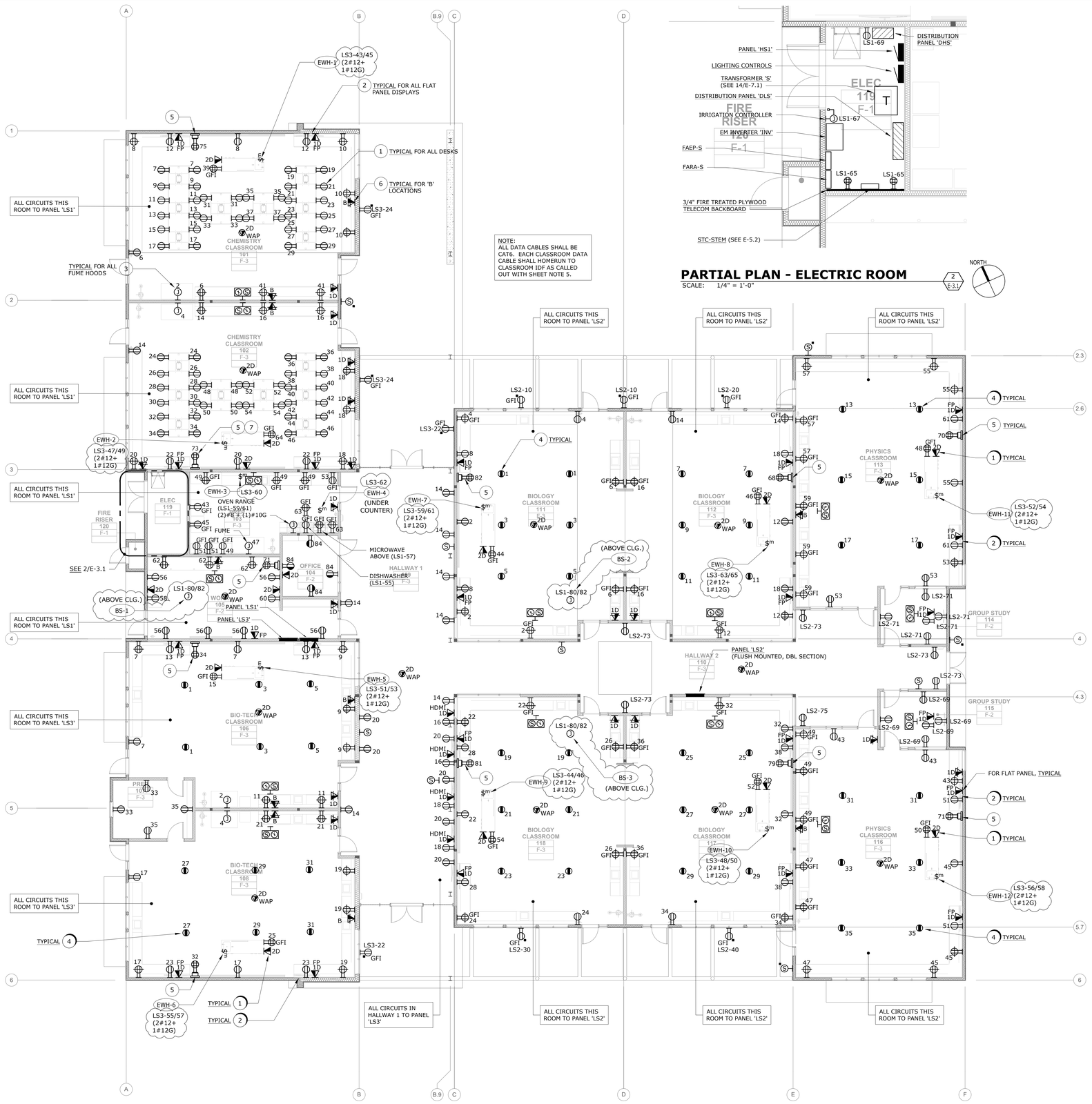


PARTIAL PLAN - ELECTRIC ROOM

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

2 / E-3.1

NORTH

FLOOR PLAN - POWER & SIGNAL

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

1 / E-3.1

NORTH

NUMBERED SHEET NOTES

1. HORIZONTALLY MOUNTED GFI RECEPTACLE JUST BELOW WORK SURFACE. SEE ARCHITECTURAL ELEVATIONS.
2. RECESSED MOUNTED OUTLETS IN FLUSH AV BOX. HUBBELL #NSAV62M OR EQUAL. MOUNTED BEHIND FLAT PANEL DISPLAY. SEE ARCHITECTURAL ELEVATIONS.
3. FUME HOOD CONNECTION. WIRE INTERNAL FAN SWITCH TO EXHAUST FAN ON ROOF.
4. FLUSH CEILING MOUNTED RECEPTACLE FOR CORD REEL. PROVIDE AND INSTALL CORD REEL ADJACENT; ROBOREEL POWER REEL, CEILING MOUNTED, ORANGE, ROUND, WITH (3) 15A RECEPTACLES AND POWER REWIND.
5. CLASSROOM IDF LOCATED ABOVE ACCESSIBLE CEILING SPACE.
6. PROVIDE JUNCTION BOX WITH BLANK COVER PLATE WITH 1" CONDUIT STUB TO ACCESSIBLE CEILING SPACE.
7. PROVIDE 24-PORT CAT6 PATCH PANEL. SIMILAR TO DETAIL 13/E-7.2 EXCEPT WITH 24-PORT CAT6 PATCH PANEL AND (2) 8-PORT OFCI SWITCHES.

GENERAL NOTES

1. INCREASE STANDARD BRANCH CIRCUIT WIRE SIZES FOR ANY BRANCH CIRCUITS OVER 100 FT. SEE 260500-3.2(A)(10).
2. MOUNTING HEIGHTS NOTED ARE TYPICALLY TO TOP OF BOX ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED. ALSO, SEE SYMBOLS LIST, SHEET E-0.1 FOR ADDITIONAL MOUNTING HEIGHT INFORMATION.

