

The following pages contain the detailed cost estimate for each project area.

Preliminary Cost Summary

Page No.: SUMMARY SHEET
Date: 1-Dec-12

1,930 SF 1,000 SF 3,500 SF 2,900 SF

Estimate By: WPJ
2,700 SF

ITEM	DESCRIPTION	AREA 1 STUDENT ADMIN NORTH ENTRY		AREA 2 STUDENT ADMIN SOUTH ENTRY		AREA 3 BAXTER CENTER		AREA 4 STUDENT CENTER		AREA 5 EQUITY CENTER	
		COST	\$ / SF	COST	\$ / SF	COST	\$ / SF	COST	\$ / SF	COST	\$ / SF

DIRECT HARD COSTS

1.	DEMOLITION-CORING	\$ 5,741	\$ 2.97	\$ 3,875	\$ 3.88	\$ 10,316	\$ 2.95	\$ 5,081	\$ 1.75	\$ 8,373	\$ 3.10
2.	BUILDING CONCRETE	\$ 1,294	\$ 0.67	\$ 200	\$ 0.20	\$ 2,321	\$ 0.66	\$ 0	\$ 0.00	\$ 1,306	\$ 0.48
3.	STR. STEEL-MISC. IRON	\$ 0	\$ 0.00	\$ 0	\$ 0.00	\$ 1,200	\$ 0.34	\$ 0	\$ 0.00	\$ 0	\$ 0.00
4.	ROUGH CARPENTRY	\$ 529	\$ 0.27	\$ 200	\$ 0.20	\$ 840	\$ 0.24	\$ 168	\$ 0.06	\$ 0	\$ 0.00
5.	FINISH CARPENTRY-MILLWORK	\$ 19,888	\$ 10.30	\$ 0	\$ 0.00	\$ 0	\$ 0.00	\$ 3,000	\$ 1.03	\$ 0	\$ 0.00
6.	DOORS-FRAMES-HARDWARE	\$ 3,805	\$ 1.97	\$ 175	\$ 0.18	\$ 6,305	\$ 1.80	\$ 2,855	\$ 0.98	\$ 12,955	\$ 4.80
7.	GLASS and GLAZING	\$ 20,128	\$ 10.43	\$ 10,766	\$ 10.77	\$ 21,000	\$ 6.00	\$ 11,776	\$ 4.06	\$ 16,098	\$ 5.96
8.	DRYWALL / FRAMING / INSUL.	\$ 7,565	\$ 3.92	\$ 6,291	\$ 6.29	\$ 10,970	\$ 3.13	\$ 7,358	\$ 2.54	\$ 17,913	\$ 6.63
9.	CERAMIC TILE-STONEMWORK	\$ 0	\$ 0.00	\$ 0	\$ 0.00	\$ 0	\$ 0.00	\$ 0	\$ 0.00	\$ 0	\$ 0.00
10.	ACOUSTICAL CEILINGS	\$ 2,377	\$ 1.23	\$ 1,490	\$ 1.49	\$ 24,354	\$ 6.96	\$ 1,666	\$ 0.57	\$ 7,183	\$ 2.66
11.	FLOOR COVERING	\$ 4,735	\$ 2.45	\$ 1,784	\$ 1.78	\$ 24,865	\$ 7.10	\$ 13,702	\$ 4.72	\$ 17,130	\$ 6.34
12.	PAINTING-WALLCOVERING	\$ 2,289	\$ 1.19	\$ 1,552	\$ 1.55	\$ 4,498	\$ 1.29	\$ 4,879	\$ 1.68	\$ 6,274	\$ 2.32
13.	MISCELLANEOUS SPECIALTIES	\$ 5,600	\$ 2.90	\$ 4,850	\$ 4.85	\$ 250	\$ 0.07	\$ 100	\$ 0.03	\$ 5,600	\$ 2.07
14.	EQUIPMENT	\$ 7,790	\$ 4.04	\$ 1,400	\$ 1.40	\$ 93,780	\$ 26.79	\$ 0	\$ 0.00	\$ 4,140	\$ 1.53
15.	FURNISHINGS	\$ 0	\$ 0.00	\$ 0	\$ 0.00	\$ 3,360	\$ 0.96	\$ 0	\$ 0.00	\$ 0	\$ 0.00
16.	FIRE SUPPRESSION	\$ 2,895	\$ 1.50	\$ 1,500	\$ 1.50	\$ 5,250	\$ 1.50	\$ 4,350	\$ 1.50	\$ 4,050	\$ 1.50
17.	PLUMBING	\$ 3,500	\$ 1.81	\$ 0	\$ 0.00	\$ 0	\$ 0.00	\$ 0	\$ 0.00	\$ 0	\$ 0.00
18.	H.V.A.C.-DUCTWORK	\$ 23,375	\$ 12.11	\$ 12,250	\$ 12.25	\$ 105,250	\$ 30.07	\$ 5,313	\$ 1.83	\$ 105,250	\$ 38.98
19.	ELECTRICAL	\$ 22,381	\$ 11.60	\$ 18,806	\$ 18.81	\$ 159,988	\$ 45.71	\$ 24,656	\$ 8.50	\$ 85,760	\$ 31.76
DIRECT SUBTOTALS		\$ 133,891	\$ 69.37	\$ 65,139	\$ 65.14	\$ 474,546	\$ 135.58	\$ 84,904	\$ 29.28	\$ 292,031	\$ 108.16

INDIRECT HARD COSTS

20.	GENERAL CONDITIONS	\$ 27,000	\$ 13.99	\$ 27,000	\$ 27.00	\$ 35,950	\$ 10.27	\$ 31,500	\$ 10.86	\$ 31,500	\$ 11.67
21.	BOND AND INSURANCE, B&O	\$ 5,148	\$ 2.67	\$ 2,948	\$ 2.95	\$ 16,336	\$ 4.67	\$ 3,744	\$ 1.29	\$ 10,353	\$ 3.83
22.	ESTIMATING CONTINGENCY	\$ 12,453	\$ 6.45	\$ 7,132	\$ 7.13	\$ 39,512	\$ 11.29	\$ 9,056	\$ 3.12	\$ 25,041	\$ 9.27
23.	CONTRACTOR OVERHEAD / FEE	\$ 8,925	\$ 4.62	\$ 5,111	\$ 5.11	\$ 28,317	\$ 8.09	\$ 6,490	\$ 2.24	\$ 17,946	\$ 6.65
24.	ESCALATION TO MIDPOINT	\$ 0	\$ 0.00	\$ 0	\$ 0.00	\$ 0	\$ 0.00	\$ 0	\$ 0.00	\$ 0	\$ 0.00
INDIRECT SUBTOTALS		\$ 53,526	\$ 27.73	\$ 42,191	\$ 42.19	\$ 120,115	\$ 34.32	\$ 50,790	\$ 17.51	\$ 84,841	\$ 31.42

GRAND TOTALS	\$ 187,000	\$ 97.11	\$ 107,000	\$ 107.33	\$ 595,000	\$ 169.90	\$ 136,000	\$ 46.79	\$ 377,000	\$ 139.58
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SPECIFIC EXCLUSIONS:

OPTIONS TO AREA 3 FOLDING WALL:

1. Utility connection fees/meters by Owner.	1. Deduct for fabric panel acoustical wall i.i.o. glazed folding wall	\$ (10,437)	\$ (3.87)
2. Hazardous material report and handling costs	2. Deduct for two pairs of double doors i.i.o. glazed folding wall	\$ (19,234)	\$ (7.12)
3. Loose fixtures and furniture	3.	\$ 0	\$ 0.00
4. Project soft costs	4.	\$ 0	\$ 0.00
5. Financing costs	5.	\$ 0	\$ 0.00
6.	6.	\$ 0	\$ 0.00
7.	7.	\$ 0	\$ 0.00

*Each project above is estimated as stand-alone. An economy of scale discount of 15% was applied when bundling projects. See the estimate notes section for more information.

PHASE 1 TOTAL (Areas 1 to 3) with Discount*	\$ 756,000	\$ 117.57
PHASE 2 TOTAL (Areas 4 to 5) with Discount*	\$ 436,000	\$ 77.86
GRAND TOTAL BOTH PHASES	\$ 1,192,000	\$ 99.09

Project: North Seattle CC Student Admin & Baxter Center Renov
 9600 College Way N, Seattle, WA 98103
 Area 1 Student Administration North Entry

PROJECT DELIVERY ANALYSTS, LLC
 9001 Springwood Ave. NE, Bainbridge Island, WA 98110



INTERIOR RENOVATION ESTIMATE

Client: schacht / aslani architects
 Eric Amin, Evan Bourquard
 Gross T. I. Sq. Footage: 1,930
 Space Planner: n/a
 Const. Duration (In Weeks): 6
 Plans Dated: 26-Nov-12
 Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
1. 02050 DEMOLITION-CORING								
Key #	D01	Demo exist wall	LF	39	\$ 7.00	\$ 273	\$ 0.14	Demo/remove wall to underside of deck above +12'-6"
	D02	Demo sliding doors	LF	46	\$ 10.00	\$ 460	\$ 0.24	Demo existing sliding door to underside of header
	D03	Remove door and frame	LEAF	1	\$ 50.00	\$ 50	\$ 0.03	Demo door and frame and haul away
	D04	Demo casework	LF	4	\$ 35.00	\$ 140	\$ 0.07	Demo casework, upper and lower, and haul away
	D06	Demo exist gwb soffit above	SF	0	\$ 3.00	\$ 0	\$ 0.00	Demo existing soffit above - also see D20
	D08	Demo tile carpet	SF	982	\$ 0.45	\$ 442	\$ 0.23	Demo carpet tile and adhesive below
	D11	Demo raised platform	SF	0	\$ 8.00	\$ 0	\$ 0.00	Demo raised platform, stair, flooring at Projection booth
	D13	Demo movable partition	LF	0	\$ 15.00	\$ 0	\$ 0.00	Demo movable partition and hardware
	D15	Demo A/V equip., controls	LS	0	\$ 500.00	\$ 0	\$ 0.00	Demo A/V equipment and lighting controls
	D16	Demo wall for new door	SF	0	\$ 5.00	\$ 0	\$ 0.00	Demo 3x7 opening for a new door
	D20	Demo soffits	SF	240	\$ 3.00	\$ 720	\$ 0.37	Demo gwb soffits and framing
	D21	Demo ACT ceiling system	SF	0	\$ 0.50	\$ 0	\$ 0.00	Demo / Removal of existing suspended cigs.
	D22	Demo GWB ceiling system	SF	648	\$ 2.50	\$ 1,620	\$ 0.00	Demo / Removal of existing gwb ceilings
	D23	Demo ceiling projector	EA	1	\$ 50.00	\$ 50	\$ 0.03	Demo existing ceiling mounted projector and salvage
	D24	Demo vertical soffit	SF	0	\$ 3.00	\$ 0	\$ 0.00	Demo vertical face of soffit to underside of deck
	D25	(E.) GWB soffit to remain	SF	0	\$ 0.00	\$ 0	\$ 0.00	No work, see below for protect existing construction
	D26	Demo vinyl flooring	SF	0	\$ 0.50	\$ 0	\$ 0.00	Demo vinyl flooring and base, see below for slab prep
		Project existing const	LS	1	\$ 500.00	\$ 500	\$ 0.26	Protect existing walls and ceilings during const.
Note 2		Misc. floor cut and remove	EA	2	\$ 250.00	\$ 500	\$ 0.26	Allowance for plumbing drain and vent slab cores
		Misc. wall or ceiling cuts	LS	1	\$ 350.00	\$ 350	\$ 0.18	Allowance for items not called out, field conditions
		Misc. poke thru for electrical	EA	8	\$ 75.00	\$ 600	\$ 0.31	Floor penetrations for power and data
Subtotals:						\$ 5,741	\$ 2.97	Based on Gross S.F.
2. 03300 BUILDING CONCRETE								
		Floor patch at penetrations	EA	2	\$ 200.00	\$ 400	\$ 0.21	Floor patch at 1st floor plumbing penetration
		Fire stopping at penetrations	EA	2	\$ 75.00	\$ 150	\$ 0.08	Fire stopping at first floor plumbing penetration
		Minor floor patch	EA	8	\$ 50.00	\$ 400	\$ 0.21	Grout around electrical floor boxes
		Concrete premiums	PCT	0%	\$ 400.00	\$ 0	\$ 0.00	Short yard charges, half day for finisher
		Wall patch at penetrations	EA	0	\$ 300.00	\$ 0	\$ 0.00	Wall patch of cmu or concrete at MEP penetrations
		Firestop wall penetrations	EA	0	\$ 225.00	\$ 0	\$ 0.00	Firestop cmu or concrete at MEP penetrations
		Scrape and prep slab	SF	982	\$ 0.35	\$ 344	\$ 0.18	Remove old glue and fabric stuck to glue
Subtotals:						\$ 1,294	\$ 0.67	Based on Gross S.F.
3. 05500 STR. STEEL-MISC. IRON								
		ADA ramp wall rails	LF	0	\$ 25.00	\$ 0	\$ 0.00	Wall mounted pipe rail at ADA ramp per code
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
4. 06100 ROUGH CARPENTRY								
		Backing at bulletin board	EA	1	\$ 200.00	\$ 200	\$ 0.10	Hardwood backing for bulletin board
		Backing at ADA rail	LF	0	\$ 7.00	\$ 0	\$ 0.00	Continuous wood or metal backing in walls
		Backing at casework	LF	47	\$ 7.00	\$ 329	\$ 0.17	Continuous wood or metal backing in walls
Subtotals:						\$ 529	\$ 0.27	Based on Gross S.F.
5. 06400 FINISH CARPENTRY-MILLWORK								
	006	Casework assembly	LF	8	\$ 400.00	\$ 3,200	\$ 1.66	Upper cabinet and lower cabinet, see below for top
	006	Countertop	SF	133	\$ 37.50	\$ 4,988	\$ 2.58	P-lam countertop over lower cabinets
	007	Lower casework at Layout	LF	39	\$ 300.00	\$ 11,700	\$ 6.06	Lower cabinet 36" deep with drawers, top above
	016	Casework, display board	LF	0	\$ 0.00	\$ 0	\$ 0.00	See specialties section below
	005	Display counter, bulletin board	LF	0	\$ 150.00	\$ 0	\$ 0.00	See equipment section below

Continued on page 2...

INTERIOR RENOVATION ESTIMATE

Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
...Section 06400, continued from page 1								
		Cabinet backing	LF	0	\$ 0.00	\$ 0	\$ 0.00	See rough carpentry section above
		Not Used	SF	0	\$ 0.00	\$ 0	\$ 0.00	Not Used
		Not Used	SF	0	\$ 0.00	\$ 0	\$ 0.00	Not Used
Subtotals:						\$ 19,888	\$ 10.30	Based on Gross S.F.
6. 08100 DOORS-FRAMES-HARDWARE								
014		Entry door assembly	LEAF	0	\$ 1,100	\$ 0	\$ 0.00	3'-0"x7'-0" HMxWD, with standard hardware
015		Passage door assembly	LEAF	3	\$ 950	\$ 2,850	\$ 1.48	3'-0"x7'-0" HMxWD, with passage hardware
		Freight	LS	1	\$ 350	\$ 350	\$ 0.18	Special freight for small job
		Shop drawings	HRS	2	\$ 65	\$ 130	\$ 0.07	Detailing for small job
		Minimum trip charge	HRS	4	\$ 75	\$ 300	\$ 0.16	Minimum half day for door install
		Acoustic seals and thresholds	OPG	0	\$ 200	\$ 0	\$ 0.00	NOT USED
		Card reader and panic	OPG	0	\$ 1,500	\$ 0	\$ 0.00	NOT USED
		1 hr. rating upgrade	OPG	0	\$ 150	\$ 0	\$ 0.00	Upgrade for test and label at corridor doors
		Access doors and frames	EA	1	\$ 175	\$ 175	\$ 0.09	Allowance for access doors
		Not Used	SF	0	\$ 0.00	\$ 0	\$ 0.00	Not Used
Subtotals:						\$ 3,805	\$ 1.97	Based on Gross S.F.
7. 08800 GLASS and GLAZING								
003		Storefront infill full height	SF	396	\$ 38.00	\$ 15,048	\$ 7.80	Full height interior storefront from FF to +9'-0"
004		Storefront infill partial height	SF	72	\$ 40.00	\$ 2,880	\$ 1.49	Partial height interior storefront from +3'-0" to +9'-0"
		Frame sidelite glazing	SF	0	\$ 25.00	\$ 0	\$ 0.00	Translucent safety glass at sidelites, clerestory
		Glazed folding partition	SF	0	\$ 75.00	\$ 0	\$ 0.00	Folding glazed partition, STC 50, to 10" above FF
014		Glazed entry door	PAIR	1.0	\$ 2,200	\$ 2,200	\$ 1.14	6'-0" x 7'-0" Aluminum x Glass entry with hardware
Subtotals:						\$ 20,128	\$ 10.43	Based on Gross S.F.
8. 09250 DRYWALL-MTL STUDS-INSULATION								
001		Wall type 1 general partition	SF	275	\$ 6.85	\$ 1,884	\$ 0.98	Typical partition, to lower flutes, with insulation, typ
001		Wall type 1 general partition	SF	200	\$ 8.00	\$ 1,600	\$ 0.83	Full height to deck, around flutes, with insulation, typ
002		Drywall partition infill	SF	24	\$ 13.00	\$ 312	\$ 0.16	Infill old door openings, and patch to +8'
		Drywall partition partial height	SF	78	\$ 7.00	\$ 546	\$ 0.28	Drywall partition above and below partial storefront
		Acoustical wall insulation	SF	0	\$ 0.00	\$ 0	\$ 0.00	Insulation is included with assemblies above
		Premium for 20 gauge	SF	108	\$ 0.70	\$ 76	\$ 0.04	Upsized studs to 20 ga where supporting casework
011		GWB soffit and framing, +9'	SF	195	\$ 6.50	\$ 1,268	\$ 0.66	New gwb soffit above stage area
		Ceiling edge banding	LF	0	\$ 10.00	\$ 0	\$ 0.00	GWB banding wall at transition to ACT
		Patch existing perimeter walls	EA	2	\$ 75.00	\$ 150	\$ 0.08	Patch existing where old walls were removed
		Patch existing walls	LS	1	\$ 250.00	\$ 250	\$ 0.13	Allowance to patch for new outlets and switches
		Remove gwb and patch	SF	156	\$ 5.00	\$ 780	\$ 0.40	Removal and patch for counter backing at Layout
		Remove gwb and patch	SF	0	\$ 5.00	\$ 0	\$ 0.00	Removal and patch for wall mounted handrail
		Patch walls for MEP	LS	1	\$ 350.00	\$ 350	\$ 0.18	Patch any wall penetrations by MEP sub
		Misc. and punch list	LS	1	\$ 350.00	\$ 350	\$ 0.18	Allowance for misc. patching
Subtotals:						\$ 7,565	\$ 3.92	Based on Gross S.F.
9. 09300 CERAMIC TILE-STONEWORK								
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
10. 09500 ACOUSTICAL CEILINGS								
		Removal of existing SACT	HRS	0	\$ 0.00	\$ 0	\$ 0.00	See demo section above for removal
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
		Replace damaged ceiling tiles	SF	75	\$ 2.50	\$ 188	\$ 0.10	Replace damaged tiles from construction with new
		Replace grid and tiles	HRS	4	\$ 50.00	\$ 200	\$ 0.10	Replace lay in grid and tiles for MEP contractor
021		New SACT ceilings	SF	442	\$ 4.50	\$ 1,989	\$ 1.03	New SACT ceilings as shown
025		Acoustical liner	SF	0	\$ 5.00	\$ 0	\$ 0.00	Acoustical duct liner within structural bays
026		Linear wood ceiling system	SF	0	\$ 20.00	\$ 0	\$ 0.00	9-Wood linear ceiling system
Subtotals:						\$ 2,377	\$ 1.23	Based on Gross S.F.

INTERIOR RENOVATION ESTIMATE

Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
11. 09680 FLOOR COVERING								
030		Resilient sheet flooring	SY	0	\$ 38.00	\$ 0	\$ 0.00	Resilient flooring at corridors, with 10% waste
012		Carpet tiles	SY	58	\$ 50.00	\$ 2,909	\$ 1.51	Carpet tiles including 10% waste
		New rubber base	LF	170	\$ 2.00	\$ 340	\$ 0.18	New 4" base at new walls and existing walls
013		Linoleum flooring	SY	39	\$ 38.00	\$ 1,486	\$ 0.77	Linoleum to match existing
Subtotals:						\$ 4,735	\$ 2.45	Based on Gross S.F.
12. 09900 PAINTING-WALLCOVERING								
		Wall Painting new	SF	831	\$ 0.60	\$ 499	\$ 0.26	2 coat flat interior latex paint on drywall
		Wall Painting existing	SF	855	\$ 0.65	\$ 556	\$ 0.29	Repaint existing perimeter walls
		Wall painting at patches	SF	150	\$ 1.00	\$ 150	\$ 0.08	Allow wall painting for MEP patches
		Ceiling banding painting	SF	0	\$ 1.00	\$ 0	\$ 0.00	Painting of banding material at transitions
024		Paint existing exposed structure	SF	0	\$ 1.00	\$ 0	\$ 0.00	Clean and paint existing precast tee beams
		Paint new gwb soffits	SF	195	\$ 1.00	\$ 195	\$ 0.10	Painting of soffits per plan
		Door Painting / Staining	EA	4	\$ 75.00	\$ 300	\$ 0.16	Paint or stain doors, frames and access hatches
		Touch up and punch list	LS	1	\$ 300.00	\$ 300	\$ 0.16	Touch up for other trades, and punch list
		Joint sealing, interior	SF	1,930	\$ 0.15	\$ 290	\$ 0.15	Allowance for interior caulking
Subtotals:						\$ 2,289	\$ 1.19	Based on Gross S.F.
13. 10000 MISCELLANEOUS SPECIALTIES								
016		Display board / signage	EA	1	\$ 2,000.00	\$ 2,000	\$ 1.04	Casework - display / signage, allowance
009		Entry signage	EA	38	\$ 75.00	\$ 2,850	\$ 1.48	"Student Leadership Multicultural Programs"
		Door signage	OPGS	3	\$ 50.00	\$ 150	\$ 0.08	Interior door signage
		White board	EA	1	\$ 600.00	\$ 600	\$ 0.31	Include white board at Conference room
Subtotals:						\$ 5,600	\$ 2.90	Based on Gross S.F.
14. 11000 EQUIPMENT								
005		Brochure display rack	LF	10	\$ 175.00	\$ 1,750	\$ 0.91	Display counter and bulletin board display, wall mounted
022		Re-install overhead projector	EA	1	\$ 300.00	\$ 300	\$ 0.16	Labor to re-install overhead projector, see D23
023		Motorized projection screen	SF	64	\$ 60.00	\$ 3,840	\$ 1.99	
		Refrigerator	EA	1	\$ 800.00	\$ 800	\$ 0.41	Include residential size refrigerator at Kitchen
		Dishwasher	EA	1	\$ 900.00	\$ 900	\$ 0.47	Include residential type dishwasher at Kitchen
		Microwave oven	EA	1	\$ 200.00	\$ 200	\$ 0.10	Include countertop set microwave at Kitchen
Subtotals:						\$ 7,790	\$ 4.04	Based on Gross S.F.
15. 12000 FURNISHINGS								
018		Acoustical curtain	SF	0	\$ 12.00	\$ 0	\$ 0.00	Hanging curtain at folding door, for privacy
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
16. 15300 FIRE SUPPRESSION								
		Head relocation allow	SF	1,930	\$ 1.50	\$ 2,895	\$ 1.50	Allowance per ME estimate
Subtotals:						\$ 2,895	\$ 1.50	Based on Gross S.F.
17. 15400 PLUMBING								
		Plumbing fixtures	FU	1	\$ 3,500	\$ 3,500	\$ 1.81	See Hargis estimate
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
Subtotals:						\$ 3,500	\$ 1.81	Based on Gross S.F.
18. 15500 H.V.A.C.-DUCTWORK								
		Mechanical demo items	SF	1,800	\$ 1.00	\$ 1,800	\$ 0.93	See Hargis estimate for further breakdown, typ.
		Air distribution	SF	1,800	\$ 5.00	\$ 9,000	\$ 4.66	Note that we found 1,930 sf at Area 1
		Controls	SF	1,800	\$ 2.00	\$ 3,600	\$ 1.87	
		Air and water balance	SF	1,800	\$ 1.00	\$ 1,800	\$ 0.93	
		Mechanical commissioning	SF	1,800	\$ 1.00	\$ 1,800	\$ 0.93	
		Subcontractor OH&P	PCT	25%	\$ 21,500	\$ 5,375	\$ 2.78	
Subtotals:						\$ 23,375	\$ 12.11	Based on Gross S.F.

Project: North Seattle CC Student Admin & Baxter Center Renov
 9600 College Way N, Seattle, WA 98103
 Area 1 Student Administration North Entry

PROJECT DELIVERY ANALYSTS, LLC
 9001 Springwood Ave. NE, Bainbridge Island, WA 98110

INTERIOR RENOVATION ESTIMATE

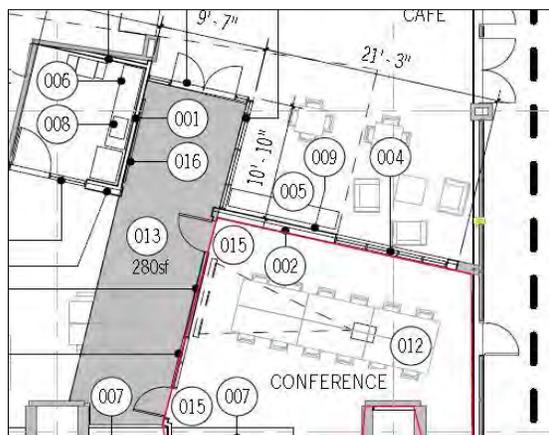
Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS	
19.		16000 ELECTRICAL							
		Demolition	LS	1	\$ 1,200	\$ 1,200	\$ 0.62	See Hargis estimate for further breakdown, typ.	
		Lighting fixtures	LS	1	\$ 8,105	\$ 8,105	\$ 4.20		
		Lighting controls	LS	1	\$ 1,940	\$ 1,940	\$ 1.01		
		Power / data	LS	1	\$ 5,160	\$ 5,160	\$ 2.67		
		Fire alarm	LS	1	\$ 1,500	\$ 1,500	\$ 0.78		
		Control panel for daylighting	LS	0	\$ 0	\$ 0	\$ 0.00		See Area 3
		Floor boxes	LS	0	\$ 0	\$ 0	\$ 0.00		Included above
		Security system mods	LS	0	\$ 0	\$ 0	\$ 0.00		Not included per Hargis
		Audio / paging system mods	LS	0	\$ 0	\$ 0	\$ 0.00		Not included per Hargis
		EC OH&P	PCT	25%	\$ 17,905	\$ 4,476	\$ 2.32		
		Additional Elect. Needs	LS	0	\$ 250	\$ 0	\$ 0.00	See contingency below	
Subtotals:						\$ 22,381	\$ 11.60	Based on Gross S.F.	
ESTIMATE SUBTOTALS						\$ 133,891	\$ 69.37	Based on Gross Ten. Imp. Sq. Ft.	
20.		GENERAL CONDITIONS	WKS	6	\$ 4,500	\$ 27,000	\$ 13.99	See detailed breakdown attached	
		SHIFTWORK PREMIUM - na	PCT.		0.00%	\$ 0	\$ 0.00	Not included for this project.	
21.		BOND AND INSURANCE, B&O	PCT.		3.20%	\$ 5,148	\$ 2.67	Bond 1.5%, Insurance 1%, B and O .7%	
22.		ESTIMATING CONTINGENCY	PCT.		7.50%	\$ 12,453	\$ 6.45	Design level, renovation work	
23.		GC OFFICE OVERHEAD / FEE	PCT.		5.00%	\$ 8,925	\$ 4.62	Contractors Fee (5% of Const. Costs)	
24.		ESCALTION TO MIDPOINT	PCT.		0.00%	\$ 0	\$ 0.00	Costs are in today's dollars, suggest 2.5% annual	
GRAND TOTALS						\$ 187,417	\$ 97.11	Based on Gross Ten. Imp. Sq. Ft.	

INTERIOR RENOVATION ESTIMATE SUMMARY

Estimate Date: 1-Dec-12

ITEM NO.	CSI CODE	TRADE	EXTENSION	COST / SF	PCT of CONST. COST	REMARKS
COST SUMMARY:						
1.	2050	DEMOLITION-CORING	\$ 5,741	\$ 2.97	3.1%	
2.	03300	BUILDING CONCRETE	\$ 1,294	\$ 0.67	0.7%	
3.	05500	STR. STEEL-MISC. IRON	\$ 0	\$ 0.00	0.0%	
4.	06100	ROUGH CARPENTRY	\$ 529	\$ 0.27	0.3%	
5.	06400	FINISH CARPENTRY-MILLWORK	\$ 19,888	\$ 10.30	10.6%	
6.	08100	DOORS-FRAMES-HARDWARE	\$ 3,805	\$ 1.97	2.0%	
7.	08800	GLASS and GLAZING	\$ 20,128	\$ 10.43	10.7%	
8.	09250	DRYWALL-MTL STUDS-INSULATION	\$ 7,565	\$ 3.92	4.0%	
9.	09300	CERAMIC TILE-STONEMWORK	\$ 0	\$ 0.00	0.0%	
10.	09500	ACOUSTICAL CEILINGS	\$ 2,377	\$ 1.23	1.3%	
11.	09680	FLOOR COVERING	\$ 4,735	\$ 2.45	2.5%	
12.	09900	PAINTING-WALLCOVERING	\$ 2,289	\$ 1.19	1.2%	
13.	10000	MISCELLANEOUS SPECIALTIES	\$ 5,600	\$ 2.90	3.0%	
14.	11000	EQUIPMENT	\$ 7,790	\$ 4.04	4.2%	
15.	12000	FURNISHINGS	\$ 0	\$ 0.00	0.0%	
16.	15300	FIRE SUPPRESSION	\$ 2,895	\$ 1.50	1.5%	
17.	15400	PLUMBING	\$ 3,500	\$ 1.81	1.9%	
18.	15500	H.V.A.C.-DUCTWORK	\$ 23,375	\$ 12.11	12.5%	
19.	16000	ELECTRICAL	\$ 22,381	\$ 11.60	11.9%	
ESTIMATE SUBTOTALS:			\$ 133,891	\$ 69.37	71.4%	
20.		GENERAL CONDITIONS	\$ 27,000	\$ 13.99	14.4%	
21.		SHIFTWORK PREMIUM - not used	\$ 0	\$ 0.00	0.0%	
22.		BOND AND INSURANCE, B&O	\$ 5,148	\$ 2.67	2.7%	
23.		ESTIMATING CONTINGENCY	\$ 12,453	\$ 6.45	6.6%	
24.		CONTRACTOR OVERHEAD / FEE	\$ 8,925	\$ 4.62	4.8%	
25.		ESCALATION TO MIDPOINT	\$ 0	\$ 0.00	0.0%	
GRAND TOTALS:			\$ 187,417	\$ 97.11	100.0%	



Project: North Seattle CC Student Admin & Baxter Center Renov
 9600 College Way N, Seattle, WA 98103
 Area 2 Student Administration South Entry

PROJECT DELIVERY ANALYSTS, LLC
 9001 Springwood Ave. NE, Bainbridge Island, WA 98110



INTERIOR RENOVATION ESTIMATE

Client: schacht / aslani architects
 Eric Amin, Evan Bourquard
 Gross T. I. Sq. Footage: 1,000
 Space Planner: n/a
 Const. Duration (In Weeks): 6
 Plans Dated: 26-Nov-12
 Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
1. 02050 DEMOLITION-CORING								
Key #	D01	Demo exist wall	LF	56	\$ 7.00	\$ 392	\$ 0.39	Demo/remove wall to underside of deck above +12'-6"
	D02	Demo sliding doors	LF	0	\$ 10.00	\$ 0	\$ 0.00	Demo existing sliding door to underside of header
	D03	Remove door and frame	LEAF	1	\$ 50.00	\$ 50	\$ 0.05	Demo door and frame and haul away
	D04	Demo casework	LF	51	\$ 35.00	\$ 1,785	\$ 1.79	Demo casework, upper and lower, and haul away
	D05	Demo storefront glazing	LF	6	\$ 40.00	\$ 240	\$ 0.24	Demo storefront framing, glazing and door
	D06	Demo exist gwb soffit above	SF	24	\$ 3.00	\$ 72	\$ 0.07	Demo existing soffit above - also see D20
	D08	Demo tile carpet	SF	0	\$ 0.45	\$ 0	\$ 0.00	Demo carpet tile and adhesive below
	D11	Demo raised platform	SF	0	\$ 8.00	\$ 0	\$ 0.00	Demo raised platform, stair, flooring at Projection booth
	D13	Demo movable partition	LF	0	\$ 15.00	\$ 0	\$ 0.00	Demo movable partition and hardware
	D15	Demo A/V equip., controls	LS	0	\$ 500.00	\$ 0	\$ 0.00	Demo A/V equipment and lighting controls
	D16	Demo wall for new door	SF	0	\$ 5.00	\$ 0	\$ 0.00	Demo 3x7 opening for a new door
	D20	Demo soffits	SF	0	\$ 3.00	\$ 0	\$ 0.00	Demo gwb soffits and framing
	D21	Demo ACT ceiling system	SF	300	\$ 0.50	\$ 150	\$ 0.15	Demo / Removal of existing suspended clgs.
	D22	Demo GWB ceiling system	SF	0	\$ 2.50	\$ 0	\$ 0.00	Demo / Removal of existing gwb ceilings
	D23	Demo ceiling projector	EA	0	\$ 50.00	\$ 0	\$ 0.00	Demo existing ceiling mounted projector and salvage
	D24	Demo vertical soffit	SF	0	\$ 3.00	\$ 0	\$ 0.00	Demo vertical face of soffit to underside of deck
	D25	(E.) GWB soffit to remain	SF	0	\$ 0.00	\$ 0	\$ 0.00	No work, see below for protect existing construction
	D26	Demo vinyl flooring	SF	0	\$ 0.50	\$ 0	\$ 0.00	Demo vinyl flooring and base, see below for slab prep
		Project existing const	LS	1	\$ 500.00	\$ 500	\$ 0.50	Protect existing walls and ceilings during const.
Note 2		Misc poke thru for electrical	EA	4	\$ 75.00	\$ 300	\$ 0.30	Floor penetrations for power and data
		Misc. wall or ceiling cuts	LS	1	\$ 350.00	\$ 350	\$ 0.35	Allowance for items not called out, field conditions
		Haz mat scope	LS	0	\$ 0.00	\$ 0	\$ 0.00	Not included, see note.
Subtotals:						\$ 3,875	\$ 3.88	Based on Gross S.F.
2. 03300 BUILDING CONCRETE								
		Floor Patch at Penetrations	EA	4	\$ 50.00	\$ 200	\$ 0.20	Grout around electrical floor boxes
		Fire stopping at penetrations	EA	0	\$ 75.00	\$ 0	\$ 0.00	Fire stopping at first floor penetration
		Concrete premiums	PCT	0%	\$ -	\$ 0	\$ 0.00	Short yard charges, half day for finisher
		Wall patch at penetrations	EA	0	\$ 300.00	\$ 0	\$ 0.00	Wall patch of cmu or concrete at MEP penetrations
		Firestop wall penetrations	EA	0	\$ 225.00	\$ 0	\$ 0.00	Firestop cmu or concrete at MEP penetrations
		Scrape and prep slab	SF	0	\$ 0.35	\$ 0	\$ 0.00	Remove old glue and fabric stuck to glue
Subtotals:						\$ 200	\$ 0.20	Based on Gross S.F.
3. 05500 STR. STEEL-MISC. IRON								
		ADA ramp wall rails	LF	0	\$ 25.00	\$ 0	\$ 0.00	Wall mounted pipe rail at ADA ramp per code
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
4. 06100 ROUGH CARPENTRY								
		Backing at bulletin board	EA	1	\$ 200.00	\$ 200	\$ 0.20	Hardwood backing for bulletin board
		Backing at ADA rail	LF	0	\$ 7.00	\$ 0	\$ 0.00	Continuous wood or metal backing in walls
		Backing at casework	LF	0	\$ 7.00	\$ 0	\$ 0.00	Continuous wood or metal backing in walls
Subtotals:						\$ 200	\$ 0.20	Based on Gross S.F.
5. 06400 FINISH CARPENTRY-MILLWORK								
	006	Casework assembly	LF	0	\$ 400.00	\$ 0	\$ 0.00	Upper cabinet and lower cabinet, see below for top
	006	Countertop	SF	0	\$ 37.50	\$ 0	\$ 0.00	P-lam countertop over lower cabinets
	007	Lower casework at Layout	LF	0	\$ 300.00	\$ 0	\$ 0.00	Lower cabinet 36" deep with drawers, top above
	016	Casework, display board	LF	0	\$ 0.00	\$ 0	\$ 0.00	See specialties section below
	005	Display counter, bulletin board	LF	0	\$ 150.00	\$ 0	\$ 0.00	See equipment section below

Continued on page 2...

INTERIOR RENOVATION ESTIMATE

Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
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...Section 06400, continued from page 1

Cabinet backing	LF	0	\$	0.00	\$	0	\$	0.00	See rough carpentry section above	
Not Used	SF	0	\$	0.00	\$	0	\$	0.00	Not Used	
Not Used	SF	0	\$	0.00	\$	0	\$	0.00	Not Used	
Subtotals:						\$	0	\$	0.00	Based on Gross S.F.

6. 08100 DOORS-FRAMES-HARDWARE

014	Entry door assembly	LEAF	0	\$	1,100	\$	0	\$	0.00	See glass and glazing section below
015	Passage door assembly	LEAF	0	\$	950	\$	0	\$	0.00	See glass and glazing section below
	Freight	LS	0	\$	350	\$	0	\$	0.00	Special freight for small job
	Shop drawings	HRS	0	\$	65	\$	0	\$	0.00	Detailing for small job
	Minimum trip charge	HRS	0	\$	75	\$	0	\$	0.00	Minimum half day for door install
	Acoustic seals and thresholds	OPG	0	\$	200	\$	0	\$	0.00	NOT USED
	Card reader and panic	OPG	0	\$	1,500	\$	0	\$	0.00	NOT USED
	1 hr. rating upgrade	OPG	0	\$	150	\$	0	\$	0.00	Upgrade for test and label at corridor doors
	Access doors and frames	EA	1	\$	175	\$	175	\$	0.18	Allowance for access doors
Subtotals:						\$	175	\$	0.18	Based on Gross S.F.

7. 08800 GLASS and GLAZING

003	Storefront infill full height	SF	207	\$	38.00	\$	7,866	\$	7.87	Full height interior storefront from FF to +9'-0"
004	Storefront infill partial height	SF	0	\$	40.00	\$	0	\$	0.00	Partial height interior storefront from +3'-0" to +9'-0"
	Frame sidelite glazing	SF	0	\$	25.00	\$	0	\$	0.00	Translucent safety glass at sidelites, clerestory
	Engineering and freight	LS	1	\$	450.00	\$	450	\$	0.45	Shop drawings, freight, small job charge
014	Glazed entry door	LEAF	1	\$	1,150	\$	1,150	\$	1.15	3'-0" x 7'-0" Aluminum x Glass entry with hardware
015	Glazed passage door	LEAF	1	\$	1,300	\$	1,300	\$	1.30	3'-0" x 7'-0" Aluminum x Glass entry with hardware
Subtotals:						\$	10,766	\$	10.77	Based on Gross S.F.

8. 09250 DRYWALL-MTL STUDS-INSULATION

001	Wall type 1 general partition	SF	375	\$	6.85	\$	2,569	\$	2.57	Typical partition, to lower flutes, with insulation, typ
001	Wall type 1 general partition	SF	175	\$	8.00	\$	1,400	\$	1.40	Full height to deck, around flutes, with insulation, typ
002	Drywall partition infill	SF	0	\$	13.00	\$	0	\$	0.00	Infill old door openings, and patch to +8'
	Drywall partition partial height	SF	0	\$	7.00	\$	0	\$	0.00	Drywall partition above and below partial storefront
	Acoustical wall insulation	SF	0	\$	0.00	\$	0	\$	0.00	Insulation is included with assemblies above
	Premium for 20 gauge	SF	0	\$	0.70	\$	0	\$	0.00	Upsized studs to 20 ga where supporting casework
011	GWB soffit and framing, +9'	SF	155	\$	6.50	\$	1,008	\$	1.01	New gwb soffit above stage area
	Ceiling edge banding	LF	24	\$	10.00	\$	240	\$	0.24	GWB banding wall at transition to ACT
	Patch existing perimeter walls	EA	3	\$	75.00	\$	225	\$	0.23	Patch existing where old walls were removed
	Patch existing walls	LS	1	\$	250.00	\$	250	\$	0.25	Allowance to patch for new outlets and switches
	Remove gwb and patch	SF	0	\$	5.00	\$	0	\$	0.00	Removal and patch for counter backing
	Remove gwb and patch	SF	0	\$	5.00	\$	0	\$	0.00	Removal and patch for wall mounted handrail
	Patch walls for MEP	LS	1	\$	250.00	\$	250	\$	0.25	Patch any wall penetrations by MEP sub
	Misc. and punch list	LS	1	\$	350.00	\$	350	\$	0.35	Allowance for misc. patching
Subtotals:						\$	6,291	\$	6.29	Based on Gross S.F.

