WHICHEVER IS GREATER.
5. QUICK OR EXPANSION TYPE ANCHOR BOLTS SHALL NOT BE USED IN SEISMIC ZONES 2, 3 OR 4.
6. ADJUSTABLE TIES ARE NOT PERMITTED IN CONSTRUCTION OF CONCRET MASONRY VENEERED WALLS. A VENEERED WALL IS A WALL IN WHICH THE VENEER IS ATTACHED TO A MASONRY BACK-UP WALL.

GENERAL NOTES FOR STRUCTURAL STEEL:

1. ALL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST CODES AND SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC-89) UNLESS OTHERWISE NOTED.
2. STEEL
   - 2.1 ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 UNLESS NOTED.
   - 2.2 PLATE SHALL CONFORM TO ASTM SPECIFICATION A36 UNLESS NOTED.
   - 2.3 SECTIONS OF EQUAL, OR GREATER, STRENGTH MAY BE SUBSTITUTED SUBJECT TO PRIOR APPROVAL BY THE CONTRACTING OFFICER.
   - 2.4 BAR JOISTS SHALL BE GRADE 50, AND IN ACCORDANCE WITH SJI SPECS.
   - 2.5 BETWEEN PANEL POINTS OF STEEL JOISTS, THE BOTTOM CHORD SHALL NOT SUPPORT OVER 50 LBS. VERTICAL LOAD WITHOUT ADEQUATE REINFORCING OF BOTTOM CHORD. NO VERTICAL LOAD SHALL BE IMPOSED ON BRIDGING.
   - 2.6 ALL ANCHOR BOLTS SHALL BE ASTM A307. UNLESS OTHERWISE NOTED.
3. CONNECTIONS SHALL BE MADE BY BOLTING OR WELDING, AS SHOWN OR NOTED.
   - 3.1 ALL BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA. HIGH STRENGTH A325 BOLTS UNLESS NOTED OTHERWISE.
   - 3.2 CONNECTIONS WILL BE BEARING TYPE CONNECTIONS DESIGNED FOR 1.25 TIMES THE DESIGN FORCE WITHOUT THE ONE-THIRD INCREASE USUALLY PERMITTED FOR WIND OR SEISMIC OR DESIGNED FOR THE CAPACITY OF THE MEMBER.
   - 3.3 ALL BEAM CONNECTIONS SHALL HAVE A MINIMUM OF 4 BOLTS.
   - 3.4 ALL ANGLE CONNECTIONS SHALL HAVE A MINIMUM OF 2 BOLTS.
   - 3.5 WELDING SHALL BE IN ACCORDANCE WITH AWS, SJI & SDI.
   - 3.6 WHERE WELD SIZE IS NOT SHOWN USE MINIMUM WELD SIZE IN ACCORDANCE WITH AISC AND AWS.
4. DETAILS
   - 4.1 AXIALLY STRESSED MEMBERS MEETING AT A POINT SHALL HAVE THEIR GRAVITY AXES MEET AT ONE POINT IF PRACTICABLE; IF NOT, PROVISIONS SHALL BE MADE FOR BENDING STRESSES DUE TO ECCENTRICITY.
   - 4.2 GUSSET PLATES SHALL BE ⅜" THICK, MINIMUM, UNLESS NOTED OTHERWISE. ANY CROSS SECTION OF THE GUSSET, WELD OR BOLT GROUP SHALL BE SUFFICIENT TO DEVELOP 1.25 TIMES THE AXIAL LOAD INDICATED BY LOAD OR NUMBER OF BOLTS, PLUS BENDING AS NOTED IN 4.1.
   - 4.3 COLUMN BASES AND SPLICED ENDS SHALL BE MILLED OR SAW CUT TO PROVIDE FULL BEARING.
   - 4.4 METAL ROOF DECK SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

$I=0.167\ in^4/ft$

$Sp=0.186\ in^3/ft$

$Sn=0.194\ in^3/ft$

D=1½"

22 GA. GALVANIZED

METAL DECK SHALL BE PUDDLE WELDED THRU WASHERS @ 6 SPACINGS AT SUPPORTS, BUTTON PUNCH @ SEAMS 24" ON CENTER. SELF-DRILLING FASTENERS MAY BE USED WITH AN EQUIVALENT SHEAR STRENGTH.

GENERAL NOTES FOR COLD-FORMED STEEL FRAMING:

1. LIGHT GAUGE METAL STUD AND JOIST FRAMING MEMBERS SHALL BE COLD-FORMED STEEL DESIGNED BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIFICATIONS AND DRAWINGS. STEEL SHALL BE ASTM A446, GRADE C OR D.
2. METAL STUD FOR CANOPY AND SHEAR WALLS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

CANOPY	SHEAR WALL
C-SECTION	SJ-SECTION
D= 8"	D= 6"
$Ix= 4.7\ in^4$	$Ix= 3.68\ in^4$
$Sx= 1.18\ in^3$	$Sx= 1.219\ in^3$
18 GAUGE	14 GAUGE

GENERAL NOTES FOR CONCRETE:

1. ALL CONCRETE SHALL BE DESIGNED AND PLACED IN ACCORDANCE WITH ACI (AMERICAN CONCRETE INSTITUTE) CODE, (ACI-318-83, REVISED 1989) AND CURRENT REVISIONS IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS.
2. CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH (f'c) OF 3000 PSI.
3. UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL REINFORCING SHALL BE DEFORMED BILLET STEEL BARS CONFORMING TO ASTM STANDARDS A615 AND A706 GRADE 60. WELDED WIRE FABRIC SHALL BE IN ACCORDANCE WITH ASTM A185 OR A497.
4. CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE PROVIDED BY CLEAR COVER FROM FACE OF CONCRETE TO OUTSIDE OF BAR AS LISTED BELOW.

	MINIMUM COVER INCHES
CAST AGAINST & PERMANENTLY EXPOSED TO EARTH	3"
EXPOSED TO EARTH OR WEATHER:	
NO. 6 THROUGH NO. 18 BARS	2"
NO. 5 BARS, ⅝" WIRE & SMALLER	1½"
NOT EXPOSED TO WEATHER OR IN SLABS, WALLS, JOISTS:	
NO. 14 & NO. 18 BARS	1½"
NO. 11 & SMALLER BARS	¾"
BEAMS, GIRDERS, COLUMNS: PRINCIPLE REINFORCEMENT, TIES, STIRRUPS OR SPIRALS	1½"

FOR CLEARANCES NOT LISTED, SEE SECTION 7.7.1 OF ACI CODE.

5. FOUNDATION CONSTRUCTION JOINTS SHALL BE SPACED AT 60 FEET MAXIMUM. CONSTRUCTION JOINTS IN GRADE BEAMS SHOULD BE PLACED OVER THE FOOTING PEDESTALS.
6. JOINTS SHALL BE PLACED IN ALL SLABS ON GRADE AS SHOWN OR IN AREAS BOUNDED BY CONSTRUCTION JOINTS NOT EXCEEDING 600 SQUARE FEET. DISTANCE BETWEEN CRACK CONTROL JOINTS SHALL BE APPROXIMATELY 25'.
7. EXPOSED CORNERS OF BEAMS AND COLUMNS SHALL BE CHAMFERED ¾" UNLESS NOTED. TOP CORNERS OF SLABS AND EQUIPMENT FOUNDATIONS MAY BE ROUNDED WITH A BULL NOSE TOOL.
8. ANCHOR BOLTS FOR ALL COLUMNS AND EQUIPMENT SHALL BE SET BY TEMPLATE.
9. UNLESS OTHERWISE SHOWN DEVELOPMENT LENGTHS OF REINFORCEMENT SHALL CONFORM TO ACI 318-83.
10. FLOOR SLAB, TOP OF GRADE BEAM AND FOUNDATION STEM EL. 100'-0" EXCEPT AS OTHERWISE SHOWN.
11. PIPE SLEEVES WHICH PASS THROUGH GRADE BEAMS SHALL BE PLACED ABOVE FOOTINGS EXCEPT AS NOTED.
12. ALL LAP LENGTHS AND DEVELOPMENT LENGTHS NOT SHOWN SHALL BE IN ACCORDANCE WITH THE TABLES ON THIS DRAWING. WHERE BARS ARE OF DIFFERENT SIZE, THE LAP LENGTH SHALL BE BASED ON THE SMALLER BAR.
13. HORIZONTAL CONSTRUCTION JOINTS IN WALLS AND VERTICAL CONSTRUCTION JOINTS IN WALL FOOTINGS SHALL BE AT THE LOCATIONS SHOWN ON THE DRAWINGS. EXTEND REINFORCING THROUGH ALL CONSTRUCTION JOINTS.

REINFORCEMENT BARS

fc'=3,000 psi fy=60,000 psi

MINIMUM LENGTHS FOR LAP SPLICES (CLASS C)

BAR SIZE	TENSION BARS REGULAR BARS	TENSION BARS TOP BARS * *	COMPRESSION BARS
3	15	21	12
4	20	29	15
5	26	36	19
6	33	46	23
7	45	63	26
8	59	82	30
9	75	104	34
10	95	132	38
11	116	163	42

* * TOP BARS ARE HORIZONTAL BARS SO PLACED THAT MORE THEN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.

BAR DEVELOPMENT LENGTHS

BAR SIZE	TENSION BARS REGULAR BARS	TENSION BARS TOP BARS * *	COMPRESSION BARS	LENGTH STD. 90° HOOKS	* R
3	12	12	7	6	1⅛
4	12	12	9	8	1½
5	15	15	11	10	1⅞
6	18	22	14	12	2¼
7	21	30	16	14	2⅝
8	28	38	18	16	3
9	35	49	22	19	4½
10	45	62	28	22	5⅛
11	55	77	34	24	5⅝

* MINIMUM BEND RADIUS

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

US Army Corps of Engineers

STRUCTURAL GENERAL NOTES

Designed by:	MENDOZA
Drawn by:	GUILLAUME
Checked by:	
Reviewed by:	
Approved by:	
Scale:	NONE
Date:	MAY 1990
Drawing Code:	F-740-14-05
Sheet reference numbers:	S-0
Sheet	56 of 107

RECORD DRAWING "AS BUILT"

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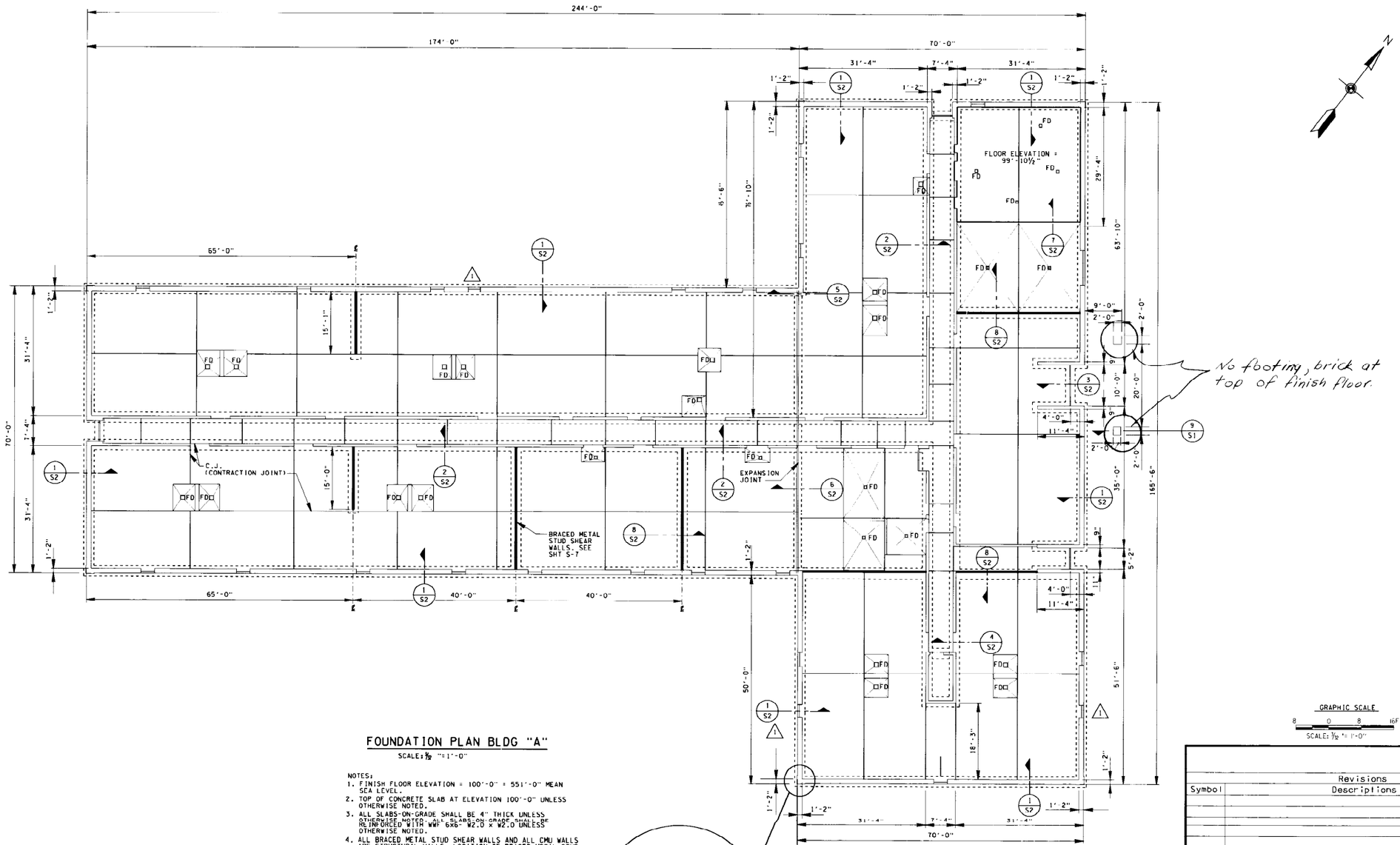
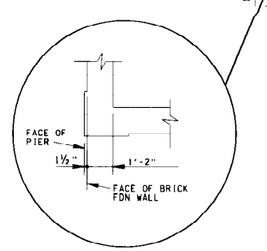


FOUNDATION PLAN BLDG "A"

SCALE: 1/32 "=1'-0"

NOTES:

1. FINISH FLOOR ELEVATION = 100'-0" = 551'-0" MEAN SEA LEVEL.
2. TOP OF CONCRETE SLAB AT ELEVATION 100'-0" UNLESS OTHERWISE NOTED.
3. ALL SLABS-ON-GRADE SHALL BE 4" THICK UNLESS OTHERWISE NOTED. ALL SLABS-ON-GRADE SHALL BE REINFORCED WITH WWF 6x6- W2.0 x W2.0 UNLESS OTHERWISE NOTED.
4. ALL BRACED METAL STUD SHEAR WALLS AND ALL CMU WALLS ARE STRUCTURAL WALLS. LOCATION OF BRACED METAL STUD SHEAR WALLS IS SHOWN ON SHEETS S-1 & S-4.
5. BUILDING "B" IS OPPOSITE HAND AND IS SHOWN ON SHEET S-1A.
6. MAXIMUM VERTICAL SPACING OF BOND BEAMS FOR CMU STRUCTURAL WALLS IS 4'-0" O.C.
7. FD DENOTES FLOOR DRAINS. COORDINATE WITH MECH. AND ARCH. FOR EXACT SIZE AND LOCATION OF FLOOR DRAINS.



TYP @ BLDG OUTSIDE CORNERS

SCALE: 3/4 "=1'-0"

GRAPHIC SCALE

8 0 8 16FT

SCALE: 1/32 "= 1'-0"

Revisions			
Symbol	Descriptions	Date	Approved
1	(AMDT. #0003), DOORS ADDED	31 AUG 90	

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

US Army Corps of Engineers

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

FOUNDATION PLAN BUILDING "A"

Designed by: MENDOZA
Drawn by: GUILLAUME
Checked by: V.L. RIFE
Reviewed by: BYRON K. McCLELLAN
Approved by: LARRY D. MARTIN

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: S-1
Sheet 57 of 107

RECORD DRAWING "AS BUILT"

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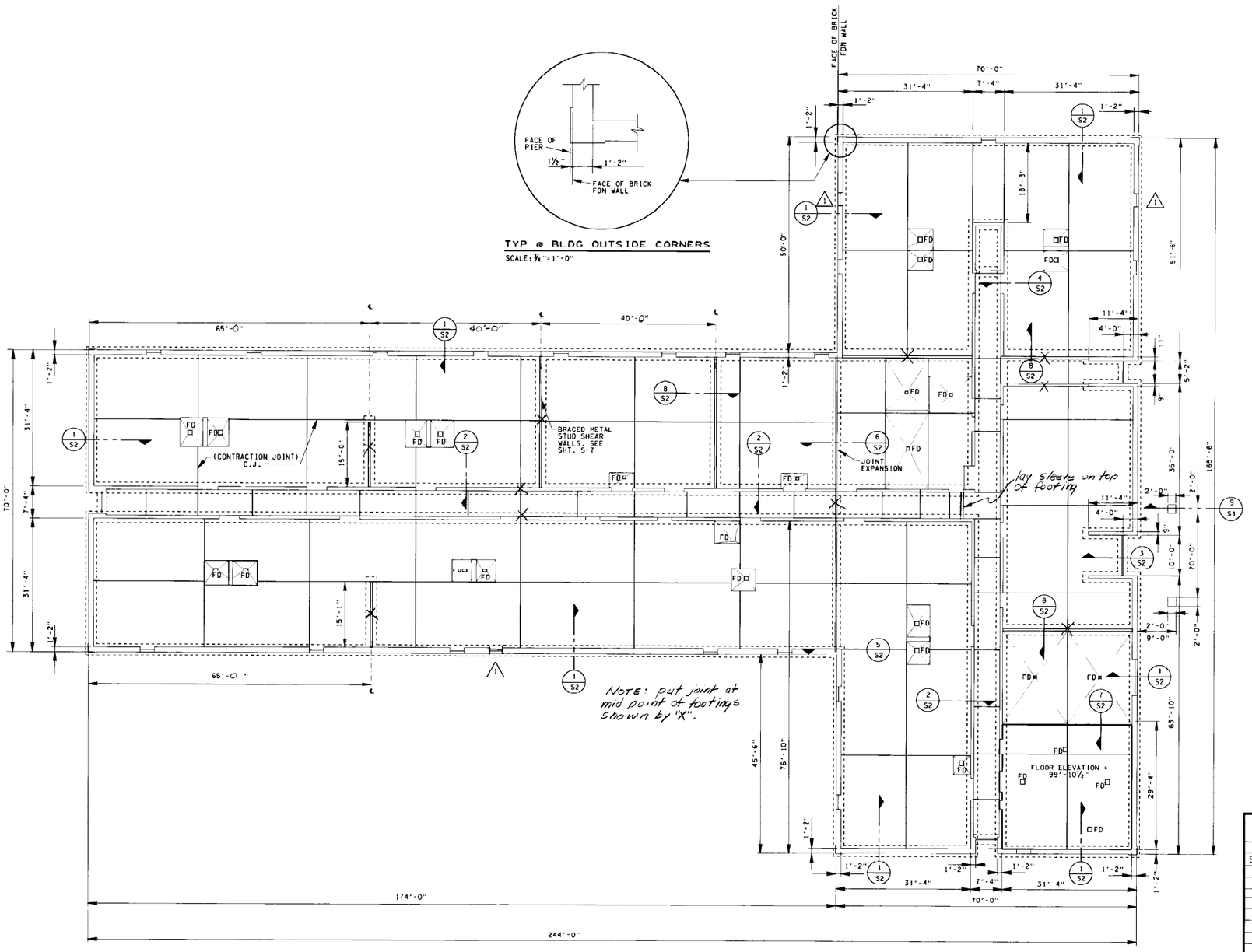

FOUNDATION PLAN BLDG "B"

SCALE: 1/16" = 1'-0"

NOTES:

1. FINISH FLOOR ELEVATION = 100'-0" = 551'-0" MEAN SEA LEVEL.
2. TOP OF CONCRETE SLAB AT ELEVATION 100'-0" UNLESS OTHERWISE NOTED.
3. ALL SLABS-ON-GRADE SHALL BE 4" THICK UNLESS OTHERWISE NOTED. ALL SLABS-ON-GRADE SHALL BE REINFORCED WITH WWF 6x6- W2.0 x W2.0 UNLESS OTHERWISE NOTED.
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6. FD DENOTES FLOOR DRAINS. COORDINATE WITH MECH. AND ARCH. FOR EXACT SIZE AND LOCATION OF FLOOR DRAINS.

Revisions

Symbol	Descriptions	Date	Approved
1	(AMDT. #0003), DOORS ADDED	31 AUG 90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380
FY 90

US Army Corps of Engineers

FOUNDATION PLAN BUILDING "B"

Designed by: MENDOZA	Scale: AS SHOWN	Sheet reference number:	
Drawn by: OYLER	Date: MAY 1990	S-1A	
Checked by: V.L. RIFE	Drawing Code: F-740-14-05		Sheet 58 of 107
Reviewed by: BYRON K. McCLELLAN			
Approved by: LARRY D. MARTIN			

RECORD DRAWING "AS BUILT"

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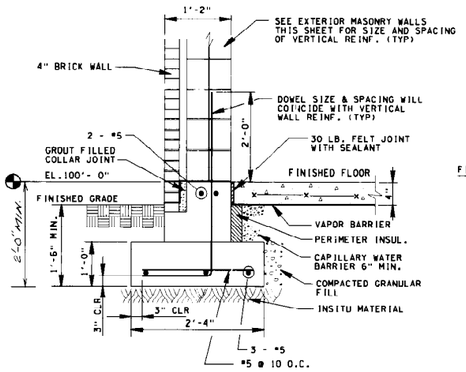
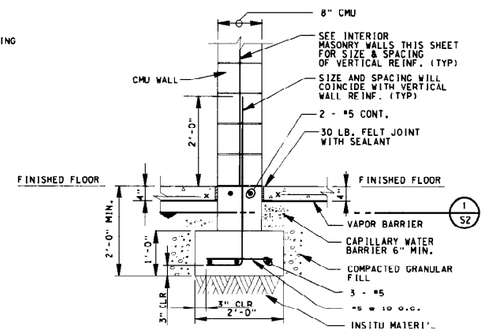


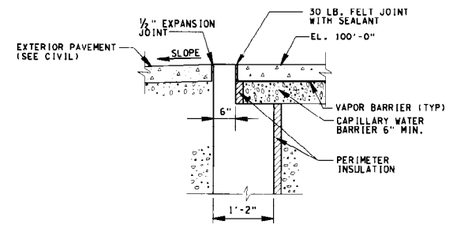
TYPICAL EXTERIOR WALL FOOTING (1/S1) S1A

SCALE: 3/4"=1'-0"



TYPICAL INTERIOR WALL FOOTING (2/S1) S1A

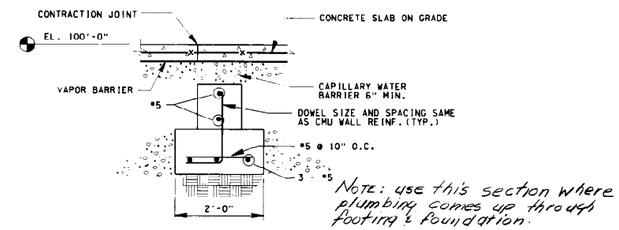
SCALE: 3/4"=1'-0"



TYPICAL SECTION OF WALL FOOTING (3/S1) S1A

(UNDER EXTERIOR DOOR)

NO SCALE

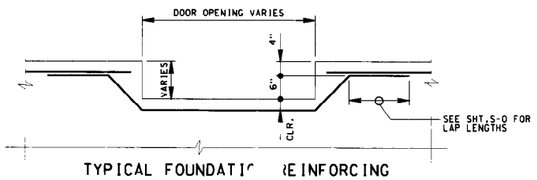


Note: use this section where plumbing comes up through footing & foundation.

TYPICAL SECTION OF WALL FOOTING (4/S1) S1A

(UNDER INTERIOR DOOR)

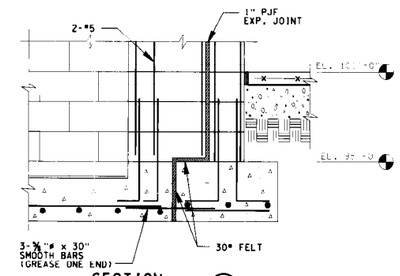
SCALE: 3/4"=1'-0"



TYPICAL FOUNDATI[illegible] [illegible]EINFORCING

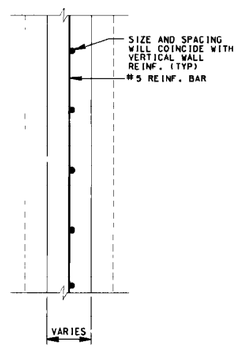
(AT DOOR OPENING)

NO SCALE



SECTION (5/S1) S1A

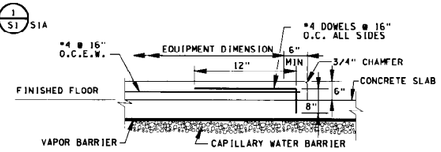
SCALE: 3/4" =1'-0"



TYPICAL WALL FOOTING (1/S2)

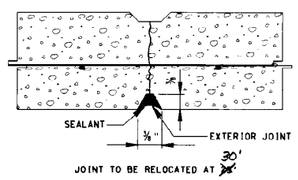
(WALL FOOTING)

SCALE: 3/4"= 1'- 0"



TYPICAL EQUIPMENT PAD

NO SCALE

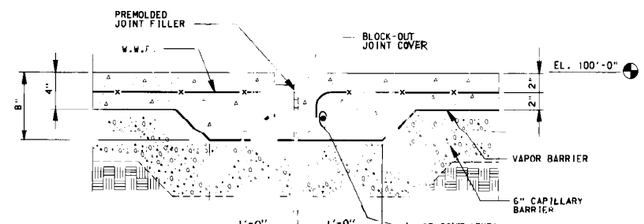


CONTROL JOINT

(FOUNDATION WALL)

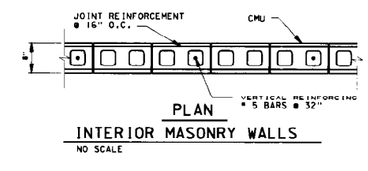
NO SCALE

NOTE: SEE TYPICAL WALL FOOTING FOR SIZE AND SPACING OF VERTICAL WALL REINFORCING.



TYPICAL EXPANSION JOINT (8/S1) S1A

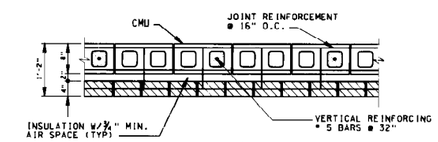
NOT TO SCALE



PLAN

INTERIOR MASONRY WALLS

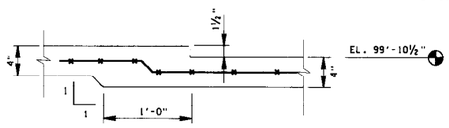
NO SCALE



PLAN

EXTERIOR MASONRY WALLS

NO SCALE



SECTION (7/S1) S1A

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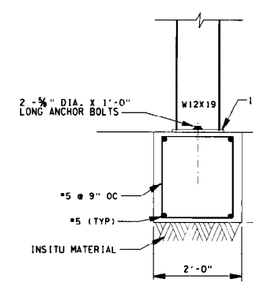
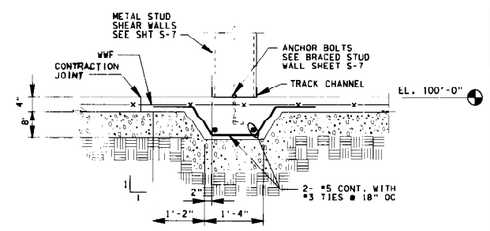


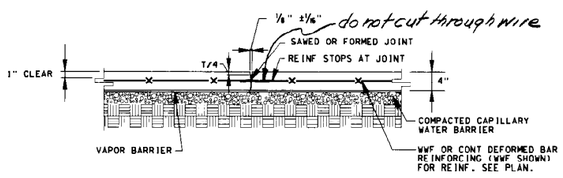
TYPICAL CANOPY COLUMN FOUNDATION DETAIL (9/S1) S1A

NOT TO SCALE



SECTION (8/S1) S1A

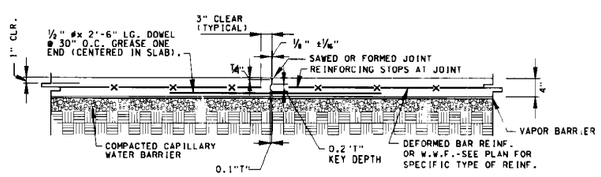
SCALE: 3/4" =1'-0"



NOTE: "T" SLAB THICKNESS REF PLAN SHT

CONTRACTION JOINT

NO SCALE



CONSTRUCTION JOINT

NO SCALE

NOTE: "T" = SLAB THICKNESS REF. PLAN SHEET

GRAPHIC SCALE

SCALE: 1" = 1'-0"

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: MENDOZA

Drawn by: GUILLAUME

Checked by:

Reviewed by:

Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380

FOUNDATION DETAILS

Scale: AS SHOWN

Date: MAY 1990

Drawing Code: F-740-14-05

Sheet reference number: S-2

Sheet 59 of 107

RECORD DRAWING "AS BUILT"

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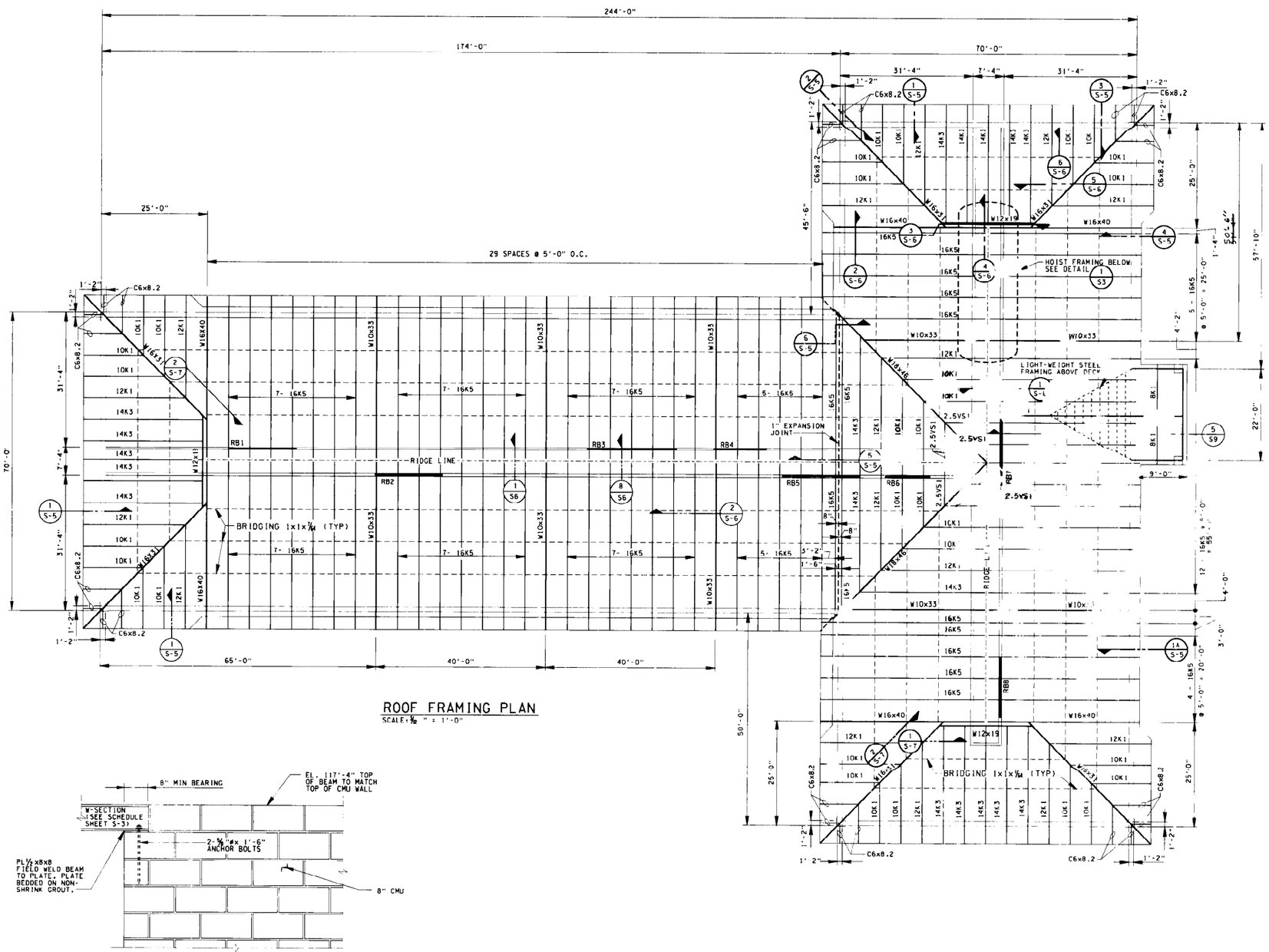
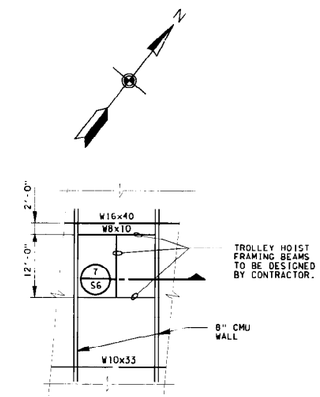
USER = JOHNW



ROOF FRAMING PLAN

SCALE: 1/32" = 1'-0"



HOIST FRAMING DETAIL

SCALE: 1/2" = 1' 0"

BEAM	OPENING	SPAN	BEAM TYPE	COMMENTS
RB1	15'-4"	16'-0"	W8X21	
RB2	15'-8"	16'-4"	W8X21	
RB3	20'-8"	21'-4"	W16X26	
RB4	10'-8"	11'-4"	W8X21	
RB5	17'-6"	18'-2"	W16X26	
RB6	9'-10"	10'-6"	W8X21	
RB7	16'-4"	17'-0"	W8X24	
RB8	14'-0"	14'-8"	W8X21	

FOR ROOF BEAM DETAILS SHOWN ON ROOF FRAMING PLAN. SEE SCHEDULE ABOVE.

FOR LOCATION OF ROOF BEAMS SEE ARCH. PLAN AND ATTIC FRAMING PLAN.

NOTES:
1. BUILDING "B" IS OPPOSITE HAND.
2. SEE SHEET S-10 FOR TYPICAL STEEL JOIST BASE PLATE DETAIL.

GRAPHIC SCALE

TYPICAL BEAM BEARING

NO SCALE

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: MENDOZA
Drawn by: GUILLAUME
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

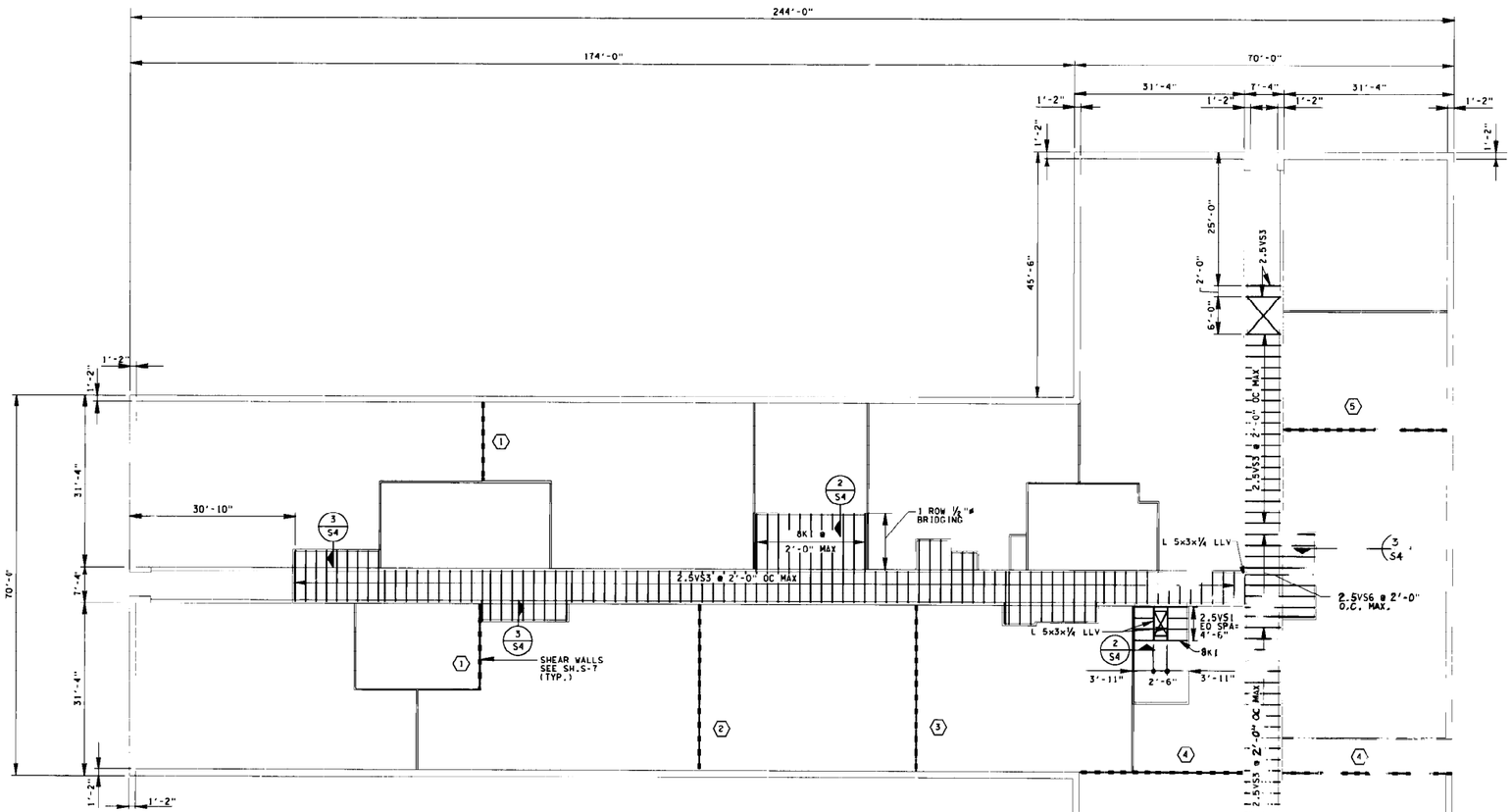
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

ROOF FRAMING PLAN BUILDING "A"

Scale: 1/32" = 1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: S-3
Sheet 60 of 107

RECORD DRAWING "AS BUILT"

[GO].4F.TTM [XS52.DGN]
DATE = 3-MAY 90, 1:54
USER = JOHNO

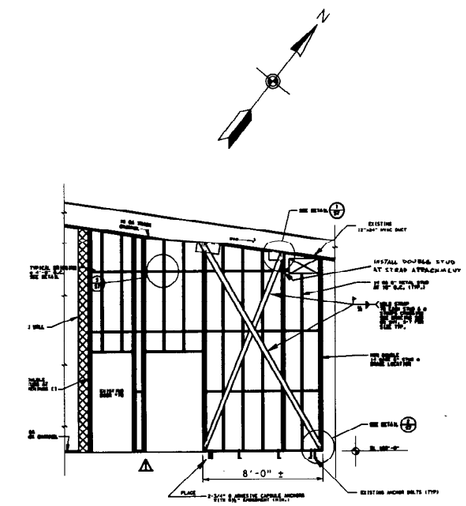


ATTIC FRAMING PLAN

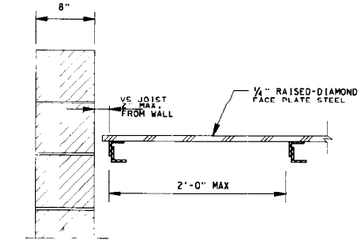
SCALE: 1/32" = 1'-0"

NOTE: (T.O.S.) TOP OF STEEL ELEV = 109'-6 1/2" OF V.S. JOIST SUBSTITUTES IN ATTIC FRAMING PLAN

⬡ INDICATES WALL BRACING IN STUD WALL SEE DETAIL & SCHEDULE ON SHEET S-7



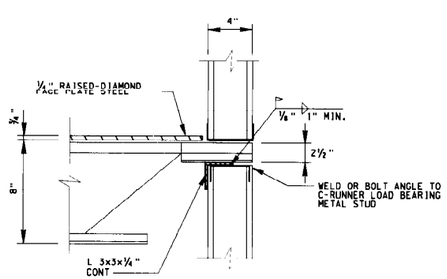
INTERIOR WALL ELEVATION
BRACED STEEL & STUD WALL (1A) 1/S4



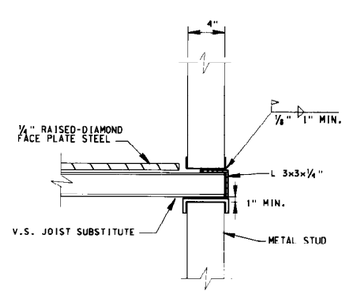
SECTION (1/S4)
NOT TO SCALE

GRAPHIC SCALE

SCALE: 1/32" = 1'-0"



SECTION (2/S4)
NOT TO SCALE



SECTION (S.)
NOT TO SCALE

Delete ext's as necessary to provide bearing for structural steel.

NOTES:
1. BUILDING "E" IS OPPOSITE HAND.

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: MENDOZA
Drawn by: OYLER
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

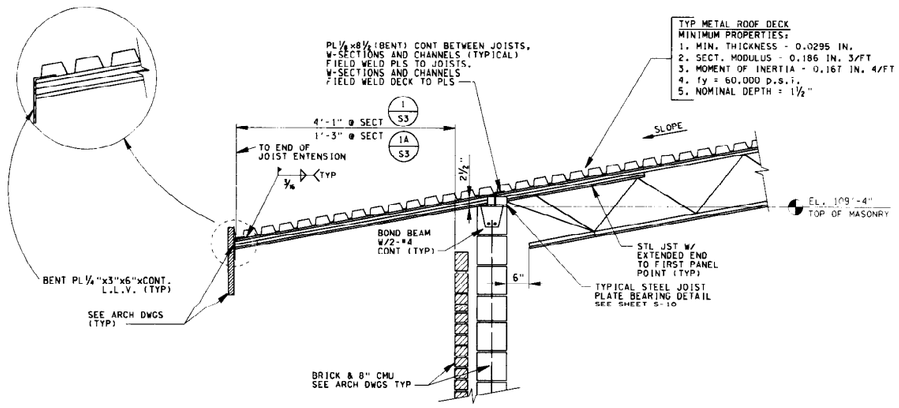
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

ATTIC FRAMING PLAN BUILDING "A"

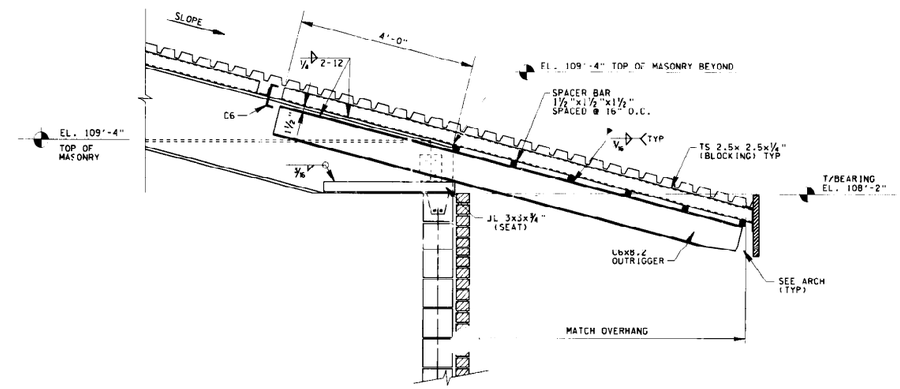
Scale: 1/32" = 1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: S-4
Sheet 61 of

RECORD DRAWING "AS BUILT"

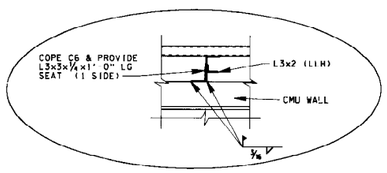
ZGO:(40.77)FCL.XSOR.DGN
DATE = 27-APR-90, 11 11:34
USER = JOHNW

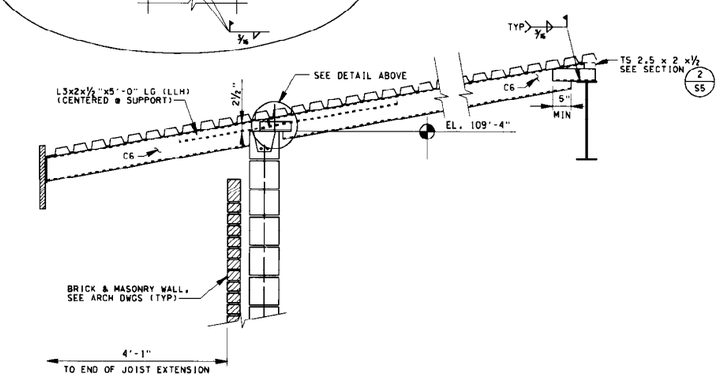


SECTION 1/S3 1A/S3
SCALE: ¾"=1'-0"

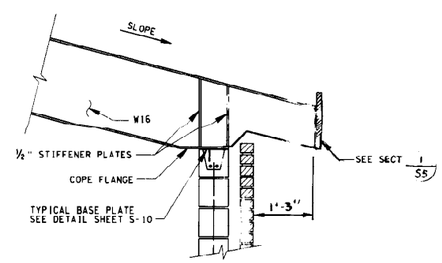


SECTION 2/S3
SCALE: ¾"=1'-0"

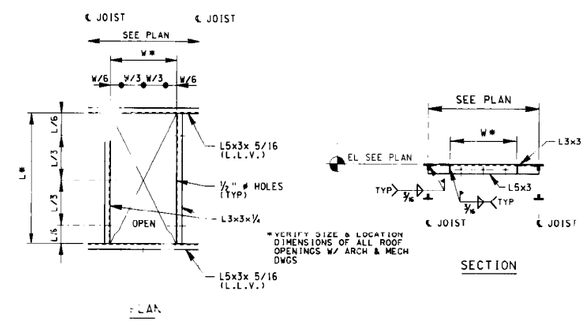




SECTION 3/S3
SCALE: ¾"=1'-0"

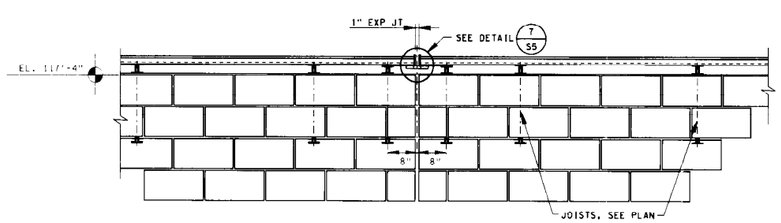


SECTION 4/S3
SCALE: ¾"=1'-0"

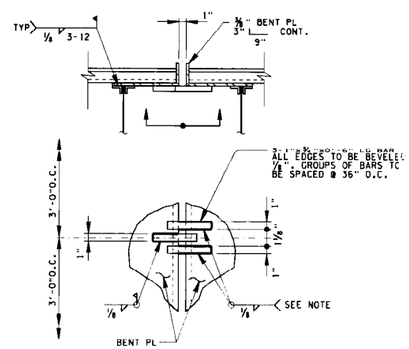


TYPICAL OPENING FRAMING DETAIL
SCALE: NONE

GRAPHIC SCALE

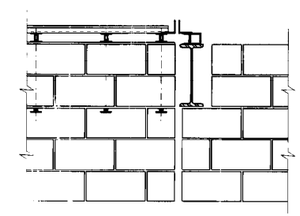


SECTION 5/S3
SCALE: ¾"=1'-0"



DETAIL 1/S5
SCALE: 2"=1'-0"

NOTE: WELD ¾" THK BARS ONLY TO THE BENT PLATE INDICATED ABOVE



SECTION 6/S3
SCALE: ¾"=1'-0"

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

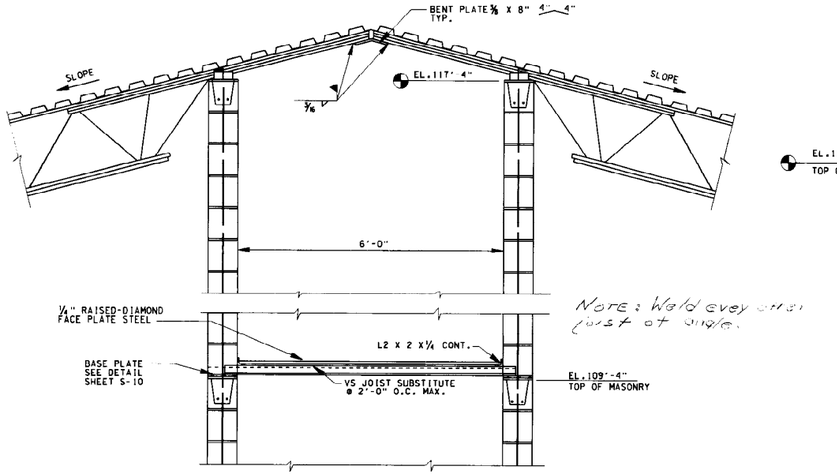
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

US Army Corps of Engineers

Designed by: MENDOZA
Drawn by: OYLER
Checked by:
Reviewed by:
Approved by:

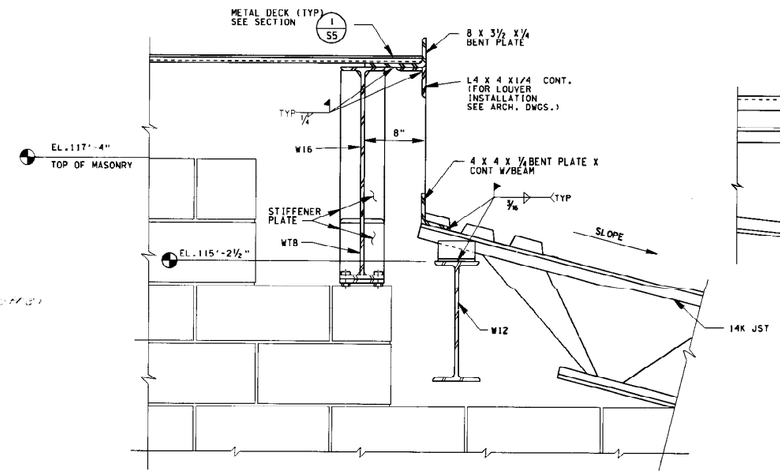
FRAMING DETAILS

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet Reference number: S-5
Sheet 62 of 107

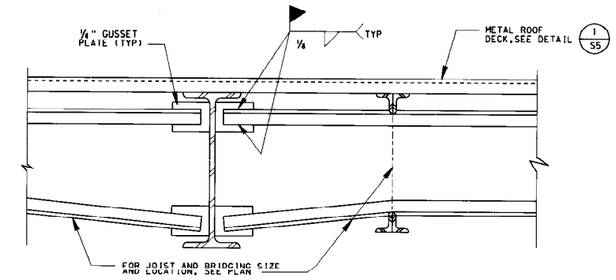


Note: Weld every other joist at gable.

