STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

AUGUSTA
KENNEBEC COUNTY
66 INDUSTRIAL DRIVE – PHASE–2

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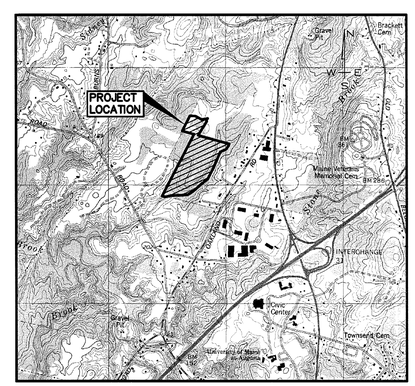

LOCATION MAP

A PORTION OF AUGUSTA MAINE

ISSUED FOR BID

FEBRUARY 27, 2014

Allied Engineering
Structural Mechanical Electrical Commissioning

160 Veranda Street
Portland, Maine 04103
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Allied Project No: 13057 | Cad File: 13057S.rvt

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER	3/6/14
CHIEF ENGINEER	3-6-14

SIGNATURE

P.E. NUMBER

DATE FEBRUARY 27 2014

PROJECT INFORMATION

PROGRAM	–
PROJECT MANAGER	–
DESIGNER	ALLIED ENG. INC
CONSULTANT	–
PROJECT RESIDENT	–
CONTRACTOR	–
PROJECT COMPLETION DATE	–

WIN: 020118.20

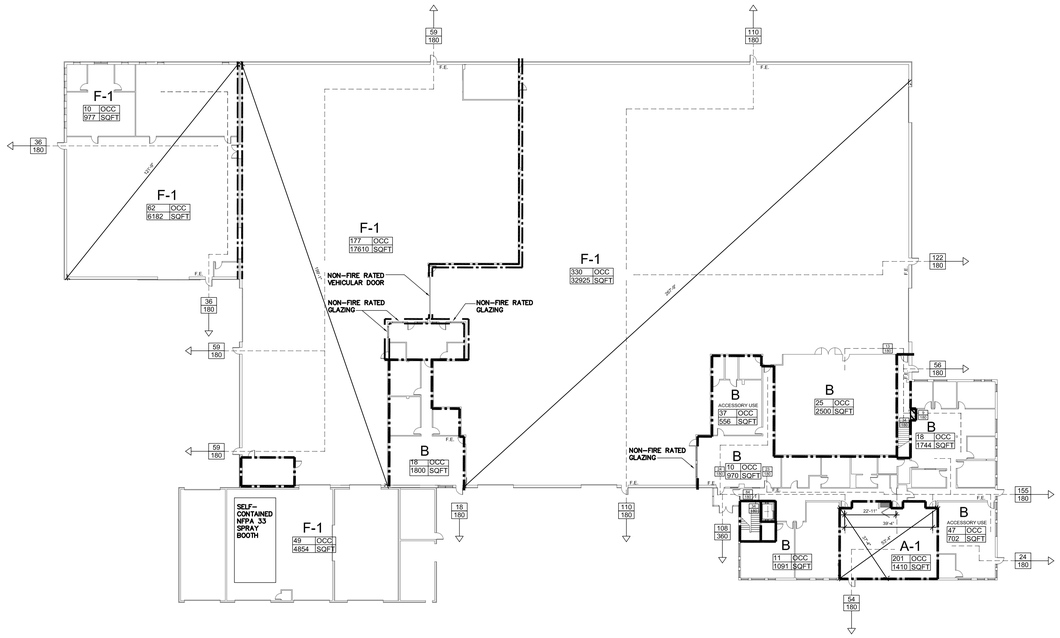
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

COVER SHEET

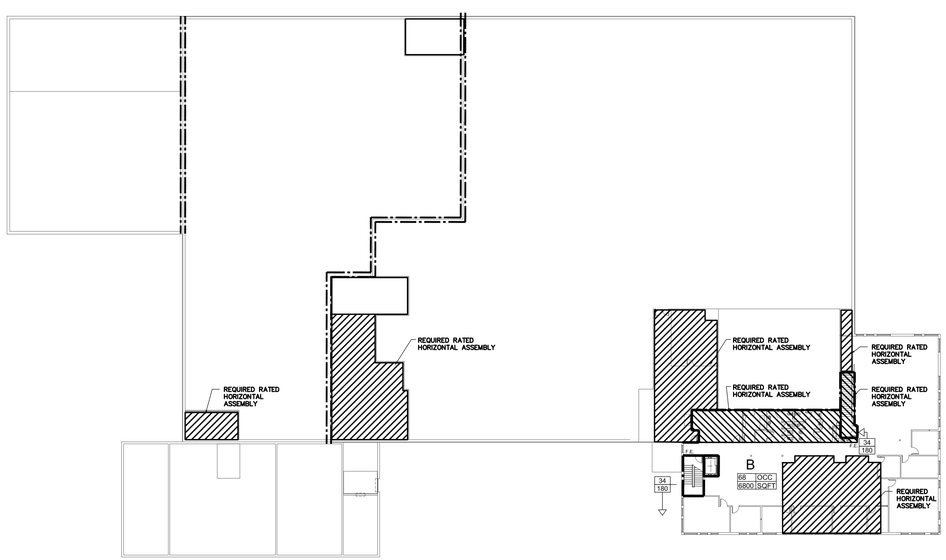
SHEET NUMBER

G000

Filename: Date: Division: Username:



1 First Floor Life Safety Plan
SCALE: 1/16" = 1'-0"



2 Second Floor Life Safety Plan
SCALE: 1/16" = 1'-0"

FIRE RATINGS LEGEND — **SEE A601 FOR ASSEMBLY INFO**

- 1-HOUR FIRE RATED SEPARATION
- 1-HOUR FIRE RATED SEPARATION HORIZONTAL CEILING ASSEMBLY ABOVE
- 1-HOUR FIRE RATED SEPARATION NON-REQUIRED SEPERATION PROVIDED TO IBC AND NFPA REQUIREMENTS U.N.O
- 1-HOUR RATED FIRE SEPARATION HORIZONTAL FLOOR ASSEMBLY ABOVE

CODE SUMMARY

APPLICABLE CODES

Maine Uniform Building and Energy Code "MUBEC"
Consists of the following applicable codes:

2009 International Building Code (IBC)
2009 International Existing Building Code (IEBC)
2009 International Energy Conservation Code (IECC)
2007 ASHRAE 62.1 (Ventilation for Acceptable Indoor Air Quality)
2007 ASHRAE 90.1 - (Energy Standard for Buildings except Low-Rise Residential Buildings) editions without addenda.
E-1465-2006, Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings.
Maine State Internal Plumbing Code based on the 2009 Uniform Plumbing Code
State of Maine Subsurface Wastewater Disposal Rules Version dated: Jan 18, 2011
2011 National Electrical Code (NEC)

Fire/ Life Safety

NFPA Life Safety Code as adopted by the State of Maine
Including but not limited to:

2009 NFPA 101: Life Safety Code
2007 NFPA 13: Installation of Sprinkler Systems, [2010 Edition through Equivalency]

Accessibility

1991 Americans with Disabilities Act / ADAAG 36 CFR

NOTE: All Codes shall include changes/amendments by the State of Maine

OCCUPANCY CLASSIFICATION

(IEBC Sec 406,902)

Change of occupancy,
Special Use and Occupancy 3. Motor vehicle related occupancies

(IBC Sec 302, 303, 304, 306, 406, 508) (NFPA)

Mixed Use and Occupancy
Storage S-1- Repair Garage
Factory F-1
Business B
Assembly A-3

AUTOMATIC SPRINKLER SYSTEM

(NFPA 13)

Provided throughout

GENERAL BUILDING INFORMATION AND ALLOWABLE BUILDING HEIGHTS AND AREA

(IBC Chapter 5, Table 503)
(NFPA)

Building Height (Mid-height of the highest roof) 30'-4"

Total Area

Main Building	62,650 Sqft
Coating Building	4,411 Sqft
Sign Shop	7,260 Sqft

Perimeter

Main Building	1,130'
Coating Building	277'
Sign Shop	343'
Heated Garage and Cold Storage	672'

Allowable Building Height

Allowable Building Height	(Tabular)	55' 2 Stories
Allowable Building Height	(Actual)	75' 3 Stories

Allowable Building Area

(IBC Section 503)
(NFPA)

Allowable Building Area Unlimited (special industrial occupancies see IBC 503.1.1)

REQUIRED OCCUPANCY SEPERATIONS

(IBC Table 508.4)
(NFPA 101 Table 6.1.14)

B to A-3 -1 hour
B to F-1 -1hour
B to S-1 -1 hour

TYPES OF CONSTRUCTION

(IBC Table 601, Sec 602)
(NFPA 220)

Type IIB

FIRE RESISTIVE RATINGS

(IBC Table 601)
(NFPA Table A.8.2.1.2)

	Type IIB	Type III (0,0,0)	
Structural Frame	0	0	
Bearing Walls, Ext. + Int.	0	0	
Non-Bearing Walls and Partitions, Exterior			
Non-Bearing Walls and Partitions, Interior	0	0	
Floor Construction and Secondary Members	0	0	
Roof Construction and Secondary Members	0	0	

OCCUPANCY LOAD

(IBC Table 1004.1.1)
(NFPA)

Business B - 100 Gross Sqft per Occupant
Assembly A-3 -15 net Sqft per Occupant
Storage S-1 - 100 Gross Sqft per Occupant
Factory F-1 - 100 Gross Sqft per Occupant

MEANS OF EGRESS

(IBC Chapter 10)

EGRESS WIDTH PER OCCUPANT

(IBC 1005.1)
(IEBC Table 1301.6.11(1))

0.3 Inches per occupant for stairways
0.2 Inches for other egress components

STAIRWAY WIDTH

(IEBC 1301.6.11)

0.3 Inches per occupant

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EXIT ACCESS

Common path of egress travel

(IBC 1014.3)
(IBC 1028.8)

For Assembley <30'
For Bussiness <75'

Corridor Fire Resistance

(IBC 1018.1)
(NFPA 101 7.1.3.1)

0 hour

Corridor Width

(IBC 1018.2)

Not less then 44"

Dead-End Corridor

(IBC 1018.4)

Dead-end corridors in area of work <20'

PLUMBING FIXTURE COUNT

(IBC Table 2902.1)

	WC Male	WC Female	Lav. Male	Lav. Female	Drinking Fountain	Service Sink
First Floor						1
720 Business (B) occupants + Industrial (S-1) occupants (F-1) occupants	8 (1:25-50, 1:50)	8 (1:25-50, 1:50)	9 (1:40)	9 (1:40)	1	
200 Assembly (A-3) occupants	1 (1:125)	2 (1:65)	1 (1:200)	1 (1:200)	1 (1:500)	
Second floor						1
68 Business (B) occupants	2 (1:25-50, 1:50)	2 (1:25-50, 1:50)	1 (1:40)	1 (1:40)	1	
Totals required	11	12	9	9	3	2

Provided
Drinking Fountain 3
Services Sinks 3
Male 5 WC (6 Urinals) 6 Lav
Female 9 WC 5 Lav
Unisex 4 WC 4 Lav

ENERGY CONSERVATION

(IECC.502.1..2)

Opaque Assemblies required min.

Wall R-13, r-5.6ci, U-0.06
Roof R-20ci, U-0.048
Slab R-10 for 24" below grade (provide at new foundations)

ARCHITECTURAL ABBREVIATIONS

AB	ANCHORBOLT
ACT	ACCOUSTICAL CEILING TILE
ADDL	ADDITIONAL
ADMIN	ADMINISTRATION
AFF	ABOVE FINISH FLOOR
ALUM	ALUMINUM
AP	ACCESS PANEL
APV	ASPHALT PAVER
ARCH	ARCHITECT
BD	BOARD
BIT	BITUMINOUS
BLDG	BUILDING
BLKG	BLOCKING
BM	BENCHMARK
BRG	BEARING
BTW	BETWEEN
CAB	CABINET
CB	CATCH BASIN
CEM	CEMENT
CF	CUBIC FEET
CIRC	CIRCLE/CIRCULAR
CJ	CONTROL JOINT
CL	CENTER LINE
CLG	CEILING
CLO	CLOSET
CM	CONSTRUCTION MANAGER
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUE, CONTINUOUS
COOR	CORRUGATED
COORD	COORDINATED
CRS	COURSE
CT	CERAMIC TILE
CTV	CABLE TELEVISION LINE
CUH	CABINET UNIT HEATER
CY	CUBIC YARD
D	DRYER
DBL	DOUBLE
DEFL	DEFLECTION
DEMO	DEMOLITION
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DR	DIRECTOR/DOOR
DIV	DIVISION
DN	DOWN
DWG	DRAWING
E	EAST
EA	EACH
EF	EXHAUST FAN
EJ	EXPANSION JOINT
EL	ELEVATION
ELEV	ELEVATOR
ELEC	ELECTRIC/ELECTRICAL
EQ	EQUAL
EWC	ELECTRIC WATER COOLER
EXAM	EXAMINATION
EXIST	EXISTING
EXT	EXTERIOR
FBO	FURNISHED BY OWNER
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FCP	FIRE CONTROL PANEL
FE	FIRE EXTINGUISHER
FG	FIBERGLASS
FIN	FINISH
FL	FLOOR
FOS	FACE OF STUD
FRP	FIBERGLASS REINFORCED PLASTIC
FT	FOOT
FTG	FOOTING
F.O.	FACE OF
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GL	GLASS
GR	GRANITE
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
HD	HIGH DENSITY
HR	HOUR
HC	HOLLOW CORE
HDWR	HARDWARE
HFS	HALF FULL SCALE
HGT	HEIGHT
HM	HOLLOW METAL
HO	HOLD OPEN
HORZ	HORIZONTAL
HTG	HEATING
HVAC	HEATING, VENTILATION & AIR CONDITIONING
HW	HOT WATER
HYD	HYDRANT
INCL	INCLUDE/INCLUDING
ID	INSIDE DIAMETER
IN	INCH
INSUL	INSULATE/INSULATION
INT	INTERIOR
INV	INVERT
JAN	JANITOR
JC	JANITOR CLOSET
JT	JOINT
KIT	KITCHEN
LAM	LAMINATE/LAMINATED
LAV	LAVATORY
LCC	LEAD COATED COPPER
LF	LINEAR FOOT
LGT	LIGHT
LIN	LINEN
MTRL	MATERIAL
MAS	MASONRY
MAX	MAXIMUM
MECH	MECHANICAL
MED	MEDICAL
MFR	MANUFACTURER
MGR	MANAGER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MOLD	MOLDING
MR	MOISTURE RESISTANT
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
N	NORTH
NATL	NATURAL
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NUMBER
NTS	NOT TO SCALE
O.C	ON CENTER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OZ	ONCE
PART BD	PARTICLE BOARD
PC	PIECE
PL	PLATE
PLAS	PLASTER
PLAM	PLASTIC LAMINATE
PLYWD	PLYWOOD
PNT	PAINT
POLY	POLYURETHANE
PREP	PREPARATION
PSF	POUNDS / SQUARE FOOT
PSI	POUNDS / SQUARE INCH
PT	PRESERVATIVE TREATED
PTD	PAINTED
PVMT.	PAVEMENT
QT	QUART
R	RADIUS/RISER/RANGE
RD	ROOF DRAIN
REC	RECREATION
RECT	RECTANGLE
REF	REFERENCE
REQD	REQUIRED
REFR	REFRIGERATOR
REINF	REINFORCE/REINFORCING
RESIL	RESILIENT
REV	REVISE/REVISION
RFG	ROOFING
RM	ROOM
RO	ROUGH OPENING
S	SOUTH/SINK
SAN	SANITARY
S.A.F.B.	SOUND ATTENTUATION FIRE BATTS (BRACKET)
SC	SOLID CORE
SD	STORM DRAIN
SECT	SECTION
SF	SQUARE FOOT
SHT	SHEET
SIM	SIMILAR
SPEC	SPECIFICATION(S)
SPC	SWIMMING POOL CONTRACTOR
SQ	SQUARE
STC	SOUND TRANSMISSION COEFFICIENT
STD	STANDARD
STL	STEEL
STOR	STORAGE
ST ST	STAINLESS STEEL
SUSP	SUSPENDED
T	TREAD/TOILET
TEL	TELEPHONE
TEMP	TEMPERATURE/TEMPERED
T&G	TONGUE & GROOVE
TH	THICKNESS
T.O.	TOP OF
TV	TELEVISION
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
UTIL	UTILITIES
VAR	VARIES
VB	VAPOR BARRIER
VCT	VINYL COMPOSITE TILE
VENT	VENTILATOR/VENTILATION
VERT	VERTICAL
VEST	VESTIBULE
VR	VAPOR RETARDER
W	WEST / WATER / WASHER / WIDTH
W/	WITH
WC	WATER CLOSET
WD	WOOD
WIND	WINDOW
W/O	WITH OUT
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

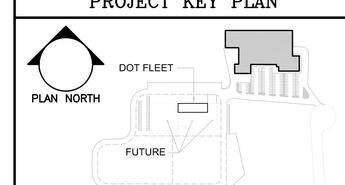
MATERIAL KEY

COURSE GRAVEL
CONCRETE
STONE
EARTH/COMPACT FILL
GYPSUM/PLASTER
PLYWOOD
DENSE PAK CELLULOSE INSULATION
SPRAY FOAM INSULATION
BATT INSULATION
FINISH WOOD
ROUGH WOOD
BLOCKING WOOD
CONCRETE MASONRY
BRICK MASONRY
SAND/FINE GRAVEL
RIGID INSULATION
GLASS

ARCHITECTURAL SYMBOLS

FINISH MATERIAL CL1
CASEWORK TYPE CW1
ROOM NUMBER ROOM NAME 101
DOOR NUMBER 101A
WINDOW TYPE NO
PARTITION TYPE M4 01
REVISION REFERENCE 1
FIRE EXTINGUISHER, RECESSED CABINET E
FIRE EXTINGUISHER SURFACE MOUNT FE
DETAIL X AXXX
KEYNOTE #
PROPOSED ELEVATION TOP OF FIN. FLOOR EL. = X'-X"
BUILDING SECTION X AXXX
BUILDING ELEVATION X AXXX
WALL SECTION X AXXX
INTERIOR ELEVATION N W X AXXX E S
COLUMN REFERENCE LINE X
NEW DOOR
EXISTING DOOR

PROJECT KEY PLAN



Scott Simons Architects

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Structural Mechanical Electrical Commissioning
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207.221.2266
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FILENAME: A001.DWG
Allied Project No: 13057 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE
COMMISSIONER:
CHIEF ENGINEER:

LICENSED ARCHITECT SCOTT R. SIMONS NO. 2034 STATE OF MAINE

SIGNATURE
ARCH. LIN. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

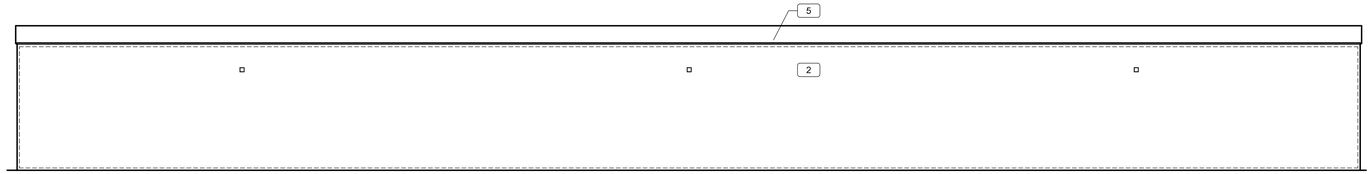
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – CODE SUMMARY AND LIFE SAFETY PLAN

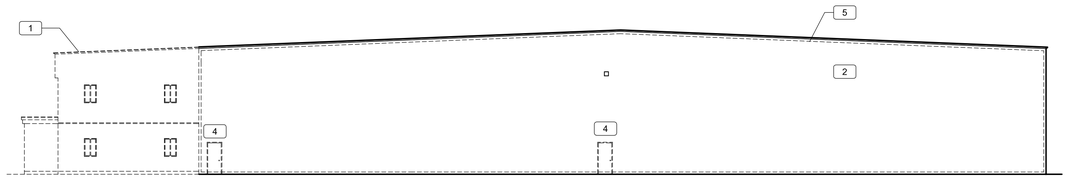
SHEET NUMBER
A001

ISSUED FOR BID

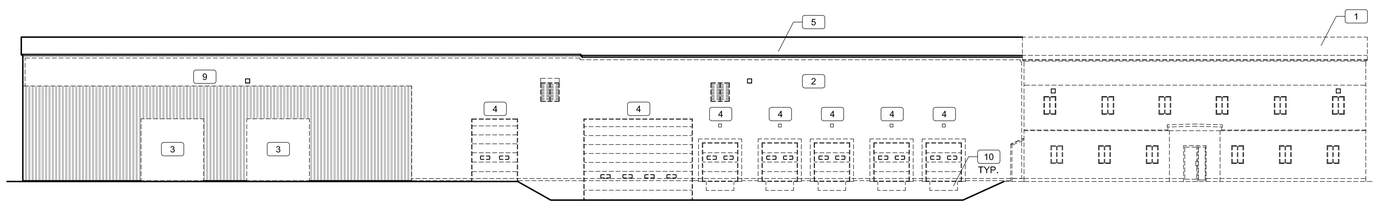
FEBRUARY 27, 2014



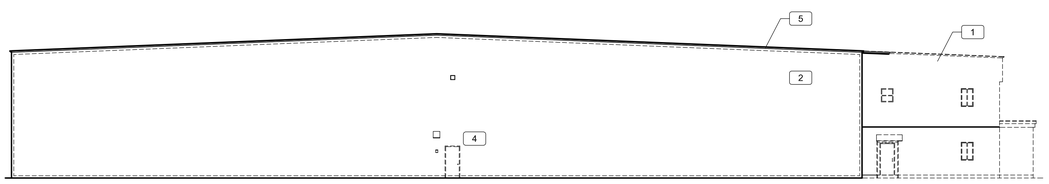
1 Demo Elevation - North
SCALE: 1/16" = 1'-0"



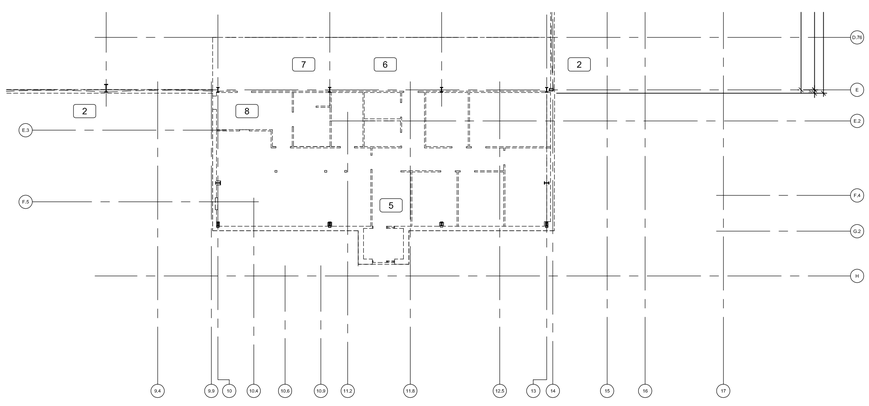
2 Demo Elevation - East
SCALE: 1/16" = 1'-0"



3 Demo Elevation - South
SCALE: 1/16" = 1'-0"



4 Demo Elevation - West
SCALE: 1/16" = 1'-0"



5 Demo Floor Plan
SCALE: 1/16" = 1'-0"

GENERAL DEMOLITION NOTES:

1. REFER TO STRUCTURAL FRAMING PLANS FOR ADDITIONAL DEMOLITION WORK AT EXISTING FOUNDATION. G.C SHALL BE RESPONSIBLE FOR ALL TEMPORARY SUPPORTS/SHORING AND BRACING AS REQUIRED FOR ALL STRUCTURAL MODIFICATIONS.
2. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL SCOPE.
3. REMOVE ALL LIGHT FIXTURES AND DISPOSE OF UNLESS OTHERWISE NOTED TO BE SALVAGED FOR REINSTALLATION.

DEMOLITION KEY NOTES:

1. REMOVE EXISTING BUILDING ADDITION IN ITS ENTIRETY
2. REMOVE EXISTING METAL SIDING , TRIM, ACCESSOIES, LOUVERS, LIGHTING, EQUIPMENT, CONDUIT, AND INTERIOR INSULATION, AND OTHER ASSOCIATED MATERIALS IN THEIR ENTIRETY.
3. REMOVE METAL SIDING AND STEEL GIRTS AND ASSOCIATTED ITEMS TO ACCOMODATE NEW DOOR OPENING. COORDINATE EXTENTS OF DEMO IN THESE AREAS WITH DOOR SCHEDULE AND STRUCTURAL DOCUMENTS.
4. REMOVE EXISTING DOOR, ASSOCIATED FLASHING AND FRAMING IN THEIR ENTIRETY.
5. REMOVE STEEL ROOF DECK AND REMOVE ROOF INSULATION AND ASSOCIATED MATERIALS IN THEIR ENTIRETY. REMOVE ROOF EDGE AS REQUIRED BY SIDING REMOVAL.
6. REMOVE TWO STORY WOOD INFILL BUILDING IN ITS ENTIRETY.
7. REMOVE MANHOLE COVER AND RING OF ANY ABANDONED IN PLACE SEWER STRUCTURES TO ALLOW FOR FILL AND NEW INFILL SLAB. SEE PLUMBING AND STRUCTURAL DRAWINGS.
8. SEE PLUMBING DRAWINGS FOR MORE INFORMATION IN THIS AREA.
9. RETAIN EXISTING METAL SIDING IN THIS AREA. COORDINATE EXTENT WITH PROFILE OF PROPOSED BUILDING ADDITION. SEE ARCHITECTURAL AND STRUCTURAL FOR MORE INFO.
10. REMOVE LOADING DOCK BUMPERS AND SEALS IN THEIR ENTIRETY.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	–
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	SSA
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – DEMO

SHEET NUMBER

AD101

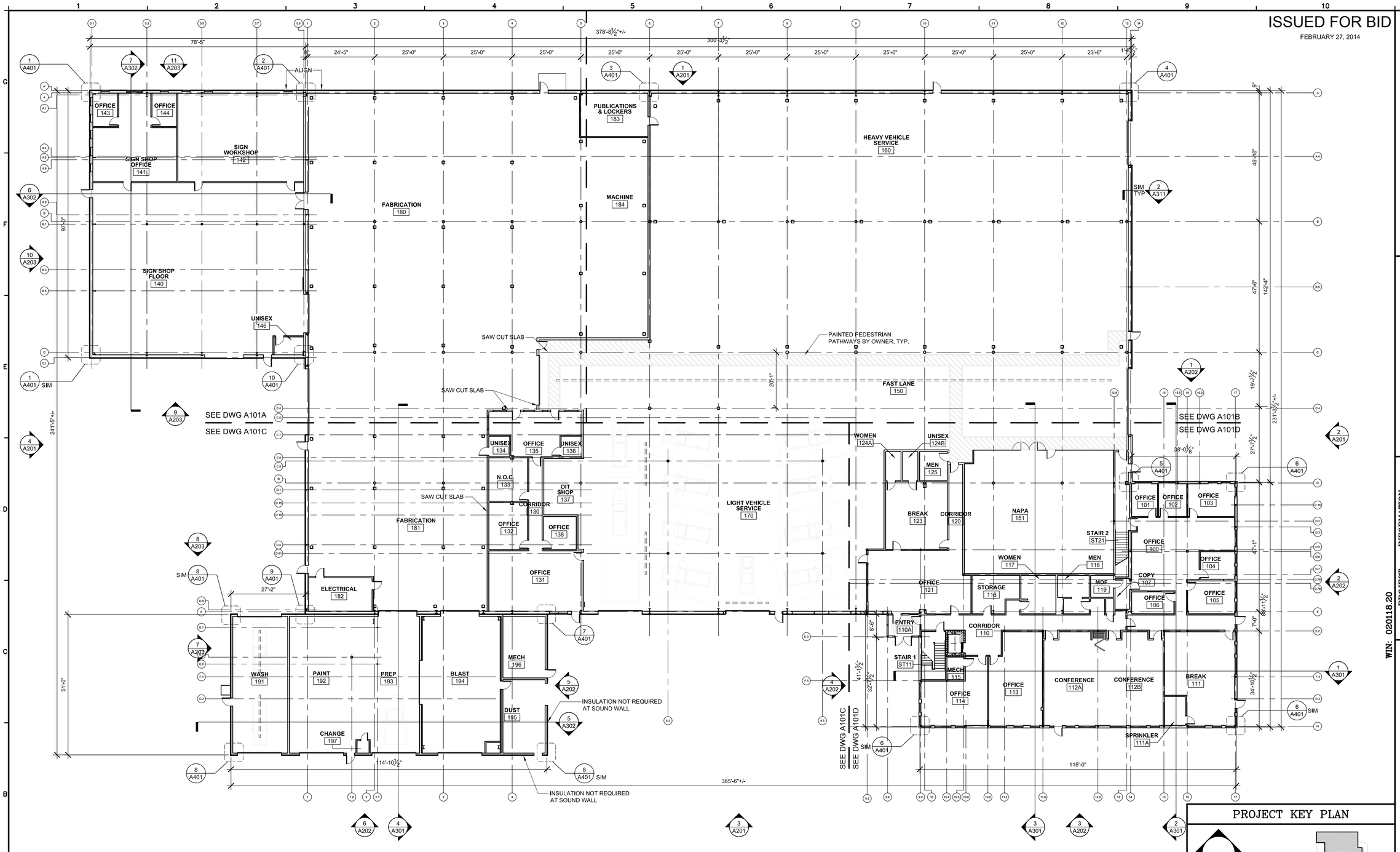
Scott Simons Architects

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

FILENAME: AD101.DWG

Allied Project No: 13057 Cad File:

ISSUED FOR BID
FEBRUARY 27, 2014

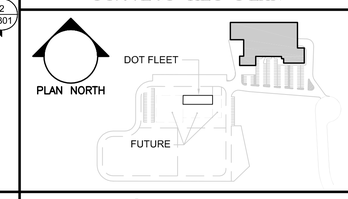


1 First Floor Plan
SCALE: 1/16" = 1'-0"

GENERAL NOTES:

1. SEE A601 FOR PARTITION DETAILS- WALLS TYPE M/S U.N.O.
2. EQUIPMENT AND FURNITURE SHOWN FOR REFERENCE ONLY AND IS NOT PROVIDED AS PART OF SCOPE OF CONTRACT U.N.O.
3. ALL DIMENSIONS TO FACE OF STUD/BLOCK/ FOUNDATION U.N.O. WINDOW DIMENSIONS ARE TO UNIT SIZE NOT ROUGH OPENING.
4. SEE A601 FOR INTERIOR WINDOWS.
5. DOOR OPENING TO BE 6" OFF ADJACENT FINISH U.N.O.

PROJECT KEY PLAN



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Allied Project No: 13057 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

SIGNATURE –
ARCH. LIN. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

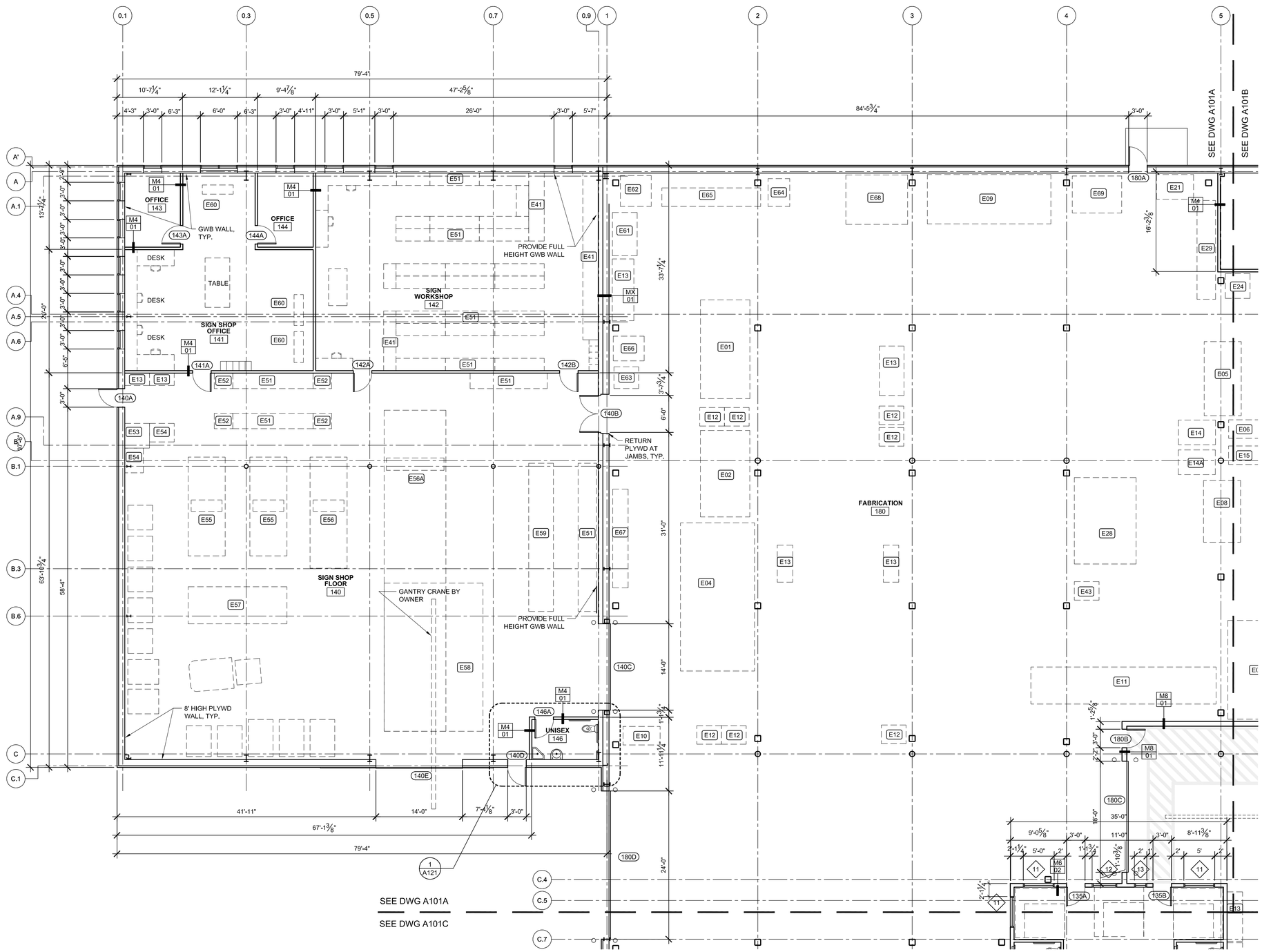
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – FIRST FLOOR PLAN

SHEET NUMBER
A101

ISSUED FOR BID

FEBRUARY 27, 2014



1 First Floor Plan - Area A

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

GENERAL NOTES:

1. SEE A601 FOR PARTITION DETAILS- WALLS TYPE M4/01 U.N.O.
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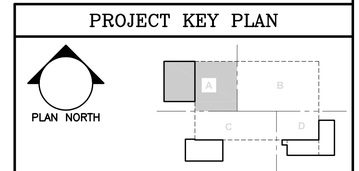
4. SEE A601 FOR INTERIOR WINDOWS.
5. DOOR OPENING TO BE 6" OFF ADJACENT FINISH U.N.O.

EQUIPMENT LIST

E01	PRESS BRAKE= 40,000
E02	SHEAR 10 FT= 36,000
E03	BURNING TABLE AND WATER TANK=22,500
E03A	BURN TABLE POWER SUPPLY
E04	STEEL RACK AND STOCK=100,000
E05	DRILL PRESS 8 FT= 4500
E06	HYDRA PRESS 150 TON= 2500
E07	40 INCH BAND SAW= 12,000
E08	200 TON PUNCH= 8000
E09	20 FT SETUP TABLE= 11,000
E10	SMALL BAND SAW= 800
E11	30 FEET ROLLS WITH MOTOR AND HYDRA= 4700
E12	WELDERS =600 LB EACH
E13	SETUP BENCHES 500 LB EACH
E14	2 SMALL DRILL PRESS= 1000 EACH
E14A	SMALL DRILL PRESS
E15	DRILL SHARPENER 400
E16	LATHE= 4000
E17	LATHE= 5000
E18	LATHE= 5000
E19	LARGE ARM DRILL= 8000
E20	HEATING OVEN= 600
E21	GRINDER= 2000
E22	LARGE BRIDGE PORT LATHE= 4000
E23	SMALL BRIDGE PORT LATHE= 2000
E24	BAND SAW= 200
E28	STEEL RACK WITH STOCK= 25,000
E29	TEST BENCH= 2000
E30	TIRE MACHINE 110A
E31	TIRE BALANCER 220A
E32	WASTE OIL
E33	3X 55 GALLON DRUMS
E34	PARTS WASHER 110A
E35	STRUT TOOL
E36	WHEEL WEIGHTS
E37	CHEMICAL BIN
E38	TOOL CABINET
E39	DRILL PRESS 110A
E40	GRINDER 110A
E41	WORK BENCH (NEW)
E42	4X 35 GALLON DRUMS
E43	WELDER
E44	TRANSMISSION FLUSH MACH.
E45	EVAP. LEAK MACHINE
E46	TRANSMISSION JACK
E47	TIRE HOIST
E48	TORCHES
E49	AVERAGE TOOL BOX (5 TOTAL)
E50	CABINET FOR MISC. STUFF
E51	SHELVES
E52	FILE
E53	PLAN TABLE
E54	WEEDING TABLE
E55	ROLLER
E56	SCOTCHLITE (OLD)
E56A	SCOTCHLITE
E57	WORK TABLE
E58	EXTRUDED SIGN ASSEMBLY
E59	EXTRUDED PANELS
E60	PRINT
E61	PANEL STOR.
E62	COMPRESSOR
E63	DUST
E64	BAND
E65	PANEL SAW
E66	DRILL PRESS
E67	CHOP SAW
E68	PARTS WASHER
E69	BLAST
E71	FORKLIFT CHARGER
E72	LARGE PRESS
E73	TIRE BAL.
E74	BAND SAW
E75	DRILL PRESS
E76	GRINDER
E77	BLAST CAB.
E78	B. SAND
E79	ROTARY TWO POST LIFT (2 TOTAL)
E80	POWER WASHER
E81	LATHE, BRAKE/DRUM
E82	OIL FILTER PRESS
E83	MOHAWK 4-POST VEHICLE LIFT
E84	DRILL PRESS (LOCATION TBD)
E85	VERTICAL BAND SAW (LOCATION TBD)
E86	DRILL PRESS (LOCATION TBD)
E87	FURNACE
E88	COMPRESSOR
E89	COMPRESSOR
E90	AIR DRYER
E91	BRIDGE CRANE
E92	MEDIA RECOVERY STORAGE
E93	PAINT BOOTH
E94	COMPRESSOR
E95	LATHE, BENCH MOUNTED (LOCATION TBD)

PROJECT KEY PLAN



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207.221.2266
www.allied-eng.com

FILENAME: A101A.DWG

Allied Project No: 13057 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

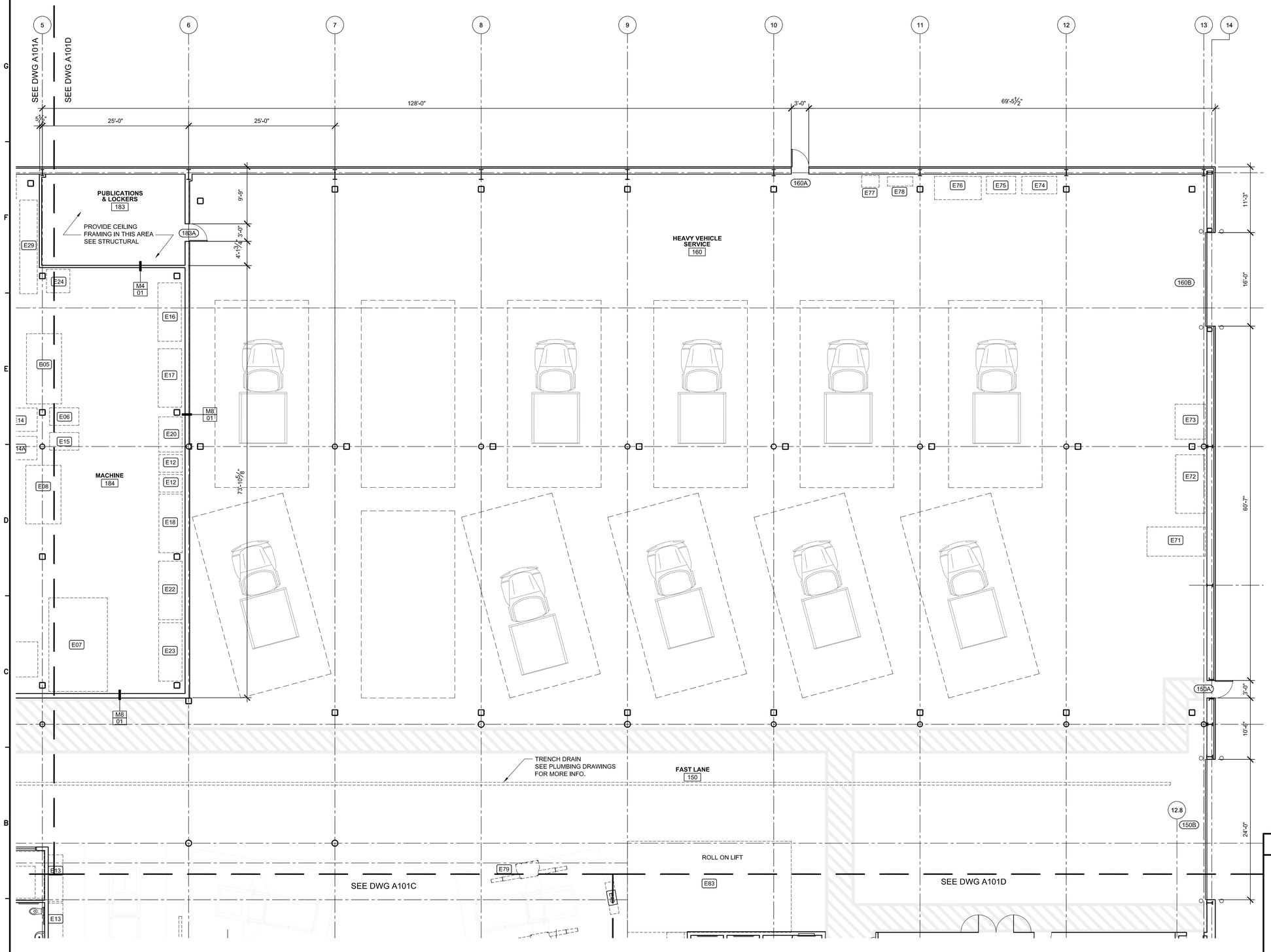
ARCHITECTURAL – FIRST FLOOR PLAN – AREA–A

SHEET NUMBER

A101A

ISSUED FOR BID

FEBRUARY 27, 2014



1 First Floor Plan - Area B

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

GENERAL NOTES: SEE A101A

1. SEE A601 FOR PARTITION DETAILS WALLS TYPE $M\frac{A}{01}$ U.N.O.

2. EQUIPMENT AND FURNITURE SHOWN FOR REFERENCE ONLY AND IS NOT PROVIDED AS PART OF SCOPE OF CONTRACT U.N.O.

3. ALL DIMENSIONS TO FACE OF STUD/BLOCK/ FOUNDATION U.N.O. WINDOW DIMENSIONS ARE TO UNIT SIZE NOT ROUGH OPENING.

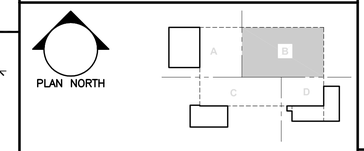
4. SEE A601 FOR INTERIOR WINDOWS.

5. DOOR OPENINGS TO BE 6" OFF ADJACENT FINISH U.N.O.

EQUIPMENT LIST

E01	PRESS BRAKE= 40,000
E02	SHEAR 10 FT= 36,000
E03	BURNING TABLE AND WATER TANK=22,500
E03A	BURN TABLE POWER SUPPLY
E04	STEEL RACK AND STOCK=100,000
E05	DRILL PRESS 8 FT= 4500
E06	HYDRA PRESS 150 TON= 2500
E07	40 INCH BAND SAW= 12,000
E08	200 TON PUNCH= 8000
E09	20 FT SETUP TABLE= 11,000
E10	SMALL BAND SAW= 800
E11	30 FEET ROLLS WITH MOTOR AND HYDRA= 4700
E12	WELDERS =600 LB EACH
E13	SETUP BENCHES 500 LB EACH
E14	2 SMALL DRILL PRESS= 1000 EACH
E14A	SMALL DRILL PRESS
E15	DRILL SHARPENER 400
E16	LATHE= 4000
E17	LATHE= 5000
E18	LATHE= 5000
E19	LARGE ARM DRILL= 8000
E20	HEATING OVEN= 600
E21	GRINDER= 2000
E22	LARGE BRIDGE PORT LATHE= 4000
E23	SMALL BRIDGE PORT LATHE= 2000
E24	BAND SAW= 200
E28	STEEL RACK WITH STOCK= 25,000
E29	TEST BENCH= 2000
E30	TIRE MACHINE 110A
E31	TIRE BALANCER 220A
E32	WASTE OIL
E33	3X 55 GALLON DRUMS
E34	PARTS WASHER 110A
E35	STRUT TOOL
E36	WHEEL WEIGHTS
E37	CHEMICAL BIN
E38	TOOL CABINET
E39	DRILL PRESS 110A
E40	GRINDER 110A
E41	WORK BENCH (NEW)
E42	4X 35 GALLON DRUMS
E43	WELDER
E44	TRANSMISSION FLUSH MACH.
E45	EVAP. LEAK MACHINE
E46	TRANSMISSION JACK
E47	TIRE HOIST
E48	TORCHES
E49	AVERAGE TOOL BOX (5 TOTAL)
E50	CABINET FOR MISC. STUFF
E51	SHELVES
E52	FILE
E53	PLAN TABLE
E54	WEEDING TABLE
E55	ROLLER
E56	SCOTCHLITE (OLD)
E56A	SCOTCHLITE
E57	WORK TABLE
E58	EXTRUDED SIGN ASSEMBLY
E59	EXTRUDED PANELS
E60	PRINT
E61	PANEL STOR.
E62	COMPRESSOR
E63	DUST
E64	BAND
E65	PANEL SAW
E66	DRILL PRESS
E67	CHOP SAW
E68	PARTS WASHER
E69	BLAST
E71	FORKLIFT CHARGER
E72	LARGE PRESS
E73	TIRE BAL.
E74	BAND SAW
E75	DRILL PRESS
E76	GRINDER
E77	BLAST CAB.
E78	B. SAND
E79	ROTARY TWO POST LIFT (2 TOTAL)
E80	POWER WASHER
E81	LATHE, BRAKEDRUM
E82	OIL FILTER PRESS
E83	MOHAWK 4-POST VEHICLE LIFT
E84	DRILL PRESS (LOCATION TBD)
E85	VERTICAL BAND SAW (LOCATION TBD)
E86	DRILL PRESS (LOCATION TBD)
E87	FURNACE
E88	COMPRESSOR
E89	COMPRESSOR
E90	AIR DRYER
E91	BRIDGE CRANE
E92	MEDIA RECOVERY STORAGE
E93	PAINT BOOTH
E94	COMPRESSOR
E95	LATHE, BENCH MOUNTED (LOCATION TBD)

PROJECT KEY PLAN



Scott Simons Architects

Allied Engineering
Structural Mechanical Electrical Commissioning

160 Veranda Street
Portland, Maine 04103
207.221.2360
207.221.2266
www.allied-eng.com

FILENAME: A101B.DWG Allied Project No: 13057 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

WIN: 020118.20

PROJECT INFORMATION	
PROGRAM	–
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

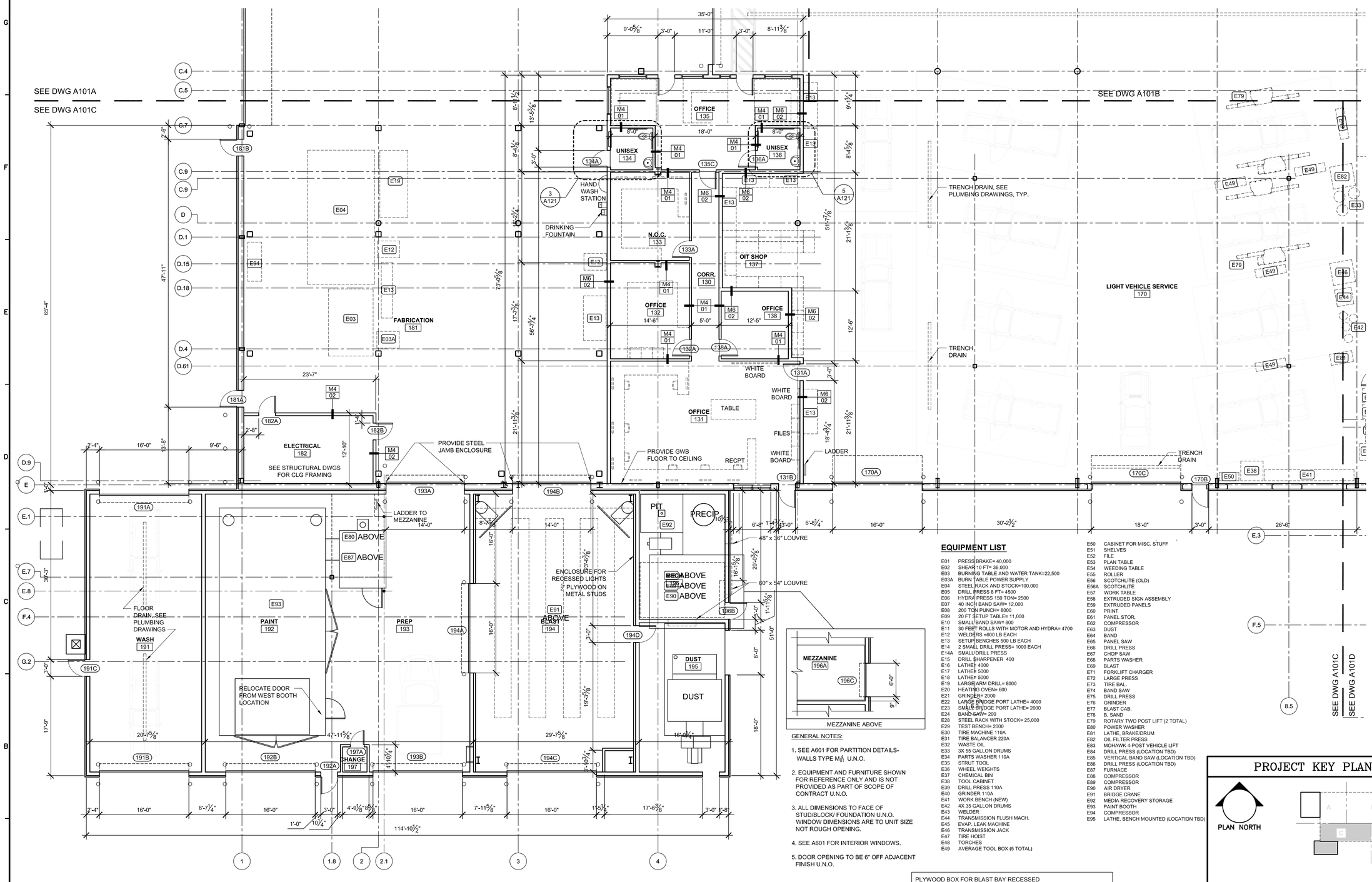
ARCHITECTURAL – FIRST FLOOR PLAN – AREA–B

SHEET NUMBER

A101B

ISSUED FOR BID

FEBRUARY 27, 2014



1 First Floor Plan - Area C

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

EQUIPMENT LIST

E01 PRESS BRAKE= 40,000
E02 SHEAR 10 FT= 36,000
E03 BURNING TABLE AND WATER TANK=22,500
E03A BURN TABLE POWER SUPPLY
E04 STEEL RACK AND STOCK=100,000
E05 DRILL PRESS 8 FT= 4500
E06 HYDRA PRESS 150 TON= 2500
E07 40 INCH BAND SAW= 12,000
E08 200 TON PUNCH= 8000
E09 20 FT SETUP TABLE= 11,000
E10 SMALL BAND SAW= 800
E11 30 FEET ROLLS WITH MOTOR AND HYDRA= 4700
E12 WELDERS =600 LB EACH
E13 SETUP BENCHES 500 LB EACH
E14 2 SMALL DRILL PRESS= 1000 EACH
E14A SMALL DRILL PRESS
E15 DRILL SHARPENER 400
E16 LATHE= 4000
E17 LATHE= 5000
E18 LATHE= 5000
E19 LARGE ARM DRILL= 8000
E20 HEATING OVEN= 600
E21 GRINDER= 2000
E22 LARGE BRIDGE PORT LATHE= 4000
E23 SMALL BRIDGE PORT LATHE= 2000
E24 BAND SAW= 200
E28 STEEL RACK WITH STOCK= 25,000
E29 TEST BENCH= 2000
E30 TIRE MACHINE 110A
E31 TIRE BALANCER 220A
E32 WASTE OIL
E33 3X 55 GALLON DRUMS
E34 PARTS WASHER 110A
E35 STRUT TOOL
E36 WHEEL WEIGHTS
E37 CHEMICAL BIN
E38 TOOL CABINET
E39 DRILL PRESS 110A
E40 GRINDER 110A
E41 WORK BENCH (NEW)
E42 4X 35 GALLON DRUMS
E43 WELDER
E44 TRANSMISSION FLUSH MACH.
E45 EVAP. LEAK MACHINE
E46 TRANSMISSION JACK
E47 TIRE HOIST
E48 TORCHES
E49 AVERAGE TOOL BOX (5 TOTAL)
E50 CABINET FOR MISC. STUFF
E51 SHELVES
E52 FILE
E53 PLAN TABLE
E54 WEEDING TABLE
E55 ROLLER
E56 SCOTCHLITE (OLD)
E56A SCOTCHLITE
E57 WORK TABLE
E58 EXTRUDED SIGN ASSEMBLY
E59 EXTRUDED PANELS
E60 PRINT
E61 PANEL STOR.
E62 COMPRESSOR
E63 DUST
E64 BAND
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E66 DRILL PRESS
E67 CHOP SAW
E68 PARTS WASHER
E69 BLAST
E71 FORKLIFT CHARGER
E72 LARGE PRESS
E73 TIRE BAL.
E74 BAND SAW
E75 DRILL PRESS
E76 GRINDER
E77 BLAST CAB.
E78 B. SAND
E79 ROTARY TWO POST LIFT (2 TOTAL)
E80 POWER WASHER
E81 LATHE, BRAKE/DRUM
E82 OIL FILTER PRESS
E83 MOHAWK 4-POST VEHICLE LIFT
E84 DRILL PRESS (LOCATION TBD)
E85 VERTICAL BAND SAW (LOCATION TBD)
E86 DRILL PRESS (LOCATION TBD)
E87 FURNACE
E88 COMPRESSOR
E89 COMPRESSOR
E90 AIR DRYER
E91 BRIDGE CRANE
E92 MEDIA RECOVERY STORAGE
E93 PAINT BOOTH
E94 COMPRESSOR
E95 LATHE, BENCH MOUNTED (LOCATION TBD)

GENERAL NOTES:

1. SEE A601 FOR PARTITION DETAILS- WALLS TYPE M01 U.N.O.
2. EQUIPMENT AND FURNITURE SHOWN FOR REFERENCE ONLY AND IS NOT PROVIDED AS PART OF SCOPE OF CONTRACT U.N.O.
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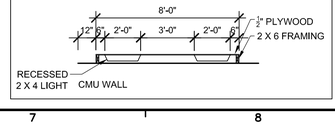
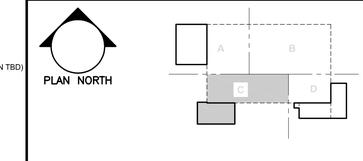
4. SEE A601 FOR INTERIOR WINDOWS.
5. DOOR OPENING TO BE 6" OFF ADJACENT FINISH U.N.O.

PLYWOOD BOX FOR BLAST BAY RECESSED LIGHT FIXTURES. TYP. 4 LOCATIONS: 1/4" SCALE



PROJECT KEY PLAN



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	SSA
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – FIRST FLOOR PLAN – AREA–C

SHEET NUMBER

A101C

Scott Simons Architects

FILENAME: A101C.DWG

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www.allied-eng.com

Allied Project No: 13557 Cad File:

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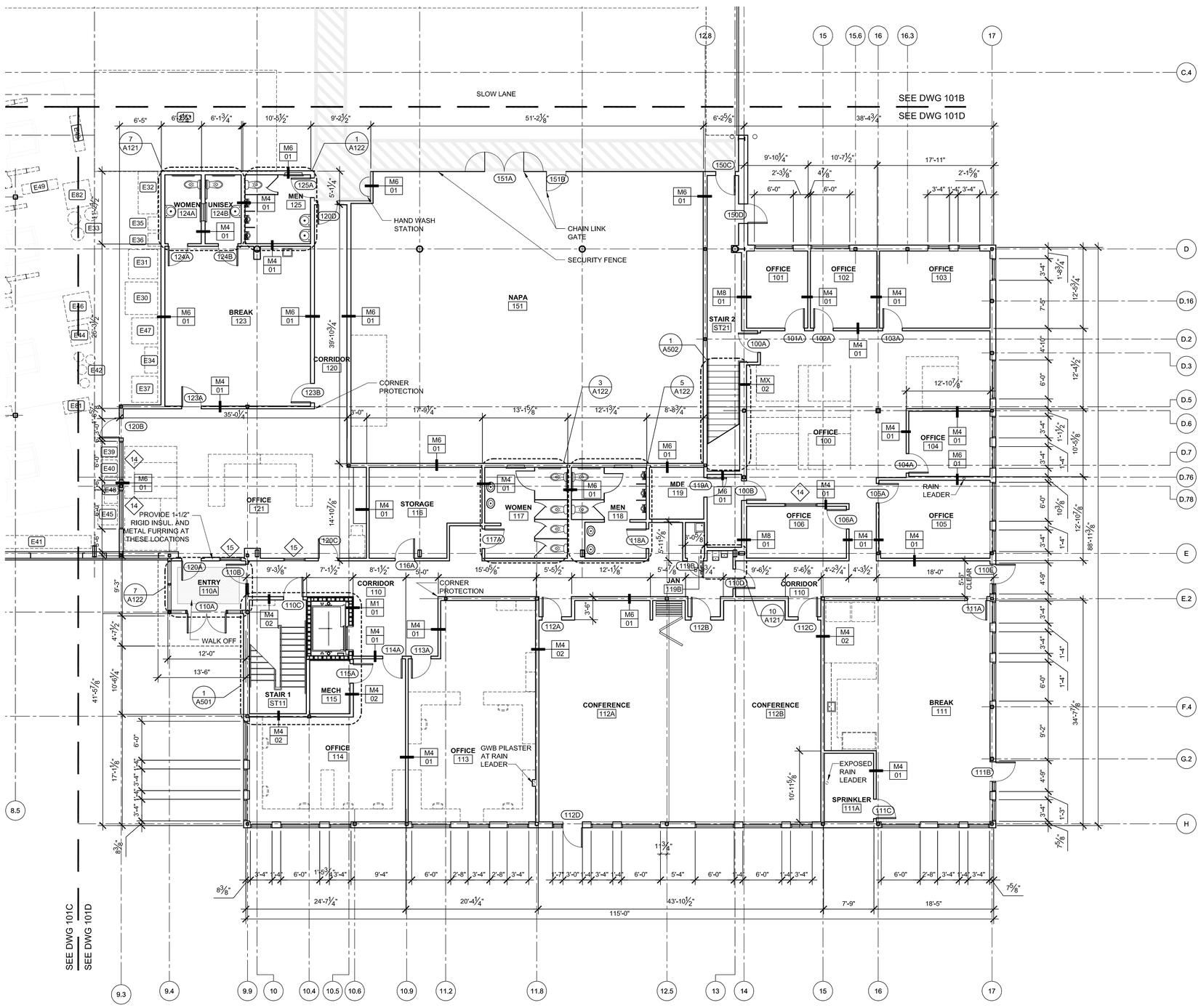

1 First Floor Plan - Area D

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

GENERAL NOTES:

1. SEE A601 FOR PARTITION DETAILS- WALLS TYPE M01 U.N.O.
2. EQUIPMENT AND FURNITURE SHOWN FOR REFERENCE ONLY AND IS NOT PROVIDED AS PART OF SCOPE OF CONTRACT U.N.O.
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EQUIPMENT LIST

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E19	LARGE ARM DRILL= 8000
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E23	SMALL BRIDGE PORT LATHE= 2000
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E28	STEEL RACK WITH STOCK= 25,000
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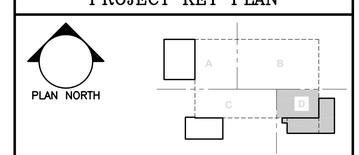
E30	TIRE MACHINE 110A
E31	TIRE BALANCER 220A
E32	WASTE OIL
E33	3X 55 GALLON DRUMS
E34	PARTS WASHER 110A
E35	STRUT TOOL
E36	WHEEL WEIGHTS
E37	CHEMICAL BIN
E38	TOOL CABINET
E39	DRILL PRESS 110A
E40	GRINDER 110A
E41	WORK BENCH (NEW)
E42	4X 35 GALLON DRUMS
E43	WELDER
E44	TRANSMISSION FLUSH MACH.
E45	EVAP. LEAK MACHINE
E46	TRANSMISSION JACK
E47	TIRE HOIST
E48	TORCHES
E49	AVERAGE TOOL BOX (5 TOTAL)
E50	CABINET FOR MISC. STUFF
E51	SHELVES
E52	FILE
E53	PLAN TABLE
E54	WEEDING TABLE
E55	ROLLER
E56	SCOTCHLITE (OLD)
E56A	SCOTCHLITE
E57	WORK TABLE
E58	EXTRUDED SIGN ASSEMBLY
E59	EXTRUDED PANELS
E60	PRINT
E61	PANEL STOR.
E62	COMPRESSOR
E63	DUST
E64	BAND
E65	PANEL SAW
E66	DRILL PRESS
E67	CHOP SAW
E68	PARTS WASHER
E69	BLAST
E71	FORKLIFT CHARGER
E72	LARGE PRESS
E73	TIRE BAL.
E74	BAND SAW
E75	DRILL PRESS
E76	GRINDER
E77	BLAST CAB.
E78	B. SAND
E79	ROTARY TWO POST LIFT (2 TOTAL)
E80	POWER WASHER
E81	LATHE, BRAKE/DRUM
E82	OIL FILTER PRESS
E83	MOHAWK 4-POST VEHICLE LIFT
E84	DRILL PRESS (LOCATION TBD)
E85	VERTICAL BAND SAW (LOCATION TBD)
E86	DRILL PRESS (LOCATION TBD)
E87	FURNACE
E88	COMPRESSOR
E89	COMPRESSOR
E90	AIR DRYER
E91	BRIDGE CRANE
E92	MEDIA RECOVERY STORAGE
E93	PAINT BOOTH
E94	COMPRESSOR
E95	LATHE, BENCH MOUNTED (LOCATION TBD)

PROJECT KEY PLAN



Scott Simons Architects

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160 Veranda Street
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207.221.2266
www.allied-eng.com

FILENAME: A101D.DWG

Allied Project No: 13057 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT SCOTT R. SIMONS NO. 2034 STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	SSA
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

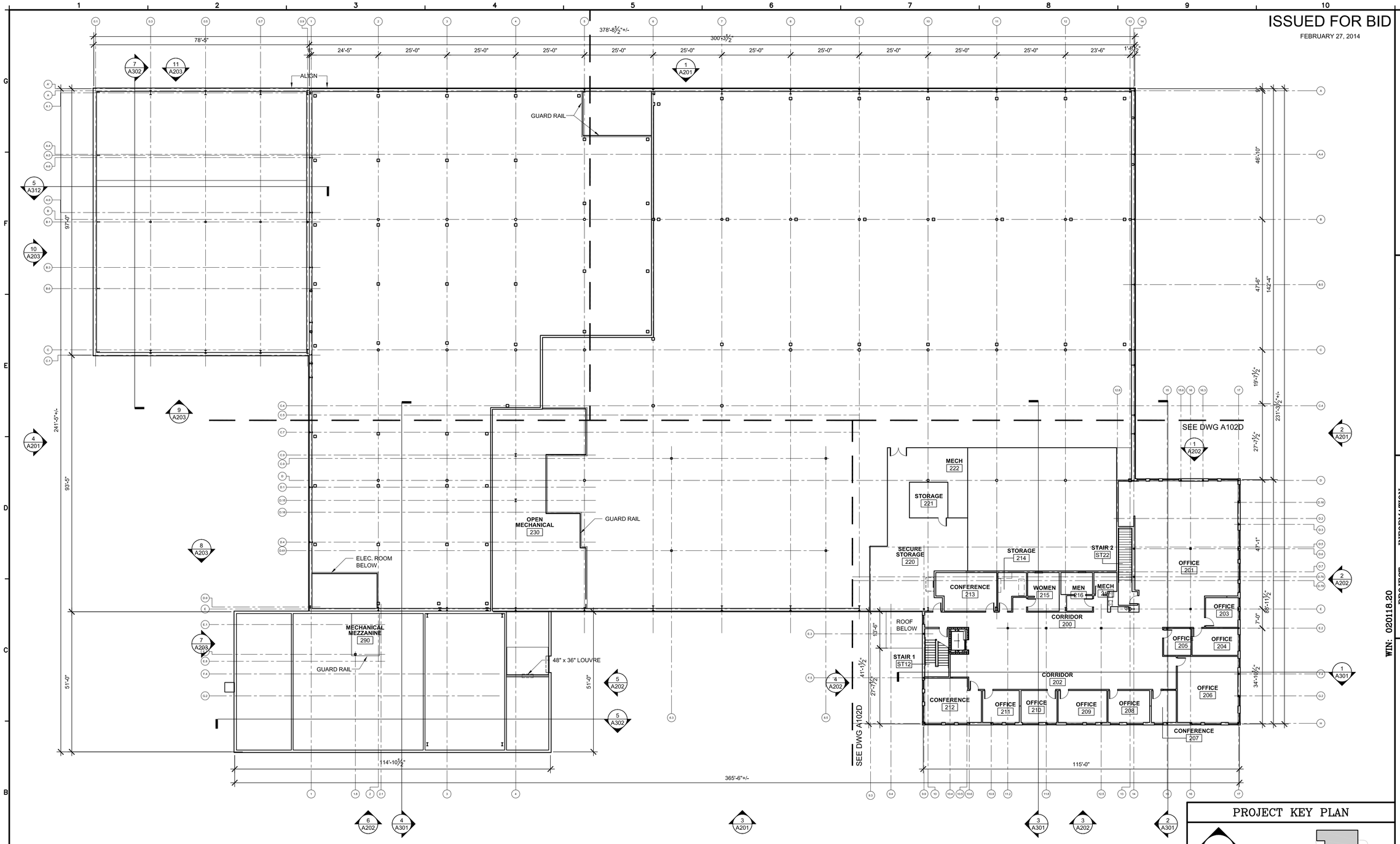
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – FIRST FLOOR PLAN – AREA–D

SHEET NUMBER

A101D

ISSUED FOR BID
FEBRUARY 27, 2014

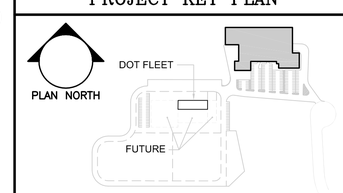


1 Second Floor Plan
SCALE: 1/16" = 1'-0"

GENERAL NOTES:

1. SEE A601 FOR PARTITION DETAILS- WALLS TYPE M(1) U.N.O.
2. EQUIPMENT AND FURNITURE SHOWN FOR REFERENCE ONLY AND IS NOT PROVIDED AS PART OF SCOPE OF CONTRACT U.N.O.
3. ALL DIMENSIONS TO FACE OF STUD/BLOCK/ FOUNDATION U.N.O. WINDOW DIMENSIONS ARE TO UNIT SIZE NOT ROUGH OPENING.
4. SEE A601 FOR INTERIOR WINDOWS.
5. DOOR OPENING TO BE 6" OFF ADJACENT FINISH U.N.O.

PROJECT KEY PLAN



Scott Simons Architects

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FILENAME: A102.DWG
Allied Project No: 13057 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

LICENSED ARCHITECT
SCOTT R. SIMONS
No. 2934
STATE OF MAINE

	SIGNATURE
ARCH. LIN. NUMBER	–
DATE	FEBRUARY 27, 2014

WIN: 020118.20

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	SSA
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	–
PROJECT COMPLETION DATE	

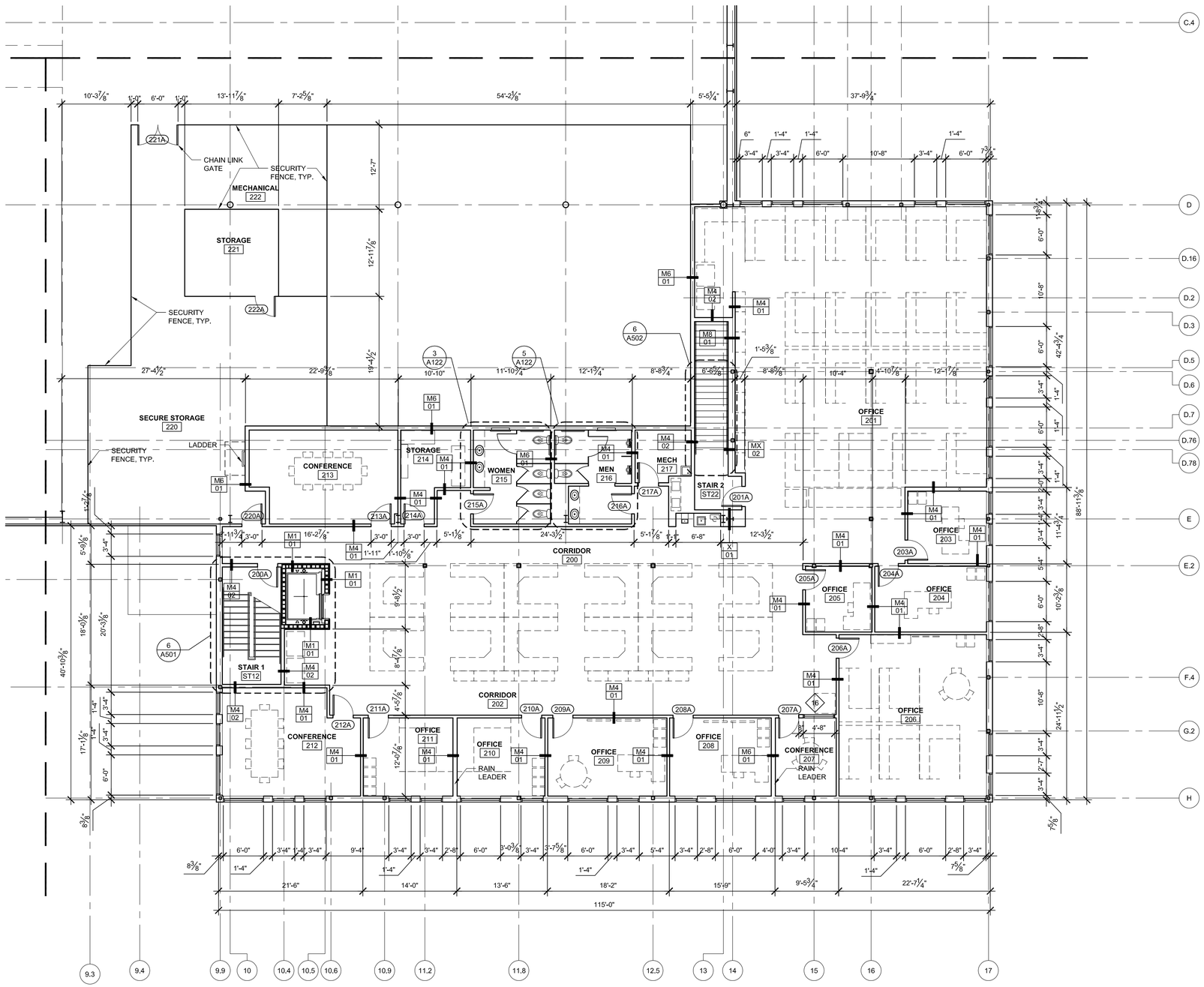
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – SECOND FLOOR PLAN

SHEET NUMBER
A102

ISSUED FOR BID

FEBRUARY 27, 2014



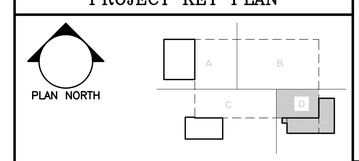
1 Second Floor Plan - Area D

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

GENERAL NOTES:

1. SEE A601 FOR PARTITION DETAILS- WALLS TYPE M$\frac{1}{4}$ U.N.O.
2. EQUIPMENT AND FURNITURE SHOWN FOR REFERENCE ONLY AND IS NOT PROVIDED AS PART OF SCOPE OF CONTRACT U.N.O.
3. ALL DIMENSIONS TO FACE OF STUD/BLOCK/ FOUNDATION U.N.O. WINDOW DIMENSIONS ARE TO UNIT SIZE NOT ROUGH OPENING.
4. SEE A601 FOR INTERIOR WINDOWS.
5. DOOR OPENING TO BE 6" OFF ADJACENT FINISH U.N.O.

PROJECT KEY PLAN



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FILENAME: A102D.DWG

Allied Project No: 13057 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT SCOTT R. SIMONS NO. 2034 STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

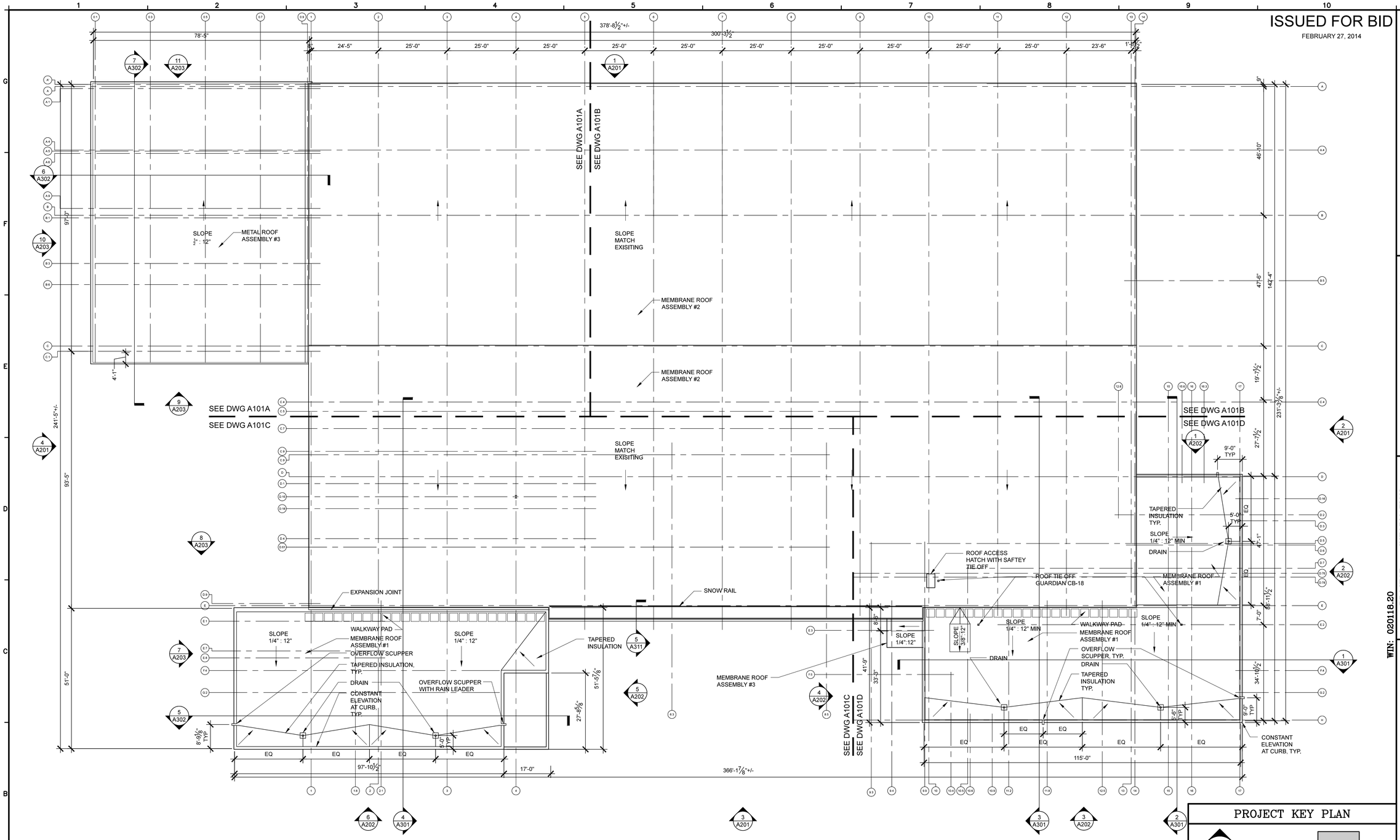
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – SECOND FLOOR PLAN – AREA–D

SHEET NUMBER

A102D

ISSUED FOR BID
FEBRUARY 27, 2014



1 Roof Plan
SCALE: 1/16" = 1'-0"

GENERAL NOTES:

1. SEE A601 FOR PARTITION DETAILS- WALLS TYPE M$\frac{6}{4}$ U.N.O.

2. EQUIPMENT AND FURNITURE SHOWN FOR REFERENCE ONLY AND IS NOT PROVIDED AS PART OF SCOPE OF CONTRACT U.N.O.

3. ALL DIMENSIONS TO FACE OF STUD/BLOCK/ FOUNDATION U.N.O. WINDOW DIMENSIONS ARE TO UNIT SIZE NOT ROUGH OPENING.

4. SEE A601 FOR INTERIOR WINDOWS.

5. DOOR OPENING TO BE 6" OFF ADJACENT FINISH U.N.O.

MEMBRANE ROOF ASSEMBLY #1

MEMBRANE ROOFING
5" RIGID INSULATION (POLYISO, R-31)
VAPOR BARRIER
8" PRECAST PLANK
CEILING AS NOTED

MEMBRANE ROOF ASSEMBLY #2

MEMBRANE ROOFING
4" RIGID INSULATION (POLYISO, R-25)
VAPOR BARRIER
1" METAL ROOF DECKING

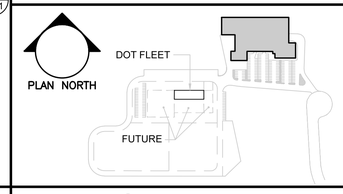
MEMBRANE ROOF ASSEMBLY #3

MEMBRANE ROOFING
4" RIGID INSULATION (POLYISO, R-24.8)
VAPOR BARRIER
6" PRECAST PLANK
CEILING AS NOTED

METAL ROOF ASSEMBLY #3

METAL ROOFING
5" RIGID INSULATION (POLYISO, R-31)
VAPOR BARRIER
1" METAL ROOF DECK

PROJECT KEY PLAN



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FILENAME: A103.DWG
Allied Project No: 13057 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

	SIGNATURE	DATE
ARCH. LIN. NUMBER		FEBRUARY 27, 2014

PROJECT INFORMATION		
PROGRAM		
PROJECT MANAGER	ALLIED ENG., INC.	
DESIGNER		
CONSULTANT	SSA	
PROJECT RESIDENT		
CONTRACTOR		
PROJECT COMPLETION DATE	–	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – ROOF PLAN

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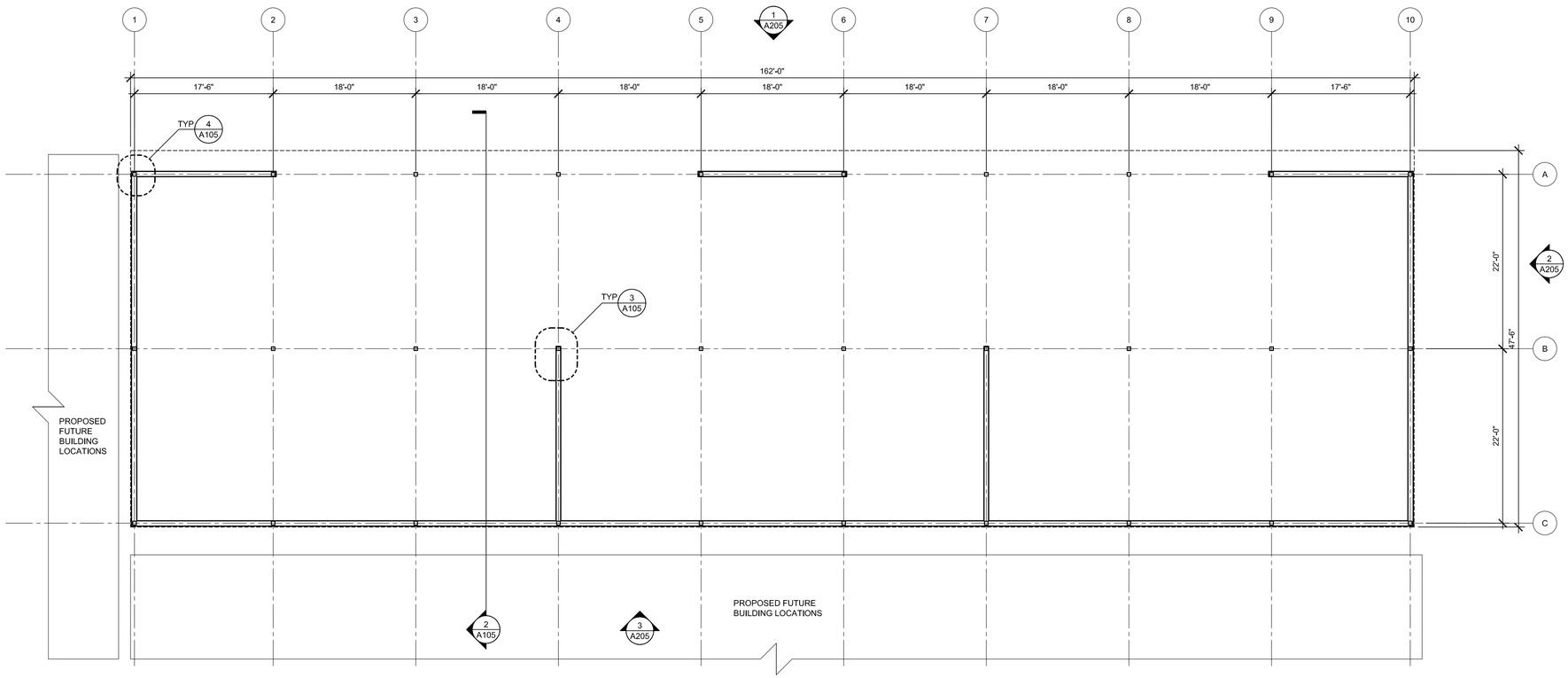
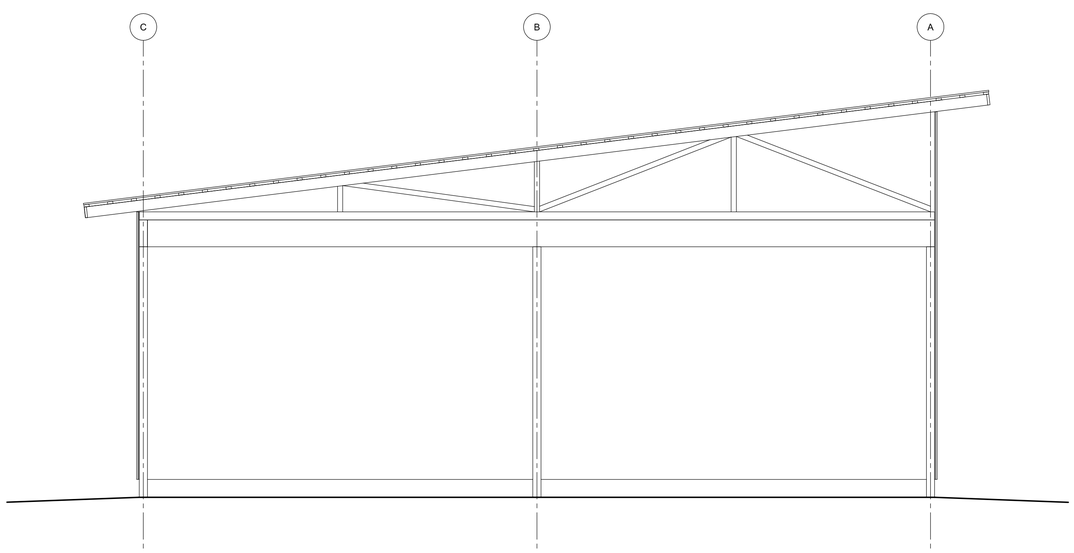
SHEET NUMBER
A103

ISSUED FOR BID

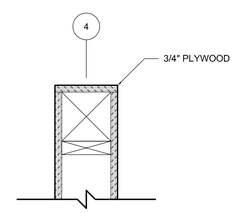
FEBRUARY 27, 2014



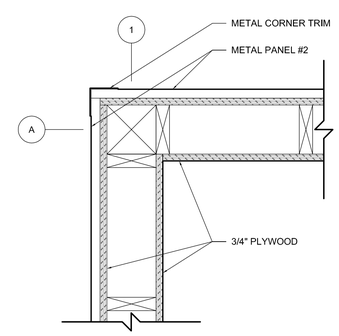
1 Floor Plan
SCALE: 1/8" = 1'-0"



2 Building Section
SCALE: 1/4" = 1'-0"



3 Plan Detail
SCALE: 1 1/2" = 1'-0"

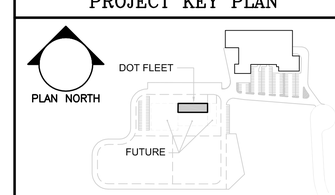


4 Plan Detail
SCALE: 1 1/2" = 1'-0"

GENERAL NOTES:

1. SEE A601 FOR PARTITION DETAILS- WALLS TYPE M^{5}_{0} U.N.O.
2. EQUIPMENT AND FURNITURE SHOWN FOR REFERENCE ONLY AND IS NOT PROVIDED AS PART OF SCOPE OF CONTRACT U.N.O.
3. ALL DIMENSIONS TO FACE OF STUD/BLOCK/ FOUNDATION U.N.O. WINDOW DIMENSIONS ARE TO UNIT SIZE NOT ROUGH OPENING.
4. SEE A601 FOR INTERIOR WINDOWS.
5. DOOR OPENING TO BE 6" OFF ADJACENT FINISH U.N.O.

PROJECT KEY PLAN



SS Scott Simons Architects

FILENAME: A105.DWG

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Allied Project No: 13657 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

INFORMATION

PROJECT	
PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	SSA
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

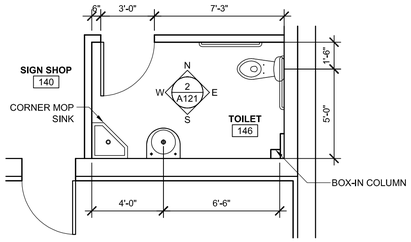
ARCHITECTURAL – DOT FLEET
FLOOR PLAN

SHEET NUMBER

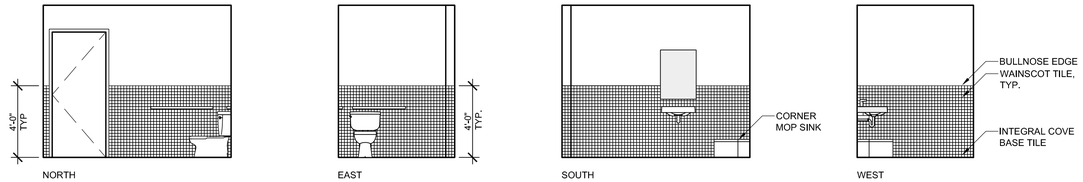
A105

ISSUED FOR BID

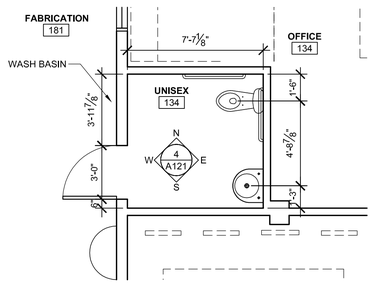
FEBRUARY 27, 2014



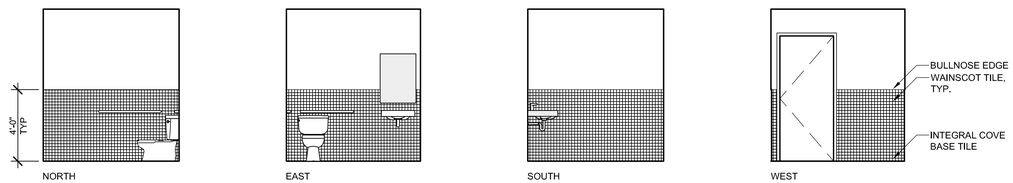
1 Enlarged Floor Plan
SCALE: 1/4" = 1'-0"



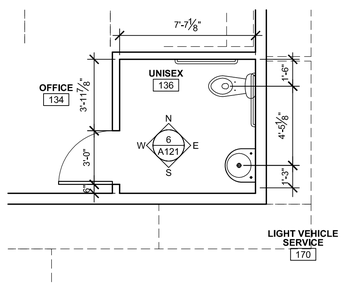
2 Interior Elevations
SCALE: 1/4" = 1'-0"



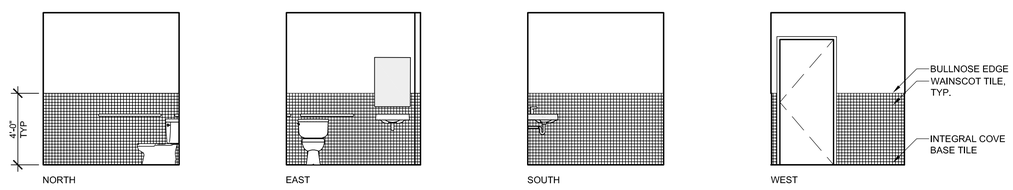
3 Enlarged Floor Plan
SCALE: 1/4" = 1'-0"



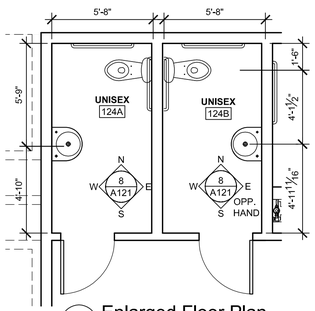
4 Interior Elevations
SCALE: 1/4" = 1'-0"



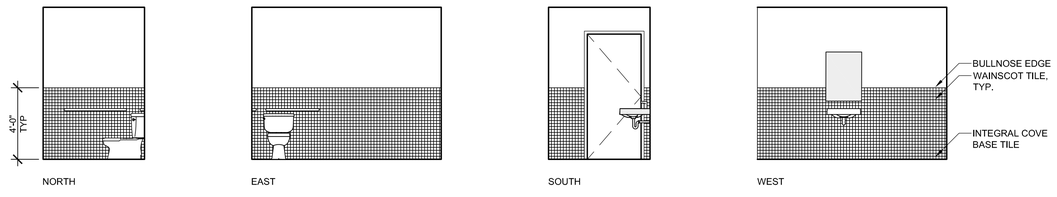
5 Enlarged Floor Plan
SCALE: 1/4" = 1'-0"



6 Interior Elevations
SCALE: 1/4" = 1'-0"



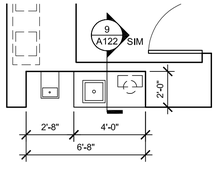
7 Enlarged Floor Plan
SCALE: 1/4" = 1'-0"



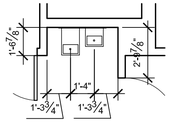
8 Interior Elevations
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

1. ALL DIMENSIONS ARE FROM FACE OF FINISH U.N.O.
2. SEE A121 FOR TYPICAL FIXTURE MOUNTING HEIGHTS.
3. COORDINATE IN WALL BLOCKING REQUIREMENTS OF OWNER FURNISHED BATHROOM ACCESSORIES.



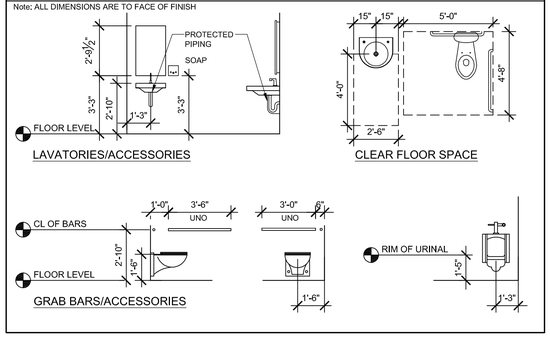
9 Enlarged Floor Plan
SCALE: 1/4" = 1'-0"



10 Enlarged Floor Plan
SCALE: 1/4" = 1'-0"

TYPICAL DIMENSIONS FOR BATHROOM FIXTURES AND ACCESSORIES

Note: ALL DIMENSIONS ARE TO FACE OF FINISH



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FILENAME: A121.DWG

Allied Project No: 13057 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – ENLARGED FLOOR PLAN

SHEET NUMBER

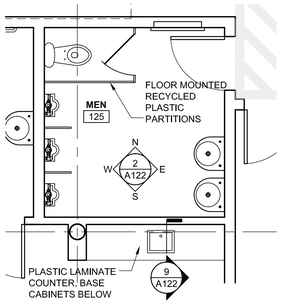
A121

ISSUED FOR BID

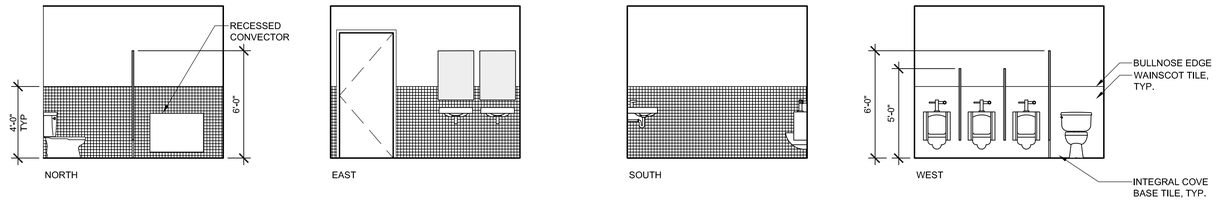
FEBRUARY 27, 2014

GENERAL NOTES:

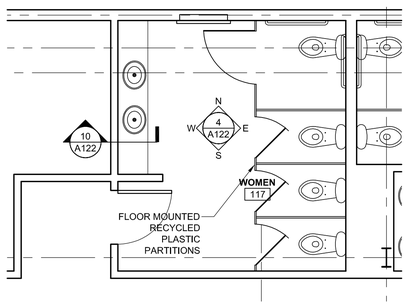
1. ALL DIMENSIONS ARE FROM FACE OF FINISH U.N.O.
2. SEE A121 FOR TYPICAL FIXTURE MOUNTING HEIGHTS.
3. COORDINATE IN WALL BLOCKING REQUIREMENTS OF OWNER FURNISHED BATHROOM ACCESSORIES.



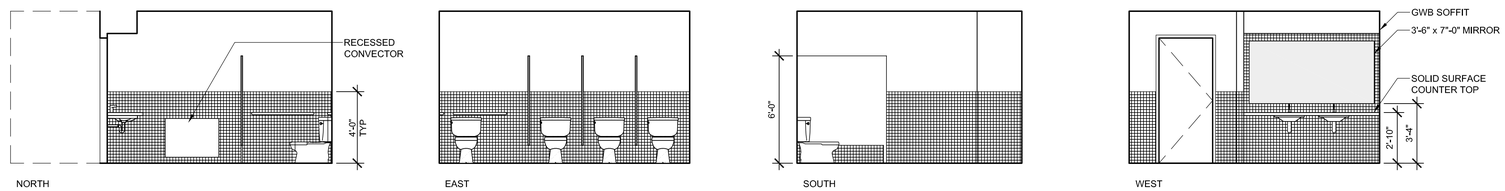
1 Enlarged Floor Plan
SCALE: 1/4" = 1'-0"



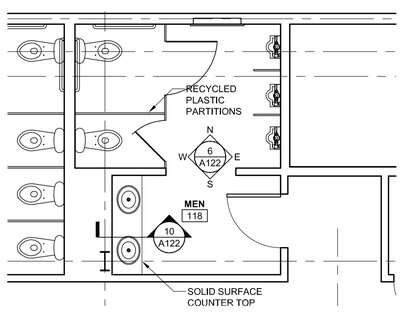
2 Interior Elevations
SCALE: 1/4" = 1'-0"



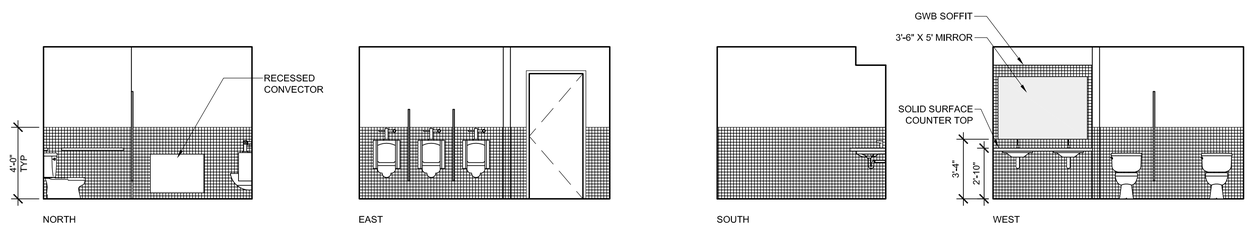
3 Enlarged Floor Plan
SCALE: 1/4" = 1'-0"



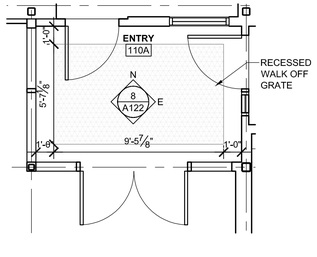
4 Interior Elevations
SCALE: 1/4" = 1'-0"



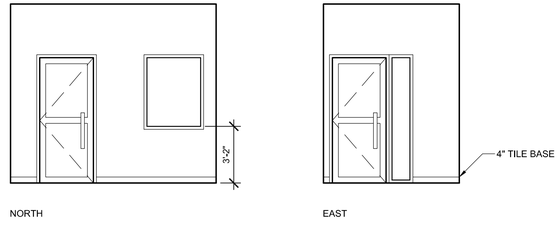
5 Enlarged Floor Plan
SCALE: 1/4" = 1'-0"



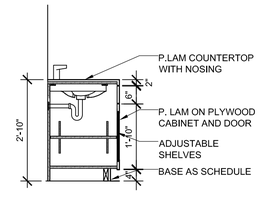
6 Interior Elevations
SCALE: 1/4" = 1'-0"



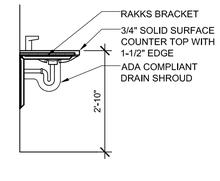
7 Enlarged Floor Plan
SCALE: 1/4" = 1'-0"



8 Interior Elevations
SCALE: 1/4" = 1'-0"



9 Cabinet Detail
SCALE: 1/2" = 1'-0"



10 Counter Detail
SCALE: 1/2" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – ENLARGED FLOOR PLAN

SHEET NUMBER
A122

Scott Simons Architects

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

FILENAME: A122.DWG

Allied Project No: 13057 Cad File:

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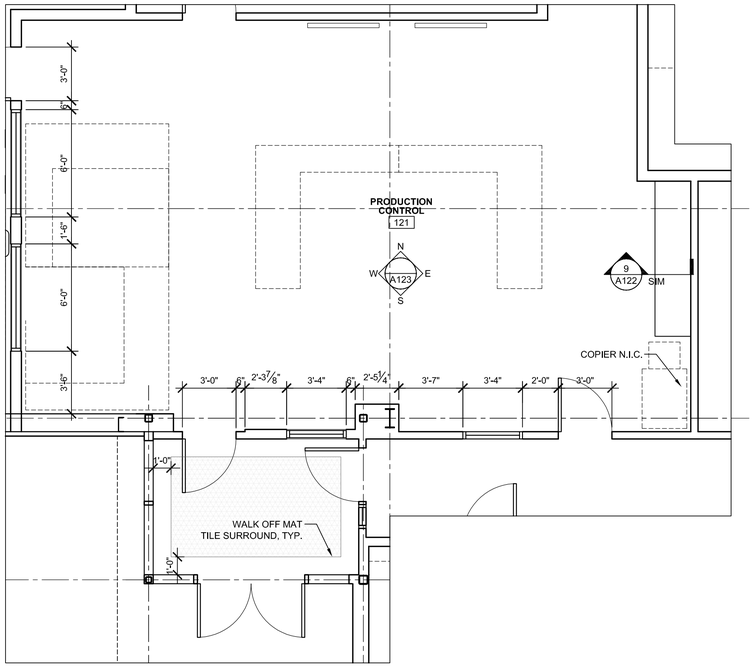
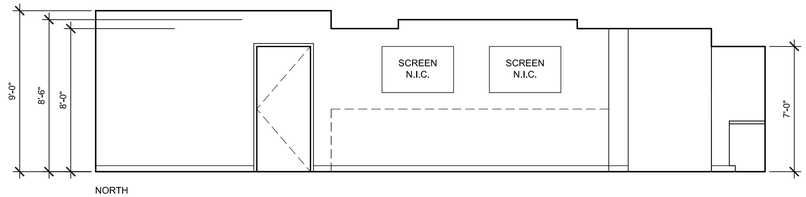
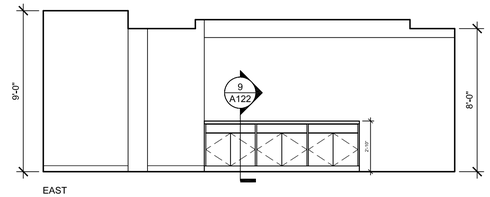


1 Enlarged First Floor Plan
SCALE: 1/4" = 1'-0"

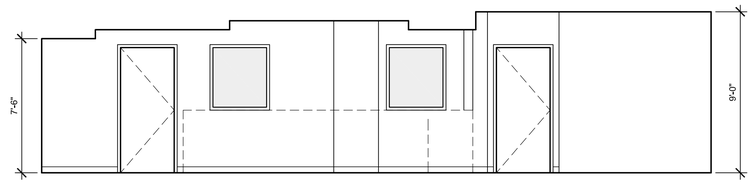


NORTH

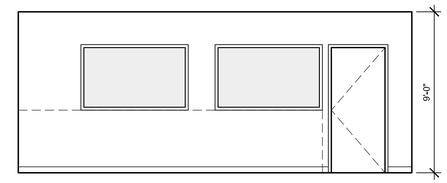


EAST

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



SOUTH



WEST

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

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
No. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

WIN: 020118.20

INFORMATION

PROJECT	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – ENLARGED FLOOR PLAN

SHEET NUMBER

A123

Scott Simons Architects

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
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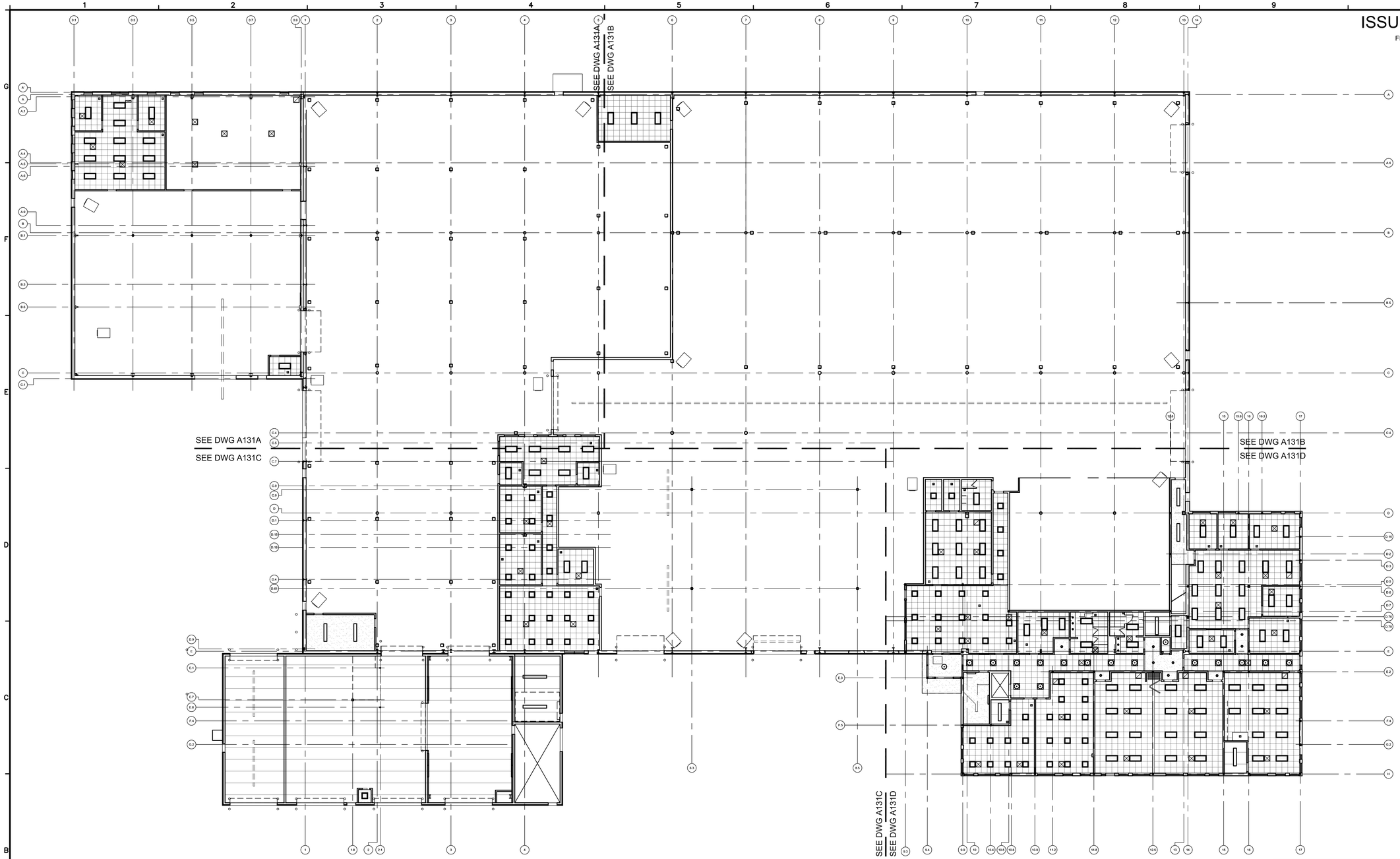
207.221.2266
www.allied-eng.com

FILENAME: A123.DWG

Allied Project No: 13057 Cad File:

ISSUED FOR BID

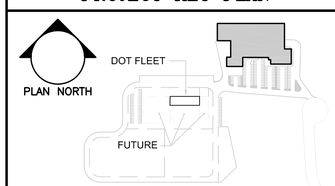
FEBRUARY 27, 2014



1 First Floor Reflected Ceiling Plan

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

PROJECT KEY PLAN



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207.221.2366
www.allied-eng.com

FILENAME: A131.DWG

Allied Project No: 13057 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE	-
ARCH. LIN. NUMBER	
DATE	FEBRUARY 27, 2014

WIN: 020118.20

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	-

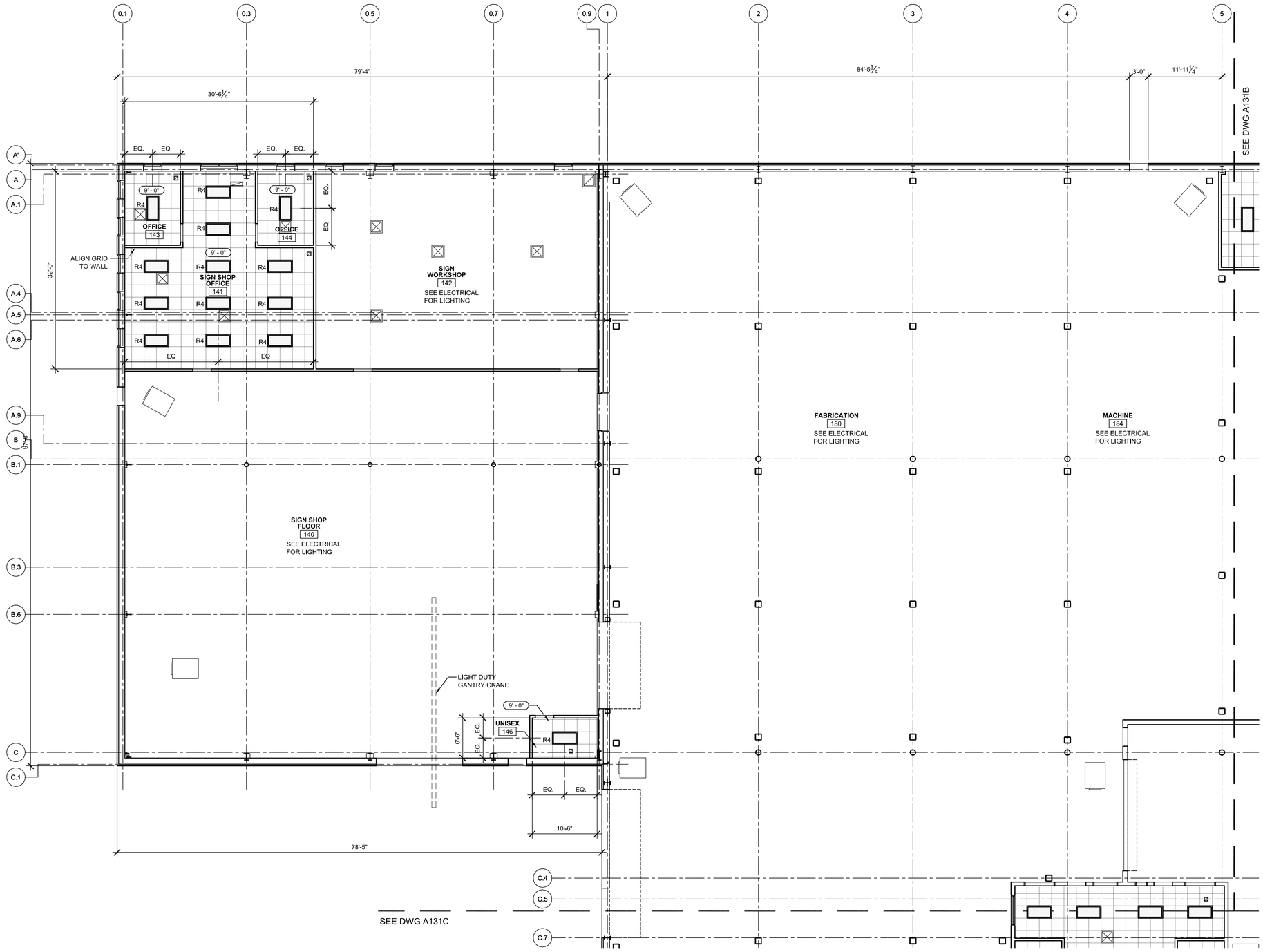
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – FIRST FLOOR
REFLECTED CEILING PLAN

SHEET NUMBER

A131

ISSUED FOR BID
FEBRUARY 27, 2014

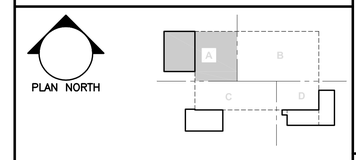


1 First Floor Reflected Ceiling Plan - Area A
SCALE: 1/8" = 1'-0"

LIGHTING LEGEND

R2	2' x 2' Recessed Fixture
SR2	2' x 2' Semi Recessed Fixture
R4	2' x 4' Recessed Fixture
S2	Surface Mount Fixture
RD1	Recessed Down Light
RD2	Recessed Down Light
S6	Surface Mount Linear Fixture
S8	Surface Mount Linear Fixture
P6	Pendant Mount Linear Fixture
P8	Pendant Mount Linear Fixture
P12	Pendant Mount Linear Fixture
P16	Pendant Mount Linear Fixture
W3	Wall Mount Linear Fixture
W4	Wall Mount Linear Fixture
	2' x 2' Suspended ACT
	GWB
	Concrete Plank
	GUH
	Supply
	Return
	Vent

PROJECT KEY PLAN



Scott Simons Architects

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FILENAME: A131A.DWG
Allied Project No: 13057 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE
COMMISSIONER:
CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE
ARCH. LIN. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	SSA
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

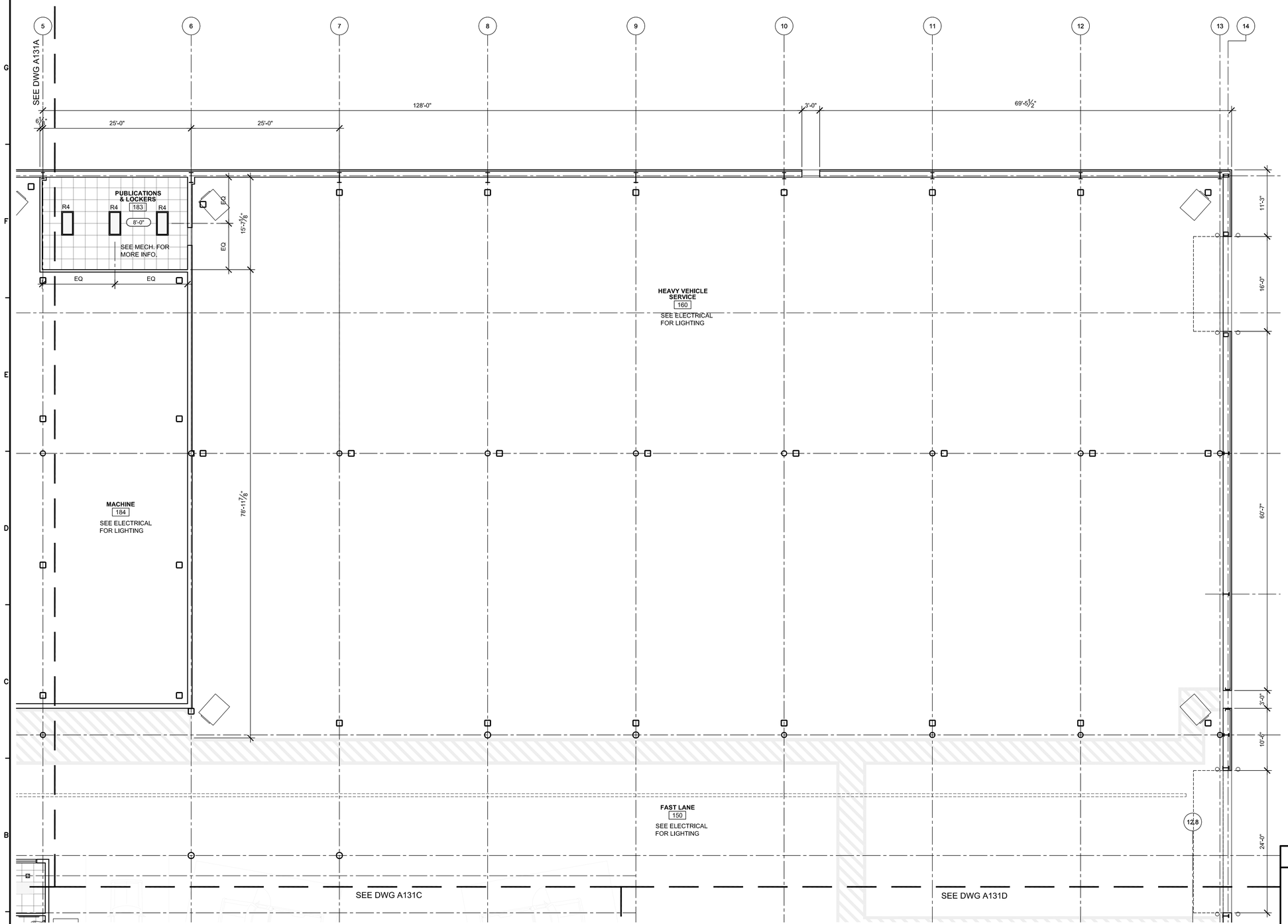
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – FIRST FLOOR
REFLECTED CEILING PLAN – AREA–A