QUATTROCCHI KWOK ARCHITECTS
Main Office:
636 Fifth Street, Santa Rosa, CA 95404
Pleasanton Office:
600 Main Street, Suite E,
Pleasanton, CA 94566
(707) 576-0829

OMAHONY & MYER
ELECTRICAL ENGINEERS and LIGHTING DESIGNERS
490 BRIDGE WAY, SUITE 340
SAN RAFAEL, CALIFORNIA 94915
(415) 492-0202/FAX (415) 479-0202
www.omahonymyer.com
REGISTERED PROFESSIONAL ENGINEER
PETER T. COLENBRANDER
No.14738
Exp. 6/19
ELECTRICAL
STATE OF CALIFORNIA

SAN MARIN HIGH SCHOOL

STEM BUILDING

15 SAN MARIN DR
NOVATO, CA 94945

NOVATO UNIFIED SCHOOL DISTRICT

REVISIONS

ARCH PROJECT NO:	1682.00
DRAWN BY:	LN
DRAWING SCALE:	AS NOTED
PTN:	65417-131

100% CD's

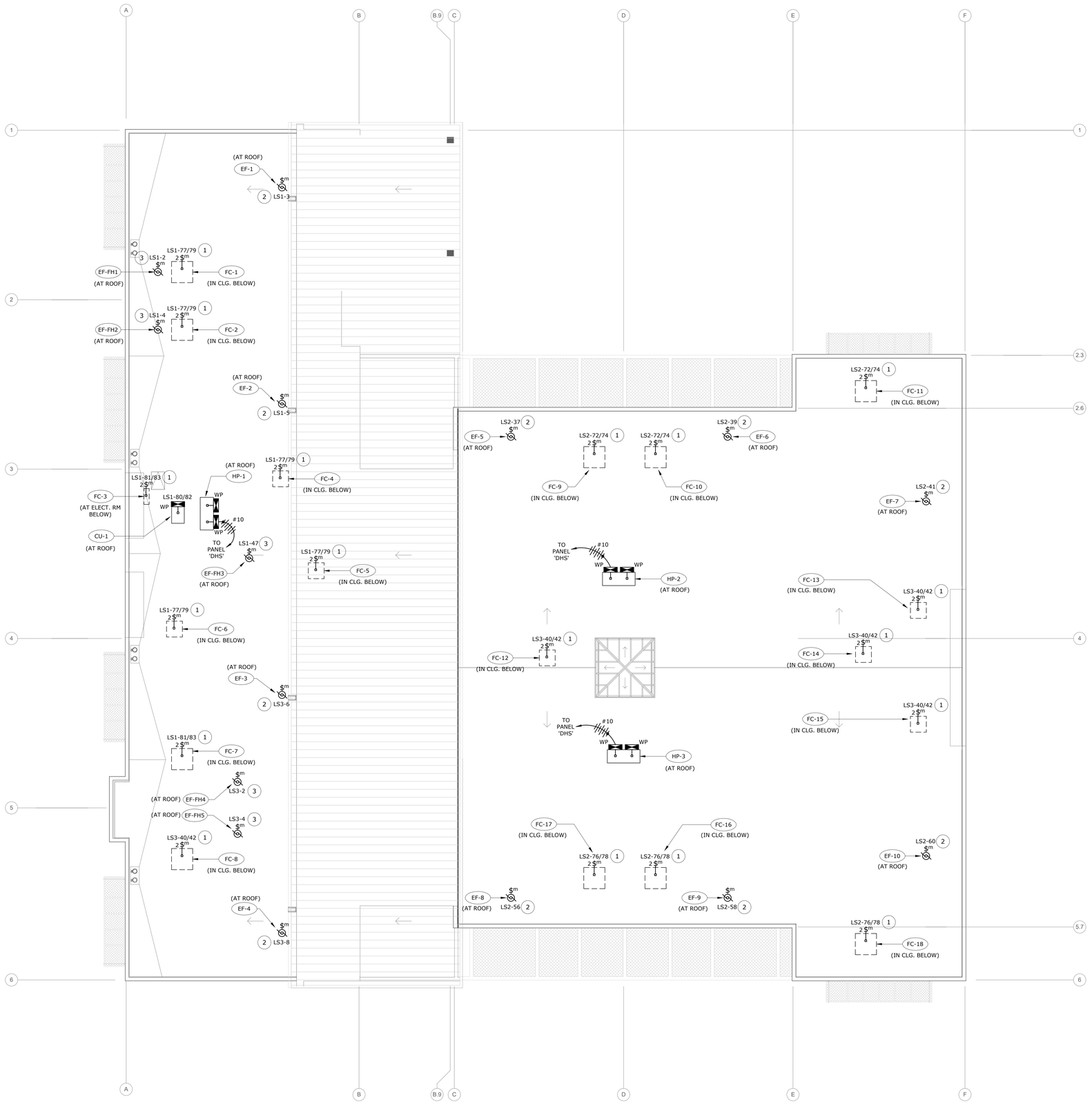
NOVEMBER 2, 2018

SHEET TITLE

FLOOR PLAN - POWER & SIGNAL

SHEET NUMBER

E-3.1



ROOF PLAN - ELECTRICAL

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

1 / E-3.3

NORTH

NUMBERED SHEET NOTES

1. CONNECT COMPLETE WITH 15A, 208V CIRCUIT (2 #12 + 1 #12 G.).
2. CONNECT COMPLETE WITH 20A, 120V CIRCUIT (2 #12 + 1 #12 G.) VIA MECHANICAL CONTROLS. COORDINATE WITH DIV. 23.
3. CONNECT COMPLETE WITH 20A, 120V CIRCUIT VIA SWITCH ON FUME HOOD BELOW. SEE E-3.1.

