DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING PERMIT

This is to certify that 500 RIVERSIDE ASSOCIATES Located At 524 RIVERSIDE IND PKWY

Job ID: 2011-12-2831-ALTCOMM CBL: 370A-A-012-001

has permission to Install exterior concrete pads for equipment

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.	A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

12/7/11

Fire Prevention Officer **Code Enforcement Officer / Plan Reviewer**

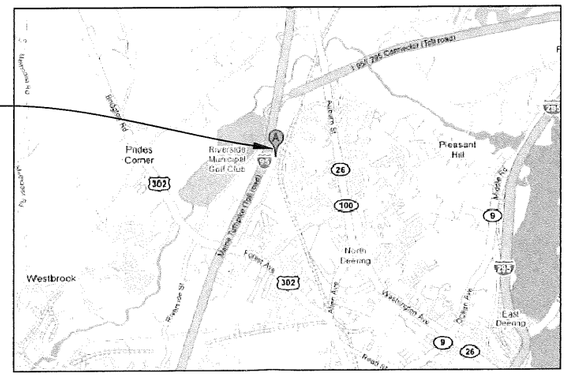
THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY

PENALTY FOR REMOVING THIS CARD

ENVIROLOGIX™
Putting Science to the Test

Renovations to 530 Riverside Parkway
DNA Lab & Office Facilities Expansion
Portland, Maine

Permitting Documents
August 17, 2011



LOCATION MAP

OWNER:
EnviroLogix
500 Riverside Parkway
Portland, Maine 04103
207-797-0300
Contact: Peter Johnson

ARCHITECT:
TFH Architects
80 Middle Street
Portland, Maine 04101
207-775-6141
Contact: Scott Teas

STRUCTURAL ENGINEER:
Becker Structural Engineers
75 York Street
Portland, ME 04101-4550
207-879-1838
Contact: David Macolini

MECHANICAL ENGINEER
Integrated Energy Systems, PLLC
301 Middle Road
Falmouth, ME 04105-1229
207-781-4263
Contact: Richard Grondin

ELECTRICAL ENGINEER
Bennett Engineering
7 Bennett Road
Freeport, ME 04032
207-865-9475
Contact: Will Bennett

GENERAL CONTRACTOR
Warren Construction Group, LLC
POB 362
Freeport, ME 04078
207-865-3522
Contact: Peter Warren

BUILDING DESIGN CODES:

INTERNATIONAL BUILDING CODE	IBC 2009
INTERNATIONAL EXISTING BUILDING CODE	IEBC 2009
INTERNATIONAL ENERGY CONSERVATION CODE	IECC 2009
STANDARDS FOR ACCESSIBLE DESIGN	ADA 2010
LIFE SAFETY CODE	NFPA 101 2009
ELECTRICAL CODE	NEC 2007
MAINE STATE INTERNATIONAL PLUMBING CODE	UPC 2007
CITY OF PORTLAND AMENDMENTS	

OCCUPANCY CLASSIFICATION:
BUSINESS GROUP B — IBC SECTION 304
ACCESSORY USES – LABORATORY, STORAGE, MECHANICAL

FIRE SUPPRESSION:
BUILDING CURRENTLY IS AND WILL BE FULLY SPRINKLERED PER NFPA 13

EXISTING & PROPOSED AREAS:

EXISTING BUILDING FOOTPRINT	520 / 530 RIVERSIDE INDUSTRIAL PARKWAY	±34,895 GSF
EXISTING FIRST FLOOR BUSINESS		±7710 GSF
EXISTING SECOND FLOOR BUSINESS		±5395 GSF
EXISTING BUILDING HEIGHT	@ EAVES – ±23'-2",	@ RIDGE = ±26'-4"
PROPOSED ADDITIONAL FIRST FLOOR BUSINESS (MECHANICAL ONLY)		±1465 GSF
PROPOSED ADDITIONAL SECOND FLOOR BUSINESS		±980 GSF
TOTAL OCCUPIED FIRST FLOOR		±7710 GSF
TOTAL OCCUPIED SECOND FLOOR		±15,275 GSF
TOTAL VACANT FIRST FLOOR		±26,750 GSF

TYPE OF CONSTRUCTION / BUILDING LIMITS:
ALLOWABLE BUILDING HEIGHTS AND AREAS — TABLE 503
EXISTING SIMILAR TO TYPE IIIB. PROPOSED TYPE IIIB — ALOWABLE HEIGHT = 55'
ALOWABLE STORIES = 3
ALOWABLE AREA = 19,000 GSF
ALLOWABLE AREA FORMULA WITH SPRINKLER & FRONTAGE ALLOWANCE
ALLOWABLE AREA = [Area allowed x 2 (sprinkler system)] + [area allowed x .49 (frontage increase)]
ALLOWABLE AREA = [19,000 x 2] + [19,000 x .49] = **±47,405 GSF**

BUILDING FIRE SEPARATION:
BUILDING SEPARATION = ± 70'-9" EXISTING
PER TABLE 601 FIRE RESITANCE RATING OF EXTERIOR BEARING WALLS, TYPE IIIB = 2 HRS
PER TABLE 602 FIRE RESITANCE RATING OF EXTERIOR WALLS >30' = 0 HRS

EGRESS:
Occupant load

First floor			
Business areas;	3170 GSF / 100 sf per occup	=	32 occupants
Accessory storage, mechanical equipment;	4660 GSF / 300 sf per occup	=	16 occupants
Second floor			
Business areas,	15060 GSF / 100 sf per occup	=	151 occupants
Total			199 occupants

Exit capacity
Stairs .3" x 199 occupants = 59.7" total, minimum stair width= 44". 154" provided
Other .2" x 199 occupants = 39.8" total. minimum stair width= 44".

Number of exits
Minimum number of exits for occupant load per IBC table 1021.1 = 2
3 exits provided
Remoteness minimum per IBC 1015.2.1 with sprinkler = Max diagonal (200') x 1/3 = 66'
Remote distance provided = 119'

DRAWING LIST

GENERAL NOTES

1: DRAWING NOTES:
CONTRACTOR TO FURNISH AND INSTALL ALL NOTED LABOR AND MATERIALS UNLESS OTHERWISE NOTED.

2: CODE COMPLIANCE:
ALL WORK SHALL CONFORM TO THE LATEST EDITION OF STATE, LOCAL AND OTHER CODES WHICH APPLY TO THIS PROJECT OR HAVE JURISDICTION.

3: COORDINATION:
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL DISCIPLINES AND TRADES SO THAT ALL BUILDING SYSTEMS AND COMPONENTS CAN BE ASSEMBLED WITHOUT CONFLICTS. IN THE EVENT THAT THE CONSTRUCTION DOCUMENTS DEFINE CONDITIONS WHICH PROHIBIT, OR MAY PROHIBIT, SUCH ASSEMBLY, THE CONTRACTOR SHALL BRING TO THE ARCHITECTS ATTENTION, IN WRITING AND IN A TIMELY FASHION, SUCH CONDITION. THE CONTRACTOR SHALL NOT PROCEED WITH RELATED WORK WITHOUT A WRITTEN RESOLUTION CLARIFICATION FROM THE ARCHITECT.

4: DISCREPANCIES & CLARIFICATIONS:
THIS PROJECT INVOLVES THE FIT-UP OF AN EXISTING BUILDING. EXISTING DIMENSIONS SHOWN ON THE DRAWINGS ARE BELIEVED TO BE ACCURATE, BUT CANNOT BE GUARANTEED, MEASURE AND VERIFY DIMENSIONS IN FIELD PRIOR TO FABRICATION AND CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BRING TO THE ARCHITECTS ATTENTION, IN WRITING, ANY DISCREPANCIES OR AMBIGUITIES IN THE DRAWINGS AND/OR SPECIFICATIONS. THE CONTRACTOR SHALL NOT PROCEED WITH RELATED WORK WITHOUT A WRITTEN RESOLUTION OR CLARIFICATION FROM THE ARCHITECT.

5: LAYOUT:
UNLESS INDICATED OTHERWISE, CENTER WALL FRAMING AND PARTITION FRAMING ON COLUMN LINES. FLOOR PLAN DIMENSIONS ARE TO CENTER OF FRAMING, FACE OF CONCRETE, FACE OF CMU, OR FROM COLUMN CENTERLINES, UNLESS INDICATED OTHERWISE. DOORS AND WINDOWS ARE DIMENSIONED TO CENTERLINES UNLESS INDICATED OTHERWISE.

6: CENTERING:
UNLESS INDICATED OTHERWISE, CENTER BUILDING ELEMENTS WITHIN OR BETWEEN OTHER BUILDING ELEMENTS WHEN CONDITIONS OR THE DRAWINGS INDICATE OR IMPLY THAT SUCH IS THE INTENT, WHETHER OR NOT DIMENSIONS ARE INCLUDED

7: SYMMETRY:
WHERE CONDITIONS OR THE DRAWINGS INDICATE OR IMPLY THAT SYMMETRY IS INTENDED, INFORMATION PROVIDED AT ONE SIDE APPLIES EQUALLY TO BOTH SIDES, UNLESS CONDITIONS CLEARLY PRECLUDE SUCH APPLICATION.

8: ACCESSIBILITY:
ALL HANDICAPPED ACCESSIBLE BATHROOMS, GRAB BARS, AND DOOR OPENINGS SHALL MEET THE REQUIREMENTS OF TITLE 94-348, CHAPTER 5 OF THE MAINE HUMAN RIGHTS COMMISION TITLE LATEST EDITION & THE DEPARTMENT OF JUSTICE ADA STANDARDS FOR ACCESSIBLE DESIGN.

9: DRAWING SCALES:
WORK FROM THE GIVEN DIMENSIONS ONLY. SCALE IS INDICATED ON THE DRAWINGS FOR CONVENIENCE ONLY. IT IS NOT INTENDED THAT INFORMATION BE DETERMINED BY SCALING THE DRAWINGS SINCE SOME ITEMS MAY NOT BE TO SCALE.

10: WATER-RESISTANT GWB:
INSTALL WATER-RESISTANT GYPSUM WALL BOARD IN ALL REST ROOMS & TOILET ROOMS OR AT ANY WALL WITH PLUMBING FIXTURES.

11: INTERIOR ELEVATIONS:
INTERIOR ELEVATIONS MAY BE REVERSED FROM AND/OR SIMILAR TO ACTUAL CONDITIONS. SEE FLOOR PLANS FOR WINDOW AND DOOR QUANTITIES AND LOCATIONS, FOR CASEWORK LAYOUTS, AND FOR MONITOR LOCATIONS.

12: BUILDING INSULATION:
PROVIDE AS INDICATED IN WALL SECTIONS AND IN ACCORDANCE WITH PARTITION TYPES, WHETHER OR NOT SHOWN IN DETAILS AND OTHER DRAWINGS. FOR CLARITY, INSULATION MAY NOT BE SHOWN IN SOME CASES, EVEN IF IT IS TO BE PROVIDED.

13: BLOCKING:
INSTALL BLOCKING BEHIND ALL SURFACE-APPLIED FIXTURES TRIM, CASEWORK, SHELVES, BRACKETS, TOILET ACCESSORIES, CHAIR RAILS, PICTURE RAILS, GRAB BARS, BASE MOLDINGS, AND AS OTHERWISE REQUIRED, WHEN SUCH ITEMS ARE APPLIED ON STUD WALLS.

14: PENETRATIONS AT STRUCTURAL MEMBERS:
BEFORE PENETRATING JOISTS, BEAMS OR OTHER STRUCTURAL MEMBERS, CONSULT WITH THE ARCHITECT.

15: DAMAGED WORK:
BUILDING OR SITE COMPONENTS WHICH ARE AFFECTED BY NEW WORK, DEMOLITION, OR WHICH MAY BE DAMAGED BY THE GENERAL CONTRACTOR OR ANY SUB-CONTRACTOR SHALL BE REPLACED OR RESTORED TO ORIGINAL CONDITION AND COLOR TO MEET THE APPROVAL OF THE ARCHITECT.

16: UTILITIES:
VERIFY THE SIZE AND LOCATION OF ALL UNDERGROUND UTILITIES AND REPORT ANY DISCREPANCIES TO THE ARCHITECT IN WRITING. DO NOT PROCEED WITH WORK UNTIL THE DISCREPANCY HAS BEEN RESOLVED TO THE SATISFACTION OF THE ARCHITECT.

17: RATED CONSTRUCTION:
PROVIDE RATED CONSTRUCTION AS REQUIRED BY CODE, AS SPECIFIED, AND AS INDICATED ON DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AND INSTALL ALL COMPONENTS REQUIRED TO CREATE SUCH RATED CONSTRUCTION, REGARDLESS OF WHETHER OR NOT SUCH COMPONENTS ARE INDICATED. PROVIDE CONTINUITY OF SUCH RATED CONSTRUCTION AROUND AND BETWEEN SPACES, INCLUDING AT CHASES AND AT FLOORS, TO MAINTAIN COMPLETE SEPARATIONS, EVEN IF NOT SPECIFICALLY INDICATED.

18: SHOP DRAWINGS:
SUBMIT SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW PRIOR TO FABRICATIONS. SUBMITTALS REQUIRED INCLUDE, BUT ARE NOT LIMITED TO, SHOP DRAWINGS FOR ALL PREFABRICATED CONCRETE, STEEL, MILLWORK & SIGNAGE, SAMPLES OF ALL PROPOSED PAINTS, METALS, WALL COVERINGS, LAMINATES, SOLID SURFACE MATERIALS, CERAMIC TILE, AND HARDWARE. SUBMIT MANUFACTURERS' DATA FOR ALL LIGHTING SYSTEMS, AND HARDWARE.

19: PERMITS:
THE GENERAL CONTRACTOR SHALL OBTAIN AND PAY FOR ANY BUILDING PERMITS REQUIRED AND CARRY ANY INSURANCE COVERAGES REQUIRED.

20: INTERIOR FINISHES:
ALL INTERIOR FINISHES AND FURNISHINGS ARE TO BE CLASS 'A' FIRE-RATED AND ARE TO COMPLY WITH SECTION 920.0 BOCA (INTERIOR FLAME SPREAD).

21: ELECTRICAL DESIGN:
THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PANEL CONTROL AND CIRCUIT DESIGN AND FOR COMPLIANCE WITH ALL BUILDING, LIFE SAFETY, AND NATIONAL ELECTRICAL CODES WHICH MAY APPLY.

22: WASTE REMOVAL:
THE GENERAL CONTRACTOR SHALL DISPOSE OF ALL WASTE AND DEBRIS OFF THE PREMISES.

23: LANDLORD COORDINATION:
THE GENERAL CONTRACTOR MUST COORDINATE WITH THE BUILDING OWNER ALL ACTIVITIES INCLUDING BUT NOT LIMITED TO WORK WHICH WILL GENERATE EXCESSIVE NOISE AND MODIFICATION TO UTILITIES. WORK MUST NOT INTERFERE WITH EXISTING SMOKE DETECTORS, ALARMS OR BUILDING SYSTEM MANAGEMENT.

24: TEMPORARY FACILITIES:
PROVIDE ALL TEMPORARY FACILITIES AND SERVICES, CONSTRUCTION AND SUPPORT FACILITIES, AND SECURITY AND PROTECTION AS NEEDED TO PROTECT NEW AND EXISTING CONSTRUCTION FOR THE DURATION OF A COMPLETE INSTALLATION.

25: FINAL CLEANING:
EMPLOY EXPERIENCED WORKERS FOR FINAL CLEANING. CLEAN EACH SURFACE TO THE CONDITION EXPECTED IN A COMMERCIAL BUILDING CLEANING PROGRAM.

26: MANUFACTURERS INSTRUCTIONS:
ALL MATERIALS & EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

27: GUARANTEE:
GUARANTEE: ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE UNLESS OTHERWISE SPECIFIED FOR A LONGER PERIOD OF TIME ON A CERTAIN ITEM.

28: ASBESTOS:
ALL MATERIAL USED FOR THE CONSTRUCTION OF THIS PROJECT, WHETHER BUILDING MATERIALS OR APPURTENANCES, SHALL BE NON-ASBESTOS CONTAINING MATERIAL.

29: HAZARDOUS FUMES:
THE GENERAL CONTRACTOR SHALL CONFIRM THAT ALL MATERIAL AND FINISHES SPECIFIED AND THEIR FABRICATION OR INSTALLATION WILL NOT RELEASE FUMES OR AROMAS DURING CONSTRUCTION WHICH MAY BE A HAZARD OR NUISANCE TO PERSONNEL.

30: PEST CONTROL:
SEAL AND CAULK AROUND ALL PENETRATIONS, CRACKS AND CREVICES AND ANY OPENINGS CAPABLE OF HARBORING INSECTS/RODENTS.

31. EXPOSED UTILITIES:
ALL EXPOSED UTILITY WIRES AND PIPES (ELECTRICAL, PLUMBING, ETC.) SHALL BE INSTALLED IN A WAY THAT DOES NOT OBSTRUCT OR PREVENT THE CLEANING OF FLOORS, WALLS, AND CEILING AREAS. THEY SHALL BE INSTALLED A MINIMUM OF 6" OFF FLOORS AND 1" OFF WALLS, CEILINGS AND ADJACENT PIPES.

32. OWNER SUPPLIED EQUIPMENT:
EQUIPMENT SUPPLIED BY THE OWNER AND INSTALLED BY THE GENERAL CONTRACTOR:I
EQUIPMENT INFORMATION AND SPECIFICATIONS ARE TO BE THE MOST CURRENT AVAILABLE AT THE TIME OF DOCUMENTATION PREPARATION. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING WITH THE OWNER THE EXACT DIMENSIONS AND EQUIPMENT CONNECTION REQUIREMENTS (INCLUDING ELECTRICAL CIRCUIT REQUIREMENTS) OF EQUIPMENT TO BE SUPPLIED. THE GENERAL CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS AS NOTED ON THE DRAWINGS, INSTALL THE SET UP IN WORKING ORDER, CHECK WARRANTIES, TEST AND NOT VOID WARRANTIES. THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE OWNER DELIVERY, STORAGE AND INSTALLATION OF ALL OWNER SUPPLIED EQUIPMENT. THE GENERAL CONTRACTOR SHALL STORE EQUIPMENT IF REQUESTED BY THE OWNER UNTIL INSTALLATION. SEE DRAWINGS FOR OTHER OWNER SUPPLIED/GENERAL CONTRACTOR INSTALLED ITEMS.

33: FIRE PROTECTION NOTE:
EXISTING SPRINKLERHEADS, ALARM SYSTEM AND DETECTORS ARE TO BE MODIFIED TO CONFORM. WITH THE PROPOSED PLAN. COORDINATE WITH THE ARCHITECT, ANY MODIFICATION OR LOCATIONS WHERE EXISTING SYSTEMS ARE AFFECTED BY THE NEW DESIGN.

34: INDUSTRY STANDARDS:
ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH INDUSTRY STANDARDS. STANDARDS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

AAMA	AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCATION
ACI	AMERICAN CONCRETE INSTITUTE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTS AND MATERIALS
AWI	ARCHITECTURAL WOODWORK INSTITUTE "CUSTOM GRADE"
AWS	AMERICAN WELDING SOCIETY
IGMA	INSULATING GLASS MANUFACTURERS ALLIANCE
NAAMM	NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS
NRCA	NATIONAL ROOFING CONTRACTORS ASSOCIATION
NTCA	NATIONAL TILE CONTRACTORS ASSOCIATION
SMACNA	SHEET METAL AND AIR CONDITIONING NATIONAL ASSOCIATION
WDMA	WINDOW AND DOOR MANUFACTURERS ASSOCIATION

ABBREVIATIONS

A	
AC	AIR CONDITIONING
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN
ADAAG	AMERICANS WITH DISABILITIES ACT ACCESSIBILITY'S GUIDELINES
ADD	ADDENDUM
AFF	ABOVE FINISHED FLOOR
AHU	AIR-HANDLING UNIT
AL	ALUMINUM
ARCH	ARCHITECT/ARCHITECTURAL
AWP	ACOUSTIC WALL PANEL
B	
B TO BLS	BACK-TO-BACK ANGLES BASE BUILDING
B.B.G.C.	GENERAL CONTRACTOR
BL	BUILDING LINE
BLDG	BUILDING
BLKG	BLOCKING
BSMT	BASEMENT
BTWN	BETWEEN
BO	BY OTHERS
C	
C	COURSE (MASONRY)
CER	CERAMIC
CG	CORNER GUARD
CH	COAT HOOK
CJ	CONTROL JOINT
℄	CENTER LINE
CLG	CEILING
CMU	CLEAN OUT
CO	COLUMN
COL	CONCRETE
CONC	CONDITION
COND	CONSTRUCTION
CONN	CONTINUOUS
CONST	CORRIDOR
CONT	CERAMIC TILE
CORR	CONCRETE MASONRY UNIT
CT CU	CONNECT/CONNECTION
CUH	CABINET UNIT HEATER
D	
DBL	DOUBLE
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIFF	DIFFUSER
DIM	DIMENSION
DN	DOWN
DR	DOOR
DSP	DRY STAND PIPE
DWG	DRAWING
E	
E	EAST
EA	EACH
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
ENTR	ENTRANCE
EQ	EQUAL
EQUIP	EQUIPMENT
EXP	EXPANSION
EXPB	EXPANSION BOLT
EXPJ	EXPANSION JOINT
EXT	EXTERIOR
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EWC	ELECTRIC WATER COOLER
F	
F	FAHRENHEIT
FB	FLAT BAR
FC	FIRE EXTINGUISHER AND CABINET
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF&E	FURNITURE, FIXTURES & EQUIPMENT
FTWD	FIRE TREATED WOOD
FIN	FINISH
FL	FLOOR
FOB	FACE OF BRICK
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOS	FACE OF STUDS
FOW	FACE OF WALL
FSS	FIRE SUPPRESSION SYSTEM
FT	FOOT
FTG	FOOTING
FRG	FIBER REINFORCED GYPSUM
FTR	FIN TUBE RADIATION
FH	FUME HOOD
G	
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GFI	GROUND-FAULT INTERRUPTER
GL	GLASS/GLAZING/GLAZED
GLAM	GLUE-LAMINATED WOOD
GND	GROUND
GWB	GYPSUM WALL BOARD
H	
HB	HOSE BIB
HC	HANDICAP
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HORSE POWER/HIGH POINT/HEAT PUMP
HR	HOUR
HW	HOT WATER
HVAC	HEATING VENTILATION AIR CONDITIONING
I	
ID	INSIDE DIMENSION/INSIDE DIAMETER
IN	INCHES
INFO	INFORMATION
INSUL	INSULATION
J	
JST	JOIST
JT	JOINT
K	
KD	KILN-DRIED
KIP	1000 POUNDS
L	
LAB	LABORATORY
LAM	LAMINATED POUND
LB	LEFT-HAND LEAD
LH	COATED COPPER
LCC	
M	
MACH	MACHINE
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MDO	MEDIUM-DENSITY OVERLAY
MECH	MECHANICAL
MEMB	MEMBRANE
MET	METAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTD	MOUNTED
MTL	METAL
MB	MARKER BOARD
N	
N	NORTH
#	NUMBER
NIC	NOT IN CONTRACT
NOM	NOMINAL DIMENSION
NTS	NOT TO SCALE
O	
O/	ON/OVER
OC	ON CENTER
OD	OUTSIDE DIAMETER/OUTSIDE DIMENSION
OFF	OFFICE
OPNG	OPENING
OPP	OPPOSITE
OPPH	OPPOSITE HAND
OSB	ORIENTED STRAND BOARD
OZ	OUNCE
P	
PBO	PURCHASED BY OWNER
IBC	INSTALLED BY CONTRACTOR
PC	PRECAST
PL	PLATE
PLAM	PLASTIC LAMINATE
PR	PAIR
PRE FAB	PREFABRICATE
PRIV	PRIVACY
PRIM	PRIMED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PTD	PAINTED
PTN	PARTITION
PVC	POLYVINYL CHLORIDE PLYWOOD
PWD	PRESSURE
PT	TREATED
PERF	PERFORATED
Q	
QT	QUARRY TILE
QTR	QUARTER
R	
R	RISER/RADIUS
RAD	RADIUS
RB	RUBBER BASE
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REBAR	REINFORCING BAR
REF	REFRIGERATOR
REINF	REINFORCED
REQ	REQUIRED
RES	RESILIENT
REV	REVERSE
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY
S	
S	SOUTH
SCHED	SCHEDULE
SED	SEE ELECTRICAL DRAWINGS
SF	SQUARE FEET
SIM	SIMILAR
SMD	SEE MECHANICAL DRAWINGS
SPEC	SPECIFICATION
SQ	SQUARE
SSD	SEE STRUCTURAL DRAWINGS
SST	STAINLESS STEEL
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURE/STRUCTURAL
SUSP	SUSPENSION
T	
T&G	TONGUE & GROOVE
TEL	TELEPHONE
THK	THICK
TOD	TOP OF DECK
TOS	TOP OF STEEL
TYP	TYPICAL
TV	TELEVISION
TB	TACK BOARD
TOC	TOP OF CONCRETE
U	
UL	UNDERWRITERS LABORATORIES, INC.
UV	UNIT VENTILATOR
V	
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VIF	VERIFY IN FIELD
VOL	VOLUME
W	
W	WEST
W/O	WITHOUT
W/	WITH
WD	WOOD
WF	WIDE FLANGE
WP	WORK POINT
WT	WEIGHT

DRAWING LEGEND

EARTH	ELEVATION (SECTION #, SHEET #, A5.4)
POROUS FILL	SECTION (SECTION #, SHEET #, 1, A2.1)
CONCRETE	DRAWING TITLE (DETAIL #, 1, TITLE, SCALE)
CONCRETE MASONRY UNIT	ROOM NAME & NO. (CORRIDOR, ROOM NAME, 101, ROOM #)
BRICK	DOOR NUMBER (001)
STEEL	PARTITION TYPE (NA)
WOOD - ROUGH	1 HOUR RATED PARTITION
GYPSUM BOARD	2 HOUR RATED PARTITION
RIGID INSULATION	
BATT INSULATION	
DEMOLISHED ITEMS	

WOOD FRAMED PARTITION TYPES

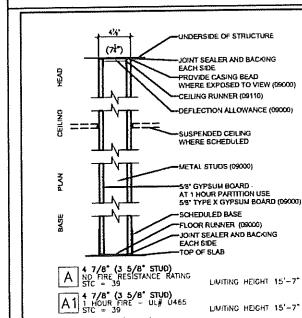
DEMOLISHED PARTITIONS	
	ITEMS TO BE DEMOLISHED SHOWN DASHED
FIRE-RATED PARTITIONS	
1A	5/8" TYPE 'X' GWB; 3 1/2" / 5 1/2" STUDS 16" MAX O.C.; 2 1/2" MIN. GL. FIBER OR MIN. WOOL; 5/8" GWB; UL U314
NON FIRE-RATED PARTITIONS	
NA	5/8" GWB; 3 1/2" STUDS 16" MAX O C; 5/8" GWB
NB	5/8" GWB; 3 1/2" STUDS 16" MAX O C; 3 1/2" SOUND ATTENUATING INSUL; 5/8" GWB
NC	5/8" GWB; 5 1/2" STUDS 16" MAX O.C; 5 1/2" SOUND ATTENUATING INSUL; 5/8" GWB
ND	

HEIGHT NOTES	
A	WALL STOPS 4" MIN ABOVE CEILING
B	SEALED TO BOTTOM OF DECK - USE 1-1/2" SLIPTRACK DEFLECTION JOINT
C	WALL STOPS AT 11'-0" AFF
D	
E	
F	

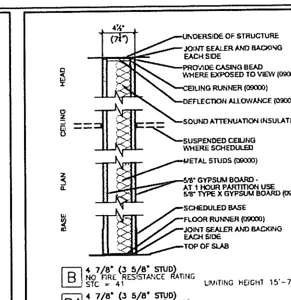
GENERAL NOTES

1. COORDINATE FINISHES WITH ROOM FINISH SCHEDULE.
2. PENETRATIONS THROUGH RATED WALLS AND CEILING ASSEMBLIES SHALL HAVE SEALANTS CONFORMINGTO RATING REQUIREMENTS
3. CONTRACTOR TO VERIFY WALL LOCATIONS IN FIELD AND COORDINATE WITH EXISTING PIPE LOCATIONS, NOTIFY ARCHITECT OF ANY DISCREPANCIES

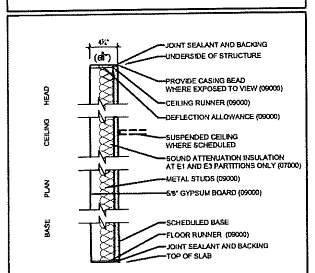
METAL AND CMU FRAMED PARTITIONS



A	4 7/8" (3 5/8" STUD) NO FIRE RESISTANCE RATING STC = 39	LIMITING HEIGHT 15'-7"
A1	4 7/8" (3 5/8" STUD) 1 HOUR FIRE - UL# U465 STC = 39	LIMITING HEIGHT 15'-7"
A2	7 1/4" (6" STUD) NO FIRE RESISTANCE RATING STC = 40	LIMITING HEIGHT 22'-10"
A3	7 1/4" (6" STUD) 1 HOUR FIRE - UL# U465 STC = 40	LIMITING HEIGHT 22'-10"

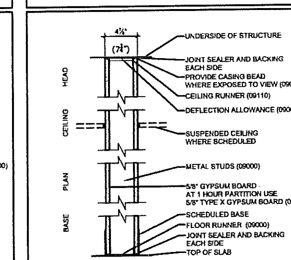


B	4 7/8" (3 5/8" STUD) NO FIRE RESISTANCE RATING STC = 41	LIMITING HEIGHT 15'-7"
B1	4 7/8" (3 5/8" STUD) 1 HOUR FIRE - UL# U465 STC = 41	LIMITING HEIGHT 15'-7"
B2	7 1/4" (6" STUD) NO FIRE RESISTANCE RATING STC = 42	LIMITING HEIGHT 22'-10"
B3	7 1/4" (6" STUD) 1 HOUR FIRE - UL# U465 STC = 42	LIMITING HEIGHT 22'-10"



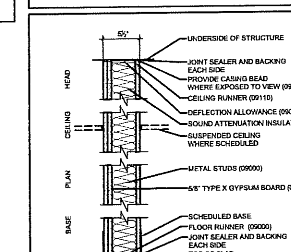
E	SINGLE SIDED (3 5/8") NO FIRE RESISTANCE RATING NO ACOUSTICAL RATING	LIMITING HEIGHT 15'-0"
E1	SINGLE SIDED (3 5/8") NO FIRE RESISTANCE RATING NO ACOUSTICAL RATING	LIMITING HEIGHT 15'-0"
E2	SINGLE SIDED (6" STUD) NO FIRE RESISTANCE RATING NO ACOUSTICAL RATING	LIMITING HEIGHT 23'-3"
E3	SINGLE SIDED (6" STUD) NO FIRE RESISTANCE RATING NO ACOUSTICAL RATING	LIMITING HEIGHT 23'-3"

PARTITION TYPE E, E1, E2 AND E3



SHAFTWALL

F1	4 7/8" (3 5/8" STUD) 1 HOUR FIRE - UL# U465 STC = 39	LIMITING HEIGHT 15'-7"

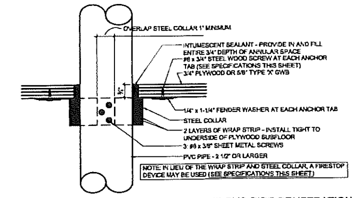


H	8 1/2" (3 5/8" STUD) NO FIRE RESISTANCE RATING STC = 55	LIMITING HEIGHT 15'-7"

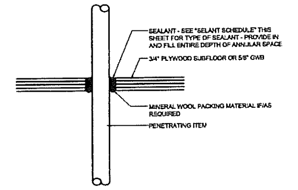
PARTITION TYPE NOTES

1. DIMENSIONS SHOWN ON PLANS ARE FROM FINISH SURFACE TO FINISH SURFACE. MASONRY DIMENSIONS GIVEN ARE NOMINAL. "MO" (MASONRY OPENING) REFERS TO NOMINAL OPENINGS IN MASONRY UNIT CONSTRUCTION "RO" (ROUGH OPENING) REFERS TO ACTUAL OPENINGS BETWEEN METAL STUDS IN METAL STUD CONSTRUCTION
2. PARTITION TYPES ARE INDICATED ON THE FLOOR PLANS NUMBERS REFER TO THE PARTITION TYPE, LETTERS INDICATE VARIATIONS TO THE BASE CONDITION DRAWN UNMARKED PARTITIONS SHALL MATCH ADJACENT PARTITION TYPE
3. ALL FIRE RATED PARTITIONS SHALL EXTEND STRUCTURE TO STRUCTURE UNLESS OTHERWISE NOTED
4. FIRE-RATED PARTITIONS AND SOUND ISOLATION PARTITIONS ARE INDICATED ON REFLECTED CEILING PLANS
5. CONSTRUCTION OF FIRE-RATED PARTITIONS, INCLUDING TAPING AND FINISHING OF GYPSUM BOARD FOR FULL HEIGHT TO STRUCTURE ABOVE, SHALL BE IN ACCORDANCE WITH MANUFACTURERS DIRECTIONS TO ACHIEVE THE RATING INDICATED
6. SOUND ISOLATION & VAPOR TIGHT PARTITIONS SHALL BE SEALED AIRTIGHT FOR FULL HEIGHT TO PREVENT PASSAGE OF AIRBORNE SOUND OR MOISTURE. TAPE AND FINISH ALL GYPSUM BOARD JOINTS AND FASTENERS. PROVIDE SEALANT AT PERIMETER AND AT ALL PENETRATIONS
7. WHEREVER LENGTH OF MASONRY PARTITION EXCEEDS 8'-0" BETWEEN LATERAL SUPPORTS, INSTALL 3" x 3" x 0'-6" x 12 GAUGE FORMED STEEL ANGLES EACH SIDE AT 4'-0" O.C. MAX. ANCHOR EACH ANGLE TO STRUCTURE WITH TWO 1/8" x 15/16" DRIVE PINS. MASONRY SHALL STOP 1" FROM STRUCTURE, INCLUDING PROJECTING TEE STEMS, AND 1" SPACE SHALL BE FILLED WITH INCOMBUSTABLE COMPRESSIBLE FILLER. IF MASONRY PARTITION PARALLEL TO TEES OCCURS DIRECTLY BENEATH A TEE STEM, PROVIDE 9" LONG 12 GAUGE FORMED STEEL CHANNELS WITH 3" FLANGES AND WEB WIDTH EQUAL TO MASONRY WIDTH - SPACE 4'-0" O.C. MAX. AND ANCHOR WITH THREE 1/8" x 15/16" DRIVE PINS
8. HOLLOW METAL FRAMES IN METAL STUD PARTITIONS SHALL HAVE 4 STUD ANCHORS PER JAMB MINIMUM FOR FRAME HEIGHT OF 7'-2" OR LESS, AND ONE ADDITIONAL ANCHOR PER JAMB FOR EACH ADDITIONAL 2'-0" OR FRACTION. HOLLOW METAL FRAMES IN MASONRY SHALL HAVE 3 MASONRY ANCHORS PER JAMB MINIMUM FOR FRAME HEIGHT OF 7'-2" OR LESS, AND ONE ADDITIONAL ANCHOR PER JAMB FOR EACH ADDITIONAL 2'-0" OR FRACTION. ALL HOLLOW METAL FRAMES SHALL HAVE ONE FLOOR CLIP PER JAMB, WITH TWO ANCHORS INTO FLOOR AT EACH FLOOR CLIP.
9. PROVIDE JOINT REINFORCEMENT IN ALL MASONRY PARTITIONS, CONTINUOUS HORIZONTALLY AND SPACED NOT OVER 16" ON CENTER VERTICALLY, BEGINNING WITH THE JOINT 8" ABOVE THE FLOOR AND IN THE FIRST AND SECOND JOINTS ABOVE AND BELOW OPENINGS EXTENDING NOT LESS THAN 24" BEYOND EACH SIDE OF THE OPENING
10. PROVIDE FIRE-RETARDANT TREATED WOOD BLOCKING FOR PARTION MOUNTED EQUIPMENT AND CASEWORK
11. PARTITION TYPES DESCRIBE THE PRIMARY MEMBER AND SHEATHING. REFER TO FINISH SCHEDULE FOR ALL PARTITION FINISH DESIGNATIONS
12. PROVIDE TYPE WR WATER RESISTANT GYPSUM BOARD IN ALL WET AREAS SUCH AS TOILETS AND SHOWERS
13. PROVIDE 5/8" CONCRETE BACKER BOARD AT ALL CERAMIC TILE FINISHES TO ALIGN WITH 5/8" TYPE WR GYPSUM BOARD ABOVE
14. PROVIDE SLIP JOINT CONNECTIONS AT THE TOPS OF ALL PARTITIONS WHICH INTERSECT THE STRUCTURE ABOVE. PROVIDE FIRE SAFING AT ALL SLIP JOINT CONNECTIONS IN FIRE RATED PARTITIONS
15. COORDINATE FINISHES WITH ROOM FINISH SCHEDULE.
16. PENETRATIONS THROUGH RATED WALLS AND CEILING ASSEMBLIES SHALL HAVE SEALANTS CONFORMING TO RATING REQUIREMENTS
17. CONTRACTOR TO VERIFY WALL LOCATIONS IN FIELD AND COORDINATE WITH EXISTING PIPE LOCATIONS, NOTIFY ARCHITECT OF ANY DISCREPANCIES
18. ALL ADDITION BUILDING PARTITIONS TYPE A-A, UNLESS OTHERWISE NOTED

FIRESTOPPING DETAILS:



(2) DETAIL FOR 2 1/2" AND LARGER PVC PIPE PENETRATION
SCALE: 3" = 1'-0"



(1) DETAIL LESS THAN 2 1/2" PVC PIPE PENETRATION
SCALE: 3" = 1'-0"

SPECIFICATIONS

WRAP STRIP: 1/4" THICK x 1 1/2" MINIMUM WIDTH INTUMESCENT MATERIAL WITH PLASTIC FILM FACING BOTH SIDES. TEMPORARILY SECURE WITH MAKSING TAPE. SPECIFIED TECHNOLOGIES INC (STI) "SpecSeal RED Wrap Strip" OR "SpecSeal BLU Wrap Strip" OR EQUAL.

FIRESTOP DEVICE: IN LIEU OF THE WRAP STRIP AND STEEL COLLAR, A FIRESTOP DEVICE MAY BE USED AS FOLLOWS:

FOR 3" PVC PIPE (3 1/2" O.D.): STI "SpecSeal LCC" COLLAR #LCC300

FOR 4" PVC PIPE (4 1/2" O.D.): STI "SpecSeal LCC" COLLAR #LCC400

DO NOT USE FIRESTOP DEVICE AT JOINTS (JOINT FLANGES) IN PIPE, PROVIDE WRAP STRIP AND STEEL COLLAR

STEEL COLLAR: WRAP STRIP MANUFACTURER'S STEEL COLLAR, FABRICATED FROM .016 INCH THICK GALVANIZED SHEET STEEL, WIDTH TO MATCH WRAP STRIP (1 1/2" MINIMUM), WITH 1 INCH x 2 INCH ANCHOR TABS AND RETAINER TABS. ANCHOR TABS TO BE SYMMETRICALLY OPPOSED AROUND COLLAR; PROVIDE 3 TABS FOR 2 1/2" AND 3" PIPE; PROVIDE 4 TABS FOR 4" PIPE.

INTUMESCENT SEALANT: ONE-PART, INTUMESCENT, LATEX ELASTOMER TESTED TO ASTM E 814. MINIMUM EXPANSION OF 3x AT 1000°F. 3M "FIRE BARRIER SEALANT CP 25WB+" OR EQUAL.

FIRESTOP SEALANT: SINGLE COMPONENT NONCOMBUSTIBLE FIRE RATED SEALANT TESTED TO ASTM E 814. TESTED TO 3000°F. "BOSS 136 FIRESTOP/DRAFT SEALANT" MANUFACTURED BY ACCUMETRIC, LLC., OR EQUAL.

SEALANT SCHEDULE:

INTUMESCENT SEALANT: PROVIDE AT ALL PENETRATIONS THROUGH RATED CONSTRUCTION FOR PENETRATING ITEMS INCLUDING BUT NOT LIMITED TO: PVC PIPE; ROOF LEADER PIPES; GAS PIPES & LINES; SPRINKLER PIPES; ELECTRICAL & COMMUNICATIONS CABLES & WIRES, AND ALARM SYSTEM WIRES. DO NOT USE INTUMESCENT SEALANT AT DOMESTIC HOT WATER OR HYDRONIC HEATING SYSTEM PIPES

FIRESTOP SEALANT: PROVIDE AT ALL PENETRATIONS THROUGH RATED CONSTRUCTION FOR PENETRATING ITEMS INCLUDING DOMESTIC HOT AND COLD WATER PIPES AND HYDRONIC HEATING SYSTEM PIPES

NOTE:

FOR LOCATIONS OF RATED CONSTRUCTION, SEE ARCHITECTURAL FLOOR PLANS AND SECTIONS

REGISTERED ARCHITECT
T. SCOTT TEAS
No. 802
STATE OF MAINE

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TFH ARCHITECTS
80 MIDDLE STREET
PORTLAND MAINE 04101
TELEPHONE 207 775 6141
ARCHITECTURE PLANNING

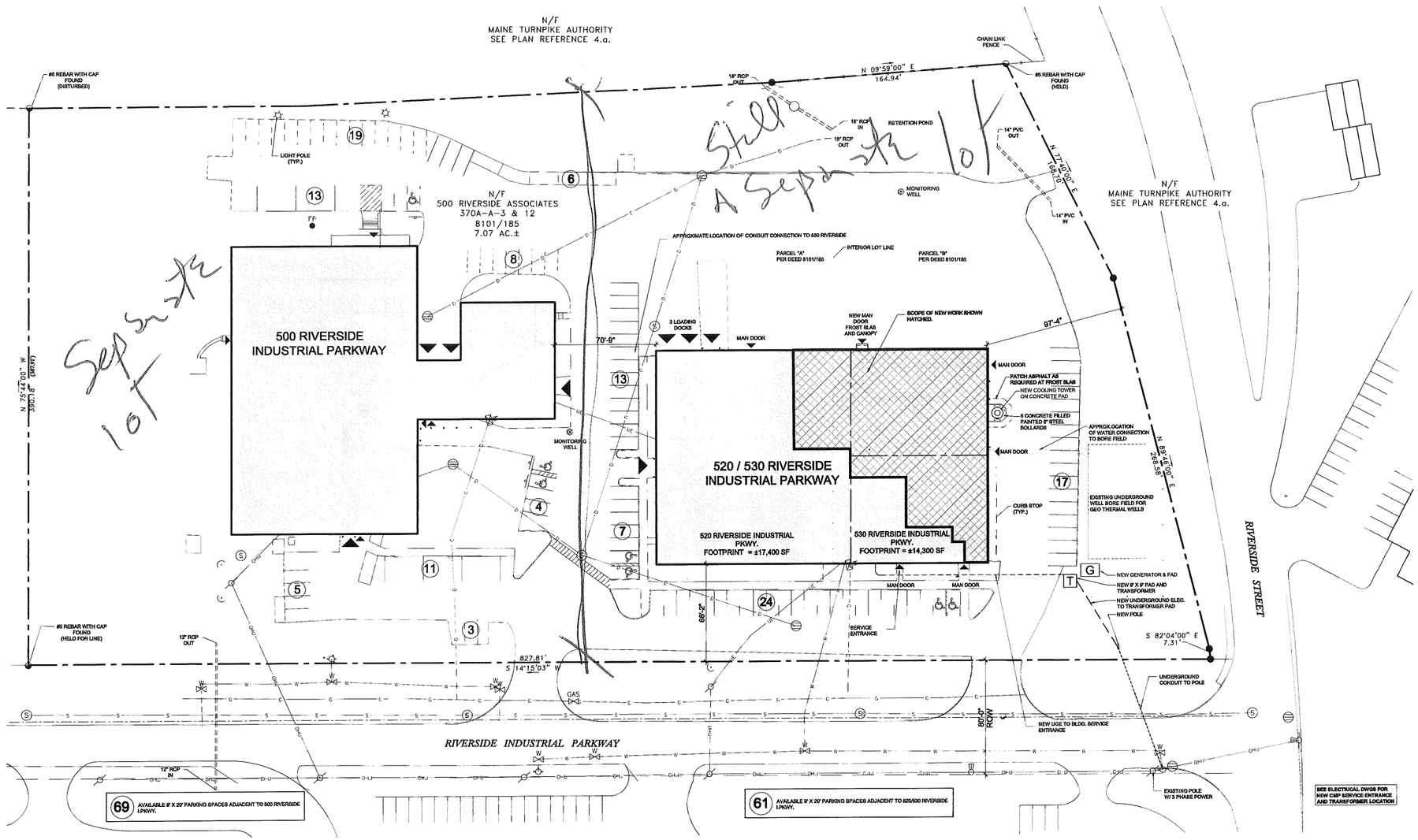
CONSULTANTS:
STRUCTURAL:
Becker Structural Engineers, Inc.
75 York Street
Portland, ME 04101-4450
207-879-1838
MECHANICAL:
Integrated Energy Systems,PLLC
310 Middle Road
Falmouth, ME 04105
207-781-4263
ELECTRICAL:
BENNETT ENGINEERING
7 Bennett Road
Freeport, ME 04032
207-865-9475

REVISIONS:

DATE:	8/17/2011
PROJECT No.	1026A
DRAWN BY:	DAM,RJS
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
GENERAL NOTES
ABBREVIATIONS
LEGENDS
PARTITION TYPES

G1.0



1 / C1-1 **SITE PLAN**
1" = 30'-0"

ZONING REQUIREMENTS		REQUIRED	PROVIDED
1. MINIMUM LOT SIZE:		NONE	
2. MINIMUM STREET FRONTAGE:		NONE	
3. MAXIMUM IMPERVIOUS SURFACE RATIO		75%	NO CHANGE
4. MAXIMUM BUILDING HEIGHT:		75 FEET	±23'
5. MINIMUM YARD DIMENSIONS:	REAR:	1' PER FOOT OF BLDG. HEIGHT	±23'
6. MINIMUM YARD DIMENSIONS:	SIDE:	1' PER FOOT OF BLDG. HEIGHT	±23'
7. MINIMUM YARD DIMENSIONS:	FRONT:	1' PER FOOT OF BLDG. HEIGHT	±23'

PARKING CALCULATIONS FOR 530 RIVERSIDE INDUSTRIAL PARKWAY:		530 RIVERSIDE	PARKING SPACES REQ.
OFFICE=	1 SPACE PER 400 SQUARE FEET	12,542 SF	12,542 / 400 = 35
LABORATORY	1 SPACE PER 600 SQUARE FEET (UNDEFINED)	7,058 SF	7,058 / 600 = 12
MANUFACT / STOR. =	1 SPACE PER 1000 SQUARE FEET	3,203 SF	3,203 / 1000 = 4
SPACES			51 SPACES REQ.
			61 AVALALBLE EXISTING

530 RIVERSIDE INDUSTRIAL PARKWAY INTERIOR RENOVATIONS
PARCEL ID: 370A A012001
LOT AREA: 150,028 SF
ZONE: IM

13
7
24
17
61

Parking

only using 520/530 Riverside

SCALE: 1" = 30'-0"

REGISTERED ARCHITECT T. SCOTT TEAS No. 802 STATE OF MAINE

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TPH ARCHITECTS
80 MIDDLE STREET
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TELEPHONE 207 775 6141
ARCHITECTURE PLANNING

CONSULTANTS:

REVISIONS:

DATE:	9/17/11
PROJECT No.	1038A
DRAWN BY:	DAM,RJB
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
SITE LAYOUT UTILITIES & ZONING PLAN

C1.1

MATCH LINE

FUTURE HEAT PUMP

MECHANICAL 128

FUTURE HEAT PUMP

REMOVE WALL AT DOOR

REMOVE WALL AT NEW DOOR

REMOVE DOOR

FUTURE HEAT PUMP

MECHANICAL 127

FUTURE ELEC / TEL. / DATA PANELS

STAIR 120

UP

REMOVE WALL AT DOOR

NEW 1 HR DOOR

FE

FUTURE HEAT PUMP

MECHANICAL 126

HALL 123

MATCH LINE

ELEC. CLOSET 122B

MECH. CLOSET 122A

LIFT 121

NEW COLUMN AND FOOTING - TYPICAL
PATCH CONCRETE SLAB

OPEN HOLDING AREA 119

BREAK OUT SPACE 118

MARKETIGN AND SALES 100

UTILITY 115

TOILET 114

KITCHEN 116

TOILET 113

CONTROLLER 117

TOILET 111

TOILET 112

HALL 110

CLOSET

STAIR 109

WAITING 101

FIRE RATED VESTIBULE 108

VICE PRESIDENT 106

RECEPTION / ACCOUNTING 105

ENTRY LOBBY 102

VICE PRESIDENT 103

ACCOUNTING 107

VESTIBULE 104

ELECTRICAL SERVICE ENTRANCE

EXISTING FLOOR PLAN (NO LAYOUT MODIFICATIONS)

1 / A1.1B FIRST FLOOR PLAN - PART B
1/4" = 1'-0"

WALL LEGEND	
NEW WALL	
EXISTING WALL	

T. SCOTT TEAS No. 822 REGISTERED ARCHITECT

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TPH ARCHITECTS
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CONSULTANTS:

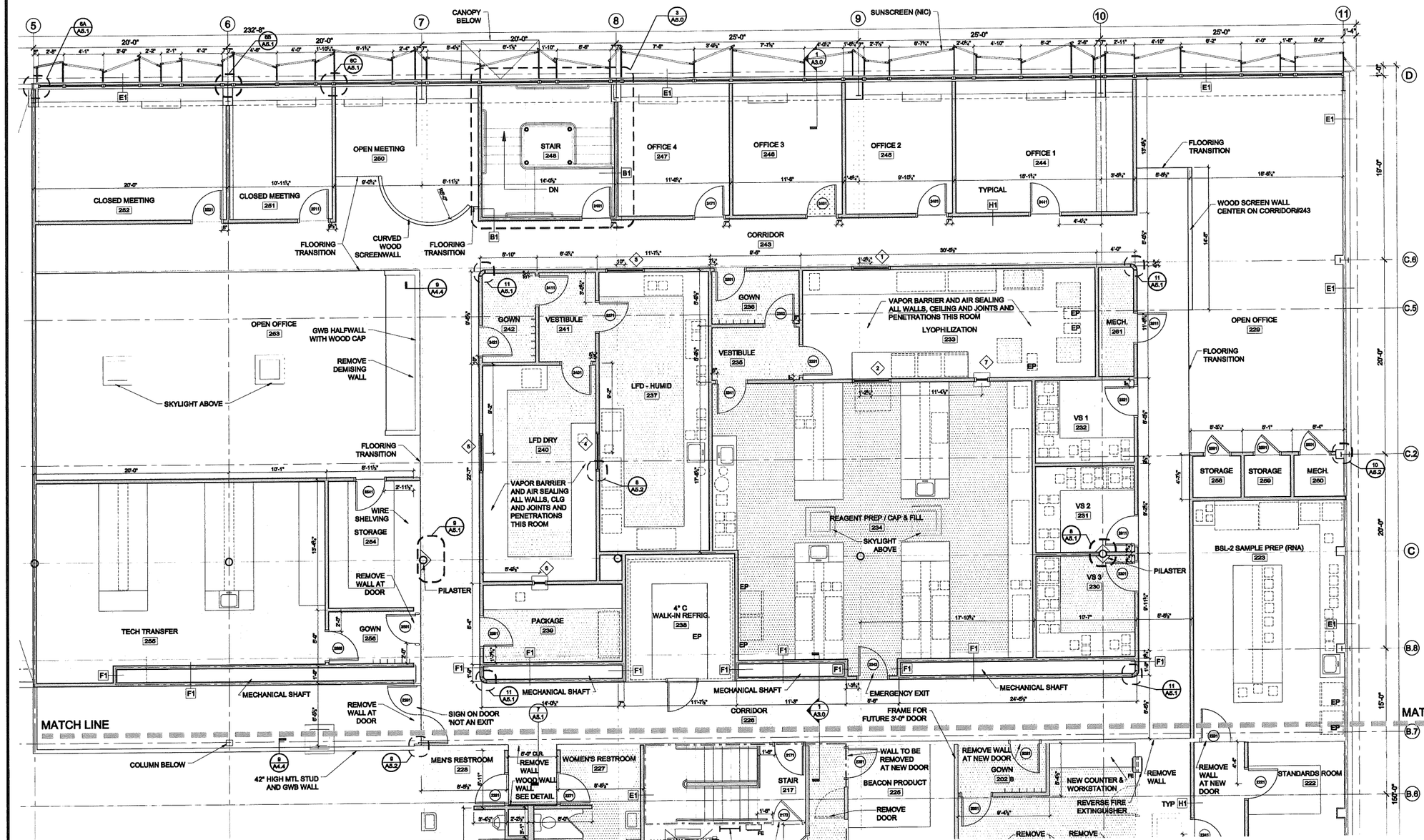
AREA - A
AREA - B

REVISIONS:

DATE:	6/17/11
PROJECT No.	1026A
DRAWN BY:	DAM/RJB
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
FIRST FLOOR PLAN - PART B

A1.1B



1 A1.2A SECOND FLOOR PLAN - PART A
1/4" = 1'-0"

FLOORING LEGEND	
CARPET	
SHEET FLOORING	

WALL LEGEND	
NEW WALL	
EXISTING WALL	

REGISTERED ARCHITECT T. SCOTT TEAS No. 822

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TPH ARCHITECTS
80 MIDDLE STREET
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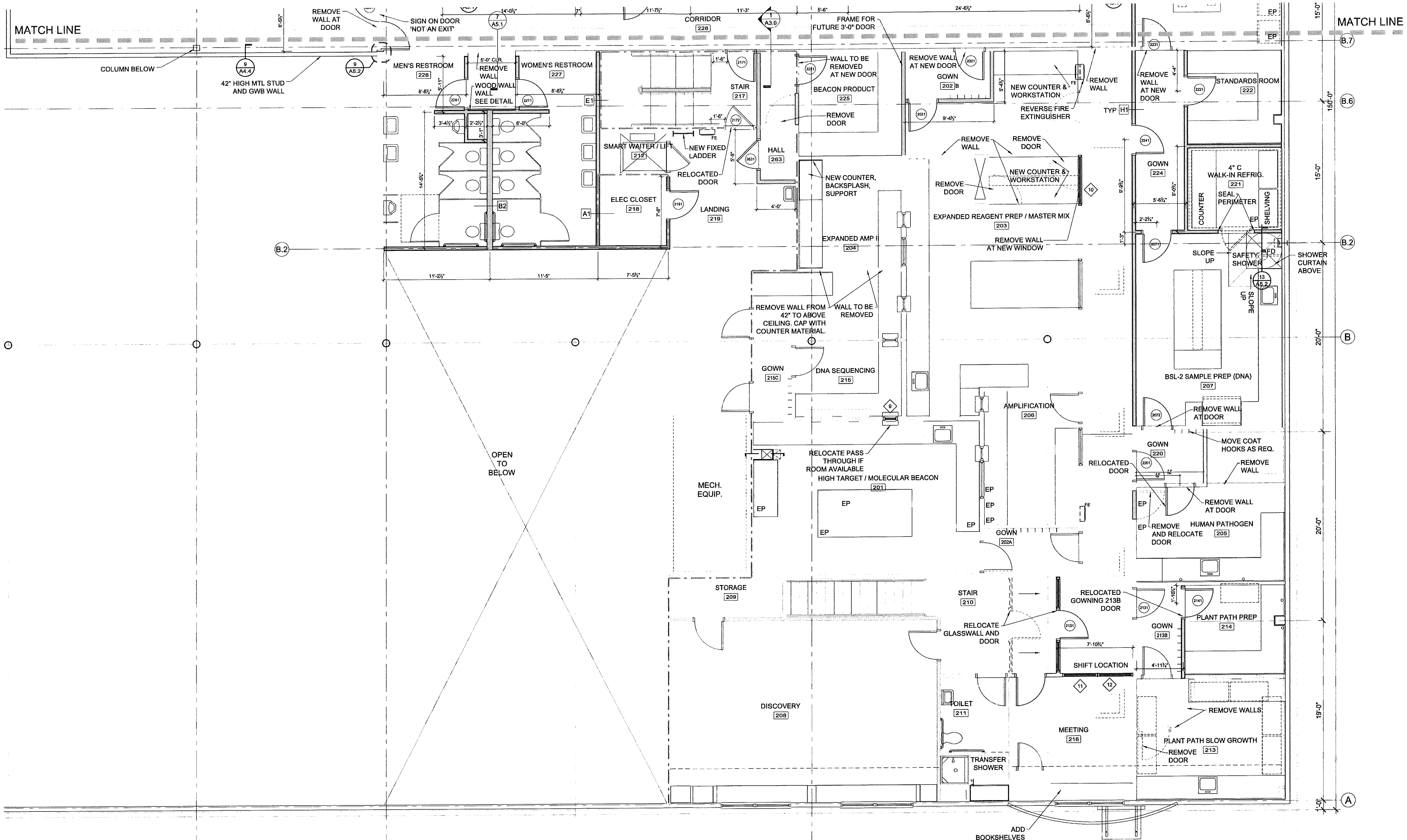
CONSULTANTS:

REVISIONS:

DATE:	6/17/11
PROJECT No.	1028A
DRAWN BY:	DAM,RJB
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
SECOND FLOOR PLAN - PART A

A1.2A



1 A1.2B SECOND FLOOR PLAN - PART B
1/4" = 1'-0"

FLOORING LEGEND
CARPET
SHEET FLOORING

WALL LEGEND
NEW WALL
EXISTING WALL

REGISTERED ARCHITECT T. SCOTT TEAS No. 802 STATE OF MAINE

EnviroLogix
RIVERSIDE CAMPUS
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PORTLAND, MAINE

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CONSULTANTS:

STRUCTURAL:
Becker Structural Engineers, Inc.
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207-879-1838

MECHANICAL:
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Falmouth, ME 04105
207-781-4263

