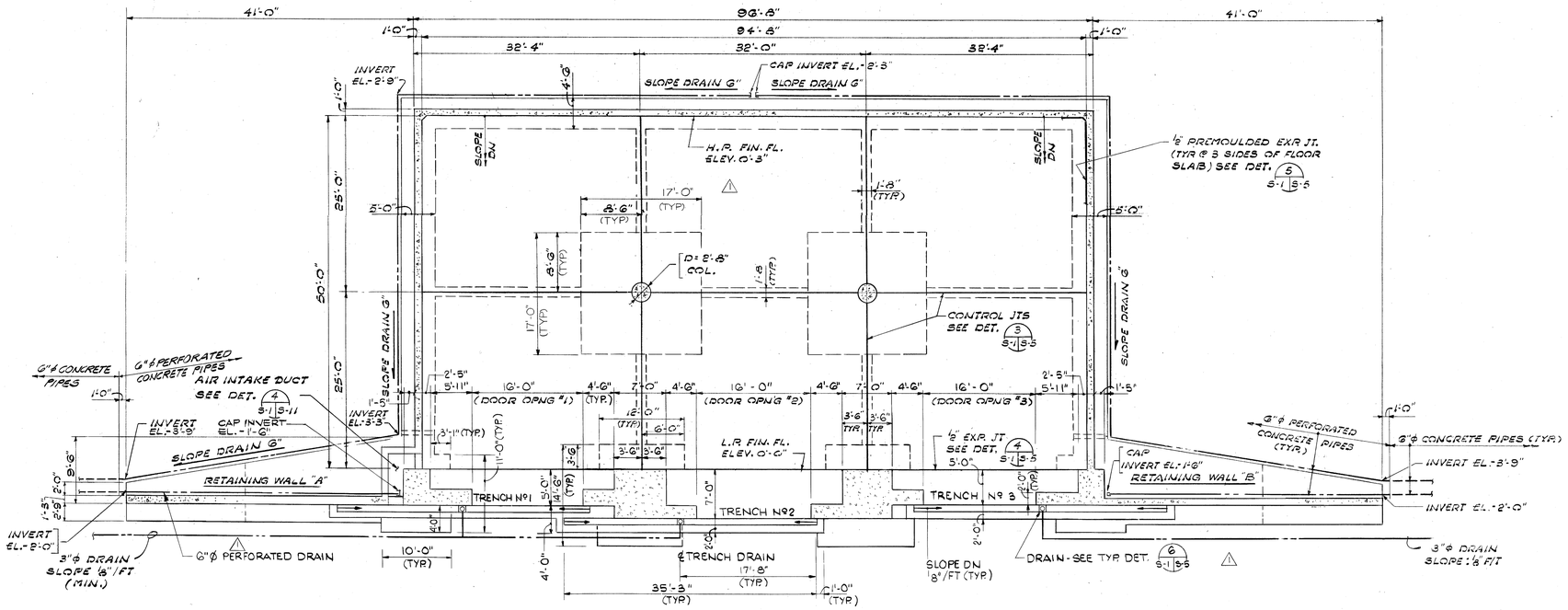
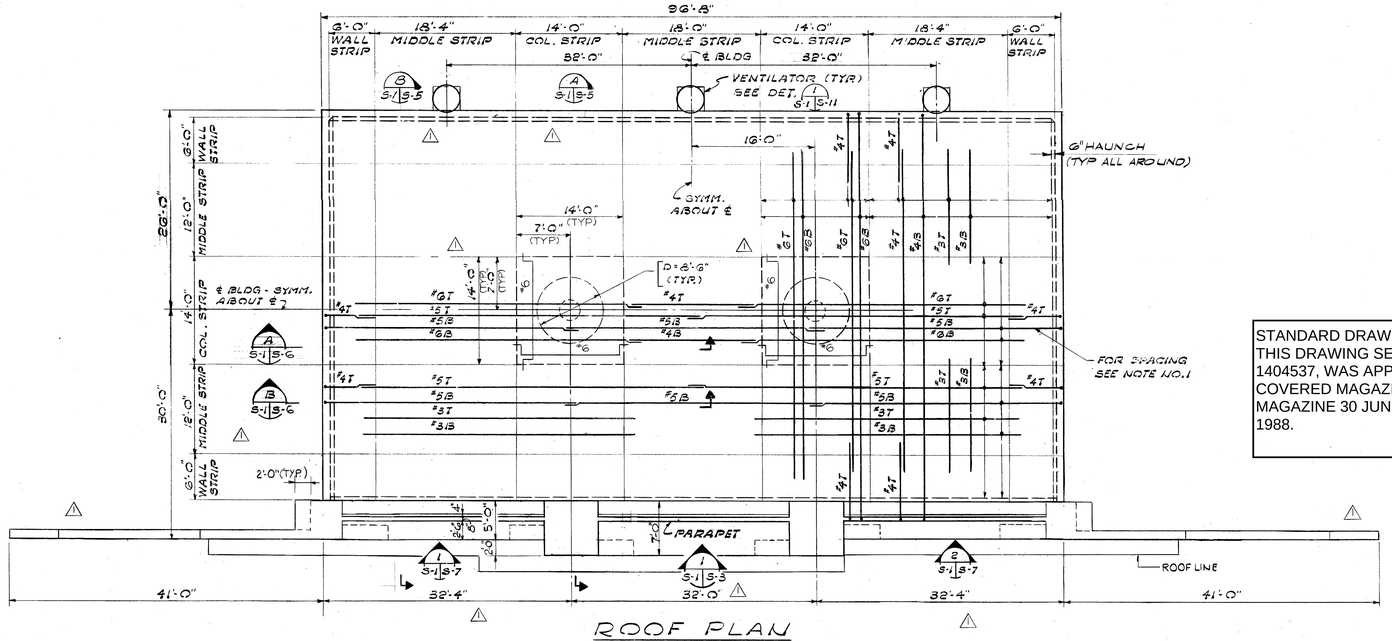


FLOOR PLAN

SCALE: 1/8" = 1'-0"



ROOF PLAN

SCALE: 1/8"=1'-0"

STANDARD DRAWING NOTE:
THIS DRAWING SET, NAVFAC DRAWINGS 14404523 THRU 1404537, WAS APPROVED AS THE STANDARD 7-BAR EARTH COVERED MAGAZINE DESIGN FOR THE TYPE E BOX MAGAZINE 30 JUNE 1987 WITH REVISIONS DATED 9 JUNE 1988.

NOTES:

1. ALL REINF. BARS SHALL BE SPACED @ 10"o.c. UNLESS NOTED OTHERWISE.
2. THE FOLLOWING ELEVATION, SECTIONS AND DETAILS SHALL BE USED FOR MAGAZINE WITH LOADING PLATFORM ONLY.
   - ELEVATION: 2 S-2 S-3, 3 S-2 S-3, 4 S-2 S-3
   - SECTIONS: 4 S-4 S-3, 5 S-4 S-3, 6 S-4 S-3, 1 S-3 S-4, 2 S-3 S-4, A S-4 S-4, B S-4 S-4
   - DETAILS: 1 S-5 S-5, 2 S-5 S-5, C S-4 S-4, D S-4 S-4, 5 S-7 S-7
3. THE FOLLOWING ELEVATION & SECTIONS SHALL BE USED FOR MAGAZINE WITHOUT LOADING PLATFORM ONLY.
   - ELEVATION: 1 S-1 S-3
   - SECTIONS: 1 S-4 S-3, 2 S-4 S-3, 3 S-4 S-3, 1 S-7 S-7
4. ALL OTHER ELEVATIONS, PLANS, SECTIONS AND DETAILS SHALL BE USED FOR MAGAZINE WITH OR WITHOUT LOADING PLATFORM UNLESS NOTED OTHERWISE.
5. FOUR SLAB IN CHECKERBOARD PATTERN. (APPROX. SLAB DIM.: 25'-32')
6. GROUND COVER SHALL BE DETERMINED BY GENERAL SITE FILL MATERIAL AND CLIMATIC CONDITIONS. (GROUND COVER MUST BE MAINTAINED AT MAXIMUM 6" HEIGHT.)
7. IF THE DEPTH OF FOOTINGS (SIDEWALLS, BACKWALL, COLUMNS, PILASTERS & GRADE BEAMS) HAVE TO BE INCREASED EITHER BECAUSE OF THE DEPTH OF FROST OR TO OBTAIN SUITABLE SOIL BEARING CAPACITY AS SPECIFIED, THE VOLUME OF SOIL BETWEEN THE DEPTH OF THE FOOTING SHOWN ON THE DRAWINGS AND THE DEPTH REQUIRED SHALL BE REPLACED WITH CONCRETE. RETAINING WALLS, WHOSE FOOTING DEPTHS MUST BE INCREASED FOR FROST SHALL BE REDESIGNED. IF THE SOIL BEARING CAPACITY IS LESS THAN THAT SPECIFIED THEN THE RETAINING WALL FOOTINGS MUST BE REDESIGNED.

IF THE DRAWING IS A REDUCTION. GRAPHIC SCALE MUST BE USED

1/8" = 1'-0" 5' 0 5' 10' 15'

GENERAL NOTES

MATERIALS AND CONSTRUCTION

1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF f'c = 4,000 PSI AT 28 DAYS.
2. ALL REINFORCING BARS SHALL CONFORM TO THE SPECIFICATION FOR DEFORMED BILLET STEEL BARS FOR CONCRETE REINFORCEMENT, ASTM DESIGNATION A615, GRADE 60.
3. CONCRETE AGGREGATE SHALL HAVE A MAXIMUM SIZE OF 1 INCH.
4. ALL REINFORCING BARS SHALL BE CONTINUOUS IN ANY ONE DIRECTION EXCEPT WHERE OTHERWISE SHOWN ON THE DRAWINGS.
5. EXCEPT AS NOTED, ALL CONCRETE CONSTRUCTION AND DETAILING SHALL CONFORM TO THE LATEST STANDARDS OF THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 315), AND BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318).
5. EXCEPT FOR WELDED WIRE FABRIC, NO WELDING OF REINFORCING BARS SHALL BE PERMITTED UNLESS INDICATED ON DRAWINGS.
7. ALL STRUCTURAL STEEL, METAL DOORS, EQUIPMENT, ETC. SHALL BE CONNECTED TO GROUND BUSES WITH #2 COPPER GROUND CABLE.
8. STRUCTURAL STEEL SHAPES SHALL CONFORM TO THE SPECIFICATION FOR STRUCTURAL CARBON STEEL, ASTM DESIGNATION A36.
9. ALL STRUCTURAL STEEL PLATES SHALL CONFORM TO THE SPECIFICATION FOR HOT-ROLLED, CARBON STEEL SHEET AND STRIP, STRUCTURAL QUALITY, ASTM DESIGNATION A570.
10. METAL ROOFING, SIDING, AND FLASHINGS SHALL CONFORM TO THE SPECIFICATION FOR THE DESIGN OF LIGHT GAUGE COLD-FORMED STRUCTURAL STEEL MEMBERS, LATEST EDITION.
11. FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, LATEST EDITION.
12. WELDING FOR STRUCTURAL STEEL SHALL CONFORM TO THE STRUCTURAL WELDING CODE, AWS D1.1, LATEST EDITION.
13. BOLTS, NUTS AND WASHERS SHALL CONFORM TO THE SPECIFICATION FOR LOW CARBON STEEL THREADED STANDARD FASTENERS, ASTM DESIGNATION A307, GRADE A, AND HIGH STRENGTH BOLTS FOR STRUCTURAL STEEL JOINTS, ASTM DESIGNATION A325. ALL BOLTS SHALL HAVE THREADS EXCLUDED FROM THE SHEAR PLANE.
14. ALL STRUCTURAL STEEL SHALL BE CLEANED AND PAINTED IN ACCORDANCE WITH THE PROCEDURES GIVEN IN NOTES ON SHEET S-9.
15. TOP 12 INCHES OF SUBGRADE SHALL BE COMPACTED TO 95 PERCENT OF MAXIMUM DENSITY, AND EARTH ABOVE STRUCTURE SHALL BE COMPACTED TO 85% OF MAXIMUM DENSITY, EACH IN ACCORDANCE WITH ASTM STANDARD D1557.
16. UNLESS NOTED ON DRAWINGS, SPLICE LENGTH OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318 (LATEST EDITION) FOR CLASS C SPLICES.
17. FOR FILLET WELD SIZES NOT SHOWN ON DRAWINGS, PROVIDE MINIMUM SIZE FILLET WELDS IN ACCORDANCE WITH WELDING CODE AWS D1.1, LATEST EDITION.
18. UNLESS SHOWN OTHERWISE, ALL REINFORCING BAR HOOKS SHALL BE STANDARD HOOKS IN ACCORDANCE WITH BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE ACI 318, LATEST EDITION.
19. SECTION TAKEN ON THIS SHEET NO. — 1 (S1 S3) — SECTION OR ELEV. MARKS — SECTION SHOWN ON THIS SHEET NO. — 3 (S1 S2) — ELEV. SHOWN ON THIS SH. NO. — ELEV. TAKEN ON THIS SH. NO.

SOIL DATA

A.	ASSUMED SOIL BEARING PRESSURE	- 4,000 PSF
B.	ASSUMED DYNAMIC RESPONSE FACTOR (SOIL BEARING)	- 2.5
C.	ASSUMED LATERAL SOIL PRESSURE COEF.:	
	MAGAZINE WALLS	- 0.5
	WING WALLS	- 0.3
D.	ASSUMED COEF. OF FRICTION (CONC. ON SOIL)	- 0.50

DESIGN LOADS

STATIC LOADS:

A.	ROOF DEAD LOAD (½ FT. EARTH FILL +6" GRAVEL)	- 200 PSF
B.	FLOOR LIVE LOAD	- 2,000 PSF
C.	PLATFORM AND RAMP LIVE LOAD	- 1,000 PSF
D.	ROOF LIVE LOAD	- 100 PSF

SEISMIC LOAD:

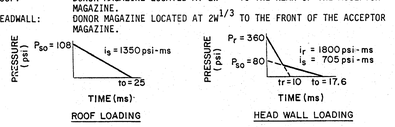
ADEQUATE FOR SEISMIC LOADS INDUCED BY EARTHQUAKE MOTIONS UP TO ZONE 4.

BLAST LOAD:

BASED ON INTERMAGAZINE SEPARATION DISTANCES FOR A QUANTITY (W) OF H.E. EQUAL TO 350,000 LBS AS FOLLOWS:

A. ROOF: DONOR MAGAZINE LOCATED AT $2W^{1/3}$ TO THE REAR OF THE ACCEPTOR MAGAZINE.

B. HEADWALL: DONOR MAGAZINE LOCATED AT $2W^{1/3}$ TO THE FRONT OF THE ACCEPTOR MAGAZINE.



SYMBOL	DESCRIPTION	PREPARED BY	DATE	APPROVED BY
1	REINF., SECT. MARKS	RA	6-9-88	ND

REVISIONS

AMMANN & WHITNEY
CONSULTING ENGINEERS
96 MORTON ST, N.Y.,N.Y.

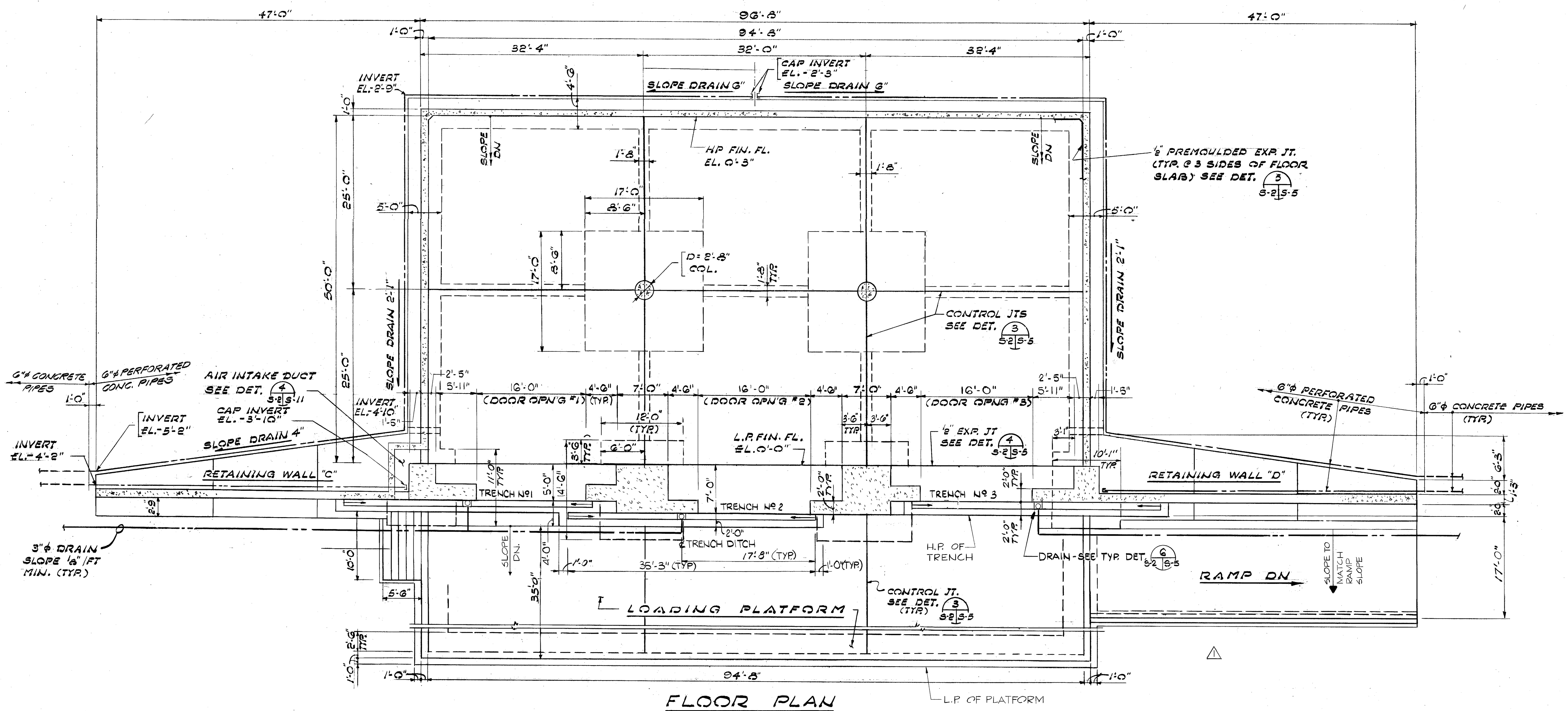
E. LAING, PRINCIPAL — 4-23-87 DATE
NAVFACENGCOM CONTRACT MANAGER
ENGINEER IN CHARGE, BRANCH MANAGER
FIRE PROTECTION ENGINEER — 5/8/87 DATE
CRITERIA MANAGER — DATE
APPROVED — DATE
DOE58 — 6/30/87 DATE
FOR COMMANDER, NAVFACENGCOM — 9/87

DEPARTMENT OF THE NAVY — WASHINGTON, D.C. 20350
NAVAL FACILITIES ENGINEERING COMMAND

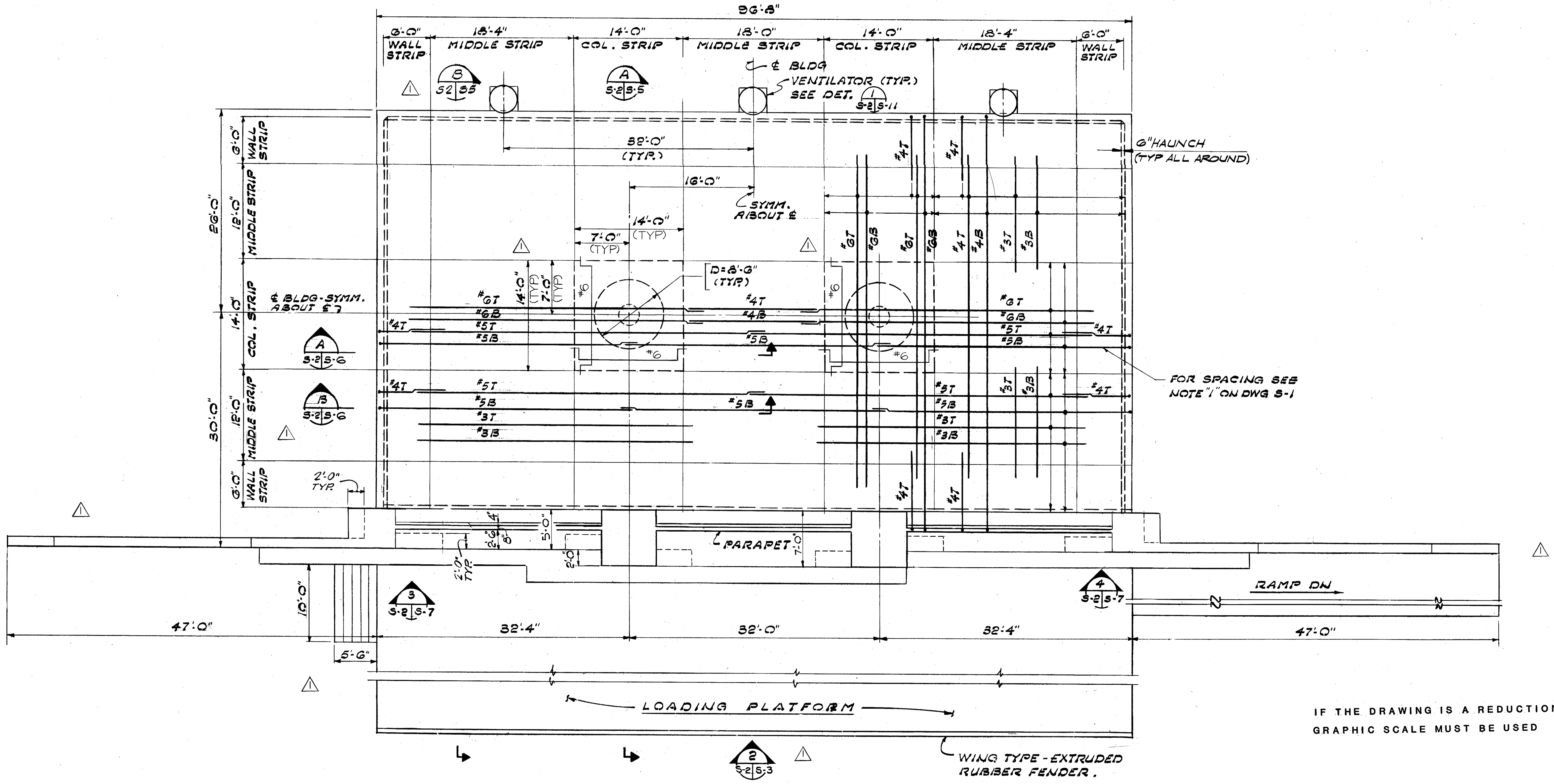
STANDARD DRAWING
BOX MAGAZINE TYPE E
FLOOR PLAN & ROOF PLAN
(WITHOUT EXTERIOR PLATFORM)

SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	SHEET
F	80091	1404523	S-1
SCALE: AS NOTED	CONTRACT NO		OF 15
CATEGORY CODE 421	SPEC NO NFSS-M44		

NOTE:
FOR "GENERAL NOTES, SEE NAVFAC DWG. NO. 1404523



FLOOR PLAN
SCALE: 1/8"=1'-0"



ROOF PLAN
SCALE: 1/8"=1'-0"

IF THE DRAWING IS A REDUCTION, GRAPHIC SCALE MUST BE USED

1/8" = 1'-0"   5' 0 5' 10' 15'

SYMBOL	DESCRIPTION	PREPARED BY	DATE	APPROVED BY
△	REINF.	RA	6-9-88	ND

REVISIONS

AMMANN & WHITNEY
CONSULTING ENGINEERS
96 MORTON ST. N.Y., N.Y.

