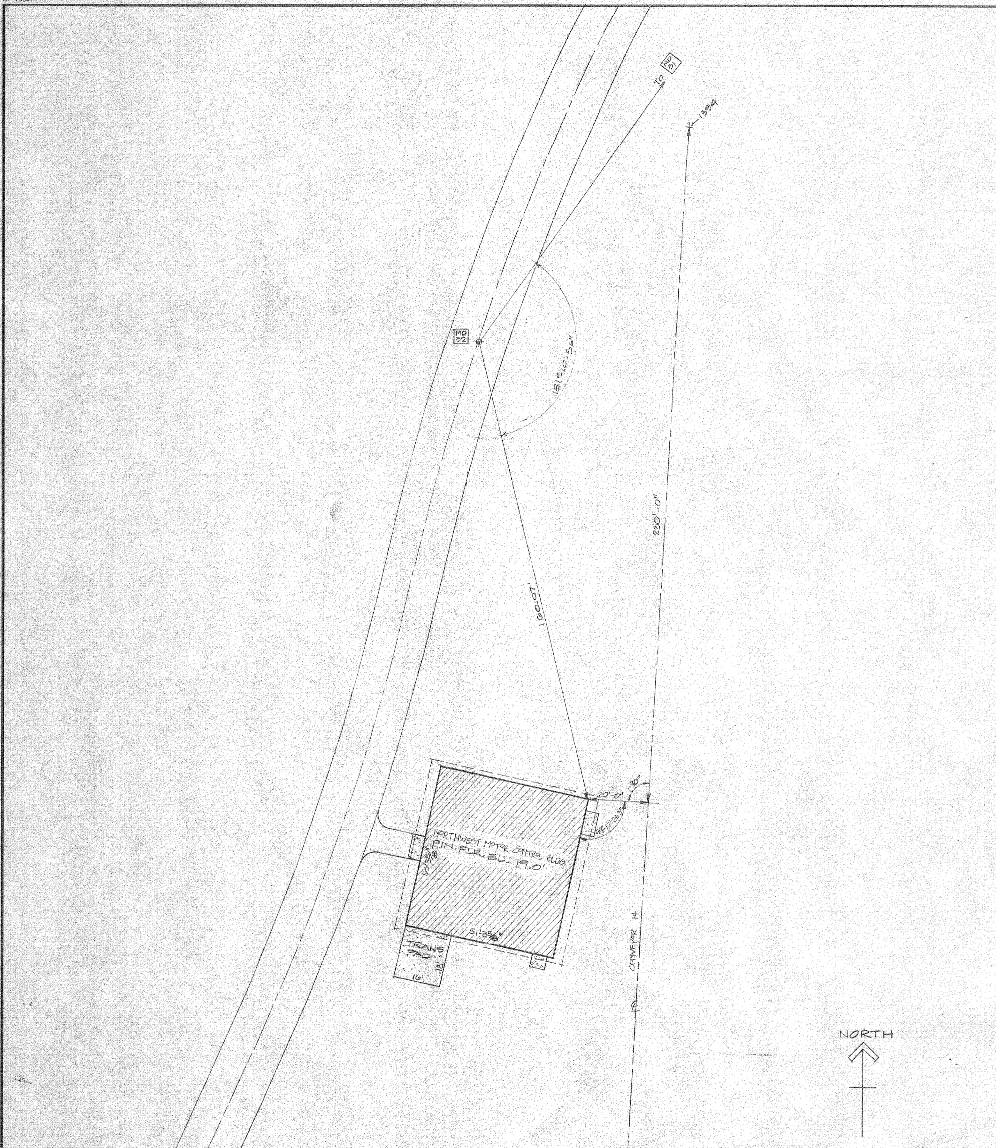
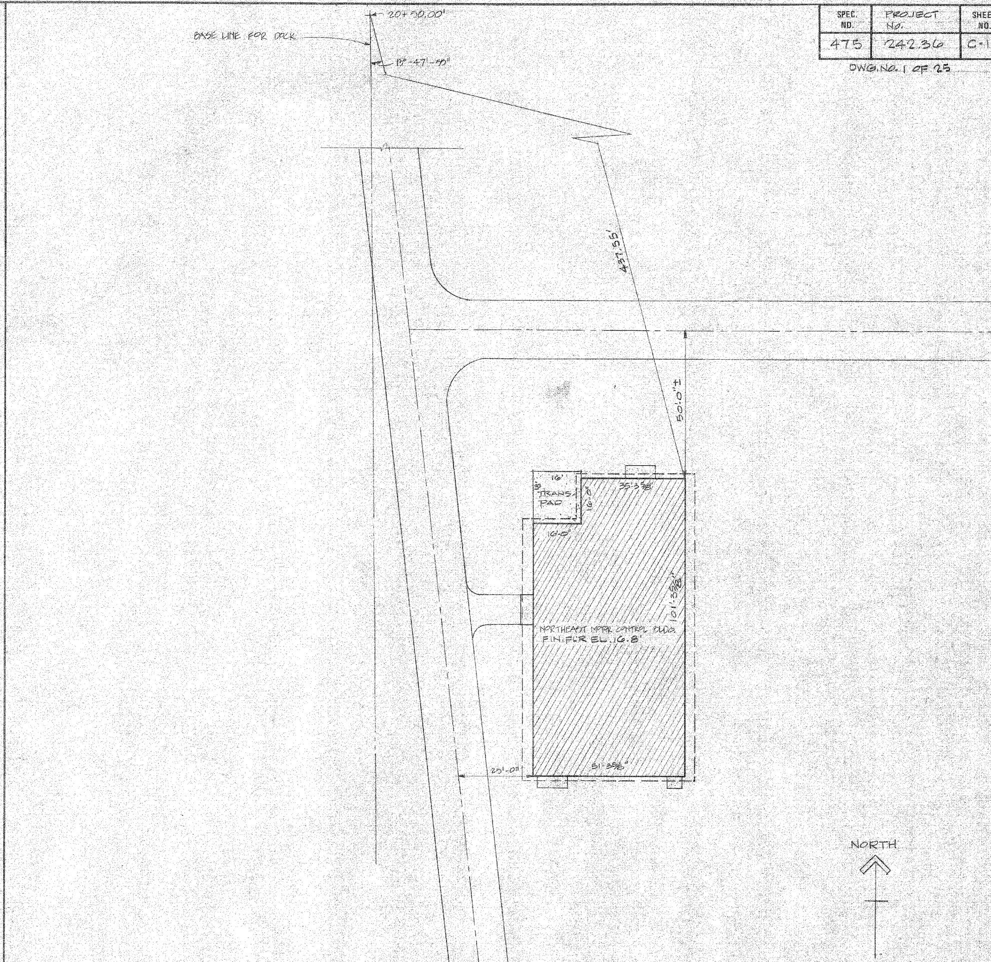
SPEC. NO.	PROJECT No.	SHEET NO.
475	242.36	C-1

DWG. NO. 1 OF 25



NORTHWEST MOTOR CONTROL BUILDING SITE PLAN
SCALE: 1" = 20'-0"



NORTHEAST MOTOR CONTROL BUILDING SITE PLAN
SCALE: 1" = 20'-0"

STATE OF ALABAMA — DAVID VOLKERT & ASSOC. — Roderick D. Sirer — Reg. Archt. No. 512 — MOBILE — REGISTERED ARCHITECT

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

McDUFFIE TERMINALS PLANT EXPANSION

NORTHEAST MOTOR CONTROL BLDG. AND NORTHWEST MOTOR CONTROL BLDG.

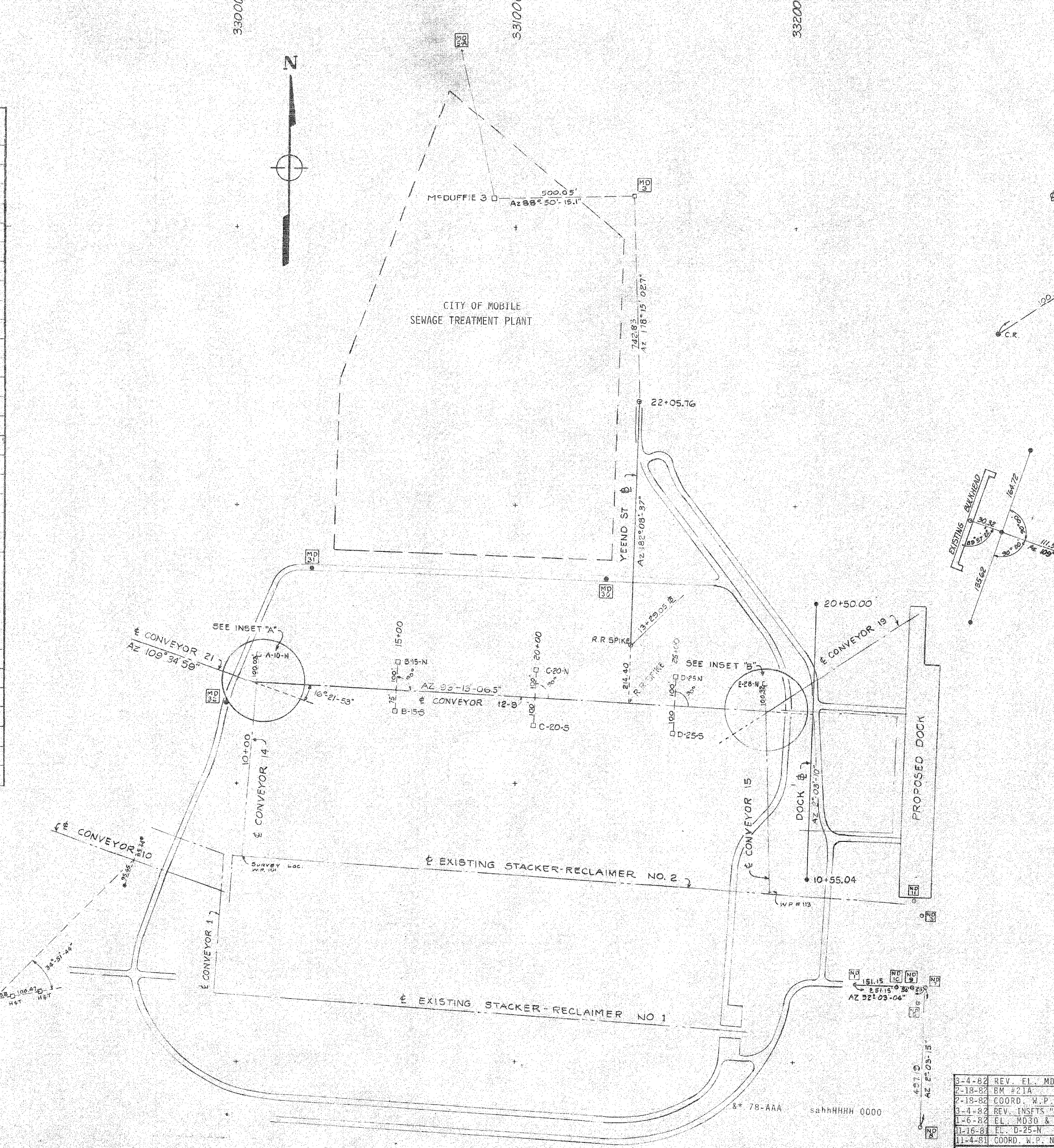
SITE PLAN

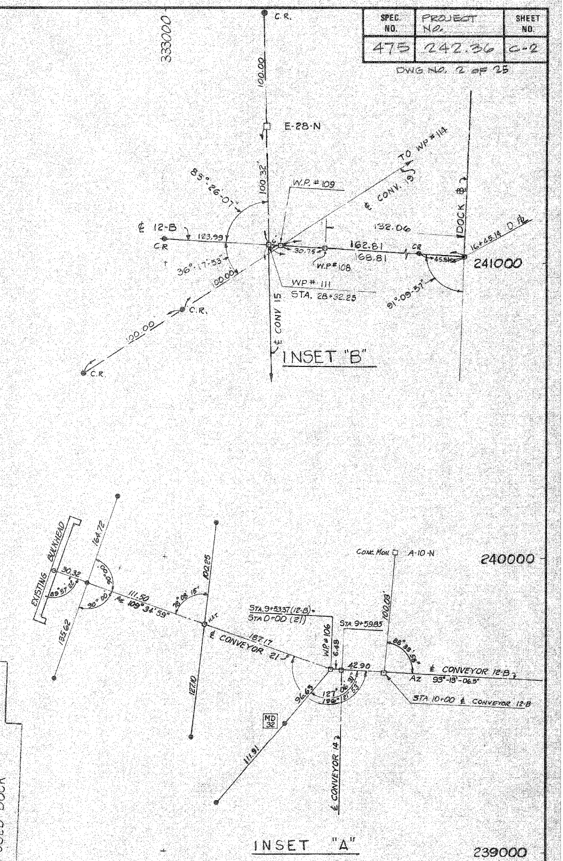
DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

DESIGNED CH	DETAILED BB	TRACED BB
CHECKED CH	CHECKED CH	CHECKED CH
DATE 21 MAY 82		

REVISIONS

POINT NUMBER	TYPE MARKER	COORDINATES NORTH	COORDINATES EAST	ELEV'S.	REMARKS
22+05.76	R.R. SPIKE	240373.72	331447.30		YEEND ST. ℄
13+29.05	R.R. SPIKE	239497.62	331414.50		YEEND ST. ℄
20+50.00	CAPPED ROD	239650.68	332082.98	11.347	DOCK ℄
10+55.04	CAPPED ROD	238656.36	332047.34	14.171	DOCK ℄
MCDUF. 3	CONC. MON.	241106.06	330924.67		
M.D. 3	CONC. MON.	241116.20	331424.62		YEEND ST.
M.D. 32	CAPPED ROD	239287.46	329961.47	16.765	
M.D. 31	CAPPED ROD	239771.55	330269.25	15.39	PAVED ROAD
M.D. 30	CAPPED ROD	239737.00	331328.37	15.728	PAVED ROAD
9 + 59.85		239360.75	330030.49		℄ 12-B & CONV. 14
A 10- N	CONC. MON.			6.433	
ND-9	TACK IN LEAD WOOL	238,270.81	332,423.68		DOCK CONTROL
W.P. 111		239255.63	331899.93		℄ 12-B & CONV. 15
E-28-N	CONC. MON.			12.649	
ND-10	TACK IN LEAD WOOL	238,272.60	332,373.71		DOCK CONTROL
W.P. 106		239361.11	330024.02		℄ 12-B & CONV. 21
W.P. 109		239255.29	331905.92		℄ CONV. 19
W.P. 101		238733.60	330019.43		℄ CONV. 14 (FIELD LOC.)
W.P. 114		239609.58	332449.82		℄ CONV. 19
W.P. 113		238606.12	331915.20		℄ CONV. 15
℄ CONV. 21		239518.63	329614.63		℄ CONV. 21
B-15-N	CONC. MON.			12.139	
B-15-S	CONC. MON			12.128	
C-20-N	CONC. MON.			12.637	
C-20-S	CONC. MON.			11.321	
D-25-N	CONC. MON.			15.490	
D-25-S	CONC. MON.			13.651	
ND-1	TACK IN LEAD WOOL	238,278.01	332,222.65		DOCK CONTROL
ND-7	TACK IN LEAD WOOL	238,269.02	332,473.65		DOCK CONTROL
ND-8	TACK IN LEAD WOOL	237,772.16	332,455.82		DOCK CONTROL
BM 21-A	SOUTHWEST COR. BULKHEAD	75' SOUTH ℄	CONV.21	9.51	PAINTED RED





LEDGEND
- TACK IN LEAD WOOL
- CONCRETE MONUMENT
- CAPPED ROD
- HUB AND TACK
- GRID TICKS

3-4-82	REV. EL. MD 31	B.B.J
2-18-82	BM #21A	B.B.J
2-18-82	COORD. W.P. 106	J.O.M
3-4-82	REV. INSETS "A" & "B"	B.B.J.
1-6-82	EL. MD30 & MD32	B.B.J
11-16-81	EL. D-25-N	J.O.M.
11-4-81	COORD. W.P. NO. 101	B.B.J
	REVISIONS	

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

McDUFFIE TERMINALS PLANT EXPANSION

NE, NW, CARDUMPER, AND BARGE UNLOADER MOTOR CONTROL BUILDINGS

SURVEY CONTROL PLAN

DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

DESIGNED	DETAILED B.B.J.	TRACED
CHECKED	CHECKED	CHECKED
DATE 10-19-81	SCALE 1" = 200'	

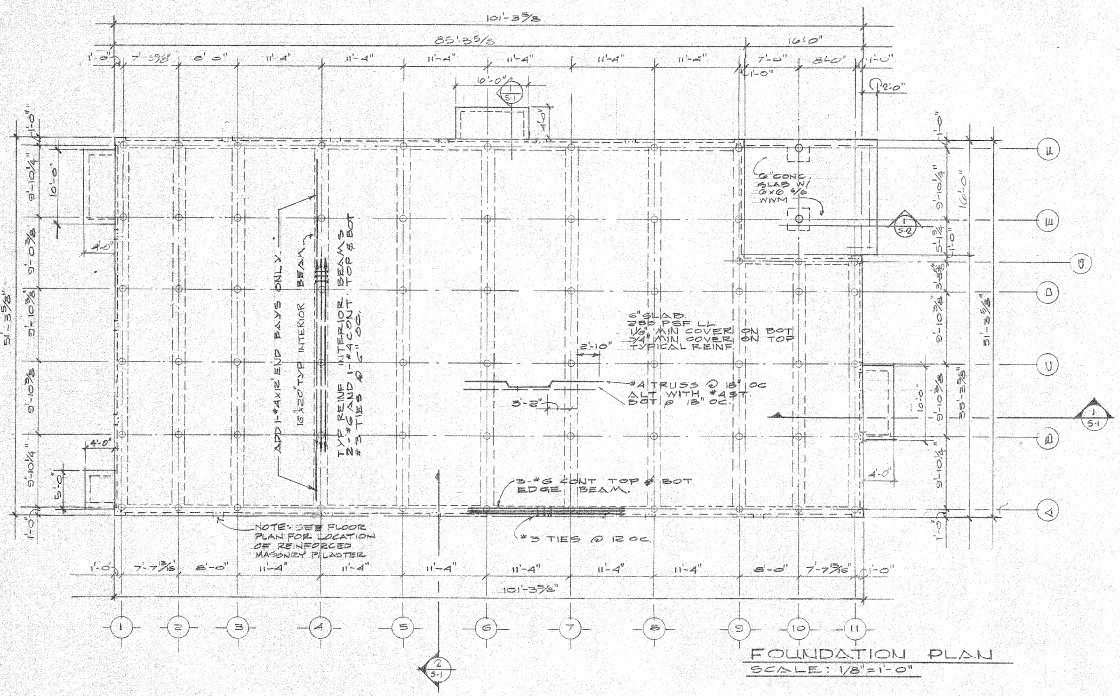
SPEC. NO.	PROJECT NO.	SHEET NO.
475	242.36	C-2

DWG NO. 2 OF 25

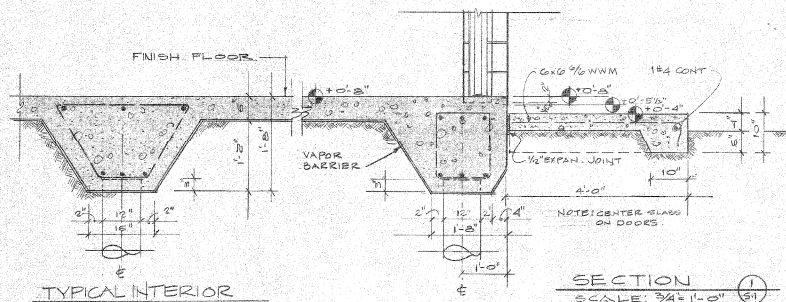
AP 19607

SPEC. NO.	PROJECT NO.	SHEET NO.
475	242.36	S-1

DWG. NO. 8 OF 25

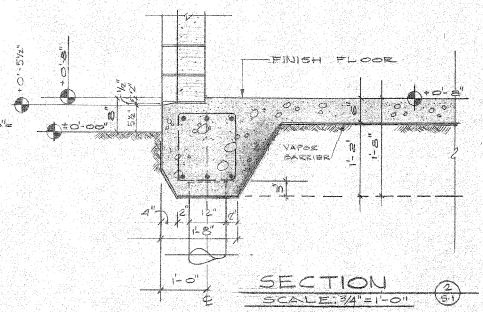


FOUNDATION PLAN
SCALE: 1/8"=1'-0"



TYPICAL INTERIOR BEAM

SECTION
SCALE: ¾"=1'-0" (1/S-1)



SECTION
SCALE: ¾"=1'-0" (2/S-1)

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

McDUFFIE TERMINALS PLANT EXPANSION

NE, NW, CARDUMPER, AND BARGE UNLOADER MOTOR CONTROL BUILDINGS

NE MOTOR CONTROL BUILDING, FOUNDATION PLAN

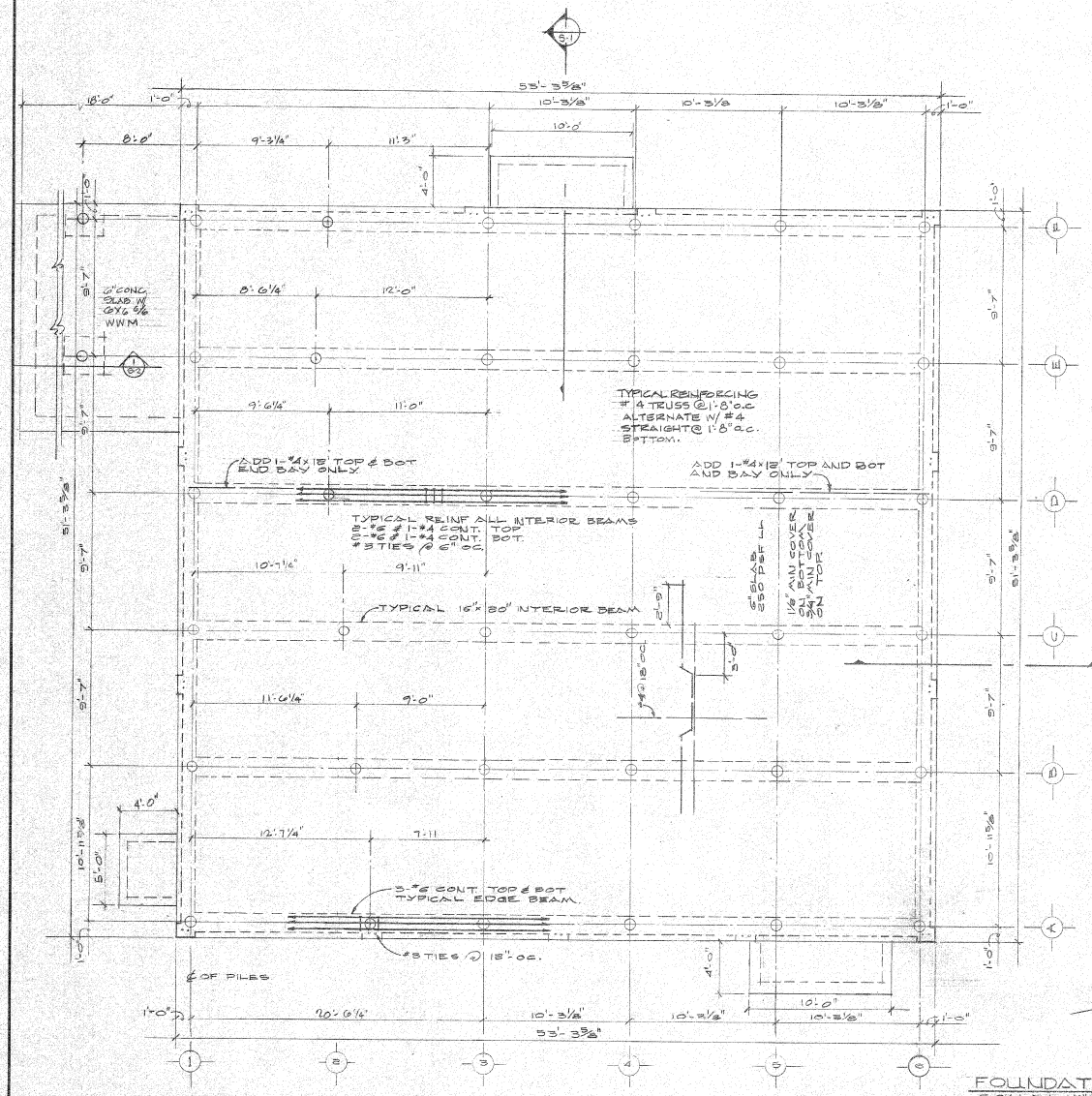
DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

