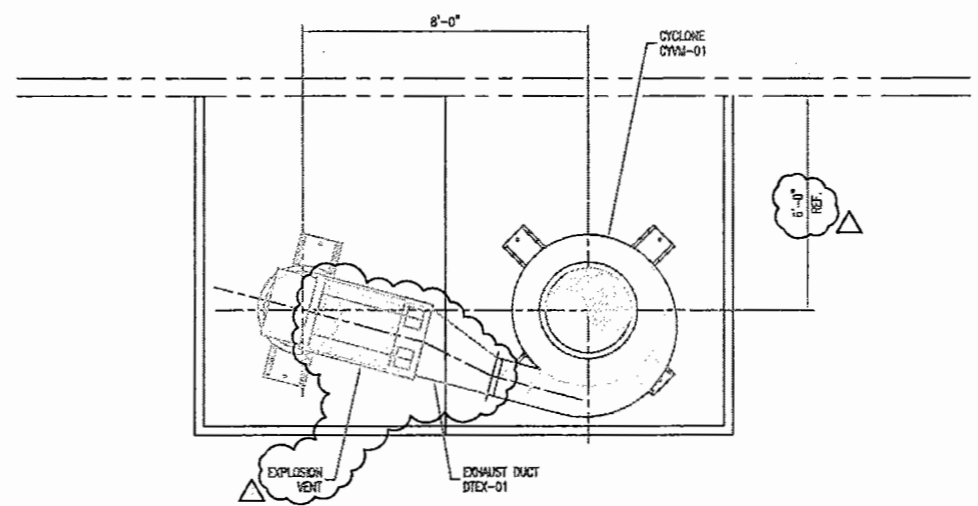
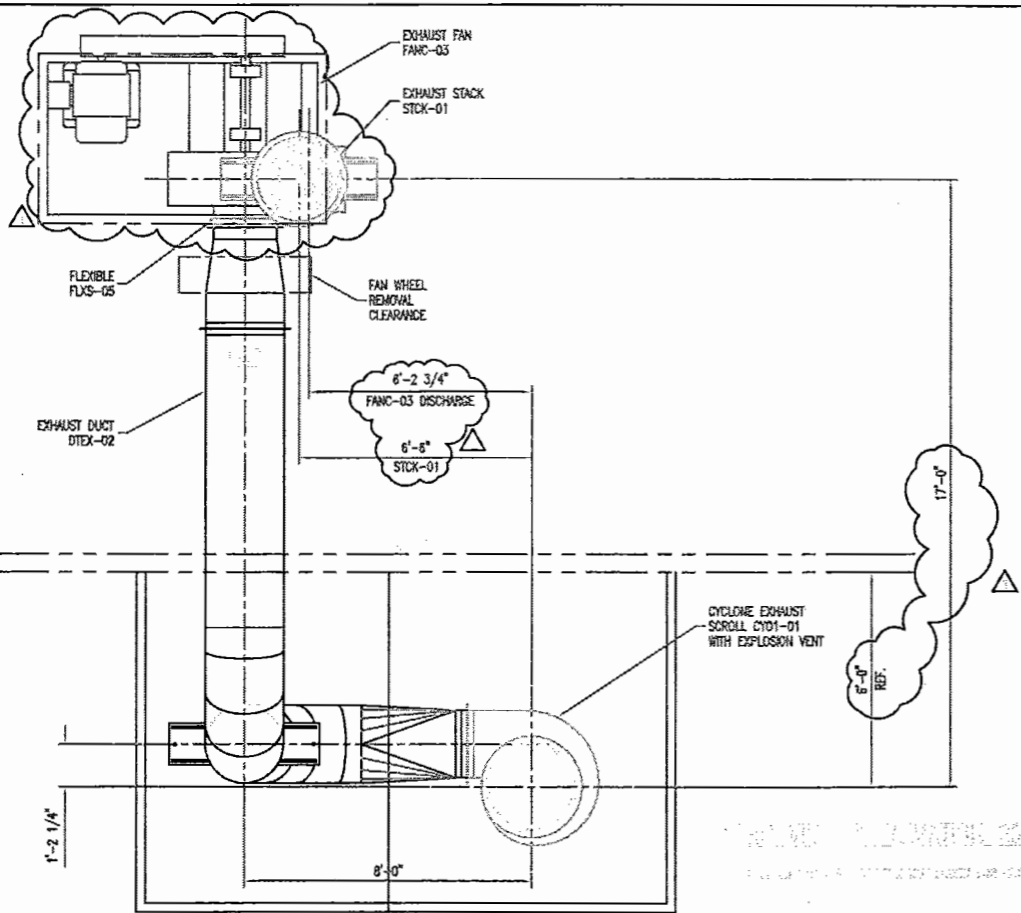
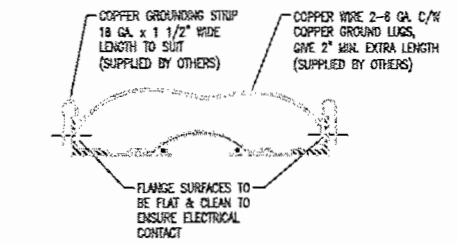
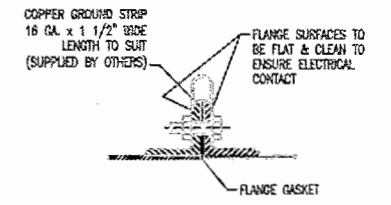
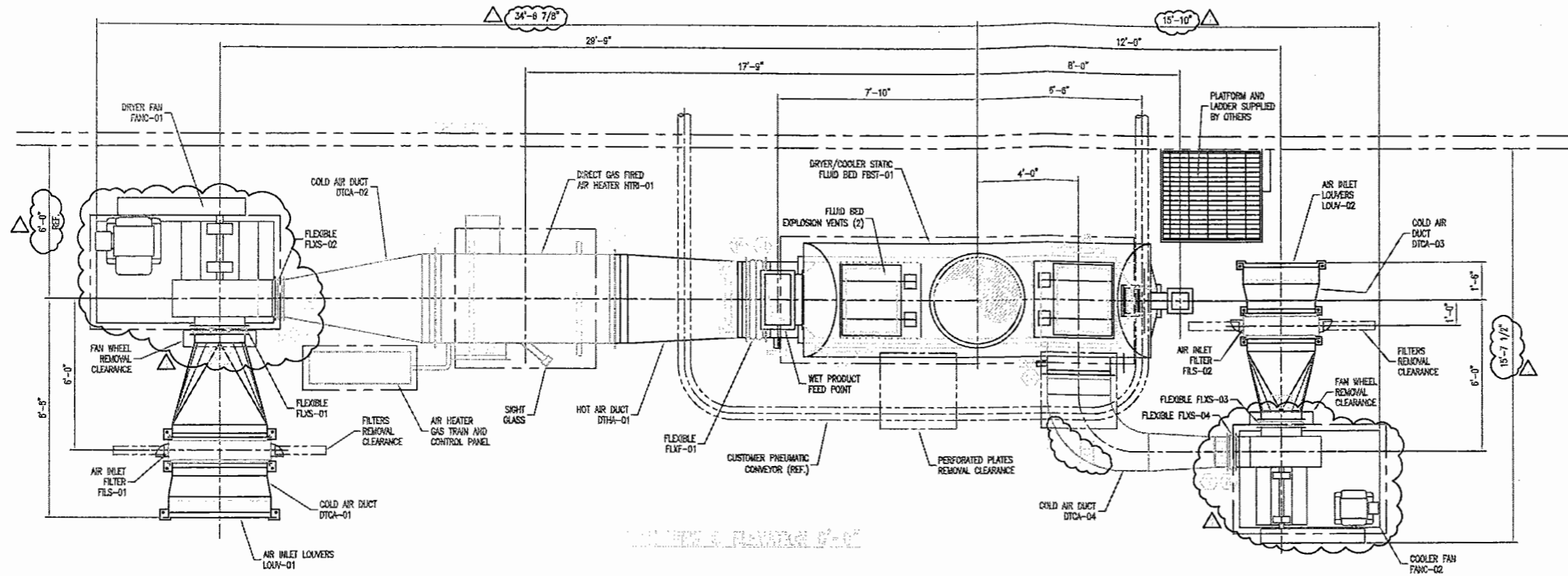