ELECTRICAL:
BENNETT ENGINEERING
7 Bernard Road
Freeport, ME 04032
207-865-9475

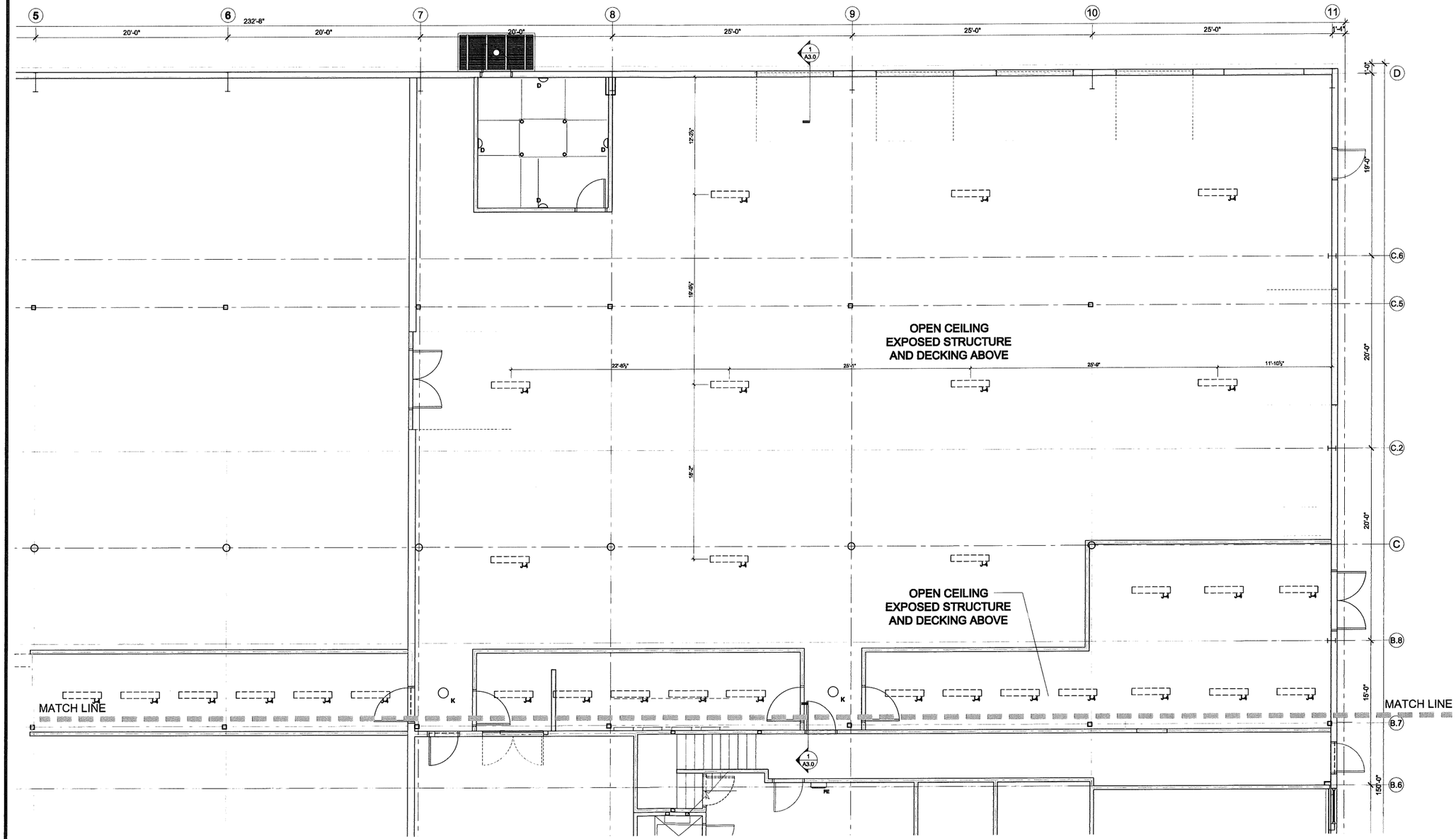
530 RIVERSIDE KEY PLAN
AREA - A
AREA - B

REVISIONS:

DATE:	8/17/11
PROJECT No.	1026A
DRAWN BY:	DAM,RJS
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
SECOND FLOOR PLAN - PART B

A1.2B



1 A1.3A FIRST FLOOR REFLECTED CEILING PLAN - PART A
1/4" = 1'-0"

REFLECTED CEILING PLAN LEGEND GENERAL	
SYMBOL	DESCRIPTION
	HVAC DIFFUSERS SEE MECHANICAL PLANS FOR SIZE AND TYPE
•	CONCEPTUAL SPRINKLER HEAD FINAL DESIGN BY INSTALLER
	2 x 4 ACOUSTICAL CEILING TILE AS INDICATED

REFLECTED CEILING PLAN LEGEND LIGHTING COORDINATE W/ ELECTRICAL PLANS			
SYMBOL	DESCRIPTION		
	PENDANT LINEAR		PENDANT
	SURFACE LINEAR		ARM MOUNTED WALL WASHER
	SURFACE		LINEAR WALL SCONCE
	RECESSED		EDIT LIGHTS/DIRSECTION
	WALL WASHER		EMERGENCY LIGHTS (SEE ELEC PLANS)
	WALL SCONCE		

REFLECTED CEILING PLAN NOTES

1.) GENERAL CONTRACTOR TO CONFIRM IN FIELD, ALL EXISTING PRIMARY STEEL 'BENT' ELEVATIONS WITH PROPOSED CEILING ELEVATIONS AND CONTACT ARCHITECT WITH ANY CONFLICTS PRIOR TO CONSTRUCTION

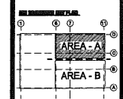
REGISTERED ARCHITECT
T. SCOTT TSAI
No. 602
STATE OF MAINE

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TFH ARCHITECTS
80 MIDDLE STREET
PORTLAND MAINE 04101
TELEPHONE 207 775 9141
ARCHITECTURE PLANNING

CONSULTANTS:

SEE KEYNOTE DETAIL

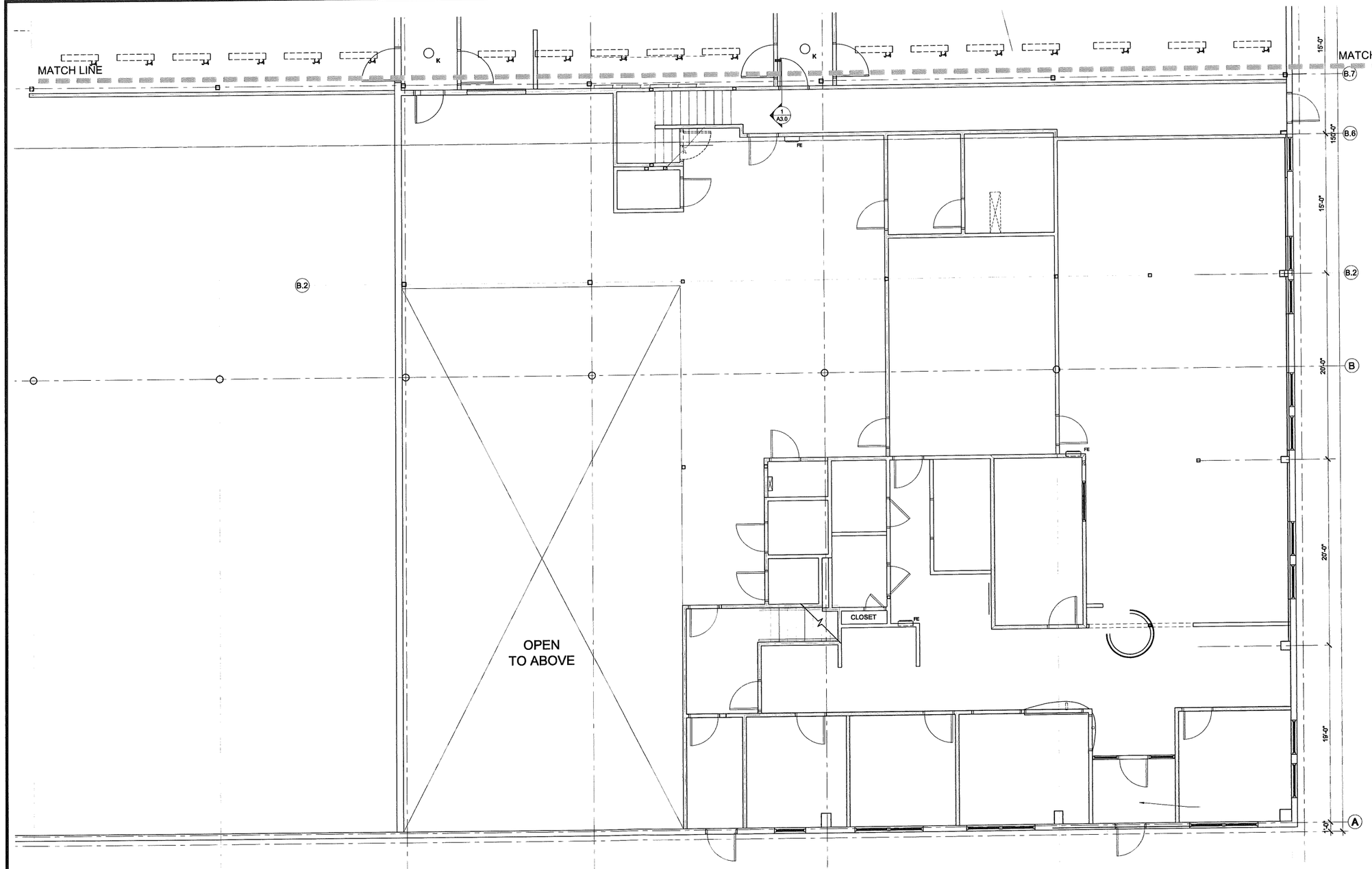


REVISIONS:

DATE:	8/17/11
PROJECT No.	1038A
DRAWN BY:	DAM,RJS
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
FIRST FLOOR REFLECTED CEILING PLAN PART A

A1.3A



1 A1.3B FIRST FLOOR REFLECTED CEILING PLAN - PART B
1/4" = 1'-0"

REFLECTED CEILING PLAN LEGEND GENERAL	
SYMBOL	DESCRIPTION
	HVAC DIFFUSERS SEE MECHANICAL PLANS FOR SIZE AND TYPE
•	CONCEPTUAL SPRINKLER HEAD FINAL DESIGN BY INSTALLER
	2 x 4 ACOUSTICAL CEILING TILE AS INDICATED

REFLECTED CEILING PLAN LEGEND LIGHTING COORDINATE W/ ELECTRICAL PLANS			
SYMBOL	DESCRIPTION		
	PENDANT LINEAR		PENDANT
	SURFACE LINEAR		ARM MOUNTED WALL WASHER
○	SURFACE		LINEAR WALL SCONCE
◎	RECESSED		EXIT LIGHTS/DIRECTION
◒	WALL WASHER		EMERGENCY LIGHTS (SEE ELEC PLANS)
◖	WALL SCONCE		

REFLECTED CEILING PLAN NOTES

1.) GENERAL CONTRACTOR TO CONFIRM IN FIELD, ALL EXISTING PRIMARY STEEL 'BENT' ELEVATIONS WITH PROPOSED CEILING ELEVATIONS AND CONTACT ARCHITECT WITH ANY CONFLICTS PRIOR TO CONSTRUCTION

REGISTERED ARCHITECT T. SCOTT TEAS No. 822 STATE OF MAINE

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
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CONSULTANTS:

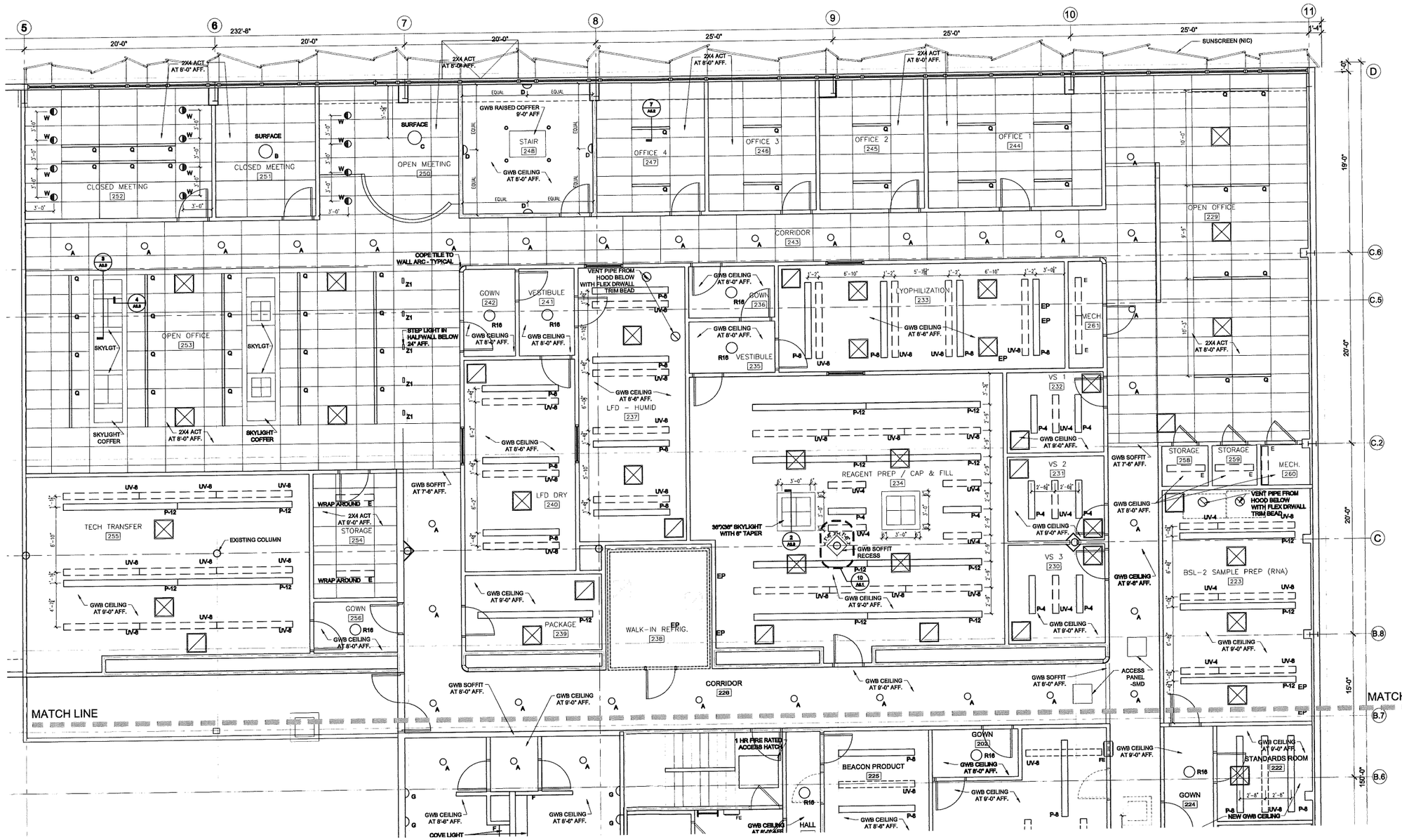
AREA - A
AREA - B

REVISIONS:

DATE:	8/17/11
PROJECT No.	1038A
DRAWN BY:	DAM,RJS
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
FIRST FLOOR REFLECTED CEILING PLAN PART B

A1.3B



1 A1.4A **SECOND FLOOR REFLECTED CEILING PLAN - PART A**
1/4" = 1'-0"

REFLECTED CEILING PLAN LEGEND GENERAL	
SYMBOL	DESCRIPTION
	HVAC DIFFUSERS SEE MECHANICAL PLANS FOR SIZE AND TYPE
•	CONCEPTUAL SPRINKLER HEAD FINAL DESIGN BY INSTALLER
	2 x 4 ACOUSTICAL CEILING TILE AS INDICATED

REFLECTED CEILING PLAN LEGEND LIGHTING COORDINATE W/ ELECTRICAL PLANS			
SYMBOL	DESCRIPTION		
	PENDANT LINEAR		PENDANT
	SURFACE LINEAR		ARM MOUNTED WALL WASHER
	SURFACE		LINEAR WALL SCONCE
	RECESSED		EDOT LIGHT/DIRECTION
	WALL WASHER		EMERGENCY LIGHTS (SEE ELEC PLANS)
	WALL SCONCE		

REFLECTED CEILING PLAN NOTES

1.) GENERAL CONTRACTOR TO CONFIRM IN FIELD, ALL EXISTING PRIMARY STEEL 'BENT' ELEVATIONS WITH PROPOSED CEILING ELEVATIONS AND CONTACT ARCHITECT WITH ANY CONFLICTS PRIOR TO CONSTRUCTION

REGISTERED ARCHITECT
T. SCOTT TEAS
No. 822
STATE OF MAINE

EnviroLogix

RIVERSIDE CAMPUS
530 - DNA EXPANSION
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PLUMBING/FIRE
Maxwell Engineering
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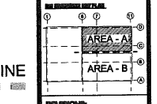
Yarmouth, ME 04096
207-846-0480

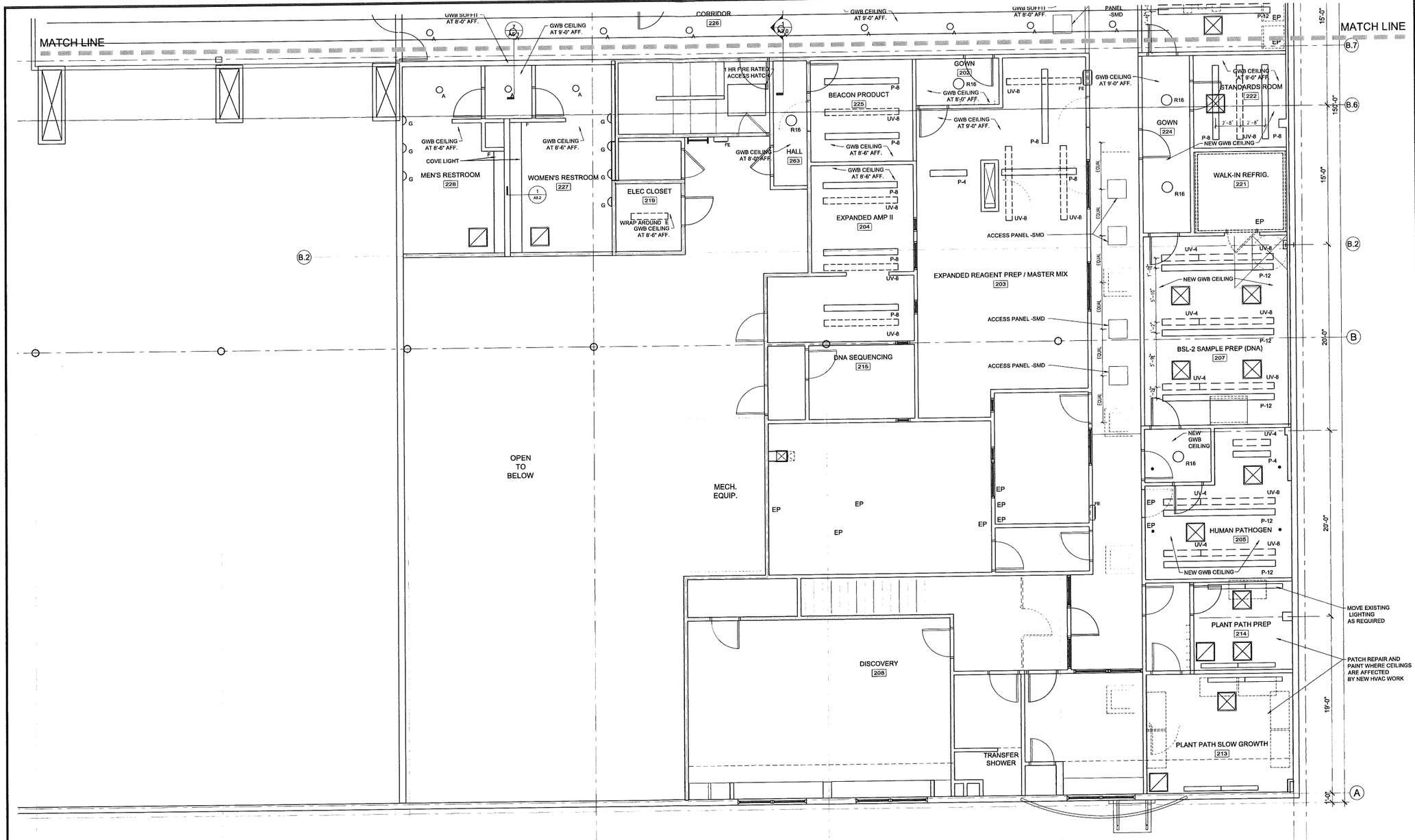


REVISIONS:

DATE:	6/17/11
PROJECT No.	1026A
DRAWN BY:	DAM/RJB
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
SECOND FLOOR REFLECTED CEILING PLAN PART A

A1.4A



1 / A1.4B SECOND FLOOR REFLECTED CEILING PLAN - PART B
1/4" = 1'-0"

REFLECTED CEILING PLAN LEGEND GENERAL	
SYMBOL	DESCRIPTION
	HVAC DIFFUSERS SEE MECHANICAL PLANS FOR SIZE AND TYPE
•	CONCEPTUAL SPRINKLER HEAD FINAL DESIGN BY INSTALLER
	2 x 4 ACOUSTICAL CEILING TILE AS INDICATED

REFLECTED CEILING PLAN LEGEND LIGHTING COORDINATE W/ ELECTRICAL PLANS			
SYMBOL	DESCRIPTION		
	PENDANT LINEAR		PENDANT
	SURFACE LINEAR		ARM MOUNTED WALL WASHER
	SURFACE		LINEAR WALL SCONCE
	RECESSED		EXIT LIGHTS/DIRECTION
	WALL WASHER		EMERGENCY LIGHTS (SEE ELEC PLANS)
	WALL SCONCE		

REFLECTED CEILING PLAN NOTES

1.) GENERAL CONTRACTOR TO CONFIRM IN FIELD, ALL EXISTING PRIMARY STEEL 'BENT' ELEVATIONS WITH PROPOSED CEILING ELEVATIONS AND CONTACT ARCHITECT WITH ANY CONFLICTS PRIOR TO CONSTRUCTION

REGISTERED ARCHITECT T. SCOTT TEAS No. 802 STATE OF MAINE

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TFH ARCHITECTS
80 MIDDLE STREET
PORTLAND MAINE 04101
TELEPHONE 207 775 6141
ARCHITECTURE PLANNING

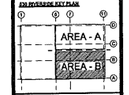
CONSULTANTS:

STRUCTURAL:
Sanborn Structural Engineers, Inc.
75 York Street
Portland, ME 04101-4410
207-879-1838

MECHANICAL:
Integrated Energy Systems,PLLC
310 Middle Road
Falmouth, ME 04105
207-781-4280

ELECTRICAL:
BENNETT ENGINEERING
7 Barrett Road
Freeport, ME 04032
207-865-9475

P2 RIVERSIDE KEY PLAN



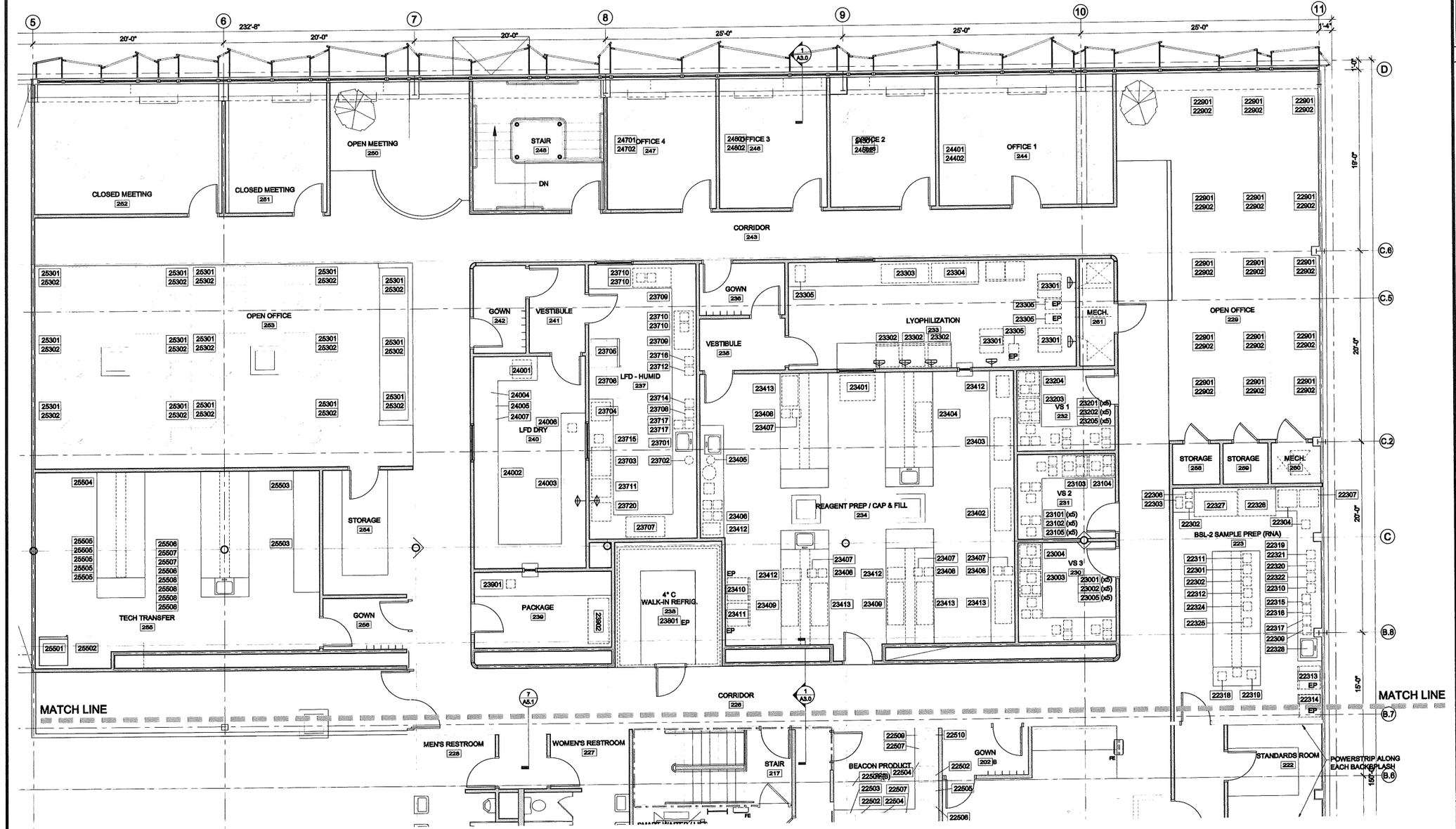
REVISIONS:

DATE:	8/17/11
PROJECT No.	1026A
DRAWN BY:	DAM,RJS
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
SECOND FLOOR REFLECTED CEILING PLAN PART B

NOT NORTH
PROJECT NORTH

A1.4B



1 / A1.6A SECOND FLOOR PLAN - PART A - FURNITURE FIXTURES AND EQUIPMENT
1/4" = 1'-0"

EQUIPMENT PLAN LEGEND

- NITROGEN / ARGON GAS CONNECTION
- COMPRESSED AIR CONNECTION
- EP EMERGENCY POWER

EQUIPMENT PLAN NOTES

1.) SEE ELECTRICAL DRAWINGS FOR EMERGENCY POWER REQUIREMENTS
2.) ONLY NEW OR RELOCATED EQUIPMENT IS LABELED. EXISTING EQUIPMENT IS NOT SHOWN FOR CLARITY.

REGISTERED ARCHITECT T. SCOTT TEAS No. 822

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TPH ARCHITECTS
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TELEPHONE 207 775 5141
ARCHITECTURE PLANNING

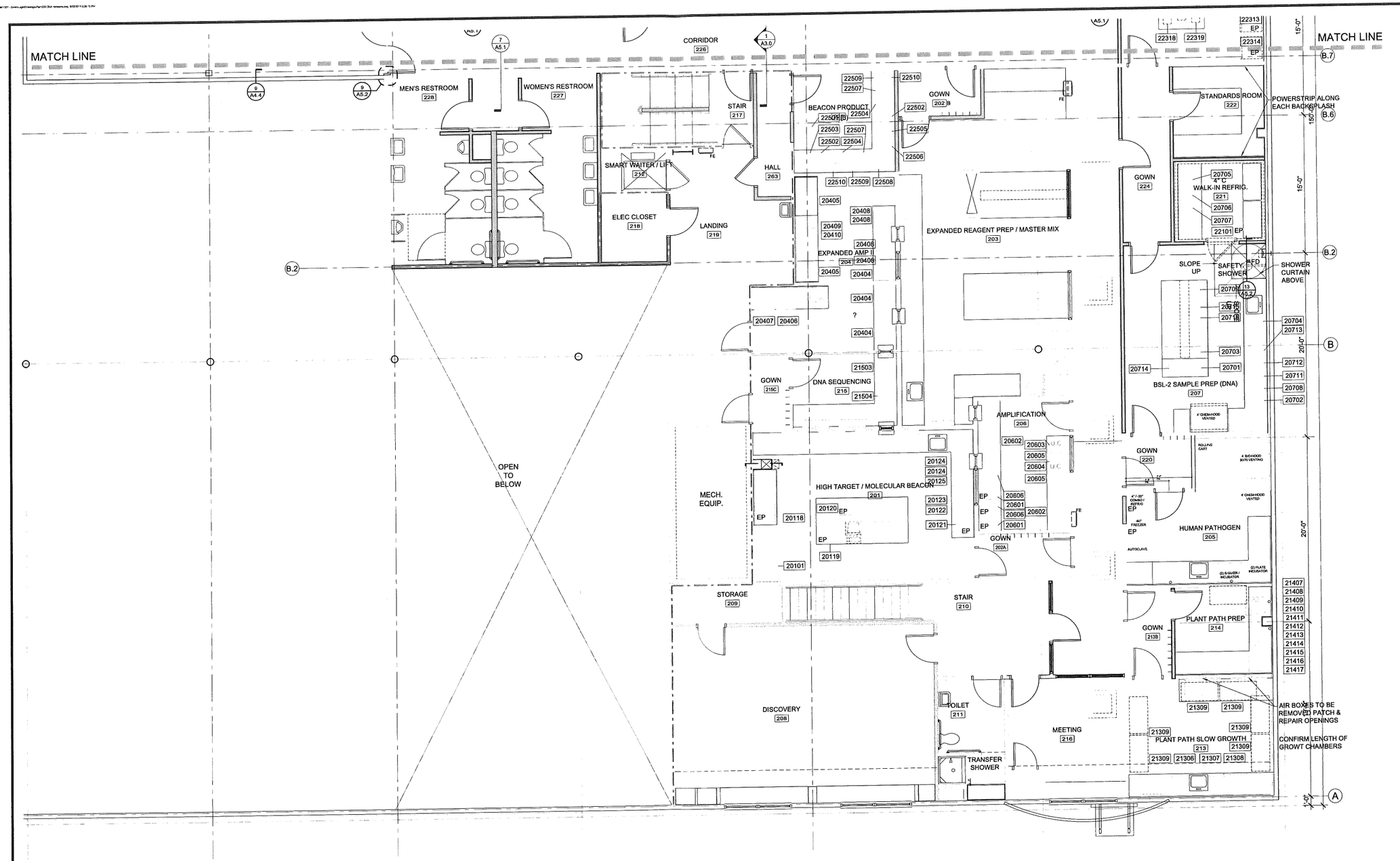
CONSULTANTS:

REVISIONS:

DATE:	9/17/11
PROJECT No.	1038A
DRAWN BY:	DAM,RJB
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
SECOND FLOOR PLAN - PART A FURNITURE FIXTURES AND EQUIPMENT

A1.6A



1 A1.6B SECOND FLOOR PLAN - PART B - FURNITURE FIXTURES AND EQUIPMENT
1/4" = 1'-0"

EQUIPMENT PLAN LEGEND

- NITROGEN / ARGON GAS CONNECTION
- COMPRESSED AIR CONNECTION
- EP EMERGENCY POWER

EQUIPMENT PLAN NOTES

1.) SEE ELECTRICAL DRAWINGS FOR EMERGENCY POWER REQUIREMENTS
2.) ONLY NEW OR RELOCATED EQUIPMENT IS LABELED. EXISTING EQUIPMENT IS NOT SHOWN FOR CLARITY

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

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207-879-1838
MECHANICAL
Integrated Energy Systems,PLLC
Freeport, ME 04032
207-865-9470

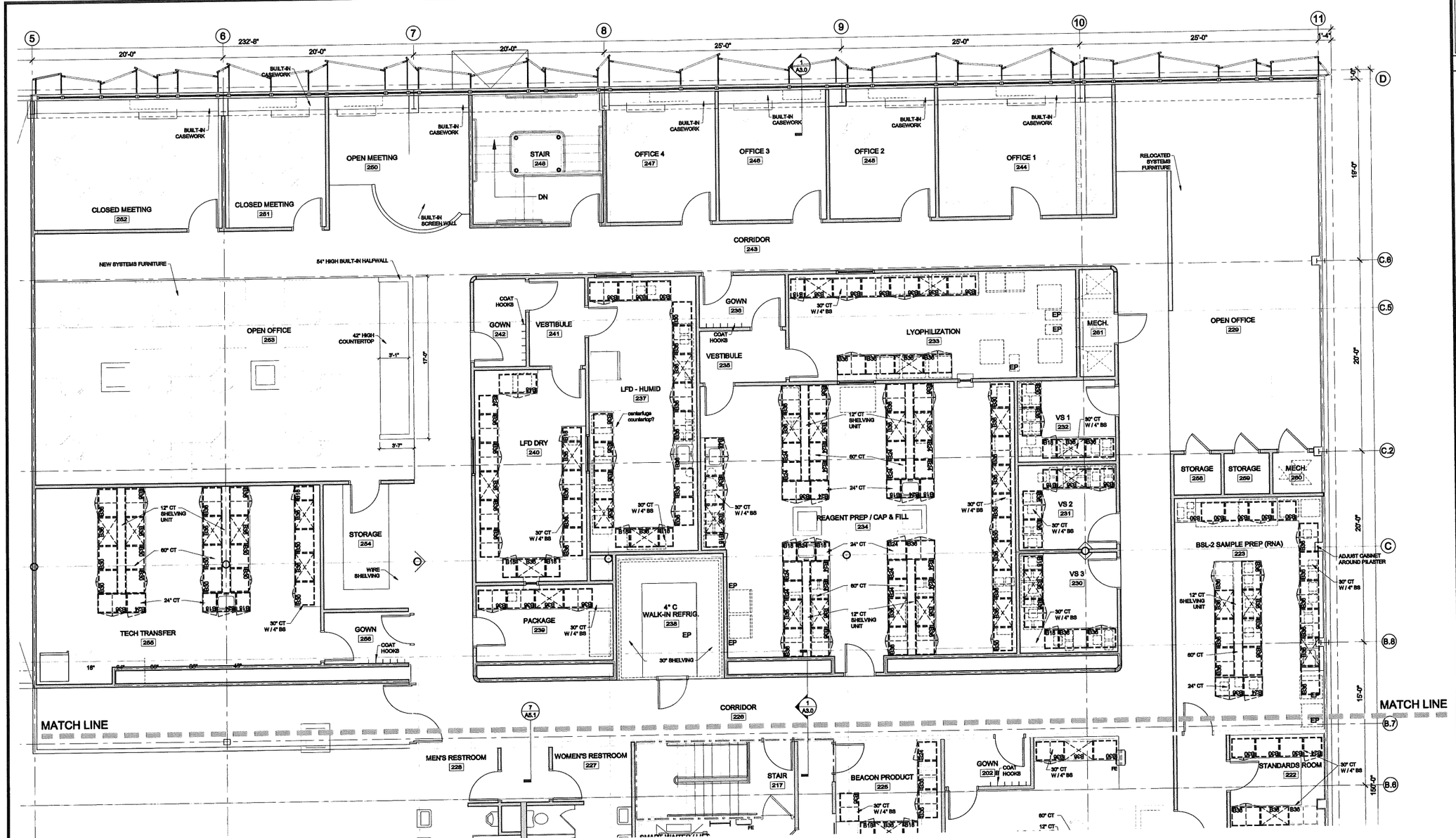
530 RIVERSIDE KEY PLAN
AREA - A
AREA - B

REVISIONS.

DATE:	8/17/11
PROJECT No.	1026A
DRAWN BY:	DAM,RJS
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
SECOND FLOOR PLAN - PART B FURNITURE FIXTURES AND EQUIPMENT

A1.6B



1 A1.7A SECOND FLOOR PLAN - PART A - CASEWORK
1/4" = 1'-0"

BASE CABINETS - WITH (2) 4" AND (2) 8" DRAWERS
18" B18 | 24" B24 | 30" B30 | 36" B36 | 48" B48

BASE CABINETS - DOOR AND SHELF OR SINK BASE
18" SB18 | 24" SB24 | 30" SB30 | 36" SB36 | 48" SB48

BASE CABINETS - OPEN WITH UNDERSHELF
18" UB18 | 24" UB24 | 30" UB30 | 36" UB36 | 48" UB48

WALL CABINETS - SOLID DOORS
18" W1818 | 24" W2418 | 30" W3018 | 36" W3618 | 48" W4818

ABBREVIATIONS

CT = COUNTERTOP

BS = BACKSPLASH

2 A1.7A CASEWORK LEGEND AND ABBREVIATIONS
1/4" = 1'-0"

REGISTERED ARCHITECT T. SCOTT TRAB No. 622 STATE OF MAINE

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TPH ARCHITECTS
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Structural Engineers, Inc.
79 Main Street
Saco, Maine 04072-4405
207-283-1401
MECHANICAL
Mechanical Systems PLUS
176 Ballard Road
Wilmington, MA 01887
978-657-0092
ELECTRICAL
Electrical Concepts
7 Bartlett Road
Kennebunk, Maine 04043
207-985-3600

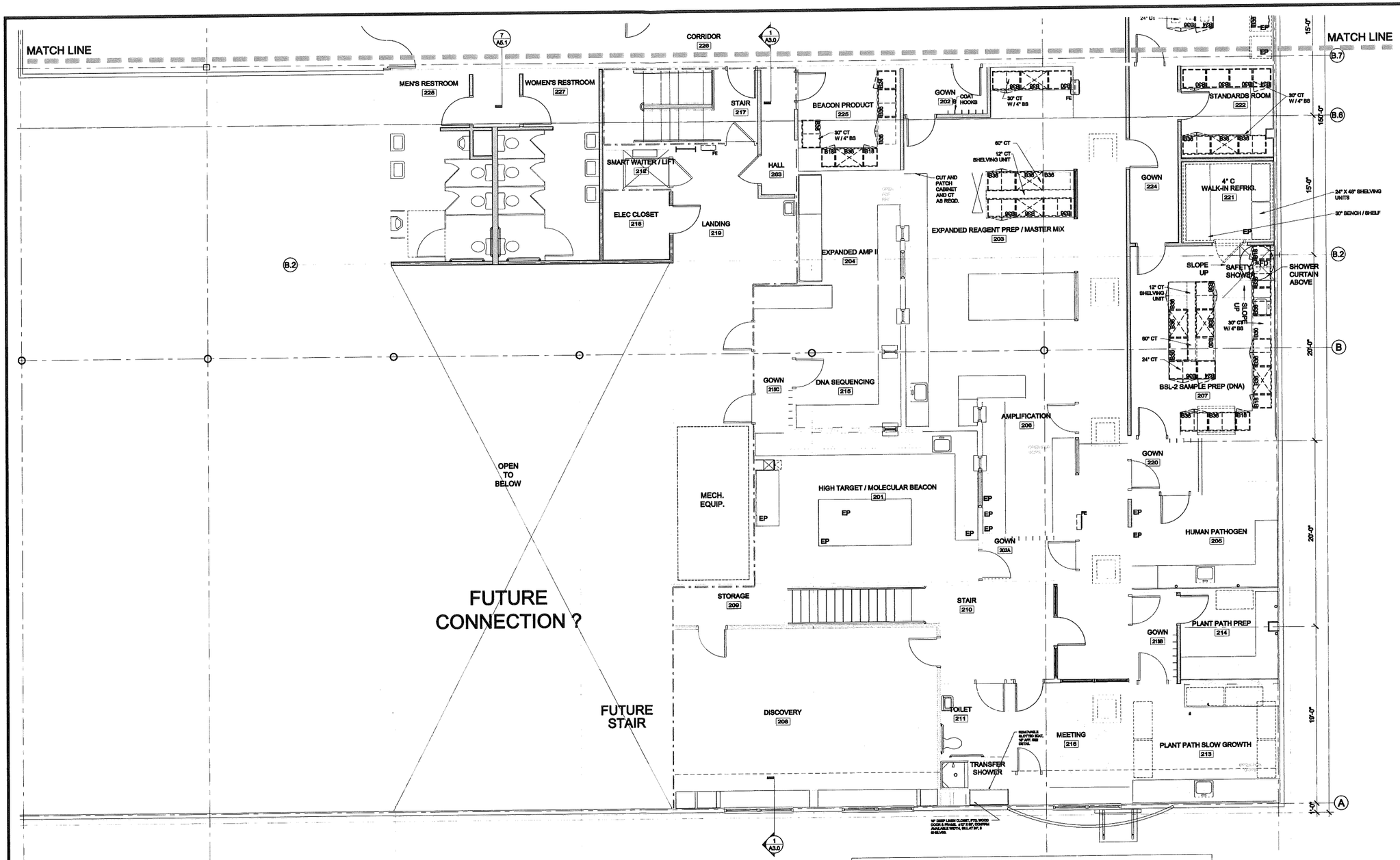
AREA - A
AREA - B

REVISIONS:

DATE:	8/17/11
PROJECT No.	1028A
DRAWN BY:	DAM/JAB
CHECKED BY:	TBT
SCALE:	AS NOTED

SHEET TITLE:
SECOND FLOOR PLAN - PART A CASEWORK

A1.7A



1 A1.7B SECOND FLOOR PLAN - PART B - CASEWORK
1/4" = 1'-0"

BASE CABINETS - WITH (2) 4" AND (2) 6" DRAWERS

18" B18 | 24" B24 | 30" B30 | 36" B36 | 48" B48

BASE CABINETS - DOOR AND SHELF OR SINK BASE

18" B18 | 24" B24 | 30" B30 | 36" B36 | 48" B48

BASE CABINETS - OPEN WITH UNDERSHELF

18" B18 | 24" B24 | 30" B30 | 36" B36 | 48" B48

WALL CABINETS - SOLID DOORS

18" W18 | 24" W24 | 30" W30 | 36" W36 | 48" W48

ABBREVIATIONS

CT = COUNTERTOP

BS = BACKSPLASH

2 A1.7B CASEWORK LEGEND
1/4" = 1'-0"

REGISTERED ARCHITECT T. SCOTT TEAS No. 802

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TPH ARCHITECTS
80 MIDDLE STREET
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ARCHITECTURE PLANNING

CONSULTANTS:

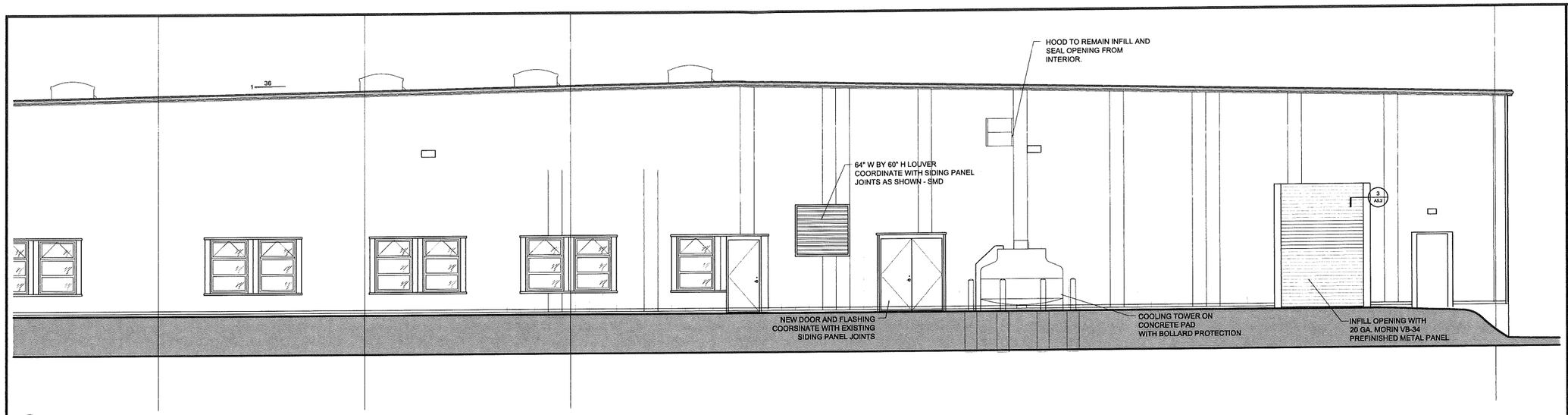
AREA - A
AREA - B

REVISIONS:

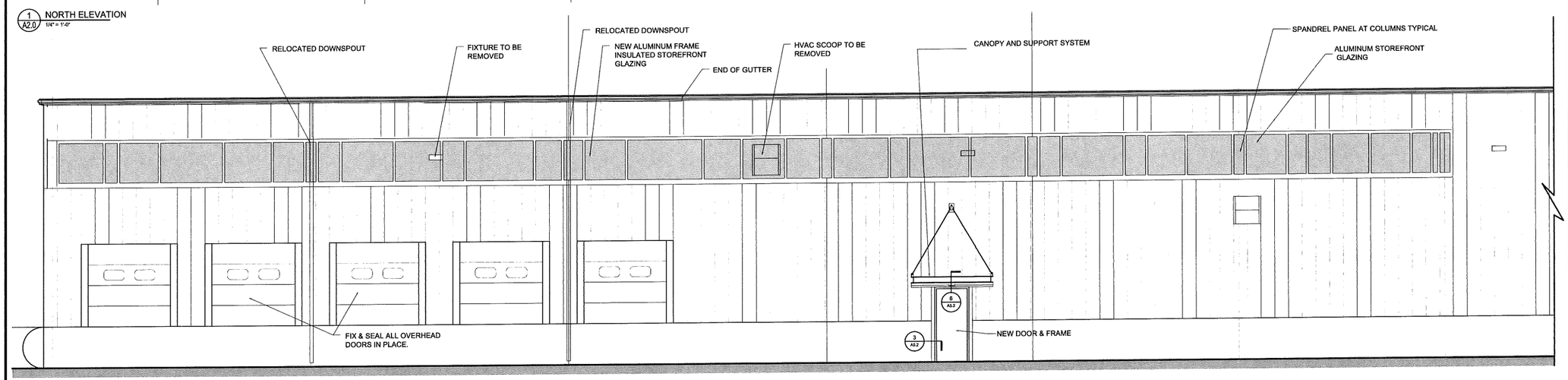
DATE:	9/17/11
PROJECT No.	1028A
DRAWN BY:	DAM,RJB
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
SECOND FLOOR PLAN - PART B CASEWORK

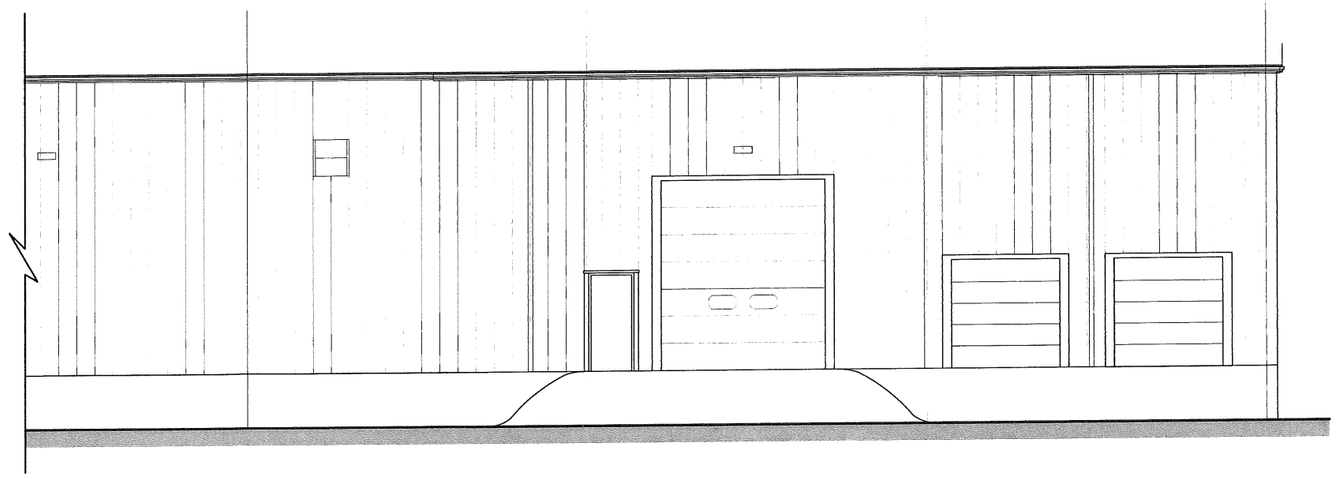
A1.7B



1 A2.0 NORTH ELEVATION
1/4" = 1'-0"



2 A2.0 PARTIAL WEST ELEVATION
1/4" = 1'-0"



3 A2.0 PARTIAL WEST ELEVATION
1/4" = 1'-0"

REGISTERED ARCHITECT
T. SCOTT TEAS
No. 802
STATE OF MAINE

EnviroLogix
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ARCHITECTURE PLANNING

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ELECTRICAL
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207-865-9475

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DATE:	8/17/2011
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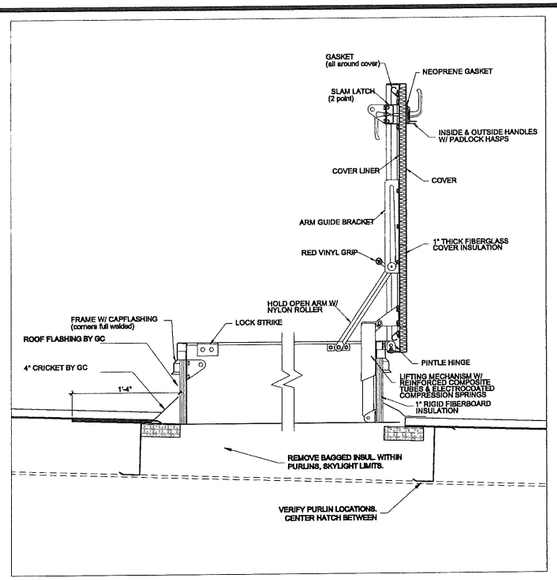
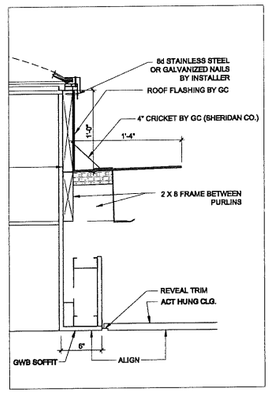
DRAWN BY:	DAM,RJS,DSM
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
EXTERIOR ELEVATIONS

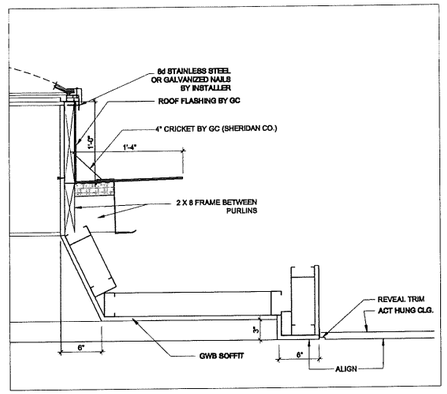
A2.0



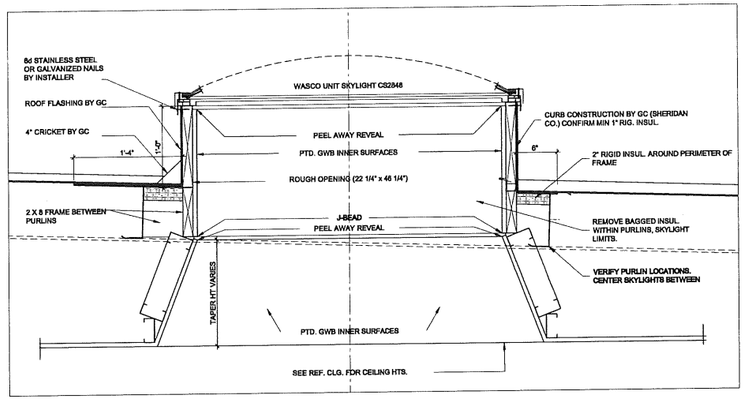
5 A3.0 **SECTION DETAIL AT ROOF HATCH**
1-1/2" = 1'-0"



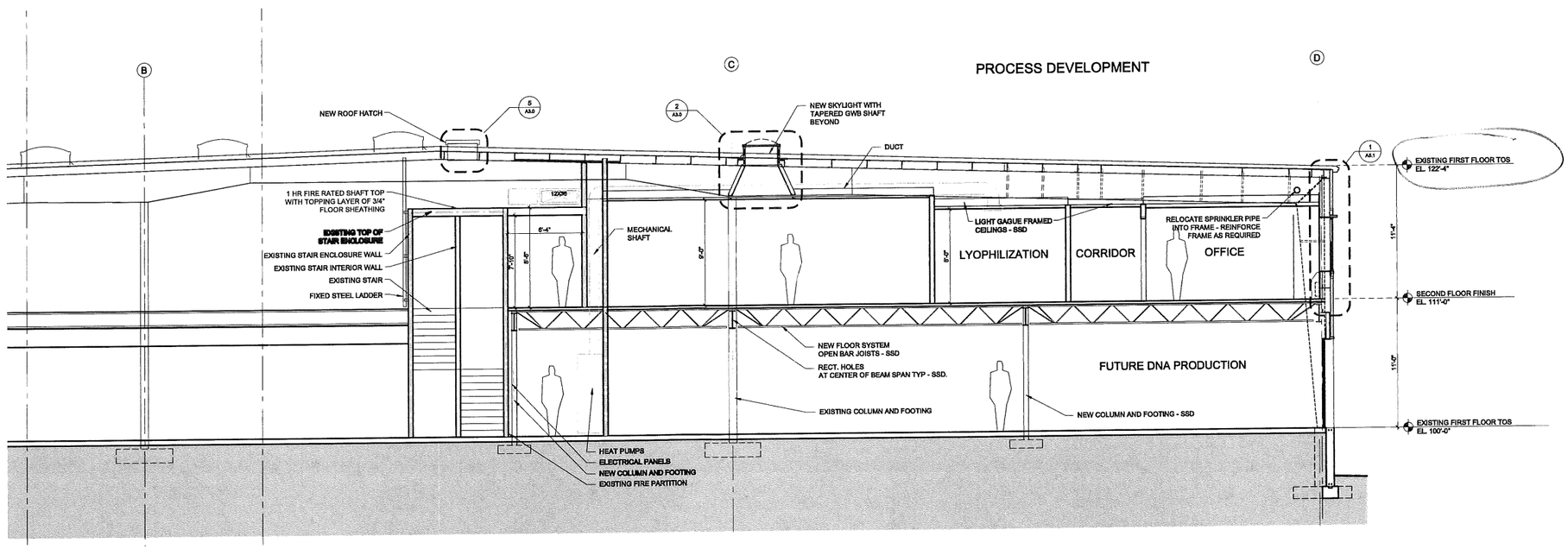
4 A3.0 **SECTION DETAIL AT SKYLIGHT**
1-1/2" = 1'-0"



3 A3.0 **SECTION DETAIL AT SKYLIGHT**
1-1/2" = 1'-0"



2 A3.0 **SECTION DETAIL AT SKYLIGHT**
1-1/2" = 1'-0"



1 A3.0 **BUILDING SECTION**
1/4" = 1'-0"

REGISTERED ARCHITECT
T. SCOTT TEAS
No. 822
STATE OF MAINE

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TPH ARCHITECTS
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ARCHITECTURE PLANNING

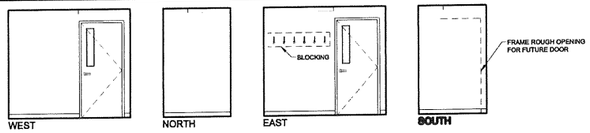
CONSULTANTS:

REVISIONS:

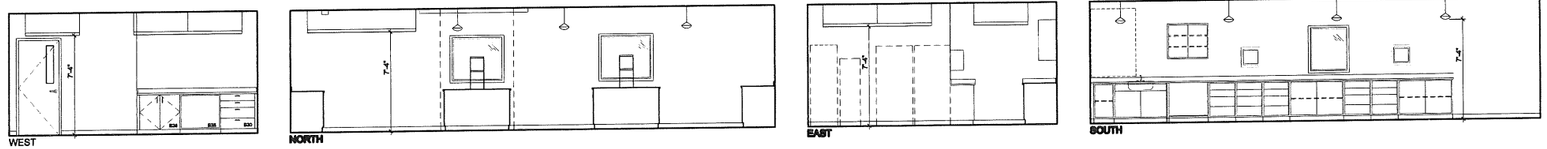
DATE:	6/17/11
PROJECT No.	1038A
DRAWN BY:	DAM/JMB
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
BUILDING SECTION

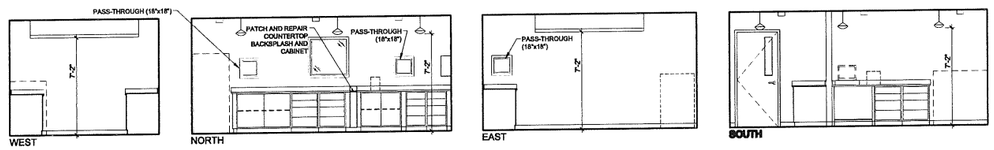
A3.0



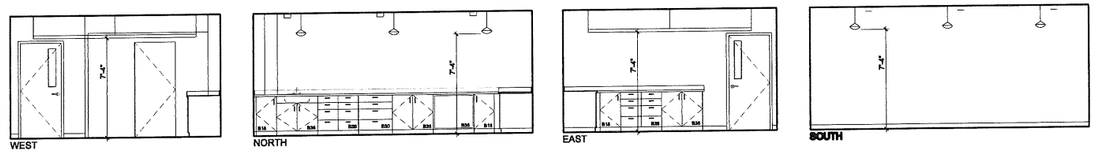
1 202 - GOWN
1/4" = 1'-0"



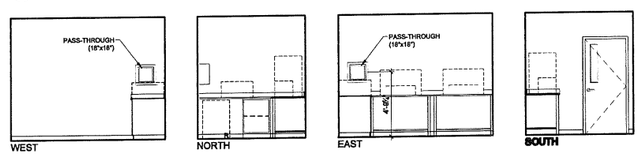
2 203 - EXPANDED REAGENT PREP / MASTER MIX
1/4" = 1'-0"



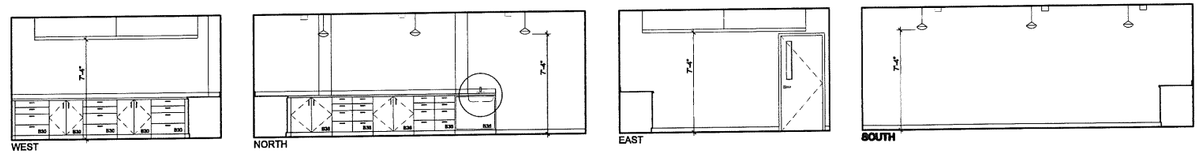
3 204 - EXPANDED AMP II
1/4" = 1'-0"



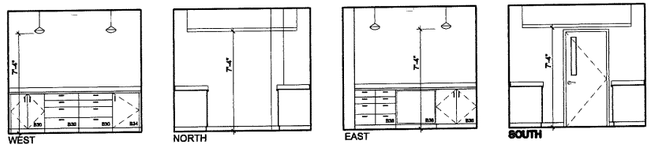
4 207 - BSL-2 SAMPLE PREP (DNA)
1/4" = 1'-0"



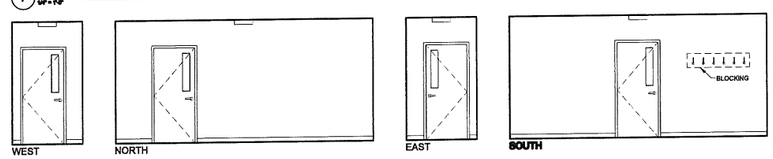
5 215 - DNA SEQUENCING
1/4" = 1'-0"



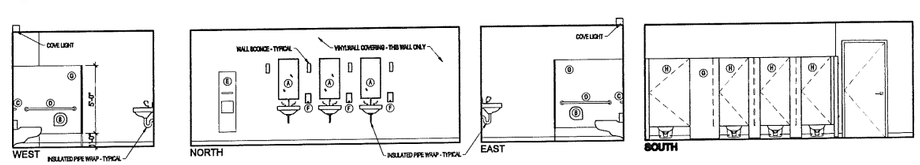
6 222 - STANDARDS ROOM
1/4" = 1'-0"



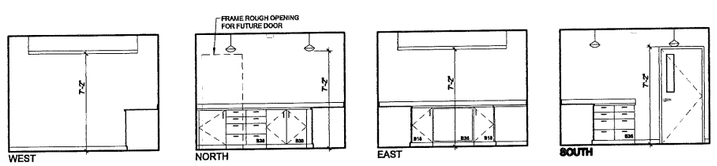
7 223 - BSL-2 SAMPLE PREP (RNA)
1/4" = 1'-0"

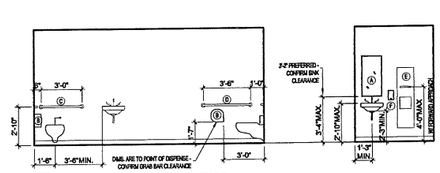


8 224 - GOWN
1/4" = 1'-0"



9 225 - BEACON PRODUCT
1/4" = 1'-0"





NOTES
1. WHEN GIVEN A RANGE OF DIMENSIONS FOR PLACEMENT, PLACE ALL FIXTURES OF SAME TYPE AT THE SAME ELEVATION THROUGHOUT, UNLESS OTHERWISE DIRECTED.
2. MIRRORS TO BE CENTERED OVER SINKS, BEAL LOWER EDGE.
3. PROVIDE APPROPRIATE BLOCKING IN WALLS BEHIND ALL FIXTURES, PARTITIONS, AND ACCESSORIES.
4. FOR CONTROLS OR OPERATING MECHANISMS PROVIDE CLEAR FLOOR SPACE WITH SIDE OR PARALLEL APPROACH COMPLIANT.