REVISIONS	DESIGNED SDC	DETAILED SDC	TRACED TG
	CHECKED SDC	CHECKED CH	CHECKED CH
	DATE 21 MAY 82		

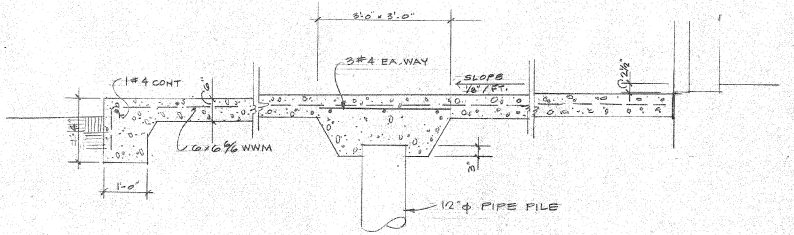
AF 19607

SPEC. NO.	PROJECT NO.	SHEET NO.
475	242.36	S-2

DWG. NO. 9 OF 25



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



1/S2 SECTION THROUGH TRANSFORMER PAD
SCALE: 3/4"=1'-0"

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

McDUFFIE TERMINALS PLANT EXPANSION

NE., NW., CARDUMPER, AND BARGE UNLOADER MOTOR CONTROL BUILDINGS

N.W. MOTOR CONTROL BUILDING - FOUNDATION PLAN

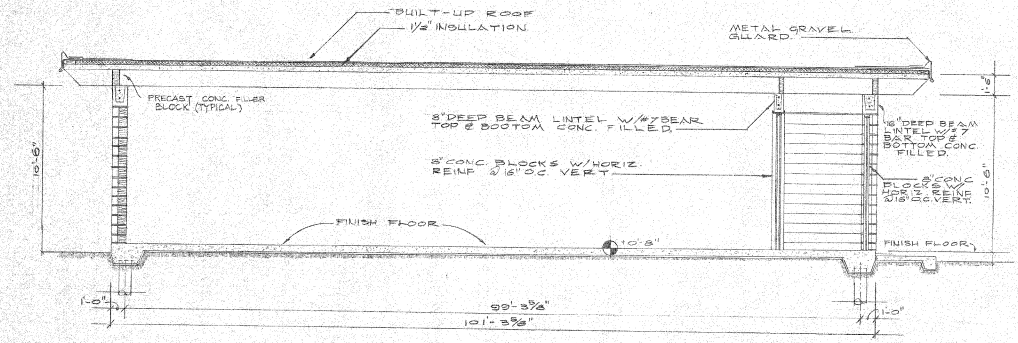
DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

REVISIONS	DESIGNED SOC	DETAILED NG	TRACED NG
	CHECKED SOC	CHECKED CH	CHECKED CH
	DATE 21 MAY 82		

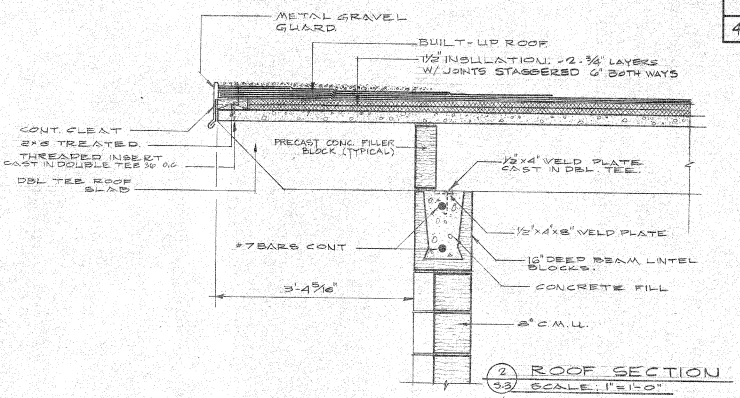
AF 19407

SPEC. NO.	PROJECT No.	SHEET NO.
475	242.36	S-3

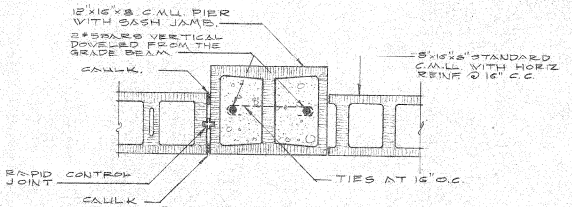
DWG. NO. 10 OF 25



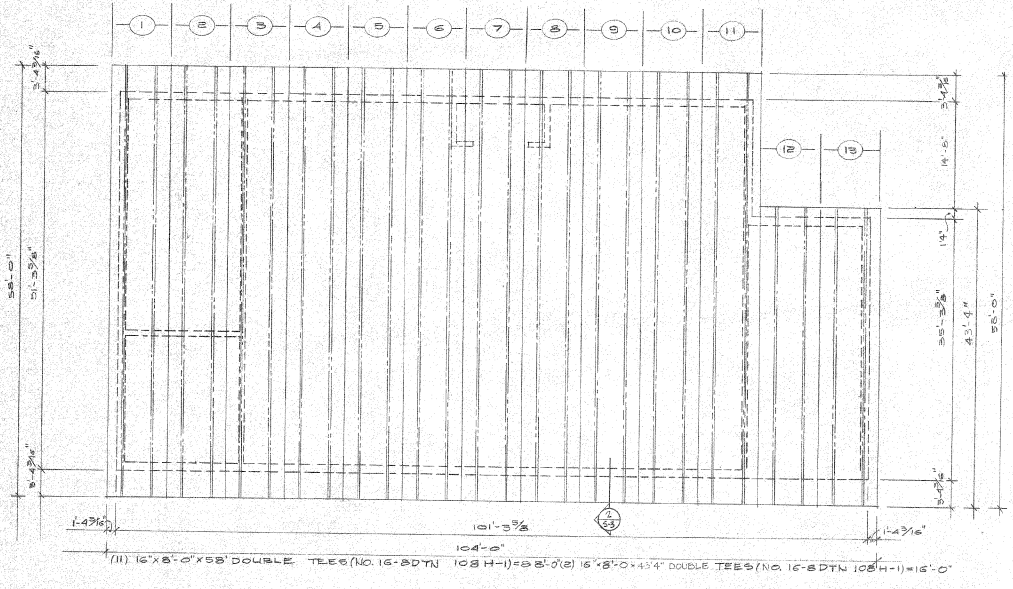
SECTION
SCALE: ¼"=1'-0"
(1/S-3)



(2/S-3) ROOF SECTION
SCALE: 1"=1'-0"

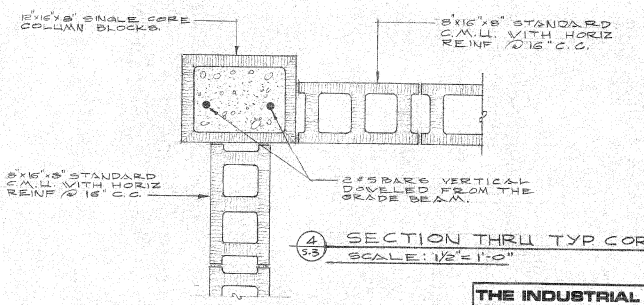


(3/S-3) SECTION THRU TYP. COLUMN.
SCALE: 1½"=1'-0"



(11) 16"x8'-0"x58' DOUBLE TEES (NO. 16-8DTN 108 H-1) = 88'-0" (2) 16"x8'-0"x43'4" DOUBLE TEES (NO. 16-8DTN 108 H-1) = 16'-0"

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



(4/S-3) SECTION THRU TYP CORNER COLUMN
SCALE: 1½"=1'-0"

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

McDUFFIE TERMINALS PLANT EXPANSION

NE, NW, CARDUMPER, AND BARGE UNLOADER MOTOR CONTROL BUILDINGS

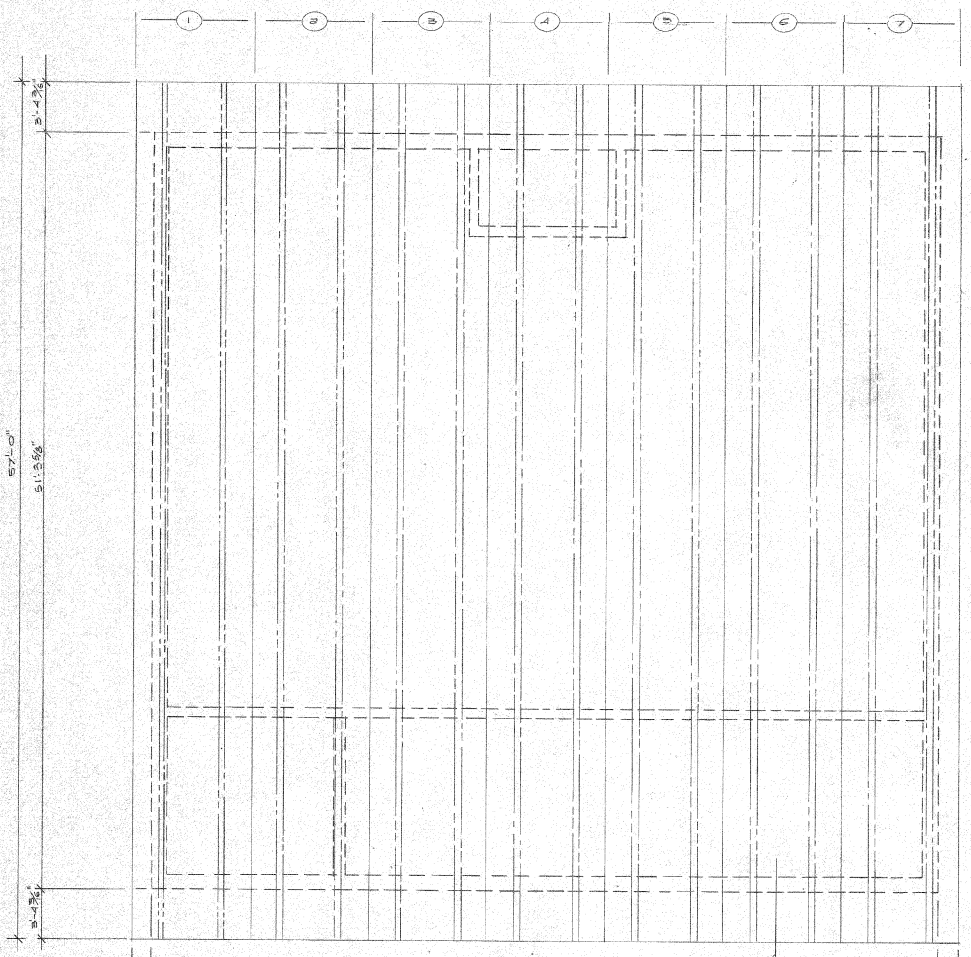
ROOF FRAMING PLAN and BUILDING SECTION (NB)

DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

REVISIONS			
DESIGNED S.O.C.	DETAILED S.R.	TRACED S.R.	
CHECKED S.O.C.	CHECKED C.H.	CHECKED C.H.	
DATE 21 MAY 82			

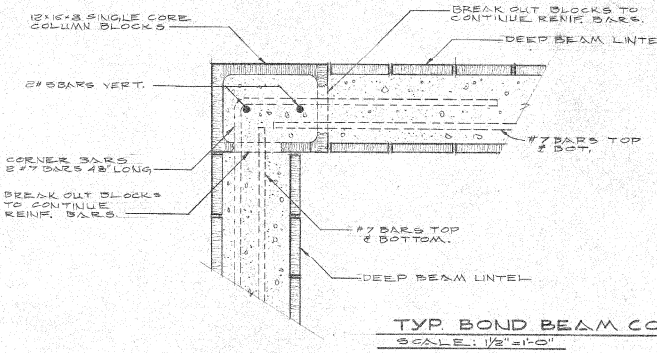
SPEC. NO.	PROJECT NO.	SHEET NO.
475	242.36	S-4

DWG. NO. 11 OF 25

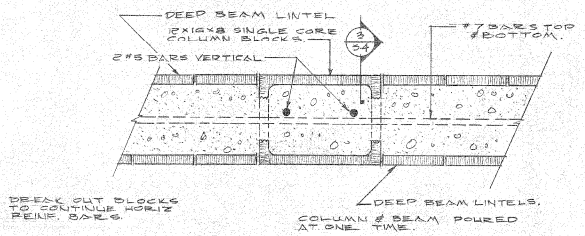


(7) 18"x8'-0"x57'-0" DOUBLE TEES (NO. 16-8DTN 108H-1)=56'-0"

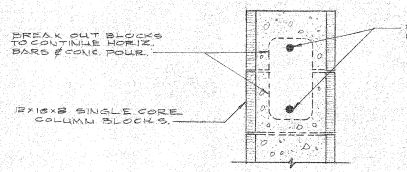
ROOF PLAN.
SCALE: 1/4"=1'-0"



TYP. BOND BEAM CORNER
SCALE: 1½"=1'-0"
1/S4



TYP. DETAIL BOND BEAM & COLUMNS
SCALE: 1½"=1'-0"
2/S4



SECTION
SCALE: 1½"=1'-0"
3/S4

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

McDUFFIE TERMINALS PLANT EXPANSION

NE, NW, CARDUMPER, AND BARGE UNLOADER MOTOR CONTROL BUILDINGS

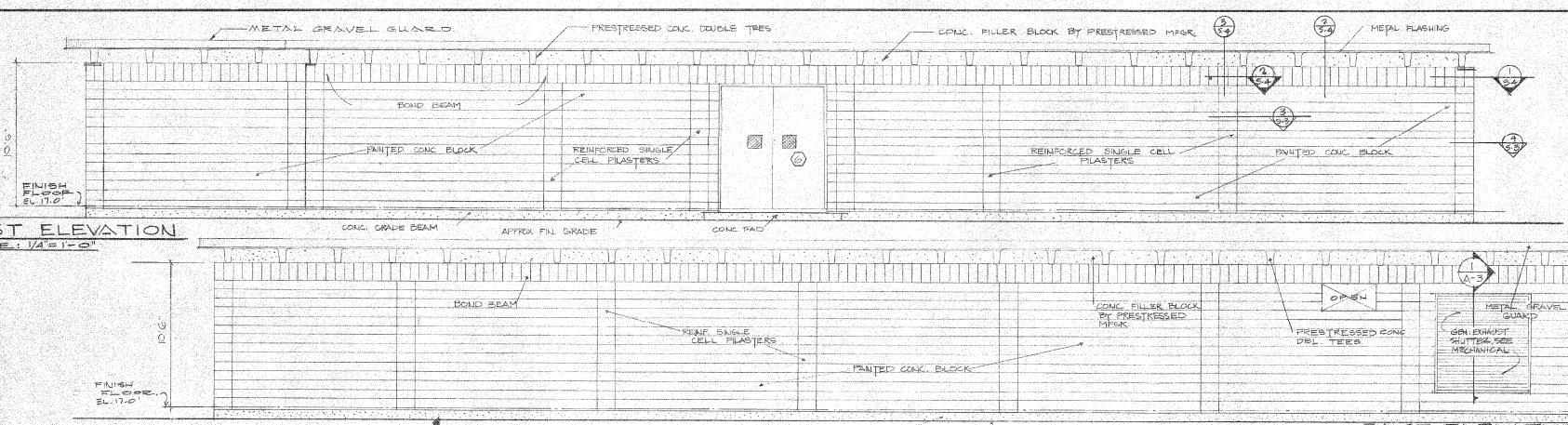
N.W. MOTOR CONTROL BUILDING/ROOF FRAMING PLAN

DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

REVISIONS	DESIGNED SOC	DETAILED SOC	TRACED NG
	CHECKED SOC	CHECKED CH	CHECKED CH
	DATE 21 MAY 82		

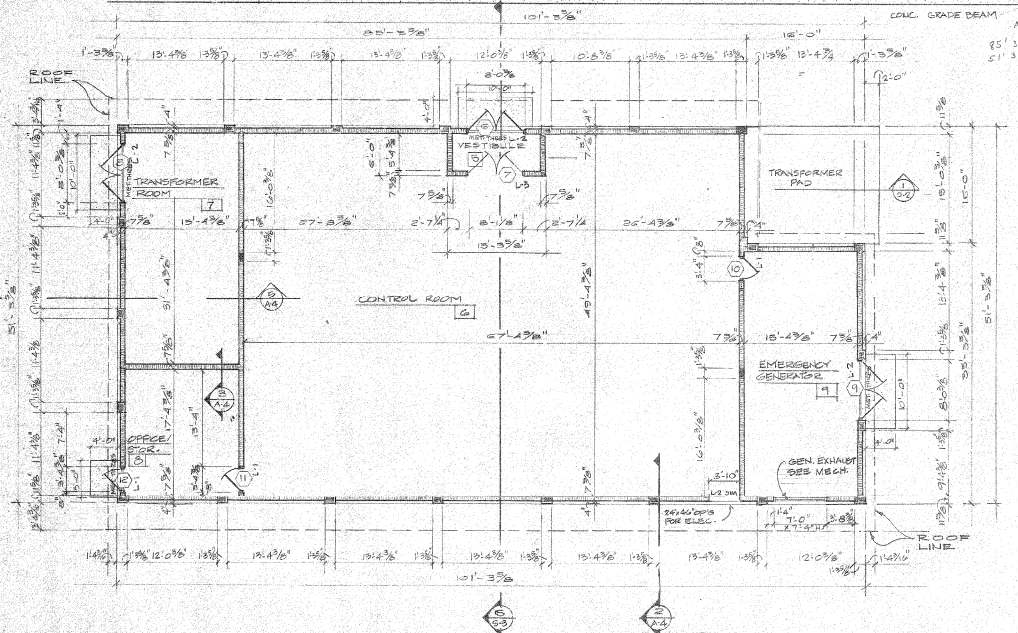
SPEC. NO.	PROJECT NO.	SHEET NO.
475	242.36	A-1

DWG. NO. 3 OF 25

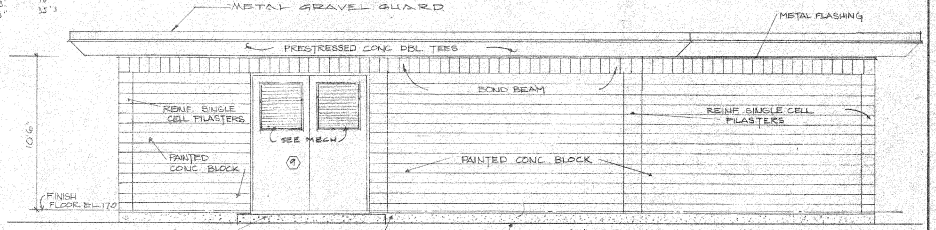


WEST ELEVATION
SCALE: 1/4"=1'-0"

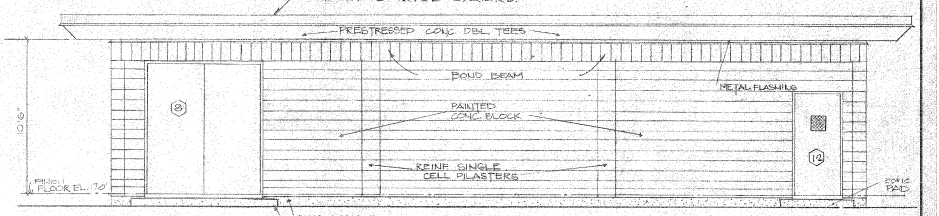
EAST ELEVATION
SCALE: 1/4"=1'-0"



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



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



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

LINTEL SCHEDULE

L-1 3'-4⅜" OPENING, 8" THICK x 8" DEEP LINTEL BLOCK W/ 2 #5's, FILL W/ CONC.

L-2 8'-0⅜" OPENING, 12" THICK x 16" DEEP LINTEL BLOCK W/ #7 TOP AND BOTTOM FILL W/ CONC. (BOND BEAM)

L-3 2'-0⅜" OPENING 8" THICK x 8" DEEP LINTEL BLOCK W/ 2 #5, FILL WITH CONC.