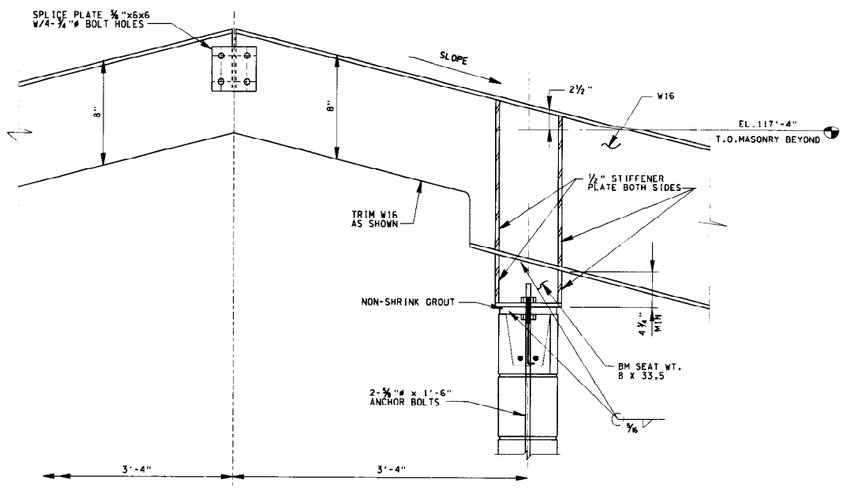
SECTION 1/S-3
SCALE: ¾"=1'-0"



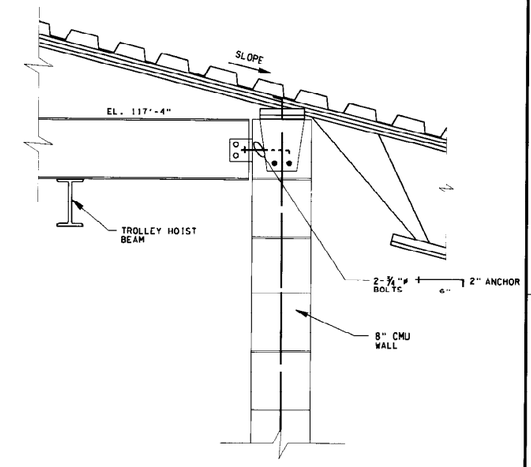
SECTION 4/S-3
SCALE: 1½"=1'-0"



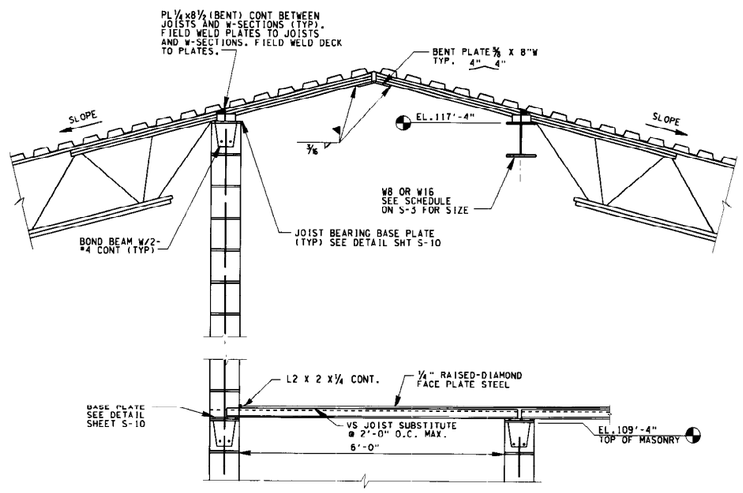
SECTION 2/S-3
SCALE: 1½"=1'-0"



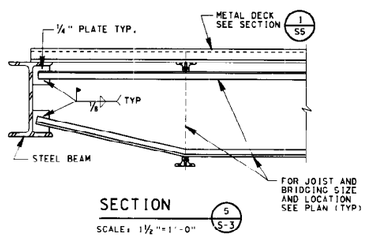
SECTION 3/S-3
SCALE: 1½"=1'-0"



SECTION 7/S3
SCALE: 1½"=1'-0"



SECTION 8/S-3
SCALE: ¾"=1'-0"



SECTION 5/S-3
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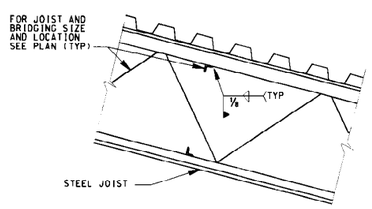


SECTION 6/S-3
SCALE: 1½"=1'-0"

SCALE: 1/2"= 1'-0"
SCALE: 3/4"= 1'-0"

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: MENDOZA
Drawn by: HUDSON
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

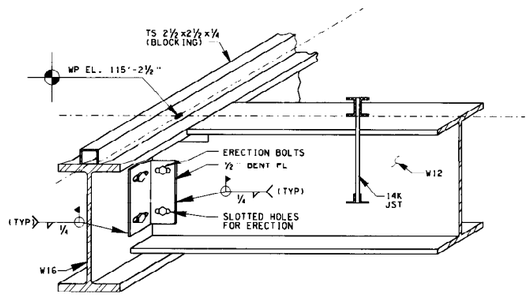
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

FRAMING DETAILS

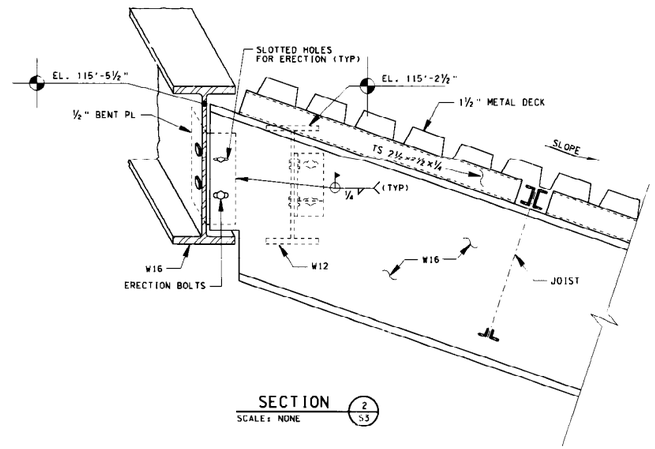
Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: S-6
Sheet 63 of 107

RECORD DRAWING "AS BUILT"

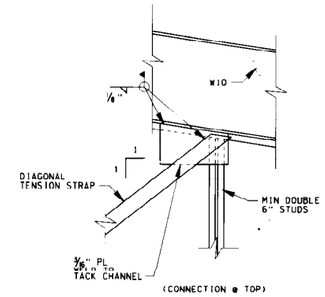
ZGO:140,77JFCC6XS06.DGN
DATE = 2-MAY-90, 15:53:23
USER = JOHNQ



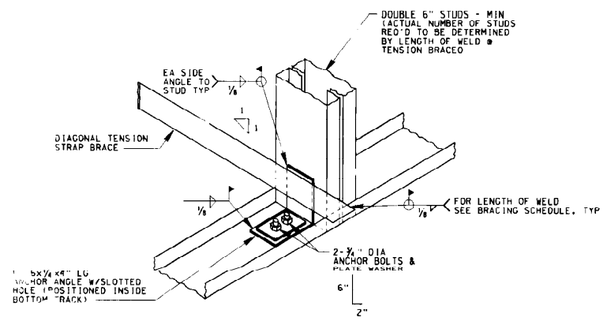
SECTION (1/S3)
SCALE: 1½"=1'-0"



SECTION (2/S3)
SCALE: NONE



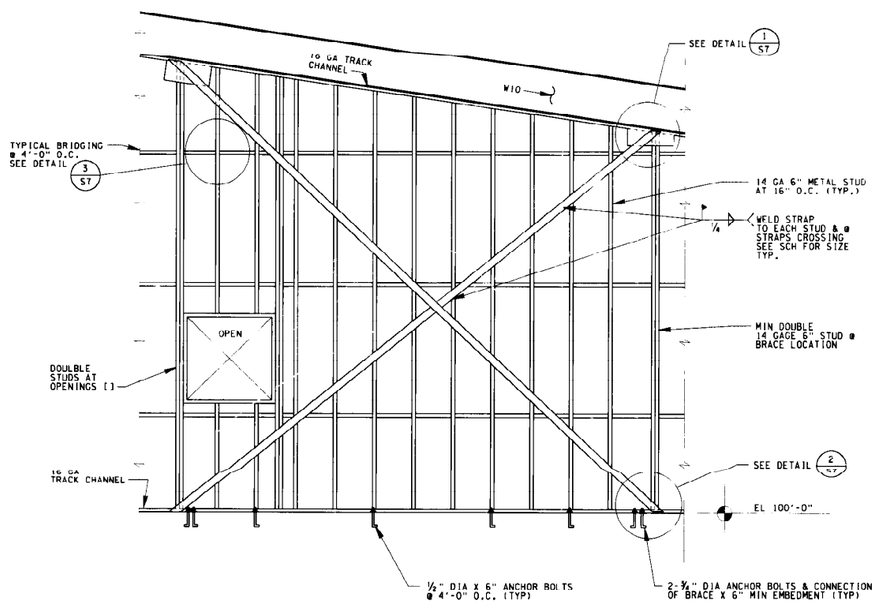
DETAIL (1/S7)
SCALE: NONE



(CONNECTION @ BOTTOM)

DETAIL (2/S7)
SCALE: NONE

GRAPHIC SCALE

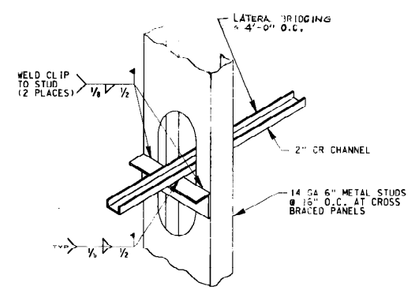


INTERIOR WALL ELEVATION
TYPICAL BRACED STEEL 6" STUD WALL
SCALE: ½"=1'-0"

BRACING SCHEDULE

STRAPS (2) SIZE & GAGE	BRACING SYMBOL	WELD EACH END (IN)
4" X 14 GA	1	7½
4" X 12 GA	1A	10½
4" X 12 GA	3	10½
4" X 14 GA	4	7½
5" X 14 GA	5	7½
5" X 12 GA	5	13

SEE SHEET S-4 FOR WALL BRACING LOCATIONS



DETAIL (3/S7)
SCALE: ¾"=1'-0"

Revisions			
Symbol	Descriptions	Date	Approved
1	CASE AE: STRUCTURAL WALL CHANGES	15APR92	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE KENTUCKY

Designed by: MENDOZA
Drawn by: WILLAUM
Checked by: Wlife
Reviewed by: Eugene K. Mills Chief
Approved by: Harry D. Moore

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

FRAMING DETAILS

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: S-7
Sheet 64 of 107

RECORD DRAWING "AS BUILT"

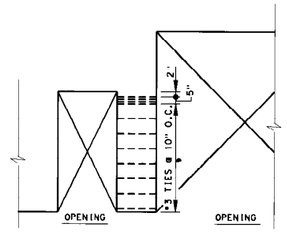
ZGO:140.77JFCC6X5 DGN:1
DATE = 17-APR-1992 7:54
USER = LOHNW

LINTEL SCHEDULE

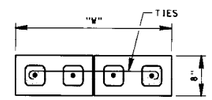
TYPE	LINTEL NO.	NO. REQ'D	MATERIAL	WIDTH	HEIGHT	CLEAR OPENING	REINF.	ANGLE	REMARKS
2	L_1	10	CMU	8"	8"	2'-0"	2-#4	—	CMU
2	L_2	18	CMU	8"	8"	3'-0"	2-#4	—	CMU
4	L_3	8	CMU	8"	16"	3'-4"	2-#4	—	CMU
1	L_4	22	CMU	8"	16"	3'-4"	2-#4	L3½x3x⅜ (L.L.H.)	CMU/STEEL LINTEL
1	L_5	18	CMU	8"	16"	4'-0"	2-#4	L3½x3x⅜ (L.L.H.)	CMU/STEEL LINTEL
4	L_6	1	CMU	8"	16"	6'-0"	2-#4	—	CMU
5	L_7	14	—	—	—	4'-8"	—	—	STEEL BEAM
1	L_8	1	CMU	8"	16"	5'-1"	2-#4	L3½x3x⅜ (L.L.H.)	CMU/STEEL LINTEL
5	L_9	1	—	—	—	5'-4"	—	—	STEEL BEAM
1	L_{10}	1	CMU	8"	16"	4'-0"	2-#4	L3½x3x⅜ (L.L.H.)	CMU/STEEL LINTEL
1	L_{11}	18	CMU	8"	16"	6'-0"	2-#4	L3½x3x⅜ (L.L.H.)	CMU/STEEL LINTEL
4	L_{12}	1	CMU	8"	16"	3'-4"	2-#4	—	CMU
—	L_{13}	NOT USED	—	—	—	—	—	—	—
4	L_{14}	1	CMU	8"	16"	7'-0"	2-#4	—	CMU
4	L_{15}	1	CMU	8"	16"	7'-4"	2-#4	—	CMU
3	L_{16}	2	CMU	8"	24"	8'-0"	2-#4	L6x3½x⅜ (L.L.V.)	CMU/STEEL LINTEL
3	L_{17}	1	CMU	8"	16"	6'-4"	2-#4	L3½x3x⅜ (L.L.V.)	CMU/STEEL LINTEL
3	L_{18}	6	CMU	8"	24"	10'-0"	2-#4	L6x3½x⅜ (L.L.V.)	CMU/STEEL LINTEL
1	L_{19}	2	CMU	8"	16"	5'-0"	2-#4	L3½x3x⅜ (L.L.H.)	CMU/STEEL LINTEL
6	L_{20}	1	—	—	—	10'-0"	—	L6x3½x⅜ (L.L.V.)	STEEL BEAM LINTEL
4	L_{21}	1	CMU	8"	16"	3'-6"	2-#4	—	CMU
4	L_{22}	3	CMU	8"	16"	4'-8"	2-#4	—	—

NOTE:
A TYPE 2 8x8 CMU LINTEL WITH 2- #4 SHALL BE USED FOR ALL MECHANICAL OPENINGS, UNLESS NOTED OTHERWISE. SEE MECHANICAL DRAWINGS FOR EXACT LOCATIONS.

L_{10} IS A MECHANICAL OPENING.



TYPICAL PIER ELEVATION



TYPICAL CMU PIER SECTION

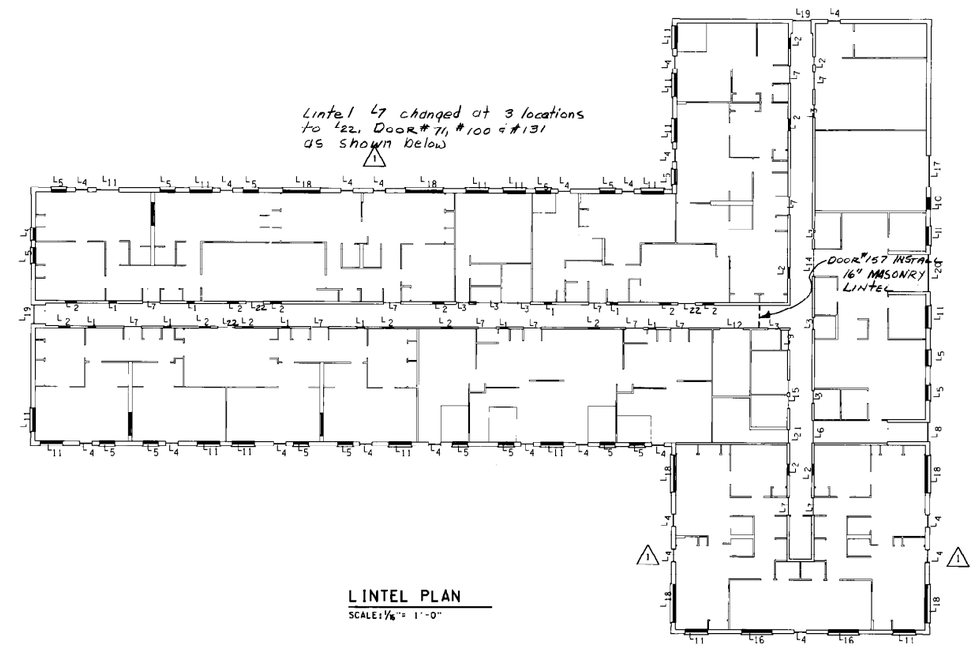
NO SCALE

ALL HORIZONTAL REINFORCEMENT TO BE IN THE FORM OF TIES.

SECTION TO BE CONSIDERED A PIER IF: 24" ≤ W ≤ 40" 8" CMU

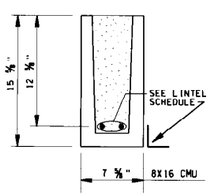
TYPICAL CMU PIER DETAIL

NO SCALE

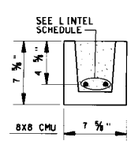


LINTEL PLAN

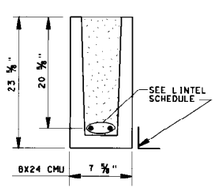
SCALE: 1/16" = 1'-0"



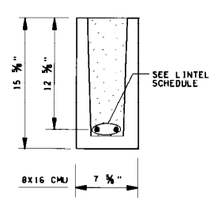
TYPE-1



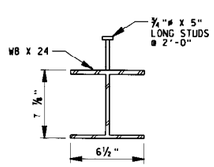
TYPE-2



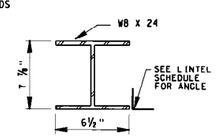
TYPE-3



TYPE-4



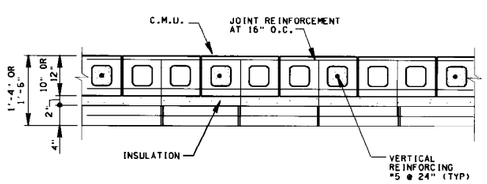
TYPE-5



TYPE-6

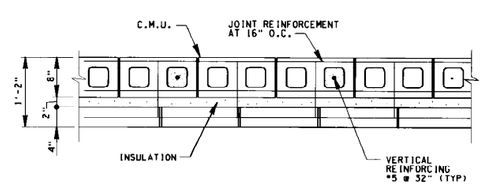
LINTEL SECTIONS

SCALE: NONE



PLAN: TYPICAL 1'-6" & 1'-4" EXTERIOR STRUCTURAL MASONRY WALLS

NO SCALE



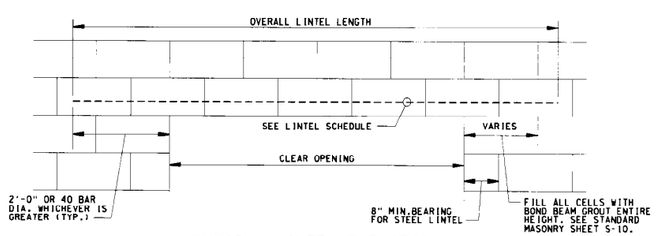
PLAN : 1'-2" EXTERIOR STRUCTURAL MASONRY WALLS

NO SCALE

GRAPHIC SCALE

8 0 8 16FT

SCALE: 3/16" = 1'-0"



TYPICAL LINTEL ELEVATION

SCALE: NONE

Revisions			
Symbol	Descriptions	Date	Approved
1	(AMDT. #0003), DOORS & LINTELS ADDED	31 AUG 90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380
FY 90

LINTEL SCHEDULE & DETAILS

Designed by: MENDOZA
Drawn by: GUILLAUME
Checked by: V.L. RIFE
Reviewed by: BYRON K. McCLELLAN
Approved by: LARRY D. MARTIN

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: S-8

RECORD DRAWING "AS BUILT"

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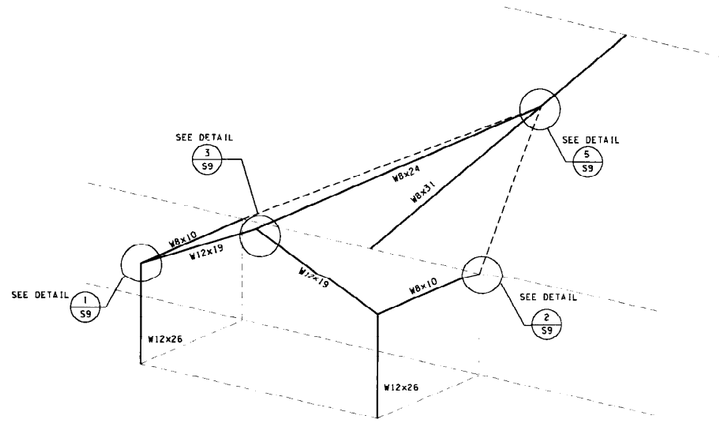
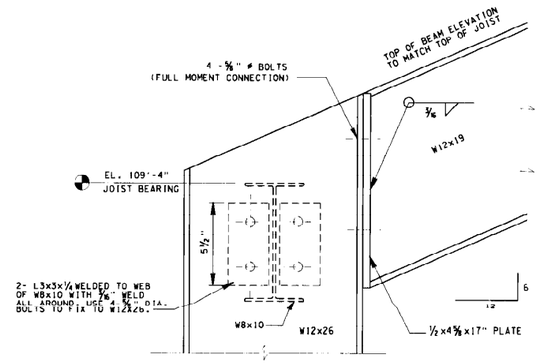
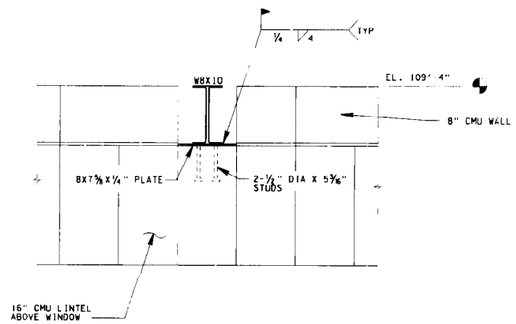
USER = CHARMAINEW



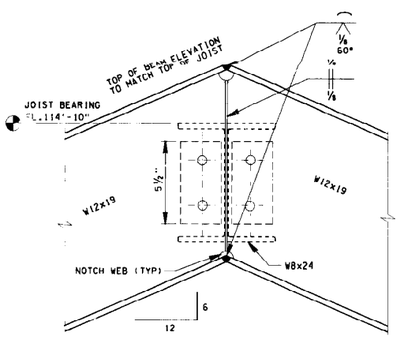
ISOMETRIC CANOPY FRAMING SYSTEM
NOT TO SCALE



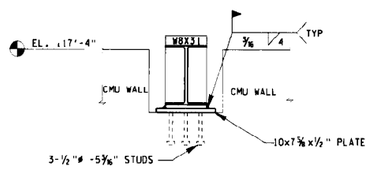
DETAIL 1/S9
SCALE: 3"= 1'-0"



DETAIL 2/S9
SCALE: 1 1/2"=1'-0"



VIEW



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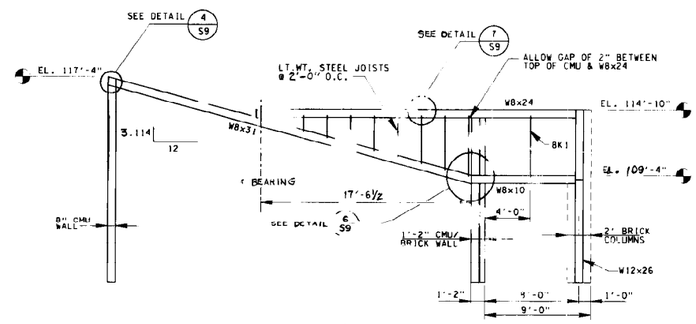
NOT TO SCALE



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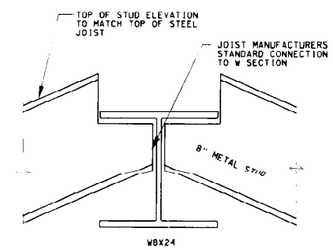
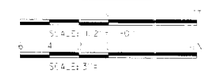
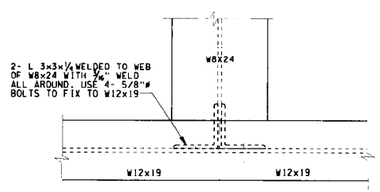


DETAIL 7/S9
SCALE: 3"= 1'-0"

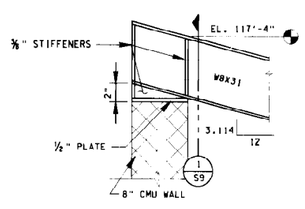
GRAPHIC SCALE





PLAN

DETAIL 3/S9
SCALE: 3"=1'-0"



DETAIL 4/S9
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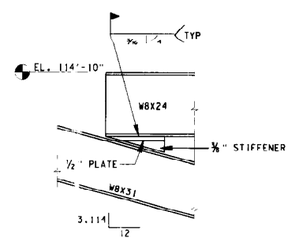

DETAIL 5/S9
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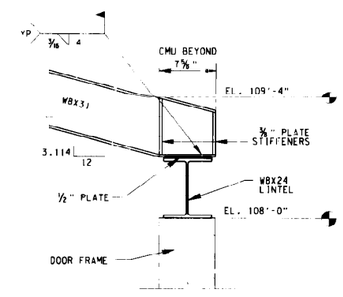


DETAIL 6/S9
SCALE: 1 1/2"=1'-0"

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

Designed by: COOK
Drawn by: GUILLAUME
Checked by:
Reviewed by:
Approved by:

CANOPY DETAILS

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet Reference No. 3873
S-9
Sheet 66 of 107

RECORD DRAWING "AS BUILT"

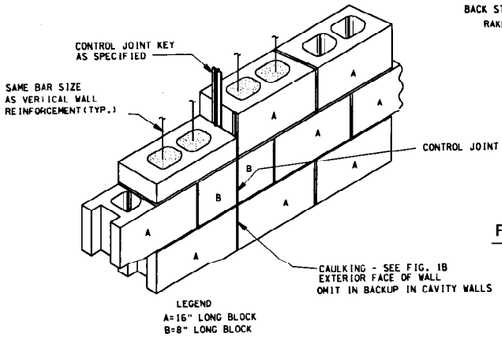


FIG. 1A - SASH BLOCK

NOT TO SCALE

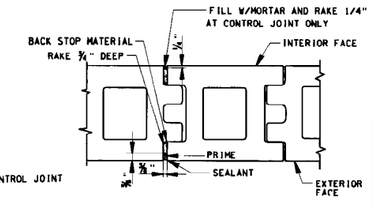


FIG. 1B - CONTROL JOINT BLOCK

NOTES:

1. FIGURE 1A OR 1B ARE APPLICABLE TO THE CONSTRUCTION OF ALL CONTROL JOINTS IN 8" & 12" HOLLOW BLOCK WALLS EXCEPT WHERE STEEL OR CONC. COLS. OCCUR. SEE ARCHITECTURAL ELEVATIONS FOR REQUIRED LOCATIONS.
2. USE OF CONTROL JOINT BLOCK OR RUBBER LIKE MATERIAL KEY AND SASH BLOCK IS CONTRACTOR OPTION

FIG. 1 - BASIC CONTROL JOINT (CJ) FOR SINGLE WYTHE MASONRY WALL

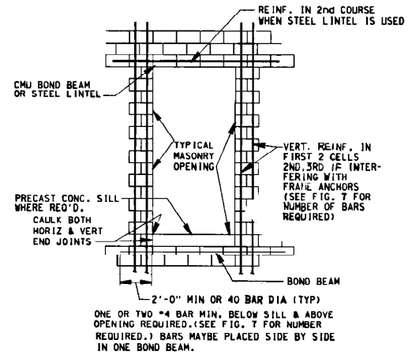


FIG. 2 - MASONRY OPENINGS

NOTE

STRUCTURAL BOND BEAMS SHALL BE CONTINUOUS THRU CONTROL JOINTS

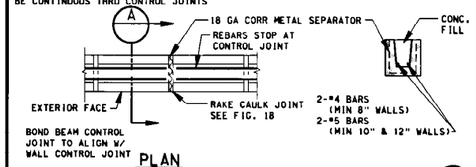


FIG.-NON-STRUCTURAL BOND BEAM CONTROL JOINT

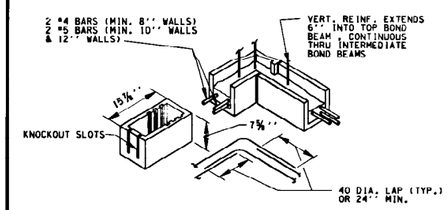


FIG.4-BOND BEAM UNIT AT CORNER

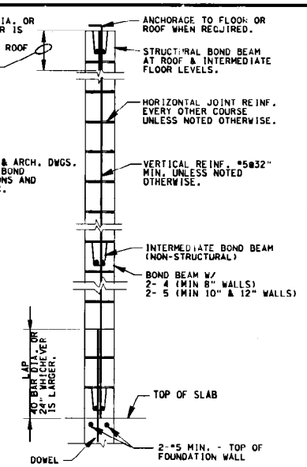


FIG.5 - TYPICAL MASONRY WALL

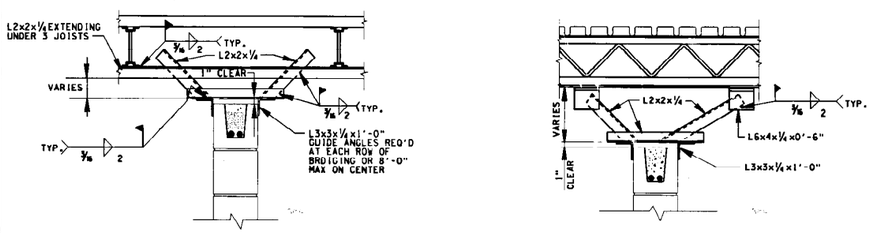
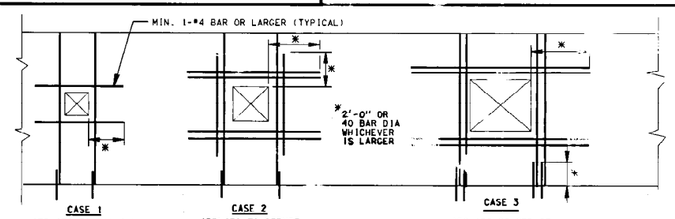
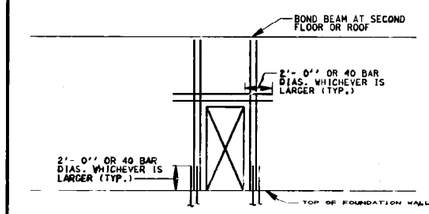


FIG. 6 TYPICAL WALL ANCHORAGE DETAILS



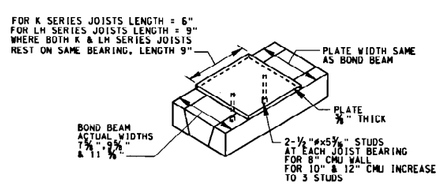
NOTES:
1. FOR VERTICAL REINF OF 2 BARS: EACH BAR SHALL BE PLACED IN A SEPARATE CELL.
2. VERTICAL BARS SHALL BE OF THE SAME SIZE, EXTENT AND ANCHORAGE AS THE TYP REINF THAT WALL UNLESS OTHERWISE INDICATED.
3. VERTICAL REINF BARS CAN BE PART OF THE NORMAL VERTICAL REINF IN THE WALL.

FIG. 7-REINFORCEMENT AROUND WALL OPENING IN CMU



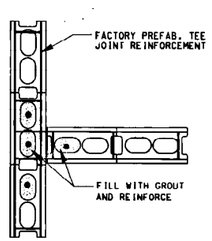
NOTE:
IN ALL CASES, ALL CRITERIA IN FIG. 7 (REINFORCEMENT AROUND WALL OPENINGS IN CMU) WILL BE MET.

FIG. 8 - REINFORCEMENT AROUND DOOR OPENINGS IN CMU

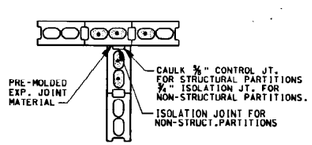


TYPICAL STEEL JOIST BASE PLATE DETAIL

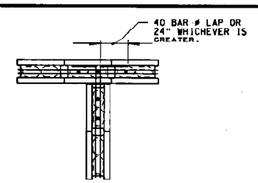
NO SCALE



INTERSECTION OF STRUCTURAL WALLS



PARTITIONS ABUTTING STRUCTURAL WALLS



INTERSECTION OF STRUCTURAL BOND BEAMS

NOTES

1. THE CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY BRACING FOR ALL MASONRY WALLS DURING CONSTRUCTION.
2. WHERE PRECAST CONCRETE OR OTHER LINTELS ARE NOT DETAILED, 8" DEEP BOND BEAM UNITS OF THICKNESS EQUAL TO THE WALL SHALL BE USED. REINFORCE WITH 2-#5 BARS.
3. CONTRACTOR SHALL USE APPLICABLE DETAILS AT EVERY LOCATION WHERE CONTROL JOINTS, BOND BEAMS, WALL OPENINGS, ETC. ARE SHOWN ON OTHER DRAWINGS.
4. CONTROL JOINTS IN CONCRETE AND MASONRY SHALL BE A CONTINUOUS VERTICAL LINE FROM TOP OF FOOTING TO TOP OF MASONRY WALL AS INDICATED ON THE BUILDING ELEVATION.
5. SILL FLASHING SHALL EXTEND 4" BEYOND EACH JAMB INTO MASONRY.
6. ALL JOINT REINFORCING SHALL BE DISCONTINUOUS AT CONTROL JOINTS IN MASONRY.
7. ALL REINFORCING IN STRUCTURAL BOND BEAMS SHALL BE CONTINUOUS AT CONTROL JOINTS. STRUCTURAL BOND BEAMS OCCUR AT TOP OF PARAPET WALLS, ROOF LEVEL OR INTERMEDIATE FLOOR LEVEL AND AT TOP OF MASONRY FOUNDATION WALL SLABS.
8. NON-STRUCTURAL BOND BEAMS OCCUR AT INTERMEDIATE LOCATIONS. REINFORCING IN NON-STRUCTURAL BOND BEAMS IS DISCONTINUOUS.
9. WHERE PARTITIONS EXTEND TO CONCRETE FLOOR OR ROOF DECK ABOVE AND JOISTS, BEAMS OR TRUSSES RUN PERPENDICULAR TO PARTITION, ¼" CLEARANCE SHALL BE PROVIDED AT ALL POINTS BETWEEN PARTITION AND MEMBER. THE ¼" OPENING SHALL BE CAULKED. FIRESTOPPING MATERIAL SHALL BE USED AT FIRE-RATED WALLS.
10. SEE ARCHITECTURAL DETAILS FOR JOINT SHAPE DESIGN OF CAULKED JOINTS.
11. REQUIREMENTS FOR REINFORCED CELLS:
    a. THE CONTRACTOR SHALL PLACE REINFORCED CELLS ADJACENT TO DOOR, WINDOW AND LOUVER OPENINGS AND AT ALL OTHER LOCATIONS INDICATED ON THE DRAWINGS.
    b. DOWELS INTO THE FOUND-TION THE SAME SIZE AS REINFORCING SHALL BE PROVIDED. THE TOP OF EACH REINFORCED CELL WILL BE ATTACHED TO THE FLOOR OR ROOF BY EXTENDING BARS 6" INTO THE BOND BEAM AT THE FLOOR OR ROOF LEVEL.
12. WHERE ACCESS FOR THE TOP IS IMPOSSIBLE THE STEEL SHALL BE POSITIONED AND AN OPEN END BLOCK (BLOCK WITH ONE END WEB REMOVED EITHER IN MANUFACTURE OR BY CUTTING) SHOVED SIDEWAYS INTO POSITION. THIS METHOD REQUIRES MORE GROUT THAN THE FIRST METHOD. WALL SHALL STAND 24 HOURS BEFORE GROUTING AND GROUTING SHOULD BE DONE IN 4-FT MAX LIFTS. THE GROUT SHALL BE VIBRATED WHEN PLACED AND REVIBRATED A FEW MINUTES LATER TO REMOVE AIR POCKETS CAUSED BY WATER IN THE GROUT FROM BEING SUCKED INTO THE DRY POROUS BLOCKS. THE FIRST POUR SHALL BE ALLOWED TO SET BEFORE MAKING THE SECOND POUR. SEE SPECIFICATIONS FOR THE PROPORTIONS AND CONSISTENCY OF GROUT. LAP REBARS 40 BAR DIA OR 24", WHICHEVER IS GREATER.

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
US Army Corps of Engineers
CHILD DEVELOPMENT CENTER - 303 CHILDREN
PN 380 FY 90

MASONRY SEISMIC DETAILS

Designed by: MENDOZA	Scale: NONE	Sheet reference number: S-10	
Drawn by: GUILLAUME	Date: MAY 1990		
Checked by:			
Reviewed by:	Drawing Code: F-740-14-05	Sheet 67 of 107	
Approved by:			

RECORD DRAWING "AS BUILT"

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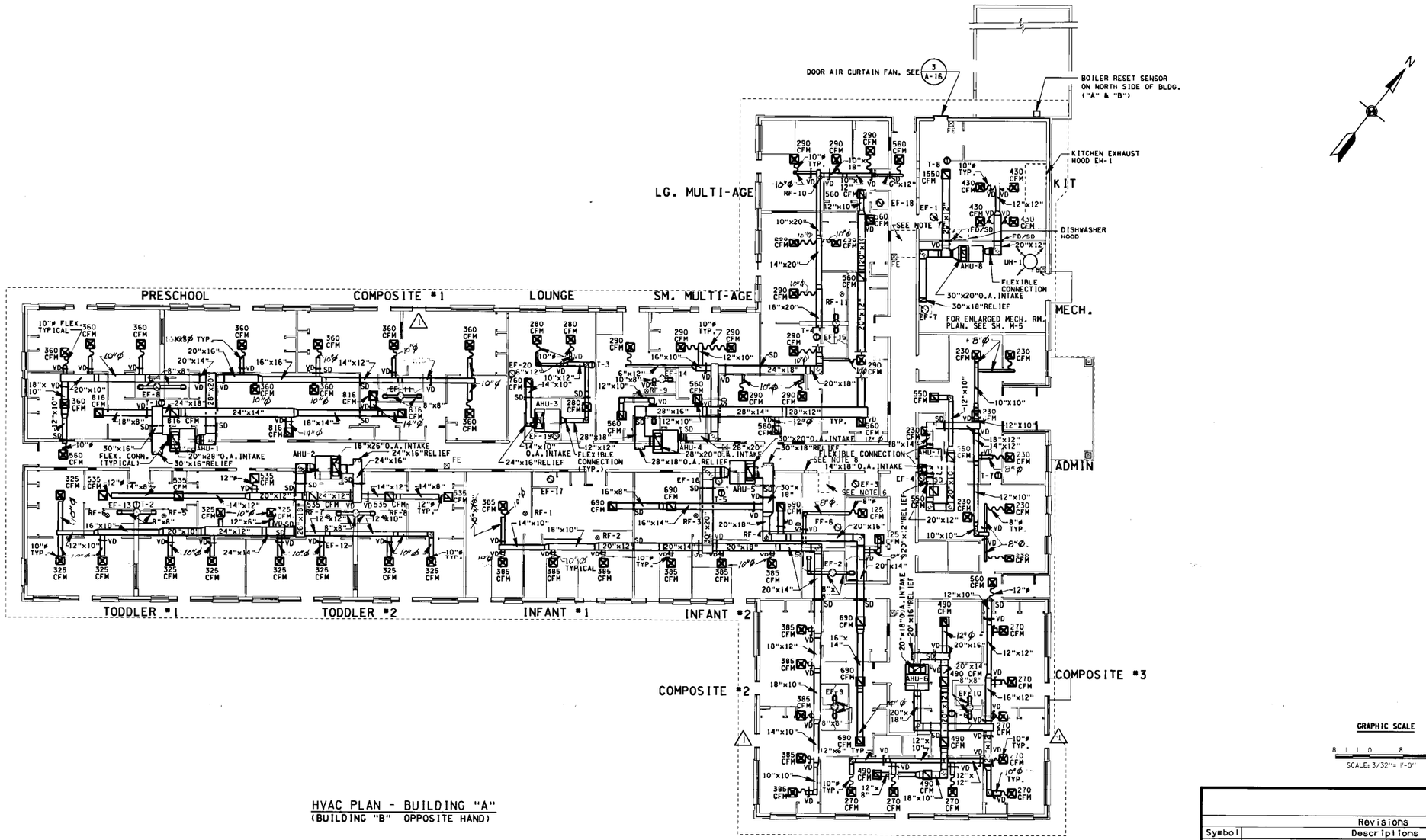
USER = JOHN



HVAC PLAN - BUILDING "A"
(BUILDING "B" OPPOSITE HAND)

NOTES:

1. ALL THERMOSTATS MOUNTED 5'-0" A.F.F.
2. ALL DUCTWORK LOCATED ABOVE CEILING (EXCEPT IN MECH. ROOM).
3. INSULATE ALL DUCT WORK.
4. ALL EXHAUST FANS, AIR RELIEF VENTS, PLUMBING VENTS, BOILER VENTS, WATER HEATER VENTS, ETC., MUST BE LOCATED A MIN. OF 10'-0" FROM ANY AIR INTAKE.
5. IN ROOMS WITH LAY-IN CEILINGS: ALL SUPPLY DIFFUSERS SHALL BE 4-WAY ADJUSTABLE. INSTALLED IN 24"x24" LAY-IN PANELS, AND ALL RETURN GRILLES SHALL BE 24"x24" WITH ½"x½"x½" CUBE OPENINGS.
6. DISAPPEARING STAIRWAY FOR ACCESS TO ATTIC EQUIPMENT. FOR DETAILS SEE SH. A-20 & S-3
7. CORRIDOR CEILING HATCH FOR ACCESS TO ATTIC. FOR DETAILS OF HATCH AND HAND TROLLEY HOIST. SEE SH. A-20 & S-3.
8. 12"Wx48"H INTAKE LOUVER WITH FIRE & SMOKE DAMPER. FOR LOCATION, SEE SH. A-7.

Revisions

Symbol	Descriptions	Date	Approved
1	DOORS ADDED (ADMT. #0003)	31AUG90	WC for DMK

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

US Army Corps of Engineers

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

HVAC PLAN

Designed by: DIXON
Drawn by: HOLCOMB
Checked by: J.E. FLEMING
Reviewed by: L.J. COX
Approved by: LARRY D. MARTIN

Scale: 3/32 "=1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: M-1
Sheet 68 of 107

RECORD DRAWING "AS BUILT"

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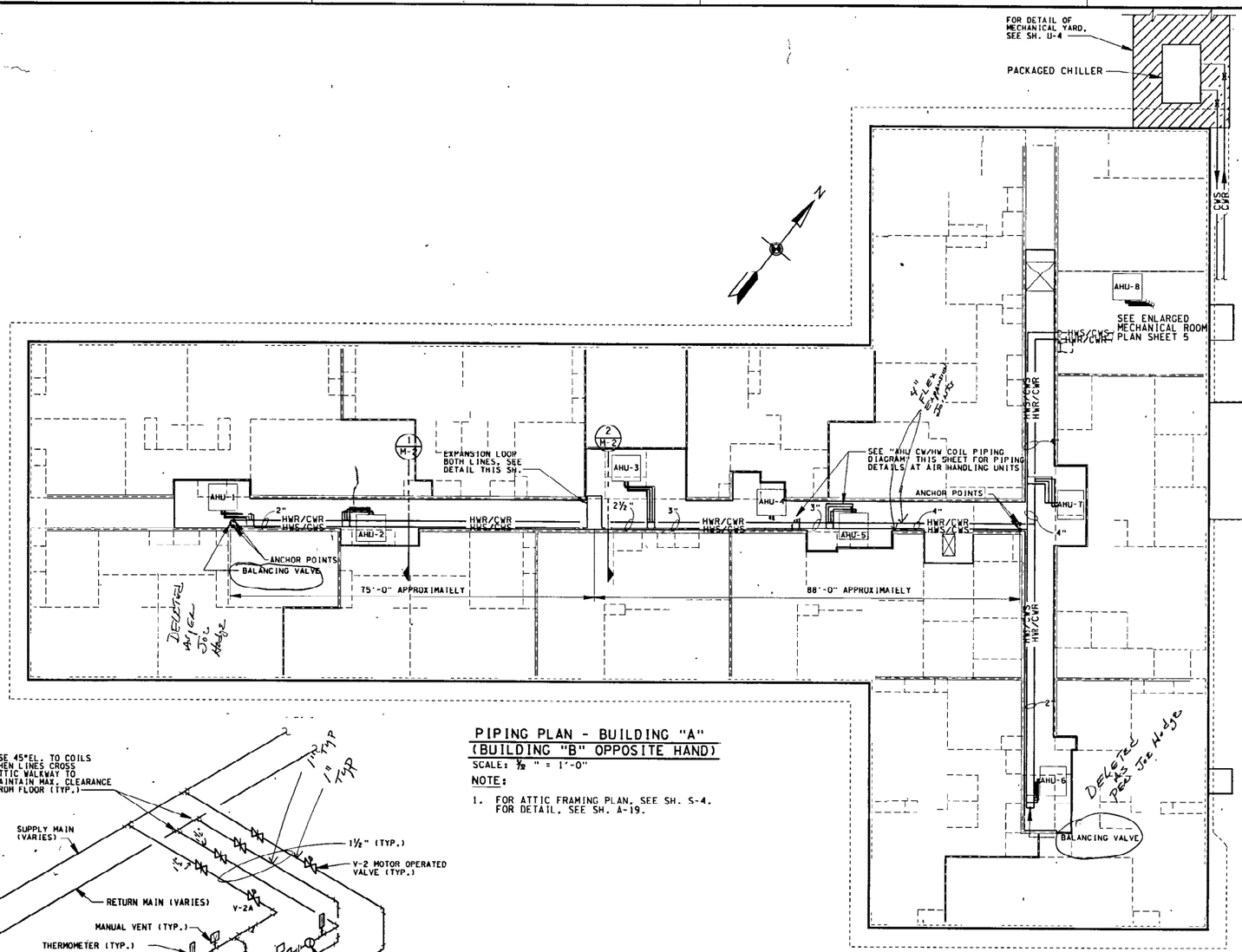
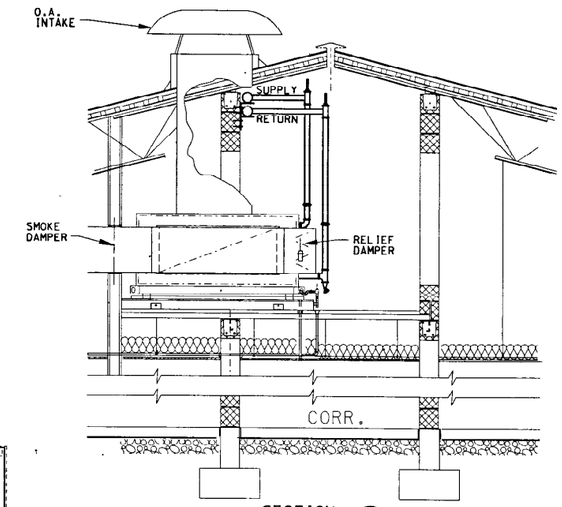
USER = WANDAM



PIPING PLAN - BUILDING "A"
(BUILDING "B" OPPOSITE HAND)
SCALE: 3/32" = 1'-0"

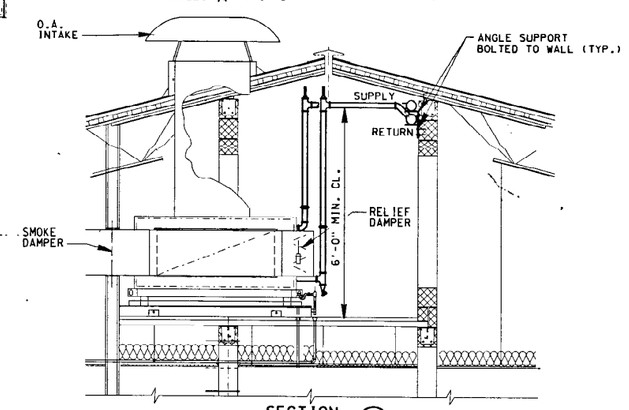
NOTE:

1. FOR ATTIC FRAMING PLAN, SEE SH. S-4. FOR DETAIL, SEE SH. A-19.



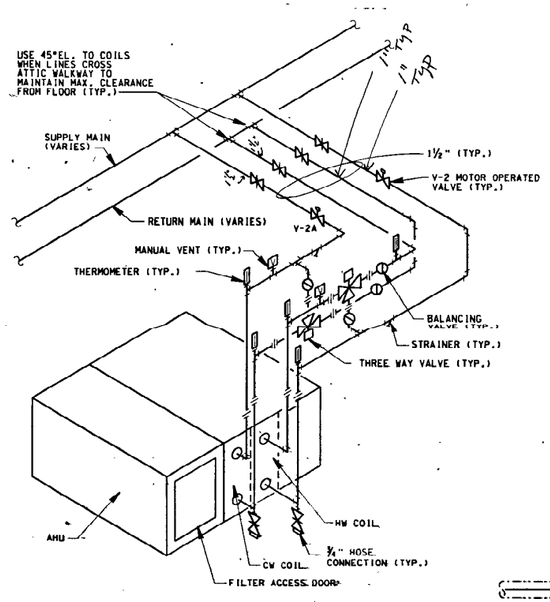
SECTION 1 M-2

TYPICAL AHU DETAIL (UNITS 2 & 5)
SCALE: ¼" = 1'-0"

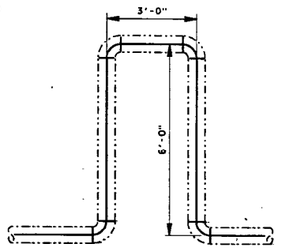


SECTION 2 M-2

TYPICAL AHU DETAIL (UNITS 1,3,4,6,7)
SCALE: ¼" = 1'-0"



AHU CW/HW COIL PIPING DIAGRAM (TYPICAL)
SCALE: NONE



EXPANSION LOOP DETAIL
SCALE: ½"=1'-0"

GRAPHIC SCALES

8 0 8 16FT
SCALE: 3/32" = 1'-0"

4 3 2 1 0 4
SCALE: 1/4"=1'-0"

2 1 0 2 4FT
SCALE: 1/2"=1'-0"

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
US Army Corps of Engineers
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

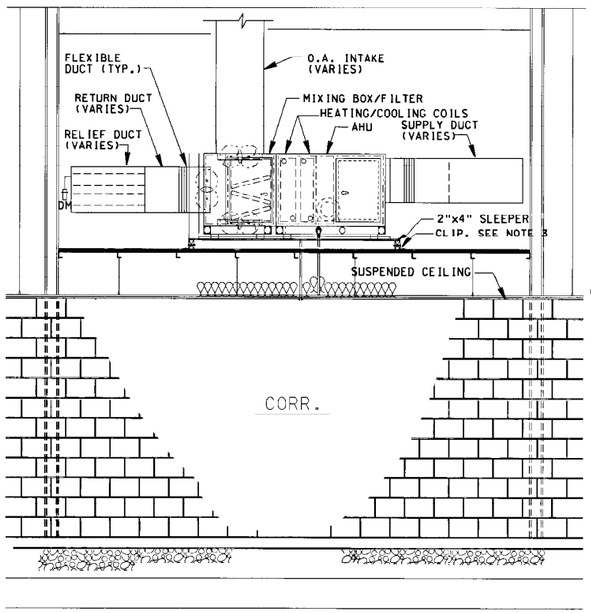
HEATING/COOLING PIPING PLAN

Designed by: F.E. DIXON
Drawn by: HOLCOMB/WLM
Checked by: J.E. Fleming
Reviewed by: R.J. Cox
Approved by: Larry A. Martin

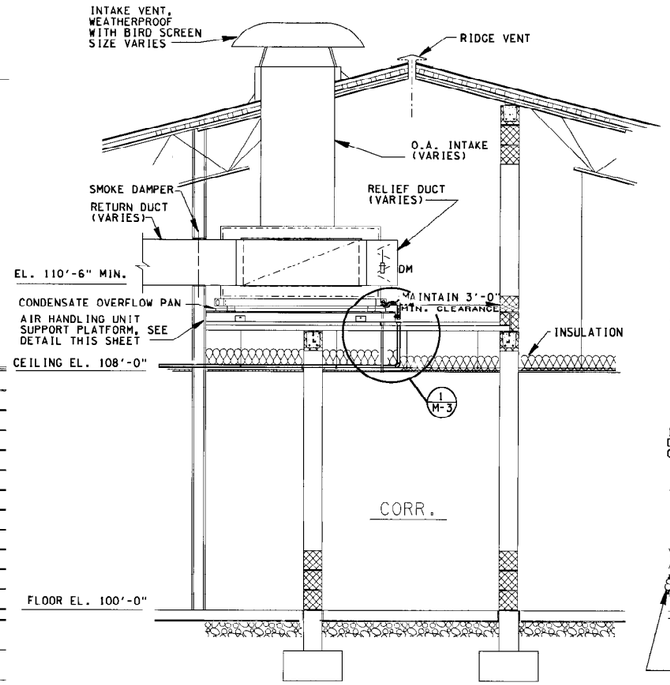
Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: M-2
Sheet 69 of 107

RECORD DRAWING "AS BUILT"

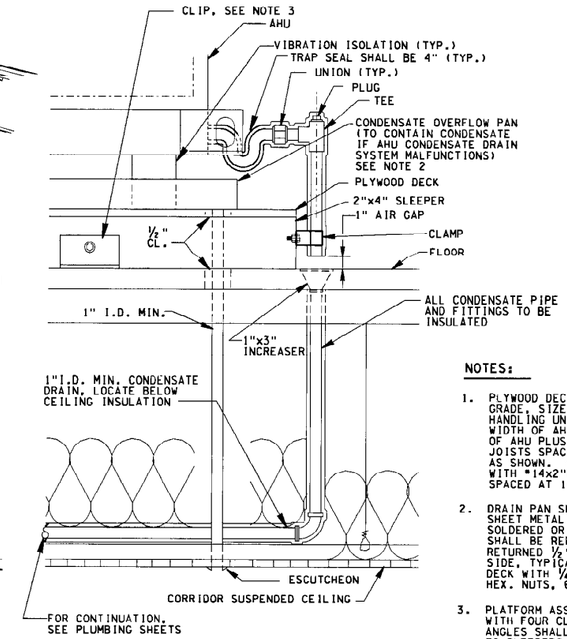
ZG0:[40,77]FCC6XM02.DGN;1
DATE = 11-APR-90, 16:27:37
USER = WANDAM



TYPICAL AHU DETAIL (UNITS 1 THRU 7)
SCALE: ½" = 1'-0" AIR HANDLING UNIT



TYPICAL AHU DETAIL (UNITS 1 THRU 7)
SCALE: ½" = 1'-0"



DETAIL 1/M-3
SCALE: NONE

NOTES:

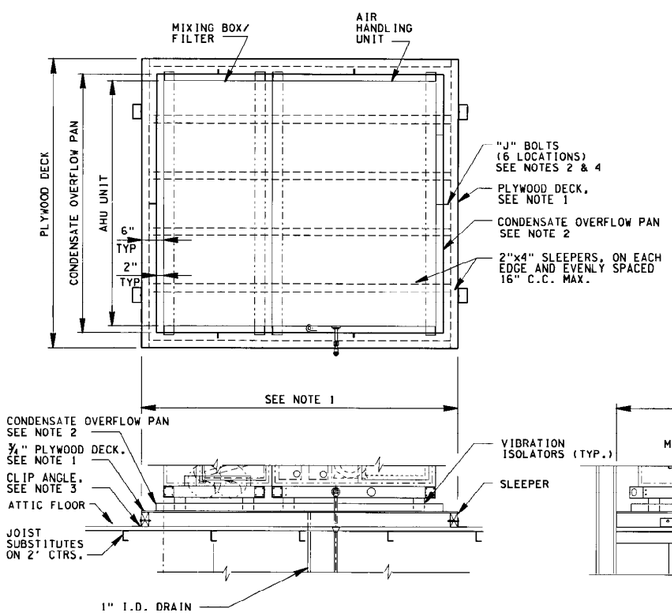
1. PLYWOOD DECK SHALL BE ¾" THICK, EXTERIOR GRADE, SIZE TO BE DETERMINED BY AIR HANDLING UNIT (AHU). FURNISHED WIDTH SHALL BE WIDTH OF AHU PLUS 12". LENGTH SHALL BE LENGTH OF AHU PLUS 12". DECK MUST SPAN MIN. OF TWO JOISTS SPACES. AHU TO BE CENTERED ON PLATFORM AS SHOWN. SECURE PLYWOOD TO 2"x4" SLEEPERS WITH #14x2"LG. WOOD SCREWS (COUNTERSUNK HEAD) SPACED AT 16"C.C., 3 MINIMUM EACH SLEEPER.

