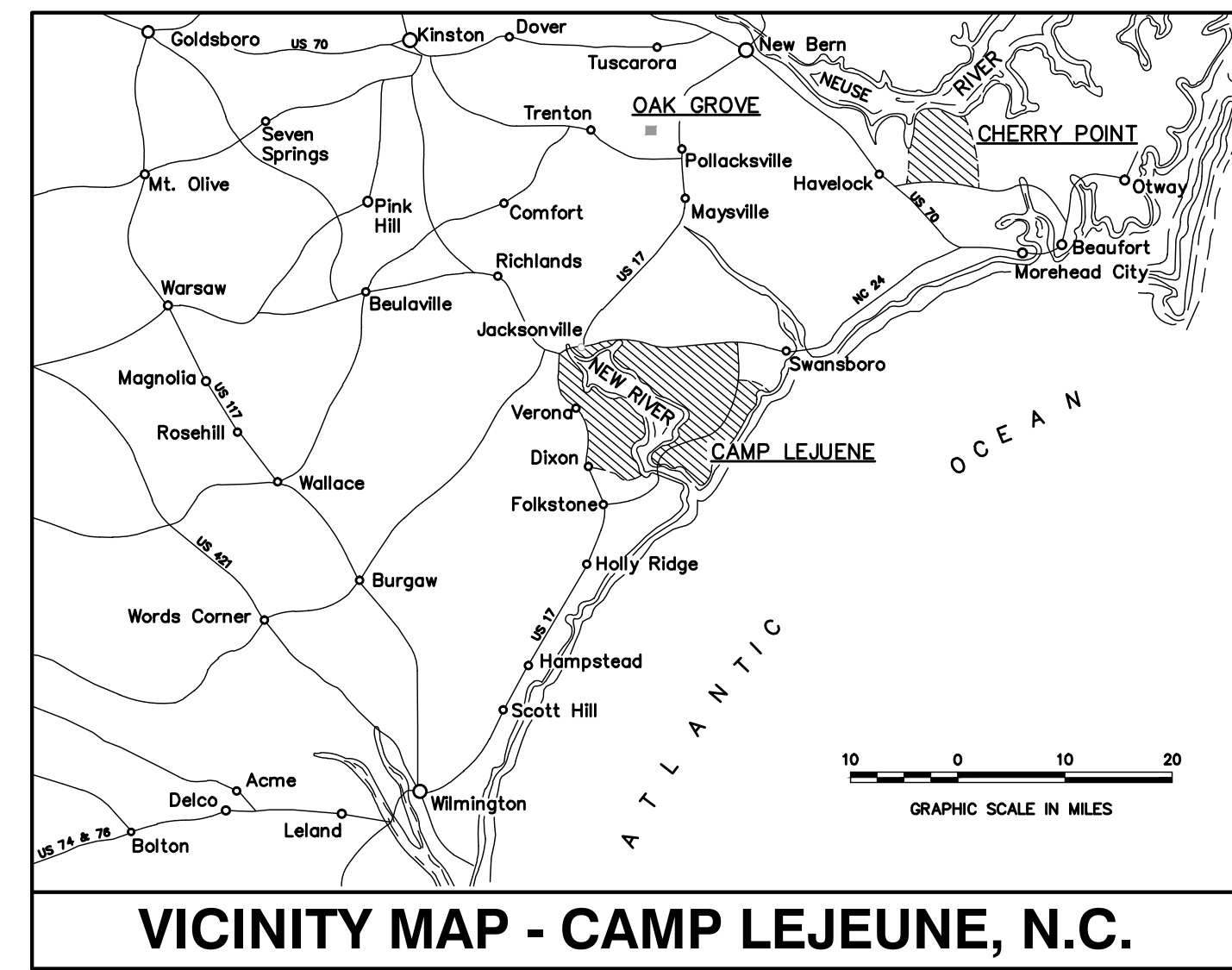
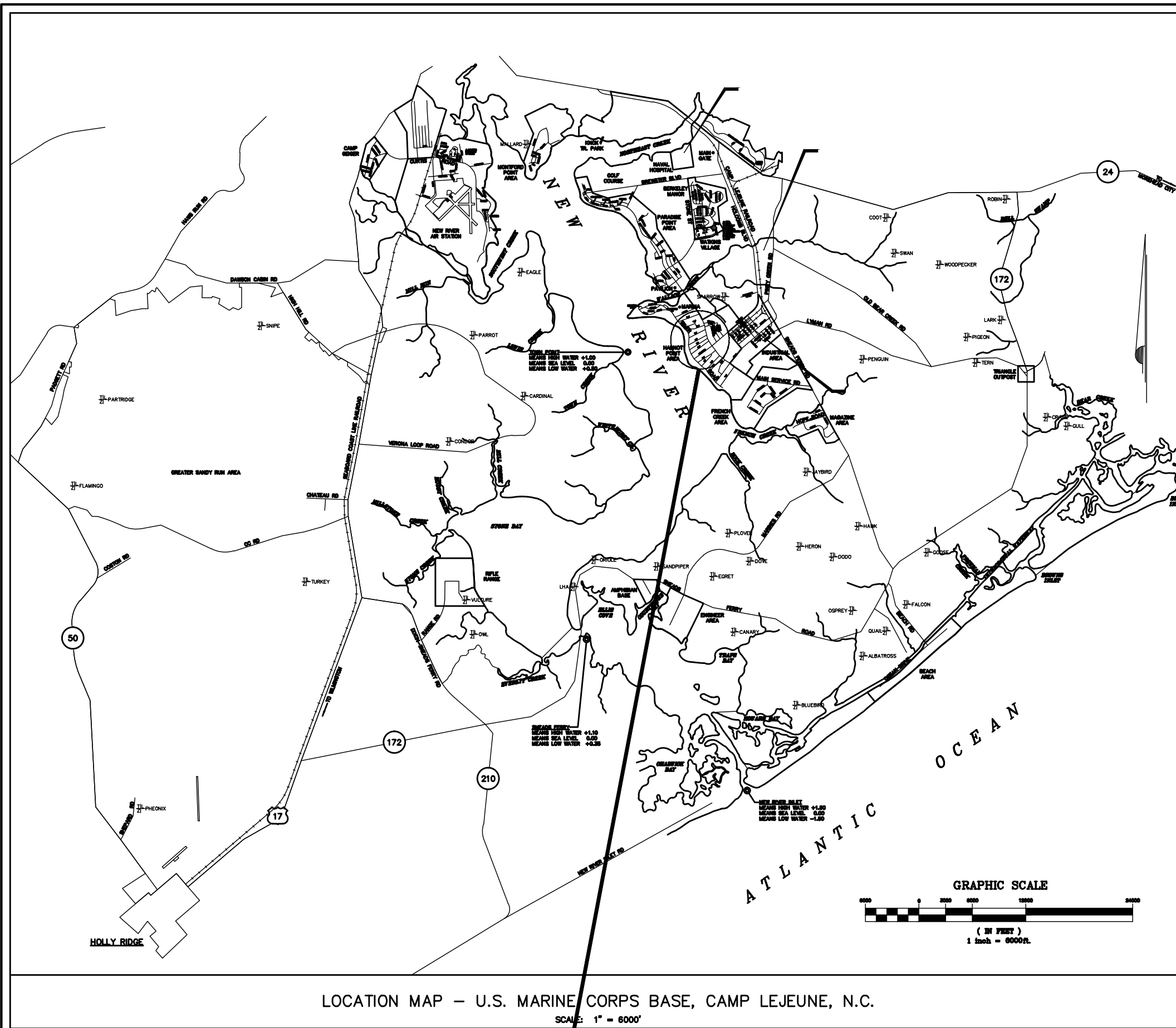


# RENOVATE BATHROOMS - HP55

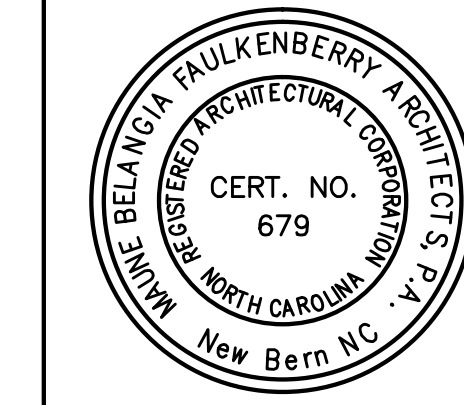
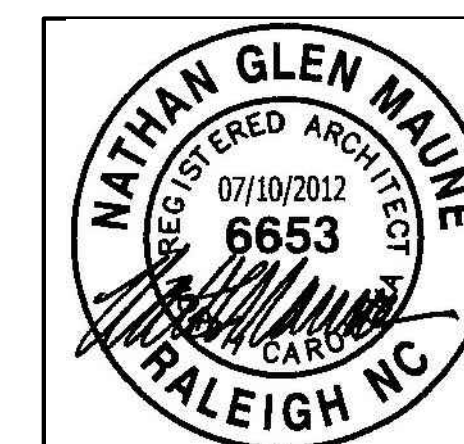
## MARINE CORPS BASE CAMP LEJEUNE N.C.

SHEET # | NAVFAC # | PLATE # | SHEET TITLE

SHEET #	NAVFAC #	PLATE #	SHEET TITLE
1 OF 18	60010742	G-001	TITLE SHEET
2 OF 18	60010743	A-101	FIRST FLOOR PLANS
3 OF 18	60010744	A-102	SECOND FLOOR PLANS
4 OF 18	60010745	A-103	THIRD FLOOR PLANS
5 OF 18	60010746	A-401	INTERIOR ELEVATIONS AND DETAILS
6 OF 18	60010747	A-402	ENLARGED PLANS, INTERIOR ELEVATIONS AND DETAILS
7 OF 18	60010748	A-601	DOOR SCHEDULE & DETAILS
8 OF 18	60010749	P-001	PLUMBING LEGENDS
9 OF 18	60010750	P-101	FIRST FLOOR PLANS - PLUMBING
10 OF 18	60010751	P-102	SECOND FLOOR PLANS - PLUMBING
11 OF 18	60010752	P-103	THIRD FLOOR PLANS - PLUMBING
12 OF 18	60010753	P-601	PLUMBING DETAILS
13 OF 18	60010754	E-001	ELECTRICAL LEGENDS
14 OF 18	60010755	E-101	FIRST FLOOR PLANS - ELECTRICAL
15 OF 18	60010756	E-102	SECOND FLOOR PLANS - ELECTRICAL
16 OF 18	60010757	E-103	THIRD FLOOR PLANS - ELECTRICAL
17 OF 18	60010758	E-601	ELECTRICAL DETAILS
18 OF 18	60010759	M-101	FLOOR PLANS - MECHANICAL



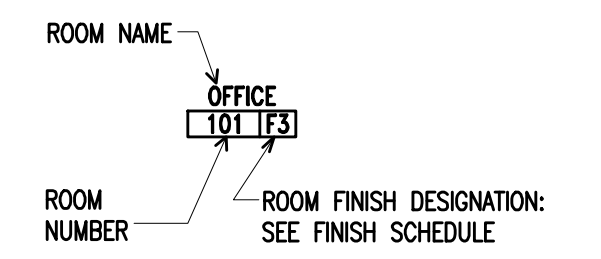
LOCATION OF BUILDING HP55



 DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA		<b>G-001</b>	
		RENOVATE BATHROOMS - HP55	
DES. WF. CC	DATE	SIZE	CODE IDENT NO.
DR. CC		F	80091
CHK. WF.			
SUBMITTED BY:			
DESIGN DIR.			
APPROVED: PWO OR OICC	DATE	TITLE SHEET	
SATISFACTORY TO:	DATE	NAVFAC DRAWING NO. <b>60010742</b>	
		CONST. CONTR. NO. N40085-12-B-0006	
		SCALE: AS NOTED	SPEC. 05-12-0006
		SHEET 01 OF 18	

**GENERAL NOTES**

- THE CONTRACTOR SHALL INCLUDE IN THE BASE BID THE FURNISHING AND INSTALLATION OF (12) - 2 1/2" x 20 GAUGE METAL STUDS +/- 7'-6" IN LENGTH IN THE WALLS, PER BATHROOM. THESE STUDS SHALL BE FASTENED (GUSTERED) TO EXISTING METAL STUDS WHERE STUDS ARE DETERIORATED OR DAMAGED. PROVIDE CLIP ANGLES, AND ACCESSORIES TO PERMIT A COMPLETE INSTALLATION.
- THE CONTRACTOR SHALL INCLUDE IN THE BASE BID THE REMOVAL AND REPLACEMENT OF (4) 3/4" METAL FURRING CHANNELS +/- 5'-6" LONG FROM THE EXISTING SUSPENDED CEILING SYSTEM PER BATHROOM. EXISTING FURRING CHANNELS ARE ATTACHED TO 1 1/2" COLD-ROLLED CHANNELS. NEW FURRING CHANNELS ARE TO BE 25 GAUGE.



**GENERAL CONSTRUCTION NOTES**

- ALL TOILET ROOMS ARE TO BE RENOVATED AS SHOWN IN 'TYPICAL' ENLARGED PLAN AND AS DESCRIBED BELOW IN KEYED DEMOLITION AND CONSTRUCTION NOTES.
- EXISTING DOORS AND FRAMES ARE TO BE REMOVED AND REPLACED WITH NEW STEEL DOORS AND NEW KNOCK-DOWN FRAMES. PAINT ALL BATHROOM DOORS AND FRAMES.

**KEYED DEMOLITION NOTES**

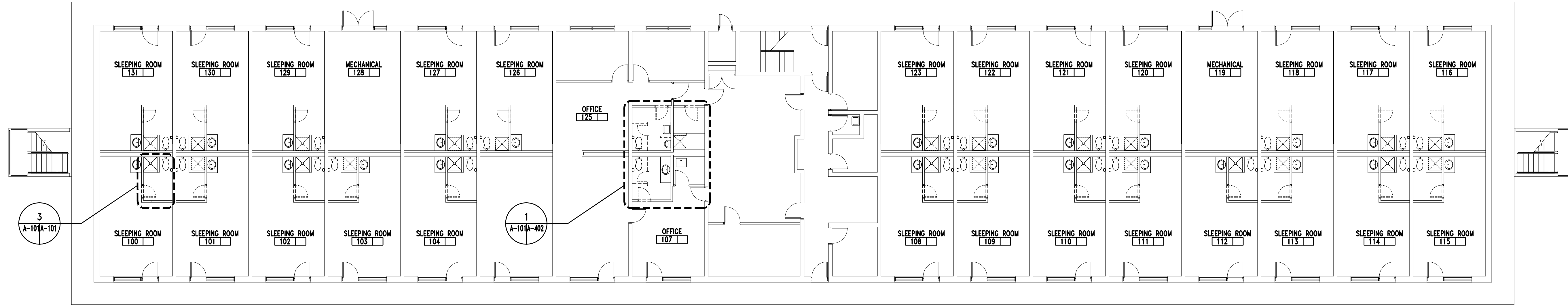
- REMOVE EXISTING THIN SET CERAMIC FLOOR TILE. PREPARE EXISTING CONCRETE SLAB FOR NEW FLOOR FINISH. REMOVE EXISTING MARBLE THRESHOLDS.
- REMOVE EXISTING CERAMIC TILE, CEMENT MORTAR BED AND SHOWER PAN MEMBRANE. PREPARE EXISTING CONCRETE SLAB FOR NEW FLOOR FINISH. SEE A-401 FOR DEMOLITION DETAILS.
- REMOVE EXISTING THIN SET CERAMIC TILE AND BACKER BOARD FROM SHOWER WALLS +/- 7'-2 HIGH ABOVE SHOWER FLOOR.
- REMOVE EXISTING THIN SET CERAMIC TILE WALL BASE FROM EXISTING CONCRETE MASONRY WALL. CLEAN AND PREPARE SURFACE FOR NEW CERAMIC WALL TILE.
- REMOVE EXISTING METAL STUD +/- 7'-6" HIGH INCLUDING THIN SET CERAMIC WALL TILE AND BACKER BOARD ON SHOWER WALL AND GYPSUM WALLBOARD AND CERAMIC TILE WALL BASE ON NON-SHOWER SIDE.
- REMOVE EXISTING PAINTED GYPSUM WALL BOARD +/- 7'-6" HIGH AND CERAMIC TILE WALL BASE.
- REMOVE EXISTING PLUMBING FIXTURES (SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION) INCLUDING: WATER CLOSET, SHOWER HEAD AND TRIM.
- REMOVE EXISTING TOILET AND SHOWER ACCESSORIES INCLUDING BUT NOT LIMITED TO: SURFACE MOUNTED TOILET TISSUE DISPENSER, THREE (3) TOWEL BARS, THREE (3) ROBE HOOKS, AND ONE (1), EACH, RECESSED SOAP HOLDER, SHOWER ROD AND SHOWER CURTAIN.
- REMOVE EXISTING GYPSUM WALL BOARD CEILING - ENTIRE ROOM, +/- 7'-6" A.F.F. AND LIGHT FIXTURE. EXISTING CEILING FRAMING IS 1-1/2" COLD ROLLED CHANNELS AT 2'-0" O.C. AND 3/4" METAL FURRING CHANNELS AT 2'-0" O.C.
- SEE A-401 FOR TOILET ROOM ELEVATIONS.
- REMOVE EXISTING DOOR AND FRAME.
- REMOVE EXISTING METAL TOILET PARTITIONS.
- REMOVE FIBERGLASS SHOWER.
- REMOVE EXISTING THIN SET CERAMIC TILE AND BACKER BOARD FROM WALL BEHIND URINAL +/- 5'-0" HIGH ABOVE TILE FLOOR.

**KEYED CONSTRUCTION NOTES**

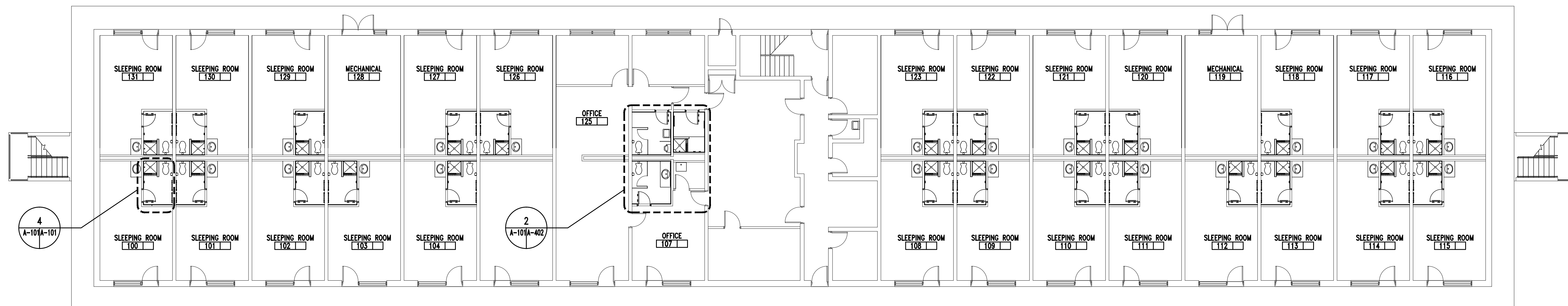
- PROVIDE 6" x 6" PORCELAIN TILE THIN SET ON FLOOR.
- WALLS - PROVIDE 3-5/8" METAL STUDS AT 16" O.C., WITH BACKER BOARD - WITH 6" x 6" PORCELAIN TILE, FLOOR TO CEILING.
- CEILING - PROVIDE 5/8" ABUSE RESISTANT FIBERGLASS-MAT FACED GYPSUM BOARD - PAINT.
- PROVIDE NEW MARBLE THRESHOLD - THRESHOLD WIDTH IS TO BE EQUAL TO JAMB WIDTH.
- PROVIDE BACKER BOARD FOR CERAMIC TILE INSTALLATION AND 6" x 6" PORCELAIN TILE.
- EXISTING PAINTED CONCRETE MASONRY WALL - PROVIDE 6" x 6" PORCELAIN TILE FLOOR TO CEILING.
- PROVIDE 3" x 3" MOSAIC TILE ON SETTING BED (FLOOR).
- SEE A-401 FOR TOILET ROOM ELEVATIONS.
- PROVIDE BACKER BOARD WITH 6" x 6" PORCELAIN TILE, FLOOR TO CEILING.
- PROVIDE NEW DOOR AND FRAME. SEE A-601 FOR DETAILS.
- PROVIDE NEW TOILET PARTITIONS.
- PROVIDE NEW URINAL SCREEN.

**TOILET ACCESSORY SCHEDULE**

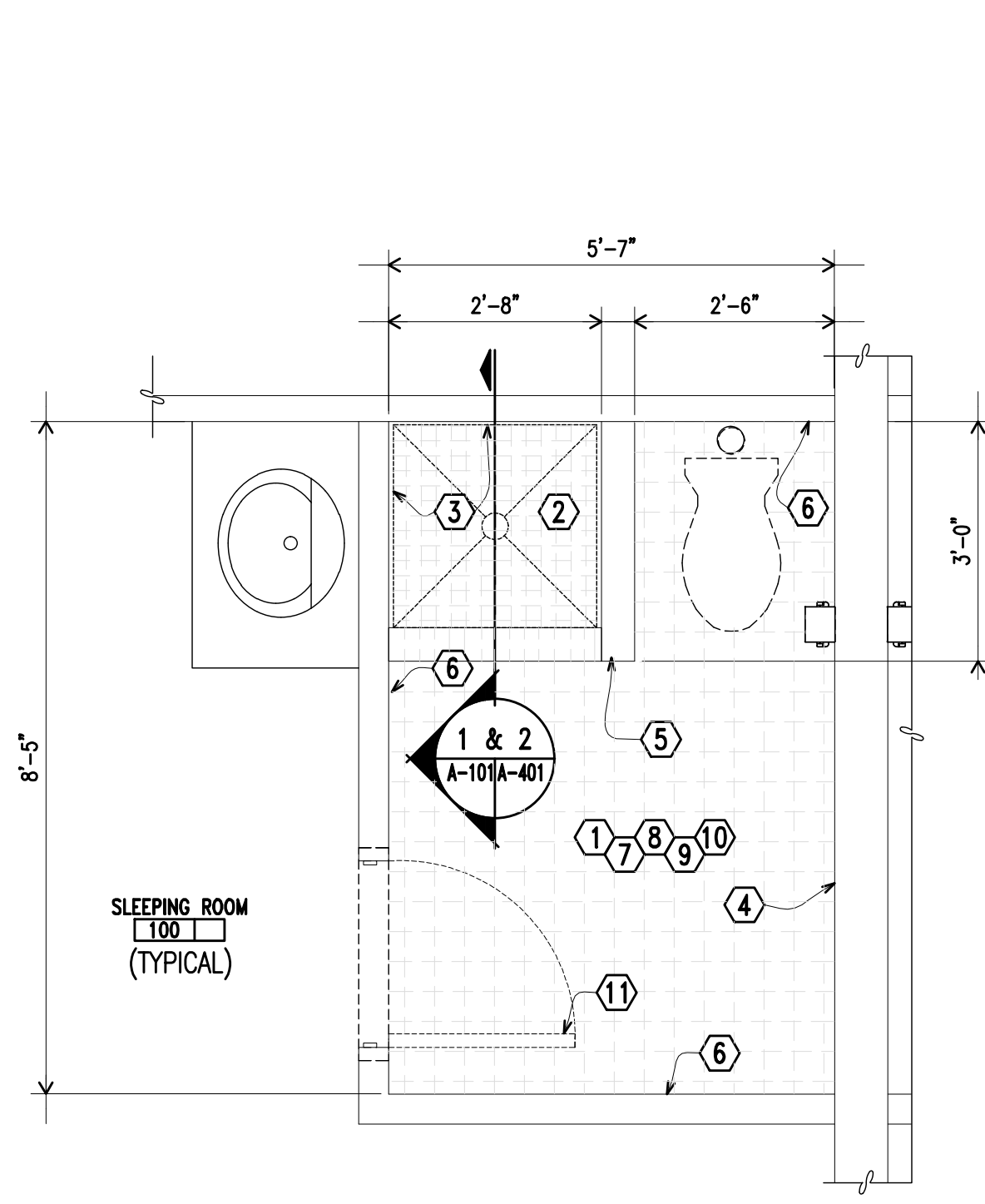
MARK	DESCRIPTION
(TTD)	WALL MOUNTED TOILET TISSUE DISPENSER
(SCR)	SHOWER ROD AND CURTAIN WITH HOOKS: WIDTH OF OPENING +6"
(RH)	DOUBLE ROBE HOOK
(TB)	TOWEL BAR: 2'-0" - SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHTS
(MR)	DOOR MOUNTED 17"x60" MIRROR
(CS)	SOLID SURFACE CORNER SHELF WITH 4" LEG - 3 SHELVES MOUNTED 12" APART.



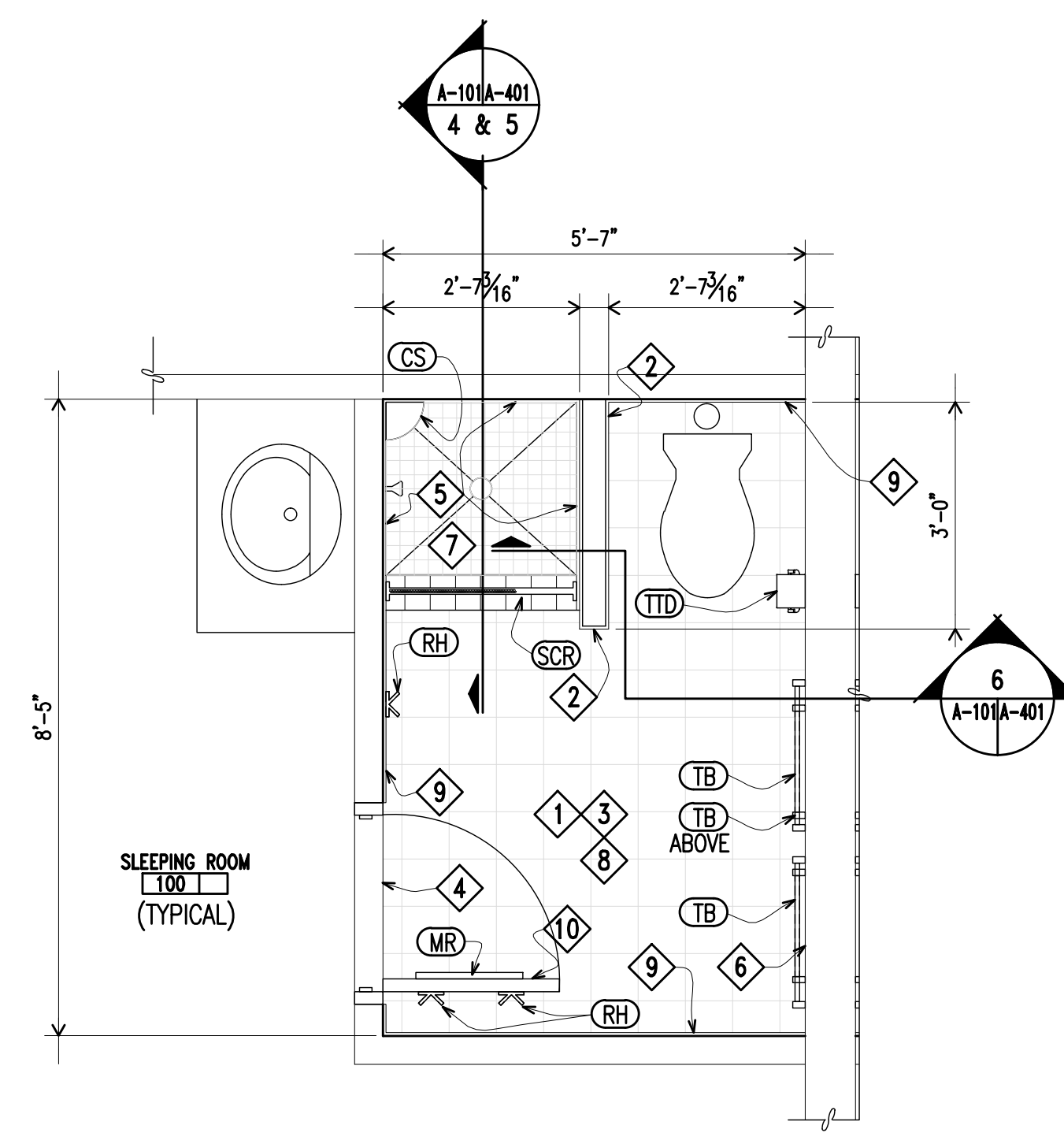
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A-101A-101 DEMOLITION Scale: 3/32" = 1'-0"



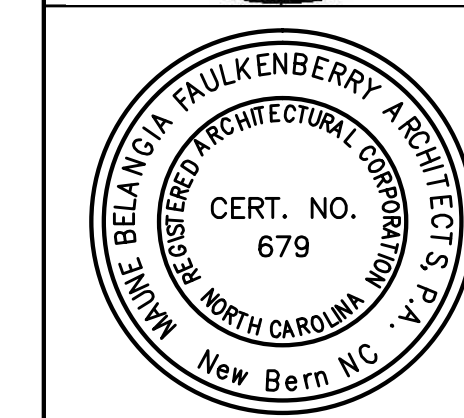
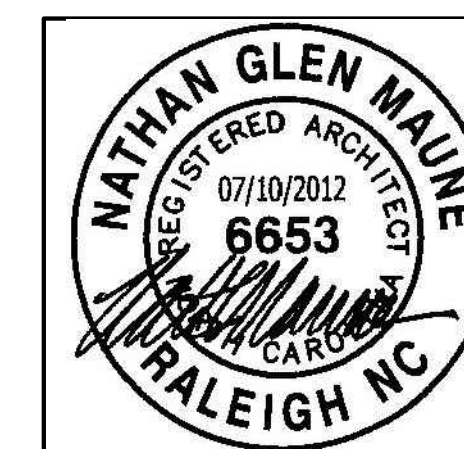
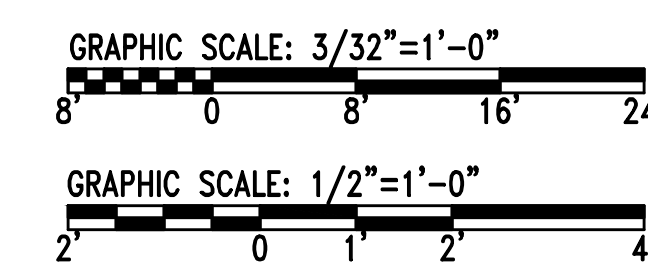
**2**  
A-101A-101 CONSTRUCTION Scale: 3/32" = 1'-0"



**3**  
A-101A-101 DEMOLITION Scale: 1/2" = 1'-0"



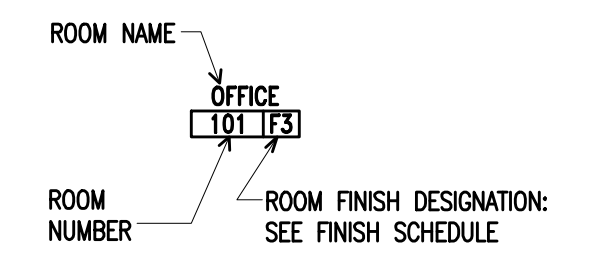
**4**  
A-101A-101 CONSTRUCTION Scale: 1/2" = 1'-0"



<b>A-101</b>	
MAUNE <b>BELANGIA                  FAULKENBERRY                  ARCHITECTS PA</b> <small>317-E HOLLIDAY STREET, NEW BERN, NC</small>	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> <small>CAMP LEJEUNE, NORTH CAROLINA</small>
<b>RENOVATE BATHROOMS - HP55</b>	
DES. WF. CC DR. CC CHK. WF SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC DATE:	FIRST FLOOR PLANS NAVFAC DRAWING NO. <b>60010743</b> CONST. CONTR. NO. N40085-12-9-0006 SCALE: AS NOTED SPEC. 05-12-0006 SHEET 02 OF 18

**GENERAL NOTES**

1. THE CONTRACTOR SHALL INCLUDE IN THE BASE BID THE FURNISHING AND INSTALLATION OF (12) - 2 1/2" x 20 GAUGE METAL STUDS +/- 7'-8" IN LENGTH IN THE WALLS, PER BATHROOM. THESE STUDS SHALL BE FASTENED (SISTERED) TO EXISTING METAL STUDS. WHERE STUDS ARE DETERIORATED OR DAMAGED, PROVIDE CLIP ANGLES, AND ACCESSORIES TO PERMIT A COMPLETE INSTALLATION.
2. THE CONTRACTOR SHALL INCLUDE IN THE BASE BID THE REMOVAL AND REPLACEMENT OF (4) 3/4" METAL FURRING CHANNELS +/- 5'-6" LONG FROM THE EXISTING SUSPENDED CEILING SYSTEM PER BATHROOM. EXISTING FURRING CHANNELS ARE ATTACHED TO 1 1/2" COLD-ROLLED CHANNELS. NEW FURRING CHANNELS ARE TO BE 25 GAUGE.



**GENERAL CONSTRUCTION NOTES**

1. ALL TOILET ROOMS ARE TO BE RENOVATED AS SHOWN IN "TYPICAL" ENLARGED PLAN AND AS DESCRIBED BELOW IN KEYED DEMOLITION AND CONSTRUCTION NOTES.
2. EXISTING DOORS AND FRAMES ARE TO BE REMOVED AND REPLACED WITH NEW STEEL DOORS AND NEW KNOCK-DOWN FRAMES. PAINT ALL BATHROOM DOORS AND FRAMES.

**KEYED DEMOLITION NOTES**

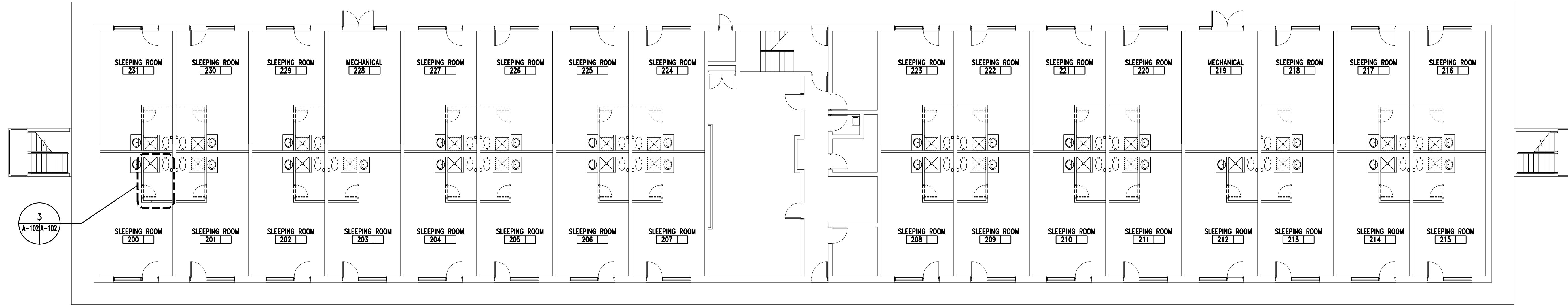
- 1 REMOVE EXISTING THIN SET CERAMIC FLOOR TILE. PREPARE EXISTING CONCRETE SLAB FOR NEW FLOOR FINISH. REMOVE EXISTING MARBLE THRESHOLDS.
- 2 REMOVE EXISTING CERAMIC TILE, CEMENT MORTAR BED AND SHOWER PAN MEMBRANE. PREPARE EXISTING CONCRETE SLAB FOR NEW FLOOR FINISH. SEE A-401 FOR DEMOLITION DETAILS.
- 3 REMOVE EXISTING THIN SET CERAMIC TILE AND BACKER BOARD FROM SHOWER WALLS +/- 7'-2" HIGH ABOVE SHOWER FLOOR.
- 4 REMOVE EXISTING THIN SET CERAMIC TILE WALL BASE FROM EXISTING CONCRETE MASONRY WALL. CLEAN AND PREPARE SURFACE FOR NEW CERAMIC WALL TILE.
- 5 REMOVE EXISTING METAL STUD WALL +/- 7'-6" INCLUDING THIN SET CERAMIC WALL TILE AND BACKER BOARD ON SHOWER WALL AND GYPSUM WALLBOARD AND CERAMIC TILE WALL BASE ON NON-SHOWER SIDE.
- 6 REMOVE EXISTING PAINTED GYPSUM WALL BOARD +/- 7'-6" HIGH AND CERAMIC TILE WALL BASE.
- 7 REMOVE EXISTING PLUMBING FIXTURES (SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION) INCLUDING: WATER CLOSET, SHOWER HEAD AND TRIM.
- 8 REMOVE EXISTING TOILET AND SHOWER ACCESSORIES INCLUDING BUT NOT LIMITED TO: SURFACE MOUNTED TOILET TISSUE DISPENSER, THREE (3) TOWEL BARS, THREE (3) ROBE HOOKS, AND ONE (1), EACH, RECESSED SOAP HOLDER, SHOWER ROD AND SHOWER CURTAIN.
- 9 REMOVE EXISTING GYPSUM WALL BOARD CEILING - ENTIRE ROOM, +/- 7'-6" A.F.F. AND LIGHT FIXTURE. EXISTING CEILING FRAMING IS 1-1/2" COLD ROLLED CHANNELS AT 2'-0" O.C. AND 3/4" METAL FURRING CHANNELS AT 2'-0" O.C.
- 10 SEE A-401 FOR TOILET ROOM ELEVATIONS.
- 11 REMOVE EXISTING DOOR AND FRAME.
- 12 REMOVE EXISTING METAL TOILET PARTITIONS.
- 13 REMOVE FIBERGLASS SHOWER.
- 14 REMOVE EXISTING THIN SET CERAMIC TILE AND BACKER BOARD FROM WALL BEHIND URINAL +/- 5'-0" HIGH ABOVE TILE FLOOR.