STATE OF ALABAMA — DAVID VOLKERT & ASSOC. — Roderick B. Diehl Reg. Archt. No. 1998 — MOBILE — REGISTERED ARCHITECT

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

McDUFFIE TERMINALS PLANT EXPANSION

NE, NW, CARDUMPER, AND BARGE UNLOADER MOTOR CONTROL BUILDINGS

N.E. MOTOR CONTROL BUILDING
FLOOR PLAN and ELEVATIONS

DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

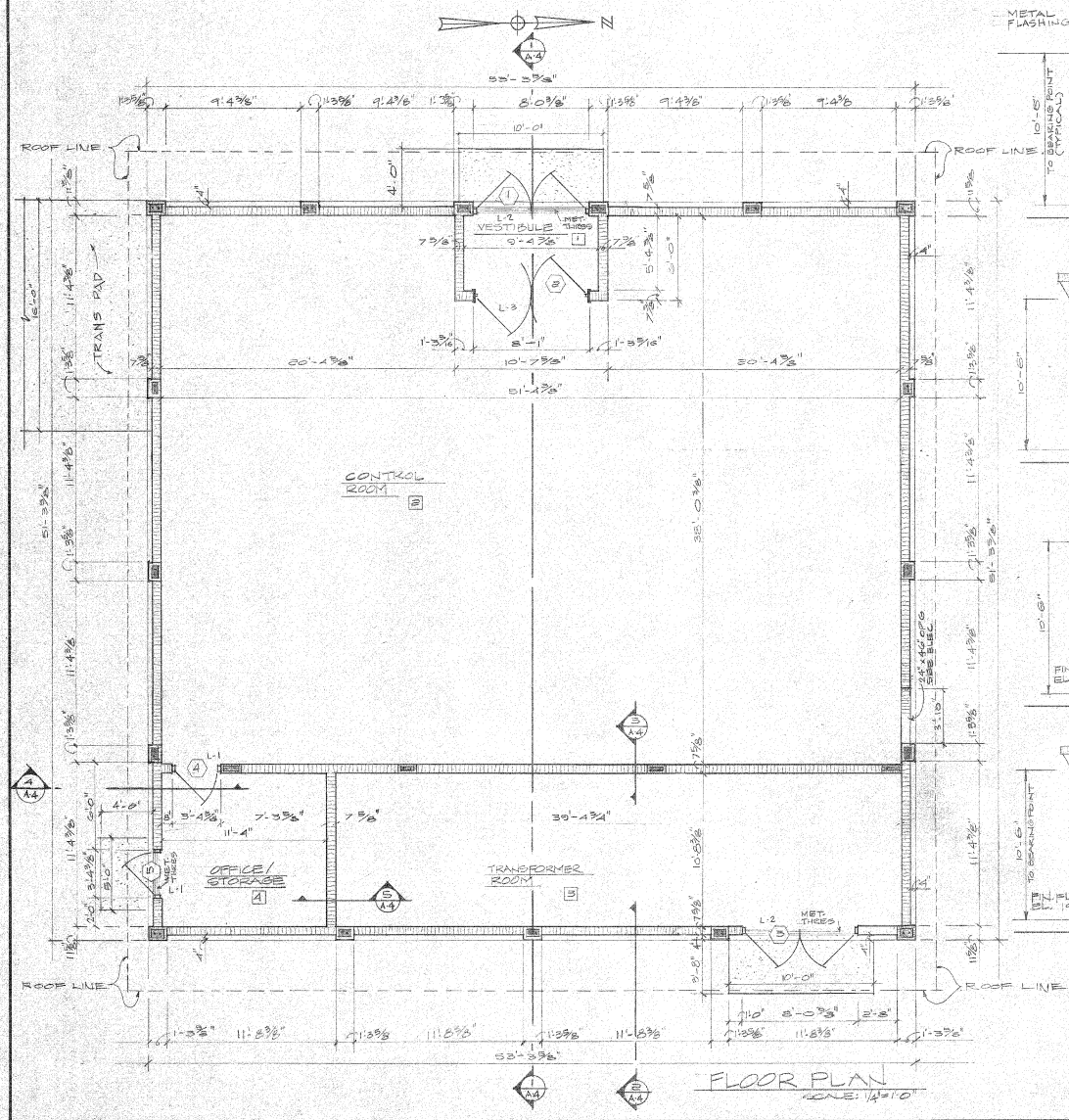
	DESIGNED	DETAILED	TRACED
REVISIONS	S.R.	N.S.	N.S.
	CHECKED E.H.	CHECKED C.H.	CHECKED C.H.
	DATE 21 MAY 82		

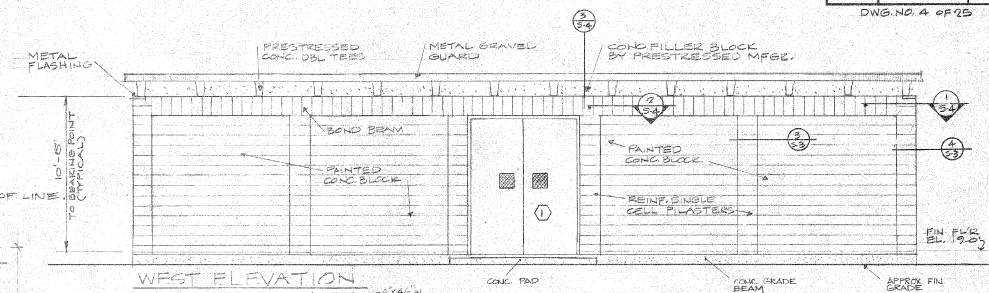
AF 19607

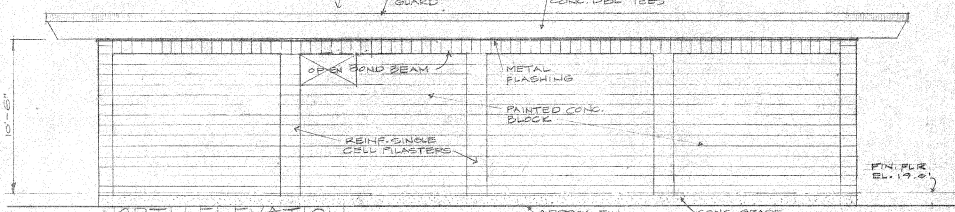
NW

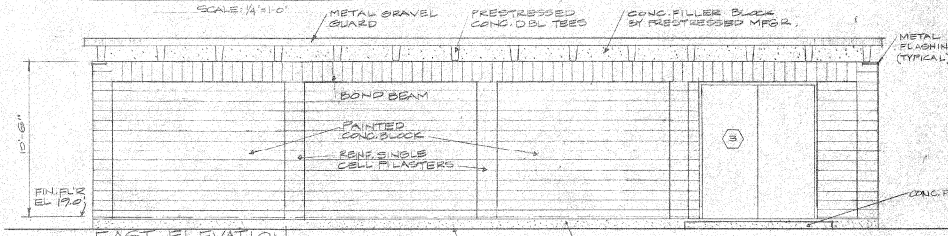
SPEC. NO.	PROJECT NO.	SHEET NO.
473	24236	A-2

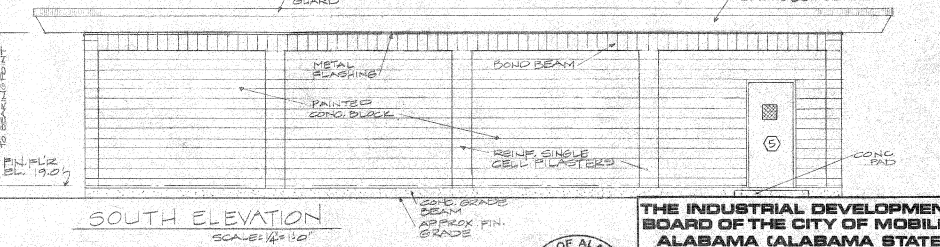
DWG. NO. 4 OF 25











STATE OF ALABAMA
DAVID VOLKERT & ASSOC.
Roderick B. Slate
Reg. Arch. No. 242
MOBILE
REGISTERED ARCHITECT

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

McDUFFIE TERMINALS PLANT EXPANSION

NE, NW, CARDUMPER, AND BARGE UNLOADER MOTOR CONTROL BUILDINGS

N.W. MOTOR CONTROL BUILDING

FLOOR PLAN AND ELEVATIONS

DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

DESIGNED SR	DETAILED NG	TRACED NG
CHECKED CH	CHECKED CH	CHECKED CH
DATE 21 MAY 82		

REVISIONS

ROOM FINISH SCHEDULE

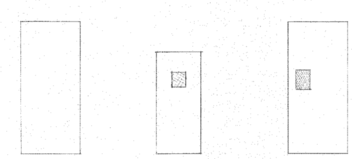
Building	Mark on Drawings	Designation	Floor 1 (Concrete w/sealer)	Floor 2	Floor 3	Floor 4	Floor 5	Floor 6	Base 1	Base 2	Base 3	Base 4	Wainscot 1	Wainscot 2	Wainscot 3	Wainscot 4	Wainscot 5	Wall 1 (Conc. block - painted)	Wall 2	Wall 3	Wall 4	Wall 5	Ceiling 1 (Prestressed double tee-painted)	Ceiling 2	Ceiling 3	Ceiling 4	Ceiling 5	Ceiling 6	Trim 1	Trim 2	Trim 3	Ceiling Height	Remarks
N W Building	1	Vestibule	1															B					A						A	C		—	
	2	Control Room	1															B					A						A	C		—	
	3	Trasformer Room	1															B					A						A	C		—	
	4	Office/Storage	1															B					A						A	C		—	
N E Building	5	Vestibule	1															B					A						A	C		—	
	6	Control Room	1															B					A						A	C		—	
	7	Trasformer Room	1															B					A						A	C		—	
	8	Office/Storage	1															B					A						A	C		—	
	9	Emergency Generator	1															B					A						A	C		—	
Car Dumper	10	Control Room	1															B					A						A	C		—	

DOOR SCHEDULE

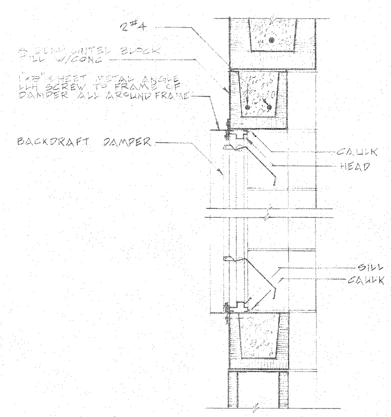
SPEC NO	PROJECT NO.	SHEET NO
475	242.36	A-3

DWG. NO. 5 of 25

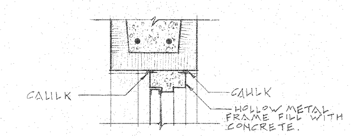
Building	Mark on Drawings	Leaves S-Single D-Double	Size	Thickness	Door Type Mark	Door Material 1 (Hollow metal)	Door Material 2	Door Material 3	Door Material 4	Door Material 5	Frame Mat'l 1	Frame Mat'l 2	Frame Mat'l 3	Glass 1 (Wire glass)	Glass 2	Glass 3	Glass 4	Glass 5	Threshold 1	Threshold 2	Threshold 3	Threshold 4	Threshold 5	Threshold 6	Threshold 7	Detail No. Head	Detail No. Mullion	Detail No. Jamb	Detail No. Sill	Sheet No. for Detail	Lintel Mark	Hardware Mark	Label	Remarks
N W Building	1	D	4'-0"W×9'-0"H	1¾"	C	1								1												2/A-3	-	3/A-3	5/A-3		L-2	HW-1		
	2	D	4'-0"W×9'-0"H	1¾"	C	1								1												4/A-3	-	3/A-3	-		L-3	HW-2		
	3	D	4'-0"W×9'-0"H	1¾"	A	1																				2/A-3	-	3/A-3	5/A-3		L-2	HW-3		
	4	S	3'-0"W×7'-0"H	1¾"	B	1								1												4/A-3	-	3/A-3	-		L-1	HW-4		
	5	S	3'-0"W×7'-0"H	1¾"	B	1								1												2/A-3	-	3/A-3	5/A-3		L-1	HW-5		
N E Building	6	D	4'-0"W×9'-0"H	1¾"	C	1								1												2/A-3	-	3/A-3	5/A-3		L-2	HW-1		
	7	D	4'-0"W×9'-0"H	1¾"	C	1																				4/A-3	-	3/A-3	-		L-3	HW-2		
	8	D	4'-0"W×9'-0"H	1¾"	A	1																				2/A-3	-	3/A-3	5/A-3		L-2	HW-3		
	9	D	4'-0"W×9'-0"H	1¾"	A	1																				2/A-3	-	3/A-3	5/A-3		L-2	HW-3		Louvers where shown on elev.
	10	S	3'-0"W×7'-0"H	1¾"	B	1								1												4/A-3	-	3/A-3	-		L-1	HW-4		
	11	S	3'-0"W×7'-0"H	1¾"	B	1								1												4/A-3	-	3/A-3	-		L-1	HW-4		
	12	S	3'-0"W×7'-0"H	1¾"	B	1								1												2/A-3		3/A-3	5/A-3		L-1	HW-5		
Car Dumper	13	D	4'-0"W×9'-0"H	1¾"	C	1																				2/A-3	-	3/A-3	5/A-3		L-2	HW-1		
	14	S	3'-0"W×7'-0"H	1¾"	B	1								1												2/A-3	-	3/A-3	5/A-3		L-1	HW-5		



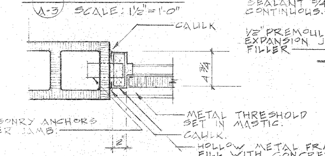
DOOR ELEVATIONS
SCALE: 1/4" = 1'-0"



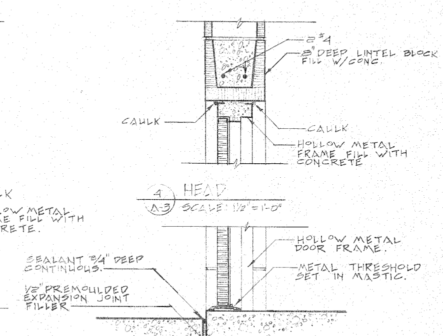
1/A-3 SECTION THRU BACKDRAFT DAMPER
SCALE: 1½" = 1'-0"



2/A-3 HEAD
SCALE: 1½" = 1'-0"



3/A-3 JAMB
SCALE: 1½" = 1'-0"



4/A-3 HEAD
SCALE: 1½" = 1'-0"

5/A-3 SILL
SCALE: 1½" = 1'-0"

PAINT SCHEDULE

MK.	1 ST COAT	2 ND COAT	3 RD COAT	4 TH COAT
A	Primer Sealer	High Build Epoxy		
B	Block Filler	Primer Sealer	High Build Epoxy	
C	Shop Coat	High Build Epoxy		

STATE OF ALABAMA — DAVID VOLKERT & ASSOC. — Roderick B. Slater, Reg. Arch. No. 542 — MOBILE — REGISTERED ARCHITECT

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

McDUFFIE TERMINALS PLANT EXPANSION

NE, NW, CARDUMPER, AND BARGE UNLOADER MOTOR CONTROL BUILDINGS

FINISH SCHEDULE, DOOR SCHEDULE and DETAILS

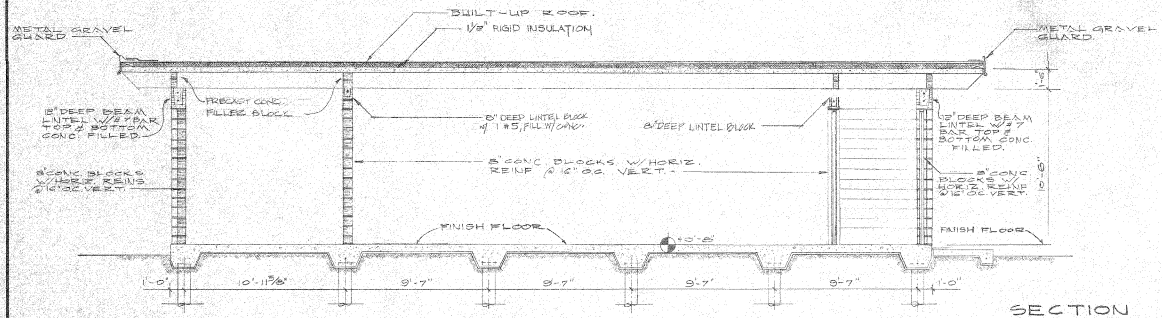
DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

DESIGNED CH	DETAILED BB	TRACED BB
CHECKED CH	CHECKED CH	CHECKED CH
DATE 21 MAY 82		

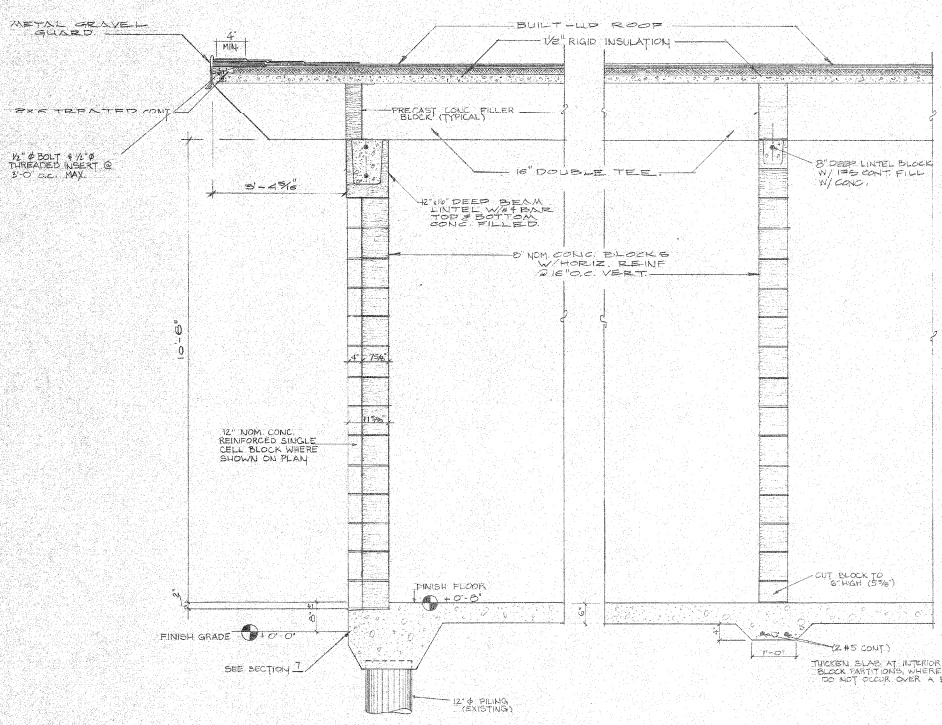
REVISIONS

SPEC. NO.	PROJECT NO.	SHEET NO.
475	242.36	A-4

DWG. NO. 6 OF 25

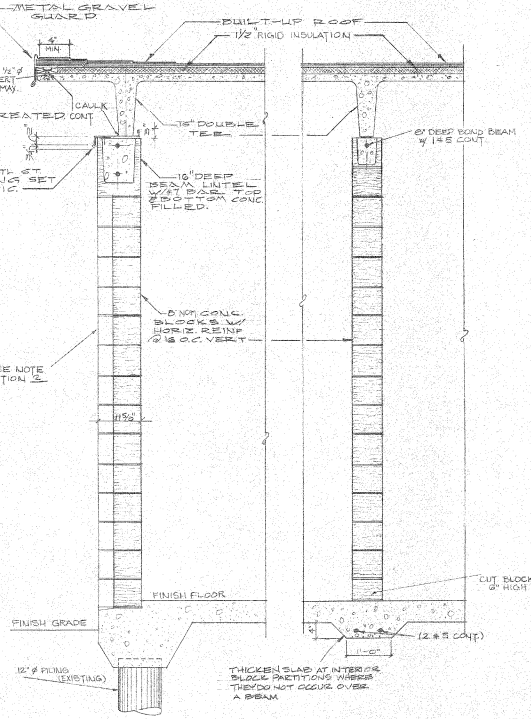


SECTION
SCALE: ¼"=1'-0" (1 / A-4)



SECTION
SCALE: ¾"=1'-0" (2 / A-4)

SECTION
SCALE: ¾"=1'-0" (3 / A-4)



SECTION
SCALE: ¾"=1'-0" (4 / A-4)

SECTION
SCALE: ¾"=1'-0" (5 / A-4)

STATE OF ALABAMA
DAVID VOLKERT & ASSOC.
Roderick B. Slater
Reg. Archt. No. 5468
MOBILE
REGISTERED ARCHITECT

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

McDUFFIE TERMINALS PLANT EXPANSION

NE, NW, CARDUMPER, AND BARGE UNLOADER MOTOR CONTROL BUILDINGS

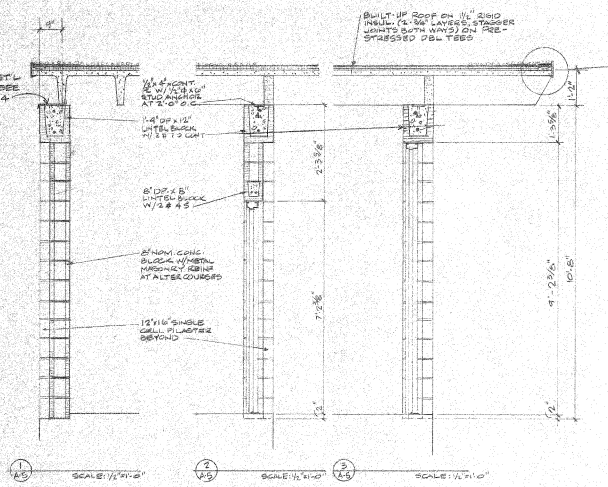
SECTIONS AND DETAILS/NW. BUILDING SECTION

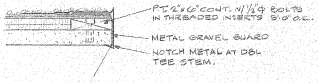
DAVID VOLKERT & ASSOCIATES CONSULTING ENGINEERS

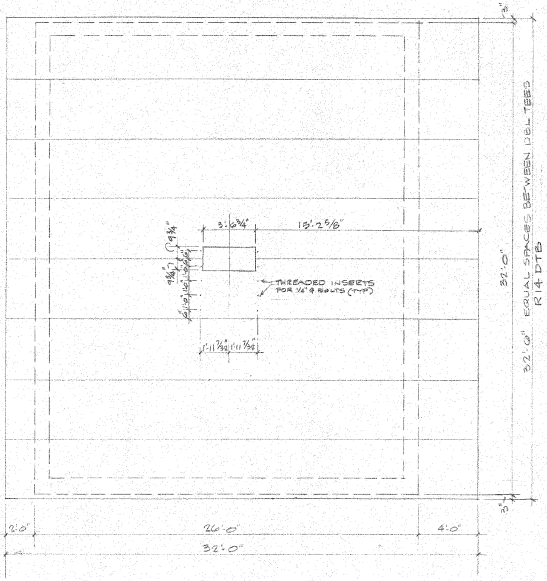
REVISIONS			
	DESIGNED S.R.	DETAILED N.G.	TRACED N.G./S.B.
	CHECKED E.H.	CHECKED BH	CHECKED E.H.
	DATE 21 MAY 82		

SPEC. NO.	PROJECT NO.	SHEET NO.
475	242.36	A-5

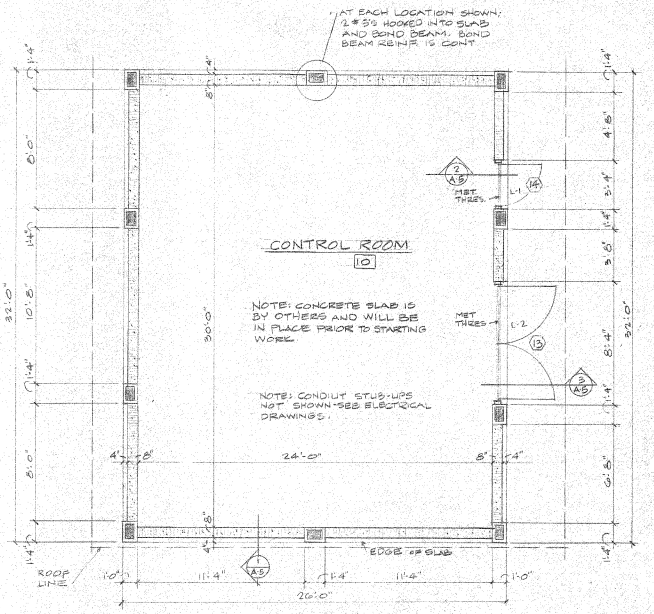
DWG NO. 7 OF 25







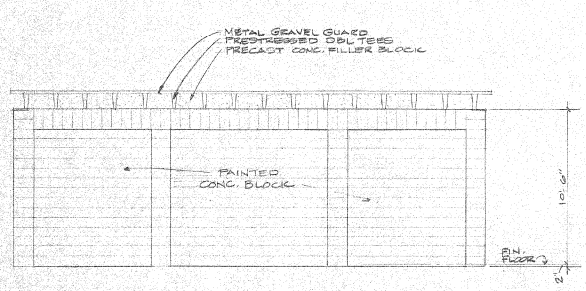
ROOF FRAMING PLAN
SCALE: 1/4"=1'-0"



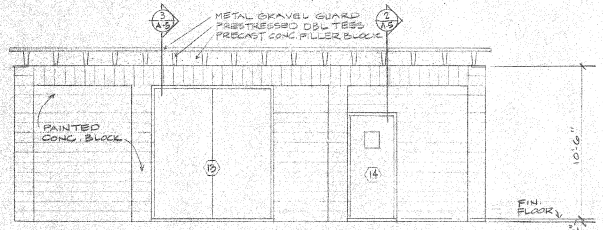
NOTE: MASONRY DIMENSIONS ARE NOMINAL.