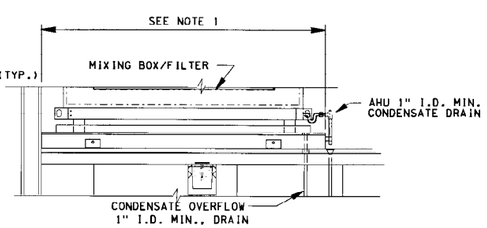
2. DRAIN PAN SHALL BE FABRICATED OF #14 GAGE GALVANIZED SHEET METAL. ALL SEAMS SHALL BE REINFORCED AND SOLDERED OR WELDED. IF SEAMS ARE WELDED, GALVANIZE SHALL BE REPLACED. TOP OF VERTICAL SIDES SHALL BE RETURNED ½" MINIMUM (FOLD INSIDE PAN), TO REINFORCE SIDE, TYPICAL ALL FOUR SIDES. SECURE PAN TO PLYWOOD DECK WITH ¼" DIA.x3½"LG. "J" BOLTS WITH WASHERS AND HEX. NUTS, 6 LOCATIONS, APPROX. AS SHOWN IN PLAN VIEW.

3. PLATFORM ASSEMBLY SHALL BE SECURED TO STEEL ATTIC FLOOR WITH FOUR CLIP ANGLES, TACK WELDED 3 PLACES EACH. CLIP ANGLES SHALL BE 2½"x2½"x⅛"x4"LG. SECURE CLIP ANGLES TO SLEEPERS WITH ¼" DIA.x2½" BOLTS WITH HEX. HEADS, WASHERS AND HEX. NUTS. LOCATE CLIP ANGLES AS SHOWN.

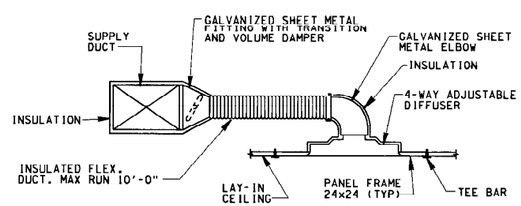
4. ALL BOLTS, SCREWS, WASHERS AND CLIP ANGLES SHALL BE GALVANIZED.

5. WHERE CONDENSATE PAN IS PENETRATED (SUCH AS POINTS REQUIRED TO ANCHOR AHU) PAN MUST BE SEALED IN ORDER TO MAINTAIN WATERTIGHT INTEGRITY.





TYPICAL AIR HANDLING UNIT SUPPORT PLATFORM DETAIL (UNITS 1 THRU 7)
SCALE: ¾" = 1'-0"



LAY-IN CEILING DIFFUSER DETAIL (TYPICAL)
SCALE: NONE

GRAPHIC SCALES

2 1 0 2 4FT
SCALE: 1/2"=1'-0"

1 0 1 2 3FT
SCALE: 3/4"= 1'-0"

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: F.E. DIXON
Drawn by: W.L. MERCER
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

MECHANICAL DETAILS

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: M-3
Sheet 70 of 107

RECORD DRAWING "AS BUILT"

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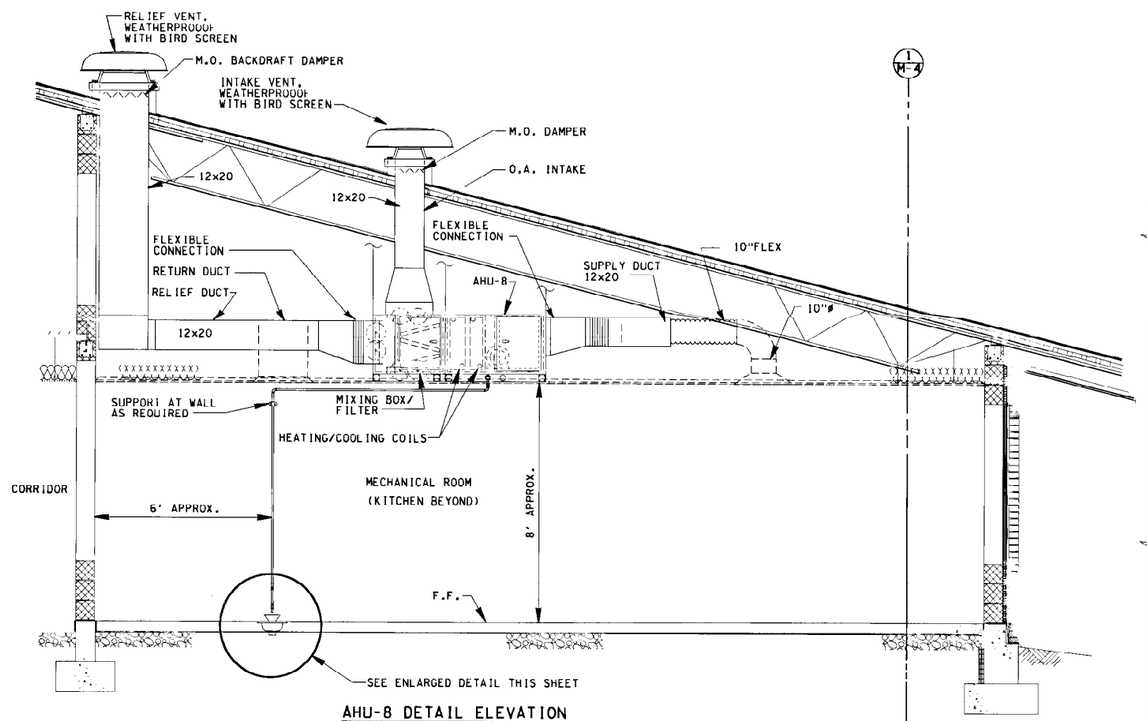
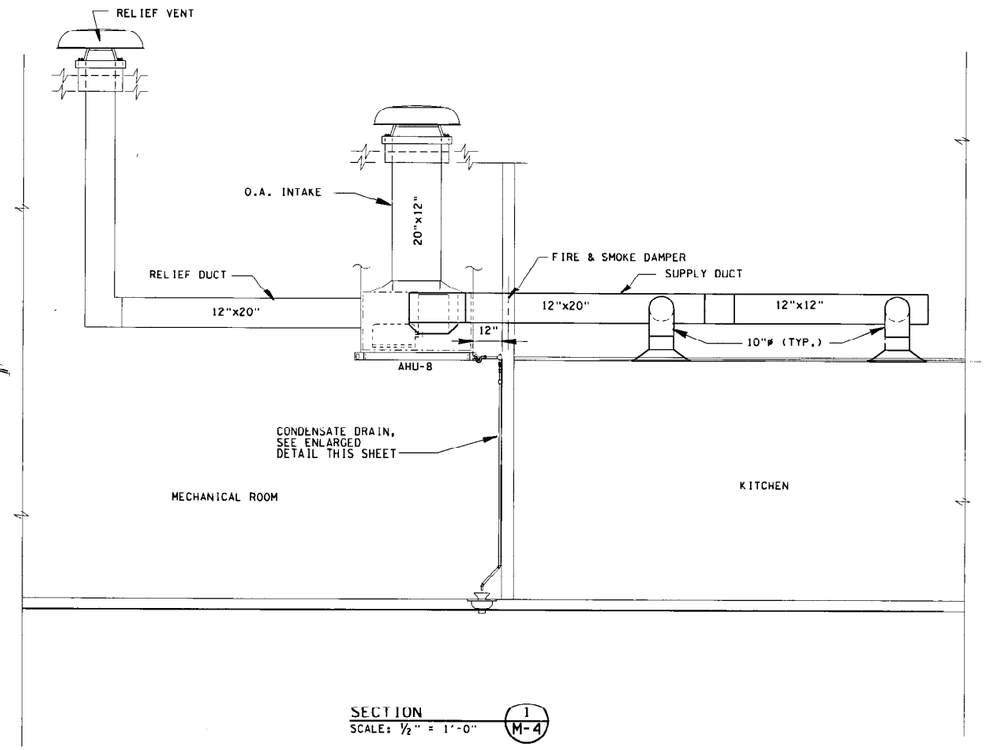
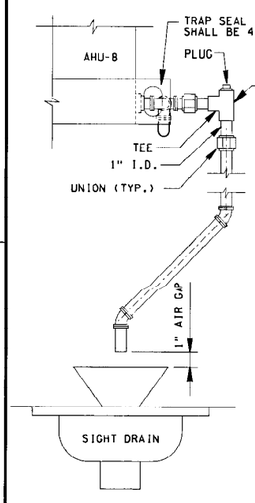


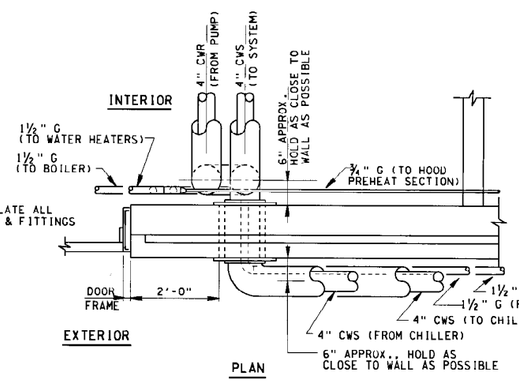
AHU-8 DETAIL ELEVATION
SCALE: ½" = 1'-0"

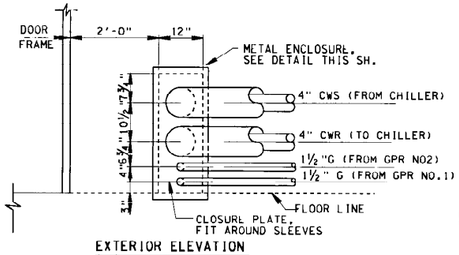


SECTION 1 M-4
SCALE: ½" = 1'-0"

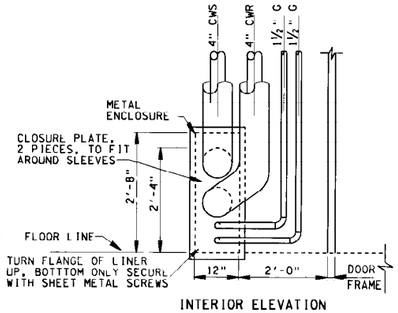


CONDENSATE DRAIN DETAIL
SCALE: ¾" = 1'-0"



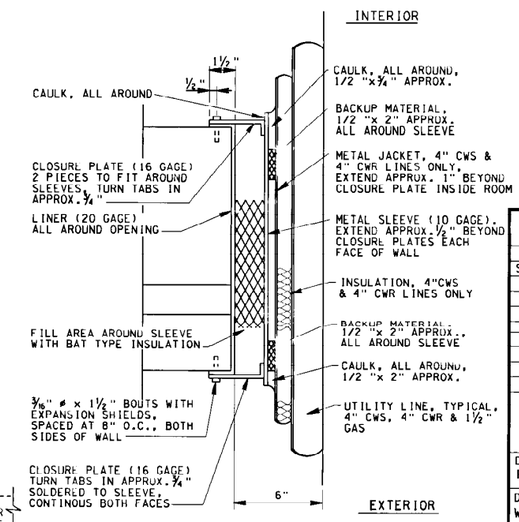


EXTERIOR ELEVATION



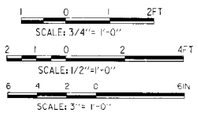
INTERIOR ELEVATION

UTILITY ENTRANCE DETAIL
(CWS, CWR & GAS LINES)
SCALE: ¾" = 1'- 0"



METAL ENCLOSURE DETAIL
SCALE: 3" = 1'- 0"

GRAPHIC SCALES



Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

MECHANICAL DETAILS

Designed by: F.E. DIXON
Drawn by: W.L. MERCER
Checked by: J.E. Fleming
Reviewed by: K.J. Cox
Approved by: [illegible]

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: M-4
Sheet 71 of 107

RECORD DRAWING "AS BUILT"

ZGO:[40,77]FCC6XM04.DGN;1
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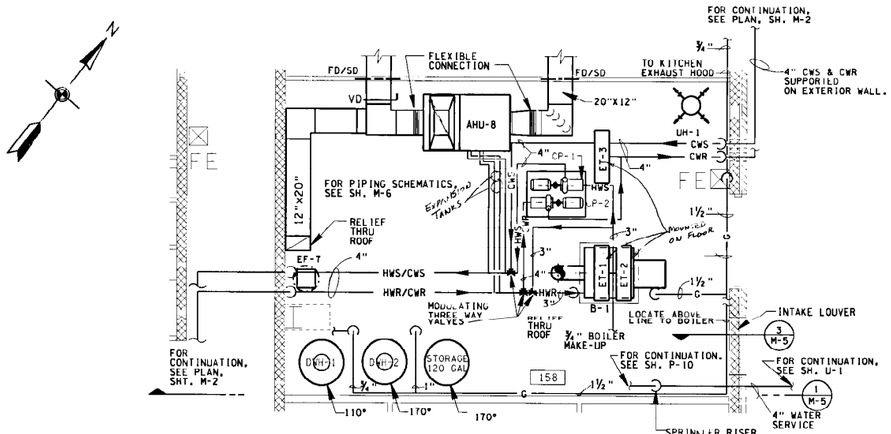
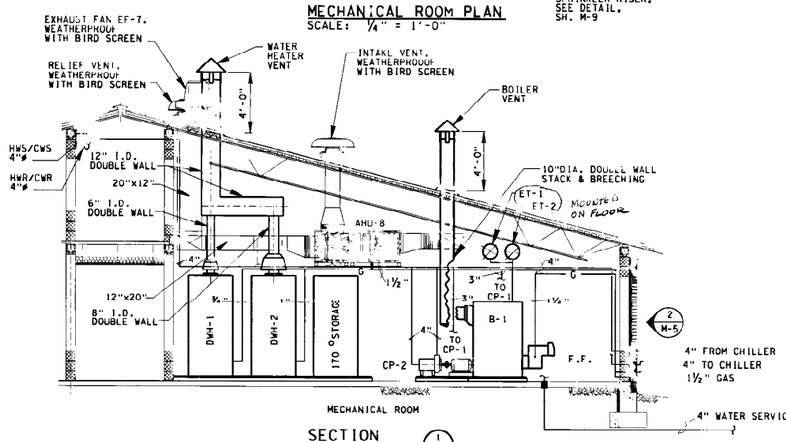
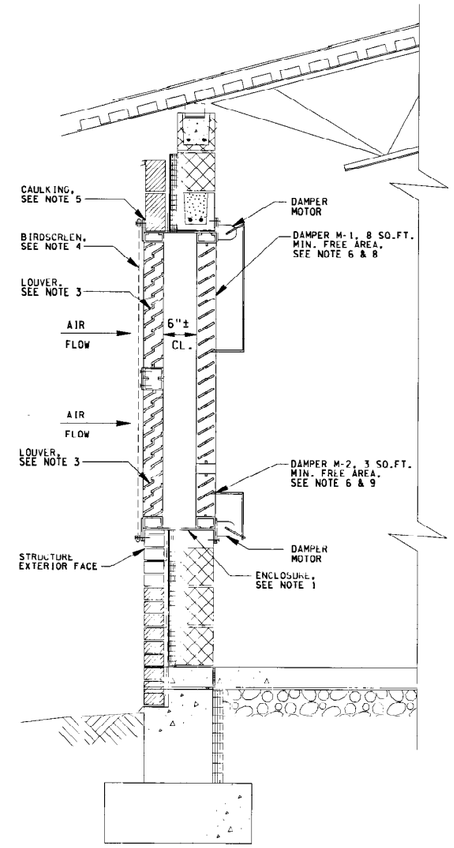
USER = WANDAM



MECHANICAL ROOM PLAN
SCALE: ¼" = 1'-0"



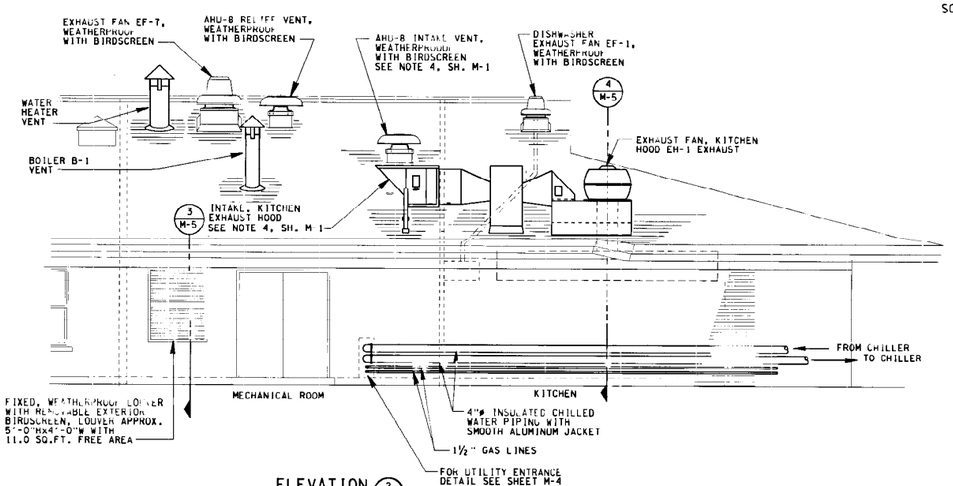
SECTION 1/M-5
SCALE: ¼"=1'-0"



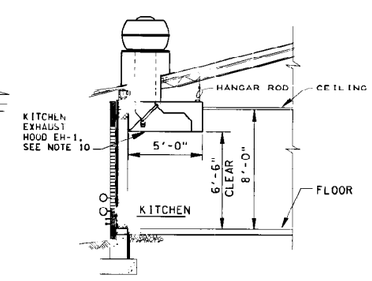
SECTION 3/M-5
SCALE: ½"=1'-0"

NOTES:

1. SHEET METAL ENCLOSURE (16 GAGE, GALV.). SIZE TO BE DETERMINED BY LOUVERS AND DAMPERS FURNISHED. SECURE ENCLOSURE TO STRUCTURE WALL WITH ⅜" DIA. BOLTS WITH EXPANSION SHIELDS.
2. SHEET METAL ANGLE (1½"x1½"x16 GAGE GALV.) CONTINUOUS ALL AROUND ENCLOSURE. SECURE TO STRUCTURE WALL PANEL WITH ⅜" DIA. BOLTS WITH EXPANSION SHIELDS AND SECURE TO ENCLOSURE WITH BOLTS.
3. FIXED WEATHERPROOF LOUVER. MANUFACTURER'S STANDARD SIZE. SECURE TO STRUCTURE WALL PANEL WITH ⅜" DIA. BOLTS WITH EXPANSION SHIELDS.
4. REMOVABLE BIRD SCREEN WITH CONTINUOUS FRAME. SCREEN AND FRAME TO BE GALV. SECURE TO STRUCTURE WALL AND SHEET METAL ENCOSURE WITH ⅜" DIA. BOLTS WITH EXPANSION SHIELDS.
5. CAULK ALL AROUND SHEET METAL ENCLOSURE WITH SEALANT.
6. MOTOR OPERATED DAMPER. MANUFACTURER'S STANDARD SIZE. SECURE TO SHEET METAL ENCLOSURE WITH ⅜" DIA. BOLTS WITH EXPANSION SHIELDS.
7. SHEET METAL SCREWS, BOLTS WITH EXPANSION SHIELDS AND BOLTS TO BE SPACED AT 8" C.C., APPROXIMATE. PROVIDE WASHERS ON EACH SIDE OF CONNECTION WHERE BOLTS ARE USED.
8. UPPER DAMPER M-1 OPENS WHEN MECH. RM. EXHAUST FAN EF-7 IS ENERGIZED. DAMPER RETURNS TO CLOSED POSITION WHEN FAN IS DE-ENERGIZED.
9. LOWER DAMPER M-2 OPENS WHENEVER BOILER B-1 BURNERS, WATER HEATER DWH-1 OR DWH-2 BURNER IS ENERGIZED. DAMPER RETURNS TO CLOSED POSITION WHEN BURNERS ARE DE-ENERGIZED.
10. KITCHEN EXHAUST HOOD EH-1 SHALL BE STAINLESS STEEL WITH DRY CHEMICAL AGENT TYPE FIRE PREVENTION. HOOD AND DUCTS SHALL BE IN ACCORDANCE WITH NFPA-96 REQUIREMENTS. SEE CONTROL DIAGRAM, SH. M-10.



ELEVATION 2/M-5
SCALE: ¼"=1'-0"



SECTION 4/M-5
SCALE: ¼"=1'-0"

GRAPHIC SCALE

SCALE: 1/4"=1'-0"

SCALE: 1/2"=1'-0"

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

US Army Corps of Engineers

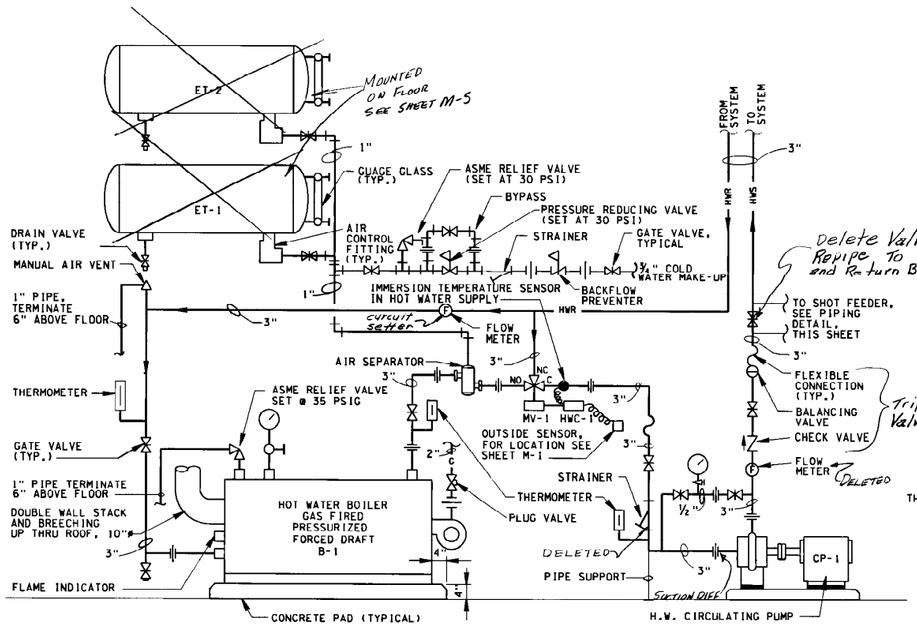
MECHANICAL DETAILS

Designed by: F.E. DIXON
Drawn by: MERCER/HOLCOMB
Checked by: J.E. Flemming
Reviewed by: R.J. Cox
Approved by: Sam Gallman

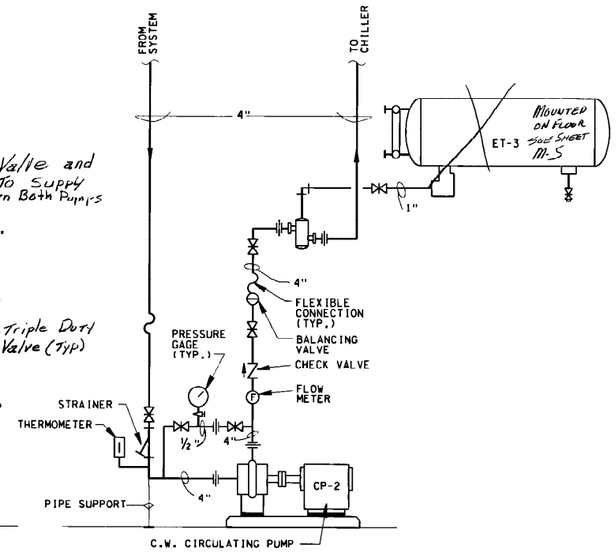
Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: M-5
Sheet 72 of 107

RECORD DRAWING "AS BUILT"

ZGO:[40,77]FCC6XM05.DGN;1
DATE = 12-APR-90, 12:52:31
USER = WANDAM



BOILER AND HOT WATER PIPING SCHEMATIC



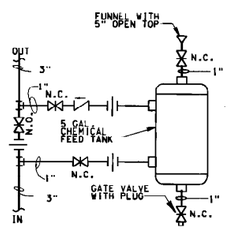
CHILLED WATER PUMP PIPING SCHEMATIC

NOTES:

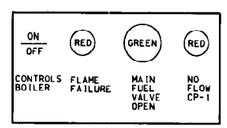
1. FOR RESET SCHEDULE SEE THIS SHEET.
2. ALL OVERHEAD HORIZONTAL PIPING IN MECHANICAL ROOM SHALL BE 7'- 0" MINIMUM ABOVE FINISHED FLOOR.
3. FOR EQUIPMENT CAPACITIES SEE SHEET M-8.

HOT WATER HEATING SYSTEM RESET SCHEDULE		
OUTSIDE TEMP	MIXED HOT WATER SUPPLY TEMP	VALVE MV-1 POSITION
10	160	FULLY OPEN
20	150	
30	140	
40	130	MID-RANGE
50	120	
60	110	
65	105	FULLY CLOSED

RESET OPERATION : DUAL INPUT CONTROLLER HWC-1 SHALL MODULATE THE HOT WATER SUPPLY TEMPERATURE, THRU MODULATING VALVE MV-1 IN DIRECT PROPORTION TO A CHANGE IN THE OUTSIDE AIR TEMPERATURE IN ACCORDANCE WITH RESET SCHEDULE ABOVE.



SHOT FEEDER PIPING DETAIL



CONTROL PANEL, LOCATED ADJACENT TO BOILER COMPONENTS. SWITCHES, ETC., SHOWN ON CONTROL PANEL ARE DIAGRAMATIC ONLY AND REPRESENT MINIMUM REQUIREMENTS.

SEQUENCE OF OPERATION:

THE BOILER WATER DISCHARGE TEMPERATURE CONTROLLER SHALL CONTROL THE FUEL BURNING EQUIPMENT.

AN ALARM BELL SHALL RING WHEN BOILER IS SHUT DOWN BY ANY SAFETY CONTROL.

A MANUAL RESET SHALL BE REQUIRED IF UNIT IS SHUTDOWN BY:

FLAME FAILURE
FAILURE TO ESTABLISH MAIN FLAME
LOW WATER CUT-OFF
HIGH TEMPERATURE CUT-OFF

LOSS OF WATER FLOW AS DETECTED BY FLOW SWITCH (F-1) SHALL BE INDICATED ON PANEL.

NOTES:

1. FOR ADDITIONAL LEGEND, SEE SHEET X-3.
2. FOR ADDITIONAL ABBREVIATIONS, SEE SHEET X-2.

Revisions			
Symbol	Descriptions	Date	Approved

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: F.E. DIXON
Drawn by: W.L. MERCER
Checked by: J.E. Flemming
Reviewed by: R.J. Cox
Approved by: Barry L. Martin

US Army Corps of Engineers

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

MECHANICAL DETAILS

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: M-6
Sheet 73 of 107

RECORD DRAWING "AS BUILT"

ZGO:[40,77]FCC6XM06.DGN;1
DATE = 12-APR-90, 12:58:26
USER = WANDAM

AIR HANDLING UNIT SCHEDULE

UNIT NUMBER		AHU-1	AHU-2	AHU-3	AHU-4	AHU-5	AHU-6	AHU-7	AHU-8
AREA SERVICED	UNITS	PRESCHOOL COMPOSITE*1 CORRIDOR	TODDLER*1 TODDLER*2	LOUNGE OFFICE *1	SM. & LG. MULTI.AGE CORRIDOR	INFANT*1 INFANT*2 COMPOSITE*2 OFFICE *2	COMPOSITE*3 CORRIDOR	ADMIN.	KITCHEN
TYPE		HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL	HORIZONTAL
FAN DATA									
TYPE		FC	FC	FC	FC	FC	FC	FC	FC
APPROX. EXT. STATIC PRESSURE (DUCT & FITTINGS)	I.W.G.	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
AIR QUANTITIES									
FRESH AIR-SUMMER	CFM	385	360	300	390	415	165	740	960
FRESH AIR-WINTER	CFM	385	360	300	390	415	165	740	960
TOTAL AIR	CFM	4520	3575	840	4340	4745	2720	1840	1720
COOLING COIL									
TOTAL SENSIBLE HEAT GAIN	BTUH	119,600	101,100	25,000	116,300	118,600	76,600	57,800	56,800
TOTAL HEAT GAIN	BTUH	162,300	144,700	38,000	160,100	157,600	110,000	88,900	89,100
ENTERING AIR (DB/WB)	°F	80/67	80/67	80/67	80/67	80/67	80/67	80/67	80/67
LEAVING AIR (DB/WB)	°F	55.7/55.6	54.0/53.9	52.7/52.3	55.3/55.2	57.0/56.6	54.1/53.9	51.0/50.9	49.8/49.7
MAX. FACE VELOCITY	FPM	600	600	600	600	600	600	600	600
MAX WATER PD/APPROX FLOW GPM	FT.W.G.	25.0/34.0	25.0/29.0	25.0/18.0	25.0/32.0	25.0/38.0	25.0/28.0	25.0/21.0	25.0/40.0
MAX AIR PD	I.W.G.	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
CHILLED WATER (ENTERING/LEAVING)	°F	45/55	45/55	45/49.2	45/55	45/54.6	45/53	45/53	45/49
3 WAY VALVE CV	*GPM	10.3	9.0	5.9	9.7	11.6	8.9	6.3	17.4
HEATING COIL									
AIR FLOW	CFM	4520	3575	840	4340	4745	2720	1840	1720
MAX. FACE VELOCITY	FPM	600	600	600	600	600	600	600	600
HEAT LOAD	BTUH	105,300	95,630	33,285	97,265	114,670	59,500	92,000	92,000
AIR TEMP. (ENTERING/LEAVING)	°F	60/110	60/110	60/110	60/110	60/110	60/110	60/110	60/110
HOT WATER (ENTERING/LEAVING)	°F	160/140	160/140	160/145	160/143	160/140	160/140	160/140	160/140
MAX. AIR FRICTION DROP	I.W.G.	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
APPROX. WATER PRESSURE DROP/FLOW	FT.W.G./GPM	3.2/25	2.1/20	0.4/6.5	3.7/28.9	3.7/26.4	2.9/15.1	1.0/10.2	1.0/9.6
3 WAY VALVE CV	*GPM	11.2	8.9	2.9	8.3	11.8	6.8	4.6	4.3
FILTER									
TYPE		THROWAWAY	THROWAWAY	THROWAWAY	THROWAWAY	THROWAWAY	THROWAWAY	THROWAWAY	THROWAWAY
LOCATION		IN MIX. BOX	IN MIX. BOX	IN MIX. BOX	IN MIX. BOX	IN MIX. BOX	IN MIX. BOX	IN MIX. BOX	IN MIX. BOX

NOTES:

1. HEATING/COOLING MEDIUM TO BE 40% ETHYLENE GLYCOL SOLUTION (APPROX. 242 GAL. GLYCOL REQ'D).
2. HEATING & COOLING COILS SHALL BE CAPABLE OF REMOVAL FROM BOTH TOP AND SIDES OF UNITS.

* FLOW @ 60°F WHICH PRODUCES 1 PSI PRESSURE DROP.

DOMESTIC WATER HEATER SCHEDULE

MARK	TYPE	PERFORMANCE: RECOVERY GPH 140°F RISE	PERFORMANCE: STORAGE (GAL)	REMARKS
DWH-1	GAS	135	120	110°F SUPPLY (2)
DWH-2	GAS	350	120	170°F SUPPLY (1)(2)

NOTES:

1. 120 GAL. STORAGE TANK PIPED IN SERIES WITH DWH-2. (SEE DETAIL, SH. P-13)
2. INTERLOCKED WITH DAMPER M-2. DAMPER OPENS WHEN DWH-1 OR DWH-2 BURNER IS ENERGIZED.

EXPANSION TANK SCHEDULE

MARK	SERVES	CAP. GAL.	NO. REQ'D	REMARKS
ET-1	HEATING SYSTEM	30	1	(1)
ET-2	HEATING SYSTEM	30	1	(1)
ET-3	COOLING SYSTEM	30	1	(1)

NOTES:

1. SUPPORTED FROM ROOF JOISTS IN MECH. RM.

DOOR AIR CURTAIN FAN SCHEDULE

LOCATION	AIR VOLUME (CFM)	NOZZLE WIDTH(IN.)	NOTES
KITCHEN CORRIDOR (EXT. DOOR) NO. 154	2200	48	(1) (2) (3)

NOTES:

1. WEATHERPROOF UNIT FOR EXTERIOR MOUNTING.
2. CONTROLLED BY WALL SWITCH.
3. INSTALL 7'-4" A.F.F. .

PUMP SCHEDULE

MARK	TYPE	PERFORMANCE: GPM	PERFORMANCE: TDH (FT)	PERFORMANCE: RPM	SERVICE	REMARKS
CP-1	BASE MOUNTED	150	50	1750	HEATING COILS	(1)
CP-2	BASE MOUNTED	240	105	1750	CHILLED WATER COILS	(1)
CP-3	IN-LINE	3	10	1750	RECIRCULATING 110°	(2)
CP-4	IN-LINE	10	15	1750	RECIRCULATING 170°	(2)

NOTES:

1. FOR LOCATION, SEE MECHANICAL DETAILS, SH. M-5.
2. FOR LOCATION, SEE PLUMBING SH. P-12.

CHILLER SCHEDULE

UNIT IDENTIFICATION	CH-1
TYPE	RECIPROCATING PACKAGE UNIT
CHILLER RATINGS	
MIN. CAP. (BTUH)	950,700
MIN. ENERGY EFFICIENCY RATION (EER)	8.4
REFRIGERANT	R22
EVAPORATOR DATA	
ENTERING TEMP (°F)	55
LEAVING TEMP. (°F)	45
WATER FLOW (GPM) (APPROX.)	210
MAX.PD FT. H2O (APPROX.)	18
FOULING FACTOR	0.00025
CONDENSER DATA	
TYPE	AIR COOLED
ENT. AIR TEMP °F	95
LOW AMBIENT TEMP. (°F)	32
HEAT REJECTED TONS (APPROX.)	100
COMPRESSOR DATA	
MIN. CIRCUITS	2
NO. OF STEPS (APPROX.)	5
APPROX. STEPS %	22/33/56/67/89/100
MIN. CAP. %	20
ELECTRICAL DATA	
KW (APPROX.)	90
VOLTAGE/PHASE/HERTZ	460/3/60

NOTES:

1. CHILLER CONTROLS, CRANKCASE HEATERS, AND EVAPORATOR HEATER SHALL HAVE SEPARATE POWER SOURCE.

AIR FRESHENING FAN SCHEDULE

MARK	LOCATION	REMARKS
RF-1	INFANT	(1)
RF-2	INFANT	(1)
RF-3	INFANT	(1)
RF-4	INFANT	(1)
RF-5	TODDLER	(1)
RF-6	TODDLER	(1)
RF-7	TODDLER	(1)
RF-8	TODDLER	(1)
RF-9	SMALL MULTI	(1)
RF-10	LARGE MULTI	(1)
RF-11	LARGE MULTI	(1)

NOTES:

1. W/REPLACEABLE ODOR CARTRIDGE.

FAN SCHEDULE

MARK	TYPE	DRIVE	PERFORMANCE: CFM	PERFORMANCE: STATIC PRESS (IN-H2O)	LOCATION	SERVICE	REMARKS
EF-1	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	450	.375	ROOF MOUNTED	DISHWASHER HOOD	(2) (5)
EF-2	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	340	.25	ROOF MOUNTED	TOILETS MEN & WOMEN	(2) (3) (5)
EF-3	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	80	.25	CEILING MOUNTED	JAN CL	(2) (3)
EF-4	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	75	.25	CEILING MOUNTED	TOILET	(2) (3)
EF-5	NOT USED						
EF-6	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	450	.25	CEILING MOUNTED	LAUNDRY	(2) (5) (6)
EF-7	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	2800/1400	.25	ROOF MOUNTED	MECH ROOM	(1) (2) (5) (7) INTERLOCKED WITH M.O. DAMPER M-1
EF-8	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	150	.25	ROOF MOUNTED	PRESCHOOL	(2) (4) (5)
EF-9	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	140	.25	ROOF MOUNTED	COMPOSITE *2	(2) (4) (5)
EF-10	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	140	.25	ROOF MOUNTED	COMPOSITE *3	(2) (4) (5)
EF-11	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	140	.25	ROOF MOUNTED	COMPOSITE *1	(2) (4) (5)
EF-12	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	200	.25	ROOF MOUNTED	TODDLER *2	(2) (4) (5)
EF-13	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	200	.25	ROOF MOUNTED	TODDLER *1	(2) (4) (5)
EF-14	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	150	.25	ROOF MOUNTED	SM. MULTI-AGE	(2) (4) (5)
EF-15	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	200	.25	ROOF MOUNTED	LG. MULTI-AGE	(2) (4) (5)
EF-16	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	50	.25	CEILING MOUNTED	INFANT *2	(2) (3)
EF-17	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	50	.25	CEILING MOUNTED	INFANT *1	(2) (3)
EF-18	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	60	.25	CEILING MOUNTED	LG. MULTI-AGE	(2) (3)
EF-19	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	80	.25	CEILING MOUNTED	JAN CL	(2) (3)
EF-20	CENTRIFUGAL BLOWER WHEEL	DIRECT DRIVE	300	.25	CEILING MOUNTED	LOUNGE	(2) (6)

NOTES:

1. TWO-SPEED FAN CONTROLLED BY THERMOSTAT. SEE CONTROL DIAGRAM SHEET M-10.
2. BIRDSCREEN AND MOTOR OPERATED BACKDRAFT DAMPERS REQUIRED.
3. CONTROLLED BY LIGHT SWITCH.
4. CONTROLLED BY AHU (SEE SCHEDULE, SH. M-10).
5. ROOF MOUNTED FANS TO BE MOUNTED LEVEL ON CURB (NOT PARALLEL TO ROOF SLOPE).
6. CONTROLLED BY SEPARATE SWITCH.
7. FAN INTERLOCKED SO THAT IT WILL OPERATE (ON LOW SPEED ONLY) IF EF-1, DWH-1 OR DWH-2 IS OPERATING.

UNIT HEATER SCHEDULE

MARK	TYPE	CFM	CAPACITY (KW)	APPROX. AIR RISE @OUTLET °F	SERVICE	REMARKS
UH-1	VERTICAL/ELECTRIC	400	10	45	MECH ROOM	UNIT MOUNTED THERMOSTAT - UNIT 8'-0"

BOILER SCHEDULE

MARK	TYPE	NET OUTPUT BTUH	WORKING PRESSURE (PSIG)	BURNER	FUEL	WATER ENTERING (°F)	WATER LEAVING (°F)	REMARKS
B-1	HOT WATER	690,000	30	HI-LO-OFF	NAT. GAS	140	160	FORCED DRAFT (1)

(1) BURNER INTERLOCKED WITH DAMPER M-2. DAMPER OPENS WHEN BOILER BURNER IS ENERGIZED.

KITCHEN EXHAUST HOOD SYSTEM SCHEDULE

MARK	LENGTH (FT)	WIDTH (FT)	HEIGHT (FT)	EXHAUST AIR (CFM)	MAKE-UP AIR SECTION: SUPPLY AIR (CFM)	MAKE-UP AIR SECTION: PREHEAT TYPE	MAKE-UP AIR SECTION: PREHEAT OUTPUT(BTUH)	MAKE-UP AIR SECTION: PREHEAT TEMP.RISE(°F)	REMARKS
EH-1	15'-0"	5'-0"	2'-0"	4,200/2,100	3,700/1,850	NAT.GAS-INDIRECT FIRED,NAT.DRAFT	273,000	60	(1) TWO SPEED

(1) ROOF-MOUNTED PACKAGE UNIT WITH MOTORIZED INLET DAMPER, WATER WASH DOWN, FIRE SUPPRESSION SYSTEM & ALL CONTROLS.

GENERAL NOTE:

EQUIPMENT SCHEDULES SHOWN ARE FOR ONE BUILDING. EACH BUILDING REQUIRES THE EQUIPMENT SHOWN ON THESE SCHEDULES.

ATTIC AIR RELIEF VENTS

MARK	ROOF LOCATION *	FREE AREA SQ. FT.	COMMENTS
ARV-1	PRESCHOOL	3.6	(1)
ARV-2	PRESCHOOL	3.6	(1)
ARV-3	COMPOSITE *1	4.3	(1)
ARV-4	LOUNGE	2.1	(1)
ARV-5	SMALL MULTI-AGE	3.4	(1)
ARV-6	LARGE MULTI-AGE	4.1	(1)
ARV-7	LARGE MULTI-AGE	4.1	(1)
ARV-8	KITCHEN	3.0	(1)
ARV-9	ADMIN	3.0	(1)
ARV-10	ADMIN	3.0	(1)
ARV-11	COMPOSITE *3	3.1	(1)
ARV-12	COMPOSITE *3	3.1	(1)
ARV-13	COMPOSITE *2	2.5	(1)
ARV-14	COMPOSITE *2	2.5	(1)
ARV-15	INFANT *2	4.0	(1)
ARV-16	INFANT *1	4.0	(1)
ARV-17	TODDLER *2	4.8	(1)
ARV-18	TODDLER *1	2.75	(1)
ARV-19	TODDLER *1	2.75	(1)

NOTES:

1. VENTS SHALL HAVE LOW SILHOUETTE, WITH PVC COATED GALVANIZED BIRD SCREEN, AND WIDE MOUNTING FLANGE.

* SEE ARCHITECTURAL ROOF PLAN FOR LOCATIONS

Revisions

Symbol	Descriptions	Date	Approved
△	REV WATER HEATER HEADING (MOD #0001)	11JUN96	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CAPACITY
PN 380

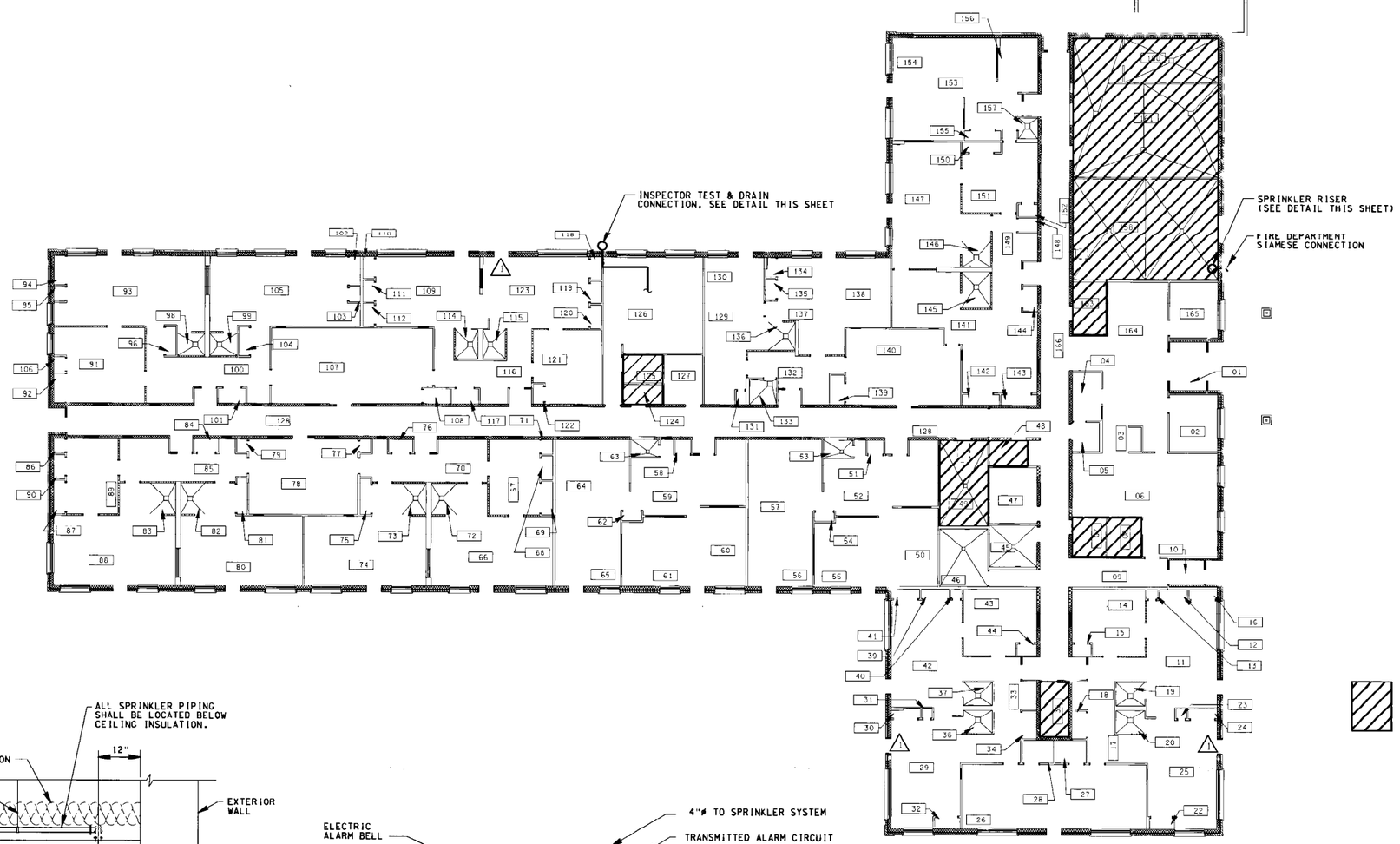
MECHANICAL SCHEDULES
BUILDINGS A OR B

Designed by: F.E. DIXON
Drawn by: W.L. MERCER
Checked by: J.E. FLEMING
Reviewed by: L.J. COX
Approved by: LARRY D. MARTIN

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: M-8

Sheet 74 of 107

RECORD DRAWING "AS BUILT"



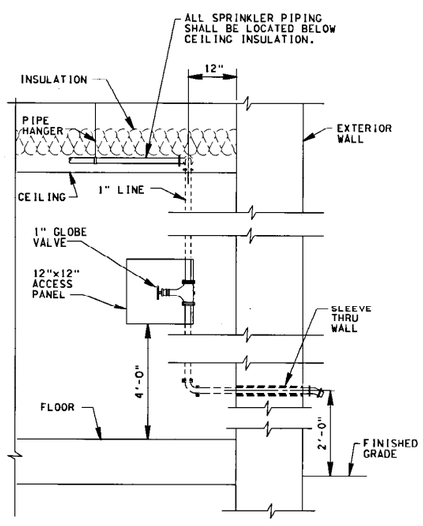
AREAS TO BE SPRINKLERED

GRAPHIC SCALE

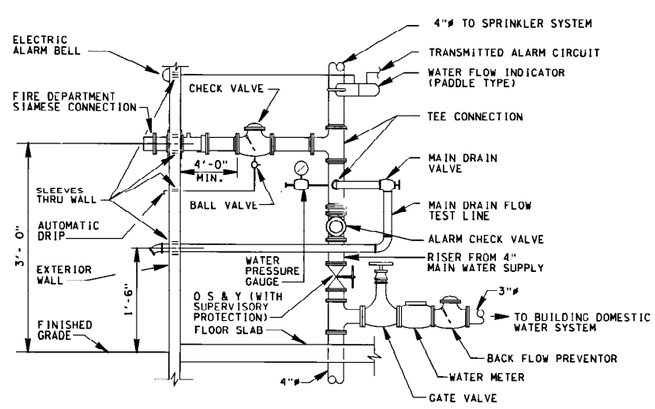
8 4 0 8 16FT

SCALE: 3/32" = 1'-0"

FIRE PROTECTION PLAN BUILDING "A"
(BUILDING "B" OPPOSITE HAND)
SCALE: 3/32" = 1'-0"



INSPECTOR TEST & DRAIN DETAIL
NO SCALE



WET PIPE SPRINKLER RISER DIAGRAM
NO SCALE

NOTES:

1. FIRE PROTECTION FOR CHILD DEVELOPMENT CENTERS 'A' & 'B' TO BE ORDINARY HAZARD GROUP 1 OCCUPANCY WITH A DENSITY OF 0.15 GPM/SQ.FT., TOTAL DESIGN AREA IS 2,000 SQ.FT., HOSE STREAM DEMAND IS 500 GPM AND THE DURATION OF SUPPLY IS 60 MIN.
2. SPRINKLER SYSTEM TO BE WET PIPE AND DESIGNED IN ACCORDANCE WITH NFPA 13 REQUIREMENTS.
3. KITCHEN EXHAUST HOOD AND DUCT SHALL BE IN ACCORDANCE WITH NFPA 96 REQUIREMENTS.
4. ALL SPRINKLER PIPING SHALL BE LOCATED BELOW CEILING INSULATION.