**KEYED CONSTRUCTION NOTES**

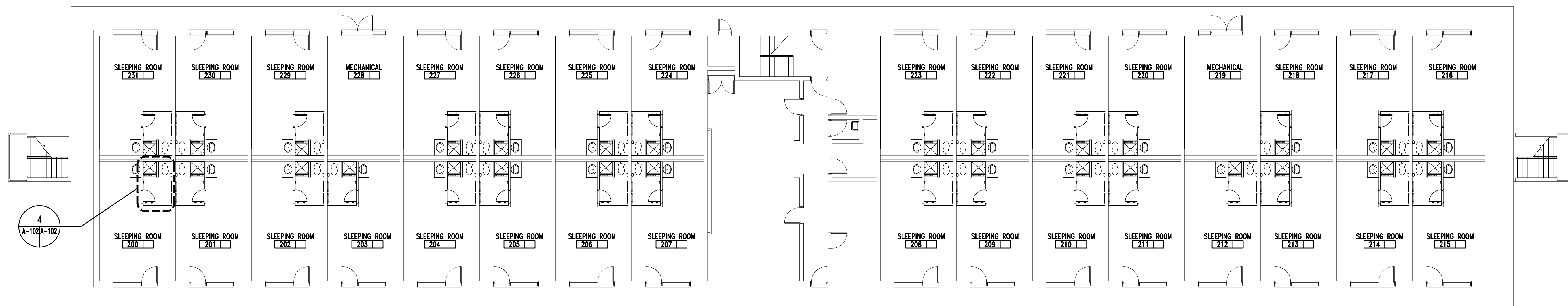
- 1 PROVIDE 6" x 6" PORCELAIN TILE THIN SET ON FLOOR.
- 2 WALLS - PROVIDE 3-5/8" METAL STUDS AT 16" O.C., WITH BACKER BOARD - WITH 6" x 6" PORCELAIN TILE, FLOOR TO CEILING.
- 3 CEILING - PROVIDE 5/8" ABUSE RESISTANT FIBERGLASS-MAT FACED GYPSUM BOARD - PAINT.
- 4 PROVIDE NEW MARBLE THRESHOLD - THRESHOLD WIDTH IS TO BE EQUAL TO JAMB WIDTH.
- 5 PROVIDE BACKER BOARD FOR CERAMIC TILE INSTALLATION AND 6" x 6" PORCELAIN TILE.
- 6 EXISTING PAINTED CONCRETE MASONRY WALL - PROVIDE 6" x 6" PORCELAIN TILE FLOOR TO CEILING.
- 7 PROVIDE 3" x 3" MOSAIC TILE ON SETTING BED (FLOOR).
- 8 SEE A-401 FOR TOILET ROOM ELEVATIONS.
- 9 PROVIDE BACKER BOARD WITH 6" x 6" PORCELAIN TILE, FLOOR TO CEILING.
- 10 PROVIDE NEW DOOR AND FRAME. SEE A-601 FOR DETAILS.
- 11 PROVIDE NEW TOILET PARTITIONS.
- 12 PROVIDE NEW URINAL SCREEN.

**TOILET ACCESSORY SCHEDULE**

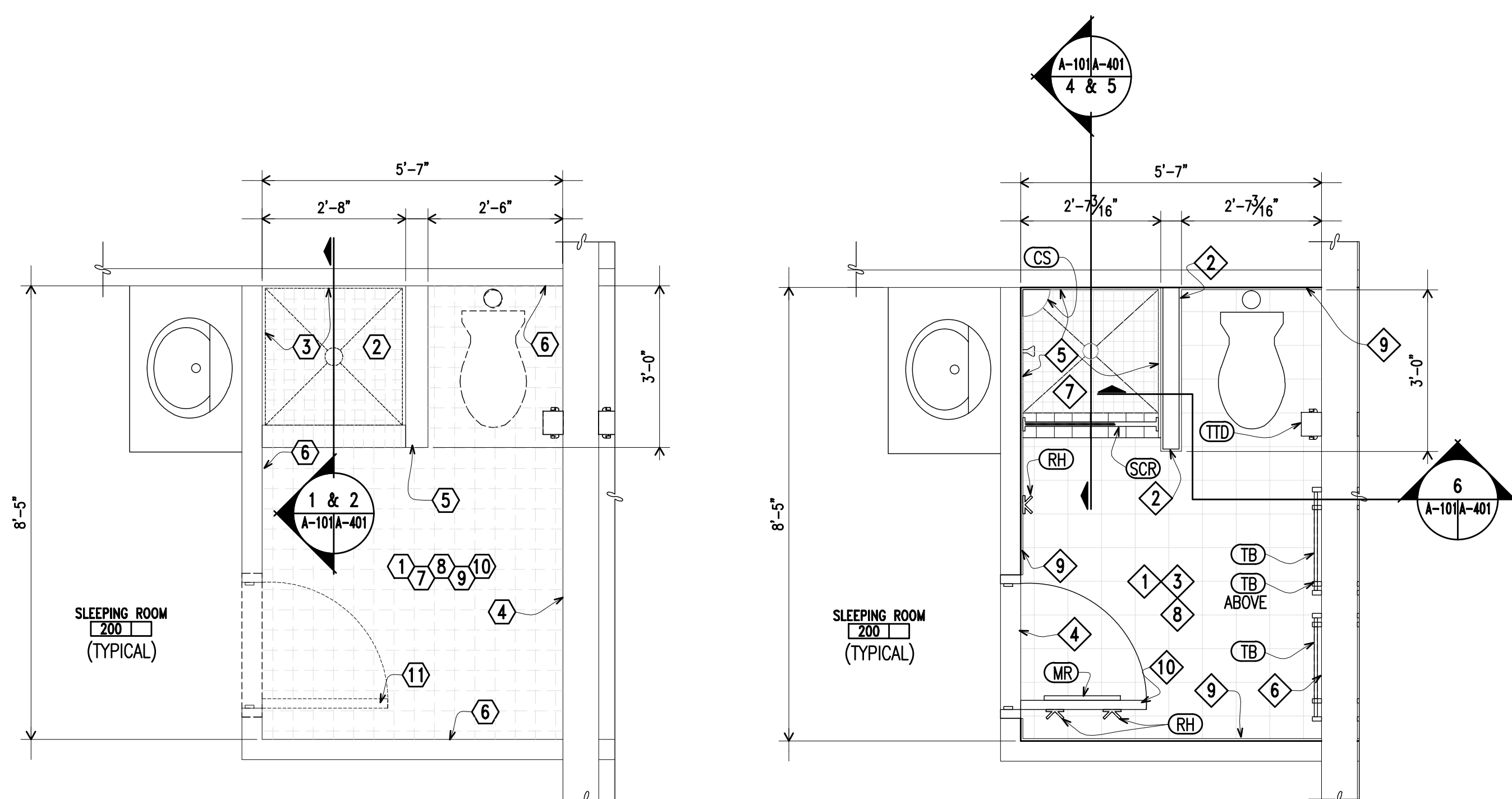
MARK	DESCRIPTION
(TTD)	WALL MOUNTED TOILET TISSUE DISPENSER
(SCR)	SHOWER ROD AND CURTAIN WITH HOOKS: WIDTH OF OPENING +6"
(RH)	DOUBLE ROBE HOOK
(TB)	TOWEL BAR: 2'-0" - SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHTS
(MR)	DOOR MOUNTED 17"x60" MIRROR
(CS)	SOLID SURFACE CORNER SHELF WITH 4" LEG - 3 SHELVES MOUNTED 12" APART.



**1 SECOND FLOOR PLAN**  
A-102A-102 DEMOLITION Scale: 3/32" = 1'-0"

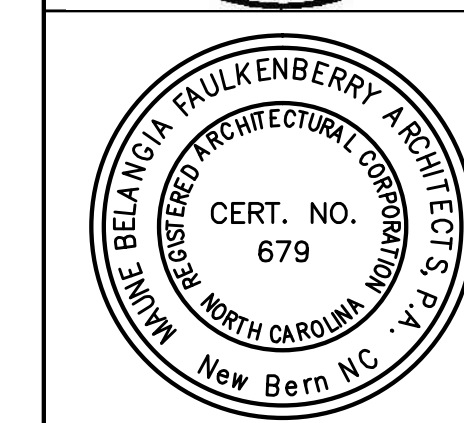
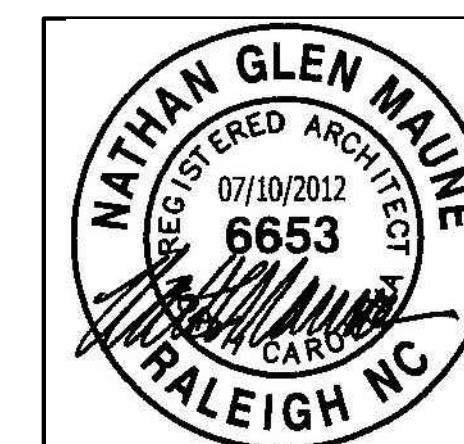
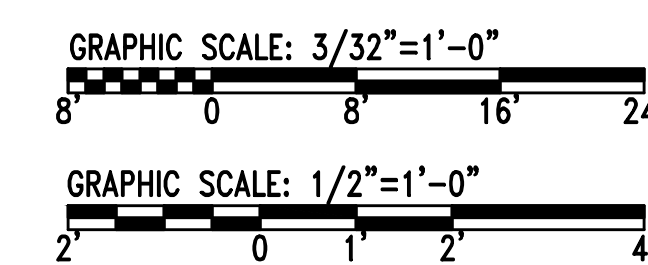


**2 SECOND FLOOR PLAN**  
A-102A-102 CONSTRUCTION Scale: 3/32" = 1'-0"



**3 TOILET ROOM - TYPICAL**  
A-102A-102 DEMOLITION Scale: 1/2" = 1'-0"

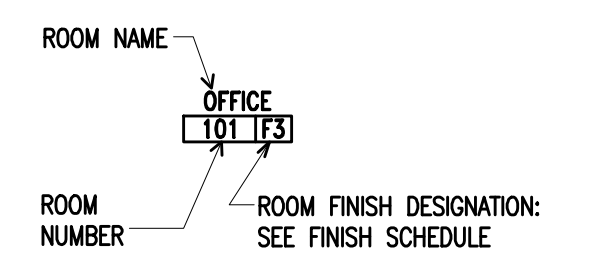
**4 TOILET ROOM - TYPICAL**  
A-102A-102 CONSTRUCTION Scale: 1/2" = 1'-0"



<b>A-102</b>	
DES. WF. CC DR. CC CHK. WF SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC DATE:	<b>MAUNE &amp; FAULKENBERRY ARCHITECTS PA</b> 317-5 HOLLIS STREET, NEW BERN, NC DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA RENOVATE BATHROOMS - HP55 SECOND FLOOR PLANS NAVFAC DRAWING NO. <b>60010744</b> CONST. CONTR. NO. N40085-12-B-0006 SCALE: AS NOTED SPEC. 05-12-0006 SHEET 03 OF 18
SATISFACTORY TO: DATE:	F 80091

**GENERAL NOTES**

1. THE CONTRACTOR SHALL INCLUDE IN THE BASE BID THE FURNISHING AND INSTALLATION OF (12) - 2 1/2" x 20 GAUGE METAL STUDS +/- 7'-6" IN LENGTH IN THE WALLS, PER BATHROOM. THESE STUDS SHALL BE FASTENED (GUSTORED) TO EXISTING METAL STUDS, WHERE STUDS ARE DETERIORATED OR DAMAGED. PROVIDE CLIP ANGLES, AND ACCESSORIES TO PERMIT A COMPLETE INSTALLATION.
2. THE CONTRACTOR SHALL INCLUDE IN THE BASE BID THE REMOVAL AND REPLACEMENT OF (4) 3/4" METAL FURRING CHANNELS +/- 5'-6" LONG FROM THE EXISTING SUSPENDED CEILING SYSTEM PER BATHROOM. EXISTING FURRING CHANNELS ARE ATTACHED TO 1 1/2" COLD-ROLLED CHANNELS. NEW FURRING CHANNELS ARE TO BE 25 GAUGE.



**GENERAL CONSTRUCTION NOTES**

1. ALL TOILET ROOMS ARE TO BE RENOVATED AS SHOWN IN 'TYPICAL' ENLARGED PLAN AND AS DESCRIBED BELOW IN KEYED DEMOLITION AND CONSTRUCTION NOTES.
2. EXISTING DOORS AND FRAMES ARE TO BE REMOVED AND REPLACED WITH NEW STEEL DOORS AND NEW KNOCK-DOWN FRAMES. PAINT ALL BATHROOM DOORS AND FRAMES.

**KEYED DEMOLITION NOTES**

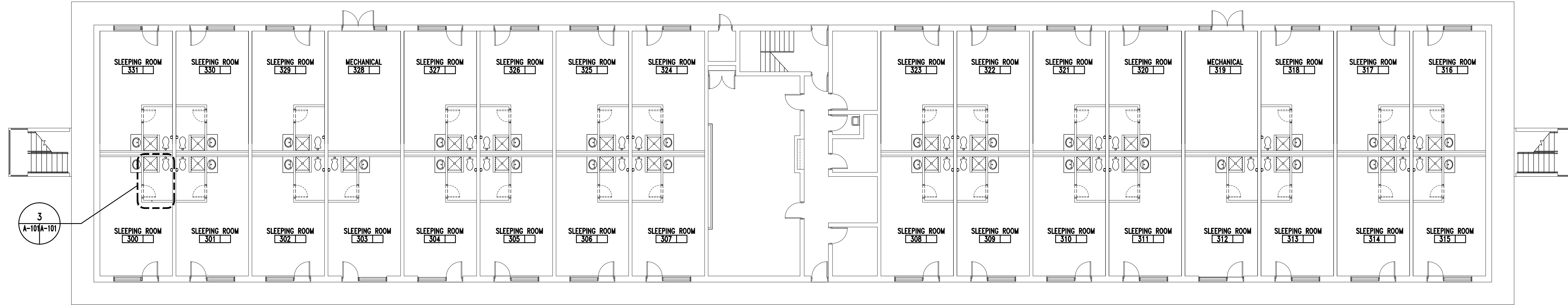
- 1 REMOVE EXISTING THIN SET CERAMIC FLOOR TILE. PREPARE EXISTING CONCRETE SLAB FOR NEW FLOOR FINISH. REMOVE EXISTING MARBLE THRESHOLDS.
- 2 REMOVE EXISTING CERAMIC TILE, CEMENT MORTAR BED AND SHOWER PAN MEMBRANE. PREPARE EXISTING CONCRETE SLAB FOR NEW FLOOR FINISH. SEE A-401 FOR DEMOLITION DETAILS.
- 3 REMOVE EXISTING THIN SET CERAMIC TILE AND BACKER BOARD FROM SHOWER WALLS +/- 7'-2" HIGH ABOVE SHOWER FLOOR.
- 4 REMOVE EXISTING THIN SET CERAMIC TILE WALL BASE FROM EXISTING CONCRETE MASONRY WALL. CLEAN AND PREPARE SURFACE FOR NEW CERAMIC WALL TILE.
- 5 REMOVE EXISTING METAL STUD WALL +/- 7'-6" INCLUDING THIN SET CERAMIC WALL TILE AND BACKER BOARD ON SHOWER WALL AND GYPSUM WALLBOARD AND CERAMIC TILE WALL BASE ON NON-SHOWER SIDE.
- 6 REMOVE EXISTING PAINTED GYPSUM WALL BOARD +/- 7'-6" HIGH AND CERAMIC TILE WALL BASE.
- 7 REMOVE EXISTING PLUMBING FIXTURES (SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION) INCLUDING: WATER CLOSET, SHOWER HEAD AND TRIM.
- 8 REMOVE EXISTING TOILET AND SHOWER ACCESSORIES INCLUDING BUT NOT LIMITED TO: SURFACE MOUNTED TOILET TISSUE DISPENSER, THREE (3) TOWEL BARS, THREE (3) ROBE HOOKS, AND ONE (1), EACH, RECESSED SOAP HOLDER, SHOWER ROD AND SHOWER CURTAIN.
- 9 REMOVE EXISTING GYPSUM WALL BOARD CEILING - ENTIRE ROOM, +/- 7'-6" A.F.F. AND LIGHT FIXTURE. EXISTING CEILING FRAMING IS 1-1/2" COLD ROLLED CHANNELS AT 2'-0" O.C. AND 3/4" METAL FURRING CHANNELS AT 2'-0" O.C.
- 10 SEE A-401 FOR TOILET ROOM ELEVATIONS.
- 11 REMOVE EXISTING DOOR AND FRAME.
- 12 REMOVE EXISTING METAL TOILET PARTITIONS.
- 13 REMOVE FIBERGLASS SHOWER.
- 14 REMOVE EXISTING THIN SET CERAMIC TILE AND BACKER BOARD FROM WALL BEHIND URINAL +/- 5'-0" HIGH ABOVE TILE FLOOR.

**KEYED CONSTRUCTION NOTES**

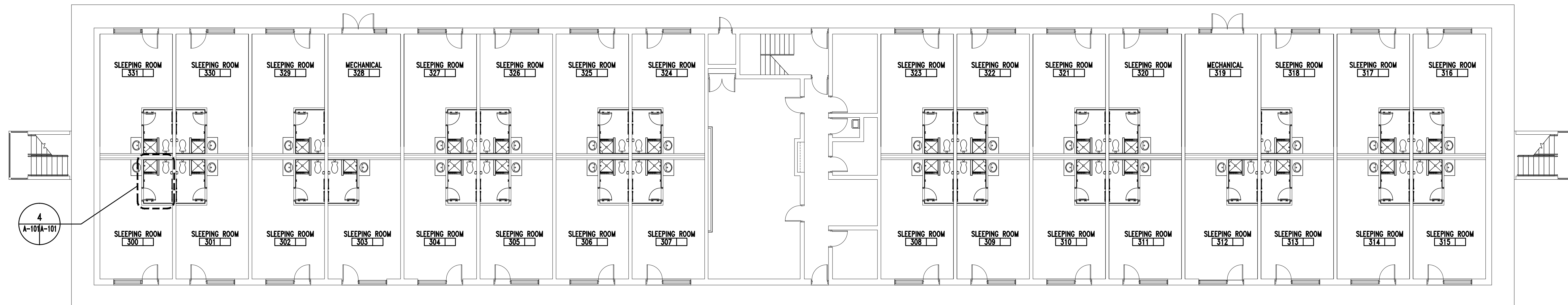
- 1 PROVIDE 6" x 6" PORCELAIN TILE THIN SET ON FLOOR
- 2 WALLS - PROVIDE 3-5/8" METAL STUDS AT 16" O.C., WITH BACKER BOARD - WITH 6" x 6" PORCELAIN TILE, FLOOR TO CEILING.
- 3 CEILING - PROVIDE 5/8" ABUSE RESISTANT FIBERGLASS-MAT FACED GYPSUM BOARD - PAINT.
- 4 PROVIDE NEW MARBLE THRESHOLD - THRESHOLD WIDTH IS TO BE EQUAL TO JAMB WIDTH.
- 5 PROVIDE BACKER BOARD FOR CERAMIC TILE INSTALLATION AND 6" x 6" PORCELAIN TILE.
- 6 EXISTING PAINTED CONCRETE MASONRY WALL - PROVIDE 6" x 6" PORCELAIN TILE FLOOR TO CEILING.
- 7 PROVIDE 3" x 3" MOSAIC TILE ON SETTING BED (FLOOR).
- 8 SEE A-401 FOR TOILET ROOM ELEVATIONS.
- 9 PROVIDE BACKER BOARD WITH 6" x 6" PORCELAIN TILE, FLOOR TO CEILING.
- 10 PROVIDE NEW DOOR AND FRAME. SEE A-601 FOR DETAILS.
- 11 PROVIDE NEW TOILET PARTITIONS.
- 12 PROVIDE NEW URINAL SCREEN.

**TOILET ACCESSORY SCHEDULE**

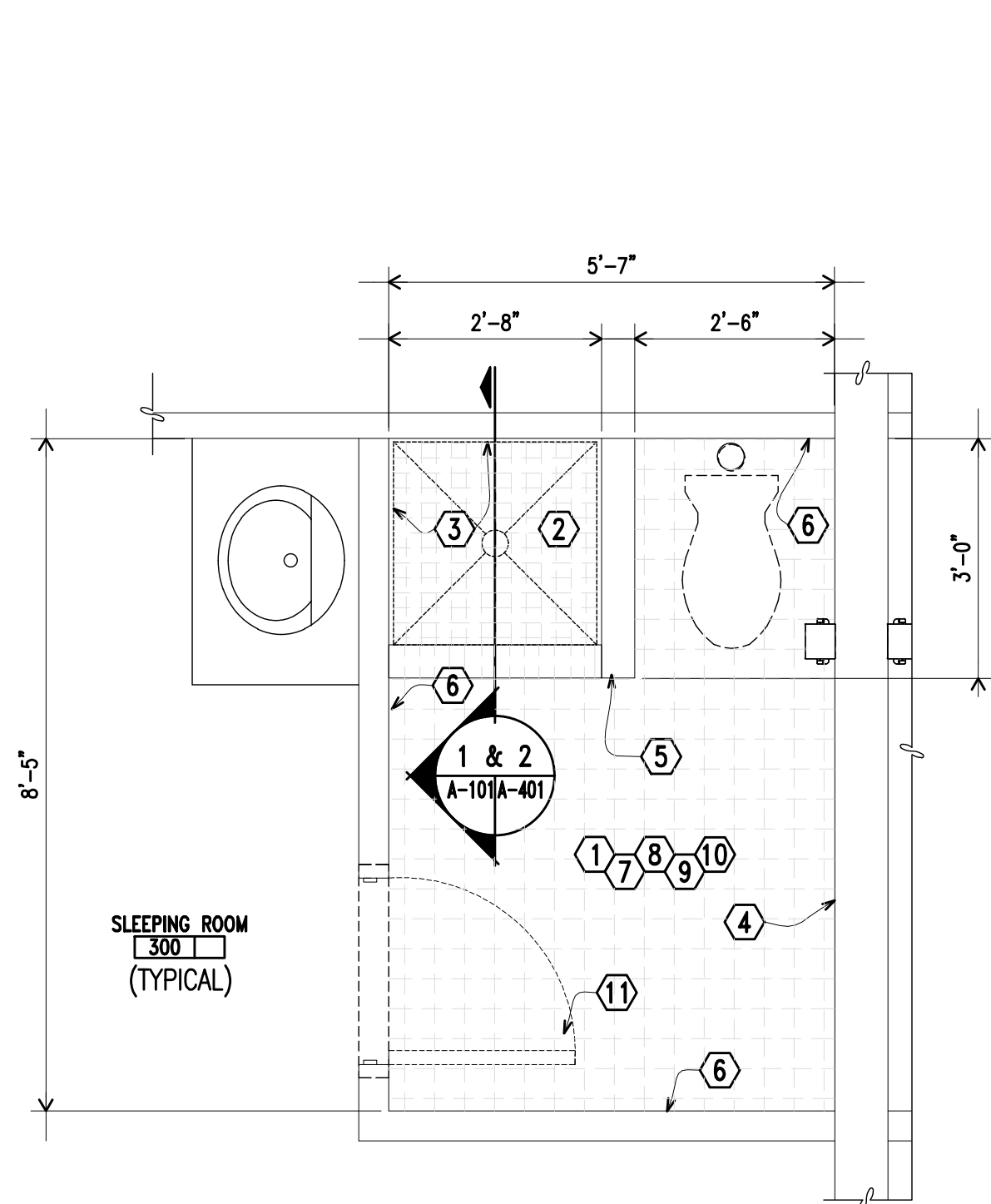
MARK	DESCRIPTION
(TTD)	WALL MOUNTED TOILET TISSUE DISPENSER
(SCR)	SHOWER ROD AND CURTAIN WITH HOOKS: WIDTH OF OPENING +6"
(RH)	DOUBLE ROBE HOOK
(TB)	TOWEL BAR: 2'-0" - SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHTS
(MR)	DOOR MOUNTED 17"x60" MIRROR
(CS)	SOLID SURFACE CORNER SHELF WITH 4" LEG - 3 SHELVES MOUNTED 12" APART.



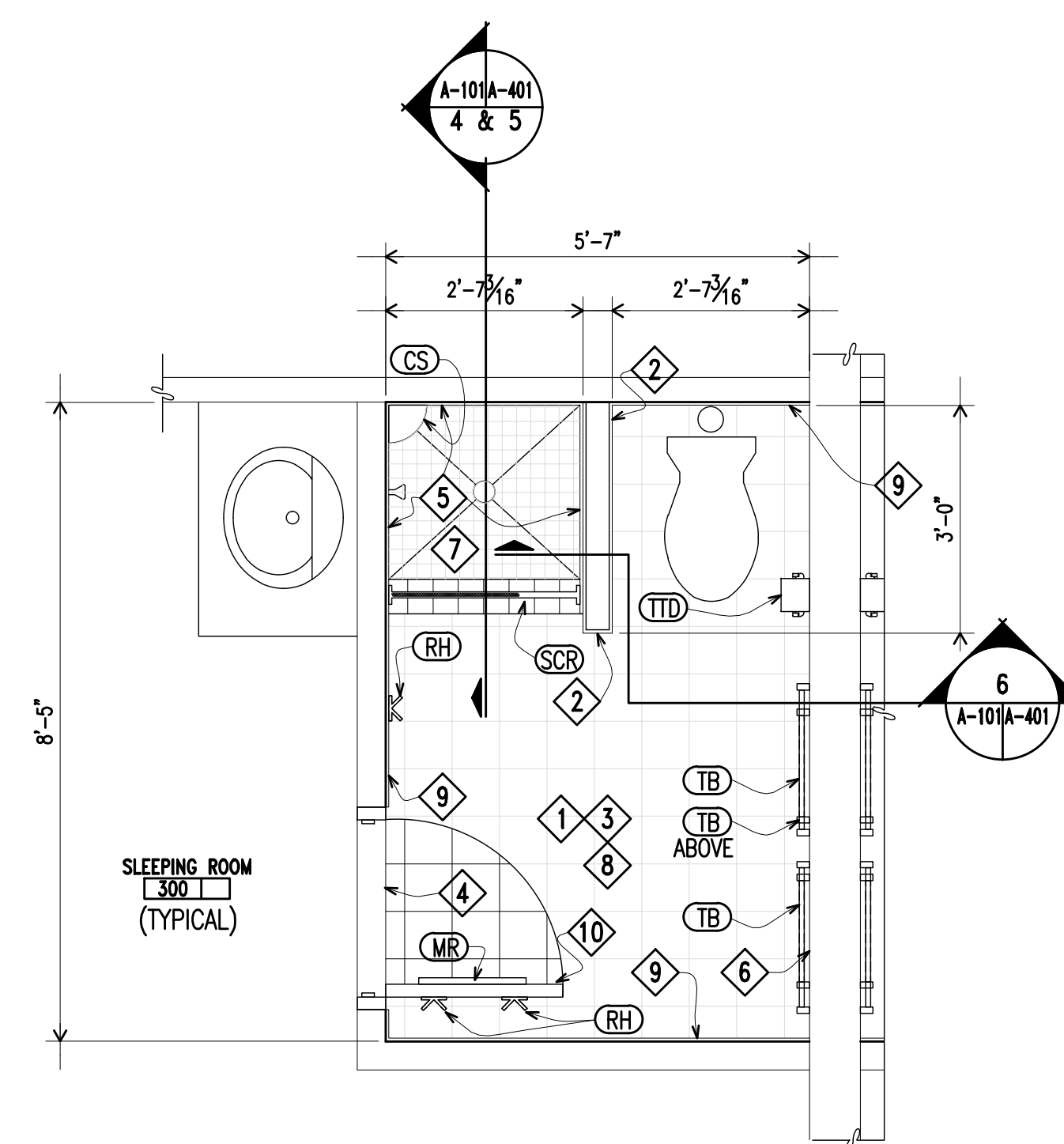
**1 THIRD FLOOR PLAN**  
A-103A-103 DEMOLITION Scale: 3/32" = 1'-0"



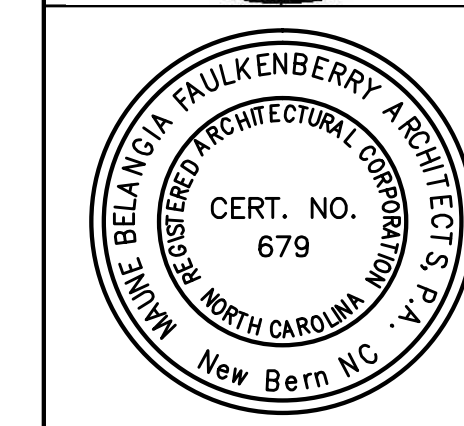
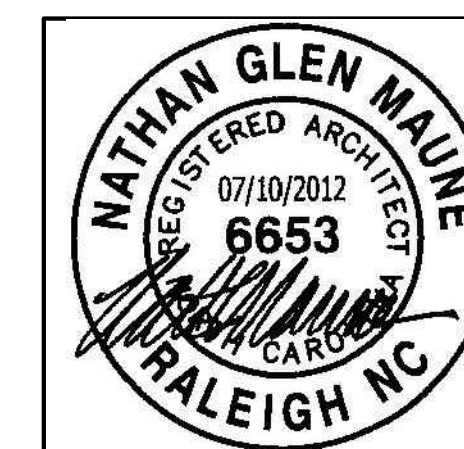
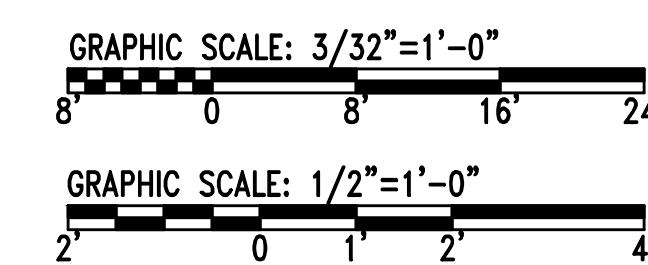
**2 THIRD FLOOR PLAN**  
A-103A-103 CONSTRUCTION Scale: 3/32" = 1'-0"



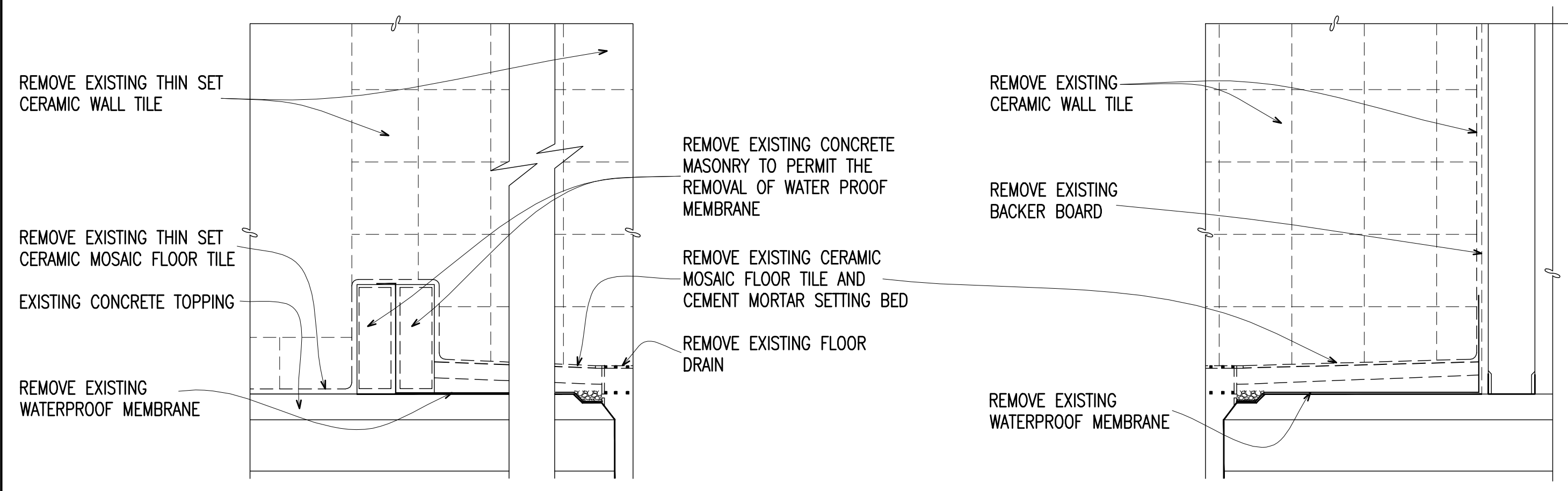
**3 TOILET ROOM - TYPICAL**  
A-103A-103 DEMOLITION Scale: 1/2" = 1'-0"



**4 TOILET ROOM - TYPICAL**  
A-103A-103 CONSTRUCTION Scale: 1/2" = 1'-0"

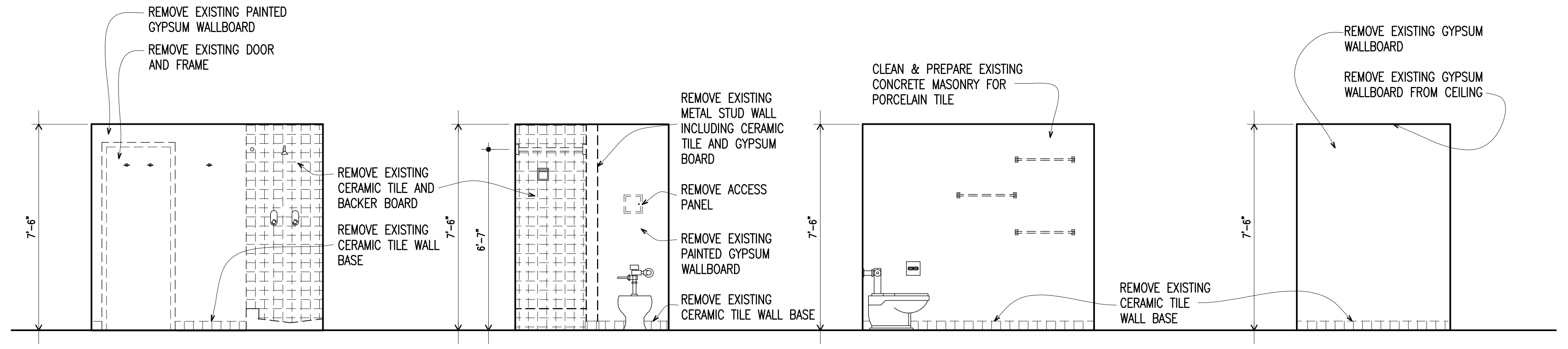


<b>A-103</b>	
MAUNE <b>BELANGIA                  FAULKENBERRY                  ARCHITECTS PA</b> <small>317-S HOLLAND STREET, NEW BERN, NC</small>	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> <small>CAMP LEJEUNE, NORTH CAROLINA</small>
DES. WF. CC DR. CC CHK. WF SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC DATE:	RENOVATE BATHROOMS - HP55 THIRD FLOOR PLANS NAVFAC DRAWING NO. <b>60010745</b> CONST. CONTR. NO. N40085-12-B-0006 SCALE: AS NOTED SPEC. 05-12-0006 SHEET 04 OF 18