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

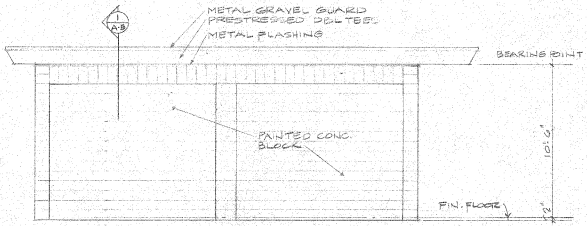
NORTH



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



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



SOUTH ELEVATION
SCALE: 1/4"=1'-0"
NORTH ELEVATION IS OPP. HAND

STATE OF ALABAMA
DAVID VOLKERT & ASSOC.
Roderick B. Slater
Reg. Archit. No. 6413
MOBILE
REGISTERED ARCHITECT

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

MCDUFFIE TERMINAL PLANT EXPANSION

NE, NW, CARDUMPER, AND BARGE UNLOADER MOTOR CONTROL BUILDINGS
CARDUMPER MOTOR CONTROL BUILDING
FLOOR PLAN, ELEVATIONS, FRAMING PLAN, DETAILS

DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

REVISIONS	DESIGNED CH	DETAILED CH	TRACED CH
	CHECKED CH	CHECKED CH	CHECKED CH
	DATE 21 MAY 82		

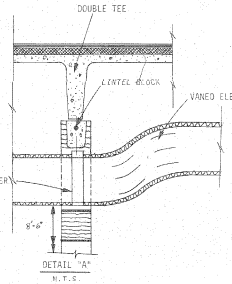
SPEC. NO.		SHEET NO.
475		M-1

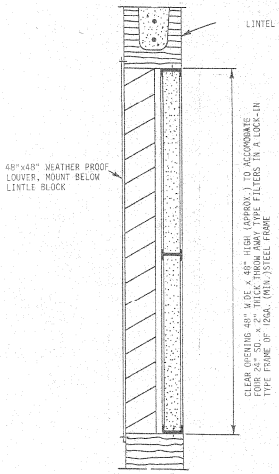
DWG NO. 12 OF 25

A.C. SCHEDULE

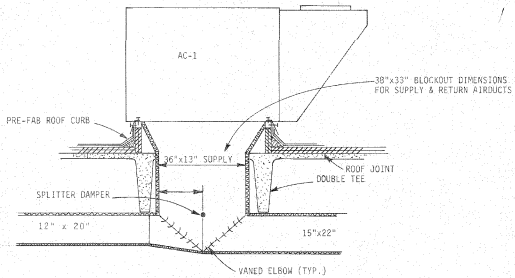
AC-1 & 2 — PACKAGED ROOF TOP A.C. SHALL BE TRANE MODEL SACC-C134, OR APPROVED EQUAL. UNIT SHALL BE RATED AT 120,000 BTUH (NOMINAL) AT A.R.I. CONDITIONS, AND A HEATING INPUT OF 45 KW. THE UNIT SHALL OPERATE ON 480 VOLTS, 3-PHASE, 60 HZ POWER THE UNIT SHALL BE ARRANGED WITH A TIME DELAY, ANTI-SHORT CYCLE TIMER, LOW AMBIENT MECHANICAL COOLING TO 0° F, TWO STAGES OF HEATING & COOLING, MANUAL 0-25 PERCENT OUTSIDE AIR HOOD, CRANK CASE HEATERS, 24 V. THERMOSTAT A MINIMUM OF TWO COMPRESSORS AND TWO SEPARATE REFRIGERANT CIRCUITS. THE UNIT AND CURB SHALL BE SECURED IN AN APPROVED MANNER TO RESIST A 50 P.S.F. WINDFORCE. THE EVAPORATOR FAN SHALL DELIVER 4800 CFM AT .4 IN.W.G. (EXTERNAL STATIC PRESSURE). FOR ENERGY EFFICIENCY UNIT SHALL HAVE A MINIMUM EER OF 7.6 OR APPROVED ECER.

EF-1,2,3 — EXHAUST FAN BY LOREN COOK, CAT. NO. 24SP48 OR APPROVED EQUAL RATED AT 3442 CFM AT 1/4" S.P., 1/3 H.P., 115 V, 1-PHASE, 60 HZ POWER. THE FAN SHALL BE ARRANGED WITH A MOTOR OPERATED SHUTTER AS INDICATED, & SAFETY SCREEN, AND A WALL MOUNTED THERMOSTAT WITH A RANGE OF 80° TO 120° F. NOTE: THIS VENTILATION SYSTEM IS FOR EMERGENCY USE ONLY AND THE THERMOSTAT SHALL BE SET AT A TEMPERATURE HIGH ENOUGH TO SENSE (TRANSFORMER ROOMS ONLY.) THAT THE AIR CONDITIONER HAS MALFUNCTIONED, GENERATOR ROOM THERMOSTAT IS SET ON 90° F. FAN SHALL HAVE MAXIMUM E.F. ZONE RATING OF 14



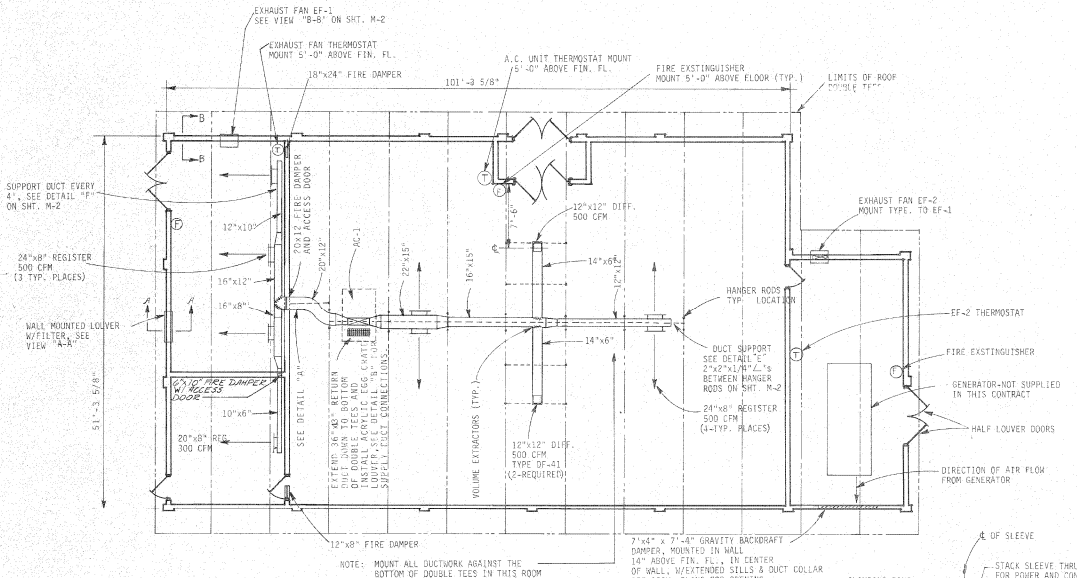


VIEW "A-A"
N.T.S.

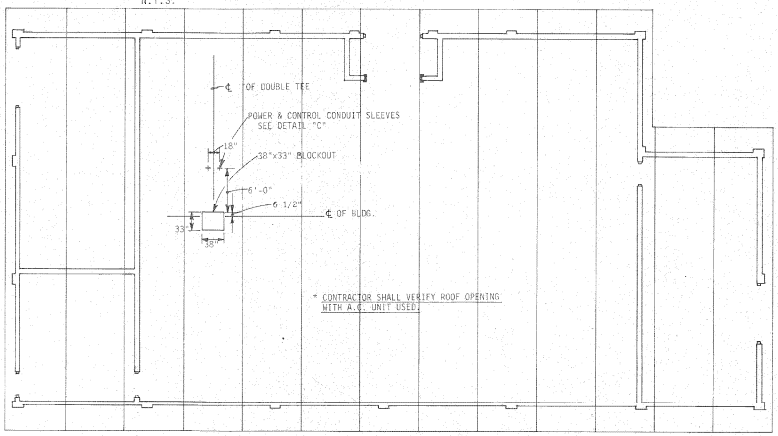


NOTES: 1. MOUNT ALL DUCT WORK UP AGAINST THE BOTTOM OF DOUBLE TEES.
2. MOUNT A.C. UNIT AND ROOF CURB TO RESIST A 50 PSF WIND FORCE.

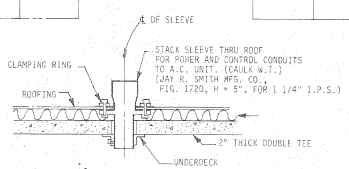
DETAIL "B"
SUPPLY DUCT CONNECTIONS
SCALE: 1/2" = 1'-0"



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



ROOF PLAN (AC UNIT NOT SHOWN)
SCALE: 1/8" = 1'-0"



DETAIL "C"
NOT TO SCALE
(TWO REQUIRED)

N

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

NORTH EAST MOTOR CONTROL BLDG.
MECHANICAL PLAN

DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

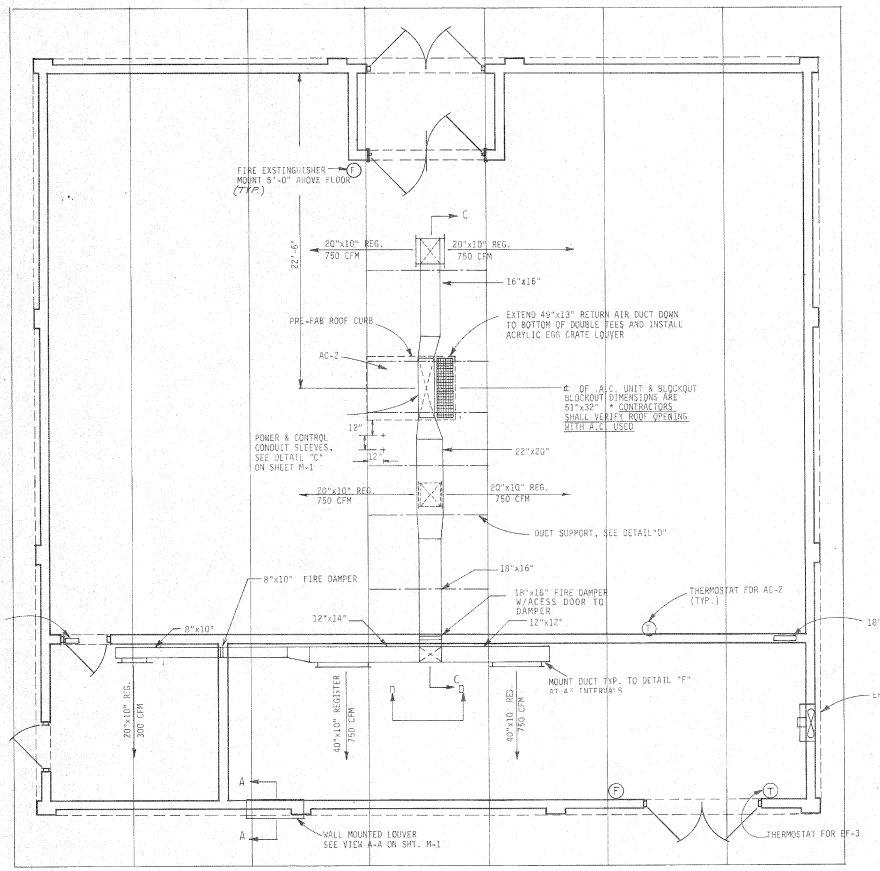
REVISIONS	DESIGNED J.N.M.	DETAILED J.N.M.	TRACED M.F.L.
	CHECKED D.J.H.	CHECKED D.J.H.	CHECKED D.J.H.
	DATE 4-15-82		

AP 19607

SPEC. NO.		SHEET NO.
475		M-2

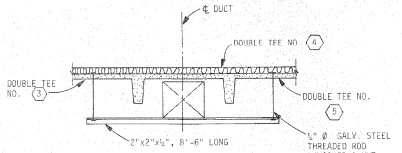
DWG. NO. 13 OF 25

* A.C. SCHEDULE IS ON SHT. M-1



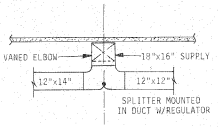
MECHNICAL PLAN

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



DETAIL "D"
DUCT SUPPORT - 6 REQD.

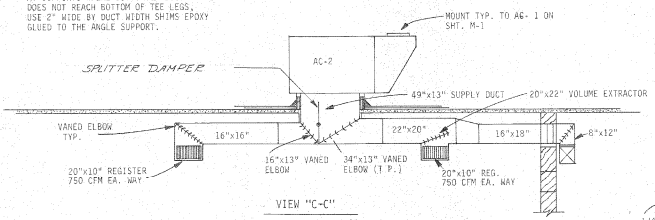
N.T.S.



VIEW "D-D"

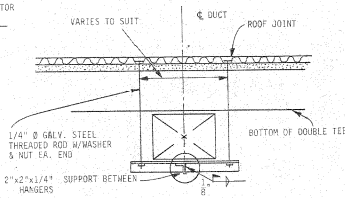
N.T.S.

NOTE:
AT SUPPORTS WHERE BOTTOM OF DUCT DOES NOT REACH BOTTOM OF TEE LEGS, USE 2" WIDE BY DUCT WIDTH SHIMS EPOXY GLUED TO THE ANGLE SUPPORT.



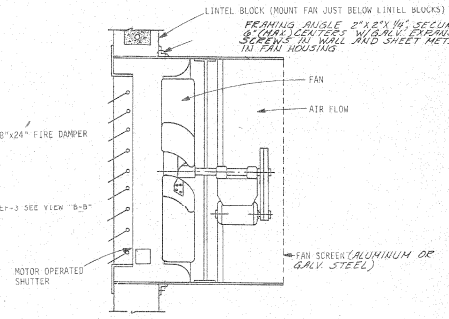
VIEW "C-C"

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



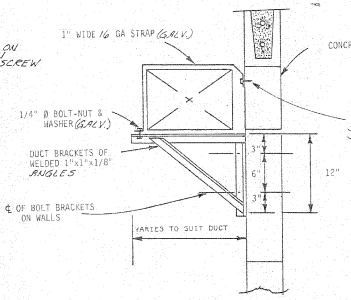
DETAIL "E"
DUCT SUPPORT

N.T.S.



VIEW "B-B"

N.T.S.



DETAIL "F"

N.T.S.

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

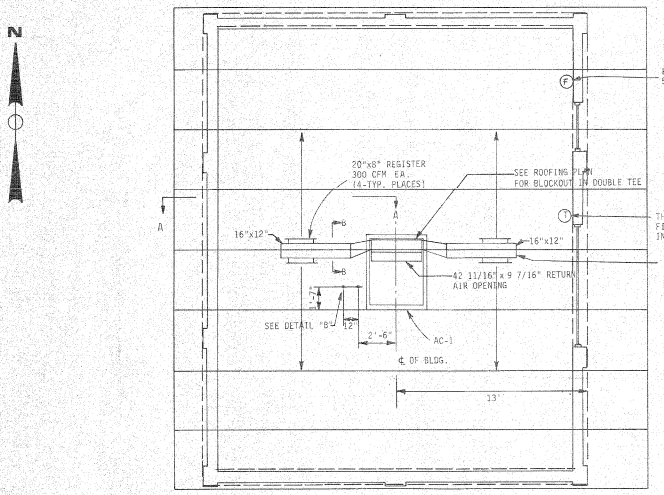
NORTHWEST MOTOR CONTROL BLDG.
MECHANICAL PLAN

DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

	DESIGNED J.N.M.	DETAILED J.N.M.	TRACED M.F.L.
	CHECKED D.J.H.	CHECKED D.J.H.	CHECKED D.J.H.
REVISIONS	DATE 4-15-82		

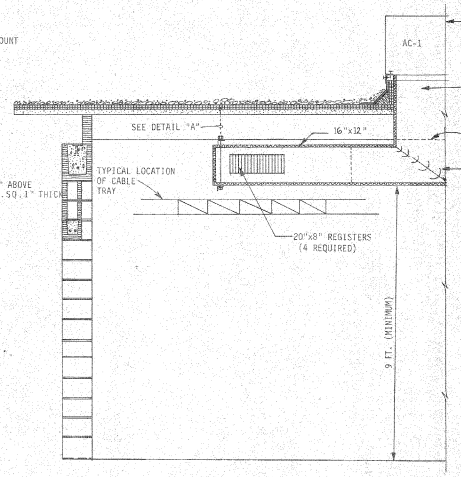
SPEC. NO.		SHEET NO.
475		M-3

DWG NO. 14 OF 25



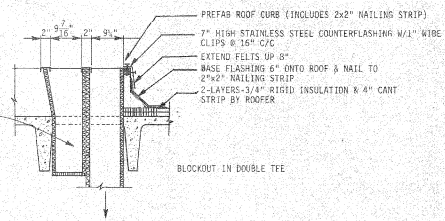
MECHANICAL PLAN

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



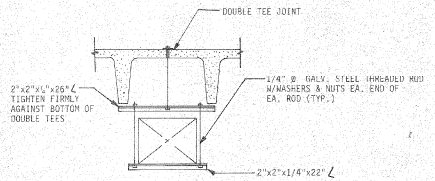
SECTION A-A

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



SECTION "B-B"

SCALE: 3/4" = 1'-0"

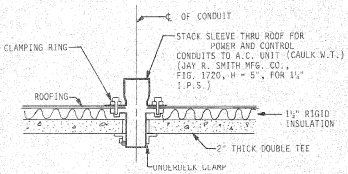


DETAIL "A"

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

SPECIFICATIONS

1. ROOFTOP A.C.-1 UNIT SHALL BE TRANE MODEL SAHB-304, OR APPROVED EQUAL RATED 35,800 BTUH (MIN.) AT ARI CONDITIONS. HEATING COIL IS RATED AT 10 KW. THE UNIT SHALL OPERATE ON 480 VOLT, 3 PHASE 60 CYCLE POWER. THE UNIT SHALL BE ARRANGED WITH A TIME DELAY RELAY, ANTI-SHORT CYCLE TIMER, LOW AMBIENT MECHANICAL COOLING TO 0° F, MANUAL 0-25 PERCENT OUTSIDE AIR, 24 VOLT THERMOSTAT FOR ONE STAGE COOLING & HEATING, CRANK CASE HEATERS & ONE COMPRESSOR. THE UNIT SHALL BE BOLTED IN PLACE ON THE PREFAB CURB INDICATED WITH A MINIMUM OF (24) STAINLESS STEEL SHEET METAL SCREWS. THE EVAPORATOR FAN SHALL DELIVER 1200 CFM AT .20 IN-WATER EXTERNAL STATIC PRESSURE. FOR ENERGY EFFICIENCY UNIT SHALL HAVE MINIMUM SEER OF 8.9 OR APPROVED EQUAL. THE UNIT AND CURB SHALL BE SECURED TO RESIST A 50 P.S.F. WIND FORCE.
2. THE PREFAB ROOF CURB FOR THE ROOF TOP UNIT SHALL BE SECURED IN PLACE TO THE DOUBLE TEES, USING 1/4" Ø GALV. BOLTS (10 TOTAL).
3. ALL DUCTWORK SHALL BE OF GALVANIZED STEEL, 20 GAGE (MINIMUM), WITH POCKET SLIP OR BAR-S SLIP CONSTRUCTION JOINTS SHALL BE SPACED NOT MORE THAN THREE FEET APART.
4. SUPPLY REGISTERS SHALL BE OF STEEL WITH DOUBLE DEFLECTION BLADES (VERTICAL FRONT BARS) AND OPPOSED BLADE DAMPER. ANEMOSTAT MODEL S 2V, OR APPROVED EQUAL.
5. ALL DUCTWORK SHALL HAVE 1" THICK NEOPRENE COATED FIBERGLASS DUCT LINER.
6. STEEL ANGLES SUPPORTING DUCT AND DUCT SHALL BE GIVEN TWO COATS OF LIGHT GREEN RUSTOLEUM PAINT
7. *THE DUCT HANGERS MUST BE PLACED IN THIS CONTRACT PRIOR TO ROOFING. SEE DETAIL "A"*
8. *RETURN GRILLE SHALL BE AN ACRYLIC EGG CRATE TYPE 1/8"x1/2"x1/8"x45° SHIELDING TYPE 10, AS MANUFACTURED BY AMERICAN LOUVER CO.*



DETAIL "B"

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

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

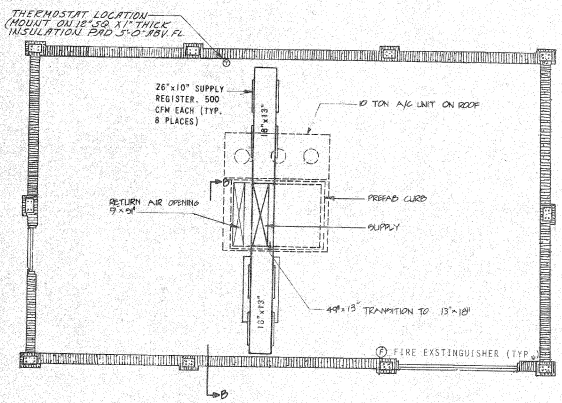
CAR DUMPER MOTOR CONTROL BLDG.
PLAN AIR DISTRIBUTION

DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

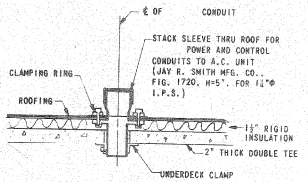
REVISIONS	DESIGNED J.N.M.	DETAILED J.N.M.	TRACED M.F.L.
	CHECKED D.J.H.	CHECKED D.J.H.	CHECKED D.J.H.
	DATE 4-15-82		

SPEC. NO.		SHEET NO.
475		M-6

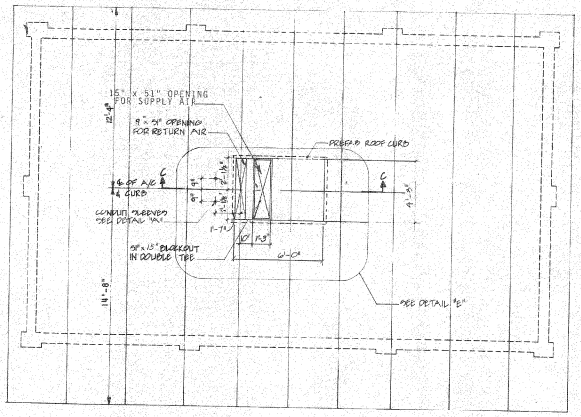
DWG NO. 15 OF 25



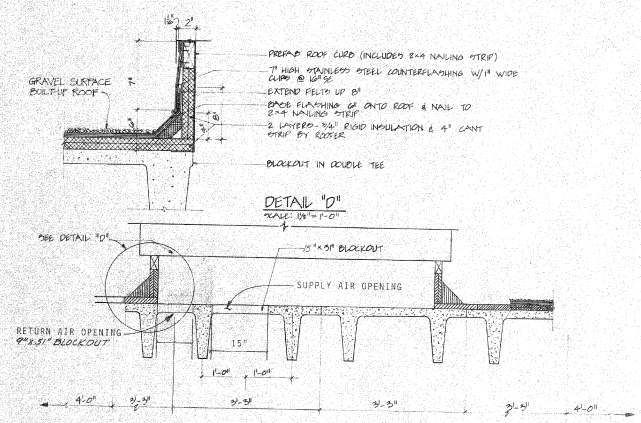
AIR CONDITIONING PLAN
SCALE: 1" = 1'-0"



DETAIL "A"
SCALE: 1½" = 1'-0"
TWO REQUIRED

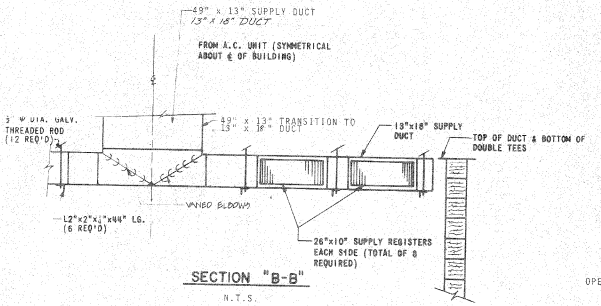


ROOF PLAN (A/C UNIT NOT SHOWN)
SCALE: ¼" = 1'-0"

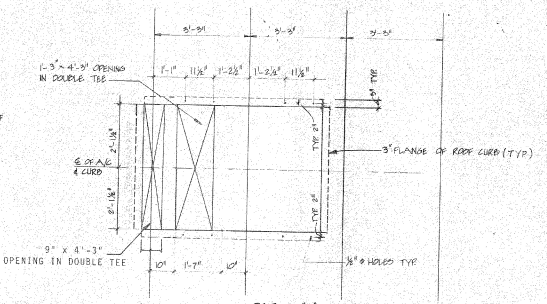


DETAIL "D"
SCALE: 1½"=1'-0"

SECTION "C-C"
SCALE: 1" = 1'-0"



SECTION "B-B"
N.T.S.



