Ontario Northland

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August 28, 2026

Addendum No. 02

File Reference Number: RFP 2026 066

Title: North Bay Truck Shop Roof Upgrade

RE: Clarifications/Questions

QUESTIONS/CLARIFICATIONS:

Item 1: Would ONTC specify the type and thickness of insulation required, and type of vapour barrier required?

Answer: ONTC confirms that Insulation and vapour barrier shall match the existing. R40 batt Insulation shall be provided. Additionally, we have asked to match existing, please see the attached As-Built from 1985.

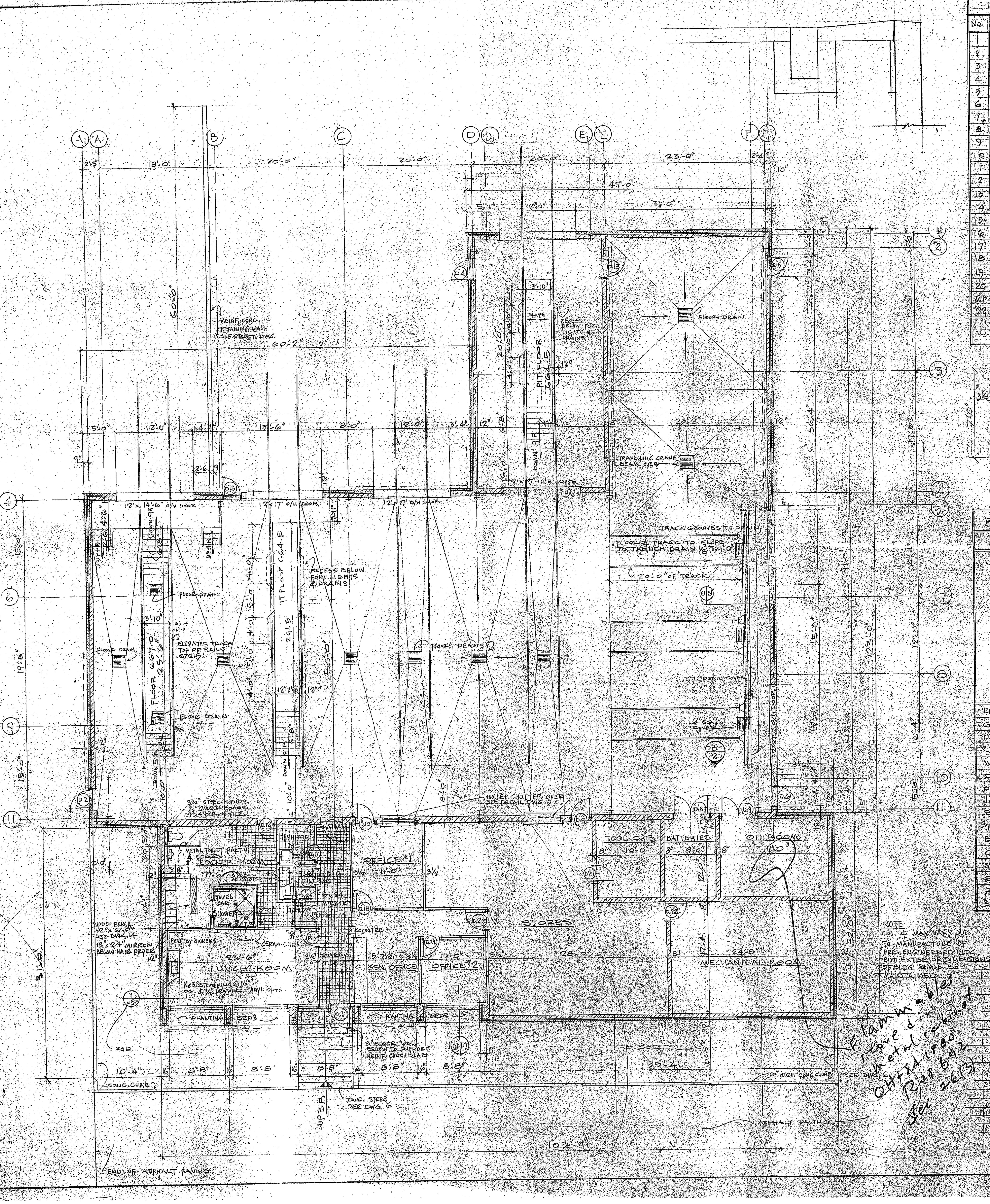
Item 2: Would ONTC provide photos of the interior to be provided for the areas of the repair to help determine access?

Answer: Please see attached Photographs.

This Addendum hereby forms part of the RFP.

Regards,

Nicole Laplante
Procurement Contracts Specialist
nicole.laplante@ontarionorthland.ca



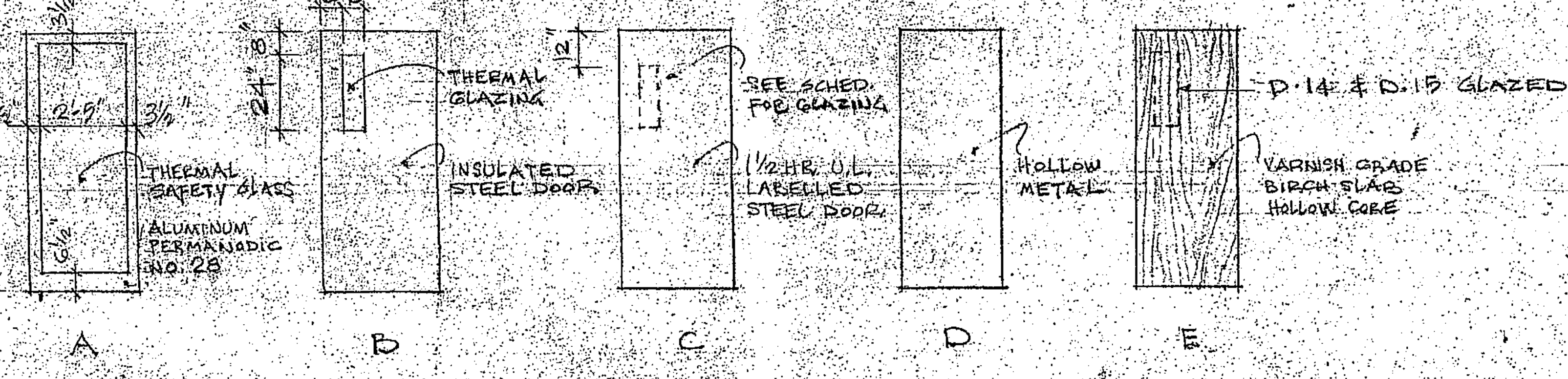
A1 A B C D D1 E1 E F F1
18'-0" 20'-0" 20'-0" 20'-0" 23'-0" 47'-0" 30'-0"
REINF. CONC. RETAINING WALL SEE STRUCT. DWG.
60'-0"
60'-2"
PIT FLOOR 664.5
RECESS BELOW FOR LIGHTS & DRAINS
FLOOR DRAIN
TRAVELLING CRANE BEAM OVER
12'x14'-6" O/H DOOR
12'x17' O/H DOOR
12'x17' O/H DOOR
12'x7' O/H DOOR
TRACK GROOVES TO DRAIN
FLOOR & TRACK TO SLOPE TO TRENCH DRAIN 1/8" TO 1'-0"
20'-0" OF TRACK
ELEVATED TRACK TOP OF RAILS 672.5
FLOOR 667.0
FLOOR 664.5
C.I. DRAIN OVER
2 SQ. C.I. COVER
BAKER SHUTTER OVER SEE DETAIL DWG. 8
3/4" STEEL STUDS 1/2" GYPSUM BOARD 4"x4" CER. TILE
METAL SHEET PARTN & SCREEN
LOCKER ROOM
TOWEL BAR
SHOWERS
MIRROR
WOOD BENCH 12"x6'-0" SEE DWG. 4
18"x24" MIRROR BELOW HAIR DRYER
BY OWNERS
CERAMIC TILE
COUNTER
LUNCH ROOM
1"x3" STRAPPING 16" O.C. 5/8" GYP. BD. VINYL CLTH.
OFFICE #1
GEN. OFFICE
OFFICE #2
STORES
TOOL CRIB
BATTERIES
OIL ROOM
MECHANICAL ROOM
PLANTING BEDS
SOD
CONC. CURB
8" BLOCK WALL BELOW TO SUPPORT REINF. CONC. SLAB
CONC. STEPS SEE DWG. 6
6" HIGH CONC. CURB SEE DWG. 6
ASPHALT PAVING
END OF ASPHALT PAVING
105'-4"
123'-0"

NOTE
COL. ℄ MAY VARY DUE TO MANUFACTURE OF PRE-ENGINEERED BLDG., BUT EXTERIOR DIMENSIONS OF BLDG. SHALL BE MAINTAINED.

Flammables stored in metal cabinet OFFM 1980 Ref 692 Sec 16(3)

DOOR SCHEDULE

No.	LOCATION	TYPE	THICK	WIDE	HIGH	MATERIAL	FRAME	REMARKS
1	FRONT ENTRANCE	A	1¾"	3'-0"	7'-0"	ALUMINUM	ALUMINUM	THERMALLY GLAZED C/W CLOSER.
2	EXTERIOR TO SHOP (WEST)	B	1¾"	3'-0"	7'-0"	STEEL INSUL.	STEEL	C/W CLOSER & PANIC SET
3	EXTERIOR TO SHOP (NORTH)	B	1¾"	3'-0"	7'-0"	STEEL INSUL.	STEEL	THERMALLY GLAZED C/W CLOSER & PANIC SET
4	EXTERIOR TO STEAM ROOM	B	1¾"	3'-0"	7'-0"	STEEL INSUL.	STEEL	DITTO
5	EXTERIOR TO SHOP (EAST)	B	1¾"	3'-0"	7'-0"	STEEL INSUL.	STEEL	C/W CLOSER & PANIC SET
6	EXTERIOR TO SHOP (EAST)	B	1¾"	3'-0"	7'-0"	STEEL INSUL.	STEEL	THERMALLY GLAZED C/W CLOSER & PANIC SET
7	OIL ROOM	C	1¾"	2'-10"	7'-0"	H.M.	STEEL	1½ HR. RATED LABELLED DOORS & FRAME C/W CLOSER.
8	BATTERIES	C	1¾"	2'-10"	7'-0"	H.M.	STEEL	DITTO
9	STORES TO SHOP	C	1¾"	2'-8"	7'-0"	H.M.	STEEL	DITTO WITH 5"x20" GEORGIAN WIRED GLAZING
10	OFFICE #1 TO SHOP	C	1¾"	2'-8"	7'-0"	H.M.	STEEL	DITTO WITH 5"x20" GEORGIAN WIRED GLAZING
11	SHOP TO ENTRY	C	1¾"	3'-0"	7'-0"	H.M.	STEEL	DITTO WITH 5"x20" GEORGIAN WIRED GLAZING
12	LOCKER ROOM TO SHOP	C	1¾"	2'-8"	7'-0"	H.M.	STEEL	DITTO WITH 5"x20" GEORGIAN WIRED GLAZING
13	STEAM ROOM TO SHOP	D	1¾"	2'-8"	7'-0"	H.M.	STEEL	
14	LOCKER ROOM TO ENTRY	E	1¾"	2'-8"	7'-0"	WOOD	STEEL	C/W CLOSER WITH 6"x24" GEORGIAN WIRED GLAZING
15	LUNCH ROOM	E	1¾"	2'-8"	7'-0"	WOOD	STEEL	DITTO
16	WASHROOM	E	1¾"	2'-6"	7'-0"	WOOD	STEEL	C/W CLOSER
17	JANITOR	E	1¾"	2'-8"	7'-0"	WOOD	STEEL	
18	OFFICE #1 TO GEN. OFFICE	E	1¾"	2'-8"	6'-8"	WOOD	ALUMINUM	DOOR FRAME PART OF WESTROC TYPE 1 PARTITION. PANEL ABOVE DOOR
19	OFFICE #2	E	1¾"	2'-8"	6'-8"	WOOD	ALUMINUM	DITTO SEE DWG. #
20	STORES TO GEN. OFFICE	E	1¾"	2'-8"	7'-0"	WOOD	STEEL	
21	TOOL CRIB	D	1¾"	2'-8"	7'-0"	H.M.	STEEL	
22	MECHANICAL ROOM	C	1¾"	3'-0"	7'-0"	H.M.	STEEL	1½ HR. U.L. LABELLED DOOR & FRAME C/W CLOSER.



3½" 2'-5" 3½" 7'-0" 6½"
THERMAL SAFETY GLASS
ALUMINUM PERMANODIC NO. 28
6" 6" 24" 8"
THERMAL GLAZING
INSULATED STEEL DOOR
12"
SEE SCHED. FOR GLAZING
1½ HR. U.L. LABELLED STEEL DOOR
HOLLOW METAL
D.14 & D.15 GLAZED
VARNISH GRADE BIRCH SLAB HOLLOW CORE
A
B
C
D
E

ROOM FINISH SCHEDULE

LOCATION	FLOOR: G.R.C. QUARRY TILE	FLOOR: CUSHION EDGE NON-SKID MOSAIC TILE	FLOOR: HARDENED CONCRETE	FLOOR: 1/8" VINYL ASBESTOS	FLOOR: COLOURED HARDENED CONCRETE	BASE: QUARRY TILE	BASE: 4" VINYL	BASE: MOSAIC TILE	WALLS: CONC. BLOCK – NO FINISH	WALLS: PAINTED CONC. BLOCK	WALLS: PAINTED GYPSUM BOARD	WALLS: FACTORY PAINTED METAL LINERS	WALLS: 4"x4" GLAZED TILE	WALLS: GYPSUM BO. VINYL FIN.	CEILING: FACTORY PAINTED METAL LINERS	CEILING: T&T WITH MINERAL TILES 2'x4'	CEILING: 1/2" GYPSUM BOARD SUSP. PAINTED	CEILING: NO FIN. CLNG. PAINT JOISTS & DECK	REMARKS
																			NOTE: ALL CEILINGS AT 8'-8" ABOVE FIN. FLOOR EXCEPT THE FOLLOWING WHICH SHALL BE 8'-0": JANITOR, SHOWERS, LOCKER ROOM & WASHROOM.
ENTRY	●					●								●		●			
GENERAL OFFICE				●			●							●		●			
LUNCH ROOM				●			●							●			●		TEXTURE SPRAY FINISH ON CEILING
LOCKER ROOM	●					●				●	●		●				●		TILE AT W.C. URINAL & BRADLEY. "GLAZETITE" ON BLOCK & GYP.BD. FOR BALANCE.
WASHROOM	●					●							●				●		
OFFICE No. 1				●			●			●				●		●			
OFFICE No. 2				●			●							●		●			
JANITOR	●					●				●	●						●		
STORES					●		●			●	●							●	
TOOL CRIB					●		●			●								●	
BATTERIES			●						●									●	
OIL ROOM			●						●									●	
MECHANICAL					●		●			●								●	
STEAM ROOM			●						●			●			●				
REPAIR SHOP			●						●			●			●				
SHOWERS		●						●					●				●		

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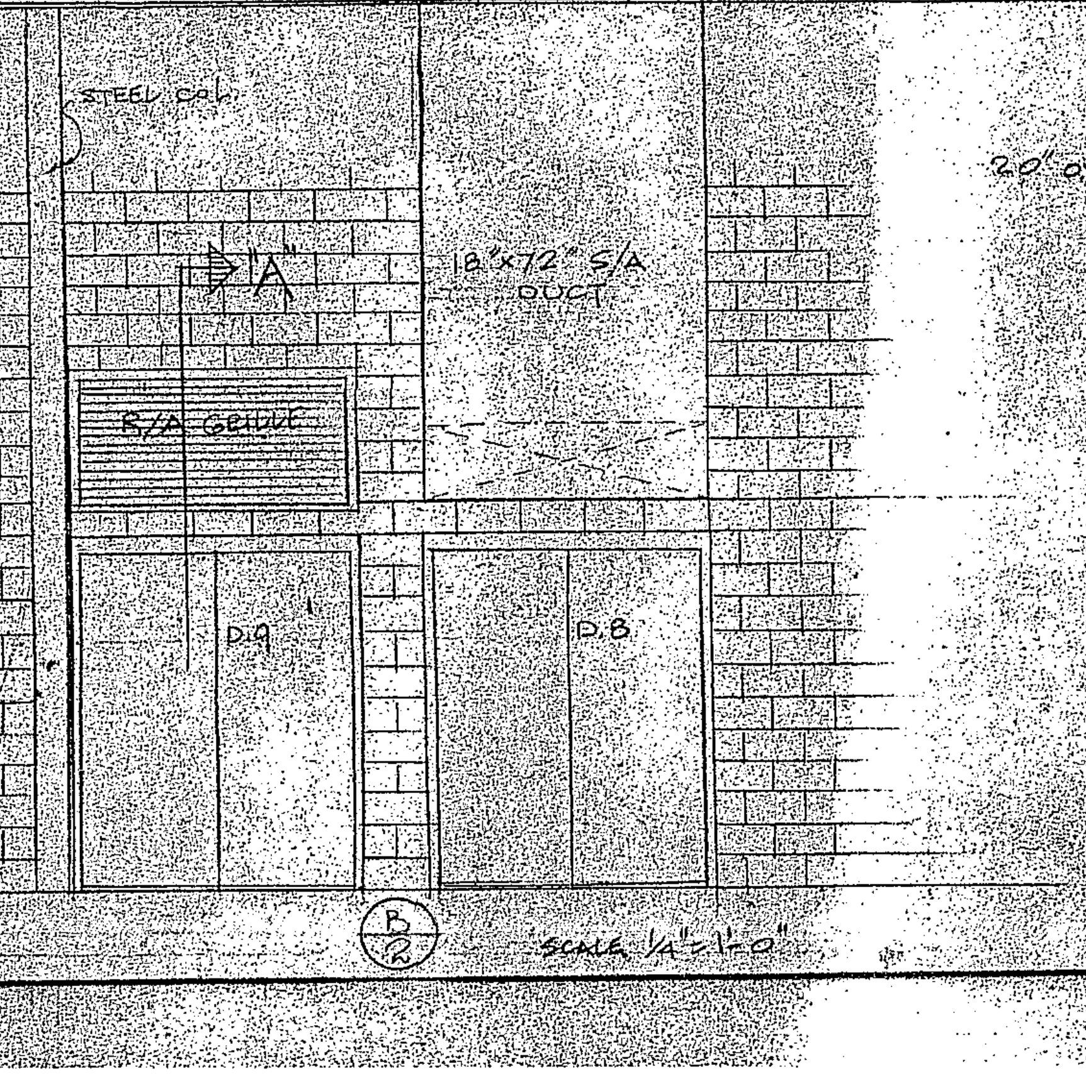
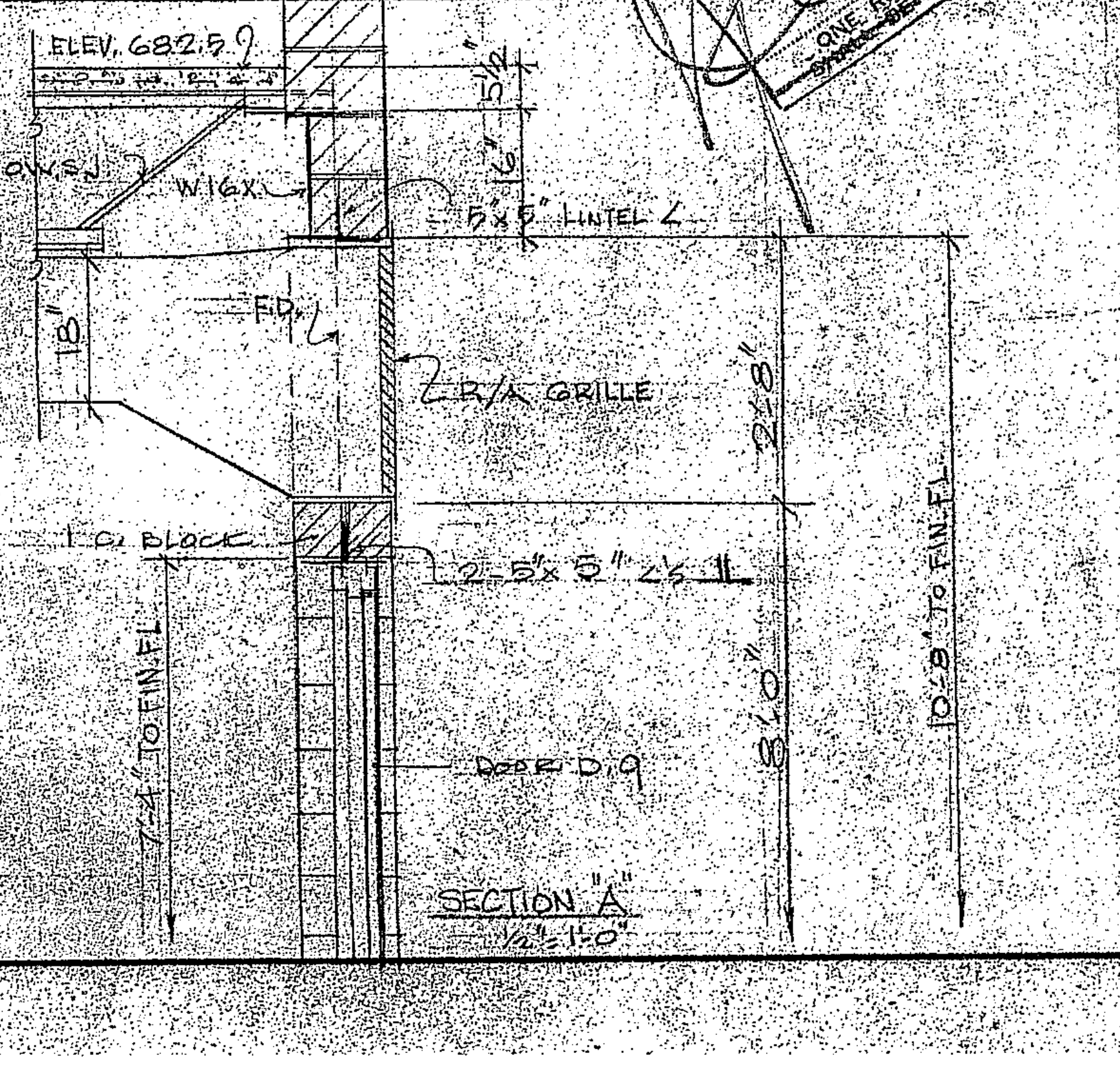


STEEL COL.
"A"
18"x72" S/A DUCT
R/A GRILLE
D.9
D.8
B 2
SCALE 1/4"=1'-0"



ELEV. 682.5
20" OWSJ
W16X
5½"
16"
5"x5" LINTEL ∠
F.D.
18"
R/A GRILLE
2'-8"
1 C. BLOCK
2-5"x5" ∠'s ⅃L
7'-4" TO FIN. FL.
8'-0"
10'-8" TO FIN. FL.
DOOR D.9
SECTION "A"
1/2"=1'-0"

GERALD B. COX
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373 FISHER ST., NORTH BAY

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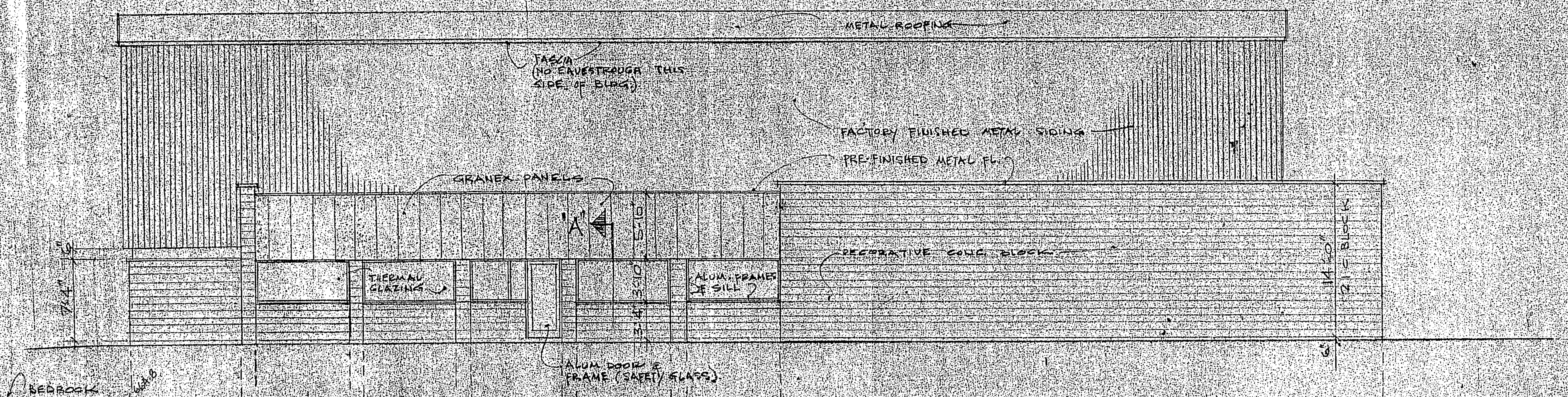
LICENCE
1266

O.N.R.
MAINTENANCE OF WAY
REPAIR BUILDING
NORTH BAY, ONT.

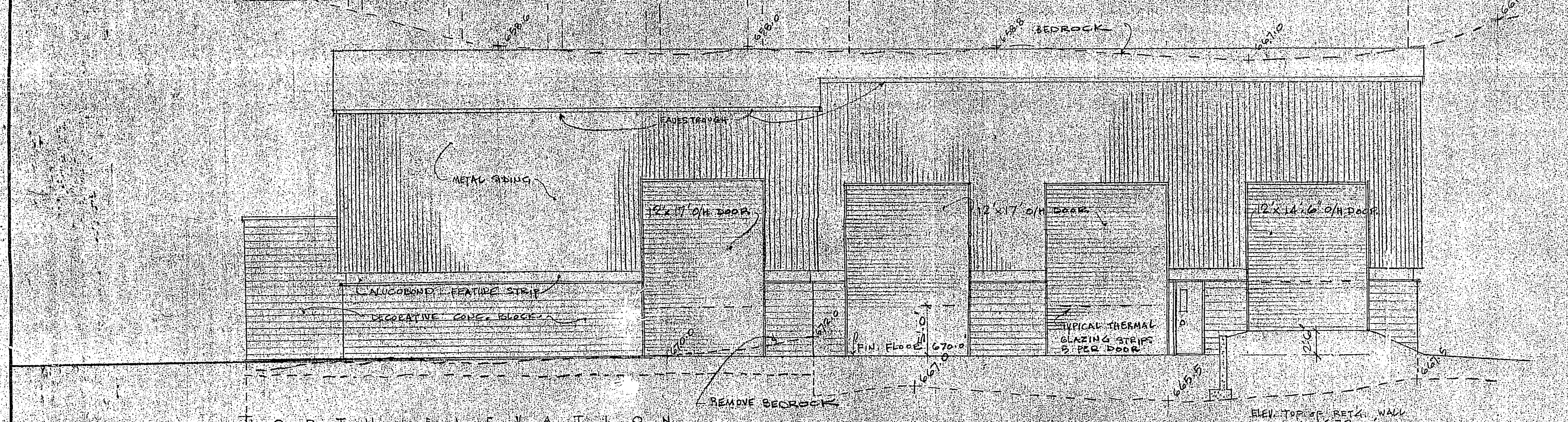
FLOOR PLAN
& SCHEDULES

SCALE 1/8"=
DATE MARCH
JOB NO. 8



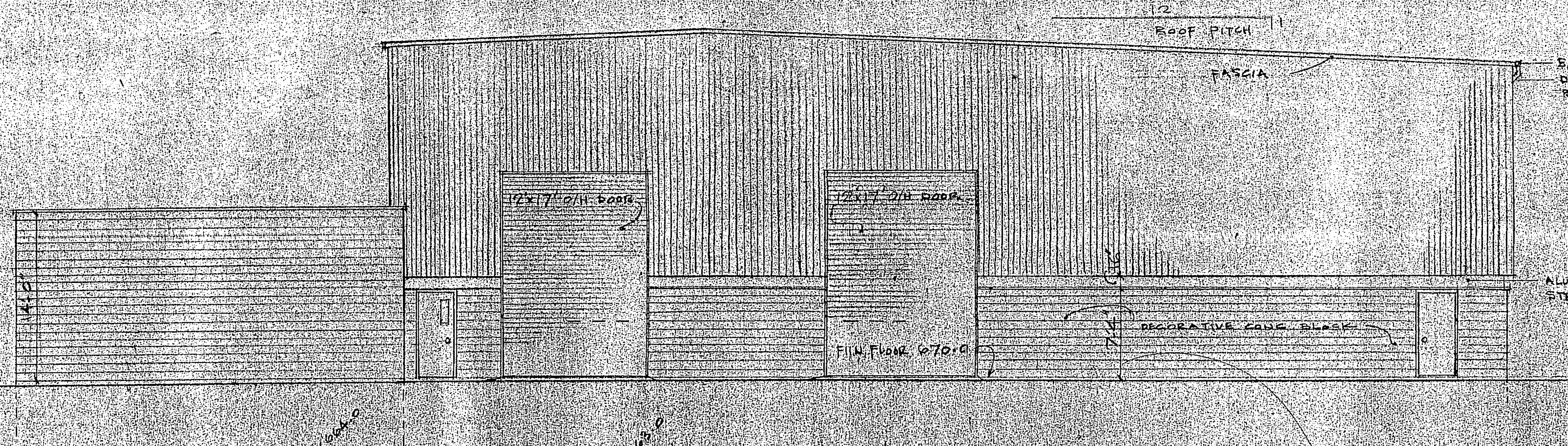
METAL ROOFING
FASCIA (NO EAVESTROUGH THIS SIDE OF BLDG)
FACTORY FINISHED METAL SIDING
PRE-FINISHED METAL FL.
GRANEX PANELS
'A'
THERMAL GLAZING
ALUM. FRAMES & SILL
DECORATIVE CONC. BLOCK
ALUM. DOOR & FRAME (SAFETY GLASS)
21 - BLOCK
BEDROCK

SOUTH ELEVATION



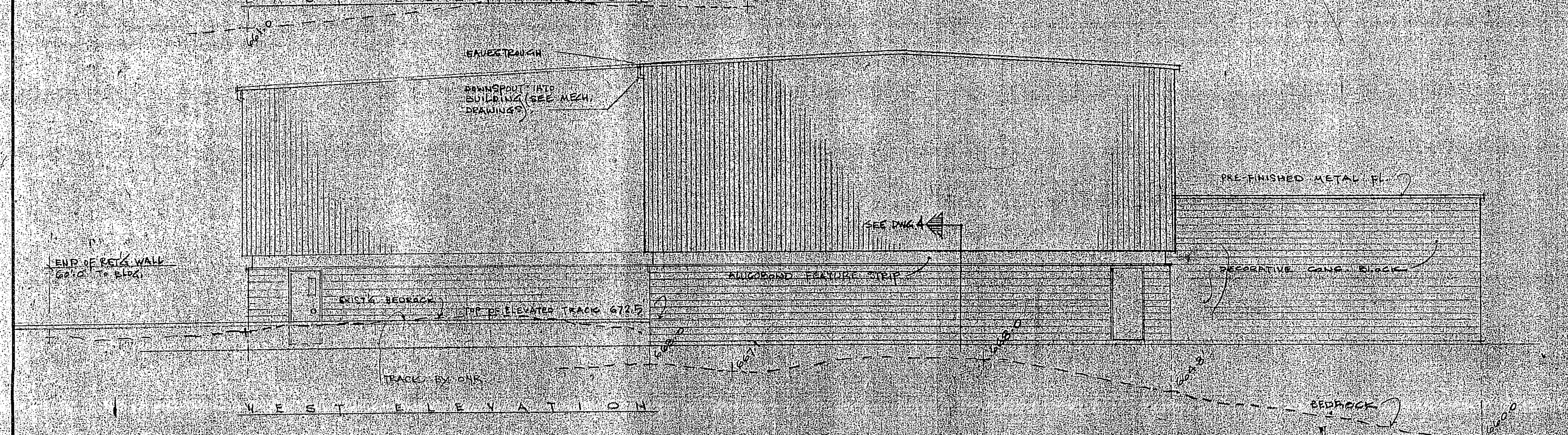
BEDROCK
EAVESTROUGH
METAL SIDING
12'x17' O/H DOOR
12'x17' O/H DOOR
12'x14'-6" O/H DOOR
ALUCOBOND FEATURE STRIP
DECORATIVE CONC. BLOCK
FIN. FLOOR 670.0
TYPICAL THERMAL GLAZING STRIPS 6 PER DOOR
REMOVE BEDROCK
ELEV. TOP OF RET'G. WALL AT BLDG. 672.0 AT OTHER END 671.5

NORTH ELEVATION



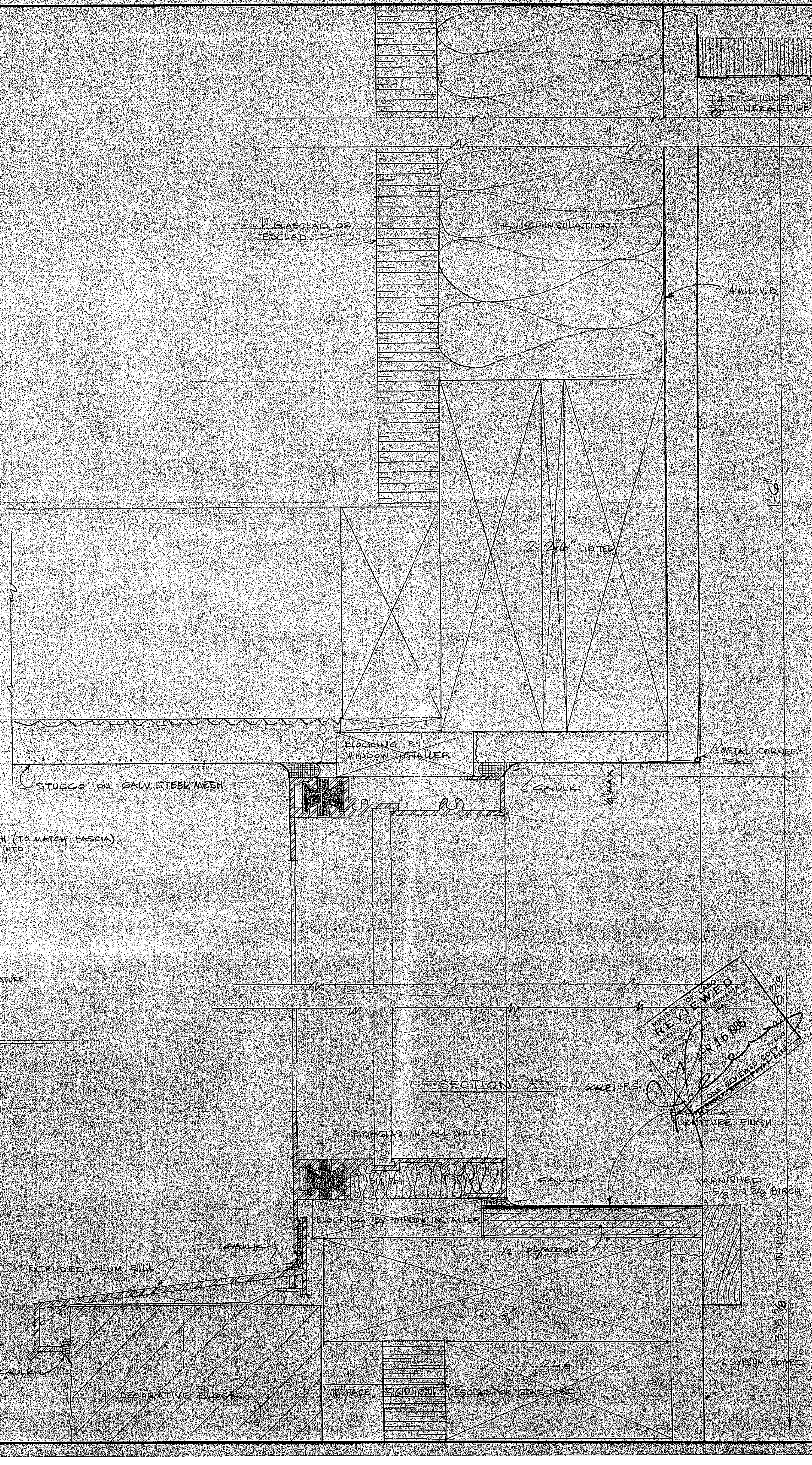
1:12 ROOF PITCH
EAVESTROUGH (TO MATCH FASCIA). DOWNSPOUT INTO BLDG.
FASCIA
12'x17' O/H DOOR
12'x17' O/H DOOR
ALUCOBOND FEATURE STRIP
DECORATIVE CONC. BLOCK
FIN. FLOOR 670.0

EAST ELEVATION



EAVESTROUGH
DOWNSPOUT INTO BUILDING (SEE MECH. DRAWINGS)
PRE-FINISHED METAL FL.
SEE DWG 4
ALUCOBOND FEATURE STRIP
DECORATIVE CONC. BLOCK
END OF RET'G WALL 671.0 TO BLDG.
EXIST'G BEDROCK
TOP OF ELEVATED TRACK 672.5
TRACK BY ONR
BEDROCK

WEST ELEVATION



T&T CEILING MINERAL TILE
1" GLASCLAD OR ESCLAD
R 12 INSULATION
4 MIL V.B.
2-2x10" LINTEL
BLOCKING BY WINDOW INSTALLER
METAL CORNER BEAD
STUCCO ON GALV. STEEL MESH
CAULK
FIBRGLAS IN ALL VOIDS
ARBORITE / FORMICA FURNITURE FINISH
VARNISHED 5/8"x1 5/8" BIRCH
CAULK
BLOCKING BY WINDOW INSTALLER
1/2" PLYWOOD
EXTRUDED ALUM. SILL
CAULK
2x4
2x4
1/2" GYPSUM BOARD
DECORATIVE BLOCK
AIRSPACE
RIGID INSUL.
ESCLAD OR GLASCLAD
TO FIN. FLOOR

SECTION 'A' SCALE: F.S.

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GERALD B. COX
LICENCE 1266

GERALD B. COX
ARCHITECT
373 FISHER STREET
NORTH BAY, ONTARIO
472-8350

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE GENERAL CONTRACTOR.

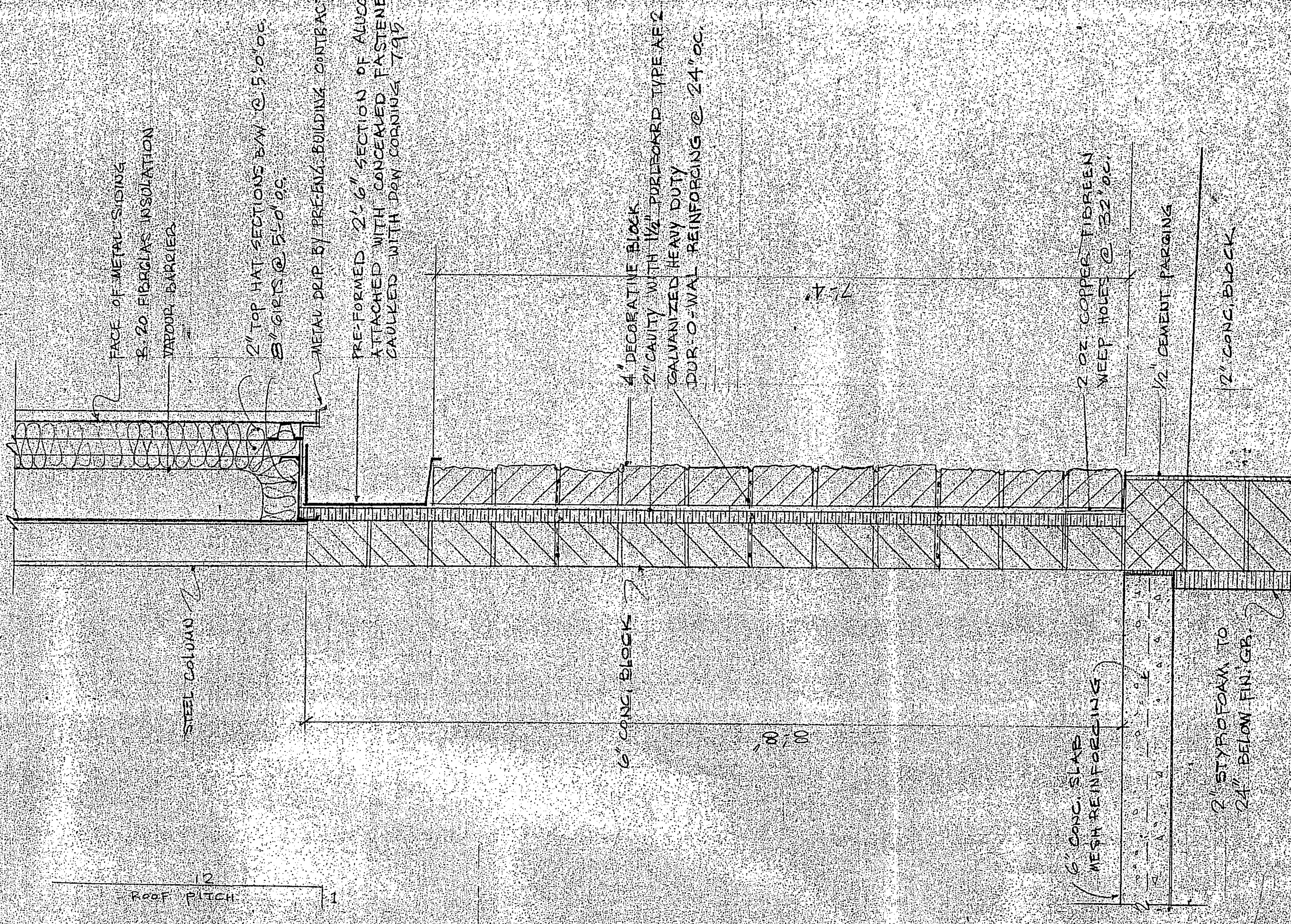
O.N.R.
MAINTENANCE OF WAY
REPAIR BUILDING
NORTH BAY, ONT.

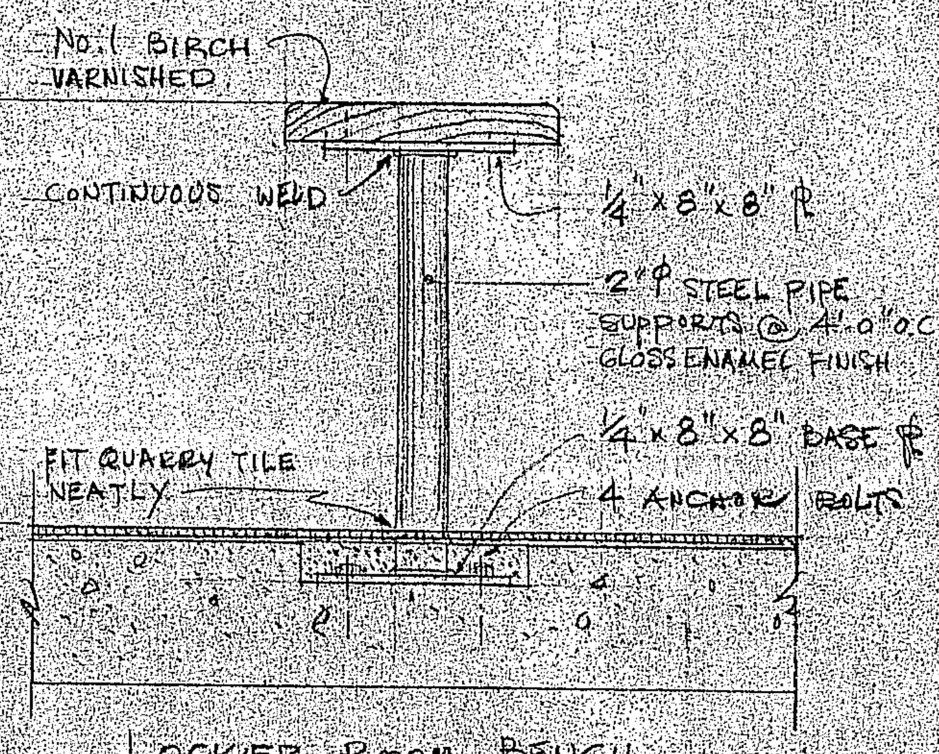
ELEVATIONS & SECTION

SCALE 1/8" = 1'-0"
DATE MARCH 22/85
DRAWN BY G.B.C.
JOB NO. 84.30

3

Ontario Association of Architects
Gerald B. Cox
Licence 1266


FACE OF METAL SIDING
R-20 FIBRGLAS INSULATION
VAPOUR BARRIER
2" TOP HAT SECTIONS B/W @ 5'-0" O.C.
8" GIRTS @ 5'-0" O.C.
METAL DRIP BY PRE-ENG. BUILDING CONTRACTOR
PRE-FORMED 2'-6" SECTION OF ALUCOBOND ATTACHED WITH CONCEALED FASTENERS CAULKED WITH DOW CORNING 795
4" DECORATIVE BLOCK
2" CAVITY WITH 1½" PORLEBOARD TYPE AF-2
GALVANIZED HEAVY DUTY DUR-O-WAL REINFORCING @ 24" O.C.
7'-4"
2 OZ. COPPER FIBREEN
WEEP HOLES @ 32" O.C.
½" CEMENT PARGING
12" CONC. BLOCK
STEEL COLUMN
6" CONC. BLOCK
8'-8"
6" CONC. SLAB MESH REINFORCING
2" STYROFOAM TO 24" BELOW FIN. GR.


No. 1 BIRCH VARNISHED
CONTINUOUS WELD
¼" x 8" x 8" ℞
2" φ STEEL PIPE SUPPORTS @ 4'-0" O.C. GLOSS ENAMEL FINISH
¼" x 8" x 8" BASE ℞
4 ANCHOR BOLTS
FIT QUARRY TILE NEATLY
18"

LOCKER ROOM BENCH
1½" = 1'-0"

12
ROOF PITCH
1
3'-8"
STANDARD FASCIA (TO MATCH EAVESTROUGH)
GALVANIZED LINER PANEL FACTORY PAINT FINISH
END WALL BEAM
28" DEEP BEAM
SEAL & CAULK
STANDING SEAM ROOF
R-40 INSULATION
CONTOUR GUTTER
R-20 INSULATION
3"
CRANE BEAMS BY CRANE SUPPLIER INCLUDING SUPPORT BRACKETS
END COLUMN
METAL LINER PANELS
GEN. CONTRACTOR TO INSTALL 2'x2'x2" CONC. PAVERS BELOW EAVE BUTT ¼ APART
ROOF
PEA GRAVEL BALLAST @ 10 lb/SQ.FT.
EPDM SINGLE PLY ROOFING
EXPANDED POLYSTYRENE INSULATION SLOPING 5" TO 2" THICK (LAID LOOSE)
6 MIL POLY V.B. (LOOSE)
METAL FL.
PRE-FINISHED METAL FL.
TREATED 6x6" CANT STRIP
(CONC. SLAB TO BE FINISHED AS FLOOR)
3" CONC. SLAB ON V-RIB METAL DECK
20" O.W.S.J. @ 24" O.C.
6x6 x W6/W6 W.W.M. REINFORCING
PAINT O.W.S.J. & METAL DECK
TIE AT COLS.
12'-6" TOP OF SLAB
GEN. CONTRACTOR TO PROVIDE TREATED WOOD NAILER FOR ROOFING CONTR.
20'-0"
EXIT
RECESSED EXIT LIGHT
CONC. BLOCK
9'-7"
8T @ 10" = 6'-8"
END OF RAIL
8'-0"
6" CONC. SLAB
4" CONC. SLAB
FIN. FL. 200'-0"
6" COMPACTED GRANULAR FILL
6 MIL POLY V.B.
POURED CONC. PIER AT COLUMNS
BEDROCK
24'-4"
20'-0" TOP OF RUNNING RAIL 4'-4"
8" CHANNEL FRAME
17'-0"
½" φ WELDED PIPE RAILING
TOP OF RAIL ELEV. 672.5'
2'-6"
5'-6"
9 RISERS
3'-0"
5 RISERS
REINF. CONC. PIER AT COLS.
29'-5"
4'-0"
8" CONC. BL. DUR-O-WAL REINFORCING @ 24" O.C.
2-7" CHANNELS + 3/8" PLATE TOP & BOTTOM
O/H DOOR TRACK (3")
GALVANIZED, FACTORY PAINTED METAL LINER
ROLLER DOOR
METAL SIDING
6'-0"
8T @ 10" = 6'-8"
8'-8"
CONC. BLOCK
STEEL COLUMN
RECESSED EXIT LIGHT
12" CHANNEL O/H DOOR FRAME
5/8 KICKPLATE
POURED CONC. SILL SLOPE 1" TO EXTERIOR
2" INSULATION
12
11
4
3
2
1

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REPAIR BUILDING
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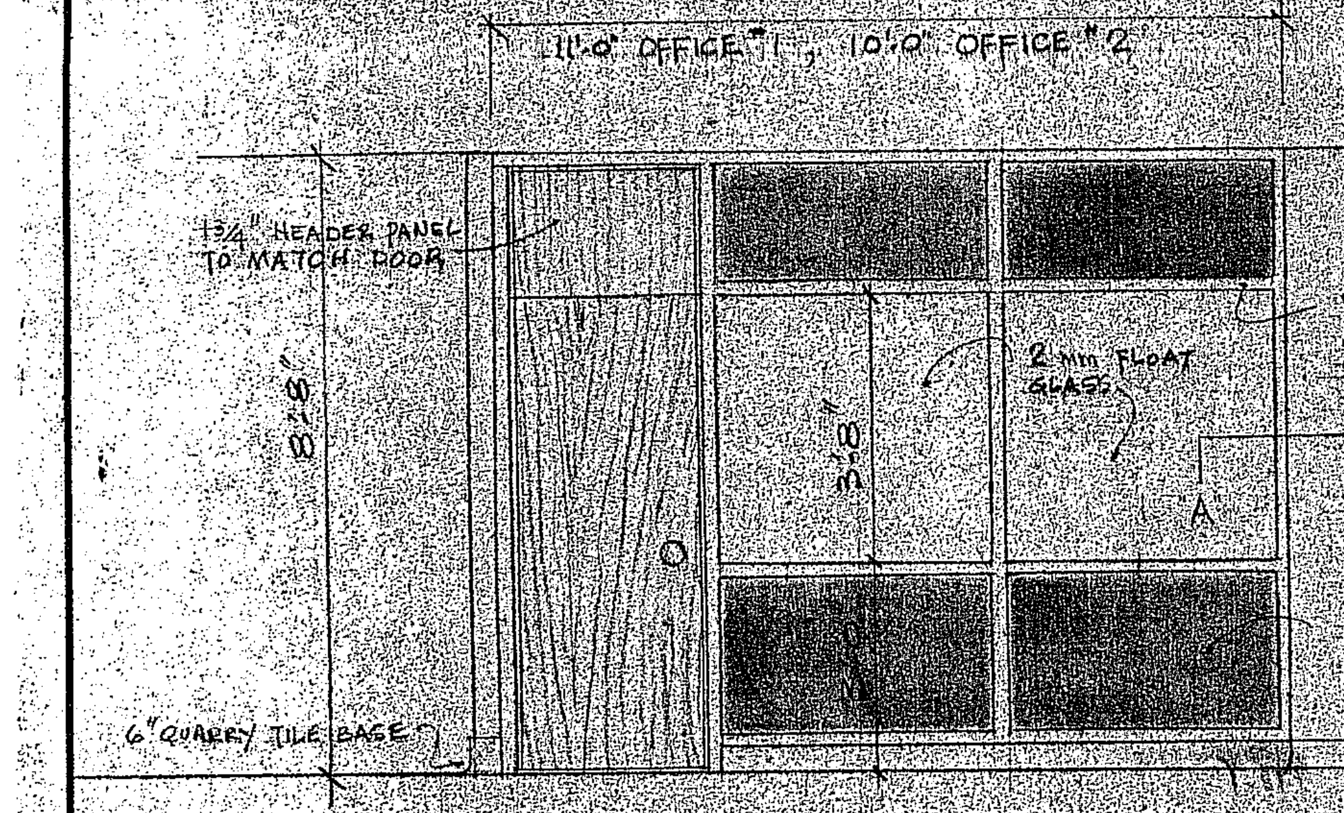
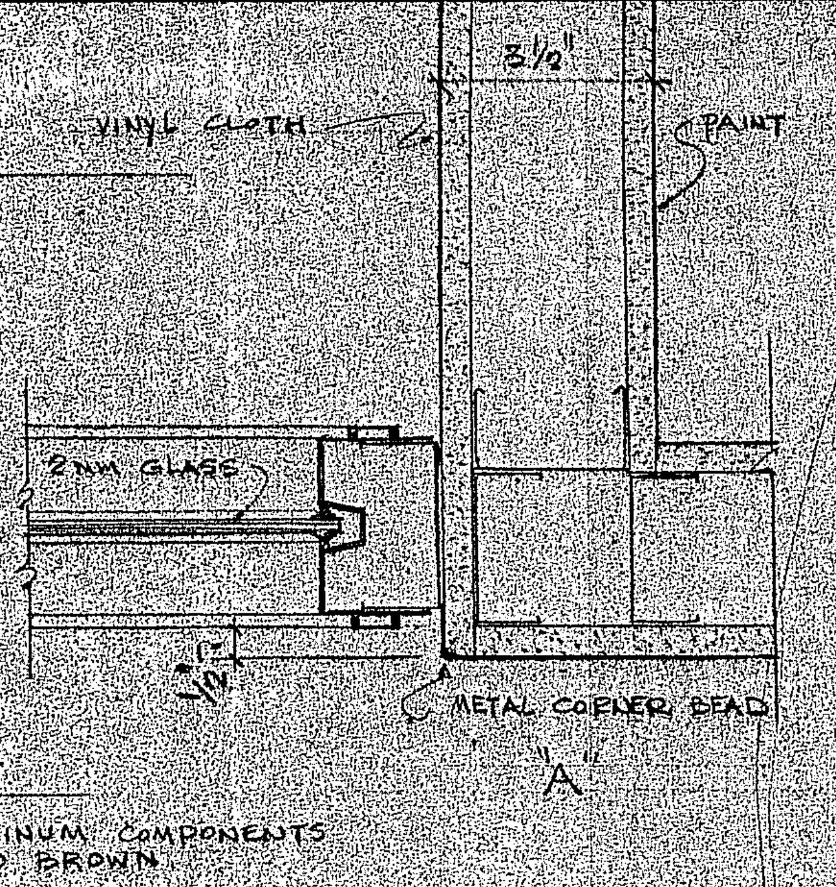
SECTION
SCALE ¼" = 1'-0"
DATE MARCH 22/85
DRAWN BY G.B.C.
JOB NO. 84-30

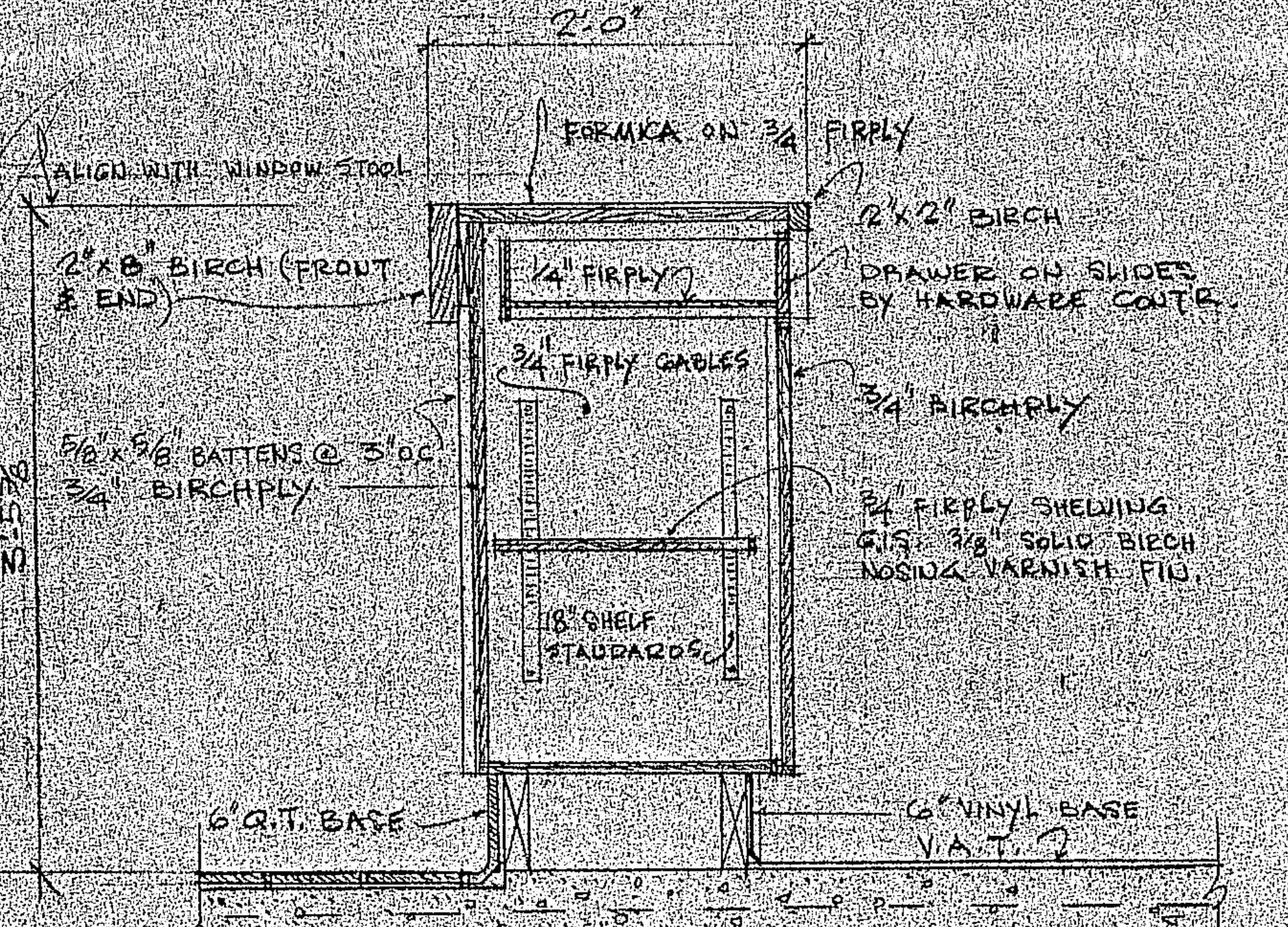
4


11'-0" OFFICE #1
10'-0" OFFICE #2
1 3/4" HEADER PANEL TO MATCH DOOR
WESTROC MOVABLE WALL TYPE AW SERIES FOR 1 1/2" STEEL FRAMING
2 mm FLOAT GLASS
VINYL COVERED GYP. BD.
WESTROC VINYLBOARD
4" VINYL BASE
6" QUARRY TILE BASE
8'-8"
A