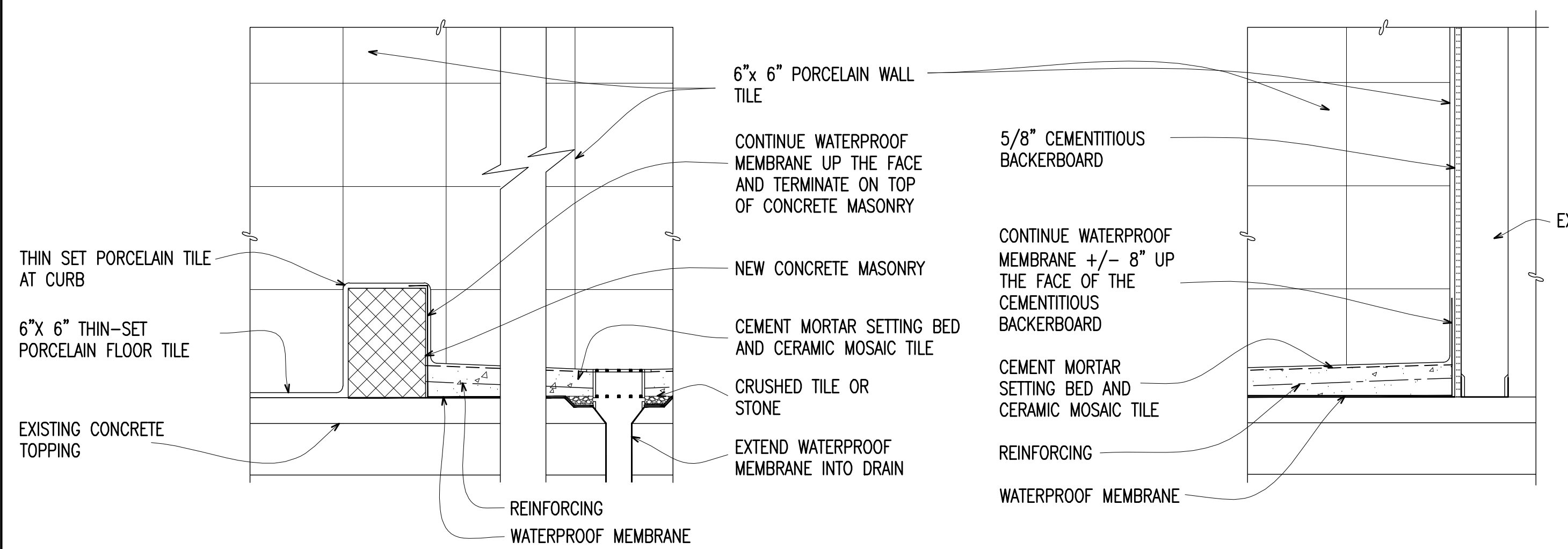


**1 SHOWER CURB**  
 DEMOLITION Scale: 1-1/2" = 1'-0"  
 A-102  
 A-103

**2 SHOWER WALL**  
 DEMOLITION Scale: 1-1/2" = 1'-0"  
 A-102  
 A-103

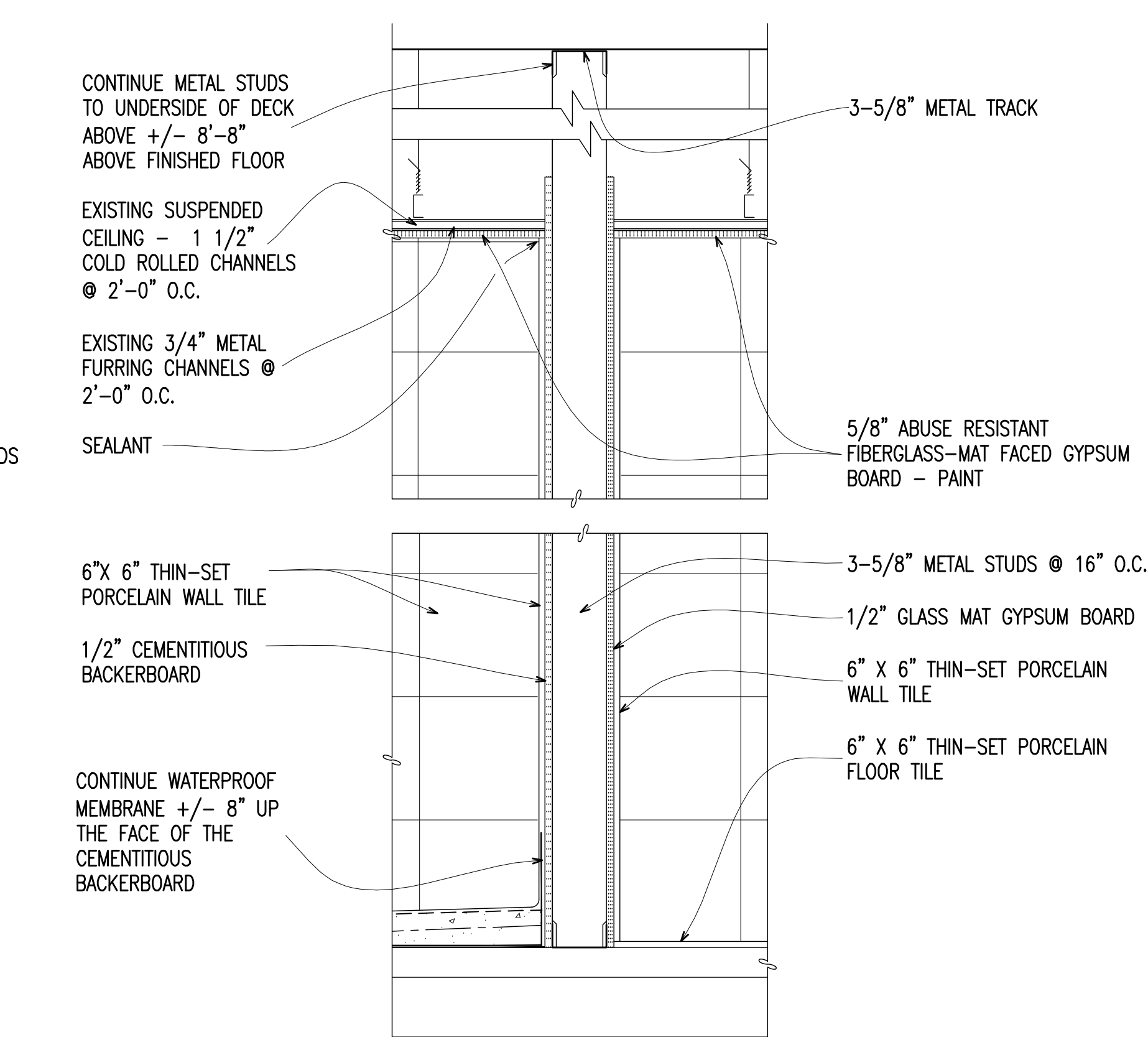


**3 TOILET ROOM ELEVATIONS**  
 DEMOLITION Scale: 3/8" = 1'-0"  
 A-102  
 A-103

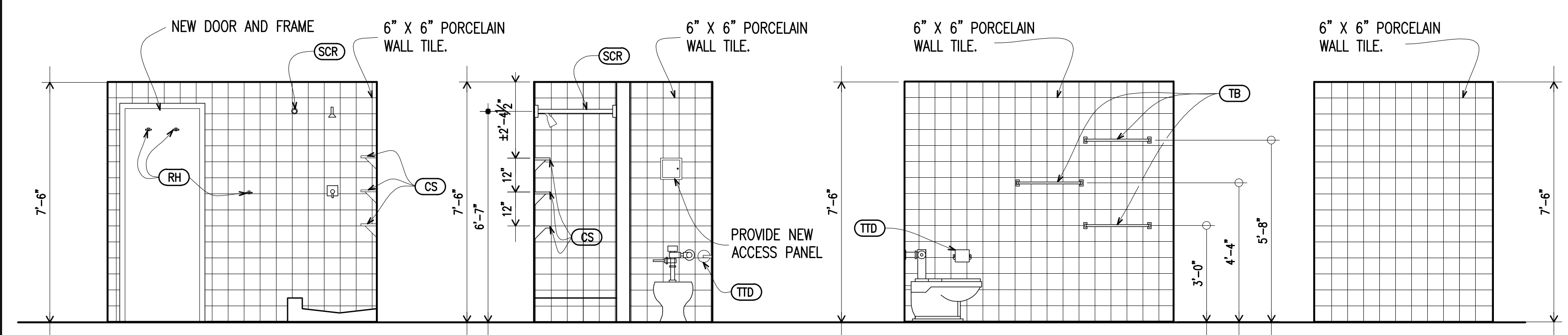


**4 SHOWER CURB**  
 CONSTRUCTION Scale: 1-1/2" = 1'-0"  
 A-102  
 A-103

**5 SHOWER WALL**  
 CONSTRUCTION Scale: 1-1/2" = 1'-0"  
 A-102  
 A-103



**6 SHOWER WALL**  
 CONSTRUCTION Scale: 1-1/2" = 1'-0"  
 A-102  
 A-103



**7 TOILET ROOM ELEVATIONS**  
 CONSTRUCTION Scale: 3/8" = 1'-0"  
 A-102  
 A-103

### TOILET ACCESSORIES LEGEND

NOTE: ACCESSORIES SPECIFIED APPEAR ON DESIGNATED PLANS, AND NOT ALL ACCESSORIES SHOWN HERE MAY BE SPECIFIED. COORDINATE WITH PLAN DESIGNATIONS. SEE SPECIFICATION FOR DETAILED PRODUCT INFORMATION INCLUDING ACCEPTABLE MANUFACTURERS, FINISHES, ETC.

MARK	DESCRIPTION	MARK	DESCRIPTION
TTD	TOILET TISSUE DISPENSER	TB	TOWEL BAR: 2'-0" - SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHTS
GB1	GRAB BAR: 36"	SMHD	SHELF / MOP HOLDER / HOOKS
GB2	GRAB BAR: 42"	FSS	WALL MOUNTED FOLDING SHOWER SEAT
SND	SANITARY NAPKIN DISPOSAL	RSD	RECESSED SOAP DISH
SD	SOAP DISPENSER	CTHS	CLOTHES / TOWEL HOOK STRIP
MC	WALL MOUNTED MIRROR: 18"x36"	SCR	SHOWER ROD AND CURTAIN WITH HOOKS: WIDTH OF OPENING + 6"
MR	DOOR MOUNTED 17"x60" MIRROR	US	UTILITY SHELF
PTD	PAPER TOWEL DISPENSER: "C" FOLD INDIVIDUAL TOWEL TYPE	RH	DOUBLE ROBE HOOK
		CS	SOLID SURFACE CORNER SHELF WITH 4" LEG - 3 SHELVES MOUNTED 12" APART.

**NOTE:**

REMOVE EXISTING PLUMBING FIXTURES (SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION) INCLUDING: WATER CLOSET, SHOWER HEAD AND TRIM.

REMOVE EXISTING TOILET AND SHOWER ACCESSORIES INCLUDING BUT NOT LIMITED TO: SURFACE MOUNTED TOILET TISSUE DISPENSER, THREE (3) TOWEL BARS, THREE (3) ROBE HOOKS, AND ONE (1), EACH, RECESSED SOAP HOLDER, SHOWER ROD AND SHOWER CURTAIN.

**COLOR & MATERIAL SELECTIONS**

SEE PLANS AND PLAN NOTES FOR ALL MATERIAL DESCRIPTIONS AND INTENDED LOCATIONS FOR INSTALLATIONS.

NAMES INDICATED FOR COLORS, TEXTURES AND PATTERNS OF MATERIALS ARE FOR THE PURPOSE OF SELECTION ONLY. OTHER MANUFACTURER'S MATERIALS MAY BE ACCEPTABLE PROVIDED MATERIALS CLOSELY APPROXIMATE COLORS, TEXTURES AND PATTERNS INDICATED AND CONFORM TO ALL SPECIFICATION REQUIREMENTS.

**CONSTRUCTION NOTES**

AT THE CONTRACTOR'S OPTION, THE EXISTING SUSPENDED CEILING SYSTEM MAY BE REMOVED AND REPLACED WITH EITHER OF THE FOLLOWING SYSTEMS.

- 3 5/8" - 25 GAUGE STUDS AT 16" O.C. AND 5/8" ABUSE RESISTANT FIBERGLASS-MAT FACED GYPSUM BOARD - PAINT
- A DRYWALL FURRING SYSTEM AND 5/8" ABUSE RESISTANT FIBERGLASS-MAT FACED GYPSUM BOARD - PAINT

**PAINT:**

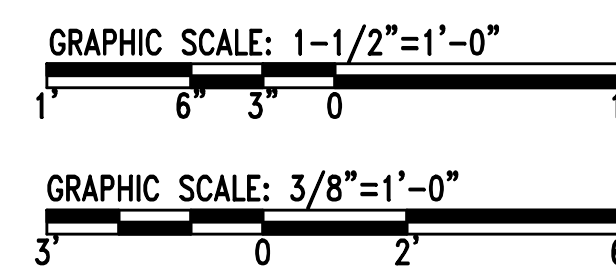
- WALLS & INTERIOR DOORS & FRAMES: ICI "CONTEMPORARY WHITE" 20Y 66/066.

**PORCELAIN TILE:**

- THROUGH BODY 6" X 6" PORCELAIN WALL AND FLOOR TILE - AMERICAN OLEAN, HIGHLAND RIDGE "DESERT HR50" AND CORRESPONDING 3" X 3" MOSAIC FLOOR TILE IN SHOWER

**TOILET PARTITIONS:**

- HIGH DENSITY POLYMER - GENERAL PARTITIONS "GRANITE 605"



# A-401

MAUNE BELANGIA FAULKENBERRY ARCHITECTS PA  
 317-E HOLLIDAY STREET, NEW BERN, NC

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND  
**MARINE CORPS BASE**  
 CAMP LEJEUNE, NORTH CAROLINA

**RENOVATE BATHROOMS - HP55**

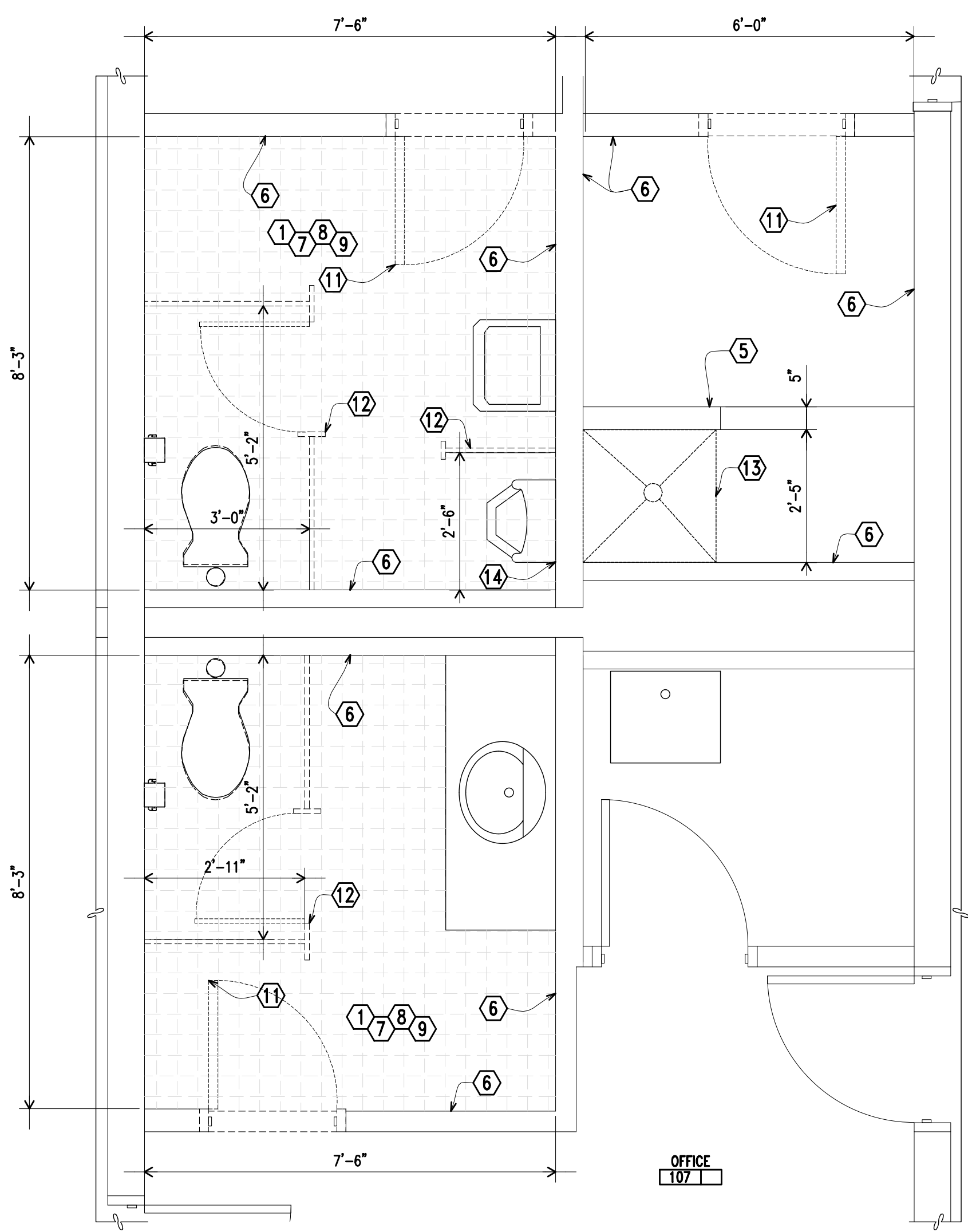
DES. WF. CC  
 DR. CC  
 CHK. WF  
 SUBMITTED BY:  
 DESIGN DIR.  
 APPROVED: PWO OR OICC

INTERIOR ELEVATIONS AND DETAILS  
 NAVFAC DRAWING NO.  
**60010746**  
 CONST. CONTR. NO. N40085-12-B-0006

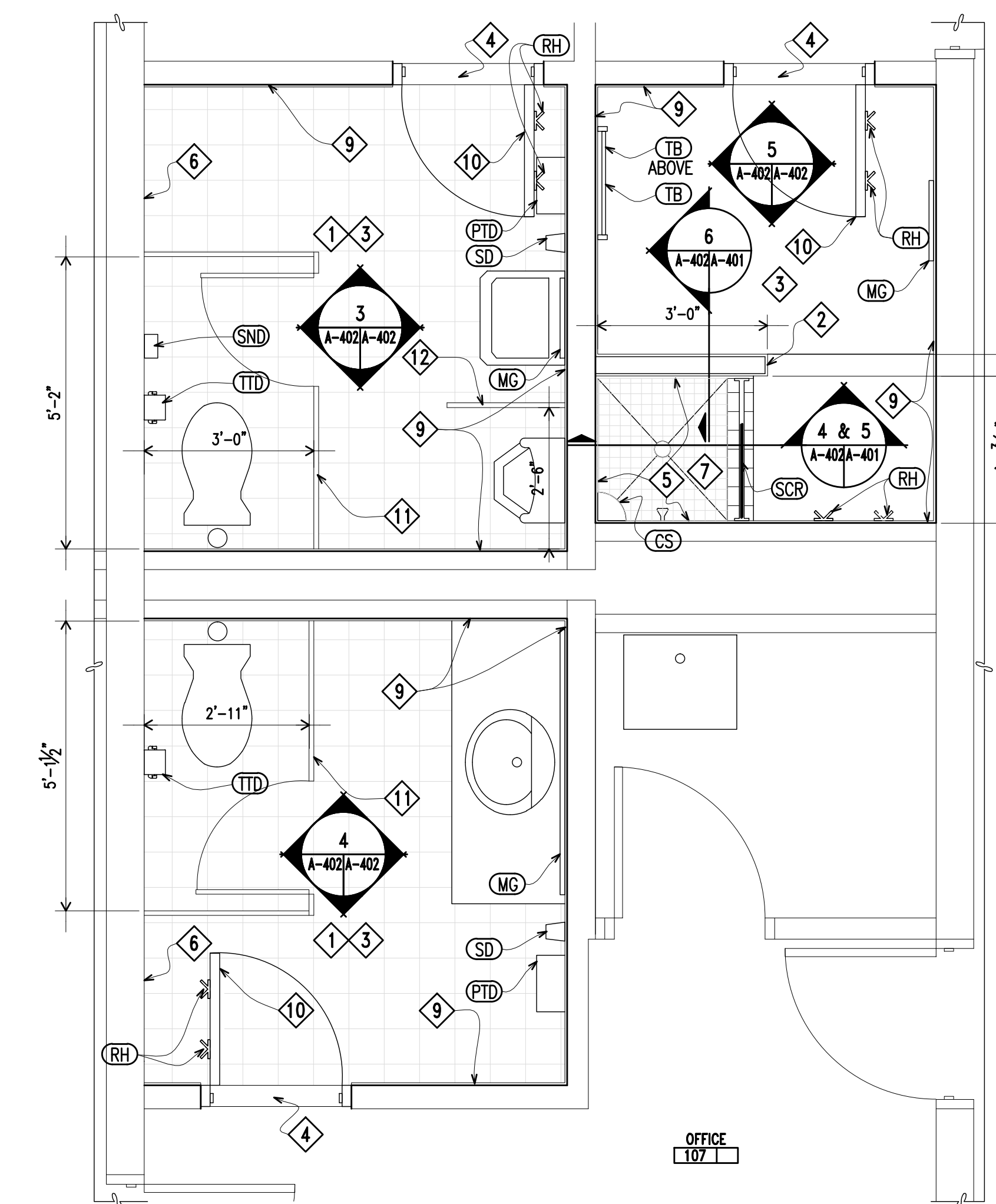
SATISFACTORY TO: \_\_\_\_\_ DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

SCALE: AS NOTED SPEC. 05-12-0006 SHEET 05 OF 18



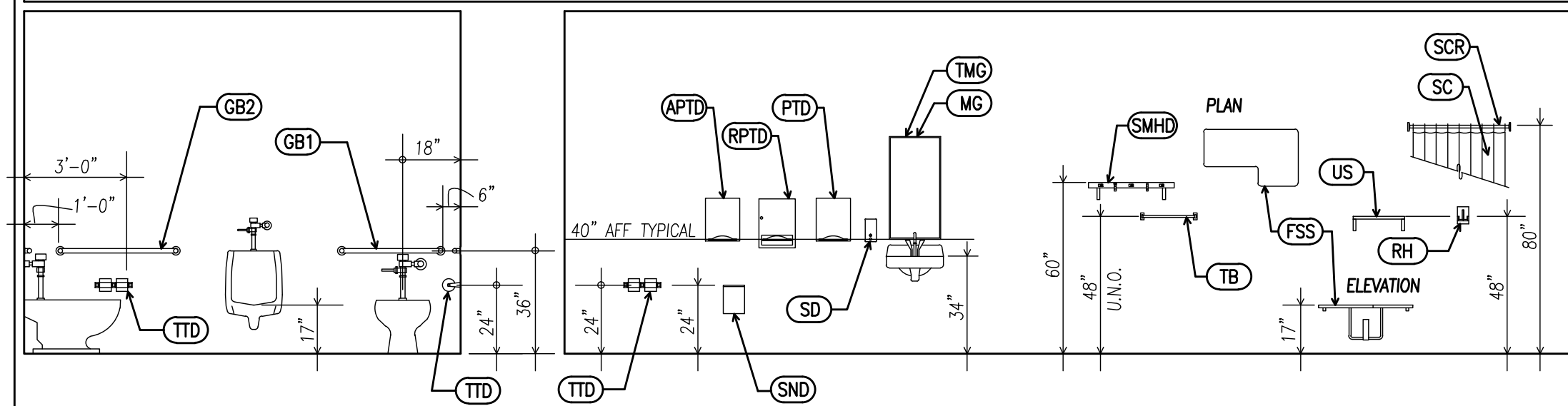
1 OFFICES - TOILET ROOMS  
A-101A-402 DEMOLITION Scale: 1/2" = 1'-0"



2 OFFICES - TOILET ROOMS  
A-101A-402 CONSTRUCTION Scale: 1/2" = 1'-0"

### TOILET ACCESSORIES LEGEND

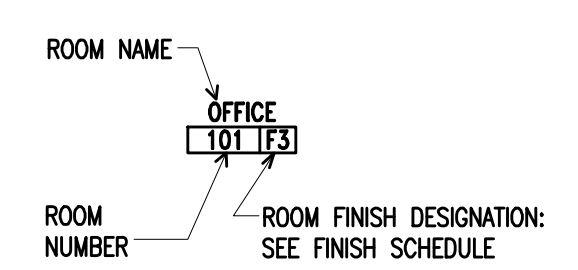
NOTE: ACCESSORIES SPECIFIED APPEAR ON DESIGNATED PLANS, AND NOT ALL ACCESSORIES SHOWN HERE MAY BE SPECIFIED. COORDINATE WITH PLAN DESIGNATIONS. SEE SPECIFICATION FOR DETAILED PRODUCT INFORMATION INCLUDING ACCEPTABLE MANUFACTURERS, FINISHES, ETC.



MARK	DESCRIPTION	MARK	DESCRIPTION
TTD	TOILET TISSUE DISPENSER	TB	TOWEL BAR: 2'-0" - SEE INTERIOR ELEVATIONS FOR MOUNTING HEIGHTS
GB1	GRAB BAR: 36"	SMHD	SHELF / MOP HOLDER / HOOKS
GB2	GRAB BAR: 42"	FSS	WALL MOUNTED FOLDING SHOWER SEAT
SND	SANITARY NAPKIN DISPOSAL	RSD	RECESSED SOAP DISH
SD	SOAP DISPENSER	CHS	CLOTHES / TOWEL HOOK STRIP
MC	WALL MOUNTED MIRROR: 18"x36"	SCR	SHOWER ROD AND CURTAIN WITH HOOKS: WIDTH OF OPENING + 6"
TMC	WALL MOUNTED TILTING ACCESSIBLE MIRROR: 18"x36"	US	UTILITY SHELF
MR	DOOR MOUNTED 17"x60" MIRROR	RH	DOUBLE ROBE HOOK
PTD	PAPER TOWEL DISPENSER: "C" FOLD INDIVIDUAL TOWEL TYPE	CS	SOLID SURFACE CORNER SHELF WITH 4" LEG - 3 SHELVES MOUNTED 12" APART.

### GENERAL NOTES

- THE CONTRACTOR SHALL INCLUDE IN THE BASE BID THE FURNISHING AND INSTALLATION OF (12) - 2 1/2" x 20 GAUGE METAL STUDS +/- 7'-6" IN LENGTH IN THE WALLS, PER BATHROOM. THESE STUDS SHALL BE FASTENED (SISTERED) TO EXISTING METAL STUDS WHERE STUDS ARE DETERIORATED OR DAMAGED. PROVIDE CLIP ANGLES, AND ACCESSORIES TO PERMIT A COMPLETE INSTALLATION.
- THE CONTRACTOR SHALL INCLUDE IN THE BASE BID THE REMOVAL AND REPLACEMENT OF (4) 3/4" METAL FURRING CHANNELS +/- 5'-6" LONG FROM THE EXISTING SUSPENDED CEILING SYSTEM PER BATHROOM. EXISTING FURRING CHANNELS ARE ATTACHED TO 1 1/2" COLD-ROLLED CHANNELS. NEW FURRING CHANNELS ARE TO BE 25 GAUGE.



### GENERAL CONSTRUCTION NOTES

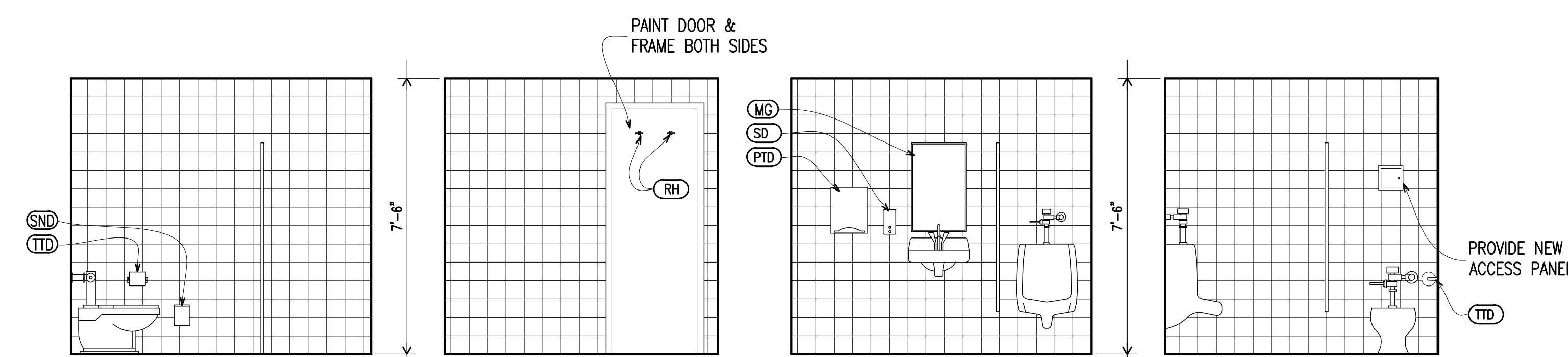
- ALL TOILET ROOMS ARE TO BE RENOVATED AS SHOWN IN 'TYPICAL' ENLARGED PLAN AND AS DESCRIBED BELOW IN KEYED DEMOLITION AND CONSTRUCTION NOTES.
- EXISTING DOORS AND FRAMES ARE TO BE REMOVED AND REPLACED WITH NEW STEEL DOORS AND NEW KNOCK-DOWN FRAMES. PAINT ALL BATHROOM DOORS AND FRAMES.

### KEYED DEMOLITION NOTES

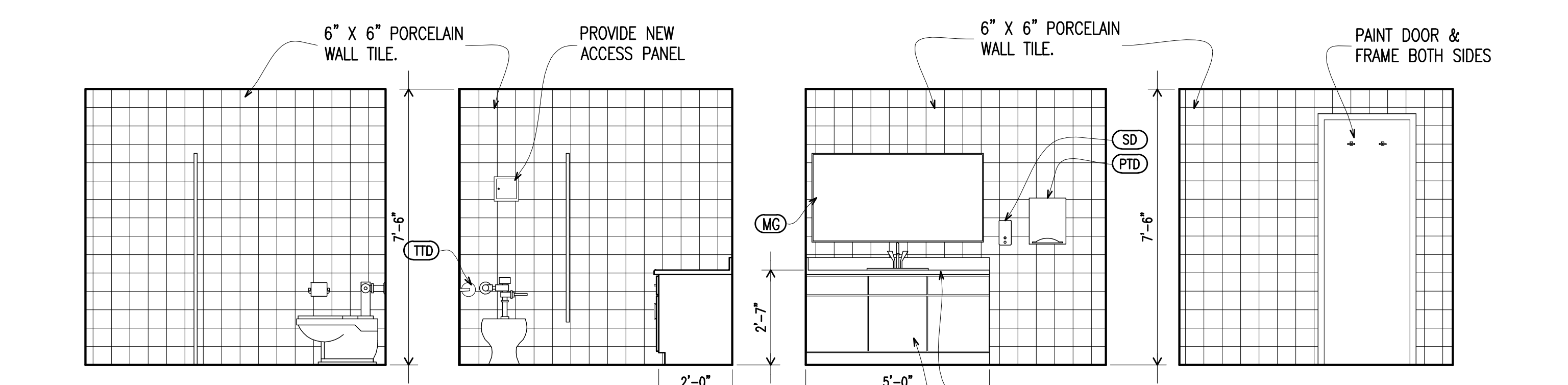
- REMOVE EXISTING THIN SET CERAMIC FLOOR TILE. PREPARE EXISTING CONCRETE SLAB FOR NEW FLOOR FINISH. REMOVE EXISTING MARBLE THRESHOLDS.
- REMOVE EXISTING CERAMIC TILE, CEMENT MORTAR BED AND SHOWER PAN MEMBRANE. PREPARE EXISTING CONCRETE SLAB FOR NEW FLOOR FINISH. SEE A-401 FOR DEMOLITION DETAILS.
- REMOVE EXISTING THIN SET CERAMIC TILE AND BACKER BOARD FROM SHOWER WALLS +/- 7'-2" HIGH ABOVE SHOWER FLOOR.
- REMOVE EXISTING THIN SET CERAMIC TILE WALL BASE FROM EXISTING CONCRETE MASONRY WALL. CLEAN AND PREPARE SURFACE FOR NEW CERAMIC WALL TILE.
- REMOVE EXISTING METAL STUD +/- 7'-6" HIGH INCLUDING THIN SET CERAMIC WALL TILE AND BACKER BOARD ON SHOWER WALL AND GYPSUM WALLBOARD AND CERAMIC TILE WALL BASE ON NON-SHOWER SIDE.
- REMOVE EXISTING PAINTED GYPSUM WALL BOARD +/- 7'-6" HIGH AND CERAMIC TILE WALL BASE.
- REMOVE EXISTING PLUMBING FIXTURES (SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION) INCLUDING: WATER CLOSET, SHOWER HEAD AND TRIM.
- REMOVE EXISTING TOILET AND SHOWER ACCESSORIES INCLUDING BUT NOT LIMITED TO: SURFACE MOUNTED TOILET TISSUE DISPENSER, THREE (3) TOWEL BARS, THREE (3) ROBE HOOKS, AND ONE (1), EACH, RECESSED SOAP HOLDER, SHOWER ROD AND SHOWER CURTAIN.
- REMOVE EXISTING GYPSUM WALL BOARD CEILING - ENTIRE ROOM, +/- 7'-6" A.F.F. AND LIGHT FIXTURE. EXISTING CEILING FRAMING IS 1-1/2" COLD ROLLED CHANNELS AT 2'-0" O.C. AND 3/4" METAL FURRING CHANNELS AT 2'-0" O.C.
- SEE A-401 FOR TOILET ROOM ELEVATIONS.
- REMOVE EXISTING DOOR AND FRAME.
- REMOVE EXISTING METAL TOILET PARTITIONS.
- REMOVE FIBERGLASS SHOWER.
- REMOVE EXISTING THIN SET CERAMIC TILE AND BACKER BOARD FROM WALL BEHIND URINAL +/- 5'-0" HIGH ABOVE TILE FLOOR.

### KEYED CONSTRUCTION NOTES

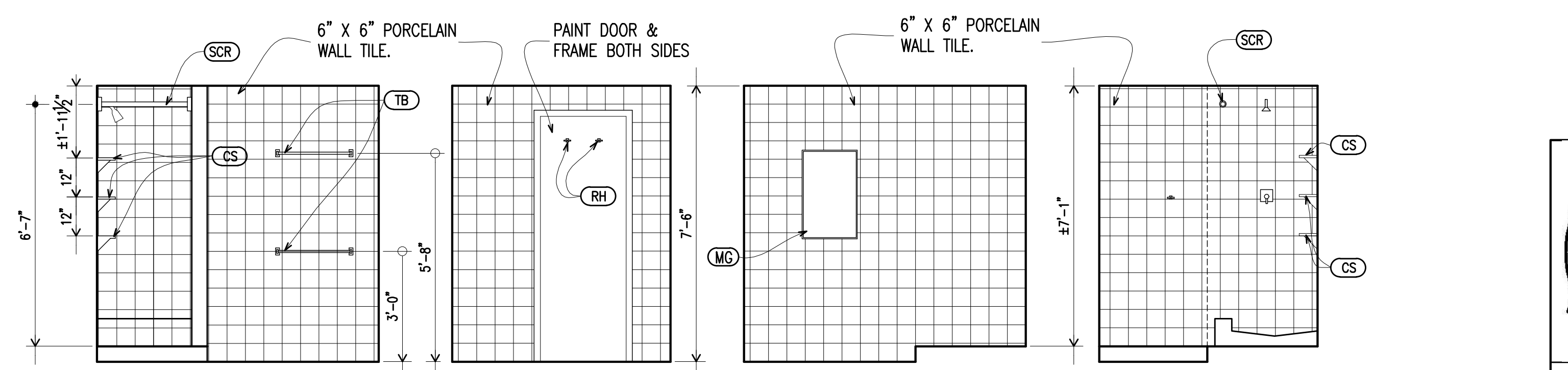
- PROVIDE 6" X 6" PORCELAIN TILE THIN SET ON FLOOR.
- WALLS - PROVIDE 3-5/8" METAL STUDS AT 16" O.C., WITH BACKER BOARD - WITH 6" X 6" PORCELAIN TILE, FLOOR TO CEILING.
- CEILING - PROVIDE 5/8" ABUSE RESISTANT FIBERGLASS-MAT FACED GYPSUM BOARD - PAINT.
- PROVIDE NEW MARBLE THRESHOLD - THRESHOLD WIDTH IS TO BE EQUAL TO JAMB WIDTH.
- PROVIDE BACKER BOARD FOR CERAMIC TILE INSTALLATION AND 6" X 6" PORCELAIN TILE.
- EXISTING PAINTED CONCRETE MASONRY WALL - PROVIDE 6" X 6" PORCELAIN TILE FLOOR TO CEILING.
- PROVIDE 3" X 3" MOSAIC TILE ON SETTING BED (FLOOR).
- NOT USED
- PROVIDE BACKER BOARD WITH 6" X 6" PORCELAIN TILE, FLOOR TO CEILING.
- PROVIDE NEW DOOR AND FRAME. SEE A-601 FOR DETAILS.
- PROVIDE NEW TOILET PARTITIONS.
- PROVIDE NEW URINAL SCREEN.