SHEET NUMBER
A131A

ISSUED FOR BID

FEBRUARY 27, 2014



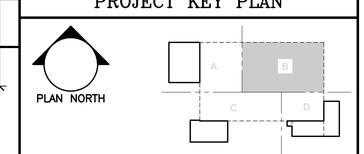
1 First Floor Reflected Ceiling Plan - Area B

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

LIGHTING LEGEND

R2	2' x 2' Recessed Fixture
SR2	2' x 2' Semi Recessed Fixture
R4	2' x 4' Recessed Fixture
S2	Surface Mount Fixture
RD1	Recessed Down Light
RD2	Recessed Down Light
S6	Surface Mount Linear Fixture
S8	Surface Mount Linear Fixture
P6	Pendant Mount Linear Fixture
P8	Pendant Mount Linear Fixture
P12	Pendant Mount Linear Fixture
P16	Pendant Mount Linear Fixture
W3	Wall Mount Linear Fixture
W4	Wall Mount Linear Fixture
	2' x 2' Suspended ACT
	GWB
	Concrete Plank
	GUH
	Supply
	Return
	Vent

PROJECT KEY PLAN



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FILENAME: A131B.DWG

Allied Project No: 13057 Cad File:

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2934
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	SSA
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

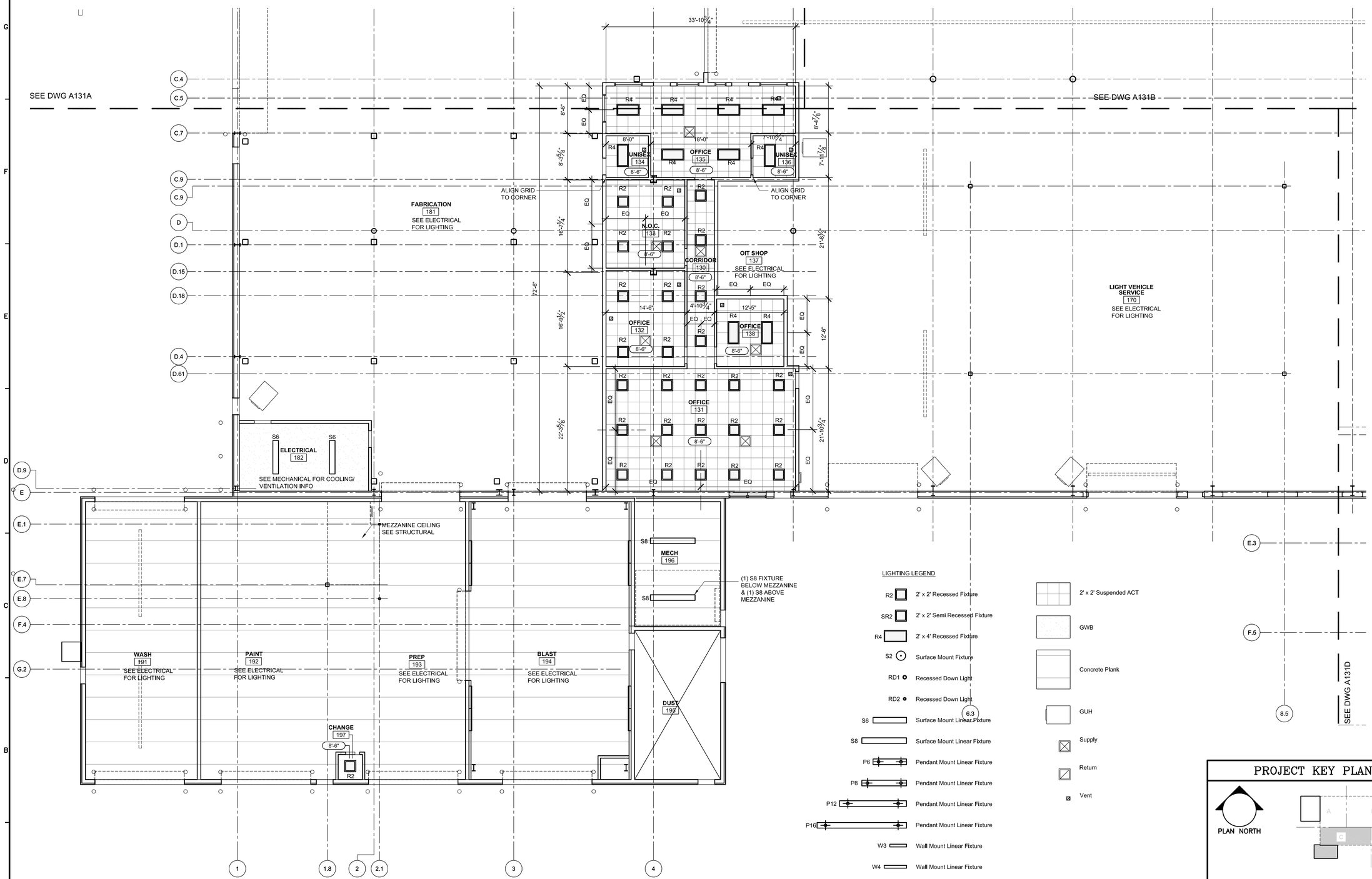
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – FIRST FLOOR
REFLECTED CEILING PLAN – AREA–B

SHEET NUMBER

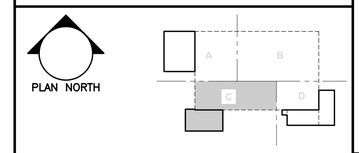
A131B

ISSUED FOR BID
FEBRUARY 27, 2014



1 First Floor Reflected Ceiling Plan - Area C
SCALE: 1/8" = 1'-0"

PROJECT KEY PLAN



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Portland, Maine 04103
207.221.2260
207.221.2366
www.allied-eng.com

FILENAME: A131C.DWG
Allied Project No: 13057 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE
COMMISSIONER:
CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE
FEBRUARY 27, 2014

SIGNATURE
ARCH. LIN. NUMBER
DATE FEBRUARY 27, 2014

INFORMATION

PROJECT PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

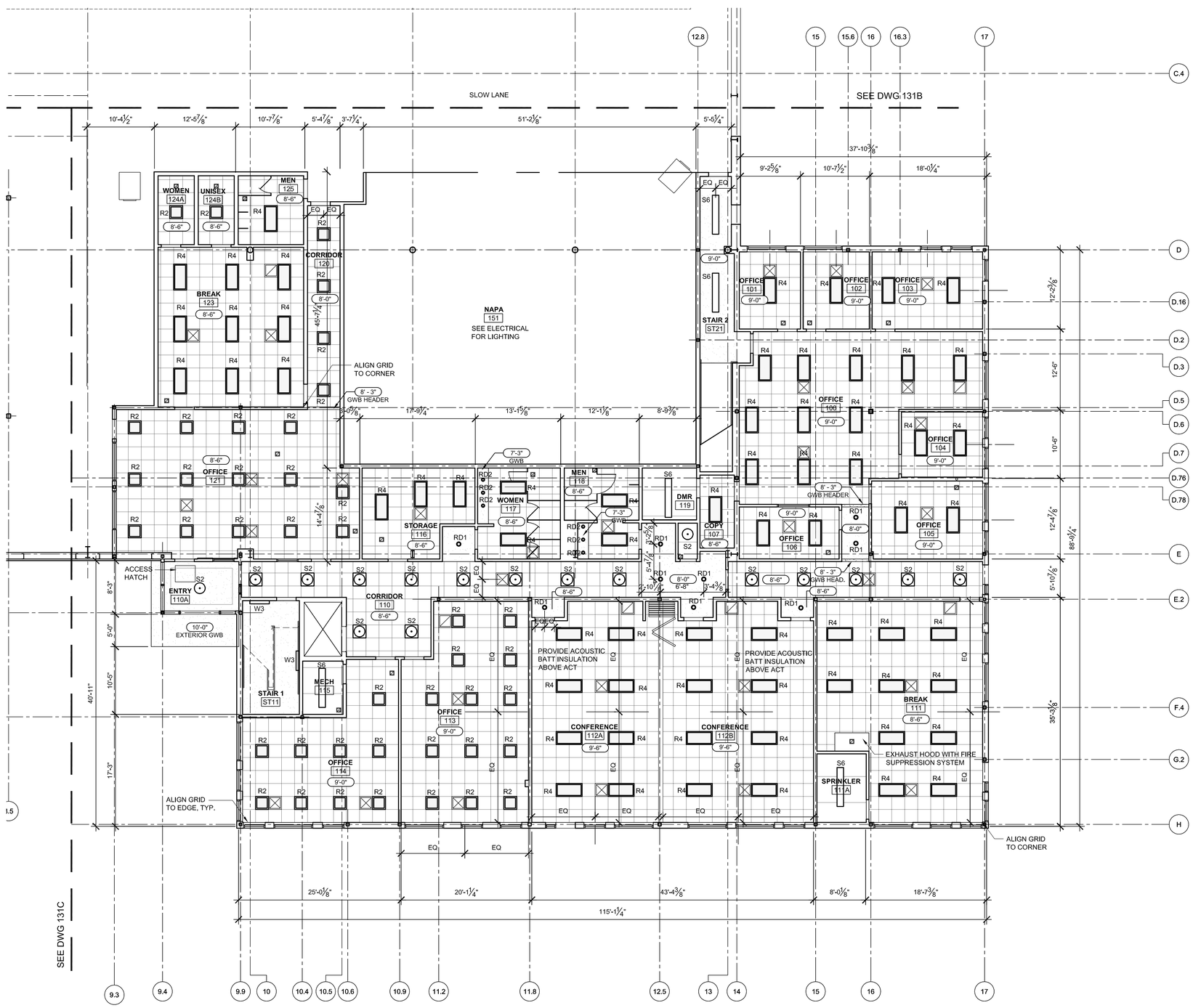
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – FIRST FLOOR
REFLECTED CEILING PLAN – AREA–C

SHEET NUMBER
A131C

ISSUED FOR BID

FEBRUARY 27, 2014



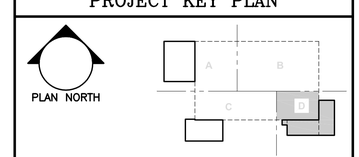
1 First Floor Reflected Ceiling Plan - Area D

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

LIGHTING LEGEND

R2	2' x 2' Recessed Fixture
SR2	2' x 2' Semi Recessed Fixture
R4	2' x 4' Recessed Fixture
S2	Surface Mount Fixture
RD1	Recessed Down Light
RD2	Recessed Down Light
S6	Surface Mount Linear Fixture
S8	Surface Mount Linear Fixture
P6	Pendant Mount Linear Fixture
P8	Pendant Mount Linear Fixture
P12	Pendant Mount Linear Fixture
P16	Pendant Mount Linear Fixture
W3	Wall Mount Linear Fixture
W4	Wall Mount Linear Fixture
	2' x 2' Suspended ACT
	GWB
	Concrete Plank
	GUH
	Supply
	Return
	Vent

PROJECT KEY PLAN



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	SSA
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – FIRST FLOOR
REFLECTED CEILING PLAN – AREA–D

SHEET NUMBER

A131D

Scott Simons Architects

Allied Engineering
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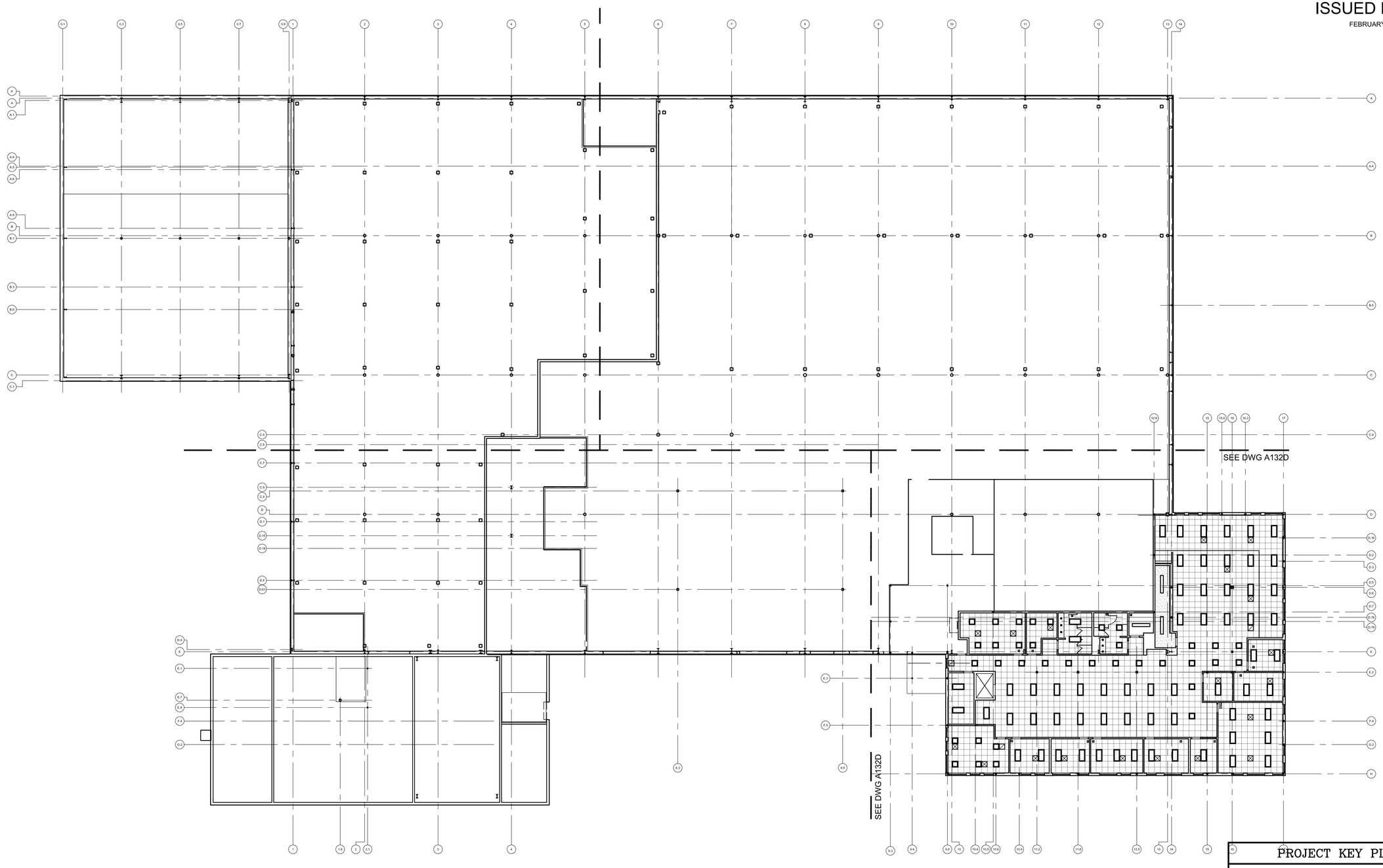
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

FILENAME: A131D.DWG

Allied Project No: 13057 Cad File:

ISSUED FOR BID

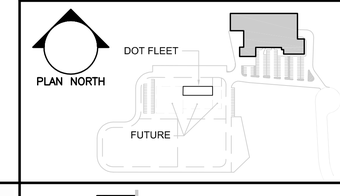
FEBRUARY 27, 2014



1 Second Floor Reflected Ceiling Plan

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

PROJECT KEY PLAN



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FILENAME: A132.DWG

Allied Engineering
Structural Mechanical Electrical Commissioning

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Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

Allied Project No: 13057 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

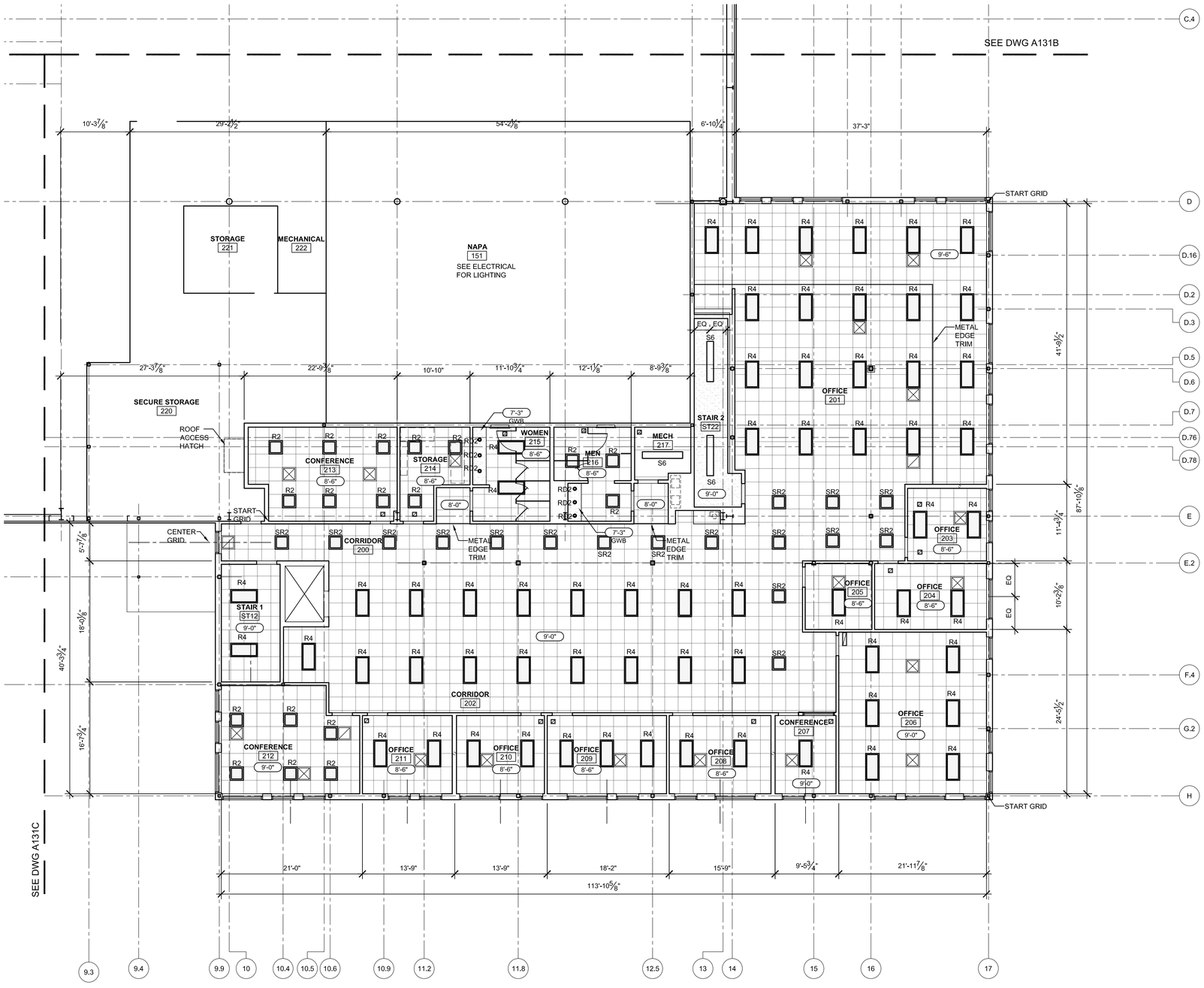
ARCHITECTURAL – SECOND FLOOR
REFLECTED CEILING PLAN

SHEET NUMBER

A132

ISSUED FOR BID

FEBRUARY 27, 2014



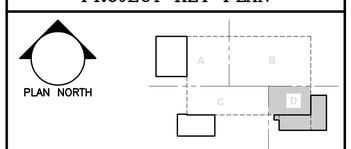
LIGHTING LEGEND

R2	2' x 2' Recessed Fixture
SR2	2' x 2' Semi Recessed Fixture
R4	2' x 4' Recessed Fixture
S2	Surface Mount Fixture
RD1	Recessed Down Light
RD2	Recessed Down Light
S6	Surface Mount Linear Fixture
S8	Surface Mount Linear Fixture
P6	Pendant Mount Linear Fixture
P8	Pendant Mount Linear Fixture
P12	Pendant Mount Linear Fixture
P16	Pendant Mount Linear Fixture
W3	Wall Mount Linear Fixture
W4	Wall Mount Linear Fixture
	2' x 2' Suspended ACT
	GWB
	Concrete Plank
	GUH
	Supply
	Return
	Vent

1 Second Floor Reflected Ceiling Plan - Area D

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

PROJECT KEY PLAN



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT SCOTT R. SIMONS NO. 2034 STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

INFORMATION

PROJECT	
PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	SSA
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – SECOND FLOOR REFLECTED CEILING PLAN – AREA–D

SHEET NUMBER

A132D

Scott Simons Architects

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Portland, Maine 04103
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www.allied-eng.com

FILENAME: A132D.DWG

Allied Project No: 13057 Cad File:

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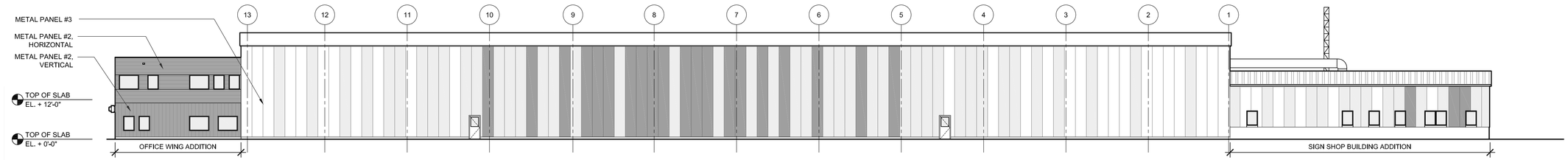
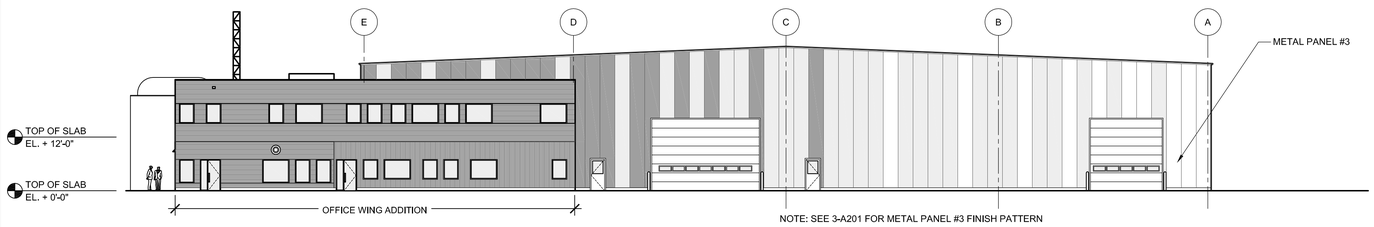
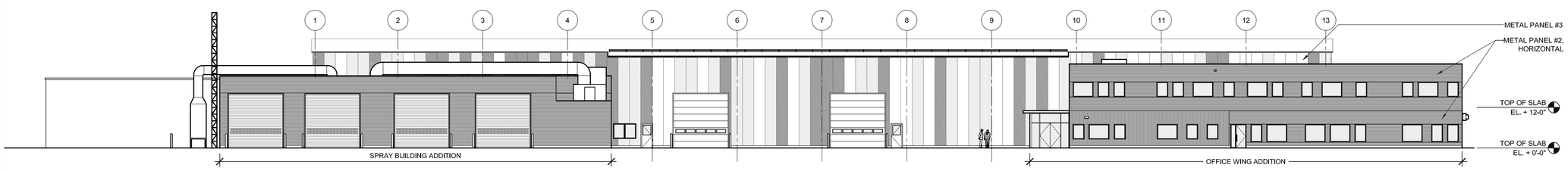


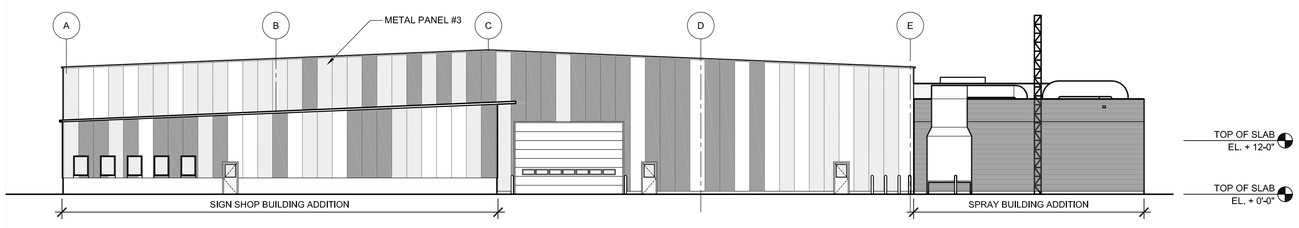
1 North Elevation
SCALE: 1/16" = 1'-0"



2 East Elevation
SCALE: 1/16" = 1'-0"



3 South Elevation
SCALE: 1/16" = 1'-0"



4 West Elevation
SCALE: 1/16" = 1'-0"

METAL PANEL #3 FINISH A
METAL PANEL #3 FINISH B
METAL PANEL #3 FINISH C

Scott Simons Architects

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FILENAME: A201.DWG

Allied Project No: 13057 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

WIN: 020118.20

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	-

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

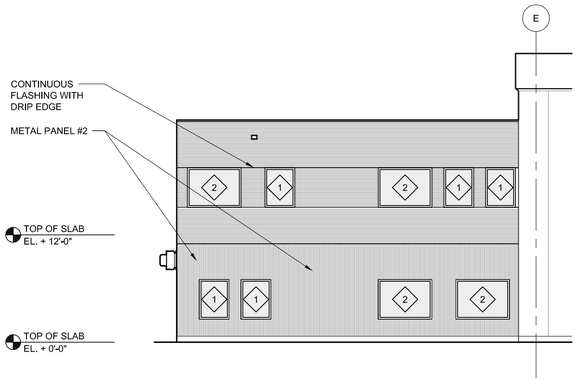
ARCHITECTURAL – EXTERIOR ELEVATIONS

SHEET NUMBER

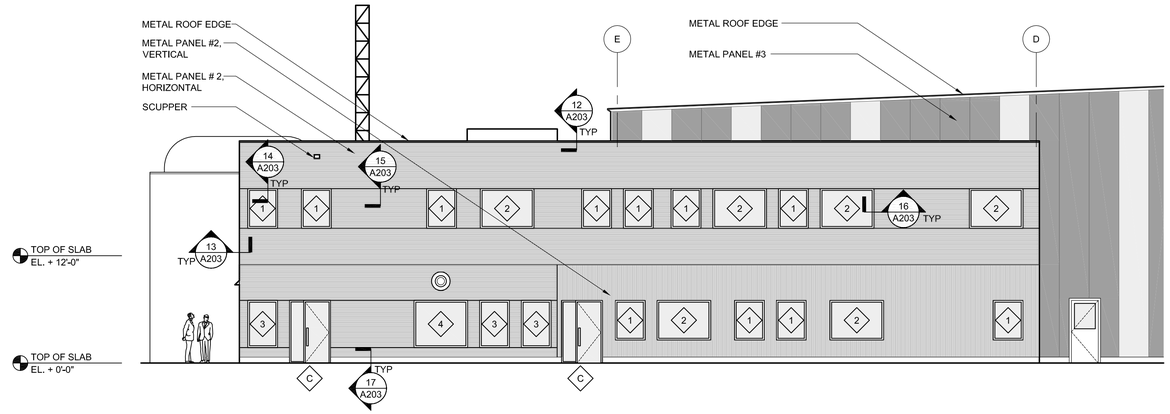
A201

ISSUED FOR BID

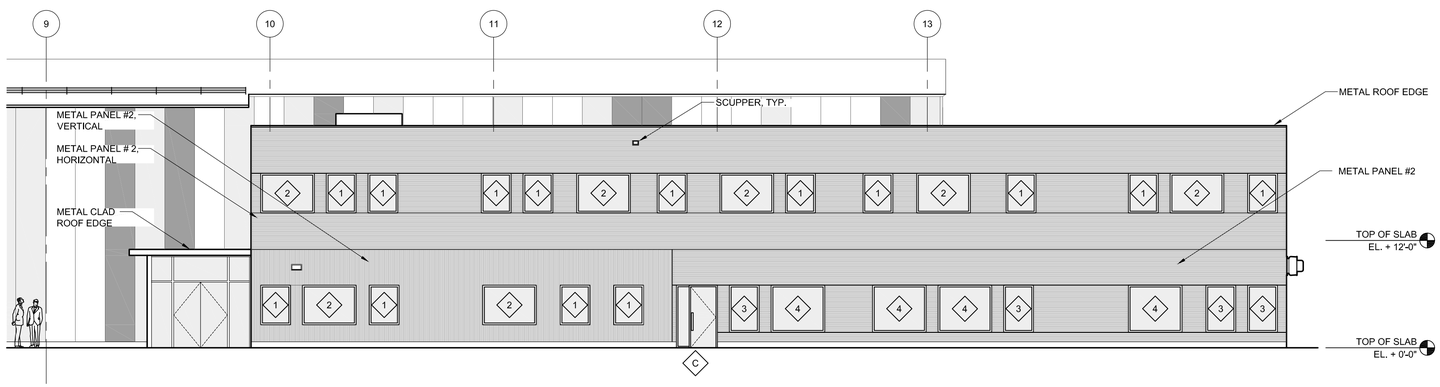
FEBRUARY 27, 2014



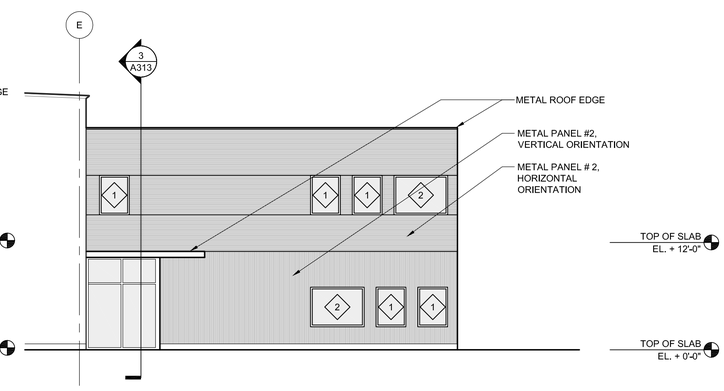
1 South Elevation - Area D
SCALE: 1/8" = 1'-0"



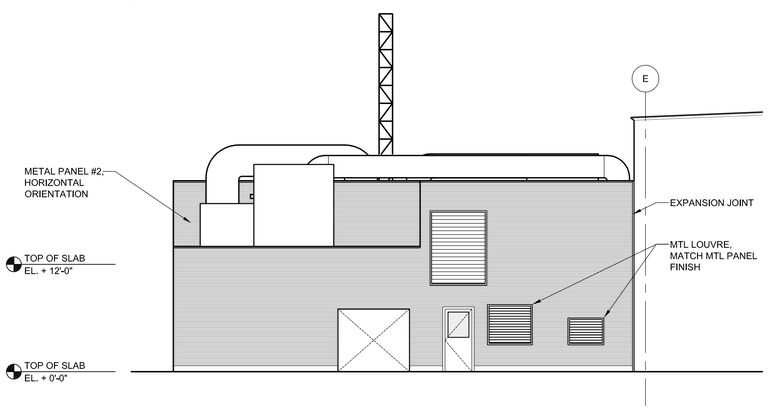
2 East Elevation - Area D
SCALE: 1/8" = 1'-0"



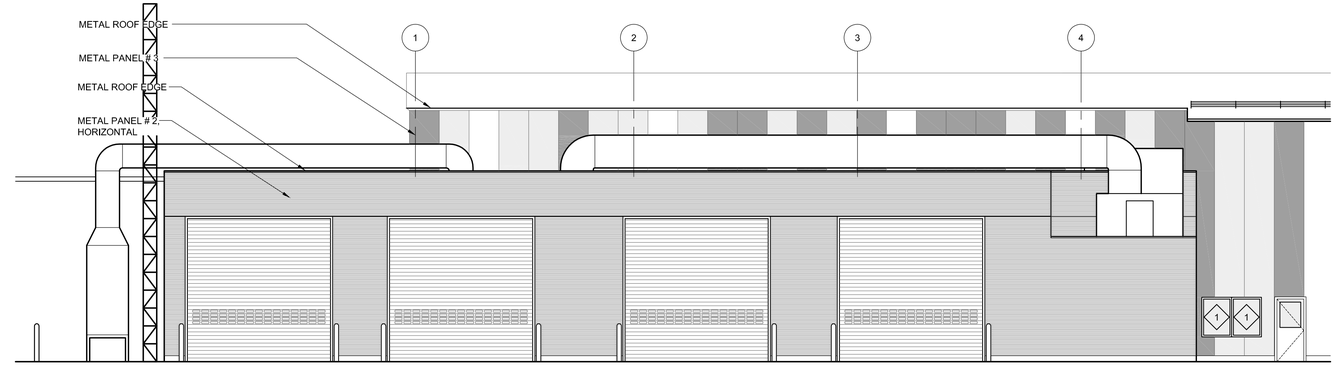
3 South Elevation - Area D
SCALE: 1/8" = 1'-0"



4 West Elevation - Area D
SCALE: 1/8" = 1'-0"



5 East Elevation - Area C
SCALE: 1/8" = 1'-0"



6 South Elevation - Area C
SCALE: 1/8" = 1'-0"

METAL PANEL #3 FINISH A
METAL PANEL #3 FINISH B
METAL PANEL #3 FINISH C

Scott Simons Architects

FILENAME: A201.DWG

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

Allied Project No: 13057 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

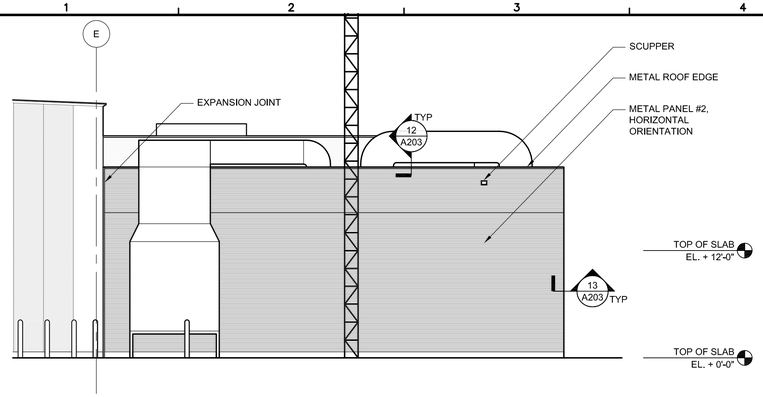
ARCHITECTURAL – EXTERIOR ELEVATIONS

SHEET NUMBER

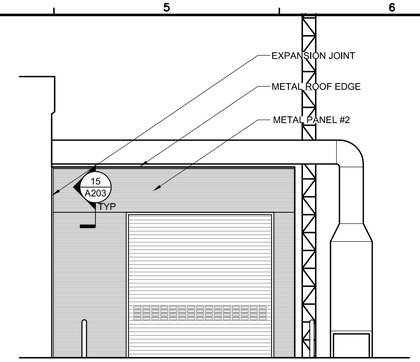
A202

ISSUED FOR BID

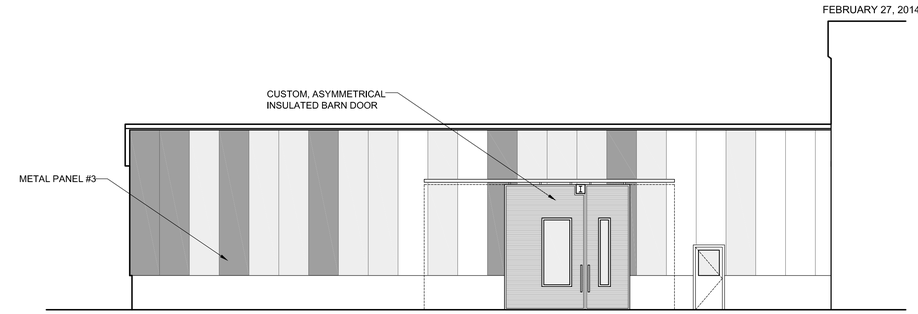
FEBRUARY 27, 2014



7 West Elevation - Area C
SCALE: 1/8" = 1'-0"

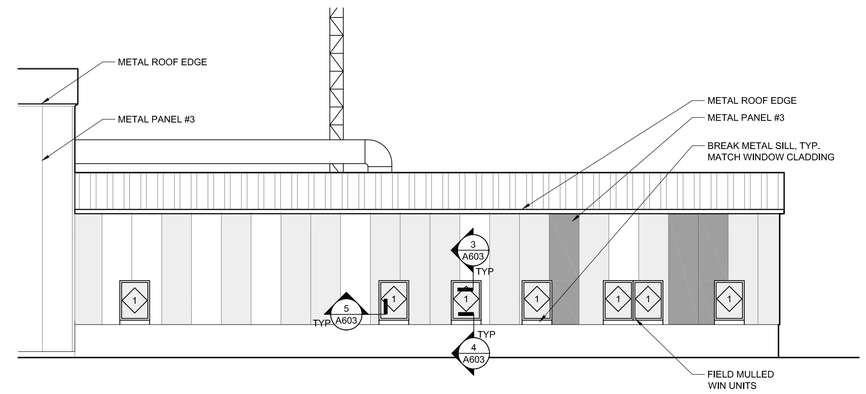


8 North Elevation - Area C
SCALE: 1/8" = 1'-0"

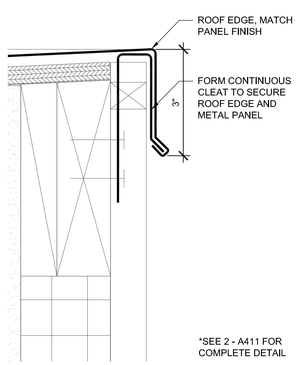


9 South Elevation - Area A
SCALE: 1/8" = 1'-0"

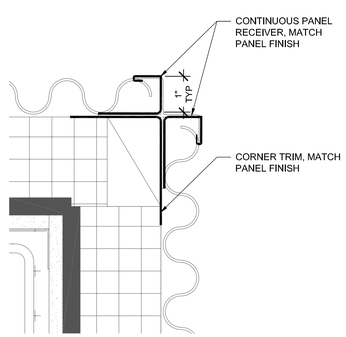
10 West Elevation - Area A
SCALE: 1/8" = 1'-0"



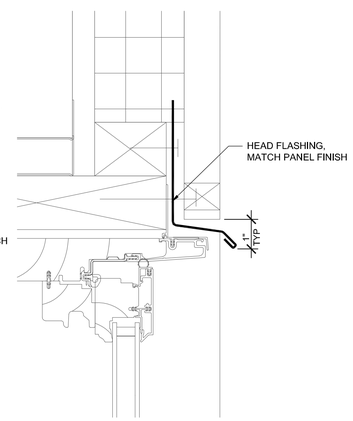
11 North Elevation - Area A
SCALE: 1/8" = 1'-0"



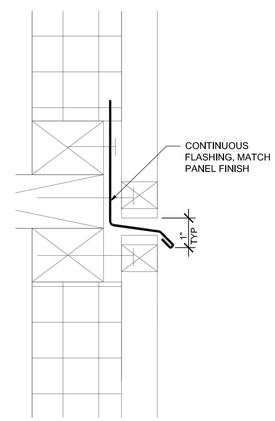
12 Roof Edge Trim Detail
SCALE: 6" = 1'-0"



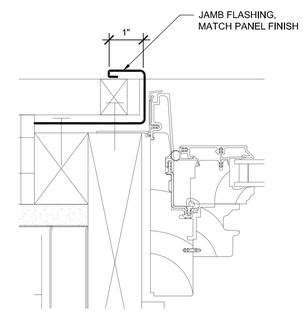
13 Outdside Corner Trim Detail
SCALE: 6" = 1'-0"



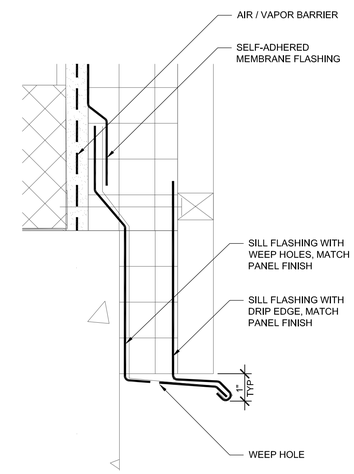
14 Head Trim Detail
SCALE: 6" = 1'-0"



15 Panel Trim Detail
SCALE: 6" = 1'-0"



16 Jamb Trim Detail
SCALE: 6" = 1'-0"



17 Base of Wall Trim Detail
SCALE: 6" = 1'-0"

METAL PANEL #3 FINISH A
METAL PANEL #3 FINISH B
METAL PANEL #3 FINISH C

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FILENAME: A201.DWG
Allied Project No: 13557 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

INFORMATION		
PROJECT		
PROGRAM		
PROJECT MANAGER	ALLIED ENG., INC.	
DESIGNER	SSA	
CONSULTANT		
PROJECT RESIDENT		
CONTRACTOR		
PROJECT COMPLETION DATE		DATE

WIN: 020118.20

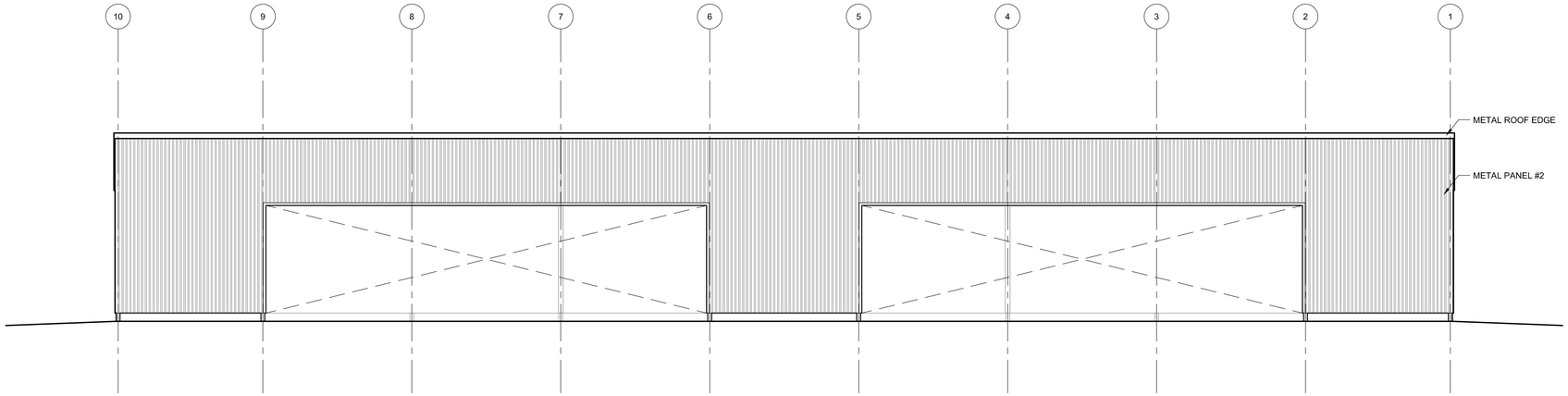
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – EXTERIOR ELEVATIONS

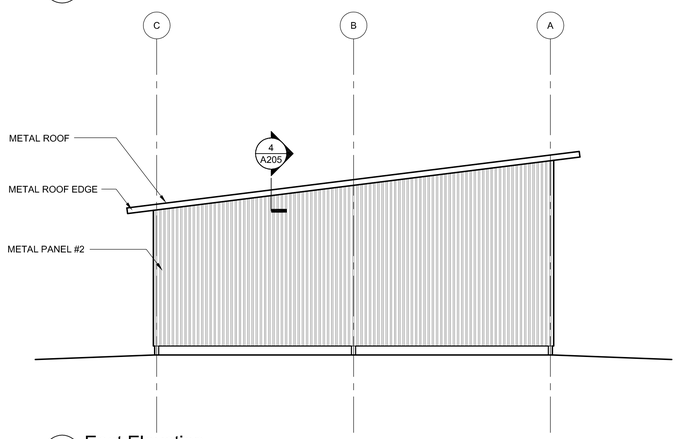
SHEET NUMBER

A203

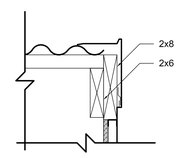
ISSUED FOR BID
FEBRUARY 27, 2014



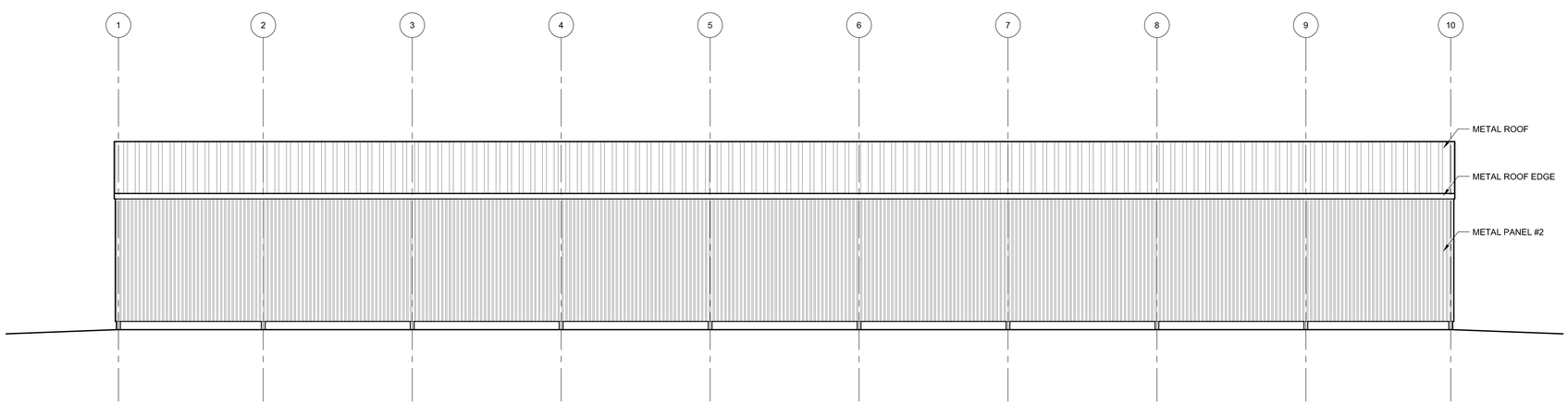
1 North Elevation
SCALE: 1/8" = 1'-0"



2 East Elevation
SCALE: 1/8" = 1'-0"



4 Detail
SCALE: 1 1/2" = 1'-0"



3 South Elevation
SCALE: 1/8" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE
–
ARCH. LIN. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	SSA
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – DOT FLEET
EXTERIOR ELEVATIONS

SHEET NUMBER
A205

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FILENAME: A205.DWG
Allied Project No: 13057 Cad File:

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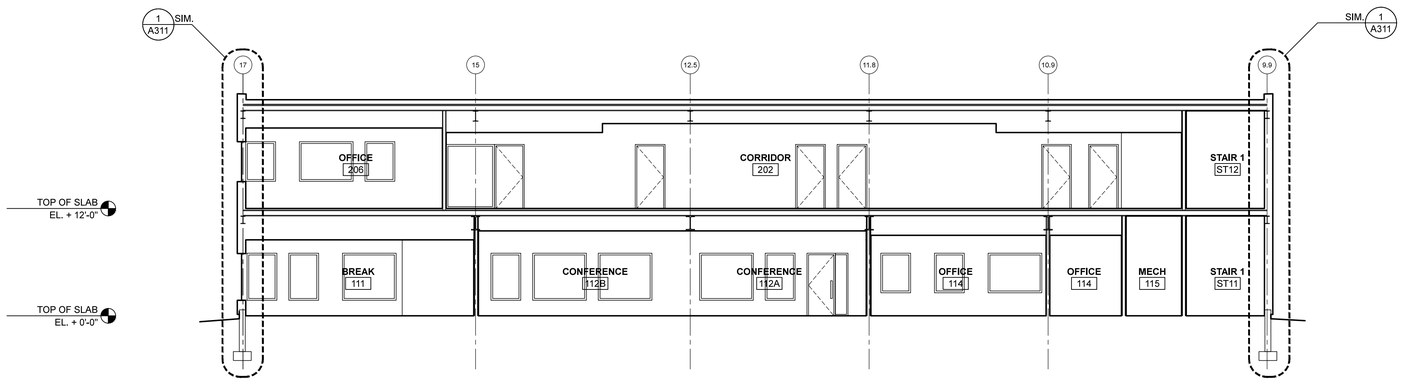
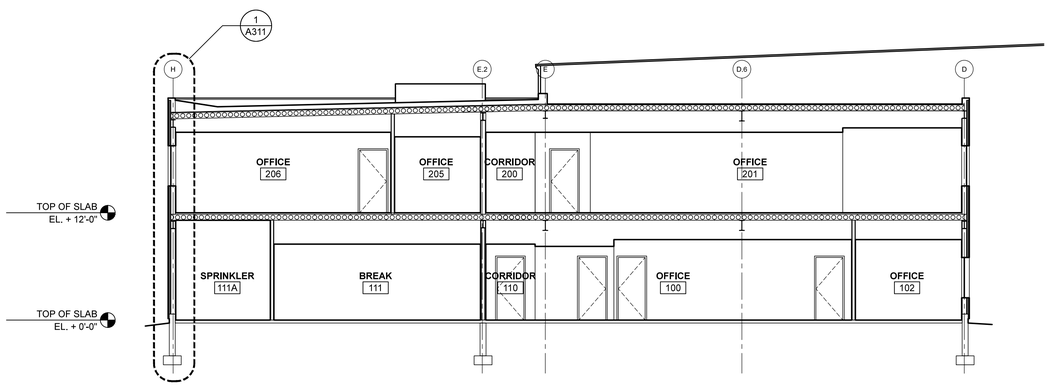
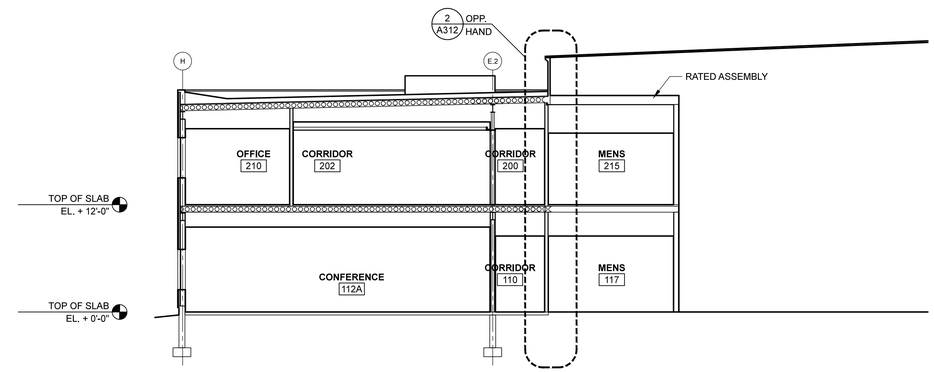


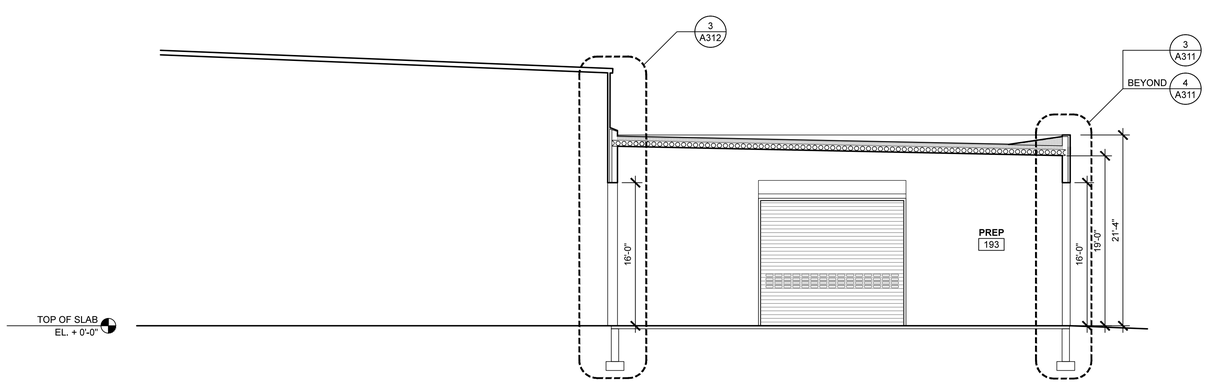
1 Building Section
SCALE: 1/8" = 1'-0"



2 Building Section
SCALE: 1/8" = 1'-0"



3 Building Section
SCALE: 1/8" = 1'-0"



4 Building Section
SCALE: 1/8" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE
COMMISSIONER:
CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE
ARCH. LIN. NUMBER
DATE FEBRUARY 27, 20

INFORMATION

PROJECT PROGRAM	I
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	SSA
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – BUILDING SECTIONS

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SHEET NUMBER
A301

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207.221.2266
www.allied-eng.com

FILENAME: A301.DWG
Allied Project No: 13057 Cad File:

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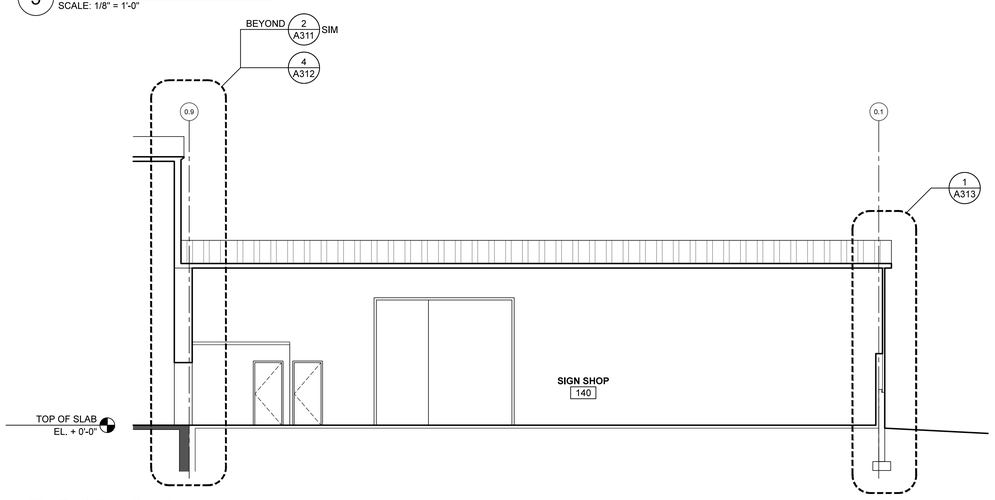
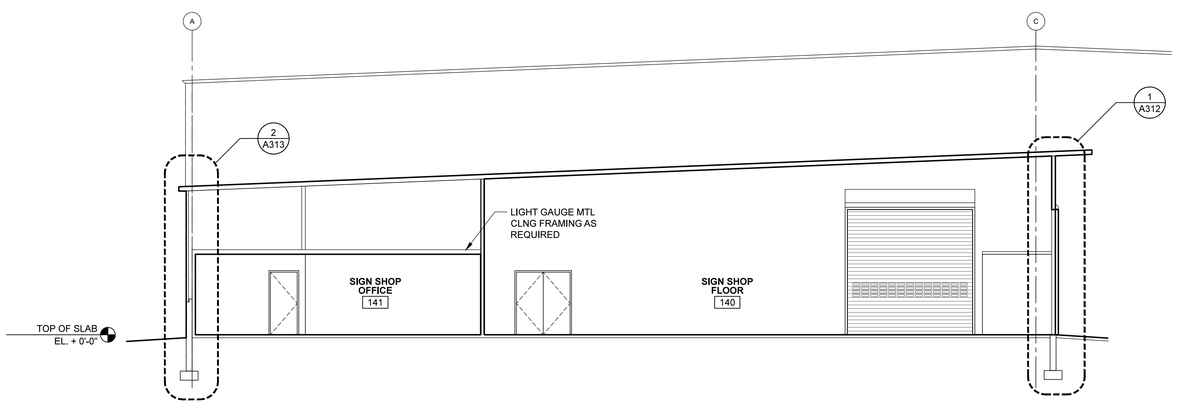
5 Building Section
SCALE: 1/8" = 1'-0"



6 Building Section
SCALE: 1/8" = 1'-0"



7 Building Section
SCALE: 1/8" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE
–
ARCH. LIN. NUMBER

DATE FEBRUARY 27, 201

WIN: 020118.20

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – BUILDING
SECTIONS

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SHEET NUMBER
A302

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Allied Engineering
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160 Veranda Street
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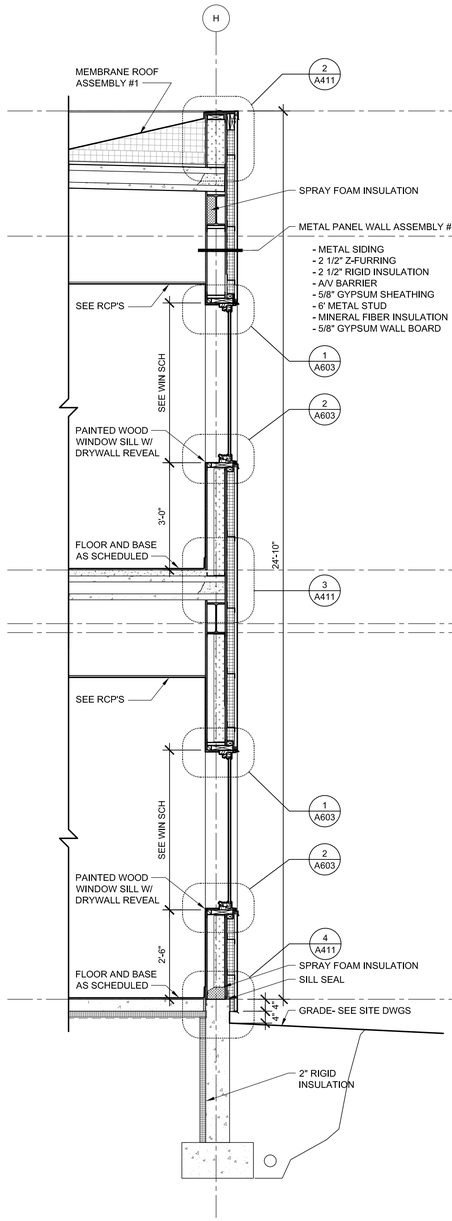
207.221.2260
207.221.2266
www.allied-eng.com

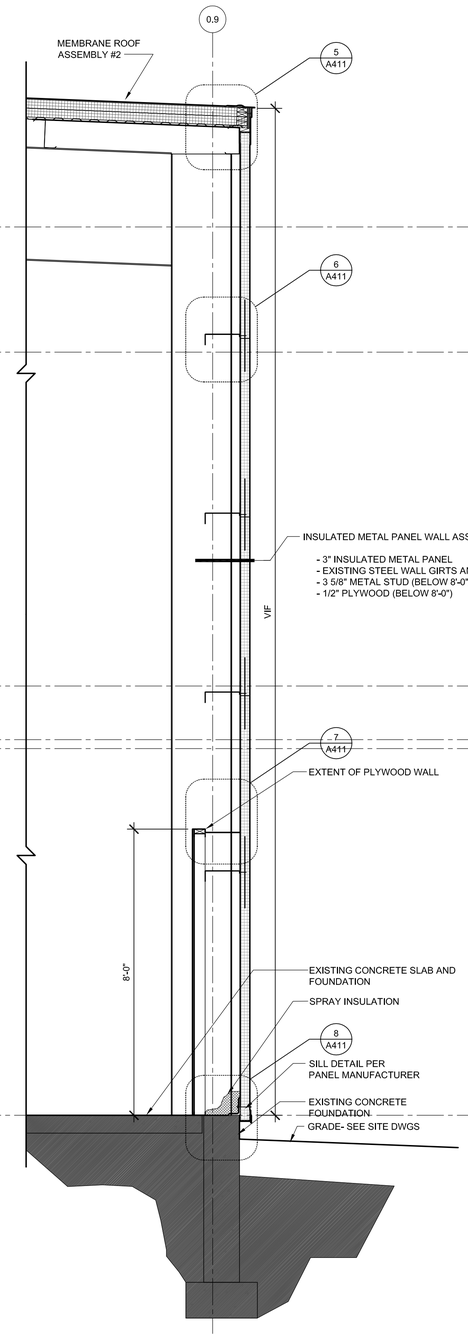
FILENAME: A301.DWG
Allied Project No: 13057 Cad File:

ISSUED FOR BID

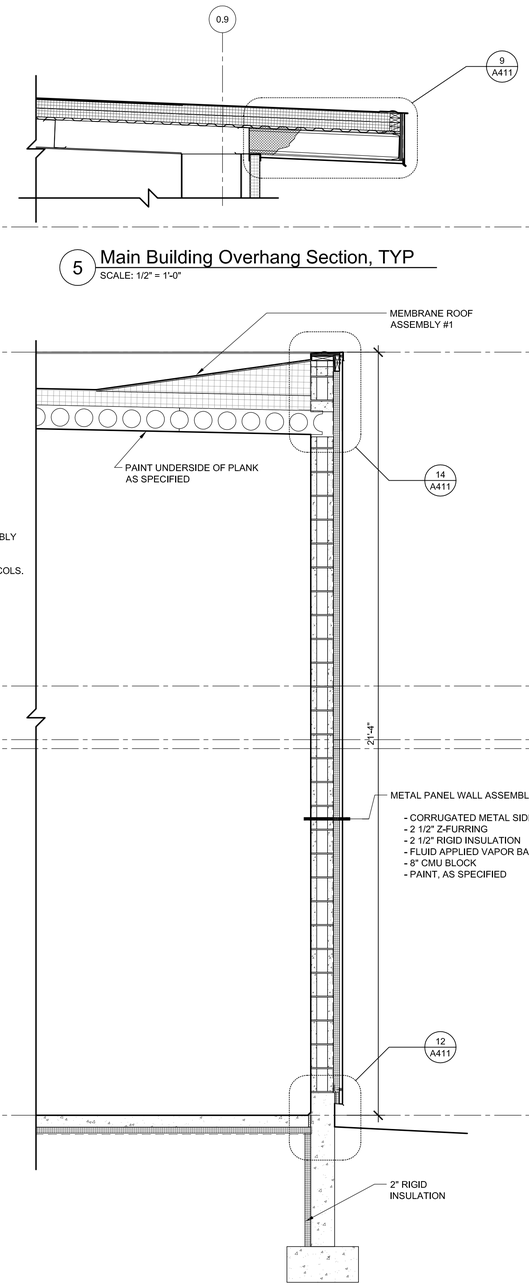
FEBRUARY 27, 2014



1 Office Addition Wall Section, Typical
SCALE: 1/2" = 1'-0"

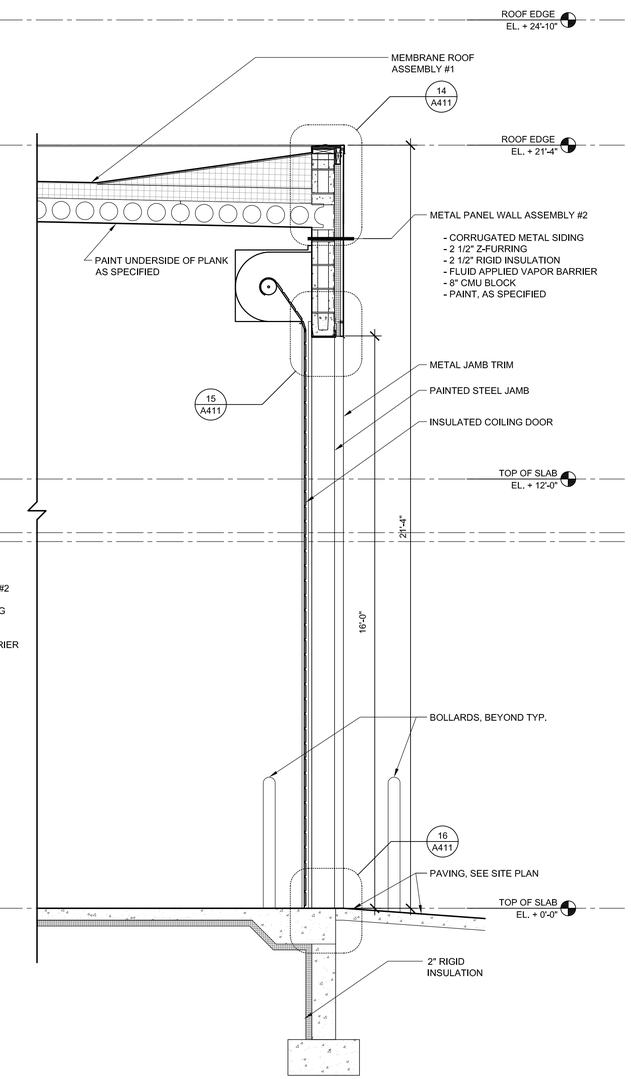


2 Main Building Wall Section, Typical
SCALE: 1/2" = 1'-0"



5 Main Building Overhang Section, TYP
SCALE: 1/2" = 1'-0"

3 Coatings BLDG Wall Section, TYP
SCALE: 1/2" = 1'-0"



4 Coating BLDG Wall Section at RLNG Door, TYP
SCALE: 1/2" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL –
TYPICAL WALL SECTIONS

SHEET NUMBER
A311

Scott Simons Architects

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FILENAME: A311.DWG

Allied Project No: 13557 Cad File:

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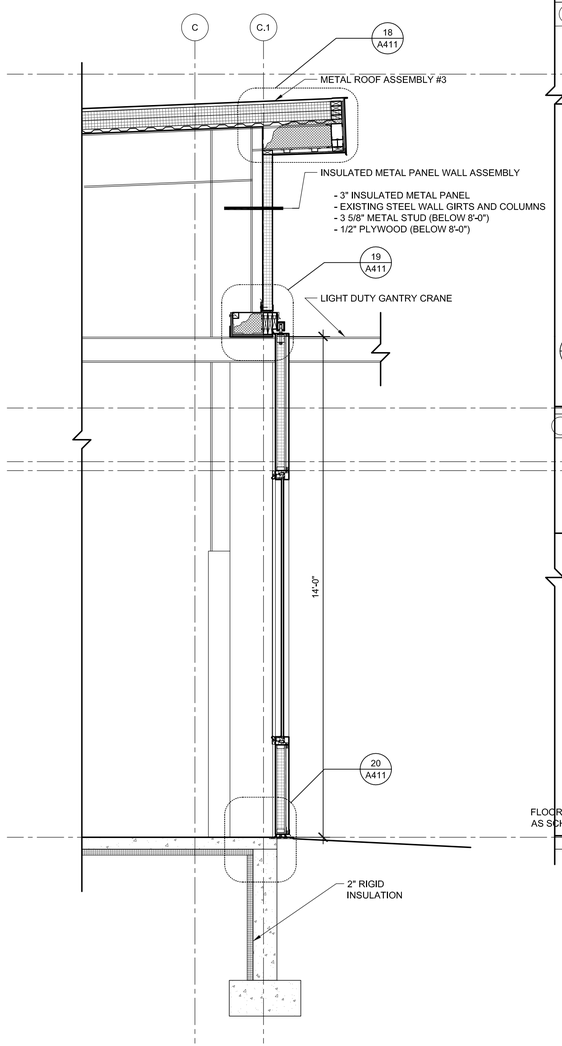
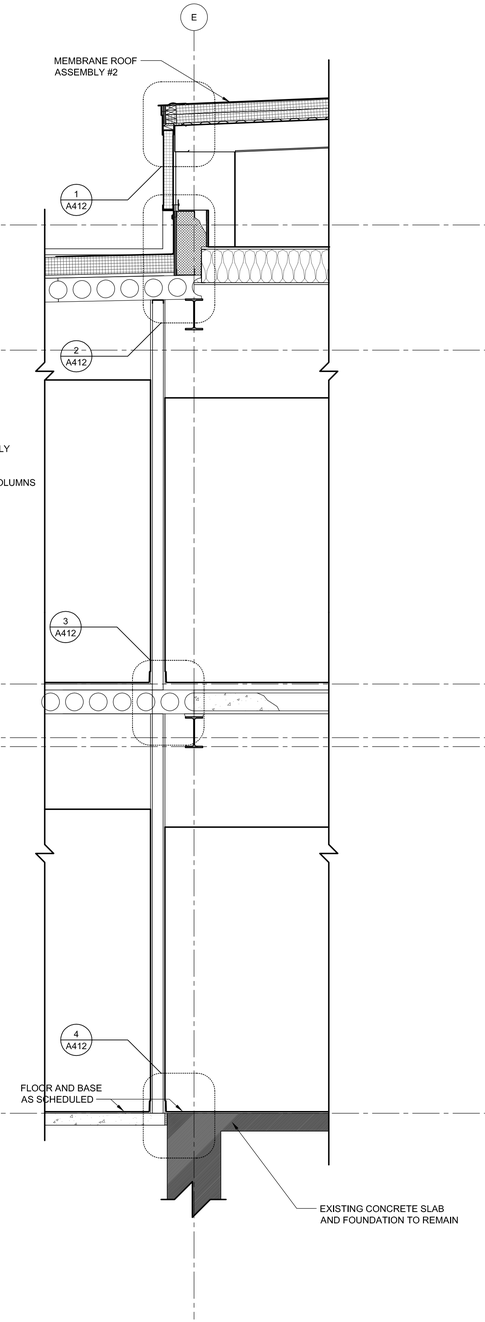
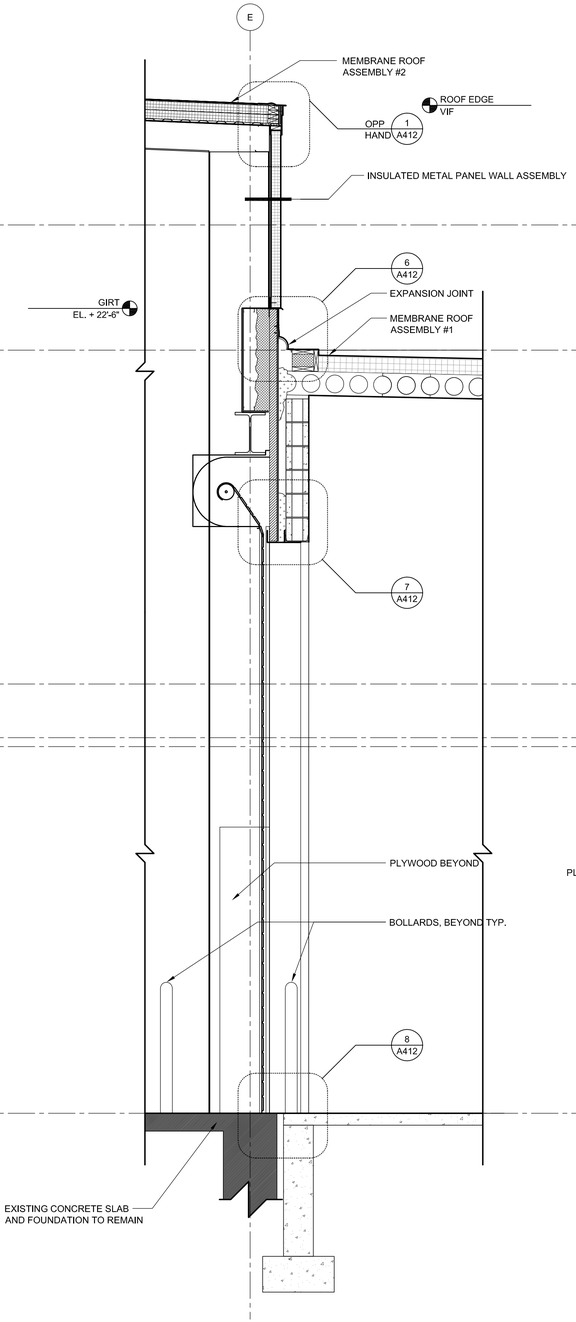


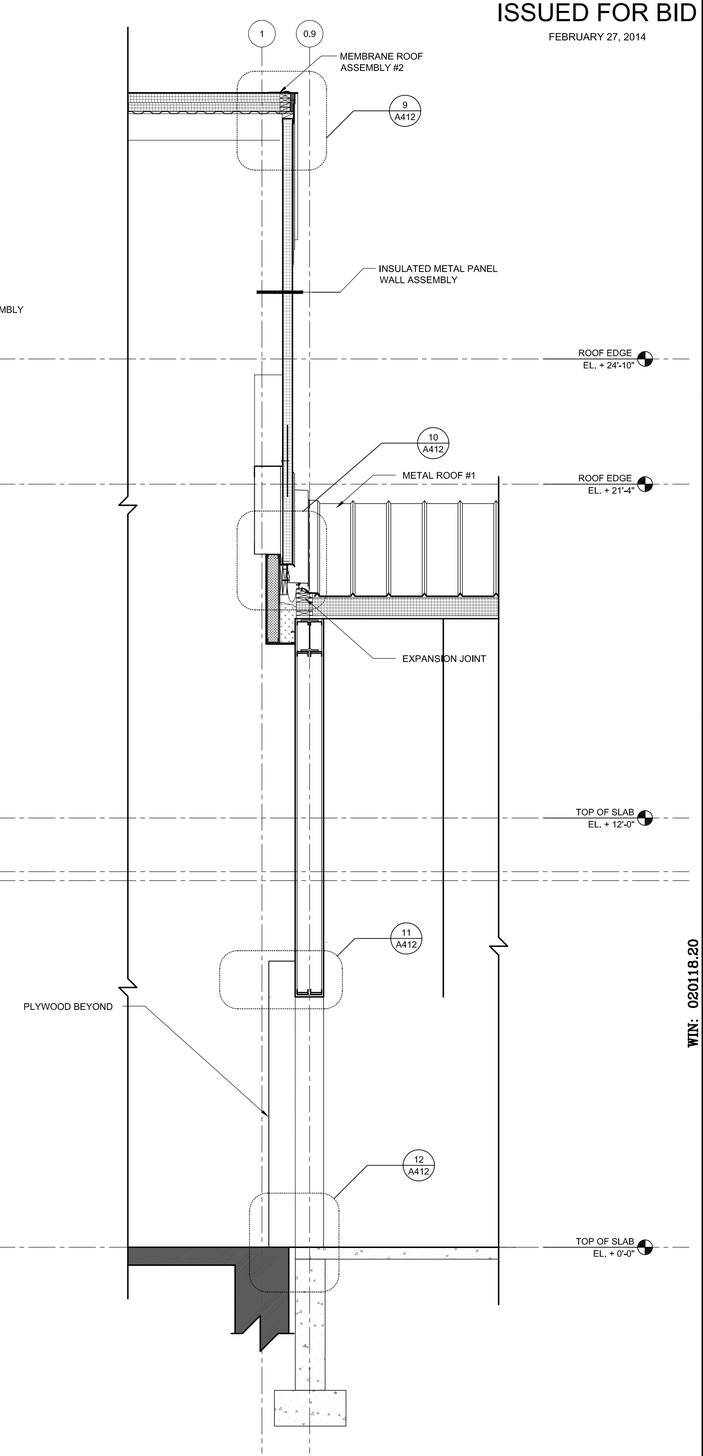
1 Sign Shop Wall Section
SCALE: 1/2" = 1'-0"



2 Office Addition Wall Section
SCALE: 1/2" = 1'-0"



3 Coatings Bldg Wall Section
SCALE: 1/2" = 1'-0"



4 Sign Shop Wall Section
SCALE: 1/2" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	–
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL –
WALL SECTIONS

SHEET NUMBER
A312

Scott Simons Architects

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207.221.2266
www.allied-eng.com

FILENAME: A311.DWG

Allied Project No: 13057 Cad File:

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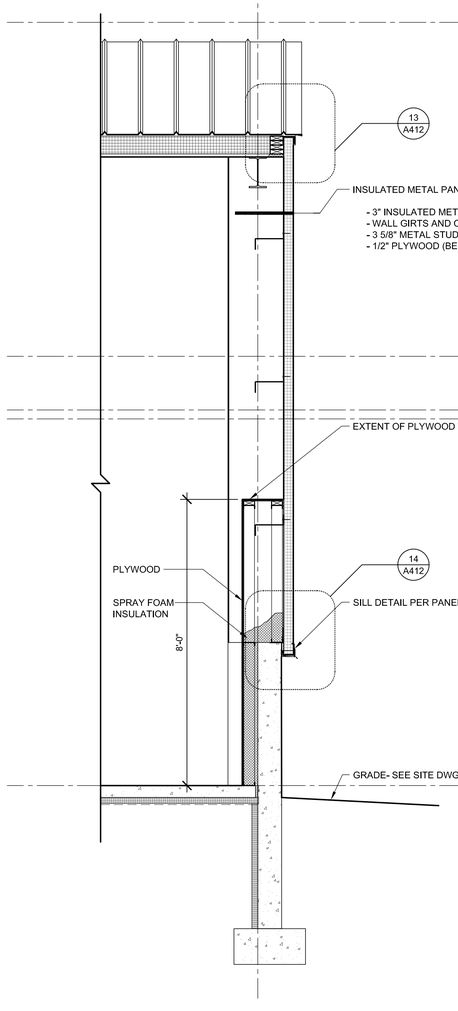
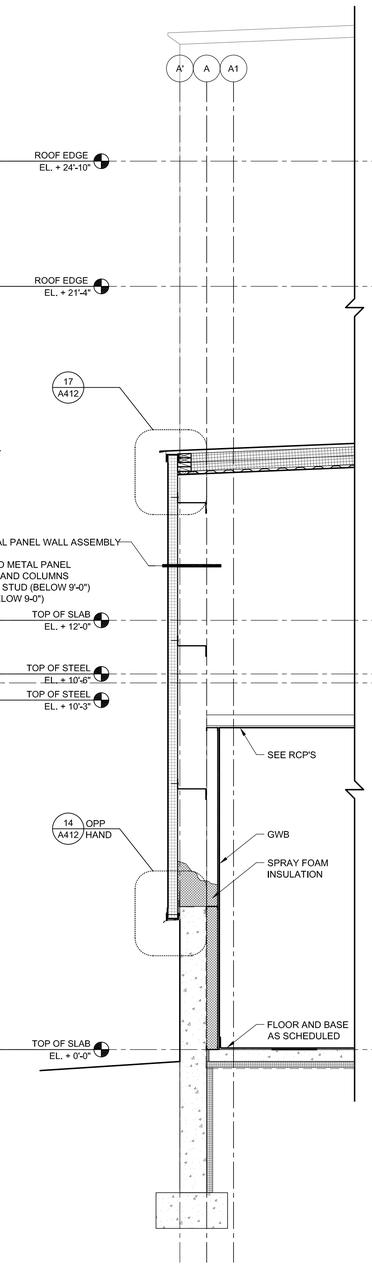


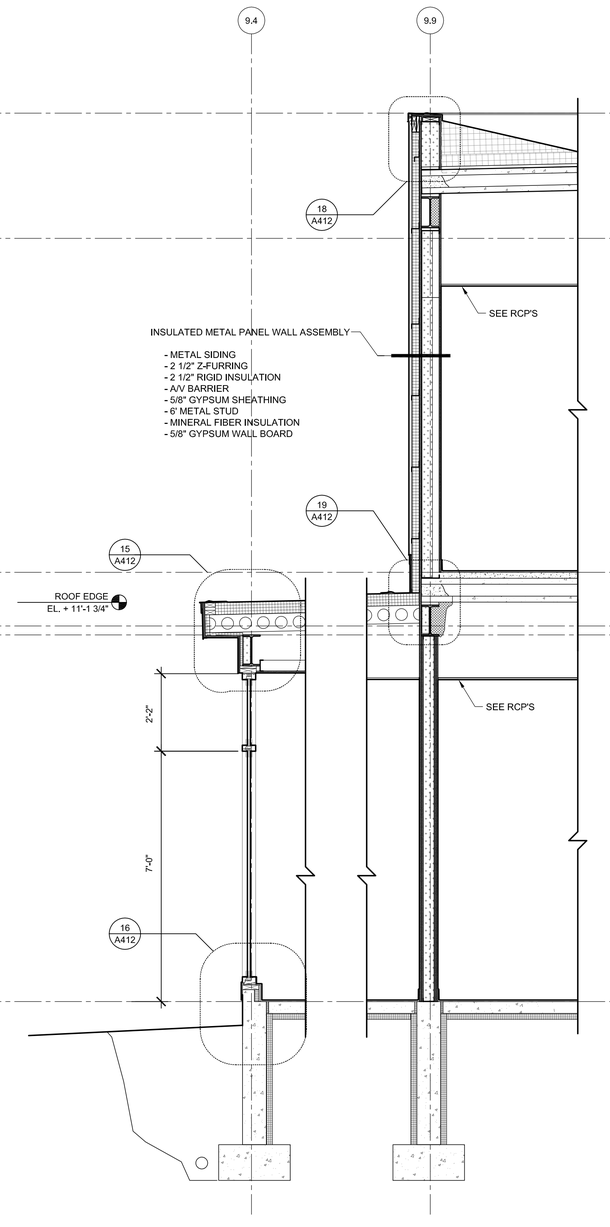
1 Sign Shop Wall Section

SCALE: 1/2" = 1'-0"



2 Sign Shop Wall Section

SCALE: 1/2" = 1'-0"



3 Entry Wall Section

SCALE: 1/2" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	I
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	I

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – WALL SECTIONS

SHEET NUMBER

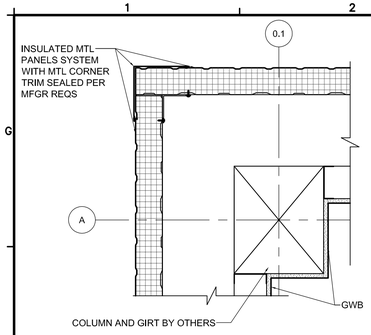
A313

SSA Scott Simons Architects

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

FILENAME: A311.DWG

Allied Project No: 13057 Cad File:



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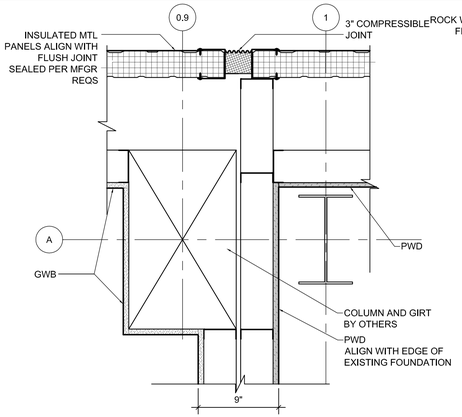

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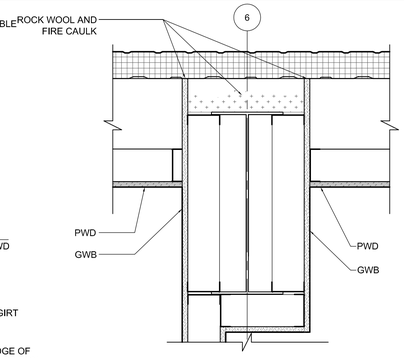

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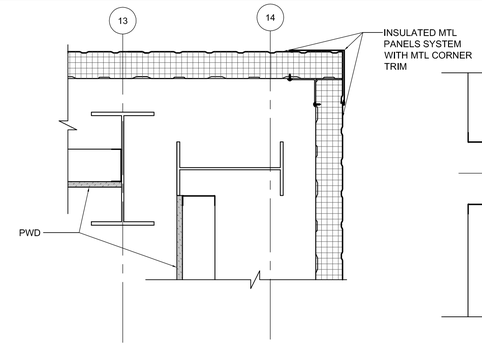

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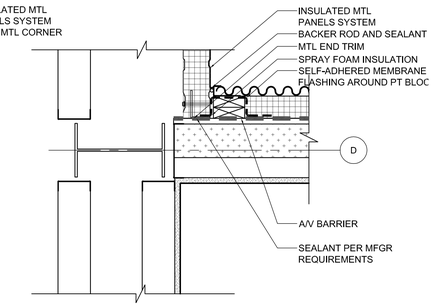

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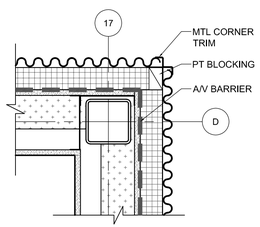

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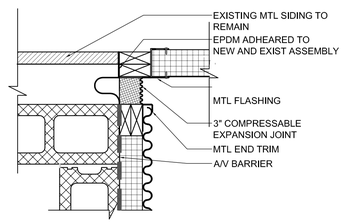

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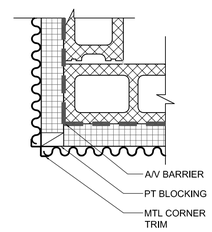

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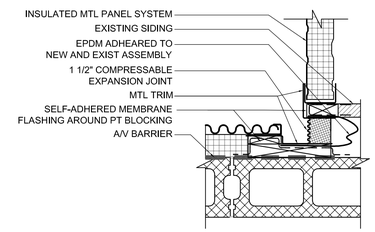

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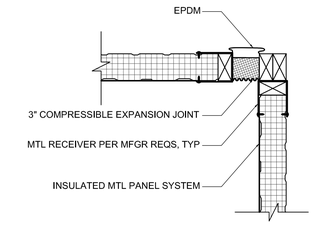

10 PLAN DETAIL
SCALE: 1-1/2" = 1'-0"

ISSUED FOR BID
FEBRUARY 27, 2014

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

INFORMATION

PROJECT	
PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	SSA
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – PLAN DETAILS

SHEET NUMBER
A401

Scott Simons Architects

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Structural Mechanical Electrical Commissioning
160 Veranda Street
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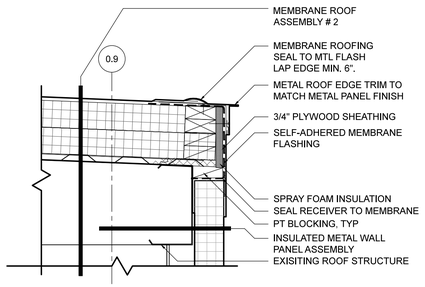
207.221.2366
www.allied-eng.com

FILENAME: A401.DWG
Allied Project No: 13557 Cad File:

ISSUED FOR BID

FEBRUARY 27, 2014



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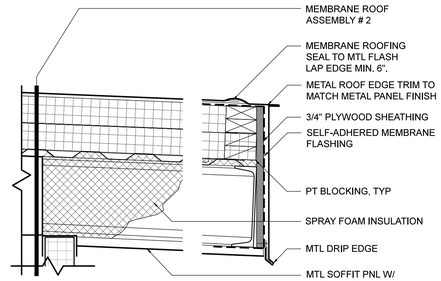

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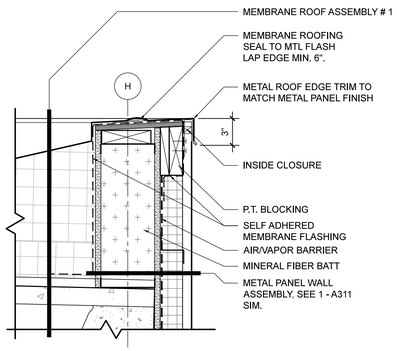

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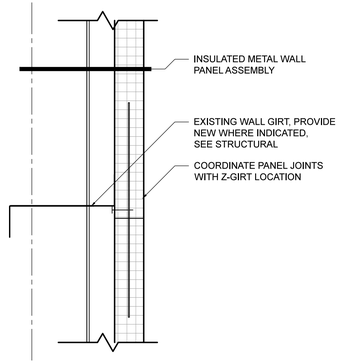

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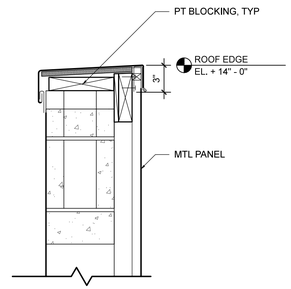

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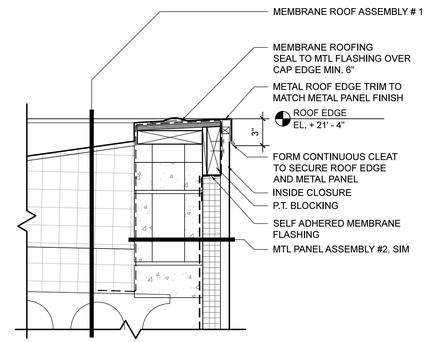

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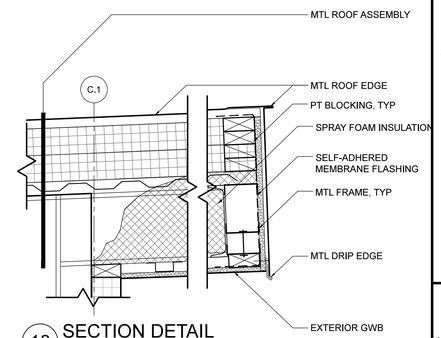

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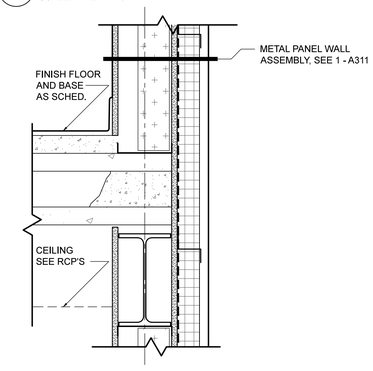

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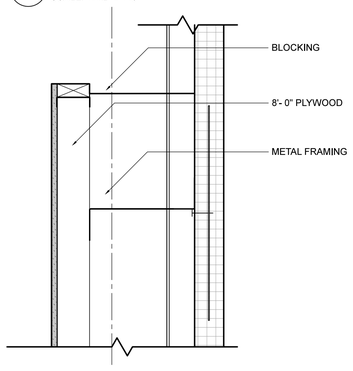

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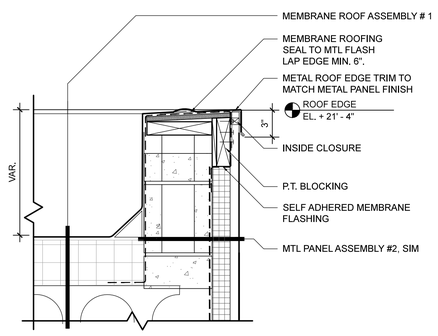

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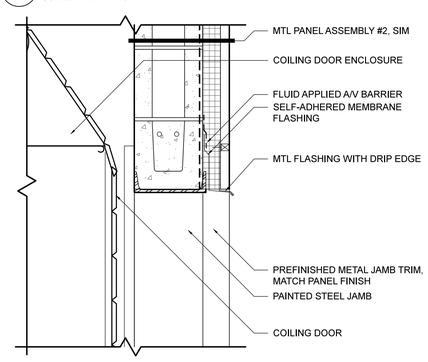

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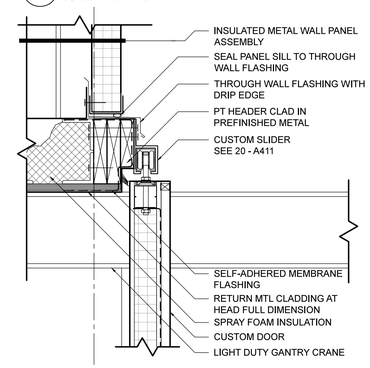

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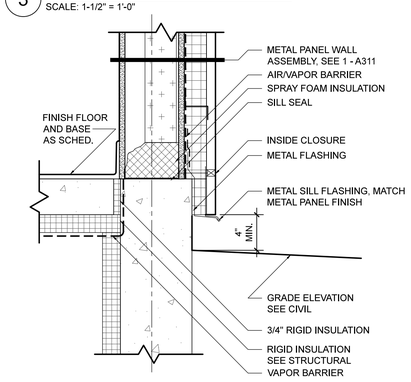

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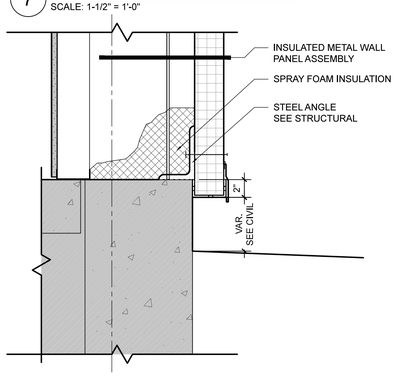

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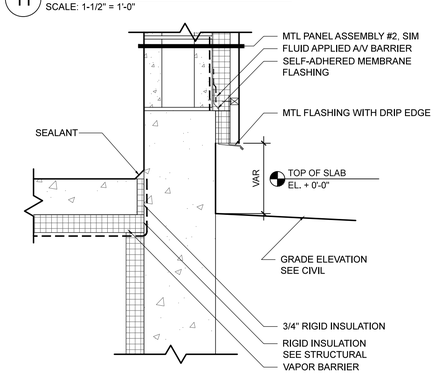

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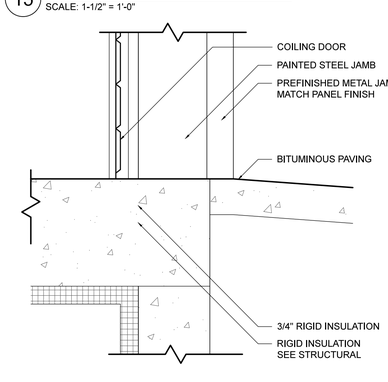

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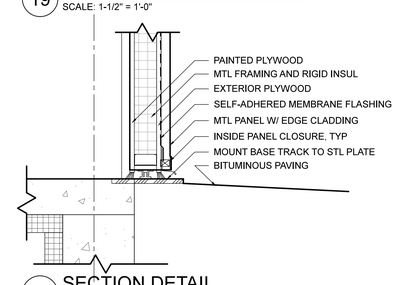

20 SECTION DETAIL
SCALE: 1-1/2" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

	SIGNATURE	ARCH. LIN. NUMBER	DATE
			FEBRUARY 27, 2014

WIN: 020118.20

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	SSA
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – SECTION DETAILS

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SHEET NUMBER
A411

Scott Simons Architects

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
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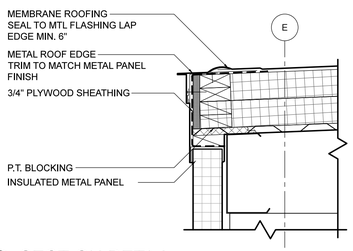
FILENAME: A411.DWG | Allied Project No: 13057 | Cad File:

ISSUED FOR BID



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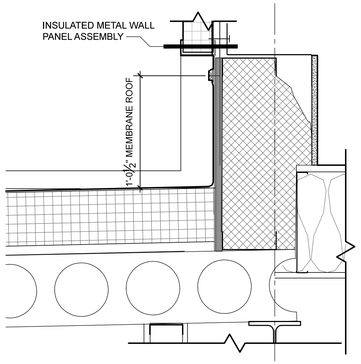

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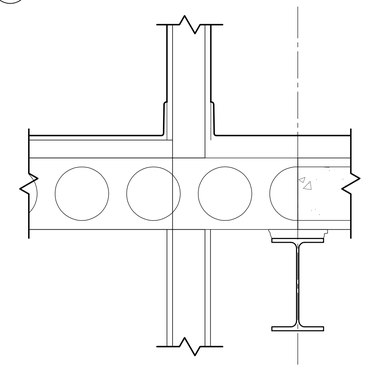

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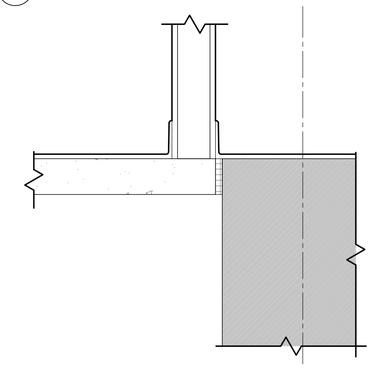

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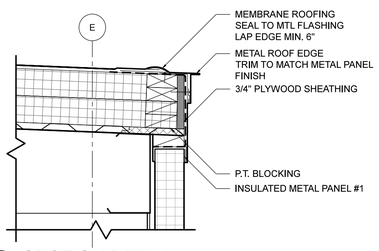

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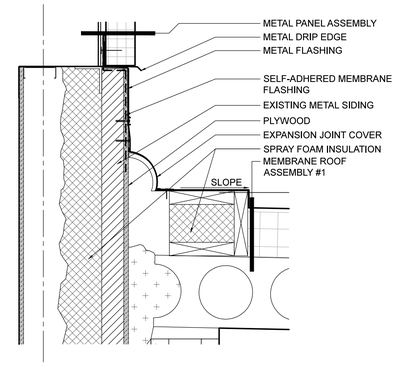

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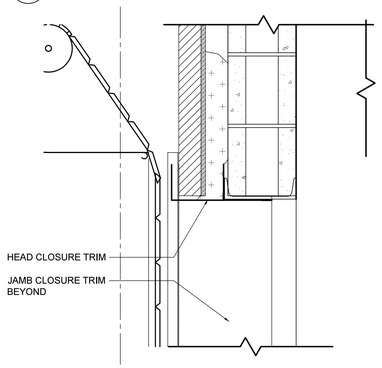

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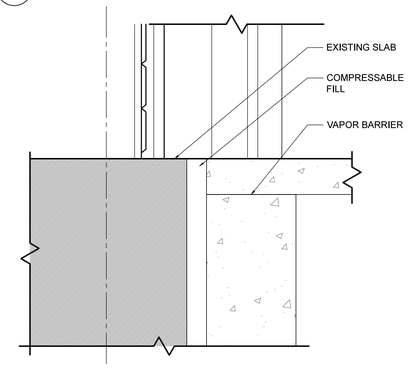

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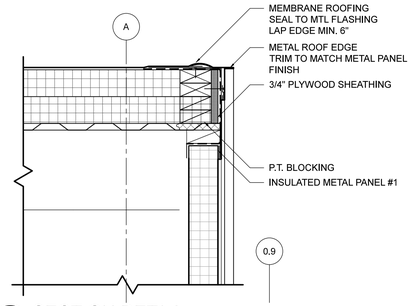

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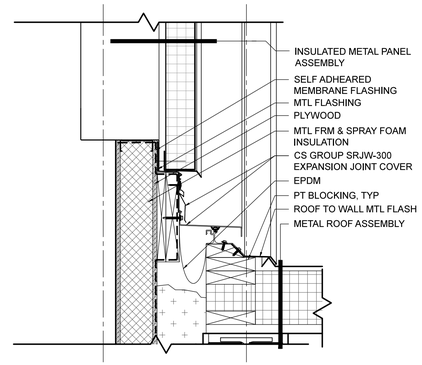

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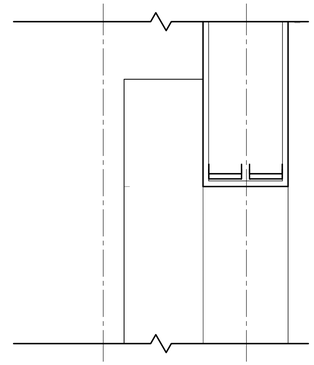

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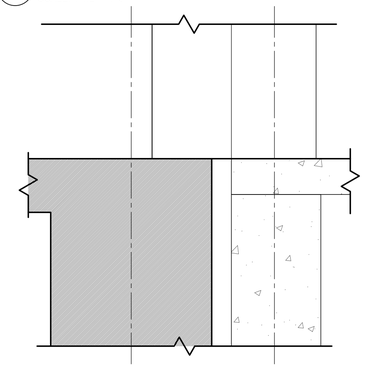

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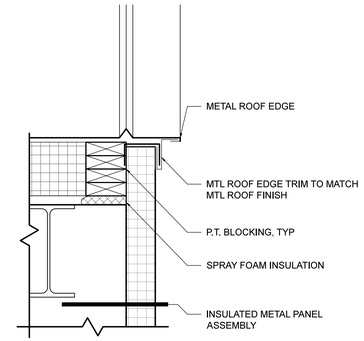

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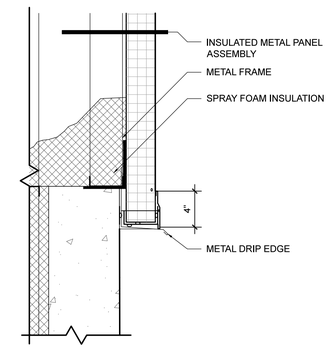

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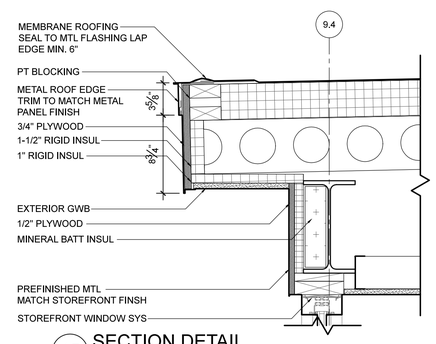

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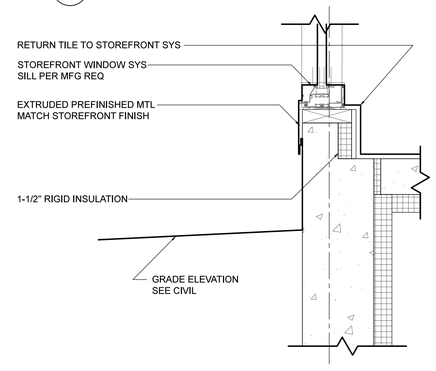

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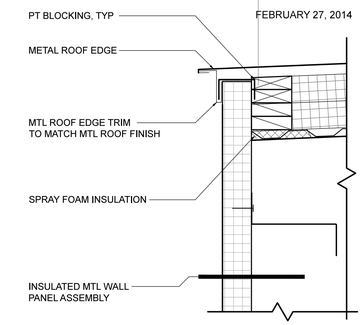

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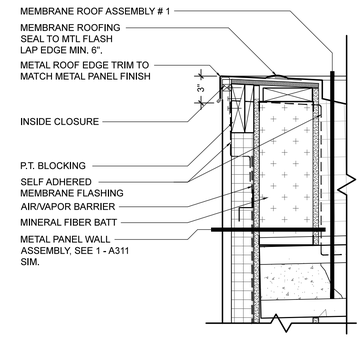

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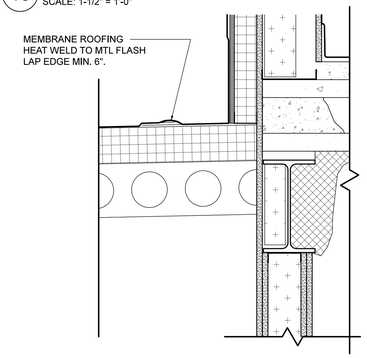

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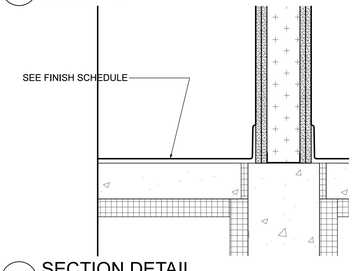

20 SECTION DETAIL
SCALE: 1-1/2" = 1'-0"

Scott Simons Architects

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Structural Mechanical Electrical Commissioning

160 Veranda Street
Portland, Maine 04103
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FILENAME: A411.DWG | Allied Project No: 13057 | Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	SSA
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL –
SECTION DETAILS

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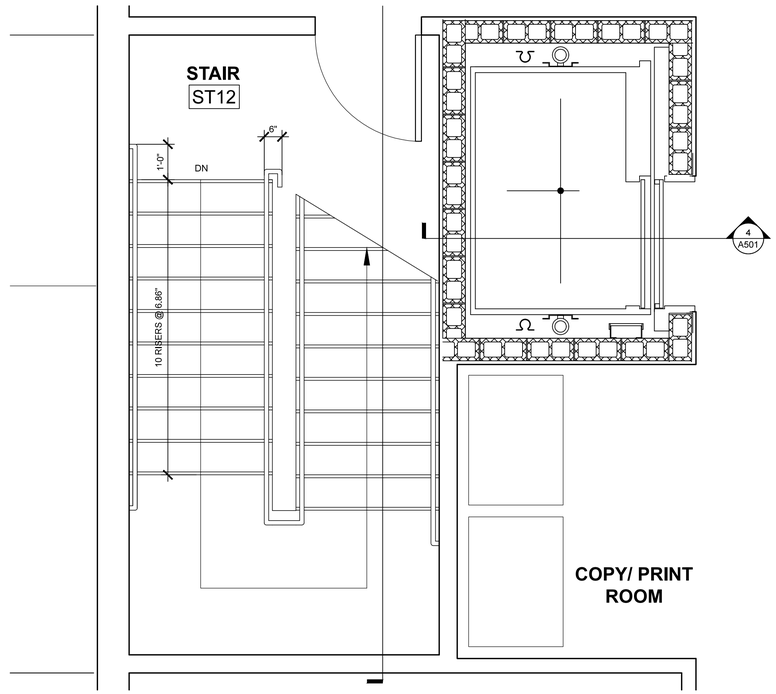
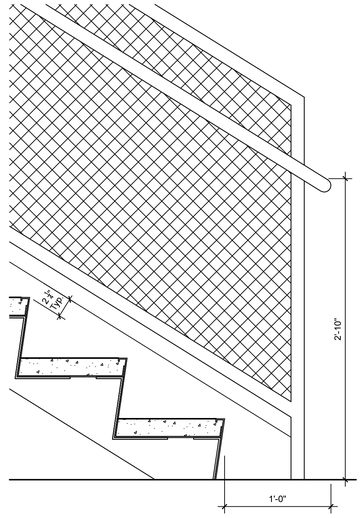
SHEET NUMBER
A412

ISSUED FOR BID

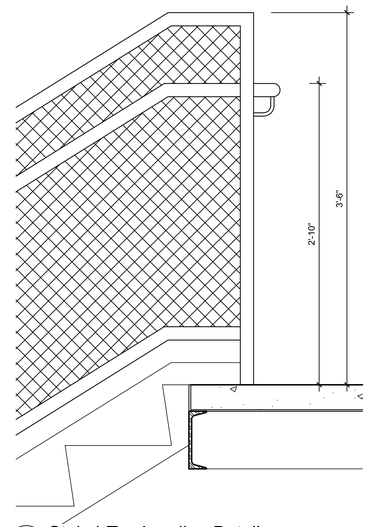
FEBRUARY 27, 2014



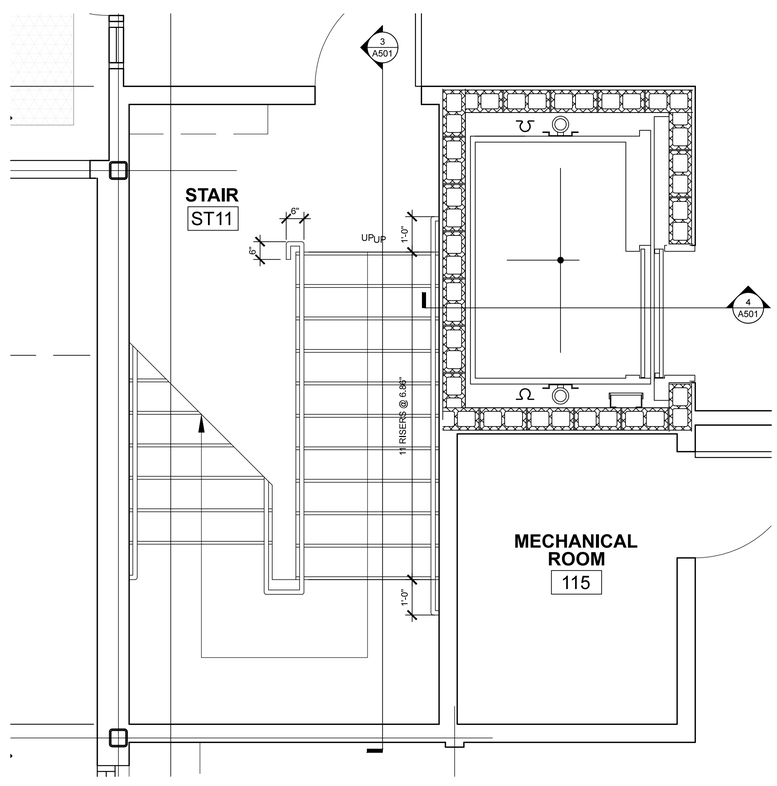
1 Enlarged Stair 1 Second Floor Plan
SCALE: 1/2" = 1'-0"



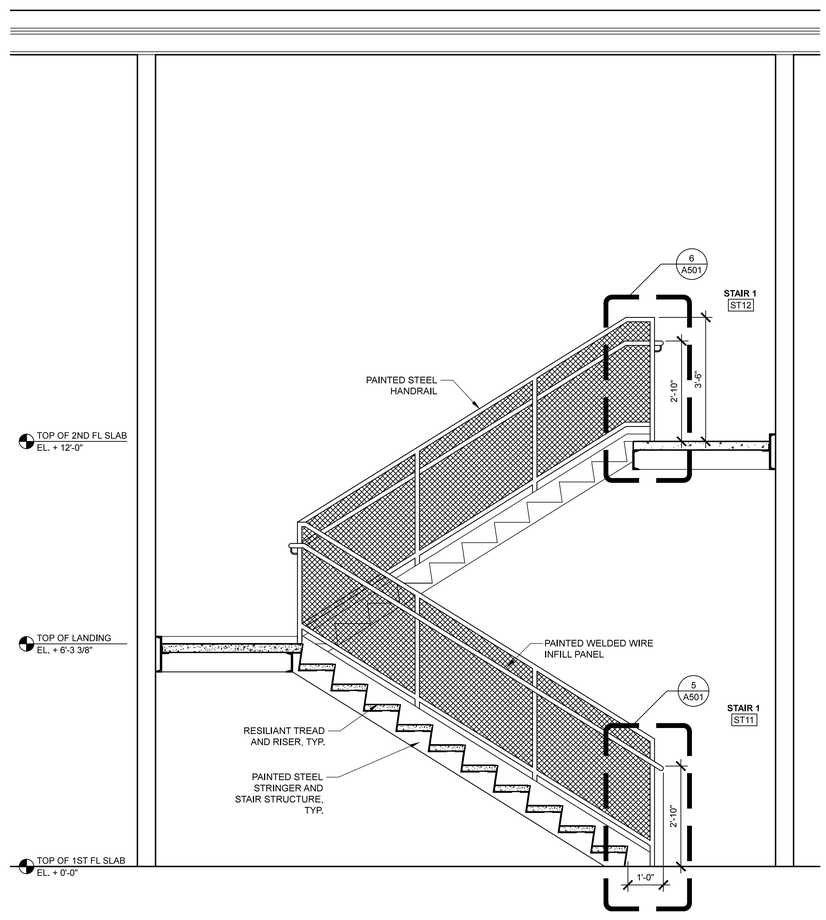
5 Stair 1 Bottom Landing Detail
SCALE: 1 1/2" = 1'-0"



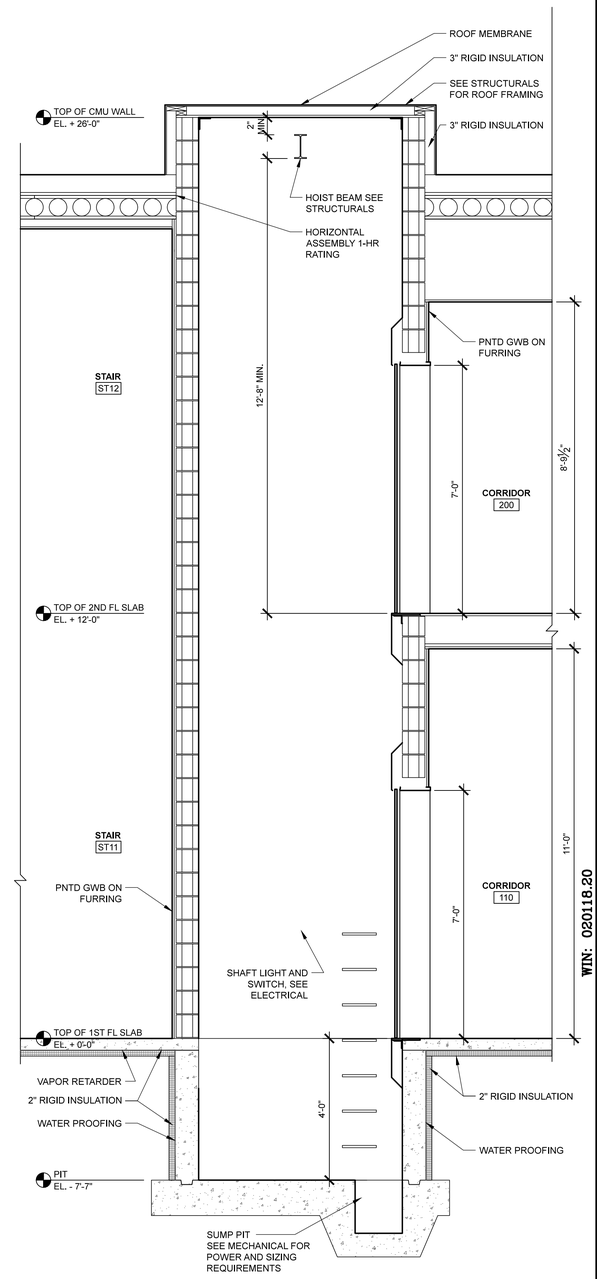
6 Stair 1 Top Landing Detail
SCALE: 1 1/2" = 1'-0"



2 Enlarged Stair 1 First Floor Plan
SCALE: 1/2" = 1'-0"



3 Stair 1 Section
SCALE: 1/2" = 1'-0"



4 ELEVATOR SECTION
SCALE: 1/2" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 201

PROJECT INFORMATION	
PROGRAM	
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66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – CIRCULATION