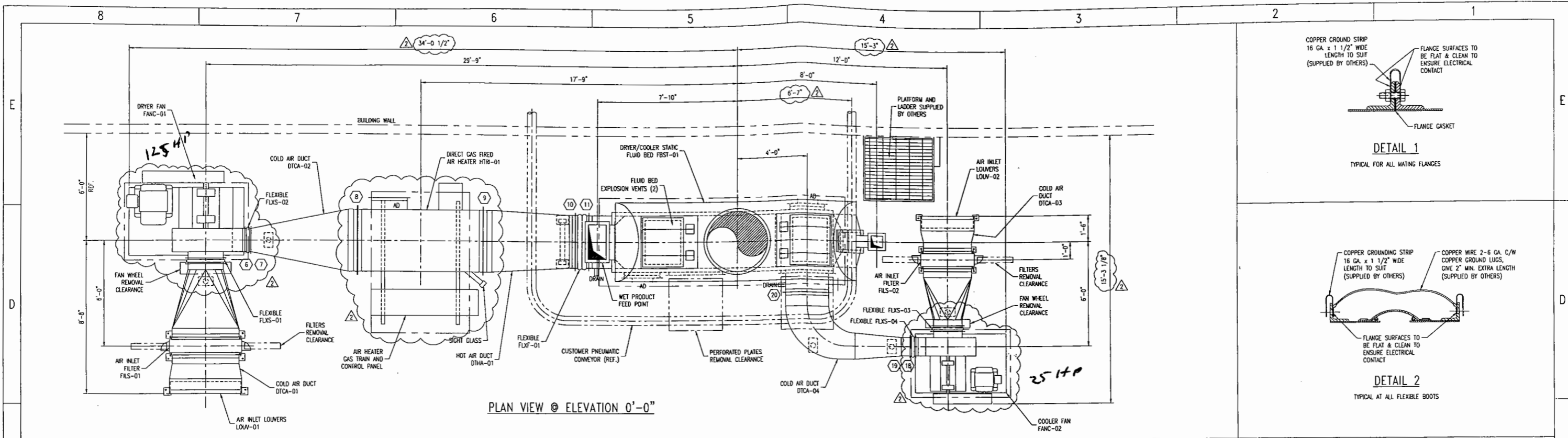
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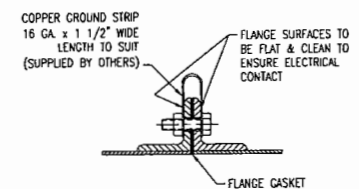
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2					
3					
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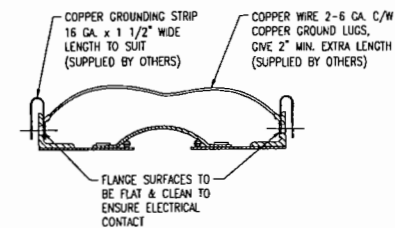


PLAN VIEW @ ELEVATION 0'-0"



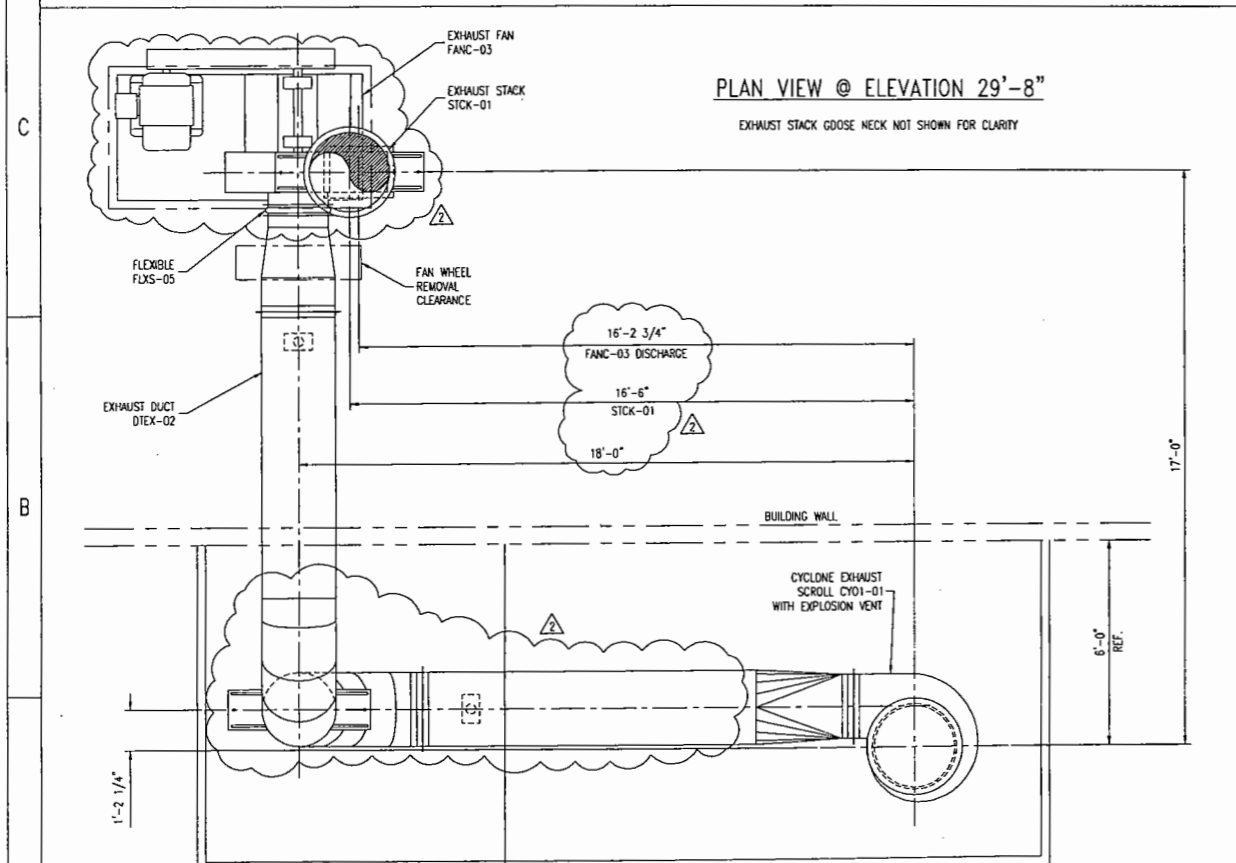
DETAIL 1

TYPICAL FOR ALL MATING FLANGES



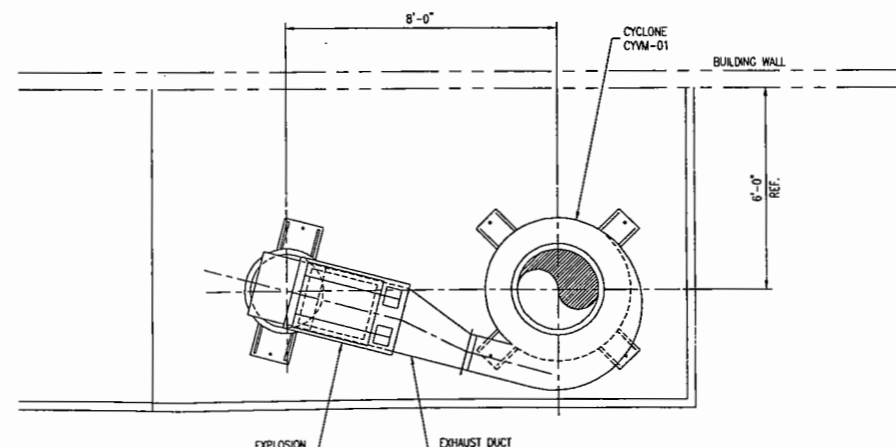
DETAIL 2

TYPICAL AT ALL FLEXIBLE BOOTS



PLAN VIEW @ ELEVATION 29'-8"

EXHAUST STACK GOOSE NECK NOT SHOWN FOR CLARITY



PLAN VIEW @ ELEVATION 14'-8"