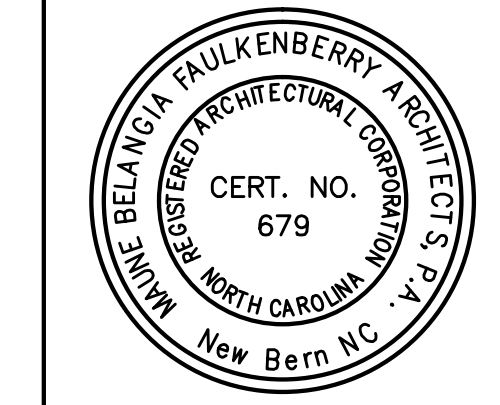
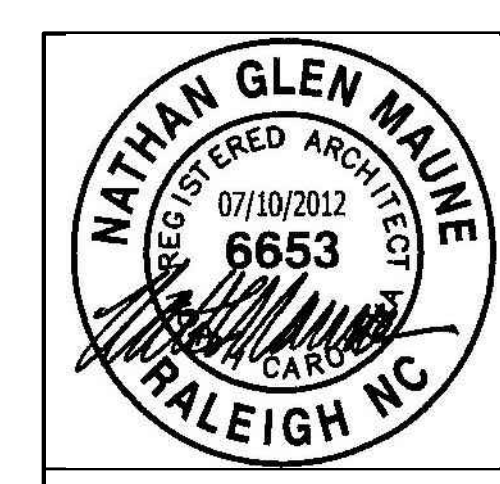
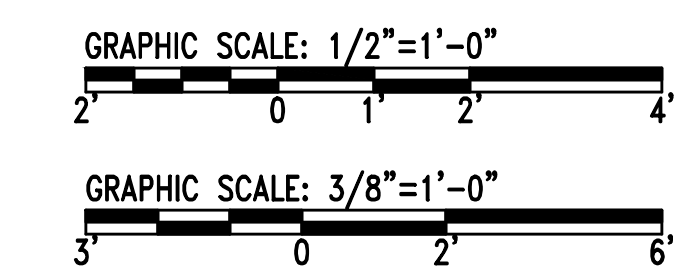
3 TOILET ROOM ELEVATIONS  
A-402A-402 CONSTRUCTION Scale: 3/8" = 1'-0"



4 TOILET ROOM ELEVATIONS  
A-402A-402 CONSTRUCTION Scale: 3/8" = 1'-0"



5 TOILET ROOM ELEVATIONS  
A-402A-402 CONSTRUCTION Scale: 3/8" = 1'-0"



<b>A-402</b>	
MAUNE <b>BELANGIA          FAULKENBERRY          ARCHITECTS PA</b> <small>317-E HOLLIDAY STREET, NEW BERN, NC</small>	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> <small>CAMP LEJUNE, NORTH CAROLINA</small>
DES. WF. CC DR. CC CHK. WF SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC DATE:	ENLARGED PLANS, INTERIOR ELEVATIONS AND DETAILS NAVFAC DRAWING NO. <b>60010747</b> <small>CONST. CONTR. NO. N40085-12-B-0006</small>
SATISFACTORY TO: DATE:	SCALE: AS NOTED   SPEC. 05-12-0006   SHEET 06 OF 18

**DOOR SCHEDULE** NOTE: SILL DETAIL OMITTED IF FLOORING IS CONTINUOUS ON EACH SIDE OF DOOR

MARK	DOOR TYPE	WIDTH	HT.	THK.	MATERIAL	GLAZING	FRAME			REMARKS	FIRE RATING (WHERE APPLICABLE)		
							TYPE	DETAILS:	MATERIAL				
							HEAD	JAMB	SILL				
100B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
101B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
102B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
103B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
104B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
107B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
108B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
109B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
110B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
111B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
112B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
113B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
114B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
115B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
116B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
117B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
118B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
120B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
121B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
122B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
123B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
125B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
125C	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
126B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
127B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
129B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
130B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
131B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		

**DOOR SCHEDULE** NOTE: SILL DETAIL OMITTED IF FLOORING IS CONTINUOUS ON EACH SIDE OF DOOR

MARK	DOOR TYPE	WIDTH	HT.	THK.	MATERIAL	GLAZING	FRAME			REMARKS	FIRE RATING (WHERE APPLICABLE)		
							TYPE	DETAILS:	MATERIAL				
							HEAD	JAMB	SILL				
200B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
201B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
202B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
203B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
204B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
205B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
206B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
207B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
208B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
209B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
210B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
211B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
212B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
213B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
214B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
215B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
216B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
217B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
218B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
220B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
221B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
222B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
223B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
224B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
225B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
226B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
227B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
229B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
230B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
231B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		

**DOOR SCHEDULE** NOTE: SILL DETAIL OMITTED IF FLOORING IS CONTINUOUS ON EACH SIDE OF DOOR

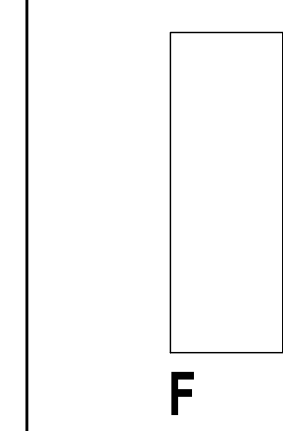
MARK	DOOR TYPE	WIDTH	HT.	THK.	MATERIAL	GLAZING	FRAME			REMARKS	FIRE RATING (WHERE APPLICABLE)		
							TYPE	DETAILS:	MATERIAL				
							HEAD	JAMB	SILL				
300B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
301B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
302B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
303B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
304B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
305B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
306B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
307B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
308B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
309B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
310B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
311B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
312B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
313B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
314B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
315B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
316B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
317B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
318B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
320B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
321B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
322B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
323B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
324B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
325B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
326B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
327B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
329B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
330B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		
331B	F	2'-4"	6'-8"	1-3/4"	STEEL	-	A	1/A-601	2/A-601	3/A-601	STEEL		

REMARKS \* SEE SPECIFICATION SECTION 08 41 00 FOR DOOR HARDWARE

NO REMARKS

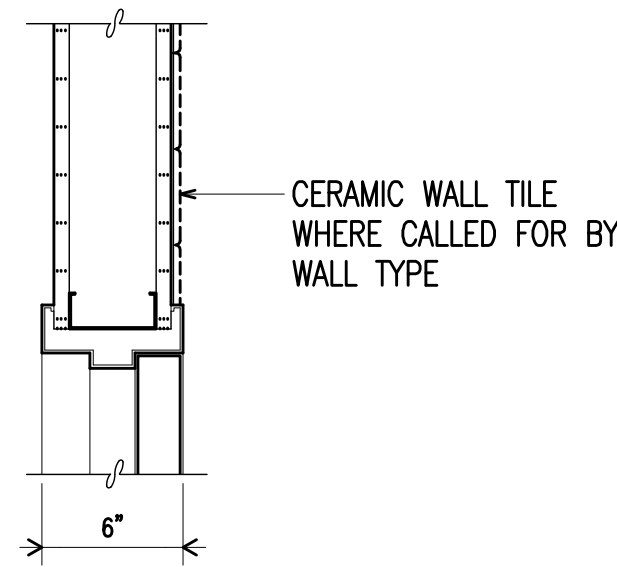
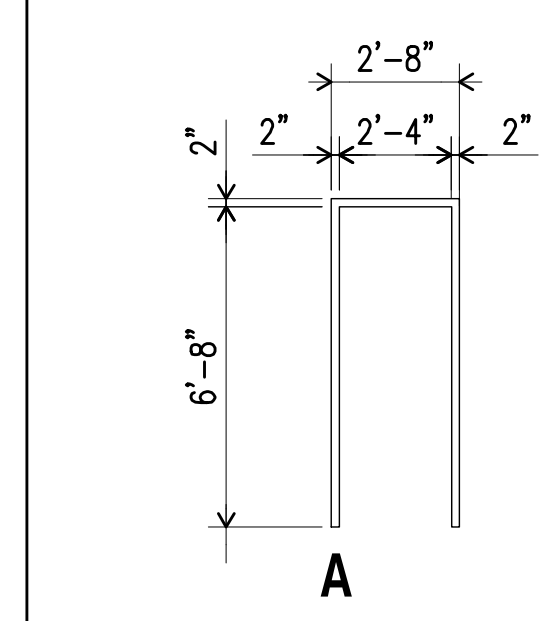
**DOOR TYPES** NOTE: DOOR SIZES GIVEN IN SCHEDULE ARE APPROXIMATE, BASED ON FIELD MEASUREMENTS. THE CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS PRIOR TO ORDERING AND INSTALLING NEW DOORS.

SEE SCHEDULE FOR SIZES, THICKNESS, MATERIALS, GLAZING TYPES, AND FIRE RATINGS (WHERE REQUIRED). REFER TO PLANS FOR INDIVIDUAL DOOR HANDING AND LOCATIONS

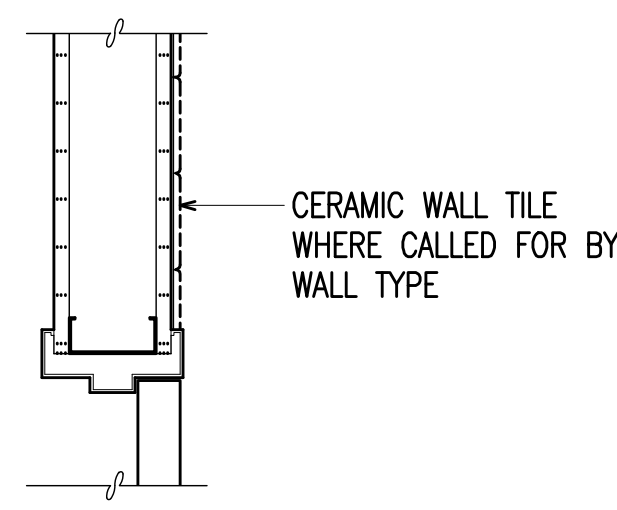


**FRAME TYPES** NOTE: FRAME SIZES GIVEN ARE APPROXIMATE, BASED ON FIELD MEASUREMENTS. THE CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS PRIOR TO ORDERING AND INSTALLING NEW FRAMES.

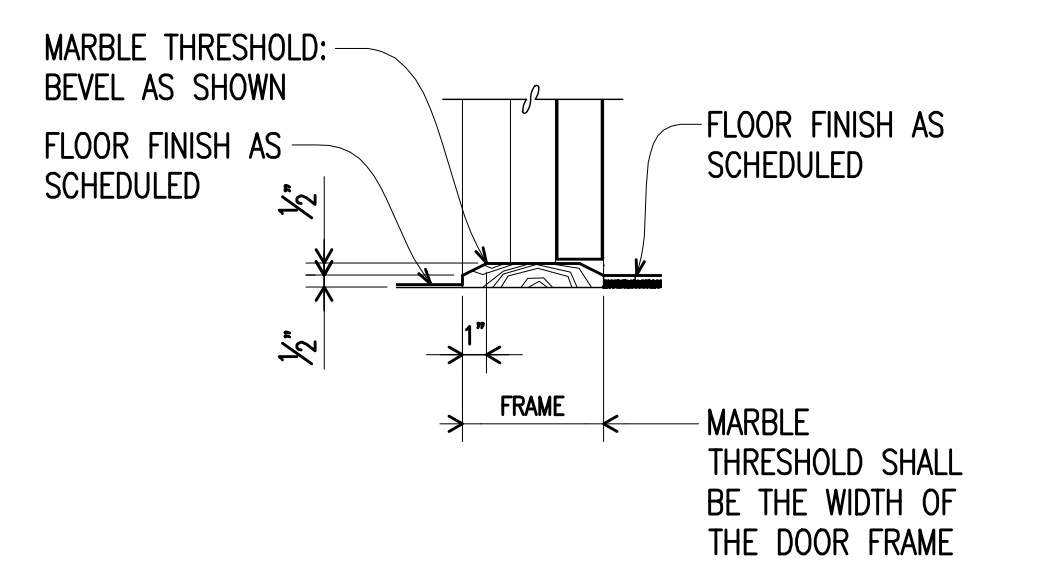
FRAMES: SEE SCHEDULE AND DETAILS REFERENCED FOR ALL FRAME DEPTHS, MATERIALS, AND FIRE RATINGS (WHERE REQUIRED). REFER TO PLANS FOR INDIVIDUAL DOOR HANDING AND LOCATIONS.



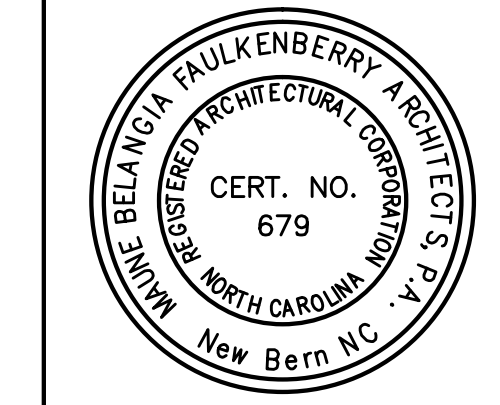
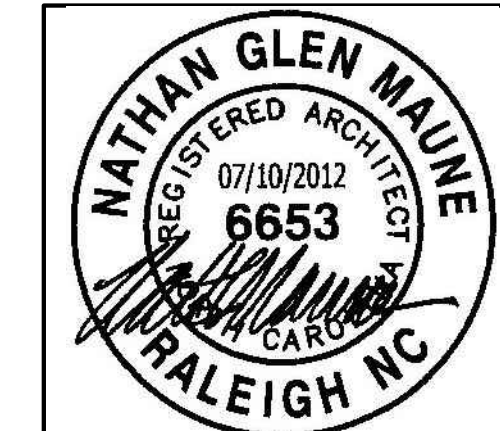
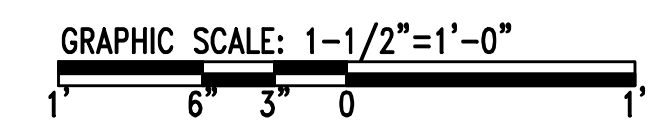
1 DOOR DETAIL: HEAD Scale: 1-1/2" = 1'-0"



2 DOOR DETAIL: JAMB Scale: 1-1/2" = 1'-0"



3 DOOR DETAIL: SILL Scale: 1-1/2" = 1'-0"

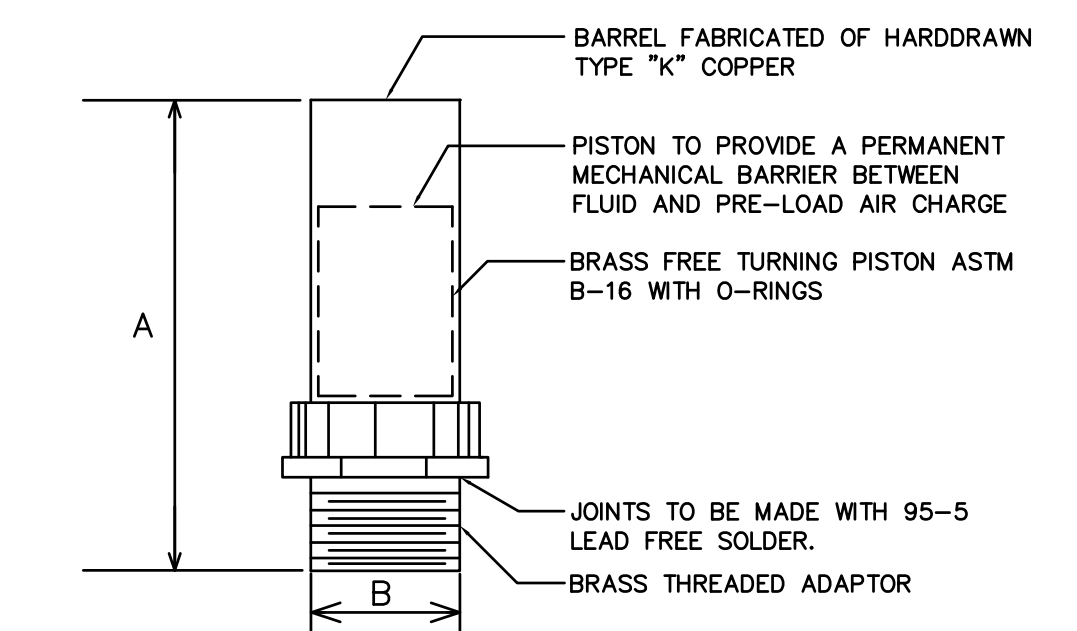


		<b>A-601</b>	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA		RENOVATE BATHROOMS - HP55	
DES. WF. CC DR. CC CHK. WF SUBMITTED BY: DESIGN DIR.	APPROVED: PWO OR OICC DATE:	NAVFAC DRAWING NO. <b>60010748</b>	DOOR SCHEDULE & DETAILS
SATISFACTORY TO:	DATE:	SIZE CODE IDENT NO. <b>F 80091</b>	CONST. CONTR. NO. N40085-12-B-0006 SHEET 07 OF 18

**PLUMBING SPECIFICATIONS:**

- 1.) THE ENTIRE PLUMBING SYSTEM SHALL BE IN ACCORDANCE WITH 2009 INTERNATIONAL PLUMBING CODE.
- 2.) ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO INSTALLATION. CONTRACTOR SHALL COORDINATE ROUTING OF ALL PIPING WITH EXISTING CONDITIONS AND SHALL PROVIDE ANY NECESSARY OFFSETS, REROUTING, ETC. REQUIRED FOR A COMPLETE AND COORDINATED INSTALLATION.
- 3.) THESE PLANS ARE DIAGRAMMATIC. CONTRACTOR SHALL PROVIDE ALL NECESSARY OFFSET, TEES, ELBOWS, ETC FOR A COMPLETE WORKING PLUMBING SYSTEM.
- 4.) CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO BEGINNING WORK.
- 5.) CONTRACTOR SHALL COORDINATE ANY PLUMBING SYSTEM REQUIRING SHUTDOWN WITH THE OWNER 48 HOURS IN ADVANCE.
- 6.) ALL DOMESTIC WATER PIPING SHOWN IS ABOVE CEILING/WITHIN WALLS UNLESS NOTED OTHERWISE.
- 7.) ALL DOMESTIC WATER PIPING (ABOVE SLAB) SHALL BE TYPE "L" COPPER WITH 95/5 LEAD FREE SOLDER. ALL WATER PIPING (BELOW SLAB) SHALL BE TYPE "K" SOFT COPPER, COMPLY W/ ASTM B-88-86A.
- 8.) ALL COLD WATER PIPING SHALL BE INSULATED WITH EITHER POLYISOCYANURATE OR POLYSTYRENE AND PROVIDED WITH A VAPOR BARRIER, THICKNESS FOR COLD WATER PIPING SHALL BE 1" THICK. HOT WATER PIPING SHALL BE INSULATED WITH POLYISOCYANURATE, MINERAL FIBER, OR POLYSTYRENE, THICKNESS FOR HOT WATER & RETURN PIPING SHALL BE 1" THICK.
- 9.) ALL BRANCH LINES SHALL HAVE SHUT-OFF VALVES. ALL DOMESTIC WATER BALL VALVES SHALL BE BRASS BODY, FULL PORT, CHROME PLATED BALL, TEFLON SEATS, 150 # WSP, FOR SIZES 1/2" THRU 2". SIZES ABOVE 2" SHALL BE BRONZE GATE VALVE, NRS SOLID DISC, SCREEN OVER BONNET, 125 #WSP. PROVIDE VALVE HANDLE EXTENSIONS AS REQUIRED FOR INSULATION.
- 10.) ALL PLUMBING FIXTURES AND KITCHEN EQUIPMENT SHALL HAVE A PISTON TYPE WATER HAMMER ARRESTOR SIZED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS & PDI STANDARDS.
- 11.) ALL SANITARY SEWER PIPING SHOWN IS BELOW SLAB/WITHIN WALLS UNLESS NOTED OTHERWISE. ALL SANITARY VENT PIPING SHOWN IS ABOVE CEILING/WITHIN WALLS UNLESS NOTED OTHERWISE.
- 12.) ALL WASTE & VENT PIPING SHALL MATCH EXISTING SERVICE WEIGHT CAST IRON WITH NO-HUB FITTINGS CONFORMING TO CSPI 301-90. JOINTS SHALL BE ONE-PIECE NEOPRENE GASKET WITH STAINLESS STEEL BAND AND BOLTS CONFORMING TO ASTM C564-85.
- 13.) ALL VENT THRU THE ROOF PENETRATIONS SHALL BE LOCATED A MINIMUM OF 10'-0" FROM ALL OUTSIDE AIR INTAKES.
- 14.) ALL PIPING SYSTEMS SHALL BE SUPPORTED AS REQUIRED BY 2009 INTERNATIONAL PLUMBING CODE & MANUFACTURER'S RECOMMENDATIONS.
- 15.) ALL PIPING PENETRATIONS THRU NEW / EXISTING WALLS/ FLOORS SHALL BE SEALED TO EQUAL THE RATING OF THE NEW / EXISTING WALL OR FLOOR.
- 16.) ALL PLUMBING SYSTEMS SHALL BE TESTED AS REQUIRED PER 2009 INTERNATIONAL PLUMBING CODE.
- 17.) THE CONTRACTOR SHALL COORDINATE ALL UNDERSLAB PLUMBING PIPING WITH ALL STRUCTURAL FOUNDATIONS. CONTRACTOR SHALL COORDINATE ALL UNDERSLAB PLUMBING PIPING ELEVATION INVERTS WITH SITE UTILITY ELEVATION INVERTS.
- 18.) CONTRACTOR SHALL COORDINATE ALL KITCHEN EQUIPMENT REQUIRING PLUMBING CONNECTIONS WITH KITCHEN EQUIPMENT VENDOR. PROVIDE ALL NECESSARY P-TRAPS, SUPPLY STOPS, INDIRECT PIPING, ETC. REQUIRED FOR COMPLETE HOOK-UP OF KITCHEN EQUIPMENT REQUIRING PLUMBING CONNECTIONS.
- 19.) THE ENTIRE DOMESTIC WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH 2009 INTERNATIONAL PLUMBING CODE.

PLUMBING LEGEND AND ABBREVIATIONS	
	SANITARY SEWER PIPING ( W )
	VENT PIPING ( V )
	COLD WATER PIPING ( CW )
	HOT WATER PIPING ( HW )
	ELL TURNS UP
	ELL TURNS DOWN
	CHECK VALVE
	BALL VALVE
	GATE VALVE IN HORIZONTAL POSITION
	CLEANOUT IN FLOOR OR SLAB (FCO)
	CLEANOUT IN WALL (WCO)
	CLEANOUT BELOW FLOOR (CFO)
	PLUMBING FIXTURE - NO.
	ABOVE FINISH FLOOR
	BELOW FINISH FLOOR
	FLOOR DRAIN - TYPE ( SEE SCHEDULE )
	HOSE HIBB
	PLUMBING CONTRACTOR
	VENT THROUGH ROOF
	COMMON VENT
	BEGINNING OF CIRCUIT VENT
	END OF CIRCUIT VENT
	DOUBLE CHECK VALVE
	REDUCED PRESSURE ZONE
	EXISTING TO REMAIN
	HUB DRAIN
	FORCE MAIN

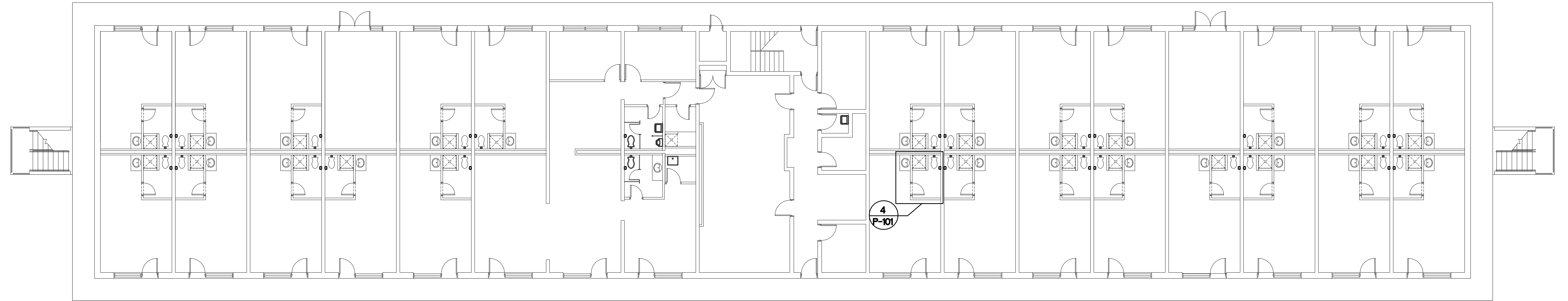


PPP SIZE	P.D.I. SYMBOL	FIXTURE UNIT RATINGS	A SIZE	B SIZE
1/2"	A	1/2 - 1/2	3/4"	1/2"
3/4"	B	3/4 - 3/4	1"	3/4"
1"	C	1 - 1	1 1/4"	1"
1 1/2"	D	1 1/2 - 1 1/2	1 3/4"	1 1/2"
2"	E	2 - 2	2"	1 3/4"

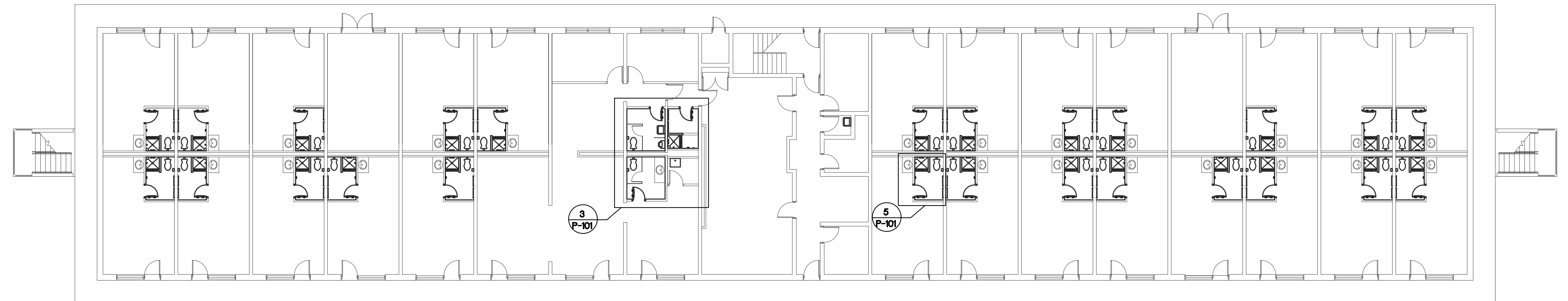
**1 SHOCK ABSORBER DETAIL**  
P-001 SCALE: NTS

	<b>P-001</b>	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA		
RENOVATE BATHROOMS - HP55		
DES. _____ DR. _____ CHK. _____ SUBMITTED BY: _____ DESIGN DIR. _____		
APPROVED: PWO OR OICC DATE _____		PLUMBING LEGENDS NAVFAC DRAWING NO. <b>60010749</b>
SATISFACTORY TO: _____ DATE _____		CONST. CONTR. NO. N40085-12-B-0006 SCALE: AS NOTED SPEC. 05-12-0006 SHEET 8 OF 18

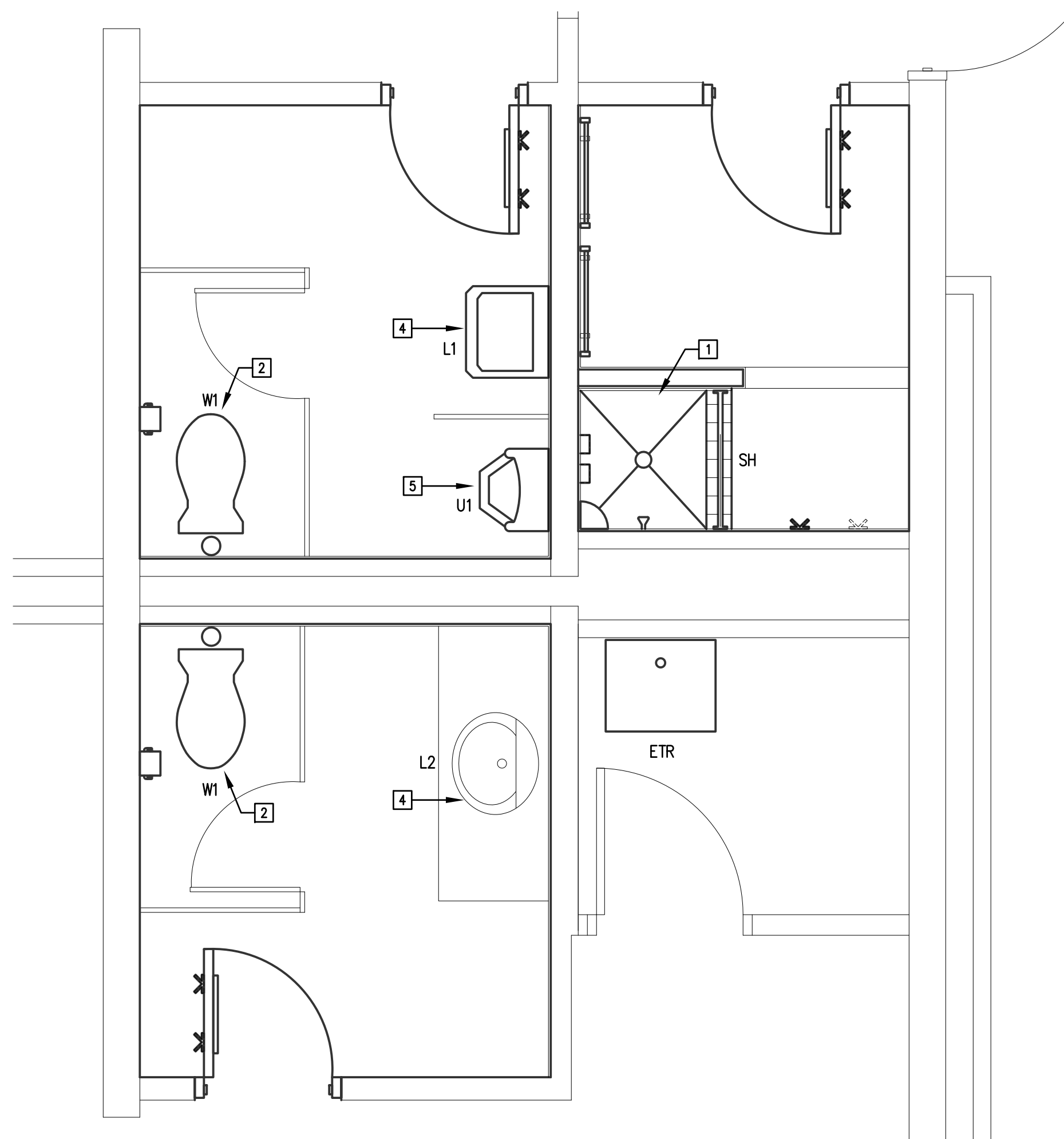




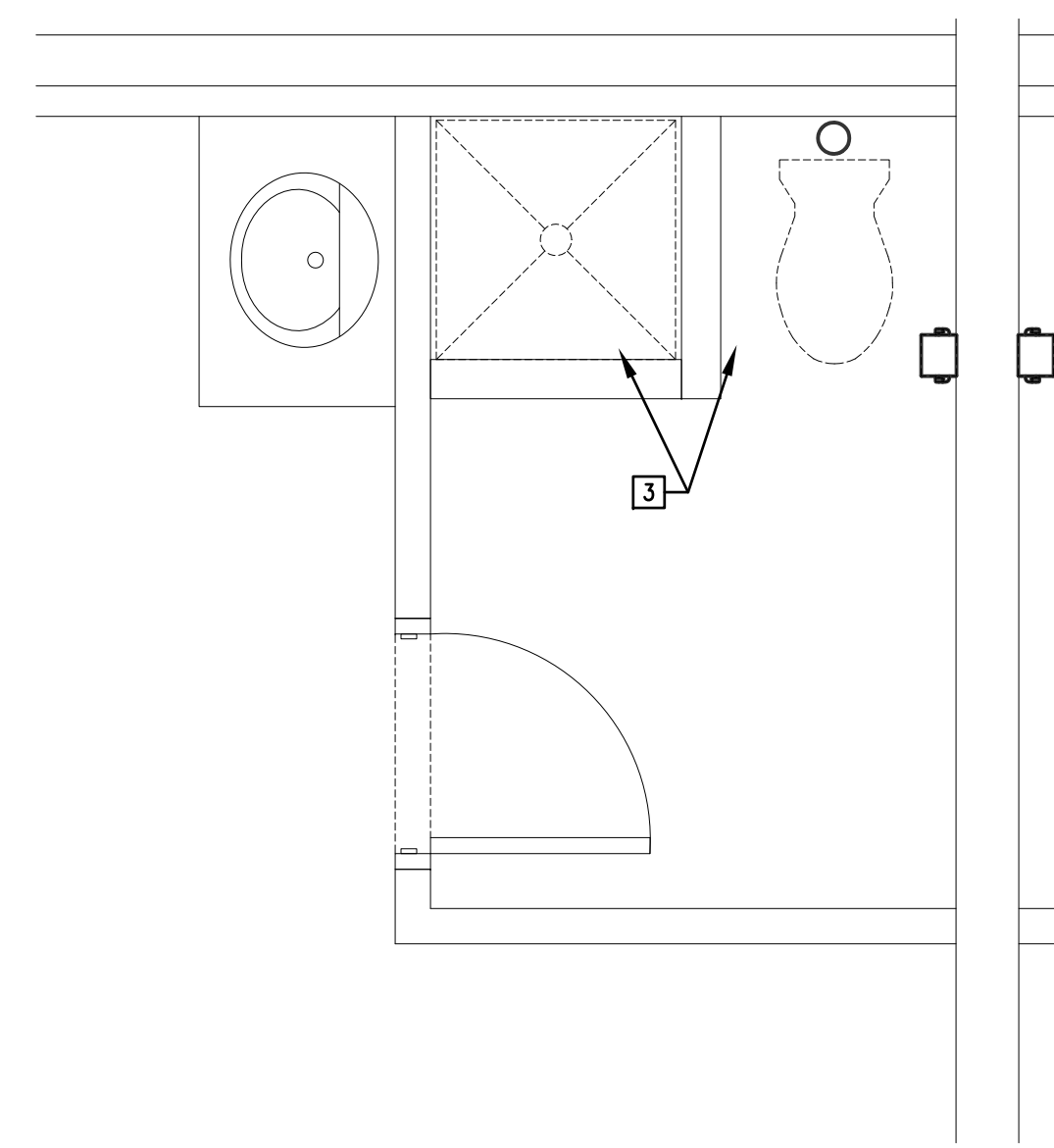
**1 FIRST FLOOR PLAN - PLUMBING DEMOLITION**  
P-101 SCALE: 3/32" = 1' - 0"



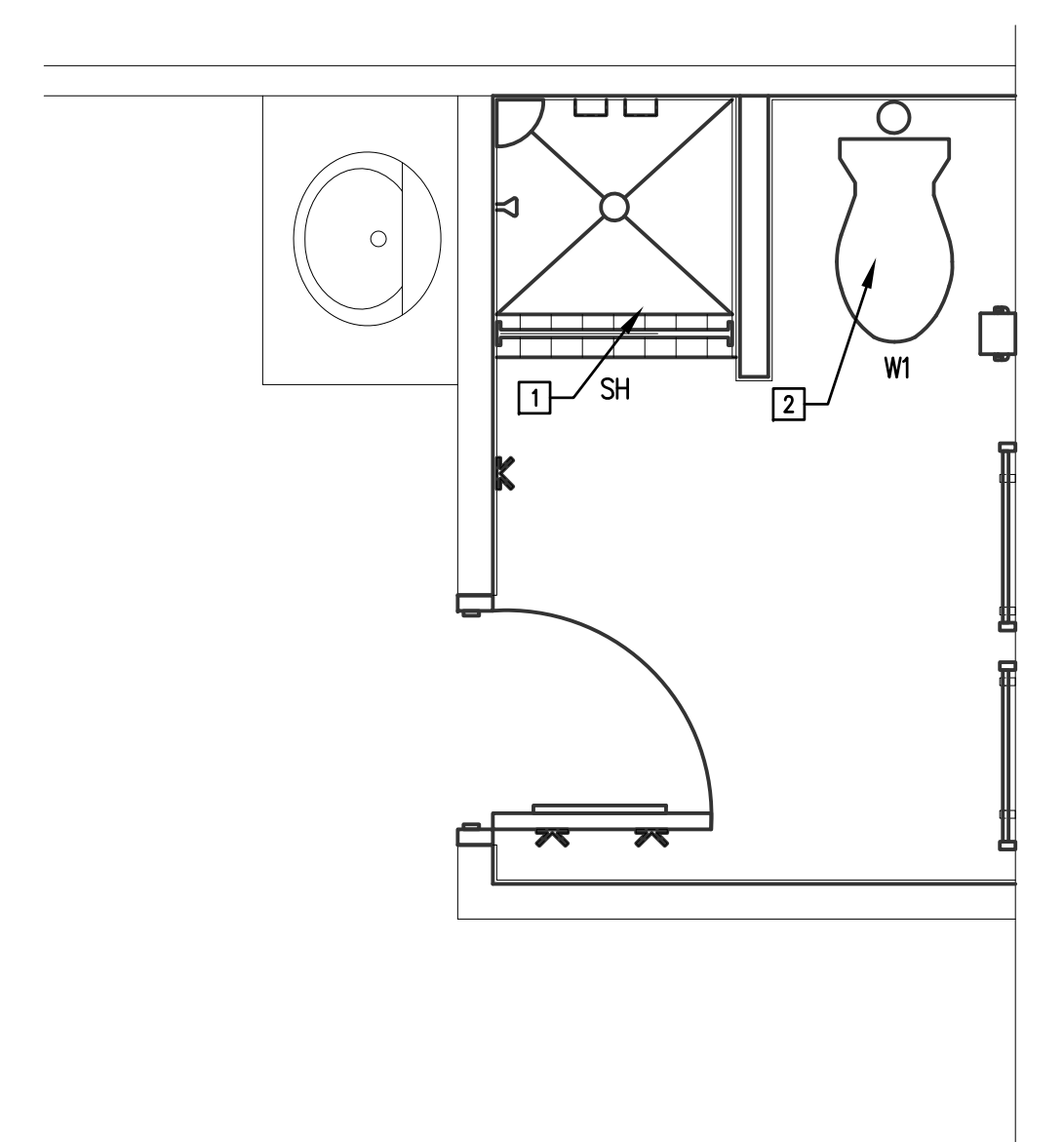
**2 FIRST FLOOR PLAN - PLUMBING**  
P-101 SCALE: 3/32" = 1' - 0"



**3 OFFICE TOILET PLAN - PLUMBING**  
P-101 SCALE: 1/2" = 1' - 0"



**4 SLEEPING ROOM TOILET PLAN - PLUMBING DEMOLITION**  
P-101 SCALE: 1/2" = 1' - 0"

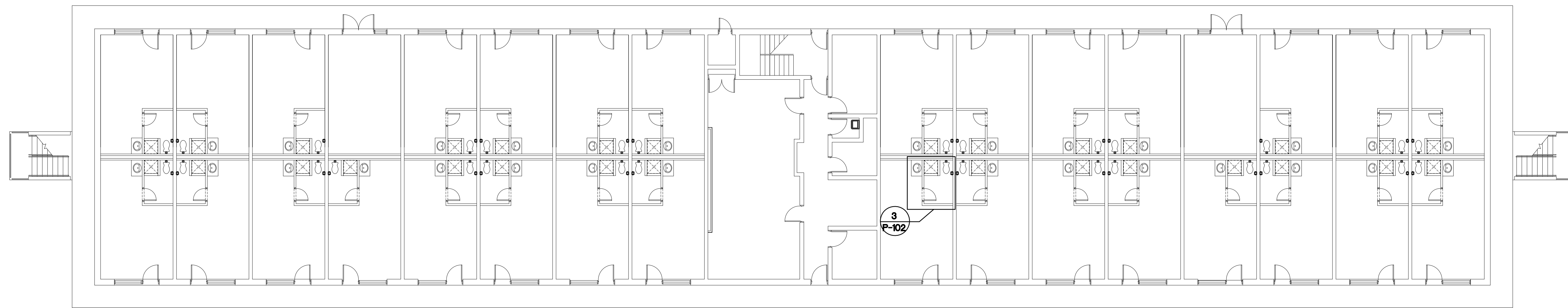


**5 SLEEPING ROOM TOILET PLAN - PLUMBING**  
P-101 SCALE: 1/2" = 1' - 0"

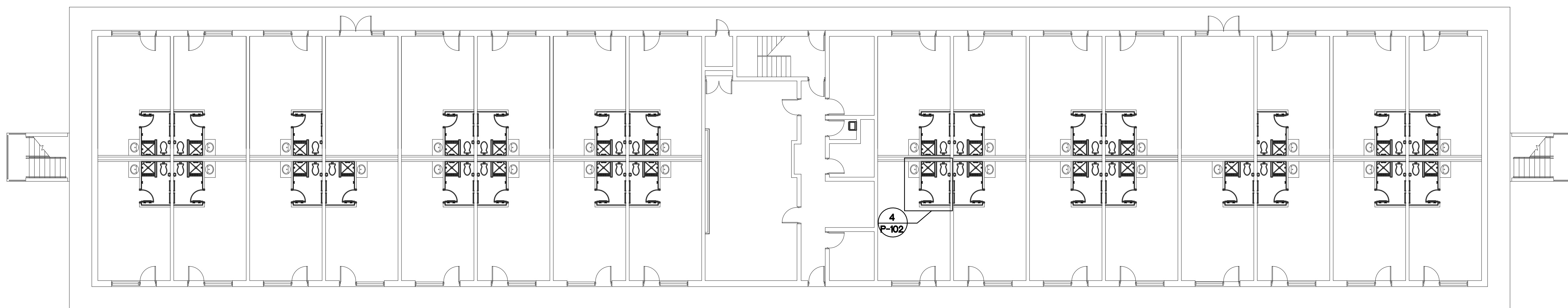
- PLAN NOTES:**
- 1 PROVIDE NEW SHOWER VALVE AND NEW SHOWER HEAD. PROVIDE ALL NECESSARY OFFSETS AND FITTINGS NEEDED FOR COMPLETE INSTALLATION.
  - 2 PROVIDE NEW WATER CLOSET, WAX SEAL, AND FLUSH VALVE. PROVIDE ALL NECESSARY OFFSETS AND FITTINGS NEEDED FOR COMPLETE INSTALLATION.
  - 3 DEMOLISH EXISTING SHOWER VALVE, SHOWER HEAD, AND WATER CLOSET.
  - 4 PROVIDE NEW WALL MOUNTED LAVATORY. PROVIDE ALL NECESSARY OFFSETS AND FITTINGS NEEDED FOR COMPLETE INSTALLATION.
  - 5 PROVIDE NEW WALL URINAL. PROVIDE ALL NECESSARY OFFSETS AND FITTINGS NEEDED FOR COMPLETE INSTALLATION.
  - 6 PROVIDE NEW COUNTER MOUNTED LAVATORY. PROVIDE ALL NECESSARY OFFSETS AND FITTINGS NEEDED FOR COMPLETE INSTALLATION.