Revisions

Symbol	Descriptions	Date	Approved
1	DOORS ADDED (AMDT. #0003)	31AUG90	

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT.CAMPBELL, KENTUCKY
'STANDARD' DESIGN
US Army Corps of Engineers
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

FIRE PROTECTION PLAN

Designed by: F.E. DIXON
Drawn by: W.L. MERCER
Checked by: J.E. FLEMING
Reviewed by: L.J. COX
Approved by: LARRY D. MARTIN

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: M-9
Sheet 75 of 107

RECORD DRAWING "AS BUILT"

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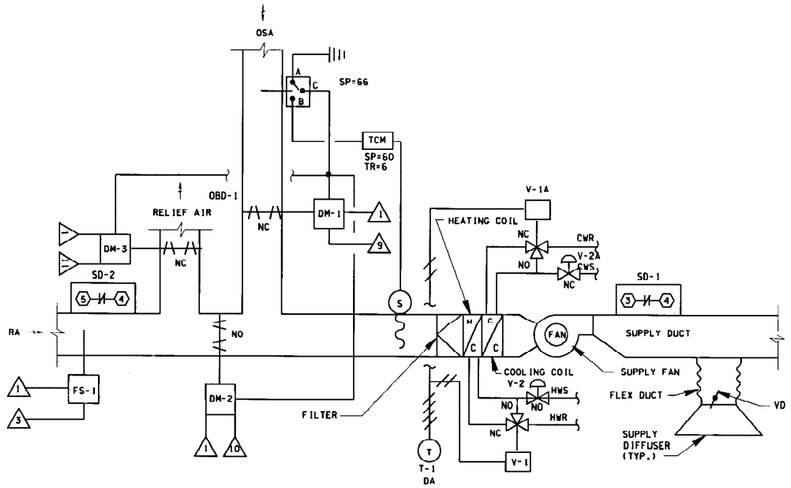
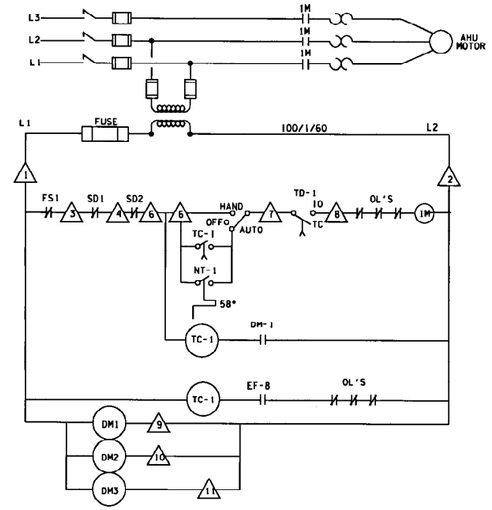
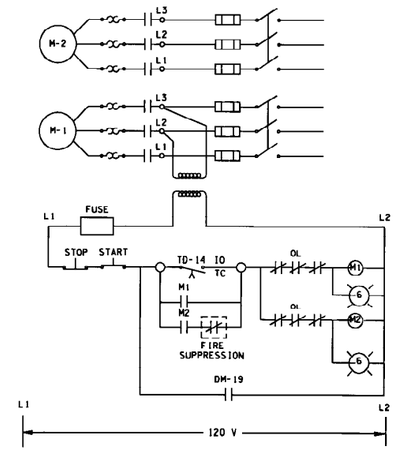
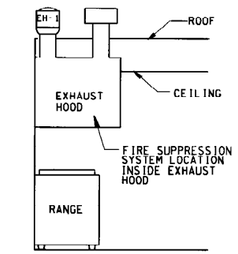


CONTROL DIAGRAM - AHU-1 THRU 8



AHU FAN MOTOR CONTROL





SEQUENCE OF OPERATION

THE KITCHEN EXHAUST HOOD FANS SHALL BE MANUALLY STARTED AT THE HOOD CONTROL CENTER AND SHALL OPERATE CONTINUOUSLY WHILE THE KITCHEN RANGE IS IN USE.

EMERGENCY OPERATION

IN THE EVENT THAT THE FIRE SUPPRESSION IS ACTIVATED, A SET OF NORMALLY CLOSED CONTACTS WILL OPEN AND DEACTIVATE THE SUPPLY FAN MOTOR TO THE EXHAUST HOOD AND A SIGNAL SHALL BE SENT TO ANNUNCIATE THE FIRE ALARM SYSTEM THAT THE KITCHEN ZONE IS IN AN ALARM SITUATION.

CONTROL DIAGRAM - KITCHEN EXHAUST HOOD EH-1

SEQUENCE OF OPERATION:

AHU-1 THRU 8

CONTROL CIRCUIT SHALL INCLUDE SAFETY CONTROLS, A HAND-OFF-AUTO SWITCH, AND TIMER ENERGIZED CONTROLS.

THE CONTROL INSTRUMENTATION IS TO BE LOCATED AT THE BLDG. CONTROL PANEL BOARD IN THE MECHANICAL ROOM.

SAFETY CONTROLS SHALL CONSIST OF A MANUAL RESET FIRESTATE (FS-1) SET AT 135°F, AND SUPPLY AIR SMOKE DETECTOR (SD-1).

WITH ALL SAFETY CONTROLS CLOSED AND THE HAND-OFF-AUTO SWITCH IN THE AUTO POSITION, ON A CALL FROM SEVEN DAY TIMER (TC-1), THE OSA DAMPERS SHALL OPEN AND EXHAUST FANS (SEE SCHEDULE THIS SHEET) SHALL START.

AFTER 30 SECONDS, TIME DELAY RELAY (TD-1) SHALL ENERGIZE THE AHU AND THE FAN SHALL START.

WHEN THE AHU FAN IS OFF AND THE ZONE TEMPERATURE FALLS BELOW 58°F, NIGHT THERMOSTAT (NT-1) SHALL RESTART THE AHU FAN (THE O.A. REMAINS CLOSED AND THE EXISTING FANS STAY OFF). ONCE 62°F IS REACHED, THE AHU SHUTS OFF.

HEATING MODE

ZONE ELECTRIC THERMOSTAT (T-1) SHALL MODULATE HOT WATER VALVE (V-1) FROM FULL HEAT TO NO HEAT OVER A ZONE TEMPERATURE RANGE OF 60°F TO 70°F.
VALVE V-2 SHALL BE OPEN. VALVE V-2A SHALL BE CLOSED.

COOLING MODE

ZONE ELECTRIC THERMOSTAT (T-1) SHALL MODULATE CHILLED WATER VALVE (V-1A) OVER A ZONE TEMPERATURE RANGE OF 85°F TO 78°F.
VALVE V-2 SHALL BE CLOSED. VALVE V-2A SHALL BE OPEN.

ECONOMY CYCLE

WHEN SPACE TEMPERATURE IS ABOVE 70°F AND LESS THAN 78°F, THE HEATING AND COOLING COILS ARE BOTH DE-ENERGIZED AND SUPPLY AIR TEMPERATURE IS CONTROLLED BY THE MIXED AIR CONTROLLER (TCM) AND THE HIGH LIMIT SWITCH. THE

MIXED AIR CONTROLLER (TCM) WILL MODULATE O.A. INTAKE (DM-1), RETURN AIR (DM-2), AND RELIEF DAMPERS (DM-3) TO MAINTAIN A SET MIXED AIR TEMPERATURE OF 60°F.

OUTSIDE AIR DAMPER

O.A. DAMPERS TO BE SET AT MIN. OPENING PER SCHEDULE SH. M-8.

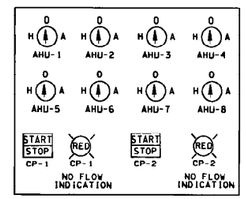
NOTE:

FOR BLDG. CONTROL PANEL BOARD COMPONENT INDICATIONS. SEE DETAIL

AHU/EXHAUST FAN SCHEDULE

AHU NO.	LOCATION	EXHAUST FAN NO.
AHU-1	PRESCHOOL/COMPOSITE *1/CORRIDOR	EF-8 & 11
AHU-2	TODDLER *1 & *2	EF-12 & 13
AHU-4	SMALL & LARGE MULTI-AGE/CORRIDOR	EF-14 & 15
AHU-5	INFANT *1 & *2/COMPOSITE *2/OFFICE *2	EF-9
AHU-6	COMPOSITE *3/CORRIDOR	EF-10

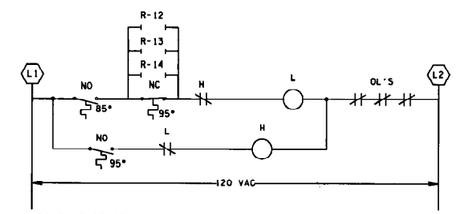
SYMBOL	DESCRIPTION OF COMPONENTS - AHU'S
T-1	ELECTRIC DIRECT ACTING ZONE THERMOSTAT WITH DEADBAND AND PROTECTIVE GUARD - 120 VAC
TC-1	7 DAY TIMER
DM-1,2,3	ELECTRIC DAMPER ACTUATOR - 120 VAC
OBD-1	OPPOSED BLADE DAMPER
FS-1	FIRESTAT
V-1A	3-WAY CHILLED WATER CONTROL VALVE W/VALVE ACTUATOR
V-1	3-WAY HOT WATER CONTROL VALVE W/VALVE ACTUATOR
S	SENSOR
EF-8	EXHAUST FAN
SD-1,2	SMOKE DETECTOR
VD-1	VOLUME DAMPER
NT-1	ELECTRIC NIGHT T'STAT - SET @ 58°F 120 VAC
TD-1	TIME DELAY RELAY - 120 VAC
OL	OVERLOADS
TCM	MIXED AIR TEMPERATURE CONTROLLER
V-2	2-WAY HOT WATER CONTROL VALVE W/ACTUATOR
V-2A	2-WAY CHILLED WATER CONTROL VALVE W/ACTUATOR



CONTROL DIAGRAM - BLDG. CONTROL PANEL BOARD

1. COMPONENTS, SWITCHES, ETC. SHOWN ON BLDG. CONTROL PANEL BOARD ARE DIAGRAMATIC ONLY AND REPRESENT THE MINIMUM AMOUNT OF ITEMS WHICH ARE:

- AIR HANDLING UNIT (AHU-1) HAND - OFF - AUTO SWITCH
- AIR HANDLING UNIT (AHU-2) HAND - OFF - AUTO SWITCH
- AIR HANDLING UNIT (AHU-3) HAND - OFF - AUTO SWITCH
- AIR HANDLING UNIT (AHU-4) HAND - OFF - AUTO SWITCH
- AIR HANDLING UNIT (AHU-5) HAND - OFF - AUTO SWITCH
- AIR HANDLING UNIT (AHU-6) HAND - OFF - AUTO SWITCH
- AIR HANDLING UNIT (AHU-7) HAND - OFF - AUTO SWITCH
- AIR HANDLING UNIT (AHU-8) HAND - OFF - AUTO SWITCH
- HOT WATER CIRCULATING PUMP (CP-1) START/STOP SWITCH
- CHILLED WATER CIRCULATING PUMP (CP-2) START/STOP SWITCH



SEQUENCE OF OPERATION EF-7

TWO SPEED EXHAUST FAN (EF-7) SHALL HAVE THERMOSTAT CONTROL.
AT 85° F. EXHAUST FAN SHALL BE ENERGIZED AT LOW SPEED.
AT 95° F EXHAUST FAN SHALL SWITCH FROM LOW TO HIGH SPEED.
EXHAUST FAN EF-7 SHALL BE INTERLOCKED WITH BOILER B-1 (USING RELAY R-12), DWH-1 (USING RELAY R-13) & DWH-2 (USING RELAY R-14), SO THAT IF ANY OF THE THREE ARE ENERGIZED, EF-7 WILL OPERATE ON LOW SPEED ONLY.

CONTROL DIAGRAM - EXHAUST FAN EF-7

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: F.E. DIXON
Drawn by: MERCER/ALLEN
Checked by: J.E. Fleming
Reviewed by: R.J. Cox
Approved by: Jan. C. Marks

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

CONTROL DIAGRAM & SCHEMATICS

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: M-10
Sheet 76 of 107

RECORD DRAWING "AS BUILT"

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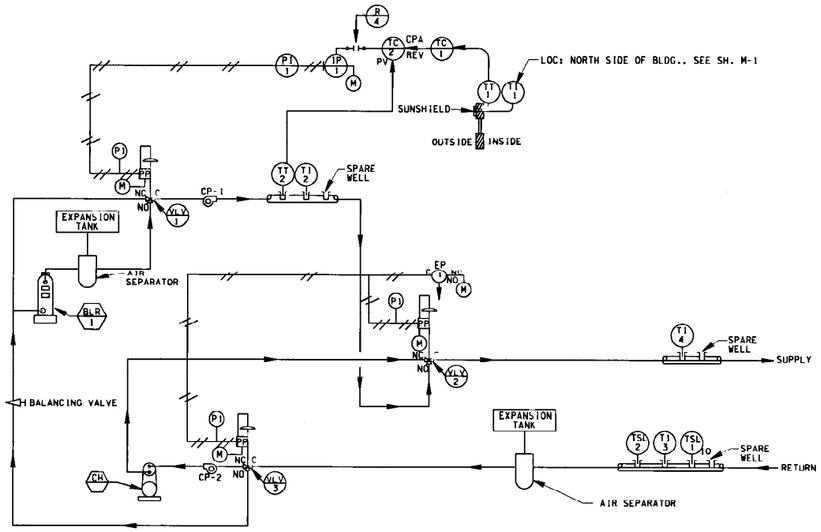
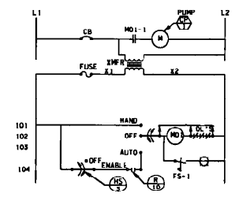
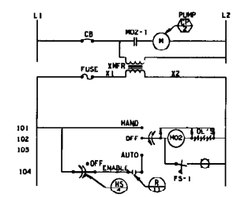


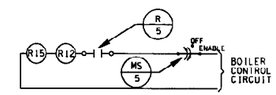
CONTROL-SYSTEM SCHEMATIC FOR SINGLE-BUILDING DUAL-TEMPERATURE HYDRONIC SYSTEM



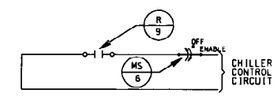
CP-1 HOT WATER PUMP STARTER



CP-2 CHILLED WATER PUMP STARTER



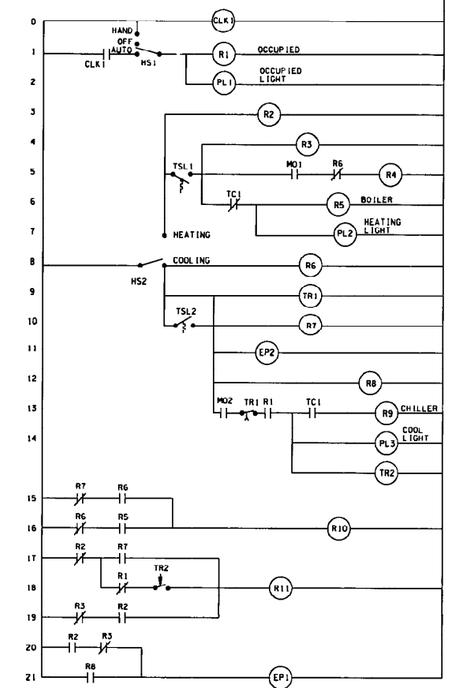
BOILER INTERLOCK



CHILLER INTERLOCK

BOILER B-1 SHALL BE INTERLOCKED WITH EF-7 USING RELAY R-12.
DWH-1 & 2 SHALL BE SIMILARY INTERLOCKED WITH EF-7 USING RELAYS R-13 & R-14 RESPECTIVELY. BOILER B-1 SAHLL ALSO BE INTERLOCKED WITH DAMPER M-2 USING RELAY R-15. DOMESTIC WATER HEATER DWH-1 & 2 SHALL EACH BE SIMILARY INTERLOCKED WITH DAMPER M-1.

CONTROL - SYSTEM LADDER DIAGRAM FOR SINGLE BUILDING DUAL - TEMPERATURE HYDRONIC SYSTEM



BOILER / CHILLER ELEMENTARY DIAGRAM

SEQUENCE OF OPERATION

SINGLE - BUILDING DUAL - TEMPERATURE HYDRONIC CONTROL SYSTEM.

a. DESCRIPTION OF THE HYDRONIC SYSTEM. THIS HYDRONIC HEATING AND COOLING SYSTEM CONSISTS OF A BOILER, CHILLER, HOT WATER PUMP, CHILLED WATER PUMP AND DISTRIBUTION PIPING. THIS SYSTEM VARIES THE HOT-WATER FLOW THROUGH THE BOILER. THEREFORE. IT CAN BE USED ONLY WITH BOILERS THAT ARE NOT SENSITIVE TO FLOW VARIATION.

b. GENERAL SEQUENCE OF OPERATION

(1) HEATING AND COOLING MODES ARE MANUALLY SELECTED AT THE CONTROL PANEL.

(2) WHEN THE SYSTEM IS INDEXED TO HEATING, THE BOILER AND HOT WATER PUMP IS ENGERZIED WHENEVER THE OUTSIDE-AIR TEMPERATURE IS LOW ENOUGH FOR THE BUILDING TO REQUIRE HEATING. WHEN THIS OCCURS, THE SYSTEM BOILER CYCLES AS NECESSARY TO MAINTAIN SET POINT AND THE SYSTEM PUMP OPERATES CONTINOUSLY. THE BOILER FUNCTIONS UNDER ITS OWN CONTROL SYSTEM TO MAINTAIN A CONSTANT BOILER-WATER TEMPERATURE. AS THE OUTSIDE-AIR TEMPERATURE FALLS, THE SYSTEM SUPPLY-WATER TEMPERATURE IS RAISED.

THE CONTROL SYSTEM MODULATES A THREE-WAY VALVE TO MIX SUPPLY AND RETURN HOT WATER TO MAINTAIN THE SCHEDULED HOT-WATER SUPPLY TEMPERATURE SETPOINT. ELECTRIC/PNEUMATIC RELAY EP-2 SHALL BE DE-ENERGIZED, DIVERTING FLOW FROM COOLING COIL TO HEATING COIL AT EACH AIR HANDLER (8 LOCATIONS).

(3) WHEN THE SYSTEM IS INDEXED FROM THE HEATING MODE TO THE COOLING MODE, THE BOILER IS SHUT DOWN. THE PUMP CONTINUES TO RUN TO DISSIPATE THE HEAT FROM THE PIPING SYSTEM AND THE BOILER UNTIL THE RETURN-WATER TEMPERATURE DROPS BELOW THE SETPOINT OF THE RETURN-WATER THERMOSTAT. THE CHANGEOVER VALVES THEN CLOSE TO THE BOILER AND OPEN TO THE CHILLER.

(4) WHEN THE SYSTEM IS INDEXED TO COOLING AND CHANGEOVER HAS OCCURRED. THE CHILLER AND PUMP ARE ENGERIZED DURING THE OCCUPIED MODE WHENEVER THE OUTSIDE AIR TEMPERATURE IS HIGH ENOUGH FOR THE BUILDING TO REQUIRE COOLING. AT THE CONCLUSION OF THE OCCUPIED MODE, THE CHILLER IS DEENERGIZED BUT THE PUMP CONTINUES TO CIRCULATE WATER FOR A PERIOD OF TIME WHILE THE CHILLER COMPLETES ITS SHUTDOWN CYCLE, AND THEN THE PUMP STOPS. ELECTRIC/PNEUMATIC RELAY EP-2 SHALL BE ENERGIZED, DIVERTING FLOW FROM HEATING COIL TO COOLING COIL AT EACH AIR HANDLER (8 LOCATIONS).

(5) WHEN THE SYSTEM IS INDEXED FROM COOLING TO HEATING, THE CHILLER ENTERS ITS SHUTDOWN CYCLE AND THE PUMP CONTINUES TO CIRCULATE WATER THROUGH THE CHILLER FOR A PERIOD OF TIME WHILE THE CHILLER COMPLETES ITS SHUTDOWN CYCLE. THE CHANGEOVER VALVES THEN CLOSE TO THE CHILLER AND OPEN TO BOILER.

C. DETAILED SEQUENCE OF OPERATION.

(1) HEATING-COOLING SWITCH HS-2 IS MANUALLY OPERATED TO INDEX THE DUAL-TEMPERATURE HYDRONIC SYSTEM TO HEATING OR TO COOLING.

(2) WHEN SWITCH HS-2 IS INDEXED FROM HEATING TO COOLING, RELAYS R2,R3,R4 & R5 ARE DE ENGERIZED, HEATING PILOT LIGHT PL2 IS TURNED OFF, AND RELAYS R6,R7,R8 & R9 ARE ENERGIZED. THE CONTACTS OF RELAY R4 INTERRUPT CONTROL OF VALVE VLV-1 UNTIL THE SYSTEM'S HEATING-COOLING SWITCH IS RETURNED TO THE HEATING MODE. THE CONTACTS OF RELAY R5 OPEN TO SHUT DOWN THE BOILER. THE NORMALLY-CLOSED CONTACTS OF R2 ON LINE 17 CLOSE, AND THE NORMALLY -CLOSED CONTACTS OF RELAY R6 ON LINE 16 OPEN, TRANSFERRING THE CONTROL OF PUMP RELAYS R10 & R11 FROM HEATING TO COOLING. TR1 ON LINE 9 IS ENGERIZED AND THE CONTACTS ON LINE 12 PREVENT THE CHILLER CIRCUIT FROM BEING ENERGIZED FOR 15 MINUTES. WHEN DUAL-TEMPERATURE WATER-RETURN TEMPERATURE FALLS TO THE SETPOINT OF RETURN-WATER THERMOSTAT TSL-2, ITS CONTACTS ON LINE 10 CLOSE TO ENERGIZE R8 WHICH CLOSE CONTACTS ON LINE 21 TO ENERGIZE EP-1. VALVES VLV-2 AND VLV-3 SHUT OFF THE SYSTEM SUPPLY AND RETURN WATER TO THE BOILER AND OPEN THE SUPPLY AND RETURN WATER TO THE CHILLER. THE OCCUPIED/ UNOCCUPIED CONTACTS OF TIME CLOCK CLK-1 ENERGIZE RELAY R-1 AND TURN ON OCCUPIED PILOT LIGHT PL-1. THE CONTACTS OF RELAY R-1 ON LINE 12 ENERGIZE RELAY R-9, WHICH ENERGIZES THE CHILLER WHEN OUTSIDE TEMPERATURE CONTROLLER TC-1 IS ABOVE SET POINT 2. THE CONTACTS OF R-9 ON LINE 17 ENERGIZE RELAY R-11, WHICH ENERGIZES THE SYSTEM PUMP.

(3) THE TIME-DELAY RELAY TR2 ON LINE 18 KEEPS THE CHILLED WATER PUMP ENERGIZED UNTIL FIFTEEEN MINUTES AFTER THE UNOCCUPIED MODE HAS BEGUN.

(4) WHEN HEATING-COOLING SWITCH HS-2 IS INDEXED FROM COOLING TO HEATING, RELAY R9 IS DE-ENERGIZED DISABLING THE CHILLER. RELAY R-3 IS ENERGIZED AND R6,R7,R8 AND R9 ARE DE-ENERGIZED. THE CONTACTS OF RELAY R6 ON LINE 16 CLOSE, THE CONTACTS OF RELAY R2 ON LINE 17 OPEN, AND PUMP CONTROL SWITCHES FROM THE COOLING TO THE HEATING MODE OF CONTROL. THE CONTACTS OF RELAY R2 ON LINE 3 CLOSE TO KEEP EP-1 ENERGIZED. WHEN EP-1 IS ENERGIZED, THE CHANGEOVER VALVES REMAIN OPEN TO THE CHILLER FOR CHILLER SHUTDOWN AND CWP WILL RUN UNTIL TSI SATISFIED. THEN CHANGEOVER WILL OCCUR. THE PUMP IS PLACED UNDER CONTROL OF OUTSIDE-AIR TEMPERATURE VIA THE PV CONTACTS OF CONTROLLER TC-1. EP-1 IS DE-ENERGIZED AND VALVES VLV-2 AND VLV-3 OPEN TO THE BOILER AND CLOSE TO THE CHILLER.

(5) WHEN THE SYSTEM IS INDEXED TO HEATING, ON A FALL IN OUTSIDE-AIR TEMPERATURE TO THE SETPOINT 1 OF THE PV CONTACTS OF TEMPERATURE CONTROLLER TC-1, THE CONTACTS CLOSE, ENERGIZING RELAY R5 AND LIGHTING PILOT LIGHT PL-2. ONE SET OF CONTACTS OF R5 ENERGIZES THE BOILER CONTROL CIRCUIT, AND THE OTHER SET OF CONTACTS THROUGH A SET OF NORMALLY-CLOSED CONTACTS OF RELAY R6 (ENERGIZED DURING THE COOLING SEASON), ENERGIZES RELAY R10. A SET OF THE CONTACTS OF RELAY R10 ENERGIZES THE HOT WATER PUMP. THE AUXILIARY CONTACTS OF THE PUMP-MOTOR STARTER, THROUGH ANOTHER SET OF NORMALLY-CLOSED CONTACTS OF RELAY R6. ENERGIZES RELAY R4. RELAY R4 PLACES VALVE VLV-1 UNDER THE CONTROL OF THE DUAL-WATER SUPPLY TEMPERATURE CONTROLLER TC-2 WHENEVER THE PUMP RUNS DURING THE HEATING SEASON.

(6) DUAL-TEMPERATURE SUPPLY WATER-TEMPERATURE TRANSMITTER TT-2 SIGNALS THE SUPPLY TEMPERATURE TO TEMPERATURE CONTROLLER TC-2. CONTROLLER TC-2 MAINTAINS ITS SETPOINT BY VARYING ITS SIGNAL TO CURRENT-TO-PNEUMATIC TRANSDUCER IP-1. THE PNEUMATIC OUTPUT FROM IP MODULATES THREE-WAY VALVE VLV-1 TO MIX BOILER WATER AND RETURN WATER TO MAINTAIN THE TEMPERATURE SETPOINT OF CONTROLLER TC-2. OUTSIDE-AIR TEMPERATURE TRANSMITTER TT-1 SIGNALS THE OUTSIDE-AIR TEMPERATURE TO TEMPERATURE CONTROLLER TC-1. AS THE OUTSIDE-AIR TEMPERATURE FALLS, TC-1 RAISES THE SETPOINT OF CONTROLLER TC-2.

LEGEND

CLK - 7 DAY TIME CLOCK
HS1 - HAND SWITCH (HAND/OFF/AUTO)
R1 - PUTS SYSTEM IN OCCUPIED MODE
PL1 - STATUS INDICATOR FOR OCCUPIED
R2 - CHILLED WATER PUMP LOCKOUT ON HEATING
R5 - IN HEATING MODE, PREVENTS CHANGEOVER UNTIL WATER WARM ENOUGH TO PREVENT BOILER DAMAGE
R4 - BOILER RESET ENABLE
TC1 - DUAL SET POINT OUTSIDE AIR THERMOSTAT. ABOVE SP-1 DISABLE BOILER, ABOVE SP-2 ENABLE CHILLER
R5 - BOILER ENABLE
PL2 - STATUS INDICATOR - HEATING MODE
TSL1- RETURN WATER TEMPERATURE THERMOSTAT
TSL2- RETURN WATER TEMPERATURE THERMOSTAT
HS2 - HAND SWITCH (HEATING/COOLING)
R6 - HWP LOCKOUT ON COOLING
MO1 - HOT WATER PUMP
MO2 - CHILLED WATER PUMP
EP1 - ELECTRIC/PNEUMATIC RELAY
FS-1 - FLOAT SWITCH
OL - OVERLOAD
CB - CIRCUIT BREAKER
XMFR- TRANSFORMER
CP - CIRCULATING PUMP
EP2 - ELECTRIC/PNEUMATIC RELAY ACTUATES VALVES V2 & V2A (TYP. 8 LOCATIONS)
TR1 - TIME DELAY RELAY NORMALLY CLOSED - INSTANTANEOUS OPEN, TIMED TO CLOSE WHEN ENERGIZED. (PREVENTS DAMAGE TO CHILLER BY SHORT CYCLING)
R7 - IN COOLING MODE PREVENTS CHANGEOVER UNTIL WATER COOL ENOUGH TO PREVENT CHILLER DAMAGE.
R8 - CHANGEOVER CONTROL IN CONJUNCTION WITH EP1
R9 - CHILLER ENABLE
PL3 - STATUS INDICATOR - COOLING MODE
TR2 - TIME DELAY RELAY - NORMALLY OPEN INSTANTANEOUS CLOSE WHEN ENERGIZED. TIMED TO OPEN WHEN DE-ENERGIZED (KEEPS CHWP RUNNING AFTER ENTER UNOCCUPIED MODE TO ALLOW CHILLER SHUTDOWN CYCLE).
R10 - HOT WATER PUMP ENABLING RELAY
R11 - CHILLED WATER ENABLING RELAY
TI - THERMOMETER
TT - TEMP. SENSOR & TRANSMITTER
P - PROPORTIONAL CONTROL MODE
PP - POSITIVE POSITIONER
CPA - CONTROL POINT ADJUSTMENT
PI - PRESSURE GAUGE, PROPORTIONAL-PLUS-INTEGRAL MODE
BLR - BOILER
CH - CHILLER
VLV - VALVE

Revisions

Symbol	Descriptions	Date	Approved

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: F.E. DIXON
Drawn by: B. WILLIAMS
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

CONTROL DIAGRAM AND SCHEMATICS

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: M-11
Sheet 77 of 107

RECORD DRAWING "AS BUILT"

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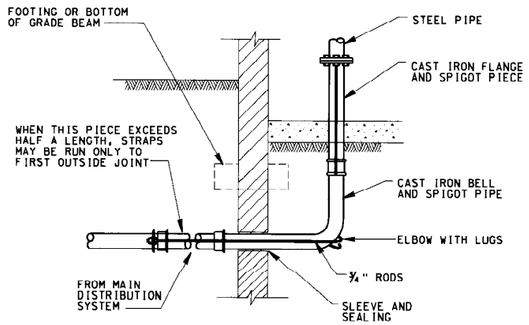
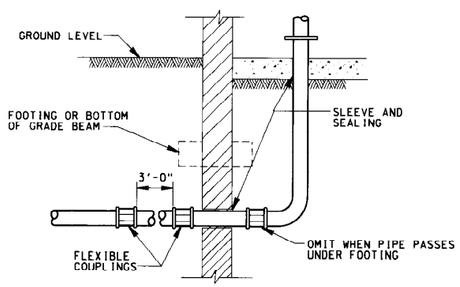
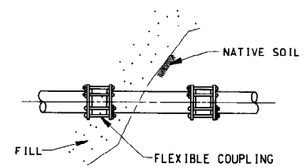


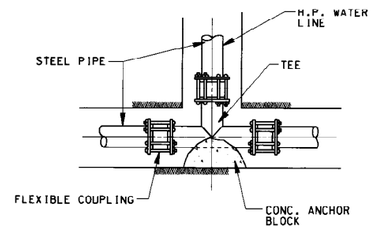
BELL AND SPIGOT C.I. PIPE

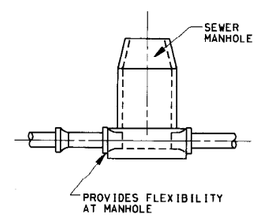


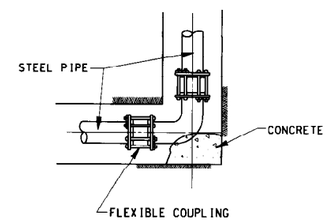
PLAIN CAST IRON OR STEEL PIPE

ACCEPTABLE SEISMIC DETAILS FOR PIPING ENTERING BUILDING

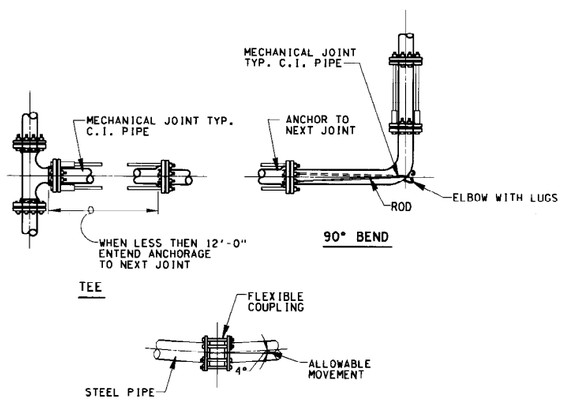








ACCEPTABLE SEISMIC DETAILS FOR UNDERGROUND PIPING



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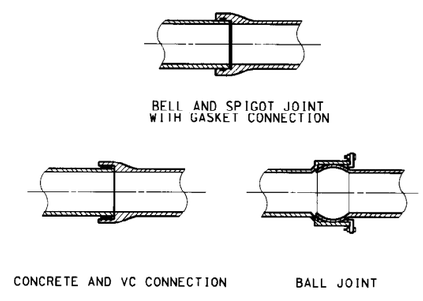

ACCEPTABLE FLEXIBLE COUPLING SEISMIC DETAILS

Revisions			
Symbol	Descriptions	Date	Approved

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: STANDARD
Drawn by: STANDARD
Checked by: J.E. Fleming
Reviewed by: R.J. Coy
Approved by: Randy Martin

US Army Corps of Engineers
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

UTILITY SEISMIC DETAILS

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
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Sheet 78 of 107

RECORD DRAWING "AS BUILT"

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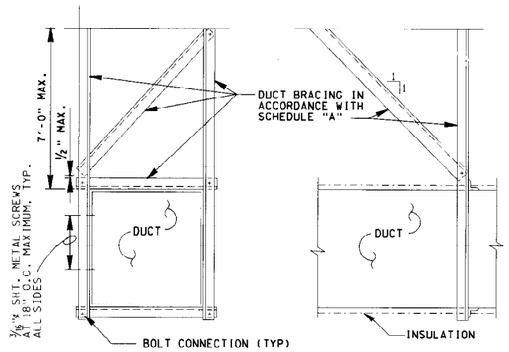
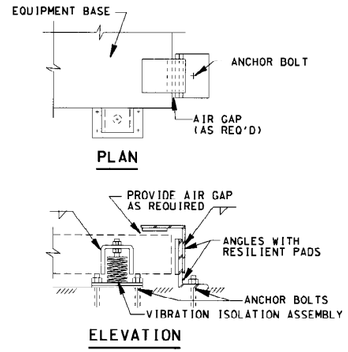
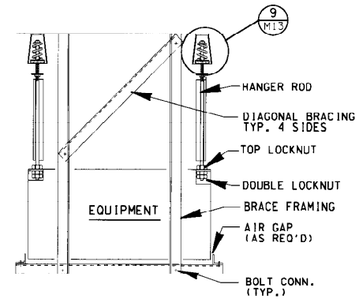


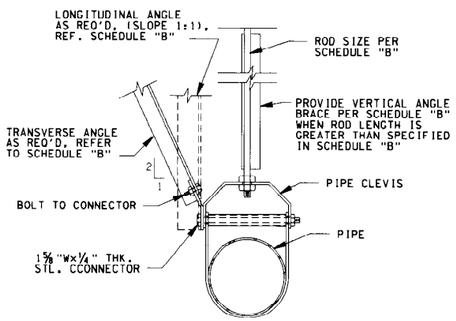
SEISMIC RESTRAINT OF DUCTS DETAIL (1)



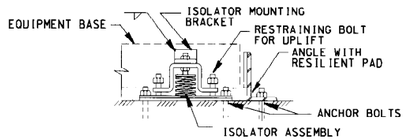
EQUIPMENT RESTRAINT DETAIL (4)



EQUIPMENT SUSPENSION DETAIL (10)



TRANSVERSE SWAY BRACING DETAIL (2)



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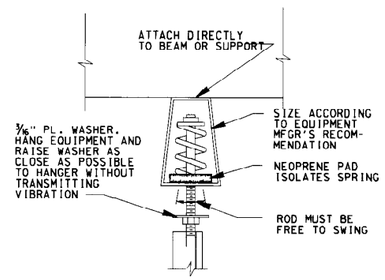
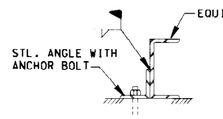
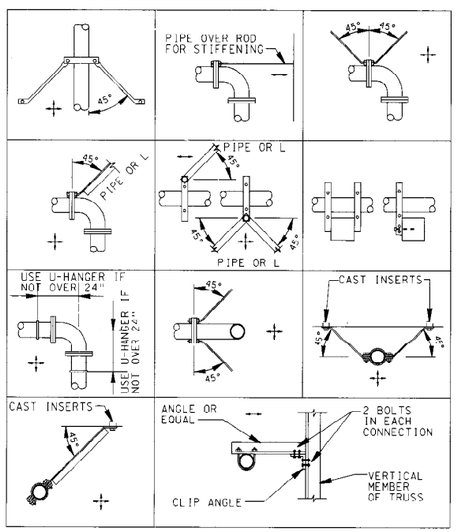


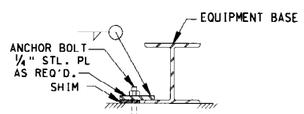
EQUIPMENT SUSPENSION DETAIL (9 M13)



EQUIPMENT BRACE DETAIL (6)



TRANSVERSE SWAY BRACING DETAIL (3)



EQUIPMENT BRACE DETAIL (7)

GENERAL NOTES:

1. ALL MATERIAL, EQUIPMENT, ACCESSORIES AND CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THESE DETAILS AND THE PROJECT SPECIFICATIONS SECTION: SEISMIC PROTECTION FOR MECHANICAL AND ELECTRICAL EQUIPMENT.
2. ALL EQUIPMENT SHALL BE SECURED SO AS TO PREVENT LATERAL MOVEMENT DUE TO AN EARTHQUAKE. FRICTION SHALL NOT BE CONSIDERED AS A MEANS OF RESTRAINT. RESTRAINTS SHALL BE IN ACCORDANCE WITH OPERATING WEIGHTS.
3. THE PROJECT SPECIFICATIONS SECTION LISTS EXCLUSIONS FOR PIPING AND DUCTWORK INSTALLATIONS FOR WHICH SEISMIC RESTRAINTS MAY BE OMITTED. ANY INSTALLATION WHICH IS NOT SPECIFICALLY INCLUDED SHALL HAVE SEISMIC RESTRAINTS.
4. DETAILS SHOWN PROVIDE A LATERAL SEISMIC BRACING SYSTEM FOR DUCTWORK, PIPING, AND EQUIPMENT WHICH IS IN ADDITION TO VERTICAL SUPPORT SYSTEMS REQUIRED BY THE DRAWINGS AND PROJECT SPECIFICATIONS. HOWEVER, WHERE SEISMIC BRACING OCCURS, A VERTICAL BRACE MAY TAKE THE PLACE OF A VERTICAL SUPPORT.
5. EQUIPMENT WHICH IS RIGIDLY MOUNTED OR MOUNTED ON NEOPRENE PADS SHALL BE SECURED TO THE FLOOR WITH ANCHOR BOLTS AS LISTED IN THE PROJECT SPECIFICATIONS SECTION. IF EQUIPMENT IS MOUNTED ON NEOPRENE PADS, ANCHOR BOLT SHALL BE ISOLATED FROM EQUIPMENT BY A NEOPRENE SLEEVE AND WASHER.
6. SPRING MOUNTED EQUIPMENT ON THE GROUND SHALL BE SECURED USING SEISMIC SPRING ISOLATORS. ISOLATORS SHALL WITHSTAND 5g VERTICAL AND HORIZONTAL ALL-DIRECTIONAL LOAD AND SHALL BE SIZED AS PER EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. EQUIPMENT SHALL BE LATERALLY BRACED USING THE METHOD SHOWN IN DETAILS NO. 4 THRU NO. 7 ON THIS SHEET.
7. SUSPENDED EQUIPMENT SHALL BE LATERALLY BRACED, WHETHER RIGIDLY MOUNTED OR SPRING MOUNTED, AS SHOWN IN DETAILS NO. 9 AND NO. 10.
8. FOR DUCTS REQUIRING SEISMIC BRACING, THE FREQUENCY SHALL BE AS FOLLOWS: TRANSVERSE BRACING SHALL BE INSTALLED AT EACH DUCT TURN, AT EACH END OF A DUCT RUN, AND ON STRAIGHT DUCT RUNS AT 30'-0" O.C. MAXIMUM. LONGITUDINAL BRACING SHALL OCCUR AT INTERVALS OF 60'-0" MAXIMUM. TRANSVERSE BRACING FOR ONE DUCT SECTION MAY ALSO ACT AS LONGITUDINAL BRACING FOR A DUCT SECTION CONNECTED PERPENDICULAR TO IT, PROVIDED THE BRACING IS INSTALLED WITHIN FOUR FEET OF THE INTERSECTION AND IS SIZED FOR THE LARGER DUCT.
9. INSTALLATION OF SEISMIC BRACING FOR DUCTS SHALL BE IN ACCORDANCE WITH DETAIL NO. 1 AND SCHEDULE "A" ON THIS SHEET.
10. WALLS, INCLUDING GYP-BOARD NON-BEARING PARTITIONS, WHICH HAVE DUCTS PASSING THROUGH THEM MAY REPLACE A TYPICAL TRANSVERSE SEISMIC BRACE.
11. THE INTERVAL BETWEEN TRANSVERSE SWAY BRACES ON PIPING SHALL NOT EXCEED THE LIMITS GIVEN IN TABLE II OF THE PROJECT SPECIFICATIONS SECTION. BRACING SHALL BE IN ACCORDANCE WITH SCHEDULE "B" ON THIS SHEET.
12. PROVIDE SEISMIC BRACES ON ALL PIPING 2 1/2" AND LARGER.
13. TRANSVERSE BRACING FOR ONE PIPE SECTION MAY ALSO ACT AS LONGITUDINAL BRACING FOR A BRANCH PIPE SECTION CONNECTED PERPENDICULAR TO IT, PROVIDED THE BRACING IS LOCATED WITHIN 24" OF THE ELBOW OR TEE AND IT IS SIZED FOR THE LARGER PIPE.
14. BRANCH SECTIONS SHALL NOT BE USED AS BRACING FOR MAIN PIPE SECTIONS.
15. FLEXIBLE COUPLINGS SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS SECTION AT THE BOTTOM OF RISERS LARGER THAN 3 1/2" INSIDE DIAMETER. FLEXIBLE COUPLINGS SHALL ALSO BE PROVIDED WHERE PIPES PASS THROUGH BUILDING SEISMIC OR EXPANSION JOINTS, OR WHERE PIPES ARE RIGIDLY CONNECTED TO EQUIPMENT.
16. WHERE PRACTICAL TO DO SO, DUCTS AND PIPES NOT REQUIRING SEISMIC BRACING SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 6" TO VERTICAL SUSPENDED CEILING HANGER WIRES.
17. PLACE STANDARD CUT LOCKWASHERS BETWEEN NUT AND ANGLE ON ALL BOLTED CONNECTIONS.
18. ALL STEEL USED FOR BRACING SHALL BE Fy = 33 ksi.
19. BETWEEN PANEL POINTS OF STEEL JOISTS, THE BOTTOM CHORD SHALL NOT SUPPORT OVER 50 LBS. WITHOUT ADEQUATE REINFORCING OF THE BOTTOM CHORD. NO VERTICAL LOAD SHALL BE IMPOSED ON JOIST BRIDGING.

SCHEDULE "A" - BRACING OF RECTANGULAR DUCTS

	VERTICAL ANGLES	DIAGONAL ANGLES	HORIZONTAL ANGLES	LONGITUDINAL ANGLES	BOLT SIZE **	WT. PER LINEAR FOOT
30" SQ.	2 1/2"x2 1/2"x16GA	2 1/2"x2 1/2"x16 GA	2x2x16 GA	3x3x16 GA	1/4"ø	13
42" SQ.	4x4x16 GA	2 1/2"x2 1/2"x16 GA	2 1/2"x2 1/2"x16 GA	DO	3/8"ø	20
54" SQ.	4x4x12 GA	2 1/2"x2 1/2"x16 GA	2 1/2"x2 1/2"x16 GA	DO	3/8"ø	27
60" SQ.	4x4x12 GA	3x3x16 GA	3x3x16 GA	DO	3/8"ø	36
84" SQ.	4x4x1/4	4x4x14 GA	4x4x14 GA	DO	3/8"ø	53
96" SQ.	5x3x1/4	4x4x12 GA	4x4x12 GA	DO	1/2"ø	30

* MAXIMUM DIMENSION OF DUCT SHALL GOVERN WHAT BRACING IS REQUIRED.
EX: A 42"x32" DUCT SHALL BE BRACED AS A 42" SQUARE DUCT.