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SHEET NUMBER

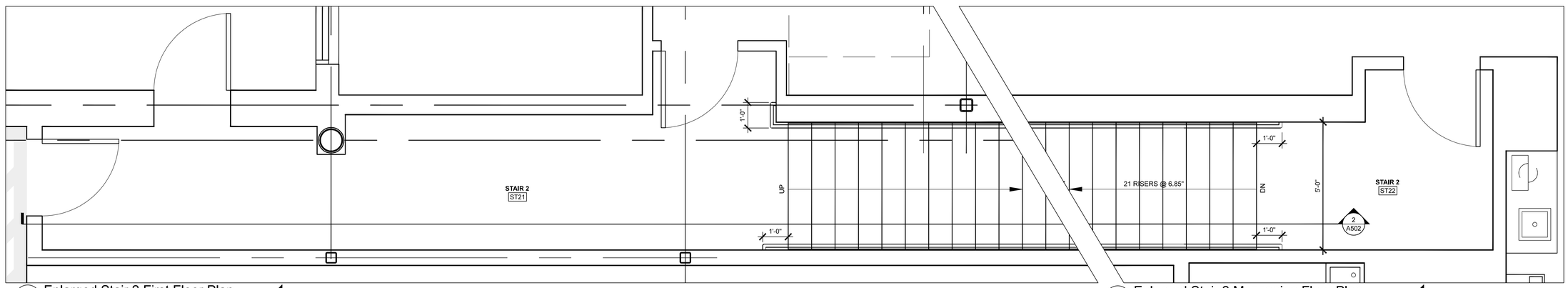
A501

Scott Simons Architects

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

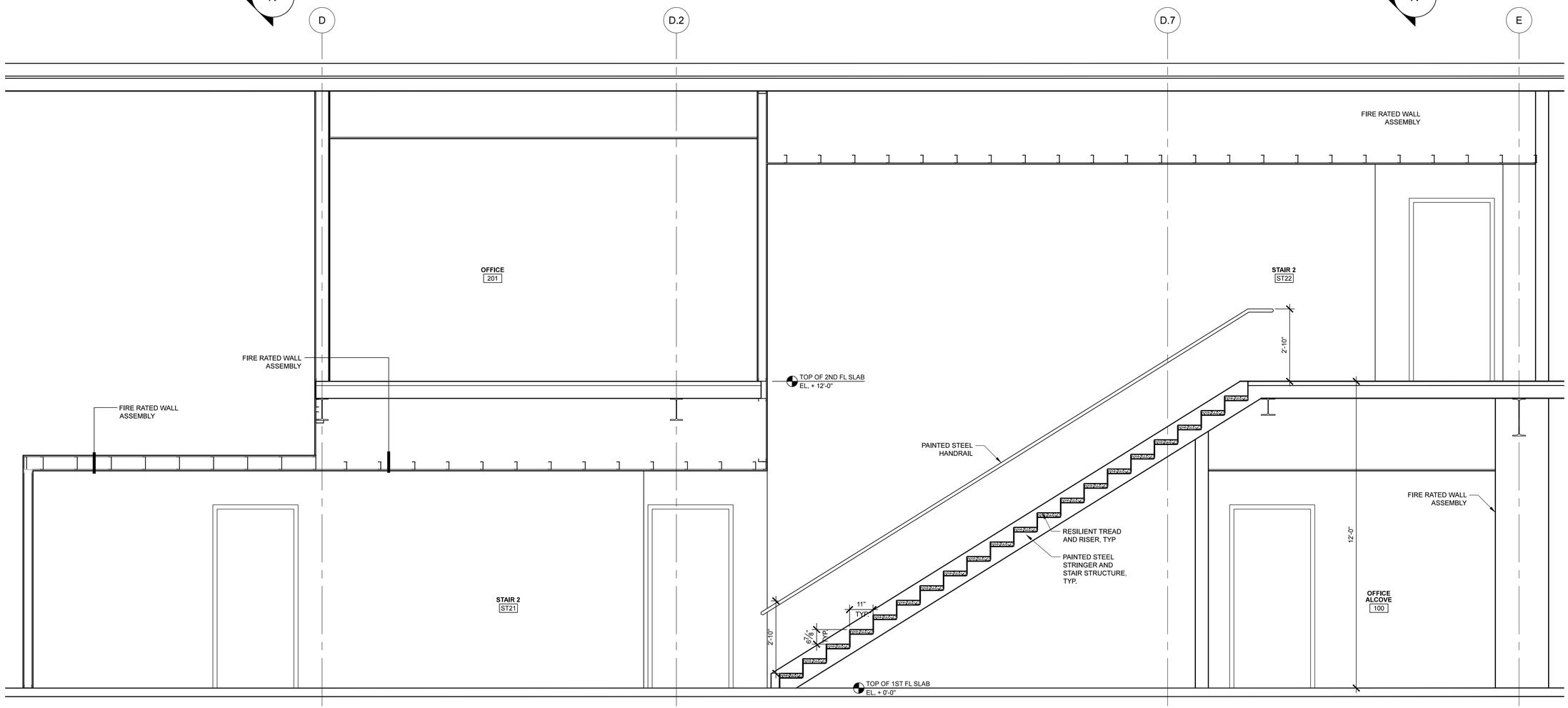
Allied Project No: 13057 Cad File:

ISSUED FOR BID
FEBRUARY 27, 2014



1 Enlarged Stair 2 First Floor Plan
SCALE: 1/2" = 1'-0"

2 Enlarged Stair 2 Mezzanine Floor Plan
SCALE: 1/2" = 1'-0"



2 Stair 2 Section
SCALE: 1/2" = 1'-0"

Scott Simons Architects

Allied Engineering
Structural Mechanical Electrical Commissioning

160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

FILENAME: A502.DWG

Allied Project No: 13057 Cad File:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 201

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PROGRAM	–
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66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – CIRCULATION

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SHEET NUMBER
A502

WINDOW SCHEDULE

TYPE	MANUFACTURER	MODEL	OPERATION	FRAME SIZE WIDTH	FRAME SIZE HEIGHT	FRAME SIZE PITCH	JAMB DEPTH	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	SCREEN	GLAZING	REMARKS
1	MARVIN	CUPCA4054 E	FIXED CASEMENT	3' - 4"	4' - 5 1/4"		SEE DETAIL	1,3,5:A603	1,3,5:A603 SIM	2,4:A603	N/A	SEE SPEC	
2	MARVIN	CUCAVP7254 T	FIXED CASEMENT	6' - 0"	4' - 5 1/4"		SEE DETAIL	1,3,5:A603	1,3,5:A603 SIM	2,4:A603	N/A	SEE SPEC	
3	MARVIN	CUPCA4064 E	FIXED CASEMENT	3' - 4"	5' - 3 1/4"		SEE DETAIL	1:A603	1:A603	2:A603	N/A	SEE SPEC	
4	MARVIN	CUCAVP7264	FIXED CASEMENT	6' - 0"	5' - 3 1/4"		SEE DETAIL	1:A603	1:A603	2:A603	N/A	SEE SPEC	
INTERIOR													
11	HM FRAME		FIXED	5'-0"	3'-8"		SEE PART. TYP	1:A603	1:A603	1:A603	N/A	SEE SPEC	BY DOOR FRAME MFG
12	HM FRAME		FIXED	4'-0"	3'-8"		SEE PART. TYP	1:A603	1:A603	1:A603	N/A	SEE SPEC	BY DOOR FRAME MFG
13	HM FRAME		FIXED	2'-0"	3'-8"		SEE PART. TYP	1:A603	1:A603	1:A603	N/A	SEE SPEC	BY DOOR FRAME MFG
14	HM FRAME		FIXED	6'-0"	3'-8"		SEE PART. TYP	1:A603	1:A603	1:A603	N/A	SEE SPEC	BY DOOR FRAME MFG
15	HM FRAME		FIXED	3'-4"	3'-8"		SEE PART. TYP	1:A603	1:A603	1:A603	N/A	SEE SPEC	BY DOOR FRAME MFG
16	HM FRAME		FIXED	4'-8"	7'-2"		SEE PART. TYP	1:A603	1:A603	1:A603	N/A	SEE SPEC	BY DOOR FRAME MFG

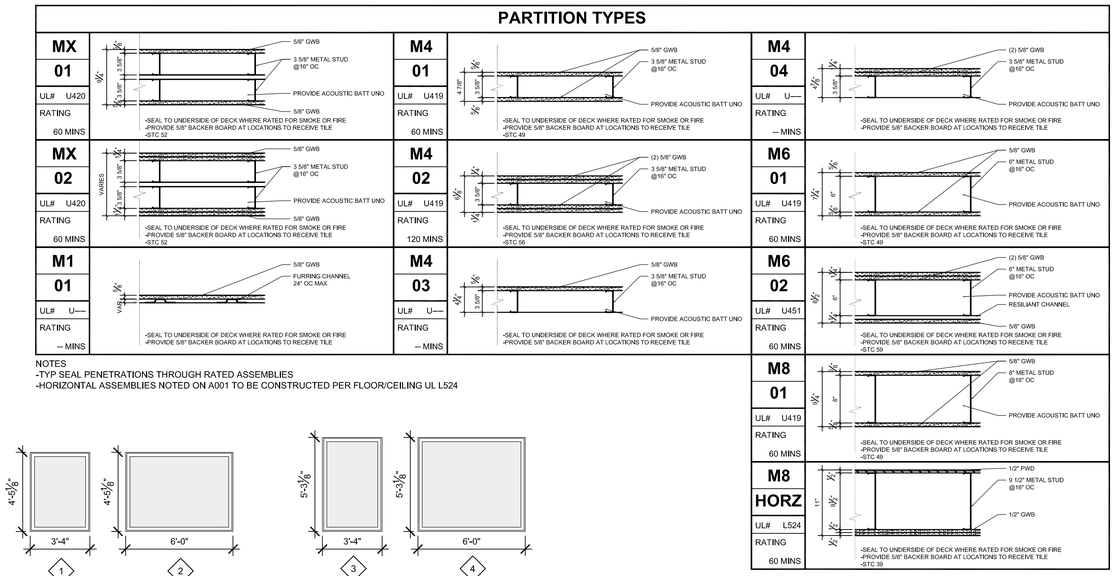
DOOR SCHEDULE

MARK	LOCATION AREA	LOCATION ROOM	DESCRIPTION	DOOR WIDTH	DOOR HEIGHT	DOOR THICK	DOOR MATERIAL	DOOR TYPE	FRAME MATERIAL	FRAME TYPE	FRAME HEAD	FRAME JAMB	FRAME SILL	FRAME THROAT WIDTH	HARDWARE	FIRE LABEL	REMARKS
100A	D	100		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	4	60 MIN.	
100B	D	100		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
101A	D	101		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
102A	D	102		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
103A	D	103		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
104A	D	104		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
105A	D	105		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
106A	D	106		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, FULL LITE	HM	1	1	1		SEE PART/WALL TYPE	1		
110A	D	110A	INSULATED	6' - 0"	7' - 0"	1 3/4"	ALUM/GLASS	ALUM, FULL LITE, PAIRED	ALUM	SF A	2	2	2	SEE PART/WALL TYPE	2		CARD READER
110B	D	110	INSULATED	3' - 0"	7' - 0"	1 3/4"	ALUM/GLASS	ALUM, FULL LITE	ALUM	SF B'	3	3		SEE PART/WALL TYPE	3		
110C	D	110		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, VISION LITE	HM	1	1	1		SEE PART/WALL TYPE	4	60 MIN.	
110D	D	110		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	5		
110E	D	110	INSULATED W/ SIDE LITE	3' - 0"	7' - 0"	1 3/4"	ALUM/GLASS	ALUM FULL LITE	ALUM	SF C	4	4	4	SEE PART/WALL TYPE	6		CARD READER
111A	D	111		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, FULL LITE	HM	1	1	1		SEE PART/WALL TYPE	1		
111B	D	111	INSULATED W/ SIDE LITE	3' - 0"	7' - 0"	1 3/4"	ALUM/GLASS	ALUM FULL LITE	ALUM	SF C	4	4	4	SEE PART/WALL TYPE	2		
111C	D	111A		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	7		
112A	D	112A		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, VISION LITE	HM	1	1	1		SEE PART/WALL TYPE	8	45 MIN.	
112B	D	112B		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, VISION LITE	HM	1	1	1		SEE PART/WALL TYPE	8	45 MIN.	
112C	D	112B		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, VISION LITE	HM	1	1	1		SEE PART/WALL TYPE	8	45 MIN.	
112D	D	112A	INSULATED W/ SIDE LITE	3' - 0"	7' - 0"	1 3/4"	ALUM/GLASS	ALUM FULL LITE	ALUM	SF C	4	4	4	SEE PART/WALL TYPE	9		
113A	D	113		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, FULL LITE	HM	1	1	1		SEE PART/WALL TYPE	1		
114A	D	114		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, FULL LITE	HM	1	1	1		SEE PART/WALL TYPE	1		
115A	D	115		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	10	45 MIN.	
116A	D	116		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
117A	D	117		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	11		
118A	D	118		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
119A	D	119		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	7		
119B	B	119		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	7		
120A	D	120	INSULATED	3' - 0"	7' - 0"	1 3/4"	ALUM/GLASS	ALUM FULL LITE	ALUM	SF B	3	3	3	SEE PART/WALL TYPE	3		
120B	D	120		3' - 0"	7' - 0"	1 3/4"	HM/GLASS	HM, VISION PANEL	HM	1	1	1		SEE PART/WALL TYPE	1	45 MIN.	
120C	D	120		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, HALF LITE	HM	1	1	1		SEE PART/WALL TYPE	1		
120D	D	120		3' - 0"	7' - 0"	1 3/4"	HM/GLASS	HM, VISION PANEL	HM	1	1	1		SEE PART/WALL TYPE	1	45 MIN.	
123A	D	123		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, HALF LITE	HM	1	1	1		SEE PART/WALL TYPE	1		
123B	D	123		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, HALF LITE	HM	1	1	1		SEE PART/WALL TYPE	1		
124A	D	124A		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	11		
124B	D	124B		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	11		
125A	D	125		3' - 0"	7' - 0"	1 3/4"	HM	HM	HM	1	1	1		SEE PART/WALL TYPE	11	45 MIN.	
131A	C	131		3' - 0"	7' - 0"	1 3/4"	HM/GLASS	HM, VISION PANEL	HM	1	1	1	5	SEE PART/WALL TYPE	1	45 MIN.	
131B	C	131	INSULATED	3' - 0"	7' - 0"	1 3/4"	HM/GLASS	HM, HALF LITE	HM	2	5	5		SEE PART/WALL TYPE	9		
132A	C	132		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
133A	C	133		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
134A	C	134		3' - 0"	7' - 0"	1 3/4"	HM	HM	HM	1	1	1		SEE PART/WALL TYPE	11	45 MIN.	
135A	C	135		3' - 0"	7' - 0"	1 3/4"	HM/GLASS	HM, VISION PANEL	HM	1	1	1		SEE PART/WALL TYPE	1	45 MIN.	
135B	C	135		3' - 0"	7' - 0"	1 3/4"	HM/GLASS	HM, VISION PANEL	HM	1	1	1		SEE PART/WALL TYPE	1	45 MIN.	
135C	C	135		3' - 0"	7' - 0"	1 3/4"	HM/GLASS	HM, HALF LITE	HM	1	1	1		SEE PART/WALL TYPE	5		
136A	C	136		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	11		
138A	C	138		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
140A	A	140	INSULATED	3' - 0"	7' - 0"	1 3/4"	HM/GLASS	INSUL. HM, HALF LITE	HM	2	5	5	5	SEE PART/WALL TYPE	9		
140B	A	140		6' - 0"	7' - 0"	1 3/4"	HM	HM, PAIRED, VISION	HM	3	6	6		SEE PART/WALL TYPE	12	45 MIN.	
140C	A	140	OVHD, POWER REQ'D.	14' - 0"	16' - 0"	-		OVERHEAD, INSULATED						SEE PART/WALL TYPE		45 MIN.	
140D	A	140	INSULATED	3' - 0"	7' - 0"	1 3/4"	HM/GLASS	INSUL. HM, HALF LITE	HM	2	5	5	5	SEE PART/WALL TYPE	9		CARD READER
140E	A	140	CUSTOM, ASYMETRICAL INSULATED SLIDING DOOR	14' - 0"	14' - 0"	4 1/2"		EXT. DBL SLIDING						SEE PART/WALL TYPE			SEE 19, 20/A411
141A	A	141		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, VISION	HM	1	1	1		SEE PART/WALL TYPE	1	45 MIN.	
142A	A	142		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, VISION	HM	1	1	1		SEE PART/WALL TYPE	1	45 MIN.	
142B	A	142		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, VISION	HM	1	1	1		SEE PART/WALL TYPE	1	45 MIN.	
143A	A	143		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, FULL LITE	HM	1	1	1		SEE PART/WALL TYPE	1		
144A	A	144		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, FULL LITE	HM	1	1	1		SEE PART/WALL TYPE	1		
146A	A	146		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
150A	B	150	INSULATED	3' - 0"	7' - 0"	1 3/4"	HM/GLASS	HM, HALF LITE	HM	2	5	5	5	SEE PART/WALL TYPE	9		CARD READER
150B	B	150	OVHD, POWER REQ'D.	24' - 0"	16' - 0"	-		OVERHEAD, INSULATED			8	8	8	SEE PART/WALL TYPE			
150C	D	150		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	4	60 MIN.	
150D	D	150	INSULATED	3' - 0"	7' - 0"	1 3/4"	HM/GLASS	HM, HALF LITE	HM	2	5	5	5	SEE PART/WALL TYPE	5	45 MIN.	CARD READER
151A	D	151	CHAIN LINK GATE											SEE PART/WALL TYPE			
151B	D		CHAIN LINK GATE											SEE PART/WALL TYPE			
160A	B	160	INSULATED	3' - 0"	7' - 0"	1 3/4"	HM/GLASS	HM, HALF LITE	HM	2	5	5	5	SEE PART/WALL TYPE	9		
160B	B	160	OVHD, POWER REQ'D.	16' - 0"	16' - 0"	-		OVERHEAD, INSULATED			8	8	8	SEE PART/WALL TYPE			
170A	C	170	OVHD, POWER REQ'D.	16' - 0"	16' - 0"	-		OVERHEAD, INSULATED			8	8	8	SEE PART/WALL TYPE			
170B	C	170	INSULATED	3' - 0"	7' - 0"	1 3/4"	HM	HM, HALF LITE	HM	2	5	5	5	SEE PART/WALL TYPE	9		
170C	C	170	OVHD, POWER REQ'D.	16' - 0"	16' - 0"	-		OVERHEAD, INSULATED			8	8	8	SEE PART/WALL TYPE			
180A	A	180	INSULATED	3' - 0"	7' - 0"	1 3/4"	HM	HM, HALF LITE	HM	2	5	5	5	SEE PART/WALL TYPE	9		
180B	A	184		3' - 0"	7' - 0"	1 3/4"	HM	HM	HM	1	1	1		SEE PART/WALL TYPE	1		
180C	A	180	COILING, POWER REQ'D.	18' - 0"	16' - 0"	-		COILING, HIGH SPEED						SEE PART/WALL TYPE			
180D	A	180	OVHD, POWER REQ'D.	24' - 0"	16' - 0"	-		OVERHEAD, INSULATED			8	8	8	SEE PART/WALL TYPE			
181A	C	181	INSULATED	3' - 0"	7' - 0"	1 3/4"	HM	HM, HALF LITE	HM	2	5	5	5	SEE PART/WALL TYPE	9		CARD READER
181B	C	181	INSULATED	3' - 0"	7' - 0"	1 3/4"	HM	HM, HALF LITE	HM	2	5	5	5	SEE PART/WALL TYPE	9		CARD READER
182A	C	182		3' - 0"	7' - 0"	1 3/4"	HM	HM	HM	1	1	1		SEE PART/WALL TYPE	10	45 MIN.	
182B	C	182		3' - 0"	7' - 0"	1 3/4"	HM	HM	HM	1	1	1		SEE PART/WALL TYPE	10	45 MIN.	
183A	B	183		3' - 0"	7' - 0"	1 3/4"	HM	HM	HM	1	1	1		SEE PART/WALL TYPE	1	45 MIN.	
191A	C	191	COILING, POWER REQ'D.	16' - 0"	16' - 0"	-		COILING, INSULATED			10	10		SEE PART/WALL TYPE			
191B	C	191	COILING, POWER REQ'D.	16' - 0"	16' - 0"	-		COILING, INSULATED			10	10		SEE PART/WALL TYPE			PROVIDE EMER. EGRESS OPERATOR
191C	C	191	INSULATED	3' - 0"	7' - 0"	1 3/4"	HM/GLASS	HM, HALF LITE	HM	2	5	5	5	SEE PART/WALL TYPE	9		
192A	C	192	INSULATED	3' - 0"	7' - 0"	1 3/4"	HM/GLASS	HM, HALF LITE	HM	2	5	5	5	SEE PART/WALL TYPE	9		
192B	C	192	COILING, POWER REQ'D.	16' - 0"	16' - 0"	-		COILING, INSULATED			10	10		SEE PART/WALL TYPE			
193A	C	193	COILING, POWER REQ'D.	14' - 0"	16' - 0"	-		COILING, INSULATED						SEE PART/WALL TYPE			SEE DETAIL 7:A412
193B	C	193	COILING, POWER REQ'D.	16' - 0"	16' - 0"	-		COILING, INSULATED			10	10		SEE PART/WALL TYPE			PROVIDE EMER. EGRESS OPERATOR
194A	C	194	COILING, POWER REQ'D.	16' - 0"	16' - 0"	-		COILING, INSULATED			12	12		SEE PART/WALL TYPE			
194B	C	194	COILING, POWER REQ'D.	14' - 0"	16' - 0"	-		COILING, INSULATED						SEE PART/WALL TYPE			SEE DETAIL 7:A412
194C	C	194	COILING, POWER REQ'D.	16' - 0"	16' - 0"	-		COILING, INSULATED			10	10		SEE PART/WALL TYPE			PROVIDE EMER. EGRESS OPERATOR
194D	C	194	INSULATED	3' - 0"	7' - 0"	1 3/4"	HM/GLASS	HM, HALF LITE	HM	2	5	5	5	SEE PART/WALL TYPE	9		
196B	C	196	INSULATED	3' - 0"	7' - 0"	1 3/4"	HM	HM	HM		13	13		SEE PART/WALL TYPE	9		
196C	C	196	6' COIL. AT MECH MEZZ. POWER	6'-0"	8'-0"	-		COILING, INSULATED			10	10		SEE PART/WALL TYPE			
197A	C	197		2' - 6"	7' - 0"	1 3/4"	HM	HM	HM	1	1	1		SEE PART/WALL TYPE	1		
200A	D	200		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, VISION LITE	HM	1	1	1		SEE PART/WALL TYPE	4	60 MIN.	
201A	D	201		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, VISION LITE	HM	1	1	1		SEE PART/WALL TYPE	4	60 MIN.	
203A	D	203		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
204A	D	204		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
205A	D	205		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
206A	D	206		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
207A	D	207		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, VISION LITE	HM	1	1	1		SEE PART/WALL TYPE	1		
208A	D	208		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
209A	D	209		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
210A	D	210		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
211A	D	211		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
212A	D	212		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, VISION LITE	HM	1	1	1		SEE PART/WALL TYPE	1		
213A	D	213		3' - 0"	7' - 0"	1 3/4"	WOOD/GLASS	WOOD, VISION LITE	HM	1	1	1		SEE PART/WALL TYPE	1		
214A	D	214		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
215A	D	215		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	11		
216A	D	216		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	11		
217A	D	217		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	1		
220A	D	220		3' - 0"	7' - 0"	1 3/4"	WOOD	FLUSH WOOD	HM	1	1	1		SEE PART/WALL TYPE	14	45 MIN.	CARD READER
221A	D	221	CHAIN LINK GATE	6' - 0"	7' - 0"	1 3/4"								SEE PART/WALL TYPE			
222A	D	222	CHAIN INK GATE	3' - 0"	7' - 0"	1 3/4"								SEE PART/WALL TYPE			

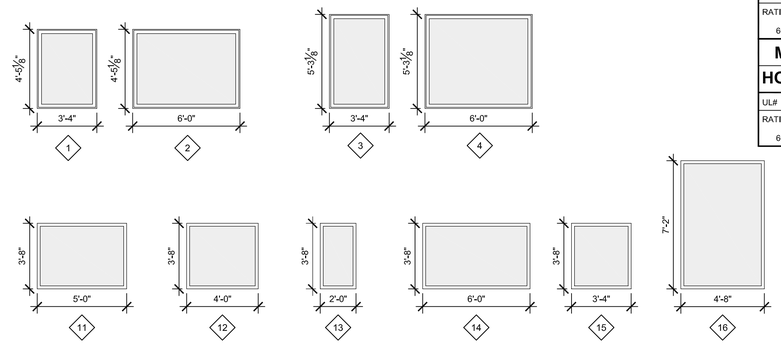
ISSUED FOR BID

FEBRUARY 27, 2014

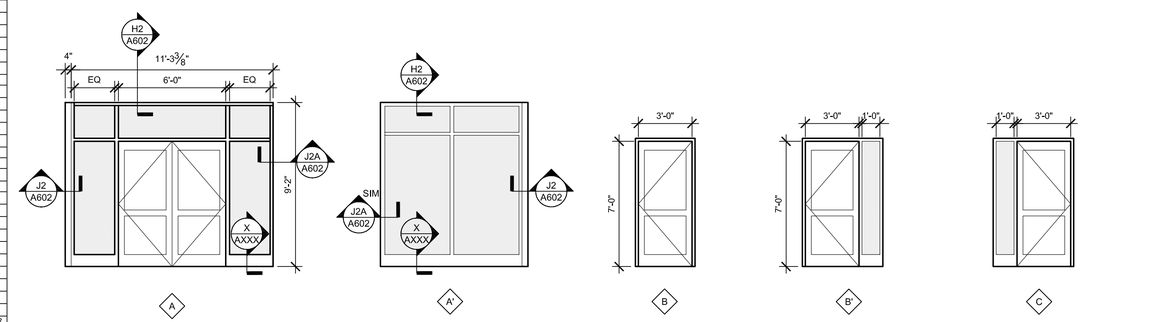
PARTITION TYPES



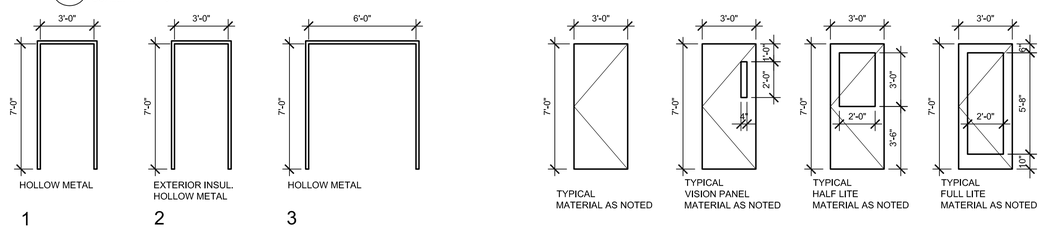
NOTES
-TYP SEAL PENETRATIONS THROUGH RATED ASSEMBLIES
-HORIZONTAL ASSEMBLIES NOTED ON A001 TO BE CONSTRUCTED PER FLOOR/CEILING UL L524



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



2 ALUM. STOREFRONT TYPES
SCALE: 1/4" = 1'-0"



3 FRAME TYPES
SCALE: 1/4" = 1'-0"

3 DOOR TYPES
SCALE: 1/4" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

INFORMATION

PROJECT MANAGER: ALLIED ENG., INC.

DESIGNER: SSA

CONSULTANT

PROJECT RESIDENT

CONTRACTOR

PROJECT COMPLETION DATE: –

PROJECT PROGRAM

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – DOOR, WINDOW, AND PARTITION SCHEDULE

SHEET NUMBER
A601

Scott Simons Architects

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

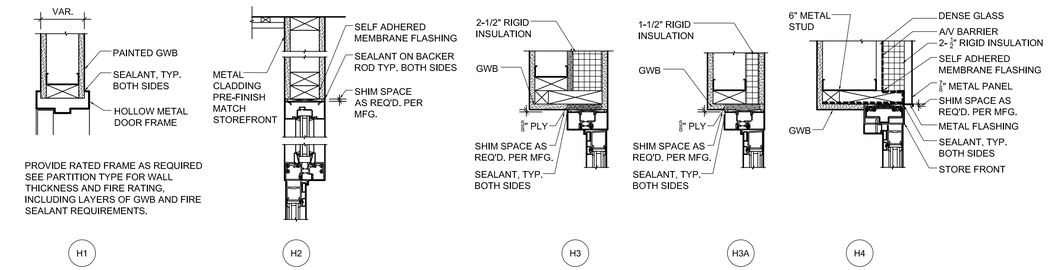
FILENAME: A601.DWG
Allied Project No: 13057 Cad File:

ISSUED FOR BID

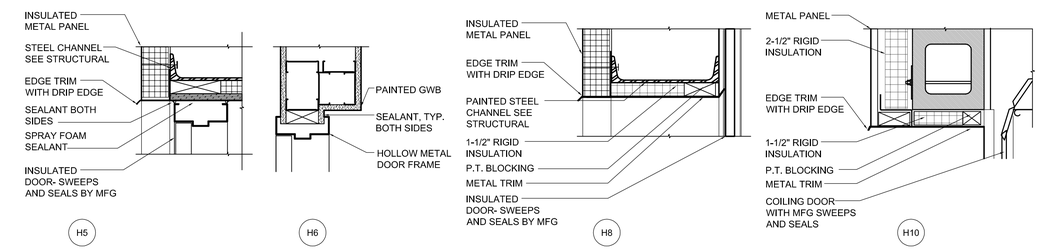
FEBRUARY 27, 2014

ROOM FINISH SCHEDULE

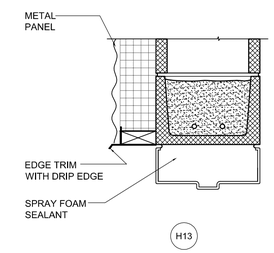
ROOM NO.	ROOM NAME	FLOOR FLOOR	FLOOR BASE	WALLS NORTH	WALLS SOUTH	WALLS EAST	WALLS WEST	CEILINGS MTL.	CEILINGS HGT	NOTES	MATERIALS LEGEND NO.	MATERIALS LEGEND DESCRIPTION
100	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP	AREA INCLUDES PRINTER ALCOVE		
101	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
102	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
103	OFFICE	CPT 1	WD	PNTD GWB				ACT	SEE RCP			
104	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
105	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
106	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
110	CORRIDOR	VCT	VC	PNTD GWB				ACT	SEE RCP			
110A	ENTRY	CT	CT	PNTD GWB				PNTD GWB	SEE RCP	RECESSED WALK OFF GRATE- SEE SPEC.		
111	BREAK	VCT	VC	PNTD GWB				ACT/GWB	SEE RCP	PNTD GWB SOFFIT AS SHOWN		
111A	SPRINKLER		VC	PNTD GWB				-	SEE RCP			
112A	CONFERENCE	CPT 1	VC	PNTD GWB		-	PNTD GWB	ACT/GWB	SEE RCP	MOVABLE PARTITION, GWB SOFFITS AS NEEDED		
112B	CONFERENCE	CPT 1	VC	PNTD GWB			-	ACT/GWB	SEE RCP	MOVABLE PARTITION, GWB SOFFITS AS NEEDED		
113	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
114	OFFICE	CPT 1	VC	PNTD GWB				-	SEE RCP			
115	MECHANICAL	-	VC	PNTD GWB				-	SEE RCP			
116	STORAGE	VCT	VC	PNTD GWB				ACT	SEE RCP			
117	WOMEN	CT	CT	PNT/TILE				ACT	SEE RCP	TILE WAINSCOT SEE INTERIOR ELEVATION		
118	MEN	CT	CT	PNT/TILE				ACT	SEE RCP	TILE WAINSCOT SEE INTERIOR ELEVATION		
119	MAIN TELDATA ROOM (MDF)	-	VC	PNTD GWB				ACT	SEE RCP			
119B	JANITOR'S CLOSET	-	VC	PNTD GWB				ACT	SEE RCP			
120	CORRIDOR	VCT	VC	PNTD GWB				ACT	SEE RCP			
121	OFFICE	VCT	VC	PNTD GWB				ACT/GWB	SEE RCP			
122	OFFICE	VCT	VC	PNTD GWB				ACT	SEE RCP			
123	BREAK	VCT	VC	PNTD GWB				ACT	SEE RCP			
124A	UNISEX	CT	CT	PNTD/TILE				ACT	SEE RCP	TILE WAINSCOT SEE INTERIOR ELEVATION		
124B	UNISEX	CT	CT	PNTD/TILE				ACT	SEE RCP	TILE WAINSCOT SEE INTERIOR ELEVATION		
125	MEN	CT	CT	PNTD/TILE				ACT	SEE RCP	TILE WAINSCOT SEE INTERIOR ELEVATION		
130	CORRIDOR	VCT	VC	PNTD GWB				ACT	SEE RCP			
131	OFFICE	CPT1/VCT	VC	PNTD GWB				ACT	SEE RCP			
132	N.O.C.	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
133	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
134	UNISEX	CT	CT	PNT/TILE				ACT	SEE RCP			
135	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
136	UNISEX	CT	CT	PNT/TILE				ACT	SEE RCP			
137	O.I.T. SHOP	-	-	PNTD GWB				-	SEE RCP			
138	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
140	SIGN SHOP FLOOR	-	-	PNTD GWB	PNTD PLYWD			-	SEE RCP	PROVIDE PNTD PLYWD E, S, W GWB/VC AT NORTH		
141	SIGN SHOP OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP	GWB SOFFITS AS NEEDED		
142	SIGN SHOP WORKSHOP	-	VC	PNTD GWB				-	SEE RCP			
143	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
144	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
145	JANITOR	-	VC	PNTD GWB				ACT	SEE RCP			
146	TOILET	CT	CT	TILE/GWB				ACT	SEE RCP			
150	FAST LANE	-	-		-	-	-	-	-			
151	NAPA	-	-	PNTD	PLYWD/GWB			-	-			
160	HEAVY VEHICLE SERVICE	-	-	PNTD	PLYWD/GWB			-	-			
170	LIGHT VEHICLE SERVICE	-	-	PNTD	PLYWD/GWB			-	-			
180	FABRICATION	-	-	PNTD	PLYWD/GWB			-	-			
181	FABRICATION	-	-	PNTD	PLYWD/GWB			-	-			
182	ELECTRICAL	-	VC	PNTD GWB				PNTD/GWB	SEE RCP			
183	STORAGE	-	-	PNTD GWB				ACT	SEE RCP			
184	MACHINE	-	-	PNTD	PLYWD/GWB			-	-	PLYWOOD TO 8' HEIGHT		
191	WASH	PNTD		PNTD CMU				PNTD	-			
192	PAINT	PNTD		PNTD CMU				PNTD	-			
193	PREP	PNTD		PNTD CMU				PNTD	-			
194	BLAST			PNTD CMU				PNTD	-			
195	DUST			PNTD CMU				-	-			
196	MECHANICAL			PNTD CMU				PNTD	PRECAST			
200	CORRIDOR	CPT 2	VC	PNTD GWB				ACT	SEE RCP	GWB SOFFIT		
201	OFFICE	CPT 2	VC	PNTD GWB				ACT	SEE RCP			
202	CORRIDOR	CPT 2	VC	PNTD GWB				ACT	SEE RCP			
203	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
204	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
205	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
206	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
207	CONFERENCE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
208	OFFICE	CPT 1	WD	PNTD GWB				ACT	SEE RCP			
209	OFFICE	CPT 1	WD	PNTD GWB				ACT	SEE RCP			
210	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
211	OFFICE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
212	CONFERENCE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
213	CONFERENCE	CPT 1	VC	PNTD GWB				ACT	SEE RCP			
214	STORAGE	VCT	VC					ACT	SEE RCP			
215	WOMEN	CT	CT	TILE/PNTD				ACT	SEE RCP	GWB SOFFITS AS INDICATED		
216	MEN	CT	CT	TILE/PNTD				ACT	SEE RCP	GWB SOFFITS AS INDICATED		
217	MECHANICAL	VCT	VC	PNTD GWB				-	-			
220	SECURE STORAGE	-	-	CAGE	PNTD	PNTD	CAGE	-	-			
221	STORAGE	-	-	CAGE	CAGE	CAGE	CAGE	-	-			
222	MECHANICAL	-	-	CAGE	CAGE	CAGE	CAGE	-	-			
ST11	STAIR 1	RF	VC	PNTD GWB				PNTD GWB	SEE RCP			
ST12	STAIR 1	RF	VC	PNTD GWB				PNTD GWB	SEE RCP			
ST21	STAIR 2	RF/VCT	RF/VC	PNTD GWB				PNTD GWB	SEE RCP			
ST22	STAIR 2	CPT/RF	VC	PNTD GWB				PNTD GWB	SEE RCP			



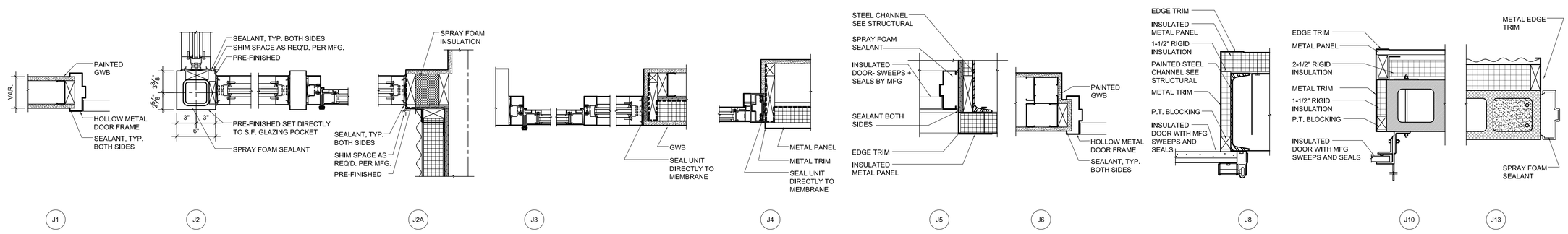
1 DOOR HEAD DETAILS
SCALE: 1 1/2" = 1'-0"



1 DOOR HEAD DETAILS
SCALE: 1 1/2" = 1'-0"



1 DOOR HEAD DETAILS
SCALE: 1 1/2" = 1'-0"



1 DOOR JAMB DETAILS
SCALE: 1 1/2" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	
CONSULTANT	SSA
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – FINISH SCHEDULE

SHEET NUMBER

A602

Scott Simons Architects

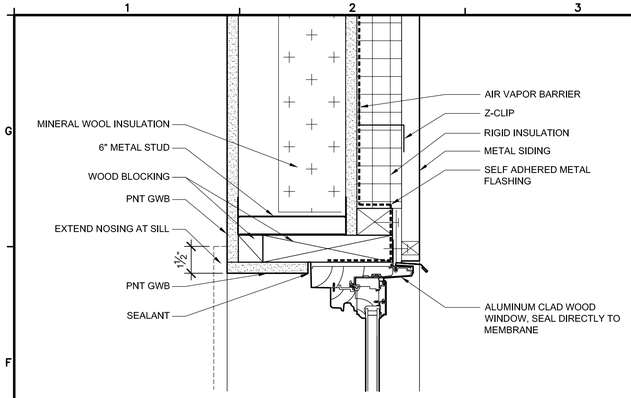
Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

FILENAME: A602.DWG

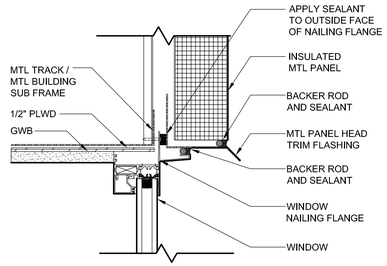
Allied Project No: 13057 Cad File:

ISSUED FOR BID

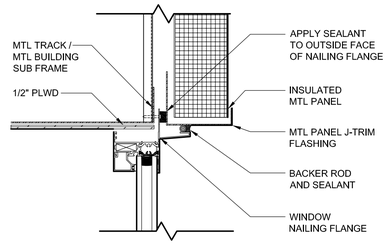
FEBRUARY 27, 2014



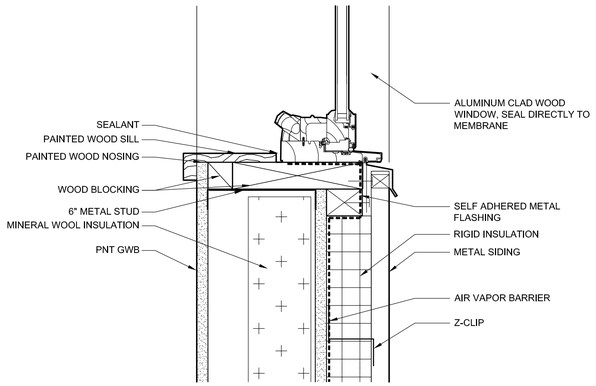
1 Head and Jamb Detail
SCALE: 3" = 1'-0"



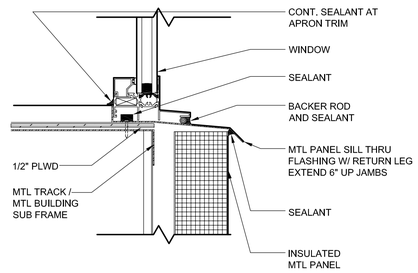
3 Sign Shop Head Detail
SCALE: 3" = 1'-0"



5 Sign Shop Jamb Detail
SCALE: 3" = 1'-0"

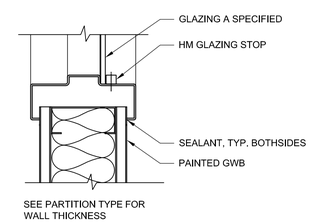


2 Sill Detail
SCALE: 3" = 1'-0"



4 Sign Shop Sill Detail
SCALE: 3" = 1'-0"

6 Detail- Not Used
SCALE: 3" = 1'-0"



7 Head, Jamb, and Sill Detail
SCALE: 3" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

LICENSED ARCHITECT
SCOTT R. SIMONS
NO. 2034
STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

INFORMATION

PROJECT

PROGRAM

PROJECT MANAGER

DESIGNER ALLIED ENG., INC.

CONSULTANT SSA

PROJECT RESIDENT

CONTRACTOR

PROJECT COMPLETION DATE –

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL – FINISH SCHEDULE

SHEET NUMBER

A603

Scott Simons Architects

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

FILENAME: A602.DWG

Allied Project No: 13057 Cad File:

E1 GENERAL NOTES

1. ALL CONTRACTORS SHALL CONFORM TO SAFETY REQUIREMENTS OF THE OWNER, AIA DOCUMENTS, OSHA SAFETY AND HEALTH STANDARDS, AND OTHER LOCAL AUTHORITIES IN CONNECTION WITH THE PERFORMANCE OF THIS PROJECT.
2. ALL REFERENCED STANDARDS OR PUBLICATIONS SHALL PERTAIN TO THE MOST CURRENT DATA, STANDARD OR PUBLICATION, UNLESS NOTED OTHERWISE.
3. NOTES ON THESE DRAWINGS SHALL NOT SUPERCEDE OR REPLACE INFORMATION PROVIDED IN THE SPECIFICATIONS. ANY INCONSISTENCIES WITH THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED PORTIONS OF THE WORK.
4. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS, AS WELL AS THE ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND CIVIL DRAWINGS. . ALL DIMENSIONS AND ELEVATIONS SHOWN ON STRUCTURAL DRAWINGS, WITH THE EXCEPTION OF STRUCTURAL MEMBER SIZES, ARE GENERATED BY OTHER DISCIPLINES. ANY DIMENSIONS OR ELEVATIONS OMITTED OR NOT SHOWN ON THE STRUCTURAL DRAWINGS SHOULD BE OBTAINED FROM THE DRAWINGS Of THE OTHER DISCIPLINES. ANY INCONSISTENCIES WITH THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED PORTIONS OF THE WORK.
5. IF DIFFERENCES OCCUR WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS REGARDING MATERIALS, STRENGTHS OR QUANTITIES, THE BETTER, HIGHER STRENGTH, AND GREATER QUANTITY INDICATED, SPECIFIED OR NOTED SHALL BE PROVIDED.
6. THE CONTRACTOR SHALL VISIT THE SITE AT A DESIGNATED TIME APPROVED BY THE OWNER, TO VERIFY EXISTING CONDITIONS, DIMENSIONS, LOCATION OF EXISTING UTILITIES, ETC. THE CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES WITHOUT EXCEPTION.
7. THE STRUCTURE HAS BEEN DESIGNED AS A SELF-SUPPORTING SYSTEM ONCE ALL WORK CONTAINED ON THESE DRAWINGS HAS BEEN COMPLETED. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ERECTION PROCEDURES AND SEQUENCE OF INSTALLATION TO ENSURE SAFETY OF THE BUIDLING AND ITS OCCUPANTS DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS AND METHODS AND TEMPORARY SHORING, PRECAUTIONS DURING BUILDING OPERATIONS, PROTECTION OF PUBLIC AND WORKERS, REMOVAL OF WASTE MATERIAL, PROTECTION OF ADJACENT PROPERTY, PROTECTION OF HAZARDOUS OPENINGS, SAFETY PRECAUTIONS, AND SANITARY PROVISIONS OF EMPLOYEES AND SUBCONTRACTORS AS REQUIRED FOR THE DURATION OF THE CONTRACT.
8. WORK SHALL BE DONE IN AN ORDERLY AND PROFESSIONAL MANNER. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL WORK TO BE DONE BY SUBCONTRACTORS, LOCAL AUTHORITIES, STATE AGENCIES AND/OR UTILITY COMPANIES WHICH MAY HAVE JURISDICTION OVER THIS PROJECT.
9. UTILITY EXTENSIONS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH STATE AND LOCAL CODES OR AS INDICATED BY THE SPECIFICATIONS.
10. CONTRACTOR SHALL PROVIDE AND INSTALL MATERIALS NECESSARY TO CONNECT ELEVATOR SUPPORT BEAMS AND/OR GUIDE RAILS TO THE STRUCTURE. LOCATION AND SIZE OF MEMBERS AND INSERTS SHALL BE CONFIRMED WITH THE ELEVATOR MANUFACTURER.
11. CONTRACTOR SHALL REVIEW AND SUBMIT COMPLETE SHOP DRAWINGS FOR ALL SPECIFIED PARTS OF THE WORK, INCLUDING SHORING AND CONSTRUCTION METHODS/SEQUENCING WHERE APPLICABLE. NO PORTION OF THE WORK COVERED BY THESE SHOP DRAWINGS SHALL COMMENCE UNTIL RETURNED APPROVED SHOPS ARE RECEIVED BY THE CONTRACTOR. SEE SPECIFICATIONS FOR SPECIFIC SHOP SUBMITTAL REQUIREMENTS.
12. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY EXISTING ITEMS DAMAGED BY NEW CONSTRUCTION, AND FOR ANY INCIDENTAL REPAIRS OF EXISTING FINISHED SURFACES DISTURBED BY NEW CONSTRUCTION; SUCH REPAIRS SHALL MATCH EXISTING TO THE OWNER'S SATISFACTION.
13. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING, HANDLING, AND STORAGE OF ITEMS/MATERIALS TO REMAIN THE PROPERTY OF THE OWNER WITH THE OWNER'S REPRESENTATIVE.
14. SPECIAL INSPECTIONS AS REQUIRED BY 780 CMR 17.00 - QUALITY ASSURANCE DURING CONSTRUCTION, SHALL BE PERFORMED BY AN INSPECTION AGENCY CONTRACTED BY THE OWNER.

A1 COLD-FORMED METAL FRAMING NOTES

1. COLD-FORMED METAL FRAMING (CFMF) UNITS INCLUDE C-SHAPED STEEL STUDS, T-SHAPED TRACKS FOR LOAD AND NON-LOAD BEARING WALLS AND C-SHAPE JOISTS.
2. ALL COLD-FORMED FRAMING TO BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROJECT LOCATION STATE. DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO THE ARCHITECT AND ENGINEER OF RECORD FOR REVIEW.
3. ALL COMPONENTS SHALL CONFORM TO AISI "SPECIFICATIONS FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" AND ASTM A446. ALL STUDS, JOISTS AND ACCESSORIES SHALL BE GALVANIZED (MINIMUM G-60) ASTM A525.
4. MEMBER SIZES AND GAUGES INDICATED ON DRAWINGS ARE REFERENCED TO METAL FRAMING MANUFACTURED BY THE STEEL NETWORK, HEADQUARTERED IN DURHAM, NORTH CAROLINA. SIZES ARE INDICATED FOR PRICING ONLY. ACTUAL SIZES SHALL BE DESIGNED BY REGISTERED P.E. SEALED CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW. FABRICATOR AND ERECTOR SHALL BOTH HAVE A MINIMUM FIVE YEARS EXPERIENCE ON SIMLAR INSTALLATIONS..
5. GALVANIZED STUDS, JOIST AND ACCESSORIES SHALL BE FORMED FROM THE FOLLOWING YIELD STRENGTH AND ITS RESPECTIVE GAUGE: 20 GA-33 KSI, 18 GA-33 KSI, 16 GAUGE AND HEAVIER – 50 KSI, UNLESS NOTED OTHERWISE.
6. CUTTING COMPONENTS SHALL BE ACCOMPLISHED WITH SAW OR SHEAR. TORCH CUTTING IS NOT PERMITTED.
7. WELDS SHALL CONFORM TO AWS D1.1, AWS D1. AND AISI MANUAL SECTION E2. WELDS SHALL BE TOUCHED-UP USING A ZINC-RICH PAINT. WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS.
8. SELF-TAPPING SCREWS SHALL HAVE A PROTECTIVE COATING AT LEAST EQUIVALENT TO CADMIUM OR ZINC PLATING (ASTM A165 TYPE NS) FOR USE IN EXTERIOR ASSEMBLIES.
9. FASTENING OF COMPONENTS SHALL BE WITH SELF-TAPPING SCREWS OR WELDING OF SUFFICIENT SIZE TO MEET OR EXCEED THE DESIGN LOADS AND TO ASSURE THE STRENGTH OF THE CONNECTION.
10. PROVIDE BRIDGING AND BLOCKING AS INDICATED ON THE SHOP DRAWINGS OR AS REQUIRED BY AISI.
11. ALL FIELD ABRASIONS TO MEMBERS FROM FIELD WELDING SHALL BE TOUCHED UP WITH ZINC-RICH PAINT.
12. AT TRACK BUTT JOINTS, TRACK MUST BE ANCHORED TO A COMMON STRUCTURAL ELEMENT WITHIN 6 INCHES OF END OF TRACK.
13. STUDS SHALL BE SEATED SQUARELY IN TRACK WITH STUD FLANGES ABUTTING THE TRACK FLANGES. STUDS SHALL BE PLUMBED, ALIGNED AND SQUARELY ATTACHED TO FLANGES OF TOP AND BOTTOM TRACK WITH 2-#10 TEK SCREWS MINIMUM UNLESS NOTED ON PLANS.
14. SPLICES IN AXIALLY LOADED STUDS SHALL NOT BE PERMITTED.
15. STUDS SHALL BE SO POSITIONED THAT STUDS ALIGN ABOVE AND BELOW FLOOR AND ROOF FRAMING JOISTS.
16. ALL BRACING, BLOCKING, AND CONNECTIONS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS UNLESS NOTED.

A3 FOUNDATION NOTES

FOUNDATIONS:

1. THE SITE SHALL BE PREPARED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY S. W. COLE ENGINEERING, INC., DATED NOVEMBER 7, 2013. FOUNDATION DESIGNS ARE BASED ON THE SOILS REPORT REFERENCED ABOVE. FOUNDATION SYSTEMS HAVE BEEN DESIGNED WITH AN ASSUMED BEARING CAPACITY OF 1.5 KSF. THE ALLOWABLE BEARING PRESSURE SHALL BE VERIFIED BY THE OWNER'S TESTING AGENCY PRIOR TO PLACING ANY FOOTING CONCRETE.
2. ALL FOOTING BOTTOMS SHALL BE INSPECTED AND APPROVED, IN WRITING, BY A REGISTERED SOILS ENGINEER PRIOR TO PLACING CONCRETE. WRITTEN APPROVAL SHALL SPECIFY THAT THE SOIL HAS THE CAPACITY TO SUPPORT THE DESIGNED BEARING PRESSURE.
3. ALL BEDDING AND FILL PROFILES BENEATH SLABS ON GRADE AND FOUNDATION FOOTINGS SHALL COMPLY WITH THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT REFERENCED ABOVE.
4. FOUNDATION WALL REINFORCING WILL BE ADJUSTED AS REQUIRED NOT TO INTERFERE WITH BASE PLATE ANCHOR BOLTS
5. EXCAVATIONS FOR BUILDING FOUNDATIONS AND STRUCTURES SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS. BRACED EXCAVATIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT STATE. DO NOT UNDERMINE EXISTING ADJACENT FOUNDATIONS.
6. INTERSECTING CONCRETE WALLS SHALL BE TIED WITH #4 L-BARS 3'-0" LONG (BENT 18-INCHES – 18-INCHES), SPACED AT 12-INCHES ON-CENTER, OUTSIDE FACE ONLY.
7. IN NO CASE SHALL HEAVY EQUIPMENT BE PERMITTED CLOSER THAN 8'-0" FROM ANY FOUNDATION/BASEMENT WALL WITHOUT FULL COMPACTION EACH SIDE. IF THE CONTRACTOR DEEMS IT NECESSARY TO OPERATE SUCH EQUIPMENT CLOSER THAN 8'-0", THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE AND, AT HIS OWN EXPENSE. PROVIDE ADEQUATE SUPPORTS OR WALL BRACES TO WITHSTAND THE ADDITIONAL LOADS SUPERIMPOSED FROM SUCH EQUIPMENT.
8. FOUNDATION WALL CONTROL JOINTS SHALL BE PLACED AS SHOWN ON THE BUILDING ELEVATIONS (EXTERIOR) AND AT A MAXIMUM SPACING OF 30'-0" (INTERIOR).
9. CONCRETE SHALL NOT BE PLACED ON FROZEN GROUND OR IN WATER.

CONCRETE:

1. CONCRETE WORK SHALL COMPLY WITH ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE BUILDINGS"; ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"; AND ACI 315 "ACI DETAIL MANUAL", AND CRSI "MANUAL OF STANDARD PRACTICE".
2. CONTRACTOR SHALL PROVIDE TIES AND BRACING WHERE NECESSARY DURING CONSTRUCTION, TO REMAIN IN PLACE UNTIL THE STRUCTURES ARE COMPLETE.
3. CONCRETE SHALL BE:
   a. FOOTING AND FOUNDATION WALLS: 3500 PSI AT (28) DAYS. SLUMP SHALL NOT EXCEED 4-INCHES.
   b. INTERIOR SLABS-ON-GRADE: 3,500 PSI CONCRETE AT (28) DAYS. SLUMP SHALL NOT EXCEED 3-INCHES.
   c. EXTERIOR SLABS ON GRADE SIDEWALKS, AND STAIRS SHALL BE 4000 PSI AT (28) DAYS. SLUMP SHALL NOT EXCEED 3-INCHES.
   d. SEE SPECIFICATIONS SECTION 033000 FOR FURTHER CAST-IN-PLACE CONCRETE REQUIREMENTS.
4. 4-INCH SLABS ON GRADE SHALL BE REINFORCED WITH 6 X 6 X W2.9 X W 2.9 WWM UNLESS OTHERWISE NOTED. 6-INCH SLABS ON GRADE SHALL BE REINFORCED WITH #4 BARS AT 18-INCHES ON-CENTER UNLESS OTHERWISE NOTED.
5. WALLS EXCEEDING 90 FEET IN LENGTH SHALL CONTAIN EXPANSION JOINTS SPACED AT 90 FEET (MAX.) ON CENTER.
6. ALL CONSTRUCTION JOINTS FOR SLABS SHALL BE KEY JOINTED AT MID-SPAN WITH REINFORCING DISCONTINUOUS AT JOINT.
7. FLOOR SLAB CONTROL JOINTS (INCLUDING ELEVATED SLAB) SHALL BE PLACED AS SHOWN ON THE FOUNDATION PLAN (SLAB-ON-GRADE) OR AS DIRECTED BY THE ENGINEER. UNLESS OTHERWISE NOTED, CONTROL JOINTS WILL BE SPACED NOT TO EXCEED 12'-0" ON-CENTER IN BOTH DIRECTIONS AND SHALL BE FILLED WITH SEALANT AT THE COMPLETION OF THE PROJECT.
8. CONTRACTOR WILL CHECK WITH EACH TRADE TO ASSURE CORRECT LOCATION, SIZE, LINE AND ELEVATION OF SLEEVES, BOND-OUTS, ETC. REQUIRED IN CONCRETE FLOORS AND WALLS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FLOOR DRAIN SETTING FOR ELEVATION AND PLUMBNESS TO ASSURE COMPLETE AREA DRAINAGE.
10. WELDING OF REINFORCEMENT IS NOT PERMITTED.
11. EXPOSED CONCRETE SHALL BE NEATLY FINISH-RUBBED.
12. MECHANICAL EQUIPMENT RESTING ON THE CONCRETE FLOOR SLAB SHALL HAVE A 4-INCH HIGH CONCRETE PAD UNDERNEATH, EXTENDING A MINIMUM OF 6-INCHES BEYOND UNIT EDGE (EACH DIRECTION), REINFORCED WITH #3 BARS AT 18-INCHES ON-CENTER EACH WAY.
13. STRUCTURAL STEEL BELOW FINISH FLOOR SHALL RECEIVE (2) COATS OF BITUMINOUS MASTIC.
14. ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED. CONCRETE SHALL NOT BE IN DIRECT CONTACT WITH ALUMINUM.
15. PROVIDE IN SLABS ON GRADE (2) BARS 4'-0" LONG AT EACH REENTRANT CORNER AND BOTH SIDES OF DOOR OPENING.
16. REFER TO ACI 318 (LATEST EDITION) FOR MINIMUM CONCRETE COVER FOR REINFORCING STEEL.
17. UNLESS OTHERWISE NOTED, REINFORCING LAP SPLICES SHALL BE ACI CLASS B SPLICES USING THE FOLLOWING LAP LENGTHS:

BAR SIZE	3	4	5	6	7	8	9	10	11
LAP (in.)	22	29	36	43	63	72	80	89	98

18. COORDINATE SLAB DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
19. SLAB THICKNESSES (ELEVATED OR ON-GRADE) INDICATED ON THE DRAWINGS ARE MINIMUMS. PROVIDE SUFFICIENT CONCRETE TO ACCOUNT FOR STRUCTURE DEFLECTION AND/OR SUBGRADE FLUCTUATIONS IN ORDER TO OBTAIN SPECIFIED SLAB ELEVATIONS AT THE FLATNESS AND LEVELNESS INDICATED IN THE SPECIFICATION.
20. DRILLED-IN ANCHOR BOLTS OR REBAR DOWELS SHALL BE INSTALLED AS FOLLOWS:
   - LOCATE ANCHOR BOLTS OR DOWELS TO AVOID CUTTING EXISTING REBAR.
   - DEPTH IS BASED ON A CLEAN HOLE WITH ROUGH SIDES. ROTARY PERCUSSION EQUIPMENT AND COURSE ROCK CUTTING CHISELS ARE RECOMMENDED. DIAMOND CORE BITS SHOULD BE AVOIDED AS EMBEDMENT LENGTHS MAY NEED TO BE INCREASED. HOLE SIZE TO BE PER MANUFACTURER'S RECOMMENDATIONS.
   - CLEAN HOLES WITH COMPRESSED AIR OR VACUUM, REMOVE ANY FREE-STANDING WATER AND ALLOW HOLE TO DRY.
   - GROUT ANCHOR BOLTS OR DOWELS WITH HILTI HIT HY-150 ADHESIVE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. (HILTI HVA ADHESIVE CAPSULE MAY BE SUBSTITUTED FOR THE HILTI HIT HY-150 ADHESIVE.)

A6 STRUCTURAL NOTES

1. BUILDING CODE:
   A. WORK SHALL BE DONE IN COMPLIANCE WITH THE INTERNATIONAL BUILDING CODE, IBC 2009.
   B. BUILDING CLASSIFICATION PER ASCE 7-05 SECTION 1.5, TABLE 1-1 ENTITLED "OCCUPANCY CATEGORY OF BUILDINGS AND OTHER STRUCTURES FOR FLOOD, WIND, SNOW, EARTHQUAKE, AND ICE LOADS" AND IBC 2009, SECTION 1604.5.

2. MINIMUM LOADING REQUIREMENTS:

A. ROOF SNOW LOADS: (EXCEPT AT DRIFTING SNOW LOCATIONS AND THOSE LISTED BELOW)

a. GROUND SNOW LOAD: P_G = 70.0 PSF
   1. IMPORTANCE FACTOR: I = 1.0
   2. COLD ROOF SLOPE FACTOR: C_S = 1.0
   3. THERMAL FACTOR: C_T = 1.0
   4. EXPOSURE FACTOR: C_E = 0.9
   5. TERRAIN CATEGORY: B

b. FLAT ROOF SNOW LOAD: P_F = 44.1 PSF

c. DRIFT – AS INDICATED ON THE DRAWINGS.

B. DEAD LOAD:

a. ROOF DEAD LOAD:
   1. MAIN ROOF 12.0 PSF (CF RAFTERS, DECKING, INSULATION, & 3 PSF COLLATERAL)
   2. COATINGS AND OFFICE ADDITION 75.0 PSF (8" PRECAST PLANK, ROOFING MATERALS & 3 PSF COLLATERAL)
   3. SIGN SHOP 20.0 PSF (CF, DECKING, INSULATION, & 3 PSF COLLATERAL)

b. FLOOR DEAD LOAD
   1. MEZZANINE (CFMF STORAGE) 15.0 PSF (CF JOISTS, 9/16" DECKING, 1/2" PLYWOOD, & 5 PSF COLLATERAL)
   2. MEZZANINE (PRECAST OFFICE) 83.0 PSF (8" PRECAST PLANK, 1" TOPPING, 5 PSF COLLATERAL)
   3. MEZZANINE (PRECAST STORAGE) 65.0 PSF (8" PRECAST PLANK, ROOFING MATERALS & 5 PSF COLLATERAL)

C. ROOF LIVE LOAD:

a. STANDARD ROOF LIVE LOAD: 20 PSF

1. FLOOR LIVE LOADS:

	UNIFORM	CONCENTRATED	PARTITION
a. CORRIDORS – 1ST FLOOR	100 PSF		
b. MANUFACTURING			
1. LIGHT	125 PSF	2,000#	
c. OFFICE BUILDINGS			
1. LOBBIES AND 1ST FLOOR CORRIDORS	100 PSF	2,000#	
2. OFFICES	50 PSF	2,000#	15 PSF
3. CORRIDORS ABOVE 1ST FLOOR	80 PSF	2,000#	
d. STORAGE WAREHOUSES & MEZZANINES			
1. LIGHT	125 PSF		

D. WIND:

a. FACTORS:
   i. BASIC WIND SPEED: 95 MPH
   ii. EXPOSURE CATEGORY: B
   iii. IMPORTANCE FACTOR: 1.0
   iv. BUILDING HEIGHT: <40'

b. WIND DESIGN PRESSURE
   i. MWFRS
      1. END ZONE WIDTH: 27 FEET
      2. TRANSVERSE
         a. INTERIOR ZONE 8.3 PSF
         b. END ZONE 11.3 PSF
      3. LONGITUDINAL
         a. INTERIOR ZONE 8.3 PSF
         b. END ZONE 11.3 PSF
   ii. COMPONENTS AND CLADDING
      1. END ZONE WIDTH: 14 FEET
      2. WALLS
         a. FIELD 13.7 PSF
         b. END ZONES 14.6 PSF
   iii. ROOF UPLIFT (IBC 2009)
      1. FIELD 15.5 PSF
      2. PERIMETER 18.3 PSF
      3. CORNERS 18.3 PSF
      4. STRIP WIDTH 14 FEET

E. SEISMIC - EQUIVALENT LATERAL FORCE PROCEDURE

a. COEFFICIENTS:
   i. RESPONSE SPECTRAL ACC. (0.2 sec.) S_s = 0.292g
   ii. RESPONSE SPECTRAL ACC. (1.0 sec.) S_1 = 0.077g
   iii. SOIL CLASSIFIATION: E
   iv. SITE COEFFICIENTS: F_a = 2.40; F_v = 3.50
   v. MAX. CONSIDERED EARTHQUAKE ACC @ 5% DAMPED DESIGN: S_{DS} = 0.461; S_{D1} = 0.180
   vi. BUILDING CATEGORY: II - STANDARD
   vii. SEISMIC DESIGN CATEGORY FOR 0.1 AND 1.0 SECONDS: C
   viii. FUNDAMENTAL PERIOD T_a = 0.318 SEC
   ix. SEISMIC RESPONSE COEFFICIENT Cs = 0.142

b. DESIGN COEFFICIENTS AND FACTORS FOR SEISMIC FORCE RESISTING SYSTEMS

i. BEARING WALL SYSTEMS
   1. ORDINARY REINFORCED MASONRY SHEAR WALLS
      a. RESPONSE MODIFICATION R = 2
      b. SYSTEM OVERSTRENGTH FACTOR Ω_0 = 2 ½
      c. DEFLECTION AMPLIFICATION FACTOR C_D = 1 ¾
   2. LIGHT FRAMED WALL SYSTEMS USING FLAT STRAP BRACING
      d. RESPONSE MODIFICATION R = 4
      e. SYSTEM OVERSTRENGTH FACTOR Ω0 = 2
      f. DEFLECTION AMPLIFICATION FACTOR CD = 3 ½

ii. BUILDING FRAME SYSTEM
   1. ORDINARY MASONRY REINFORCED SHEAR WALLS
      a. RESPONSE MODIFICATION R = 2
      b. SYSTEM OVERSTRENGTH FACTOR Ω0 = 2 ½
      c. DEFLECTION AMPLIFICATION FACTOR CD = 2
   2. LIGHT FRAMED WALLS WITH SHEAR PANELS OF ALL OTHER MATERIALS
      a. RESPONSE MODIFICATION R = 2 ½
      b. SYSTEM OVERSTRENGTH FACTOR Ω0 = 2 ½
      c. DEFLECTION AMPLIFICATION FACTOR CD = 2 ½

3. STRUCTURAL STEEL SHALL BE DESIGNED USING THE 13TH EDITION OF THE AISC STEEL CONSTRUCTION MANUAL. STEEL BEAMS SHALL CONFORM TO ASTM A992, F_Y = 50ksi; MISCELLANEOUS PLATES, SHAPES, CHANNELS, ANGLES ETC. SHALL CONFORM TO ASTM A36, F_Y = 36ksi. ALL STEEL SUPPORTING MECHANCAL EQUIPMENT AND TO RECEIVE FIREPROOFING SHALL BE UNPAINTED AND UNPRIMED.

4. SEE ARCHITECTURAL WALL SECTIONS AND DETAILS FOR MISCELLANEOUS STEEL.

5. STEEL DECKING:
   A. SEE INDIVIDUAL STRUCTURAL PLANS FOR DEPTH, TYPE AND GAGE OF DECK FOR SPECIFIC AREAS. PROVIDE HEAVIER GAGE AS REQUIRED FOR CONSTRUCTION LOADING.
   B. STEEL DECK GAGE SELECTIONS AS NOTED IS BASED ON 2-SPAN CONDITIONS, UNO. INSTALLATION SHALL CONFORM TO SDI AND MANUFACTURER'S REQUIREMENTS. ONE SPAN CONDITION ARE NOT PERMITTED WITHOUT EXPRESS WRITTEN APPROVAL FROM THE ENGINEER OF RECORD PRIOR TO SHOP DRAWING APPROVAL, UNLESS NOTED SPECIFICALLY ON THE DRAWINGS.
   C. DECK SPANS ARE DESIGNED TO MINIMIZE SHORING REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ACCOMPLISHING ANY SHORING REQUIRED TO RESIST CONSTRUCTION LOADS ON THE STEEL DECK.
   D. USE WELDING WASHERS ON ALL CONNECTIONS OF STEEL DECK WITH METAL THICKNESS LESS THAN 22 GAGE TO STRUCTURAL SUPPORTS.
   E. ROOF AND FLOOR DECKING SHALL BE ATTACHED WITH SELF-TAPPING SCREWS; SCREW SIZE/SPACING SHALL CONFORM TO SDI AND MANUFACTURER'S REQUIREMENTS.
   F. PROVIDE CONTINUOUS CLOSURES AT ALL SLAB EDGES AND CONTINUOUS DECK CLOSURE AT ALL DECK ENDS. MINIMUM CLOSURE THICKNESS TO BE 12 GAGE.
   G. PROVIDE COLUMN CLOSURES, AND ALL SUPPLEMENTAL FRAMING AT OPENINGS, ETC. COORDINATE OPENINGS WITH ALL TRADES.
   H. NO LOADS EXCEEDING 50 POUNDS SHALL BE HUNG FROM ANY METAL DECKING. HANGERS FOR MECHANICAL EQUIPMENT, DUCTWORK, PIPING, ETC SHALL BE HUNG DIRECTLY FROM STRUCTRUAL STEEL OR SUPPLEMENTARY MEMBERS, OR FROM ANCHORS EMBEDDED IN THE CONCERETE. TOTAL LOAD HUNG FROM STRUCTURAL STEEL AND SLAB SHALL NOT EXCEED 3 PSF. THE HANGING OF ANY LOADS FROM A ROOF DECK IS STRICTLY PROHIBITED.

6. BASE PLATE ANCHOR BOLTS IN NEW CONSTRUCTION SHALL BE
   A. ANCHOR RODS: 3/4" Ø ASTM F1554, GRADE 105, UNO
   B. NUTS: ASTM A563, GRADE A
   C. WASHERS: ASTM F4367

7. INSPECTION REPORTS SHALL BE FURNISHED TO THE OWNER, BUILDNG OFFICIAL, ARCHITECT AND S.E.R. DISCREPENCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR AND IF NOT CORRECTED, SHALL BE REPORTED TO THE OWNER, BUILDNG OFFICIAL, ARCHITECT AND S.E.R.

CONNECTIONS:

1. ALL DETAILS ARE CONCEPTUAL ONLY AND DO NOT INDICATE THE REQUIRED NUMBER OF BOLTS OR WELD SIZES, UNLESS SPECIFICALLY NOTED OTHERWISE.
2. FIELD CONNECTIONS SHALL BE FIELD BOLTED WITH A325N HIGH STRENGTH BOLTS (U.N.O.) EXCEPT WHERE SLIP CRITICAL CONNECTIONS ARE REQUIRED AND NOTED BY A325 (SC) ON THE DRAWINGS. WASHERS SHALL CONFORM TO ASTM F436, NUTS SHALL CONFORM TO ASTM A563. PROVIDE SLIP CRITICAL (SC) CONECTIONS AT ALL MOMENT CONNECTIONS, BRACED FRAMES, RELIEVING ANGLES AND WHERE OTHERWISE NOTED.
3. ALL SLIP CRITICAL (S.C.) BOLTED CONNECTIONS SHALL BE CHECKED AND INSPECTED USING ONE OF THE FOLLOWING METHODS:
   A. TURN OF THE NUT
   B. CALIBRATED WRENCH
   C. ALTERNATE DESIGN FASTENER
   D. DIRECT TENSION INDICATOR
   E. ALL OTHER BOLTED CONNECTIONS SHALL BE TIGHTENED TO "SNUG TIGHT" CONDITION UNLESS NOTED OTHERWISE.
4. UNLESS NOTED OTHERWISE, CONNECTIONS SHALL BE WELDED OR BOLTED WITH ¾" DIAMETER BOLTS (BEARING TYPE, DESIGNATION N, THREADS IN SHEAR PLANE) BEAM TO COLUMN CONNECTIONS SHALL BE FULL DEPTH (BOLT SPACING 3" ON-CENTER).
5. OVERSIZE OR SLOTTED HOLES SHALL NOT BE USED FOR ANY CONNECTIONS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS OR APPROVED IN WRITING BY ENGINEER OF RECORD.
6. MINIMUM NUMBER OF BOLTS PER CONNECTION SHALL BE 2.
7. ALTERNATE CONNECTIONS WILL BE ACCEPTED ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD, HOWEVER, THE ENGINEER SHALL BE THE SOLE JUDGE OF ACCEPTABILITY. THE CONTRACTOR'S BID SHALL ANTICIPATE THE USE OF THOSE SPECIFIC DETAILS SHOWN ON THE DRAWINGS. IN ANY EVENT THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF SUCH ALTERNATE DETAILS THEY PROPOSE.
8. ALL WELDS INDICATED SHALL BE THE MINIMUM WELD SIZED SPECIFIED BY THE AISC MANUAL OF STEEL DESIGN (SINGLE PASS AS REQUIRED) ALL BUTT AND FULL PENETRATION WELDS SHALL BE MADE USING RUN OFF TABS THAT SHALL BE REMOVED AND GROUND SMOOTH AFTER WELD IS COMPLETED. ALL WELD BACK UP BARS SHALL BE REMOVED AND GROUND SMOOTH AFTER WELD IS COMPLETED.
9. SHOP CONNECTIONS, UNLESS NOTED OTHERWISE, SHALL BE WELDED. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, BEAM CONNECTION CAPABILITIES SHALL BE CALCULATED IN ACCORDANCE WITH AISC'S "THE STEEL CONSTRUCTION MANUAL", 13TH EDITION. FOR EACH SHEAR CONNECTION, PROVIDE THE GREATER OF THE FOLLOWING SHEAR CAPACITIES:
   A. BEAMS: SUPPORT A REACTION EQUAL TO HALF THE TOTAL UNIFORM LOAD CAPACITY OF BEAM FOR GIVEN SHAPE, SPAN AND STEEL SPECIFICATION (AISC) WITH EFFECT OF CONCENTRATED LOADS ACCOUNTED FOR OR THE (UNFACTORED) REACTIONS SHOWN ON PLAN, WHICHEVER IS GREATER.
10. CONNECTION DESIGN IS THE RESPONSIBILITY OF THE FABRICATOR FOR OTHER THAN THE STANDARD CONNECTIONS NOTED ON S-000. CONNECTIONS CALCULATIONS SHALL BE SIGNED, SEALED BY A PE REGISTERED IN THE PROJECT STATE AND SUBMITTED FOR REVIEW WITH THE SHOP DRAWINGS. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. PARTIAL SUBMITTAL PACKAGES WILL BE RETURNED.

FIELD TESTING

1. BOLTED CONNECTIONS: 100% OF COMPONENTS AND FASTENERS IN SLIP CRITICAL CONNECTIONS, AS IDENTIFIED IN THE PROJECT CONTRACT DOCUMENTS SHALL BE VISUALLY INSPECTED AND TESTED FOR TIGHTNESS IN ACCORDANCE WITH AISC SPECIFICATIONS FOR STRUCTURAL JOINTS, PARTS 8 AND 9.
2. CHECK BY CALIBRATION TORQUE WRENCH 25% OF BOLTS IN EACH NON-SC SHEAR CONNECTION BUT NOT LESS THAN (2) PER CONNECTION.
3. FIELD WELDED CONNECTIONS: PERFORM TESTING IN ACCORDANCE WITH ANSI/AWS D1.1, CHAPTER 6.
4. CONDUCT TESTING OF 10% OF WELDS ON STRUCTURAL STEEL BY DYE PENETRATION OR MAGNETIC PARTICLE TESTING.
5. CONDUCT TESTING OF 10% OF GROOVE, PLUG, OR SLOT WELDS IN STRUCTURAL STEEL BY ULTRASONIC TESTING OR OTHER NONDESTRUCTIVE TESTING APPROVED BY ENGINEER OF RECORD.
6. RADIOGRAPHICALLY TEST 5% OF ALL FULL PENETRATION WELDS.
7. WELDED SHEAR STUDS: 10% OF STUDS SHALL BE TESTED BY BENDING OR TORQUEING IN ACCORDANCE WITH ANSI/AWS D1.1 SECTION 7.8.
8. THE STRUCTURAL FABRICATOR AND ERECTOR SHALL SCHEDULE ALL WORK TO ALLOW THE ABOVE INSPECTION AND TESTING REQUIREMENTS TO BE COMPLETED.

ISSUED FOR BID

FEBRUARY 27, 2014

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:
CHIEF ENGINEER:

SIGNATURE
P.E. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	-
PROJECT MANAGER	-
DESIGNER	ALLIED ENG., INC.
CONSULTANT	-
PROJECT RESIDENT	-
CONTRACTOR	-
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – NOTES

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SHEET NUMBER
S000

Username: -
Division: -
Date: -
Filename: -

PRECAST CONCRETE

1. PRECAST WORK SHALL COMPLY WITH ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND PCI DESIGN HANDBOOK. PRECAST MANUFACTURER SHALL BE APPROVED BY THE PRESTRESSED CONCRETE INSTITUTE (PCI) AND SHALL SUBMIT DRAWINGS AND CALCULATIONS SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN PROJECT LOCATED STATE. CALCULATIONS SHALL INCLUDE REQUIRED OPENINGS OR HOLES IN PRECAST MEMBERS FOR OTHER TRADES. PLANKS SHALL BE DESIGNED TO SUSTAIN LOADING DESCRIBED ON THIS SHEET AND APPLICABLE BY GOVERNING CODES.
2. PRECAST/PRESTRESSED CONCRETE WORK SHALL BE ACCORDANCE WITH ACI 318-08 AND PCI MNL-116.
3. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 FOR WELDING TO STEEL STRUCTURES AND AWS D1.4 FOR WELDING REINFORCEMENT.
4. QUALIFICATIONS OF MANUFACTURER: MANUFACTURERS OF PRECAST/PRESTRESSED CONCRETE ELEMENTS TO BE CERTIFIED BY PCI IN ACCORDANCE WITH PCI MNL-116 PRECAST CONCRETE – MATERIALS AND CONSTRUCTION.
5. DESIGN PRECAST/PRESTRESSED CONCRETE UNITS TO ACI 318-08 AND TO CARRY HANDLING STRESSES.
6. DESIGN LOADS IN ACCORDANCE WITH APPLICABLE CODES FOR USE AND OCCUPANCY, WIND, TEMPERATURE AND EARTHQUAKE.
7. CONSIDER VIBRATION CHARACTERISTICS IN ACCORDANCE WITH INTERNATION BUILDING CODE 2009.
8. DESIGN PRESTRESSED UNITS TO MEET ONE (1) OR TWO (2) HOUR FIRE RESISTANCE RATING (PER ARCHITECTURAL REQUIREMENTS, SEE ARCHITECTURAL DRAWINGS.)
9. ALLOWABLE TOLERANCES SHALL CONFORM WITH REQUIREMENTS TO PCI MNL-116 – PCI DESIGN HANDBOOK, LATEST EDITION (SECTION 8-1.)
10. PROVIDE ENGINEER WITH CERTIFIED COPIES OF QUALITY CONTROL TESTS AND INSPECTIONS RELATED TO PROJECT AS SPECIFIED IN PCI MNL-116.
11. INSPECTION OF PRESTRESSED CONCRETE TENDONS IS REQUIRED IN ACCORDANCE WITH ASTM A416.
12. PROVIDE ENGINEER WITH CERTIFIED COPIES OF MILL TEST REPORT OF REINFORCING STEEL SUPPLIED, SHOWING PHYSICAL AND CHEMICAL ANALYSIS.
13. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH THE GENERAL NOTES SECTION OF THIS SHEET AND INCLUDE THE FOLLOWING ITEMS:
    A. DESIGN CALCULATIONS FOR ITEMS DESIGNED BY MANUFACTURER.
    B. ESTIMATED CAMBER/DEFLECTION.
    C. FINISHING SCHEDULES.
    D. METHODS OF HANDLING AND ERECTION.
    E. OPENINGS, INSERTS AND RELATED REINFORCEMENT.
14. EACH DRAWING SUBMITTED TO BEAR STAMP OF QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF PROJECT CONSTRUCTION.
15. CEMENT, AGGREGATES, WATER, AND ADMIXTURES SHALL CONFORM TO THE FOLLOWING:
    A. PCI MNL-116.
    B. PRESTRESSING STEEL: UNCOATED WIRE STRANDS CONFORMING TO ASTM A416.
    C. REINFORCING STEEL: TO ASTM A615-94.
    D. ANCHORAGES AND COUPLINGS: TO ASTM A615-94.
    E. EMBEDDED STEEL: TO ASTM A615-94.
    F. BEARING PADS: MASONITE SMOOTH OR KOROLATH.
    G. AIR ENTRAINMENT ADMIXTURES: TO ASTM C 260.
    H. CHEMICAL ADMIXTURES: TO ACI 318-08.
    I. CONCRETE MIXES: USE CONCRETE MIX DESIGNED TO PRODUCE 6000 PSI COMPRESSIVE STRENGTH AT 28 DAYS WITH MAXIMUM WATER/CEMENT RATIO TO PCI MNL-116 & ACI 318-08.
    J. ADMIXTURES: TO ASTMC 494 OR C 1017.
16. DO NOT USE CALCIUM CHLORIDE OR PRODUCTS CONTAINING CALCIUM CHLORIDE.
17. GROUT MIX ONE PART TYPE 10 PORTLAND CEMENT, 2 ½ PARTS SAND, SUFFICIENT WATER FOR PLACEMENT AND HYDRATION. GROUT STRENGTH TO BE 3000 PSI MINIMUM AT 28 DAYS.
18. MANUFACTURE UNITS IN ACCORDANCE WITH PCI MNL-116.
19. MARK EACH PRECAST UNIT TO CORRESPOND TO IDENTIFICATION MARK ON SHOP DRAWINGS OF LOCATION ON PART OF UNIT WHICH WILL NOT BE EXPOSED.
20. PROVIDE HARDWARE SUITABLE FOR HANDLING ELEMENTS.
21. INSTALL MASONITE / KOROLATH BEARING PADS, SMOOTH SIDE UP ON CONCRETE OR MASONRY BEARING SURFACES.
22. SET UNITS IN A TIGHT, LEVEL POSITION ON TRUE LEVEL BEARING SURFACE PROVIDED BY OTHERS. MINIMUM BEARING 3" ON MASONRY AND ON STRUCTURAL STEEL.
23. FASTEN PRECAST/PRESTRESSED UNITS IN PLACE AS INDICATED ON APPROVED SHOP DRAWINGS.
24. LEVEL DIFFERENTIAL ELEVATION OF HORIZONTAL JOINTS WITH GROUT TO SLOPE NOT MORE THAN 1:12.
25. CLEAN FIELD WELDS WITH WIRE BRUSH AND TOUCH UP WITH PRIMER.
26. FIELD CUT HOLES AND OPENINGS UP TO 10" DIAMETER FOR MECHANICAL TRADES.
27. OPENINGS LARGER THAN 10" TO BE LOCATED ON SHOP DRAWINGS AT THE TIME OF APPROVAL AND TO BE EITHER CAST IN THE MANUFACTURING FACILITY OR CUT IN THE FIELD AT THE MANUFACTURER'S SOLE DISCRETION. DO NOT CUT REINFORCING WITHOUT APPROVAL OF PRECAST HOLLOW CORE SLAB MANUFACTURER AND ENGINEER OF RECORD.
28. THE CONTRACTOR SHALL PROVIDE A SUITABLE LIGHT-WEIGHT (LESS THAN 115 PCF) TOP FINISH TO ACCEPT DIRECT APPLICATION OF FINISHING FLOORING PER THE ROOM FINISH SCHEDULE.
29. WHERE CONCRETE TOPPING IS TO BE APPLIED, REFER TO THE APPROPRIATE SPECIFICATIONS. THE TOP SURFACE OF THE PRECAST/PRESTRESSED PLANK IS TO BE RAKED (ROUGHENED) FOR BONDING OF TOPPING.
30. THE UNDERSIDE OF PRECAST SHALL BE FINISHED PER ARCHITECTURAL DRAWINGS/SPECIFICATIONS.
31. DRYPACK GAP BETWEEN PRECAST/PRESTRESSED SLABS AT ALL LOCATIONS WHERE LOAD BEARING WALLS ARE PARALLEL AND/OR PERPENDICULAR TO LENGTH OF SLAB.
32. HOLLOW CORE PLANK MUST BE LIFTED WITH SLING UNLESS NOTED OTHERWISE. DO NOT LIFT PLANKS IN MIDDLE. SEE HOLLOW CORE PLANK HANDLING AND STORAGE DETAILS ON SHOP DRAWINGS.
33. USE BEARING STRIPS UNDER ENDS OF PLANK BEARING ON MASONRY OR CAST IN PLACE CONCRETE.
34. SEALANT BACKER ROD FURNISHED BY PRECASTER AND INSTALLED BY GENERAL CONTRACTOR.
35. LEVEL PLANK BY JACKING THE UNDERSIDE OF THE PLANK AND GROUTING THE JOINTS. REMOVE JACKS THE FOLLOWING DAY.
36. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR:
    A. GROUTING OF LONGITUDINAL PLANK JOINTS.
    B. GROUTING OF PLANK BUTT JOINTS.
    C. GROUTING OF PLANK END CELLS.
    D. CAULKING OF UNDERSIDE JOINTS.
    E. FEATHERING OF TOP SIDE GROUT JOINTS
37. NO WALLS, PIPE, CONDUIT OR OTHER OBJECTS TO EXTEND ABOVE BEARING LEVEL OF PRECAST PLANKS UNTIL PLANKS ARE IN PLACE.
38. ALL TRADES ARE TO REMAIN OFF DECK AREAS UNTIL FIELD CREWS HAVE FINISHED ERECTING, LEVELING, GROUTING AND OTHER FINISHING THAT MAY BE REQUIRED.
39. ALL MASONRY SURFACES FOR PLANK BEARING MUST BE SOLID.

E1 PRECAST NOTES

1. PROVIDE AND INSTALL MASONRY LINTELS FOR MASONRY WALL OPENINGS UNLESS INDICATED OTHERWISE ON DRAWINGS. PROVIDE MASONRY LINTELS OF SIZE AND REINFORCEMENT AS FOLLOWS:
   <u>A - OPENINGS UP TO 3'-11" (UNLESS NOTED OTHERWISE)</u>: PROVIDE 8-INCH HIGH C.M.U. LINTEL W/ (2) #4 BARS IN 6-INCH WIDE UNITS (2) #4 BARS IN 8-INCH WIDE UNITS (3) #4 BARS IN 12-INCH WIDE
   <u>B - OPENINGS 4'-0" TO 8'-0" (UNLESS OTHERWISE NOTED):</u> PROVIDE 16-INCH HIGH C.M.U. LINTEL W/ (2) #6 BARS IN 6-INCH WIDE UNITS (2) #6 BARS IN 8-INCH WIDE UNITS (3) #6 BARS IN 12-INCH WIDE UNITS
2. CONCRETE MASONRY LINTELS SHALL HAVE 8-INCH (MIN.) END BEARING UNLESS OTHERWISE NOTED.
3. CONCRETE MASONRY BLOCK WALLS WITH VERTICAL REINFORCING SHALL HAVE CORES FILLED WITH 3000 PSI CONCRETE. INSTALLATION OF REINFORCEMENT SHALL BE CONTINUOUS AND RUN UNOBSTRUCTED BY BAR JOIST SEAT/BEARING PLATE ARRANGEMENTS. HORIZONTAL REINFORCEMENT SHALL BE PROVIDED @ 16-INCHES ON-CENTER VERTICALLY.
4. PROVIDE VERTICAL CONTROL, EXPANSION OR CONTRACTION JOINTS SPACED AT 15'-O" ON-CENTER (MAX.) AND LOCATE JOINTS AT EACH SIDE OF DOOR OPENINGS WHERE POSSIBLE FOR INTERIOR MASONRY WALLS.
5. OMIT REBAR/GROUTING IN MASONRY CELLS WHICH SHALL RECEIVE ROOF DRAIN LEADERS, CONDUITS, ETC. REQUIRED REINFORCEMENT SHALL BE INSTALLED IN THE ADJACENT CELL AND SHALL BE GROUTED SOLID.
6. HOLLOW CONCRETE BLOCK UNITS: GRADE N, 1000 PSI, MINIMUM COMPRESSIVE STRENGTH. WALL DESIGN STRENGTH, F'm = 1500 psi.
7. LAY UNITS IN RUNNING BOND - CORNERS SHALL HAVE A STANDARD BOND BY OVERLAPPING UNITS.
8. MORTAR: TYPE S.
9. GROUT: (3000) PSI MINIMUM 28 DAY COMPRESSIVE STRENGTH. ROD GROUT IMMEDIATELY AFTER POURING AND AGAIN APPROX. 5 MINUTES LATER.
10. MAXIMUM GROUT LIFT WITHOUT CLEANOUTS SHALL NOT EXCEED 4'-0" IN BLOCK WALLS.
11. TIE VERTICAL REINFORCING AT EACH END AND AT 8'-0" MAXIMUM VERTICAL SPACING USING SINGLE WIRE AND LOOP-TYPE TIES AS MANUFACTURED BY A.A. WIRE PRODUCTS COMPANY OR APPROVED EQUAL.
12. IN 8-INCH WALLS, PROVIDE VERTICAL REINFORCING IN CENTER OF GROUT, AT CENTER OF WALL, CONTINUOUS FULL HEIGHT OF WALL AS FOLLOWS:
    <u>A - (1) #5 VERTICAL AT CORNERS, INTERSECTIONS, WALL ENDS, JAMBS AND EACH SIDE OF EXPANSION OR CONTROL JOINTS.</u>
    <u>B - (1) #5 VERTICAL AT 48-INCHES ON-CENTER TYPICAL. (UNLESS NOTED ON PLAN)</u>
    <u>C - (1) #5 VERTICAL IN EACH CORE WITHIN 12-INCHES OF WALL CORNERS.</u>
13. PLACE BOND BEAM REINFORCING CONTINUOUS THROUGH EXPANSION AND CONTROL JOINTS, WRAPPING BARS WITH 1/8-INCH THICK BOND BREAKING TAPE 24-INCHES BOTH SIDES OF JOINT. DO NOT SPLICE BOND BEAM REINFORCING WITHIN 6'-0" OF AN EXPANSION OR CONTROL JOINT.
14. PROVIDE CONTINUOUS WIRE LATHE GROUT BARRIERS AS REQUIRED UNDER FIRST COURSE OF GROUTED (3000 PSI CONC.) CELLS.
15. PROVIDE LADDER TYPE #9 JOINT REINFORCING AT 16-INCHES VERTICAL SPACING IN WALLS.
16. WET MASONRY WALLS THOROUGHLY FOR (3) CONSECUTIVE DAYS IMMEDIATELY AFTER PLACEMENT IF TEMPERATURES ARE/WILL BE ABOVE 80°F DURING THE DAY.
17. NO EXPANSION BOLTS SHALL BE ALLOWED IN MASONRY WALLS. (CHEMICAL ANCHORS ONLY)
18. MASONRY LAID IN OUTSIDE AIR TEMPERATURES BELOW 40°F SHALL BE PROTECTED IN ACCORDANCE WITH THE PROVISIONS OF THE "IMIAWC RECOMMENDED PRACTICES AND GUIDE SPECIFICATIONS FOR COLD WEATHER MASONRY".
19. MASONRY BLOCK CORES BELOW FINISH FLOOR SHALL BE FILLED SOLID WITH CONCRETE.

E6 MASONRY NOTES

COLUMN SCHEDULE

MARK	SIZE
C-1	HSS4X4X3/8
C-2	HSS5X5X5/16
C-3	HSS6X6X5/16
C-4	HSS6X6X1/2
C-5	HSS6X6X5/8
C-6	HSS8X8X1/2
C-7	HSS8X8X5/8
C-8	HSS10X8X3/8
C-10	HSS12X12X5/8
C-11	W12X30
C-12	W12X40
C-13	W12X65

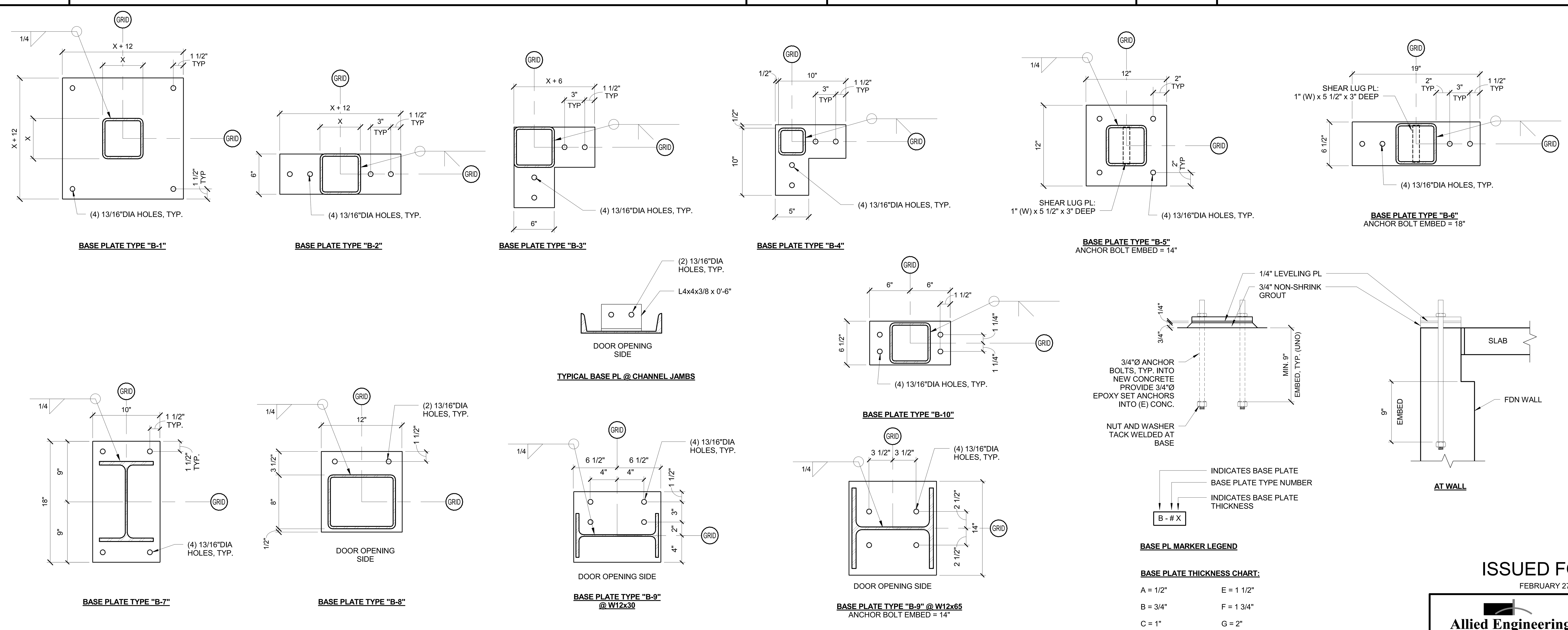
PIER SCHEDULE

MARK	SIZE	REINFORCING
P-1	12 x 18	(6)#5 w/#4 TIES @ 10"O.C.
P-2	12 x 28	(8)#5 w/#4 TIES @ 10"O.C.
P-3	14 x 24	(6)#6 w/#4 TIES @ 12"O.C.
P-4	16 x 16	(4)#6 w/#3 TIES @ 12"O.C.
P-5	18 x 20	(8)#5 w/#4 TIES @ 10"O.C.
P-6	8 x 14	(6)#4 w/#3 TIES @ 10"O.C.
P-7	42 x 42	(8)#7 w/#4 TIES @ 10"O.C.

FOOTING SCHEDULE

MARK	SIZE	REINFORCING
F4.0	4'-0" x 4'-0" x 1'-0"	(10)#4 BARS, E.W. - BOTTOM
F4.0A	4'-0" x 4'-0" x 1'-6"	(10)#4 BARS, E.W. - BOTTOM
F5.0	5'-0" x 5'-0" x 1'-6"	(10)#4 BARS, E.W. - BOTTOM
F5.0x28.0	5'-0" x 28'-0" x 1'-6"	(8)#4 LONG BARS - TOP, #7@6"O.C. LONG BARS - BOTTOM, #5 @12"O.C. TRANVERSE BARS - BOTTOM (DOWEL 18" INTO EX. FTG)
F5.5	5'-6" x 5'-6" x 1'-2"	(8)#5 BARS, E.W. - BOTTOM
F6.0	6'-0" x 6'-0" x1'-6"	(8)#5 BARS, E.W. - BOTTOM
F6.0x21.0	6'-0" x 21'-0" x 1'-6"	(5)#4 LONG BARS - TOP, (13)#7 LONG BARS - BOTTOM, #5 @10"O.C. TRANVERSE BARS - BOTTOM
F6.0x29.5	6'-0" x 29'-6" x 1'-6"	(5)#4 LONG BARS - TOP, (13)#7 LONG BARS - BOTTOM, #5 @8"O.C. TRANVERSE BARS - BOTTOM
F7.0	7'-0" x 7'-0" x 1'-6"	(9)#5 BARS, E.W. - BOTTOM
F7.0x23.0	7'-0" x 23'-0" x 1'-6"	(6)#4 LONG BARS - TOP, (14)#7 LONG BARS - BOTTOM, #5 @12"O.C. TRANVERSE BARS - BOTTOM
F7.5	7'-6" x 7'-6" x 1'-7"	(9)#7 BARS, E.W. - BOTTOM
F8.0	8'-0" x 8'-0" x 1'-6"	(6)#7 BARS, E.W. - BOTTOM
F8.0x26.0	8'-0" x 26'-0" x 1'-6"	(7)#4 LONG BARS - TOP, (12)#8 LONG BARS - BOTTOM, #5 @12"O.C. TRANVERSE BARS - BOTTOM
F8.5x10.0	8'-6" x 10'-0" x1'-0"	#6 LONG BARS @ 13"O.C., #6 TRANSVERSE BARS @13"O.C. - BOTTOM
F8.5x12.0	8'-6" x 12'-0" x1'-0"	#6 LONG BARS @ 15"O.C., #6 TRANSVERSE BARS @17"O.C. - BOTTOM
F9.0	9'-0" x 9'-0" x 1'-6"	(8)#6, E.W. - BOTTOM
F10.0	10'-0" x 10'-0" x 1'-6"	(9)#6 BARS, E.W. - BOTTOM
F10.0x12.0	10'-0" x 12'-0" x 1'-0"	#6 BARS @ 13"O.C., E.W. - BOTTOM
F10.0x28.0	10'-0" x 28'-0" x 2'-0"	(9)#4 LONG BARS - TOP, (9)#8 LONG BARS - BOTTOM, #5 @8"O.C. TRANVERSE BARS - BOTTOM
F12.5	12'-6" x 12'-6" x 1'-6"	#6 BARS @ 11"O.C., E.W. - BOTTOM

E8 SCHEDULES



<u>BASE PLATE THICKNESS CHART:</u>

A = 1/2"	E = 1 1/2"
B = 3/4"	F = 1 3/4"
C = 1"	G = 2"
D = 1 1/4"	H = 2 1/2"

A1 BASE PLATE TYPES

ISSUED FOR BID
FEBRUARY 27, 2014

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Allied Project No: 13057 | Cad File: 13057S.rvt

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
DATE
COMMISSIONER:
CHIEF ENGINEER:
SIGNATURE
P.E. NUMBER
DATE
FEBRUARY 27, 2014

PROJECT INFORMATION
PROGRAM –
PROJECT MANAGER –
DESIGNER ALLIED ENG., INC.
CONSULTANT –
PROJECT RESIDENT –
CONTRACTOR –
PROJECT COMPLETION DATE –

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION
STRUCTURAL – NOTES, SCHEDULES AND TYP. DETAILS

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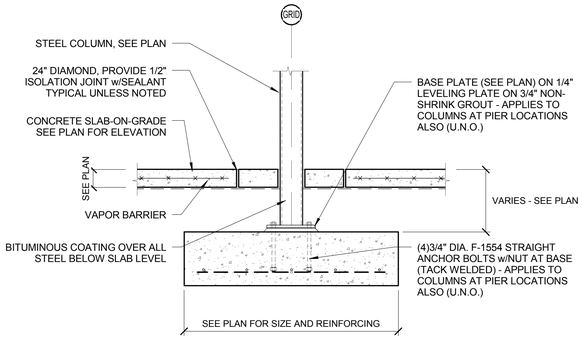
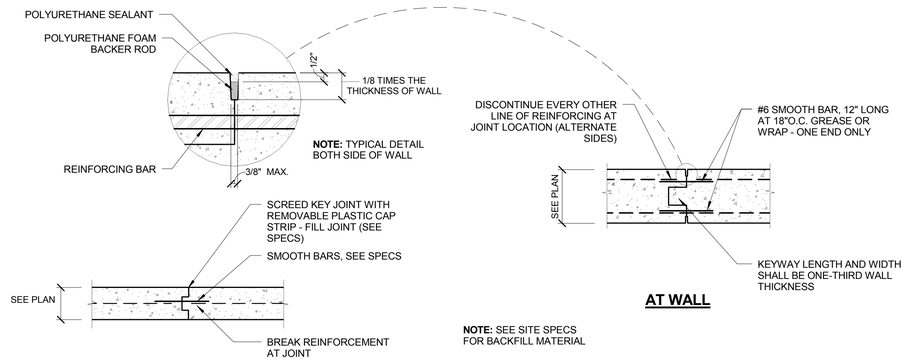
SHEET NUMBER
S001

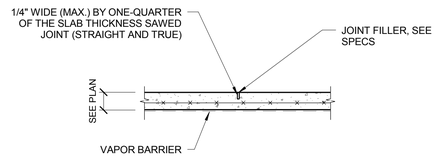
Username: – Division: – Date: – Filename: –



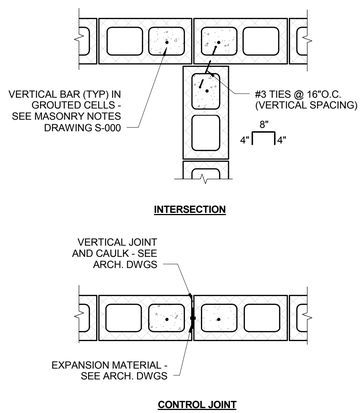
F1 TYPICAL INTERIOR SPREAD FOOTING DETAIL



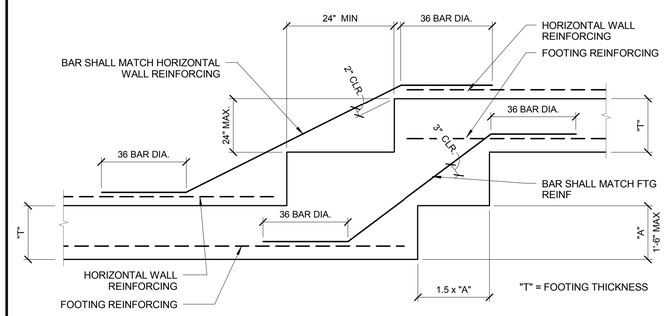
F4 TYPICAL WALL AND SLAB CONSTRUCTION JOINT DETAIL



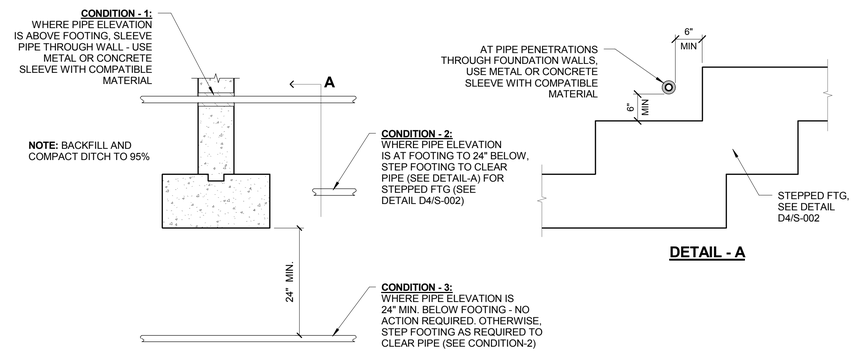
G9 TYPICAL CONTROL JOINT IN SLAB DETAIL



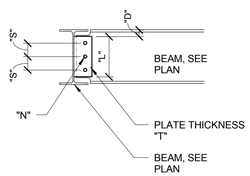
D1 TYPICAL CMU REINFORCING DETAILS

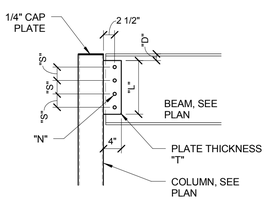


D4 TYPICAL STEPPED FOOTING DETAIL



D7 TYPICAL PIPE AT FOOTING DETAIL





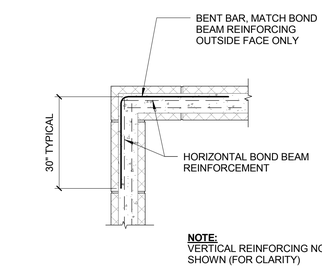
CONNECTION SCHEDULE

BEAM	N	L	T	D	S	CAPACITY (KIP)
W8	2	6"	1/4"	1"	3"	16.3
W10	2	6"	1/4"	1 1/2"	3"	16.3
W12	3	9"	1/4"	1 1/2"	3"	25.6
W14	4	11 1/2"	3/8"	1 1/2"	3"	42.4
W16	4	12"	3/8"	1 1/2"	3"	42.4
W18	5	15"	3/8"	1 1/2"	3"	53.0
W21	6	18"	3/8"	1 1/2"	3"	63.6
W24	7	20 1/2"	3/8"	1 1/2"	3"	74.2

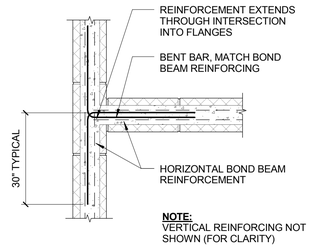
NOTES:

1. BOLTS SHALL BE 3/4" DIA. A325N (U.N.O.)
2. N = NUMBER OF BOLTS
3. L = LENGTH OF PLATE
4. T = THICKNESS OF PLATE
5. D = DEPTH OF PLATE FROM TOP FLANGE OF BEAM
6. S = BOLT SPACING
7. SIMILAR AT CHANNEL SECTIONS OF SAME DEPTH

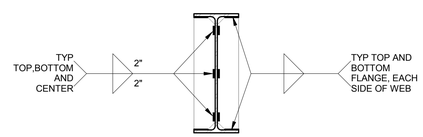
A1 TYPICAL CONNECTION DETAIL



C3 TYP. BOND BEAM @ CORNER

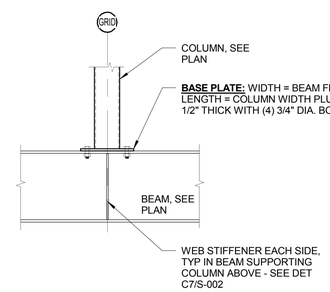


C5 TYP. BOND BEAM @ WALL INTERSECTION

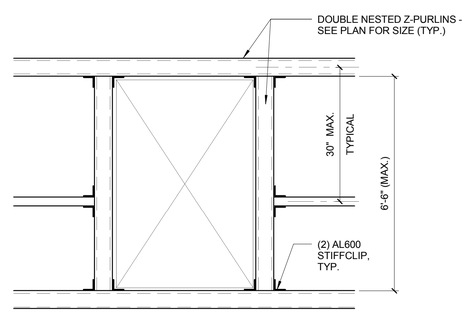


PROVIDE WEB STIFFENERS ON BEAMS BEARING ON COLUMNS AND BEAMS SUPPORTING COLUMNS. USE 1/4" PLATE FOR BEAMS UP THRU 12" DEEP, 5/16" PLATE FOR BEAM 14" TO 18" DEEP, 3/8" PLATE FOR BEAMS OVER 18" DEEP.