QUATTROCCHI KWOK ARCHITECTS

Main Office:
636 Fifth Street, Santa Rosa, CA 95404
Pleasanton Office:
600 Main Street, Suite E,
Pleasanton, CA 94566

(707) 576-0829

O'MAHONY & MYER
ELECTRICAL ENGINEERS and LIGHTING DESIGN
490 BRIDGE WAY, SUITE 340
SAN RAFAEL, CALIFORNIA 94915
(415) 492-0650/FAX (415) 492-0652
www.omahonymyer.com

REGISTERED PROFESSIONAL ENGINEER
PETER T. COLENBRANDER
No. 14738
Exp. 6/19
ELECTRICAL
STATE OF CALIFORNIA

SAN MARIN HIGH SCHOOL

STEM BUILDING

15 SAN MARIN DR
NOVATO, CA 94945

NOVATO UNIFIED SCHOOL DISTRICT

REVISIONS

ARCH PROJECT NO:	1682.00
DRAWN BY:	LN
DRAWING SCALE:	AS NOTED
PTN:	65417-131

100% CD's

NOVEMBER 2, 2018

SHEET TITLE

ROOF PLAN - ELECTRICAL

SHEET NUMBER

E-3.3

COPPER FEEDER SCHEDULE

FEEDER	CONDUIT	CONDUCTORS
6004	(2) 3"	(2) SETS: (4)#300 MCM & (1)#1/0 G. EACH
4004VD	(2) 4"	(2) SETS: (4)#250 MCM & (1)#1/0 G. EACH
4003	(1) 3.5"	(3)#500 MCM & (1)#2 G.
3004	(1) 4"	(4)#400 MCM & (1)#4 G.
2254	(1) 3"	(4)#4/0 & (1)#4 G.
2253	(1) 2"	(3)#4/0 & (1)#4 G.
2003	(1) 2"	(3)#3/0 & (1)#4 G.
1253	(1) 2"	(3)#1 & (1)#6 G.
1004	(1) 1.5"	(4)#2 & (1)#6 G.
303	(1) 3/4"	(3)#10 & (1)#10 G.
203	(1) 3/4"	(3)#12 & (1)#12 G.

FEEDER TAG KEY

400 4 N
- G = INDICATES OVER-SIZED EQUIPMENT GROUND (WHERE USED)
- N = INDICATES DOUBLE NEUTRAL (WHERE USED)
- VD = UPSIZED FOR VOLTAGE DROP
- WIRE QUANTITY (PHASE & NEUTRAL)
- FEEDER AMPACITY

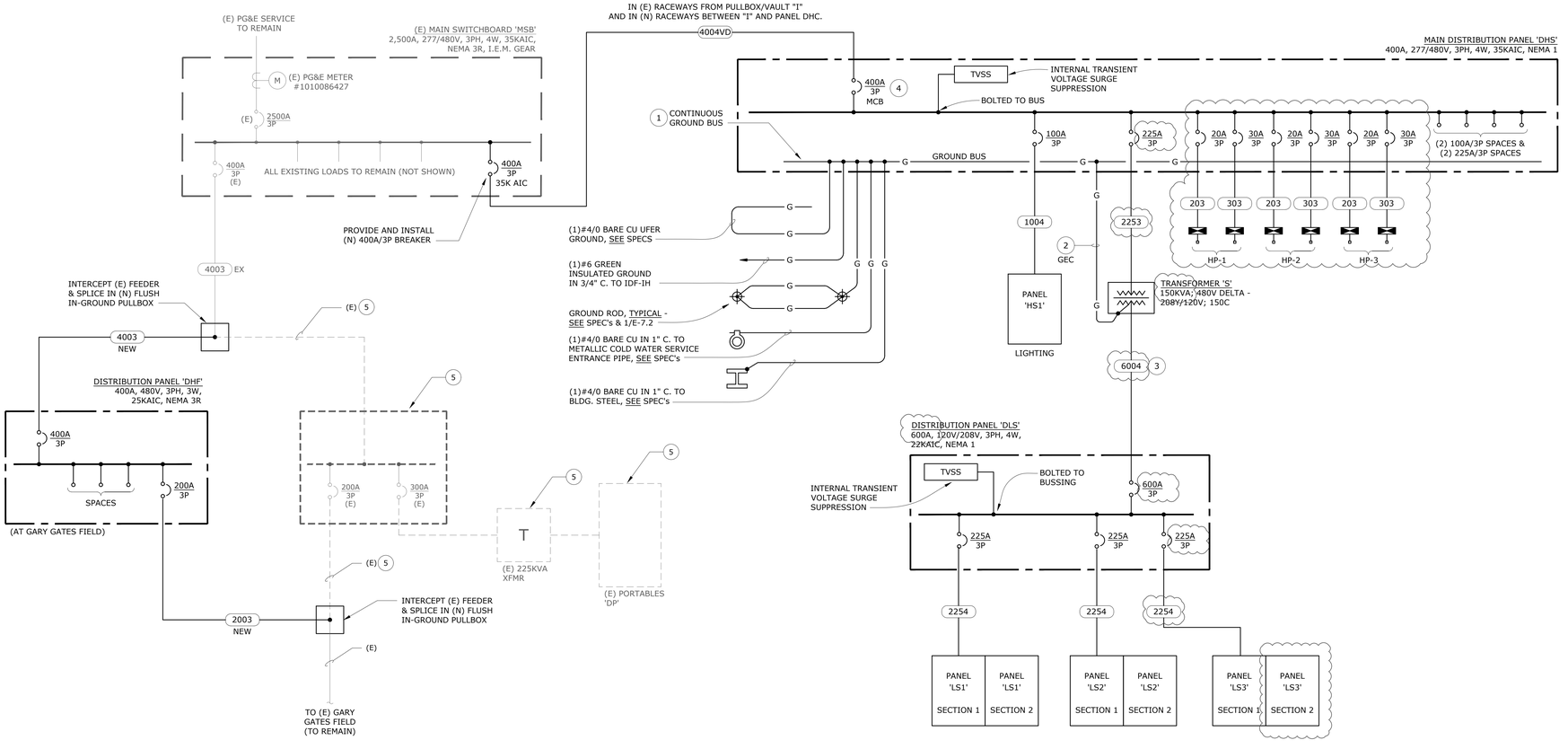
NOTE: NOT ALL FEEDERS ON THIS SCHEDULE ARE NECESSARILY USED ON THIS PROJECT.

GENERAL SHEET NOTES

1. CONTRACTOR TO RETAIN INDEPENDENT TESTING COMPANY (EMERSON OR EQUAL) TO PREPARE A SHORT-CIRCUIT AND COORDINATION STUDY (INCLUDING GROUND FAULT), AND ARC-FLASH STUDY FOR DISTRIBUTION SYSTEM, INCLUDING ALL ADJUSTABLE TRIP BREAKERS - SET BREAKER TRIP SETTING AS PER STUDY RECOMMENDATIONS AND IDENTIFY ALL ARC FLASH HAZARD LEVELS ON NEW AND EXISTING EQUIPMENT.