TOILET ACCESSORIES KEY
- (A) MIRROR 18" x 36" MOM.
- (B) TOILET PAPER DISPENSER
- (C) GRAB BAR, 36" (1 1/4" TO 1 1/2" O.D.)
- (D) GRAB BAR, 42" (1 1/4" TO 1 1/2" O.D.)
- (E) RECESSED PAPER TOWEL DISPENSER AND WASTE RECEPTACLE
- (F) LIQUID SOAP DISPENSER
- (G) TOILET PARTITION SYSTEM
- (H) COAT HOOK, LOCATED ON BACK SIDE OF EACH STALL DOOR

10 227 - WOMEN'S RESTROOM
1/4" = 1'-0"

11 TYPICAL RESTROOM FIXTURE DETAILS
1/4" = 1'-0"

T. SCOTT TEAS No. 822
REGISTERED ARCHITECT
STATE OF MAINE

EnviroLogix
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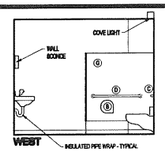
CONSULTANTS:

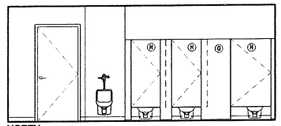
REVISIONS:

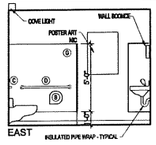
DATE:	6/17/11
PROJECT No.	1028A
DRAWN BY:	DAM,RJB
CHECKED BY:	TST
SCALE:	AS NOTED

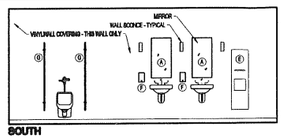
SHEET TITLE:
INTERIOR ELEVATIONS

A4.0

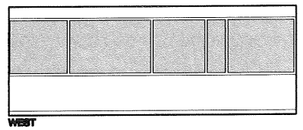


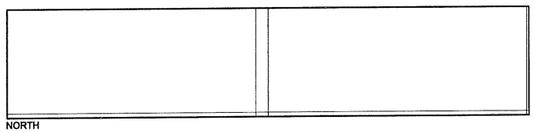


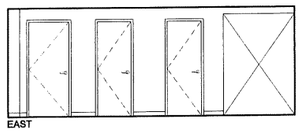


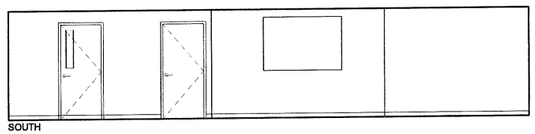


1 **228 - MEN'S RESTROOM**
1/4" = 1'-0"

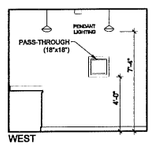


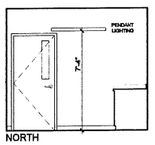


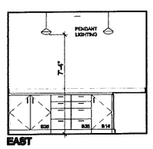


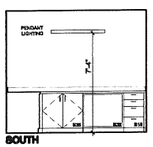


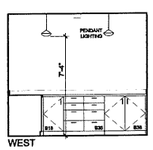
2 **229 - OPEN OFFICE**
1/4" = 1'-0"

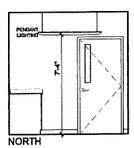


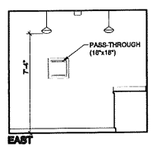


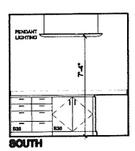




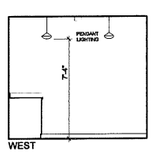


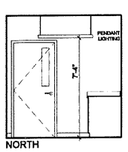


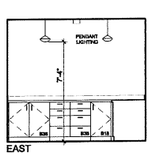


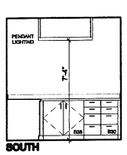


3 **230 - VS3**
1/4" = 1'-0"



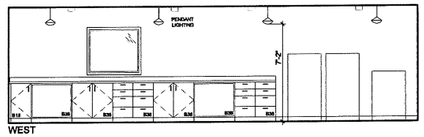


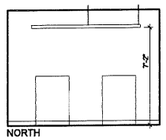


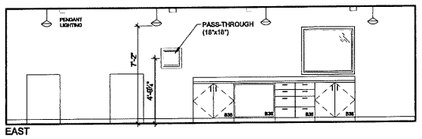


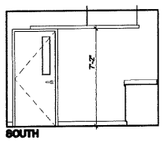
4 **231 - VS2**
1/4" = 1'-0"

5 **232 - VS1**
1/4" = 1'-0"

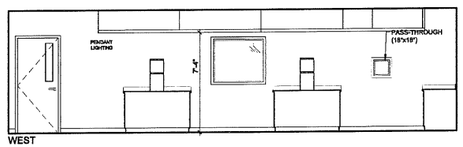


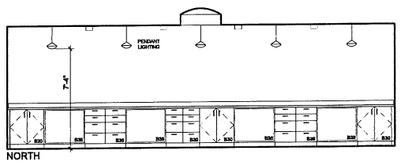


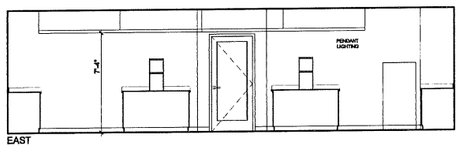


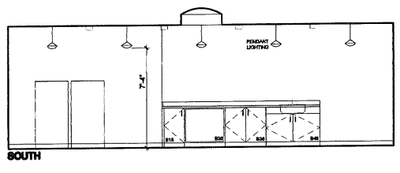


6 **233 - LYOPHILIZATION**
1/4" = 1'-0"

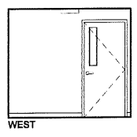


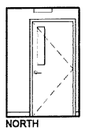


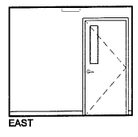


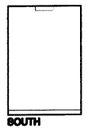


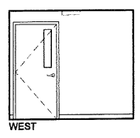
7 **234 - REAGENT PREP / CAP AND FILL**
1/4" = 1'-0"

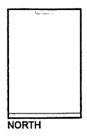


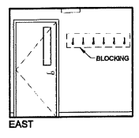


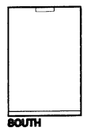




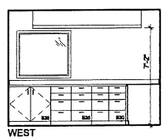


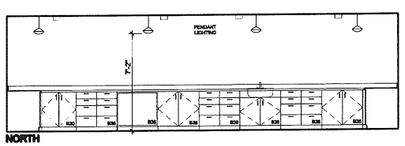


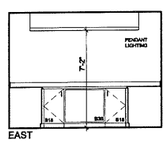




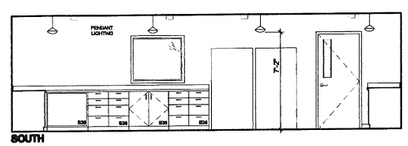
8 **235 - VESTIBULE**
1/4" = 1'-0"







9 **236 - GOWN**
1/4" = 1'-0"



10 **237 - LFD - HUMID**
1/4" = 1'-0"

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TPH ARCHITECTS
80 MIDDLE STREET
PORTLAND MAINE 04101
TELEPHONE 207 775 6141
ARCHITECTURE PLANNING

CONSULTANTS:
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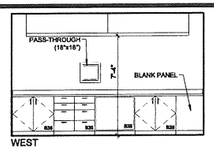
[illegible]

REVISIONS:

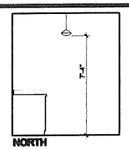
DATE:	6/17/11
PROJECT No.	1028A
DRAWN BY:	DAM,RJS
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
INTERIOR ELEVATIONS

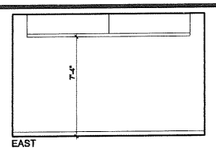
A4.1



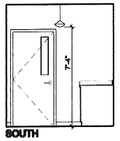
WEST



NORTH

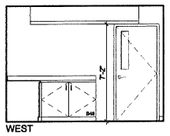


EAST



SOUTH

1 239 - PACKAGE
1/8" = 1'-0"



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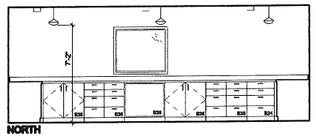
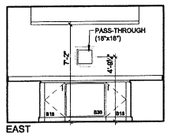
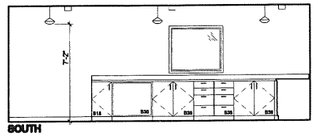


NORTH

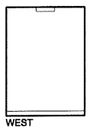


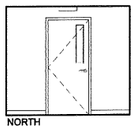
EAST

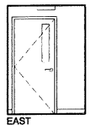


SOUTH

2 240 - LFD - DRY
1/8" = 1'-0"


WEST


NORTH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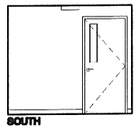
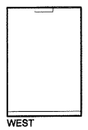

SOUTH

3 241 - VESTIBULE
1/8" = 1'-0"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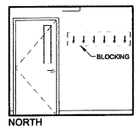
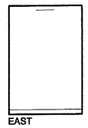
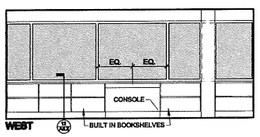


NORTH


EAST


SOUTH

4 242 - GOWN
1/8" = 1'-0"



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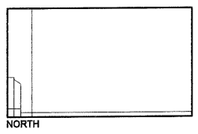
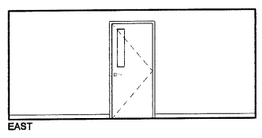
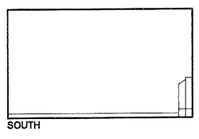
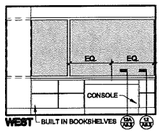

NORTH

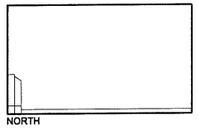

EAST

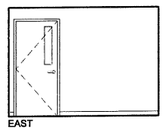

SOUTH

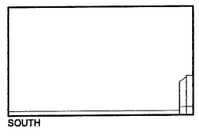
5 244 - OFFICE 1
1/8" = 1'-0"



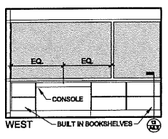
WEST


NORTH

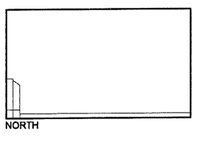

EAST


SOUTH

6 245 - OFFICE 2
1/8" = 1'-0"



WEST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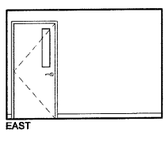
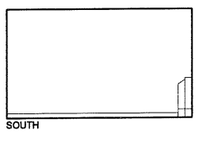
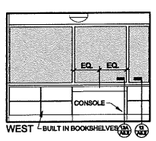
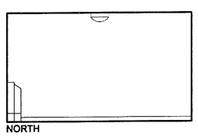

EAST


SOUTH

8 247 - OFFICE 4
1/8" = 1'-0"



WEST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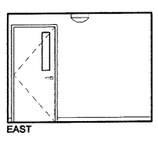
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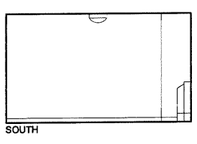
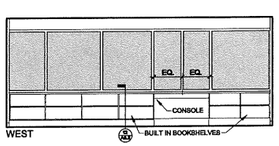

SOUTH

10 251 - CLOSED MEETING
1/8" = 1'-0"



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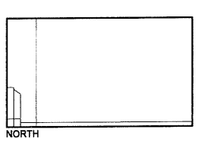
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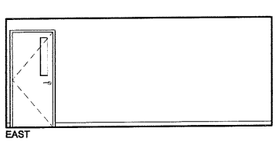
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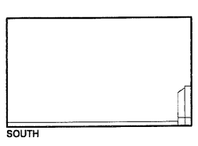
SOUTH

11 252 - CLOSED MEETING
1/8" = 1'-0"

WEST

NORTH

EAST

SOUTH

7 246 - OFFICE 3
1/8" = 1'-0"

WEST

NORTH

SOUTH

9 250 - OPEN MEETING
1/8" = 1'-0"

REGISTERED ARCHITECT
T. SCOTT TEAS
No. 822
STATE OF MAINE

EnviroLogix

RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

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207-487-3328
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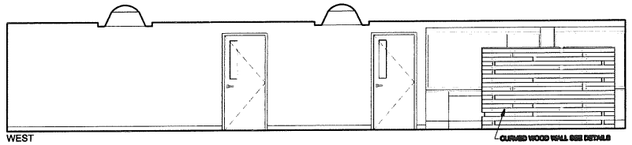
REVISIONS:

DATE:	8/17/11
PROJECT No.	1038A
DRAWN BY:	DAM,RJB
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
INTERIOR ELEVATIONS

A4.2



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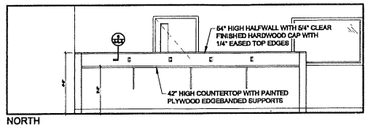
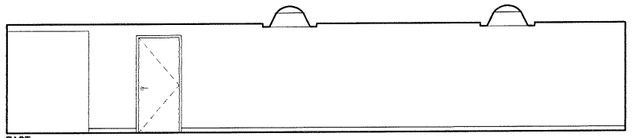


NORTH

1 253 - OPEN OFFICE
1/4" = 1'-0"



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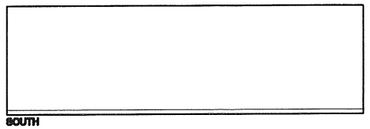
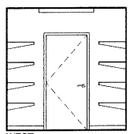


SOUTH

2 253 - OPEN OFFICE
1/4" = 1'-0"



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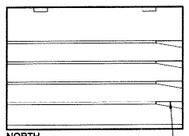

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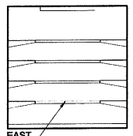

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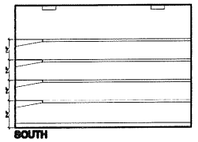
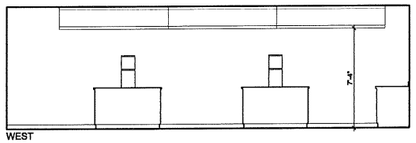


SOUTH

3 254 - STORAGE
1/4" = 1'-0"



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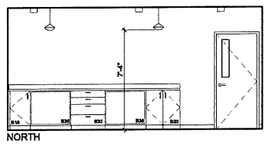
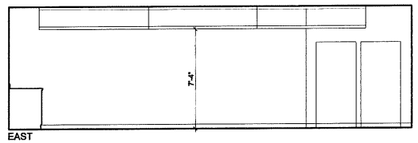


NORTH



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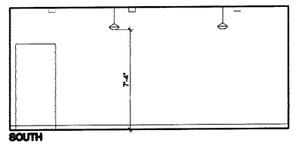
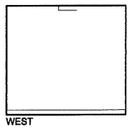


SOUTH

4 255 - TECH TRANSFER
1/4" = 1'-0"



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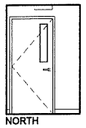
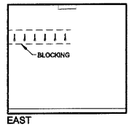


NORTH



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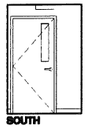
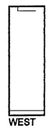


SOUTH

5 256 - GOWN
1/4" = 1'-0"



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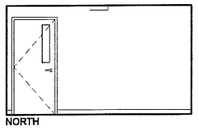

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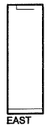

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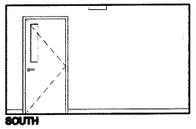

SOUTH

6 263 - HALL
1/4" = 1'-0"

REGISTERED ARCHITECT
T. SCOTT TEAS
No. 602
STATE OF MAINE

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530 - DNA EXPANSION
PORTLAND, MAINE

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TELEPHONE 207 775 6141
ARCHITECTURE PLANNING

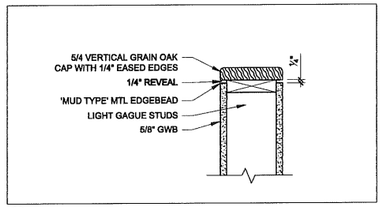
CONSULTANTS:

REVISIONS:

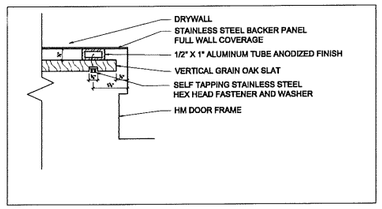
DATE:	8/17/11
PROJECT No.	1038A
DRAWN BY:	DAM,RJS
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
INTERIOR ELEVATIONS

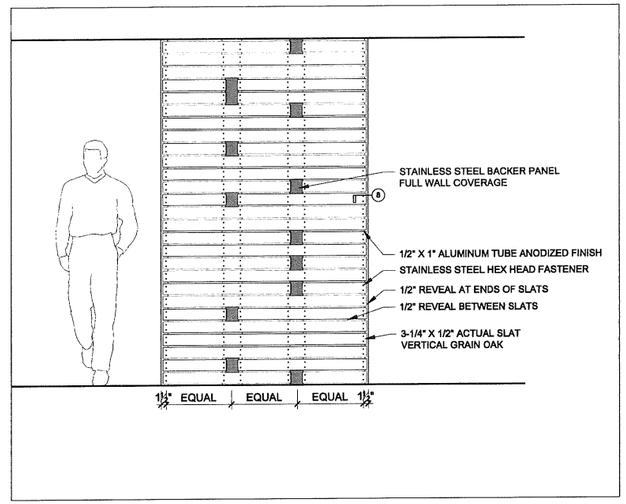
A4.3



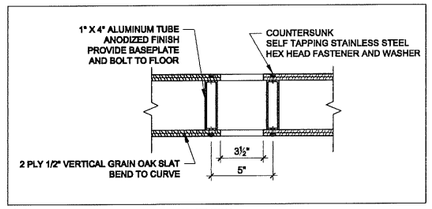
9 HALF WALL CAP DETAIL
1-1/2" = 1'-0"



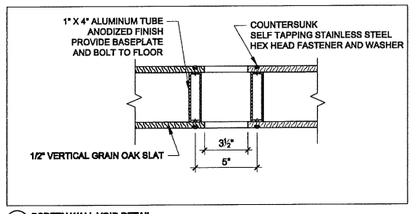
8 WOOD WALL PLAN DETAIL
3" = 1'-0"



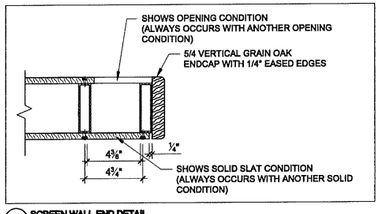
7 WOOD WALL AT RESTROOM ALCOVE
3/8" = 1'-0"



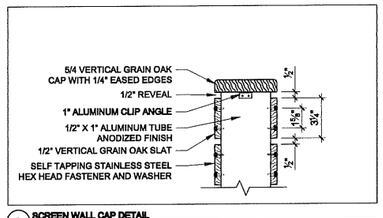
6 SCREEN WALL VOID DETAIL AT CURVED WALL
1-1/2" = 1'-0"



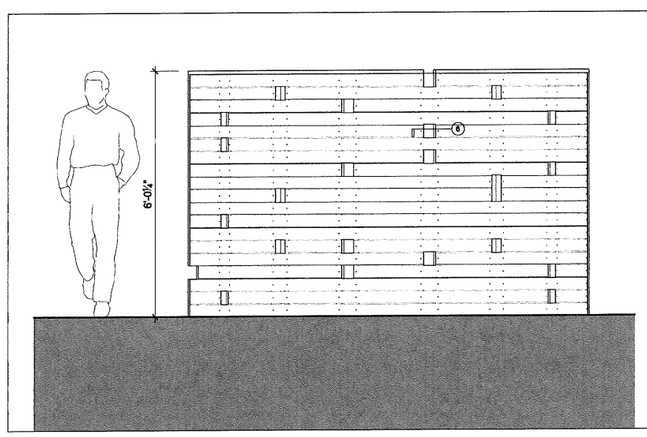
5 SCREEN WALL VOID DETAIL
1-1/2" = 1'-0"



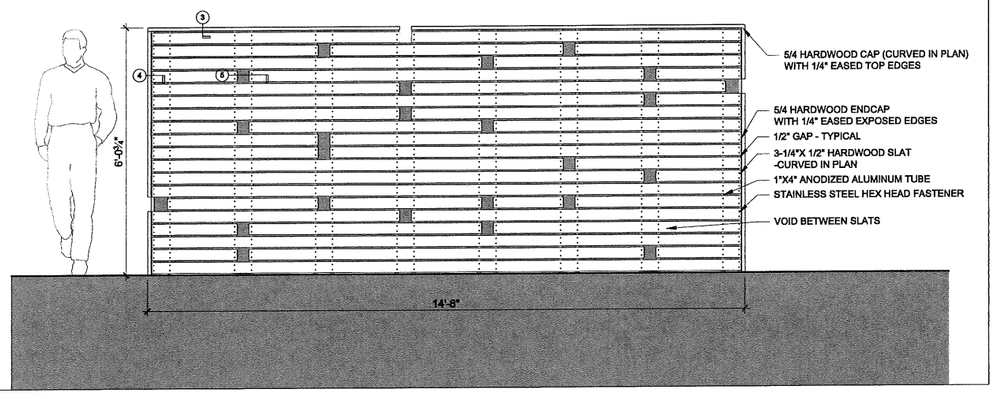
4 SCREEN WALL END DETAIL
1-1/2" = 1'-0"



3 SCREEN WALL CAP DETAIL
1-1/2" = 1'-0"



2 CURVED SCREEN WALL AT OPEN MEETING # 250
3/8" = 1'-0"



1 SCREEN WALL AT OPEN OFFICE # 229
3/8" = 1'-0"

REGISTERED ARCHITECT
T. SCOTT TEAG
No. 802
STATE OF MAINE

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ARCHITECTURE PLANNING

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Structural Engineers, Inc.
[illegible]

MECHANICAL/ELECTRICAL/PLUMBING
[illegible]

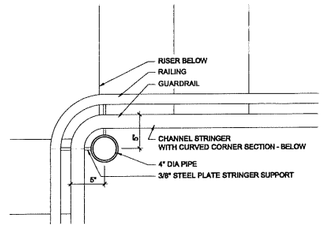
CIVIL
[illegible]

REVISIONS:

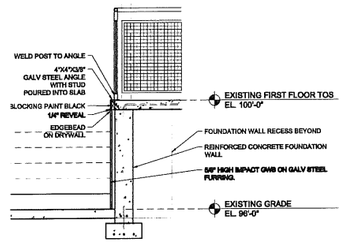
DATE:	9/17/11
PROJECT No.	1038A
DRAWN BY:	DAM,RJB
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
INTERIOR DETAILS

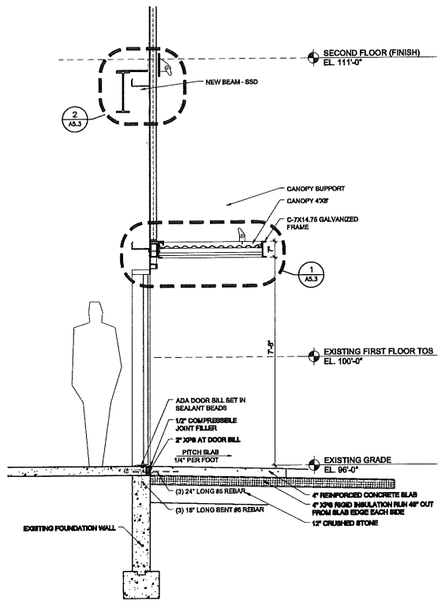
A4.4



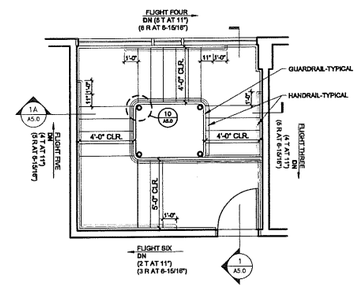
10 / A5.0 PLAN DETAIL AT STAIR INNER CORNER
1-1/2" = 1'-0"



9 / A5.0 SECTION AT STAIR RECESSD SLAB
1/2" = 1'-0"

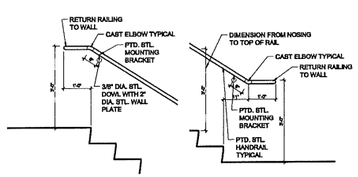


8 / A5.0 SECTION AT DOOR AND FROST SLAB
1/2" = 1'-0"

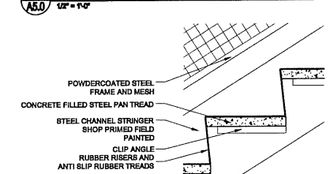


3 / A5.0 STAIR PLAN AT SECOND FLOOR
1/4" = 1'-0"

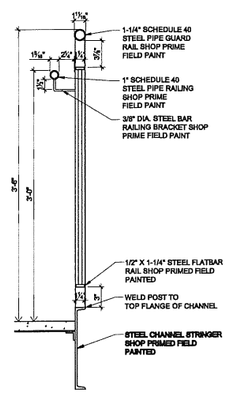
5 / A5.0 TYPICAL HANDRAIL AT WALL
1-1/2" = 1'-0"



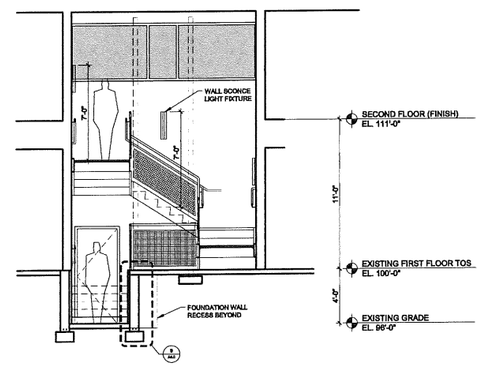
7 / A5.0 TYPICAL HANDRAIL DETAIL TOP AND BOTTOM
1/2" = 1'-0"



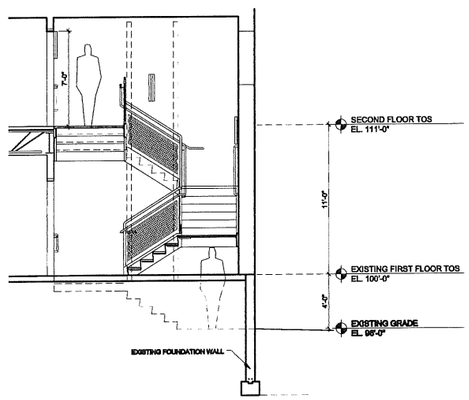
6 / A5.0 TYPICAL STAIR TREAD / RISER
1-1/2" = 1'-0"



4 / A5.0 GUARDRAIL AND STRINGER DETAIL
1-1/2" = 1'-0"



1A / A5.0 STAIR SECTION
1/4" = 1'-0"



1 / A5.0 STAIR SECTION
1/4" = 1'-0"

T.
SCOTT
TSAI
No. 5022
REGISTERED ARCHITECT
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ARCHITECTURE PLANNING

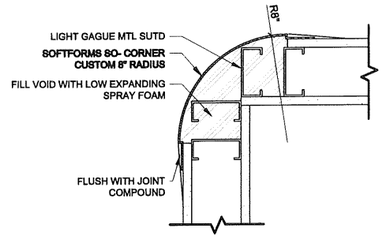
CONSULTANTS:

REVISIONS:

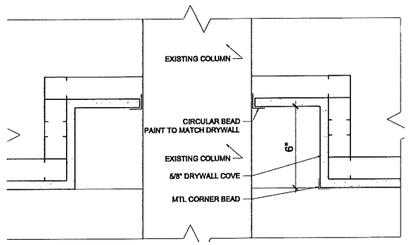
DATE:	6/17/11
PROJECT No.	1028A
DRAWN BY:	DAM,RJB
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
STAIR
DETAILS

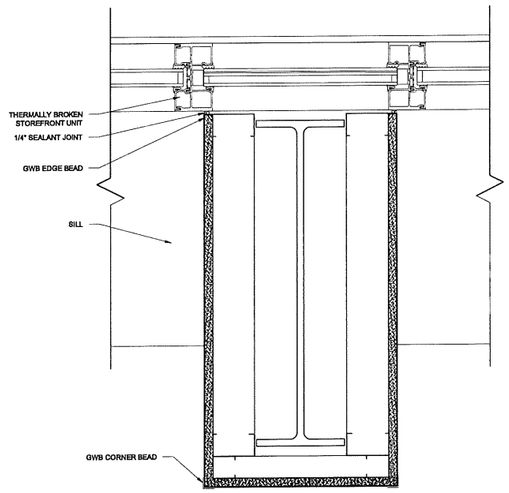
A5.0



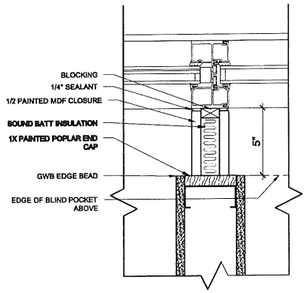
11 A5.1 **WALL CORNER PLAN DETAIL**
1-1/2" = 1'-0"



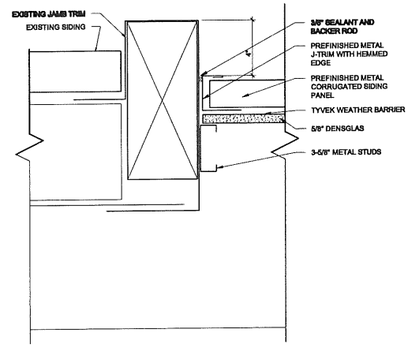
10 A5.1 **COLUMN / CEILING SECTION DETAIL**
3" = 1'-0"



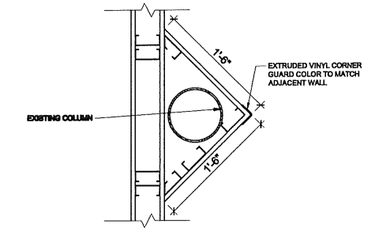
6B A5.1 **STOREFRONT PLAN DETAIL**
3" = 1'-0"



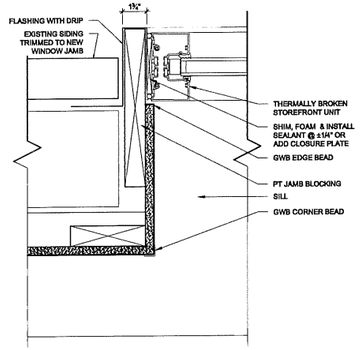
6C A5.1 **STOREFRONT PLAN DETAIL**
3" = 1'-0"



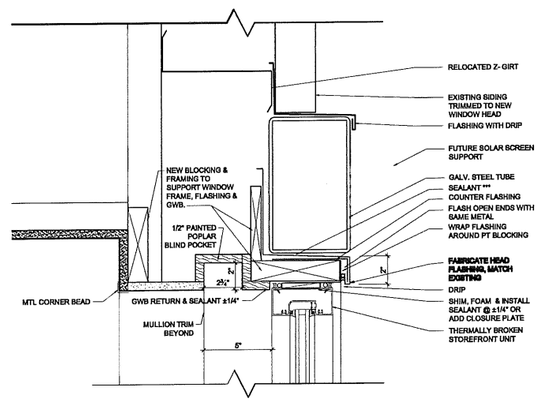
6 A5.1 **PLAN DETAIL AT OHD INFILL**
3" = 1'-0"



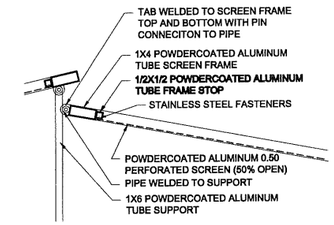
9 A5.1 **COLUMN PILASTER PLAN DETAIL**
1-1/2" = 1'-0"



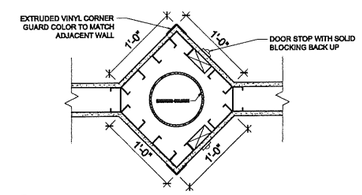
6A A5.1 **STOREFRONT PLAN DETAIL**
3" = 1'-0"



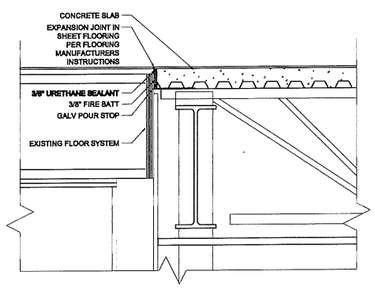
5 A5.1 **WINDOW HEAD DETAIL**
3" = 1'-0"



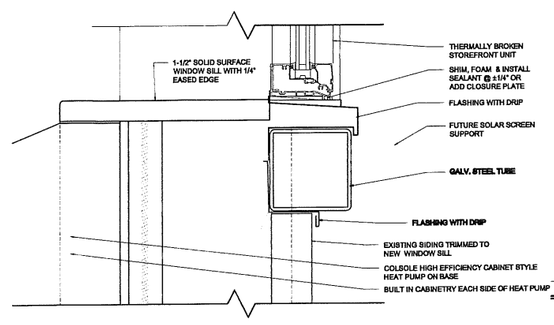
2 A5.1 **PLAN DETAIL AT WINDOW SCREEN**
1-1/2" = 1'-0"



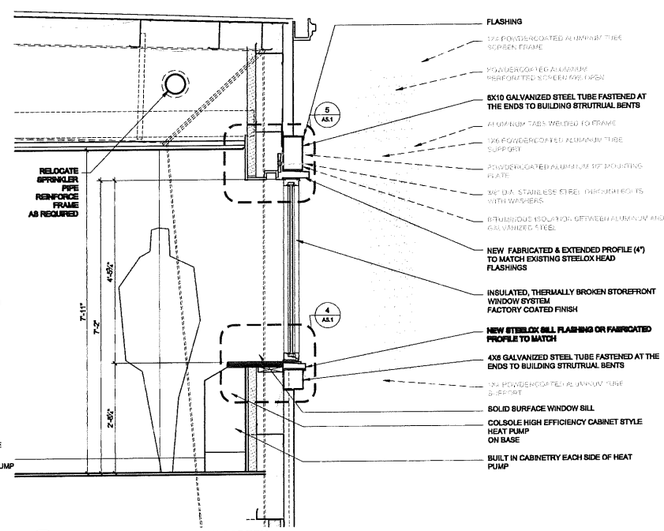
8 A5.1 **COLUMN PILASTER PLAN DETAIL**
1-1/2" = 1'-0"



7 A5.1 **EXISTING / NEW FLOOR JOINT DETAIL**
1-1/2" = 1'-0"



4 A5.1 **WINDOW SILL DETAIL**
3" = 1'-0"



1 A5.1 **WALL SECTION AT WINDOW SCREEN**
3/4" = 1'-0"

REGISTERED ARCHITECT T. SCOTT TEAS No. 802 STATE OF MAINE

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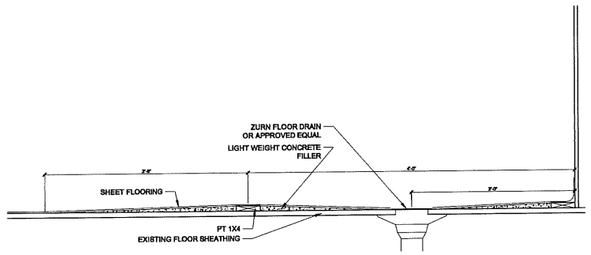
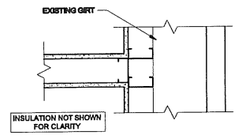
DATE:	6/17/11
PROJECT No.	1028A
DRAWN BY:	DAM,RJB
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
DETAILS

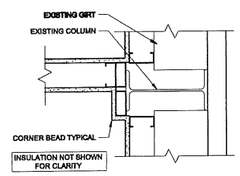
A5.1



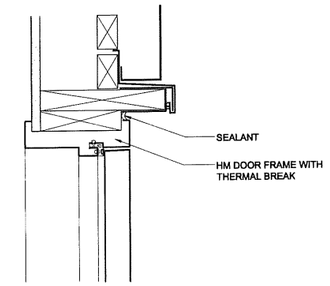
13 A5.2 **SECTION DETAIL AT SAFETY SHOWER FLOOR**
1-1/2" = 1'-0"



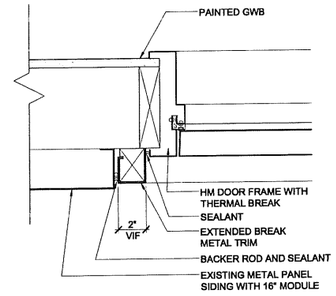
11 A5.2 **PLAN DETAIL AT INTERIOR / EXTERIOR WALL INTERSECTION**
1-1/2" = 1'-0"



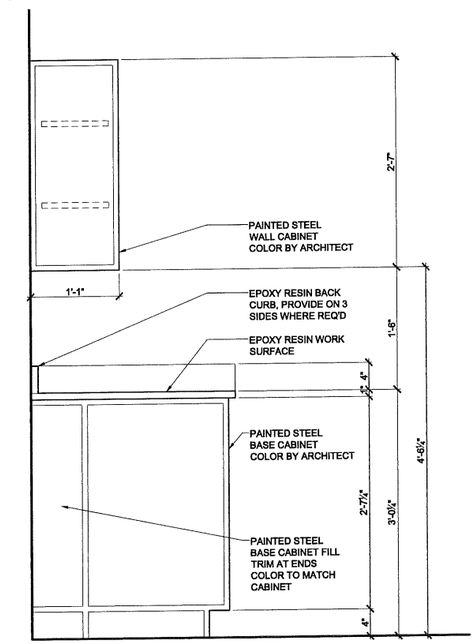
10 A5.2 **PLAN DETAIL AT INTERIOR / EXTERIOR WALL INTERSECTION**
1-1/2" = 1'-0"



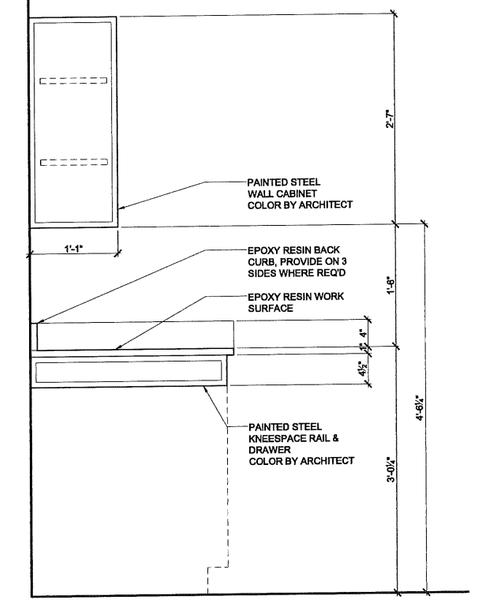
6 A5.2 **SECTION DETAIL AT EXTERIOR DOOR HEAD**
3" = 1'-0"



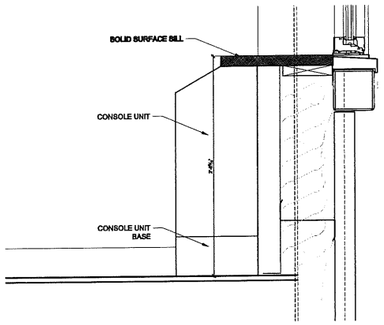
3 A5.2 **PLAN DETAIL AT EXTERIOR DOOR JAMB**
3" = 1'-0"



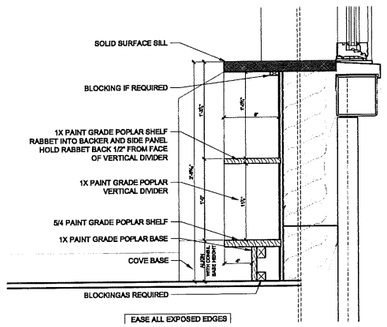
5 A5.2 **SECTION DETAIL AT LAB BENCH AND UPPER CABINET**
1-1/2" = 1'-0"



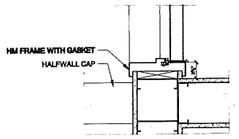
2 A5.2 **SECTION DETAIL AT LAB BENCH WITH KNEE SPACE**
1-1/2" = 1'-0"



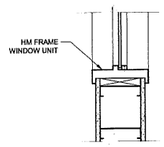
12A A5.2 **SECTION DETAIL AT CONSOLE UNIT CABINETRY**
1-1/2" = 1'-0"



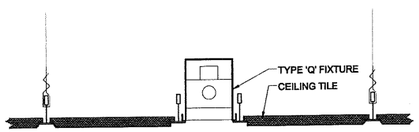
12 A5.2 **SECTION DETAIL AT WINDOW WALL CABINETRY**
1-1/2" = 1'-0"



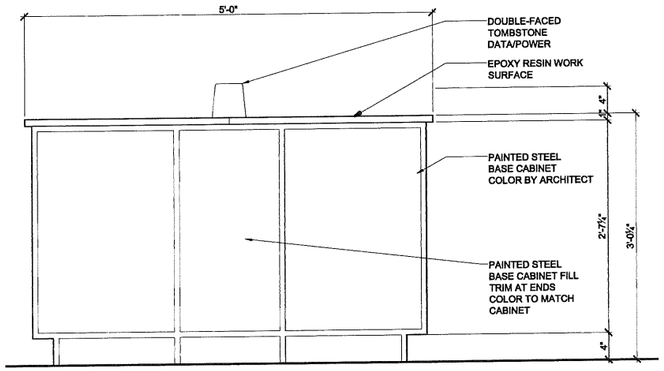
9 A5.2 **PLAN DETAIL AT INTERIOR DOOR**
1-1/2" = 1'-0"



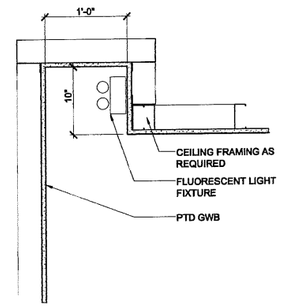
6 A5.2 **PLAN DETAIL AT INTERIOR WINDOW**
1-1/2" = 1'-0"



7 A5.2 **SECTION DETAIL AT 'Q' LIGHT FIXTURE AND CEILING**
3" = 1'-0"



4 A5.2 **SECTION DETAIL AT PENINSULA LAB BENCH**
1-1/2" = 1'-0"



1 A5.2 **SECTION DETAIL AT RESTROOM LIGHT COVE**
1-1/2" = 1'-0"

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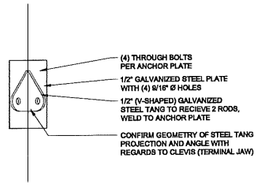
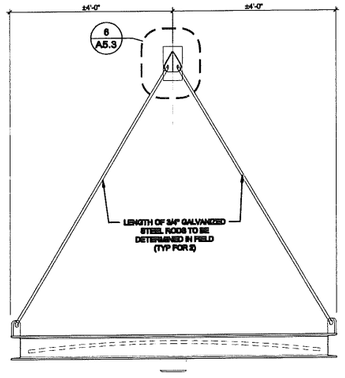
DATE:	6/17/11
PROJECT No.	1028A
DRAWN BY:	DBM
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
INTERIOR DETAILS

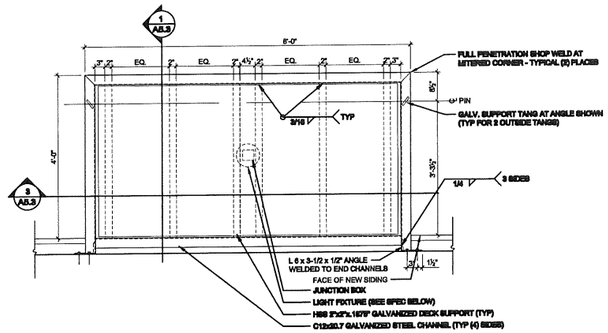
A5.2



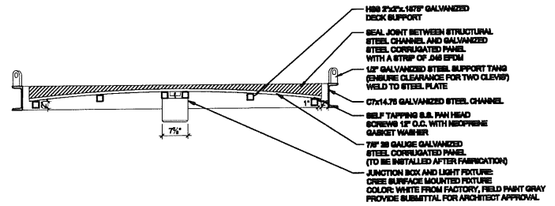
6 A5.3 **ELEVATION OF CANOPY SUPPORT PLATE**
1-1/2" = 1'-0"



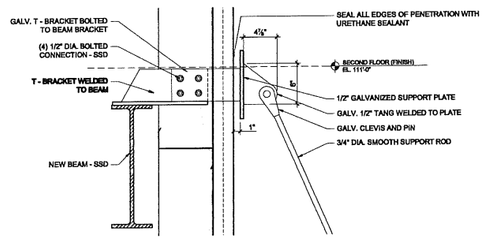
5 A5.3 **ELEVATION OF CANOPY**
3/8" = 1'-0"



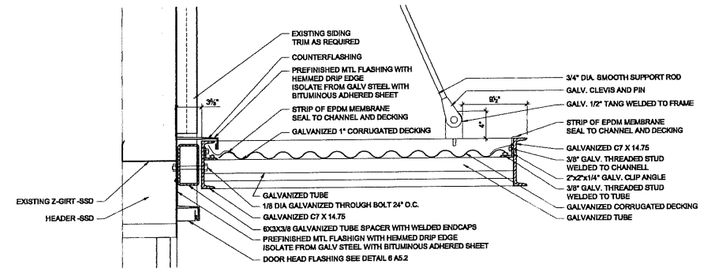
4 A5.3 **PLAN DETAIL OF CANOPY**
3/8" = 1'-0"



3 A5.3 **SECTION DETAIL OF CANOPY**
3/8" = 1'-0"



2 A5.3 **SECTION DETAIL AT CANOPY SUPPORT**
1-1/2" = 1'-0"



1 A5.3 **SECTION DETAIL AT CANOPY**
1-1/2" = 1'-0"

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DATE:	6/17/11
PROJECT No.	1028A
DRAWN BY:	DAM,RJB
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
CANOPY DETAILS

A5.3

ROOM FINISH SCHEDULE

Number	ROOM NAME	FLOOR	BASE	WALLS N	WALLS S	WALLS E	WALLS W	CEILING MATL	NOTES
124	OPEN WAREHOUSE	35	–	6	6	1	6,1	47	
125	MECHANICAL	38	20	1	1	1	1	40	
126	MECHANICAL	38	20	1	1	1	1	40	
127	MECHANICAL	38	20	1	1	1	1	40	
128	MECHANICAL	38	20	1	1	1	1	40	
202	GOWN	31	20	1	1	1	1	40	
203	EXPANDED REAGENT PREP / MASTER MIX	31	20	2	2	2	2	40	
204	EXPANDED AMP II	31	20	2	2	2	2	40	
205	HUMAN PATHOGEN	31	20	2	2	2	2	40	
207	BSL-2 SAMPLE PREP (DNA)	31	20	2	2	2	2	40	
208	DISCOVERY	–	–	–	–	–	–	–	
213	PLANT PATH SLOW GROWTH	31	20	2	2	2	2	40	
214	PLANT PATH PREP	31	20	2	2	2	2	40	
215	DNA SEQUENCING	31	20	2	2	2	2	40	
218	ELEC CLOSET	31	20	12	12	12	12	40	
221	WALK-IN REFRIG.	–	20	1	1	–	1	40	GWB CEILING AND WALL FINISH AROUND UNIT
222	STANDARDS ROOM	31	20	2	2	2	2	40	
223	BSL-2 SAMPLE PREP (RNA)	31	20	2	2	2	2	40	
224	GOWN	31	20	1	1	1	1	40	
225	BEACON PRODUCT	31	20	2	2	2	2	40	
226	CORRIDOR	31	20	1	1	1	1	40	
227	WOMEN'S RESTROOM	31	20	1	1	1	1	40	
228	MEN'S RESTROOM	31	20	1	1	1	1	40	
229	OPEN OFFICE	30	20	1	1	1	1	43	
230	VS 3	31	20	2	2	2	2	40	
231	VS 2	31	20	2	2	2	2	40	
232	VS 1	31	20	2	2	2	2	40	
233	LYOPHILIZATION	31	20	2	2	2	2	40	
234	REAGENT PREP / CAP & FILL	31	20	2	2	2	2	40	
235	VESTIBULE	31	20	1	1	1	1	40	
236	GOWN	31	20	1	1	1	1	40	
237	LYO - HUMID	31	20	2	2	2	2	40	
238	WALK-IN REFRIG.	–	20	1	1	–	1	40	GWB CEILING AND WALL FINISH AROUND UNIT
239	PACKAGE	31	20	1	1	1	1	40	
240	LYO DRY	31	20	2	2	2	2	40	
241	VESTIBULE	31	20	1	1	1	1	40	
242	GOWN	31	20	1	1	1	1	40	
243	CORRIDOR	31	20	1	1	1	1	43	
244	OFFICE 1	30	20	1	1	1	1	43	
245	OFFICE 2	30	20	1	1	1	1	43	
246	OFFICE 3	30	20	1	1	1	1	43	
247	OFFICE 4	30	20	1	1	1	1	43	
248	STAIR	33	20	1	1	1	1	43	
250	OPEN MEETING	30	20	1	1	1	1	43	
251	CLOSED MEETING	30	20	1	1	1	1	43	
252	CLOSED MEETING	30	20	1	1	1	1	43	
253	OPEN OFFICE	30/31	20	1	1	1	1	43	SHEET VINYL AT CORRIDOR LOOP
254	STORAGE	31	20	1	1	1	1	43	
255	TECH TRANSFER	31	20	2	2	2	2	40	
256	GOWN	31	20	1	1	1	1	40	
258	STORAGE	31	20	1	1	1	1	40	
259	STORAGE	31	20	1	1	1	1	40	
260	MECH.	31	20	1	1	1	1	40	
261	MECH.	31	20	1	1	1	1	40	
263	HALL	31	20	1	1	1	1	40	

FINISH SCHEDULE KEY			
WALLS		MANUFACTURER	STYLE / COLOR
1	GWB - LATEX, LOW VOC PAINTED BY GC	BENJAMIN MOORE	SEE PAINT SCHEDULE
2	GWB - EPOXY PAINTED BY GC		SEE PAINT SCHEDULE
3	GWB - PAINTED BY GC		
4	CONFERENCE WAINSCOTING -	CLR SEPELI W/ FABRIC	
5	BREAK ROOM WAINSCOTING -	PTD. HD. WD. W/ FABRIC	
6	NOT USED		
7	EXISTING BRICK - PAINTED BY GC		
8	EXISTING CMU UNIT WALL		
9	EXISTING STONE FOUNDATION WALL		
10	PLASTER - PAINTED BY GC		
11	SHEET STEEL, CLEAN AND PAINT		
12	3/4" PLYWOOD OVER GWB		
BASE			
20-1	RUBBER COVE BASE #1		4 SI PEBBLE W/ CARPET TILE / STRAIGHT BASE
20-2	RUBBER COVE BASE #2		7 SI BURNT UMBER W/ CARPET SI STRAIGHT BASE, W/ MITERED CORNERS - COVE BASE
20-3	RUBBER COVE BASE #3		8 SI CHARCOAL W/ COCOA MATT / CT-2
20-4	NOT USED		
21	PAINTED WOOD		
22	EXISTING (REFINISHED)		
23	CLEAR FINISHED SEPELI		
FLOORS			
30-1	CARPET TILE - 1, COMMERCIAL GRADE	MILLIKEN	P/6724 RANDOM 802
30-2	CARPET - 2, COMMERCIAL GRADE		
30-3	NOT USED	-	
31	SHEET VINYL	MANNINGTON ASSURANCE II	BABLE 16325
32-1	QUARTZ TILE - 1 (OFF WHITE)	ALTRO	AQT CD 0211
32-2	QUARTZ TILE - 2 (GREEN)	ALTRO	AQT CD 2063
32-3	QUARTZ TILE - 2 (GRAY)	ALTRO	AQT CD 0215
33	RUBBER TILE -1	JOHNSONITE	#32 PEBBLE
34	CONCRETE, STAIN, SEALER		
35	EXISTING CONCRETE		
36	VCT		
37	COCOA MAT WALK OFF, VINYL BACKED		3/4" CHARCOAL
38	CLEAN AND SEAL EXISTING CONCRETE		
TRANSITION STRIPS		JOHNSONITE	#32 PEBBLE
CEILINGS			
40	GWB - PAINTED BY GC	BENJAMIN MOORE	SEE PAINT SCHEDULE
41	GWB SOFFIT - PAINTED BY GC	BENJAMIN MOORE	SEE PAINT SCHEDULE
42	NOT USED		
43	2x2, 2x4 (AS INDICATED) SUSPENDED ACOUSTICAL CEILING		
44	1'X1' DIRECT GLUE ACOUSTICAL CEILING TILE WITH PTD. QUARTER ROUND EDGE TRIM.		
45	NOT USED		
46	EXISTING PLASTER - PAINTED BY G.C.		
47	EXPOSED METAL DECK		
99	EXISTING TO REMAIN		

PAINT SCHEDULE		
PAINT #	DESCRIPTION	BENJAMIN MOORE COLOR
P1	BASE WALL COLOR U. O. N.	HOT SPRING STONES AC - 31
P2	LAB WALLS	SAIL CLOTH 15-7
P3	DOOR FRAMES, RAILINGS	PRIMO DUNES AC-32
P4	CEILINGS / SOFFITS	CEILING WHITE
P5	ACCENT COLOR -	IRON MOUNTAIN 2134-30
P6	ACCENT COLOR -	GLOUCESTER SAGE HC-100
P7	ACCENT COLOR -	NEWBURYPORT BLUE HC-155
P8	ACCENT COLOR -	SHENANDOAH TAUPE - AC-38
P9	ACCENT COLOR -	COPPER MOUNTAIN AC-12
P10	ACCENT COLOR -	ASHLEY GRAY - HC-87

ROOM FINISH GENERAL NOTES

A ALSO SEE INTERIOR ELEVATIONS FOR ADDITIONAL RESTRICTIONS OF EXTENT OF FINISHES

B INSTALL ACOUSTIC INSULATION UNDER ALL AREAS WHERE PLUMBING FIXTURES EXIST

C ALL PENETRATIONS TO SMOOTH WALLS ARE TO BE WHERE JOINTS ONLY. ANY HOLE OR BLOCK PENETRATIONS TO BE APPROVED BY ARCHITECT PRIOR TO WORK

D ALL CLOSETS (POWER, UTILITY, CLOSED, LINEN, ETC.) TO BE PAINTED AS THE ROOM THEY SERVICE.

E PER CEILING REFLECTED PLAN

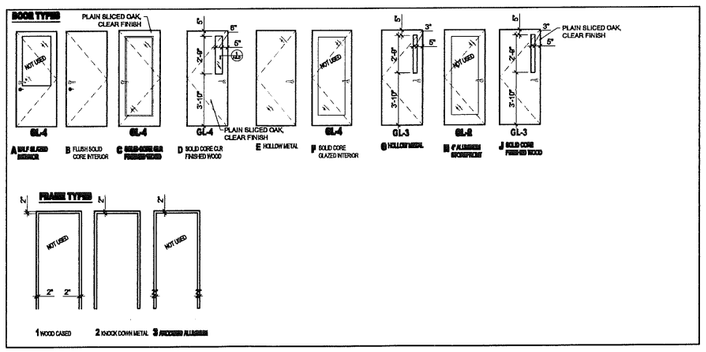
DOOR AND FRAME SCHEDULE

NUMBER	TYPE	DOOR SIZE WIDTH	DOOR SIZE HGT	DOOR SIZE THK	MATL	FINISH	FRAME TYPE	FRAME MATL	FRAME THRESHOLD	FRAME FINISH	FIRE RATING LABEL	HARDWARE SET	HARDWARE CLOSER	NOTES
1241	G	3'-0"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	1 HR	EX	Y	–
1242	G	3'-0"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	1 HR	EX	Y	–
1244	C	6'-0"	7'-0"	1 3/4"	MTL	PTD	2	MTL		PTD	1 HR	EX	Y	DOUBLE DOOR
1251	E	6'-0"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	–	EX	Y	INSULATED EXTERIOR DOUBLE DOOR
1262	C	3'-0"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	1 HR	S	Y	–
1271	G	3'-6"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	1 HR	S	Y	–
1272	G	3'-6"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	1 HR	S	Y	–
1281	G	3'-0"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	1 HR	S	Y	–
1282	G	3'-6"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	1 HR	S	Y	–
2021	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2031	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2071	E	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2072	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2101	–	3'-0"	7'-0"	1 3/4"	–	–	–	–	–	–	–	–		EXISTING DOOR ADD CARD READER
2131	–	3'-0"	7'-0"	1 3/4"	–	–	–	–	–	–	–	–		EXISTING DOOR ADD CARD READER
2141	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	–		PTD	–	E		EXISTING GOWNING 2138 DOOR RELOCATED
2171	J	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	ALUM	PTD	1 HR	EX	Y	WITH CARD READER
2172	–	3'-0"	7'-0"	1 3/4"	–	–	–	–	–	–	–	–		ADD CARD READER
2191	J	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	ALUM	PTD	1 HR	EX	Y	–
2201	–	3'-0"	7'-0"	1 3/4"	–	–	–	–	–	–	–	–		EXISTING DOOR ADD CARD READER
2221	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2231	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2241	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		WITH CARD READER
2251	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2261	J	6'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	ALUM	PTD	1 HR	EX	Y	DOUBLE DOOR OPPOSING SWING LEAFS, ELECTRONIC HOLD OPEN FOR WEST LEFT LEAF ONLY
2271	B	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	S	Y	–
2281	B	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	S	Y	–
2301	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2311	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2321	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2331	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2341	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2342	C	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2361	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2362	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2371	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2391	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2401	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2411	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2421	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2441	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2451	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2461	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2471	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2481	J	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	ALUM	PTD	1 HR	EX	Y	WITH CARD READER
2482	J	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	ALUM	PTD	1 HR	EX	Y	–
2483	E	3'-0"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	–	EX	Y	INSULATED EXTERIOR DOOR
2511	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2521	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2541	B	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	S		–
2561	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2562	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2581	B	2'-6"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	S		–
2591	B	2'-6"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	S		–
2601	B	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	S		–
2611	B	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	S		–
2631	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–

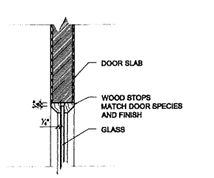
ADA CLEARANCES SHOWN LIGHTLY DASHED WHERE REQUIRED.
REMARKS:
A. ADJUST THRESHOLD WIDTH TO COORDINATE WITH SLAB INSTALLATION & JOINT COVERAGE.
B. ADJUST WIDTH TO FIT EXISTING FRAME OPENING
CL DOUBLE ACTING DOOR

HARDWARE TYPES:
S - STOREROOM
E - ENTRANCE / OFFICE
EX - EXIT
P - PASSAGE
PR - PRIVACY

HARDWARE TO BE: ADA COMPLIANT LEVERS, QUALITY LEVEL: COMMERCIAL, INTERMEDIATE USAGE. LOCKSETS AND LATCHSETS: CYLYNDRICAL TYPE. LOCK CYLINDERS: INTERNAL, KEYING: MATCH EXISTING KEYING AND COORDINATE WITH OWNER. HINGES AND BUTTS: FULL-MORTISE TYPE AT INTERIOR, WITH NONREMOVABLE PINS AT EXTERIOR DOORS. CLOSERS, DOOR CONTROL, AND EXIT DEVICES: ARMRAVE PRECLUSION. BARRIER-FREE. PIVOTS: OFFSET OR CENTER-HUNG TYPE. FLUSH-PULL UNITS: TYNOUGH-BOLTED TYPE. HANDWAVE FINISH SEE. SATIN CHROME FINISH ON EXPOSED SURFACES APPROVED BY OWNER. AUXILIARY MATERIALS: DOOR TRIM UNITS: KICKPLATES, EDGE TRIM, VIEWERS, STOPS AND RELATED TRIM SOUNDSTRIPPING, WEATHERSTRIPPING AND THRESHOLDS. COORDINATE DOOR UNDERCUTS, IF NECESSARY WITH HVAC CONTRACTOR.