DETAIL "E"
SCALE: ½"=1'-0"

SPECIFICATIONS

1. THE PREFAB ROOF CURB FOR THE ROOF TOP A/C UNIT SHALL BE INSTALLED AS INDICATED AND BOLT HOLES FOR PREFAB CURB SHALL BE PROVIDED.

2. ROOFTOP A.C. UNIT SHALL BE TRANE MODEL SACC - C-10H, RATED 120,000 BTUH AT AR) CONDITIONS. HEATING COIL IS NOT REQUIRED. THE UNIT SHALL OPERATE ON 460 VOLT, 3 PHASE, 60 CYCLE POWER. THE UNIT SHALL BE ARRANGED WITH A TIME DELAY RELAY, ANTI-SHORT CYCLE TIMER, LOW AMBIENT MECHANICAL COOLING TO 0° F, MANUAL 0-25 PERCENT OUTSIDE AIR, 24 VOLT THERMOSTAT FOR TWO STAGE COOLING ONLY, FIVE YEAR WARRANTY & A MINIMUM OF TWO COMPRESSORS. THE UNIT SHALL BE BOLTED IN PLACE ON THE PREFAB CURB INDICATED WITH A MINIMUM OF (24) STAINLESS STEEL SHEET METAL SCREWS. THE EVAPORATOR FANS SHALL DELIVER 6000 CFM AT 0.50 IN-WATER EXTERNAL STATIC PRESSURE. FOR ENERGY EFFICIENCY, UNIT SHALL HAVE A MINIMUM EER 7.6 OR APPROVED EER.

3. THE PREFAB ROOF CURB FOR THE ROOF TOP UNIT SHALL BE SECURED IN PLACE TO THE DOUBLE TEES, USING ¼" Φ GALV. BOLTS (8) MIN.

4. ALL DUCTWORK SHALL BE OF GALVANIZED STEEL, 20 GAGE (MINIMUM), WITH POCKET SLIP OR BAR-S SLIP CONSTRUCTION. JOINTS SHALL BE SPACED NOT MORE THAN FOUR FEET APART.

5. SUPPLY REGISTERS SHALL BE OF STEEL WITH DOUBLE DEFLECTION BLADES (VERTICAL FRONT BARS) AND OPPOSED BLADE DAMPER, ANEMOSTAT MODEL S 2V, OR APPROVED EQUAL.

6. ALL DUCTWORK SHALL HAVE 1" THICK NEOPRENE COATED FIBERGLASS DUCT LINER.

7. THE UNIT AND ROOF CURB SHALL BE MOUNTED TO RESIST A 50 P.S.F. WIND FORCE.

8. STEEL ANGLES SUPPORTING DUCT AND DUCT SHALL BE GIVEN TWO COATS OF LIGHT GREEN RUSTOLEUM PAINT.

9. THE DUCT HANGERS MUST BE PLACED IN THIS CONTRACT PRIOR TO ROOFING.

REVISIONS	

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

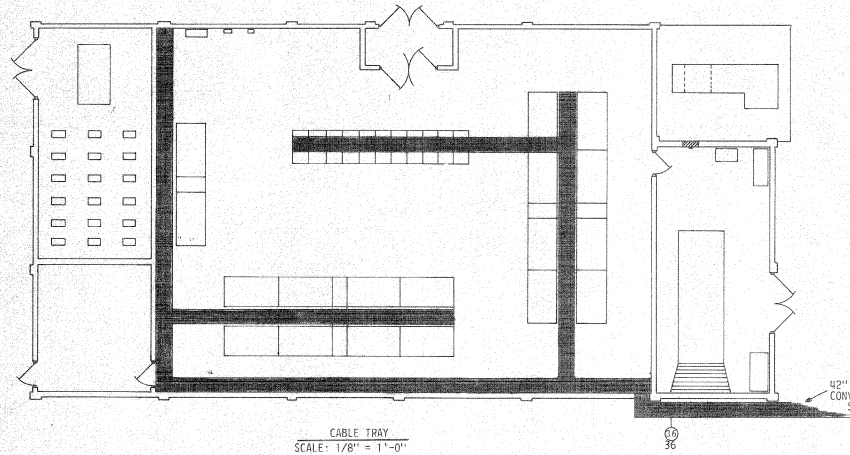
BARGE UNLOADER MOTOR CONTROL BLDG.

DAVID VOLKERT & ASSOCIATES CONSULTING ENGINEERS

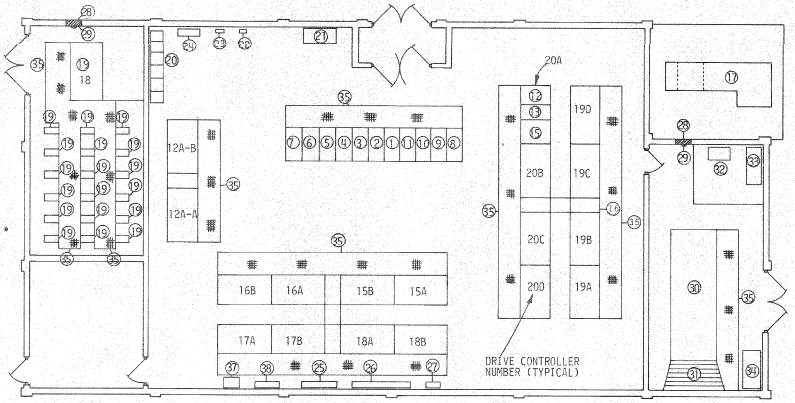
DESIGNED J.N.M.	DETAILED J.N.M.	TRACED M.F.L.	
CHECKED D.J.H.	CHECKED J.N.M.	CHECKED D.J.H.	
DATE 4-15-82			

SPEC. NO.		SHEET NO.
475		E-1

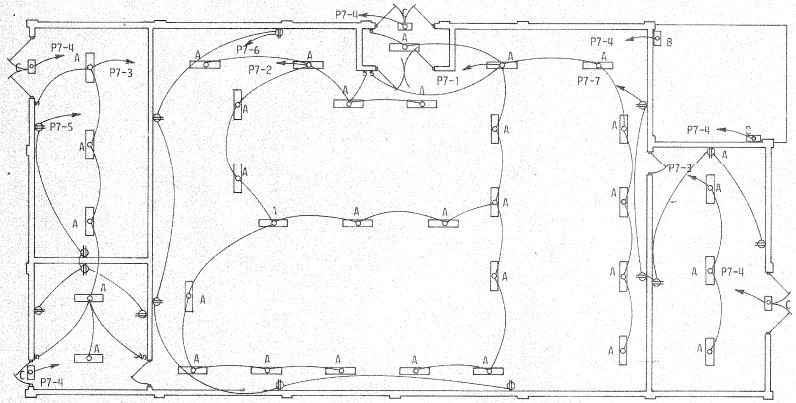
DWG NO. 16 OF 28



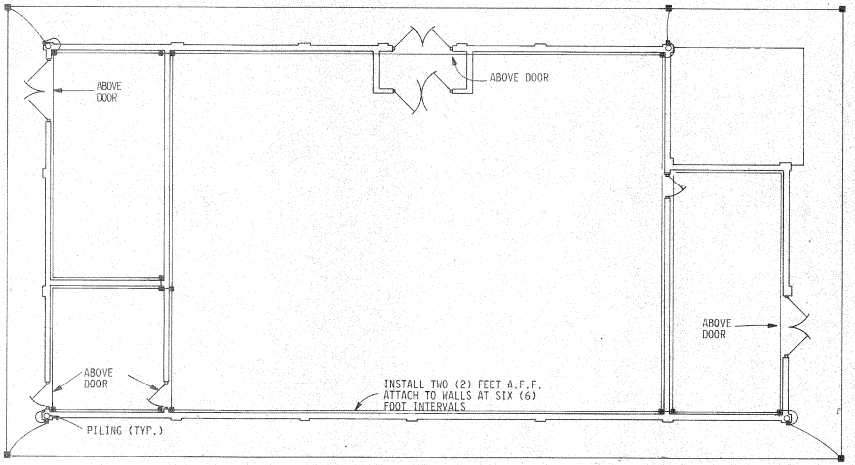
CABLE TRAY
SCALE: 1/8" = 1'-0"



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



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



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

LIGHTING & POWER NOTES:

1. LIGHT FIXTURE "A": VAPOR FLUORESCENT MILLER NO. KD 2100-04, 2-40 W/RS, MOUNTED ON BAR JOIST.
2. LIGHT FIXTURE "B": WATER TIGHT FLUORESCENT WITH EMERGENCY BATTERY PACK MILLER NO. KW 2300-01-04 MOUNTED ON WALL 7'-0" ABOVE FINISH FLOOR.
3. LIGHT FIXTURE "C": HOLOPHANE TYPE: WALL PACKETTE 175 MERCURY MOUNTED ABOVE DOOR.
4. CONVENIENCE OUTLETS SHALL BE 120 VOLT, 20 AMPS, SURFACE MOUNTED, HEAVY DUTY FOR INDUSTRIAL SERVICE. HUBBELL NO. 5262 IN STEEL BOX WITH STEEL COVER PLATE, MOUNTED 24" A.F.F.
5. LIGHT SWITCHES SHALL BE 120 V, 20 AMPS SINGLE OR THREE WAY AS REQUIRED, SURFACE MOUNTED, HUBBELL NO. 1221 IN STEEL BOX WITH STEEL COVER PLATE, MOUNTED 4'-6" A.F.F.

GROUNDING NOTES:

1. USE 1" PVC CONDUIT SLEEVE WHERE GROUNDING CONDUCTOR PENETRATES WALLS OR SLABS.
2. ALL GROUNDING CONDUCTORS SHALL BE 2/0 AWG BARE STRANDED COPPER.
3. GROUND GRID SHALL BE INSTALLED IN THREE (3) FOOT TRENCH AT DISTANCE OF FIVE (5) FEET FROM BUILDING OR SLAB.
4. CONTRACTOR SHALL ATTACH ALL GROUNDING CONDUCTORS TO STEEL PILINGS. ALL CONNECTION POINTS SHALL BE THOROUGHLY CLEANED AND DEGREASED PRIOR TO CONNECTIONS BEING MADE.
5. ALL CONNECTIONS SHALL BE CADWELD.
6. ALL GROUNDING CONDUCTOR INSTALLED IN TRENCH SHALL BE COATED WITH ASPHALTUM PRIOR TO INSTALLATION.

STATE OF ALABAMA — DAVID VOLKERT & ASSOC. — C. Nelson Russell, Reg. Eng. No. 10232 — REGISTERED ENGINEER — MOBILE

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

NORTH EAST MOTOR CONTROL BLDG. CABLE TRAY LIGHTING, EQUIPMENT, GROUND GRID PLAN

DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

REVISIONS	DESIGNED N.C.A.	DETAILED N.C.A.	TRACED R.A.B.
	CHECKED N.R.	CHECKED	CHECKED N.C.A.
	DATE APRIL 28, 1982		

SPEC. NO.		SHEET NO.
475		E-2

DWG. NO. 17 OF 25

NORTH EAST MCC

CONDUIT & CABLE SCHEDULE

CONDUIT NO.	SIZE	CONDUCTOR	FROM	TO
1	5"	3-1/C #2/0	23 KV SWITCHGEAR	EAST TRANSFORMER PRIMARY
2	5"	3-1/C #500MCM	TRANSFORMER SECONDARY	INCOMING LINE SECTION
3	5"	3-1/C #500MCM	TRANSFORMER SECONDARY	INCOMING LINE SECTION
4	5"	3-1/C #500MCM	DOCK MCC FEEDER CB	DOCK MCC
5	5"	3-1/C #500MCM	NE MCC FEEDER CB	CONV. 15,16,17 & 18
6	5"	3-1/C #500MCM	CONV. 15,16,17 & 18 CONT	CONV. 12A CONTROLLER
7	5"	3-1/C #500MCM	CARDUMPER FEEDER CB	CARDUMPER
8	5"	3-1/C #500MCM	EAST CONTROL BLDG. FEEDER CB	EAST CONTROL BLDG.
9	5"	3-1/C #500MCM	SOUTHEAST CNTL. BLDG. FEEDER CB	SOUTHEAST CONTROL BLDG.
10	5"	3-1/C #500MCM	DOCK FEEDER CB	TRANSFER SWITCH
11	5"	3-1/C #500MCM	TRANSFER SWITCH	EMERGENCY GENERATOR CB
12	5"	3-1/C #500MCM	EMERGENCY GENERATOR CB	EMERGENCY GENERATOR
13	5"	3-1/C #500MCM	TRANSFER SWITCH	DOCK SECTION INCOMING LINE
14	5"	3-1/C #500MCM	NORTHEAST TRANSFORMER CB	NORTHEAST TRANSFORMER PRIMARY
15	2"		TELEPHONE JB	PLANT BOX
16	1"	1/C #3/0	GROUND TRANSFORMER SECONDARY	GROUND TRANSFORMER ROOM
17	1"	1/C #3/0	GROUND TRANSFORMER PRIMARY	GROUND TRANSFORMER ROOM
18	1"	1/C #3/0	GROUND TRANSFORMER ROOM	GROUND GRID
19	1"	1/C #3/0	SWITCHGEAR GROUND	GROUND GRID
20	1"	1/C #3/0	TRANSFORMER SECONDARY GROUND	GROUND GRID
21	1"	1/C #3/0	TRANSFORMER PRIMARY GROUND	GROUND GRID
22	1"	1/C #3/0	GENERATOR GROUND	GROUND GRID
23	1"	3 #6,5KV,NS	CONV. 12 A-B CONTROLLER	P.F. CORRECTING CAPACITOR
24	1"	3 #6,5KV,NS	CONV. 12A-A CONTROLLER	P.F. CORRECTING CAPACITOR
25	1"	3 #6,5KV,NS	CONV. 19 D CONTROLLER	P.F. CORRECTING CAPACITOR
26	1"	3 #6,5KV,NS	CONV. 20 A CONTROLLER	P.F. CORRECTING CAPACITOR
27	1"	3 #6,5KV,NS	CONV. 19 C CONTROLLER	P.F. CORRECTING CAPACITOR
28	1"	3 #6,5KV,NS	CONV. 20 B CONTROLLER	P.F. CORRECTING CAPACITOR
29	1"	3 #6,5KV,NS	CONV. 19 B CONTROLLER	P.F. CORRECTING CAPACITOR
30	1"	3 #6,5KV,NS	CONV. 20 C CONTROLLER	P.F. CORRECTING CAPACITOR
31	1"	3 #6,5KV,NS	CONV. 19 A CONTROLLER	P.F. CORRECTING CAPACITOR
32	1"	3 #6,5KV,NS	CONV. 20 D CONTROLLER	P.F. CORRECTING CAPACITOR
33	1"	3 #6,5KV,NS	CONV. 18-B CONTROLLER	P.F. CORRECTING CAPACITOR
34	1"	3 #6,5KV,NS	CONV. 18-A CONTROLLER	P.F. CORRECTING CAPACITOR
35	1"	3 #6,5KV,NS	CONV. 17-B CONTROLLER	P.F. CORRECTING CAPACITOR
36	1"	3 #6,5KV,NS	CONV. 17-A CONTROLLER	P.F. CORRECTING CAPACITOR
37	1"	3 #6,5KV,NS	CONV. 15-A CONTROLLER	P.F. CORRECTING CAPACITOR
38	1"	3 #6,5KV,NS	CONV. 15-B CONTROLLER	P.F. CORRECTING CAPACITOR
39	1"	3 #6,5KV,NS	CONV. 16-A CONTROLLER	P.F. CORRECTING CAPACITOR
40	1"	3 #6,5KV,NS	CONV. 16-B CONTROLLER	P.F. CORRECTING CAPACITOR
41	5"	3 1/C 500 MCM 1-250 MCM	TRANSFORMER SECONDARY	480 V CONTROL CENTER
42	5"	3 1/C 500 MCM 1-250 MCM	TRANSFORMER SECONDARY	480 V CONTROL CENTER
43	5"	3 1/C 500 MCM 1-250 MCM	TRANSFORMER SECONDARY	480 V CONTROL CENTER
44	1"	4-1/C #8	ROADLIGHTS CB	ROADLIGHTS
45	1"	4-1/C #8	ROADLIGHTS CB	ROADLIGHTS
46	5"		CABLE TRAY DROP	MANHOLE
47	5"		CABLE TRAY DROP	MANHOLE
48	2"		CABLE TRAY DROP	HANDHOLE
49	1"	3-#12 THW	VENTILATION FAN C.B.	VENT. FAN GENERATOR ROOM
50	5"		CABLE TRAY DROP	SPARE
51	2"		CABLE TRAY DROP	SPARE
52	2"		CABLE TRAY DROP	SPARE
53	2"		CABLE TRAY DROP	SPARE
54	5"		CABLE TRAY DROP	SPARE
55	2"		CABLE TRAY DROP	SPARE
56	2"		CABLE TRAY DROP	SPARE
57	2"	8-1/C#12THW	CONVEYOR RELAY PANEL	CONVEYOR 19 CONTROL
58	1"	3 #12 THW	VENT. FAN TRANSFORMER CB	VENT. FAN TRANSFORMER ROOM
59	2"	3-1/C #6	CONV. 19D HV CONTROLLER	CONVEYOR 19D MOTOR
60	3"	3-1/C #4/0	CONV. 19D SECONDARY CONTROLLER	CONVEYOR 19D MOTOR
61	2"	3-1/C #6	CONV. 19C HV CONTROLLER	CONVEYOR 19C MOTOR
62	3"	3-1/C #4/0	CONV. 19C SECONDARY CONTROLLER	CONVEYOR 19C MOTOR
63	2"	3-1/C #6	CONV. 19B HV CONTROLLER	CONVEYOR 19C MOTOR
64	3"	3-1/C #4/0	CONV. 19B SECONDARY CONTROLLER	CONVEYOR 19B MOTOR
65	2"	3-1/C #6	CONV. 19A HV CONTROLLER	CONVEYOR 19A MOTOR
66	3"	3-1/C #4/0	CONV. 19A SECONDARY CONTROLLER	CONVEYOR 19A MOTOR
67	3"	3-1/C#350MCM	SAMPLING SYSTEM C.B	SAMPLING SYSTEM
68	3"	3-3/0-#8G	TOWER T16 HOIST&LIGHTS	TOWER T16
69	2"		CABLE TRAY DROP	TOWER T16

SPACE	SPACE	1	2	19	15	SPACE 26
		3	4	20 21	16	P7 120/208 PANEL 24 CIRCUITS
	INCOMING LINE	5	6	12	17	
		7	8	13	22 24	P7 30 KVA 480/ 120-208 TRANSFORMER
		9	10		23	
		11	18	14	SPACE	

MOTOR CONTROL CENTER M7
SCALE: NONE

* CONTROL CENTER SHALL BE WESTINGHOUSE FIVE STAR OR APPROVED EQUAL.