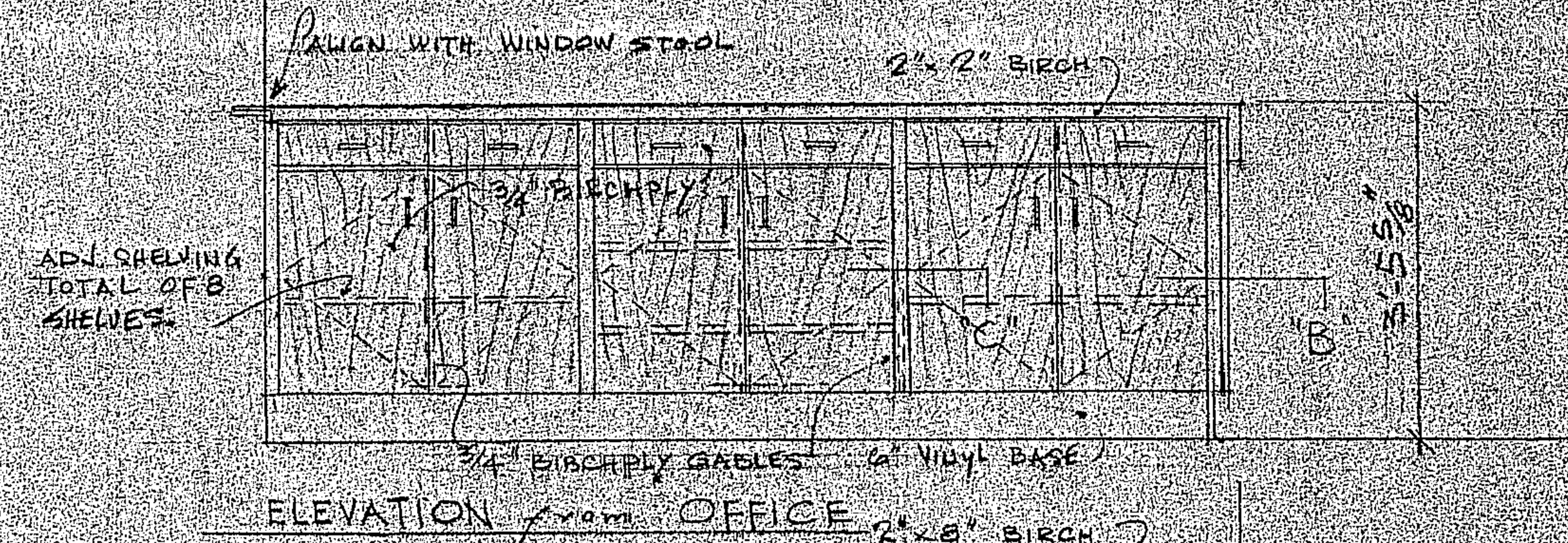
NOTE: ALL ALUMINUM COMPONENTS ANODIZED BROWN

ELEVATION of OFFICE PARTITIONS scale 3/8"=1'-0"

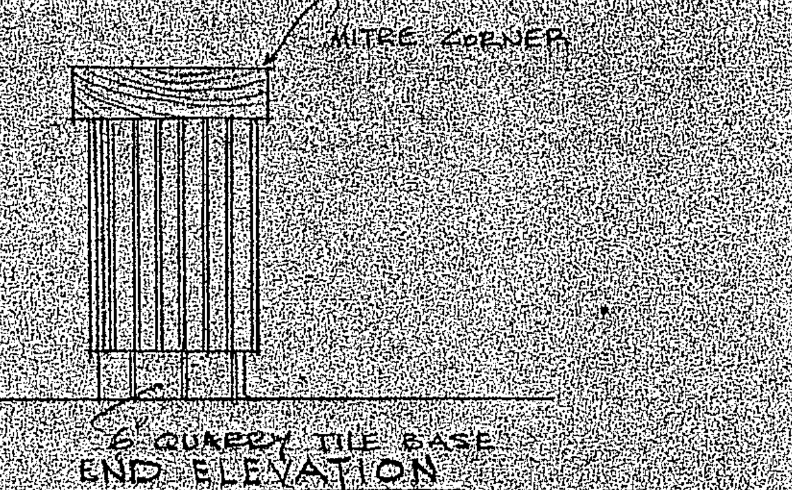

3 1/2"
VINYL CLOTH
PAINT
FIN. CLNG
2 mm GLASS
METAL CORNER BEAD
"A"


2'-0"
ALIGN WITH WINDOW STOOL
FORMICA ON 3/4 FIRPLY
2"x2" BIRCH
2"x8" BIRCH (FRONT & END)
1/4" FIRPLY
DRAWER ON SLIDES BY HARDWARE CONTR.
3/4 FIRPLY GABLES
3/4" BIRCHPLY
5/8"x 5/8" BATTENS @ 3" oc.
3/4" BIRCHPLY
3/4" FIRPLY SHELVING
C/S 3/8" SOLID BIRCH NOSING VARNISH FIN.
8" SHELF STANDARDS
6" Q.T. BASE
6" VINYL BASE
V.A.T.
3'-5 1/2"

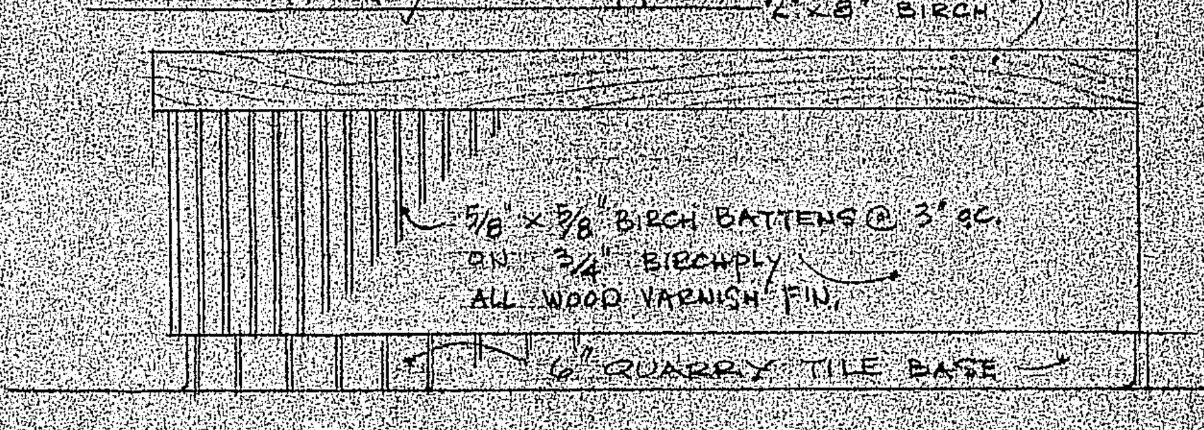
SECTION at ENTRY COUNTER scale 1"=1'-0"


ALIGN WITH WINDOW STOOL
2"x 12" BIRCH
3/4" BIRCHPLY
ADJ. SHELVING TOTAL OF 8 SHELVES
'C'
'B'
3'-5 5/8"
3/4" BIRCHPLY GABLES
6" VINYL BASE

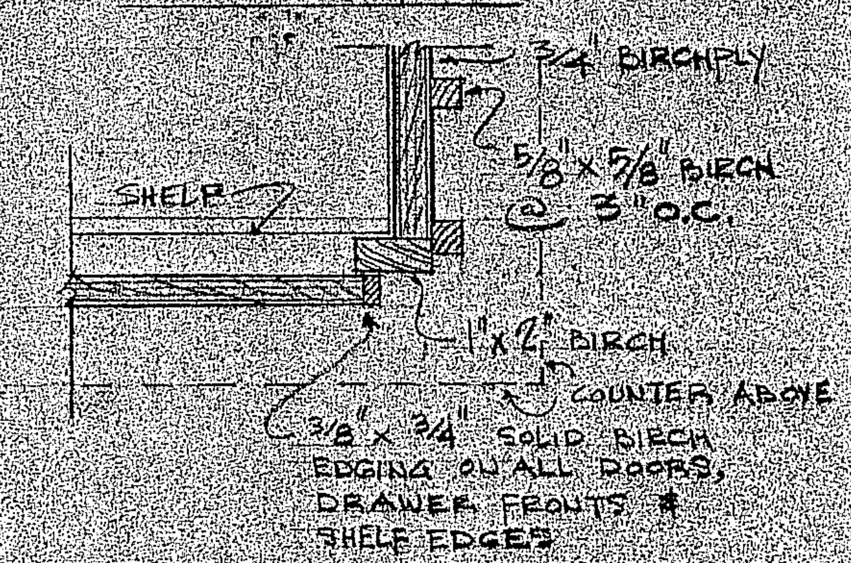
ELEVATION from OFFICE


MITRE CORNER
6" QUARRY TILE BASE

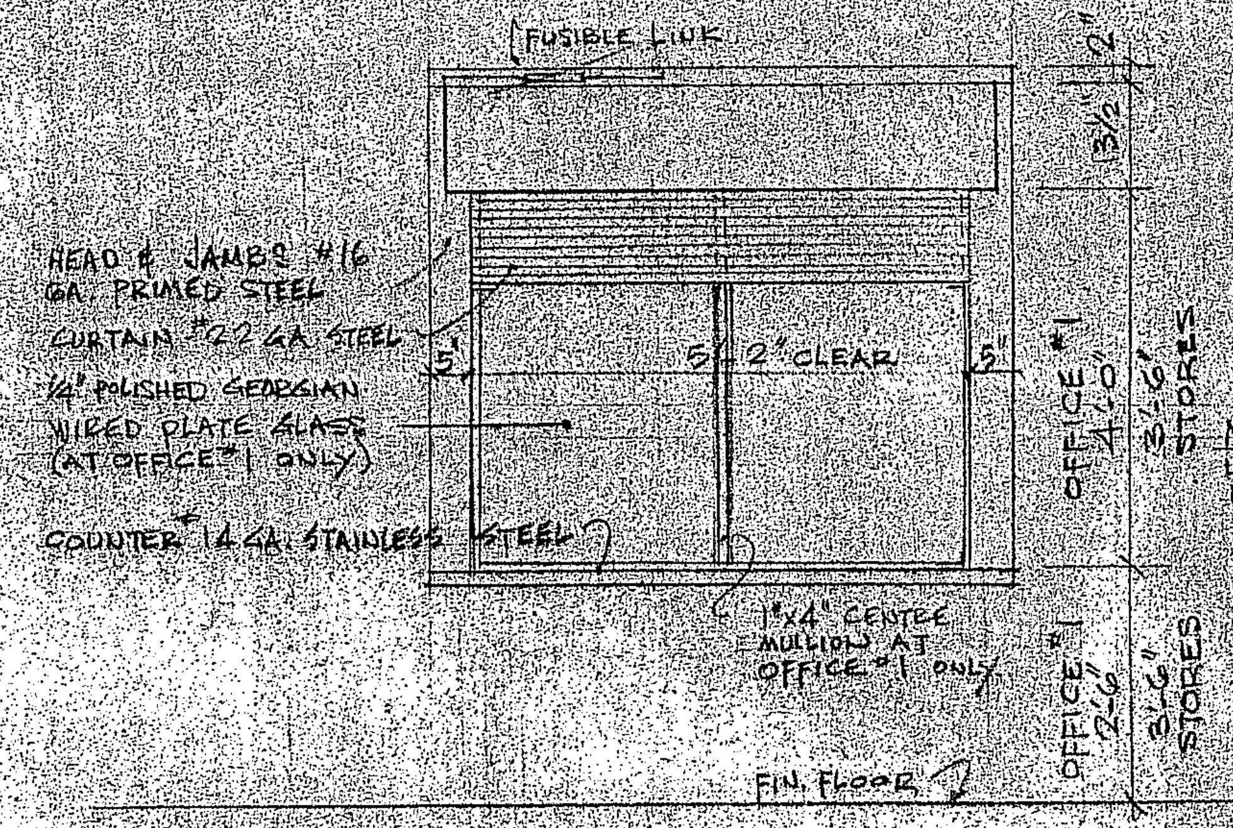
END ELEVATION


2"x8" BIRCH
5/8"x 5/8" BIRCH BATTENS @ 3" oc. ON 3/4" BIRCHPLY ALL WOOD VARNISH FIN.
6" QUARRY TILE BASE

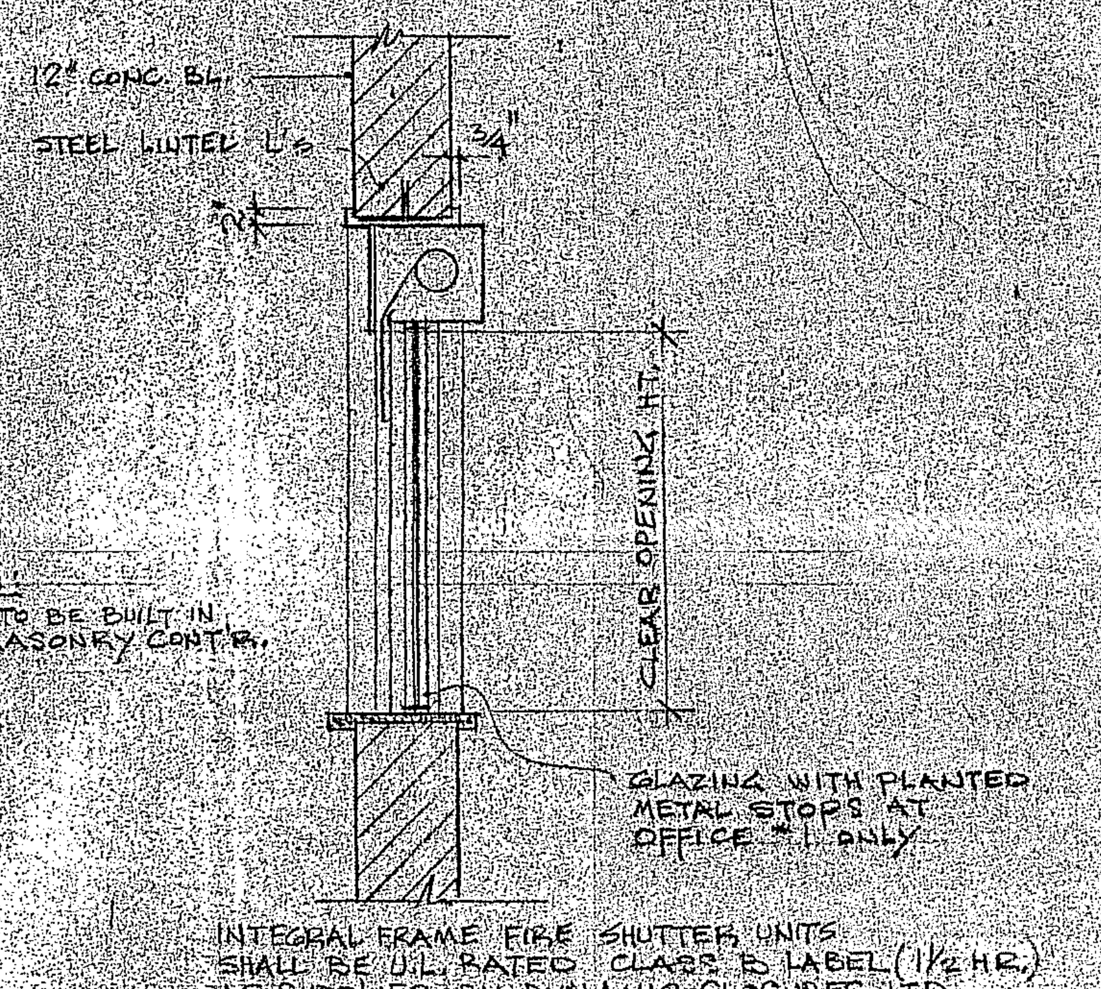
ELEVATION from ENTRY scale 1/2"=1'-0"


3/4 BIRCHPLY
5/8"x 5/8" BIRCH @ 3" O.C.
SHELF
1"x2" BIRCH
COUNTER ABOVE
3/8"x 3/4" SOLID BIRCH EDGING ON ALL DOORS, DRAWER FRONTS & SHELF EDGES

DETAIL at "B" scale: 1/4 F.S.

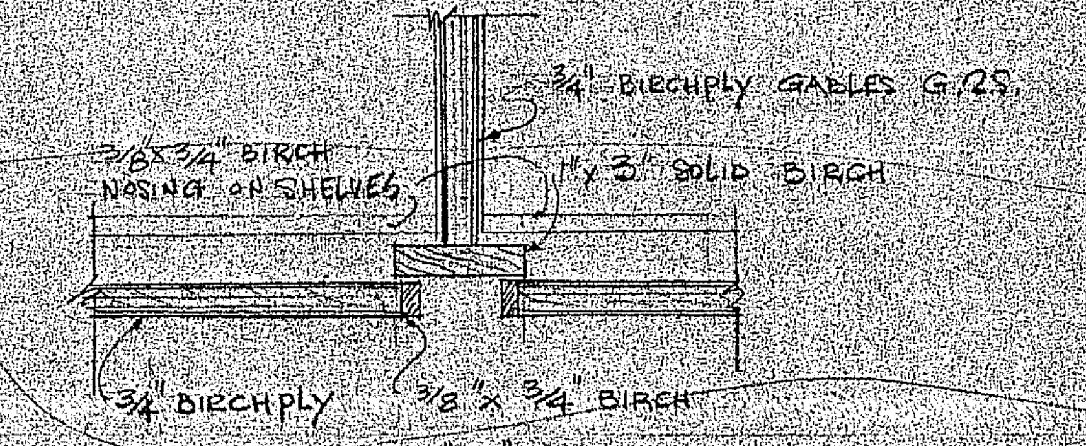

FUSIBLE LINK
HEAD & JAMBS #16 GA. PRIMED STEEL
CURTAIN #22 GA STEEL
1/4" POLISHED GEORGIAN WIRED PLATE GLASS (AT OFFICE #1 ONLY)
5'-2" CLEAR
COUNTER 14 GA. STAINLESS STEEL
1 3/4" CENTRE MULLION AT OFFICE #1 ONLY
FIN. FLOOR
OFFICE #1 4'-0"
3'-6" STORES
OFFICE #1 2'-6"
3'-6" STORES
1'-2"
1'-3 1/2"
NOTE: UNITS TO BE BUILT IN BY MASONRY CONTR.

ELEVATION of ROLLER SHUTTERS 1/2"=1'-0"

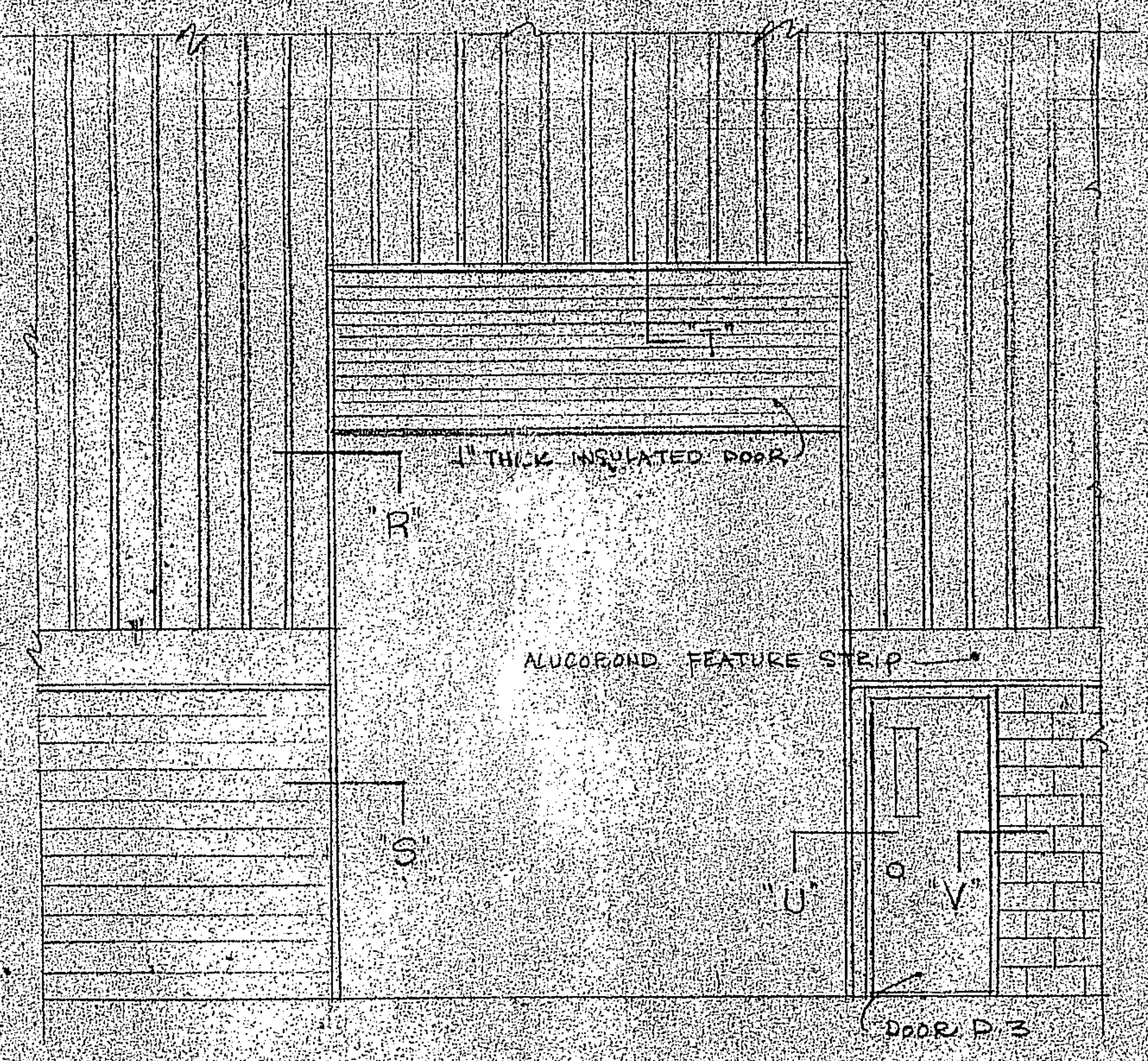

12" CONC. BL.
STEEL LINTEL L's
3/4"
CLEAR OPENING HT.
GLAZING WITH PLANTED METAL STOPS AT OFFICE #1 ONLY

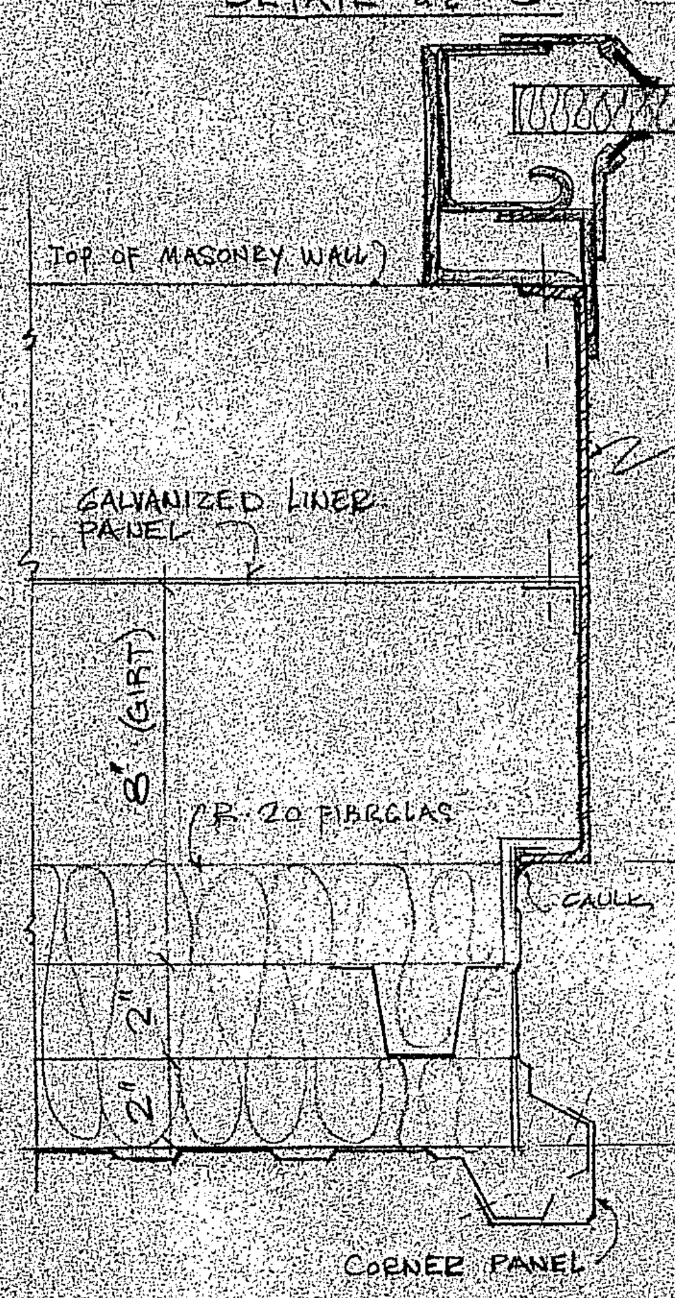
INTEGRAL FRAME FIRE SHUTTER UNITS SHALL BE U.L. RATED, CLASS B LABEL (1 1/2 HR.) AS SUPPLIED BY DYNAMIC CLOSURES LTD.

SECTION scale: 1/2"=1'-0"

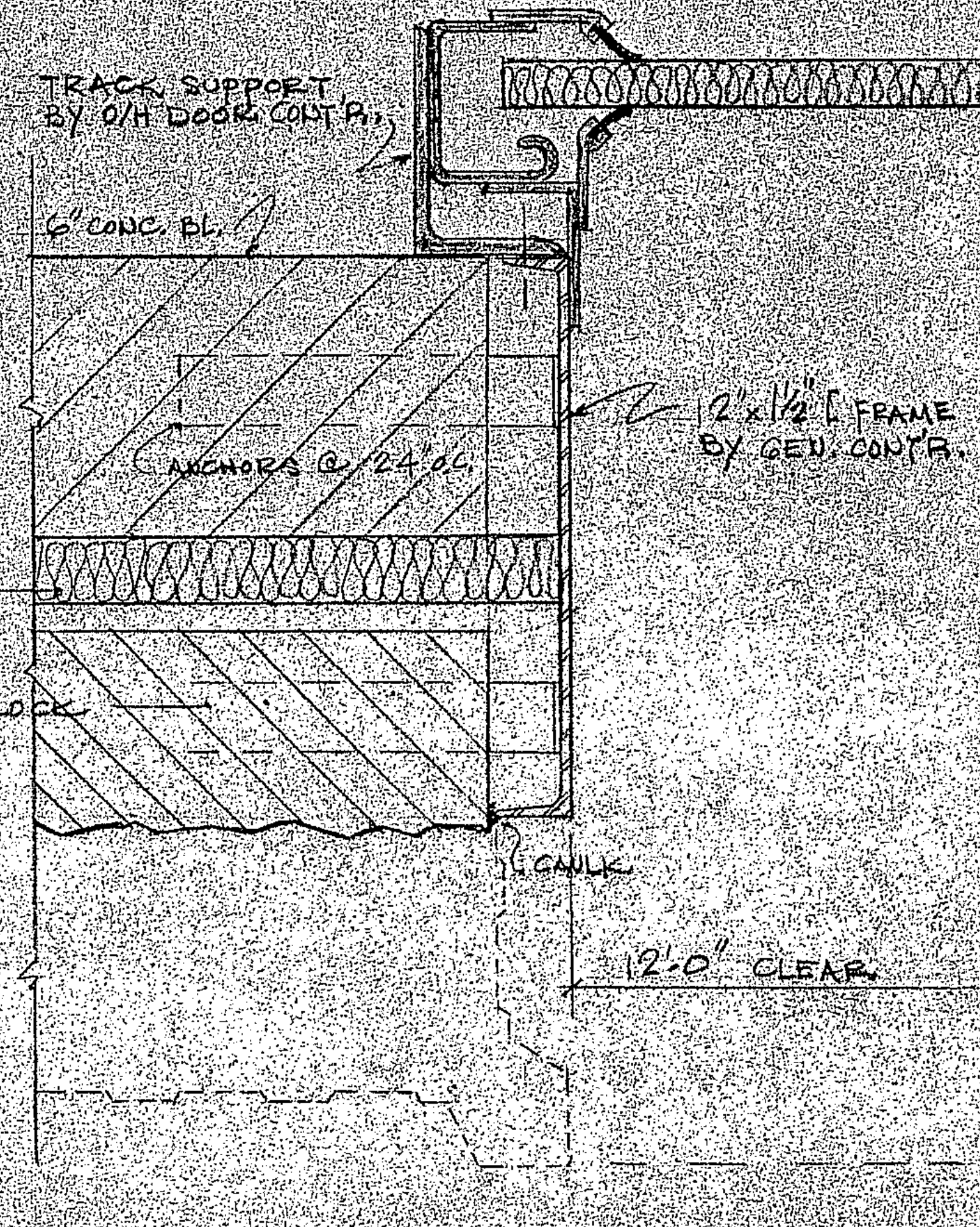

3/4" BIRCHPLY GABLES G.1 S.
3/8"x 3/4" BIRCH NOSING ON SHELVES
1"x 3" SOLID BIRCH
3/4" BIRCHPLY
3/8"x 3/4" BIRCH

DETAIL at "C" scale: 1/4 F.S.

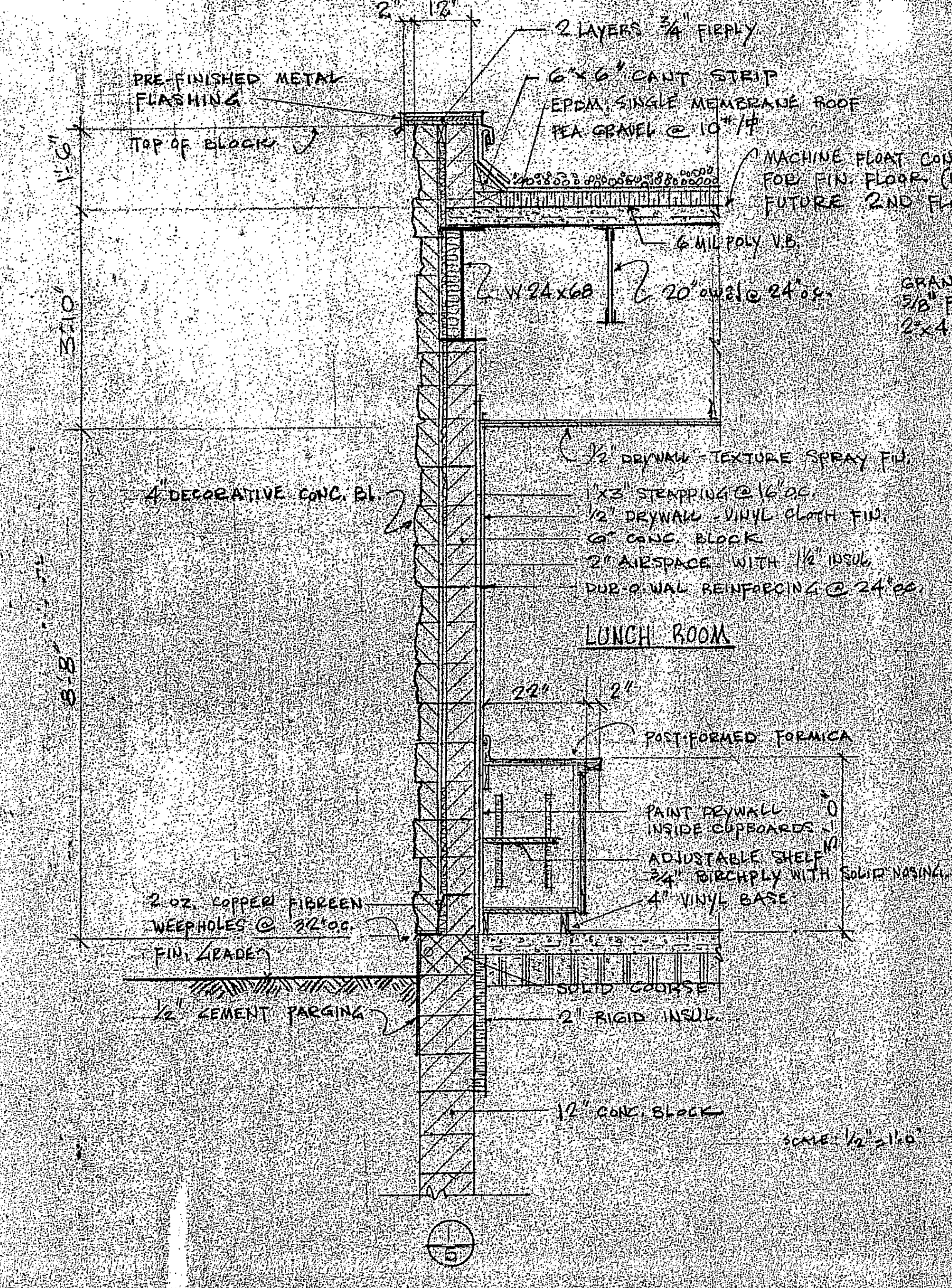

1" THICK INSULATED DOOR
'R'
'S'
ALUCOBOND FEATURE STRIP
'U'
'V'
DOOR D3

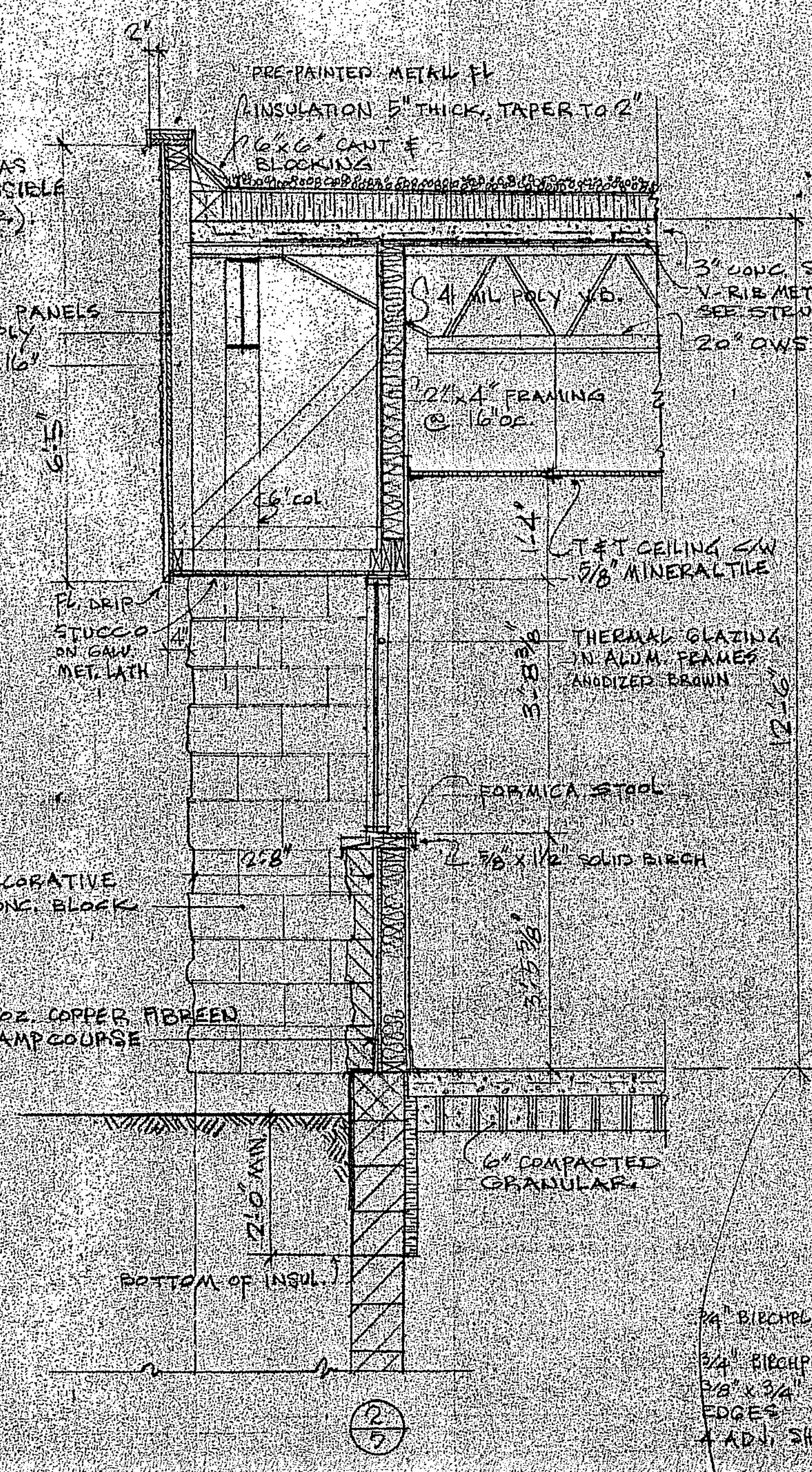

1" THICK INSULATED DOOR
TOP OF MASONRY WALL
12 x 1/2 [FRAME
GALVANIZED LINER PANEL
8" (GIRT)
R-20 FIBRGLAS
CAULK
6"
CORNER PANEL

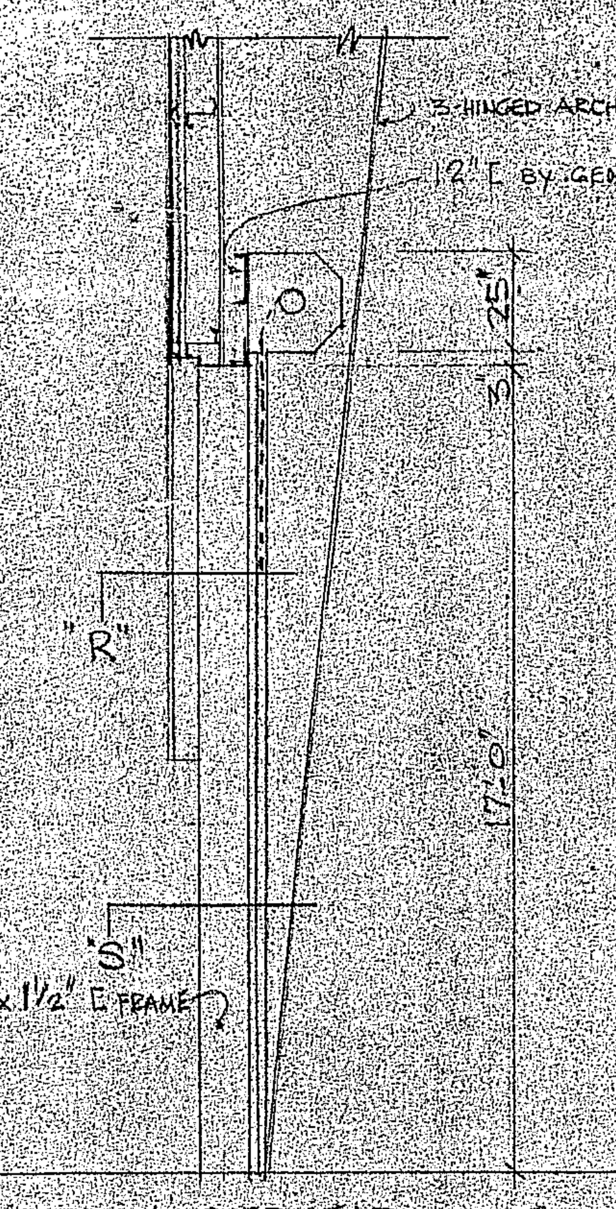
DETAIL at "R" scale: 1/4 F.S.


TRACK SUPPORT BY O/H DOOR CONTR.
6" CONC. BL.
12 x 1/2 [FRAME BY GEN. CONTR.
ANCHORS @ 24" oc.
1 1/2" FURI BOARD TYPE AF2
4" DECORATIVE BLOCK
CAULK
12'-0" CLEAR

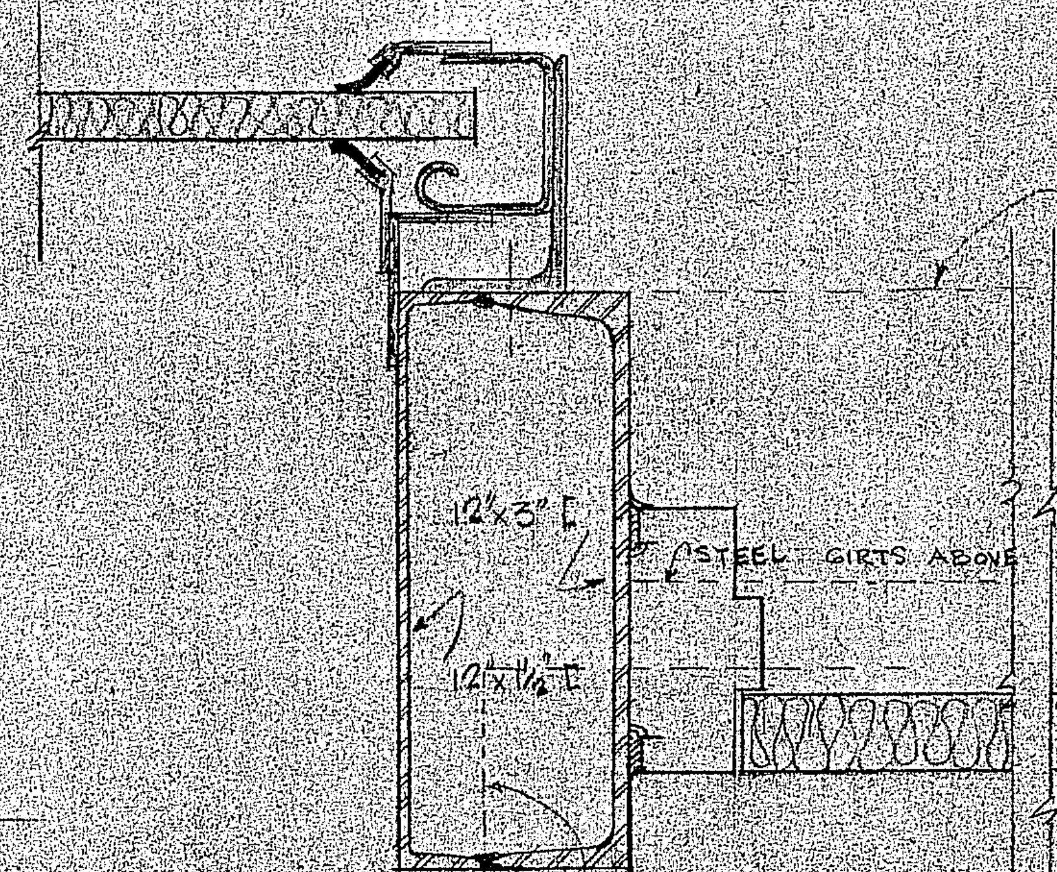
DETAIL at "S"


2"
12"
2 LAYERS 3/4" FIRPLY
6"x6" CANT STRIP
PRE-FINISHED METAL FLASHING
EPDM SINGLE MEMBRANE ROOF
PEA GRAVEL @ 10#/'
TOP OF BLOCKS
MACHINE FLOAT CONC. AS FOR FIN. FLOOR (POSSIBLE FUTURE 2ND FLOOR)
6 MIL POLY V.B.
W 24 x 68
20" OWSJ @ 24" oc.
3'-0"
1/2" DRYWALL - TEXTURE SPRAY FIN.
4" DECORATIVE CONC. BL.
1"x2" STRAPPING @ 16" oc.
1/2" DRYWALL - VINYL CLOTH FIN.
6" CONC. BLOCK
2" AIRSPACE WITH 1 1/2" INSUL.
DUR-O-WAL REINFORCING @ 24" oc.
LUNCH ROOM
8'-8"
22"
POST-FORMED FORMICA
PAINT DRYWALL INSIDE CUPBOARDS
ADJUSTABLE SHELF 3/4" BIRCHPLY WITH SOLID NOSING
4" VINYL BASE
2 oz. COPPER FIBREEN
WEEPHOLES @ 32" oc.
FIN. GRADE
1/2" CEMENT PARGING
SOLID COURSE
2" RIGID INSUL.
12" CONC. BLOCK
scale: 1/2"=1'-0"
5

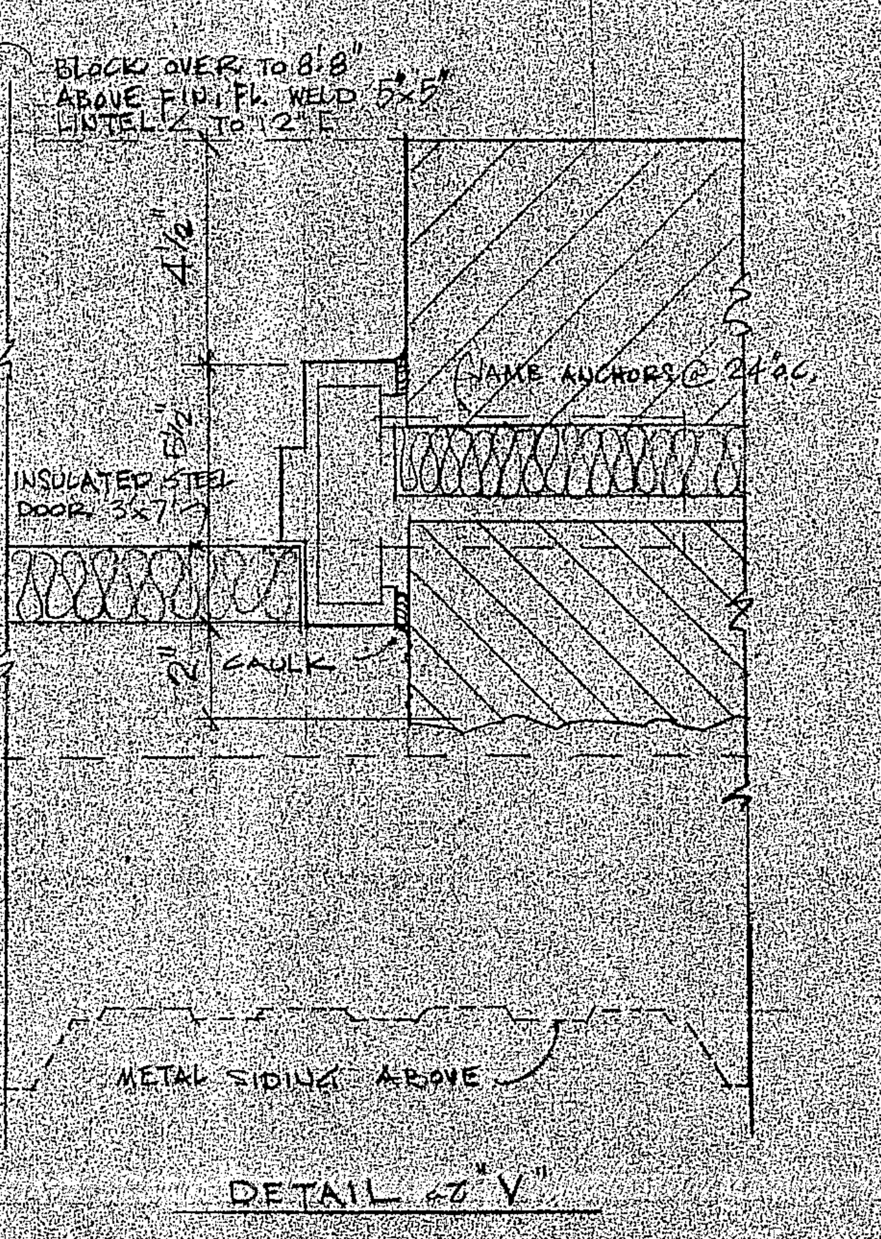

PRE-PAINTED METAL FL.
INSULATION 5" THICK, TAPER TO 2"
6"x6" CANT & BLOCKING
3" CONC. SLAB
V-RIB METAL DECK SEE STRUCT. DWGS.
GRANEX PANELS 3/8" FIRPLY
2"x4" @ 16"
6 MIL POLY V.B.
20" OWSJ @ 24" oc.
2"x4" FRAMING @ 16" oc.
6'-5"
6" col.
T & T CEILING c/w 5/8" MINERAL TILE
DRIP
STUCCO ON GALV. MET. LATH
THERMAL GLAZING IN ALUM. FRAMES ANODIZED BROWN
3'-8 1/2"
12'-0"
FORMICA STOOL
2'-8"
2 3/8" x 1 1/2 SOLID BIRCH
DECORATIVE CONC. BLOCK
2 oz. COPPER FIBREEN DAMPCOURSE
6" COMPACTED GRANULAR
2'-0" MIN.
BOTTOM OF INSUL.
2
7


3-HINGED ARCH
12" [BY GEN. CONTR.
"R"
"S"
12 x 1 1/2" [FRAME
17'-0"

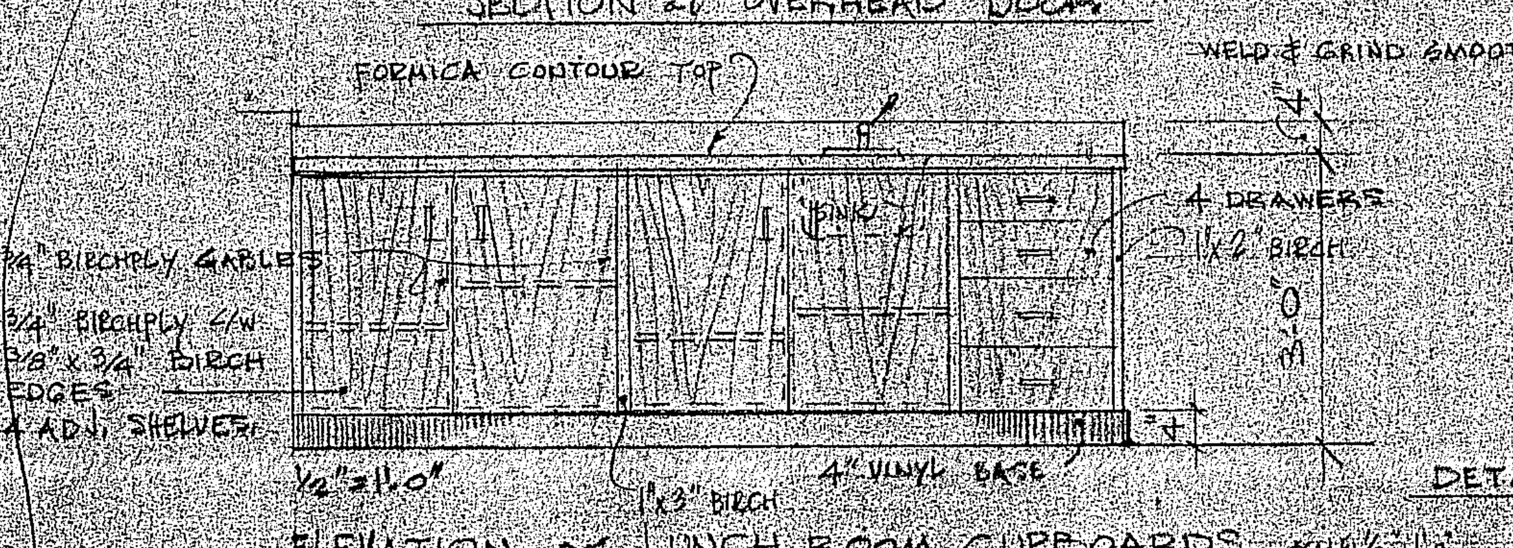
SECTION at OVERHEAD DOOR


12 x 3" [
12 x 1 1/4" [
STEEL GIRTS ABOVE
WELD & GRIND SMOOTH
ALUCOBOND FEATURE STRIP

DETAIL at "U" scale: 1/4 F.S.


BLOCK OVER TO 8'-8" ABOVE FIN. FL. WELD 5 x 5" LINTEL TO 12" [
JAMB ANCHORS @ 24" oc.
INSULATED STEEL DOOR
CAULK
METAL SIDING ABOVE

DETAIL at "V"


FORMICA CONTOUR TOP
3/4" BIRCHPLY GABLES
3/4" BIRCHPLY c/w 3/8"x 3/4" BIRCH EDGES
4 ADJ. SHELVES
4 DRAWERS
1"x2" BIRCH
3'-0"
4" VINYL BASE
1"x3" BIRCH

ELEVATION of LUNCH ROOM CUPBOARDS scale 1/2"=1'-0"

MINISTRY OF LABOUR
REVIEWED
AS MEETING THE REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1978
APR 16 1985
P. ENG.
ONE REVIEWED COPY SHALL BE KEPT AT SITE

ONTARIO ASSOCIATION OF ARCHITECTS
GERALD B. COX
LICENCE
1266

GERALD B. COX
ARCHITECT
373 FISHER STREET
NORTH BAY, ONTARIO
472-8350

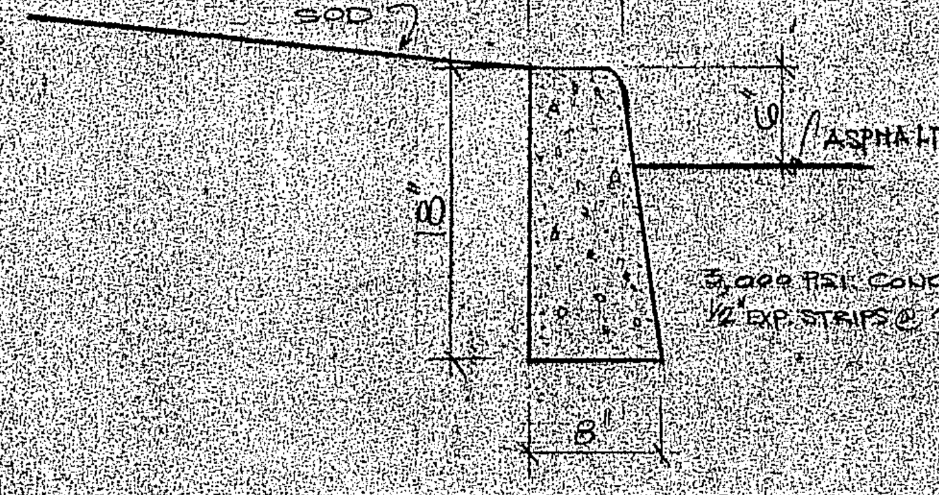
ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE GENERAL CONTRACTOR.

O.N.R.
MAINTENANCE OF WAY & REPAIR BUILDING
NORTH BAY, ONT.