GLAZING SCHEDULE	
KEY	GLAZING TYPE
GL-1	INSULATED CLEAR GLAZING
GL-2	INSULATED TEMPERED GLAZING
GL-3	FIRE RATED WIRE GLAZING
GL-4	CLEAR TEMPERED GLASS
GL-5	GLASS BLOCK
GL-6	CLEAR GLASS

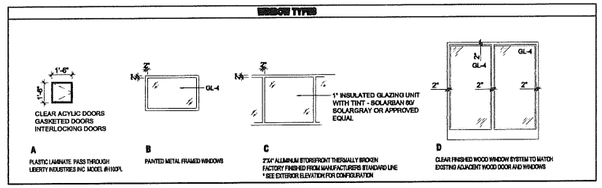


1 / A0.0 INTERIOR DOOR GLAZING DETAIL
3" = 1'-0"

WINDOW SCHEDULE

MARK	SIZE WIDTH	SIZE HEIGHT	TYPE	MATERIAL	NOTES
1	4'-0"	5'-6"	B	MTL	–
2	4'-0"	5'-6"	B	MTL	–
3	4'-0"	5'-6"	B	MTL	–
4	4'-0"	5'-6"	B	MTL	–
5	4'-0"	5'-6"	B	MTL	–
6	1'-6"	1'-6"	A	MTL	PASS THROUGH
7	1'-6"	1'-6"	A	MTL	PASS THROUGH
10	5'-4"	5'-0"	B	MTL	–
11	3'-8"	7'-2"	D	WD	–
12	3'-8"	7'-2"	D	WD	–

FOR EXTERIOR STOREFRONT WINDOW SEE ELEVATION ON A2.0



EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TPH ARCHITECTS
100 COMMERCIAL STREET
PORTLAND MAINE 04101
TELEPHONE 207 775 6141
ARCHITECTURE PLANNING

CONSULTANTS:
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79 Main Street
Yarmouth, ME 04096
207-846-9333
MECHANICAL
Integrated Energy Systems, LLC
210 Main Street
Falmouth, ME 04105
207-347-4440
ELECTRICAL
Electrical Consultants
7 Bennett Road
Freeport, ME 04032
207-865-6400

REVISIONS:

DATE: 6/17/11
PROJECT No. 1038A
DRAWN BY: DAM/RJB
CHECKED BY: TBT
SCALE: AS NOTED

SHEET TITLE:
DOOR FINISH FIXTURE SCHEDULES

A6.0

LABORATORY EQUIPMENT MATRIX - DNA EXPANSION 7/25/11

Equipment # New (bold) Existing	Quantity	Equipment Description	Existing (E) New (N) Re-used & relocated (R)	Floor (F) Counter (C) Wall (W) Under counter (UC)	Provided by (O) Owner (GC)	Manufacturer	Model	Volts-Phase	Watts	Plug in or hard-wired	Name-plate Amps	RLA	Emergency Power	Data Connection?	Compressed Air (PSI)	Nitrogen / Argon Connection	Equipment (E) - Existing Equip (N) - New Equip.	Counters / cabinets (R) reused (N) New	Notes/Other
		Responsibility for input: E = ELIX				E	E	E	E	E	E		E	E			Equipment	E	
		CONSTRUCTION PHASE I - NIC - COMPLETED PRIOR TO PHASE II																	
		Room 205 - Human Pathogen (was Sample Prep)																	
20507	1	BioSafety Hood	E	W	O	Baker		115		Std Plug									
20508	1	Chem Hood	E	W	O	Baker		115		Std Plug									
20509	1	-80°C Freezer	E	F	O			115		Std Plug			X						
20510	1	4C/-20°C Combo freezer	E	F	O			115		Std Plug			X						
20511	2	Shaker / incubator 37°C 200rpms	E	C	O			120											
20512	2	Plate incubator 37°C	E	C	O			110											
20513	1	Autoclave top load	E	F	O	Sanyo	MLS-3781L 50L	120		Twist lock	20								Similar to mixase room w/ drain board
20514	1	Single bay sink / eye wash	E	C	O														
		CONSTRUCTION PHASE II																	
		Room 218 Electrical Closet																	
		Room 223 - BLS-2 Sample Prep RNA																	
22301		Nanodrop	N	C	O			120	100										
22302		Laptop	N	C	O			120	100										
22303		BioRad Experion/Agilent 2100	N	C	O			120											
22304		Ref. Centrifuge (as in current sample prep)	R	C	O			120	2400										
22305		Ref. Micro centrifuge	N	C	O			120	700										
22306		Flash Gel & Camera	N	C	O			120	120										
22307		Shaking Incubator	N	C	O			120	1800										
22308		Rocker/Belly dancer	N	C	O			120											
22309		Milli-Q Water System (DNase & Rnase-Free)	N	W	O			120	450										
22310		Blender	N	C	O			120	375										
22311		Vacuum Pump	N	F	O			120	300										
22312		Hybridization Oven	N	C	O			120	1800										
22313		Refrigerator/Freezer	N	F	O			120	2100				X						
22314		Freezer	N	F	O			120	2100				X						
22315		Reagent Scale	N	C	O			120	60										
22316		Heated Stir Plate	N	C	O			120	1068										
22317		pH Meter	N	C	O			120	120										
22318		Electrophoresis Power Supply	N	C	O			120	120										
22319		Shaking Water Bath	N	C	O			120	600										
22320		Sonicator	N	C	O			120	130										
22321		Homogenizer	N	C	O			120	100										
22322		Immersion Blender	N	C	O			120	375										
22323		Stratalinker	N	C	O			120	140										
22324		Minifuge	N	C	O			120	30										
22325		Vortexer	N	C	O			120	78										
22326		Chem Hood	N	W	O														
22327		Bio Hood	N	W	O														
22328		Single bay sink / eye wash	N	C	GC														
		Room 227 - Women's Restroom																	
		Room 228 - Men's Restroom																	5 at future full optimization
		Room 229 - Open Office																	5 at future full optimization
		Room 230 - Validation Suite 3																	
23001	5	Tube-scanners	N	C	O			100-240Vac, 47-63 Hz			0.8A								5 at future full optimization
23002	5	Heat blocks	N	C	O														
23003	1	Refrigerator +4 (under counter)	N	C	O			50-60 hertz											
23004	1	Freezer -20 (under counter)	N	C	O			50-60 hertz											5 at future full optimization
23005	5	Computer	N	C	O														5 at future full optimization
		Room 231 - Validation Suite 2																	
23101	5	Tube-scanners	N	C	O			100-240Vac, 47-63 Hz			0.8A								5 at future full optimization
23102	5	Heat blocks	N	C	O														5 at future full optimization
23103	1	Refrigerator +4 (under counter)	N	C	O			50-60 hertz											
23104	1	Freezer -20 (under counter)	N	C	O			50-60 hertz											
23105	5	Computer	N	C	O														5 at future full optimization
		Room 232 - Validation Suite 1																	
23201	5	Tube-scanners	N	C	O			100-240Vac, 47-63 Hz			0.8A								5 at future full optimization
23202	5	Heat blocks	N	C	O														5 at future full optimization
23203	1	Refrigerator +4 (under counter)	N	C	O			50-60 hertz											
23204	1	Freezer -20 (under counter)	N	C	O			50-60 hertz											
23205	5	Computer	N	C	O														5 at future full optimization
		Room 233 - Lyophilization																	
23301	3	Lyophilizers			O			230V/1 ph/60 HZ			30Amp		X			X			Space for liquid tank
23302	3	Nitrogen Filling Desiccant Box			O											X			
23303	1	Plate sealer			O														
23304	1	Poucher			O								X						
23305	3	Computer			O														
		Room 234 - Reagent Prep (Pilot Production), Cap & Fill																	
23401	1	Autoclave- Sanyo	N	C	O			120v			20								Special plug to be confirmed
23402	1	Liquid Handler (buffer)		C	O														
23403	1	Capping Instrument (buffer)		C	O														
23404	1	Poucher		C	O														
23405	1	Milli-Q water handling		W	O														
23406	1	Nano-Drop		C	O			12 vdc	30 w										
23407	4	Mini-Vortex		C	O			115v, 50/60 hz											
23408	1	Micro centrifuge		C	O			115 v											
23409	2	Apricot liquid handler/dispenser		C	O			100 to 240 VAC, 50/60 HZ											
23410	1	Freezer -20 (upright - alarmed)	N	F	O			115v, 60 hertz					X						
23411	1	Refrigerator +4 (upright)	N	F	O			115v, 60 hertz					X						
23412	4	Computers		C	O														
23413	4	Airclean systems (PCR workstation)		C	O			110v	150 watts		1.4 amps								
		Room 235 - Vestibule																	
		Room 236 - Gown																	
		Room 237 - LFD Humid																	
21301	2(t)	Imagene Table Top Sprayer / Striper (from Rm 213A)	R			Imagene	16"x26"x12"	120		Std Plug	3			no			E/N		
21302	1	Not used																	
21303	1	Benchtop Centrifuge (from Rm 213A)	R					120		Std Plug	3.3						E		
21304	1	Incubator - bench top (from Rm 213A)	R																
21305	2	Not used																	
23701	1	Sink	N	C	O														
23702	1	Water system - Milli-Q Water System	N	W	O				160										
23703	1	Spectrophotometer	N	C	O				300										
23704	1	Centrifuge		C	O				1550										
23705	1	Refrigerator (full size) 3'x3'		F	O														
23706	1	Freezer (full size) 3'x3'		F	O														
23707	1	Dead Air Box		C	O				30										
23708	1	pH Meter	N	C	O				120										
23709	2	hoods for imagene	R	C	O				30										
23710	4	Imagenes 2 NOW, 2 LATER		C	O				360						X				
23711	1	Particle Sizer		C	O				1000										
23712	1	Balance		C	O				60										
23713	2	Heat/Stir plates		C	O				1068										
23714	1	Mixer		C	O				22										
23715	1	Pump		C	O				300										
23716	1	Sonicator		C	O				130										
23717	2	Stir plates		C	O				47										
23718	1	Vortexer		C	O				78										
23719	1	Minifuge		C	O				7										
23720	1	Computer/Scanner		C	O				300 / 90										
		Room 238 - Walk-in Refrigeration 4°C																	
23801		Walk-in refrigeration			GC	Bally	Water cooled						X						
		Room 239 - Packaging																	
20401	1	Zebra printer (from Rm 204)	R			Zebra	12 x 20	120	300 max	Std Plug	4			yes			N		
20402	1	PC (from Rm 204)	R			HP (typ)	tower	120	30	Std Plug	0.25			yes			N		
20403	1	Poucher (from Rm 204)	R			Adaptive Mfg	48 x 30 x 48	120		Std Plug	15			no	90		N		
21501	1	Poucher (from Rm 215)	R			Adaptive Mfg	48 x 30 x 48	120		Std Plug	15			no	90		N		
21502	1	Pouch tester (from Rm 215)	R			Adaptive Mfg	6 x 14	no						no	60		N		
23901	1	Impulse Sealer	N	C	O				146										
23902	1	Large Poucher	N	F	O			120			15								
		Room 240 - LFD Dry																	
21401	1	Guillotine Cutter (from Rm 214)	R			Kinematic	20"x22"x12"	120		Std Plug	3			no			E		
21402	1	Laminator (from Rm 214)	R					115		Std Plug	3						E		
21403	1	PC (for Zebra Printer 12306) (from Rm 214)	R			HP (typ)	tower	120	30	Std Plug	0.25						N		
21404	1	Poucher (from Rm 214)	R			Adaptive Mfg	48 x 30 x 48	120		Std Plug	15				90		N		
21405	1	Pouch tester (from Rm 214)	R			Adaptive Mfg	6 x 14	no							60		N		
21406	1	Zebra printer (from Rm 214)	R			Zebra	12 x 20	120	300 max	Std Plug	4			yes			N		
24001	1	Incubator	N	C	O				396										
24002	1	StrataLinker	N	C	O				204										
24003	1	Cutter	N	C	O				690										
24004	1	Drying Chamber	N	C	O														
24005	1	Drying Oven	N	C	O				440										
24006	1	Impulse Sealer	N	C	O				146										
24007	1	Laminator	N	C	O				360										
		Room 241 - Vestibule																	
		Room 242 - Gown																	
		Room 243 - Corridor																	
		Room 244 - Office 1																	
24401		PC			O														
24402		Telephone			O														
		Room 245 - Office 2																	
24501		PC			O														
24502		Telephone			O														
		Room 246 - Office 3																	
24601		PC			O														
24602		Telephone			O														
		Room 247 - Office 4																	
24701		PC			O														
24702		Telephone			O														
		Room 248 - Stair																	
		Room 249 - Not Used																	
		Room 250 - Open Meeting																	
25001	Each	PC			O														
25002		Telephone			O														
		Room 251 - Closed Meeting																	
25101	Each	PC			O														
25102		Telephone			O														
		Room 252 - Closed Meeting																	
25201	Each	PC			O														
25202		Telephone			O														
		Room 253 - Open Office																	
25301	Each	PC			O														
25302		Telephone			O														
		Room 254 - Storage																	
		Room 255 - Tech Transfer																	
25501	1	Refrigerator (full size) 3'x3'x6'	N	F	O			220	2100 W										
25502	1	Freezer (full size) 3'x3'x6'	N	F	O			220	2100 W										
25503	2	Airclean systems (PCR workstation)	N	C	O			110v	150 w		1.4A								
25504	1	NanoDrop	N	C	O			12 vdc	30 W										
25505	4	Vortex	N	C	O			115, 50-60 hertz											
25506	1	Micro centrifuge	N	C	O			115 v											
25507	2	Tube-scanners	N	C	O			AC 100-240V ac 47-63Hz			0.8A								
25508	5	Heat blocks	N	C	O														
25509	1	Sink	N	C	GC														Eye wash
		Room 256 - Gown																	
		Room 258 - Storage																	
		Room 259 - Storage																	
		Room 260 - Mechanical																	

LABORATORY EQUIPMENT MATRIX - DNA EXPANSION 7/25/11

Equipment # New (bold) Existing	Quantity	Equipment Description	Existing (E) New (N) Re-used & relocated (R)	Floor (F) Counter (C) Wall (W) Under counter (UC)	Provided by (O) Owner (GC)	Manufacturer	Model	Volts-Phase	Watts	Plug in or hard-wired	Name-plate Amps	RLA	Emergency Power	Data Connection?	Compressed Air (PSI)	Nitrogen / Argon Connection	Equipment (E) - Existing Equip (N) - New Equip.	Counters / cabinets (R) reused (N) New	Notes/Other
		Responsibility for input: E = ELIX				E	E	E	E	E	E		E	E			Equipment	E	
		CONSTRUCTION PHASE II AFTER PHASE I COMPLETE																	
		Room 201 - High Target / Molec Beacon																	
20101	2(t)	Real-time Thermo cycler - iQ5 cycler	E			Bio-Rad	iQ5 Real Time Detection System (170-9780)	120	250 max 95 typical	Std Plug	2.5			yes			E		x2 (spec out for two - have one currently, will eventually add a second one)
20102	1	Computer	E			HP	HP dx5150MT	120	30	Std Plug	0.25			yes			E		
20103	1	Gel documentation unit - counter	E			SynGene	Syngene CVM20	120	240	Std Plug	2			no			E		
20104	1	Freezer - dorm size - UCR	E			SPT Freezer	UF-310 3.0cu ft	115	110	Std Plug	0.95			no			E		
20105	2(t)	Incubator - same as dorm size - UCR	E			Thermofisher Scientific	PR205225G 20.24" w x 19.5" dp x 35"h	120	72	Std Plug	0.6			no			E		x2 (spec out for two - have one currently, will eventually add a second one)
20106	2	PCR workstation	E			AirClean Systems	AC600	120	115	Std Plug	1.4-2.8			no			N		Would like to have bench space to eventually have two 32"x30"x24" (Provide vent)
20107	1	Dead Air Box / exhaust vent	E			Baker or NuAire	8 feet	115		Std Plug	14.9			no			E?	R	Have one in current HT lab, not sure if it will be moved or not?
20108	1	Up-Right Freezer (-20C)	E			GE Frigidaire or equiv.	20 cu ft Manual Defrost	120	70-135	Std Plug	13.4	13.4		no			N?		Currently we are using dorm size fridge/freezers but will need larger ones in new lab
20109	1	Up-Right Fridge	E			GE Frigidaire or equiv.	20 cu ft Manual Defrost	120	70-135	Std Plug	15	13.4		no			N?		--
20110	2	Heat block - counter	E			VWR	1 96 well block dry heat	120	110	Std Plug	5			no			E		
20111	2	mini-vortex - counter	E			VWR	Lab Dancer	115	30	Std Plug	0.26			no					
20112	2	micro-centrifuge - counter	E			VWR		115	15	Std Plug	0.13			no					
20113	1	microwave - counter	E			GE	JES1039	120	1500	Std Plug	13			no			E		
20114	1	Camera	E			Canon	Powershot G5	120		Std Plug				no					
20115	1	Monitor	E			Acer	AL1516	120	160	Std Plug	1.5			no					
20116	1	Sony Printer	E			Sony	UP-D897	120	180	Std Plug	1.5			no					
20117	1	Single bay sink / eye wash	E																
20118	1	Mass Spectrometer	N		O								X						
20119	1	Bio-rad	N		O								X						
20120	1	Bio-rad	N		O								X						
20121	1	Roche Lite Cycler	N		O		LC 480						X						
20122	1	Nano Drop	N		O														
20123	1	Speed Vac	R		O														Relocated from Rm 200
20124	2	Real-time Thermo cycler	N		O														
20125	1	Centrifuge	N		O														
		Room 202A - Gowning																	yes - UV light
		Room 202B - Gowning																	
		Room 203 Expanded Reagent Prep / MM																	
20301	2-3	PCR Workstation	E			AirClean Systems	AC600	120	115	Std Plug	1.4-2.8			no			E		Currently have one, but will eventually need two or three in this room
20302	1	Fridge - dorm size	E			Haier	HMSE03WAWW	120	162-648	Std Plug	1.35 / 5.4			no			E		
20303	1	Freezer - dorm size	E			SPT Freezer	UF-310 3.0cu ft	115	110	Std Plug	0.95			no			E		
20304		Up-Right Freezer (-20C)	E			GE Frigidaire or equiv.	20 cu ft Manual Defrost	120	70-135	Std Plug	13.4	13.4		no			N?		Currently we are using dorm size fridge/freezers but will need larger ones in new lab. Maybe able to relocate current stand-up fridge/freezers from building 500
20305		Up-Right Fridge	E			GE Frigidaire or equiv.	20 cu ft Manual Defrost	120	70-135	Std Plug	15	13.4		no			N?		--
20306	2(t)	Speed-Vac - counter	E			Thermo Fisher	SPD121P 14" w x 18" dp x 14" h	115		Std Plug	6			no			E/N		
20307	2	SpeedVac Pump	E			Thermo Fisher	VLP200	120		Std Plug				no			E/N		
20308	2	SpeedVac Cold Trap	E			Thermo Fisher	RTV400	120		Std Plug				no			E/N		
20309	2-3	mini-Vortex	E			VWR	Lab Dancer	115	30	Std Plug	0.26			no			E		this is any and will be right next to PCR workstations or within PCR workstations
20310	2-3	Micro-Centrifuge	E			VWR	Galaxy	115	15	Std Plug	0.13			no			E		this is any and will be right next to PCR workstations or within PCR workstations
20311	1	computer	E			HP		120	30	Std Plug	0.25			yes			N?		Common use workstation so that we can log in inventory and printout set-up sheets
20312	1	lyophilizer	E				Benchtop uses 120V but the stand alone are 240V	120V or 240V	?	Std Plug	?			no			N		We are trying to spec this out just to get an idea. This seems to be really big pieces of equipment and probably won't be something we would purchase until we upscale production
20313	1	autoclave - stand-alone vertical front load; counter or floor mount to be confirmed. EC to coordinate voltages	E			Market Forge	Sterilmatic model STME	208-240 or 220 1 or 3 ph	?		?			no			N		Bench or counter to be confirmed
20314		autoclave component	E				Controls	110		Std Plug				no					
20315		autoclave component	E				Steam generator	208		TBD				no					
20316	1	Single bay sink / eye wash	E																
20316	2	PCR Workstation	N		O	AirClean Systems	AC600												
		Room 204 - Expanded Amp II (was Pouching & Assembly)																	
20401		Relocated to Rm 239																	
20402		Relocated to Rm 239																	
20403		Relocated to Rm 239																	
22404	3	PCR			O														
23405	2	PCR Hood			O														
24406	1	UC Freezer CONFIRM LOCATION			O														
25407	1	UC Fridge CONFIRM LOCATION			O														
26408	4	Thermo cycler			O	Bio-Rad	C1000												
27409	1	Bio-Rad			O	Bio-Rad													
28410	1	Centrifuge			O	Eppendorf													
		Room 205 - Amplification																	
20501	2(t)	Thermo cycler				Bio-Rad	iCycler 10" w x 24" dp x 14" h +door	120	~100	Std Plug	~2			no			E		These have been ordered but will not be here until July. We will have two of them
20502	2(t)	PCR Workstation				AirClean	AC600	120	115	Std Plug	1.4-2.8			no			E		Spec out two
20503		Fridge - dorm size				Haier	HMSE03WAWW	120	162-648	Std Plug	1.35 / 5.4			no			E		
20504	1	Freezer - dorm size				SPT Freezer	UF-310 3.0cu ft	115	110	Std Plug	0.95			no			E		
20505	2(t)	Microplate Centrifuge				Eppendorf	5430R 16" w x 12" dp x 12" h	120	460	Std Plug	6			no			E		
20506	2	ESE Reader																	
		Room 207 - BLS-2 Sample Prep DNA																	
20701		Ref. Micro centrifuge	N		O			120	2400										
20702		Shaking Incubator	N		O			120	1800										
20703		Rocker/Belly dancer	N		O			120	450										
20704		Autoclave	N		O			240	1600										
20705		Fraction Collector	N		O			120	60										
20706		Peristaltic Pump	N		O			120	10										
20707		Bead Beater	N		O			120	600										
20708		Blender	N		O			120	375										
20709		Vacuum Pump	N		O			120	300										
20710		Freezer	N		O			120	2100										
20711		Reagent Scale	N		O			120	60										
20712		Heated Stir Plate	N		O			120	1068										
20713		pH Meter	N		O			120	120										
20714		Electrophoresis Power Supply	N		O			120	120										
20715		Minifuge	N		O			120	30										
20716		Vortexer	N		O			120	78										
20717		Small Walk-in Refridge	N		GC														
20718		Single bay sink / eye wash	N		GC														
		Room 208 - "DISCOVERY" Conference Room																	
20801	1	LCD projector - overhead						110						Yes			N		
		Room 209 - Storage																	
		Room 210 - Stair																	
		Room 211 - Toilet																	
		Room 212 - Smart Waiter / lift																	
		Room 213 B - Gowning																	
21306	1	Nitrogen Tank (pipe to 21301 striper)																	
		Room 213 A - Plant Path Slow Growth (was LFD Striping)																	
21301	2	Relocated to Rm 237															N		
21302	1	Single bay sink / eye wash	E														N		
21303	1	Relocated to Rm 237															N		
21304	1	Relocated to Rm 237															N		
21305	2	Dead Air box / exhaust -															N		
21306	1	Shaking Incubator	E		O			120	1800								E		
21307	1	Shaking Water Bath	N		O			120	600								E		
21308	1	Minifuge	N		O			120	30								N		
21309	6	Grow Light Chambers	N		O												N		100 W fluorescent lamps on shelving
		Room 214 - Plant Path Prep (was LFD Dry Room)																	
21401		Relocated to Rm 240	R														N		
21402		Relocated to Rm 240	R														N		
21403		Relocated to Rm 240	R																
21404		Relocated to Rm 240	R																
21405		Relocated to Rm 240	R																
21406		Relocated to Rm 240	R																
21407	1	Laptop	N		O			120	100										
21408	1	Ref. Micro centrifuge	N		O			120	700										
21409	1	Shaking Incubator	N		O			120	1800										
21410	1	Vacuum Pump	N		O			120	300										
21411	1	Refrigerator 4°C	N		O			120	2100										
21412	1	Freezer CONFIRM UC SPACE - WHERE?	N		O														
21413	1	Heated Stir Plate	N		O			120	1068										
21414	1	Shaking Water Bath	N		O			120	600										
21415	1	Minifuge	N		O			120	30										
21416	1	PCR workstation	N		O	AirClean Systems	AC600	120	115	Std Plug	1.4-2.8			no			N		Would like to have bench space to eventually have two 32"x30"x24" (Provide vent)
		Room 215 - DNA Sequencing (was 215B Beacon Production)																	
21501		Relocated to Rm 239																	
21502		Relocated to Rm 239																	
21503	1	Genetic Analyzer	N		O	ABI	3500 C1000	115	1300		12		X						
21504		Nano Drop	N		O														
		Room 215 C - B Gowning																	
		Room 216 - Meeting																	
		Room 217 - Stair																	
		Room 219 - Landing																	
		Room 221 - Walk-in Refrigeration 4°C																	
22101		Walk-in Refrigeration 4°C			GC	Baly							X						Provide receptacles for equipment
		Room 222 - Standards Room																	
		Room 224 - Gowning																	
		Room 225 - Beacon Production (was Hall)																	
22501	1	Incubators - 56 C	R					50-60 hz											
22502	2	Apricot liquid handler/dispenser	R					100 to 240 VAC, 50/60 HZ											
22503	1	Poucher	R																
22504	1	Computer	R																

REGISTERED ARCHITECT
T. SCOTT TEAS
No. 802
STATE OF MAINE

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TFH ARCHITECTS
100 COMMERCIAL STREET
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TELEPHONE 207 775 6141
ARCHITECTURE PLANNING

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207-879-1838

MECHANICAL:
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Falmouth, ME 04105
207-781-4253

ELECTRICAL:
BENNETT ENGINEERING
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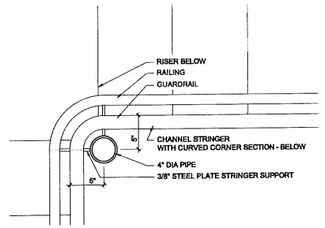
REVISIONS:

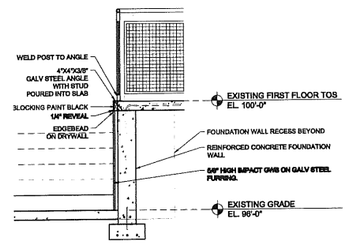
DATE: 8/17/11
PROJECT No. 1026A
DRAWN BY: DAM,RJS
CHECKED BY: TST
SCALE: AS NOTED

SHEET TITLE:
EQUIPMENT SCHEDULE

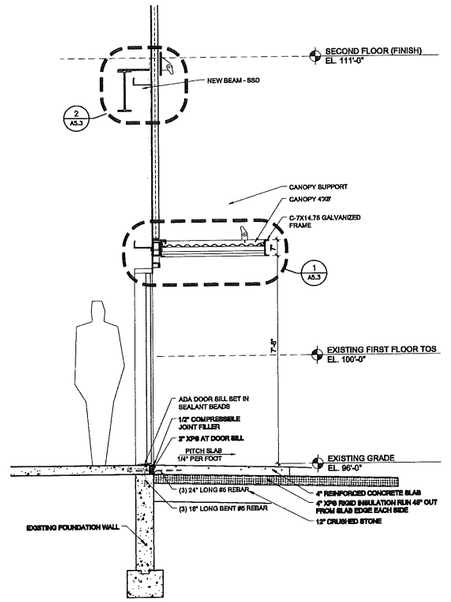
A6.1



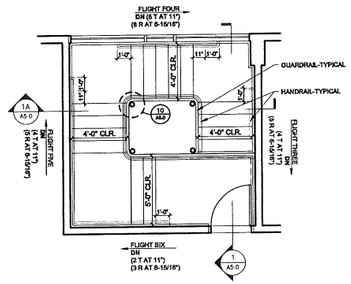
10 A5.0 PLAN DETAIL AT STAIR INNER CORNER
1-1/2" = 1'-0"



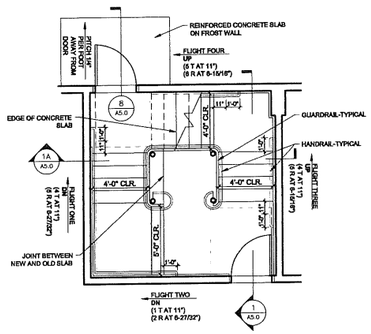
9 A5.0 SECTION AT STAIR RECESSD SLAB
1/2" = 1'-0"



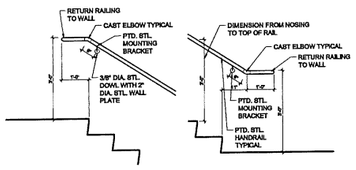
8 A5.0 SECTION AT DOOR AND FROST SLAB
1/2" = 1'-0"



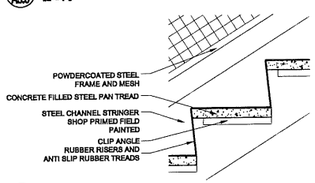
3 A5.0 STAIR PLAN AT SECOND FLOOR
1/4" = 1'-0"



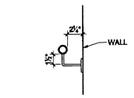
2 A5.0 STAIR PLAN AT FIRST FLOOR
1/4" = 1'-0"



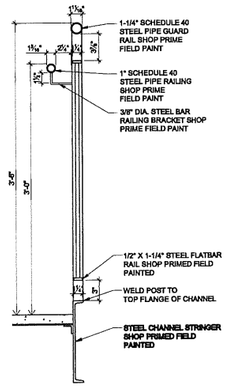
7 A5.0 TYPICAL HANDRAIL DETAIL TOP AND BOTTOM
1/2" = 1'-0"



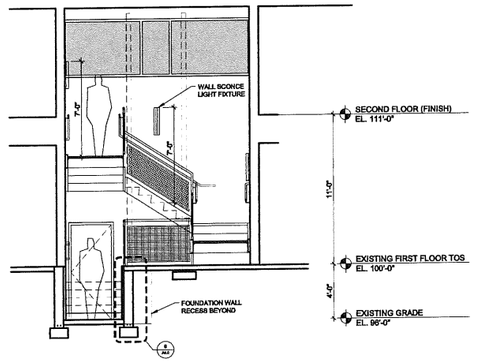
6 A5.0 TYPICAL STAIR TREAD / RISER
1-1/2" = 1'-0"



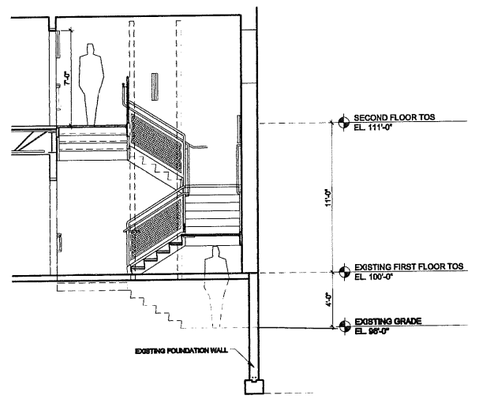
6 A5.0 TYPICAL HANDRAIL AT WALL
1-1/2" = 1'-0"



4 A5.0 GUARDRAIL AND STRINGER DETAIL
1-1/2" = 1'-0"



1A A5.0 STAIR SECTION
1/4" = 1'-0"



1 A5.0 STAIR SECTION
1/4" = 1'-0"

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

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ARCHITECTURE PLANNING

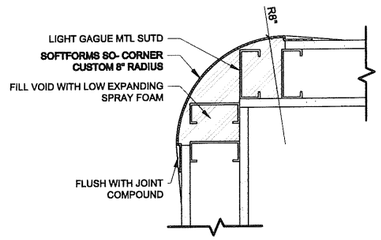
CONSULTANTS:

REVISIONS:

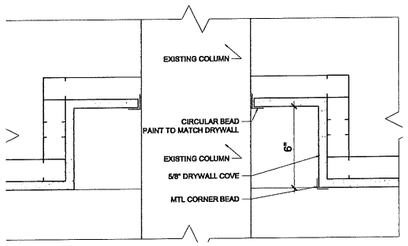
DATE:	6/17/11
PROJECT No.	1035A
DRAWN BY:	DAM/JRB
CHECKED BY:	TBT
SCALE:	AS NOTED

SHEET TITLE:
STAIR DETAILS

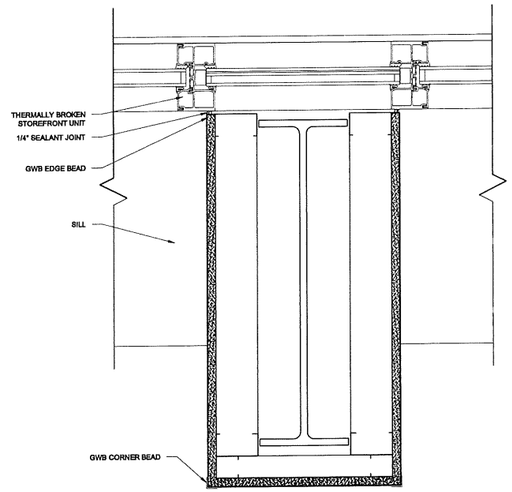
A5.0



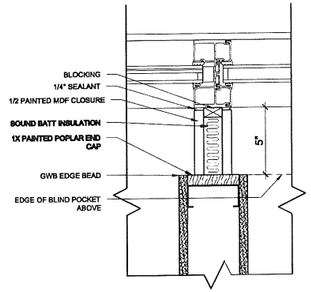
11 A5.1 **WALL CORNER PLAN DETAIL**
1-1/2" = 1'-0"



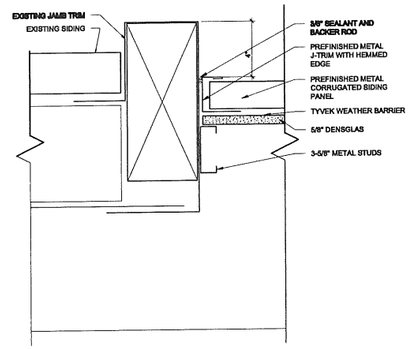
10 A5.1 **COLUMN / CEILING SECTION DETAIL**
3" = 1'-0"



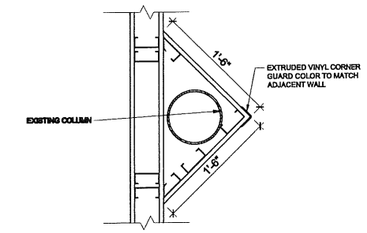
6B A5.1 **STOREFRONT PLAN DETAIL**
3" = 1'-0"



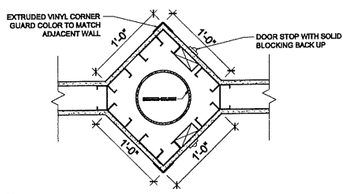
6C A5.1 **STOREFRONT PLAN DETAIL**
3" = 1'-0"



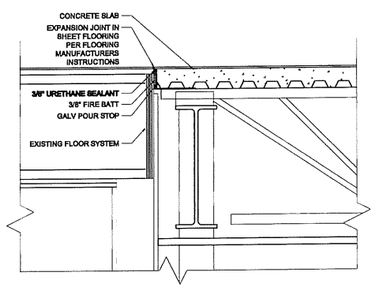
6 A5.1 **PLAN DETAIL AT OHD INFILL**
3" = 1'-0"



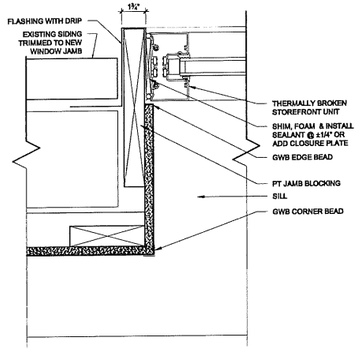
9 A5.1 **COLUMN PILASTER PLAN DETAIL**
1-1/2" = 1'-0"



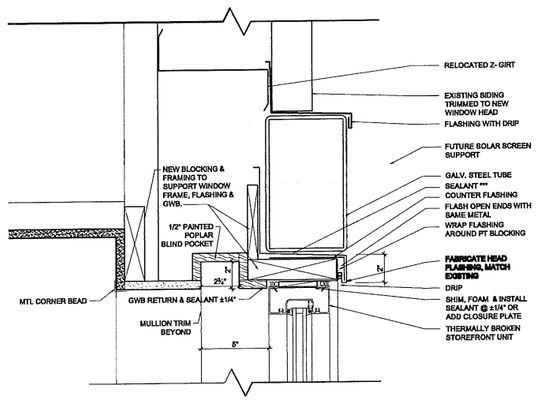
8 A5.1 **COLUMN PILASTER PLAN DETAIL**
1-1/2" = 1'-0"



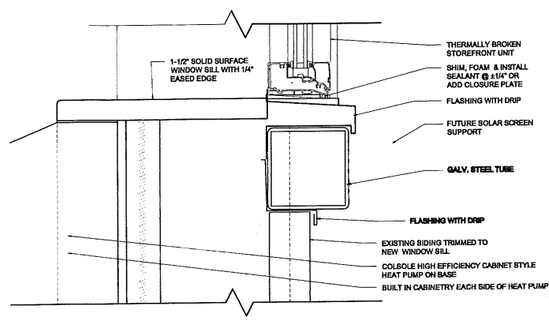
7 A5.1 **EXISTING / NEW FLOOR JOINT DETAIL**
1-1/2" = 1'-0"



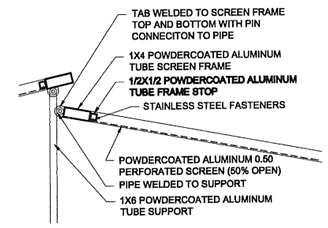
8A A5.1 **STOREFRONT PLAN DETAIL**
3" = 1'-0"



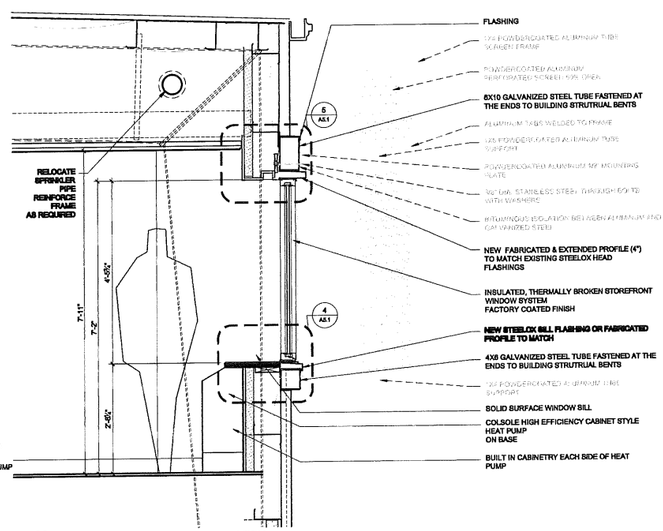
5 A5.1 **WINDOW HEAD DETAIL**
3" = 1'-0"



4 A5.1 **WINDOW SILL DETAIL**
3" = 1'-0"



2 A5.1 **PLAN DETAIL AT WINDOW SCREEN**
1-1/2" = 1'-0"



1 A5.1 **WALL SECTION AT WINDOW SCREEN**
3/4" = 1'-0"

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207-797-7901

STRUCTURAL
Structural Design Systems,PLLC
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Falmouth, ME 04105
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PROJECT No.	1028A
DRAWN BY:	DAM/JMB
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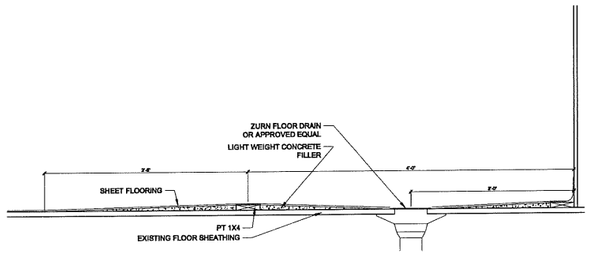
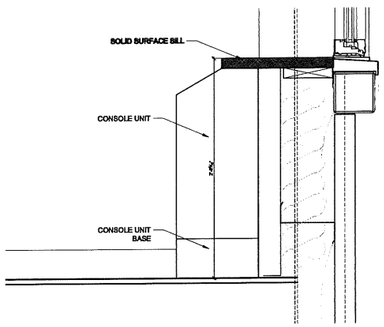
SCALE:	AS NOTED

SHEET TITLE:
DETAILS

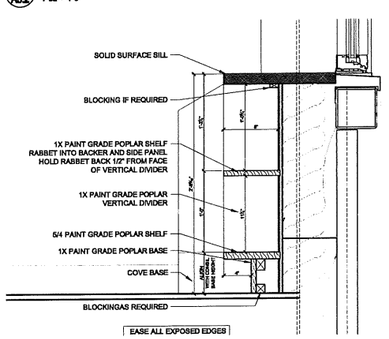
A5.1



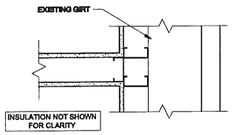
13 A5.2 **SECTION DETAIL AT SAFETY SHOWER FLOOR**
1-1/2" = 1'-0"



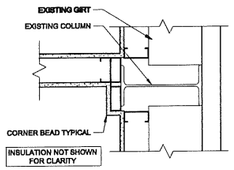
12A A5.2 **SECTION DETAIL AT CONSOLE UNIT CABINETRY**
1-1/2" = 1'-0"



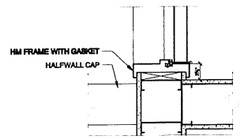
12 A5.2 **SECTION DETAIL AT WINDOW WALL CABINETRY**
1-1/2" = 1'-0"



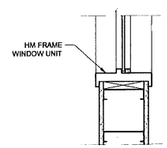
11 A5.2 **PLAN DETAIL AT INTERIOR / EXTERIOR WALL INTERSECTION**
1-1/2" = 1'-0"



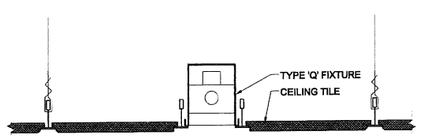
10 A5.2 **PLAN DETAIL AT INTERIOR / EXTERIOR WALL INTERSECTION**
1-1/2" = 1'-0"



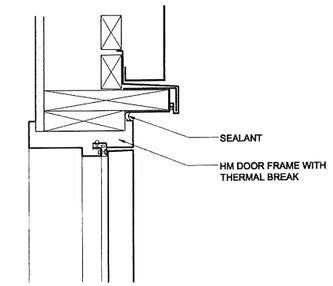
9 A5.2 **PLAN DETAIL AT INTERIOR DOOR**
1-1/2" = 1'-0"



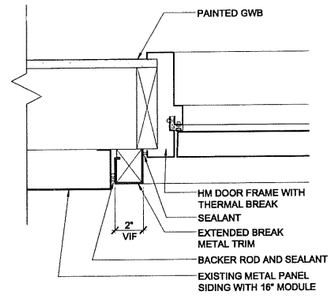
8 A5.2 **PLAN DETAIL AT INTERIOR WINDOW**
1-1/2" = 1'-0"



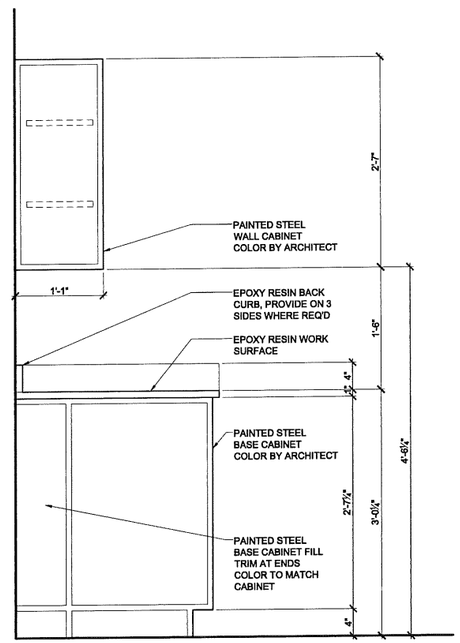
7 A5.2 **SECTION DETAIL AT 'Q' LIGHT FIXTURE AND CEILING**
3" = 1'-0"



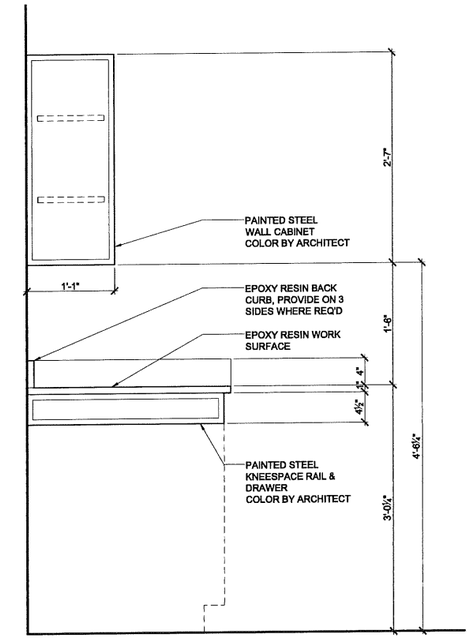
6 A5.2 **SECTION DETAIL AT EXTERIOR DOOR HEAD**
3" = 1'-0"



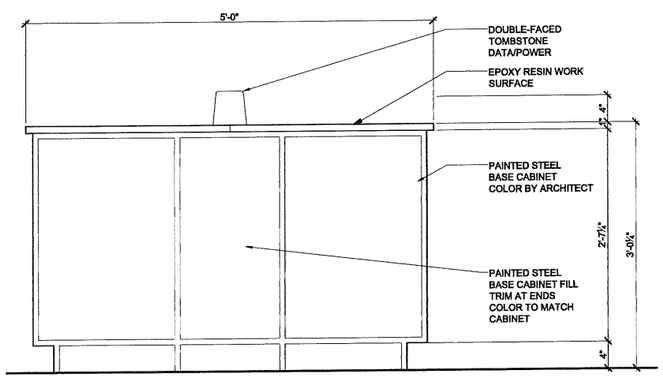
3 A5.2 **PLAN DETAIL AT EXTERIOR DOOR JAMB**
3" = 1'-0"



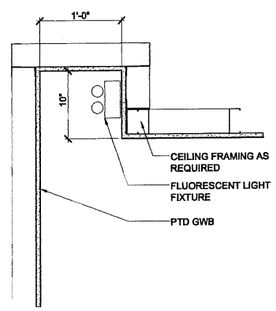
5 A5.2 **SECTION DETAIL AT LAB BENCH AND UPPER CABINET**
1-1/2" = 1'-0"



2 A5.2 **SECTION DETAIL AT LAB BENCH WITH KNEE SPACE**
1-1/2" = 1'-0"



4 A5.2 **SECTION DETAIL AT PENINSULA LAB BENCH**
1-1/2" = 1'-0"



1 A5.2 **SECTION DETAIL AT RESTROOM LIGHT COVE**
1-1/2" = 1'-0"

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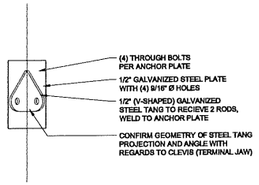
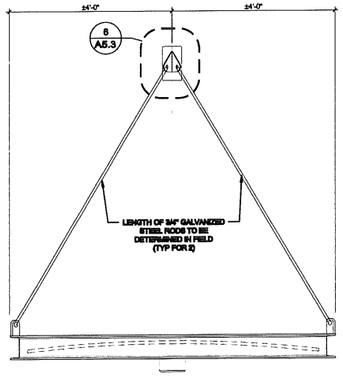
DATE:	9/17/11
PROJECT No.	1038A
DRAWN BY:	DBM
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
INTERIOR
DETAILS

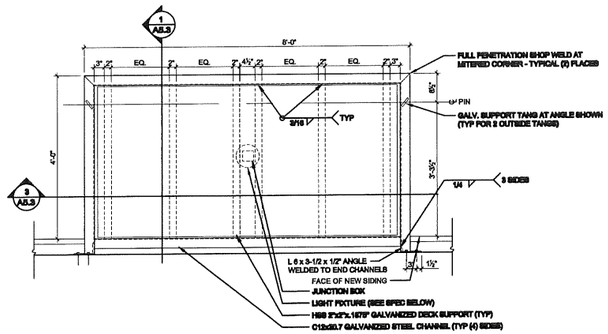
A5.2



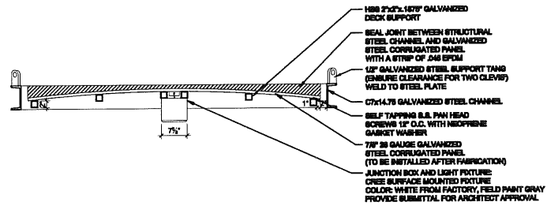
6 A5.3 **ELEVATION OF CANOPY SUPPORT PLATE**
1-1/2" = 1'-0"



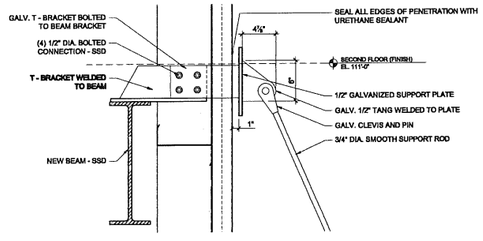
5 A5.3 **ELEVATION OF CANOPY**
3/8" = 1'-0"



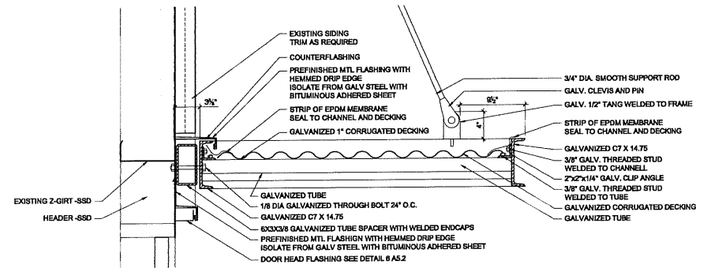
4 A5.3 **PLAN DETAIL OF CANOPY**
3/8" = 1'-0"



3 A5.3 **SECTION DETAIL OF CANOPY**
3/8" = 1'-0"



2 A5.3 **SECTION DETAIL AT CANOPY SUPPORT**
1-1/2" = 1'-0"



1 A5.3 **SECTION DETAIL AT CANOPY**
1-1/2" = 1'-0"

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DATE:	6/17/11
PROJECT No.	1038A
DRAWN BY:	DAM,RJB
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
CANOPY DETAILS

A5.3

ROOM FINISH SCHEDULE

Number	ROOM NAME	FLOOR	BASE	WALLS N	WALLS S	WALLS E	WALLS W	CEILING MATL	NOTES
124	OPEN WAREHOUSE	35	–	6	6	1	6,1	47	
125	MECHANICAL	38	20	1	1	1	1	40	
126	MECHANICAL	38	20	1	1	1	1	40	
127	MECHANICAL	38	20	1	1	1	1	40	
128	MECHANICAL	38	20	1	1	1	1	40	
202	GOWN	31	20	1	1	1	1	40	
203	EXPANDED REAGENT PREP / MASTER MIX	31	20	2	2	2	2	40	
204	EXPANDED AMP II	31	20	2	2	2	2	40	
205	HUMAN PATHOGEN	31	20	2	2	2	2	40	
207	BSL-2 SAMPLE PREP (DNA)	31	20	2	2	2	2	40	
208	DISCOVERY	–	–	–	–	–	–	–	
213	PLANT PATH SLOW GROWTH	31	20	2	2	2	2	40	
214	PLANT PATH PREP	31	20	2	2	2	2	40	
215	DNA SEQUENCING	31	20	2	2	2	2	40	
218	ELEC CLOSET	31	20	12	12	12	12	40	
221	WALK-IN REFRIG.	–	20	1	1	–	1	40	GWB CEILING AND WALL FINISH AROUND UNIT
222	STANDARDS ROOM	31	20	2	2	2	2	40	
223	BSL-2 SAMPLE PREP (RNA)	31	20	2	2	2	2	40	
224	GOWN	31	20	1	1	1	1	40	
225	BIOACTIV PRODUCT	31	20	2	2	2	2	40	
226	CORRIDOR	31	20	1	1	1	1	40	
227	WOMEN'S RESTROOM	31	20	1	1	1	1	40	
228	MEN'S RESTROOM	31	20	1	1	1	1	40	
229	OPEN OFFICE	30	20	1	1	1	1	43	
230	VS 3	31	20	2	2	2	2	40	
231	VS 2	31	20	2	2	2	2	40	
232	VS 1	31	20	2	2	2	2	40	
233	LYOPHILIZATION	31	20	2	2	2	2	40	
234	REAGENT PREP / CAP & FILL	31	20	2	2	2	2	40	
235	VESTIBULE	31	20	1	1	1	1	40	
236	GOWN	31	20	1	1	1	1	40	
237	LTD - HUMID	31	20	2	2	2	2	40	
238	WALK-IN REFRIG.	–	20	1	1	–	1	40	GWB CEILING AND WALL FINISH AROUND UNIT
239	PACKAGE	31	20	1	1	1	1	40	
240	LTD DRY	31	20	2	2	2	2	40	
241	VESTIBULE	31	20	1	1	1	1	40	
242	GOWN	31	20	1	1	1	1	40	
243	CORRIDOR	31	20	1	1	1	1	43	
244	OFFICE 1	30	20	1	1	1	1	43	
245	OFFICE 2	30	20	1	1	1	1	43	
246	OFFICE 3	30	20	1	1	1	1	43	
247	OFFICE 4	30	20	1	1	1	1	43	
248	STAIR	33	20	1	1	1	1	43	
250	OPEN MEETING	30	20	1	1	1	1	43	
251	CLOSED MEETING	30	20	1	1	1	1	43	
252	CLOSED MEETING	30	20	1	1	1	1	43	
253	OPEN OFFICE	30/31	20	1	1	1	1	43	SHEET VINYL AT CORRIDOR LOOP
254	STORAGE	31	20	1	1	1	1	43	
255	TECH TRANSFER	31	20	2	2	2	2	40	
256	GOWN	31	20	1	1	1	1	40	
258	STORAGE	31	20	1	1	1	1	40	
259	STORAGE	31	20	1	1	1	1	40	
260	MECH.	31	20	1	1	1	1	40	
261	MECH.	31	20	1	1	1	1	40	
263	HALL	31	20	1	1	1	1	40	

FINISH SCHEDULE KEY			
WALLS		MANUFACTURER	STYLE / COLOR
1	GWB - LATEX, LOW VOC PAINTED BY GC	BENJAMIN MOORE	SEE PAINT SCHEDULE
2	GWB - EPOXY PAINTED BY GC		SEE PAINT SCHEDULE
3	GWB - PAINTED BY GC		
4	CONFERENCE WAINSCOTING -	CLR SEPELI W/ FABRIC	
5	BREAK ROOM WAINSCOTING -	PTD. HD. WD. W/ FABRIC	
6	NOT USED		
7	EXISTING BRICK - PAINTED BY GC		
8	EXISTING CMU UNIT WALL		
9	EXISTING STONE FOUNDATION WALL		
10	PLASTER - PAINTED BY GC		
11	SHEET STEEL, CLEAN AND PAINT		
12	3/4" PLYWOOD OVER GWB		
BASE			
20-1	RUBBER COVE BASE #1		# 50 PEBBLE W/ CARPET TILE # 6 STRAIGHT BASE, # 50 BONE CRAVE W/ CARPET OR # 6 STRAIGHT BASE, W/ SHEET FLOORING - COVE BASE
20-2	RUBBER COVE BASE #2		
20-3	RUBBER COVE BASE #3		# 30 CHARCOAL W/ COCOA MATT / CT-2
20-4	NOT USED		
21	PAINTED WOOD		
22	EXISTING (REFINISHED)		
23	CLEAR FINISHED SEPELI		
FLOORS			
30-1	CARPET TILE - 1, COMMERCIAL GRADE	MILLIKEN	P/6724 RANDOM 602
30-2	CARPET - 2, COMMERCIAL GRADE	3033 IMMACULATE MOCCA	
30-3	NOT USED	-	
31	SHEET VINYL	MANNINGTON ASSURANCE II	SABLE 16325
32-1	QUARTZ TILE - 1 (OFF WHITE)	ALTRO	AQT CD 0211
32-2	QUARTZ TILE - 2 (GREEN)	ALTRO	AQT CD 2063
32-3	QUARTZ TILE - 2 (GRAY)	ALTRO	AQT CD 0216
33	RUBBER TILE -1	JOHNSONITE	#32 PEBBLE
34	CONCRETE, STAIN, SEALER		
35	EXISTING CONCRETE		
36	VCT		
37	COCOA MAT WALK OFF, VINYL BACKED		3/4" CHARCOAL
38	CLEAN AND SEAL EXISTING CONCRETE		
TRANSITION STRIPS		JOHNSONITE	#32 PEBBLE
CEILINGS			
40	GWB - PAINTED BY GC	BENJAMIN MOORE	SEE PAINT SCHEDULE
41	GWB SOFFIT - PAINTED BY GC	BENJAMIN MOORE	SEE PAINT SCHEDULE
42	NOT USED		
43	2x2, 2x4 (AS INDICATED) SUSPENDED ACOUSTICAL CEILING		
44	1'X1' DIRECT GLUE ACOUSTICAL CEILING TILE WITH PTD. QUARTER ROUND EDGE TRIM		
45	NOT USED		
46	EXISTING PLASTER - PAINTED BY G.C.		
47	EXPOSED METAL DECK		
99	EXISTING TO REMAIN		

PAINT SCHEDULE		
PAINT	DESCRIPTION	BENJAMIN MOORE COLOR
P1	BASE WALL COLOR LL G. N.	HOT SPRING STONES AC - 31
P2	LAB WALLS	SAIL CLOTH S-27
P3	DOOR FRAMES, RAILINGS	PEBBLE DUNES AC-32
P4	CEILINGS / SOFFITS	CEILING WHITE
P5	ACCENT COLOR -	IRON MOUNTAIN 2134-30
P6	ACCENT COLOR -	GLOUCESTER SAGE HC-100
P7	ACCENT COLOR -	NEWBURYPORT BLUE HC-155
P8	ACCENT COLOR -	SHENANDOAH TAUPE - AC-36
P9	ACCENT COLOR -	COPPER MOUNTAIN AC-12
P10	ACCENT COLOR -	ASHLEY GRAY - HC-87

ROOM FINISH GENERAL NOTES

A ALSO SEE INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION OF EXTENT OF FINISHES

B INSTALL MOISTURE RESISTANT GWB IN ALL AREAS WHERE PLUMBING FIXTURES EXIST

C ALL PARTITIONS TO IMMEDIATELY WALLS UP TO THE NEXT RATED ZONES ONLY. ANY BRICK OR BLOCK PENETRATIONS TO BE APPROVED BY ARCHITECT PRIOR TO WORK

D ALL CLOSERS (POWER, UTILITY, CLOSERS, LEADS, ETC.) TO BE PAINTED TO THE ROOM THEY SERVICE.