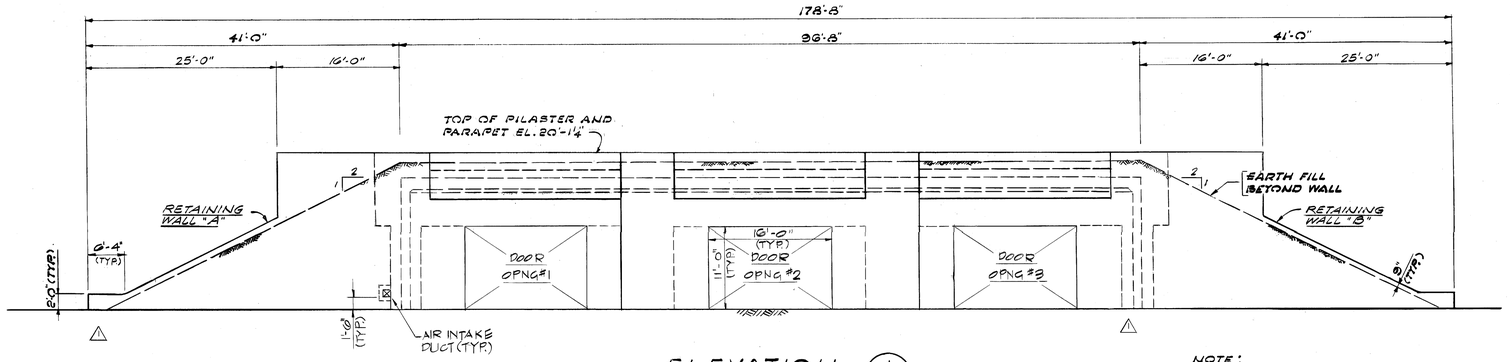
E. LAING — PRINCIPAL — 4-23-87
NAVFACENGCOM
ENGINEER IN CHARGE / BRANCH MANAGER
R. A. Rue — 5/8/87
FIRE PROTECTION ENGINEER — T. R. RUTHERFORD P.E. 4/3/87
CRITERIA MANAGER
APPROVED — 5/5/87
FOR COMMANDER, NAVFACENGCOM
SATISFACTORY TO — DDESB — 6/30/87

DEPARTMENT OF THE NAVY — WASHINGTON, D.C. 20360

NAVAL FACILITIES ENGINEERING COMMAND

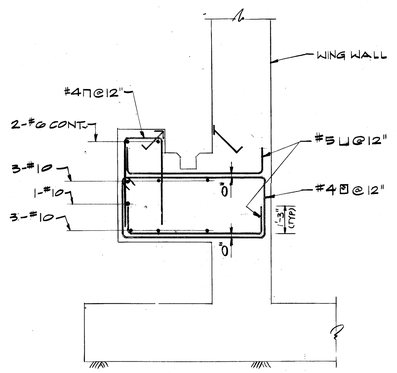
STANDARD DRAWING
BOX MAGAZINE TYPE E
FLOOR PLAN & ROOF PLAN
(WITH EXTERIOR PLATFORM)

SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	
F	80091	1404524	S-2
SCALE AS NOTED		CONTRACT NO	SHEET 2 of 15
CATEGORY CODE 421		SPEC NO NFSS-M44	



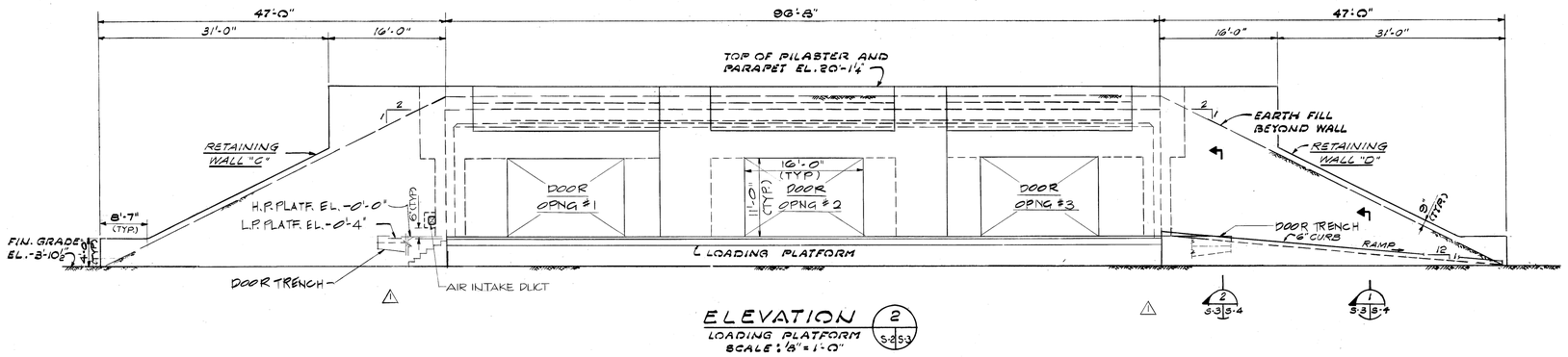
ELEVATION 1 — S-1 | S-3
SCALE: 1/8" = 1'-0"

NOTE:
FOR "RETAINING WALL DETAILS" SEE DWG. S-4.

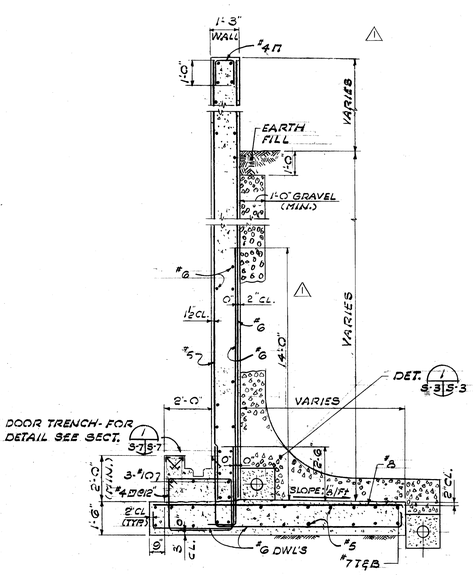


TYPICAL REINFORCING DETAIL - OVERHANG DOOR TRENCH

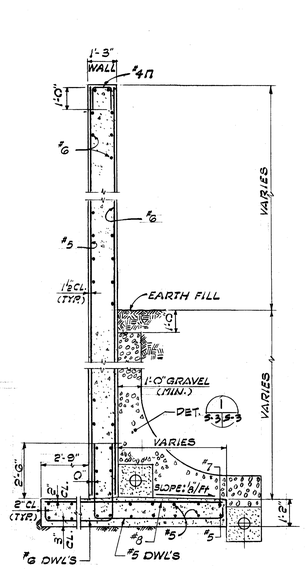
DETAIL 2 — S-3 | S-3



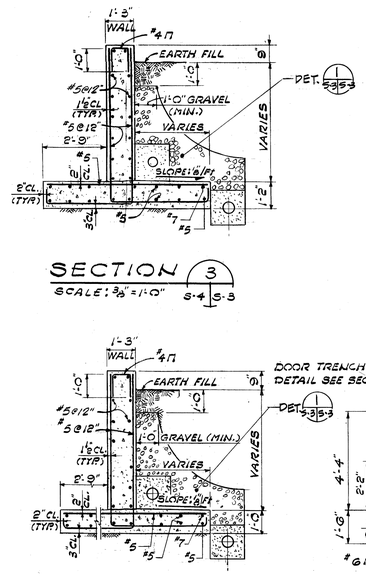
ELEVATION 2 — S-2 | S-3
LOADING PLATFORM
SCALE: 3/8" = 1'-0"



SECTION 1
SCALE: 3/8" = 1'-0" — S-4 | S-3

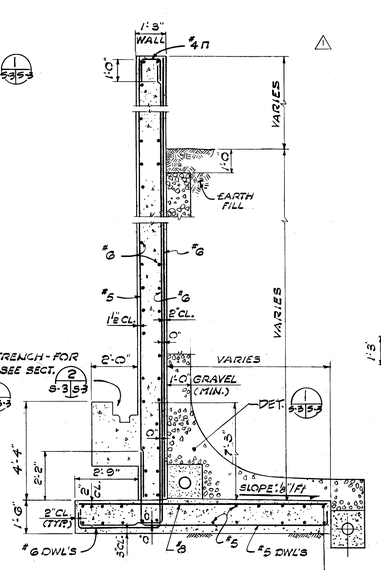


SECTION 2
SCALE: 3/8" = 1'-0" — S-4 | S-3

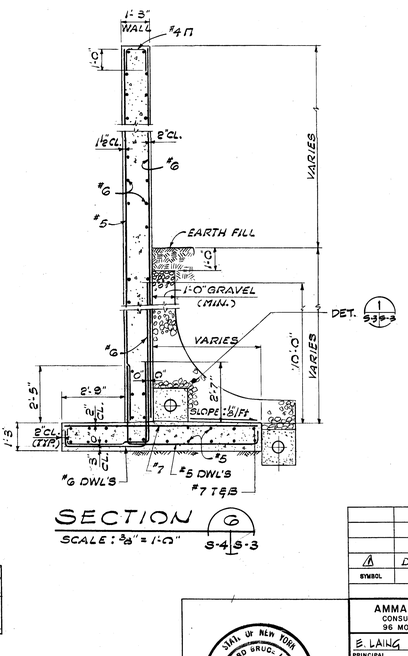


SECTION 3
SCALE: 3/8" = 1'-0" — S-4 | S-3

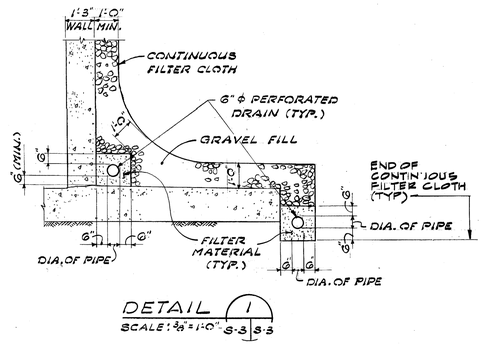
SECTION 4
SCALE: 3/8" = 1'-0" — S-4 | S-3



SECTION 5
SCALE: 3/8" = 1'-0" — S-4 | S-3



SECTION 6
SCALE: 3/8" = 1'-0" — S-4 | S-3



DETAIL 1 — S-3 | S-3
SCALE: 3/8" = 1'-0"

(TYPICAL 6" ϕ PERFORATED DRAIN)

IF THE DRAWING IS A REDUCTION GRAPHIC SCALE MUST BE USED

1/8" = 1'-0" 5' 0 5' 10' 15'

3/8" = 1'-0" 1' 0 1' 2' 3' 4' 5' 6' 7'

SYMBOL	DESCRIPTION	PREPARED BY	DATE	APPROVED BY
1	DIMEN'S NOTES	RA	6-9-88	ND

REVISIONS

SEAL OF NEW YORK — EDWARD GRUCCI — LICENSED PROFESSIONAL ENGINEER

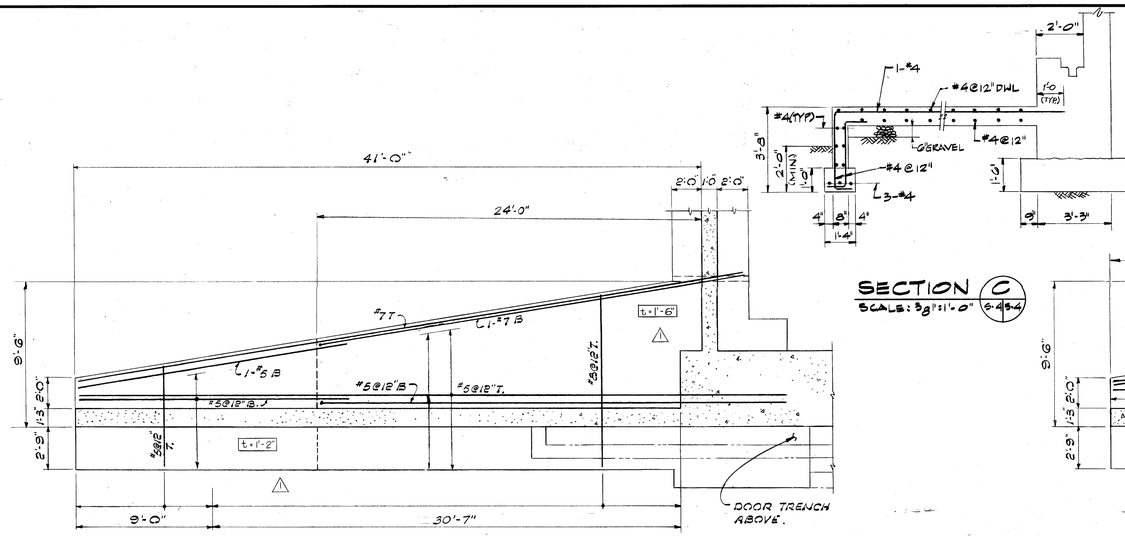
AMMANN & WHITNEY
CONSULTING ENGINEERS
96 MORTON ST. N.Y.N.Y.

E. LAING, PRINCIPAL — 4-23-87 DATE
NAVFACENGCOM
ENGINEER IN CHARGE — BRANCH MANAGER
FIRE PROTECTION ENGINEER — 5/8/87 DATE
CRITERIA MANAGER — DATE
APPROVED — DATE
NAVFACENGCOM

SATISFACTORY TO — DOES 6/30/87 DATE
NAVFACENGCOM

DEPARTMENT OF THE NAVY — WASHINGTON, D.C. 20350
NAVAL FACILITIES ENGINEERING COMMAND
STANDARD DRAWING
BOX MAGAZINE TYPE E
FRONT ELEVATION & RETAINING WALL DETAILS

SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	
F	80091	1404525	S-3
SCALE	AS NOTED	CONTRACT NO	SHEET 3
CATEGORY CODE	421	SPEC NO NFSS-M44	OF 15

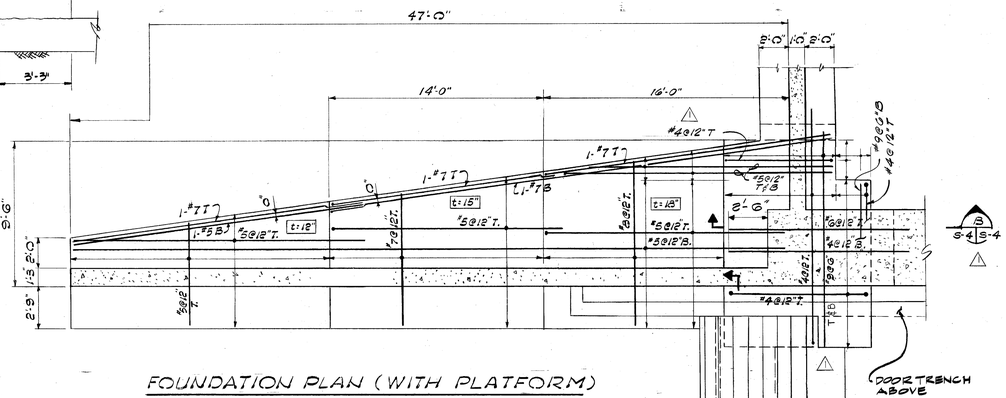


FOUNDATION PLAN (WITHOUT PLATFORM)

(RETAINING WALL "A" AS SHOWN)
(RETAINING WALL "B" OPP. HAND)
SCALE: 1/4" = 1'-0"

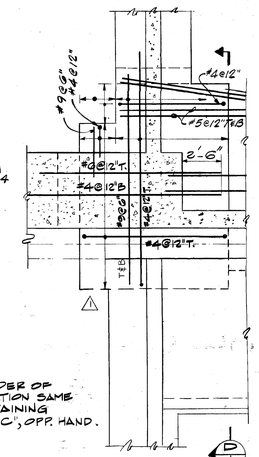
SECTION C

SCALE: 3/8"=1'-0" S-4 | S-4



FOUNDATION PLAN (WITH PLATFORM)

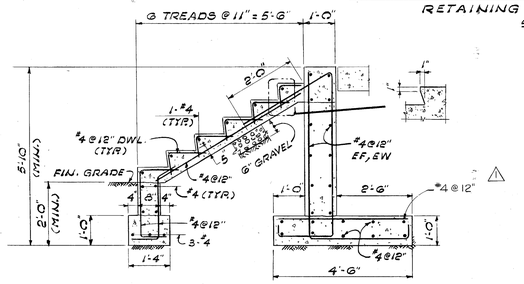
RETAINING WALL "C" - AS SHOWN
SCALE: 1/4"=1'-0"



NOTE:
REMAINDER OF FOUNDATION SAME AS "RETAINING WALL "C", OPP. HAND.