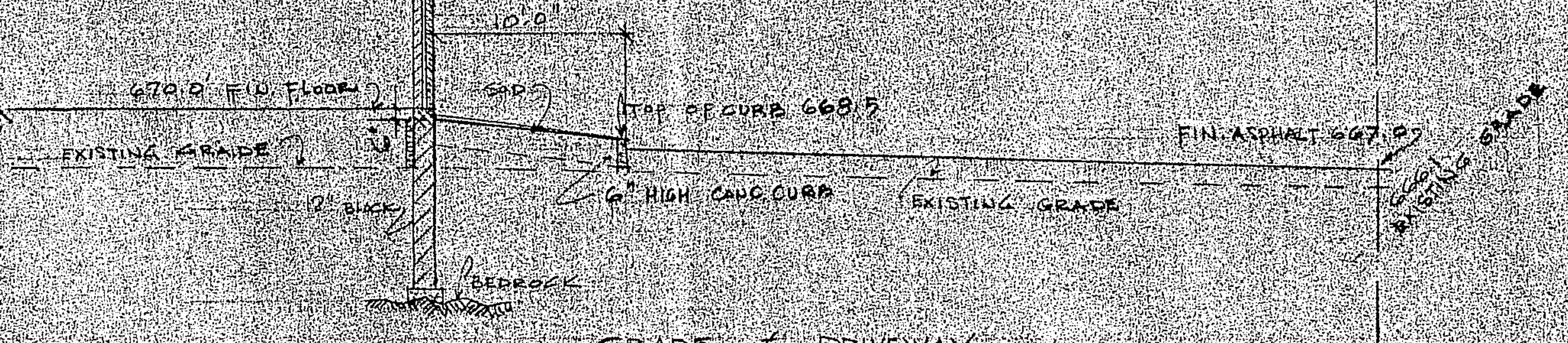
SECTIONS & MISC. DETAILS

SCALE AS NOTED
DATE MARCH 22, 1985
DRAWN BY G.B.C.
JOB NO. 84-30

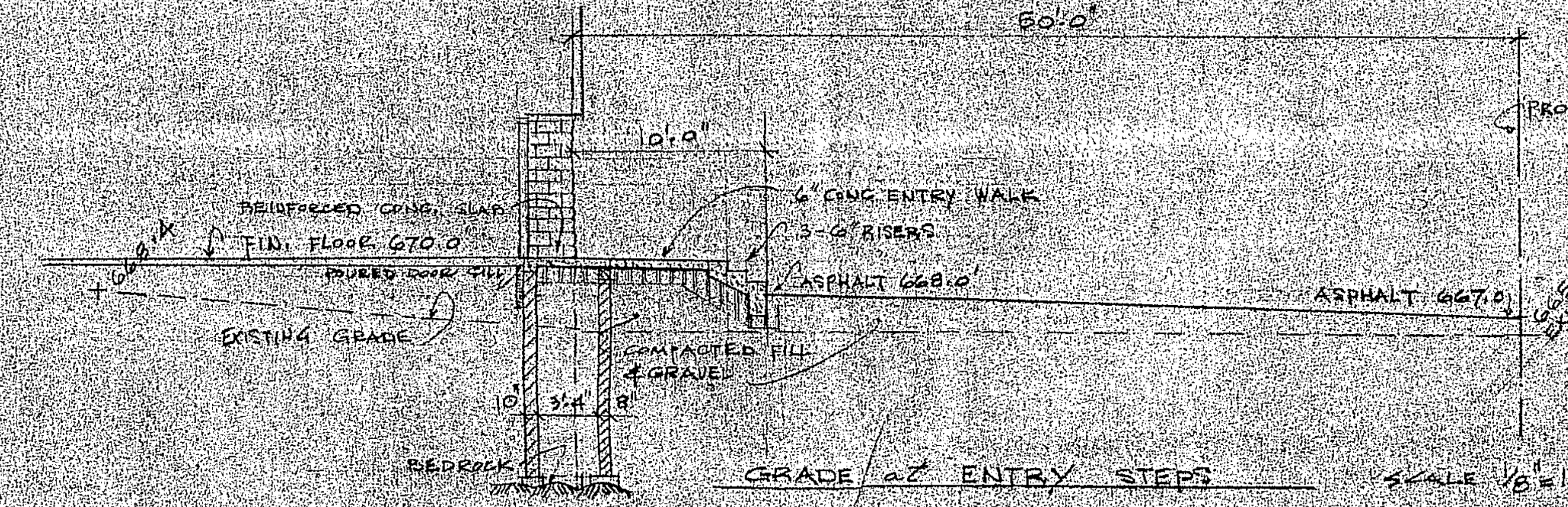
5


6"
SOD
6"
ASPHALT
10"
3,000 PSI CONC.
1/2" EXP. STRIPS @ 20'0" o.c.
8"

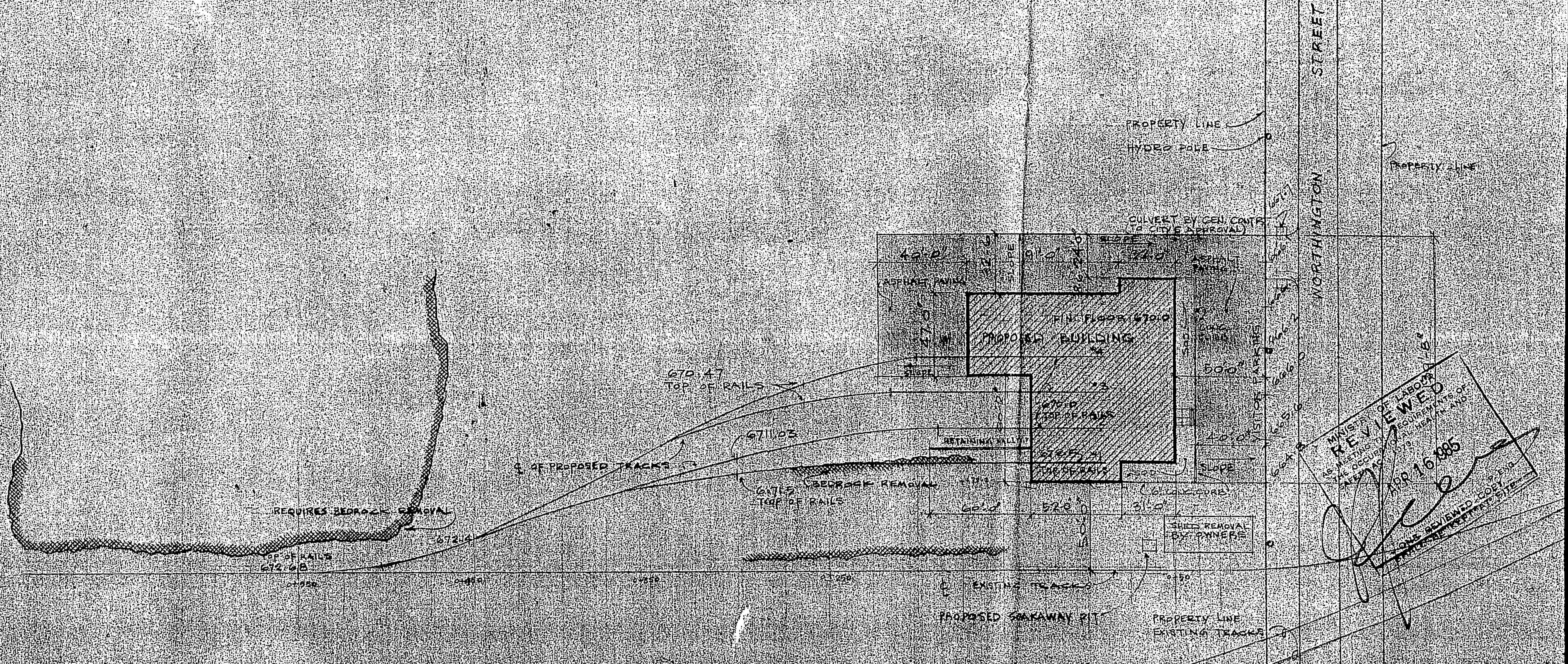
CONCRETE CURBS
1" = 1'-0"


50'0"
10'0"
670.0' FIN. FLOOR
SOD
TOP OF CURB 668.5
FIN. ASPHALT 667.0
667.1'
EXISTING GRADE
12" BLOCK
6" HIGH CONC. CURB
EXISTING GRADE
666.1' EXISTING GRADE
BEDROCK

GRADE at DRIVEWAY


50'0"
PROPERTY LINE
10'0"
6" CONC. ENTRY WALK
REINFORCED CONC. SLAB
3-6" RISERS
668.4'
FIN. FLOOR 670.0'
POURED DOOR SILL
ASPHALT 668.0'
ASPHALT 667.0
665.8 EXISTING GRADE
EXISTING GRADE
COMPACTED FILL & GRAVEL
10"
3'4"
8"
BEDROCK

GRADE at ENTRY STEPS SCALE 1/8" = 1'-0"


NORTHINGTON STREET
PROPERTY LINE
HYDRO POLE
PROPERTY LINE
CULVERT BY GEN. CONTR. (TO CITY'S APPROVAL)
40'0"
SLOPE
19'0"
24'0"
ASPHALT PAVING
ASPHALT PAVING
27'0"
FIN. FLOOR 670.0
PROPOSED BUILDING
#4
#3
CONC. CURB
50'0"
40'0"
VISITOR PARKING
670.47 TOP OF RAILS
670.0 TOP OF RAILS
671.03
RETAINING WALL
669.5 TOP OF RAILS
℄ OF PROPOSED TRACKS
671.5 TOP OF RAILS
BEDROCK REMOVAL
SLOPE
SOD
6" CONC. CURB
60'0"
52'0"
31'0"
SHED REMOVAL BY OWNERS
REQUIRES BEDROCK REMOVAL
672.4
TOP OF RAILS 672.68
℄ EXISTING TRACKS
PROPOSED SOAKAWAY PIT
PROPERTY LINE
EXISTING TRACKS
B.M. 665.74 NAIL IN POLE
667.7
665.6
666.0
665.6
664.8

MINISTRY OF LABOUR
REVIEWED
AS MEETING THE REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1978
APR 16 1985
P. ENG.
ONE REVIEWED COPY TO BE KEPT AT SITE

SCALE 1" = 50'-0"

NOTE: FOR EXISTING GRADES & BEDROCK LOCATION WHERE BUILDING IS TO BE ERECTED, SEE SITE PLAN DWG. #1.

ONTARIO ASSOCIATION OF ARCHITECTS
GERALD B. COX
LICENCE
1266

GERALD B. COX
ARCHITECT
373 FISHER STREET
NORTH BAY, ONTARIO
472-8350

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE GENERAL CONTRACTOR.

O.N.R.
MAINTENANCE OF WAY
REPAIR BUILDING
NORTH BAY, ONT.

PLOT PLAN

SCALE AS NOTED
DATE MARCH 22/85
DRAWN BY G.B.C.
JOB NO. 8430

6

LIGHT FIXTURE SCHEDULE

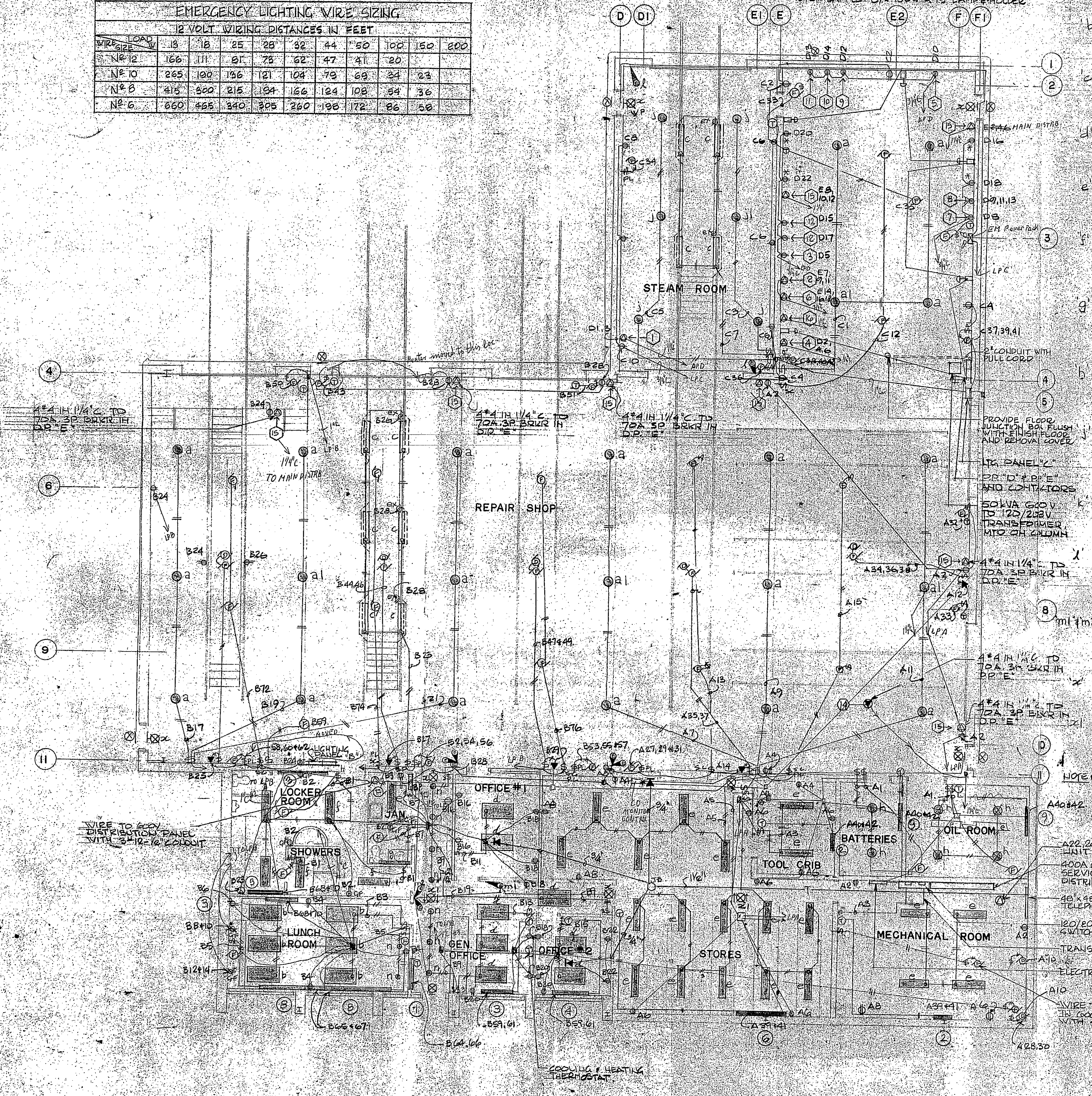
TYPE	DESCRIPTION
'n'	RECESED 6"ø POT LIGHT IN T-BAR CEILING DIE CAST MATTE BLACK ALUMINUM STEP BAFFLE, ANODIZED ALUMINUM REFLECTOR C/W FRAMING KIT LIGHTOLIER LYTECASTE 02 STEP BAFFLE C/W 100W A-19 LAMP & HOLDER
'a'	HIGH PRESSURE SODIUM FIXTURE C/W 400W HPS LAMP, POWER HOOK, SAFETY CABLE, CHARCOAL FILTER BREATHER AND GASKETED GLASS LENS. HUBBLE HBS-400SI-EW.
'b'	2'X4' SURFACE MTD FLUORESCENT FIXTURE C/W 4-40 W R.S. LAMPS AND LAY-IN ACRYLIC LENS. PEERLESS Nº LX 448-15.
'c'	1'x4' EXPLOSIONPROOF FLUORESCENT FIXTURE C/W 2-40W R.S. LAMPS AND PROTECTOR SHIELD. APPLETON MODEL Nº ARS240-118 C/W EFP 248 REF 1
'd'	2'x4' RECESSED FLUORESCENT FIXTURE FOR INVERTED 'T-GRID' CEILING C/W 4-40W R.S. LAMPS AND LAY-IN ACRYLIC LENS. PEERLESS MOD. Nº HIT-448-15
'e'	1'x4' SURFACE MTD. FLUORESCENT FIXTURE C/W 2-40W R.S. LAMPS AND LAY-IN ACRYLIC LENS. PEERLESS MODEL Nº LX-248-15
'f'	1'x4' SURFACE MTD. WEATHERPROOF FLUORESCENT FIXTURE C/W 2-40W R.S. LAMPS AND OPAL ACRYLIC LENS. PEERLESS MODEL WPO-248.
'g'	4"W x 6"H x 48"L SURFACE MTD. FLUORESCENT FIXTURE C/W 1-40W RS LAMP & WHITE OPAL ACRYLIC WRAP-AROUND DIFFUSER. BLACK BAKED ENAMEL FINISH. PEERLESS MODEL CHB-148.
'h'	SURFACE MOUNTED, EXPLOSION-PROOF INCANDESCENT FIXTURE C/W 1-100W BULB AND PORCELAIN ENAMELLED STEEL STANDARD REFLECTOR. APPLETON AEC1050
'j'	ENCLOSED HIGH PRESSURE SODIUM FIXTURE C/W 400W HPS LAMP, POWER HOOK, SAFETY CABLE AND CHARCOAL FILTER BREATHER. SUITABLE FOR DAMP, DIRTY ENVIRONMENTS. HUBBLE ECONOLUX ECO 40056.
'k'	REMOTE EMERGENCY LIGHTING FIXTURE ADJUSTABLE HEAD, SURFACE MTD. 24V, 9 W PER HEAD, TUNGSTEN. EMERGI-LITE DOUBLE HEAD: EF-18D-H. SINGLE HEAD: EF-18H
'l'	REMOTE EMERGENCY LIGHTING FIXTURE ADJUSTABLE HEAD, SURFACE MOUNTED. WEATHERPROOF C/W 24V SEALED BEAM.
'm1' & 'm2'	REMOTE EMERGENCY LIGHTING FIXTURE DECORATOR CYLINDER C/W ADJUSTABLE SWIVEL AND 24V-9W TUNGSTEN LAMP PER HEAD. SINGLE HEAD (m1) EMERGI-LITE EF22-H. DOUBLE HEAD (m2) EMERGI-LITE EF-22D-H.
'x'	EXIT LIGHT - EXTRUDED ALUMINUM HOUSING. AC/DC OPERATION, WALL MOUNTED. EMERGI-LITE EX-21A-R.
'x1'	EXIT LIGHT - SAME AS 'X' EXCEPT CEILING MOUNTED. DOUBLE FACE, EMERGI-LITE EX-23-A-R.

NOTE: NUMERAL '1' INDICATES FIXTURE WITH QUARTZ STANDBY SYSTEM. (FIXTURES 'a' & 'j' ONLY)

EMERGENCY LIGHTING WIRE SIZING

12 VOLT WIRING DISTANCES IN FEET

WIRE SIZE \ LOAD W	13	18	25	28	32	44	50	100	150	200
Nº 12	166	111	81	73	62	47	41	20		
Nº 10	265	190	136	121	104	79	69	34	23	
Nº 8	415	300	215	194	166	124	108	54	36	
Nº 6	660	465	340	305	260	198	172	86	58	



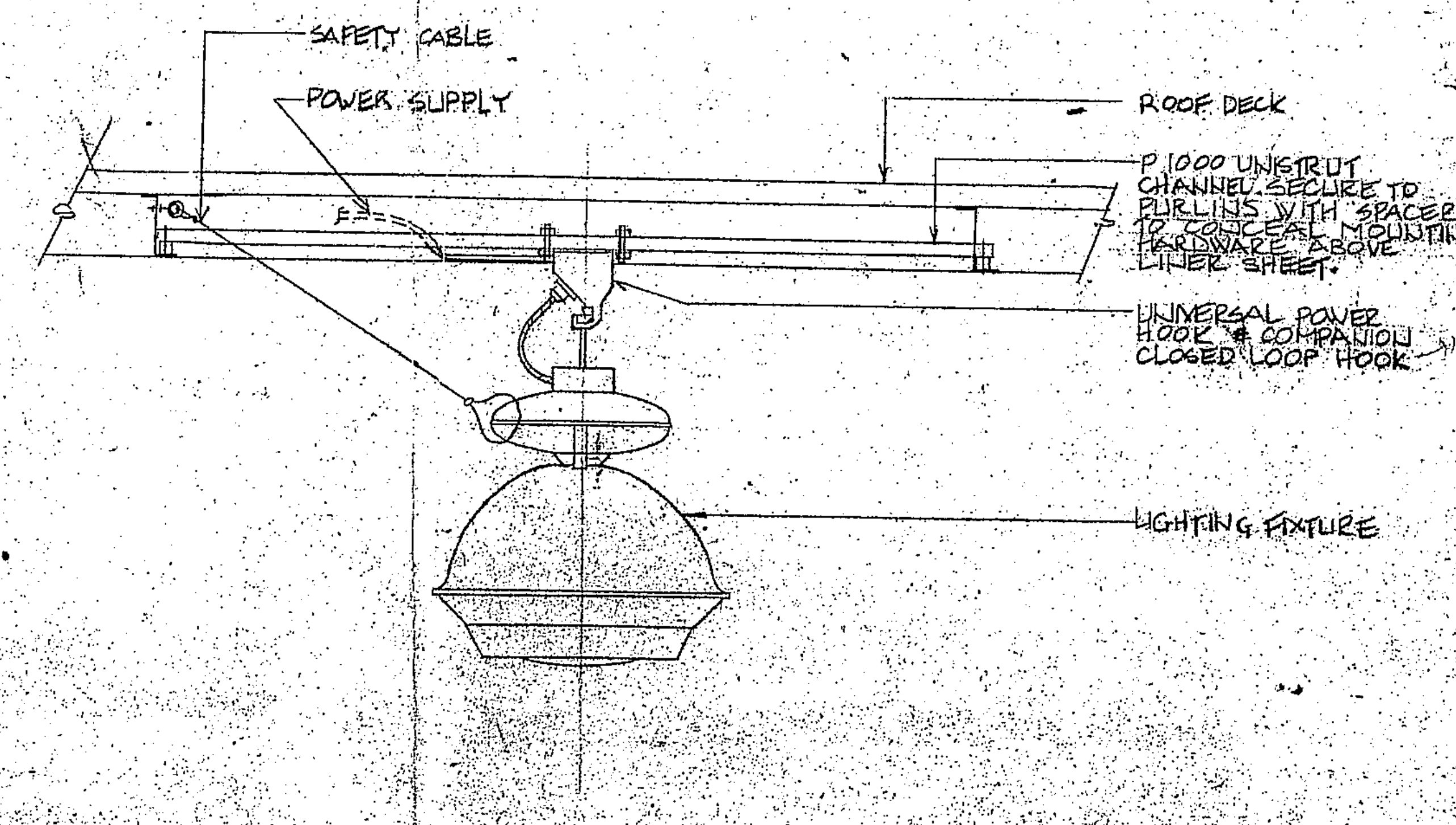
STEAM ROOM
REPAIR SHOP
LOCKER ROOM
JAN.
SHOWERS
LUNCH ROOM
GEN. OFFICE
OFFICE #1
OFFICE #2
STORES
TOOL CRIB
BATTERIES
OIL ROOM
MECHANICAL ROOM
E246 MAIN DISTRB.
EM Power Pack
LPC
2" CONDUIT WITH PULL CORD
PROVIDE FLOOR JUNCTION BOX FLUSH WITH FLOOR AND REMOVAL COVER
TO PANEL 'C'
D.P. 'D' & D.P. 'E' AND CONTACTORS
50KVA 600V 3P 120/208V TRANSFORMER MTD ON COLUMN
4#4 IN 1¼"C. TO 70A 3P BRKR IN D.P. 'E'
TO MAIN DISTR.
Heater moved to this loc
WIRE TO 600V DISTRIBUTION PANEL WITH 3#12-¾" CONDUIT
A22, 24 & 26 CONDENSING UNIT ON ROOF
400A 600V 3 PHASE MAIN ELECTRICAL SERVICE SWITCHGEAR AND MAIN DISTRIBUTION SECTION
48"x48"x¾" PLYWOOD TELEPHONE BACKBOARD
120/208 SPLITTER & DISCONNECT SWITCHES
TRANSFORMER
ELECTRICAL PANEL 'A'
WIRE TO 80A 3P BREAKER IN 600V DISTRIBUTION PANEL WITH 4#10 IN ¾" CONDUIT
COOLING & HEATING THERMOSTAT

ELECTRIC HEATER SCHEDULE

Nº	DESCRIPTION	LENGTH	KW	VOLTAGE	MODEL BY CHROMALOX	REMARKS
①	CONVECTION	4'-0"	5	208	ACC-450	SEMI-RECESSED
②	BASE BOARD	2'-3"	0.5	208	B7-7005	C/W REMOTE THERMOSTAT
③	BASE BOARD	4'-0"	1.0	208	B7-12010	
④	BASE BOARD	4'-9"	1.25	208	B7-15012	
⑤	BASE BOARD	5'-6"	1.5	208	B7-17015	
⑥	BASE BOARD	6'-3"	1.75	208	B7-19017	
⑦	BASE BOARD	7'-0"	2.0	208	B7-22020	
⑧	BASE BOARD	8'-6"	2.5	208	B7-26025	
⑨	EXPLOSION-PROOF	3'-4"	0.5	208	FPEP-500-1	C/W REMOTE BULB THERMOSTAT

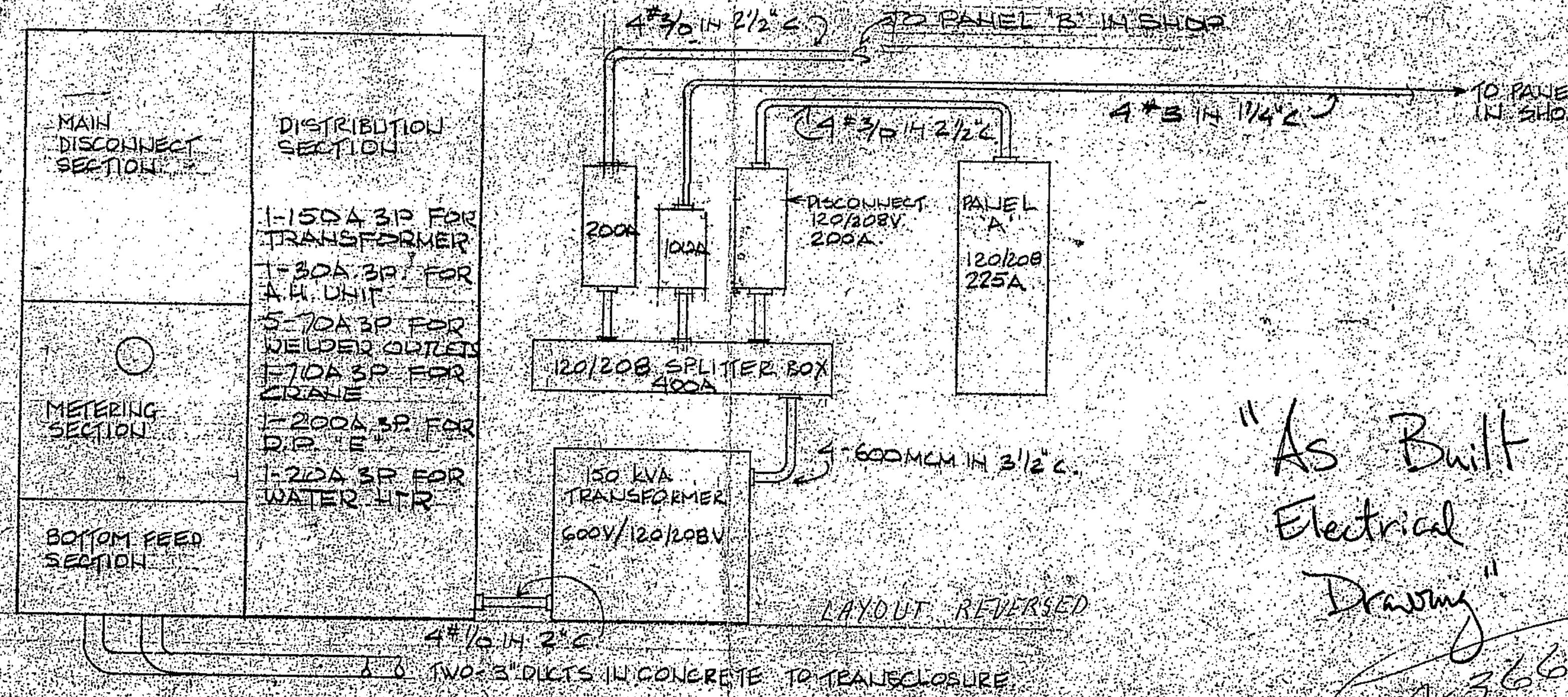
SHOP EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	H.P	VOLTAGE	BRK'R	
①	PARTS CLEANER	2	208 1ø	30A 2P	
②	HEAVY GRINDER	2	440 3ø	15A 3P	REVISE TO 600V 3ø
③	BUFFER	1/3	120	15A SP	
④	LATHE	1	208 3ø	15A 3P	
⑤	SPARK PLUG CLEANER	1/4	120	15A SP	
⑥	HEAVY DRILL PRESS	1/2	440 3ø	15A 3P	REVISE TO 600V 3ø
⑦	DRILL PRESS	1/3	120	15A SP	
⑧	GRINDER	3/4	208 3ø		
⑨	DRILL SHARPENER	1/4	120	15A SP	
⑩	VALVE GRINDER	1/4	120	15A SP	
⑪	BUSHING GRINDER	1/4	120	15A SP	
⑫	WASHER		120	20A SP	
⑬	N.A.				
⑭	CRANE	25	600V 3ø	70A 3P	
⑮	WELDER		440 3ø	70A 3P	REVISE TO 600V 3ø
⑯	FUTURE MILLING MACHINE				PROVIDE J.B. AND 1" COND.
⑰	FUTURE STEEL SAW				



SAFETY CABLE
POWER SUPPLY
ROOF DECK
P1000 UNISTRUT CHANNEL SECURE TO PURLINS WITH SPACER TO CONCEAL MOUNTING HARDWARE ABOVE LINER SHEET.
UNIVERSAL POWER HOOK & COMPANION CLOSED LOOP HOOK
LIGHTING FIXTURE

1/E-1 LIGHTING FIXTURE INSTALLATION DETAIL N.T.S.



MAIN DISCONNECT SECTION
METERING SECTION
BOTTOM FEED SECTION
DISTRIBUTION SECTION
1-150A 3P FOR TRANSFORMER
1-30A 3P FOR A.H. UNIT
5-70A 3P FOR WELDER OUTLETS
1-70A 3P FOR CRANE
1-200A 3P FOR D.P. 'E'
1-20A 3P FOR WATER HTR
4#3/0 IN 2½"C
TO PANEL 'B' IN SHOP
4#3 IN 1¼"C
TO PANEL 'C' IN SHOP
4#3/0 IN 2½"C
200A
100A
DISCONNECT 120/208V 200A
PANEL 'A' 120/208 225A
120/208 SPLITTER BOX 400A
4-600MCM IN 3½"C.
150 KVA TRANSFORMER 600V/120/208V
LAYOUT REVERSED
4#1/0 IN 2"C
TWO-3" DUCTS IN CONCRETE TO TRANS. CLOSURE

ELECTRICAL RISER DIAGRAM SCALE ½"=1'-0"

"As Built
Electrical
Drawing"

M-366

GERALD B. COX

EMERGENCY LIGHTING WIRE SIZING

12 VOLT WIRING DISTANCES IN FEET

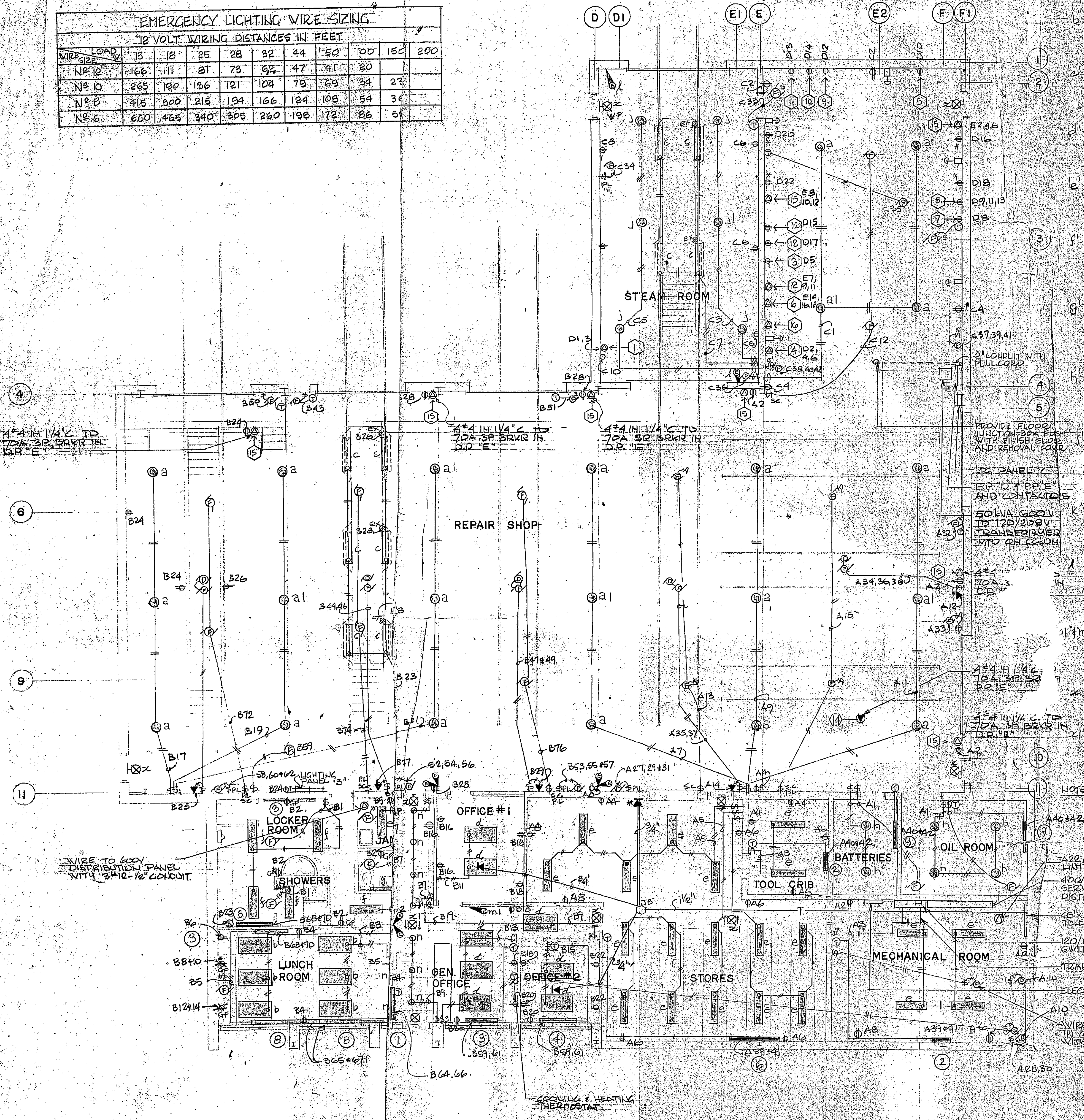
WIRE SIZE \ LOAD W	13	18	25	28	32	44	50	100	150	200
Nº 12	166	111	81	73	62	47	41	20		
Nº 10	265	190	136	121	104	79	69	34	23	
Nº 8	415	300	215	194	166	124	108	54	36	
Nº 6	660	465	340	305	260	198	172	86	59	

LIGHT FIXTURE SCHEDULE

DESCRIPTION

TYPE	DESCRIPTION
'n'	RECESED 6"ø POT LIGHT IN T-BAR CEILING DIE CAST MATTE BLACK ALUMINUM STEP BAFFLE, ANODIZED ALUMINUM REFLECTOR C/W FRAMING KIT LIGHTOLIER LYTECASTE 02 STEP BAFFLE. C/W 100W A-19 LAMP & HOLDER
'a'	HIGH PRESSURE SODIUM FIXTURE C/W 400W HPS LAMP, POWER HOOK, SAFETY CABLE, CHARCOAL FILTER BREATHER AND GASKETED GLASS LENS. HUBBLE HBS-400S1-EU.
'b'	2'x4' SURFACE MTD FLUORESCENT FIXTURE C/W 4-40W R.S. LAMPS AND LAY-IN ACRYLIC LENS. PEERLESS Nº LX 448-15.
'c'	1'x4' EXPLOSION-PROOF FLUORESCENT FIXTURE, C/W 2-40W R.S. LAMPS AND PROTECTOR SHIELD. APPLETON MODEL Nº ARS 240-118 C/W EFP 248 REF. ①/E-1
'd'	2'x4' RECESSED FLUORESCENT FIXTURE FOR INVERTED T-GRID CEILING C/W 4-40W R.S. LAMPS AND LAY-IN ACRYLIC LENS. PEERLESS MOD. Nº NIT-448-15
'e'	1'x4' SURFACE MTD. FLUORESCENT FIXTURE C/W 2-40W R.S. LAMPS AND LAY-IN ACRYLIC LENS. PEERLESS MODEL Nº LX-248-15
'f'	1'x4' SURFACE MTD. WEATHERPROOF FLUORESCENT FIXTURE C/W 2-40W R.S. LAMPS AND OPAL ACRYLIC LENS. PEERLESS MODEL WPO-248.
'g'	4"w x 6"h x 48"L SURFACE MTD. FLUORESCENT FIXTURE C/W 1-40W RS LAMP & WHITE OPAL ACRYLIC WRAP-AROUND DIFFUSER, BLACK BAKED ENAMEL FINISH. PEERLESS MODEL CNB-148.
'h'	SURFACE MOUNTED, EXPLOSION-PROOF INCANDESCENT FIXTURE C/W 1-100W BULB AND PORCELAIN ENAMELLED STEEL STANDARD REFLECTOR. APPLETON AEC 1050
'j'	ENCLOSED HIGH PRESSURE SODIUM FIXTURE C/W 400W HPS LAMP, POWER HOOK, SAFETY CABLE AND CHARCOAL FILTER BREATHER. SUITABLE FOR DAMP, DIRTY ENVIRONMENTS. HUBBLE ECONOLUX ECO 400S6.
'k'	REMOTE EMERGENCY LIGHTING FIXTURE ADJUSTABLE HEAD, SURFACE MTD, 24V 9W PER HEAD, TUNGSTEN. EMERGI-LITE DOUBLE HEAD: EF-18D-H. SINGLE HEAD: EF-18H
'l'	REMOTE EMERGENCY LIGHTING FIXTURE ADJUSTABLE HEAD, SURFACE MOUNTED. WEATHERPROOF C/W 24V SEALED BEAM.
'm1' & 'm2'	REMOTE EMERGENCY LIGHTING FIXTURE DECORATOR CYLINDER C/W ADJUSTABLE SWIVEL AND 24V-9W TUNGSTEN LAMP PER HEAD. SINGLE HEAD (m1) EMERGI-LITE EF22-H. DOUBLE HEAD (m2) EMERGI-LITE EF-22D-H.
'x'	EXIT LIGHT - EXTRUDED ALUMINUM HOUSING. AC/DC OPERATION. WALL MOUNTED. EMERGI-LITE EX-21A-R.
'x1'	EXIT LIGHT - SAME AS 'x' EXCEPT CEILING MOUNTED. DOUBLE FACE. EMERGI-LITE EX-23-A-R.

NOTE: NUMERAL '1' INDICATES FIXTURE WITH QUARTZ STANDBY SYSTEM. (FIXTURES 'a' & 'j' ONLY).

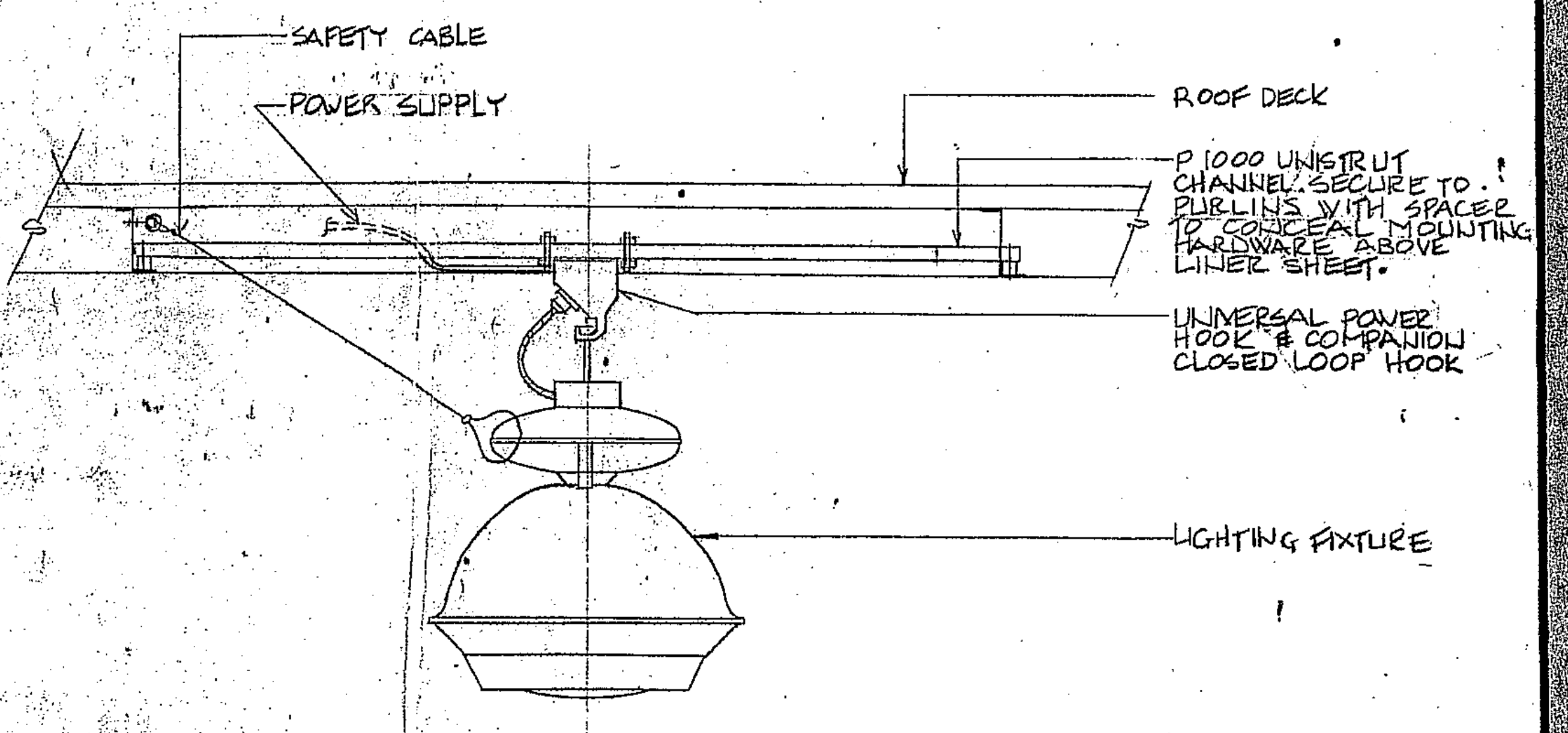

D
D1
E1
E
E2
F
F1
1
2
3
4
5
6
9
10
11
STEAM ROOM
REPAIR SHOP
LOCKER ROOM
SHOWERS
JAN.
LUNCH ROOM
OFFICE #1
GEN. OFFICE
OFFICE #2
STORES
TOOL CRIB
BATTERIES
OIL ROOM
MECHANICAL ROOM
4#4 IN 1¼"C. TO 70A. 3P. BRKR IN D.P. "E"
2" CONDUIT WITH PULL CORD
PROVIDE FLOOR JUNCTION BOX FLUSH WITH FINISH FLOOR AND REMOVAL COVR
LTG. PANEL "C"
P.P. "D" & P.P. "E" AND CONTACTORS
50 kVA 600V TO 120/208V TRANSFORMER MTD ON COLUMN
4#4 IN 1¼"C. 70A. 3P BRKR P.P. "E"
58,60 & 62 LIGHTING PANEL "B"
WIRE TO 600V DISTRIBUTION PANEL WITH 3#12-½" CONDUIT.
COOLING & HEATING THERMOSTAT
A22, 24 & 26 CONDENSING UNIT ON ROOF.
400A 600V 3 PHASE MAIN ELECTRICAL SERVICE SWITCHGEAR AND MAIN DISTRIBUTION SECTION.
48"x48"x¾" PLYWOOD TELEPHONE BACKBOARD.
120/208 SPLITTER & DISCONNECT SWITCHES.
TRANSFORMER
ELECTRICAL PANEL "A"
WIRE TO 30A 3P BREAKER IN 600V DISTRIBUTION PANEL WITH 4#10 TWH IN ½" CONDUIT.
A28,30
JB

ELECTRIC HEATER SCHEDULE

Nº	DESCRIPTION	LENGTH	KW	VOLTAGE	MODEL BY CHROMALOX	REMARKS
①	CONVECTION	4'-0"	5	208	ACC-450	SEMI-RECESSED
②	BASE BOARD	2'-3"	0.5	208	B7-7005	C/W REMOTE THERMOSTAT
③	BASE BOARD	4'-0"	1.0	208	B7-12010	
④	BASE BOARD	4'-9"	1.25	208	B7-15012	
⑤	BASE BOARD	5'-6"	1.5	208	B7-17015	
⑥	BASE BOARD	6'-3"	1.75	208	B7-19017	
⑦	BASE BOARD	7'-0"	2.0	208	B7-22020	
⑧	BASE BOARD	8'-6"	2.5	208	B7-26025	
⑨	EXPLOSION-PROOF	3'-4"	0.5	208	FPEP-500-1	C/W REMOTE-BULB THERMOSTAT.

SHOP EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	H.P.	VOLTAGE	BRK'R.	
1	PARTS CLEANER	2	208 1ø	30A 2P	
2	HEAVY GRINDER	2	440 3ø	15A 3P	REVISE TO 600V 3ø
3	BUFFER	1/3	120	15A SP	
4	LATHE	1	208 3ø	15A 3P	
5	SPARK PLUG CLEANER	1/4	120	15A SP	
6	HEAVY DRILL PRESS	1½	440 3ø	15A 3P	REVISE TO 600V 3ø
7	DRILL PRESS	1/3	120	15A SP	
8	GRINDER	3/4	208 3ø		
9	DRILL SHARPENER	1/4	120	15A SP	
10	VALVE GRINDER	1/4	120	15A SP	
11	BUSHING GRINDER	1/4	120	15A SP	
12	WASHER		120	20A SP	
13	N.A.				
14	CRANE	25	600V 3ø	70A 3P	
15	WELDER		440 3ø	70A.3P	REVISE TO 600V.3ø
16	FUTURE MILLING MACHINE				PROVIDE J.B. AND 1" COND.
17	FUTURE STEEL SAW				


SAFETY CABLE
POWER SUPPLY
ROOF DECK
P 1000 UNISTRUT CHANNEL. SECURE TO PURLINS WITH SPACER TO CONCEAL MOUNTING HARDWARE ABOVE LINER SHEET.
UNIVERSAL POWER HOOK & COMPANION CLOSED LOOP HOOK
LIGHTING FIXTURE

①/E-1 LIGHTING FIXTURE INSTALLATION DETAIL N.T.S.

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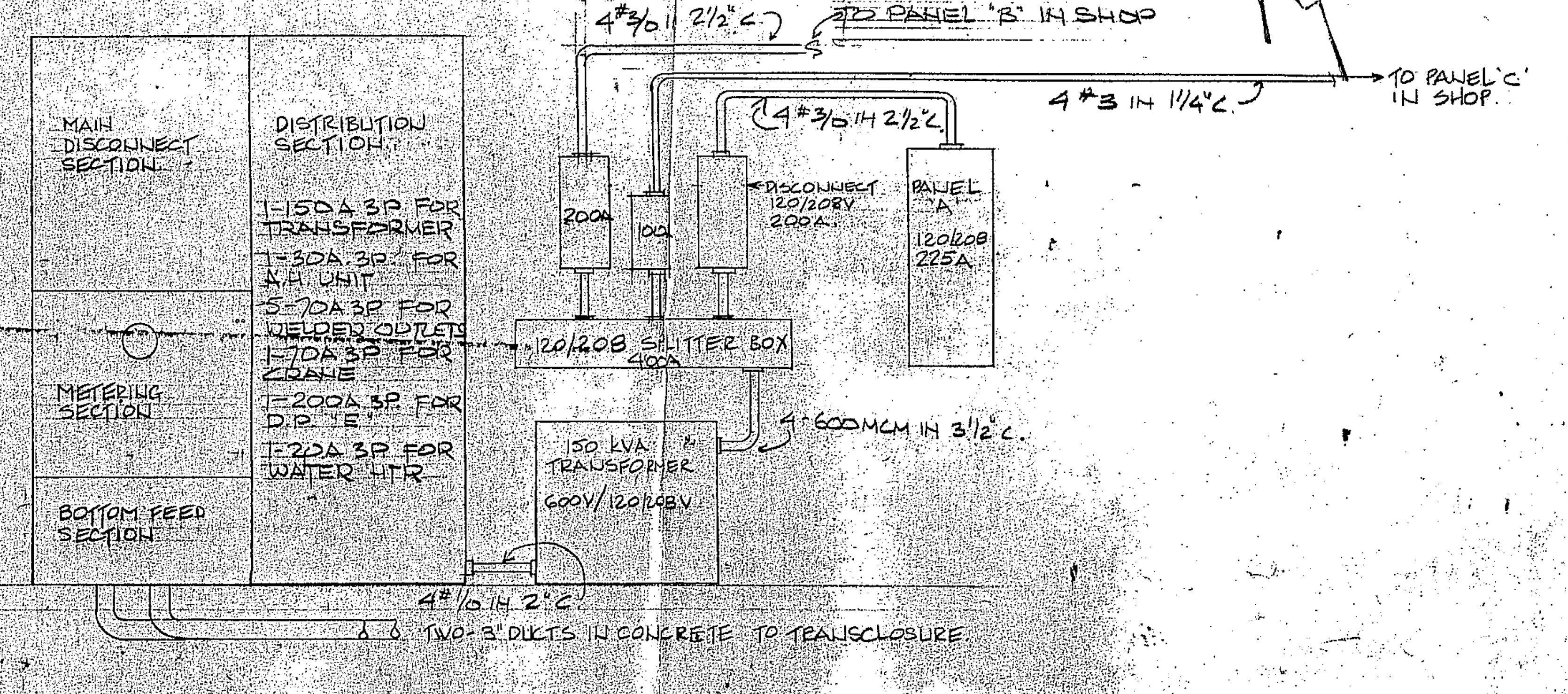

MAIN DISCONNECT SECTION
METERING SECTION
BOTTOM FEED SECTION
DISTRIBUTION SECTION
1-150A 3P FOR TRANSFORMER
1-30A 3P FOR A.H. UNIT
5-70A 3P FOR WELDER OUTLETS
1-70A 3P FOR CRANE
1-200A 3P FOR D.P. "E"
1-20A 3P FOR WATER HTR
4#3/0 IN 2½"C.
TO PANEL "B" IN SHOP
4#3 IN 1¼"C.
TO PANEL 'C' IN SHOP.
4#3/0 IN 2½"C.
200A
100
DISCONNECT 120/208V 200A.
PANEL "A" 120/208 225A
120/208 SPLITTER BOX 400A
4-600MCM IN 3½"C.
150 kVA TRANSFORMER 600V/120/208V
4"CONC. SLAB.
4#1/0 IN 2"C.
TWO-3" DUCTS IN CONCRETE TO TRANSCLOSURE

ELECTRICAL RISER DIAGRAM SCALE ½"=1'-0"

E. PIOTROWSKI
2731

GERALD B. COX
ARCHITECT
[illegible] STREET
NORTH BAY, ONTARIO
[illegible]

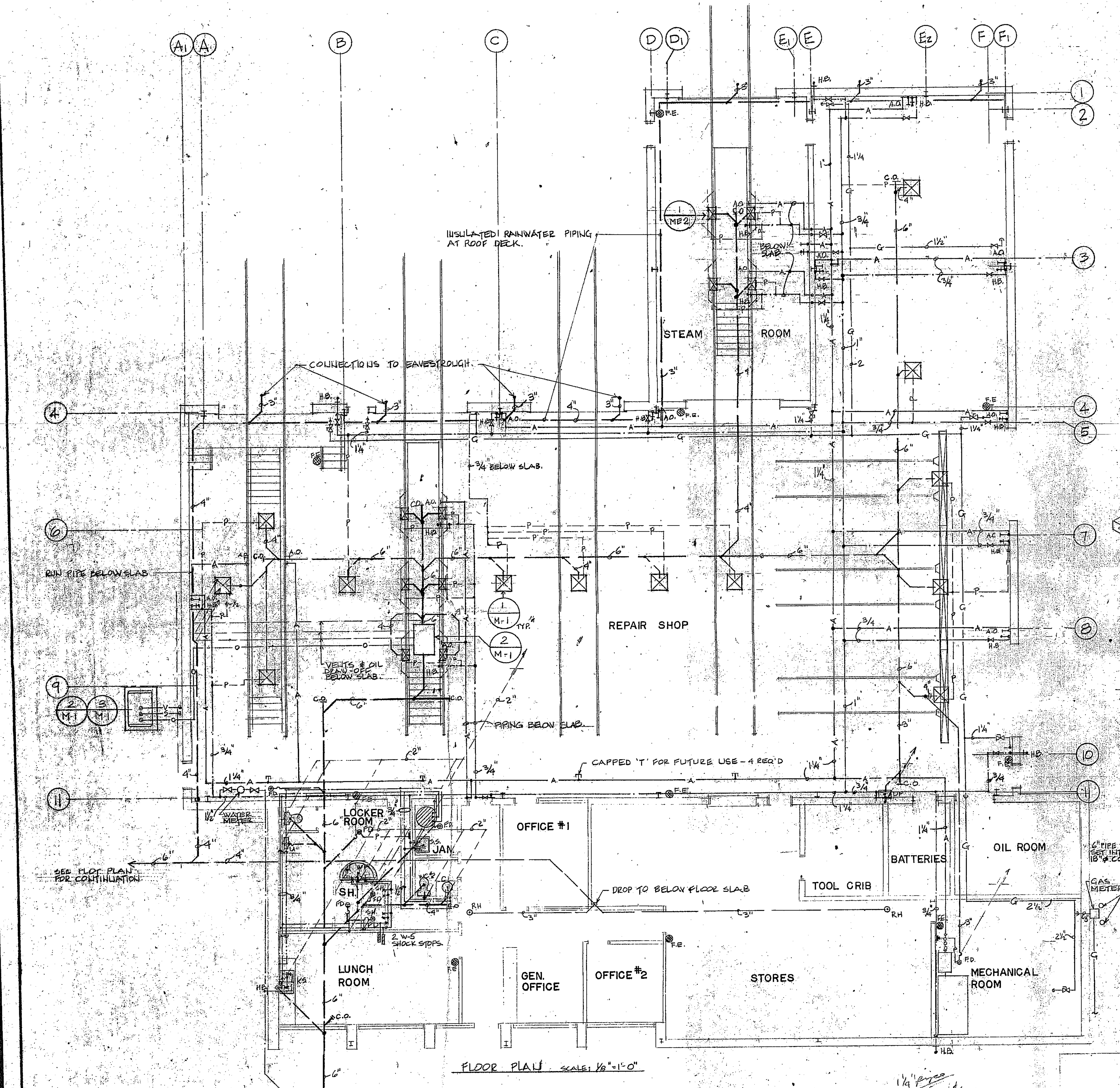
ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE GENERAL CONTRACTOR.

O.N.R.
MAINTENANCE OF WAY
REPAIR BUILDING
NORTH BAY, ONT.