E PER CLOSER SCHEDULE REFER TO REINFORCED CLOSER PLATE

DOOR AND FRAME SCHEDULE

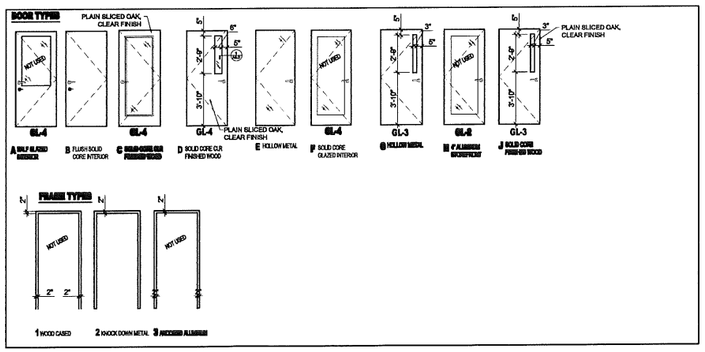
NUMBER	DOOR TYPE	DOOR SIZE WIDTH	DOOR SIZE HGT	DOOR SIZE THK	DOOR MATL	DOOR FINISH	FRAME TYPE	FRAME MATL	FRAME THRESHOLD	FRAME FINISH	FIRE RATING LABEL	HARDWARE SET	HARDWARE CLOSER	NOTES
1241	C	3'-0"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	1 HR	EX	Y	–
1242	C	3'-0"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	1 HR	EX	Y	–
1244	C	6'-0"	7'-0"	1 3/4"	MTL	PTD	2	MTL		PTD	1 HR	EX	Y	DOUBLE DOOR
1251	E	6'-0"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	–	EX	Y	INSULATED EXTERIOR DOUBLE DOOR
1262	C	3'-6"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	1 HR	S	Y	–
1271	C	3'-6"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	1 HR	S	Y	–
1272	C	3'-6"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	1 HR	S	Y	–
1281	C	3'-6"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	1 HR	S	Y	–
1282	C	3'-6"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	1 HR	S	Y	–
2021	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2031	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2071	E	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2072	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2101	–	3'-0"	7'-0"	1 3/4"	–	–	–	–		–	–	–		EXISTING DOOR ADD CARD READER
2131	–	3'-0"	7'-0"	1 3/4"	–	–	–	–		–	–	–		EXISTING DOOR ADD CARD READER
2141	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	–		PTD	–	E		EXISTING GOWNING 2138 DOOR RELOCATED
2171	J	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	ALUM	PTD	1 HR	EX	Y	WITH CARD READER
2172	–	3'-0"	7'-0"	1 3/4"	–	–	–	–		–	–			ADD CARD READER
2191	J	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	ALUM	PTD	1 HR	EX	Y	–
2201	–	3'-0"	7'-0"	1 3/4"	–	–	–	–		–	–	–		EXISTING DOOR ADD CARD READER
2221	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2231	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2241	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		WITH CARD READER
2251	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2261	J	6'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	ALUM	PTD	1 HR	EX	Y	DOUBLE DOOR OPPOSING SWING LEAFS, ELECTRONIC HOLD OPEN FOR WEST LEFT LEAF ONLY
2271	B	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	S	Y	–
2281	B	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	S	Y	–
2301	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2311	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2321	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2331	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2341	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2342	C	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2351	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2362	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2371	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2391	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2401	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2411	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2421	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2441	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2451	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2461	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2471	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2481	J	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	ALUM	PTD	1 HR	EX	Y	WITH CARD READER
2482	J	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	ALUM	PTD	1 HR	EX	Y	–
2483	E	3'-0"	7'-0"	1 3/4"	MTL	PTD	2	MTL	ALUM	PTD	–	EX	Y	INSULATED EXTERIOR DOOR
2511	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2521	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2541	B	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	S		–
2561	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–
2562	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	E		–
2581	B	2'-6"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	S		–
2591	B	2'-6"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	S		–
2601	B	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	S		–
2611	B	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL		PTD	–	S		–
2631	D	3'-0"	7'-0"	1 3/4"	WD	CLR	2	MTL	RUB	PTD	–	E		–

ADA CLEARANCES SHOWN LIGHTLY DASHED WHERE REQUIRED.

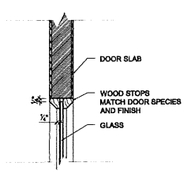
REMARKS:
- A. ADJUST THRESHOLD WIDTH TO COORDINATE WITH SLAB INSTALLATION & JOINT COVERAGES.
- B. ADJUST WIDTH TO FIT EXISTING FRAME OPENING
- CL. DOUBLE ACTING DOOR

HARDWARE TYPES:
- S - STOREFRONT
- E - ENTRANCE / OFFICE
- EX - EXIT
- P - PASSAGE
- PR - PRIVACY

HARDWARE TO BE: ADA COMPLIANT LEVERS, QUALITY LEVEL: COMMERCIAL, INTERMEDIATE USAGE. LOCKSETS AND LATCHSETS: CYLINDRICAL TYPE. LOCK CYLINDERS: INTERNAL KEYING: MATCH EXISTING KEYING AND COORDINATE WITH OWNER. HINGES AND BUTTS: FULL-MORTISE TYPE AT INTERIOR, WITH NONREMOVABLE PINS AT EXTERIOR DOORS. CLOSERS, DOOR CONTROL, AND EXIT DEVICES: AVERAGE FREQUENCY. BARRIER-FREE, PIVOTS: OFFSET OR CENTER-HUNG TYPE. PUSH-PULL UNITS: THROUGH-BOLTED TYPE. HARDWARE FINISH SEE: SATIN CHROME FINISH ON EXPOSED SURFACES APPROVED BY OWNER. AUXILIARY MATERIALS: DOOR TRIM UNITS: ROCKPLATES, EDGE TRIM, VISIONSTRIPS, STOPS AND RELATED TRIM SOUNDSTRIPPING, WEATHERSTRIPPING NO THRESHOLDS. COORDINATE DOOR LOCKSROUTE, IF NECESSARY WITH HVAC CONTRACTOR.



GLAZING SCHEDULE	
KEY	GLAZING TYPE
GL-1	INSULATED CLEAR GLAZING
GL-2	INSULATED TEMPERED GLAZING
GL-3	FIRE RATED WIRE GLAZING
GL-4	CLEAR TEMPERED GLASS
GL-5	GLASS BLOCK
GL-6	CLEAR GLASS



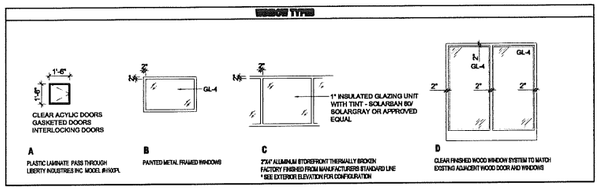
1 / A6.0 INTERIOR DOOR GLAZING DETAIL
3" = 1'-0"

WINDOW SCHEDULE

MARK	SIZE WIDTH	SIZE HEIGHT	TYPE	MATERIAL	NOTES
1	4'-0"	3'-6"	B	MTL	–
2	4'-0"	3'-6"	B	MTL	–
3	4'-0"	3'-6"	B	MTL	–
4	4'-0"	3'-6"	B	MTL	–
5	4'-0"	3'-6"	B	MTL	–
6	1'-6"	1'-6"	A	MTL	PASS THROUGH
7	1'-6"	1'-6"	A	MTL	PASS THROUGH
10	3'-4"	5'-0"	B	MTL	–
11	5'-8"	7'-2"	D	WD	–
12	3'-8"	7'-2"	D	WD	–

FOR EXTERIOR STOREFRONT WINDOW SEE ELEVATION ON A2.0

WINDOW TYPES



EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TPH ARCHITECTS
100 COMMERCIAL STREET
PORTLAND MAINE 04101
TELEPHONE 207 775 6141
ARCHITECTURE PLANNING

CONSULTANTS:

REVISIONS:

DATE:	6/17/11
PROJECT No.	1028A
DRAWN BY:	DAM,RJS
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
DOOR FINISH FIXTURE SCHEDULES

A6.0

LABORATORY EQUIPMENT MATRIX - DNA EXPANSION 7/25/11

Equipment # (Existing, To Remain, Relocated, Future)	Qty	Equipment Description	Existing (E) New (N) Renovated & relocated (R)	Floor (F) Counter (C) Wall (W) Under counter (UC)	Provided by (O) Owner (GC)	Manufacturer	Model	Electrical: Volts/Phase	Electrical: Watts	Electrical: Plug-in cord used	Electrical: Nema plug Amps	Electrical: BLA	Electrical: Emergency Power	Electrical: Data Connection?	Air: Compressed Air (PSI)	Gas: Nitrogen / Argon Connection	Water: Domestic Hot	Water: Domestic Cold	Drain: Continuous / standard / trap	Drain: Fume hood	Drain: Floor	Drain: Chemical Waste	Drain: Acid Neutralization System	Handicap / relocation: (ET) - SPECIALTY TECHNICIAN (CT) - CONTRACTOR (EJ) - ELECOMMS	Equipment: (EJ) - EQUIPMENT SUPPLIER (N) - PROVIDER	Countertop / cabinets: (N) - none (B) - base	Notes/Other
		Responsibility for input: E + ELK			E	E		E	E	E	E	E	E	E											Equipment	E	
EXISTING EQUIPMENT TO REMAIN - RELOCATED DURING PHASE 1																											
		Room 203 / Normal Pathogen Area Sample Prep																									
p2c02		Biological Hood	E	W	O	Baker		115	5.0	5-15 hwy																	
p2c04		Glass Hood	E	W	O	Baker		115	5.0	5-15 hwy																	
p2c06		4°C Freezer	E	F	O			115	5.0	5-15 hwy	X																
p2c07		-80°C Ultra Freezer	E	F	O			115	5.0	5-15 hwy	X																
p2c10		-20°C Commercial	E	F	O			120																			
p2c12		Refrigerator/Freezer, 4°C/-20°C	E	C	O			120																			
p2c14	2	Thermal Cycler	E	C	O			120		5-15 hwy	20																
p2c16		Autoclave - Vertical	E	C	O	Steris	SLS-315 VS	208		3-pin twist	20																Similar to model shown at attachment
p2c18		Single bay sink / eye wash	E	C	O			120																			
EXISTING EQUIPMENT TO BE REMOVED																											
		Room 213 / Janitorial Closet																									
		Room 220 / BLS-2 Sample Prep Area																									
21301		Nanodrop	N	C	O			120	100																		
21302		Vortex	N	C	O			120	300																		
21303		BioRad Experion Agilent 2100	N	C	O			120																			
22304		Bio Centrifuge (as in current sample prep)	N	C	O			120	2800																		
22305		Bio Micro centrifuge	N	C	O			120	400																		
22306		Bench Gel & Camera	N	C	O			120	1800																		
22307		Bench Gel Electrophoresis	N	C	O			120																			
22308		Shaker/Rotary Mixer	N	C	O			120	400																		
22309		Milli-Q Water System (RNase & RnaseFree)	N	W	O			120	450																		
22310		Blender	N	C	O			120	300																		
22311		Vacuum Pump	N	C	O			120	1800																		
22312		Refrigerated Centrifuge	N	C	O			120	1400			X															
22313		Refrigerated Freezer	N	C	O			120	1400			X															
22314		Freezer	N	F	O			120	1400																		
22315		Reagent Scale	N	C	O			120	100																		
22316		Rotary Lab Mixer	N	C	O			120	1800																		
22317		Hot Plate	N	C	O			120	1400																		
22318		Electrophoresis Power Supply	N	C	O			120	300																		
22319		Shaking Water Bath	N	C	O			120	1500																		
22320		Balance	N	C	O			120	100																		
22321		Stir Hotplate	N	C	O			120	1400																		
22322		Microcentrifuge	N	C	O			120	375																		
22323		Thermal Cycler	N	C	O			120	1400																		
22324		Minifuge	N	C	O			120	30																		
22325		Vortex	N	C	O																						
22326		Deep Freeze	N	C	O																						
22327		Single bay sink / eye wash	N	C	GC																						
		Room 207 - Women's Restroom																									
		Room 208 - Men's Restroom																									
		Room 209 - Work Area - Unit 2																									
21001	1	Tube scanners	N	C	O		Kodak/Carestream	120		5-15 hwy - 4' cord			15A													5 Year Manufacturer's	
21002	1	Film Blocks	N	C	O		Kodak/Carestream																			5 Year Manufacturer's	
21003	1	Refrigerator (4° under counter)	N	C	O		Kodak/Carestream																			5 Year Manufacturer's	
21004	1	Computers	N	C	O		Kodak/Carestream																			5 Year Manufacturer's	
		Room 210 / Vestibule Suite 2																									
21005	1	Tube scanners	N	C	O		Kodak/Carestream	120		5-15 hwy - 4' cord			15A													5 Year Manufacturer's	
21006	1	Film Blocks	N	C	O		Kodak/Carestream																			5 Year Manufacturer's	
21007	1	Refrigerator (4° under counter)	N	C	O		Kodak/Carestream																			5 Year Manufacturer's	
21008	1	Freezer (0 under counter)	N	C	O		Kodak/Carestream																			5 Year Manufacturer's	
21009	1	Computers	N	C	O		Kodak/Carestream																			5 Year Manufacturer's	
		Room 211 / Vestibule Suite 1																									
21010	3	Lyophilizers			O			208/1	1800 W			X		X												Spare for lab use	
21011	1	Nitrogen Tubing Dewar part Box			O									X													
21012	1	Liquid Handler			O									X													
21013	1	Pipetter			O									X													
21014	1	Computer			O									X													
		Room 212 / Lab Support Area (PCR workstation Cont'd #1)																									
21015	1	Liquid Handler	N	C	O			120		5-15																Spare for lab use	
21016	1	Liquid Handler (Buffer)		C	O																						
21017	1	Capping Instrument (Buffer)		C	O																						
21018	1	Shaker		C	O																						
21019	1	Mini Q water handling		C	O			120	1.8 gal	5-15																	
21020	1	Microfuge		C	O				10,000 rpm																		
21021	1	Micro centrifuge		C	O				10,000 rpm	5,000 rpm																	
21022	1	Spectrophotometer/dispenser	N	C	O				110 - 240v/50 - 60Hz			X															
21023	1	Freezer (0 upright - manual)	N	C	O				110 - 240v/50 - 60Hz			X															
21024	1	Refrigerator (4 upright)	N	C	O				1.5 amps																		
21025	1	Computers	N	C	O			120v	1100 watts		15 amp																
21026	4	Applied Systems (PCR workstation)	N	C	O			120v	1100 watts		15 amp																
		Room 213 / Vestibule																									
		Room 214 / Gown																									
		Room 215 / Entry																									
p1301	2	Imagine Soft Top Sprayer (from Rm 214)	R			Rogers	18"x28"x12"	120		5-15 hwy	3			no											Ely		
p1302	1	Vortex																									
p1303	1	Bleach up Centrifuge (from Rm 214)	R					120		5-15 hwy	3.3																
p1304	1	Incubator - bleach up (from Rm 214)																									
p1305	2	Vacuum																									
21301	1	Vortex	N	C	O				750																		
21302	1	Water system - Milli-Q Water System	N	W	O				300																		
21303	1	Spectrophotometer	N	C	O				1500																		
21304	1	Centrifuge																									
21305	1	Refrigerator (full size) 3x3																									
21306	1	Freezer (full size) 3x3																									
21307	1	Ice Machine							500																		
21308	1	Ice Maker	N	C	O				500																		
21309	2	Hoods for reagents							350																		
21310	4	Imagines (MOD_3 LATER)		C	O				1000			X															
21311	1	Particle Sizer		C	O				800																		
21312	1	Balance		C	O				1.5A																		
21313	1	Shaker plates		C	O				2.5A																		
21314	1	Mixer		C	O				2.5A																		
21315	1	Pump		C	O				2.5A																		
21316	1	Centrifuge		C	O				2.5																		
21317	1	Shaker		C	O				2.5A																		
21318	1	Minifuge		C	O				3.5A																		
21319	1	Microfuge		C	O				2.5A																		
21320	1	Benchtop Centrifuge		C	O				300 W																		
		Room 216 / Staff Toilet																									
		Room 217 / Janitor																									
		Room 218 / Staff Toilet																									
		Room 219 / Storage																									
		Room 220 / BLS-2 Sample Prep Area																									
21401	1	Refrigerator (4° under counter)	N	F	O			120	2.1A 115																		
21402	1	Refrigerator (4° under counter)	N	F	O			120	2.1A 115																		
21403	2	Applied Systems (PCR workstation)	N	C	O			110 - 150 w		5-15		4A															
21404	1	Vortex Genie	N	C	O			110 w		3.5A																	
21405	4	Vortex	N	C	O			115 - 230/60 hertz																			
21406	1	Water centrifuge	N	C	O			1.15A 1																			
21407	2	Thermometers	N	C	O			AC 100-240V ac 47/63 hz				0.6A															
21408	1	Heat Blocks	N	C	O																						
21409	1	Sink	N	C	GC																					Eye wash	
		Room 221 / Gown																									
		Room 222 / Storage																									
		Room 223 / Airlock																									
		Room 224 / Autoclave																									

LABORATORY EQUIPMENT MATRIX - DNA EXPANSION 7/25/11

Equipment # (Existing, To Remain, Relocated, Future)	Qty	Equipment Description	Existing (E) New (N) Renovated & relocated (R)	Floor (F) Counter (C) Wall (W) Under counter (UC)	Provided by (O) Owner (GC)	Manufacturer	Model	Electrical: Volts/Phase	Electrical: Watts	Electrical: Plug-in cord used	Electrical: Nema plug Amps	Electrical: BLA	Electrical: Emergency Power	Electrical: Data Connection?	Air: Compressed Air (PSI)	Gas: Nitrogen / Argon Connection	Water: Domestic Hot	Water: Domestic Cold	Drain: Continuous / standard / trap	Drain: Fume hood	Drain: Floor	Drain: Chemical Waste	Drain: Acid Neutralization System	Handicap / relocation: (ET) - SPECIALTY TECHNICIAN (CT) - CONTRACTOR (EJ) - ELECOMMS	Equipment: (EJ) - EQUIPMENT SUPPLIER (N) - PROVIDER	Countertop / cabinets: (N) - none (B) - base	Notes/Other
		Responsibility for input: E + ELK			E	E		E	E	E	E	E	E	E											Equipment	E	
EXISTING EQUIPMENT TO REMAIN - RELOCATED DURING PHASE 1																											
		Room 217 / PCR Expert Update Section																									
p2c01		Biological Hood	E	W	O	Baker	QS Vertical Flow Dimension System	120	450max	5-15 hwy	4.0			no											E	No injection for air, have one current, will eventually add new one also.	
p2c03		Hood	E	W	O		Thermo-Labtop	120	1/2 gal/day					no											E		
p2c05		Centrifuge	E	F	O	SigmaCentrifuge		120	30	5-15 hwy	4.0			no											E		
p2c08		Freezer - dormitory style	E	F	O	GE Focus	JES12	120	2.5A	5-15 hwy	0.5A			no											E		
p2c09		Refrigerator/Freezer	E	C	O	Thermofisher	Revco/ULT2140-A-A+++/EF-A	120	7.0	5-15 hwy	0.5			no											E	No injection for air, have one currently, will eventually add new one also.	
p2c10, p2c11		Incubator - bench top shaker	E	F	O	Barnstead	MaxQ4000 - 120/240 v++/50-60 Hz	120	7.0	5-15 hwy	0.5			no											N	Could be shown back up to small bench in "SPECIFIC" Chemist room	
p2c12	2	Autoclave	E			Applied Systems	AC500	120	11.0	5-15 hwy	12.0			no											N	Currently on emergency backup power but not in design requirements	
p2c13	2	Small Bio-Hazard unit	E					120	3hr/15	5-15 hwy	1.0	1.5A		no											N	Currently on emergency backup power but not in design requirements	
p2c14	2	Autoclave (2PC)	E			GE Frigidaire	21cu. Manual Defrost	120	20/12.5	5-15 hwy	1	1.5A		no											N		
p2c15a		Lab Refrigerator	E			GE Frigidaire	21cu. Manual Defrost	120	20/12.5	5-15 hwy	1	1.5A		no											E		
p2c15b						GE																					
p2c16	2	Incubator counter	E			VWR	10 cent Block style box	120	110	5-15 hwy	0.5			no											N		
p2c17	2	Incubator shaker	E			VWR	Lab Shaker	120	30	5-15 hwy	0.5			no											N		
p2c18	2	Incubator/Mag. stirrer	E			VWR		120	30	5-15 hwy	0.5			no											N		
p2c19	1	Incubator - shaker	E			GE	25S-1BW	120	1500	5-15 hwy	15			no											E		
p2c20	1	Camera	E			Canon	Powershot SX	120		5-15 hwy	1.0			no											N		
p2c21	1	Mixer	E			Axis	A20	120	180	5-15 hwy	1.5			no											N		
p2c22	1	Lava Freeze	E			Sony	SF-5869	120	180	5-15 hwy	1.5			no											N		
p2c23		Single bay sink / eye wash	N	C	GC																			X			
21155	1	Mass Spectrometer	N		O																			X			
21513	1	Blender	N		O																			X			
21520	1	Blender	N		O																			X			
21531	1	Biochemistry Cycler	N		O		LC480																				
21532	1	Nano Drop	R		O																						
21533	1	Nano Drop	R		O																						
21534	2	Real-time Thermo cycler	N		O																						
21535	1	Centrifuge	N		O																						
		Room 210A - Gowning																									
		Room 210B - Gowning																									
		Room 203 Expanded Reagent Prep / BSL																									
21531	2,3	PCR Workstation	E			Applied Systems	AC500	120	11.0	5-15 hwy	12.0			no											E		
21501		Fridge - dormitory	E			Haier	HRF070AAAA	120	1/2 HP	5-15 hwy	6.5A			no											E	Currently on an emergency backup power but not in design requirements	
21502		Freezer - dormitory	E			GE Frigidaire	JES1 Manual Defrost	115	110	5-15 hwy	6.5A			no											E	Multi-Unit building, each unit has 1 freezer, total of 50	
21536		Lab-Refrigerator/-20°C	E			GE Frigidaire	21cu. Manual Defrost	120	20/12.5	5-15 hwy	1	1.5A		no											N		
						GE																					
21537		Lab-High Temp	E			GE Frigidaire	21cu. Manual Defrost	120	20/12.5	5-15 hwy	1	1.5A		no											N		
21538						GE																					
21539		Lab-High Temp	E			GE Frigidaire	21cu. Manual Defrost	120	20/12.5	5-15 hwy	1	1.5A		no											N		
21540						GE																					
21541	2,3	Incubator	E			Kendro	ACCUSAFE	115		5-15 hwy	6			no											E		
21542	2,3	Incubator/Shaker	E			Thermo-Fisher	MaxQ4000	120		5-15 hwy	6			no											E		
21543	2	Speed Vac Pump	E			Thermo-Fisher	HiVac	120		5-15 hwy				no											N		
21544	2,3	Speed Vac Trap	E			Thermo-Fisher	HiVac	120		5-15 hwy				no											N		
21550	2,3	Ice Maker	N		O	VWR	Cube	115	1A	5-15 hwy	0.13			no											N		
21551	2,3	Mini-Centrifuge	E			VWR	Galaxy	115	3A	5-15 hwy	0.5			no											N		
21552		Computer	E			HP		120		5-15 hwy	1			no											N		
21553		Printer	E				Brother Model # MFC-9970CDW Color All-in-One	120/																			
21554		Hydrolab -	E				Hydrolab Surveyor 4a Water Quality Multiprobe Unit	120/																			
		autoclave - sterilization, small bed, stainless	E			Marker Forge	Sterimatic model STME	240/																			
		benchtop, table, universal 8.5" bowl diameter 450rpm						230/																			
21555	1							220/																			
21556		autoclave component	E			Genetic		115		5-15 hwy				no											N		
21557		autoclave component	E			Bacteriamaster		208		15/3				no											N		
21558		Autoclave - small	E																								
21515	2	PCR Workstation	E		GC	Applied Systems	AC500																				
		Room 202 - Extended Airlock/Gowning & Laundry																									
21501		Relocated to Rm 229																									
21502		Relocated to Rm 229																									
21503		Relocated to Rm 229																									
22550	3	PCR Hood			O																						
22551	3	PCR Hood			O																						
21507	1	Mini Fridge - dormitory style			O																						
22485	4	Thermo cycler			O	Bio-Rad	C1000																				
21403	1	Biofuge			O	Bio-Rad																					
22410	1	Centrifuge			O	Eppendorf																					
		Room 204 / Anteroom																									
21551	2,3	Thermo-cycler				Bio-Rad	C1000 - 100 v to 240 v/50 to 60 Hz	120	1000	5-15 hwy	12			no											E	They have both of the attached items already, We will use both of them	
21552	2,3	PCR Workstation				AirClean	AC600	120	11.0	5-15 hwy	12.0			no											E	Spec sheet on file	
21553		Fridge - dormitory				Haier	HRF070AAAA	120	1/2 HP	5-15 hwy	6.5A			no											E		
21554		Freezer - dormitory				GE Frigidaire	JES1 Manual Defrost	115	110	5-15 hwy	6.5A			no											E		
21555	2,3	Microplate Centrifuge				Benchmark	Scilogex - 110 v or 220 v/50 or 60 Hz	120	65.0	5-15 hwy	1.0			no											E		
21556	2	ESE Heater																									
		Room 207 - BLS-2 Sample Prep DNA																									
21301		Bio Micro centrifuge	N		O			120	400																		
21302		Bio Micro centrifuge	N		O			120	1800																		
21303		Shaker/Rotary Mixer	N		O			120	400																		
21304		Balance	N		O			240	100																		
21305		Centrifuge	N		O			120	1400																		
21306		Vacuum Pump	N		O			120	1800																		
21307		Pipetter	N		O			120	50																		
21308		Reagent Scale	N		O			120	100																		
21309		Orbital Air Shaker	N		O			120	1400																		
21310		Stir Hotplate	N		O			120	1400																		
21311		Electrophoresis Power Supply	N		O			120	300																		
21312		Minifuge	N		O			120	30																		
21313		Vortex	N		GC																						
21314		Small Walk-in Refridge	N		GC																						
21315		Single bay sink / eye wash	N		GC																						
		Room 208 - "DISCOVERY" Conference Room																									
p2c01	1	LCD projector - ceiling						110																			
		Room 209 - Storage																									
		Room 210 - Staff																									
		Room 211 - Toilet																									
		Room 212 - Small Walk-in																									
		Room 213 - Gowning																									
		Room 214 / Staff Toilet																									
		Room 215 / Janitorial Closet																									
		Room 216 / Vestibule																									
		Room 217 / Gown																									
		Room 218 / Storage																									
		Room 219 / Pre-Autoclave Area																									
p2c01	1	Lab Refrigerator	R					115/60																			
p2c02	2	Aerosol Liquid Disinfectant Unit	R					100 to 240 VAC 50/60 HZ																			
p2c03		Heater	R																								
p2c04		Computer	R																								

REGISTERED ARCHITECT
T. SCOTT TEAS
No. 802
STATE OF MAINE

EnviroLogix

RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TFH ARCHITECTS
100 COMMERCIAL STREET
PORTLAND MAINE 04101
TELEPHONE 207 775 6141
ARCHITECTURE PLANNING

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207-781-4363

ELECTRICAL:
SIDNEY SCHAETZING
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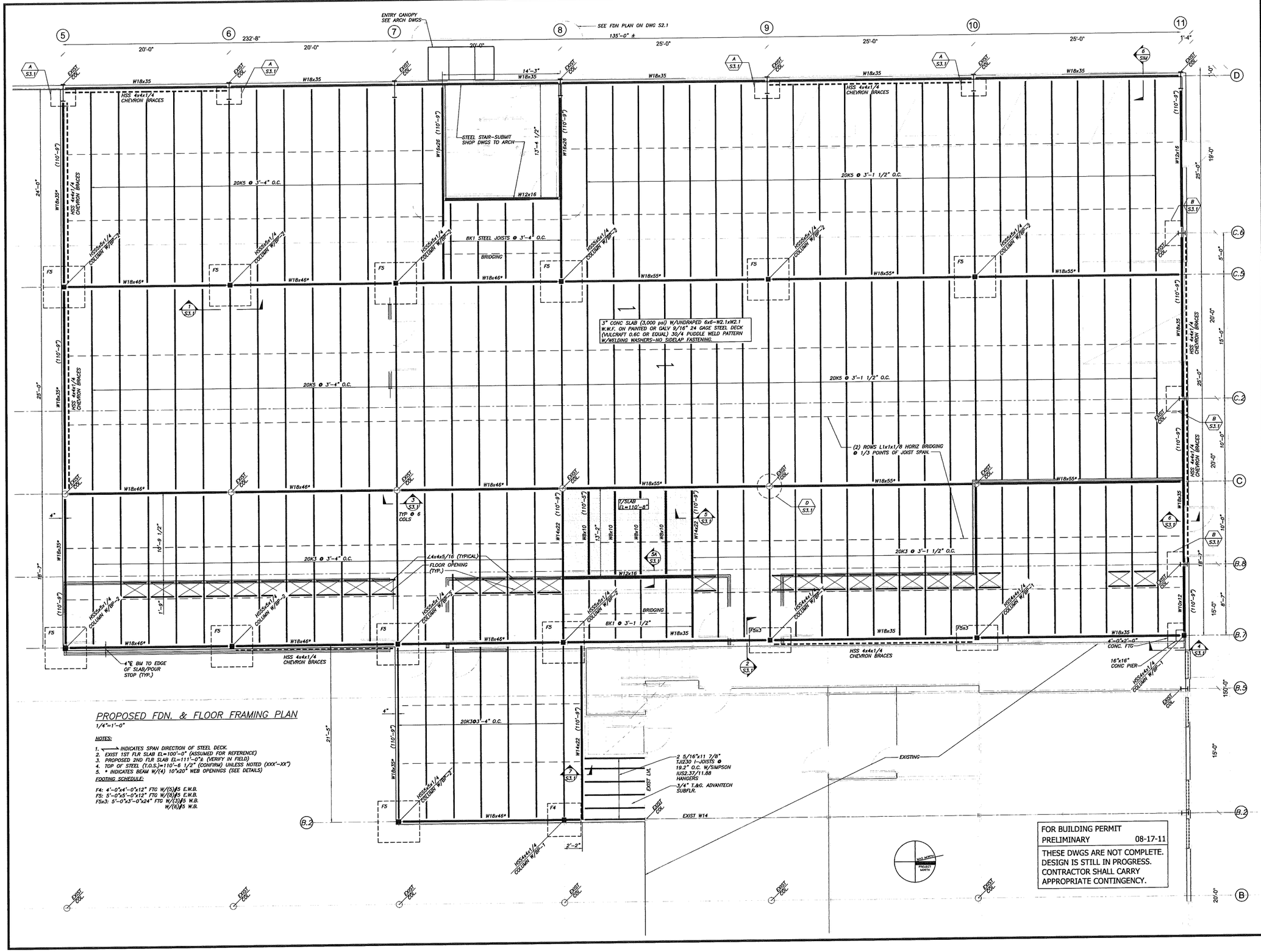
207-685-9415

REVISIONS:

DATE:	8/17/11
PROJECT No.	1026A
DRAWN BY:	DAM,RJS
CHECKED BY:	TST
SCALE:	AS NOTED

SHEET TITLE:
EQUIPMENT SCHEDULE

A6.1



PROPOSED FDN. & FLOOR FRAMING PLAN

1/4"=1'-0"

NOTES:

1. ⟷ INDICATES SPAN DIRECTION OF STEEL DECK.
2. EXIST 1ST FLR SLAB EL=100'-0" (ASSUMED FOR REFERENCE)
3. PROPOSED 2ND FLR SLAB EL=111'-0"± (VERIFY IN FIELD)
4. TOP OF STEEL (T.O.S.)=110'-6 1/2" (CONFIRM) UNLESS NOTED (XXX'-XX")
5. * INDICATES BEAM W/(4) 10"x20" WEB OPENINGS (SEE DETAILS)

FOOTING SCHEDULE:

F4: 4'-0"x4'-0"x12" FTG W/(5)#5 E.W.B.
F5: 5'-0"x5'-0"x12" FTG W/(8)#5 E.W.B.
F5x3: 5'-0"x3'-0"x24" FTG W/(3)#5 W.B. W/(6)#5 W.B.

FOR BUILDING PERMIT
PRELIMINARY 08-17-11

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EnviroLogix

RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTRLAND, MAINE

TFH ARCHITECTS
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207-781-4363

ELECTRICAL:
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Freeport, ME 04032
207-865-9475

FOR REFERENCE KEY PLAN

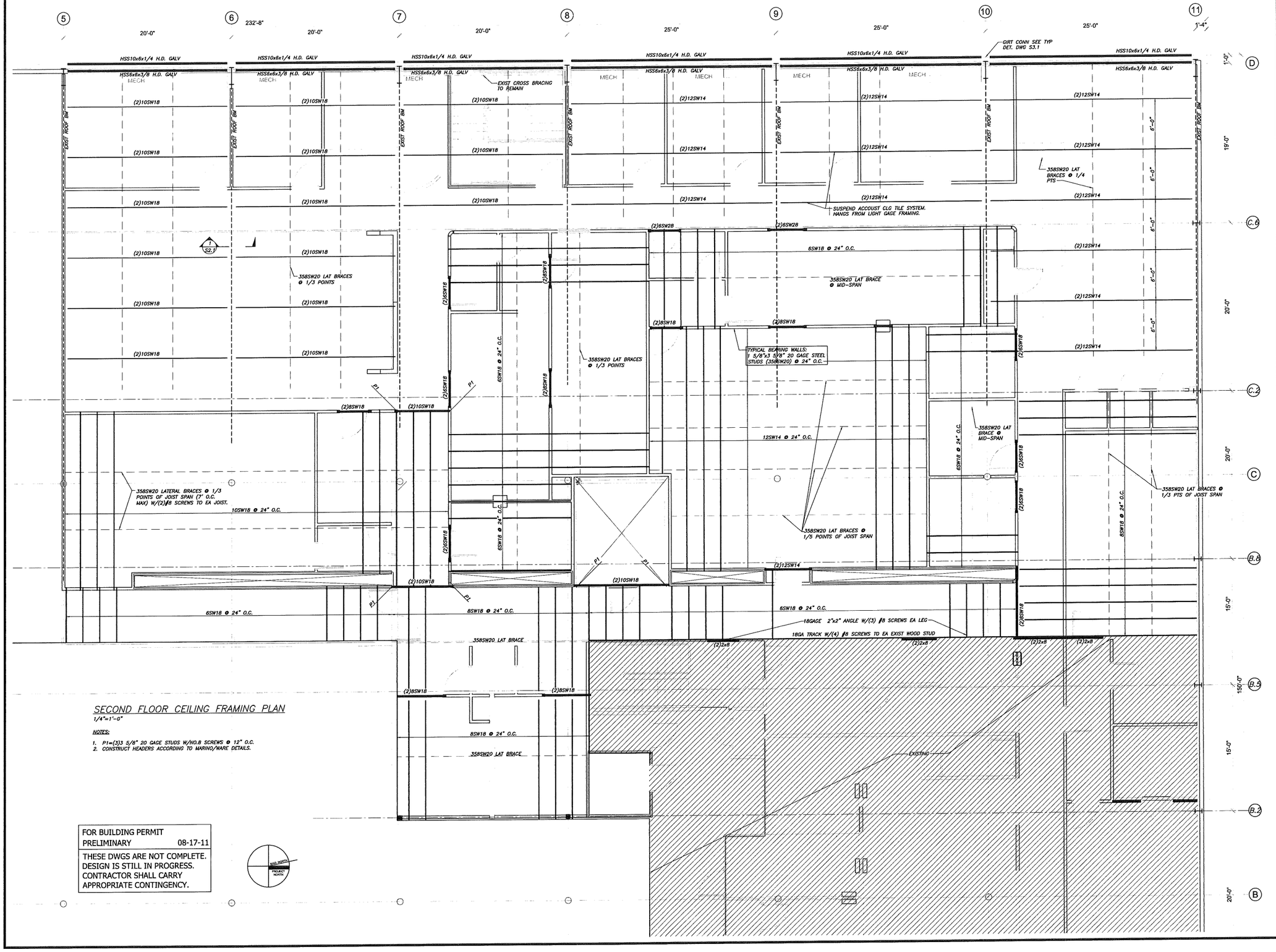
AREA - A
AREA - B

REVISIONS:

DATE:	08-17-11
PROJECT No.	1026A
DRAWN BY:	MK
CHECKED BY:	DAM
SCALE:	AS NOTED

SHEET TITLE:
PROPOSED SECOND FLOOR FRAMING PLAN AREA A

S1.1



SECOND FLOOR CEILING FRAMING PLAN

1/4"=1'-0"

NOTES:

1. P1=(3)3 5/8" 20 GAGE STUDS W/NO.8 SCREWS @ 12" O.C.
2. CONSTRUCT HEADERS ACCORDING TO MARINO/WARE DETAILS.

FOR BUILDING PERMIT
PRELIMINARY 08-17-11

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RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTRLAND, MAINE

TFH ARCHITECTS
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ELECTRICAL:
ELECTRICITY ENGINEERING
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Freeport, ME 04032
207-865-9475

RM RIVERSIDE KEY PLAN

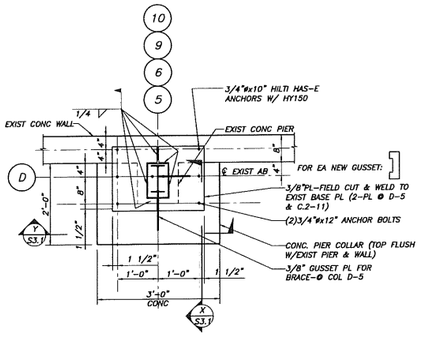
AREA-A
AREA-B

REVISIONS:

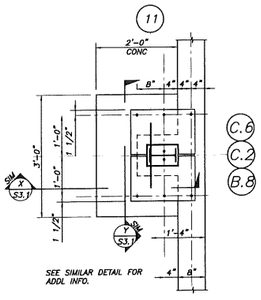
DATE:	08-17-11
PROJECT No.	1026A
DRAWN BY:	MK
CHECKED BY:	DAM
SCALE:	AS NOTED

SHEET TITLE:
2ND FLOOR CEILING FRAMING

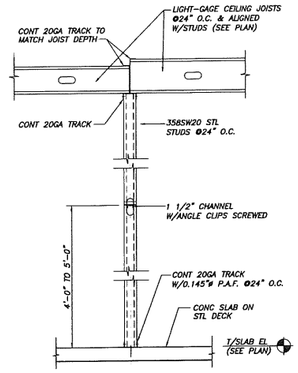
S1.2



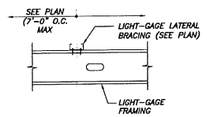
DETAIL A
3/4"=1'-0"
S1.1



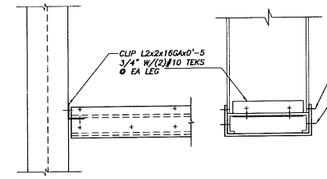
DETAIL B
3/4"=1'-0"
S1.1



TYPICAL LIGHT GAGE WALL & CEILING JOIST FRAMING DETAIL

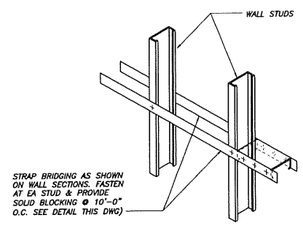


TYPICAL LATERAL BRACE DETAIL AT LIGHT-GAGE FRAMING



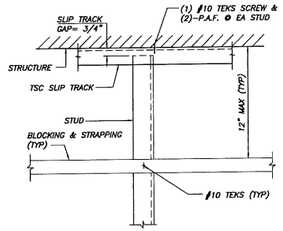
ELEVATION SECTION

TYP HEADER/SILL DETAIL
N.T.S.

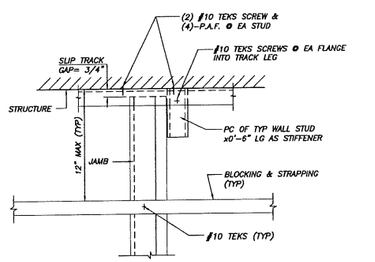


NOTE: BRIDGING TO BE INSTALLED PRIOR TO LOADING OF WALL.

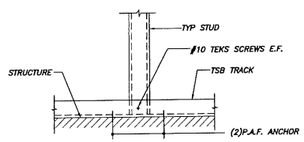
TYP STRAP BRIDGING DETAIL
N.T.S.



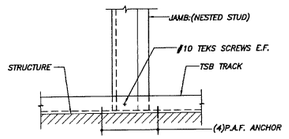
TYP STUD SLIP TRACK CONN DETAIL
N.T.S.



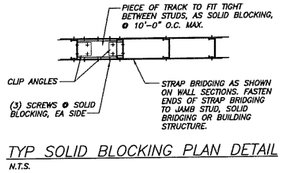
TYP JAMB SLIP TRACK CONN DETAIL
N.T.S.



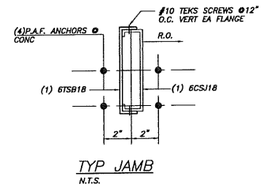
TYP STUD CONN DETAIL
N.T.S.



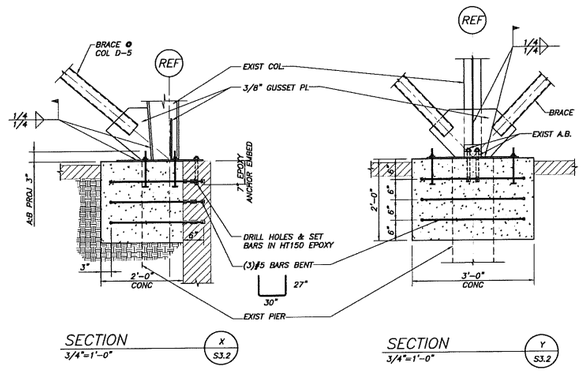
TYP JAMB CONN DETAIL
N.T.S.



TYP SOLID BLOCKING PLAN DETAIL
N.T.S.

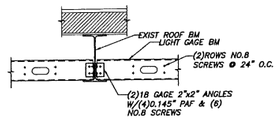


TYP JAMB
N.T.S.

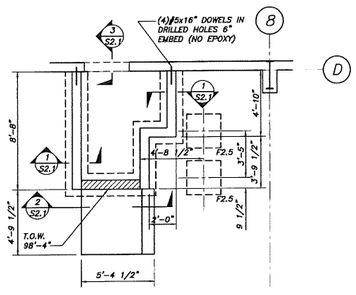


SECTION X
3/4"=1'-0"
S3.2

SECTION Y
3/4"=1'-0"
S3.2

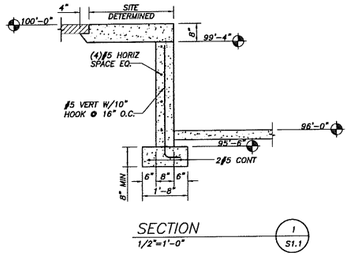


SECTION 1
3/4"=1'-0"
S1.2

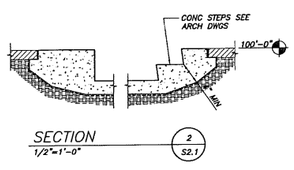


FDN. PLAN @ STAIR
1/4"=1'-0"

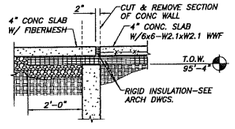
NOTE:
F2.5: 2'-6"x2'-6"x0'-10" FTG W/(3)ø5 E.W.



SECTION 1
1/2"=1'-0"
S1.1



SECTION 2
1/2"=1'-0"
S2.1



SECTION 3
1/2"=1'-0"
S2.1

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTRLAND, MAINE

TFH ARCHITECTS
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ELECTRICAL:
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530 RIVERSIDE KEY PLAN
AREA - A
AREA - B

REVISIONS:

DATE:	08-17-11
PROJECT No.	1026A
DRAWN BY:	MK
CHECKED BY:	DAM
SCALE:	AS NOTED

SHEET TITLE:
SECTIONS & DETAILS

FOR BUILDING PERMIT
PRELIMINARY 08-17-11

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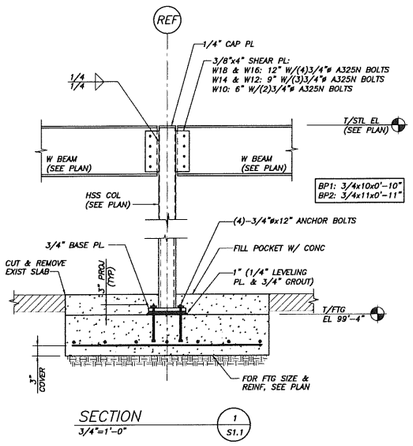
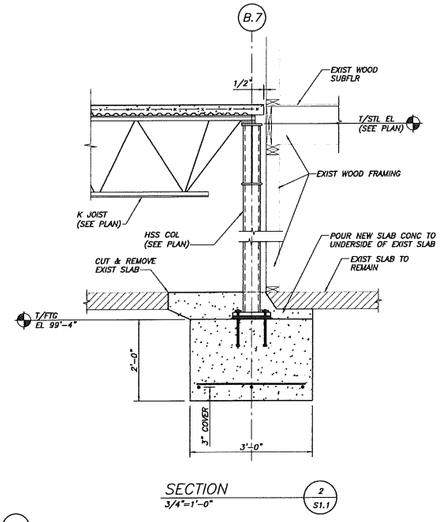
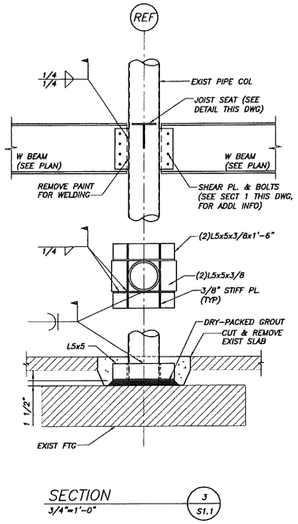
S2.1



SECTION 1 S1.1
3/4"=1'-0"



SECTION 2 S1.1
3/4"=1'-0"



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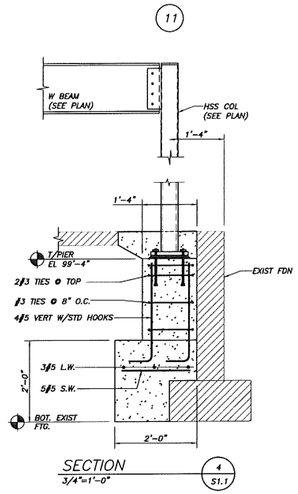

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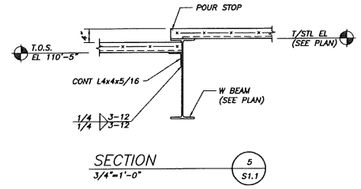
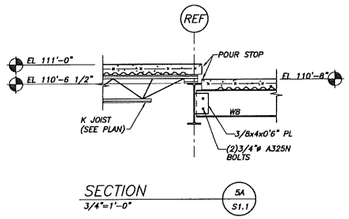
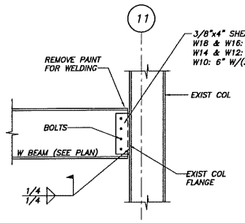
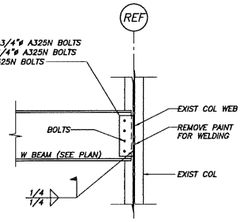


SECTION 5 S1.1
3/4"=1'-0"

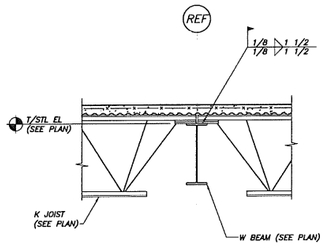


SECTION 5A S1.1
3/4"=1'-0"

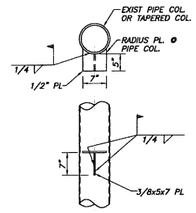




TYPICAL BEAM TO EXIST COL CONN
3/4"=1'-0"

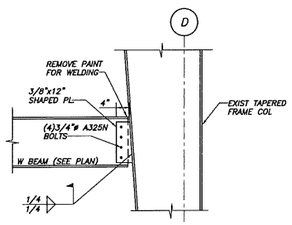


TYPICAL JOIST ON BEAM
3/4"=1'-0"

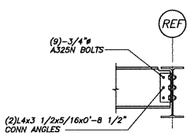


DETAIL SIMILAR FOR JOIST SEAT @ EXIST TAPERED COL.

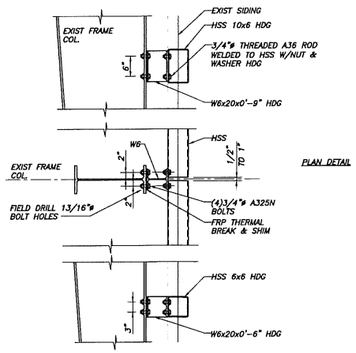
TYPICAL JOIST SEAT @ COL
3/4"=1'-0"



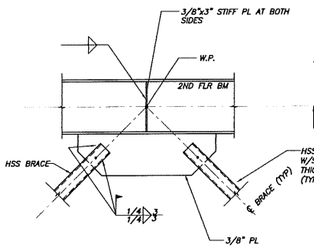
TYPICAL BEAM TO EXIST TAPERED COL CONN
3/4"=1'-0"



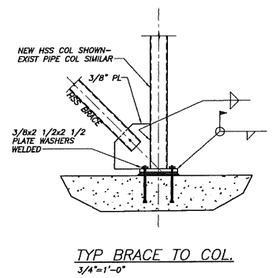
TYPICAL BEAM TO BEAM CONN
3/4"=1'-0"



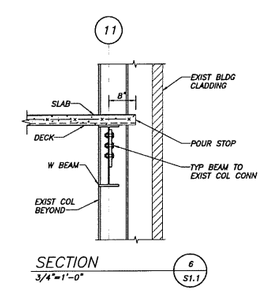
TYPICAL GIRT DETAIL CONN @ WEST WALL
3/4"=1'-0"



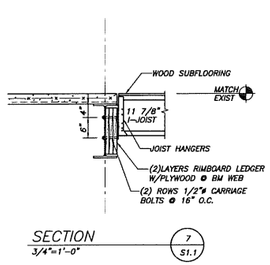
TYP. CHEVRON BRACING DETAILS
3/4"=1'-0"



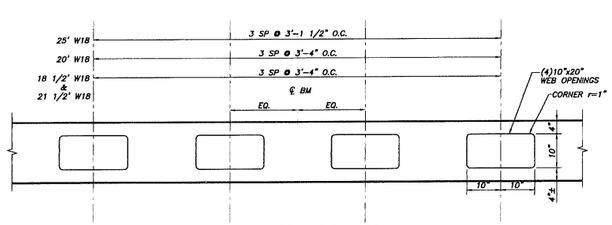
TYP BRACE TO COL.
3/4"=1'-0"



SECTION 6 S1.1
3/4"=1'-0"



SECTION 7 S1.1
3/4"=1'-0"



BEAM WEB OPENINGS
3/4"=1'-0"

FOR BUILDING PERMIT
PRELIMINARY 08-17-11

THESE DWGS ARE NOT COMPLETE. DESIGN IS STILL IN PROGRESS. CONTRACTOR SHALL CARRY APPROPRIATE CONTINGENCY.

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTRLAND, MAINE

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ARCHITECTURE PLANNING

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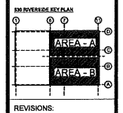
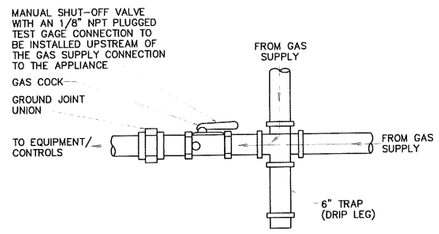


REVISIONS:

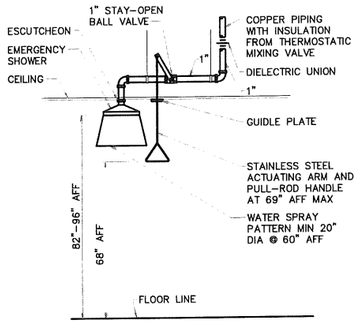
DATE:	08-17-11
PROJECT No.	1026A
DRAWN BY:	MK
CHECKED BY:	DAM
SCALE:	AS NOTED

SHEET TITLE:
FDN & STEEL SECTIONS & TYPICAL DETAILS

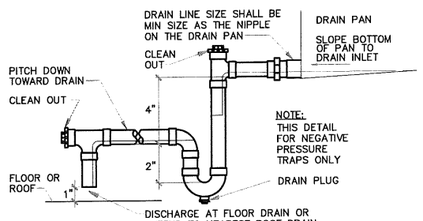
S3.1



1 GAS CONNECTION TO EQUIPMENT DETAIL
NOT TO SCALE



2 SAFETY SHOWER DETAIL
NOT TO SCALE



3 CONDENSATE TRAP DETAIL
NOT TO SCALE

LEGEND

G	UNDERGROUND GAS PIPING		REMOVE ITEM
G	GAS PIPING		PROVIDE ITEM
W	WASTE PIPING		PIPE DOWN
SAN	SANITARY PIPING		PIPE UP
SAN	UNDERGROUND SANITARY		TEE UP
	VENT PIPING		TEE DOWN
	COLD WATER		BALL VALVE
	HOT WATER		
	HOT WATER RETURN		
SP	SPRINKLER (FIRE)		
	PRESSURE REDUCING VALVE		
	GAS REGULATOR		

EQUIPMENT SCHEDULE (EQ)

UNIT NO	ITEM	WASTE		INDIR WASTE	COLD WATER		140° WATER		GAS		NOTES
		ROUGH-IN SIZE	TRAP SIZE	CONN SIZE	ROUGH-IN SIZE	FIXTURE CONNECTION SIZE	ROUGH-IN SIZE	FIXTURE CONNECTION SIZE	ROUGH-IN SIZE	FIXTURE LINE SIZE	
23405	MILLI-Q WATER HANDLING	–	–	–	1/2"	–	–	–	1"	–	–
23702	MILLI-Q WATER HANDLING	–			1/2"						
R-1	WALK-IN REFRIG RM 207	1-1/2"	1-1/2"	3/4"							
R-2	WALK-IN REFRIG RM 238	1-1/2"	1-1/2"	3/4"							
HP-1	HP-15 THRU HP-32	–									
CT-1	COOLING TOWER	–			3/4"						
CWM-1	HVAC SYSTEM				3/4"						
H-1	HUMIDIFIER	1-1/2"	1-1/2"	3/4"							

NOTES:

PLUMBING FIXTURE ROUGH-IN SCHEDULE

FIXTURE NO.	DESCRIPTION	SOIL/WASTE	VENT	HW	CW	REMARKS
WC-1	WATER CLOSET	4"	2"	–	1"	
WC-2	WATER CLOSET, ADA	4"	2"	–	1"	
L-1	LAVATORY, ADA	1 1/2"	1 1/2"	1/2"	1/2"	
S-1	SINK	1 1/2"	1 1/2"	1/2"	1/2"	PROVIDE EYEWASH
S-2	SINK	1 1/2"	1 1/2"	1/2"	1/2"	
S-3	SINK	1 1/2"	1 1/2"	1/2"	1/2"	1
FD-1	FLOOR DRAIN	2"	1 1/2"		1/2"	PROVIDE TRAP PRIMER
FD-2	FLOOR DRAIN	2"	1 1/2"		1/2"	PROVIDE TRAP PRIMER
ES-1	EMERGENCY SHOWER			3/4"	1"	
U-1	URINAL, ADA	2"	1 1/2"	–	3/4"	
HB-1	HOSE BIBB			1/2"	1/2"	CHROME PLATED

1. FOOT PEDAL OPERATED, PROVIDE EYEWASH

ELECTRIC HEATER SCHEDULE

UNIT NO	LOCATION	STORAGE GALLONS	WATTAGE	VOLTS/PHASE	MANUFACTURED AND MODEL	NOTES:
EHW-1	RM 223	2.5	1500	208/1	RHEEM 81VP2S	
EHW-2	RM 234	2.5	1500	208/1	RHEEM 81VP2S	
EHW-3	RM 227	2.5	1500	208/1	RHEEM 81VP2S	
EHW-4	RM 255	2.5	1500	208/1	RHEEM 81VP2S	

GENERAL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED. DISCONNECT, REMOVE, AND OR RELOCATE EXISTING MATERIAL, EQUIPMENT AND OTHER WORK AS NOTED OR REQUIRED FOR PROPER INSTALLATION OF NEW SYSTEM.
2. APPLICABLE CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR WHO SHALL INFORM THE OWNER, PRIOR TO SUBMITTING A PROPOSAL, OF ANY WORK OR MATERIALS WHICH VIOLATE THE LAWS AND REGULATIONS.
3. WORK IS TO BE PREFORMED IN COMPLIANCE WITH THE NATIONAL STANDARD PLUMBING CODE (LATEST EDITION), LOCAL CODES, AND OTHER REGULATIONS GOVERNING WORK OF THIS NATURE.
4. WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER. CARE SHALL BE EXERCISED TO MINIMIZE ANY INCONVENIENCE OR DISTURBANCE TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION. ISOLATE WORK AREAS BY MEANS OF TEMPORARY PARTITIONS AND/OR TARPS TO KEEP DUST AND DIRT WITHIN THE CONSTRUCTION AREA.
5. CLEAN THE JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTIES AGAINST FIRE, THEFT AND ENVIRONMENTAL CONDITIONS.
7. PROVIDE NECESSARY TEMPORARY OR PERMANENT CAPS OR PLUGS FOR PIPING. DO NOT LEAVE PIPING OPEN ENDED.
8. THE TERM "PROVIDE" SHALL MEAN "FURNISH AND INSTALL". COORDINATE INSTALLATION OF ALL ROOF FLASHING AT ROOF PENETRATION.
9. DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS. VERIFY FIGURES, CONDITIONS, AND DIMENSIONS AT THE JOB SITE.
10. THE PLUMBING PLANS ARE INTENDED TO BE DIAGRAMMATIC AND ARE BASED ON THE MANUFACTURER'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS, OR THE DETAILS OF THE EQUIPMENT. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT IN THE AVAILABLE SPACE.
11. FURNISH SHOP DRAWINGS OF EQUIPMENT BEING APPROVED PRIOR TO FABRICATION OR INSTALLATION.
12. COORDINATE WORK WITH OTHER TRADES.
13. CONTRACTOR SHALL COORDINATE ANY PLUMBING OR PIPING SYSTEM SHUTDOWN WITH THE OWNER 48 HOURS IN ADVANCE.
14. PIPING SHOWN SHALL BE CONCEALED UNLESS OTHERWISE NOTED.
15. PIPING PENETRATIONS THROUGH NEW, EXISTING WALL OR FLOOR SHALL BE SEALED TO EQUAL THE RATING OF THE NEW, EXISTING WALL OR FLOOR. SEAL OPENINGS AROUND PIPES THROUGH PARTITIONS AND WALLS WITH APPROVED FIRE STOPPING MATERIAL MEETING ASTM E814 AND NFPA-101.
16. COMPLY WITH LOCAL AND STATE CODES FOR SEISMIC ISOLATION. THE DRAWINGS DO NOT SHOW SEISMIC ISOLATION POINTS, THEREFORE ALLOW FOR SEISMIC ISOLATION IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION.
17. PLUG OR CAP PIPING. DO NOT LEAVE PIPING OPEN ENDED.
18. INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR.
19. THE CONTRACTOR SHALL FIELD VERIFY DIMENSIONS, INVERTS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK. WHERE DISCREPANCIES OCCUR BETWEEN THESE DOCUMENTS AND EXISTING CONDITIONS, THE DISCREPANCY SHALL BE REPORTED TO THE OWNER AND/OR ENGINEER FOR EXPEDITING AND RESOLVE.
20. INSTALL FROST PROOF HYDRANTS 30" ABOVE FINISHED GRADE.
21. INSTALL SHOCK ABSORBERS IN ACCORDANCE WITH THE LATEST "PLUMBING AND DRAINAGE INSTITUTE STANDARDS" FOR WATER HAMMER ARRESTORS.
22. LOCATE ACCESS PANELS IN NON ACCESSIBLE CEILINGS AND WALLS FOR VALVES, SHOCK ABSORBERS, CLEANOUTS AND OTHER ITEMS THAT REQUIRE ACCESS TO PROPERLY MAINTAIN OR SERVICE THE BUILDING. REFER TO SPECIFICATIONS.
23. PROVIDE CLEANOUTS AT THE BASE OF SANITARY DRAINAGE, PROCESS WASTE, AND RAIN WATER CONDUCTORS.
24. THE BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED PER LOCAL CODES PER AUTHORITY HAVING JURISDICTION REQUIREMENTS.
25. VENT THRU ROOF (VTR) PENETRATIONS INDICATED ON PLANS ARE PRELIMINARY. FINAL LOCATIONS SHALL BE COORDINATED WITH TRADES. VTR SHALL BE A MINIMUM OR 10'-0" FROM FRESH AIR INTAKES.
26. PIPING IS SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW OFFSETS, DROPS, AND RISES OR RUNS. THE CONTRACTOR SHALL ALLOW IN THE BID FOR ROUTING TO AVOID OBSTRUCTIONS.
27. EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED EQUAL" BY ENGINEER.