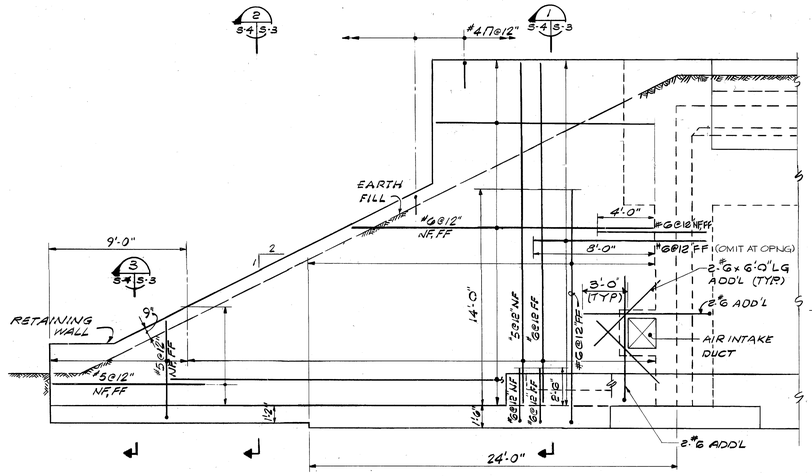
FOUNDATION PLAN (WITH PLATFORM) RETAINING WALL "D" AS SHOWN

SCALE: 1/4" = 1'-0"



SECTION A

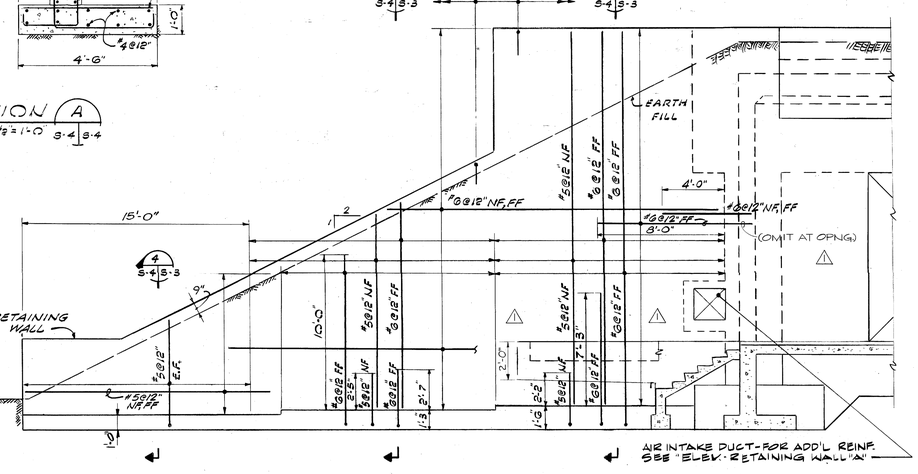
SCALE: 1/2"=1'-0" S-4 | S-4



DETAILS SHOWN FOR AIR INTAKE DUCT APPLY TO WALLS "A" & "C" ONLY

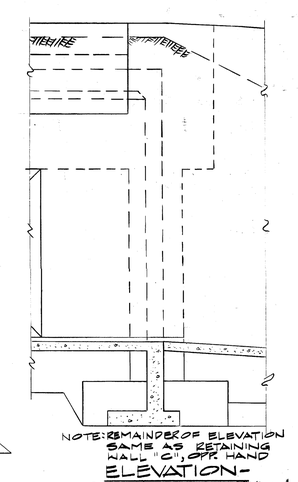
ELEVATION - RETAINING WALL "A" (WITHOUT PLATFORM)

RETAINING WALL "B" OPP. HAND SIMILAR
SCALE: 1/4"=1'-0"



ELEVATION - RETAINING WALL "C" (WITH PLATFORM)

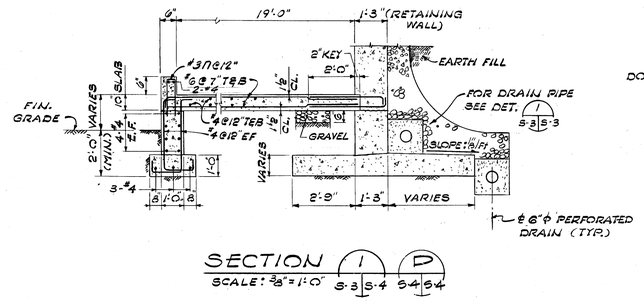
SCALE: 1/4"=1'-0"



NOTE: REMAINDER OF ELEVATION SAME AS RETAINING WALL "C", OPP. HAND

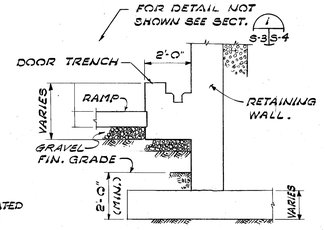
ELEVATION - RETAINING WALL "D" (WITH PLATFORM)

SCALE: 1/4"=1'-0"



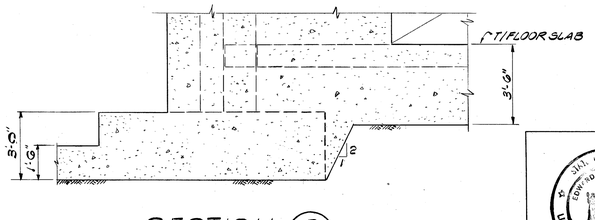
SECTION 1 D

SCALE: 3/8"=1'-0" S-3 | S-4 S-4 | S-4



SECTION 2

SCALE: 3/8"=1'-0" S-3 | S-4



SECTION B

SCALE: 3/8"=1'-0" S-4 | S-4

IF THE DRAWING IS A REDUCTION, GRAPHIC SCALE MUST BE USED

1/4" = 1'-0" 5' 0 5'

1/2" = 1'-0" 1' 0 1' 2' 3' 4' 5'

3/8" = 1'-0" 1' 0 1' 2' 3' 4' 5' 6' 7'

SYMBOL	DESCRIPTION	PREPARED BY	DATE	APPROVED BY
1	REINF. DIMEN'S.	RA	6-9-88	ND

REVISIONS

SATISFACTORY TO: DOESS — DATE 12/8/87

STATE OF NEW YORK — EDWARD DOUG LAING — 33661 — LICENSED PROFESSIONAL ENGINEER

AMMANN & WHITNEY
CONSULTING ENGINEERS
96 MORTON ST. N.Y.,N.Y.

E LAING — PRINCIPAL — 4-23-87 DATE

NAVFACENGCOM

ENGINEER IN CHARGE — BRANCH MANAGER

FIRE PROTECTION ENGINEER — 5/6/87 DATE

CRITERIA MANAGER — I.R. RICHTERFORD P.E. — 5/8/87 DATE

APPROVED — 5/19/87 DATE

FOR COMMANDER, NAVFACENGCOM

DEPARTMENT OF THE NAVY — WASHINGTON, D.C. 20350

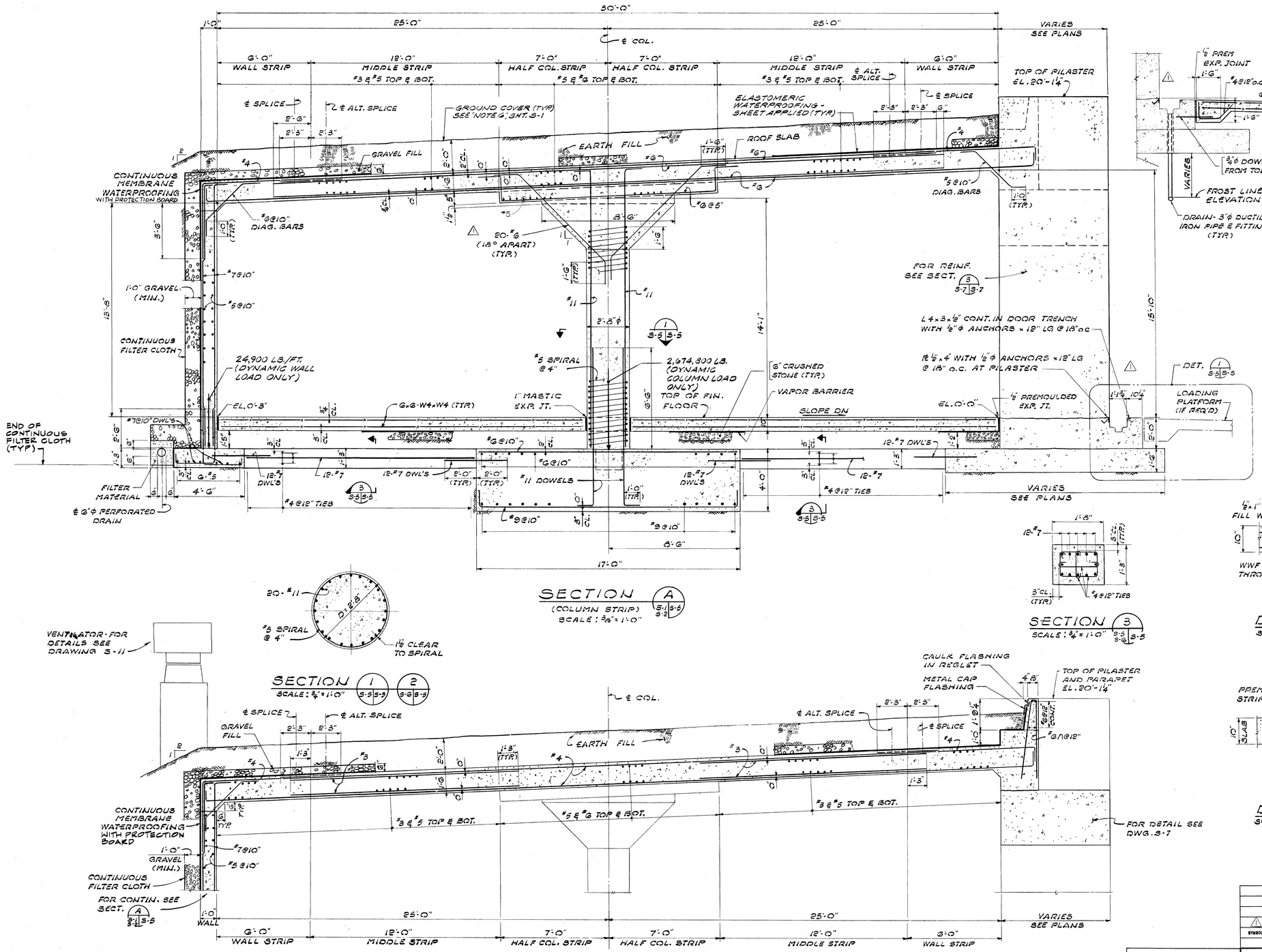
NAVAL FACILITIES ENGINEERING COMMAND

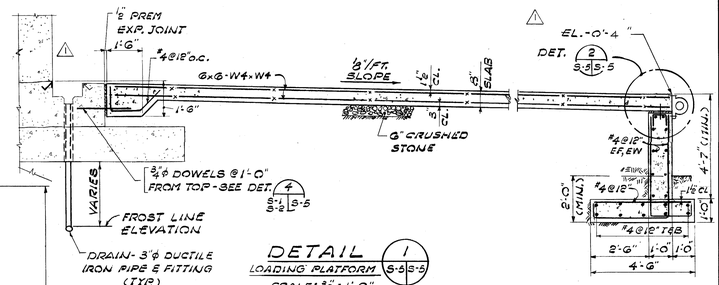
STANDARD DRAWING

BOX MAGAZINE TYPE E

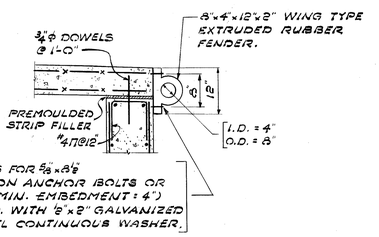
FRONT ELEVATION & RETAINING WALL DETAILS

SIZE	CODE IDENT NO	MANFAC DRAWING NUMBER	S-4
F	80091	1404526	
SCALE	AS NOTED	CONTRACT NO	SHEET 4
CATEGORY CODE	421	SPEC NO NFSS-M44	OF 15

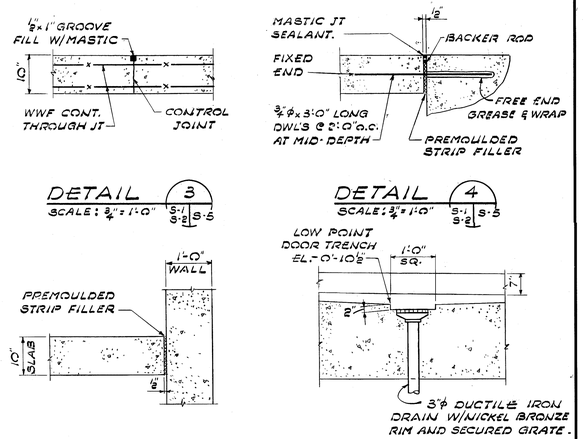




DETAIL 1
LOADING PLATFORM S-5 | S-5
SCALE: ⅜" = 1'-0"



DETAIL 2
SCALE: ¾" = 1'-0" S-5 | S-5



DETAIL 3
SCALE: ¾" = 1'-0" S-5 | S-5

DETAIL 4
SCALE: ¾" = 1'-0" S-5 | S-5

DETAIL 5
SCALE: ¾" = 1'-0" S-5 | S-5

DETAIL 6
SCALE: ¾" = 1'-0" S-5 | S-5

SECTION A
(COLUMN STRIP) S-1 | S-5 S-2
SCALE: ⅜" = 1'-0"

SECTION 1 2
SCALE: ¾" = 1'-0" S-5 | S-5 S-6 | S-5

SECTION B
(TYP. FOR WALL & MIDDLE STRIPS) S-1 | S-5 S-2
SCALE: ⅜" = 1'-0"

SECTION 3
SCALE: ¾" = 1'-0" S-5 | S-5 S-6 | S-5

IF THE DRAWING IS A REDUCTION, GRAPHIC SCALE MUST BE USED

3/8" = 1'-0" 1' 0 1' 2' 3' 4' 5' 6' 7'

3/4" = 1'-0" 1' 0 1' 2' 3'

SYMBOL	DESCRIPTION	PREPARED BY	DATE	APPROVED BY
1	REINF	RA	6-9-88	ND

REVISIONS

STATE OF NEW YORK — EDWARD BRUCE LAING — 46611 — LICENSED PROFESSIONAL ENGINEER

AMMANN & WHITNEY
CONSULTING ENGINEERS
96 MORTON ST. N.Y.,N.Y.

E. LAING 4-23-87
PRINCIPAL DATE
NAVFACENGCOM

ENGINEER IN CHARGE — BRANCH MANAGER

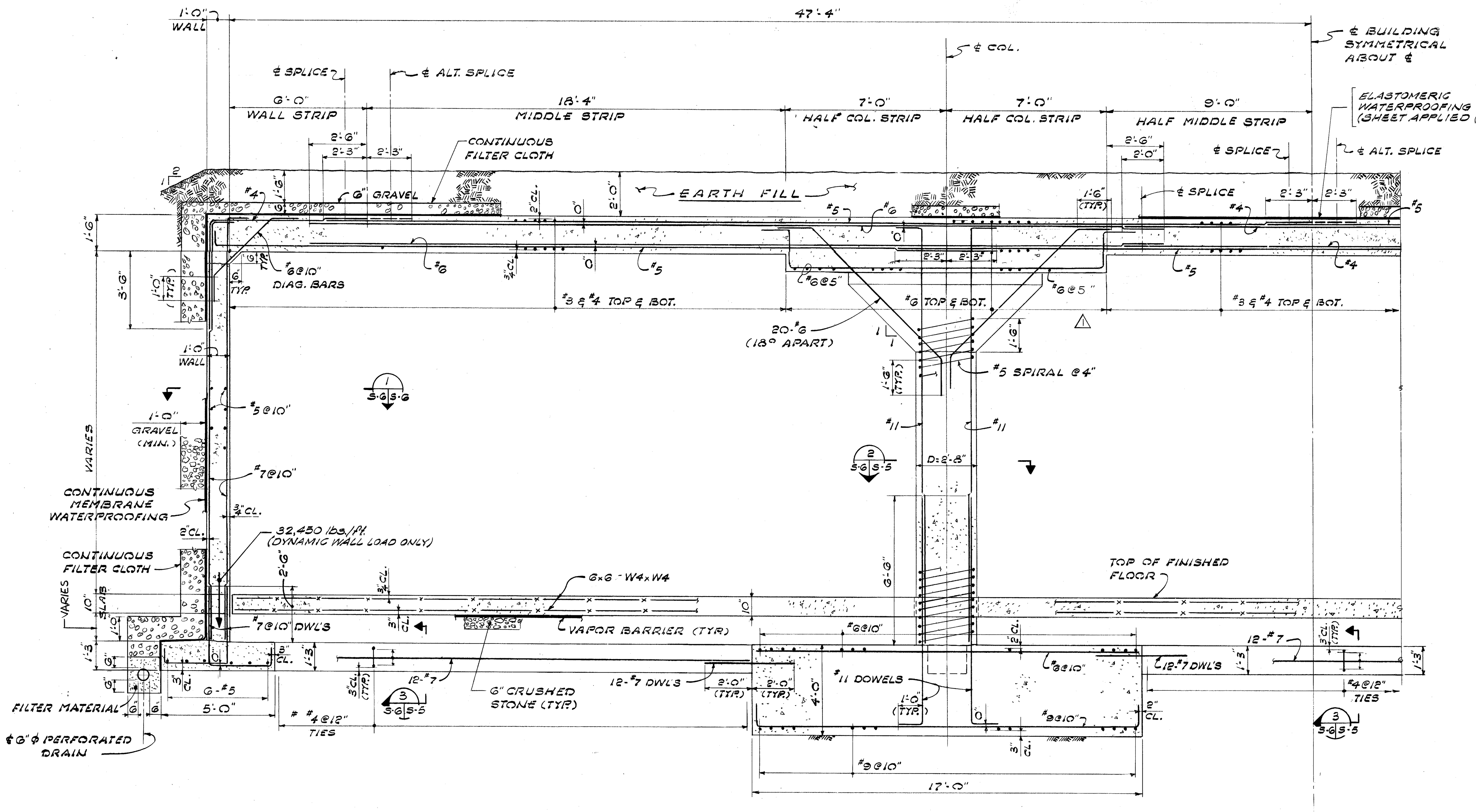
R.A. Rice 5/8/87
FIRE PROTECTION ENGINEER DATE
T.R. RUTHERFORD PE 5/8/87
CRITERIA MANAGER DATE
APPROVED

SATISFACTORY TO: DOE Price 6/30/87
DOESS DATE

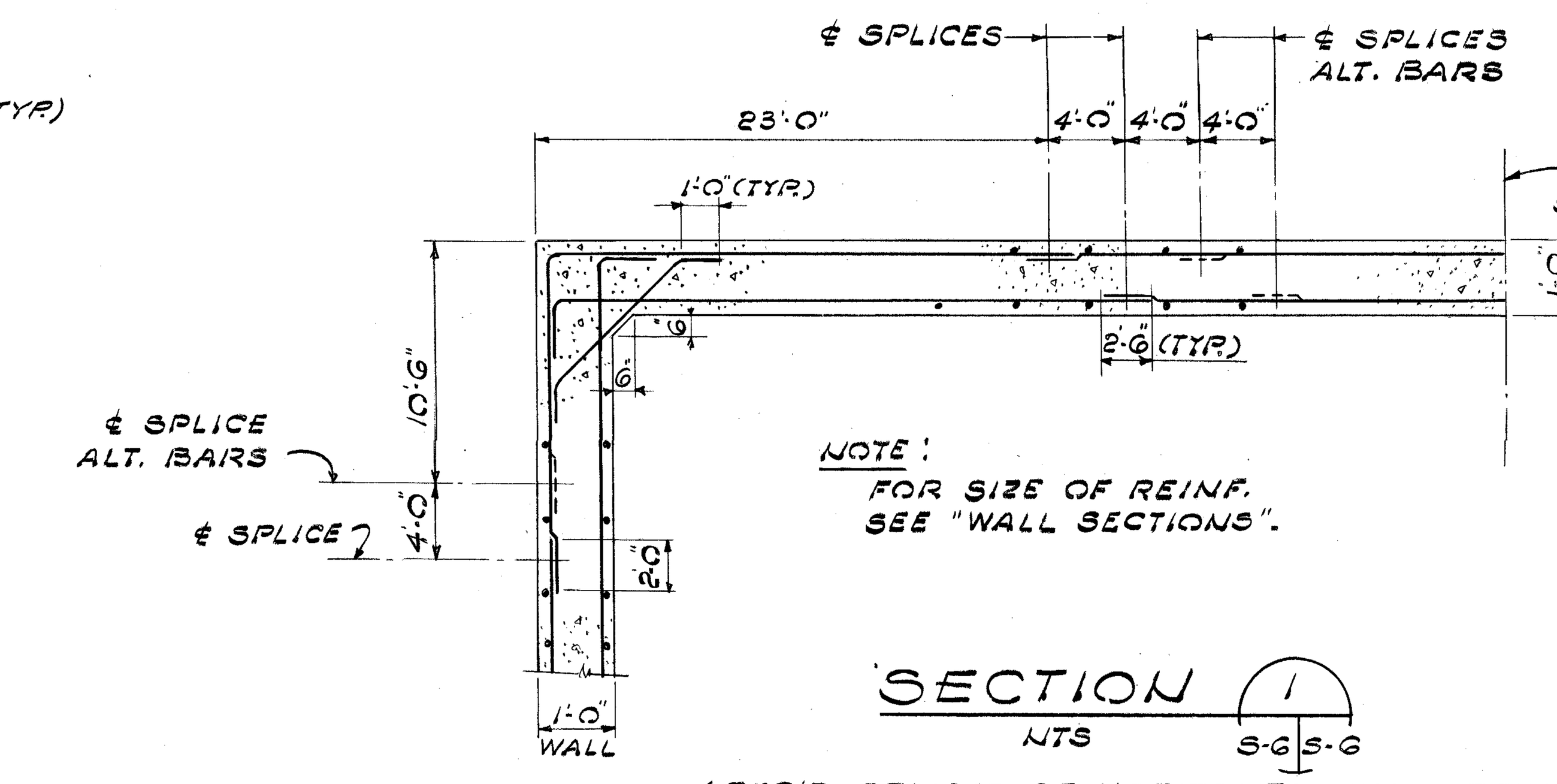
FOR COMMANDER, NAVFACENGCOM 6/9/87

DEPARTMENT OF THE NAVY — WASHINGTON, D.C. 20350
NAVAL FACILITIES ENGINEERING COMMAND
STANDARD DRAWING
BOX MAGAZINE TYPE E
SECTIONS & DETAILS

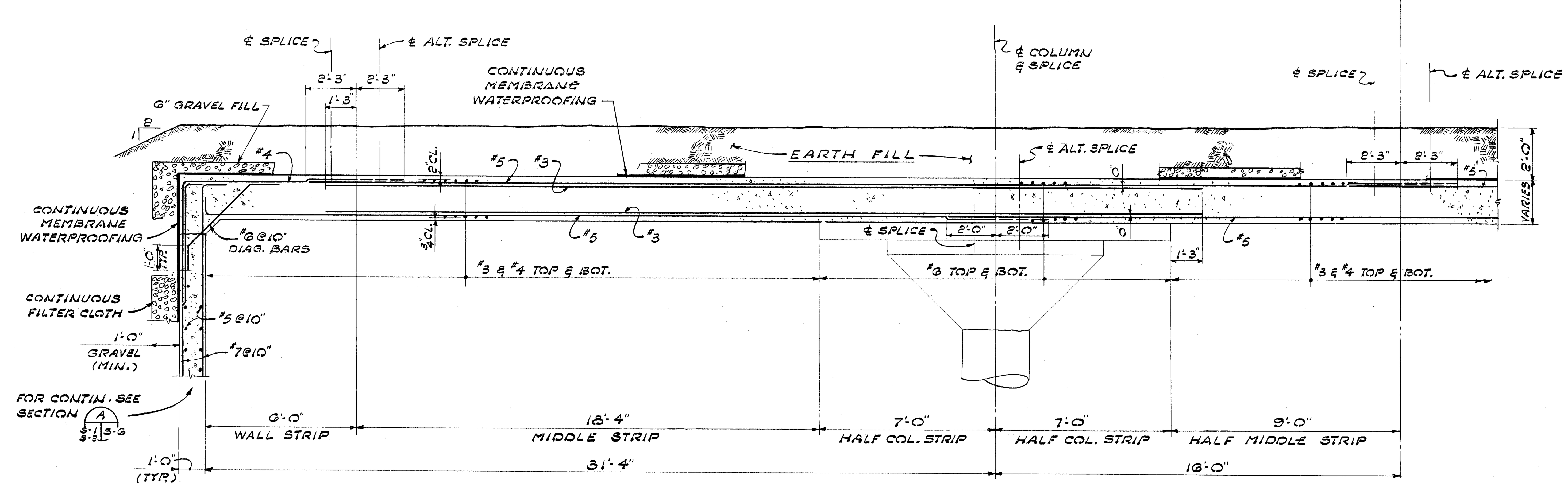
SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	
F	80091	1404527	S-5
SCALE AS NOTED		CONTRACT NO	SHEET 5
CATEGORY CODE 421		SPEC NO NFSS-M44	OF 15



SECTION A
(COLUMN STRIP) S-1 S-2 S6
Scale: 3/8" = 1'-0"



SECTION 1
NTS S-6 S-6
(REQ'D SPLICES OF HORIZONTAL WALL REINF.)