ELECTRICAL PLAN
AND DETAILS

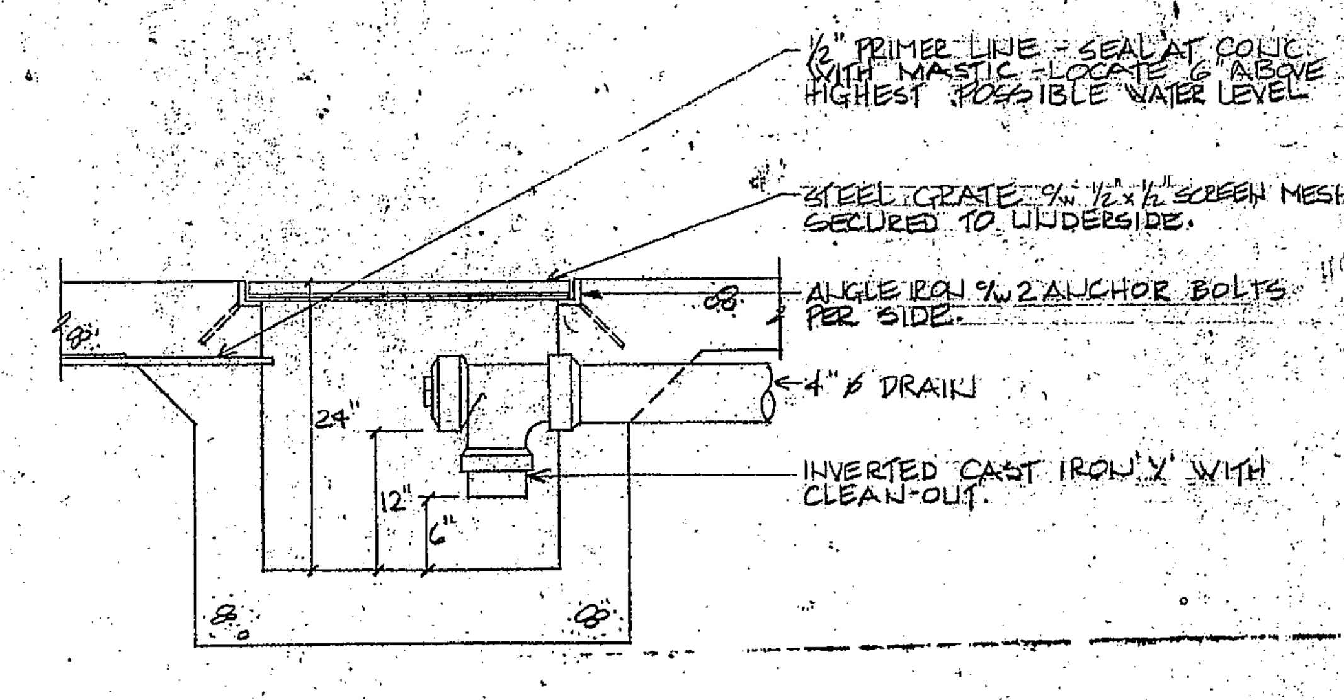
SCALE AS NOTED
DATE MARCH 1985
DRAWN BY A.M.
JOB NO. 84-30

E-1


A1
A
B
C
D
D1
E1
E
E2
F
F1
1
2
3
4
5
6
7
8
9
10
11
INSULATED RAINWATER PIPING AT ROOF DECK.
CONNECTIONS TO EAVESTROUGH.
STEAM ROOM
BELOW SLAB.
3/4 BELOW SLAB.
REPAIR SHOP
RUN PIPE BELOW SLAB
VENTS & OIL DRAW-OFF BELOW SLAB
PIPING BELOW SLAB.
CAPPED 'T' FOR FUTURE USE - 4 REQ'D
WATER METER
LOCKER ROOM
JAN.
SH.
OFFICE #1
TOOL CRIB
BATTERIES
OIL ROOM
GAS METER
6" PIPE BOLLARDS SET INTO 6'-0" x 18" ϕ CONCRETE
DROP TO BELOW FLOOR SLAB
SEE FLOF PLAN FOR CONTINUATION
2 W-6 SHOCK STOPS
LUNCH ROOM
GEN. OFFICE
OFFICE #2
STORES
MECHANICAL ROOM
H.B.
F.E.
C.O.
A.O.
R.H.
F.D.
K.S.
1 M-1
2 M-1
3 M-1
1 ME-2

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

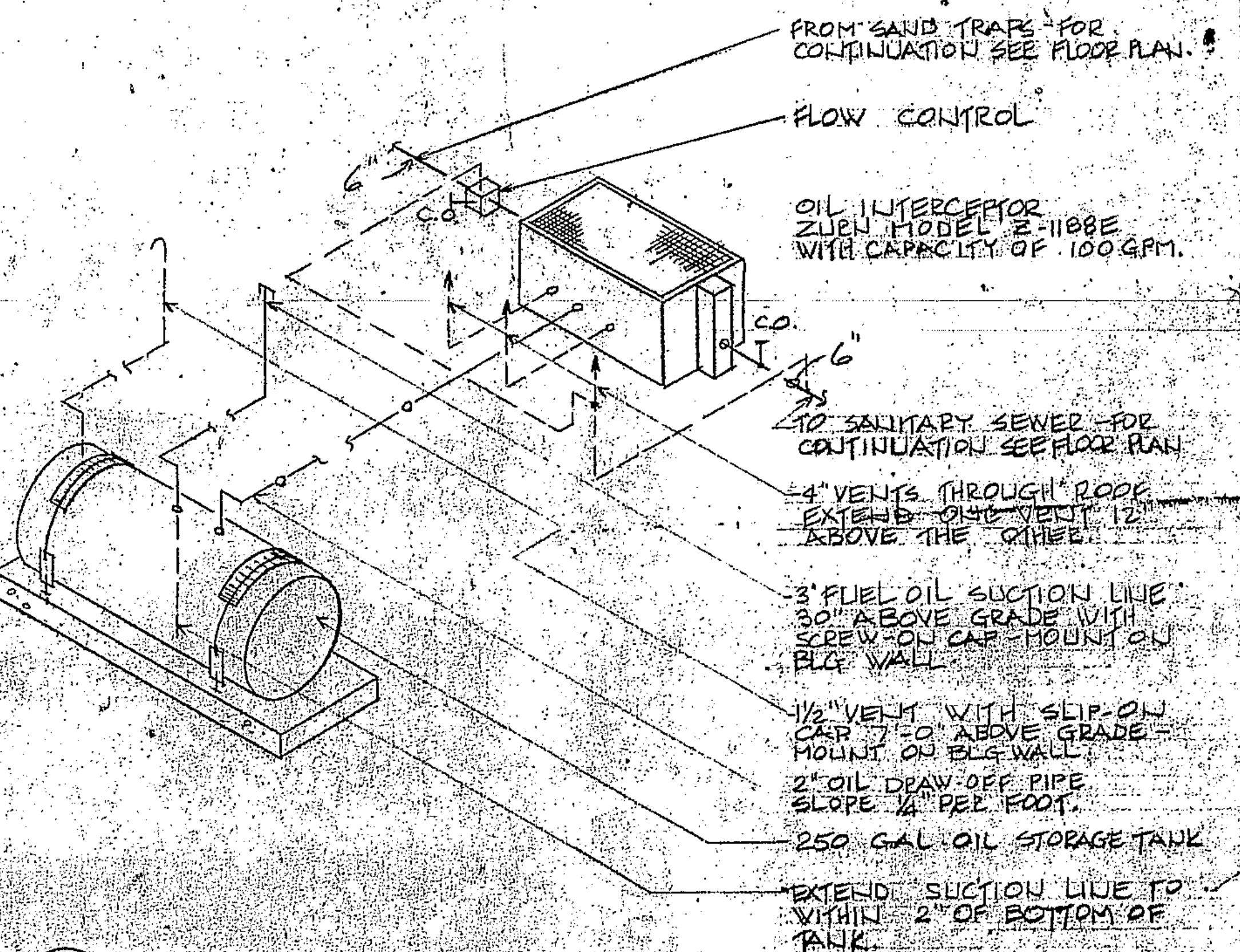
1¼" pipes to [illegible]


½" PRIMER LINE - SEAL AT CONC. WITH MASTIC - LOCATE 6" ABOVE HIGHEST POSSIBLE WATER LEVEL
STEEL GRATE c/w ½"x½" SCREEN MESH SECURED TO UNDERSIDE.
ANGLE IRON c/w 2 ANCHOR BOLTS PER SIDE.
4" ϕ DRAIN
INVERTED CAST IRON 'Y' WITH CLEAN-OUT.
24"
12"
6"

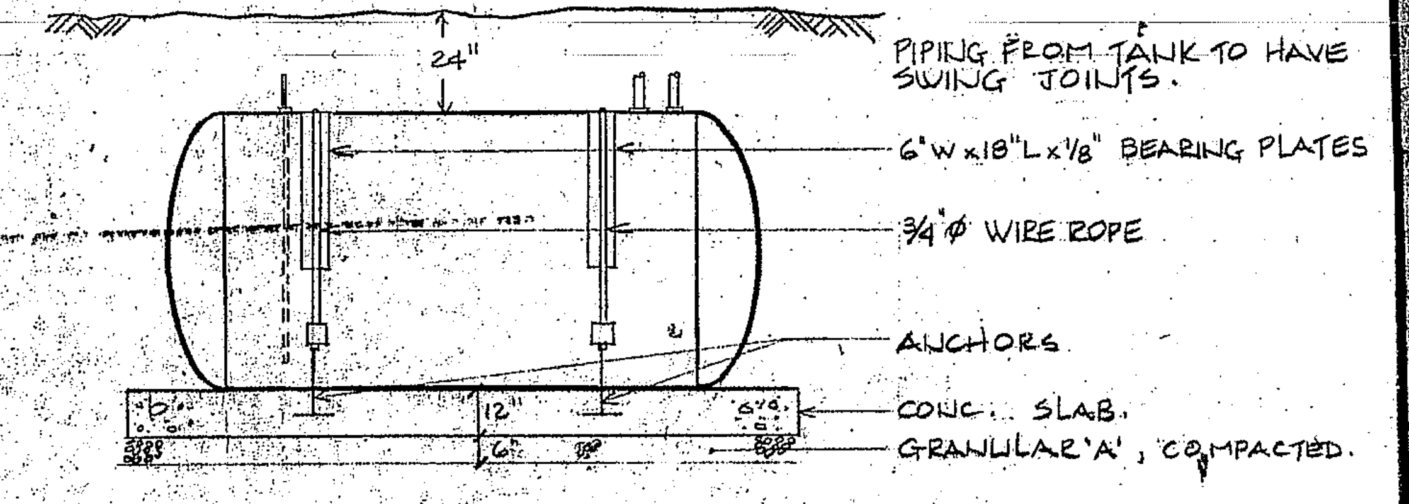
1/M-1 SAND TRAP INSTALLATION DETAIL NTS

PLUMBING FIXTURE SCHEDULE

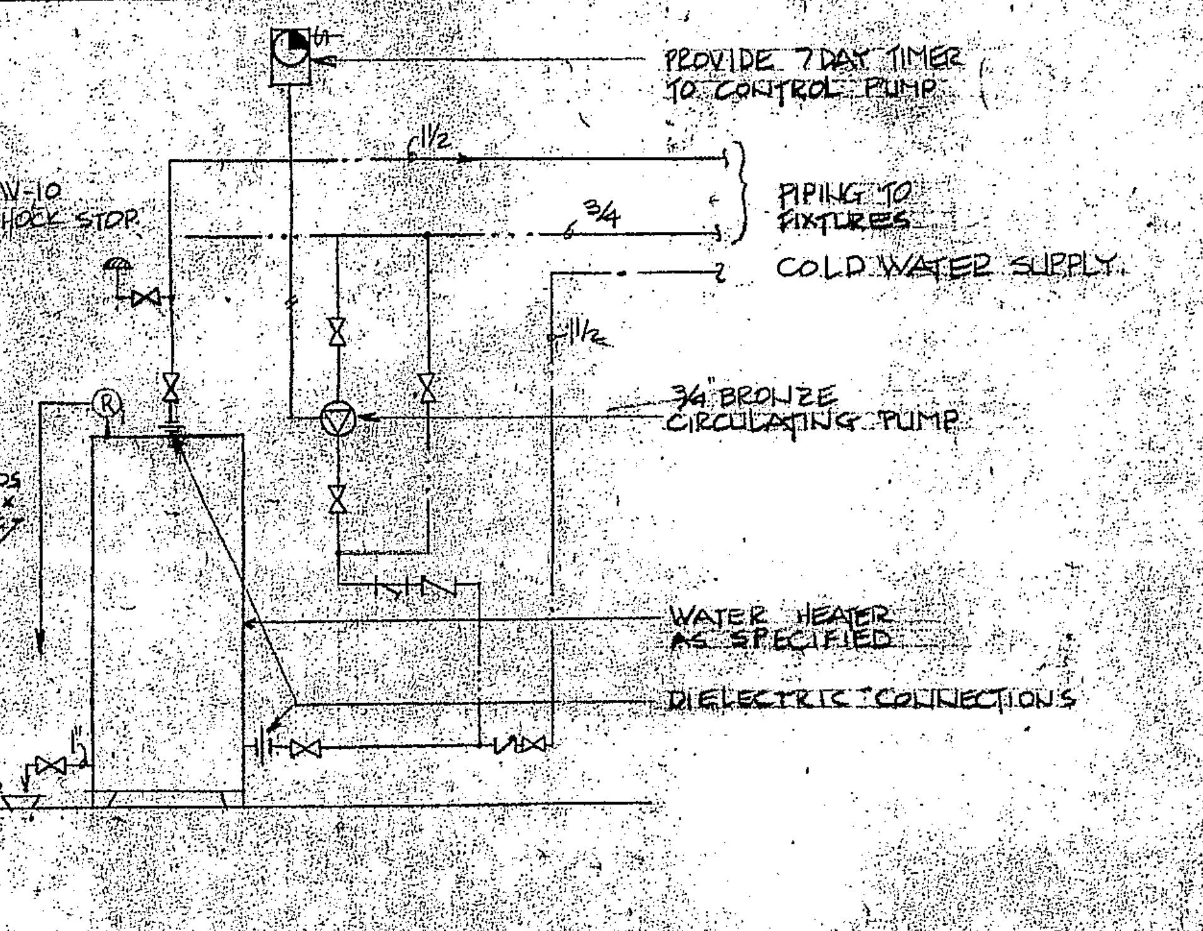
FIXTURE	MARKED	DRAIN	VENT	H.W.	C.W.	COMMENTS
WATER CLOSET #1	W.C.#1	4"	1½"	-	1"	TO FLUSH VALVE
WATER CLOSET #2	W.C.#2	4"	1½"		½"	TO FLUSH TANK
URINAL	U.	1½"	1¼"		½"	TO FLUSH TANK
LAVATORY SINK	LAV.	1¼"	1¼"	½"	½"	
COUNTER LAV.	CL.	1¼"	1¼"	½"	½"	
SERVICE SINK	S.S.	3"	1½"	½"	½"	
KITCHEN SINK	K.S.	1½"	1¼"	½"	½"	
SHOWER STALL	SH.	1½"	1¼"	½"	½"	
WASH FOUNTAIN	W.F.	2"	1½"	1"	1"	
DRINK'G. FNTN.	D.F.	1¼"	1¼"		½"	
FLOOR DRAIN	F.D.	3"	1½"		½"	FROM PRIMER
FUNNEL FL. DR.	F.F.D.	3"	1½"		½"	" "


FROM SAND TRAPS FOR CONTINUATION SEE FLOOR PLAN.
FLOW CONTROL
OIL INTERCEPTOR ZURN MODEL Z-1188E WITH CAPACITY OF 100 GPM.
C.O.
6"
TO SANITARY SEWER FOR CONTINUATION SEE FLOOR PLAN
4" VENTS THROUGH ROOF EXTEND ONE VENT 12" ABOVE THE OTHER.
3" FUEL OIL SUCTION LINE 30" ABOVE GRADE WITH SCREW-ON CAP - MOUNT ON BLG WALL
1½" VENT WITH SLIP-ON CAP 7'-0" ABOVE GRADE - MOUNT ON BLG WALL
2" OIL DRAW-OFF PIPE SLOPE ¼" PER FOOT.
250 GAL OIL STORAGE TANK
EXTEND SUCTION LINE TO WITHIN 2" OF BOTTOM OF TANK.

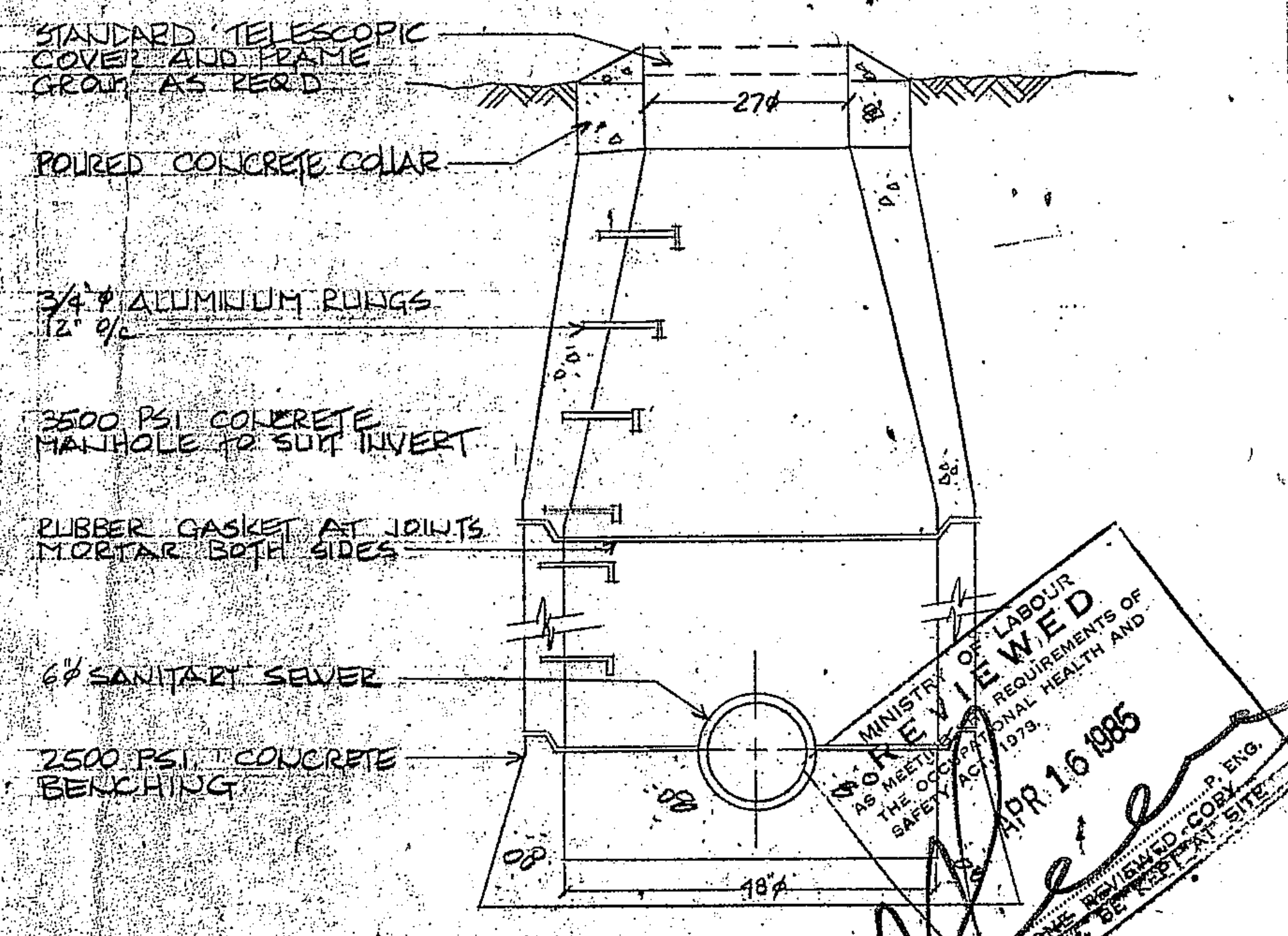
2/M-1 OIL INTERCEPTOR PIPING DIAGRAM NTS


24"
PIPING FROM TANK TO HAVE SWING JOINTS.
6"W x 18"L x ⅛" BEARING PLATES
¾" ϕ WIRE ROPE
ANCHORS
CONC. SLAB.
GRANULAR 'A', COMPACTED.
12"
6"

3/M-1 UNDERGROUND STORAGE TANK DETAIL NTS


PROVIDE 7 DAY TIMER TO CONTROL PUMP
1½
¾
1½
PIPING TO FIXTURES
COLD WATER SUPPLY.
W-10 SHOCK STOP
¾" BRONZE CIRCULATING PUMP
R
WATER HEATER AS SPECIFIED
DIELECTRIC CONNECTIONS
F.F.D.

4/M-1 WATER HEATER PIPING


STANDARD TELESCOPIC COVER AND FRAME GROUT AS REQ'D
27ϕ
POURED CONCRETE COLLAR
¾" ϕ ALUMINUM RUNGS 12" o/c
3500 PSI CONCRETE MANHOLE TO SUIT INVERT
RUBBER GASKET AT JOINTS MORTAR BOTH SIDES
6" ϕ SANITARY SEWER
2500 PSI. CONCRETE BENCHING
48ϕ

5/M-1 MANHOLE DETAIL NTS

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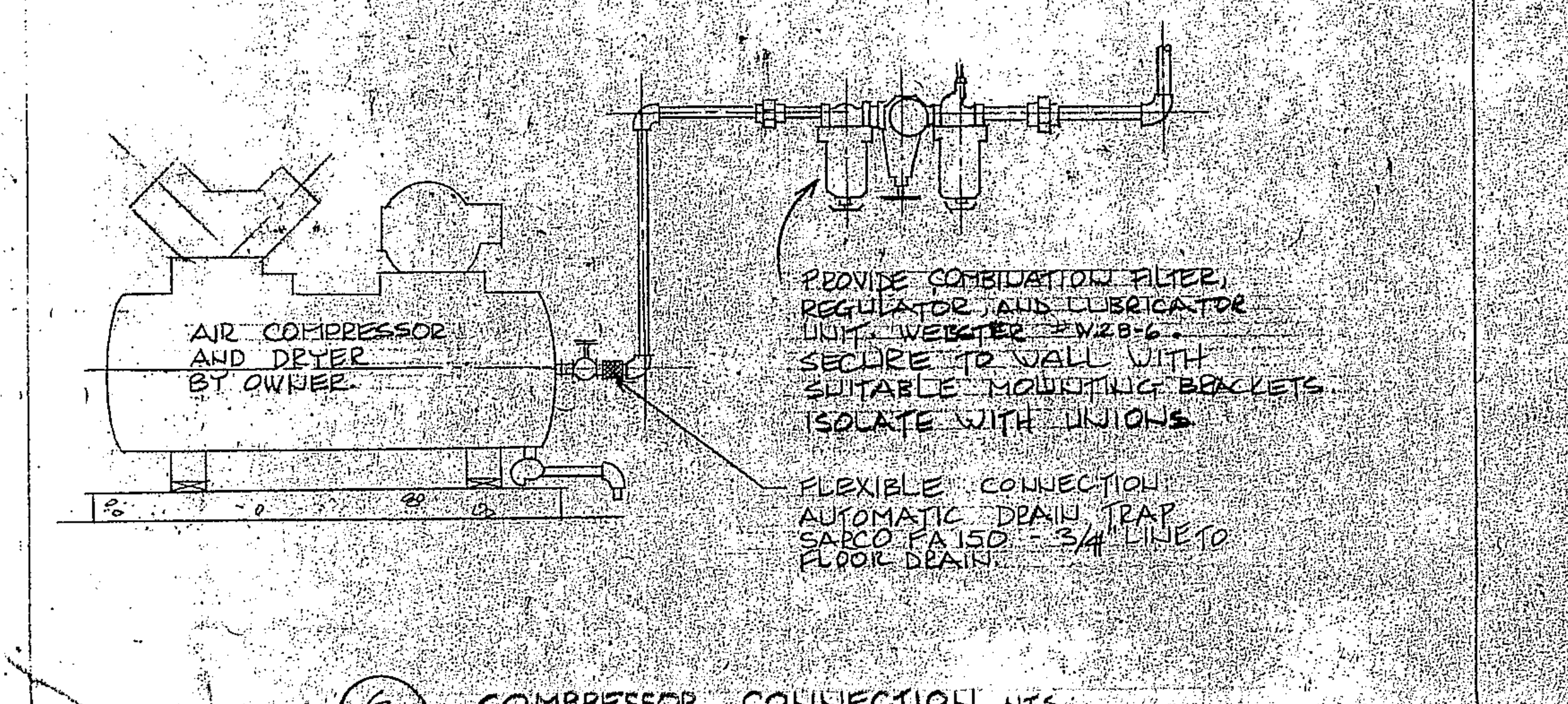
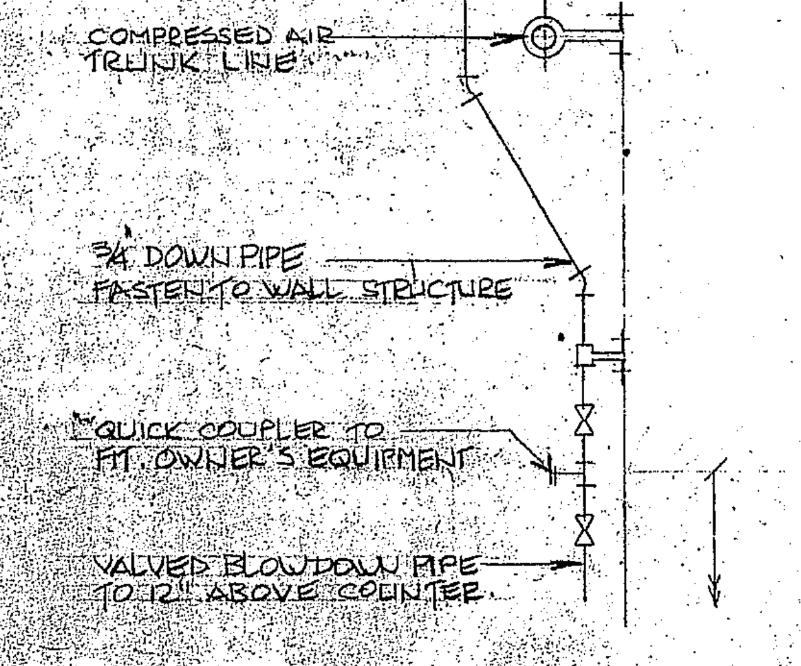

AIR COMPRESSOR AND DRYER BY OWNER
PROVIDE COMBINATION FILTER, REGULATOR AND LUBRICATOR UNIT. WEBSTER #W28-6. SECURE TO WALL WITH SUITABLE MOUNTING BRACKETS. ISOLATE WITH UNIONS.
FLEXIBLE CONNECTION AUTOMATIC DRAIN TRAP SARCO FA150 - ¾" LINE TO FLOOR DRAIN.

6/M-1 COMPRESSOR CONNECTION NTS


COMPRESSED AIR TRUNK LINE
¾" DOWN PIPE FASTEN TO WALL STRUCTURE
QUICK COUPLER TO FIT OWNER'S EQUIPMENT
VALVED BLOWDOWN PIPE TO 12" ABOVE COUNTER

7/M-1 TYPICAL DOWNPIPE NTS

E. PIOTROWSKI

GERALD B. COX
ARCHITECT
171 FISHER STREET
NORTH BAY, ONTARIO
472-8350

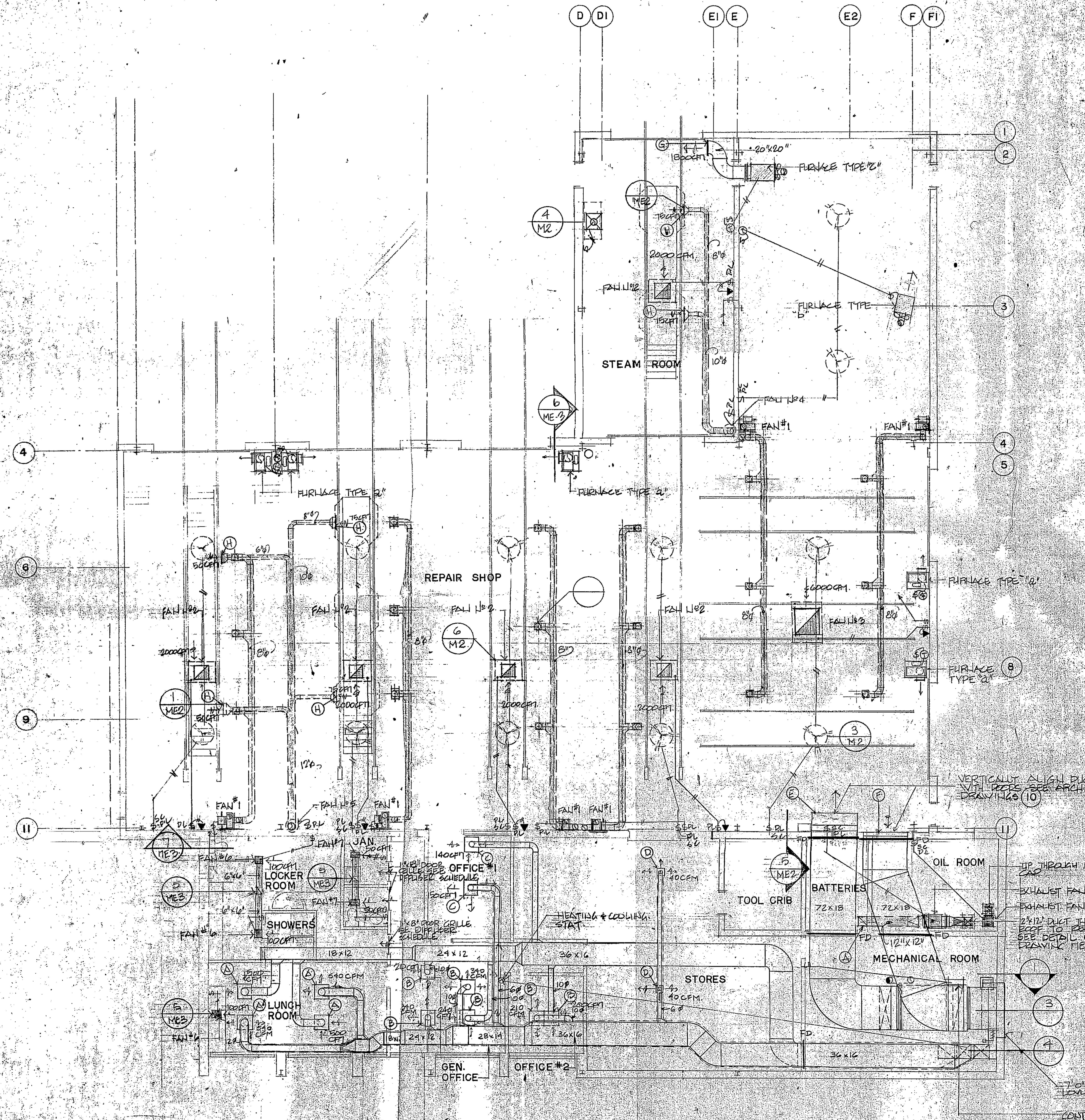
ALL MEASUREMENTS MUST
BE CHECKED ON THE JOB
THE GENERAL CONTRACTO

O.N.R.
MAINTENANCE OF WAY
REPAIR BUILDING
NORTH BAY, ONT.

PLUMBING PLA
AND DETAILS

SCALE AS NOTED
DATE MARCH 198
DRAWN BY AM
JOB NO. 84-82

M-1


D
D1
E1
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F1
1
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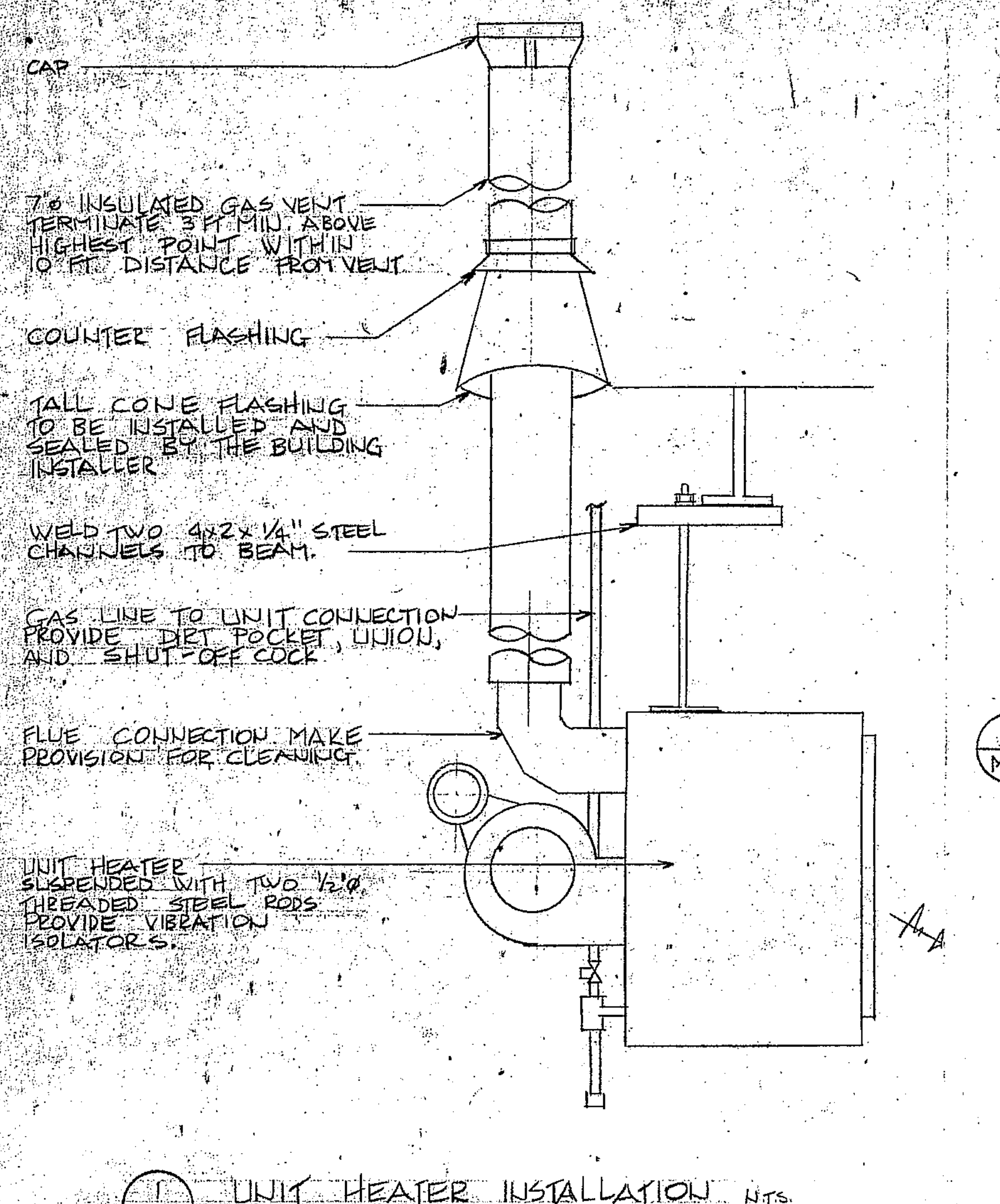
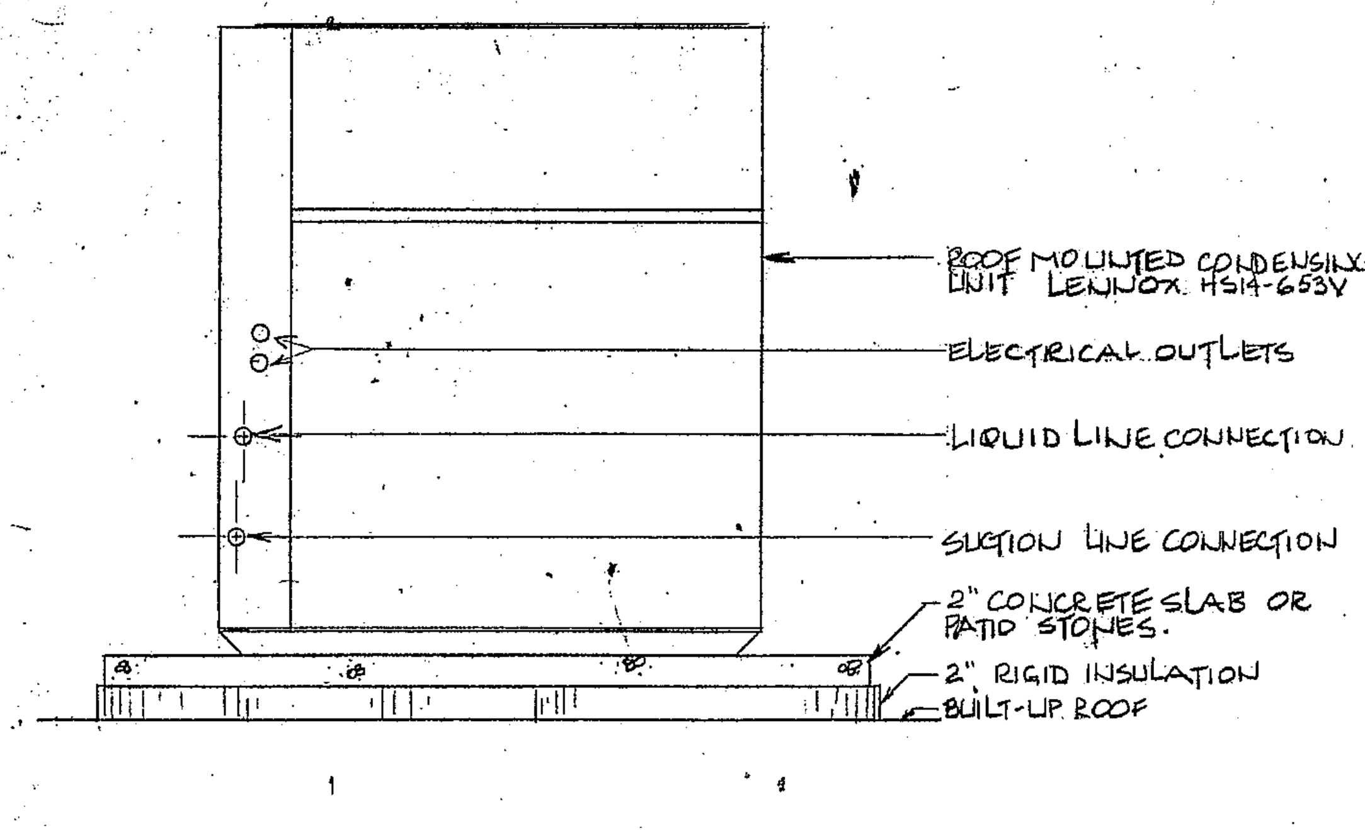
3
4
5
6
8
9
11
20"x20"
1800CFM
FURNACE TYPE "C"
FAN No 2
2000 CFM
FURNACE TYPE "B"
FAN No 4
FAN #1
STEAM ROOM
FURNACE TYPE "A"
REPAIR SHOP
FAN No 2
FAN No 3
2000CFM
FAN #1
FAN No 5
FAN #7
JAN
FAN #6
LOCKER ROOM
SHOWERS
LUNCH ROOM
OFFICE #1
OFFICE #2
GEN. OFFICE
1"x8" DOOR GRILLE SEE DIFFUSER SCHEDULE
HEATING & COOLING STAT
18x12
24x12
36x16
28x14
540 CFM
500 CFM
140CFM
50CFM
40CFM
TOOL CRIB
STORES
BATTERIES
72x18
OIL ROOM
MECHANICAL ROOM
12"x12"
FD
VERTICALLY ALIGN DUCTS WITH DOORS SEE ARCHITECTURAL DRAWINGS
UP THROUGH ROOF TO CAP
EXHAUST FAN #9
EXHAUST FAN #8
2"x12" DUCT THROUGH ROOF TO RELIEF HOOD SEE DETAIL 5 ON DRAWING ME3
7'-0" WIDE x 4'-0" LOUVER
CONTROL PANEL

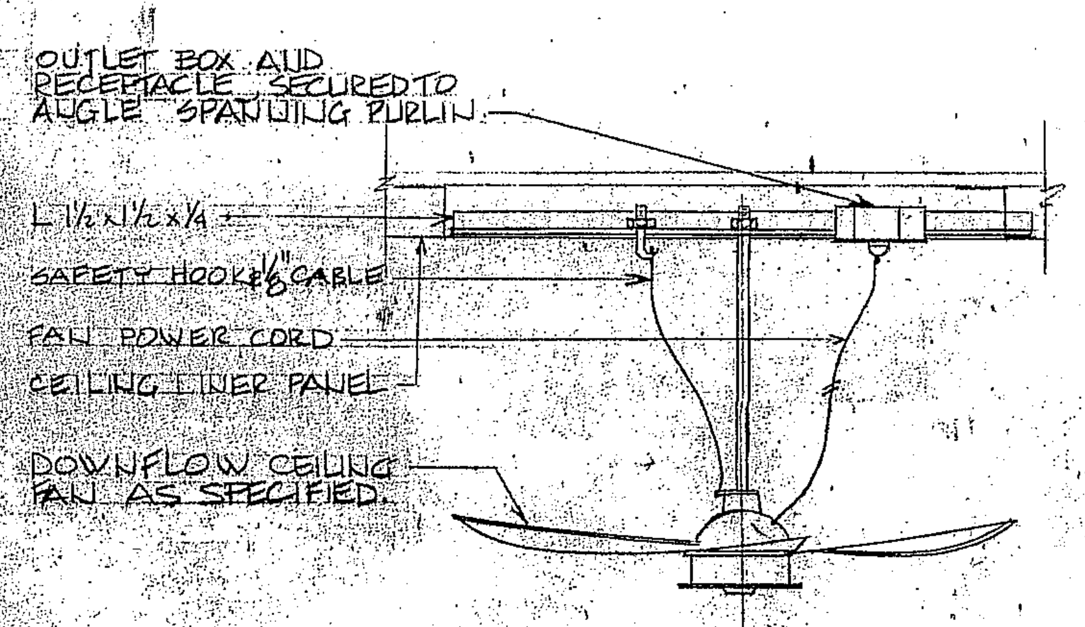
FLOOR PLAN SCALE 1/8"=1'-0"


CAP
7"Ø INSULATED GAS VENT TERMINATE 3 FT MIN. ABOVE HIGHEST POINT WITHIN 10 FT. DISTANCE FROM VENT
COUNTER FLASHING
TALL CONE FLASHING TO BE INSTALLED AND SEALED BY THE BUILDING INSTALLER
WELD TWO 4x2x1/4" STEEL CHANNELS TO BEAM.
GAS LINE TO UNIT CONNECTION PROVIDE DIRT POCKET, UNION, AND SHUT-OFF COCK
FLUE CONNECTION MAKE PROVISION FOR CLEANING.
UNIT HEATER SUSPENDED WITH TWO 1/2"Ø THREADED STEEL RODS PROVIDE VIBRATION ISOLATORS.

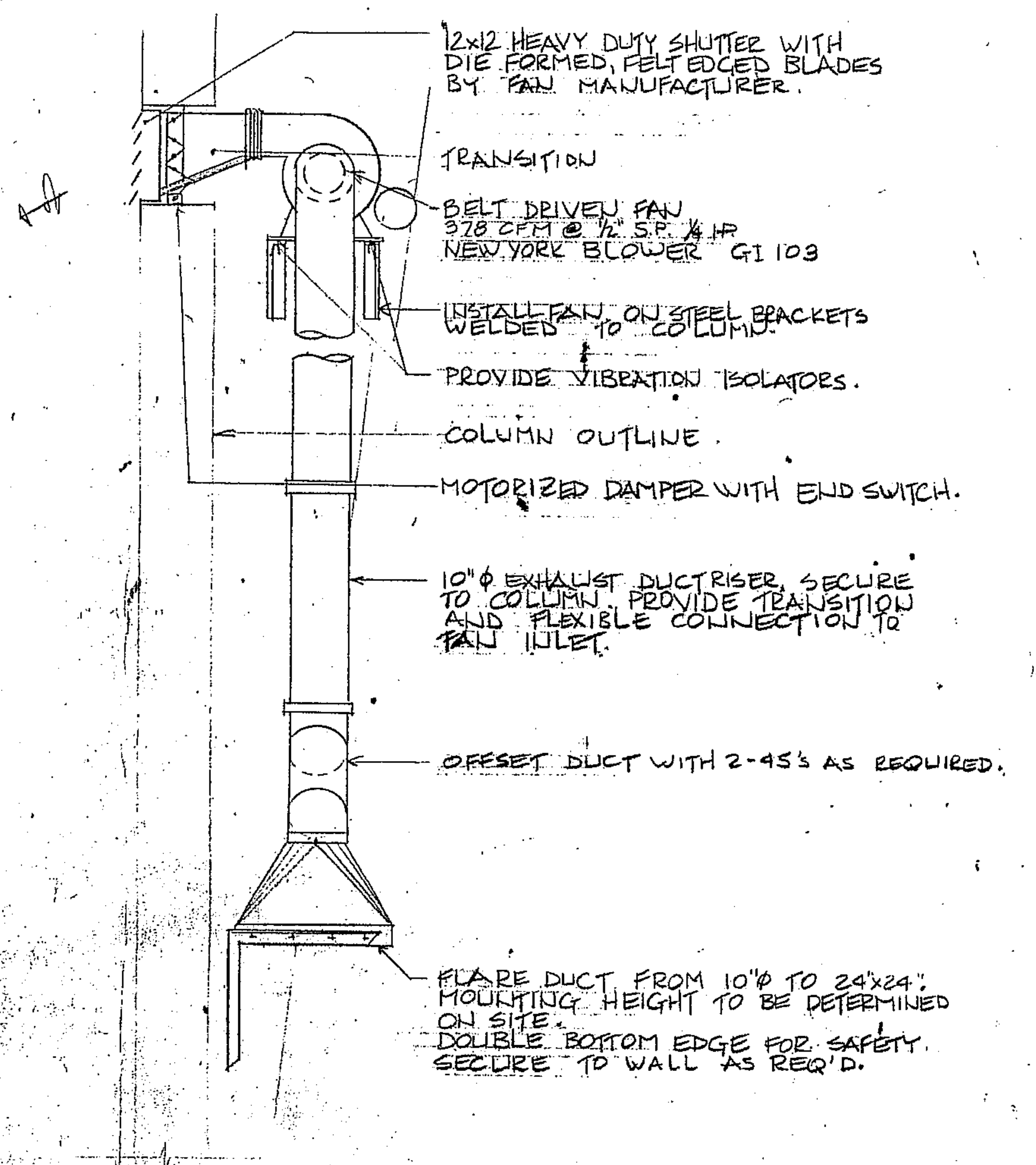
1/M-2 UNIT HEATER INSTALLATION N.T.S.
FURNACE TYPE b & C TYPICAL


ROOF MOUNTED CONDENSING UNIT LENNOX HS14-653V
ELECTRICAL OUTLETS
LIQUID LINE CONNECTION
SUCTION LINE CONNECTION
2" CONCRETE SLAB OR PATIO STONES.
2" RIGID INSULATION
BUILT-UP ROOF

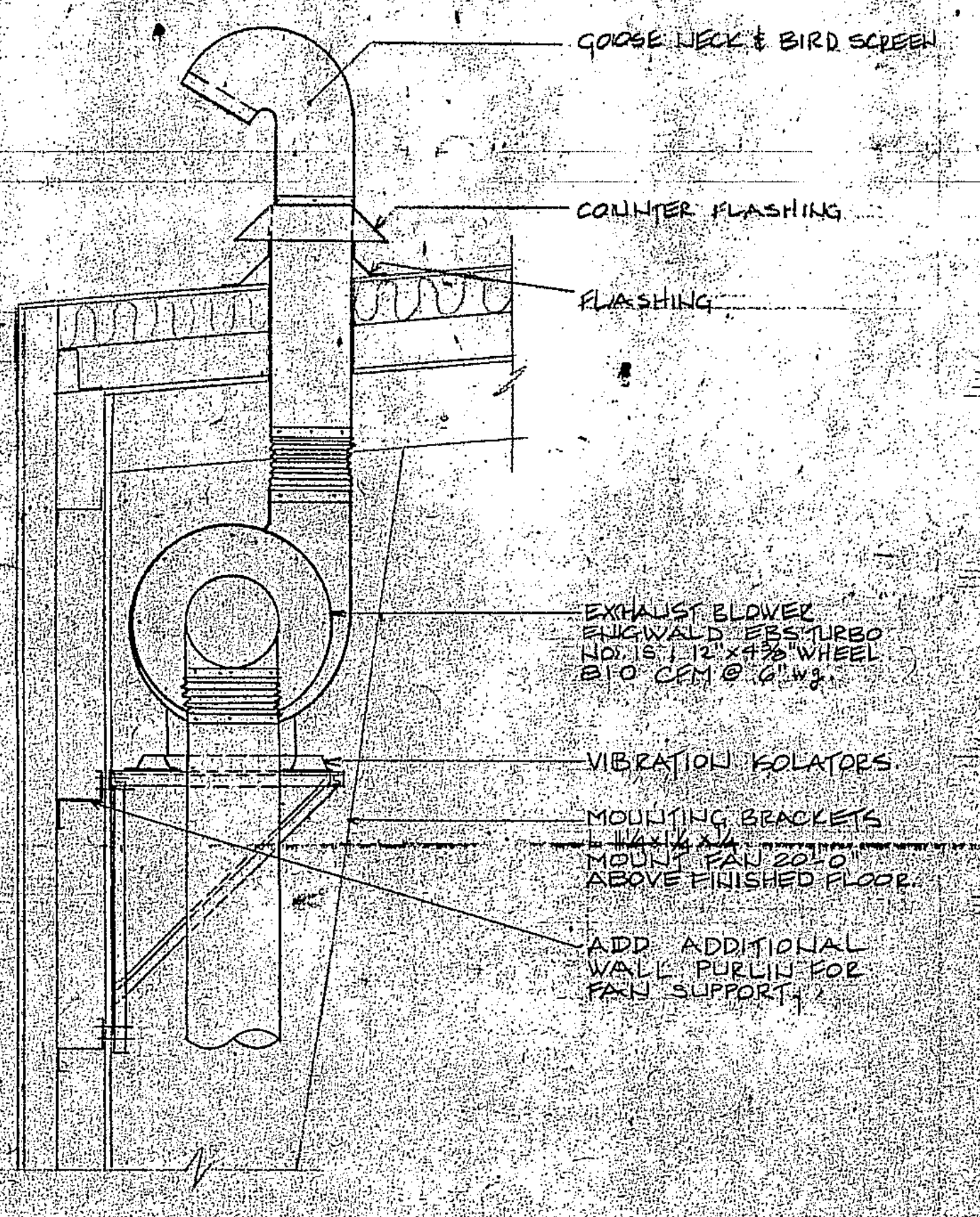
2/M-2 ROOFTOP CONDENSER MOUNTING DETAIL SCALE 1"=1'-0"


OUTLET BOX AND RECEPTACLE SECURED TO ANGLE SPANNING PURLIN.
L 1½x1½x¼
SAFETY HOOK & 1/8" CABLE
FAN POWER CORD
CEILING LINER PANEL
DOWNFLOW CEILING FAN AS SPECIFIED.

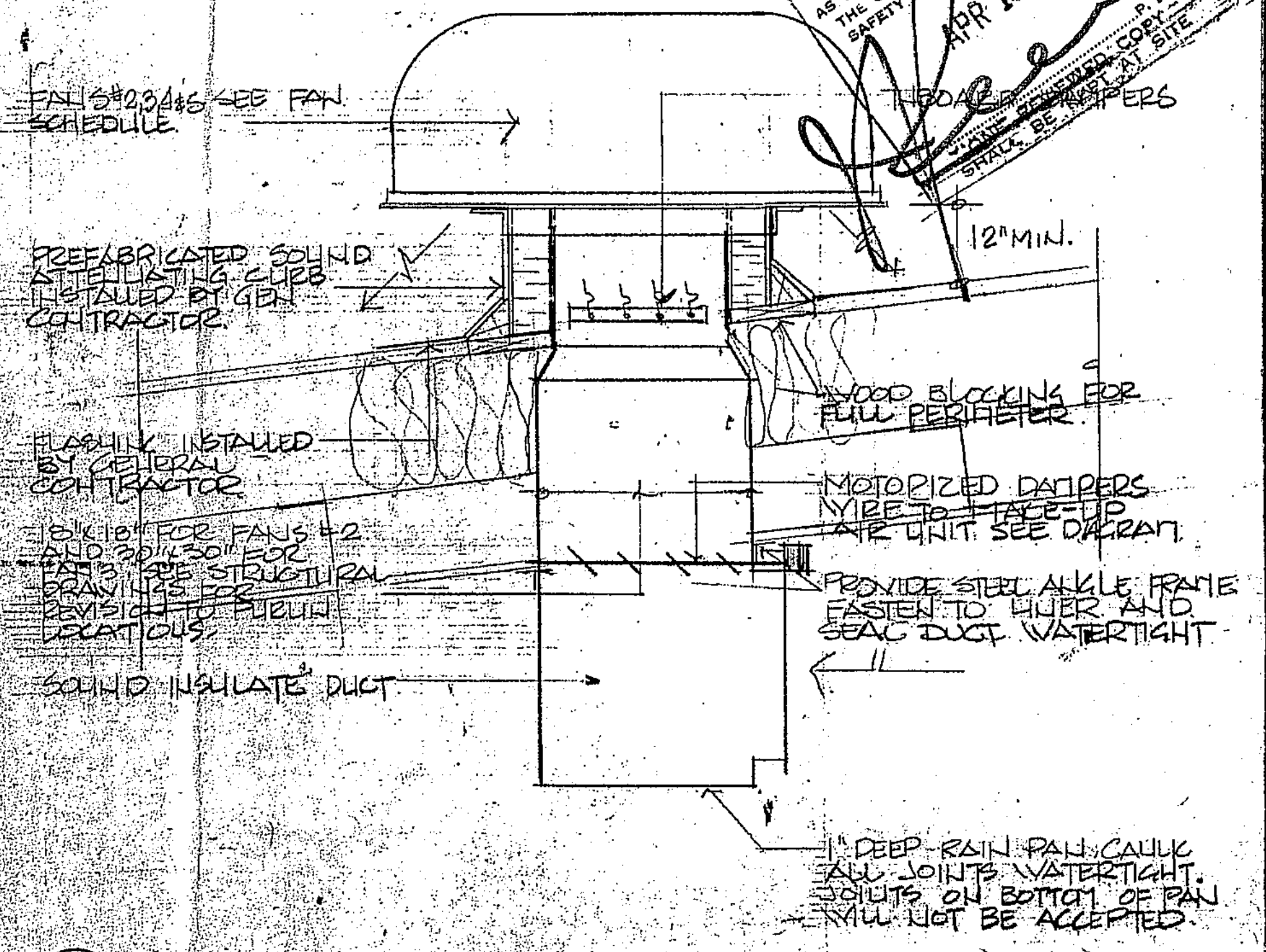
3/M-2 CEILING PADDLE FAN N.T.S.


12x12 HEAVY DUTY SHUTTER WITH DIE FORMED, FELT EDGED BLADES BY FAN MANUFACTURER.
TRANSITION
BELT DRIVEN FAN 378 CFM @ 1/2" S.P. 1/4 HP NEW YORK BLOWER GI 103
INSTALL FAN ON STEEL BRACKETS WELDED TO COLUMN.
PROVIDE VIBRATION ISOLATORS.
COLUMN OUTLINE.
MOTORIZED DAMPER WITH END SWITCH.
10"Ø EXHAUST DUCT RISER, SECURE TO COLUMN. PROVIDE TRANSITION AND FLEXIBLE CONNECTION TO FAN INLET.
OFFSET DUCT WITH 2-45's AS REQUIRED.
FLARE DUCT FROM 10"Ø TO 24"x24". MOUNTING HEIGHT TO BE DETERMINED ON SITE. DOUBLE BOTTOM EDGE FOR SAFETY. SECURE TO WALL AS REQ'D.

4/M-2 STEAMER EXHAUST 1/2"=1'-0"


GOOSE NECK & BIRD SCREEN
COUNTER FLASHING
FLASHING
EXHAUST BLOWER ENGWALD EBS TURBO NO. 15, 12"x4⅞" WHEEL 810 CFM @ 6" wg.
VIBRATION ISOLATORS
MOUNTING BRACKETS L 1½x1½x¼ MOUNT FAN 20'-0" ABOVE FINISHED FLOOR.
ADD ADDITIONAL WALL PURLIN FOR FAN SUPPORT.

5/M-2 EXHAUST BLOWER INSTALLATION N.T.S.


FANS #2,3,4 & 5 SEE FAN SCHEDULE.
THROAT DAMPERS
12" MIN.
PREFABRICATED SOUND ATTENUATING CURB INSTALLED BY GEN. CONTRACTOR.
FLASHING INSTALLED BY GENERAL CONTRACTOR
18"x18" FOR FANS #2 AND 30"x30" FOR FAN 3. SEE STRUCTURAL DRAWINGS FOR REVISION TO PURLIN LOCATIONS.
SOUND INSULATE DUCT
WOOD BLOCKING FOR FULL PERIMETER.
MOTORIZED DAMPERS WIRE TO MAKE-UP AIR UNIT SEE DIAGRAM.
PROVIDE STEEL ANGLE FRAME FASTEN TO LINER AND SEAL DUCT WATERTIGHT
1" DEEP RAIN PAN. CAULK ALL JOINTS WATERTIGHT. JOINTS ON BOTTOM OF PAN WILL NOT BE ACCEPTED.

6/M-2 ROOF VENTILATOR INSTALLATION N.T.S.
SCALE 3/4"=1'-0"

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APR 16 1985
P. ENG.
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REGISTERED PROFESSIONAL ENGINEER
E. PIOTROWSKI
2731
PROVINCE OF ONTARIO

GERALD B. COX
ARCHITECT
373 FISHER STREET
NORTH BAY, ONTARIO
472-8350

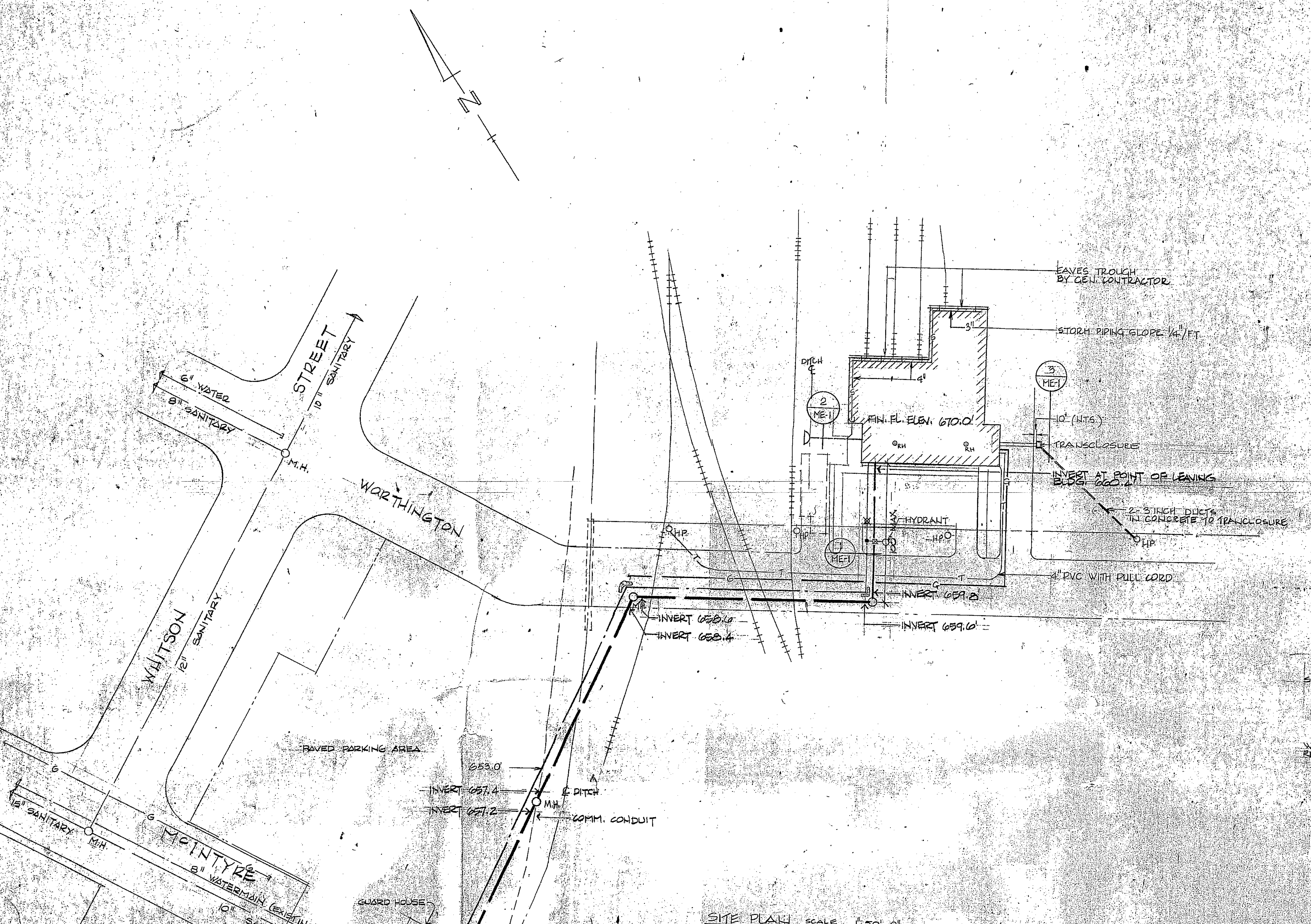
ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE GENERAL CONTRACTOR.

O.N.R.
MAINTENANCE OF WAY
REPAIR BUILDING
NORTH BAY ONT.