C7 TYPICAL WEB STIFFENER DETAIL



C9 TYPICAL COLUMN ABOVE DETAIL



A5 TYPICAL FRAMED OPENING IN MAIN ROOF

ISSUED FOR BID

FEBRUARY 27, 2014

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Allied Project No: 13057 | Cad File: 13057Str.rvt

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE WILLIAM FALCHER WEIGHS PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	-
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	-
CONSULTANT	-
PROJECT RESIDENT	-
CONTRACTOR	-
PROJECT COMPLETION DATE	-

WIN: 020178.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – TYPICAL DETAILS

SHEET NUMBER

S002

Filename: - Division: - Date: - Username: -

REMOVE (E) SLAB WHERE INDICATED

REMOVE PORTION OF (E) COLUMN FROM BASE TO PRPOSED DOOR HEADER

REMOVE PORTION OF (E) COLUMN FROM BASE TO PRPOSED DOOR HEADER

REMOVE (E) SLAB AND DOCK LEVELERS TYPICAL OF 2

REMOVE , SALVAGE AND REUSE (E) DOOR JAMBS

REMOVE PORTION OF (E) COLUMN FROM BASE TO PRPOSED DOOR HEADER

REMOVE TOP 12" OF EXISTING FOUNDATION WALL, TYP. AT PROPOSED DOOR OPENING (WHERE SHOWN)

1 SAW-CUT

REMOVE PORTION OF (E) COLUMN FROM BASE TO PRPOSED DOOR HEADER

1 SAW-CUT

1 SAW-CUT

REMOVE (E) EDGE ANGLE

1 SAW-CUT

1 SAW-CUT

1 SAW-CUT

1 SAW-CUT

1 SAW-CUT

1 SAW-CUT

REMOVE (E) SLAB AND DOCK LEVELERS TYPICAL OF 5

REMOVE PORTION OF (E) COLUMN FROM BASE TO PROPOSED DOOR HEADER

REMOVE (E) DOOR JAMBS

REMOVE (E) DOOR JAMBS

REMOVE (E) SLAB

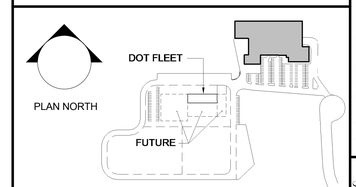
REMOVE TOP 12" OF EXISTING FOUNDATION WALL AND AS NECESSARY FOR UNDERSLAB PIPING AND FOUNDATION INSTALLATION

1 SAW CUT FULL DEPTH OF SLAB - FILL WITH SEALANT

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



Allied Engineering
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F: 207.221.2266
Web: www.allied-eng.com

Allied Project No: 13057 | Cad File: 13057S.rvt

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
WILLIAM FALCHER
PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	-
PROJECT MANAGER	-
DESIGNER	ALLIED ENG., INC.
CONSULTANT	-
PROJECT RESIDENT	-
CONTRACTOR	-
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

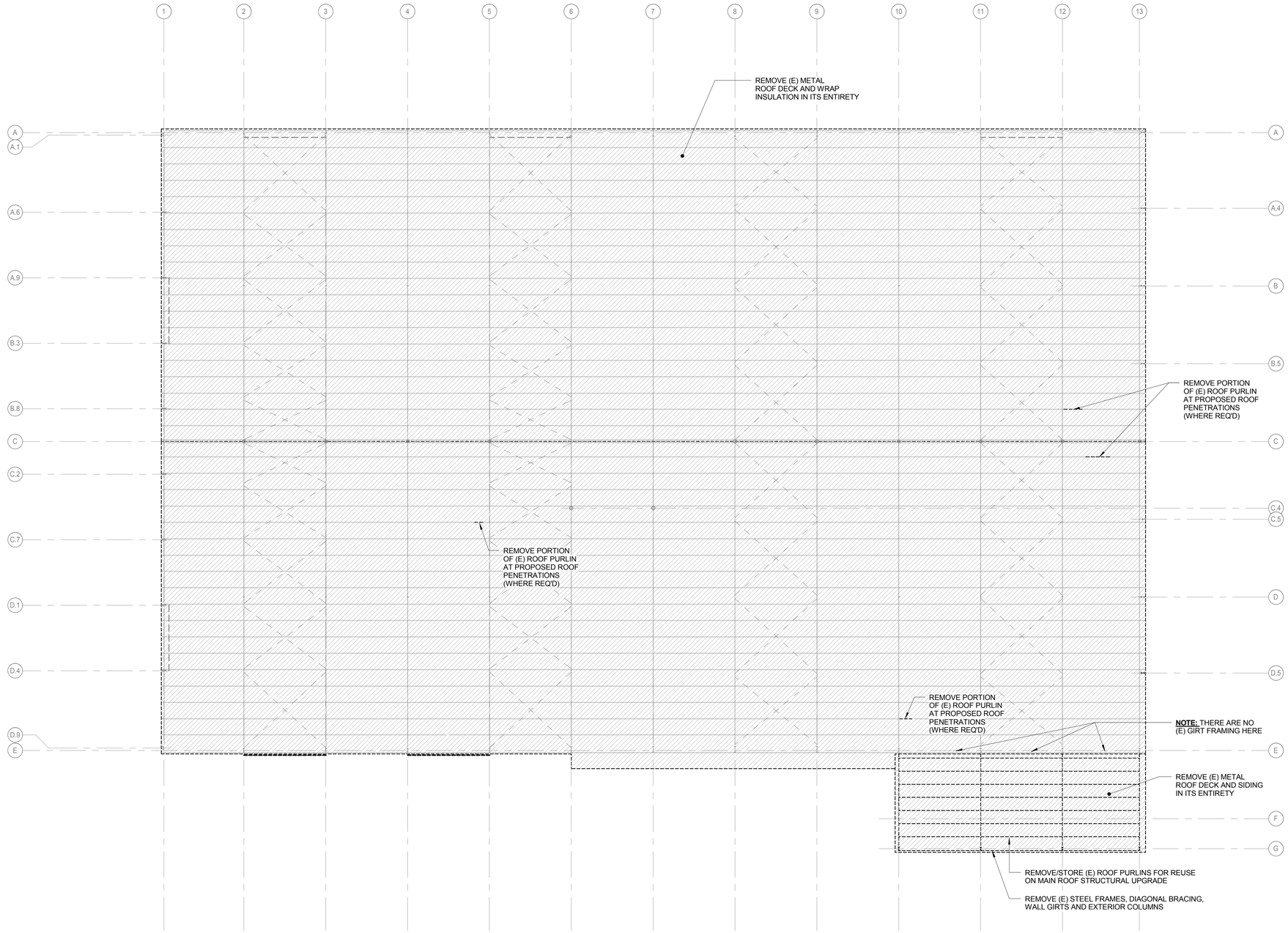
STRUCTURAL – FOUNDATION DEMOLITION PLAN

SHEET NUMBER
SD100

A1 | STRUCTURAL ~ FOUNDATION DEMOLITION PLAN

1/16" = 1'-0"

Filename: - Date: - Division: - Username: -

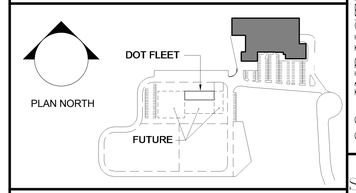


A1	STRUCTURAL ~ ROOF DEMOLITION PLAN
1/16" = 1'-0"	

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

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STATE OF MAINE
WILLIAM FALCHER
PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER

DATE
FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	-
PROJECT MANAGER	-
DESIGNER	ALLIED ENG., INC.
CONSULTANT	-
PROJECT RE-IDENT	-
CONTRACTOR	-
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

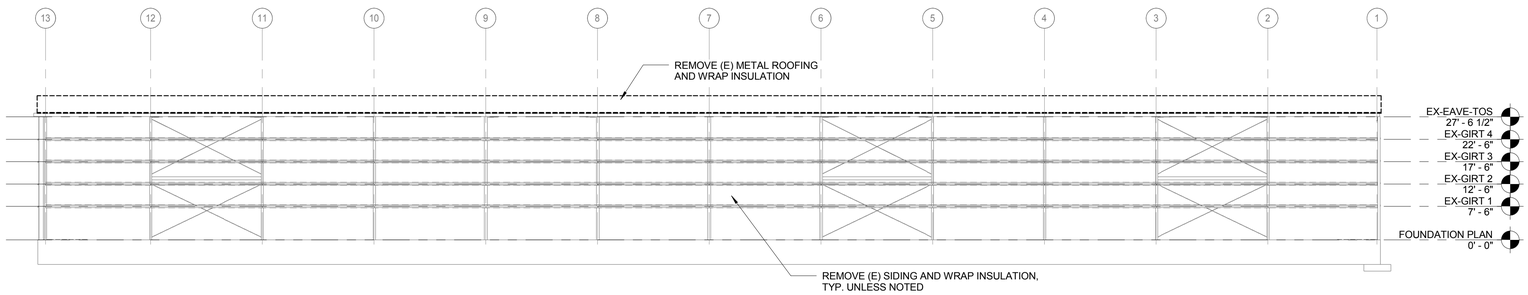
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – ROOF DEMOLITION PLAN

SHEET NUMBER

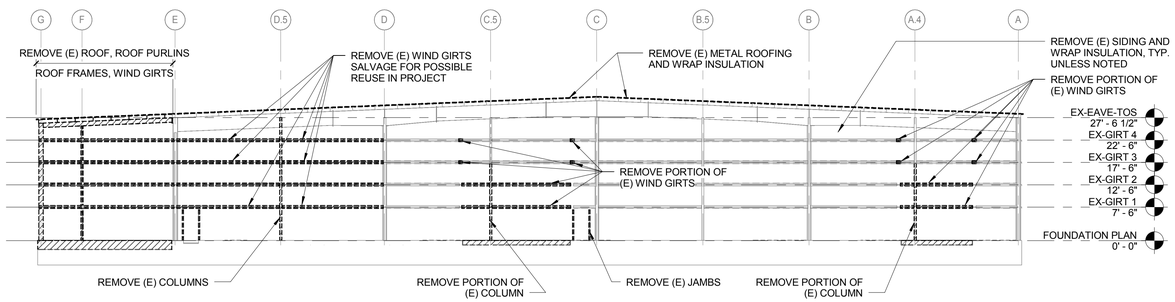
SD101

Usernamе: -
Division: -
Date: -
Filename: -



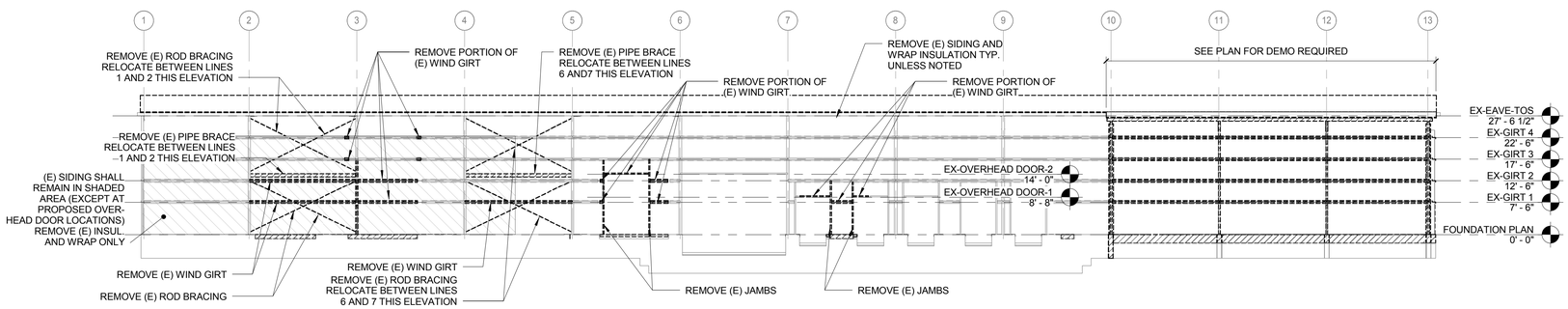
F1 DEMO-North

1/16" = 1'-0"



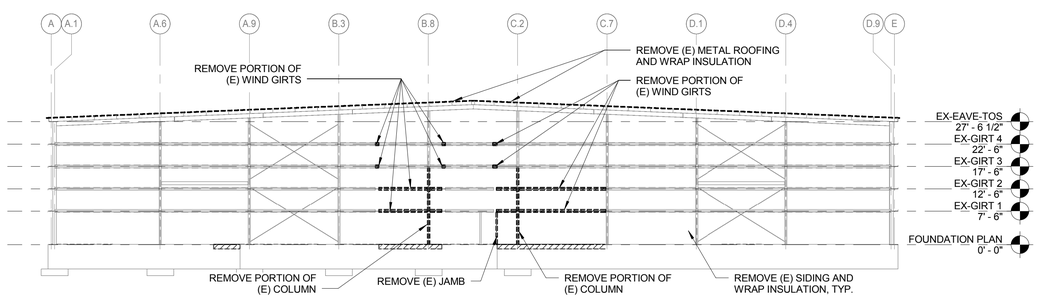
D1 DEMO-East

1/16" = 1'-0"



C1 DEMO-South

1/16" = 1'-0"



A1 DEMO-West

1/16" = 1'-0"

ISSUED FOR BID

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
WILLIAM FALCHER
NO. 7115
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	-
PROJECT MANAGER	-
DESIGNER	ALLIED ENG., INC.
CONSULTANT	-
PROJECT RESIDENT	-
CONTRACTOR	-
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE

MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – DEMOLITION ELEVATIONS

SHEET NUMBER

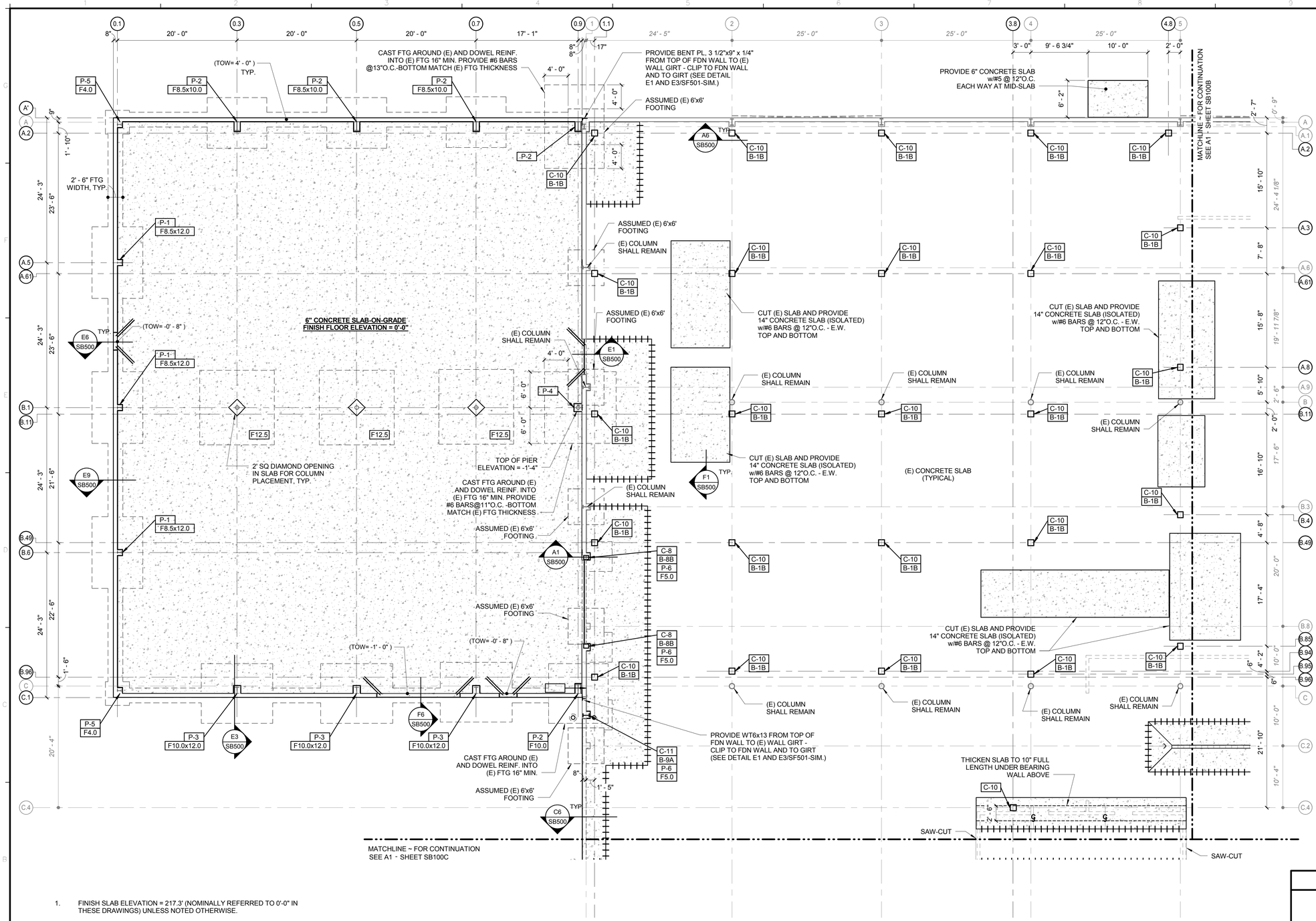
SD200

Username: -

Division: -

Date: -

Filename: -



1. FINISH SLAB ELEVATION = 217.3' (NOMINALLY REFERRED TO 0'-0" IN THESE DRAWINGS) UNLESS NOTED OTHERWISE.
2. TOP OF WALL ELEVATION = 0'-0" UNLESS NOTED OTHERWISE
3. BOTTOM OF FOOTING SHALL BE 5'-0" MIN. BELOW FINISHED GRADE

F#	INDICATES FOOTING TYPE - SEE E6/S001 FOR SCHEDULE
P- #	INDICATES CONCRETE PIER - SEE E6/S001 FOR SCHEDULE
B-#X	INDICATES BASE PLATE TYPE - SEE A1/S001 FOR DETAILS
C-#	INDICATES COLUMN TYPE - SEE E6/S001 FOR SCHEDULE
℄	INDICATES CONTROL JOINT

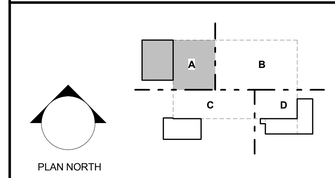
A1 STRUCTURAL ~ FOUNDATION PART PLAN

1/8" = 1'-0"

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE WILLIAM FALCHER NO. 11415 REGISTERED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	-
PROJECT MANAGER	-
DESIGNER	ALLIED ENG., INC.
CONSULTANT	-
PROJECT RESIDENT	-
CONTRACTOR	-
PROJECT COMPLETION DATE	-

WIN- 020118.20

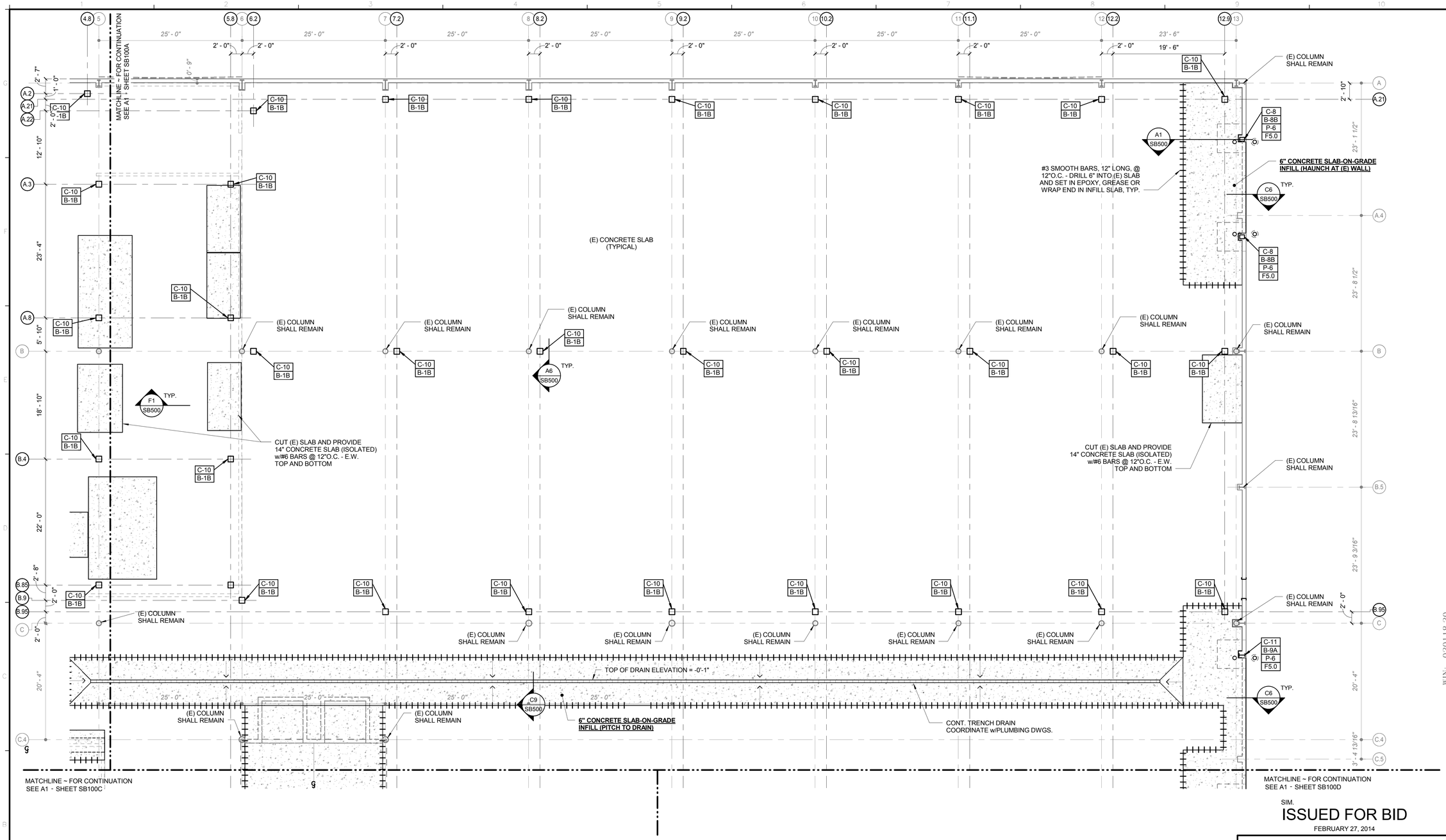
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – FOUNDATION
PLAN – AREA–A

SHEET NUMBER

SB100A

Filename: - Division: - Date: - Username: -



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ISSUED FOR BID

FEBRUARY 27, 2014

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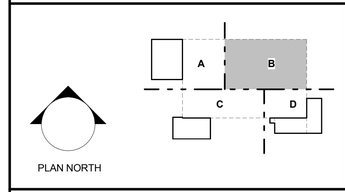
C-#	INDICATES COLUMN TYPE - SEE E6/S001 FOR SCHEDULE
⚲	INDICATES CONTROL JOINT

A1	STRUCTURAL ~ FOUNDATION PART PLAN
1/8" = 1'-0"	

PROJECT KEY PLAN



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
WILLIAM FALCHER
No. 7138
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	–
PROJECT MANAGER	–
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	–
CONTRACTOR	–
PROJECT COMPLETION DATE	–

WIN: 020118.20

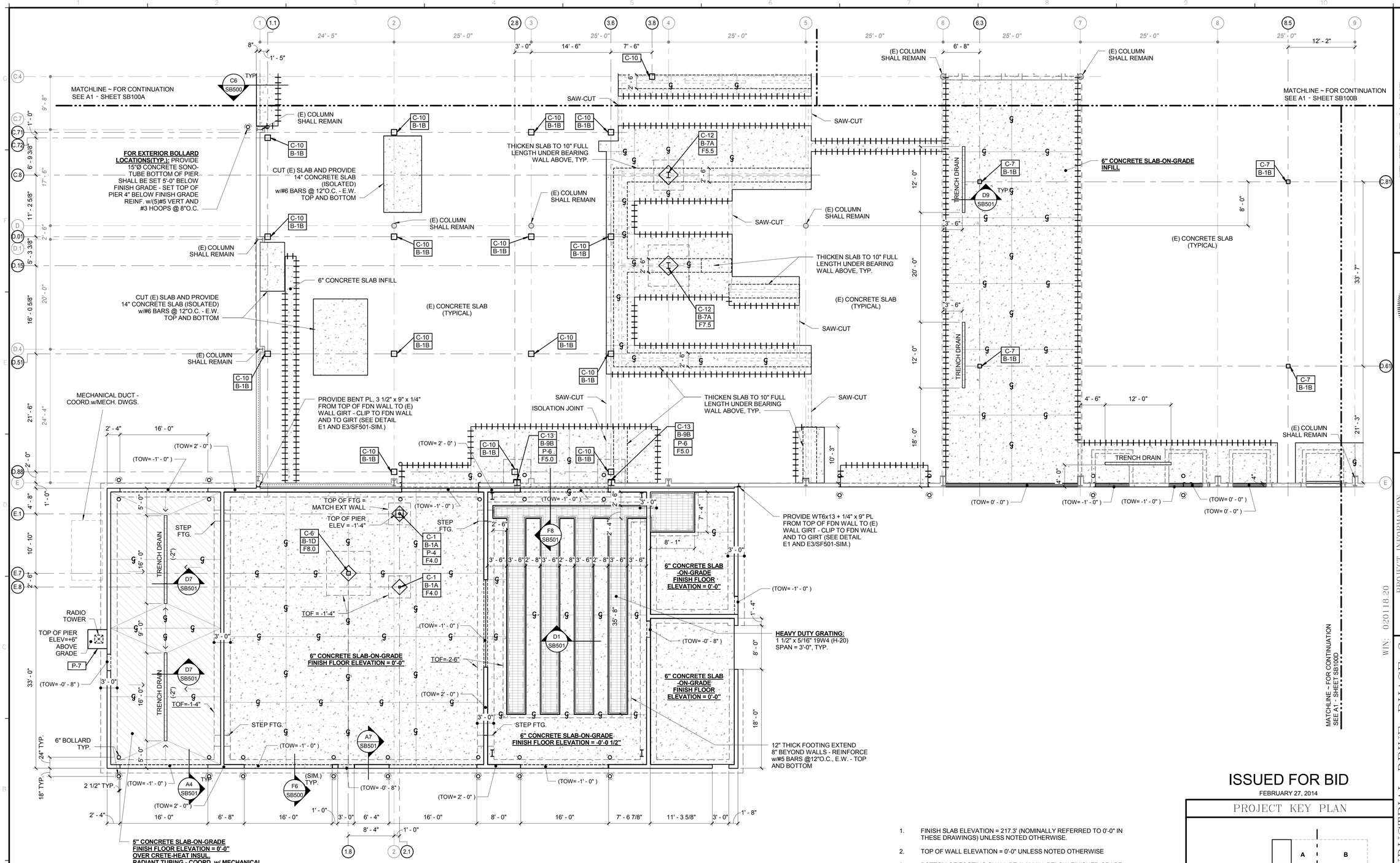
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – FOUNDATION
PLAN – AREA–B

SHEET NUMBER

SB100B

Filename: – Date: – Division: – Username: –



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2. TOP OF WALL ELEVATION = 0'-0" UNLESS NOTED OTHERWISE
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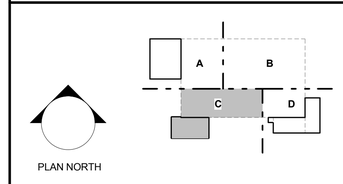
B-#X	INDICATES BASE PLATE TYPE - SEE A1/S001 FOR DETAILS
C-#	INDICATES COLUMN TYPE - SEE E6/S001 FOR SCHEDULE
⊖	INDICATES CONTROL JOINT

ISSUED FOR BID
FEBRUARY 27, 2014

PROJECT KEY PLAN



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Allied Project No: 13057 | Cad File: 13057S.rvt

A1 | STRUCTURAL ~ FOUNDATION PART PLAN
1/8" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE
COMMISSIONER:
CHIEF ENGINEER:

SIGNATURE
P.E. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION
PROGRAM
PROJECT MANAGER
DESIGNER
CONSULTANT
PROJECT RESIDENT
CONTRACTOR
PROJECT COMPLETION DATE

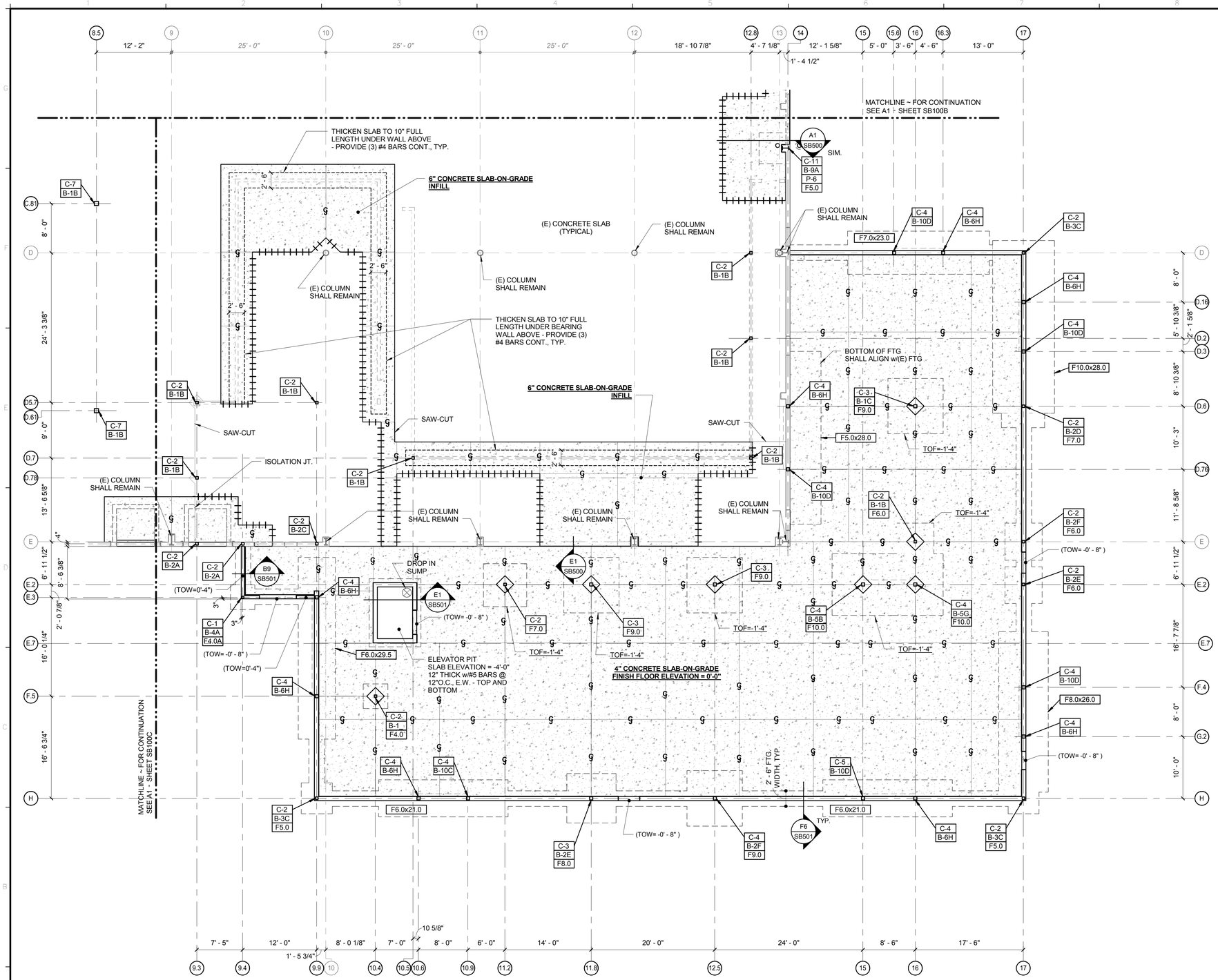
WIN: 020118.20

66 INDUSTRIAL DRIVE-PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL - FOUNDATION
PLAN - AREA-C

SHEET NUMBER
SB100C

Filename: - Date: - Division: - Username: -



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2. TOP OF WALL ELEVATION = 0'-0" UNLESS NOTED OTHERWISE
3. BOTTOM OF FOOTING SHALL BE 5'-0" MIN. BELOW FINISHED GRADE

F#	INDICATES FOOTING TYPE - SEE E6/S001 FOR SCHEDULE
P- #	INDICATES CONCRETE PIER - SEE E6/S001 FOR SCHEDULE
B-#X	INDICATES BASE PLATE TYPE - SEE A1/S001 FOR DETAILS
C-#	INDICATES COLUMN TYPE - SEE E6/S001 FOR SCHEDULE
⚲	INDICATES CONTROL JOINT

NOTE: REFER TO ELECTRICAL DRAWINGS FOR OPENINGS THRU SLAB FOR FLUSH FLOOR BOXES

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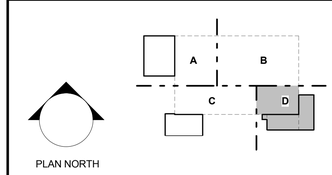
FEBRUARY 27, 2014

PROJECT KEY PLAN



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A1	STRUCTURAL ~ FOUNDATION PART PLAN
1/8" = 1'-0"	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE
COMMISSIONER:
CHIEF ENGINEER:

STATE OF MAINE WILLIAM FALCHER NO. 7135 REGISTERED PROFESSIONAL ENGINEER

SIGNATURE
P.E. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

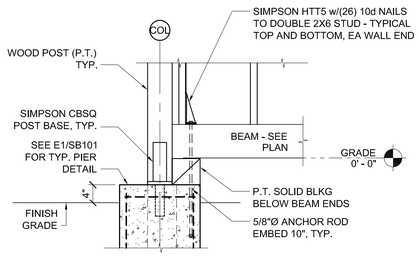
66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

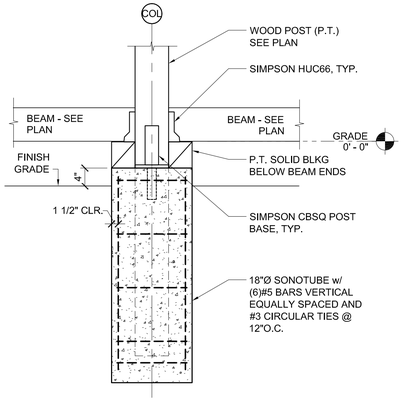
STRUCTURAL – FOUNDATION PLAN – AREA–D

SHEET NUMBER
SB100D

Filename: Division: Date: Username:



G1	TYPICAL HOLDDOWN DETAIL
3/4" = 1'-0"	



E1	TYPICAL PIER DETAIL
3/4" = 1'-0"	

1. GENERAL:

A. TIMBER FRAMING SHALL BE IN ACCORDANCE WITH THE AITC TIMBER CONSTRUCTION MANUAL - LATEST EDITION, AND THE AF & PA NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS) LATEST EDITION.

B. EACH PIECE OF LUMBER SHALL BE "S-DRY" AND BEAR THE GRADE STAMP OF A GRADING RULES AGENCY APPROVED BY THE AMERICAN LUMBER STANDARDS COMMITTEE.

C. COMPOSITE LUMBER BEAMS SHALL BE TRUS JOIST PARALLAM PSL WITH WOLMANIZED PRESERVATIVE PROTECTION, OR APPROVED EQUAL.

D. CONVENTIONAL FRAMING LUMBER EXPOSED TO THE WEATHER SHALL HAVE WOLMANIZED PRESERVATIVE PROTECTION, OR APPROVED EQUAL.

2. CONNECTIONS:

A. FOLLOW TABLE 2304.9.1 OF THE 2009 INTERNATIONAL BUILDING CODE FOR NAILING REQUIREMENTS NOT INDICATED ON THESE DRAWINGS.

B. NAIL SHEAR WALL PLYWOOD WITH 10D COMMON NAILS AT 6" O.C. AT ALL EDGES AND BOUNDARY MEMBERS AND 12" O.C. AT INTERMEDIATE SUPPORTS. PROVIDE NAILING FOR SHEAR WALL AS INDICATED ON DRAWINGS.

C. PROVIDE METAL POST CAPS BY SIMPSON STRONGTIE AT ALL BEAM TO POST CONNECTIONS.

3. STRUCTURAL SAWN LUMBER:

A. STUDS: SPRUCE PINE FIR NO. 1 GRADE, Fb (repetitive) = 1,200 PSI, Fc = 1,100 PSI

4. PLYWOOD:

A. ROOF SHEATHING: C-D INT-APA (PS 1-95) WITH EXTERIOR GLUE; 5/8" WITH IDENTIFICATION INDEX 24/0. LAY UP WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. STAGGER JOINTS.

B. EACH PLYWOOD PIECE TO BE CONTINUOUS OVER A MINIMUM OF TWO SPANS WITH A MINIMUM WIDTH OF 1'-0" UNLESS BLOCKING IS PROVIDED AT JOINTS.

C. WALL SHEATHING: C-D INT-APA (PS 1-95) WITH EXTERIOR GLUE, 1/2" CDX WITH IDENTIFICATION INDEX 24/0. PANEL EDGES BACKED WITH 2" NOMINAL OR WIDER FRAMING.

E3	WOOD NOTES
-	

ROOF TRUSSES:

1. A SHOP DRAWING PACKAGE SHALL INDICATE PLAN VIEW OF TRUSS LOCATIONS, REQUIRED PERMANENT AND TEMPORARY BRIDGING AND BRACING, MEMBER SIZES AND MATERIAL SPECIFICATIONS. PERMANENT BRACING DESIGN IS TO BE PROVIDED BY A LICENSED ENGINEER REGISTERED IN THE PROJECT STATE, AND SHALL BE INCLUDED WITH THE SHOP SUBMITTAL FOR REVIEW BY THE ENGINEER OF RECORD. CONTRACTOR SHALL INCLUDE ANY COSTS ASSOCIATED WITH THIS PERMANENT BRACING DESIGN IN HIS PROJECT COST. INCOMPLETE PACKAGES WILL BE RETURNED TO THE CONTRACTOR.

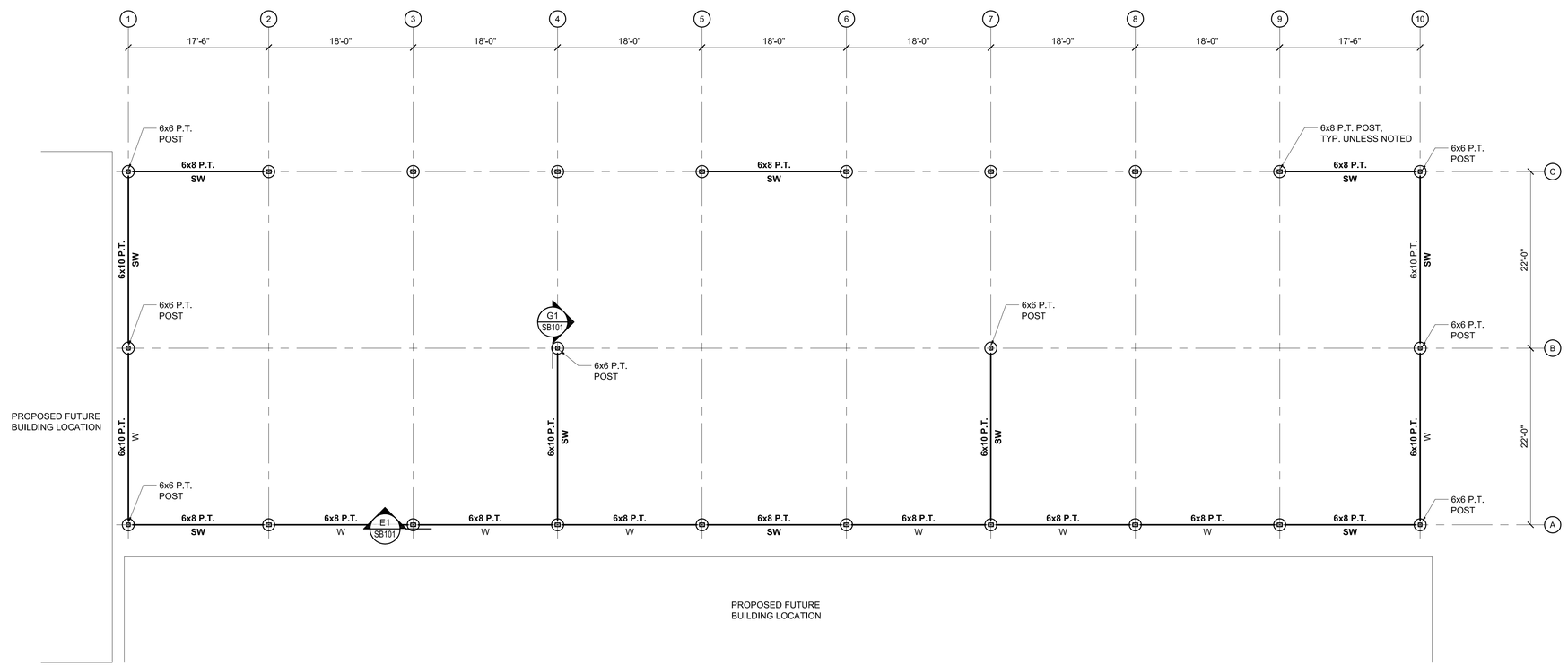
2. WOOD TRUSS MANUFACTURER SHALL PROVIDE SHOP DRAWINGS AND STRUCTURAL DESIGN CALCULATIONS OF ALL TRUSSES SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT STATE. SUBMISSION WILL INCLUDE CALCULATIONS FOR EACH LOADING COMBINATION AND FOR UNBALANCED SNOW LOADING (INCLUDING WIND LOADS FROM ALL DIRECTIONS) PER 2009 IBC BUILDING CODE AND AS INDICATED IN THE STRUCTURAL NOTES.

3. THE BEARING HEIGHTS, CHORD SIZES, WEB SIZES AND MATERIAL SELECTION SHALL BE AT THE TRUSS MANUFACTURES OPTION AS REQUIRED BY DESIGN CALCULATIONS.

4. CONNECTIONS SHALL BE DETAILED ON SUPPLIERS SHOP DRAWINGS.

5. CONTRACTOR SHALL PROVIDE AND INSTALL TEMPORARY AND PERMANENT TRUSS BRACING TO WEB AND CHORD MEMBERS AND AS REQUIRED TO MEET APPROVED SHOP SUBMITTALS.

E6	WOOD TRUSS NOTES
-	



WALL SCHEDULE:

W = TYPICAL WALL; 2x6 STUDS @16"O.C. w/1/2" CDX, EXP. 1 PLYWOOD APPLIED TO BOTH FACES. FASTEN USING 10d NAILS ON A 12/6 PATTERN. NO BLOCKING REQUIRED AT PANEL JOINTS.

SW = SHEAR WALL; 2x6 STUDS @16"O.C. w/1/2" CDX, EXP. 1 PLYWOOD APPLIED TO BOTH FACES. FASTEN USING 10d NAILS ON A 12/4 PATTERN. 2x6 BLOCKING REQUIRED AT PANEL JOINTS. SIMPSON HOLD-DOWN REQUIRED AT EACH END OF WALL.

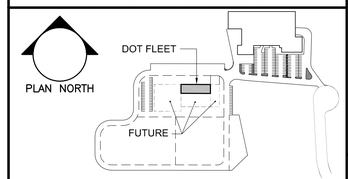
C9	WALL SCHEDULE
NTS	

A1	STRUCTURAL ~ FOUNDATION PLAN
1/8" = 1'-0"	

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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Allied Project No: 13057 Cad File: 13057S.rvt

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE — WILLIAM P. FALCHER — No. 13157 — LICENSED PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

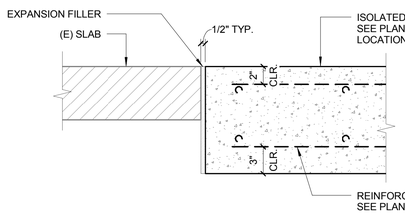
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – DOT FLEET
FOUNDATION PLAN

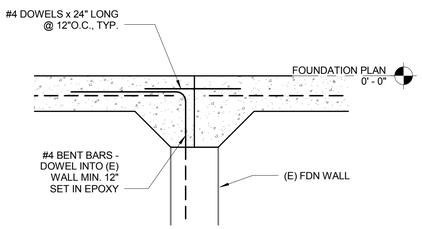
SHEET NUMBER

SB101

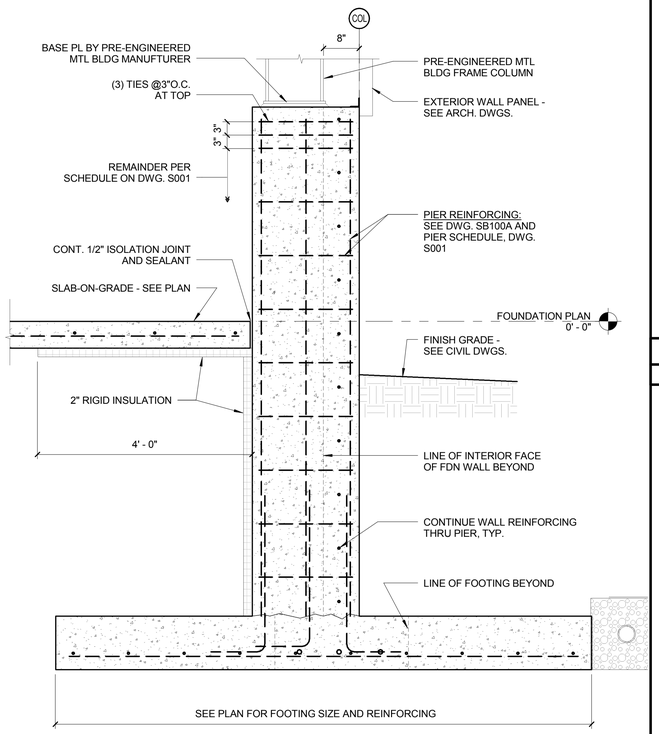
N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057S_DOTFLEET.dwg Feb 27, 2014 – 10:06am



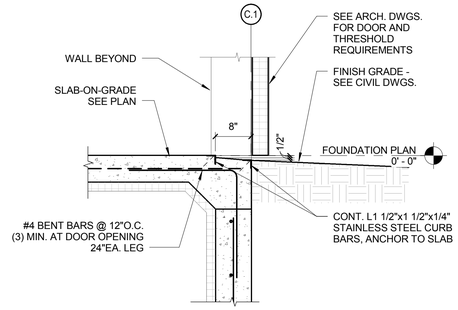
F1	TYPICAL ISOLATION JOINT
1 1/2" = 1'-0"	



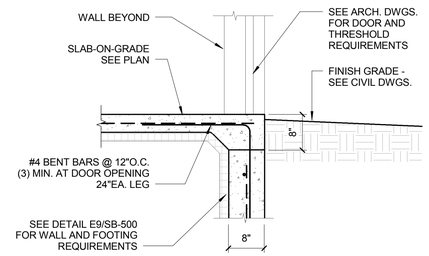
E1	DETAIL
1" = 1'-0"	



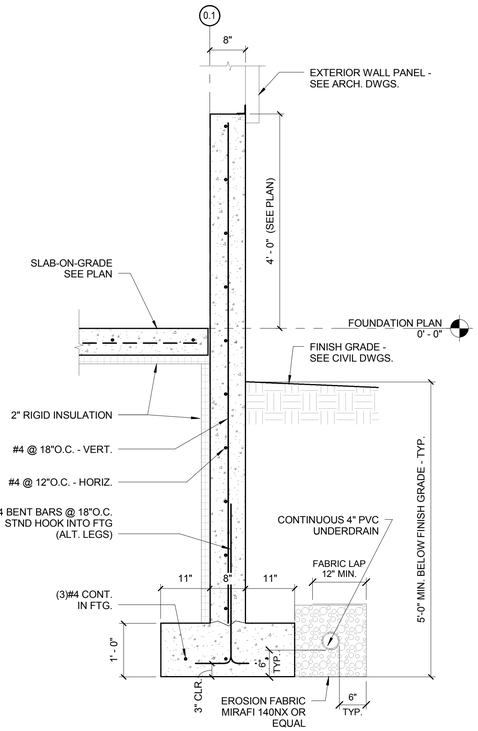
E3	DETAIL AT PIER
3/4" = 1'-0"	



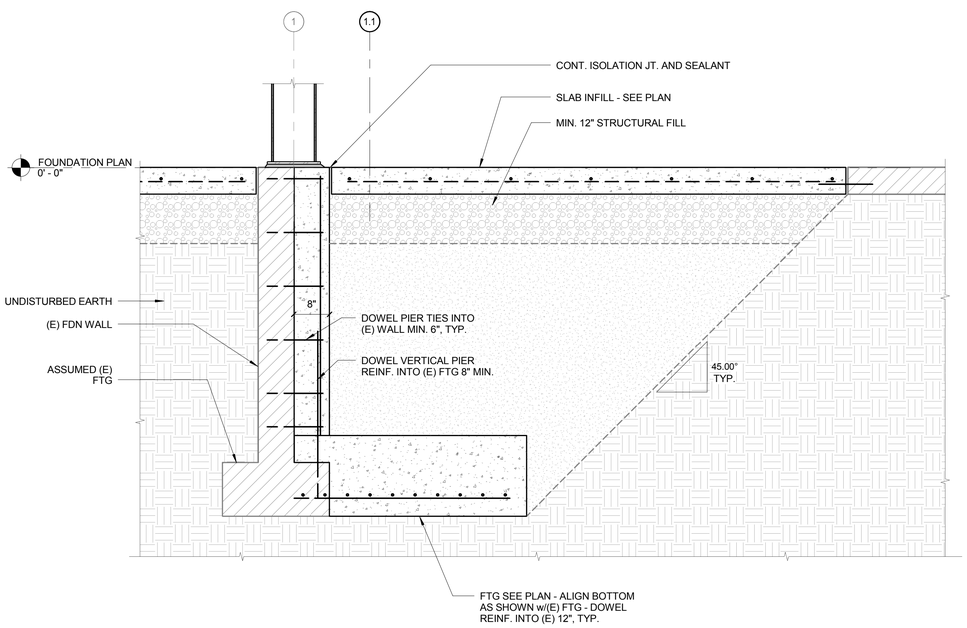
F6	DETAIL
3/4" = 1'-0"	



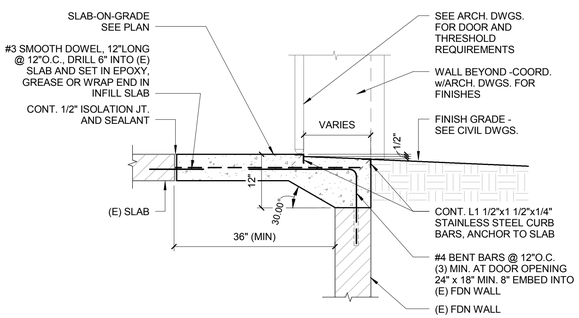
E6	TYPICAL EXT. FND WALL AT DOOR
3/4" = 1'-0"	



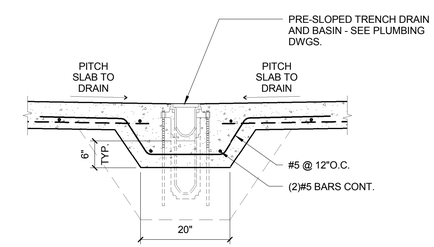
E9	DETAIL
3/4" = 1'-0"	



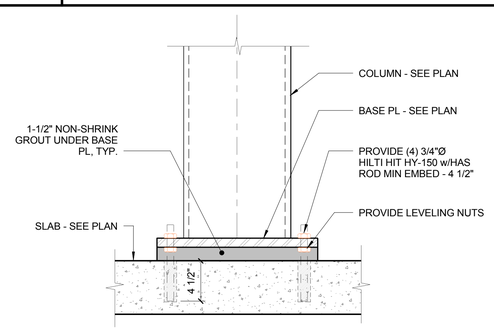
A1	DETAIL AT PIER/FTG CAST AT (E) FDN WALL
3/4" = 1'-0"	



C6	TYPICAL EXT. FND WALL AT OHD DOOR
3/4" = 1'-0"	



C9	TRENCH DRAIN DETAIL AT FAST LANE
3/4" = 1'-0"	



A6	INTERIOR COLUMN BASE SET ON SLAB DETAIL
1 1/2" = 1'-0"	

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Allied Engineering
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Web: www.allied-eng.com

Allied Project No: 13057 | Cad File: 13057S.rvt

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE
WILLIAM FALCHER
NO. 7175
REGISTERED PROFESSIONAL ENGINEER

	SIGNATURE
P.E. NUMBER	
DATE	FEBRUARY 27, 2014

PROJECT INFORMATION

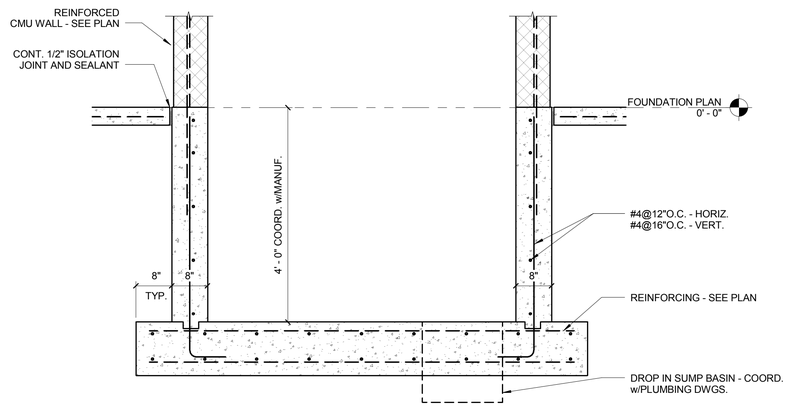
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

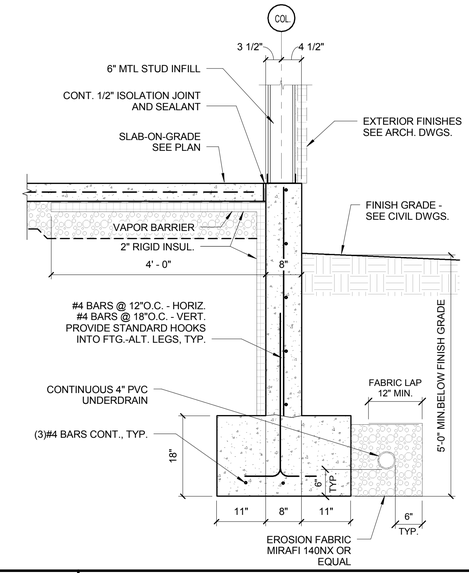
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION
STRUCTURAL – FOUNDATION DETAILS

SHEET NUMBER
SB500

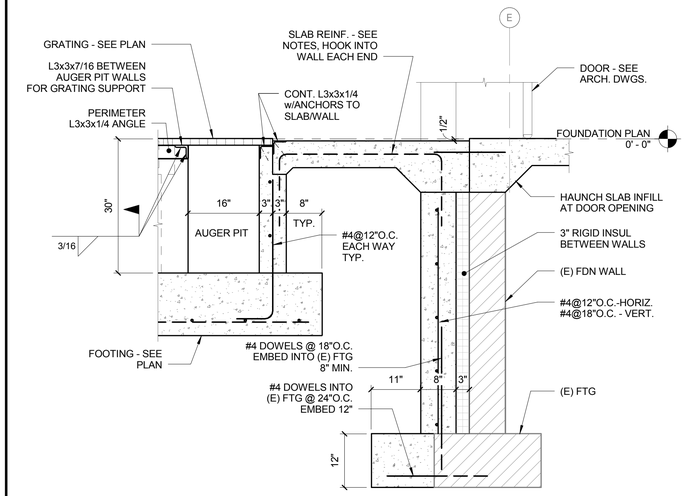
Filename: Date: Division: Username:



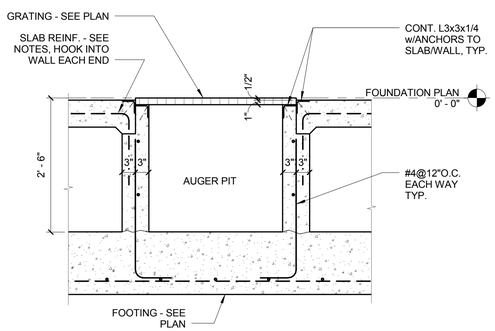
E1	DETAIL THRU ELEVATOR
3/4" = 1'-0"	



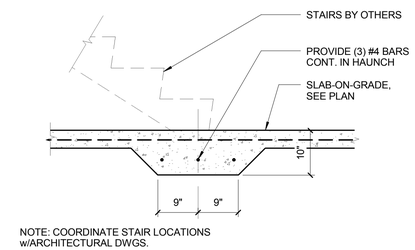
F6	EXTERIOR FOUNDATION WALL -AREA-D
3/4" = 1'-0"	



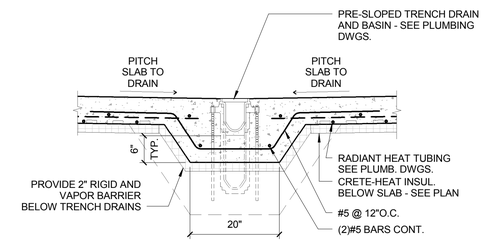
F8	FDN DETAIL AT AUGER PIT
3/4" = 1'-0"	



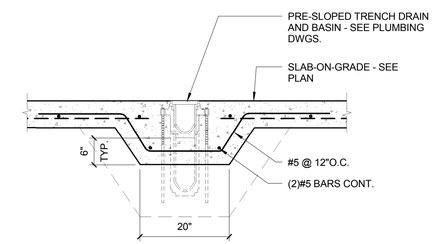
D1	DETAIL AT AUGER PIT
3/4" = 1'-0"	



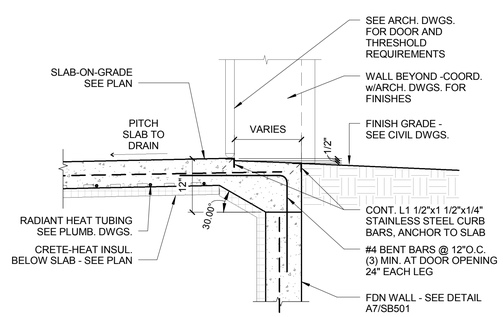
D4	THICKENED SLAB DTL @ STAIR BASE
3/4" = 1'-0"	



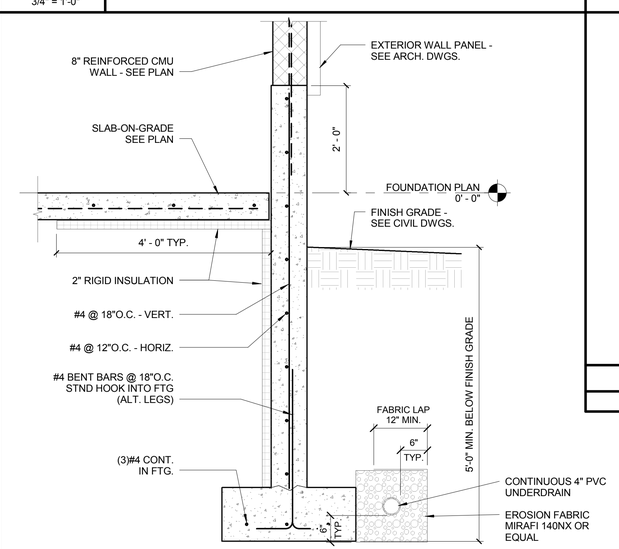
D7	TRENCH DRAIN DETAIL AT WASH BAY
3/4" = 1'-0"	



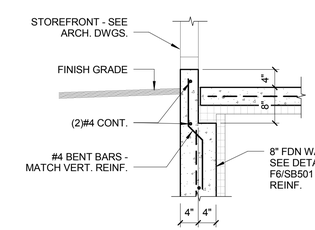
D9	TYPICAL TRENCH DRAIN DETAIL
3/4" = 1'-0"	



A4	TYPICAL EXT. FND WALL AT OHD DOOR - WASH BAY
3/4" = 1'-0"	



A7	EXTERIOR FOUNDATION WALL - AREA-C
3/4" = 1'-0"	



B9	FDN WALL @ STOREFRONT - AREA-D
3/4" = 1'-0"	

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Web: www.allied-eng.com

Allied Project No: 13057 | Cad File: 13057S.rvt

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE · WILLIAM FALCHER · NO. 7115 · REGISTERED PROFESSIONAL ENGINEER

SIGNATURE	
P.E. NUMBER	
DATE	FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

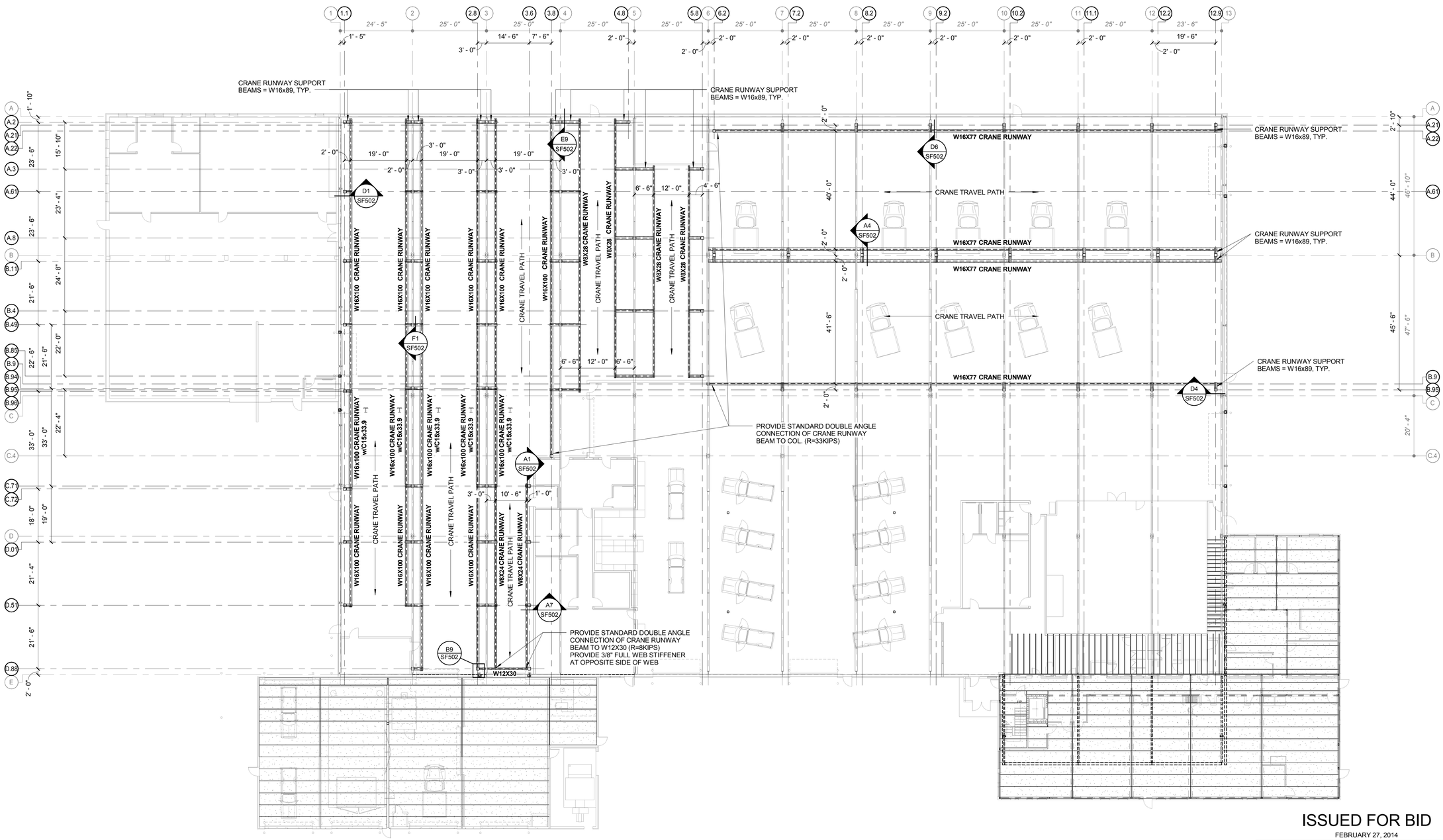
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – FOUNDATION DETAILS

SHEET NUMBER

SB501

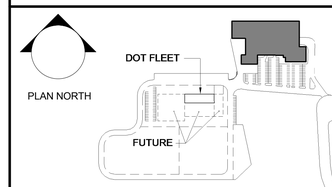
Username: –
Division: –
Date: –
Filename: –



ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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Allied Project No: 13057 | Cad File: 13057S.rvt

A1 | STRUCTURAL ~ CRANE SUPPORT FRMAING LAYOUT PLAN

1/16" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
WILLIAM FALCHER
No. 7135
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	-
PROJECT MANAGER	-
DESIGNER	ALLIED ENG., INC.
CONSULTANT	-
PROJECT RESIDENT	-
CONTRACTOR	-
PROJECT COMPLETION DATE	-

WIN: 020118.20

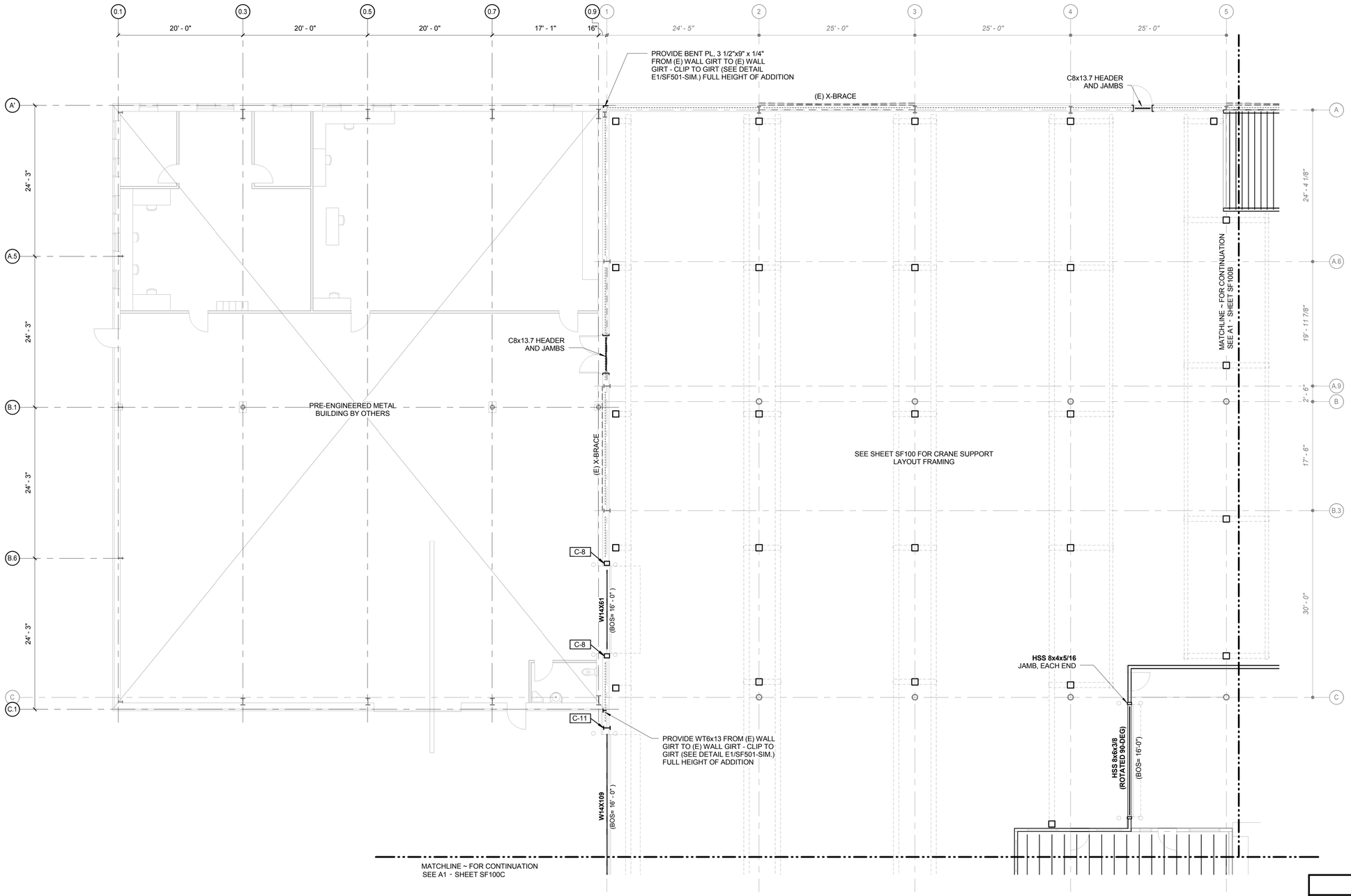
66 INDUSTRIAL DRIVE-PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – CRANE FRAMING PLAN

SHEET NUMBER

SF100

Filename: – Date: – Division: – Username: –



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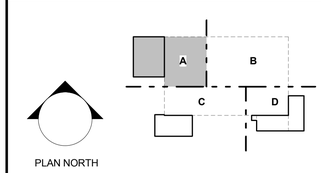
FEBRUARY 27, 2014

PROJECT KEY PLAN



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Allied Project No: 13057 | Cad File: 13057S.rvt

A1 | STRUCTURAL ~ FRAMING PLAN

1/8" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
WILLIAM FALCHER
No. 7135
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER

DATE
FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

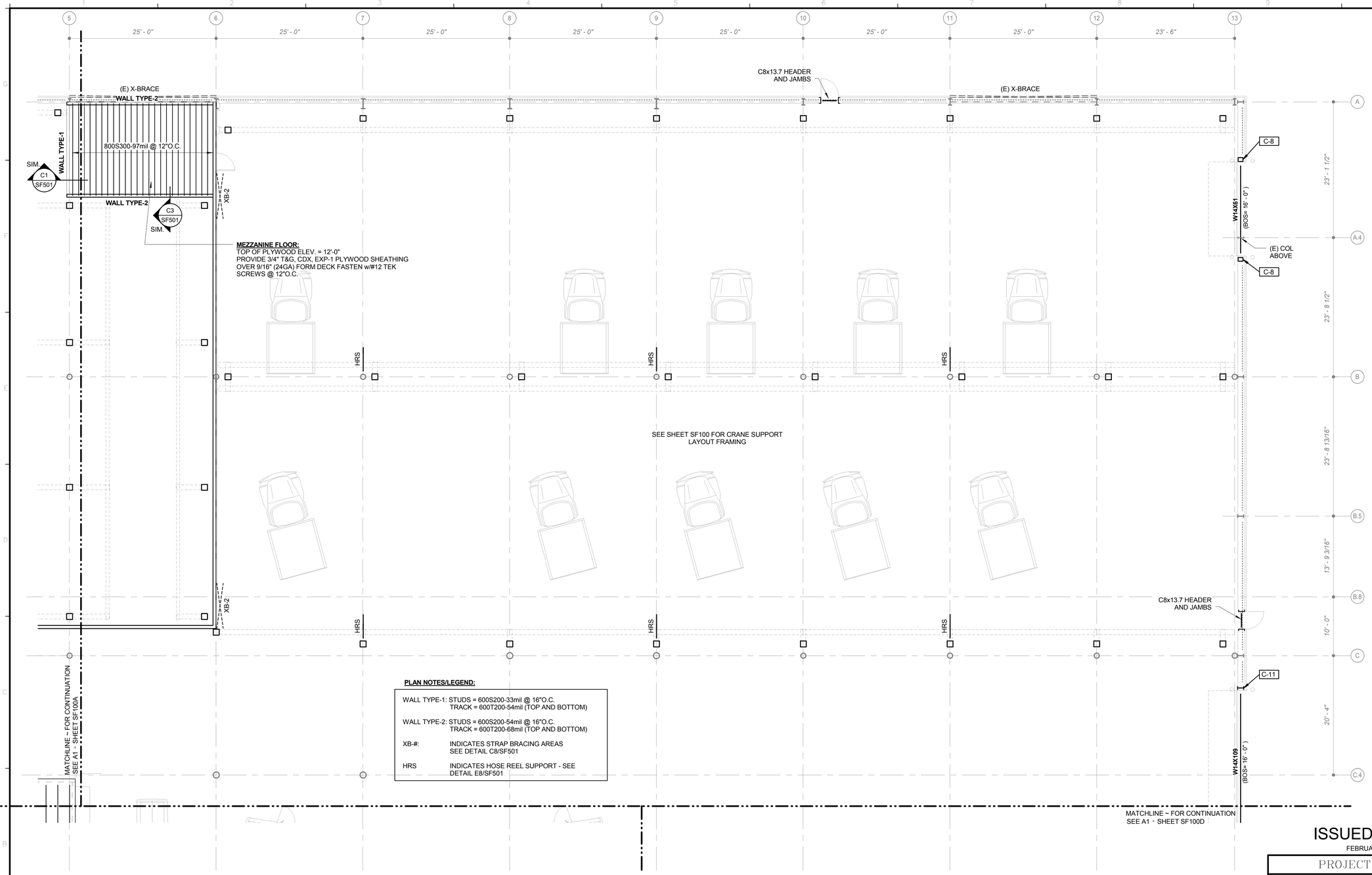
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – FRAMING PLAN – AREA–A

SHEET NUMBER

SF100A

Filename: Date: Division: Username:



PLAN NOTES/LEGEND:

WALL TYPE-1: STUDS = 600S200-33mil @ 16"O.C.
TRACK = 600T200-54mil (TOP AND BOTTOM)

WALL TYPE-2: STUDS = 600S200-54mil @ 16"O.C.
TRACK = 600T200-68mil (TOP AND BOTTOM)

XB-#: INDICATES STRAP BRACING AREAS
SEE DETAIL C8/SF501

HRS INDICATES HOSE REEL SUPPORT - SEE
DETAIL E8/SF501

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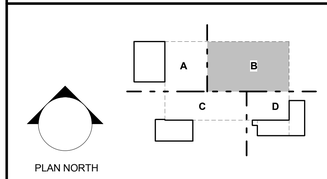
PROJECT KEY PLAN



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Allied Project No: 13057 | Cad File: 13057S.rvt

A1	STRUCTURAL ~ FRAMING PLAN
1/8" = 1'-0"	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE
WILLIAM FALCHER
No. 7115
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE-PHASE 2

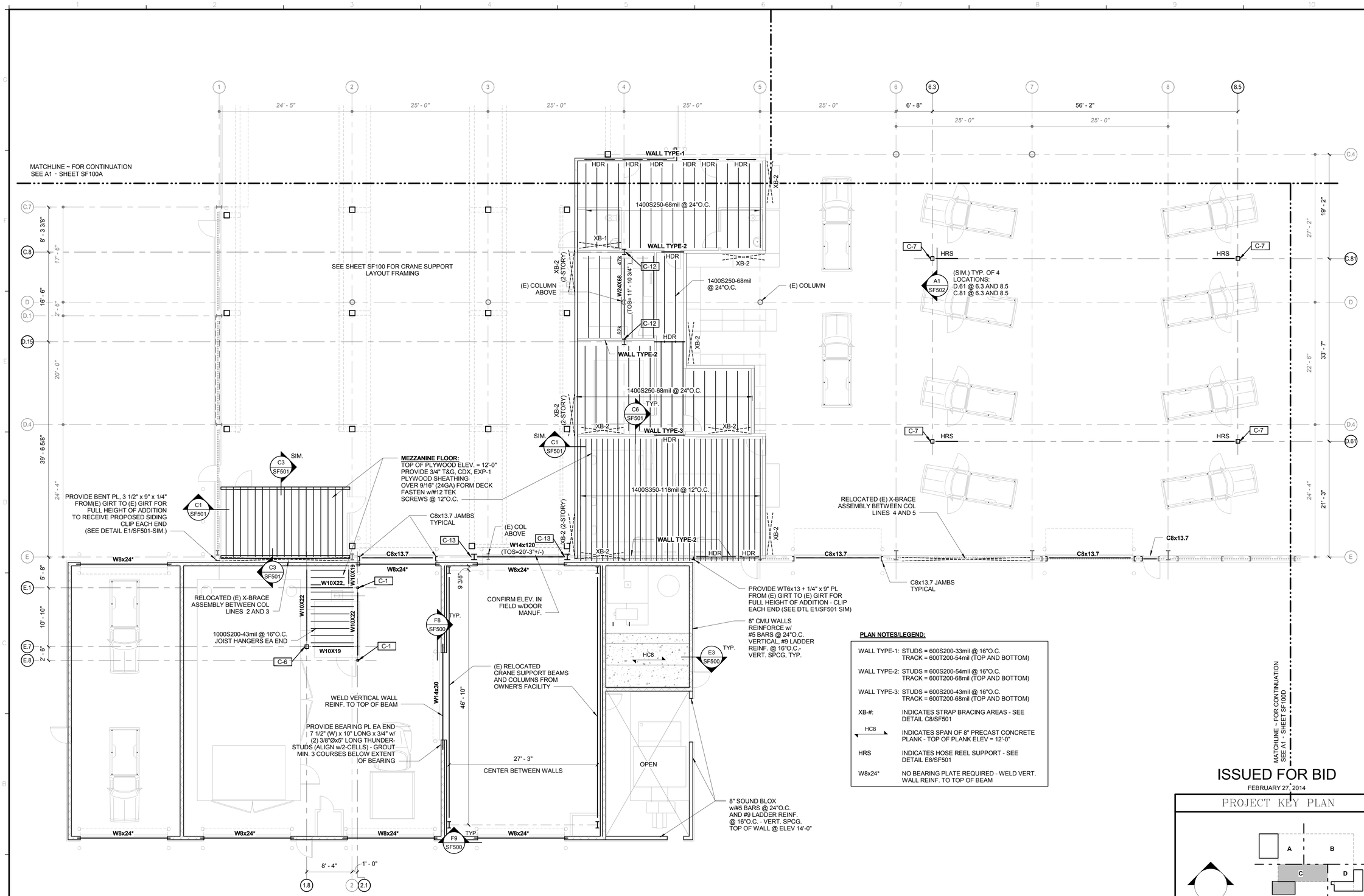
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – FRAMING PLAN – AREA–B

SHEET NUMBER

SF100B

Filename: Date: Division: Username:



PLAN NOTES/LEGEND:

WALL TYPE-1:	STUDS = 600S200-33mil @ 16"O.C. TRACK = 600T200-54mil (TOP AND BOTTOM)
WALL TYPE-2:	STUDS = 600S200-54mil @ 16"O.C. TRACK = 600T200-68mil (TOP AND BOTTOM)
WALL TYPE-3:	STUDS = 600S200-43mil @ 16"O.C. TRACK = 600T200-68mil (TOP AND BOTTOM)
XB-#:	INDICATES STRAP BRACING AREAS - SEE DETAIL C8/SF501
HC8	INDICATES SPAN OF 8" PRECAST CONCRETE PLANK - TOP OF PLANK ELEV = 12'-0"
HRS	INDICATES HOSE REEL SUPPORT - SEE DETAIL E8/SF501
W8x24*	NO BEARING PLATE REQUIRED - WELD VERT. WALL REINF. TO TOP OF BEAM

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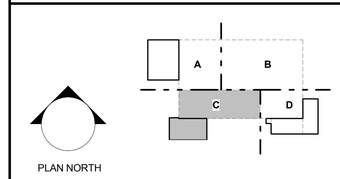
FEBRUARY 27, 2014

PROJECT KEY PLAN



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Allied Project No: 13057 | Cad File: 13057S.rvt

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE · WILLIAM FALCHER · NO. 7176 · REGISTERED PROFESSIONAL ENGINEER

SIGNATURE	
P.E. NUMBER	
DATE	FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

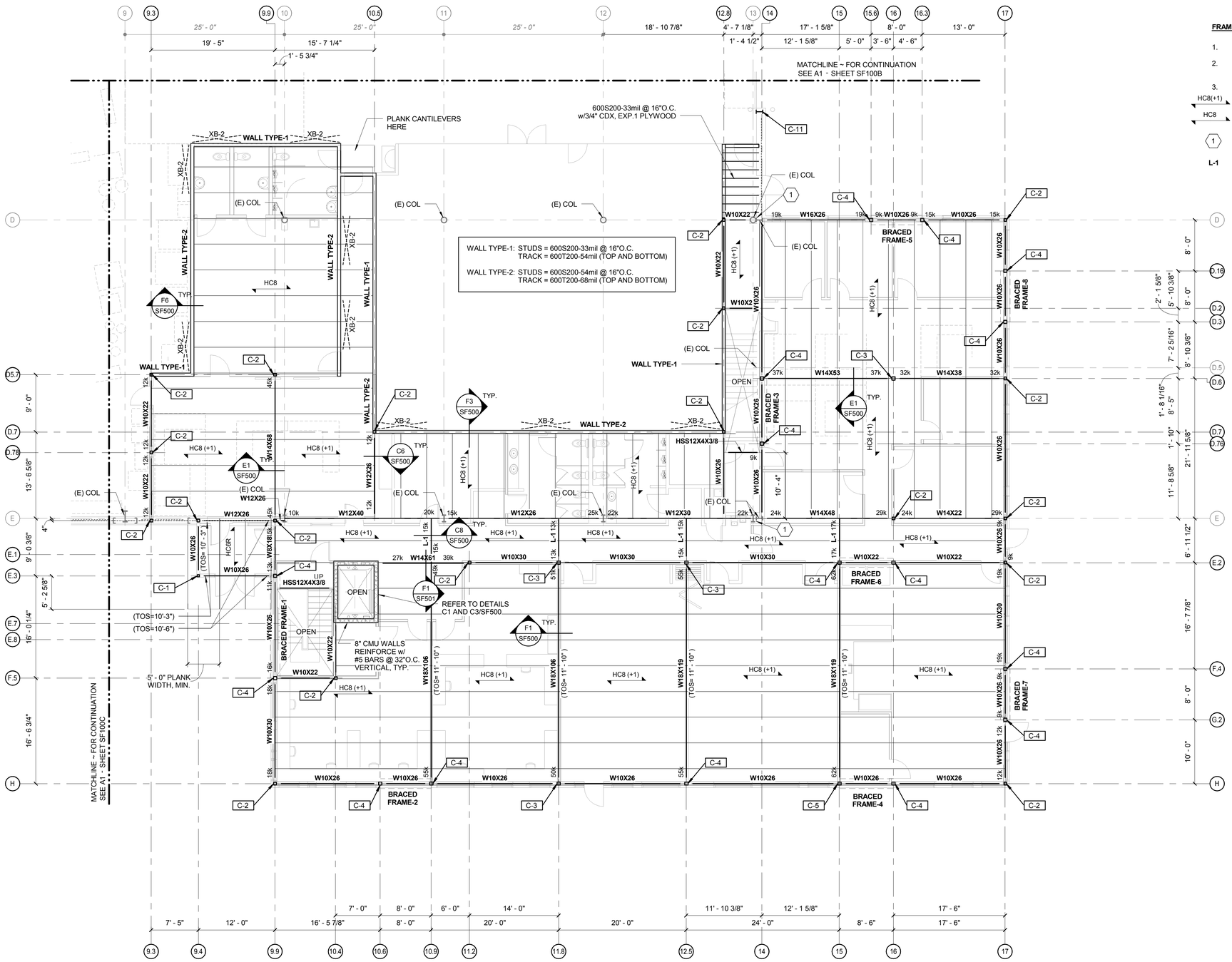
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – FRAMING PLAN – AREA–C

SHEET NUMBER
SF100C

A1 | STRUCTURAL ~ FRAMING PLAN
1/8" = 1'-0"

Filename: – Date: – Division: – Username: –



FRAMING PLAN NOTES/LEGEND: (AREA-D)

1. TOP OF STEEL ELEVATION =11'-3" UNLESS NOTED
2. SEE DRAWING SF200 FOR BRACED FRAME SCHEMATICS AND CONNECTION DETAILS
3. BEAM END REACTIONS SHALL BE 8k UNFACTORED, UNLESS NOTED.

HC8(+1) — INDICATES SPAN OF 8" PRECAST HOLLOW-CORE PLANK - 1" TOPPING

HC8 — INDICATES SPAN OF 8" PRECAST HOLLOW-CORE PLANK - NO TOPPING

(1) — PROVIDE 3/8" BENT PL x 8" LONG, FIELD CLIP FLANGE OF (E)W12x26 TO MAIN FRAME COLUMNS (PIPE AND W-SHAPE) w/4" LONG FILLET WELD TO EACH.

L-1 — (2)L7x4x5/8 (LLV) BACK-TO-BACK (REFER TO DETAIL F1/SF501 FOR ATTACHMENT TO STEEL BEAM, TYP.)

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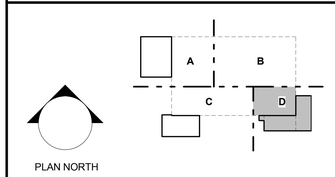
FEBRUARY 27, 2014

PROJECT KEY PLAN



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE
COMMISSIONER:
CHIEF ENGINEER:

STATE OF MAINE
WILLIAM FALCHER
No. 11415
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE
P.E. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

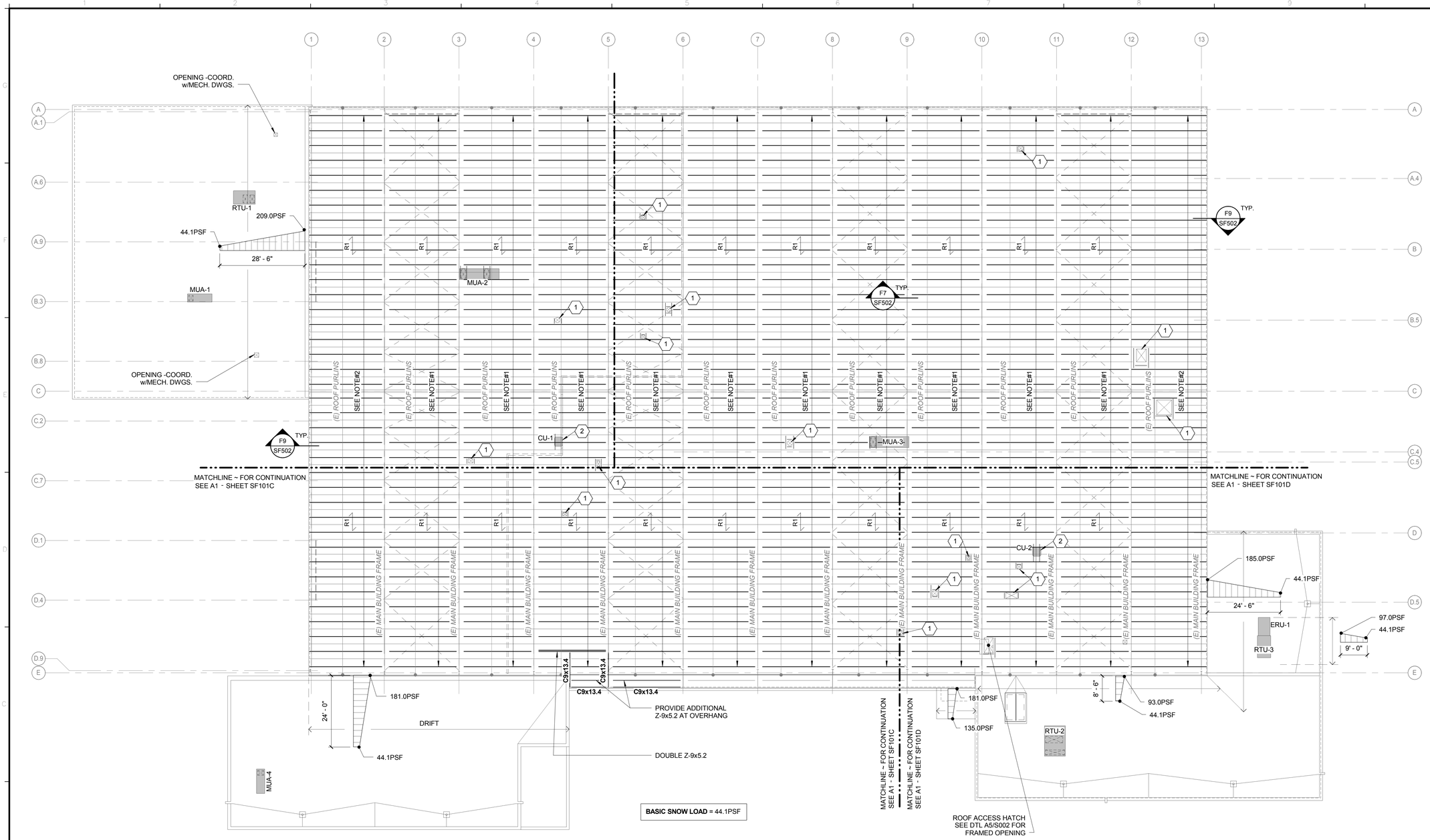
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – FRAMING PLAN
– AREA–D

SHEET NUMBER
SF100D

A1 | STRUCTURAL ~ FRAMING PLAN
1/8" = 1'-0"

Filename: Division: Date: Username:



BASIC SNOW LOAD = 44.1PSF

ROOF PLAN NOTES/LEGEND:

1. PROVIDE SINGLE, FULL-LENGTH CAN AM COLD FORMED "Z" ROOF PURLIN, Z 9 X 5.2 [FY = 50 KSI] OR EQUAL, CENTERED IN EVERY EXISTING PURLIN BAY. ATTACH EACH END OF ROOF PURLIN TO EXISTING STEEL FRAMES USING TSN STIFFCLIP AL600, OR EQUAL. FASTEN TOP FLANGE OF ROOF PURLIN TO DECK ABOVE. MODIFY EXISTING BRIDGING TO ACCOMMODATE ADDED ROOF PURLINS.

2. PROVIDE DOUBLE (NESTED), FULL-LENGTH CAN AM COLD FORMED "Z" ROOF PURLIN, Z 9 X 5.2 [FY = 50 KSI] OR EQUAL, CENTERED IN EVERY EXISTING PURLIN BAY. ATTACH EACH END OF (NESTED) ROOF PURLINS TO EXISTING STEEL FRAMES USING TSN STIFFCLIP AL600, OR EQUAL. FASTEN TOP FLANGE OF (NESTED) ROOF PURLINS TO DECK ABOVE. MODIFY EXISTING BRIDGING TO ACCOMMODATE ADDED (NESTED) ROOF PURLINS.

R1 — INDICATES SPAN OF 1" STEEL DECKING.

1 — INDICATES ROOF PENETRATION BY MECHANICAL DUCTWORK - COORDINATE LOCATIONS AND SIZE OF OPENINGS REQUIRED w/MECH. DWGS. REFER TO DETAIL A5/S002 FOR FRAMED OPENING REQUIREMENTS.

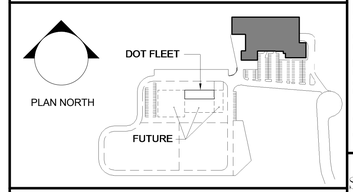
2 — PROVIDE SLEEPERS UNDER CONDENSING UNITS

A1	STRUCTURAL ~ ROOF FRAMING PLAN
1/16" = 1'-0"	

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



Allied Engineering
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160 Veranda Street
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Allied Project No: 13057 | Cad File: 13057S.rvt

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE — WILLIAM FALCHER — PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

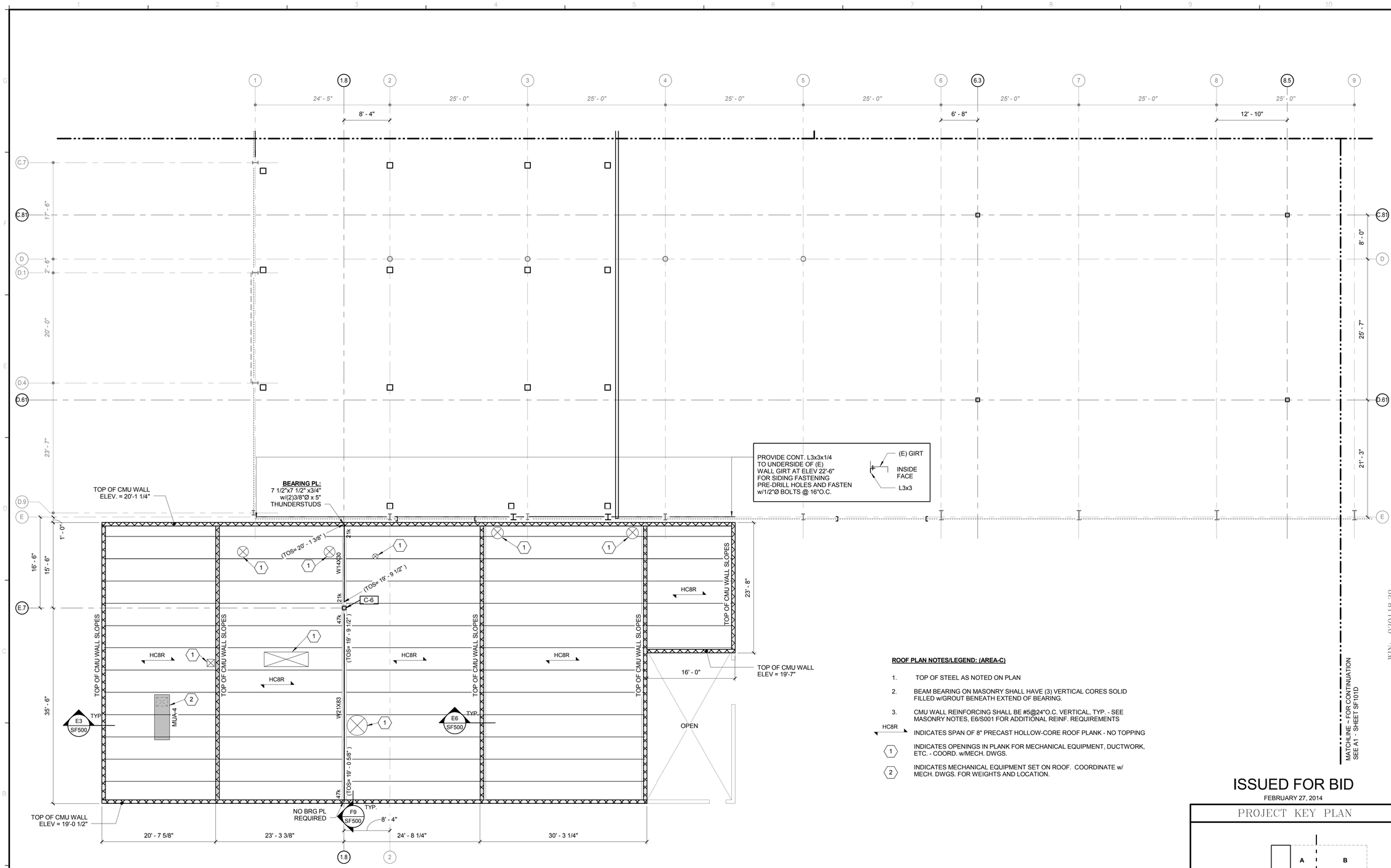
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – ROOF FRAMING PLAN

SHEET NUMBER

SF101

Filename: Date: Division: Username:



ROOF PLAN NOTES/LEGEND: (AREA-C)

1. TOP OF STEEL AS NOTED ON PLAN
2. BEAM BEARING ON MASONRY SHALL HAVE (3) VERTICAL CORES SOLID FILLED w/GROUT BENEATH EXTEND OF BEARING.
3. CMU WALL REINFORCING SHALL BE #5@24"O.C. VERTICAL, TYP. - SEE MASONRY NOTES, E6/S001 FOR ADDITIONAL REINF. REQUIREMENTS

HC8R — INDICATES SPAN OF 8" PRECAST HOLLOW-CORE ROOF PLANK - NO TOPPING

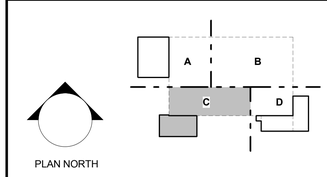
(1) — INDICATES OPENINGS IN PLANK FOR MECHANICAL EQUIPMENT, DUCTWORK, ETC. - COORD. w/MECH. DWGS.

(2) — INDICATES MECHANICAL EQUIPMENT SET ON ROOF. COORDINATE w/ MECH. DWGS. FOR WEIGHTS AND LOCATION.

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE · WILLIAM FALCHER · PROFESSIONAL ENGINEER

SIGNATURE	
P.E. NUMBER	
DATE	FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 0201118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – ROOF FRAMING PLAN – AREA–C

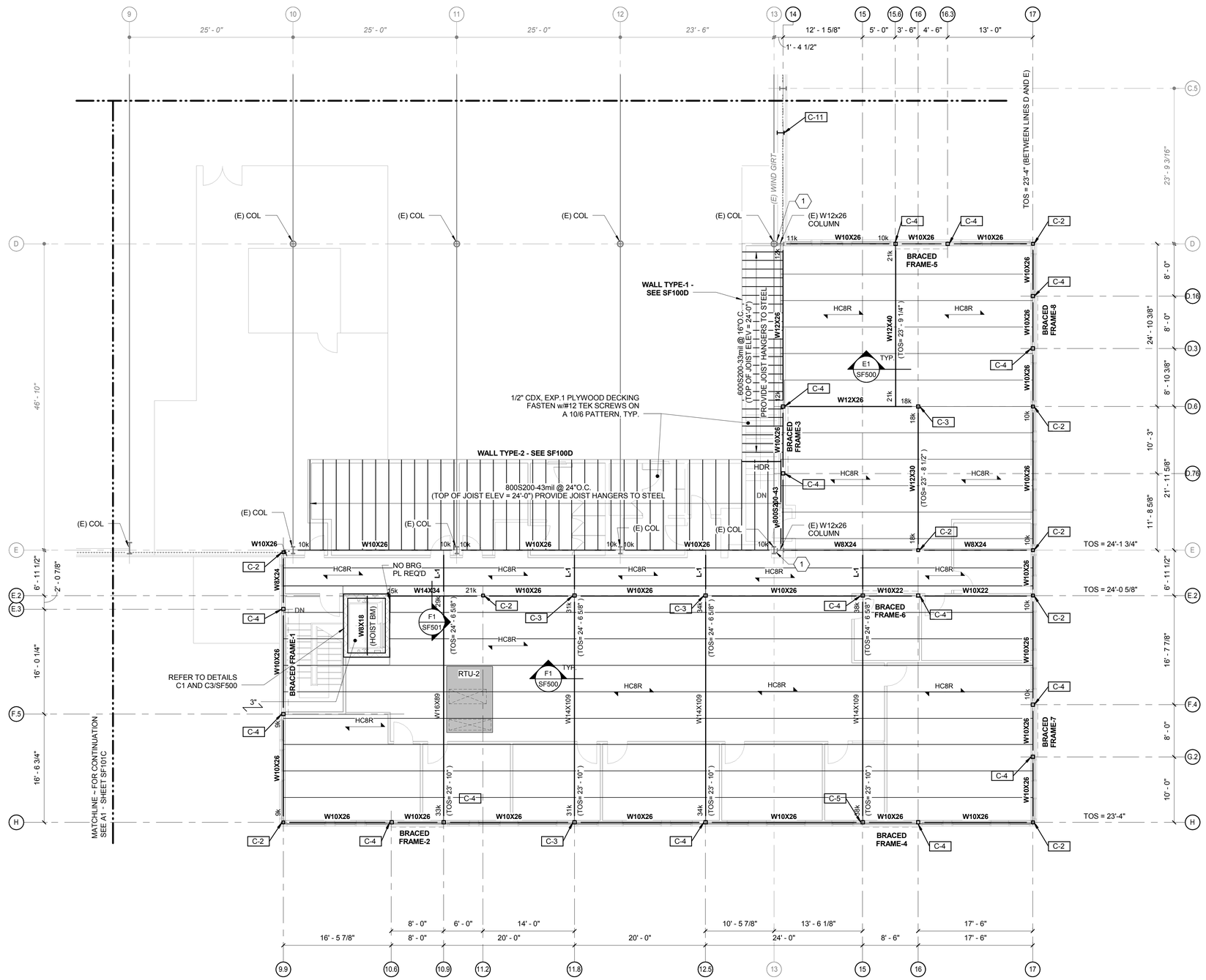
SHEET NUMBER

SF101C

A1 | STRUCTURAL ~ ROOF FRAMING PLAN

1/8" = 1'-0"

Filename: – Division: – Date: – Username: –



ROOF PLAN NOTES/LEGEND: (AREA-D)

1. TOP OF STEEL AS NOTED ON PLAN
2. SEE DRAWING SF200 FOR BRACED FRAME SCHEMATICS AND CONNECTION DETAILS
3. BEAM END REACTIONS SHALL BE 8k UNFACTORED, UNLESS NOTED.

3" — INDICATES SPAN OF 5" CONCRETE SLAB ON 3" STEEL DECKING - TOTAL SLAB DEPTH = 5" TOP OF SLAB ELEV = 27'-1"

HC8R — INDICATES SPAN OF 8" PRECAST HOLLOW-CORE ROOF PLANK - NO TOPPING

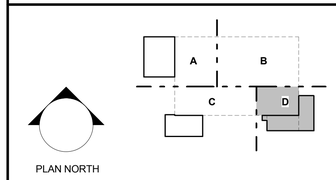
(1) — PROVIDE 3/8" BENT PL x 8" LONG, FIELD CLIP FLANGE OF (E)W12x26 TO MAIN FRAME COLUMNS (PIPE AND W-SHAPE) w/4" LONG FILLET WELD TO EACH.

L-1 — (2)L7x4x5/8 (LLV) BACK-TO-BACK (REFER TO DETAIL F1/SF501 FOR ATTACHMENT TO STEEL BEAM, TYP.

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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Allied Project No: 13057 | Cad File: 13057S.rvt

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE — WILLIAM FALCHER — PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM

PROJECT MANAGER

DESIGNER — ALLIED ENG., INC.

CONSULTANT

PROJECT RESIDENT

CONTRACTOR

PROJECT COMPLETION DATE

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – ROOF FRAMING PLAN – AREA_D

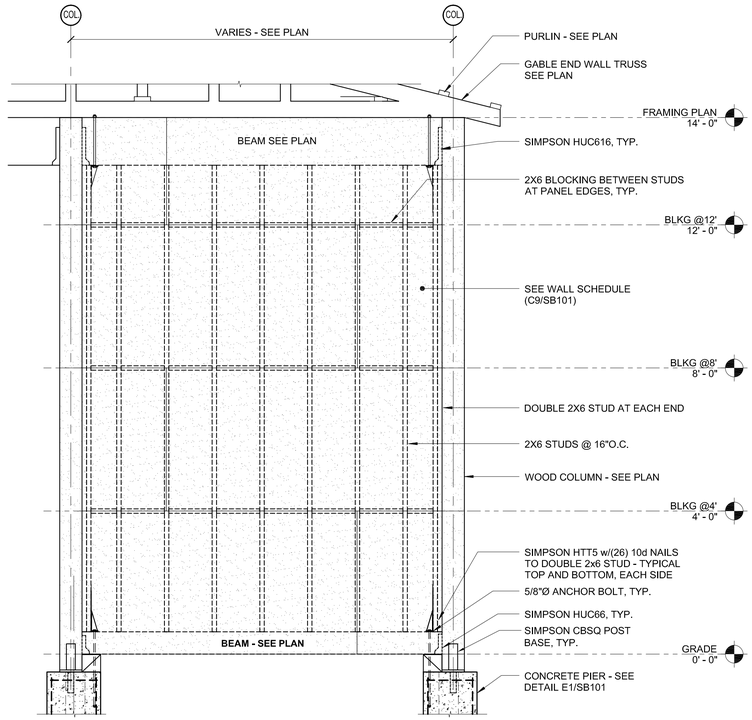
SHEET NUMBER

SF101D

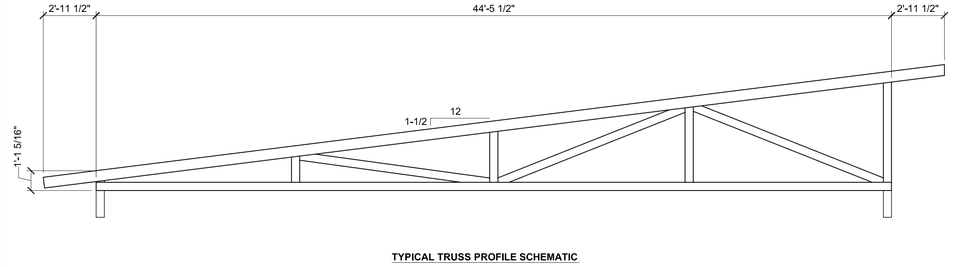
A1 | STRUCTURAL ~ ROOF FRAMING PLAN

1/8" = 1'-0"

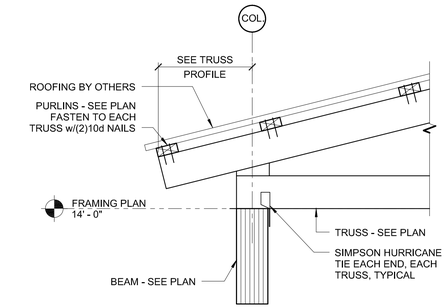
Filename: – Date: – Division: – Username: –



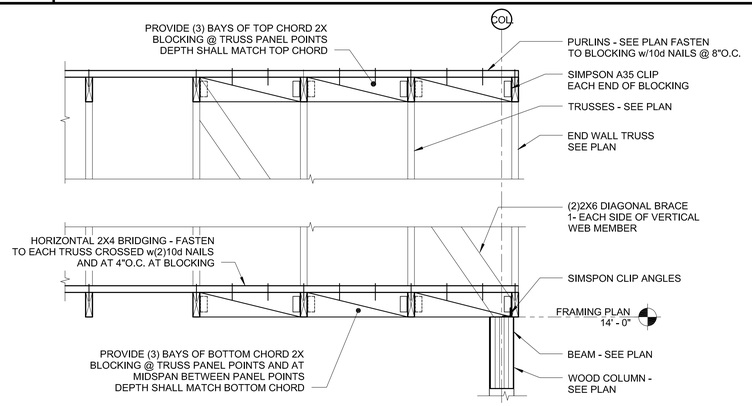
E1	ELEVATION VIEW OF TYPICAL SHEARWALL
NTS	



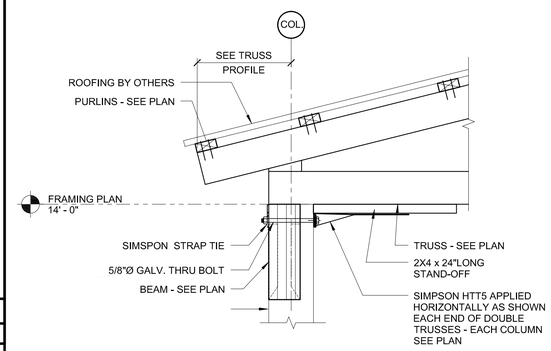
G5	TRUSS PROFILE SCHEMATIC
NTS	



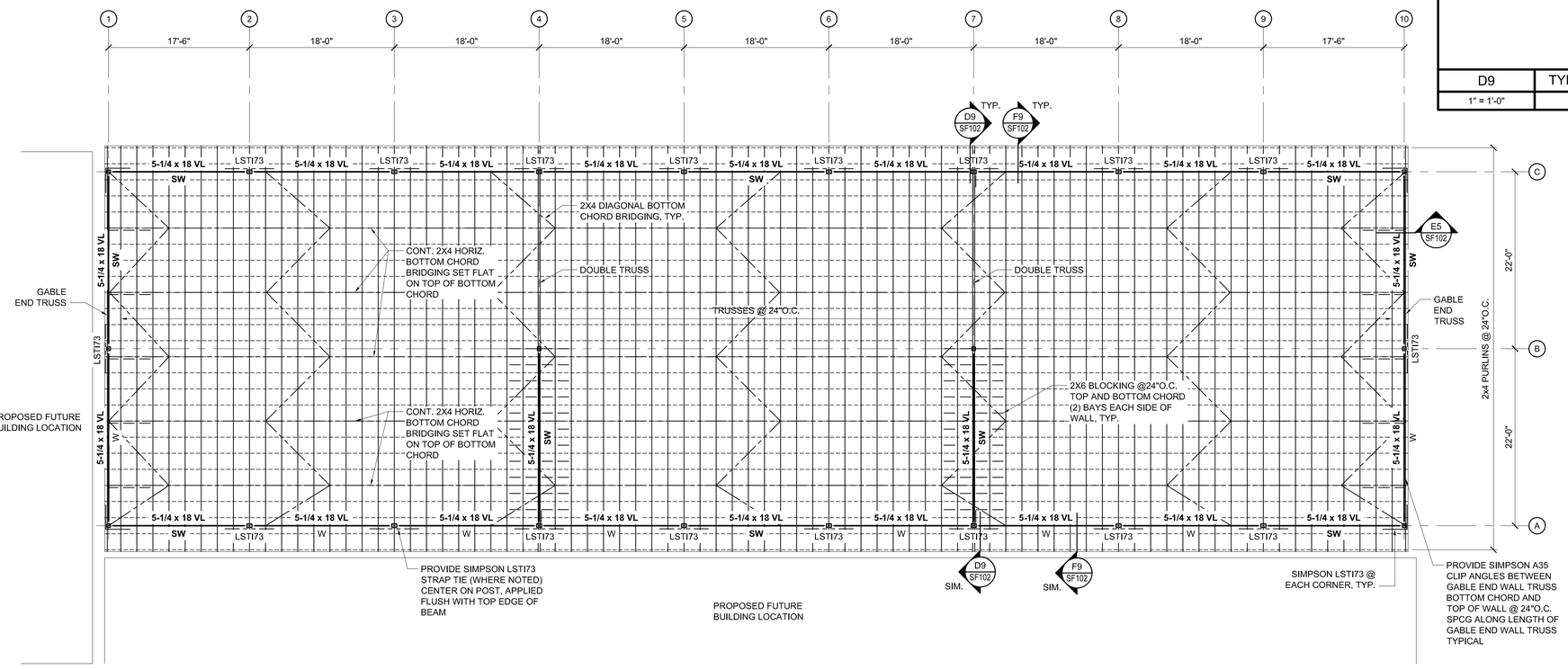
F9	TYPICAL TRUSS BEARING DETAIL
1" = 1'-0"	



E5	TYPICAL DETAIL AT GABLE END BLOCKING
3/4" = 1'-0"	



D9	TYPICAL TRUSS BEARING DETAIL AT DOUBLE TRUSS
1" = 1'-0"	

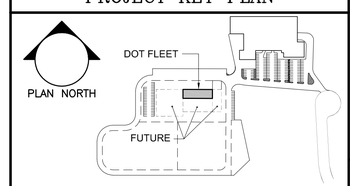


A1	STRUCTURAL ~ ROOF FRAMING PLAN
1/8" = 1'-0"	

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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Allied Project No: 13057 Cad File: 13057S.rvt

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE WILLIAM P. FALCONER NO. 7133 REGISTERED PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	-
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE

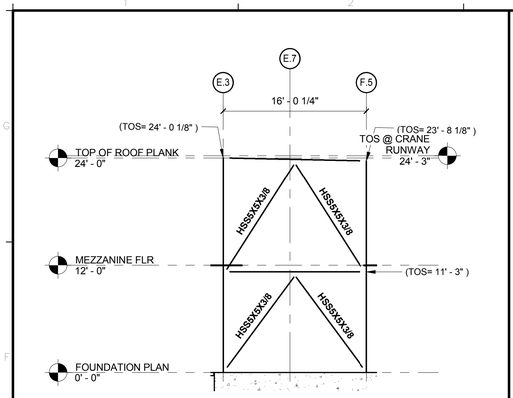
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – DOT FLEET FRAMING PLAN

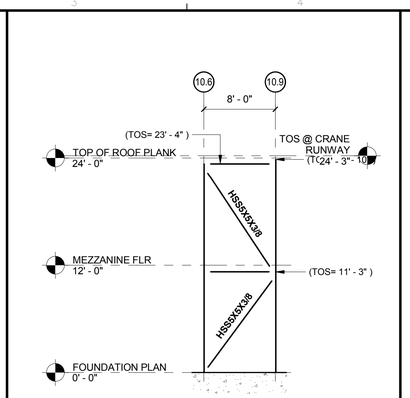
SHEET NUMBER

SF102

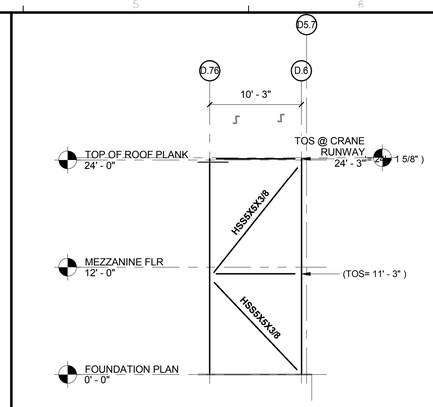
N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057S_DOTFLEET.dwg Feb 27, 2014 – 10:05am



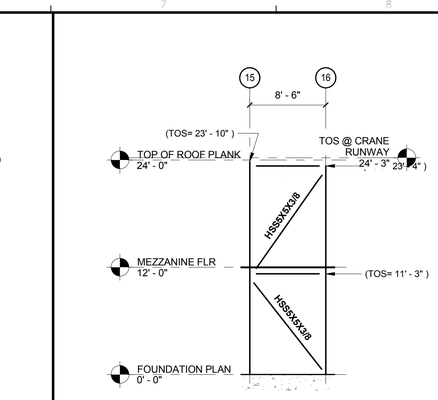
F1	BRACED FRAME-1
1/8" = 1'-0"	



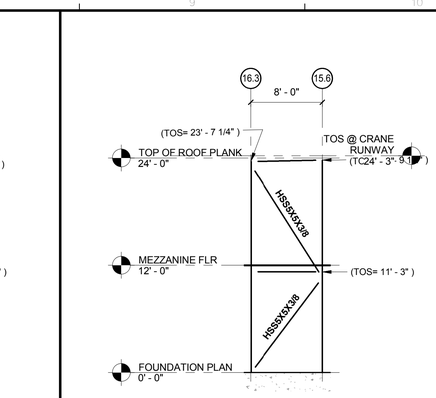
F3	BRACED FRAME-2
1/8" = 1'-0"	



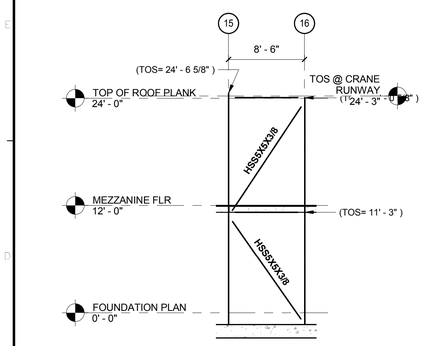
F5	BRACED FRAME-3
1/8" = 1'-0"	



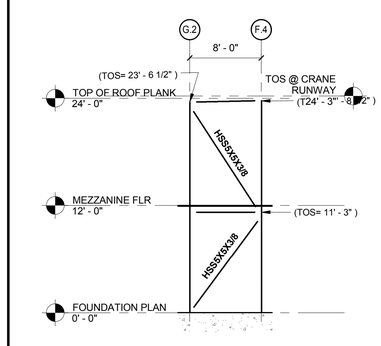
F7	BRACED FRAME-4
1/8" = 1'-0"	



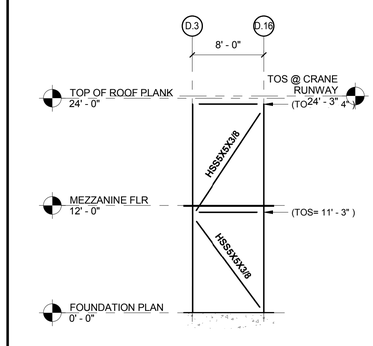
F9	BRACED FRAME-5
1/8" = 1'-0"	



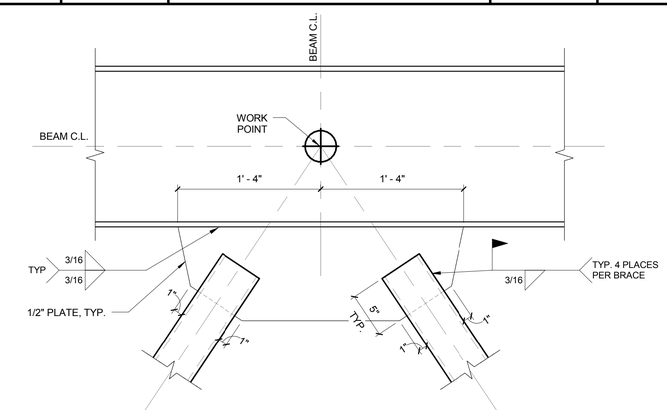
D1	BRACED FRAME-6
1/8" = 1'-0"	



D3	BRACED FRAME-7
1/8" = 1'-0"	

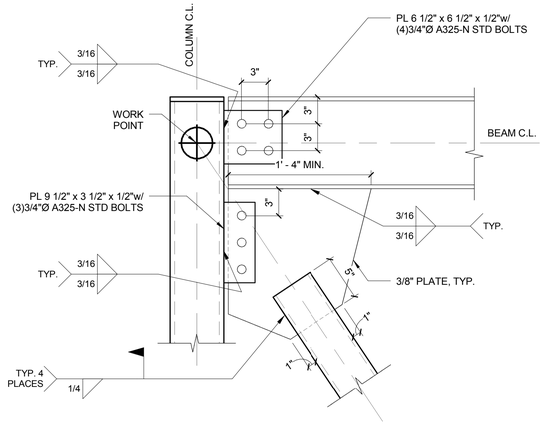


D5	BRACED FRAME-8
1/8" = 1'-0"	



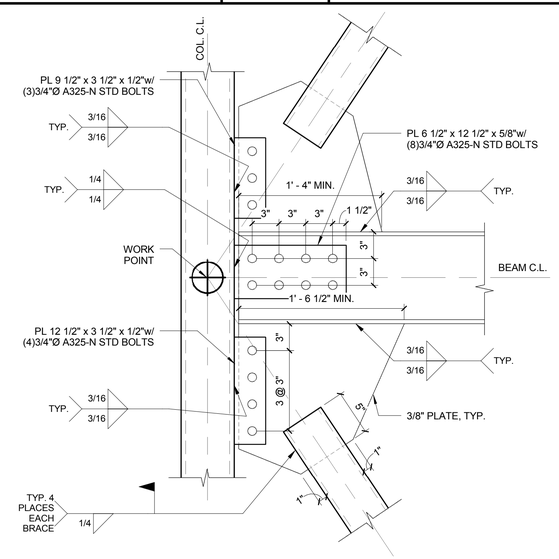
NOTE: SEE BRACED FRAME SCHEMATIC FOR BRACE SIZES, TYPICAL

D7	TYPICAL CHEVRON BRACE AT TOP CONNECTION
1 1/2" = 1'-0"	



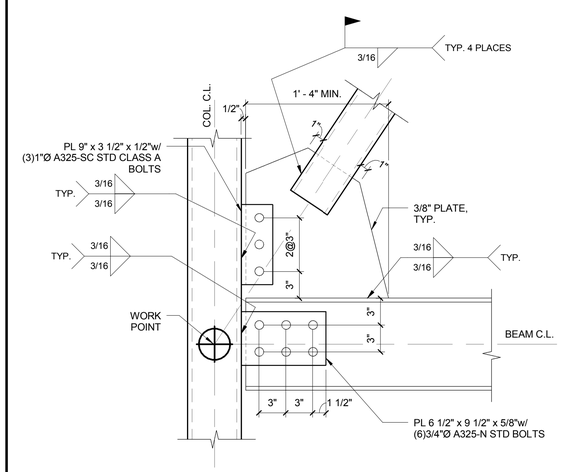
NOTE: SEE BRACED FRAME SCHEMATIC FOR BRACE SIZES, TYPICAL

A1	TYPICAL K-BRACE AT TOP CONNECTION
1 1/2" = 1'-0"	



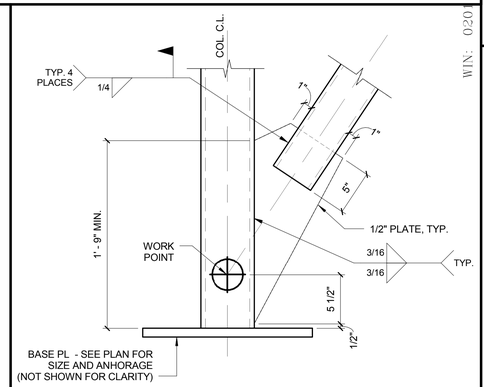
NOTE: SEE BRACED FRAME SCHEMATIC FOR BRACE SIZES, TYPICAL

A4	TYPICAL K-BRACE AT MIDDLE CONNECTION
1 1/2" = 1'-0"	



NOTE: SEE BRACED FRAME SCHEMATIC FOR BRACE SIZES, TYPICAL

A6	TYPICAL CHEVRON AT MIDDLE CONNECTION
1 1/2" = 1'-0"	



NOTE: SEE BRACED FRAME SCHEMATIC FOR BRACE SIZES, TYPICAL

A9	TYPICAL BRACE AT BASE CONNECTION
1 1/2" = 1'-0"	

ISSUED FOR BID

FEBRUARY 27, 2014

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE
COMMISSIONER:
CHIEF ENGINEER:

STATE OF MAINE
WILLIAM FALCHER
NO. 7435
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE
P.E. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

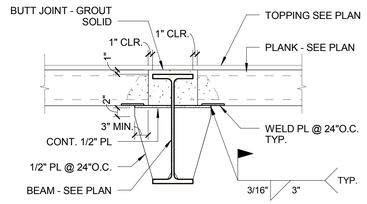
66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – BRACED FRAME SCHEMATICS

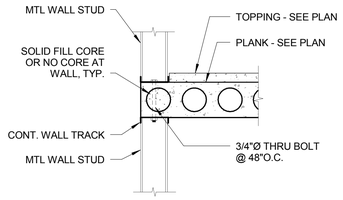
SHEET NUMBER
SF200

Username: -
Division: -
Date: -
Filename: -



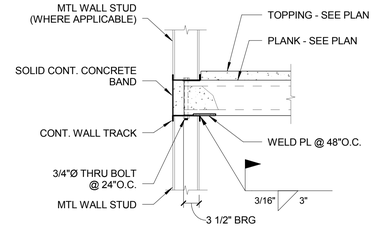
F1 TYPICAL PLANK BEARING ON RECESSED BEAM

3/4" = 1'-0"



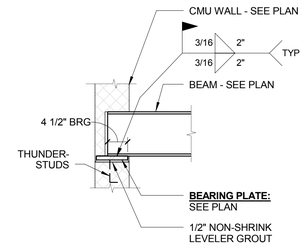
F3 EXTERIOR SIDE LAP ON METAL STUD

3/4" = 1'-0"



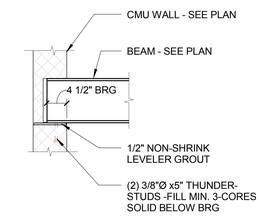
F6 EXTERIOR BEARING ON METAL STUD

3/4" = 1'-0"



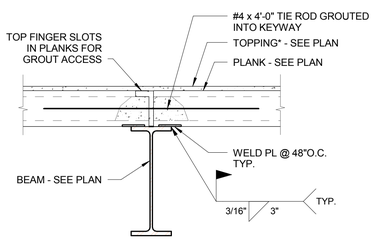
F8 BEAM POCKET w/BRG PL

3/4" = 1'-0"



F9 BEAM POCKET -NO BRG PL REQ'D

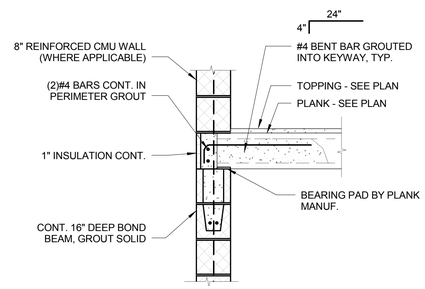
3/4" = 1'-0"



* NO TOPPING AT ROOF PLANK

E1 INTERIOR BEARING ON STEEL BEAM

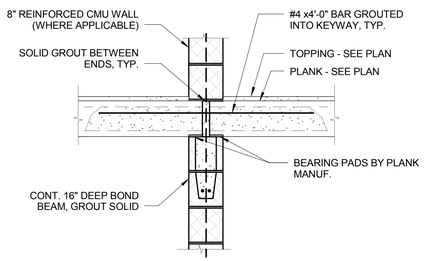
3/4" = 1'-0"



NOTE:
1. 3" MIN BEARING TYP.
2. SIM. AT CONCRETE WALLS
3. INTERIOR AND EXTERIOR FINISHES NOT SHOWN FOR CLARITY - COORDINATE WITH ARCHITECTURAL DRAWINGS

E3 TYP. PLANK AT EXT. CMU WALL

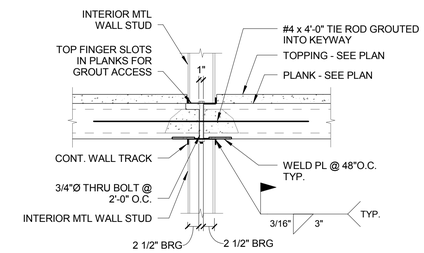
3/4" = 1'-0"



NOTE:
1. 3" MIN BEARING TYP.
2. INTERIOR FINISHES NOT SHOWN FOR CLARITY - COORDINATE WITH ARCHITECTURAL DRAWINGS

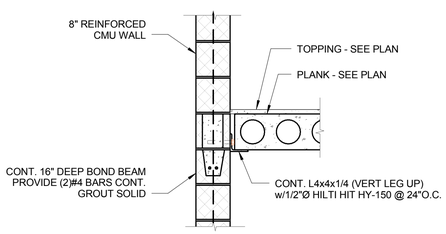
E6 TYP. PLANK AT INT. CMU WALL

3/4" = 1'-0"



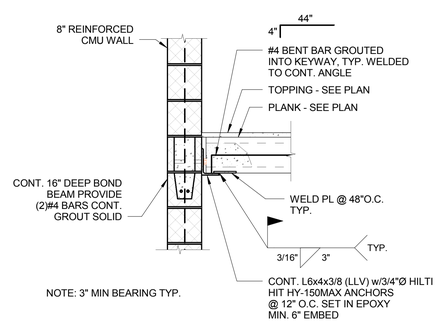
E8 INTERIOR BEARING ON 6" METAL STUD

3/4" = 1'-0"



C1 NON-BEARING PLANK AT CMU w/ANGLE

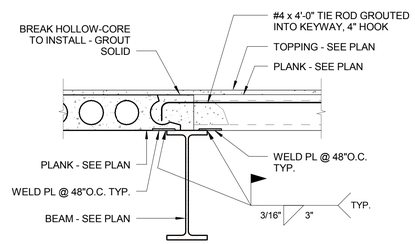
3/4" = 1'-0"



NOTE: 3" MIN BEARING TYP.