ACCEPTED REVISE AND RESUBMIT
 REFLECTED MAKE CORRECTIONS
 REVIEWED NOTED
 REVIEWED FOR GENERAL REQUIREMENTS AND CONFORMANCE TO PROJECT SPECIFICATIONS AND DRAWINGS. THIS REVIEW SHALL NOT RELIEVE THE SUBCONTRACTOR OF RESPONSIBILITY FOR CONFORMANCE TO CONTRACT DOCUMENTS OR FOR DEFECTIVE WORK RESULTING FROM ANY ERRORS OR OMISSIONS.
 BROHN AND ASSOCIATES, INC.
 SIOUX FALLS, SD 57104
 BY: *[Signature]* DATE: 4/18/03

NOTES

- ALL INSULATION BY OTHERS.
- ALL MATING FLANGES TO HAVE GROUNDING STRIPS AND MEET ALL ELECTRICAL CODES. SEE DETAIL 1 & 2.
- NO.'S IN HEXAGONS REPRESENT FLANGE NO.'S FOR ERECTION PURPOSE ONLY.
- ALL EXTERNAL BOLTS TO BE ZINC PLATED.
- ERECTOR TO ALLOW 1" NOMINAL SHIMMING UNDERNEATH BARR-ROSWIN EQUIPMENT.
- STEELWORK SHOWN IS A SUGGESTED POSSIBLE STRUCTURE BASED ONLY ON BARR-ROSWIN PROPOSED ARRANGEMENT OF SUPPLIED EQUIPMENT. CLIENT TO CONFIRM ALL DIMENSIONS.
- THIS DRAWING BASED ON ENQUIRY #03047 REVA.
- EXPLOSION DOORS MUST BE VENTED TO OUTSIDE & MUST NOT BE OBSTRUCTED.
- BARR-ROSWIN RECOMMENDS THAT ALL CONCRETE PLINTHS EXTEND A MINIMUM OF 6" ABOVE THE WORKING FLOOR.
- ACCESS AROUND EXPLOSION VENTS MUST BE RESTRICTED.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING 2253-2468-01-01.
- CUSTOMER TO PROVIDE DISCHARGE EQUIPMENT LAYOUT FOR REVIEW BY BARR-ROSWIN.
- UNLESS OTHERWISE NOTED ALL EQUIPMENT THAT REQUIRES LIMIT SWITCHES WILL BE DESIGNED TO ACCEPT ALLEN-BRADLEY MODEL 802X-A7 SWITCH C/W 802T-W2 LEVER ARM. LIMIT SWITCHES ARE TO BE PROVIDED BY OTHERS.

THIS DRAWING HAS BEEN PREPARED WITHOUT CERTIFIED VENDOR EQUIPMENT DRAWINGS AND WILL BE REVISED BY BARR-ROSWIN WHEN THOSE DRAWINGS ARE RECEIVED.

3' x 12' STATIC FLUID BED DRYER/COOLER FOR CORN GERM GENERAL ARRANGEMENT

BROHN & ASSOCIATES, INC. SCOTLAND, SD, USA

GEA Barr-Rosin Inc.
Process Engineering Division
A subsidiary of msc technologies group

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REV.	BY	DATE	CHECKED	APPROVED
7				
6				
5				
4				
3				
2	JT	2003.APR.14	GM	ML
1	JT	2003.MAR.21	GM	ML

- EXHAUST FAN (FANC-03) AND STACK (STCK-01) MOVED TO THE LEFT BY 10'-0". EXHAUST DUCT (DTEX-02) STRETCHED ACCORDINGLY. ONE SUPPORT ADDED UNDER EXHAUST DUCT (DTEX-02).
 - AIR HEATER (HTR-01) AND ALL FANS (FANC-01, -02 & -03) UPDATED.
 - ALL FANS (FANC-01, -02 AND -03) UPDATED.
 - EXPLOSION VENT ADDED TO EXHAUST DUCT (DTEX-01).
 - EXHAUST DUCT (DTEX-01) TRANSITION TO FLUID BED. MODIFIED.
 - ACCESS DOOR ON DTCA-04 MOVED TO FLUID BED.
 - WHOLE DRYER MOVED 2'-0" AWAY FROM THE WALL.

ISSUE DATE	REV.	ISSUE CODE	REVISION	BY
2003.MAR.28	1	2	1	GM
2003.MAR.10	D			

SCALE 3/8" = 1'-0" 1 : 32

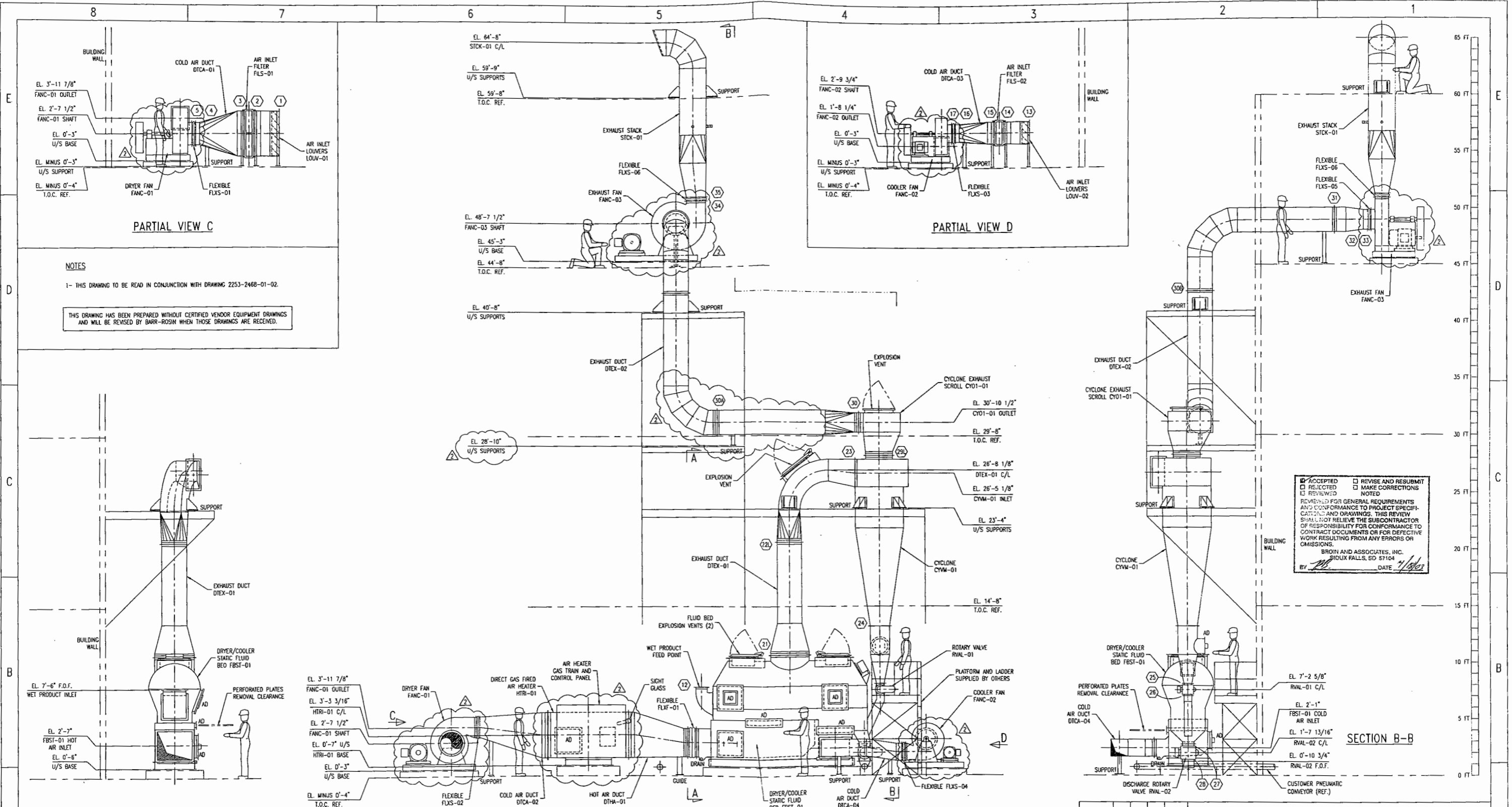
DRAWN JT 2003.FEB.27

CHECKED GM 2003.MAR.10

APPROVED ML 2003.MAR.27

DWG NO. 2253-2468-01-02

2



NOTES

1- THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING 2253-2468-01-02.