SCOPE OF WORK:  
THE SCOPE OF WORK FOR THIS PROJECT IS TO RENOVATE ALL THE EXISTING RESTROOMS UTILIZING EXISTING PIPING WHEREVER POSSIBLE. ENLARGED PLANS ARE SHOWN TO PROVIDE MORE DETAIL. ALL 88 RESTROOMS IN THE BUILDING ARE BEING RENOVATED.

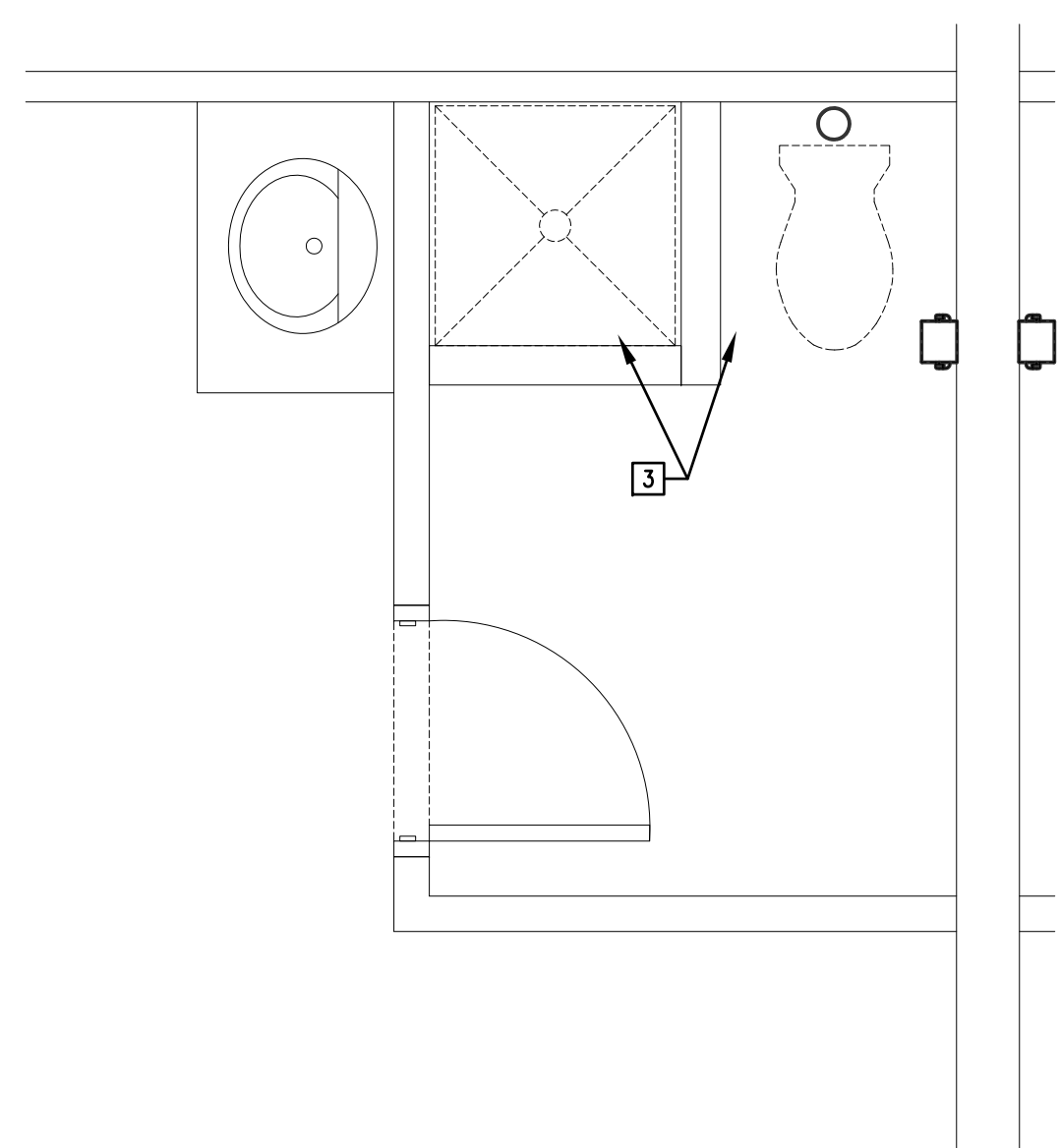
	<b>P-101</b>	
	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
DES. _____ DR. _____ CHK. _____ SUBMITTED BY: _____ DESIGN DIR. _____ APPROVED: PWO OR OICC DATE _____ SATISFACTORY TO: _____ DATE _____	RENOVATE BATHROOMS - HP55  FIRST FLOOR PLANS - PLUMBING NAVFAC DRAWING NO. <b>60010750</b> CONST. CONTR. NO. N40885-12-B-0006	
MSFA NO. 1 1201 SCALE: AS NOTED SPEC. 05-12-0006	SIZE CODE IDENT NO. <b>F 80091</b>	SHEET <b>9</b> OF <b>18</b>



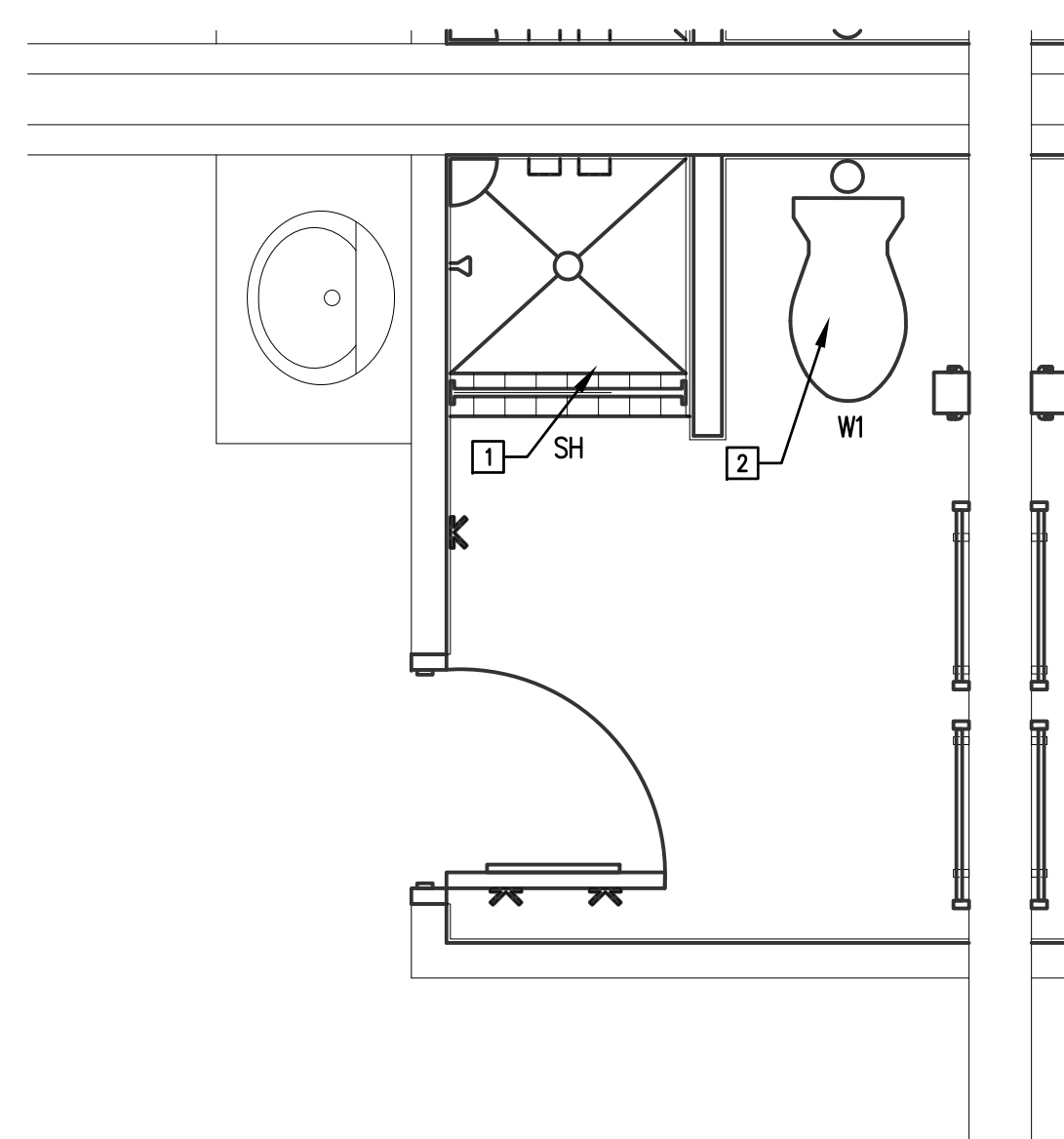
**1 SECOND FLOOR PLAN - PLUMBING DEMOLITION**  
P-102/ SCALE: 3/32" = 1' - 0"



**2 SECOND FLOOR PLAN - PLUMBING**  
P-102/ SCALE: 3/32" = 1' - 0"

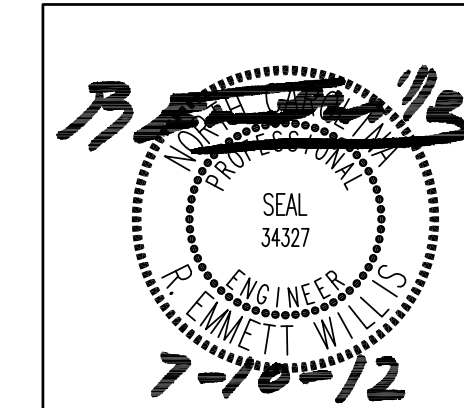


**3 SLEEPING ROOM TOILET PLAN - PLUMBING DEMOLITION**  
P-102/ SCALE: 1/2" = 1' - 0"



**4 SLEEPING ROOM TOILET PLAN - PLUMBING**  
P-102/ SCALE: 1/2" = 1' - 0"

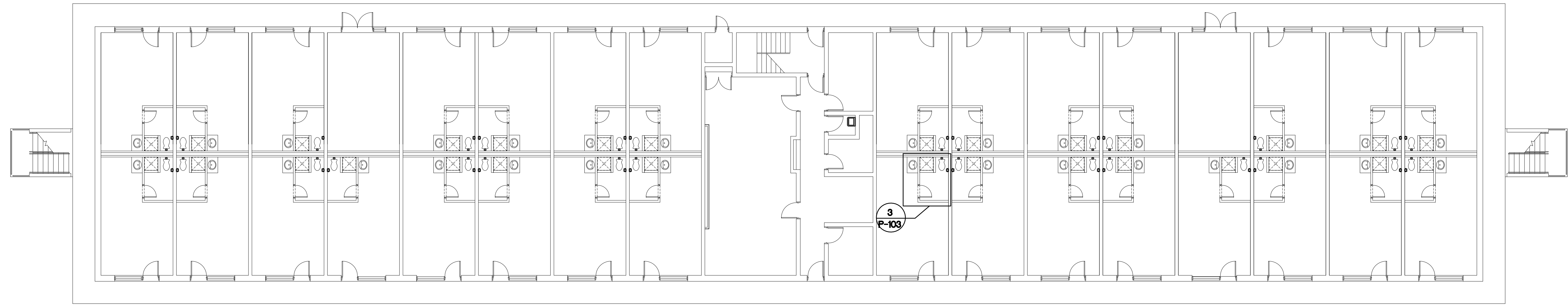
- PLAN NOTES:**
- 1 PROVIDE NEW SHOWER VALVE AND NEW SHOWER HEAD. PROVIDE ALL NECESSARY OFFSETS AND FITTINGS NEEDED FOR COMPLETE INSTALLATION.
  - 2 PROVIDE NEW WATER CLOSET, WAX SEAL, AND FLUSH VALVE. PROVIDE ALL NECESSARY OFFSETS AND FITTINGS NEEDED FOR COMPLETE INSTALLATION.
  - 3 DEMOLISH EXISTING SHOWER VALVE, SHOWER HEAD, AND WATER CLOSET.



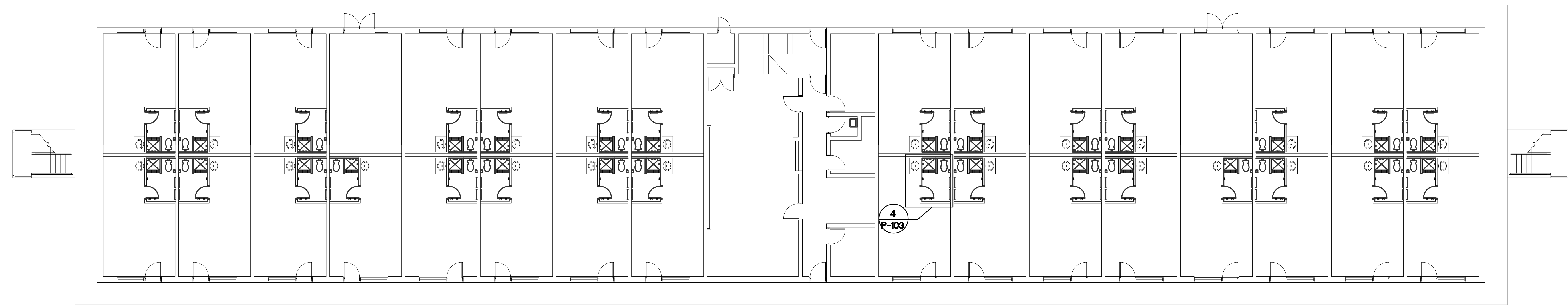
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND  
**MARINE CORPS BASE**  
CAMP LEJEUNE, NORTH CAROLINA

**P-102**

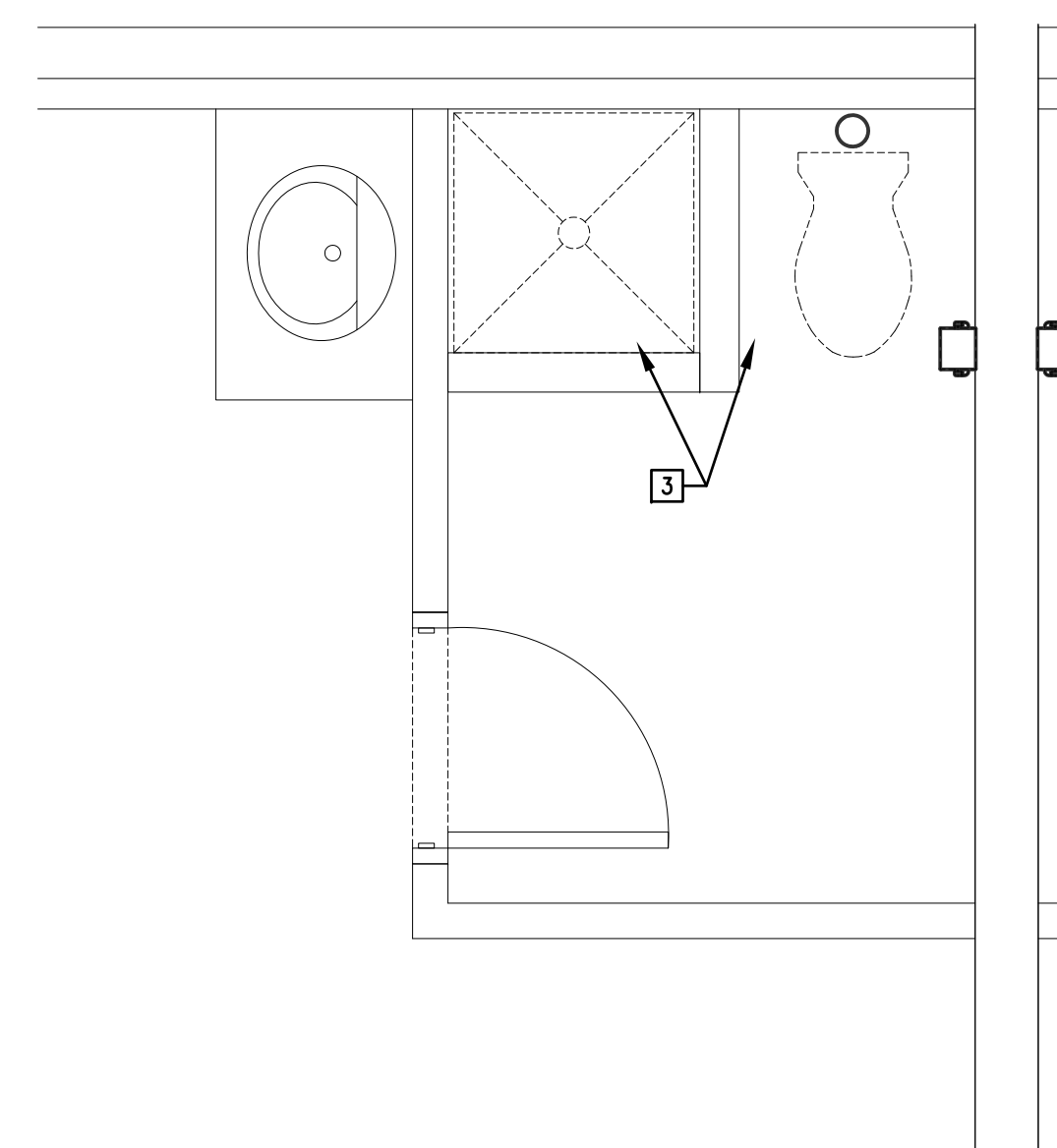
DES.					
DR.					
CHK.					
SUBMITTED BY:					
DESIGN DIR.					
APPROVED: PWO OR OICC	DATE	SIZE	CODE	IDENT NO.	NAVFAC DRAWING NO.
SATISFACTORY TO:	DATE	F	80091		60010751
		SCALE: AS NOTED		SPEC. 05-12-0006	
				SHEET 10 OF 18	



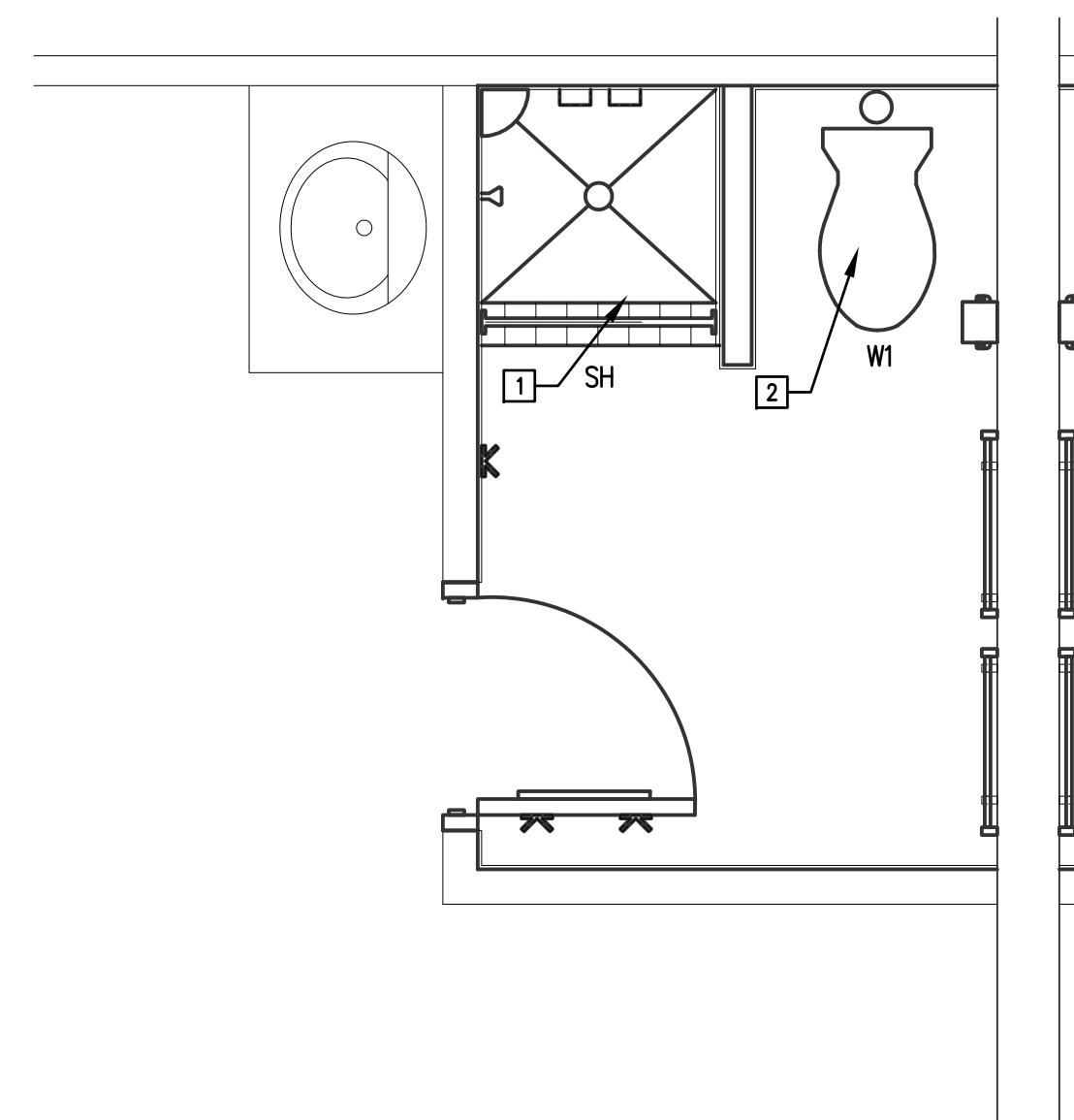
**1 THIRD FLOOR PLAN - PLUMBING DEMOLITION**  
P-103 SCALE: 3/32" = 1' - 0"



**2 THIRD FLOOR PLAN - PLUMBING**  
P-103 SCALE: 3/32" = 1' - 0"



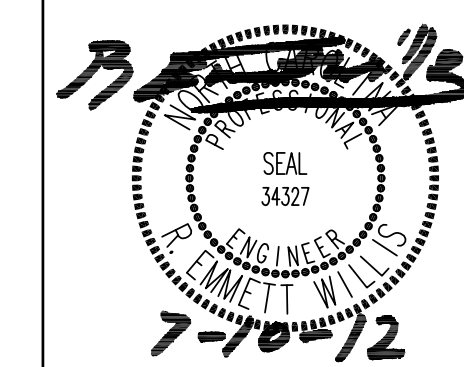
**3 SLEEPING ROOM TOILET PLAN - PLUMBING DEMOLITION**  
P-103 SCALE: 1/2" = 1' - 0"



**4 SLEEPING ROOM TOILET PLAN - PLUMBING**  
P-103 SCALE: 1/2" = 1' - 0"

**PLAN NOTES:**

- 1 PROVIDE NEW SHOWER VALVE AND NEW SHOWER HEAD. PROVIDE ALL NECESSARY OFFSETS AND FITTINGS NEEDED FOR COMPLETE INSTALLATION.
- 2 PROVIDE NEW WATER CLOSET, WAX SEAL, AND FLUSH VALVE. PROVIDE ALL NECESSARY OFFSETS AND FITTINGS NEEDED FOR COMPLETE INSTALLATION.
- 3 DEMOLISH EXISTING SHOWER VALVE, SHOWER HEAD, AND WATER CLOSET.



DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND  
**MARINE CORPS BASE**  
CAMP LEJEUNE, NORTH CAROLINA

**P-103**

RENOVATE BATHROOMS - HP55

DES. \_\_\_\_\_  
DR. \_\_\_\_\_  
CHK. \_\_\_\_\_  
SUBMITTED BY: \_\_\_\_\_  
DESIGN DIR. \_\_\_\_\_

APPROVED: PWO OR OICC DATE \_\_\_\_\_

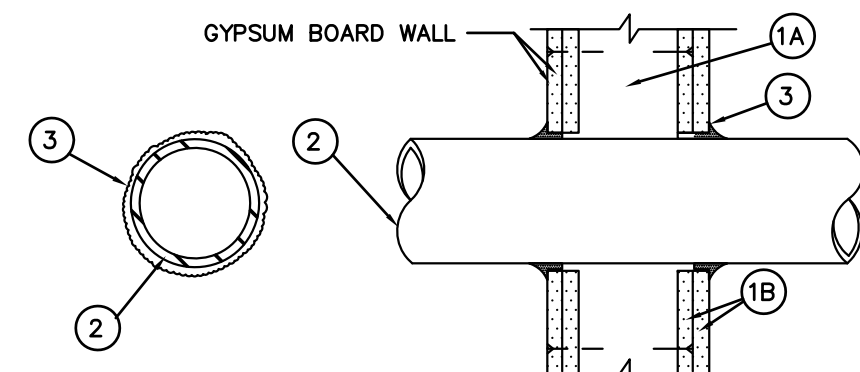
SATISFACTORY TO: DATE \_\_\_\_\_

THIRD FLOOR PLANS - PLUMBING  
NAVFAC DRAWING NO. 60010752

CONST. CONTR. NO. N40085-12-B-0006

SCALE: AS NOTED SPEC. 05-12-0006 SHEET 11 OF 18

SIZE CODE IDENT NO. F 80091



System No. W-L-1001  
June 15, 2005

F Ratings - 1, 2, 3 and 4 Hr (See Items 2 and 3)  
T Ratings - 0, 1, 2, 3, and 4 Hr (See Item 3)  
L Rating At Ambient - less than 1 CFM/sq ft  
L Rating At 400 F - less than 1 CFM/sq ft

1. Wall Assembly - The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs - Wall framing may consist of either wood studs (max 2 hr fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC with nom 2 by 4 in. (51 by 102 mm) lumber end plates and cross braces. Steel studs to be min 3-5/8 in. (92 mm) wide by 1-3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.

B. Gypsum Board\* - Nom 1/2 or 5/8 in. (13 or 16 mm) thick, 4 ft. (122 cm) wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 26 in. (660 mm).

2. Through-Penetrant - One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min 0 in. (0 mm), (point contact) to max 2 in. (51 mm) Pipes, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

- A. Steel Pipe - Nom 24 in. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
- B. Iron Pipe - Nom 24 in. (610 mm) diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in (305 mm) diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.
- C. Conduit - Nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 4 in (102 mm) diam (or smaller) steel electrical metallic tubing.
- D. Copper Tubing - Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
- E. Copper Pipe - Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
- F. Through Penetrating Product\* - Flexible Metal Piping The following types of steel flexible metal gas piping may be used:

1. Nom 2 in. (51 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

OMEGA FLEX INC

2. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

GASTITE, DIV OF TITEXLEX

3. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

WARD MFG L L C

3. Fill, Void or Cavity Material\* - Caulk or Sealant - Min 5/8, 1-1/4, 1-7/8 and 2-1/2 in. (16, 32, 48 and 64 mm) thickness of caulk for 1, 2, 3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

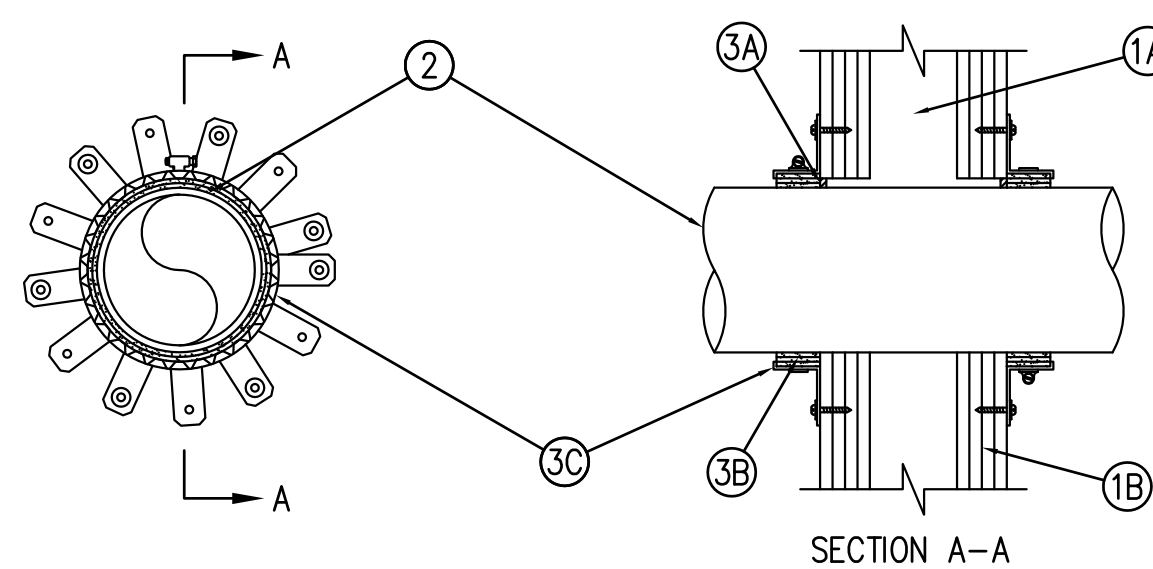
Max Pipe or Conduit Diam, in (mm)	F Rating, Hr	T Rating, Hr
1 (25)	1 or 2	0+, 1 or 2
1 (25)	3 or 4	3 or 4
4 (102)	1 or 2	0
6 (152)	3 or 4	0
12 (305)	1 or 2	0

\*When copper pipe is used, T Rating is 0 h.

3M COMPANY - CP 25NB+ or FB-3000 WT.

\*Bearing the UL Classification Mark

**FOR FRAMED WALLS ONLY**  
**1,2,3, OR 4 HOUR PENETRATION FIRESTOP**  
**FOR METALLIC PIPE, CONDUIT, OR TUBING**  
2  
P601 SCALE: NONE



System No. W-L-2447

F Rating - 1, 2, 3 and 4 Hr (See Item 1)  
T Rating - 1, 2, 3 and 4 Hr (See Item 2)  
L Rating At Ambient - 3 CFM/sq ft  
L Rating At 400 F - Less Than 1 CFM/sq ft

1. Wall Assembly - The 1, 2, 3 or 4 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs - Wall framing shall consist of min 3-1/2 in. (89 mm) wide steel channel studs spaced max 24 in. (610 mm) OC.  
B. Gypsum Board\* - Min 1/2 in. (13 mm) thick, 4 ft (122 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300, U400 or V400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 7 in. (178 mm).  
The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. Through Penetrants - One nonmetallic pipe to be installed concentrically or eccentrically within the firestop system. Annular space between pipe and periphery of opening to be min 0 in. (point contact) and max 1/2 in. (13 mm). Pipe to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic pipes may be used:

- A. Polyvinyl Chloride (PVC) Pipe - Nom 6 in. (152 mm) diam (or smaller) Schedule 40 solid or cellular core PVC for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
  - B. Chlorinated Polyvinyl Chloride (CPVC) Pipe - Nom 6 in. (152 mm) diam (or smaller) SDR13.5 CPVC for use in closed (process or supply) piping systems.
  - C. Acrylonitrile Butadiene Styrene (ABS) Pipe - Nom 6 in. (152 mm) diam (or smaller) Schedule 40 solid or cellular core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
- The hourly T Rating of the firestop system is 1 hr except that for nom 2 in. (51 mm) diam (or smaller) penetrants, the hourly T Rating is equal to the hourly fire rating of the wall assembly in which it is installed.

3. Firestop System - The firestop system shall consist of the following:  
A. Fill, Void or Cavity Material\* - Sealant - Min 1/4 in. (6 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC -- FS-ONE Sealant

B. Fill Void or Cavity Material\* - Wrap Strip - Nom 3/16 in. (5 mm) thick by 1-3/4 in. (45 mm) wide intumescent wrap strip continuously wrapped around the pipe. Wrap strip butted tightly against both surfaces of wall. The number of layers of wrap strip required depends on penetrant size as specified in the Table below.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC -- CP648-E-W45/1-3/4

Nom Pipe Diam, in.	No. of Layers of Wrap Strip Required
6 (or smaller)	3
4 (or smaller)	2
2 (or smaller)	1

C. Steel Collar - Collar fabricated from coils of precut min 0.017 in. (0.43 mm) thick (No. 28 MSG) galv steel available from the sealant manufacturer. Collar shall be nom 1-3/4 in. (45 mm) deep with 1 in. (25 mm) wide by 2 in. (51 mm) long anchors tabs on 2 in. (51 mm) centers for securement to wall assembly. The anchor tabs shall be bent 90 degree outward for securement to the wall assembly. The opposite side incorporates relator tabs, 1/2 in. (13 mm) wide by 3/16 in. (5 mm) long, prebent toward the pipe surface. Collar shall be tightly wrapped over the wrap strip, overlapping min. 1 in. (25 mm) at seam. A nom 1/2 in. (13 mm) wide stainless steel band clamp shall be secured to the collar at its mid-height. Anchor tabs of collar secured to surface of wall by means of nom 3/16 in. diam by 2-1/2 in. long steel toggle bolts in conjunction with 1-1/4 in. (32 mm) diam steel fender washers at every other anchor tab. As an alternate, in 1 and 2 hr rated walls, every anchor tab of collar may be secured to surface of wall by means of nom 1-1/4 in. (32 mm) long steel laminating drywall screws in conjunction with 1-1/4 in. (32 mm) diam steel fender washers. A collar is used on both sides of wall.

\*Bearing the UL Classification Mark

**FOR FRAMED WALLS ONLY**  
**1,2,3 OR 4 HOUR PENETRATION FIRESTOP**  
**FOR NONMETALLIC PIPE**  
1  
P601 SCALE: NONE

PLUMBING FIXTURES, EQUIPMENT & ACCESSORIES					
MARK	DESCRIPTION	PIPE SERVICE AND CONN. SIZE			BASIS OF DESIGN FIXTURE SPECIFICATIONS
		CW	HW	WASTE	
W1	WATER CLOSET FLR. MTD.	1"	-	4"	KOHLER "WELLCOME LITE" K-4350 1.6 GPF WHITE VITREOUS CHINA WATER CLOSET WITH ELONGATED BOWL, SIPHON JET FLUSHING, 1-1/2" TOP SPUD, 12" ROUGH-IN, 14-1/2" HIGH, & 2 BOLT CAPS. SEAT: KOHLER LUSTRA MODEL K-4666-SC EXTRA HEAVY DUTY ELONGATED WHITE OPEN FRONT SEAT. VALVE: SLOAN REGAL MODEL 111-YB EXPOSED DIAPHRAGM TYPE, WITH 1.6 GPF. FIELD VERIFY EXISTING ROUGH-IN DIMENSION PRIOR TO ORDERING FIXTURES.
L1	LAVATORY WALL MTD.	3/8"	3/8"	1-1/2"	KOHLER "GREENWICH" K-2032 WHITE WALL MTD. VITREOUS CHINA 20"x18" LAVATORY WITH 4" FAUCET CENTERS. TRAP & SUPPLES: MCGUIRE NO. 8902 17 GA. 1 1/4" X 1 1/2" P-TRAP AND NIPPLE. MCGUIRE NO. 2165 ANGLE SUPPLY STOPS. FAUCET: MOEN NO. 8416 SINGLE HANDLE WITH GRID WASTE ASSEMBLY AND 0.5 GPM FLOW RESTRICTOR. ACCESSORIES: TRUERBRO "LAV GUARD 2" INSULATION MODEL NO. 101-EZ 3-PIECE INTERLOCKING TRAP ASSEMBLY AND 2-PIECE INTERLOCKING HOT WATER ANGLE VALVE ASSEMBLY, AND NYLON TYPE FASTENERS. MOUNT RIM AT 34" AFF AND INSTALL P-TRAP SUCH THAT A MINIMUM OF 27" CLEAR FROM FINISHED FLOOR TO BOTTOM OF TRAP IS MAINTAINED IN ACCORDANCE TO ADA REQUIREMENTS.
L2	LAVATORY CTR. MTD.	3/8"	3/8"	1-1/2"	KOHLER "PENNINGTON" K-2196 WHITE CTR. MTD. VITREOUS CHINA 20"x17" LAVATORY WITH 4" FAUCET CENTERS. TRAP & SUPPLES: MCGUIRE NO. 8902 17 GA. 1 1/4" X 1 1/2" P-TRAP AND NIPPLE. MCGUIRE NO. 2165 ANGLE SUPPLY STOPS. FAUCET: MOEN NO. 8416 SINGLE HANDLE WITH GRID WASTE ASSEMBLY AND 0.5 GPM FLOW RESTRICTOR. ACCESSORIES: TRUERBRO "LAV GUARD 2" INSULATION MODEL NO. 101-EZ 3-PIECE INTERLOCKING TRAP ASSEMBLY AND 2-PIECE INTERLOCKING HOT WATER ANGLE VALVE ASSEMBLY, AND NYLON TYPE FASTENERS. MOUNT RIM AT 34" AFF AND INSTALL P-TRAP SUCH THAT A MINIMUM OF 27" CLEAR FROM FINISHED FLOOR TO BOTTOM OF TRAP IS MAINTAINED IN ACCORDANCE TO ADA REQUIREMENTS.
U1	URINAL WALL MTD. HANDICAPPED	3/4"	-	2"	KOHLER "DEXTER LITE" K-5016-ET 0.5 GPF WHITE VITREOUS CHINA URINAL, SIPHON JET FLUSHING, AND 3/4" TOP SPUD. MOUNT URINAL 17" A.F.F. TO MEET ADA REQUIREMENTS. VALVE: SLOAN REGAL MODEL 186-0.5-XL EXPOSED DIAPHRAGM TYPE, WITH 0.5 GPF.
SH	SHOWER	3/8"	3/8"	2"	TILE SHOWER BY OTHERS. VALVE: MOEN MODEL 8342 SINGLE HANDLE PRESSURE BALANCING SHOWER VALVE.
FCO	FLOOR CLEAN OUT	-	-	SEE PLANS	ZURN Z1400 "LEVELTROL" ADJUSTABLE FLOOR CLEANOUT, DURACOATED CAST IRON BODY WITH GAS AND WATERTIGHT ABS TAPERED THREAD PLUG AND ROUND SCORATED POLISHED NICKEL BRONZE TOP ADJUSTABLE TO FINISH FLOOR.
WCO	WALL CLEAN OUT	-	-	SEE PLANS	ZURN Z1441 WALL CLEANOUT, DURACOATED CAST IRON BODY WITH GAS AND WATERTIGHT ABS TAPERED THREAD PLUG AND ROUND SMOOTH STAINLESS STEEL ACCESS COVER WITH SECURING SCREW.



 DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA		<b>P-601</b>
DES. _____ DR. _____ CHK. _____ SUBMITTED BY: _____ DESIGN DIR. _____		<b>RENOVATE BATHROOMS - HP55</b>
APPROVED: PWO OR OICC DATE _____ SIZE CODE IDENT NO. <b>F 80091</b> SATISFACTORY TO: _____ DATE _____		PLUMBING DETAILS NAVFAC DRAWING NO. <b>60010753</b> CONST. CONTR. NO. N40985-12-B-0006
SCALE: AS NOTED SPEC. 05-12-0006		SHEET 12 OF 18

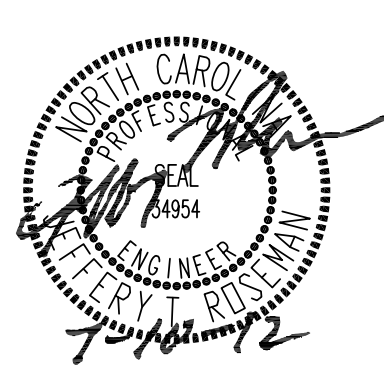

**GENERAL NOTES AND REQUIREMENTS.**

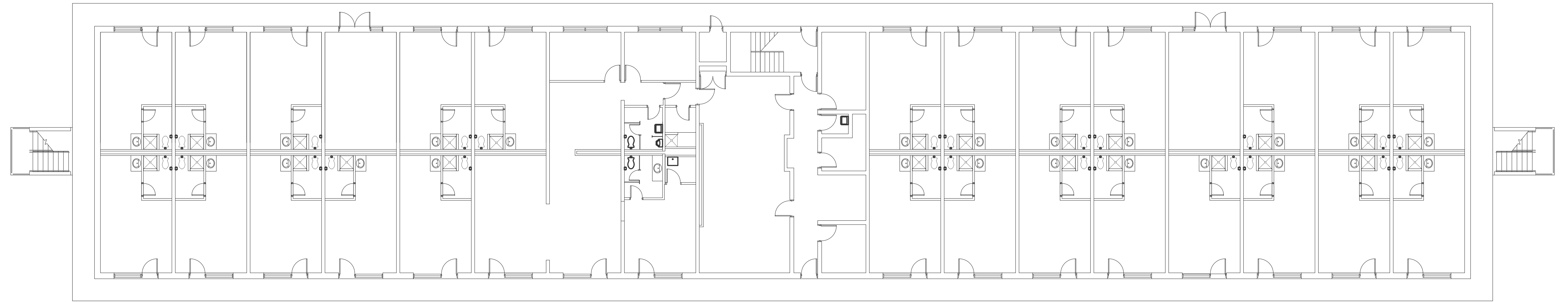
- WORKMANSHIP SHALL CONFORM TO NECA PUBLICATION "STANDARDS OF INSTALLATION"
- INSTALLATION SHALL COMPLY WITH NATIONAL ELECTRICAL CODE, STATE BUILDING CODE, AND ALL REQUIREMENTS OF THE LOCAL INSPECTOR (FURNISH INSPECTION CERTIFICATE). ALL WORK SHALL BE BY LICENSED ELECTRICAL CONTRACTOR.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS. DO NOT SCALE THESE DRAWINGS.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE ANY AND ALL WORK WITH OTHER TRADES INVOLVED IN THE PROJECT, PRIOR TO INSTALLATION OF ELEC. EQUIPMENT, SO AS TO AVOID CONFLICTS DURING CONSTRUCTION AND TO ALLOW FOR OPTIMUM MAINTENANCE AND WORKING SPACE.
- ALL BRANCH CIRCUITS SHALL BE IN ZINC-COATED EMT OR RIGID CONDUIT AS PERMITTED OR REQUIRED BY THE NATIONAL ELECTRICAL CODE. SCHEDULE 40 PVC CONDUIT MAY BE USED ONLY FOR THE SECONDARY UNDERGROUND SERVICE, THE UNDERGROUND TELEPHONE SERVICE CONDUIT, AND BRANCH CIRCUIT TELEPHONE SYSTEM CONDUITS LOCATED BELOW THE FLOOR SLAB ON GRADE OR BURIED ON THE EXTERIOR OF THE BUILDING, OR IN CONCRETE BLOCK WALLS. ALL CONDUIT SHALL BE 3/4" MINIMUM SIZE EMT FITTINGS SHALL BE STEEL COMPRESSION OR SET SCREW TYPE.
- ALL CONDUCTORS SHALL BE COPPER TYPE THIN OR THIN, SOLID FOR #10 AWG OR #12 AWG, AND STRANDED FOR ALL LARGER SIZES. MINIMUM CONDUCTOR SIZE SHALL BE #12.
- ALL WIRING SHALL BE CONCEALED IN WALLS, UNDER SLAB, OR ABOVE SUSPENDED CEILING SPACE.
- ALL WIRE AND CONDUIT SIZES ARE BASED ON 75° C THIN WIRE UNLESS OTHERWISE NOTED. ALL TERMINATIONS & DEVICES SHALL BE RATED FOR 75°C.
- CONDUITS MAY BE RUN EXPOSED IN MECHANICAL AREAS. CONDUITS SHALL BE RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS AND SHALL BE RUN IN GROUPS. SEAL ALL PENETRATIONS AIR TIGHT AROUND ALL CONDUITS WHEN PASSING INTO MECHANICAL ROOMS.
- ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE SUSPENDED CEILING SYSTEM.
- WHERE FIRST OUTLET ON BRANCH CIRCUIT IS GREATER THAN FIFTY (50) FEET FROM THE PANELBOARD, SEE VOLTAGE DROP SCHEDULE.
- ALL MOUNTING HEIGHTS ARE GIVEN TO THE BOTTOM OF THE DEVICE UNLESS NOTED OTHERWISE.
- THE LOCATION OF ALL WALL MOUNTED DEVICES, INCLUDING MOUNTING HEIGHTS, SHALL BE FIELD VERIFIED WITH THE ARCHITECT PRIOR TO INSTALLATION.
- ALL FUSES, DISCONNECT SWITCHES, AND BREAKER SIZES, SHOWN FOR MECHANICAL EQUIPMENT, SHALL BE VERIFIED BEFORE THE PURCHASE OR INSTALLATION OF SAID EQUIPMENT, WITH THE EQUIPMENT SUPPLIER AND THE MECHANICAL CONTRACTOR.
- ALL DISCONNECT SWITCHES ARE TO BE FUSIBLE TYPE. FUSE IN ACCORDANCE WITH NAMEPLATE DATA WITH DUAL ELEMENT TYPE FUSES.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY DISCONNECTS, SWITCHES, AND RECEPTACLES UNDER THE ELECTRICAL BID AND SHALL INCLUDE ALL NECESSARY CIRCUITS TO AND FINAL CONNECTIONS TO THE EQUIPMENT PROVIDED BY ALL SUPPLIERS, UNLESS NOTED OTHERWISE BY OTHER DISCIPLINES. COORDINATE CLOSELY.
- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED SO THAT ALL CODE-REQUIRED AND MANUFACTURER-RECOMMENDED SERVICING CLEARANCES ARE MAINTAINED. INSTALLATIONS SHALL FULLY COMPLY WITH NEC 110.26 AND NEC 408.19 FOR CLEARANCE REQUIREMENTS.
- COORDINATE LOCATIONS OF ALL LIGHT FIXTURES WITH THE REFLECTED CEILING PLANS. LIGHT FIXTURES INSTALLED IN MECHANICAL AREAS SHALL AVOID MECHANICAL PIPING, EQUIPMENT, DUCTWORK, ETC.
- PROVIDE GROUNDING CONDUCTOR FOR ALL CIRCUITS PER NEC. AND BUILDING GROUND SHALL MEET ALL REQUIREMENTS OF NEC 250.
- GROUND TELEPHONE EQUIPMENT PER J-607 STD.
- THE ELECTRICAL CONTRACTOR SHALL PATCH ANY WALL, CEILING, OR FLOOR OPENINGS AND PENETRATIONS RESULTING FROM DEMOLITION OR NEW WORK IN EXISTING AREAS.
- ALL MULTIWIRE BRANCH CIRCUITS SHALL HAVE MULTIPOLE BREAKERS AS REQUIRED BY NEC 210.4(B).
- ALL CIRCUITS SHALL BE TESTED WITH 500 VOLT TESTER PRIOR TO ENERGIZING.
- NOT USED.
- RECEPTACLES, SWITCHES, COVERPLATES, ETC. SHALL VERIFY COLOR PRIOR TO PURCHASE.
- PROVIDE PULL WIRE IN ALL EMPTY CONDUIT FOR FUTURE SYSTEMS.
- CONDUIT SHALL BE LABELED EVERY TEN FEET.
- THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF ALL WASTE MATERIALS, DEMO MATERIALS AND OTHER TRASH. THIS INCLUDES BUT IS NOT LIMITED TO PROPER DISPOSAL OF MERCURY CONTAINING LAMPS, RECYCLABLE MATERIALS ETC.
- CONTRACTOR SHALL PROVIDE ENGINEER A MINIMUM OF 3 COPIES OF SHOP DRAWINGS FOR LIGHTS, SWITCHGEAR, PANELS, ETC.
- IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE W/ ALL OTHER TRADES REGARDING VOLTAGES, LOADS, CIRCUIT BREAKERS, ETC. PRIOR TO BEGINNING ANY WORK.
- AS USED IN THESE DOCUMENTS, THE WORD "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL THE ITEM OR EQUIPMENT AND MAKE THE FINAL CONNECTION AS REQUIRED.
- NOT USED.
- CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL REQUIREMENTS OF THE 2012 NORTH CAROLINA BUILDING CODE, ACCESSIBILITY CODE WHICH ARE APPLICABLE TO THIS PROJECT REGARDLESS OF WHETHER ALL DETAILS ARE INDICATED ON PLANS.
- IF FIRE ALARM SYSTEM IS PROVIDED FOR BUILDING, ALL PULL STATIONS SHALL COMPLY WITH ALL REQUIREMENTS OF NFPA 101, NFPA 72, ETC.
- IT IS NOTED THAT IF TELEPHONE SERVICE IS NOT LOCATED WITHIN 20' OF ELECTRICAL SERVICE, THEN PROVIDE SEPARATE GROUNDING ELECTRODE AS REQUIRED PER NEC 800.
- CONTRACTOR SHALL VERIFY ALL AREAS THAT ARE USED AS A RETURN PLENUM WITH MECHANICAL CONTRACTOR AND PROVIDE PLENUM RATED CABLE FOR ALL CABLES. ALL CABLES IN A PLENUM SHALL BE RUN IN METAL CONDUIT. THIS INCLUDES ALL TELECOMMUNICATIONS, FIRE ALARM, OR CONTROL WIRING ABOVE CEILING.
- CONTRACTOR SHALL COMPLY WITH SECTION 1613 OF THE NORTH CAROLINA GENERAL CONSTRUCTION BUILDING CODE.

### ELECTRICAL LEGEND

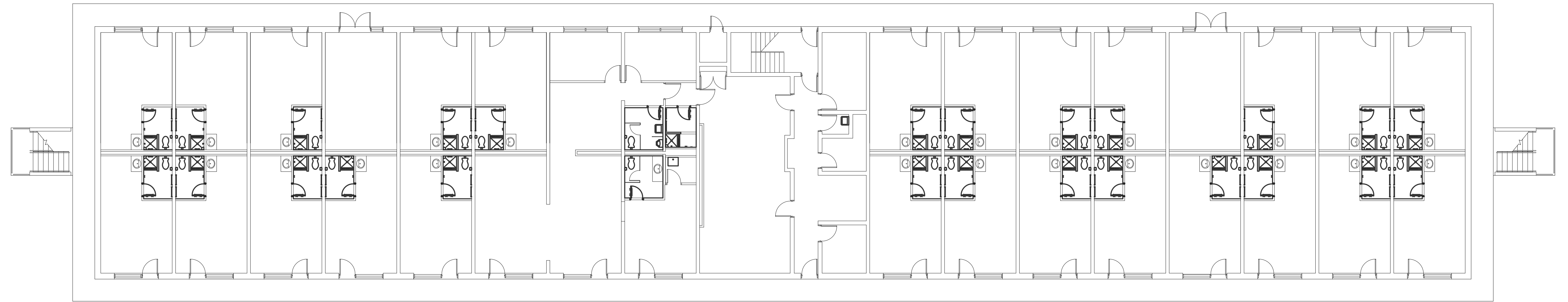
PLANS	DETAILS
<p>SYMBOLS SHOWN BELOW ARE TO INDICATE NEW DEVICES OR NEW LOCATIONS OF EXISTING DEVICES. SEE LINETYPE LEGEND FOR DISTINCTION OF EXISTING DEVICES TO REMAIN AND DEMOLITION DEVICES.</p>	
<p>HOME RUN TO PANEL</p> <p>BRANCH CIRCUIT</p> <p>SINGLE POLE WALL SWITCH</p> <p>3-WAY WALL SWITCH</p> <p>4-WAY WALL SWITCH</p> <p>SEE MOTION SENSOR LEGEND FOR THIS AND OTHER SWITCH TYPES.</p> <p>ALL DUPLEX AND QUAD RECEPTACLES SHALL BE NEMA 5-20R UNLESS NOTED OTHERWISE.</p> <p>DUPLEX RECEPTACLE</p> <p>ISOLATED GROUND DUPLEX</p> <p>POWER RECEPTACLE</p> <p>QUAD RECEPTACLE</p> <p>TELECOMMUNICATIONS WALL OUTLET - 18" AFF. OR AS NOTED (RUN 1-1/4" EMT HOMERUN TO TELECOMMUNICATIONS ROOM ON THIS FLOOR) PROVIDE 4-CAT6, PLENUM-RATED CABLES AND CONDUIT BUSHINGS.</p> <p>TELEVISION WALL OUTLET - 16" AFF. RUN RG6 IN 3/4" EMT TO TELEPHONE BACKBOARD OR AS INDICATED ON PLANS.</p> <p>JUNCTION BOX</p> <p>TELEPHONE BACKBOARD - 4"x8"x3/4" FIRE-TREATED PLYWOOD, PAINT GRAY - PULL #6 GROUND WIRE AND TERMINATE WITH 1/4"x2"x1/2" GROUND BAR WITH HOLES EVERY 1". MOUNT TO BACKBOARD WITH STAND-OFF INSULATORS.</p> <p>DISCONNECT SWITCH - FUSIBLE</p> <p>MOTOR SWITCH</p> <p>SLIDE TYPE DIMMER SWITCH</p> <p>APPROPRIATE FOR LOAD SERVED - 44" AFF</p> <p>ELECTRICAL TRANSFORMER</p> <p>ELECTRICAL PANEL</p> <p>J.B. ABOVE CEILING FOR FURNITURE SYSTEMS. POWER POLES PROVIDED BY FURNITURE MANUFACTURER. CONNECT FURNITURE SYSTEMS AS REQUIRED. VERIFY LOCATION &amp; REQUIREMENTS W/ FURNITURE MANUFACTURER PRIOR TO BEGINNING WORK.</p> <p>J.B. W/ WHIP FOR POWER FOR FURNITURE SYSTEM. VERIFY EXACT LOCATION AND REQUIREMENTS WITH SYSTEM SUPPLIER PRIOR TO ROUGH-IN. CONNECT AS REQUIRED.</p> <p>J.B. FOR TELECOMMUNICATIONS FOR FURNITURE SYSTEM. VERIFY EXACT LOCATION AND REQUIREMENTS WITH SYSTEM SUPPLIER PRIOR TO ROUGH-IN. STUB 1 1/2" C. TO ACCESSIBLE POINT ABOVE CLG. PROVIDE PULL WIRE.</p> <p>FLOOR OUTLET - WALKER #RF84 W/ FLUSH COVER &amp; CARPET FLANGE #RANKH (VERIFY COLOR W/ ARCHITECT). PROVIDE DUPLEX, TELEPHONE AND DATA PLATES. PROVIDE 2-3/4" EMT TO ABOVE CEILING. PROVIDE PULL WIRE. OUTLET AND CABLES PROVIDED BY TENANT. CONTRACTOR SHALL VERIFY ALL FLOOR OUTLET LOCATIONS W/ TENANT PRIOR TO ROUGH-IN.</p> <p>OVERHEAD FIXTURE OR AS NOTED. SEE FIXTURE SCHEDULE.</p> <p>DOWNLIGHT / PENDANT STYLE. SEE FIXTURE SCHEDULE.</p> <p>WALL MOUNT. SEE FIXTURE SCHEDULE.</p> <p>FLOOD / TRACK HEAD STYLE. SEE FIXTURE SCHEDULE.</p> <p>POLE FIXTURE. SEE FIXTURE SCHEDULE.</p> <p>EXIT SIGN, FACES AND ARROWS AS INDICATED. SEE FIXTURE SCHEDULE.</p> <p>EMERGENCY FIXTURE. SEE FIXTURE SCHEDULE.</p> <p>COMBO EMERGENCY / EXIT FIXTURE. SEE FIXTURE SCHEDULE.</p> <p>SLASHES OR HALF SHADING INDICATE FIXTURES CONNECTED AHEAD OF ALL SWITCHING TO OPERATE AS NIGHT LIGHTS (FIXTURES WILL BE ON 24/7)</p> <p>SEE FIRE ALARM LEGEND FOR FIRE ALARM SYMBOLS</p>	<p>A</p> <p>ELECTRICAL PANEL OR AS NOTED</p> <p>C.T.</p> <p>C.T. CABINET</p> <p>M</p> <p>METER BASE AND METER</p> <p>200/3</p> <p>200A</p> <p>FRAME SIZE</p> <p>FUSE SIZE</p> <p>FUSIBLE DISCONNECT, FRAME AND FUSE SIZE AS INDICATED.</p> <p>T</p> <p>112.5</p> <p>DESIGNATION</p> <p>KVA RATING</p> <p>TRANSFORMER, SIZE AND DESIGNATION AS NOTED. PRIMARY VOLTAGE AS NOTED FOR PRIMARY FEED. SECONDARY VOLTAGE AS NOTED FOR LOAD SUPPLIED.</p> <p>20x4</p> <p>CONTACTOR, AMPACITY / POLES AS INDICATED</p> <p>T.C.</p> <p>TIMECLOCK</p> <p>SPD</p> <p>SURGE PROTECTIVE DEVICE</p> <p>— —</p> <p>SERVICE GROUND</p> <p style="text-align: center;"><b>LINETYPES</b></p> <p>—</p> <p>NEW DEVICE OR RELOCATED EXISTING DEVICE.</p> <p>---</p> <p>EXISTING DEVICE TO REMAIN.</p> <p>---</p> <p>EXISTING DEVICE TO BE DEMOLISHED OR RELOCATED.</p> <p>---</p> <p>NEW UNDERGROUND OR UNDERSLAB CONNECTION. EXISTING AND DEMO UNDERGROUND IS NOTED WITH EXISTING OR DEMO LINETYPE. NEW CONNECTIONS NOT SPECIFICALLY SHOWN WITH UNDERGROUND LINETYPE ARE NOT NECESSARILY REQUIRED TO BE RUN OVERHEAD UNLESS NOTED AS SUCH.</p> <p>---</p> <p>LOW VOLTAGE WIRING</p> <p>SEE WALL RATING LEGEND FOR WALL TYPES AND SYMBOLS.</p> <p>EXAMPLES OF EXISTING AND DEMO SYMBOLS USING LINETYPES ABOVE</p> <p>⊕</p> <p>EXISTING DUPLEX RECEPTACLE TO REMAIN.</p> <p>⊕</p> <p>EXISTING PANEL TO REMAIN.</p> <p>⊕ XR</p> <p>EXISTING FLUORESCENT FIXTURE TO REMAIN.</p> <p>↔</p> <p>EXISTING SWITCH TO REMAIN.</p> <p>⊕</p> <p>EXISTING DUPLEX RECEPTACLE TO BE DEMOLISHED OR RELOCATED.</p> <p>⊕</p> <p>EXISTING PANEL TO BE DEMOLISHED OR RELOCATED.</p> <p>⊕ XM</p> <p>EXISTING FLUORESCENT FIXTURE TO BE DEMOLISHED OR RELOCATED.</p> <p>↔</p> <p>EXISTING SWITCH TO BE DEMOLISHED OR RELOCATED.</p>

ELECTRICAL ABBREVIATIONS	
A	INDICATES A DEVICE IS TO BE MOUNTED WITH BOTTOM OF BOX 1 1/2" ABOVE BACKSPLASH UNLESS NOTED OTHERWISE.
AFF	ABOVE FINISHED FLOOR
AG	COMBINATION OF 'A' AND 'G'
ARCH	ARCHITECT
C	INDICATES A DEVICE IS TO BE FLUSH MOUNTED IN CEILING TILE.
EC	ELECTRICAL CONTRACTOR
EX.	EXISTING
EXT.	EXTERIOR
FA	FIRE ALARM
FAH	FAHRENHEIT
FURN	FURNITURE
G	INDICATES A DEVICE WITH INTEGRAL GROUND FAULT INTERRUPTER (GFI) PROTECTION.
GFI	SAME AS 'G'
IG	DEVICE SHALL HAVE ISOLATED GROUND AND WILL REQUIRE ISOLATED GROUND CIRCUITRY.
J.B.	JUNCTION BOX
MC	MC CABLE (WHEN REFERENCING NEC WIRING METHODS OR TYPE.)
MC	MECHANICAL CONTRACTOR (WHEN NOT REFERENCING NEC WIRING METHODS OR TYPE.)
MECH	MECHANICAL CONTRACTOR
NTS	NOT TO SCALE
DC	ON CENTER
PC	PLUMBING CONTRACTOR
PLUMB	PLUMBING CONTRACTOR
PROV	PROVIDED BY
S	INDICATES DEVICE IS TO BE SURFACE MOUNTED.
TP	TAMPER PROOF DEVICE. DEVICE SHALL BE APPROVED FOR USE IN AREA SHOWN (CHILD CARE ETC.)
W/	WITH
WP	INDICATES A DEVICE THAT IS WEATHER-PROOF AND RATED FOR EXTERIOR TEMPERATURES.

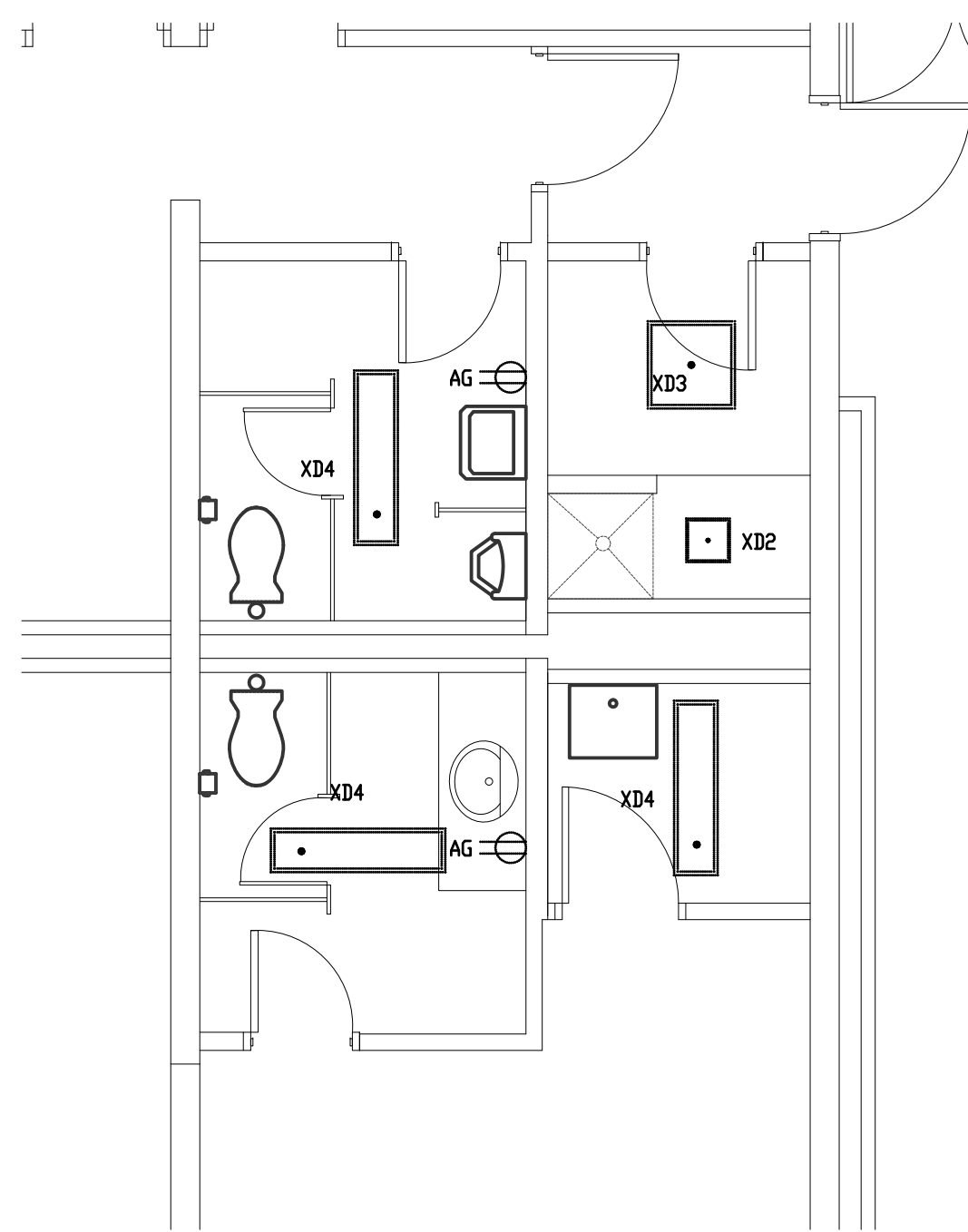
		<p>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND</p> <p><b>MARINE CORPS BASE</b></p> <p>CAMP LEJEUNE, NORTH CAROLINA</p>	E-001
DES. _____ DR. _____ CHK. _____ SUBMITTED BY: _____ DESIGN DIR. _____	APPROVED: PWO OR OICC DATE _____ SATISFACTORY TO: _____ DATE _____	NAVFAC DRAWING NO. <b>60010754</b> CONST. CONTR. NO. N40085-12-B-006 SCALE: AS NOTED SPEC. 05-12-0006 SHEET 13 OF 18	ELECTRICAL LEGENDS NAVFAC DRAWING NO. <b>60010754</b> CONST. CONTR. NO. N40085-12-B-006



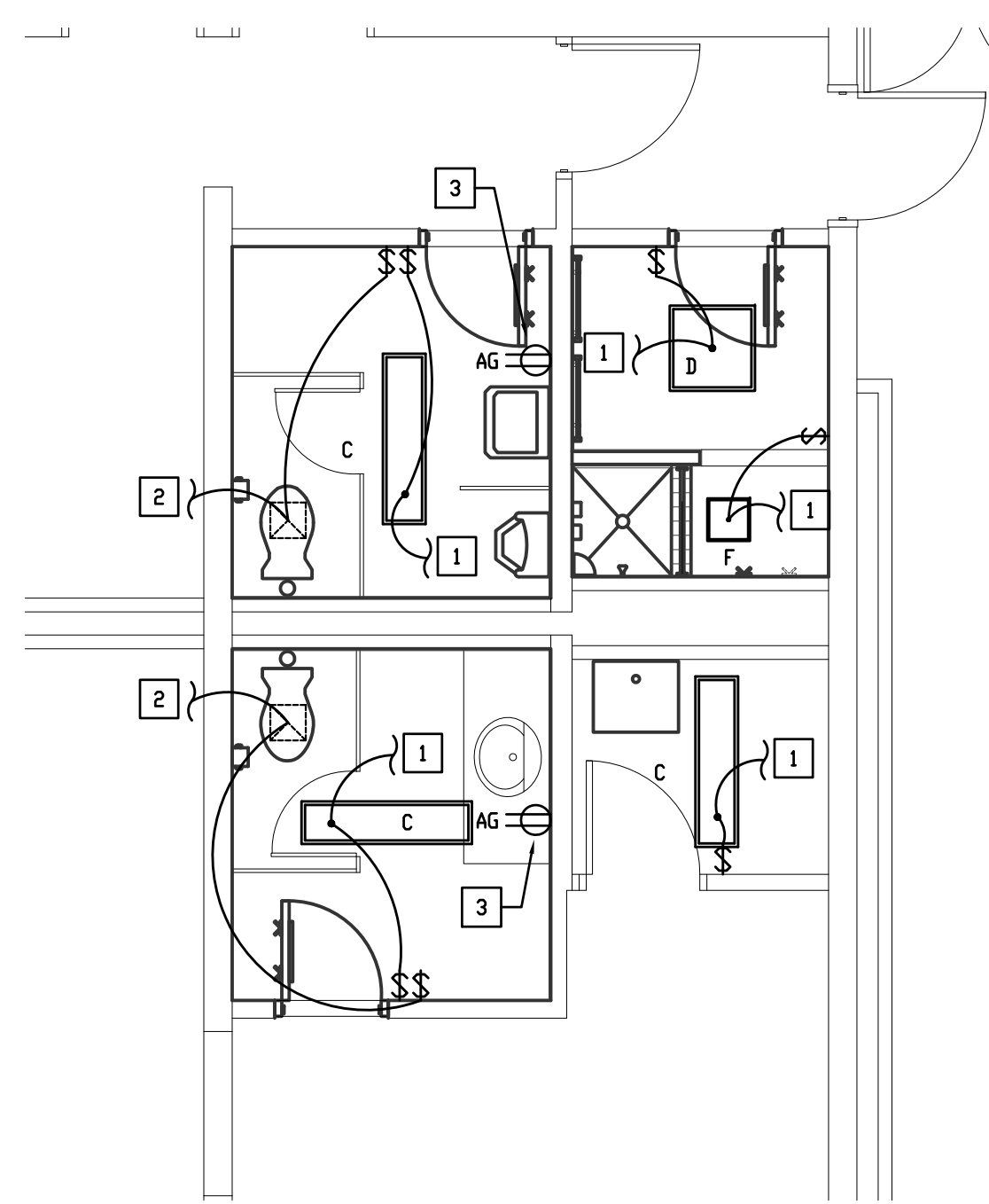
**1 FIRST FLOOR PLAN - ELECTRICAL DEMOLITION**  
E-101/SCALE: 3/32" = 1' - 0"



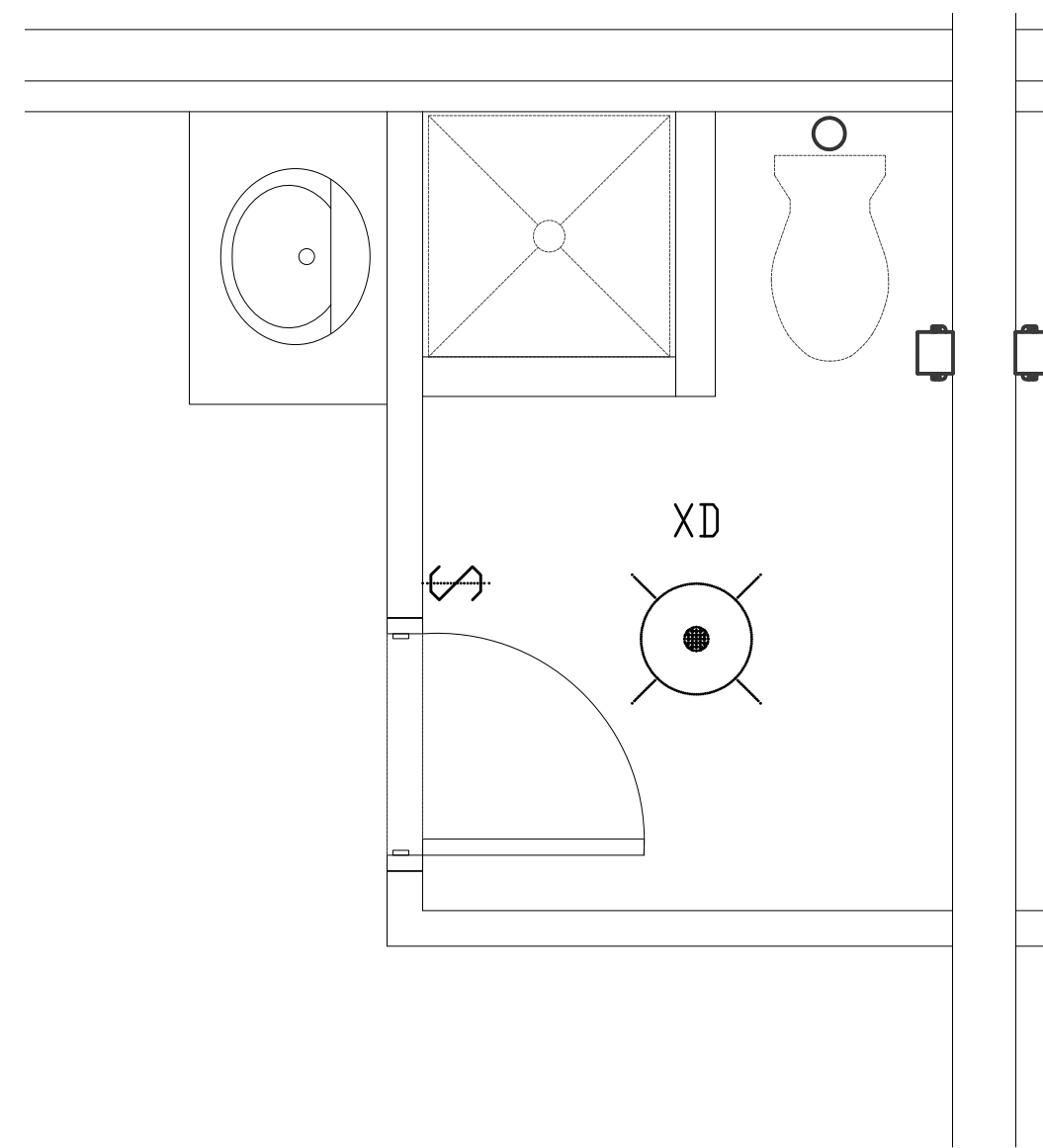
**2 FIRST FLOOR PLAN - ELECTRICAL**  
E-101/SCALE: 3/32" = 1' - 0"



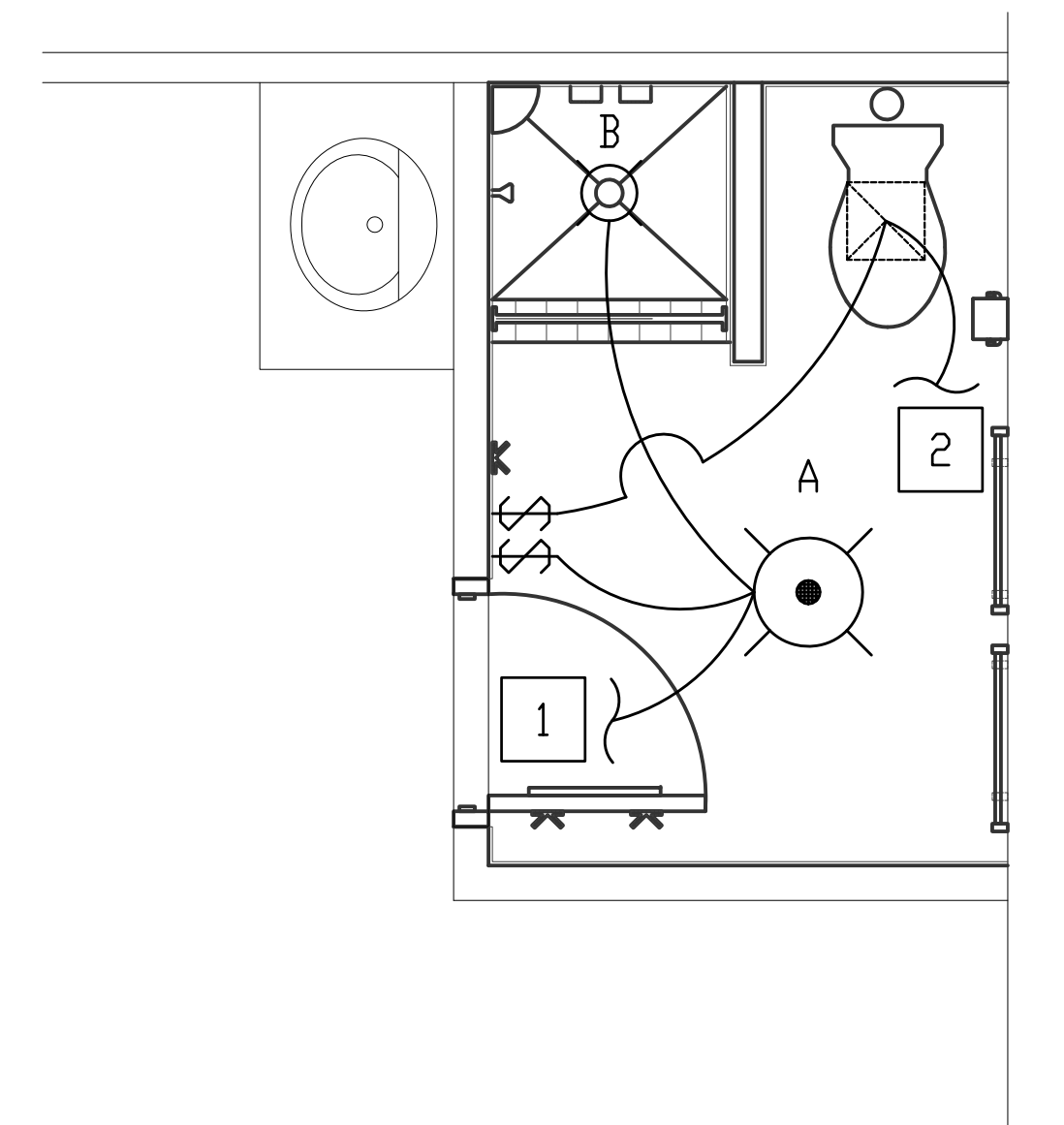
**3 OFFICE TOILET PLAN - ELECTRICAL DEMOLITION**  
E-101/SCALE: 1/4" = 1' - 0"



**4 OFFICE TOILET PLAN - ELECTRICAL**  
E-101/SCALE: 1/4" = 1' - 0"



**5 SLEEPING ROOM TOILET PLAN - ELECTRICAL DEMOLITION**  
E-101/SCALE: 1/2" = 1' - 0"



**6 SLEEPING ROOM TOILET PLAN - ELECTRICAL**  
E-101/SCALE: 1/2" = 1' - 0"

- PLAN NOTES:**
- CONNECT NEW LIGHTS TO EXISTING LIGHTING CIRCUIT CURRENTLY FEEDING EXISTING LIGHT FIXTURES. IT IS NOTED THAT THE TOTAL WATTAGE OF THE NEW FIXTURES IS LESS THAN THE TOTAL OF THE EXISTING FIXTURES.
  - RECONNECT EXISTING EXHAUST FAN TO NEW SWITCH ON EXISTING CIRCUIT CURRENTLY FEEDING EXHAUST FAN.
  - REPLACE EXISTING GFI RECEPTACLE WITH NEW GFI RECEPTACLE AND RECONNECT TO EXISTING CIRCUIT CURRENTLY FEEDING RECEPTACLE.