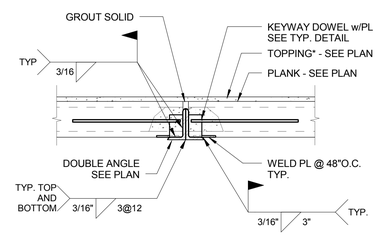
C3 PLANK BRG AT STAIR/ELEVATOR CMU WALL

3/4" = 1'-0"



C6 PLANK TRANSITION DETAIL AT STL BEAM

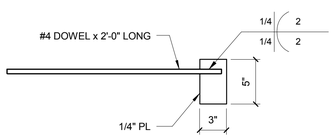
3/4" = 1'-0"



* NO TOPPING AT ROOF PLANK

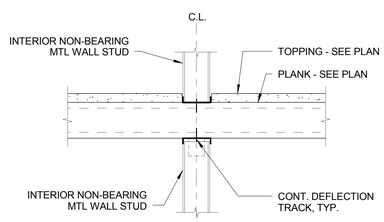
C8 INTERIOR BEARING ON DOUBLE ANGLE

3/4" = 1'-0"



A1 TYP. KEYWAY DOWEL/PL DETAIL

1 1/2" = 1'-0"



A3 INT. NON-BEARING METAL STUD

3/4" = 1'-0"

ISSUED FOR BID

FEBRUARY 27, 2014

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
T: 207.221.2260
F: 207.221.2266
Web: www.allied-eng.com

Allied Project No: 13057 | Cad File: 13057S.rvt

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
WILLIAM FALCHER
PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM

PROJECT MANAGER

DESIGNER - ALLIED ENG., INC.

CONSULTANT

PROJECT RESIDENT

CONTRACTOR

PROJECT COMPLETION DATE

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE

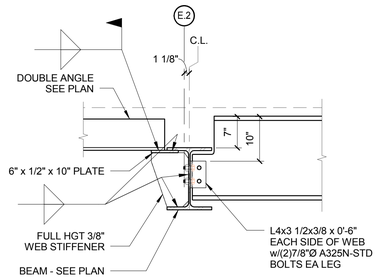
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – DETAILS

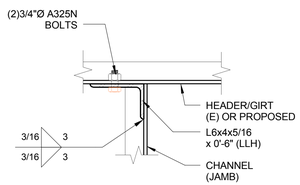
SHEET NUMBER

SF500

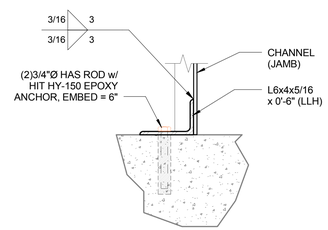
Filename: – Division: – Date: – Username: –



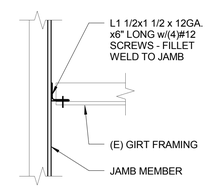
F1	DETAIL
3/4" = 1'-0"	



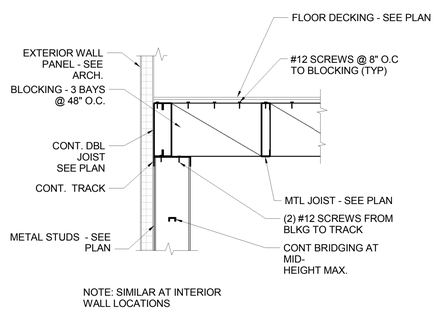
E1	TYPICAL CHANNEL JAMB AT TOP
1 1/2" = 1'-0"	



E3	TYPICAL CHANNEL JAMB AT BASE
1 1/2" = 1'-0"	

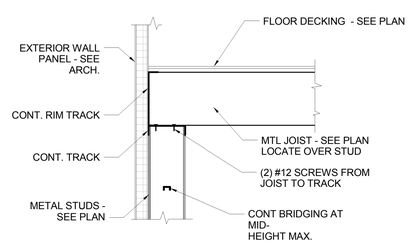


E6	TYPICAL ATTACHMENT OF (E) GIRT
1 1/2" = 1'-0"	



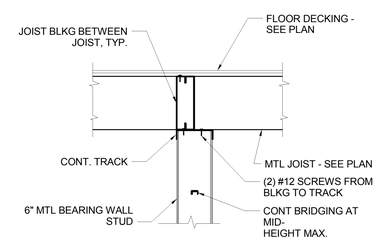
NOTE: SIMILAR AT INTERIOR
WALL LOCATIONS

C1	CFMF NON BEARING JOIST
3/4" = 1'-0"	

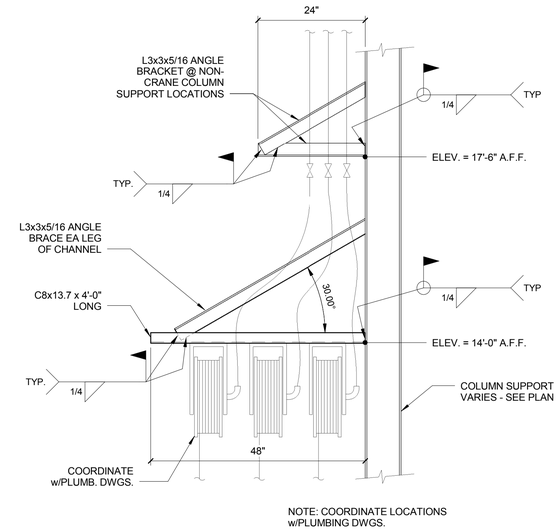


NOTE: SIMILAR AT INTERIOR
WALL LOCATIONS

C3	CFMF BEARING DETAIL
3/4" = 1'-0"	

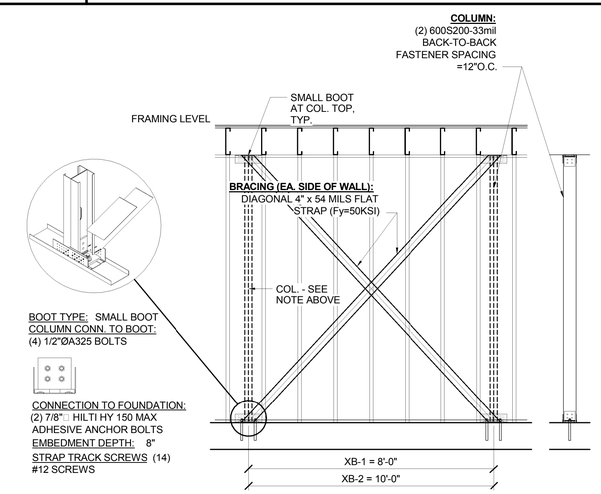


C6	CFMF AT INTERIOR BEARING WALL
3/4" = 1'-0"	

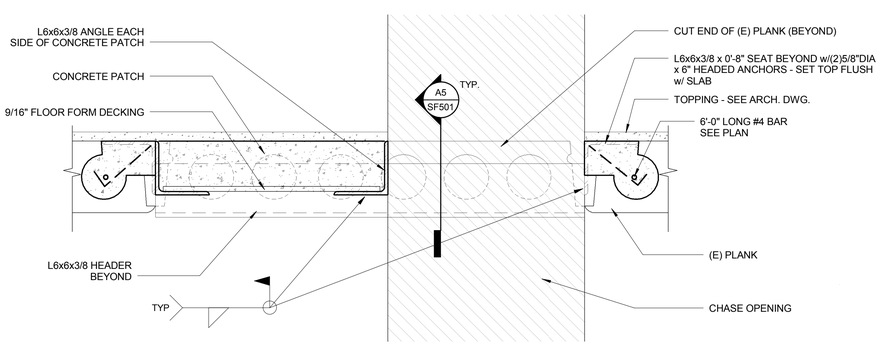


NOTE: COORDINATE LOCATIONS
w/PLUMBING DWGS.

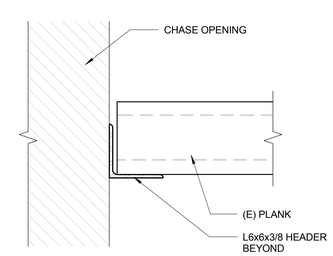
E8	TYPICAL HOSE REEL DETAIL
3/4" = 1'-0"	



C8	CMFM (X-BRACE) SCHEMATIC



A1	TYPICAL PLANK HEADER/INFILL DETAIL
1 1/2" = 1'-0"	



A5	DETAIL - REFER TO A1/SF501
1 1/2" = 1'-0"	

ISSUED FOR BID
FEBRUARY 27, 2014

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Structural Mechanical Electrical Commissioning
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Web: www.allied-eng.com

Allied Project No: 13057 | Cad File: 13057S.rvt

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE
COMMISSIONER:
CHIEF ENGINEER:

STATE OF MAINE
WILLIAM FALCHER
NO. 11415
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE
P.E. NUMBER
DATE FEBRUARY 27, 2014

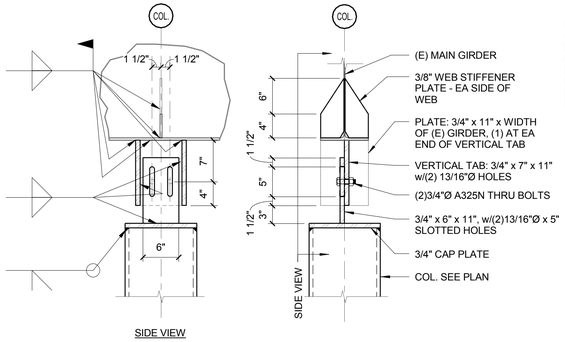
PROJECT INFORMATION
PROGRAM
PROJECT MANAGER
DESIGNER ALLIED ENG., INC.
CONSULTANT
PROJECT RESIDENT
CONTRACTOR
PROJECT COMPLETION DATE

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION
STRUCTURAL – DETAILS

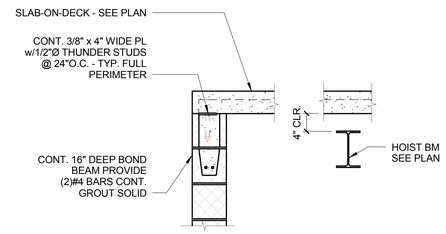
SHEET NUMBER
SF501

Username: –
Division: –
Date: –
Filename: –

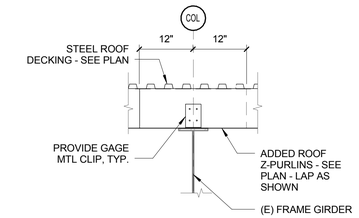


USE THIS DETAIL AT THE FOLLOWING COLUMN LOCATIONS:
[LINES 2 AND 3 @ A.61, B.11, B.49, B.94, C.71, D.01, D.51]
[LINE 4 @ A.61, B.11, B.49, B.95]
[LINE 5 @ A.3, A.8, B.4, B.85]
[LINE 6 @ B.9]
[LINE B.95 @ 7, 8, 9, 10, 11, 12]

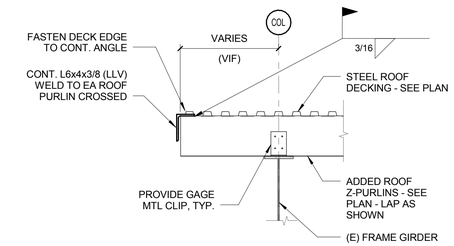
F1	TYPICAL DETAIL AT CRANE SUPPORT FRAMING
1" = 1'-0"	



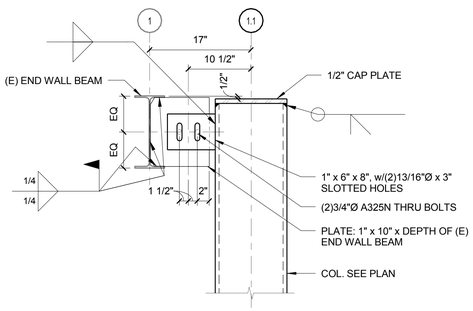
F5	ELEVATOR CAP DETAIL
3/4" = 1'-0"	



F7	DETAIL AT Z-PURLIN TO FRAME
3/4" = 1'-0"	

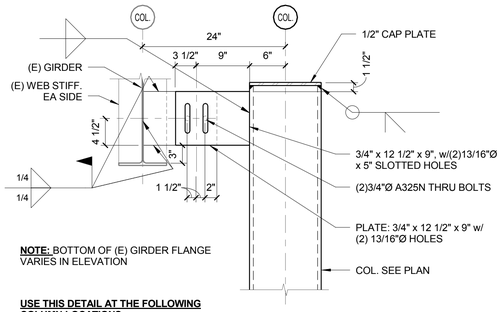


F9	DETAIL AT MAIN ROOF GABLE
3/4" = 1'-0"	



USE THIS DETAIL AT THE FOLLOWING COLUMN LOCATIONS:
[LINE 1.1 @ A.2, A.61, B.11, B.49, B.96, C.72, D.01, D.51]

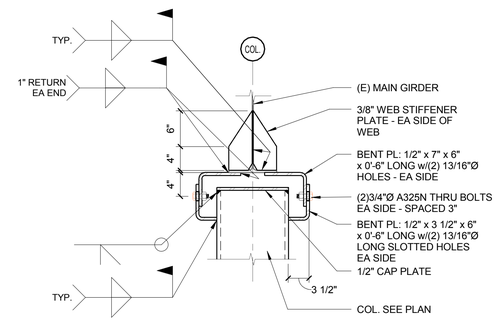
D1	TYPICAL DETAIL AT CRANE SUPPORT FRAMING
1" = 1'-0"	



NOTE: BOTTOM OF (E) GIRDER FLANGE VARIES IN ELEVATION

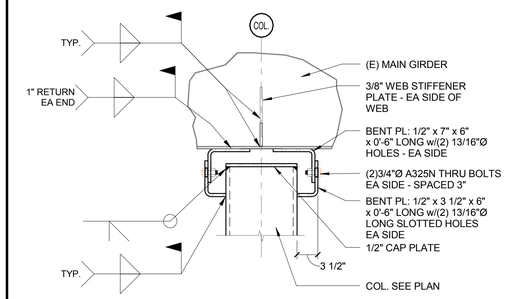
USE THIS DETAIL AT THE FOLLOWING COLUMN LOCATIONS:
[LINE 5.8 @ A.3, A.8, B.4, B.85]
[LINE 6.2 @ A.22, B]
[LINE 4.8 @ A.2]
[LINE B @ 7.2, 6.2, 9.2, 10.2, 11.1, 12.2]
[LINE 12.9 @ A.21, B, B.95]

D4	TYPICAL DETAIL AT CRANE SUPPORT FRAMING
1" = 1'-0"	



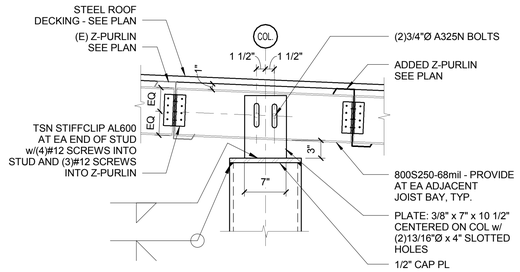
USE THIS DETAIL AT THE FOLLOWING COLUMN LOCATIONS:
[LINE A.21 @ 7, 8, 9, 10, 11, 12]

D6	TYPICAL DETAIL AT CRANE SUPPORT FRAMING
1" = 1'-0"	



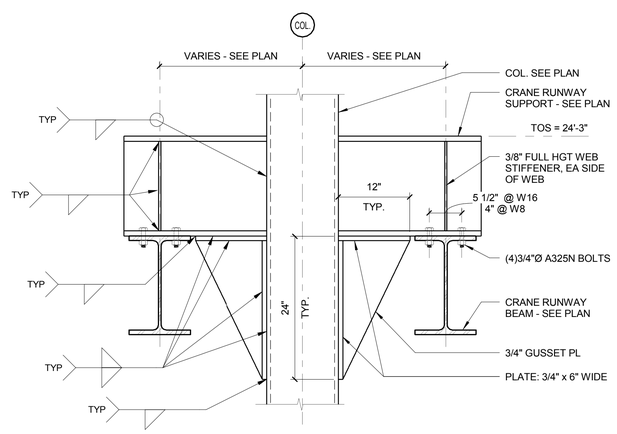
USE THIS DETAIL AT THE FOLLOWING COLUMN LOCATIONS:
[LINE A.2 @ 2, 3, 4]
[LINE D.88 @ 2]

E9	TYPICAL DETAIL AT CRANE SUPPORT FRAMING
1" = 1'-0"	



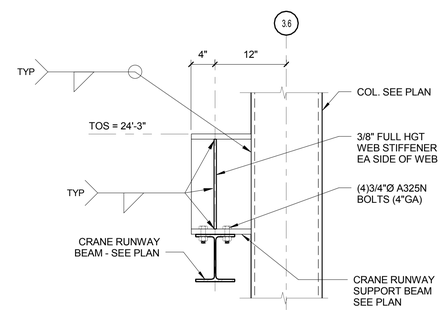
USE THIS DETAIL AT THE FOLLOWING COLUMN LOCATIONS:
[LINE C.4 @ 3.8]
[LINE 3.6 @ C.71, D.01, D.51]

A1	TYPICAL DETAIL AT CRANE SUPPORT FRAMING
1" = 1'-0"	



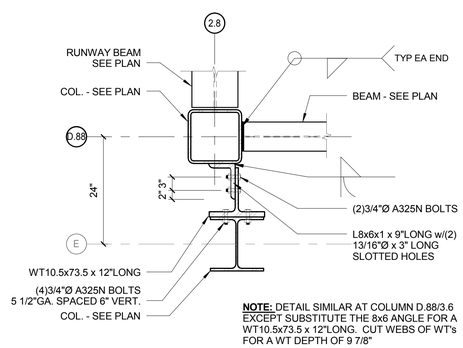
USE THIS DETAIL AT ALL CRANE COLUMN LOCATIONS EXCEPT FOR THE FOLLOWING:
[LINE D.88 @ 2.8, 3.6]
LINE 3.6 @ C.71, D.01, D.51]
[LINE C.4 @ 3.8]
LINE B.9 @ 6]
[LINE A.22 @ 6.2]

A4	TYPICAL DETAIL AT CRANE SUPPORT FRAMING
1" = 1'-0"	



TYPICAL AT COLUMNS:
C.71, D.01 AND D.51

A7	TYPICAL DETAIL AT CRANE SUPPORT FRAMING
1" = 1'-0"	



NOTE: DETAIL SIMILAR AT COLUMN D.88/3.6 EXCEPT SUBSTITUTE THE 8x6 ANGLE FOR A WT10.5x73.5 x 12"LONG. CUT WEBS OF WT's FOR A WT DEPTH OF 9 7/8"

B9	PLANVIEW DETAIL
3/4" = 1'-0"	

ISSUED FOR BID

FEBRUARY 27, 2014

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE
COMMISSIONER:
CHIEF ENGINEER:

STATE OF MAINE
WILLIAM FALCHER
NO. 7435
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE
P.E. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION
PROGRAM
PROJECT MANAGER
DESIGNER
CONSULTANT
PROJECT RESIDENT
CONTRACTOR
PROJECT COMPLETION DATE

ALLIED ENG., INC.

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

STRUCTURAL – DETAILS

SHEET NUMBER
SF502

Filename: Date: Division: Username:

PIPE ELBOW TURNED DN
PIPE ELBOW TURNED UP
PIPING TEE DOWN
PIPING TEE UP
PIPE RISER
45° ELBOW DOWN
PIPING TO BE REMOVED
CAPPED PIPING
CAPPED BELOW FINISHED FLOOR
CONCENTRIC REDUCER
ECCENTRIC REDUCER
DIRECTION OF FLOW
PIPING PITCHES DOWN
PIPE GUIDE
EXPANSION JOINT
PIPE ANCHOR
UNION
FLANGED CONNECTION
BACKFLOW PREVENTER
FLEXIBLE CONNECTION
SHUT-OFF/ISOLATION VALVE REFER TO SPECIFICATIONS
GATE VALVE ~ OUTSIDE SCREW & YOKE (OS&Y)

GLOBE VALVE
LOCKABLE BALL VALVE
PLUG VALVE
2-WAY CONTROL VALVE
3-WAY CONTROL VALVE
LOCK & SHIELD VALVE
CHECK VALVE
BALANCING VALVE (CIRCUIT SETTER)
AIR VENT ~ REFER TO SPECIFICATIONS
STRAINER WITH BLOWDOWN VALVE AND CAP
EXPANSION VALVE (AUTOMATIC)
RELIEF/SAFETY VALVE
PRESSURE GAUGE WITH COCK
SIGHT GLASS
PRESSURE REDUCING VALVE
FLOW SWITCH
SELF-CONTAINED TEMP. CONTROL VALVE WITH REMOTE SENSOR

STEAM TRAP (FLOAT & THERMOSTATIC INDICATED T.T. = THERMOSTATIC TRAP, B.T. = BUCKET TRAP)
PUMP ~ POINT OF TRIANGLE INDICATES DIRECTION OF FLOW
GAS SHUT-OFF VALVE
HOSE END DRAIN VALVE W/CAP
TEMPERATURE/PRESSURE TAP (PETE'S PLUG)
THERMOMETER WITH COCK
SOLENOID VALVE
ORIFICE FLOWMETER
DIFFERENTIAL PRESSURE TRANSMITTER
HUMIDIFIER (DUCT/AHU MOUNTED)
FINNED TUBE BASEBOARD
HOSE BIB/WALL HYDRANT
FLOOR CLEANOUT
FUSIBLE LINK VALVE
WALL CLEANOUT
AQUASTAT

EXPANSION LOOP
EXPANSION LOOP (BRAIDED/MANUFACTURED)
FLOOR DRAIN
SHOCK ABSORBER (WATER HAMMER ARRESTER)
FIRE DEPARTMENT CONNECTION
FREE STANDING FIRE DEPARTMENT CONNECTION
WATER GONG
DUCTWORK ~ FIRST DIMENSION IS SIDE SHOWN IN INCHES S= SUPPLY, R= RETURN, E= EXHAUST, OA= OUTSIDE AIR F.O. = FLAT OVAL
ACCOUSTICAL LINING (DUCT DIMENSION FOR NET FREE AREA)
DUCTWORK TO BE REMOVED
SINGLE LINE DUCTWORK TO BE REMOVED
DUCT TRANSITION
SQUARE TO ROUND TRANSITION
FLEX DUCT ~ DOUBLE LINE
FLEX DUCT ~ SINGLE LINE

CHANGE IN ELEVATION (UP/DOWN, RISE OR DROP)
SUPPLY DUCT TURNED UP/DN
RETURN DUCT TURNED UP/DN
EXHAUST DUCT TURNED UP/DN
ROUND DUCT TURNED UP/DN
MITERED DUCT ELBOW W/TURNING VANES
RADIUS DUCT ELBOW
DUCT/PIPE CAP (SINGLE/DOUBLE LINE)
VOLUME DAMPER
FIRE DAMPER
SMOKE DAMPER
FIRE AND SMOKE DAMPER
BACKDRAFT DAMPER

MOTORIZED DAMPER
FLEXIBLE CONNECTION
TEMPERATURE SENSOR OR THERMOSTAT (AS SPECIFIED)
HUMIDISTAT OR HUMIDITY SENSOR (AS SPECIFIED)
CARBON DIOXIDE SENSOR
CARBON MONOXIDE SENSOR
ACCESS PANEL
DUCT SMOKE DETECTOR
ROOFTOP EXHAUST FAN
ROOFTOP SUPPLY FAN
CEILING DIFFUSER ~ 4-WAY BLOW
CEILING DIFFUSER ~ 3-WAY BLOW
CEILING DIFFUSER ~ 2-WAY BLOW
CEILING DIFFUSER ~ CORNER BLOW
CEILING RETURN GRILLE
CEILING EXHAUST GRILLE
POINT OF CONNECTION EXISTING TO NEW
DIRECTION OF AIR FLOW

REGISTER, GRILLE & DIFFUSER TAG
DIFFUSER, REGISTER OR GRILLE No.
QUANTITY
CFM AIR FLOW

FINTUBE TAG
FINTUBE No.
LENGTH
GPM

VAV TAG
VAV No.
MINIMUM CFM
MAXIMUM CFM
GPM

EQUIPMENT TAG
TYPE DESIGNATOR
NUMBER

EQUIPMENT TAG (ON FLOOR/ROOF ABOVE)
TYPE DESIGNATOR
NUMBER

DETAIL REFERENCE SYMBOL
DETAIL No.
SHEET DETAIL LOCATED ON

SECTION REFERENCE SYMBOL
SECTION No.
SHEET SECTION LOCATED ON

E1 SYMBOLS LEGEND

NONE

AW	ACID WASTE
ATV	AIR RELIEF
BBD	BOILER BLOWDOWN
C	CONDENSATE (HVAC DRAIN PAN)
C	CONDENSATE (HVAC DRAIN PAN - BELOW FLOOR)
CA	COMPRESSED AIR
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CWS	CONDENSER WATER SUPPLY
CWR	CONDENSER WATER RETURN
—	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC WATER RECIRC.
D	DRAIN
FM	PUMP FORCE MAIN
FOF	FUEL OIL FILL
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL TANK VENT
FW	FEEDWATER
GR	GLYCOL RETURN
GS	GLYCOL SUPPLY
H	HUMIDIFICATION LINE
H2	HYDROGEN GAS
HPWR	HEAT PUMP WATER RETURN
HPWS	HEAT PUMP WATER SUPPLY
HPC	HIGH-PRESSURE CONDENSATE
HPS	HIGH-PRESSURE STEAM
HTWR	HIGH-TEMP. HOT WATER RETURN
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
IND	INDUSTRIAL WASTE
IW	INDIRECT WASTE
LN	LIQUID NITROGEN
LOX	LIQUID OXYGEN
LPC	LOW-PRESSURE CONDENSATE
LP	LIQUID PETROLEUM GAS
LPR	LOW-PRESSURE CONDENSATE
LPS	LOW-PRESSURE STEAM
MA	MEDICAL AIR
MPR	MEDIUM-PRESSURE CONDENSATE
MPS	MEDIUM-PRESSURE STEAM
MU	MAKEUP WATER
N2	NITROGEN
NG	NATURAL GAS
NO	NITROUS OXIDE
NPW	NON-POTABLE WATER
OX	OXYGEN
PC	PUMPED CONDENSATE
PCWR	PROCESSED COLD WATER RETURN
PCWS	PROCESSED COLD WATER SUPPLY
RD	REFRIGERANT DISCHARGE
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
RW	RAIN WATER ABOVE FLOOR
RW	RAIN WATER BELOW GRADE
	SANITARY SOIL WASTE (ABOVE FLOOR)
	SANITARY SOIL WASTE (BELOW FLOOR)
	SANITARY SOIL VENT (ABOVE FLOOR)
	SANITARY SOIL VENT (BELOW FLOOR)
SV	SANITARY WASTE & VENT COMBINATION
SP	SPRINKLER MAIN PIPING
SWR	SOLAR WATER RETURN
SWS	SOLAR WATER SUPPLY
TP	TRAP PRIMER PIPING ABOVE GRADE
TP	TRAP PRIMER PIPING BELOW GRADE
TWR	TEMPERED RETURN WATER
TWS	TEMPERED SUPPLY WATER
VAC	VACUUM (AIR)
VC	VACUUM CLEANING (HOUSE)
VPD	VACUUM PUMP DISCHARGE

A1 PIPING LINETYPE LEGEND

NONE

AAV	AUTOMATIC AIR VENT	DN	DOWN	LP	LIQUID PETROLEUM GAS	TOD	TOP OF DUCT
AC	ABOVE CEILING	DS	DOWNSPOUT	LPR	LOW PRESSURE STEAM RETURN	TP	TRAP PRIMER
ACC	AIR COOLED CONDENSER	DT	DROP AND TRANSITION	LPS	LOW PRESSURE STEAM SUPPLY	TSP	TOTAL STATIC PRESSURE
ACU	AIR CONDITIONING UNIT	DV	DRAIN VALVE	MAX	MAXIMUM	TTS	TIGHT TO STEEL
ADA	AMERICANS WITH DISABILITIES ACT	DWG	DRAWING	MBH	1000 BTU/HR.	TV	TURNING VANE
AD	ACCESS DOOR	EA	EXHAUST AIR	MFR	MANUFACTURER	TW	TEMPERED WATER
AE	ACID EXHAUST	EF	EXHAUST FAN	MIN	MINIMUM	TYP	TYPICAL
AW	ACID WASTE	EG	EXHAUST GRILLE	MOD	MOTOR OPERATED DAMPER	UH	UNIT HEATER
AFF; A.F.F.	ABOVE FINISHED FLOOR	ELEV	ELEVATION	MPG	MEDIUM PRESSURE GAS	UIC	UP IN CHASE
AHU	AIR HANDLING UNIT	ELONG	ELONGATE	MPV	MULTI-PURPOSE VALVE	UIW	UP IN WALL
AP	ACCESS PANEL	ENC	ENCLOSURE	MTD	MOUNTED	UV	UNIT VENTILATOR
APPROX	APPROXIMATE; APPROXIMATELY	ER	EXHAUST REGISTER	MTG	MOUNTING	V	VENT
APMR	AS PER MFR'S RECOMMENDATIONS	ESP	EXTERNAL STATIC PRESSURE	MUA	MAKE UP AIR	VAC	VACUUM
ATC	AUTOMATIC TEMPERATURE CONTROL	ET	EXPANSION TANK	N.C.	NORMALLY CLOSED	VB	VACUUM BREAKER
AV	AIR VENT	(E)	EXISTING	N.O.	NORMALLY OPEN	VCFF	VALVE & CAP FOR FUTURE
BC	BALANCING COCK	F & T	FLOAT AND THERMOSTATIC	NIC	NOT IN CONTRACT	VD	VOLUME DAMPER - MANUAL
BDD	BACKDRAFT DAMPER	FBO	FURNISHED BY OTHERS	NPT	NATIONAL PIPE THREAD	VLV	VALVE
BG	BLAST GATE	FBP	FACE AND BYPASS	NTS	NOT TO SCALE	VS	VENT STACK
BF	BARRIER FREE	FC	FLEXIBLE CONNECTION	OA	OUTSIDE AIR	VTR	VENT THROUGH ROOF
BFP	BACKFLOW PREVENTER	FCO	FLOOR CLEANOUT	OBD	OPPOSED BLADE DAMPER	W	WASTE
BHP	BRAKE HORSEPOWER	FD-#	FLOOR DRAIN TAG	OD	OUTSIDE DIAMETER	W/	WITH
BLDG	BUILDING	FD	FIRE DAMPER	OED	OPEN ENDED DUCT	WB	WET BULB TEMPERATURE, °F
BOD	BOTTOM OF DUCT	FIN	FINISH	P-#	PLUMBING FIXTURE TAG	WCO	WALL CLEANOUT
B.T.U.	BRITISH THERMAL UNIT	FL	FLOOR	PD	PUMPED DISCHARGE	WH	WATER HEATER
C; CONV.	CONVECTOR	FTG	FOOTING	PRS	PRESSURE REDUCING STATION	WHYD	WALL HYDRANT
CCW	COUNTER CLOCKWISE	FTR	FINNED TUBE RADIATION	PRV	PRESSURE REDUCING VALVE	NTS	NOT TO SCALE
CFF	CAPPED FOR FUTURE	FS	FLOW SWITCH	RA	RETURN AIR	Ø	DIAMETER
CFM	CUBIC FEET PER MINUTE	FM	FORCE MAIN	RD	ROOF DRAIN	@	AT
CLG	CEILING	GC	GENERAL CONTRACTOR	REC	RECOMMENDATION	&	AND
CO	CLEANOUT	GPM	GALLONS PER MINUTE	REG	REGULAR	%	PERCENT
CM	CONSTRUCTION MANAGER	GV	GRAVITY VENTILATOR	RF	RETURN FAN		
CNTR	COUNTER; COUNTERTOP	H	HUMIDIFIER	RG	RETURN GRILLE		
CONN	CONNECT; CONNECTION	HB	HOSE BIB	RHC	REHEAT COIL		
CONT	CONTINUE; CONTINUATION	HC; HDC	HANDICAP ACCESS	RM	ROOM		
COORD	COORDINATE	HGT, HT.	HEIGHT	RPZ	REDUCED PRESSURE BFP		
CORR	CORRIDOR	HP	HEAT PUMP	RR	RETURN REGISTER		
CR	CHEMICAL RESISTING	HRU	HEAT RECOVERY UNIT	RV	RELIEF VALVE		
CT	COOLING TOWER	HTR	HEATER	RW	RAIN WATER		
CTE	CONNECT TO EXISTING	H & V	HEATING AND VENTILATION	S	SUPPLY AIR		
CTR	CENTER	HVAC	HEATING, VENTILATING, & AIR COND.	SA-" "	SHOCK ABSORBER OF PDI SIZE (" ") AS INDICATED		
CTRLN	CENTERLINE	HW	HOT WATER	SCV	SELF CONTAINED VALVE		
CU	COPPER	HWR	HOT WATER RETURN	SD	SMOKE DAMPER		
CUH	CABINET UNIT HEATER	HWS	HOT WATER SUPPLY	SF	SUPPLY FAN		
C.V.	CONTROL VALVE	HX	HEAT EXCHANGER	SG	SUPPLY GRILLE		
CW	COLD WATER/CLOCKWISE	ID	INSIDE DIAMETER	SGL	SINGLE		
DB	DRY BULB TEMPERATURE, °F	IN WG	INCHES WATER GAUGE	SHT	SHEET		
DC	DOUBLE CONTAINED	INCL	INCLUDING	SPLR	SPRINKLER		
DDC	DIRECT DIGITAL CONTROL	INV EL	INVERT ELEVATION	SQ FT; S. F.	SQUARE FEET		
DET	DETAIL	IPS	IRON PIPE SIZE	SR	SUPPLY REGISTER		
DIA	DIAMETER	KE-#	KITCHEN EQUIPMENT NUMBER	S/O	SHUT OFF		
DIC	DOWN IN CHASE	LD	LINEAR DIFFUSER	S.S.	STAINLESS STEEL		
DIW	DOWN IN WALL	LE-#	SCIENCE LAB EQUIPMENT NUMBER	TD	TRENCH DRAIN		
				TG	TRANSFER GRILLE		

A4 ABBREVIATIONS

NONE

NOTE

ALL GENERAL NOTES, SYMBOL LEGENDS, AND DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL PLUMBING AND HVAC DRAWINGS FOR THIS PROJECT. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION INTO THE DESIGN.

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FEBRUARY 27, 2014

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www.allied-eng.com

Allied Project No: 13057 Cad File: 13057P.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE
COMMISSIONER:
CHIEF ENGINEER:

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

SIGNATURE
ARCH. LIN. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION
PROGRAM
PROJECT MANAGER
DESIGNER: ALLIED ENG., INC.
CONSULTANT
PROJECT RESIDENT
CONTRACTOR
PROJECT COMPLETION DATE

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

PLUMBING AND HVAC NOTES, LEGEND AND ABBREVIATIONS

SHEET NUMBER
PL000

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LEGEND:

- ZONE 1
- ZONE 2

NOTE:

OPEN FLOOR AREAS NOT CROSSHATCHED ON THIS DRAWING ARE COVERED ON THE UPPER LEVEL FIRE PROTECTION PLAN FP101.

KEYED NOTES:

1. PROVIDE SPRINKLER COVERAGE BELOW OVERHEAD DOOR TRAVEL AS REQUIRED BY NFPA 13.
2. FIRE PROTECTION WITHIN RELOCATED PAINT BOOTH/ MIXING ROOM IS NIC. (E)ANSUL SYSTEM SHALL BE RELOCATED WITH THE BOOTH. OUTSIDE OF THE SCOPE OF THIS CONTRACT.
3. PROVIDE SPRINKLER COVERAGE BELOW HARD CEILING IN THIS AREA.

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PROJECT KEY PLAN

PLAN NORTH

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SIGNATURE

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CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

FIRE PROTECTION PLAN ~ FIRST FLOOR

SHEET NUMBER

FP100

A1	FIRE PROTECTION PLAN ~ FIRST FLOOR
1/16" = 1'=0"	

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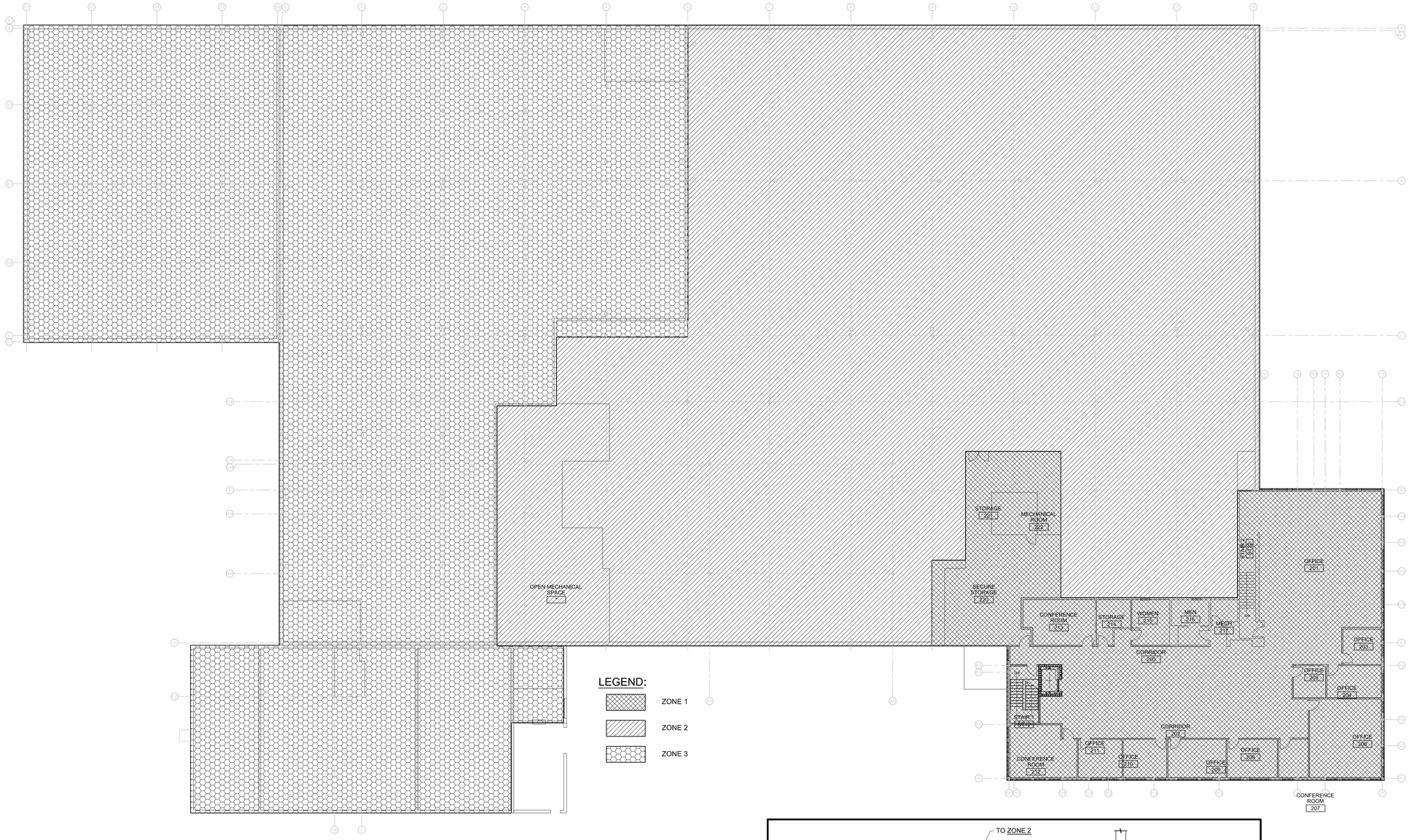

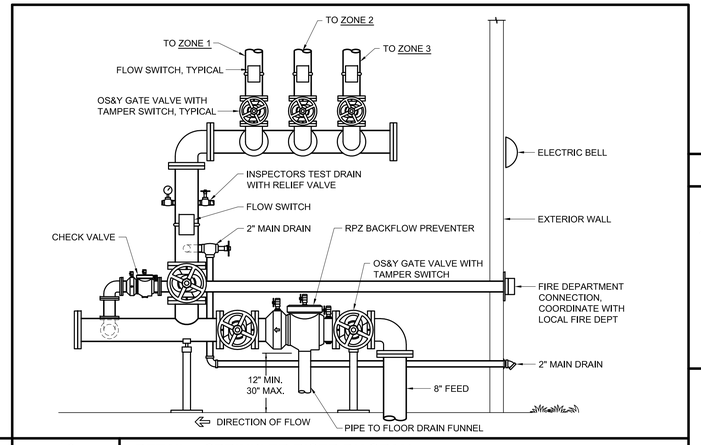

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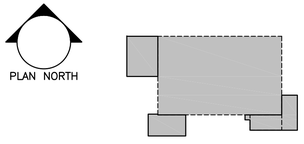
FEBRUARY 27, 2014

PROJECT KEY PLAN



A1	FIRE PROTECTION PLAN ~ SECOND FLOOR
1/16" = 1'=0"	
A6	DETAIL ~ SPRINKLER RISER DIAGRAM
NOT TO SCALE	

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SIGNATURE

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DATE FEBRUARY 27, 2014

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	
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CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

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66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

FIRE PROTECTION PLAN ~ SECOND FLOOR

SHEET NUMBER

FP101

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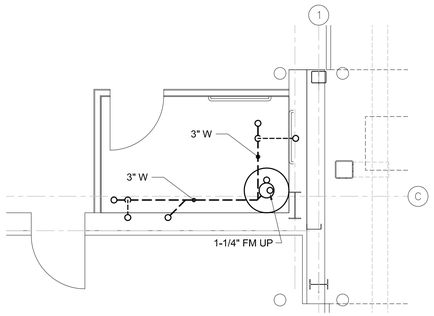
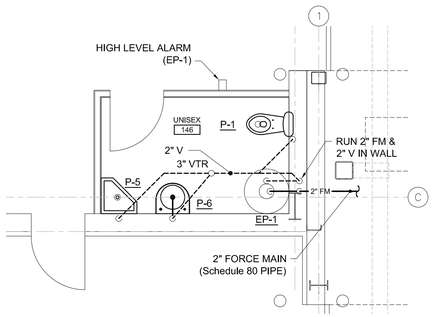
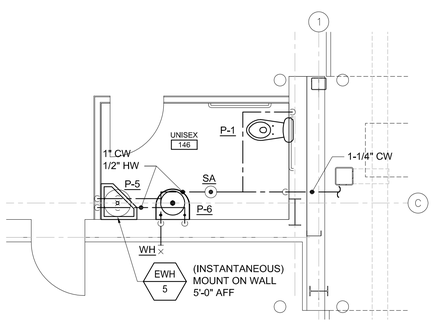


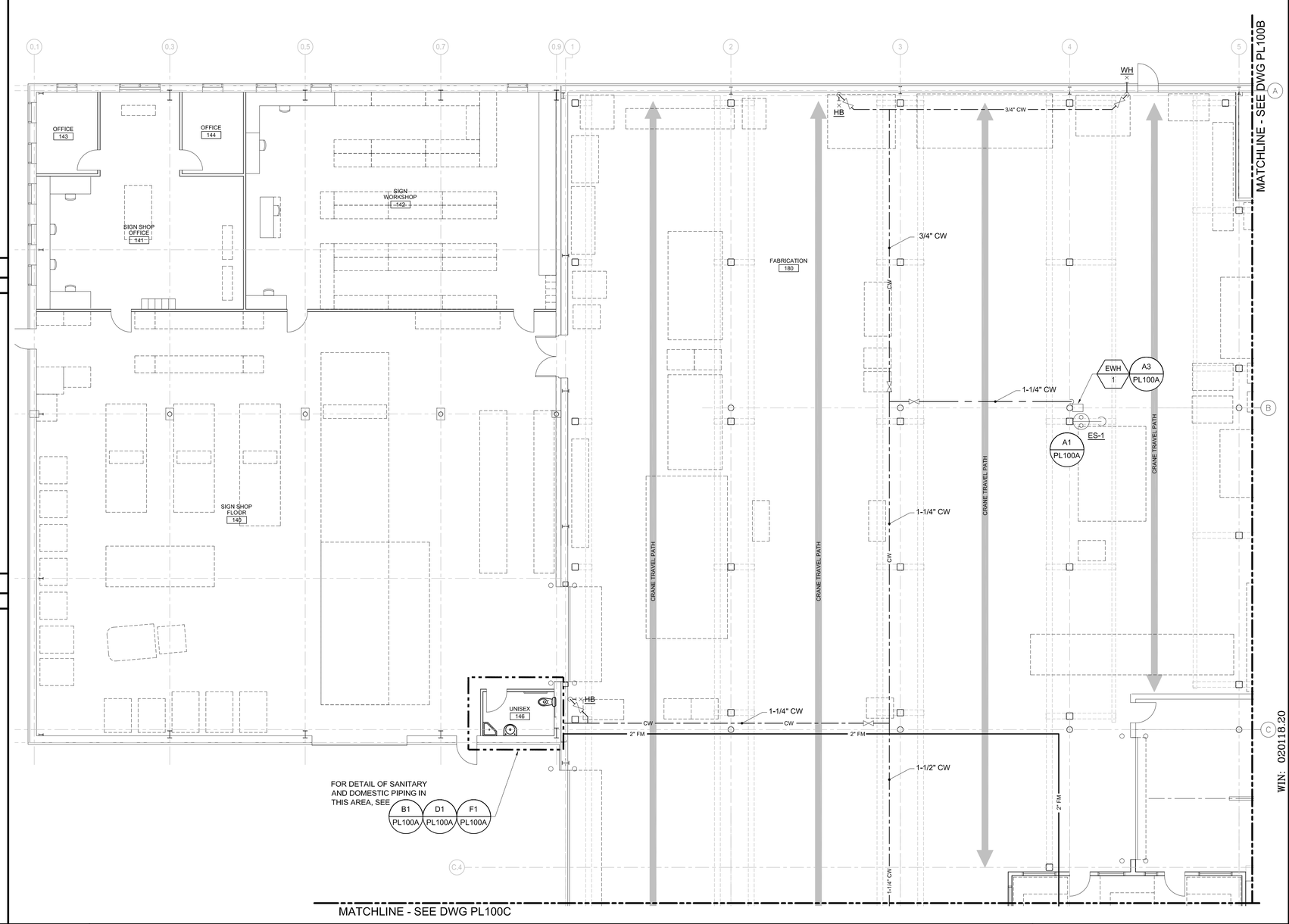
F1	DETAIL ~ SANITARY PIPING PART PLAN - BELOW SLAB
1/4" = 1'-0"	TOILET 146



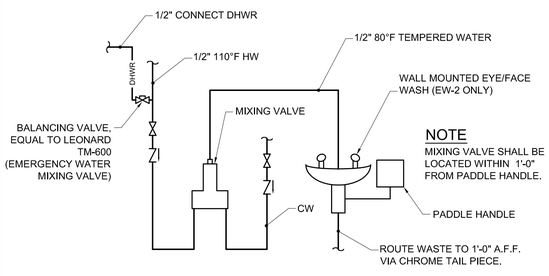
D1	DETAIL ~ SANITARY PIPING PART PLAN - ABOVE SLAB
1/4" = 1'-0"	TOILET 146



B1	DETAIL ~ DOMESTIC PIPING PART PLAN
1/4" = 1'-0"	TOILET 146

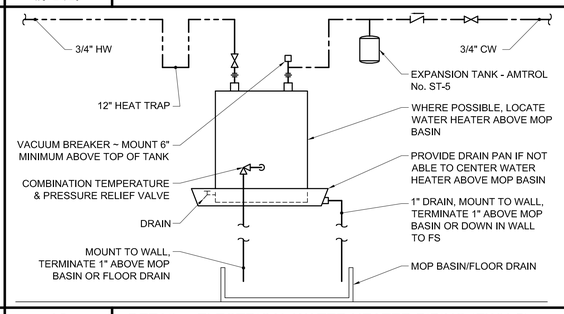


B3	PLUMBING PART PLAN ~ FIRST FLOOR - AREA A
1/8" = 1'=0"	



NOTE
MIXING VALVE SHALL BE LOCATED WITHIN 1'-0" FROM PADDLE HANDLE.

A1	DETAIL ~ EMERGENCY EYEWASH PIPING
NOT TO SCALE	



A3	DETAIL ~ ELECTRICAL WATER HEATER PIPING (EWH-5)
NOT TO SCALE	

PLUMBING FIXTURE SCHEDULE

TAG	DESCRIPTION	BRANCH SIZES				NOTES
		CW	HW	VENT	WASTE	
P-1	WATER CLOSET-FLUSH VALVE, FLOOR MOUNT	1"	-----	1-1/2"	3"	
P-2	URINAL - FLUSH VALVE - 1/8 GAL/FLUSH	3/4"	-----	1-1/2"	2"	
P-3	DOUBLE ONE PIECE COUNTER MOUNT LAVATORY	1/2"	1/2"	1-1/2"	1-1/2"	
P-4	KITCHEN SINK	1/2"	1/2"	1-1/2"	1-1/2"	
P-5	MOP/SERVICE BASIN	3/4"	3/4"	1-1/2"	3"	PROVIDE CHECK VALVES AT WATER INLETS
P-6	WALL MOUNTED LAVATORY	1/2"	1/2"	1-1/2"	1-1/2"	
P-7	ADA HAND WASHING STATION	1/2"	1/2"	1-1/2"	2"	
WC-1	ELECTRIC WATER COOLER ~ BARRIER FREE WITH BOTTLE FILL	1/2"	-----	1-1/4"	1-1/2"	
ES-1 TO 4	EMERGENCY EYE/FACE WASH / SHOWER - WALL MOUNTED	3/4"	3/4"	-----	-----	TEMPERING VALVE WITH 3/4" INLETS AND OUTLET
WHYD	WALL HYDRANT	3/4"	-----	-----	-----	
HB	HOSE BIBB	1/2"	-----	-----	-----	
DF	WATER COOLER W/ BOTTLE FILL					

A6	PLUMBING FIXTURE SCHEDULE
NONE	

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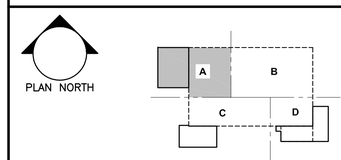

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Allied Project No: 13057 Cad File: 13057P.DWG

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COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	-
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

PLUMBING PART PLAN
~
FIRST FLOOR – AREA A

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SHEET NUMBER
PL100A

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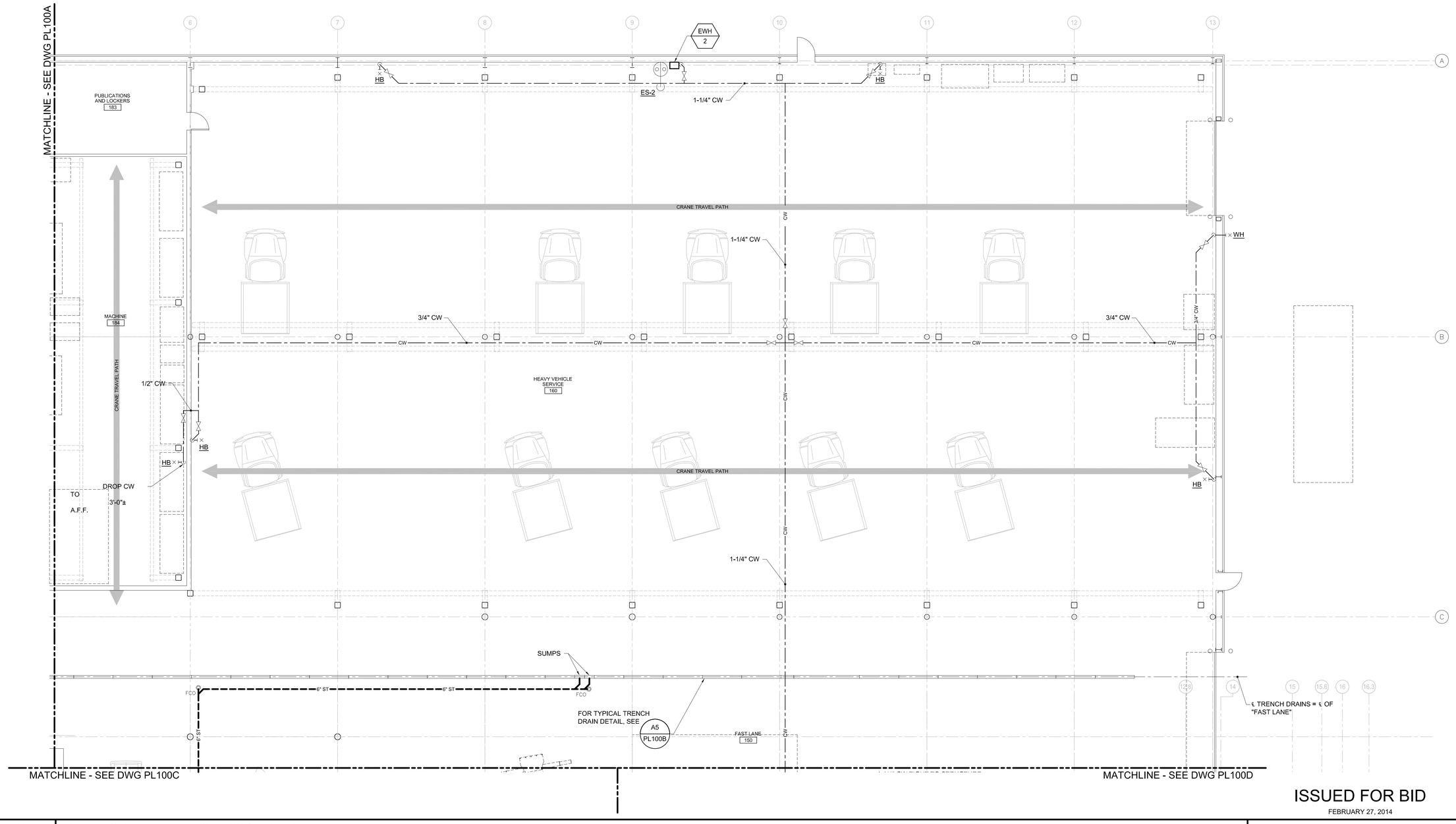

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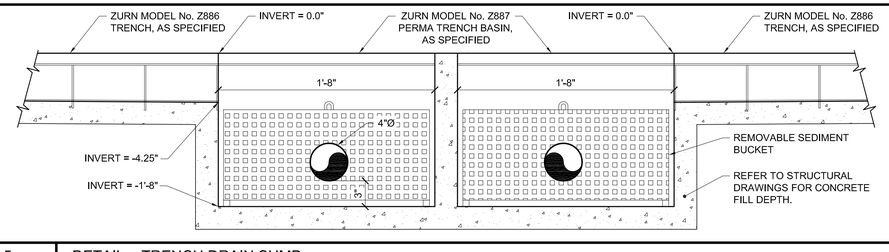
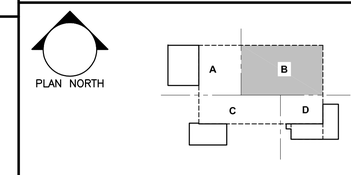
B1	PLUMBING PART PLAN ~ FIRST FLOOR - AREA B
1/8" = 1'=0"	



A1	-
-	

A5	DETAIL ~ TRENCH DRAIN SUMP
NOT TO SCALE	

PROJECT KEY PLAN



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DEPARTMENT OF TRANSPORTATION

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COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE · ANTHONY S. DAVIS No. 8834 · LICENSED PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

WIN: 020118.20

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	-
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	-

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

PLUMBING PART PLAN
~ FIRST FLOOR – AREA B

SHEET NUMBER
PL100B

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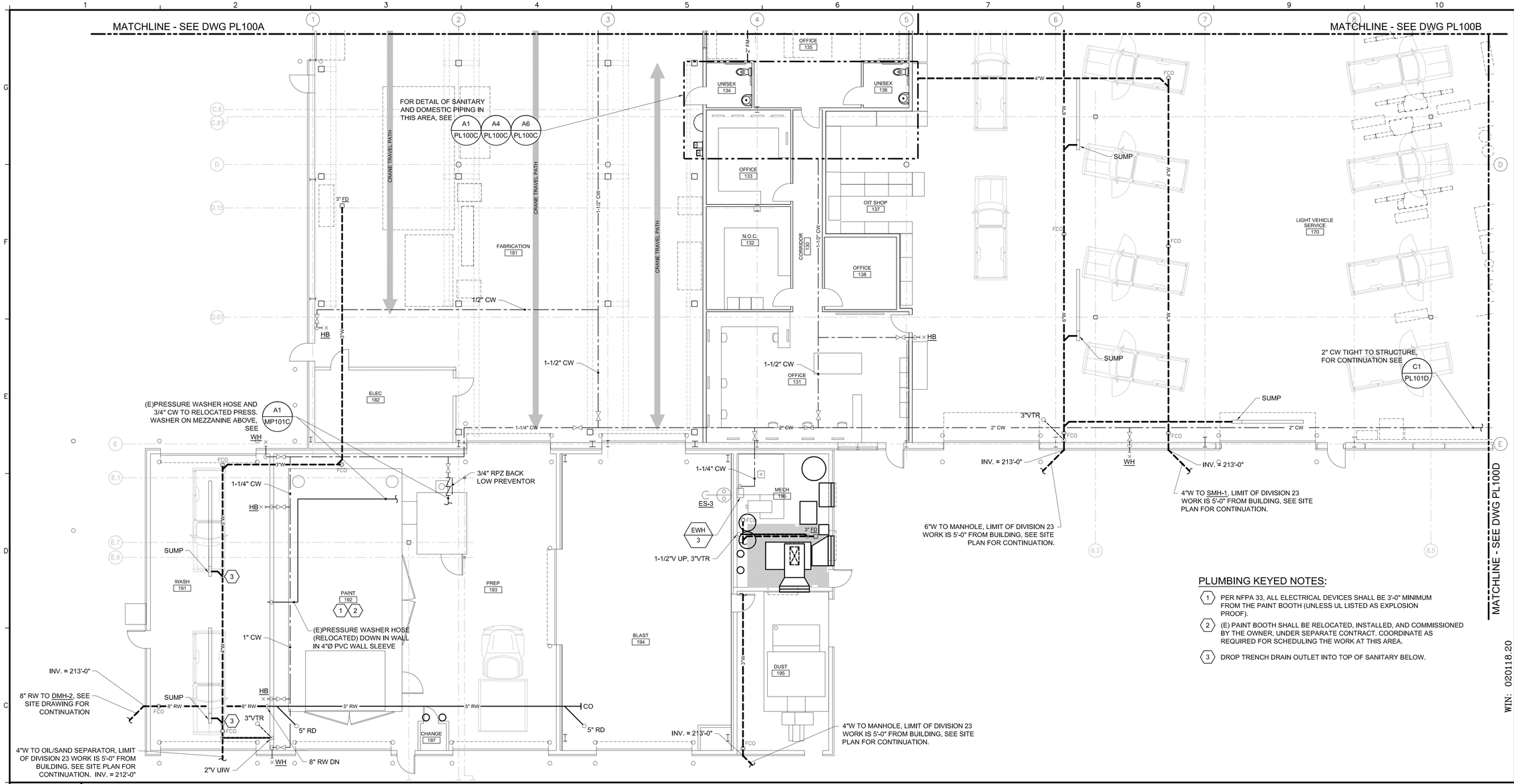
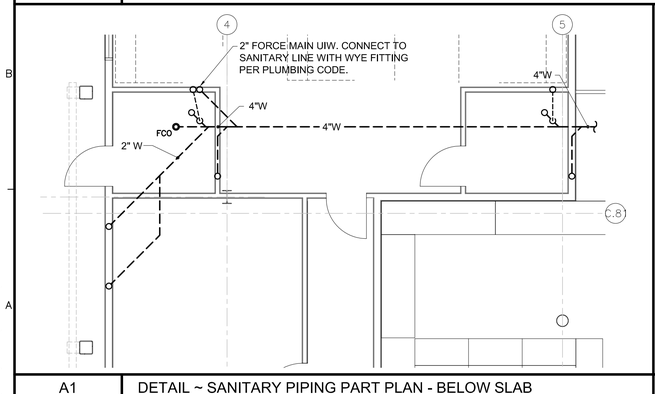


C1 PLUMBING PART PLAN ~ FIRST FLOOR - AREA C

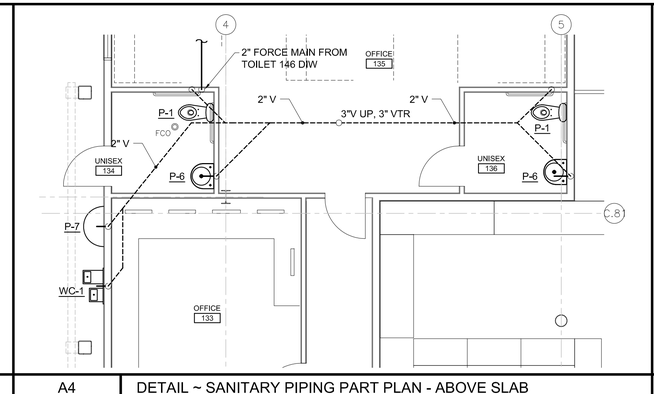
1/8" = 1'=0"



A1 DETAIL ~ SANITARY PIPING PART PLAN - BELOW SLAB

3/16" = 1'-0"

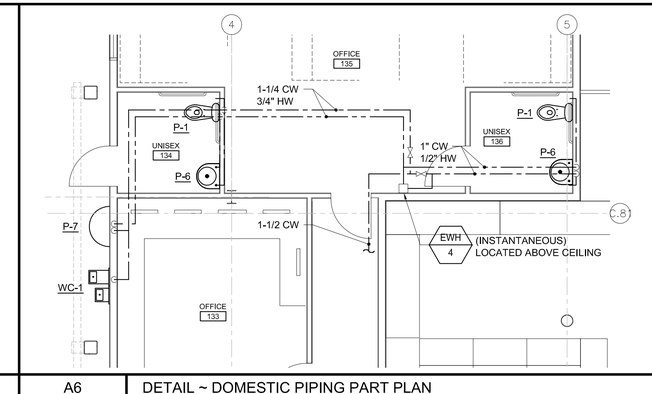
UNISEX 134 AND UNISEX 136



A4 DETAIL ~ SANITARY PIPING PART PLAN - ABOVE SLAB

3/16" = 1'-0"

UNISEX 134 AND UNISEX 136



A6 DETAIL ~ DOMESTIC PIPING PART PLAN

3/16" = 1'-0"

UNISEX 134 AND UNISEX 136

PLUMBING KEYED NOTES:

1. PER NFPA 33, ALL ELECTRICAL DEVICES SHALL BE 3'-0" MINIMUM FROM THE PAINT BOOTH (UNLESS UL LISTED AS EXPLOSION PROOF).
2. (E) PAINT BOOTH SHALL BE RELOCATED, INSTALLED, AND COMMISSIONED BY THE OWNER, UNDER SEPARATE CONTRACT. COORDINATE AS REQUIRED FOR SCHEDULING THE WORK AT THIS AREA.
3. DROP TRENCH DRAIN OUTLET INTO TOP OF SANITARY BELOW.

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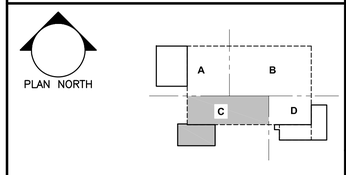
FEBRUARY 27, 2014

PROJECT KEY PLAN



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SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION	
PROGRAM	–
PROJECT MANAGER	–
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	–
CONTRACTOR	–
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE

MAINE DEPARTMENT OF TRANSPORTATION

PLUMBING PART PLAN ~ FIRST FLOOR – AREA C

SHEET NUMBER

PL100C

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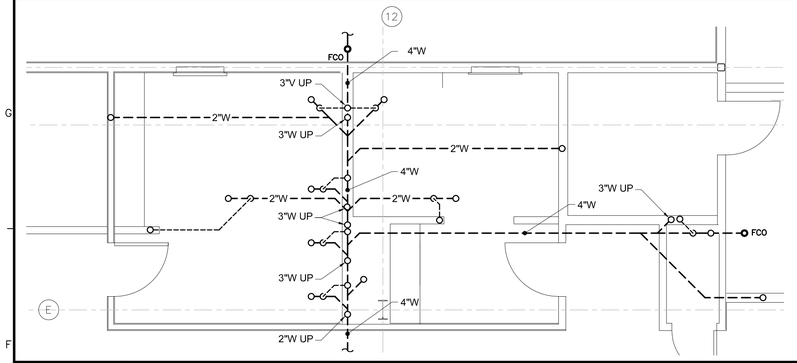
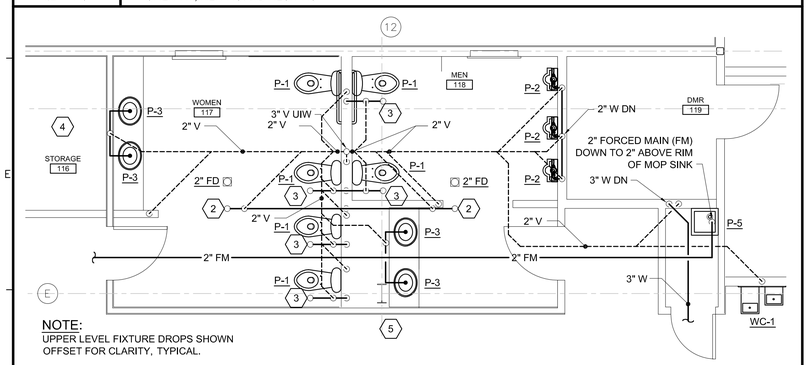
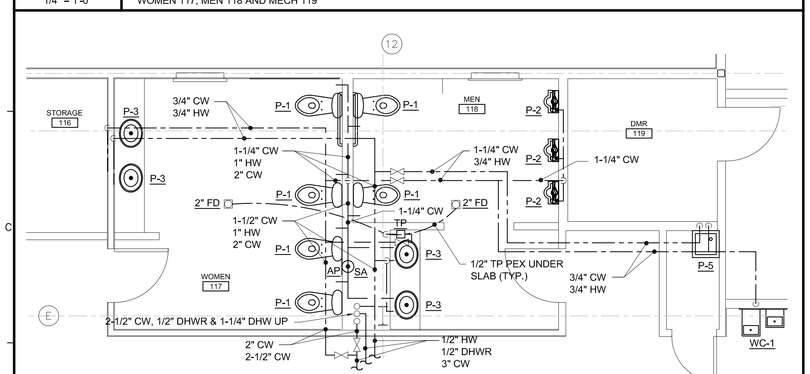


F1	DETAIL ~ SANITARY PIPING PART PLAN - BELOW SLAB
1/4" = 1'-0"	WOMEN 117, MEN 118 AND MECH 119

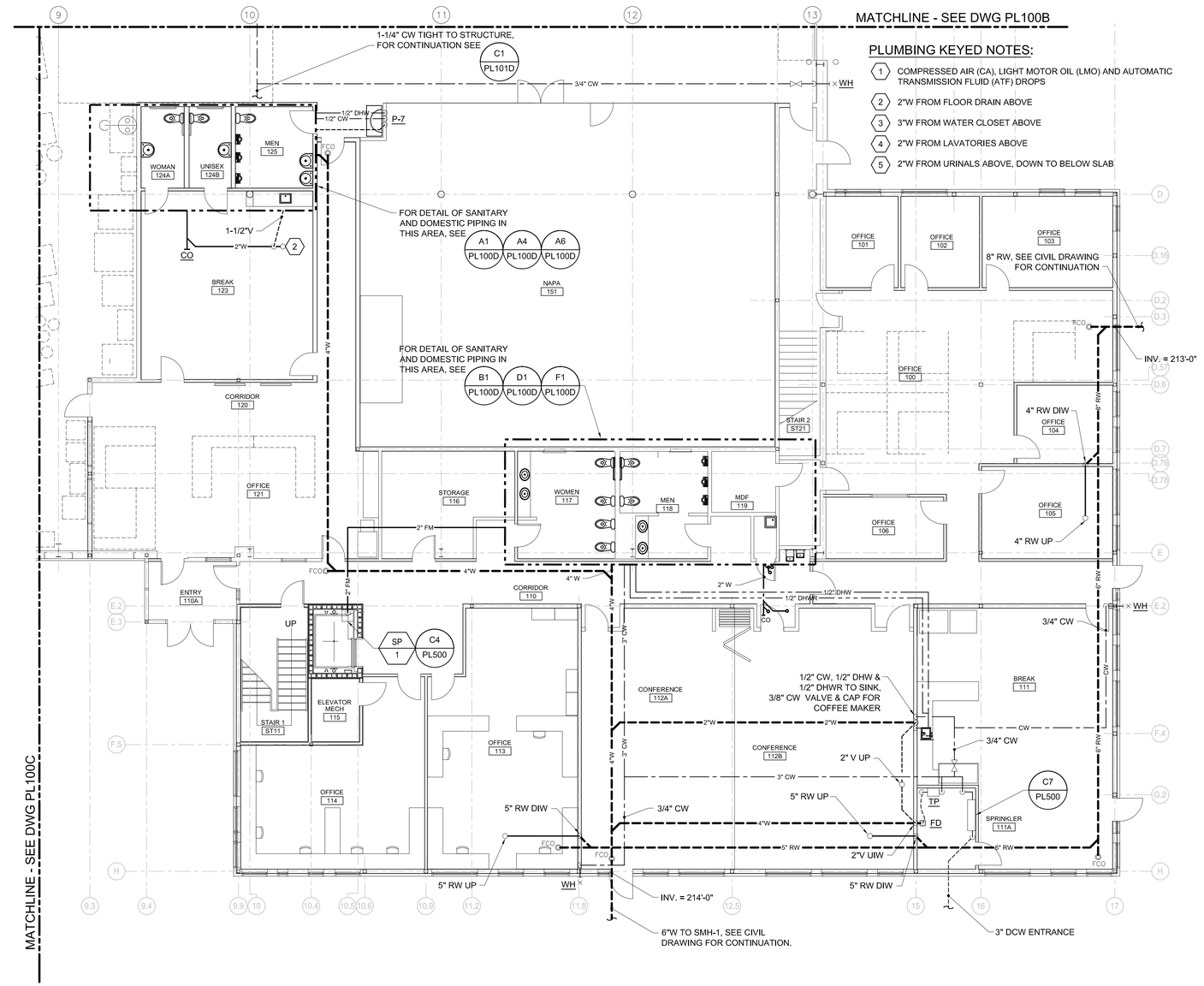


NOTE:
UPPER LEVEL FIXTURE DROPS SHOWN OFFSET FOR CLARITY, TYPICAL.

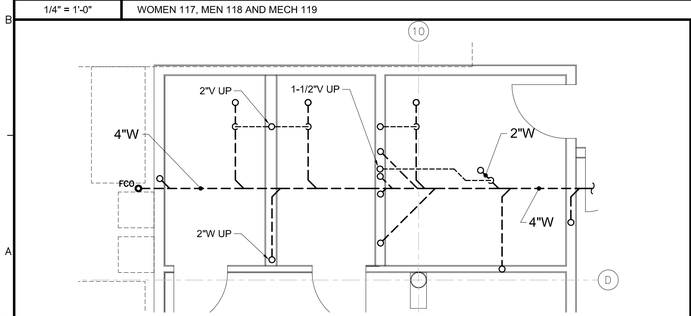
D1	DETAIL ~ SANITARY PIPING PART PLAN - ABOVE SLAB
1/4" = 1'-0"	WOMEN 117, MEN 118 AND MECH 119



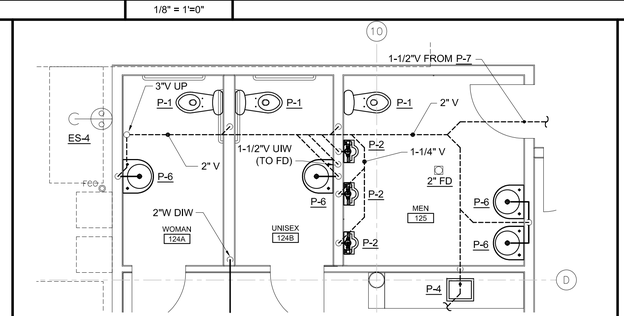
B1	DETAIL ~ DOMESTIC PIPING PART PLAN
1/4" = 1'-0"	WOMEN 117, MEN 118 AND MECH 119



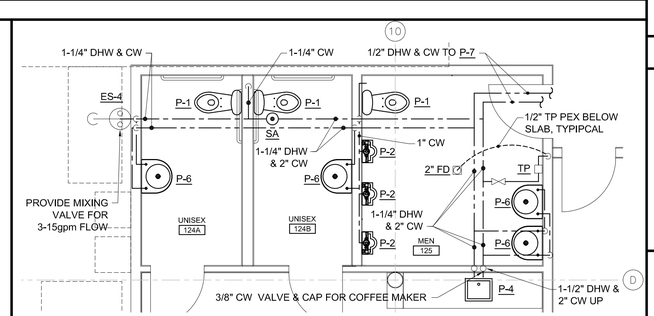
B4	PLUMBING PART PLAN ~ FIRST FLOOR - AREA D
1/8" = 1'=0"	



A1	DETAIL ~ SANITARY PIPING PART PLAN - BELOW SLAB
1/4" = 1'-0"	UNISEX 124A, UNISEX 124B, MENS 125 AND BREAK 123



A4	DETAIL ~ SANITARY PIPING PART PLAN - ABOVE SLAB
1/4" = 1'-0"	UNISEX 124A, UNISEX 124B, MENS 125 AND BREAK 123



A6	DETAIL ~ DOMESTIC PIPING PART PLAN
1/4" = 1'-0"	UNISEX 124A, UNISEX 124B, MENS 125 AND BREAK 123

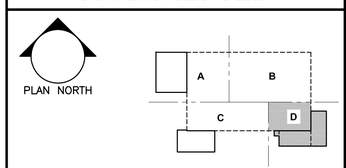
PLUMBING KEYED NOTES:

1. COMPRESSED AIR (CA), LIGHT MOTOR OIL (LMO) AND AUTOMATIC TRANSMISSION FLUID (ATF) DROPS
2. 2"W FROM FLOOR DRAIN ABOVE
3. 3"W FROM WATER CLOSET ABOVE
4. 2"W FROM LAVATORIES ABOVE
5. 2"W FROM URINALS ABOVE, DOWN TO BELOW SLAB

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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Allied Project No: 13057 Cad File: 13057P.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION	
PROGRAM	I
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	-
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

PLUMBING PART PLAN
~
FIRST FLOOR – AREA D

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SHEET NUMBER

PL100D

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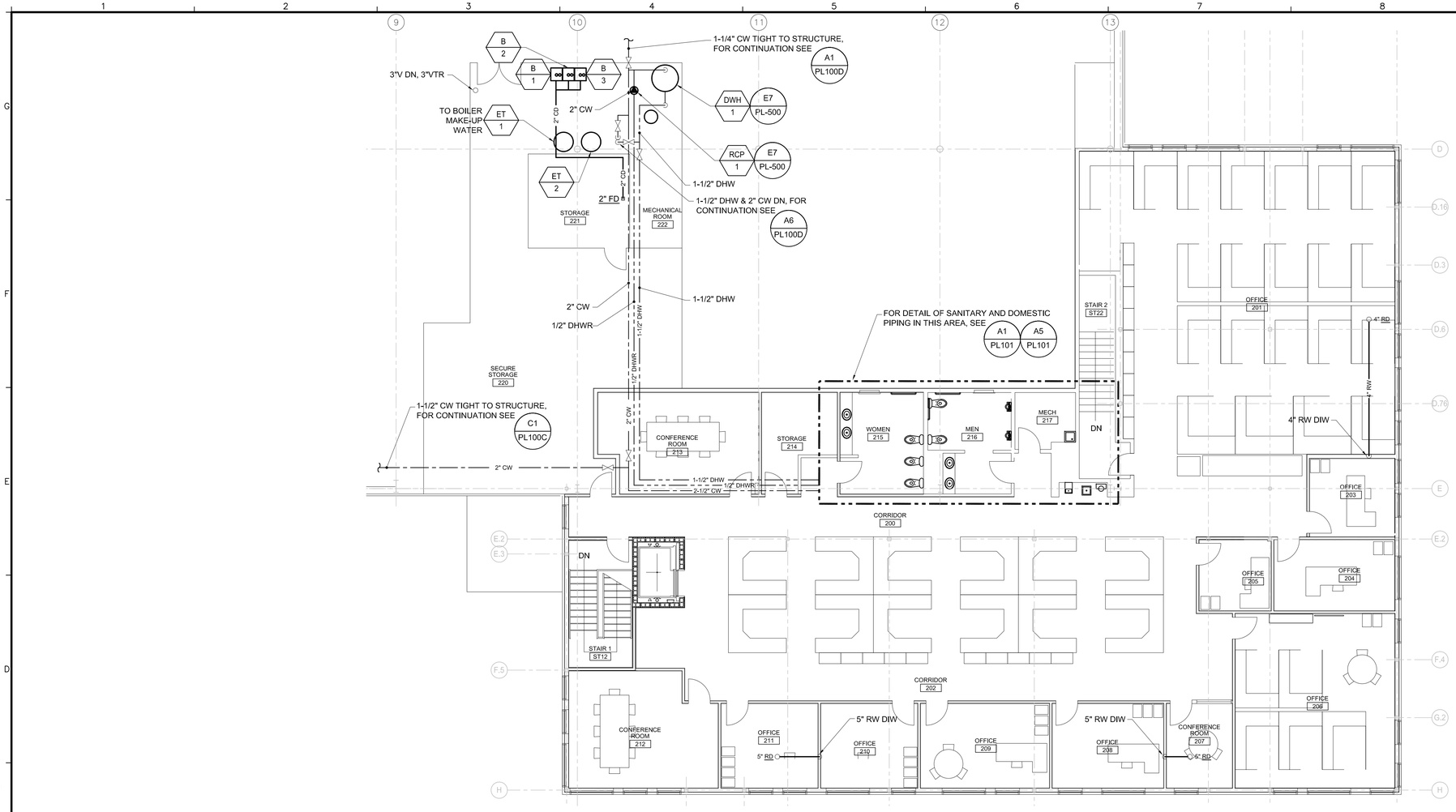
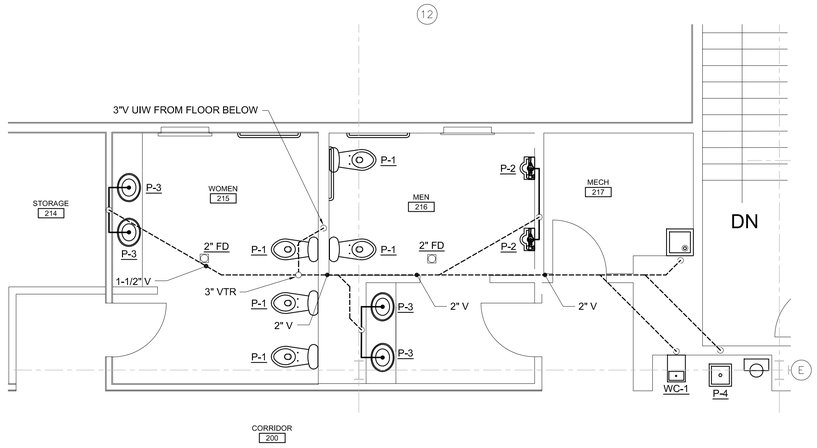


C1 PLUMBING PART PLAN ~ SECOND FLOOR - AREA D

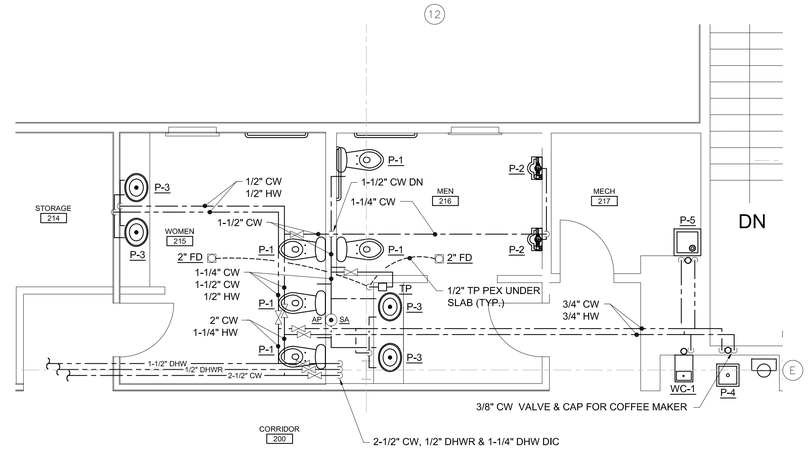
1/8" = 1'=0"



A1 DETAIL ~ SANITARY PIPING PART PLAN

1/4" = 1'=0"

WOMEN 215, MEN 216 AND MECH 217



A5 DETAIL ~ DOMESTIC PIPING PART PLAN

1/4" = 1'=0"

WOMEN 215, MEN 216 AND MECH 217

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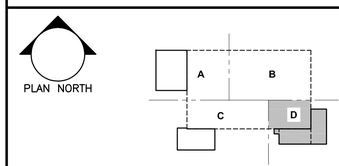
FEBRUARY 27, 2014

PROJECT KEY PLAN



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Allied Project No: 13057 Cad File: 13057P.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	–
CONTRACTOR	–
PROJECT COMPLETION DATE	–

W.I.N. 02D118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

PLUMBING PART PLAN
SECOND FLOOR – AREA D

SHEET NUMBER

PL101D

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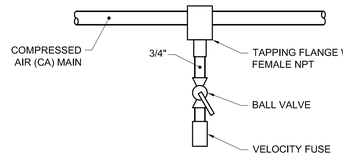
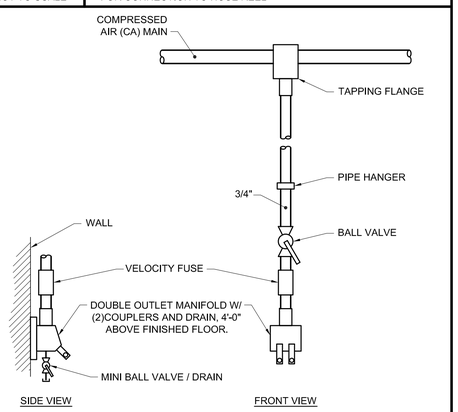
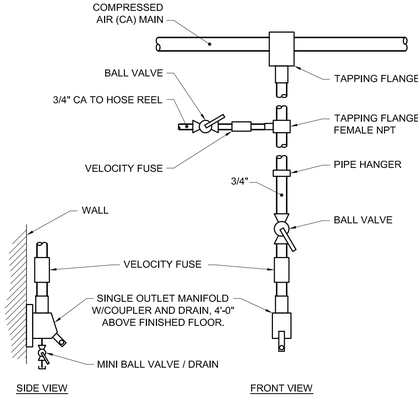


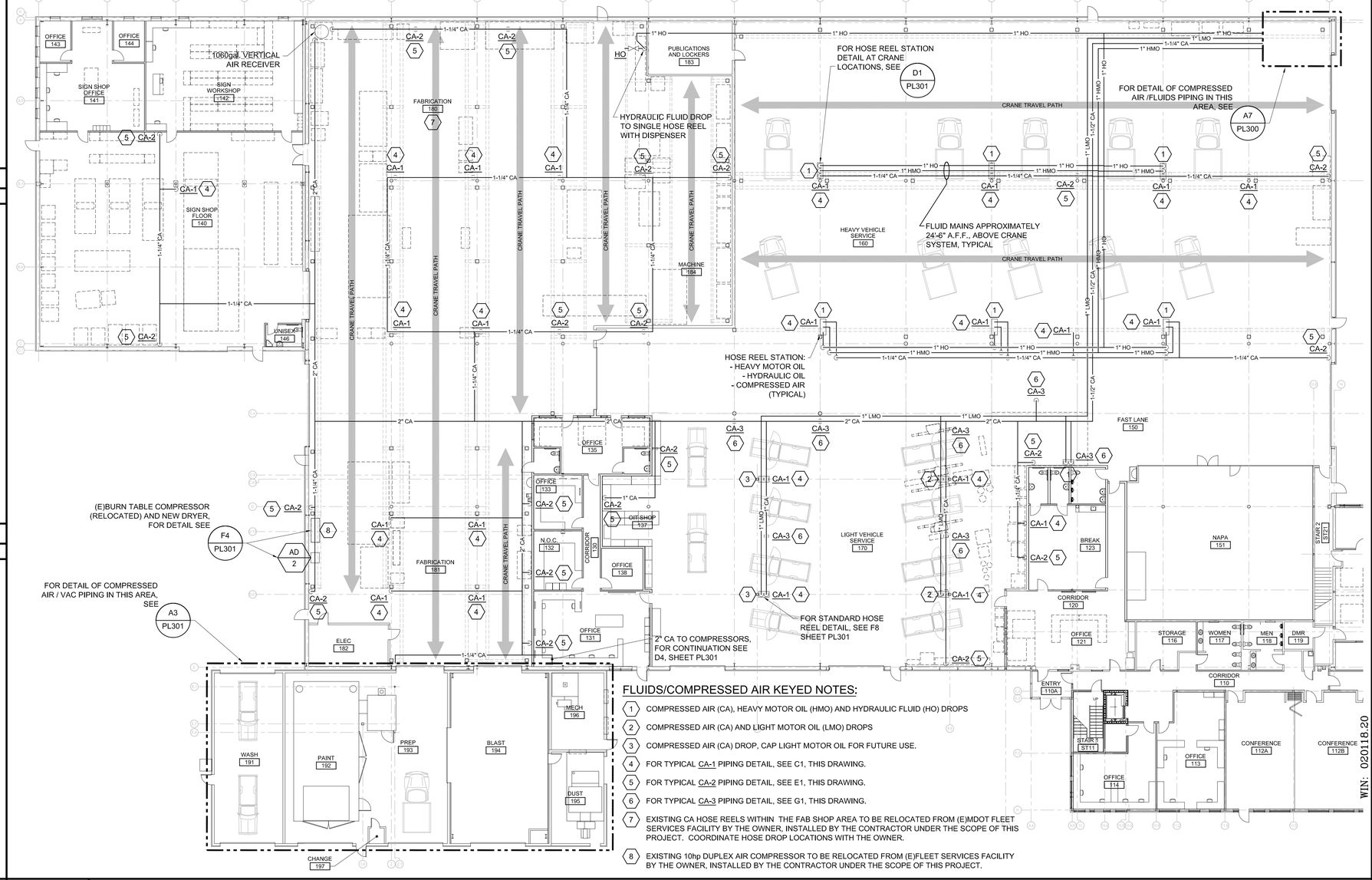
G1	DETAIL ~ TYPICAL CA-3 AIR DROP PIPING
NOT TO SCALE	FOR CONNECTION TO HOSE REEL



E1	DETAIL ~ TYPICAL CA-2 AIR DROP PIPING
NOT TO SCALE	FOR CONNECTION TO TOOLS



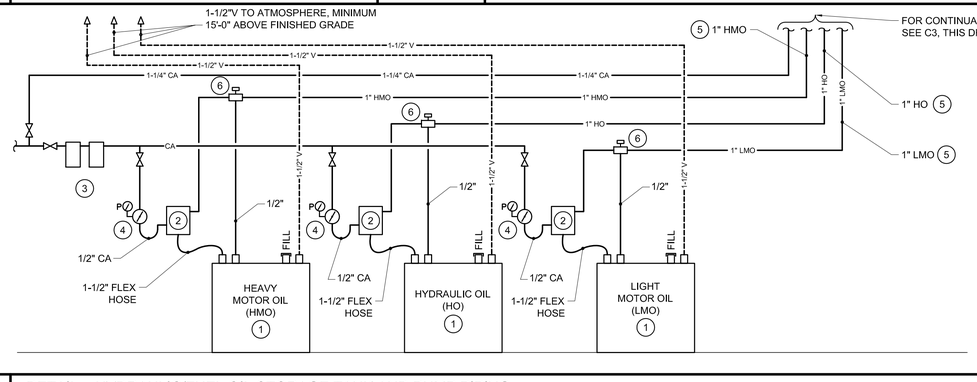
C1	DETAIL ~ TYPI CAL CA-1 AIR DROP PIPING
NOT TO SCALE	FOR CONNECTION TO HOSE REEL AND FAB



C3	FLUIDS AND COMPRESSED AIR PIPING PLAN
1/16" = 1'=0"	

FLUIDS/COMPRESSED AIR KEYED NOTES:

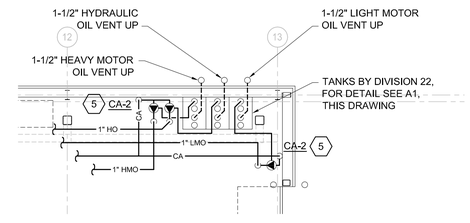
1. COMPRESSED AIR (CA), HEAVY MOTOR OIL (HMO) AND HYDRAULIC FLUID (HO) DROPS
2. COMPRESSED AIR (CA) AND LIGHT MOTOR OIL (LMO) DROPS
3. COMPRESSED AIR (CA) DROP, CAP LIGHT MOTOR OIL FOR FUTURE USE.
4. FOR TYPICAL CA-1 PIPING DETAIL, SEE C1, THIS DRAWING.
5. FOR TYPICAL CA-2 PIPING DETAIL, SEE E1, THIS DRAWING.
6. FOR TYPICAL CA-3 PIPING DETAIL, SEE G1, THIS DRAWING.
7. EXISTING CA HOSE REELS WITHIN THE FAB SHOP AREA TO BE RELOCATED FROM (E)MDOT FLEET SERVICES FACILITY BY THE OWNER, INSTALLED BY THE CONTRACTOR UNDER THE SCOPE OF THIS PROJECT. COORDINATE HOSE DROP LOCATIONS WITH THE OWNER.
8. EXISTING 10hp DUPLEX AIR COMPRESSOR TO BE RELOCATED FROM (E)FLEET SERVICES FACILITY BY THE OWNER, INSTALLED BY THE CONTRACTOR UNDER THE SCOPE OF THIS PROJECT.



DETAIL NOTES:

1. 275gal. DOUBLE WALL STORAGE TANK WITH LEAK DETECTION.
2. WALL MOUNTED PUMP.
3. AIR LINE FILTER AND LUBRICATOR EQUAL TO LINCOLN INDUSTRIAL .
4. AIR PRESSURE REGULATOR EQUAL TO LINCOLN INDUSTRIAL.
5. LOW PRESSURE STEEL TUBING, FITTINGS, VALVES AND UNIONS RATED FOR 2,200psig.
6. 1,000psi THERMAL RELIEF VALVE W/DRAIN, EQUAL TO LINCOLN INDUSTRIAL.

A1	DETAIL ~ HYDRAULIC/FUEL OIL STORAGE TANK AND PUMP PIPING
NOT TO SCALE	



A7	DETAIL ~ FLUIDS PIPING AT STORAGE TANKS
1/8" = 1'=0"	

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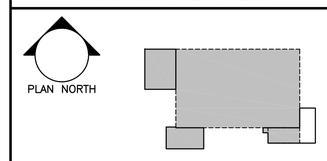
PROJECT KEY PLAN



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Allied Project No: 13057 Cad File: 13057P.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	I
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	-
PROJECT RESIDENT	
CONTRACTOR	-
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE

MAINE DEPARTMENT OF TRANSPORTATION

FLUIDS/COMPRESSED AIR PLAN AND DETAILS

SHEET NUMBER

PL300

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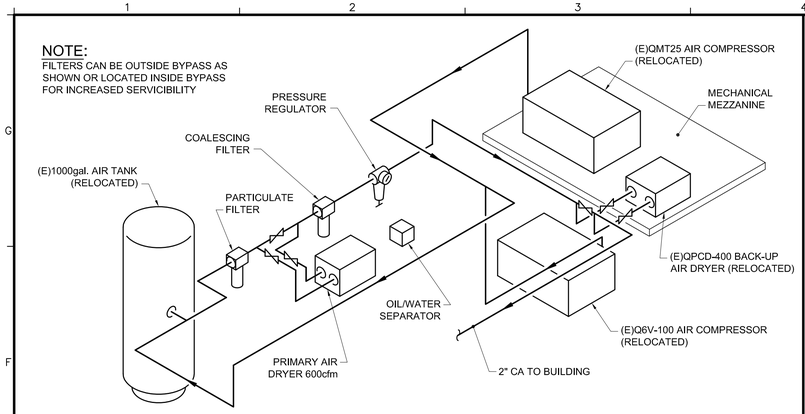
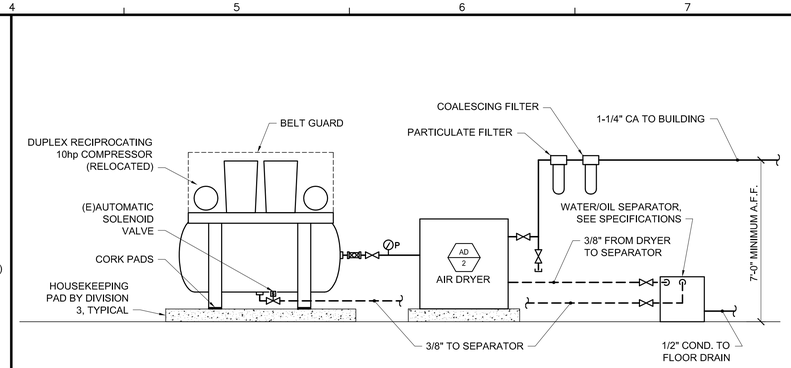
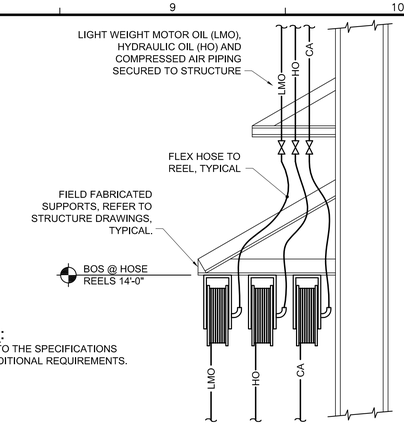


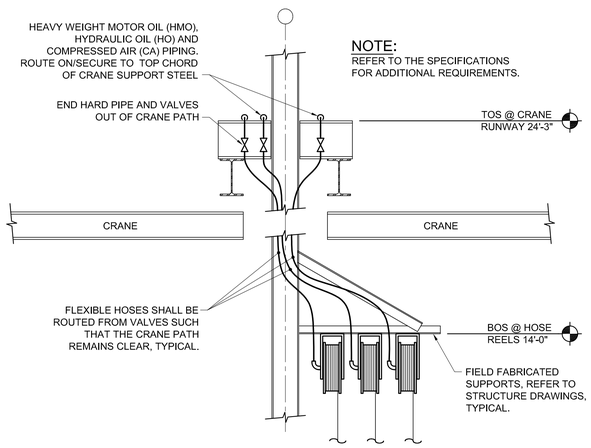
F1	DETAIL ~ COMPRESSOR ROOM PIPING
NOT TO SCALE	



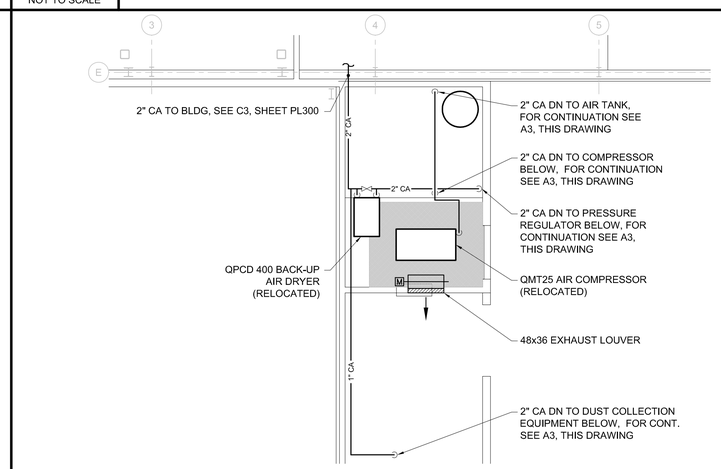
F4	DETAIL ~ RELOCATED DUPLEX COMPRESSED AIR SYSTEM SERVING BURN TABLE
NOT TO SCALE	



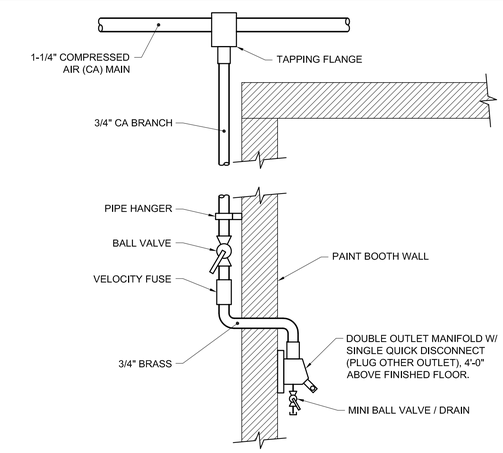
F8	DETAIL ~ HOSE REEL STATION
NOT TO SCALE	STANDARD CONFIGURATION



D1	DETAIL ~ HOSE REEL STATION
NOT TO SCALE	CONFIGURATION AT OVERHEAD CRANE LOCATIONS



D4	DETAIL ~ COMPRESSED AIR PIPING PART PLAN - MEZZANINE
1/8" = 1'-0"	



D8	DETAIL ~ TYPICAL CA-4 AIR DROP PIPING
NOT TO SCALE	FOR CONNECTION TO TOOLS

PROVIDE SUBMITTALS FOR:

1. Four wet/dry central vacuum stations.
2. 40' vacuum hoses.
3. Standard hose hanger and wall outlet.
4. Attachments
5. Vacuum piping
6. Controls

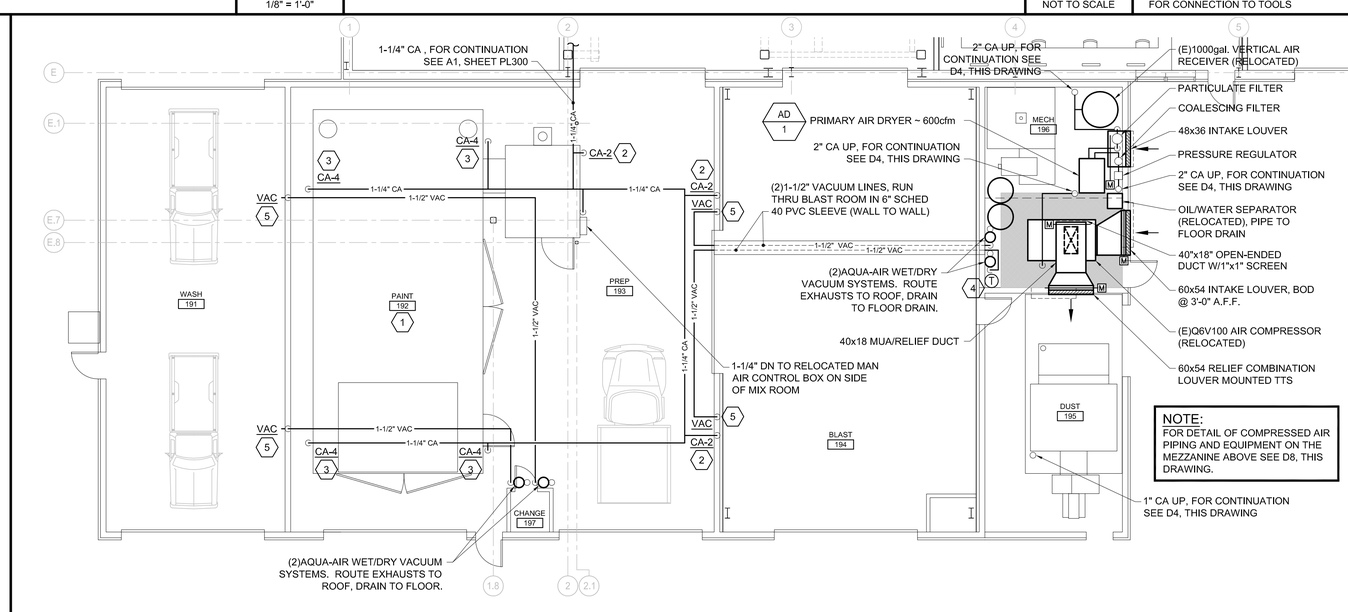
PRODUCTS: Equal to Aqua-air Wet/Dry, Ivins UT, 800-916-5777. (Provide for each work station)

1. Wet/Dry vacuum: Model 158 heavy duty wet/dry central vacuum extractor. Single canister (14" diameter by 47" long).
   a. 8.4" extractor motor, 2 stage, high efficiency.
   b. 146" water lift.
   c. 141 cfm.
   d. 14 amp, 120v, 1 ph.
   e. Debris screens bag of 50.
2. Vacuum hose: Model AA279, 1.25" x 40' wet/dry hose set.
3. Attachments:
   a. Plastic claw tool, Model AA271.
   b. Crevice tool, Model PA282.
   c. Upholstery tool, Model AA404BK.
   d. Dusting brush, Model PA280.
4. Surface mount installation kit: Model AA522
   a. Include white dry in/out wall outlet.
   b. Standard wall mount hose hanger.
5. Piping: equal to schedule DWV plumbing pipe and fittings (Refer to specification Section 221316)
6. On/Off switch wall switch.
   a. Standard wall switch for prep bay area; provide Nema 4X enclosure in wash bay area.
   b. 2/18 control wire.

INSTALLATION:

1. Install all piping (vacuum tubing), wiring, power unit, and accessories in strict conformance with manufacturer's written instructions.
2. Install equipment with required clearances for service and maintenance.
3. Install vacuum tubing (DWV piping) in accordance with specification Section 221316.
4. Power wiring shall be by Division 26.
5. Low voltage control wiring shall be by Division 23.
6. Start up: Provide start up and test per manufacturer's recommendation. Correct/replace all damaged or malfunctioning equipment.
7. Demonstration/training: Provide demonstration and training for operation of the complete central vacuum system to owner authorized personnel. Include maintenance and cleaning instructions.

A1	WET/DRY CENTRAL VACUUM SYSTEM SPECIFICATIONS
NONE	



NOTE:
FOR DETAIL OF COMPRESSED AIR PIPING AND EQUIPMENT ON THE MEZZANINE ABOVE SEE D8, THIS DRAWING.

KEYED NOTES:

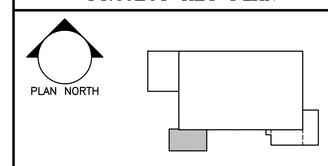
1. PER NFPA 33, ALL ELECTRICAL DEVISES SHALL BE 3'-0" MINIMUM FROM THE PAINT BOOTH (UNLESS UL LISTED AS EXPLOSION PROOF).
2. FOR TYPICAL CA-2 PIPING DETAIL, SEE E1, SHEET PL300.
3. FOR TYPICAL CA-4 PIPING DETAIL, SEE D8, THIS DRAWING.
4. WALL SENSOR SHALL OPERATE MOTOR OPERATED DAMPERS IN SEQUENCE TO MAINTAIN SPACE HEATING.
5. VACUUM DROP TO WALL OUTLET AND HOSE HANGER AND POWER UNIT ON/OFF SWITCH.

ISSUED FOR BID

FEBRUARY 27, 2014

A3	DETAIL ~ COMPRESSED AIR AND VACUUM SYSTEM PART PLAN
1/8" = 1'=0"	

PROJECT KEY PLAN



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020113.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

COMPRESSED AIR / VACUUM PART PLAN AND DETAILS

SHEET NUMBER

PL301

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ELECTRIC DHW HEATER SCHEDULE

TAG	TYPE	SERVES	MANUFACTURER	MODEL	VOLTS	PHASE	HEAT INPUT (KW)	AMPS	RECOVERY FLOW	TEMP RISE (DEG-F)	WATER STORAGE (GAL)	HEIGHT (INCHES)	WIDTH (INCHES)	DEPTH (INCHES)
EWH-1	INSTANTANEOUS	EMERGENCY SHOWER/FACE #1	EEMAX	EXD096480T12 EFD	460	3	96.0	116	3 -15 GPM	48	0	33"	33"	6"
EWH-2	INSTANTANEOUS	EMERGENCY SHOWER/FACE #2	EEMAX	EXD096480T12 EFD	460	3	96.0	116	3 -15 GPM	48	0	33"	33"	6"
EWH-3	INSTANTANEOUS	EMERGENCY SHOWER/FACE #3	EEMAX	EXD096480T12 EFD	460	3	96.0	116	3 -15 GPM	48	0	33"	33"	6"
EWH-4	INSTANTANEOUS	UNISEX 134 / 136	EEMAX	MB012240T	208	1	8.6	50	1.0 GPM	79	0	13.5"	5.0"	4"
EWH-5	TANK - LOW PROFILE	SIGN SHOP LAV / JAN	A.O. SMITH	DEL-20	208	1	2.5	NA	14 GPH	72	20	23"	22" DIAM	NA

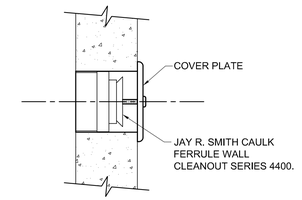
NOTE: 208V EEMAX INCLUDES 25% REDUCTION FROM 240V PERFORMANCE

DOMESTIC PLUMBING PUMPS

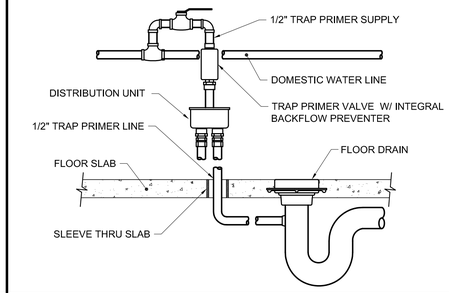
TAG	SERVES	MAKE & MODEL	TYPE	GPM	HEAD	ELECTRICAL		BASIN						NOTES
						MOTOR HP	VOLTS/PH (60 Hz.)	DIA.	HEIGHT	GAL.	INLET TYPE	INLET SIZE	DISCH SIZE	
RCP-1	DHW RECIRC	TACO IL 009-IFC	IN LINE	2	13	1/8	115/1	--------	--------	--------	--------	--------	--------	NOTE 1; 3/4" X 3/4" INLET/DISCH
SP-1	ELEV SUMP	ZOELLER N152	SUBMERSIBLE	53	15	0.4	115/1	18"	30"	30	PIPED	4"	2"	3
EP-1	TOILET 146	ZOELLER G840	GRINDER	43	30	2	460/3	30	36	100	PIPED	3"	1 1/4"	2

NOTES:
1. POWER SUPPLY TO STARTER/CONTACTOR AND DISC SWITCH BY DIV 26. WIRE PUMP IN SERIES WITH AN IMMERSION AQUASTAT; WIRING FROM SWITCH TO AQUASTAT AND PUMP BY DIV 23.
2. DUPLEX GRINDER SYSTEM WITH CONTROLS, ALARM, AND 36 X 30 BASIN.
3. PLUG CONNECTION, COORDINATE WITH DIV 26.

E1 | SCHEDULES ~ PLUMBING
NOT TO SCALE



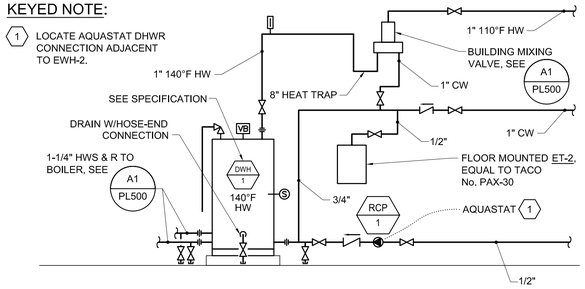
F7 | DETAIL ~ WALL CLEANOUT
NOT TO SCALE



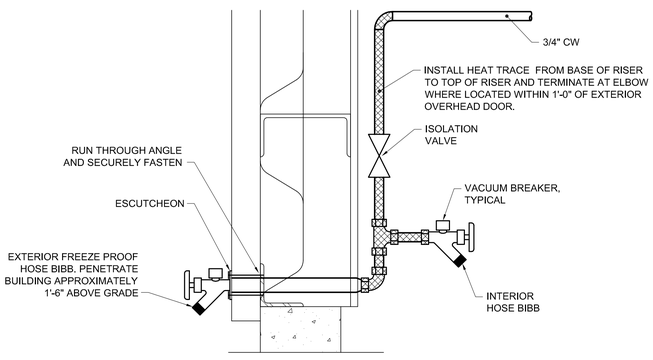
F9 | DETAIL ~ TRAP PRIMER PIPING
NOT TO SCALE

KEYED NOTE:

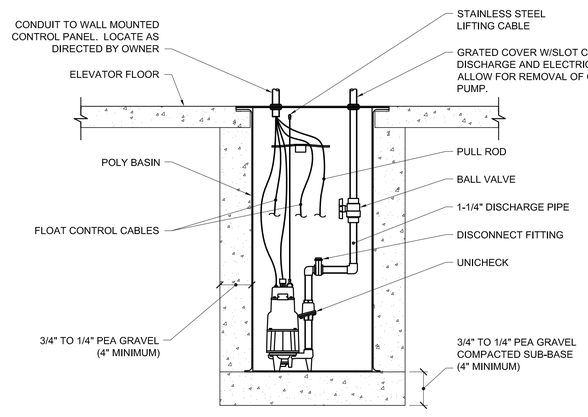
1. LOCATE AQUASTAT DHWR CONNECTION ADJACENT TO EWH-2.



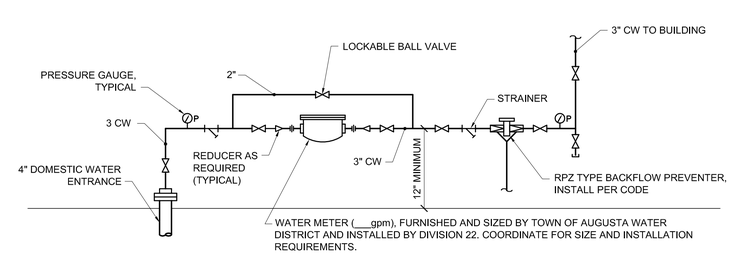
E7 | DETAIL ~ DHW PIPING SCHEMATIC
NOT TO SCALE



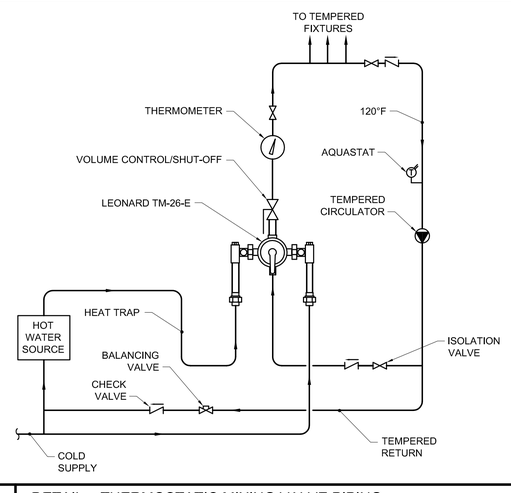
C1 | DETAIL ~ INTERIOR HOSE BIBB / EXTERIOR WALL HYDRANT
NOT TO SCALE



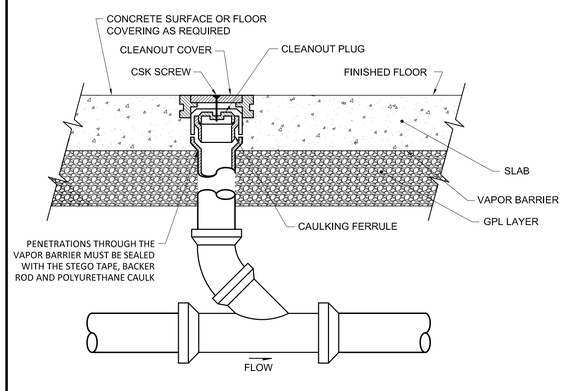
C4 | DETAIL ~ ELEVATOR PIT SUMP PUMP PIPING
NOT TO SCALE



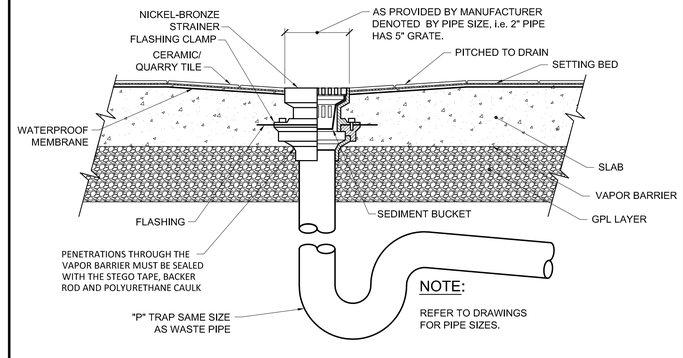
C7 | DETAIL ~ DOMESTIC WATER ENTRANCE
NOT TO SCALE



A1 | DETAIL ~ THERMOSTATIC MIXING VALVE PIPING
NOT TO SCALE



A4 | DETAIL ~ FLOOR CLEAN OUT
NOT TO SCALE



NOTE:
REFER TO DRAWINGS FOR PIPE SIZES.