THIS DRAWING HAS BEEN PREPARED WITHOUT CERTIFIED VENDOR EQUIPMENT DRAWINGS AND WILL BE REVISED BY BARR-ROSHIN WHEN THOSE DRAWINGS ARE RECEIVED.

ACCEPTED
 REJECTED
 REVIEWED
 REVISIONS
 REVISE AND RESUBMIT
 MAKE CORRECTIONS
 NOTED

REVIEWED FOR GENERAL REQUIREMENTS AND CONFORMANCE TO PROJECT SPECIFICATIONS AND DRAWINGS. THIS REVIEW SHALL NOT RELIEVE THE SUBCONTRACTOR OF RESPONSIBILITY FOR CONFORMANCE TO CONTRACT DOCUMENTS OR FOR DEFECTIVE WORK RESULTING FROM ANY ERRORS OR OMISSIONS.

BROWN AND ASSOCIATES, INC.
 BRIDLUX FALLS, SD 57104
 BY: [Signature] DATE: 4/10/03

3' x 12' STATIC FLUID BED DRYER/COOLER FOR CORN GERM GENERAL ARRANGEMENT											
BROWN & ASSOCIATES, INC. SCOTLAND, SD, USA											
G&A Barr-Rosin Inc. Process Engineering Division											
A company of mg technologies group											
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2003.MAR.28	1	2	1	1	CM	2003.MAR.10	0	2	1	CM	
ISSUE DATE	REV. NO.	ISSUE CODE	REV. CODE	BY	BY	ISSUE DATE	REV. NO.	ISSUE CODE	REV. CODE	BY	
11	FOR INFORMATION	1	CLIENT	CM	CM	2	FOR APPROVAL	2	FABRICATOR	CM	
2	FOR APPROVAL	3	DESIGNED	CM	CM	3	FOR APPROVAL	3	EOP VENDOR	CM	
3	FOR APPROVAL	4	FOR DETAILED	CM	CM	4	FOR DETAILED	4	CONSULTANT	CM	
4	FOR DETAILED	5	FOR FABRICATION	CM	CM	5	FOR FABRICATION	5	INTERNAL	CM	
5	FOR FABRICATION	6	INTERNAL	CM	CM	6	INTERNAL	6	INTERNAL	CM	
ISSUE CODE		RECEIVER CODE		ISSUE HISTORY		ISSUE CODE		RECEIVER CODE		ISSUE HISTORY	
SCALE 1/4" = 1'-0" 1:48 DRAWN JT 2003.FEB.27 CHECKED GM 2003.MAR.10 APPROVED ML 2003.MAR.27 DWG NO 2253-2468-01-01 REV 2											

REV.	BY	DATE	CHECKED	APPROVED	REV.	BY	DATE	CHECKED	APPROVED	REV.	BY	DATE	CHECKED	APPROVED	REV.	BY	DATE	CHECKED	APPROVED	REV.	BY	DATE	CHECKED	APPROVED										
7					6					5					4					3					2	JT	2003.APR.14	CM	ML	1	JT	2003.MAR.21	CM	ML
- EXHAUST FAN (FANC-03) AND STACK (STICK-01) MOVED TO THE LEFT BY 10'-0". EXHAUST DUCT (DTEX-02) STRETCHED ACCORDINGLY. ONE SUPPORT ADDED UNDER EXHAUST DUCT (DTEX-02). - AIR HEATER (HTRI-01) AND ALL FANS (FANC-01, -02 & -03) UPDATED. - FLUID BED (FBST-01), EXHAUST DUCT (DTEX-01) AND CYCLONE (CYM-01) RAISED BY 3". - ALL FANS (FANC-01, -02 AND -03) UPDATED. - ROTARY VALVE (RVAL-02) SIZE INCREASED. - EXPLOSION VENT ADDED TO EXHAUST DUCT (DTEX-01). - EVASE ADDED AT DISCH. OF EXHAUST FAN (FANC-03).																																		



BROIN & ASSOCIATES
 PLANT DESIGN, ENGINEERING
 2209 E. 57th STREET N.
 SIOUX FALLS, SD 57104
 TEL. (605) 965-2200
 FAX. (605) 965-2203

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Revisions:

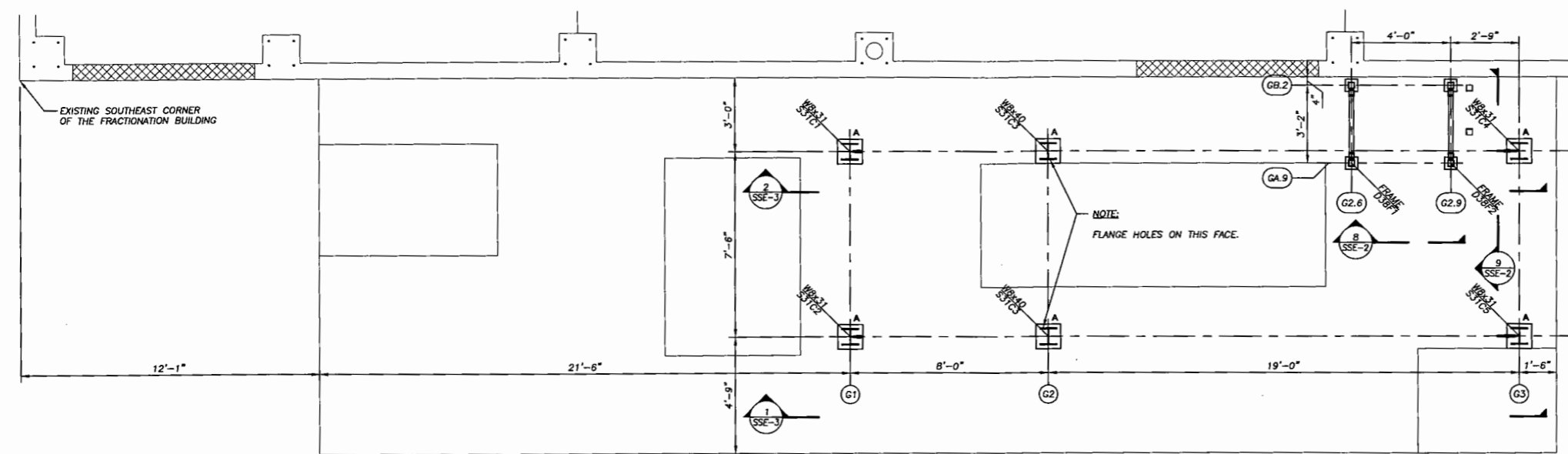
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Project Title:
BROIN ENTERPRISES, INC.
PILOT PLANT
 SCOTLAND, SD

Sheet Title:
GERM DRYER STRUCTURE FRAMING PLAN

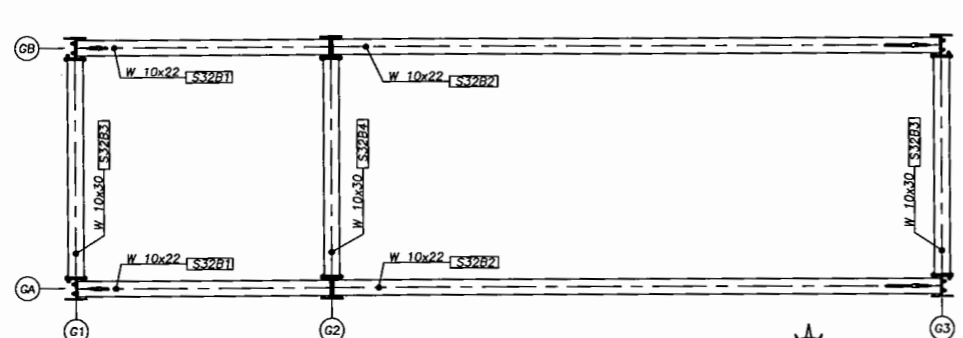
Project: BEI-PP
 Date: 5-30-03
 Drawn By: MS
 Checked By:
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SSE-2