9. 09300 CERAMIC TILE-STONEWORK

Not Used	SF	0.0	\$	0.00	\$	0	\$	0.00	Not Used	
Not Used	SF	0.0	\$	0.00	\$	0	\$	0.00	Not Used	
Subtotals:						\$	0	\$	0.00	Based on Gross S.F.

10. 09500 ACOUSTICAL CEILINGS

Removal of existing SACT	HRS	0	\$	0.00	\$	0	\$	0.00	See demo section above for removal	
Not Used	SF	0.0	\$	0.00	\$	0	\$	0.00	Not Used	
Replace damaged ceiling tiles	SF	75	\$	2.50	\$	188	\$	0.19	Replace damaged tiles from construction with new	
Replace grid and tiles	HRS	4	\$	50.00	\$	200	\$	0.20	Replace lay in grid and tiles for MEP contractor	
021	New SACT ceilings	SF	245	\$	4.50	\$	1,103	\$	1.10	New SACT ceilings as shown
025	Acoustical liner	SF	0	\$	5.00	\$	0	\$	0.00	Acoustical duct liner within structural bays
026	Linear wood ceiling system	SF	0	\$	20.00	\$	0	\$	0.00	9-Wood linear ceiling system
Subtotals:						\$	1,490	\$	1.49	Based on Gross S.F.

INTERIOR RENOVATION ESTIMATE

Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
11. 09680 FLOOR COVERING								
	030	Resilient sheet flooring	SY	0	\$ 38.00	\$ 0	\$ 0.00	Resilient flooring at corridors, with 10% waste
	012	Carpet tiles	SY	16	\$ 50.00	\$ 817	\$ 0.82	Carpet tiles including 10% waste
		New rubber base	LF	100	\$ 2.00	\$ 200	\$ 0.20	New 4" base at new walls and existing walls
	013	Linoleum flooring	SY	20	\$ 38.00	\$ 766	\$ 0.77	Linoleum to match existing
Subtotals:						\$ 1,784	\$ 1.78	Based on Gross S.F.
12. 09900 PAINTING-WALLCOVERING								
		Wall Painting new	SF	792	\$ 0.60	\$ 475	\$ 0.48	2 coat flat interior latex paint on drywall
		Wall Painting existing	SF	306	\$ 0.65	\$ 199	\$ 0.20	Repaint existing perimeter walls
		Wall painting at patches	SF	150	\$ 1.00	\$ 150	\$ 0.15	Allow wall painting for MEP patches
		Ceiling banding painting	SF	48	\$ 1.00	\$ 48	\$ 0.05	Painting of banding material at transitions
	024	Paint existing exposed structure	SF	0	\$ 1.00	\$ 0	\$ 0.00	Clean and paint existing precast tee beams
		Paint new gwb soffits	SF	155	\$ 1.00	\$ 155	\$ 0.16	Painting of soffits per plan
		Door Painting / Staining	EA	1	\$ 75.00	\$ 75	\$ 0.08	Paint or stain doors, frames and access hatches
		Touch up and punch list	LS	1	\$ 300.00	\$ 300	\$ 0.30	Touch up for other trades, and punch list
		Joint sealing, interior	SF	1,000	\$ 0.15	\$ 150	\$ 0.15	Allowance for interior caulking
Subtotals:						\$ 1,552	\$ 1.55	Based on Gross S.F.
13. 10000 MISCELLANEOUS SPECIALTIES								
	016	Display board / signage	EA	1	\$ 2,000.00	\$ 2,000	\$ 2.00	Casework - display / signage, allowance
	009	Entry signage	EA	38	\$ 75.00	\$ 2,850	\$ 2.85	"Student Leadership Multicultural Programs"
		Door signage	OPGS	0	\$ 50.00	\$ 0	\$ 0.00	Interior door signage
Subtotals:						\$ 4,850	\$ 4.85	Based on Gross S.F.
14. 11000 EQUIPMENT								
	005	Brochure display rack	LF	8	\$ 175.00	\$ 1,400	\$ 1.40	Display counter and bulletin board display, wall mounted
	020	Modular stage	SF	0	\$ 27.55	\$ 0	\$ 0.00	New 18" modular stage on pedestals, Express Deck
	022	Re-install overhead projector	EA	0	\$ 300.00	\$ 0	\$ 0.00	Labor to re-install overhead projector, see D23
	023	Motorized projection screen	SF	0	\$ 60.00	\$ 0	\$ 0.00	New recessed motorized projection screen
Subtotals:						\$ 1,400	\$ 1.40	Based on Gross S.F.
15. 12000 FURNISHINGS								
	018	Acoustical curtain	SF	0	\$ 12.00	\$ 0	\$ 0.00	Hanging curtain at folding door, for privacy
		Not Used	SF	0	\$ 0.00	\$ 0	\$ 0.00	Not Used
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
16. 15300 FIRE SUPPRESSION								
		Head relocation allow	SF	1,000	\$ 1.50	\$ 1,500	\$ 1.50	Allowance per ME estimate
Subtotals:						\$ 1,500	\$ 1.50	Based on Gross S.F.
17. 15400 PLUMBING								
		Plumbing fixtures	FU	0	\$ 1,700	\$ 0	\$ 0.00	See Hargis estimate
		Plumbing piping	FU	0	\$ 955	\$ 0	\$ 0.00	New two-compartment sink and rough in
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
18. 15500 H.V.A.C.-DUCTWORK								
		Mechanical demo items	SF	900	\$ 1.00	\$ 900	\$ 0.90	See Hargis estimate for further breakdown, typ.
		Air distribution ducts	SF	900	\$ 5.00	\$ 4,500	\$ 4.50	Galv steel ductwork, diffusers and insulation
		Air distribution VAV boxes	SF	900	\$ 2.00	\$ 1,800	\$ 1.80	Modify existing fan powered VAV boxes
		Controls	SF	900	\$ 2.00	\$ 1,800	\$ 1.80	Modify existing DDC as required
		Air and water balance	LS	1	\$ 400.00	\$ 400	\$ 0.40	
		Mechanical commissioning	LS	1	\$ 400.00	\$ 400	\$ 0.40	
		Subcontractor OH&P	PCT	25%	\$ 9,800	\$ 2,450	\$ 2.45	
		Design Contingency - below	PCT	0	\$ 0	\$ 0	\$ 0.00	See indirect costs below
Subtotals:						\$ 12,250	\$ 12.25	Based on Gross S.F.

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INTERIOR RENOVATION ESTIMATE

Estimate Date: 1-Dec-12

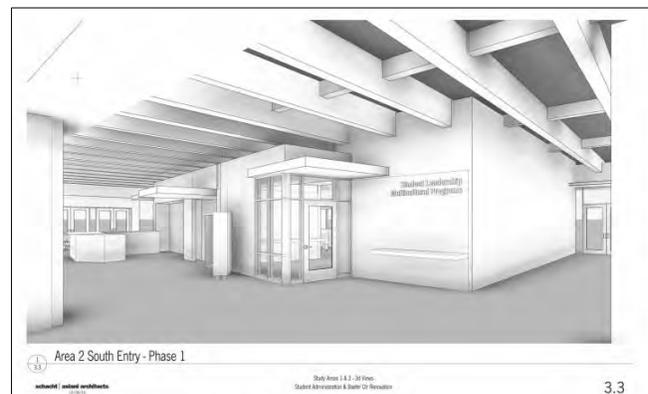
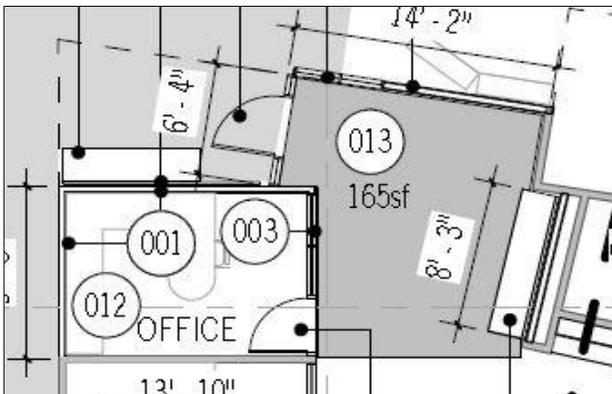
ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
19.	16000 ELECTRICAL							
		Demolition	LS	1	\$ 1,800	\$ 1,800	\$ 1.80	See Hargis estimate for further breakdown, typ. See Area 3 Included above Not included per Hargis Not included per Hargis See contingency below
		Lighting fixtures	LS	1	\$ 7,370	\$ 7,370	\$ 7.37	
		Lighting controls	LS	1	\$ 1,625	\$ 1,625	\$ 1.63	
		Power / data	LS	1	\$ 2,750	\$ 2,750	\$ 2.75	
		Fire alarm	LS	1	\$ 1,500	\$ 1,500	\$ 1.50	
		Control panel for daylighting	LS	0	\$ 0	\$ 0	\$ 0.00	
		Floor boxes	LS	0	\$ 0	\$ 0	\$ 0.00	
		Security system mods	LS	0	\$ 0	\$ 0	\$ 0.00	
		Audio / paging system mods	LS	0	\$ 0	\$ 0	\$ 0.00	
		EC OH&P	PCT	25%	\$ 15,045	\$ 3,761	\$ 3.76	
		Additional Elect. Needs	LS	0	\$ 250	\$ 0	\$ 0.00	
Subtotals:						\$ 18,806	\$ 18.81	Based on Gross S.F.
ESTIMATE SUBTOTALS						\$ 65,139	\$ 65.14	Based on Gross Ten. Imp. Sq. Ft.
20.		GENERAL CONDITIONS	WKS	6	\$ 4,500	\$ 27,000	\$ 27.00	See detailed breakdown attached
		SHIFTWORK PREMIUM - na	PCT.		0.00%	\$ 0	\$ 0.00	Not included for this project.
21.		BOND AND INSURANCE, B&O	PCT.		3.20%	\$ 2,948	\$ 2.95	Bond 1.5%, Insurance 1%, B and O .7%
22.		ESTIMATING CONTINGENCY	PCT.		7.50%	\$ 7,132	\$ 7.13	Design level, renovation work
23.		GC OFFICE OVERHEAD / FEE	PCT.		5.00%	\$ 5,111	\$ 5.11	Contractors Fee (5% of Const. Costs)
24.		ESCALTION TO MIDPOINT	PCT.		0.00%	\$ 0	\$ 0.00	Costs are in today's dollars, suggest 2.5% annual
GRAND TOTALS						\$ 107,330	\$ 107.33	Based on Gross Ten. Imp. Sq. Ft.

INTERIOR RENOVATION ESTIMATE SUMMARY

Estimate Date: 1-Dec-12

ITEM NO.	CSI CODE	TRADE	EXTENSION	COST / SF	PCT of CONST. COST	REMARKS
COST SUMMARY:						
1.	2050	DEMOLITION-CORING	\$ 3,875	\$ 3.88	3.6%	
2.	03300	BUILDING CONCRETE	\$ 200	\$ 0.20	0.2%	
3.	05500	STR. STEEL-MISC. IRON	\$ 0	\$ 0.00	0.0%	
4.	06100	ROUGH CARPENTRY	\$ 200	\$ 0.20	0.2%	
5.	06400	FINISH CARPENTRY-MILLWORK	\$ 0	\$ 0.00	0.0%	
6.	08100	DOORS-FRAMES-HARDWARE	\$ 175	\$ 0.18	0.2%	
7.	08800	GLASS and GLAZING	\$ 10,766	\$ 10.77	10.0%	
8.	09250	DRYWALL-MTL STUDS-INSULATION	\$ 6,291	\$ 6.29	5.9%	
9.	09300	CERAMIC TILE-STONEMWORK	\$ 0	\$ 0.00	0.0%	
10.	09500	ACOUSTICAL CEILINGS	\$ 1,490	\$ 1.49	1.4%	
11.	09680	FLOOR COVERING	\$ 1,784	\$ 1.78	1.7%	
12.	09900	PAINTING-WALLCOVERING	\$ 1,552	\$ 1.55	1.4%	
13.	10000	MISCELLANEOUS SPECIALTIES	\$ 4,850	\$ 4.85	4.5%	
14.	11000	EQUIPMENT	\$ 1,400	\$ 1.40	1.3%	
15.	12000	FURNISHINGS	\$ 0	\$ 0.00	0.0%	
16.	15300	FIRE SUPPRESSION	\$ 1,500	\$ 1.50	1.4%	
17.	15400	PLUMBING	\$ 0	\$ 0.00	0.0%	
18.	15500	H.V.A.C.-DUCTWORK	\$ 12,250	\$ 12.25	11.4%	
19.	16000	ELECTRICAL	\$ 18,806	\$ 18.81	17.5%	
ESTIMATE SUBTOTALS:			\$ 65,139	\$ 65.14	60.7%	
20.		GENERAL CONDITIONS	\$ 27,000	\$ 27.00	25.2%	
21.		SHIFTWORK PREMIUM - not used	\$ 0	\$ 0.00	0.0%	
22.		BOND AND INSURANCE, B&O	\$ 2,948	\$ 2.95	2.7%	
23.		ESTIMATING CONTINGENCY	\$ 7,132	\$ 7.13	6.6%	
24.		CONTRACTOR OVERHEAD / FEE	\$ 5,111	\$ 5.11	4.8%	
25.		ESCALATION TO MIDPOINT	\$ 0	\$ 0.00	0.0%	
GRAND TOTALS:			\$ 107,330	\$ 107.33	100.0%	

\$ -



Project: North Seattle CC Student Admin & Baxter Center Renov
 9600 College Way N, Seattle, WA 98103
 Area 3 Baxter Center

PROJECT DELIVERY ANALYSTS, LLC
 9001 Springwood Ave. NE, Bainbridge Island, WA 98110



INTERIOR RENOVATION ESTIMATE

Client: schacht / aslani architects
 Eric Amin, Evan Bourquard
 Gross T. I. Sq. Footage: 3,500
 Space Planner: n/a
 Const. Duration (In Weeks): 8
 Plans Dated: 26-Nov-12
 Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
1. 02050 DEMOLITION-CORING								
Key #	D01	Demo exist wall	LF	71	\$ 7.00	\$ 497	\$ 0.14	Demo/remove wall to underside of deck above +12'-6"
	D02	Demo sliding doors	LF	15	\$ 10.00	\$ 150	\$ 0.04	Demo existing sliding door to underside of header
	D03	Remove door and frame	LEAF	5	\$ 50.00	\$ 250	\$ 0.07	Demo door and frame and haul away
	D04	Demo casework	LF	0	\$ 35.00	\$ 0	\$ 0.00	Demo casework, upper and lower, and haul away
	D06	Demo exist gwb soffit above	SF	0	\$ 3.00	\$ 0	\$ 0.00	Demo existing soffit above - also see D20
	D08	Demo tile carpet	SF	0	\$ 0.45	\$ 0	\$ 0.00	Demo carpet tile and adhesive below
	D11	Demo raised platform	SF	128	\$ 8.00	\$ 1,024	\$ 0.29	Demo raised platform, stair, flooring at Projection booth
	D13	Demo movable partition	LF	28	\$ 15.00	\$ 420	\$ 0.12	Demo movable partition and hardware
	D15	Demo A/V equip., controls	LS	1	\$ 500.00	\$ 500	\$ 0.14	Demo A/V equipment and lighting controls
	D16	Demo wall for new door	SF	42	\$ 5.00	\$ 210	\$ 0.06	Demo 3x7 opening for a new door
	D20	Demo soffits	SF	365	\$ 3.00	\$ 1,095	\$ 0.31	Demo gwb soffits and framing
	D21	Demo ACT ceiling system	SF	2,422	\$ 0.50	\$ 1,211	\$ 0.35	Demo / Removal of existing suspended cigs.
	D22	Demo GWB ceiling system	SF	0	\$ 2.50	\$ 0	\$ 0.00	Demo / Removal of existing gwb ceilings
	D23	Demo ceiling projector	EA	0	\$ 50.00	\$ 0	\$ 0.00	Demo existing ceiling mounted projector and salvage
	D24	Demo vertical soffit	SF	186	\$ 3.00	\$ 558	\$ 0.16	Demo vertical face of soffit to underside of deck
	D25	(E.) GWB soffit to remain	SF	0	\$ 0.00	\$ 0	\$ 0.00	No work, see below for protect existing construction
	D26	Demo vinyl flooring	SF	4,630	\$ 0.50	\$ 2,315	\$ 0.66	Demo vinyl flooring and base, see below for slab prep
		Project existing const	LS	1	\$ 500.00	\$ 500	\$ 0.14	Protect existing walls and ceilings during const.
Note 2		Misc poke thru for electrical	EA	14	\$ 75.00	\$ 1,050	\$ 0.30	Floor penetrations for power and data
		Misc. wall or ceiling cuts	LS	1	\$ 500.00	\$ 500	\$ 0.14	Allowance for items not called out, field conditions
		Haz mat scope	LS	0	\$ 0.00	\$ 0	\$ 0.00	Not included, see note.
Subtotals:						\$ 10,316	\$ 2.95	Based on Gross S.F.
2. 03300 BUILDING CONCRETE								
		Floor Patch at Penetrations	EA	14	\$ 50.00	\$ 700	\$ 0.20	Grout around electrical floor boxes
		Fire stopping at penetrations	EA	0	\$ 75.00	\$ 0	\$ 0.00	Fire stopping at first floor penetration
019		Concrete ADA ramp	SF	0	\$ 35.00	\$ 0	\$ 0.00	CIP concrete ramp removed via Q and A
019		Concrete premiums	PCT	0%	\$ -	\$ 0	\$ 0.00	Short yard charges, half day for finisher
		Wall patch at penetrations	EA	0	\$ 300.00	\$ 0	\$ 0.00	Wall patch of cmu or concrete at MEP penetrations
		Firestop wall penetrations	EA	0	\$ 225.00	\$ 0	\$ 0.00	Firestop cmu or concrete at MEP penetrations
		Scrape and prep slab	SF	4,630	\$ 0.35	\$ 1,621	\$ 0.46	Remove old glue and fabric stuck to glue
Subtotals:						\$ 2,321	\$ 0.66	Based on Gross S.F.
3. 05500 STR. STEEL-MISC. IRON								
		ADA ramp wall rails	LF	48	\$ 25.00	\$ 1,200	\$ 0.34	Wall mounted pipe rail at ADA ramp per code
Subtotals:						\$ 1,200	\$ 0.34	Based on Gross S.F.
4. 06100 ROUGH CARPENTRY								
		Backing at bulletin board	EA	0	\$ 200.00	\$ 0	\$ 0.00	Hardwood backing for bulletin board
		Backing at ADA rail	LF	48	\$ 7.00	\$ 336	\$ 0.10	Continuous wood or metal backing in walls
		Backing at casework	LF	72	\$ 7.00	\$ 504	\$ 0.14	Continuous wood or metal backing in walls
Subtotals:						\$ 840	\$ 0.24	Based on Gross S.F.
5. 06400 FINISH CARPENTRY-MILLWORK								
006		Casework assembly	LF	0	\$ 400.00	\$ 0	\$ 0.00	Upper cabinet and lower cabinet, see below for top
006		Countertop	SF	0	\$ 37.50	\$ 0	\$ 0.00	P-lam countertop over lower cabinet, 2'-0" wide
007		Lower casework at Layout	LF	0	\$ 300.00	\$ 0	\$ 0.00	Lower cabinet 36" deep with drawers, top above
016		Casework, display board	LF	0	\$ 0.00	\$ 0	\$ 0.00	See equipment section below
005		Display counter, bulletin board	LF	0	\$ 150.00	\$ 0	\$ 0.00	See equipment section below

Continued on page 2...

INTERIOR RENOVATION ESTIMATE

Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
...Section 06400, continued from page 1								
		Cabinet backing	LF	0	\$ 0.00	\$ 0	\$ 0.00	See rough carpentry section above
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
6. 08100 DOORS-FRAMES-HARDWARE								
014		Entry door assembly	LEAF	2	\$ 1,100	\$ 2,200	\$ 0.63	3'-0"x7'-0" HMxWD, with standard hardware
015		Passage door assembly	LEAF	3	\$ 950	\$ 2,850	\$ 0.81	3'-0"x7'-0" HMxWD, with passage hardware
		Freight	LS	1	\$ 350	\$ 350	\$ 0.10	Special freight for small job
		Shop drawings	HRS	2	\$ 65	\$ 130	\$ 0.04	Detailing for small job
		Minimum trip charge	HRS	4	\$ 75	\$ 300	\$ 0.09	Minimum half day for door install
		Acoustic seals and thresholds	OPG	0	\$ 200	\$ 0	\$ 0.00	NOT USED
		Card reader and panic	OPG	0	\$ 1,500	\$ 0	\$ 0.00	NOT USED
		1 hr. rating upgrade	OPG	2	\$ 150	\$ 300	\$ 0.09	Upgrade for test and label at corridor doors
		Access doors and frames	EA	1	\$ 175	\$ 175	\$ 0.05	Allowance for access doors
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
Subtotals:						\$ 6,305	\$ 1.80	Based on Gross S.F.
7. 08800 GLASS and GLAZING								
		Storefront infill full height	SF	0	\$ 38.00	\$ 0	\$ 0.00	Full height interior storefront from FF to +9'-0"
		Storefront infill partial height	SF	0	\$ 40.00	\$ 0	\$ 0.00	Partial height interior storefront from +3'-0" to +9'-0"
		Frame sidelite glazing	SF	0	\$ 25.00	\$ 0	\$ 0.00	Translucent safety glass at sidelites, clerestory
		Glazed folding partition	SF	280	\$ 75.00	\$ 21,000	\$ 6.00	Folding glazed partition, STC 50, to 10" above FF
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
Subtotals:						\$ 21,000	\$ 6.00	Based on Gross S.F.
8. 09250 DRYWALL-MTL STUDS-INSULATION								
001		Wall type 1 general partition	SF	825	\$ 6.85	\$ 5,651	\$ 1.61	Typical partition, to lower flutes, with insulation, typ
001		Wall type 1 general partition	SF	0	\$ 8.00	\$ 0	\$ 0.00	Full height to deck, around flutes, with insulation, typ
002		Drywall partition infill	SF	56	\$ 13.00	\$ 728	\$ 0.21	Infill old door openings, and patch to +8'
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
		Acoustical wall insulation	SF	0	\$ 0.00	\$ 0	\$ 0.00	Insulation is included with assemblies above
		Premium for 20 gauge	SF	0	\$ 0.70	\$ 0	\$ 0.00	Upsized studs to 20 ga where supporting casework
011		GWB soffit and framing, +9'	SF	444	\$ 6.50	\$ 2,886	\$ 0.82	New gwb soffit above stage area
		Ceiling edge banding	LF	0	\$ 10.00	\$ 0	\$ 0.00	GWB banding wall at transition to ACT
		Patch existing perimeter walls	EA	5	\$ 75.00	\$ 375	\$ 0.11	Patch existing where old walls were removed
		Patch existing walls	LS	1	\$ 250.00	\$ 250	\$ 0.07	Allowance to patch for new outlets and switches
		Remove gwb and patch	SF	0	\$ 5.00	\$ 0	\$ 0.00	Removal and patch for counter backing
		Remove gwb and patch	SF	96	\$ 5.00	\$ 480	\$ 0.14	Removal and patch for wall mounted rail
		Patch walls for MEP	LS	1	\$ 250.00	\$ 250	\$ 0.07	Patch any wall penetrations by MEP sub
		Misc. and punch list	LS	1	\$ 350.00	\$ 350	\$ 0.10	Allowance for misc. patching
Subtotals:						\$ 10,970	\$ 3.13	Based on Gross S.F.
9. 09300 CERAMIC TILE-STONEWORK								
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
10. 09500 ACOUSTICAL CEILINGS								
		Removal of existing SACT	HRS	0	\$ 0.00	\$ 0	\$ 0.00	See demo section above for removal
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
		Replace damaged ceiling tiles	SF	75	\$ 2.50	\$ 188	\$ 0.05	Replace damaged tiles from construction with new
		Replace grid and tiles	HRS	4	\$ 50.00	\$ 200	\$ 0.06	Replace lay in grid and tiles for MEP contractor
021		New SACT ceilings	SF	348	\$ 4.50	\$ 1,566	\$ 0.45	New SACT ceilings as shown
025		Acoustical liner	SF	840	\$ 5.00	\$ 4,200	\$ 1.20	Acoustical duct liner within structural bays
026		Linear wood ceiling system	SF	910	\$ 20.00	\$ 18,200	\$ 5.20	9-Wood linear ceiling system
Subtotals:						\$ 24,354	\$ 6.96	Based on Gross S.F.

INTERIOR RENOVATION ESTIMATE

Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
11. 09680 FLOOR COVERING								
	030	Resilient sheet flooring	SY	288	\$ 38.00	\$ 10,961	\$ 3.13	Resilient flooring at corridors, with 10% waste
	012	Carpet tiles	SY	260	\$ 50.00	\$ 13,004	\$ 3.72	Carpet tiles including 10% waste
		New rubber base	LF	450	\$ 2.00	\$ 900	\$ 0.26	New 4" base at new walls and existing walls
	013	Linoleum flooring	SY	0	\$ 38.00	\$ 0	\$ 0.00	Linoleum to match existing
Subtotals:						\$ 24,865	\$ 7.10	Based on Gross S.F.
12. 09900 PAINTING-WALLCOVERING								
		Wall Painting new	SF	1,269	\$ 0.60	\$ 761	\$ 0.22	2 coat flat interior latex paint on drywall
		Wall Painting existing	SF	1,710	\$ 0.65	\$ 1,112	\$ 0.32	Repaint existing perimeter walls
		Wall painting at patches	SF	150	\$ 1.00	\$ 150	\$ 0.04	Allow wall painting for MEP patches
		Ceiling banding painting	SF	0	\$ 1.00	\$ 0	\$ 0.00	Painting of banding material at transitions
	024	Paint existing exposed structure	SF	756	\$ 1.00	\$ 756	\$ 0.22	Clean and paint existing precast tee beams
		Paint new gwb soffits	SF	444	\$ 1.00	\$ 444	\$ 0.13	Painting of soffits per plan
		Door Painting / Staining	EA	6	\$ 75.00	\$ 450	\$ 0.13	Paint or stain doors, frames and access hatches
		Touch up and punch list	LS	1	\$ 300.00	\$ 300	\$ 0.09	Touch up for other trades, and punch list
		Joint sealing, interior	SF	3,500	\$ 0.15	\$ 525	\$ 0.15	Allowance for interior caulking
Subtotals:						\$ 4,498	\$ 1.29	Based on Gross S.F.
13. 10000 MISCELLANEOUS SPECIALTIES								
	009	Fire extinguishers	EA	0	\$ 325.00	\$ 0	\$ 0.00	None shown
		Entry signage	EA	0	\$ 75.00	\$ 0	\$ 0.00	"Student Leadership Multicultural Programs"
		Door signage	OPGS	5	\$ 50.00	\$ 250	\$ 0.07	Interior door signage
Subtotals:						\$ 250	\$ 0.07	Based on Gross S.F.
14. 11000 EQUIPMENT								
	017	Modular access ramp	SF	72	\$ 15.28	\$ 1,100	\$ 0.31	Modular ADA ramp using same system as stage
		Theater A/V system	ALLOW	1	\$ 75,000	\$ 75,000	\$ 21.43	Allowance per e mail from SAA, Commercial Audio
	020	Modular stage	SF	363	\$ 27.55	\$ 10,000	\$ 2.86	New 18" modular stage on pedestals, Express Deck
	022	Re-install overhead projector	EA	0	\$ 300.00	\$ 0	\$ 0.00	None found at Baxter Center
	023	Motorized projection screen	SF	128	\$ 60.00	\$ 7,680	\$ 2.19	New recessed motorized projection screen
Subtotals:						\$ 93,780	\$ 26.79	Based on Gross S.F.
15. 12000 FURNISHINGS								
	018	Acoustical curtain	SF	280	\$ 12.00	\$ 3,360	\$ 0.96	Hanging curtain at folding door, for privacy
Subtotals:						\$ 3,360	\$ 0.96	Based on Gross S.F.
16. 15300 FIRE SUPPRESSION								
		Head relocation allow	SF	3,500	\$ 1.50	\$ 5,250	\$ 1.50	Allowance per ME estimate
Subtotals:						\$ 5,250	\$ 1.50	Based on Gross S.F.
17. 15400 PLUMBING								
		Plumbing fixtures	FU	0	\$ 1,700	\$ 0	\$ 0.00	See Hargis estimate
		Plumbing piping	FU	0	\$ 955	\$ 0	\$ 0.00	New two-compartment sink and rough in
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
18. 15500 H.V.A.C.-DUCTWORK								
		Mechanical demo items	SF	3,600	\$ 1.00	\$ 3,600	\$ 1.03	See Hargis estimate for further breakdown, typ.
		Air distribution ducts	SF	3,600	\$ 7.50	\$ 27,000	\$ 7.71	Galv steel ductwork, diffusers and insulation
		Air distribution VAV boxes	EA	16	\$ 2,000.00	\$ 32,000	\$ 9.14	Fan powered VAV boxes with electric heat coils
		Controls	SF	3,600	\$ 4.00	\$ 14,400	\$ 4.11	
		Air and water balance	SF	3,600	\$ 1.00	\$ 3,600	\$ 1.03	
		Mechanical commissioning	SF	3,600	\$ 1.00	\$ 3,600	\$ 1.03	
		Subcontractor OH&P	PCT	25%	\$ 84,200	\$ 21,050	\$ 6.01	
		Design Contingency - below	PCT	0	\$ 0	\$ 0	\$ 0.00	See indirect costs below
Subtotals:						\$ 105,250	\$ 30.07	Based on Gross S.F.

Project: North Seattle CC Student Admin & Baxter Center Renov
 9600 College Way N, Seattle, WA 98103
 Area 3 Baxter Center

PROJECT DELIVERY ANALYSTS, LLC
 9001 Springwood Ave. NE, Bainbridge Island, WA 98110

INTERIOR RENOVATION ESTIMATE

Estimate Date: 1-Dec-12

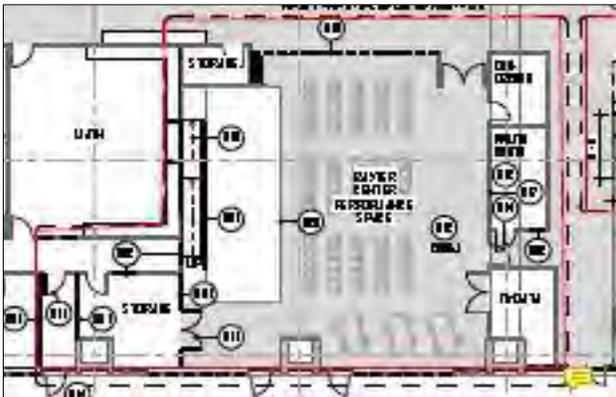
ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS	
19.	16000 ELECTRICAL								
		Demolition	LS	1	\$ 3,200	\$ 3,200	\$ 0.91	See Hargis estimate for further breakdown, typ.	
		Lighting fixtures	LS	1	\$ 27,440	\$ 27,440	\$ 7.84		
		Lighting controls	LS	1	\$ 6,180	\$ 6,180	\$ 1.77		
		Power / data	LS	1	\$ 44,820	\$ 44,820	\$ 12.81		
		Fire alarm	LS	1	\$ 3,000	\$ 3,000	\$ 0.86		
		Stage lighting and controls	LS	1	\$ 43,350	\$ 43,350	\$ 12.39		
		Floor boxes	LS	0	\$ 0	\$ 0	\$ 0.00		Included above
		Security system mods	LS	0	\$ 0	\$ 0	\$ 0.00		Not included per Hargis
		Audio / paging system mods	LS	0	\$ 0	\$ 0	\$ 0.00		Not included per Hargis
017		Theatrical audio equipment	LS	0	\$ 0	\$ 0	\$ 0.00		See equipment section above
		Theatrical lighting support	LS	0	\$ 0	\$ 0	\$ 0.00	Pipe support system not included (do we need?)	
		EC OH&P	PCT	25%	\$ 127,990	\$ 31,998	\$ 9.14		
		Additional Elect. Needs	LS	0	\$ 250.00	\$ 0	\$ 0.00	See contingency below	
Subtotals:						\$ 159,988	\$ 45.71	Based on Gross S.F.	
ESTIMATE SUBTOTALS						\$ 474,546	\$ 135.58	Based on Gross Ten. Imp. Sq. Ft.	
20.		GENERAL CONDITIONS	WKS	8	\$ 4,494	\$ 35,950	\$ 10.27	See detailed breakdown attached	
		SHIFTWORK PREMIUM - na	PCT.		0.00%	\$ 0	\$ 0.00	Not included for this project.	
21.		BOND AND INSURANCE, B&O	PCT.		3.20%	\$ 16,336	\$ 4.67	Bond 1.5%, Insurance 1%, B and O .7%	
22.		ESTIMATING CONTINGENCY	PCT.		7.50%	\$ 39,512	\$ 11.29	Design level, renovation work	
23.		GC OFFICE OVERHEAD / FEE	PCT.		5.00%	\$ 28,317	\$ 8.09	Contractors Fee (5% of Const. Costs)	
24.		ESCALTION TO MIDPOINT	PCT.		0.00%	\$ 0	\$ 0.00	Costs are in today's dollars, suggest 2.5% annual	
GRAND TOTALS						\$ 594,661	\$ 169.90	Based on Gross Ten. Imp. Sq. Ft.	

INTERIOR RENOVATION ESTIMATE SUMMARY

Estimate Date: 1-Dec-12

ITEM NO.	CSI CODE	TRADE	EXTENSION	COST / SF	PCT of CONST. COST	REMARKS
COST SUMMARY:						
1.	2050	DEMOLITION-CORING	\$ 10,316	\$ 2.95	1.7%	
2.	03300	BUILDING CONCRETE	\$ 2,321	\$ 0.66	0.4%	
3.	05500	STR. STEEL-MISC. IRON	\$ 1,200	\$ 0.34	0.2%	
4.	06100	ROUGH CARPENTRY	\$ 840	\$ 0.24	0.1%	
5.	06400	FINISH CARPENTRY-MILLWORK	\$ 0	\$ 0.00	0.0%	
6.	08100	DOORS-FRAMES-HARDWARE	\$ 6,305	\$ 1.80	1.1%	
7.	08800	GLASS and GLAZING	\$ 21,000	\$ 6.00	3.5%	
8.	09250	DRYWALL-MTL STUDS-INSULATION	\$ 10,970	\$ 3.13	1.8%	
9.	09300	CERAMIC TILE-STONEMWORK	\$ 0	\$ 0.00	0.0%	
10.	09500	ACOUSTICAL CEILINGS	\$ 24,354	\$ 6.96	4.1%	
11.	09680	FLOOR COVERING	\$ 24,865	\$ 7.10	4.2%	
12.	09900	PAINTING-WALLCOVERING	\$ 4,498	\$ 1.29	0.8%	
13.	10000	MISCELLANEOUS SPECIALTIES	\$ 250	\$ 0.07	0.0%	
14.	11000	EQUIPMENT	\$ 93,780	\$ 26.79	15.8%	
15.	12000	FURNISHINGS	\$ 3,360	\$ 0.96	0.6%	
16.	15300	FIRE SUPPRESSION	\$ 5,250	\$ 1.50	0.9%	
17.	15400	PLUMBING	\$ 0	\$ 0.00	0.0%	
18.	15500	H.V.A.C.-DUCTWORK	\$ 105,250	\$ 30.07	17.7%	
19.	16000	ELECTRICAL	\$ 159,988	\$ 45.71	26.9%	
ESTIMATE SUBTOTALS:			\$ 474,546	\$ 135.58	79.8%	
20.		GENERAL CONDITIONS	\$ 35,950	\$ 10.27	6.0%	
21.		SHIFTWORK PREMIUM - not used	\$ 0	\$ 0.00	0.0%	
22.		BOND AND INSURANCE, B&O	\$ 16,336	\$ 4.67	2.7%	
23.		ESTIMATING CONTINGENCY	\$ 39,512	\$ 11.29	6.6%	
24.		CONTRACTOR OVERHEAD / FEE	\$ 28,317	\$ 8.09	4.8%	
25.		ESCALATION TO MIDPOINT	\$ 0	\$ 0.00	0.0%	
GRAND TOTALS:			\$ 594,661	\$ 169.90	100.0%	

\$ -



Project: North Seattle CC Student Admin & Baxter Center Renov
 9600 College Way N, Seattle, WA 98103
 Area 4 Student Center

PROJECT DELIVERY ANALYSTS, LLC
 9001 Springwood Ave. NE, Bainbridge Island, WA 98110



INTERIOR RENOVATION ESTIMATE

Client: schacht / aslani architects
 Eric Amin, Evan Bourquard

Gross T. I. Sq. Footage: 2,900

Space Planner: n/a

Const. Duration (In Weeks): 7

Plans Dated: 26-Nov-12

Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
1. 02050 DEMOLITION-CORING								
Key #	D01	Demo exist wall	LF	58	\$ 7.00	\$ 406	\$ 0.14	Demo/remove wall to underside of deck above +12'-6"
	D03	Remove door and frame	LEAF	1	\$ 50.00	\$ 50	\$ 0.02	Demo door and frame and haul away
	D04	Demo casework	LF	10	\$ 35.00	\$ 350	\$ 0.12	Demo casework, upper and lower, and haul away
	D06	Demo exist gwb soffit above	SF	138	\$ 3.00	\$ 414	\$ 0.14	Demo existing soffit above - also see D20
	D08	Demo tile carpet	SF	0	\$ 0.45	\$ 0	\$ 0.00	Demo carpet tile and adhesive below
	D11	Demo raised platform	SF	0	\$ 8.00	\$ 0	\$ 0.00	Demo raised platform, stair, flooring at Projection booth
	D13	Demo movable partition	LF	0	\$ 15.00	\$ 0	\$ 0.00	Demo movable partition and hardware
	D15	Demo A/V equip., controls	LS	0	\$ 500.00	\$ 0	\$ 0.00	Demo A/V equipment and lighting controls
	D16	Demo wall for new door	SF	1	\$ 5.00	\$ 5	\$ 0.00	Demo 3x7 opening for a new door
	D20	Demo soffits	SF	80	\$ 3.00	\$ 240	\$ 0.08	Demo gwb soffits and framing
	D21	Demo ACT ceiling system	SF	120	\$ 0.50	\$ 60	\$ 0.02	Demo / Removal of existing suspended clgs.
	D22	Demo GWB ceiling system	SF	188	\$ 2.50	\$ 470	\$ 0.00	Demo / Removal of existing gwb ceilings
	D23	Demo ceiling projector	EA	0	\$ 50.00	\$ 0	\$ 0.00	Demo existing ceiling mounted projector and salvage
	D24	Demo vertical soffit	SF	0	\$ 3.00	\$ 0	\$ 0.00	Demo vertical face of soffit to underside of deck
	D25	(E.) GWB soffit to remain	SF	0	\$ 0.00	\$ 0	\$ 0.00	No work, see below for protect existing construction
	D26	Demo coffee service casework	LF	20	\$ 35.00	\$ 700	\$ 0.24	Demo casework, upper and lower, and haul away
	D28	Demo open counter	LF	24	\$ 25.00	\$ 600	\$ 0.21	Demo open counter and haul away
		Project existing const	LS	1	\$ 500.00	\$ 500	\$ 0.17	Protect existing walls and ceilings during const.
Note 2		Misc poke thru for electrical	EA	12	\$ 75.00	\$ 900	\$ 0.31	Floor penetrations for power and data
		Misc. wall or ceiling cuts	LS	1	\$ 350.00	\$ 350	\$ 0.12	Allowance for items not called out, field conditions
		Haz mat scope	LS	0	\$ 0.00	\$ 0	\$ 0.00	Not included, see note.
Subtotals:						\$ 5,081	\$ 1.75	Based on Gross S.F.
2. 03300 BUILDING CONCRETE								
		Floor Patch at Penetrations	EA	12	\$ 50.00	\$ 600	\$ 0.21	Grout around electrical floor boxes
		Fire stopping at penetrations	EA	0	\$ 75.00	\$ 0	\$ 0.00	Fire stopping at first floor penetration
		Concrete ADA ramp	SF	0	\$ 35.00	\$ 0	\$ 0.00	CIP concrete ramp over metal framing supports
		Concrete premiums	PCT	0%	\$ 0	\$ 0	\$ 0.00	Short yard charges, half day for finisher
		Wall patch at penetrations	EA	0	\$ 300.00	\$ 0	\$ 0.00	Wall patch of cmu or concrete at MEP penetrations
		Firestop wall penetrations	EA	0	\$ 225.00	\$ 0	\$ 0.00	Firestop cmu or concrete at MEP penetrations
		Scrape and prep slab	SF	0	\$ 0.35	\$ 0	\$ 0.00	Remove old glue and fabric stuck to glue
Subtotals:						\$ 600	\$ 0.21	Based on Gross S.F.
3. 05500 STR. STEEL-MISC. IRON								
		ADA ramp wall rails	LF	0	\$ 25.00	\$ 0	\$ 0.00	Wall mounted pipe rail at ADA ramp per code
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
4. 06100 ROUGH CARPENTRY								
		Backing at bulletin board	EA	0	\$ 200.00	\$ 0	\$ 0.00	Hardwood backing for bulletin board
		Backing at ADA rail	LF	0	\$ 7.00	\$ 0	\$ 0.00	Continuous wood or metal backing in walls
		Backing at casework	LF	24	\$ 7.00	\$ 168	\$ 0.06	Continuous wood or metal backing
Subtotals:						\$ 168	\$ 0.06	Based on Gross S.F.
5. 06400 FINISH CARPENTRY-MILLWORK								
	006	Casework assembly	LF	0	\$ 400.00	\$ 0	\$ 0.00	Upper cabinet and lower cabinet, see below for top
	006	Countertop	SF	0	\$ 37.50	\$ 0	\$ 0.00	P-lam countertop over lower cabinets
	007	Lower casework 36" wide	LF	0	\$ 300.00	\$ 0	\$ 0.00	Lower cabinet 36" deep with drawers, top above
	016	Casework, display board	LF	0	\$ 0.00	\$ 0	\$ 0.00	See specialties section below
		Cyber bar counter	LF	24	\$ 125.00	\$ 3,000	\$ 1.03	Assume 42" high counter, no key note

Continued on page 2...