NUMBERED SHEET NOTES

1. IN ADDITION TO GROUNDING INDICATED, BOND ALL COLD WATER PIPING SYSTEM, GAS PIPING SYSTEMS, AND SPRINKLER PIPING SYSTEMS TO THE BUILDING GROUNDING ELECTRODE SYSTEM WITH CODE SIZED BONDING CONDUCTOR IN (1) 3/4-INCH CONDUIT. BOND WHEREVER THERE IS A BREAK IN THE CONTINUITY OF THESE SYSTEMS THROUGHOUT THE PROJECT.
2. PROVIDE AND INSTALL (1)#6G. IN 3/4"C. TO MAIN DISTRIBUTION PANEL 'DHC' GROUND BUS/GROUNDING ELECTRODE SYSTEM.
3. CIRCUIT LENGTH NOT TO EXCEED 25 FEET.
4. LABEL AS 'MAIN BUILDING DISCONNECT'.
5. DISCONNECT AND REMOVE.



SINGLE LINE DIAGRAM - POWER

SCALE: NO SCALE

1 / E-5.1

QUATTROCCHI KWOK ARCHITECTS
Main Office:
636 Fifth Street, Santa Rosa, CA 95404
Pleasanton Office:
600 Main Street, Suite E,
Pleasanton, CA 94566
(707) 576-0829

OMAHONY & MYER
ELECTRICAL ENGINEERS and LIGHTING DESIGNERS
490 REDWOOD HWY, SUITE 340
SAN RAFAEL, CALIFORNIA 94903
(415) 492-0401/FAX (415) 492-0402
www.omahonymyer.com

REGISTERED PROFESSIONAL ENGINEER
PETER J. COLENBRANDER
No. 14738
Exp. 6/19
ELECTRICAL
STATE OF CALIFORNIA

SAN MARIN HIGH SCHOOL

STEM BUILDING

15 SAN MARIN DR
NOVATO, CA 94945

NOVATO UNIFIED SCHOOL DISTRICT

REVISIONS

ARCH PROJECT NO:	1682.00
DRAWN BY:	LN/TV
DRAWING SCALE:	AS NOTED
PTN:	65417-131

100% CD's

NOVEMBER 2, 2018

SHEET TITLE

SINGLE LINE DIAGRAM - POWER

SHEET NUMBER

E-5.1

PANEL LS3

VOLTS: 120 / 208 V (SECTION 2) **MAIN BRKR:** MLO
PHASE: 3 PH **FEEDER:** SEE SINGLE LINE
WIRE: 4 W **CONDUIT:** SEE SINGLE LINE
BUSSING: 225A **MOUNTED:** FLUSH
POLES: 42P **AIC RATING:** SERIES

LOAD DESCRIPTION	TYPE	A	B	C	BRKR.	CKT.	CKT.	BRKR.	A	B	C	TYPE	LOAD DESCRIPTION
EWH-1	M	2.08			20/2	43	44	20/2	2.08			M	EWH-9
/	M		2.08			45	46			2.08		M	/
EWH-2	M			2.08	20/2	47	48	20/2			2.08	M	EWH-10
/	M	2.08				49	50		2.08			M	/
EWH-5	M		2.08		20/2	51	52	20/2		2.08		M	EWH-11
/	M			2.08		53	54				2.08	M	/
EWH-6	M	2.08			20/2	55	56	20/2	2.08			M	EWH-12
/	M		2.08			57	58			2.08		M	/
EWH-7	M			2.08	20/2	59	60	20/1			1.44	M	EWH-3
/	M	2.08				61	62	20/1	1.44			M	EWH-4
EWH-8	M		2.08		20/2	63	64						S P A C E
/	M			2.08		65	66						S P A C E
S P A C E						67	68						S P A C E
S P A C E						69	70						S P A C E
S P A C E						71	72						S P A C E
S P A C E						73	74						S P A C E
S P A C E						75	76						S P A C E
S P A C E						77	78						S P A C E
S P A C E						79	80						S P A C E
S P A C E						81	82						S P A C E
S P A C E						83	84						S P A C E
		8.32	8.32	8.32					7.68	6.24	5.60		

DEMAND LOAD SUMMARY	CONN. KVA	DEMAND FACTOR	DEMAND KVA
TYPE "M": NON-CONTINUOUS / MISC. LOADS	44.48	100%	44.48
TYPE "L": LIGHTING / CONTINUOUS LOADS	0.00	125%	0.00
TYPE "R": RECEPTACLES (FIRST 10KVA)	0.00	100%	0.00
TYPE "R": RECEPTACLES (OVER 10KVA)	0.00	50%	0.00
TYPE "H": HVAC / MECHANICAL LOADS	0.00	100%	0.00
TOTALS:	44.48		44.48

THIS SECTION PHASE A: 16.00 **KVA**
THIS SECTION PHASE B: 14.56 **KVA**
THIS SECTION PHASE C: 13.92 **KVA**
THIS SECTION: 133.33 **MAX AMPS / PHASE**

PANEL LS2

VOLTS: 120 / 208 V (SECTION 1) **MAIN BRKR:** MLO + TFL
PHASE: 3 PH **FEEDER:** SEE SINGLE LINE
WIRE: 4 W **CONDUIT:** SEE SINGLE LINE
BUSSING: 225A **MOUNTED:** FLUSH
POLES: 42P **AIC RATING:** SERIES