* OWNER FURNISHED - CONTRACTOR INSTALLED

N.E. BLDG. EQUIPMENT SCHEDULE

	NUMBER	DESCRIPTION	CONTRACTOR TO FURNISH
*	1	INCOMING LINE SECTION 4160 VOLT	DISTRIBUTION
*	2	MCC MAIN CIRCUIT BREAKER	DISTRIBUTION
*	3	DOCK SECTION CIRCUIT BREAKER	DISTRIBUTION
*	4	N.E. MCC CIRCUIT BREAKER	DISTRIBUTION
*	5	CARDUMPER CIRCUIT BREAKER	DISTRIBUTION
*	6	EAST MOTOR CONTROL BUILDING CIRCUIT BREAKER	DISTRIBUTION
*	7	SOUTH EAST MOTOR CONTROL BLDG. CIRCUIT BREAKER	DISTRIBUTION
*	8	INCOMING LINE SECTION FOR DOCK SECTION	DISTRIBUTION
*	9	DOCK MCC CIRCUIT BREAKER	DISTRIBUTION
*	10	N.E. TRANSFORMER CIRCUIT BREAKER	DISTRIBUTION
*	11	SHIPLOADER CIRCUIT BREAKER	DISTRIBUTION
*	12	CONVEYOR DRIVE CONTROLLER (RESISTOR PANEL SECTION)	CONVEYOR
*	13	CONVEYOR DRIVE CONTROLLER (SECONDARY PANEL SECTION)	CONVEYOR
	14		
*	15	CONVEYOR DRIVE CONTROLLER (H.V. STARTER & CONTROL SYSTEM)	CONVEYOR
*	16	CONVEYOR DRIVE CONTROLLER (INCOMING PANEL/JUNCTION PANEL)	CONVEYOR
*	17	23 KV/4160 VOLT 5000 KVA TRANSFORMER	DISTRIBUTION
*	18	4160/480 VOLT 750 KVA TRANSFORMER	DISTRIBUTION
*	19	POWER FACTOR CORRECTING CAPACITOR	CONVEYOR
	20	480 VOLT CONTROL CENTER/LOAD CENTER	CONVEYOR
	21	VIBRATORY FEEDER CONTROLLER	CONVEYOR
	22	BIN SWITCHES CONTROL	CONVEYOR
	23	TELEPHONE TERMINAL BOX	CONVEYOR
	24	ANNUNCIATOR PANEL	CONVEYOR
*	25	I/O RACK PANEL	CONVEYOR
	26	RELAY PANEL	CONVEYOR
	27	CONTROL TERMINAL BOX	CONVEYOR
	28	VENTILATION FAN	BUILDING
	29	VENTILATION FAN CONTROLS	BUILDING
	30	1250 KVA EMERGENCY GENERATOR	DISTRIBUTION
	31	EMERGENCY GENERATOR RADIATOR FAN COMPARTMENT	DISTRIBUTION
	32	EMERGENCY GENERATOR TRANSFER SWITCH	DISTRIBUTION
	33	EMERGENCY GENERATOR CIRCUIT BREAKER	DISTRIBUTION
	34	EMERGENCY GENERATOR 200 GALLON FUEL TANK	DISTRIBUTION
	35	SWITCHGEAR MATTING	DISTRIBUTION
	36	CABLE TRAY (42"DIVIDED)	BUILDING
	37	25 KVA 1 Ø 480 V-120/240 DRY-TYPE TRANSFORMER	CONVEYOR
	38	CONTROL POWER PANEL BOARD	CONVEYOR

MOTOR CONTROL CENTER M7

MFR: WESTINGHOUSE
TYPE: FIVE STAR
CLASS:1 TYPE:B
SERVICE 277/480 V 3 Ø 4W
FEEDER:9 #500 MCM 3 #250 MCM
MAIN: 800 AMP
TYPE: WESTINGHOUSE MC

CIRCUIT NO.	DESCRIPTION	WIRE SIZE	NO. POLES	*W TYPE	TRIP AMP	LOADS WATTS
1	PANEL P7 TRANSFORMER	6	3	FB	40	15200
2	CONV. 17 & TOWER T12 LIGHTS	6	2	FB	20	2985
3	CONVEYOR 15 LIGHTS	8	2	FB	20	2587
4	TOWER T10 LIGHTS CONV. 12A	6	2	FB	20	5174
5	SPARE		2	FB	20	
6	CONVEYOR 18	8	2	FB	20	1592
7	CONVEYOR 19 LIGHTS & T16 LIGHTS	6	2	FB	20	5771
8	C-7 CONTROL POWER TRANSFORMER	4	2	FB	65	17000
9	A/C & HEATER	6	3	FB	40	20000
10	ROADWAY LIGHTS	8	2	FB	30	9490
11	ROADWAY LIGHTS	10	2	FB	20	4650
12	VIBRATORY FEEDER PANEL	2	3	KB	125	65000
13	SAMPLING SYSTEM	250	3	KB	225	186288
14	CONVEYOR 16 MAGNET BELT	12	3	A206-1	20	9500
15	CONVEYOR 16 MAGNET RECTIFIER	10	3	* *	20	12500
16	HYDRAULIC UNIT FLOP GATE CONV.18	12	3	A206-1	20	10000
17	HYDRAILIC UNIT FLOPGATE CONV.15	12	3	A206-1	20	10000
18	ELECTRICAL HOISTS TOWER T-10	1/0	3	FB	90	41900
19	AUX. SHIPLOADER POWER	3/0	3	KB	150	60,000
20	ELECTRICAL HOISTS TOWER T-12	8	3	FB	30	20950
21	ELECTRICAL HOISTS TOWER T16	2	3	FB	75	52400
22	SPARE		3	FB	60	
23	TOWER T10 CONTROL ROOM POWER	2/0	3	KB	150	58900
24	SPARE		3	FB	20	
						610887

$$I = \frac{610887}{\sqrt{3} \times 480 \times 0.9} = 816.42 \text{ AMPS}$$

SCHEDULE PANEL P7

PANEL: WESTINGHOUSE C31-C5
MOUNTING: RECESSED IN M7
SERVICE 120/208 3 Ø 4W
FEEDER: 3 #2 1 #4 THW
MAIN: 100 AMP M.L.O.

CRT. NO.	CB RATING	NO. POLES	COND. SIZE	WIRE SIZE	EQUIPMENT	LOCATION	LOAD PHASE A	LOAD PHASE B	LOAD PHASE C
1	20	1	3/4"	12	LIGHTS	EQUIPMENT ROOM	1300		
2	20	1	3/4"	12	LIGHTS	EQUIPMENT ROOM		1200	
3	20	1	3/4"	12	LIGHTS	TRANSFORMER/OFFICE/GEN.ROOM			800
4	20	1	3/4"	12	OUTSIDE LIGHTS	TRANSFORMER	900		
5	20	1	3/4"	12	RECEPTACLES	OFFICE & TRANSFORMER ROOM		1000	
6	20	1	3/4"	12	RECEPTACLES	EQUIPMENT ROOM			1000
7	20	1	3/4"	12	RECEPTACLES	EQUIPMENT & GENERATOR ROOM	1000		
8	20	1	3/4"	12	VENT. FAN	TRANSFORMER ROOM		1000	
9	20	1	3/4"	12	VENT. FAN	GENERATOR ROOM			1000
10	20	1	3/4"	12	ANNUNCIATOR	EQUIPMENT ROOM	1000		
11	20	1	3/4"	12	BIN SWITCHES	EQUIPMENT ROOM		1000	
12	20	1	3/4"	12	SPARE				1000
13	20	2			SPARE		1000		
14	20	1			SPARE			1000	
15	20	1			SPARE				1000
16-24					SPACES		5200	5200	4800
								15200	

$$I = \frac{15200}{\sqrt{3} \times 208 \times 0.9} = 46.87 \text{ AMPS}$$

SCHEDULE CONTROL PANEL C7

PANEL: SQUARE D NEMA
SERVICE 1Ø 120/240V, 3W
FEEDER:3 #2/0 1 #2
MAIN: 150 AMPS
MOUNTING: SURFACE

CRT. NO.	CB RAT'G & POLES	EQUIPMENT	LOADS
1	30-2	I/O RACK	4800
2	20-2	RELAY PANEL P7 CONTROL	1000
3	20-2	CONVEYOR 12A (DRIVE A) CONTROL	1000
4	20-2	CONVEYOR 15 (DRIVE A) CONTROL	1000
5	20-2	CONVEYOR 16 (DRIVE A) CONTROL	1000
6	20-2	CONVEYOR 17 (DRIVE A) CONTROL	1000
7	20-2	CONVEYOR 18 (DRIVE A) CONTROL	1000
8	20-2	CONVEYOR 19 (DRIVE A) CONTROL	1000
9	20-2	CONVEYOR 20 (DRIVE A) CONTROL	1000
10	20-2	CONVEYOR 12A SPACE HEATERS	1000
11	20-2	CONVEYOR 15 SPACE HEATERS	1000
12	20-2	CONVEYOR 16 SPACE HEATERS	1000
13	20-2	CONVEYOR 17 SPACE HEATERS	1000
14	20-2	CONVEYOR 18 SPACE HEATERS	1000
15	20-2	CONVEYOR 19 DRIVE A-B SP.HEAT.	1000
16	20-2	CONVEYOR 19 DRIVE C-D SP.HEAT.	1000
17	20-2	CONVEYOR 20 DRIVE A-B SP.HEAT.	1000
18	20-2	CONVEYOR 20 DRIVE C-D SP.HEAT.	1000
19	20-2	SPARE	
20	20-1	SPARE	
21-42		SPACES	
			17000

$$I = \frac{17000}{240 \times 0.9} = 78.7 \text{ AMPS}$$

4. BUILDING CONTRACTOR SHALL INSTALL A DISCONNECT SWITCH ON THE OUTSIDE OF THE AIRCONDITIONING UNIT AND OVER CURRENT PROTECTION INSIDE THE UNIT FOR BOTH THE HEATER AND THE AIRCONDITIONING UNIT.

NOTES:

1. CONTRACTOR SHALL INSTALL ALL ELECTRICAL EQUIPMENT AS SHOWN, UTILIZING THE CABLE TRAY WHERE POSSIBLE.
2. BUILDING CONTRACTOR SHALL NOT PERFORM THE FINAL CONNECTION AND TESTING OF ALL LIGHT AND RECEPTACLE CIRCUITS. UNTILL ALL EQUIPMENT HAS BEEN INSTALLED BY THE CONVEYOR CONTRACTOR AND ALL POWER SUPPLY CONNECTIONS HAVE BEEN MADE BY THE DISTRIBUTION CONTRACTOR.
3. BUILDING CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUITS AND STUB-UPS TO A POINT FIVE (5) FEET OUTSIDE CONTROL CENTER. CONVEYOR OR DISTRIBUTION CONTRACTOR SHALL THEN INSTALL ALL CONDUIT, DUCTBANK AND RISERS AS INDICATED.

STATE OF ALABAMA
DAVID VOLKERT & ASSOC.
C. Nelson Russell
Reg. Reg. No. 10327
MOBILE
REGISTERED ENGINEER

REVISIONS			

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

NORTH EAST MOTOR CONTROL BUILDING
SCHEDULES & DETAILS

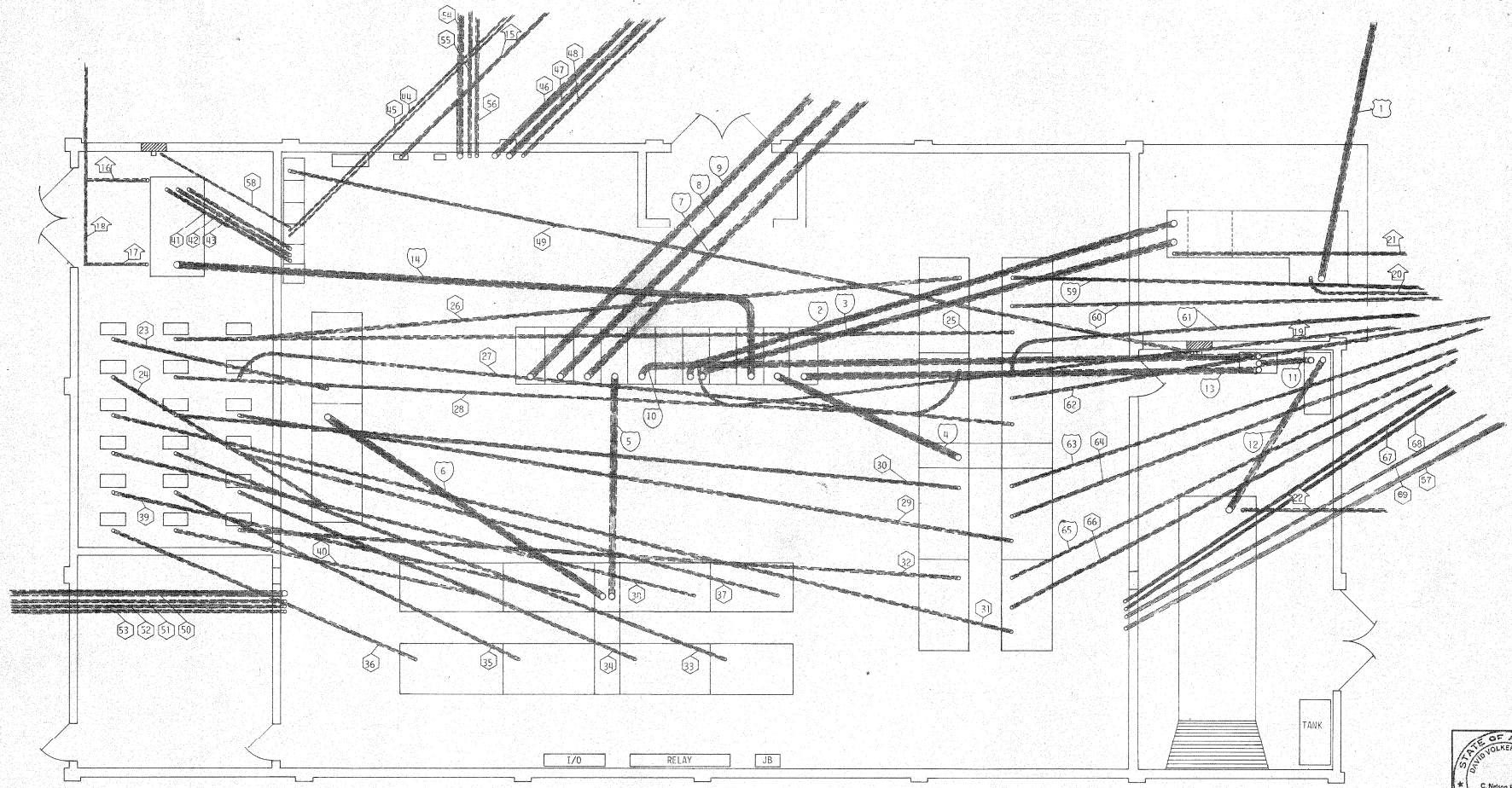
DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

DESIGNED N.C.A.	DETAILED N.C.A.	TRACED R.B.H.	
CHECKED N.R.	CHECKED	CHECKED N.C.A.	
DATE APRIL 28, 1982			

AP 19607

SPEC. NO.		SHEET NO.
475		E-3

DWG NO. 18 OF 26



1 — 23 KV FEEDER CIRCUIT

2 — 4160 FEEDER CIRCUIT

3 — 480 FEEDER CIRCUIT

4 — COMMUNICATION & GROUNDING CIRCUIT

STATE OF ALABAMA
DAVID VOLKERT & ASSOC.
C. Nelson Russell
Prof. Eng. No. 15207
MOBILE
REGISTERED ENGINEER

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

NORTH EAST MOTOR CONTROL BLDG.
CONDUIT & CABLE LAYOUT

DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

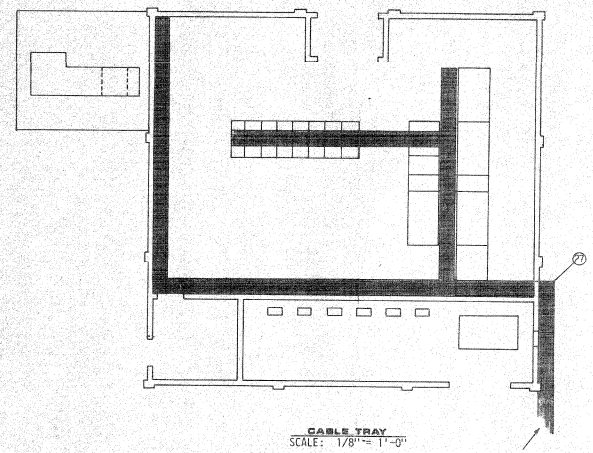
DESIGNED	N.C.A.	DETAILED	M.C.A.	TRACED	R.H.
CHECKED	N.R.	CHECKED		CHECKED	N.C.A.
DATE	APRIL 27, 1982				

REVISIONS

A.F. 12807

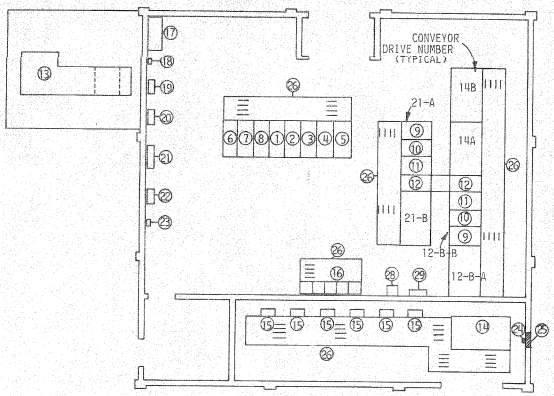
SPEC. NO.		SHEET NO.
475		E4

DWG. NO 19 OF 25



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

24" CABLE TRAY TO CONVEYOR NO. 14
SEE SHEET NO. 261 FOR DETAILS.
CONVEYOR CONTRACTOR SHALL INSTALL TRAY ON OUTSIDE OF BUILDING.

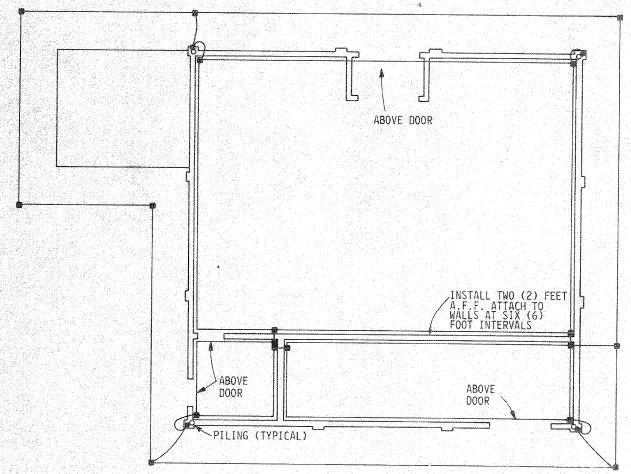


EQUIPMENT PLAN
SCALE: 1/8" = 1'-0"

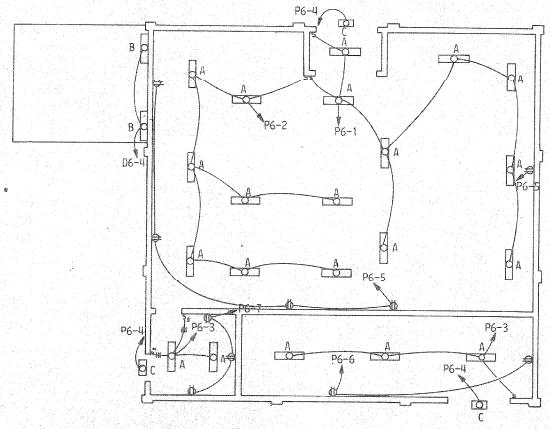
NEW BLDG. EQUIPMENT SCHEDULE

NUMBER	DESCRIPTION	CONTRACTOR TO FURNISH
1	INCOMING LINE SECTION 4160 VOLT	DISTRIBUTION
2	MCC MAIN CIRCUIT BREAKER	DISTRIBUTION
3	NW MCC CIRCUIT BREAKER	DISTRIBUTION
4	N STACKER/RECLAIMER CIRCUIT BREAKER	DISTRIBUTION
5	NW TRANSFORMER CIRCUIT BREAKER	DISTRIBUTION
6	SOUTH WEST MOTOR CONTROL CIRCUIT BREAKER	DISTRIBUTION
7	NORTH BARGE UNLOADER CIRCUIT BREAKER	DISTRIBUTION
8	WEST MOTOR CONTROL BLDG. CIRCUIT BREAKER	DISTRIBUTION
* 9	CONVEYOR DRIVE CONTROLLER (RESISTOR PANEL SECTION)	CONVEYOR
* 10	CONVEYOR DRIVE CONTROLLER (SECONDARY PANEL SECTION)	CONVEYOR
* 11	CONVEYOR DRIVE CONTROLLER (H.V. STARTER & CONTROL SECTION)	CONVEYOR
* 12	CONVEYOR DRIVE CONTROLLER (INCOMING PANEL/JUNCTION PANEL)	CONVEYOR
13	23 KV/4160 V 5000 KVA TRANSFORMER	DISTRIBUTION
14	4160/480 750 KVA TRANSFORMER	DISTRIBUTION
* 15	POWER FACTOR CORRECTING CAPACITORS	CONVEYOR
16	480 V MOTOR CONTROL CENTER M6	CONVEYOR
17	VIBRATORY FEEDER CONTROLLER	CONVEYOR
18	TELEPHONE TERMINAL BOX	TELEPHONE
19	ANNUNCIATOR PANEL	CONVEYOR
20	RELAY PANEL	CONVEYOR
* 21	I/O RACK PANEL	CONVEYOR
22	CONTROL TERMINAL BOX	CONVEYOR
23	BINSWITCH CONTROLS	CONVEYOR
24	VENTILATION FAN CONTROLLER	BUILDING
25	VENTILATION FAN	BUILDING
26	SWITCHBOARD MATTING	DISTRIBUTION
27	CABLE TRAY (24" DIVIDED)	BUILDING
28	25 KVA 1 Ø 480V-120/240 VOLT DRYTYPE TRANSFORMER	CONVEYOR
29	CONTROL POWER PANEL BOARD C6	CONVEYOR

* OWNER FURNISHED - CONTRACTOR INSTALLED



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



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

GROUNDING NOTES:

1. USE 1" PVC CONDUIT SLEEVE WHERE GROUNDING CONDUCTOR PENETRATES, WALL OR SLABS.
2. ALL GROUNDING CONDUCTORS SHALL BE 2/0 AWG BARE STRANDED COPPER.
3. GROUND GRID SHALL BE INSTALLED IN THREE (3) FOOT TRENCH AT DISTANCE OF FIVE (5) FEET FROM BUILDING OR SLAB.
4. CONTRACTOR SHALL ATTACH ALL GROUNDING CONDUCTORS TO STEEL PILINGS. ALL CONNECTION POINTS SHALL BE THROUGHLY CLEANED AND DECREASED PRIOR TO CONNECTIONS BEING MADE.
5. ALL CONNECTIONS SHALL BE CADWELD.
6. ALL GROUNDING CONDUCTOR INSTALLED IN TRENCH SHALL BE COATED WITH ASPHALTUM PRIOR TO INSTALLATION.

LIGHTING & POWER NOTES:

1. LIGHT FIXTURE "A": VAPOR TIGHT FLUORESCENT MILLER NO: KD 2100-04, 2-40W/RS, MOUNTED ON BAR JOIST.
2. LIGHT FIXTURE "B": WATER TIGHT FLUORESCENT WITH EMERGENCY BATTERY PACK. MILLER NO: KW 2300-01.04 MOUNTED ON WALL 7'-0" ABOVE FINISHED FLOOR.
3. LIGHT FIXTURE "C": HOLOPHANE TYPE, WALL PACKETTE. 175 W MERCURY MOUNTED ABOVE DOOR.
4. CONVENIENCE OUTLETS SHALL BE 120 VOLT, 20 AMPS, SURFACE MOUNTED, HEAVY DUTY FOR INDUSTRIAL SERVICE. HUBBELL NO. 5262 IN STEEL BOX WITH STEEL COVER PLATE. MOUNTING HEIGHT 2'-0".
5. LIGHT SWITCHES - SHALL BE 120 V, 20 AMP, SINGLE OR THREE-WAY AS REQUIRED, SURFACE MOUNTED, HUBBELL NO. 1221 IN STEEL BOX WITH STEEL COVER PLATE. MOUNTING HEIGHT 4'-6".