INTERIOR RENOVATION ESTIMATE

Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
...Section 06400, continued from page 1								
		Cabinet backing	LF	0	\$ 0.00	\$ 0	\$ 0.00	See rough carpentry section above
		Not Used	SF	0	\$ 0.00	\$ 0	\$ 0.00	Not Used
		Not Used	SF	0	\$ 0.00	\$ 0	\$ 0.00	Not Used
Subtotals:						\$ 3,000	\$ 1.03	Based on Gross S.F.
6. 08100 DOORS-FRAMES-HARDWARE								
014		Entry door assembly - Wood	LEAF	0	\$ 1,100	\$ 0	\$ 0.00	3'-0"x7'-0" HMxWD, with standard hardware
015		Passage door assembly	LEAF	2	\$ 950	\$ 1,900	\$ 0.66	3'-0"x7'-0" HMxWD, with passage hardware
		Freight	LS	1	\$ 350	\$ 350	\$ 0.12	Special freight for small job
		Shop drawings	HRS	2	\$ 65	\$ 130	\$ 0.04	Detailing for small job
		Minimum trip charge	HRS	4	\$ 75	\$ 300	\$ 0.10	Minimum half day for door install
		Acoustic seals and thresholds	OPG	0	\$ 200	\$ 0	\$ 0.00	NOT USED
		Card reader and panic	OPG	0	\$ 1,500	\$ 0	\$ 0.00	NOT USED
		1 hr. rating upgrade	OPG	0	\$ 150	\$ -	\$ 0.00	Upgrade for test and label at corridor doors
		Access doors and frames	EA	1	\$ 175	\$ 175	\$ 0.06	Allowance for access doors
		Not Used	SF	0	\$ 0.00	\$ 0	\$ 0.00	Not Used
Subtotals:						\$ 2,855	\$ 0.98	Based on Gross S.F.
7. 08800 GLASS and GLAZING								
003		Storefront infill full height	SF	252	\$ 38.00	\$ 9,576	\$ 3.30	Full height interior storefront from FF to +9'-0"
004		Storefront infill partial height	SF	0	\$ 40.00	\$ 0	\$ 0.00	Partial height interior storefront from +3'-0" to +9'-0"
		Frame sidelite glazing	SF	0	\$ 25.00	\$ 0	\$ 0.00	Translucent safety glass at sidelites, clerestory
		Glazed folding partition	SF	0	\$ 75.00	\$ 0	\$ 0.00	Folding glazed partition, STC 50, to 10" above FF
014		Glazed entry door	PAIR	1	\$ 2,200	\$ 2,200	\$ 0.76	6'-0" x 7'-0" Aluminum x Glass entry with hardware
Subtotals:						\$ 11,776	\$ 4.06	Based on Gross S.F.
8. 09250 DRYWALL-MTL STUDS-INSULATION								
001		Wall type 1 general partition	SF	263	\$ 6.85	\$ 1,798	\$ 0.62	Typical partition, to lower flutes, with insulation, typ
001		Wall type 1 general partition	SF	475	\$ 8.00	\$ 3,800	\$ 1.31	Full height to deck, around flutes, with insulation, typ
002		Drywall partition infill	SF	0	\$ 13.00	\$ 0	\$ 0.00	Infill old door openings, and patch to +8'
		Drywall partition partial height	SF	0	\$ 7.00	\$ 0	\$ 0.00	Drywall partition above and below partial storefront
		Acoustical wall insulation	SF	0	\$ 0.00	\$ 0	\$ 0.00	Insulation is included with assemblies above
		Premium for 20 gauge	SF	0	\$ 0.70	\$ 0	\$ 0.00	Upsized studs to 20 ga where supporting casework
011		GWB soffit and framing, +9'	SF	90	\$ 6.50	\$ 585	\$ 0.20	New gwb soffit above stage area
		Ceiling edge banding	LF	0	\$ 10.00	\$ 0	\$ 0.00	GWB banding wall at transition to ACT
		Patch existing perimeter walls	EA	3	\$ 75.00	\$ 225	\$ 0.08	Patch existing where old walls were removed
		Patch existing walls	LS	1	\$ 250.00	\$ 250	\$ 0.09	Allowance to patch for new outlets and switches
		Remove gwb and patch	SF	0	\$ 5.00	\$ 0	\$ 0.00	Removal and patch for counter backing
		Remove gwb and patch	SF	0	\$ 5.00	\$ 0	\$ 0.00	Removal and patch for wall mounted handrail
		Patch walls for MEP	LS	1	\$ 350.00	\$ 350	\$ 0.12	Patch any wall penetrations by MEP sub
		Misc. and punch list	LS	1	\$ 350.00	\$ 350	\$ 0.12	Allowance for misc. patching
Subtotals:						\$ 7,358	\$ 2.54	Based on Gross S.F.
9. 09300 CERAMIC TILE-STONEWORK								
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
10. 09500 ACOUSTICAL CEILINGS								
		Removal of existing SACT	HRS	0	\$ 0.00	\$ 0	\$ 0.00	See demo section above for removal
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
		Replace damaged ceiling tiles	SF	25	\$ 2.50	\$ 63	\$ 0.02	Replace damaged tiles from construction with new
		Replace grid and tiles	HRS	2	\$ 50.00	\$ 100	\$ 0.03	Replace lay in grid and tiles for MEP contractor
021		New SACT ceilings	SF	334	\$ 4.50	\$ 1,503	\$ 0.52	New SACT ceilings as shown
025		Acoustical liner	SF	0	\$ 5.00	\$ 0	\$ 0.00	Acoustical duct liner within structural bays
026		Linear wood ceiling system	SF	0	\$ 20.00	\$ 0	\$ 0.00	9-Wood linear ceiling system
Subtotals:						\$ 1,666	\$ 0.57	Based on Gross S.F.

INTERIOR RENOVATION ESTIMATE

Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
11. 09680 FLOOR COVERING								
	030	Resilient sheet flooring	SY	0	\$ 38.00	\$ 0	\$ 0.00	Resilient flooring at corridors, with 10% waste
	012	Carpet tiles	SY	258	\$ 50.00	\$ 12,894	\$ 4.45	Carpet tiles including 10% waste
		New rubber base	LF	88	\$ 2.00	\$ 176	\$ 0.06	New 4" base at new walls and existing walls
	013	Linoleum flooring	SY	17	\$ 38.00	\$ 632	\$ 0.22	Linoleum to match existing
Subtotals:						\$ 13,702	\$ 4.72	Based on Gross S.F.
12. 09900 PAINTING-WALLCOVERING								
		Wall Painting new	SF	1,062	\$ 0.60	\$ 637	\$ 0.22	2 coat flat interior latex paint on drywall
		Wall Painting existing	SF	720	\$ 0.65	\$ 468	\$ 0.16	Repaint existing perimeter walls
		Wall painting at patches	SF	100	\$ 1.00	\$ 100	\$ 0.03	Allow wall painting for MEP patches
		Ceiling banding painting	SF	0	\$ 1.00	\$ 0	\$ 0.00	Painting of banding material at transitions
	029	Paint existing exposed structure	SF	2,024	\$ 1.00	\$ 2,024	\$ 0.70	Clean and paint existing precast tee beams
	029	Clean ceiling devices	LS	1	\$ 600.00	\$ 600	\$ 0.21	Equipment cleaning and remove unsightly devices
		Paint new gwb soffits	SF	90	\$ 1.00	\$ 90	\$ 0.03	Painting of soffits per plan
		Door Painting / Staining	EA	3	\$ 75.00	\$ 225	\$ 0.08	Paint or stain doors, frames and access hatches
		Touch up and punch list	LS	1	\$ 300.00	\$ 300	\$ 0.10	Touch up for other trades, and punch list
		Joint sealing, interior	SF	2,900	\$ 0.15	\$ 435	\$ 0.15	Allowance for interior caulking
Subtotals:						\$ 4,879	\$ 1.68	Based on Gross S.F.
13. 10000 MISCELLANEOUS SPECIALTIES								
	016	Display board / signage	EA	0	\$ 2,000.00	\$ 0	\$ 0.00	Casework - display / signage, allowance
	009	Entry signage	EA	0	\$ 75.00	\$ 0	\$ 0.00	"Student Leadership Multicultural Programs"
		Door signage	OPGS	2	\$ 50.00	\$ 100	\$ 0.03	Interior door signage
Subtotals:						\$ 100	\$ 0.03	Based on Gross S.F.
14. 11000 EQUIPMENT								
	005	Brochure display rack	LF	0	\$ 175.00	\$ 0	\$ 0.00	Display counter and bulletin board display, wall mounted
	022	Re-install overhead projector	EA	0	\$ 300.00	\$ 0	\$ 0.00	Labor to re-install overhead projector, see D23
	023	Motorized projection screen	SF	0	\$ 60.00	\$ 0	\$ 0.00	New recessed motorized projection screen
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
15. 12000 FURNISHINGS								
	018	Acoustical curtain	SF	0	\$ 12.00	\$ 0	\$ 0.00	Hanging curtain at folding door, for privacy
		Not Used	SF	0	\$ 0.00	\$ 0	\$ 0.00	Not Used
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
16. 15300 FIRE SUPPRESSION								
		Head relocation allow	SF	2,900	\$ 1.50	\$ 4,350	\$ 1.50	Allowance per ME estimate
Subtotals:						\$ 4,350	\$ 1.50	Based on Gross S.F.
17. 15400 PLUMBING								
		Plumbing fixtures	FU	0	\$ 1,700	\$ 0	\$ 0.00	See Hargis estimate
		Plumbing piping	FU	0	\$ 955	\$ 0	\$ 0.00	New two-compartment sink and rough in
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
18. 15500 H.V.A.C.-DUCTWORK								
		Mechanical demo items	LS	1	\$ 750.00	\$ 750	\$ 0.26	See Hargis estimate for further breakdown, typ.
		Air distribution ducts	LS	1	\$ 1,000.00	\$ 1,000	\$ 0.34	Galv steel ductwork, diffusers and insulation
		Air distribution VAV boxes	LS	1	\$ 1,000.00	\$ 1,000	\$ 0.34	Fan powered VAV boxes with electric heat coils
		Controls	LS	1	\$ 0	\$ 0	\$ 0.00	No changes
		Air and water balance	LS	1	\$ 750.00	\$ 750	\$ 0.26	
		Mechanical commissioning	LS	1	\$ 750.00	\$ 750	\$ 0.26	
		Subcontractor OH&P	PCT	25%	\$ 4,250	\$ 1,063	\$ 0.37	
		Design Contingency - below	PCT	0	\$ 0	\$ 0	\$ 0.00	See indirect costs below
Subtotals:						\$ 5,313	\$ 1.83	Based on Gross S.F.

Project: North Seattle CC Student Admin & Baxter Center Renov
 9600 College Way N, Seattle, WA 98103
 Area 4 Student Center

PROJECT DELIVERY ANALYSTS, LLC
 9001 Springwood Ave. NE, Bainbridge Island, WA 98110

INTERIOR RENOVATION ESTIMATE

Estimate Date: 1-Dec-12

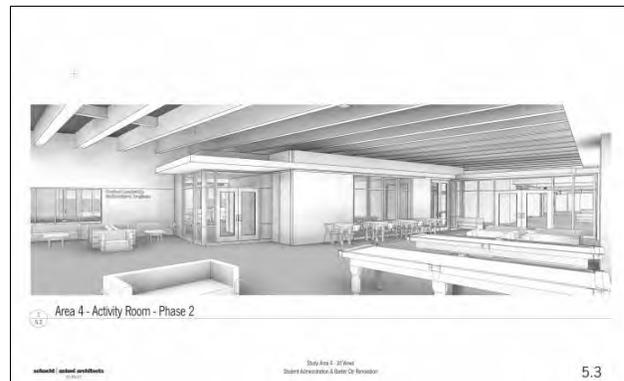
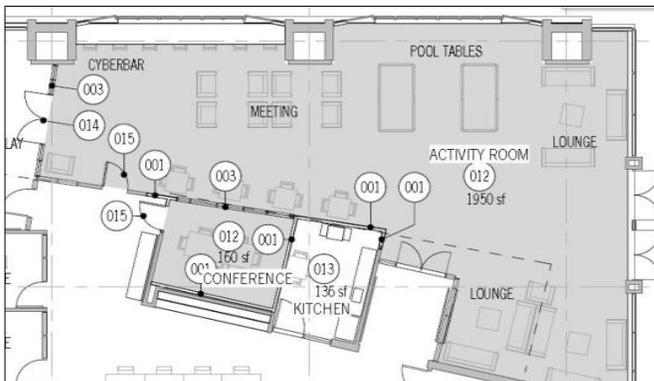
ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
19.		16000 ELECTRICAL						
		Demolition	LS	1	\$ 1,200	\$ 1,200	\$ 0.41	See Hargis estimate for further breakdown, typ. See Area 3 Included above Not included per Hargis Not included per Hargis See contingency below
		Lighting fixtures	LS	1	\$ 4,880	\$ 4,880	\$ 1.68	
		Lighting controls	LS	1	\$ 1,855	\$ 1,855	\$ 0.64	
		Power / data	LS	1	\$ 10,290	\$ 10,290	\$ 3.55	
		Fire alarm	LS	1	\$ 1,500	\$ 1,500	\$ 0.52	
		Control panel for daylighting	LS	0	\$ 0	\$ 0	\$ 0.00	
		Floor boxes	LS	0	\$ 0	\$ 0	\$ 0.00	
		Security system mods	LS	0	\$ 0	\$ 0	\$ 0.00	
		Audio / paging system mods	LS	0	\$ 0	\$ 0	\$ 0.00	
		EC OH&P	PCT	25%	\$ 19,725	\$ 4,931	\$ 1.70	
		Additional Elect. Needs	LS	0	\$ 250.00	\$ 0	\$ 0.00	
Subtotals:						\$ 24,656	\$ 8.50	Based on Gross S.F.
ESTIMATE SUBTOTALS						\$ 85,504	\$ 29.48	Based on Gross Ten. Imp. Sq. Ft.
20.		GENERAL CONDITIONS	WKS	7	\$ 4,500	\$ 31,500	\$ 10.86	See detailed breakdown attached
		SHIFTWORK PREMIUM - na	PCT.		0.00%	\$ 0	\$ 0.00	Not included for this project.
21.		BOND AND INSURANCE, B&O	PCT.		3.20%	\$ 3,744	\$ 1.29	Bond 1.5%, Insurance 1%, B and O .7%
22.		ESTIMATING CONTINGENCY	PCT.		7.50%	\$ 9,056	\$ 3.12	Design level, renovation work
23.		GC OFFICE OVERHEAD / FEE	PCT.		5.00%	\$ 6,490	\$ 2.24	Contractors Fee (5% of Const. Costs)
24.		ESCALTION TO MIDPOINT	PCT.		0.00%	\$ 0	\$ 0.00	Costs are in today's dollars, suggest 2.5% annual
GRAND TOTALS						\$ 136,294	\$ 47.00	Based on Gross Ten. Imp. Sq. Ft.

INTERIOR RENOVATION ESTIMATE SUMMARY

Estimate Date: 1-Dec-12

ITEM NO.	CSI CODE	TRADE	EXTENSION	COST / SF	PCT of CONST. COST	REMARKS
COST SUMMARY:						
1.	2050	DEMOLITION-CORING	\$ 5,081	\$ 1.75	3.7%	
2.	03300	BUILDING CONCRETE	\$ 600	\$ 0.21	0.4%	
3.	05500	STR. STEEL-MISC. IRON	\$ 0	\$ 0.00	0.0%	
4.	06100	ROUGH CARPENTRY	\$ 168	\$ 0.06	0.1%	
5.	06400	FINISH CARPENTRY-MILLWORK	\$ 3,000	\$ 1.03	2.2%	
6.	08100	DOORS-FRAMES-HARDWARE	\$ 2,855	\$ 0.98	2.1%	
7.	08800	GLASS and GLAZING	\$ 11,776	\$ 4.06	8.6%	
8.	09250	DRYWALL-MTL STUDS-INSULATION	\$ 7,358	\$ 2.54	5.4%	
9.	09300	CERAMIC TILE-STONEMWORK	\$ 0	\$ 0.00	0.0%	
10.	09500	ACOUSTICAL CEILINGS	\$ 1,666	\$ 0.57	1.2%	
11.	09680	FLOOR COVERING	\$ 13,702	\$ 4.72	10.1%	
12.	09900	PAINTING-WALLCOVERING	\$ 4,879	\$ 1.68	3.6%	
13.	10000	MISCELLANEOUS SPECIALTIES	\$ 100	\$ 0.03	0.1%	
14.	11000	EQUIPMENT	\$ 0	\$ 0.00	0.0%	
15.	12000	FURNISHINGS	\$ 0	\$ 0.00	0.0%	
16.	15300	FIRE SUPPRESSION	\$ 4,350	\$ 1.50	3.2%	
17.	15400	PLUMBING	\$ 0	\$ 0.00	0.0%	
18.	15500	H.V.A.C.-DUCTWORK	\$ 5,313	\$ 1.83	3.9%	
19.	16000	ELECTRICAL	\$ 24,656	\$ 8.50	18.1%	
ESTIMATE SUBTOTALS:			\$ 85,504	\$ 29.48	62.7%	
20.		GENERAL CONDITIONS	\$ 31,500	\$ 10.86	23.1%	
21.		SHIFTWORK PREMIUM - not used	\$ 0	\$ 0.00	0.0%	
22.		BOND AND INSURANCE, B&O	\$ 3,744	\$ 1.29	2.7%	
23.		ESTIMATING CONTINGENCY	\$ 9,056	\$ 3.12	6.6%	
24.		CONTRACTOR OVERHEAD / FEE	\$ 6,490	\$ 2.24	4.8%	
25.		ESCALATION TO MIDPOINT	\$ 0	\$ 0.00	0.0%	
GRAND TOTALS:			\$ 136,294	\$ 47.00	100.0%	

\$ -



Project: North Seattle CC Student Admin & Baxter Center Renov
 9600 College Way N, Seattle, WA 98103
 Area 5 Equity Center

PROJECT DELIVERY ANALYSTS, LLC
 9001 Springwood Ave. NE, Bainbridge Island, WA 98110



INTERIOR RENOVATION ESTIMATE

Client: schacht / aslani architects
 Eric Amin, Evan Bourquard

Gross T. I. Sq. Footage: 2,700

Space Planner: n/a

Const. Duration (In Weeks): 7

Plans Dated: 26-Nov-12

Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
1. 02050 DEMOLITION-CORING								
Key #	D01	Demo exist wall	LF	184	\$ 7.00	\$ 1,288	\$ 0.48	Demo/remove wall to underside of deck above +12'-6"
	D03	Remove door and frame	LEAF	7	\$ 50.00	\$ 350	\$ 0.13	Demo door and frame and haul away
	D04	Demo casework	LF	69	\$ 25.00	\$ 1,725	\$ 0.64	Demo casework, upper and lower, and haul away
	D05	Demo storefront glazing	LF	25	\$ 28.00	\$ 700	\$ 0.26	Demo storefront framing, glazing and door
	D06	Demo exist gwb soffit above	SF	0	\$ 3.00	\$ 0	\$ 0.00	Demo existing soffit above - also see D20
	D08	Demo tile carpet	SF	2,160	\$ 0.45	\$ 972	\$ 0.36	Demo carpet tile and adhesive below
	D11	Demo raised platform	SF	0	\$ 8.00	\$ 0	\$ 0.00	Demo raised platform, stair, flooring at Projection booth
	D13	Demo movable partition	LF	0	\$ 15.00	\$ 0	\$ 0.00	Demo movable partition and hardware
	D15	Demo A/V equip., controls	LS	0	\$ 500.00	\$ 0	\$ 0.00	Demo A/V equipment and lighting controls
	D16	Demo wall for new door	SF	2	\$ 5.00	\$ 10	\$ 0.00	Demo 3x7 opening for a new door
	D20	Demo soffits	SF	80	\$ 3.00	\$ 240	\$ 0.09	Demo gwb soffits and framing
	D21	Demo ACT ceiling system	SF	2,754	\$ 0.50	\$ 1,377	\$ 0.51	Demo / Removal of existing suspended cigs.
	D22	Demo GWB ceiling system	SF	0	\$ 2.50	\$ 0	\$ 0.00	Demo / Removal of existing gwb ceilings
	D23	Demo ceiling projector	EA	0	\$ 50.00	\$ 0	\$ 0.00	Demo existing ceiling mounted projector and salvage
	D24	Demo vertical soffit	SF	0	\$ 3.00	\$ 0	\$ 0.00	Demo vertical face of soffit to underside of deck
	D25	(E.) GWB soffit to remain	SF	0	\$ 0.00	\$ 0	\$ 0.00	No work, see below for protect existing construction
	D26	Demo coffee service casework	LF	0	\$ 35.00	\$ 0	\$ 0.00	Demo casework, upper and lower, and haul away
	D28	Demo open counter	LF	0	\$ 25.00	\$ 0	\$ 0.00	Demo open counter and haul away
		Project existing const	LS	1	\$ 500.00	\$ 500	\$ 0.19	Protect existing walls and ceilings during const.
Note 2		Misc. poke thru for electrical	EA	11	\$ 75.00	\$ 825	\$ 0.31	Floor penetrations for power and data
		Misc. wall or ceiling cuts	LS	1	\$ 350.00	\$ 350	\$ 0.13	Allowance for items not called out, field conditions
		Haz mat scope	LS	0	\$ 0.00	\$ 0	\$ 0.00	Not included, see note.
Subtotals:						\$ 8,373	\$ 3.10	Based on Gross S.F.
2. 03300 BUILDING CONCRETE								
		Floor Patch at Penetrations	EA	11	\$ 50.00	\$ 550	\$ 0.20	Grout around electrical floor boxes
		Fire stopping at penetrations	EA	0	\$ 75.00	\$ 0	\$ 0.00	Fire stopping at first floor penetration
		Concrete premiums	PCT	0%	\$ 0	\$ 0	\$ 0.00	Short yard charges, half day for finisher
		Wall patch at penetrations	EA	0	\$ 300.00	\$ 0	\$ 0.00	Wall patch of cmu or concrete at MEP penetrations
		Firestop wall penetrations	EA	0	\$ 225.00	\$ 0	\$ 0.00	Firestop cmu or concrete at MEP penetrations
		Scrape and prep slab	SF	2,160	\$ 0.35	\$ 756	\$ 0.28	Remove old glue and fabric stuck to glue
Subtotals:						\$ 1,306	\$ 0.48	Based on Gross S.F.
3. 05500 STR. STEEL-MISC. IRON								
		NOT USED	TN	0	\$ -	\$ 0	\$ 0.00	NOT USED
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
4. 06100 ROUGH CARPENTRY								
		Backing at bulletin board	EA	0	\$ 200.00	\$ 0	\$ 0.00	Hardwood backing for bulletin board
		Backing at ADA rail	LF	0	\$ 7.00	\$ 0	\$ 0.00	Continuous wood or metal backing in walls
		Backing at casework	LF	0	\$ 7.00	\$ 0	\$ 0.00	Continuous wood or metal backing
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
5. 06400 FINISH CARPENTRY-MILLWORK								
	006	Casework assembly	LF	0	\$ 400.00	\$ 0	\$ 0.00	Upper cabinet and lower cabinet, see below for top
	006	Countertop	SF	0	\$ 37.50	\$ 0	\$ 0.00	P-lam countertop over lower cabinets
	007	Lower casework 36" wide	LF	0	\$ 300.00	\$ 0	\$ 0.00	Lower cabinet 36" deep with drawers, top above
	016	Casework, display board	LF	0	\$ 0.00	\$ 0	\$ 0.00	See specialties section below
		Cyber bar counter	LF	0	\$ 125.00	\$ 0	\$ 0.00	Assume 42" high counter, no key note

Continued on page 2...

INTERIOR RENOVATION ESTIMATE

Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
...Section 06400, continued from page 1								
		Cabinet backing	LF	0	\$ 0.00	\$ 0	\$ 0.00	See rough carpentry section above
		Not Used	SF	0	\$ 0.00	\$ 0	\$ 0.00	Not Used
		Not Used	SF	0	\$ 0.00	\$ 0	\$ 0.00	Not Used
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
6. 08100 DOORS-FRAMES-HARDWARE								
014		Entry door assembly	LEAF	4	\$ 1,100	\$ 4,400	\$ 1.63	3'-0"x7'-0" HMxWD, with standard hardware
015		Passage door assembly	LEAF	4	\$ 950	\$ 3,800	\$ 1.41	3'-0"x7'-0" HMxWD, with passage hardware
		Freight	LS	1	\$ 350	\$ 350	\$ 0.13	Special freight for small job
		Shop drawings	HRS	2	\$ 65	\$ 130	\$ 0.05	Detailing for small job
		Minimum trip charge	HRS	0	\$ 75	\$ 0	\$ 0.00	No minimum charge for Area 5
		Acoustic seals and thresholds	OPG	0	\$ 200	\$ 0	\$ 0.00	NOT USED
		Card reader and panic	OPG	0	\$ 1,500	\$ 0	\$ 0.00	NOT USED
		1 hr. rating upgrade	OPG	4	\$ 150	\$ 600	\$ 0.22	Upgrade for test and label at corridor doors
		Access doors and frames	EA	1	\$ 175	\$ 175	\$ 0.06	Allowance for access doors
		Storage closet doors	PR	2	\$ 1,750	\$ 3,500	\$ 1.30	Paired 6'x7' openings to closets at south wall
Subtotals:						\$ 12,955	\$ 4.80	Based on Gross S.F.
7. 08800 GLASS and GLAZING								
003		Storefront infill full height	SF	171	\$ 38.00	\$ 6,498	\$ 2.41	Full height interior storefront from FF to +9'-0"
004		Storefront infill partial height	SF	240	\$ 40.00	\$ 9,600	\$ 3.56	Partial height interior storefront from +3'-0" to +9'-0"
		Frame sidelite glazing	SF	0	\$ 25.00	\$ 0	\$ 0.00	Translucent safety glass at sidelites, clerestory
		Glazed folding partition	SF	0	\$ 75.00	\$ 0	\$ 0.00	Folding glazed partition, STC 50, to 10" above FF
014		Glazed entry door	PAIR	0	\$ 2,200	\$ 0	\$ 0.00	6'-0" x 7'-0" Aluminum x Glass entry with hardware
Subtotals:						\$ 16,098	\$ 5.96	Based on Gross S.F.
8. 09250 DRYWALL-MTL STUDS-INSULATION								
001		Wall type 1 general partition	SF	1,325	\$ 6.85	\$ 9,076	\$ 3.36	Typical partition, to lower flutes, with insulation, typ
001		Wall type 1 general partition	SF	63	\$ 8.00	\$ 500	\$ 0.19	Full height to deck, around flutes, with insulation, typ
002		Drywall partition infill	SF	48	\$ 13.00	\$ 624	\$ 0.23	Infill old door openings, and patch to +8'
		Drywall partition sill and header	SF	260	\$ 7.00	\$ 1,820	\$ 0.67	Drywall partition above and below partial storefront
		Acoustical wall insulation	SF	0	\$ 0.00	\$ 0	\$ 0.00	Insulation is included with assemblies above
		Premium for 20 gauge	SF	0	\$ 0.70	\$ 0	\$ 0.00	Upsized studs to 20 ga where supporting casework
011		GWB soffit and framing, +9'	SF	585	\$ 6.50	\$ 3,803	\$ 1.41	New gwb soffit above stage area
		Ceiling edge banding	LF	44	\$ 10.00	\$ 440	\$ 0.16	GWB banding wall at transition to ACT
		Patch existing perimeter walls	EA	6	\$ 75.00	\$ 450	\$ 0.17	Patch existing where old walls were removed
		Patch existing walls	LS	1	\$ 500.00	\$ 500	\$ 0.19	Allowance to patch for new outlets and switches
		Remove gwb and patch	SF	0	\$ 5.00	\$ 0	\$ 0.00	Removal and patch for counter backing
		Remove gwb and patch	SF	0	\$ 5.00	\$ 0	\$ 0.00	Removal and patch for wall mounted handrail
		Patch walls for MEP	LS	1	\$ 350.00	\$ 350	\$ 0.13	Patch any wall penetrations by MEP sub
		Misc. and punch list	LS	1	\$ 350.00	\$ 350	\$ 0.13	Allowance for misc. patching
Subtotals:						\$ 17,913	\$ 6.63	Based on Gross S.F.
9. 09300 CERAMIC TILE-STONEWORK								
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
10. 09500 ACOUSTICAL CEILINGS								
		Removal of existing SACT	HRS	0	\$ 0.00	\$ 0	\$ 0.00	See demo section above for removal
		Not Used	SF	0.0	\$ 0.00	\$ 0	\$ 0.00	Not Used
		Replace damaged ceiling tiles	SF	75	\$ 2.50	\$ 188	\$ 0.07	Replace damaged tiles from construction with new
		Replace grid and tiles	HRS	4	\$ 50.00	\$ 200	\$ 0.07	Replace lay in grid and tiles for MEP contractor
021		New SACT ceilings	SF	1,510	\$ 4.50	\$ 6,795	\$ 2.52	New SACT ceilings as shown
025		Acoustical liner	SF	0	\$ 5.00	\$ 0	\$ 0.00	Acoustical duct liner within structural bays
026		Linear wood ceiling system	SF	0	\$ 20.00	\$ 0	\$ 0.00	9-Wood linear ceiling system
Subtotals:						\$ 7,183	\$ 2.66	Based on Gross S.F.

INTERIOR RENOVATION ESTIMATE

Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
11. 09680 FLOOR COVERING								
	030	Resilient sheet flooring	SY	0	\$ 38.00	\$ 0	\$ 0.00	Resilient flooring at corridors, with 10% waste
	012	Carpet tiles	SY	330	\$ 50.00	\$ 16,500	\$ 6.11	Carpet tiles including 10% waste
		New rubber base	LF	315	\$ 2.00	\$ 630	\$ 0.23	New 4" base at new walls and existing walls
	013	Linoleum flooring	SY	0	\$ 38.00	\$ 0	\$ 0.00	Linoleum to match existing
Subtotals:						\$ 17,130	\$ 6.34	Based on Gross S.F.
12. 09900 PAINTING-WALLCOVERING								
		Wall Painting new	SF	2,442	\$ 0.60	\$ 1,465	\$ 0.54	2 coat flat interior latex paint on drywall
		Wall Painting existing	SF	1,278	\$ 0.65	\$ 831	\$ 0.31	Repaint existing perimeter walls
		Wall painting at patches	SF	150	\$ 1.00	\$ 150	\$ 0.06	Allow wall painting for MEP patches
		Ceiling banding painting	SF	88	\$ 1.00	\$ 88	\$ 0.03	Painting of banding material at transitions
	029	Paint existing exposed structure	SF	775	\$ 1.00	\$ 775	\$ 0.29	Clean and paint existing precast tee beams
	029	Clean ceiling devices	LS	1	\$ 500.00	\$ 500	\$ 0.19	Equipment cleaning and remove unsightly devices
		Paint new gwb soffits	SF	585	\$ 1.00	\$ 585	\$ 0.22	Painting of soffits per plan
		Door Painting / Staining	EA	13	\$ 75.00	\$ 975	\$ 0.36	Paint or stain doors, frames and access hatches
		Touch up and punch list	LS	1	\$ 500.00	\$ 500	\$ 0.19	Touch up for other trades, and punch list
		Joint sealing, interior	SF	2,700	\$ 0.15	\$ 405	\$ 0.15	Allowance for interior caulking
Subtotals:						\$ 6,274	\$ 2.32	Based on Gross S.F.
13. 10000 MISCELLANEOUS SPECIALTIES								
		White boards	EA	5	\$ 600.00	\$ 3,000	\$ 1.11	White boards included at Meeting and Conf rooms
	016	Display board / signage	EA	1	\$ 2,000.00	\$ 2,000	\$ 0.74	Casework - display / signage, allowance
		Door signage	OPGS	12	\$ 50.00	\$ 600	\$ 0.22	Interior door signage
Subtotals:						\$ 5,600	\$ 2.07	Based on Gross S.F.
14. 11000 EQUIPMENT								
	005	Brochure display rack	LF	0	\$ 175.00	\$ 0	\$ 0.00	Display counter and bulletin board display, wall mounted
	022	Re-install overhead projector	EA	1	\$ 300.00	\$ 300	\$ 0.11	Labor to re-install overhead projector, see D23
	023	Motorized projection screen	SF	64	\$ 60.00	\$ 3,840	\$ 1.42	New recessed motorized projection screen
Subtotals:						\$ 4,140	\$ 1.53	Based on Gross S.F.
15. 12000 FURNISHINGS								
	018	Acoustical curtain	SF	0	\$ 12.00	\$ 0	\$ 0.00	Hanging curtain at folding door, for privacy
		Not Used	SF	0	\$ 0.00	\$ 0	\$ 0.00	Not Used
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
16. 15300 FIRE SUPPRESSION								
		Head relocation allow	SF	2,700	\$ 1.50	\$ 4,050	\$ 1.50	Allowance per ME estimate
Subtotals:						\$ 4,050	\$ 1.50	Based on Gross S.F.
17. 15400 PLUMBING								
		Plumbing fixtures	FU	0	\$ 1,700	\$ 0	\$ 0.00	See Hargis estimate
		Plumbing piping	FU	0	\$ 955	\$ 0	\$ 0.00	New two-compartment sink and rough in
Subtotals:						\$ 0	\$ 0.00	Based on Gross S.F.
18. 15500 H.V.A.C.-DUCTWORK								
		Mechanical demo items	SF	3,600	\$ 1.00	\$ 3,600	\$ 1.33	See Hargis estimate for further breakdown, typ.
		Air distribution ducts	SF	3,600	\$ 7.50	\$ 27,000	\$ 10.00	Galv steel ductwork, diffusers and insulation
		Air distribution VAV boxes	EA	16	\$ 2,000.00	\$ 32,000	\$ 11.85	Fan powered VAV boxes with electric heat coils
		Controls	SF	3,600	\$ 4.00	\$ 14,400	\$ 5.33	
		Air and water balance	SF	3,600	\$ 1.00	\$ 3,600	\$ 1.33	
		Mechanical commissioning	SF	3,600	\$ 1.00	\$ 3,600	\$ 1.33	
		Subcontractor OH&P	PCT	25%	\$ 84,200	\$ 21,050	\$ 7.80	
		Design Contingency - below	PCT	0	\$ 0	\$ 0	\$ 0.00	See indirect costs below
Subtotals:						\$ 105,250	\$ 38.98	Based on Gross S.F.

Project: North Seattle CC Student Admin & Baxter Center Renov
 9600 College Way N, Seattle, WA 98103
 Area 5 Equity Center

PROJECT DELIVERY ANALYSTS, LLC
 9001 Springwood Ave. NE, Bainbridge Island, WA 98110

INTERIOR RENOVATION ESTIMATE

Estimate Date: 1-Dec-12

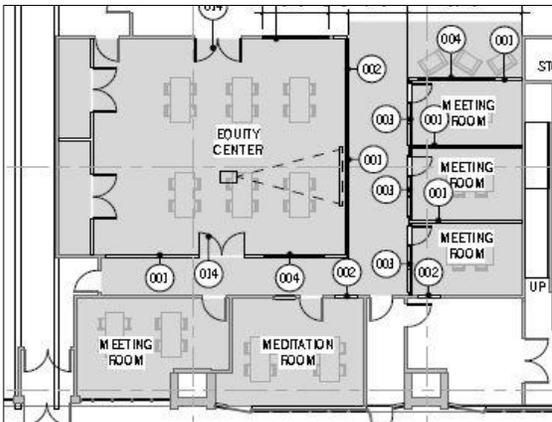
ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
19.		16000 ELECTRICAL						
		Demolition	LS	1	\$ 3,600	\$ 3,600	\$ 1.33	See Hargis estimate for further breakdown, typ. See Area 3 Included above Not included per Hargis Not included per Hargis See contingency below
		Lighting fixtures	LS	1	\$ 11,998	\$ 11,998	\$ 4.44	
		Lighting controls	LS	1	\$ 3,410	\$ 3,410	\$ 1.26	
		Power / data	LS	1	\$ 46,600	\$ 46,600	\$ 17.26	
		Fire alarm	LS	1	\$ 3,000	\$ 3,000	\$ 1.11	
		Control panel for daylighting	LS	0	\$ 0	\$ 0	\$ 0.00	
		Floor boxes	LS	0	\$ 0	\$ 0	\$ 0.00	
		Security system mods	LS	0	\$ 0	\$ 0	\$ 0.00	
		Audio / paging system mods	LS	0	\$ 0	\$ 0	\$ 0.00	
		EC OH&P	PCT	25%	\$ 68,608	\$ 17,152	\$ 6.35	
		Additional Elect. Needs	LS	0	\$ 250.00	\$ 0	\$ 0.00	
Subtotals:						\$ 85,760	\$ 31.76	Based on Gross S.F.
ESTIMATE SUBTOTALS						\$ 292,031	\$ 108.16	Based on Gross Ten. Imp. Sq. Ft.
20.		GENERAL CONDITIONS	WKS	7	\$ 4,500	\$ 31,500	\$ 11.67	See detailed breakdown attached
		SHIFTWORK PREMIUM - na	PCT.		0.00%	\$ 0	\$ 0.00	Not included for this project.
21.		BOND AND INSURANCE, B&O	PCT.		3.20%	\$ 10,353	\$ 3.83	Bond 1.5%, Insurance 1%, B and O .7%
22.		ESTIMATING CONTINGENCY	PCT.		7.50%	\$ 25,041	\$ 9.27	Design level, renovation work
23.		GC OFFICE OVERHEAD / FEE	PCT.		5.00%	\$ 17,946	\$ 6.65	Contractors Fee (5% of Const. Costs)
24.		ESCALTION TO MIDPOINT	PCT.		0.00%	\$ 0	\$ 0.00	Costs are in today's dollars, suggest 2.5% annual
GRAND TOTALS						\$ 376,871	\$ 139.58	Based on Gross Ten. Imp. Sq. Ft.

