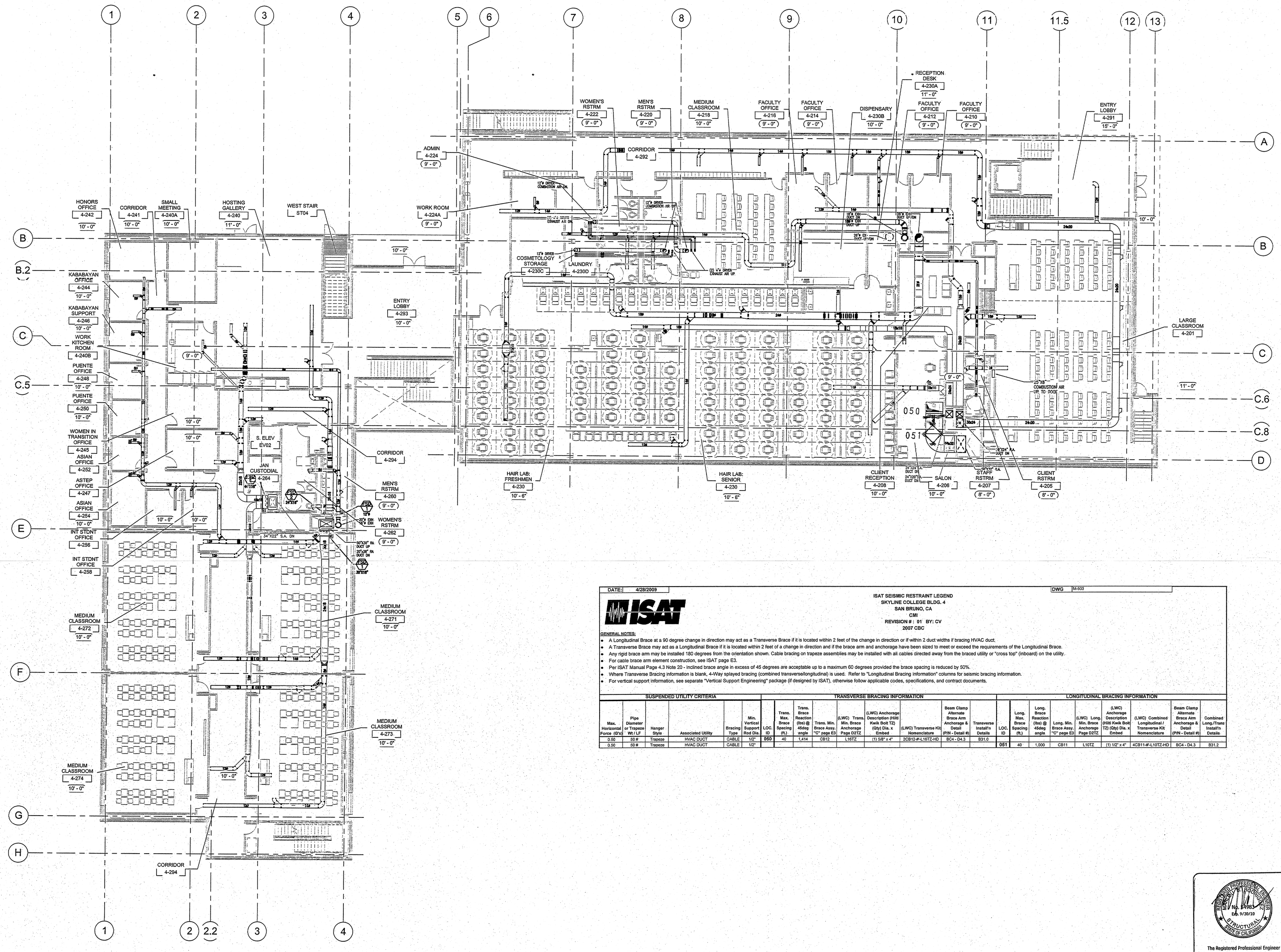

DATE: 4/28/2009 | DWG M-503

ISAT

ISAT SEISMIC RESTRAINT LEGEND
SKYLINE COLLEGE BLDG. 4
SAN BRUNO, CA
CMI
REVISION # : 01 BY: CV
2007 CBC

GENERAL NOTES:

- A Longitudinal Brace at a 90 degree change in direction may act as a Transverse Brace if it is located within 2 feet of the change in direction or if within 2 duct widths if bracing HVAC duct.
- A Transverse Brace may act as a Longitudinal Brace if it is located within 2 feet of a change in direction and if the brace arm and anchorage have been sized to meet or exceed the requirements of the Longitudinal Brace.
- Any rigid brace arm may be installed 180 degrees from the orientation shown. Cable bracing on trapeze assemblies may be installed with all cables directed away from the braced utility or "cross top" (inboard) on the utility.
- For cable brace arm element construction, see ISAT page E3.
- Per ISAT Manual Page 4.3 Note 20 - Inclined brace angle in excess of 45 degrees are acceptable up to a maximum 60 degrees provided the brace spacing is reduced by 50%.
- Where Transverse Bracing information is blank, 4-Way splayed bracing (combined transverse&longitudinal) is used. Refer to "Longitudinal Bracing Information" columns for seismic bracing information.
- For vertical support information, see separate "Vertical Support Engineering" package (if designed by ISAT), otherwise follow applicable codes, specifications, and contract documents.