HVAC PLAN AND DETAILS

SCALE AS NOTED
DATE MARCH, 1985
DRAWN BY A.H.
JOB NO. 84-30

M-2


N
STREET
6" WATER
8" SANITARY
10" SANITARY
M.H.
WORTHINGTON
WHITSON
12" SANITARY
PAVED PARKING AREA
15" SANITARY
M.H.
McINTYRE
8" WATERMAIN (EXISTING)
10" SANITARY (EXISTING)
GUARD HOUSE
F.H.
CONCRETE THRUST BLOCKS
INVERT 656.2
TOP 669.5
M.H.
653.0'
INVERT 657.4
INVERT 657.2
℄ DITCH
M.H.
COMM. CONDUIT
INVERT 658.6
INVERT 658.4
H.P.
DITCH ℄
2 ME-1
EAVES TROUGH BY GEN. CONTRACTOR
STORM PIPING SLOPE 1/4"/FT
3"
4"
FIN. FL. ELEV. 670.0'
RH
RH
3 ME-1
10' (N.T.S.)
TRANSCLOSURE
INVERT AT POINT OF LEAVING BLDG. 660.4'
HYDRANT
H.P.
1 ME-1
2-3 INCH DUCTS IN CONCRETE TO TRANSCLOSURE
H.P.
4" PVC WITH PULL CORD
INVERT 659.8'
INVERT 659.6'

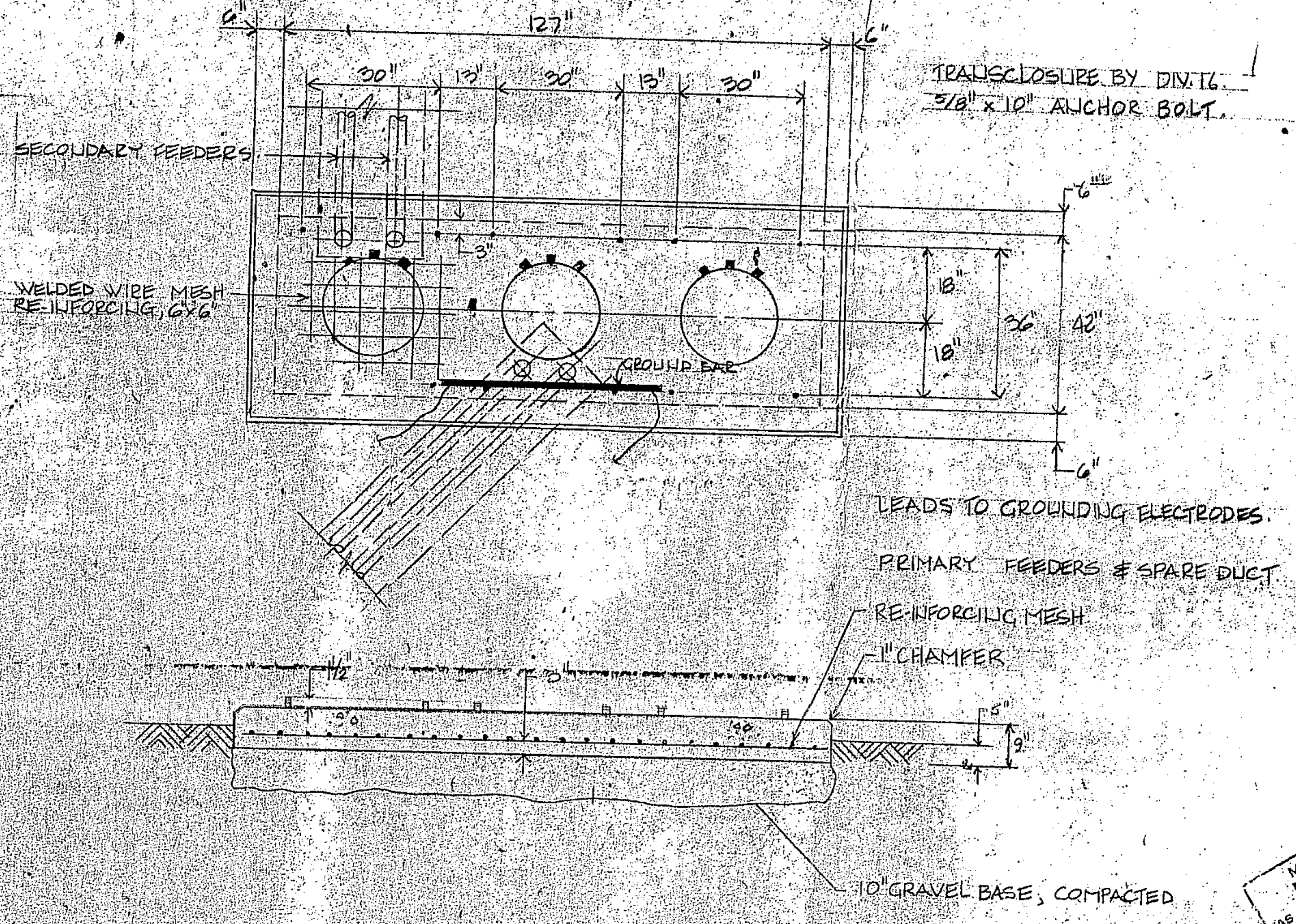
SITE PLAN SCALE 1"=50'-0"

ELECTRICAL LEGEND

▭	FLUORESCENT LIGHTING FIXTURE
○	INCANDESCENT FIXTURE, CLG. MTD.
○┤	INCANDESCENT FIXTURE, WALL MTD.
⊗	EXIT LIGHT FIXTURE, CL'G. MTD.
⊗┤	EXIT LIGHT FIXTURE, WALL MT'D.
⊖	DUPLEX CONVENIENCE OUTLET
⊖*	DUPLEX OUTLET, MTD OVER COUNTER
⊘*	SPLIT RECEPTACLE, MTD OVER COUNTER
⊖ W.P.	WEATHERPROOF OUTLET
⊖ B.P.	BATTERYPACK OUTLET, MTD. 72" AFF
Ⓐ	SPECIAL OUTLET, AS NOTED
Ⓕ	FAN MOTOR
Ⓓ	DAMPER MOTOR
○	MOTOR (F.H.P.)
●	3 PHASE MOTOR
$	WALL SWITCH
$3	3-WAY SWITCH
$SC	SWITCH, SOLID STATE SPEED CONTROLLER
$PL	SWITCH, PILOT LIGHT
▷	TELEPHONE OUTLET
—T—	TELEPHONE CONDUIT
—‖—	ELECTRICAL WIRING RUN
—EM—	EMERGENCY WIRING RUN
	EMERGENCY LTG. FIXTURE, DOUBLE HEAD
	EMERGENCY LT'G. FIXTURE
▭	ELECTRIC B.B. HEATER
Ⓣ	THERMOSTAT
Ⓣ W/G	THERMOSTAT c/w GUARD

MECHANICAL LEGEND

——	SANITARY SEWER, ABOVE GRADE
— —	SANITARY SEWER, BELOW GRADE
—S—	STORM SEWER, ABOVE GRADE
- -S- -	STORM SEWER, BELOW GRADE
—·—	DOMESTIC COLD WATER PIPING
—··—	DOMESTIC HOT WATER PIPING
-----	HOT WATER RE-CIRC. PIPING
⋈	GATE VALVE
⋈	GLOBE VALVE
	CHECK VALVE
H.B.	HOSE BIBB
C.O.	CLEAN-OUT
∪	TRAP
F.D.	FLOOR DRAIN
F.F.D.	FUNNEL FLOOR DRAIN
⊙ R.H.	ROOF DRAIN
	SHOCK ABSORBER
- - - -	VENT PIPING
	TRAP SEAL PRIMER
—A—	COMPRESSED AIR LINE
—G—	GAS PIPING
—O—	OIL DRAW-OFF LINE
—S—	OIL SUCTION LINE
—‖—	UNION
● F.E.	FIRE EXTINGUISHER & RACK
▨ F.E.C.	FIRE EXTINGUISHER CABINET
	SUPPLY AIR DUCT
	EXHAUST AIR DUCT
	TEMPERATURE INSULATED DUCT
	FLEXIBLE DUCT CONNECTION
▨	ACOUSTICALLY INSULATED DUCT
	CEILING AIR REGISTER
DG 12x12	DOOR GRILLE, SIZE


6"
127"
6"
30"
13"
30"
13"
30"
TRANSCLOSURE BY DIV. 16.
5/8" x 10" ANCHOR BOLT.
SECONDARY FEEDERS
3"
WELDED WIRE MESH RE-INFORCING, 6x6
GROUND BAR
6"
18"
18"
36"
42"
6"
LEADS TO GROUNDING ELECTRODES.
PRIMARY FEEDERS & SPARE DUCT
RE-INFORCING MESH
1" CHAMFER
1/2"
3"
5"
9"
10" GRAVEL BASE, COMPACTED

3 ME-1 TRANSFORMER PAD DETAIL SCALE: 3/8"=1'-0"

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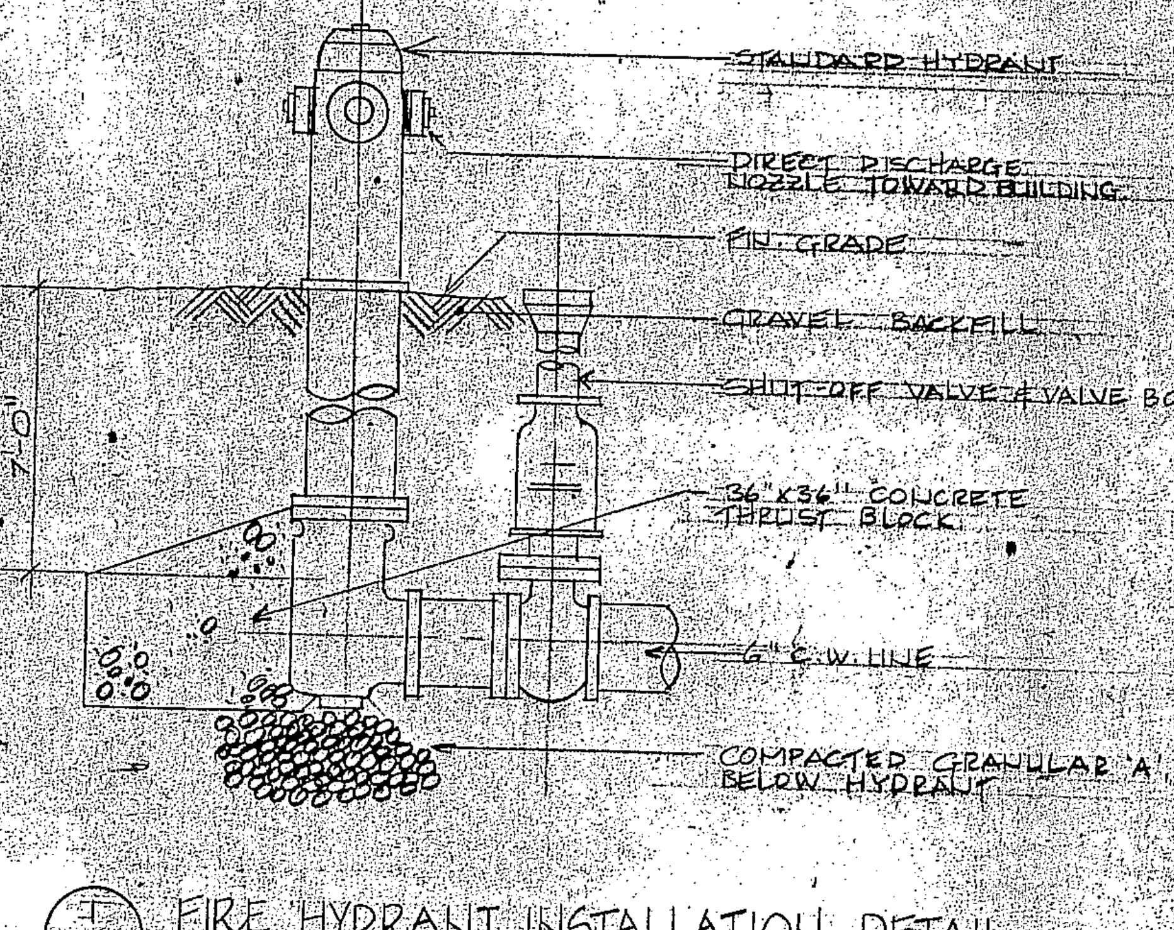
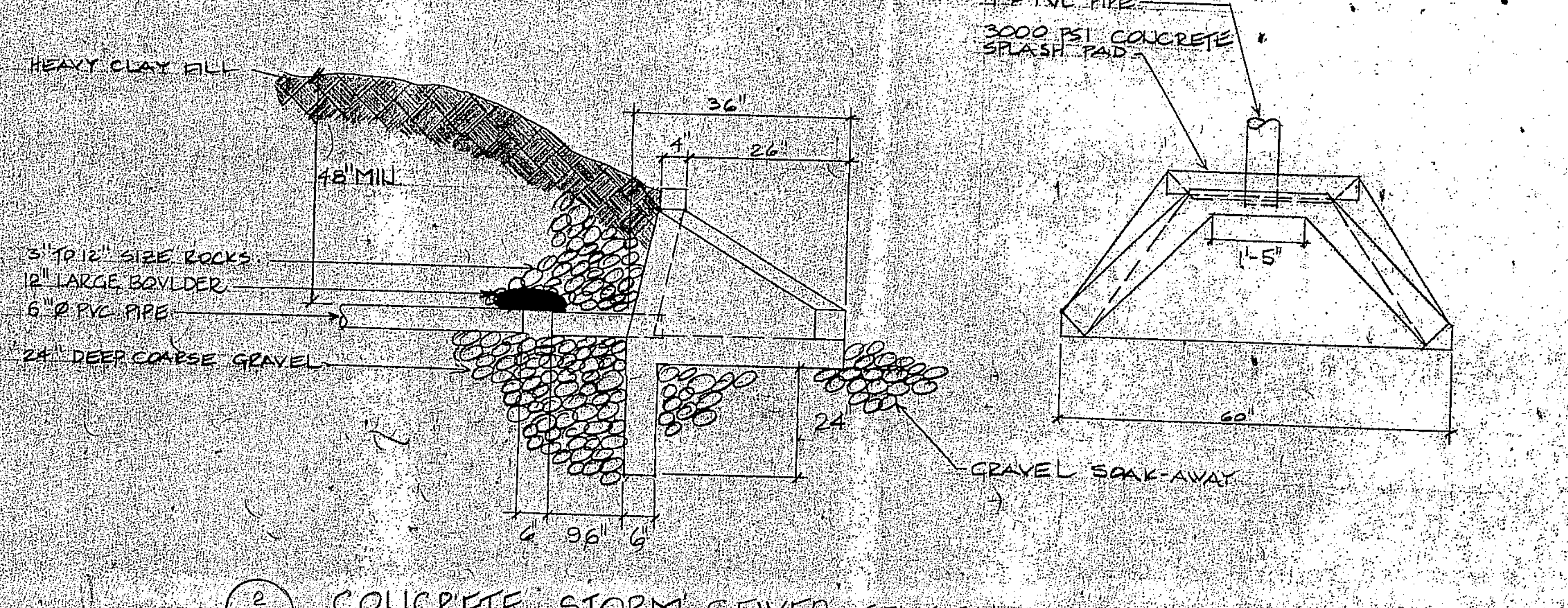

STANDARD HYDRANT
DIRECT DISCHARGE NOZZLE TOWARD BUILDING.
FIN. GRADE
GRAVEL BACKFILL
SHUT-OFF VALVE & VALVE BOX
7'-0"
36"x36" CONCRETE THRUST BLOCK
6" C.W. LINE
COMPACTED GRANULAR 'A' BELOW HYDRANT

1 ME-1 FIRE HYDRANT INSTALLATION DETAIL N.T.S.


4" Ø PVC PIPE
3000 PSI CONCRETE SPLASH PAD
HEAVY CLAY FILL
48" MIN.
36"
4"
26"
3" TO 12" SIZE ROCKS
12" LARGE BOULDER
6" Ø PVC PIPE
24" DEEP COARSE GRAVEL
24
GRAVEL SOAK-AWAY
6
96"
6
1'-5"
60"

2 ME-1 CONCRETE STORM SEWER SPLASH PAD N.T.S.

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472-6250

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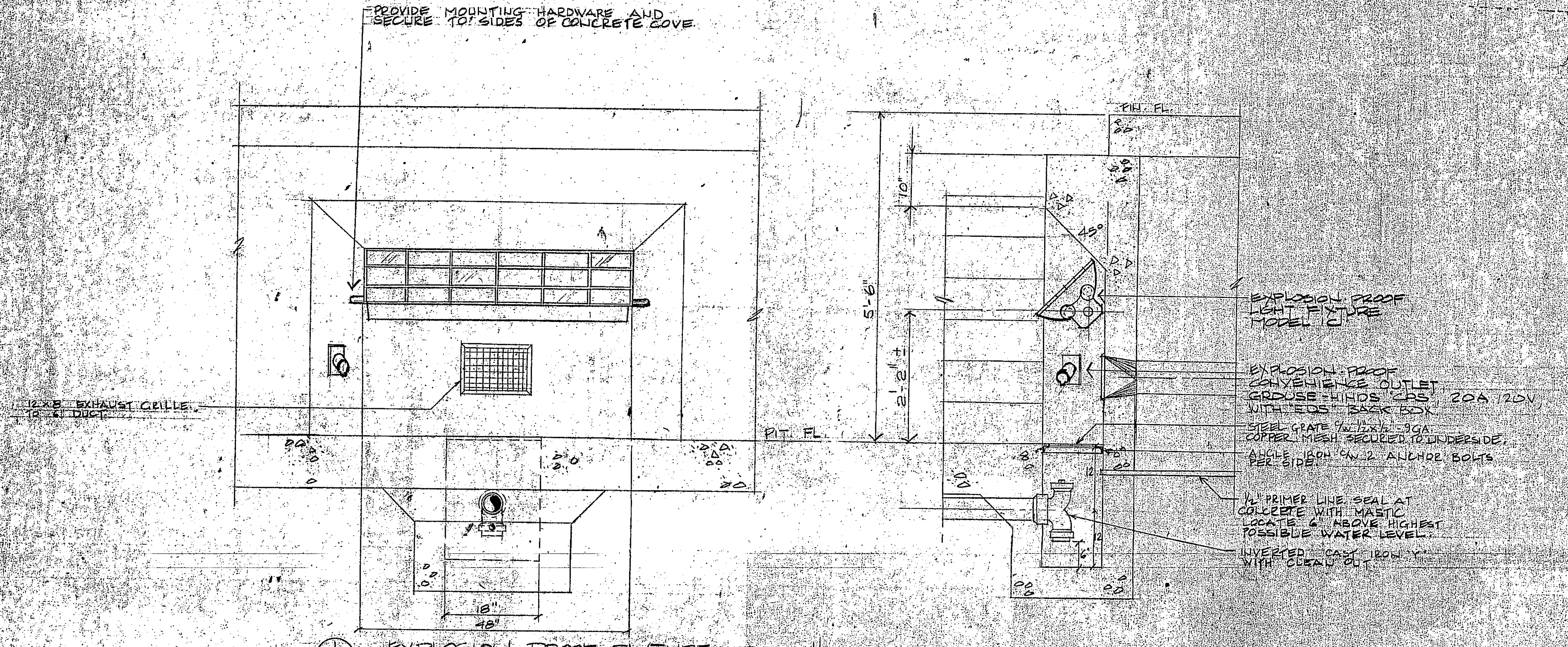
O.N.R.
MAINTENANCE OF WAY
REPAIR BUILDING
NORTH BAY, ONT.

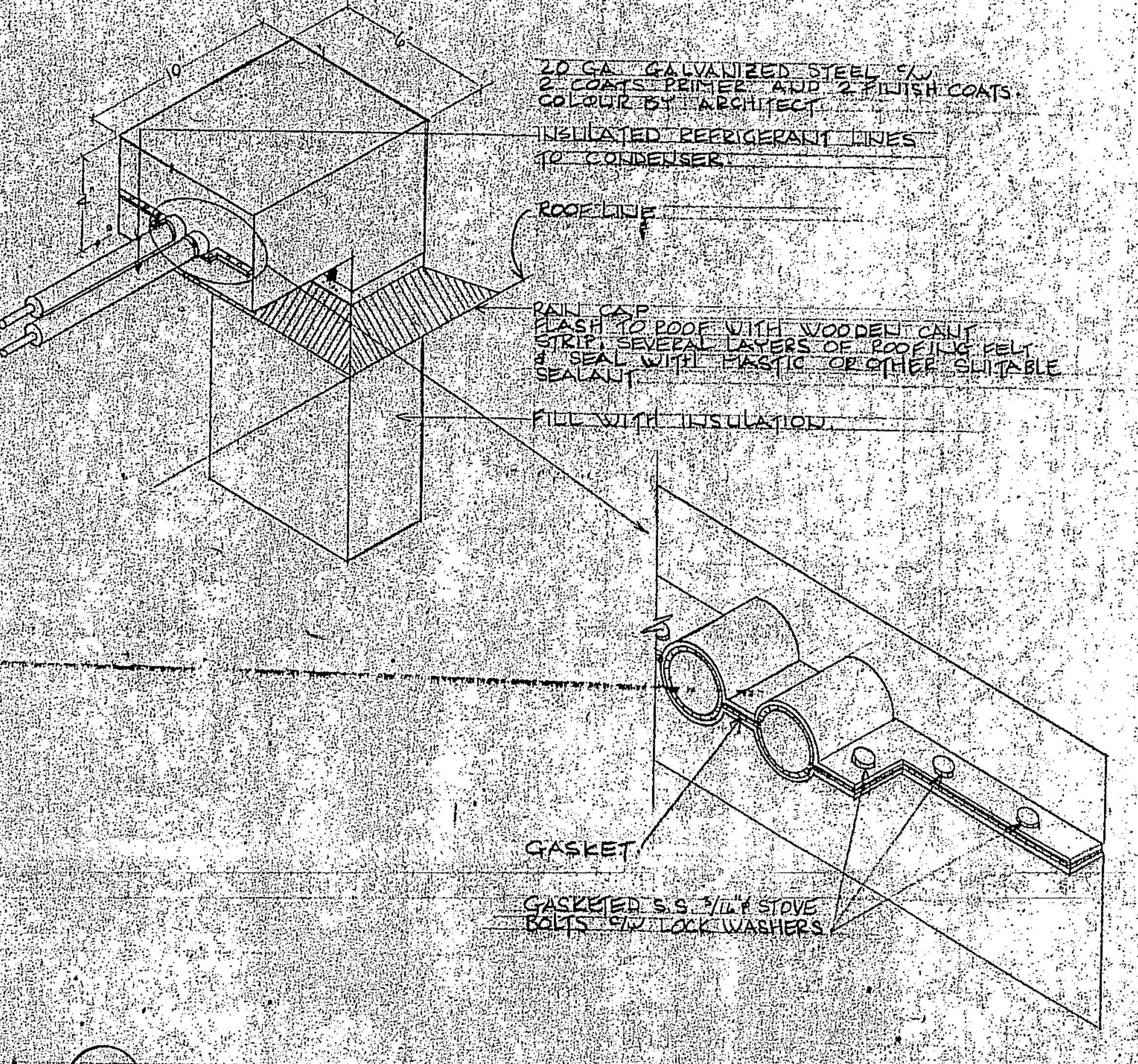
PLOT PLAN AND DETAILS

SCALE AS NOTED
DATE MARCH 1985
DRAWN BY A.M.
JOB NO. 84-30

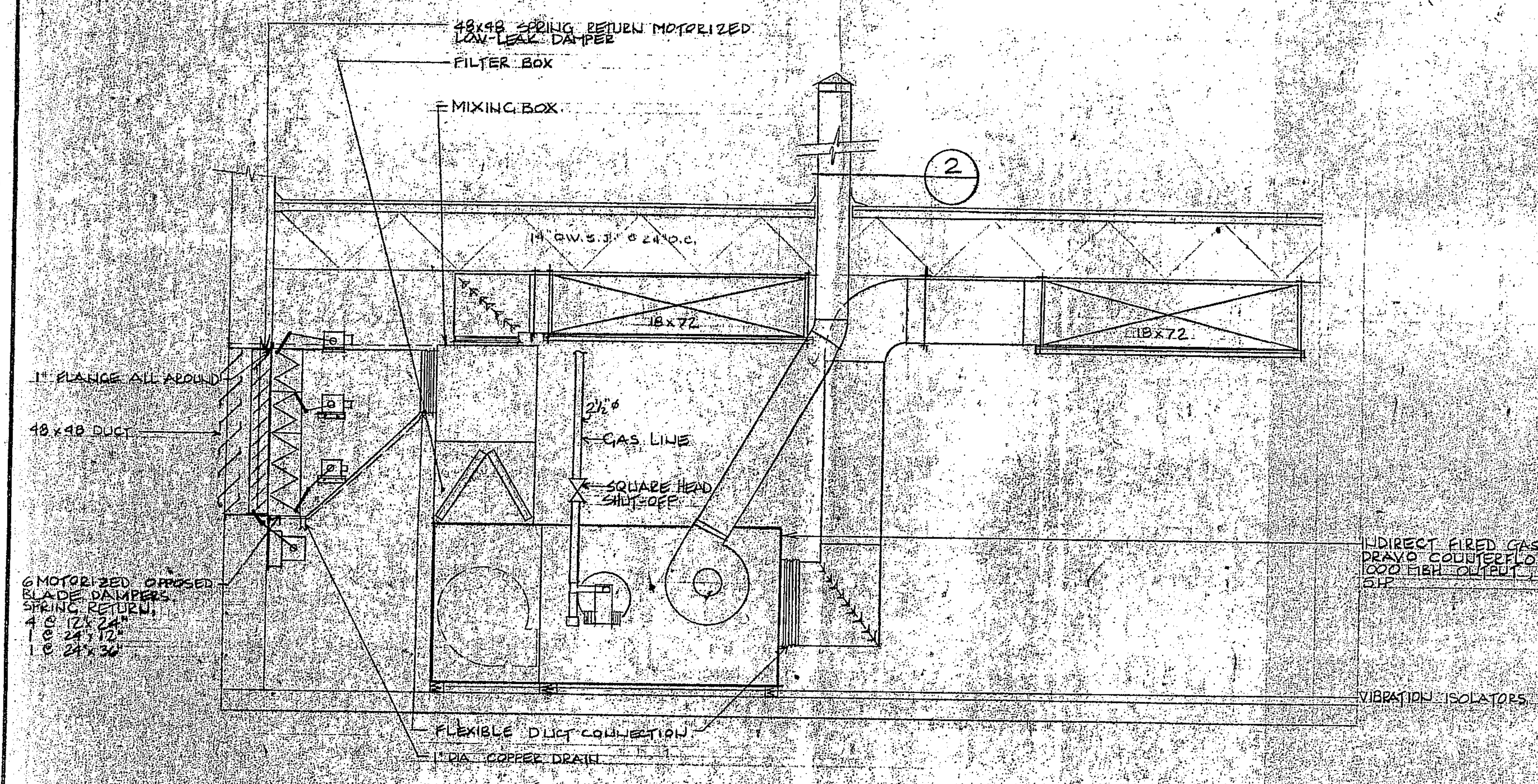
ME-1


PROVIDE MOUNTING HARDWARE AND SECURE TO SIDES OF CONCRETE COVE.
12x8 EXHAUST GRILLE TO 6" DUCT.
PIT. FL.
FIN. FL.
18"
48"
5'-6"
10"
2'-2"±
45°
12
6"
EXPLOSION-PROOF LIGHT FIXTURE MODEL 'C'
EXPLOSION-PROOF CONVENIENCE OUTLET CROUSE-HINDS 'CPS' 20A 120V WITH 'EDS' BACK BOX.
STEEL GRATE c/w 1/2x1/2 - 9GA. COPPER MESH SECURED TO UNDERSIDE.
ANGLE IRON c/w 2 ANCHOR BOLTS PER SIDE.
1/2" PRIMER LINE. SEAL AT CONCRETE WITH MASTIC. LOCATE 6" ABOVE HIGHEST POSSIBLE WATER LEVEL.
INVERTED CAST IRON 'Y' WITH CLEAN OUT.

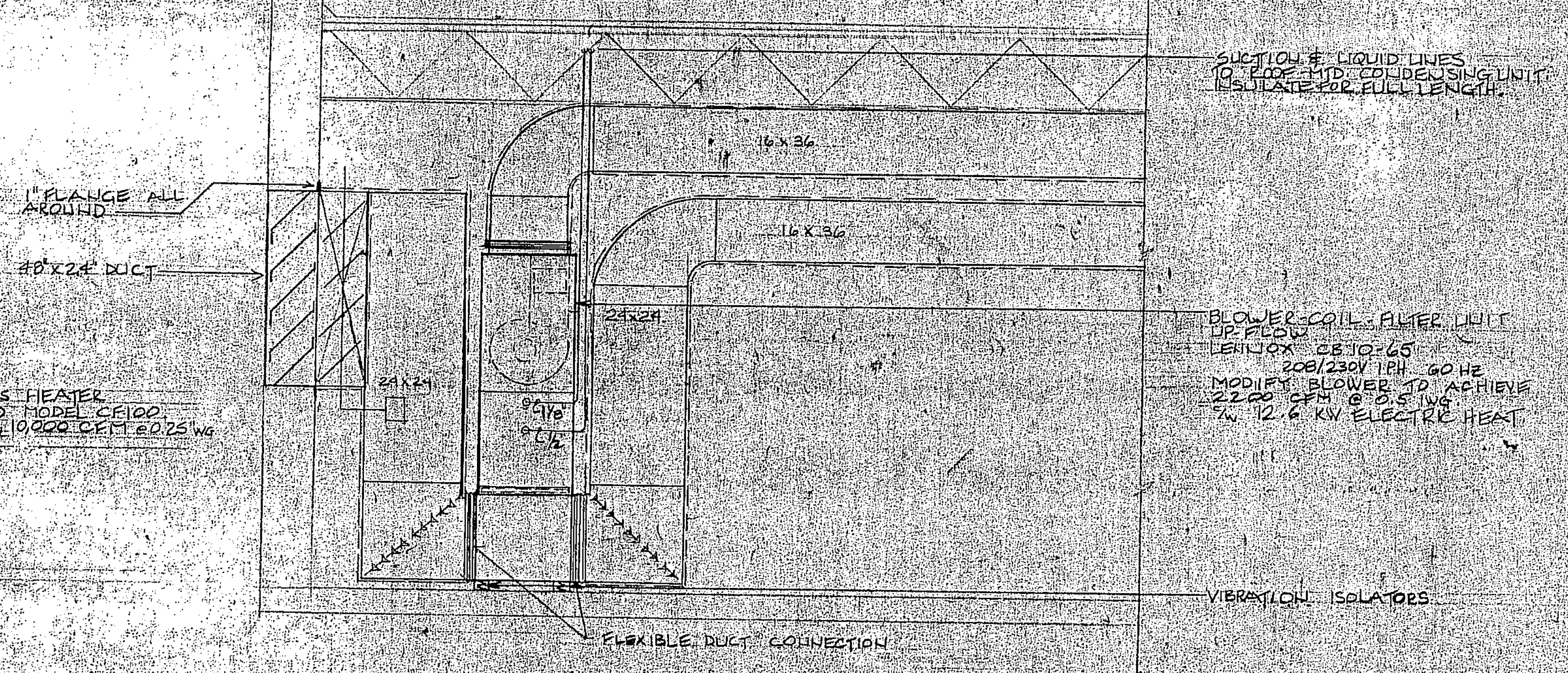
1/ME-2 EXPLOSION-PROOF FIXTURE DETAIL SCALE 3/4"=1'-0"


6"
20 GA. GALVANIZED STEEL c/w 2 COATS PRIMER AND 2 FINISH COATS. COLOUR BY ARCHITECT.
INSULATED REFRIGERANT LINES TO CONDENSER.
ROOF LINE
RAIN CAP
FLASH TO ROOF WITH WOODEN CANT STRIP, SEVERAL LAYERS OF ROOFING FELT & SEAL WITH MASTIC OR OTHER SUITABLE SEALANT.
FILL WITH INSULATION.
GASKET
GASKETED S.S. 5/16" STOVE BOLTS c/w LOCK WASHERS.

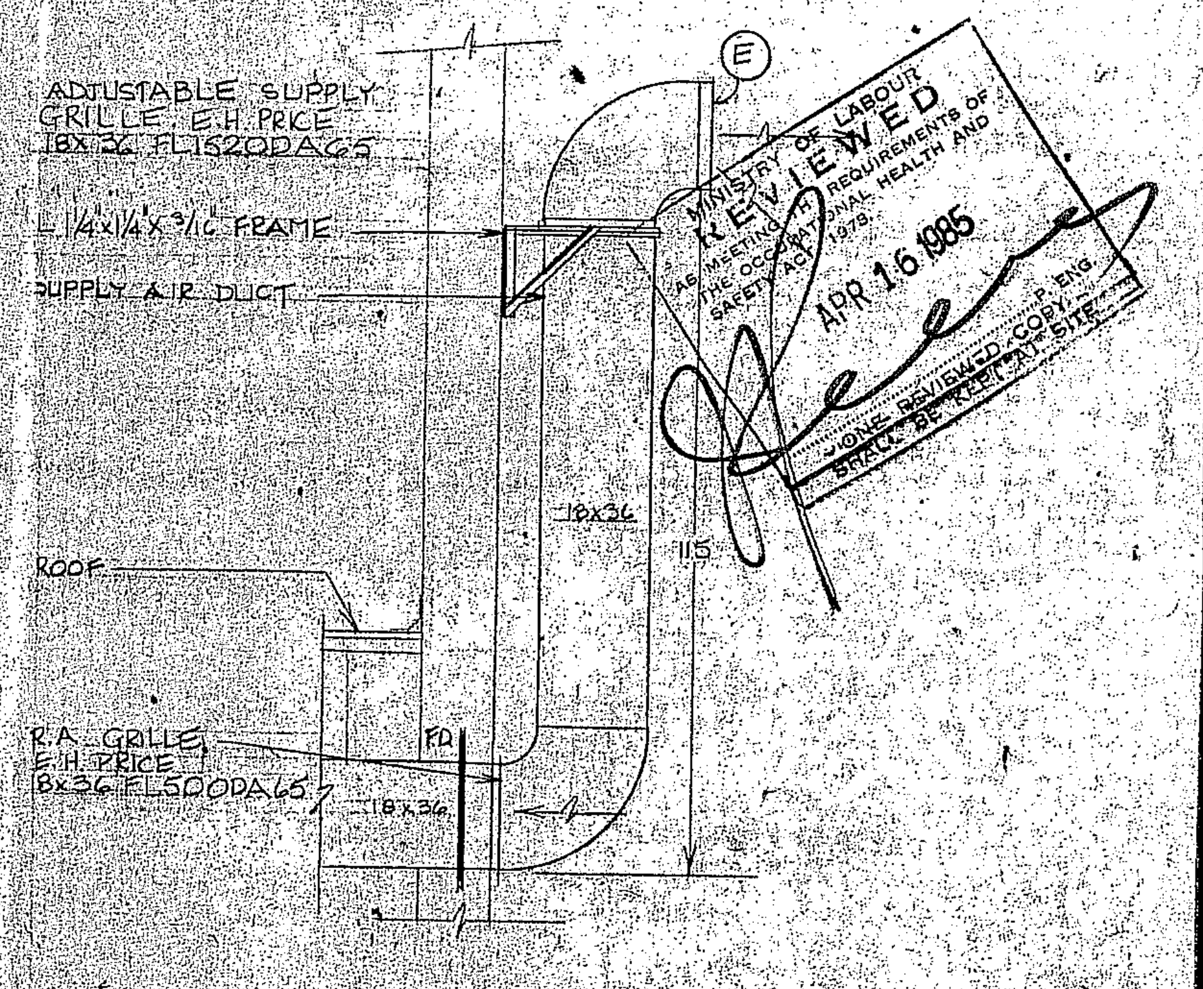
2/ME-2 N.T.S.


48x48 SPRING RETURN MOTORIZED LOW-LEAK DAMPER
FILTER BOX
MIXING BOX.
2
14" O.W.S.J. @ 24" O.C.
18x72
18x72
1" FLANGE ALL AROUND
48x48 DUCT
2 1/2"ø
GAS LINE
SQUARE HEAD SHUT-OFF
6 MOTORIZED OPPOSED BLADE DAMPERS. SPRING RETURN. 4 @ 12x24" 1 @ 24"x12" 1 @ 24"x36"
INDIRECT FIRED GAS HEATER DRAVO COUNTERFLO MODEL CF100 1000 MBH OUTPUT 10,000 CFM @ 0.25" WG 5HP
VIBRATION ISOLATORS.
FLEXIBLE DUCT CONNECTION.
1" DIA. COPPER DRAIN

3/ME-2 A/H UNIT INSTALLATION SCALE 5/8"=1'-0"


SUCTION & LIQUID LINES TO ROOF MTD. CONDENSING UNIT. INSULATE FOR FULL LENGTH.
1" FLANGE ALL AROUND
48"x24" DUCT
16x36
16x36
24x24
24x24
9 7/8"
℄
BLOWER-COIL-FILTER UNIT UP-FLOW LENNOX CB10-65 208/230V 1PH 60HZ MODIFY BLOWER TO ACHIEVE 2200 CFM @ 0.5 IWG. c/w 12.6 KW ELECTRIC HEAT.
VIBRATION ISOLATORS.
FLEXIBLE DUCT CONNECTION.

4/ME-2 A/C UNIT INSTALLATION SCALE 5/8"=1'-0"


E
ADJUSTABLE SUPPLY GRILLE. E.H. PRICE 18x36 FL1520DA65
L 1 1/4x1 1/4x3/16 FRAME
SUPPLY AIR DUCT
18x36
11'-5"
ROOF
R.A. GRILLE. E.H. PRICE 18x36 FL500DA65
F.D.
18x36

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5/ME-2 N.T.S.

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ARCHITECT

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NORTH BAY, ONT.

DETAILS

SCALE: AS NOTED
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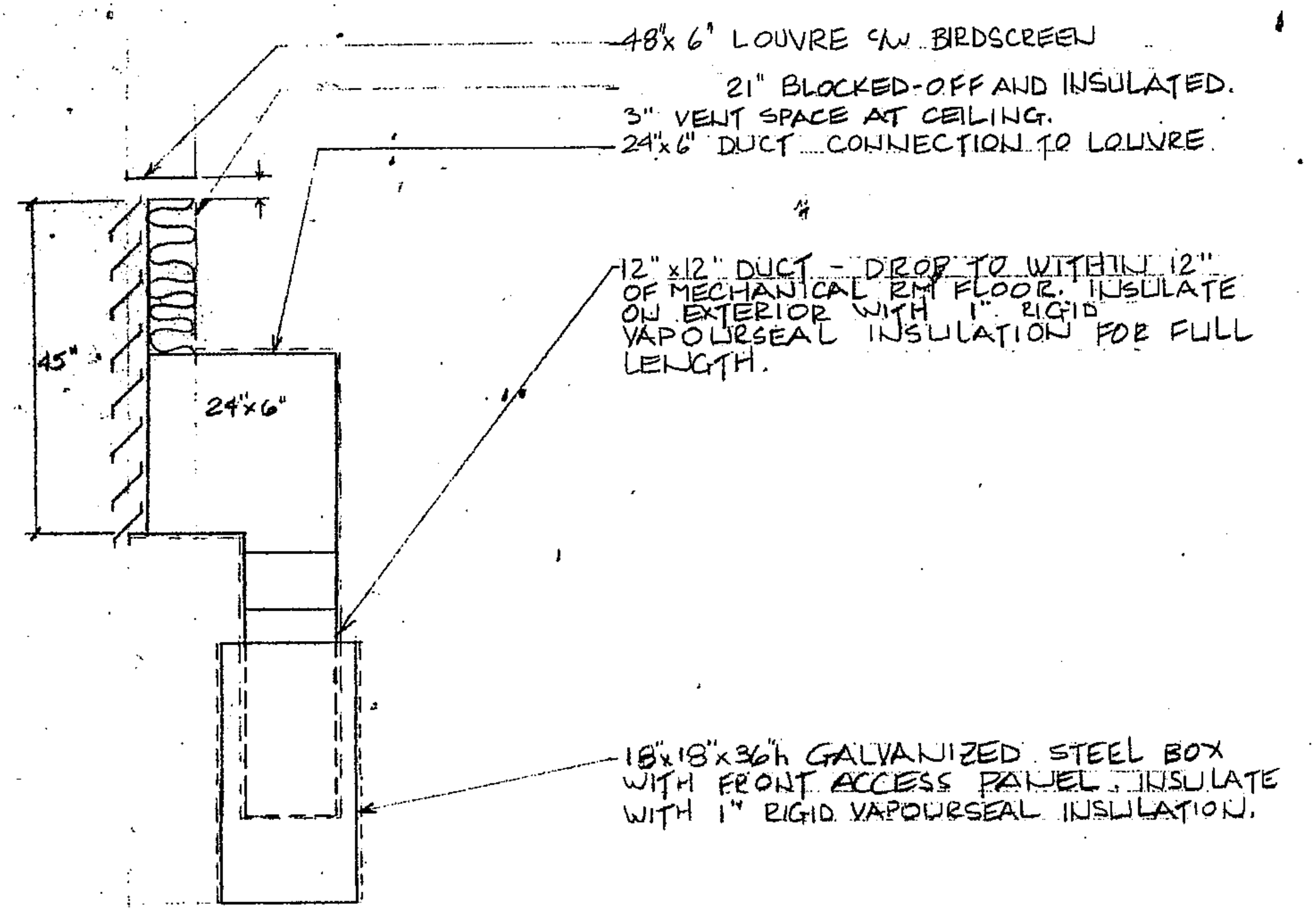
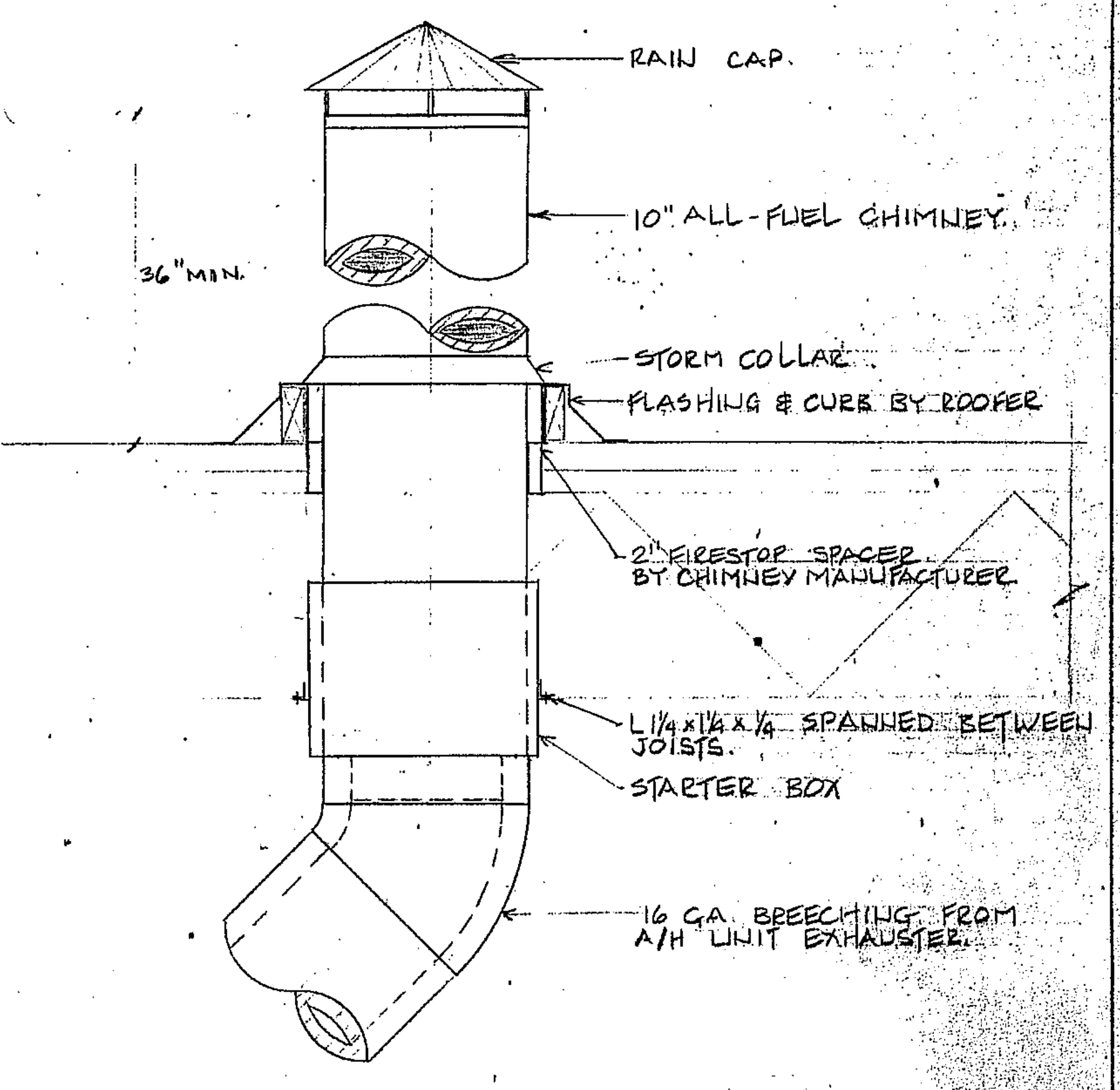
DRAWN BY: A.M.
JOB NO.: 84-50

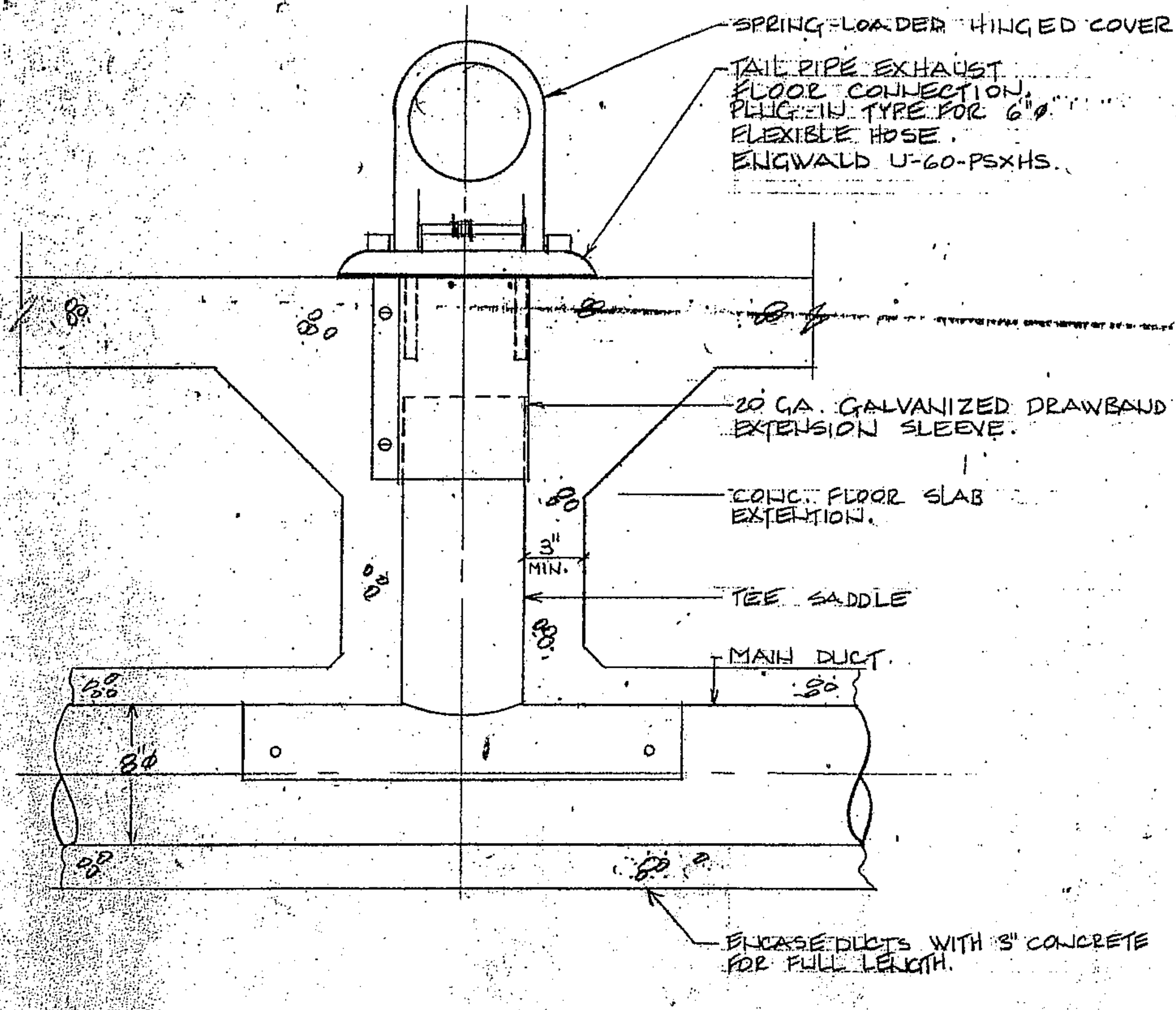
ME-2


48"x 6" LOUVRE c/w BIRDSCREEN
21" BLOCKED-OFF AND INSULATED.
3" VENT SPACE AT CEILING.
24"x6" DUCT CONNECTION TO LOUVRE.
12"x12" DUCT - DROP TO WITHIN 12" OF MECHANICAL RM FLOOR. INSULATE ON EXTERIOR WITH 1" RIGID VAPOURSEAL INSULATION FOR FULL LENGTH.
45"
24"x6"
18"x18"x36"h GALVANIZED STEEL BOX WITH FRONT ACCESS PANEL. INSULATE WITH 1" RIGID VAPOURSEAL INSULATION.

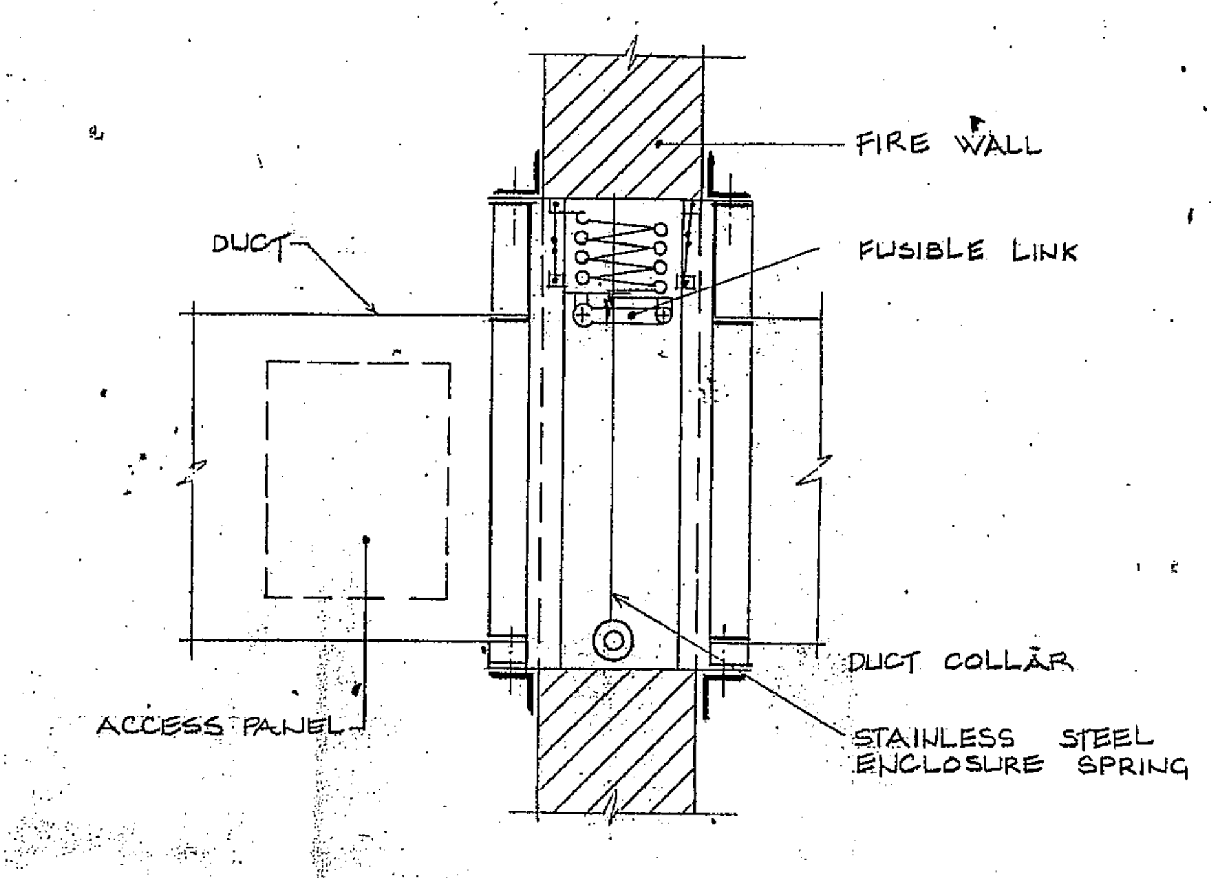
① ME3 COMBUSTION VENTILATION AIR ASSEMBLT ½"=1'-0"


RAIN CAP.
10" ALL-FUEL CHIMNEY.
36" MIN.
STORM COLLAR.
FLASHING & CURB BY ROOFER
2" FIRESTOP SPACER BY CHIMNEY MANUFACTURER.
L 1¼x1¼x¼ SPANNED BETWEEN JOISTS.
STARTER BOX
16 GA. BREECHING FROM A/H UNIT EXHAUSTER.

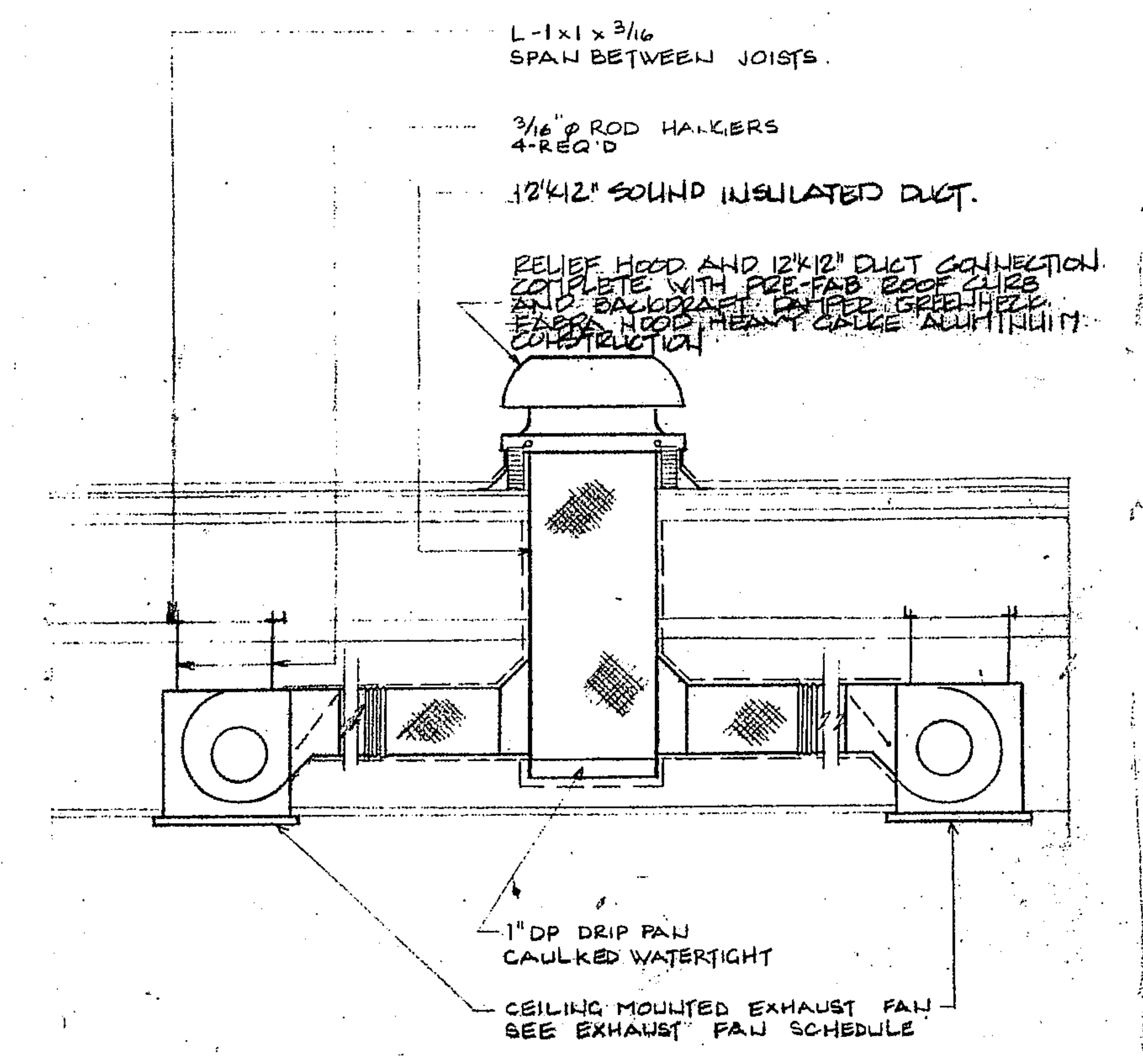
② ME3 A/H CHIMNEY SECTION SCALE 1"=1'-0"


SPRING-LOADER HINGED COVER.
TAIL PIPE EXHAUST FLOOR CONNECTION, PLUG-IN TYPE FOR 6"ø FLEXIBLE HOSE. ENGWALD U-60-PSXHS.
20 GA. GALVANIZED DRAWBAND EXTENSION SLEEVE.
CONC. FLOOR SLAB EXTENTION.
3" MIN.
TEE SADDLE
MAIN DUCT.
8"ø
ENCASE DUCTS WITH 3" CONCRETE FOR FULL LENGTH.