SECTION B
(TYP. FOR WALL & MIDDLE STRIPS) S-1 S-2 S6
SCALE: 3/8" = 1'-0"

IF THE DRAWING IS A REDUCTION, GRAPHIC SCALE MUST BE USED

3/8" = 1'-0" 1' 0 1' 2' 3' 4' 5' 6' 7'

1-1/2" = 1'-0" 12" 6" 0 1'

SYMBOL	DESCRIPTION	PREPARED BY	DATE	APPROVED BY
1	REINF. SPACING SECT. "A"	RA	6-9-88	ND

REVISIONS

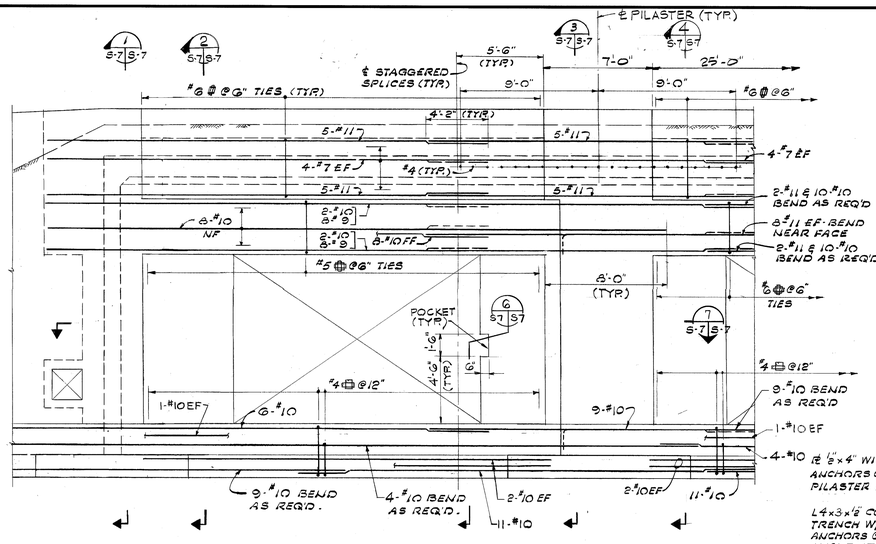
AMMANN & WHITNEY
CONSULTING ENGINEERS
96 MORTON ST. N.Y., N.Y.
E. LAING 4-23-87 PRINCIPAL DATE

DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350
NAVAL FACILITIES ENGINEERING COMMAND
STANDARD DRAWING
BOX MAGAZINE TYPE E
SECTIONS & DETAILS

SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	
F	80091	1404528	S-6

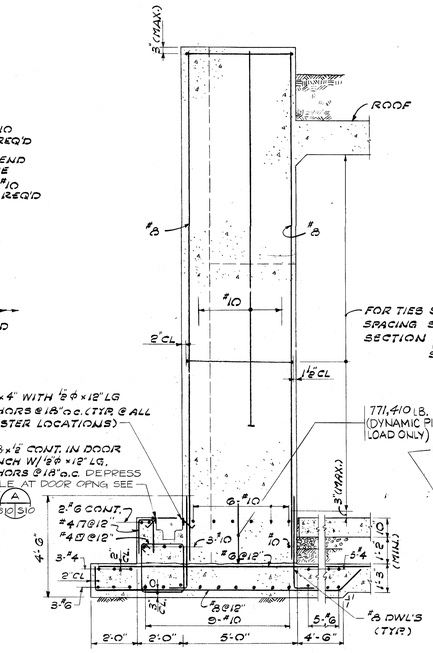
SCALE AS NOTED | CONTRACT NO | SHEET 6
CATEGORY CODE 421 | SPEC NO NFSS-M44 | OF 15

ENGINEER IN CHARGE | BRANCH MANAGER
R.A. Rue 5/1/87 FIRE PROTECTION ENGINEER
T. R. RUTERFORD P.E. 5/8/87 CRITERIA MANAGER
APPROVED DATE 6/3/87
SATISFACTORY TO DATE 6/30/87 DDESB

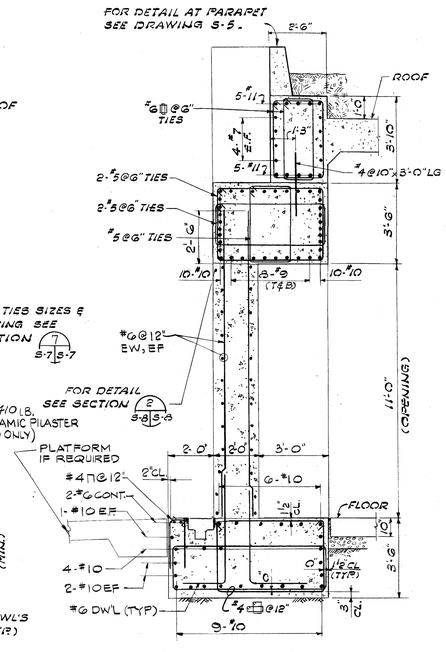


ELEVATION 1 SHOWN
SCALE: 1/4" = 1'-0" S-1 | S-7

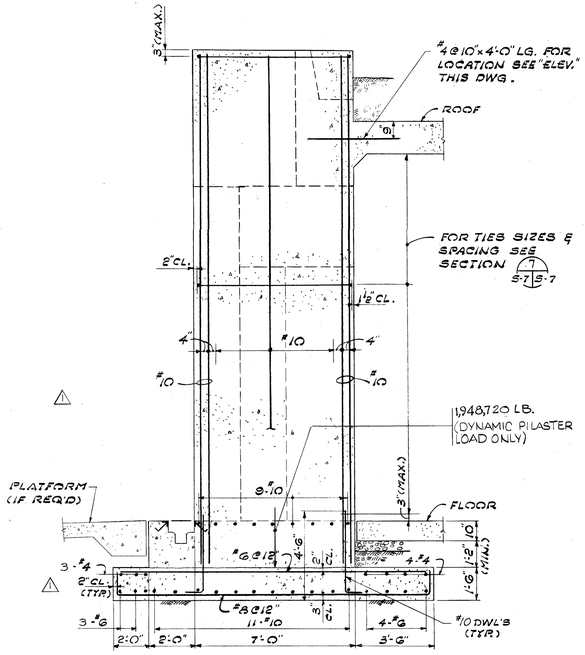
ELEVATION 2 OPP. HAND
S-1 | S-7



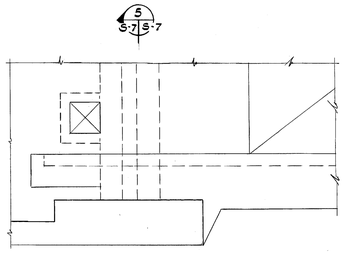
SECTION 1
SCALE: 3/8" = 1'-0" S-7 | S-7



SECTION 2
SCALE: 3/8" = 1'-0" S-7 | S-7

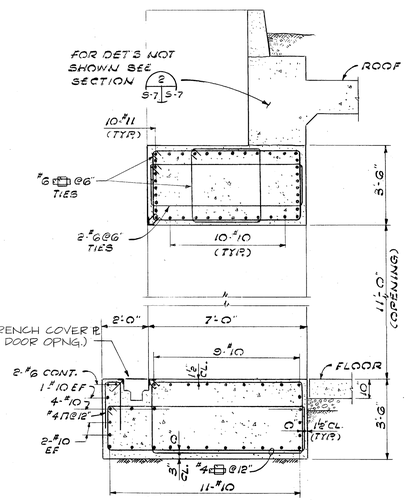


SECTION 3
SCALE: 3/8" = 1'-0" S-7 | S-7

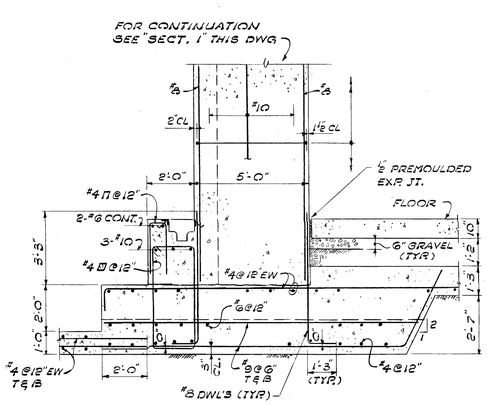


ELEVATION 3 SHOWN
SCALE: 1/4" = 1'-0" S-8 | S-7

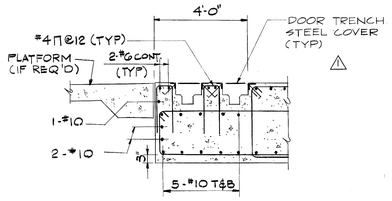
ELEVATION 4 OPP. HAND
S-8 | S-7



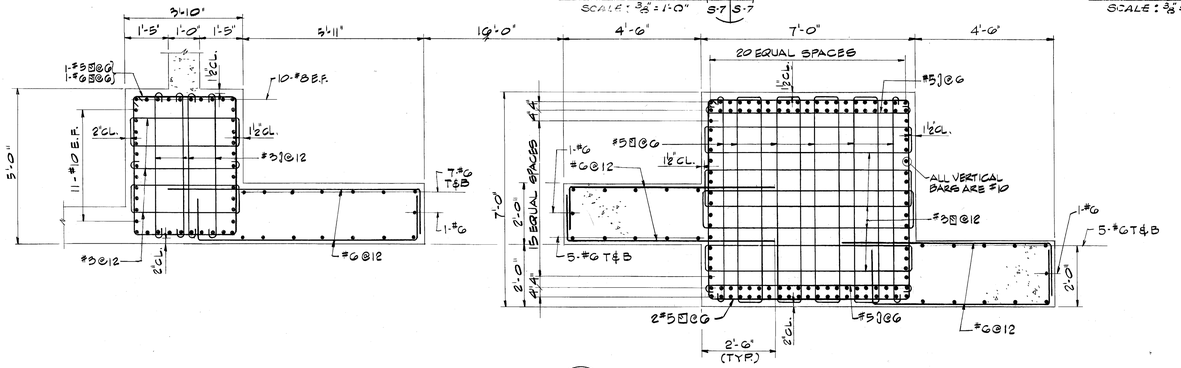
SECTION 4
SCALE: 3/8" = 1'-0" S-7 | S-7



SECTION 5
SCALE: 3/8" = 1'-0" S-7 | S-7



SECTION 6
SCALE: 3/8" = 1'-0" S-7 | S-7



SECTION 7
SCALE: 1/2" = 1'-0" S-7 | S-7

NOTE:
1. ALL PILASTERS SHALL BE PLUMB, ALLOWABLE DEVIATION FROM THE VERTICAL SHALL NOT EXCEED 4" PER 10'-0" VERTICAL HEIGHT.
⚠ 2. PROVIDE DOWELS FOR ALL VERTICAL BARS IN PILASTER & WALLS.

IF THE DRAWING IS A REDUCTION, GRAPHIC SCALE MUST BE USED

1/4" = 1'-0" 5' 0 5'

3/8" = 1'-0" 1' 0 1' 2' 3' 4' 5' 6' 7'

1/2" = 1'-0" 1' 0 1' 2' 3' 4' 5'

SYMBOL	DESCRIPTION	PREPARED BY	DATE	APPROVED BY
⚠	ADDED NOTE #2	FJW	5-16-88	ND

REVISIONS

STATE OF NEW YORK — EDWARD CRUZ — LICENSED PROFESSIONAL ENGINEER

AMMANN & WHITNEY
CONSULTING ENGINEERS
96 MORTON ST. N.Y., N.Y.

E. LAING 4.23.87
PRINCIPAL DATE

NAVFACENGCOM
ENGINEER IN CHARGE BRANCH MANAGER
5/8/87

FIRE PROTECTION ENGINEER
T.R. SCHNEBERGER PE 5/8/87
CRITERIA MANAGER DATE

APPROVED 5/9/87
NAVFACENGCOM DATE

DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350

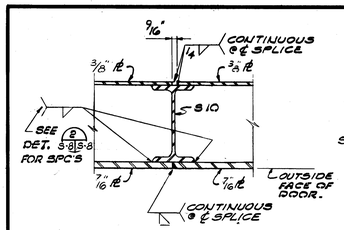
NAVAL FACILITIES ENGINEERING COMMAND

STANDARD DRAWING

BOX MAGAZINE TYPE E
PILASTER & MISCELLANEOUS DETAILS

SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	
F	80091	1404529	S-7
SCALE AS NOTED	CONTRACT NO		SHEET 7
CATEGORY CODE 421	SPEC NO NFSS-M44		OF 15

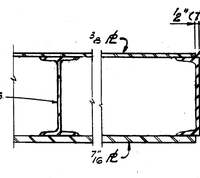
SATISFACTORY FOR DOCKS: L.D. Price 5/20/87 DATE



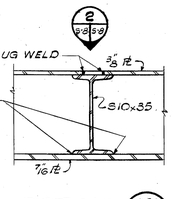
NOTE: COVER ℓ's SHALL BE SPLICED ONLY AS REQUIRED BY THE SIZE OF ℓ's AVAILABLE. LOCATION OF SPLICE(S) SHALL BE DETERMINED BY THE CONTRACTOR & THE SPLICE(S) SHALL CONFORM TO THIS DETAIL

COVER ℓ SPLICE DETAIL

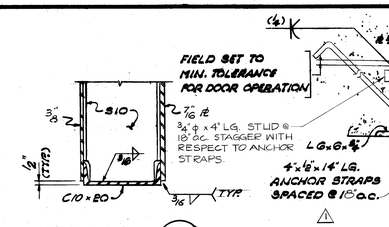
SCALE: 1½" = 1'-0"



DETAIL 1 S-8 S-8



DETAIL 2 S-8 S-8

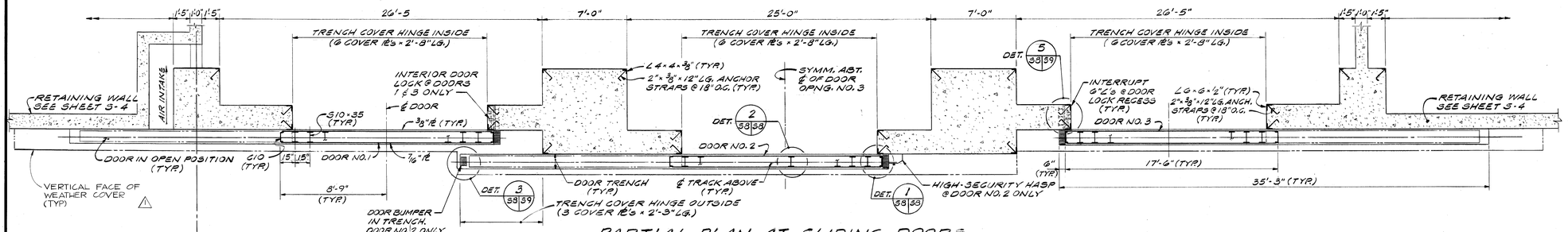


SECTION 1 S-8 S-8

SECTION 2 S-8 S-8

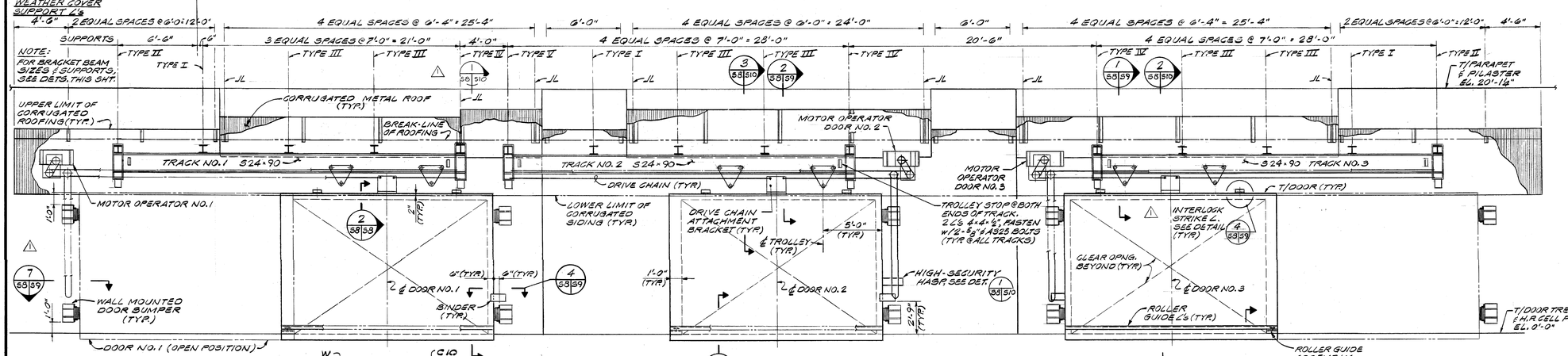
TYPICAL DOOR DETAILS

SCALE: 1 1/2" x 1'-0"



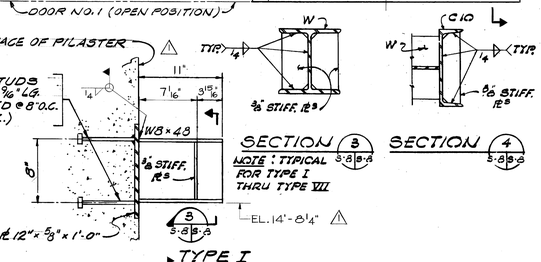
PARTIAL PLAN AT SLIDING DOORS

SCALE: 1/4" = 1'-0"



ELEVATION 1

SCALE: 1/4" = 1'-0"

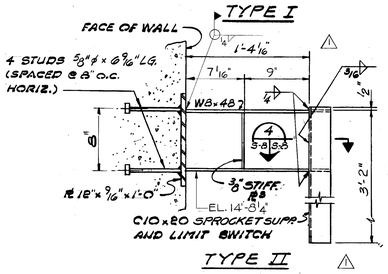


SECTION 3 S-8 S-8

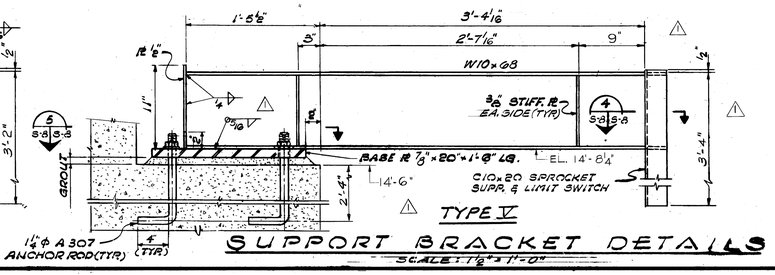
NOTE: TYPICAL FOR TYPE I THRU TYPE VII

SECTION 4 S-8 S-8

TYPE I



TYPE II



TYPE V

SUPPORT BRACKET DETAILS

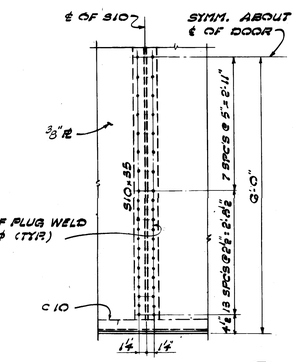
SCALE: 1½" = 1'-0"

IF THE DRAWING IS A REDUCTION, GRAPHIC SCALES MUST BE USED.