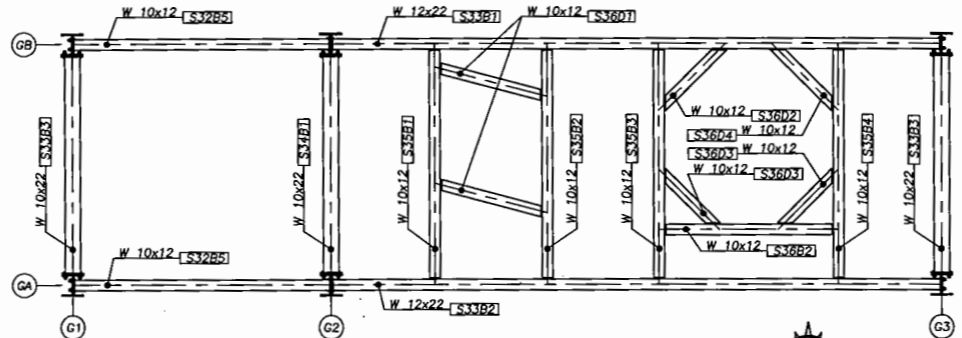


- NOTES:
- 1.) THE MILLWRIGHT IS RESPONSIBLE FOR THE TEMPORARY SUPPORT OF ALL EQUIPMENT DURING CONSTRUCTION OF THE BUILDING. SOME EQUIPMENT IS NOT DESIGNED TO WITHSTAND LATERAL FORCES PRODUCED BY THE WIND.
 - 2.) ALL STRUCTURAL STEEL IS A992 UNLESS OTHERWISE SPECIFIED.
 - 3.) 1" x 1/8" 19W4 BAR GRATING, GALVANIZED (REFER TO SPECIFICATIONS FOR PAINT TYPE).
 - 4.) FASTEN FLOOR GRATING TO FLOOR BEAMS w/ SADDLE CLAMPS PROVIDED BY MILLWRIGHT. SPACE ACCORDING TO BAR GRATE MANUFACTURER'S SPECIFICATIONS. ALL LEVELS HAVE GRATING AS SPECIFIED.
 - 5.) ALL DIMENSIONS ARE TO Q OF STEEL.

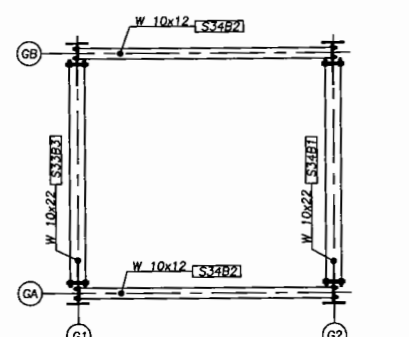
1 GERM DRYER STRUCTURE - ANCHOR & COLUMN PLAN
 SSE-2 SCALE: 3/8" = 1'-0"
 ELEV. = 0'-1"



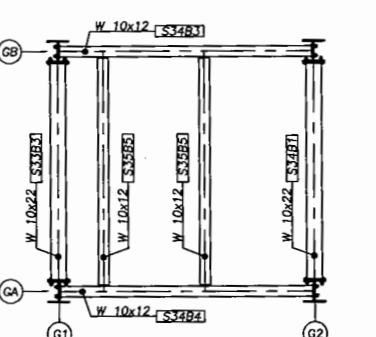
2 GERM DRYER STRUCTURE FRAMING - LEVEL 1
 SSE-2 SCALE: 3/8" = 1'-0"
 ELEV. = 13'-10"



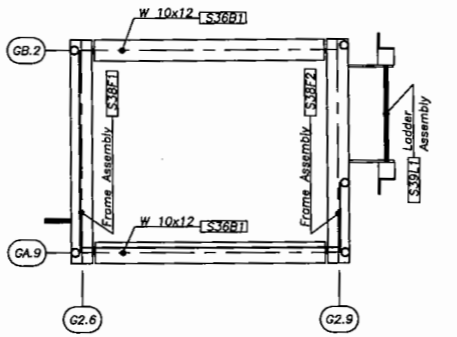
3 GERM DRYER STRUCTURE FRAMING - LEVEL 2
 SSE-2 SCALE: 3/8" = 1'-0"
 ELEV. = 23'-7"



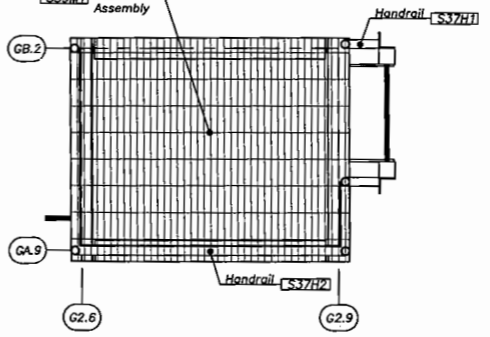
4 GERM DRYER STRUCTURE FRAMING - LEVEL 3
 SSE-2 SCALE: 3/8" = 1'-0"
 ELEV. = 29'-1"



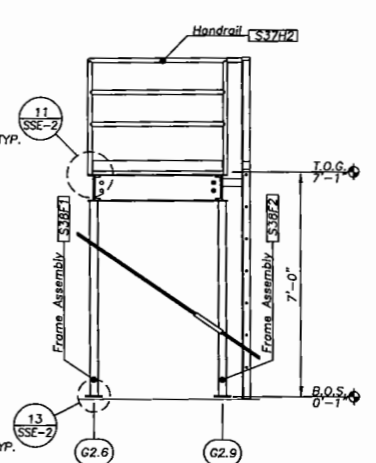
5 GERM DRYER STRUCTURE FRAMING - LEVEL 4
 SSE-2 SCALE: 3/8" = 1'-0"
 ELEV. = 40'-11"



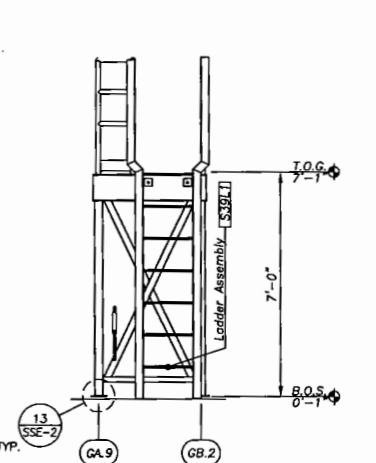
6 GERM DRYER STRUCTURE FRAMING - ACCESS PLATFORM
 SSE-2 SCALE: 3/4" = 1'-0"
 ELEV. = 7'-0"



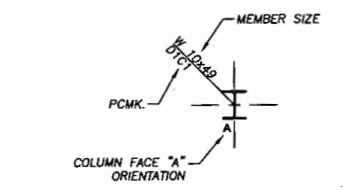
7 GERM DRYER STRUCTURE - GRATING & HANDRAIL - ACCESS PLATFORM
 SSE-2 SCALE: 3/4" = 1'-0"
 ELEV. = 7'-0"



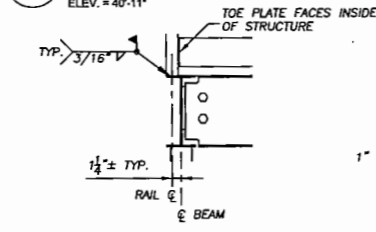
8 GERM DRYER STRUCTURE ACCESS PLATFORM - SECTION
 SSE-2 SCALE: 3/8" = 1'-0"
 ELEV. = 7'-0"



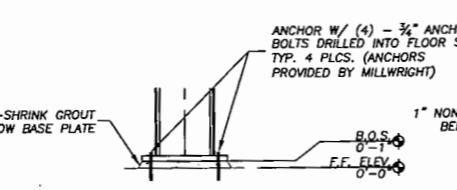
9 GERM DRYER STRUCTURE ACCESS PLATFORM - SECTION
 SSE-2 SCALE: 3/8" = 1'-0"
 ELEV. = 7'-0"