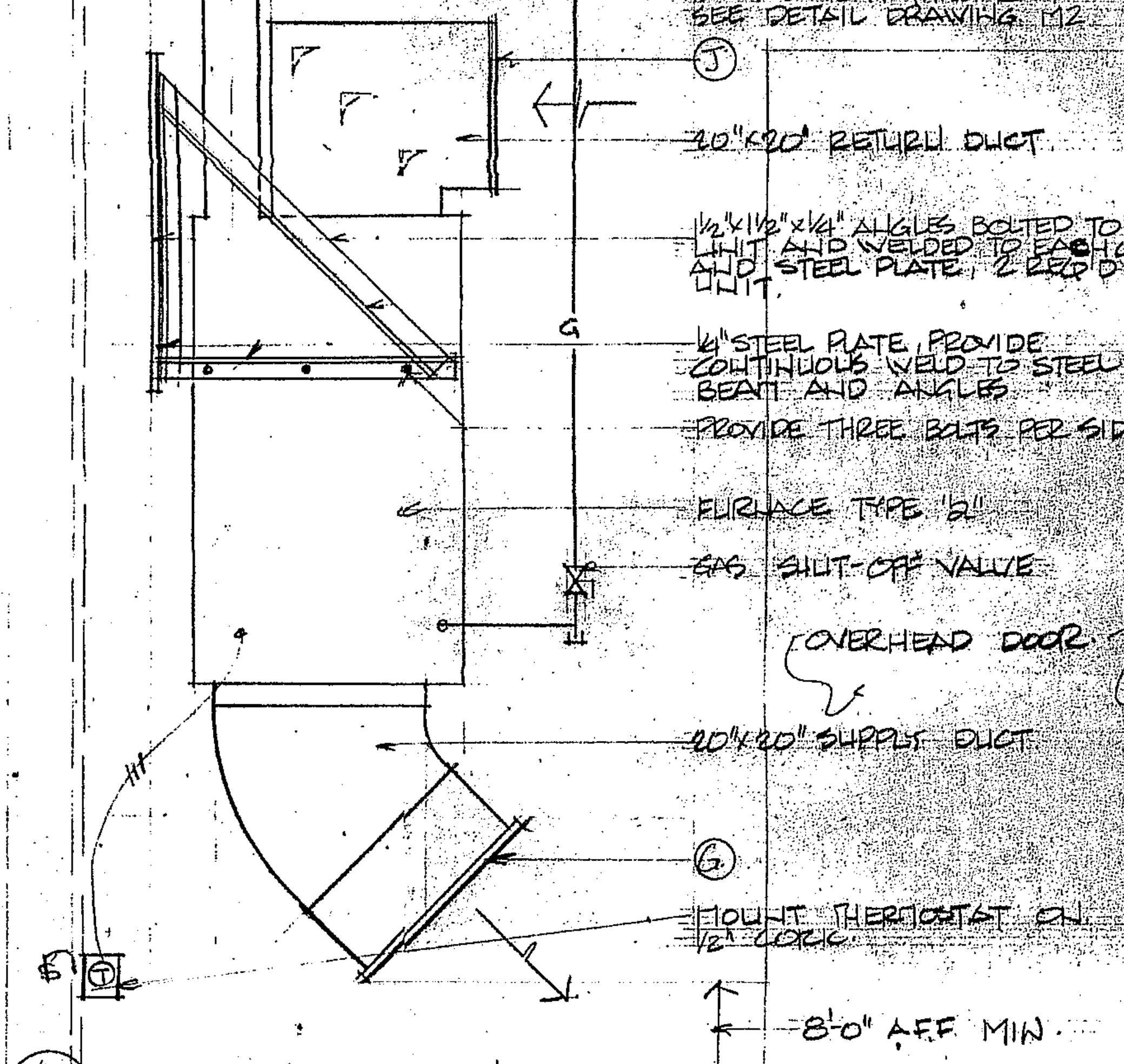
③ ME-3 TAIL PIPE EXHAUST SYSTEM NTS


FIRE WALL
FUSIBLE LINK
DUCT
DUCT COLLAR
ACCESS PANEL
STAINLESS STEEL ENCLOSURE SPRING

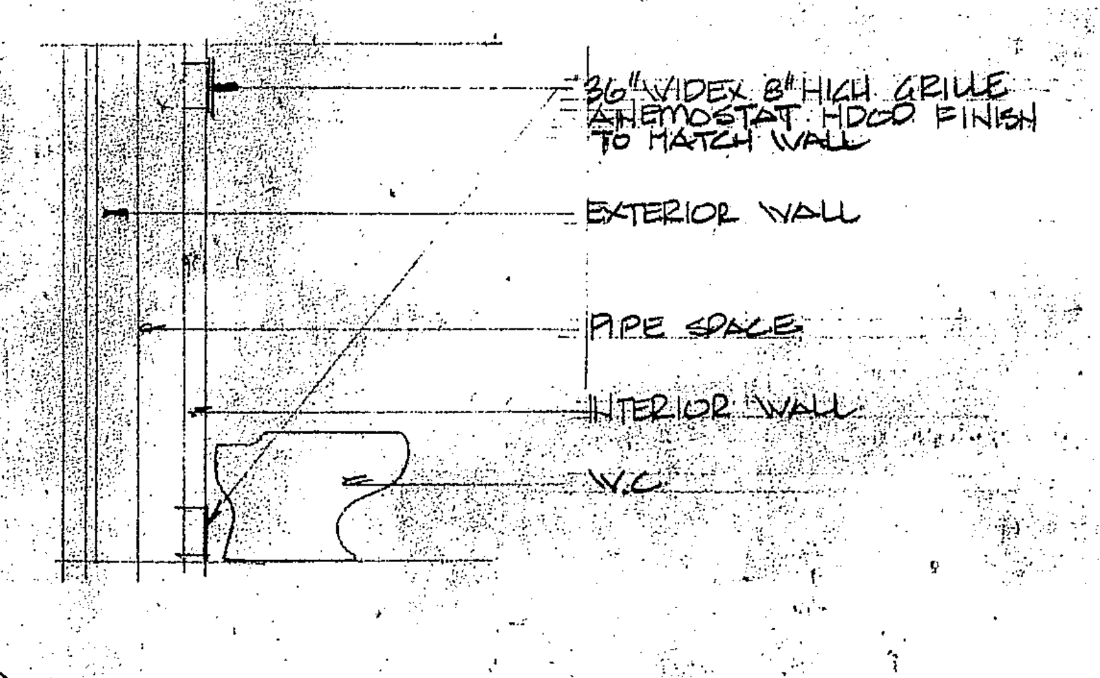
④ ME-3 VERTICAL FIRE DAMPER MOUNTING DETAIL


L-1x1x3/16 SPAN BETWEEN JOISTS.
3/16"ø ROD HANGERS 4-REQ'D
12"x12" SOUND INSULATED DUCT.
RELIEF HOOD AND 12"x12" DUCT CONNECTION COMPLETE WITH PRE-FAB ROOF CURB AND BACKDRAFT DAMPER GREENHECK FABRA HOOD HEAVY GAUGE ALUMINUM CONSTRUCTION
1" DP DRIP PAN CAULKED WATERTIGHT
CEILING MOUNTED EXHAUST FAN SEE EXHAUST FAN SCHEDULE

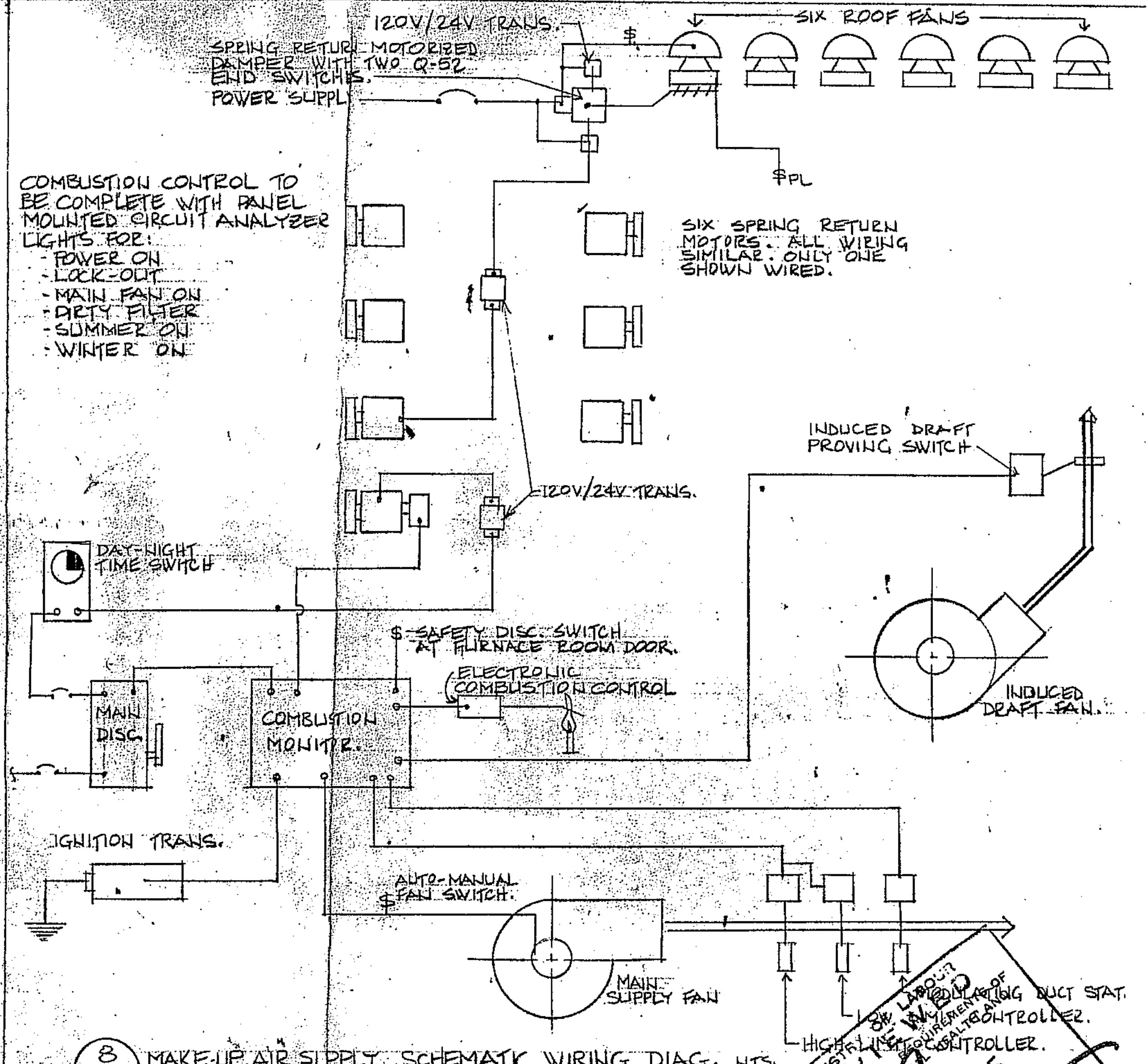
⑤ ME3 CEILING MOUNTED EXHAUST FAN DETAIL NTS.


5" OVAL VENT THRU ROOF SEE DETAIL DRAWING M2
J
20"x20" RETURN DUCT.
1½"x1½"x¼" ANGLES BOLTED TO UNIT AND WELDED TO EACH OTHER AND STEEL PLATE, 2 REQ'D PER UNIT.
G
¼" STEEL PLATE, PROVIDE CONTINUOUS WELD TO STEEL BEAM AND ANGLES.
PROVIDE THREE BOLTS PER SIDE.
FURNACE TYPE '2'
GAS SHUT-OFF VALVE
OVERHEAD DOOR.
20"x20" SUPPLY DUCT.
G
MOUNT THERMOSTAT ON ½" CORK.
8'-0" A.F.F. MIN.
T

⑥ ME3 FURNACE '2' MOUNTING DETAIL SCALE ¾"=1'-0"


36" WIDE x 8" HIGH GRILLE ANEMOSTAT HDOD FINISH TO MATCH WALL
EXTERIOR WALL
PIPE SPACE
INTERIOR WALL
W.C.

⑦ ME3 NTS


120V/24V TRANS.
SIX ROOF FANS
SPRING RETURN MOTORIZED DAMPER WITH TWO Q-52 END SWITCHES.
POWER SUPPLY
$
$PL
SIX SPRING RETURN MOTORS. ALL WIRING SIMILAR. ONLY ONE SHOWN WIRED.
COMBUSTION CONTROL TO BE COMPLETE WITH PANEL MOUNTED CIRCUIT ANALYZER LIGHTS FOR:
- POWER ON
- LOCK-OUT
- MAIN FAN ON
- DIRTY FILTER
- SUMMER ON
- WINTER ON
INDUCED DRAFT PROVING SWITCH
120V/24V TRANS.
DAY-NIGHT TIME SWITCH
$ SAFETY DISC. SWITCH AT FURNACE ROOM DOOR.
ELECTRONIC COMBUSTION CONTROL
MAIN DISC.
COMBUSTION MONITR.
INDUCED DRAFT FAN.
IGNITION TRANS.
AUTO-MANUAL $ FAN SWITCH.
MAIN SUPPLY FAN
MODULATING DUCT STAT.
LOW LIMIT CONTROLLER.
HIGH LIMIT CONTROLLER.

⑧ ME-3 MAKE-UP AIR SUPPLY SCHEMATIC WIRING DIAG. NTS.

DIFFUSER SCHEDULE

A. SUPPLY & RETURN CEILING DIFFUSER 24"x24" NECK SIZE 14"ø, OFF-WHITE BAKED ENAMEL FINISH MOUNTED IN DRYWALL CEILING C/W BALANCING DAMPER AND EQUALIZING GRID E.H PRICE MOD 14-TMSA-2

B- SUPPLY & RETURN CEILING DIFFUSER 24"x24" NECK SIZE 10"ø, OFF WHITE BAKED ENAMEL FINISH MOUNTED IN T-BAR CEILING c/w BALANCING DAMPER AND EQUALIZING GRID E.H. PRICE MOD 10-TMSA-3

C- SUPPLY & RETURN CEILING DIFFUSER 12"x12" NECK SIZE 6"ø AND MODULE PANEL 24"x24" OFF WHITE BAKED ENAMEL FINISH. MOUNTED IN T-BAR CEILING c/w BALANCING DAMPER AND EQUALIZING GRID E.H PRICE MOD 6-TMSA-3

D- ROUND SUPPLY DIFFUSER 6"ø NECK SIZE MOUNTED BETWEEN JOIST. FINISH TO MATCH DECK E.H. PRICE T-1.

E- SUPPLY GRILLE EXTRUDED ALUMINUM DOUBLE DEFLECTION GRILLES WITH TWO SETS OF ADJUSTABLE LOUVERS. FINISH TO BE BAKED ENAMEL PRIME COAT. FINAL COLOUR BY ARCHITECT SIZE 10,000 CFM 72" WIDE x 36" HIGH ANEMOSTAT X25Y

F- RETURN GRILLE, HEAVY DUTY STEEL GRILLE WITH 16GA STEEL FRAME AND BALANCING DAMPER OF 18GA STEEL SIZE 72" WIDE x 28" HIGH, BAKED ENAMEL PRIME COAT FINISH. 10,000 CFM ANEMOSTAT HOOD.

G- SUPPLY GRILLE, EXTRUDED ALUMINUM DOUBLE DEFLECTION GRILLE WITH TWO SETS OF ADJUSTABLE LOUVERS FINISHED WITH TWO COATS OFF WHITE EPOXY PAINT, SIZE 1800 CFM, 20"x20" ANEMOSTAT X25Y.

H- RETURN GRILLE, HEAVY DUTY STEEL GRILLE WITH 16GA STEEL FRAME AND BALANCING DAMPER OF 18GA STEEL SIZE 12" WIDE x 8" HIGH ANEMOSTAT HOOD.

I- EXHAUST GRILLE 12x12" MOUNTED BETWEEN JOISTS, FINISHED BAKED ENAMEL PAINT TO MATCH DECK ANEMOSTAT GC5.

J RETURN AIR GRILLE 20"x20" HEAVY DUTY STEEL GRILLE WITH 16GA STEEL FRAME PROVIDE BAKED ENAMEL PRIME COAT. FINISH BY ARCHITECT ANEMOSTAT HOOD.

FAN SCHEDULE

#1 TAIL PIPE EXHAUST FANS, 1½ H.P. 208 3PH. 3450 R.P.M. WHEEL SIZE 12x4⅜", 810 CFM @ 16" SP ENGWALD EBS #15

#2 ROOF EXHAUSTER 2000 CFM 3/4 H.P. 1260 RPM @ 0.5 SP 208 3PH c/w PRE-FAB CURB SEE DETAIL, PENN VENTILATOR LC DYNAFAN MOD LC16A

#3 ROOF EXHAUSTER 6000 CFM 1½ H.P. 565 RPM 0.5 SP, 208 3PH c/w PRE-FAB CURB. SEE DETAIL, PENN VENTILATOR LC DYNAFAN MOD LC 30A

#4 ROOF EXHAUSTER 1800 CFM 1/6 H.P. 1550 R.P.M. @ 0.5 SP 120 1PH c/w PRE-FAB ROOF CURB SEE DETAIL AND EXPLOSION PROOF HOUSING PENN VENTILATOR DOMEX MOD XR82

#5 ROOF EXHAUSTER 360 CFM 1/6 H.P. 1550 R.P.M @ 0.5 SP. 120 1PH c/w PRE-FAB CURB SEE DETAIL AND EXPLOSION PROOF HOUSING PENN VENTILATOR DOMEX MOD XR54

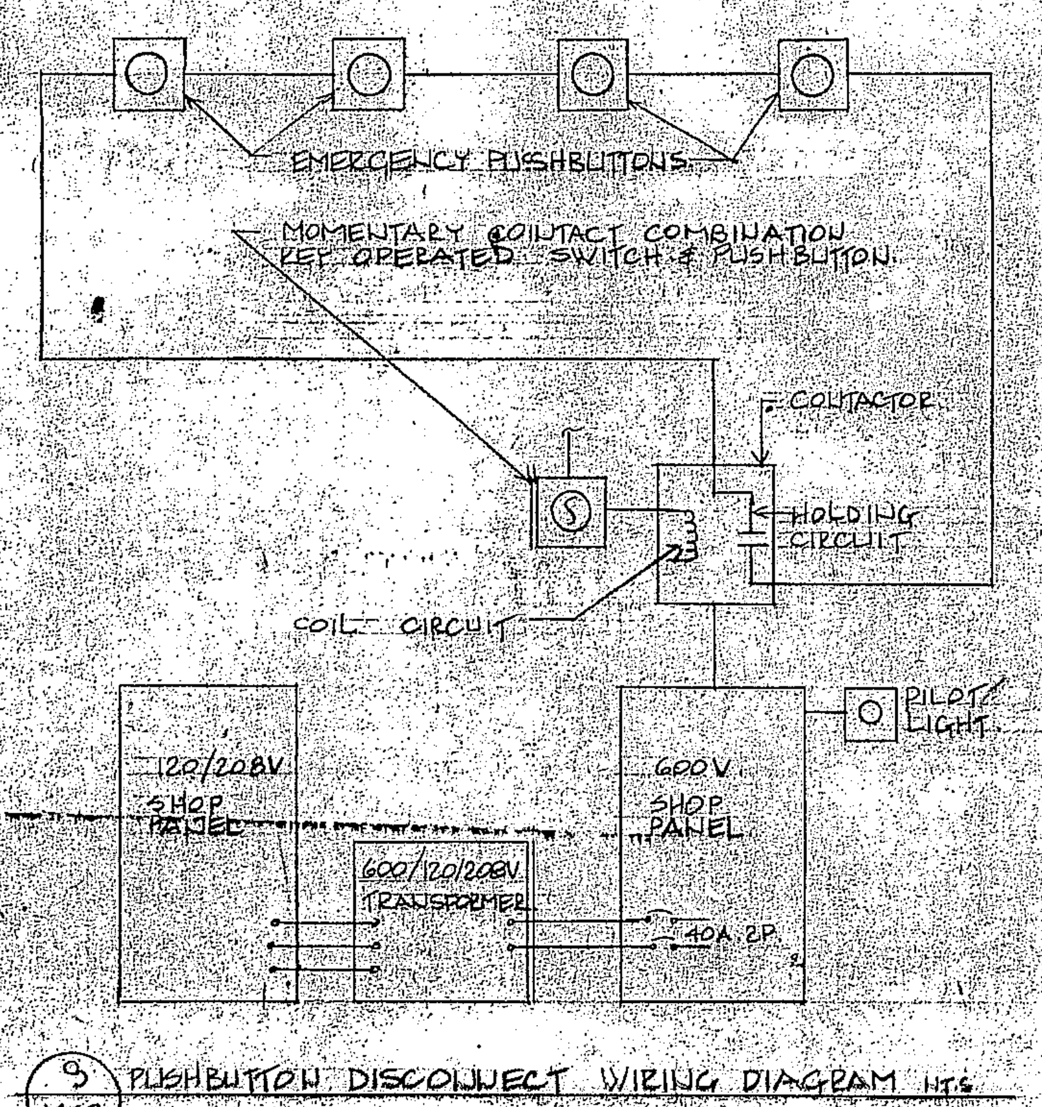
#6 CEILING MOUNTED EXHAUST FAN 100 CFM @ 0.5 SP. 120V 1PH c/w GRILLE, BACKDRAFT DAMPER AND FRAME FOR DRYWALL CEILING PENN ZEPHYR MOD 28 DISCHARGE MOD RA, WIRE FAN TO LIGHT SWITCH IN WASHROOMS

#7 CEILING MOUNTED EXHAUST FAN 50 CFM @ 0.5 SP 120V 1PH c/w CEILING GRILLE & FRAME FOR DRYWALL AND BACKDRAFT DAMPER, PENN ZEPHYR MODEL 26, DISCHARGE MODEL RA WIRE TO LIGHT SWITCH

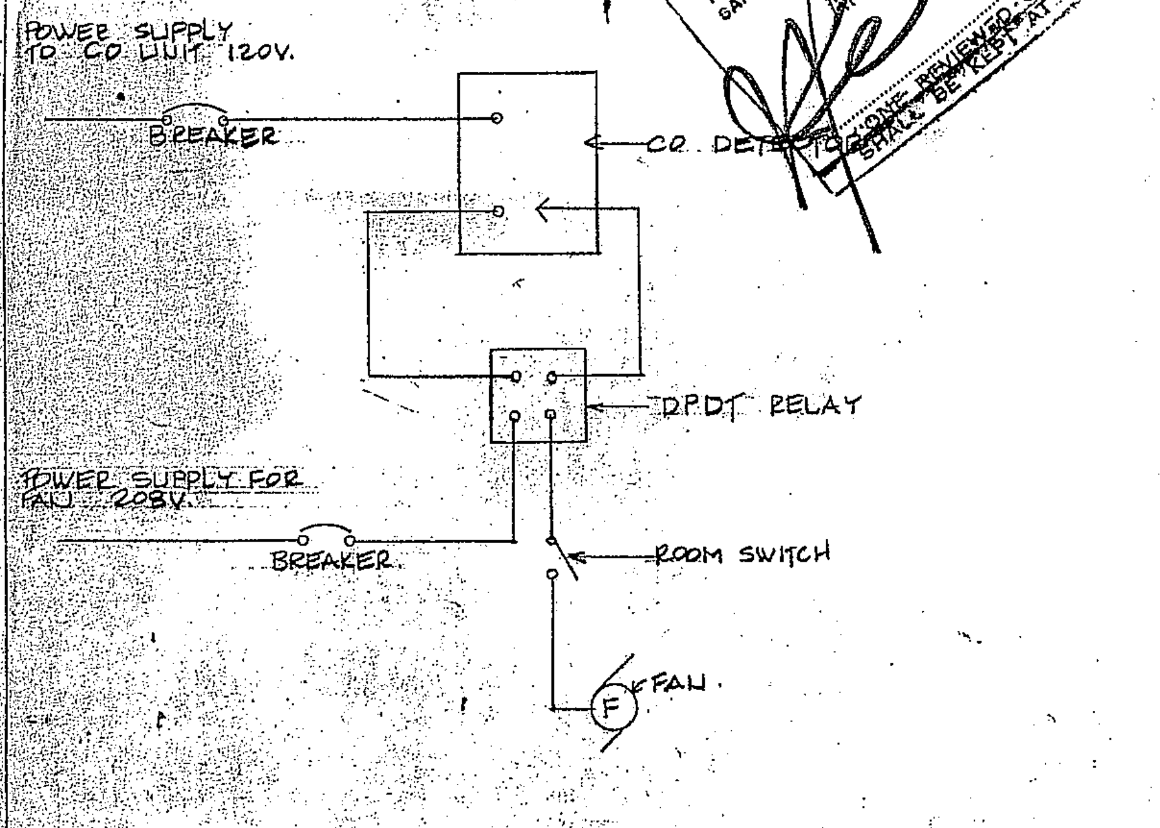
#8 CEILING MOUNTED EXHAUST FAN 200 CFM @ 0.5 SP 120V 1PH c/w CEILING GRILLE, BACKDRAFT DAMPER, ROOF CAP AND SOLID STAT SPEED CONTROLLER PENN ZEPHYR MOD. 210 DISCHARGE MOD RA, CAP MOD 11FR, AND SPEED CONTROLLER LF30

#9 IN-LINE EXHAUST FAN MOUNTED WITH VIBRATION ISOLATORS, QUIET OPERATION INLET CONE, SPEED CONTROLLER BACKDRAFT DAMPER AND EXPLOSION PROOF HOUSING 185 CFM @ 0.375 SP 1/6 H.P. 120V 1PH PENN-CONTREX MOD REX-08R, ROOF MOUNTED EXHAUST CAP SEE DETAILS ON DRAWING ME3.

non ferrous blades


EMERGENCY PUSHBUTTONS.
MOMENTARY CONTACT COMBINATION KEY OPERATED SWITCH & PUSHBUTTON.
CONTACTOR
S
HOLDING CIRCUIT
COIL CIRCUIT
PILOT LIGHT
120/208V SHOP PANEL
600V SHOP PANEL
600/120/208V TRANSFORMER
40A 2P

⑨ ME3 PUSHBUTTON DISCONNECT WIRING DIAGRAM NTS


POWER SUPPLY TO CO UNIT 120V.
BREAKER
CO DETECTOR
DPDT RELAY
POWER SUPPLY FOR FAN 208V.
BREAKER.
ROOM SWITCH
F
FAN.

⑩ ME3 CO DETECTOR WIRING DIAGRAM NTS (6 REQUIRED)

MINISTRY OF LABOUR
REVIEWED
AS MEETING THE REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1978.
APR 16 1985
P. ENG.
ONE REVIEWED COPY SHALL BE KEPT AT SITE.

E. PIOTROWSKI
2781

GERALD B. COX
ARCHITECT
573 FISHER STREET
NORTH BAY, ONTARIO
[illegible]

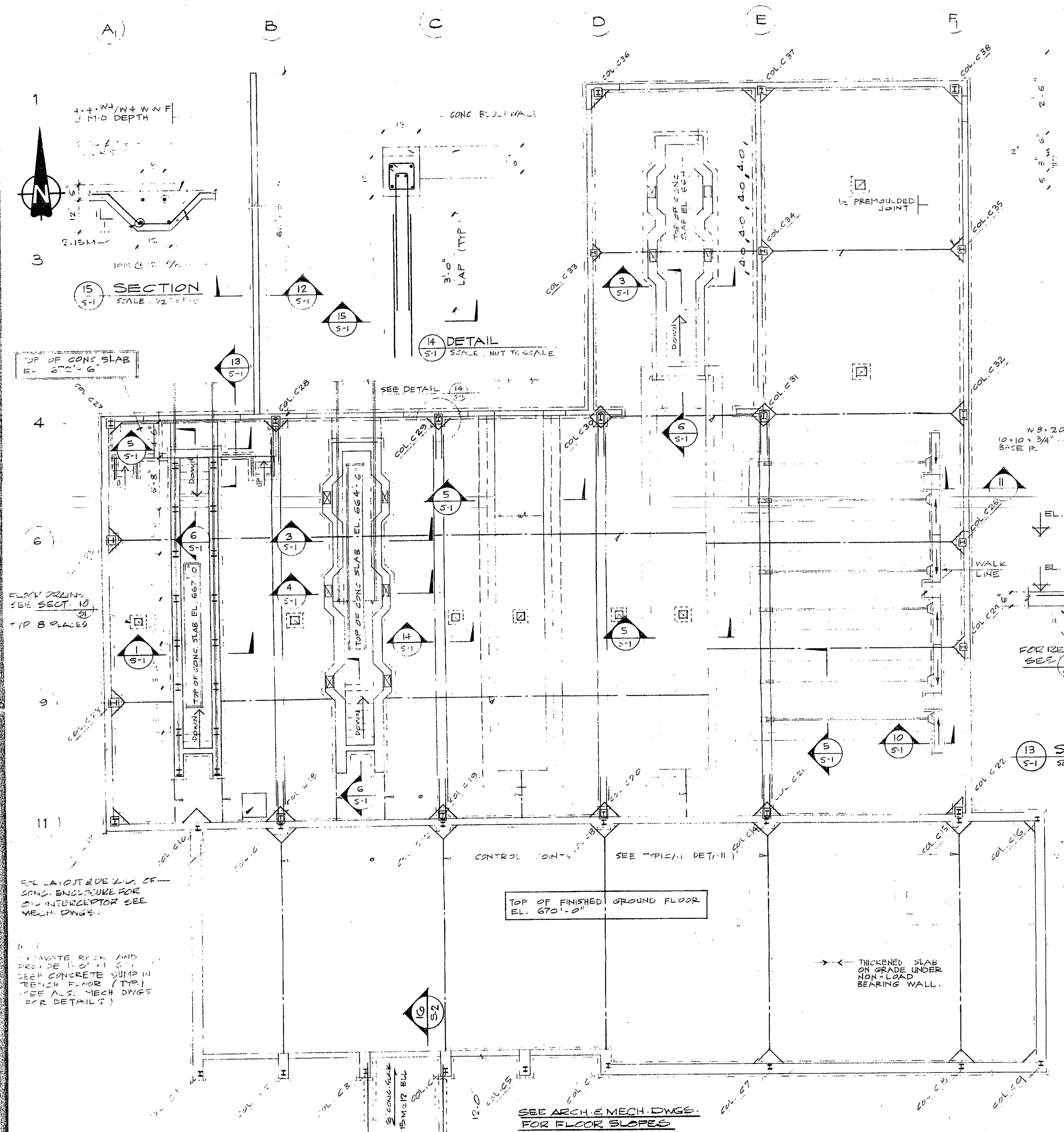
ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE GENERAL CONTRACTOR.

O.N.R.
MAINTENANCE OF WAY
REPAIR BUILDING
NORTH BAY, ONT.

DETAILS

SCALE AS NOTED
DATE MARCH, 1985
DRAWN BY A.M., T.K.
JOB NO. 84-30

ME-3

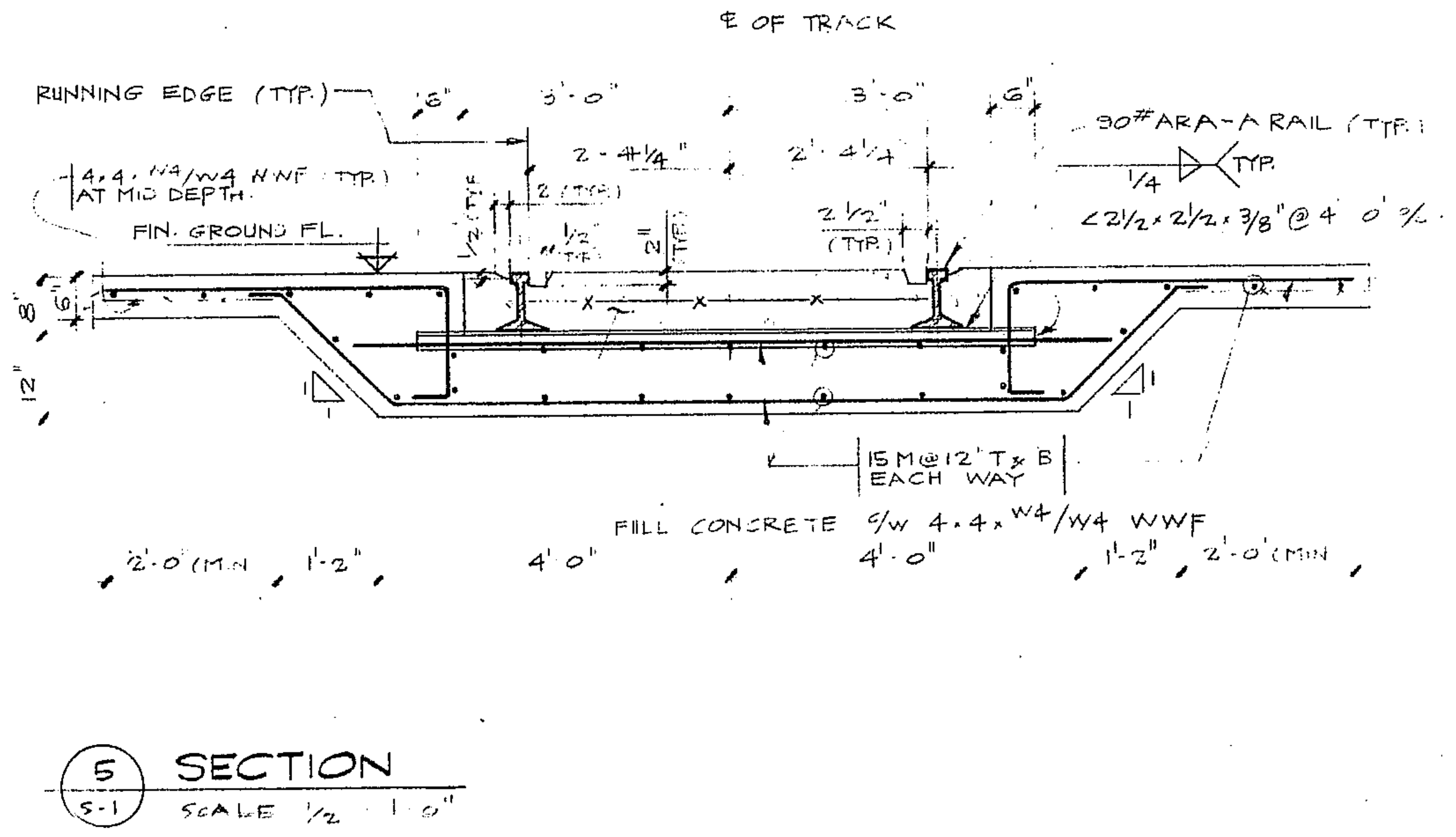

A
B
C
D
E
F
1
3
4
6
8
9
11
4.4.W4/W4 WWF AT MID DEPTH
2-15M
10M @ 12" %
15 SECTION S-1 SCALE: 1/2" = 1'-0"
14 DETAIL S-1 SCALE: NOT TO SCALE
CONC. BLOCK WALL
3'-0" LAP (TYP.)
1/2" PREMOULDED JOINT
TOP OF CONC. SLAB EL. 670'-6"
SEE DETAIL 14 S-1
TOP OF CONC. SLAB EL. 667'-0"
TOP OF CONC. SLAB EL. 664'-6"
FLOOR DRAINS SEE SECT. 10 S-1 TYP. 8 PLACES
WALK LINE
CONTROL JOINTS SEE TYPICAL DET. 11
TOP OF FINISHED GROUND FLOOR EL. 670'-0"
THICKENED SLAB ON GRADE UNDER NON-LOAD BEARING WALL.
FOR LAYOUT & DETAILS OF CONC. ENCLOSURE FOR OIL INTERCEPTOR SEE MECH. DWGS.
SEE ARCH. & MECH. DWGS. FOR FLOOR SLOPES
9" CONC. SLAB 15M @ 12" B.L.
8.8'
12.0'
COL. C1 – COL. C38
DOWN

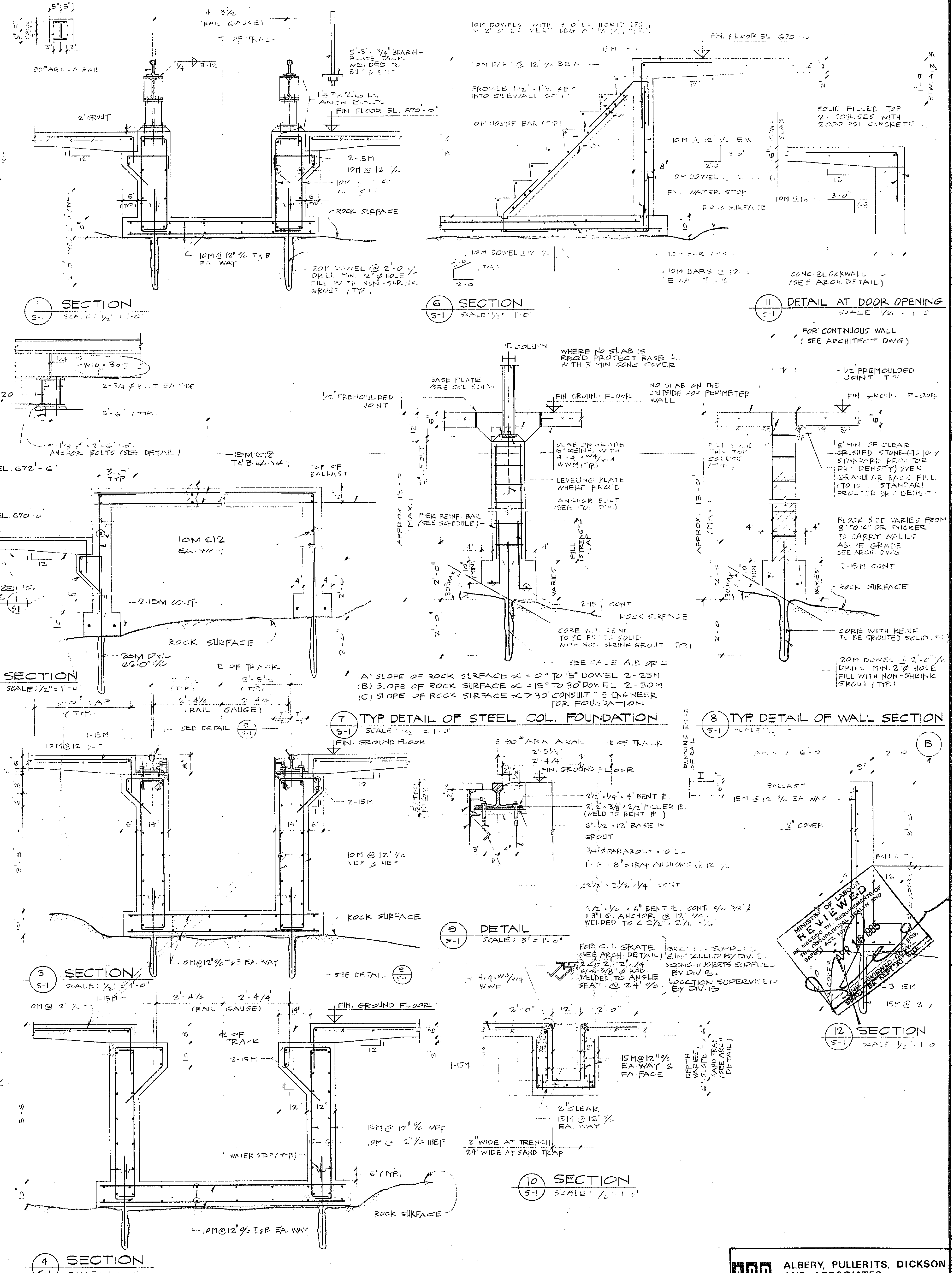
FOUNDATION PLAN

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

NOTES

1. CENTRE FOOTINGS AND PIERS UNDER CENTROID OF COLUMNS, AND FOOTINGS UNDER CENTROID OF WALLS, UNLESS OTHERWISE NOTED
2. FOOTINGS SHALL BE CARRIED DOWN TO BEDROCK CAPABLE OF SUSTAINING A MIN OF 10.0 TONS (20,000 lbs) PER SQ. FT (ASSUMED).
3. APPROVAL OF THE ARCHITECT AND/OR SOIL CONSULTANT MUST BE OBTAINED PRIOR TO POURING OF THE CONCRETE FOOTINGS.
4. TOP OF SLAB ON GRADE TO BE "0" BELOW FINISHED FLOOR EXCEPT AS DEPRESSED AND NOTED.
5. CONCRETE SHALL HAVE A MIN. COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS
6. REINFORCING STEEL SHALL HAVE A MIN. YIELD STRENGTH OF 60 KSI.
7. SLAB ON GRADE SHALL BE PLACED ON SOIL CAPABLE OF SUSTAINING 500 PSF WITHOUT SETTLEMENT RELATIVE TO BUILDING FOOTINGS.
8. SLAB ON GRADE SHALL BE THICKENED UNDER ALL NON-LOAD BEARING MASONRY WALLS, REINFORCED WITH 3-15 M CONT. BARS.
9. WALL FOOTING TO BE 10" DEEP WITH 4" PROJECTIONS REINFORCED WITH 2-15M CONT BARS, UNLESS OTHERWISE NOTED ON PLAN.
10. WATERSTOPS SHALL BE DURAJOINT TYPE 5 POLYVINYLCHORIDE WATERSTOPS BY GRACE OR APPROVED EQUIVALENTS.
11. DETAILS AND LAYOUT OF PRE-ENGINEERED BUILDING PIERS AND FOOTINGS TO BE ADJUSTED AND VERIFIED AFTER THE SELECTION OF PRE-ENGINEERED BUILDING SUPPLIER.


℄ OF TRACK
RUNNING EDGE (TYP.)
4.4.W4/W4 WWF (TYP.) AT MID DEPTH
FIN. GROUND FL.
30# ARA-A RAIL (TYP.)
∠2½·2½·3/8" @ 4'-0" %
15M @ 12" T & B EACH WAY
FILL CONCRETE c/w 4.4.W4/W4 WWF
2'-0" (MIN.)
1'-2"
4'-0"
3'-0"
5 SECTION S-1 SCALE 1/2" = 1'-0"


1 SECTION S-1 SCALE: 1/2" = 1'-0"
4'-8½" RAIL GAUGE
℄ OF TRACK
30# ARA-A RAIL
5"·5"·3/4" BEARING PLATE TACK WELDED TO STEEL
1¼" ø 2'-0" LG. ANCHOR BOLTS
FIN. FLOOR EL. 670'-0"
2" GROUT
2-15M
10M @ 12" %
ROCK SURFACE
10M @ 12" % T & B EA. WAY
20M DOWEL @ 2'-0" % DRILL MIN. 2" ø HOLE FILL WITH NON-SHRINK GROUT (TYP.)
6 SECTION S-1 SCALE: 1/2" = 1'-0"
10M DOWELS WITH 3'-0" LG. HORIZ. LEG
10M BARS @ 12" % BEN
PROVIDE 1½"·1½" KEY INTO SIDEWALL
FIN. FLOOR EL. 670'-0"
11 DETAIL AT DOOR OPENING
SOLID FILLED TOP 2 COURSES WITH 2000 PSI CONCRETE
CONC. BLOCKWALL (SEE ARCH. DETAIL)
FOR CONTINUOUS WALL (SEE ARCHITECT DWG)
W10 × 30
W 8 × 20
10 × 10 × 3/4" BASE PL.
4-1¼" ø 2'-6" LG. ANCHOR BOLTS (SEE DETAIL)
½" PREMOULDED JOINT
EL. 672'-6"
EL. 670'-0"
15M @ 12 T & B
TOP OF BALLAST
10M @ 12 EA. WAY
2-15M CONT.
ROCK SURFACE
20M DWL @ 2'-0" %
FOR REINF. SEE 1 S-1
13 SECTION S-1 SCALE: 1/2" = 1'-0"
℄ COLUMN
WHERE NO SLAB IS REQ'D PROTECT BASE PL. WITH 3" MIN CONC COVER
BASE PLATE (SEE COL. SCH.)
NO SLAB ON THE OUTSIDE FOR PERIMETER WALL
FIN. GROUND FLOOR
SLAB ON GRADE 6" REINF. WITH 4.4.W4/W4 WWM (TYP.)
LEVELING PLATE WHERE REQ'D
ANCHOR BOLT (SEE COL. SCH.)
PIER REINF. BAR (SEE SCHEDULE)
FULL STRENGTH LAP
APPROX. 13'-0" (MAX.)
ROCK SURFACE
CORE WITH REINF. TO BE FILLED SOLID WITH NON SHRINK GROUT (TYP.)
SEE CASE A, B OR C
A: SLOPE OF ROCK SURFACE α = 0° TO 15° DOWEL 2-25M
(B) SLOPE OF ROCK SURFACE α = 15° TO 30° DOWEL 2-30M
(C) SLOPE OF ROCK SURFACE α > 30° CONSULT THE ENGINEER FOR FOUNDATION
7 TYP. DETAIL OF STEEL COL. FOUNDATION S-1
½" PREMOULDED JOINT
FIN. GROUND FLOOR
8" MIN. OF CLEAR CRUSHED STONE (TO 100% STANDARD PROCTOR DRY DENSITY) OVER GRANULAR 'B' OR FILL (TO 100% STANDARD PROCTOR DRY DENSITY)
BLOCK SIZE VARIES FROM 8" TO 12" OR THICKER TO CARRY WALLS ABOVE GRADE SEE ARCH DWG
2-15M CONT
ROCK SURFACE
CORE WITH REINF. TO BE GROUTED SOLID
20M DOWEL @ 2'-0" % DRILL MIN. 2" ø HOLE FILL WITH NON-SHRINK GROUT (TYP.)
8 TYP. DETAIL OF WALL SECTION S-1
3 SECTION S-1 SCALE: 1/2" = 1'-0"
3'-0" LAP (TYP.)
RAIL GAUGE
SEE DETAIL 9 S-1
FIN. GROUND FLOOR
10M @ 12" %
2-15M
10M @ 12" % VERT. & HEF
ROCK SURFACE
10M @ 12" % T & B EA. WAY
℄ 30# ARA-A RAIL
℄ OF TRACK
FIN. GROUND FLOOR
2½·¼·4" BENT PL.
2½·3/8" % FILLER PL. (WELD TO BENT PL.)
6"·½"·12" BASE PL.
GROUT
3/4" ø PARABOLT
1¼·8" STRAP ANCHORS @ 12" %
∠2½·2½·¼ CONT.
2½·½·6" BENT PL. CONT. c/w 3/8" ø 3" LG. ANCHOR @ 12" % WELDED TO ∠ 2½·2½·¼
9 DETAIL S-1 SCALE: 3" = 1'-0"
4 SECTION S-1 SCALE: 1/2" = 1'-0"
2'-4¼" RAIL GAUGE
℄ OF TRACK
FIN. GROUND FLOOR
2-15M
15M @ 12" % VEF
10M @ 12" % HEF
WATER STOP (TYP.)
ROCK SURFACE
10M @ 12" % T & B EA. WAY
FOR C.I. GRATE (SEE ARCH. DETAIL)
2-2"·2"·¼" c/w 3/8" ø ROD WELDED TO ANGLE SEAT @ 24" %
GRATES SUPPLIED & INSTALLED BY DIV 5. CONC. INSERTS SUPPLIED BY DIV 5. LOCATION SUPERVISED BY DIV 15
4.4.W4/W4 WWF
15M @ 12" % EA. WAY & EA. FACE
2" CLEAR
15M @ 12" % EA. WAY
12" WIDE AT TRENCH
24" WIDE AT SAND TRAP
DEPTH VARIES SLOPE (SEE ARCH. DETAIL)
10 SECTION S-1 SCALE: 1/2" = 1'-0"
B
BALLAST
15M @ 12" % EA. WAY
2" COVER
3-15M
15M @ 12" %
12 SECTION S-1 SCALE: 1/2" = 1'-0"

MINISTRY OF LABOUR
REVIEWED
APR 16 1985

2983
A. T. ABRERA

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ARCHITECT
373 FISHER STREET
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472-8350

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE GENERAL CONTRACTOR.

O.N.R.
MAINTENANCE OF WAY REPAIR BUILDING
North Bay, Ont.

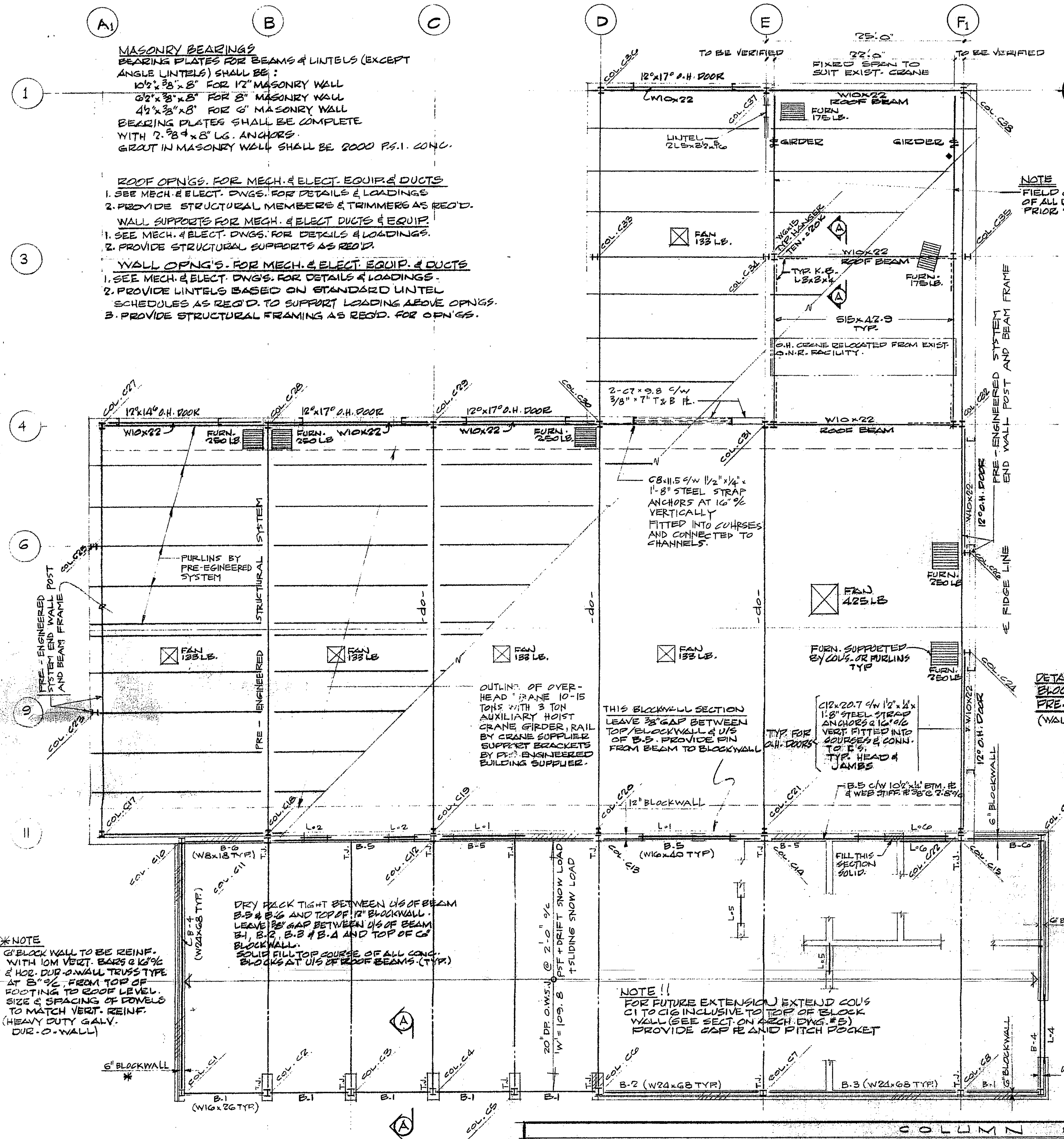
COPY
APR 9 1985

FOUNDATION PLAN
AND
SECTIONS

SCALE	AS NOTED
DATE	MARCH, 1985
DRAWN BY	T.E.
JOB NO.	

S-1

APD
ALBERY, PULLERITS, DICKSON AND ASSOCIATES
Consulting Engineers
TORONTO SUDBURY FREDERICTON YELLOWKNIFE


A1
B
C
D
E
F1
1
3
4
6
9
11
N
TO BE VERIFIED
22'-0"
FIXED SPAN TO SUIT EXIST. CRANE
12'x17' O.H. DOOR
W10x22
W10x22 ROOF BEAM
FURN. 175 LB.
LINTEL 2L5x3½x5/16
GIRDER
FAN 133 LB.
S15x42.9 TYP.
O.H. CRANE RELOCATED FROM EXIST. O.N.R. FACILITY.
2-C7x9.8 c/w 3/8"x7" T&B PL.
12'x14' O.H. DOOR
12'x17' O.H. DOOR
FURN. 250 LB.
W10x22 ROOF BEAM
C8x11.5 c/w 1½"x¼" 1'-8" STEEL STRAP ANCHORS AT 16" o/c VERTICALLY FITTED INTO COURSES AND CONNECTED TO CHANNELS.
PURLINS BY PRE-ENGINEERED SYSTEM
PRE-ENGINEERED STRUCTURAL SYSTEM
PRE-ENGINEERED SYSTEM END WALL POST AND BEAM FRAME
FAN 425 LB.
FAN 133 LB.
FURN. SUPPORTED BY COLS. OR PURLINS TYP.
RIDGE LINE
OUTLINE OF OVERHEAD CRANE 10-15 TONS WITH 3 TON AUXILIARY HOIST CRANE GIRDER, RAIL BY CRANE SUPPLIER SUPPORT BRACKETS BY PRE-ENGINEERED BUILDING SUPPLIER.
THIS BLOCKWALL SECTION LEAVE ⅜" GAP BETWEEN TOP/BLOCKWALL & U/S OF B.5. PROVIDE PIN FROM BEAM TO BLOCKWALL
TYP. FOR O.H. DOORS
C12x20.7 c/w 1½"x¼" 1'-8" STEEL STRAP ANCHORS @ 16" o/c VERT. FITTED INTO COURSES & CONN. TO C'S. TYP. HEAD & JAMBS
B.5 c/w 10½"x⅜" BTM. PL & WEB STIFF. PL 2.5"x⅜"
12" BLOCKWALL
6" BLOCKWALL
B-6 (W8x18 TYP.)
B-5 (W16x40 TYP.)
B-4 (W24x68 TYP.)
FILL THIS SECTION SOLID.
DRY PACK TIGHT BETWEEN U/S OF BEAM B.3 & B.6 AND TOP OF 12" BLOCKWALL. LEAVE ⅜" GAP BETWEEN U/S OF BEAM B.1, B.2, B.3 & B.4 AND TOP OF 6" BLOCKWALL. SOLID FILL TOP COURSE OF ALL CONC. BLOCKS AT U/S OF BEAMS (TYP.)
20" DP. OWSJ, W = 109.8 PSF + DRIFT SNOW LOAD + SLIDING SNOW LOAD
NOTE !! FOR FUTURE EXTENSION EXTEND COLS. C1 TO C16 INCLUSIVE TO TOP OF BLOCK WALL (SEE SECTION ON ARCH. DWG. #5) PROVIDE CAP PL AND PITCH POCKET
B-1 (W16x26 TYP.)
B-2 (W24x68 TYP.)
B-3 (W24x68 TYP.)
6" BLOCKWALL
L-1
L-2
L-4
L-5
L-6
T.J.
COL. C1 – COL. C38
NOTE FIELD CHECK & OBTAIN APPROVAL OF ALL DIMENSIONS & LAYOUT PRIOR TO FABRICATION.

MASONRY BEARINGS

BEARING PLATES FOR BEAMS & LINTELS (EXCEPT ANGLE LINTELS) SHALL BE :

10½"x⅜"x8" FOR 12" MASONRY WALL
6½"x⅜"x8" FOR 8" MASONRY WALL
4½"x⅜"x8" FOR 6" MASONRY WALL

BEARING PLATES SHALL BE COMPLETE WITH 2-⅝"φ x 8" LG. ANCHORS.
GROUT IN MASONRY WALL SHALL BE 2000 P.S.I. CONC.

ROOF OPN'GS. FOR MECH. & ELECT. EQUIP. & DUCTS

1. SEE MECH. & ELECT. DWGS. FOR DETAILS & LOADINGS
2. PROVIDE STRUCTURAL MEMBERS & TRIMMERS AS REQ'D.

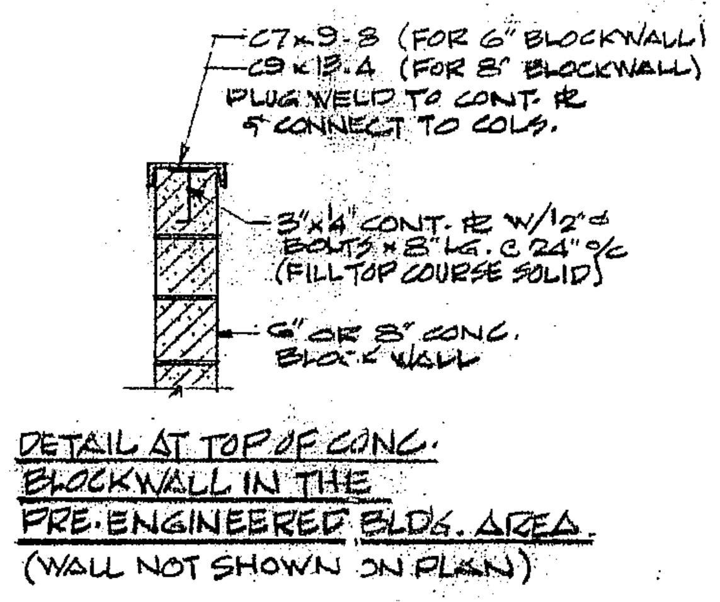
WALL SUPPORTS FOR MECH. & ELECT DUCTS & EQUIP.

1. SEE MECH. & ELECT. DWGS. FOR DETAILS & LOADINGS.
2. PROVIDE STRUCTURAL SUPPORTS AS REQ'D.

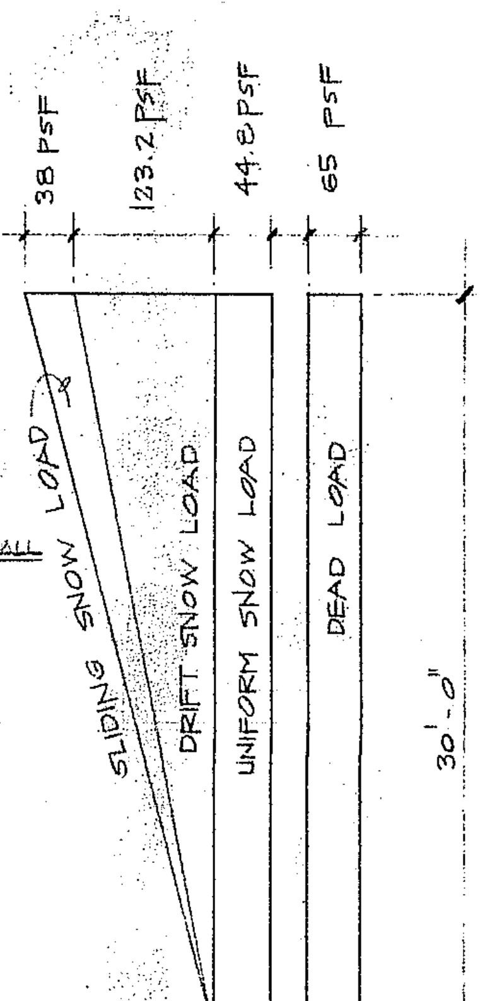
WALL OPNG'S. FOR MECH. & ELECT. EQUIP. & DUCTS

1. SEE MECH. & ELECT. DWG'S. FOR DETAILS & LOADINGS.
2. PROVIDE LINTELS BASED ON STANDARD LINTEL SCHEDULES AS REQ'D. TO SUPPORT LOADING ABOVE OPNG'S.
3. PROVIDE STRUCTURAL FRAMING AS REQ'D. FOR OPN'GS.

*NOTE
6" BLOCK WALL TO BE REINF. WITH 10M VERT. BARS @ 48" o/c & HOR. DUR-O-WALL TRUSS TYPE AT 8" o/c. FROM TOP OF FOOTING TO ROOF LEVEL. SIZE & SPACING OF DOWELS TO MATCH VERT. REINF. (HEAVY DUTY GALV. DUR-O-WALL)


C7x9.8 (FOR 6" BLOCKWALL)
C9x13.4 (FOR 8" BLOCKWALL)
PLUG WELD TO CONT. PL & CONNECT TO COLS.
3"x¼" CONT. PL W/½"φ BOLTS x 8" LG. @ 24" o/c (FILL TOP COURSE SOLID)
6" OR 8" CONC. BLOCK WALL

DETAIL AT TOP OF CONC. BLOCKWALL IN THE PRE-ENGINEERED BLDG. AREA
(WALL NOT SHOWN ON PLAN)


38 PSF
123.2 PSF
44.8 PSF
65 PSF
SLIDING SNOW LOAD
DRIFT SNOW LOAD
UNIFORM SNOW LOAD
DEAD LOAD
30'-0"

NOTES ON RAILWAY LINES:

1. ALL RAILS SHALL BE 90 LB. ARA-A, CONFORMING TO ASTM A-1.
2. TIES SHALL BE 7" X 9" X 8'-6" LONG, SEASONED PRESSURE CREOSOTED WOOD TIES, WITH ANTI-SPLITTING DEVICES INSTALLED IN EACH END. TIES WHICH CONTAIN SEVERE SPLITS OR SHAKES WILL NOT BE ACCEPTABLE.
3. TIE PLATES SHALL NOT BE LESS THAN 6" WIDE AND 1/2" THICK UNDER THE RAIL. TIE PLATES SHALL BE MADE FROM ROLLED STEEL PLATE WITH DOUBLE SHOULDERS AND FOUR SPIKE HOLES, AND SHALL CONFORM TO ASTM A-241 OR A-67.
4. TRACK SPIKES SHALL BE 5/8" SQUARE AND 6" LONG, CONFORMING TO ASTM A-65.
5. JOINT BARS SHALL CONFORM TO ASTM A-5.
6. TRACK BOLTS AND NUTS SHALL CONFORM TO ASTM A-76 OR A-183.
7. SUB-BALLAST SHALL BE GRANULAR 'B', COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY.
8. TOP BALLAST SHALL BE CRUSHED STONE OR CRUSHED AIR-COOLED BLAST FURNACE SLAG, CONFORMING TO THE REQUIREMENTS FOR GRADING AS PER TABLE #1.