**CRENSHAW CONSULTING**  
ENGINEERS  
NO LICENSE #C-1008 2016 Bush Street, Suite 200  
Raleigh, North Carolina 27601  
919-871-8070 Fax 919-871-8020

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND  
**MARINE CORPS BASE**  
CAMP LEJEUNE, NORTH CAROLINA

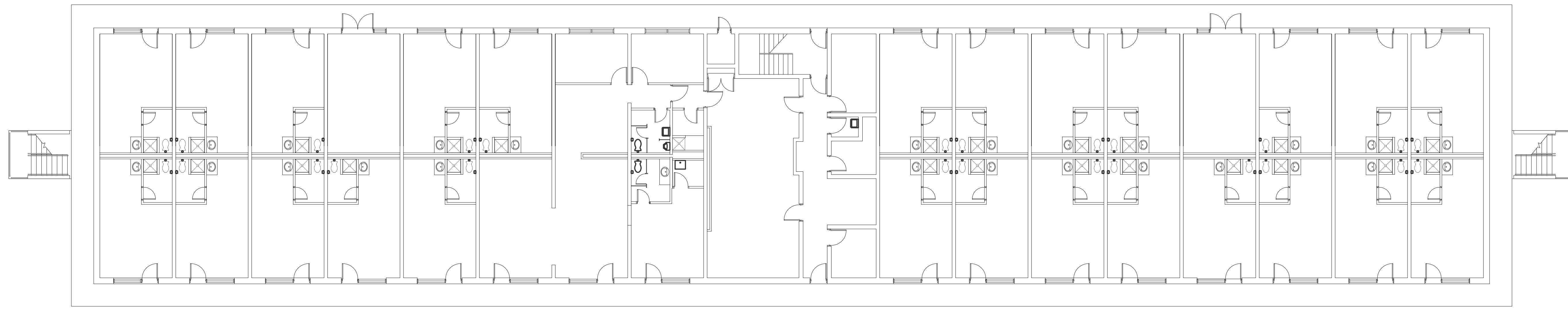
**E-101**

RENOVATE BATHROOMS - HP55

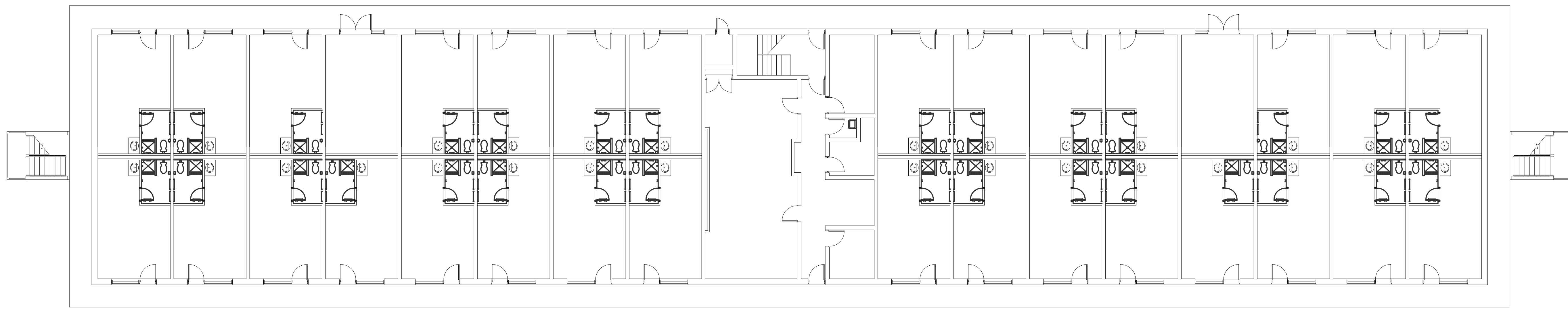
DES. \_\_\_\_\_  
DR. \_\_\_\_\_  
CHK. \_\_\_\_\_  
SUBMITTED BY: \_\_\_\_\_  
DESIGN DIR. \_\_\_\_\_  
APPROVED: PWO OR OICC DATE \_\_\_\_\_  
SATISFACTORY TO: \_\_\_\_\_ DATE \_\_\_\_\_

FIRST FLOOR PLANS - ELECTRICAL  
NAVFAC DRAWING NO. **60010755**  
CONST. CONTR. NO. N40085-12-B-0006

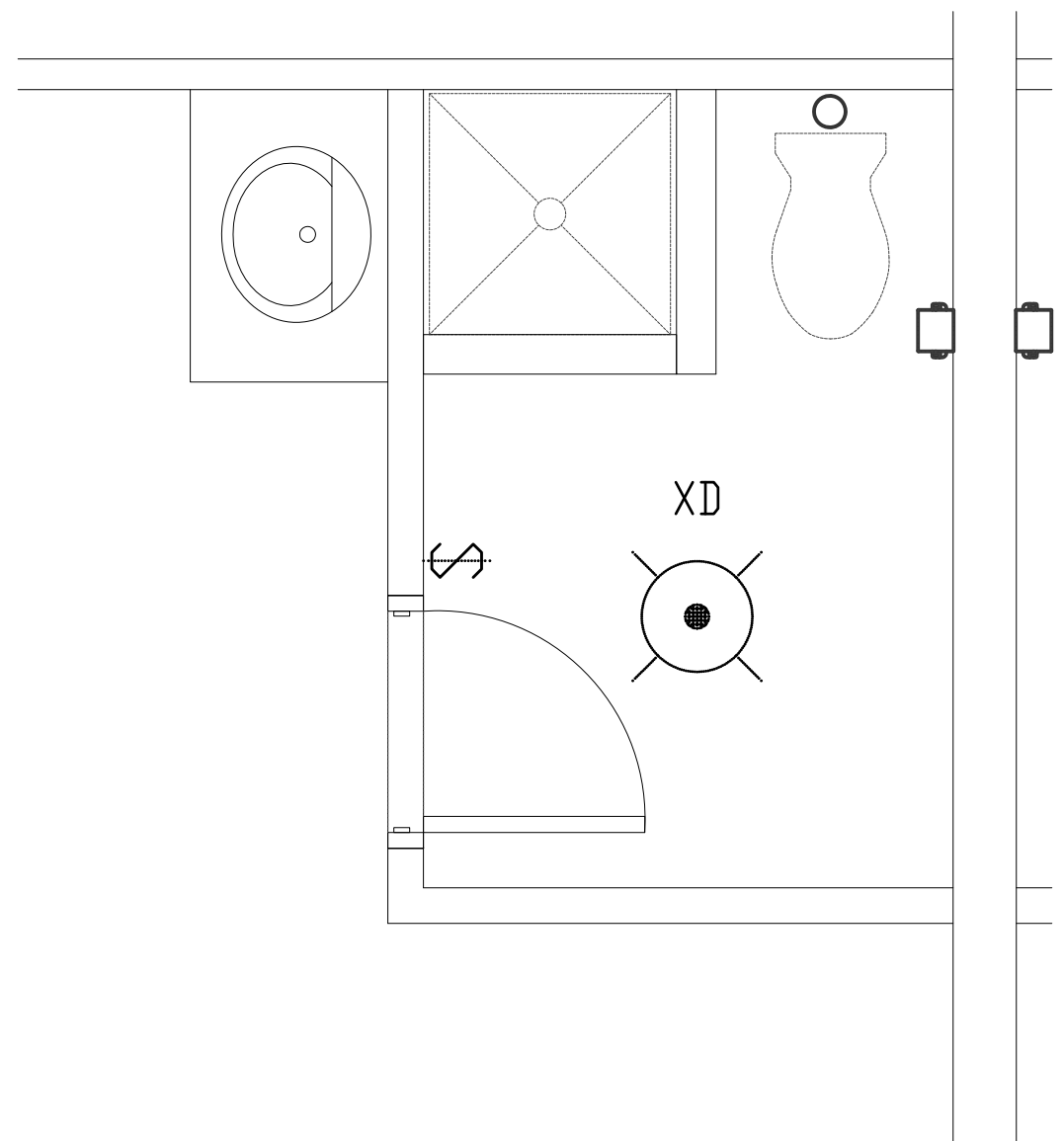
SCALE: AS NOTED SPEC. 05-12-0006 SHEET 14 OF 18



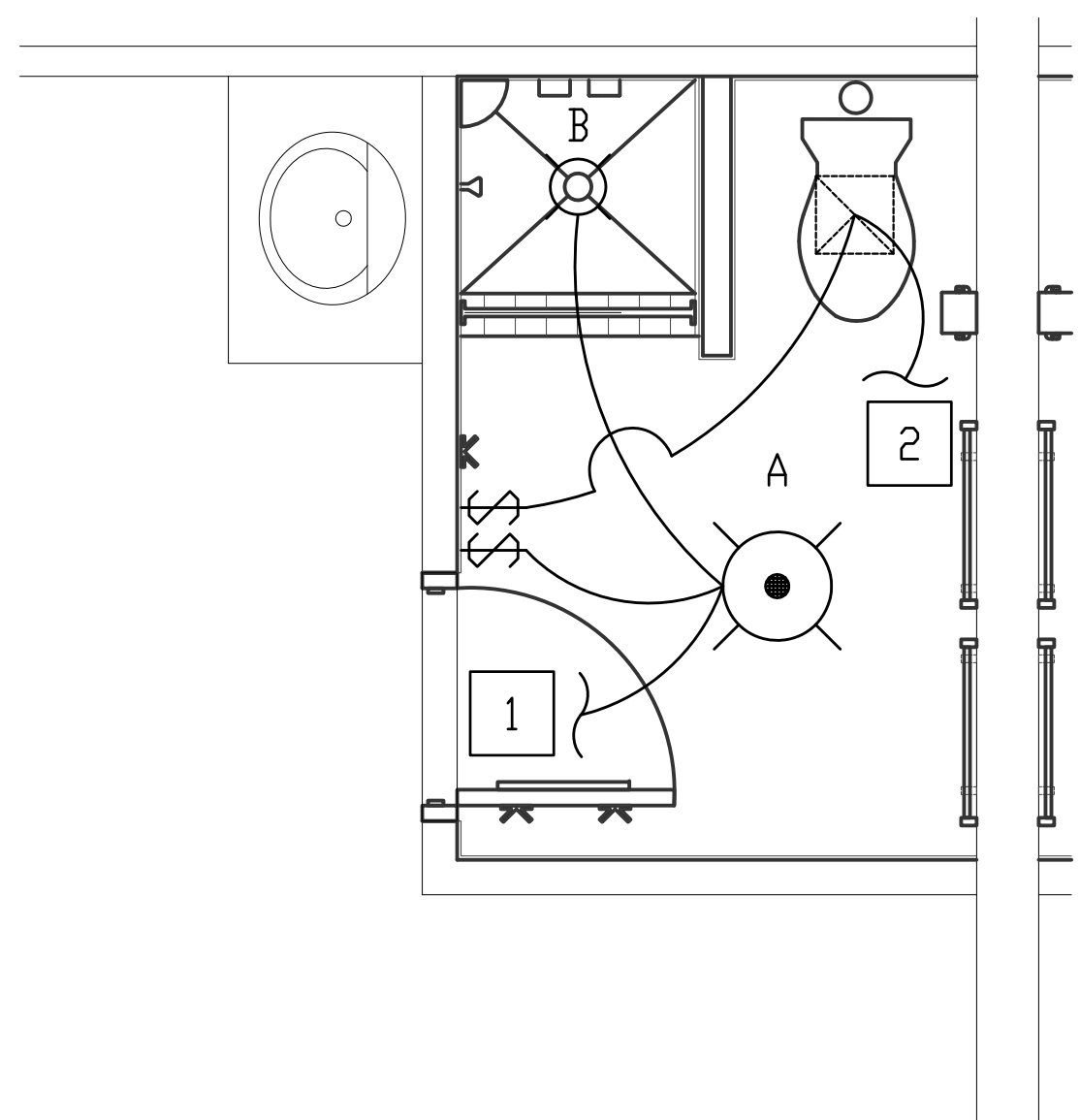
1 SECOND FLOOR PLAN - ELECTRICAL DEMOLITION  
E-102 SCALE: 3/32" = 1' - 0"



2 SECOND FLOOR PLAN - ELECTRICAL  
E-102 SCALE: 3/32" = 1' - 0"



3 SLEEPING ROOM TOILET PLAN - ELECTRICAL DEMOLITION  
E-102 SCALE: 1/2" = 1' - 0"



4 SLEEPING ROOM TOILET PLAN - ELECTRICAL  
E-102 SCALE: 1/2" = 1' - 0"

- PLAN NOTES:
- 1 CONNECT NEW LIGHTS TO EXISTING LIGHTING CIRCUIT CURRENTLY FEEDING EXISTING LIGHT FIXTURES. IT IS NOTED THAT THE TOTAL WATTAGE OF THE NEW FIXTURES IS LESS THAN THE TOTAL OF THE EXISTING FIXTURES.
  - 2 RECONNECT EXISTING EXHAUST FAN TO NEW SWITCH ON EXISTING CIRCUIT CURRENTLY FEEDING EXHAUST FAN.
  - 3 REPLACE EXISTING GFI RECEPTACLE WITH NEW GFI RECEPTACLE AND RECONNECT TO EXISTING CIRCUIT CURRENTLY FEEDING RECEPTACLE.



DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND  
**MARINE CORPS BASE**  
CAMP LEJEUNE, NORTH CAROLINA

**E-102**

DES. \_\_\_\_\_  
DR. \_\_\_\_\_  
CHK. \_\_\_\_\_  
SUBMITTED BY: \_\_\_\_\_  
DESIGN DIR. \_\_\_\_\_  
APPROVED: PWO OR OICC DATE \_\_\_\_\_  
SATISFACTORY TO: \_\_\_\_\_ DATE \_\_\_\_\_

RENOVATE BATHROOMS - HP55

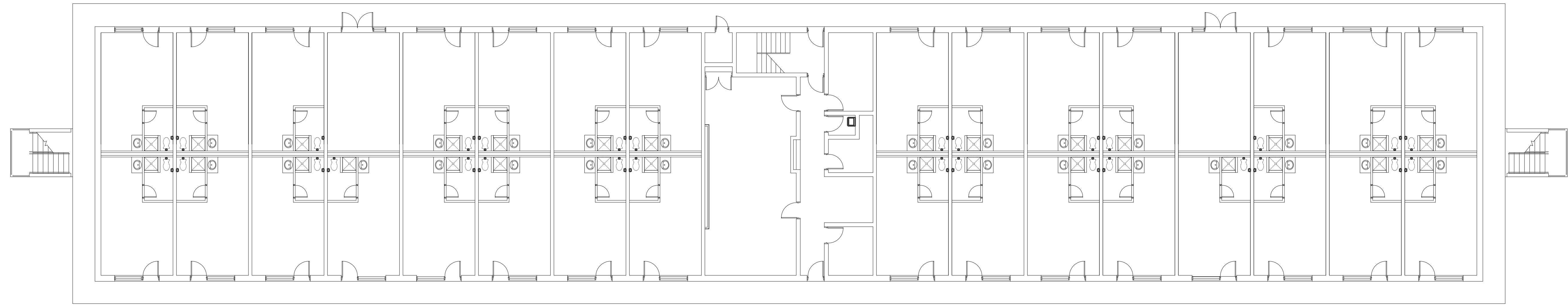
SECOND FLOOR PLANS - ELECTRICAL

NAVAC DRAWING NO. **60010756**

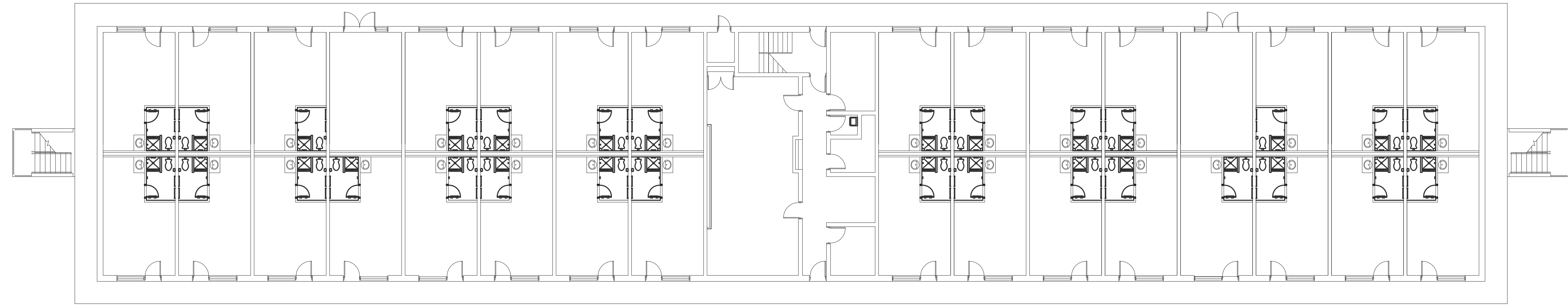
CONST. CONTR. NO. N40085-12-B-0006

SIZE CODE IDENT NO. **F 80091**

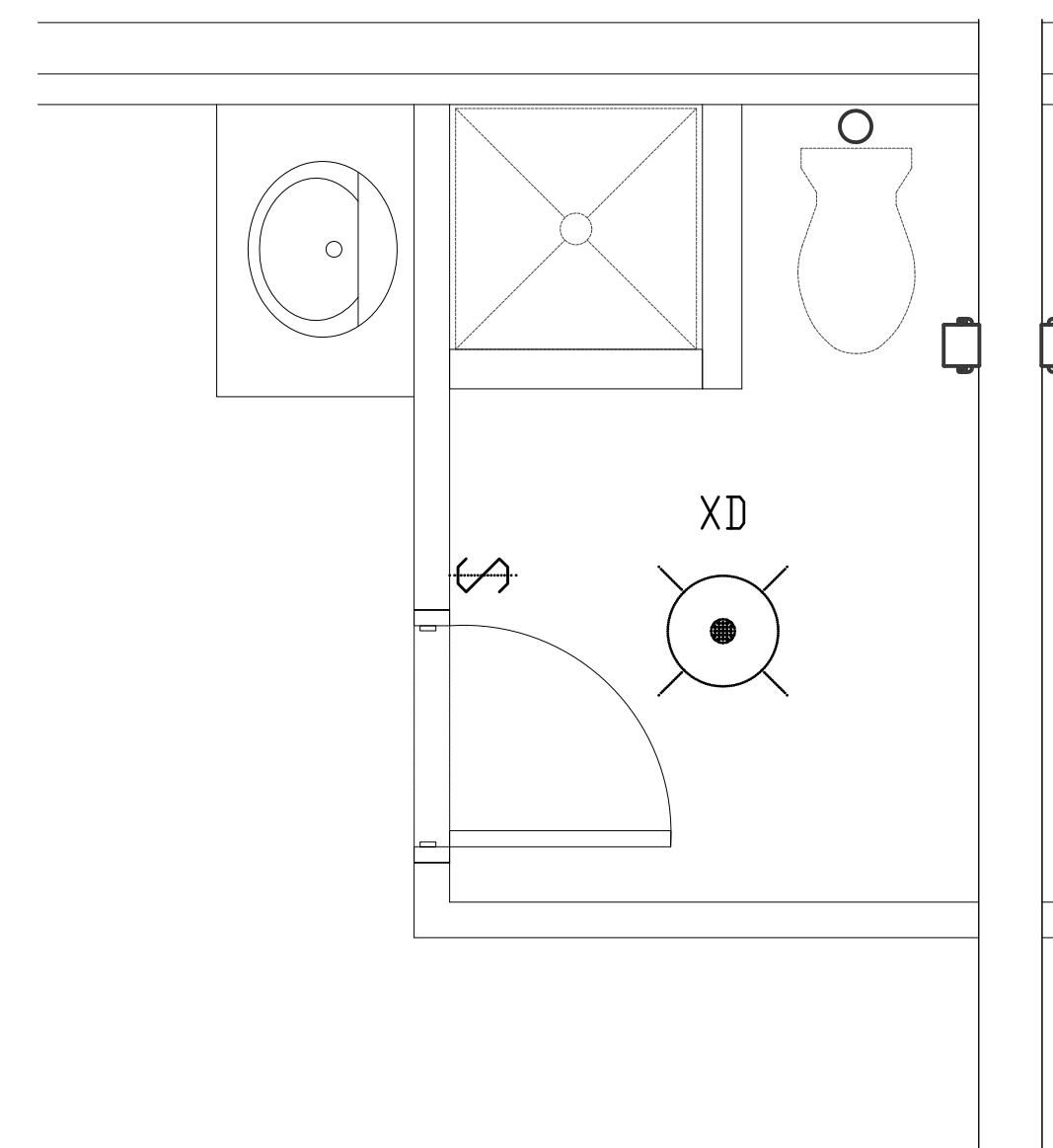
SCALE: AS NOTED SPEC. 05-12-0006 SHEET 15 OF 18



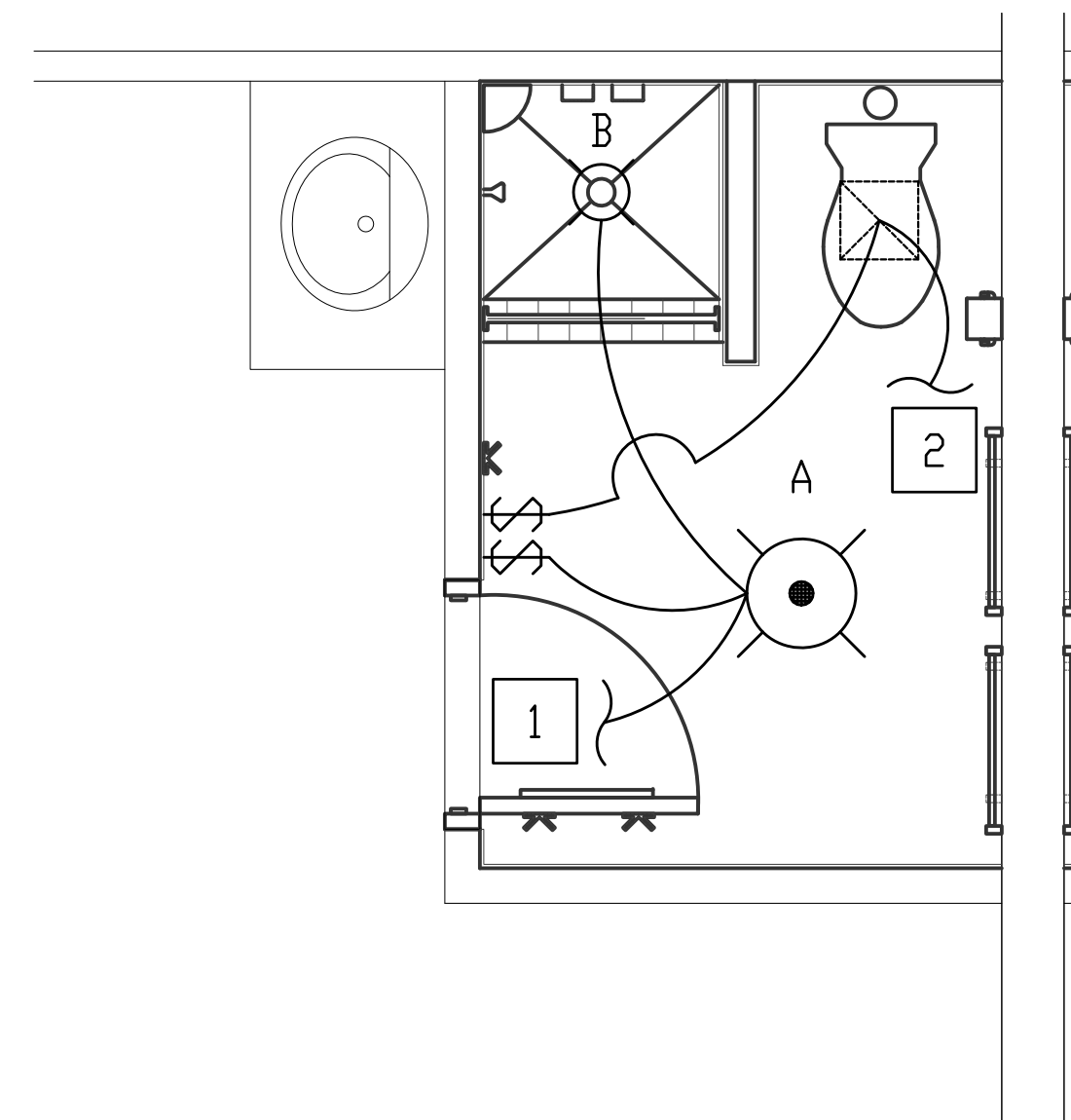
1 THIRD FLOOR PLAN - ELECTRICAL DEMOLITION  
E-103 SCALE: 3/32" = 1' - 0"



2 THIRD FLOOR PLAN - ELECTRICAL  
E-103 SCALE: 3/32" = 1' - 0"

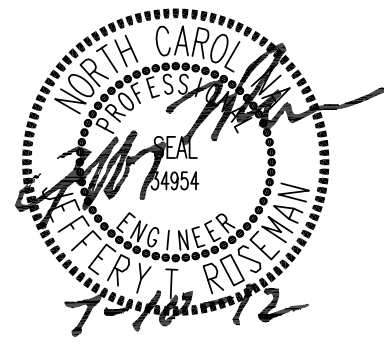


3 SLEEPING ROOM TOILET PLAN - ELECTRICAL DEMOLITION  
E-103 SCALE: 1/2" = 1' - 0"

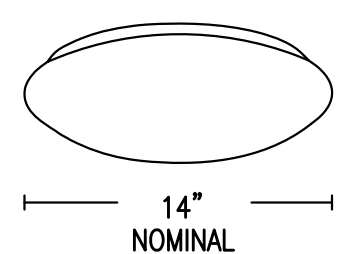


4 SLEEPING ROOM TOILET PLAN - ELECTRICAL  
E-103 SCALE: 1/2" = 1' - 0"

- PLAN NOTES:
- 1 CONNECT NEW LIGHTS TO EXISTING LIGHTING CIRCUIT CURRENTLY FEEDING EXISTING LIGHT FIXTURES. IT IS NOTED THAT THE TOTAL VOLTAGE OF THE NEW FIXTURES IS LESS THAN THE TOTAL OF THE EXISTING FIXTURES.
  - 2 RECONNECT EXISTING EXHAUST FAN TO NEW SWITCH ON EXISTING CIRCUIT CURRENTLY FEEDING EXHAUST FAN.
  - 3 REPLACE EXISTING GFI RECEPTACLE WITH NEW GFI RECEPTACLE AND RECONNECT TO EXISTING CIRCUIT CURRENTLY FEEDING RECEPTACLE.

		<p><b>E-103</b></p>
<p><b>CRENSHAW CONSULTING</b> <i>engineers</i></p> <p>NO LICENSE #C-1008 2016 Bush Street, Suite 200 Raleigh, North Carolina 27603 919-871-8070 Fax 919-871-8020</p>		<p>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA</p>
<p>DES. _____ DR. _____ CHK. _____ SUBMITTED BY: _____ DESIGN DIR. _____</p>		<p>RENOVATE BATHROOMS - HP55</p>
<p>APPROVED: PWO OR OICC DATE _____</p>		<p>THIRD FLOOR PLANS - ELECTRICAL NAVFAC DRAWING NO. <b>60010757</b></p>
<p>SATISFACTORY TO: _____ DATE _____</p>		<p>CONST. CONTR. NO. N40085-12-B-0006 SCALE: AS NOTED SPEC. 05-12-0006 SHEET 16 OF 18</p>



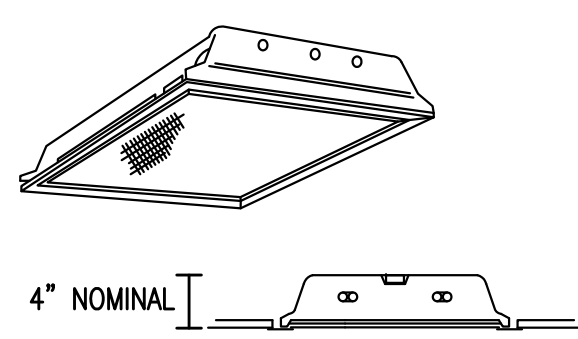


**LUMINAIRE REQUIREMENTS:**

- HOUSING - DIE-FORMED ALUMINUM WITH KEYHOLE SLOTS FOR DIRECT MOUNTING TO 4" OCTAGONAL OUTLET BOX.
- FINISH - MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH BAKED WHITE ENAMEL FINISH.
- LENS - FORMED WHITE TRANSLUCENT OPAL ACRYLIC DIFFUSER.
- LAMPS - MULTI-TUBE COMPACT FLUORESCENT WITH 4-PIN BASE. PROVIDE WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
- BALLAST - CLASS P, THERMALLY-PROTECTED, HIGH POWER FACTOR (≥ .95), PROGRAMMED RAPID START ELECTRONIC TYPE WITH ≤10% TOTAL HARMONIC DISTORTION. SEE SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR OTHER BALLAST OPTIONS AND SPECIFICS.
- CERTIFICATION - UL LISTED AND LABELED.

OPAL ACRYLIC CEILING-MOUNTED COMPACT FLUORESCENT

REVISED: AUGUST 2004 LIGHTING PLATE: NL-26



**LUMINAIRE REQUIREMENTS:**

- HOUSING - DIE-FORMED, COLD-ROLLED STEEL, WITH REINFORCEMENT RIBS FOR RIGIDITY. ENDCAPS SECURED WITH TABS, SCREWS OR RIVETS. FIXTURE SHALL NOT PERMANENTLY DEFORM OUT OF "SQUARE" WHEN PICKED UP FROM ANY CORNER. DEPTH AS INDICATED UNLESS SPECIFICALLY MANUFACTURED FOR OPTIMAL USE WITH T8 LAMPS.
- FINISH - MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
- LENS - 100% ACRYLIC, CLEAR PRISMATIC, PATTERN #12 WITH MINIMUM 0.125" THICKNESS.
- LAMPS - COMPACT FLUORESCENT T15, OR LINEAR T8 TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
- BALLAST - CLASS P, THERMALLY-PROTECTED, HIGH POWER FACTOR (≥ .95), ELECTRONIC TYPE WITH SOUND RATING A. SEE SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR BALLAST OPTIONS AND SPECIFICS.
- CERTIFICATION - UL LISTED AND LABELED.
- PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) AND EFFICIENCY, GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:

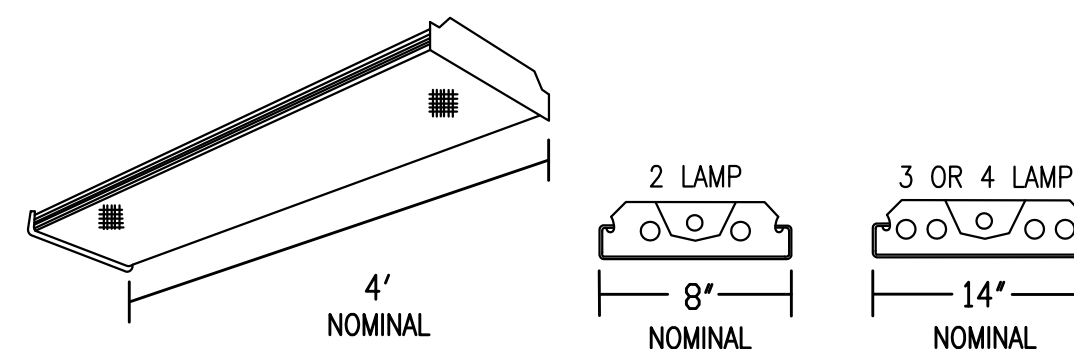
2 LAMP (F40/T15)		3 LAMP (F40/T15)	
RCR	CU	RCR	CU
1	72	1	66
2	64	2	59
3	58	3	53
4	52	4	47

EFFICIENCY - 67% EFFICIENCY - 62%

- SEE NL-7 FOR OPTIONAL REQUIREMENTS ASSOCIATED WITH THIS FIXTURE. INCLUDE ALL INFORMATION IN LIGHTING FIXTURE SCHEDULE.