** MINIMUM EDGE DISTANCE FOR BOLTS:
1/4"ø - 1" 5/8"ø - 1 1/8"
3/8"ø - 1" 3/4"ø - 1 1/4"
1/2"ø - 1" 7/8"ø 1 1/2"

SCHEDULE "B" - TRANSVERSE BRACING FOR PIPE

PIPE SIZE (IN.)	BOLTS TO ANGLE	LONGITUDINAL TRANSVERSE, & VERTICAL ANGLES	ROD DIAMETER (IN.)	MAXIMUM ROD LENGTH	MAXIMUM INTERVAL OF BRACES (FT.) 40-S STEEL OR CAST IRON	COPPER TUBE
1	3/8"	1 1/2x1 1/2x3/16	3/8"	19"	24.2	12.1
1 1/4	3/8"	1 1/2x1 1/2x3/16	3/8"	19"	24.2	12.1
1 1/2	3/8"	1 1/2x1 1/2x3/16	3/8"	19"	27.5	13.2
2	3/8"	1 1/2x1 1/2x3/16	1/2	25"	31.9	15.4
2 1/2	3/8"	2x2x3/16	1/2	25"	35.2	16.5
3	3/8"	2x2x3/16	1/2	25"	37.4	18.7
3 1/2	3/8"	2x2x3/16	1/2	25"	39.6	19.8
4	3/8"	2x2x3/16	5/8	31"	42.9	20.9
5	1/2"	2x2x3/16	5/8	31"	45.1	22.0
6	1/2"	2x2x3/16	3/4	37"	49.5	24.2
8	1/2"	2 1/2x2 1/2x1/4	7/8	43"	53.9	28.6
10	1/2"	3x3x1/4	7/8	43"	59.4	30.8

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: F.E. DIXON
Drawn by: W.L. MERCER
Checked by: J.E. Flanning
Reviewed by: K.J. Cox
Approved by: Larry A. Smith

US Army Corps of Engineers
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

SEISMIC DETAILS

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: M-13
Sheet 79 of 107

RECORD DRAWING "AS BUILT"

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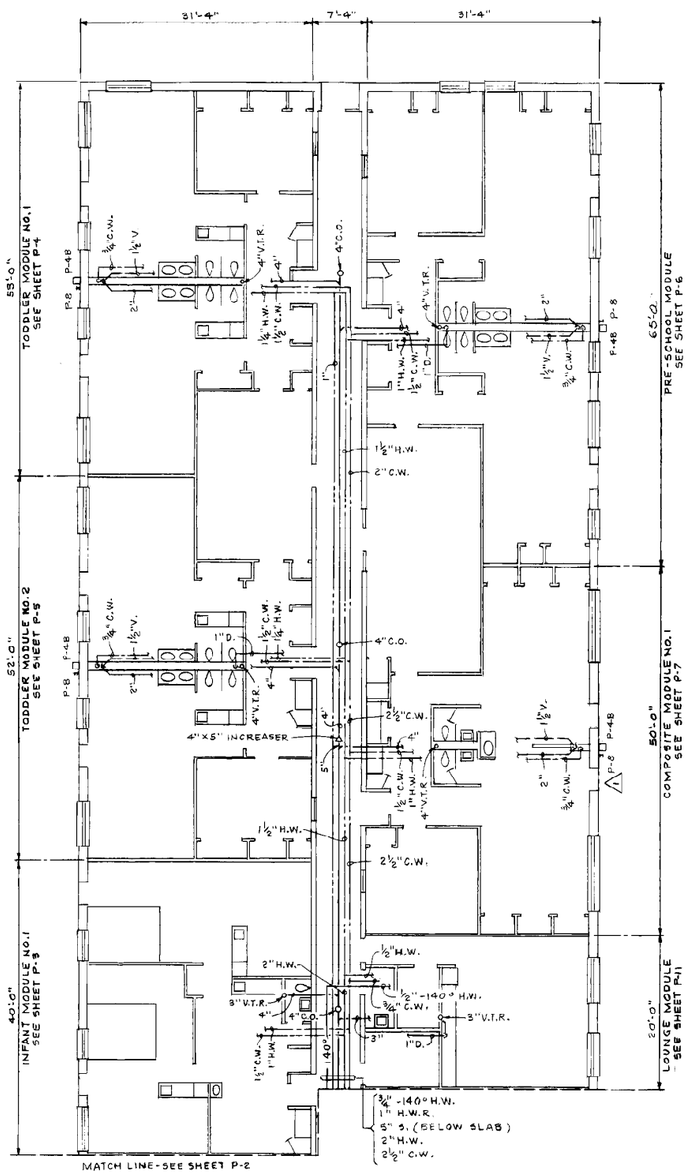
USER = WANDAM



PARTIAL PLUMBING PLAN-BUILDING "A"

(BUILDING "B" OPPOSITE HAND)

PLUMBING FIXTURE SCHEDULE

P-NO.	TYPE FIXTURE	C.W.	H.W.	W.	REMARKS
P-1	WATER CLOSET FLOOR MOUNTED FLUSH VALVE STANDARD, 15" HEIGHT	1"	—	3"	SEE SPECIFICATIONS
P-1A	WATER CLOSET FLOOR MOUNTED FLUSH VALVE HANDICAPPED, 18" HEIGHT	1"	—	3"	
P-1B	WATER CLOSET FLOOR MOUNTED FLUSH VALVE PEDIATRIC, 13" HIGH	1"	—	3"	
P-1C	WATER CLOSET FLOOR MOUNTED FLUSH VALVE PEDIATRIC, 10" HIGH	1"	—	3"	
P-2	CHILDREN'S LAVATORY COUNTERTOP, DEEP OVAL VITREOUS-CHINA W/AUTO SHUT-OFF FAUCETS	½"	½" 110°F	1¼"	
P-2A	ADULT LAVATORY WALL HUNG STANDARD FAUCETS	½"	½" 110°F	1¼"	
P-2B	ADULT LAVATORY COUNTERTOP, OVAL HANDICAPPED, GOOSENECK W/WRIST BLADE HANDLES	½"	½" 110°F	1¼"	
P-2C	CHILDREN'S LAVATORY WALL HUNG VITREOUS-CHINA W/AUTO SHUT-OFF FAUCETS	½"	½" 110°F	1¼"	
P-3	TODDLER CHANGE SINK DEEP COUNTERTOP STAINLESS STEEL BOWL GOOSENECK & SPRAY HOSE FAUCETS W/WRIST BLADE HANDLES	½"	½" 110°F	1½"	
P-3A	KITCHENETTE UNIT SINK SINGLE COMPARTMENT STAINLESS STEEL BOWL	½"	½" 110°F	1½"	
P-3B	HAND SINK, SINGLE COMPARTMENT STANDARD FAUCETS WALL HUNG	½"	½" 140°F	1½"	
P-4	BUBBLER DRINKING FOUNTAIN PUSH BUTTON, GUARDED ANGULAR STREAM HEAD	½"	—	INTO LAV.	
P-4A	ELECTRIC WATER COOLER STANDARD HEIGHT WALL HUNG	½"	—	1¼"	
P-4B	DRINKING FOUNTAIN WALL HUNG CHILD HEIGHT EXTERIOR, NON-FREEZE TYPE, GUARDED ANGULAR STREAM HEAD	½"	—	1¼"	
P-4C	ELECTRIC WATER COOLER HANDICAPPED HEIGHT WALL HUNG	½"	—	1¼"	
P-5	WASHING MACHINE CONNECTOR BOX, PVC	½"	½" 170°F	2"	
P-6	LAUNDRY SINK SINGLE COMPARTMENT MOULDED STONE FREE STANDING	½"	½" 140°F	1½"	
P-7	SERVICE SINK ENAMELED CAST IRON STEEL RIM GUARD FLOOR MOUNTED	½"	½" 140°F	3"	
P-8	WALL HYDRANT (HOSE BIBB) NON-FREEZE TYPE	¾"	—	—	

NOTES:

1. FOR FIXTURE MOUNTING HEIGHT AND COUNTERTOP HEIGHT, SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
2. ALL HORIZONTAL VENT AND WATER PIPING TO BE RUN IN CEILING SPACE (BELOW INSULATION) UNLESS OTHERWISE NOTED.
3. MINIMUM SIZE LINES BELOW FLOOR SLAB TO BE 2" FOR DRAIN LINES, 2" FOR VENT LINES AND ¾" FOR WATER LINES.
4. ALL FLOOR DRAINS SHOWN TO BE INSTALLED NEAR TOILET PARTITIONS SHALL BE LOCATED AS REQUIRED TO CLEAR SUPPORTS FOR THE PARTITIONS. FOR LOCATIONS OF DRAINS, SEE ENLARGED MODULE PLANS AND ARCHITECTURAL PLANS.

PLUMBING LEGEND

SYMBOL	ABBR.	DESCRIPTION
	S.	SANITARY PIPING
	V.	SANITARY VENT PIPING
	C.W.	DOMESTIC COLD WATER PIPING
	H.W.	DOMESTIC HOT WATER PIPING 110°F
140°		DOMESTIC HOT WATER PIPING 140°F
170°		DOMESTIC HOT WATER PIPING 170°F
	H.W.R.	HOT WATER RETURN PIPING (110°F)
	C.O.	CLEANOUT
	G.V.	GATE VALVE
	C.V.	CHECK VALVE
		INCREASER
	F.D.	FLOOR DRAIN
		HOSE BIBB
D	D.	DRAIN
		BACKFLOW PREVENTER
		TRAP PRIMER
P		PRIMER LINE
	A.H.U	AIR HANDLING UNIT
	V.T.R.	VENT THRU ROOF
	W.&V.	WASTE & VENT
	W.H.A.	WATER HAMMER ARRESTOR

FLOOR DRAIN SCHEDULE

FD-NO.	PIPE SIZE	TYPE	LOCATION
FD-1	3"	REMOVABLE BASKET	LAUNDRY ROOM TOILET ROOM
FD-2	2"	SIGHT DRAIN	MECHANICAL ROOM KITCHEN ROOM
FD-3	4"	REMOVABLE BASKET HEAVY DUTY GRATE DEEP SEAL P-TRAP	MECHANICAL ROOM
FD-4	4"	RECESSED GRATE ANTI-SPLASH DEEP SEAL P-TRAP	KITCHEN ROOM STORAGE ROOM

GRAPHIC SCALE

1/8"=1'-0" 0' 5' 10' 15' 20'

Revisions

Symbol	Descriptions	Date	Approved
1	DOOR ADDED (AMDT. #0003)	31 AUG.90	R.L. Ferguson

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: J. D. J.
Drawn by: J. D. J.
Checked by: F. C. Dupon
Reviewed by: K. G. Cox
Approved by: Larry L. Martin

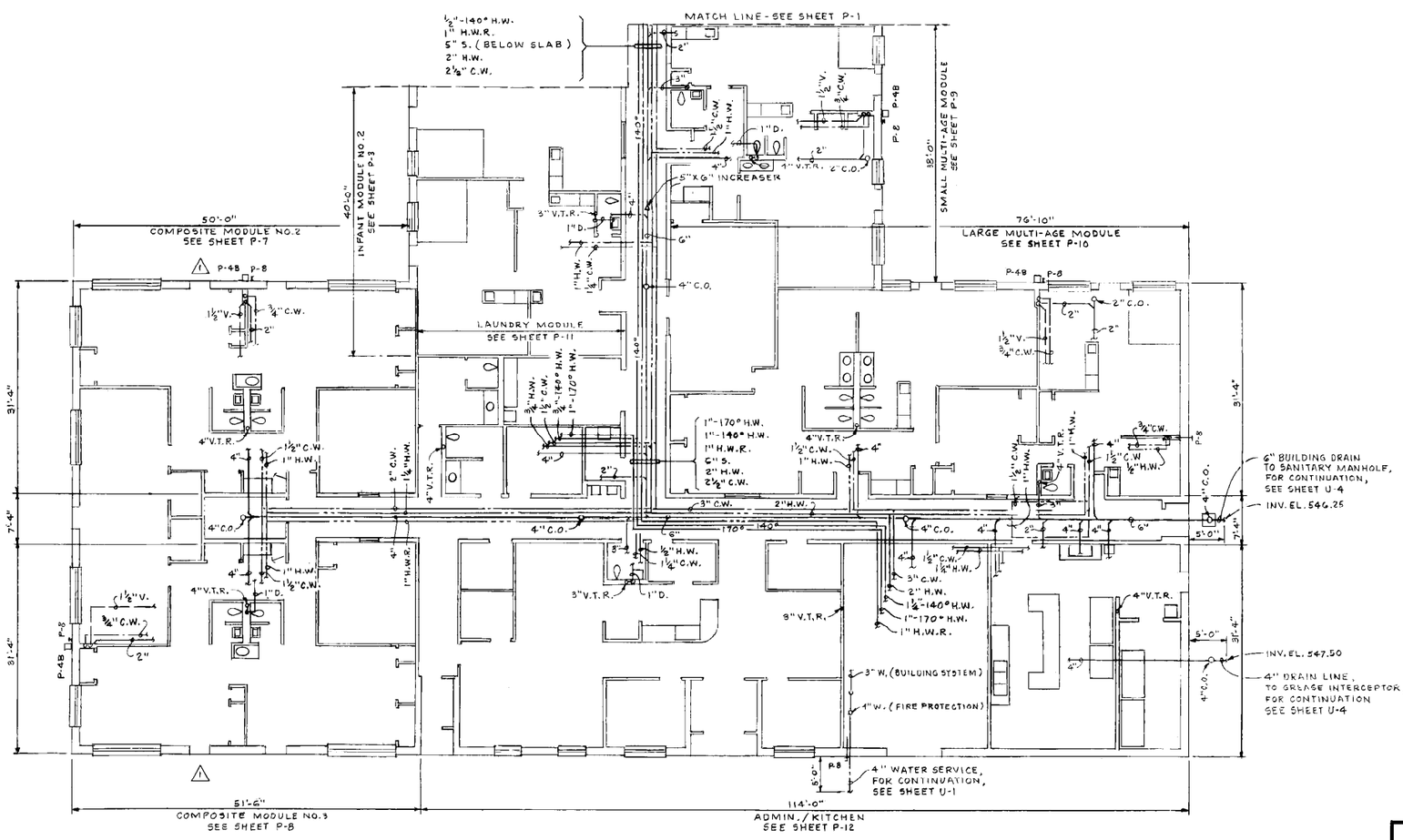
US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS-303 CHILDREN
PN 380 FY 90

PLUMBING
PARTIAL DISTRIBUTION PLAN AND SCHEDULES

Scale: 1/8"=1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: P-1
Sheet 80 of 107

RECORD DRAWING "AS BUILT"



PARTIAL PLUMBING PLAN-BUILDING "A"

(BUILDING "B" OPPOSITE HAND)

NOTES:

1. FOR FIXTURE MOUNTING HEIGHT AND COUNTERTOP HEIGHT, SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
2. ALL HORIZONTAL VENT AND WATER PIPING TO BE RUN IN CEILING SPACE (BELOW INSULATION) UNLESS OTHERWISE NOTED.
3. FOR PLUMBING FIXTURE SCHEDULE AND PLUMBING LEGEND, SEE SHEET P-1.

GRAPHIC SCALE

1/8"=1'-0" 0 1' 5' 10' 15' 20'

Revisions			
Symbol	Descriptions	Date	Approved
1	DOORS ADDED (AMDT. #0003)	31 AUG.90	RJC JEC

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

US Army Corps of Engineers

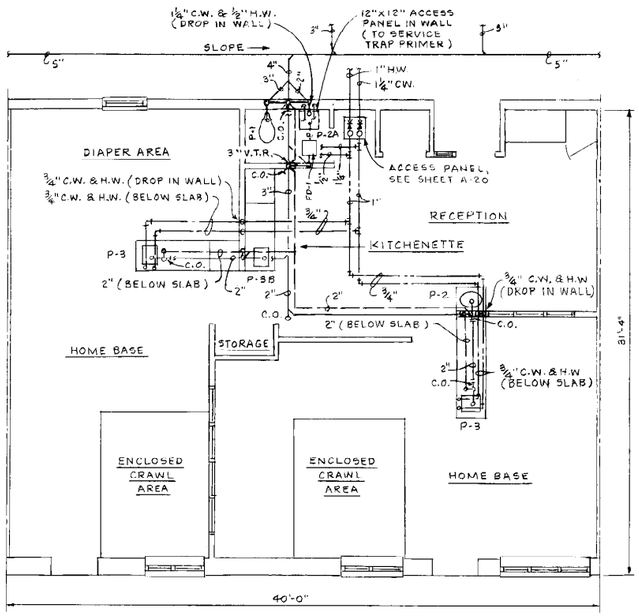
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS-303 CHILDREN
PN 380 FY 90

PLUMBING
PARTIAL DISTRIBUTION PLAN

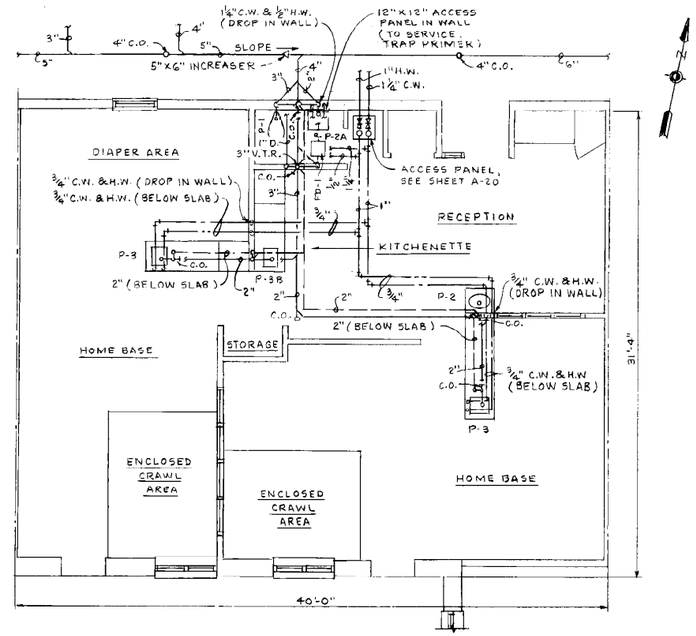
Designed by: J.D.J.
Drawn by: J.D.J.
Checked by: F.E. Dixon
Reviewed by: R.J. Cox
Approved by: Larry L. Mack

Scale: 1/8" = 1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: P-2
Sheet 81 of 107

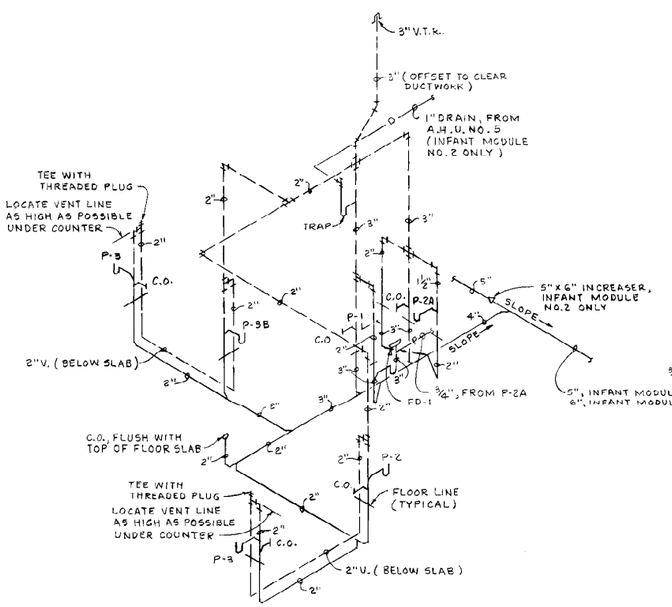
RECORD DRAWING "AS BUILT"



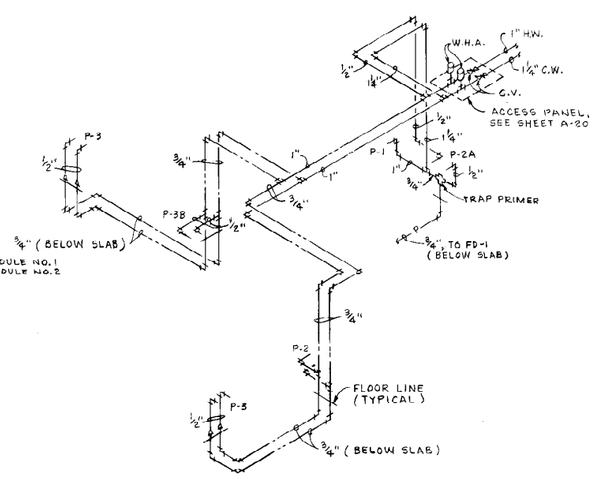
PLUMBING PLAN - BUILDING "A"
(BUILDING "B" OPPOSITE HAND)
INFANT MODULE NO. 1
SCALE: ¼" = 1'-0"



PLUMBING PLAN - BUILDING "A"
(BUILDING "B" OPPOSITE HAND)
INFANT MODULE NO. 2
SCALE: ¼" = 1'-0"



SOIL, WASTE & VENT RISER DIAGRAM
SCALE: NONE



HOT & COLD WATER RISER DIAGRAM
SCALE: NONE

NOTES:

1. FOR FIXTURE MOUNTING HEIGHT AND COUNTERTOP HEIGHT, SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
2. ALL HORIZONTAL VENT AND WATER PIPING TO BE RUN IN CEILING SPACE (BELOW INSULATION) UNLESS OTHERWISE NOTED.
3. FOR PLUMBING FIXTURE SCHEDULE AND PLUMBING LEGEND, SEE SHEET P-1.
4. FOR DETAIL OF AIR HANDLING UNIT DRAIN CONNECTION, SEE SHEET P-13.

GRAPHIC SCALE
¼" = 1'-0" 0 1' 5' 10'

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: J. D. J.
Drawn by: J. D. J.
Checked by: F.C. Dixon
Reviewed by: R. J. Cox
Approved by: Larry A. Martin

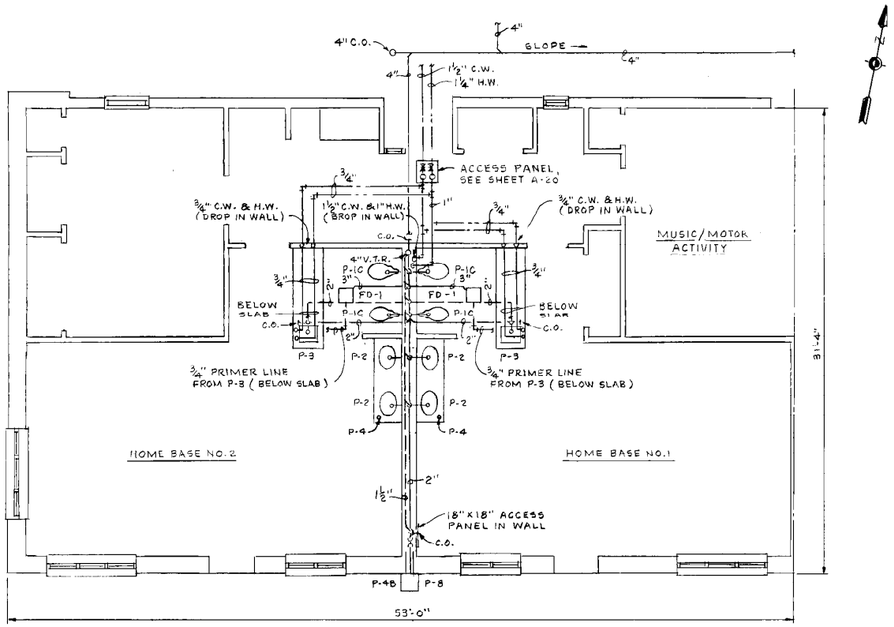
US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS-50 CHILDREN
PN 380 FY 90

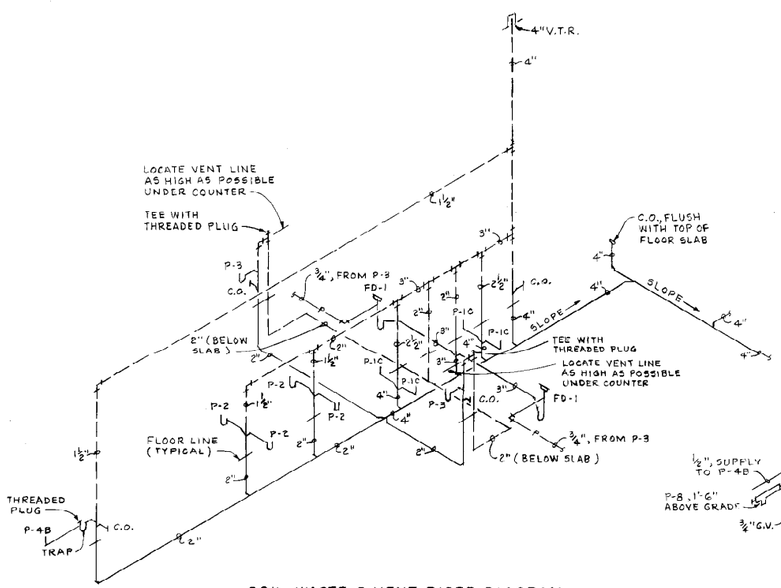
PLUMBING
INFANT MODULES NOS. 1 & 2

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: P-3
Sheet 82 of 117

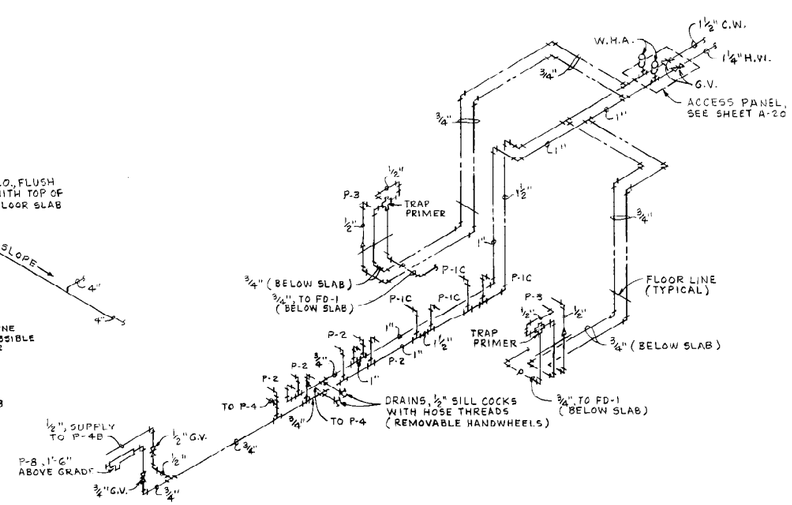
RECORD DRAWING "AS BUILT"



PLUMBING PLAN - BUILDING "A"
(BUILDING "B" OPPOSITE HAND)
TODDLER MODULE NO. 1
SCALE: ¼" = 1'-0"



SOIL, WASTE & VENT RISER DIAGRAM
SCALE: NONE



HOT & COLD WATER RISER DIAGRAM
SCALE: NONE

GRAPHIC SCALE
¼" = 1'-0" 0 1' 5' 10'

NOTES:

1. FOR FIXTURE MOUNTING HEIGHT AND COUNTERTOP HEIGHT, SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
2. ALL HORIZONTAL VENT AND WATER PIPING TO BE RUN IN CEILING SPACE (BELOW INSULATION) UNLESS OTHERWISE NOTED.
3. FOR PLUMBING FIXTURE SCHEDULE AND PLUMBING LEGEND, SEE SHEET P-1.

Revisions			
Symbol	Descriptions	Date	Approved

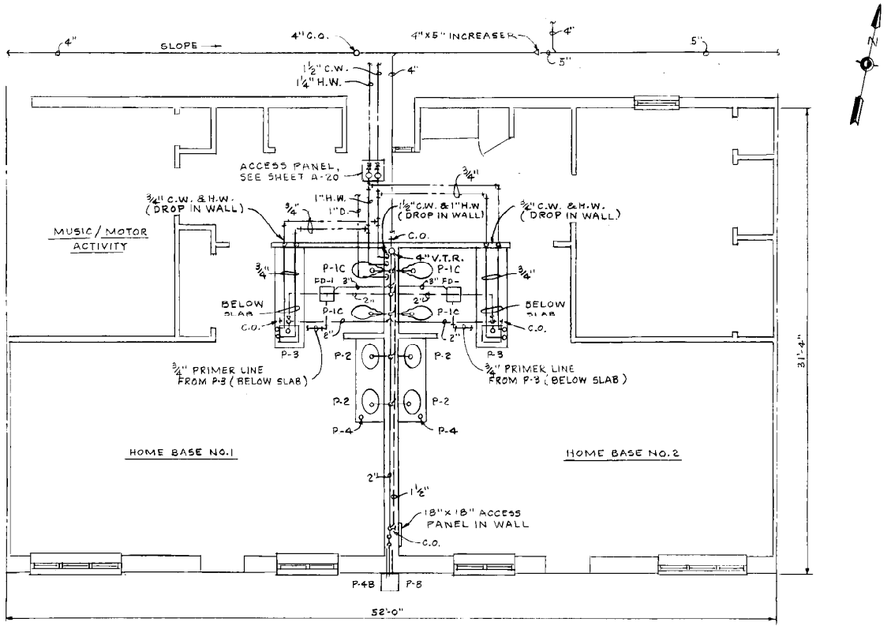
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
US Army Corps of Engineers
CHILD DEVELOPMENT CENTERS-TOT CHILDREN
PN 330 FY 90

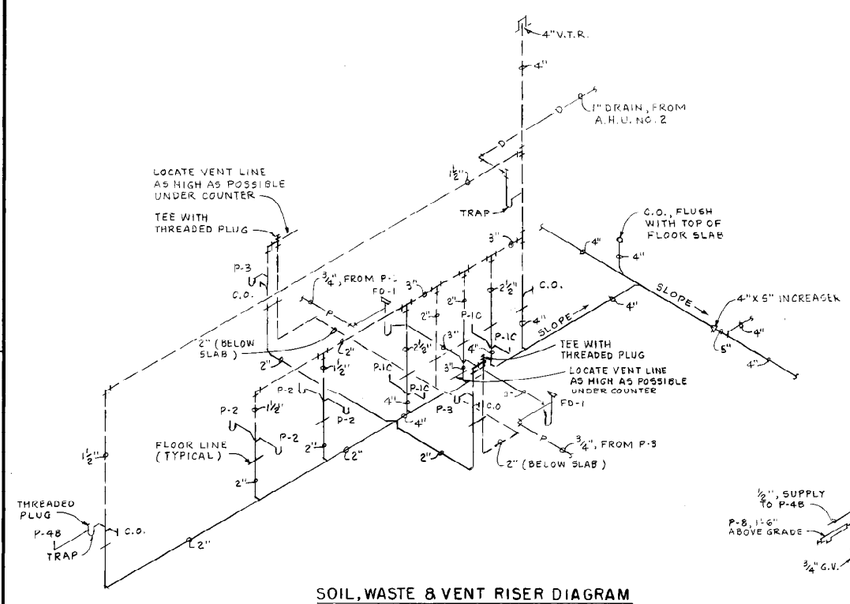
PLUMBING
TODDLER MODULE NO. 1

Designed by: J.D.J.	Scale: AS SHOWN
Drawn by: J.D.J.	Date: MAY 1990
Checked by: T.C. Dyson	Drawing Code: F-740-14-05
Reviewed by: R.H. Cox	Sheet reference number: P-4
Approved by: Lloyd Martin	Sheet 33 of 107

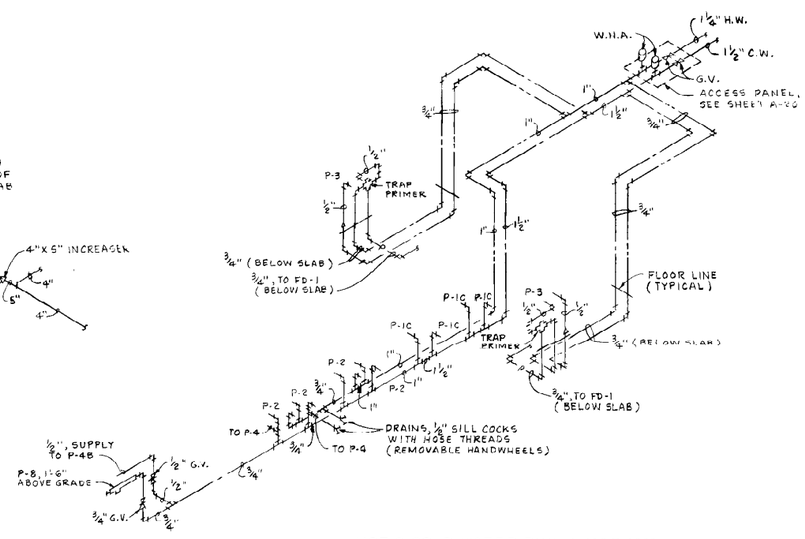
RECORD DRAWING "AS BUILT"



PLUMBING PLAN-BUILDING "A"
(BUILDING "B" OPPOSITE HAND)
TODDLER MODULE NO.2
SCALE: ¼"=1'-0"



SOIL, WASTE & VENT RISER DIAGRAM
SCALE: NONE



HOT & COLD WATER RISER DIAGRAM
SCALE: NONE

NOTES:

1. FOR FIXTURE MOUNTING HEIGHT AND COUNTERTOP HEIGHT, SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
2. ALL HORIZONTAL VENT AND WATER PIPING TO BE RUN IN CEILING SPACE (BELOW INSULATION) UNLESS OTHERWISE NOTED.
3. FOR PLUMBING FIXTURE SCHEDULE AND PLUMBING LEGEND, SEE SHEET P-1.
4. FOR DETAIL OF AIR HANDLING UNIT DRAIN CONNECTION, SEE SHEET P-13.

GRAPHIC SCALE
¼"=1'-0" 0 1' 5' 10'

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

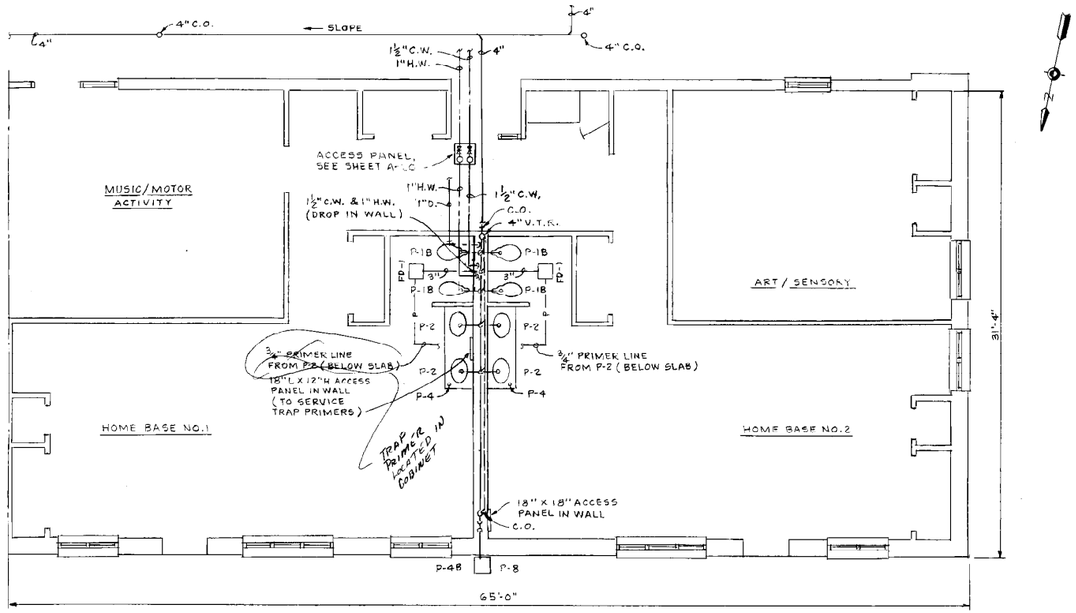
Designed by: J.D.J.
Drawn by: J.D.J.
Checked by: F.C. Bryson
Reviewed by: R.J. Cox
Approved by: [signature]

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS-305 CHILDREN
PN 350 FY 90

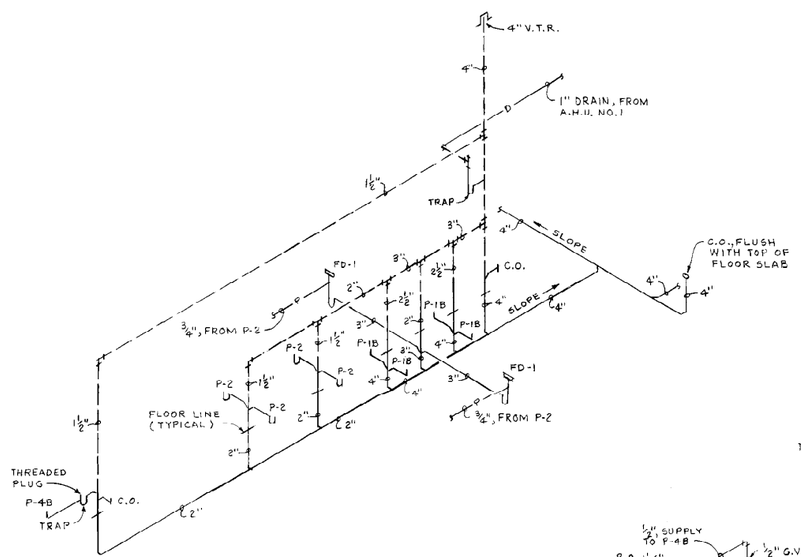
PLUMBING
TODDLER MODULE NO.2

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: P-5
Sheet 34 of 107

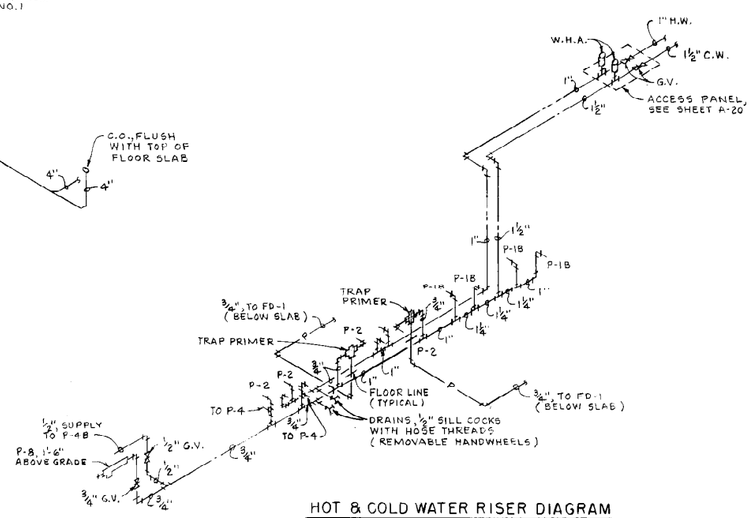
RECORD DRAWING "AS BUILT"



PLUMBING PLAN - BUILDING "A"
(BUILDING "B" OPPOSITE HAND)
PRE-SCHOOL MODULE
SCALE: ¼" = 1'-0"



SOIL, WASTE & VENT RISER DIAGRAM
SCALE: NONE



HOT & COLD WATER RISER DIAGRAM
SCALE: NONE

NOTES:

1. FOR FIXTURE MOUNTING HEIGHT AND COUNTERTOP HEIGHT, SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
2. ALL HORIZONTAL VENT AND WATER PIPING TO BE RUN IN CEILING SPACE (BELOW INSULATION) UNLESS OTHERWISE NOTED.
3. FOR PLUMBING FIXTURE SCHEDULE AND PLUMBING LEGEND, SEE SHEET P-1.
4. FOR DETAIL OF AIR HANDLING UNIT DRAIN CONNECTION, SEE SHEET P-13.

GRAPHIC SCALE
¼" = 1'-0" 0 1' 5' 10'

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

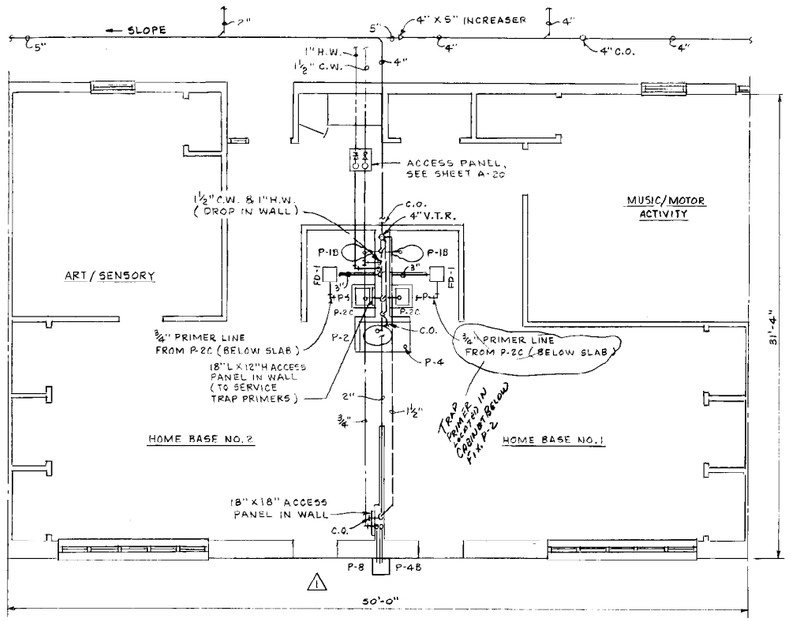
US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS-30 CHILDREN
PN 380 FY 90

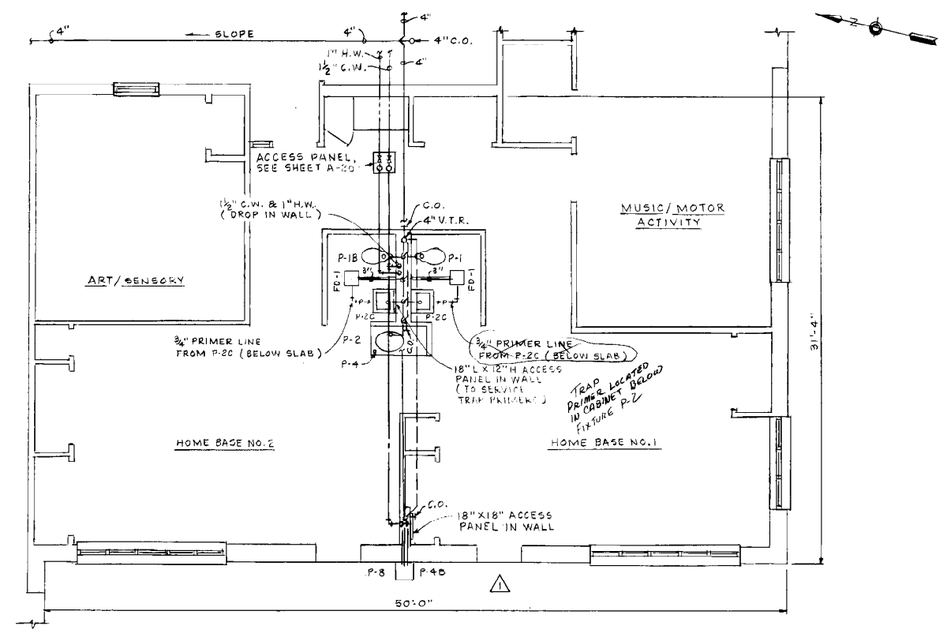
PLUMBING
PRE-SCHOOL MODULE

Designed by: J.D.J.	Scale: AS SHOWN
Drawn by: J.D.J.	Date: MAY 1990
Checked by: F.E. Piper	Drawing Code: F-740-14-05
Reviewed by: K.J. Cox	Sheet reference number: P-6
Approved by:	Sheet 85 of 107

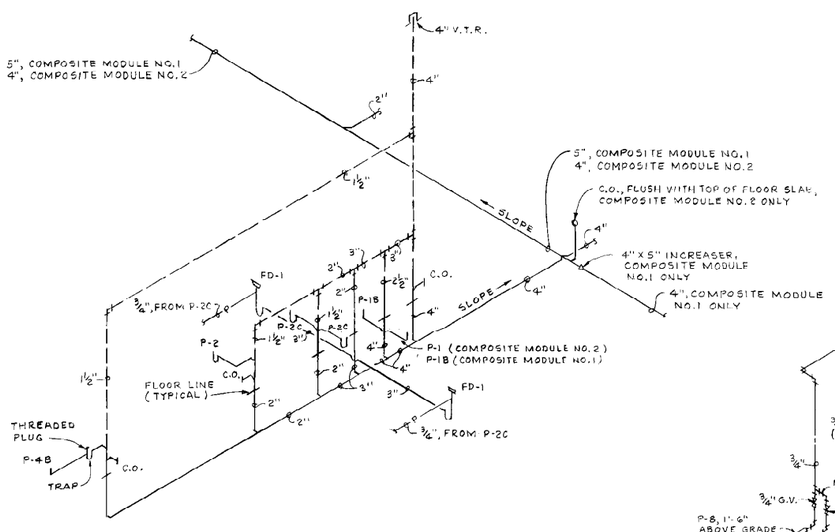
RECORD DRAWING "AS BUILT"



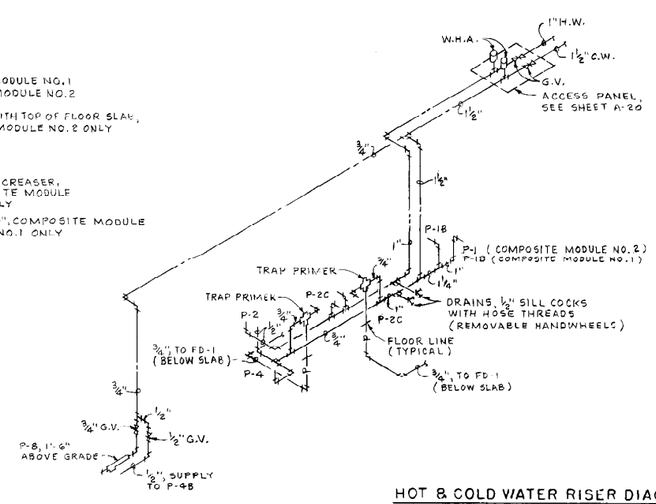
PLUMBING PLAN - BUILDING "A"
(BUILDING "B" OPPOSITE HAND)
COMPOSITE MODULE NO. 1
SCALE: ¼" = 1'-0"



PLUMBING PLAN - BUILDING "A"
(BUILDING "B" OPPOSITE HAND)
COMPOSITE MODULE NO. 2
SCALE: ¼" = 1'-0"



SOIL, WASTE & VENT RISER DIAGRAM
SCALE: NONE



HOT & COLD WATER RISER DIAGRAM
SCALE: NONE

GRAPHIC SCALE
¼" = 1'-0" 0 1' 5' 10'

NOTES:

1. FOR FIXTURE MOUNTING HEIGHT AND COUNTERTOP HEIGHT, SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
2. ALL HORIZONTAL VENT AND WATER PIPING TO BE RUN IN CEILING SPACE (BELOW INSULATION) UNLESS OTHERWISE NOTED.
3. FOR PLUMBING FIXTURE SCHEDULE AND PLUMBING LEGEND, SEE SHEET P-1.

Revisions

Symbol	Descriptions	Date	Approved
1	DOORS ADDED (AMDT. #0003)	31 AUG 90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

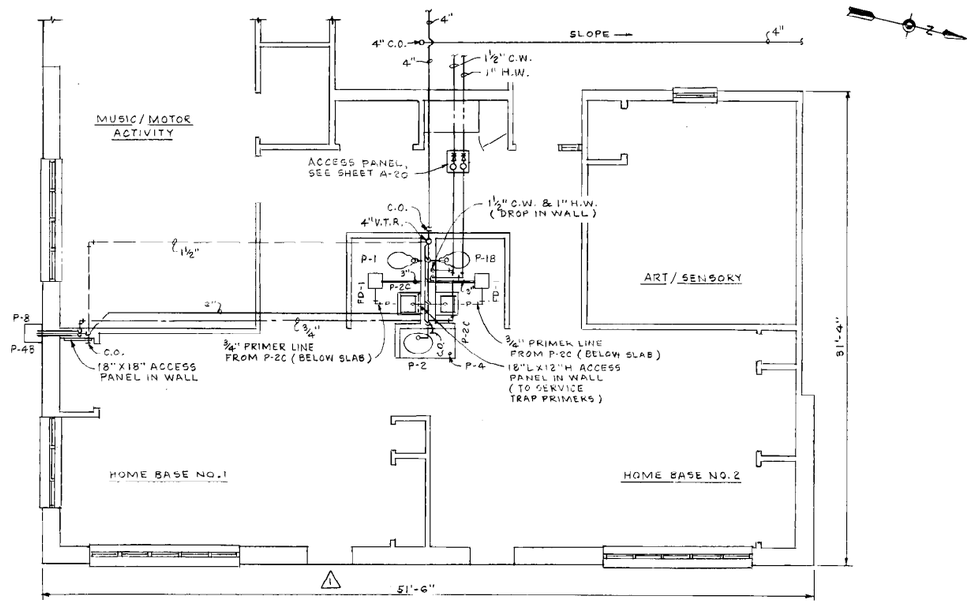
US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS-303 CHILDREN
PN 380 FY 90

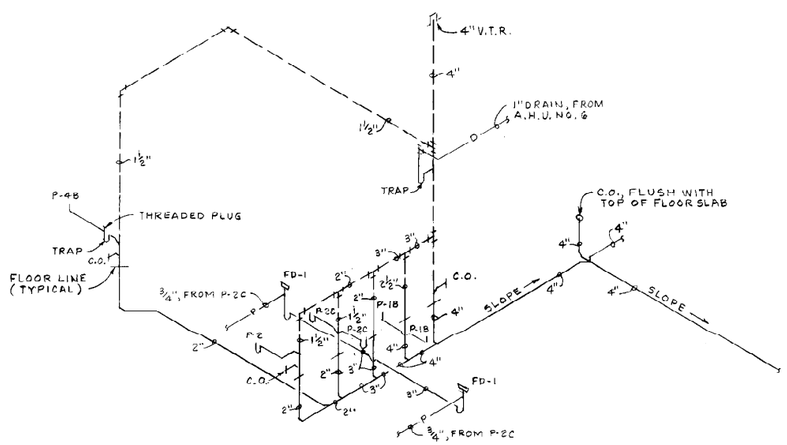
PLUMBING
COMPOSITE MODULES NOS. 1 & 2

Designed by: J.D.J.	Scale: AS SHOWN
Drawn by: J.D.J.	Date: MAY 1990
Checked by: F.E. Dixon	Drawing Code: F-740-14-05
Reviewed by: R.J. Cox	Sheet reference number: P-7
Approved by: Harry Ward	Sheet 86 of 107

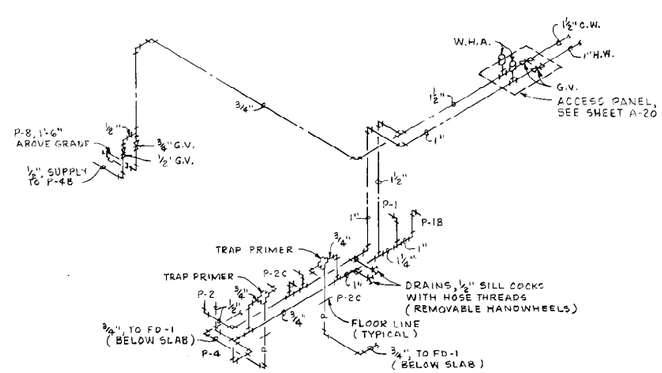
RECORD DRAWING "AS BUILT"



PLUMBING PLAN - BUILDING "A"
(BUILDING "B" OPPOSITE HAND)
COMPOSITE MODULE NO. 3
SCALE: ¼" = 1'-0"



SOIL, WASTE & VENT RISER DIAGRAM
SCALE: NONE



HOT & COLD WATER RISER DIAGRAM
SCALE: NONE

NOTES:

1. FOR FIXTURE MOUNTING HEIGHT AND COUNTERTOP HEIGHT, SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
2. ALL HORIZONTAL VENT AND WATER PIPING TO BE RUN IN CEILING SPACE (BELOW INSULATION) UNLESS OTHERWISE NOTED.
3. FOR PLUMBING FIXTURE SCHEDULE AND PLUMBING LEGEND, SEE SHEET P-1.
4. FOR DETAIL OF AIR HANDLING UNIT DRAIN CONNECTION, SEE SHEET P-13.