INTERIOR RENOVATION ESTIMATE SUMMARY

Estimate Date: 1-Dec-12

ITEM NO.	CSI CODE	TRADE	EXTENSION	COST / SF	PCT of CONST. COST	REMARKS
COST SUMMARY:						
1.	2050	DEMOLITION-CORING	\$ 8,373	\$ 3.10	2.2%	
2.	03300	BUILDING CONCRETE	\$ 1,306	\$ 0.48	0.3%	
3.	05500	STR. STEEL-MISC. IRON	\$ 0	\$ 0.00	0.0%	
4.	06100	ROUGH CARPENTRY	\$ 0	\$ 0.00	0.0%	
5.	06400	FINISH CARPENTRY-MILLWORK	\$ 0	\$ 0.00	0.0%	
6.	08100	DOORS-FRAMES-HARDWARE	\$ 12,955	\$ 4.80	3.4%	
7.	08800	GLASS and GLAZING	\$ 16,098	\$ 5.96	4.3%	
8.	09250	DRYWALL-MTL STUDS-INSULATION	\$ 17,913	\$ 6.63	4.8%	
9.	09300	CERAMIC TILE-STONEMWORK	\$ 0	\$ 0.00	0.0%	
10.	09500	ACOUSTICAL CEILINGS	\$ 7,183	\$ 2.66	1.9%	
11.	09680	FLOOR COVERING	\$ 17,130	\$ 6.34	4.5%	
12.	09900	PAINTING-WALLCOVERING	\$ 6,274	\$ 2.32	1.7%	
13.	10000	MISCELLANEOUS SPECIALTIES	\$ 5,600	\$ 2.07	1.5%	
14.	11000	EQUIPMENT	\$ 4,140	\$ 1.53	1.1%	
15.	12000	FURNISHINGS	\$ 0	\$ 0.00	0.0%	
16.	15300	FIRE SUPPRESSION	\$ 4,050	\$ 1.50	1.1%	
17.	15400	PLUMBING	\$ 0	\$ 0.00	0.0%	
18.	15500	H.V.A.C.-DUCTWORK	\$ 105,250	\$ 38.98	27.9%	
19.	16000	ELECTRICAL	\$ 85,760	\$ 31.76	22.8%	
ESTIMATE SUBTOTALS:			\$ 292,031	\$ 108.16	77.5%	
20.		GENERAL CONDITIONS	\$ 31,500	\$ 11.67	8.4%	
21.		SHIFTWORK PREMIUM - not used	\$ 0	\$ 0.00	0.0%	
22.		BOND AND INSURANCE, B&O	\$ 10,353	\$ 3.83	2.7%	
23.		ESTIMATING CONTINGENCY	\$ 25,041	\$ 9.27	6.6%	
24.		CONTRACTOR OVERHEAD / FEE	\$ 17,946	\$ 6.65	4.8%	
25.		ESCALATION TO MIDPOINT	\$ 0	\$ 0.00	0.0%	
GRAND TOTALS:			\$ 376,871	\$ 139.58	100.0%	

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Project: North Seattle CC Student Admin & Baxter Center Renov
 9600 College Way N, Seattle, WA 98103
 Area 3 Baxter Center Option 1
 Substitute fabric wrap panel folding door in lieu of glass folding doors

PROJECT DELIVERY ANALYSTS, LLC
 9001 Springwood Ave. NE, Bainbridge Island, WA 98110



INTERIOR RENOVATION ESTIMATE

Client: schacht / aslani architects
 Eric Amin, Evan Bourquard
 Gross T. I. Sq. Footage: 3,500
 Space Planner: n/a
 Const. Duration (In Weeks): 8
 Plans Dated: 26-Nov-12
 Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
1.	02050	DEMOLITION-CORING						
	D13	Demo movable partition	LF	28	\$ 0.00	\$ 0	\$ 0.00	No change from base bid
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
2.	03300	BUILDING CONCRETE						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
3.	05500	STR. STEEL-MISC. IRON						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
4.	06100	ROUGH CARPENTRY						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
5.	06400	FINISH CARPENTRY-MILLWORK						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
6.	08100	DOORS-FRAMES-HARDWARE						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
7.	08800	GLASS and GLAZING						
		Glazed folding partition	SF	-280	\$ 75.00	\$ (21,000)	\$ (6.00)	Folding glazed partition, STC 50, to 10" above FF
		Subtotals:				\$ (21,000)	\$ (6.00)	Based on Gross S.F.
8.	09250	DRYWALL-MTL STUDS-INSULATION						
	001	NOT USED	SF	0	\$ 0.00	\$ 0	\$ 0.00	NOT USED
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
9.	09300	CERAMIC TILE-STONEWORK						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
10.	09500	ACOUSTICAL CEILINGS						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
11.	09680	FLOOR COVERING						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
12.	09900	PAINTING-WALLCOVERING						
		NOT USED	SF	0	\$ 0.00	\$ 0	\$ 0.00	NOT USED
		NOT USED	SF	0	\$ 1.00	\$ 0	\$ 0.00	NOT USED
		NOT USED	SF	0	\$ 2.00	\$ 0	\$ 0.00	NOT USED
		NOT USED	SF	0	\$ 3.00	\$ 0	\$ 0.00	NOT USED
		NOT USED	EA	0	\$ 0.00	\$ 0	\$ 0.00	NOT USED
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
13.	10000	MISCELLANEOUS SPECIALTIES						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
14.	11000	EQUIPMENT						
		Fabric panel folding door	SF	280	\$ 55.00	\$ 15,400	\$ 4.40	STC 50 accordion door with hardware
		Subtotals:				\$ 15,400	\$ 4.40	Based on Gross S.F.

INTERIOR RENOVATION ESTIMATE

Estimate Date: 1-Dec-12

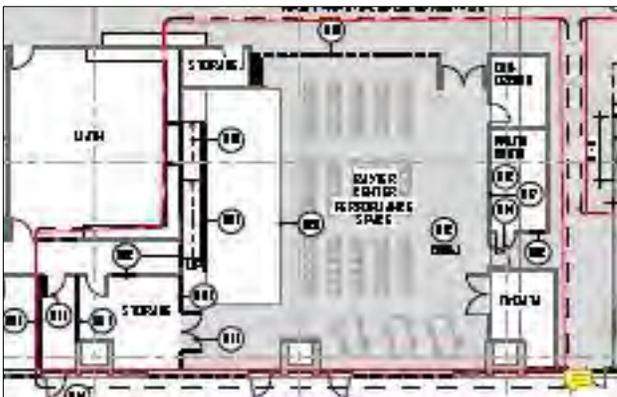
ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
15.	12000 FURNISHINGS							
	018	Acoustical curtain	SF	-280	\$ 12.00	\$ (3,360)	\$ (0.96)	Hanging curtain at folding door, for privacy
		Subtotals:				\$ (3,360)	\$ (0.96)	Based on Gross S.F.
16.	15300 FIRE SUPPRESSION							
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
17.	15400 PLUMBING							
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
18.	15500 H.V.A.C.-DUCTWORK							
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
19.	16000 ELECTRICAL							
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
ESTIMATE SUBTOTALS						\$ (8,960)	\$ (2.56)	Based on Gross Ten. Imp. Sq. Ft.
20.	GENERAL CONDITIONS		WKS	8	\$ 4,494	\$ 0	\$ 0.00	See detailed breakdown attached
21.	SHIFTWORK PREMIUM - na		PCT.		0.00%	\$ 0	\$ 0.00	Not included for this project.
22.	BOND AND INSURANCE, B&O		PCT.		3.20%	\$ (287)	\$ (0.08)	Bond 1.5%, Insurance 1%, B and O .7%
23.	ESTIMATING CONTINGENCY		PCT.		7.50%	\$ (694)	\$ (0.20)	Design level, renovation work
24.	GC OFFICE OVERHEAD / FEE		PCT.		5.00%	\$ (497)	\$ (0.14)	Contractors Fee (5% of Const. Costs)
25.	ESCALTION TO MIDPOINT		PCT.		0.00%	\$ 0	\$ 0.00	Costs are in today's dollars, suggest 2.5% annual
GRAND TOTALS						\$ (10,437)	\$ (2.98)	Based on Gross Ten. Imp. Sq. Ft.

INTERIOR RENOVATION ESTIMATE SUMMARY

Estimate Date: 1-Dec-12

ITEM NO.	CSI CODE	TRADE	EXTENSION	COST / SF	PCT of CONST. COST	REMARKS
COST SUMMARY:						
1.	2050	DEMOLITION-CORING	\$ 0	\$ 0.00	0.0%	
2.	03300	BUILDING CONCRETE	\$ 0	\$ 0.00	0.0%	
3.	05500	STR. STEEL-MISC. IRON	\$ 0	\$ 0.00	0.0%	
4.	06100	ROUGH CARPENTRY	\$ 0	\$ 0.00	0.0%	
5.	06400	FINISH CARPENTRY-MILLWORK	\$ 0	\$ 0.00	0.0%	
6.	08100	DOORS-FRAMES-HARDWARE	\$ 0	\$ 0.00	0.0%	
7.	08800	GLASS and GLAZING	\$ (21,000)	\$ (6.00)	201.2%	
8.	09250	DRYWALL-MTL STUDS-INSULATION	\$ 0	\$ 0.00	0.0%	
9.	09300	CERAMIC TILE-STONEMWORK	\$ 0	\$ 0.00	0.0%	
10.	09500	ACOUSTICAL CEILINGS	\$ 0	\$ 0.00	0.0%	
11.	09680	FLOOR COVERING	\$ 0	\$ 0.00	0.0%	
12.	09900	PAINTING-WALLCOVERING	\$ 0	\$ 0.00	0.0%	
13.	10000	MISCELLANEOUS SPECIALTIES	\$ 0	\$ 0.00	0.0%	
14.	11000	EQUIPMENT	\$ 15,400	\$ 4.40	-147.5%	
15.	12000	FURNISHINGS	\$ (3,360)	\$ (0.96)	32.2%	
16.	15300	FIRE SUPPRESSION	\$ 0	\$ 0.00	0.0%	
17.	15400	PLUMBING	\$ 0	\$ 0.00	0.0%	
18.	15500	H.V.A.C.-DUCTWORK	\$ 0	\$ 0.00	0.0%	
19.	16000	ELECTRICAL	\$ 0	\$ 0.00	0.0%	
ESTIMATE SUBTOTALS:			\$ (8,960)	\$ (2.56)	85.8%	
20.		GENERAL CONDITIONS	\$ 0	\$ 0.00	0.0%	
21.		SHIFTWORK PREMIUM - not used	\$ 0	\$ 0.00	0.0%	
22.		BOND AND INSURANCE, B&O	\$ (287)	\$ (0.08)	2.7%	
23.		ESTIMATING CONTINGENCY	\$ (694)	\$ (0.20)	6.6%	
24.		CONTRACTOR OVERHEAD / FEE	\$ (497)	\$ (0.14)	4.8%	
25.		ESCALATION TO MIDPOINT	\$ 0	\$ 0.00	0.0%	
GRAND TOTALS:			\$ (10,437)	\$ (2.98)	100.0%	

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Project: North Seattle CC Student Admin & Baxter Center Renov
 9600 College Way N, Seattle, WA 98103
 Area 3 Baxter Center Option 2
 Substitute gwb wall and two pairs of doors in lieu of glass folding doors



INTERIOR RENOVATION ESTIMATE

Client: schacht / aslani architects
 Eric Amin, Evan Bourquard

Gross T. I. Sq. Footage: 3,500

Space Planner: n/a

Const. Duration (In Weeks): 8

Plans Dated: 26-Nov-12

Estimate Date: 1-Dec-12

ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
1.	02050	DEMOLITION-CORING						
	D13	Demo movable partition	LF	28	\$ 0.00	\$ 0	\$ 0.00	No change from base bid
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
2.	03300	BUILDING CONCRETE						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
3.	05500	STR. STEEL-MISC. IRON						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
4.	06100	ROUGH CARPENTRY						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
5.	06400	FINISH CARPENTRY-MILLWORK						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
6.	08100	DOORS-FRAMES-HARDWARE						
	014	Entry door assembly	LEAF	4	\$ 1,100	\$ 4,400	\$ 1.26	3'-0"x7'-0" HMxWD, with standard hardware
		Freight	LS	0	\$ 350	\$ 0	\$ 0.00	With base bid
		Shop drawings	HRS	0	\$ 65	\$ 0	\$ 0.00	With base bid
		1 hr. rating upgrade	OPG	4	\$ 150	\$ 600	\$ 0.17	Upgrade for test and label at corridor doors
		Subtotals:				\$ 5,000	\$ 1.43	Based on Gross S.F.
7.	08800	GLASS and GLAZING						
		Glazed folding partition	SF	-280	\$ 75.00	\$ (21,000)	\$ (6.00)	Folding glazed partition, STC 50, to 10" above FF
		Subtotals:				\$ (21,000)	\$ (6.00)	Based on Gross S.F.
8.	09250	DRYWALL-MTL STUDS-INSULATION						
	001	Wall type 1 general partition	SF	350	\$ 6.85	\$ 2,398	\$ 0.69	Typical partition, to lower flutes, with insulation, typ
		Subtotals:				\$ 2,398	\$ 0.69	Based on Gross S.F.
9.	09300	CERAMIC TILE-STONEWORK						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
10.	09500	ACOUSTICAL CEILINGS						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
11.	09680	FLOOR COVERING						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
12.	09900	PAINTING-WALLCOVERING						
		Wall Painting new	SF	252	\$ 0.60	\$ 151	\$ 0.04	2 coat flat interior latex paint on drywall
		Door Painting / Staining	EA	4	\$ 75.00	\$ 300	\$ 0.09	Paint or stain doors, frames and access hatches
		Subtotals:				\$ 451	\$ 0.13	Based on Gross S.F.
13.	10000	MISCELLANEOUS SPECIALTIES						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
14.	11000	EQUIPMENT						
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.

Project: North Seattle CC Student Admin & Baxter Center Renov
 9600 College Way N, Seattle, WA 98103
 Area 3 Baxter Center Option 2

PROJECT DELIVERY ANALYSTS, LLC
 9001 Springwood Ave. NE, Bainbridge Island, WA 98110

INTERIOR RENOVATION ESTIMATE

Estimate Date: 1-Dec-12

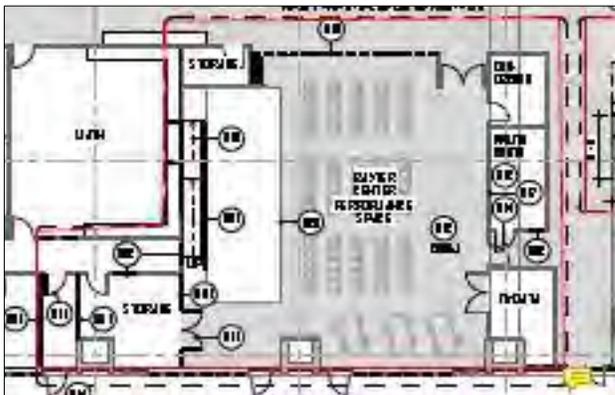
ITEM NO.	C.S.I. CODE	DESCRIPTION	U/M	QTY.	UNIT PRICE	EXTENSION	COST / S.F.	OUTLINE SPECIFICATION REMARKS
15.	12000 FURNISHINGS							
	018	Acoustical curtain	SF	-280	\$ 12.00	\$ (3,360)	\$ (0.96)	Hanging curtain at folding door, for privacy
		Subtotals:				\$ (3,360)	\$ (0.96)	Based on Gross S.F.
16.	15300 FIRE SUPPRESSION							
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
17.	15400 PLUMBING							
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
18.	15500 H.V.A.C.-DUCTWORK							
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
19.	16000 ELECTRICAL							
		Subtotals:				\$ 0	\$ 0.00	Based on Gross S.F.
ESTIMATE SUBTOTALS						\$ (16,511)	\$ (4.72)	Based on Gross Ten. Imp. Sq. Ft.
20.	GENERAL CONDITIONS		WKS	8	\$ 4,494	\$ 0	\$ 0.00	See detailed breakdown attached
21.	SHIFTWORK PREMIUM - na		PCT.		0.00%	\$ 0	\$ 0.00	Not included for this project.
22.	BOND AND INSURANCE, B&O		PCT.		3.20%	\$ (528)	\$ (0.15)	Bond 1.5%, Insurance 1%, B and O .7%
23.	ESTIMATING CONTINGENCY		PCT.		7.50%	\$ (1,278)	\$ (0.37)	Design level, renovation work
24.	GC OFFICE OVERHEAD / FEE		PCT.		5.00%	\$ (916)	\$ (0.26)	Contractors Fee (5% of Const. Costs)
25.	ESCALTION TO MIDPOINT		PCT.		0.00%	\$ 0	\$ 0.00	Costs are in today's dollars, suggest 2.5% annual
GRAND TOTALS						\$ (19,234)	\$ (5.50)	Based on Gross Ten. Imp. Sq. Ft.

INTERIOR RENOVATION ESTIMATE SUMMARY

Estimate Date: 1-Dec-12

ITEM NO.	CSI CODE	TRADE	EXTENSION	COST / SF	PCT of CONST. COST	REMARKS
COST SUMMARY:						
1.	2050	DEMOLITION-CORING	\$ 0	\$ 0.00	0.0%	
2.	03300	BUILDING CONCRETE	\$ 0	\$ 0.00	0.0%	
3.	05500	STR. STEEL-MISC. IRON	\$ 0	\$ 0.00	0.0%	
4.	06100	ROUGH CARPENTRY	\$ 0	\$ 0.00	0.0%	
5.	06400	FINISH CARPENTRY-MILLWORK	\$ 0	\$ 0.00	0.0%	
6.	08100	DOORS-FRAMES-HARDWARE	\$ 5,000	\$ 1.43	-26.0%	
7.	08800	GLASS and GLAZING	\$ (21,000)	\$ (6.00)	109.2%	
8.	09250	DRYWALL-MTL STUDS-INSULATION	\$ 2,398	\$ 0.69	-12.5%	
9.	09300	CERAMIC TILE-STONEMWORK	\$ 0	\$ 0.00	0.0%	
10.	09500	ACOUSTICAL CEILINGS	\$ 0	\$ 0.00	0.0%	
11.	09680	FLOOR COVERING	\$ 0	\$ 0.00	0.0%	
12.	09900	PAINTING-WALLCOVERING	\$ 451	\$ 0.13	-2.3%	
13.	10000	MISCELLANEOUS SPECIALTIES	\$ 0	\$ 0.00	0.0%	
14.	11000	EQUIPMENT	\$ 0	\$ 0.00	0.0%	
15.	12000	FURNISHINGS	\$ (3,360)	\$ (0.96)	17.5%	
16.	15300	FIRE SUPPRESSION	\$ 0	\$ 0.00	0.0%	
17.	15400	PLUMBING	\$ 0	\$ 0.00	0.0%	
18.	15500	H.V.A.C.-DUCTWORK	\$ 0	\$ 0.00	0.0%	
19.	16000	ELECTRICAL	\$ 0	\$ 0.00	0.0%	
ESTIMATE SUBTOTALS:			\$ (16,511)	\$ (4.72)	85.8%	
20.		GENERAL CONDITIONS	\$ 0	\$ 0.00	0.0%	
21.		SHIFTWORK PREMIUM - not used	\$ 0	\$ 0.00	0.0%	
22.		BOND AND INSURANCE, B&O	\$ (528)	\$ (0.15)	2.7%	
23.		ESTIMATING CONTINGENCY	\$ (1,278)	\$ (0.37)	6.6%	
24.		CONTRACTOR OVERHEAD / FEE	\$ (916)	\$ (0.26)	4.8%	
25.		ESCALATION TO MIDPOINT	\$ 0	\$ 0.00	0.0%	
GRAND TOTALS:			\$ (19,234)	\$ (5.50)	100.0%	

\$ -



Project: North Seattle CC Student Admin & Baxter Center Renov
 9600 College Way N, Seattle, WA 98103
 Area 3 Baxter Center



GENERAL CONDITIONS BREAKDOWN

Project Duration (In months): 2

Date: 1-Dec-12

PAGE	DESCRIPTION	LABOR	MATERIAL	SERVICES	LINE TOTALS	REMARKS
1	Supervision & Administration	\$ 23,833		\$ 1,571	\$ 25,404	
	Testing and Inspections	\$ 0	\$ 0	\$ 0	\$ 0	All General Testing / Inspections by Owner
2	Temporary Facilities	\$ 0	\$ 890	\$ 850	\$ 1,740	
	Temporary Utilities	\$ 0	\$ 0	\$ 779	\$ 779	
	Special Services	\$ 0	\$ 570	\$ 0	\$ 570	
3	Protection and Access Control	\$ 660	\$ 650	\$ 0	\$ 1,310	
	Hoisting and Equipment	\$ 0	\$ 250	\$ 600	\$ 850	
4	Clean-up and Close-out	\$ 3,190	\$ 807	\$ 1,300	\$ 5,297	
	Insurances / Licenses / Bonds			\$ 0	\$ 0	Insurances / Bonds carried as Separate Item
5	Consultants	\$ 0	\$ 0	\$ 0	\$ 0	All Engineering / Design Fees by Owner
	Government Fees and Permits		\$ 0	\$ 0	\$ 0	All General Fees / Permits by Owner
GRAND TOTALS:		\$ 27,683	\$ 3,167	\$ 5,100	\$ 35,950	SUMMARY TOTALS

\$17,975

General Conditions Costs per Month
Based on a 2 Month Schedule

Project: North Seattle CC Student Admin & Baxter Center Renov
9600 College Way N, Seattle, WA 98103



GENERAL CONDITIONS BREAKDOWN

Date: 12/01/12 12:00 AM

Project Duration (In months): 2

COST CODE	DESCRIPTION	QUANTITY		LABOR		MATERIAL		SERVICES		LINE COST	REMARKS
		COUNT	UNIT	U. P.	EXTENSION	U. P.	EXTENSION	U. P.	EXTENSION		

SUPERVISION and ADMINISTRATION

11000	Project Director		WKS	3,485.00	\$ 0.00					\$ 0.00	Full Time Project Director (40 Hrs./wk. for x wks)
11001	Project Director Car Allowance		WKS					150.00	\$ 0.00	\$ 0.00	Includes Vehicle / Gas / Maintenance
11010	Project Manager 1/4 time	9	WKS	750.00	\$ 6,500.00					\$ 6,500.00	Quarter Time P.M. (10 Hrs per week for 9 weeks)
11011	Project Mgr. Car Allowance	9	WKS					31.25	\$ 270.83	\$ 270.83	Includes 1/4 Vehicle / Gas / Maintenance
11020	Superintendent	9	WKS	2,000.00	\$ 17,333.33					\$ 17,333.33	Full time Supt. (40 Hours per week for 9 weeks)
11021	Superintendent Car Allowance	9	WKS					150.00	\$ 1,300.00	\$ 1,300.00	Includes Vehicle / Gas / Maintenance
11030	Asst. Project Superintendent		WKS	2,750.00	\$ 0.00					\$ 0.00	Full time Field Supt. (40 Hrs per week for xx weeks)
11031	Asst. Project Supt. Car Allow.		WKS					140.00	\$ 0.00	\$ 0.00	Includes Vehicle / Gas / Maintenance
11040	Project Engineers (two)		WKS	1,825.00	\$ 0.00					\$ 0.00	Two Full time Proj. Engr. (40 Hrs/week for xx wks)
11041	Project Engr. Car Allowance		WKS					140.00	\$ 0.00	\$ 0.00	Includes Vehicle / Gas / Maintenance
11050	Travel / Relocation Expense		LS					12,000	\$ 0.00	\$ 0.00	Travel/Moving expenses as part of Mobilization cost
11055	Office Manager		HRS	25.00	\$ 0.00					\$ 0.00	Full time Office Manager (40 Hrs/week for xx wks)
11060	Quality Control Engineer		HRS	32.00	\$ 0.00					\$ 0.00	20% time Q.C. Engr. (8 Hrs per week for xx weeks)
11061	Q.C. Engineer Car Allowance		WKS					140.00	\$ 0.00	\$ 0.00	Includes Vehicle / Gas / Maintenance
11070	Field Engineer		HRS	28.00	\$ 0.00					\$ 0.00	Full time Field Engr. (40 Hrs per week for xx weeks)
11071	Field Engineer Car Allowance		WKS					140.00	\$ 0.00	\$ 0.00	Includes Vehicle / Gas / Maintenance
11090	Clerk / Secretary		HRS	21.00	\$ 0.00					\$ 0.00	Full time Secretary (40 Hrs per week for xx weeks)
Subtotals:					\$ 23,833				\$ 1,571	\$ 25,404	Subtotals

TESTING and INSPECTIONS:

01400	Testing / Inspections		LS						\$ 0.00	\$ 0.00	All Testing provided by Owner
01401	Testing - Soils		LS						\$ 0.00	\$ 0.00	All Testing provided by Owner
01402	Testing - Concrete		LS						\$ 0.00	\$ 0.00	All Testing provided by Owner
01403	Testing - Masonry		LS						\$ 0.00	\$ 0.00	All Testing provided by Owner
01404	Testing - Rebar		LS						\$ 0.00	\$ 0.00	All Testing provided by Owner
01405	Testing - Structural Steel		LS						\$ 0.00	\$ 0.00	All Testing provided by Owner
01406	Testing - Welding		LS						\$ 0.00	\$ 0.00	All Testing provided by Owner
01407	Testing - Windowwall Mockup		LS						\$ 0.00	\$ 0.00	All Testing provided by Owner
01411	Inspection - Soils		LS						\$ 0.00	\$ 0.00	All Inspections provided by Owner
01412	Inspection - Concrete / Rebar		LS						\$ 0.00	\$ 0.00	All Inspections provided by Owner
01413	Inspection - Masonry		LS						\$ 0.00	\$ 0.00	All Inspections provided by Owner
01415	Inspection - Str. Steel / Welding		LS						\$ 0.00	\$ 0.00	All Inspections provided by Owner
01418	Inspection - Roofing		LS						\$ 0.00	\$ 0.00	All Inspections provided by Owner
01419	Inspection - Fireproofing		LS						\$ 0.00	\$ 0.00	All Inspections provided by Owner
01420	Inspection - Shoring Tiebacks		LS						\$ 0.00	\$ 0.00	All Inspections provided by Owner
01421	Soldier Beam Monitoring		EACH		\$ 0.00		\$ 0.00		\$ 0.00	\$ 0.00	
01424	Miscellaneous Testing		LS		\$ 0.00		\$ 0.00	2,500	\$ 0.00	\$ 0.00	
01425	Concrete - Mix Designs		EACH				\$ 0.00	45.00	\$ 0.00	\$ 0.00	All Mix Designs included in Concrete Costs
Subtotals:					\$ 0		\$ 0		\$ 0	\$ 0	Subtotals

Project: North Seattle CC Student Admin & Baxter Center Renov
9600 College Way N, Seattle, WA 98103



GENERAL CONDITIONS BREAKDOWN

Date: 12/01/12 12:00 AM

Project Duration (In months): 2

COST CODE	DESCRIPTION	QUANTITY		LABOR		MATERIAL		SERVICES		LINE COST	REMARKS
		COUNT	UNIT	U. P.	EXTENSION	U. P.	EXTENSION	U. P.	EXTENSION		

TEMPORARY FACILITIES:

01450	Travel Expenses		MON			250.00	\$ 0.00		\$ 0.00	\$ 0.00	Travel expenses for monthly jobsite meetings
01455	Job Office Rental		MON	112.00	\$ 0.00	70.00	\$ 0.00	1,750.00	\$ 0.00	\$ 0.00	12' x 60' Office Trailers, with Conf. Room
01456	Job Trailer Purchase		EACH	448.00	\$ 0.00	8,500	\$ 0.00	2,500	\$ 0.00	\$ 0.00	
01460	Tool Shed / Lock Box	2.0	MON		\$ 0.00		\$ 0.00	125.00	\$ 250.00	\$ 250.00	Storage Bin for Contractor storage
01465	Architect/Owner Office		MON				\$ 0.00	325.00	\$ 0.00	\$ 0.00	
01470	Project Signs		EACH	224.00	\$ 0.00	225.00	\$ 0.00	2,500	\$ 0.00	\$ 0.00	4' x 8' Project Signs mounted on posts
01475	Drinking Water/Coffee Supplies		MON				\$ 0.00	200.00	\$ 0.00	\$ 0.00	Monthly Drinking Water / Coffee Service
01480	Office Supplies	2.0	MON			200.00	\$ 400.00	250.00	\$ 500.00	\$ 900.00	Incidental / consumable monthly supplies
01485	Office Equipment		MON	585.00	\$ 0.00	865	\$ 0.00		\$ 0.00	\$ 0.00	Includes purchase of Fax / Copier / Computers
01490	First Aid and Safety	2.0	MON			245.00	\$ 490.00	50.00	\$ 100.00	\$ 590.00	First Aid Kit, re-stocking as required, supplies.
01495	Employee Parking		MON				\$ 0.00	315.00	\$ 0.00	\$ 0.00	Assume provided on site per A1.0.
Subtotals:					\$ 0		\$ 890		\$ 850	\$ 1,740	Subtotals

TEMPORARY UTILITIES:

01500	Temp. Electrical - Hookup		LS		\$ 0.00		\$ 0.00	0	\$ 0.00	\$ 0.00	Assumed with electrical estimate
01501	Temp. Electrical - Monthly		MON					265	\$ 0.00	\$ 0.00	Consumption cost assumed by UW
01502	Temp. Electrical - Lights/Distrib.		MON		\$ 0.00		\$ 0.00	525	\$ 0.00	\$ 0.00	Not necessary; task lighting by the trades only
01505	Superintendent cell phone	2.0	MON					137	\$ 274.00	\$ 274.00	Monthly cell phone charge, unlimited plan
01506	Temp. Telephone - Hookup		LS		\$ 0.00		\$ 0.00	680.00	\$ 0.00	\$ 0.00	Pay Telephone Booth installation / hook-up
01515	Temp. Water - Hookup		LS	224.00	\$ 0.00		\$ 0.00	3,500	\$ 0.00	\$ 0.00	Temporary water meter and hook-up
01516	Temp. Water - Monthly		MON					325.00	\$ 0.00	\$ 0.00	Monthly Water bill
01520	Temp. Heating		LS		\$ 0.00		\$ 0.00	0.00	\$ 0.00	\$ 0.00	
01525	Temp. Sanitation - Setup	1	EA		\$ 0.00		\$ 0.00	115.00	\$ 115.00	\$ 115.00	Delivery / pick-up charge for Chemical Toilets
01526	Temp. Sanitation - Monthly	2.0	MON					195	\$ 390.00	\$ 390.00	1 Chemical Toilet serviced twice a week
01530	Cellular Telephones		MON				\$ 0.00	400.00	\$ 0.00	\$ 0.00	Cellular Phone - see above
01531	Beepers or Radios		MON				\$ 0.00	36.00	\$ 0.00	\$ 0.00	Monthly Beeper charge for three units
Subtotals:					\$ 0		\$ 0		\$ 779	\$ 779	Subtotals

SPECIAL SERVICES:

01550	Postage / Delivery Service	2.0	MON			85.00	\$ 170.00		\$ 0.00	\$ 170.00	Express Mail or Courier services
01552	Expediting premium	2.0	MON			200.00	\$ 400.00		\$ 0.00	\$ 400.00	Expediting material deliveries to the site
01555	Progress Photos		MON			65.00	\$ 0.00	350	\$ 0.00	\$ 0.00	Includes film and photo prints
01560	Petty Cash		MON			150.00	\$ 0.00		\$ 0.00	\$ 0.00	Monthly petty cash consumables
01565	Theft / Vandalism Repair		LS	448	\$ 0.00	800	\$ 0.00		\$ 0.00	\$ 0.00	Repair of miscellaneous vandalism damage
01570	House Drafting		HR	42.00	\$ 0.00		\$ 0.00		\$ 0.00	\$ 0.00	"In-House" drafting as required
01575	Printing - Drawings / Specs		WKS			550.00	\$ 0.00	650	\$ 0.00	\$ 0.00	Supplemental printing of Drawings / Specs
01580	Copier / Xeroxing		MON			180.00	\$ 0.00		\$ 0.00	\$ 0.00	Xerox Paper / toner / repairs and servicing
01590	Security Guard Service		HR		\$ 0.00		\$ 0.00	12.50	\$ 0.00	\$ 0.00	12 Hours a day (during evening/nighttime only)
Subtotals:					\$ 0		\$ 570		\$ 0	\$ 570	Subtotals

Project: North Seattle CC Student Admin & Baxter Center Renov
9600 College Way N, Seattle, WA 98103



GENERAL CONDITIONS BREAKDOWN

Date: 12/01/12 12:00 AM

Project Duration (In months): 2

COST CODE	DESCRIPTION	QUANTITY		LABOR		MATERIAL		SERVICES		LINE COST	REMARKS
		COUNT	UNIT	U. P.	EXTENSION	U. P.	EXTENSION	U. P.	EXTENSION		
PROTECTION and ACCESS CONTROL:											
01600	Scaffolding		LS		\$ 0.00	300.00	\$ 0.00	5,000	\$ 0.00	\$ 0.00	Misc. movable scaffolding rentals
01610	Access Roads - Construct		LS		\$ 0.00		\$ 0.00		\$ 0.00	\$ 0.00	
01611	Access Roads - Maintenance		HRS	9.00	\$ 0.00		\$ 0.00	50.00	\$ 0.00	\$ 0.00	
01620	Misc. Protection Allowance	10	HRS	28.00	\$ 280.00	25.00	\$ 250.00		\$ 0.00	\$ 530.00	Misc. protection allowance for finished items of work
01625	Temp. Site Fence - Chain-link	0	LF		\$ 0.00	0.25	\$ 0.00	4.00	\$ 0.00	\$ 0.00	Chain Link security fence at selected storage areas
01626	Temp. Plywood Canopy		LF	8.70	\$ 0.00	14.00	\$ 0.00		\$ 0.00	\$ 0.00	
01627	Barricades		LS	1,200	\$ 0.00	450.00	\$ 0.00		\$ 0.00	\$ 0.00	Misc. Barricade requirements
01628	Temp. Site Fence - Plywood		LF	4.50	\$ 0.00	15.00	\$ 0.00		\$ 0.00	\$ 0.00	
01629	Temporary Handrails		LF	2.10	\$ 0.00		\$ 0.00	2.00	\$ 0.00	\$ 0.00	Temporary railings around the perimeter of each flr
01630	Temporary Stairs / Treads		EA	672.00	\$ 0.00	1,250.00	\$ 0.00		\$ 0.00	\$ 0.00	Temporary access stairs at various locations
01635	Dust Palliation / Control	0	HRS	18.95	\$ 0.00	13.00	\$ 0.00		\$ 0.00	\$ 0.00	Dust abatement and control to supplement Grading Sub
01636	Dust Partitions	4	WKS	95.00	\$ 380.00	50.00	\$ 200.00		\$ 0.00	\$ 580.00	Put up and take down plastic dust partitions each day
01640	Rain Control / Protection		HRS	18.95	\$ 0.00	22.00	\$ 0.00		\$ 0.00	\$ 0.00	Rain / erosion protection and repair
01645	Fire Extinguishers	1	LS			200.00	\$ 200.00		\$ 0.00	\$ 200.00	Portable fire extinguishers as required
Subtotals:					\$ 660		\$ 650		\$ 0	\$ 1,310	Subtotals

HOISTING and EQUIPMENT:

01650	Matl / Manlift Hoist - Up & Down		HRS	58.75	\$ 0.00		\$ 0.00	125.00	\$ 0.00	\$ 0.00	
01651	Matl / Manlift Hoist - Prep.		LS	1,600	\$ 0.00	16,000	\$ 0.00	9,900	\$ 0.00	\$ 0.00	Tower Crane set up and break down
01652	Matl / Manlift Hoist - Monthly		MON				\$ 0.00	25,000	\$ 0.00	\$ 0.00	
01653	Matl / Manlift Hoist - Jumps		EACH				\$ 0.00	8,000	\$ 0.00	\$ 0.00	
01654	Matl/Manlift Hoist - Gates/Lndgs		LS	11,234	\$ 0.00		\$ 0.00	37,137	\$ 0.00	\$ 0.00	
01660	Protect existing elevator		LS	600	\$ 0.00				\$ 0.00	\$ 0.00	Protect elevator used to move materials in and out
01665	Job Truck		MON				\$ 0.00	385.00	\$ 0.00	\$ 0.00	
01666	Gas / Fuel and Oil		MON			125.00	\$ 0.00			\$ 0.00	
01670	Truck Crane		HRS					195.00	\$ 0.00	\$ 0.00	
01671	Truck Crane - Operator & Oiler		LS	58.75	\$ 0.00					\$ 0.00	
01675	Tower Crane - In & Out		LS				\$ 0.00	8,000	\$ 0.00	\$ 0.00	
01676	Tower Crane - Up & Down		HRS	58.75	\$ 0.00					\$ 0.00	
01677	Tower Crane - Monthly		MON				\$ 0.00	10,000	\$ 0.00	\$ 0.00	Two Tower Cranes
01678	Tower Crane - Lifts		EACH				\$ 0.00		\$ 0.00	\$ 0.00	
01679	Tower Crane - Oper. & Oiler		HRS	58.75	\$ 0.00					\$ 0.00	Two Tower Crane Operators
01680	Tower Crane - Oper. & Oiler		HRS	58.75	\$ 0.00					\$ 0.00	
01681	Tower Crane - Concrete Base		CY	96.00	\$ 0.00	315.00	\$ 0.00			\$ 0.00	
01682	Contractor's Equipment	2	MON				\$ 0.00	300	\$ 600.00	\$ 600.00	Contractor's power tools and equipment
01683	Contractor's Equip. Maintenance		LS				\$ 0.00	1,250.00	\$ 0.00	\$ 0.00	
01685	Small Tools	1	LS			250	\$ 250.00			\$ 250.00	Consumable small tools
01688	Saw Blade Filing / Sharpening		LS				\$ 0.00	240.00	\$ 0.00	\$ 0.00	Misc. sharpening of saws / tools

*** HOISTING and EQUIPMENT *** Continued on Page Five...

Project: **North Seattle CC Student Admin & Baxter Center Renov**
 9600 College Way N, Seattle, WA 98103



GENERAL CONDITIONS BREAKDOWN

Date: 12/01/12 12:00 AM

Project Duration (In months): 2

COST CODE	DESCRIPTION	QUANTITY		LABOR		MATERIAL		SERVICES		LINE COST	REMARKS
		COUNT	UNIT	U. P.	EXTENSION	U. P.	EXTENSION	U. P.	EXTENSION		

***** HOISTING and EQUIPMENT *** Continued from Page Four.**

01690	Equipment Rental		MON					450.00	\$ 0.00	\$ 0.00	Rental Yard equipment and tools	
01691	Equipment Hauling		LS						\$ 0.00	\$ 0.00		
01692	Equipment Maint. / Repair		LS					1,250.00	\$ 0.00	\$ 0.00		
01693	Compressor Rental		DAY					185.00	\$ 0.00	\$ 0.00		
01694	Skip Loader / Backhoe		HR					90.00	\$ 0.00	\$ 0.00		
01695	Wacker / Powderpuff		HR					21.00	\$ 0.00	\$ 0.00		
01696	Traffic Control Equipment		HR						\$ 0.00	\$ 0.00		
01697									\$ 0.00	\$ 0.00		
01698	Street Sweeper		HR					88.00	\$ 0.00	\$ 0.00		
01699	Flat Bed Truck		MON					330.00	\$ 0.00	\$ 0.00		
Subtotals:								\$ 0	\$ 250	\$ 600	\$ 850	Subtotals

CLEAN-UP and CLOSE-OUT:

01700	Drop Box / Dump Fees	2	EACH					\$ 0.00	400.00	\$ 800.00	\$ 800.00	Drop Box / Dump Fees (one every two weeks)
01705	Not used							\$ 0.00		\$ 0.00	\$ 0.00	
01706	Not used							\$ 0.00		\$ 0.00	\$ 0.00	
01710	Cleanup - Daily	9	WKS	105.00	\$ 910.00	40.00	\$ 346.67		\$ 0.00	\$ 1,256.67		One Laborer (one hour per day x 9 weeks)
01720	Cleanup - Final	1	LS		\$ 0.00		\$ 0.00	500	\$ 500.00	\$ 500.00		Final clean up crew
01721	Cleanup - Glass / Frames		LS		\$ 0.00		\$ 0.00	20,000	\$ 0.00	\$ 0.00		
01725	Steam Cleaning work		HRS	48.50	\$ 0.00		\$ 0.00	65.00	\$ 0.00	\$ 0.00		
01730	Sandblasting Work		HRS	48.50	\$ 0.00		\$ 0.00	135.00	\$ 0.00	\$ 0.00		
01735	Not used		HRS	48.50	\$ 0.00		\$ 0.00		\$ 0.00	\$ 0.00		
01740	Punch List / Warranty Work	40	HRS	42.00	\$ 1,680.00	6.50	\$ 260.00		\$ 0.00	\$ 1,940.00		Misc. Punch List / Warranty work
01745	Warehouse Support	2	MON	300.00	\$ 600.00	100.00	\$ 200.00			\$ 800.00		
Subtotals:				\$ 3,190	\$ 807		\$ 1,300	\$ 5,297				Subtotals

INSURANCES / LICENSES / BONDS:

01750	Insurance - Workman's Comp.		LS						\$ 0.00	\$ 0.00		
01751	Insurance - General Liability		LS					1.15%	\$ 0.00	\$ 0.00		Insurance carried as separate Line Item
01752	Insurance - Automobile		LS						\$ 0.00	\$ 0.00		
01753	Insurance - Builders Risk		LS						\$ 0.00	\$ 0.00		Excluded, carried by the UW
01754	Insurance - Contract. Liability		LS						\$ 0.00	\$ 0.00		
01760	License - City Business		EACH					75.00	\$ 0.00	\$ 0.00		Should be with GC's home office overhead if in Seattle
01765			LS						\$ 0.00	\$ 0.00		
01770	Subcontractor Bonds		LS					1.33%	\$ 0.00	\$ 0.00		Subcontractor Bonds not included
01775	General Contractor Bond		LS					0.95%	\$ 0.00	\$ 0.00		Contractor Bond carried separately on front sheet
01780			LS						\$ 0.00	\$ 0.00		
01790			LS						\$ 0.00	\$ 0.00		
Subtotals:								\$ 0	\$ 0			Subtotals

Project: North Seattle CC Student Admin & Baxter Center Renov
9600 College Way N, Seattle, WA 98103



GENERAL CONDITIONS BREAKDOWN

Date: 12/01/12 12:00 AM

Project Duration (In months): 2

COST CODE	DESCRIPTION	QUANTITY		LABOR		MATERIAL		SERVICES		LINE COST	REMARKS
		COUNT	UNIT	U. P.	EXTENSION	U. P.	EXTENSION	U. P.	EXTENSION		

CONSULTANTS:

01850	Architectural Design		VAL.				\$ 0.00	4.50%	\$ 0.00	\$ 0.00	All Design Consultants provided by Owner
01851	Interior Space Planning		SF				\$ 0.00	0.65	\$ 0.00	\$ 0.00	
01852							\$ 0.00		\$ 0.00	\$ 0.00	
01855	Structural Engineering		VAL.				\$ 0.00	0.95%	\$ 0.00	\$ 0.00	All Design Consultants provided by Owner
01860	Soils Engineering		VAL.				\$ 0.00	0.30%	\$ 0.00	\$ 0.00	All Design Consultants provided by Owner
01865	Civil Engineering		VAL.				\$ 0.00	0.30%	\$ 0.00	\$ 0.00	All Design Consultants provided by Owner
01870	Mechanical Engineering		VAL.				\$ 0.00	0.50%	\$ 0.00	\$ 0.00	All Design Consultants provided by Owner
01875	Electrical Engineering		VAL.				\$ 0.00	0.55%	\$ 0.00	\$ 0.00	All Design Consultants provided by Owner
01880	Acoustical Engineering		VAL.				\$ 0.00	0.15%	\$ 0.00	\$ 0.00	All Design Consultants provided by Owner
01881	Elevator Consultant		SF				\$ 0.00	0.15	\$ 0.00	\$ 0.00	All Design Consultants provided by Owner
01885	Asbestos / Toxics Consultant		SF				\$ 0.00	0.18	\$ 0.00	\$ 0.00	All Design Consultants provided by Owner
01890	Drafting Services		HR	26.00	\$ 0.00		\$ 0.00	40.00	\$ 0.00	\$ 0.00	
01891	Computer Time (C.A.D., etc.)		HR		\$ 0.00	45.00	\$ 0.00	75.00	\$ 0.00	\$ 0.00	
01892							\$ 0.00		\$ 0.00	\$ 0.00	
01895	Renderings/Models		LS		\$ 0.00		\$ 0.00		\$ 0.00	\$ 0.00	
01897	Scheduling Service		LS		\$ 0.00	1,800	\$ 0.00	1,200	\$ 0.00	\$ 0.00	All scheduling typ. performed by GC staff
01898			LS		\$ 0.00		\$ 0.00		\$ 0.00	\$ 0.00	
Subtotals:					\$ 0		\$ 0		\$ 0	\$ 0	Subtotals

GOVERNMENT FEES and PERMITS

01950	Plan Check Fees		VAL						\$ 0.00	\$ 0.00	All General Permits and Fees by Owner
01960	Permits - Building		VAL						\$ 0.00	\$ 0.00	All General Permits and Fees by Owner
01961	Permits - Demolition		LS						\$ 0.00	\$ 0.00	All General Permits and Fees by Owner
01962	Permits - Grading		LS						\$ 0.00	\$ 0.00	All General Permits and Fees by Owner
01963	Permits - Foundation		LS						\$ 0.00	\$ 0.00	All General Permits and Fees by Owner
01964	Permits - Encroachment/Str. Use		LS						\$ 0.00	\$ 0.00	Street Use Permit for Cranes
01965	Permits - Special		LS						\$ 0.00	\$ 0.00	All General Permits and Fees by Owner
01966	Strong Motion Instru. Prog.		\$/K						\$ 0.00	\$ 0.00	All General Permits and Fees by Owner
01970	Water Meter Fee		LS						\$ 0.00	\$ 0.00	All General Permits and Fees by Owner
01972	Fire Service Connection Fee		LS						\$ 0.00	\$ 0.00	All General Permits and Fees by Owner
01975	Sewer Assessment Fee		LS						\$ 0.00	\$ 0.00	All General Permits and Fees by Owner
01980	Special Fees		LS						\$ 0.00	\$ 0.00	All General Permits and Fees by Owner
01985	Power Co. Fees - Cable Charges		LS						\$ 0.00	\$ 0.00	All General Permits and Fees by Owner
01990	Agency Charges - City Assess.		LS						\$ 0.00	\$ 0.00	All General Permits and Fees by Owner
01991	Street Improvement Fee / Bond		LS						\$ 0.00	\$ 0.00	All General Permits and Fees by Owner
01992									\$ 0.00	\$ 0.00	All General Permits and Fees by Owner
01995	Construction Tax		LS						\$ 0.00	\$ 0.00	
01996	Business / Gross Receipts Tax		\$/K						\$ 0.00	\$ 0.00	B and O tax carried separately on front sheet
Subtotals:					\$ 0		\$ 0		\$ 0	\$ 0	Subtotals

DESIGN / ESTIMATE REVIEW NOTES

Project: *North Seattle CC Student Admin & Baxter Center Renov*

Date: 12/1/12

Sort codes: 1=standard qualifications; 2=specific qualifications; 3=assumptions; 4=exclusions; 5=inclusions;
6=value engineering; 7=constructability / buildability; 8=added from prior estimate; 9=questions

Sort code	#	Plan ref.	Date	Item
1	1			Payment and performance bond premiums are included.
1	2			Handling & disposal of hazardous materials (asbestos, PCBs, lead, contaminated soil etc.) is not included. Unlikely to encounter any haz mat given the age of this portion of the building. However, check where the utilities tie in for any issues.
1	3			State sales tax is excluded.
1	4			Building signage is included.
1	5			Estimate based on documents prepared by schacht / aslani dated 26 November 2012.
1	6			Builder's all-risk insurance premiums are not included.
2	7			The areas of work were taken off from the design plans per our meeting rather than the areas of the Scope Diagram A-2.1.
2	8			The general conditions are based upon a 2 month construction schedule plus 1 week of punch list at Area 3 (the largest area of construction). The general conditions duration for the other areas vary between 6 and 8 weeks long. Each area was assumed to be constructed separately, thus each has its own set of general conditions costs.
2	9			No overtime premium is included for this project. It was assumed the work could occur during a normal day shift.
3	10			All costs are in today's dollars. Suggest the College carry an escalation multiplier of 2.5% annual to the midpoint of construction.
3	11			9-wood linear ceiling budget price was confirmed via phone conversation with the local rep Gerald Schwartz 206-218-3489.
4	12			The following items were not found in plan: tackboards, smart boards; corner guards; window coverings. None included in the current estimate.
4	13			Removal of any furniture is not included.
5	14	A-2.5		A cyber bar is shown in Area 4 from S660 to S690 along E180 but no key note. I included in our casework estimate.
5	15			Costs to patch the existing perimeter walls where the old walls perpendicular to the perimeter wall were removed is included with the drywall estimate.
5	16			A new door to the kitchen in the North Entry scenario was not called out. I included a type 015 passage door in the estimate.
5	17			Fire sprinkler work was not found in the MEP estimates. I assumed there would some reworking of heads to accommodate new ceilings heights or grid locations.
6	18	A-2.3		Per the Q and A process, the cast in place concrete ADA ramp over metal supports was removed in favor of a modular ramp using similar materials as the modular stage. Quote was provided by Express Deck vendor.

DESIGN / ESTIMATE REVIEW NOTES

Project: *North Seattle CC Student Admin & Baxter Center Renov*

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6	19			There are management and C.A. phase efficiencies with awarding multiple areas at once. There are the same number of subcontracts to write and administer with a combined area as multiple smaller areas. There are the same number of submittals for the A/E to review regardless of the size of work. If the packages are awarded individually, there is no guarantee that the same General and Subs will return for the next phase, leading to potential post-construction warranty issues. Too, it may be just less hectic for the faculty and staff to get the work done at once and not extend the construction window longer than needed.
6	20		27-Nov	Significant construction savings could be realized via combining areas as opposed to five separate projects with individual mobilizations and demobilizations. Multiple areas at once would not take significantly longer in the field than one area, thus saving General Conditions costs. Too, I see trade labor efficiencies with awarding a larger scope as a larger area of work allows for full work days for the specialty trades. The projected savings due to bundling of packages is approximately 15% of construction costs.
7	21	A-2.2		A new modular stage is called for in the floor plan (keynote 020) but the demo plan indicates there is a modular stage existing. It was clarified in the Q and A process that the existing deck will be disassembled and removed by NSCC staff prior to construction.
7	22	A-2.3		Baxter Center ceiling plans show a new recessed projection screen but no note related to the projector or projector mount. I assume this must be existing. Please confirm.
7	23	A-2.5		Equity Center ceiling plan includes a re-installed existing overhead projector. However, I did not see a projector salvaged per the demo plan. Unless the College has a projector for us, we need to include a material cost. Please advise.
7	24		27-Nov	The limits of Area B Baxter Center extend beyond the scope limits of A-2.1. In particular, Math rooms along each side of grid S780 and north of E240 are renovated per the design plans but not shown on the scope plan. Therefore, I found more square footage than shown on the scope plan.
7	25			Floor coring of penetrations for mechanical and electrical are included with the demo estimate. I assumed a density of one electrical floor box per 250 gross square feet. Wall coring of hard walls should be with the MEP estimate. Firestopping and patching for both walls and slabs is with the architectural estimate.
9	26	A-2.3		No new flooring called for in Kitchen of North Entry. Carpet tile and adhesive were removed in the demo phase. Confirm.
9	27	A-2.5		The north and west walls of the Equity Center are called out as 002 (infill drywall partition opening) while the symbol looks like storefront. I assumed it should read 004 (partial height storefront).
9	28	A-2.5		Storage closet walls and 2 pairs of doors at south end of Equity Center are not called out. I included the walls as type 1 and created a new category for the doors.

DESIGN / ESTIMATE REVIEW NOTES

Project: *North Seattle CC Student Admin & Baxter Center Renov*

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9	29			Plan note 008 to install kitchen sink is assumed as a plumbing item, see plumbing estimate. Slab coring for the new drain and vent pipe is with our demo estimate.
9	30			Extent of wall penetration patch and firestopping is not known till MEP plans are available. I assume they will cover the cost of the penetration and I will included the patching and firestopping and touch up painting. I assumed the walls to patch are drywall and metal stud, as opposed to CMU or concrete.
9	31			There was an Excel math mistake found in the mechanical spreadsheet for Area 1. The mechanical subtotal is shown as \$19,700. I found \$21,500 when adding the line items. I used the higher total of \$21,500 for the estimate.
9	32			The summations of the electrical line items do not agree with the subtotals at Areas 1, 2, 3 and 5 for some reason. I used the individual line items for our estimate.
	33			
	34			End of Section

A/V Equipment Cost Opinion

The following pages contain the A/V Equipment cost opinion provided by SLMP staff.

To: North Seattle Community College Date: February 18, 2011
9600 College Way North Project: Cafeteria & Baxter
Seattle, WA 98103 System: Audio/Video - Multimedia
Attn: Kevin Christopher /Ira Antonoff Contact: Tyson Scherb
Ph: 425-475-5457 Phone: 206-762-8903 x104

CAFETERIA AND BAXTER MULTIMEDIA SYSTEM IMPROVEMENTS (BUDGETARY)

The purpose of this budgetary quote is to provide you with the outline and budgetary measures required to achieve the system functionality explained to me in our recent talks and on-site meetings. This proposal may be used for budgetary purposes only and is not intended as a complete system design or final product.

Commercial Sound and Video believes in providing smart system designs that will grow with your technological needs and as such we want to ensure that future expansions to the capabilities of this system may be integrated seamlessly without costly upgrades to the all digital backbone switching and control system I propose that you implement now.

As with any system that Commercial Sound and Video designs or specifies, consideration is always given to providing proven products backed by our industry leading support and customer service. Below I have described in greater detail the equipment selections and functionality of this proposed budgetary turn-key A/V system integration.

This budgetary quote encompasses all costs associated with installation, labor, programming hardware, shipping and training. It does not include Washington state sales tax. Permit fees are not included in this quote. Should a permit be required; fees will be billed to you separately.

A BRIEF INTRODUCTION TO CRESTRON CONTROL & SWITCHING SYSTEMS:

Crestron has been a cornerstone product for commercial integrators for years. The most advanced audio and video systems all have a control system at its' heart and a vast percentage of them use Crestron to accomplish these complex switching and automation tasks. The two systems I have designed for you here are no exception. Using Crestron to automate and control each multimedia system allows for seamless integration and ease-of-use for all end users without having an advanced education in system design while minimizing an avenue for operator error. Simply put, there isn't a better way for you to have all the necessary functions available to you in a graphic user interface for a complex technological system design. The Crestron Digital Media Product that has been specified for this installation is completely modular and is designed to grow with your needs as you further develop the capabilities of for each installation space (Cafeteria & Baxter multipurpose space).

Continued on Next Page

A WORD ON AUDIO EQUIPMENT AND CAPABILITIES:

I have selected Electro-Voice loudspeakers for use throughout the Baxter multipurpose system. Electro-Voice commercial grade audio products provide exceptional hi-fidelity sound and build quality at a price point that cannot be denied. For medium sized multimedia multipurpose room systems such as yours, I don't think you can find a better sounding speaker at a comparable price point with a speaker footprint this small. When coupled with an advanced Digital Signal Processor (DSP) such as the Biamp Audia I have selected for use in both Baxter and the Cafeteria systems, we are allowed an incredible amount of control over the acoustic qualities of the audio you hear. Each system Commercial Sound & Video designs takes into account the ambient room acoustics found in each unique installation space. This ensures you always hear the best possible audio from your system and that spoken word as well as program material remains intelligible at all audio levels.

CREATING THE RIGHT IMAGE:

I have selected for you two display devices to be included in both the Cafeteria and Baxter installation space. A new High Definition 1080P LCD based projector is specified for use in the cafeteria. This projector has a very high Lumens light output rating and great contrast ratios. I have chosen a Panasonic business class projector for this installation because their products are very well built, proving to be reliable while including exceptional features that set them apart from the competition. The second display device type is a flat panel LCD manufactured by LG. This is a commercial grade display device and is designed for extended periods of use. Commercial Sound and Video has been using LG commercial grade displays for many years now and we feel confident of the level of performance and build quality these displays provide.

THE PHILOSOPHY BEHIND THE DESIGN:

When designing both of these complex digital multimedia room systems it was important the design not be cumbersome or intrusive to the design and layout for both Baxter and the cafeteria. Our intentions are for both installations is to keep these systems free of unnecessary clutter while maintaining the most streamlined and efficient system design possible. For both Baxter and the Cafeteria a simple and easy to use standardized LCD human interface touch panel has been specified. This elegant Crestron system controller is wireless but will remain in an integrated rack mounted docking station when not in use. Everything about the design of this system has been streamlined to provide maximum usability with little to no chance for operator error while not burdening the end user with complex options and features that aren't required or necessary.

Understanding the AV industry on a whole has been moving forward into fully digital signal management and transmission methods now for the last several years both in the private sector as well as in the commercial markets we strongly support the adoption of this technology today. As of 2013 the AV industry will no longer provide analog signal formats to end users and high definition standards will be widely adopted everywhere both in consumer and commercial vertical markets. This further justifies the reason to invest in digital signal management now so that you don't find yourself budgeting for costly analog to digital upgrades within a few years.

Continued on Next Page

CAFETERIA MULTIMEDIA SYSTEM IMPROVEMENTS DESCRIBED -

The expansion to the cafeteria audio and video system will include the following:

A Crestron Digital Media matrix switcher and appropriate 8.4" LCD touch panel interface to control all aspects of this complex system design is to be located at the AV rack. Additionally, there shall be a LCD touch panel located just outside the Head-End AV rack closet which provides limited functionality of this media system.

A full complement of all current digital video connection types shall be present at both input panels located within the cafeteria. Additional source inputs included in this quote are: MP3/iPod player/SD/USB, Blu-ray Disc/DVD/CD, Live Camera, Digital Signage (Calendar), Networked PC and Cable TV. Analog PC connectivity shall also be present both at the AV rack and from a wall plate located near stage-right and from the alternate stage location.

Located at the head-end AV rack shall be a preview monitor and accommodations for an owner provided networked PC.

A new High Definition LCD based high lumens output inverted ceiling projector will replace your existing 4:3 aspect ratio projector. The existing display screen will remain.

Provisions for ten new approximately 50" LCD displays and all appropriate mounting hardware are also included in this budget.

Four Shure ULX wireless microphones shall also be included in this system design revision.

All existing microphone wall plate connectivity options will remain unchanged.

BAXTER MULTIMEDIA SYSTEM IMPROVEMENTS DESCRIBED -

The expansion to the Baxter audio and video system will include the following:

A Crestron Digital Media matrix switcher and appropriate 8.4" wireless LCD touch panel interface to control all aspects of this complex system design is to be located at the AV rack.

A full complement of all current digital video connection types shall be present at both input panels located within the cafeteria. Additional source inputs included in this quote are: MP3/iPod player/SD/USB, Blu-ray Disc/DVD/CD, Live Camera, Digital Signage (Calendar), Networked PC and Cable TV. Analog PC connectivity shall also be present both at the AV rack and from a wall plate located near the stage.

A new Da-lite recessed display screen with tensioned side walls will be included as part of this system design.

Provisions for one new approximately 50" LCD display and all appropriate mounting hardware are also included in this budget.

The audio system shall be designed so that you may easily setup for sound reinforcement, movie playback (5.1 Surround Audio) and Live Performance (Stereo).

This system will allow you to switch between stereo and distributed audio via the LCD control touch panel.

New Electro-Voice Loudspeakers will be installed to provide best audio coverage and to meet the desired audio formats requested.

Existing XLR wall plate connectivity behind the stage will be scaled back to 12 live microphone inputs.

Four Shure ULX wireless microphones shall also be included in this system design revision.

Continued on Next Page

**North Seattle Community College
9600 College Way North
Seattle, WA 98103**

Attn: Kevin/Ira

BUDGETARY PRICING SUMMARY

CAFETERIA MULTIMEDIA SYSTEM IMPROVEMENTS
~\$100,000.00 (Plus Tax)

BAXTER MULTIMEDIA SYSTEM IMPROVEMENTS
~\$75,000.00 (Plus Tax)

Notes:

- AC power is provided by owner at rack location, Da-Lite screen location and projector location.
- Assumes adequate pathway is provided for cable pulls within the Plenum space found in Baxter. All Core drilling is provided by others.

Unless otherwise noted; scope of work includes all design, labor, and materials needed for the complete installation of the system described in this proposal. Operation and maintenance manuals, a one year limited warranty, and user training are also included. Please allow three weeks lead time. Washington state sales tax and electrical permit fees not included in above pricing. System quote is bound by the attached "General Conditions" - Items 1 through 13.

Acceptance of Proposal:

The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as stated above.

Accepted: _____

Date: _____

TPMC-8X

Isys™ 8.4" WiFi Touchpanel

The Crestron Isys® TPMC-8X is a compact, stylish Wi-Fi touchpanel featuring the Windows® XP Embedded OS to deliver a 2-way wireless control solution with blazingly fast performance and native capabilities for browsing the Internet, streaming multimedia, and much more. A brilliant 8.4" active-matrix SVGA display and 16-bit color depth combine to produce stunning 3D graphics using DNav dynamic menu objects, dynamic graphics and text, animations, multimode objects, PNG translucency, and exclusive Synapse™ image rendering - all with astonishing speed.

Advanced Ergonomics

Incredibly thin and compact, the TPMC-8X is brilliantly designed to provide a powerful mobile control solution that's easy to hold and intuitive to use. Its magnesium alloy enclosure presents a sleek, modern appearance that is both rugged and lightweight.

Tactile Controls

An integrated 5-way thumbpad and up/down arrow buttons add quick-access and tactile response for controlling functions ranging from simple volume adjustment and channel selection to on-screen menu navigation or even pan/tilt camera control. Four additional "hard key" buttons are positioned below the touchscreen, programmable for context-sensitive menu functions. A stylus is even included for use with the on-screen keyboard, conveniently stowed in its own storage slot.

Biometric Scanner

The built-in fingerprint scanner unleashes a whole new level of convenience and security, allowing individual users to be identified instantly and logged on automatically. With just the touch of a fingertip, each user can be presented with a unique graphical interface with its own set of preferences, access privileges, and even its own look through the use of touchpanel "skins".

Wi-Fi Wireless

Integrated 802.11a/b/g Wi-Fi technology with WEP encryption delivers secure, high-speed 2-way wireless performance across wireless LAN's, affording mobile freedom and seamless communications with Crestron control systems, computers, digital media servers, and other IP-based devices.

Embedded PC

The power of Isys is in its embedded PC engine, combining rock solid touchpanel performance with built-in Windows Media® Player and RealPlayer®, Internet Explorer, Adobe® Acrobat® Reader, and Microsoft Word, Excel®, and PowerPoint® document viewers. While simultaneously controlling your home theater, boardroom, or lecture hall, the TPMC-8X provides everything needed for enjoying online music and movies, viewing Web pages and accessing most types of digital media without necessitating a separate computer.

VNC Viewer support delivers enhanced cross-platform interaction with remote computers over the network or Internet, allowing access and control of desktop applications with live presentation capability.

Built on the Windows XP Embedded operating system, the TPMC-8X delivers a powerful and secure platform for touchpanel control with integrated PC capabilities. Programmatic control erases the lines between control system and PC, allowing programmers to customize each application's behavior within the touchpanel environment to create a truly powerful and user-friendly interface.



SHOWN WITH OPTIONAL DOCKING STATION

Wireless Video

For presentation preview, surveillance, or pure entertainment, the TPMC-8X makes it easy to view security cameras, movies, and other video sources right on the touchscreen. In addition to the wide range of streaming video formats supported by its onboard media player applications, the TPMC-8X also features native support for video over IP from a variety of 3rd-party Web cameras and servers including the Crestron CEN-NVS100.

Audio and Intercom

Built-in amplified speakers and headphone output provide clear audio for streaming media and internal PC applications, and enable 2-way IP intercom in combination with the integrated microphone. Crestron IP intercom capability facilitates direct panel-to-panel intercom and monitoring right over the wireless LAN. Customized WAV files can also be loaded on the touchpanel to add dimension to the touchscreen graphics with personalized sounds, button feedback, and voice prompts.

Li-Ion Rechargeable Batteries

A field-replaceable Lithium Ion battery pack onboard the TPMC-8X provides fast-charging, long-lasting wireless operation without the "memory" issues typical of other rechargeable batteries. An external "booster" battery pack is also available, providing up to 20 hours of typical use between charges. The optional external battery pack clips neatly to the rear of the touchpanel without tools, adding 0.75 inch depth and non-slip rubber feet resulting in a fixed tilt angle of 7 degrees.

Docking Station Options

Optional desktop or wall mount docking stations afford a choice of convenient charging solutions, adding 10/100 Ethernet for direct connection to a wired LAN, plus two USB ports for mouse and keyboard. The desktop dock allows the touchpanel to be operated upright at a 37 degree angle, while the wall mount model provides a secure, flush look.

> *Stylish and compact ergonomic design*

> *8.4" active matrix touchscreen display*

TPMC-8X Isys™ 8.4" WiFi Touchpanel

- > 16-bit Isys™ graphics | 800 x 600 resolution
- > Synapse image rendering algorithm
- > DNav dynamic menu objects
- > 802.11a/b/g Wi-Fi 2-way wireless communications
- > Windows XP Embedded operating system
- > Onboard PC applications for Web browsing, streaming media, and remote computer access
- > Multi-format streaming video and audio
- > WAV file audio feedback
- > Direct panel-to-panel intercom over IP
- > Built-in microphone and stereo speakers
- > 5-way thumbpad and 4 "hard key" buttons
- > Includes stylus with onboard storage slot
- > Built-in biometric fingerprint scanner
- > Internal Li-Ion battery pack included
- > External "booster" battery pack available
- > Optional desktop and wall mount docking stations

SPECIFICATIONS

Touchscreen Display

Display Type: TFT active matrix color LCD

Size: 8.4 inch (213 mm) diagonal

Aspect Ratio: 4:3 SVGA

Resolution: 800 x 600 pixels

Brightness: 200 nits (cd/m²)

Contrast: 500:1

Color Depth: 18-bit, 262k colors

Illumination: Edgelit fluorescent

Viewing Angle: ±65° horizontal, +65°/-45° vertical

Touchscreen: Resistive membrane

Buttons & Switches

Hard Keys : (4) programmable pushbuttons below touchscreen

Thumbpad: (1) programmable 5-way thumbpad (4-way navigation plus center "ENTER" button)

Arrows: (2) programmable up/down pushbuttons

Power: (1) pushbutton, initiates "Power On" and "Power Down"

Battery: (1) Recessed slide switch inside battery compartment, shuts off battery for long-term storage

Biometric Scanner

AuthenTec® EntrePad® 1610 fingerprint scanner;

Identifies up to 30 users by fingerprint

LED Indicators

Power: (1) Green LED, indicates touchpanel power status

Battery: (1) Green/yellow dual-color LED, indicates battery condition and charging status

WiFi: (1) Green LED, indicates wireless network connection status

Memory

DDR SDRAM: 512 MB

Flash: 1 GB

Compact Flash: Accepts up to 4GB Type II CF+ (not included)

Maximum Project Size: 190 MB

Operating System

Microsoft® Windows® XP Embedded

Graphic Engine

16-bit non-palette graphics; 65,536 colors; Synapse image rendering algorithm; multi-mode objects; DNav dynamic menu objects; dynamic graphics and text; PNG translucency; full-motion (60 fps) animation; transition effects

Embedded Applications

Microsoft Internet Explorer w/Adobe® Flash® plug-in, Windows Media® Player, RealPlayer®, Crestron MJPEG Viewer, Crestron IP Intercom, VNC Viewer, Remote Desktop, Java™ Runtime, Crestron Keyboard, Adobe® Acrobat® Reader, WordPad, MS Word Viewer 2003, Excel® Viewer 2003, PowerPoint® Viewer 2003

Wireless

Transceiver: IEEE 802.11a/b/g Wi-Fi (5.8 or 2.4 GHz 2-way RF), static IP or dynamic IP via DHCP, 64 and 128-bit WEP encryption

Range: 30 feet (10m) @54Mbps; range and speed vary based upon environmental conditions

Gateway: Requires a CEN-WAP-ABG-1G, CEN-WAP-ABG-CM, or similar 802.11a/b/g wireless access point and Ethernet-enabled Crestron 2-Series control system

Ethernet

10BaseT/100BaseTX, auto-switching, auto-negotiating, auto-discovery, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP

NOTE: Ethernet requires a wired connection via docking station.

Video

Streaming/File Formats: MJPEG via Crestron MJPEG Viewer, plus all formats supported by the embedded media player applications

Audio

Hardware Features: Dual onboard microphones, built-in stereo speakers, stereo headphone output

Streaming/File Formats: As supported by the embedded media player applications

Audio Feedback: WAV format, 8 & 16 bit PCM, mono & stereo, 8 - 44.1 kHz sampling rates

Amplification: Stereo, 1.1 Watts per channel

Connectors

HEADPHONES: (1) 3.5 mm TRS mini phone jack;

Stereo headphone output;

Output Power: 12mW per channel;

Minimum Impedance: 32 ohms

USB: (1) USB Type A female;

USB 2.0 port for keyboard, mouse, and storage devices

MEMORY CARD: (1) Type II CF+ Card slot

12V 3.5A: (1) 2.5mm barrel DC power jack;

12 Volt DC power input (power supply included)

TPMC-8X Isys™ 8.4" WiFi Touchpanel

Battery

Internal Battery: Lithium Ion, 7.4 Volt, 2200 mAh, Crestron model TPMC-8X-BTP included

Usage per Charge : ~1.5 hours continuous, 9+ hours under normal use with standby/powerdown activated^[1]

Charging Time : ~2 hours (~2.5 to 3 hours when in use)

Power Requirements

Power Pack: 3.5 Amps @ 12 Volts DC;
100-240 Volts AC, 50/60 Hz power pack included

Environmental

Operating Temperature: 32° to 104°F (0° to 40°C)

Storage Temperature: 14° to 140°F (-10° to 60°C)

Humidity: 10% to 90% RH (non-condensing)

Heat Dissipation: 143 BTU/Hr

Enclosure

Construction: Magnesium alloy case with plastic buttons, stylus storage slot (stylus included), integral docking station port

Dimensions

Height: 8.21 in (209 mm)

Width: 9.69 in (247 mm)

Depth: 0.92 in (24 mm)

Weight

1.98 lbs (0.90 kg)

Available Models

TPMC-8X: Isys™ 8.4" WiFi Wireless Touchpanel

Included Accessories

TPMC-8X-BTP Internal Battery Pack [Included Quantity for TPMC-8X: 1]

Available Accessories

TPMC-8X-DS: Desktop Docking Station/Charger

TPMC-8X-DSW: Wall Mount Docking Station/Charger

TPMC-8X-BTPE: External Battery Pack

CEN-WAP-ABG-1G: Wall Mount 802.11a/b/g Wireless Access Point

CEN-WAP-ABG-POE-PWE: Wall Mount 802.11a/b/g Wireless Access Point w/
PoE Injector

CEN-WAP-POE-PAK: Wall Mount 802.11a/b/g Wireless Access Point w/5-Port
PoE Switch

CEN-WAP-ABG-CM: Ceiling Mount 802.11a/b/g Wireless Access Point

CEN-WAP-ABG-POE-PWE-CM: Ceiling Mount 802.11a/b/g Wireless Access
Point w/PoE Injector

CEN-NVS100: Network Video Streamer

CEN-NVS100-PWE: Network Video Streamer w/PoE Injector

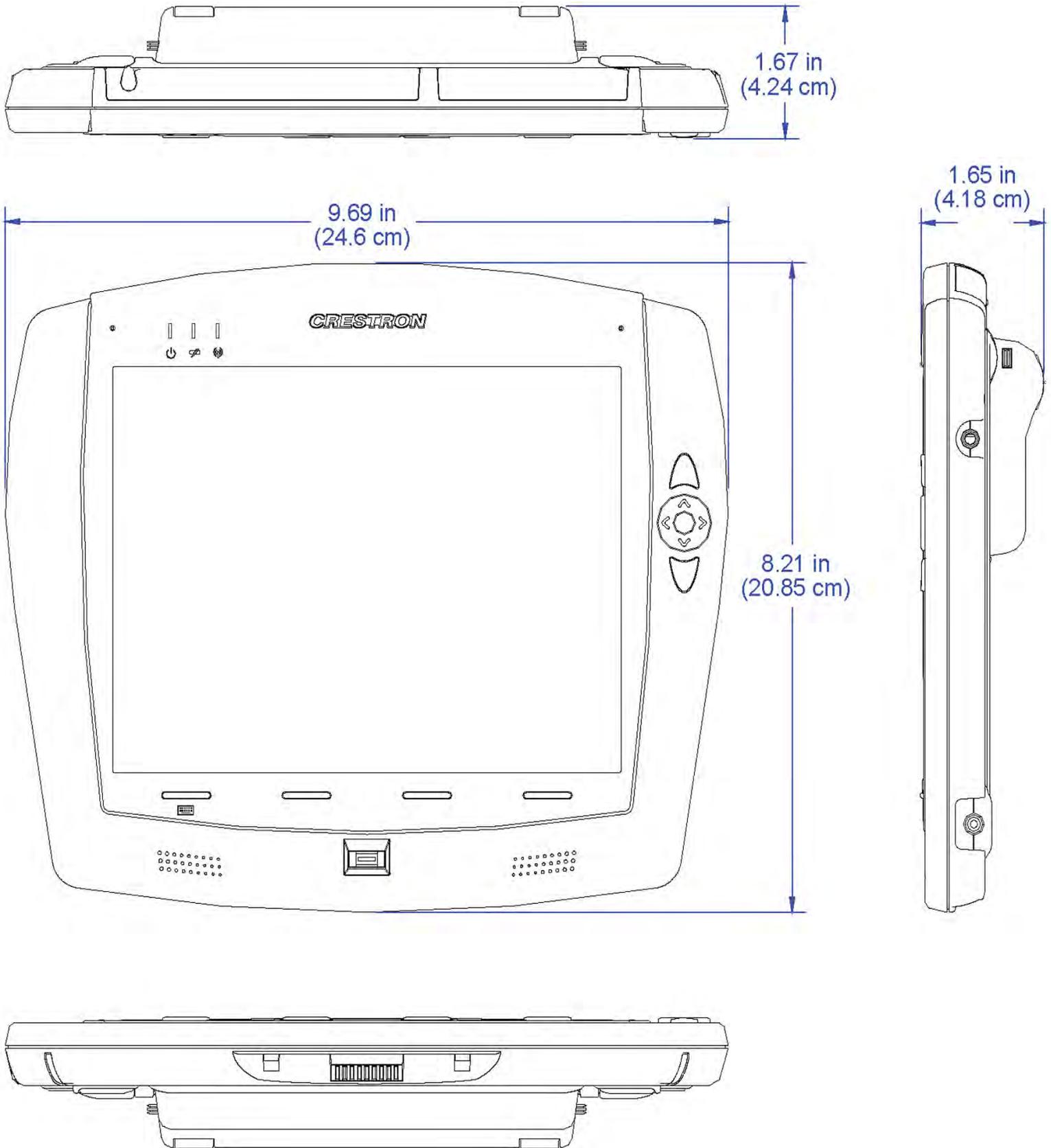
SW-VMK-WIN: TouchPoint™ Virtual Mouse & Keyboard Software for
Windows® [Release Date: TBA]

Notes:

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

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TPMC-8X Isys™ 8.4" WiFi Touchpanel



TPMC-8L

Isys i/O® 8.4" Wall Mount Touchpanel Media Center

The Isys i/O TPMC-8L is a stylish wall or lectern mount touchpanel featuring the Windows® XP Embedded OS to deliver a powerful control solution with blazingly fast performance and native capabilities for browsing the Internet, streaming multimedia, and much more. A brilliant 8.4" active-matrix SVGA display and 16-bit color depth combine to produce stunning 3D graphics using DNav dynamic menu objects, dynamic graphics and text, animations, multimode objects, PNG translucency, and exclusive Synapse™ image rendering - all with astonishing speed.

Isys i/O™ Touchpanel Control

Crestron touchpanels offer an ideal user-interface for multimedia presentation, home automation, and much more, providing a wide-open canvas for the creation of custom control screens tailored to the needs of the end-user. Touchpanels do away with piles of remote controls, cryptic control panels and cluttered wall switches, simultaneously expanding and simplifying control over a broad range of complex devices and systems.

Synapse™

Crestron's exclusive Synapse Image Rendering Algorithm enables system programmers to produce amazing graphics - faster and easier. Advanced antialiasing delivers crisper, sharper objects and text. Enhanced 3D effects add new depth and style. And because Synapse is native to the touchpanel, memory requirements and upload time are substantially reduced.

Embedded PC

The power of Isys i/O is in its embedded PC engine, combining rock solid touchpanel performance with built-in Windows Media® Player and RealPlayer®, Internet Explorer, Adobe® Acrobat® Reader, and Microsoft Word, Excel, and PowerPoint® document viewers. While simultaneously controlling your home, boardroom, or lecture hall, the TPMC-8L provides everything needed for enjoying online music and movies, viewing Web pages and accessing most types of digital media without necessitating a separate computer.

Support for Windows® SideShow™ gives the TPMC-8L access to all kinds of PC and Web-based content such as news feeds, sports scores, stock tickers, weather alerts, media guides, email messages, and appointment notifications all through a simple network connection to a Windows Vista™ computer.

Onboard NetMeeting® and Skype™ VoIP applications enable duplex telephone, intercom, and interactive video conferencing right on the touchpanel without any dedicated wiring. New VNC Viewer support delivers enhanced cross-platform interaction with remote computers over the network or Internet, allowing access and control of desktop applications with live presentation capability.

Built on the Windows XP Embedded operating system, the TPMC-8L delivers a powerful and secure platform for touchpanel control with integrated PC capabilities. Programmatic control erases the lines between control system and PC, allowing programmers to customize each application's behavior within the touchpanel environment to create a truly powerful and user-friendly interface.

Streaming Video

For presentation preview, surveillance, or pure entertainment, the TPMC-8L makes it easy to view security cameras, movies, and other video sources right on the touchscreen. In addition to the wide range of streaming video formats supported by its onboard media player applications, the TPMC-8L also features native support for video over IP from a variety of 3rd-party Web cameras and servers like the Crestron CEN-NVS100.



Audio and Intercom

Built-in amplified speakers provide clear audio for streaming media and internal PC applications, and enable 2-way intercom and VoIP communications in combination with the integrated microphone. New Crestron

IP intercom capability facilitates direct panel-to-panel intercom and monitoring right over the LAN without requiring any additional AV wiring. Customized WAV files can be loaded on the touchpanel to add dimension to the touchscreen graphics with personalized sounds, button feedback, and voice prompts.

A balanced line output allows for connection to Adagio® and other multi-room audio distribution systems using CAT5 or conventional wiring, allowing streaming audio content playing on the TPMC-8L to be shared with listeners throughout the home or office.*

Biometric Scanner

The built-in fingerprint scanner unleashes a whole new level of convenience and security, allowing individual users to be identified instantly and logged on automatically. With just the touch of a fingertip, each user can be presented with a unique graphical interface with its own set of preferences, access privileges, and even its own look through the use of touchpanel "skins".

Pushbutton Options

The TPMC-8L features a faceplate containing 16 programmable "hard key" pushbuttons, elegantly trimmed by illuminated button dividers. Integral to the faceplate, the pushbuttons are positioned along the left and right edges of the touchscreen, making it possible to align dynamically changing text and graphics onscreen beside the pushbuttons to support context-sensitive menu functions such as digital media titles, channels, or lighting presets. Custom engraving of the buttons is available, with a choice of solid or backlit text. A plain no-button faceplate is also included, allowing a very clean appearance with no pushbuttons.

Light Sensor

A light sensor is built into the TPMC-8L to automatically adjust the display brightness and button backlight for optimal legibility under varying light conditions.

High-Speed Connectivity

TPMC-8L

High-speed Ethernet is standard on the TPMC-8L, providing for easy network integration and seamless communications with Crestron control systems, computers, and digital media servers. Two USB 2.0 ports are also included on the rear panel to support a mouse and keyboard, and external storage devices.

Versatile Flush Mount Design

The TPMC-8L is designed for easy flush-mount installation in a wall, lectern or similar flat surface. A variety of mounting accessories is offered including optional back box and 19-inch rack mount kit.