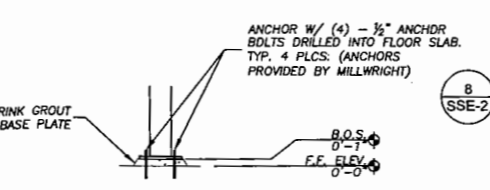
10 COLUMN IDENTIFICATION
 SSE-2 NO SCALE



11 TYP. HANDRAIL LOCATION
 SSE-2 SCALE: 1" = 1'-0"



12 BASE PLATE DETAIL
 SSE-2 SCALE: 1" = 1'-0"
 TYP. 6 PLCS.

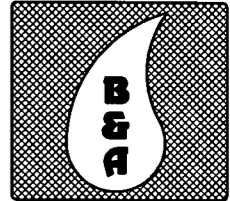


13 BASE PLATE DETAIL
 SSE-2 SCALE: 1" = 1'-0"
 TYP. 4 PLCS.

ERECTOR NOTE:
 USE 1-HIGH STRENGTH WASHER OVER ALL SLOTS IN CONNECTIONS FOR ALL BEAM TO BEAM AND BEAM TO COLUMN CONNECTIONS.

Plot Date: Jun 02, 2003 Plot Time: 3:54pm File Name: F:\DWG\BEI-PP\Structural\Erection Dwg\Misc Site Fraction Drawings-2.dwg Layout: SSE-2 By: dsdrafa

Plot Date: Jun 02, 2003 Plot Time: 3:42pm File Name: F:\DWG\BEI-PP\Structural\Erection Draw\Misc Site Erection Drawings-2.dwg Layout: SSE-3 By: dsdstr44



BROIN & ASSOCIATES
 PLANT DESIGN, ENGINEERING
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Revisions:

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Project Title:
BROIN ENTERPRISES, INC.

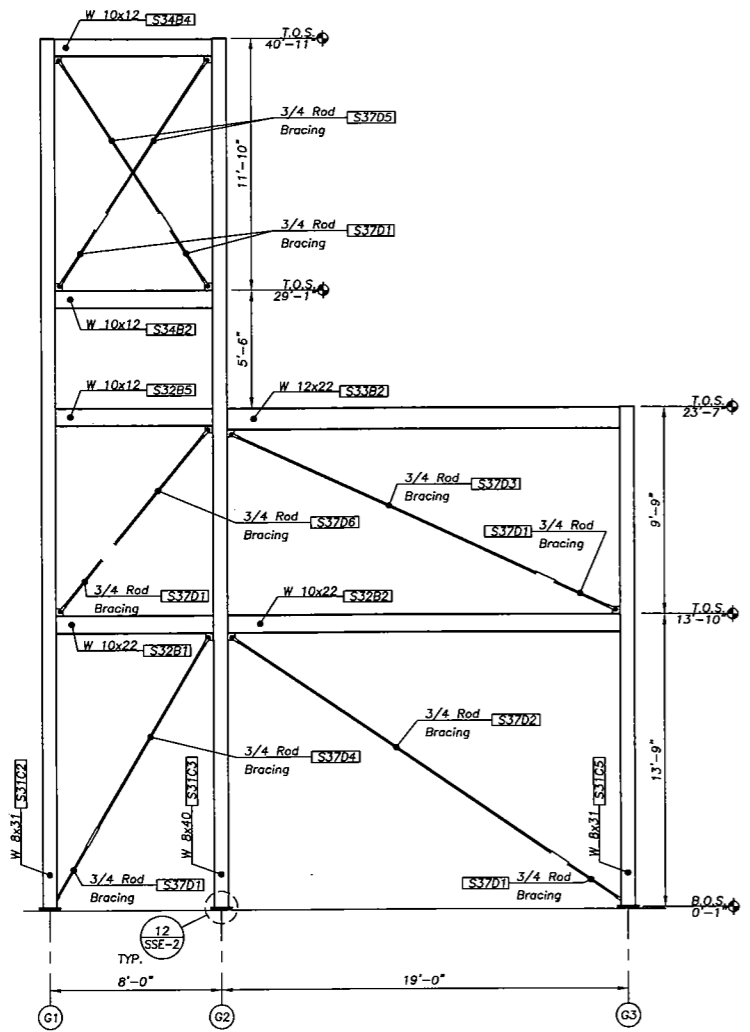
PILOT PLANT

SCOTLAND, SD

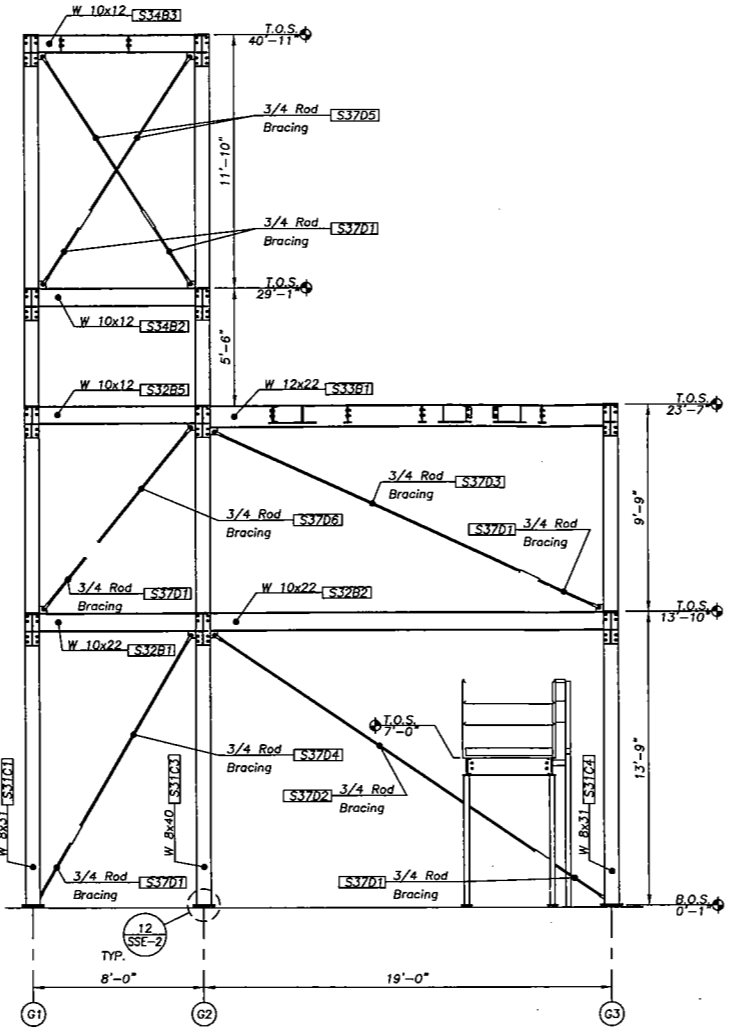
Sheet Title:
GERM DRYER STRUCTURE FRAMING PLAN