GRAPHIC SCALE ¼" = 1'-0" 0 1' 5' 10'

Revisions			
Symbol	Descriptions	Date	Approved
1	DOOR ADDED (AMDT. #0003)	31 AUG 90	JC

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

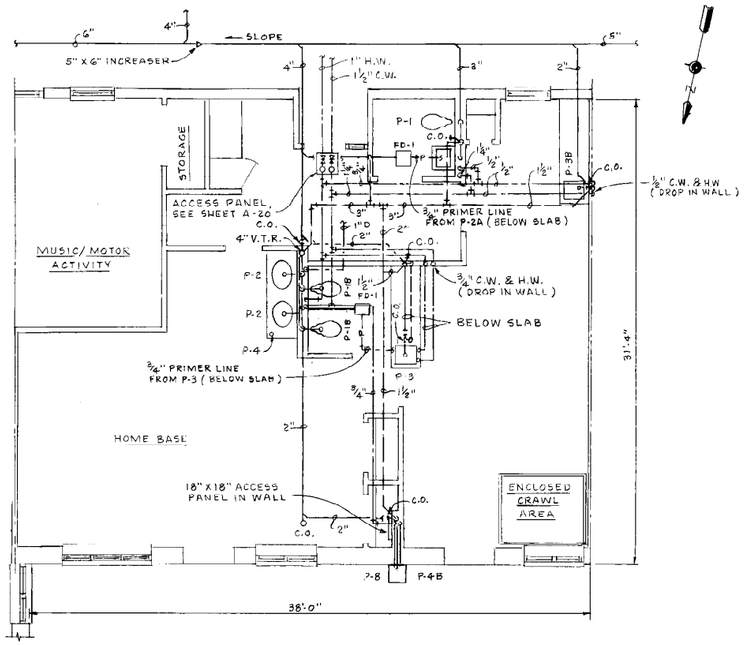
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS-303 CHILDREN
PN 380 FY 90

US Army Corps of Engineers

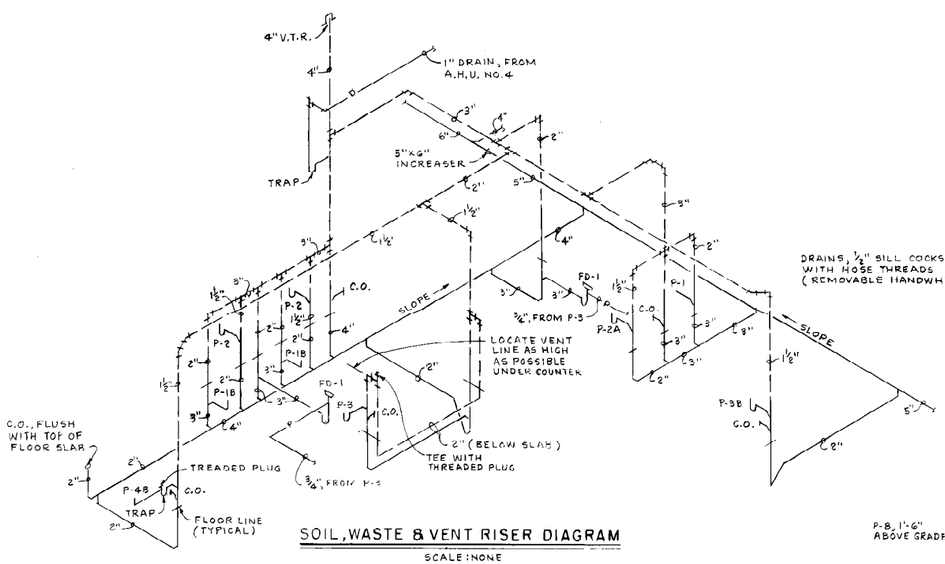
PLUMBING
COMPOSITE MODULE NO. 3

Designed by:	J. D. J.
Drawn by:	J. D. J.
Checked by:	F. E. Dixon
Reviewed by:	R. J. Cox
Approved by:	
Scale:	AS SHOWN
Date:	MAY 1990
Drawing Code:	F-740-14-05
Sheet reference number:	P-8
Sheet	87 of 107

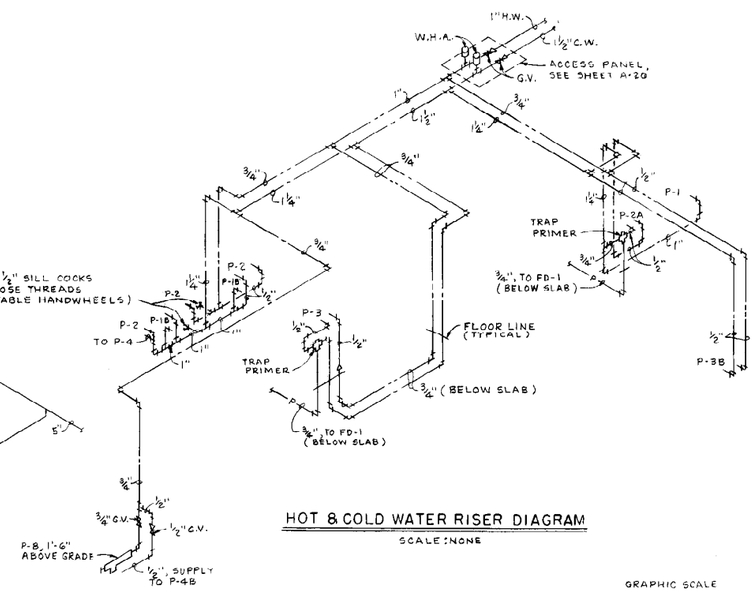
RECORD DRAWING "AS BUILT"



PLUMBING PLAN-BUILDING "A"
(BUILDING "B" OPPOSITE HAND)
SMALL MULTI-AGE MODULE
SCALE: 1/4" = 1'-0"



SOIL, WASTE & VENT RISER DIAGRAM
SCALE: NONE



HOT & COLD WATER RISER DIAGRAM
SCALE: NONE

GRAPHIC SCALE
1/4" = 1'-0" 0 1' 5' 10'

NOTES:

1. FOR FIXTURE MOUNTING HEIGHT AND COUNTERTOP HEIGHT, SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
2. ALL HORIZONTAL VENT AND WATER PIPING TO BE RUN IN CEILING SPACE (BELOW INSULATION) UNLESS OTHERWISE NOTED.
3. FOR PLUMBING FIXTURE SCHEDULE AND PLUMBING LEGEND, SEE SHEET P-1.
4. FOR DETAIL OF AIR HANDLING UNIT DRAIN CONNECTION, SEE SHEET P-13.

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS-303 CHILDREN
PN 350 FY 90

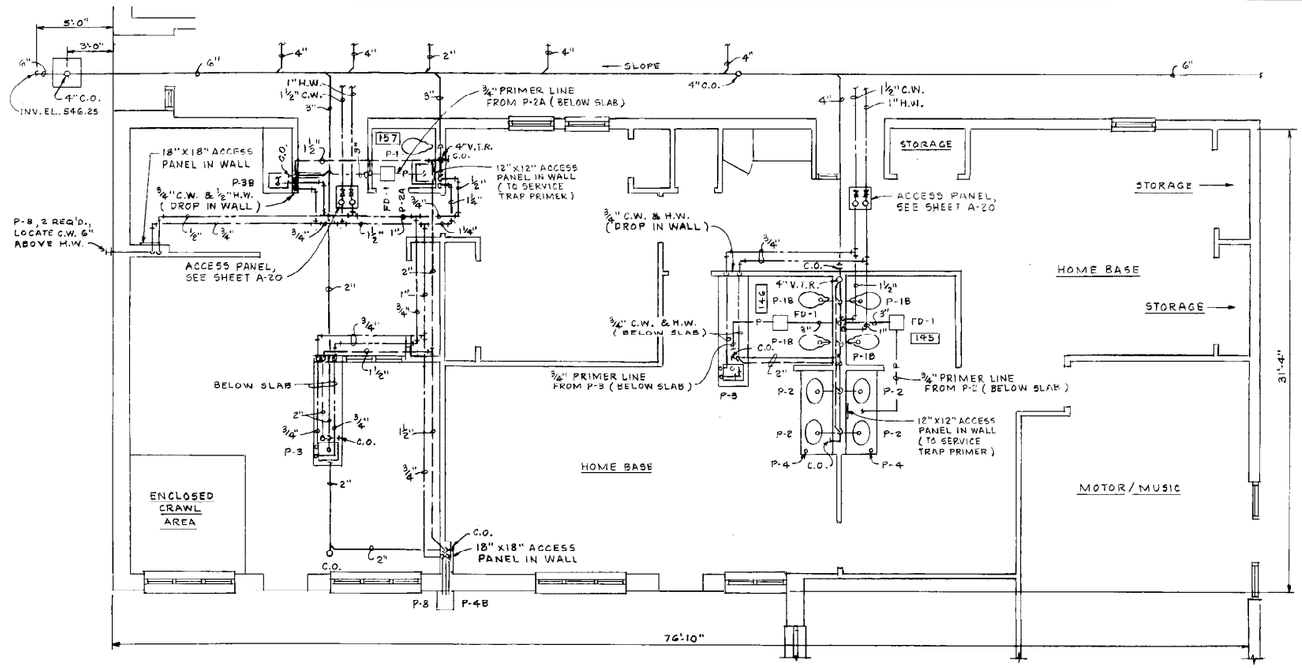
US Army Corps of Engineers

PLUMBING
SMALL MULTI-AGE MODULE

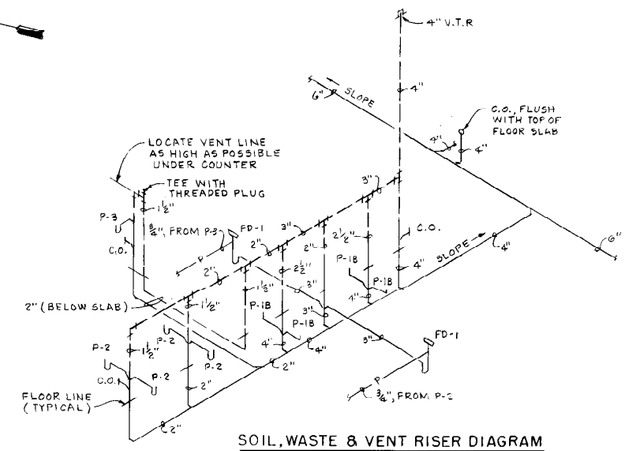
Designed by: J.D.J.
Drawn by: J.D.J.
Checked by: F.E. Dixon
Reviewed by: L.J. Cox
Approved by: Kenneth Martin

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: P-9
Sheet 88 of 107

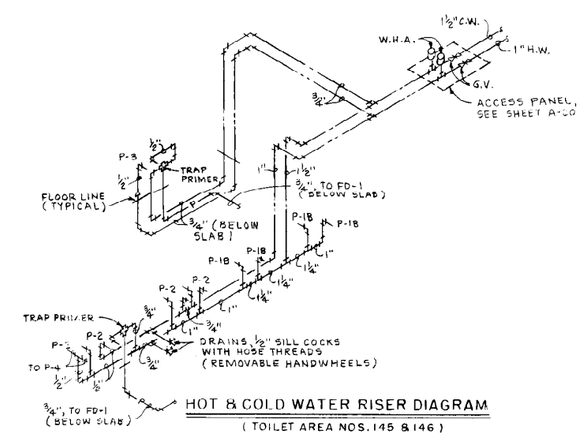
RECORD DRAWING "AS BUILT"



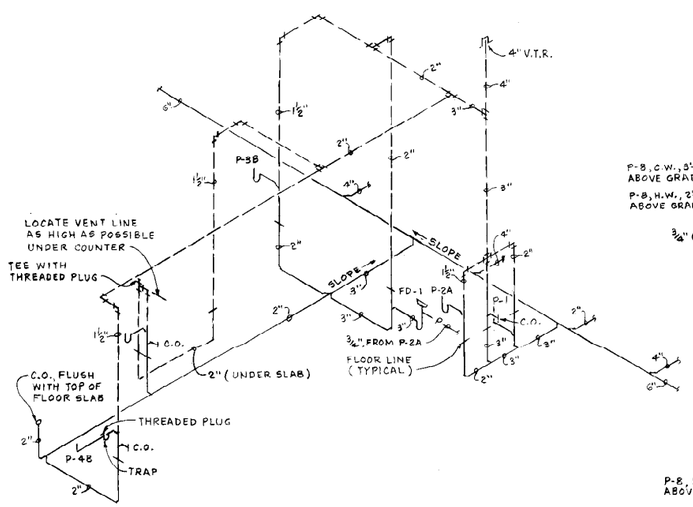
PLUMBING PLAN - BUILDING "A"
(BUILDING "B" OPPOSITE HAND)
LARGE MULTI-AGE MODULE
SCALE: 1/4" = 1'-0"



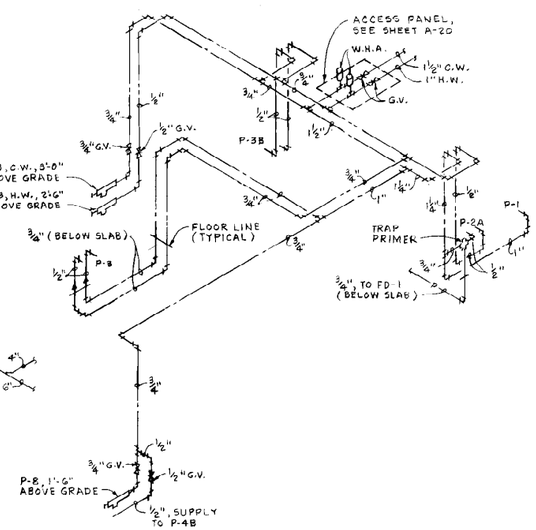
SOIL, WASTE & VENT RISER DIAGRAM
(TOILET AREA NOS. 145 & 146)
SCALE: NONE



HOT & COLD WATER RISER DIAGRAM
(TOILET AREA NOS. 145 & 146)
SCALE: NONE



SOIL, WASTE & VENT RISER DIAGRAM
(TOILET AREA NO. 157)
SCALE: NONE



HOT & COLD WATER RISER DIAGRAM
(TOILET AREA NO. 157)
SCALE: NONE

NOTES:

1. FOR FIXTURE MOUNTING HEIGHT AND COUNTERTOP HEIGHT, SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
2. ALL HORIZONTAL VENT AND WATER PIPING TO BE RUN IN CEILING SPACE (BELOW INSULATION) UNLESS OTHERWISE NOTED.
3. FOR PLUMBING FIXTURE SCHEDULE AND PLUMBING LEGEND, SEE SHEET P-1.

GRAPHIC SCALE
1/4" = 1'-0" 0 1' 5' 10'

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

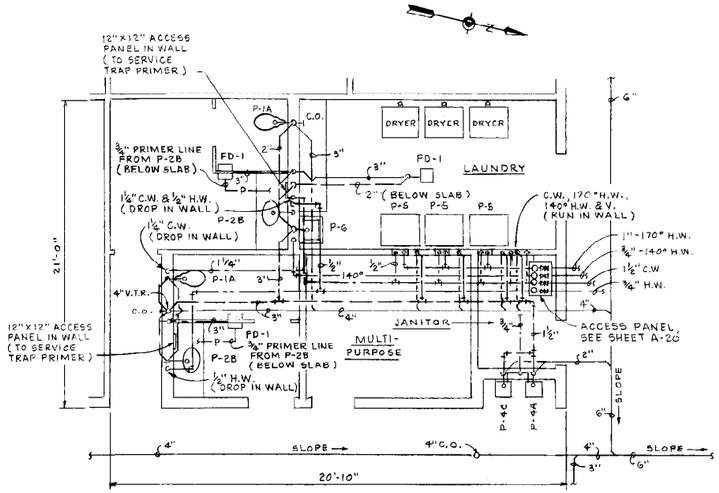
Designed by: J.D.J.
Drawn by: J.D.J.
Checked by: F.E. Byron
Reviewed by: R.J. Cox
Approved by: [signature]

US Army Corps of Engineers
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS-NO. 1 CHILDREN
PN 380 FY 90

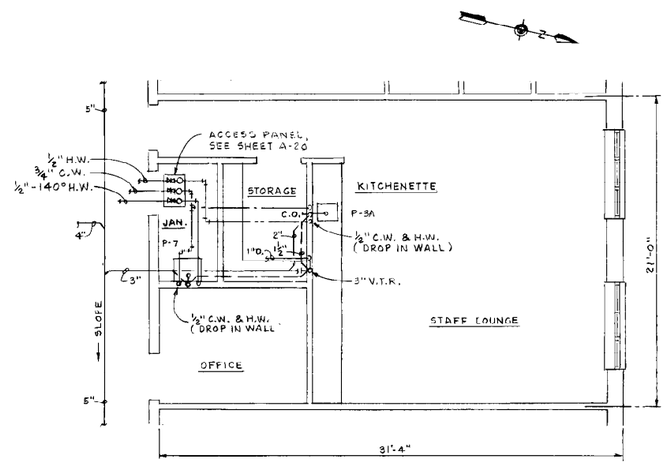
PLUMBING
LARGE MULTI-AGE MODULE

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: P-10
Sheet 89 of 107

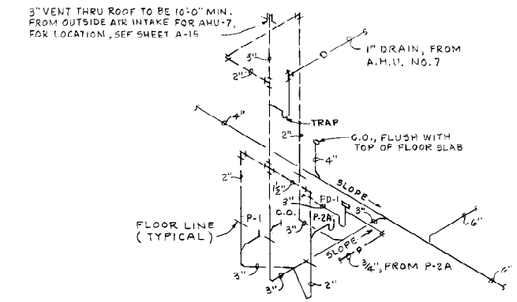
RECORD DRAWING "AS BUILT"



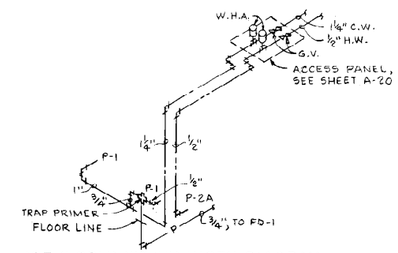
PLUMBING PLAN-BUILDING "A"
(BUILDING "B" OPPOSITE HAND)
LAUNDRY MODULE
SCALE: 1/4"=1'-0"



PLUMBING PLAN-BUILDING "A"
(BUILDING "B" OPPOSITE HAND)
LOUNGE MODULE
SCALE: 1/4"=1'-0"



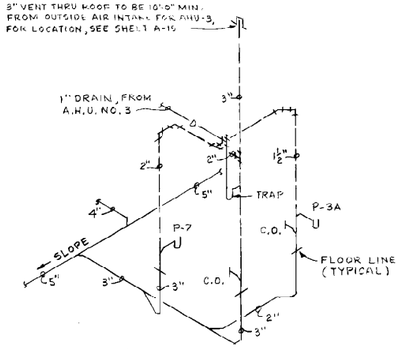
SOIL, WASTE & VENT RISER DIAGRAM
(TOILET ROOM 05, SEE SHEET P-12)
SCALE: NONE



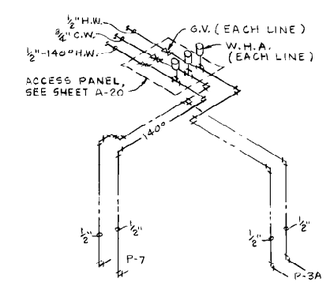
HOT & COLD WATER RISER DIAGRAM
(TOILET ROOM 05, SEE SHEET P-12)
SCALE: NONE

NOTES;

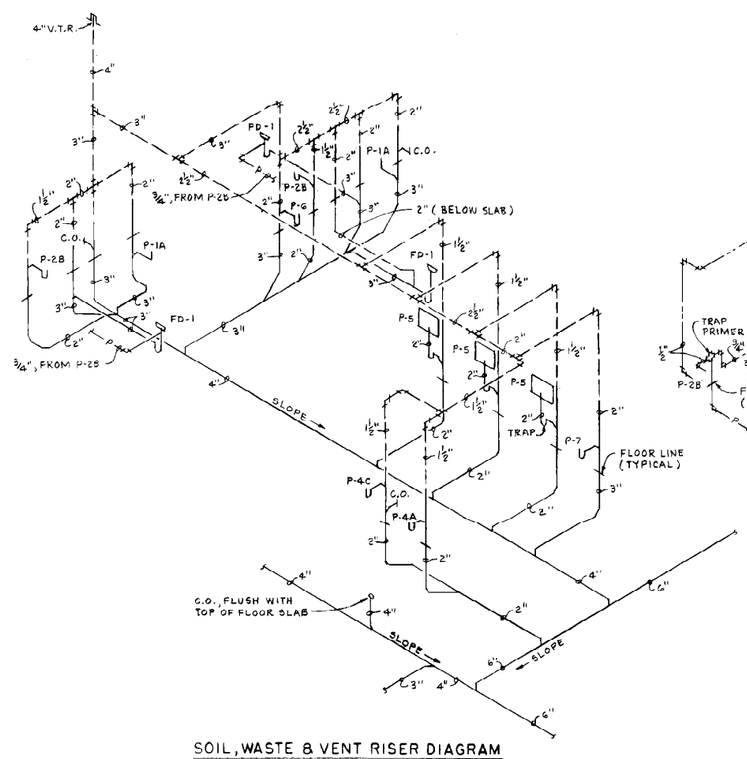
1. FOR FIXTURE MOUNTING HEIGHT AND COUNTERTOP HEIGHT, SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
2. ALL HORIZONTAL VENT AND WATER PIPING TO BE RUN IN CEILING SPACE (BELOW INSULATION) UNLESS OTHERWISE NOTED.
3. FOR PLUMBING FIXTURE SCHEDULE AND PLUMBING LEGEND, SEE SHEET P-1.
4. FOR DETAIL OF AIR HANDLING UNIT DRAIN CONNECTION, SEE SHEET P-13.



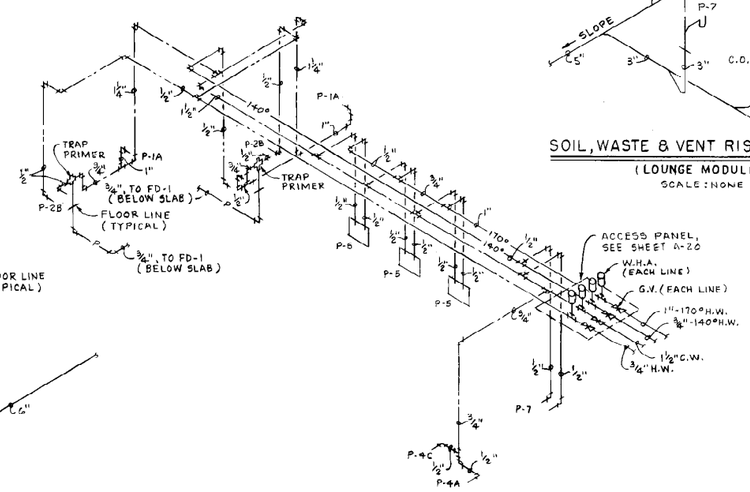
SOIL, WASTE & VENT RISER DIAGRAM
(LOUNGE MODULE)
SCALE: NONE



HOT & COLD WATER RISER DIAGRAM
(LOUNGE MODULE)
SCALE: NONE



SOIL, WASTE & VENT RISER DIAGRAM
(LAUNDRY MODULE)
SCALE: NONE



HOT & COLD WATER RISER DIAGRAM
(LAUNDRY MODULE)
SCALE: NONE

GRAPHIC SCALE
1/4"=1'-0" 0 1' 5' 10'

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: J. D. J.
Drawn by: J. D. J.
Checked by: F. E. Brown
Reviewed by: R. J. Cox
Approved by: Ronald Martin

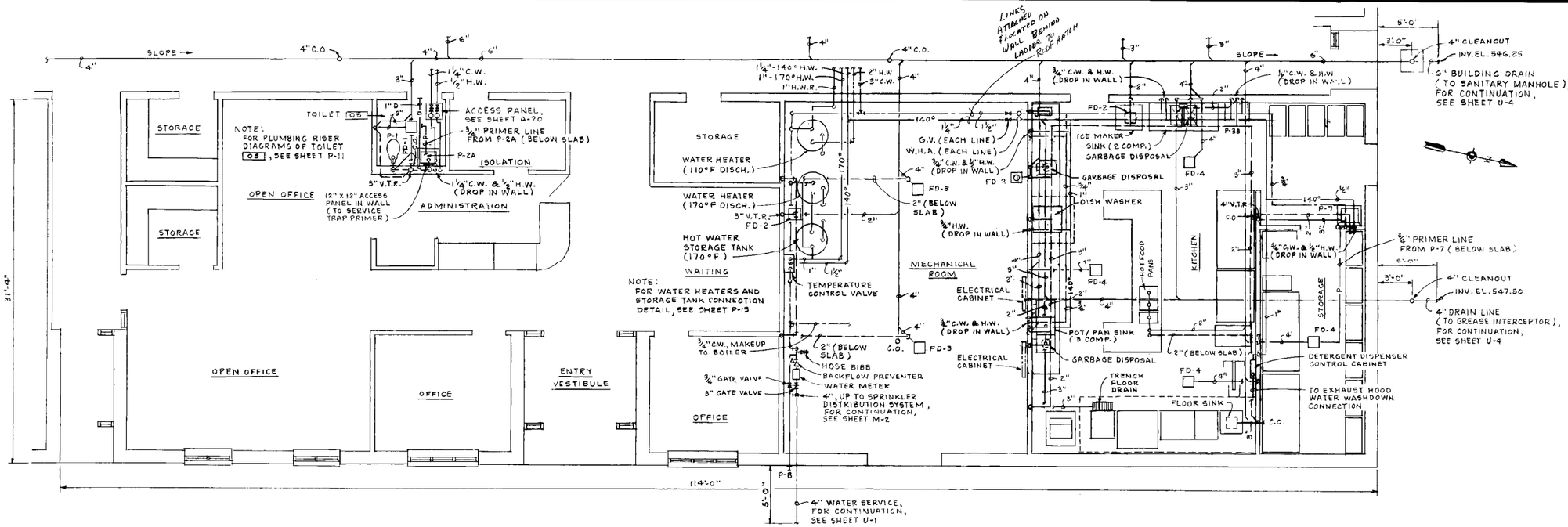
US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS-303 CHILDREN
PN 380 FY 90

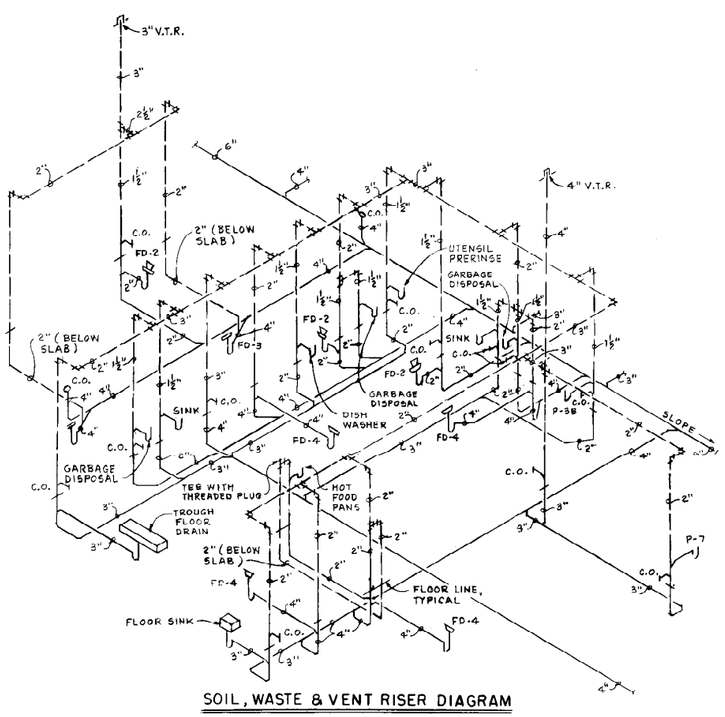
PLUMBING
LAUNDRY & LOUNGE MODULES

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: P-11
Sheet 90 of 107

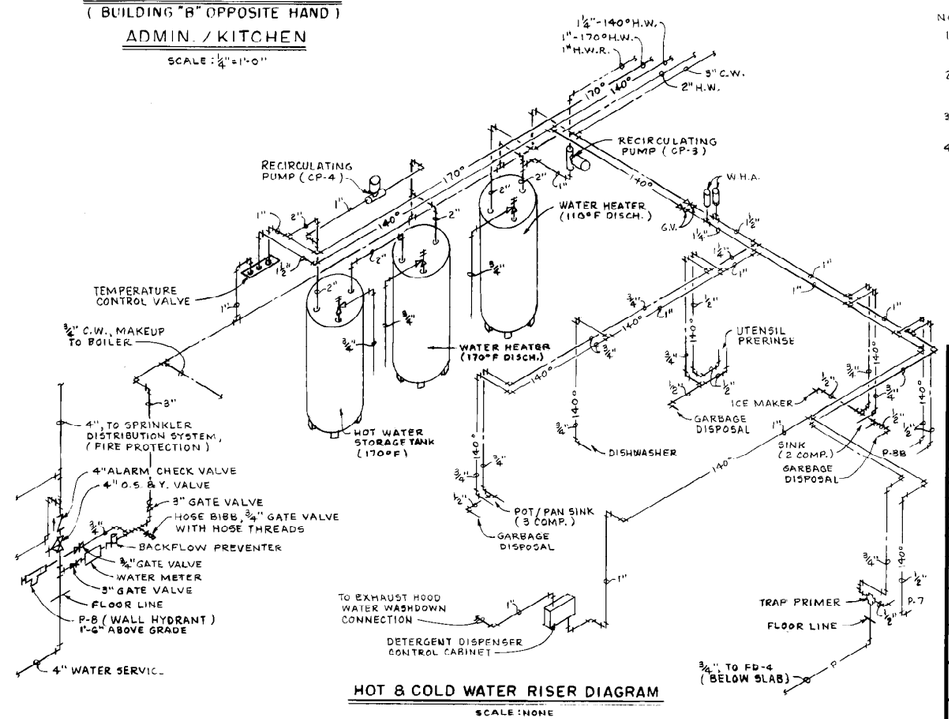
RECORD DRAWING "AS BUILT"



PLUMBING PLAN - BUILDING "A"
(BUILDING "B" OPPOSITE HAND)
ADMIN. / KITCHEN
SCALE: 1/4" = 1'-0"



SOIL, WASTE & VENT RISER DIAGRAM
SCALE: NONE



HOT & COLD WATER RISER DIAGRAM
SCALE: NONE

NOTES:

1. FOR FIXTURE MOUNTING HEIGHT AND COUNTERTOP HEIGHT, SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
2. ALL HORIZONTAL VENT AND WATER PIPING TO BE RUN IN CEILING SPACE (BELOW INSULATION) UNLESS OTHERWISE NOTED.
3. FOR PLUMBING FIXTURE SCHEDULE AND PLUMBING LEGEND, SEE SHEET P-1.
4. FOR DETAIL OF AIR HANDLING UNIT DRAIN CONNECTION, SEE SHEET P-13.

GRAPHIC SCALE
1/4" = 1'-0" 0 1' 5' 10'

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: J. D.J.
Drawn by: J. D. J.
Checked by: F.E. Dixon
Reviewed by: R. J. Cox
Approved by: Ralph Martin

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS-303 CHILDREN
PN 380 FY 90

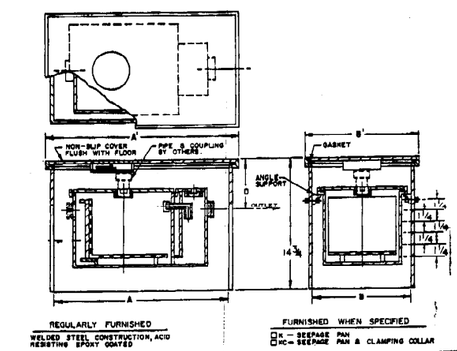
PLUMBING
ADMIN./ KITCHEN

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: P-12
Sheet 91 of 107

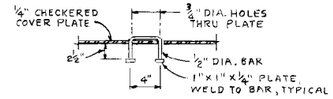
RECORD DRAWING "AS BUILT"

DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCE

SIZE	G.P.M.	GREASE CAP. LBS.	A	A'	B	B'		D
100	4	8	18 3/4	21 3/4	12 3/4	14 3/8	7 3/8	4 1/8
200	7	14	21 3/4	23 3/4	15 3/8	17 3/8	9 7/8	4 3/8
300	10	20	25	27	17 1/2	19 1/2	9 3/8	4 1/8
400	18	30	25 3/4	27 3/4	20	22	10 1/8	5 3/8
500	20	40	29 1/8	31 1/8	20 3/4	22 3/4	11 5/8	5 3/4
600	25	50	34	36	23 1/4	25 1/4	13 5/8	5 1/8
700	30	70	35	37	26	28		5 7/8
800	50	100	37 1/4	39 1/4	28	30	18 3/8	6 7/8



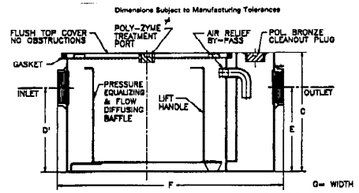
NOTE:
FOR SPECIFICATIONS & DIMENSIONS OF GREASEPTOR SEE DWG. 53399



HANDLE DETAIL

SCALE: 1 1/2"=1'-0"

Dimensions Subject to Manufacturing Tolerances



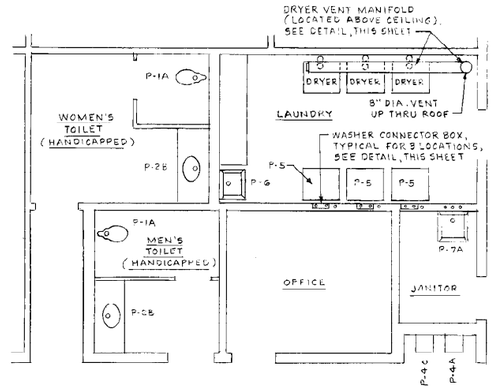
Size	Inlet/Outlet Size**	Flow Rate G.P.M.	Capacity Water Gal.	Capacity Grease Lbs.	Approx. Wt. Lbs.	Dimensions in Inches C	D*	E	F	G
100	2	4	3	8	63	10	7-1/4	7-1/4	18	8-7/8
200		7	6	14	83	11-1/4	8-1/8	8-1/8	20-3/8	11-7/8
300		10	9	30	88	11-3/4	8-1/4	8-1/4	22-5/8	14
400		18	10	30	93	13-3/8	9-3/8	9-3/8	24-6/8	18-3/4
500		20	18	40	99	15	11-3/4	11-3/4	27-1/2	17-1/4
600	3	25	31	50	124	17	12-1/2	12-1/2	29-7/8	19-7/8
700		30	36	70	181	18-3/4	14-1/4	14-1/4	31-3/4	22-1/2
800		50	40	100	180	21-1/2	16	16	33-5/8	24-1/2

ENGINEERING SPECIFICATION: ZURN Z-1170 Acid Resistant Coated interior and exterior fabricated steel grease interceptor, POL rated at ___ GPM and ___ Lbs. grease capacity, with internal air relief by-pass, bronze cleanout plug and visible double wall trap seal with removable combination pressure equalizing/flow diffusing baffle and sediment tray. Gasketed non-skid secured cover with enzyme port opening having bronze plug, complete with Z-1108 flow control fitting. Regularly furnished with a high and low inlet connection and with outlet in high position. Note: Location of outlet from bottom for interceptor cannot be changed.

Acid Resistant Coated Fabricated Steel*

Acid Resistant Coated interior and exterior fabricated steel extension section. (Specify 'C' Dim. required) for recessed installation.
Anchor flange 1-3/4" down from top and 2" wide. A 3" minimum extension height is required when anchor flange (-K) option is specified. (Specify 'C' Dim. required)
Anchor flange 1-3/4" down from top and 2" wide with clamp collar. A 3" minimum extension height is required when anchor flange (-KC) option is specified.
Angle type (Z-1108-L) flow control device.
Recessing receiver for recessed installation is equipped with adjustable support brackets and gasketed non-skid cover with covered recessed lift handle.
Recessing receiver enclosed type for recessed installation. Furnished with adjustable support brackets and gasketed non-skid cover with covered recessed lift handle.
Cover recessed for bleherazze. A 3" minimum extension height is required. (Specify 'C' Dim. and required recess depth - 1/8", 3/4", or 1-1/4").
Removable sediment basket.

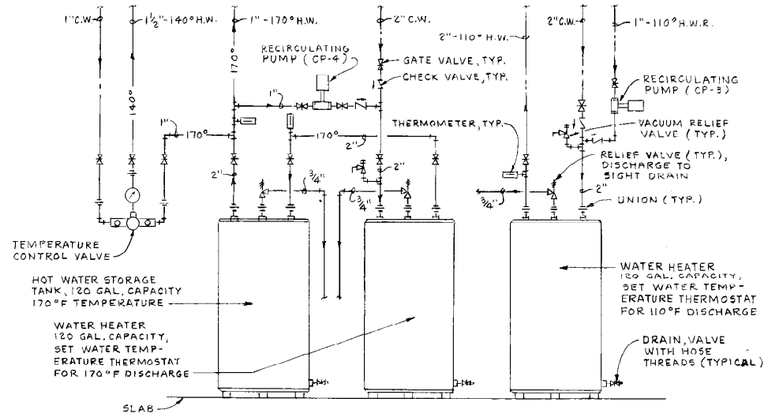
*Inlet and outlet sizes shown indicate standard operating sizes and flow control settings. Size #300 will have 3" connections reduced to 2" and sizes #500 thru #800 will have 4" connections reduced to 3" as standard. If changed, flow control and air relief by-pass must be adjusted accordingly.



LAUNDRY MODULE

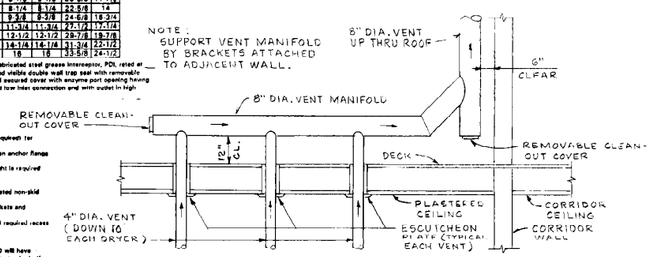
(DRYER VENT MANIFOLD AND WASHER CONNECTOR BOXES)

SCALE: 1/4"=1'-0"



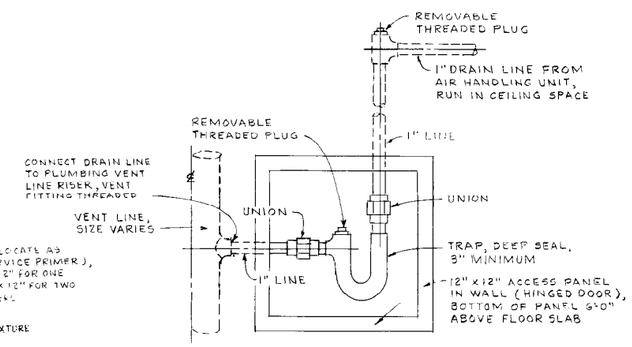
WATER HEATER DETAIL

SCALE: NONE



DRYER VENT MANIFOLD DETAIL

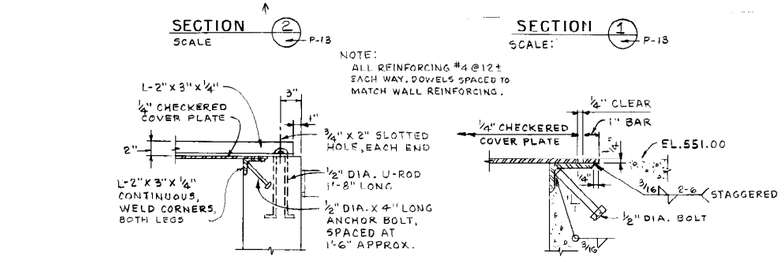
SCALE: NONE



DRAIN CONNECTION

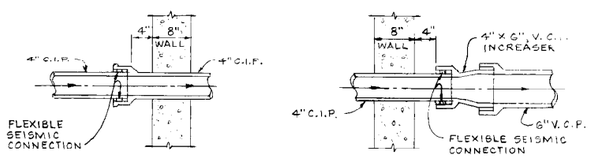
(AIR HANDLING UNIT DRAIN)

SCALE: NONE



SECTION THRU FRAME

SCALE: 3"=1'-0"



SEISMIC CONNECTION

(INFLUENT LINE)

SCALE: 1"=1'-0"

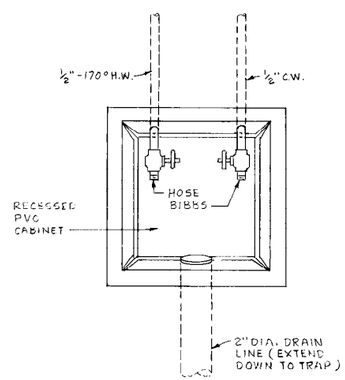
SEISMIC CONNECTION

(EFFLUENT LINE)

SCALE: 1"=1'-0"

GREASE INTERCEPTOR DETAIL

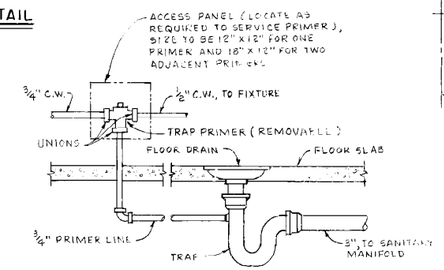
SCALE: AS SHOWN



WASHER CONNECTOR BOX DETAIL

SCALE: NONE

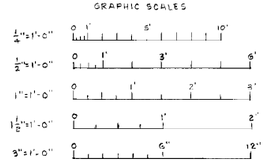
NOTE:
COORDINATE MOUNTING HEIGHT AND SPACING OF WASHER BOXES WITH WASHERS FURNISHED.



TRAP PRIMER CONNECTION DETAIL

SCALE: NONE

GRAPHIC SCALES



Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: J.D.J.
Drawn by: J.D.J.
Checked by: F.E. Ripon
Reviewed by: R.J. Cox
Approved by: Larry A. Mock

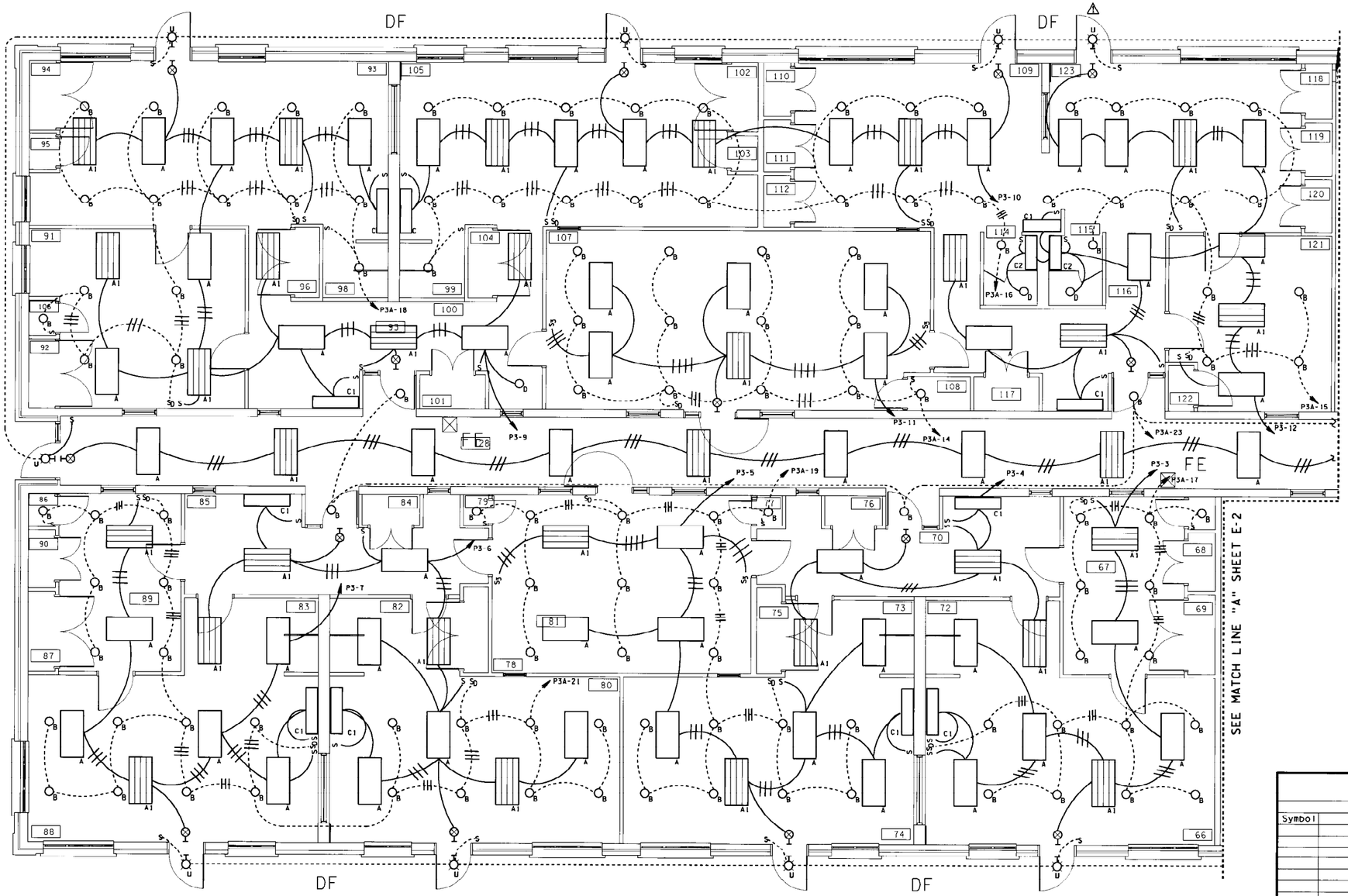
U.S. Army Corps of Engineers

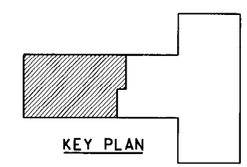
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS 302 CHILDREN
PN 380 FY 90

PLUMBING
MISCELLANEOUS DETAILS

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: P-13
Sheet 92 of 107

RECORD DRAWING "AS BUILT"





KEY PLAN

GRAPHIC SCALE

4 3 2 1 0 4

SCALE: 1/4"=1'-0"

PARTIAL LIGHTING PLAN

SCALE: ¼"=1'-0"

(BUILDING A SHOWN. BUILDING B OPPOSITE HAND)

NOTES:

1. ALL BRANCH CIRCUITS SHALL BE CONCEALED 2-#12 COPPER + 1-#12 GND. COPPER CONDUCTORS IN 1/2" CONDUIT UNLESS OTHERWISE NOTED.
2. FOR CLARITY PURPOSES ONLY, THE DASHED LINES REPRESENT 120 VOLT CONCEALED CIRCUITS AND THE SOLID LINES REPRESENT 277 VOLT CONCEALED CIRCUITS.
3. SEE SHEET E-13 FOR LIGHT FIXTURE SCHEDULE.
4. ALL SWITCHES SHALL BE MOUNTED 54" AFF, MEASURED FROM BOTTOM OF BOX, UNLESS OTHERWISE NOTED.
5. WIRING FOR OUTSIDE LIGHTS (U) SHOWN ON EXTERIOR OF BUILDING FOR CLARITY. WIRING SHALL BE INSTALLED WITHIN BUILDING WALL INTERIOR.

Revisions

Symbol	Descriptions	Date	Approved
1	AMDT #0003 ADDITIONAL LIGHTING	8/28/90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

PARTIAL LIGHTING PLAN

Designed by:	M. JUST
Drawn by:	JOE WALLACE H.
Checked by:	R.L. PEPPER
Reviewed by:	GREULICH
Approved by:	LARRY MARTIN
Scale:	1/4" = 1'-0"
Date:	MAY 1990
Drawing Code:	F-740-14-05
Sheet reference number:	E-1
Sheet	93 of 107

RECORD DRAWING "AS BUILT"

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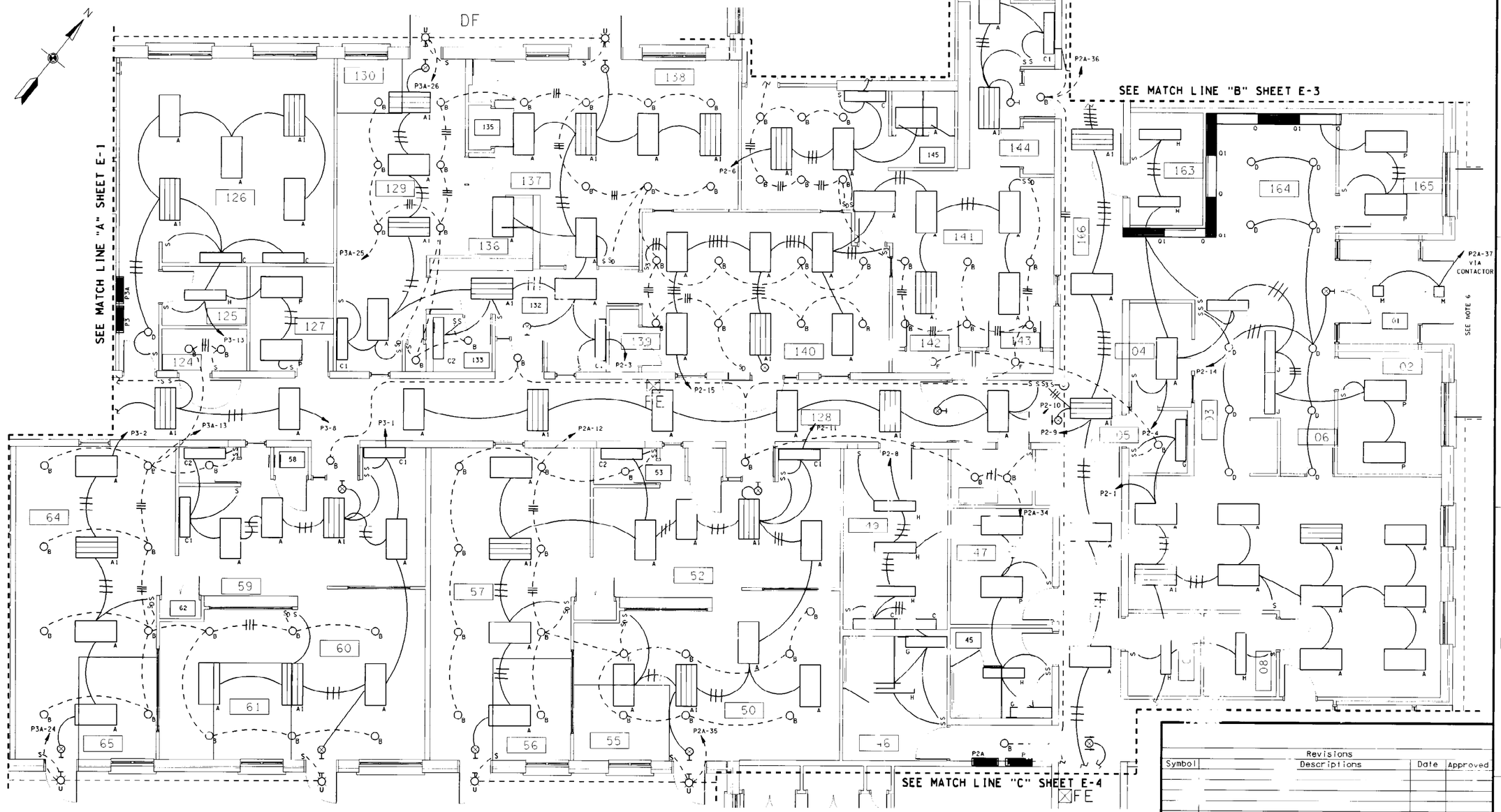

PARTIAL LIGHTING PLAN

(BUILDING A SHOWN, BUILDING B OPPOSITE HAND)
SCALE: 1/4" = 1'-0"

GRAPHIC SCALE

KEY PLAN

NOTES:

1. ALL BRANCH CIRCUITS SHALL BE CONCEALED 2 #12 COPPER + 1 #12 GND. COPPER CONDUCTORS IN 1/2" CONDUIT UNLESS OTHERWISE NOTED.
2. FOR CLARITY PURPOSES ONLY, THE DASHED LINES REPRESENT 120 VOLT CONCEALED CIRCUITS AND THE SOLID LINES REPRESENT 277 VOLT CONCEALED CIRCUITS.
3. SEE SHEET E-13 FOR LIGHTING FIXTURE SCHEDULE.
4. ALL SWITCHES SHALL BE MOUNTED 54" AFF, MEASURED FROM BOTTOM OF BOX, UNLESS OTHERWISE NOTED.
5. WIRING FOR OUTSIDE LIGHTS (U) SHOWN ON EXTERIOR OF BUILDING FOR CLARITY. WIRING SHALL BE INSTALLED WITHIN BUILDING WALL INTERIOR.
6. FOR CANOPY LIGHTING SEE SHEET E-3.