LOAD DESCRIPTION	TYPE	A	B	C	BRKR.	CKT.	CKT.	BRKR.	A	B	C	TYPE	LOAD DESCRIPTION
BIO 111 - CORD REELS AT CLG	R	0.54			20/1	1	2	20/1	0.54			R	BIO 111 - WALL RECEPT
BIO 111 - CORD REELS AT CLG	R		0.54		20/1	3	4	20/1		0.36		R	BIO 111 - WALL RECEPT
BIO 111 - CORD REELS AT CLG	R			0.54	20/1	5	6	20/1			0.36	R	BIO 111 - WALL RECEPT
BIO 112 - CORD REELS AT CLG	R	0.54			20/1	7	8	20/1	0.36			R	BIO 111 - FLAT PANEL RECEPT
BIO 112 - CORD REELS AT CLG	R		0.54		20/1	9	10	20/1		0.36		R	BIO 111 - EXT GFI RECEPT
BIO 112 - CORD REELS AT CLG	R			0.54	20/1	11	12	20/1			0.54	R	BIO 112 - WALL RECEPT
PHYSICS 113 - CORD REELS AT CLG	R	0.54			20/1	13	14	20/1	0.36			R	BIO 112 - WALL RECEPT
PHYSICS 113 - CORD REELS AT CLG	R		0.54		20/1	15	16	20/1		0.36		R	BIO 112 - WALL RECEPT
PHYSICS 113 - CORD REELS AT CLG	R			0.54	20/1	17	18	20/1			0.36	R	BIO 112 - FLAT PANEL RECEPT
BIO 118 - CORD REELS AT CLG	R	0.54			20/1	19	20	20/1	0.18			R	BIO 112 - EXT GFI RECEPT
BIO 118 - CORD REELS AT CLG	R		0.54		20/1	21	22	20/1		0.54		R	BIO 118 - WALL RECEPT
BIO 118 - CORD REELS AT CLG	R			0.54	20/1	23	24	20/1			0.36	R	BIO 118 - WALL RECEPT
BIO 117 - CORD REELS AT CLG	R	0.54			20/1	25	26	20/1	0.36			R	BIO 118 - WALL RECEPT
BIO 117 - CORD REELS AT CLG	R		0.54		20/1	27	28	20/1		0.36		R	BIO 118 - FLAT PANEL RECEPT
BIO 117 - CORD REELS AT CLG	R			0.54	20/1	29	30	20/1			0.18	R	BIO 118 - EXT GFI RECEPT
PHYSICS 116 - CORD REELS AT CLG	R	0.54			20/1	31	32	20/1	0.54			R	BIO 117 - WALL RECEPT
PHYSICS 116 - CORD REELS AT CLG	R		0.54		20/1	33	34	20/1		0.36		R	BIO 117 - WALL RECEPT
PHYSICS 116 - CORD REELS AT CLG	R			0.54	20/1	35	36	20/1			0.36	R	BIO 117 - WALL RECEPT
EF-5	H	1.18			20/1	37	38	20/1	0.36			R	BIO 117 - FLAT PANEL RECEPT
EF-6	H		1.18		20/1	39	40	20/1		0.18		R	BIO 117 - EXT GFI RECEPT
EF-7	H			1.18	20/1	41	42	20/1					SPARE
		4.42	4.42	4.42					2.70	2.52	2.16		

DEMAND LOAD SUMMARY	CONN. KVA	DEMAND FACTOR	DEMAND KVA
TYPE "M": NON-CONTINUOUS / MISC. LOADS	0.00	100%	0.00
TYPE "L": LIGHTING / CONTINUOUS LOADS	0.00	125%	0.00
TYPE "R": RECEPTACLES (FIRST 10KVA)	10.00	100%	10.00
TYPE "R": RECEPTACLES (OVER 10KVA)	7.10	50%	3.55
TYPE "H": HVAC / MECHANICAL LOADS	3.53	100%	3.53
TOTALS:	20.63		17.08

THIS SECTION PHASE A: 7.12 **KVA**
THIS SECTION PHASE B: 6.94 **KVA**
THIS SECTION PHASE C: 6.58 **KVA**
THIS SECTION: 59.30 **MAX AMPS / PHASE**

PANEL TOTAL PHASE A: 13.85 **KVA**
PANEL TOTAL PHASE B: 13.31 **KVA**
PANEL TOTAL PHASE C: 13.83 **KVA**
TOTAL: 115.43 **MAX AMPS / PHASE**

PANEL HS1

VOLTS: 277 / 480 **MAIN BRKR:** MLO
PHASE: 3 PH **FEEDER:** SEE SINGLE LINE
WIRE: 4 W **CONDUIT:** SEE SINGLE LINE
BUSSING: 100A **MOUNTED:** SURFACE
POLES: 30P **AIC RATING:** SERIES

LOAD DESCRIPTION	TYPE	A	B	C	BRKR.	CKT.	CKT.	BRKR.	A	B	C	TYPE	LOAD DESCRIPTION
LIGHTING, RM 101 - 105	L	2.96			20/1	1	2	20/1	2.62			L	LIGHTING RM 106 - 109
LIGHTING, RM 110 - 112	L		2.67		20/1	3	4	20/1		1.26		L	LIGHTING RM 113 - 114
LIGHTING, RM 115 - 116	L			1.26	20/1	5	6	20/1			1.89	L	LIGHTING RM 117 - 118
LIGHTING RM 110 HALLWAY 1	L	1.49			20/1	7	8	20/1	0.75			L	SITE LIGHTING
EMERGENCY LIGHTING INVERTER	L		2.60		30/1	9	10	20/1					SPARE
SPARE					20/1	11	12	20/1					SPARE
SPARE					20/1	13	14	20/1					SPARE
SPARE					20/1	15	16	20/1					SPARE
SPARE					20/1	17	18	20/1					SPARE
SPARE					20/1	19	20	20/1					SPARE
SPARE					20/1	21	22	20/1					SPARE
SPARE					20/1	23	24	20/1					SPARE
SPARE					20/1	25	26	20/1					SPARE
S P A C E					20/1	27	28	20/1					S P A C E
S P A C E					20/1	29	30	20/1					S P A C E
S P A C E													S P A C E
S P A C E													S P A C E
S P A C E													S P A C E
S P A C E													S P A C E
S P A C E													S P A C E
S P A C E													S P A C E
		4.45	5.27	1.26					3.37	1.26	1.89		

DEMAND LOAD SUMMARY	CONN. KVA	DEMAND FACTOR	DEMAND KVA
TYPE "M": NON-CONTINUOUS / MISC. LOADS	0.00	100%	0.00
TYPE "L": LIGHTING / CONTINUOUS LOADS	17.50	125%	21.88
TYPE "R": RECEPTACLES (FIRST 10KVA)	0.00	100%	0.00
TYPE "R": RECEPTACLES (OVER 10KVA)	0.00	50%	0.00
TYPE "H": HVAC / MECHANICAL LOADS	0.00	100%	0.00
TOTALS:	17.50		21.88