* *The line-level audio output carries precisely the same signal as the built-in stereo speakers.*

- > *8.4" active matrix touchscreen display*
- > *16-bit Isys i/O graphics | 800 x 600 resolution*
- > *Synapse image rendering algorithm*
- > *Windows SideShow-Enabled*
- > *DNav dynamic menu objects*
- > *Windows XP Embedded operating system*
- > *Onboard PC applications for Web browsing, streaming media, conferencing, VoIP, and remote computer access*
- > *Multi-format streaming video and audio*
- > *WAV file audio feedback*
- > *Direct panel-to-panel intercom over IP*
- > *Built-in microphone and stereo speakers*
- > *Built-in stereo speakers and dual microphones*
- > *Crestron Home compatible balanced audio output*
- > *Includes faceplate with 16 "hard key" pushbuttons*
- > *Button engraving available as solid or backlit text*
- > *No-button blank faceplate also provided*
- > *Built-in biometric fingerprint scanner and light sensor*
- > *10/100 Fast Ethernet communications | Rear-panel USB ports*
- > *Stylish flush mount design*
- > *Available in almond, black, white, or stainless steel*
- > *Wall, lectern, and rack mounting options*

SPECIFICATIONS

Touchscreen Display

Display Type : TFT Active matrix color LCD
Size: 8.4 inch (21.3 cm) diagonal
Aspect Ratio: 4:3 SVGA
Resolution: 800 x 600 pixels
Brightness: 200 nits (cd/m²)
Contrast: 500:1
Color Depth: 18-bit, 262k colors
Illumination: Edgelit fluorescent
Viewing Angle: ±65° horizontal, +65°/-45° vertical
Touchscreen: Resistive membrane

Buttons

Large Hard Keys: (12) Optional large engravable pushbuttons with available backlighting
Small Hard Keys : (4) Optional small backlit pushbuttons, engravable on faceplate
Reset: (1) Miniature pushbutton behind faceplate, used to reset the touchpanel

Biometric Scanner

AuthenTec EntrePad® 1610 fingerprint scanner;
Identifies up to 30 users by fingerprint

Light Sensor

Programmable photosensor for automatic backlight dimming

Memory

DDR SDRAM: 512 MB
Flash: 1 GB
Maximum Project Size: 190 MB

Operating System

Microsoft® Windows® XP Embedded

Graphic Engine

Isys i/O engine, 16-bit non-palette graphics; 65,536 colors; Synapse image rendering algorithm; multi-mode objects; DNav dynamic menu objects; dynamic graphics; Windows® SideShow™ support; PNG translucency; full-motion (60 fps) animation; transition effects

Embedded Software Applications†

Microsoft Internet Explorer w/Macromedia® Flash® plug-in, Windows Media® Player, RealPlayer®, Crestron MJPEG Viewer, Crestron IP Intercom, Skype™, NetMeeting®, VNC Viewer, Remote Desktop, Java™ Runtime, Crestron Keyboard, Adobe® Acrobat® Reader, WordPad, MS Word Viewer 2003, Excel® Viewer 2003, PowerPoint® Viewer 2003

Ethernet

10BaseT/100BaseTX, auto-switching, auto-negotiating, auto-discovery, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, IEEE 802.3U compliant

Video

Streaming/File Formats: MPEG4 and MJPEG via Crestron MJPEG Viewer, plus all formats supported by the embedded media player applications†

TPMC-8L

Audio

Hardware Features: Dual onboard microphones, built-in stereo speakers, balanced line-level output*

Streaming/File Formats: All formats supported by the embedded media player applications†

Audio Feedback (WAV): 8 & 16 bit PCM, mono & stereo, 8 - 44.1 kHz sampling rates

Amplification: Stereo, 1.1 Watts per channel

Connectors

PWR: (1) 2-pin 3.5mm detachable terminal block;
24 Volt DC power input;

Wire Size: 18 AWG maximum

LAN: (1) 8-wire RJ45 with 2 LED indicators;
10BaseT/100BaseTX Ethernet port;

Green LED indicates link status;

Yellow LED indicates Ethernet activity

USB: (2) USB Type A female;

USB 2.0 ports for keyboard, mouse, and storage devices

AUDIO: (1) 5-pin 3.5mm detachable terminal block;
Balanced/unbalanced stereo line-level audio output

Note: The +12V connector is for factory use only.

Power Requirements

24VDC: 36 Watts (1.5 Amps) @ 24 Volts DC;

May be powered by Cresnet or dedicated power supply (not included)

Note: The +12V connector is for factory use only.

Environmental

Temperature: 32° to 104°F (0° to 40°C)

Humidity: 10% to 90% RH (non-condensing)

Enclosure

Construction: metal chassis, flush-mountable, 5U 19-inch rack-mountable (all mounting kits sold separately)

Faceplate: TPMC-8L[A,B,W]-T: Injection-molded plastic, button and no-button faceplates included, optional solid or backlit button engraving sold separately;
TPMC-8L-FPAR-S/STEEL-NB: Aluminum with no buttons

Dimensions

TPMC-8L[A,B,W]-T: Height: 7.48 in (18.98 cm);

Width: 10.01 in (25.42 cm);

Depth: 1.85 in (4.69 cm)

TPMC-8L-FPAR-S/STEEL-NB: Height: 7.88 in (20.01 cm);

Width: 10.38 in (26.36 cm);

Depth: 1.88 in (4.77 cm)

Weight

TPMC-8L[A,B,W]-T: 2.90 lb (1.32 kg)

TPMC-8L-FPAR-S/STEEL-NB: 3.49 lb (1.59 kg)

* The line-level audio output carries precisely the same signal as the built-in stereo speakers.

†Contact Crestron for a current list of compatible devices and embedded applications. To ensure reliable performance, new device drivers and applications are available only from Crestron through firmware updates.

Available Models

TPMC-8L-FPAR-S/STEEL-NB: Isys i/O 8.4" Wall Mount Touchpanel Media Center, Stainless Steel, No Buttons

TPMC-8LA-T: Isys i/O 8.4" Wall Mount Touchpanel Media Center, Almond, Textured

TPMC-8LB-T: Isys i/O 8.4" Wall Mount Touchpanel Media Center, Black, Textured

TPMC-8LW-T: Isys i/O 8.4" Wall Mount Touchpanel Media Center, White, Textured

Included Accessories

TPMC-8L-FPA-T-NB No-Button Faceplate, Almond

[Included Quantity for TPMC-8LA-T: 1]

TPMC-8L-FPA-T_BLANK Engravable Faceplate w/Buttons (blank), Almond

[Included Quantity for TPMC-8LA-T: 1]

TPMC-8L-FPB-T-NB No-Button Faceplate, Black

[Included Quantity for TPMC-8LB-T: 1]

TPMC-8L-FPB-T_BLANK Engravable Faceplate w/Buttons (blank), Black

[Included Quantity for TPMC-8LB-T: 1]

TPMC-8L-FPW-T-NB No-Button Faceplate, White

[Included Quantity for TPMC-8LW-T: 1]

TPMC-8L-FPW-T_BLANK Engravable Faceplate w/Buttons (blank), White

[Included Quantity for TPMC-8LW-T: 1]

TPMC-FPAR8L-S/STEEL-NB Architectural Series Faceplate, No Buttons, Stainless Steel

[Included Quantity for TPMC-8L-FPAR-S/STEEL-NB: 1]

Available Accessories

BB-8L: Pre-Construction Wall Mount Back Box

CEN-NVS100: Network Video Streamer

CEN-NVS100-PWE: Network Video Streamer w/PoE Injector

MMK-8L: Mud Ring

PMK-8L: Pre-Construction Wall Mount Kit

RMK-8L: Rack Mount Kit

TMK-8L: Trim Ring

TPMC-8L-FP-BKLT-A-T_BLANK: Backlit Engravable Faceplate w/Buttons (blank), Almond

TPMC-8L-FP-BKLT-A-T_ENGRAVED: Backlit Engravable Faceplate w/Buttons (engraved), Almond

TPMC-8L-FP-BKLT-B-T_BLANK: Backlit Engravable Faceplate w/Buttons (blank), Black

TPMC-8L-FP-BKLT-B-T_ENGRAVED: Backlit Engravable Faceplate w/Buttons (engraved), Black

TPMC-8L-FP-BKLT-W-T_BLANK: Backlit Engravable Faceplate w/Buttons (blank), White

TPMC-8L-FP-BKLT-W-T_ENGRAVED: Backlit Engravable Faceplate w/Buttons (engraved), White

TPMC-8L-FPA-T-NB: No-Button Faceplate, Almond

TPMC-8L-FPA-T_BLANK: Engravable Faceplate w/Buttons (blank), Almond

TPMC-8L

TPMC-8L-FPA-T_ENGRAVED: Engravable Faceplate w/Buttons (engraved), Almond

TPMC-8L-FPB-T-NB: No-Button Faceplate, Black

TPMC-8L-FPB-T_BLANK: Engravable Faceplate w/Buttons (blank), Black

TPMC-8L-FPB-T_ENGRAVED: Engravable Faceplate w/Buttons (engraved), Black

TPMC-8L-FPW-T-NB: No-Button Faceplate, White

TPMC-8L-FPW-T_BLANK: Engravable Faceplate w/Buttons (blank), White

TPMC-8L-FPW-T_ENGRAVED: Engravable Faceplate w/Buttons (engraved), White

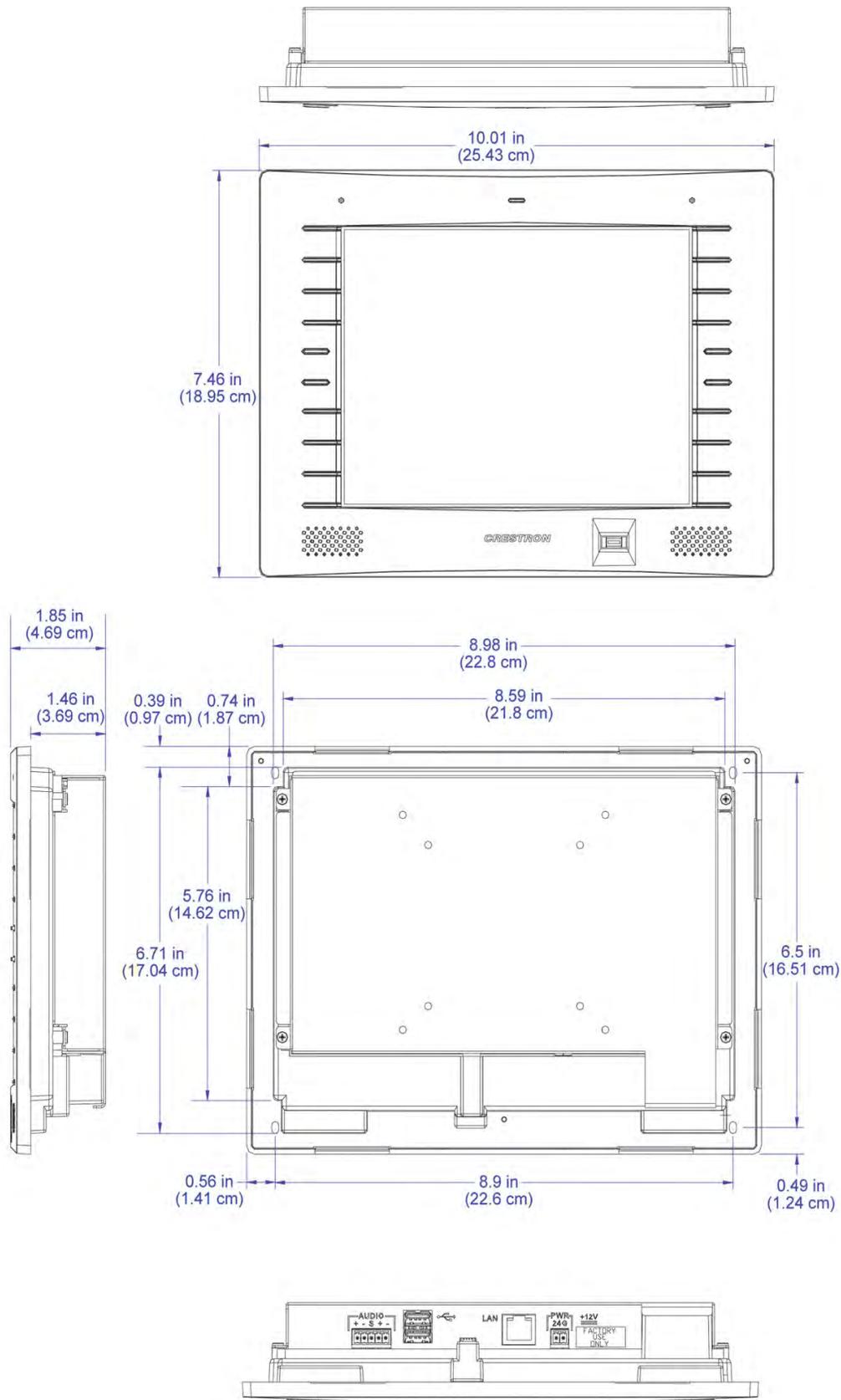
TPMC-FPAR8L-S/STEEL-NB: Architectural Series Faceplate, No Buttons, Stainless Steel

WMKM-8L: Post-Construction Wall Mount Kit with Mud Ring

WMKT-8L: Lectern or Post-Construction Wall Mount Kit with Trim Ring



TPMC-8L



DM-MD16X16

16x16 DigitalMedia™ Switcher

Crestron® DM Switchers provide the foundation for a complete DigitalMedia system, delivering an advanced, true high-definition multi-room AV signal routing solution that's extremely flexible and installer-friendly. The DM-MD16X16 affords low-latency switching and pure, lossless distribution of HDMI® and other signals to support the latest Blu-ray Disc™ players, HDTV receivers, digital media servers, computers, and all your other AV devices.

The DM-MD16X16 is field-configurable to handle up to 16 AV sources of virtually any type. The outputs are factory-configurable to provide up to 16 DM room outputs and/or HDMI outputs in a single chassis, with expansion capability possible for up to 80 outputs using multiple chassis. A full selection of DM switcher input cards, DM transmitters, and DM receivers provides extensive connectivity throughout a residence or commercial facility, supporting a complete range of analog and digital signal types — all through one switcher! User-friendly setup and troubleshooting tools are provided through the DM-MD16X16 front panel, or via Crestron Toolbox™ software, to make setting up a complete multi-room HD system easy.

To configure a DM switcher complete with input and output cards, cables, and other peripherals, please use the DigitalMedia™ Switcher Configuration Tool.

DigitalMedia™

You can't talk about AV and home entertainment today without talking about high-definition, and creating a professional HD AV distribution system means handling the challenges that come with HDMI. HDMI is the new standard for interfacing high-definition AV equipment, but despite its many benefits, wasn't developed with multi-room distribution in mind. So, as the leader in HDMI and control system technologies, Crestron has developed DigitalMedia, the first complete HD AV distribution system that takes HDMI to a higher level, and allows virtually any mix of AV sources to be distributed throughout a room, structure or across a campus from a centralized rack location.

DigitalMedia (DM) distributes uncompressed digital video and audio signals over a choice of shielded twisted-pair (STP) copper wire or multi-mode fiber, supporting cable lengths up to 450 feet (137 m) using Crestron DM cable and repeaters, or 1000 feet (300 m) using CresFiber® fiber optic cable. DigitalMedia thoughtfully manages all of the different signals and devices, matching each source's output to the capabilities of the selected display(s) without using scaling or compression. Every signal is preserved in its native video resolution and audio format, ensuring a pure, lossless signal path throughout.

Of course DigitalMedia handles more than just audio and video. Integrated Ethernet networking and USB HID distribution allows computers and media servers to be installed out-of-sight and accessed from anywhere in the house or building. And naturally, Crestron control is also built-in for controlling the displays and other room devices without additional wiring.

DigitalMedia 8G™

New DigitalMedia 8G (DM 8G) breaks even further ground, providing the world's first 8 gigabit AV distribution and control network. DM 8G delivers a true one-wire transport for moving high-definition video, audio, and Ethernet over low-cost STP copper wire or fiber without any need for repeaters. Just one 8-conductor shielded twisted-pair cable or simplex fiber is required, supporting distances up to 330 feet (100 m) using DM 8G cable, or 1000 ft using a single strand of CresFiber



fiber optic cable.

Modular Architecture

The DM-MD16X16 features a modular architecture with 16 input card slots. Input cards are field-installable, allowing for easy and flexible system configuration with the ability to make changes to the system as needs change. A wide selection of input cards is offered to support a complete range of digital and analog AV signal types including HDMI, DVI, DisplayPort Multimode, SDI, analog video and RGB, SPDIF and analog audio, and DigitalMedia.

The outputs on the DM-MD16X16 are factory-configurable to feed up to 16 DM Receivers/Room Controllers using your choice of DM CAT (DigitalMedia over shielded twisted-pair), DM Fiber (DigitalMedia over duplex fiber), DM 8G STP (DigitalMedia 8G over shielded twisted-pair), or DM 8G Fiber (DigitalMedia 8G over simplex fiber). HDMI outputs are also available for direct connection to centralized audio processors and video monitors.

Output Expansion

An HDMI "pass-thru" output is provided on every input card to allow the inputs of up to 5 DM switchers to be daisy-chained, enabling the configuration of very large distribution systems with many DM and HDMI outputs. Using five DM-MD16X16 switchers, it is possible to support an incredible 80 separate outputs.

Versatile Audio Routing

HDMI is the key to handling all the latest 7.1 surround sound formats like Dolby® TrueHD and DTS-HD Master Audio™. Great for your high-end home theater, but how do you share that same source with other audio zones in the house?

DigitalMedia provides the answer, allowing for the simultaneous distribution of multi-channel surround sound and two-channel stereo signals from the same HDMI source. Equipped with a DMC-HD-DSP input card, the DM-MD16X16 employs onboard DSP processing to derive a stereo down-mix from the original multi-channel signal. Both signals can be routed separately or simultaneously from any of the switcher's DM outputs, allowing either signal to be selected for output at each DM receiver location.

Back at the switcher, the digital stereo signal is also converted to

DM-MD16X16 16x16 DigitalMedia™ Switcher

analog to enable sharing with every other room in the house via a Sonnex™, Adagio®, or other multi-room audio distribution system. The DM-MD16X16 also allows bulky surround sound processors and amplifiers to be located centrally instead of at the display location via optional local HDMI outputs.

Computer Compatibility

Besides handling every available HDTV format supported by HDMI, DigitalMedia also supports the distribution of DVI, DisplayPort Multimode^[1], and RGB computer signals, and is fully compatible with DVI computer monitors up to 1920 x 1200 WUXGA.

Built-in Ethernet Switch

In addition to transporting digital video and audio, DigitalMedia can also extend 10/100 Ethernet out to each display and source device via DM room controllers and select DM transmitters, providing high-speed connectivity for any room device that requires a LAN connection. Its Gigabit Ethernet connection to the external LAN helps maximize bandwidth for each network port. Ethernet is also utilized internally by the Crestron control bus to manage all of the DM devices in the system and provide display control in each room.

USB HID Switch

DigitalMedia lets you centralize ALL of your HD sources - not just television receivers and DVD changers, but also media servers and computers. Built-in USB HID (Human Interface Device) signal routing allows USB HID compatible keyboards and mice to be connected at a remote display location, conference table or presentation lectern, extending their signals through to the centralized equipment via USB HID ports provided on select switcher input cards.

EDID Format Management

With HDMI comes a slew of confusing video and audio formats to keep track of, and chances are not every device in your system supports all of the same formats. In a typical one-room system, HDMI attempts to resolve this confusion using EDID (Extended Display Identification Data). When two HDMI devices are connected together, the receiving device (a display or surround sound processor) uses EDID to announce its format capabilities to the source device (a TV tuner or video player), which in turn configures itself to output the most effective format that both devices can support.

But, try to distribute a bunch of disparate sources to a system full of different displays and audio components, and you're likely to experience some serious conflicts and disappointing picture and sound quality. For instance, the Blu-ray player that's feeding your 1080p projector in the theater may restrict itself to a lower resolution, or even shut off completely, if someone decides to view the same signal on the 20" TV in the kitchen. And, instead of enjoying the incredible 7.1 Dolby TrueHD format supported by your high-end theater sound system, you may find your listening experience limited to Dolby 5.1, or even plain old stereo.

The DM-MD16X16 takes full advantage of EDID to prevent such conflicts, assessing the formats supported by each system device, and then allowing the installer to assign compatible devices in logical arrangements. Conflicting combinations can be prohibited so only the optimum signal formats get delivered to each display and audio processor. All DigitalMedia wiring is also tested for integrity and bandwidth capability, optimizing system operation by instructing sources to output only resolutions and formats that the wiring can reliably handle.

QuickSwitch HD® Technology

Crestron exclusive QuickSwitch HD technology minimizes the annoying switching latency that plagues typical HDMI switchers. As the move to

display and signal processor in the system through an HDMI connection before delivering an output signal. Normally the authentication process occurs every time any HDMI signal is switched, causing a complete loss of signal for up to 15 seconds whenever a new source or display is selected anywhere in the system.

QuickSwitch HD technology achieves very fast switching of HDMI signals by maintaining a constant HDCP connection with each HDMI device in the system, eliminating the need to re-authenticate each time a different source is selected.

HDCP Key Management

Another aspect to HDCP is its use of "keys" to manage the handshaking that occurs between any two devices. Every HDMI source device has a limit to how many downstream devices it can support, determined by the number of HDCP keys it has available. Rarely is that limit advertised or specified by the manufacturer or service provider, so connect too many displays or processors and the source will simply stop outputting a signal without warning.

To prevent such surprises, the DM-MD16X16 tests the HDCP limits of each HDMI source, allowing the installer to configure the system around any limitations, or substitute a different component.

CEC Embedded Device Control

The primary objective of every Crestron system is to enable precisely the control desired for a seamless user experience. DigitalMedia provides an alternative to conventional IR and RS-232 device control by harnessing the CEC (Consumer Electronics Control) signal embedded in HDMI. Through its connection to the control system, the DM-MD16X16 provides a gateway for controlling many devices right through their HDMI connections, potentially eliminating the need for any dedicated control wires or IR probes. Through proper CEC signal management, DigitalMedia allows you to take control of each device as you like.

Easy Setup

Via the front panel or using Crestron Toolbox software, every step of the DM-MD16X16's setup process is designed to be quick and easy, configuring inputs and outputs automatically while letting the installer make intelligent design decisions along the way. The switcher even tests and measures the length of each DM cable, automatically making the appropriate calibrations for optimal signal transmission to every room. With DigitalMedia, an entire 16x16 system can be commissioned in as little as 15 minutes.

To configure a DM switcher complete with input and output cards, cables, and other peripherals, please use the DigitalMedia™ Switcher Configuration Tool.

Please refer to the DigitalMedia Design Guide, Doc. #4789 for additional information.

> *Distributes uncompressed digital video and audio over shielded twisted-pair wire or fiber*

> *Supports HDMI® with Deep Color, 3D, and 7.1 channel HD lossless audio*

> *Supports video resolutions up to WUXGA 1920x1200 and HD 1080p60*

> *Allows cable length to 450 feet using DigitalMedia™ Cable, 1000 feet (300 m) using CresFiber®*

> *Supports new DigitalMedia 8G™ technology for a true one-wire solution* > *Supports up to 16 DM receivers and*

DM-MD16X16 16x16 DigitalMedia™ Switcher

- > *Manages HDCP digital rights management for every device*
- > *Performs automatic AV signal format management via EDID*
- > *Enables device control via CEC*
- > *Distributes USB HID mouse and keyboard signals*
- > *Allows full audio and USB breakaway switching*
- > *Integrates with analog audio distribution systems*
- > *Enables simultaneous output of stereo and surround sound audio*
- > *Includes integrated Ethernet switch with Gigabit LAN port*
- > *Includes built-in power distribution for DM transmitters, repeaters, and room controllers*
- > *Provides easy setup and diagnostics tools via front panel or software*
- > *7-space 19-inch rack-mountable*

SPECIFICATIONS

Video

Switcher: 16x16 digital matrix, modular input cards and factory-configurable outputs, Crestron QuickSwitch HD®

Input Signal Types: Configurable via modular plug-in cards supporting HDMI®, DisplayPort Multimode^[1], DVI, SDI, RGB, component (YPbPr), S-Video (Y/C), composite video, DM CAT, DM Fiber, DM 8G STP, and DM 8G Fiber

Output Signal Types: Configurable via factory-installed output cards supporting DM CAT, DM Fiber, DM 8G STP, DM 8G Fiber, HDMI, and DVI^[2] (All input cards also include HDMI pass-thru outputs)

Formats: HDMI w/Deep Color & 3D, DVI, HDCP content protection support, SD-SDI, HD-SDI, 3G-SDI, RGBHV up to UXGA/WUXGA, HDTV up to 1080p60, NTSC or PAL

Input Resolutions, HDMI & DVI, Progressive: 640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 848x480@60Hz, 852x480@60Hz, 854x480@60Hz, 1024x768@60Hz, 1024x852@60Hz, 1024x1024@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1365x1024@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@24Hz (1080p24), 1920x1080@25Hz (1080p25), 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 1920x1200@60Hz, 2048x1080@24Hz, 2048x1152@60Hz, plus any other resolution allowed by HDMI up to 165MHz pixel clock

Input Resolutions, HDMI & DVI, Interlaced: 720x480@30Hz (480i), 720x576@25Hz (576i), 1920x1080@25Hz (1080i25), 1920x1080@30Hz (1080i30), plus any other resolution allowed by HDMI up to 165MHz pixel clock

Input Resolutions, RGB: 640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 848x480@60Hz, 1024x768@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@24Hz (1080p24), 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 1920x1200@60Hz, 2048x1080@24Hz, 2048x1152@60Hz

Input Resolutions, Component: 480i, 576i, 480p, 576p, 720p50, 720p60, 1080i25 (1125 lines), 1080i30, 1080p30, 1080p50 (1125 lines), 1080p60

Input Resolutions, Composite and S-Video: 480i, 576i

Input Resolutions, SDI: (see DMC-SDI spec sheet)

Formats, HDMI only: Dolby Digital Plus, Dolby® TrueHD, DTS-HD High Res, DTS-HD Master Audio™, up to 8ch PCM

Formats, HDMI and SPDIF: Dolby Digital®, Dolby Digital EX, DTS®, DTS-ES, DTS 96/24, 2ch PCM

Formats, Analog: Stereo 2-Channel

Formats, SDI: (see DMC-SDI spec sheet)

Communications

DigitalMedia: DM Fiber, DM CAT, DMNet, DM 8G STP, DM 8G Fiber, HDCP management, EDID format management, CEC

Ethernet: 10/100/1000BaseT, auto-switching, auto-negotiating, auto-discovery, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, RSTP

USB: Supports USB HID class devices

Ethernet Switch

Provides (1) onboard 10/100/1000BaseT Gigabit Ethernet port, (1) internal 10BaseT/100BaseTX Ethernet port for the switcher, and (32) remote 10BaseT/100BaseTX Ethernet ports via select outboard devices

USB Switch

16x16 matrix

Card Slots

1 - 16: (16) DM switcher input card slots;

Each slot accepts (1) DMC-series input card;

Input cards are field-installable

DM OUTPUTS (SLOT 1 - 2): (2) DM switcher output card slots;

Each slot accepts (1) DMCO-series output card;

Output cards require factory installation

Connectors

LAN: (1) 8-wire RJ45 female;

10/100/1000BaseT Ethernet port

24ABG / EIG 1 - 8 (SLOT 1 - 2): (16) sets of (1) 4-pin and (1) 3-pin 3.5mm detachable terminal blocks;

Comprises (16) DMNet ports with "EIG" power selection ports, each set associated with a corresponding DM CAT output port on the output card in either output slot;

Each DMNet port provides power and communications for a DM CAT device connected via DM cable;

Each EIG port connects to an external power supply^[3], or to the internal power source via a jumper, to power the DM CAT device connected to the corresponding DMNet port;

Maximum Load: 40 Watts (1.66 Amps @ 24 Volts DC) per port, limited to available DMNet power from internal power supply (see "Power Requirements" below) or external power supply^[3]

100-250V~7.0A 50/60Hz: (1) IEC C14 male chassis plug, main power input; Mates with removable power cord, included

G: (1) 6-32 screw, chassis ground lug

COMPUTER (front): (1) USB Type B female;

USB 1.1 computer console port (6 ft cable included)

LCD Display

Green LCD dot matrix, 128 x 64 resolution, adjustable LED backlight;

Displays inputs/outputs by name, video & audio signal information, Ethernet configuration and setup menus

Controls and Indicators

SOFTKEYS: (4) pushbuttons for activation of LCD driven functions

HW-R: (1) recessed miniature pushbutton for hardware reset, reboots the switcher

ROUTE: (1) pushbutton and red LED, selects ROUTE mode to allow routing changes

VIEW: (1) pushbutton and red LED, selects VIEW mode for viewing current routes

INFO: (1) pushbutton and red LED, selects INFO mode for viewing AV and

DM-MD16X16 16x16 DigitalMedia™ Switcher

AUDIO: (1) pushbutton & red LED, selects audio routing view
VIDEO: (1) pushbutton & red LED, selects video routing view
USB: (1) pushbutton & red LED, selects USB routing view
Quick-Adjust Knob: (1) continuous turn rotary encoder, adjusts menu parameters
IN 1 - 16: (16) pushbuttons and red LEDs, select input for routing
OUT 1 - 16: (16) pushbuttons and red LEDs, select output for routing
LAN (rear): (2) LEDs, green LED indicates Ethernet link status, amber LED indicates Ethernet activity

Power Requirements

Main Power: 550 Watts @ 100-240 Volts AC, 50/60 Hz
Available DMNet Power: 110 Watts (4.6 Amps @ 24 Volts DC) from internal power supply

Environmental

Temperature: 32° to 104°F (0° to 40°C)
Humidity: 10% to 90% RH (non-condensing)
Heat Dissipation: 1500 BTU/Hr

Enclosure

Chassis: Metal with black finish, vented sides, fan-cooled
Faceplate: Extruded aluminum, black finish with polycarbonate label overlay
Mounting: Freestanding or 7U 19-inch rack-mountable (adhesive feet and rack ears included)

Dimensions

Height: 12.22 in (311 mm) without feet
Width: 17.28 in (439 mm), 19.00 in (483 mm) with ears
Depth: 18.13 in (461 mm) without cards

Weight

28.4 lb (12.9 kg) without cards

Available Models

DM-MD16X16: 16x16 DigitalMedia™ Switcher

Available Accessories

DMC-HD: HDMI™ Input Card
DMC-HD-DSP: HDMI™ Input Card w/Down-mixing
DMC-DVI: DVI/RGB Input Card
DMC-VID-RCA-A: RCA Analog Video Input Card w/Analog Audio
DMC-VID-RCA-D: RCA Analog Video Input Card w/SPDIF Audio
DMC-VID-BNC: BNC Analog Video Input Card
DMC-VID4: Quad Video Input Card
DMC-SDI: SDI Input Card
DMC-CAT: DigitalMedia™ CAT Input Card
DMC-CAT-DSP: DigitalMedia™ CAT Input Card w/Down-mixing
DMC-F: DigitalMedia™ Fiber Input Card
DMC-F-DSP: DigitalMedia™ Fiber Input Card w/Down-mixing
DMC-C: DigitalMedia 8G™ STP Input Card
DMC-C-DSP: DigitalMedia 8G™ STP Input Card w/Down-mixing
DMC-S: DigitalMedia 8G™ Fiber Input Card [Available November, 2010]
DMC-S-DSP: DigitalMedia 8G™ Fiber Input Card w/Down-mixing [Available November, 2010]
DMCO-1000: 2 DM Fiber Output Card
DMCO-1100: 4 DM Fiber Output Card
DMCO-1110: 6 DM Fiber Output Card
DMCO-1111: 8 DM Fiber Output Card
DMCO-2000: 2 DM CAT w/1 HDMI Output Card
DMCO-2200: 4 DM CAT w/2 HDMI Output Card
DMCO-2220: 6 DM CAT w/3 HDMI Output Card
DMCO-2222: 8 DM CAT w/4 HDMI Output Card
DMCO-4000: 2 DM 8G Fiber w/1 HDMI Output Card [Available November,

DMCO-5000: 2 DM 8G STP w/1 HDMI Output Card
DMCO-5500: 4 DM 8G STP w/2 HDMI Output Card
DMCO-5550: 6 DM 8G STP w/3 HDMI Output Card
DMCO-5555: 8 DM 8G STP w/4 HDMI Output Card
DMCO-3000: 2 HDMI w/2 Stereo Analog Audio Output Card
DMCO-3300: 4 HDMI w/4 Stereo Analog Audio Output Card
DMCO-3330: 6 HDMI w/6 Stereo Analog Audio Output Card
DMCO-3333: 8 HDMI w/8 Stereo Analog Audio Output Card
DMCO-2100: 2 DM Fiber & 2 DM CAT w/1 HDMI Output Card
DMCO-1220: 2 DM Fiber & 4 DM CAT w/2 HDMI Output Card
DMCO-2221: 2 DM Fiber & 6 DM CAT w/3 HDMI Output Card
DMCO-1120: 4 DM Fiber & 2 DM CAT w/1 HDMI Output Card
DMCO-1122: 4 DM Fiber & 4 DM CAT w/2 HDMI Output Card
DMCO-1112: 6 DM Fiber & 2 DM CAT w/1 HDMI Output Card
DMCO-5100: 2 DM Fiber & 2 DM 8G STP w/1 HDMI Output Card
DMCO-1550: 2 DM Fiber & 4 DM 8G STP w/2 HDMI Output Card
DMCO-5551: 2 DM Fiber & 6 DM 8G STP w/3 HDMI Output Card
DMCO-1150: 4 DM Fiber & 2 DM 8G STP w/1 HDMI Output Card
DMCO-1155: 4 DM Fiber & 4 DM 8G STP w/2 HDMI Output Card
DMCO-1115: 6 DM Fiber & 2 DM 8G STP w/1 HDMI Output Card
DMCO-1300: 2 DM Fiber & 2 HDMI w/2 Stereo Analog Audio Output Card
DMCO-1330: 2 DM Fiber & 4 HDMI w/4 Stereo Analog Audio Output Card
DMCO-1333: 2 DM Fiber & 6 HDMI w/6 Stereo Analog Audio Output Card
DMCO-1130: 4 DM Fiber & 2 HDMI w/2 Stereo Analog Audio Output Card
DMCO-1133: 4 DM Fiber & 4 HDMI w/4 Stereo Analog Audio Output Card
DMCO-1113: 6 DM Fiber & 2 HDMI w/2 Stereo Analog Audio Output Card
DMCO-2300: 2 DM CAT w/1 HDMI & 2 HDMI w/2 Stereo Analog Audio Output Card
DMCO-2330: 2 DM CAT w/1 HDMI & 4 HDMI w/4 Stereo Analog Audio Output Card
DMCO-2333: 2 DM CAT w/1 HDMI & 6 HDMI w/6 Stereo Analog Audio Output Card
DMCO-2230: 4 DM CAT w/2 HDMI & 2 HDMI w/2 Stereo Analog Audio Output Card
DMCO-2233: 4 DM CAT w/2 HDMI & 4 HDMI w/4 Stereo Analog Audio Output Card
DMCO-2223: 6 DM CAT w/3 HDMI & 2 HDMI w/2 Stereo Analog Audio Output Card
DMCO-4300: 2 DM 8G Fiber w/1 HDMI & 2 HDMI w/2 Stereo Analog Audio Output Card [Available November, 2010]
DMCO-4330: 2 DM 8G Fiber w/1 HDMI & 4 HDMI w/4 Stereo Analog Audio Output Card [Available November, 2010]
DMCO-4333: 2 DM 8G Fiber w/1 HDMI & 6 HDMI w/6 Stereo Analog Audio Output Card [Available November, 2010]
DMCO-4430: 4 DM 8G Fiber w/2 HDMI & 2 HDMI w/2 Stereo Analog Audio Output Card [Available November, 2010]
DMCO-4433: 4 DM 8G Fiber w/2 HDMI & 4 HDMI w/4 Stereo Analog Audio Output Card [Available November, 2010]
DMCO-4443: 6 DM 8G Fiber w/3 HDMI & 2 HDMI w/2 Stereo Analog Audio Output Card [Available November, 2010]
DMCO-5400: 2 DM 8G STP w/1 HDMI & 2 DM 8G Fiber w/1 HDMI Output Card [Available November, 2010]
DMCO-5440: 2 DM 8G STP w/1 HDMI & 4 DM 8G Fiber w/2 HDMI Output Card [Available November, 2010]
DMCO-5444: 2 DM 8G STP w/1 HDMI & 6 DM 8G Fiber w/3 HDMI Output Card [Available November, 2010]
DMCO-5540: 4 DM 8G STP w/2 HDMI & 2 DM 8G Fiber w/1 HDMI Output Card [Available November, 2010]
DMCO-5544: 4 DM 8G STP w/2 HDMI & 4 DM 8G Fiber w/2 HDMI Output Card [Available November, 2010]
DMCO-5554: 6 DM 8G STP w/3 HDMI & 2 DM 8G Fiber w/1 HDMI Output Card [Available November, 2010]
DMCO-5300: 2 DM 8G STP w/1 HDMI & 2 HDMI w/2 Stereo Analog Audio Output Card
DMCO-5330: 2 DM 8G STP w/1 HDMI & 4 HDMI w/4 Stereo Analog Audio Output Card

DM-MD16X16 16x16 DigitalMedia™ Switcher

- CRESFIBER-DUAL-SC-P-12:** CresFiber® Duplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 12 ft
- CRESFIBER-DUAL-SC-P-20:** CresFiber® Duplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 20 ft
- CRESFIBER-DUAL-SC-P-30:** CresFiber® Duplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 30 ft
- CRESFIBER-DUAL-SC-ARMORED-P-60:** CresFiber® ARMORED Duplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum, 60 ft
- CRESFIBER-DUAL-SC-ARMORED-P-100:** CresFiber® ARMORED Duplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum, 100 ft
- CRESFIBER-DUAL-SC-ARMORED-P-200:** CresFiber® ARMORED Duplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum, 200 ft
- CRESFIBER-DUAL-SC-ARMORED-P-300:** CresFiber® ARMORED Duplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum, 300 ft
- CRESFIBER-SINGLE-SC-P-1.5:** CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 1.5 ft
- CRESFIBER-SINGLE-SC-P-3:** CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 3 ft
- CRESFIBER-SINGLE-SC-P-6:** CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 6 ft
- CRESFIBER-SINGLE-SC-P-12:** CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 12 ft
- CRESFIBER-SINGLE-SC-P-20:** CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 20 ft
- CRESFIBER-SINGLE-SC-P-30:** CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 30 ft
- CRESFIBER-SINGLE-SC-ARMORED-P-60:** CresFiber® ARMORED Simplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum, 60 ft
- CRESFIBER-SINGLE-SC-ARMORED-P-100:** CresFiber® ARMORED Simplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum, 100 ft
- CRESFIBER-SINGLE-SC-ARMORED-P-200:** CresFiber® ARMORED Simplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum, 200 ft
- CRESFIBER-SINGLE-SC-ARMORED-P-300:** CresFiber® ARMORED Simplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum, 300 ft
- CRESFIBER-SINGLE-SC-CLEAR-NP-30:** CresFiber® CLEAR Simplex Fiber Optic Cable Assembly, 50/125, SC, Non-Plenum, 30 ft
- CRESFIBER-SINGLE-SC-CLEAR-NP-60:** CresFiber® CLEAR Simplex Fiber Optic Cable Assembly, 50/125, SC, Non-Plenum, 60 ft
- CRESFIBER-SINGLE-SC-CLEAR-NP-100:** CresFiber® CLEAR Simplex Fiber Optic Cable Assembly, 50/125, SC, Non-Plenum, 100 ft

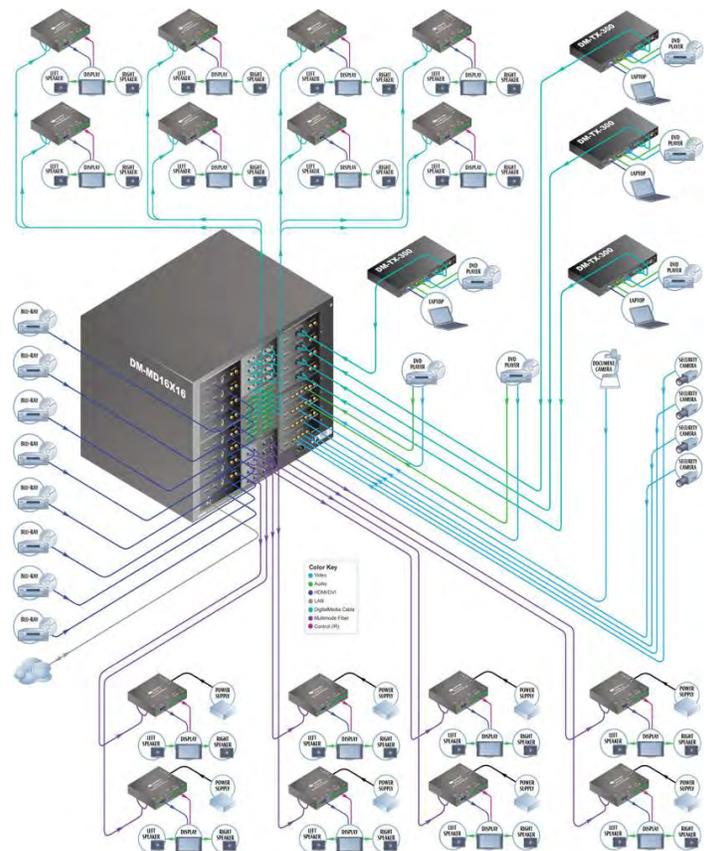
Notes:

1. DisplayPort Multimode connectivity is supported via an HDMI or DVI input port using a suitable adapter or interface cable. CBL-DP-HD interface cable available separately.
2. DVI output is supported via an HDMI output port using a suitable adapter or interface cable. CBL-HD-DVI interface cable available separately.
3. For external DMNet power, use a Crestron CNPWS-75, C2N-SPWS300, or other Cresnet power supply as required. Do not interconnect DMNet with Cresnet.