PRISMATIC LENS RECESSED 2' X 2' FLUORESCENT TROFFER

REVISED: AUGUST 2004 LIGHTING PLATE: NL-3



**LUMINAIRE REQUIREMENTS:**

- HOUSING - DIE-FORMED, COLD-ROLLED STEEL, WITH REINFORCEMENT RIBS FOR RIGIDITY. ENDCAPS SHALL BE SAME MATERIAL AS HOUSING, SECURED WITH TABS, SCREWS OR RIVETS. FIXTURE SHALL NOT PERMANENTLY DEFORM OUT OF "SQUARE" WHEN PICKED UP FROM ANY CORNER.
- FINISH - MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
- LENS - 100% ACRYLIC, CLEAR PRISMATIC, LINEAR SIDE PRISMS AND PYRAMIDAL BOTTOM PRISMS FOR BRIGHTNESS CONTROL AND MINIMAL LAMP IMAGING, RESPECTFULLY. LENS SHALL BE CAPABLE OF BEING HINGED FROM EITHER SIDE.
- LAMPS - LINEAR FLUORESCENT T8, TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
- BALLAST - CLASS P, THERMALLY-PROTECTED, HIGH POWER FACTOR (≥ .95), ELECTRONIC TYPE WITH SOUND RATING A. SEE SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR BALLAST OPTIONS AND SPECIFICS.
- CERTIFICATION - UL LISTED AND LABELED.
- PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) AND EFFICIENCY, GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:

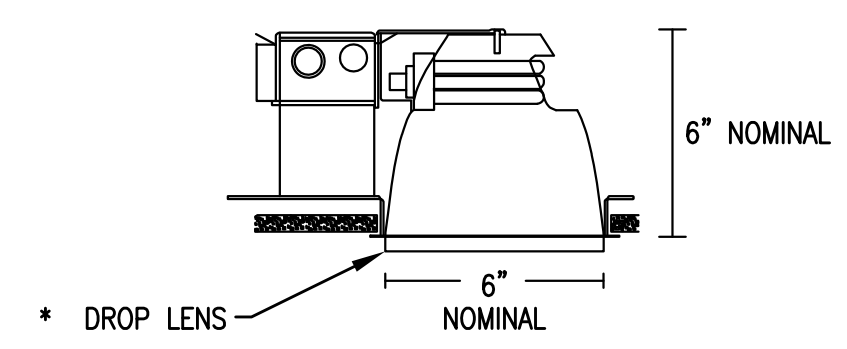
2 LAMP (F32/T8)

RCR	CU
1	76
2	67
3	60
4	54

EFFICIENCY - 76%

FLUORESCENT WRAPAROUND - UTILITY AREAS

REVISED: AUGUST 2004 LIGHTING PLATE: NL-11

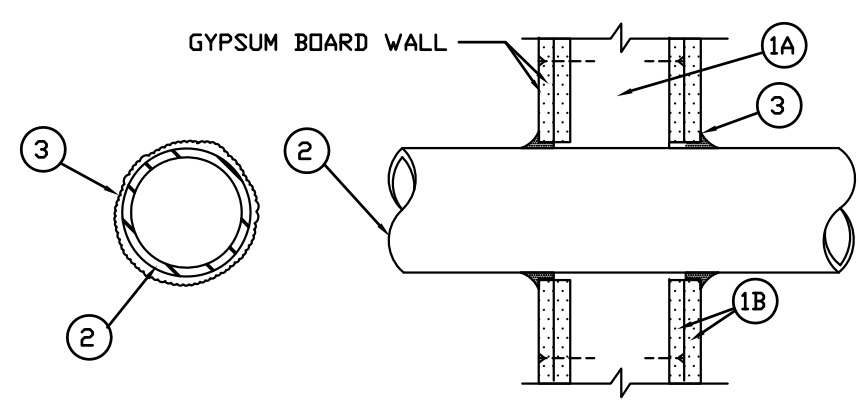


**LUMINAIRE REQUIREMENTS:**

- HOUSING - ONE-PIECE, DIE-STAMPED, COLD ROLLED STEEL OR ACRYLIC-ENAMELED ALUMINUM. PROVIDE WITH PRE-WIRED JUNCTION BOX HAVING SNAP-ON ACCESS COVER. ACCESS TO JUNCTION BOX FROM BELOW CEILING SHALL BE PROVIDED THROUGH FIXTURE AFTER REMOVAL OF REFLECTOR.
- REFLECTOR - ONE-PIECE, CLEAR, SPUN ALUMINUM, IRIDESCENCE-SUPPRESSED.
- BALLAST - CLASS P, MULTI-VOLT (120V-277V INPUT), HIGH POWER FACTOR (≥ .95), PROGRAMMED RAPID START ELECTRONIC TYPE WITH ≤10% TOTAL HARMONIC DISTORTION. BALLAST SHALL BE CAPABLE OF UNIVERSALLY OPERATING 26W OR 32 WATT LAMPS.
- LAMPS - MULTI-TUBE, COMPACT FLUORESCENT WITH 4-PIN BASE. PROVIDE WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
- LENS/TRIM - \* OPTIONS INCLUDE DROPPED OR FLAT OPAL LEXAN; DROPPED OR FLAT OPAL GLASS; OR FRESNEL GLASS. SEE LIGHTING FIXTURE SCHEDULE.
- CERTIFICATION - UL LISTED AND LABELED FOR DAMP LOCATIONS.

RECESSED COMPACT FLUORESCENT SHOWER LIGHT

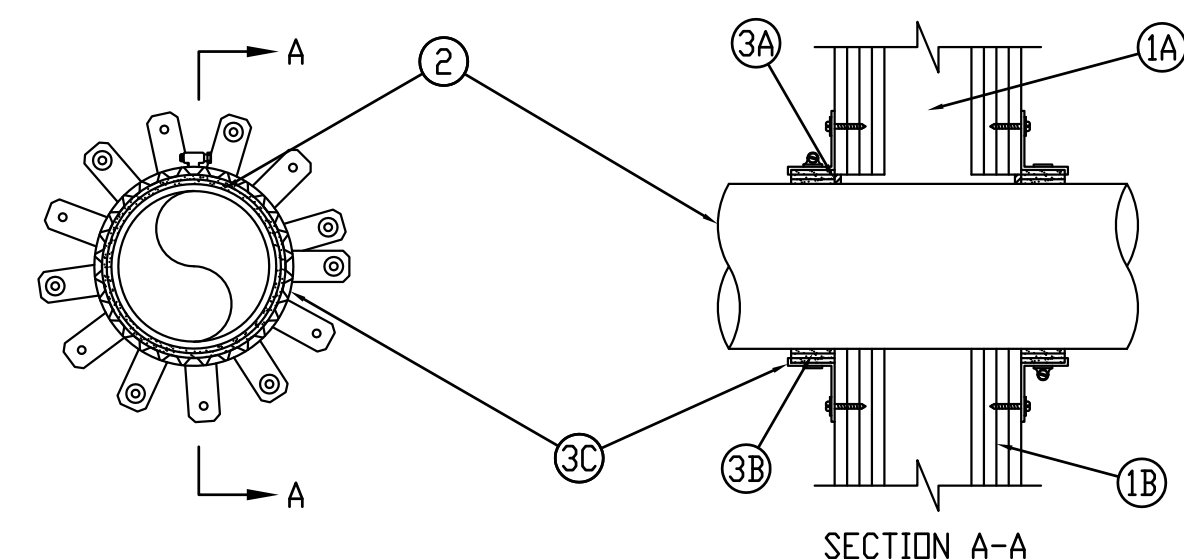
REVISED: AUGUST 2004 LIGHTING PLATE: NL-38



System No. W-L-1001

June 15, 2005

F Ratings - 1, 2, 3 and 4 Hr (See Items 2 and 3)  
T Ratings - 0, 1, 2, 3, and 4 Hr (See Item 3)  
L Rating At Ambient - less than 1 CFM/sq ft  
L Rating At 400 F - less than 1 CFM/sq ft



System No. W-L-2447

F Rating - 1, 2, 3 and 4 Hr (See Item 1)  
T Rating - 1, 2, 3 and 4 Hr (See Item 2)  
L Rating At Ambient - 3 CFM/sq ft  
L Rating At 400 F - Less Than 1 CFM/sq ft

1. Wall Assembly - The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs - Wall framing may consist of either wood studs (max 2 hr fire rated assemblies) or steel channel studs. Wood studs to consist of non 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC with non 2 by 4 in. (51 by 102 mm) lumber and plates and cross braces. Steel studs to be min 3-5/8 in. (92 mm) wide by 1-3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.

B. Gypsum Board - Non 1/2 or 5/8 in. (13 or 16 mm) thick, 4 ft. (122 cm) wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max dian of opening is 26 in. (660 mm).

2. Through Penetrant - One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min 0 in. (0 mm) (point contact) to max 2 in. (51 mm) Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

- A. Steel Pipe - Non 24 in. (610 mm) dian (or smaller) Schedule 10 (or heavier) steel pipe.
- B. Iron Pipe - Non 24 in. (610 mm) dian (or smaller) service weight (or heavier) cast iron soil pipe, non 12 in. (305 mm) dian (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.
- C. Conduit - Non 6 in. (152 mm) dian (or smaller) steel conduit or non 4 in. (102 mm) dian (or smaller) steel electrical metallic tubing.
- D. Copper Tubing - Non 6 in. (152 mm) dian (or smaller) Type L (or heavier) copper tubing.
- E. Copper Pipe - Non 6 in. (152 mm) dian (or smaller) Regular (or heavier) copper pipe.
- F. Through Penetrating Product - Flexible Metal Piping The following types of steel flexible metal gas piping may be used:

1. Non 2 in. (51 mm) dian (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

DEGA FLEX INC

2. Non 1 in. (25 mm) dian (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

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3. Non 1 in. (25 mm) dian (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

WARD MFG L L C

3. Fill, Void or Cavity Material - Caulk or Sealant - Min 5/8, 1-1/4-7/8 and 2-1/2 in. (16, 32, 48 and 64 mm) thickness of caulk for 1, 2, 3 and 4 hr rated assemblies, respectively, applied within annulus. Flush with both surfaces of wall. Min 1/4 in. (6 mm) dian bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Dian, in. (mm)	F Rating, Hr	T Rating, Hr
1 (25)	1 or 2	0*, 1 or 2
1 (25)	3 or 4	3 or 4
4 (102)	1 or 2	0
6 (152)	3 or 4	0
12 (305)	1 or 2	0

\*When copper pipe is used, T Rating is 0 hr.

3M COMPANY - CP 25VB+ or FB-3000 Vt.

\*Bearing the UL Classification Mark

**FOR FRAMED WALLS ONLY**  
**1, 2, 3, OR 4 HOUR PENETRATION FIRESTOP**  
**FOR METALLIC PIPE, CONDUIT, OR TUBING**  
**E601 SCALE: NONE**

**FOR FRAMED WALLS ONLY**  
**1, 2, 3 OR 4 HOUR PENETRATION FIRESTOP**  
**FOR NONMETALLIC PIPE**  
**E601 SCALE: NONE**

**1**  
**E601**

**2**  
**E601**

**LIGHT FIXTURE SCHEDULE**

DESIGNATION	TEMPLATE	DESCRIPTION	VOLTAGE	BALLAST TYPE/ QUANTITY	NUMBER/TYPE LAMPS	TOTAL WATTS
A	NL-26	LOW PROFILE ROUND FIXTURE	120/1	1-ELECTRONIC	2-18W DIT	40
B	NL-38	SHOWER LIGHT FIXTURE	120/1	1-ELECTRONIC	2-18W DIT	40
C	NL-11	1X4 FLUOR. SURFACE WRAPAROUND	120/1	1-ELECTRONIC	2-F32T8/35K	64
D	NL-3	2X2 FLUOR. LAY-IN	120/1	1-ELECTRONIC	2-F17T8/35K	37
F	TO BE DETERMINED	FAN/LIGHT COMBO FIXTURE	120/1	1-ELECTRONIC	VERIFY	50W MAX
XD	EXISTING FIXTURE TO BE DEMOLISHED	SURFACE-MTD FIXTURE	120/1	N/A	EXISTING	120
XR2	EXISTING FIXTURE TO REMAIN	FAN/LIGHT COMBO FIXTURE	120/1	EXISTING	EXISTING	EXISTING
XR3	EXISTING FIXTURE TO REMAIN	2X2 FLUOR. PRISMATIC	120/1	1-ELECTRONIC	EXISTING	EXISTING
XR	EXISTING FIXTURE TO REMAIN	FLUOR. SURFACE WRAPAROUND	120/1	1-ELECTRONIC	EXISTING	EXISTING

**NOTES:**

- ALL BALLASTS SHALL COMPLY WITH INTERNATIONAL BUILDING CODE, 2009 INTERNATIONAL ENERGY CONSERVATION CODE AND SHALL BE UL LISTED. ALL T8 BALLASTS SHALL BE INSTANT START, HIGH-PERFORMANCE ELECTRONIC WITH NORMAL BALLAST FACTOR (0.80) UNLESS OTHERWISE NOTED.
- ALL FIXTURES NOTED AS EMERGENCY SHALL HAVE EMERGENCY ILLUMINATION FUNCTIONALITY AS DESCRIBED BELOW. IN ALL CASES, BATTERIES MUST BE RATED FOR THE ENVIRONMENT IN WHICH THEY ARE INSTALLED.
  - INTERIOR FLUORESCENT FIXTURES SHALL HAVE 1,100 LUMEN (MINIMUM) OUTPUT, 90 MINUTE BATTERY PACK.
  - EXTERIOR EMERGENCY LIGHTS SHALL HAVE AN INTEGRAL EXTERIOR RATED (OP F) OR REMOTE MOUNTED 1,100 LUMEN OUTPUT 90 MINUTE BATTERY.
  - TEST SWITCHES FOR EMERGENCY BATTERIES SHALL BE INTEGRAL TO THE FIXTURE SERVED BY THE BATTERY.
  - EMERGENCY FIXTURES SHALL OPERATE ONE LAMP WHERE MULTIPLE EMERGENCY FIXTURES ARE TO BE INSTALLED IN AN AREA, AND SHALL OPERATE TWO LAMPS WHERE THE LOSS OF A SINGLE LAMP WOULD RENDER THE SPACE IN TOTAL DARKNESS DURING EMERGENCY OPERATION.
  - WHERE EMERGENCY LIGHTS PROVIDE EMERGENCY ILLUMINATION IN AREAS NORMALLY LIT BY METAL HALIDE FIXTURES (OR SIMILAR SOURCES) WITH RESTRICTED DELAY, THE EMERGENCY BATTERY SHALL BE PROVIDED WITH A TIME DELAY TO MAINTAIN BATTERY ILLUMINATION FOR 15 MINUTES AFTER THE RESTORATION OF NORMAL POWER.
  - EMERGENCY LIGHTING DESIGN IS BASED ON EXISTING FIXTURES WITH 1,100 LUMEN OUTPUT BATTERIES. CONTRACTOR SHALL VERIFY ANY EXISTING EMERGENCY FIXTURE BATTERIES ARE 1,100 LUMEN OUTPUT MINIMUM AND SHALL REPLACE ANY BATTERIES RATED LESS THAN 1,100 LUMENS.
  - EMERGENCY LIGHTING UNITS WITH DEDICATED EMERGENCY HEADS SHALL PROVIDE 1 F.C. FOR AT LEAST 25' FOR A MINIMUM OF 90 MINUTES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE PROPER LAMPS FOR EACH FIXTURE, AS RECOMMENDED BY THE FIXTURE MANUFACTURER AND FIXTURE SCHEDULE.



DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND  
**MARINE CORPS BASE**  
CAMP LEJEUNE, NORTH CAROLINA

**E-601**

DES.  
DR.  
CHK.  
SUBMITTED BY:  
DESIGN DIR.  
APPROVED: PWO OR OICC DATE  
SATISFACTORY TO: DATE

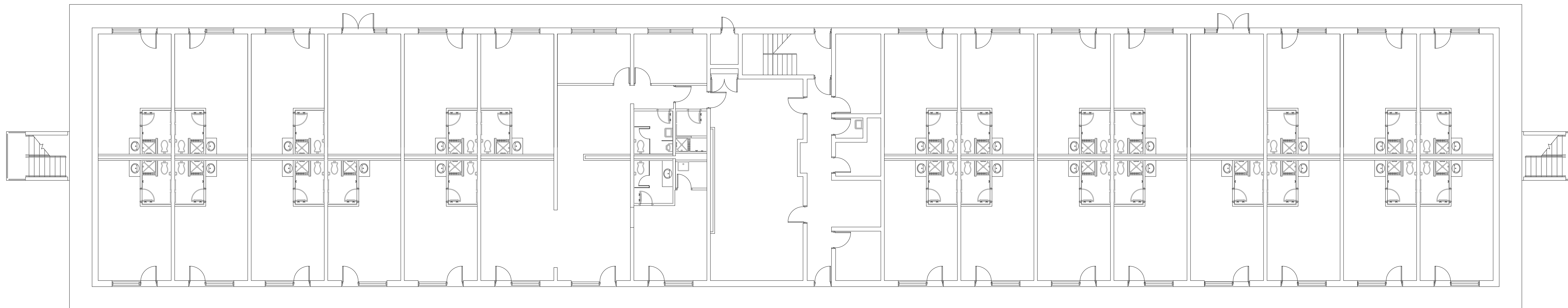
RENOVATE BATHROOMS - HP55

ELECTRICAL DETAILS

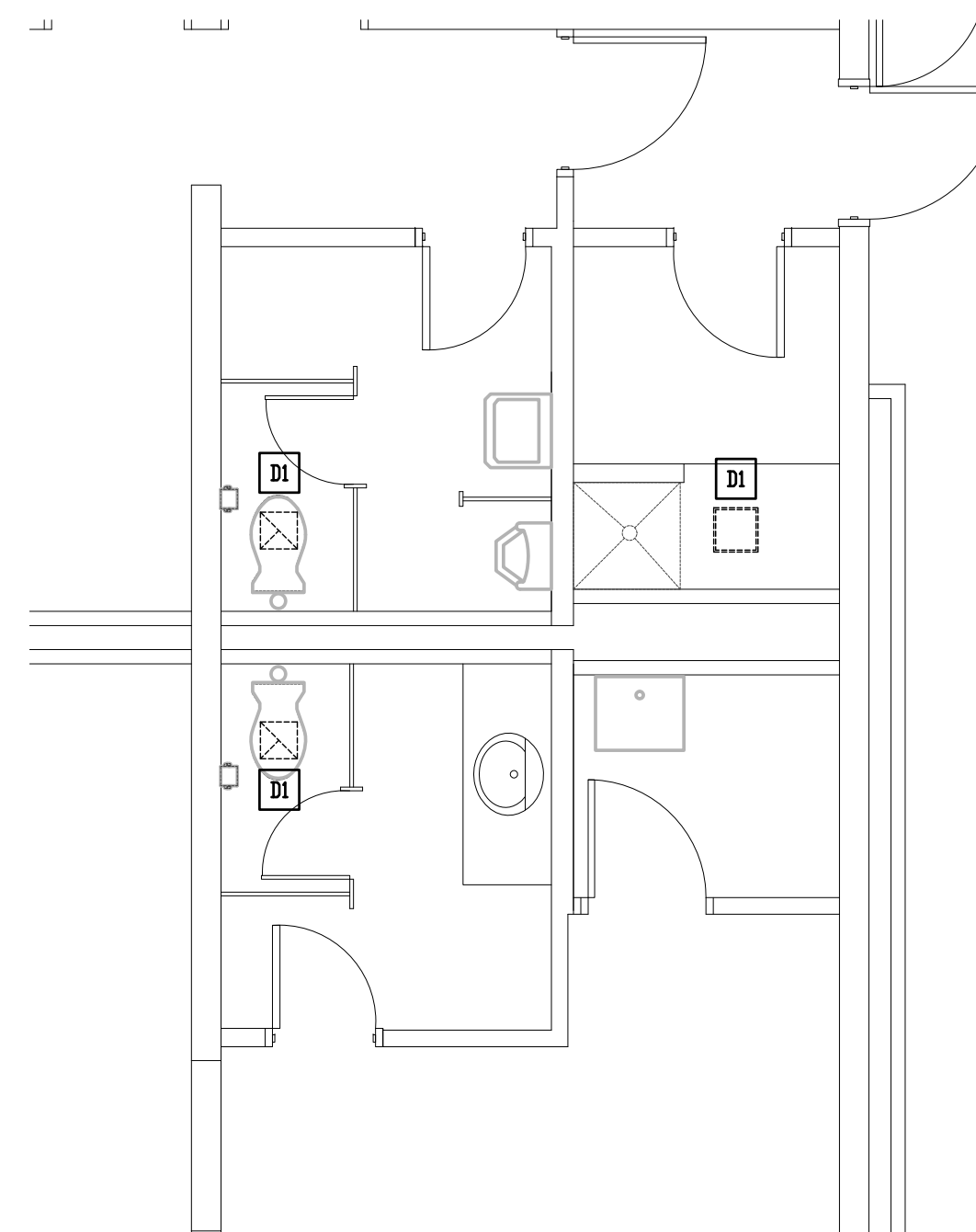
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SIZE CODE IDENT NO. NAVFAC DRAWING NO.  
**60010758**

CONST. CONTR. NO. N40085-12-B-006

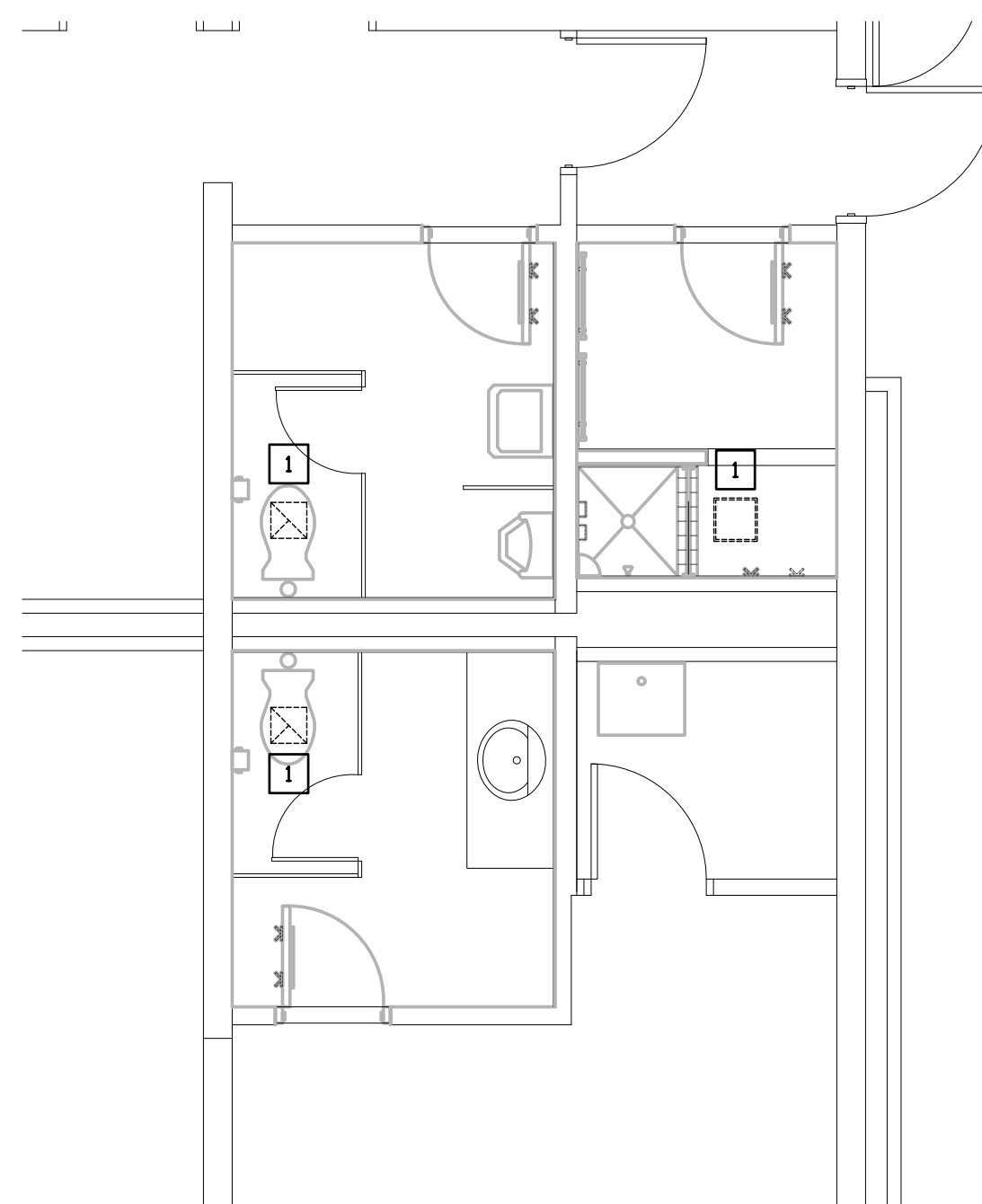
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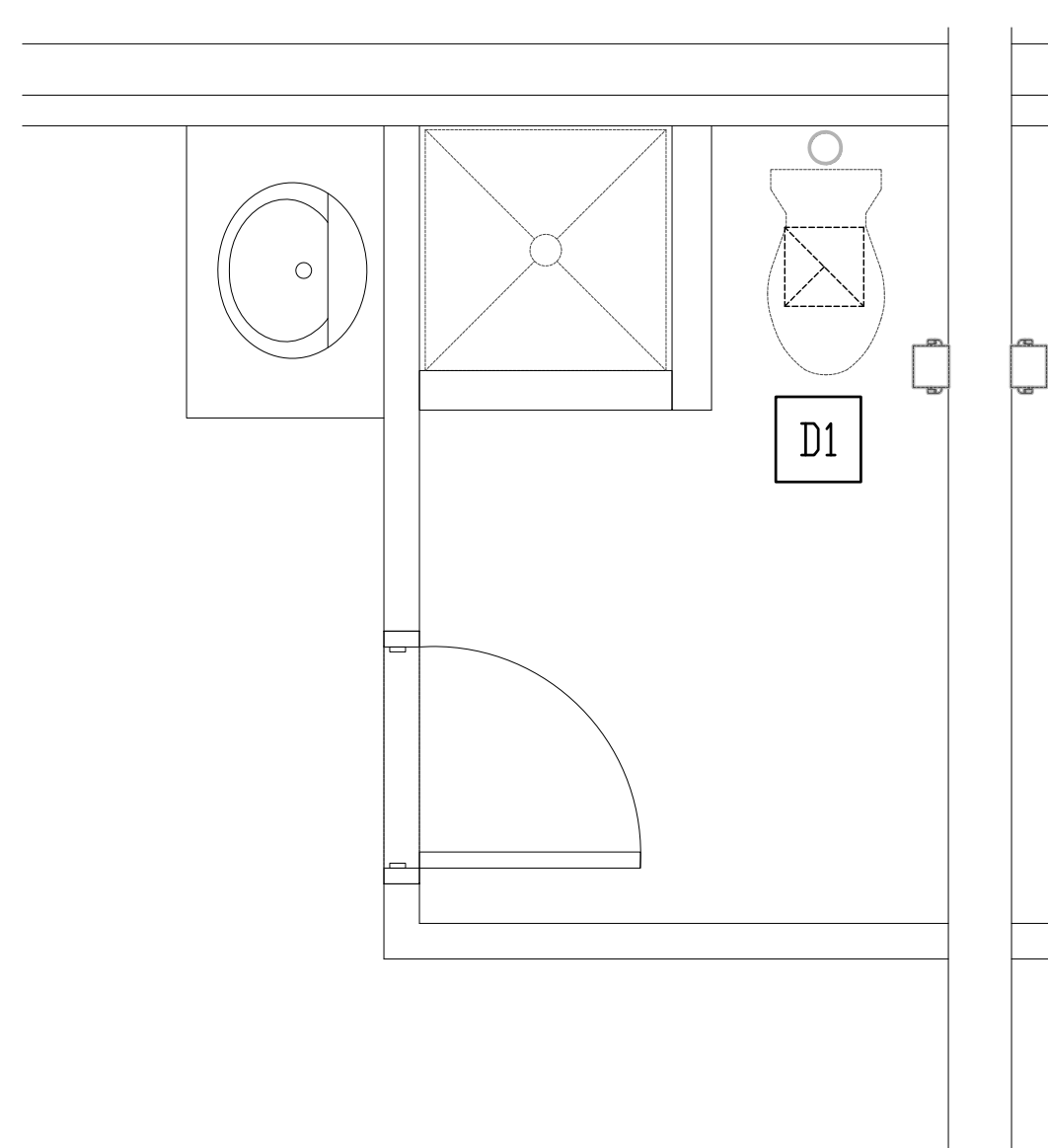
**2 TYPICAL FLOOR PLAN - MECHANICAL**  
 M-101/ SCALE: 3/32" = 1' - 0"



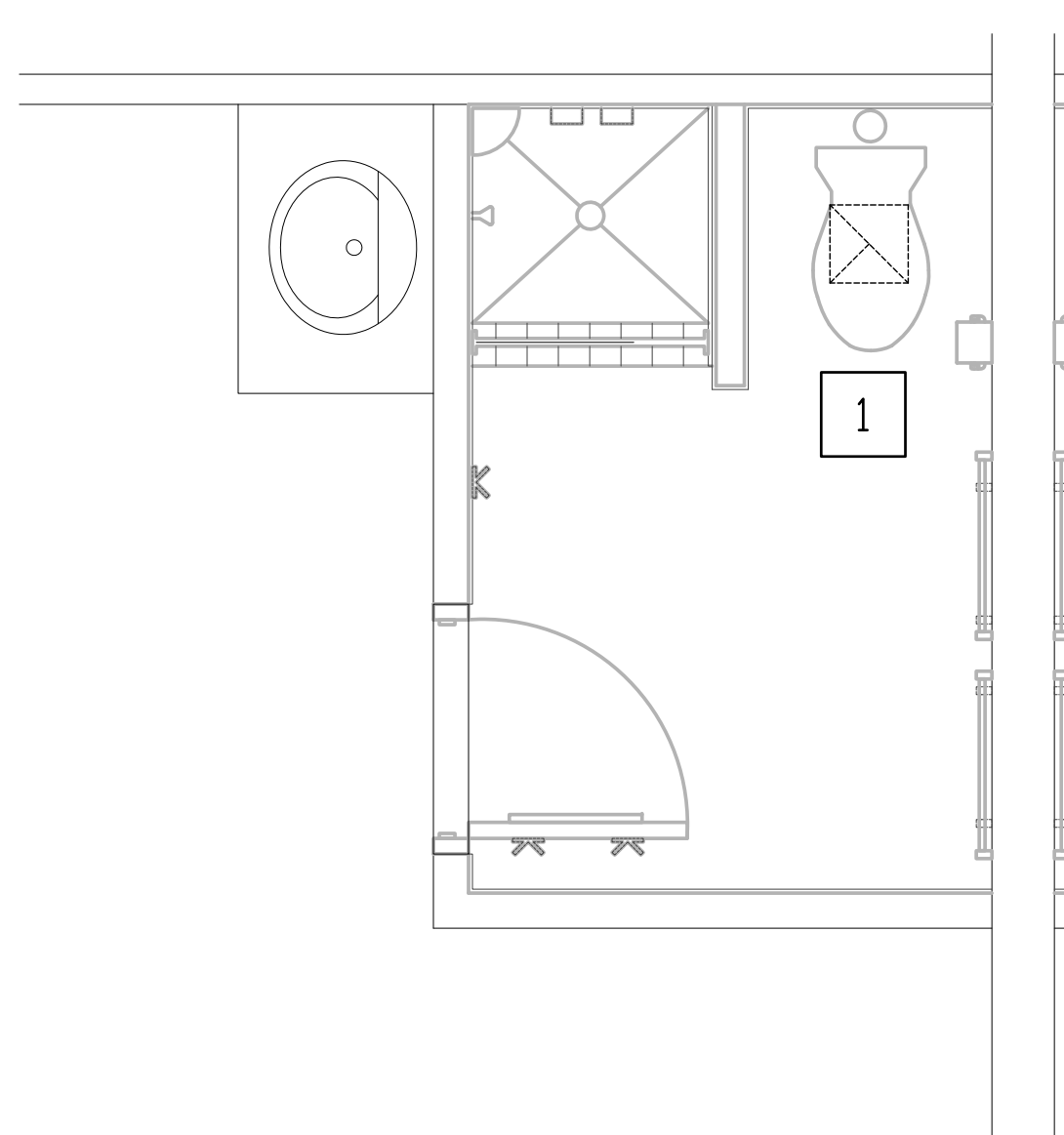
**2 OFFICE TOILET PLAN - MECHANICAL DEMOLITION**  
 M-101/ SCALE: 1/4" = 1' - 0"



**4 OFFICE TOILET PLAN - MECHANICAL NEW WORK**  
 M-101/ SCALE: 1/4" = 1' - 0"



**3 SLEEPING ROOM TOILET PLAN - MECHANICAL DEMOLITION**  
 M-101/ SCALE: 1/2" = 1' - 0"



**5 SLEEPING ROOM TOILET PLAN - MECHANICAL NEW WORK**  
 M-101/ SCALE: 1/2" = 1' - 0"

**DEMOLITION NOTES:**

- D1** REMOVE EXISTING EXHAUST FAN AND CLEAN HOUSING AND INTAKE GRILLE FOR REUSE. REPAIR OR REPLACE DAMAGED FANS INCLUDING INTAKE GRILLES.

**PLAN NOTES:**

- 1** REINSTALL EXISTING EXHAUST FAN IN NEW CEILING AND RECONNECT TO EXISTING EXHAUST DUCT. COORDINATE WITH E.C. FOR NEW WIRING REQUIREMENTS. COORDINATE WITH G.C. REGARDING NEW CEILING INSTALLATION.

**GENERAL NOTES:**

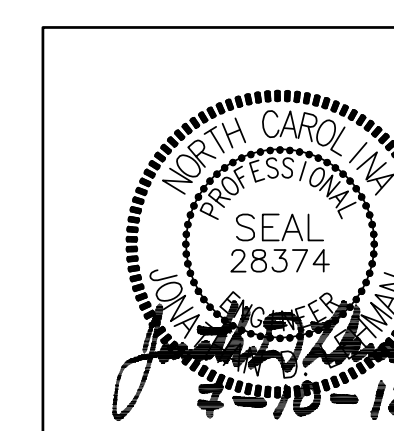
- THE HVAC CONTRACTOR (THE CONTRACTOR) SHALL PROVIDE ALL SPECIFIED AND MISCELLANEOUS MATERIAL AND LABOR AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM AS DESCRIBED BY THESE PLANS AND SPECIFICATIONS.
- ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES AND RECOMMENDATIONS OF THE MANUFACTURERS. IF THERE IS A CONFLICT IN THE ABOVE REQUIREMENTS, THE MORE STRINGENT SHALL BE USED.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS NECESSARY TO COMPLETE HIS WORK UNDER THIS CONTRACT.
- PRIOR TO BIDDING, THE CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS AND RESOLVE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND THESE PLANS.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES. ALL DRAWINGS INDICATE THE GENERAL ARRANGEMENT DESIRED. THE EXACT LOCATIONS AND DETAILS OF CONSTRUCTION MAY BE SUCH THAT VARIANCES ARE REQUIRED. THE DRAWINGS DO NOT SHOW ALL BENDS, OFFSETS, AND FITTINGS THAT MAY BE REQUIRED FOR THE COMPLETE EXECUTION OF THIS CONTRACT. SUCH VARIANCES AND CONTINGENCIES SHALL BE ALLOWED FOR IN THE CONTRACTOR'S BID AND SHALL BE ACCOMPLISHED WITHOUT ADDITIONAL COST TO THE GOVERNMENT. PRIOR TO ORDERING EQUIPMENT, THE CONTRACTOR SHALL PREPARE COORDINATION DRAWINGS SHOWING HOW HIS EQUIPMENT IS TO BE LOCATED IN THE SPACE INDICATED. THIS DRAWING SHALL SHOW THE NEW AND EXISTING WORK OF ALL OTHER TRADES. THE CONTRACTOR SHALL CONTACT THE OTHER CONTRACTORS INVOLVED FOR DIMENSIONS, LOCATIONS, AND REQUIRED CLEARANCES OF THE EQUIPMENT THEY INTEND TO PROVIDE FOR THIS JOB.
- DO NOT SCALE THESE DRAWINGS. REFER TO THE ARCHITECTURAL PLANS FOR DIMENSIONS.
- ALL EQUIPMENT SHALL BE LOCATED AND INSTALLED TO PROVIDE MAXIMUM SPACE FOR MAINTENANCE AND SERVICE.
- ALL MATERIALS USED SHALL BE NEW AND FREE OF DEFECTS. WHERE TRADE NAMES ARE MENTIONED, THEY ARE GIVEN AS A REFERENCE TO THE QUALITY OF THE APPARATUS REQUIRED. ALL MATERIALS AND EQUIPMENT SHALL BEAR THE UL LABEL OR EQUIVALENT WHERE APPLICABLE. OTHER MAKES MAY BE USED IF APPROVED IN WRITING BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT A COMPLETE LIST OF MATERIALS AND EQUIPMENT PROPOSED FOR USE IN THIS CONTRACT. IF SUCH LIST IS NOT SUBMITTED, THE CONTRACTOR SHALL SUPPLY THE MATERIALS AND EQUIPMENT SPECIFIED.
- WORKMANSHIP SHALL BE FIRST-CLASS AND PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN.
- COORDINATE EXACT LOCATION OF ALL DIFFUSERS WITH LIGHTS, SPRINKLER HEADS, AND OTHER CEILING MOUNTED DEVICES.
- THE CONTRACTOR SHALL, AT THE COMPLETION OF THE WORK, CLEAN, POLISH, AND/OR WASH ALL EXPOSED ITEMS OF MATERIALS, EQUIPMENT, AND FIXTURES IN HIS CONTRACT TO LEAVE SUCH ITEMS BRIGHT AND CLEAN. THE CONTRACTOR SHALL KEEP THE PREMISES CLEAR OF DEBRIS FROM HIS WORK DURING CONSTRUCTION AND LEAVE THE AREA AND BUILDING CLEAN AT COMPLETION OF THE CONTRACT.
- MECHANICAL AND ELECTRICAL EQUIPMENT SHALL OPERATE WITHOUT OBJECTIONABLE NOISE OR VIBRATION. IF SUCH OBJECTIONABLE NOISE OR VIBRATION SHOULD BE PRODUCED AND TRANSMITTED TO OCCUPIED PORTIONS OF THE BUILDING, THE CONTRACTOR SHALL MAKE THE NECESSARY CHANGES TO CORRECT THE NOISE OR VIBRATION WITHOUT ADDITIONAL COST TO THE GOVERNMENT.
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER CONNECTIONS TO THE EQUIPMENT PROVIDED UNDER HIS CONTRACT.
- CONTRACTORS AND SUB-CONTRACTORS SHALL CAREFULLY REVIEW THE CONSTRUCTION DOCUMENTS. INFORMATION REGARDING THE COMPLETE WORK IS DISPERSED THROUGHOUT THE DOCUMENT SET AND CANNOT BE ACCURATELY DETERMINED WITHOUT REFERENCE TO THE COMPLETE DOCUMENT SETS.

**DRAWING LEGEND**

- CEILING EXHAUST FAN/GRILLE

**DRAWING SYMBOLS**

- X** DETAIL NUMBER
- M-XXX** DRAWING NUMBER WHERE DRAWN



 CRENshaw CONSULTING www.crenshawconsulting.com NO LICENSE #C-109 2016 South Street, Suite 200 Raleigh, North Carolina 27601 919-871-8070 Fax 871-8680		<b>M-101</b> DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
DES. _____ DR. _____ CHK. _____ SUBMITTED BY: _____ DESIGN DIR. _____ APPROVED: PWO OR OICC DATE _____ SATISFACTORY TO: _____ DATE _____		RENOVATE BATHROOMS - HP55 FLOOR PLANS - MECHANICAL NAVFAC DRAWING NO. <b>60010759</b> CONST. CONTR. NO. N40885-12-B-006 SCALE: AS NOTED SPEC. 05-12-0006 SHEET 18 OF 18	