PHASE A: 7.82 **KVA**
PHASE B: 6.53 **KVA**
PHASE C: 3.15 **KVA**
28.23 **MAX AMPS / PHASE**

PANEL LS2

VOLTS: 120 / 208 V (SECTION 2) **MAIN BRKR:** MLO
PHASE: 3 PH **FEEDER:** SEE SINGLE LINE
WIRE: 4 W **CONDUIT:** SEE SINGLE LINE
BUSSING: 225A **MOUNTED:** FLUSH
POLES: 42P **AIC RATING:** SERIES

LOAD DESCRIPTION	TYPE	A	B	C	BRKR.	CKT.	CKT.	BRKR.	A	B	C	TYPE	LOAD DESCRIPTION
PHYSICS 116 - WALL RECEPT	R	0.54			20/1	43	44	20/1	0.36			R	BIO 111 - TEACHER TABLE RECEPT
PHYSICS 116 - WALL RECEPT	R		0.54		20/1	45	46	20/1		0.36		R	BIO 112 - TEACHER TABLE RECEPT
PHYSICS 116 - WALL RECEPT	R			0.54	20/1	47	48	20/1			0.36	R	BIO 113 - TEACHER TABLE RECEPT
PHYSICS 116 - WALL RECEPT	R	0.54			20/1	49	50	20/1	0.36			R	BIO 116 - TEACHER TABLE RECEPT
PHYSICS 116 - FLAT PANEL RECEPTS	R		0.36		20/1	51	52	20/1		0.36		R	BIO 117 - TEACHER TABLE RECEPT
PHYSICS 113 - WALL RECEPT	R			0.54	20/1	53	54	20/1			0.36	R	BIO 118 - TEACHER TABLE RECEPT
PHYSICS 113 - WALL RECEPT	R	0.54			20/1	55	56	20/1	1.18			H	EF-8
PHYSICS 113 - WALL RECEPT	R		0.54		20/1	57	58	20/1		1.18		H	EF-9
PHYSICS 113 - WALL RECEPT	R			0.54	20/1	59	60	20/1			1.18	H	EF-10
PHYSICS 113 - FLAT PANEL RECEPTS	R	0.36			20/1	61	62	20/1					SPARE
SPARE					20/1	63	64	20/1					SPARE
SPARE					20/1	65	66	20/1					SPARE
SPARE					20/1	67	68	20/1	0.36				CLASSROOM IDF RECEPT
GROUP STUDY 115 - WALL RECEPT	R		0.90		20/1	69	70	20/1		0.36			CLASSROOM IDF RECEPT
GROUP STUDY 114 - WALL RECEPT	R			0.90	20/1	71	72	15/2			1.06	H	FC-9 / FC-10 / FC-11
HALLWAY 2 - RECEPT	R	1.08			20/1	73	74		1.06			H	/
HALLWAY 2 - RECEPT	R		0.36		20/1	75	76	15/2		1.06		H	FC-16 / FC-17 / FC-18
CLASSROOM IDF RECEPT	R			0.36	20/1	77	78		1.06			H	/
CLASSROOM IDF RECEPT	R	0.36			20/1	79	80						S P A C E
CLASSROOM IDF RECEPT	R		0.36		20/1	81	82						S P A C E
CLASSROOM IDF RECEPT	R			0.36	20/1	83	84						S P A C E
		3.42	3.06	3.24					3.32	3.32	4.02		

DEMAND LOAD SUMMARY	CONN. KVA	DEMAND FACTOR	DEMAND KVA
TYPE "M": NON-CONTINUOUS / MISC. LOADS	0.00	100%	0.00
TYPE "L": LIGHTING / CONTINUOUS LOADS	0.00	125%	0.00
TYPE "R": RECEPTACLES (FIRST 10KVA)	10.00	100%	10.00
TYPE "R": RECEPTACLES (OVER 10KVA)	1.88	50%	0.94
TYPE "H": HVAC / MECHANICAL LOADS	7.77	100%	7.77
TOTALS:	19.65		18.71

THIS SECTION PHASE A: 6.74 **KVA**
THIS SECTION PHASE B: 6.38 **KVA**
THIS SECTION PHASE C: 7.26 **KVA**
THIS SECTION: 60.47 **MAX AMPS / PHASE**

PANEL LS1

VOLTS: 120 / 208 V (SECTION 1) **MAIN BRKR:** MLO + TFL
PHASE: 3 PH **FEEDER:** SEE SINGLE LINE
WIRE: 4 W **CONDUIT:** SEE SINGLE LINE
BUSSING: 225A **MOUNTED:** FLUSH
POLES: 42P **AIC RATING:** SERIES

LOAD DESCRIPTION	TYPE	A	B	C	BRKR.	CKT.	CKT.	BRKR.	A	B	C	TYPE	LOAD DESCRIPTION
LIGHTING CONTROL SEGMENT MANAGER	L	0.05				1	2	20/1	0.70			M	CHEM 101 - FUME HOOD 1
EF-1	H		1.18		20/1	3	4	20/1		0.70		M	CHEM 102 - FUME HOOD 2
EF-2	H			1.18	20/1	5	6	20/1			0.36	R	CHEM 101 - WALL RECEPT
CHEM 101 - TABLE RECEPT	R	1.00			20/1	7	8	20/1	0.36			R	CHEM 101 - WALL RECEPT
CHEM 101 - TABLE RECEPT	R		1.00		20/1	9	10	20/1		0.54		R	CHEM 101 - WALL RECEPT
CHEM 101 - TABLE RECEPT	R			1.00	20/1	11	12	20/1			0.36	R	CHEM 101 - FLAT PANEL RECEPT
CHEM 101 - TABLE RECEPT	R	1.00			20/1	13	14	20/1	0.36			R	CHEM 102 - WALL RECEPT
CHEM 101 - TABLE RECEPT	R		1.00		20/1	15	16	20/1		0.36		R	CHEM 102 - WALL RECEPT
CHEM 101 - TABLE RECEPT	R			1.00	20/1	17	18	20/1			0.54	R	CHEM 102 - WALL RECEPT
CHEM 101 - TABLE RECEPT	R	1.00			20/1	19	20	20/1	0.36			R	CHEM 102 - WALL RECEPT
CHEM 101 - TABLE RECEPT	R		1.00		20/1	21	22	20/1		0.36		R	CHEM 102 - FLAT PANEL RECEPT
CHEM 101 - TABLE RECEPT	R			1.00	20/1	23	24	20/1			1.00	R	CHEM 102 TABLE RECEPT
CHEM 101 - TABLE RECEPT	R	1.00			20/1	25	26	20/1	1.00			R	CHEM 102 TABLE RECEPT
CHEM 101 - TABLE RECEPT	R		1.00		20/1	27	28	20/1		1.00		R	CHEM 102 TABLE RECEPT
CHEM 101 - TABLE RECEPT	R			1.00	20/1	29	30	20/1			1.00	R	CHEM 102 TABLE RECEPT
CHEM 101 - TABLE RECEPT	R	1.00			20/1	31	32	20/1	1.00			R	CHEM 102 TABLE RECEPT
CHEM 101 - TABLE RECEPT	R		1.00		20/1	33	34	20/1		1.00		R	CHEM 102 TABLE RECEPT
CHEM 101 - TABLE RECEPT	R			1.00	20/1	35	36	20/1			1.00	R	CHEM 102 TABLE RECEPT
CHEM 101 - TABLE RECEPT	R	1.00			20/1	37	38	20/1	1.00			R	CHEM 102 TABLE RECEPT
CHEM 101 - TEACHER TABLE RECEPT	R		1.00		20/1	39	40	20/1		1.00		R	CHEM 102 TABLE RECEPT
CHEM 101 - WALL RECEPT	R			0.36	20/1	41	42	20/1			1.00	R	CHEM 102 TABLE RECEPT
		6.05	7.18	6.54					4.78	4.96	5.26		