SUSPENDED UTILITY CRITERIA						TRANSVERSE BRACING INFORMATION									LONGITUDINAL BRACING INFORMATION								
Max. Horizontal Force (Q'x)	Pipe Diameter or Trapeze Wt / LF	Hanger Style	Associated Utility	Bracing Type	Min. Vertical Support Rod Dia.	LOC. ID	Trans. Max. Brace Spacing (ft.)	Trans. Brace Reaction (lbs) @ 45deg angle	Trans. Min. Brace Assy. "C" page E3	(LWC) Trans. Min. Brace Anchorage Page D2TZ	(LWC) Anchorage Description (Hilti Kwik Bolt TZ) (Qty) Dia. x Embed	(LWC) Transverse Kit Nomenclature	Beam Clamp Alternate Brace Arm Anchorage & Detail (P/N - Detail #)	Transverse Install'n Details	LOC. ID	Long. Max. Brace Spacing (ft.)	Long. Brace Reaction (lbs) @ 45deg angle	Long. Min. Brace Assy. "C" page E3	(LWC) Long. Min. Brace Anchorage Page D2TZ	(LWC) Anchorage Description (Hilti Kwik Bolt TZ) (Qty) Dia. x Embed	(LWC) Combined Longitudinal / Transverse Kit Nomenclature	Beam Clamp Alternate Brace Arm Anchorage & Detail (P/N - Detail #)	Combined Long./Trans Install'n Details
0.90	50 #	Trapeze	HVAC DUCT	CABLE	1/2"	050	40	1,414	CB12	L10TZ	(1) 5/8" x 4"	2CB12-#-L10TZ-HD	BC4 - D4.3	B31.0	051	40	1,000	CB11	L10TZ	(1) 1/2" x 4"	4CB11-#-L10TZ-HD	BC4 - D4.3	B31.2
0.90	50 #	Trapeze	HVAC DUCT	CABLE	1/2"																		

WRNS STUDIO LLP
501 SECOND STREET
4TH FLOOR, STE. 402
SAN FRANCISCO
CALIFORNIA 94107
415.489.2224 TEL
415.358.9100 FAX
WWW.WRNSSTUDIO.COM

Steinberg Architects

Hensel Phelps Construction Co.

CMI
CRINGSFIELD MECHANICAL, INC.
4008 CAMPBELL AVENUE
MENLO PARK CA 94025
TEL (650) 321-7901
FAX (650) 321-1798

"These drawings and specifications have been prepared by CMI for their exclusive use in accord with Sec. 6737.4 of the Professional Engineers Act of the State of California."

NO.	ISSUES/REVISIONS	DATE
	100% SCHEMATIC DESIGN	04/28/08
	50 % DESIGN DEVELOPMENT	06/13/08
	100% DESIGN DEVELOPMENT	07/28/08
	INCREMENT 2 50% REVIEW	10/10/08
	DSA INCREMENT 2 STRUCTURE & GFRC PANELS	11/11/08
7	DSA INCREMENT #3 50% REVIEW	11/11/08
9	DSA INCREMENT #3 90% REVIEW	12/19/08
10	DSA INCREMENT #3 TENANT IMPROVEMENT AND ROOFING SYSTEM	03/09/09
12	HPCC REVIEW	04/30/09
14	DSA INCREMENT #3 BACKCHECK	05/12/09
	AS BUILTS	12/15/10

DIVISION OF THE STATE ARCHITECT
APPL # 01-110117
FILE # 41-C1
AC _____ FLS _____
SSS _____ DATE _____
IDENTIFICATION STAMP

Increment 3

SKYLINE COLLEGE
SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT

CIP2 DESIGN-BUILD PROJECT
BUILDING 4
INCREMENT 3

KEYPLAN

REGISTERED PROFESSIONAL ENGINEER
No. S4983
Exp. 9/30/10
STRUCTURAL
STATE OF CALIFORNIA

The Registered Professional Engineer (Structural) stamp No. S4983 and signature that appear on this drawing apply only to approval of the ISAT seismic bracing associated with the utilities shown on this drawing as delineated within the adjoining Seismic Bracing Legend.

CMI PROJECT NO.: 28212 DRAWN BY:
DATE: 04/28/08 CHECKED BY:
SCALE: 0 4' 8' 12' 16' 24' 32'

SHEET TITLE:

LEVEL 2
MECHANICAL
SEISMIC
FLOOR
PLAN

SHEET NO:

M-503

All drawings and written material appearing herein constitute original and unpublished work of the Architect/Engineer and may not be duplicated, used or disclosed without consent of Architect/Engineer.

If this drawing is not 30"x42", then the drawing has been revised from its original size. Noted scales must be adjusted. This line should be equal to one inch