1/4" = 1'-0" 5' 0 5'

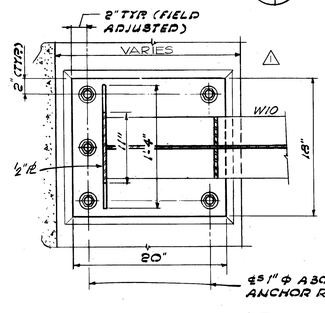
3/4" = 1'-0" 1' 0 1' 2' 3'

1-1/2" = 1'-0" 12' 6" 0 1'



ELEVATION 2 S-8 S-8

SCALE: ¾" = 1'-0"

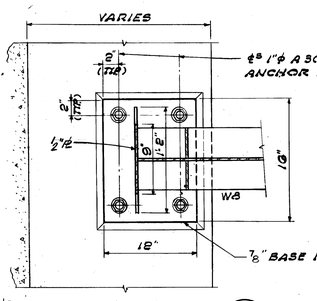


SECTION 5 S-8 S-8

SCALE: 1½" = 1'-0"

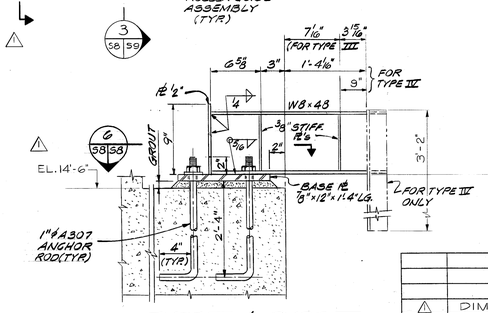
NOTE: PROVIDE EMBEDDED ℓ's & SUITABLE ANCHORS TO SUPPORT DOOR MOTOR OPERATORS.

NOTE: FOR PAINTING REQUIREMENTS, SEE SHEET 9



SECTION 6 S-8 S-8

SCALE: 1½" = 1'-0"



TYPE III & TYPE IV

SYMBOL	DESCRIPTION	PREPARED BY	DATE	APPROVED BY
△	DIMEN'S, NOTES	RA	6-9-88	ND

REVISIONS

AMMANN & WHITNEY
CONSULTING ENGINEERS
96 MORTON ST. N.Y., N.Y.

E. LAING, PRINCIPAL, 4-26-87, DATE
NAVFACENGCOM
ENGINEER IN CHARGE, BRANCH MANAGER
FIRE PROTECTION ENGINEER, DATE
CRITERIA MANAGER, DATE
APPROVED, DATE
SATISFACTORY TO, DOES, 6/30/87, DATE
FOR COMMANDER, NAVFACENGCOM, 6/9/87, DATE

DEPARTMENT OF THE NAVY — WASHINGTON, D.C. 20350

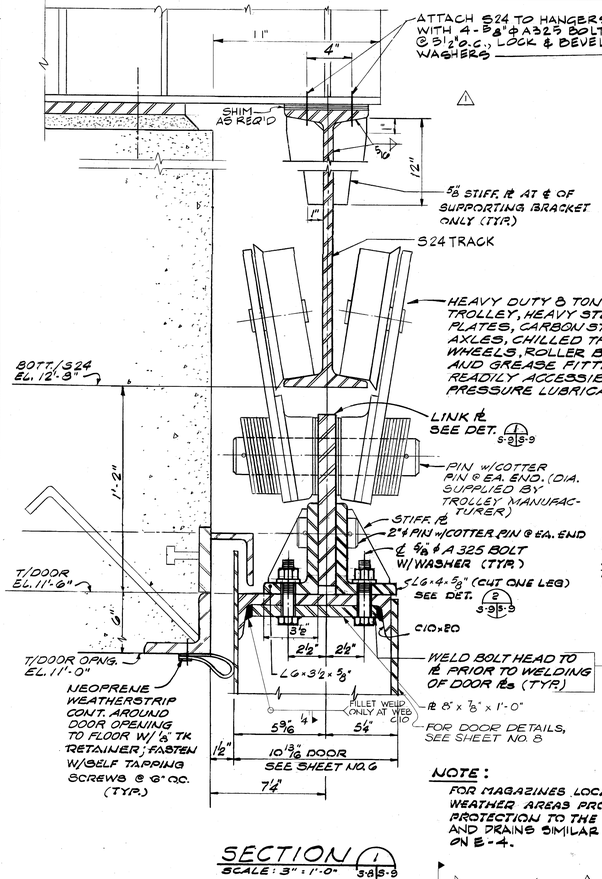
NAVAL FACILITIES ENGINEERING COMMAND

STANDARD DRAWING

BOX MAGAZINE TYPE E

SLIDING DOOR DETAILS

SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	S-8
F	80091	1404530	
SCALE AS NOTED	CONTRACT NO		SHEET 8
CATEGORY CODE 421	SPEC NO NFSS-M44		OF 15



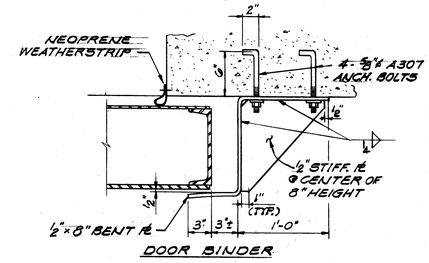
SECTION 1
SCALE: 3" = 1'-0" 3-8 S-9

TROLLEY ASSEMBLY

SECTION 2
SCALE: 3" = 1'-0" S-8 S-9

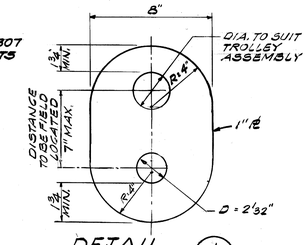
DRIVE CHAIN ATTACHMENT BRACKET

NOTE:
FOR MAGAZINES LOCATED IN COLD WEATHER AREAS PROVIDE FREEZE PROTECTION TO THE DOOR TRENCH AND DRAINS SIMILAR TO THAT SHOWN ON E-4.



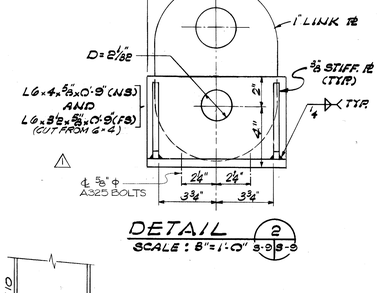
DOOR BINDER

SECTION 4
SCALE: 1½" = 1'-0" 3-8 S-9



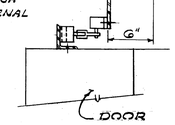
DETAIL 1
SCALE: 8" = 1'-0" 3-9 S-9

LINK PL

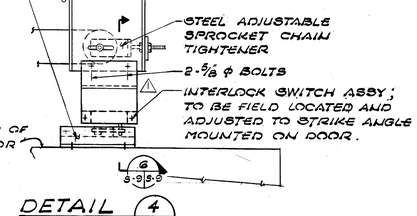


DETAIL 2
SCALE: 8" = 1'-0" 3-9 S-9

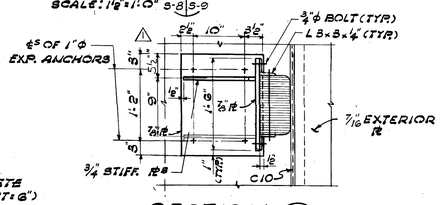
INTERLOCK STRIKE ANGLE
L 2 x 2 x ¼ FASTEN TO DOOR W/ ⅝ ϕ x 2½" LG. HEX. HEAD MACHINE SCREWS WITH LOCK WASHERS.



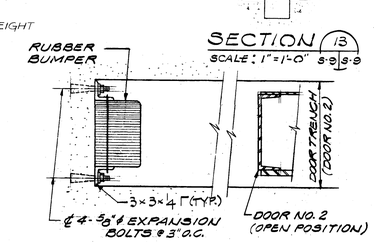
SECTION 6
SCALE: 1½" = 1'-0" S-9 S-9



DETAIL 4
SCALE: 1½" = 1'-0" S-8 S-9



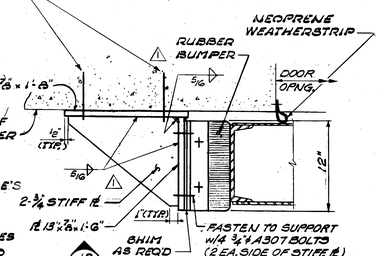
SECTION 12
SCALE: 1" = 1'-0" S-9 S-9



SECTION 13
SCALE: 1" = 1'-0" S-9 S-9

DETAIL 3
SCALE: 1½" = 1'-0" S-8 S-9

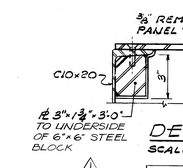
DOOR BUMPER (IN TRENCH)



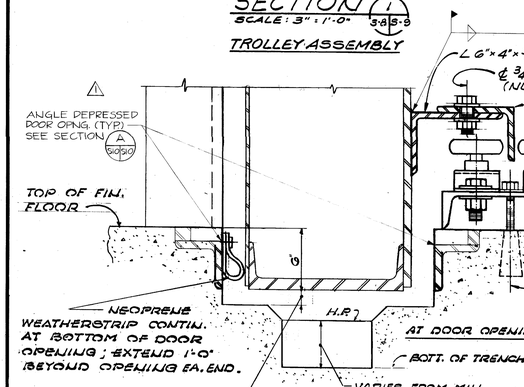
12 S-9 S-9

SECTION 7
SCALE: 1½" = 1'-0" 3-8 S-9

DOOR BUMPERS

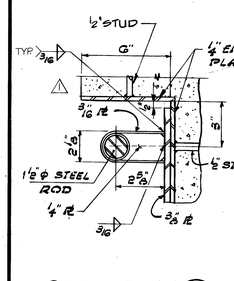


DETAIL 6
SCALE: 3" = 1'-0" S-9 S-9

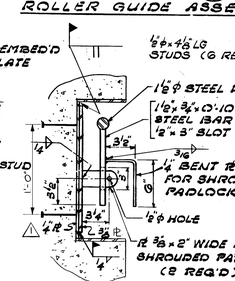


SECTION 3
SCALE: 3" = 1'-0" 3-8 S-9

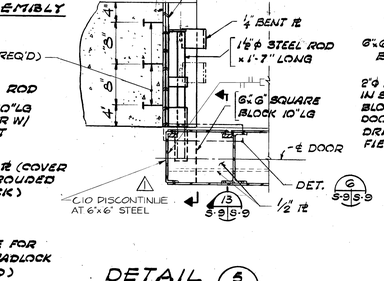
ROLLER GUIDE ASSEMBLY



SECTION 9
SCALE: 3" = 1'-0" S-9 S-9

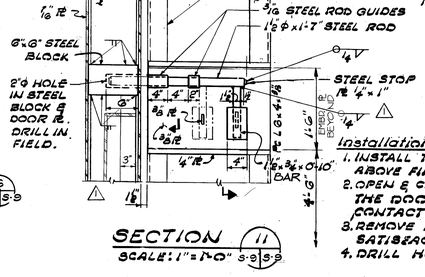


SECTION 10
SCALE: 1½" = 1'-0" S-9 S-9



DETAIL 5
SCALE: 1" = 1'-0" S-8 S-9

(PARTIAL PLAN OF INTERIOR DOOR LOCK ASSEMBLY - DOOR #1 ℄ #3)



SECTION 11
SCALE: 1" = 1'-0" S-9 S-9

Installation Procedure for Interior Locking System:

1. INSTALL THE DOOR LOCK ASSEMBLY ON THE WALL AT 4'-6" ABOVE FINISHED FLOOR.
2. OPEN & CLOSE MAGAZINE DOOR SEVERAL TIMES AND EACH TIME THE DOOR STOPS IN CLOSED POSITION MARK THE LOCATION OF CONTACT OF 1½" STEEL ROD ON 6"x6" STEEL BLOCK.
3. REMOVE ANY OBSTRUCTIONS TILL THE CONTACT LOCATION IS SATISFACTORILY ESTABLISHED.
4. DRILL HOLE IN STEEL BLOCK AS INDICATED IN SECTION 11 S-9 S-9

IF THE DRAWING IS A REDUCTION, GRAPHIC SCALES MUST BE USED.

1" = 1'-0" 1' 0 1' 2'

1-1/2" = 1'-0" 12" 6" 0

3" = 1'-0" 12" 9" 6" 3" 0

NOTES:

DOOR REQUIREMENTS

1. ALL DUST, DIRT, OIL, GREASE, WELD FLUX RESIDUE, SALTS, RUST SCALE, LOOSE RUST & OTHER FOREIGN MATTER THAT MAY INHIBIT PAINT BOND TO STRUCTURAL STEEL SHALL BE REMOVED IN THE SHOP IN ACCORDANCE WITH THE STEEL STRUCTURES PAINTING COUNCIL (SSPC), SP6.
2. EXCEPT FOR CONTACT SURFACES OF MOVING PARTS ALL EXPOSED SURFACES OF STRUCTURAL STEEL SHALL RECEIVE ONE 1.5 MIL (DRY) COAT OF ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-645. UNEXPOSED SURFACES SHALL RECEIVE 1.0 MIL (DRY) COAT OF ASPHALT VARNISH CONFORMING TO FEDERAL SPECIFICATION TT-V-51. ALL PRIMER COATING SHALL BE PERFORMED IN THE SHOP.
3. ALL EXPOSED SURFACES OF STRUCTURAL STEEL SHALL RECEIVE TWO FIELD COATS OF PAINT WITH A MINIMUM THICKNESS OF 4.0 MIL (DRY) CONFORMING TO FEDERAL SPECIFICATION TT-P-102 OR TT-P-37.
4. DOOR & HARDWARE SHALL BE SHOP ASSEMBLED TO INSURE PROPER CONTACT, CLEARANCES, ALIGNMENT & ENGAGEMENT OF THE DOORS & SMOOTH OPERATION OF LOCKING & DRIVE MECHANISMS. THIS ASSEMBLY WILL BE AT NO ADDITIONAL COST TO THE GOVERNMENT.
5. ALL WEATHER STRIPPING SHALL BE CLOTH INSERTED NEOPRENE ONE-EIGHTH INCH (⅛") THICK, & CONFORMING TO THE FEDERAL SPECIFICATION HH-P-151.
6. ALL PINS, BEARINGS, GEARS, SPROCKETS, SHAFTS AND SHEAVES SHALL BE DESIGNED FOR A DOOR LIFE OF 50 000 HOURS OF OPERATION

ELECTRICAL REQUIREMENTS

1. ALL EQUIPMENT GROUNDING CONDUCTORS & STRAPS SHALL BE SIZED IN COMPLIANCE WITH THE NEC.
2. GROUNDING CONDUCTORS SHALL BE PROVIDED WITH GREEN INSULATION EQUIVALENT TO THE INSULATION ON THE ASSOCIATED PHASE CONDUCTORS.
3. FEEDER & BRANCH CIRCUIT GROUNDING CONDUCTORS SHALL BE BRAZED TO THE GROUNDING BAR OR CONNECTED WITH APPROVED PRESSURE CONNECTORS.
4. WIRING SHALL BE INSTALLED IN A RIGID CONDUIT.

DOOR OPERATOR REQUIREMENTS

1. DESIGN REQUIREMENTS - (a) OUTDOOR OPERATION (b) 80 PSF WIND LOAD, (c) 15 FPM VELOCITY FOR OPENING AND CLOSING DOORS.
2. GEARS, SHAFTS AND SPROCKETS - ALL GEARS IN SPEED REDUCTION UNIT SHALL BE THE MACHINED TYPE. GEARS AND SHAFTS SHALL BE MOUNTED WITH LONG-LIFE BEARINGS, ENCLOSED IN OIL TIGHT HOUSING AND OPERATED AT ALL TIMES IN AN OIL BATH. ALL SPROCKETS SHALL BE FROM STEEL PLATES.
3. CASTINGS - SHEAVES & OTHER CASTINGS SHALL BE CLOSE GRAINED ALLOYED GRAY CAST IRON.
4. ROLLER CHAINS - ALL ROLLER CHAINS SHALL BE HEAVY DUTY, HIGH STRENGTH, PRECISION ASSEMBLED, AND DESIGNED FOR A SAFETY FACTOR OF 5.
5. MOTOR - THE MOTOR SHALL OPERATE NORMALLY AT NO MORE THAN 75 PERCENT OF RATED CAPACITY.
6. LIMIT SWITCHES - TYPE: MECHANICALLY ACTUATED. LIMIT SWITCH SHALL STOP THE DOOR AT END OF TRAVEL (OPEN AND CLOSED POSITIONS)
7. PUSH BUTTON STATION - PUSH BUTTON UNIT SHALL BE A CONSTANT PRESSURE, HEAVY DUTY WEATHER PROOF CONTROL STATION
8. EMERGENCY OPERATION - PROVIDE A CHAIN-GEAR MECHANISM FOR MANUAL OPERATION OF THE DOOR IN THE EVENT OF AN ELECTRICAL FAILURE. A MOTOR DISCONNECT, USING A MECHANICAL DEVICE, SHALL BE PROVIDED FOR EMERGENCY OPERATION

SYMBOL	DESCRIPTION	PREPARED BY	DATE	APPROVED BY
1	REV. DIM. FROM 7¼" TO 7 1/16" IN SECT. 1	FJW	5/16/88	ND

REVISIONS

STATE OF NEW YORK — EDMUND E. PRICE — LICENSED PROFESSIONAL ENGINEER

SATISFACTORY TO: E.E. Price 4/30/87
DDESB DATE

AMMANN & WHITNEY
CONSULTING ENGINEERS
96 MORTON ST. N.Y.N.Y.

E. LAING 4-29-87
PRINCIPAL DATE
NAVFACENGCOM

ENGINEER IN CHARGE BRANCH MANAGER

R.G. Ross 5/6/87
FIRE PROTECTION ENGINEER DATE
T.R.R. Rutherford PE 5/5/87
CRITERIA MANAGER DATE
APPROVED 5/7/87
FOR COMMANDER NAVFACENGCOM

DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350

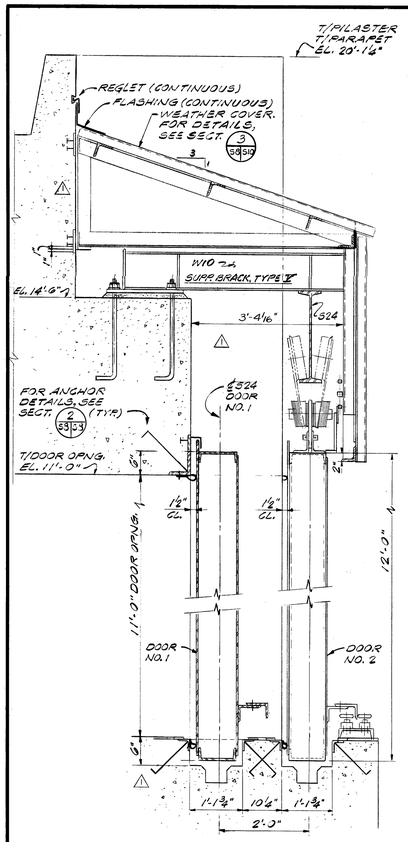
NAVAL FACILITIES ENGINEERING COMMAND

STANDARD DRAWING

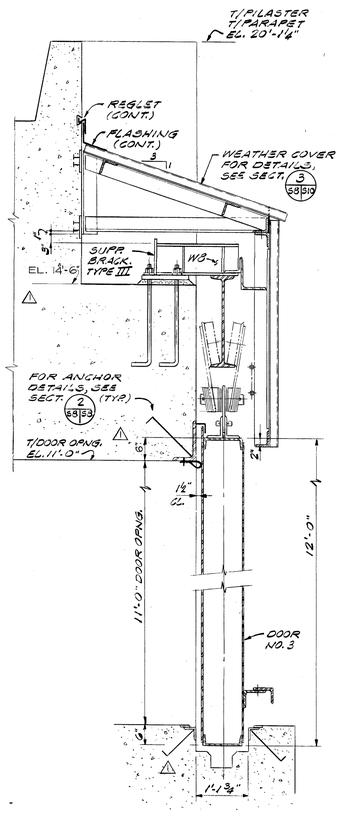
BOX MAGAZINE TYPE E

SLIDING DOOR DETAILS

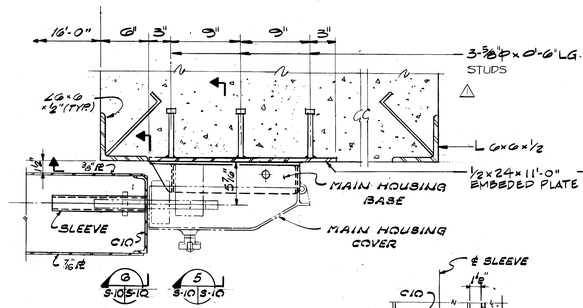
SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	1404531	S-9
F	80091			
SCALE AS NOTED		CONTRACT NO		SHEET 9 OF 15
CATEGORY CODE 421		SPEC NO NFSS-M44		



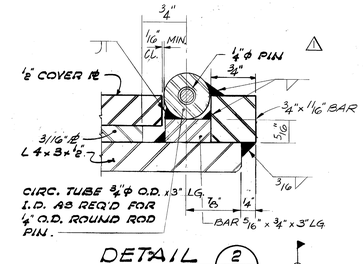
SECTION 1
SCALE: 3/4"=1'-0" S8|S10



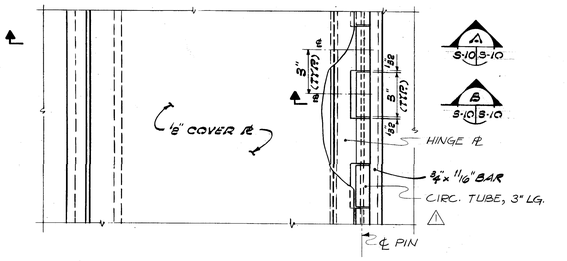
SECTION 2
SCALE: 3/4"=1'-0" S8|S10



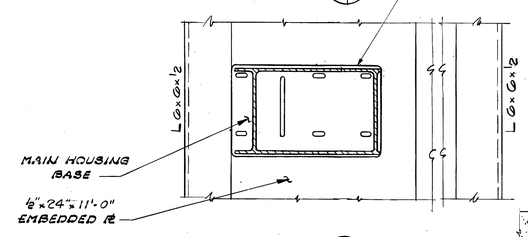
DETAIL 1
"HIGH SECURITY S-8|S-10
HASP" (NAPEC #1332)
SCALE: 1½"=1'-0"



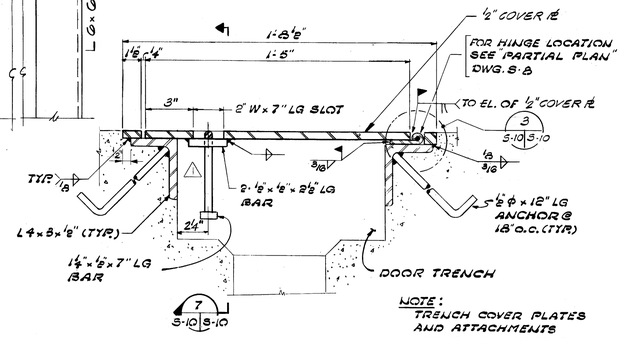
DETAIL 2
NTS S-10|S-10



PARTIAL PLAN
(DOOR TRENCH COVER PLATES)
SCALE: 3"=1'-0"

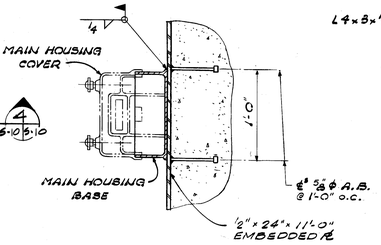


SECTION 4
SCALE: 1½"=1'-0" S-10|S-10

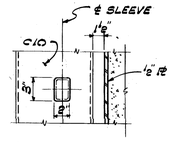


NOTE:
TRENCH COVER PLATES AND ATTACHMENTS INCLUDING HINGES SHALL BE GALVANIZED.