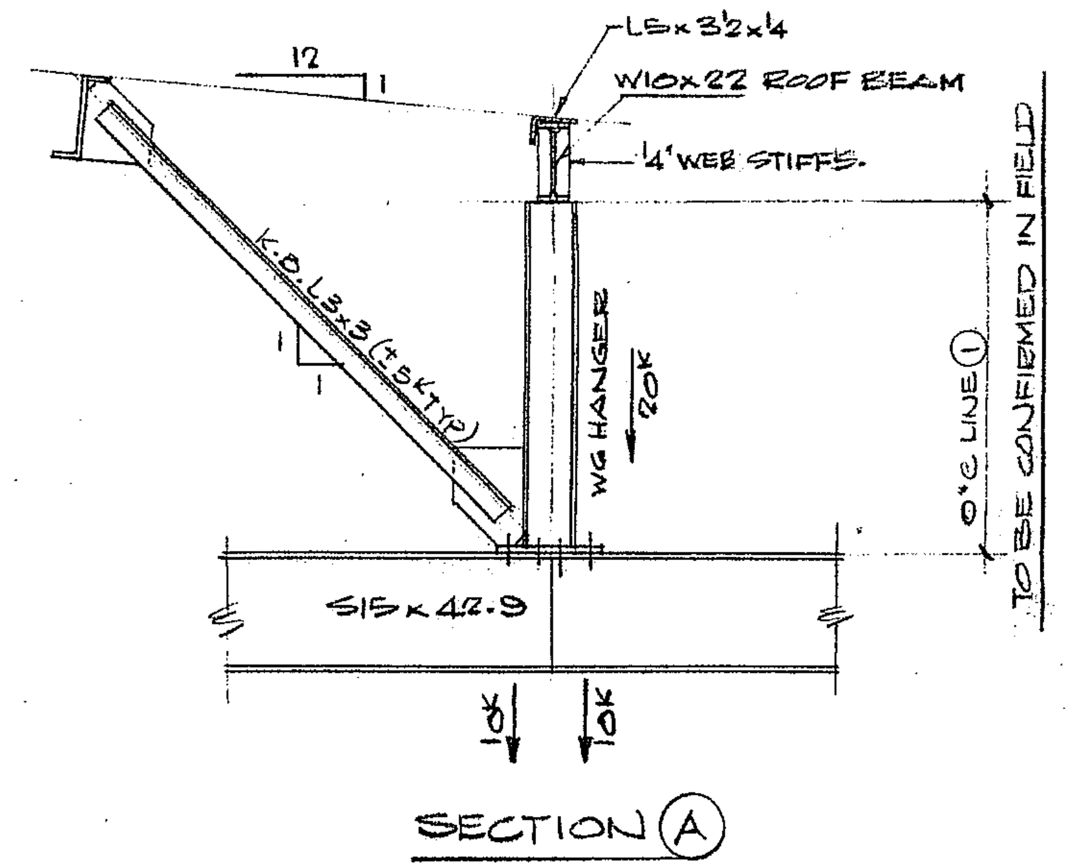
TABLE 1

CRUSHED STONE AND CRUSHED AIR-COOLED BLAST FURNACE SLAG
AMOUNTS FINER THAN EACH SIEVE (SQUARE OPENING LABORATORY SEIVES)
PERCENTS BY WEIGHTS

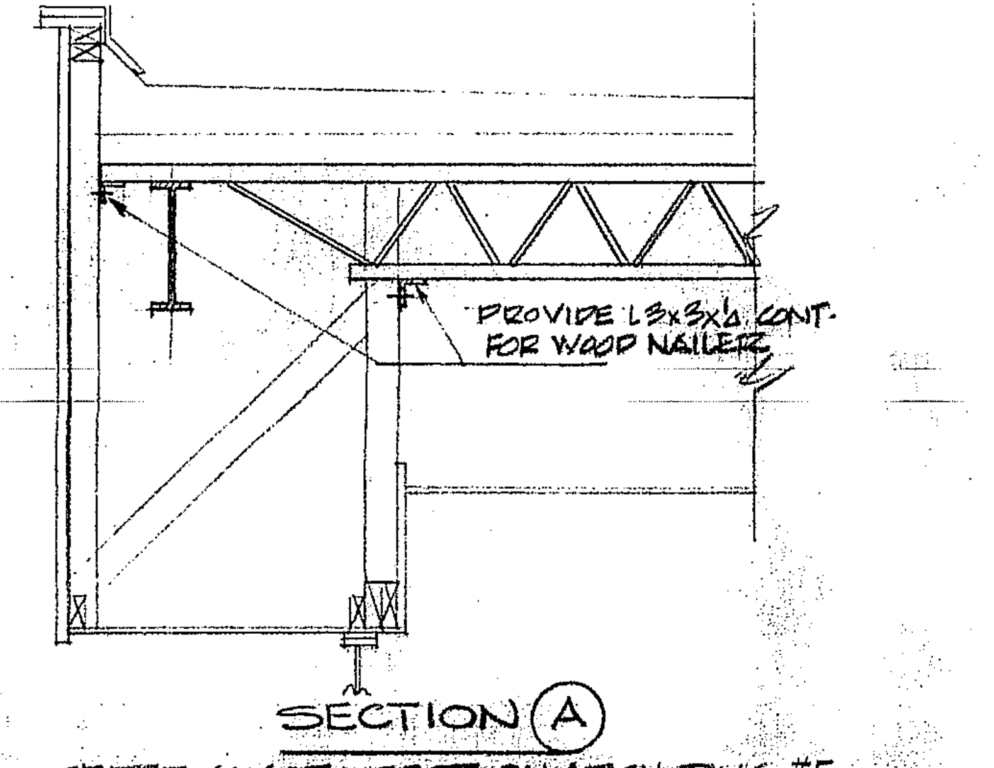
SIZE NO.	NOMINAL SIZE SQUARE OPENING	3"	2½"	2"	1½"	1"	¾"	½"	3/8"	NO 4	NO 4
24	2½" - ¾"	100	90-100	-	25-60	-	0-10	0-5	-	-	-
3	2" - 1"	-	100	95-100	35-70	0-15	-	0-5	-	-	-
4	1½" - ¾"	-	-	100	90-100	20-55	0-15	-	0-5	-	-
5	1" - 3/8"	-	-	-	100	90-100	40-75	15-35	0-15	0-5	-
57	1" - No.4	-	-	-	100	95-100	-	25-60	-	0-10	0-5

NOTE: Gravel meeting these requirements for grading and having not less than 75 percent crushed particles with two or more fractured faces and not more than 5 percent of crushed particles shall be considered as crushed stone.

NOTE: Size numbers and gradations in size adopted from National Bureau of Standards Simplified Practice Recommendation R 163-48. Laboratory sieves shall conform to ASTM E-11.


L5x3½x¼
W10x22 ROOF BEAM
¼" WEB STIFFS.
12
1
K.D.L.3.3 (TYP.)
W6 HANGER
5K
S15x42.9
10K
0" @ LINE ①
TO BE CONFIRMED IN FIELD

SECTION Ⓐ


PROVIDE L3x3x¼ CONT. FOR WOOD NAILER

SECTION Ⓐ
REFER ALSO TO SECT. ON ARCH. DWG. #5

GENERAL NOTES:

GENERAL:

ALL DIMENSIONS GIVEN ON STRUCTURAL DRAWINGS MUST BE CHECKED WITH THE ARCHITECTURAL DRAWINGS AND ANY INCONSISTENSIES REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. STRUCTURAL DRAWINGS MUST NOT BE SCALED.

THE STRUCTURE HAS BEEN DESIGNED TO COMPLY WITH THE BUILDING CODES ENFORCED BY THE AUTHORITIES HAVING JURISDICTION. UNLESS NOTED OTHERWISE THE BASIS OF DESIGN IS ULTIMATE STRENGTH DESIGN FOR CONCRETE AND WORKING STRESS DESIGN FOR STRUCTURAL STEEL.

DESIGN LOADS AS SHOWN ON STRUCTURAL DRAWINGS SHALL NOT BE EXCEEDED DURING CONSTRUCTION.

HOLES IN STRUCTURAL ELEMENTS SHALL ONLY BE AS DETAILED OR NOTED ON STRUCTURAL DRAWINGS AND/OR APPROVED MECHANICAL CONTRACTORS SLEEVE DIAGRAM.

THE LINE OF SLOPE BETWEEN ADJACENT EXCAVATIONS FOR FOOTINGS OR ALONG STEPPED FOOTINGS SHALL NOT EXCEED A RISE OF 7 IN A RUN OF 10. MAXIMUM STEP APPROXIMATELY 2'-0".

SEE ARCHITECTURAL ELEVATIONS FOR STEPPING OF WALL FOOTINGS.

REFER ALSO TO NOTES UNDER PLANS, SCHEDULES AND TYPICAL DETAILS ON STRUCTURAL DRAWINGS AND/OR SPECIFICATIONS.

CONCRETE:

CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS UNLESS NOTED OTHERWISE ON PLAN AND SHALL CONFORM TO CSA A-23 (LATEST EDITION).

MINIMUM CONCRETE PROTECTION FOR REINFORCEMENT NEAR SURFACES OF CONCRETE PLACED:

A. AGAINST EARTH		3"
B. IN FORMS AND EXPOSED TO EARTH OR WEATHER	# 5 & SMALLER	1 1/2"
	#6 & LARGER	2"
C. IN BEAMS AND GIRDERS (TO STIRRUPS)		1 1/2"
D. IN COLUMNS (TO TIES)		1 1/2"
E. IN WALLS AND SLABS		3/4"
MAXIMUM SLUMP FOR CONCRETE		3"

REINFORCING STEEL:

ALL REINFORCING STEEL UNLESS NOTED OTHERWISE ON THE DRAWING SHALL BE DEFORMED BARS CONFORMING TO CSA G30 SERIES WITH A MINIMUM YIELD STRENGTH OF 60 KSI EXCEPT FOR STIRRUPS AND TIES WHICH SHALL BE INTERMEDIATE GRADE.

REINFORCING STEEL MUST BE DETAILED, BENT, PLACED AND SUPPORTED AS TO CONFORM TO THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES ACI - 315 (LATEST EDITION) UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.

LAP ALL CONTINUOUS BARS 30 DIAMETERS OR 1'-0" MINIMUM UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL:

UNLESS NOTED OTHERWISE, STRUCTURAL STEEL AND OPEN WEB STEEL JOISTS SHALL CONFORM TO CSA S-16 (LATEST EDITION) AND TO CSA G 40.21 (LATEST EDITION).

WELDING SHALL CONFORM TO CSA W59.1 (LATEST EDITION) AND SHALL BE UNDERTAKEN BY AN ORGANIZATION APPROVED BY THE CANADIAN WELDING BUREAU UNDER THE REQUIREMENTS OF CSA W.47.1 (LATEST EDITION).

THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS WHEN PLACING DECKING OVER O.W.S.J. TO AVOID LATERAL DEFLECTION AND TWISTING OF JOISTS. THIS APPLIES PARTICULARLY TO FREE ENDS OF JOIST RUNS AND LOOSE SUPPORTS.

BRIDGING INDICATED ON THE STRUCTURAL DRAWINGS TO BE CONSIDERED AS A MINIMUM ONLY AND SHALL BE COMPLETELY INSTALLED BEFORE ANY CONSTRUCTION LOADS ARE PLACED ON THE JOISTS.

BEARING ON MASONRY:

BEAMS BEARING ON MASONRY WALLS SHALL HAVE A MINIMUM LENGTH OF BEARING OF 8" AND LINTELS OF 6" UNLESS NOTED OTHERWISE.

BEARING SHALL BE OF SOLID UNITS LAID IN CEMENT MORTAR WITH VOIDS PREFILLED WITH A MININUM OF 2000 PSI CONCRETE. THESE SHALL HAVE A MINIMUM DEPTH EQUAL TO THE LENGTH OF BEARING BUT NOT LESS THAN 8" AND A MINIMUM LENGTH EQUAL TO TWICE THE LENGTH OF BEARING.

SUPPLY 2 - 5/8"φ MINIMUM MASONRY ANCHORS TO ALL BEAMS BEARING ON MASONRY WALLS. PROVIDE A 2 1/2" DEEP MINIMUM x 4" WIDE MINIMUM CONTINUOUS SOLID MASONRY TOP COURSE FOR CONTINUOUSLY LOADED LOADBEARING MASONRY WALLS.

CONCRETE SLABS SHALL HAVE A MINIMUM LENGTH OF BEARING OF 4" UNLESS NOTED OTHERWISE.

CONCRETE SLABS AND OPEN WEB STEEL JOIST SHALL BEAR ON A MINIMUM DEPTH AND THICKNESS OF 8" SOLID UNITS.

LINTELS:

ALL OPENINGS IN MASONRY WALLS SHALL BE SPANNED BY LINTELS AS REQUIRED BY THE SPECIFICATIONS, UNLESS NOTED OTHERWISE IN THE DRAWINGS.

MASONRY ABUTTING CONCRETE:

WHERE MASONRY ABUTS OR FACES CONCRETE PROVIDE DOVETAIL MASONRY ANCHORS STAGGERED 1'-4" O.C. VERTICALLY BY 2'-0" O.C. HORIZONTALLY UNLESS NOTED OTHERWISE.

BACKFILLING:

SLABS ON GRADE AND ALL STRUCTURAL ELEMENTS FRAMING INTO WALLS WHICH RETAIN EARTH MUST BE IN PLACE BEFORE BACKFILLING. AT GRADE WALL CONDITIONS, BACKFILL EACH SIDE OF WALL SIMULTANEOUSLY.

MASONRY TIES
CAVITY WALL - HEAVY DUTY 3 WIRE BLOK-TRUS (GALV.) @ 16" o/c VERTICALLY
SINGLE WYTHE - STANDARD BLOK-TRUS (GALV.) @ 16" o/c VERTICALLY

REVIEWED
MINISTRY OF LABOUR
AS MEETING THE REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1978
APR 16 1985
P. ENG.
REVIEWED COPY SHALL BE KEPT AT SITE

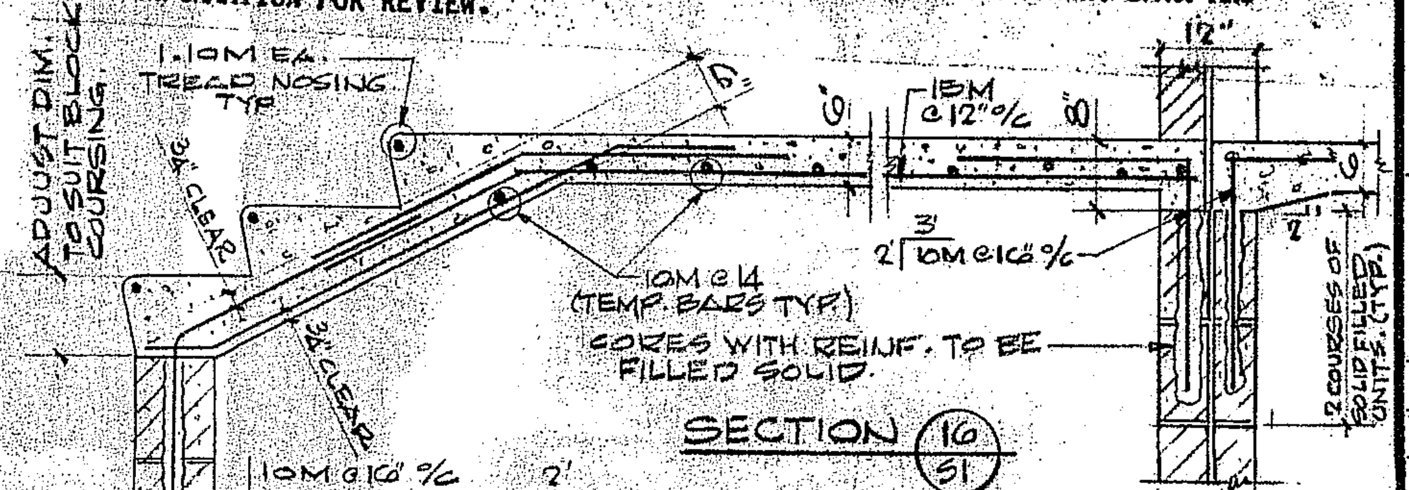
NOTES:
PRE-ENGINEERED STEEL BUILDING

1. WORK SHALL CONFORM TO THE REQUIREMENTS OF THE FOLLOWING:
   - ONTARIO BUILDING CODE O.R. 583/83
   - LOCAL BUILDING BY-LAWS
   - CSA CAN3-S16.1-M78, CSA W59 AND CSA S136
   - CSSBI TECHNICAL BULLETIN NO.3 AND "STANDARD FOR STEEL BUILDING SYSTEM".
2. CLIMATIC DESIGN DATA:

GROUND SNOW LOAD	=	56 PSF
SNOW LOAD COEFFICIENT, Cs	=	0.8
HOURLY WIND PRESSURE, 1/10	=	5.4 PSF
1/30	=	6.5 PSF.
SEIZMIC ZONE	=	2

3. SUBMITTALS

SUBMIT COMPLETE STRUCTURAL ANALYSIS, CHECKED AND SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN ONTARIO.
SUBMIT SHOP AND ERECTION DRAWINGS COMPLETE WITH ALL PERTINENT DATA AND INFORMATION FOR REVIEW.


ADJUST DIM. TO SUIT BLOCK COURSING
1.10M EA. TREAD NOSING TYP.
4" CLEAR
15M @ 12" o/c
12"
3
2
10M @ 16" o/c
10M @ 14 (TEMP. BARS TYP.)
CORES WITH REINF. TO BE FILLED SOLID.
2 COURSES OF SOLID FILLED UNITS (TYP.)
10M @ 16 o/c DOWELS TYP. PERIMETER WALLS.
8'
2'
2'
FOR REMAINDER OF WALL SEE DETAIL 8/S1

SECTION 16/S1

ROOF FRAMING PLAN

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

NOTES:

1. TOP OF STEEL BEAMS TO BE 5½" BELOW ROUGH SLAB EXCEPT WHERE SHOWN THUS ON PLAN (±).
2. PROVIDE A 3" THICK CONCRETE SLAB REINFORCED WITH 6 x 6 x W6/W6 W.W.M AT MID DEPTH.
3. PAN FORMS TO BE # 28 GA METAL WITH 1" RIBS AT 16" o/c FUSION WELDED TO JOISTS AT 2'-0" o/c MAX.
4. 'W' SHOWN AGAINST OWSJ INCLUDES A DESIGN LIVE LOAD OF 44.8 PSF OF UNIFORMLY DISTRIBUTED SNOW LOAD, PLUS A DEAD LOAD OF 65 PSF INCLUDING JOISTS.
5. OWSJ SHOP DRAWINGS & DESIGN TO BEAR THE STAMP OF A PROFESSIONAL ENGINEER REGISTERED IN ONTARIO.
6. MAXIMUM ROOF OWSJ DEFLECTION UNDER LIVE LOAD TO BE SPAN/360
7. BRIDGING LOCATIONS ARE NOT SHOWN AND SHALL CONFORM TO THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, O.R. 583/83.
8. OWSJ CONTRACTOR TO PROVIDE TRIMMERS FOR MECHANICAL OPENINGS NOT SHOWN IN PLAN.
9. SEE ALSO GENERAL NOTES ON DRAWING No. S-1.
10. OFFICE STRUCTURE DESIGNED FOR FUTURE SECOND FLOOR

L-1 ---------- W16x26 c/w 10½"x¼" BTM. PLATE
L-2 ------ 3L.3½x3½x¼

L-4 ------ 2L5x5x⅜
L-5 ------ 2L3½x3½x¼ LLV
L-6 ------ 2L5x5x5/16

COLUMN SCHEDULE

DATA \ MARK	C1, C2, C3, C4, C5, C9.	C6, C7, C8	C10, C16	C11, C12, C13, C14, C15	C18, C19, C20, C21, C22	C23, C24, C25, C26	C17, C27, C28, C29	C30, C31, C32	C33, C36	C34, C35, C37, C38
GROUND FLOOR	W6x26	W6x25	W6x15	W6x25	PRE-ENGINEERED BLDG. COL.	PRE-ENGINEERED BLD'G. COL.	PRE-ENGINEERED BLD'G. COL.	PRE-ENGINEERED BLD'G. COL.	PRE-ENGINEERED BLDG. COL.	PRE-ENGINEERED BLD'G. COL.
LOAD (KIPS)	52K	90K	50K	87K	80K	25K	75K	102K	72K	42K
BASE PLATE	10"x10"x¾"	12"x12"x1"	10"x10"x¾"	12"x12"x1"	PRE-ENGINEERED BLD'G. BASE PL	PRE-ENGINEERED BLD'G. BASE PL	PRE-ENGINEERED BLDG. BASE PL	PRE-ENGINEERED BLDG. BASE PL	PRE-ENGINEERED BLDG BASE PL	PRE-ENGINEERED BLDG BASE PL
ANCHOR BOLT	2-¾"φ x 2'-0" LG	2-¾"φ x 2'-0" LG.	2-¾"φ x 2'-0" LG.	2-¾"φ x 2'-0" LG.	2-¾"φ x 2'-0" LG. c/w 3"x3"x½" ANCH. PL WELD TO BOLT ENDS	2-¾"φ x 2'-0" LG.	2-¾"φ x 2'-0" LG. c/w 3"x3"x½" ANCH. PL WELD. TO BOLT ENDS	2-¾"φ x 2'-0" LG. c/w 3"x3"x½" ANCH. PL WELD TO BOLT ENDS	2-¾"φ x 2'-0" LG.	2-¾"φ x 2'-0" LG.
PIER SIZE	16"x16"	16"x16"	16"x16"	(11) 16" 17"	(11) 16" 17"	16"x16"	16"x16"	16"x16"	16"x16"	16"x16"
PIER-RE-BAR -VERT -TIES	4-15M 10M @ 12" o/c	4-15M 10M @ 12" o/c	4-15M 10M @ 12" o/c	8-20M 10M @ 12" o/c COMBINED PIER	8-20M 10M @ 12" o/c COMBINED PIER	4-15M 10M @ 12" o/c	4-20M 10M @ 12" o/c	4-20M 10M @ 12" o/c	4-15M 10M @ 12" o/c	4-15M 10M @ 12" o/c
DOWEL TO ROCK	SEE TYP. DETAILS	SEE TYP. DETAILS	SEE TYP. DETAILS	2 DOWELS FOR THESE COL'S. (SEE TYP. DETAILS)	2 DOWELS FOR THESE COL'S. (SEE TYP. DETAILS)	SEE TYP. DETAILS	SEE TYP. DETAILS	SEE TYP. DETAILS	SEE TYP. DETAILS	SEE TYP. DETAILS.

APD ALBERY, PULLERITS, DICKSON AND ASSOCIATES
Consulting Engineers
TORONTO SUDBURY FREDERICTON YELLOWKNIFE

GERALD B. COX
ARCHITECT
373 FISHER STREET
NORTH BAY, ONTARIO
472-8350

A. T. ABRERA
2983

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE GENERAL CONTRACTOR.

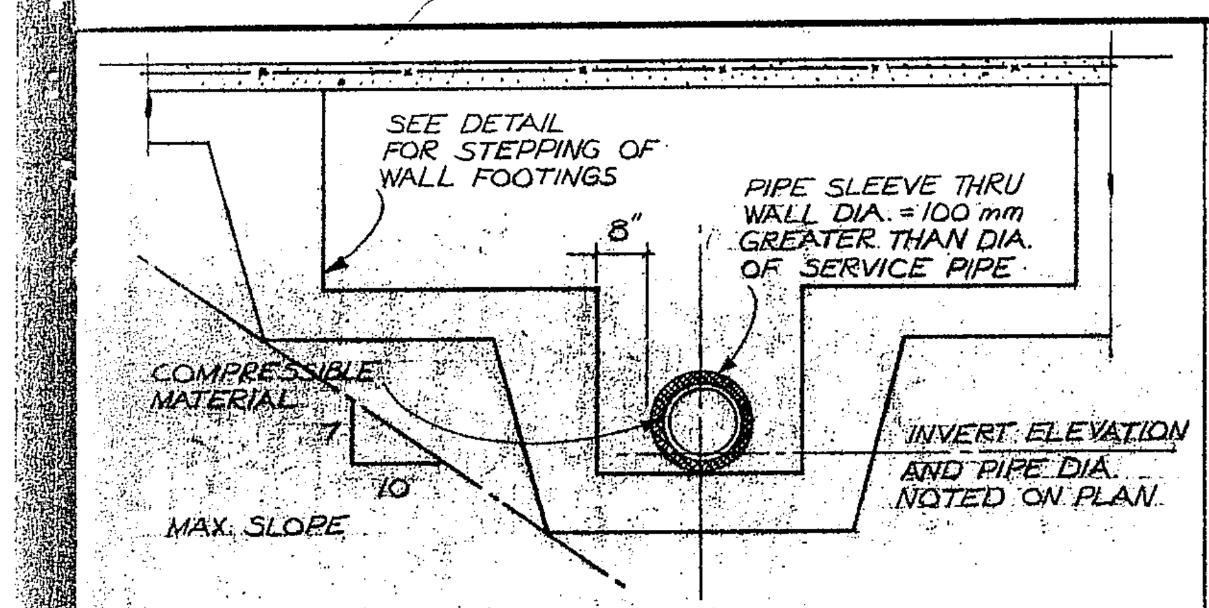
O.N.R.
MAINTENANCE OF WAY
REPAIR BUILDING
North Bay, Ont.

COPY
APR 9 1985

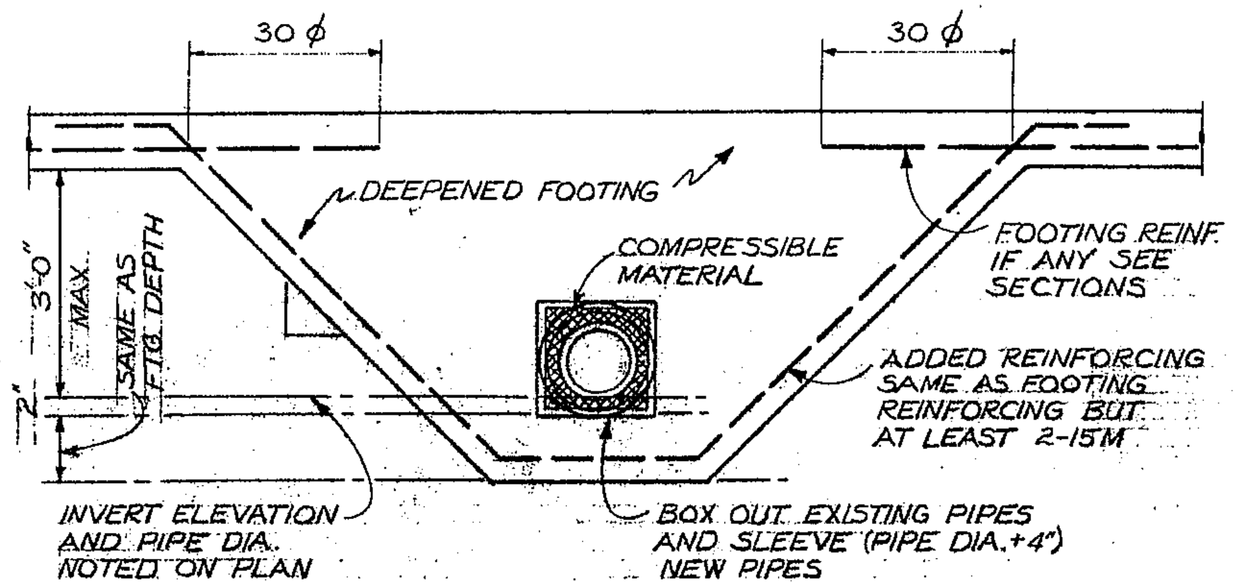
ROOF FRAMING PLAN
AND
SECTIONS

SCALE AS NOTED
DATE MARCH, 1985
DRAWN BY T.E.
JOB NO.

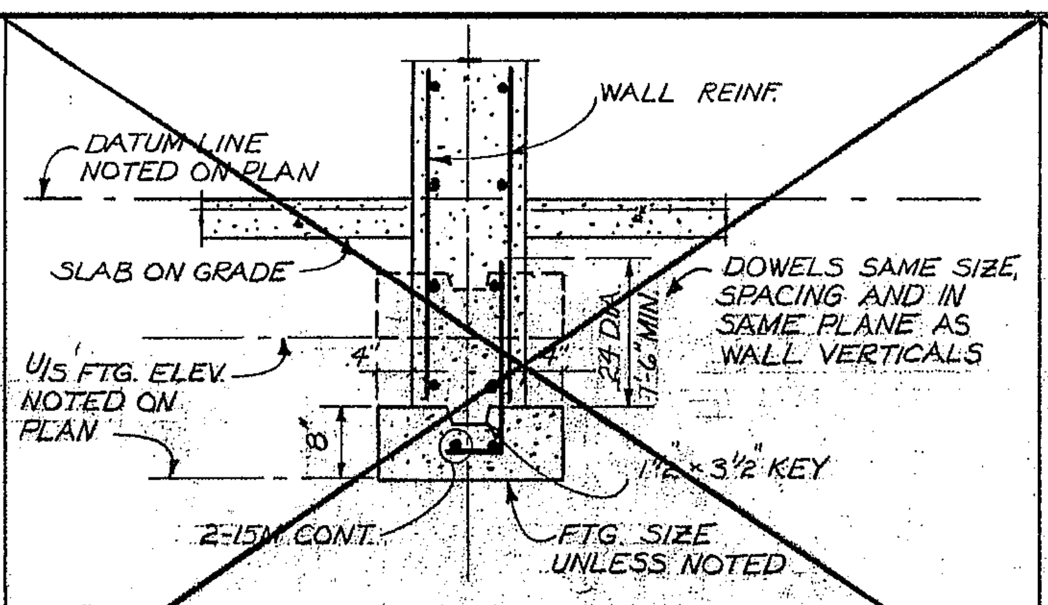
S-2


SEE DETAIL FOR STEPPING OF WALL FOOTINGS
PIPE SLEEVE THRU WALL DIA. = 100 mm GREATER THAN DIA. OF SERVICE PIPE
8"
COMPRESSIBLE MATERIAL
7
10
MAX. SLOPE
INVERT ELEVATION AND PIPE DIA. NOTED ON PLAN.

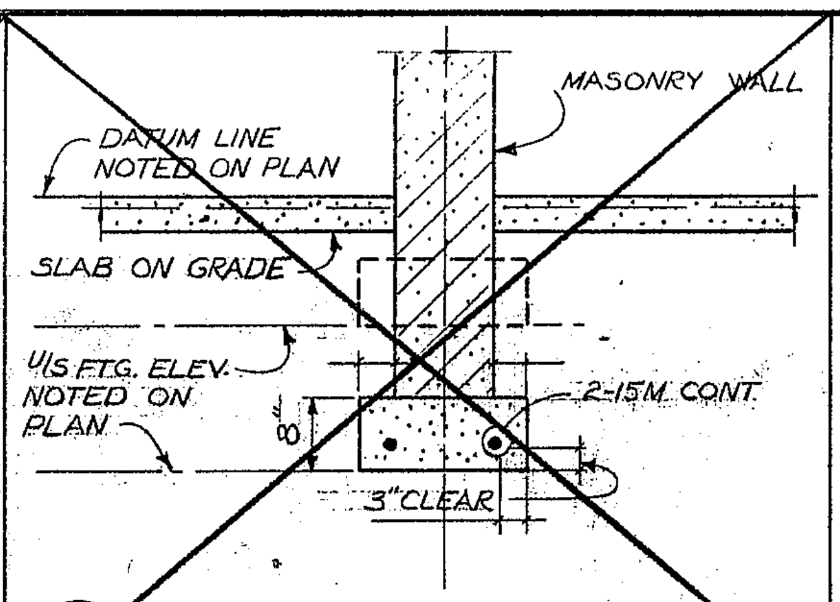
1 S-3 SERVICE PIPES REQUIRING STEPPED FOOTINGS


30 ϕ
30 ϕ
DEEPENED FOOTING
COMPRESSIBLE MATERIAL
FOOTING REINF. IF ANY SEE SECTIONS
3'-0" MAX.
SAME AS FTG. DEPTH
2"
ADDED REINFORCING SAME AS FOOTING REINFORCING BUT AT LEAST 2-15M
INVERT ELEVATION AND PIPE DIA. NOTED ON PLAN
BOX OUT EXISTING PIPES AND SLEEVE (PIPE DIA.+4") NEW PIPES

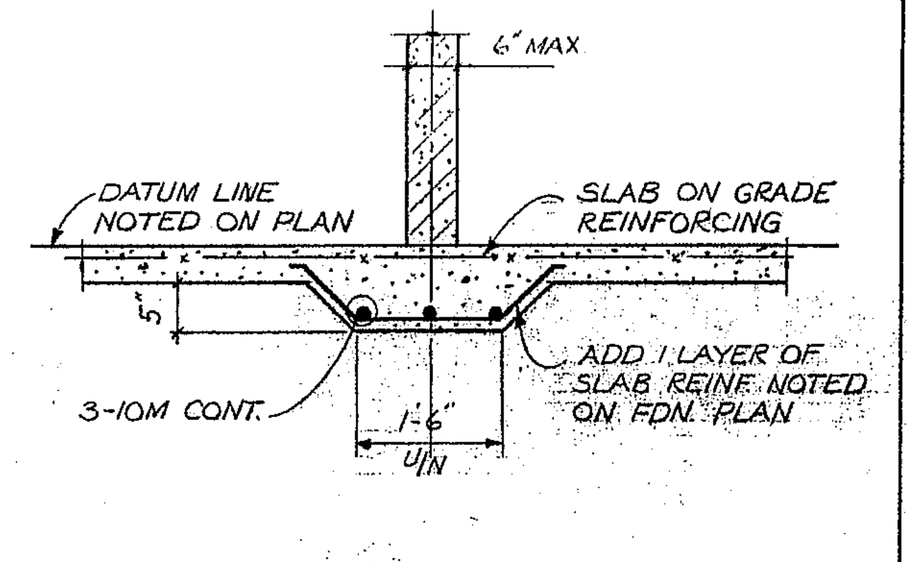
2 S-3 SERVICE PIPES BELOW FOOTING ELEVATION


DATUM LINE NOTED ON PLAN
WALL REINF.
SLAB ON GRADE
DOWELS SAME SIZE, SPACING AND IN SAME PLANE AS WALL VERTICALS
U/S FTG. ELEV. NOTED ON PLAN
1½ x 3½ KEY
2-15M CONT.
FTG. SIZE UNLESS NOTED

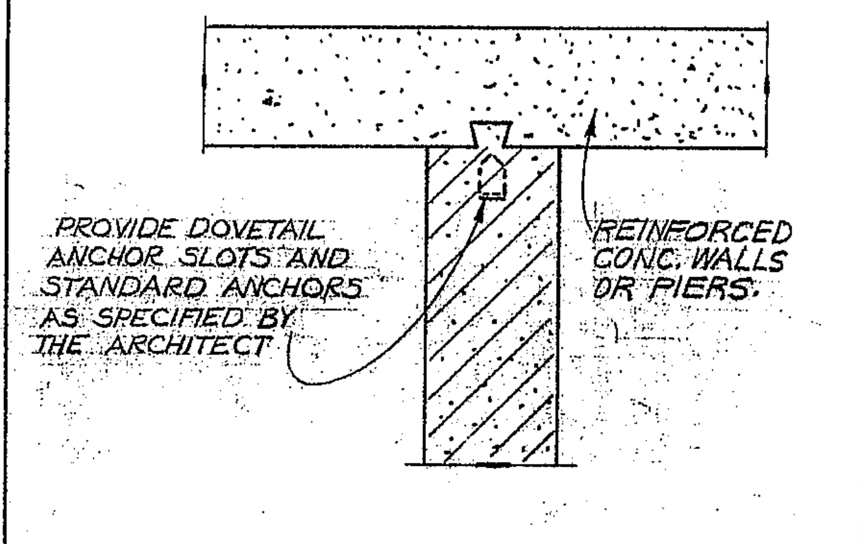
~~TYPICAL UNREINFORCED FTG. UNDER CONCRETE WALL~~


DATUM LINE NOTED ON PLAN
MASONRY WALL
SLAB ON GRADE
U/S FTG. ELEV. NOTED ON PLAN
2-15M CONT.
3" CLEAR

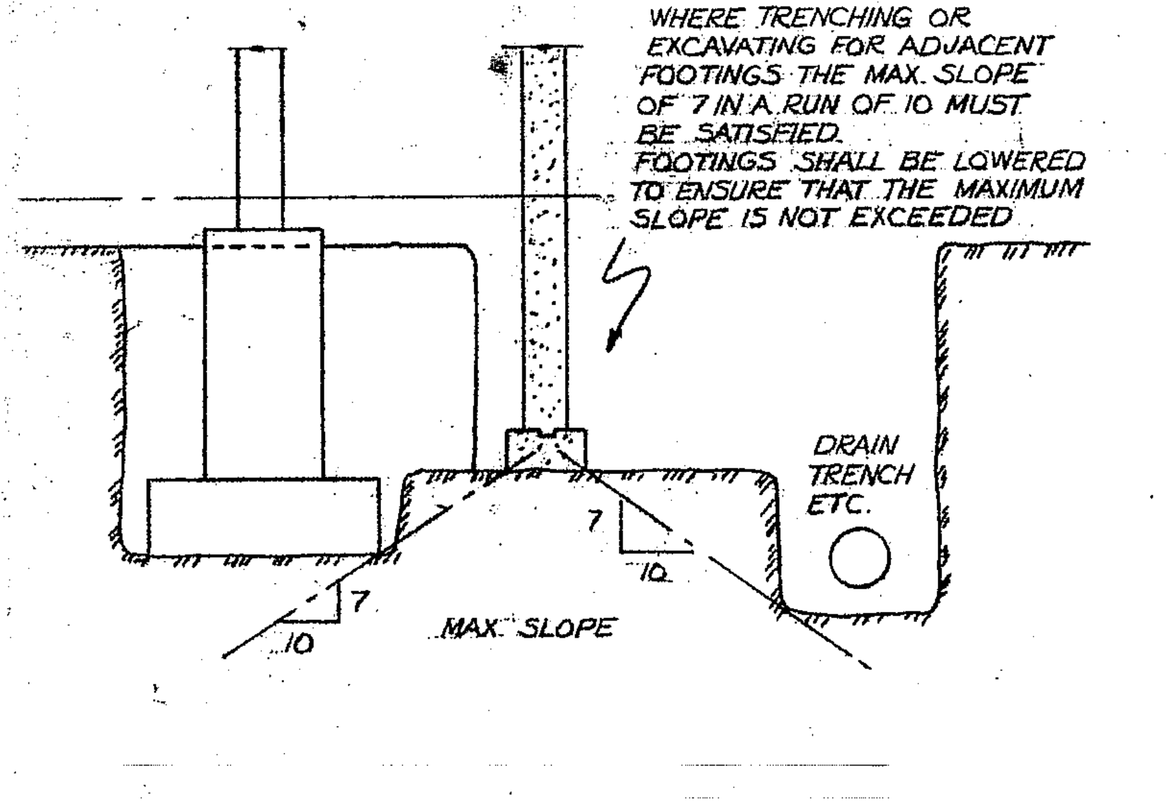
~~TYPICAL FOOTING UNDER MASONRY WALL~~


6" MAX
DATUM LINE NOTED ON PLAN
SLAB ON GRADE REINFORCING
5
3-10M CONT.
ADD 1 LAYER OF SLAB REINF. NOTED ON FDN. PLAN
1'-6"
U/N

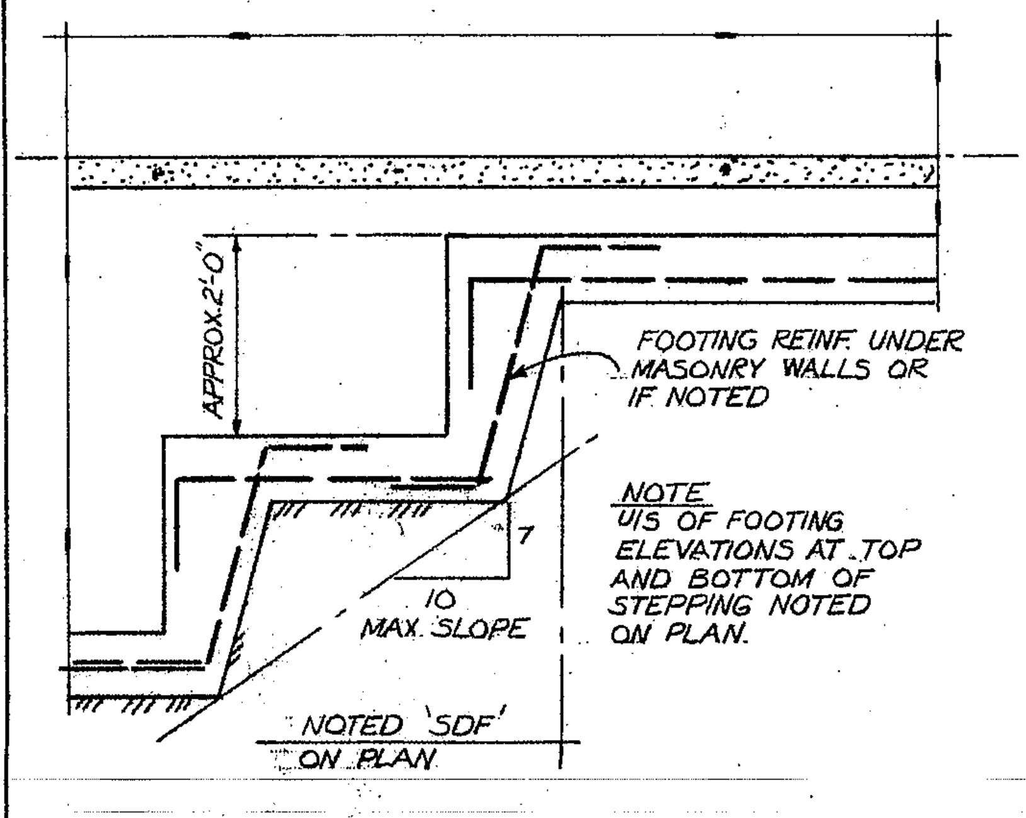
3 S-3 THICKENING OF SL. ON GRADE UNDER PARTITION WALLS


PROVIDE DOVETAIL ANCHOR SLOTS AND STANDARD ANCHORS AS SPECIFIED BY THE ARCHITECT
REINFORCED CONC. WALLS OR PIERS

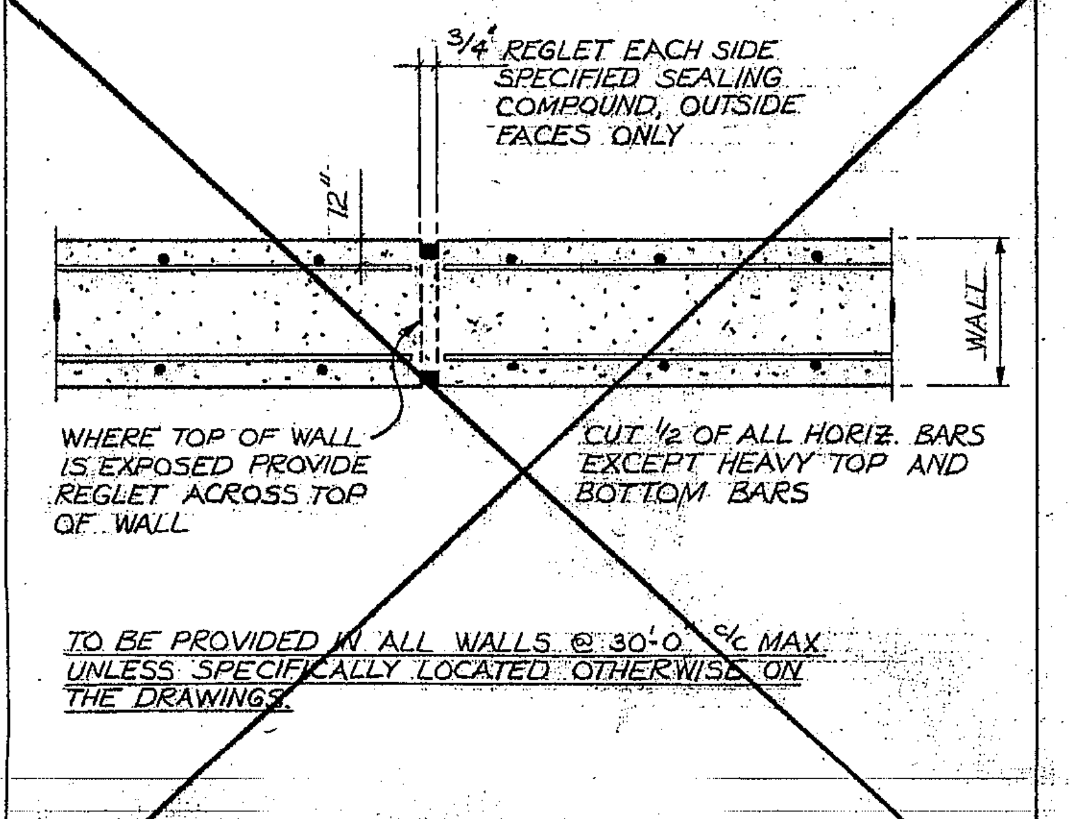
4 S-3 TYPICAL ANCHORAGE DETAIL MASONRY TO CONCRETE WALL


WHERE TRENCHING OR EXCAVATING FOR ADJACENT FOOTINGS THE MAX. SLOPE OF 7 IN A RUN OF 10 MUST BE SATISFIED. FOOTINGS SHALL BE LOWERED TO ENSURE THAT THE MAXIMUM SLOPE IS NOT EXCEEDED
DRAIN TRENCH ETC.
7
10
MAX. SLOPE

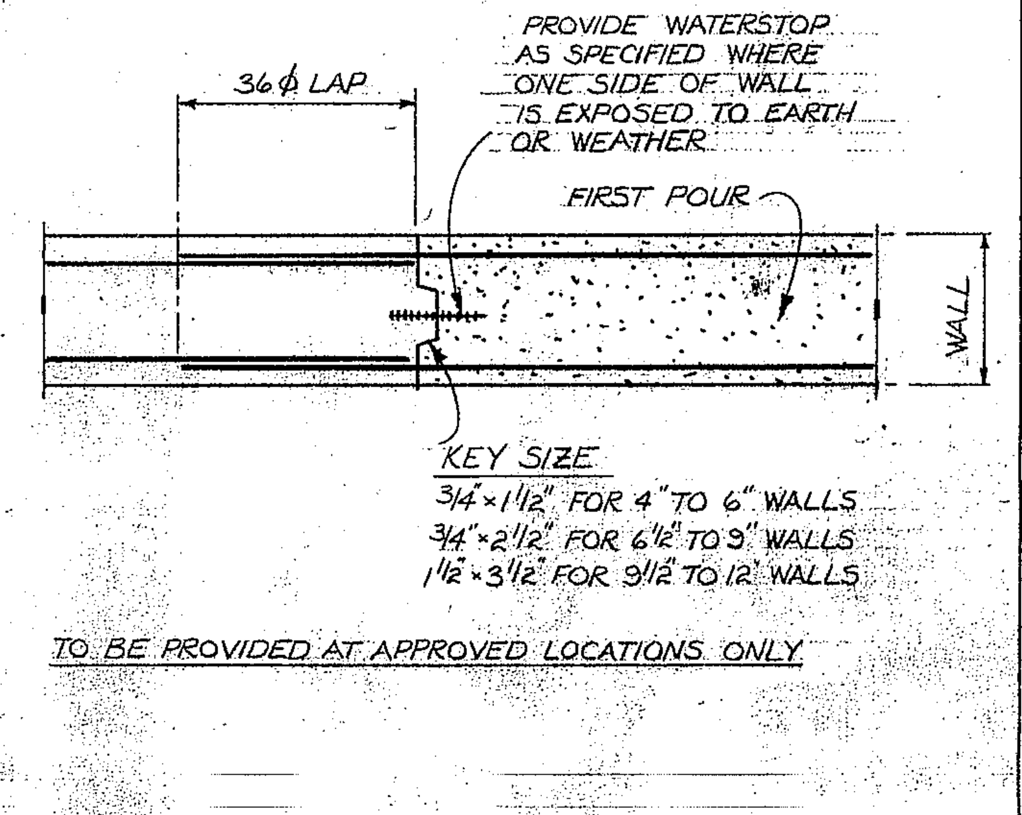
5 S-3 ELEVATIONS OF ADJACENT FOOTINGS AND EXCAVATIONS


APPROX. 2'-0"
FOOTING REINF. UNDER MASONRY WALLS OR IF NOTED
NOTE: U/S OF FOOTING ELEVATIONS AT TOP AND BOTTOM OF STEPPING NOTED ON PLAN.
10
7
MAX. SLOPE
NOTED 'SDF' ON PLAN

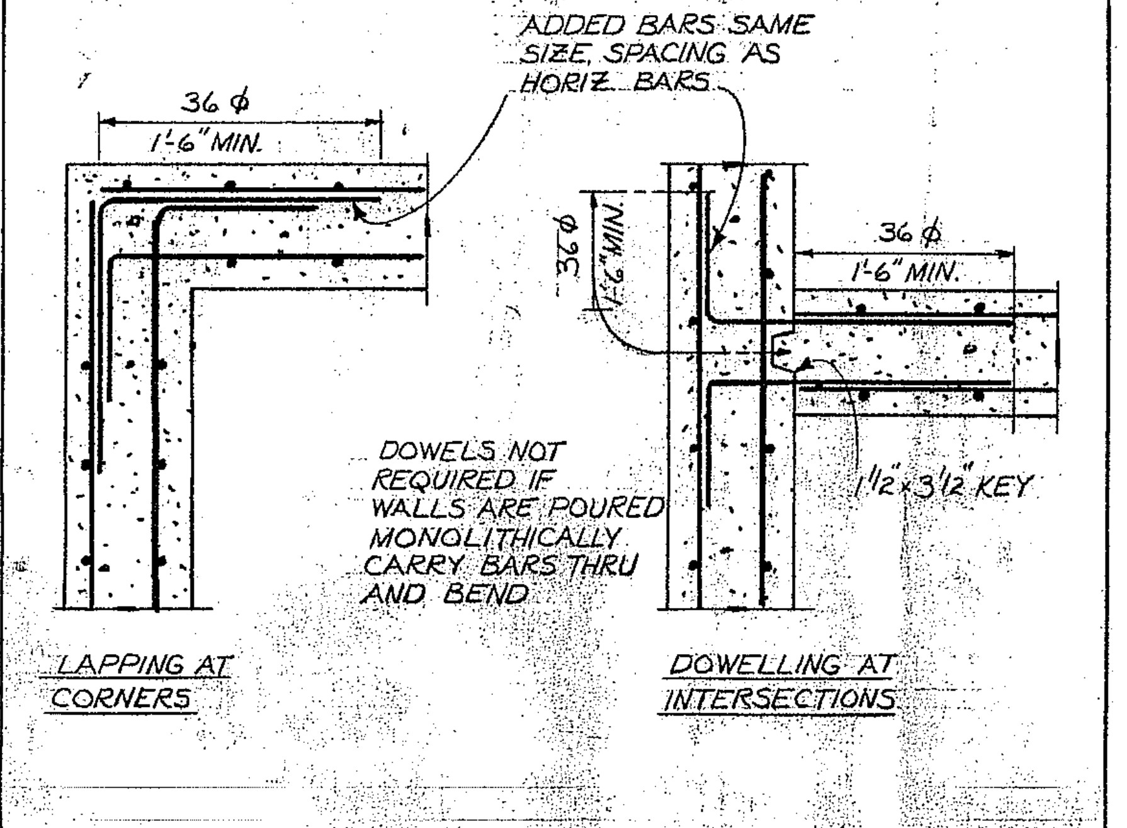
6 S-3 TYPICAL STEPPING OF WALL FOOTINGS


¾" REGLET EACH SIDE SPECIFIED SEALING COMPOUND, OUTSIDE FACES ONLY
12"
WALL
WHERE TOP OF WALL IS EXPOSED PROVIDE REGLET ACROSS TOP OF WALL
CUT ½ OF ALL HORIZ. BARS EXCEPT HEAVY TOP AND BOTTOM BARS
TO BE PROVIDED IN ALL WALLS @ 30'-0" C/C MAX. UNLESS SPECIFICALLY LOCATED OTHERWISE ON THE DRAWINGS.

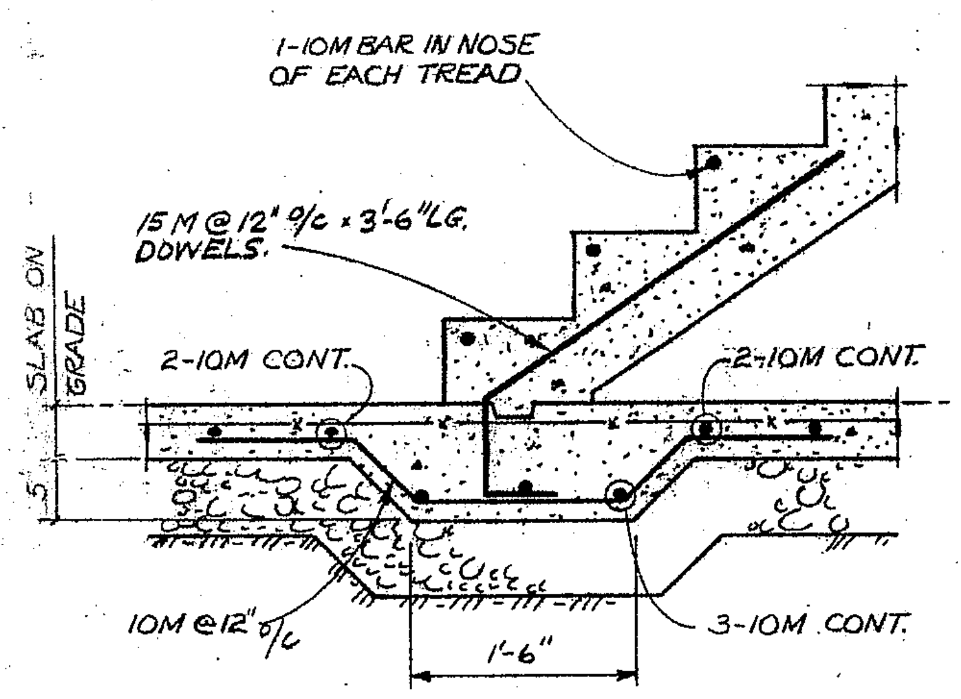
~~TYPICAL VERTICAL CONTROL JOINT IN WALL~~


36 ϕ LAP
PROVIDE WATERSTOP AS SPECIFIED WHERE ONE SIDE OF WALL IS EXPOSED TO EARTH OR WEATHER
FIRST POUR
WALL
KEY SIZE
¾ x 1½ FOR 4" TO 6" WALLS
¾ x 2½ FOR 6½" TO 9" WALLS
1½ x 3½ FOR 9½ TO 12" WALLS
TO BE PROVIDED AT APPROVED LOCATIONS ONLY

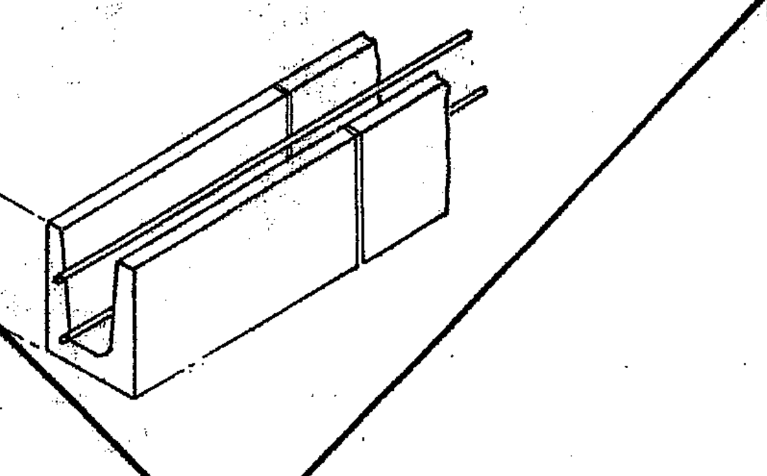
7 S-3 TYPICAL VERTICAL CONSTR'N JOINT IN WALL


ADDED BARS SAME SIZE SPACING AS HORIZ. BARS
36 ϕ
1'-6" MIN.
36 ϕ
1'-6" MIN.
1½ x 3½ KEY
DOWELS NOT REQUIRED IF WALLS ARE POURED MONOLITHICALLY CARRY BARS THRU AND BEND
LAPPING AT CORNERS
DOWELLING AT INTERSECTIONS

8 S-3 WALL REINFORCING DOWELLING AND LAPS


1-10M BAR IN NOSE OF EACH TREAD
15M @ 12" C/C x 3'-6" LG. DOWELS
SLAB ON GRADE
2-10M CONT.
2-10M CONT.
10M @ 12" C/C
3-10M CONT.
1'-6"
5

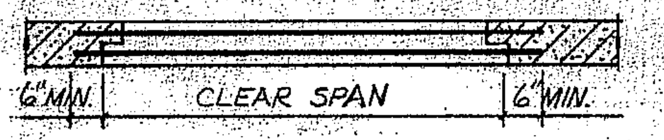
9 S-3 TYPICAL THICKENING OF SLAB ON GRADE AT CONC. STAIRS



~~NOTES~~

1. ~~FOR CLEAR SPANS UP TO 3'-11" PROVIDE 10M BAR TOP & BOTTOM FOR EACH 4" OF WALL THICKNESS OR PORTION THEREOF.~~
2. ~~FOR CLEAR SPANS 4'-0" TO 6'-4" PROVIDE 1-15M BAR TOP & BOTTOM, HOOKED FOR EACH 4" OF WALL THICKNESS OR PORTION THEREOF.~~
3. ~~FILL VOIDS IN CONCRETE BLOCKS WITH 20MPa CONC.~~
4. ~~LENGTH OF BEARING TO BE 8".~~
5. ~~WHERE LINTELS ABUT REINFORCED CONC. COLUMNS, REINFORCED CONC. WALLS OR STEEL COLUMNS, PROVIDE 3½ x 3½ x ⅜ SHELF ANGLE WELDED TO STEEL COLUMN, OR PROVIDE 2-¾" ϕ INSERTS AT REINFORCED CONC. COLUMNS AND WALLS.~~
6. ~~SEE PLANS AND/OR SECTIONS FOR SPANS GREATER THAN 6'-4".~~

~~CONCRETE BLOCK LINTELS~~

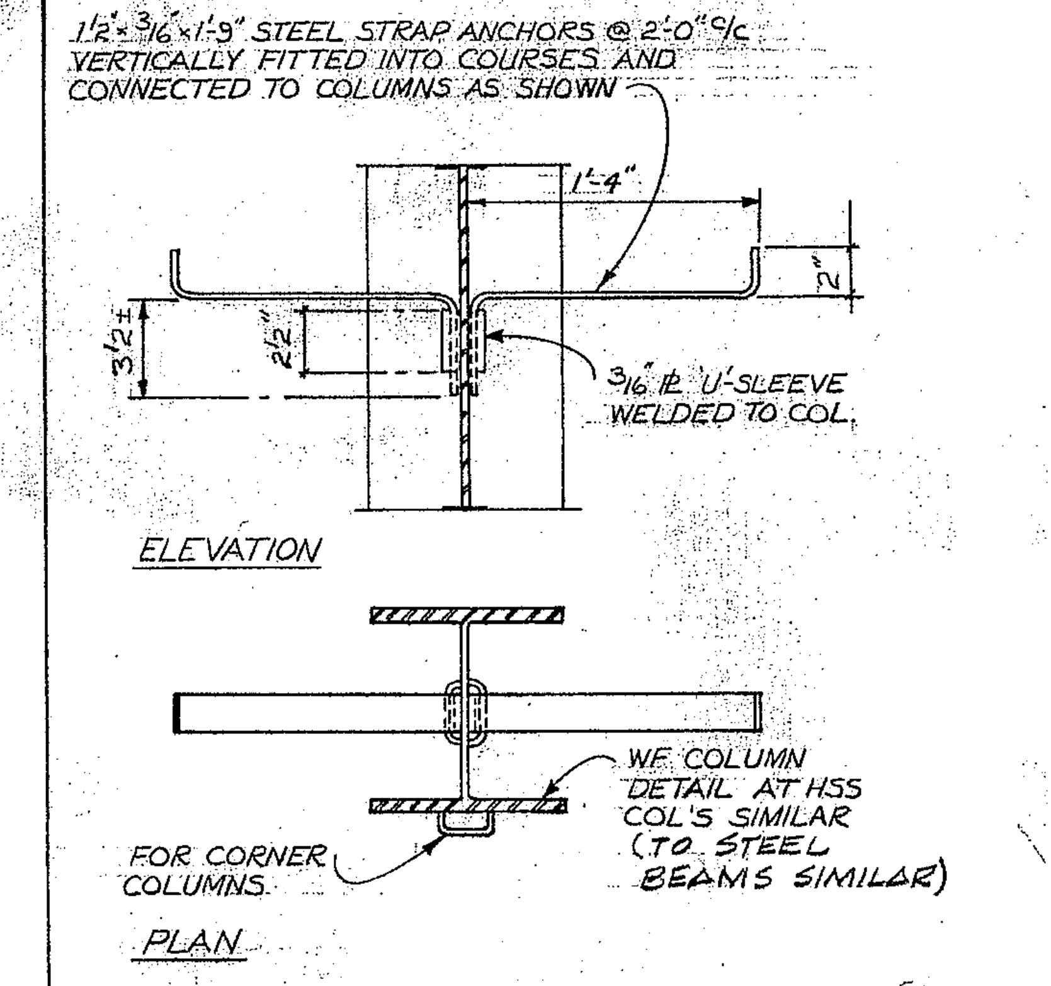

6" MIN.
CLEAR SPAN
6" MIN.