DEMAND LOAD SUMMARY	CONN. KVA	DEMAND FACTOR	DEMAND KVA
TYPE "M": NON-CONTINUOUS / MISC. LOADS	1.40	100%	1.40
TYPE "L": LIGHTING / CONTINUOUS LOADS	0.05	125%	0.06
TYPE "R": RECEPTACLES (FIRST 10KVA)	10.00	100%	10.00
TYPE "R": RECEPTACLES (OVER 10KVA)	20.96	50%	10.48
TYPE "H": HVAC / MECHANICAL LOADS	2.35	100%	2.35
TOTALS:	34.76		24.29

THIS SECTION PHASE A: 10.83 **KVA**
THIS SECTION PHASE B: 12.14 **KVA**
THIS SECTION PHASE C: 11.80 **KVA**
THIS SECTION: 101.13 **MAX AMPS / PHASE**

PANEL TOTAL PHASE A: 24.19 **KVA**
PANEL TOTAL PHASE B: 22.56 **KVA**
PANEL TOTAL PHASE C: 24.92 **KVA**
TOTAL: 207.70 **MAX AMPS / PHASE**

PANEL LS3

VOLTS: 120 / 208 V (SECTION 1) **MAIN BRKR:** MLO + TFL
PHASE: 3 PH **FEEDER:** SEE SINGLE LINE
WIRE: 4 W **CONDUIT:** SEE SINGLE LINE
BUSSING: 225A **MOUNTED:** FLUSH
POLES: 42P **AIC RATING:** SERIES

LOAD DESCRIPTION	TYPE	A	B	C	BRKR.	CKT.	CKT.	BRKR.	A	B	C	TYPE	LOAD DESCRIPTION
BIO 106 - CORD REELS AT CLG	R	0.54			20/1	1	2	20/1	0.70			M	BIO 106 - FUME HOOD 4
BIO 106 - CORD REELS AT CLG	R		0.54		20/1	3	4	20/1		0.70		M	BIO 108 - FUME HOOD 5
BIO 106 - CORD REELS AT CLG	R			0.54	20/1	5	6	20/1			1.18	H	EF-3
BIO 106 - WALL RECEPT	R	0.54			20/1	7	8	20/1	1.18			H	EF-4
BIO 106 - WALL RECEPT	R		0.54		20/1	9	10	20/1					SPARE
BIO 106 - WALL RECEPT	R			0.36	20/1	11	12	20/1					SPARE
BIO 106 - FLAT PANEL RECEPT	R	0.36			20/1	13	14	20/1	1.08			R	HALLWAY 1 - RECEPTS
BIO 106 -TEACHER TABLE RECEPT	R		0.36		20/1	15	16	20/1		0.36		R	HALLWAY 1 - FLAT PANEL RECEPTS
BIO 108 - WALL RECEPT	R			0.54	20/1	17	18	20/1			0.36	R	HALLWAY 1 - FLAT PANEL RECEPTS
BIO 108 - WALL RECEPT	R	0.54			20/1	19	20	20/1	1.08			R	HALLWAY 1 - RECEPTS
BIO 108 - WALL RECEPT	R		0.36		20/1	21	22	20/1		0.36		R	EXTERIOR GFI AT SOUTH AND NORTH
BIO 108 - FLAT PANEL RECEPT	R			0.36	20/1	23	24	20/1			0.36	R	EXTERIOR GFI AT NORTH
BIO 108 -TEACHER TABLE RECEPT	R	0.36			20/1	25	26	20/1					SPARE
BIO 108 - CORD REELS AT CLG	R		0.54		20/1	27	28	20/1					SPARE
BIO 108 - CORD REELS AT CLG	R			0.54	20/1	29	30	20/1					SPARE
BIO 108 - CORD REELS AT CLG	R	0.54			20/1	31	32	20/1	0.36			R	CLASSROOM IDF RECEPT
PREP 107 - WALL RECEPT	R		0.36		20/1	33	34	20/1		0.36		R	CLASSROOM IDF RECEPT
PREP 107 - WALL RECEPT	R			0.36	20/1	35	36						S P A C E
SPARE					20/1	37	38						S P A C E
SPARE					20/1	39	40	15/2		0.74		H	FC-8 / FC-12 / FC-13 / FC-14 / FC-15
SPARE					20/1	41	42				0.74	H	/
		2.88	2.70	2.70					4.40	2.52	2.83		