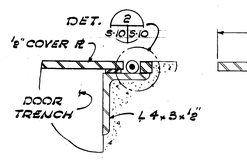
SECTION A
SCALE: 3"=1'-0" S-10|S-10



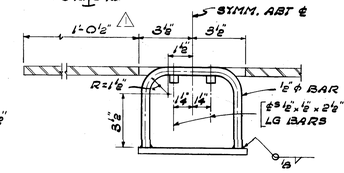
SECTION 5
SCALE: 1½"=1'-0" S-10|S-10



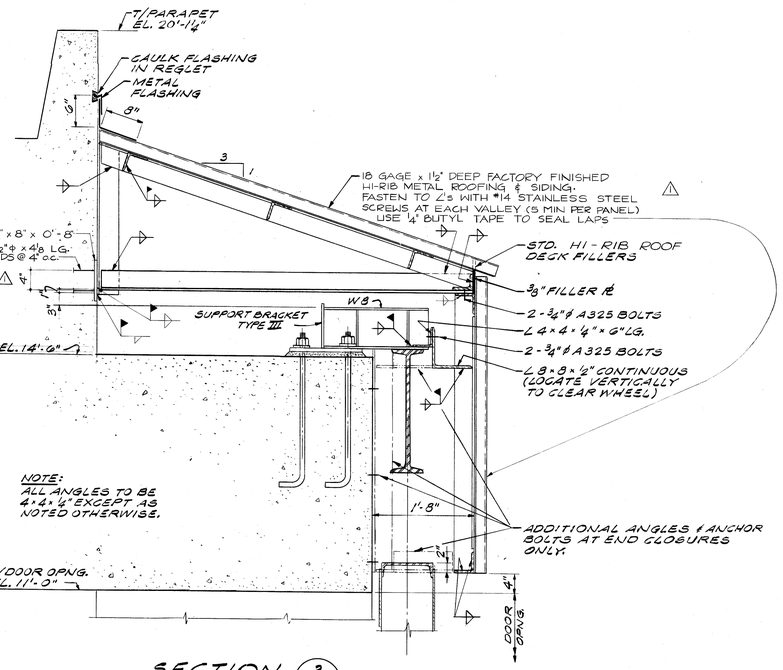
SECTION 6
SCALE: 1½"=1'-0" S-10|S-10



SECTION B
SCALE: 3"=1'-0" S-10|S-10

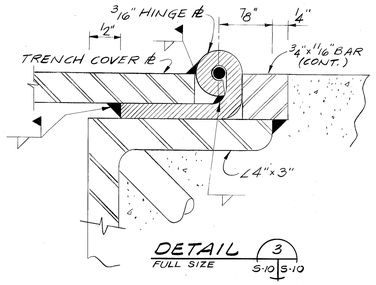


SECTION 7
SCALE: 3"=1'-0" S-10|S-10



NOTE:
ALL ANGLES TO BE 4"x4"x¼" EXCEPT AS NOTED OTHERWISE.

SECTION 3
SCALE 1 1/"=1'-0" S8|S10



DETAIL 3
FULL SIZE S-10|S-10

NOTE:
HIGH SECURITY HASP ON DOOR #2 SHALL BE NAPEC 1332 UNIVERSAL HASP, GOVT FURNISHED & SHALL BE INSTALLED IN ACCORDANCE WITH NAVAMPROENGCEN PUBLICATION "STANDARD PLANS FOR HIGH SECURITY HASPS AND INTRUDER DETECTION SYSTEMS ASHORE" INSTALLATION PROCEDURE FOR THE HASP SHALL FOLLOW STEPS 1 THRU 8 LISTED ON NAPEC STANDARD DWGS 1446.

IF THE DRAWING IS A REDUCTION, GRAPHIC SCALE MUST BE USED

1-1/2" = 1'-0" 12" 6" 0 1'
3/4" = 1'-0" 1' 0 1' 2' 3'
1" = 1'-0" 1' 0 1' 2'
3" = 1'-0" 12" 9" 6" 3" 0

SYMBOL	DESCRIPTION	PREPARED BY	DATE	APPROVED BY
1	GENERAL REVISION	PGC	12-21-90	

REVISIONS

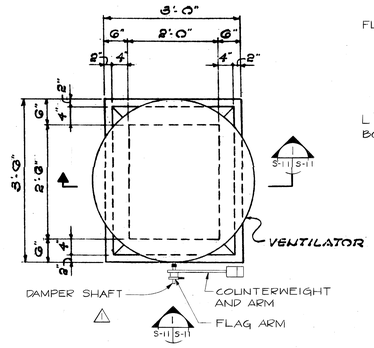
STATE OF NEW YORK — REGISTERED PROFESSIONAL ENGINEER — LICENSED — 46671

AMMANN & WHITNEY
CONSULTING ENGINEERS
96 MORTON ST. N.Y.N.Y.

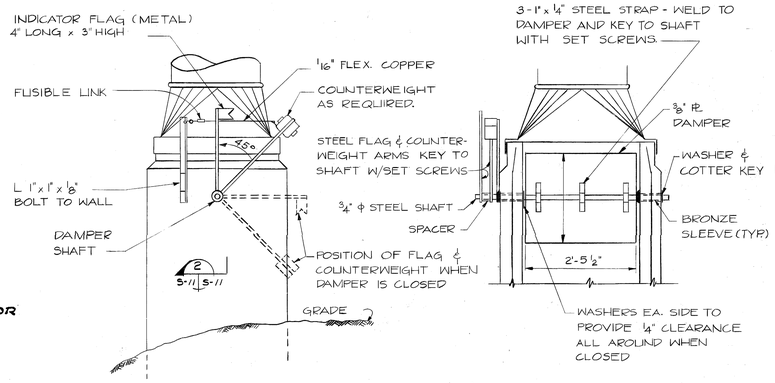
E. LAING 4-23-87
PRINCIPAL DATE
NAVFACENGCOM
ENGINEER IN CHARGE BRANCH MANAGER
R.A. Rea 5/8/87
FIRE PROTECTION ENGINEER DATE
T.R. RUTHERFORD PE 5/8/87
CRITERIA MANAGER DATE
APPROVED FOR NAVY
DOD'S DATE
NAVFACENGCOM

DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350
NAVAL FACILITIES ENGINEERING COMMAND
STANDARD DRAWING
BOX MAGAZINE TYPE E
SLIDING DOOR DETAILS

SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	S-10
F	80091	1404532	
SCALE AS NOTED	CONTRACT NO		SHEET 10
CATEGORY CODE 421	SPEC NO NFSS-M44		OF 15

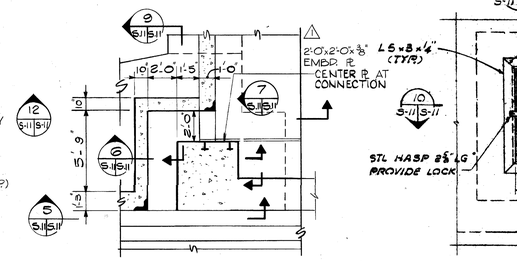


DETAIL 1 — SCALE: 3/4" = 1'-0" — S-1/S-2 | S-11



ELEVATION 1 — SCALE: 3/4" = 1'-0" — S-11 | S-11

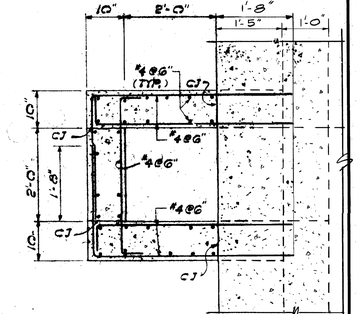
SECTION 2 — SCALE: 3/4" = 1'-0" — S-11 | S-11



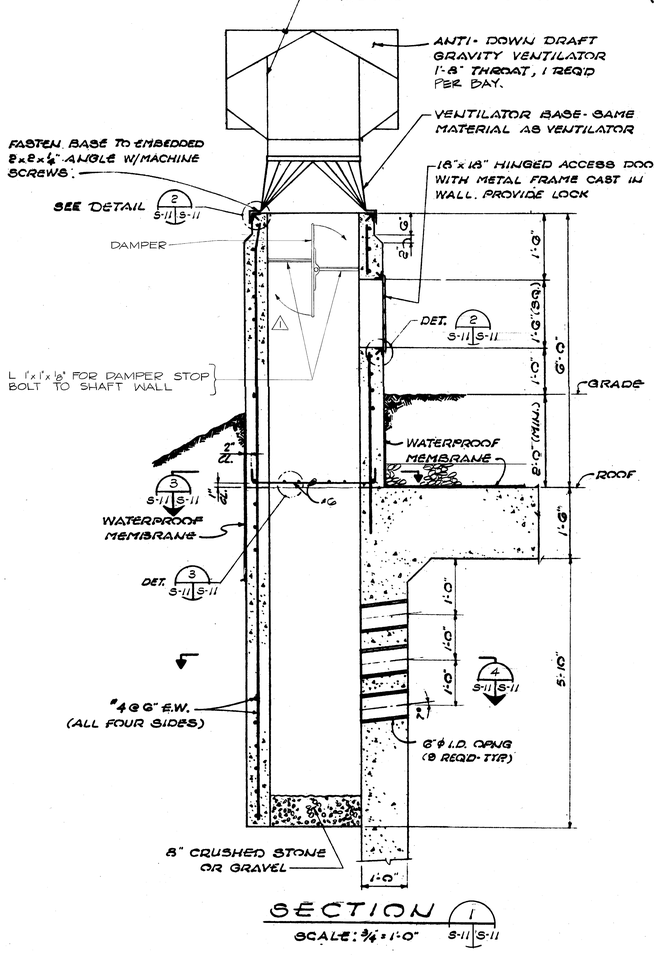
DETAIL 4 — SCALE: 1/4" = 1'-0" — S-1/S-2 | S-11

DETAIL OF AIR INTAKE DUCT

SECTION 5 — SCALE: 3/4" = 1'-0" — S-11 | S-11

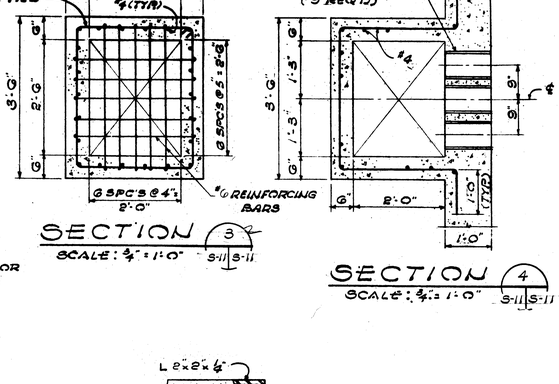


SECTION 6 — SCALE: 3/4" = 1'-0" — S-11 | S-11



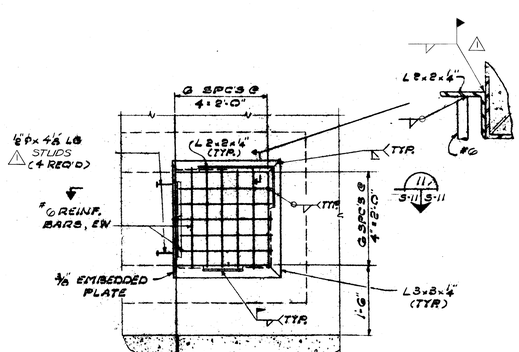
SECTION 1 — SCALE: 3/4" = 1'-0" — S-11 | S-11

DETAILS OF VENTILATOR SHAFT

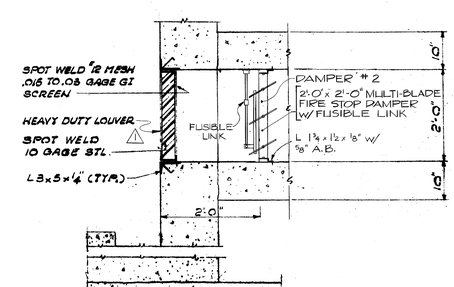


SECTION 3 — SCALE: 3/4" = 1'-0" — S-11 | S-11

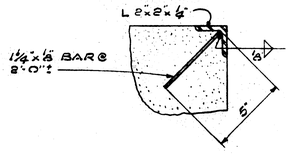
SECTION 4 — SCALE: 3/4" = 1'-0" — S-11 | S-11



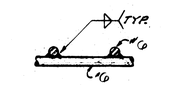
SECTION 7 — SCALE: 3/4" = 1'-0" — S-11 | S-11



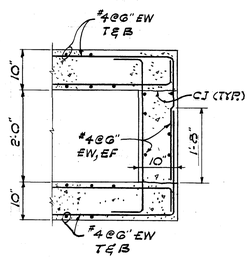
SECTION 8 — SCALE: 3/4" = 1'-0" — S-11 | S-11



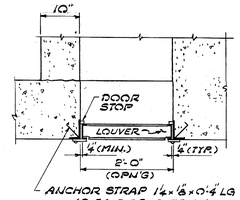
DETAIL 2 — SCALE: 3"=1'-0" — S-11 | S-11



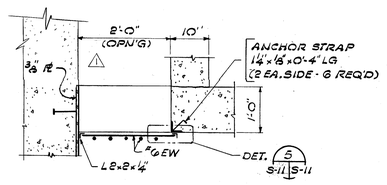
DETAIL 3 — N.T.S. — S-11 | S-11



SECTION 9 — SCALE: 3/4"=1'-0" — S-11 | S-11

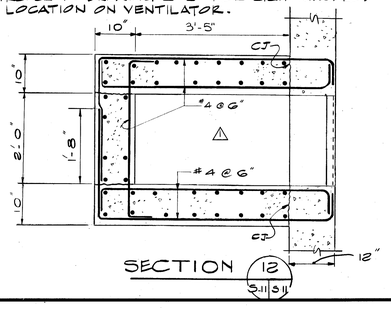


SECTION 10 — SCALE: 3/4"=1'-0" — S-11 | S-11

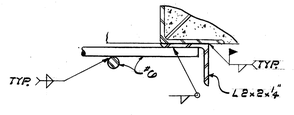


SECTION 11 — SCALE: 3/4"=1'-0" — S-11 | S-11

NOTES:
1. ALL SET SCREWS AND MACHINE SCREWS SHALL BE BRASS.
2. DESIGN FOR VENTILATOR IS BASED ON A STEADY WIND SPEED OF 85 M.P.H.
3. REFER TO DRAWING E-2 FOR LIGHTNING ROD LOCATION ON VENTILATOR.



SECTION 12 — S-11 | S-11



DETAIL 5 — NTS — S-11 | S-11

IF THE DRAWING IS A REDUCTION, GRAPHIC SCALE MUST BE USED

1/4" = 1'-0" 5' 0 5'

3/4" = 1'-0" 1' 0 1' 2' 3'

3" = 1'-0" 12" 9" 6" 3" 0

SYMBOL	DESCRIPTION	PREPARED BY	DATE	APPROVED BY
1	GENERAL REVISION	DGC	1-3-91	

REVISIONS

AMMANN & WHITNEY
CONSULTING ENGINEERS
96 MORTON ST. N.Y.N.Y.

E. LAING 4-23-87
PRINCIPAL DATE

NAVFACENGCOM CRITERIA MANUAL

ENGINEER IN CHARGE — BRANCH MANAGER

R.A. Ree 5/6/87
FIRE PROTECTION ENGINEER DATE

T.R. RUTHERFORD PE 5/8/87
CRITERIA MANAGER DATE

SATISFACTORY TO: NAVFAC DOESB 6/30/87 DATE

APPROVED: DATE
NAVFACENGCOM HQ COMMAND

STATE OF NEW YORK — EDWARD BRUCE LAING — LICENSED PROFESSIONAL ENGINEER

DEPARTMENT OF THE NAVY — WASHINGTON, D.C. 20350

NAVAL FACILITIES ENGINEERING COMMAND

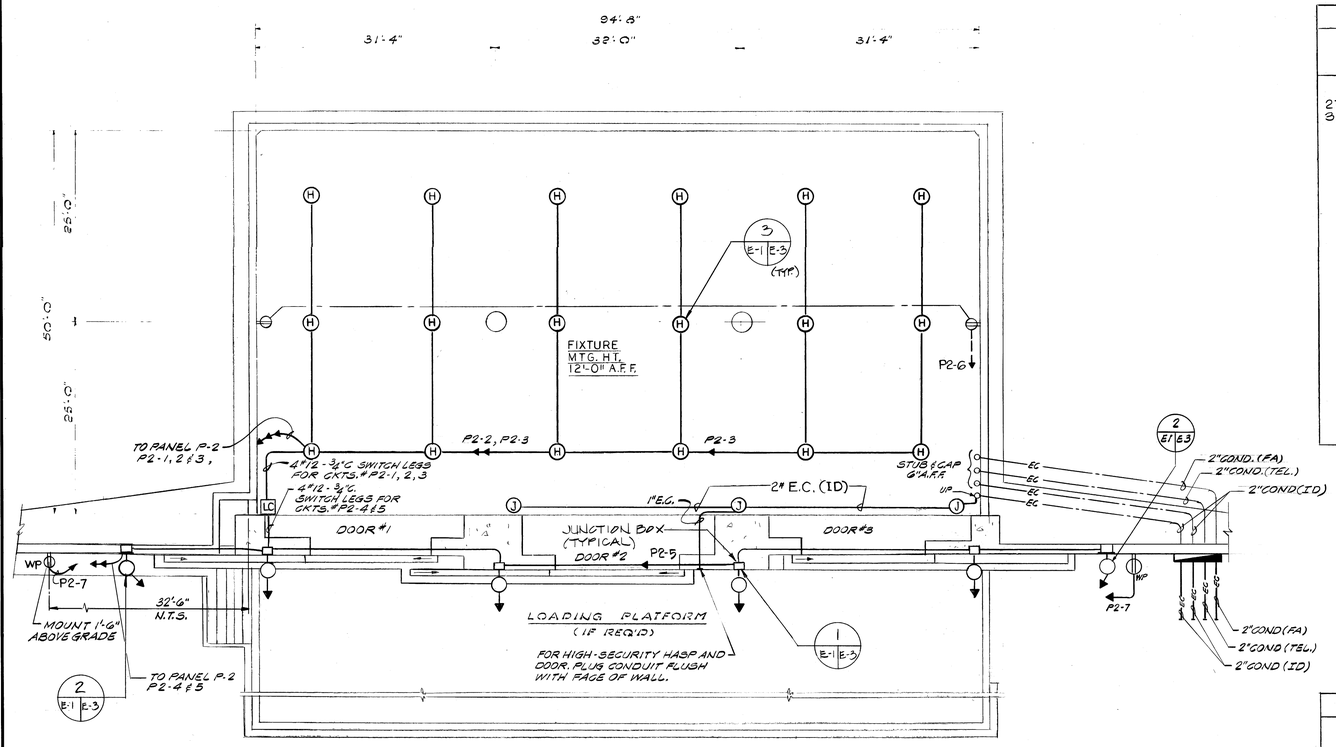
STANDARD DRAWING

BOX MAGAZINE TYPE E

VENTILATOR DETAILS

SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	
F	80091	1404533	S-11
SCALE AS NOTED	CONTRACT NO		SHEET 11
CATEGORY CODE 421	SPEC NO NFSS-M44		OF 15

Ventilation Details



FLOOR PLAN

SCALE: 1/8" = 1'-0"

PANEL SCHEDULE								
PANEL	CKT. NO.	BREAKER POLES	BREAKER AMPS	WIRE NO.	WIRE AWG.	COND. SIZE	LOAD IN KVA	EQUIPMENT
P1 277/480V. 3Ø, 4W.	—	3	60	—	—	—	39.1	MAIN BREAKER
	1	3	20	3	12	3/4"	9.0	TRANSFORMER
	2	3	20	3	12	3/4"	1.0	DOOR #1
	3	3	20	3	12	3/4"	1.0	DOOR #2
	4	3	20	3	12	3/4"	1.0	DOOR #3
	5	3	40	4	8	3/4"	25.1	HEAT TRACING CONTACTOR
	6	3	20	—	—	—	1.0	SPARE
	7	3	20	—	—	—	1.0	↓

TOTAL CONNECTED LOAD 39.1 KVA.