CLEAR SPAN	8" WALL		10" WALL		12" WALL	
	TYPE	MATERIAL	TYPE	MATERIAL	TYPE	MATERIAL
UP TO 3'-11"	⅃L	2 ⅃L'S-3½x3½x¼	⅃L	2 ⅃L'S-4x4x¼	⅃L L	3L'S-3½x3½x¼
4'-0" TO 6'-4"	⅃L	2 ⅃L'S-5x3½x5/16	⅃L	2 ⅃L'S-6x4x5/16	⅃L L	3L'S-5x3½x5/16
6'-5" TO 7'-0"	⅃L	2 ⅃L'S-6x3½x⅜	⅃L	2 ⅃L'S-6x4x⅜	⅃L L	3L'S-6x3½x⅜

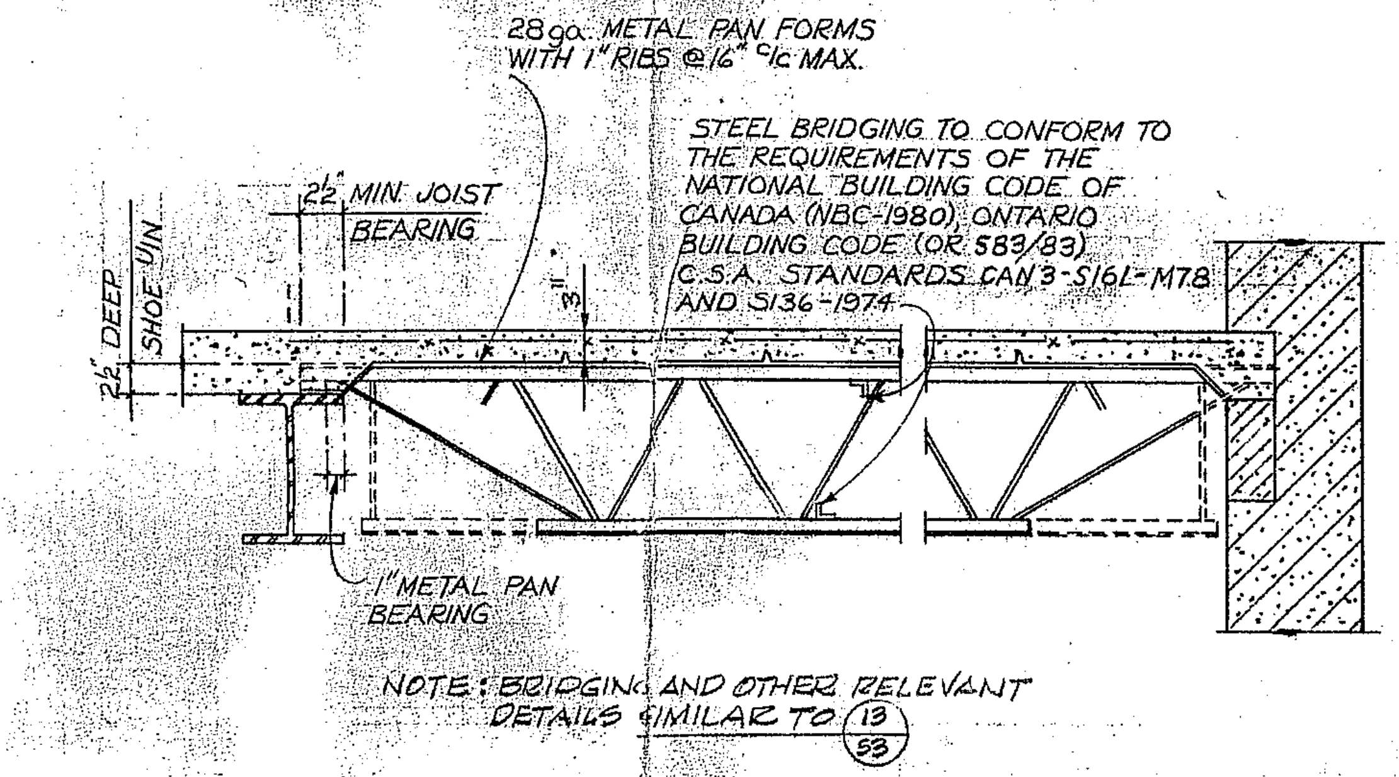
NOTES

1. WHERE DOUBLE ANGLES ARE USED BACK TO BACK, THEY SHALL BE BOLTED WITH ⅝" BOLTS @ 2'-0" C/C OR USE EQUIVALENT STITCHWELD TOP & BOTTOM
2. MIN. BEARING IS 6" (SEE PLAN ABOVE).
3. PROVIDE PACKING PLATES TO ENSURE EVEN BEARING.
4. FOR WALLS THICKER THAN 12" ADD ONE ANGLE OF SIZE SPECIFIED ABOVE FOR EACH ADDITIONAL 4" OR PORTION THEREOF.
5. WHERE LINTELS ABUT REINFORCED CONC. COLUMNS OR WALLS OR STEEL COLUMNS, PROVIDE 3½ x 3½ x ⅜ SEAT ANGLE WELDED TO STEEL COLUMNS OR ANCHORED TO CONC. WALL OR COLUMN WITH 2-¾" ϕ INSERTS.
6. SEE PLANS AND/OR SECTIONS FOR SPANS GREATER THAN 7'-0".
7. LINTELS FOR OPENING NOT NOTED ON PLANS

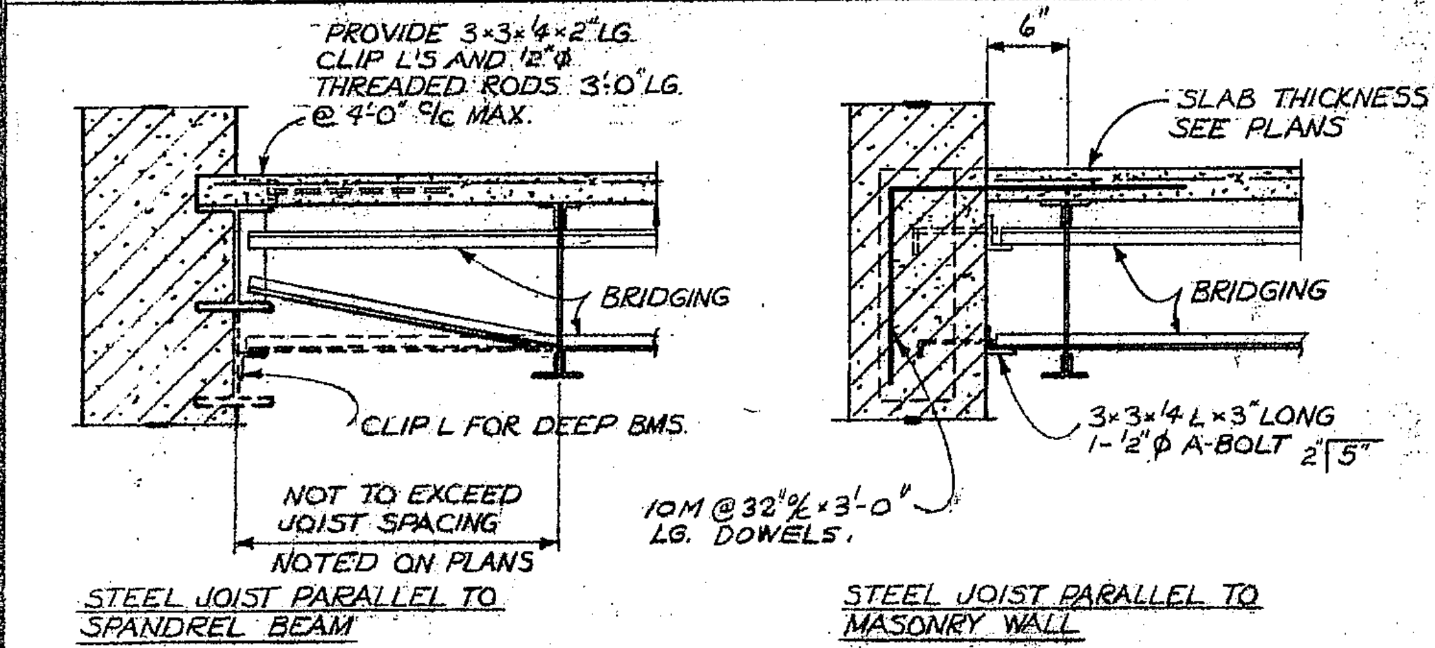
10 S-3 STEEL LINTELS


1½" x 3/16" x 1'-9" STEEL STRAP ANCHORS @ 2'-0" C/C VERTICALLY FITTED INTO COURSES AND CONNECTED TO COLUMNS AS SHOWN
1'-4"
2"
3½"
2½"
3/16" ⊄ U-SLEEVE WELDED TO COL.
ELEVATION
FOR CORNER COLUMNS
PLAN
WF COLUMN DETAIL AT HSS COL'S SIMILAR (TO STEEL BEAMS SIMILAR)

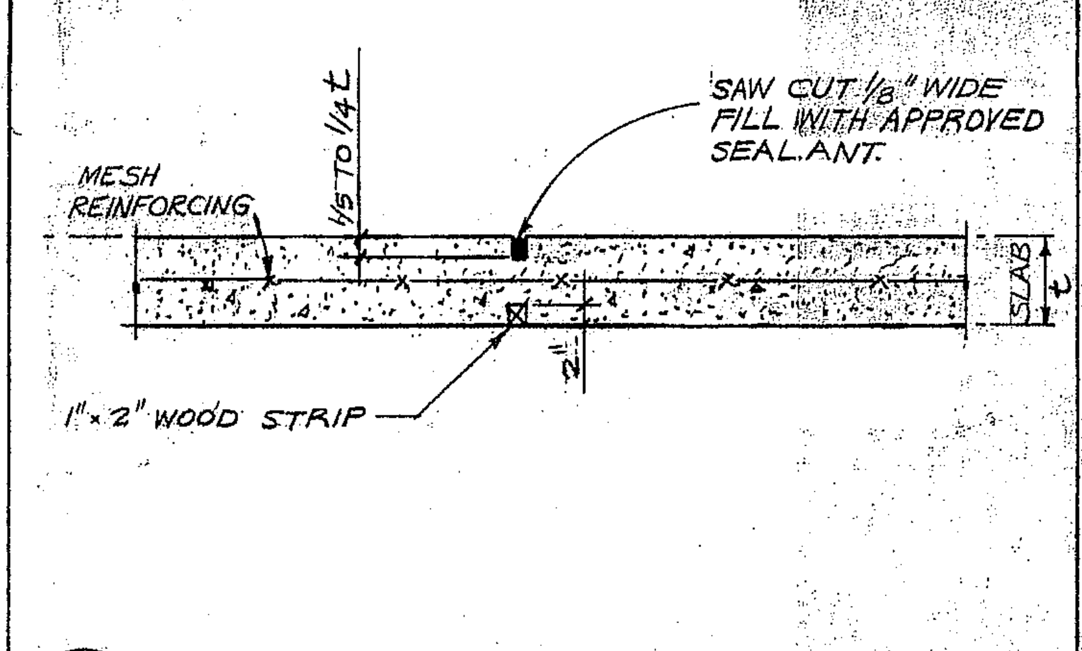
11 S-3 DETAIL OF ANCHORAGE OF STEEL COLUMNS TO MASONRY WALLS


28ga. METAL PAN FORMS WITH 1" RIBS @ 6" C/C MAX.
STEEL BRIDGING TO CONFORM TO THE REQUIREMENTS OF THE NATIONAL BUILDING CODE OF CANADA (NBC-1980), ONTARIO BUILDING CODE (OR 583/83) C.S.A. STANDARDS CAN 3-S16.1-M78 AND S136-1974
2½" MIN. JOIST BEARING
2½" DEEP SHOE U/N
3"
1" METAL PAN BEARING
NOTE: BRIDGING AND OTHER RELEVANT DETAILS SIMILAR TO 13/S3

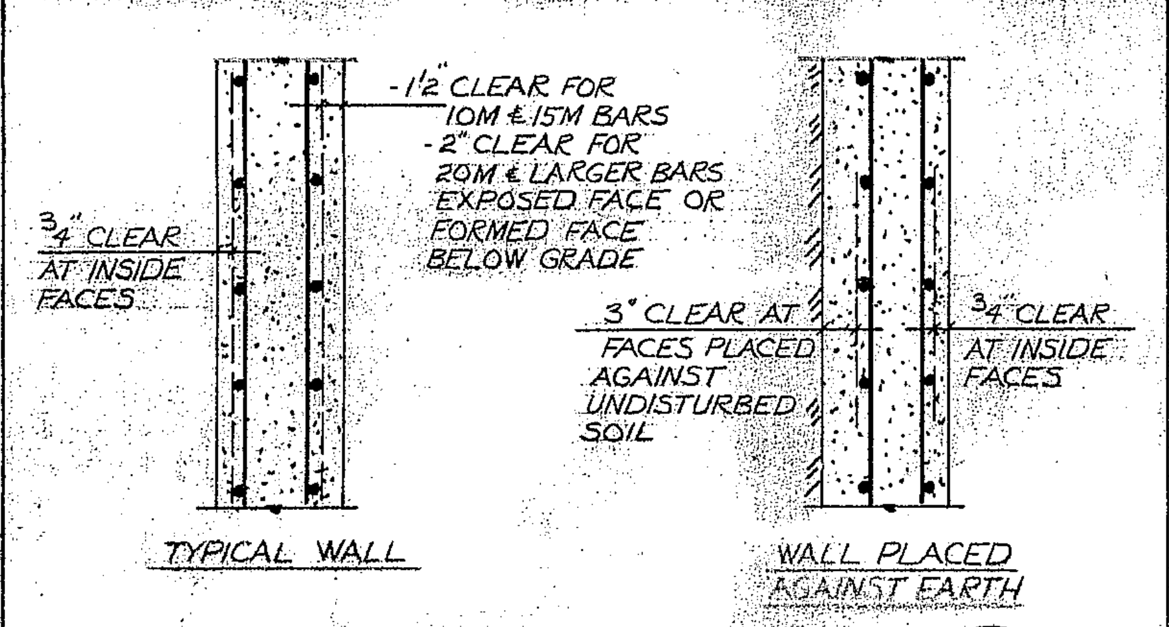
12 S-3 CONCRETE SLAB ON METAL PAN FORMS OVER OPEN WEB STEEL JOISTS


PROVIDE 3x3x¼x2" LG. CLIP L'S AND ½" ϕ THREADED RODS 3'-0" LG. @ 4'-0" C/C MAX.
6"
SLAB THICKNESS SEE PLANS
BRIDGING
BRIDGING
CLIP L FOR DEEP BMS.
3x3x¼ L x 3" LONG 1-½" ϕ A-BOLT
NOT TO EXCEED JOIST SPACING NOTED ON PLANS
10M @ 32" C/C x 3'-0" LG. DOWELS.
STEEL JOIST PARALLEL TO SPANDREL BEAM
STEEL JOIST PARALLEL TO MASONRY WALL

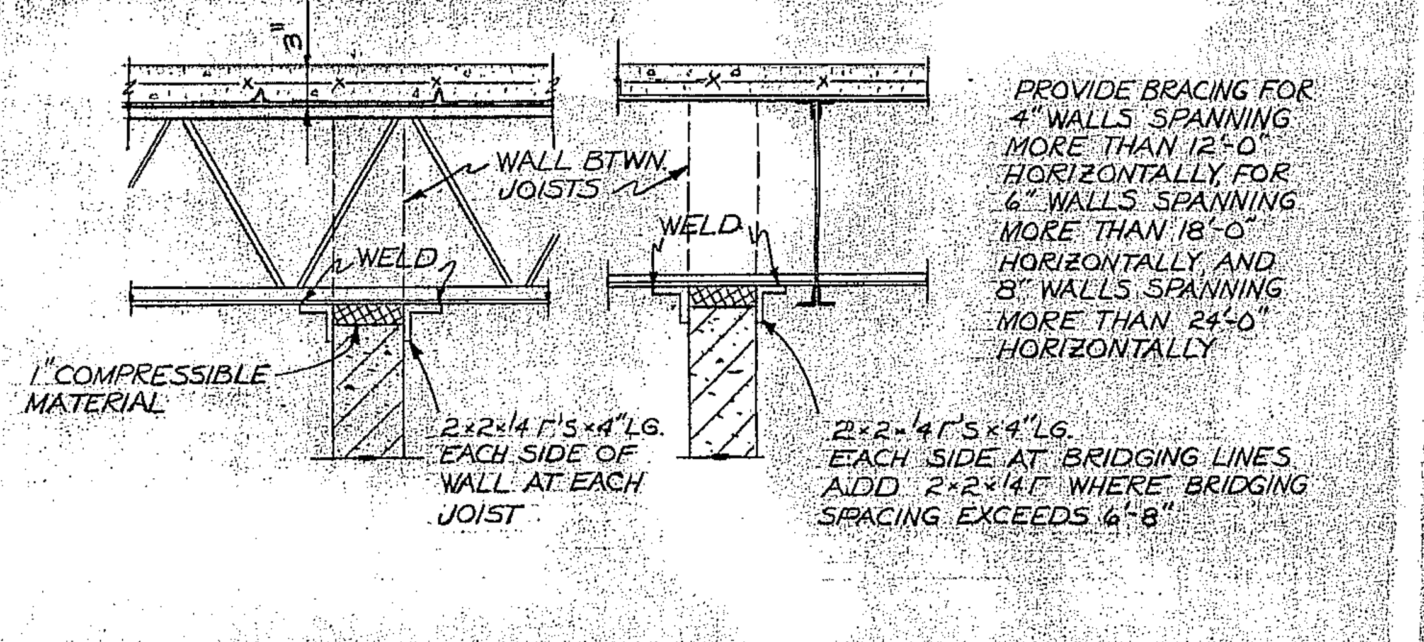
13 S-3 CONCRETE SLAB OVER OPEN WEB STEEL JOISTS


SAW CUT ⅛" WIDE FILL WITH APPROVED SEALANT
MESH REINFORCING
1/5 TO 1/4 t
SLAB
t
1" x 2" WOOD STRIP

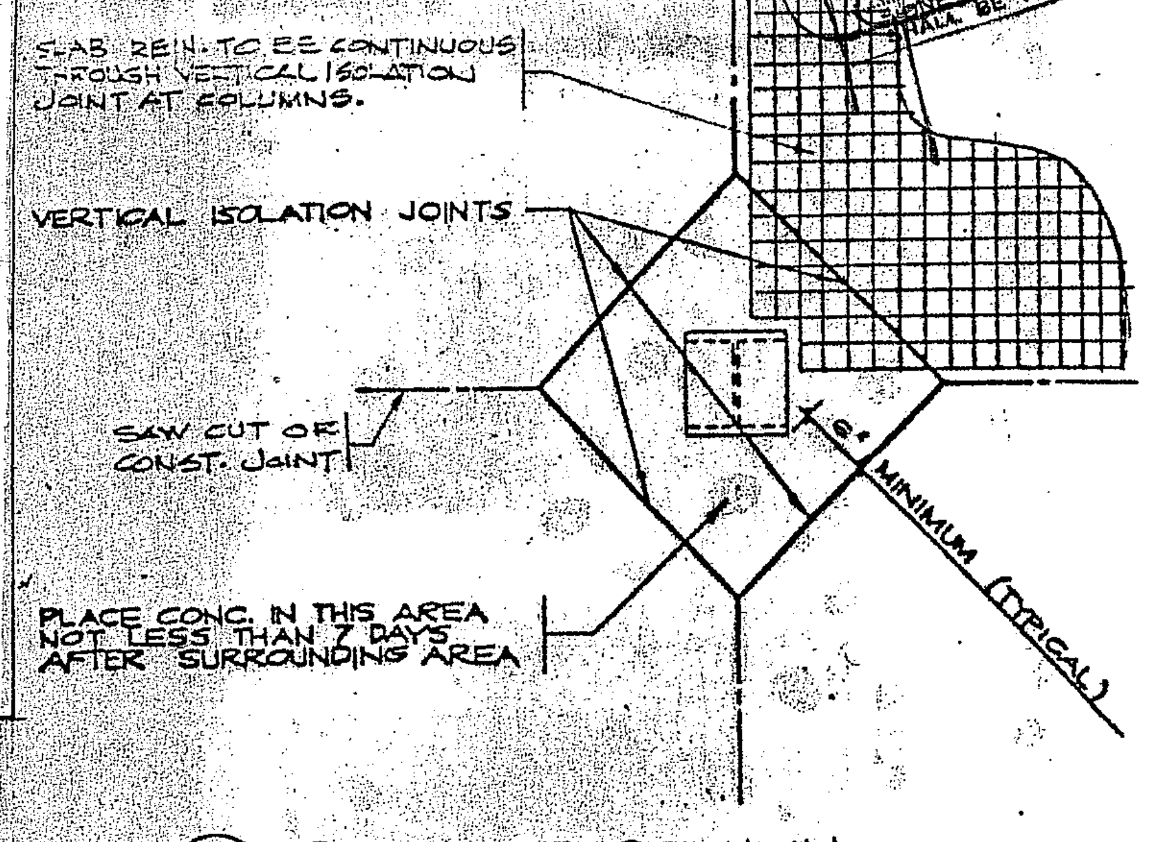
14 S-3 TYPICAL SAW-CUT IN SLAB ON GRADE


1½" CLEAR FOR 10M & 15M BARS
2" CLEAR FOR 20M & LARGER BARS EXPOSED FACE OR FORMED FACE BELOW GRADE
¾" CLEAR AT INSIDE FACES
3" CLEAR AT FACES PLACED AGAINST UNDISTURBED SOIL
¾" CLEAR AT INSIDE FACES
TYPICAL WALL
WALL PLACED AGAINST EARTH

15 S-3 WALL REINFORCING CLEARANCES

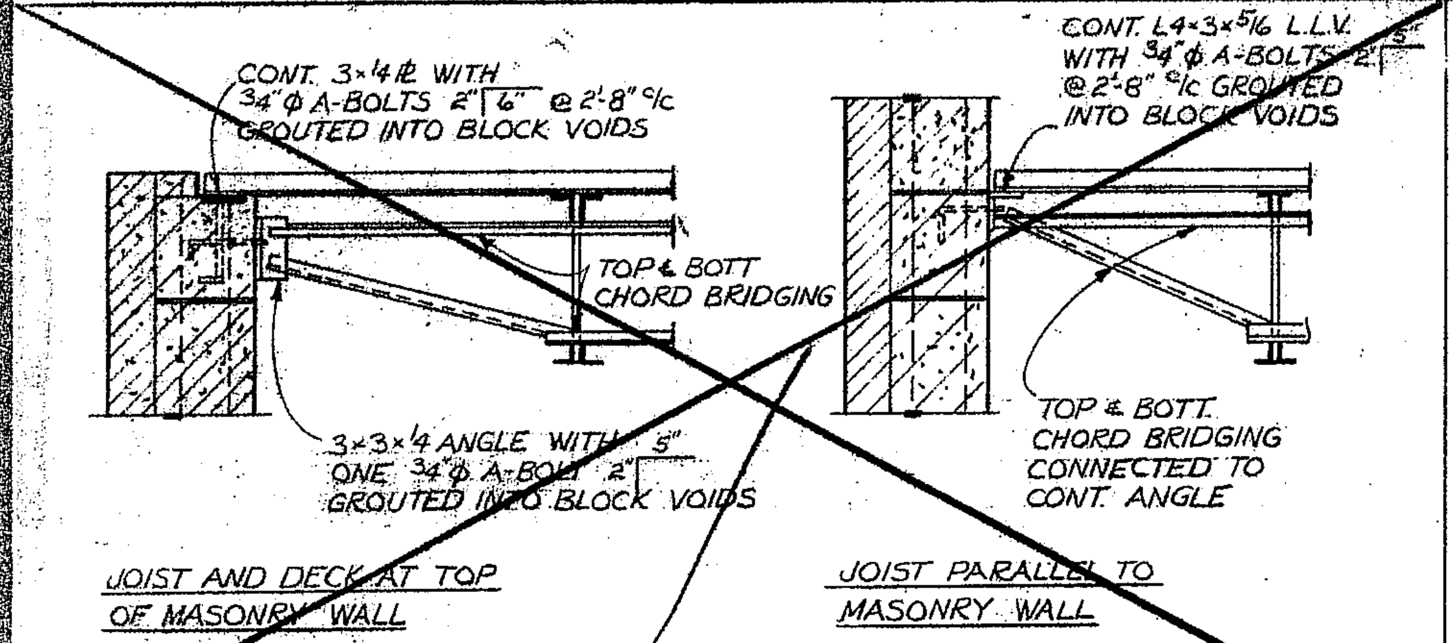

WALL BTWN. JOISTS
WELD
WELD
1" COMPRESSIBLE MATERIAL
2-2x¼ L'S x 4" LG. EACH SIDE OF WALL AT EACH JOIST
PROVIDE BRACING FOR 4" WALLS SPANNING MORE THAN 12'-0" HORIZONTALLY, FOR 6" WALLS SPANNING MORE THAN 18'-0" HORIZONTALLY AND 8" WALLS SPANNING MORE THAN 24'-0" HORIZONTALLY
2-2x¼ L'S x 4" LG. EACH SIDE AT BRIDGING LINES. ADD 2-2x¼ L WHERE BRIDGING SPACING EXCEEDS 6'-8"

16 S-3 BRACING FOR NON-BEARING WALLS AT UNDERSIDE OF STEEL JOISTS

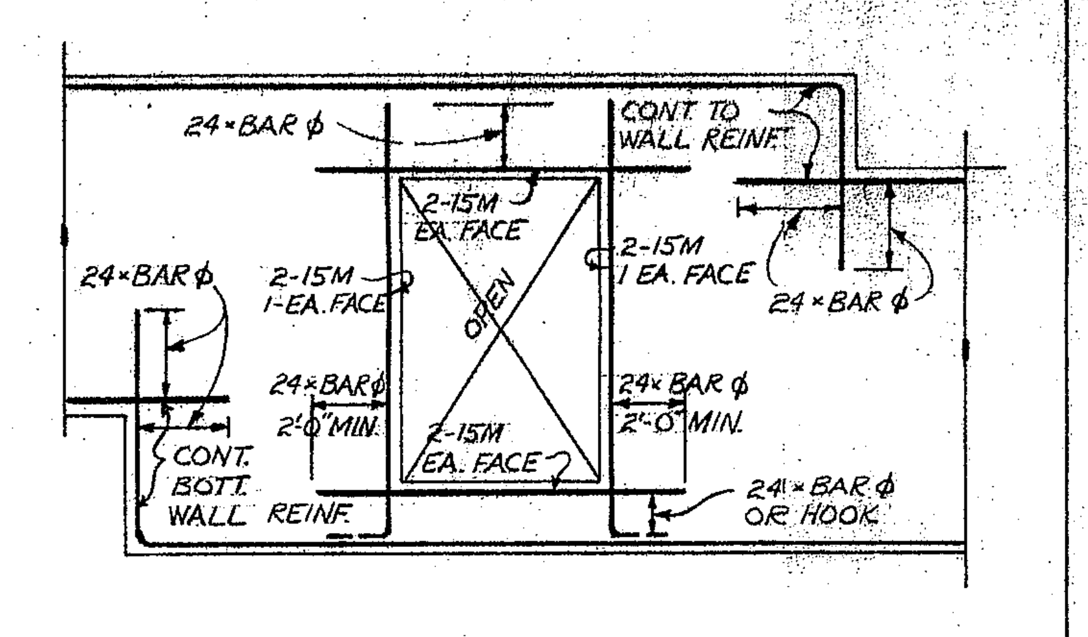

SLAB REIN. TO BE CONTINUOUS THROUGH VERTICAL ISOLATION JOINT AT COLUMNS.
VERTICAL ISOLATION JOINTS
SAW CUT OR CONST. JOINT
PLACE CONC. IN THIS AREA NOT LESS THAN 7 DAYS AFTER SURROUNDING AREA
6" MINIMUM (TYPICAL)

20 S-3 PLAN OF COLUMN (STEEL OR CONCRETE)

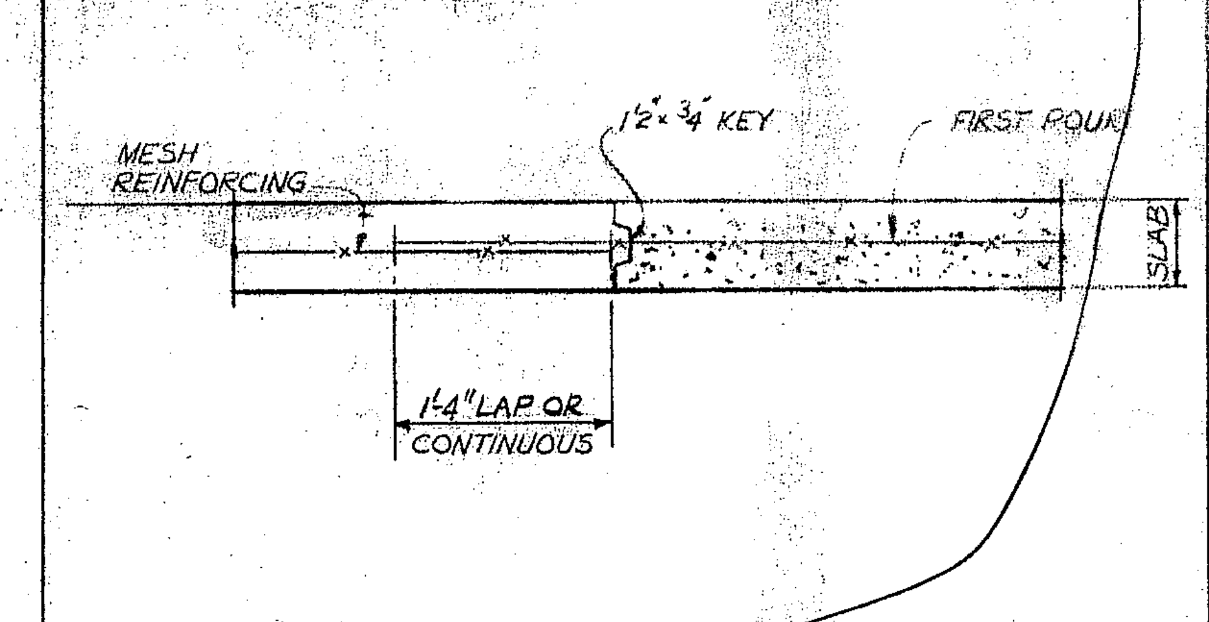
JOINTS TO BE 25'-0" C/C MAX. UNLESS OTHERWISE SHOWN OR APPROVED


CONT. 3-¼⊄ WITH ¾" ϕ A-BOLTS 2'-6" @ 2'-6" C/C GROUTED INTO BLOCK VOIDS
CONT. L4x3x5/16 L.L.V. WITH ¾" ϕ A-BOLTS 2'-1" @ 2'-6" C/C GROUTED INTO BLOCK VOIDS
TOP & BOTT. CHORD BRIDGING
3x3x¼ ANGLE WITH ONE ¾" ϕ A-BOLT 2" GROUTED INTO BLOCK VOIDS
5"
TOP & BOTT. CHORD BRIDGING CONNECTED TO CONT. ANGLE
JOIST AND DECK AT TOP OF MASONRY WALL
JOIST PARALLEL TO MASONRY WALL

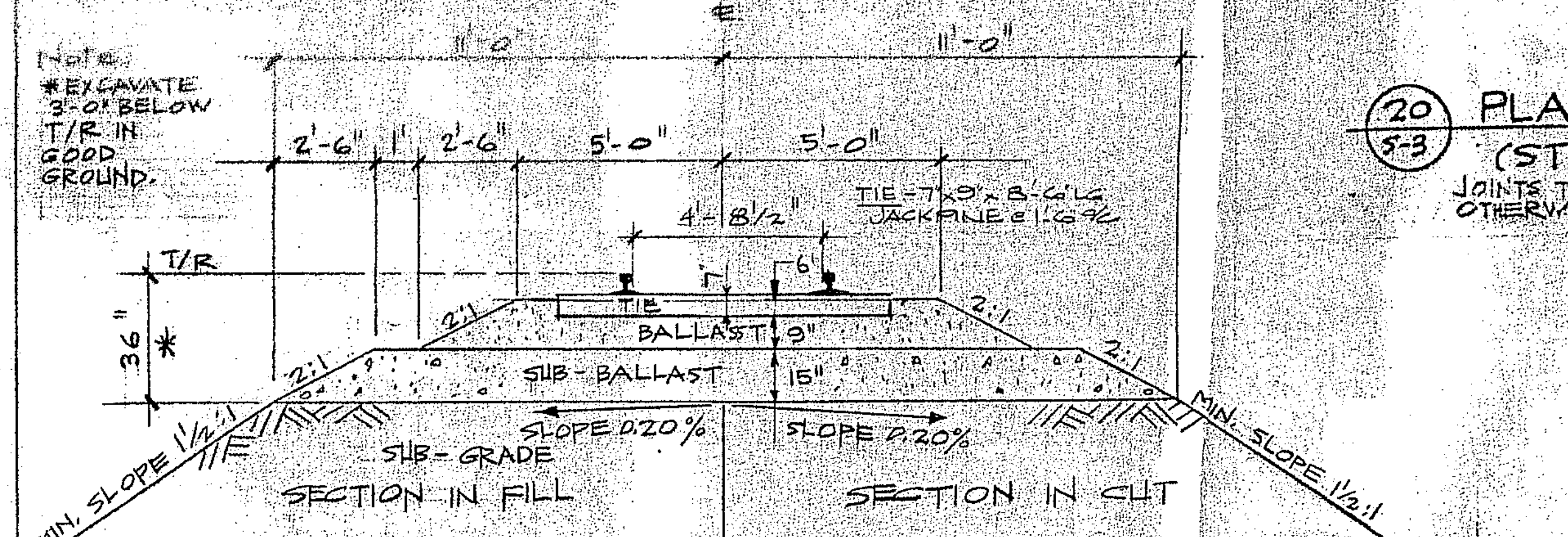
~~OPEN WEB STEEL JOISTS SUPPORTING STEEL DECK~~


24 x BAR ϕ
CONT. TO WALL REINF.
2-15M EA. FACE
2-15M 1 EA. FACE
24 x BAR ϕ
2-15M 1 EA. FACE
24 x BAR ϕ
24 x BAR ϕ 2'-0" MIN.
OPEN
24 x BAR ϕ 2'-0" MIN.
2-15M EA. FACE
CONT. BOTT. WALL REINF.
24 x BAR ϕ OR HOOK

17 S-3 TYPICAL REINFORCING AROUND OPENINGS IN WALLS


1½" x ¾" KEY
FIRST POUR
MESH REINFORCING
SLAB
1'-4" LAP OR CONTINUOUS

18 S-3 TYPICAL SLAB ON GRADE CONSTRUCTION JOINT


Note: EXCAVATE 3'-0" BELOW T/R IN GOOD GROUND.
℄
11'-0"
11'-0"
2'-6"
1'
2'-6"
5'-0"
5'-0"
4'-8½"
TIE - 7'-9" x 8" x 6" LG. JACKPINE @ 1'-6" C/C
T/R
36"
TIE
BALLAST
9"
SUB-BALLAST
15"
2:1
2:1
SUB-GRADE
SLOPE 0.20%
SLOPE 0.20%
MIN. SLOPE 1½:1
MIN. SLOPE 1½:1
SECTION IN FILL
SECTION IN CUT

19 S-3 TYPICAL TRACK SECTION (OUTSIDE BUILDING)

MINISTRY OF LABOUR
REVIEWED
AS MEETING WITH REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1978.
APR 16 1985
P. ENG.
ONE REVIEWED COPY SHALL BE KEPT AT SITE

GERALD B. COX
ARCHITECT
373 FISHER STREET
NORTH BAY, ONTARIO
472-8350

2983
A. T. ABRERA

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE GENERAL CONTRACTOR.

O.N.R.
MAINTENANCE OF WAY
REPAIR BUILDING
North Bay, Ont.

COPY
APR 9 1985

TYPICAL SECTIONS

SCALE NOT TO SCALE
DATE MARCH, 1985
DRAWN BY TE
JOB NO.

S-3

APD
ALBERY, PULLERITS, DICKSON AND ASSOCIATES
Consulting Engineers
TORONTO SUDBURY FREDERICTON YELLOWKNIFE

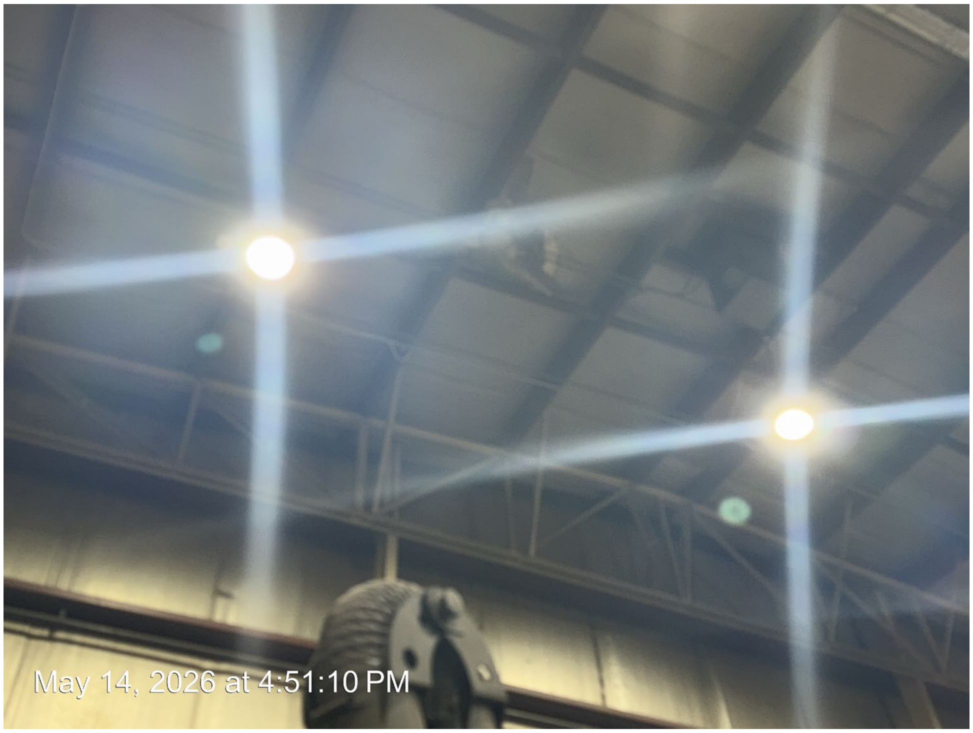

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Fig.1 TC_07144

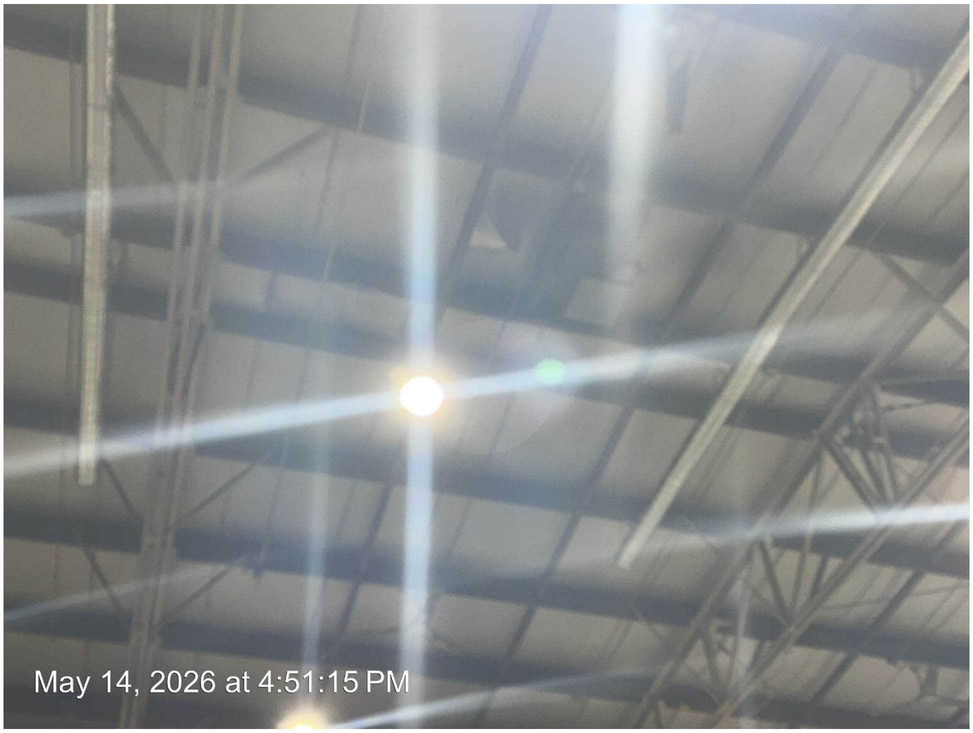
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Fig.2 TC_07145

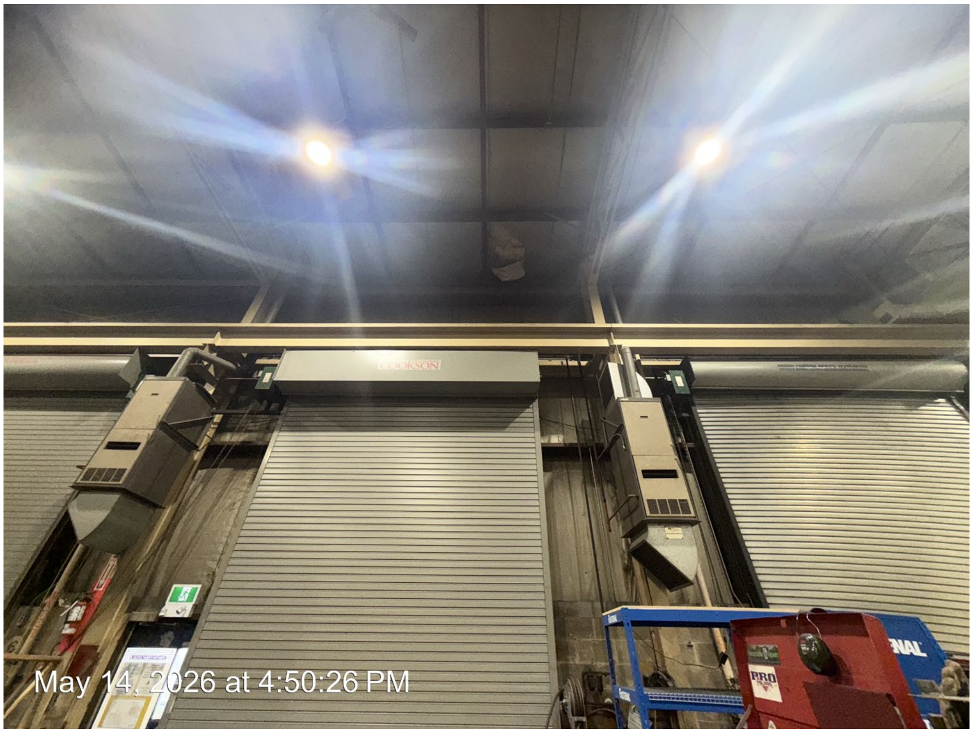
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Fig.3 TC_07143

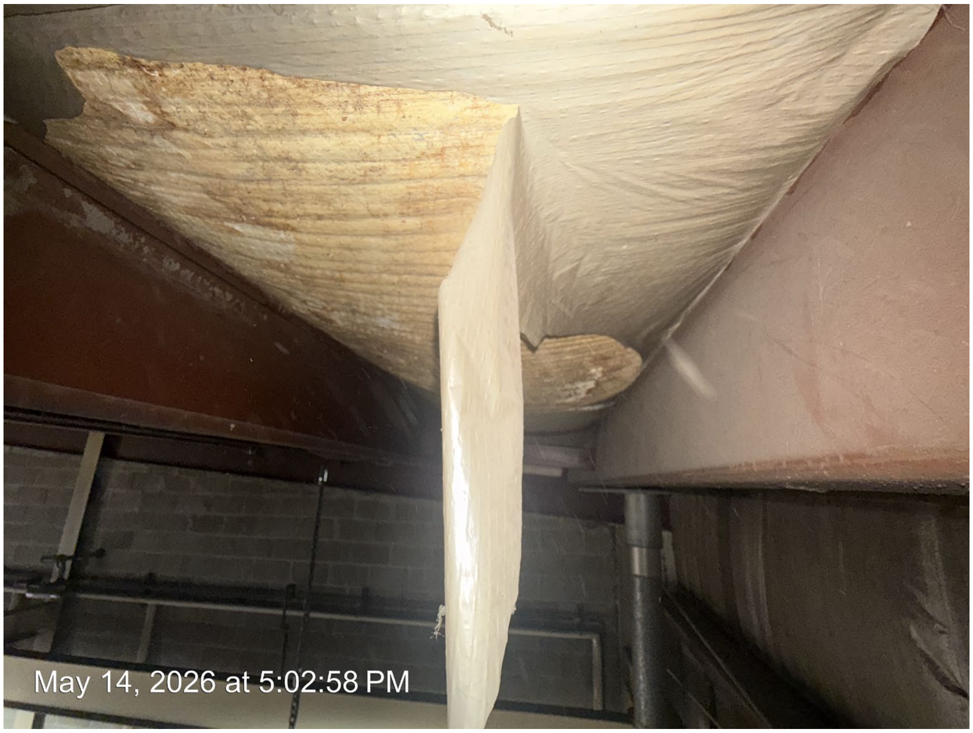
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Fig.4 TC_07158

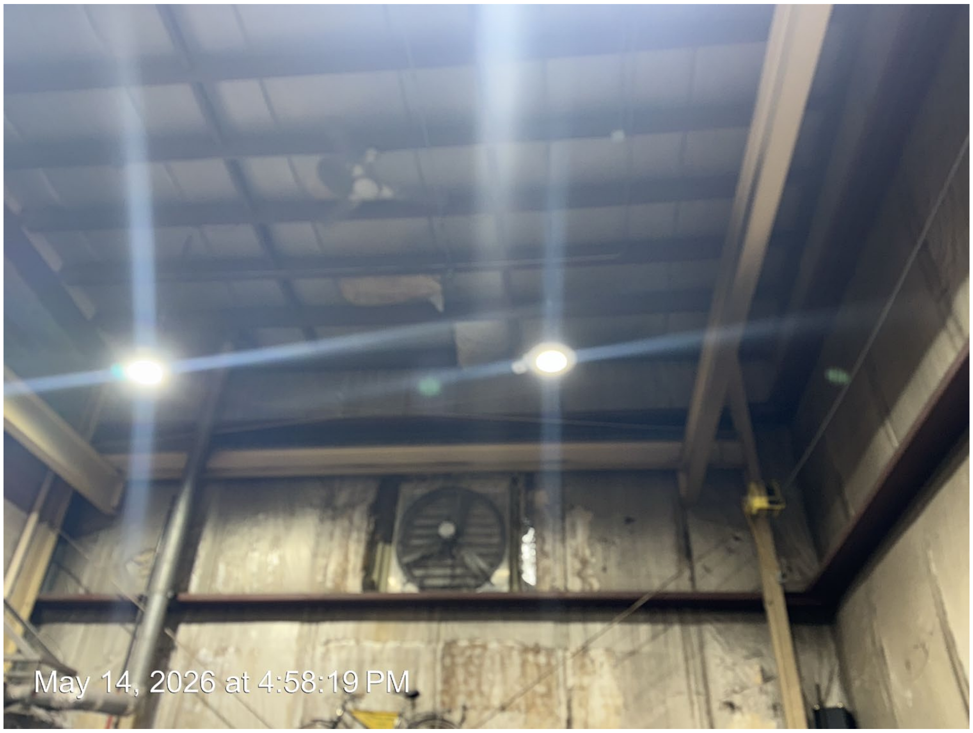
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Fig.5 TC_07153

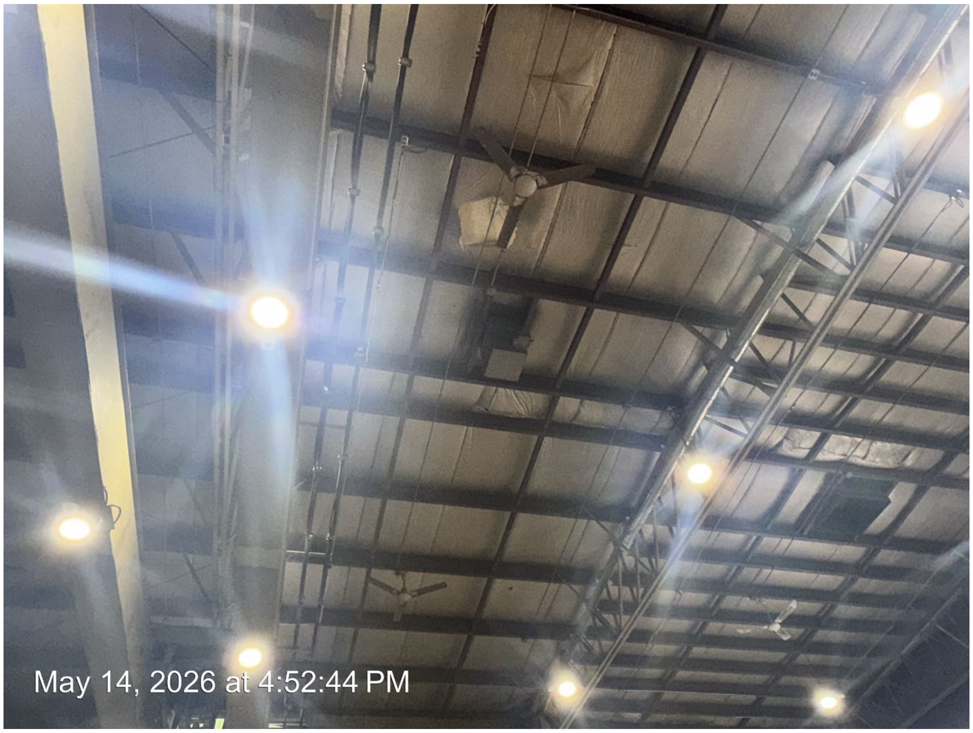
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Fig.6 TC_07149

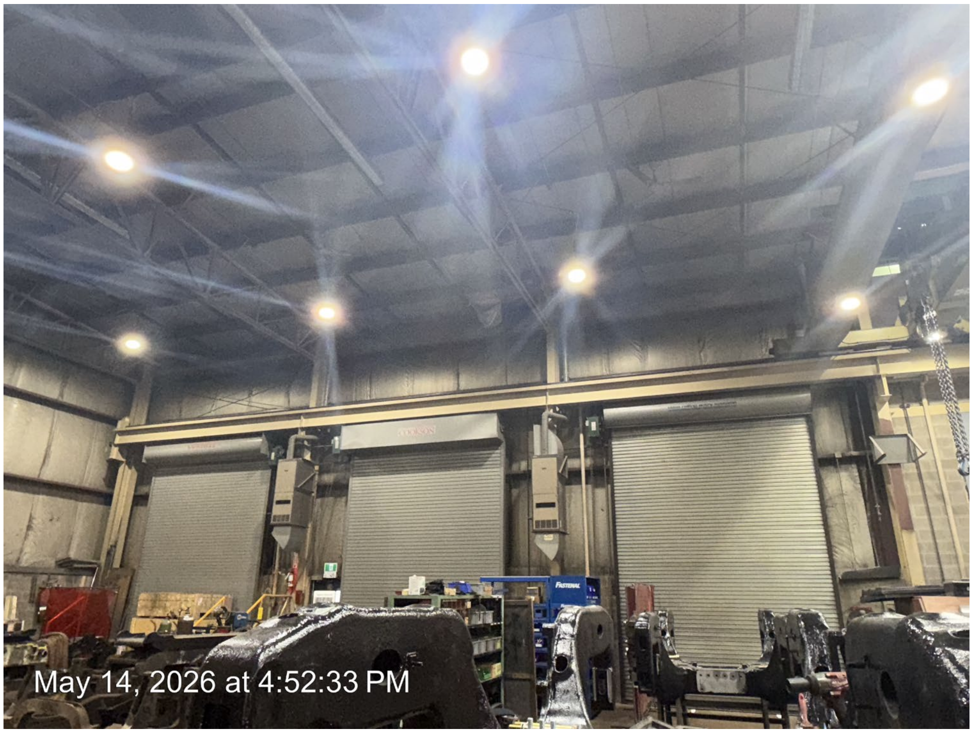

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Fig.7 TC_07148

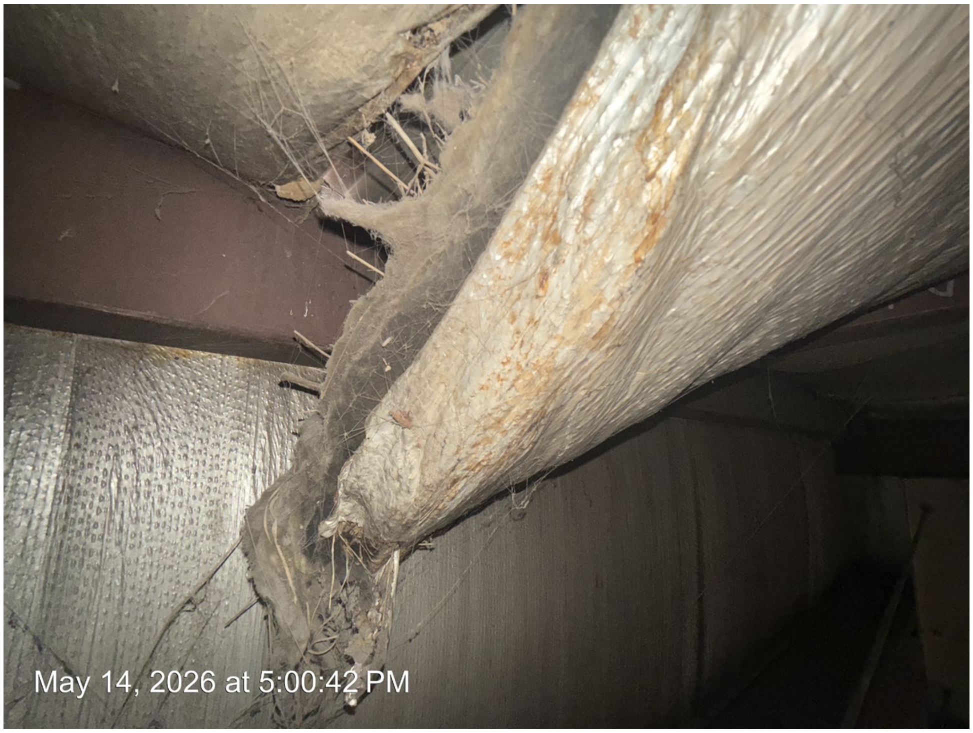

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Fig.8 TC_07155