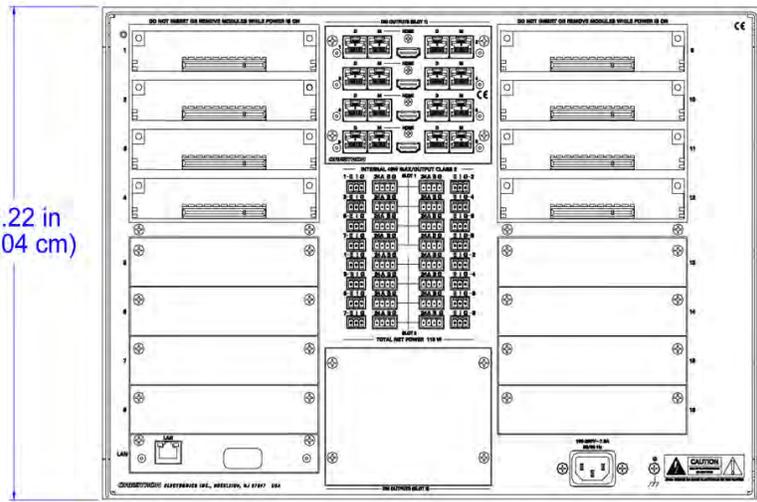
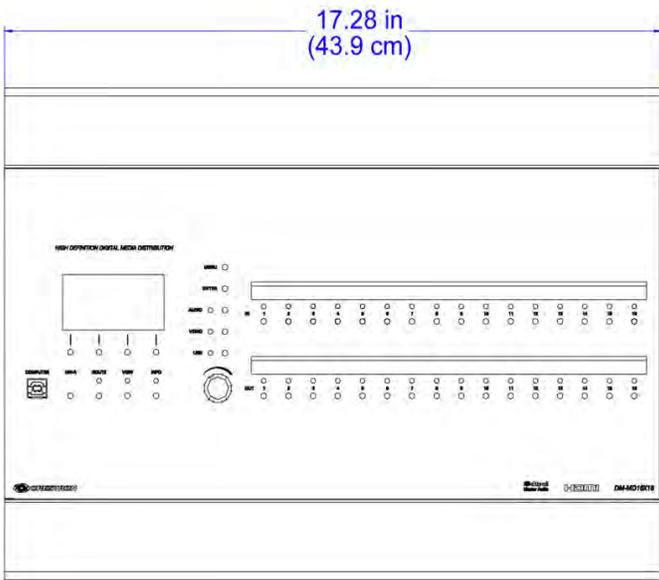
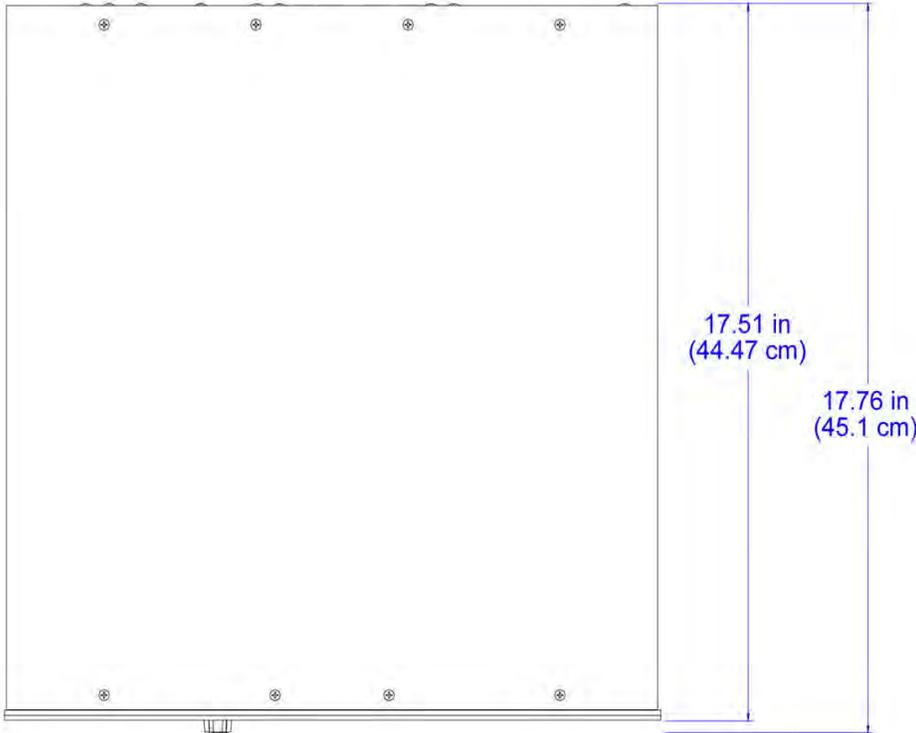
This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

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DM-MD16X16 in a Typical Application



DM-MD16X16 16x16 DigitalMedia™ Switcher



Compact Control System with Ethernet

Crestron 2-Series Control Systems are the brain of a complete integrated AV or automation solution. Every audio, video, and environmental element of the home, boardroom, classroom, or command center becomes integrated and accessible through the control system. Crestron 2-Series control systems are unmatched for power, performance and scalability, providing the ideal choice for today's demanding control applications.

The CP2E is a compact Ethernet control system designed for small to medium sized residential and commercial control applications. Three built-in COM ports, eight IR/Serial ports, eight I/O Versiports, eight isolated relays, and Ethernet provide for control of video projectors, plasma displays, switchers, DVD players, screens, lifts, and much more. Additional control ports may be added using Cresnet expansion modules, or by "slaving" additional control processors such as the CP2.

2-Series Engine

At the heart of the CP2E is the powerful 32-bit Freescale ColdFire® processor. Crestron's exclusive enhanced real-time operating system makes the CP2E the fastest, most reliable control system available.

Cresnet®

Cresnet is the communications backbone for many Crestron touchpanels, keypads, lighting controls, and other devices. The Cresnet bus is a simple, yet flexible 4-wire network that provides rock-solid bidirectional communication for numerous Cresnet devices.

Cresnet Slave Mode

Selectable Cresnet Slave Mode enables the CP2E to be configured as a Cresnet slave device, effectively transforming it into a Cresnet expansion module. Such flexibility can offer a cost-effective solution for system expansion, providing a host of additional control ports in a single module.

Ethernet

Crestron pioneered the IP-based control system to harness the vast possibilities of Ethernet and the Internet for remote control, monitoring, programming, and diagnostics. The CP2E is designed to deliver the world's most advanced IP control solution with full-duplex 10/100 Ethernet, built-in Web server and email client, and support for both static and dynamic IP addressing.

e-Control@2

Crestron's award-winning e-Control 2 XPanel solutions offer the most flexible range of IP control possibilities available. Using a Windows® computer or CE/PocketPC™ PDA device, e-Control 2 provides an amazing control GUI that looks and behaves just like a Crestron Isys® touchpanel.

RoomView™

Every Ethernet-enabled 2-Series control system works directly with Crestron's exclusive RoomView Help Desk software for the industry's most comprehensive facility-wide asset management solution.

SNMP

Built-in SNMP support enables network management of Crestron control systems using third-party SNMP software. As an alternate or supplement to RoomView, SNMP allows full control and monitoring from the IT Help Desk or NOC in a format that's familiar to IT personnel.



SSL

All Ethernet-enabled 2-Series control systems support SSL (Secure Sockets Layer), the industry standard for protecting sensitive network communications.

> 2-Series engine | Dual-bus architecture

> Cresnet port - master/slave selectable

> 10/100 Ethernet | SSL encryption

> e-Control 2 and RoomView enabled | SNMP support

> 3 Com ports (RS-232/422/485)

> 8 IR/serial ports

> 8 Versiport I/O ports

> 8 Low-voltage relay ports

> Single-space EIA rack-mountable

SPECIFICATIONS

Processor

CPU: 32-bit Freescale ColdFire® Microprocessor

Memory

SDRAM: 32 MB

NVRAM: 256 KB

Flash: 4 MB

Operating System

Real-time, preemptive multi-threaded/multitasking kernel; FAT32 file system with long names; supports SIMPL™ Windows® and SIMPL+®

CP2E Compact Control System with Ethernet

Ethernet

10/100BaseT, auto-negotiating, full/half duplex, static IP or DHCP/DNS, SSL, TCP/IP, UDP/IP, CIP, SMTP, SNMP, built-in Web server and e-mail client; supports Crestron e-Control@2 XPanel and RoomView™ applications

Connectors

COM A - C : (3) DB9 male, bidirectional RS-232/422/485 ports;

Up to 115.2k baud;

Hardware and software handshaking support;

All ports support C2N-NPA8 Network Poll Accelerator

INFRARED-SERIAL OUTPUT A - H: (8) 2-pin 3.5mm detachable terminal blocks, IR/Serial output ports;

IR output up to 1.2 MHz;

1-way serial TTL/RS-232 (0-5 Volts) up to 115.2k baud;

Individual signal generator per port, allowing simultaneous firing of all ports

I/O Versiports 1 - 8: (1) 9-pin 3.5mm detachable terminal block comprising (8) digital input/output or analog input ports (referenced to GND);

Digital Input: Rated for 0-24 Volts DC, input impedance 20k ohms, logic threshold 1.24 Volts DC;

Digital Output: 250mA sink from maximum 24 Volts DC, catch diodes for use with “real world” loads;

Analog Input: Rated for 0-10 Volts DC, protected to 24 Volts DC maximum, input impedance 20k ohms;

Programmable 5 Volts, 2k ohms pull-up resistor per pin

RELAY OUTPUT 1 - 8: (2) 8-pin 3.5mm detachable terminal blocks comprising (8) normally open, isolated relays;

Rated 1 Amp, 30 Volts AC/DC;

MOV arc suppression across contacts

LAN: (1) 8-wire RJ45 with 2 LED indicators;

10/100BaseT Ethernet port;

Green LED indicates link status;

Yellow LED indicates Ethernet activity

COMPUTER: (1) DB9 female, RS-232 computer console port

NET: (1) 4-pin 5mm detachable terminal block;

Cresnet port, Master/Slave selectable;

Expandable via C2N-NPA8 Network Poll Accelerator

24VDC: (1) 2.1mm barrel DC power jack, 24 Volt DC power input;

(PW-2420RU power supply sold separately);

Passes through to NET port to power Cresnet devices

Reset Buttons

HW-R: Hardware reset (reboots the control system)

SW-R: Software reset (restarts the SIMPL program)

LED Indicators

PWR: (1 green) Indicates DC power supplied to unit

NET: (1 yellow) Indicates Cresnet bus activity

MSG: (1 red) Indicates control system has generated an error message

LNK: (1 red) Indicates a valid connection on LAN port

ACT: (1 red) Indicates activity on LAN port

Power Requirements

24 Watts (1 Amp) @ 24 Volts DC (PW-2420RU power supply sold separately)

Available Cresnet Power: 26 Watts using PW-2420RU (sold separately)

Cresnet Power Usage: 24 Watts (1 Amp @ 24 Volts DC) with no power supply connected to the 24VDC connector

Environmental

Temperature: 41° to 113°F (5° to 45°C)

Humidity: 10% to 90% RH (non-condensing)

Enclosure

Chassis: Steel, black matte powder coat finish

Faceplate: Extruded aluminum, black matte powder coat finish with polycarbonate label overlay

Mounting: Freestanding or 1U 19-inch rack-mountable (adhesive feet and rack ears included)

Dimensions

Height: 1.80 in (4.57 cm);

1.70 in (4.32 cm) without feet

Width: 17.03 in (43.24 cm);

19.0 in (48.26 cm) with ears

Depth: 6.66 in (16.91 cm)

Weight

3.54 lbs (1.59 kg)

Available Models

CP2E: Compact Control System with Ethernet

Available Accessories

C2N-HBLOCK: Multi-type Cresnet Distribution Block

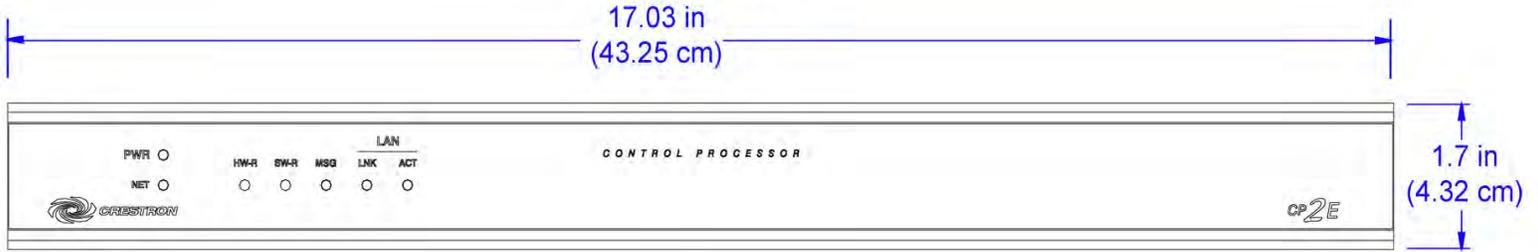
CNSP-XX: Custom Serial Interface Cable

IRP2: IR Emitter Probe

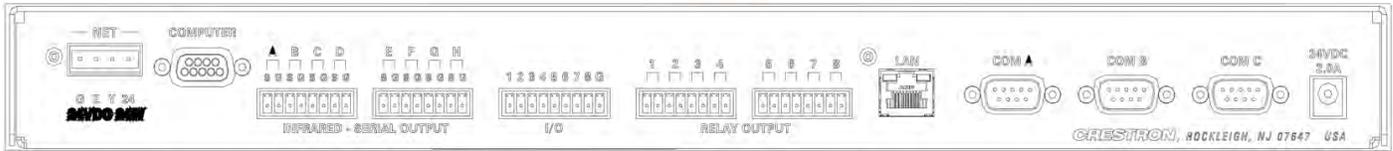
PW-2420RU: Power Pack, Desktop, 24VDC, 2A (50 Watts), Regulated, US/International

CP2E Compact Control System with Ethernet

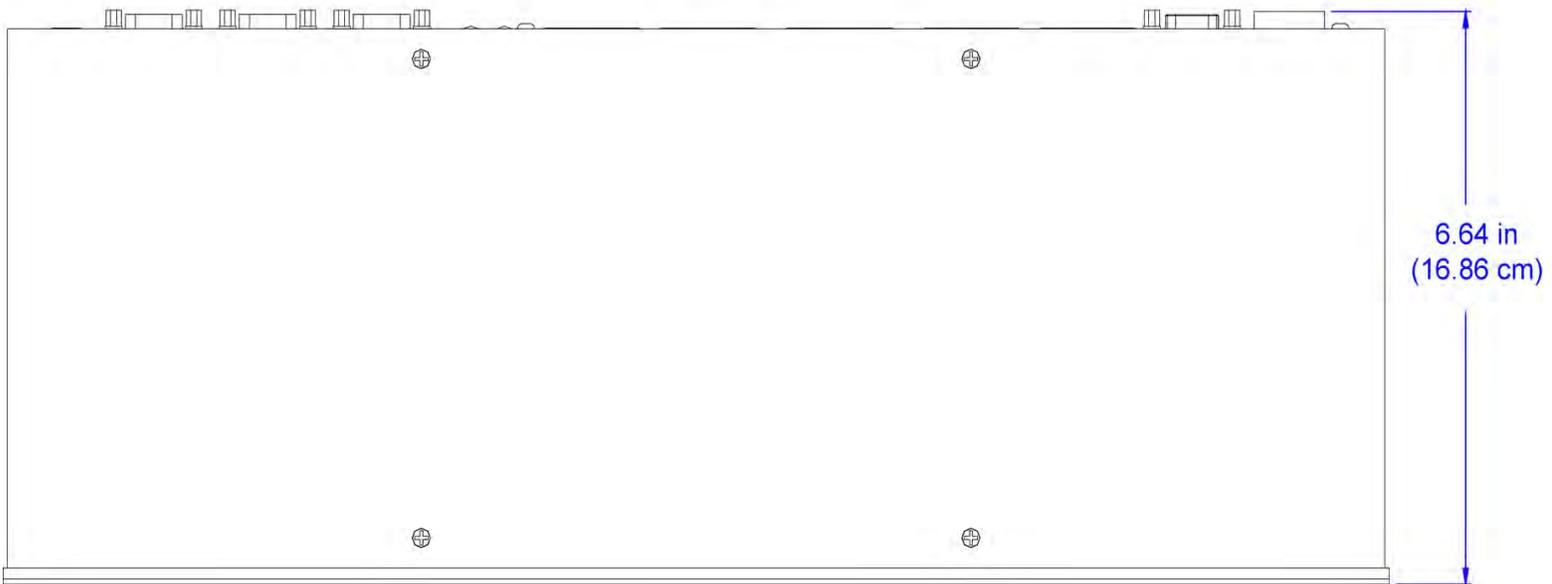
Front



Back



Top





AudiaEXPO is an output expander for Audia,® the benchmark in digital audio systems for demanding professional sound installations. AudiaEXPO accepts eight channels of digital audio input via CobraNet® and provides eight line-level analog audio outputs. AudiaEXPO can simply add outputs to a centralized system, or it can extend system boundaries by providing outputs in remote locations. AudiaEXPO is represented as a block in Audia software, for easy inclusion into any system design. AudiaEXPO may also be used to provide outputs from other CobraNet compliant systems or devices.

FEATURES

- 8 channels of digital audio input via CobraNet
- 24-bit D/A converters with 48kHz sample rate
- 8 line-level analog outputs on plug-in barrier strips
- front panel adjustable analog output level controls
- rotary encoder with LCD for programming/setup
- logic inputs control CobraNet routing assignment
- included as block in Audia system design software
- may be used with any CobraNet compliant system
- **RoHS** compliance and **AES** grounding practices
- **CE** marked and **UL** listed power source
- covered by Biamp Systems' five-year warranty

ARCHITECTS & ENGINEERS SPECIFICATION

The Output Expander shall provide eight channels of digital audio input via CobraNet,® on two rear panel RJ45 connectors. Internal digital-to-analog signal conversion shall be 24-bit, with a sample rate of 48kHz. Eight line-level analog audio outputs shall be provided on rear panel plug-in barrier strip connectors. Front panel level controls shall be provided for adjustment of the analog audio output signals. A rotary encoder and LCD screen shall be provided on the front panel for programming and setup. Logic Inputs shall be provided for remote control of CobraNet routing assignments.

The Output Expander shall be represented as a functional block within Audia® software, for easy inclusion into system designs. The Output Expander shall also be capable of providing additional analog audio outputs from other CobraNet compliant systems or devices. The Output Expander shall be CE marked with a UL/C-UL listed power source, and shall incorporate AES48-2005 Grounding & EMC practices. The Output Expander shall be compliant with EU Directive 2002/95/EC, the RoHS directive. Warranty shall be 5 years.

The Output Expander shall be AudiaEXPO.

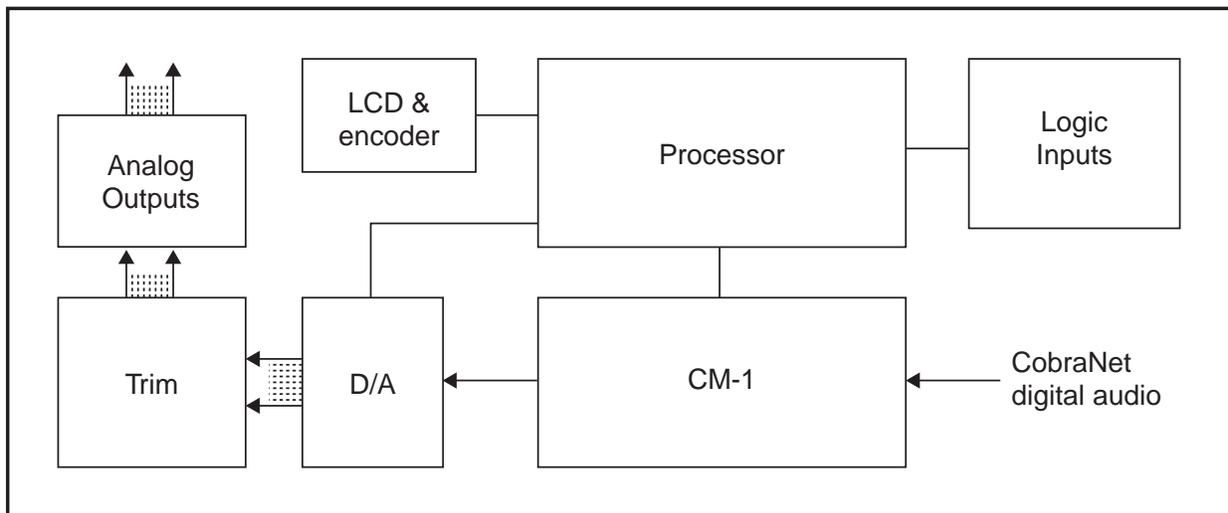
AudiaEXPO SPECIFICATIONS

Frequency Response (20Hz~20kHz @ -20dBFS):	+0/-0.4dB	Power Consumption (115/230VAC 50/60Hz):	< 25 watts
THD+N (20Hz~20kHz @ -20dBFS):	< 0.006%	Dimensions:	
Dynamic Range:	110dB	height	1.75 inches (44.5mm)
Crosstalk (channel-to-channel @ 1kHz):	< -90dB	width	19 inches (483mm)
Output Impedance (balanced):	200 ohms	depth	5.75 inches (146mm)
Maximum Output (balanced):	+24dBu	Weight:	4.3 lbs. (2kg)
Output Gain Range (variable trim):	-70dB ~ 0dB	Compliance:	AES48-2005 Grounding & EMC practices EU Directive 2002/95/EC, RoHS directive CE marked UL listed power source
D/A Converters:	24-bit (48kHz sampling)		

AudiaEXPO REAR PANEL DIAGRAM

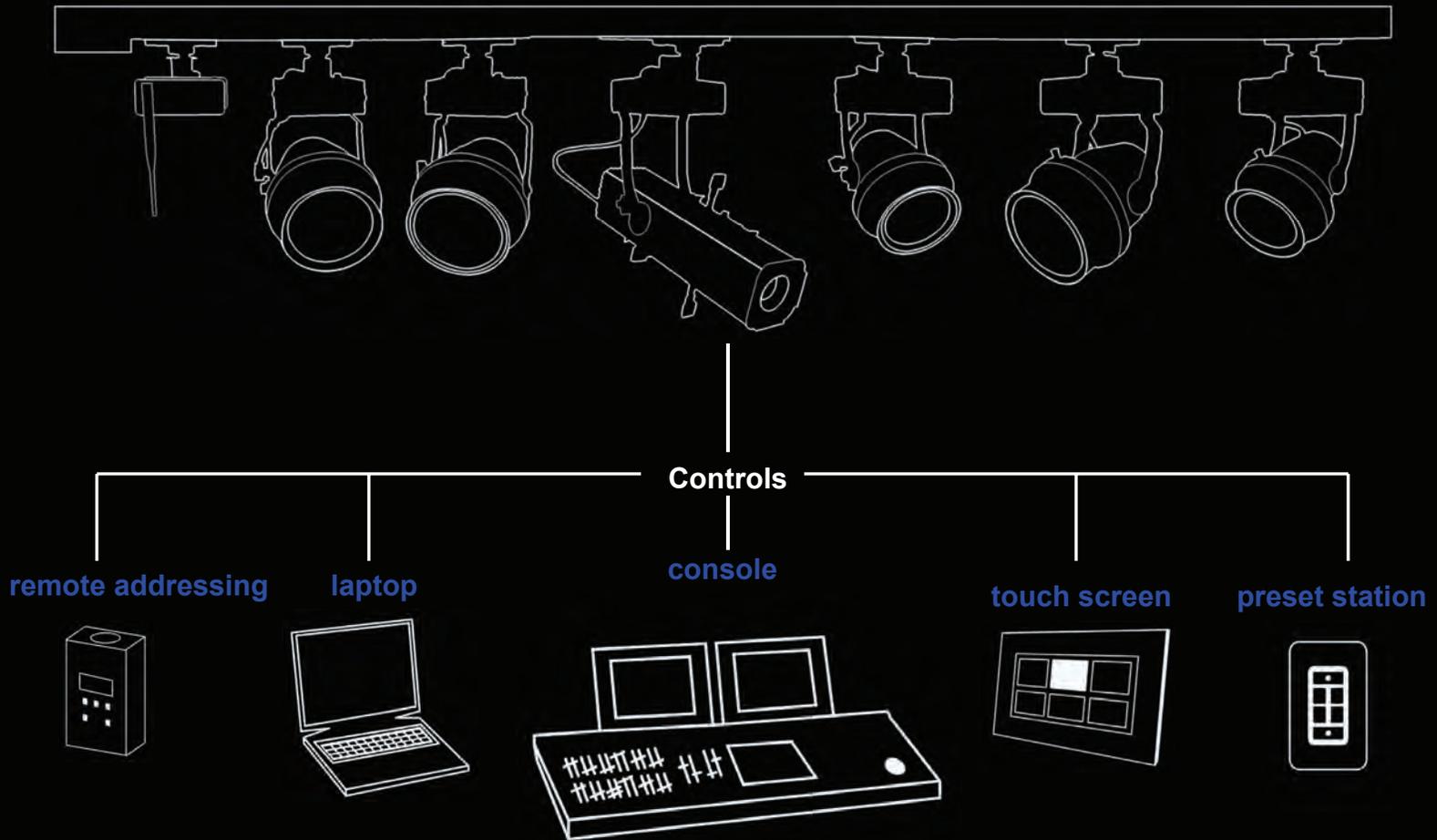


AudiaEXPO BLOCK DIAGRAM



The following pages contain the theater lighting proposed for Area 3.

Smart-Track® Lighting System



Altman Lighting's Smart-Track® Lighting System is a revolutionary way to power & control individually addressable luminaires without the need for dimmer packs, relay panels, and bulky cable runs. Smart-Track® systems are cost effective solutions that are easy to lay out, install, and maintain. The Smart-Track® Lighting System works best with Altman Lighting's Spectra Series LED luminaires, Smart IQ series luminaires, and the Smart Micro and Master family of framing projectors. Altman Smart Track® fixtures feature individually controllable quartz, CDM, and LED light sources with built-in dimming, switching, and drivers.

The Smart-Track® Lighting System, with Altman luminaires, features per fixture control of dimmed, switched, and LED sources on a shared power feed. Smart fixtures powered by the same circuit maintain independent control, therefore Smart Track systems use up to 75% fewer conductors than a traditional lighting track. The unique features of Altman's Smart-Track® system make it the ideal solution for many applications, including retail stores, museums, churches, restaurants, clubs and entertainment venues.

Smart Track: *the possibilities are endless!*

Smart-Track® luminaires

The Altman Smart-Track® Lighting System works best with Altman Lighting's family of Smart luminaires, including quartz, CDM, and LED light sources with built-in dimming, switching, and control. With Smart-Track®, you can dim the quartz lamps; switch the CDM lamps on and off; as well as dim and color-mix LED sources...on a per fixture basis, even if all the fixtures are on the same circuit. Altman Smart luminaires support Remote Device Management (RDM) for individual control flexibility and feedback to the control system.

Here are some examples of Smart luminaires which are compatible with the Smart-Track® Lighting System.



IQseries Line Voltage

IQseries Quartz luminaires are small, efficient means of illuminating and highlighting areas and objects with soft edged pools of light. The Smart versions of the IQseries of luminaires allow for a full range of dimming.



Spectraseries

Spectra series LED luminaires use high-output, energy efficient LED's and are available in two types; Color mixing (Red, Green Blue & Amber) or 3000° Kelvin High CRI white. Spectra series luminaires feature push button addressing, pre-programmed modes and are fully dimmable from 0-100%.



IQseries CDM

IQseries CDM luminaires efficiently illuminate and highlight with long life ceramic discharge metal-halide lamps. Coupled with Smart -Track, the IQseries CDM luminaires can be switched off and on via control circuitry.



Micro & Master Series

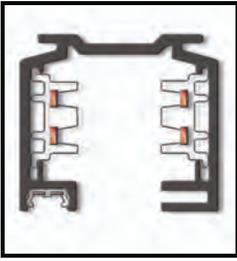
The Micro and Master Series of ellipsoidal's are compact, state of the art pattern projectors. Featuring high performance zoom optics and framing shutters, these luminaires are available in MR16, CDM and High CRI White LED options.

Smart-Track® luminaire specification

Fixtures for use on the DMX track system shall include an on-board DMX interface and an installed Multi-Adapter designed to mechanically hang, power and feed data. Fixtures compatible with the Lighting System shall include incandescent, low voltage, CDM, and LED sources. Luminaires shall be compatible with DMX-512A (ANSI E.1.11-2004) and RDM (ANSI E1.20-2006) control protocols. LED color changing luminaires shall be available as two types; fixed color temperature white or color mixing (RGBA). LED fixtures shall feature integral power supplies, drivers, pre-programmed modes and DMX interface. Quartz fixtures shall have an integral, on-board DMX controlled phase-forward (leading edge) dimmer compatible with incandescent, low voltage, and certain phase-dimmable LED loads. Metal Halide (CDM) fixtures shall have an on-board DMX on/off relay rated for a maximum of 70 watts.

DMX addressing for all system fixtures shall be conducted via either a) manual setting of the rotary dials for Dimmer & CDM luminaires and a push button display for LED or b) RDM from a remote location by a compatible hand held programmer or personal computer. Luminaires shall be supplied with two dip switches to change modes from DMX , DMX/ RDM, manual over ride dimmer control, and full on power mode. All fixture dip switches and dials will be concealed by a latch that requires the use of a screwdriver to access and make changes. Luminaires shall retain their identity and programming, even when moved to a new location. Data input on all fixtures shall have high voltage protection circuitry. Fixtures may be connected to the system at any point along the track. All fixtures shall be U.L. or ETL listed.

Smart-Track® power & data track



Smart Track

2 Circuit/ 2 Neutral surface track with DMX/ data bus offers the ability to control individual Altman Lighting luminaires with addressable on board DMX dimmers, HID on/ off relay or LED color changers.



Color and finish

The track is available in black or white powder coat or silver anodized. All system components and adapters are available in white, black or silver finish.



Easy to cut on site

Any given profile can be easily cut to length on site. It is not necessary to cut back and bend back copper wire.



Mounting Points

The track has pre-punched holes 1/4" (6mm) x 3/8" (35mm) for surface mounting. The holes are spaced 8" on center and can be easily pushed out using a screwdriver.

Smart-Track® 2-circuit specification

The Track Lighting System shall consist of high quality aluminum extruded lighting track with integral data distribution, rugged multi adapters to support fixtures & transfer power/ data from the track to controllable devices such as lighting fixtures. It shall be possible to field cut Track Sections to necessary lengths for each project and location. The top of the track shall have an extruded profile to allow for the mounting a manufacturer supplied bracket/ hanging supports for connecting with contractor supplied stem, cable or threaded rod. Track Sections shall distribute (2) 20amp 120vAC power circuits with independent Neutrals and shall include integral distribution of DMX-512A (ANSI E.1.11-2004) and RDM (ANSI E1.20-2006) control signals to lighting fixtures and controllable devices mounted on the Smart Track.

Connection points shall be available for both wired and wireless connection of controls to the Lighting System. The Lighting System shall have a complete line of components to join data and electrify separate track pieces, including: Live End Feeds, Dead End Caps, In-Line Couplers, Feed Thru Connectors, L Turns (left and right), Flexible Couplers, X & T-Connectors, & Data Terminators.

All components of the Lighting System shall be U.L. or ETL listed

Smart-Track® parts & accessories

Item	Description
Track Sections	
ASL-23310*	4' 2-circuit Smart-Track®
ASL-23320*	8' 2-circuit Smart-Track®
ASL-23330*	12' 2-circuit Smart-Track®
Accessories	
	<i>* Add the following code for finish: 3-1 Silver, 2-2 Black, 1-3 White</i>
ASL-99802*	Live End with Ground Contact Right
ASL-99803*	Live End with Ground Contact Left
ASL-99874*	Electrical Straight Coupler
ASL-99806*	I-Coupler (Straight Coupler with Power Feed)
ASL-99809*	L-Coupler with Ground Contact Inside
ASL-99810*	L-Coupler with Ground Contact Outside
ASL-99813*	T-Coupler with Ground Contact Right
ASL-99814*	T-Coupler with Ground Contact Left
ASL-985812*	2 Circuit Flexible Straight Coupler
ASL-99816*	X-Coupler
ASL-99780*	Multi Adaptor w/DMX Terminator (1 required at the end of every DMX data run)
ASL-99900*	End Cap for covering the end of the track
61-0265	RAD (Remote Authorization Device) for Addressing Fixtures via RDM
SMART-REC-*	SMART-RECEIVER - Track Mount for Wireless SHoW DMX Signal
ASL-5600	Transmitter for SHoW DMX - For use w/ one or more Smart Receiver's
SMART-BOX-*	Track Mount DMX Dimmer w/ Edison Receptacle - (No U.L. or ETL Listing)
TLA-CAT5DMX-*	CAT5 Data Port for feeding DMX512 in or out of Smart-Track®
TLA-ETDMXAC-*	DMX & AC Track Mount Convenience Outlets - (No U.L. or ETL Listing)
Suspension Devices	
99-19810000900W	5" Ceiling Canopy Kit for Pendant Stem Suspension
99-19810002301W	24" Length Pendant Stem
99-19810002401W	48" Length Pendant Stem
99-198000001*	2" Pendant Mounting Clip
ASL-459-403	Pendant H-Profile Housing for Smart Track. 160" - Silver Anodize
ASL-99-688-0	Mechanical Straight Coupler for Joining 2 x H-Profile
ASL-99-687-3	H-Profile End Plate
ASL-198-000009-0	H-Profile Mounting Clip for Cable, Stem or Threaded Rod
ASL-000004-01	T-Bar Clip for Surface Mounting Track to 11/16" T-Grid Systems



DMX Addressable Quartz, Low Voltage, LED & HID track luminaires

Smart-Track: *the possibilities are endless*

Additional information and layout guides are available for download from

www.altmanlighting.com



The following pages contain the presentations given to the SLMP staff during the study.



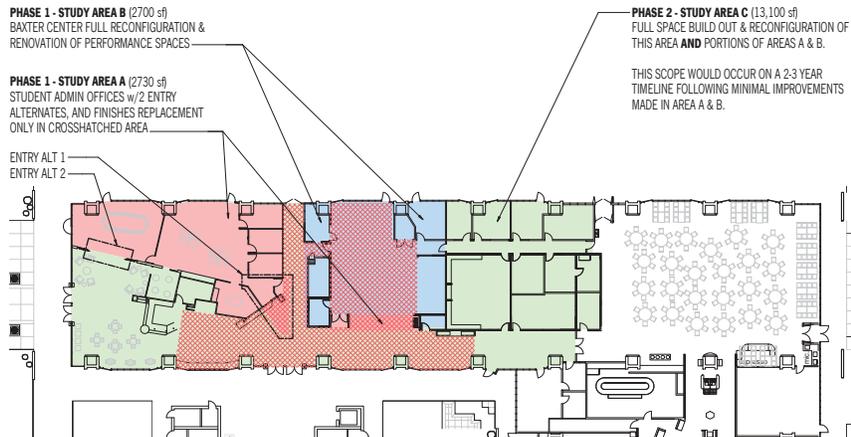
North Seattle Community College
 Student Leadership & Multicultural Programs

design update

02 October 2012

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STUDY AREAS
 overview



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office reconfiguration
 study area A

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PROJECT GOALS
study area A



PRIMARY GOALS

- Improved visibility
- Add a 4th office
- Eliminate the “pinch point”
- Program expansion (6 workstations)
- Integrate the green room
- Improved storage and workspace
- Long term flexibility

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EXISTING
floor plan

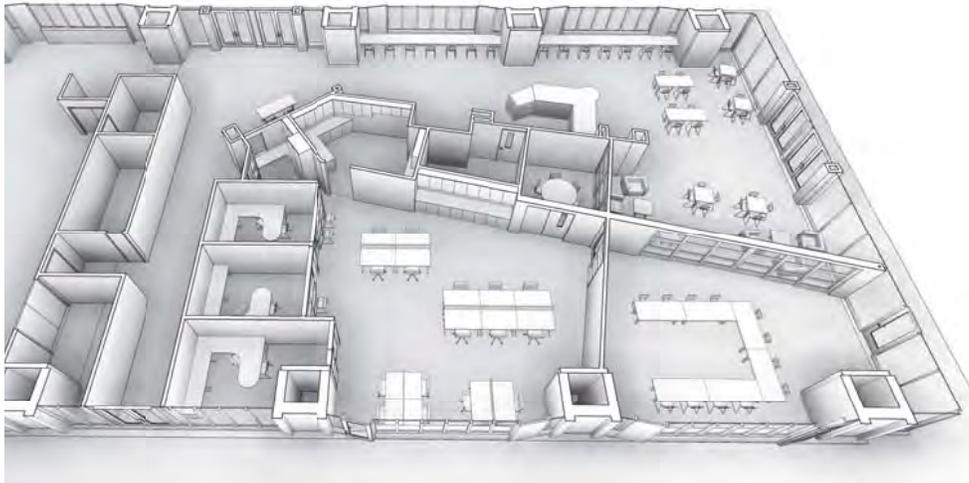


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option 1
study area A

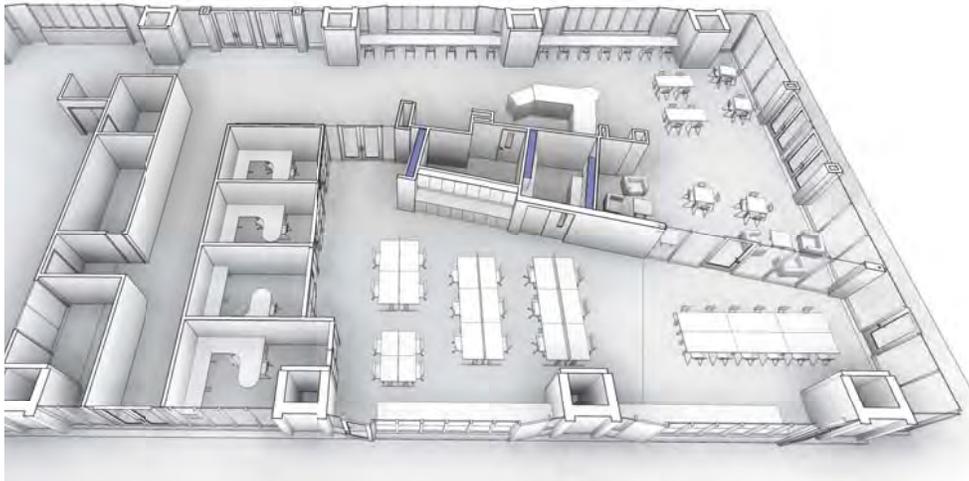
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EXISTING
overview



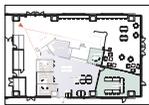
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OPTION 1
overview

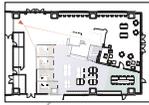


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EXISTING
corridor entry



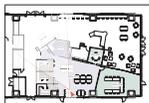
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OPTION 1
corridor entry



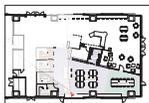
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EXISTING
open office



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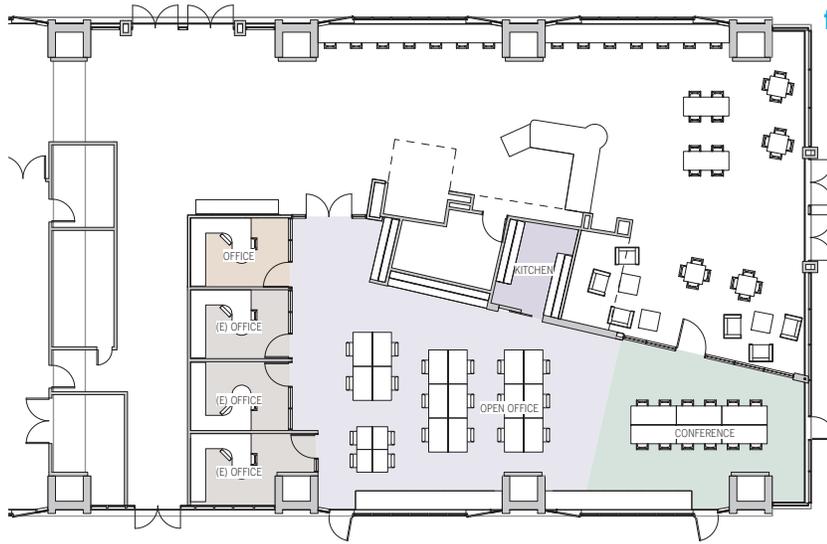