GENERAL NOTES:

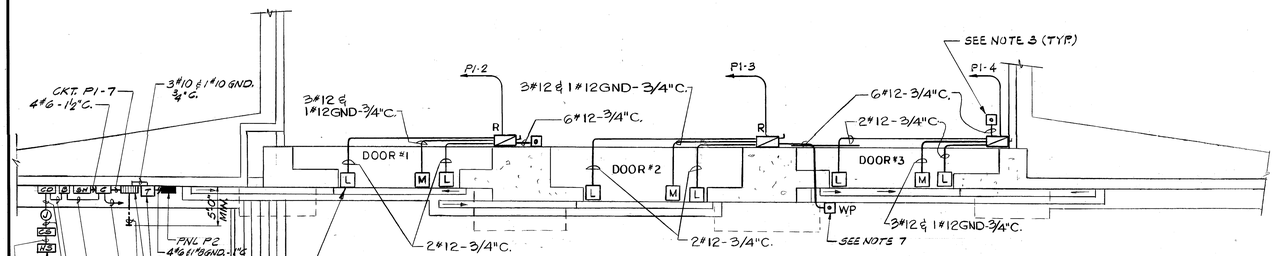
1. FOR INFORMATION NOT INDICATED ON DRAWINGS SEE SPECIFICATION
2. MINIMUM SIZE WIRE SHALL BE #12 AWG, 90°C. RATED TYPE THHN MINIMUM SIZE CONDUIT SHALL BE 3/4" RIGID GALVANIZED STEEL.
3. ALL ELECTRICAL EQUIPMENT AND INSTALLATION INSIDE THE MAGAZINE SHALL BE IN ACCORDANCE WITH THE N.E.C. NFPA 70 REQUIREMENTS FOR HAZARDOUS LOCATIONS CLASS I, DIVISION II GROUP D, AND CLASS II, DIVISION II, GROUP G.
4. ALL EXPLOSIONPROOF RECEPTACLES SHALL BE PROVIDED WITH A MATING EXPLOSIONPROOF PLUG.
5. LIGHTING CONTROL CENTER SHALL CONTAIN THE REQUIRED AMOUNT OF SINGLE POLE, 20A., 125V. SWITCHES TO CONTROL THE MAGAZINE INTERIOR LIGHTS AND THE OUTSIDE FLOODLIGHTS. THE LIGHTING CONTROL CENTER SHALL HAVE A NEMA 7 TYPE ENCLOSURE.
6. FOR DOOR WIRING DIAGRAMS SEE SCHEMATIC DIAGRAMS ON DRAWING E-3.
7. DOOR CONTROL PUSHBUTTON STATION SHALL BE MOUNTED 4'-0" ABOVE PLATFORM.
8. THE EXACT LOCATION OF DOOR OPERATOR AND DOOR SWITCHES SHALL BE IN ACCORDANCE WITH DOOR MANUFACTURERS REQUIREMENTS.
9. FOR HEAT TRACING SEE DWG. E-4 CIRCUIT P2-8 IS REQUIRED ONLY WHEN HEAT TRACING IS PROVIDED AT SITE. IF HEAT TRACING IS NOT INSTALLED THEN CKT. P2-8 SHALL REMAIN A SPARE.
10. ALL ARCHITECT/ENGINEERS USING THESE DRAWINGS AS STANDARDS SHALL INCLUDE THE INTERRUPTING CURRENTS OF ALL ELECTRICAL ITEMS ON THEIR DRAWINGS.
11. ALL LIGHTING FIXTURES, RECEPTACLES, DEVICES, MOTORS, AND ENCLOSURES SHALL BE GROUNDED WITH A SEPARATE GROUND WIRE PROVIDED IN EACH CONDUIT.
12. ALL ELECTRICAL SERVICES MUST BE UNDERGROUND WITHIN 50 FEET OF THE MAGAZINE.

PANEL SCHEDULE								
PANEL	CKT. NO.	BREAKER POLES	BREAKER AMPS	WIRE NO.	WIRE AWG.	COND. SIZE	LOAD IN KVA	EQUIPMENT
P2 120/208V. 3Ø, 4W.	—	3	30	—	—	—	7.0	MAIN BREAKER
	1	1	20	2	12	3/4"	1.2	MAGAZINE LTG.
	2	1	20	2	12	3/4"	1.2	↓
	3	1	20	2	12	3/4"	1.2	
	4	1	20	2	12	3/4"	.9	EXTERIOR LTG.
	5	1	20	2	12	3/4"	.9	↓
	6	1	20	2	12	3/4"	.4	RECEPTACLES
(GFI)	7	1	20	2	12	3/4"	.4	RECEPTACLES
SEE NOTE #9 →	8	1	20	2	12	3/4"	.1	HEAT TRACING CONTROL
	9	1	20	—	—	—	—	SPARE
	10	1	20	—	—	—	—	↓
	11	1	20	—	—	—	—	
	12	1	20	—	—	—	—	

TOTAL CONNECTED LOAD 7KVA

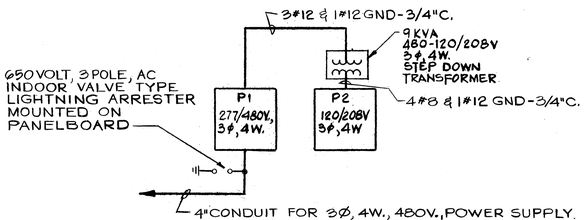
SYMBOLS (THIS DRAWING ONLY)

- (H) CEILING MOUNTED 150W. H.P.S LTG. FIXTURE WITH STANDARD DOME REFLECTOR.
- ←(H WALL MOUNTED 250W HIGH PRESSURE SODIUM MARINE TYPE FLOODLIGHT. ARROW INDICATES AIMING DIRECTION OF LUMINAIRE.
- DUPLEX RECEPTACLE, 20A, 125V, 2P, 3W, GROUNDING TYPE
- TEL/FA/ID TERMINAL CABINET, 30"W x 36"H x 6"D, IN NEMA 4 ENCLOSURE, WITH TAMPER SWITCH.
- 277/480V, 3ϕ, 4W PANEL P-1.
- T 480V-120/208V., 3ϕ, 4W, DRY-TYPE TRANSFORMER IN NEMA 4, ENCLOSURE, WALL MOUNTED
- 120/208V., 3ϕ, 4W. LIGHTING PANEL
- WIRES IN RIGID STEEL CONDUIT CONCEALED IN CEILING OR WALL
- WIRES IN RIGID STEEL CONDUIT CONCEALED IN FLOOR
- WIRES IN RIGID STEEL CONDUIT EXPOSED
- EC EMPTY RIGID STEEL CONDUIT RUN UNDERGROUND ENCASED IN CONCRETE ENVELOPE WITH MINIMUM 3" COVER
- COND. (C) CONDUIT
- W.P. WEATHERPROOF
- P2-1 → CKT. TO PNL (CKT. #1 TO PNL P2)
- LC LIGHTING CONTROL CENTER
- M DOOR OPERATOR INCLUDING MOTOR & BRAKE
- 480V., 3P., COMBINATION REVERSING STARTER WITH NON FUSED DISCONNECT SWITCH AND 120V. CONTROL TRANSFORMER. STARTER SHALL BE NEMA SIZE 1, RATED AT 10 HP WITH 30A. FUSE CLIP IN A NEMA 4 ENCLOSURE
- DOOR CONTROL PUSHBUTTON STATION WITH KEY OPERATOR SWITCH AND "OPEN", "CLOSE", "STOP" MOMENTARY PUSHBUTTONS. PUSHBUTTONS SHALL BE OILTIGHT.
- L DOOR LIMIT SWITCH
- GFI CIRCUIT BREAKER WITH GROUND FAULT INTERRUPTER
- TEL TELEPHONE
- E.C. EMPTY CONDUIT
- FA FIRE ALARM
- ID INTRUSION DETECTION
- (J) JUNCTION BOX
- N.T.S. NOT TO SCALE
- LIGHTNING ARRESTER



PART PLAN

SCALE: 1/8"=1" - 0"



POWER SUPPLY DIAGRAM

LIGHTING FIXTURE SCHEDULE

DESIGNATION & SYMBOL	LAMP DATA TYPE	QTY.	WATTS	VOLTAGE	TOTAL▲ WATTS	FIXTURE INFORMATION DESCRIPTION	MTG.
(H)	HIGH PRESS SODIUM	1	150	120	200	EXPLOSION PROOF HIGH PRESSURE SODIUM FIXTURE WITH INTEGRAL BALLAST, PRISMATIC GLASS GLOBE WITH GUARD, AND STEEL PORCELAN ENAMEL STANDARD DOME REFLECTOR. GLASS GLOBE SHALL BE OF THE HEAT AND IMPACT RESISTANT	PENDANT WITH FLEXIBLE CUSHION HANGER
←(H	HIGH PRESS SODIUM	1	250	120	300	MARINE FLOODLIGHT IN ACCORDANCE WITH UL 595 SHALL BE CORROSION RESISTANT AND HAVE AN INTEGRAL BALLAST. THE LENS DOOR SHALL CONTAIN A HEAT AND IMPACT RESISTANT GLASS AND BE WEATHERPROOF SEALED. THE LAMP HOLDER SHALL BE SHOCK RESISTANT. FIXTURE SHALL HAVE INTEGRALLY MOUNTED PHOTO ELECTRIC CONTROL. FIXTURE SHALL BE CAPABLE OF BEING AIMED 90° IN BOTH DIRECTIONS FROM THE VERTICAL AND/OR HORIZONTAL PLANES, FIXTURE SHALL HAVE A QUARTZ AUXILIARY LAMP ✳	TRUNNION TYPE

▲ INCLUDES BALLAST WATTAGE

✳ THE INCLUSION OF A QUARTZ AUXILIARY LAMP AND/OR PHOTO ELECTRIC CONTROL SHALL BE DETERMINED BY THE JURISDICTION AT EACH SITE.

SYMBOLS (CONTINUED)

- GD SNOW DETECTOR AND TEMPERATURE CONTROLLER IN NEMA 4 ENCLOSURE, SEE DWG. E-4 AND PART. PLAN, THIS SHEET.
- GM SNOW MELTING POWER PANEL 277/480V, 3ϕ, 4W, IN NEMA 4 ENCLOSURE, SEE DWG. E-4 AND PART. PLAN, THIS SHEET.
- C GOA, 3P, CONTACTOR WITH 120 V. CONTROL COIL IN NEMA 4 ENCLOSURE, SEE DWG. E-4 AND PART. PLAN, THIS SHEET.
- B BY-PASS SWITCH, 2P, 125V., DOUBLE-THROW SWITCH WITH GREEN INDICATING LAMP FOR OVER-RIDE INDICATION, IN NEMA 4 ENCLOSURE, SEE DWG. E-4 AND PART. PLAN, THIS SHEET.
- HS HEATED SENSOR EMBEDDED IN PAVEMENT, SEE DWG. E-4, AND PART. PLAN, THIS SHEET.
- CS COLD SENSOR EMBEDDED IN PAVEMENT, SEE DWG. E-4 AND PART. PLAN, THIS SHEET.

IF THE DRAWING IS A REDUCTION, GRAPHIC SCALE MUST BE USED

1/8" = 1'-0" 5' 0 5' 10' 15'

REVISIONS				
SYMBOL	DESCRIPTION	PREPARED BY	DATE	APPROVED BY

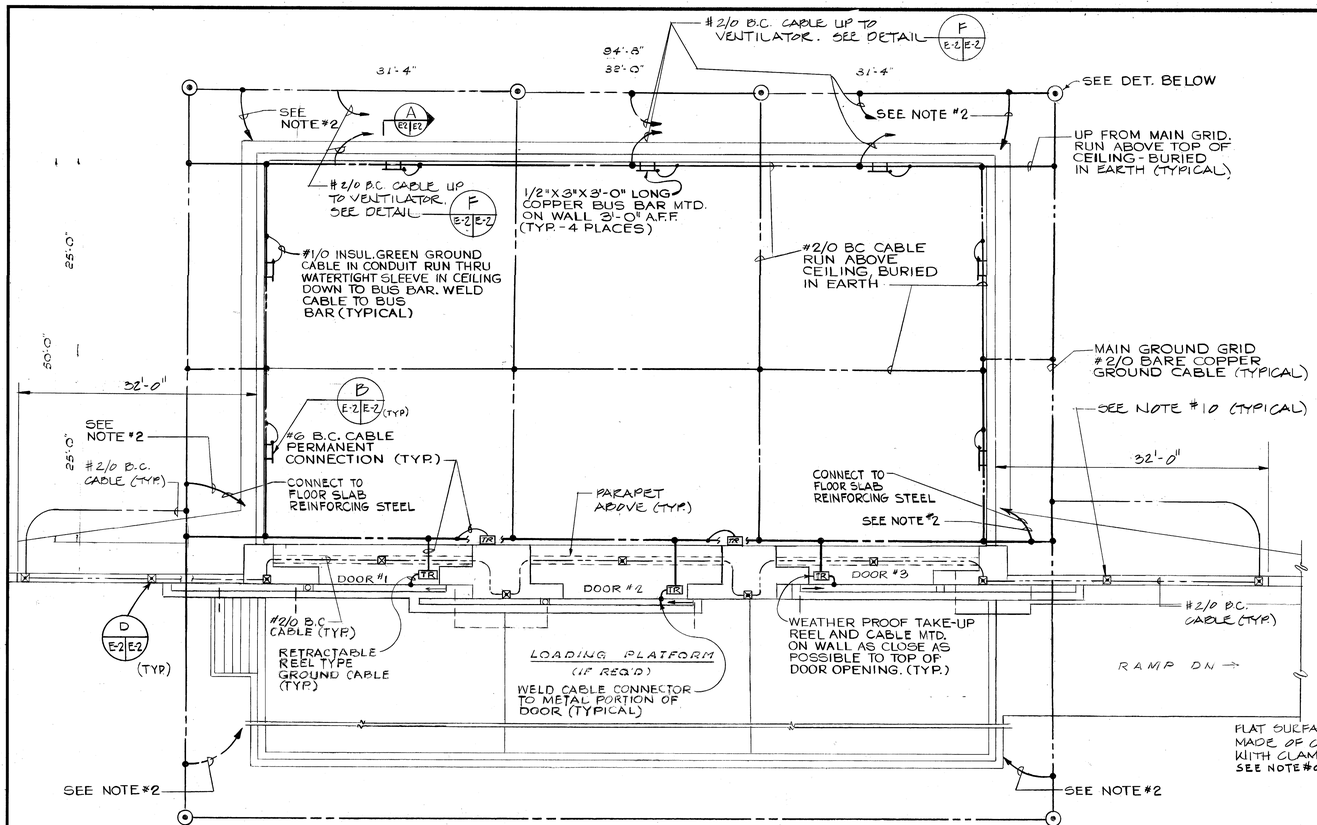
STATE OF NEW YORK — EDWARD BRUCE LAING — LICENSED PROFESSIONAL ENGINEER

SATISFACTORY TO: DOER — DATE 6/30/87

AMMANN & WHITNEY, CONSULTING ENGINEERS, 96 MORTON ST. N.Y.,N.Y.
E. LAING, PRINCIPAL — 4.23.87 DATE
NAVFACENGCOM ENGINEER IN CHARGE — BRANCH MANAGER
R.A. Rice — 5/6/87 DATE — FIRE PROTECTION ENGINEER CRITERIA MANAGER
T.R. RUTHERFORD PE — 5/8/87 DATE — APPROVED
5/8/87 DATE — NAVFACENGCOM COMMANDER

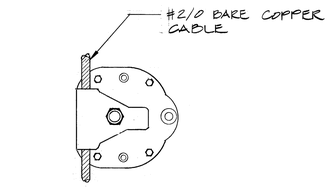
DEPARTMENT OF THE NAVY — WASHINGTON, D.C. 20350
NAVAL FACILITIES ENGINEERING COMMAND
STANDARD DRAWING
BOX MAGAZINE TYPE E
LIGHTING AND POWER PLAN

SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	
F	80091	1404534	E-1
SCALE AS NOTED	CONTRACT NO		SHEET 12
CATEGORY CODE 421	SPEC NO NFSS-M44		OF 15



FLOOR PLAN

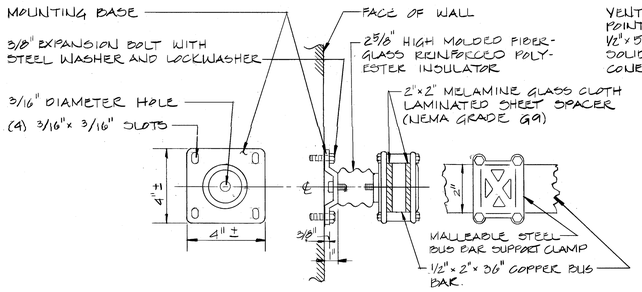
SCALE: 1/8" = 1'-0"



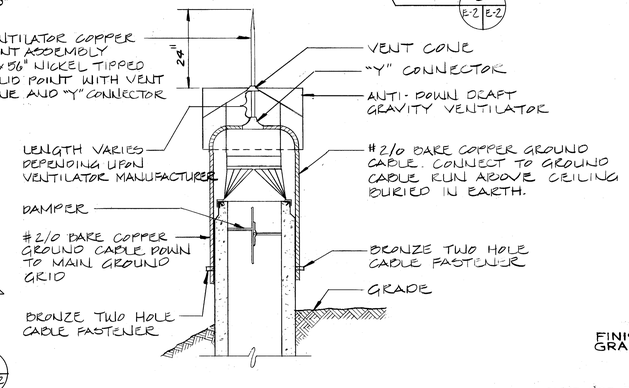
DETAIL E E-2 E-2
NOT TO SCALE

NOTES:

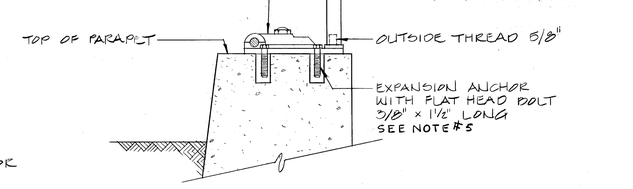
1. GROUND RODS SHALL BE COPPER-CLAD STEEL 3/4"X10' LONG MIN..
2. ALL REINFORCING STEEL IN BUILDING AND PLATFORM IN FRONT OF BUILDING SHALL BE BONDED TO BUILDING GROUND BUS.
3. ALL METAL EQUIPMENT AND PARTS IN THE BUILDING SHALL BE BONDED TO GROUND BUS.
4. ALL BOUNDING CONNECTIONS SHALL BE MADE WITH #6 AWG BARE COPPER GROUND CABLE MINIMUM.
5. SETTING SHOWN, IS SUGGESTED ANCHOR BOLT MOUNTING FOR LIGHTNING PROTECTION POINTS.
6. GROUND CONNECTIONS SHOWN, ARE TYPICAL FOR ALL LIGHTNING PROTECTION POINTS.
7. FOR GENERAL GROUNDING & LIGHTNING PROTECTION REQUIREMENTS REFER TO NAVFAC STANDARD SPECIFICATION M-43, SECTION 16601 AND DM 4.6.
8. LIGHTNING PROTECTION SHOWN IS FOR ONE (1) THREE BAY STRUCTURE ONLY. LIGHTNING PROTECTION FOR MULTIPLE OR CLUSTERED STRUCTURES MUST BE SITE ADAPTED.
9. FOR GENERAL NOTES SEE DWG. E-1.
10. LIGHTNING PROTECTION POINTS SHALL BE LOCATED AS SHOWN ON THE PLAN. THE MAXIMUM SPACING SHALL BE 16'-0".