A6 | DETAIL ~ FLOOR DRAIN
NOT TO SCALE

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Allied Project No: 13057 Cad File: 13057P.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE
COMMISSIONER:
CHIEF ENGINEER:

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

SIGNATURE
ARCH. LIN. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION
PROGRAM
PROJECT MANAGER
DESIGNER ALLIED ENG., INC.
CONSULTANT
PROJECT RESIDENT
CONTRACTOR
PROJECT COMPLETION DATE

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

PLUMBING DETAILS

SHEET NUMBER
PL500

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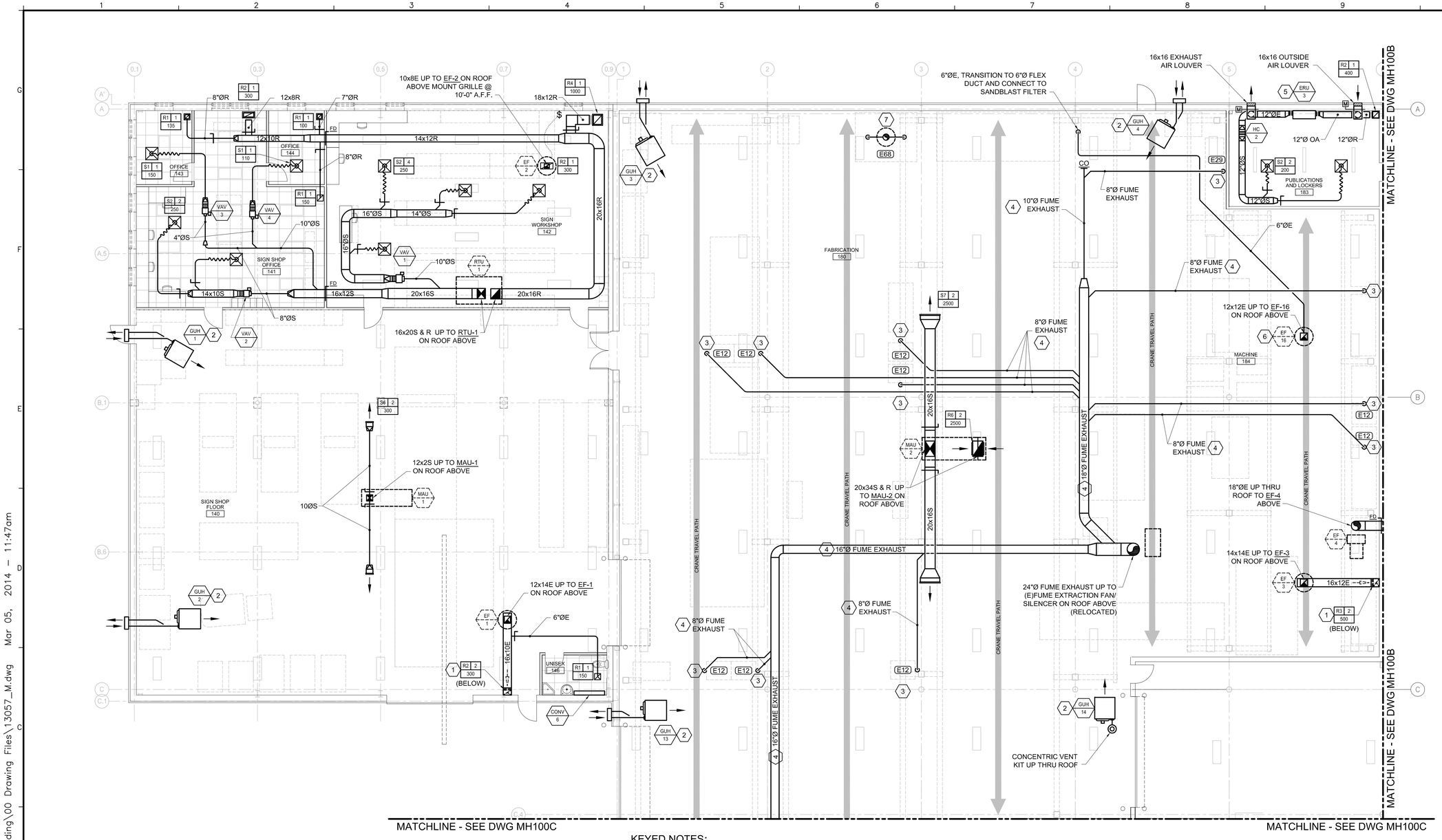

KEYED NOTES:

1. (1)GRILLE AT 1'-0" A.F.F. AND (1)GRILLE AT 18'-0" A.F.F.
2. MOUNT GAS FIRED UNIT HEATER (GUH) APPROXIMATELY 12'-0" ABOVE FINISHED FLOOR.
3. DROP TO RELOCATED FUME ARM, INSTALL FUME ARM MOUNTING FRAME APPROXIMATELY 9'-6" ABOVE FINISHED FLOOR. COORDINATE INSTALLATION WITH OWNER'S WORKBENCH LOCATIONS. RELOCATION OF THE FUME ARM FROM THE EXISTING MDOT FLEET SERVICES BUILDING TO THE PROJECT SITE SHALL BE BY OWNER. INSTALLATION BY THE CONTRACTOR UNDER THE SCOPE OF THIS PROJECT. COORDINATE WITH THE OWNER TO INTEGRATE THE RELOCATION WITH THE OVERALL PROJECT SCHEDULE. PROVIDE ALL TERMINATIONS AND T.A.B.
4. FUME EXHAUST DUCT SYSTEM SHALL BE ROUTED/SUPPORTED ALONG STRUCTURAL COLUMNS, BELOW CRANE SYSTEM, TYPICAL.
5. WALL-MOUNTED UNIT ON STRUCTURAL PLATFORM ABOVE CEILING. PROVIDE ACCESS PANEL TO FACILITATE SERVICING OF UNIT.
6. EXHAUST FAN EF-16 AND ASSOCIATED BRANCH DUCTS ARE INTENDED TO SERVE LOCAL VENT (HEAT AND FUME REQUIREMENTS FOR SEVERAL PIECES OF EQUIPMENT). DROP 12"x12" DOWN FROM EF TO APPROXIMATELY 8'-0" A.F.F. AND CAP BOTTOM OF DUCT. THE INTENT IS TO TAP 12"x12" DUCT WITH 4" OR 6" DIAMETER TAKE-OFFS TO CONNECT TO EQUIPMENT FLEX DUCT. ADDITIONALLY, PROVIDE SERVICE TO SANDBLAST CABINET AS SHOWN.
7. RELOCATED EXHAUST FAN ON ROOF. RE-USE EXISTING WELDED STAINLESS DUCTWORK MODIFIED TO RUN STRAIGHT UP TO FAN WITHOUT OFFSETS. EXTEND EXISTING DUCTWORK AS REQUIRED, MATCHING EXISTING STAINLESS MATERIAL AND DUCT DIMENSIONS. WELD ALL JOINTS AS REQUIRED.

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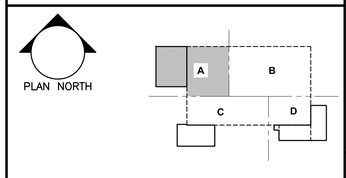
PROJECT KEY PLAN



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Allied Project No: 13057 Cad File: 13057M.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	-
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE

MAINE DEPARTMENT OF TRANSPORTATION

MECHANICAL PART PLAN ~ FIRST FLOOR – AREA A

SHEET NUMBER

MH100A

A1 | MECHANICAL PART PLAN ~ FIRST FLOOR - AREA A

1/8" = 1'=0"

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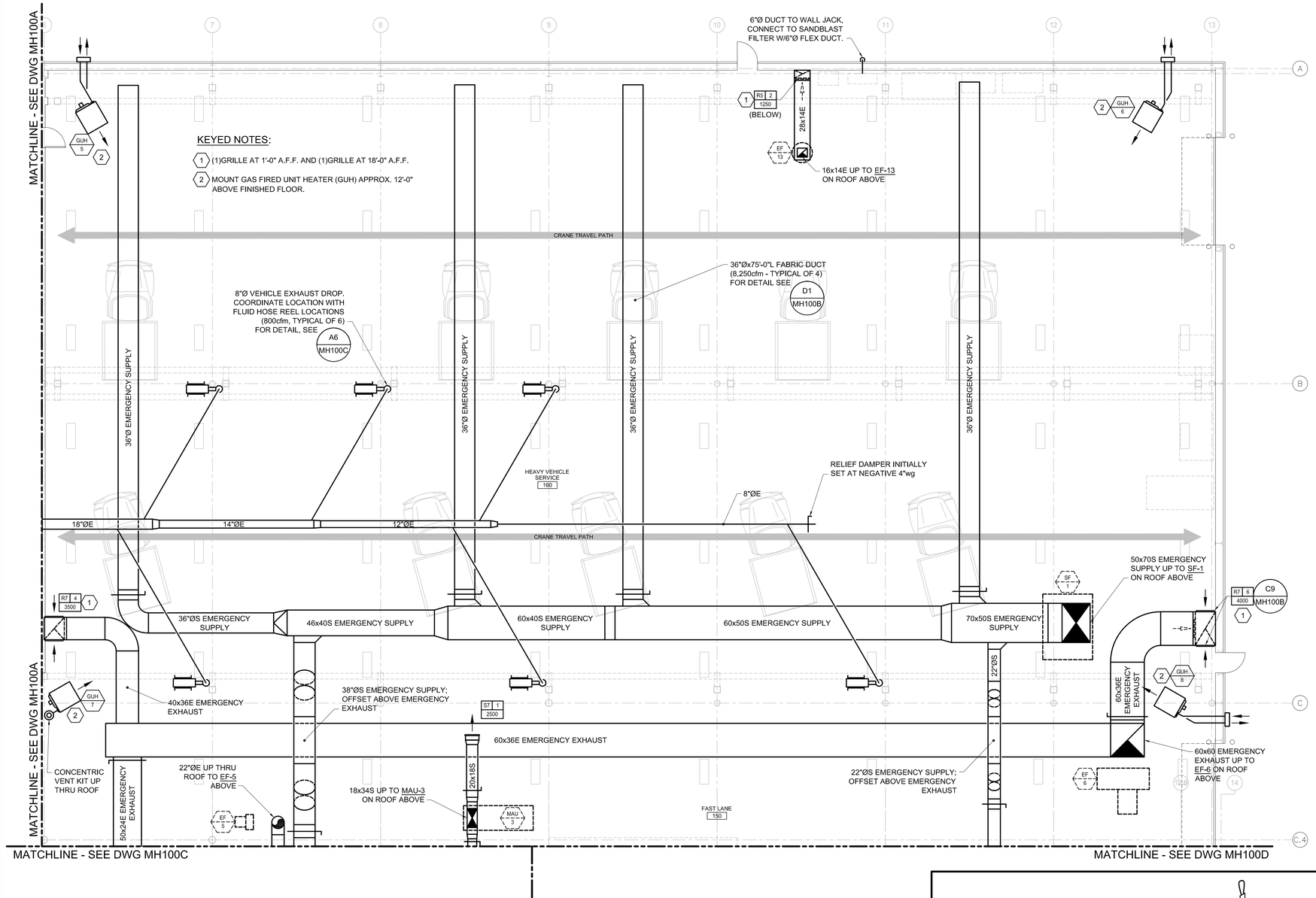
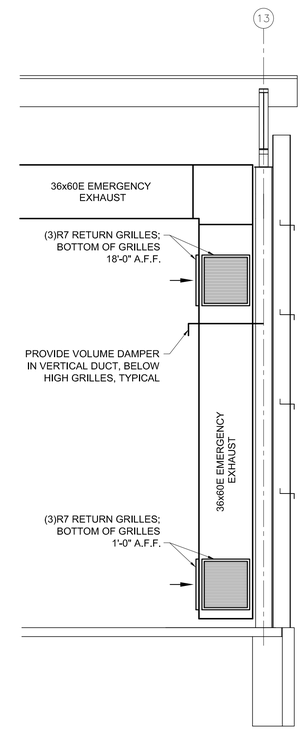


A1 | MECHANICAL PART PLAN ~ FIRST FLOOR - AREA B

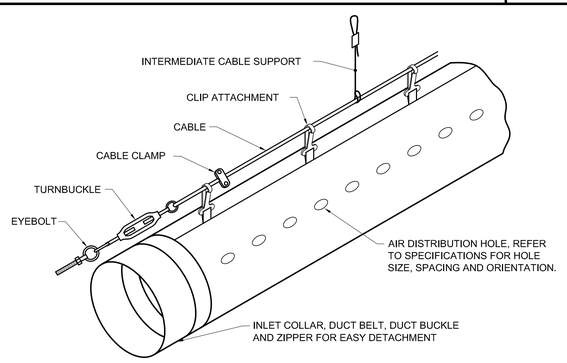
1/8" = 1'=0"



NOTE:
TYPICAL EXHAUST DUCT RISER SHOWN, REFER TO DRAWINGS FOR SPECIFIC DUCT SIZE AND SIZE / QUANTITY OF GRILLES FOR EACH LOCATION.

C9 | DETAIL ~ EMERGENCY EXHAUST DUCT RISER

1/4" = 1'=0"



D1 | DETAIL ~ FABRIC DUCT SUSPENSION

NOT TO SCALE | CABLE SUSPENSION - CLIP ATTACHMENT PER MFR RECOMMENDATIONS

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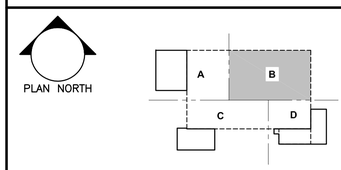
FEBRUARY 27, 2014

PROJECT KEY PLAN



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

MECHANICAL PART PLAN
~ FIRST FLOOR – AREA B

SHEET NUMBER
MH100B

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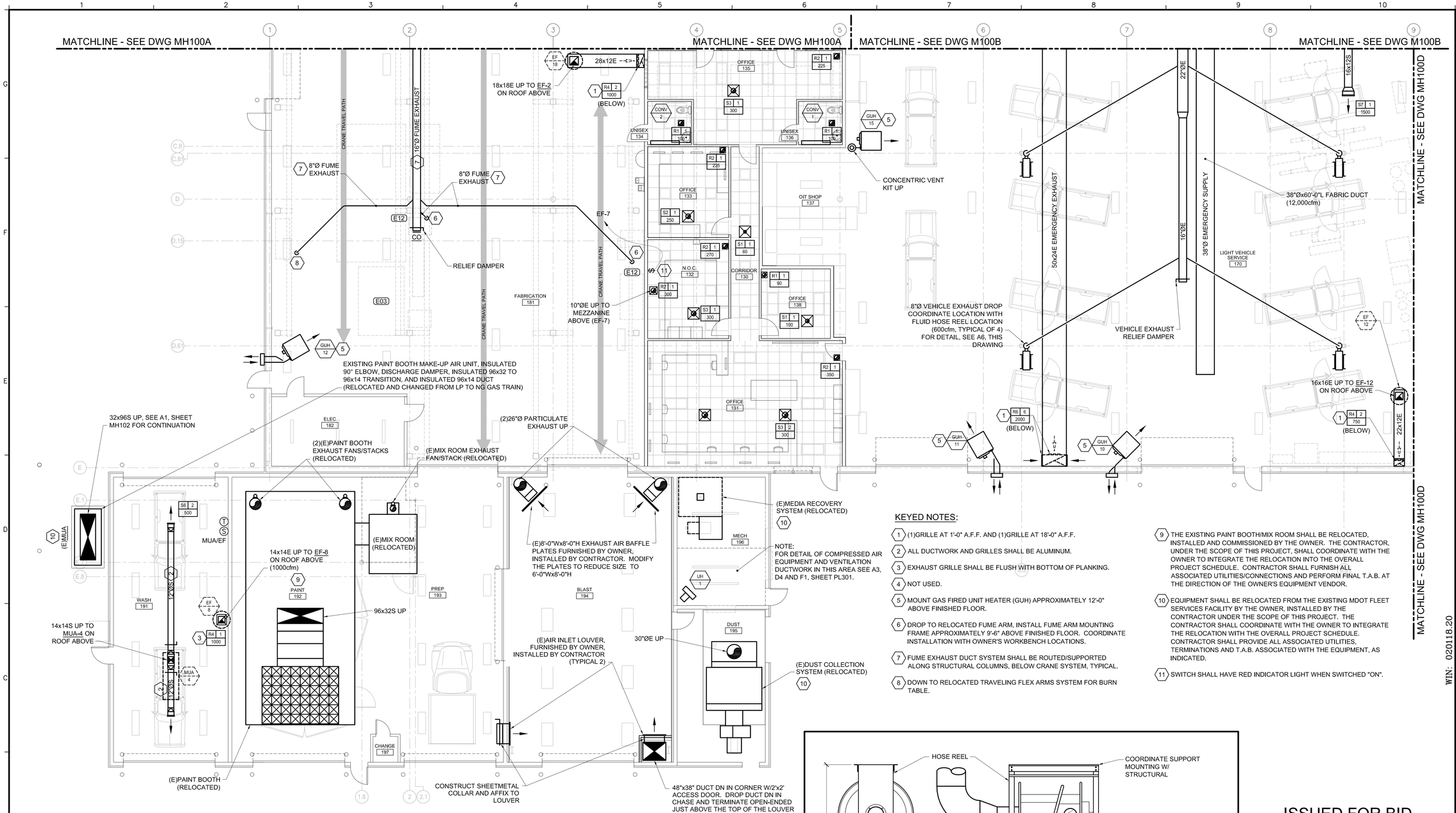
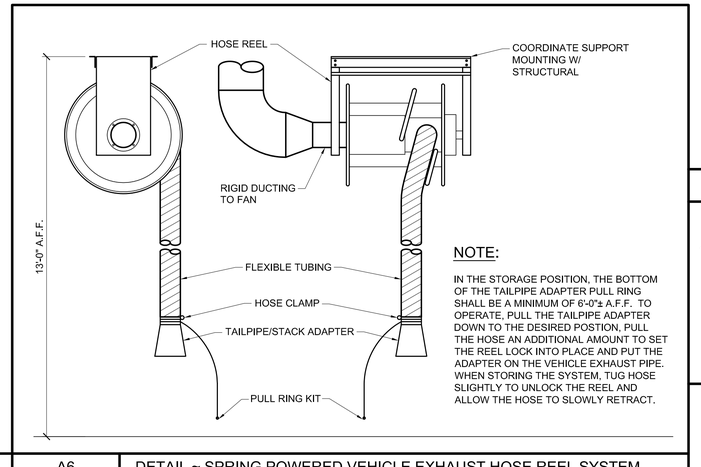


KEYED NOTES:

1. (1)GRILLE AT 1'-0" A.F.F. AND (1)GRILLE AT 18'-0" A.F.F.
2. ALL DUCTWORK AND GRILLES SHALL BE ALUMINUM.
3. EXHAUST GRILLE SHALL BE FLUSH WITH BOTTOM OF PLANKING.
4. NOT USED.
5. MOUNT GAS FIRED UNIT HEATER (GUH) APPROXIMATELY 12'-0" ABOVE FINISHED FLOOR.
6. DROP TO RELOCATED FUME ARM, INSTALL FUME ARM MOUNTING FRAME APPROXIMATELY 9'-6" ABOVE FINISHED FLOOR. COORDINATE INSTALLATION WITH OWNER'S WORKBENCH LOCATIONS.
7. FUME EXHAUST DUCT SYSTEM SHALL BE ROUTED/SUPPORTED ALONG STRUCTURAL COLUMNS, BELOW CRANE SYSTEM, TYPICAL.
8. DOWN TO RELOCATED TRAVELING FLEX ARMS SYSTEM FOR BURN TABLE.
9. THE EXISTING PAINT BOOTH/MIX ROOM SHALL BE RELOCATED, INSTALLED AND COMMISSIONED BY THE OWNER. THE CONTRACTOR, UNDER THE SCOPE OF THIS PROJECT, SHALL COORDINATE WITH THE OWNER TO INTEGRATE THE RELOCATION INTO THE OVERALL PROJECT SCHEDULE. CONTRACTOR SHALL FURNISH ALL ASSOCIATED UTILITIES/CONNECTIONS AND PERFORM FINAL T.A.B. AT THE DIRECTION OF THE OWNER'S EQUIPMENT VENDOR.
10. EQUIPMENT SHALL BE RELOCATED FROM THE EXISTING MDOT FLEET SERVICES FACILITY BY THE OWNER, INSTALLED BY THE CONTRACTOR UNDER THE SCOPE OF THIS PROJECT. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO INTEGRATE THE RELOCATION WITH THE OVERALL PROJECT SCHEDULE. CONTRACTOR SHALL PROVIDE ALL ASSOCIATED UTILITIES, TERMINATIONS AND T.A.B. ASSOCIATED WITH THE EQUIPMENT, AS INDICATED.
11. SWITCH SHALL HAVE RED INDICATOR LIGHT WHEN SWITCHED "ON".



NOTE:

IN THE STORAGE POSITION, THE BOTTOM OF THE TAILPIPE ADAPTER PULL RING SHALL BE A MINIMUM OF 6'-0"± A.F.F. TO OPERATE, PULL THE TAILPIPE ADAPTER DOWN TO THE DESIRED POSTION, PULL THE HOSE AN ADDITIONAL AMOUNT TO SET THE REEL LOCK INTO PLACE AND PUT THE ADAPTER ON THE VEHICLE EXHAUST PIPE. WHEN STORING THE SYSTEM, TUG HOSE SLIGHTLY TO UNLOCK THE REEL AND ALLOW THE HOSE TO SLOWLY RETRACT.

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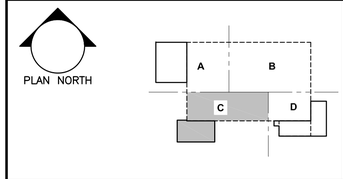
PROJECT KEY PLAN



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

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DATE FEBRUARY 27, 2014

WIN: 020118.20

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	-
PROJECT RESIDENT	-
CONTRACTOR	-
PROJECT COMPLETION DATE	-

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

MECHANICAL PART PLAN
FIRST FLOOR – AREA C

SHEET NUMBER

MH100C

A1	MECHANICAL PART PLAN ~ FIRST FLOOR - AREA C
1/8" = 1'=0"	

A6	DETAIL ~ SPRING POWERED VEHICLE EXHAUST HOSE REEL SYSTEM
NOT TO SCALE	

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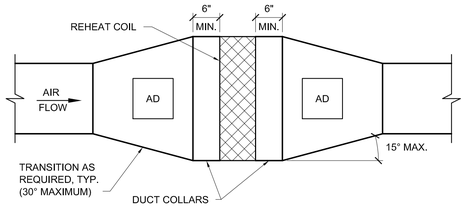
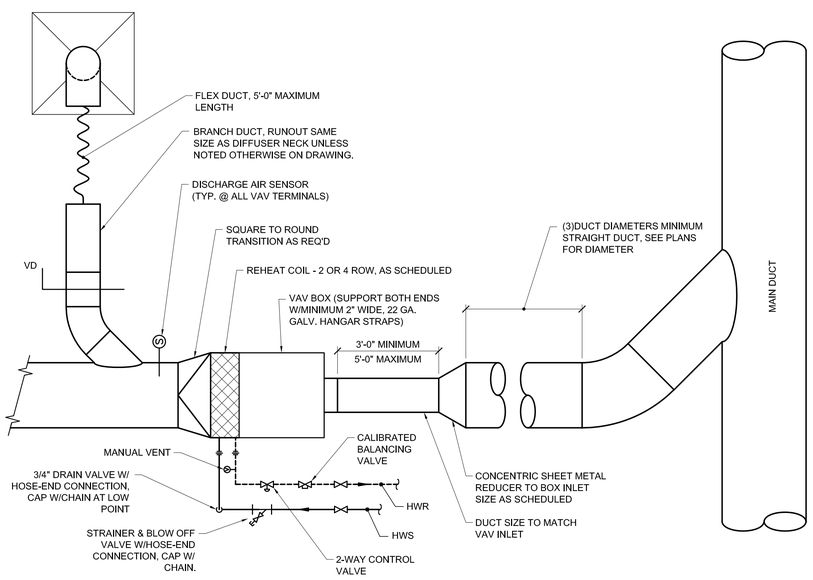
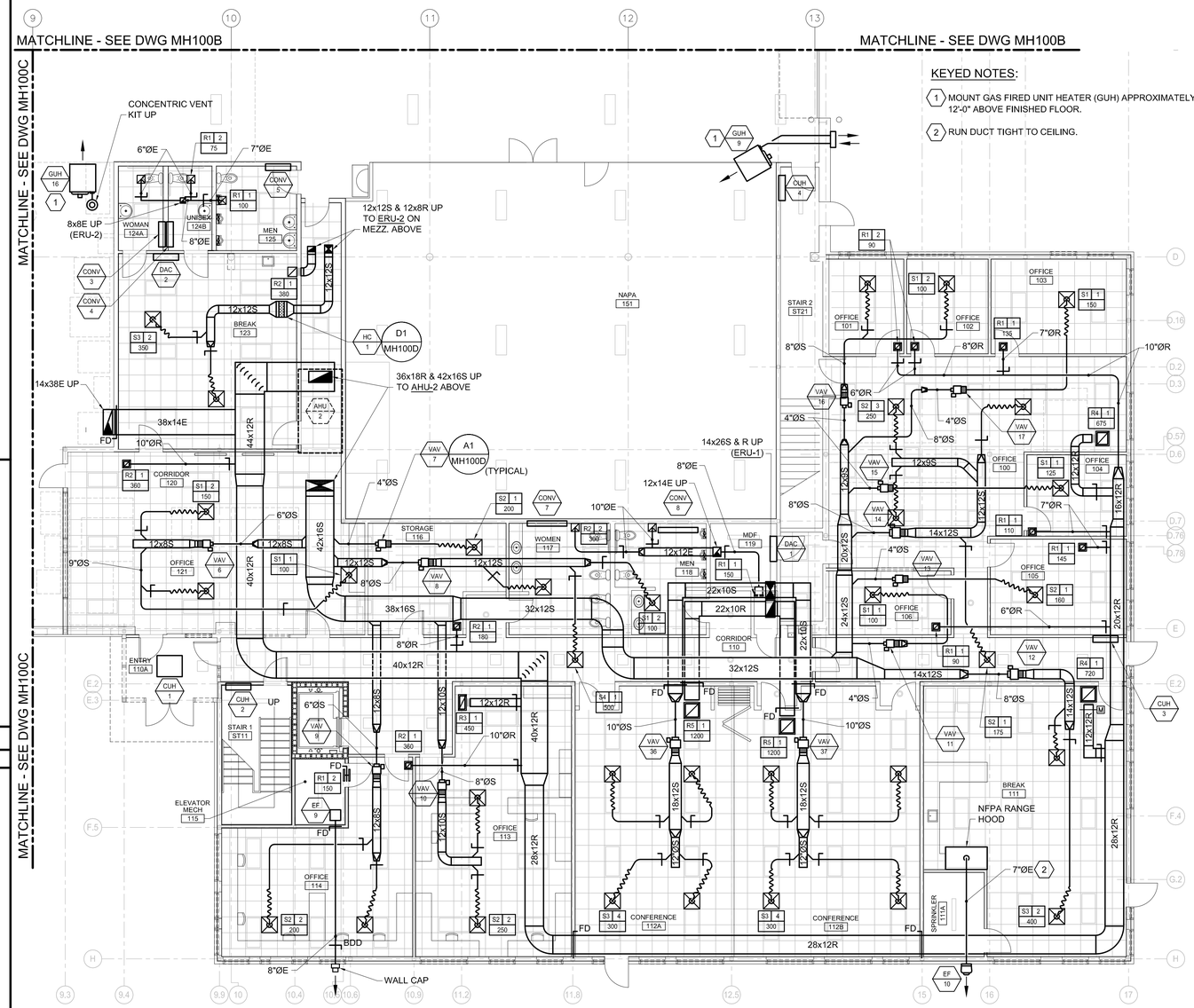


D1	DETAIL ~ REHEAT COIL DUCT CONNECTION
NOT TO SCALE	



A1	DETAIL ~ VAV BOX SCHEMATIC
NOT TO SCALE	



A5	MECHANICAL PART PLAN ~ FIRST FLOOR - AREA D
1/8" = 1'=0"	

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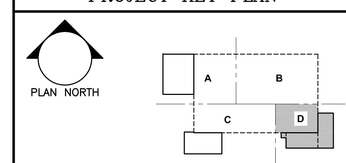
FEBRUARY 27, 2014

PROJECT KEY PLAN



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

WIN: 020118.20

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

MECHANICAL PART PLAN
~
FIRST FLOOR – AREA D

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MH100D

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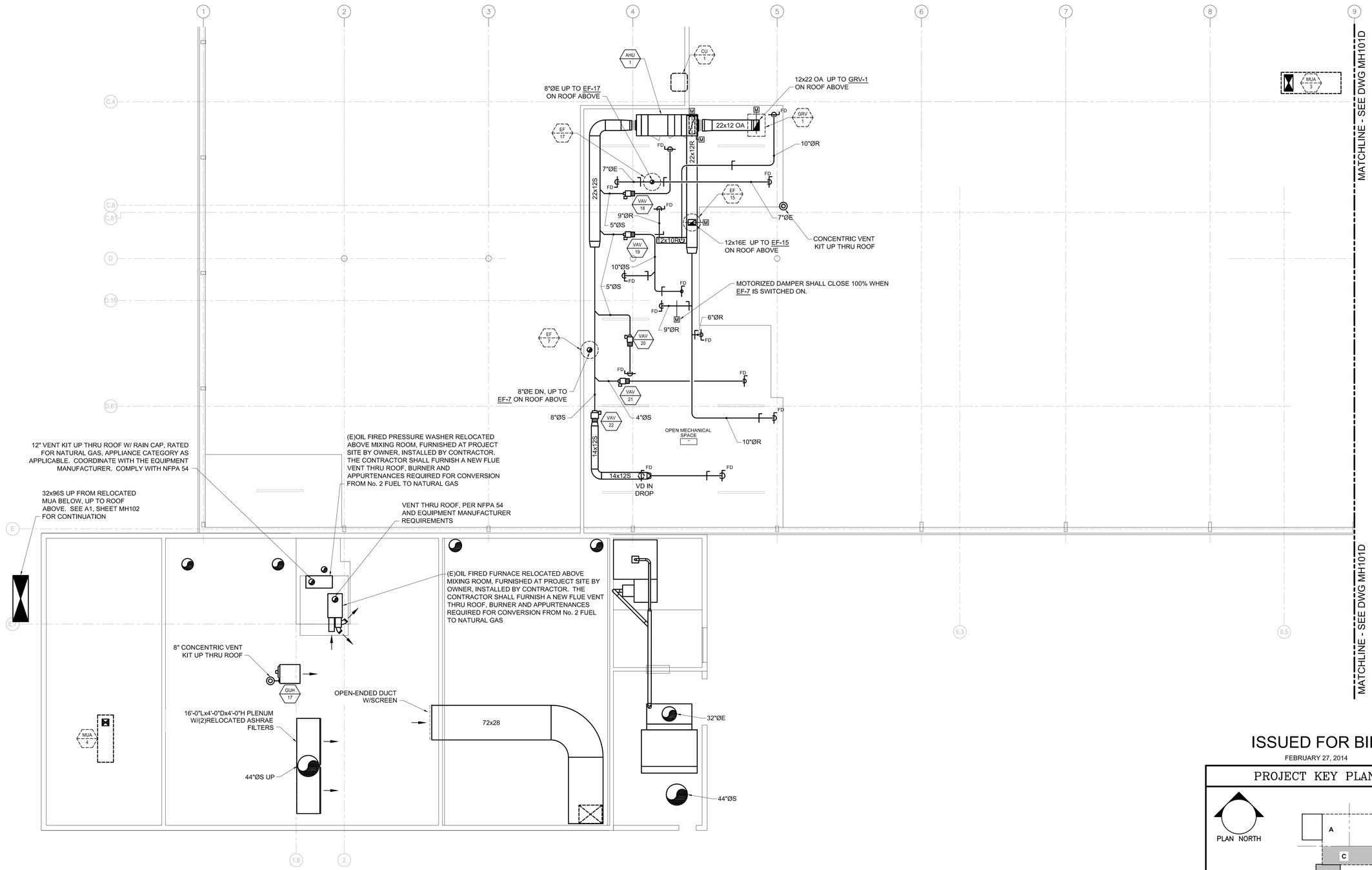

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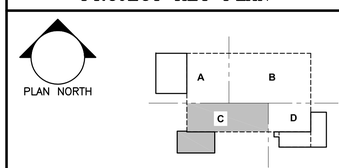
PROJECT KEY PLAN



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STATE OF MAINE
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COMMISSIONER:	
CHIEF ENGINEER:	

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SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

INFORMATION	
PROJECT	
PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

MECHANICAL PART PLAN
~ MEZZANINE – AREA C

SHEET NUMBER

MH101C

A1 | MECHANICAL PART PLAN ~ MEZZANINE - AREA C

1/8" = 1'=0"

Allied Project No: 13057 Cad File: 13057M.DWG

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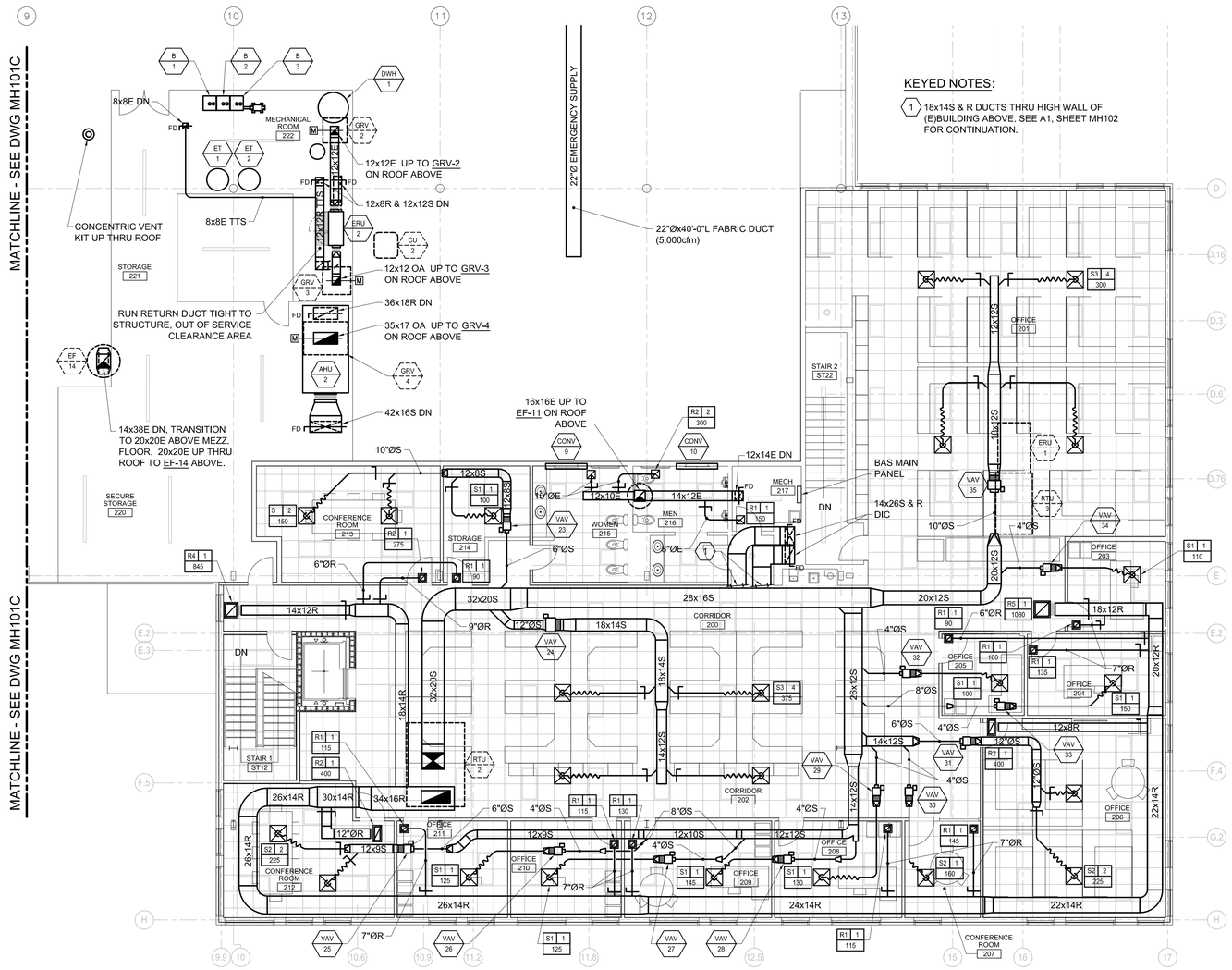

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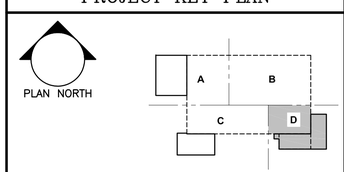
FEBRUARY 27, 2014

PROJECT KEY PLAN



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STATE OF MAINE
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SIGNATURE

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PROJECT INFORMATION	
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PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	-
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

MECHANICAL PART PLAN
SECOND FLOOR – AREA D
~

SHEET NUMBER

MH101D

A1	MECHANICAL PART PLAN ~ SECOND FLOOR - AREA D
1/8" = 1'=0"	

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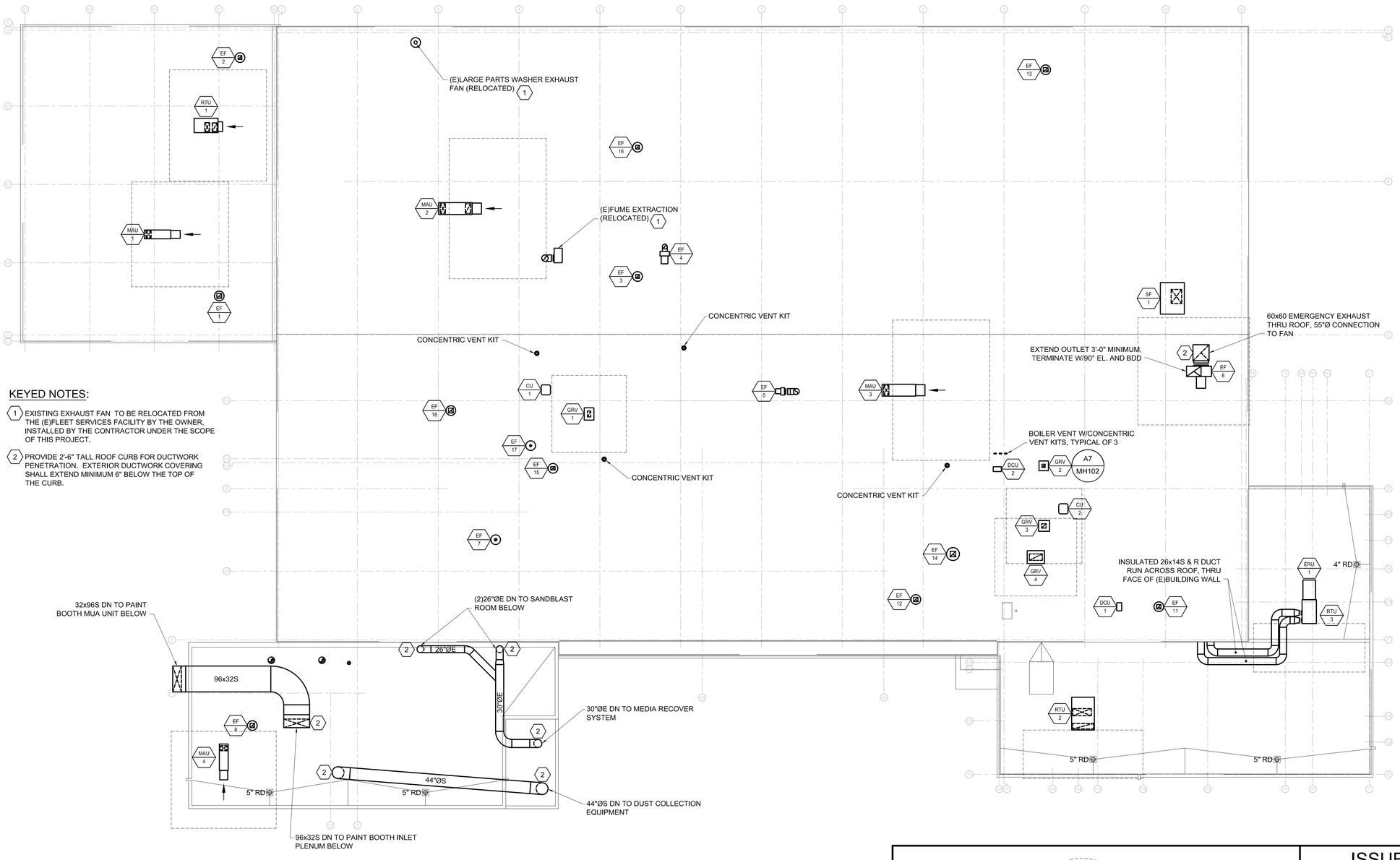
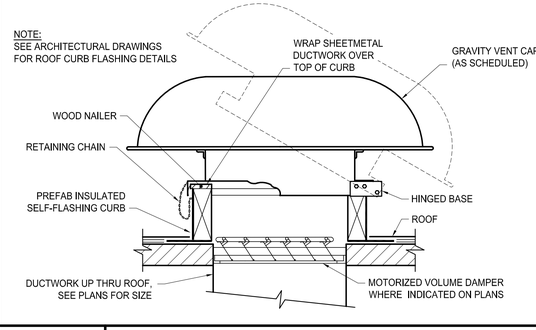


KEYED NOTES:

1. EXISTING EXHAUST FAN TO BE RELOCATED FROM THE (E)FLEET SERVICES FACILITY BY THE OWNER, INSTALLED BY THE CONTRACTOR UNDER THE SCOPE OF THIS PROJECT.
2. PROVIDE 2'-6" TALL ROOF CURB FOR DUCTWORK PENETRATION. EXTERIOR DUCTWORK COVERING SHALL EXTEND MINIMUM 6" BELOW THE TOP OF THE CURB.



A7 | DETAIL ~ GRAVITY ROOF VENTILATOR
NOT TO SCALE

A1 | MECHANICAL ROOF PLAN
1/16" = 1'=0"

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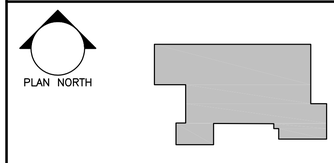
FEBRUARY 27, 2014

PROJECT KEY PLAN



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Allied Project No: 13057 Cad File: 13057M.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE · ANTHONY S. DAVIS No. 8834 · LICENSED PROFESSIONAL ENGINEER

SIGNATURE
ARCH. LIN. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	I
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	-
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

MECHANICAL ROOF PLAN

SHEET NUMBER
MH102

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UNIT HEATER SCHEDULE

TAG	MFR. -MODEL	SIZE	TYPE	EXPOSED FACE WIDTH	EXPOSED FACE HEIGHT	UNIT DEPTH	MBH	CFM	EAT (DEG.-F)	LAT (DEG.-F)	GPM	FLUID	EWT	LWT	MOTOR HP	ELECT	MAX WPD	PIPE RUNOUT SIZE	NOTES
CUH-1	TRANE FFE	3	HORIZ. RECESSED CABINET BOTTOM LOUVER	3'-1"	2'-6"	10 1/2"	11.4	270	70	120.0	2.0	WATER	140.0	128.6	36w	120-1-60	5.5	3/4"	
CUH-2	TRANE FFJ	6	VERTICAL CABINET SLOPE TOP	3'-11"	2'-5	10"	28.7	480	70	125.0	3.0	WATER	140.0	120.0	79	120-1-60	3.8	3/4"	
CUH-3	TRANE FFJ	3	VERTICAL CABINET SLOPE TOP	2'-10"	2'-4"	10"	14.8	260	70	125.0	1.5	WATER	140.0	120.0	85	120-1-60	3.0	3/4"	
CUH-4	TRANE FFJ	6	VERTICAL CABINET SLOPE TOP	3'-11"	2'-5	10"	28.7	480	70	125.0	3.0	WATER	140.0	120.0	79	120-1-60	3.8	3/4"	
UH-1	TRANE S	S-18	HORIZONTAL UH	15"	15"	10"	7.0	350	70	95	1.3	WATER	140.0	120.0	16w	120-1-60	0.2	1/2"	

NOTES:
1. POWER WIRING TO UNIT HEATER BY DIV 26. ALL LOW VOLTAGE CONTROL WIRING, THERMOSTAT, RELAYS, AND TRANFORMERD BY DIV. 23.

AIR DRYER SCHEDULE

TAG	MANUFACTURER AND MODEL NUMBER	LOCATION	AIRFLOW @ 100 F @ 37 F DP (CFM)	INLET/OUTLET CONN.	DRAIN CONN. (INCHES)	COMPRESSOR COMP. HP	COMPRESSOR VOLT/PH	WEIGHT LBS	PHYSICAL LENGTH/ WIDTH/ HEIGHT	NOTES
AD-1	ZEKS MODEL 600HSF	COATINGS MECH RM	600	2"	1/2	4	208/3/60	1275	42/40/62	
AD-2	ZEKS MODEL HTB080	FABRICATION	66	3/4"	1/2	0.5	115/1/60	137	23/17/31	

CONVECTOR SCHEDULE

TAG	STERLING MODEL	STYLE	LENGTH	HEIGHT	DEPTH	MBH	GPM	MAX WPD	PIPE RUNOUT SIZE
CONV-1 thru 10	SW-A	WALL-HUNG	60"	32"	8"	6.5	1	2	1/2"

NOTES:
BASE SIZING ON: 120 AWT, 30F TEMP DROP.

MAKE-UP AIR UNIT SCHEDULE

INDOOR UNIT:	MAU-1	MAU-2	MAU-3	MAU-4
MANUFACTURER	TRANE	TRANE	TRANE	TRANE
DESCRIPTION	ROOF TOP INDIRECT FIRED	ROOF TOP INDIRECT FIRED	ROOF TOP INDIRECT FIRED	ROOF TOP DRECT FIRED
MODEL	GRCA10GFHF0	GRCA50GFHF0	GRCA50GFHF0	GRCA10GFHF0
WEIGHT (w/ Curb)	1,050	1,600	1,600	1050
AIRFLOW, cfm	800	5000	4,000	1,000
ESP, in.wc.	0.75	1	1	0.75
HP	1/2	5	3	1/2
RPM	1135	1415	1220	1135
HEATING				
FUEL	NAT GAS	NAT GAS	NAT GAS	NAT GAS
TEMP RISE, deg-F.	High Temp Rise 60 - 90	Std Temp Rise 20 - 60		High Temp Rise 60 - 90
INPUT (MBH)	100	500	500	100
OUTPUT (MBH)	80	400	400	80
EFFICIENCY	79	80	80	79
TURNDOWN	Full Mod down to 40%	Full Mod down to 40%	Full Mod down to 40%	Full Mod down to 40%
FILTERS	2" Pleated MERV 8	2" Pleated MERV 8	2" Pleated MERV 8	2" Pleated MERV 8
MODULATIING OA/RETURN	NO	YES	NO	NO
ELECTRICAL				
VOLTAGE/HZ/PHASE	460/3	480/3	480/3	460/3
STARTER TYPE	Contactor by Div 23	Magnetic by Div 23	Magnetic by Div 23	Contactor by Div 23
FLA	NA	NA	NA	NA

NOTES:
1. MUA-2 HAS RETURN AIR CONFIGURATION

SPLIT A/C UNIT SCHEDULE

UNIT	DAC-1	DAC-2
SERVES	DMR 119	BREAK 123
COOLING MBH	12	12.0
REFRIGERANT	R410a	R410a
INDOOR UNIT:	WALL MOUNT	WALL MOUNT
MITSUBISHI MODEL NO.	PKA-A12HA	PKA-A12HA
WEIGHT, LBS.	29	29
CFM LOW	320	320
CFM HIGH	425	425
VOLTAGE/PHASE	208/1	208/1
SEER	15.2	15.2
BREAKER SIZE, AMPS	15	15
OUTDOOR COND. UNIT:	DCU-1	DCU-2
MITSUBISHI MODEL NO.	PUY-A12NHA3	PUY-A12NHA3
WEIGHT, LBS.	41	41
LIQUID LINE SIZE	1/4"	1/4"
HOT GAS LINE SIZE	1/2"	1/2"
VOLTAGE/PHASE	208/1	208/1
MCA	13	13.0
MOCP	15	15

NOTES:
1. POWER TO CU'S BY DIV 26.
2. WIRING BETWEEN AC AND CU DIV 23.
3. PROVIDE FACTORY MINI PUMP

REGISTERS - GRILLES - DIFFUSERS (RGD) SCHEDULE

TAG	PRICE MFG MODEL	TYPE	NECK SIZE	FACE SIZE	CFM RANGE	MAX TOTAL P.D. (IN.W.C.)	MAX NC LEVEL	BORDER TYPE	BLOW	NOTES
S-1	SMD	SQ. CEILING SUPPLY DIFFUSER	6" DIA	24" X 24"	0-150	0.07"	16	LAY-IN	4-WAY DIRECTIONAL	
S-2	SMD	SQ. CEILING SUPPLY DIFFUSER	8" DIA	24" X 24"	151-275	0.07"	19	LAY-IN	4-WAY DIRECTIONAL	
S-3	SMD	SQ. CEILING SUPPLY DIFFUSER	10" DIA	24" X 24"	276-440	0.07"	22	LAY-IN	4-WAY DIRECTIONAL	
S-4	SMD	SQ. CEILING SUPPLY DIFFUSER	14" DIA	24" X 24"	441- 500	0.10"	24	LAY-IN	4-WAY DIRECTIONAL	
S-5	520D	STEEL DOUBLE DEFL. SUPPLY REGISTER	12" X 6"	14" X 8"	50-250	0.10"	22	SURFACE MT.	ADJUSTABLE	
S-6	520D	STEEL DOUBLE DEFL. SUPPLY REGISTER	12" X12"	14" X 14"	251-500	0.10"	22	SURFACE MT.	ADJUSTABLE	
S-7	520D	STEEL DOUBLE DEFL. SUPPLY REGISTER	36" X 18"	38" X 20"	2100-3000	0.03"	29	SURFACE MT.	ADJUSTABLE	
R-1	630	ALUM. RETURN GRILLE, 3/4" SPACING, 35 DEG VANES	8" X 8"	10" X 10"	0-170	0.05"	23	SURFACE MT.	----------------	
R-2	630	ALUM. RETURN GRILLE, 3/4" SPACING, 35 DEG VANES	12" X 12"	14" X 14"	171-440	0.05"	27	SURFACE MT.	----------------	
R-3	630	ALUM. RETURN GRILLE, 3/4" SPACING, 35 DEG VANES	22" X 10"	24" X 12"	441-550	0.03"	27	SURFACE MT.	----------------	
R-4	630	ALUM. RETURN GRILLE, 3/4" SPACING, 35 DEG VANES	20" X 18"	22" X 20"	551-1000	0.03"	27	SURFACE MT.	----------------	
R-5	630	ALUM. RETURN GRILLE, 3/4" SPACING, 35 DEG VANES	22" X 22"	24" X 24"	1001-1500	0.03"	27	SURFACE MT.		
R-6	630	ALUM. RETURN GRILLE, 3/4" SPACING, 35 DEG VANES	30" X 22"	32" X 24"	1501-2500	0.04"	25	SURFACE MT.	----------------	
R-7	630	ALUM. RETURN GRILLE, 3/4" SPACING, 35 DEG VANES	32" X 30"	34" X 32"	2501-4000	0.12"	35	SURFACE MT.	----------------	

GAS FIRED SEALED COMBUSTION UNIT HEATER SCHEDULE

TAG	MFR. -MODEL	SIZE	TYPE	EXPOSED FACE DIM.	EXPOSED DEPTH DIM.	WEIGHT LBs	INPUT MBH	OUPUT MBH	GAS PRESSURE RANGE (MIN-MAX)	GAS CONN. SIZE	CFM	VENT CONN.	COMB. AIR	MOTOR HP	ELECT	NOTES
GUH - 1	REZNOR - UEAS	130	NAT GAS FIRED UH	20-1/8"	39-3/16"	250	131.0	121.8	5" -14"	1/2 "	2256	4"	6"	1/4	120/1/60	
GUH - 2	REZNOR - UEAS	130	NAT GAS FIRED UH	20-1/8"	39-3/16"	250	131.0	121.8	5" -14"	1/2 "	2256	4"	6"	1/4	120/1/60	
GUH - 3	REZNOR - UEAS	130	NAT GAS FIRED UH	20-1/8"	39-3/16"	250	131.0	121.8	5" -14"	1/2 "	2256	4"	6"	1/4	120/1/60	
GUH - 4	REZNOR - UEAS	130	NAT GAS FIRED UH	20-1/8"	39-3/16"	250	131.0	121.8	5" -14"	1/2 "	2256	4"	6"	1/4	120/1/60	
GUH - 5	REZNOR - UEAS	130	NAT GAS FIRED UH	20-1/8"	39-3/16"	250	131.0	121.8	5" -14"	1/2 "	2256	4"	6"	1/4	120/1/60	
GUH - 6	REZNOR - UEAS	310	NAT GAS FIRED UH	34-1/8"	41"	400	305.0	277.5	5" -14"	3/4 "	4283	4"	6"	1	120/1/60	
GUH - 7	REZNOR - UEAS	310	NAT GAS FIRED UH	34-1/8"	41"	400	305.0	277.5	5" -14"	3/4 "	4283	4"	6"	1	120/1/60	
GUH - 8	REZNOR - UEAS	310	NAT GAS FIRED UH	34-1/8"	41"	400	305.0	277.5	5" -14"	3/4 "	4283	4"	6"	1	120/1/60	
GUH - 9	REZNOR - UEAS	130	NAT GAS FIRED UH	20-1/8"	39-3/16"	250	131.0	121.8	5" -14"	1/2 "	2256	4"	6"	1/4	120/1/60	
GUH - 10	REZNOR - UEAS	130	NAT GAS FIRED UH	20-1/8"	39-3/16"	250	131.0	121.8	5" -14"	1/2 "	2256	4"	6"	1/4	120/1/60	
GUH - 11	REZNOR - UEAS	130	NAT GAS FIRED UH	20-1/8"	39-3/16"	250	131.0	121.8	5" -14"	1/2 "	2256	4"	6"	1/4	120/1/60	
GUH - 13	REZNOR - UEAS	310	NAT GAS FIRED UH	34-1/8"	41"	400	305.0	277.5	5" -14"	3/4 "	4283	4"	6"	1	120/1/60	
GUH - 14	REZNOR - UEAS	310	NAT GAS FIRED UH	34-1/8"	41"	400	305.0	277.5	5" -14"	3/4 "	4283	4"	6"	1	120/1/60	
GUH - 15	REZNOR - UEAS	130	NAT GAS FIRED UH	20-1/8"	39-3/16"	250	131.0	121.8	5" -14"	1/2 "	2256	4"	6"	1/4	120/1/60	
GUH - 16	REZNOR - UEAS	130	NAT GAS FIRED UH	20-1/8"	39-3/16"	250	131.0	121.8	5" -14"	1/2 "	2256	4"	6"	1/4	120/1/60	
GUH - 17	REZNOR - UEAS	310	NAT GAS FIRED UH	34-1/8"	41"	400	305.0	277.5	5" -14"	3/4 "	4283	4"	6"	1	120/1/60	

NOTES:

FAN SCHEDULE

TAG	SERVES	MANUFACTURER-MODEL	TYPE	DRIVE	CFM	ESP	MAX BHP	MOTOR HP	MAX RPM	VOLTS/ PH	MAX SONES	WEIGHT (LBS.)	VFD	DAMPER	NOTES
EF-1	RM 140	LOREN COOK - 120R15D	ROOF UP BLAST	DIRECT	750	0.6	0.14	0.25	1247	115/1	8.7	75	NO	MOD	#1, #2
EF-2	RM 142	LOREN COOK -90R15DH	ROOF UP BLAST	DIRECT	300	0.4	88w	0.125	1330	115/1	5.6	30	NO	MOD	#1, #2
EF-3	RM 180-184	LOREN COOK - 120R15D	ROOF UP BLAST	DIRECT	1,000	0.5	0.14	0.167	1013	115/1	8.2	75	NO	MOD	#1, #2
EF-4	HEAVY BAY VEHICLE EXHAUST	LOREN COOK - 180 CPS	ROOF UTILITY	BELT	4,800	5	5.8	7.5	2291	460/3	60.0	750	NO	BDD	
EF-5	LIGHT BAY VEHICLE EXHAUST	LOREN COOK - 135 CPS	ROOF UTILITY	BELT	2,400	4	2.4	3	2724	460/3	60.0	450	NO	BDD	
EF-6	LIGHT/HEAVY BAYS EMERGENCY EXHAUST	LOREN COOK - 490 CPS	ROOF UTILITY	BELT	50,000	1.5	34	40	748	460/3	60.0	2200	YES	MOD	
EF-7	RM 132	LOREN COOK -90R15DH	ROOF UP BLAST	DIRECT	300	0.4	88w	0.125	1330	115/1	5.6	30	NO	MOD	#1, #2
EF-8	WASH 191	LOREN COOK - 120R15D	ROOF UP BLAST	DIRECT	1,000	0.5	0.14	0.167	1013	115/1	8.2	75	NO	MOD	#1, #2
EF-9	ELEV MACHINE RM	LOREN COOK - GC-162	CEILING INLINE	DIRECT	150	0.5	114w	NA	1230	115/1	4.2	20	NO	BDD	#1
EF-10	BREAK 111	LOREN COOK - 100 ACWB	NFPA 96 WALL	BELT	600	0.7	0.17	0.175	1704	115/1	10.0	40	NO	NA	#3
EF-11	TOILETS RMS 117/8, 215/6	LOREN COOK - 150R13D	ROOF UP BLAST	DIRECT	1,500	0.7	0.28	0.75	1088	460/3	10.0	95	NO	MOD	#1, #2
EF-12	LIGHT BAY GENERAL EXHAUST	LOREN COOK - 150R13D	ROOF UP BLAST	DIRECT	1,500	0.75	0.28	0.75	1088	460/3	10.0	95	NO	MOD	#1, #2
EF-13	HEAVY BAY GENERAL EXHAUST	LOREN COOK - 210R6B	ROOF UP BLAST	BELT	3,000	0.75	0.69	0.75	964	460/3	8.5	240	NO	MOD	#2
EF-14	AHU-2 RELIEF/ECONOMIZER	LOREN COOK - 245RH7B	ROOF UP BLAST	BELT	3,500	1	1.1	1	828	460/3	13.0	340	YES	MOD	#2
EF-15	AHU-1 RELIEF/ECONOMIZER	LOREN COOK - 120R17DEC	ROOF UP BLAST	DIRECT	1,000	0.6	178w	0.50	1371	115/1	11.0	80	YES	MOD	ECM MOTOR
EF-16	MACHINE SHOP EXHAUST	LOREN COOK - 101R15D	ROOF UP BLAST	DIRECT	500	0.5	0.9	0.125	1435	115/1	8.0	40	NO	MOD	#2
EF-17	UNISEX TOIILETS 134 / 136	LOREN COOK -90R15DH	ROOF UP BLAST	DIRECT	200	0.4	88w	0.125	1330	115/1	5.6	30	NO	MOD	#1, #2
EF-18	FABRICATION 181	LOREN COOK - 150R15D	ROOF UP BLAST	DIRECT	2,000	0.75	0.44	0.75	1255	460/3	15.0	100	NO	MOD	#1, #2
SF-1	GARAGE EMERGENCY EXHAUST	LOREN COOK 365CFS	FILTERED ROOF SUPPLY	BELT	50,000	1.75	39.8	40	1019	460/3	54.0	3000	YES	MOD	#2

GENERAL NOTES:
1. PROVIDE FACTORY SPEED CONTROLLER.
2. ALL MODs ARE BY TEMPERATURE CONTROLS CONTRACTOR
3. INTERLOCK WITH KITCHEN HOOD MANUAL SWITCH

UNIT HEATER SCHEDULE

TAG	MFR. -MODEL	SIZE	TYPE	EXPOSED FACE WIDTH	EXPOSED FACE HEIGHT	UNIT DEPTH	MBH	CFM	EAT (DEG.-F)	LAT (DEG.-F)	GPM	FLUID	EWT	LWT	MOTOR HP	ELECT	MAX WPD	PIPE RUNOUT SIZE	NOTES
CUH-1	TRANE FFE	3	HORIZ. RECESSED CABINET BOTTOM LOUVER	3'-1"	2'-6"	10 1/2"	11.4	270	70	120.0	2.0	WATER	140.0	128.6	36w	120-1-60	5.5	3/4"	
CUH-2	TRANE FFJ	6	VERTICAL CABINET SLOPE TOP	3'-11"	2'-5	10"	28.7	480	70	125.0	3.0	WATER	140.0	120.0	79	120-1-60	3.8	3/4"	
CUH-3	TRANE FFJ	3	VERTICAL CABINET SLOPE TOP	2'-10"	2'-4"	10"	14.8	260	70	125.0	1.5	WATER	140.0	120.0	85	120-1-60	3.0	3/4"	
CUH-4	TRANE FFJ	6	VERTICAL CABINET SLOPE TOP	3'-11"	2'-5	10"	28.7	480	70	125.0	3.0	WATER	140.0	120.0	79	120-1-60	3.8	3/4"	
UH-1	TRANE S	S-18	HORIZONTAL UH	15"	15"	10"	7.0	350	70	95	1.3	WATER	140.0	120.0	16w	120-1-60	0.2	1/2"	

NOTES:
1. POWER WIRING TO UNIT HEATER BY DIV 26. ALL LOW VOLTAGE CONTROL WIRING, THERMOSTAT, RELAYS, AND TRANFORMERD BY DIV. 23.

DUCT HEATING COIL SCHEDULE

TAG	SERVES	AIRFLOW	LENGTH	HEIGHT	FACE VEL	EDB	LDB	MBH	MAX APD	FLUID	GPM	EWT	LWT	MAX WPD	RUNOUT SIZE
HC-1	ERU-1	700	24	12	350	40	90	30.24	0.2"	WATER	1.5	140	100	3'	3/4"
HC-2	ERU-3	400	12	12	400	40	90	21.6	0.2"	WATER	1.5	140	100	3'	3/4"

RADIANT FLOOR CIRCUIT SCHEDULE

AREA SERVED / MANIFOLD NO.	CIRCUIT NO.	FLOOR AREA (s f)	UNIT HEAT (s f)	LENGTH (ft) (Circuit + Tail)	FLOW RATE (gal/min)	HEAD LOSS (Ft of water)	SUPPLY TEMP (° F)	SURFACE TEMP (°F)	DESIGN TEMP DROP (°F)	TUBE SPACING (in)	TUBE SIZE
MANIFOLD #1	1	200	50	277	1.20	5.40	132	85	20	9	5/8"
	2	200	50	277	1.20	5.40	132	85	20	9	5/8"
	3	200	50	277	1.20	5.40	132	85	20	9	5/8"
	4	200	50	277	1.20	5.40	132	85	20	9	5/8"
	5	200	50	277	1.20	5.40	132	85	20	9	5/8"

NOTE: Circuit lengths, tubing and manifold are based on UPONOR (Urell Inc is Sales Rep). Total Heat Load = 58,333 BTUh.

GRAVITY ROOF VENTILATOR SCHEDULE

TAG	MAKE - MODEL	ASSOICATED AIR SYSTEM	INTAKE OR RELIEF?	CFM	HOOD DIMENSIONS LENGTH (in.)	HOOD WIDTH (in.)	HOOD HEIGHT (in.)	HOOD MIN. FREE AREA (SF)	THROAT DIMENSIONS LENGTH (in.)	THROAT WIDTH (in.)	THROAT MIN. FREE AREA (SF)	MAX P.D. MAX W.C.	SCREEN	WEIGHT LBS	ROOF CURB
GRV-1	COOK - GI	AHU-1	INTAKE	1,610	39	39	14	6.0	24.0	18.0	3.0	0.04	SEE SPEC	125	30"
GRV-2	COOK - GR	ERU-2	EXHAUST	700	31	27	12	3.7	12.0	12.0	1.0	0.01	SEE SPEC	90	30"
GRV-3	COOK - GI	ERU-2	INTAKE	700	31	27	12	3.7	12.0	12.0	1.0	0.02	SEE SPEC	90	30"
GRV-4	COOK - GI	AHU-2	INTAKE	4,500	75	51	19	16.0	48.0	24.0	8.0	0.04	SEE SPEC	220	30"

AIR SEPARATOR / EXPANSION TANK SCHEDULE

AIR SEPARATOR		
TAG	AS-1	---
MFR-MODEL	TACO - 49025AD-125	---
INLET/OUTLET	2" 1/2"	---
STRAINER	YES	---
BLADDER-TYPE EXPANSION TANK		
TAG	ET-1	ET-2
MFR-MODEL	TACO CA-300	TACO PAX-30
TANK DIAMETER	24	14
TANK HEIGHT	58	25
ACCEPTANCE VOLUME	79	5
WATERLOGGED WEIGHT (LBS.)	978	503
ASME PRESSURE RATING	125	125
MAXIMUM OPERATING TEMPERATURE	180 F	120 F

SPLIT AIR HANDLING UNIT SCHEDULE

GENERAL	UNIT NO.	AHU-1	AHU-2
	LOCATION	OIT MEZZANINE	OIT STORAGE
	SERVICE	OIT ADMINISTRATION	FIRST FLOOR ADMINISTRATION
	DESIGN EQUIPMENT MFG.	TRANE	TRANE
	MODEL / SIZE	CSSA / 4	CSSA / 14
	SYSTEM TYPE	VAV	VAV
ELECTRICAL	VOLTAGE	460-3-60	460-3-60
	MOTOR EFFICIENCY	PREMIUM	PREMIUM
	VFD FURN BY	DIV 23	DIV 23
	DISCONNECT SW. FURN BY	DIV 26	DIV 26
SUPPLY FAN	DIAMETER - TYPE	13.5" DIRECT DRIVE PLENUM	20" DIRECT DRIVE PLENUM
	CFM STD. AIR	1610	4,500
	MIN. OA CFM AT MAX DESIGN CFM	400	1800 (40% MIN)
	ESP, in.wc.	1.5	1.75
	TSP, in. wc.	3.9	3.5
	MAX-BHP	1.49	3.9
	MOTOR HP	2	5
	MOTOR RPM	1800	1725
	STARTER OR VFD	VFD BY DIV 23	VFD BY DIV 23
ECONOMIZING RELIEF	ARRANGEMENT	IN SEQUENCE WITH OA/RA DAMPERS	IN SEQUENCE WITH OA/RA DAMPERS
HOT WATER COIL	EAT, deg-F.	35	35
	LAT, deg-F.	65	65
	TMBTUH	52.38	153.0
	MIN COIL AREA, sf.	4	11.3
	MAX AIR PD. in. wc.	0.2	0.2
	COIL FACE VELOCITY	403	418
	FLUID	WATER	WATER
	EWT, deg-F	140	140
	LWT, deg-F	100	100
	GPM	2.7	8
	WATER PD, ft-H2O	2	20
DX COOLING COIL	ENT. AIR, DB/WB	80/67	80/67
	TMBTUH	53.9	218
	SMBTUH	37.5	144
	NOMINAL TONS	4	20
	MIN COIL AREA, sf.	4.5	12.3
	MAX AIR PD. in. wc.	0.25	0.35
	COIL FACE VELOCITY	357	382
	REFRIGERANT	410A	410A
	SUCTION TEMP.	45	45
FILTERS	TYPE (SEE SPEC)	30% ANGLE	30% ANGLE
	MIN. AREA, sf	5.56	13.3
	VELOCITY	290	353
DIMENSIONS	LENGTH / WIDTH / HEIGHT	121" / 44" / 30"	127" / 66.5" / 42"
WEIGHT	INSTALLED WEIGHT	1,000 LBs	1,700 LBs

SINGLE DUCT AIR TERMINAL SCHEDULE

TAG	SERVES	Trane Model No.	INLET SIZE	CFM MIN	RANGE MAX	OUTLET SIZE	MAX RAD. & DISCH. NC	A.P.D. AT MAX. COOLING	MBH	GPM	MAX WPD	EWT	LWT	EAT	LAT	ROWS	RUNOUT SIZE
VAV-1	SIGN WORKSHOP 142	VCWF10	10"	700	1000	14" x 12"	28	0.50	32.1	2.1	0.1'	140	110	55	97	2	3/4"
VAV-2	SIGN SHOP OFFICE 141	VCWF06	8"	350	500	10" x 8"	35	0.45	16.6	1.1	0.3'	140	110	55	99	1	1/2"
VAV-3	OFFICE 143	VCWF04	4"	105	150	10" x 8"	35	0.10	5.1	0.3	0.2	140	110	55	104	1	1/2"
VAV-4	OFFICE 144	VCWF04	4"	75	110	10" x 8"	35	0.10	3.7	0.3	0.3'	140	110	55	100	1	1/2"
VAV-5	NOT USED	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
VAV-6	OFFICE 121	VCWF06	6"	210	300	10" x 8"	35	0.45	9.8	0.7	0.3'	140	110	55	98	1	1/2"
VAV-7	STORAGE 116	VCWF04	4"	100	200	10" x 8"	35	0.10	2.6	0.2	0.3	140	110	55	79	1	1/2"
VAV-8	MEN 118/WOMEN 117/CORR. 110	VCWF08	8"	490	700	11" x 10"	28	0.40	11.6	0.8	2.3	140	110	55	77	1	1/2"
VAV-9	OFFICE 114	VCWF06	6"	280	400	10" x 8"	35	0.45	10.4	0.7	0.3'	140	110	55	90	1	1/2"
VAV-10	OFFICE 113	VCWF08	8"	350	500	11" x 10"	35	0.40	10.1	0.7	0.3'	140	110	55	82	1	1/2"
VAV-11	OFFICE 106	VCWF04	4"	70	100	10" x 8"	35	0.10	1.5	0.1	0.3'	140	110	55	75	1	1/2"
VAV-12	BREAK 111	VCWF08	8"	550	800	11" x 10"	28	0.40	19.2	1.3	2.3	140	110	55	87	1	1/2"
VAV-13	OFFICE 105	VCWF04	4"	110	160	10" x 8"	35	0.10	3.7	0.3	0.3'	140	110	55	85	1	1/2"
VAV-14	OFFICE 100	VCWF08	8"	525	750	11" x 10"	35	0.40	14.7	1.0	0.3'	140	110	55	81	1	1/2"
VAV-15	OFFICE 104	VCWF04	4"	90	125	10" x 8"	35	0.10	3.2	0.2	0.3'	140	110	55	88	1	1/2"
VAV-16	OFFICE 101/OFFICE 102	VCWF04	4"	140	200	10" x 8"	35	0.10	4.8	0.3	0.3'	140	110	55	87	1	1/2"
VAV-17	OFFICE 103	VCWF04	4"	105	150	10" x 8"	35	0.10	4.4	0.3	0.3'	140	110	55	94	1	1/2"
VAV-18	OFFICE 135	VCWF05	5"	250	300	10" x 8"	37	0.15	13.0	0.9	0.3'	140	110	55	103	2	1/2"
VAV-19	CORRIDOR 130/OFFICE 133	VCWF05	5"	220	310	10" x 8"	37	0.15	9.9	0.6	0.3'	140	110	55	95	1	1/2"
VAV-20	N.O.C.	VCWF05	5"	210	300	10" x 8"	37	0.15	7.3	0.5	0.3'	140	110	55	87	1	1/2"
VAV-21	OFFICE 138	VCWF04	4"	75	100	10" x 8"	35	0.10	4.2	0.3	0.3'	140	110	55	105	1	1/2"
VAV-22	OFFICE 131	VCWF08	8"	420	600	11" x 10"	35	0.40	18.7	1.2	0.3'	140	110	55	96	1	1/2"
VAV-23	CONF. RM 213/STORAGE 214	VCWF06	6"	280	400	10" x 8"	35	0.45	9.8	0.7	0.3'	140	110	55	91	1	1/2"
VAV-24	OPEN OFFICE 2nd FLOOR ADMIN	VCWF12	12	1350	1500	17"x14"	30	0.50"	32.2	2.1	2.8'	140	110	55	83	1	3/4"
VAV-25	CONF. RM 212	VCWF06	6"	315	450	10" x 8"	35	0.45	10.7	0.7	0.3'	140	110	55	86	1	1/2"
VAV-26	OFFICE 211	VCWF04	4"	90	125	10" x 8"	35	0.10	3.5	0.2	0.3'	140	110	55	91	1	1/2"
VAV-27	OFFICE 210	VCWF04	4"	90	125	10" x 8"	35	0.10	3.5	0.2	0.3'	140	110	55	91	1	1/2"
VAV-28	OFFICE 209	VCWF04	4"	100	145	10" x 8"	35	0.10	4.1	0.3	0.3'	140	110	55	93	1	1/2"
VAV-29	OFFICE 208	VCWF04	4"	90	130	10" x 8"	35	0.10	3.6	0.2	0.3'	140	110	55	92	1	1/2"
VAV-30	CONF. RM 207	VCWF04	4"	145	160	10" x 8"	35	0.10	4.2	0.3	0.3'	140	110	55	82	1	1/2"
VAV-31	OFFICE 206	VCWF06	6"	405	450	10" x 8"	35	0.45	13.8	0.9	0.3'	140	110	55	86	1	1/2"
VAV-32	OFFICE 205	VCWF04	4"	75	110	10" x 8"	35	0.10	1.9	0.1	0.3'	140	110	55	78	1	1/2"
VAV-33	OFFICE 204	VCWF04	4"	75	110	10" x 8"	35	0.10	2.7	0.2	0.3'	140	110	55	88	1	1/2"
VAV-34	OFFICE 203	VCWF04	4"	75	110	10" x 8"	35	0.10	2.7	0.2	0.3'	140	110	55	88	1	1/2"
VAV-35	OFFICE 201	VCWF10	10"	850	1200	14"x12"	28	0.50"	24.1	1.6	2.2'	180	155	55	81	2	3/4"
VAV-36	CONF 112A	VCWF10	10"	600	1200	14"x12"	28	0.50"	15.5	1.0	2.2'	180	155	55	79	1	1/2"
VAV37	CONF 112B	VCWF10	10"	600	1200	14"x12"	28	0.50"	15.5	1.0	2.2'	180	155	55	79	1	1/2"

NOTES:
1. VAV BOX MANUFACTURER: BOX, AIRFLOW PICKUP, AND HW COIL.
2. CONTROL CONTRACTOR: DAMPER ACTUATOR, VALVE ACTUATOR, TRANSFORMERS, AND LOW VOLTAGE WIRING.
3. ELECTRICAL CONTRACTOR; 120V JUNCTION BOXES WHERE SHOWN ON ELECTRICAL PLANS.

PUMP SCHEDULE

TAG	SYSTEM	MFR.	MODEL	SUCT X DISCH	TYPE	PUMPED FLUID	PERFORMANCE GPM	PERFORMANCE HEAD	PERFORMANCE RPM	MOTOR HP	VOLTS/PH (60 Hz.)	ELECTRICAL COORDINATION VFD FURN. BY	STARTER FURN. BY	DISC. SWITCH FURN BY	NOTES
P-1	BUILDING HEATING LOOP	TACO	SKV 1507-1750-1.5	1 1/2" X 1 1/2"	INLINE	WATER	59	36	1760	1.5	208/3	TACO	NA	DIV 26	WIRED TO BOILER CONTROLLER
P-2	BUILDING HEATING LOOP	TACO	SKV 1507-1750-1.5	1 1/2" X 1 1/2"	INLINE	WATER	59	36	1760	1.5	208/3	TACO	NA	DIV 26	WIRED TO BOILER CONTROLLER
P-3	BUILDING DHW (DWH-1)	TACO	IL0011-IFC	1 1/2" X 1 1/2"	INLINE	WATER	12	15	3250	1/8	120/1	NA	NA	DIV 26	BOILER HWS
P-4	GARAGE RADIANT FLOOR	TACO	IL0011-IFC	1 1/4" X 1 1/4"	INLINE	WATER	6	12	3250	1/8	120/1	NA	NA	DIV 26	#1
P-5	BOILER B-1	GRUNDFOSS	UPS26-99F	1 1/2"x1 1/2"	INLINE	WATER	25	18	1750	245w	115/1	NA	NA	NA	POWERED THRU BOILER CIRCUIT
P-6	BOILER B-2	GRUNDFOSS	UPS26-99F	1 1/2"x1 1/2"	INLINE	WATER	25	18	1750	245w	115/1	NA	NA	NA	POWERED THRU BOILER CIRCUIT
P-7	BOILER B-3	GRUNDFOSS	UPS26-99F	1 1/2"x1 1/2"	INLINE	WATER	25	18	1750	245w	115/1	NA	NA	NA	POWERED THRU BOILER CIRCUIT

NOTES: 1. Provide One Spare Circulato In Box.

ENERGY RECOVERY UNIT SCHEDULE

GENERAL	TAG	ERU-1	ERU-2	ERU-3
	SERVES	RTU-3	Break 123	Publications and Locker 183
	LOCATION	RTU-3 Combination Curb	Mech Rm 222	Publications Mezz.
	TYPE	FIXED-PLATE SENSIBLE	FIXED-PLATE SENSIBLE	FIXED-PLATE SENSIBLE
	MFR	RENEWAIRE	RENEWAIRE	RENEWAIRE
	MODEL	HE2XRT (Roof)	HE1XIN (Horiz.)	EV450 (Vert.)
FILTER SECTION	FILTERS	MERV 8 2" Pleated	MERV 8 2" Pleated	MERV 8 2" Pleated
(TYP for SUPPLY & EXH)	MIN. AREA, sf	5.5	2.7	1.9
	VELOCITY	NA	NA	NA
OUTSIDE AIR FAN	TYPE	FC	FC	FC
	AIRFLOW, cfm	**1240**	**700**	**400**
	ESP, in.wc.	0.5	0.75	0.6
	MOTOR SPEEDS	FACTORY MOUNTED VFD	SPEED CONTROL via ECM	SPEED CONTROL via ECM
	HP	1.5	0.75	0.75
EXHAUST AIR FAN	TYPE	FC	FC	FC
	AIRFLOW, cfm	**1240**	**630**	**400**
	ESP, in.wc.	0.5	0.75	0.6
	MOTOR SPEEDS	FACTORY MOUNTED VFD	SPEED CONTROL via ECM	SPEED CONTROL via ECM
	HP	1.5	0.75	SUPPLY MOTOR ONLY
OVERALL DIMENSIONS	LENGTH	87"	54"	41"
	WIDTH	44"	24"	16"
	HEIGHT	40"	37"	37"
	OPERATING WEIGHT, lbs.	300	600	600
HEAT RECOVERY CORE	SUMMER OA DB/WB	88 / 71	88 / 71	88 / 71
	WINTER OA DB	-3	-3	-3
	SUMMER SA DB/WB	78.5 /66	78.5 /66	78.5 /66
	WINTER SA DB	51.5	51.5	51.5
	SENSIBLE EFF. WINTER	0.75	0.75	75%
	SENSIBLE EFF. SUMMER	0.72	0.72	72.0%
	FROST CONTROL	NONE REQUIRED	NONE REQUIRED	NONE REQUIRED
ELECTRICAL DATA				
	V-PH-HZ	460/3/60	208/1/60	208/1/60
	UNIT FLA	2.4	5.1	5.1
	UNIT MCA	5.9	11.5	6.4
	MAX FUSE SIZE	15	`	15
	SUPPLY AND RETURN SMOKE DETECTORS	NO	NO	NO

NOTES
NOTES:
1. ERU MFR. SHALL PROVIDE NF DISCONNECT, 24VAC TRANSFORMER/RELAY PACKAGE.

PACKAGED ROOF TOP UNIT (RTU) SCHEDULE

GENERAL	ITEM	RTU -1	RTU -2	RTU-3 (COMBINATION ERU CURB)
	SERVES	Sign Shop Admin	Upper Level Administration	Conference Rms 112a/b
	MFR	Trane	Trane	Trane
	MODEL	YZC060	YHD180	YHC092
	NOMINAL TONS	5.0	15.0	7.5
	SEER	13	12	12.6
ELECTRICAL	VOLTS-PH-HZ	460/3/60	460/3/60	460/3/60
	MCA / MCB	10.3 / 15	39 / 50	19.9 / 25
	DISCONNECT SW. FURN BY	RTU MFR.	RTU MFR.	RTU MFR.
	SMOKE DETECTOR (SD)	NA	DIV 26	DIV 26
	SD FURN BY	NA	DIV 26	DIV 26
	SD INSTALLED IN DUCT BY	NA	DIV 23	DIV 23
	SD WIRED TO HVAC CONTROLS BY	NA	DIV 23	DIV 23
	SD WIRED TO FIRE ALARM BY	NA	DIV 26	DIV 26
FILTER SECTION	30% FILTERS (Qauntity)	MERV 8 (4)	MERV 8 (12)	MERV 8 (4)
	MIN. AREA, sf	11.1	31.0	13.9
SUPPLY FAN	DRIVE	VFD	VFD	VFD
	AIRFLOW, Max cfm	1,800	5,100	2400
	MIN OUTSIDE AIR, cfm	300	1,410	250 (via ERU-1)
	ESP, in.wc.	1.25	1.75	1.2
	RPM	1122	1100	1152
	MAX-BHP/ MOTOR HP	0.88 / 1.0	4 / 5	1.15 / 3.6
HEATING	FUEL	NAT GAS	NAT GAS	NAT GAS
	GAS CONNECTION	1/2"	1/2"	3/4"
	MIN / MAX in wg	4.5 / 14	4.5 / 14	4.5 / 14
	MBH INPUT	80	250 / 175	150 / 105
	MBH OUTPUT	64	203 / 142	120 / 84
	NO. STAGES	1	2	2
	DELTA TEMP RISE F	33	37	46.5
ECONOMIZER	POWERED / BAROMETRIC	POWER EXHAUSTER	POWER EXHAUSTER	POWER EXHAUSTER
DX COOLING COIL	ENT. AIR DB/WB	80 / 67	80 / 67	80 / 67
	TMBTUH	58.9	175	87.3
	SMBTUH	41.9	116	60.2
	REFRIGERANT	410a	410a	410a
CONDENSING SECTION	AMBIENT DB, DEG-F	95	95	95
	MIN OA TEMP	0	0	0
	SCROLL COMP QTY (EA.)	1	2	2
	COND FAN QTY (EA)	1	2	1
	MIN STAGES OF COOLING	1	2	2
OVERALL DIMENSIONS	LENGTH	89"	121"	89"
	WIDTH	53"	84"	53"
	HEIGHT	41"	64"	47"
	CURB HEIGHT	14"	14"	14"
	OVERALL HEIGHT	55"	78"	61"
	OPERATING WEIGHT (LBS)	1,400	2,800	1,500 (less ERU-1)

Note:

AIR COOLED CONDENSING UNIT SCHEDULE

TAG	CU-1	CU-2
LOCATION	ON ROOF	ON ROOF
SERVICE	AHU-1	AHU-2
MFR-MODEL	TRANE	TRANE
MODEL	4TTA3048D4000	TTA24004000
TONS	4	20
V-PH-HZ	460-3-60	460-3-60
REFRIGERANT	R410a	R410a
COOLING CAPACITY (MBH)	50	270
MIN OA TEMP COOL / HEAT	-4 F / 0 F	-4 F / 0 F
COMP QTY	1	2
FAN QTY	1	2
UNIT MCA	8	46.9
UNIT MCB	15	60
COMPRESSOR R.L.A.	6.4	18.6
COMPRESSOR L.R.A.	41	142
MIN. COOLING STAGES	1	2
COOLING EER	---	10.9
OPERATING WEIGHT, lbs.	230	900
DEPTH	34	46"
WIDTH	37	96"
HEIGHT	29	45"

NOTES:
1. PROVIDE UNIT-MOUNTED FACTORY DISCONNECT SWITCH.

BOILER SCHEDULE

TAG	B-1	B-2	B-3
TYPE	CONDENSING	CONDENSING	CONDENSING
MANUFACTURER	VEISSMANN	VEISSMANN	VEISSMANN
BOILER MODEL/SERIES	VITODENS 200-W / B2HA	VITODENS 200-W / B2HA	VITODENS 200-W / B2HA
GROSS INPUT (MBH)	352	352	352
NET I=B=R OUTPUT (MBH)	333	333	333
A.F.U.E.	94.5%	94.5%	94.5%
TEMP RISE, DEG F	40.0	40.0	40.0
MAX FLOW, GPM	25	25	25
FLUID	WATER	WATER	WATER
SHIPPING WEIGHT (LBS)	200	200	200
OVERALL DEPTH (IN.)	21"	21"	21"
WIDTH (IN.)	19"	19"	19"
HEIGHT (IN.)	43 1/2"	43 1/2"	43 1/2"
VENT CONN. DIA (IN.)	4 3/8"	4 3/8"	4 3/8"
VENT MATERIAL	POLYPROPYLENE	POLYPROPYLENE	POLYPROPYLENE
VENT CATEGORY	IV	IV	IV
AIR INLET CONN. (IN.)	6"	6"	6"
WATER CONN. (IN.)	1 1/2"	1 1/2"	1 1/2"
GAS	LP	LP	LP
GAS CONN. (IN.)	1"	1"	1"
TURN DOWN	3:1 MOD	3:1 MOD	3:1 MOD
MIN / MAX GAS PRS. IN. WG.	10" TO 14"	10" TO 14"	10" TO 14"
ELECTRICAL	120-1-60	120-1-60	120-1-60
TOTAL AMPS	12	12	12

NOTE: See Pump Schedule for boiler associated injection pumps

ISSUED FOR BID

FEBRUARY 27, 2014

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

Allied Project No: 13057 Cad File: 13057M.DWG

A1 MECHANICAL SCHEDULES
NONE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:
CHIEF ENGINEER:

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

SIGNATURE
ARCH. LIN. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION
PROGRAM
PROJECT MANAGER
DESIGNER ALLIED ENG., INC.
CONSULTANT
PROJECT RESIDENT
CONTRACTOR
PROJECT COMPLETION DATE

WIN: 020118.20

66 INDUSTRIAL DRIVE-PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

MECHANICAL SCHEDULES

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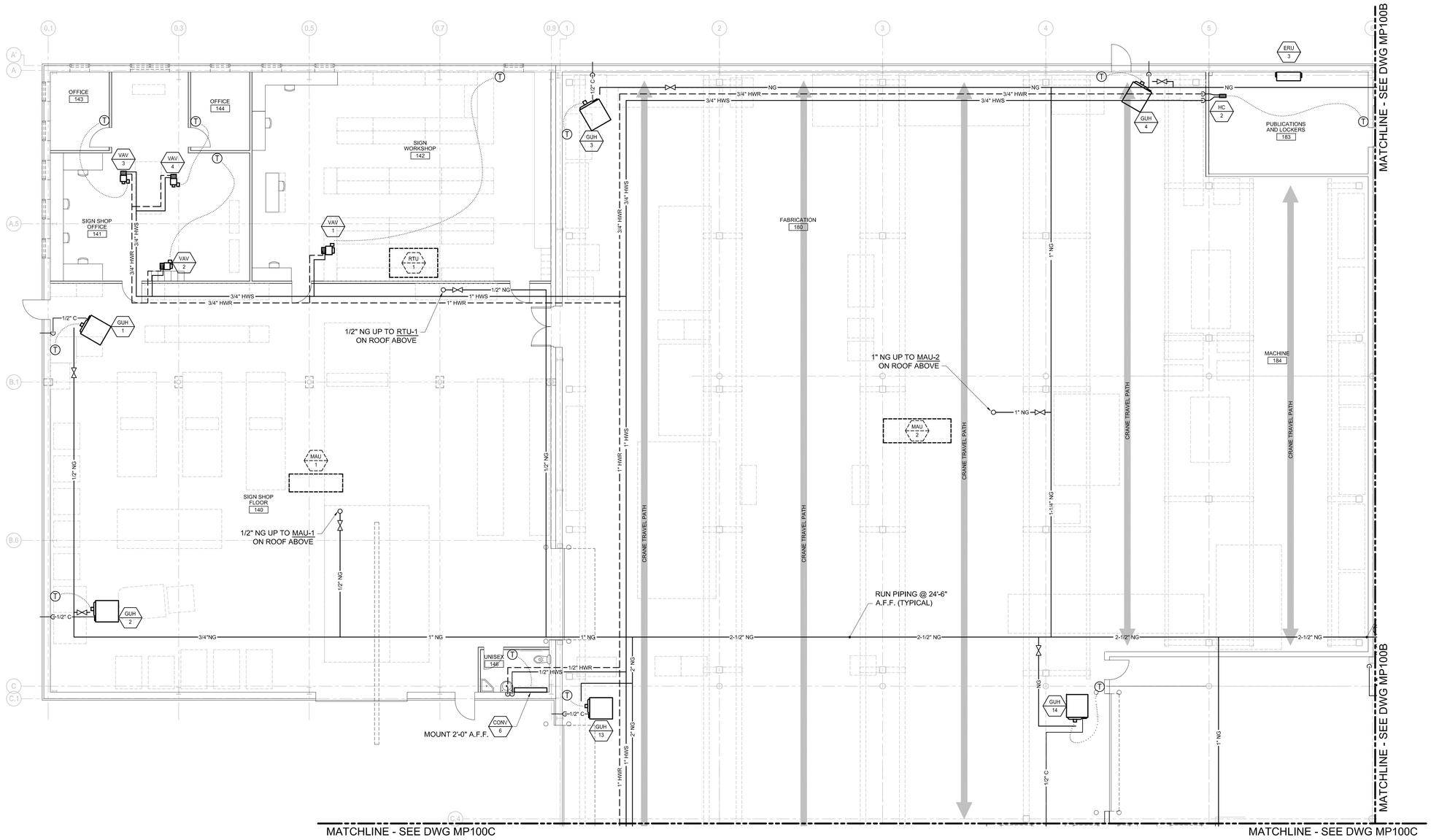
SHEET NUMBER
MH600



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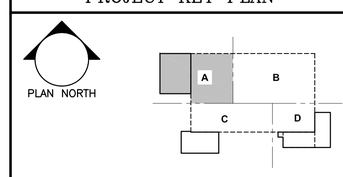
PROJECT KEY PLAN



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PROJECT INFORMATION	
PROGRAM	
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DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

MECHANICAL PIPING PART PLAN ~ FIRST FLOOR – AREA A

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SHEET NUMBER

MP100A

A1	MECHANICAL PIPING PART PLAN ~ FIRST FLOOR - AREA A
1/8" = 1'=0"	

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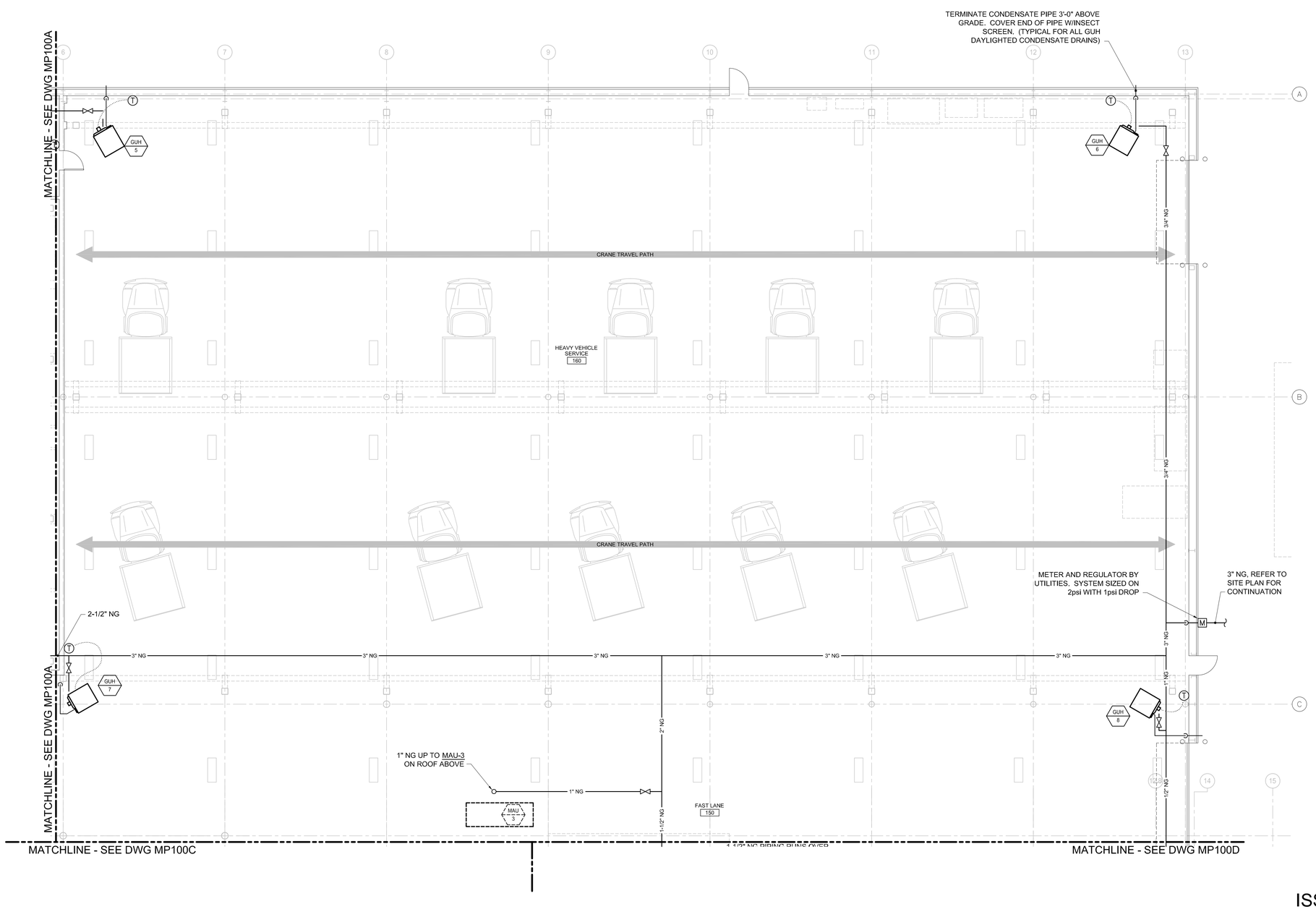
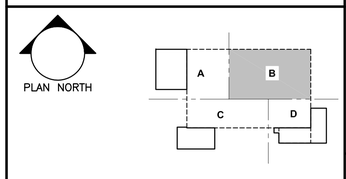


ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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Allied Project No: 13057 Cad File: 13057M.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE · ANTHONY S. DAVIS No. 8834 · LICENSED PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

WIN: 020118.20

PROJECT INFORMATION	
PROGRAM	–
PROJECT MANAGER	–
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	–
CONTRACTOR	–
PROJECT COMPLETION DATE	–

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

MECHANICAL PIPING PART PLAN ~ FIRST FLOOR – AREA B

SHEET NUMBER

MP100B

A1	MECHANICAL PIPING PART PLAN ~ FIRST FLOOR - AREA B
1/8" = 1'=0"	

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MATCHLINE - SEE DWG MP100A

MATCHLINE - SEE DWG MP100B

VAV-18

OFFICE 135

UNISEX 134

UNISEX 136

CONV 2

CONV 1

GUH 15

OFFICE 133

VAV-19

OIT SHOP 137

1-1/2" HWS

1-1/2" HWR

PIPING RUNS OVER OPEN MECHANICAL MEZZANINE SEE A1, SHEET MP101C

N.O.C. 132

VAV-20

CORRIDOR 130

OFFICE 138

VAV-21

OFFICE 131

VAV-22

3/4" HWS & R UP

3/4" NG

LIGHT VEHICLE SERVICE 170

GUH 11

GUH 10

FABRICATION 181

CRANE TRAVEL PATH

1-1/4" HWR

1-1/4" HWS

2" NG

GUH 12

ELEC 182

1" HWS

1" HWR

1" NG TO RELOCATED PRESSURE WASHER AND OIL FURNACE CONVERTED TO NG ON MEZZANINE ABOVE, SEE A1, SHEET MP101C

SENSOR WIRING UP IN WALL TO RADIANT PANEL CONTROLLER

(E)MUA (RELOCATE)

(E)FURNACE (RELOCATED)

GUH-17

PIPE RUNS OVER TOP OF PAINT BOOTH

NOTE: FOR DETAIL OF COMPRESSED AIR EQUIPMENT AND PIPING IN THIS AREA, SEE A3, D4 AND F1, SHEET PL301.

MECH 196

UH 1

WASH 191

PAINT 192

PREP 193

BLAST 194

DUST 195

CHANGE 197

RADIANT SLAB SENSOR IN SLEEVE

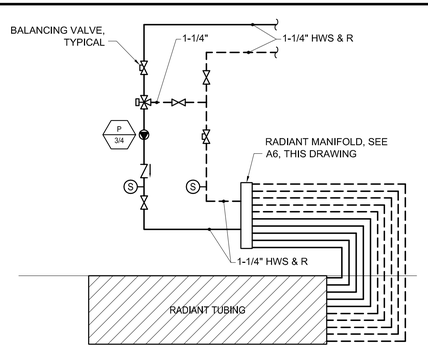
MAU 2

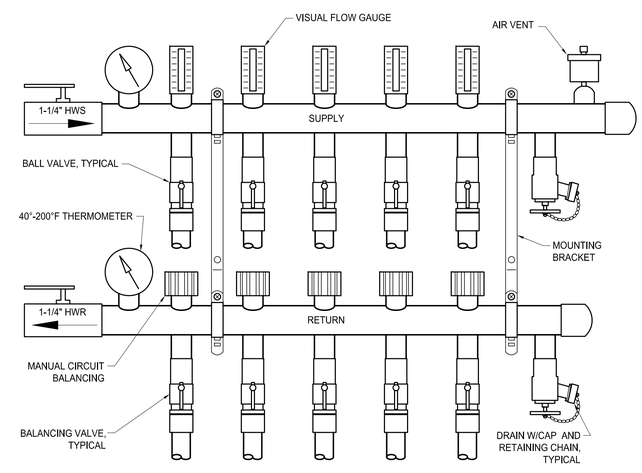
P 4

MF 1

HATCH AREA INDICATES EXTENT OF RADIANT FLOOR PIPING.

FOR RADIANT PIPING DETAIL, SEE A4, THIS DRAWING.

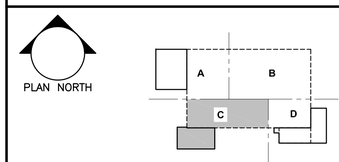




ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



A1	MECHANICAL PIPING PART PLAN ~ FIRST FLOOR - AREA C	A4	DETAIL ~ RADIANT LOOP PIPING
1/8" = 1'=0"		NOT TO SCALE	

A7	DETAIL ~ RADIANT HEAT MANIFOLD
NOT TO SCALE	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

WIN: 020118.20

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

MECHANICAL PIPING PART PLAN
~ FIRST FLOOR – AREA C

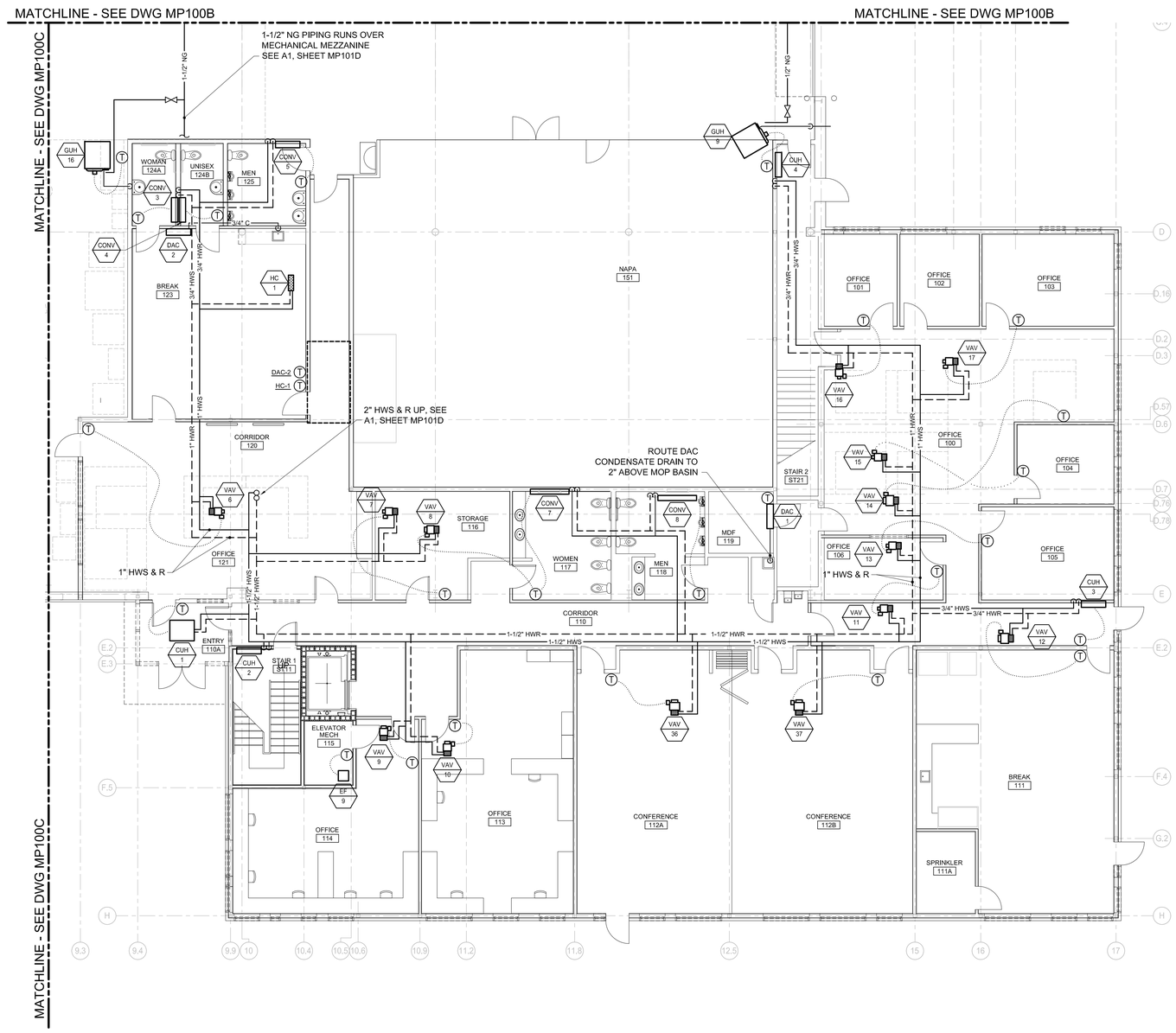
SHEET NUMBER

MP100C

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

Allied Project No: 13057 Cad File: 13057M.DWG

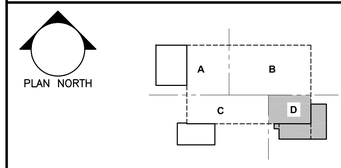
N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_M.dwg Mar 05, 2014 – 11:36am



ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

Allied Project No: 13057 Cad File: 13057M.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	-
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

MECHANICAL PIPING PART PLAN ~ FIRST FLOOR – AREA D

SHEET NUMBER

MP100D

A1	MECHANICAL PIPING PART PLAN ~ FIRST FLOOR - AREA D
1/8" = 1'=0"	

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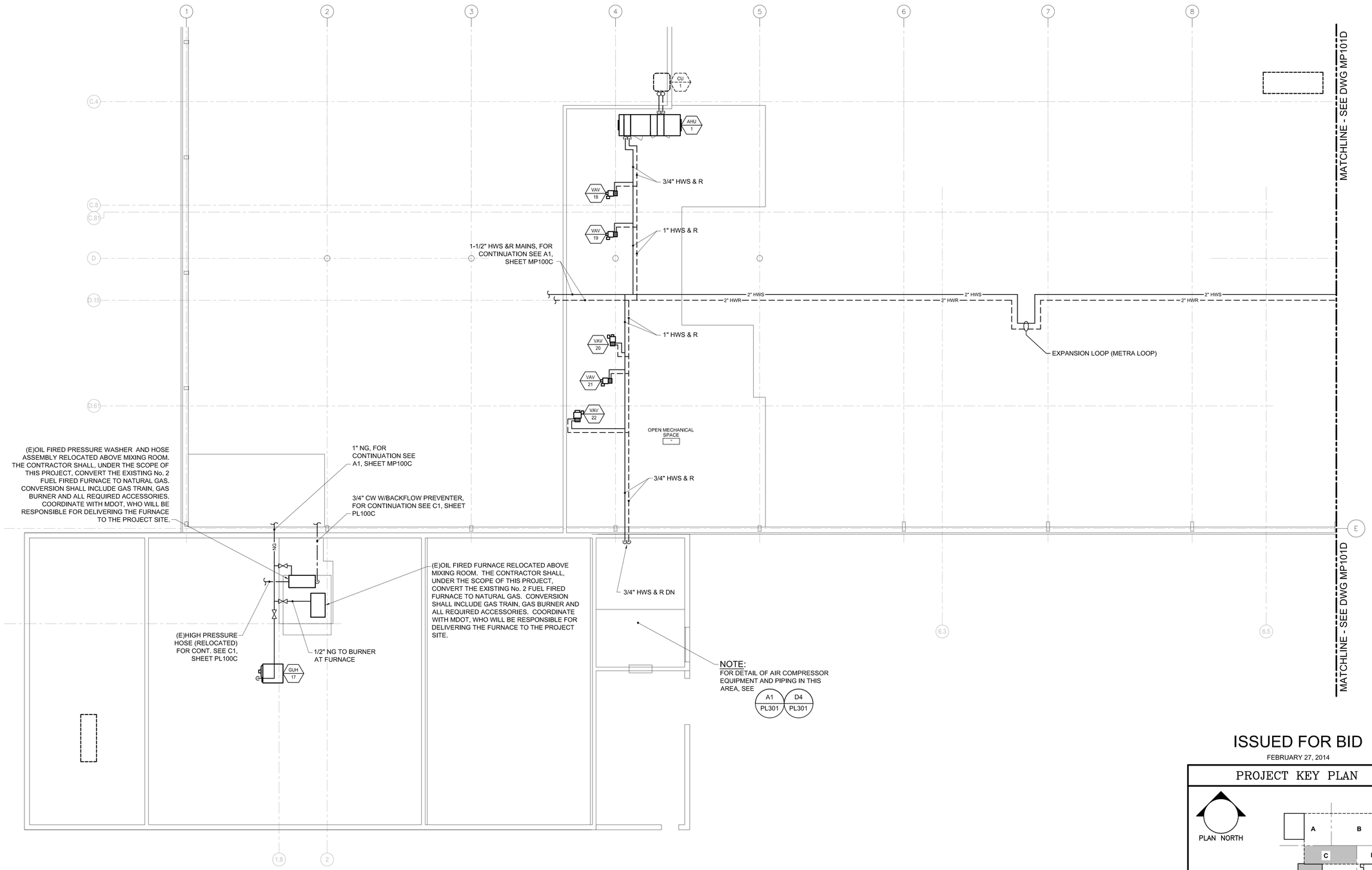
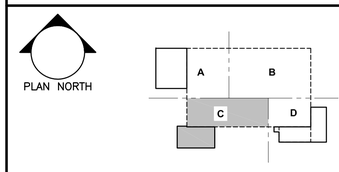


NOTE:
FOR DETAIL OF AIR COMPRESSOR EQUIPMENT AND PIPING IN THIS AREA, SEE A1 PL301 / D4 PL301

ISSUED FOR BID
FEBRUARY 27, 2014

PROJECT KEY PLAN



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207.221.2266
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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

SIGNATURE
ARCH. LIN. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	-
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	-
CONSULTANT	-
PROJECT RESIDENT	-
CONTRACTOR	-
PROJECT COMPLETION DATE	-

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

MECHANICAL PIPING PART PLAN ~ MEZZANINE – AREA C

SHEET NUMBER
MP101C

A1 | MECHANICAL PART PLAN ~ MEZZANINE - AREA C
1/8" = 1'=0"

Allied Project No: 13057 Cad File: 13057M.DWG

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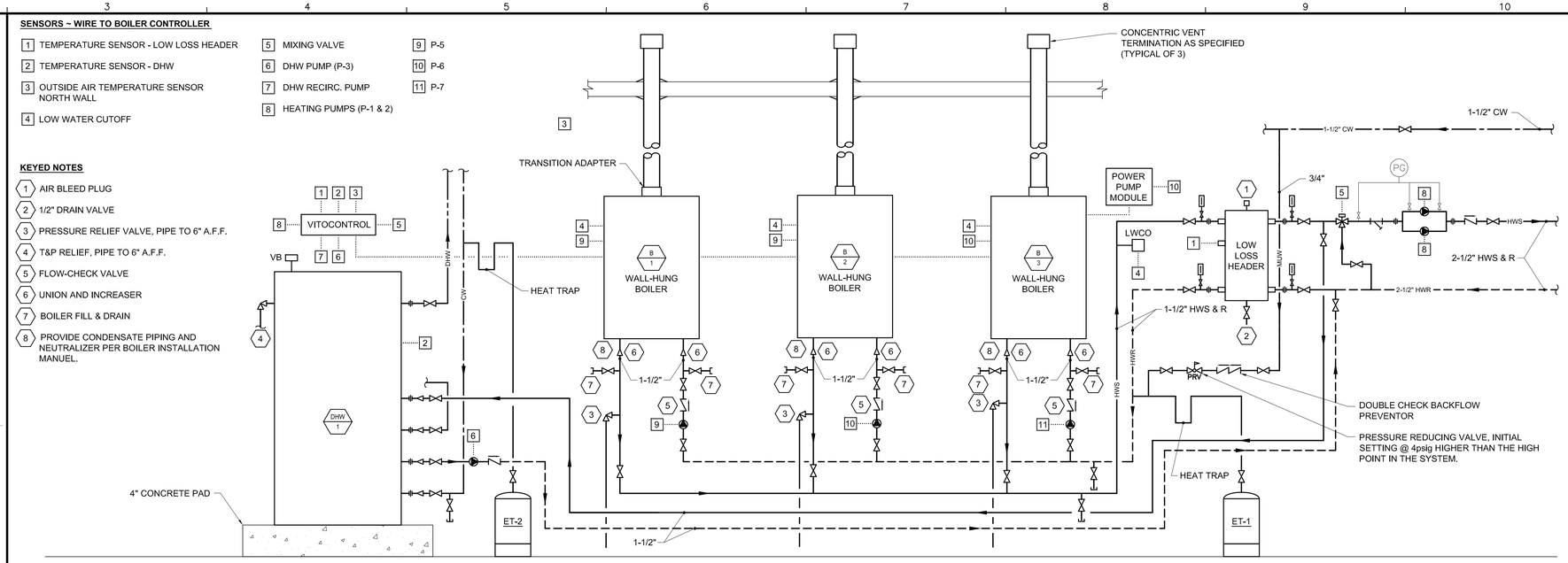
SENSORS ~ WIRE TO BOILER CONTROLLER

1. TEMPERATURE SENSOR - LOW LOSS HEADER
2. TEMPERATURE SENSOR - DHW
3. OUTSIDE AIR TEMPERATURE SENSOR NORTH WALL
4. LOW WATER CUTOFF
5. MIXING VALVE
6. DHW PUMP (P-3)
7. DHW RECIRC. PUMP
8. HEATING PUMPS (P-1 & 2)
9. P-5
10. P-6
11. P-7

KEYED NOTES

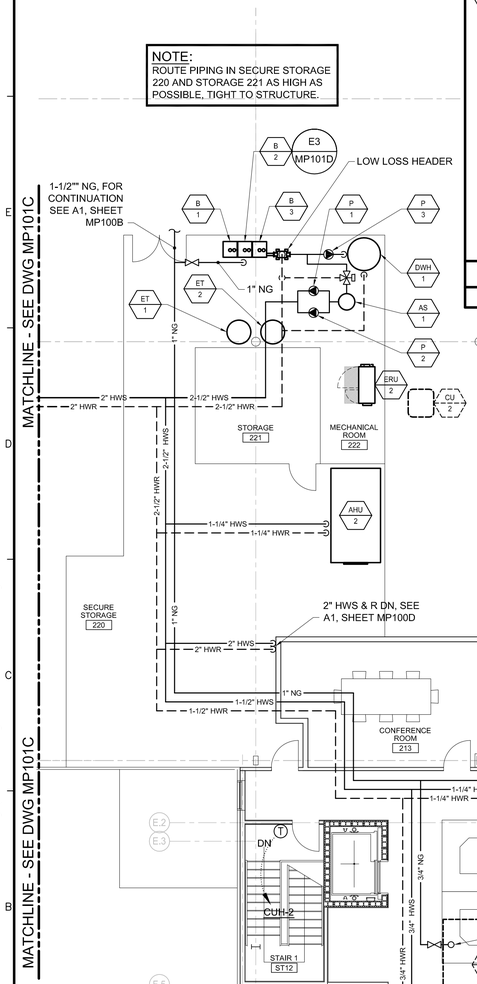
1. AIR BLEED PLUG
2. 1/2" DRAIN VALVE
3. PRESSURE RELIEF VALVE, PIPE TO 6" A.F.F.
4. T&P RELIEF, PIPE TO 6" A.F.F.
5. FLOW-CHECK VALVE
6. UNION AND INCREASER
7. BOILER FILL & DRAIN
8. PROVIDE CONDENSATE PIPING AND NEUTRALIZER PER BOILER INSTALLATION MANUEL.