Project: BEI-PP
 Date: 5-30-03
 Drawn By: MS
 Checked By:
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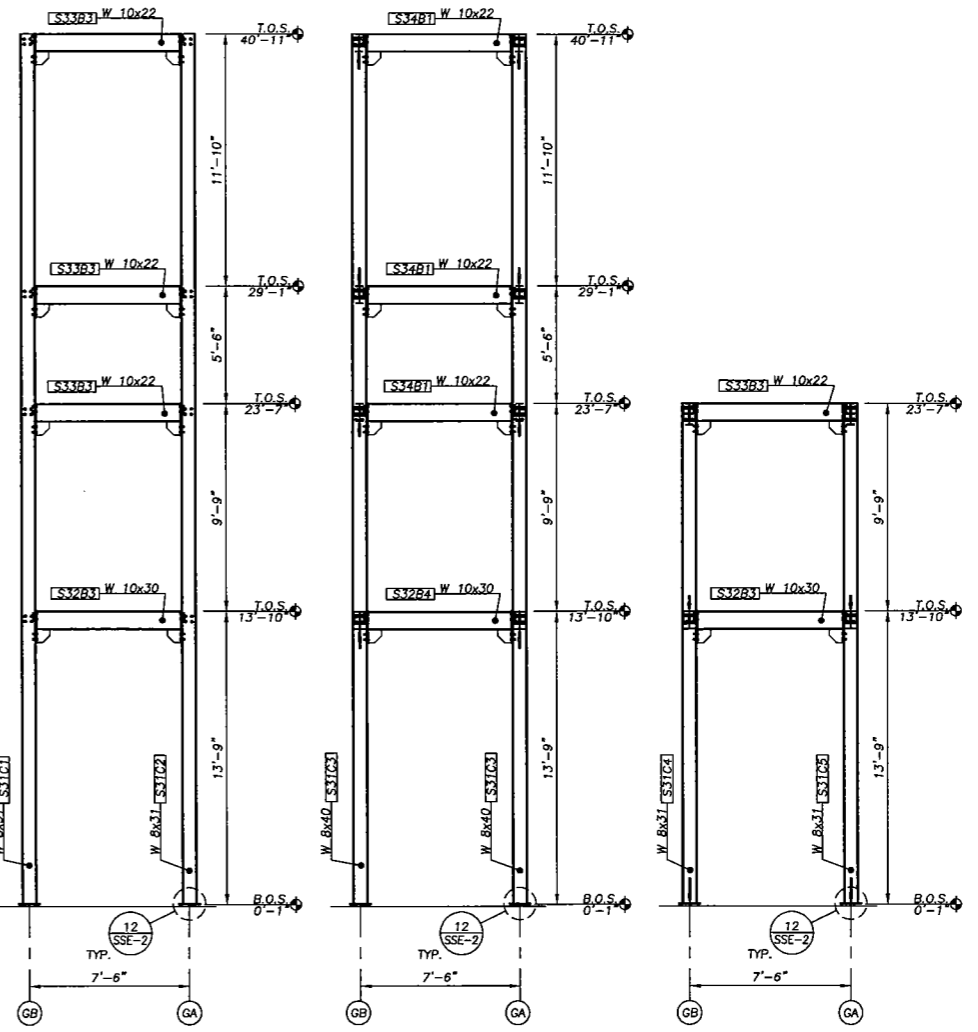
SSE-3



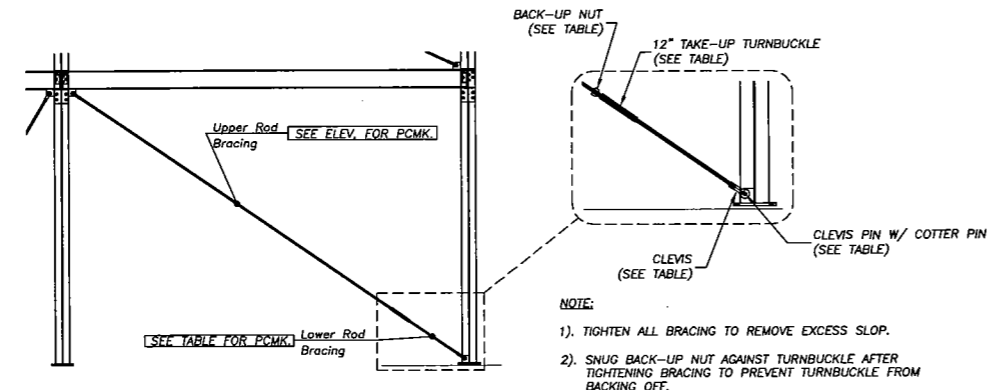
1 GERM DRYER STRUCTURE FRAMING - EAST ELEV. @ GRID LINE GA
 SSE-3 SCALE: 1/4" = 1'-0"



2 GERM DRYER STRUCTURE FRAMING - EAST ELEV. @ GRID LINE GB
 SSE-3 SCALE: 1/4" = 1'-0"



3 GERM DRYER STRUCTURE FRAMING - SOUTH ELEV. @ GRID LINE G1, G2, G3
 SSE-3 SCALE: 1/4" = 1'-0"



4 TYPICAL BRACING ERECTION
 SSE-3 NO SCALE

- NOTE:**
- 1). TIGHTEN ALL BRACING TO REMOVE EXCESS SLOP.
 - 2). SNUG BACK-UP NUT AGAINST TURNBUCKLE AFTER TIGHTENING BRACING TO PREVENT TURNBUCKLE FROM BACKING OFF.