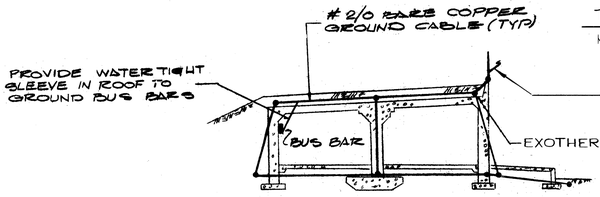
TYPICAL GROUND BUS BAR MOUNTING DETAIL
TWO (2) CLAMPS REQUIRED PER BUS BAR
NOT TO SCALE B E-2 E-2



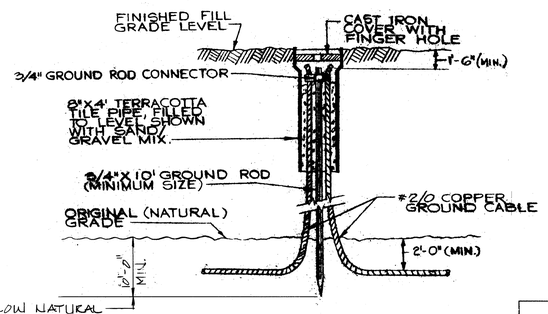
TYPICAL VENTILATOR DETAIL F E-2 E-2
NOT TO SCALE



DETAIL D E-2 E-2
NOT TO SCALE



SECTION A E2 E2
NTS



THE DEPTH OF GROUND ROD BELOW NATURAL GRADE SHALL BE SITE ADAPTED TO SUIT LOCAL SOIL CONDITION. AT NO TIME SHALL THE MINIMUM DEPTH BE LESS THAN 10'-0"

DETAIL - GROUND ROD INSTALLATION IN EARTH FILL
N.T.S. C E-2 E-2

IF THE DRAWING IS A REDUCTION GRAPHIC SCALE MUST BE USED

1/8" = 1'-0" 5' 0 5' 10' 15'

SYMBOLS (THIS DRAWING ONLY)

- BARE COPPER GROUND CABLE.
- GROUND ROD 3/4" X 10' LG.
- COPPER GROUND BUS BAR 1/2" X 2" X 3' LG.
- MTD MOUNTED
- GROUND CABLE TAKE-UP REEL. (WALL MTD.)
- EXOTHERMIC WELD.
- B.C. BARE COPPER
- LIGHTNING PROTECTION POINT 5/8" BY 24" LONG SOLID COPPER, NICKEL TIPPED WITH ADAPTER WITH 5/8" INSIDE THREAD.

SYMBOL	DESCRIPTION	PREPARED BY	DATE	APPROVED BY

REVISIONS

AMMANN & WHITNEY
CONSULTING ENGINEERS
96 MORTON ST. N.Y.,N.Y.

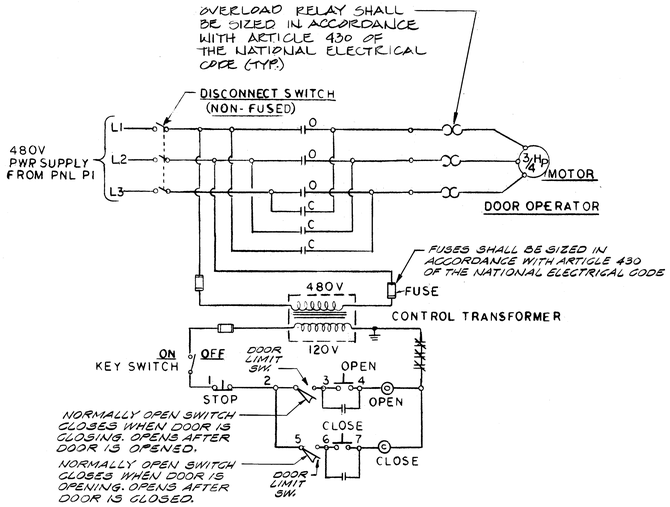
E. LAING 4.23.87
PRINCIPAL DATE
NAVFACENGCOM
ENGINEER IN CHARGE BRANCH MANAGER

R.A. Ria 6/8/87
FIRE PROTECTION ENGINEER DATE
T.R. BLOMERSON PE 5/8/87
CRITERIA MANAGER DATE
APPROVED BY
FOR COMMANDER, NAVFACENGCOM DATE 6/8/87

SATISFACTORY AS TO DOSES
6/30/87 DATE

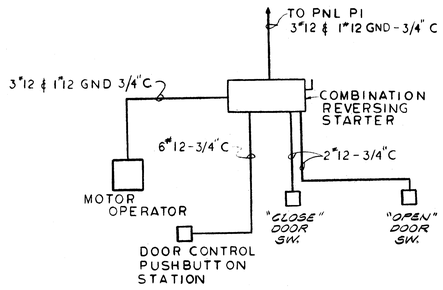
DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350
NAVAL FACILITIES ENGINEERING COMMAND
STANDARD DRAWING
BOX MAGAZINE TYPE E
GROUNDING PLAN AND DETAILS

SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	
F	80091	1404535	E-2
SCALE AS NOTED		CONTRACT NO	SHEET 13 OF 15
CATEGORY CODE 421		SPEC NO NFSS-M44	



SLIDING DOOR SCHEMATIC DIAGRAM

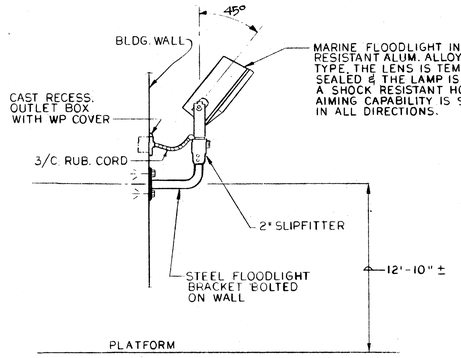
TYPICAL FOR DOOR #1, DOOR #2 AND DOOR #3



SLIDING DOOR

WIRING INSTALLATION DIAGRAM

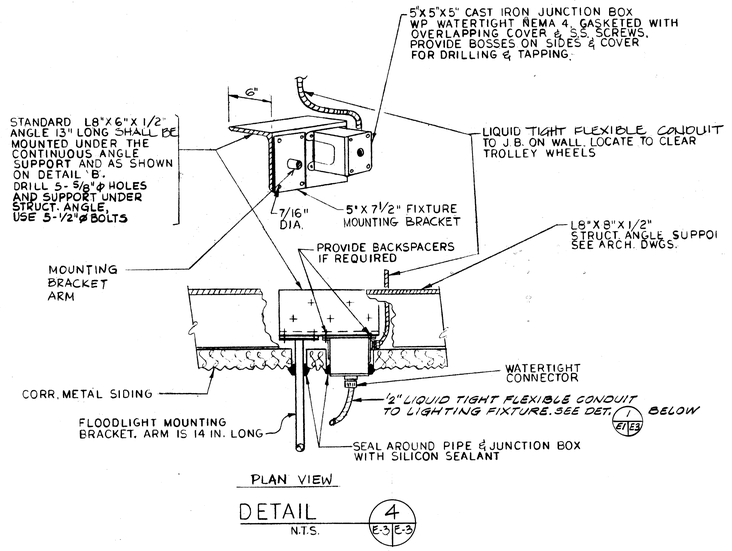
TYPICAL FOR DOOR #1, DOOR #2 AND DOOR #3



EXTERIOR FLOODLIGHT DETAIL

N.T.S

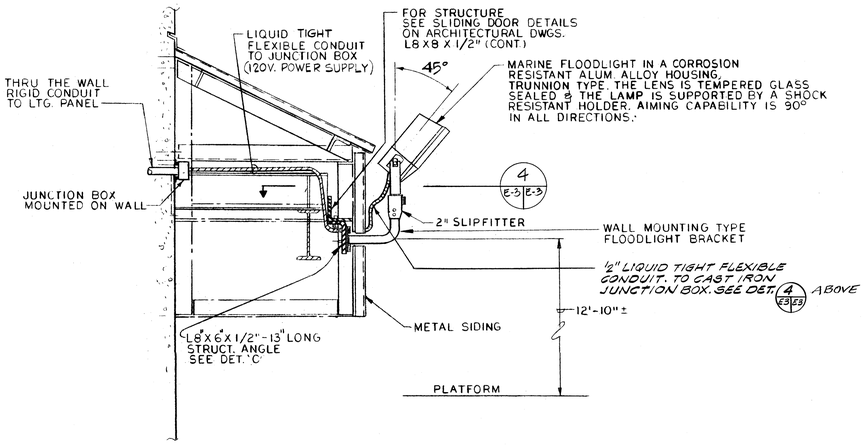
(2 | E-1 | E-3)



DETAIL

N.T.S.

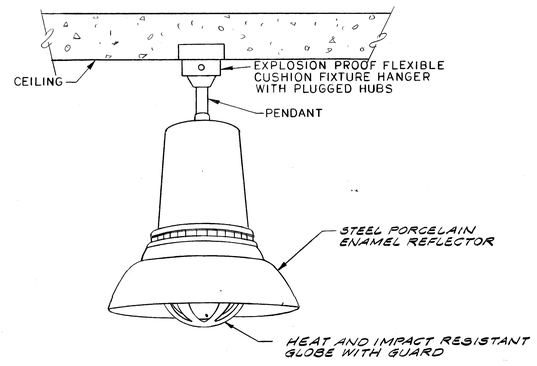
(4 | E-3 | E-3)



EXTERIOR FLOODLIGHT – DETAIL

N.T.S.

(1 | E-1 | E-3)



INTERIOR EXPLOSION PROOF LIGHTING FIXTURE MOUNTING DETAIL

N.T.S.

(3 | E-1 | E-3)

SYMBOL	DESCRIPTION	PREPARED BY	DATE	APPROVED BY

REVISIONS

AMMANN & WHITNEY
CONSULTING ENGINEERS
96 MORTON ST. N.Y., N.Y.

E. LAING — 4-23-87
PRINCIPAL — DATE
NAVFACENGCOM

ENGINEER IN CHARGE — BRANCH MANAGER

R.a Rice — 5/18/87
FIRE PROTECTION ENGINEER — DATE
T.R.E. WEBB P.E. — 5/18/87
CRITERIA MANAGER — DATE
APPROVED BY — DATE
FOR COMMANDER, NAVFACENGCOM

DATE SATISFACTORY TO DOESB — 6/30/87 DATE

DEPARTMENT OF THE NAVY — WASHINGTON, D.C. 20350

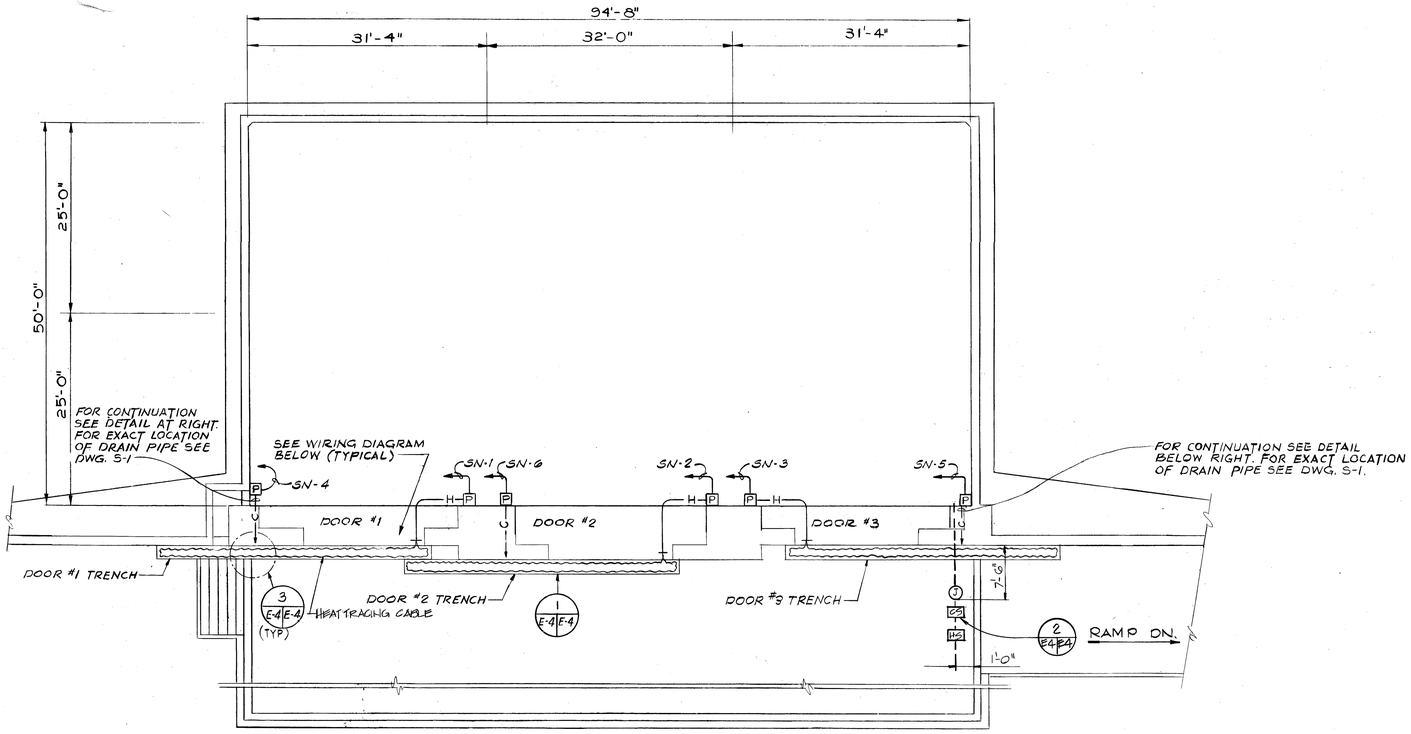
NAVAL FACILITIES ENGINEERING COMMAND

STANDARD DRAWING

BOX MAGAZINE TYPE E

SCHEMATIC DIAGRAMS AND DETAILS

SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	E-3
F	80091	1404536	
SCALE AS NOTED	CONTRACT NO		SHEET 14
CATEGORY CODE 421	SPEC NO NFSS-M44		OF 15



FLOOR PLAN

SCALE: 1/8"=1'-0"

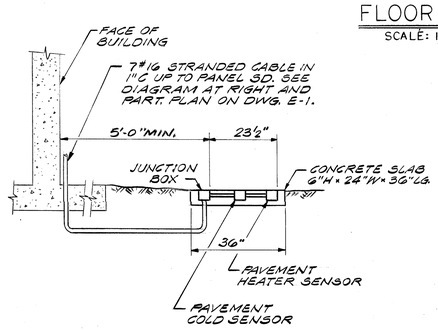
NOTE:

1. FOR GENERAL NOTES SEE DWG E-1
2. FOR PNL P1 / P2 SCHEDULE SEE DWG E-1
3. THE BASIS OF DESIGN FOR THE SNOW MELTING SYSTEM ON THIS DRAWING IS A HEAT DENSITY OF 60W/FT² AS PER ASHRAE. ALL A/E'S SITE ADAPTING EACH BUILDING WHERE SNOW MELTING IS TO BE INSTALLED SHALL USE THE PROPER HEAT DENSITY FOR THAT PARTICULAR GEOGRAPHIC AREA AS PER THE ASHRAE SYSTEMS HANDBOOK - CHAPTER "SNOW MELTING", CLASS III.
4. FOR LOCATION OF SNOW MELTING PANEL SN, PANEL SD, CONTACTOR, BY-PASS SWITCH AND SENSORS, SEE DWG. E-1.

PANEL SCHEDULE (SEE NOTE #3)

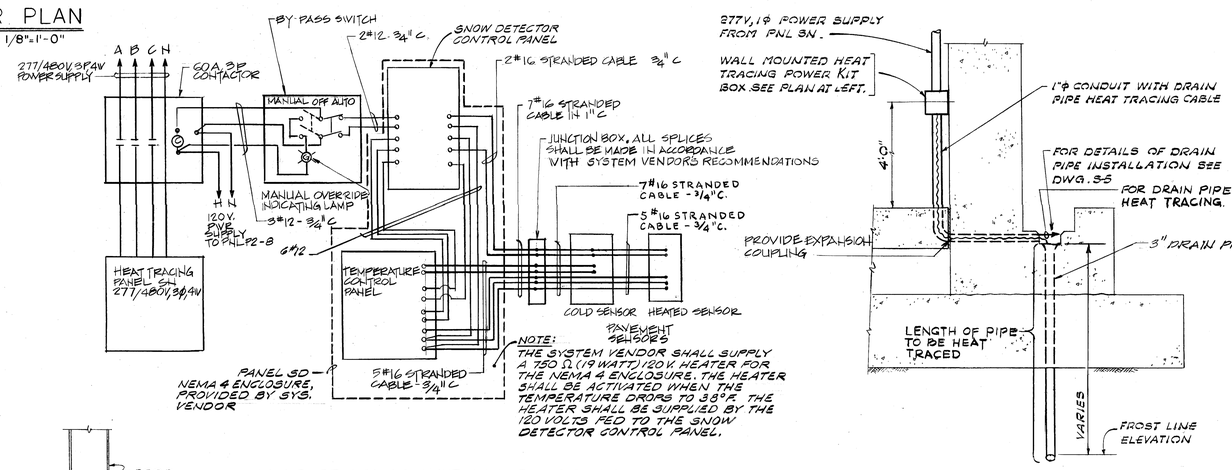
PANEL	CKT NO.	BREAKER POLES	BREAKER AMPS	WIRE NO.	WIRE AWG	COND SIZE	LOAD IN KVA	EQUIPMENT
	—	—	—	—	—	—	—	
PANEL SN	1	1	20	2	12	3/4	4.4	DOOR #1 HEAT TRACING
277/480V, 3φ, 4W.	2	1	20	2	12	3/4	4.4	DOOR #2 HEAT TRACING
	3	1	20	2	12	3/4	4.4	DOOR #3 HEAT TRACING
	4	1	15	2	12	3/4	3.3	DRAIN PIPE HEAT TRACING
	5	1	15	2	12	3/4	3.3	DRAIN PIPE HEAT TRACING
	6	1	15	2	12	3/4	3.3	DRAIN PIPE HEAT TRACING
	7	1	20	—	—	—	1.0	SPARE
	8	1	15	—	—	—	1.0	

TOTAL CONNECTED LOAD 25.1



SNOW SENSORS LOCATION DETAIL (2 / E1 E4)

N.T.S.

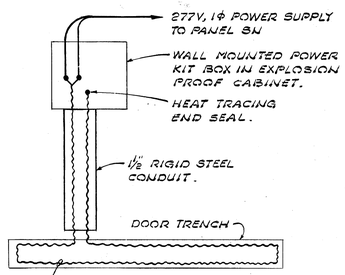


HEAT TRACING WIRING DIAGRAM

N.T.S.

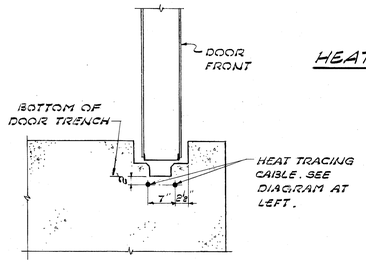
SYMBOLS (THIS DRAWING ONLY)

- --- RIGID STEEL CONDUIT RUN, UNDERGROUND ENCASED IN CONCRETE WITH A MIN 3" COVER.
- [P] HEAT TRACING POWER KIT BOX IN EXPLOSION PROOF ENCLOSURE.
- —H— 1½" RIGID STEEL CONDUIT WITH HEAT TRACING CABLE. CONDUIT CONCEALED IN CONCRETE FLOOR.
- ~~~ HEAT TRACING CABLE - 277V, 1φ
- -C- 1" RIGID STEEL CONDUIT WITH DRAIN PIPE HEAT TRACING CABLE. CONDUIT EMBEDDED IN CONCRETE.
- (C) CONTACTOR COIL 120 V.
- (J) JUNCTION BOX



TYPICAL DOOR TRENCH HEAT TRACING WIRING DIAGRAM

NOT TO SCALE



HEAT TRACING CABLE DETAIL (1 / E-4 E-4)

NOT TO SCALE

DRAIN PIPE HEAT TRACING DETAIL (3 / E-4 E-4)

NOT TO SCALE

IF THE DRAWING IS A REDUCTION GRAPHIC SCALE MUST BE USED

1/8" = 1'-0" 5' 0 5' 10' 15'

SYMBOL	DESCRIPTION	PREPARED BY	DATE	APPROVED BY

REVISIONS

AMMANN & WHITNEY
CONSULTING ENGINEERS
96 MORTON ST. N.Y., N.Y.

E. LAING 4-23-87
PRINCIPAL DATE

NAVFACENGCOM
ENGINEER IN CHARGE BRANCH MANAGER

R.D. Rue 5/28/87
FIRE PROTECTION ENGINEER DATE

T.R. RUTHERFORD P.E. 5/28/87
CRITERIA MANAGER DATE

APPROVED 6/2/87
NAVFACENGCOM DATE

DATE AUTHENTICATED 6/30/87
DOE'S

DEPARTMENT OF THE NAVY WASHINGTON, D.C. 20350

NAVAL FACILITIES ENGINEERING COMMAND

STANDARD DRAWING

BOX MAGAZINE TYPE E

HEAT TRACING

SIZE	CODE IDENT NO	NAVFAC DRAWING NUMBER	
F	80091	1404537	E-4
SCALE AS NOTED	CONTRACT NO		SHEET 15
CATEGORY CODE 421	SPEC NO NFSS-M44		OF 15