DEMAND LOAD SUMMARY	CONN. KVA	DEMAND FACTOR	DEMAND KVA
TYPE "M": NON-CONTINUOUS / MISC. LOADS	1.40	100%	1.40
TYPE "L": LIGHTING / CONTINUOUS LOADS	0.00	125%	0.00
TYPE "R": RECEPTACLES (FIRST 10KVA)	10.00	100%	10.00
TYPE "R": RECEPTACLES (OVER 10KVA)	2.60	50%	1.30
TYPE "H": HVAC / MECHANICAL LOADS	3.82	100%	3.82
TOTALS:	17.82		16.52

THIS SECTION PHASE A: 7.28 **KVA**
THIS SECTION PHASE B: 5.22 **KVA**
THIS SECTION PHASE C: 5.33 **KVA**
THIS SECTION: 60.63 **MAX AMPS / PHASE**

PANEL TOTAL PHASE A: 23.28 **KVA**
PANEL TOTAL PHASE B: 19.78 **KVA**
PANEL TOTAL PHASE C: 19.25 **KVA**
TOTAL: 193.97 **MAX AMPS / PHASE**

PANEL LS1

VOLTS: 120 / 208 V (SECTION 2) **MAIN BRKR:** MLO
PHASE: 3 PH * PROVIDE BREAKER WITH LOCK ON DEVICE **FEEDER:** SEE SINGLE LINE
WIRE: 4 W **CONDUIT:** SEE SINGLE LINE
BUSSING: 225A **MOUNTED:** FLUSH
POLES: 42P **AIC RATING:** SERIES

LOAD DESCRIPTION	TYPE	A	B	C	BRKR.	CKT.	CKT.	BRKR.	A	B	C	TYPE	LOAD DESCRIPTION
PREP 103 - REFRIGERATOR	R	1.00				43	44	20/1	1.00			R	CHEM 102 - TABLE RECEPT
PREP 103 - REFRIGERATOR	R		1.00		20/1	45	46	20/1		1.00		R	CHEM 102 - TABLE RECEPT
PREP 103 - FUME HOOD 3	M			0.70	20/1	47	48	20/1			1.00	R	CHEM 102 - TABLE RECEPT
PREP 103 - WALL RECEPT	R	0.54			20/1	49	50	20/1	1.00			R	CHEM 102 - TABLE RECEPT
PREP 103 - EQUIPMENT	R		1.00		20/1	51	52	20/1		1.00		R	CHEM 102 - TABLE RECEPT
PREP 103 - ICE MACHINE	R			1.00	20/1	53	54	20/1			1.00	R	CHEM 102 - TABLE RECEPT
PREP 103 - DISHWASHER	M	1.00			20/1	55	56	20/1	1.08			R	WORK 105 - WALL RECEPT
PREP 103 - MICROWAVE	R		1.20		20/1	57	58	20/1		1.00		R	WORK 105 - COPIER / EQPT.
PREP 103 - OVEN / RANGE	M			4.00	50/2	59	60	20/1			1.00	R	WORK 105 - COPIER / EQPT.
/	M	4.00				61	62	20/1	1.08			R	WORK 105 - COUNTER RECEPT
PREP 103 - COUNTER RECEPT	R		0.36		20/1	63	64	20/1		1.00		R	CHEM 102 - TEACHER TABLE RECEPT
ELECT RM 119 - IDF CABINET / BACKBOARD	R			0.72	20/1	65	66	*20/1			0.18	R	FAEP-S
ELECT RM 119 - IRRIGATION CONTROLLER	M	0.20			20/1	67	68	20/1					SPARE
ELECT RM 119 - RECEPT	R		0.18		20/1	69	70	20/1					SPARE
CLASSROOM IDF RECEPT	R			0.36	20/1	71	72	20/1					SPARE
CLASSROOM IDF RECEPT	R	0.36			20/1	73	74	20/1					SPARE
CLASSROOM IDF RECEPT	R		0.36		20/1	75	76	20/1					SPARE
FC-1 / FC-2 / FC-4 / FC-5 / FC-6	H			1.02		77	78	20/1					SPARE
/	H	1.02			15/2	79	80	15/2	1.08				CU-1 / BC-1 / BC-2 / BC-3
FC-3 / FC-7	H		1.25			81	82			1.08			/
/	H			1.25	15/2	83	84	20/1			0.90	R	OFFICE 104 - RECEPT
		8.12	5.35	9.05					5.24	5.08	4.08		

DEMAND LOAD SUMMARY	CONN. KVA	DEMAND FACTOR	DEMAND KVA
TYPE "M": NON-CONTINUOUS / MISC. LOADS	9.90	100%	9.90
TYPE "L": LIGHTING / CONTINUOUS LOADS	0.00	125%	0.00
TYPE "R": RECEPTACLES (FIRST 10KVA)	10.00	100%	10.00
TYPE "R": RECEPTACLES (OVER 10KVA)	10.32	50%	5.16
TYPE "H": HVAC / MECHANICAL LOADS	4.54	100%	4.54
TOTALS:	34.76		29.60

THIS SECTION PHASE A: 13.36 **KVA**
THIS SECTION PHASE B: 10.43 **KVA**
THIS SECTION PHASE C: 13.13 **KVA**
THIS SECTION: 111.33 **MAX AMPS / PHASE**

QUATTROCCHI KWOK ARCHITECTS
Main Office:
636 Fifth Street, Santa Rosa, CA 95404
Pleasanton Office:
600 Main Street, Suite E,
Pleasanton, CA 94566
(707) 576-0829

OMAHONY & MYER
ELECTRICAL ENGINEERS and LIGHTING DESIGNERS
4340 REDWOOD HWY., SUITE 340
SAN RAFAEL, CALIFORNIA 94903
(415) 492-0401/FAX (415) 479-0602
www.omahoneymyer.com

REGISTERED PROFESSIONAL ENGINEER
PETER T. COLEMAN
No. 14738
Exp. 6/19
ELECTRICAL
STATE OF CALIFORNIA

SAN MARIN HIGH SCHOOL

STEM BUILDING

15 SAN MARIN DR
NOVATO, CA 94945

NOVATO UNIFIED SCHOOL DISTRICT

REVISIONS

ARCH PROJECT NO: 1682.00
DRAWN BY: LN/TV
DRAWING SCALE: AS NOTED
PTN: 65417-131
100% CD's
NOVEMBER 2, 2018

SHEET TITLE

PANEL SCHEDULES

SHEET NUMBER

E-6.1