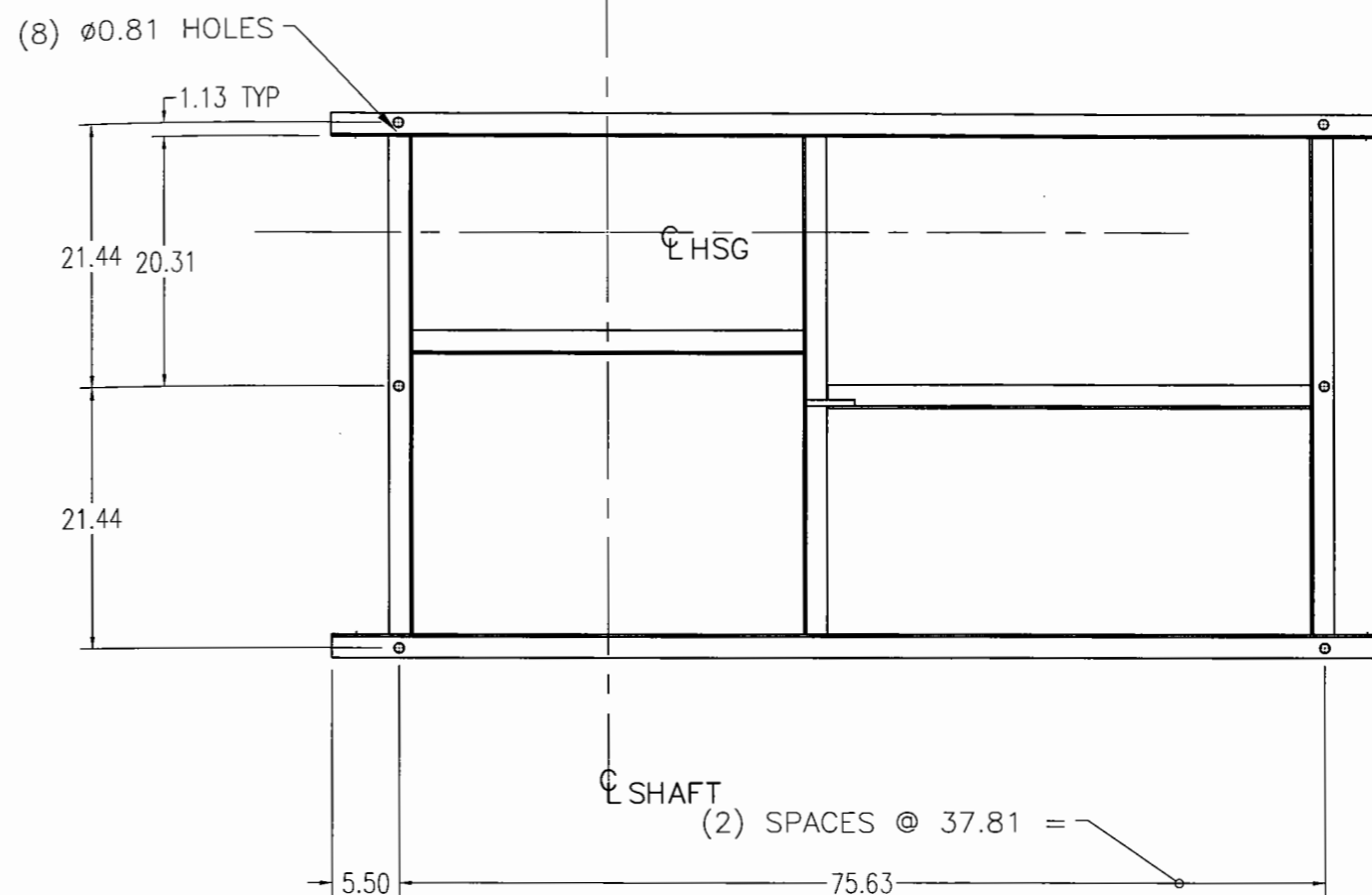
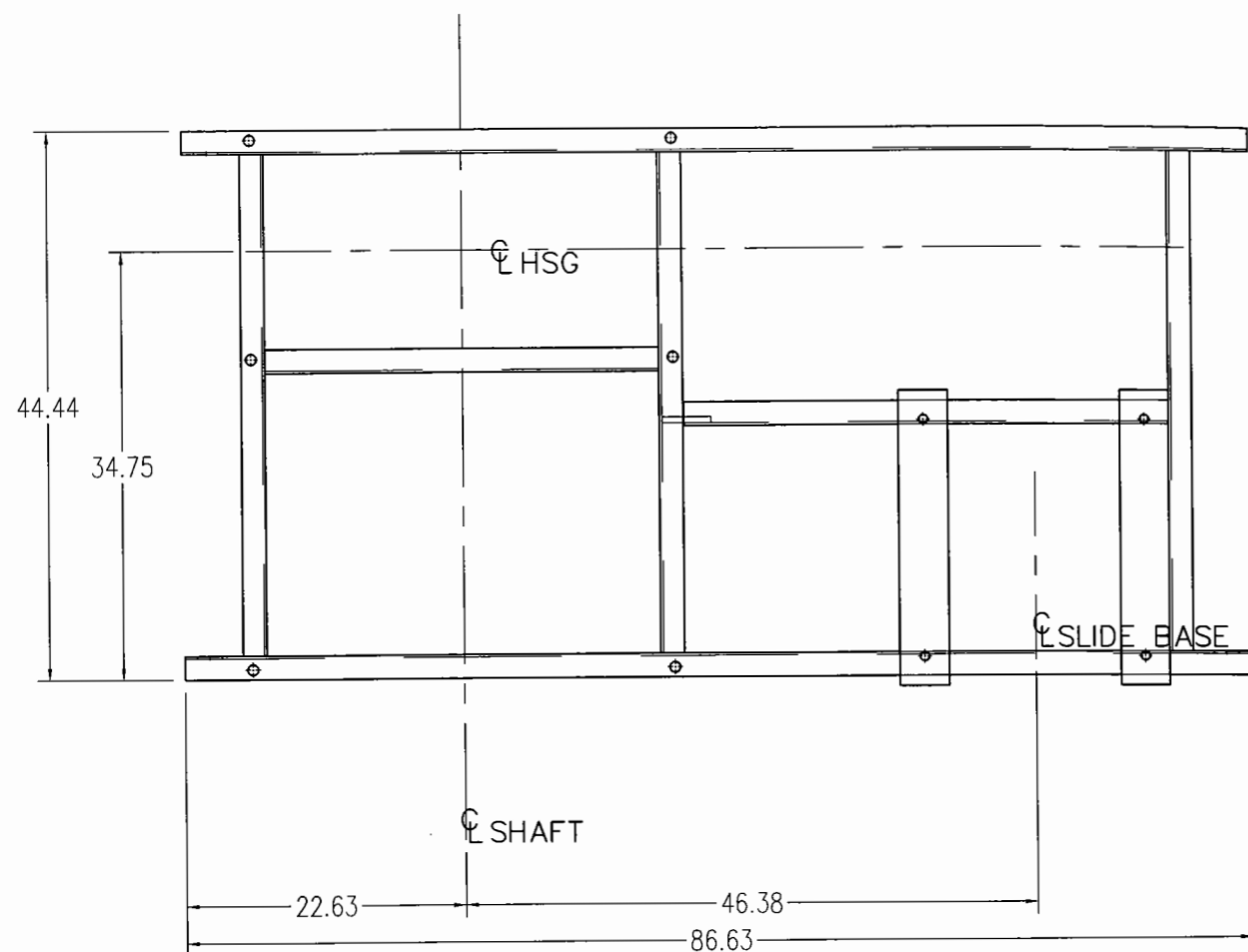
BRACING MATERIAL SCHEDULE

ITEM	QTY	DESCRIPTION	LENGTH
S37D1	12	3/4" # ROD	3'-0"
S37D2	2	3/4" # ROD	17'-11"
S37D3	2	3/4" # ROD	15'-7"
S37D4	2	3/4" # ROD	10'-2"
S37D5	4	3/4" # ROD	8'-6"
S37D6	2	3/4" # ROD	6'-9"

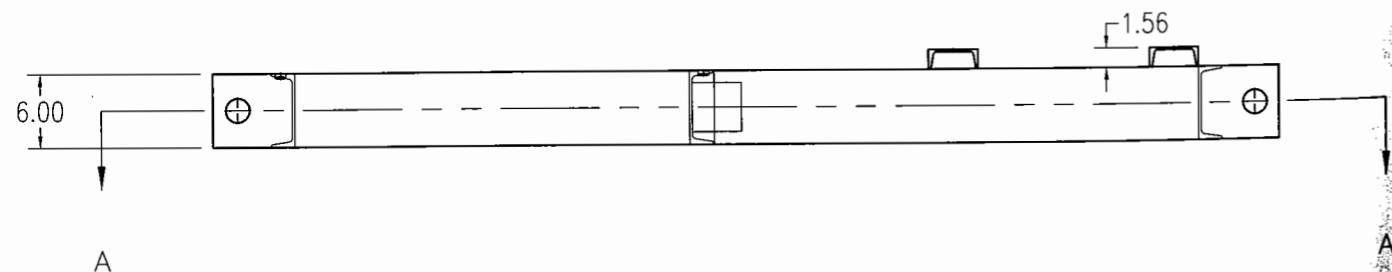
CLEVIS / TURNBUCKLE SCHEDULE

ROD SIZE	LOWER ROD PCMK	NUT & TURNBUCKLE SIZE	CLEVIS #	CLEVIS PIN SIZE
3/4"	S37D1	3/4"	#2	5/8"

ERECTOR NOTE:
 USE 1-HIGH STRENGTH WASHER OVER ALL SLOTS IN CONNECTIONS FOR ALL BEAM TO BEAM AND BEAM TO COLUMN CONNECTIONS.



SECTION A-A
(FOUNDATION PLAN VIEW)



FAN WEIGHTS		BELT CENTERS		TYPE	ARRANGEMENT	WIDTH	SIZE	CLASS	DISCHARGE
FAN	1752	MIN	48.1	RBA	1	SW	921	32	UBD
MOTOR	816	MAX	52.1	ROTATION	ROTATABLE	%WIDTH	%DIA		MOTOR POS.
BASE	272	ACTUAL	51.0	CW	N	67	100		W

DRIVE INFORMATION	MTR. SHEAVE 3B5V124
	MTR BUSHING B 2 3/8
	FAN SHEAVE 3R5V118
	FAN BUSHING R1 2 15/16
	BELTS (3) 5VX1400
	TYPE FIXED
	SERVICE FACTOR: 1.5
	FURNISHED BY TCF
	MOUNTED BY OTHERS

MOTOR DESCRIPTION	TYPE TEFC PREM. EFF.
	HP 75 R.P.M. 1800
	MOTOR FRAME 365T
	PHASE / CYCLE / VOLTAGE
	3/60/460
	FURNISHED BY OTHERS
	MOUNTED BY OTHERS

CUSTOMER	BARR-ROSIN INC.
JOB NAME	-
JOB LOCATION	-
CONSULTING ENGINEER	-
S.O. NUMBER	179052
CUST. P.O. No.	2253/10
TAG UNIT	FANC/03
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DRAWN BY	BASES
DATE	3/31/03
CHKD BY	KTB
DATE	3/31/03
PART NO.	
MATERIAL	
FILE	179052-003-0B

Twin City Fan Companies, Ltd.
Aerovent • Fiber-Aire • TC Axial • TC Ventco • Twin City Fan & Blower
 Member of Air Movement and Control Association
 5959 Trenton Lane - Minneapolis, MN 55442-3238

TITLE: UNITARY BASE ASSEMBLY

SCALE	DRAWING NO.	ROW	ITEM	REV.
	BC179052	003	01	