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

Designed by: M. JUST
Drawn by: JOE WALLACE H.
Checked by: R.A. Pfeffer
Reviewed by: Gremlich
Approved by: Kenneth Martin

PARTIAL LIGHTING PLAN

Scale: 1/4" = 1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: E-2
Sheet 94 of 101

RECORD DRAWING "AS BUILT"

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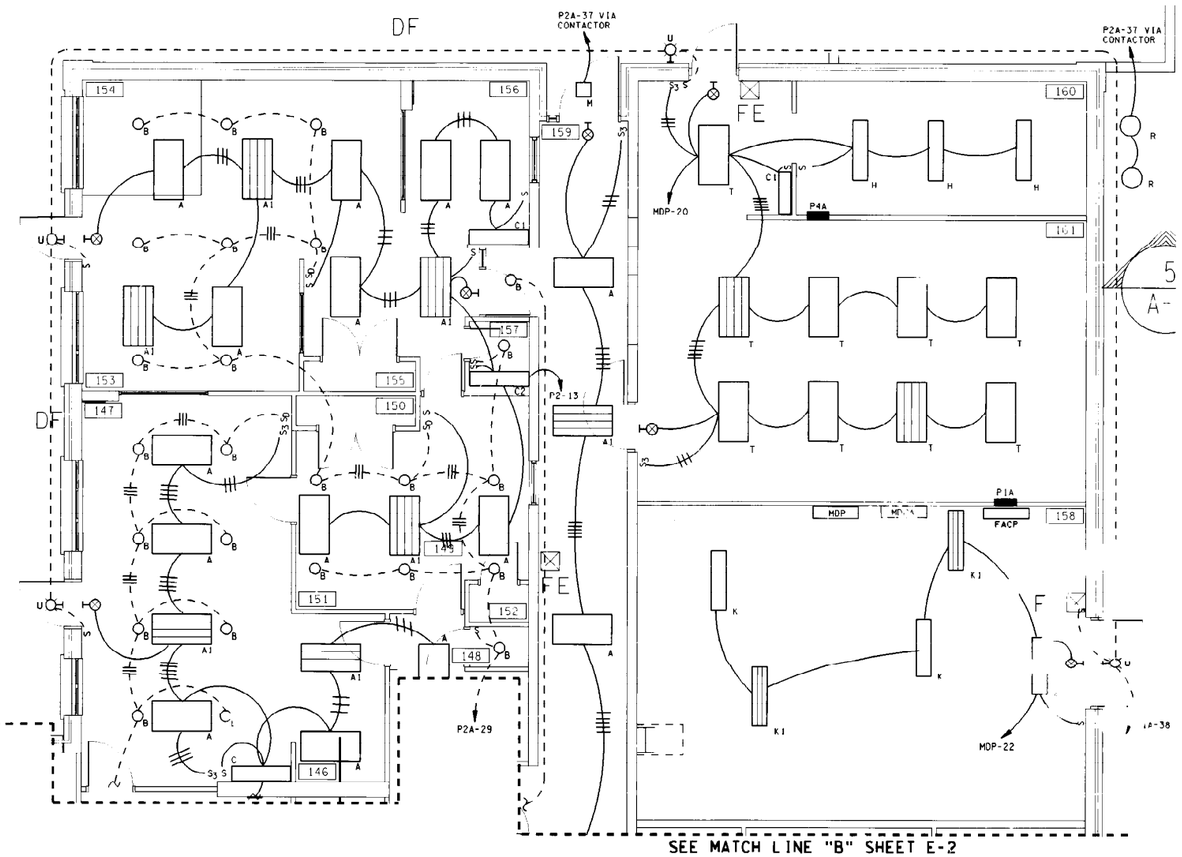
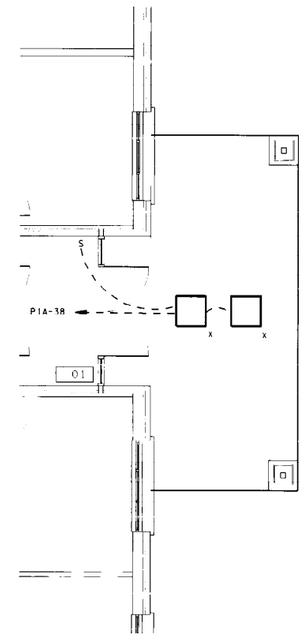


PARTIAL LIGHTING PLAN

SCALE: 1/4"=1'-0"

(BUILDING A SHOWN. BUILDING B OPPOSITE HAND).



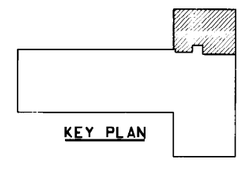
CANOPY LIGHTING PLAN

SCALE: 1/4"=1'-0"

GRAPHIC SCALE

NOTES:

1. ALL BRANCH CIRCUITS SHALL BE CONCEALED 2-#12 COPPER + 1-#12 COPPER COPPER GROUND CONDUCTORS IN 1/2" CONDUIT UNLESS OTHERWISE NOTED.
2. FOR CLARITY PURPOSES ONLY, THE DASHED LINES REPRESENT 120 VOLT CONCEALED CIRCUITS AND THE SOLID LINES REPRESENT 277 VOLT CONCEALED CIRCUITS.
3. SEE SHEET E-13 FOR LIGHTING FIXTURE SCHEDULE.
4. ALL SWITCHES SHALL BE MOUNTED 54" AFF, MEASURED FROM BOTTOM OF BOX, UNLESS OTHERWISE NOTED.
5. TYPE R LIGHTS IN SOFFIT SHALL BE MOUNTED AND ADJUSTED TO LIGHT WALL SIGNS. THEY SHALL BE CONTROLLED WITH TYPE M LIGHTS. VIA LIGHTING CONTACTOR.
6. WIRING FOR OUTSIDE LIGHTS (U) SHOWN ON EXTERIOR OF BUILDING FOR CLARITY. WIRING SHALL BE INSTALLED WITHIN BUILDING WALL INTERIOR.



KEY PLAN

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: M. JUST
Drawn by: JOE WALLACE H.
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

PARTIAL LIGHTING PLAN

Scale: 1/4" = 1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet Reference number: E-3
Sheet 95 of 107

RECORD DRAWING "AS BUILT"

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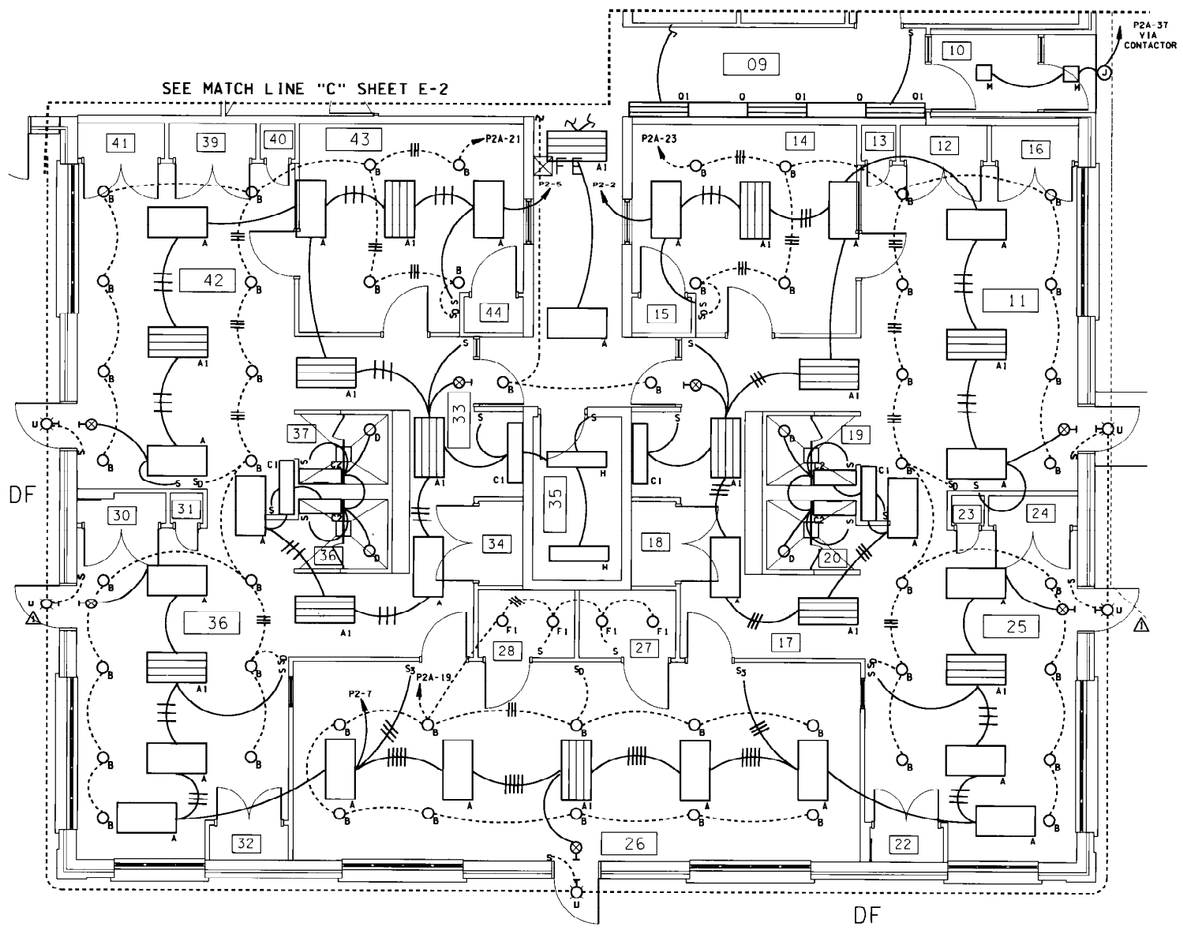

PARTIAL LIGHTING PLAN

SCALE: 1/4" = 1'-0"

(BUILDING A SHOWN. BUILDING B OPPOSITE HAND.)

NOTES:

1. ALL BRANCH CIRCUITS SHALL BE CONCEALED 2-#12 COPPER + 1-#12 COPPER GROUND IN 1/2" CONDUIT UNLESS OTHERWISE NOTED.
2. FOR CLARITY PURPOSES ONLY, THE DASHED LINES REPRESENT 120 VOLT CONCEALED CIRCUITS AND THE SOLID LINES REPRESENT 277 VOLT CONCEALED CIRCUITS.
3. SEE SHEET E-13 FOR LIGHTING FIXTURE SCHEDULE.
4. ALL SWITCHES SHALL BE MOUNTED 54" AFF, MEASURED FROM BOTTOM OF BOX, UNLESS OTHERWISE NOTED.
5. WIRING FOR OUTSIDE LIGHTS (U) SHOWN ON EXTERIOR OF BUILDING FOR CLARITY. WIRING SHALL BE INSTALLED WITHIN BUILDING WALL INTERIOR.

GRAPHIC SCALE

4 3 2 1 0 4

SCALE: 1/4"=1'-0"

KEY PLAN

Revisions			
Symbol	Descriptions	Date	Approved
1	AMDT #0003 ADDITIONAL LIGHTING	8/28/90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
US Army Corps of Engineers
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

PARTIAL LIGHTING PLAN

Designed by:	M. JUST
Drawn by:	JOE WALLACE H.
Checked by:	R.L. PEPPER
Reviewed by:	GREULICH
Approved by:	LARRY MARTIN
Scale:	1/4" = 1'-0"
Date:	MAY 1990
Drawing Code:	F-740-14-05
Sheet reference number:	E-4
Sheet	96 of 107

RECORD DRAWING "AS BUILT"

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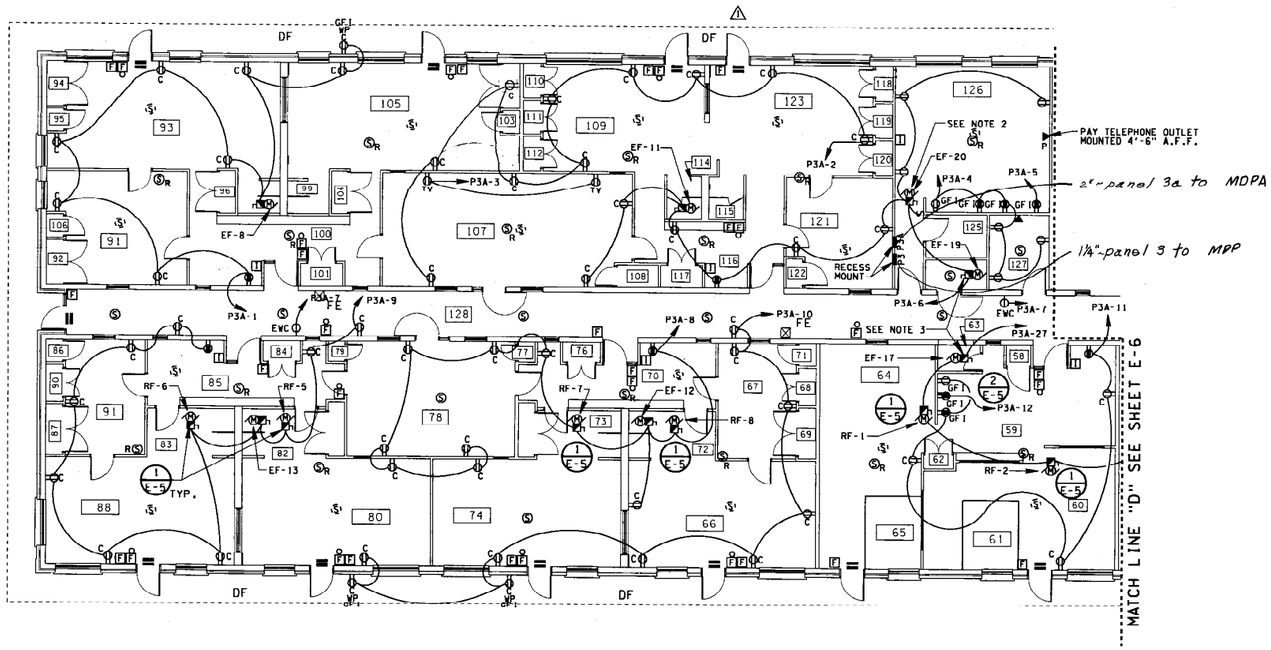


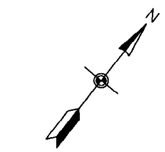
PARTIAL POWER PLAN

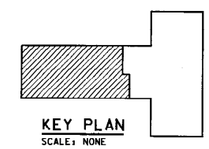
SCALE: 1/8"=1'-0"

(BUILDING A SHOWN. BUILDING B OPPOSITE HAND.)

SMOKE DETECTOR LEGEND

- EXISTING LOCATION TO REMAIN
- EXISTING LOCATION TO BE RELOCATED
- EXISTING DETECTOR IN NEW LOCATION
- ADDITIONAL DETECTOR IN NEW LOCATION





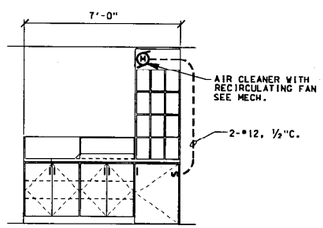
KEY PLAN

SCALE: NONE

GRAPHIC SCALE

8 6 4 2 0 8 16FT

SCALE: 1/8"=1'-0"

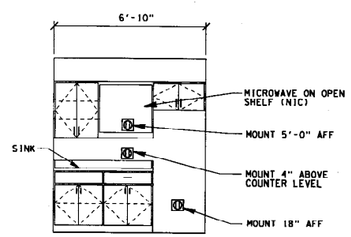


DIAPER STATION RECIRCULATING FAN DETAIL (1/E-5)

SCALE: NONE (TYPICAL OF RF1-RF11)

NOTES:

1. ALL CONDUITS SHALL BE ENCLOSED WITHIN WALLS, CEILINGS, ETC. AND SHALL NOT INTERFERE WITH OPEN SHELVING.
2. THE RECIRCULATING FAN SHALL BE MANUALLY CONTROLLED BY A TOGGLE SWITCH LOCATED ON THE INSIDE OF THE 2' WIDE CABINET UNDERNEATH THE OPEN SHELVING.
3. FOR FURTHER INFORMATION SEE DETAIL (2/A-10)



TYPICAL KITCHENETTE (2/E-5)

SCALE: NONE

NOTES:

1. ALL CONDUITS SHALL BE ENCLOSED WITHIN WALLS, CEILINGS, ETC.
2. ALL RECEPTACLES WITHIN 6'-0" OF SINK SHALL BE GFI TYPE.
3. FOR FURTHER INFORMATION SEE DETAIL (5/A-9)

NOTES:

1. ALL BRANCH CIRCUITS SHALL BE CONCEALED 2-#12 COPPER + 1-#12 COPPER GROUND CONDUCTOR IN 1/2" CONDUIT UNLESS NOTED.
2. EF-20 (ROOM 126) SHALL BE CONTROLLED BY AN INDEPENDENT WALL SWITCH MOUNTED 54" AFF.
3. EF-17, 19 SHALL BE CONTROLLED TO OPERATE ANY TIME THE THE LIGHTS IN ROOM 63, 124, RESPECTIVELY ARE ON.
4. INTERCOM REMOTE STATIONS SHALL BE MOUNTED 4'-0" ABOVE FINISHED FLOOR. (MEASURED FROM BOTTOM OF BOX)
5. FIRE ALARM MANUAL PULL STATIONS SHALL BE MOUNTED 54" ABOVE FINISHED FLOOR. (MEASURED FROM BOTTOM OF BOX)
6. THE TV RECEPTACLES SHALL BE A COMBINATION DUPLEX RECEPTACLE AND CABLE TV OUTLET UNDER A COMMON FACEPLATE. PROVIDE A BARRIER BETWEEN THE POWER AND SIGNAL COMPARTMENTS. MOUNT TV RECEPTACLES 54" ABOVE FINISHED FLOOR IN CHILD CARE AREAS.
7. THE FIRE ALARM COMBINATION BELL / LIGHT UNIT SHALL BE MOUNTED 7'-6" ABOVE FINISHED FLOOR IN FINISHED AREAS AND 10'-0" ABOVE FINISHED FLOOR IN UNFINISHED AREAS.
8. COUNTERTOP RECEPTACLES SHALL BE MOUNTED 6" ABOVE THE COUNTER.

Revisions

Symbol	Descriptions	Date	Approved
2	(CASE AC) RELOCATION OF SMOKE DETECTORS	11/14/91	RHP
1	AMDT #0003 ADDITIONAL F.A. & SECURITY	8/28/90	

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

PARTIAL POWER PLAN

Designed by:	C.BEAVIN
Drawn by:	T.HITCH
Checked by:	R.L. PEPPER
Reviewed by:	GREULICH
Approved by:	LARRY MARTIN
Scale:	1/8"=1'-0"
Date:	MAY 1990
Drawing Code:	F-740-14-05
Sheet reference number:	E-5
Sheet	98 of 107

RECORD DRAWING "AS BUILT"

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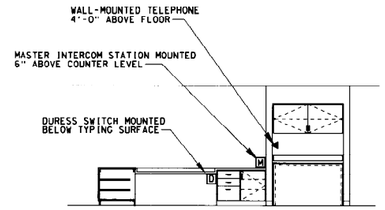
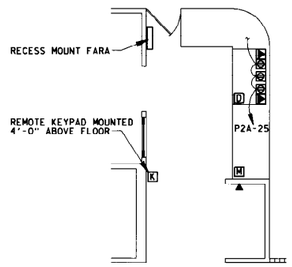


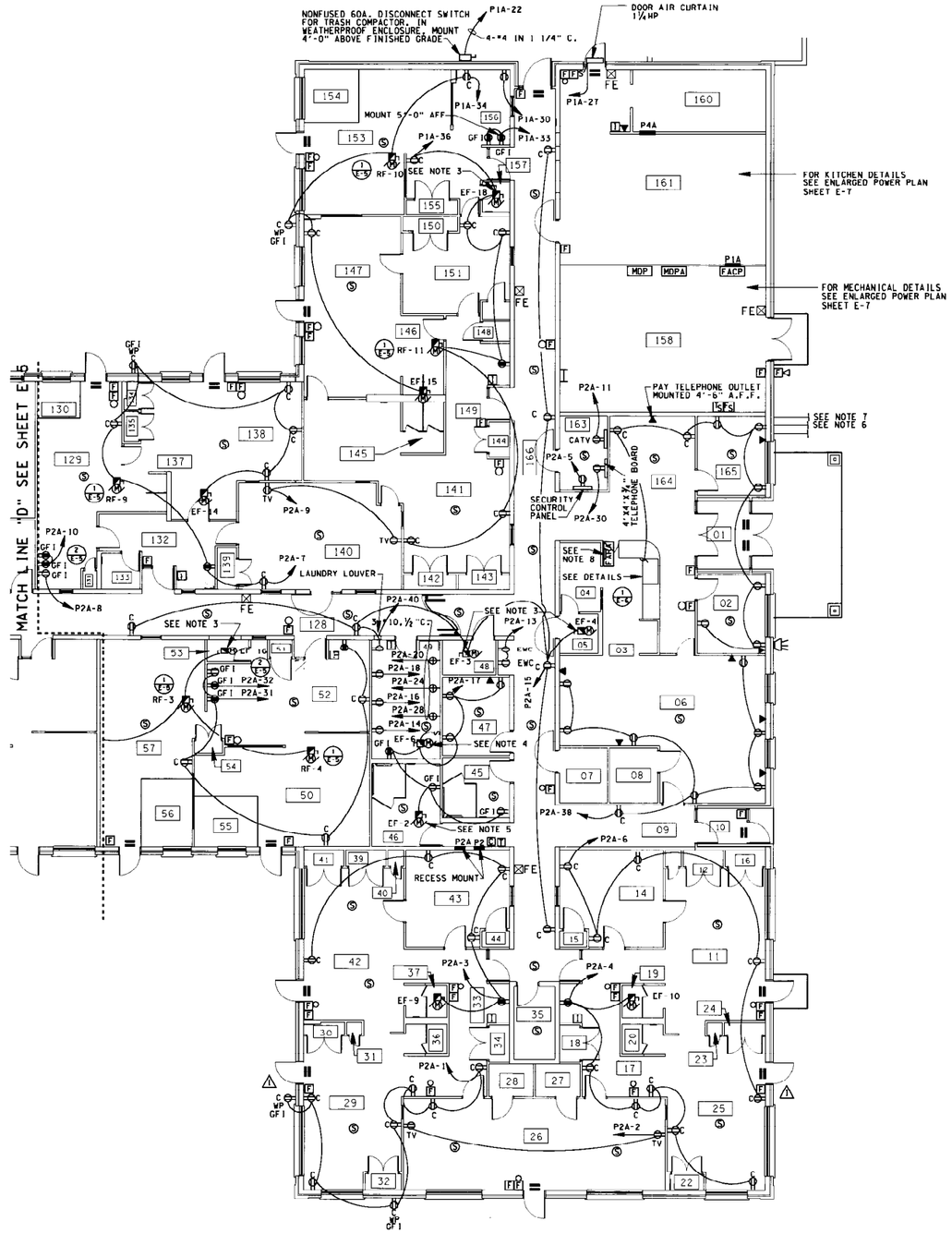
RECEPTION DESK (1/E-6)
SCALE: NONE



RECEPTION DESK - TOP VIEW
SCALE: NONE

RECEPTION DESK NOTES:

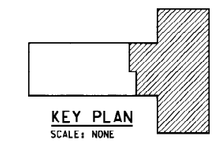
1. THE RECEPTACLES AND TELEPHONE SHALL BE FLOOR MOUNTED.
2. THE DURESS SWITCH SHALL BE INSTALLED UNDER THE COUNTER-ACCESSIBLE TO THE RECEPTIONIST YET NOT VISIBLE FROM THE FRONT OF THE DESK.



PARTIAL POWER PLAN
SCALE: 1/8"=1'-0"
(BUILDING A SHOWN, BUILDING B OPPOSITE HAND)

GENERAL NOTES:

1. ALL BRANCH CIRCUITS SHALL BE CONCEALED 2-#12 COPPER + 1-#12 COPPER GROUND CONDUCTOR IN 1/2" C. UNLESS NOTED.
2. THE TIME CONTROLLER FOR THE LIGHTING CONTACTOR SHALL BE PROGRAMMED TO HAVE VESTIBULES AND "CHILD DEVELOPMENT CENTER" SIGN LIT FROM DUSK UNTIL DAYBREAK.
3. EF-3, 4, 16, AND 18 SHALL BE CONTROLLED TO OPERATE ANY TIME THE LIGHTS IN ROOMS 5, 48, 53, 157 RESPECTIVELY ARE ON.
4. EF-6 IN ROOM 49 SHALL BE CONTROLLED BY AN INDEPENDENT WALL SWITCH.
5. EF-2 SHALL BE CONTROLLED TO OPERATE ANY TIME THE LIGHTS IN ROOMS 45 OR 46 ARE ON.
6. TWO 4" PVC CONDUITS, ONE SPARE WITH PULL WIRE AND ONE WITH CABLE SHALL BE PROVIDED FOR TELEPHONE SERVICE TO EACH BUILDING. THE TWO CONDUITS SHALL BE STUBBED UP BELOW THE TELEPHONE TERMINAL BOARD TO A POINT 5'-0" OUTSIDE THE BUILDING AND CAPPED. SEE SHEET U-1.
7. ONE UNDERGROUND 1" CONDUIT WITH PULL WIRE SHALL EXTEND FROM THE CATV EQUIPMENT LOCATION TO A POINT 5'-0" OUTSIDE THE BUILDING AND CAPPED. CONNECTION BY OTHERS.
8. THE FIRE ALARM REMOTE ANNUCIATOR SHALL BE RECESSED MOUNTED WITH THE TOP OF PANEL 5'-0" AFF.
9. SEE NOTES 4 THRU 8. SHEET E-5.



KEY PLAN
SCALE: NONE

GRAPHIC SCALE
8 6 4 2 0 8 16FT
SCALE: 1/8"=1'-0"

Revisions

Symbol	Descriptions	Date	Approved
1	AMDT #0003 ADDITIONAL F.A. & SECURITY	8/28/90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: C. BEAVIN
Drawn by: C. BEAVIN
Checked by: R.L. PEPPER
Reviewed by: GREULICH
Approved by: LARRY MARTIN

US Army Corps of Engineers
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

PARTIAL POWER PLAN

Scale: 1/8"=1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: E-6
Sheet 96 of 107

RECORD DRAWING "AS BUILT"

ZGO:[40,77]FCC6XE06.DGN
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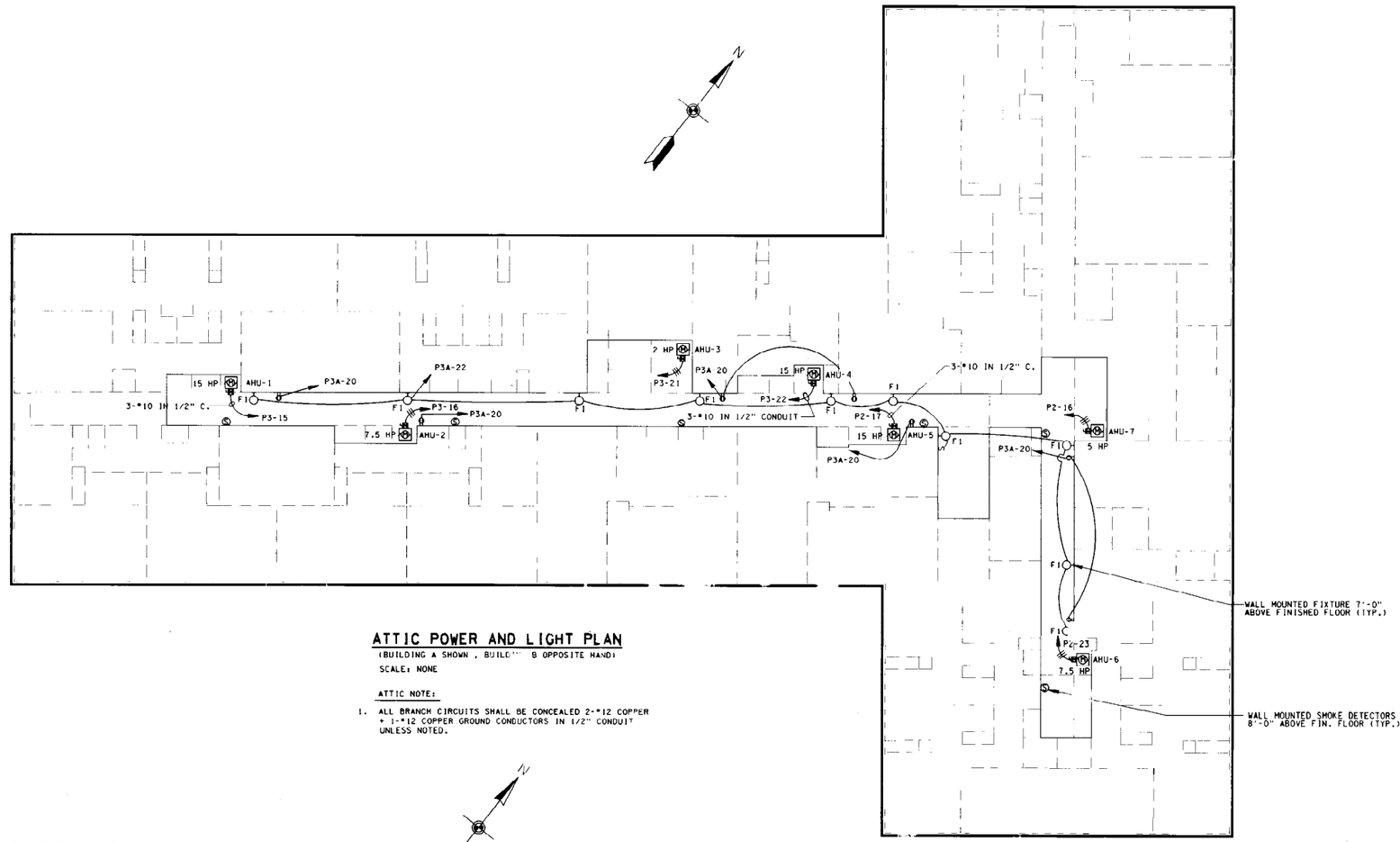


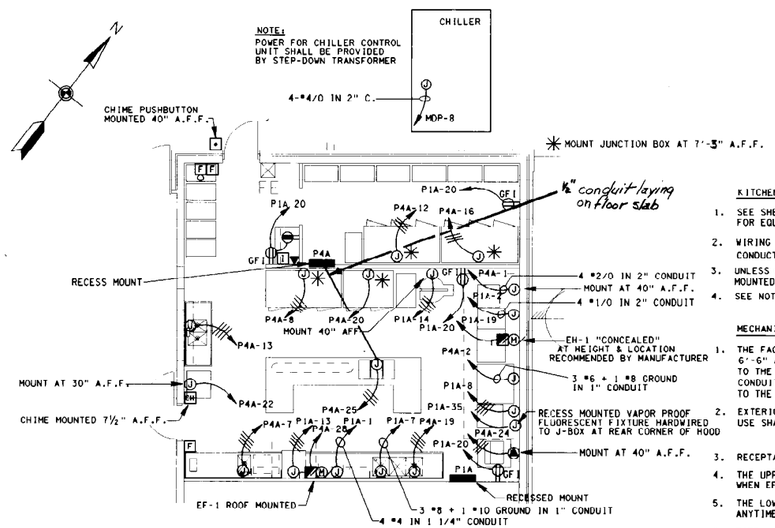
ATTIC POWER AND LIGHT PLAN

(BUILDING A SHOWN , BUILDING B OPPOSITE HAND)

SCALE: NONE

ATTIC NOTE:

1. ALL BRANCH CIRCUITS SHALL BE CONCEALED 2-#12 COPPER + 1-#12 COPPER GROUND CONDUCTORS IN 1/2" CONDUIT UNLESS NOTED.



KITCHEN POWER PLAN

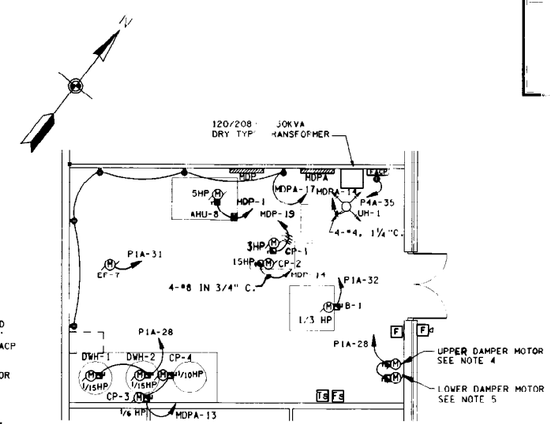
SCALE: 3/16" = 1'-0"

KITCHEN NOTES:

1. SEE SHEET A-8 FOR EXACT LOCATION OF EQUIPMENT AND FOR EQUIPMENT SCHEDULE.
2. WIRING SHALL BE 2-#12 COPPER + 1 #12 COPPER GND. CONDUCTORS IN 1/2" CONDUIT UNLESS NOTED OTHERWISE
3. UNLESS OTHERWISE NOTED ALL GFI RECEPTCLES SHALL BE MOUNTED 40" ABOVE FINISHED FLOOR.
4. SEE NOTES 4, 5, 7 AND 8 ON SHEET E-5.

MECHANICAL ROOM NOTES:

1. THE FACP SHALL BE SURFACE MOUNTED WITH TOP OF PANEL 6'-6" ABOVE FINISHED FLOOR. THE FACP WILL BE CONNECTED TO THE BASE-WIDE SYSTEM VIA THE TELEPHONE LINE. A 3/4" CONDUIT FOR THIS PURPOSE SHALL BE EXTENDED FROM THE FACP TO THE TELEPHONE TERMINAL BOARD.
2. EXTERIOR FIRE ALARM HORN WITH METAL HOUSING FOR OUTDOOR USE SHALL BE MOUNTED 10'-0" ABOVE FINISHED GRADE.
3. RECEPTACLES SHALL BE MOUNTED 18" ABOVE FINISHED FLOOR.
4. THE UPPER DAMPER MOTOR SHALL BE CONTROLLED TO OPERATE WHEN EF-7 IS ON.
5. THE LOWER DAMPER MOTOR SHALL BE CONTROLLED TO OPERATE ANYTIME B-1, DWH-1 OR DWH-2 ARE ON.
6. FIRE ALARM MANUAL PULL STATIONS SHALL BE MOUNTED 4'-6" ABOVE FINISHED FLOOR.
7. ALL PANEL AND TRANSFORMER ENCLOSURES IN MECHANICAL ROOM SHALL BE NEMA 4 RATED.



MECHANICAL ROOM POWER PLAN

SCALE: 3/16" = 1'-0"

GRAPHIC SCALE

4 0 4 8FT

SCALE: 3/16" = 1'-0"

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

ENLARGED POWER PLANS

Designed by: M. JUST
Drawn by: T. HITCH
Checked by: R.K. Potter
Reviewed by: Shewlish
Approved by: Gary A. Martin

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: E-7
Sheet 99 of 107

RECORD DRAWING "AS BUILT"

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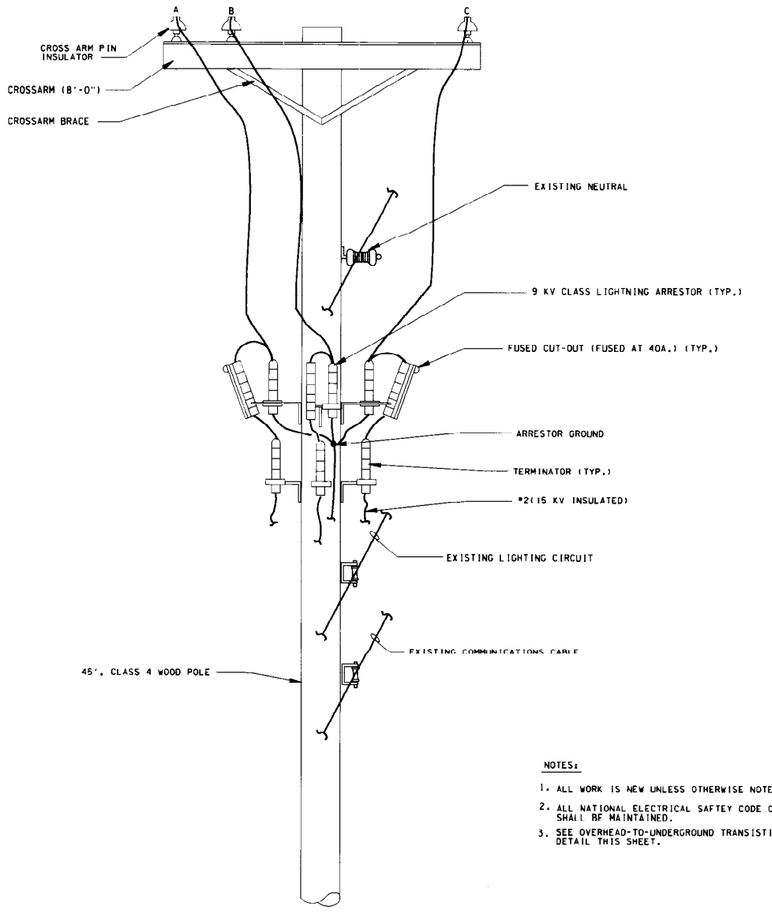
USER = JAYH

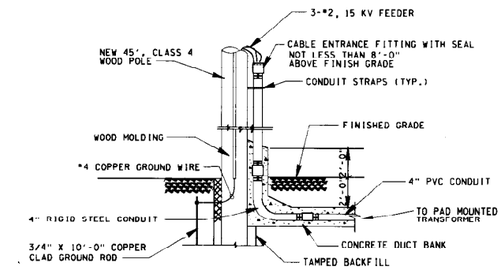


NOTES:

1. ALL WORK IS NEW UNLESS OTHERWISE NOTED.
2. ALL NATIONAL ELECTRICAL SAFTEY CODE CLEARANCES SHALL BE MAINTAINED.
3. SEE OVERHEAD-TO-UNDERGROUND TRANSISTION DETAIL THIS SHEET.

NEW POLE DETAIL (1 / E-8)

NOT TO SCALE



OVERHEAD-TO-UNDERGROUND TRANSITION DETAIL (2 / E-8)

NOT TO SCALE

NOTE:
DUCT SHALL BE CONCRETE ENCASED TO TRANSFORMER ENCLOSURE.

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: M. JUST
Drawn by: T. HITCH
Checked by: R.L. Patton
Reviewed by:
Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

ELECTRICAL DETAILS

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: E-8
Sheet 100 of 107

RECORD DRAWING "AS BUILT"

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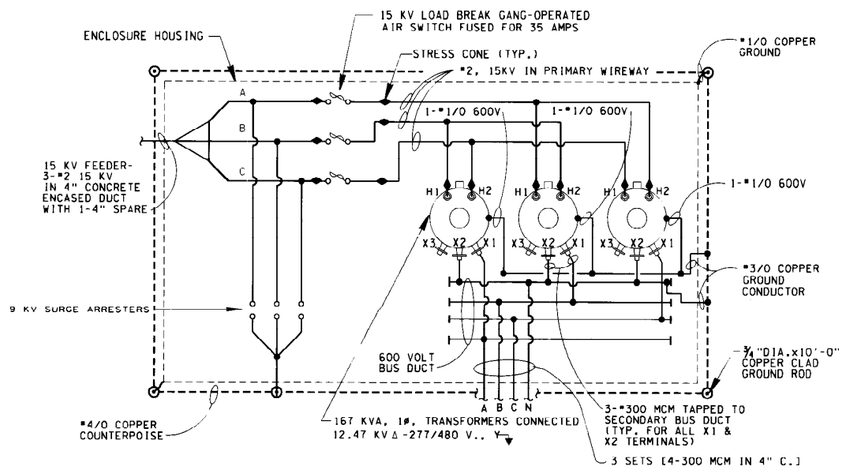
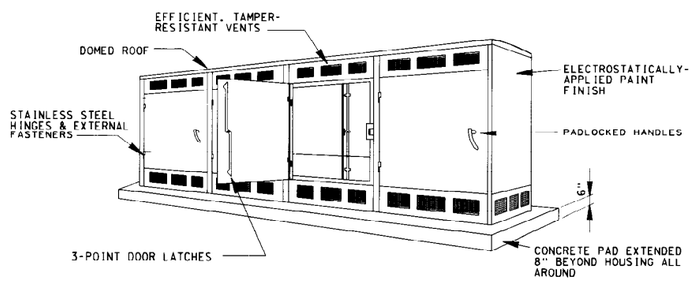


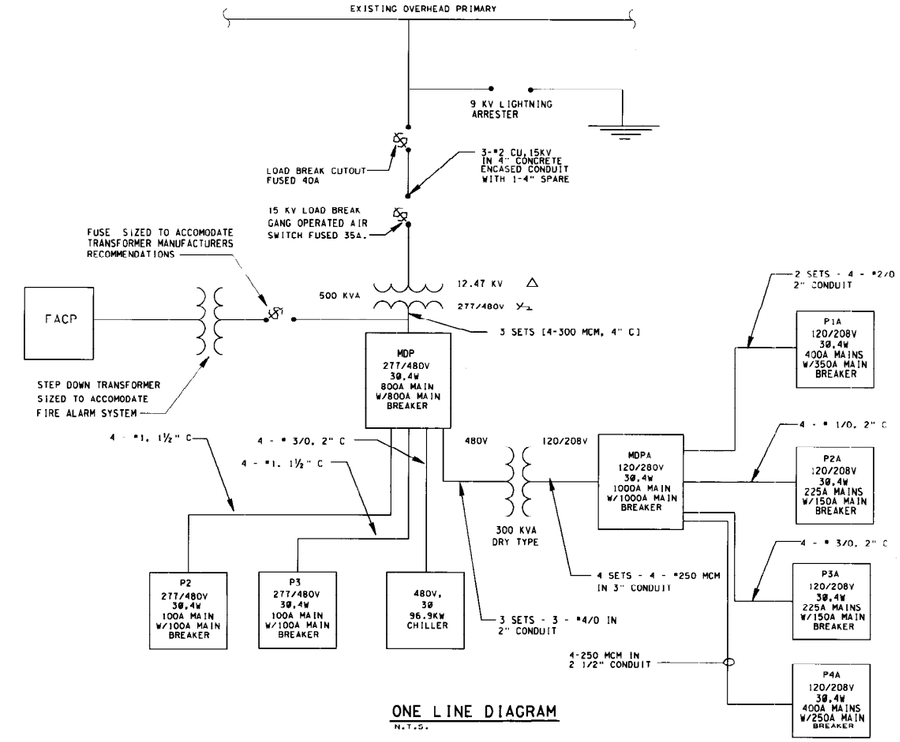
PAD-MOUNTED TRANSFORMERS WIRING DETAIL

SCALE: NONE



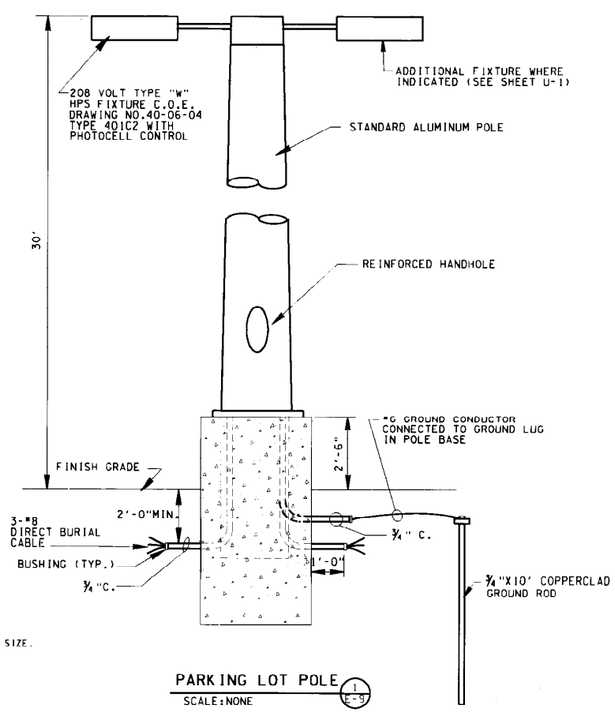
TRANSFORMER ENCLOSURE HOUSING

SCALE: NONE



ONE LINE DIAGRAM

N.T.S.



PARKING LOT POLE

SCALE: NONE (1 / E-9)

NOTES:

1. POLE AND BASE SHALL BE THE SAME FOR SINGLE FIXTURE POLES.
2. CONCRETE BASE SHALL BE PER POLE MANUFACTURERS' RECOMMENDATION. REINFORCING SHALL BE #4 MINIMUM SIZE. A MINIMUM OF 4-1¼"# 4'-0" 1/6" ANCHOR BOLTS SHALL BE PROVIDED AT THE BOTTOM.

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: M. JUST
Drawn by: JOE WALLACE H.
Checked by:
Reviewed by:
Approved by:

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 580 FY 90

ELECTRICAL DETAILS

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: E-9
Sheet 101 of 107

RECORD DRAWING "AS BUILT"

ZGO:140,77)FCC6XE09.DGN:1
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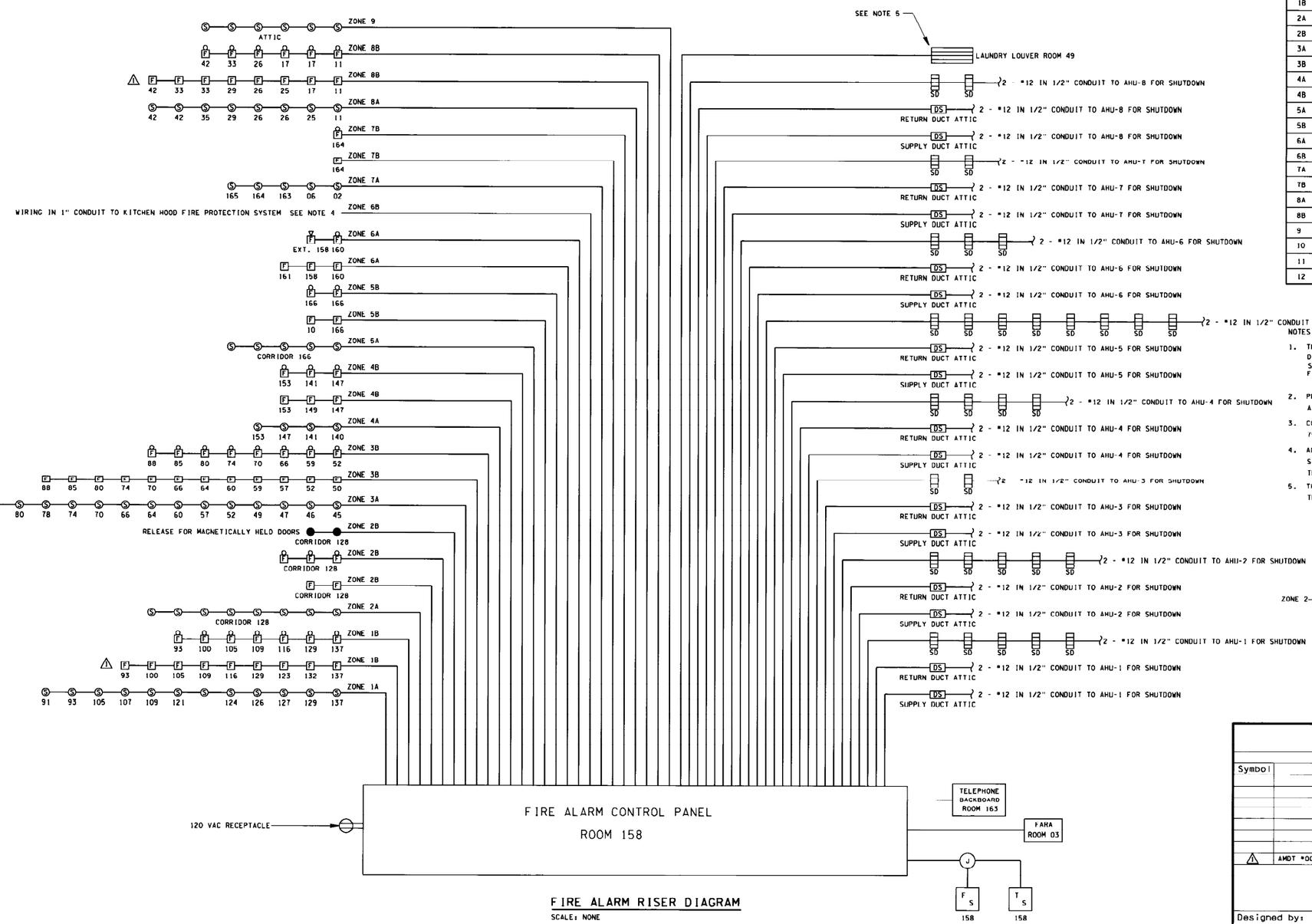
USER = JAYH



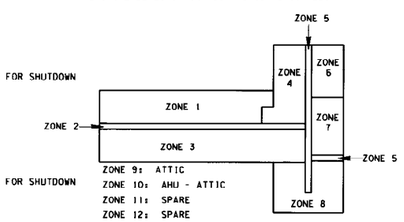
FIRE ALARM RISER DIAGRAM

SCALE: NONE

FIRE ALARM REMOTE ANNUNCIATOR	
ZONE	INDICATING DEVICES
1A	ZONE 1 SMOKE DETECTORS
1B	ZONE 1 PULL STATIONS AND BELLS
2A	ZONE 2 SMOKE DETECTORS
2B	ZONE 2 PULL STATIONS AND BELLS AND DOOR RELEASE
3A	ZONE 3 SMOKE DETECTORS
3B	ZONE 3 PULL STATIONS AND BELLS
4A	ZONE 4 SMOKE DETECTORS
4B	ZONE 4 PULL STATIONS AND BELLS
5A	ZONE 5 SMOKE DETECTORS
5B	ZONE 5 PULL STATIONS AND BELLS
6A	ZONE 6 PULL STATIONS AND BELLS AND HORN
6B	ZONE 6 KITCHEN EXHAUST HOOD
7A	ZONE 7 SMOKE DETECTORS
7B	ZONE 7 PULL STATIONS AND BELLS
8A	ZONE 8 SMOKE DETECTORS
8B	ZONE 8 PULL STATIONS AND BELLS
9	ZONE 9 ATTIC SMOKE DETECTORS
10	ZONE 10 AHU S & R DUCT SMOKE DETECTORS
11	SPARE
12	SPARE

NOTES:

1. THE FIRE ALARM CONTROL PANEL SHALL CONTAIN A 4-CHANNEL DIGITAL DIALER WHICH SHALL BE COMPATIBLE WITH BASE-WIDE SYSTEM SILENT KNIGHT #1400/1410 TO TRANSMIT ALARM SIGNALS TO CENTRAL FIRE ALARM STATION VIA TELEPHONE LINES.
2. PROVIDE AND INSTALL ALL NECESSARY WIRING TO PROVIDE A COMPLETE FIRE ALARM SYSTEM.
3. COMBINATION FIRE ALARM BELL / LIGHT UNIT SHALL BE MAXIMUM 75 db AT 10'-0" ABOVE FINISHED FLOOR.
4. ACTIVATION OF THE KITCHEN EXHAUST HOOD FIRE PROTECTION SYSTEM WHETHER MANUALLY OR AUTOMATICALLY SHALL ACTIVATE THE FIRE ALARM SYSTEM.
5. THE LAUNDRY LOUVER SHALL BE SET TO CLOSE WHENEVER THE SMOKE DETECTOR IN ROOM 49 IS ACTIVATED.