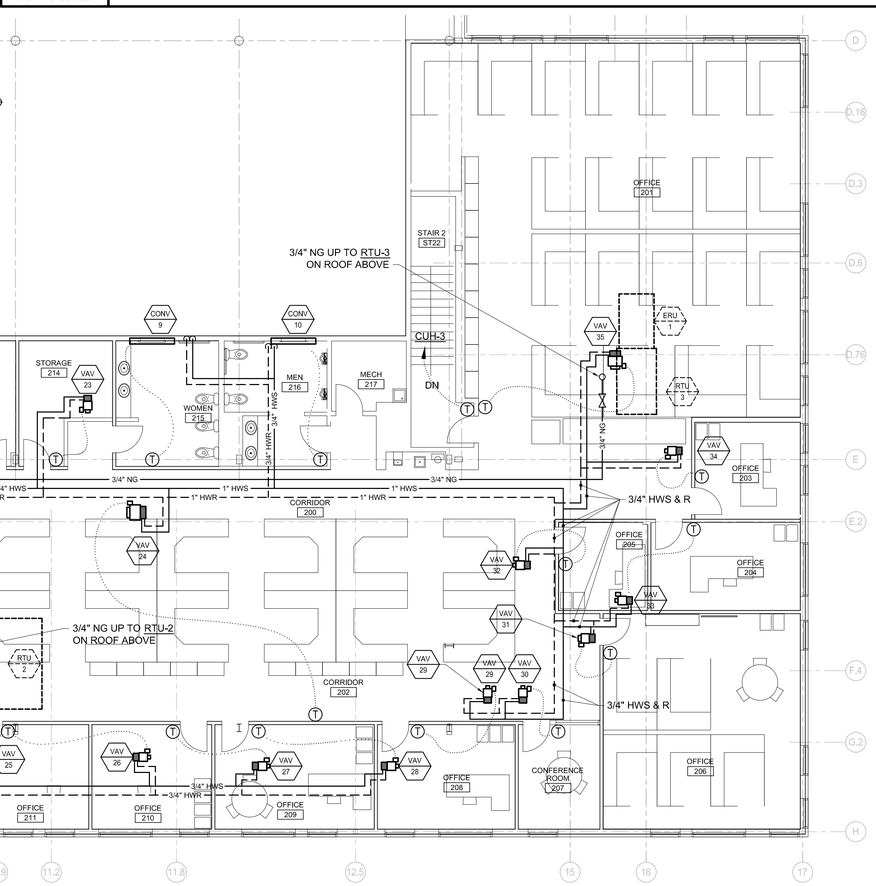


E3 | DETAIL ~ HEATING PLANT SCHEMATIC

NOT TO SCALE

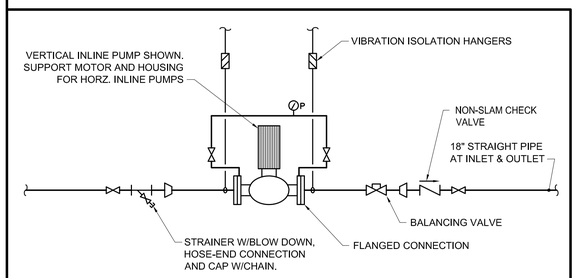
NOTE:
ROUTE PIPING IN SECURE STORAGE 220 AND STORAGE 221 AS HIGH AS POSSIBLE, TIGHT TO STRUCTURE.





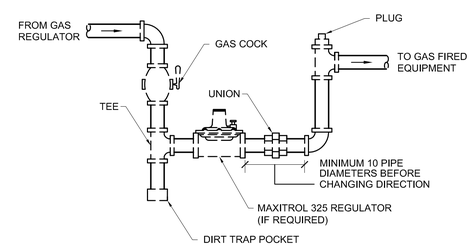
A1 | MECHANICAL PART PLAN ~ SECOND FLOOR - AREA D

1/8" = 1'=0"



B7 | DETAIL ~ VERTICAL IN-LINE PUMP

NOT TO SCALE



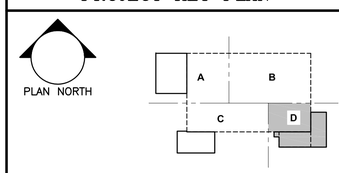
A7 | DETAIL ~ GAS PIPING EQUIPMENT CONNECTION

NOT TO SCALE

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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207.221.2260
207.221.2266
www.allied-eng.com

Allied Project No: 13057 Cad File: 13057M.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE ANTHONY S. DAVIS No. 8834 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

WIN: 020118.20

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

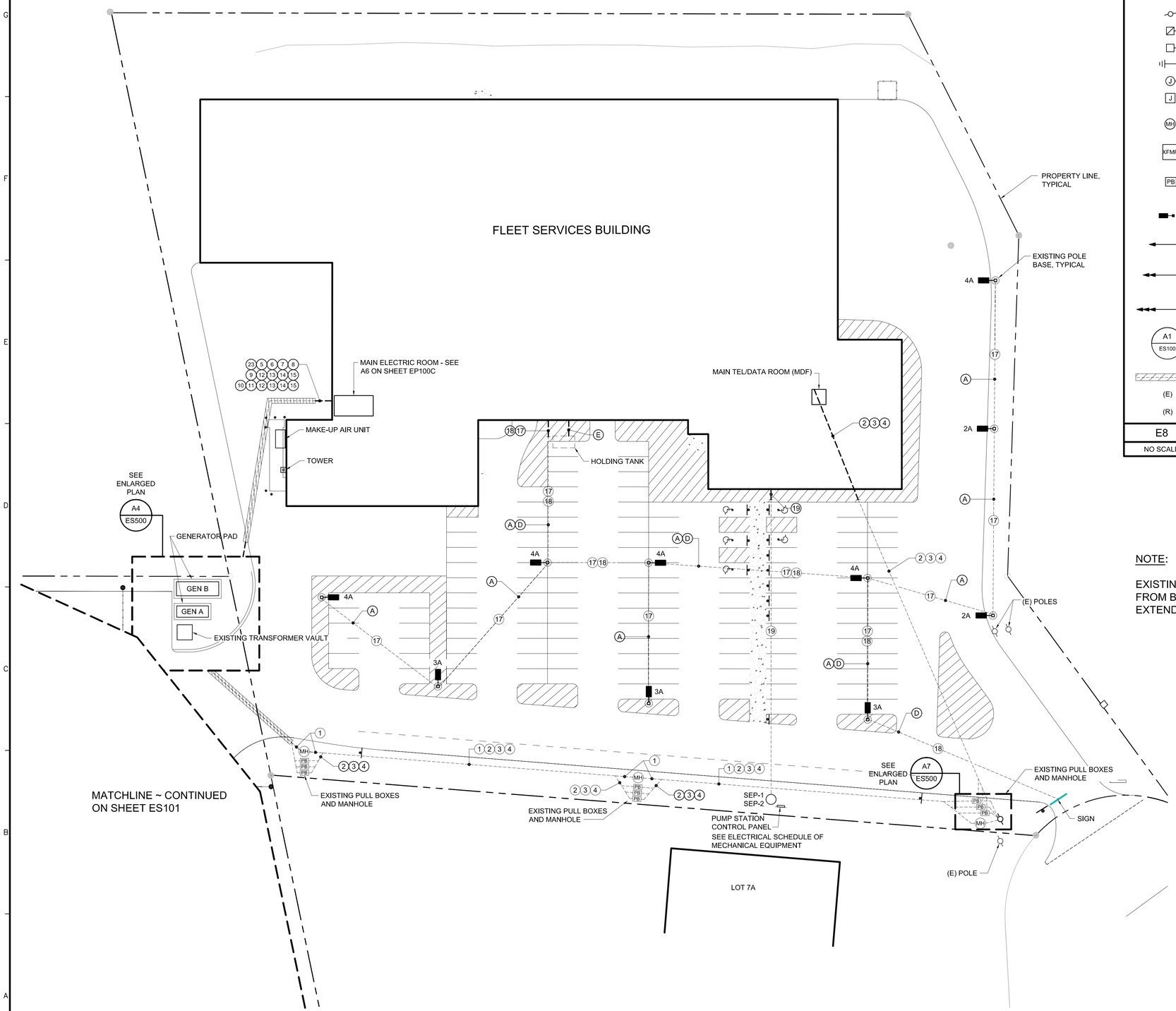
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

MECHANICAL PIPING PART PLAN
~ SECOND FLOOR – AREA D

SHEET NUMBER

MP101D

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_M.dwg Mar 05, 2014 – 11:31am



A1	ELECTRICAL SITE PLAN ~ PART 1
1"=30'-0"	

—·—OH—·—	OVERHEAD WIRING
- - - -UG- - - -	UNDERGROUND OR UNDERSLAB WIRING
—x—x—x—x—	ITEM TO BE DEMOLISHED
	UTILITY POLE
	FUSED DISCONNECT SWITCH
	NON-FUSED DISCONNECT SWITCH
	GROUNDING SYSTEM
J	JUNCTION BOX, WALL MOUNTED
J	JUNCTION BOX, IN-GROUND
MH	ELECTRICAL MANHOLE, 4' X 6', COORDINATE LOCATION WITH OTHER UNDERGROUND UTILITIES
XFMR	TRANSFORMER, PROVIDE TRANSFORMER VAULT PER UTILITY SPECIFICATIONS
PB	PULL BOX, POLYMER CONCRETE, 17" x 30" OR LARGER AS REQUIRED BY CODE OR APPLICABLE UTILITY COMPANY
	SINGLE POLE MOUNTED LIGHT, TERMINATE CONDUITS AT CONCRETE BASE PROVIDED BY DIVISION 33
	SINGLE POLE HOMERUN, CONNECT TO PANEL INDICATED
	SINGLE-PHASE HOMERUN OR MULTIPLE HOMERUN UTILIZING THE SAME CONDUIT, CONNECT TO PANEL INDICATED
	3-PHASE HOMERUN OR MULTIPLE HOMERUNS UTILIZING THE SAME CONDUIT, CONNECT TO PANEL INDICATED
A1 / ES100	SECTION CALL-OUT
	CONDUITS WITH CONCRETE ENCASEMENT
(E)	EXISTING TO REMAIN
(R)	ITEM TO BE REMOVED

E8	ELECTRICAL SITE LEGEND
NO SCALE	

1. (2) 5" C, PRIMARY
2. (1) 5" C, TELEPHONE
3. (1) 5" C, CATV
4. (1) 5" C SPARE
5. (1) 2" C, NORMAL POWER FOR CONNECTION TO ATS-E
6. (4) 4" C, NORMAL POWER FOR CONNECTION TO ATS-DPA
7. (4) 4" C, NORMAL POWER FOR CONNECTION TO ATS-DPB
8. (1) 1" C FOR METER CONNECTION
9. (1) 2" C, GENERATOR POWER FOR CONNECTION TO DISCONNECT SWITCH FOR ATS-E
10. (4) 4" C, GENERATOR POWER FOR CONNECTION TO DISCONNECT SWITCH FOR ATS-DPA
11. (4) 4" C, GENERATOR POWER FOR CONNECTION TO DISCONNECT SWITCH FOR ATS-DPB
12. (1) 1" C FOR FOR CONNECTIONS TO JACKET WATER HEATER and BATTERY CHARGER CIRCUITS
13. (1) 1" C FOR CONTROL WIRING FOR CONNECTION TO ATS
14. (1) 1" C FOR DATA FOR CONNECTION TO GENERATOR ANNUNCIATOR PANEL
15. (1) 1" C SPARE
16. (2) 4" C, NORMAL POWER FOR CONNECTION TO STORAGE BUILDING
17. (1) 1" C FOR CONNECTION OF SITE LIGHTING POWER
18. (1) 1" C FOR SIGN POWER, and (1) 1" C FOR SIGN DATA
19. (1) 1" C FOR PUMP STATION POWER, and (1) 2" C FOR PUMP STATION DATA
20. (1) 1" C FOR GATE POWER, and (2) 2" C FOR GATE DATA
21. (2) 1" C FOR FUEL ISLAND POWER , and (2) 2" C FOR FUEL ISLAND COMMUNICATIONS
22. (2) 1" C FOR FUEL ISLAND EMERGENCY POWER SHUTOFF CONNECTIONS
23. (1) 4" C SPARE

D9	EXISTING CONDUIT AND WIRING KEY

- (A) PROVIDE (2)#12+(1)#12G IN EXISTING 1" C
- (B) PROVIDE (2)#10+(1)#10G IN EXISTING 1" C
- (C) PROVIDE (2)#8+(1)#8G IN EXISTING 1" C
- (D) PROVIDE (2)#10+(1)#10G IN EXISTING 1" C
- (E) PROVIDE 1" C FOR HOLDING TANK CONTROLS

C9	SITE LIGHTING WIRING KEY

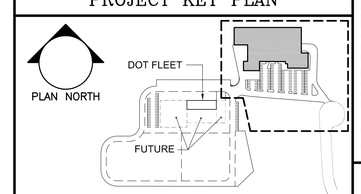
NOTE:

EXISTING CONDUITS TERMINATE 10' FROM BUILDINGS, VAULT, ETC. EXTEND CONDUITS TO BUILDING

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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Structural Mechanical Electrical Commissioning
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www.allied-eng.com

Allied Project No: 13057 Cad File: 13057_ES.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE
CATHERINE A. FAUCHER
No. 7501
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE	–
ARCH. LIN. NUMBER	–
DATE	FEBRUARY 27, 2014

INFORMATION

PROJECT	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	– DATE

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL
SITE PLAN ~ PART 1

SHEET NUMBER
ES100

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_ES ph 2.dwg Mar 05, 2014 – 2:48pm

(2) (1) 5" C, TELEPHONE

(3) (1) 5" C, CATV

(4) (1) 5" C SPARE

(5) (1) 2" C, NORMAL POWER FOR CONNECTION TO ATS-E

(6) (4) 4" C, NORMAL POWER FOR CONNECTION TO ATS-DPA

(7) (4) 4" C, NORMAL POWER FOR CONNECTION TO ATS-DPB

(8) (1) 1" C FOR METER CONNECTION

(9) (1) 2" C, GENERATOR POWER FOR CONNECTION TO DISCONNECT SWITCH FOR ATS-E

(10) (4) 4" C, GENERATOR POWER FOR CONNECTION TO DISCONNECT SWITCH FOR ATS-DPA

(11) (4) 4" C, GENERATOR POWER FOR CONNECTION TO DISCONNECT SWITCH FOR ATS-DPB

(12) (1) 1" C FOR FOR CONNECTIONS TO JACKET WATER HEATER and BATTERY CHARGER CIRCUITS

(13) (1) 1" C FOR CONTROL WIRING FOR CONNECTION TO ATS

(14) (1) 1" C FOR DATA FOR CONNECTION TO GENERATOR ANNUNCIATOR PANEL

(15) (1) 1" C SPARE

(16) (2) 4" C, NORMAL POWER FOR CONNECTION TO STORAGE BUILDING

(17) (1) 1" C FOR CONNECTION OF SITE LIGHTING POWER

(18) (1) 1" C FOR SIGN POWER, and (1) 1" C FOR SIGN DATA

(19) (1) 1" C FOR PUMP STATION POWER, and (1) 2" C FOR PUMP STATION DATA

(20) (1) 1" C FOR GATE POWER, and (2) 2" C FOR GATE DATA

(21) (2) 1" C FOR FUEL ISLAND POWER , and (2) 2" C FOR FUEL ISLAND COMMUNICATIONS

(22) (2) 1" C FOR FUEL ISLAND EMERGENCY POWER SHUTOFF CONNECTIONS

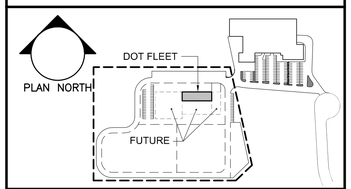
(23) (1) 4" C SPARE

D1	EXISTING CONDUIT KEY

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



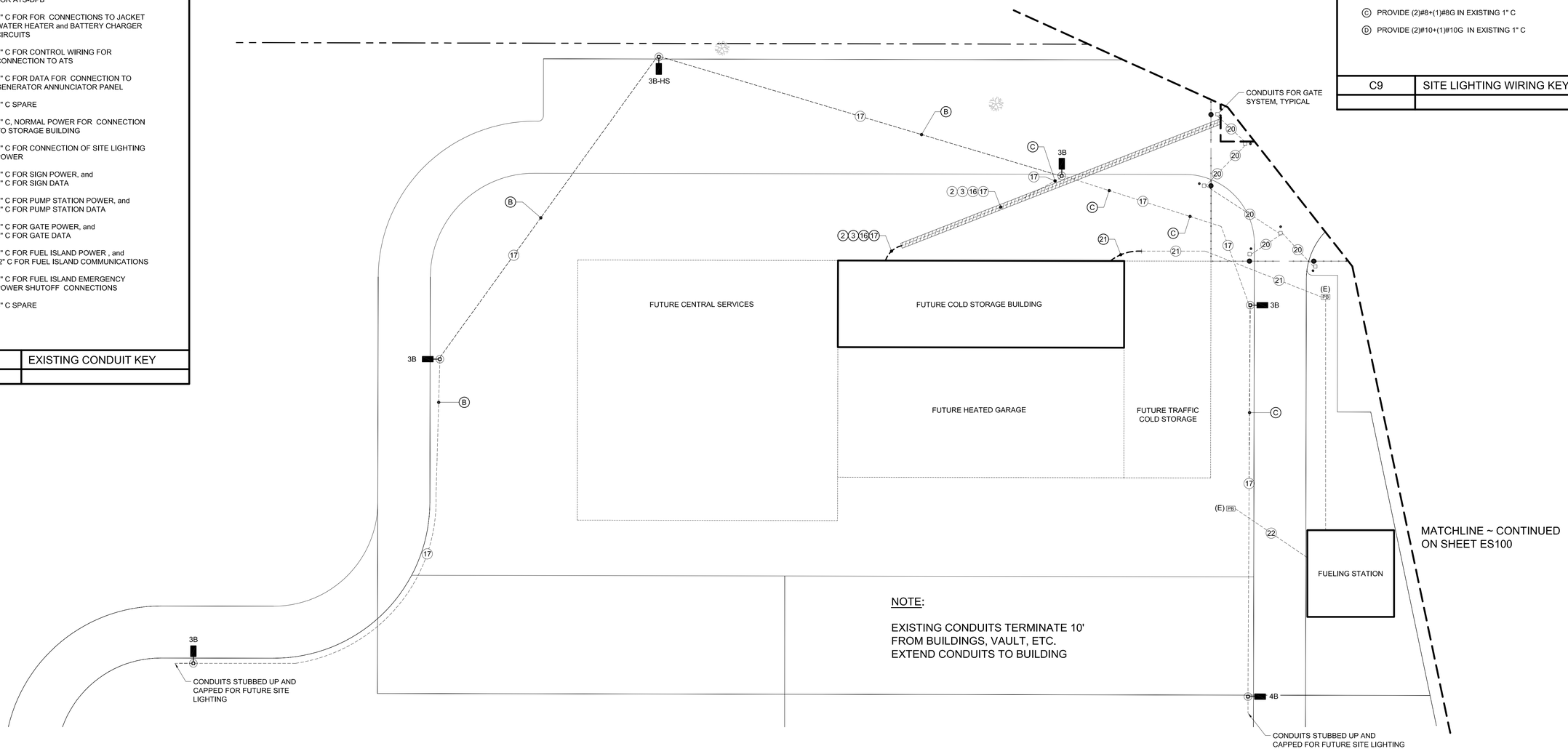
(A) PROVIDE (2)#12+(1)#12G IN EXISTING 1" C

(B) PROVIDE (2)#10+(1)#10G IN EXISTING 1" C

(C) PROVIDE (2)#8+(1)#8G IN EXISTING 1" C

(D) PROVIDE (2)#10+(1)#10G IN EXISTING 1" C

C9	SITE LIGHTING WIRING KEY



NOTE:

EXISTING CONDUITS TERMINATE 10' FROM BUILDINGS, VAULT, ETC. EXTEND CONDUITS TO BUILDING

A1	ELECTRICAL SITE PLAN ~ PART 2
1"=30'-0"	

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Allied Project No: 13057 Cad File: 13057_ES.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
CATHERINE A. FAUCHER
No. 7507
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	–
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	–
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL SITE PLAN ~ PART 2

SHEET NUMBER

ES101

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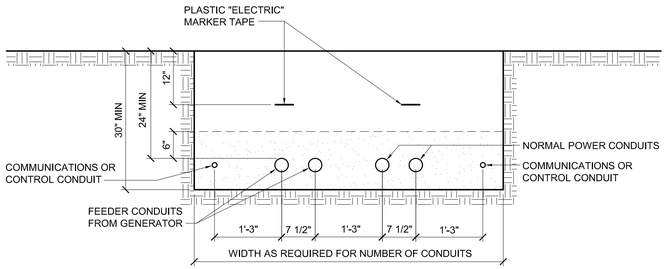
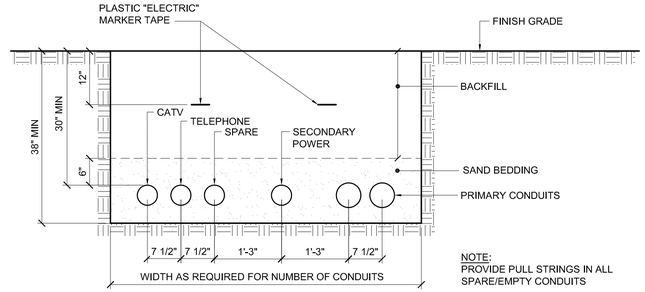


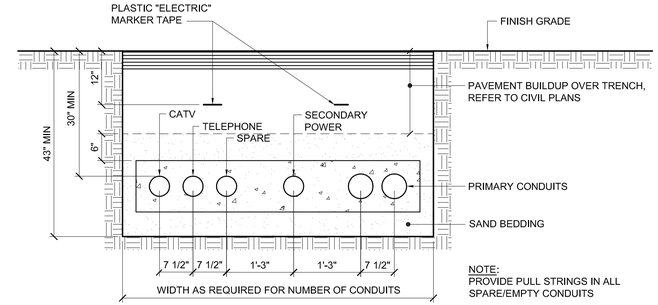
DETAIL INDICATES TYPICAL SPACING BETWEEN CONDUITS OF VARIOUS SYSTEMS, REFER TO SITE PLAN FOR SIZES AND NUMBER OF CONDUITS

F1	TYPICAL SEPARATION OF NORMAL POWER SYSTEMS
NO SCALE	TYPICAL TRENCH DETAIL



DETAIL INDICATES TYPICAL SPACING BETWEEN CONDUITS OF VARIOUS SYSTEMS, REFER TO SITE PLAN FOR SIZES AND NUMBER OF CONDUITS

F4	TYPICAL SEPARATION OF UTILITY SYSTEMS
NO SCALE	TYPICAL TRENCH DETAIL

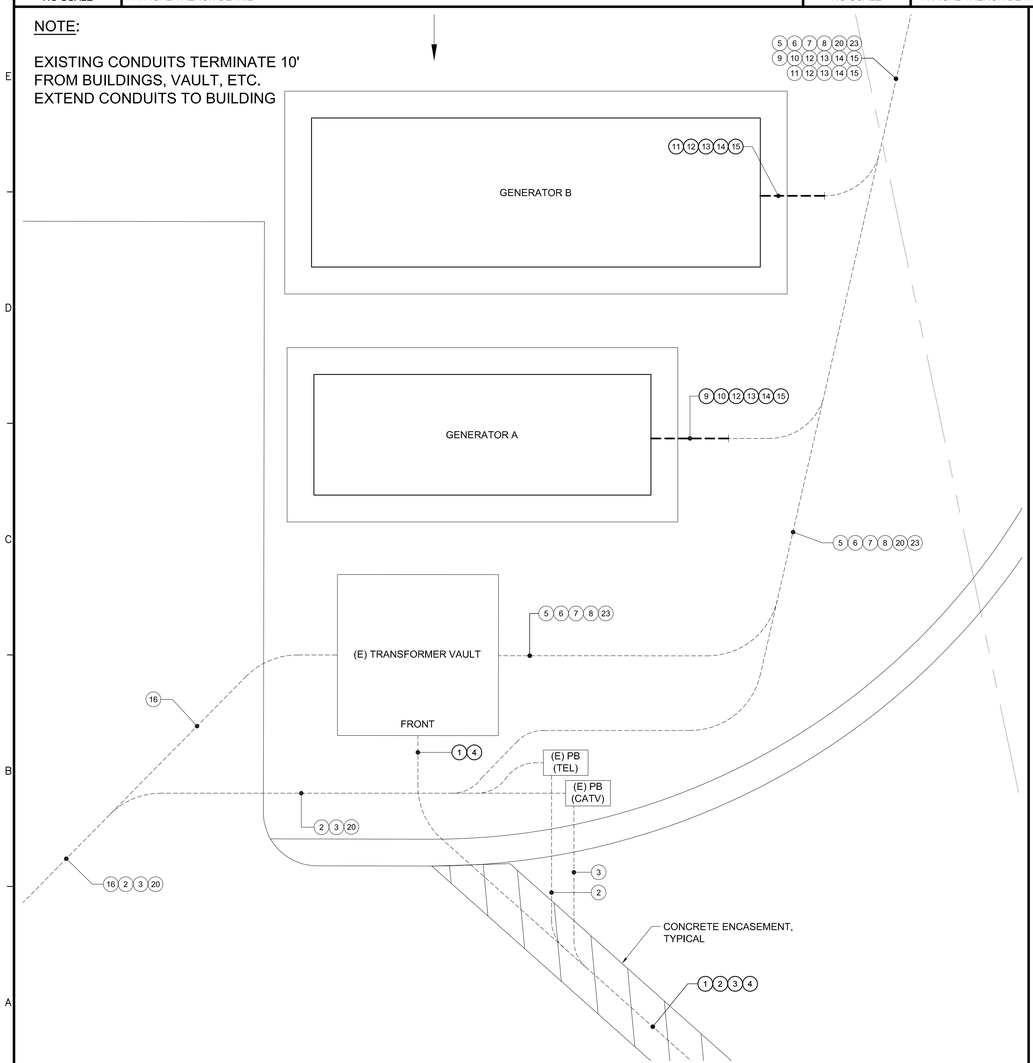


DETAIL INDICATES TYPICAL SPACING BETWEEN CONDUITS OF VARIOUS SYSTEMS, REFER TO SITE PLAN FOR SIZES AND NUMBER OF CONDUITS

F8	TYPICAL SEPARATION OF UTILITY SYSTEMS UNDER PAVEMENT
NO SCALE	TYPICAL TRENCH DETAIL

NOTE:

EXISTING CONDUITS TERMINATE 10' FROM BUILDINGS, VAULT, ETC. EXTEND CONDUITS TO BUILDING



A1	ENLARGE SITE UTILITY AREA
1/4"=1'-0"	

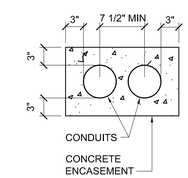
1. (2) 5" C, PRIMARY
2. (1) 5" C, TELEPHONE
3. (1) 5" C, CATV
4. (1) 5" C SPARE
5. (1) 2" C, NORMAL POWER FOR CONNECTION TO ATS-E
6. (4) 4" C, NORMAL POWER FOR CONNECTION TO ATS-DPA
7. (4) 4" C, NORMAL POWER FOR CONNECTION TO ATS-DPB
8. (1) 1" C FOR METER CONNECTION
9. (1) 2" C, GENERATOR POWER FOR CONNECTION TO DISCONNECT SWITCH FOR ATS-E
10. (4) 4" C, GENERATOR POWER FOR CONNECTION TO DISCONNECT SWITCH FOR ATS-DPA
11. (4) 4" C, GENERATOR POWER FOR CONNECTION TO DISCONNECT SWITCH FOR ATS-DPB
12. (1) 1" C FOR FOR CONNECTIONS TO JACKET WATER HEATER and BATTERY CHARGER CIRCUITS
13. (1) 1" C FOR CONTROL WIRING FOR CONNECTION TO ATS
14. (1) 1" C FOR DATA FOR CONNECTION TO GENERATOR ANNUNCIATOR PANEL
15. (1) 1" C SPARE
16. (2) 4" C, NORMAL POWER FOR CONNECTION TO STORAGE BUILDING
17. (1) 1" C FOR CONNECTION OF SITE LIGHTING POWER
18. (1) 1" C FOR SIGN POWER, and (1) 1" C FOR SIGN DATA
19. (1) 1" C FOR PUMP STATION POWER, and (1) 2" C FOR PUMP STATION DATA
20. (1) 1" C FOR GATE POWER, and (2) 2" C FOR GATE DATA
21. (2) 1" C FOR FUEL ISLAND POWER , and (2) 2" C FOR FUEL ISLAND COMMUNICATIONS
22. (2) 1" C FOR FUEL ISLAND EMERGENCY POWER SHUTOFF CONNECTIONS
23. (1) 4" C SPARE

A5	EXISTING CONDUIT KEY

SITE LUMINAIRE SCHEDULE ~ BASIS OF DESIGN

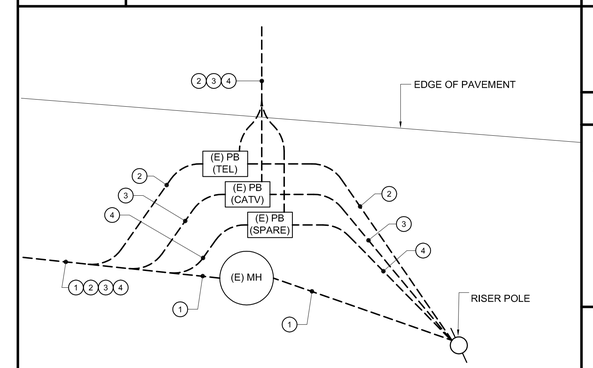
TYPE	DESCRIPTION	MFR	CATALOG SERIES NUMBER SEE NOTE 1	MOUNTING	VOLTS	LAMP			KEY NOTES
						QTY PER FIXTURE	WATTS	TYPE	
2A-HS	POLE LIGHT - TYPE 2 DISTRIBUTION WITH HOUSE SIDE SHIELD	PHILIPS	RVS-80W48LED4K-R-LE2-HS	25' POLE	277	-	78	LED ARRAY	
3A	POLE LIGHT - TYPE 3 DISTRIBUTION	PHILIPS	RVS-90W80LED4K-R-LE4	25' POLE	277	-	85	LED ARRAY	
4A	POLE LIGHT - TYPE 4 DISTRIBUTION	PHILIPS	RVS-90W80LED4K-R-LE3	25' POLE	277	-	100	LED ARRAY	
3B-HS	POLE LIGHT - TYPE 3 DISTRIBUTION	PHILIPS	RVM-160W96LED4K-R- LE3	40' POLE	277	-	160	LED ARRAY	
3B-HS	POLE LIGHT - TYPE 3 DISTRIBUTION WITH HOUSE SIDE SHIELD	PHILIPS	RVM-160W96LED4K-R- LE3-HS	40' POLE	277	-	155	LED ARRAY	
4B	POLE LIGHT - TYPE 4 DISTRIBUTION	PHILIPS	RVM-160W96LED4K-R- LE4	40' POLE	277	-	160	LED ARRAY	
	NOTES								
1	NOTE THAT THESE NUMBERS ARE NOT COMPLETE CATALOG #'S. PROVIDE ALL REQUIREMENTS ON SCHEDULE,NOTES, SPECS, AND DRAWINGS COMBINED.								
2	CATALOG SERIES NUMBERS ARE USED TO ESTABLISH A LEVEL OF QUALITY AND NOT INTENDED TO LIMIT COMPETITION. SERIES NUMBERS ARE NOT COMPLETE CATALOG NUMBERS. COMPLY WITH ADDITIONAL REQUIREMENTS IN SPECIFICATIONS AND DRAWINGS.								

D7	LUMINAIRE SCHEDULE



C9	TYPICAL CONCRETE ENCASEMENT DIMENSIONS
NO SCALE	

C7	--



A7	ENLARGE SITE UTILITY AREA
1/4"=1'-0"	

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN

PLAN NORTH

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
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Allied Project No: 13057 Cad File: 13057_ES.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
CATHERINE A. FAUCHER
No. 7571
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE –

ARCH. LIN. NUMBER –

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	–
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL SITE DETAILS

SHEET NUMBER

ES500

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_ES ph 2.dwg Mar 05, 2014 – 2:50pm

A	AMPERE
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERES INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BKBD	BACKBOARD
C	CONDUIT
CAT	CATALOG, CATEGORY
CATV	CABLE TV
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CM	CIRCULAR MILS
COMM	COMMUNICATIONS
CU	MECH CONDENSING UNIT
CU	COPPER
CUH	CABINET UNIT HEATER
DC	DIRECT CURRENT
DDC	DIGITAL DIRECT CONTROL
DN	DOWN
DW	DISHWASHER
DWG	DRAWING
EF	EXHAUST FAN
ELEV	ELEVATOR
EMT	ELECTRICAL METALLIC TUBING
EP	EXPLOSION PROOF
ERU	ENERGY RECOVERY UNIT
EWC	ELECTRIC WATER COOLER
FACP	FIRE ALARM CONTROL PANEL
FB	FLOOR BOX
FLA	FULL LOAD AMPS
FWE	FURNISHED WITH EQUIPMENT
G, GND	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTO SELECTOR SWITCH
HP	HORSEPOWER
HVAC	HEATING, VENTILATION AND COOLING UNIT
IDS	INTRUSION DETECTION SYSTEM
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IR	INFRARED
K	KILO
KCMIL	KILO CIRCULAR MILS
KW	KILOWATT
KVA	KILO VOLT-AMPS
LAN	LOCAL AREA NETWORK
LC	LIGHTING CONTACTOR
LF	LINEAR FEET
LC	LOADCENTER
LCP	LIGHTING CONTROL PANEL
LED	LIGHT EMITTING DIODE
LTG	LIGHTING
LTS	LIGHTS
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MECH	MECHANICAL
MH	MOUNTING HEIGHT
MC	MICROPHONE
MICRO	MICROWAVE
MLO MT	MAIN LUG ONLY MOUNT
MTS	MANUAL TRANSFER SWITCH
MCP	MOTOR CONTROL PANEL
MH	METAL HALIDE
MDP	MAIN DISTRIBUTION PANEL
MIN	MINIMUM
N	NEUTRAL
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NF	NON-FUSED
NO	NORMALLY OPEN
NO., #	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OCC	OCCUPANCY
OH	OVERHEAD
P	POLE
PA	PUBLIC ADDRESS
PH,	PHASE
PIR	PASSIVE INFRARED
PNL	PANELBOARD
P/O	PART OF
PV	PHOTOVOLTAIC
PVC	POLY-VINYL CHLORIDE
REC, RECEPT	RECEPTACLE
REF	REFRIGERATOR
RF	RETURN FAN
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMC	RIGID METAL CONDUIT
RTU	ROOFTOP UNIT
REF	REFRIGERATOR
SF	SUPPLY FAN
SPDT	SINGLE POLE, DOUBLE THROW
SQ	SQUARE
TEL	TELEPHONE
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UF	UNDER FLOOR
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITER'S LABORATORY
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VFD	VARIABLE FREQUENCY DRIVE
W	WATT
WP	WEATHERPROOF
WG	WIREGUARD
XFMR	TRANSFORMER
(E)	EXISTING ITEM TO REMAIN
(R)	REMOVE ITEM AND DISPOSE OF PROPERLY
(ER)	RELOCATED ITEM AT NEW LOCATION
(RL)	REMOVE AND RELOCATE

A1 ABBREVIATIONS

NO SCALE

- LIGHT FIXTURE, RECESSED TROFFER, TYPICAL
- RECESSED DOWNLIGHT
- RECESSED WALL WASHER DOWNLIGHT
- WALL MOUNTED LIGHT FIXTURE
- CEILING SURFACE MOUNTED LIGHT FIXTURE
- PENDANT MOUNTED LIGHT FIXTURE
- LINEAR LIGHT FIXTURE, CEILING SURFACE MOUNTED
- LINEAR LIGHT FIXTURE, PENDANT MOUNTED
- LINEAR LIGHT FIXTURE, WALL MOUNTED
- RB — REMOTE BALLAST, ALLOW 9" IN ALL DIRECTIONS BETWEEN BALLASTS

TYPICAL FOR ALL FIXTURE TYPES:

- INDICATES LUMINAIRE TYPE ON SCHEDULE
- F1 a — LOWER CASE LETTER INDICATES SWITCHING
- # — INDICATES CIRCUIT NUMBER

F3 LUMINAIRES

NO SCALE

- DUPLEX RECEPTACLE ~ 20A, 125V, 2P, 3W, NEMA 5-20R
- DOUBLE DUPLEX RECEPTACLE
- GFCI DUPLEX RECEPTACLE, MOUNT 48" AFF UNO
- GFCI DOUBLE DUPLEX RECEPTACLE, MOUNT 48" AFF UNO
- WP — GFCI RECEPTACLE WITH WEATHERPROOF COVER
- GFCI RECEPTACLE IN WP ENCLOSURE ON ROOF
- DIVIDED METAL RACEWAY, PROVIDE RECEPTACLES 24" OC UNO, PROVIDE DATA OUTLETS 24" OC UNO, MOUNT 48" AFF UNO, BASIS OF DESIGN WIREMOLD 4000 SERIES, UNO
- EWC — GFCI RECEPTACLE FOR ELECTRIC WATER COOLER ~ COORDINATE INSTALLATION WITH WATER COOLER MFR

NOTES:

1. MOUNT RECEPTACLES WITH CENTERLINE 18" AFF UNO
2. MOUNT EXTERIOR RECEPTACLES WITH CENTERLINE 24" AFG UNO

E3 RECEPTACLES

NO SCALE

- SINGLE GANG BOX MOUNTED 18" AFF, UNO WITH 3/4" CONDUIT WITH PULL STRING TO ABOVE CEILING
- W — SINGLE GANG BOX MOUNTED 45" AFF WITH 3/4" CONDUIT WITH PULL STRING TO ABOVE CEILING
- TV — SINGLE GANG BOX MOUNTED 18" AFF, UNO WITH 3/4" CONDUIT WITH PULL STRING TO ABOVE CEILING
- WA — WIRELESS ACCESS POINT

NOTE:
IN AREAS WITHOUT CEILINGS OR INACCESSIBLE CEILINGS, PROVIDE CONDUIT TO NEAREST ACCESSIBLE CORRIDOR CEILING

A3 GENERAL NOTES

-

1. BRANCH CIRCUIT WIRING NOT SHOWN. WIRE AND CONNECT ELECTRICAL ITEMS TO CIRCUITS INDICATED.
2. DISCONNECT, REMOVE, RELOCATE, AND RECONNECT ELECTRICAL CONDUIT, WIRING, DEVICES, BOXES, FIXTURES, EQUIPMENT, ETC. AS INDICATED AND AS REQUIRED TO FACILITATE WORK OF DIVISION 16 AND OTHER DIVISIONS. WHERE ELECTRICAL ITEMS ARE REMOVED, REMOVE CONDUIT AND WIRING BACK TO SOURCE.
3. DO NOT SCALE THE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS.
4. THE LOCATION OF EQUIPMENT, OUTLETS, ETC. AS GIVEN ON THE DRAWINGS, IS APPROXIMATE. IT SHALL BE UNDERSTOOD THAT THESE LOCATIONS ARE SUBJECT TO MODIFICATION AS MAY BE FOUND NECESSARY OR DESIRABLE AT THE TIME OF INSTALLATION IN ORDER TO MEET PROJECT REQUIREMENTS. SUCH CHANGES SHALL BE MADE WITHOUT EXTRA CHARGE.
5. ALL ELECTRICAL DEVICES, WHEN INSTALLED, SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. COVER PLATES SHALL BE INSTALLED AFTER FINISH MATERIALS HAVE BEEN APPLIED.
6. COORDINATE ALL WORK WITH OTHER DIVISIONS. VERIFY EXACT POWER REQUIREMENTS OF MECHANICAL EQUIPMENT WITH DIVISION 15. POWER WIRING FOR EQUIPMENT & CONTROL IS TO BE PERFORMED BY DIVISION 16. CONTROL WIRING BY DIVISION 15.
7. A BUILDING LIGHTING CONTROL SYSTEM IS TO BE PROVIDED. REFER TO SPECIFICATIONS AND LIGHTING PLANS.

C3 TECHNOLOGY

NO SCALE

- HATCHING INDICATES FIXTURE WITH ONE LAMP ON LIFE SAFETY BRANCH
- BP# — EMER BATTERY UNIT WITH NO HEADS, MT 7'-6"AFF; BP# INDICATES BATTERY UNIT DESIGNATION; 2 — NUMBER INDICATES CIRCUITING
- BP# — EMER BATTERY UNIT WITH INTEGRAL HEADS, MT 7'-6"AFF; BP# INDICATES BATTERY UNIT DESIGNATION; 2 — NUMBER INDICATES CIRCUITING
- BP# — SINGLE REMOTE EMERGENCY LIGHT HEAD, MOUNT 7'-6"AFF; BP# INDICATES BATTERY UNIT CONNECTED TO
- BP# — DOUBLE REMOTE EMERGENCY LIGHT HEAD, MOUNT 7'-6"AFF; BP# INDICATES BATTERY UNIT CONNECTED TO
- EXIT SIGN, CEILING MOUNTED, SHADING INDICATES FACE(S); ARROWHEAD INDICATES CHEVRON(S) REQUIRED; 2 — NUMBER INDICATES CIRCUIT NUMBER
- EXIT SIGN, WALL MOUNTED, SHADING INDICATES FACE(S); MOUNT AT 7'-6"AFF OR OVER DOOR; 2 — NUMBER INDICATES CIRCUIT NUMBER

F5 EMERGENCY LUMINAIRES

NO SCALE

NOTE

SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION INTO THE DESIGN

- 20A, 125V, 2P, 3W, NEMA 5-20R, (2)#12+(1)#12G
- 20A, 250V, 2P, 3W, NEMA 6-20R, (2)#12+(1)#12G
- WELDING OUTLET, 30A, 480V, 3ϕ, PIN AND SLEEVE, 3W, 4 POLE, STYLE 2, CROUSE-HINDS #AR342, PROVIDE 30A, 3P MECHANICALLY INTERLOCKED DISCONNECT SWITCH WITH 60A FUSES, (3)#10+(1)#10G
- 30A, 277/480V, 3ϕY, 4P, 5W, TWIST-LOCK, NEMA L22-30R, (4)#10+(1)#10G
- 30A, 480V, 3ϕ, 3P, 4W, TWIST-LOCK L16-30R, (3)#10+(1)#10G
- WELDING OUTLET, 60A, 480V, 3ϕ, PIN AND SLEEVE, 3W, 4 POLE, STYLE 2, CROUSE-HINDS #AR642, PROVIDE 60A, 3P MECHANICALLY INTERLOCKED DISCONNECT SWITCH WITH 60A FUSES, (3)#4+(1)#10G
- 30A, 250V, 2 POLE, 3 WIRE, TWIST-LOCK, L6-30R, (2)#10+(1)#10G
- 50A RANGE RECEPTACLE ~ 125/250V, 3P, 4W, GROUNDING, NEMA 14-50R, (3)#6+(1)#10 TO 50A, 2P CIRCUIT BREAKER

NOTES:

1. PROVIDE MATCHING CORD AND PLUG FOR SINGLE RECEPTACLES
2. PROVIDE ANGLED RECEPTACLE HOUSING FOR SINGLE RECEPTACLES

C5 SINGLE RECEPTACLES

NO SCALE

- SEC — SECURITY PANEL
- CR — CARD READER, VERIFY MOUNTING HEIGHT, PROVIDE 3/4" C WITH PULL STRING TO SECURITY PANEL
- DC — DOOR CONTACT, VERIFY LOCATION, PROVIDE 3/4" C WITH PULL STRING TO SECURITY PANEL
- DP — JUNCTION BOX FOR DOOR POWER, VERIFY LOCATION, PROVIDE 3/4" C WITH PULL STRING TO SECURITY PANEL
- DA — DOOR ALARM, VERIFY MOUNTING, PROVIDE 3/4" C WITH PULL STRING TO SECURITY PANEL
- DR — DOOR RELEASE BUTTON, MOUNT UNDER SYSTEMS FURNITURE DESK, VERIFY LOCATION, PROVIDE 3/4" C WITH PULL STRING TO SECURITY PANEL
- MS — MOTION SENSOR, PROVIDE 3/4" C WITH PULL STRING TO SECURITY PANEL
- PB — PANIC BUTTON, VERIFY LOCATION, PROVIDE 3/4" C WITH PULL STRING TO SECURITY PANEL
- CM — CAMERA, VERIFY MOUNTING HEIGHT, PROVIDE 3/4" C WITH PULL STRING TO SECURITY PANEL
- SR — ACCESS SECURE READER, VERIFY MOUNTING HEIGHT, PROVIDE 3/4" C WITH PULL STRING TO SECURITY PANEL

A5 SECURITY SYSTEM

NO SCALE

- FACP — FIRE ALARM CONTROL PANEL, MOUNT WITH TOP OF PANEL NOT MORE THAN 72"AFF
- FAA — FIRE ALARM ANNUNCIATOR, MOUNT WITH TOP OF PANEL NOT MORE THAN 72"AFF
- S — SMOKE DETECTOR
- S E — SMOKE DETECTOR, "E" INDICATES CONNECTION FOR ELEVATOR RECALL
- H — HEAT DETECTOR
- H E — HEAT DETECTOR, "E" INDICATES CONNECTION FOR ELEVATOR RECALL
- D — DUCT SMOKE DETECTOR
- D — GAS VALVE
- F — FLAME DETECTOR, ARROW INDICATES DIRECTION OF COVERAGE
- RTS — REMOTE TEST/INDICATOR FOR DUCT SMOKES, MOUNT ON CEILING BENEATH UNIT, OR WALL MOUNT WHERE INDICATED ON PLANS
- F — MANUAL PULL STATION, MOUNT 48" AFF
- 30 F — HORN/STROBE NOTIFICATION APPLIANCE, CANDELA AS NOTED ON PLANS
- 30 S — SPEAKER/STROBE NOTIFICATION APPLIANCE, CANDELA AS NOTED ON PLANS
- 15 — STROBE ONLY NOTIFICATION APPLIANCE, CANDELA AS NOTED ON PLANS
- R — STROBE NOTIFICATION APPLIANCE, 15 CANDELA, 120V, CONNECT TO OPERATE UPON ACTIVATION OF ROOM SMOKE DETECTOR
- M — MINI HORN NOTIFICATION APPLIANCE
- 30 F F — HORN/STROBE WITH PULL STATION DIRECTLY BELOW
- 30 F — HORN/STROBE INSTALLED ON CEILING
- 15 — STROBE INSTALLED ON CEILING
- DH — MAGNETIC DOOR HOLD OPEN DEVICE
- T — TRANSFORMER
- F — SPRINKLER SYSTEM WATER FLOW SWITCH, PROVIDED UNDER DIVISION 23, WIRED UNDER DIVISION 26
- T — SPRINKLER SYSTEM TAMPER SWITCH, PROVIDED UNDER DIVISION 23, WIRED UNDER DIVISION 26
- C — SPRINKLER SYSTEM CHECK VALVE PRESSURE SWITCH, FURNISHED AND INSTALLED UNDER DIVISION 23, WIRED UNDER DIVISION 26
- P — SPRINKLER SYSTEM EXCESS PRESSURE PUMP, FURNISHED AND INSTALLED UNDER DIVISION 23, WIRED UNDER DIVISION 26
- K — KNOX BOX, PROVIDE IN ACCORDANCE WITH LOCAL FIRE DEPARTMENT REQUIREMENTS
- SD — SMOKE DAMPER
- FSD — FIRE AND SMOKE DAMPER

D7 FIRE ALARM SYSTEM

NO SCALE

- $a — LIGHT SWITCH, 20A,125/277V
- $3 — THREE-WAY LIGHT SWITCH
- $4 — FOUR-WAY LIGHT SWITCH
- $2 — TWO-POLE SWITCH
- $K — KEY OPERATED SWITCH
- $M — MOTOR RATED SWITCH
- $P — SINGLE POLE SWITCH WITH RED PILOT LIGHT ~ RED LIGHT SHALL GLOW WHEN CIRCUIT IS ENERGIZED
- $a $b — MULTI-GANGED SWITCHES, GANG UNDER ONE PLATE, LETTER INDICATES SWITCHING
- $OS — OCCUPANCY SENSOR SWITCH, WALL MOUNTED
- $OS2 — 2-BUTTON OCCUPANCY SENSOR SWITCH
- OS — OCCUPANCY SENSOR, CEILING MOUNTED
- OS — OCCUPANCY SENSOR, WALL MOUNTED
- $D — 0-10V DIMMER SWITCH
- $FD — FLUORESCENT DIMMER SWITCH
- $F $L — HANDICAP SWITCHES FOR HOOD LIGHT AND FAN
- $T — TIMER SWITCH, 60 MINUTES
- $LV — LOW VOLTAGE LIGHT SWITCH, MOMENTARY CONTACT
- LTC — LIGHTING TIME CLOCK
- LC — LIGHTING CONTACTOR
- LCP — LIGHTING CONTROL PANEL
- PC — PHOTOCELL

NOTES:

1. MOUNT LIGHT SWITCHES WITH CENTERLINE 48" AFF, UNO
2. LOWER CASE LETTER AT SWITCH INDICATES SWITCHING

A7 LIGHT SWITCHES

NO SCALE

- PANELBOARD ~ SURFACE MOUNTED
- PANELBOARD ~ FLUSH MOUNTED
- FUSED DISCONNECT SWITCH
- NON-FUSED DISCONNECT SWITCH
- 00 — MOTOR STARTER ~ NUMBER INDICATES NEMA SIZE
- 00 — COMBINATION MOTOR STARTER/FUSED DISCONNECT
- MOTOR OR FAN
- M — METER AND CABINET
- J — JUNCTION BOX ~ CEILING MOUNTED
- J — JUNCTION BOX ~ WALL MOUNTED
- J — JUNCTION BOX ~ FLOOR MOUNTED
- J — JUNCTION BOX ~ PEDESTAL MOUNTED
- T# — TRANSFORMER ~ NUMBER INDICATES DESIGNATION SEE TRANSFORMER SCHEDULE
- VFD — VARIABLE FREQUENCY DRIVE
- TVSS — TRANSIENT VOLTAGE SURGE SUPPRESSOR
- E — EMERGENCY SHUTOFF SWITCH ~ WALL MOUNTED 48" TO CENTERLINE ~ PROVIDE TAMPER-PROOF COVER
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- WIRING UNDERGROUND OR UNDERSLAB
- HOMERUN ~ (2)#12+(1)#12G UNO (EXCEPT COMPUTER AND LIGHTING CIRCUITS: (1)#12+(1)#10N+(1)#12G UNO)
- SINGLE-PHASE HOMERUN OR MULTIPLE HOMERUN UTILIZING THE SAME CONDUIT
- 3-PHASE HOMERUN OR MULTIPLE HOMERUN UTILIZING THE SAME CONDUIT
- FLEXIBLE CONNECTION
- GROUNDING SYSTEM
- P — POWER POLE
- PUSHBUTTON
- C — DOORBELL CHIME
- F — DUAL SERVICE FURNITURE FEED, WALL MOUNTED 18" AFF
- P — MOTORIZED DOOR OPERATOR AND PUSH PADDLE ~ FURNISHED BY DIVISION 08, WIRED BY DIVISION 26
- H — HAND DRYER, HIGH VELOCITY, AUTOMATIC, ADA COMPLIANT, 120V, 8.3 AMPS, BASIS OF DESIGN: WORLD DRYER SLIMDRI #L-974, MOUNT 37" FROM FLOOR TO DRYER BOTTOM EDGE (HANDICAP MOUNTING HEIGHT)

D9 POWER DISTRIBUTION

NO SCALE

- F — DUPLEX RECEPTACLE, 20A, 125V, 2P, 3W, NEMA 5-20R, MOUNT IN FLUSH FLOOR BOX
- F — DOUBLE DUPLEX RECEPTACLE, 20A, 125V, 2P, 3W, NEMA 5-20R, MOUNT IN FLUSH FLOOR BOX
- C — DUPLEX RECEPTACLE, FLUSH MOUNTED IN CEILING
- C — DOUBLE DUPLEX RECEPTACLE, FLUSH MOUNTED IN CEILING
- C — DUPLEX GFCI RECEPTACLE, FLUSH MOUNTED IN CEILING
- C — DOUBLE DUPLEX GFCI RECEPTACLE, FLUSH MOUNTED IN CEILING
- C — DATA OUTLET, FLUSH MOUNTED IN CEILING.
- C TV — CATV OUTLET, FLUSH MOUNTED IN CEILING
- OVERHEAD RECEPTACLE DROP, DUPLEX
- OVERHEAD RECEPTACLE DROP, DOUBLE DUPLEX
- INDUSTRIAL CORD REEL WITH 45' CORD AND 20A DUPLEX RECEPTACLE WITH GFCI PROTECTION, CORD REEL PLUGS INTO RECEPTACLE AT SYMBOL LOCATION ON PLAN, BASIS OF DESIGN: HUBBELL #HBL45123GF20
- C — 4" POKE-THRU DEVICE, DUAL SERVICE FURNITURE FEED, BASIS OF DESIGN: WIREMOLD AFFATC
- FB — FLUSH FLOOR BOX WITH (1) DOUBLE DUPLEX RECEPTACLE, (2) VOICE AND (2) DATA OUTLETS, BASIS OF DESIGN: FSR 710 SERIES, PROVIDE STEEL CONSTRUCTION COVER, CONCRETE POUR PAN, AND FL-710-BLK-C COVER

A9 FLOOR AND CEILING DEVICES

NO SCALE

NOT FOR CONSTRUCTION

PROGRESS SUBMISSION

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2366
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Allied Project No: 13057 Cad File: 13057_EL.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE
COMMISSIONER:
CHIEF ENGINEER:

STATE OF MAINE
CATHERINE A. FAUCHER
No. 7571
LICENSED
PROFESSIONAL ENGINEER
FEBRUARY 27, 2014

SIGNATURE
ARCH. LIN. NUMBER
DATE FEBRUARY 27, 2014

INFORMATION

PROJECT	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

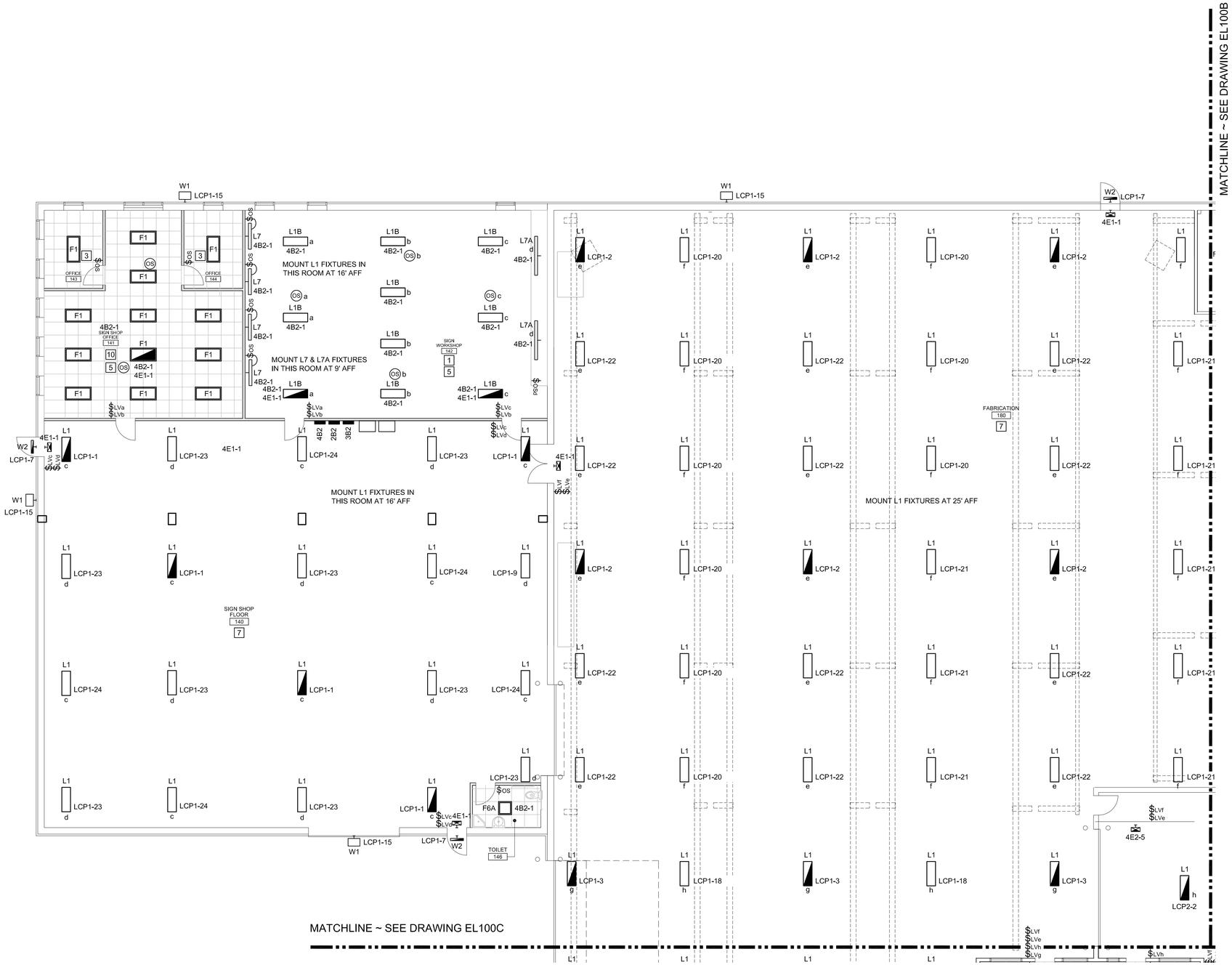
WIN: 020118.2

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL LEGENDS, GENERAL NOTES AND ABBREVIATIONS

SHEET NUMBER
E000

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_EL.dwg Mar 05, 2014 – 1:34pm



1. LIGHTING CONTROL SHALL BE MANUAL ON BY LOW VOLTAGE WALL SWITCH AND AUTO OFF BY CEILING OCCUPANCY SENSOR(S) ~ SEE DETAIL C1/E 400
2. LIGHTING CONTROL SHALL BE AUTO ON AND AUTO OFF BY CEILING OCCUPANCY SENSOR(S) ~ SEE DETAIL A4/EL400
3. LIGHTING SHALL BE MANUAL ON/AUTO OFF BY SWITCHBOX MOUNTED OCCUPANCY SENSOR SWITCH ~ SEE DETAIL B4/EL 400
4. LIGHTING CONTROL SHALL BE MANUAL ON/MANUAL OFF
5. PROVIDE EMERGENCY LIGHTING POWER VIA GENERATOR TRANSFER DEVICE, NINE 24 INC. BLTC-V3 OR APPROVED EQUAL. PROVIDE ONE GENERATOR TRANSFER DEVICE PER SWITCH GROUP ~ SEE DETAIL D4/EL 400
6. LIGHTING CONTROL SHALL BE MANUAL ON/AUTO OFF BY SWITCHBOX MOUNTED OCCUPANCY SENSOR SWITCHES WIRED FOR 3-WAY CONTROL ~ SEE DETAIL F1/EL400
7. LIGHTING CONTROL SHALL BE MANUAL ON BY LOCAL LOW VOLTAGE SWITCH AND AUTO OFF VIA LIGHTING CONTROL PANEL ~ REFER TO LCP SCHEDULE(S)
8. LIGHTING SHALL BE CONTROLLED FROM LIGHTING CONTROL PANEL ~ REFER TO LCP SCHEDULE(S)
9. LIGHTING CONTROL SHALL BE STEP DIMMING WITH 2-BUTTON SWITCHBOX MOUNTED OCCUPANCY SENSOR SWITCH WITH MANUAL ON/AUTO OFF OPERATION ~ SEE DETAIL F4/EL400
10. LIGHTING CONTROL SHALL BE STEP DIMMING WITH MANUAL ON BY LOW VOLTAGE SWITCH AND AUTO OFF BY CEILING MOUNTED OCCUPANCY SENSOR(S) ~ SEE DETAIL A1/EL400

E9 | LIGHTING CONTROL NOTES

ISSUED FOR BID
FEBRUARY 27, 2014

PROJECT KEY PLAN

PLAN NORTH

A1 | LIGHTING PART PLAN ~ AREA A
1/8"=1'-0"

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

Allied Project No: 13057 Cad File: 13057_EL.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE
COMMISSIONER:
CHIEF ENGINEER:

CATHERINE A. FAUCHER No. 7571 LICENSED PROFESSIONAL ENGINEER MAINE
FEBRUARY 27, 2014

SIGNATURE
ARCH. LIN. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	–
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	–
CONSULTANT	–
PROJECT RESIDENT	–
CONTRACTOR	–
PROJECT COMPLETION DATE	–

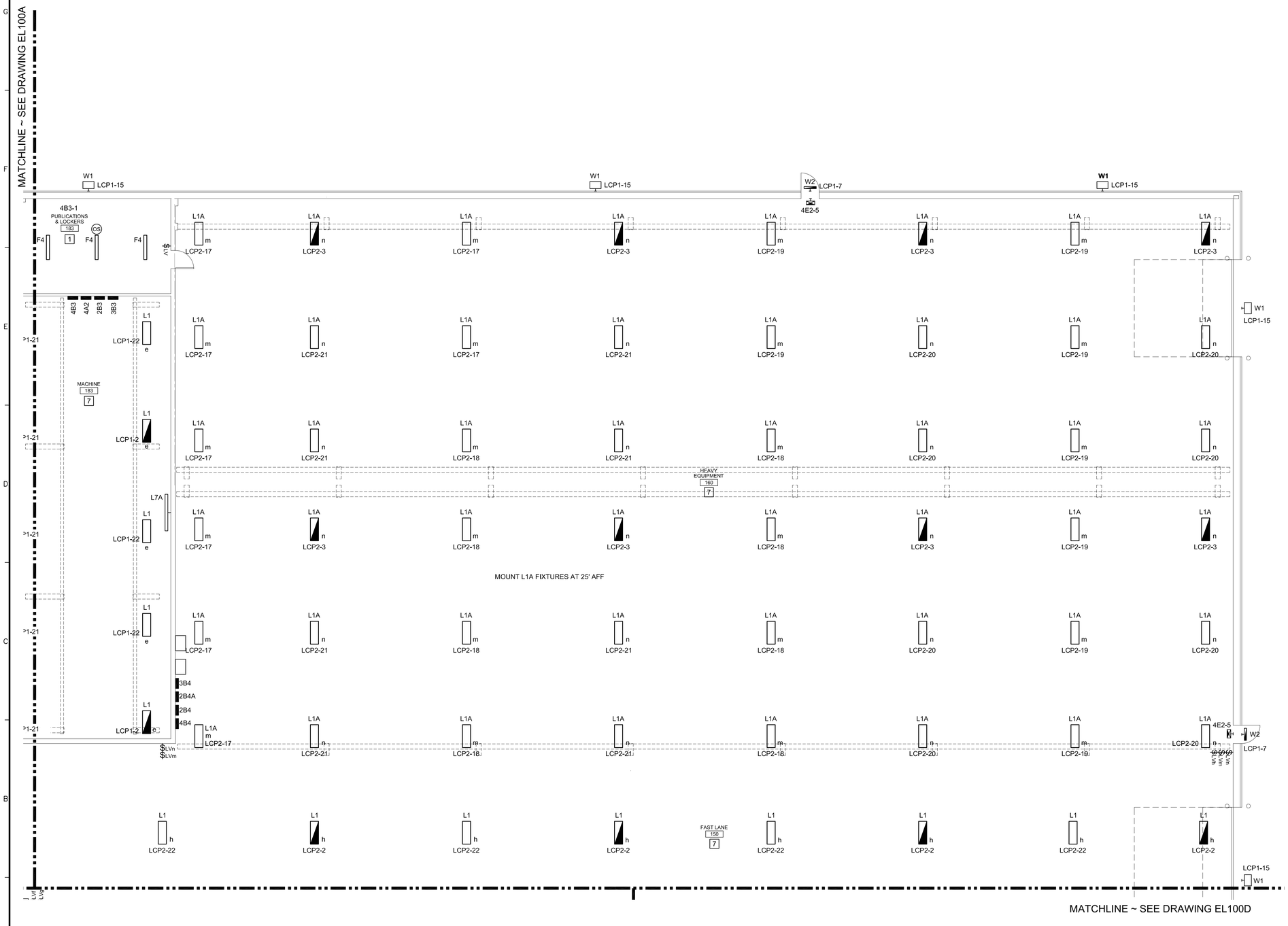
WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL – LIGHTING PLAN
AREA A

SHEET NUMBER
EL100A

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_EL.dwg Feb 27, 2014 – 1:44pm



1. LIGHTING CONTROL SHALL BE MANUAL ON BY LOW VOLTAGE WALL SWITCH AND AUTO OFF BY CEILING OCCUPANCY SENSOR(S) ~ SEE DETAIL C1/E 400
2. LIGHTING CONTROL SHALL BE AUTO ON AND AUTO OFF BY CEILING OCCUPANCY SENSOR(S) ~ SEE DETAIL A4/EL400
3. LIGHTING SHALL BE MANUAL ON/AUTO OFF BY SWITCHBOX MOUNTED OCCUPANCY SENSOR SWITCH ~ SEE DETAIL B4/EL 400
4. LIGHTING CONTROL SHALL BE MANUAL ON/MANUAL OFF
5. PROVIDE EMERGENCY LIGHTING POWER VIA GENERATOR TRANSFER DEVICE, NINE 24 INC. BLTC-V3 OR APPROVED EQUAL. PROVIDE ONE GENERATOR TRANSFER DEVICE PER SWITCH GROUP ~ SEE DETAIL D4/EL 400
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7. LIGHTING CONTROL SHALL BE MANUAL ON BY LOCAL LOW VOLTAGE SWITCH AND AUTO OFF VIA LIGHTING CONTROL PANEL ~ REFER TO LCP SCHEDULE(S)
8. LIGHTING SHALL BE CONTROLLED FROM LIGHTING CONTROL PANEL ~ REFER TO LCP SCHEDULE(S)
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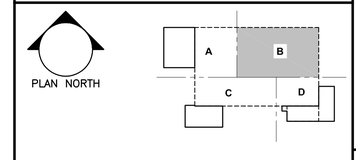
10. LIGHTING CONTROL SHALL BE STEP DIMMING WITH MANUAL ON BY LOW VOLTAGE SWITCH AND AUTO OFF BY CEILING MOUNTED OCCUPANCY SENSOR(S) ~ SEE DETAIL A1/EL400

E9	LIGHTING CONTROL NOTES

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
CATHERINE A. FAUCHER
No. 7501
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

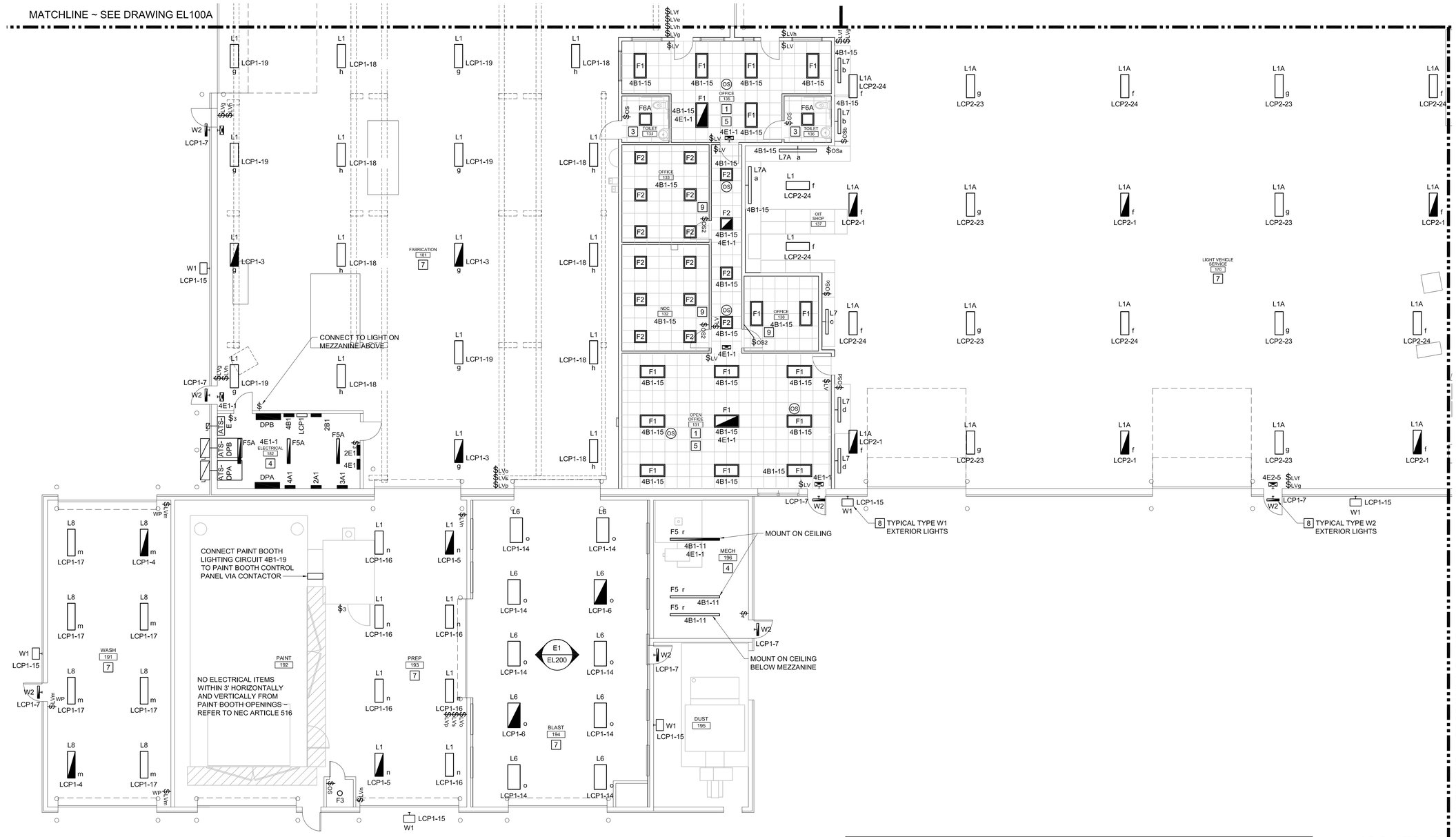
ELECTRICAL – LIGHTING PLAN
AREA B

SHEET NUMBER

EL100B

A1	LIGHTING PART PLAN ~ AREA B
1/8"=1'-0"	

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_EL.dwg Feb 27, 2014 – 2:12pm



1	LIGHTING CONTROL SHALL BE MANUAL ON BY LOW VOLTAGE WALL SWITCH AND AUTO OFF BY CEILING OCCUPANCY SENSOR(S) ~ SEE DETAIL A6/E 400
2	LIGHTING CONTROL SHALL BE AUTO ON AND AUTO OFF BY CEILING OCCUPANCY SENSOR(S) ~ SEE DETAIL A4/EL400
3	LIGHTING SHALL BE MANUAL ON/AUTO OFF BY SWITCHBOX MOUNTED OCCUPANCY SENSOR SWITCH ~ SEE DETAIL B4/EL400
4	LIGHTING CONTROL SHALL BE MANUAL ON/MANUAL OFF
5	PROVIDE EMERGENCY LIGHTING POWER VIA GENERATOR TRANSFER DEVICE, NINE 24 INC, BLTC-V3 OR APPROVED EQUAL. PROVIDE ONE GENERATOR TRANSFER DEVICE PER SWITCH GROUP ~ SEE DETAIL D4/EL400
6	LIGHTING CONTROL SHALL BE MANUAL ON/AUTO OFF BY SWITCHBOX MOUNTED OCCUPANCY SENSOR SWITCHES WIRED FOR 3-WAY CONTROL ~ SEE DETAIL F1/EL400
7	LIGHTING CONTROL SHALL BE MANUAL ON BY LOCAL LOW VOLTAGE SWITCH AND AUTO OFF VIA LIGHTING CONTROL PANEL ~ REFER TO LCP SCHEDULE(S)
8	LIGHTING SHALL BE CONTROLLED FROM LIGHTING CONTROL PANEL ~ REFER TO LCP SCHEDULE(S)
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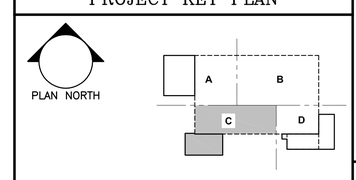
10	LIGHTING CONTROL SHALL BE STEP DIMMING WITH MANUAL ON BY LOW VOLTAGE SWITCH AND AUTO OFF BY CEILING MOUNTED OCCUPANCY SENSOR(S) ~ SEE DETAIL A1/EL400

A1	LIGHTING PART PLAN ~ AREA C
1/8"=1'-0"	
A6	LIGHTING CONTROL NOTES

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

CATHERINE A. FAUCHER No. 7571 LICENSED PROFESSIONAL ENGINEER STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	
CONTRACTOR	–
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

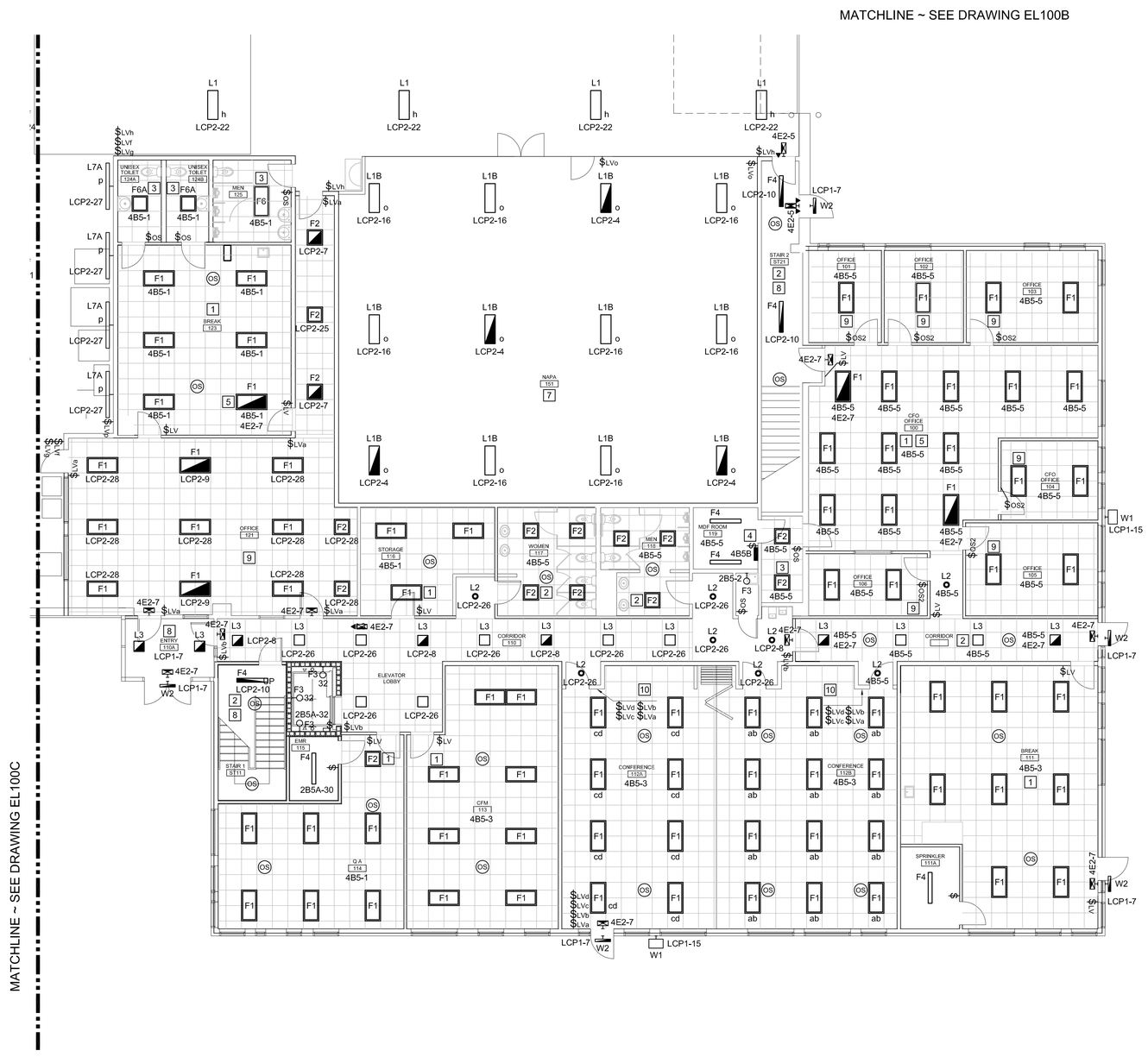
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL – LIGHTING PLAN
AREA C

SHEET NUMBER

EL100C

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_EL.dwg Mar 05, 2014 – 1:35pm



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2 LIGHTING CONTROL SHALL BE AUTO ON AND AUTO OFF BY CEILING OCCUPANCY SENSOR(S) ~ SEE DETAIL A4/EL400

3 LIGHTING SHALL BE MANUAL ON/AUTO OFF BY SWITCHBOX MOUNTED OCCUPANCY SENSOR SWITCH ~ SEE DETAIL B4/EL 400

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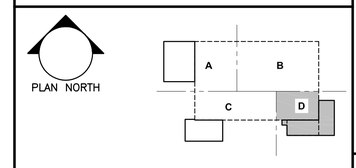
10 LIGHTING CONTROL SHALL BE STEP DIMMING WITH MANUAL ON BY LOW VOLTAGE SWITCH AND AUTO OFF BY CEILING MOUNTED OCCUPANCY SENSOR(S) ~ SEE DETAIL A1/EL400

E9	LIGHTING CONTROL NOTES

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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Allied Project No: 13057 Cad File: 13057_EL.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

CATHERINE A. FAUCHER No. 7501 LICENSED PROFESSIONAL ENGINEER STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	–
PROJECT MANAGER	–
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	–
CONTRACTOR	–
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL – LIGHTING PLAN
AREA D

SHEET NUMBER

EL100D

A1	LIGHTING PART PLAN ~ AREA D
1/8"=1'-0"	

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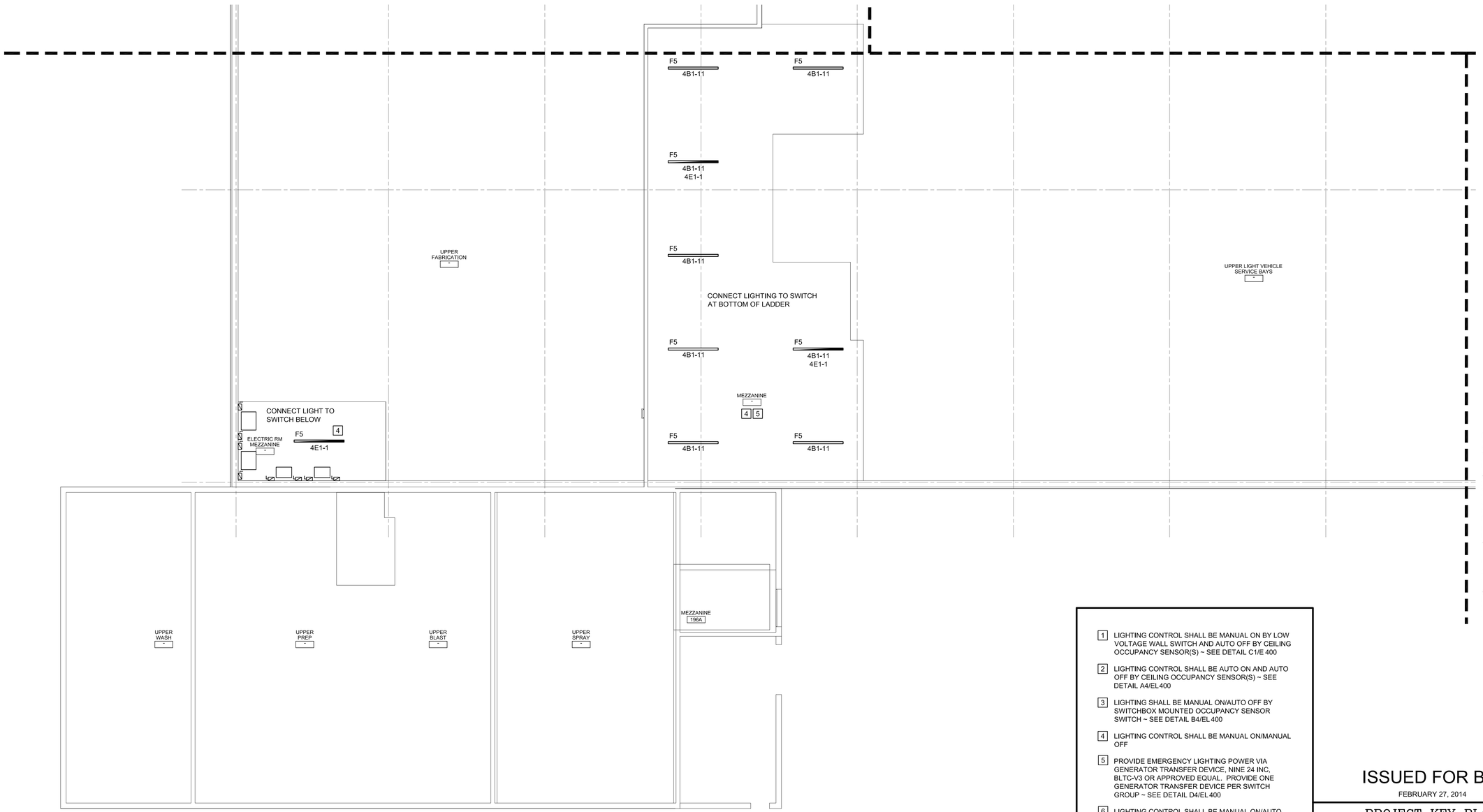

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A1 | LIGHTING PART PLAN ~ AREA C

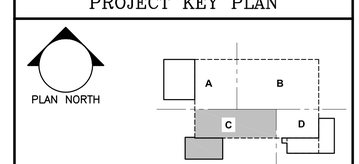
1/8"=1'-0"

A8 | LIGHTING CONTROL NOTES

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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207.221.2266
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Allied Project No: 13057 Cad File: 13057_EL.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
CATHERINE A. FAUCHER
No. 7501
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	–
CONTRACTOR	–
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

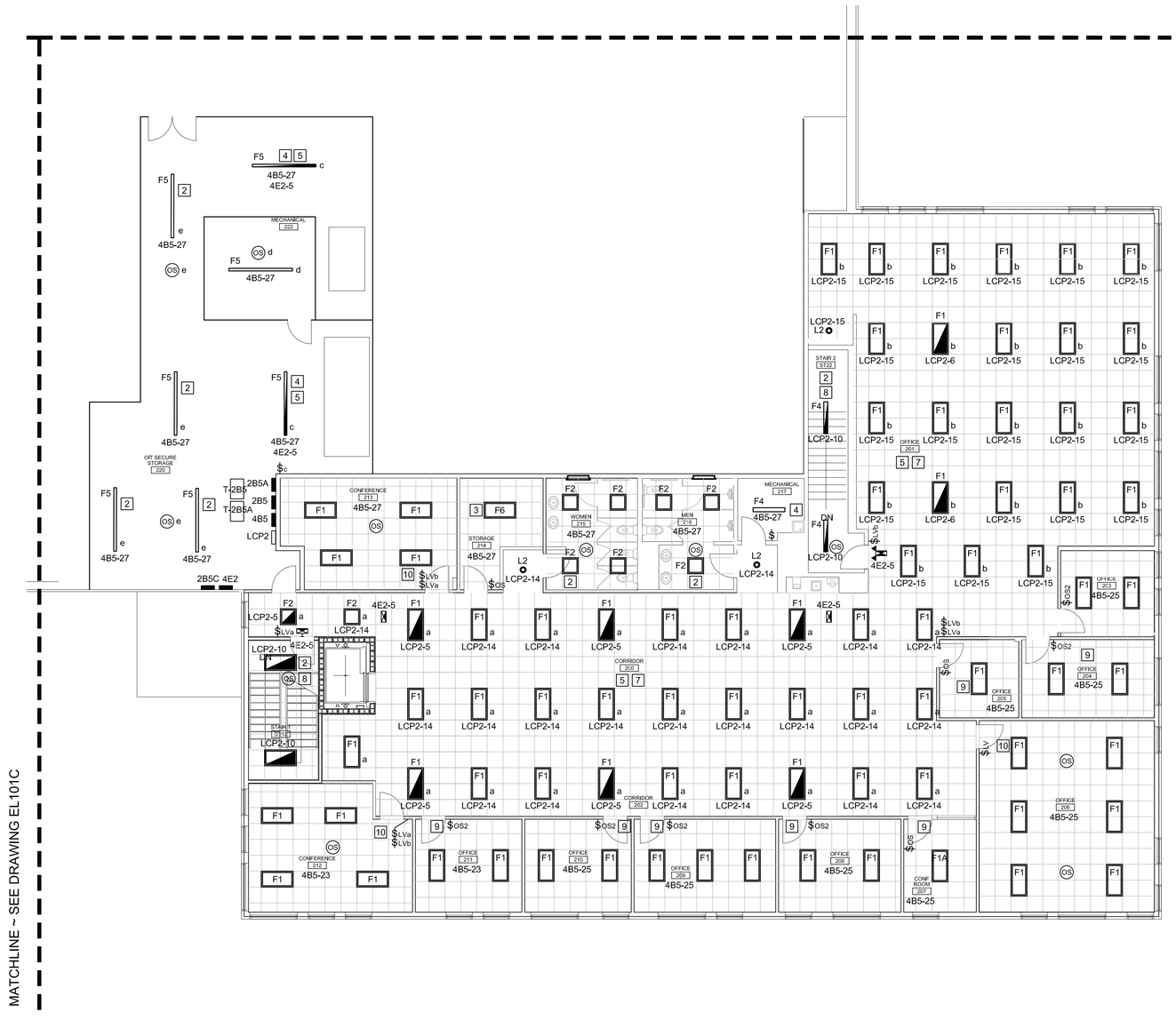
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL – LIGHTING PLAN
AREA C

SHEET NUMBER

EL101C

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_EL.dwg Feb 27, 2014 – 2:34pm



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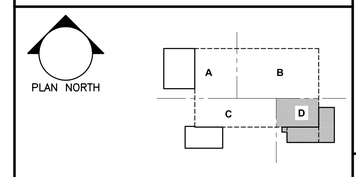
E9	LIGHTING CONTROL NOTES

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE
CATHERINE A. FAUCHER
No. 7507
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

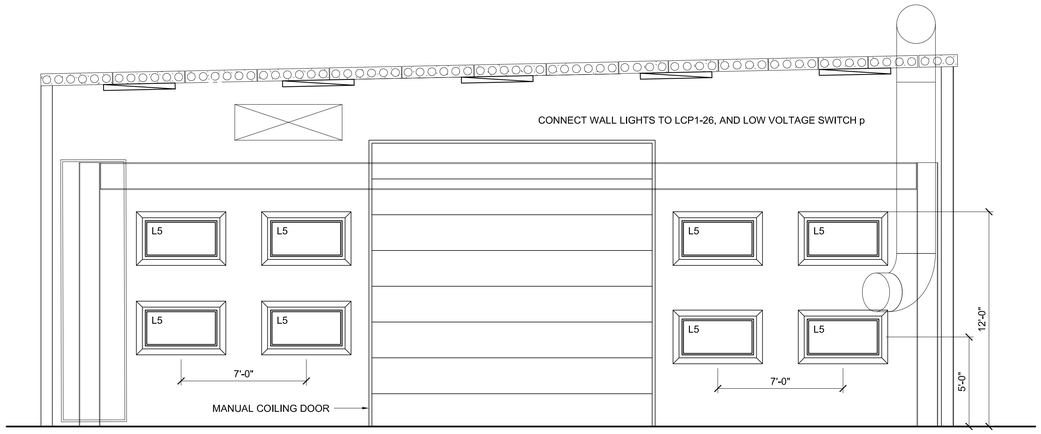
ELECTRICAL – LIGHTING PLAN
SECOND FLOOR – AREA D

SHEET NUMBER

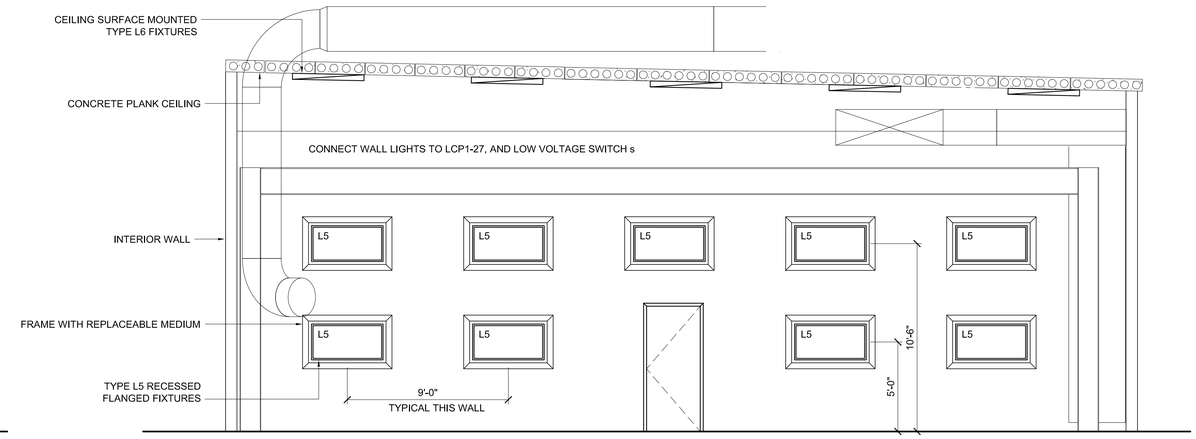
EL101D

A1	LIGHTING PART PLAN ~ SECOND FLOOR ~ AREA D
1/8"=1'-0"	

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_EL.dwg Mar 05, 2014 – 1:54pm



EAST ELEVATION



WEST ELEVATION

E1	BLAST ROOM ELEVATION
1/4"=1'-0"	

LIGHTING CONTROL PANEL SCHEDULE ~ LCP1

PROVIDE INTEGRAL ASTRONOMICAL TIME CLOCK

MOUNTING: SURFACE

CONTROL VOLTAGE: 277 — LOCATION: ELECTRIC ROOM

CONTROL CIRCUIT: 4B1-13

RELAY NO	CIRCUIT NO	NOTE NO	DESCRIPTION
1	4E1-3	4	Sign Shop Floor 140 , Switch c
2	4E1-3	4	Fabrication 180 & Machine Shop 183, Switch e
3	4E1-1	4	Fabrication 181, Switch g
4	4E1-3	4	Wash Bay 191, Switch m
5	4E1-1	4	Prep Room 193, Switch n
6	4E1-1	4	Blast Room 194, Switch o
7	4E1-3	1	Exterior Building Lights
8			Spare
9			Spare
10			Spare
11			Spare
12			Spare
13			Spare
PROVIDE BARRIER BETWEEN NORMAL AND LIFE-SAFETY CIRCUITS			
14	4B1-13	4	Blast Room 194, Switch o
15	4B1-11	1	Exterior Building Lights
16	4B1-7	4	Prep Room 193, Switch n
17	4B1-9	4	Wash Bay 191, Switch m
18	4B1-9	4	Fabrication 181, Switch h
19	4B1-5	4	Fabrication 181, Switch g
20	4B1-7	4	Fabrication 180, Switch f
21	4B1-5	4	Fabrication 180 & Machine Shop 183, Switch f
22	4B1-3	4	Fabrication 180 & Machine Shop 183, Switch e
23	4B1-1	4	Sign Shop Floor 140 , Switch d
24	4B1-1	4	Sign Shop Floor 140 , Switch c
25	4B1-17	1	Exterior Pole Lights
26	4B1-13	4	Blast Room 194, Switch p
27	4B1-13	4	Blast Room 194, Switch s
28			Spare
29			Spare
30			Spare
31			Spare
32			Spare
33			Spare
34			Spare
35			Spare
36			Spare

NOTES:

1. PROGRAM FOR AUTO-ON/AUTO-OFF CONTROL VIA ASTRONOMICAL CLOCK
2. PROGRAM FOR AUTO-ON/AUTO-OFF VIA PHOTOCELL
3. PROGRAM FOR AUTO-ON/AUTO-OFF VIA TIME SCHEDULE ~ COORDINATE TIMES WITH OWNER.
4. PROGRAM FOR MANUAL-ON/AUTO-OFF VIA TIME SCHEDULE ~ COORDINATE TIMES WITH OWNER.

LIGHTING CONTROL PANEL SCHEDULE ~ LCP2

PROVIDE INTEGRAL ASTRONOMICAL TIME CLOCK

DESIGNATION: — MOUNTING: SURFACE

CONTROL VOLTAGE: 277 — LOCATION: MEZZANINE

CONTROL CIRCUIT: 4B5-23

RELAY NO	CIRCUIT NO	NOTE NO	DESCRIPTION
1	4E2-1	4	Light Vehicle Service 170, Switch f
2	4E2-1	4	Fast Lane 150 Switch h
3	4E2-3	4	Heavy Equipment 160, Switch n
4	4E2-3	4	NAPA 151, Switch o
5	4E2-5	4	Open Office 200, Switch a
6	4E2-5	4	Open Office 201, Switch b
7	4E2-7	4	Corridor 120, Switch a
8	4E2-7	4	Corridor 110, Switch b
9	4E2-7	4	Office 121, Switch c
10	4E2-5	2	Stair 1 and Stair 2
11			Spare
12			Spare
13			Spare
PROVIDE BARRIER BETWEEN NORMAL AND LIFE-SAFETY CIRCUITS			
14	4B5-23	4	Open Office 200, Switch a
15	4B5-25	4	Open Office 201, Switch b
16	4B5-7	4	NAPA 151, Switch o
17	4B5-21	4	Heavy Equipment 160, Switch m
18	4B5-19	4	Heavy Equipment 160, Switch m
19	4B5-17	4	Heavy Equipment 160, Switch m
20	4B5-15	4	Heavy Equipment 160, Switch n
21	4B5-13	4	Heavy Equipment 160, Switch n
22	4B5-7	4	Fast Lane 150 Switch h
23	4B5-11	4	Light Vehicle Service 170, Switch g
24	4B5-9	4	Light Vehicle Service 170, Switch f
25	4B5-1	4	Corridor 120, Switch a
26	4B5-5	4	Corridor 110, Switch b
27	4B1-5	4	Task lighting 170, Switch p
28	4B5-1	4	Office 121, Switch c
29			Spare
30			Spare
31			Spare
32			Spare
33			Spare
34			Spare
35			Spare
36			Spare

NOTES:

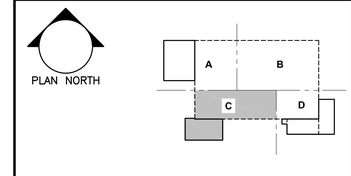
1. PROGRAM FOR AUTO-ON/AUTO-OFF CONTROL VIA ASTRONOMICAL CLOCK
2. PROGRAM SUCH THAT RELAY IS ON AT ALL TIMES WHEN THE BUILDING IS OCCUPIED.
3. PROGRAM FOR AUTO-ON/AUTO-OFF VIA TIME SCHEDULE ~ COORDINATE TIMES WITH OWNER.
4. PROGRAM FOR MANUAL-ON/AUTO-OFF VIA TIME SCHEDULE ~ COORDINATE TIMES WITH OWNER.

A1	LIGHTING CONTROL PANEL SCHEDULES

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

Allied Project No: 13057 Cad File: 13057_EL.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

CATHERINE A. FAUCHER No. 7571 LICENSED PROFESSIONAL ENGINEER STATE OF MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

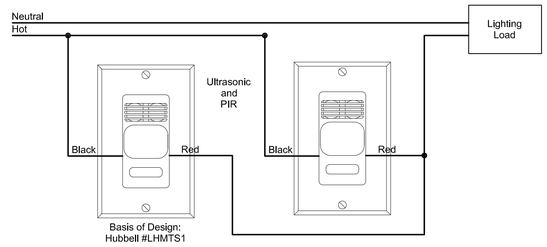
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL
ENLARGED LIGHTING DETAILS

SHEET NUMBER

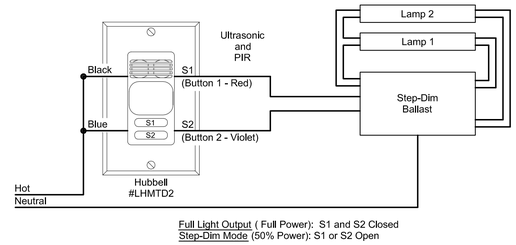
EL200

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_EL.dwg Mar 05, 2014 – 1:55pm



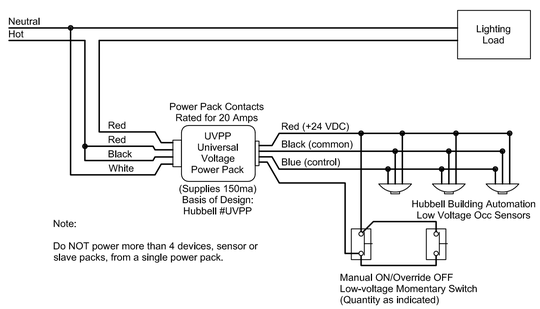
F1 | 3-WAY SENSOR SWITCH WIRING - MANUAL ON/AUTO OFF

NO SCALE



F4 | 2-BUTTON OCC SENSOR SWITCH FOR STEP DIMMING

NO SCALE

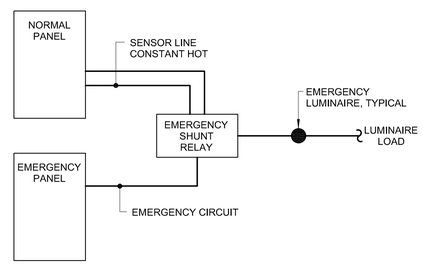


Note:

Do NOT power more than 4 devices, sensor or slave packs, from a single power pack.

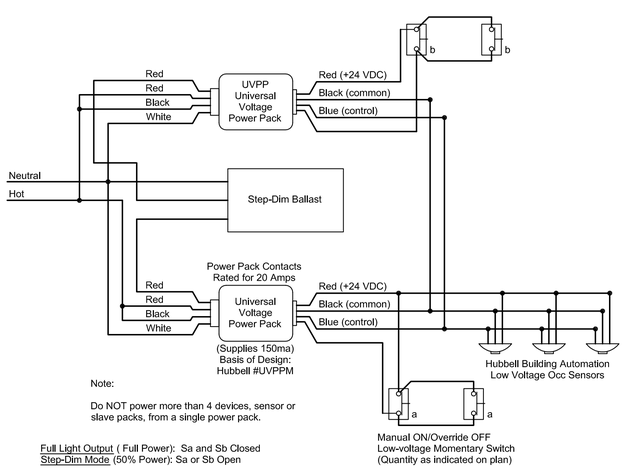
C1 | MANUAL ON SWITCHING WITH AUTO OFF

NO SCALE



D4 | EMERGENCY POWER GENERATOR TRANSFER DEVICE

NO SCALE



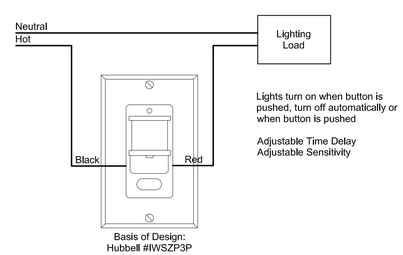
Note:

Do NOT power more than 4 devices, sensor or slave packs, from a single power pack.

Full Light Output (Full Power): Sa and Sb Closed
Step-Dim Mode (50% Power): Sa or Sb Open

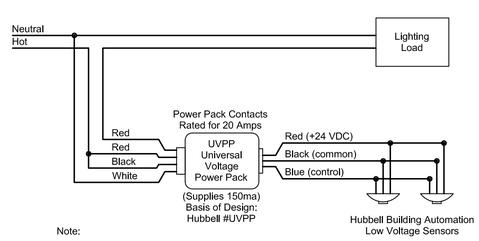
A1 | STEP DIMMING WITH AUTO OFF

NO SCALE



B4 | OCCUPANCY SENSOR SWITCH - MANUAL ON/AUTO OFF

NO SCALE



Note:

Do NOT power more than 4 devices, sensor or slave packs, from a single power pack.

A4 | AUTO ON/AUTO OFF CONTROL DETAIL

NO SCALE

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MFR	CATALOG SERIES NUMBER SEE NOTE 1	MOUNTING	VOLTS	LAMP			KEY NOTES
						QTY PER FIXTURE	WATTS	TYPE	
F1	2x4 HIGH PERFORMANCE TROFFER	FINELITE	HPR-A-2x4-DCO-2T5-PS	RECESSED	277	2	28	T5 3500K	4
F1A	2x4 HIGH PERFORMANCE TROFFER	FINELITE	HPR-A-2x4-DCO-3T5-PS	RECESSED	277	3	28	T5 3500K	4
F2	2x2 HIGH PERFORMANCE TROFFER	FINELITE	HPR-A-2x2-DCO-2T5-PS	RECESSED	277	2	14	T5 3500K	4
F2A	2x2 HIGH PERFORMANCE TROFFER	FINELITE	HPR-A-2x2-DCO-3T5-PS	RECESSED	277	3	14	T5 3500K	4
F3	UTILITY LIGHT	LUMINAIRE LIGHTING	LVP88-2PLT26-120-CP-WHT-DAMP	SURFACE	120	2	26	COMPACT FLUORESCENT	7
F4	4' LENSED STRIP LIGHT	LITHONIA	ST5-2-28T5	SEE PLANS	277	2	28	T5 3500K	4
F5	8' STRIP WITH WIRE GUARDS	LITHONIA	TZ228T5-GEB10PS-WGZ46	CEILING OR CHAIN	277	4	28	T5 3500K	6,7
F5A	4' STRIP WITH WIRE GUARD	LITHONIA	Z228T5-GEB10PS-WGZ46	CEILING OR CHAIN	277	2	28	T5 3500K	6,7
F6	2x4 LENSED GRID TROFFER	LITHONIA	SP5G-228T5-A19	RECESSED	277	3	28	T5 3500K	4
F6A	2x2 LENSED GRID TROFFER	LITHONIA	SP5G-214T5-A19	RECESSED	277	2	14	T5 3500K	4
L1	LED HIGH BAY	LITHONIA	IBL-18L-WD-SD125-LP740DLC	AIRCRAFT CABLE	277	-	199	LED ARRAY 4000K	
L1A	LED HIGH BAY	LITHONIA	IBL-24L-WD-SD125-LP740DLC	AIRCRAFT CABLE	277	-	258	LED ARRAY 4000K	
L1B	LED HIGH BAY	LITHONIA	IBL-12L-WD-SD125-LP740DLC	AIRCRAFT CABLE	277	-	131	LED ARRAY 4000K	
L2	4" DIAMETER DOWNLIGHT	PRESCOLITE	LF4LED-4LFLED5	RECESSED	277	-	18.5	LED ARRAY 3500K	
L3	16" SURFACE SQUARE	XAL	N677-635-0161-7170-O-70	CEILING SURFACE	277	-	23	LED ARRAY 3500K	
L4	2" DIAMETER DOWNLIGHT	PRESCOLITE	D2LED-2D9LED-9L-35K-8-WF L45-MFC	RECESSED	277	-	17	LED ARRAY 3500K	
L5	LED TROFFER WITH INTEGRAL FLANGE AND DOOR GASKET FOR BLAST RM	LITHONIA	2GL4F-72L-FN-SWL-ABC	WALL SEE DETAIL E1/EL200	277	-	77	LED ARRAY 4100K	
L6	LED SURFACE MOUNT FIXTURE FOR BLAST RM	LITHONIA	FHE LED-12L-FST	CEILING SURFACE	277	-	152	LED ARRAY 4100K	
L7	LINEAR TASK LIGHT, 48"	LUMINAIRE LIGHTING	AEL48-42W-DP-SVH	WALL 9' AFF	277	-	42	LED ARRAY 3500K	
L7A	LINEAR TASK LIGHT, 72"	LUMINAIRE LIGHTING	AEL72-64W-DP-SVH	WALL 9' AFF	277	-	64	LED ARRAY 3500K	
L8	WASH BAY LIGHT	LITHONIA	FHELED-9L/35-FST	CEILING SURFACE	277	-	118	LED ARRAY 3500K	
W1	LED EXTERIOR WALL SCONCE	PHILIPS GARDCO	161-CW-2-70LA-6435-NW	WALL 18'	277	-	75	LED ARRAY	
W2	OVER DOOR EGRESS LIGHT	LUMINAIRE LIGHTING	AEL24-22WLED-DP-BZH	WALL 8" OVER DOOR	277	-	22	LED ARRAY	
	EXIT SIGN	LITHONIA	LXW3R	SEE NOTE 3	277	-	3.8	LED ARRAY	3

LUMINAIRE SCHEDULE NOTES

1	**NOTE THAT THESE NUMBERS ARE NOT COMPLETE CATALOG #'S. PROVIDE ALL REQUIREMENTS ON SCHEDULE,NOTES, SPECS, AND DRAWINGS COMBINED.**
2	**CATALOG SERIES NUMBERS ARE USED TO ESTABLISH A LEVEL OF QUALITY AND NOT INTENDED TO LIMIT COMPETITION. SERIES NUMBERS ARE NOT COMPLETE CATALOG NUMBERS. COMPLY WITH ADDITIONAL REQUIREMENTS IN SPECIFICATIONS AND DRAWINGS.**
3	PROVIDE WALL,CEILING, OR PENDANT MOUNTING AS INDICATED ON PLANS. PROVIDE NUMBER OF FACES AND ARROWS AS INDICATED.
4	PROVIDE PROGRAMMED START BALLAST WITH ROOMS THAT HAVE OCCUPANCY SENSORS.
5	VERIFY CEILING STRUCTURE AND MOUNTING HEIGHT PRIOR TO ORDERING ANY LIGHT FIXTURES.
6	(2) LAMPS IN CROSS SECTION
7	LIGHT FIXTURE LOCATIONS IN MECHANICAL ROOMS AND ELECTRIC ROOMS ARE APPROXIMATE. INSTALL LIGHTING TO AVOID DUCTWORK, PIPING AND ELECTRICAL ITEMS.

A6 | LUMINAIRE SCHEDULE AND NOTES

NO SCALE

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN

PLAN NORTH

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

Allied Project No: 13057 Cad File: 13057_EL.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
CATHERINE A. FAUCHER
No. 7571
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	ALLIED ENG., INC.
DESIGNER	
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL LIGHTING DETAILS AND LUMINAIRE SCHEDULE

SHEET NUMBER

EL400

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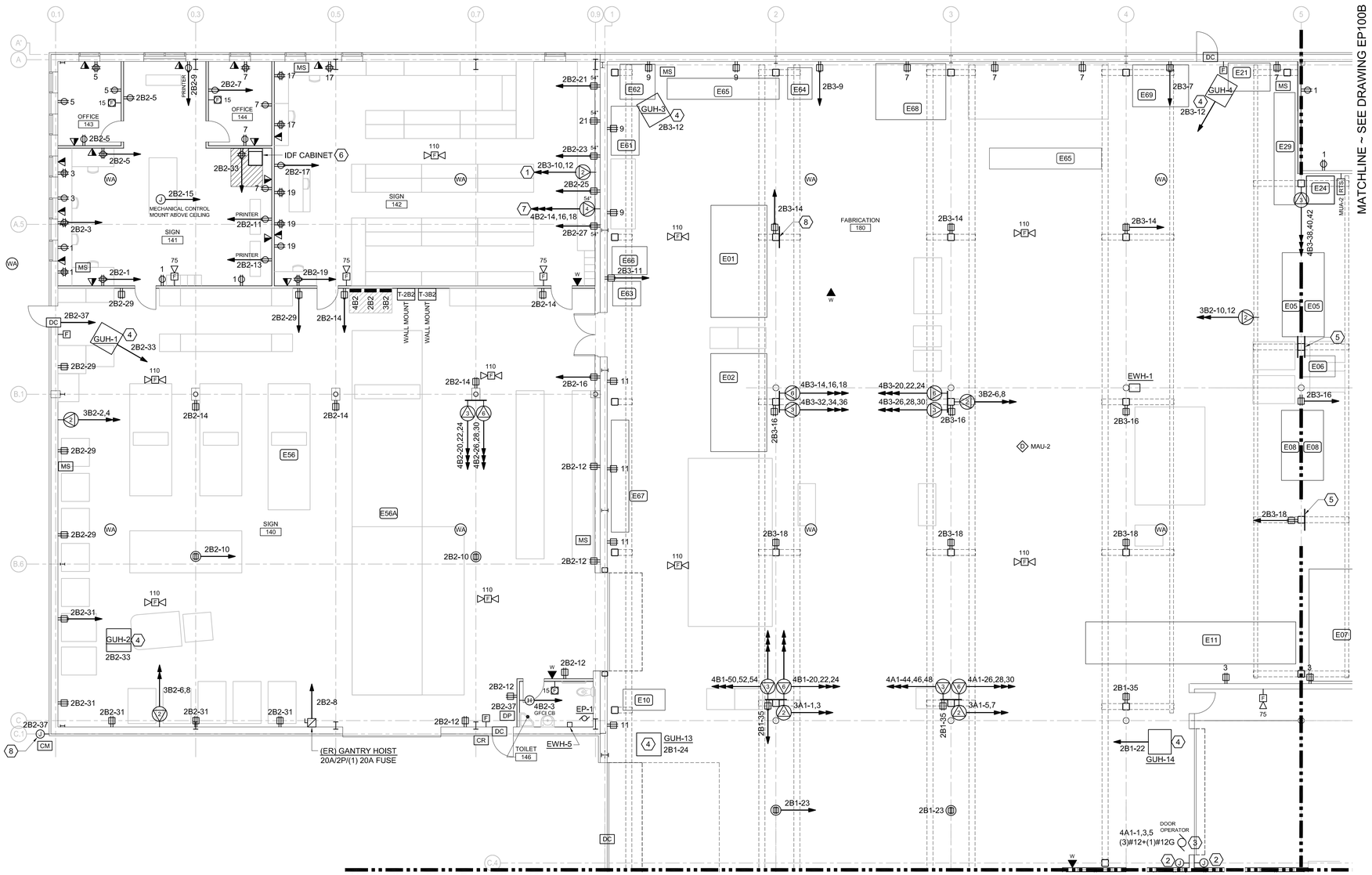


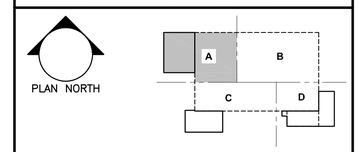
ISSUED FOR BID

FEBRUARY 27, 2014

1. MOUNT RECEPTACLE AT 54" AFF, PROVIDE 30A, 240V, 2P NON-FUSED DISCONNECT SWITCH
2. PROVIDE 3/4" CONDUIT FROM WALL BOX AT 48" AFF TO DOOR OPERATOR
3. PROVIDE 20A, 600V 3-POLE NON-FUSED DISCONNECT SWITCH FOR DOOR OPERATOR
4. PROVIDE 20A, 120V 2P NON-FUSED DISCONNECT SWITCH
5. MOUNT DISCONNECT SWITCHES FOR SHOP EQUIPMENT ON BACKBOARD.
6. PROVIDE (2) 4"C WITH PULL STRING FROM IDF TO MDF ROOM 119
7. MOUNT RECEPTACLE AT 54" AFF, PROVIDE 30A, 240V, 2P NON-FUSED DISCONNECT SWITCH
8. POWER FOR CAMERA HOUSING HEATER, VERIFY MOUNTING HEIGHT

A8 KEY NOTES

PROJECT KEY PLAN



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www.allied-eng.com

Allied Project No: 13057 Cad File: 13057_EP.DWG

A1 POWER AND SYSTEMS PLAN ~ AREA A

1/8"=1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

CATHERINE A. FAUCHER No. 7501 LICENSED PROFESSIONAL ENGINEER MAINE

SIGNATURE –

ARCH. LIN. NUMBER –

DATE FEBRUARY 27, 2014

PROJECT INFORMATION	
PROGRAM	–
PROJECT MANAGER	–
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	–
CONTRACTOR	–
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL – POWER AND SYSTEMS PLAN ~ AREA A

SHEET NUMBER

EP100A

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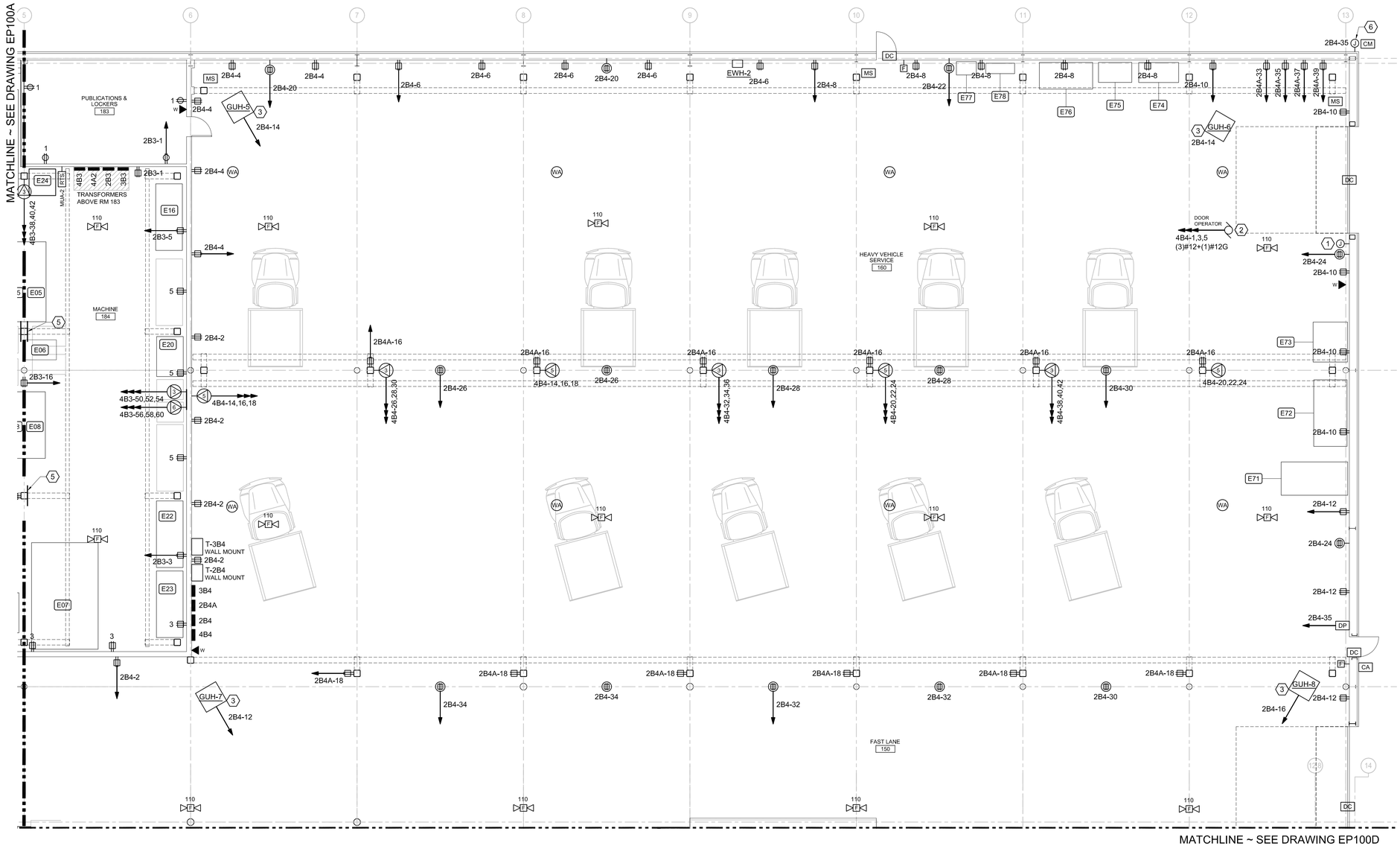
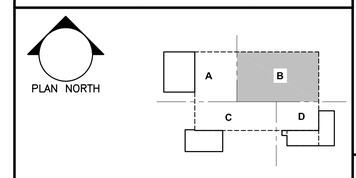


ISSUED FOR BID

FEBRUARY 27, 2014

1. PROVIDE 3/4" CONDUIT FROM WALL BOX TO DOOR OPERATOR
2. PROVIDE 20A, 600V 3-POLE NON-FUSED DISCONNECT SWITCH FOR DOOR OPERATOR
3. PROVIDE 20A, 120V 2P NON-FUSED DISCONNECT SWITCH
4. MOUNT DISCONNECT SWITCHES FOR E05 AND E06 ON BACKBOARD.
5. MOUNT DISCONNECT SWITCH FOR E08 ON BACKBOARD.
6. POWER FOR CAMERA HOUSING HEATER, VERIFY MOUNTING HEIGHT

PROJECT KEY PLAN



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Allied Project No: 13057 Cad File: 13057_EP.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

CATHERINE A. FAUCHER No. 7571 LICENSED PROFESSIONAL ENGINEER MAINE

FEBRUARY 27, 2014

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

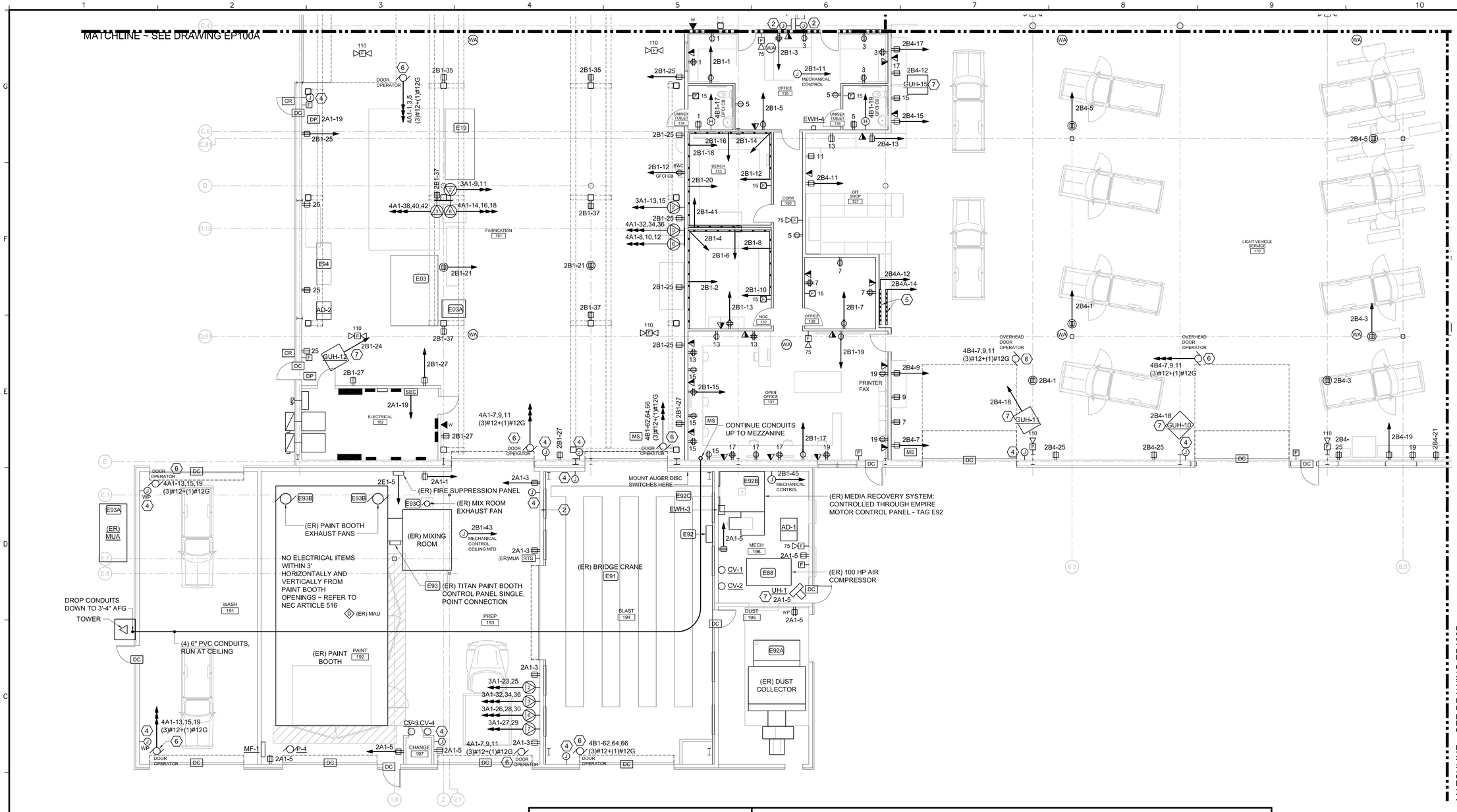
ELECTRICAL – POWER AND SYSTEMS PLAN ~ AREA B

SHEET NUMBER

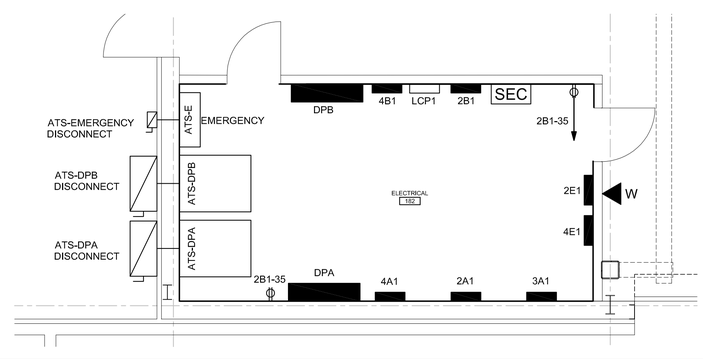
EP100B

A1	POWER AND SYSTEMS PLAN ~ AREA B	A8	KEY NOTES
1/8"=1'-0"			

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_EP.dwg Mar 05, 2014 – 1:31pm



1. PROVIDE (4) 6" PVC CONDUITS WITH PULL STRING FROM RADIO TOWER TO MEZZANINE ABOVE RM 131
2. NOT USED
3. NOT USED
4. PROVIDE 3/4" CONDUIT FROM WALL BOX TO DOOR OPERATOR
5. PROVIDE 6' SURFACE RACEWAY WITH RECEPTACLE SPACING OF 9", AT 24" AFF AND 48" AFF, BASIS OF DESIGN: WIREMOLD 2000 SERIES IVORY SCUFFCOAT FINISH
6. PROVIDE 20A, 600V 3-POLE NON-FUSED DISCONNECT SWITCH FOR DOOR OPERATOR
7. PROVIDE 20A, 120V 2P NON-FUSED DISCONNECT SWITCH
8. MOUNT DISCONNECT SWITCHES FOR SHOP EQUIPMENT ON BACKBOARD.