OPTION 1
open office



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OPTION 1
floor plan

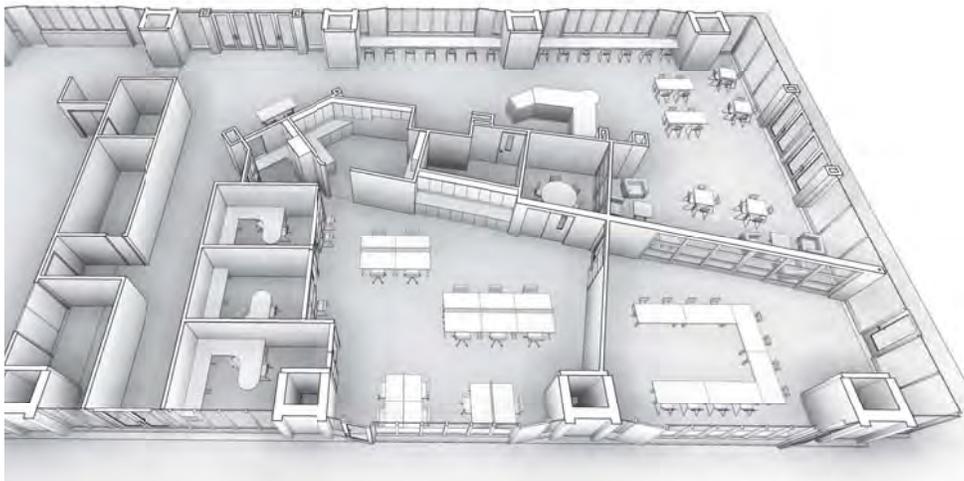


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option 2
study area A

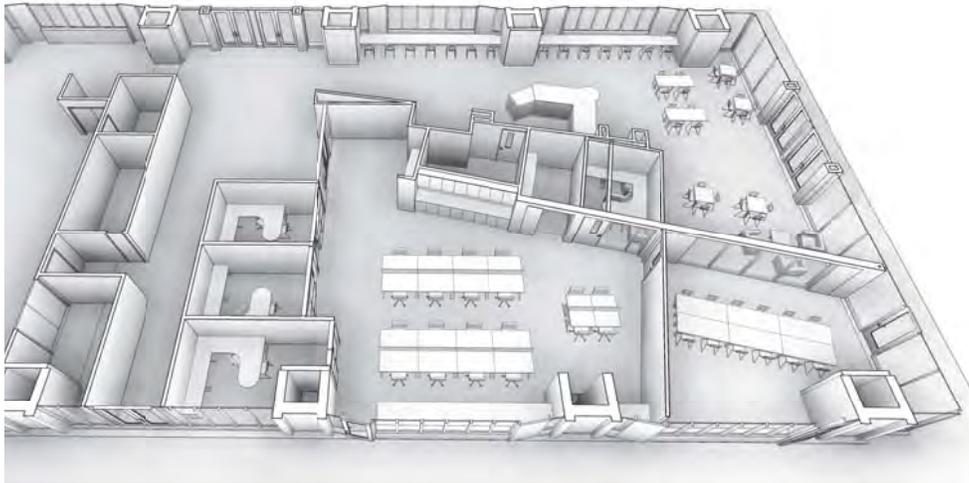
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EXISTING
overview



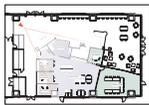
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OPTION 2
overview



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corridor entry

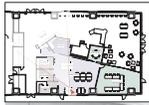


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OPTION 2
corridor entry



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EXISTING
open office



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OPTION 2
open office



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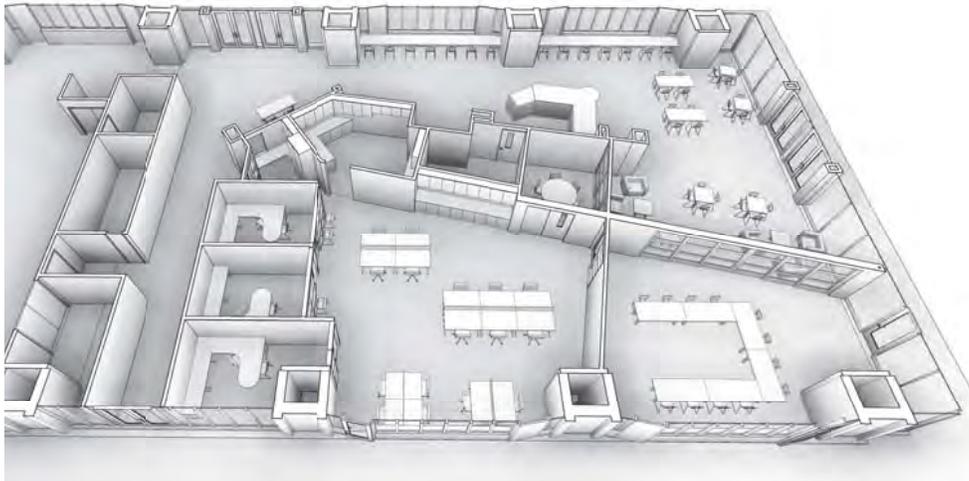
OPTION 2
floor plan

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option 3
study area A

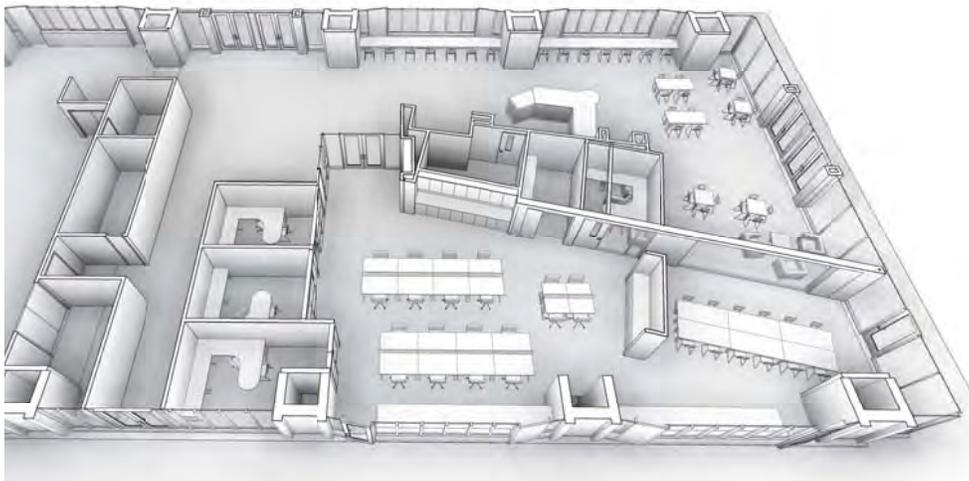
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EXISTING
overview



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OPTION 3
overview



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EXISTING
corridor entry



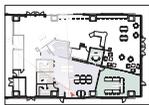
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OPTION 3
corridor entry



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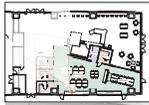


EXISTING
open office



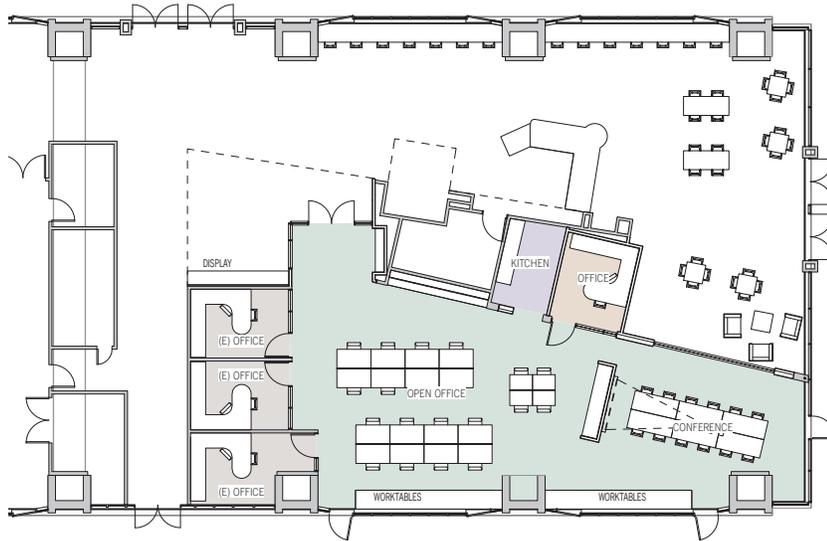
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OPTION 3
open office



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OPTION 3
floor plan



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next steps

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design update

31 October 2012

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STUDY AREAS overview

PHASE 1 - STUDY AREA B (2700 sf)
BAXTER CENTER FULL RECONFIGURATION &
RENOVATION OF PERFORMANCE SPACES

PHASE 1 - STUDY AREA A (2730 sf)
STUDENT ADMIN OFFICES w/2 ENTRY
ALTERNATES, AND FINISHES REPLACEMENT
ONLY IN CROSSHATCHED AREA

ENTRY ALT 1
ENTRY ALT 2



PHASE 2 - STUDY AREA C (13,100 sf)
FULL SPACE BUILD OUT & RECONFIGURATION OF
THIS AREA AND PORTIONS OF AREAS A & B.

THIS SCOPE WOULD OCCUR ON A 2-3 YEAR
TIMELINE FOLLOWING MINIMAL IMPROVEMENTS
MADE IN AREA A & B.

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student admin office study area A

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PROJECT GOALS

student admin office



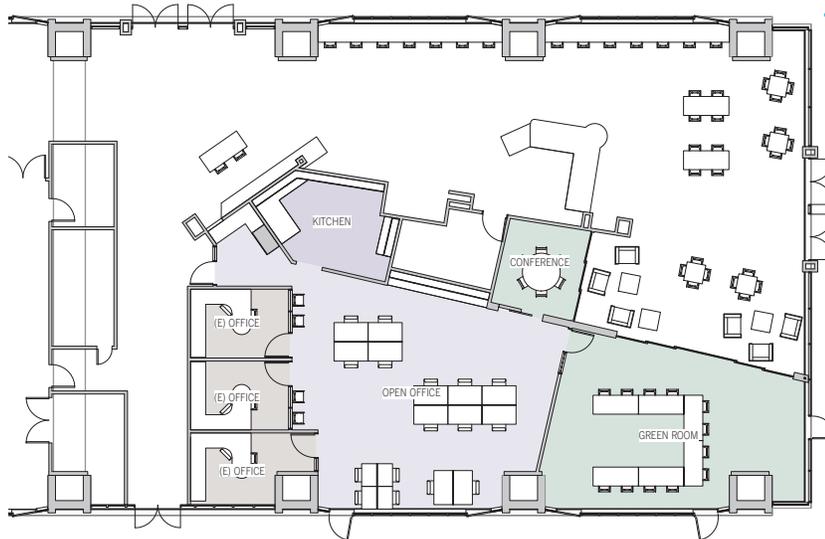
PRIMARY GOALS

- Improved visibility
- Add a 4th office
- Eliminate the “pinch point”
- Program expansion (6 workstations)
- Integrate the green room
- Improved storage and workspace
- Explore a north entry option
- Combine a north entry with long term plan

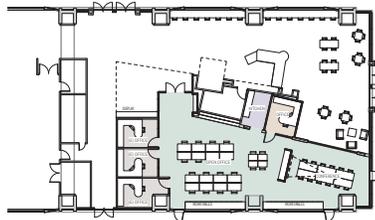
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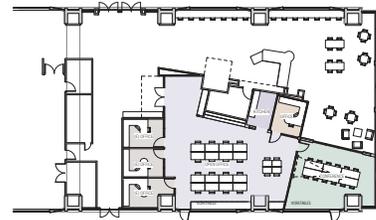
floor plan



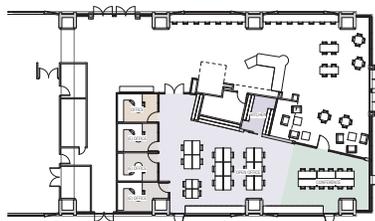
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option 1



option 2



option 3

previous schemes

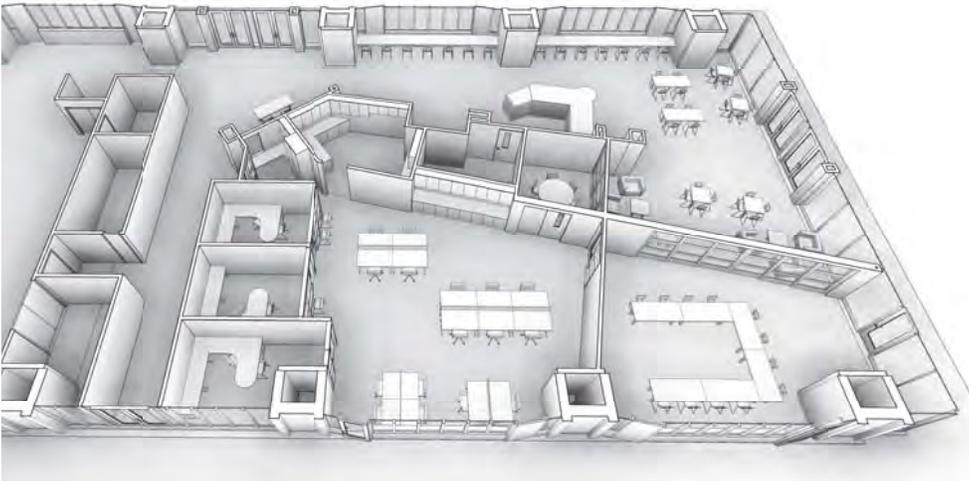
student admin office

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option 4
student admin office

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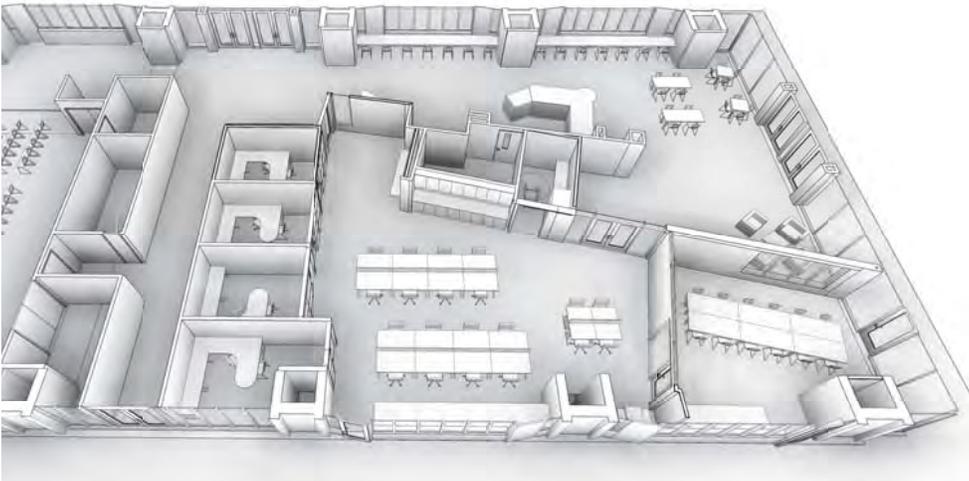
EXISTING
overview



existing

schacht | aslani architects

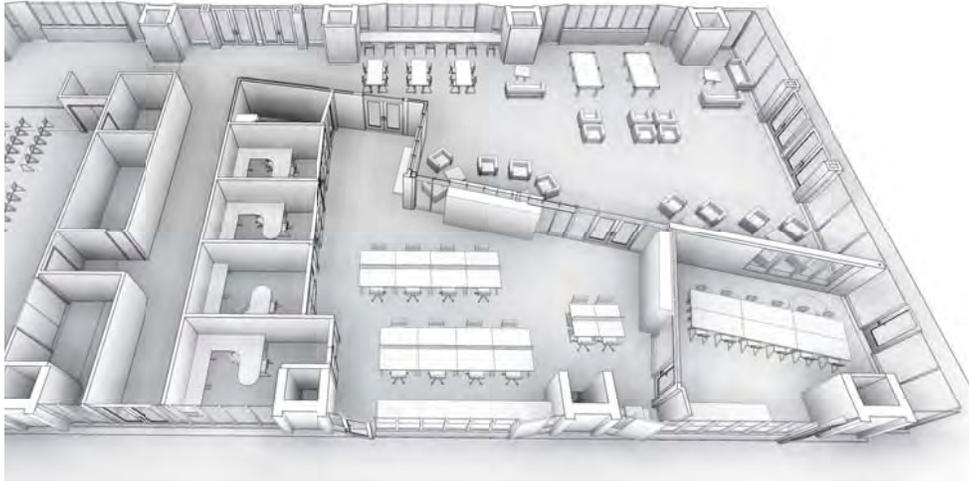
OPTION 4
overview



phase 1

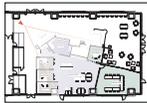
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OPTION 4
overview



phase 2

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EXISTING
corridor entry



existing

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OPTION 4
corridor entry



phase 1

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OPTION 4
corridor entry



phase 2

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EXISTING
north entry/cafe



existing

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Option 4
north entry/cafe



phase 1

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Option 4
north entry/cafe



phase 2

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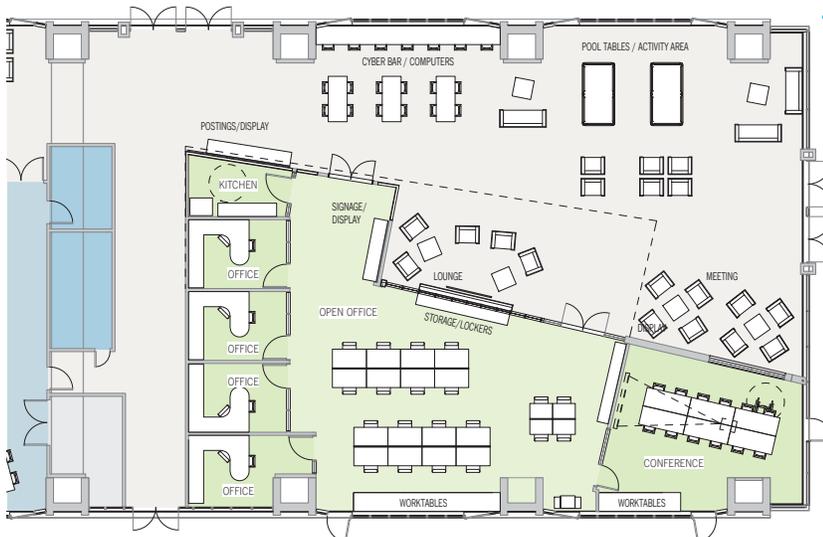
OPTION 4
floor plan



phase 1

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OPTION 4
floor plan



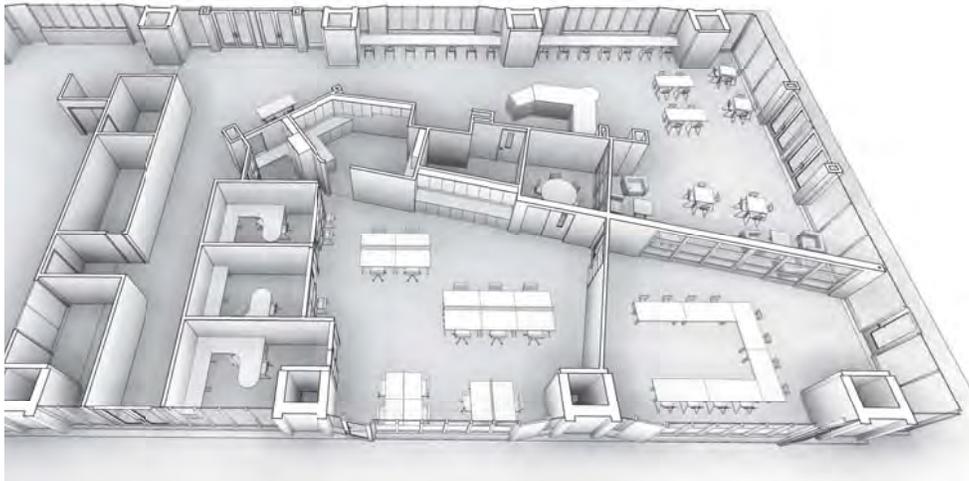
phase 2

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option 5 study area A

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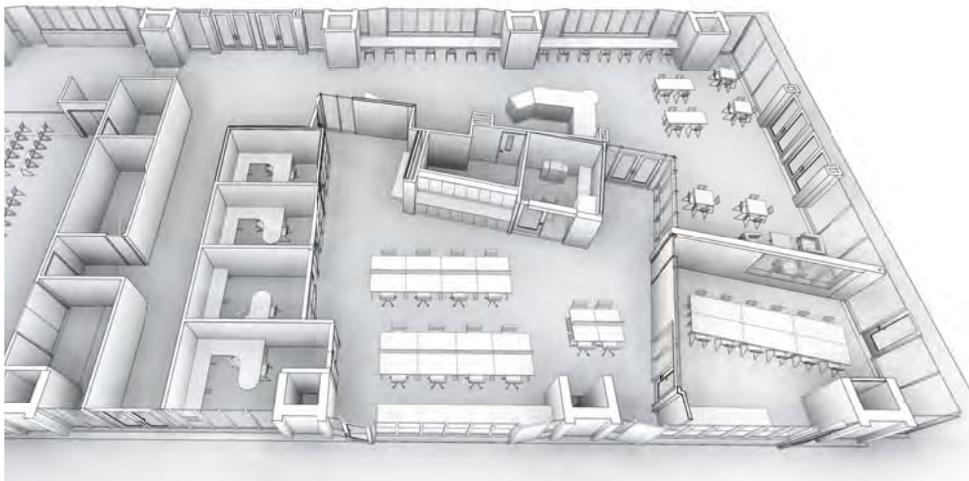
EXISTING overview



existing

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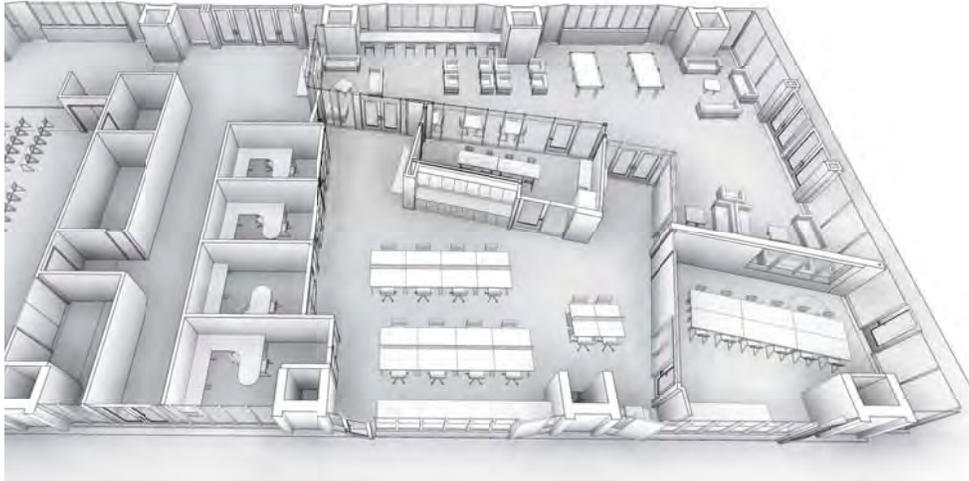
OPTION 5 overview



phase 1

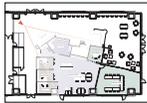
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OPTION 5
overview



phase 2

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EXISTING
corridor entry



existing

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OPTION 5
corridor entry



phase 1

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OPTION 5
corridor entry



phase 2

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EXISTING
north entry/cafe



existing

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Option 5
north entry/cafe



phase 1

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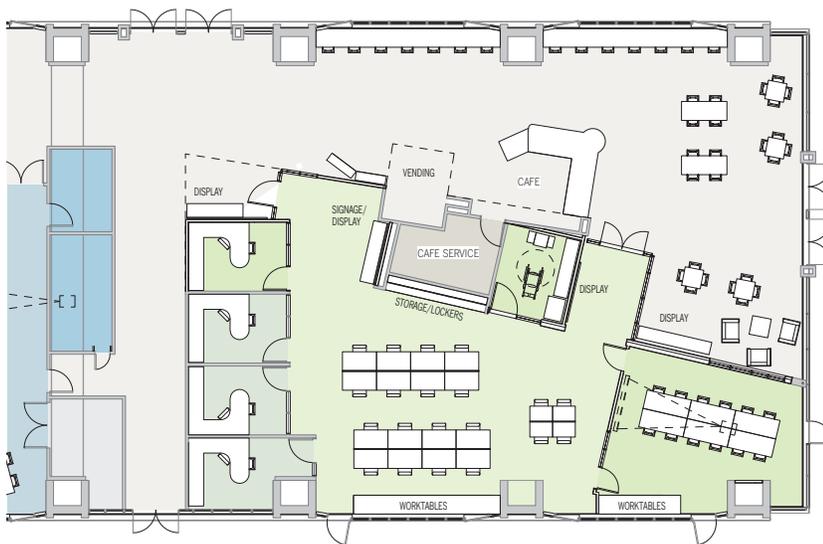
Option 5
north entry/cafe



phase 2

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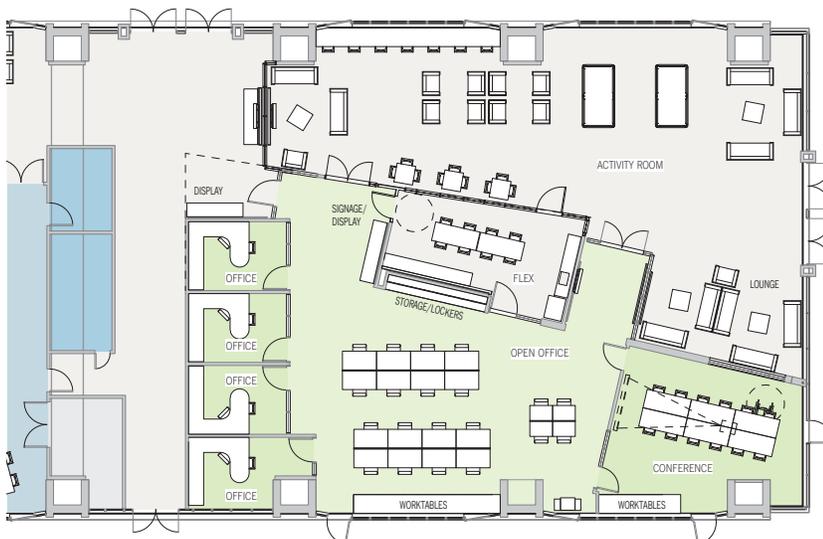
OPTION 5
floor plan



phase 1

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OPTION 5
floor plan



phase 2

schacht | aslani architects

baxter center **study area B**

schacht | aslani architects



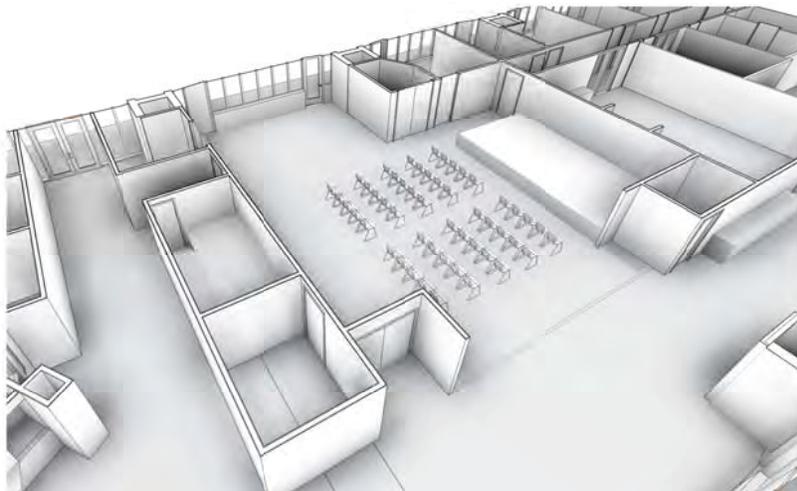
PROJECT GOALS **baxter center**

PRIMARY GOALS

- replace operable partition
- renew / replace finishes
- upgrade projection equipment
- improve projection room
- reconfigure storage to clarify space
- eliminate egress pinch point

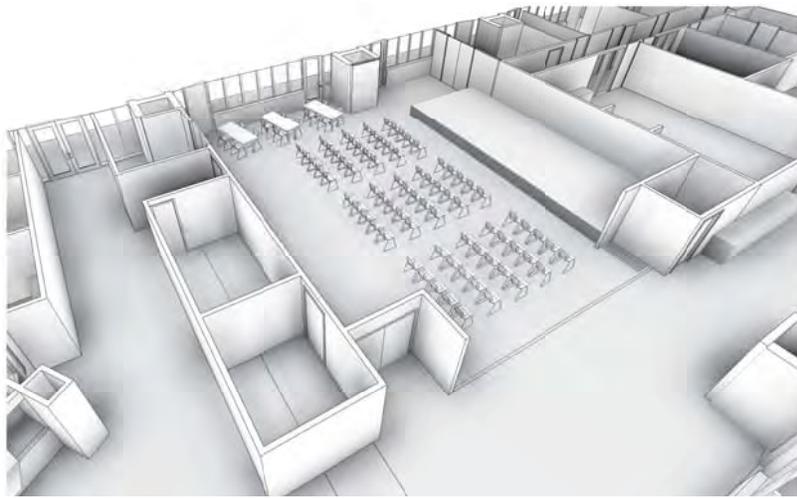
schacht | aslani architects

baxter center **overview**



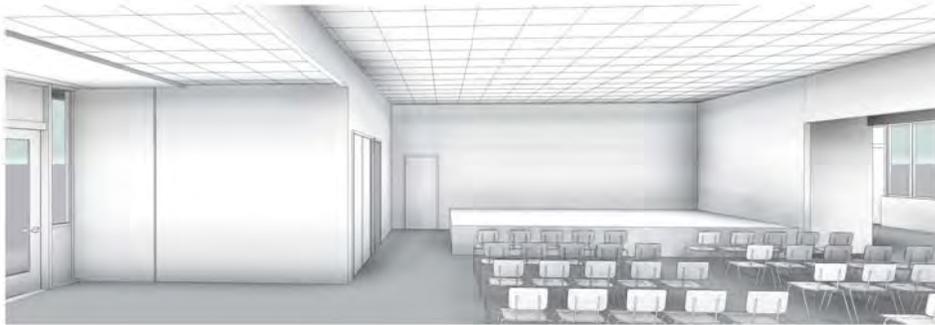
schacht | aslani architects

baxter center
overview



schacht | aslani architects

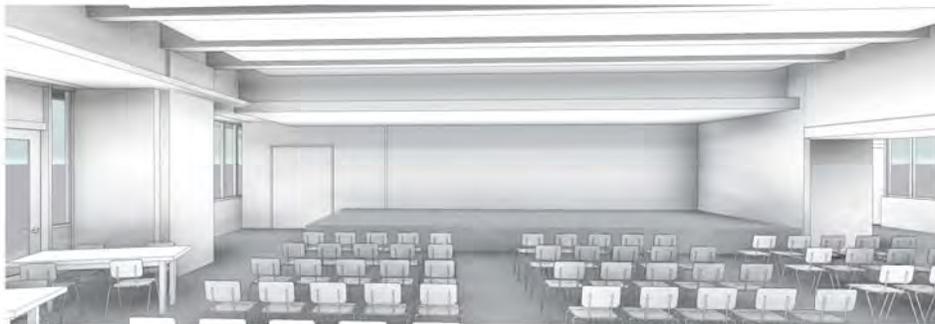
baxter center
perspective



existing

schacht | aslani architects

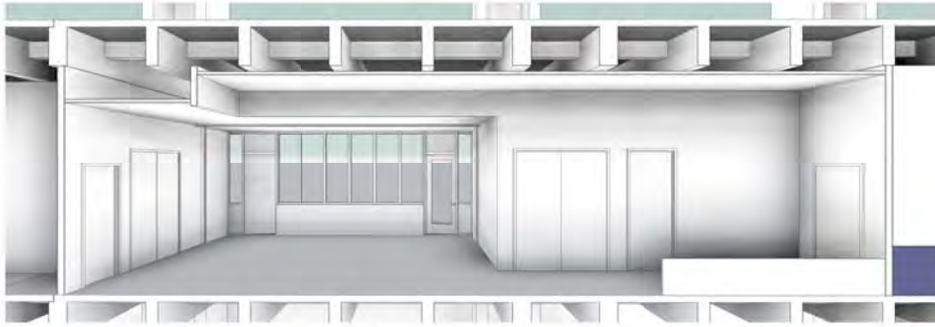
baxter center
perspective



proposed

schacht | aslani architects

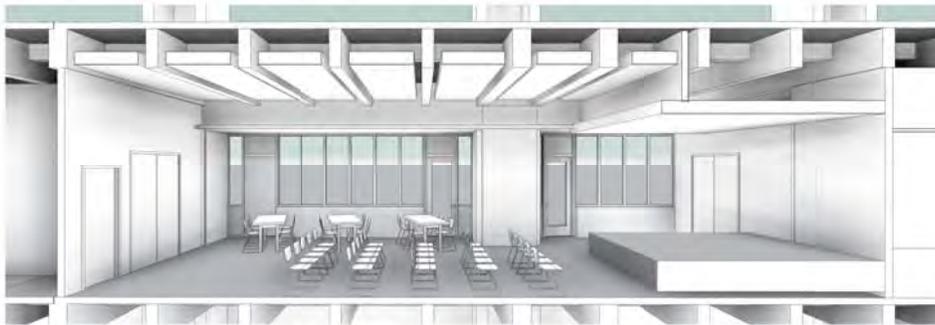
baxter center
section



existing

schacht | aslani architects

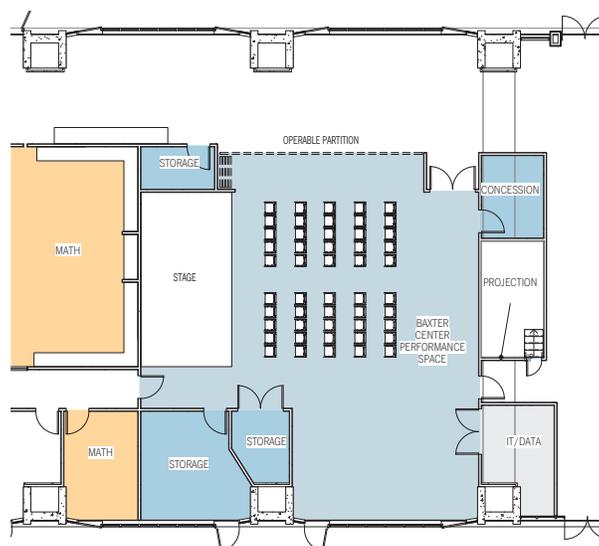
baxter center
section



proposed

schacht | aslani architects

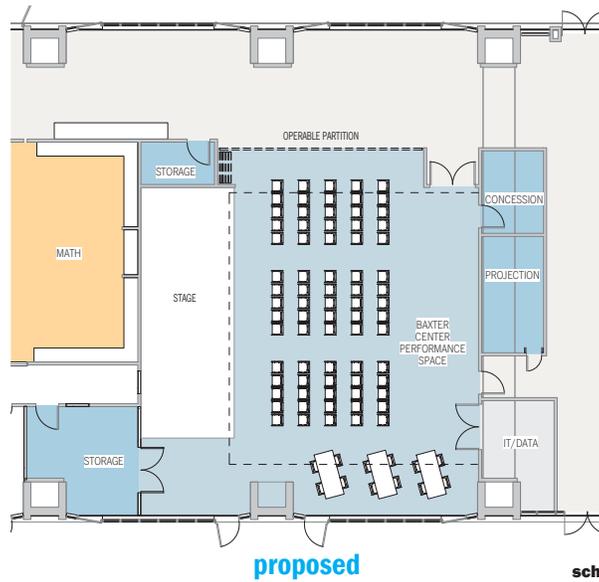
baxter center
plan



existing

schacht | aslani architects

baxter center
plan



schacht | aslani architects

equity center / activity space
study area C

schacht | aslani architects



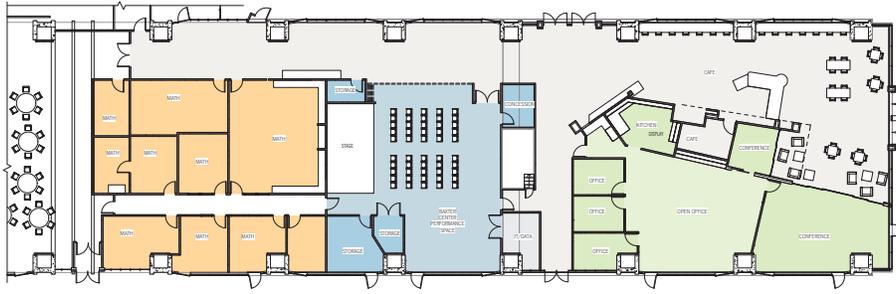
PROJECT GOALS
long term plan

PRIMARY GOALS

- integrate admin with open areas
- provide for larger groups at Baxter
- develop an equity center
- multipurpose rooms
- develop a “post-cafe” draw
- orient to the courtyard

schacht | aslani architects

equity center / activity space
plan



existing

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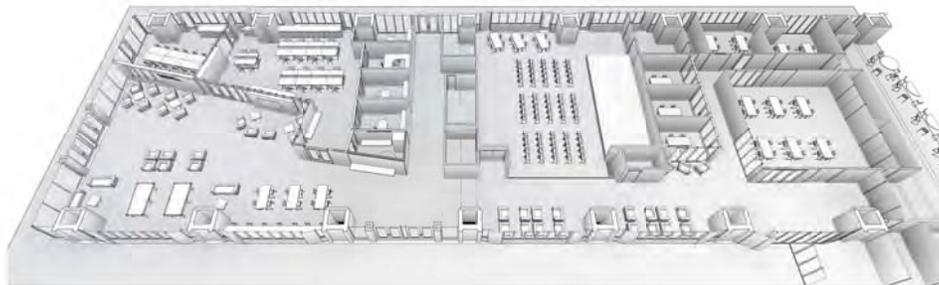
equity center / activity space
plan



proposed

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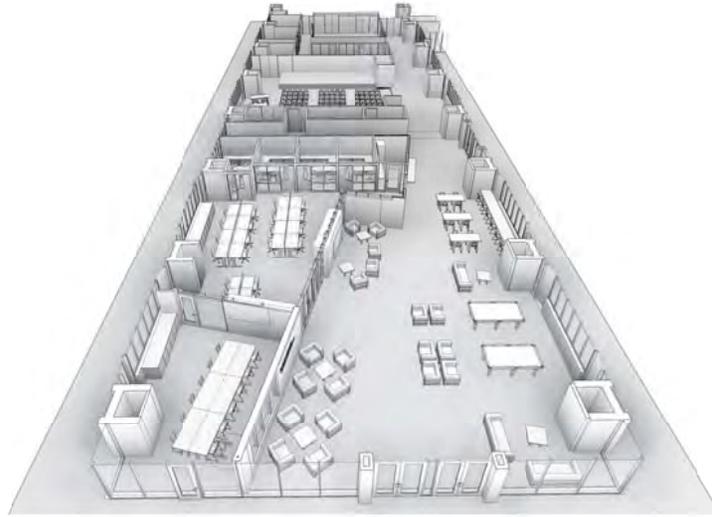
equity center / activity space
birdseye



proposed

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equity center / activity space
birdseye



proposed

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equity center / activity space
activity areas



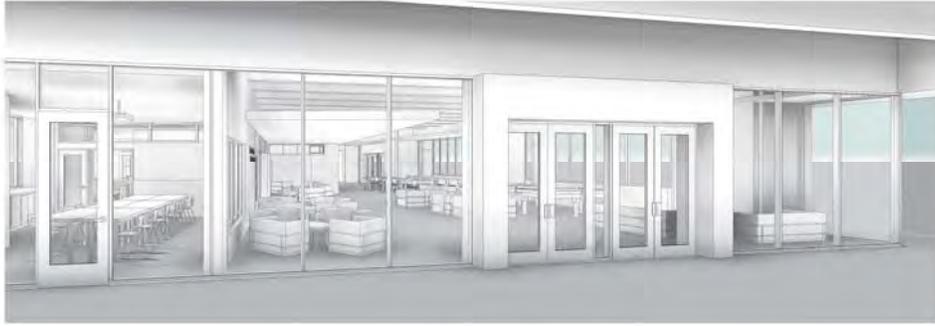
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equity center / activity space
open office concept



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equity center / activity space
view from courtyard



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