STATE OF ALABAMA
DAVID VOLKERT & ASSOC.
C. Nilson Russell
Reg. Eng. No. 10327
MOBILE
REGISTERED ENGINEER

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

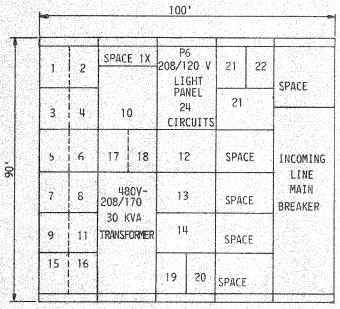
NORTH-WEST MOTOR CONTROL BLDG. CABLE TRAY, EQUIPMENT, GROUND GRID AND LIGHTING PLAN

DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

	DESIGNED N.C.A.	DETAILED N.C.A.	TRACED M.F.L.
	CHECKED N.R.	CHECKED	CHECKED
REVISIONS	DATE APRIL 28, 1982		

SPEC. NO.		SHEET NO.
475		E-5

DWG NO. 20 OF 25



MOTOR CONTROL CENTER M6 LAYOUT
SCALE: NONE

CONTROL CENTER SHALL BE "WESTINGHOUSE FIVE STAR" OR APPROVED EQUAL.

MOTOR CONTROL CENTER M6

MFR: WESTINGHOUSE
TYPE: FIVE STAR
CLASS: 1 OR 2
SERVICE 277/480V 3Ø 4W
FEEDER: 9-500 MCM 3-250 MCM
MAIN: 800 AMPS TYPE MC

CRT. NO.	DESCRIPTION	SIZE WIRE	NO. POLE	*(M) TYPE	TRIP AMPS	LOAD WATTS
1	PANEL P 6	6	3	FB	40	14700
2	CONVEYOR 14 LIGHTING & TOWER T-9	6	2	FB	20	3582
3	CONVEYOR 12B LIGHTING	6	2	FB	20	5572
4	CONVEYOR 21 LIGHTING	8	2	FB	20	1393
5	TOWER T-8 & 1 LIGHT OF CONVEYOR 12A	6	2	FB	40	3383
6	ROADWAY LIGHTS	8	2	FB	30	10,620
7	RAILROAD LIGHTS	2	2	FB	90	29,340
8	RAILROAD LIGHTS	2	2	FB	80	24,450
9	VIB. FEEDER PANEL 4X10 HP	2	3	FB	100	53,000
10	SLURRY PUMPING STATION	1/0	3	KB	125	65,000
11	AUX. POWER STACKER RACLAIMER	4	3	FB	70	58,000
12	CONVEYOR 21 MAGNET BELT	12	3	A206-1	20	9,500
13	CONVEYOR 21 MAGNET BELT RECTIFIER	10	3	* *	20	12,500
14	HYDRAULIC UNIT FLOP GATE CONV. 21	12	3	A206-1	20	10,000
15	AUX. STACKER/RECLAIMER #3 POWER	1/0	3	FB	100	50.000
16	AIR CONDITION/HEATER UNIT	6	3	FB	40	25.000
17	C6 CONTROL POWER TRANSFORMER	8	2	FB	30	25.000
18	ELECTRICAL HOISTS TOWER T8	4	3	FB	60	41900
19	ELECTRICAL HOISTS TOWER T9	8	3	FB	30	20950
21	HYDRAULIC UNIT FLOPGATE CONV. 12B	10	3	A206-1	20	10000
20 -22	SPARE		1	FB	20	
						470180

$$I = \frac{470180}{\sqrt{3} \times 480 \times 0.9} = 628.3 \text{ AMPS}$$

SCHEDULE PANEL P 6

PANEL: WESTINGHOUSE C31-C5
MOUNTING: RECESSED IN M6
SERVICE 120/208V 3Ø 4W
FEEDER: 3-#2 1-#4 THW
MAIN: 100 AMP M.L.O.

CRT. NO.	C.B. RATING	NO. POLES	CNDT. SIZES	WIRE SIZES	EQUIPMENT	LOCATION	LOAD PHASE A	LOAD PHASE B	LOAD PHASE C
1	20	1	3/4"	12	LIGHTS	EQUIPMENT ROOM	800		
2	20	1	3/4"	12	LIGHTS	EQUIPMENT ROOM		800	
3	20	1	3/4"	12	LIGHTS	TRANSFORMER ROOM & OFFICE			500
4	20	1	3/4"	12	OUTSIDE LIGHTS	TRANSFORMER PAD	600		
5	20	1	3/4"	12	RECEPTACLES	EQUIPMENT ROOM		1000	
6	20	1	3/4"	12	RECEPTACLES	TRANSFORMER ROOM			1000
7	20	1	3/4"	12	RECEPTACLES	OFFICE	1000		
8	20	1	3/4"	12	VENTILATION FAN	TRANSFORMER ROOM		1000	
9	20	1	3/4"	12	BIN SWITCHES	EQUIPMENT ROOM			1000
10	20	1	3/4"	12	ANNUNCIATOR	EQUIPMENT ROOM	1000		
11	20	1	3/4"	12	BELT SCALE	CONVEYOR 21		1000	
12*	20	1	3/4"	12	SPARES				1000
13	20	2	3/4"	12	SPARES		1000		
14	20	1	3/4"	12	SPARES			1000	
15	20	2	3/4"	12	SPARES				2000
16-24					SPACES				
							4400	4800	5500
						TOTAL	14700		

$$I = \frac{14700}{\sqrt{3} \times 208 \times 0.8} = 51 \text{ AMPS}$$

* (M) MEANS WESTINGHOUSE
** SUPPLIED BY MAGNETIC BELT MANUFACTURER

CONTROL POWER PANEL C6 SCHEDULE

PANEL: SQUARE D N90B
MOUNTING: SURFACE
SERVICE: 120-240 V 1Ø 3 W
FEEDER: 3 #1/0 1 #2
MAIN: 110 AMPS

CRT. NO.	C.B. RATING	NO. POLES	CONDUIT SIZE	WIRE SIZE	EQUIPMENT	LOAD
1	30	2	3/4"	10	I/O RACK CONTROL	4800
2	20	2	3/4"	12	RELAY PANEL B6 CONTROL	1000
3	20	2	3/4"	12	CONVEYOR 21 (DRIVE A) CONTROL	1000
4	20	2	3/4"	12	CONVEYOR 14 (DRIVE A) CONTROL	1000
5	20	2	3/4"	12	CONVEYOR 12B (DRIVE A) CONTROL	1000
6	20	2	3/4"	12	CONVEYOR 21 SPACE HEATERS	1000
7	20	2	3/4"	12	CONVEYOR 14 SPACE HEATERS	1000
8	20	2	3/4"	12	CONVEYOR 12B SPACE HEATERS	1000
9	20	2			SPARE	
10	20	1			SPARE	
11-42					SPACES	
						11800

$$I = \frac{11800}{240 \times 0} = 54.62 \text{ AMPS}$$

NOTES:

1. CONTRACTOR SHALL INSTALL ALL ELECTRICAL EQUIPMENT AS SHOWN, UTILIZING THE CABLE TRAY WHERE POSSIBLE.
2. BUILDING CONTRACTOR SHALL NOT PERFORM THE FINAL CONNECTION AND TESTING OF ALL LIGHT AND RECEPTACLE CIRCUITS, UNTIL ALL EQUIPMENT HAS BEEN INSTALLED BY CONVEYOR CONTRACTOR AND ALL POWER SUPPLY CONNECTIONS HAVE BEEN MADE BY DISTRIBUTION CONTRACTOR.
3. CONTRACTOR SHALL INSTALL A DISCONNECT SWITCH ON THE OUTSIDE OF THE AIRCONDITIONING UNIT AND OVER CURRENT PROTECTION INSIDE THE UNIT FOR BOTH THE HEATER AND THE AIRCONDITIONING UNIT.

STATE OF ALABAMA
DAVID VOLKERT & ASSOC.
C. Nelson Russell
Reg. Eng. No. 10227
MOBILE
REGISTERED ENGINEER

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

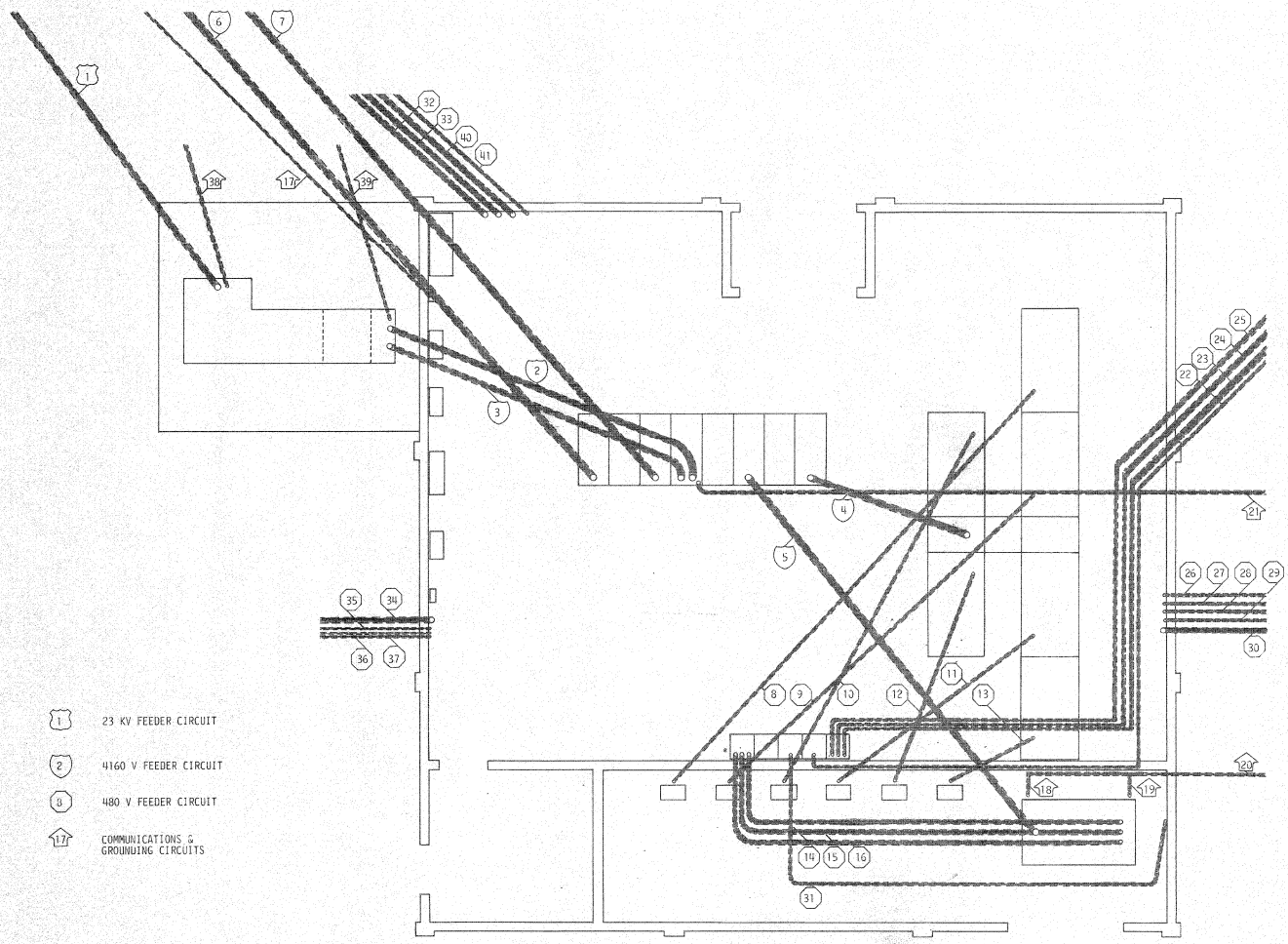
NORTHWEST CONTROL BUILDING
PANEL SCHEDULES & DETAILS

DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

REVISIONS	DESIGNED N.C.A.	DETAILED N.C.A.	TRACED R.A.B.
	CHECKED N.P.	CHECKED	CHECKED N.C.A.
	DATE APRIL 28, 1982		

SPEC. NO.		SHEET NO.
475		E-6

DWG. NO. 21 OF 29



1 — 23 KV FEEDER CIRCUIT

2 — 4160 V FEEDER CIRCUIT

3 — 480 V FEEDER CIRCUIT

17 — COMMUNICATIONS & GROUNDING CIRCUITS

NORTH-WEST CONTROL BLDG.

CABLE AND CONDUIT SCHEDULE

CONDUIT NO.	SIZE	CONDUCTOR	FROM	TO
1	5"	3-1/C #2/0	23 KV SWITCHGEAR	WEST TRANSFORMER
2	4½"	3-1/C #500 MCM	WEST TRANSFORMER SECONDARY	INCOMING LINE SECTION
3	4½"	3-1/C #500 MCM	WEST TRANSFORMER SECONDARY	INCOMING LINE SECTION
4	4½"	3-1/0 #500 MCM	N-W MCC FEEDER	NW MCC
5	3½"	3-1/C-2/0	TRANSFORMER CB	TRANSFORMER PRIMARY
6	3"	3-1/C #500 MCM	WEST CONTROL BLDG. CB	WEST CONTROL BLDG.
7	5"	3-1/C #500 MCM	SOUTHWEST CONTROL BLDG. CB	SOUTHWEST CONTROL BLDG.
8	1"	3-#6, 5KV. NS	CONV. 14B CONTROLLER	P.F. CORRECTING CAPACITOR
9	1"	3-#6, 5KV, NS	CONV. 14A CONTROLLER	P.F. CORRECTING CAPACITOR
10	1"	3-#6, 5KV, NS	CONV. 21A CONTROLLER	P.F. CORRECTING CAPACITOR
11	1"	3-#6, 5KV, NS	CONV. 12B-B CONTROLLER	P.F. CORRECTING CAPACITOR
12	1"	3-#6, 5KV, NS	CONV. 21B CONTROLLER	P.F. CORRECTING CAPACITOR
13	1"	3-#6, 5KV, NS	CONV. 12B-A CONTROLLER	P.F. CORRECTING CAPACITOR
14	4"	3-#500 MCM 1-#350	TRANSFORMER SECONDARY	480V CONTROL CENTER
15	4"	3-#500 MCM 1-#350	TRANSFORMER SECONDARY	480V CONTROL CENTER
16	4"	3-#500 MCM 1-#350	TRANSFORMER SECONDARY	480V CONTROL CENTER
17	2"		TELEPHONE BOX	PLANT BOX
18	1"	1/C #3/0	GROUND TRANSFORMER PRIMARY	GROUND TRANSFORMER ROOM
19	1"	1/C #3/0	GROUND TRANSFORMER SECONDARY	GROUND TRANSFORMER ROOM
20	1"	1/C #3/0	GROUND TRANSFORMER ROOM	GROUND GRID
21	1"	1/C #3/0	SWITCHGEAR GROUND	GROUND GRID
22	2"	4-1/C #2/0	SLURRY PUMPING STATION CB	SLURRY PUMPING STATION
23	1¼"	4-1/C #2	RAILROAD LIGHT CB NO. 1	RAILROAD LIGHTS
24	1¼"	4-1/C #2	RAILROAD CB NO. 2	RAILROAD LIGHTS
25	1"	4-1/C #8	ROADLIGHT CB	ROAD LIGHTS
26	2"		CABLE TRAY DROP	SPARE
27	2"		CABLE TRAY DROP	SPARE
28	2"		CABLE TRAY DROP	SPARE
29	2"		CABLE TRAY DROP	SPARE
30	5"		CABLE TRAY DROP	SPARE
31	1"	3-1/C #12	VENTILATION FAN UB	VENT. FAN TRANSFORMER ROOM
32	5"		CABLE TRAY DROP	SPARE
33	5"		CABLE TRAY DROP	SPARE
34	5"		CABLE TRAY DROP	SPARE
35	2"		CABLE TRAY DROP	SPARE
36	2"		CABLE TRAY DROP	SPARE
37	2"		CABLE TRAY DROP	SPARE
38	1"	1/C #3/0	GROUND TRANSFORMER PRIMARY	GROUND GRID
39	1"	1/C #3/0	GROUND TRANSFORMER SECONDARY	GROUND GRID
40	5"		CABLE TRAY DROP	MANHOLE
41	2"		CABLE TRAY DROP	MANHOLE

* BUILDING CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUITS AND STUB-UPS TO A POINT FIVE (5) FEET OUTSIDE CONTROL CENTER, CONVEYOR OR DISTRIBUTION CONTRACTOR SHALL THEN INSTALL ALL CONDUIT, DUCTBANK AND RISERS AS INDICATED ON PLANS.

STATE OF ALABAMA
DAVID VOLKERT & ASSOC.
C. Nelson Russell
Reg. Engr. No. 10357
MOBILE
REGISTERED ENGINEER

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

NORTHWEST CONTROL BUILDING
CONDUIT & CABLE LAYOUT

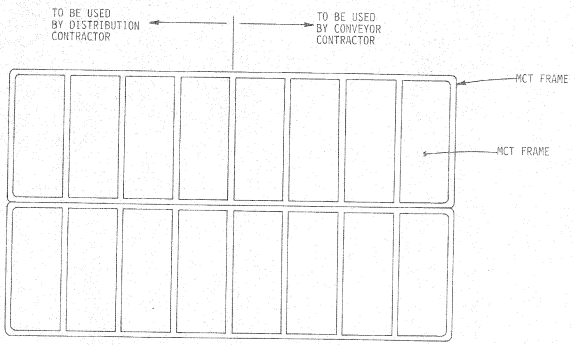
DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

	DESIGNED	DETAILED	TRACED
	N.C.A.	N.C.A.	R.A.B.
	CHECKED	CHECKED	CHECKED
	N.R.		
REVISIONS	DATE APRIL 28, 1982		

SPEC. NO.		SHEET NO.
475		E-7

DWG. NO. 22 OF 25

NORTHWEST MOTOR CONTROL BUILDING



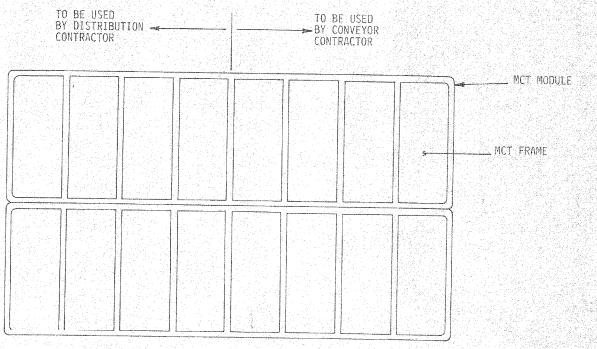
PLAN VIEW MULTI CABLE TRANSIT

SCALE: $\frac{1}{8}$" = 1'-0"

NOTES

A "MULTI CABLE TRANSIT" SHALL BE USED IN BOTH THE NORTH-EAST AND THE NORTH-WEST CONTROL BUILDING. THE MCT SHALL BE AS MADE BY NELSON ELECTRIC CAT NO. RGM-8X8T WITH CHANNEL ASSEMBLY FOR A 8" THICK CONCRETE BLOCK WALL. IN BOTH CASES THE BUILDING CONTRACTOR SHALL FURNISH THE FRAME AND CHANNEL ASSEMBLY. THE CONVEYOR CONTRACTOR SHALL FURNISH THE END PACKING COMPRESSION PLATES, SPARE INSERT MODULES, STAY PLATES, FILL-IN INSERT PLATES AND MODULES FOR ALL CABLE AND BLANK SPACING, TO COMPLETELY FORM A WATERTIGHT AND FIREPROOF PENETRATION THROUGH THE WALL, IN THE SECTION DESIGNATED TO HIM. THE DISTRIBUTION SHALL DO THE SAME WITH HIS SECTION AND SHALL BE RESPONSIBLE FOR THE OVERALL FINISH OF THE COMPLETE TRANSIT SECTION.

NORTHEAST MOTOR CONTROL BUILDING



PLAN VIEW MULTI CABLE TRANSIT

SCALE: $\frac{1}{8}$" = 1'-0"

STATE OF ALABAMA
DAVID VOLKERT & ASSOC.
C. Nelson Russell
Reg. Engr. No. 19352
MOBILE
REGISTERED ENGINEER

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

NORTH-EAST & NORTH-WEST MOTOR CONTROL BUILDING

CABLE TRANSIT DETAILS

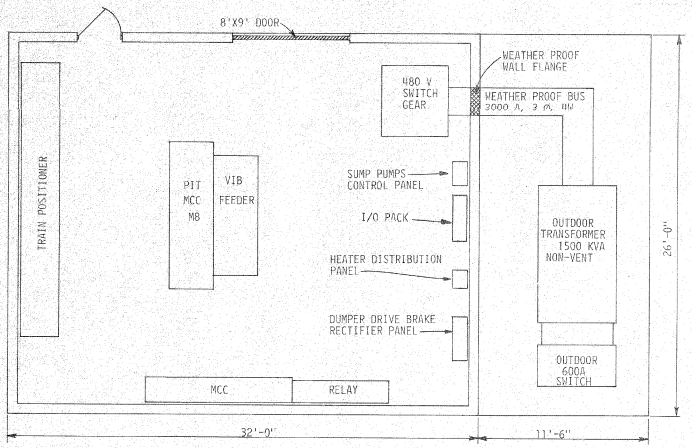
DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

DESIGNED N.C.A.	DETAILED N.C.A.	TRACED S.A.B.
CHECKED	CHECKED	CHECKED N.C.A.
DATE		

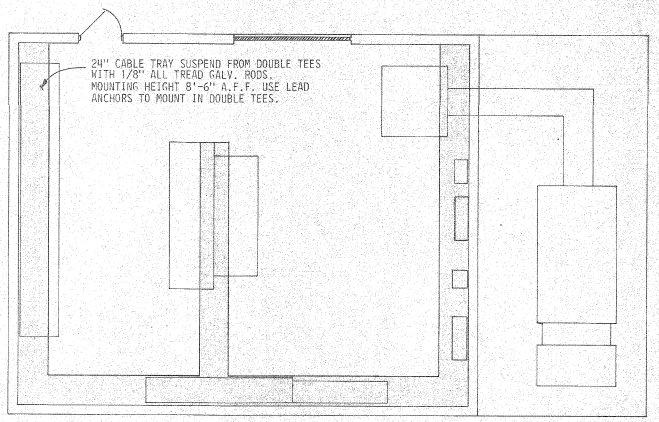
REVISIONS

SPEC. NO.		SHEET NO.
475		E-8

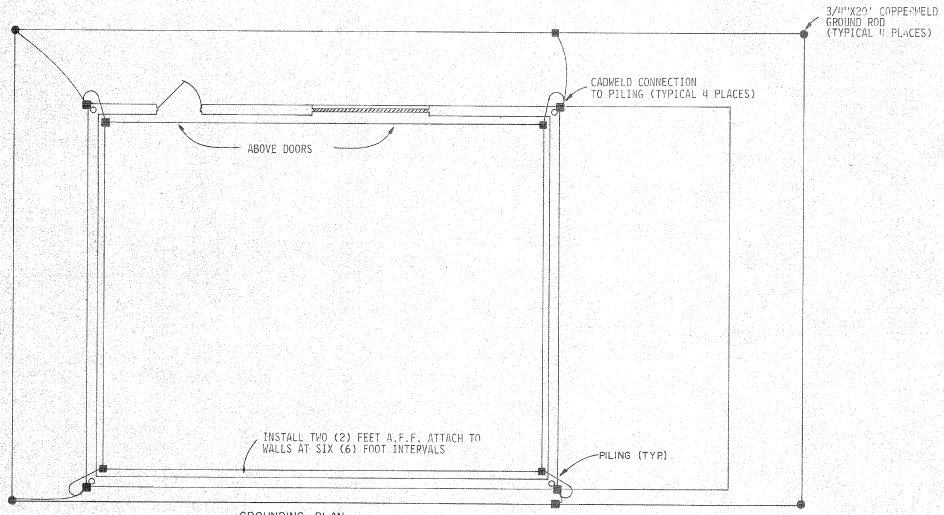
DWG. NO. 23 OF 25



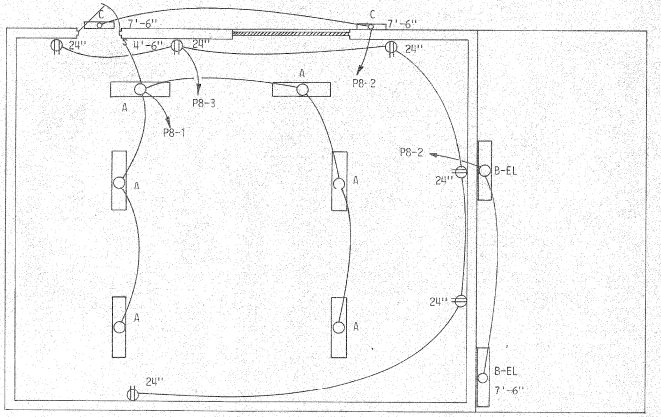
EQUIPMENT SCHEDULE
SCALE: 1/4" = 1'-0"



CABLE TRAY PLAN
SCALE: 1/4"=1'-0"



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



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

GROUNDING NOTES:

1. USE 1" PVC CONDUIT SLEEVE WHERE GROUNDING CONDUCTOR PENETRATES WALLS OR SLABS.
2. ALL GROUNDING CONDUCTORS SHALL BE 2/0 AWG BARE STRANDED COPPER
3. GROUND GRID SHALL BE INSTALLED IN THREE (3) FOOT TRENCH AT DISTANCE OF FIVE (5) FEET FROM BUILDING OR SLAB.
4. CONTRACTOR SHALL ATTACH ALL GROUNDING CONDUCTORS TO STEEL PILINGS. ALL CONNECTION POINTS SHALL BE THOROUGHLY CLEANED AND DEGREASED PRIOR TO CONNECTIONS BEING MADE.
5. ALL CONNECTIONS SHALL BE CADWELD.
6. ALL GROUNDING CONDUCTOR INSTALLED IN TRENCH SHALL BE COATED WITH ASPHALTUM PRIOR TO INSTALLATION.