PERMITS
THE CONTRACTOR SHALL SECURE PERMITS OR APPLICATIONS AND PAY FEES.

SHOP DRAWINGS
SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR EQUIPMENT/FIXTURES TO THE ARCHITECT OR ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL SUBMIT THREE SETS OF SHOP DRAWINGS AND THEY SHALL BE CLEARLY LABELED.

PROVIDE AS-BUILT DRAWINGS.

DOMESTIC WATER SUPPLY PIPING

1. ABOVE GROUND: PROVIDE TYPE "L" HARD DRAWN COPPER TUBING(ASTM B88) WITH 125 PSI SOLDER JOINTS, COPPER OR BRASS FITTINGS OR PEX. SOLDER TO BE "NO LEAD" TYPE. SOLDERED USING 95-5 TIN-ANTIMONY, 0.20% MAXIMUM LEAD CONTENT, ASTM B32, ALLOY GRADE S95.
   FITTINGS: WROUGHT COPPER SOLDER JOINT, ANSI B16.22.
   VALVES- COLD AND HOT WATER, BALL VALVES, 2 INCHES AND SMALLER, 600 PSI WOG, SERVICEABLE IN LINE, SOLDER ENDS
2. HOT WATER PIPING SHALL BE INSULATED WITH 1" FIBERGLASS INSULATION.
3. COLD WATER PIPING SHALL BE INSULATED WITH 1" FIBERGLASS INSULATION.

SANITARY/STORM DRAINAGE AND VENT PIPING

1. ABOVE GRADE 2"AND SMALLER: CAST IRON SERVICE WEIGHT, HO-HUB OR BELL SCH 40 PVC WITH SOLVENT JOINTS OR DWV COPPER WITH SOLDER JOINTS. SOLDER TO BE LEAD FREE.
2. ABOVE GRADE 3" AND LARGER: SERVICE WT. CAST IRON WITH HO-HUB JOINT OR SCH 40 PVC WITH SOLVENT JOINTS
3. BELOW GRADE: SERVICE WT. CAST IRON WITH HO-HUB JOINTS, OR SCH 40 PVC WITH SOLVENT JOINTS.
4. PVC PIPING SHALL NOT BE USED IN AIR PLENUM CEILINGS AND SHALL NOT CROSS FIRE RATED WALLS, CEILINGS, OR FLOORS.
5. DRAINAGE PIPING SHALL BE RUN AS STRAIGHT AS POSSIBLE AND SHALL HAVE LONG TURN FITTINGS.
6. DRAINAGE PIPING 3" SIZE AND SMALLER SHALL RUN AT A UNIFORM GRADE OF AT LEAST ¼" PER FOOT, AND PIPING LARGER THAN 3" SHALL BE RUN AT A GRADE OF NO LESS THAN 1/8" PER FOOT.
7. VENT PIPING SHALL BE SLOPED TO DRAIN BACK TO FIXTURES.
8. PIPING PENETRATIONS OF BUILDING FOUNDATIONS OR FOOTINGS SHALL BE SLEEVED.

PIPE SUPPORTS

ABOVE GRADE: PIPE SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN A NEAT AND WORKMANLIKE MANNER. THE USE OF WIRE AND PERFORMED METAL TO SUPPORT PIPES WILL NOT BE PERMITTED. SPACING OF PIPE SUPPORT SHALL BE AS SPECIFIED IN THE MAINE PLUMBING CODE. WHERE OVERHEAD CONSTRUCTION DOES NOT PERMIT FASTENING OF SUPPORTS FOR EQUIPMENT, FURNISH ADDITIONAL FRAMING.

BELOW GRADE: EARTH SHALL BE EXCAVATED TO A MINIMUM DEPTH WITH AN EVEN SURFACE TO INSURE SOLID BEARING OF PIPE FOR ITS ENTIRE LENGTH. INTERIOR PIPING SHALL BE INSTALLED (UNLESS OTHERWISE SPECIFIED) A MINIMUM OF 4 INCHES BELOW THE BOTTOM OF THE SLAB AND SHALL NOT BE IN ANY DIRECT CONTACT WITH THE CONCRETE. EXTERIOR WATER PIPING SHALL HAVE A MINIMUM OF 48" OF COVER.

PLUMBING FIXTURES

WC-1: AMERICAN STANDARD CHAMPION 4 RIGHT HEIGHT, TWO PIECE, 1.6 GPF, ELONGATED BOWL, ADA COMPLIANT, OPEN FRONT SOLID PLASTIC SEAT.

WC-2: AMERICAN STANDARD CHAMPION 4 , TWO PIECE, 1.6 GPF, ELONGATED BOWL, OPEN FRONT SOLID PLASTIC SEAT.

L-1: AMERICAN STANDARD DECLYN, WALL HUNG, 18.5"X17", LEDGE TYPE, 4" CENTERS, ADA COMPLIANT. FAUCET: SYMMONS SYMMETRIX S-20, SINGLE LEVER, 1.5 GPM AERATOR, GRID STRAINER.

U-1: AMERICAN STANDARD ALLBROOK FLOWISE, 0.5 GPF, SIPHON JET WITH INFRARED ACTIVATED FLUSH VALVE.

S-1: ELKAY CELEBRITY CR2522, 25"X22", 20 GAUGE, STAINLESS STEEL SINK WITH SYMMONS S-23 SINGLE LEVER FAUCET.

S-2: ELKAY CELEBRITY CR2622, 25"X22", 20 GAUGE, STAINLESS STEEL SINK WITH SYMMONS S-23 SINGLE LEVER FAUCET. PROVIDE EXTRA HOLE IN SINK FOR GUARDIAN G1849LH-L EYEWASH. MOUNT THERMOSTATIC MIXING VALVE UNDER COUNTER.

S-3: ELKAY CELEBRITY CR2622, 25"X22", 20 GAUGE, STAINLESS STEEL SINK WITH AMERICAN STANDARD GOOSENECK SPOUT, 13-5/8" HIGH, SELF-CLOSING, DOUBLE PEDAL, FLOOR MOUNTED, VALVE. PROVIDE EXTRA HOLE IN SINK FOR GUARDIAN G1849LH-L EYEWASH. MOUNT THERMOSTATIC MIXING VALVE UNDER COUNTER.

E6-1: EMERGENCY SHOWER: GUARDIAN G1658, STAINLESS STEEL SHOWER HEAD, CONCEALED. PROVIDE TMV G3800 THERMOSTATIC MIXING VALVE OR APPROVED EQUAL.

FD-1: 6" ROUND BRASS GRATE, ADJUSTABLE BODY. PROVIDE SIOUX CHIEF PRIME PERFECT TRAP PRIMER.

FD-2: 6" ROUND BRASS GRATE, ADJUSTABLE BODY. PROVIDE SIOUX CHIEF PRIME PERFECT TRAP PRIMER

TESTING

PLUMBING SYSTEMS SHALL BE FLOW AND PRESSURE TESTED IN ACCORDANCE WITH STANDARD PRACTICE AND THE NATIONAL STANDARD PLUMBING CODE. TEST COLD & HOT WATER SYSTEMS AT 1.5 TIMES THE OPERATING PRESSURE FOR ONE (1) HOUR.

DISINFECTING

THE ENTIRE DOMESTIC WATER SYSTEM (EXISTING/NEW) SHALL BE DISINFECTED IN ACCORDANCE TO THE LOCAL CODES& HEALTH DEPARTMENT REQUIREMENTS.

GUARANTEE

MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. FOR THE SAME PERIOD, THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED.

SPRINKLER

1. PROVIDE AN NFPA 13, AUTOMATIC, WET, FIRE SUPPRESSION SYSTEM.
2. FURNISH SHOP DRAWINGS OF EQUIPMENT BEING APPROVED PRIOR TO FABRICATION OR INSTALLATION. SUBMIT HYDRAULIC CALCULATIONS.
3. PIPE: SCHEDULE 40, BLACK STEEL, ASTM A53
4. JOINTS AND FITTINGS: THREADED USING CLASS 125 CAST IRON THREADED FITTINGS, ANSI B16.4.
5. PIPING AND EQUIPMENT SUPPORT SHALL COMPLY WITH REQUIREMENTS OF NFPA 13 UNLESS NOTED OTHERWISE.
6. LOCATE SPRINKLERS IN CENTER OF CEILING TILE IN AT LEAST ONE DIRECTION
7. SPRINKLERS SHALL MATCH EXISTING MANUFACTURER, TYPE AND STYLE.
8. TEST SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13.

NATURAL GAS PIPING

1. GAS PIPING SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 54-2009.
2. GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL PIPE (ASTM A53,A106) WITH MALLEABLE IRON FITTINGS (ASME B1.20.1). WHERE GAS PIPING CONNECTS TO EQUIPMENT, PROVIDE A DRIP LEG THE FULL SIZE OF THE SUPPLY PIPE, A BALL VALVE AND A UNION.
3. EXTERIOR GAS PIPING SHALL BE GALVANIZED STEEL PIPE. THE PIPE SHALL BE COVERED WITH 2 COATS OF A WATERPROOF ASPHALTIC COATING (OR EQUAL) TO PREVENT CORROSION OF THE PIPE.
4. UNDERGROUND PIPING SHALL BE POLYETHYLENE IN ACCORDANCE WITH ASTM STANDARDS D2513 AND D2517. UNDERGROUND GAS PIPING SYSTEMS SHALL BE INSTALLED A MINIMUM DEPTH OF 18 INCHES BELOW GRADE.
5. AN INSULATED COPPER TRACER WIRE OR OTHER APPROVED CONDUCTOR SHALL BE INSTALLED ADJACENT TO UNDERGROUND NONMETALLIC (PLASTIC) PIPING. ACCESS SHALL BE PROVIDED TO THE TRACER WIRE OR THE TRACER WIRE SHALL TERMINATE ABOVE GROUND AT EACH END OF THE NONMETALLIC GAS PIPING. THE TRACER WIRE SHALL NOT BE LESS THAN 18 AWG AND THE INSULATION TYPE SHALL NOT BE LESS THAN 16 AWG AND THE INSULATION TYPE SHALL BE SUITABLE FOR BURIAL.
6. GAS SUPPLY PRESSURE = 2 PSI WATER GAUGE
7. PORTIONS OF A GAS PIPING SYSTEM INSTALLED IN CONCEALED LOCATIONS SHALL NOT HAVE UNIONS, TUBE FITTINGS OR RUNNING THREADS.

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MECHANICAL/ELECTRICAL
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DATE:	8/17/11
PROJECT No.	1028A
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SCALE:	AS NOTED

SHEET TITLE:
LEGEND
ABBREVIATIONS
SCHEDULES,
DETAILS &
SPECIFICATIONS

P-1

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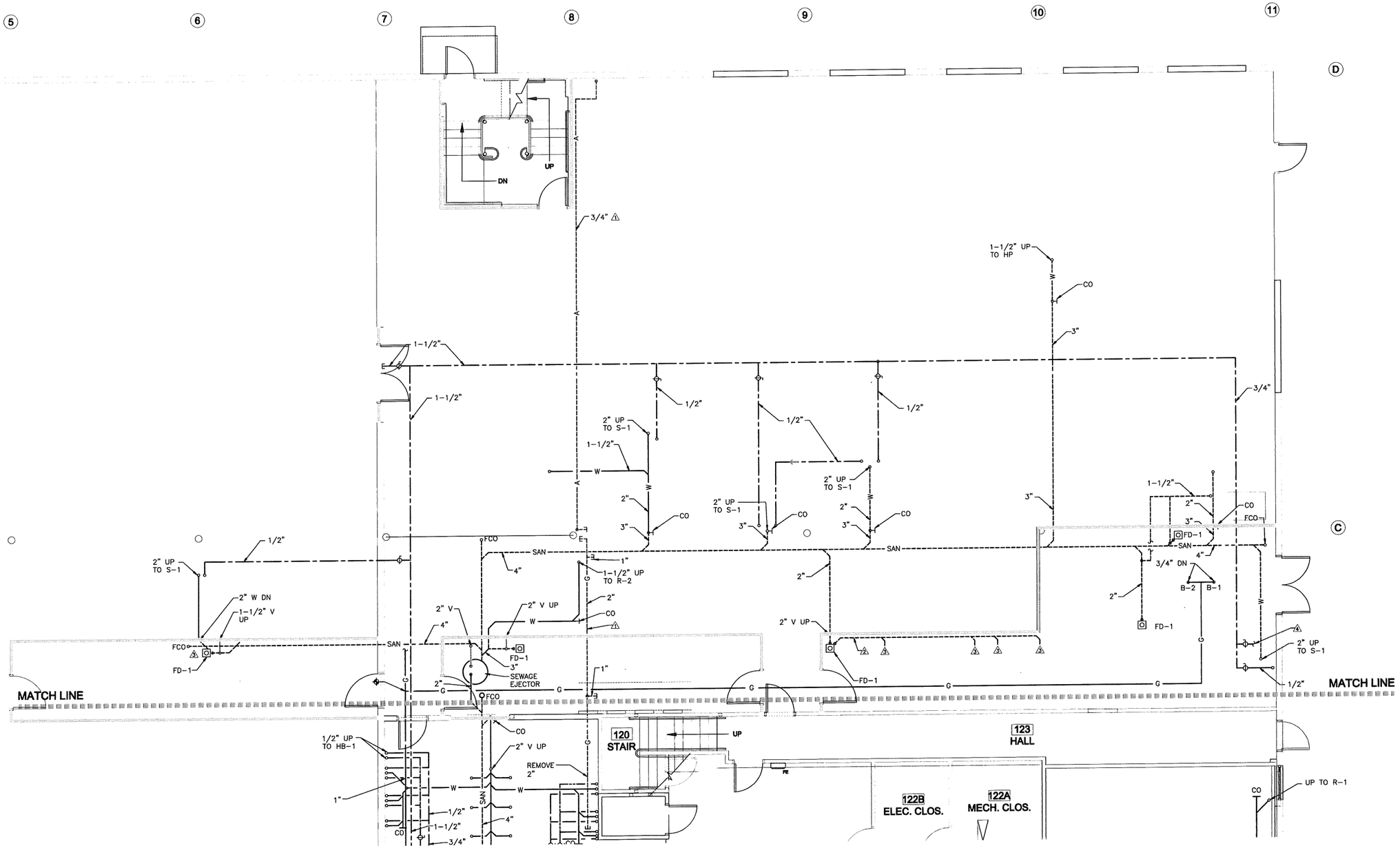

1 P-2 FIRST FLOOR PLAN - PART B
1/4" = 1'-0"

KEY NOTES

1. REMOVE ABANDONED PIPING
2. 1" INDIRECT WASTE FOR HEAT PUMPS
3. 3/4" CONDENSATE TO HEAT PUMPS, HP-1
4. 3/4" MAKE-UP WATER (CWM-1) FOR MECHANICAL SYSTEMS WITH 3/4" RPZ BACKFLOW PREVENTER. PIPE VENT TO FLOOR DRAIN.
5. PROVIDE ALTERNATE PRICE FOR DUPLEX SEWAGE SYSTEM. LIBERTY PUMP MODEL 1102/LE41M: 4/10 HP; 115 V, SINGLE PHASE

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RIVERSIDE KEY PLAN
AREA - A
AREA - B

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SHEET TITLE:
FIRST FLOOR PLAN - PART A PLUMBING

P-2

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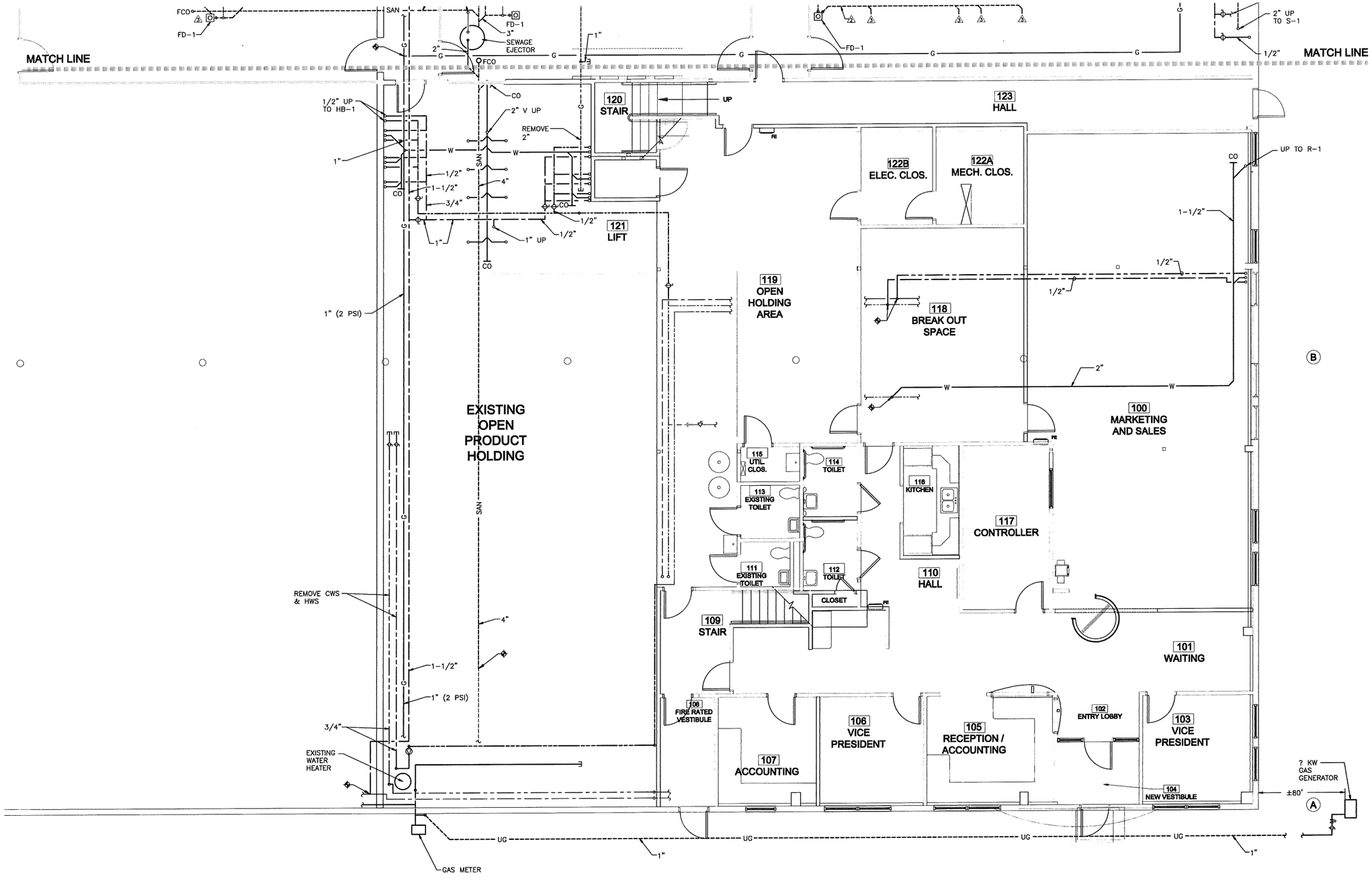

1 P-3 FIRST FLOOR PLAN - PART A
1/4" = 1'-0"

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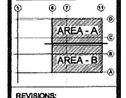

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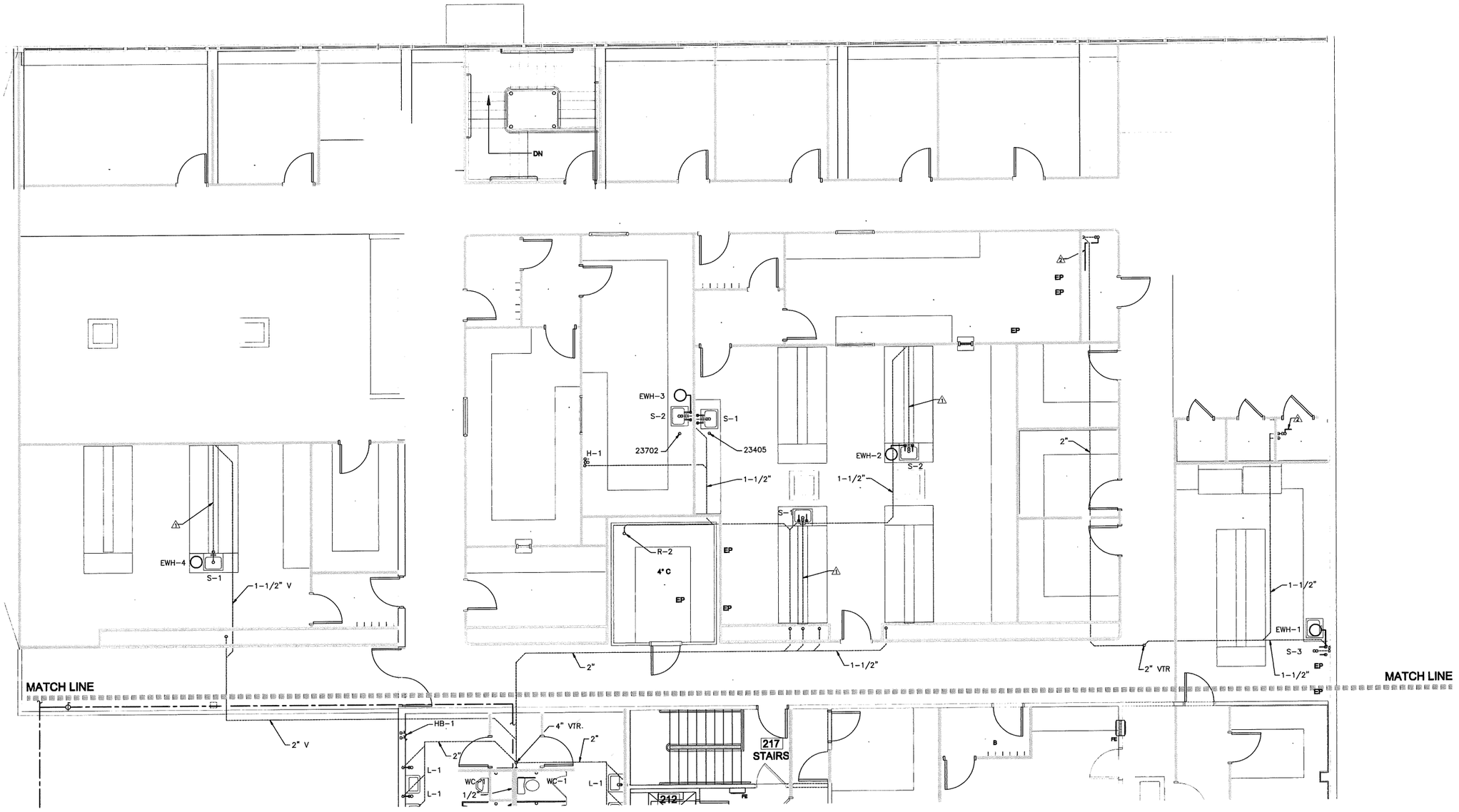
SHEET TITLE:
FIRST FLOOR PLAN - PART B PLUMBING

P-3



1 P-4 SECOND FLOOR PLAN - PART A
1/4" = 1'-0"

KEY NOTES

1 1-1/2" ISLAND VENT UNDER COUNTER

2

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RM. REFERENCE KEY PLAN

AREA - A
AREA - B

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SHEET TITLE:
SECOND FLOOR PLAN - PART A PLUMBING

P-4

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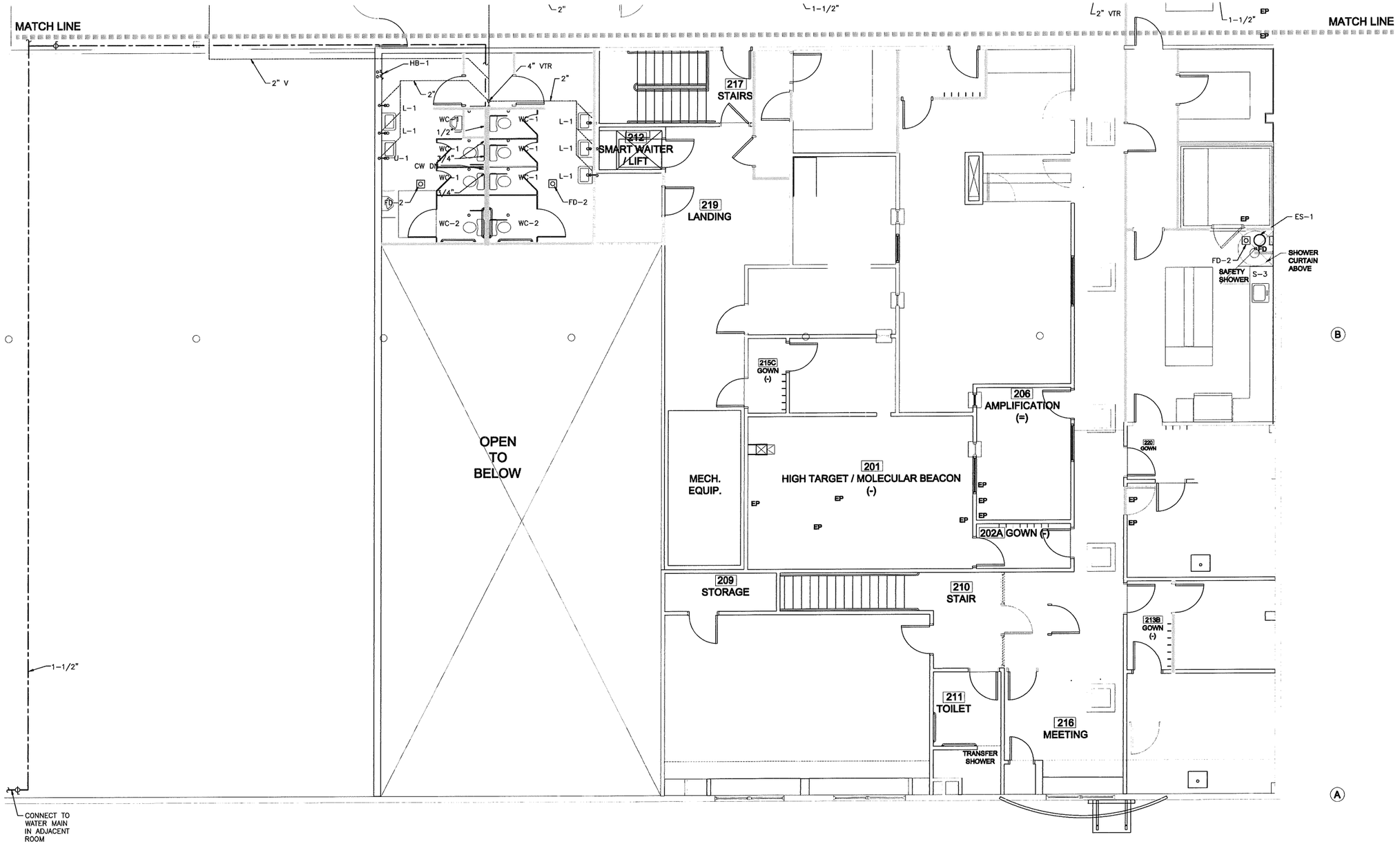

1 P-5 **SECOND FLOOR PLAN - PART B**
1/4" = 1'-0"

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Scarborough, ME 04093
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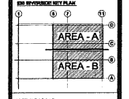
SW RIVERSIDE KEY PLAN



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SHEET TITLE:
SECOND FLOOR PLAN - PART B PLUMBING

NOT FOR CONSTRUCTION
PERMIT SET

P-5

SYMBOLS & ABBREVIATIONS

	PELLET VACUUM HOSES
	PUMP, CIRCULATOR
	STRAINER
	THERMOMETER
	PRESSURE GAUGE
	CHECK VALVE
1	KEY NOTE
	BOILER DRAIN
	CONNECT TO EXISTING
o	PIPING UP OR PIPE UP AND DOWN
o	PIPING DOWN
	TEE WITH BRANCH DOWN
	TEE WITH BRANCH UP
	REMOVE ITEM
	EXISTING
	PROVIDE ITEM
S	LOW PRESSURE STEAM PIPE
C	LOW PRESSURE CONDENSATE PIPE
SAN	SANITARY DRAIN ABOVE GRADE
V	VENT PIPE
FO	FUEL OIL PIPING
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RECIRCULATION
HWS	HOT WATER SUPPLY
HWR	HOT WATER RECIRCULATION
	CONTINUATION
	DIRECTION OF FLOW
	FIN-TUBE RADIATION
VD	VOLUME DAMPER
	MOTORIZED VALVE
	CONTROL VALVE
	BALL VALVE
	GATE VALVE
	THERMOSTATIC ANGLE VALVE
	FLEXIBLE ROUND DUCTWORK
	CEILING RETURN GRILLE OR REGISTER
	CEILING SUPPLY DIFFUSER

	RELIEF VALVE
T	ROOM THERMOSTAT
H	HUMIDISTAT
CV	CIRCUIT SETTER, BALANCING VALVE
	FINTUBE RADIATION
	CAST IRON RADIATOR
R	RELAY
T	TEMPERATURE SENSOR
S	SWITCH
	LIGHT FIXTURE
	4" FLUORESCENT LIGHT FIXTURE
FS	FLOW SENSOR
LWCO	LOW WATER CUTOFF
	THERMAL SWITCH
FT-1 / 1.0	FINTUBE RADIATION THOUSAND BTU/HR
EFF	EFFICIENCY
ø	DIAMETER
HP	HORSEPOWER
MIN	MINIMUM
GPM	GALLON PER MINUTE
EXIST	EXISTING
NO	NUMBER
TEMP	TEMPERATURE
IN	INCHES
MBH	BRITISH THERMAL UNIT
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
CD	CEILING DIFFUSER
CFM	CUBIC FEET PER MINUTE
CUH	CABINET UNIT HEATER
EF	EXHAUST FAN
EG	EXHAUST GRILLE
ER	EXHAUST REGISTER
ERV	ENERGY RECOVERY UNIT
HP	HEAT PUMP
RG	RETURN GRILLE
TG	TRANSFER GRILLE

DIFFUSER / REGISTER SCHEDULE

UNIT NO	FACE SIZE IN	NECK SIZE IN	MAX PRESSURE DROP IN WC	MAX NOISE CRITERIA	CFM RANGE	TYPE	MANUFACTURER AND MODEL	NOTES
S-1, S-1T	24"x24"	6"ø	0.15	30	0-250	4-WAY DIFFUSER	METALAIRE 5700	1,3
S-2, S-2T	24"x24"	8"ø	0.15	30	251-440	4-WAY DIFFUSER	METALAIRE 5700	1,3
S-3, S-3T	24"x24"	10"ø	0.15	30	441-600	4-WAY DIFFUSER	METALAIRE 5700	1,3
S-4, S-4T	24"x24"	12"ø	0.15	30	601-790	4-WAY DIFFUSER	METALAIRE 5700	1,3
S-5	12"x12"	6"ø	0.15	30	0-200	4-WAY DIFFUSER	METALAIRE 5700	1,3
S-6	12"x12"	8"ø	0.15	30	201-350	4-WAY DIFFUSER	METALAIRE 5700	1,3
R-1, S-1T	18"x18"	8"x8"	0.05	30	0-300	RETURN GRILLE	RETURN GRILLE	2,3
R-1, R-2T	12"x12"	12"x12"	0.05	30	301-550	RETURN GRILLE	RETURN GRILLE	2,3
S-3, R-3T	22"x22"	22"x22"	0.05	30	551-2000	RETURN GRILLE	RETURN GRILLE	2,3

NOTES:

LOUVER SCHEDULE

UNIT NO	SERVES	CFM	MAX APD	DIMENSIONS LENGTH	HEIGHT	DEPTH	MIN FREE AREA SQUARE FT	MANUFACTURER AND MODEL	NOTES
L-1	AHU-1	8000	0.08	84	36	4	13	RUSKIN ELF6375DX	-

NOTES:

GENERAL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED. DISCONNECT, REMOVE, AND OR RELOCATE EXISTING MATERIAL, EQUIPMENT AND OTHER WORK AS NOTED OR REQUIRED FOR PROPER INSTALLATION OF NEW SYSTEM.

2. APPLICABLE CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR WHO SHALL INFORM THE OWNER, PRIOR TO SUBMITTING A PROPOSAL, OF ANY WORK OR MATERIALS WHICH VIOLATE THE LAWS AND REGULATIONS.

3. WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE NATIONAL STANDARD PLUMBING CODE (LATEST EDITION), LOCAL CODES, AND OTHER REGULATIONS GOVERNING WORK OF THIS NATURE.

4. WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER. CARE SHALL BE EXERCISED TO MINIMIZE ANY INCONVENIENCE OR DISTURBANCE TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION. ISOLATE WORK AREAS BY MEANS OF TEMPORARY PARTITIONS AND/OR TARPS TO KEEP DUST AND DIRT WITHIN THE CONSTRUCTION AREA.

5. CLEAN THE JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTIES AGAINST FIRE, THEFT AND ENVIRONMENTAL CONDITIONS.

7. PROVIDE NECESSARY TEMPORARY OR PERMANENT CAPS OR PLUGS FOR PIPING. DO NOT LEAVE PIPING OPEN ENDED.

8. THE TERM "PROVIDE" SHALL MEAN "FURNISH AND INSTALL".

9. COORDINATE INSTALLATION OF ALL ROOF FLASHING AT ROOF PENETRATION.

10. DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS. VERIFY FIGURES, CONDITIONS, AND DIMENSIONS AT THE JOB SITE.

11. THE PLANS ARE INTENDED TO BE DIAGRAMMATIC AND ARE BASED ON THE MANUFACTURER'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS, OR THE DETAILS OF THE EQUIPMENT. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT IN THE AVAILABLE SPACE.

12. PROVIDE SUBMITTALS FOR EQUIPMENT AND MATERIAL TO THE ENGINEER FOR APPROVAL. CONTRACTOR SHALL PROVIDE THREE COPIES.

13. EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED EQUAL" BY ENGINEER.

14. PROVIDE AS-BUILT DRAWINGS.

15. CONTRACTOR SHALL OBTAIN AND PAY FOR PERMITS AND APPLICATIONS.

16. MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT PROVIDED.

17. EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

18. COORDINATE WORK WITH OTHER TRADES.

19. CONTRACTOR SHALL COORDINATE SYSTEM SHUTDOWN WITH THE OWNER 48 HOURS IN ADVANCE.

20. PIPING SHOWN SHALL BE CONCEALED UNLESS OTHERWISE NOTED.

21. PIPING PENETRATIONS THROUGH NEW, EXISTING WALL OR FLOOR SHALL BE SEALED TO EQUAL THE RATING OF THE NEW, EXISTING WALL OR FLOOR. SEAL OPENINGS AROUND PIPES THROUGH PARTITIONS AND WALLS WITH APPROVED FIRE STOPPING MATERIAL MEETING ASTM E814 AND NFPA-101.

22. PLUG OR CAP PIPING. DO NOT LEAVE PIPING OPEN ENDED.

23. INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR.

24. THE CONTRACTOR SHALL FIELD VERIFY DIMENSIONS, INVERTS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK. WHERE DISCREPANCIES OCCUR BETWEEN THESE DOCUMENTS AND EXISTING CONDITIONS, THE DISCREPANCY SHALL BE REPORTED TO THE OWNER AND/OR ENGINEER.

25. LOCATE ACCESS PANELS IN NON ACCESSIBLE CEILINGS AND WALLS FOR VALVES, CONTROLS, VAV BOXES AND OTHER ITEMS THAT REQUIRE ACCESS TO PROPERLY MAINTAIN OR SERVICE THE BUILDING.

26. ROOF PENETRATIONS INDICATED ON PLANS ARE PRELIMINARY. FINAL LOCATIONS SHALL BE COORDINATED WITH TRADES. EXHAUST DUCTS SHALL BE A MINIMUM OR 10'-0" FROM FRESH AIR INTAKES.

27. PIPING IS SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW OFFSETS, DROPS, AND RISES OR RUNS. THE CONTRACTOR SHALL ALLOW IN THE BID FOR ROUTING TO AVOID OBSTRUCTIONS.

VIBRATION AND SEISMIC CONTROL: COMPLY WITH LOCAL AND STATE CODES FOR SEISMIC ISOLATION. THE DRAWINGS DO NOT SHOW SEISMIC ISOLATION POINTS, THEREFORE ALLOW FOR SEISMIC ISOLATION IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION.

IDENTIFICATION: PROVIDE PIPE, DUCT AND EQUIPMENT IDENTIFICATION.

HANGERS AND PIPE SUPPORTS

ABOVE GRADE: PIPE SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN A NEAT AND WORKMANLIKE MANNER. SPACING OF PIPE SUPPORT SHALL BE AS SPECIFIED IN THE INTERNATIONAL MECHANICAL CODE. WHERE OVERHEAD CONSTRUCTION DOES NOT PERMIT FASTENING OF SUPPORTS FOR EQUIPMENT, FURNISH ADDITIONAL FRAMING.

BELOW GRADE: EARTH SHALL BE EXCAVATED TO A MINIMUM DEPTH WITH AN EVEN SURFACE TO INSURE SOLID BEARING OF PIPE FOR ITS ENTIRE LENGTH. INTERIOR PIPING SHALL BE INSTALLED (UNLESS OTHERWISE SPECIFIED) A MINIMUM OF 4 INCHES BELOW THE BOTTOM OF THE SLAB AND SHALL NOT BE IN ANY DIRECT CONTACT WITH THE CONCRETE. EXTERIOR WATER PIPING SHALL HAVE A MINIMUM OF 48" OF COVER.

TESTING AND BALANCING

1. PIPING SYSTEMS SHALL BE FLOW AND PRESSURE TESTED IN ACCORDANCE WITH STANDARD PRACTICE AND THE INTERNATIONAL MECHANICAL CODE. TEST SYSTEMS AT 1.5 TIMES THE OPERATING PRESSURE FOR ONE (1) HOUR.

2. BALANCING SHALL BE PERFORMED BY AN INDEPENDENT TESTING AND BALANCING AGENCY IN ACCORDANCE WITH SMACNA, AABC, OR NEBB STANDARDS. SUBMIT THREE COPIES OF REPORT.

INSULATION

INSULATION SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DELOPED RATING OF 50 OR LESS IN ACCORDANCE WITH ASTM E84 AND NFPA90A.

PIPE INSULATION SHALL BE 1" THICK FIBERGLASS(ASTM C547) FOR PIPING 1.5" AND SMALLER AND 1.5" THICK FOR PIPING 2" AND LARGER. INSULATION SHALL FOIL SCRIM JACKET. PROVIDE PVC FITTING COVERS. INSULATE JOINTS, FITTINGS, VALVES, FLANGES, STRAINERS AND PIPING. INSULATE CHILLED WATER PIPING AND HEATING PIPING. HEAT PUMP WATER LOOP DOES NOT REQUIRE INSULATION.

DUCT INSULATION SHALL BE 2" THICK FIBERGLASS DUCT WRAP(0.22 THERMAL CONDUCTIVITY AT 75F) WITH REINFORCED ALUMINUM FOIL VAPOR BARRIER. INSULATE SUPPLY, RETURN DUCTS AND EXHAUST DUCT FROM ENERGY RECOVERY COIL TO ROOF EXHAUST FAN.

HVAC CONTROLS

PROVIDE A COMPLETE AND FUNCTIONAL DIRECT DIGITAL CONTROL SYSTEM WITH GRAPHICS.

HYDRONIC PIPING

PROVIDE DIELECTRIC FITTING OR BRONZE FITTING BETWEEN DISIMILIAR METALS.

BALL VALVES SHALL BE APOLLO OR APPROVED EQUAL. PVC BALL VALVES SHALL BE SPEARS OR APPROVED EQUAL.

HEATING PIPING SHALL BE TYPE L COPPER WITH SOLDERED COPPER FITTINGS, VICTAULIC MECHANICAL JOINTS OR PRO-PRESS FITTINGS; OR SCHEDULE 40 STEEL PIPING WITH THREADED CAST IRON FITTINGS, OR VICTAULIC MECHANICAL JOINTS; OR SCHEDULE 80 PVC PIPING.

SCHILLED WATER PIPING SHALL BE SCHEDULE 80 PVC PIPING.

HEAT PUMP LOOP PIPING SHALL BE SCHEDULE 80 PVC PIPING.

CONDENSATE PIPING SHALL BE SCHEDULE 40 PVC PIPE WITH SOLVENT JOINTS. EXTEND PIPING TO NEAREST FLOOR DRAIN OR INDIRECT WASTE PIPE.

GROUND-LOOP PIPING

INTERIOR PIPING SHALL BE SCHEDULE 80 PVC. EXTERIOR PIPING SHALL BE HDPE PE3408/3608.

PUMPS

STEAM PIPING

REFRIGERANT PIPING

TYPE L OR ACR DRAWN COPPER TUBING WITH COPPER FITTINGS AND BRAZED JOINTS. INSTALL IN ACCORDANCE WITH ASHRAE STANDARD 15.

WATER TREATMENT

PROVIDE WATER QUALITY TESTING AND TREATMENT FOR ONE YEAR.

PROVIDE GLYCOL FOR BOILER LOOP. GLYCOL SHALL BE POLYPROPYLENE, FOOD GRADE, -7 FREEZE POINT, -15F FLOW POINT, -60F BURST POINT. NOBURST OR APPROVED EQUAL. SYSTEMS HAVE BEEN SIZED FOR FUTURE 25% GLYCOL WHEN SYSTEM IS CONVERTED TO GROUND SOURCE HEAT PUMP SYSTEM.

DUCTS

EXCEPT AS SHOWN OR NOTED, DUCTWORK SHALL BE GALVANIZED STEEL AND SAHLL BE INSTALLED IN ACCORDANCEWITH SMACNA DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE. DUCT CONSTRUCTION SHALL BE BASED ON 2" PRESSURE CLASS.

SEAL TRANVERSE AND LONGITUDINAL JOINTS.

ELBOWS SHALL HAVE A RADIUS/DIAMETER OF 1.5. PROVIDE TURNING VANES IN RECTANGULAR ELBOWS.

DUCT DIMENSIONS INDICATED ARE CLEAR INSIDE DIMENSIONS.

FLEXIBLE DUCT SHALL BE RATED CLASS 1, UL181, 1.5" INSULATION WITH POLYETHYLENE JACKET. SIX FOOT MAXIMUM LENGTH.

MANUAL VOLUME DAMPERS SHALL BE GALVANIZED STEEL WITH A BEARING AT ONE END OF DAMPER ROD AND QUADRANT WITH LVER AND LOCKSCREW. ATTACH FLOURESCENT TAPE TO HANDLE IN CONCEALED AREAS. PROVIDE VOLUME DAMPERS AT EACH BRANCH.

PROVIDE ACCESS DOORS IN DUCTS WHEREVER CONTROLS, CONTROL DAMPERS, FIRE DAMPERS, COILS AND INSTRUMENTS ARE INSTALLED.

PROVIDE FIRE DAMPERS IN FIRE RATED PARTITIONS AND FIRE RATED FLOORS.

AIR FILTRATION

FANS

DIFFUSERS, REGISTERS, GRILLES AND LOUVERS

SUPPLY AIR DIFFUSERS AND GRILLES SAHLL BE WHITE. SUPPLY DIFFUSERS SHALL HAVE ADJUSTABLE SEAL DIFFUSERS TO HARD CEILINGS. RETURN GRILLES SHALL HAVE A 3/4" BLADE SPACING.

UNIT HEATERS

HUMIDIFIER

WATER TO AIR HEAT PUMPS

CLIMATE MASTER TRNAQUILITY SERIES, R-410A, ECM MOTORS, ULTRAQUIET PACKAGE, CSM UNIT MOUNTED CONTROLS, EXTENDED RANGE. PROVIDE DYNAMIC AIR CLEANER MODEL V-8 (24 VOLT) WITH A MERV 13 RATING FOR HEAT PUMPS NOTED ON DWG M-2.

WATER TO WATER HEAT PUMPS

DESSICANT DEHUMIDIFIER

BOILERS

HEAT EXCHANGERS

COOLING TOWERS

AIR HANDLER

COILS

CLEANING AND FLUSHING

THE PIPING SYSTEMS (EXISTING/NEW) SHALL BE CLEANED AND FLUSHED PRIOR TO FINAL CHARGING OF SYSTEMS..

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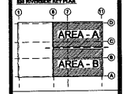
207-865-6475

SEE RIVERSIDE KEY PLAN



REVISIONS:

DATE:	8/17/11
PROJECT No.	1026A
DRAWN BY:	AZZ
CHECKED BY:	RPG
SCALE:	AS NOTED

SHEET TITLE:
LEGENDS, NOTES ABBREVIATIONS SCHEDULES & SPECIFICATIONS

M-1

PROJECT NORTH

8/17/2011 12:26:19 PM

PUMP SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FLUID: FLOW RATE (GPM)	FLUID: WORKING FLUID	PUMP: HEAD LOSS (FT)	PUMP: EFFICIENCY (%)	PUMP: CONSTRUCTION	ELECTRICAL: MOTOR SIZE (HP)	ELECTRICAL: MOTOR BHP (HP)	ELECTRICAL: MOTOR SPEED (RPM)	ELECTRICAL: VOLT/PH/HZ	NOTES
P-B1	TACO 2430	MECH ROOM	CIRCULATOR	33.9	WATER	15.2	N/A	IRON	0.16	N/A	3450	120/1/60	
P-B2	TACO 2430	MECH ROOM	CIRCULATOR	33.9	WATER	15.1	N/A	IRON	0.16	N/A	3450	120/1/60	
P-2A	TACO 1641	MECH ROOM	HORIZONTAL INLINE	74	WATER	32	55.3	IRON	2	1.29	1750	460/3/60	
P-2B	TACO 1641	MECH ROOM	HORIZONTAL INLINE	74	WATER	31.6	55.3	IRON	2	1.279	1750	460/3/60	
P-3	TACO CI2507		HORIZ CLOSE-COUPLED END-SUCTION	208.8	WATER	35.5	72.3	BRONZE FITTED	3	2.369	1760	460/3/60	1
P-4	TACO CI3009		HORIZ CLOSE-COUPLED END-SUCTION	232.4	WATER	24.8	72	BRONZE FITTED	3	1.868	1160	460/3/60	1
P-5	TACO 1635	MECH ROOM	HORIZONTAL INLINE	99.7	WATER	19.2	62.2	IRON	0.75	0.705	1750	120/1/60	
P-6	TACO 2470	MECH ROOM	CIRCULATOR	79.2	WATER	16.4	N/A	IRON	0.5	N/A	3450	120/1/60	
P-7	TACO 2470	MECH ROOM	CIRCULATOR	58.6	WATER	14.1	N/A	IRON	0.5	N/A	3450	120/1/60	
P-8	TACO 2470	MECH ROOM	CIRCULATOR	79.2	WATER	16.4	N/A	IRON	0.5	N/A	3450	120/1/60	
P-9	TACO 2470	MECH ROOM	CIRCULATOR	58.6	WATER	13.3	N/A	IRON	0.5	N/A	3450	120/1/60	
P-10	TACO 2470	MECH ROOM	CIRCULATOR	58.6	WATER	20.7	N/A	IRON	0.5	N/A	3450	120/1/60	
P-11	TACO 007	MECH ROOM	CIRCULATOR	9.2	WATER	3.7	N/A	IRON	0.04	N/A	3250	120/1/60	
P-12	TACO 2450	MECH ROOM	CIRCULATOR	45	WATER	29.9	N/A	IRON	0.5	N/A	3450	120/1/60	

BOILER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FUEL TYPE	INPUT LOAD (BTU/H)	OUTPUT LOAD (BTU/H)	FLUID: FLOW RATE (GPM)	FLUID: ENTERING/LEAVING TEMP. (°F)	FLUID: WORKING FLUID	FLUID: HEAD LOSS (FT)	ELECTRICAL: MOTOR QUAN.	ELECTRICAL: MOTOR SIZE (HP)	ELECTRICAL: MOTOR VOLT/PH/HZ	ELECTRICAL: CONTROL CIRCUIT VOLT/PH/HZ	PHYSICAL: STACK DIAMETER (IN)	PHYSICAL: LENGTH/WIDTH/HEIGHT (IN)	NOTES
B-1	HTP MODCON 500		CONDENSING, INDUCED	NAT GAS	392000	368500	33.9	98/120	WATER	12	1	0.167	120/1/60	120/1/60			
B-2	HTP MODCON 500		CONDENSING, INDUCED	NAT GAS	460700	368500	33.9	98/120	WATER	12	1	0.167	120/1/60	120/1/60			

COIL SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	USAGE	AIR: AIRFLOW RATE (CFM)	AIR: LOAD (BTU/H)	AIR: SENSIBLE LOAD (BTU/H)	AIR: ENTERING TEMP. DB/WB (°F)	AIR: LEAVING TEMP. DB/WB (°F)	AIR: STATIC PRESSURE (IN. WATER)	FLUID: FLOW RATE (GPM)	FLUID: ENTERING/LEAVING TEMP. (°F)	FLUID: WORKING FLUID	FLUID: HEAD LOSS (FT)	PHYSICAL: NO. COILS	PHYSICAL: EACH COIL FIN WIDTH/HEIGHT (IN)	PHYSICAL: MINIMUM FACE AREA (FT²)	PHYSICAL: MINIMUM NO. ROWS/FINS PER INCH	NOTES
CC-AHU1		AHU1	COOLING	8240	530700	279100	80.1/69.4	52/50.6	0.3	88.3	48/60	WATER	8	2	43/31.5	18.8	8/8	
DHC-1			HEATING	8240	466600	466600	8.1/4	55/35.7	0.25	47.2	120/100	WATER	3	1	111/24	18.5	2/6	
DHCC-1			HEAT DEL	8240	112600	112600	-3.3/-5.6	8.1/4	0.25	45	65/60	WATER	5	1	111/24	18.5	8/8	
			COOL DEL	8240	63600	62700	86.4/71.2	80.1/69.4	0.25	25.5	65/70		5					
DRC-1			HEAT REC	8240	112600	112600	70.6/59.1	60/54.9	0.75	45	60/65	WATER	5	1	117/24	19.5	8/8	
			COOL REC	8240	63600	62700	74/60.8	80/62.9	0.75	25.5	70/65		5					
HC-AHU1		AHU1	HEATING	0	0	0	?/?	?/?	0.25	0	?/?	WATER	5	2	0/31.5	0	2/6	
RC-AHU1		AHU1	HEAT REC	0	0	0	?/?	?/?	0.75	0	?/65	WATER	15	2	0/31.5	0	8/8	
			COOL REC	0	0	0	?/?	?/?	0.75	0	?/65		15					

COOLING TOWER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FAN AIRFLOW (CFM)	AMBIENT TEMP. DB/WB (°F)	FLUID: FLOW RATE (GPM)	FLUID: ENTERING/LEAVING TEMP. (°F)	FLUID: WORKING FLUID	ELECTRICAL, FAN: INLET/OUTLET HEAD LOSS (FT)	ELECTRICAL, FAN: MOTOR QUAN.	ELECTRICAL, FAN: MOTOR SIZE (HP)	ELECTRICAL, FAN: MOTOR SPEED (RPM)	ELECTRICAL, FAN: TOWER AND CONTROL CIRCUIT VOLT/PH/HZ	PHYSICAL: OPERATING WEIGHT (LB)	PHYSICAL: LENGTH/WIDTH/HEIGHT (IN)	NOTES
CT-1	AMCOT SILVER SERIES ST80		OPEN, COUNTERFLOW, CENT	18900	86.36/71.24	208.8	88/78	WATER	1/1	1	2	1750	480/3/60 120/1/60			

HEAT EXCHANGER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	USAGE	LOAD (BTU/H)	SOURCE MEDIUM (HYDRONIC): FLOW RATE (GPM)	SOURCE MEDIUM (HYDRONIC): ENTERING/LEAVING TEMP. (°F)	SOURCE MEDIUM (HYDRONIC): WORKING FLUID	SOURCE MEDIUM (HYDRONIC): HEAD LOSS (FT)	TRANSFER MEDIUM (HYDRONIC): FLOW RATE (GPM)	TRANSFER MEDIUM (HYDRONIC): ENTERING/LEAVING TEMP. (°F)	TRANSFER MEDIUM (HYDRONIC): WORKING FLUID	PHYSICAL: HEAD LOSS (FT)	PHYSICAL: DIA./LENGTH/NO. PLATES (IN/IN)	PHYSICAL: SURFACE AREA (FT²)	NOTES
HX-1			PLATE	COOLING	1039700	208.8	78/88	WATER	15	232.4	89.4/80	30% P GLY	10			

FAN SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	AIR TYPE	AIR: MAXIMUM AIRFLOW RATE (CFM)	AIR: STATIC PRESSURE (IN. WATER)	FAN: FAN SPEED (RPM)	FAN: FAN WHEEL DIAMETER (IN)	FAN: STATIC EFFICIENCY (%)	ELECTRICAL: MOTOR SIZE (HP)	ELECTRICAL: MOTOR BHP (HP)	ELECTRICAL: MOTOR SPEED (RPM)	ELECTRICAL: VOLT/PH/HZ	PHYSICAL: LENGTH/WIDTH/HEIGHT (IN)	NOTES
EF-2	GREENHECK VECTOR H		MIXED FLOW, CENTRIFUGAL	EXHAUST AIR	9705	3.95			0	3		1750	460/3/60		
OF-AHU1	TRANE CLIMATE CHANGER #12	AHU1	BACKWARD INCLINED	OUTSIDE AIR	9244	3.89			0	3		1750	460/3/60		

AIR HANDLER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	AIR: SUPPLY AIRFLOW (CFM)	COMPONENTS: FANS	COMPONENTS: COILS	COMPONENTS: FILTERS	COMPONENTS: OTHER	ELECTRICAL: SINGLE POINT VOLT/PH/HZ	PHYSICAL: CABINET LENGTH/WIDTH/HEIGHT (IN)	WEIGHT (LB)	NOTES
AHU1			9244	OF-AHU1	CC-AHU1, HC-AHU1, RC-AHU1	F-AHU1.1, F-AHU1.2	OD-AHU1	N/A	8/62/84		

FILTER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	EFFICIENCY (%)	AIR: CLEAN STATIC PRESSURE (IN. WATER)	AIR: DIRTY STATIC PRESSURE (IN. WATER)	PHYSICAL: NUMBER 24"X24" MODULES	PHYSICAL: NUMBER 12"X24" MODULES	NOTES
F-AHU1.1		AHU1	ANGLE	30%	0.5	0.8	6	0	
F-AHU1.2		AHU1	ANGLE	80%	0.7	1.2	6	0	
F-AHU1.2			ANGLE	80%	0.7	1	4	1	

EXPANSION TANK SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FLUID: WORKING FLUID	PHYSICAL: MIN. TANK/ACCEPTANCE (GAL)	PHYSICAL: TANK SIZE (GAL)	PHYSICAL: RELIEF VALVE (PSIG)	PHYSICAL: DIA./HEIGHT (IN)	PHYSICAL: NPT FITTING (IN)	NOTES
ET-1	TACO CX-42		VERT DIAPH FLOOR	WATER	10.5/3.6	11	30	14/27	0.75	1
ET-2	TACO CX-30		VERT DIAPH FLOOR	WATER	4.1/1.4	8	30	14/22	0.75	1
ET-3	TACO CX-42		VERT DIAPH FLOOR	WATER	10.5/3.6	11	30	14/27	0.75	1
ET-4	TACO CX-30		VERT DIAPH FLOOR	WATER	1.9/0.7	8	30	14/22	0.75	1

1. ASME CERTIFIED

AIR SEPARATOR SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FLUID: FLOW RATE (GPM)	FLUID: WORKING FLUID	FLUID: HEAD LOSS (FT)	PHYSICAL: DIA./HEIGHT (IN)	NOTES
AS-1	TACO AC3F		TANK	67.9	WATER	0.18	14/27.25	1
AS-2	TACO AC25F		TANK	63.2	WATER	0.38	10.75/20	1
AS-3	TACO AC3F		TANK	99.7	WATER	0.38	14/27.25	1
AS-4			INLINE	45	WATER	2.5		

1. ASME CERTIFIED

SINGLE DUCT TERMINAL UNIT SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	INLET SIZE (IN)	AIR: USAGE	AIR: HEATING SEASON AIRFLOW RATE (CFM)	AIR: COOLING SEASON AIRFLOW RATE (CFM)	AIR: 4 ACH MINIMUM AIRFLOW (CFM)	AIR: LOAD (BTU/H)	FLUID: ENTERING TEMP. DB (°F)	FLUID: LEAVING TEMP. DB (°F)	FLUID: STATIC PRESSURE (IN. WATER)	FLUID: FLOW RATE (GPM)	FLUID: ENTERING/LEAVING TEMP. (°F)	FLUID: WORKING FLUID	FLUID: HEAD LOSS (FT)	PHYSICAL: MINIMUM NO. ROWS/FINS PER INCH	NOTES
VAV-1		HT PUMPS	12	HEATING	900	900	90	29000	55	85	0.65	1.9	?/?	WATER	2	2/6	
				REHEAT				0	52	52	0.65	0	?/?		2		
VAV-2		LFD HUMID	12	HEATING	887	887	90	18400	55	74.3	0.65	1.2	120/90	WATER	2	2/6	
				REHEAT				0	52	52	0.65	0	?/?		2		
VAV-3		SAMPLE RNA	16	HEATING	1386	1386	125	28800	55	74.3	0.65	1.9	120/90	WATER	2	2/6	
				REHEAT				0	52	52	0.65	0	?/?		2		
VAV-4		STANDARDS	14	HEATING	67	1112	175	19900	55	71.7	0.65	1.3	120/90	WATER	2	2/6	
				REHEAT				0	52	52	0.65	0	?/?		2		
VAV-5		SAMPLE PREP DNA	18	HEATING	2479	2479	0	52100	55	74.5	0.65	3.5	120/90	WATER	2	2/6	
				REHEAT				0	52	52	0.65	0	?/?		2		
VAV-6		FAST GROWTH	14	HEATING	1100	1100	175	22000	55	73.6	0.65	1.5	120/90	WATER	2	2/6	
				REHEAT				0	52	52	0.65	0	?/?		2		
VAV-7		PLANT PATH	12	HEATING	520	520	90	10400	55	73.6	0.65	0.7	120/90	WATER	2	2/6	
				REHEAT				0	52	52	0.65	0	?/?		2		
VAV-8		SLOW GROWTH	10	HEATING	360	360	50	10700	55	82.6	0.65	0.7	120/90	WATER	2	2/6	
				REHEAT				0	52	52	0.65	0	?/?		2		
VAV-9		CORRIDOR	–	HEATING	–	–	90	8100	55	70	0.65	0.5	120/90	WATER	2	2/6	
				REHEAT				0	52	52	0.65	0	?/?		2		
VAV-10		FIRST FLOOR															