FIRE ALARM ZONE DIAGRAM

Revisions

Symbol	Descriptions	Date	Approved
1	AMDT #0003 ADDITIONAL FIRE ALARMS	8/28/90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: M. JUST
Drawn by: JOE WALLACE H.
Checked by: R.L. PEPPER
Reviewed by: GREULICG
Approved by: LARRY MARTIN

US Army Corps of Engineers
FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

FIRE ALARM RISER DIAGRAM

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: E-10
Sheet 102 of 107

RECORD DRAWING "AS BUILT"

ZGO:[40,77]FCC6XE10.DGN
DATE = 28-AUG-90, 15:46:03
USER = JAYH

PANEL MDP TYPE 3 PHASE 22,000 A.I.C.
VOLTAGE 277 / 480 VOLT MAINS 800 AMP WITH 800 AMP MAIN BREAKER

BRANCH CIRCUIT AMPS TRIP	POLES	DESIGNATION	VOLT-AMPS	NO.	PHASE LOAD (VOLTS-AMPS) #A	#B	#C	NO.	VOLT-AMPS	BRANCH CIRCUIT DESIGNATION	POLES	AMPS TRIP
16	3	AHU-8	2020	1	102020			2	100,000	300 KVA DRY TYPE TRANSFORMER	3	450
			2020			102020			100,000			
			2020				102020		100,000			
100	3	PANEL P2	17578	7	66078			8	48500	CHILLER	3	225
			17638			66138			48500			
			17943				66443		48500			
100	3	PANEL P3	19334	15	24911			14	5577	CP-2	3	40
			19754			25331			5577			
			20044				25621		5577			
15	3	CP-1	1275	19	2620			20	1345	LIGHTS, RMS 150, 151	1	20
			1275			1815		22	540	LIGHTS, RM 158	1	15
			1275				2275	24	1000	SPARE	1	20
		SEE NOTE No. 1										
				TOTAL:	179963	193304	196359					

PANEL MDPA TYPE 3 PHASE 22,000 A.I.C.
VOLTAGE 120 / 208 VOLT MAINS 1000 AMP WITH 1000 AMP MAIN BREAKER

BRANCH CIRCUIT AMPS TRIP	POLES	DESIGNATION	VOLT-AMPS	NO.	PHASE LOAD (VOLTS-AMPS) #A	#B	#C	NO.	VOLT-AMPS	BRANCH CIRCUIT DESIGNATION	POLES	AMPS TRIP
350	3	PANEL P1A	40261	1	60179			2	19918	PANEL P2A	3	150
			39817			57820			18003			
			45492				61759		16267			
150	3	PANEL P3A	13602	7	44163			8	30561	PANEL P4A	3	250
			12751			43464		10	30733			
			12334				43869	12	31535			
15	1	CP-3, CP-4	706	13	4039			14	3333	UNIT HEATER	3	40
20	1	SPARE	1000	15		4333			3333			
20	1	MECHANICAL RECEPTACLES	1260	17			4593		3333			
		SEE NOTE No. 2										
				TOTAL:	108381	105617	110221					

PANEL P4A TYPE 3 PHASE 22,000 A.I.C.
VOLTAGE 120 / 208 VOLT MAINS 400 AMP WITH 250 AMP BREAKER

BRANCH CIRCUIT AMPS TRIP	POLES	DESIGNATION	VOLT-AMPS	NO.	PHASE LOAD (VOLTS-AMPS) #A	#B	#C	NO.	VOLT-AMPS	BRANCH CIRCUIT DESIGNATION	POLES	AMPS TRIP
125	3	CONVECTION STEAMER	12000	1	17000			2	5000	CONVECTION OVEN	3	60
			12000			17000			5000			
			12000				18500		6500			
15	3	DISPOSAL NO. 3	625	7	1525			8	900	FREEZER	2	15
			625			1525			900			
			625				1525	12	900	FREEZER	2	15
15	3	DISPOSAL NO. 10	625	13	1525				900			
			625			1875		16	1250	REFRIGERATOR NO. 20	2	20
			625				1875		1250			
15	3	DISPOSAL NO. 36	625	19	1601			20	976	REFRIGERATOR NO. 15	1	15
			625			1657		22	1032	ICE MAKER	1	20
			625				2075	24	1450	CONVEYOR TOASTER	2	20
20	2	HOT FOOD PANS	1500	25	2950				1450			
			1500			2676		28	1176	CONDENSATE HOOD EF-1	1	20
20	3	SPARE	2000	29			4000	30	2000	SPARE	3	20
			2000		4000				2000			
			2000			4000			2000			
20	1	FIRE ALARM RECEPTACLE	600	35			1660	36	960	PARKING LOT LIGHTS *	2	20
20	1	SPARE	1000	37	1960			38	960			
20	1	SPARE	1000	39		2000		40	1000	SPARE	1	20
20	1	SPARE	1000	41			2000	42	1000	SPARE	1	20
				TOTAL:	30561	30733	31535					

* NOTE: THE ADDITIONAL PARKING LOT FIXTURES FOR BID ADDITIVE NO. 1, SHEET C-2A WILL NOT AFFECT THE 20 AMP BREAKER SIZE CIRCUIT P4A-36.

PANEL P2 TYPE 3 PHASE 22,000 A.I.C.
VOLTAGE 277 / 480 VOLT MAINS 100 AMP WITH 100 AMP MAIN BREAKER

BRANCH CIRCUIT AMPS TRIP	POLES	DESIGNATION	VOLT-AMPS	NO.	PHASE LOAD (VOLTS-AMPS) #A	#B	#C	NO.	VOLT-AMPS	BRANCH CIRCUIT DESIGNATION	POLES	AMPS TRIP
20	1	LIGHTS, RMS 5-9	1484	1	2925			2	1440	LIGHTS, ROOMS 11,14,17	1	20
20	1	LIGHTS, RMS 129,137,136,138	1485	3		3120		4	1635	LIGHTS, ROOMS 2-4,163-165	1	20
20	1	LIGHTS, RMS 33,42,43	1550	5			2895	6	1345	LIGHTS, ROOMS 145-147,149	1	20
20	1	LIGHTS, RMS 25,26,36	1340	7	2590			8	1050	LIGHTS, ROOMS 43-49	1	20
20	1	LIGHTS, CORRIDOR 166	1120	9		1750		10	640	LIGHTS, CORRIDOR 128	1	20
20	1	LIGHTS, RMS 50-57	1430	11			2430	12	1000	SPARE	1	20
20	1	LIGHTS, RMS 151,153,154,156,157	1385	13	1645			14	260	LIGHTS, ROOMS 3,6,164	1	20
20	1	LIGHTS, RMS 140,141,139	1140	15		3180		16	2020	AHU-7	3	15
30	3	AHU-5	5578	17			5598		2020			
			5578		5598				2020			
			5578			6578		22	1000	SPARE	1	20
15	3	AHU-6	2020	23			5020	24	1000	SPARE	1	20
			2020		3020			26	1000	SPARE	1	20
			2020			5020		28	1000	SPARE	1	20
20	1	SPARE	1000	29			2000	30	1000	SPARE	1	20
				TOTAL:	17578	17638	17943					

PANEL P1A TYPE 3 PHASE 22,000 A.I.C.
VOLTAGE 120 / 208 VOLT MAINS 400 AMP WITH 350 AMP MAIN BREAKER

BRANCH CIRCUIT AMPS TRIP	POLES	DESIGNATION	VOLT-AMPS	NO.	PHASE LOAD (VOLTS-AMPS) #A	#B	#C	NO.	VOLT-AMPS	BRANCH CIRCUIT DESIGNATION	POLES	AMPS TRIP
60	3	BOOSTER HEATER	5000	1	15000			2	10000	OVEN & RANGE GRIDDLE	3	120
			5000			14400			9400			
			5000				20400		15400			
35	3	SINK HEATER	3000	7	5210			8	2210	TILTING SKILLET	3	25
			3000			5210			2210			
			3000				5210		2210			
20	3	DISHWASHER	1670	13	3772			14	2102	CUTTER MIXER	3	25
			1670			3772			2102			
			1670				3772		2102			
30	3	COOKING EQHT HOOD EH-1	2490	19	3570			20	1080	GFI RECEPTACLES	1	20
			2490			9695		22	7205	TRASH COMPACTOR DISC.	3	60
			2490				9695		7205			
20	1	HOOD FIRE SUPPRESS SYSTEM	1000	25	8205				7205			
20	2	DOOR AIR CURTAIN	1250	27		2193		28	945	DWH-1,2 DAMPER MOTORS	1	15
			1250	29			2210	30	960	REFRIGERATOR	1	15
20	1	EF-7	1176	31	2004			32	828	B-1	1	15
20	1	MICROWAVE AND RECEPTACLE	1836	33		2547		34	711	RF-10,EF-15, RECPTS	1	15
20	1	EH-1 VAPOR PROOF LAMP	1000	35			2205	36	1206	EF-18, RF-11, RECPTS	1	20
20	1	EH-1 VAPOR PROOF LIGHT	1000	37	2500			38	1500	ENTRYWAY, EXT. LIGHTS	1	20
20	1	SPARE	1000	39		2000		40	1000	SPARE	1	20
20	1	SPARE	1000	41			2000	42	1000	SPARE	1	20
				TOTAL:	40261	39817	45492					

NOTE No 1

BUILDING B
PANEL MDP

1	AHU #8
2	Mech. Room Lights
3	AHU #8
4	Kitchen Lights
5	AHU #8
6	Spare
7	CP-2
8	CP-1
9	CP-2
10	CP-1
11	CP-2
12	CP-1
13	P2 Panel
14	P3 Panel
15	P2 Panel
16	P3 Panel
17	P2 Panel
18	P3 Panel
19	Chiller
20	Blank
21	Chiller
22	Blank
23	Chiller
24	Blank
25	300 KVA Transformer
26	Blank
27	300 KVA Transformer
28	Blank
29	300 KVA Transformer
30	Blank
31	
32	
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41	
42	

NOTE No. 2

BUILDING B
PANEL MDPA

1	Blank
2	Air Compressor
3	Blank
4	Air Compressor
5	Blank
6	Air Compressor
7	Mech. Room Heater
8	CP-3, CP-4
9	Mech. Room Heater
10	Mech. Room Receptacles
11	Mech. Room Heater
12	Spare
13	P3A Panel
14	P2A Panel
15	P3A Panel
16	P2A Panel
17	P3A Panel
18	P2A Panel
19	P1A Panel
20	P4A Panel
21	P1A Panel
22	P4A Panel
23	P1A Panel
24	P4A Panel
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42	

PANEL P3 TYPE 3 PHASE 22,000 A.I.C.
VOLTAGE 277 / 480 VOLT MAINS 100 AMP WITH 100 AMP MAIN BREAKER

BRANCH CIRCUIT AMPS TRIP	POLES	DESIGNATION	VOLT-AMPS	NO.	PHASE LOAD (VOLTS-AMPS) #A	#B	#C	NO.	VOLT-AMPS	BRANCH CIRCUIT DESIGNATION	POLES	AMPS TRIP
20	1	LIGHTS, ROOMS 59-61	890	1	1330			2	440	LIGHTS, RMS 64,65	1	20
20	1	LIGHTS, ROOMS 66,67,72	795	3		1290		4	495	LIGHTS, RM 70	1	20
20	1	LIGHTS, ROOMS 73,74,78	995	5			2085	6	1090	LIGHTS, RMS 80-83,85	1	20
20	1	LIGHTS, ROOMS 83,88,89	795	7	1935			8	1140	LIGHTS, CORRIDOR 128	1	20
20	1	LIGHTS, ROOMS 91,93,96,104	1610	9		2545		10	935	LIGHTS, RMS 105,109	1	20
20	1	LIGHTS, ROOM 107	640	11			2040	12	1400	LIGHTS, RMS 114-116,121,123	1	20
20	1	LIGHTS, ROOMS 124-127	1150	13	2150			14	1000	SPARE	1	20
30	3	AHU-1	5578	15		9296		16	3718	AHU-2	3	20
			5578				9296		3718			
			5578		9296				3718			
15	3	AHU-3	905	21		4623		22	3718	AHU-4	3	20
			905				4623		3718			
			905		4623				3718			
20	1	SPARE	1000	27		2000		28	1000	SPARE	1	20
20	1	SPARE	1000	29			2000	30	1000	SPARE	1	20
		SPACE		31				32		SPACE		
		SPACE		33				34		SPACE		
				TOTAL:	19334	19754	20044					

PANEL P2A TYPE 3 PHASE 22,000 A.I.C.
VOLTAGE 120 / 208 VOLT MAINS 225 AMP WITH 150 AMP MAIN BREAKER

BRANCH CIRCUIT AMPS TRIP	POLES	DESIGNATION	VOLT-AMPS	NO.	PHASE LOAD (VOLTS-AMPS) #A	#B	#C	NO.	VOLT-AMPS	BRANCH CIRCUIT DESIGNATION	POLES	AMPS TRIP
20	1	RECEPTACLES	1440	1	2400			2	960	TELEVISIONS	1	15
15	1	EF-9, RECPTS	981	3		2142		4	1161	EF-10, RECPTS	1	20
15	1	SECURITY SYSTEM	600	5			1500	6	900	RECEPTACLES	1	15
20	1	EF-14,RF-9, RECPTS	1431	7	2391			8	960	REFRIGERATOR RECPT	1	15
15	1	TELEVISIONS	960	9		2796		10	1836	MICROWAVE RECPT	1	20
15	1	CATV	600	11			1725	12	1125	LIGHTS, ROOMS 50,55,56,57	1	20
15	1	Z-EWC	960	13	1920			14	960	WASHER	1	20
20	1	EF-3,4 CORRIDOR RECPTS	1404	15		2364		16	960	WASHER	1	20
20	1	EF-2, EF-5,RECPTS	1931	17			2891	18	960	WASHER	1	20
20	1	LIGHTS, ROOM 26	1050	19	3338			20	2288	DRYER	2	30
20	1	LIGHTS, ROOMS 36,42,43	1425	21		3713		22	2288			
20	1	LIGHTS, ROOMS 11,14,26	1425	23			3713	24	2288	DRYER	2	30
20	1	RECEPTACLES	1800	25	4088			26	2288			
20	1	LIGHTS, ROOMS 140,142,143	1725	27		4013		28	2288	DRYER	2	30
20	1	LIGHTS, ROOMS 151,153,154	1200	29			3488	30	2288			
20	1	REFRIGERATOR RECPT	1860	31	3515			32	1656	MICROWAVE	1	20
15	1	TELEPHONE BOARD RECPT	600	33		975		34	375	DOORWAY LIGHTS	1	15
15	1	EXTERIOR LIGHTS	500	35			950	36	450	DOORWAY LIGHTS	1	15
15	1	ENTRY & SOFFIT LIGHTS	825	37	2265			38	1440	RM 6 RECPTS	1	20
20	1	SPARE	1000	39		2000		40	1000	LAUNDRY LOUVER	1	20
20	1	SPARE	1000	41			2000	42	1000	SPARE	1	20
				TOTAL:	19918	18003	1626[illegible]					

PANEL P3A TYPE 3 PHASE 22,000 A.I.C.
VOLTAGE 120 / 208 VOLT MAINS 225 AMP WITH 150 AMP MAIN BREAKER

BRANCH CIRCUIT AMPS TRIP	POLES	DESIGNATION	VOLT-AMPS	NO.	PHASE LOAD (VOLTS-AMPS) #A	#B	#C	NO.	VOLT-AMPS	BRANCH CIRCUIT DESIGNATION	POLES	AMPS TRIP
20	1	EF-8, RECPTS RMS 91,93,100,105	1701	1	3501			2	1800	RECPTS RMS 105,107,109,123	1	20
15	1	ROOM 107 2 TVS	960	3		2820		4	1860	RECPT, REFRIGERATOR	1	20
20	1	ROOM 126 MICROWAVE	1656	5			3593	6	1937	EF-11,19,20,REC.RMS.107,116,121,126	1	20
15	1	Z EWC	960	7	2841			8	1881	EF-12,RF-7&8,RECPTS RMS	1	20
20	1	EF-13,RF-5&6,REC RMS 82-89	1881	9		3581		10	1800	RECPTS RMS 66,67,74,80	1	20
20	1	RECPTS RMS 59,60,64,REFRIG	1860	11			3516	12	1656	MICROWAVE	1	20
20	1	LIGHTS, RMS 60-65	1275	13	2250			14	375	LIGHTS ROOM 107	1	15
15	1	LIGHTS, RMS 121,123	975	15		2325		16	1350	LIGHTS ROOMS 99,102,105,114	1	20
20	1	LIGHTS, RMS 66,67	1125	17			2325	18	1200	LIGHTS ROOMS 91,93,98	1	20
20	1	LIGHTS, RMS 74,78,79	1425	19	2685			20	1260	ATTIC RECEPTACLES	1	20
20	1	LIGHTS, RMS 80,88,89	1725	21		2475		22	750	ATTIC LIGHTS	1	15
15	1	DOORWAY LIGHTS	300	23			900	24	600	EXTERIOR LIGHTS	1	15
20	1	LIGHTS, RMS 129,130,137,140	1725	25	2325			26	600	EXTERIOR LIGHTS	1	15
15	1	RF-1 THRU RF-4, EF-16,17	450	27		1450		28	1000	SPARE	1	20
20	1	SPARE	1000	29			2000	30	1000	SPARE	1	20
				TOTAL:	13602	12731	12534					

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: M. JUST
Drawn by: W.L. MERCER
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 30S CHILDREN
PN 380 FY 90

PANEL SCHEDULES

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: E-11
Sheet 103 of 107

RECORD DRAWING "AS BUILT"

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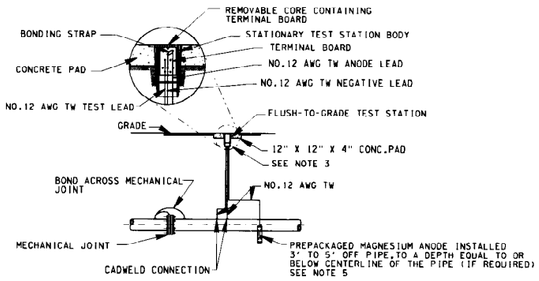
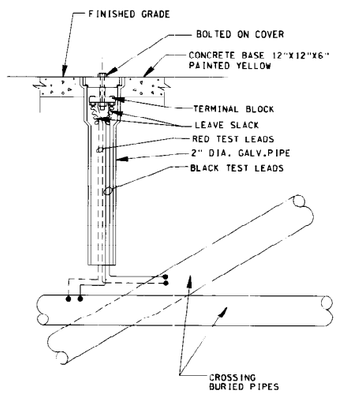
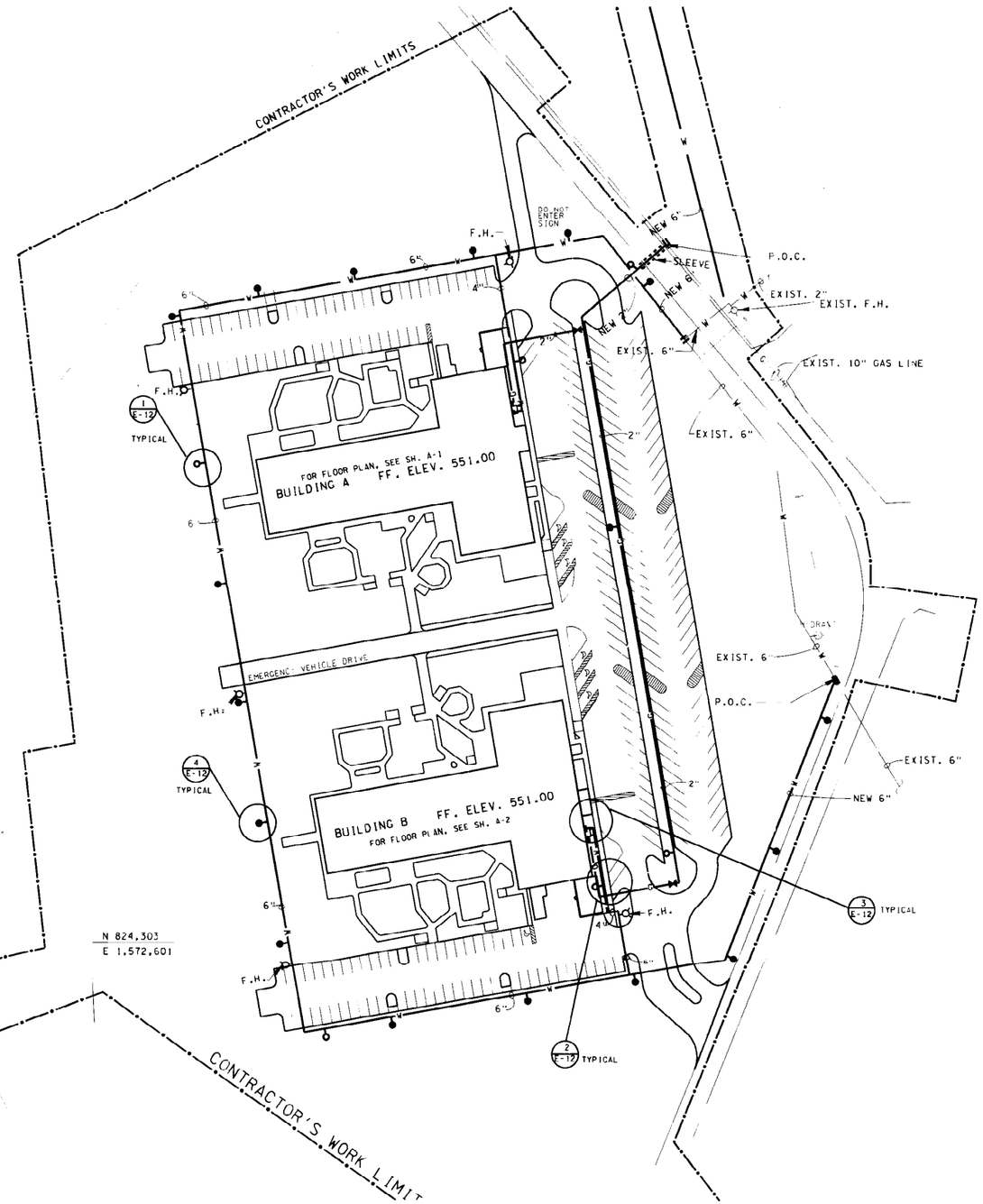
USER = JAY

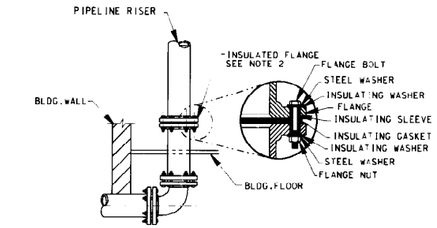


DETAIL (1 / E-12)
(TEST STATION WITH ANODE)
NO SCALE

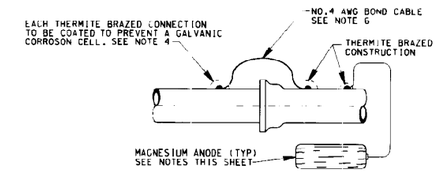


DETAIL (2 / E-12)
(CROSSING BURIED PIPES)
NO SCALE





DETAIL (3 / E-12)
(INSULATED FLANGE AND WALL PENETRATION)
NO SCALE



DETAIL (4 / E-12)
(BOND ACROSS "STAB" OR SLIP JOINT)
NO SCALE

NOTES:

1. PIPELINE PENETRATIONS THRU BUILDING WALLS SHALL BE MADE AS TO INSURE NO CONTACT BETWEEN THE PIPE AND BUILDING STRUCTURAL STEEL BY UTILIZING A MODULAR MECHANICAL TYPE SEAL OF INTERLOCKING SYNTHETIC RUBBER LINKS W/BOLTS FOR EXPANDING LINKS.
2. FLANGE INSULATION TO CONSIST OF TYPE E FULL FACE GASKETS AND FULL LENGTH SLEEVES W/DOUBLE WASHERS.
3. ALLOW 18" SLACK IN LEAD WIRES INSIDE TEST STATION TO PERMIT REMOVAL OF TERMINAL BOARD.
4. ALL EXOTHERMIC WELD CONNECTIONS SHALL BE COATED WITH A COLD APPLIED, HIGH ELECTRICAL RESISTIVITY BLACK MASTIC COATING AND COVERED WITH A PLASTIC CAP.
5. ANODES TO BE INSTALLED 3' TO 5' OFF PIPE, TO A DEPTH BELOW BOTTOM OF PIPE. IF ANODES CANNOT BE INSTALLED VERTICALLY THEY CAN BE INSTALLED HORIZONTALLY AS SHOWN IN DETAIL NO. 4 TO A DEPTH BELOW BOTTOM OF PIPE.
6. DESIGNATED SIZE STRANDED COPPER CONDUCTOR WITH MOLECULAR WEIGHT POLYETHYLENE INSULATION AND JACKET.
7. EACH ANODE ON THE WATER LINE SHALL PROTECT A MAXIMUM OF 115 LINEAL FEET OF PIPE. EACH ANODE ON THE GAS LINE SHALL PROTECT A MAXIMUM OF 250 LINEAL FEET OF PIPE
8. CATHODIC PROTECTION SYSTEMS INDICATED ARE BASED UPON METAL UTILITY LINES BEING PROVIDED. IF NON-METAL LINES ARE PROVIDED, DELETE ASSOCIATED CATHODIC PROTECTION.

GRAPHIC SCALE

Revisions			
Symbol	Descriptions	Date	Approved

U.S.ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: M. JUST
Drawn by: T. HITCH
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers

FT.CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

CATHODIC PROTECTION PLAN

Scale: 1"= 50'
Date: MAY 1990
Sheet reference number: E-12
Drawing Code: F-740-14-05
Sheet 104 of 107

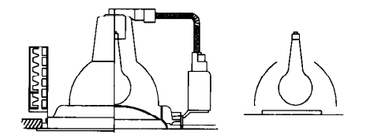
RECORD DRAWING "AS BUILT"

ZGO:(40,77)FC06XF(2.00N)1
DATE : 27-APR-90, 06:52:06
USER : JAYH

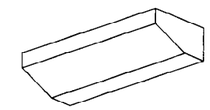
LIGHT FIXTURE SCHEDULE

DESIGNATION	CORPS OF ENGINEERS STANDARD DRAWING NO. 40-06-04	DIFFUSER	MOUNTING	LAMPS QUANTITY	LAMPS DESCRIPTION	REMARKS
A A1 ✳	206-A SHEET 19	ACRYLIC	RECESSED	2	F40SP35/RS/WM FLUORESCENT	A1 FIXTURE HAS INTEGRAL EMERGENCY BALLAST PACK 206-A-1 SHEET 19
B ✳	DIE CAST ALUMINUM WHITE SPLAY TRIM	REGRESSED FRESNEL LENS	RECESSED	1	75W A-19 INCANDESCENT	SEE DETAIL
C C1 C2	2" EDGE PROFILE TASK FIXTURE	ACRYLIC WRAPAROUND	UNDER CABINET AND WALL SEE SHEET A-12A FOR DETAIL	1	F40CW/RS F30CW/RS F20CW/TS	C NOMINAL 4'-0" C1 SAME AS C EXCEPT NOMINAL 3'-0" C2 SAME AS C EXCEPT NOMINAL 2'-0" SEE DETAIL
D ✳	COMPACT FLUORESCENT DOWNLIGHT	SPECULAR CLEAR ALZAK	RECESSED	2	PL-13 FLUORESCENT	SEE DETAIL
⊢⊗	604 SHEET 55	STENCIL RED LETTERS	UNIVERSAL	2	T6 ½ 20W	SINGLE OR DOUBLE FACE AS INDICATED ON DRAWINGS. BATTERY POWERED
F F1	PORCELAIN LAMP HOLDER 101-B SHEET 1	OPEN	SURFACE	1	75W A-19 INCANDESCENT	F1 IS NON-PULL CHAIN TYPE 101-A SHEET 1
G	EXTRUDED ALUMINUM HOUSING UP AND DOWN LIGHT	ACRYLIC PRISMATIC	WALL 7'-0" AFF	2	F40SP35/RS/WM FLUORESCENT	SEE DETAIL
H	218 SHEET 25	WRAPAROUND ACRYLIC	SURFACE	1	F40CW/RS FLUORESCENT	
J	ONE PIECE AA 6063 T5 EXTRUDED ALUMINUM	PRISMATIC ACRYLIC LENS	AIRCRAFT CABLE 2'-6" ABOVE DESK	1	F40SP35/RS/WM FLUORESCENT	WHITE FIXTURE BODY SEE DETAIL
K K1	230-A-1 SHEET 31		CHAIN MOUNTED 9'-0" AFF	2	F40CW/RS FLUORESCENT	K1 FIXTURE HAS INTERNAL EMERGENCY BALLAST PACK
M ✳	306-A SHEET 38	PRISMATIC GLASS	SURFACE	1	HR100DX38	BALLAST AND JUNCTION BOX SHALL BE ACCESSIBLE THRU REFLECTOR OPENING
P P1 ✳	206-C SHEET 19	ACRYLIC	RECESSED	4	F40SP35/RS/WM FLUORESCENT	P1 FIXTURE HAS INTEGRAL EMERGENCY BALLAST PACK 206-C-1 SHEET 19
Q Q1 ✳	PARABOLIC PERIMETER WITH PLUG IN CONNECTORS AND V-LAMP REFLECTOR	SPECULAR ALUMINUM LOUVER	RECESSED	AS REQUIRED	F40SP35/RS/WM FLUORESCENT	Q1 FIXTURE HAS INTEGRAL EMERGENCY BALLAST PACK FIXTURES SHOWN ARE COMPLETE PERIMETER SYSTEM SEE DETAIL
R ✳	INCANDESCENT ADJUSTABLE EYEBALL HI-LITE		RECESSED	1	150 W R40 FLOOD	KIRLIN COMPANY FIXTURE NO. 1708-37 OR EQUAL
T	WRAPAROUND FLUORESCENT FIXTURE	PRISMATIC ACRYLIC	SURFACE	2	2L-40WRS FLUORESCENT	IMPACT RESISTANT DIFFUSER SUITABLE FOR WET LOCATIONS THOMAS INDUSTRIES CAT.NO. FE-1524-4 OR EQUAL
U	501C SHEET 45	PRISMATIC BOROSILICATE GLASS	WALL 10'-0" AFF	1	100W HIGH PRESSURE SODIUM	
W 70 W 100 W 150	401C2 SHEET 41	TEMPERED GLASS	POLE MOUNTED	1	70 W HPS 100 W HPS 150 W HPS	IMPACT RESISTANT DIFFUSER. SEE SHEET E-9 FOR DETAIL
X	126-A-1 SHEET 16	PRISMATIC GLASS	FLUSH	3	100W INCANDESCENT	WEATHERTIGHT INSECT PROOF

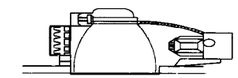
✳ RECESSED FIXTURES SHALL BE INSTALLED IN ACCORDANCE WITH N.E.C. 410-64.



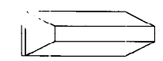
TYPE B



TYPE C, C1 & C2

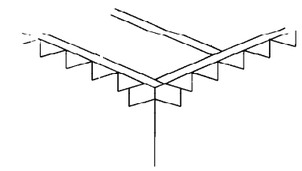


TYPE D



TYPE G

TYPE J



TYPE Q & Q1

NOTES:

1. LAMP NUMBERS ARE GENERAL ELECTRIC OR EQUAL, EXCEPT FIXTURES R AND T.
2. PROVIDE ENERGY SAVING BALLASTS.
3. LIGHTING FIXTURES NOT DEFINED BY CORPS OF ENGINEERS STANDARD DRAWING NO. 40-06-04 ARE DESCRIBED.
4. FIXTURE NUMBER MAY OR MAY NOT REFLECT TRIM OR FLANGE REQUIRED FOR A SPECIFIC CEILING TYPE IN A ROOM. ELECTRICAL SUB-CONTRACTOR SHALL VERIFY CEILING TYPES FROM ARCHITECTURAL DRAWINGS TO DETERMINE WHETHER FIXTURE REQUIRES C, F, G, H, T OR Z TRIM.

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

Designed by: M. JUST
Drawn by: JOE WALLACE H.
Checked by:
Reviewed by:
Approved by:

US Army Corps of Engineers
FT CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 360 FY 90

LIGHT FIXTURE SCHEDULE AND LEGEND

Scale: NONE
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: E-13
Sheet 105 of 107

RECORD DRAWING "AS BUILT"

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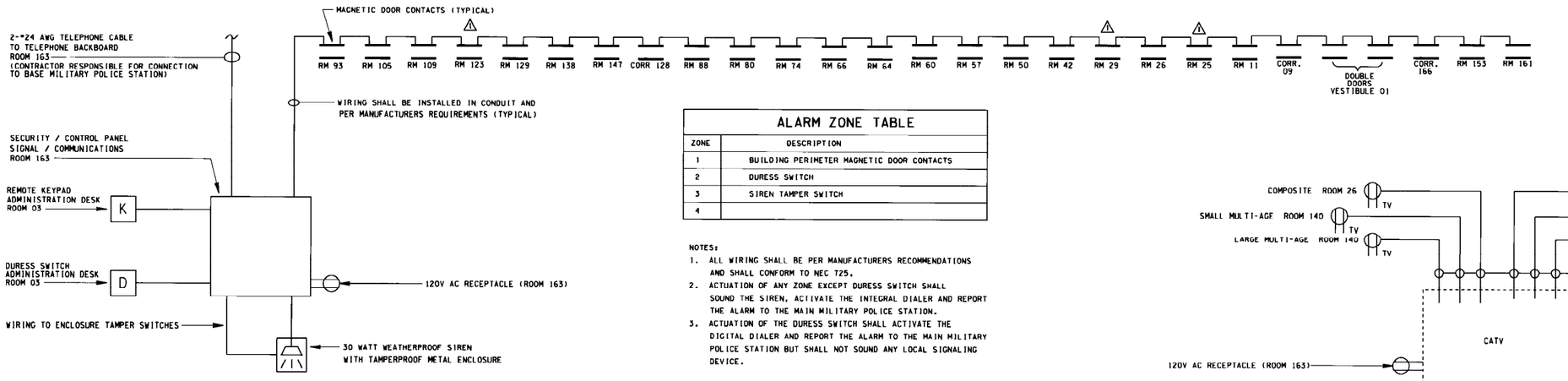


INTRUSION DETECTION SYSTEM RISER DIAGRAM

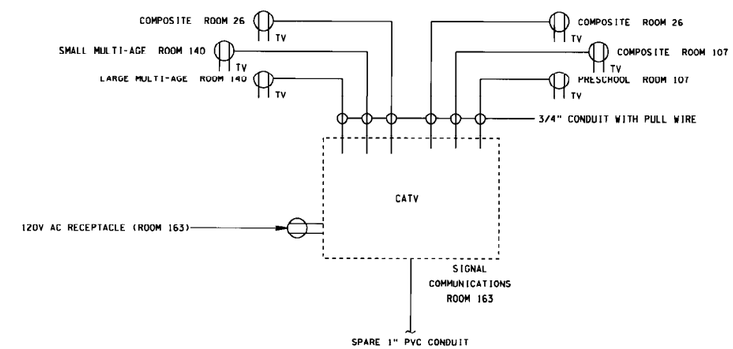
SCALE: NONE

ALARM ZONE TABLE

ZONE	DESCRIPTION
1	BUILDING PERIMETER MAGNETIC DOOR CONTACTS
2	DURESS SWITCH
3	SIREN TAMPER SWITCH
4	

NOTES:

1. ALL WIRING SHALL BE PER MANUFACTURERS RECOMMENDATIONS AND SHALL CONFORM TO NEC T25.
2. ACTUATION OF ANY ZONE EXCEPT DURESS SWITCH SHALL SOUND THE SIREN, ACTIVATE THE INTEGRAL DIALER AND REPORT THE ALARM TO THE MAIN MILITARY POLICE STATION.
3. ACTUATION OF THE DURESS SWITCH SHALL ACTIVATE THE DIGITAL DIALER AND REPORT THE ALARM TO THE MAIN MILITARY POLICE STATION BUT SHALL NOT SOUND ANY LOCAL SIGNALING DEVICE.

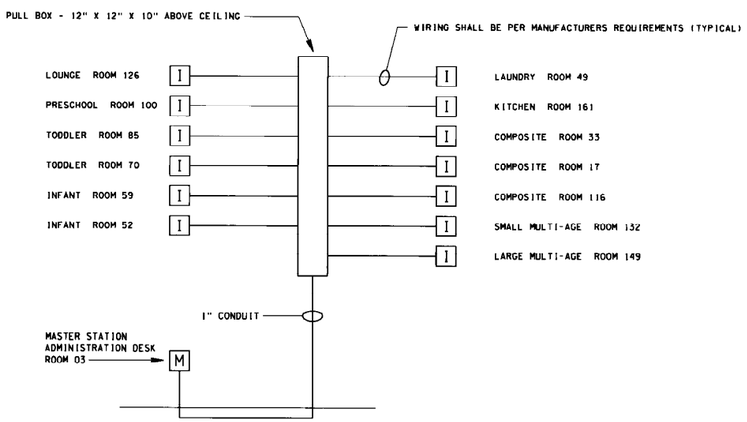


TELEVISION RISER DIAGRAM

SCALE: NONE

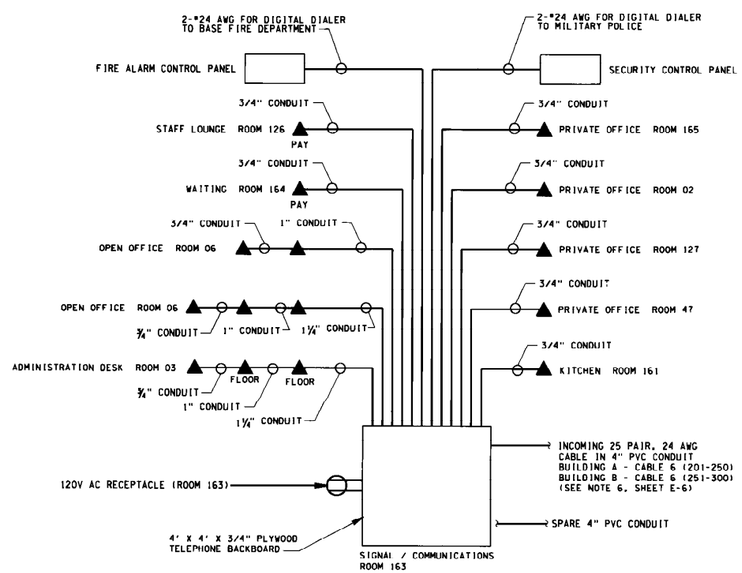
NOTES:

1. THE TV RECEPTACLES SHALL BE A COMBINATION DUPLEX RECEPTACLE AND CABLE TV OUTLET UNDER A COMMON FACEPLATE. PROVIDE A BARRIER BETWEEN THE POWER AND SIGNAL COMPARTMENTS.
2. POWER SHALL BE SUPPLIED TO TV RECEPTACLES AS SHOWN ON SHEETS E-5 & E-6. EMPTY CONDUIT WITH PULL WIRE SHALL BE PROVIDED FOR FUTURE INSTALLATION OF CABLE BY CABLE COMPANY. POWER CONDUCTOR AND SIGNAL CABLE SHALL BE RUN IN SEPARATE CONDUITS.



INTERCOM RISER DIAGRAM

SCALE: NONE



TELEPHONE RISER DIAGRAM

SCALE: NONE

Revisions			
Symbol	Descriptions	Date	Approved
1	AMDT #0003 ADDITIONAL DOOR CONTACTS	8/28/90	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
US Army Corps of Engineers
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

RISER DIAGRAMS

Designed by: M. JUST
Drawn by: JOE WALLACE H.
Checked by: R.L. PEPPER
Reviewed by: GREULICH
Approved by: LARRY MARTIN

Scale: AS SHOWN
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: E-14
Sheet 106 of 107

RECORD DRAWING "AS BUILT"

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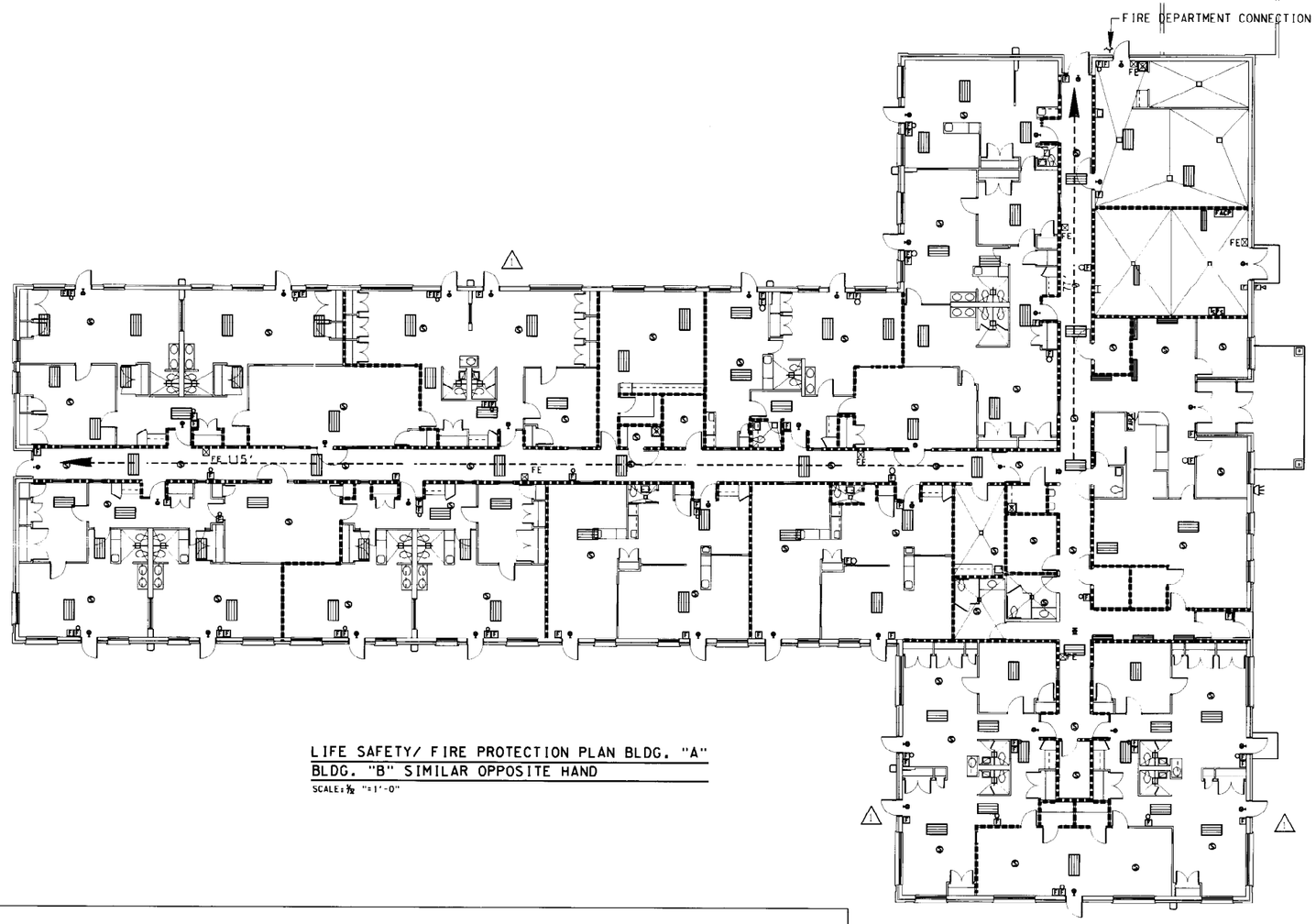

LIFE SAFETY/ FIRE PROTECTION PLAN BLDG. "A"
BLDG. "B" SIMILAR OPPOSITE HAND

SCALE: 1/32 "=1'-0"

LEGEND

- 1 HR. RATED WALL
- EXIT SIGNAGE (ARROWS INDICATE DIRECTION OF EGRESS FLOW)
- F — MANUAL PULL STATION
- F — EXTERIOR ALARM HORN
- F — BELL/LIGHT UNIT
- 85' — TRAVEL DISTANCE
- FACP — FIRE ALARM CONTROL PANEL
- FARA — FIRE ALARM REMOTE ANNUNCIATOR
- FLUORESCENT LIGHTING FIXTURE WITH INTEGRAL EMERGENCY BALLAST PACK
- S — SMOKE DETECTOR, PHOTOELECTRIC TYPE
- DS — DUCT MOUNTED SMOKE DETECTOR (NOT SHOWN)
- FE — FIRE EXTINGUISHER
- MAGNETIC DOOR HOLDERS (TIED IN WITH F.A. SYSTEM).
- FS — FLOW SWITCH
- TS — O. S. & Y. VALVE SWITCH

GRAPHIC SCALE

8 0 8 16FT

SCALE: 1/32" = 1'-0"

CODE REVIEW

A.	OCCUPANCY TYPE UBC 1988, TABLE 5-A	GROUP E, DIVISION 3	
B.	TYPE OF CONSTRUCTION UBC 1988, TABLE 5-C	TYPE II - N	
	(1) FIRE RESISTIVE REQUIREMENTS UBC 1988, TABLE 17-A	BEARING WALLS---------NO REQUIREMENTS. STRUCTURAL FRAME-------NO REQUIREMENTS. PERMANENT PARTITIONS---NO REQUIREMENTS.	
	(2) ENCLOSURE PROTECTION AEI CHAPTER 9	COMBUSTIBLE STORAGE-----1 HR MECHANICAL/STORAGE------1 HR	
C.	FIRE PROTECTION SYSTEM NFPA 13	WET PIPE SPRINKLER SYSTEM BASED ON LIGHT HAZARD OCCUPANCY FOR ADMIN/OFFICE AREAS WHICH INCLUDE THE KITCHEN, LAUNDRY, MECHANICAL AND STORAGE ROOMS.	
D.	AREA LIMITATION UBC 1988, TABLE 5-C AND PARAGRAPH 506.3	ALLOWABLE 27,000 S.F. EACH BUILDING A & B	DESIGNED 23,725 S.F. EACH BUILDING A & B
	GROSS BUILDING AREA BUILDING A BUILDING B	AUTHORIZED S.F. 23,660 S.F. 23,660 S.F.	DESIGNED S.F. 23,725 S.F. 23,725 S.F.
	NET BUILDING AREA BUILDING A BUILDING B		
E.	HEIGHT LIMITATIONS UBC 1988, TABLE 5-D	2 STORIES OR 65 FEET	
F.	SPACING OF STUCTURES MIL HDBK - 1008 SEC. 2.3 UBC 1988, TABLE 5-A	GREATER THAN 40 FEET	
G.	SEPARATION OF OCCUPANCIES UBC 1988, TABLE 5-B	1 HOUR SEPARATION BETWEEN E-3 DAY CARE AND I-1 NURSERY.	
H.	TRAVEL DISTANCES NFPA 101, SEC. 10-2.6	100 FT.	
I.	OCCUPANT LOAD NFPA 101, SEC. 10-1.7.1	MAXIMUM ALLOWABLE: 677 PERSONS ALLOW 35 S.F. PER PERSON, NET BUILDING AREA AS DEFINED IN NFPA 101, SEC. 3.2.	
J.	INTERIOR FINISHES NFPA 101, SEC. 10-3.3 AEI CHAP. 9, SEC.6(C)	CLASS A OR B IN NON-EXIT AREAS CLASS A IN "EXIT" AREAS	
K.	FIRE NOTIFICATION NFPA 101, SEC. 10-3.4	MANUAL PULL STATIONS NEAR EACH REQUIRED EXIT.	
L.	FIRE EXTINGUISHERS NFPA 10	CLASS A, B, AND C FIRE CLASSIFICATION. MAXIMUM TRAVEL DISTANCE OF 50'.	
M.	ACCESSIBILITY UFAS	DESIGN FOR ACCESSIBILITY BY THE PHISICALLY HANDICAPPED HAS BEEN INCORPORATED.	
N.	FIRE DAMPERS NFPA 90A	FIRE DAMPERS IN DUCTWORK AT MECHANICAL ROOM ENCLOSURES.	

NOTES:

1. FIRE PROTECTION FOR CHILD DEVELOPMENT CENTERS "A" AND "B" TO BE ORDINARY HAZARD GROUP I OCCUPANCY WITH A DENSITY OF 0.15 GPM/SQ.FT. TOTAL DESIGN AREA IS 2,000 SQ.FT. HOSE STREAM DEMAND IS 500 GPM AND THE DURATION OF SUPPLY IS 60 MINUTES.
2. SPRINKLER SYSTEM SHALL BE WET PIPE AND DESIGNED IN ACCORDANCE WITH NFPA 13 REQUIREMENTS. ROOMS SPRINKLERED ARE 07, 08, 35, 48, 49, 124, 125, 158, 160, 161, 163.
3. KITCHEN EXHAUST HOOD AND DUCT SHALL COMPLY WITH NFPA 96 REQUIREMENTS.
4. EACH AIR HANDLING UNIT SUPPLY AND RETURN SHALL HAVE DUCT-MOUNTED SMOKE DETECTORS FOR ALARM ACTIVATION AND AHU SHUTDOWN (NOT SHOWN ON THIS PLAN).
5. THIS DRAWING IS FOR REFERENCE ONLY. IT IS NOT PART OF THE CONSTRUCTION CONTRACT AND INFORMATION CONTAINED HERE IS LOCATED WITHIN THE CONSTRUCTION DOCUMENTS.

Revisions

Symbol	Descriptions	Date	Approved
1	(AMDT #0003) DOORS ADDED	31 AUG 90	JPF/MK SPMK

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
LOUISVILLE, KENTUCKY

FT. CAMPBELL, KENTUCKY
STANDARD DESIGN
CHILD DEVELOPMENT CENTERS - 303 CHILDREN
PN 380 FY 90

US Army Corps of Engineers

LIFE SAFETY/ FIRE PROTECTION PLAN

Designed by: D. POHL
Drawn by: J. JAGGERS
Checked by: HENRY B. THOBEN
Reviewed by: GARRY MINTER
Approved by: LARRY D. MARTIN

Scale: 1/32 "=1'-0"
Date: MAY 1990
Drawing Code: F-740-14-05
Sheet reference number: FP-1
Sheet 107 of 107

RECORD DRAWING "AS BUILT"

ZG0:(40,'7)FCC6XFP1.DGN;1
DATE = 28-AUG-90, 16:11:47
USER = CHARMAINEW