NOTES:

I. CONTRACTOR SHALL INSTALL "FS" BOXES FOR EQUIPMENT AT HEIGHTS AND LOCATIONS AS INDICATED ON PLANS AND STUB CONDUIT UP THROUGH WALL TO 8'-9" A.F.F., WHERE THE CONDUIT WILL COME OUT OF WALL AND ENTER THE CABLE TRAY.

II. CONTRACTOR SHALL INSTALL LIGHT FIXTURES B & C AT LOCATIONS SHOWN. RUN CONDUIT THROUGH WALL AND INTO CABLE TRAY.

STATE OF ALABAMA
DAVID VOLKERT & ASSOC.
C. Nelson Russell
Reg. Eng. No. 10327
MOBILE
REGISTERED ENGINEER

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

CAR-DUMPER BUILDING EQUIPMENT AND CABLE TRAY LAYOUT

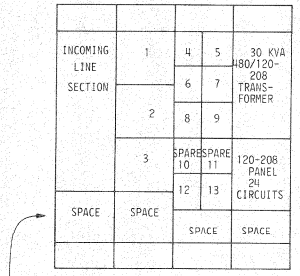
DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

		DESIGNED N.C.A.	DETAILED N.C.A.	TRACED R.A.B.
		CHECKED	CHECKED	CHECKED N.C.R.
		DATE		

REVISIONS

SPEC. NO.		SHEET NO.
475		E-9

DWG. NO. 24 OF 25



CARDUMPER CONTROL BLDG. MCC LAYOUT

SCALE: NONE

CONTROL CENTER SHALL BE WESTINGHOUSE "FIVE STAR OR APPROVED EQUAL

CARDUMPER BUILDING EQUIPMENT SCHEDULE

DESCRIPTION	FURNISHED BY	CONTRACTOR TO INSTALL
TRANSFORMER 1500 KVA OUTDOOR & 480 V SWITCHGEAR	OWNER	DISTRIBUTION
SUMP PUMPS CONTROL PANEL	CONVEYOR	CONVEYOR
I/O RACK	OWNER	CONVEYOR
HEATER DISTRIBUTION PANEL	CARDUMPER	CARDUMPER
DUMPER DRIVE BRAKE RECTIFIER	CARDUMPER	CARDUMPER
RELAY PANEL	CARDUMPER	CARDUMPER
MCC	CARDUMPER	CARDUMPER
TRAINPOSITIONER CONTROL	CARDUMPER	CARDUMPER
PIT MOTOR CONTROL CENTER M8	CONVEYOR	CONVEYOR
VIBFEEDER PANEL	CONVEYOR	CONVEYOR
CABLE TRAY	BUILDING	BUILDING
GROUNDING GRID	BUILDING	BUILDING
LIGHTS & RECEPTACLES AND AIRCONDITION	BUILDING	BUILDING

* OWNEP FURNISHED, CONVEYOR CONTRACTOR SHALL INSTALL.

SCHEDULE LOAD CENTER M8

MFR: WESTINGHOUSE | SERVICE 277/480 V 3 ø 4W | FEEDER: 6 #350 MCM 2 #4/0

TYPE: FIVE STAR | MAIN: 600 AMPS

CLASS: I | TYPE: WESTINGHOUSE ~ MC

CIR. NO.	DESCRIPTION	WIRE SIZE	NO POLES	V TYPE	TRIP AMPS	LOAD WATTS
1	CONVEYOR #22 STARTER	2/0	3	A206-4	120	70000
2	CONVEYOR #23 STARTER	2/0	3	A206-4	120	67000
3	V1B. FEEDER PANEL FEEDER	2/0	3	KB	150	67000
4	SUMP PUMP PANEL FEEDER	2	3	FB	85	53250
5	WELDING RECEPTACLE	4	3	FB	60	20000
6	CONVEYOR 16 & TOWER T11 LIGHTS	12	1	FB	20	2786
7	30 KVA TRANSFORMER FEEDER	6	3	FB	45	4298
8	ELECTRICAL HOISTS CARDUMPER PIT & TOWER T11	4	3	FB	60	10475
9	HOIST CARDUMPER UTILITY SHAFT	12	3	FB	20	10475
10	LIGHTS CARDUMPER PIT	12	2	FB	20	1393
11	LIGHTS CARDUMPER PIT	12	2	FB	20	1194
12-	LIGHTS STAIRWAY CARDUMPER PIT	12	2	FB	20	1791
13	I/O RACK TRANSFORMER	12	2	FB	15	5000
14	AIRCONDITION UNIT	10	3	FB	30	14625
						329287

$I = \frac{329287}{\sqrt{3} \times 480 \times 0.9} = 440.07$ AMPS

LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER	CATALOG NO.	LAMPS NO.	LAMPS TYPE	MOUNTING	REMARKS
A	MILLER	KD2100-04	2	40/RS	ON BAR JOIST	
BEL	MILLER	KW2300-01-04	2	40/RS	ON WALL @ 7'-6"	WITH EMER. BATTERY PACK
C	HOLOPHANE	WALLPACK	1	150 HPS	ON WALL A 7'-6"	

LIGHTING & POWER NOTES:

1. LIGHT FIXTURE "A": VAPOR FLUORESCENT MILLER NO. KD 2100-04, 2-40 W/RS, MOUNTED ON BAR JOIST.
2. LIGHT FIXTURE "B": WATER TIGHT FLUORESCENT WITH EMERGENCY BATTERY PACK MILLER NO. KW 2300-01-04 MOUNTED ON WALL 7'-0" ABOVE FINISH FLOOR
3. LIGHT FIXTURE "C": HOLOPHANE TYPE: WALL PACKETTE 175 MERCURY MOUNTED ABOVE DOOR
4. CONVENIENCE OUTLETS SHALL BE 120 VOLT, 20 AMPS, SURFACE MOUNTED, HEAVY DUTY FOR INDUSTRIAL SERVICE. HUBBELL NO. 5262 IN STEEL BOX WITH STEEL COVER PLATE. MOUNTED 24" A.F.F.
5. LIGHT SWITCHES SHALL BE 120 V, 20 AMPS SINGLE OR THREE WAY AS REQUIRED, SURFACE MOUNTED, HUBBELL NO. 1221 IN STEEL BOX WITH STEEL COVER PLATE. MOUNTED 4'-6" A.F.F.

SCHEDULE PANEL P8

PANEL: WESTINGHOUSE C31-C5 | SERVICE 120/208 3 ø 4W | FEEDER: 3 #2 1 #4 THW

MOUNTING: RECESSED | MAIN: 100 AMP MLO

CRT NO.	C.B. RATG	NO. POLES	CNDT SIZE	WIRE SIZE	EQUIPMENT	LOCATION	LOAD PHASE A	LOAD PHASE B	LOAD PHASE C
1	20	1	3/4"	12	LIGHTS	CARDUMPER MCC BLDG.	600		
2	20	1	3/4"	12	OUTSIDE LIGHTS	CARDUMPER MCC BLDG.		598	
3	20	1	3/4"	12	RECEPTACLES	CARDUMPER MCC BLDG.			1000
4	20	1	3/4"	12	RECEPTACLES	CARDUMPER PIT	1000		
5	20	1	3/4"	12	RECEPTACLES	CARDUMPER PIT		1000	
6	20	1	3/4"	12	EMERGENCY LIGHT	CARDUMPER MCC BLDG.			1000
7	20	1	3/4"	12	SPARE	CARDUMPER MCC BLDG.	1000		
8	20	1	3/4"	12	SPARE	STAIRWAY CARDUMPER PIT		1314	
9	20	1			SPARE				
10	20	1			SPARE				
11-24					SPACES				
							1600	1598	1100
								4298	

$I = \frac{4298}{\sqrt{3} \times 208 \times 0.9} = 13.25$ AMPS

NOTES:

1. CONTRACTOR SHALL INSTALL ALL ELECTRICAL INSTALLATION AS SHOWN, UTILIZING THE CABLE TRAY WHERE POSSIBLE.
2. BUILDING CONTRACTOR SHALL NOT PERFORM THE FINAL CONNECTION AND TESTING OF ALL LIGHTS AND RECEPTACLE CIRCUITS, UNTILL ALL EQUIPMENT HAS BEEN INSTALLED BY THE CONVEYOR CONTRACTOR AND ALL POWER SUPPLY CONNECTION HAVE BEEN MADE BY THE DISTRIBUTION CONTRACTOR.
3. BUILDING CONTRACTOR SHALL INSTALL A DISCONNECT SWITCH ON THE OUTSIDE OF THE AIRCONDITIONING UNIT AND OVERCURRENT PROTECTION INSIDE THE UNIT FOR BOTH THE HEATER AND THE AIRCONDITIONING UNIT.

STATE OF ALABAMA
DAVID VOLKERT & ASSOC.
C. Nelson Rossie
Reg. Engr. No. 10337
MOBILE
REGISTERED ENGINEER

THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

ELECTRICAL DETAIL CARDUMPER

MOTOR CONTROL CENTER

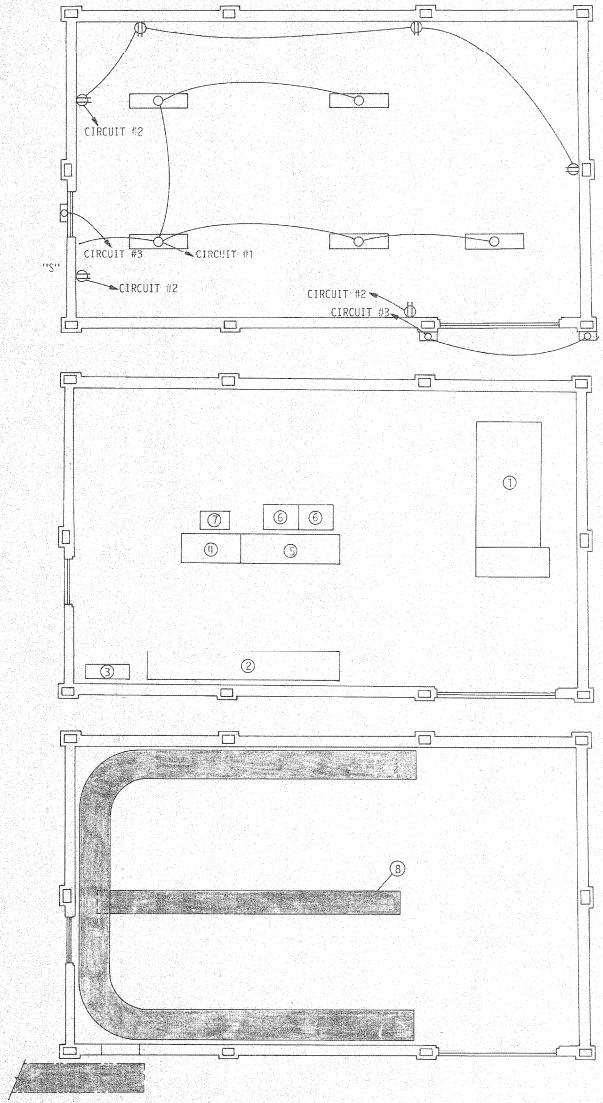
DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

DESIGNED	N.C.A.	DETAILED	N.C.A.	TRACED	R.A.B.
CHECKED	N.R.	CHECKED		CHECKED	N.C.A.
DATE	APRIL 27, 1982				

REVISIONS

SPEC. NO.		SHEET NO.
475		E-10

DWG. NO. 25 OF 28



LIGHTING & POWER NOTES:

1. LIGHT FIXTURE "A" - VAPOR FLUORESCENT MILLER NO. KD 2100-0H, 2-40 W/RS, MOUNTED ON BAR JOIST.
2. LIGHT FIXTURE "B" HOLOPHANE TYPE: WALL PACKETTE 175 MERCURY MOUNTED ABOVE DOOR.
3. CONVENIENCE OUTLETS SHALL BE 120 VOLT, 20 AMPS, SURFACE MOUNTED, HEAVY DUTY FOR INDUSTRAIL SERVICE. HUBBELL NO. 5262 IN STEEL BOX WITH STEEL COVER PLATE. MOUNTED 24" A.F.F.
4. LIGHT SWITCHES SHALL BE 120 V, 20 AMPS SINGLE OR THREE WAY AS REQUIRED, SURFACE MOUNTED, HUBBELL NO. 1221 IN STEEL BOX WITH STEEL COVER PLATE. MOUNTED 4'-6" A.F.F.
5. CIRCUIT #1-2-3 ARE SPARE 20 AMPS - 1 POLE BREAKERS LOCATED IN THE MOTOR CONTROL CENTER.

BARGE UNLOADER CONTROL BUILDING EQUIPMENT SCHEDULE

NUMBER	DESCRIPTION	CONTRACTOR TO FURNISH
1	750 KVA SUBSTATION	BARGE UNLOADER
2	MOTOR CONTROL CENTER	BARGE UNLOADER
3	RELAY LOGIC PANEL	BARGE UNLOADER
4	TROLLEY CONTROLLER	BARGE UNLOADER
5	BARGE HAUL CONTROLLER	BARGE UNLOADER
6	BARGE HAUL CONTROLLER ISOLATION TRANSFORMERS	BARGE UNLOADER
7	TROLLEY CONTROLLER ISOLATION TRANSFORMERS	BARGE UNLOADER
8	CABLE TRAY	BARGE UNLOADER
9	LIGHTS & RECEPTACLES & AIRCONDITION.	BUILDING

NOTES:

1. BUILDING CONTRACTOR SHALL NOT PERFORM FINAL CONNECTION AND TESTING OF ALL LIGHTS AND RECEPTACLE CIRCUITS, UNTIL ALL EQUIPMENT HAS BEEN INSTALLED BY BARGE UNLOADER CONTRACTOR AND ALL POWER SUPPLY CONNECTION HAVE BEEN MADE BY DISTRIBUTION CONTRACTOR
2. CONTRACTOR SHALL INSTALL A 3 POLE-30AMP BREAKER IN THE MOTOR CONTROL CENTER TO FEED THE AIR-CONDITION UNIT.
3. BUILDING CONTRACTOR SHALL INSTALL A DISCONNECT SWITCH ON THE OUTSIDE OF THE AIR-CONDITIONING UNIT AND OVERCURRENT PROTECTION INSIDE THE UNIT FOR BOTH THE HEATER AND THE AIRCONDITIONING.
4. SEE MECH. DRAWINGS FOR DETAILS AND LOCATION OF THE AIRCONDITIONING UNIT.

STATE OF ALABAMA
DAVID VOLKERT & ASSOC.
C. Nelson Russell
Reg. Eng. No. 10627
MOBILE
REGISTERED ENGINEER

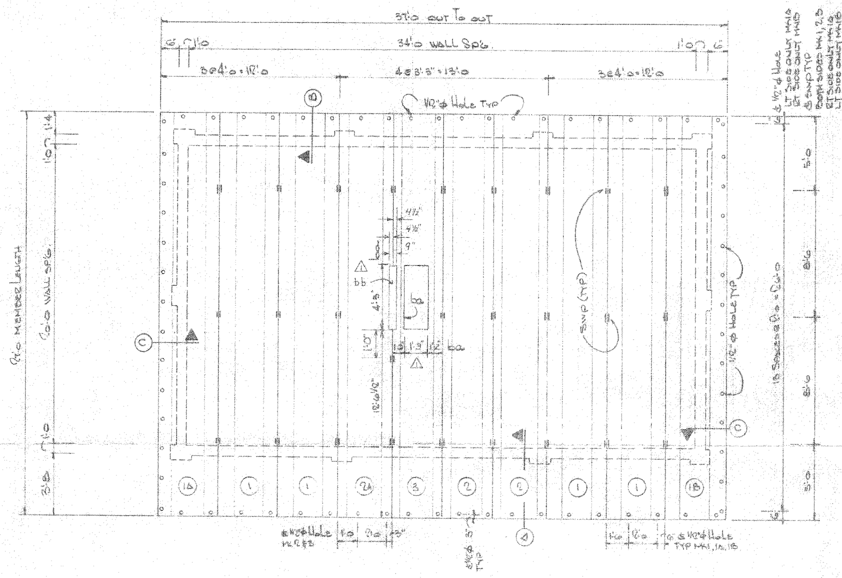
THE INDUSTRIAL DEVELOPMENT BOARD OF THE CITY OF MOBILE, ALABAMA (ALABAMA STATE DOCKS DEPARTMENT PROJECT)

BARGE UNLOADER
CONTROL BUILDING

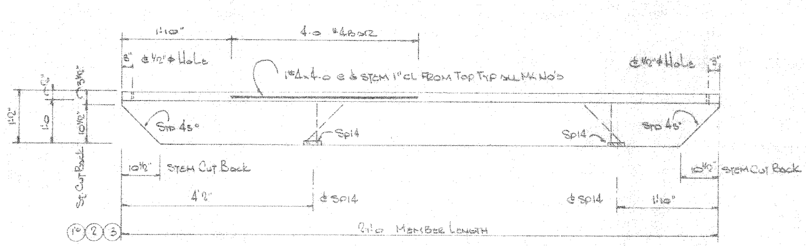
DAVID VOLKERT & ASSOCIATES
CONSULTING ENGINEERS

		DESIGNED N.C.A.	DETAILED N.C.A.	TRACED R.A.B.
		CHECKED	CHECKED	CHECKED N.C.A.
REVISIONS		DATE		

81-36

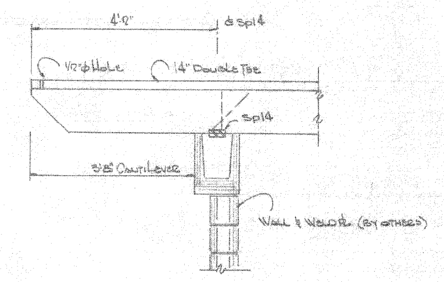


Roof Framing Plan 14" Double Tee
1/4" = 1'-0

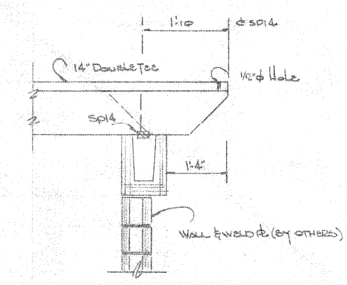


Member Detail

Fabricator Note! Member length is critical - ends must be square. Use styrofoam plugs on strand. Plug strands & finish ends prior to shipping.



Section "A"

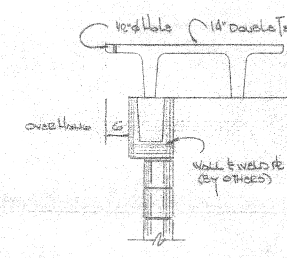


Section "B"

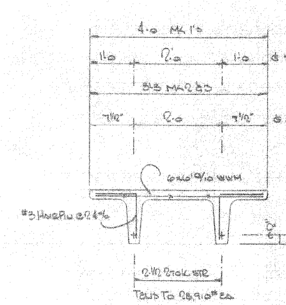
DAVID VOLKERT & ASSOCIATES

	Recommended for Approval	By R.D.
X	Approved As Submitted	
	Approved Except As Noted	
	Revise and Resubmit	Date 5/7/82
	Disapproved	

APPROVAL IS TO GENERAL LAYOUT ONLY, AND IN NO WAY RELIEVES THE CONTRACTOR OR SUPPLIER OF HIS RESPONSIBILITY FOR THE ACCURACY OF THE DRAWINGS, DETAILS OR WORK COVERED. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, QUANTITIES AND JOB CONDITIONS.



Section "C"



End View & Strand Pattern
Typ all Mk No's

Legend

Sp14 - Stem Pad Std 14" D.T.
ba - Blockout a - 1'-3" × 2" × 4'-3"
Swp - Side Weld ℞ - Std 14" D.T.
bb - 9" × 4'-3"

General Notes

1. General Contractor shall field check & verify all dimensions & conditions @ jobsite.
2. Erection by others - our products F.O.B. trucks jobsite.
3. Conc strength shall be 5,000 Psi min @ 28 days
4. Release strength shall be 3500 Psi min
5. Top finish shall be mag float - steel trowel

MAY 6 1982
FOR JOB USE

440 Blck

Structural Marine Inc Mobile, Alabama		
Scale: As Noted Date: 4-1-82	Approved by	Drawn by McLain
Barge Unloader - Electrical Bldg Alabama State Docks - Mobile, Alabama		
Roof Framing Plan - 14" D.T. × 4'-0		Drawing Number 1 of 1

△ Revised location blockout - a and Swp, added blockout - b 4/30/82