LOUVER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	AIR: AIR TYPE	AIR: MAXIMUM AIRFLOW RATE (CFM)	AIR: STATIC PRESSURE (IN. WATER)	PHYSICAL: WIDTH/HEIGHT/THICKNESS (IN)	NOTES
L-1	RUSKIN	MECH ROOM	STATIONARY	INTAKE	9244	0.15	32/84/6	

FLUID-TO-FLUID HEAT PUMP SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	SOURCE FLUID: USAGE	SOURCE FLUID: LOAD (BTU/H)	SOURCE FLUID: FLOW RATE (GPM)	SOURCE FLUID: ENTERING/LEAVING TEMP. (°F)	SOURCE FLUID: WORKING FLUID	SOURCE FLUID: HEAD LOSS (FT)	TRANSFER FLUID: LOAD (BTU/H)	TRANSFER FLUID: FLOW RATE (GPM)	TRANSFER FLUID: ENTERING/LEAVING TEMP. (°F)	TRANSFER FLUID: WORKING FLUID	TRANSFER FLUID: HEAD LOSS (FT)	ELECTRICAL: COP/EER	ELECTRICAL: MCA	ELECTRICAL: VOLT/PH/HZ	PHYSICAL: LENGTH/WIDTH/HEIGHT (IN)	NOTES
HPWW-1	CLIMATE MASTER TMW 340	MECH ROOM	VERTICAL	COOLING	394100	79.2	80/90	WATER	15	293800	58.6	55/45	WATER	10	3.5/10	46.6	460/3/60		
HPWW-2	CLIMATE MASTER TMW340		VERTICAL	HEATING	0	0	?/?	WATER	15	0	0	?/85	WATER	10	3.5/10	41.4	460/3/60		
				COOLING	394100	79.2	80/90		15	293800	58.6	55/45		10					

FLUID-TO-AIR HEAT PUMP SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	SERVES, LOCATION	TYPE	AIR: USAGE	AIR: AIRFLOW RATE (CFM)	AIR: LOAD (BTU/H)	AIR: SENSIBLE LOAD (BTU/H)	AIR: ENTERING/LEAVING TEMP. DB/WB (°F)	FAN: EXTERNAL STATIC PRESSURE (IN. WATER)	FLUID: FLOW RATE (GPM)	FLUID: ENTERING/LEAVING TEMP. (°F)	FLUID: WORKING FLUID	FLUID: HEAD LOSS (FT)	ELECTRICAL: COP/EER	ELECTRICAL: MCA	ELECTRICAL: VOLT/PH/HZ	PHYSICAL: INCL. ELEC HEAT PKG	PHYSICAL: LENGTH/WIDTH/HEIGHT (IN)	NOTES
HP-7A	CLIMATEMASTER TS-V-018B	216 MEETING	VERTICAL	HEATING	798	14200	14200	67.6/42.3 84.2/59.6	0.15	5.1	?/?	25% PG	15	3.5/10	9	280/1/60		A	EXISTING
				COOLING	798	15200	14600	76.6/64.8 59.6/59.5	0.15	5.1	?/?		15						
HP-15	CLIMATEMASTER TS-V-042	260 OFFICE	VERTICAL	HEATING	1237	28500	28500	61.1/38.9 82.5/59	0.15	9.5	?/?	25% PG	5	3.5/10	7.4	460/3/60			B
				COOLING	1237	28300	24900	77.5/65.1 58.8/58.6	0.15	9.5	80/88		5						
HP-16	CLIMATEMASTER TS-V-009B	230 VS-3	VERTICAL	HEATING	341	5300	5300	67/42 81.6/58.6	0.15	2.2	?/?	25% PG	8	3.5/10	5.3	230/1/60			1
				COOLING	341	6600	6300	76.4/64.4 59.1/58.9	0.15	2.2	80/88		8						
HP-17	CLIMATEMASTER TS-V-006A	231 VS-2	VERTICAL	HEATING	191	2200	2200	64.6/40.7 75.1/56.1	0.15	1.4	?/?	25% PG	8	3.5/10	4.3	230/1/60			1
				COOLING	191	4100	3700	77.1/64.8 59/58.8	0.15	1.4	80/88		8						
HP-18	CLIMATEMASTER TS-V-006A	232 VS-3	VERTICAL	HEATING	171	1500	1500	65.7/52 73.9/55.7	0.15	1.2	?/?	25% PG	8	3.5/10	4.3	230/1/60			1
				COOLING	171	3600	3300	77.3/65 59.3/59.1	0.15	1.2	80/88		8						
HP-19	CLIMATEMASTER TS-V-036	233 LYPHO	VERTICAL	HEATING	1195	6700	6700	67.6/42.3 72.8/55.2	0.15	8.1	?/?	25% PG	8	3.5/10	6.9	460/3/60			1
				COOLING	1195	24000	22900	76.7/64.4 58.9/58.7	0.15	8.1	80/88		8						
HP-20	CLIMATEMASTER TS-V-024	234 REAGENT	VERTICAL	HEATING	732	15300	15300	61.3/39 80.8/58.3	0.15	5.5	?/?	25% PG	8	3.5/10	5.6	460/3/60			1
				COOLING	732	16400	14600	77.4/65.1 58.8/58.7	0.15	5.5	80/88		8						
HP-21	CLIMATEMASTER TS-V-018B	240 DRY	VERTICAL	HEATING	422	6400	6400	62.5/39.6 76.7/56.8	0.15	3.2	?/?	25% PG	8	3.5/10	12.3	230/1/60			1
				COOLING	422	9600	8500	77.3/65 58.6/58.5	0.15	3.2	80/88		8						
HP-22	CLIMATEMASTER TS-V-009B	239 PACKAGE	VERTICAL	HEATING	253	1800	1800	66.5/41.7 73/55.3	0.15	1.8	?/?	25% PG	8	3.5/10	5.3	230/1/60			1
				COOLING	253	5200	4900	76.7/64.4 58.6/58.4	0.15	1.8	80/88		8						
HP-23	CLIMATEMASTER TS-V-036	253 OFFICE	VERTICAL	HEATING	1186	23200	23200	61.5/45 79.7/57.9	0.15	9.1	?/?	25% PG	8	3.5/10	6.9	460/3/60			
				COOLING	1186	27100	23900	77.4/65.2 58.7/58.5	0.15	9.1	80/88		8						
HP-24	CLIMATEMASTER TS-V-024	255 TECH	VERTICAL	HEATING	868	10900	10900	63.6/40.2 75.2/56.2	0.15	6.6	?/?	25% PG	8	3.5/10	5.6	460/3/60			1
				COOLING	868	19700	17400	77/64.7 58.3/58.2	0.15	6.6	80/88		8						
HP-25	CLIMATEMASTER TRC09	244 OFFICE	CABINET	HEATING	354	6400	6400	65.6/41.2 82.4/58.9	0.15	2.5	?/?	25% PG	8	3.5/10	6	230/1/60			
				COOLING	354	7400	7000	77/64.3 58.6/58.4	0.15	2.5	80/88		8						
HP-26	CLIMATEMASTER TRC09	245 OFFICE	CABINET	HEATING	210	3800	3800	64.2/40.5 81.1/58.5	0.15	1.5	?/?	25% PG	8	3.5/10	6	230/1/60			
				COOLING	210	4500	4200	77.1/64.6 58.6/58.4	0.15	1.5	80/88		8						
HP-27	CLIMATEMASTER TRC09	246 OFFICE	CABINET	HEATING	207	3800	3800	64.4/40.6 81.5/58.6	0.15	1.5	?/?	25% PG	8	3.5/10	6	230/1/60			
				COOLING	207	4400	4100	77.3/64.8 58.9/58.8	0.15	1.5	80/88		8						
HP-28	CLIMATEMASTER TRC09	247 OFFICE	CABINET	HEATING	209	3800	3800	64/40.4 80.9/58.4	0.15	1.5	?/?	25% PG	8	3.5/10	6	230/1/60			
				COOLING	209	4500	4200	77.1/64.5 58.5/58.4	0.15	1.5	80/88		8						
HP-29	CLIMATEMASTER TRC09	250 MEETING	CABINET	HEATING	216	5200	5200	60.4/38.5 82.8/59.1	0.15	1.7	?/?	25% PG	8	3.5/10	6	230/1/60			
				COOLING	216	5100	4300	77.7/65.6 59.1/58.9	0.15	1.7	80/88		8						
HP-30	CLIMATEMASTER TRC09	251 MEETING	CABINET	HEATING	221	5400	5400	57.1/36.7 79.7/57.9	0.15	2	?/?	25% PG	8	3.5/10	6	230/1/60			
				COOLING	221	6000	4700	78.1/66.3 58.5/58.3	0.15	2	80/88		8						
HP-31	CLIMATEMASTER TRC09	252 MEETING	CABINET	HEATING	414	9800	9800	58.5/37.5 80.5/58.2	0.15	3.7	?/?	25% PG	8	3.5/10	6	230/1/60			
				COOLING	414	10900	8600	78/68.1 58.7/58.5	0.15	3.7	80/88		8						
HP-32		248 STAIRWELL										25% PG							

PROJECT SCHEDULE

NAME	LOCATION	OUTSIDE AIR: HEATING SEASON DB/RH (°F/%)	OUTSIDE AIR: COOLING SEASON DB/WB (°F)	ALTITUDE (FT)	NOTES
ENVIROLOGIX	PORTLAND, MAINE	3/10	86.2/69.3	62	

WATER TO AIR HEAT PUMP SCHEDULE

UNIT NO	SERVES	GPM	WATER P.D. FT WC	SUPPLY CFM	HEATING: EWT °F	HEATING: EAT °F	HEATING: LOAD MBTUH	HEATING: HTG COP	COOLING: EWT °F	COOLING: EAT °F	COOLING: LOAD BTUH	COOLING: EER	ELECTRICAL: VOLTS/PHASE	ELECTRICAL: MCA	CLIMATE MASTER MANUFACTURER AND MODEL	NOTES
HP-1	NORTH OFFICE	6.0	7.2	850	30	64.9	17.5	3.5	80	77.6/65.7	19.7/16.1	18.4	208-230/3	14.7	TSV 024	EXISTING
HP-2	BREAKOUT	2.6	4.8	350	30	64.9	2.9	3.3	80	77.7/67.0	11.1/7.6	15.1	208-230/1	7.4	TSV 012	EXISTING
HP-3	CONTROLLER	2.6	4.8	330	30	68.3	1.0	3.3	80	77.7/65.7	9.0/7.1	15.1	208-230/1	7.4	TSH 012	EXISTING
HP-4	EAST OFFICES	8.3	5.1	1250	30	67.0	26.6	3.8	80	77.5/64.6	29.5/26.4	18.2.8	208-230/3	18.1	TSH 036	EXISTING
HP-5	2ND OFFICE AREA	8.3	5.1	1270	30	62.0	26.2	3.4	80	76.3/65.3	32.5/27.7	17.6	208-230/3	19.5	TSH 042	EXISTING
HP-6	SAMPLE PREP	1.5	3.7	180	30	70.3	1.7	2.8	80	76.9/64.5	3.9/3.5	15.1	208-230/1	4.7	TSH 006	EXISTING
HP-7	LFD STRIPING	1.5	3.7	160	30	63.5	2.8	2.8	80	77.7/65.2	3.7/3.2	15.1	208-230/1	4.7	TSV 006	EXISTING
HP-8	LFD DRY	1.5	3.7	160	30	62.8	3.5	2.8	80	77.6/65.1	3.8/3.3	15.1	208-230/1	4.7	TSV 006	EXISTING
HP-9	CONFERENCE	6.0	7.2	750	30	66.4	10.8	3.4	80	77.3/66.0	20.6/5.5	18.4	208-230/3	14.7	TSV 024	EXISTING
HP-10	AMPLIFICATION	1.5	3.7	240	30	65.2	1.9	3.1	80	77.2/64.6	5.7/5.0	15.2	208-230/1	4.7	TSV 006	EXISTING
HP-11	HT/MB	4.1	2.7	550	30	70.2	3.4	3.0	80	76.9/64.8	10.3/9.3	16.5	208-230/1	18	TSV 018	EXISTING
HP-12	REAG MSTR MIX	9.0	6.0	1570	30	68.7	4.4	3.4	80	76.4/63.9	32.2/30.6	16.2	208-230/3	24.7	TTV 049	EXISTING
HP-13	BEACON PROD.	1.5	3.7	170	30	70.1	1.1	2.8	80	76.7/64.8	3.8/3.3	15.1	208-230/1	4.7	TSV 006	EXISTING
HP-14	ASSEMBLY/POUCHING	2.6	3.4	335	30	70.1	2.3	3.2	80	77.0/64.7	7.4/6.7	15.1	208-230/1	7.4	TSH 012	EXISTING

NOTES:

HUMIDIFIER SCHEDULE

UNIT NO	SERVES	ENTERING AIR TEMP °F: DRY BULB	ENTERING AIR TEMP °F: WET BULB	LB STEAM/HR	KW	VOLTS/PHASE	MANUFACTURER AND MODEL	NOTES
H-1	ROOM 237	-5	-10	31.0	12	480/3	NORTEC NHRS030	–

NOTES:

DEHUMIDIFIER SCHEDULE

UNIT NO	SERVES	ROOM DESIGN	LBS/HR	PROCESS AIR ESP	REACTIVATION AIR ESP	REACTIVATION HEATER KW	VOLTS/PHASE	MFG MODEL	NOTES
DH-3	LYPHOLIZER	70° F 25% RH	–	1.75"	1.25"	6 KW	480/3	MUNTERS HC-300	–
DH-4	DRY ROOM	70° F 15% RH	–	1.75"	1.25"	6 KW	480/3	MUNTERS HC-300	–

NOTES:

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530 - DNA EXPANSION
PORTRLAND, MAINE

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207-797-4888
ELECTRICAL
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RIB DESIGNATION KEY PLAN

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SHEET TITLE:
SCHEDULES

M-2

8/17/2011 10:15:30 AM

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207-865-9475

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SHEET TITLE:
PIPING SCHEMATIC

M-3

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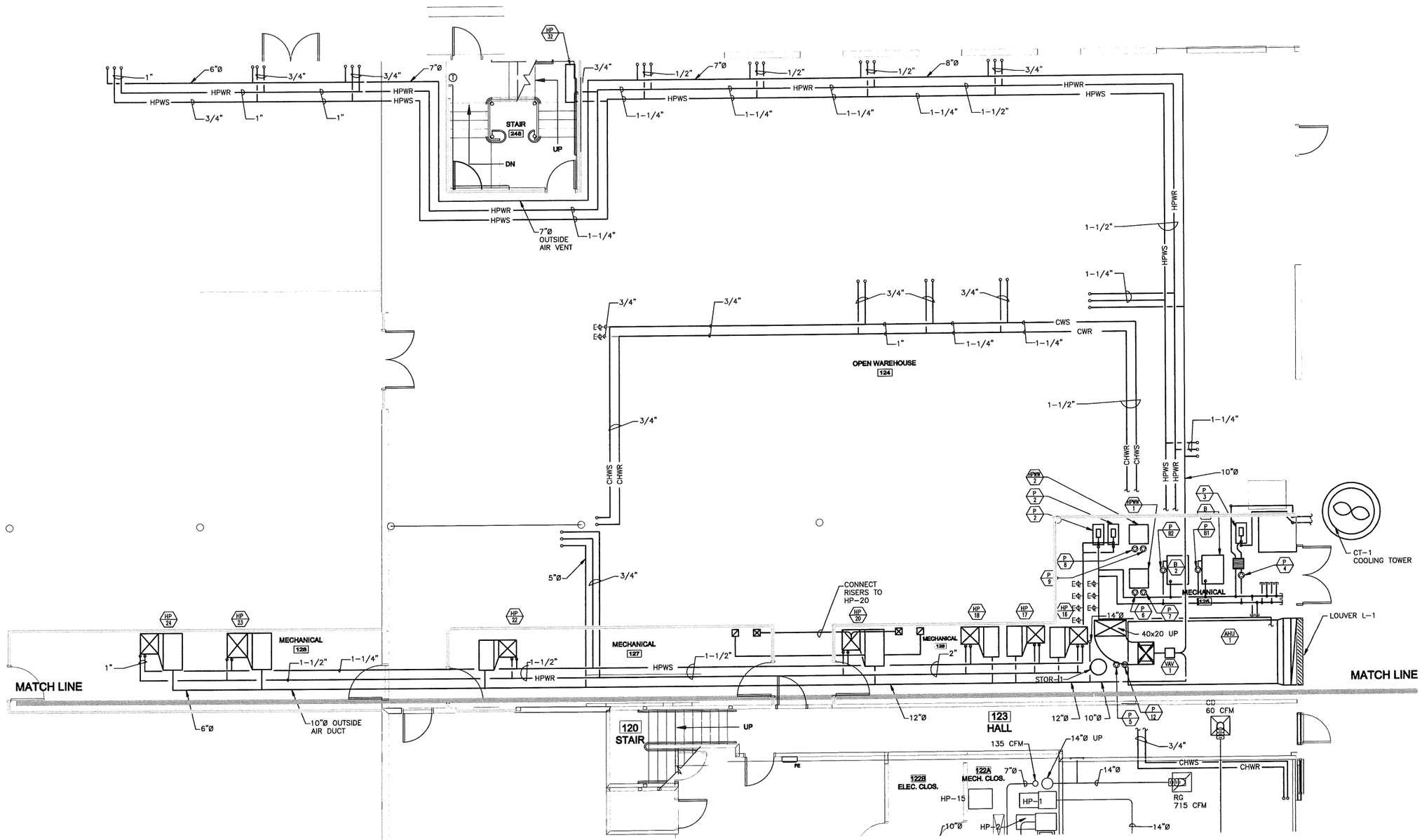

1 M-4 FIRST FLOOR PLAN - PART A
1/4" = 1'-0"

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RM RIVERSIDE KEY PLAN
AREA - A
AREA - B

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SHEET TITLE:
FIRST FLOOR PLAN - PART A MECHANICAL

M-4

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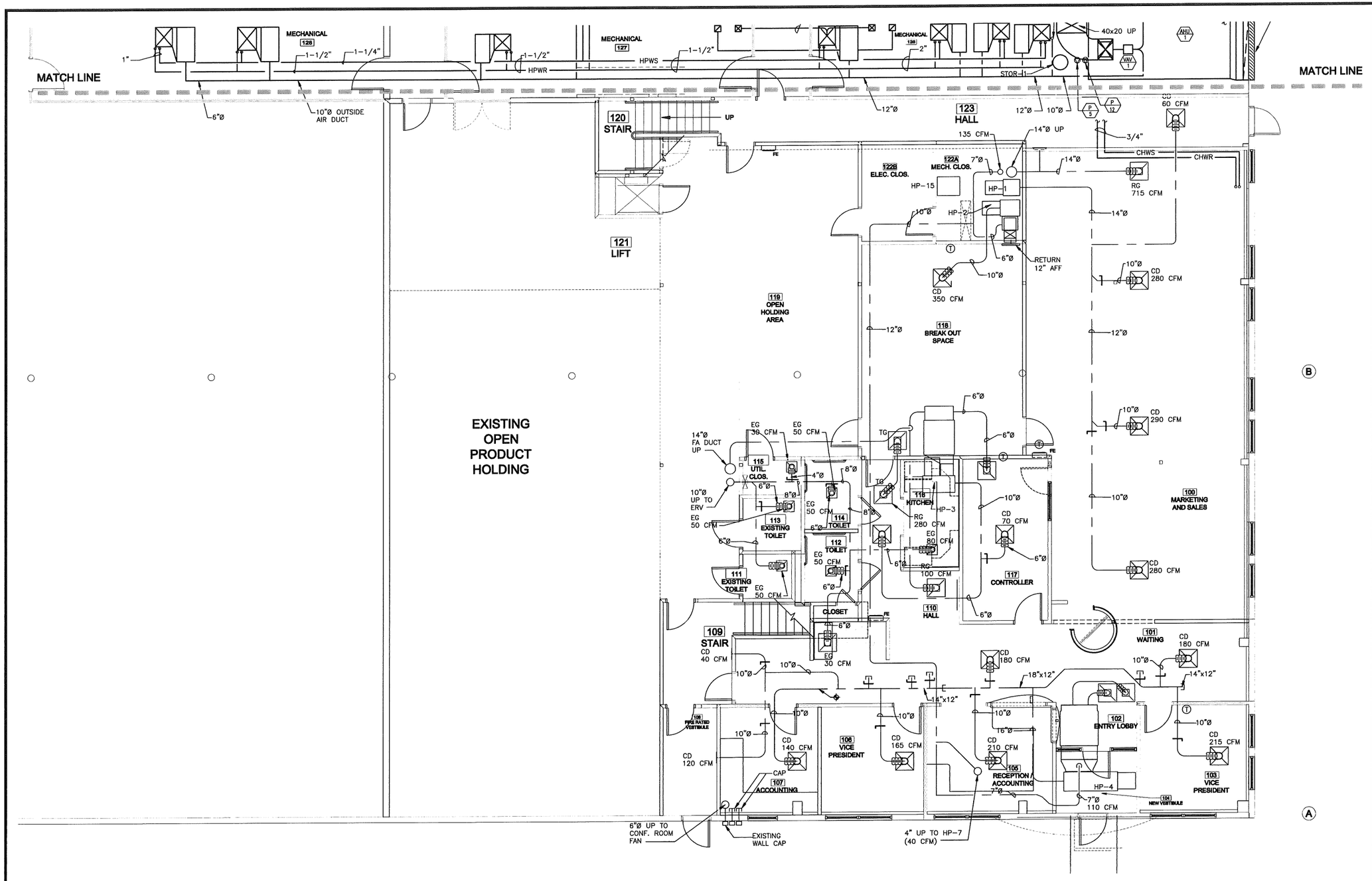

1 / M-5 FIRST FLOOR PLAN - PART B
1/4" = 1'-0"

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ELECTRICAL
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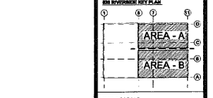
Freeport, ME 04032
207.865.6475

SEE RIVERSIDE KEY PLAN



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SHEET TITLE:
FIRST FLOOR PLAN - PART B MECHANICAL

M-5

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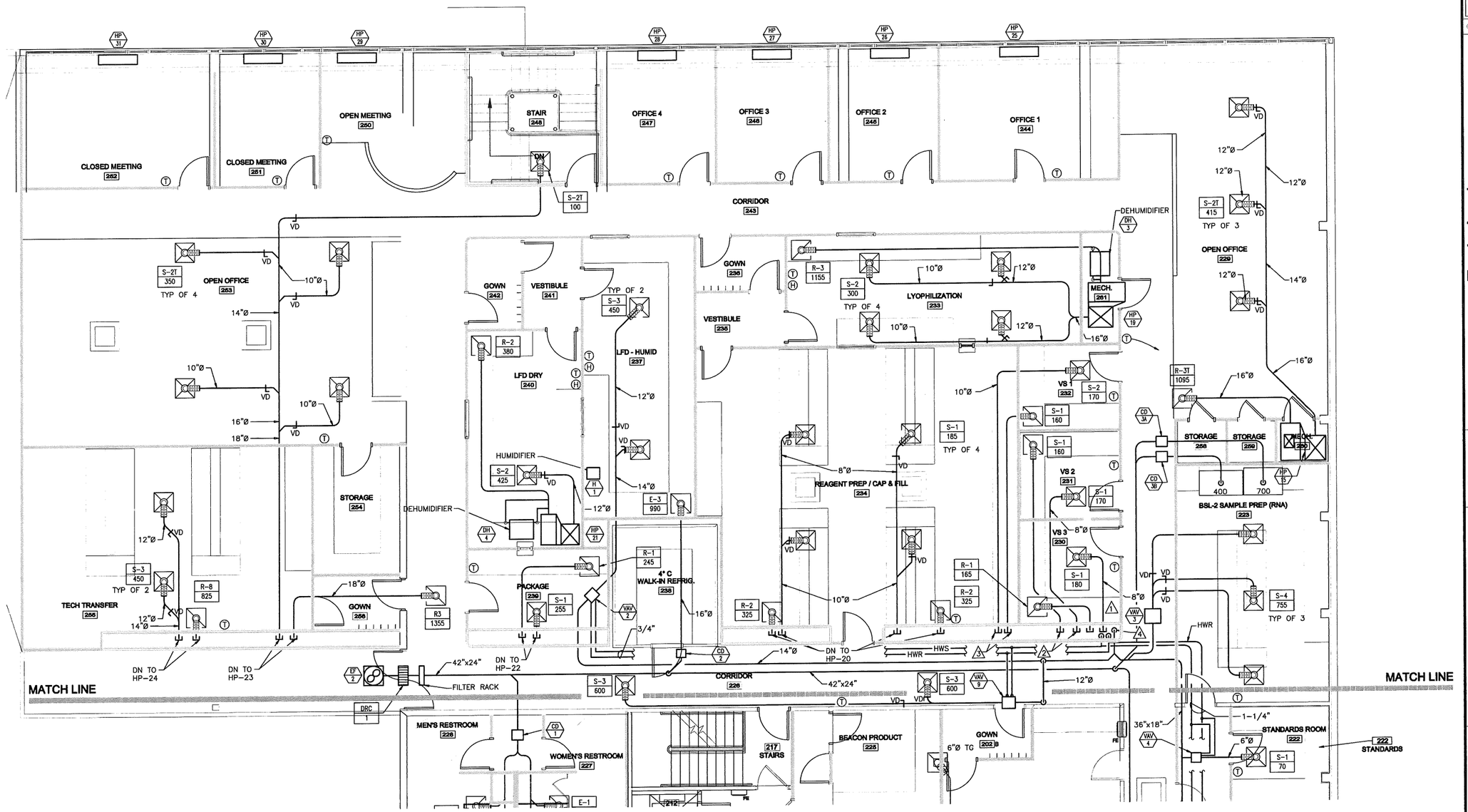

1 M-6 SECOND FLOOR PLAN - PART A
1/4" = 1'-0"

DRAWING NOTES

1. DN TO HP-16
2. DN TO HP-17
3. DN TO HP-18
4. 46x18 DN TO AHU-1

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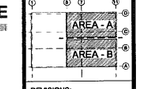

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SHEET TITLE:
SECOND FLOOR PLAN - PART A MECHANICAL

M-6

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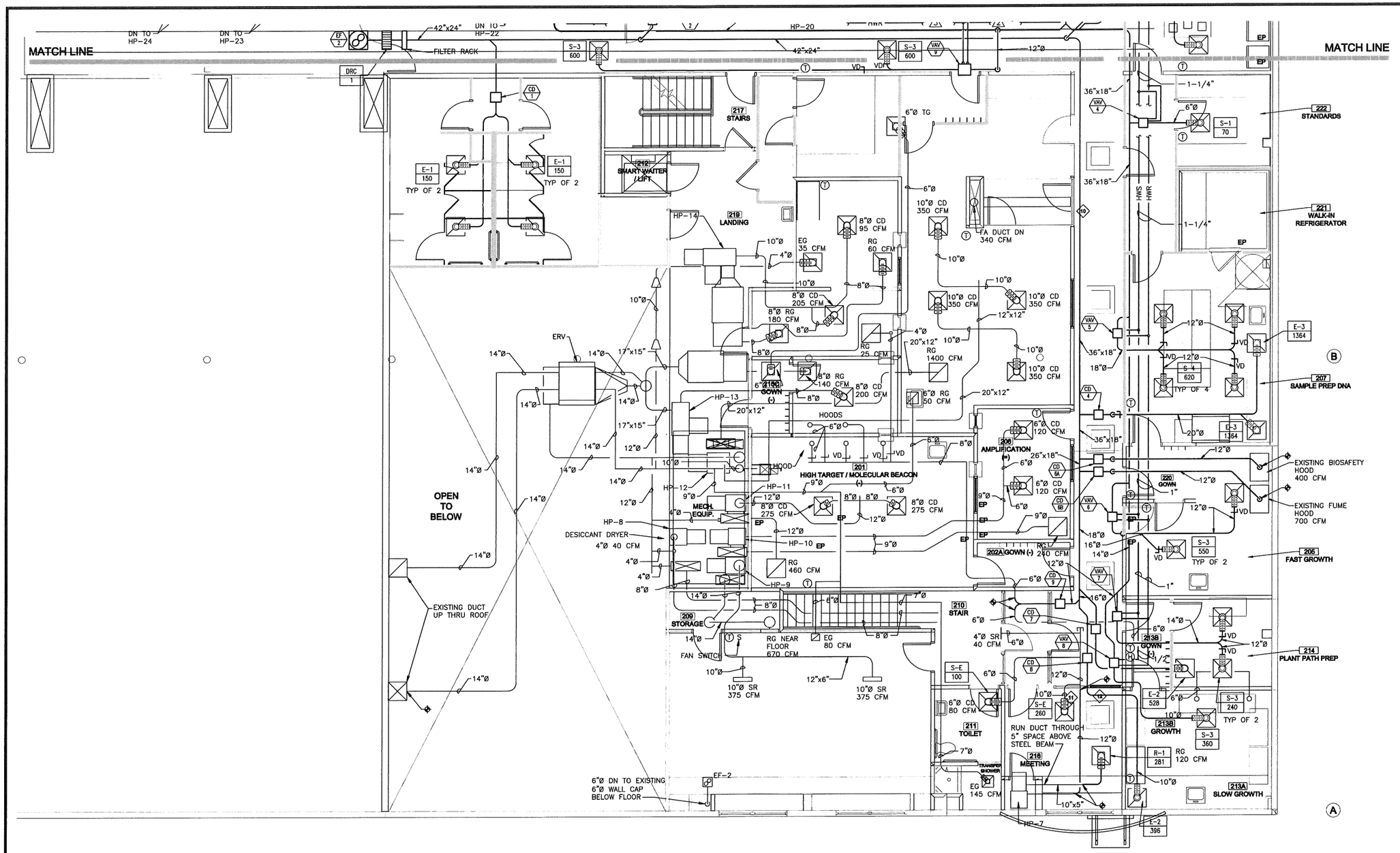

1 M-7 **SECOND FLOOR PLAN - PART B**
1/4" = 1'-0"

DRAWING NOTE

1. SEE M-3 FOR BRANCH PIPING SIZES

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RM RIVERSIDE KEY PLAN
AREA - A
AREA - B

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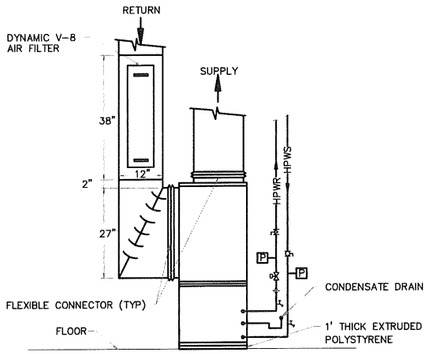
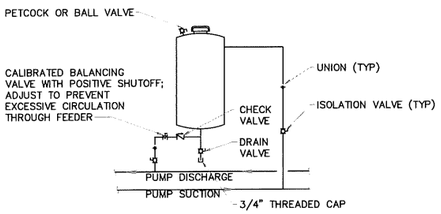
SECOND FLOOR PLAN - PART B MECHANICAL

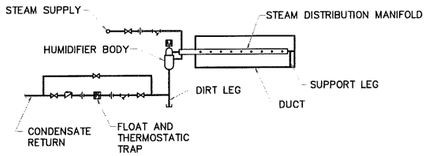
M-7



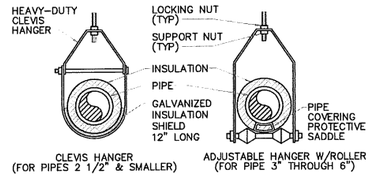
WATER TO AIR HEAT PUMP
NOT TO SCALE



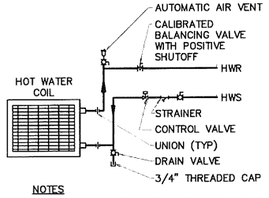
BYPASS CHEMICAL FEEDER PIPING SCHEMATIC
NOT TO SCALE



DUCT MOUNTED STEAM HUMIDIFIER PIPING SCHEMATIC
NOT TO SCALE



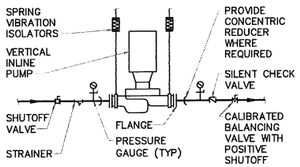
PIPE HANGER ATTACHMENT DETAILS
NOT TO SCALE



NOTES

1. PROVIDE (2) 90° ELBOWS ON SUPPLY AND RETURN AT COIL CONNECTION.
2. COIL SHALL BE HORIZONTALLY MOUNTED IN DUCT. PROVIDE 30 DEGREE TRANSITION ON EACH SIDE OF COIL.

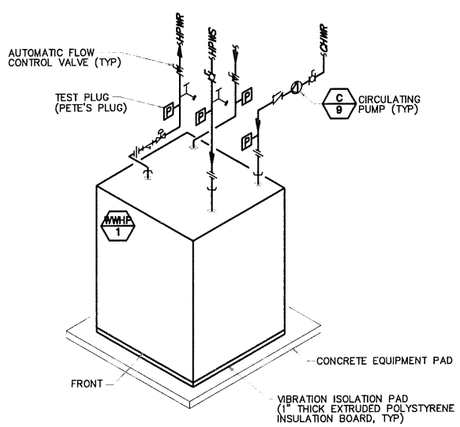
DUCT MOUNTED HOT WATER COIL PIPING SCHEMATIC
NOT TO SCALE



NOTES

1. VALVES SHALL BE SAME SIZE AS PIPE.
2. PROVIDE SPRING VIBRATION ISOLATORS FOR PUMP.

INLINE PUMP PIPING DETAIL
NOT TO SCALE



WATER-TO-WATER HEAT PUMP PIPING DIAGRAM
NOT TO SCALE

DIGITAL CONTROLLER POINTS LIST

POINT DESCRIPTION	GRAPHIC	ANALOG INPUT	BINARY INPUT	ANALOG OUTPUT	BINARY OUTPUT	ALARM POINT	NON-DDC POINT	OTHER	NOTES
HP-15 THRU HP-32									
ROOM TEMP	X	X							
FAN ON/OFF	X				X				
REVERSING VALVE	X				X				
COMPRESSOR ENABLE	X				X				
TROUBLE	X		X						
WATER SOURCE VALVE							X		
HPWW-1									
WATER SUPPLY TEMP	X	X							
REVERSING VALVE	X				X				
COMPRESSOR ENABLE	X				X				
SECOND STAGE	X				X				
TROUBLE	X		X						
HPWW-2									
WATER SUPPLY TEMP	X	X							
REVERSING VALVE	X				X				
COMPRESSOR ENABLE	X				X				
SECOND STAGE	X				X				
TROUBLE	X		X						
P-3 PUMP START/STOP & STATUS	X		X		X				
P-4 PUMP START/STOP & STATUS	X		X		X				
P-6 PUMP START/STOP & STATUS	X		X		X				
P-7 PUMP START/STOP & STATUS	X		X		X				
P-8 PUMP START/STOP & STATUS	X		X		X				
P-9 PUMP START/STOP & STATUS	X		X		X				
P-B1 PUMP START/STOP & STATUS	X		X		X				
P-B2 PUMP START/STOP & STATUS	X		X		X				
P-12 PUMP START/STOP & STATUS	X		X		X				
P-2A PUMP START/STOP & STATUS	X		X		X				
P-2A VFD	X			X					
P-2B PUMP START/STOP & STATUS	X		X		X				
P-2B VFD	X			X					
P-5 PUMP START/STOP & STATUS	X		X		X				
P-5 VFD	X			X					
P-10 PUMP START/STOP & STATUS	X		X		X				
P-10 VFD	X			X					
P-11 PUMP START/STOP & STATUS	X		X		X				
P-11 VFD	X			X					
HP SUPPLY LOOP TEMPERATURE	X	X							
HP RETURN LOOP TEMPERATURE	X	X							
BOILER HWS LOOP TEMPERATURE	X	X							
BOILER HWR LOOP TEMPERATURE	X	X							
CHILLED WATER SUPPLY(BOTTOM OF TANK)	X	X							
CHILLED WATER RETURN(TOP OF TANK)	X	X							
CT-1 COOLING TOWER INLET	X	X							
CT-1 COOLING TOWER OUTLET	X	X							
HX-1 INLET TEMPERATURE	X	X							
HX-1 OUTLET TEMPERATURE	X	X							
HUMIDITY ROOM 233	X	X							
HUMIDITY ROOM 237	X	X							
HUMIDITY ROOM 240	X	X							
DH-3 DEHUMIDIFIER FOR ROOM 233	X				X				
DH-4 DEHUMIDIFIER FOR ROOM 240	X				X				
H-1 HUMIDIFIER FOR ROOM 237	X				X				
EF-2 START STOP & STATUS	X		X		X				
EF-2 VFD	X			X					
DRC-1 INLET WATER TEMPERATURE	X	X							
DRC-21OUTLET WATER TEMPERATURE	X	X							
AHU-1									
DISCHARGE SUPPLY AIR TEMPERATURE	X	X							
FAN START/STOP & STATUS	X		X		X				
FAN VFD	X			X					
OUTSIDE AIR DAMPER	X			X					
FACE & BYPASS DAMPER	X			X					
PREFILTER PRESSURE DIFFERENTIAL	X						X		
FINAL FILTER PRESSURE DIFFERENTIAL	X						X		
COOLING CONTROL VALVE	X			X					
HEATING CONTROL VALVE	X			X					
SMOKE DETECTOR	X						X		
FREEZESTAT	X						X		
DISCHARGE AIR RESET BASED ON OA TEMP	X							X	
DHCC-1 INLET WATER TEMPERATURE	X	X							
DHCC-1 OUTLET WATER TEMPERATURE	X	X							
SUPPLY DUCT PRESSURE SENSOR	X	X							
EXHAUST DUCT PRESSURE SENSOR	X	X							
VAV-1 THROUGH VAV-9									
ROOM TEMPERATURE	X	X							
AIRFLOW, CFM	X	X							
DAMPER ACTUATOR	X			X					
REHEAT VALVE	X			X					
CD-1, 2, 3A, 3B, 4, 5, 6A, 6B, 7, 8, 9									
AIRFLOW, CFM	X	X							
DAMPER ACTUATOR	X			X					
EQUIPMENT COOLING									
238 WALK-IN COOLER VALVE	X				X				
LYPHOLIZER #1 VALVE	X				X				
LYPHOLIZER #2 VALVE	X				X				
LYPHOLIZER #3 VALVE	X				X				
221 WALK-IN COOLER VALVE	X				X				

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PORTRLAND, MAINE

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RIVERSIDE KEY PLAN
AREA - A
AREA - B

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DETAILS

M-8

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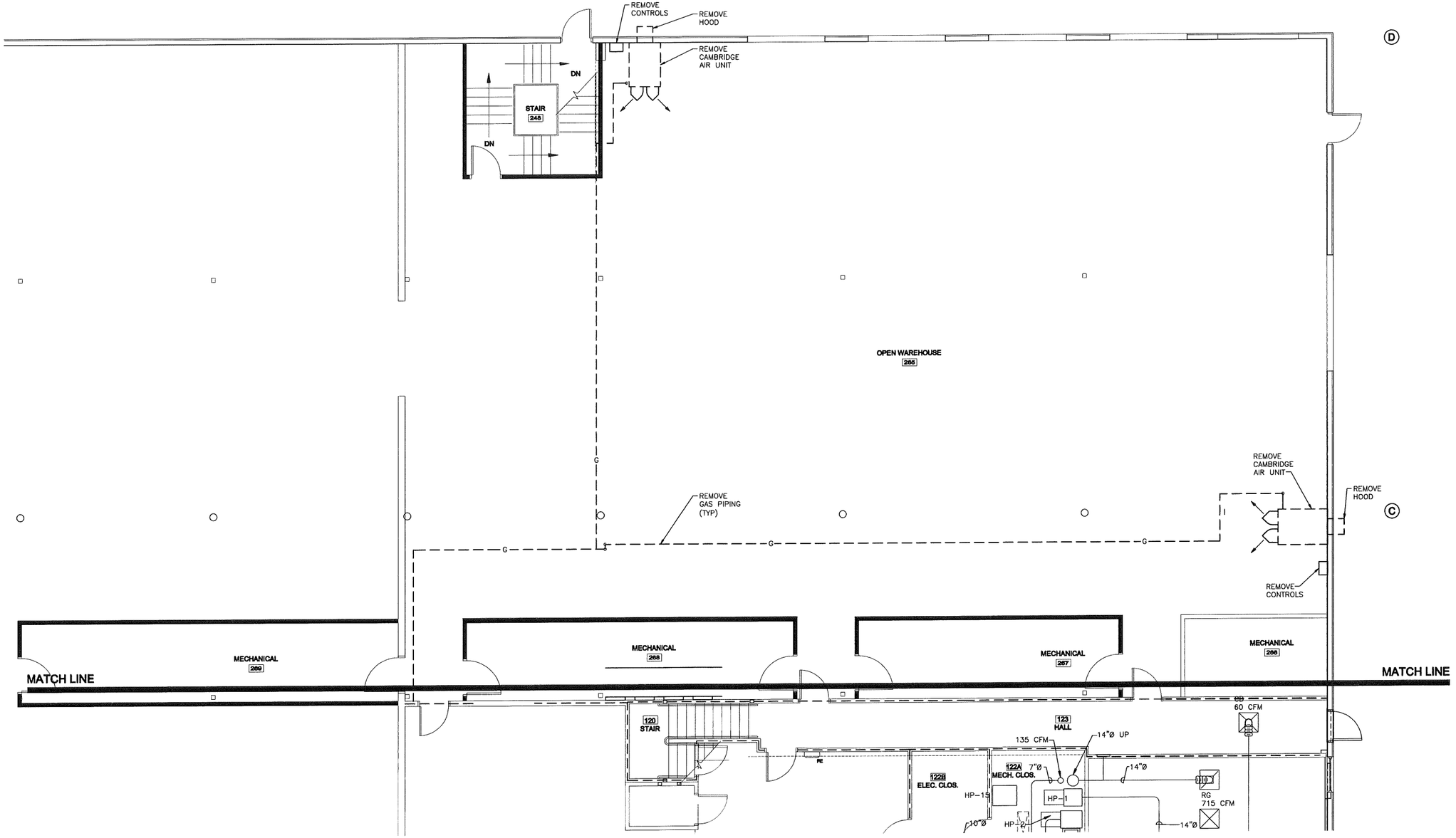

1 MD-1 FIRST FLOOR PLAN - PART A
1/4" = 1'-0"

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RE-ENGINEERED KEY PLAN

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FIRST FLOOR PLAN - PART A MECHANICAL

MD-1

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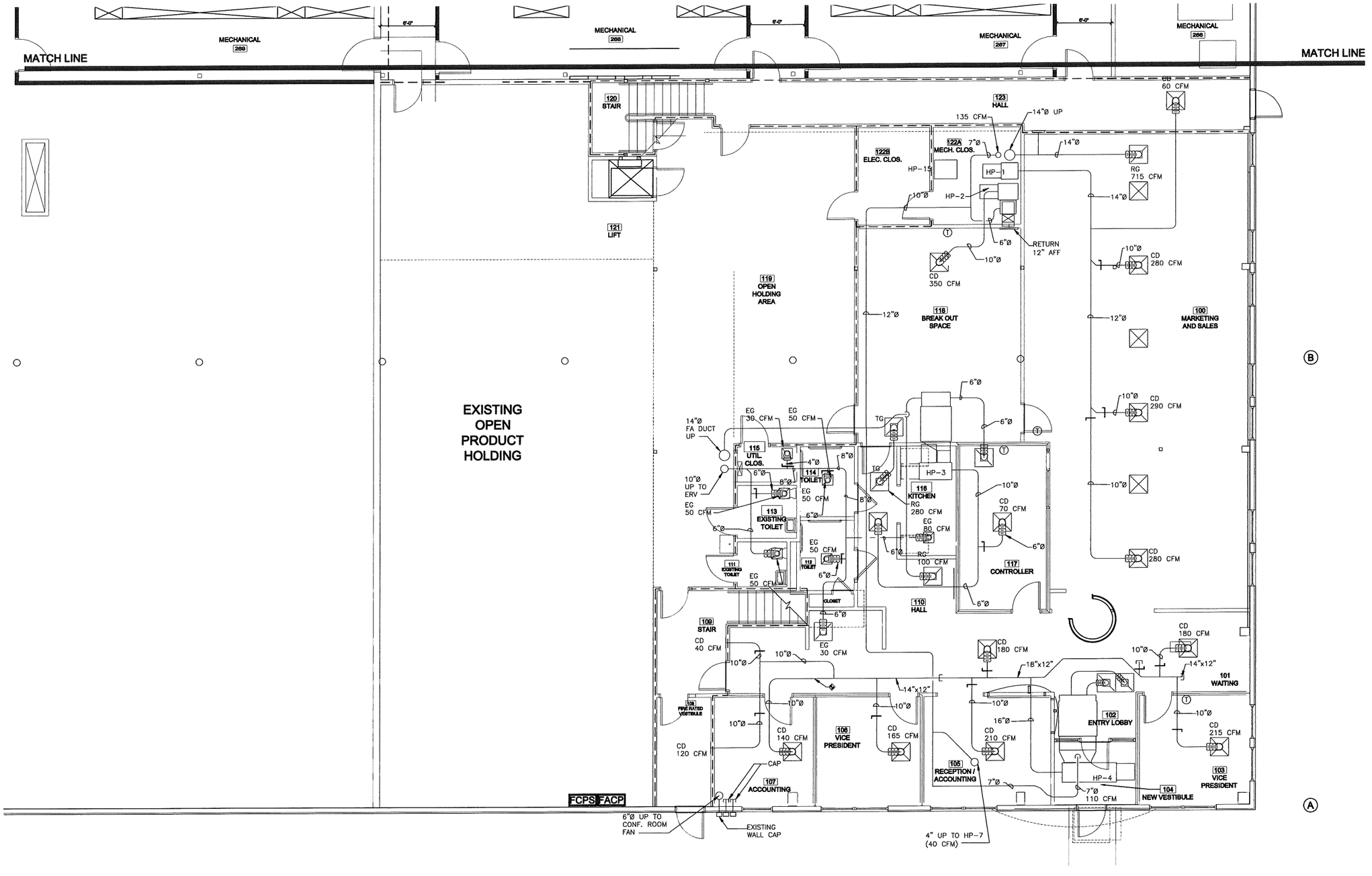

1 / MD-2 FIRST FLOOR PLAN - PART B
1/4" = 1'-0"

DRAWING NOTE

1. THIS SHEET IS FOR INFORMATIONAL PURPOSES ONLY. NO WORK IN THIS AREA

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ELECTRICAL
Emmett T. Environmental
7 Sennott Road
Freeport, ME 04032
207-865-9475

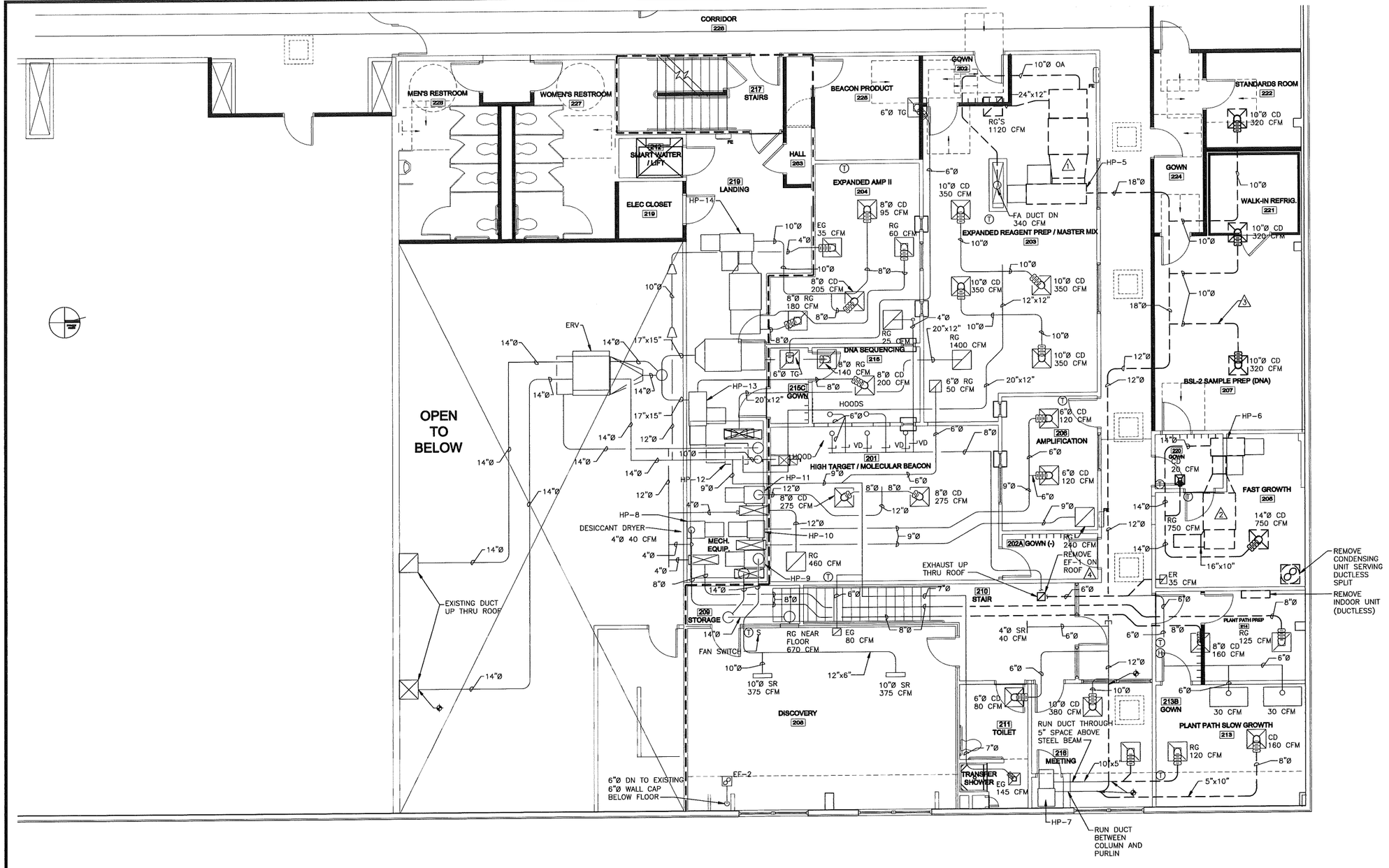
SW REVERSE KEY PLAN

REVISIONS:

DATE:	8/17/11
PROJECT No.	1026A
DRAWN BY:	AZZ
CHECKED BY:	RPG
SCALE:	AS NOTED

SHEET TITLE:
FIRST FLOOR PLAN - PART B MECHANICAL

MD-2



1 MD-3 SECOND FLOOR PLAN - PART B
1/4" = 1'-0"

DRAWING NOTES

1. REMOVE HP-5 AND DYNAMIC V-8 FILTER. DELIVER TO OWNER. REMOVE ASSOCIATED DUCTWORK, WATER SOURCE PIPING
2. REMOVE HP-5 AND DYNAMIC V-8 FILTER. DELIVER TO OWNER. REMOVE ASSOCIATED DUCTWORK, WATER SOURCE PIPING
3. REMOVE DUCTWORK, TYPICAL
4. REMOVE EF-1 ON ROOF AND EXHAUST DUCT.

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTLAND, MAINE

TFH ARCHITECTS
80 MIDDLE STREET
PORTLAND MAINE 04101
TELEPHONE 207 775 6141
ARCHITECTURE PLANNING

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Sebago Technical Engineers, Inc.
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207-874-1600

MECHANICAL
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P.O. Box 1
Yarmouth, ME 04096
207-371-4400

ELECTRICAL
BARNETT Associates
7 Bennett Road
Freeport, ME 04032
207-865-6476

REVISIONS:

DATE:	8/17/11
PROJECT No.	1026A
DRAWN BY:	AZZ
CHECKED BY:	RPG
SCALE:	AS NOTED

SHEET TITLE:
SECOND FLOOR PLAN - PART B MECHANICAL

MD-3

8/15/2011 10:45:59 AM

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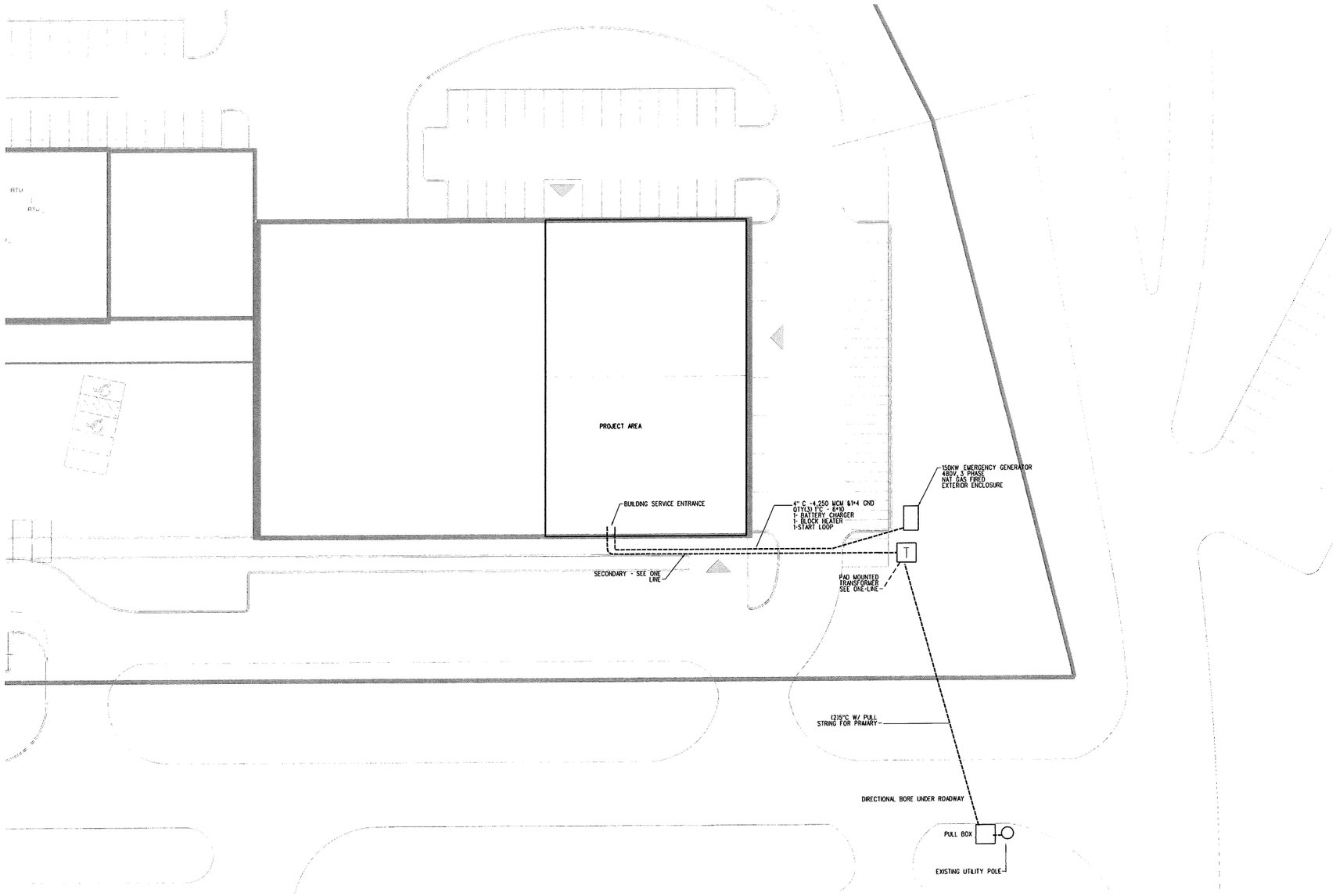
ARCHITECTURAL • ELECTRICAL
TECHNOLOGY



SITE ELECTRICAL PLAN
SCALE: 1"= 20'-0"

ISSUED FOR PERMITTING

STATE OF MAINE
WILLIAM B. BENNETT
No. 9269
LICENSED
PROFESSIONAL ENGINEER

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTRLAND, MAINE

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Bonker Structural Engineers, Inc
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207-781-4363

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7 Barnett Road
Freeport, ME 04032
207-865-6475

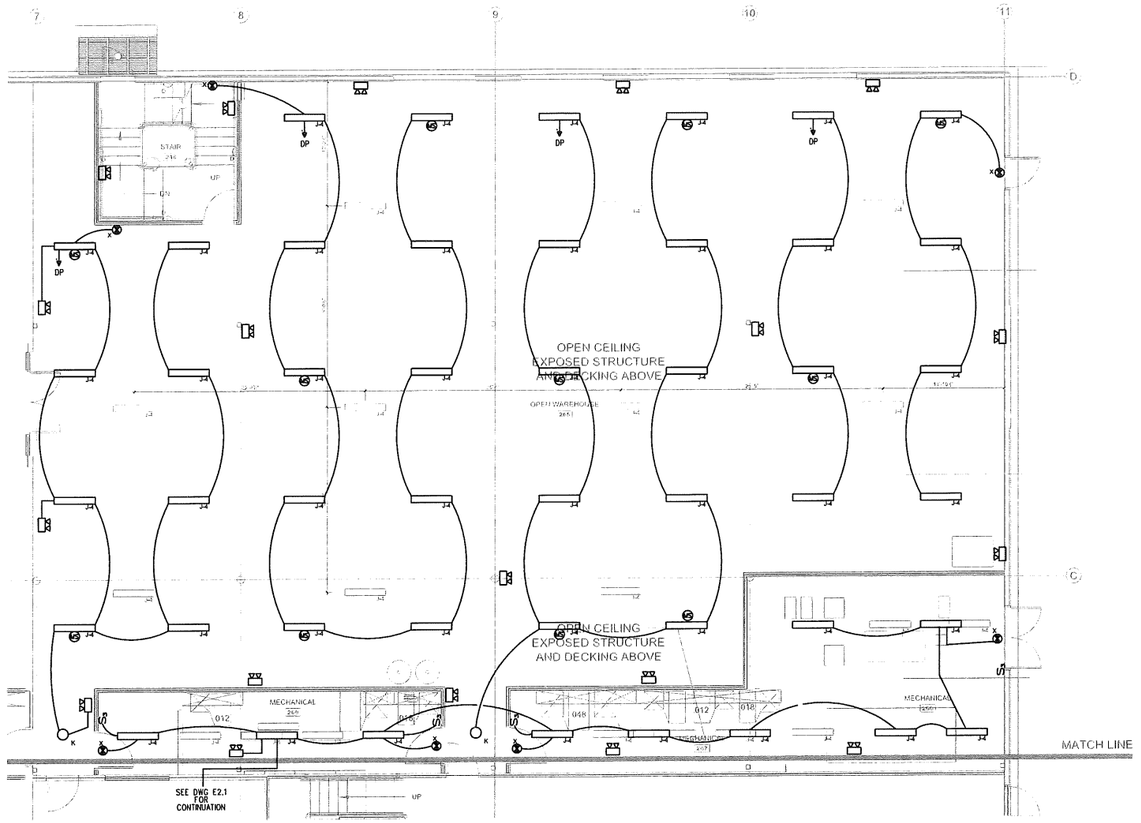
KEYPLAN KEY PLAN

REVISIONS:

DATE:	8/17/11
PROJECT No.	1026A
DRAWN BY:	TWG
CHECKED BY:	xxx
SCALE:	AS NOTED

SHEET TITLE:
SITE ELECTRICAL PLAN

E1.0



FIRST FLOOR PLAN - PART A LIGHTING

SCALE: 3/16"-1'-0"

BENNETT ENGINEERING

STATE OF MAINE
WILLIAM B. BENNETT
No. 8918
LICENSED
PROFESSIONAL ENGINEER

EnviroLogix

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PORTRLAND, MAINE

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CONSULTANTS:

STRUCTURAL:
Bechtel Structural Engineers, Inc.
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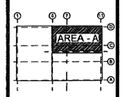
207-879-7434

MECHANICAL:
Sustainable Energy Systems, PLLC
313 Middle Road
Falmouth, ME 04105
207-781-4253

ELECTRICAL:
BENNETT ENGINEERING
7 Barnwell Road
Scarborough, ME 04032
207-883-8473

SW RIVERSIDE KEY PLAN

REVISIONS:

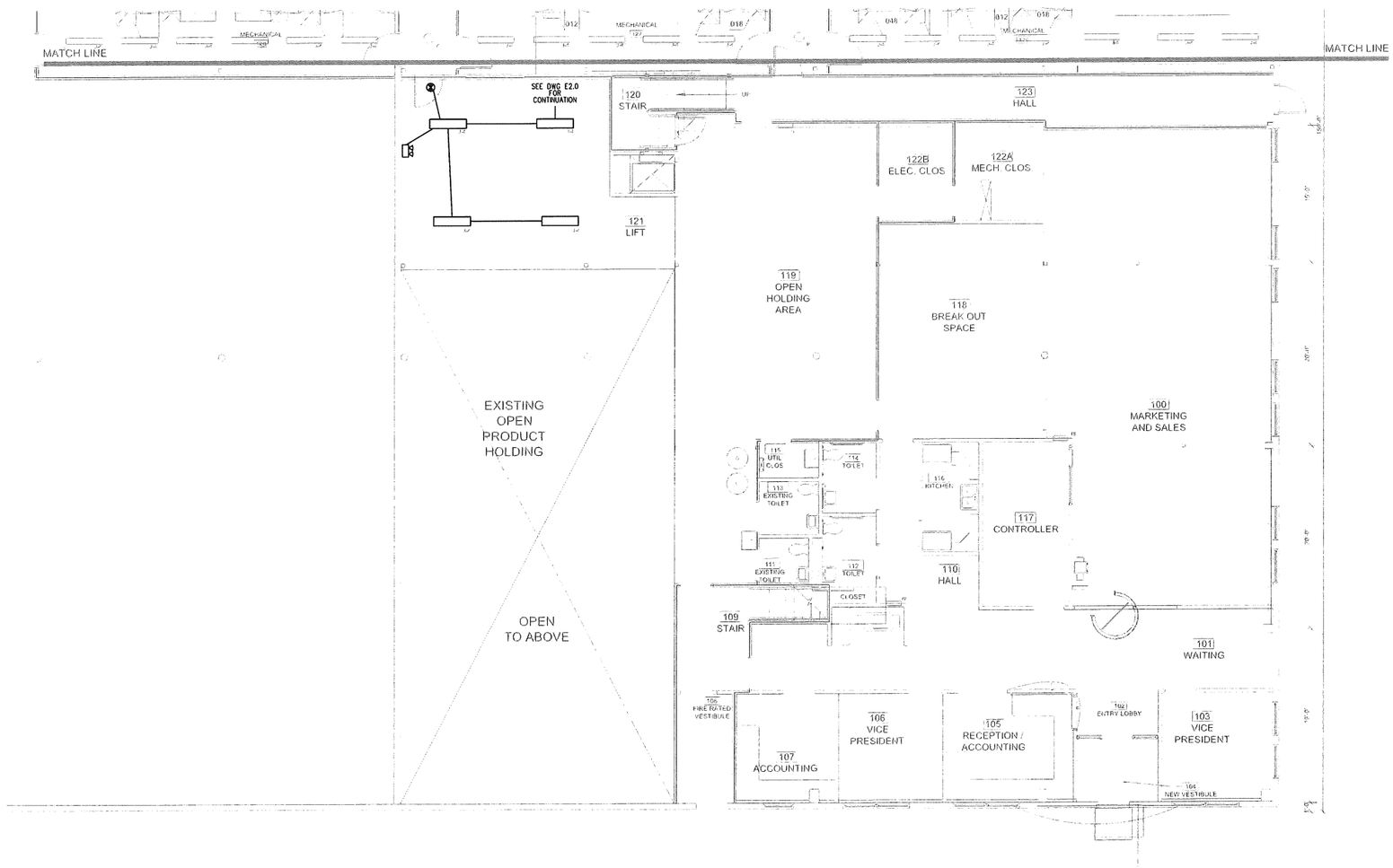


DATE: 8/17/11
PROJECT No. 1026A
DRAWN BY: TWG
CHECKED BY: XXX
SCALE: AS NOTED

SHEET TITLE:
FIRST FLOOR PLAN
PART A
LIGHTING

E2.0

ISSUED FOR PERMITTING



FIRST FLOOR PLAN - PART B LIGHTING

3/16"=1'-0"

ISSUED FOR PERMITTING

BENNETT ENGINEERING
MECHANICAL • ELECTRICAL
207-865-9479

STATE OF MAINE
WILLIAM S. BENNETT
NO. 8919
LICENSED
PROFESSIONAL ENGINEER

EnviroLogix

RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTRLAND, MAINE

TFH ARCHITECTS
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PORTLAND MAINE 04101
TELEPHONE 207 775 6141
ARCHITECTURE PLANNING

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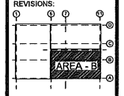
7 Bennett Road
Freeport, ME 04032
207 865-9479

E0.1 RIVERSIDE KEY PLAN

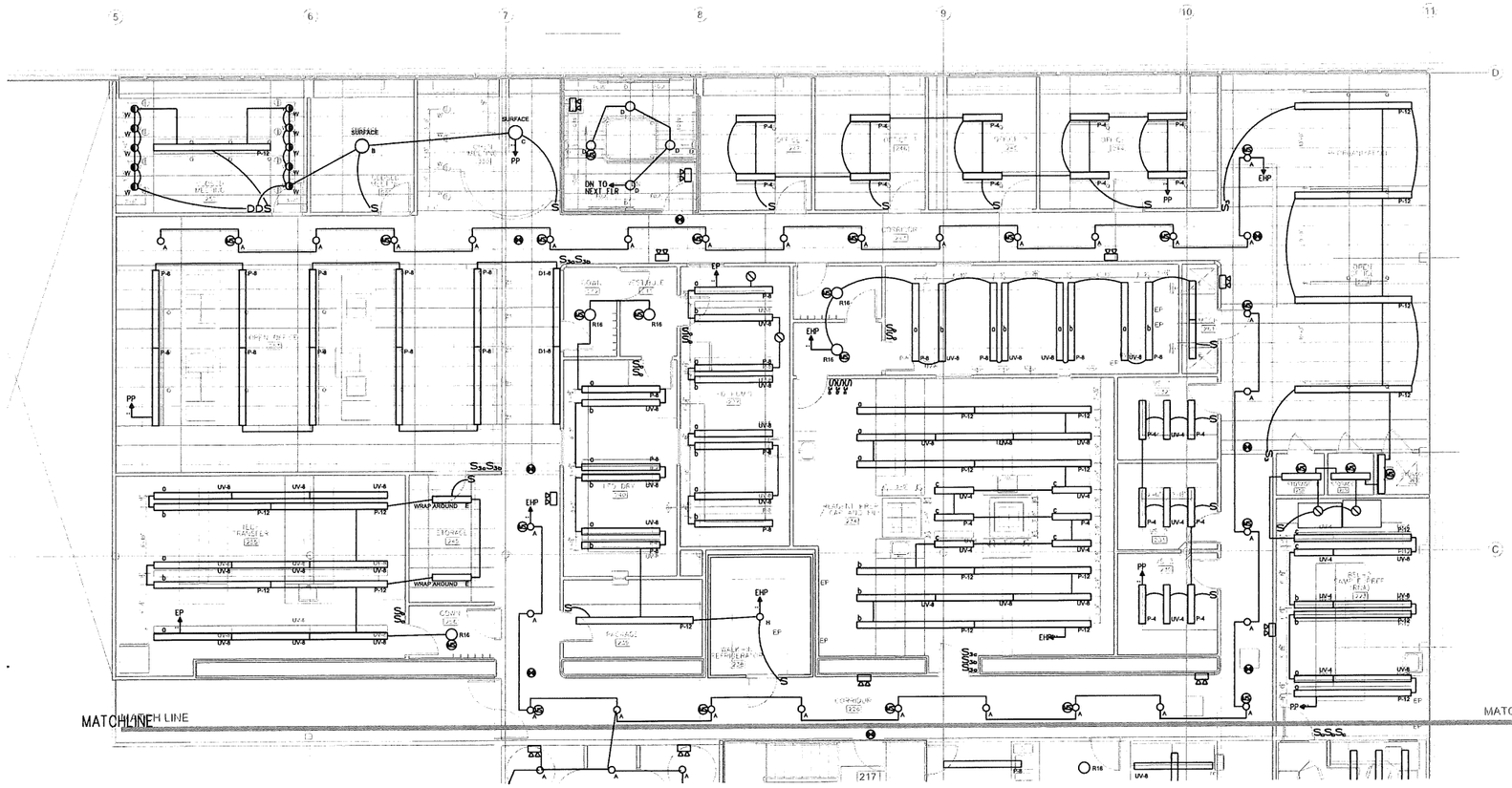
REVISIONS:



DATE: 8/17/11
PROJECT No. 1026A
DRAWN BY: TWG
CHECKED BY: xxx
SCALE: AS NOTED

SHEET TITLE:
FIRST FLOOR PLAN PART B LIGHTING

E2.1



3/16"=1'-0"

ISSUED FOR PERMITTING

BENNETT ENGINEERING

WILLIAM B. BENNETT No. 8979 LICENSED PROFESSIONAL ENGINEER STATE OF MAINE

EnviroLogix

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PORTRLAND, MAINE

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7 Barnett Road
Freeport, ME 04032
207-865-9478

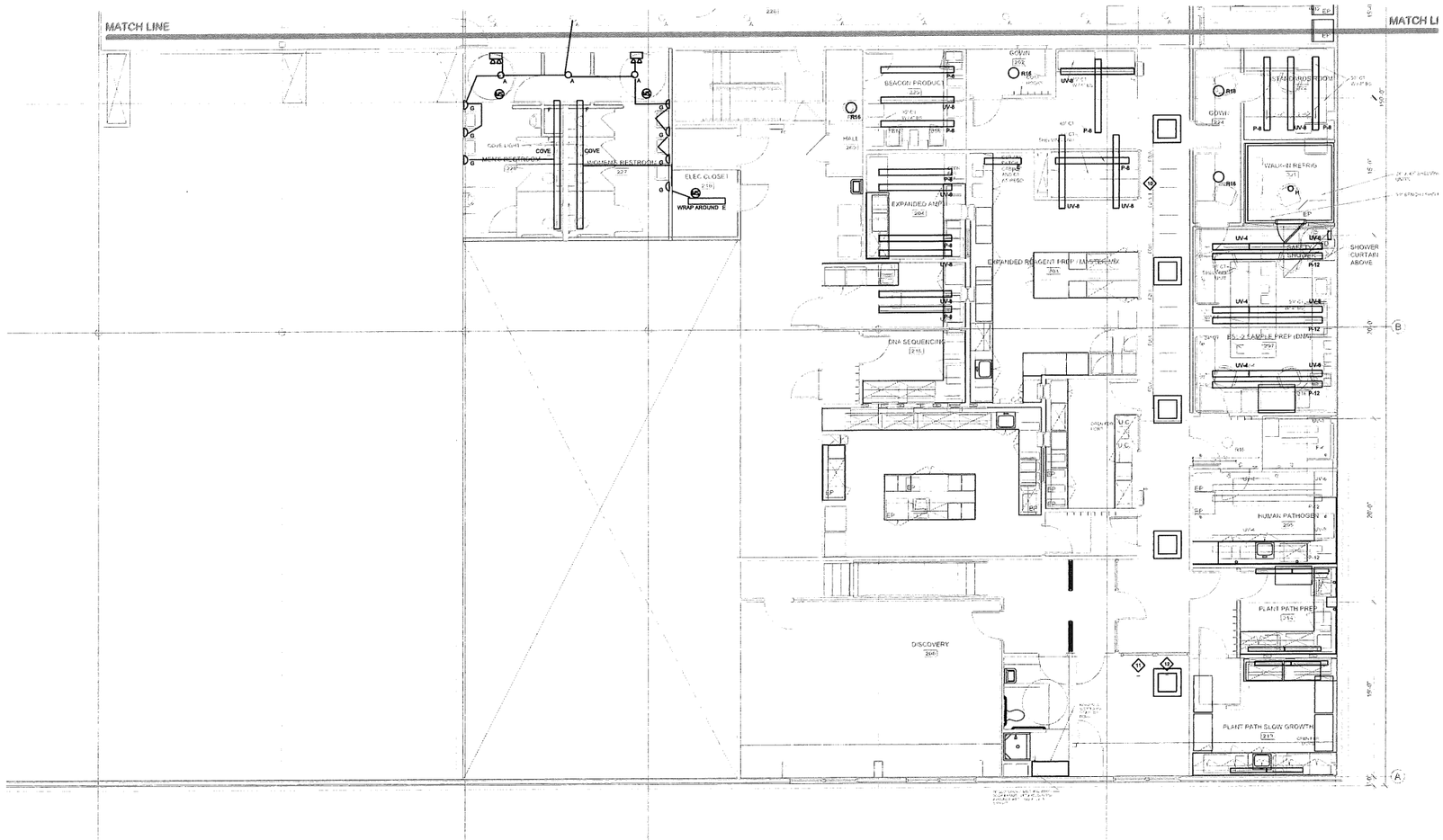
RIVERSIDE KEY PLAN

REVISIONS:

DATE: 8/17/11
PROJECT No. 1026A
DRAWN BY: TWG
CHECKED BY: XXX
SCALE: 3/16"=1'-0AS NOTED

SHEET TITLE:
SECOND FLOOR PLAN
PART A
LIGHTING

E2.2



SECOND FLOOR PLAN - PART B LIGHTING

3/16"=1'-0"

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BENNETT ENGINEERING

WILLIAM B. BENNETT No. 8919 LICENSED PROFESSIONAL ENGINEER STATE OF MAINE

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PORTRLAND, MAINE

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207-879-1530

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Falmouth, ME 04105
207-781-4283

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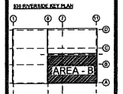
7 Burnett Road
Freeport, ME 04032
207-865-6470

SW RIVERSIDE KEY PLAN



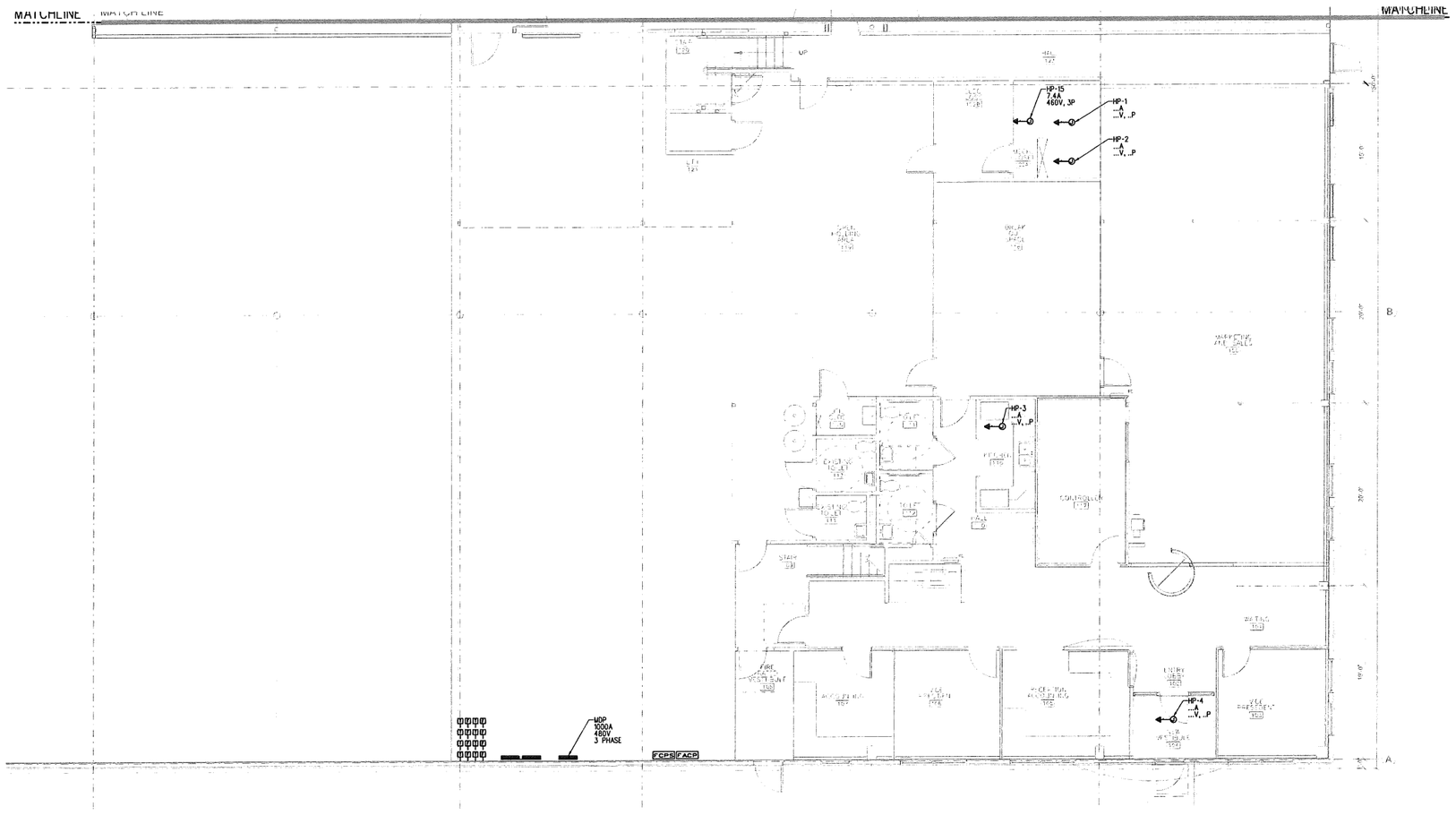
REVISIONS:

DATE:	8/17/11
PROJECT No.	1026A
DRAWN BY:	TWG
CHECKED BY:	xxx
SCALE:	AS NOTED

SHEET TITLE:

SECOND FLOOR PLAN
PART B
LIGHTING

E2.3



FIRST FLOOR PLAN - PART B POWER

3/16"=1'-0"

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BENNETT ENGINEERING
MECHANICAL · ELECTRICAL
(207) 865-9475

STATE OF MAINE
WILLIAM G. BENNETT
No. 8915
LICENSED
PROFESSIONAL ENGINEER

EnviroLogix

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PORTRLAND, MAINE

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Falmouth, ME 04105
207-781-0363

ELECTRICAL:
BENNETT ENGINEERING
7 Bennett Road
Freeport, ME 04032
207-865-9475

EN RIVERSIDE KEY PLAN

REVISIONS:

DATE: 8/17/11
PROJECT No. 1026A
DRAWN BY: TWG
CHECKED BY: xxx
SCALE: AS NOTED

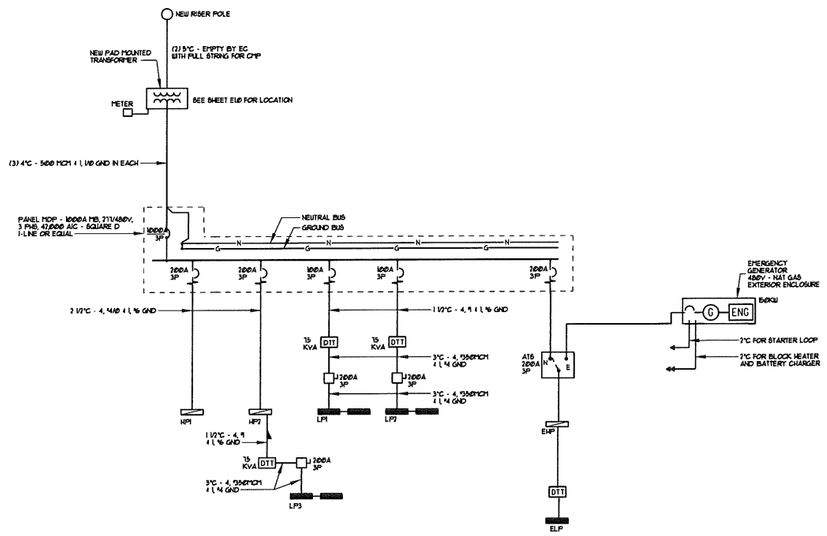
SHEET TITLE:
FIRST FLOOR PLAN
PART B
POWER

E3.1

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	LAMPS QUANTITY & TYPE	REMARKS
A	PRESCOLITE LF6CFV32EB-6CFVWW	(1) 32W 4 PIN	....
B	....	....	....
C	....	....	....
D1	FINELITE S12-WW-ID-WCB-4'-2T8-SC-91W-120V-CE	(2) T8	....
E	....	....	....
F	....	....	....
G	....	....	....
H	....	....	....
I	....	....	....
J4	PROGRESS LIGHTING P7186-30EB	(2) F32T8	....
K	....	....	....
L	....	....	....
M	....	....	....
N	....	....	....
O	....	....	....
P-4	FINELITE S12-ID-WCB-4'-2T8-SC-91W-OPEN-120V-FA50"-CE-C1	(2) T8	4 FOOT LENGTH
P-8	FINELITE S12-ID-WCB-8'-2T8-SC-91W-OPEN-120V-FA50"-CE-C1	(2) T8	8 FOOT LENGTH
P-12	FINELITE S12-ID-WCB-12'-2T8-SC-91W-OPEN-120V-FA50"-CE-C1	(2) T8	12 FOOT LENGTH
Q	....	....	....
R16	PROGRESS LIGHTING P7308-60 (16" DIAMETER)	(1) FC2T9 32W	....
R20	PROGRESS LIGHTING P7309-60 (20" DIAMETER)	(1) FC2T9 32W	....
S	....	....	....
T	....	....	....
UV4	COLUMBIA LIGHTING WC4-232-EU	(2) T8 32W	4 FOOT LENGTH
UV8	COLUMBIA LIGHTING WC8-232-EU	(2) T8 32W	8 FOOT LENGTH
V	....	....	....
W	....	....	....
X	COMPASS LIGHTING CSXWREB3 (EXIT LIGHT)	LED SUPPLIED W/ UNIT	....
Y	COMPASS LIGHTING CSEU2 (EMERGENCY LIGHT)	(2) 5.4W	....
Z	....	....	....

All Lighting fixtures shall be energy star rated or have High performance T8 ballast and lamps to meet Efficiency maine criteria.



ONE LINE DIAGRAM
SCALE: NONE

SYMBOL LEGEND

- POWER PANEL 277/480, 3PHS, 4WIRE
- POWER PANEL 120/208, 3PHS, 4WIRE
- VFD — ELECTRIC MOTOR DRIVEN EQUIPMENT, HP SHOWN
- SM — MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOAD DEVICE MOUNT AT UNIT
- J — JUNCTION BOX
- DISCONNECT SWITCH - 600 VOLT - SIZE & NO. POLES AS NOTED.
- DISCONNECT SWITCH - 250 VOLT - SIZE & NO. POLES AS NOTED.
- COMBINATION CIRCUIT BREAKER & MAGNETIC MOTOR STARTER - NEMA SIZE 1 W/4 AUX. CONTACTS AND HAND-OFF-AUTO SWITCH W/RED POWER ON PILOT LIGHT. SUPPLIED BY E.C. - UNLESS OTHERWISE NOTED.
- VFD — VARIABLE SPEED DRIVE SUPPLIED BY M.C. WIRED BY E.C.
- LIGHTING FIXTURES- CAPITAL LETTERS DENOTE TYPE AS PER LIGHTING FIXTURE SCHEDULE, LOWER CASE LETTERS INDICATE SWITCH CONTROL- "ob" INDICATES INBOARD LAMPS CONTROLLED BY SWITCH "b"-OUTBOARD CONTROLLED BY SWITCH "o" DIAGONAL INDICATES NIGHT LIGHT (UNSWITCHED)
- EXIT LIGHT FIXTURE-UNSWITCHED - SEE LIGHTING FIXTURE SCHEDULE
- SELF CONTAINED EMERGENCY LIGHTING UNIT W/2 HEADS.
- S — SINGLE POLE SWITCH,120 VOLT,20 AMP,SPECIFICATION GRADE, GROUNDING TYPE, MOUNT 48" AFF., 3-3-WAY, 4-4-WAY, P-PILOT, WP-WEATHERPROOF, LOWER CASE LETTER INDICATES FIXTURE OR CONTROLLED LOAD. PILOT LIGHT SWITCHES SHALL BE PROVIDED W/ ENGRAVED NAMEPLATE IDENTIFYING USE.
- D — LIGHTING DIMMER SWITCH, SPECIFICATION GRADE, GROUNDING TYPE, MOUNT 48"
- MS — MOTION SENSOR SWITCH,120 VOLT, WALL MOUNT 48" OR CEILING MOUNTED - DUAL TECHNOLOGY.
- RACEWAY & WIRING OR MC CABLE RUN CONCEALED IN WALLS/CEILINGS.
- RACEWAY & WIRING RUN EXPOSED
- RACEWAY & WIRING RUN CONCEALED UNDER FLOOR
- HOME RUN TO PANEL- ARROWS INDICATE QUANTITY OF CIRCUITS- NUMERALS DENOTE CIRCUIT NUMBERS
- BRANCH CIRCUIT WIRING SHALL CONSIST OF 2-#12, 1-#12G/C-3/4" UNLESS OTHERWISE NOTED. ASTERISK INDICATES #10 AWG FOR ALL CIRCUITS CONTAINED IN HOMERUN. DOUBLE ASTERISK INDICATES 2, #8 &1, #10,3/4"C
- TCP — TEMPERATURE CONTROL PANEL - SUPPLIED BY M.C. WIRED BY E.C.
- DUPLEX RECEPTACLE- 20A, 125V SPECIFICATION GRADE GROUNDING TYPE MOUNT 18" AFF OR AS INDICATED ON DRAWINGS, "R" DENOTES REFRIGERATOR
- D — DOUBLE DUPLEX RECEPTACLE- 20A, 125V SPECIFICATION GRADE GROUNDING TYPE AND MOUNT 18" AFF OR AS INDICATED ON DRAWINGS.
- GF — DUPLEX RECEPTACLE- GROUND FAULT OUTLET 20A, 125V - SPECIFICATION GRADE FLUSH MOUNTED 45" AFF - EXCEPT AS NOTED
- FL — DUPLEX RECEPTACLE - FLUSH FLOOR MOUNTED 20A, 125V SPECIFICATION GRADE GROUNDING TYPE

FIRE ALARM SYSTEM SEE SPEC:

- 200°F — FIRE ALARM HEAT DETECTOR, FIXED TEMPERATURE 200°F
- SMOKE DETECTOR, PHOTOELECTRIC TYPE- SYSTEM CONNECTED
- FIRE ALARM PULL STATION MOUNT 48"AFF
- 15 — FIRE ALARM AUDIO/VISUAL, MOUNT AT 6'-8" AFF -"NH" DENOTES MINIHORN NUMERALS INDICATE CANDELA RATING
- 15SD — FIRE ALARM VISUAL STROBE ONLY, MOUNT AT 6'-8" AFF NUMERALS INDICATE CANDELA RATING
- DD — DUCT MOUNTED SMOKE DETECTOR
- ANN — FIRE ALARM ANNUNCIATOR PANEL
- FACP — FIRE ALARM CONTRL PANEL

- FL — TELEPHONE/DATA DUAL JACK LOCATION - FLUSH FLOOR MOUNTED - TWO CAT 5E CABLES BACK TO TBB.
- TELEPHONE/DATA DUAL JACK LOCATION MOUNT 18"AFF - TWO CAT 5E CABLES BACK TO TBB.
- TELEPHONE JACK LOCATION MOUNT 18"AFF - ONE CAT 5E CABLE BACK TO TBB.
- TV — TV OUTLET LOCATION
- H — MAGNETIC DOOR HOLDER
- FWU — DENOTES FURNISHED WITH UNIT
- WP — DENOTES WEATHERPROOF CONSTRUCTION
- CR — CARD READER
- DOOR ELECTRIC STRIKE

ISSUED FOR PERMITTING

BENNETT ENGINEERING
MECHANICAL ELECTRICAL PLUMBING

STATE OF MAINE — WILLIAM B. BENNETT — No. 8969 — LICENSED PROFESSIONAL ENGINEER

EnviroLogix
RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTRLAND, MAINE

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TELEPHONE 207 775 6141
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7 Barnett Road
Freeport, ME 04032
207-865-6475

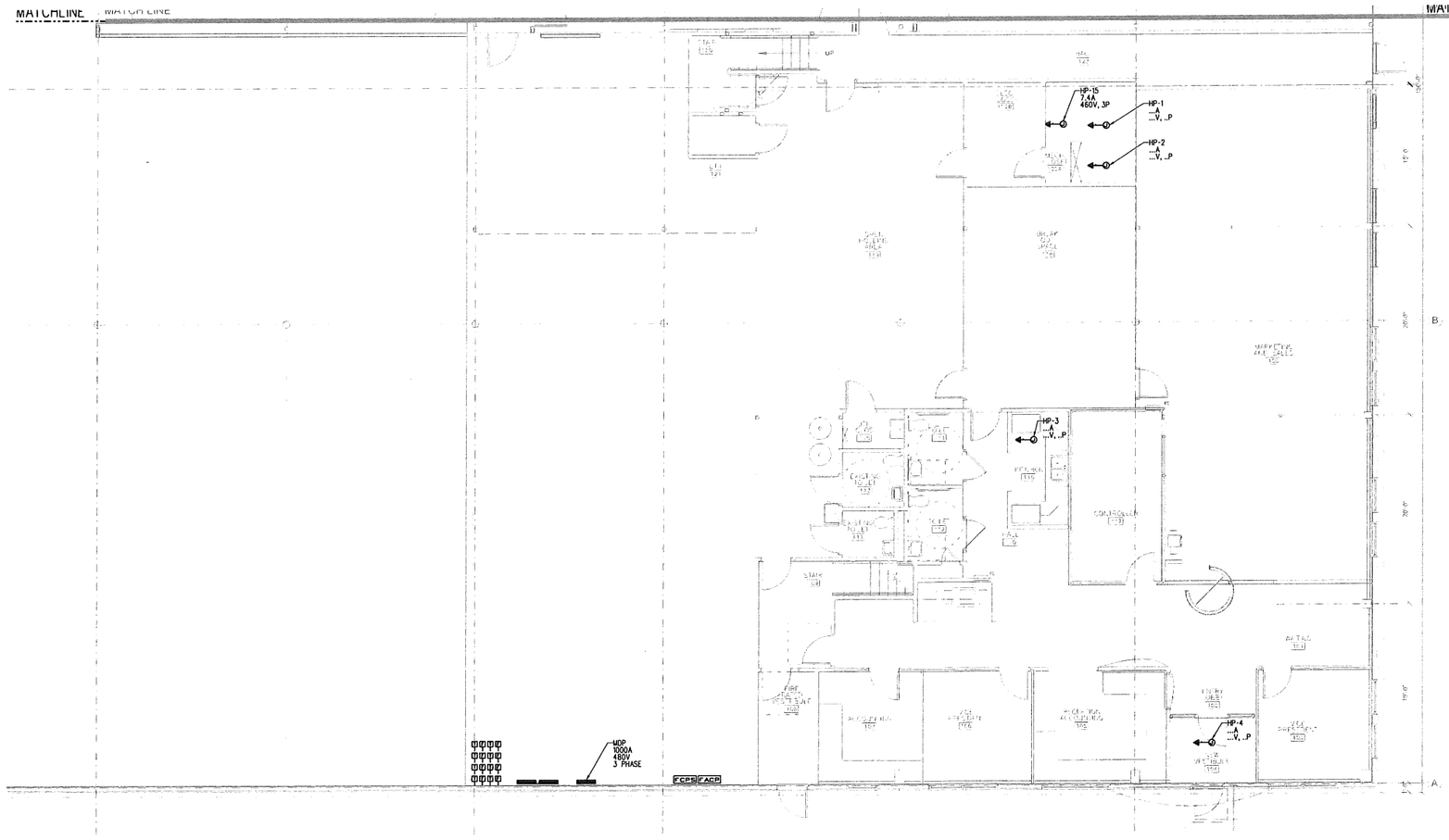
RIVERSIDE KEY PLAN

REVISIONS:

DATE:	8/17/11
PROJECT No.	1026A
DRAWN BY:	TWG
CHECKED BY:	xxx
SCALE:	AS NOTED

SHEET TITLE:
LEGEND, DETAILS, SCHEDULES

E4.0



FIRST FLOOR PLAN - PART B POWER

3/16"=1'-0"

ISSUED FOR PERMITTING

BENNETT ENGINEERING

STATE OF MAINE
WILLIAM S. BENNETT
No. 8918
LICENSED
PROFESSIONAL ENGINEER

EnviroLogix

RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTRLAND, MAINE

TFH ARCHITECTS
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PORTLAND MAINE 04101
TELEPHONE 207 775 6141
ARCHITECTURE PLANNING

CONSULTANTS:

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207-865-9475

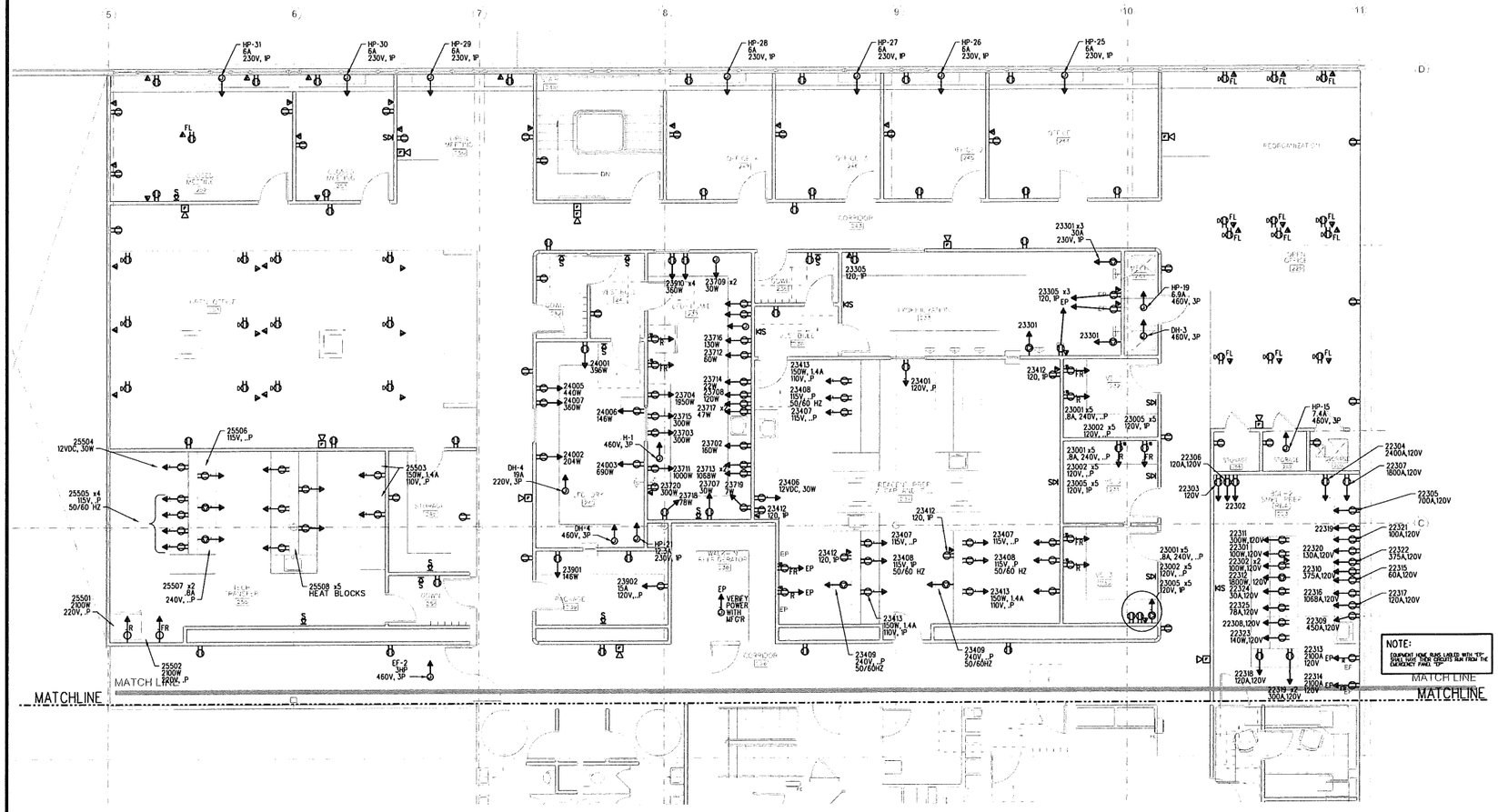
EN RIVERSIDE KEY PLAN

REVISIONS:

DATE: 8/17/11
PROJECT No. 1026A
DRAWN BY: TWG
CHECKED BY: xxx
SCALE: AS NOTED

SHEET TITLE:
FIRST FLOOR PLAN
PART B
POWER

E3.1



SECOND FLOOR PLAN - PART A POWER

3/16"=1'-0"

ISSUED FOR PERMITTING

BENNETT ENGINEERING

WILLIAM R. BENNETT No. 8292 STATE OF MAINE LICENSED PROFESSIONAL ENGINEER

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530 - DNA EXPANSION
PORTRLAND, MAINE

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PORTLAND MAINE 04101
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207-865-0475

E3 RIVERSIDE KEY PLAN

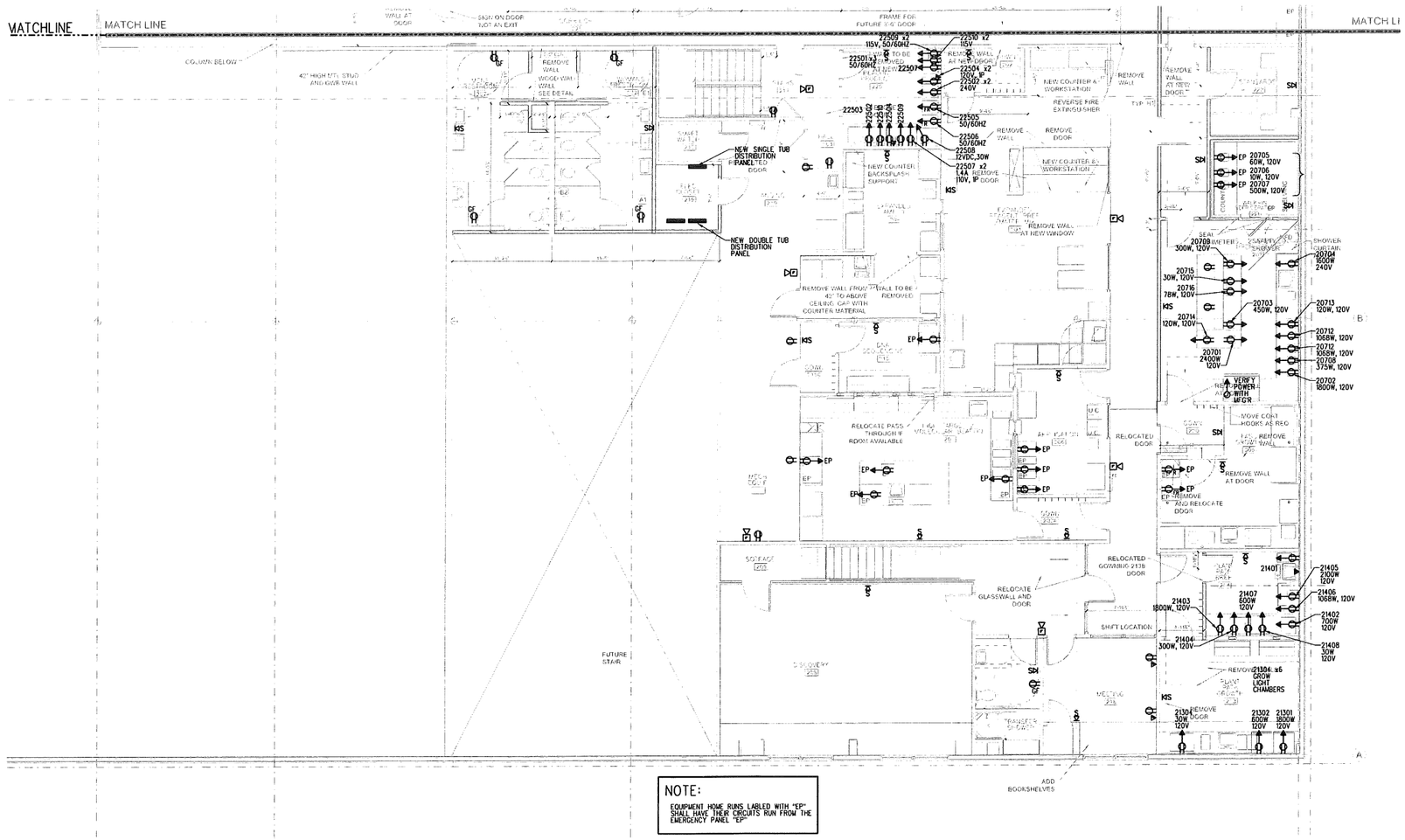
REVISIONS:

DATE:	8/17/11
PROJECT No.	1026A
DRAWN BY:	TWG
CHECKED BY:	XXX
SCALE:	AS NOTED

SHEET TITLE:

SECOND FLOOR PLAN
PART A
POWER

E3.2



NOTE:

EQUIPMENT HOME RUNS LABLED WITH "EP" SHALL HAVE THEIR CIRCUITS RUN FROM THE EMERGENCY PANEL "EP"

SECOND FLOOR PLAN - PART B POWER

3/16"=1'-0"

ISSUED FOR PERMITTING

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STATE OF MAINE WILLIAM B. BENNETT No. 8918 LICENSED PROFESSIONAL ENGINEER

EnviroLogix

RIVERSIDE CAMPUS
530 - DNA EXPANSION
PORTRLAND, MAINE

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BENNETT ENGINEERING
7 Burnett Road
Freeport, ME 04032
207-865-6478

2ND FLOORSIDE KEY PLAN

AREA - B

REVISIONS:

DATE: 8/17/11
PROJECT No. 1026A
DRAWN BY: TWG
CHECKED BY: xxx
SCALE: AS NOTED

SHEET TITLE:
SECOND FLOOR PLAN
PART B
POWER

E3.3

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

Job No:	Date Applied:	CBL:	
2011-12-2831-ALTCOMM	11/29/2011	370A- A-012-001	
Location of Construction: 524 RIVERSIDE IND PKWY (530)	Owner Name: 500 RIVERSIDE ASSOCIATES	Owner Address: PO BOX 382 CUMBERLAND CTR, ME 4021	Phone 207-797-0300
Business Name:	Contractor Name: Warren Construction Group	Contractor Address: POB 362, South Freeport, ME 04078	Phone: 207-865-3522
Lessee/Buyer's Name:	Phone:	Permit Type: BLDG - Building	Zone:
Past Use: Manufacturing and Research & Development - EnviroLogix	Proposed Use: Same – EnviroLogix – amendment to permit #2011-09-2338 – to complete the exterior work – doors, louvers & mechanical equipment	Cost of Work: 1000.000000 Fire Dept: ✓ Approved w/ conditions ___ Denied ___ N/A Signature:	CEO District: Inspection: Use Group: B Type: N/A Exterior Pads Signature:
Proposed Project Description: amendment 2011-09-2338 - exterior work		Pedestrian Activities District (P.A.D.)	12/7/11
Permit Taken By:			

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
2. Building Permits do not include plumbing, septic or electrial work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work.

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
___ Shoreland	___ Variance	✓ Not in Dist or Landmark
___ Wetlands	___ Miscellaneous	___ Does not Require Review
___ Flood Zone	___ Conditional Use	___ Requires Review
___ Subdivision	___ Interpretation	___ Approved
___ Site Plan - Admin Author 2011-375	___ Approved	___ Approved w/Conditions
___ Maj ___ Min ___ MM	___ Denied	___ Denied
Date: Ok w/ cond. tow 12-16-11	Date:	Date:

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the appication is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT ADDRESS DATE PHONE

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE DATE PHONE

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

Footings/Rebar/Setbacks prior to pouring concrete

Final Inspection

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.

PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life • *www.portlandmaine.gov*

Director of Planning and Urban Development
Penny St. Louis

Job ID: 2011-12-2831-ALTCOMM **Located At:** 524 RIVERSIDE IND PKWY **CBL:** 370A- A-012-001

Conditions of Approval:

Zoning

1. This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.
2. Permit 2011-09-2338 was issued for interior work only because an Administrative Authorization Application was not applied for to do the proposed exterior work. The Administrative Authorization Application was approved 11/8/11. This permit is to do the exterior work that was shown on the original permit.

Fire

1. All construction shall comply with City Code Chapter 10.
2. Any cutting and welding done will require a Hot Work Permit from Fire Department.

Building

1. Application approval based upon information provided by applicant. Any deviation from approved plans requires separate review and approval prior to work.
2. Equipment shall be installed in compliance with the manufacturer's specifications and the UL listing.
3. Separate permits are required for any electrical, plumbing, sprinkler, fire alarm, HVAC systems, heating appliances, including pellet/wood stoves, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.

IM

2011 12 283

GG

General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: ~~530~~ 524 Riverside Industrial Parkway, Portland ME 04103-1486		
Total Square Footage of Proposed Structure/Area Interior Addition of ±9880 GSF	Square Footage of Lot ± 7.07 Acres	
Tax Assessor's Chart, Block & Lot Chart# Block# Lot# 370A - A -12	Applicant *must be owner, Lessee or Buyer* Name Bruce S. Ferguson, President Address 500 Riverside Ind. Pkwy. City, State & Zip Portland, ME 04103-1486	Telephone: 207-797-0300
Lessee/DBA (If Applicable) EnviroLogix 500 Riverside Industrial Parkway Portland, ME 04103-1486	Owner (if different from Applicant) Name Address City, State & Zip	Cost Of Work: $ 0 C of O Fee: $ NA Total Fee: $ 30.00

Current legal use (i.e. single family) Industrial / Business
If vacant, what was the previous use?
Proposed Specific use: Business
Is property part of a subdivision? No If yes, please name _____
Project description:
Interior expansion and renovation of current facilities. Expansion includes new second floor deck & fitout.
Exterior work incluces doors, louvers and mechanical equipment added to exterior of existing building.
In order to ~~meet~~ our clients deadline our ~~contractor~~ is scheduled to commence work by September 8.

amend mend to 2011 04 2338

- exterior work not part of original permit.
- needed site plan approved.

RECEIVED
NOV 29 2011
Dept. of Building Inspections
City of Portland, Maine

Contractor's name: Warren Construction Group, LLC
Address: POB 362
City, State & Zip South Freeport, ME 04078 Telephone: 207-865-3522
Who should we contact when the permit is ready: Peter Warren Telephone: 207-865-3522
Mailing address: POB 362, South Freeport, ME 04078

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature: Date: 11/29/11

This is not a permit; you may not commence ANY work until the permit is issue

2011 09 2338

Administrative Authorization Application

Portland, Maine

Planning and Urban Development Department, Planning Division

PROJECT NAME: ENVIROLOGIX DNA LAB & OFFICE EXPANSION

PROJECT ADDRESS: (524) 530 RIVERSIDE IND. PKWY **CHART/BLOCK/LOT:** ~~370A12~~ 370A-A-12

APPLICATION FEE: ✓ ($50.00)

PROJECT DESCRIPTION: (Please Attach Sketch/Plan of the Proposal/Development)

INTERIOR RENOVATION & EXPANSION, EXTERIOR ENTRANCE & UTILITIES

CONTACT INFORMATION:

OWNER/APPLICANT		CONSULTANT/AGENT	
Name:	ENVIROLOGIX - PETER JOHNSON	Name:	TFH ARCHITECTS - DAVE MERRILL
Address:	500 RIVERSIDE IND PKWY. PORTLAND ME 04103	Address:	40 MIDDLE ST PORTLAND, ME 04101
Work #:	207.797.0300	Work #:	207.775.6141
Cell #:	978.239.1021	Cell #:	
Fax #:	207.797.7533	Fax #:	207 773 0144
Home #:		Home #:	
E-mail:	PETER.JOHNSON@PAINTEDFIR PARTNERS.COM	E-mail:	DAM@TFHARCHITECTS.COM

Criteria for an Adminstrative Authorizations: (see section 14-523(4) on pg .2 of this appl.)	Applicant's Assessment Y(yes), N(no), N/A	Planning Division Y(yes), N(no), N/A
a) Is the proposal within existing structures?	YES EXCEPT UTILITY PADS	Yes - tanks outside tanks
b) Are there any new buildings, additions, or demolitions?	N	
c) Is the footprint increase less than 500 sq. ft.?	Y	Y
d) Are there any new curb cuts, driveways or parking areas?	N	N/A
e) Are the curbs and sidewalks in sound condition?	Y	✓
f) Do the curbs and sidewalks comply with ADA?	Y	✓
g) Is there any additional parking?	N	N
h) Is there an increase in traffic?	N	N
i) Are there any known stormwater problems?	N	N
j) Does sufficient property screening exist?	Y	Y
k) Are there adequate utilities?	Y	Y
l) Are there any zoning violations?	N	N
m) Is an emergency generator located to minimize noise?	Y	Y
n) Are there any noise, vibration, glare, fumes or other impacts?	N	N

Signature of Applicant:	Date:
TFH ARCHITECTS	10/28/11

Planning Division Use Only Authorization Granted X Partial Exemption ____ Exemption Denied ____

With standard condition

Barbara Barhydt, Dev. Rev. Mgr

Standard Condition of Approval: The applicant shall obtain all required City Permits, including building permits from the Inspection Division (Room 315, City Hall (874-8703)) prior to the start of any construction.

IMPORTANT NOTICE TO APPLICANT: The granting of an Administrative Authorization to exempt a development from site plan review does not exempt this proposal fro other approvals or permits, nor is it an authorization for construction. You should first check with the Building Inspections Office, Room 315, City Hall (207)874-8703, to determine what other City permits, such as a building permit, will be required.

PROVISION OF PORTLAND CITY CODE
14-523 (SITE PLAN ORDINANCE)
RE: Administrative Authorization

Sec. 14-523 (b). Applicability
No person shall undertake any development identified in Section 14-523 without obtaining a site plan improvement permit under this article. (c) Administrative Authorization. Administrative Authorization means the Planning Authority may grant administrative authorization to exempt a development proposal from complete or partial site plan review that meets the standards below, as demonstrated by the applicant.

1. The proposed development will be located within existing structures, and there will be no new buildings, demolitions, or building additions other than those permitted by subsection b of this section;
2. Any building addition shall have a new building footprint expansion of less than five hundred (500) square feet;
3. The proposed site plan does not add any new curb cuts, driveways, or parking areas; the existing site has no more than one (1) curb cut and will not disrupt the circulation flows and parking on-site; and there will be no drive-through services provided;
4. The curbs and sidewalks adjacent to the lot are complete and in sound condition, as determined by the public works authority, with granite curb with at least four (4) inch reveal, and sidewalks are in good repair with uniform material and level surface and meet accessibility requirements of the Americans with Disabilities Act;
5. The use does not require additional or reduce existing parking, either on or off the site, and the project does not significantly increase traffic generation;
6. There are no known stormwater impacts from the proposed use or any existing deficient conditions of stormwater management on the site;
7. There are no evident deficiencies in existing screening from adjoining properties; and
8. Existing utility connections are adequate to serve the proposed development and there will be no disturbance to or improvements within the public right-of-way.
9. There are no current zoning violations;
10. Any emergency generators are to be located to minimize noise impacts to adjoining properties and documentation that routine testing of the generators occur on weekdays between the hours of 9 a.m. to 5 p.m. Documentation pertaining to the noise impacts of the emergency generator shall be submitted; and
11. There is no anticipated noise, vibration, glare, fumes or other foreseeable impacts associated with the project.

a. **Filing the Application.** An applicant seeking an administrative authorization under this subsection shall submit an administrative authorization application for review, detailing the site plan with dimensions of proposed improvements and distances from all property lines, and stating that the proposal meets all of the provisions in standards 1-11 of Section 14-423 (b)1. **The application must be accompanied by an application fee of $50.**
b. **Review.** Upon receipt of such a complete application, the Planning Authority will process it and render a written decision of approval, approval with conditions or denial, with all associated findings.
c. **Decision.** If a full administrative authorization is granted, the application shall be approved without further review under this article, and no performance guarantee shall be required. In the event that the Planning Authority determines that standards a and b of Section 14-523 (b) (1) and at least four (4) of the remaining standards have been met, the Planning Authority shall review the site plan according to all applicable review standards of Section 14-526 that are affected by the standards in this subsection that have not been met. If an exemption or partial exemption from site plan review is not granted, the applicant must submit a site plan application that will undergo a full review by the Planning Board or Planning Authority according to the standards of Section 14-526.

Criteria for an Adminstrative Authorizations: (See Section 14-523 (4) on page 2 of this application)	Applicant's Assessment Y(yes), N(no), N/A	Planning Division Use Only
a) Is the proposal within existing structures?	Yes	Except for Utility pads for tanks, the rest is interior changes
b) Are there any new buildings, additions, or demolitions?	No	Outside tanks
c) Is the footprint increase less than 500 sq. ft.?	Yes	Yes
d) Are there any new curb cuts, driveways or parking areas?	No	No
e) Are the curbs and sidewalks in sound condition?	yes	okay
f) Do the curbs and sidewalks comply with ADA?	Yes	okay
g) Is there any additional parking?	no	No
h) Is there an increase in traffic?	no	No
i) Are there any known stormwater problems?	No	No
j) Does sufficient property screening exist?	yes	Yes
k) Are there adequate utilities?	Yes	Yes
l) Are there any zoning violations?	No	No
m)Is an emergency generator located to minimize noise?	Yes	Yes
n) Are there any noise, vibration, glare, fumes or other impacts?	No	No

Captain Chris Pirone, confirmed on Tuesday, November 8th that the proposal was acceptable for the administrative authorization. The Fire Department will conduct a separate review of the proposed tanks under a building permit application.

The Administrative Authorization for 524 Riverside Industrial Parkway was approved by Barbara Barhydt, Development Review Services Manager on November 8, 2011 with the following Standard Condition of Approval listed below:

1. Standard Condition of Approval: The applicant shall obtain all required City Permits, including building permits from the Inspection Division (874-8703) and any other permits required from the Department of Public Services (874-8801) prior to the start of any construction.

Certificate of Design Application

From Designer: T. Scott Teas

Date: 11/28/2011

Job Name: EnviroLogix DNA Expansion

Address of Construction: 530 Riverside Industrial Parkway, Portland, ME 04103

2003 International Building Code

Construction project was designed to the building code criteria listed below:

Building Code & Year 2009 IBC Use Group Classification (s) B - Business

Type of Construction 3B

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2003 IRC Yes

Is the Structure mixed use? No If yes, separated or non separated or non separated (section 302.3)

Supervisory alarm System? Yes Geotechnical/Soils report required? (See Section 1802.2) No

Structural Design Calculations

NA Submitted for all structural members (106.1 – 106.11)

Design Loads on Construction Documents (1603)

Uniformly distributed floor live loads (7603.11, 1807)

Floor Area Use	Loads Shown
Office	50 psf
Corridor	80 psf
Stair	100 psf

Wind loads (1603.1.4, 1609) N/A Interior addition

Design option utilized (1609.1.1, 1609.6)

Basic wind speed (1809.3)

Building category and wind importance Factor, I_w table 1604.5, 1609.5)

Wind exposure category (1609.4)

Internal pressure coefficient (ASCE 7)

Component and cladding pressures (1609.1.1, 1609.6.2.2)

Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

ELF Design option utilized (1614.1)

B Seismic use group ("Category")

0.325 / 0.123 Spectral response coefficients, SDs & SD1 (1615.1)

D Site class (1615.1.5)

0.57 Live load reduction

NA Roof *live* loads (1603.1.2, 1607.11)

45 psf Roof snow loads (1603.7.3, 1608)

60 psf Ground snow load, P_g (1608.2)

45 psf If P_g > 10 psf, flat-roof snow load P_f

1.0 If P_g > 10 psf, snow exposure factor, C_e

1.0 If P_g > 10 psf, snow load importance factor, I_s

1.1 Roof thermal factor, C_t (1608.4)

45 psf Sloped roof snowload, P_s (1608.4)

B Seismic design category (1616.3)

Steel Frame Basic seismic force resisting system (1617.6.2)

3 Response modification coefficient, R_I and deflection amplification factor C_d (1617.6.2)

ELF Analysis procedure (1616.6, 1617.5)

100 K Design base shear (1617.4, 16175.5.1)

Flood loads (1803.1.6, 1612)

NA Flood Hazard area (1612.3)

NA Elevation of structure

Other loads

2000 # Concentrated loads (1607.4)

15 psf Partition loads (1607.5)

Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404

Certificate of Design

Date: 8/17/11

From: T. Scott Teas

These plans and / or specifications covering construction work on:

at 530 Riverside Industrial Parkway, Portland, ME 04103

Have been designed and drawn up by the undersigned, a Maine registered Architect / Engineer according to the ***2009 International Building Code*** and local amendments.

(SEAL)

REGISTERED ARCHITECT
T. SCOTT TEAS
No. 802
STATE OF MAINE

Signature:

Title: Principal

Firm: TFH Architects

Address: 80 Middle Street

Portland, ME 04101

Phone: 207-775-6141

For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov

Accessibility Building Code Certificate

Designer: T. Scott Teas

Address of Project: 530 Riverside Industrial Parkway, Portland, ME 04103

Nature of Project: Exterior work for the previously approved project to include, a transformer & concrete pad, generator & pad, cooling tower & pad, 1 new entry door, 1 mechanical door, & new windows to the envelope of the building.

The technical submissions covering the proposed construction work as described above have been designed in compliance with applicable referenced standards found in the Maine Human Rights Law and Federal Americans with Disability Act. Residential Buildings with 4 units or more must conform to the Federal Fair Housing Accessibility Standards. Please provide proof of compliance if applicable.

REGISTERED ARCHITECT T. SCOTT TEAS (SEAL) No. 802 STATE OF MAINE

Signature: _____

Title: Principal

Firm: TFH Architects

Address: 80 Middle Street

Portland, ME 04101

Phone: 207-775-6141

For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov

10-17-12 Dam Final OK