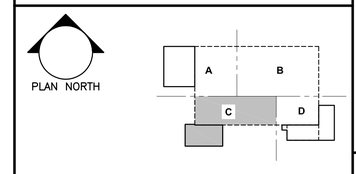


A1	POWER AND SYSTEMS PLAN ~ AREA C	A4	KEY NOTES	A6	ENLARGED MAIN ELECTRIC ROOM
1/8"=1'-0"				1/4"=1'-0"	

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



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Allied Project No: 13057 Cad File: 13057_EP.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

CATHERINE A. FAUCHER No. 7571 LICENSED PROFESSIONAL ENGINEER

DATE FEBRUARY 27, 2014

ARCH. LIN. NUMBER

SIGNATURE

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

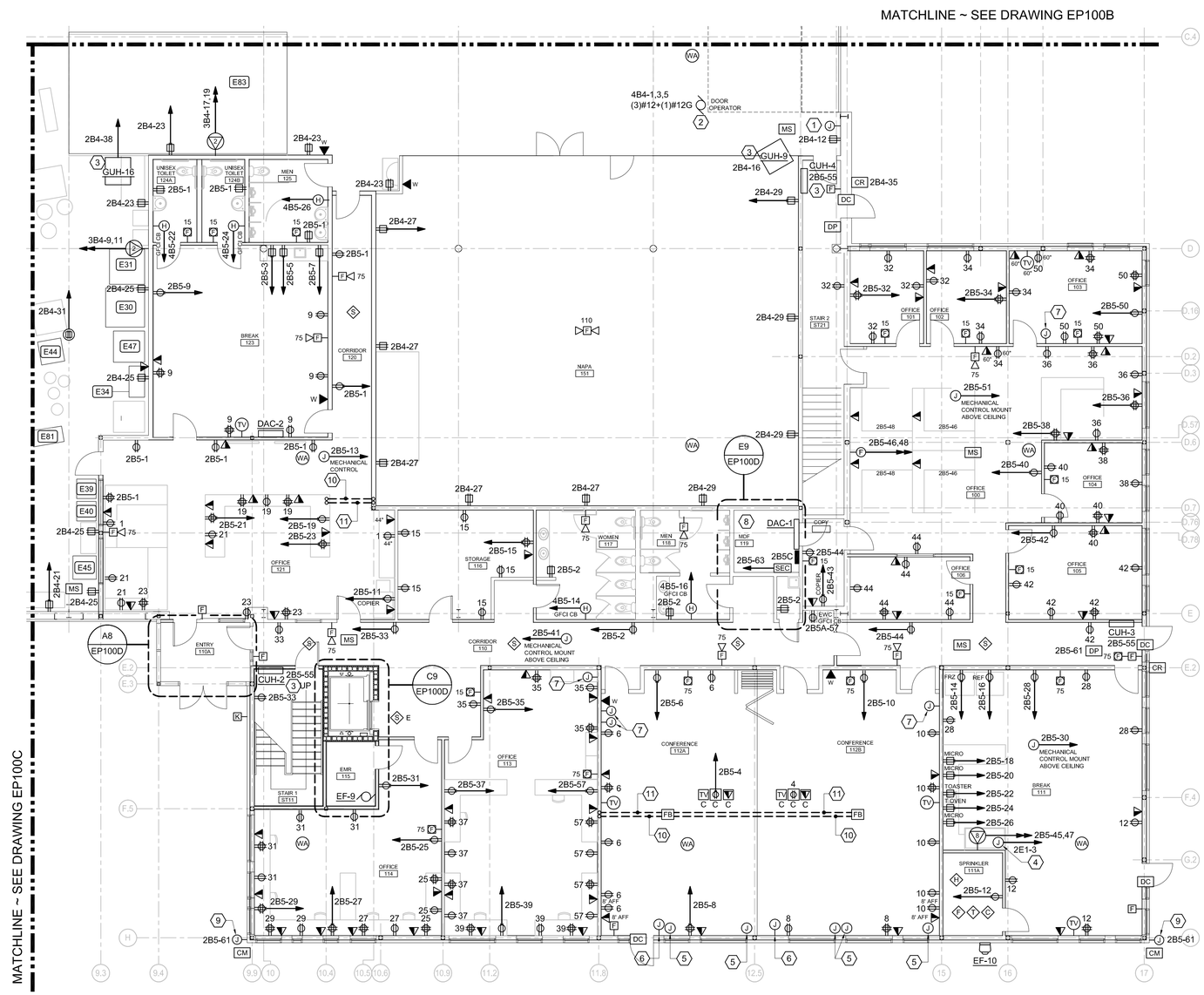
66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL – POWER AND SYSTEMS PLAN ~ AREA C

SHEET NUMBER

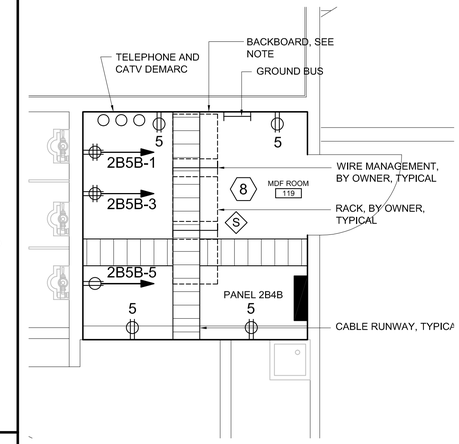
EP100C

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_EP.dwg Mar 05, 2014 – 1:31pm



1	PROVIDE 3/4" CONDUIT FROM WALL BOX TO DOOR OPERATOR
2	PROVIDE 20A, 600V 3-POLE NON-FUSED DISCONNECT SWITCH FOR DOOR OPERATOR
3	PROVIDE 20A, 120V 2P NON-FUSED DISCONNECT SWITCH
4	POWER FOR HOOD LIGHTS AND FIRE SUPPRESSION SYSTEM. WHEN ACTIVATED, FIRE SUPPRESSION SYSTEM SHUTS OFF POWER TO RANGE.
5	PROVIDE JUNCTION BOX ABOVE CEILING FOR MOTORIZED SHADES
6	PROVIDE JUNCTION BOX AT 48" AFF FOR SHADE CONTROLS.
7	PROVIDE JUNCTION BOX AT 48" AFF. PROVIDE 3/4" CONDUIT WITH PULL STRING FROM JUNCTION BOX TO RADIO EQUIPMENT ON MECHANICAL MEZZANINE ABOVE ROOM 131
8	PROVIDE 4" C WITH PULL STRING FROM MDF ROOM 119 TO RADIO EQUIPMENT ON MECHANICAL MEZZANINE ABOVE ROOM 131
9	POWER FOR CAMERA HOUSING HEATER, VERIFY MOUNTING HEIGHT
10	1" C UNDER FLOOR FOR POWER
11	2" C UNDER FLOOR FOR TEL/DATA

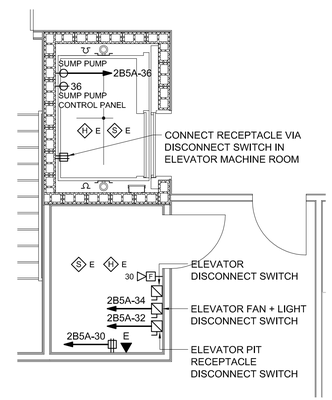
F7	KEY NOTES



BACKBOARD:

BACKBOARD SHALL BE 4-FT. X 8-FT. X ¾-IN. PLYWOOD SHEETS OF GOOD QUALITY, PAINTED TWO COATS WITH AN OFF-WHITE SEMI-GLOSS OR SATIN FINISH LATEX PAINT, MOUNTED THIRTY-SIX (36) INCHES ABOVE THE FLOOR, AS MEASURED FROM THE LOWERMOST EDGE OF THE BACKBOARD. ALL BACKBOARDS SHALL BE SECURELY FASTENED DIRECTLY TO THE FINISHED WALL STRUCTURE, USING APPROPRIATE FASTENERS FOR THE SURFACE TO WHICH SUCH BACKBOARDS ARE BEING FASTENED. WALL SURFACES MUST BE FINISHED AND PAINTED PRIOR TO BACKBOARD INSTALLATION.

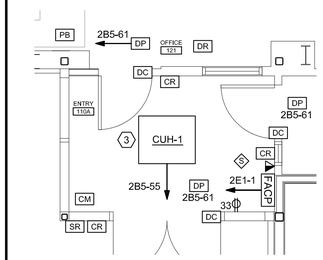
E9	ELEVATOR AND MACHINE ROOM PLAN
3/8"=1'-0"	



C9	ELEVATOR AND MACHINE ROOM PLAN
1/4"=1'-0"	

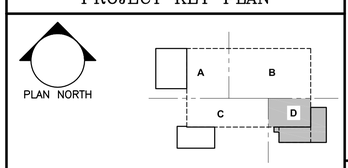
ISSUED FOR BID

FEBRUARY 27, 2014



A8	ENLARGED ENTRY 110A
1/4"=1'-0"	

PROJECT KEY PLAN



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Allied Project No: 13057 Cad File: 13057_EP.DWG

A1	POWER AND SYSTEMS PLAN ~ AREA D
1/8"=1'-0"	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

CATHERINE A. FAUCHER No. 7571 LICENSED PROFESSIONAL ENGINEER MAINE

SIGNATURE –
ARCH. LIN. NUMBER –
DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	–
CONTRACTOR	–
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL – POWER AND SYSTEMS PLAN ~ AREA D

SHEET NUMBER
EP100D

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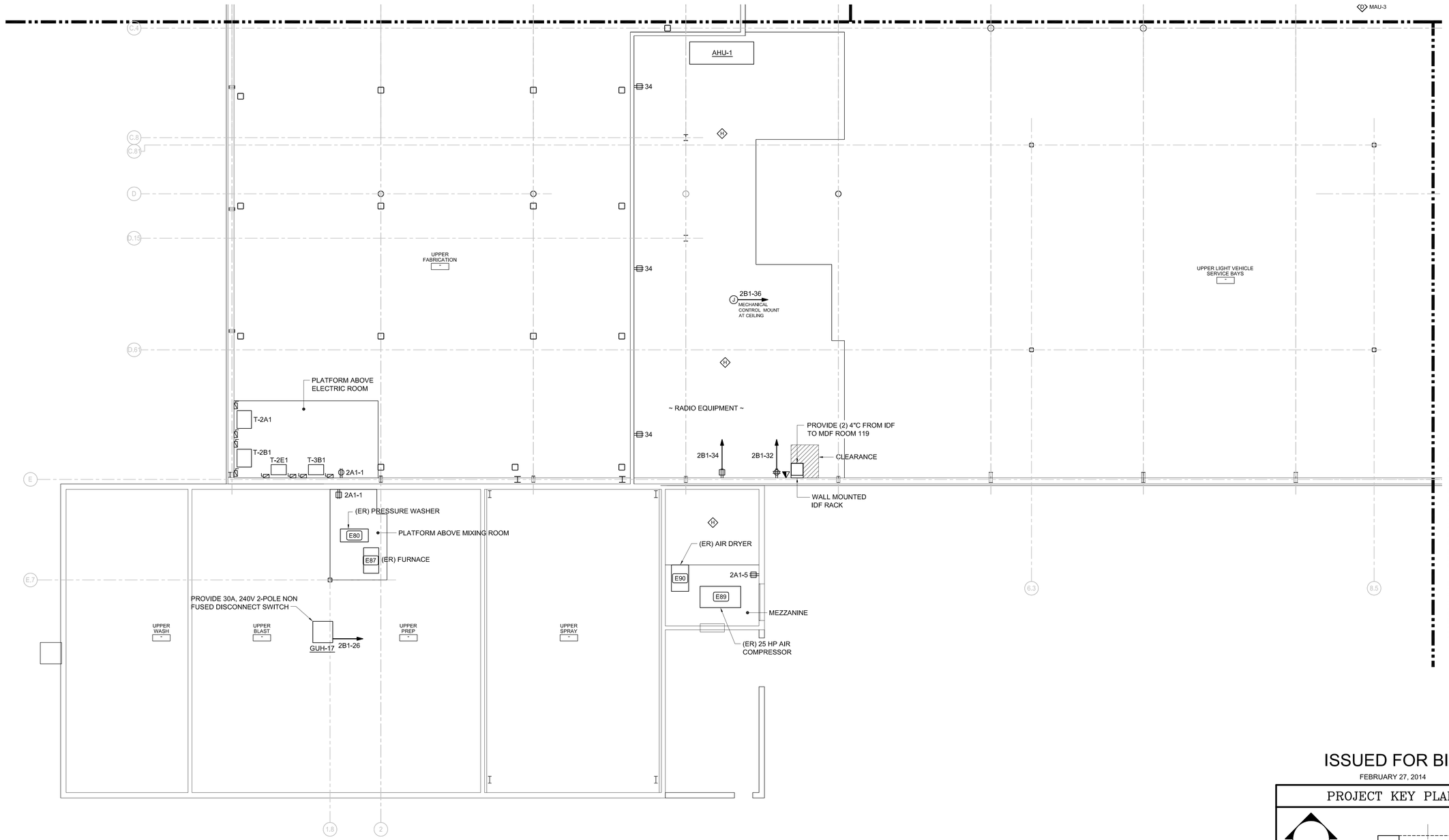
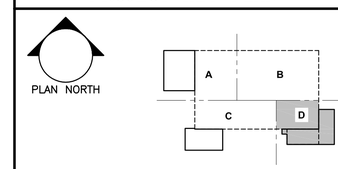


ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN



Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
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207.221.2266
www.allied-eng.com

Allied Project No: 13057 Cad File: 13057_EP.DWG

A1 | POWER AND SYSTEMS PLAN ~ AREA C

1/8"=1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE
CATHERINE A. FAUCHER
No. 7501
LICENSED
PROFESSIONAL ENGINEER

	SIGNATURE
ARCH. LIN. NUMBER	–
DATE	FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	–
PROJECT MANAGER	–
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	–
CONTRACTOR	–
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL – POWER AND SYSTEMS PLAN – AREA C

SHEET NUMBER

EP101C

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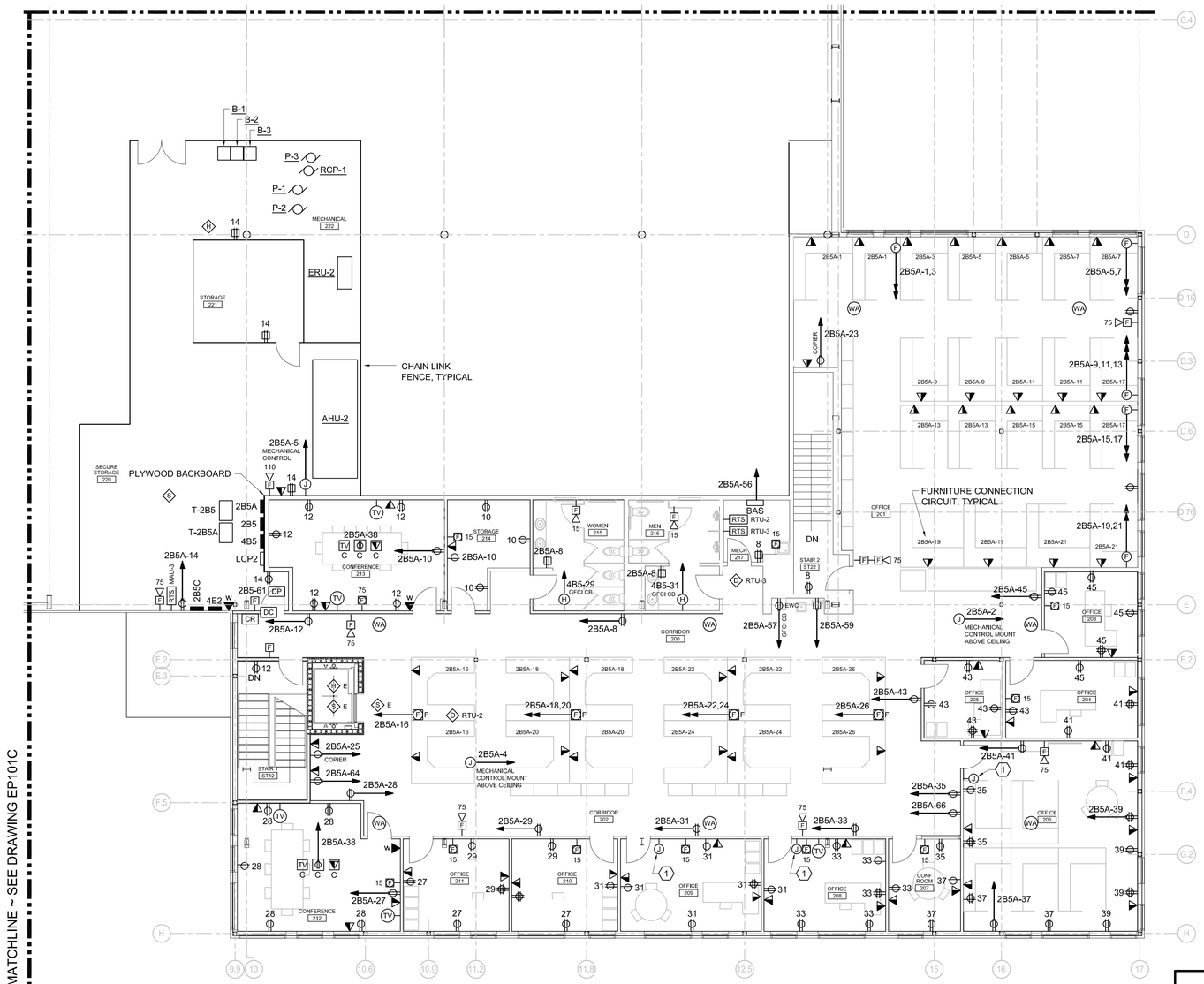


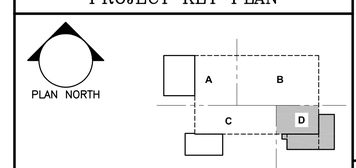
MATCHLINE ~ SEE DRAWING EP101C

ISSUED FOR BID

FEBRUARY 27, 2014

1. PROVIDE JUNCTION BOX AT 48" AFF. PROVIDE 3/4" CONDUIT WITH PULL STRING FROM JUNCTION BOX TO RADIO EQUIPMENT ON MECHANICAL MEZZANINE ABOVE ROOM 131

PROJECT KEY PLAN



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE · CATHERINE A. FAUCHER · No. 7501 · LICENSED · PROFESSIONAL ENGINEER

	SIGNATURE
	–
	ARCH. LIN. NUMBER
	DATE FEBRUARY 27, 2014

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	
CONTRACTOR	–
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL – POWER AND SYSTEMS PLAN – SECOND FLOOR AREA D

SHEET NUMBER

EP101D

A1	POWER AND SYSTEMS PLAN ~ SECOND FLOOR AREA D	A4	KEY NOTES
1/8"=1'-0"			

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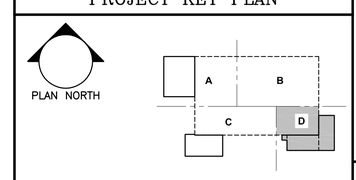
FEBRUARY 27, 2014

PROJECT KEY PLAN



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

	DATE
COMMISSIONER:	
CHIEF ENGINEER:	

STATE OF MAINE
CATHERINE A. FAUCHER
No. 7501
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE	–
ARCH. LIN. NUMBER	
DATE	FEBRUARY 27, 2014

PROJECT INFORMATION	
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL ROOF PLAN

SHEET NUMBER

EP102

A1	ELECTRICAL ROOF PLAN
1/16"=1'-0"	

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DISCONNECT SWITCH KEY:

- (A) 240V, 60A, 3P FUSED AT 50A
- (B) 240V, 100A, 3P FUSED AT 100A
- (C) 240V, 400A, 3P FUSED AT 225A
- (D) 600V, 30A, 3P FUSED AT 30A
- (E) 600V, 60A, 3P FUSED AT 50A
- (F) 600V, 60A, 3P FUSED AT 60A
- (G) 600V, 200A, 3P FUSED AT 125A
- (H) 600V, 400A, 3P FUSED AT 225A
- (I) 600V, 100A, 3P FUSED AT 100A, NEMA-3R
- (J) 600V, 1200A, 3P FUSED AT 1000A, NEMA-3R
- (K) 600V, 1200A, 3P FUSED AT 1200A, NEMA-3R

POWER RISER KEY NOTES:

1. ELEVATOR DISCONNECT SWITCH, NEMA-3R, WITH AUXILIARY SWITCH (ELECTRICAL INTERLOCK KIT), RATED 200A, 240V, 3P FUSED AT 125A
2. PROVIDE TELEPHONE LINE TO METER
3. FEEDERS WITH CONDUCTORS IN CONDUITS AS INDICATED ARE TO BE RUN TO 10' OUTSIDE OF THE BUILDING AND TO BE RUN IN EXISTING CONDUIT TO TRANSFORMER VAULT AND EMERGENCY GENERATOR RESPECITVELY

TRANSFORMER SCHEDULE/KEY

TAG	DESCRIPTION		NOTES
1	112.5 KVA	480 VOLT, 3 PHASE, 3 WIRE PRIMARY AND 208Y/120 VOLT, 3 PHASE, 4 WIRE SECONDARY	
2	15 KVA	480 VOLT, 3 PHASE, 3 WIRE PRIMARY AND 208Y/120 VOLT, 3 PHASE, 4 WIRE SECONDARY	
3	75 KVA	480 VOLT, 3 PHASE, 3 WIRE PRIMARY AND 208Y/120 VOLT, 3 PHASE, 4 WIRE SECONDARY	
4	45 KVA	480 VOLT, 3 PHASE, 3 WIRE PRIMARY AND 208Y/120 VOLT, 3 PHASE, 4 WIRE SECONDARY	
5	30 KVA	480 VOLT, 3 PHASE, 3 WIRE PRIMARY AND 208Y/120 VOLT, 3 PHASE, 4 WIRE SECONDARY	
6	75 KVA	480 VOLT, 3 PHASE, 3 WIRE PRIMARY AND 230 VOLT, 3 PHASE, 3 WIRE SECONDARY	
7	30 KVA	480 VOLT, 3 PHASE, 3 WIRE PRIMARY AND 230 VOLT, 3 PHASE, 3 WIRE SECONDARY	

TRANSFORMER SCHEDULE NOTES:

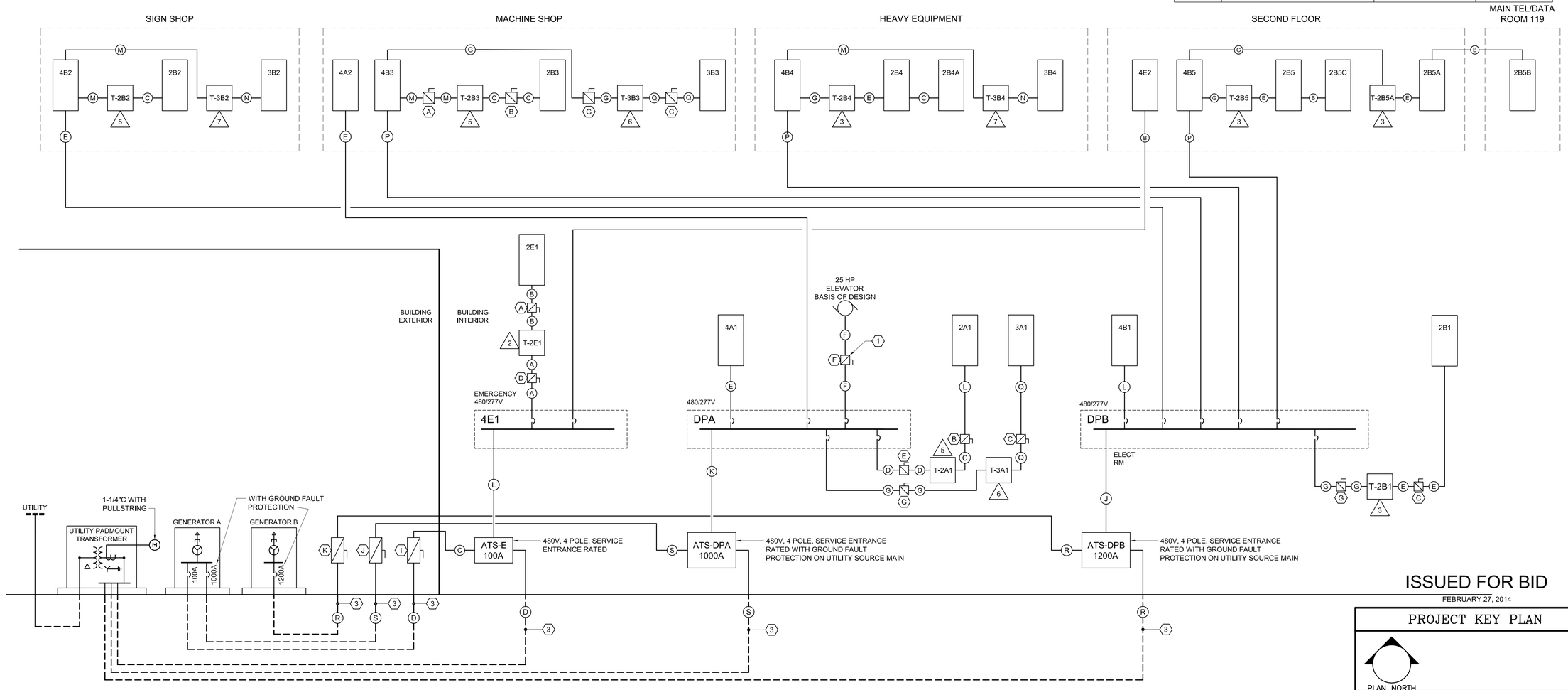
1. TRANSFORMER TO BE CEILING/WALL MOUNTED TO BEST SUIT THE EXISTING CONDITIONS.

FEEDER SCHEDULE

TAG	DESCRIPTION	CONDUCTORS (NOTE 1)	CONDUIT (NOTE 2)
A	30 AMP PRIMARY/FEEDER	(3) #10, (1) #10 G	3/4"
B	50 AMP SECONDARY/FEEDER	(4) #8, (1) #10 G	1"
C	100 AMP SECONDARY/FEEDER	(4) #2, (1) #8 G	1 -1/4"
D	200 AMP SECONDARY/FEEDER	(4) #3/0, (1) #6 G	2"
E	250 AMP SECONDARY/FEEDER	(4) 4/0 KCMIL, (1) #4 G	2-1/2"
F	70 AMP PRIMARY/FEEDER	(3) #4, (1) #8 G	1
G	125 AMP PRIMARY/FEEDER	(3)#1,(1)#6G	1-1/2"
H	200 AMP PRIMARY/FEEDER	(3) #3/0, (1) #6 G	2"
I	NOT USED		
J	1200 AMP SECONDARY/FEEDER	(4) 600 KCMIL, (1) #3/0 G	IN EACH OF (3) 4"
K	1000 AMP SECONDARY/FEEDER	(4) 500 KCMIL, (1) #2/0 G	IN EACH OF (3) 4"
L	125 AMP SECONDARY/FEEDER	(4) #1/0, (1) #6 G	1-1/2"
M	50 AMP PRIMARY/FEEDER	(3) #8, (1) #10 G	1"
N	100 AMP PRIMARY/FEEDER	(3) #2, (1) #8 G	1-1/2"
P	400 AMP SECONDARY/FEEDER	(4) 500 KCMIL, (1) #3 G	3"
Q	250 AMP PRIMARY/FEEDER	(4) 250 KCMIL, (1) #4 G	2-1/2"
R	1200 AMP SECONDARY/FEEDER - UNDERGROUND	(4) 750 KCMIL, (1) #3/0 G	IN EACH OF (4) 4"
S	1000 AMP SECONDARY/FEEDER - UNDERGROUND	(4) 500 KCMIL, (1) #2/0 G	IN EACH OF (4) 4"

FEEDER SCHEDULE NOTES:

1. WIRING BASED ON COPPER THWN/THHN
2. CONDUIT SIZE BASED ON EMT



ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN

PLAN NORTH

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2366
www.allied-eng.com

Allied Project No: 13057 Cad File: 13057_EP.DWG

A1 | POWER RISER DIAGRAM

NO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

CATHERINE A. FAUCHER No. 7501 LICENSED PROFESSIONAL ENGINEER MAINE

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL – POWER RISER DIAGRAM

SHEET NUMBER

EP400

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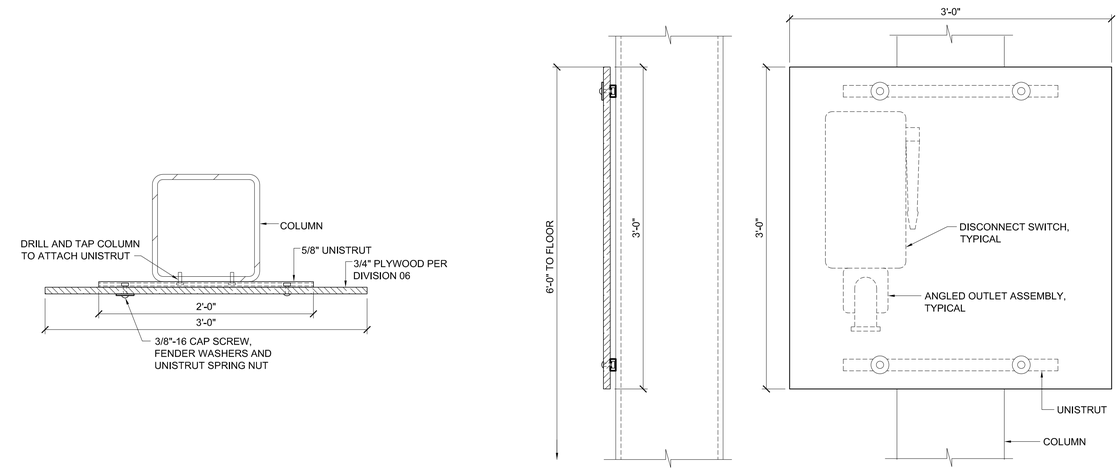


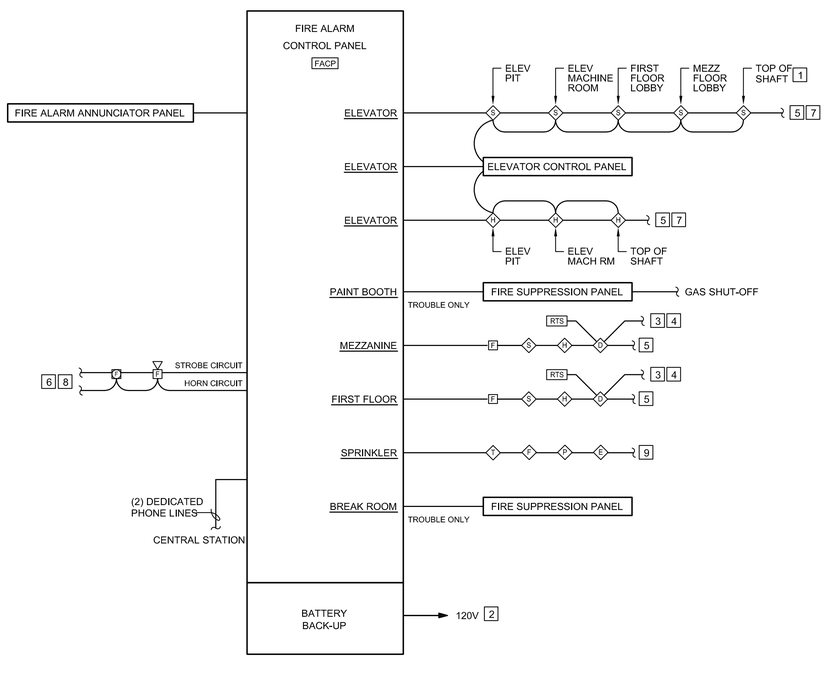
TOP VIEW

SIDE VIEW

FRONT VIEW

D5 | TYPICAL BACKBOARD FOR DISCONNECT SWITCHES

NO SCALE



FIRE ALARM GENERAL NOTES

1. MINIMUM SIZE CONDUIT SHALL BE 1/2" UNLESS NOTED OTHERWISE.
2. SYSTEM WIRING SHALL BE INSTALLED IN CONDUIT AND IN ACCORDANCE WITH EQUIPMENT SUPPLIER'S APPROVED SHOP DRAWINGS AND WIRING DIAGRAMS.
3. RISER DIAGRAM DOES NOT SHOW ENTIRE SYSTEM. REFER TO FLOOR PLANS FOR EXACT QUANTITIES AND LOCATIONS OF ALL SYSTEM DEVICES.
4. COORDINATE LOCATIONS OF DUCT SMOKE DETECTORS WITH DIVISION 23.
5. ALL WIRING SHALL BE CONCEALED.

FIRE ALARM KEY NOTES

1. PROVIDE ONLY IF SPRINKLER HEAD IS LOCATED AT TOP OF SHAFT
2. PROVIDE CIRCUIT BREAKER HANDLE LOCK ON POWER CIRCUIT. HANDLE LOCK SHALL ALLOW THE CIRCUIT BREAKER TO TRIP, BUT PREVENT SWITCHING OF THE CIRCUIT BREAKER TO THE "OFF" POSITION.
3. TO AUXILIARY CONTACTS IN RESPECTIVE AIR-HANDLING UNIT STARTER FOR UNIT SHUTDOWN ON ALARM. LABEL DUCT SMOKE DETECTOR AND CORRESPONDING REMOTE TEST STATION UNIQUELY. SEE MECHANICAL DRAWINGS FOR LOCATIONS OF MECHANICAL EQUIPMENT.
4. SEE MECHANICAL DRAWINGS AND SPECIFICATIONS FOR HVAC CONTROLS.
5. CONNECT TO REMAINING INITIATING DEVICES. SEE FLOOR PLANS.
6. CONNECT TO REMAINING NOTIFICATION APPLIANCES. SEE FLOOR PLANS PROVIDE NUMBER OF CIRCUITS AS REQUIRED. WHERE FIELD CHARGING POWER SUPPLIES OR NOTIFICATION APPLIANCE CIRCUIT POWER EXTENDERS ARE USED, PROVIDE A SMOKE DETECTOR AT EACH UNIT PER NFPA 72 IN ADDITION TO SMOKE DETECTORS INDICATED ON FLOOR PLANS.
7. PROVIDE CONTACTS FOR ALL DETECTORS AND CONNECT TO ELEVATOR CONTROLLER FOR SHUNT TRIP OPERATION OF ELEVATOR AND ELEVATOR RECALL. OPERATION OF SMOKES CAUSES ELEVATOR TO GO TO FLOOR OF EGRESS AND LOCK OUT WITH DOOR OPEN. 135° HEAT DETECTOR OPERATION CAUSES SHUNT TRIP CIRCUIT BREAKER TO DISCONNECT ALL POWER TO THE ELEVATOR. MOUNT ALL DETECTORS WITHIN 2' OF THEIR RESPECTIVE SPRINKLER HEAD.
8. STROBES SHALL BE SYNCHRONIZED IN AREAS CONTAINING MULTIPLE UNITS.
9. VERIFY AND WIRE ACTUAL QUANTITY OF SPRINKLER SYSTEM DEVICES

A1 | FIRE ALARM RISER DIAGRAM

NO SCALE

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN

PLAN NORTH

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Allied Project No: 13057 Cad File: 13057_EP.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
CATHERINE A. FAUCHER
No. 7571
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE –

ARCH. LIN. NUMBER –

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

FIRE ALARM
RISER DIAGRAM

SHEET NUMBER

EP401

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ELECTRICAL SCHEDULE OF MECHANICAL EQUIPMENT

TAG	DESCRIPTION	VOLTS	PH	HP	LOAD	MCA	MOPD	DISCONNECT SWITCH					STARTER (NEMA)			PANEL	WIRING IN CONDUIT	NOTES
								FRAME	POLES	FUSE	NEMA ENCL	FBD	SIZE/ VFD	FBD	CBD			
P-1	BUILDING HEATING LOOP	208	3	1.5 HP	2.48 KVA		15A	30	3	NF	1	26	VFD	FWE	23	2B5A	3#12,1#12G IN 3/4"C	5
P-2	BUILDING HEATING LOOP	208	3	1.5 HP	2.48 KVA		15A	30	3	NF	1	26	VFD	FWE	23		3#12,1#12G IN 3/4"C	5
P-3	BUILDING DHW (DWH-1)	120	1	1/8 HP	.5 KVA		15A	30	2	NF	1	26	-	-	-	2B5A	2#12,1#12G IN 3/4"C	
P-4	GARAGE RADIANT FLOOR	120	1	1/8 HP	.5 KVA		15A	30	2	NF	1	26	-	-	-		2#12,1#12G IN 3/4"C	
B-1	BOILER WITH P-5	120	1	12 A	1.44 VA		20A	30	2	NF	1	26	-	-	-	2B5A	2#12,1#12G IN 3/4"C	
B-2	BOILER WITH P-6	120	1	12 A	1.44 VA		20A	30	2	NF	1	26	-	-	-	2B5A	2#12,1#12G IN 3/4"C	
B-3	BOILER WITH P-7	120	1	12 A	1.44 VA		20A	30	2	NF	1	26	-	-	-	2B5A	2#12,1#12G IN 3/4"C	
AHU-1	AIR HANDLER UNIT, MEZZANINE	480	3	2HP	2.83 KVA		15A	30	3	7A	1	26	VFD	23	23	4B1	3#12,1#12G IN 3/4"C	
CU-1	CONDENSING UNIT	480	3		6.65 KVA	8	15A	F W E								4B1	3#12,1#12G IN 3/4"C	
AHU-2	AIR HANDLER UNIT, MEZZANINE	480	3	5HP	6.32 KVA		25A	30	3	15A	1	26	VFD	23	23	4B5	3#10,1#10G IN 3/4"C	1,2
CU-2	CONDENSING UNIT	480	3		38.97 KVA	46.9	60A	F W E								4B5	3#4,1#10G IN 1-1/2"C	
MUA-1	MAKE-UP AIR UNIT	480	3	1/2HP	.91 KVA		15A	30	3	2A	3R	26	-	23	23	4B2	3#12,1#12G IN 3/4"C	
MUA-2	MAKE-UP AIR UNIT	480	3	5HP	6.32 KVA		25A	30	3	15A	3R	26	-	23	23	4A2	3#10,1#10G IN 3/4"C	
MUA-3	MAKE-UP AIR UNIT	480	3	3HP	4 KVA		15A	30	3	8A	3R	26	-	23	23	4B4	3#12,1#12G IN 3/4"C	
MUA-4	MAKE-UP AIR UNIT	480	3	1/2HP	.91 KVA		15A	30	3	2A	3R	26	-	23	23	4A1	3#12,1#12G IN 3/4"C	
RTU-1	ROOF TOP UNIT	480	3		8.56 KVA	10.3	15A	FWE					VFD	23	23	4B2	3#12,1#12G IN 3/4"C	
RTU-2	ROOF TOP UNIT	480	3		32.51 KVA	39.0	50A	FWE					VFD	23	23	4B5	3#6,1#10G IN 1"C	1,2
RTU-3	ROOF TOP UNIT	480	3		16.54 KVA	19.9	25A	FWE					VFD	23	23	4B5	3#10,1#10G IN 3/4"C	1,2
DAC-1	SPLIT A/C UNIT, INDOOR UNIT	208	1			-	-	-	-	-	-	-	-	-	-			3
DCU-1	CONDENSING UNIT, OUTDOOR	208	1		2.7 KVA	13.0	15A	30	2	15	3R	26	-	-	-	2B5A	2#12,1#12G IN 3/4"C	3
DAC-2	SPLIT A/C UNIT, INDOOR UNIT	208	1			-	-	-	-	-	-	-	-	-	-			3
DCU-2	CONDENSING UNIT, OUTDOOR	208	1		2.7 KVA	13.0	15A	30	2	15	3R	26	-	-	-	2B5A	2#12,1#12G IN 3/4"C	3
						-	-	-	-	-	-	-	-	-	-			
ERU-1	ENERGY RECOVERY UNIT	480	3		4.9 KVA	5.9	15A	F W E					VFD	FWE	23	4B5	3#12,1#12G IN 3/4"C	
ERU-2	ENERGY RECOVERY UNIT	208	1		2.39 KVA	11.5	15A	F W E					VFD	FWE	23	2B5A	2#12,1#12G IN 3/4"C	
ERU-3	ENERGY RECOVERY UNIT	208	1		1.33 KVA	6.4	15A	F W E					VFD	FWE	23	2B3	2#12,1#12G IN 3/4"C	
EF-1	RM 140	120	1	0.25 HP	.7 KVA	5.8	20A	30	2	NF	3R	26	-	-	23	2B2	2#12,1#12G IN 3/4"C	
EF-2	RM 142	120	1	0.125 HP	88W	4.4		30	2	NF	3R	26	-	-	23		2#12,1#12G IN 3/4"C	
EF-3	RM 180-184	120	1	0.167 HP	.5 KVA		20A	30	2	NF	3R	26	-	-	23	2B3	2#12,1#12G IN 3/4"C	
EF-16	MACHINE SHOP EXHAUST	120	1	.125HP	.5 KVA			30	2	NF	3R	26	-	-	23		2#12,1#12G IN 3/4"C	
EF-4	HEAVY BAY VEHICLE EXHAUST	480	3	7.5 HP	9.14 KVA		30A	30	3	NF	3R	26	-	-	23	4B3	3#10,1#10G IN 3/4"C	
EF-5	LIGHT BAY VEHICLE EXHAUST	480	3	3 HP	4 KVA		20A	30	3	NF	3R	26	-	-	23	4B4	3#12,1#12G IN 3/4"C	
EF-13	HEAVY BAY GENERAL EXHAUST	480	3	.75 HP	1.33 KVA			30	3	NF	3R	26	-	-	23		3#12,1#12G IN 3/4"C	
EF-6	LIGHT/HEAVY BAYS EMERGENCY EXHAUST	480	3	40 HP	43.21 KVA		150A	100	3	100	3R	26	VFD	23	23	4B4	3#4,1#6G IN 1"C	
EF-7	RM 132	120	1	0.125 HP	.5 KVA		20A	30	2	NF	3R	26	-	-	23	2B1	2#12,1#12G IN 3/4"C	
EF-15	AHU-1 RELIEF/ECONOMIZER	120	1	.50HP	.91 KVA			30	2	NF	3R	26	VFD	23	23		2#12,1#12G IN 3/4"C	
EF-8	WASH 191	120	1	.167HP	.5 KVA		20A	30	2	NF	3R	26	-	-	23	2B1	2#12,1#12G IN 3/4"C	
EF-17	UNISEX TOILETS 134/136	120	1	.125HP	.5 KVA			30	2	NF	3R	26	-	-	23		2#12,1#12G IN 3/4"C	
EF-9	ELEV MACHINE RM	120	1	NA	114W		20A	30	2	NF	3R	26	-	-	23	2B5A	2#12,1#12G IN 3/4"C	
EF-10	BREAK 111	120	1	.175 HP	.5 KVA			30	2	NF	3R	26	-	-	23		2#12,1#12G IN 3/4"C	
EF-11	TOILETS RMS 117/8, 215/6	480	3	.75 HP	1.33 KVA		20A	30	3	NF	3R	26	-	-	23	4B5	3#12,1#12G IN 3/4"C	
EF-12	LIGHT BAY GENERAL EXHAUST	480	3	.75 HP	1.33 KVA			30	3	NF	3R	26	-	-	23		3#12,1#12G IN 3/4"C	
EF-14	AHU-2 RELIEF/ECONOMIZER	480	3	1HP	1.75 KVA			30	3	NF	3R	26	VFD	23	23		3#12,1#12G IN 3/4"C	
EF-18	FABRICATION 181	480	3	.75 HP	1.33 KVA		15A	30	3	NF	3R	26	-	-	23		3#12,1#12G IN 3/4"C	
SF-1	GARAGE EMERGENCY EXHAUST SYSTEM	480	3	40HP	43.21 KVA		150A	100	3	100	3R	26	VFD	23		DPA	3#4,1#6G IN 1"C	
RCP-1	DHW RECIRC	120	1	1/8HP	.25 KVA		15A	30	2	NF	1	26	-	-	-	2B5A	2#12,1#12G IN 3/4"C	
EP-1	TOILET 146	480	3	2HP	2.83 KVA		15A	30	3	NF	1	26	-	-	-	4B2	3#12,1#12G IN 3/4"C	
EWH-1	INSTANTANEOUS WATER HEATER	480	3		96KW		150A	200	3	NF	1	26	-	-	-	4A2	3#1/0,1#6G IN 1-1/2"C	
EWH-2	INSTANTANEOUS WATER HEATER	480	3		96KW		150A	200	3	NF	1	26	-	-	-	4B4	3#1/0,1#6G IN 1-1/2"C	
EWH-3	INSTANTANEOUS WATER HEATER	480	3		96KW		150A	200	3	NF	1	26	-	-	-	DPA	3#1/0,1#6G IN 1-1/2"C	
EWH-4	INSTANTANEOUS WATER HEATER	208	1		8.6KW		60A	60	2	NF	1	26	-	-	-	2B1	2#4,1# 10G IN 1"C	
EWH-5	WATER HEATER	208	1		2.5KW		20A	30	2	NF	1	26	-	-	-	2B2	2#12,1#12G IN 3/4"C	
CV-1	CENTRAL VAC SYSTEM 1	120	1	-	2.4 KVA	20A	30A	30	2	NF	1	26	-	-	-	2A1	2#10,1#10G IN 3/4"C	
CV-2	CENTRAL VAC SYSTEM 2	120	1	-	2.4 KVA	20A	30A	30	2	NF	1	26	-	-	-	2A1	2#10,1#10G IN 3/4"C	
CV-3	CENTRAL VAC SYSTEM 3	120	1	-	2.4 KVA	20A	30A	30	2	NF	1	26	-	-	-	2A1	2#10,1#10G IN 3/4"C	
CV-4	CENTRAL VAC SYSTEM 4	120	1	-	2.4 KVA	20A	30A	30	2	NF	1	26	-	-	-	2A1	2#10,1#10G IN 3/4"C	
SEP-1	DUPLEX SEWAGE EJECTOR PUMPS	208	1	2	3.12 KVA		30A	30	2	20	3R	26	-	-	-	2B5	2#10,1#10G IN 3/4"C	5
SEP-2	DUPLEX SEWAGE EJECTOR PUMPS	208	1	2	3.12 KVA		30A	30	2	20	3R	26	-	-	-	2B5	2#10,1#10G IN 3/4"C	5
AD-1	AIR DRYER	208	3	4	6.29 KVA			30	2	30	1	26	-	-	-	2A1		
AD-2	AIR DRYER FOR BURN TABLE	120	1	1/2	1.17 KVA			30	2	15	1	26	-	-	-	2A1		

NOTES:

1. DUCT SMOKE DETECTOR FURNISHED AND WIRED TO FIRE ALARM PANEL BY DIVISION 26
2. DUCT SMOKE DETECTOR INSTALLED IN DUCT AND WIRED TO HVAC CONTROLS BY DIVISION 23
3. POWER FEEDER TO OUTDOOR UNIT, WIRING BETWEEN AC AND CU BY DIV.23
4. PLUG CONNECTION
5. LEAD-LAG

ABBREVIATIONS:

FWE	FURNISHED WITH EQUIPMENT
NF	NOT FUSED
SWBD	SWITCHBOARD
FBD	FURNISHED BY DIVISION
CBD	CONTROL WIRING BY DIVISION

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN

PLAN NORTH

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

Allied Project No: 13057 Cad File: 13057_EP.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE CATHERINE A. FAUCHER No. 7571 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL SCHEDULES

SHEET NUMBER

EP600

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_EP.dwg Mar 05, 2014 – 1:29pm

ELECTRICAL SCHEDULE OF RELOCATED MDOT EQUIPMENT

NOTE: EQUIPMENT IN THIS SCHEDULE IS EXISTING AND BEING RELOCATED TO NEW SITE. PROVIDE DISCONNECT OR RECEPTACLE AND BRANCH CIRCUIT AS NOTED IN THIS SCHEDULE.

Tag	Equipment	Mfr	Voltage	Ph	Amps	HP	Disc	Fuse	NEMA Receptacle	Panel	Wire Size	Notes
	FABRICATION SHOP											
E01	Press brake	Betenbender 12-350T	480	3	40	30	60A, 3P	50	-	4B2	(3)#6+(1)#10G IN 1"C	
E02	Shear 10 ft	Allsteel (220 3ø)	230	3	100	40	200A, 3P	125	-	3A1	(3)#1/0+(1)#6G IN 1-1/2"C	
E03	Burning table and water tank	Koike Aronson Plate-pro	230	1	15	-	30A, 2P	20	-	3A1	(2)#12+(1)#12G IN 3/4"C	
E03A	Power supply	Hypertherm AX200	480	3	45	-	60A, 3P	60 Slow Blow	60A, AR642	4A1	(3)#4+(1)#10G IN 1-1/2"C	Power supply for burning table
E10	Small band saw		230	1	15	2	-	-	L6-20R	3A1	(2)#12+(1)#12G IN 3/4"C	
E11	30 ft rollers with motor and hydraullics		480	3	29.2	25	70A, 3P	-	-	4B3	(3)#4+(1)#8G IN 1-1/2"C	Combination Starter 70A breaker, NEMA size 2 starter
E12	Welder		-	-	-	-	-	-	-	-	-	Welder outlets shown on plans
E14	Small Drill Press	Avery	480	3	3	1	30A, 3P	NF	-	4B3	(3)#12+(1)#12G IN 3/4"C	
E14A	Small Drill Press	Cincinnati Bickford Super Service	480	3	5	3	30A, 3P	NF	-	4B3	(3)#12+(1)#12G IN 3/4"C	Starter mounted on eq
E15	Drill sharpener	McDonough - Sterling	480	3	1.6	1	30A, 3P	NF	-	4B3	(3)#12+(1)#12G IN 3/4"C	Disconnect w/starter
E17	Lathe	Summit 21	480	3	40	-	60A, 3P	50	-	4A2	(3)#6+(1)#10G IN 1"C	Elec CB on unit
E18	Lathe	Warner & Swasey No.4	230	3	50	10	100A,3P	70	-	3B3	(3)#4+(1)#8G IN 1-1/2"C	Turret lathe #4
E19	Large arm Drill	Cincinatti Bickford	230	3	21	15	30A, 3P	30	-	3A1	(3)#10+(1)#10G IN 3/4"C	
E20	Heating oven	ThermCraft	230	1	22	-	30A, 2P	30	6-20R	3B3	(2)#10+(1)#10G IN 3/4"C	Disconnect switch for plug
E21	Grinder	Abrasive	230	3	8.2	-	30A, 3P	15	-	3B3	(3)#12+(1)#12G IN 3/4"C	Starter with equip
E22	Large Bridgeport (Milling Mach)	Cincinnati Bickford	480	3	5	3	-	-	-	3B3	(3)#12+(1)#12G IN 3/4"C	Disc mounted on equip
E23	Small Bridgeport (Milling Mach)	Cincinatti - ToolMaster	480	3	1.96	1	30A, 3P	NF	-	3B3	(3)#12+(1)#12G IN 3/4"C	
E62	Compressor	Quincy	208	1	33	7.5	60A, 2P	40	-	2B2	(2)#6+(1)#10G IN 1"C	230V/USABLE AT 208
E63	Dust Collector	JET Equipment	230	1	12	2	30A,2P	15	-	3B3	(2)#12+(1)#12G IN 3/4"C	
E64	Band Saw	Powermatic	230	3	20	-	30A,3P	30	-	3B3	(3)#10+(1)#10G IN 3/4"C	
E65	Table Saw		120	1	12				5-20R	2B3	(2)#12+(1)#12G IN 3/4"C	
E66	Drill Press	Craftsman	120	1	10	3/4	-	-	5-20R	2B3	(2)#12+(1)#12G IN 3/4"C	
E67	Chop Saw		120	1	15	-	-	-	5-20R	2B3	(2)#12+(1)#12G IN 3/4"C	
E68	Large Parts Washer		480	3	15.8	(2) 5 HP	30A, 3P	30	-	4B3	(3)#10+(1)#10G IN 3/4"C	
E69	Blast Cabinet and Dust Collector	Econoline	120	1	12	1			5-20R	2B3	(2)#12+(1)#12G IN 3/4"C	
E84	Drill press	Delta Model 20, 70-330	480	3	2.5	1 1/2	30A, 3P	NF	-	4A2	(3)#12+(1)#12G IN 3/4"C	Owner will locate this equipment and connect as indicated
E85	Band Saw	Wilton	480	3	1.1	1/8	30A, 3P	NF	-	4A2	(3)#12+(1)#12G IN 3/4"C	Owner will locate this equipment and connect as indicated
E86	Drill Press	Powermatic	230	1	7.4	-	-	-	6-20R	3B3	(2)#12+(1)#12G IN 3/4"C	Owner will locate this equipment and connect as indicated
	Fume Extraction System		480	3	48	40	60A, 3P	60	-	4A2	(3)#4+(1)#10G IN 1"C	VFD
	MACHINE SHOP											
E05	Drill press 8 ft	Gilbert 5776	480	3	10	7 1/2	30A, 3P	15	-	4B3	(3)#10+(1)#10G IN 3/4"C	
E06	Hydraulic press 150 ton	Dake	480	3	2.9	2	30A, 3P	TRS5R	-	4B3	(3)#12+(1)#12G In 3/4"C	
E07	40 inch band saw	WF Wells	480	3	29	-	60A, 3P	TRS40R, 40A	-	4B3	(3)#8+(1)#10G IN 3/4"C	
E08	200 ton punch	Scotchman	480	3	14.8	10	30A, 3P	20	-	4B3	(3)#10+(1)#10G IN 3/4"C	
E16	Lathe	Henry 16 x 54	480	3	9.7	71/2	30A, 3P	15	-	4A2	(3)#12+(1)#12G IN 3/4"C	
E24	Band saw	Kalamazoo	480	3	4	1	30A, 3P	NF	L16-20R	4A2	(3)#12+(1)#12G IN 3/4"C	change plug to L16-20P
	HEAVY EQUIPMENT											
E71	Forklift Charger		120						5-20R	2B4A	(2)#12+(1)#12G IN 3/4"C	
E72	Large Press	Vic Roc P-150	480	3	13.5	10	30A, 3P	20	-		(3)#12+(1)#12G IN 3/4"C	
E73	Tire Balancer								5-20R	2B4A	(2)#12+(1)#12G IN 3/4"C	
E74	Band Saw	Wellsaw	120	1	13.4	1			5-20R	2B4	(2)#12+(1)#12G IN 3/4"C	.
E75	Drill Press	Buffalo #22	480	3	5.2				-		(3)#12+(1)#12G IN 3/4"C	
E76	Grinder		120	1					-	2B4	(2)#12+(1)#12G IN 3/4"C	
E77	Blast Cabinet and Dust Collector	Econoline	120	1	12	1			5-20R	2B4	(2)#12+(1)#12G IN 3/4"C	
E78	Belt Sander	Kalamazoo	230	3	2	1/2	30A, 3P	NF	-	3B4	(3)#12+(1)#12G IN 3/4"C	
E79	Rotary Vehicle Lift, 2-post, 12,000 lbs	Rotary #SPO12-10	208	1	17	2	-	-	L6-30R	2B4	(2)#10+(1)#10G IN 3/4"C	Mount receptacle on nearby column
E79	Rotary Vehicle Lift, 2-post, 14,000 lbs	Rotary #SM14N001	208	1	17	2	-	-	L6-30R	2B4	(2)#10+(1)#10G IN 3/4"C	Mount receptacle on nearby column
E83	Mohawk Vehicle Lift, 4-post, 16,000 lbs	Mohawk	208	1	13.9	2.5	-	-	L14-20R		(2)#10+(1)#10G IN 3/4"C	

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN

PLAN NORTH

Allied Engineering
Structural Mechanical Electrical Commissioning

160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2366
www.allied-eng.com

Allied Project No: 13057 Cad File: 13057_EP.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
CATHERINE A. FAUCHER
No. 7571
LICENSED
PROFESSIONAL ENGINEER

FEBRUARY 27, 2014

SIGNATURE

ARCH. LIN. NUMBER

DATE

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL SCHEDULES

SHEET NUMBER

EP601

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_EP.dwg Mar 05, 2014 - 1:28pm

ELECTRICAL SCHEDULE OF RELOCATED MDOT EQUIPMENT

NOTE: EQUIPMENT IN THIS SCHEDULE IS EXISTING AND BEING RELOCATED TO NEW SITE. PROVIDE DISCONNECT OR RECEPTACLE AND BRANCH CIRCUIT AS NOTED IN THIS SCHEDULE.

Tag	Equipment	Mfr	Voltage	Ph	Amps	HP	Disc	Fuse	NEMA Plug	Panel	Wire Size	Notes
	HYDRAULIC SHOP											
E29	Hydraulic Test Bench		480	3	7.1	5	30A		-	4A2	(3)#10+(1)#10G IN 3/4"C	Disconnect w/ s-s starter mounted on wall above.
	SIGN SHOP											
E56	Scotchlite - old machine - no air	3M	230	3	6.2	-	30A,3P	8		3B2	(3)#12+(1)#12G IN 3/4"C	
E56A	Scotchlite Machine	Contech	230	1	40	-	On Machine	50	-	3B2	(2)#6+(1)#10G IN 1"C	
	CENTRAL FLEET MAINTENANCE EQUIPMENT											
E30	Tire Machine	Hunter	120	1	12	-	-	-	5-20R	2B4A	(2)#12+(1)#12G IN 3/4"C	
E31	Tire Balancer	Coats	230	1	20	-	-	-	L6-20R	2B4A	(2)#12+(1)#12G IN 3/4"C	
E34	Parts Washer		120	1	15	-	-	-	5-20R	2B4A	(2)#12+(1)#12G IN 3/4"C	
E39	Drill Press	Delta	120	1	7.2				5-20R	2B4A	(2)#12+(1)#12G IN 3/4"C	
E40	Grinder		120	1	16	1	-	-	5-20R	2B4A	(2)#12+(1)#12G IN 3/4"C	
E43	Welder		230	1	42	-	-	-	14-50R	-	(3)#6+(1)#10G IN 1"C	Welder outlets shown on plans
E44	Transmission Flush Machine		120	1	1.4	-	-	-	5-20R	2B4A	(2)#12+(1)#12G IN 3/4"C	
E45	Evap Leak Machine		120	1					5-20R	2B4A	(2)#12+(1)#12G IN 3/4"C	
E47	Tire Hoist		120	1					5-20R	2B4A	(2)#12+(1)#12G IN 3/4"C	
E82	Oil Filter Press	Oberg	120	1					5-20R	-	(2)#12+(1)#12G IN 3/4"C	Use convenience receptacle
	OTHER RELOCATED EQUIPMENT											
E80	Power Washer	Alkota 4231B	230	1	31	6	60A, 2P	40	-	3A1	(2)#8+(1)#10G IN 3/4"C	
E87	Furnace (above paint mix room)								-			
E88	Compressor	Quincy QGV-100	480	3	124	100	200A,3P	200	-	DPA	(3)#3/0+(1)#6G IN 2"C	
E89	Compressor	Quincy QMT-25	480	3	34	25	60A, 3P	45	-			
E90	Air Dryer		480	3	8.8	(1) 2.3 (2) 1/4	20A,3P	15	-	DPA		
E91	Bridge Crane in Blast room	New England Crane	480	3	2.1	(1) 1, (1) 1/4, (2) 1/2	30A,3P	15	-	4A1	(3)#12+(1)#12G IN 3/4"C	1 disconnect switch for Crane power
	Control power		120	1	-	-	-	-	-	2A1	(2)#12+(1)#12G IN 3/4"C	
E92	Media Recovery Control Panel	Empire	480	3	98.7	-	-	-	-	DPA	(3)#1/0+(1)#6G IN 2" C	Single Point Connection
E92A	Dust Collector	Siemens motor	480	3	71	60	100A,3P NEMA-3R	90	-		(3)#1+(1)#8G IN 1-1/2" C	
E92B	Bucket Elevator		480	3	3.1	2	20A,3P	4	-		(3)#12+(1)#12G IN 3/4"C	
E92C	(5) Augers		480	3	8.2	(5) 3	20A,3P ea, NEMA-4X	11	-		(3)#12+(1)#12G IN 3/4"C	
E93	Paint Booth Control Panel	Titan	480	3	40.2	-	-	-	-	DPA	(3)#4+(1)#10G IN 1" C	Single point connection
E93A	MUA (Paint Booth)		480	3	27	20	60A, 3P NEMA-3R	40	-		(3)#8+(1)#10G IN 1" C	
E93B	(2) Exhaust Fans		480	3	7.6 ea	(2) 5	20A,3P	10	-		(3)#12+(1)#12G IN 3/4"C	
E93C	Mixing Room Fan		480	3	1.6	3/4	20A,3P	2	-		(3)#12+(1)#12G IN 3/4"C	
E94	Compressor	Atlas Copco	480	3	14 ea	(2) 10	60A,3P	40	-	DPA	(3)#8+(1)#10G IN 1" C	
E95	Lathe	Accu-Turn	120	1	14.2	-	-	-	5-20R	2B4A	(2)#12+(1)#12G IN 3/4"C	Bench mounted
	CRANES											
	5-ton Crane in Heavy Equipment	Load reflects (2) Bridges per runway	480	3	38.8	(2) 1/2, (4) 1/3, (2) 4-1/2 ea	60A, 3P	50	-	4B4	(3)#6+(1)#10G IN 3/4"C	(1) Disconnect switch per runway, locate near center of runway
	5-ton Crane in Fabrication	Load reflects (3) Bridges per runway	480	3	26.4	(2) 1/2, (2) 2-1/2 ea	60A, 3P	40	-	4A1, 4B1	(3)#8+(1)#10G IN 1" C	(1) Disconnect switch per runway, locate near center of runway
	1-ton Crane in Fabrication	(1) Bridge per runway	480	3	5	(2) 1/2, (2) 1 ea	30A, 3P	15	-	4B1, 4A2	(3)#12+(1)#12G IN 3/4"C	(1) Disconnect switch per runway, locate near center of runway

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FEBRUARY 27, 2014

PROJECT KEY PLAN

PLAN NORTH

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Structural Mechanical Electrical Commissioning

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DATE FEBRUARY 27, 2014

INFORMATION

PROJECT MANAGER	
PROGRAM	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL SCHEDULES

SHEET NUMBER

EP602

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_EP.dwg Mar 05, 2014 – 1:28pm

PANEL SCHEDULE ~ 4A1

VOLTAGE: 480/277V | MLO: 400A | AIC: 18KA

3-PHASE, 4-WIRE

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	3	A	1.16			DOOR OPERATORS - FABRICATION 181
3			B		1.16		
5			C			1.16	
7	20	3	A	1.16			DOOR OPERATORS - PREP
9			B		1.16		
11			C			1.16	
13	20	3	A	1.16			DOOR OPERATORS - WASH BAY
15			B		1.16		
17			C			1.16	
19	20	3	A	0.30			MUA-4
21			B		0.30		
23			C			0.30	
25	20	3	A	2.44			AIR DRYER (QUINCY QCD-400)
27			B		2.44	0.00	
29			C			2.44	
31	20	3	A	1.35			BLAST ROOM BRIDGE CRANE
33			B		1.35		
35			C			1.35	
37	40	3	A	7.31			5-TON CRANE
39			B		7.31		
41			C			7.31	
43	40	3	A	7.31			5-TON CRANE
45			B		7.31		
47			C			7.31	
49	20	3	A	0.00			SPARE
51			B		0.00		
53			C			0.00	
SUBTOTAL				22.19	22.19	22.19	
2	60	3	A	12.45			TAG E03A BURN TABLE POWER SUPPLY
4			B		12.45		
6			C			12.45	
8	60	3	A	6.86			WELDING OUTLET
10			B		6.86		
12			C			6.86	
14	60	3	A	6.86			WELDING OUTLET
16			B		6.86		
18			C			6.86	
20	60	3	A	5.83			WELDING OUTLET
22			B		5.83		
24			C			5.83	
26	60	3	A	4.80			WELDING OUTLET
28			B		4.80		
30			C			4.80	
32	30	3	A	2.83			WELDING OUTLET
34			B		2.83		
36			C			2.83	
38	30	3	A	2.83			WELDING OUTLET
40			B		2.83		
42			C			2.83	
44	30	3	A	2.83			WELDING OUTLET
46			B		2.83		
48			C			2.83	
50	30	3	A	2.83			WELDING OUTLET
52			B		2.83		
54			C			2.83	
SUBTOTAL				48.12	48.12	48.12	

PANEL SCHEDULE ~ DPA (FACTORY INSTALLED INTEGRAL TVSS)

VOLTAGE: 480/277V | MLO: 1000A | AIC: 42KA

3-PHASE, 4-WIRE

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	150	3	A	14.40			SF-1
3			B		14.40		
5			C			14.40	
7	200	3	A	34.35			QUINCY 100 COMPRESSOR
9			B		34.35		
11			C			34.35	
13	125	3	A	27.33			MEDIA RECOVERY SYSTEM CONTROL PANEL (EMPIRE)
15			B		27.33		
17			C			27.33	
19	60	3	A	11.19			PAINT BOOTH CONTROL PANEL (TITAN)
21			B		11.19		
23			C			11.19	
25	150	3	A	32.00			EWH-3 (EYEWASH)
27			B		32.00		
29			C			32.00	
31	100	3	A	0.00			SPARE
33			B		0.00		
35			C			0.00	
37	100	3	A	0.00			SPARE
39			B		0.00		
41			C			0.00	
43	150	3	A	0.00			SPARE
45	0	0	B		0.00		0
47	0	0	C			0.00	0
49	150	3	A	0.00			SPARE
51	0	0	B		0.00		0
53	0	0	C			0.00	0
SUBTOTAL				119.27	119.27	119.27	
2	250	3	A	70.31			PANEL 4A1
4			B		70.31		
6			C			70.31	
8	50	3	A	8.09			PANEL 2A1
10			B		5.42		
12			C			7.82	
14	200	3	A	65.80			PANEL 4A2
16			B		65.80		
18			C			65.80	
20	125	3	A	19.50			PANEL 3A1
22			B		26.85		
24			C			25.01	
26	70 SHUNT TRIP	3	A	0.00			ELEVATOR
28			B		0.00		
30			C			0.00	
32	0	3	A	0.00			SPACE
34			B		0.00		
36			C			0.00	
38	0	3	A	0.00			SPACE
40			B		0.00		
42			C			0.00	
44	0	3	A	0.00			SPARE
46			B		0.00		
48			C			0.00	
50	0	3	A	0.00			SPARE
52			B		0.00		
54			C			0.00	
SUBTOTAL				163.70	168.38	168.94	

PANEL SCHEDULE ~ 4E2

VOLTAGE: 480/277V | MLO: 125A | AIC: 10KA

3-PHASE, 4-WIRE | LOCATION: MEZZANINE

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	1	A	2.80			EMER LTG: LCP2-1,2
3	20	1	B		2.85		EMER LTG: LCP2-3,4
5	20	1	C			1.25	EMER LTG: MEZZ, EXITS,LCP2-5,6
7	20	1	A	0.53			EMER LTG: FIRST FLOOR OFFICES
9	20	1	B		0.00		SPARE
11	20	1	C			0.00	SPARE
13	20	1	A	0.00			SPARE
15	20	1	B		0.00		SPARE
17	20	1	C			0.00	SPARE
19	20	1	A	0.00			SPARE
21	20	1	B		0.00		SPARE
23	20	1	C			0.00	SPARE
SUBTOTAL				3.33	2.85	1.25	
2	20	1	A	0.00			SPARE
4	20	1	B		0.00		SPARE
6	20	1	C			0.00	SPARE
8	20	1	A	0.00			SPARE
10	20	1	B		0.00		SPARE
12	20	1	C			0.00	SPARE
14	20	1	A	0.00			SPARE
16	20	1	B		0.00		SPARE
18	20	1	C			0.00	SPARE
20	20	1	A	0.00			SPARE
22	20	1	B		0.00		SPARE
24	20	1	C			0.00	SPARE
SUBTOTAL				0.00	0.00	0.00	

PANEL SCHEDULE ~ 4E1 (FACTORY INSTALLED INTEGRAL TVSS)

VOLTAGE: 480/277V | MLO: 125A | AIC: 42KA

3-PHASE, 4-WIRE | LOCATION: ELECTRIC ROOM

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	1	A	3.14			EMER LTG: SIGN,FAB,MACH, OFFICE, LCP1-3,5,6
3	20	1	B		3.26		EMER LTG: LCP1-1,2,4,7
5	20	1	C			0.00	SPARE
7	20	1	A	0.00			SPARE
9	20	1	B		0.00		SPARE
11	20	1	C			0.00	SPARE
13	20	1	A	0.00			SPARE
15	20	1	B		0.00		SPARE
17	20	1	C			0.00	SPARE
19	20	1	A	0.00			SPARE
21	20	1	B		0.00		SPARE
23	20	1	C			0.00	SPARE
25	20	1	A	0.00			SPARE
27	20	1	B		0.00	0.00	SPARE
29	20	1	C			0.00	SPARE
SUBTOTAL				3.14	3.26	0.00	
2	30	3	A	1.00			PANEL 2E1
4			B		1.00		
6			C			1.00	
8	50	3	A	3.33			PANEL 4E2
10			B		2.85		
12			C			1.25	
14	20	1	A	0.00			SPARE
16	20	1	B		0.00		SPARE
18	20	1	C			0.00	SPARE
20	20	1	A	0.00			SPARE
22	20	1	B		0.00		SPARE
24	20	1	C			0.00	SPARE
26	20	1	A	0.00			SPARE
28	20	1	B		0.00		SPARE
30	20	1	C			0.00	SPARE
SUBTOTAL				4.33	3.85	2.25	

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN

PLAN NORTH

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
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Allied Project No: 13057 Cad File: 13057_EP.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
CATHERINE A. FAUCHER
No. 7571
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM

PROJECT MANAGER

DESIGNER ALLIED ENG., INC.

CONSULTANT

PROJECT RESIDENT

CONTRACTOR

PROJECT COMPLETION DATE

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL SCHEDULES

SHEET NUMBER

EP603

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_EPanels.dwg Mar 05, 2014 – 1:24pm

PANEL SCHEDULE ~ 4A2

VOLTAGE: 480/277V | MLO: 225A | AIC: 10KA

3-PHASE, 4-WIRE | LOCATION: MACHINE SHOP

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	3	A	2.77			TAG E05 DRILL PRESS (GILBERT)
3			B		2.77		
5			C			2.77	
7	20	3	A	0.80			TAG E06 HYDRAULIC PRESS (DAKE)
9			B		0.80		
11			C			0.80	
13	40	3	A	8.03			TAG E07 BAND SAW (WF WELLS)
15			B		8.03		
17			C			8.03	
19	20	3	A	4.10			TAG E08 200 TON PUNCH (SCOTCHMAN)
21			B		4.10		
23			C			4.10	
25	20	3	A	2.68			TAG E16 LATHE (HENRY)
27			B		2.68		
29			C			2.68	
31	20	3	A	3.32			TAG E24 BAND SAW (KALAMAZOO)
33			B		3.32		
35			C			3.32	
37	50	3	A	11.07			TAG E17 LATHE (SUMMIT 21)
39			B		11.07		
41			C			11.07	
43	20	3	A	0.97			TAG E84 DRILL PRESS (DELTA) TAG E85 BAND SAW (WILTON)
45			B		0.97		
47			C			0.97	
49	60	3	A	13.29			FUME EXTRACTION SYSTEM
51			B		13.29		
53			C			13.29	
55	**20**	**3**	A	1.38			**1-TON CRANE**
57			B		1.38		
59			C			1.38	
61	20	3	A	1.38			1-TON CRANE
63			B		1.38		
65			C			1.38	
67	20	3	A	0.00			SPARE
69			B		0.00		
71			C			0.00	
SUBTOTAL				49.79	49.79	49.79	
2	60	3	A	4.12			WELDING OUTLET
4			B		4.12		
6			C			4.12	
8	60	3	A	4.12			WELDING OUTLET
10			B		4.12		
12			C			4.12	
14	30	3	A	2.83			WELDING OUTLET
16			B		2.83		
18			C			2.83	
20	30	3	A	2.83			WELDING OUTLET
22			B		2.83		
24			C			2.83	
26	60	3	A	0.00			TAG E29 HYDRAULIC TEST BENCH
28			B		0.00		
30			C			0.00	
32	25	3	A	2.11			MUA-2
34			B		2.11		
36			C			2.11	
38	150	3	A	0.00			EWH-1
40			B		0.00		
42			C			0.00	
44	20	3	A	0.00			SPARE
46			B		0.00		
48			C			0.00	
50	20	3	A	0.00			SPARE
52			B		0.00		
54			C			0.00	
56	20	3	A	0.00			SPARE
58			B		0.00		
60			C			0.00	
62	30	3	A	0.00			SPARE
64			B		0.00		
66			C			0.00	
68	30	3	A	0.00			SPARE
70			B		0.00		
72			C			0.00	
SUBTOTAL				16.01	16.01	16.01	

PANEL SCHEDULE ~ DPB (FACTORY INSTALLED INTEGRAL TVSS)

VOLTAGE: 480/277V | MLO: 1200A | AIC: 42KA

3-PHASE, 4-WIRE

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	100	3	A	18.59			PANEL 2B1
3			B		17.94		
5			C			17.02	
7	100	3	A	0.00			SPARE
9			B		0.00		
11			C			0.00	
13	225	3	A	0.00			SPARE
15			B		0.00		
17			C			0.00	
19	225	3	A	0.00			SPARE
21			B		0.00		
23			C			0.00	
25	100	3	A	0.00			SPARE
27			B		0.00		
29			C			0.00	
SUBTOTAL				18.59	17.94	17.02	
2	125	3	A	28.74			PANEL 4B1
4			B		24.41		
6			C			22.75	
8	250	3	A	44.34			PANEL 4B2
10			B		45.58		
12			C			41.55	
14	400	3	A	67.98			PANEL 4B3
16			B		71.41		
18			C			70.67	
20	400	3	A	91.68			PANEL 4B4
22			B		83.36		
24			C			84.20	
26	400	3	A	96.19			PANEL 4B5
28			B		92.73		
30			C			88.90	
SUBTOTAL				328.93	317.49	308.07	

PANEL SCHEDULE ~ 4B1

VOLTAGE: 480/277V | MLO: 225A | AIC: 18KA

3-PHASE, 4-WIRE | LOCATION: ELECTRIC ROOM

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	1	A	3.29			LTG: LCP1-23,24
3	20	1	B		3.50		LTG: LCP1-22
5	20	1	C			3.29	LTG: LCP1-19,21
7	20	1	A	3.29			LTG: LCP1-16,20
9	20	1	B		3.20		LTG: LCP1-17,18
11	20	1	C			2.82	LTG: LCP1-15, MECH MEZZ
13	20	1	A	3.23			LTG: LCP1-14
15	20	1	B		2.08		LTG: OFFICES, TASK
17	20	1	C			1.01	PARKING LOT POLE LIGHTS
19	20	1	A	3.30			PAINT BOOTH LIGHTS
21	20	1	B		0.00		SPARE
23	20	1	C			0.00	SPARE
25	20	1	A	0.00			SPARE
27	20	1	B		0.00	0.00	SPARE
29	20	1	C			0.00	SPARE
31	20	1	A	0.00			SPARE
33	20	1	B		0.00		SPARE
35	20	1	C			0.00	SPARE
37	20	1	A	0.00			SPARE
39	20	1	B		0.00		SPARE
41	20	1	C			0.00	SPARE
SUBTOTAL				13.11	8.78	7.12	
2	20	3	A	1.38			1-TON CRANE
4			B		1.38		
6			C			1.38	
8	20	3	A	4.14			5-TON CRANE
10			B		4.14		
12			C			4.14	
14	15	3	A	0.94			AHU-1
16			B		0.94		
18			C			0.94	
20	15	3	A	2.22			CU-1
22			B		2.22		
24			C			2.22	
26	60	3	A	4.12			193 WELDING OUTLET
28			B		4.12		
30			C			4.12	
32	30	3	A	2.83			193 WELDING OUTLET
34			B		2.83		
36			C			2.83	
38	30	3	A	0.00			SPARE
40			B		0.00		
42			C			0.00	
SUBTOTAL				15.63	15.63	15.63	

PANEL SCHEDULE ~ 4B2

VOLTAGE: 480/277V | MLO: 225A | AIC: 10KA

3-PHASE, 4-WIRE | LOCATION: SIGN SHOP

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	1	A	2.38			LTG: 141,142,143,144,146
3	20 GFCI	1	B		1.19		146 HAND DRYER
5	20	1	C			1.22	EF-1 + EF-2
7	50	3	A	11.08			TAG E01 PRESS BRAKE
9			B		11.08		
11			C			11.08	
13	15	3	A	0.30			MAU-1
15			B		0.30		
17			C			0.30	
19	15	3	A	2.85			RTU-1
21			B		2.85		
23			C			2.85	
25	15	3	A	0.94			EP-1
27			B		0.94		
29			C			0.94	
31	20	1	A	0.00			SPARE
33	20	1	B		0.00		SPARE
35	20	1	C			0.00	SPARE
37	20	1	A	0.00			SPARE
39	20	1	B		0.00		SPARE
41	20	1	C			0.00	SPARE
SUBTOTAL				17.55	16.36	16.39	
2	50	3	A	4.28			PANEL 2B2
4			B		3.91		
6			C			4.45	
8	50	3	A	7.26			PANEL 3B2
10			B		10.06		
12			C			5.46	
14	30	3	A	8.30			142 BENCH RECEPTACLE NEMA L22-30R
16			B		8.30		
18			C			8.30	
20	30	3	A	2.83			140 WELDER OUTLET
22			B		2.83		
24			C			2.83	
26	60	3	A	4.12			140 WELDER OUTLET
28			B		4.12		
30			C			4.12	
32	20	1	A	0.00			SPARE
34	20	1	B		0.00		SPARE
36	20	1	C			0.00	SPARE
38	20	1	A	0.00			SPARE
40	20	1	B		0.00		SPARE
42	20	1	C			0.00	SPARE
SUBTOTAL				26.79	29.22	25.16	

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN

PLAN NORTH

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

Allied Project No: 13057 Cad File: 13057_EP.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE
CATHERINE A. FAUCHER
No. 7571
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL SCHEDULES

SHEET NUMBER

EP604

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_EPanels.dwg Mar 05, 2014 – 1:25pm

PANEL SCHEDULE ~ 4B3

VOLTAGE: 480/277V	MLO: 400A	AIC: 10KA
3-PHASE, 4-WIRE		LOCATION: MACHINE SHOP

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	1	A	0.19			LTG: 183
3	20	1	B		0.00		SPARE
5	20	1	C			0.00	SPARE
7			A	8.08			
9	70	3	B		8.08		TAG E11 (HYDRAULIC ROLLERS
11			C			8.08	
13			A	0.83			
15	15	3	B		0.83		TAG E14 DRILL PRESS (AVERY)
17			C			0.83	
19			A	1.38			
21	15	3	B		1.38		TAG 14A DRILL PRESS (CINCINNATI-BICKFORD SUPER SERVICE)
23			C			1.38	
25			A	0.44			
27	15	3	B		0.44	0.00	TAG E15 DRILL SHARPENER
29			C			0.44	
31			A	4.37			
33	30	3	B		4.37		TAG E68 LARGE PARTS WASHER
35			C			4.37	
37			A	0.44			
39	15	3	B		0.44		EF-18
41			C			0.44	
43			A	0.00			
45	30	3	B		0.00		SPARE
47			C			0.00	
49			A	0.00			
51	30	3	B		0.00		SPARE
53			C			0.00	
55	20	1	A	0.00			SPARE
57	20	1	B		0.00		SPARE
59	20	1	C			0.00	SPARE
61	20	1	A	0.00			SPARE
63	20	1	B		0.00		SPARE
65	20	1	C			0.00	SPARE
67	20	1	A	0.00			SPARE
69	20	1	B		0.00		SPARE
71	20		C			0.00	SPARE
			SUBTOTAL	15.73	15.54	15.54	
2			A	5.92			
4	50	3	B		9.01		PANEL 2B3
6			C			6.27	
8			A	23.72			
10	125	3	B		24.25		PANEL 3B3
12			C			26.25	
14			A	4.12			
16	60	3	B		4.12		WELDING OUTLET 180
18			C			4.12	
20			A	4.12			
22	60	3	B		4.12		WELDING OUTLET 180
24			C			4.12	
26			A	2.83			
28	30	3	B		2.83		WELDING OUTLET 180
30			C			2.83	
32			A	2.83			
34	30	3	B		2.83		WELDING OUTLET 180
36			C			2.83	
38			A	2.83			
40	30	3	B		2.83		WELDING OUTLET 180
42			C			2.83	
44			A	3.05			
46	30	3	B		3.05		EF-4
48			C			3.05	
50			A	2.83			
52	30	3	B		2.83		WELDING OUTLET 184
54			C			2.83	
56			A	4.12			
58	60	3	B		4.12		WELDING OUTLET 184
60			C			4.12	
62	20	1	A	0.00			SPARE
64	20	1	B		0.00		SPARE
66	20	1	C			0.00	SPARE
68	20	1	A	0.00			SPARE
70	20	1	B		0.00		SPARE
72	20	1	C			0.00	SPARE
			SUBTOTAL	52.25	55.87	55.13	

PANEL SCHEDULE ~ 4B4

VOLTAGE: 480/277V	MLO: 400A	AIC: 10KA
3-PHASE, 4-WIRE		LOCATION: HEAVY EQUIP

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1			A	1.16			
3	20	3	B		1.16		DOOR OPERATORS
5			C			1.16	
7			A	1.16			
9	20	3	B		1.16		DOOR OPERATORS
11			C			1.16	
13			A	3.74			
15	20	3	B		3.74		TAG E72 LARGE PRESS
17			C			3.74	
19			A	2.47			
21	20	3	B		2.47		TAG E75 DRILL PRESS
23			C			2.47	
25			A	0.00			
27	150	3	B		0.00		EWH-2
29			C			0.00	
31			A	0.00			
33	30	3	B		0.00		SPARE
35			C			0.00	
37			A	14.40			
39	150	3	B		14.40		EF-6
41			C			14.40	
43			A	1.78			
45	20	3	B		1.78		EF-5, EF-13
47			C			1.78	
49			A	0.00			
51	20	3	B		0.00		SPARE
53			C			0.00	
55			A	0.00			
57	20	3	B		0.00		SPARE
59			C			0.00	
61			A	0.00			
63	30	3	B		0.00		SPARE
65			C			0.00	
67			A	0.00			
69	30	3	B		0.00		SPARE
71			C			0.00	
			SUBTOTAL	24.71	24.71	24.71	
2			A	22.70			
4	125	3	B		19.21		PANEL 2B4
6			C			17.52	
8			A	9.65			
10	50	3	B		4.82		PANEL 3B4
12			C			7.35	
14			A	3.32			
16	30	3	B		3.32		TAG E79 PORTABLE LIFT
18			C			3.32	
20			A	0.00			
22	30	3	B		0.00		30A CONVINENCE OUTLET
24			C			0.00	
26			A	2.83			
28	30	3	B		2.83		WELDING OUTLET
30			C			2.83	
32			A	2.83			
34	30	3	B		2.83		WELDING OUTLET
36			C			2.83	
38			A	2.83			
40	30	3	B		2.83		WELDING OUTLET
42			C			2.83	
44			A	1.33			
46	15	3	B		1.33		MAU-3
48			C			1.33	
50			A	10.74			
52	50	3	B		10.74		5-TON CRANE
54			C			10.74	
56			A	10.74			
58	50	3	B		10.74		5-TON CRANE
60			C			10.74	
62	20	1	A	0.00			SPARE
64	20	1	B		0.00		SPARE
66	20	1	C			0.00	SPARE
68	20	1	A	0.00			SPARE
70	20	1	B		0.00		SPARE
72	20	1	C			0.00	SPARE
			SUBTOTAL	66.97	58.65	59.49	

PANEL SCHEDULE ~ 4B5

VOLTAGE: 480/277V	MLO: 400A	AIC: 10KA
3-PHASE, 4-WIRE		LOCATION: MEZZANINE

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	1	A	2.29			LTG: 114-125, TASK 170
3	20	1	B		2.37		LTG: 111-113
5	20	1	C			2.50	LTG: 104-107, 110, 117-118
7	20	1	A	2.90			LTG: LCP2-16,22
9	20	1	B		2.14		LTG: LCP2-24
11	20	1	C			2.28	LTG: LCP2-23
13	20	1	A	2.28			LTG: LCP2-21
15	20	1	B		2.28		LTG: LCP2-20
17	20	1	C			2.28	LTG: LCP2-19
19	20	1	A	2.28			LTG: LCP2-18
21	20	1	B		2.28		LTG: LCP2-17
23	20	1	C			2.25	LTG: LCP2-14, 202,211,212
25	20	1	A	2.82			LTG: LCP2-15, 202-210
27	20	1	B		1.70		LTG: 213-222
29	20 GFCI	1	C			0.90	215 HAND DRYER
31	20 GFCI	1	A	0.90			216 HAND DRYER
33	20	1	B		0.00		SPARE
35	20	1	C			0.00	SPARE
37			A	6.63			
39	25	3	B		6.63		RTU-3
41			C			6.63	
43			A	2.11			
45	25	3	B		2.11		AHU-2
47			C			2.11	
49			A	12.99			
51	60	3	B		12.99		CU-2
53			C			12.99	
55			A	5.51			
57	25	3	B		5.51		RTU-3
59			C			5.51	
61			A	1.47			EF-11,12,14
63	20	3	B		1.47		
65			C			1.47	
67			A	1.63			ERU-1
69	15	3	B		1.63		
71			C			1.63	
			SUBTOTAL	43.81	41.11	40.55	
2			A	20.42			
4	125	3	B		20.30		PANEL 2B5
6			C			19.48	
8			A	10.84			
10	50	3	B		10.84		RTU-2
12			C			10.84	
14	20 GFCI	1	A	0.90			117 HAND DRYER
16	20 GFCI	1	B		0.90		118 HAND DRYER
18	20	1	C			0.00	SPARE
20	20	1	A	0.00			SPARE
22	20 GFCI	1	B		0.90		124A HAND DRYER
24	20 GFCI	1	C			0.90	124B HAND DRYER
26	20 GFCI	1	A	0.90			125 HAND DRYER
28	20	1	B		0.00		SPARE
30	20	1	C			0.00	SPARE
32			A	19.32			
34	250	1	B		18.68		PANEL 2B5A
36			C			17.13	
38	20	1	A	0.00			SPARE
40	20	1	B		0.00		SPARE
42	20	1	C			0.00	SPARE
44	20	1	A	0.00			SPARE
46	20	1	B		0.00		SPARE
48	20	1	C			0.00	SPARE
50	20	1	A	0.00			SPARE
52	20	1	B		0.00		SPARE
54	20	1	C			0.00	SPARE
56	20	1	A	0.00			SPARE
58	20	1	B		0.00		SPARE
60	20	1	C			0.00	SPARE
62	20	1	A	0.00			SPARE
64	20	1	B		0.00		SPARE
66	20	1	C			0.00	SPARE
68	20	1	A	0.00			SPARE
70	20	1	B		0.00		SPARE
72	20	1	C			0.00	SPARE
			SUBTOTAL	52.38	51.62	48.35	

PANEL SCHEDULE ~ 2E1

VOLTAGE: 208/120V	MLO: 125A	AIC: 10KA
3-PHASE, 4-WIRE		

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20 LOCK	1	A	1.00			FIRE ALARM CONTROL PANEL
3	20 LOCK	1	B		1.00		RANGE HOOD FIRE SUPPRESSION SYSTEM
5	20 LOCK	1	C			1.00	PAINT BOOTH FIRE SUPPRESSION SYSTEM
7	20	1	A	0.00			SPARE
9	20	1	B		0.00		SPARE
11	20	1	C			0.00	SPARE
13	20	1	A	0.00			SPARE
15	20	1	B		0.00		SPARE
17	20	1	C			0.00	SPARE
19	20	1	A	0.00			SPARE
21	20	1	B		0.00		SPARE
23	20	1	C			0.00	SPARE
			SUBTOTAL	1.00	1.00	1.00	
2	20	1	A	0.00			SPARE
4	20	1	B		0.00		SPARE
6	20	1	C			0.00	SPARE
8	20	1	A	0.00			SPARE
10	20	1	B		0.00		SPARE
12	20	1	C			0.00	SPARE
14	20	1	A	0.00			SPARE
16	20	1	B		0.00		SPARE
18	20	1	C			0.00	SPARE
20	20	1	A	0.00			SPARE
22	20	1	B		0.00		SPARE
24	20	1	C			0.00	SPARE
			SUBTOTAL	0.00	0.00	0.00	

ISSUED FOR BID

FEBRUARY 27, 2014

PROJECT KEY PLAN

PLAN NORTH

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
www.allied-eng.com

Allied Project No: 13057 Cad File: 13057_EP.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE CATHERINE A. FAUCHER No. 7575 LICENSED PROFESSIONAL ENGINEER

SIGNATURE –

ARCH. LIN. NUMBER

DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL SCHEDULES

SHEET NUMBER

EP605

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PANEL SCHEDULE ~ 2A1

VOLTAGE: 208/120V | MLO: 125A | AIC: 10KA
3-PHASE, 4-WIRE | LOCATION: ELECTRIC ROOM

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	1	A	0.72			REC ROOF, 192,193,MEZZ
3	20	1	B		0.72		REC 193
5	20	1	C			0.72	REC 195, 196, UH-1
7	20	1	A	0.00			SPARE
9	20	1	B		0.00		BLAST ROOM CRANE CONTROL POWER
11	30	1	C			2.40	CV-1 CENTRAL VAC UNIT 196
13	30	1	A	2.40			CV-2 CENTRAL VAC UNIT 196
15	30	1	B		2.40		CV-3 CENTRAL VAC UNIT 193
17	30	1	C			2.40	CV-4 CENTRAL VAC UNIT 193
19	20	1	A	2.17			AD-2 AIR DRYER
21	20	1	B		0.00		SECURITY PANEL 182
23	20	1	C			0.00	SPARE
25	20	1	A	0.00			SPARE
27	20	1	B		0.00		SPARE
29	20	1	C			0.00	SPARE
SUBTOTAL				5.29	3.12	5.52	
2	30	3	A	0.00			AD-1 AIR DRYER
4			B		0.00		
6			C			0.00	
8	20	1	A	0.50			FURNACE 193
10	20	1	B		0.00		SPARE
12	20	1	C			0.00	SPARE
14	20	1	A	0.00			SPARE
16	20	1	B		0.00		SPARE
18	20	1	C			0.00	SPARE
20	20	1	A	0.00			SPARE
22	20	1	B		0.00		SPARE
24	20	1	C			0.00	SPARE
26	20	1	A	0.00			SPARE
28	20	1	B		0.00		SPARE
30	20	1	C			0.00	SPARE
SUBTOTAL				0.50	0.00	0.00	

PANEL SCHEDULE ~ 2B1

VOLTAGE: 208/120V | MLO: 225A | AIC: 10KA
3-PHASE, 4-WIRE | LOCATION: ELECTRIC ROOM

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	1	A	1.08			REC 134,135
3	20	1	B		1.26		REC 135
5	20	1	C			1.26	REC 135,136
7	20	1	A	0.90			REC 130,135,136
9	20	1	B		1.08		REC 138
11	20	1	C			1.00	135 MECHANICAL CONTROL
13	20	1	A	1.26			REC 132,131
15	20	1	B		1.26		REC 131
17	20	1	C			1.08	REC 131
19	20	1	A	0.90			REC 131
21	20	1	B		0.36		CORD REELS
23	20	1	C			0.36	CORD REELS
25	20	1	A	0.90			REC 181
27	20	1	B		0.90	0.00	REC 181
29	20	1	C			0.90	REC 181
31	60	2	A	4.30			EWH-2
33			B		4.30		
35	20	1	C			0.90	181 COLUMN REC
37	20	1	A	0.90			182, 181 COLUMN REC,
39	20	1	B		0.00		SPARE
41	20	1	C			1.44	133 SURFACE RACEWAY REC
43	20	1	A	1.00			193 MECHANICAL CONTROL
45	20	1	B		1.00		196MECHANICAL CONTROL
47	20 GFI	1	C			0.40	WATER COOLER REC 181
49	20	1	A	0.00			SPARE
51	20	1	B		0.00		SPARE
53	20	1	C			0.00	SPARE
55	20	1	A	0.00			SPARE
57	20	1	B		0.00		SPARE
59	20	1	C			0.00	SPARE
61	20	1	A	0.00			SPARE
63	20	1	B		0.00		SPARE
65	20	1	C			0.00	SPARE
67	20	1	A	0.00			SPARE
69	20	1	B		0.00		SPARE
71	20	1	C			0.00	SPARE
SUBTOTAL				11.24	10.16	7.34	
2	20	1	A	1.44			132 SURFACE RACEWAY REC
4	20	1	B		1.44		132 SURFACE RACEWAY REC
6	20	1	C			1.44	132 SURFACE RACEWAY REC
8	20	1	A	1.44			132 SURFACE RACEWAY REC
10	20	1	B		1.44		132 SURFACE RACEWAY REC
12	20	1	C			1.26	133 SURFACE RACEWAY REC
14	20	1	A	1.26			133 SURFACE RACEWAY REC
16	20	1	B		1.26		133 SURFACE RACEWAY REC
18	20	1	C			1.44	133 SURFACE RACEWAY REC
20	20	1	A	1.44			133 SURFACE RACEWAY REC
22	30	1	B		1.92		GUH-14
24	30	1	C			2.62	GUH-12, 13
26	20	1	A	0.00			SPARE
28	20	1	B		0.00		SPARE
30	20	1	C			1.92	GUH-17
32	20	1	A	0.36			IDF RACK ON MEZZANINE
34	20	1	B		0.72		REC MEZZANINE
36	20	1	C			1.00	MECH CONTROL MEZZANINE
38	20	1	A	1.41			EF-7, EF-15
40	20	1	B		1.00		EF-8, EF-17
42	20	1	C			0.00	SPARE
44	20	1	A	0.00			SPARE
46	20	1	B		0.00		SPARE
48	20	1	C			0.00	SPARE
50	20	1	A	0.00			SPARE
52	20	1	B		0.00		SPARE
54	20	1	C			0.00	SPARE
56	20	1	A	0.00			SPARE
58	20	1	B		0.00		SPARE
60	20	1	C			0.00	SPARE
62	20	1	A	0.00			SPARE
64	20	1	B		0.00		SPARE
66	20	1	C			0.00	SPARE
68	20	1	A	0.00			SPARE
70	20	1	B		0.00		SPARE
72	20	1	C			0.00	SPARE
SUBTOTAL				7.35	7.78	9.68	

PANEL SCHEDULE ~ 2B2

VOLTAGE: 208/120V | MCB: 100A | AIC: 10KA
3-PHASE, 4-WIRE | LOCATION: SIGN SHOP

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	1	A	0.00			REC 141
3	20	1	B		0.00		REC 141
5	20	1	C			0.00	REC 141,143
7	20	1	A	0.00			REC 141,144
9	20	1	B		0.00		REC PRINTER
11	20	1	C			0.00	REC PRINTER
13	20	1	A	0.00			REC PRINTER
15	20	1	B		0.00		MECHANICAL CONTROL
17	20	1	C			0.00	REC 142
19	20	1	A	0.00			REC 142
21	20	1	B		0.36		REC 142 BENCH
23	20	1	C			0.18	REC 142 BENCH
25	20	1	A	0.18			REC 142 BENCH
27	20	1	B		0.18	0.00	REC 142 BENCH
29	20	1	C			0.90	REC 140
31	20	1	A	0.90			REC 140
33	20	1	B		1.40		GUH-1,2
35	20	1	C			1.22	EF-1, EF-2
37	20	1	A	0.50			SECURITY SYSTEM DOOR + CAMERA
39	20	1	B		0.00		SPARE
41	20	1	C			0.00	SPARE
43	20	1	A	0.00			SPARE
45	20	1	B		0.00		SPARE
47	20	1	C			0.00	SPARE
49	20	1	A	0.00			SPARE
51	20	1	B		0.00		SPARE
53	20	1	C			0.00	SPARE
SUBTOTAL				1.58	1.94	2.30	
2	20	3	A	0.00			SPARE
4			B		0.00		
6			C			0.00	
8	20	1	A	1.80			GANTRY HOIST
10	20	1	B		0.72		CORD REELS + ROOF REC
12	20	1	C			0.90	REC 140,146
14	20	1	A	0.90			REC 140, COLUMNS
16	20	2	B		1.25		EWH-5
18			C			1.25	
20	20	2	A	0.00			SPARE
22			B		0.00		
24	30	2	C			0.00	SPARE
26			A	0.00			
28	30	2	B		0.00		SPARE
30			C			0.00	
32	20	1	A	0.00			SPARE
34	20	1	B		0.00		SPARE
36	20	1	C			0.00	SPARE
38	20	1	A	0.00			SPARE
40	20	1	B		0.00		SPARE
42	20	1	C			0.00	SPARE
44	20	1	A	0.00			SPARE
46	20	1	B		0.00		SPARE
48	20	1	C			0.00	SPARE
50	20	1	A	0.00			SPARE
52	20	1	B		0.00		SPARE
54	20	1	C			0.00	SPARE
SUBTOTAL				2.70	1.97	2.15	

PANEL SCHEDULE ~ 2B3

VOLTAGE: 208/120V | MCB: 100A | AIC: 10KA
3-PHASE, 4-WIRE | LOCATION: MACHINE SHOP

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	1	A	0.90			REC 180,183
3	20	1	B		1.26		REC 180, ROOF
5	20	1	C			0.72	REC 180
7	20	1	A	0.00			REC 180
9	20	1	B		0.00		REC 180
11	20	1	C			0.00	REC 180
13	15	1	A	1.00			EF-3, EF-16
15	20	1	B		1.44		TAG 65 TABLE SAW
17	20	1	C			0.00	SPARE
19	20	2	A	0.66			ERU-3
21			B		0.66		
23	20	1	C			0.00	SPARE
25	20	1	A	0.00			SPARE
27	20	1	B		0.00		SPARE
29	20	1	C			0.00	SPARE
31	20	1	A	0.00			SPARE
33	20	1	B		0.00		SPARE
35	20	1	C			0.00	SPARE
37	20	1	A	0.00			SPARE
39	20	1	B		0.00		SPARE
41	20	1	C			0.00	SPARE
SUBTOTAL				2.56	3.36	0.72	
2	20	1	A	1.44	0.00	0.00	TAG 69 BLAST CAB &DUST COLLECTOR
4	50	2	B		3.43	0.00	TAG E62 COMPRESSOR (QUINCY)
6			C			3.43	
8	20	1	A	1.20			TAG E66 DRILL PRESS (CRAFTSMAN)
10	20	1	B		1.50		TAG E67 CHOP SAW
12	20	1	C			1.40	GUH-3,4
14	20	1	A	0.72			180 COLUMN, ROOF REC
16	20	1	B		0.72		180 COLUMN REC
18	20	1	C			0.72	180 COLUMN REC
20	20	1	A	0.00			180 COLUMN REC
22	20	1	B		0.00		SPARE
24	20	1	C			0.00	SPARE
26	20	1	A	0.00			SPARE
28	20	1	B		0.00		SPARE
30	20	1	C			0.00	SPARE
32	20	1	A	0.00			SPARE
34	20	1	B		0.00		SPARE
36	20	1	C			0.00	SPARE
38	20	1	A	0.00			SPARE
40	20	1	B		0.00		SPARE
42	20	1	C			0.00	SPARE
SUBTOTAL				3.36	5.65	5.55	

ISSUED FOR BID
FEBRUARY 27, 2014

PROJECT KEY PLAN

PLAN NORTH

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2366
www.allied-eng.com

Allied Project No: 13057 Cad File: 13057_EP.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE
COMMISSIONER:
CHIEF ENGINEER:

STATE OF MAINE
CATHERINE A. FAUCHER
No. 7571
LICENSED
PROFESSIONAL ENGINEER
2014

SIGNATURE
ARCH. LIN. NUMBER
DATE FEBRUARY 27, 2014

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL SCHEDULES

SHEET NUMBER
EP606

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_EPanels.dwg Mar 05, 2014 – 1:26pm

PANEL SCHEDULE ~ 2B4

VOLTAGE: 208/120V | MCB: 225A | AIC: 10KA
3-PHASE, 4-WIRE | LOCATION: HEAVY EQUIPMENT

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	1	A	0.36			170 CABLE REELS
3	20	1	B		0.36		170 CABLE REELS
5	20	1	C			0.36	170 CABLE REELS
7	20	1	A	0.36			170 BENCH RECEPT
9	20	1	B		0.36		170 BENCH RECEPT
11	20	1	C			0.36	170 BENCH RECEPT
13	20	1	A	0.36			170 BENCH RECEPT
15	20	1	B		0.36		170 BENCH RECEPT
17	20	1	C			0.36	170 BENCH RECEPT
19	20	1	A	0.36			170 BENCH RECEPT
21	20	1	B		0.36		170 BENCH RECEPT
23	20	1	C			0.90	170 RECEPT
25	20	1	A	1.08			170 RECEPT
27	20	1	B		0.90	0.00	151 RECEPT
29	20	1	C			0.72	151 RECEPT
31	20	1	A	0.18			170 CABLE REELS
33	20	1	B		0.00		160 COLUMN REC
35	20	1	C			0.50	SECURITY CAMERA + DOOR
37	20	1	A	0.00			SPARE
39	20	1	B		0.00		SPARE
41	20	1	C			0.00	SPARE
43	20	1	A	0.00			SPARE
45	20	1	B		0.00		SPARE
47	20	1	C			0.00	SPARE
49	20	1	A	0.00			SPARE
51	20	1	B		0.00		SPARE
53	20	1	C			0.00	SPARE
55	20	1	A	0.00			SPARE
57	20	1	B		0.00		SPARE
59	20	1	C			0.00	SPARE
61	20	1	A	0.00			SPARE
63	20	1	B		0.00		SPARE
65	20	1	C			0.00	SPARE
67	100	3	A	12.56			PANEL 2B4A
69			B		10.29		
71			C			8.68	
SUBTOTAL				15.26	12.63	11.88	
2	20	1	A	0.90			160 RECEPT
4	20	1	B		0.90		160 RECEPT
6	20	1	C			0.90	160 RECEPT
8	20	1	A	0.90			160 RECEPT
10	20	1	B		0.90		160 RECEPT
12	30	1	C			2.62	GUH-15,GUH-7
14	30	1	A	2.62			GUH-6,GUH-5
16	30	1	B		2.62		GUH-8,GUH-9
18	20	1	C			1.40	GUH-10,GUH-11
20	20	1	A	0.36			160 CABLE REEL
22	20	1	B		0.36		160 CABLE REEL
24	20	1	C			0.36	160 CABLE REEL
26	20	1	A	0.36			160 CABLE REEL
28	20	1	B		0.36		160 CABLE REEL
30	20	1	C			0.36	160 CABLE REEL
32	20	1	A	1.60			TAG E74 BAND SAW
34	20	1	B		1.44		TAG E77 BLAST CAB & DUST COLLECTOR
36	20	1	C			0.00	SPARE
38	20	1	A	0.70			GUH-16
40	20	1	B		0.00		SPARE
42	20	1	C			0.00	SPARE
44	20	1	A	0.00			SPARE
46	20	1	B		0.00		SPARE
48	20	1	C			0.00	SPARE
50	20	1	A	0.00			SPARE
52	20	1	B		0.00		SPARE
54	20	1	C			0.00	SPARE
56	20	1	A	0.00			SPARE
58	20	1	B		0.00		SPARE
60	20	1	C			0.00	SPARE
62	20	1	A	0.00			SPARE
64	20	1	B		0.00		SPARE
66	20	1	C			0.00	SPARE
68	20	1	A	0.00			SPARE
70	20	1	B		0.00		SPARE
72	20	1	C			0.00	SPARE
SUBTOTAL				7.44	6.58	5.64	

PANEL SCHEDULE ~ 2B5A

VOLTAGE: 208/120V | MCB: 225A | AIC: 10KA
3-PHASE, 4-WIRE | LOCATION: MEZZANINE

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	1	A	1.08			201 FURNITURE FEED
3	20	1	B		1.08		201 FURNITURE FEED
5	20	1	C			1.08	201 FURNITURE FEED
7	20	1	A	1.08			201 FURNITURE FEED
9	20	1	B		1.08		201 FURNITURE FEED
11	20	1	C			1.08	201 FURNITURE FEED
13	20	1	A	1.08			201 FURNITURE FEED
15	20	1	B		1.08		201 FURNITURE FEED
17	20	1	C			1.08	201 FURNITURE FEED
19	20	1	A	1.08			201 FURNITURE FEED
21	20	1	B		1.08		201 FURNITURE FEED
23	20	1	C			1.20	201 COPIER REC
25	20	1	A	1.20			202 COPIER REC
27	20	1	B		0.00	0.00	REC 210,211,212
29	20	1	C			0.00	REC 202,210,211
31	20	1	A	0.00			REC 208,209,210
33	20	1	B		0.00		REC 202,207,208
35	20	1	C			0.00	REC 202,206,207
37	20	1	A	0.90			REC 206,207
39	20	1	B		0.90		REC 206
41	20	1	C			0.00	REC 204,206
43	20	1	A	0.00			REC 202,204,205
45	20	1	B		0.00		REC 202,203,204
47	20	1	C			0.60	EF-9, EF-10
49	20	2	A	1.35			DAC-1, DCU-1
51			B		1.35		
53	20	2	C			1.35	DAC-2, DCU-2
55			A	1.35			
57	20 GFCI	1	B		1.00		110, 200 EWC REC
59	20	1	C			0.00	200 COUNTER REC
61	20	1	A	0.00			SPARE
63	20	1	B		0.00		SPARE
65	20	1	C			0.00	SPARE
67	20	1	A	0.00			SPARE
69	20	1	B		0.00		SPARE
71	20	1	C			0.00	SPARE
SUBTOTAL				9.12	7.57	6.39	
2	20	1	A	1.00			201 MECHANICAL CONTROL
4	20	1	B		1.00		202 MECHANICAL CONTROL
6	20	1	C			1.00	220 MECHANICAL CONTROL
8	20	1	A	1.08			REC ST2,200,215,216,217
10	20	1	B		1.08		REC 200,213,214
12	20	1	C			1.26	REC ST1,200,213
14	20	1	A	0.90			REC 220,222
16	20	1	B		1.44		FLOOR FURNITURE FEED
18	20	1	C			1.44	FLOOR FURNITURE FEED
20	20	1	A	1.44			FLOOR FURNITURE FEED
22	20	1	B		1.44		FLOOR FURNITURE FEED
24	20	1	C			1.44	FLOOR FURNITURE FEED
26	20	1	A	1.44			FLOOR FURNITURE FEED
28	20	1	B		0.90		REC 202,212
30	20	1	C			0.24	115 EMR LT + REC
32	20	1	A	0.36			ELEV PIT LT + REC
34	20	1	B		0.50		ELEVATOR CAR LTS + FAN
36	20	1	C			0.00	ELEV PIT SUMP PUMP + CONTROL PANEL REC
38	20	1	A	0.36			212, 213 CEILING REC
40	20	2	B		1.20		ERU-2
42			C			1.20	
44	20	1	A	1.44			BOILER 1
46	20	1	B		1.44		BOILER 2
48	20	1	C			1.44	BOILER 3
50	20	3	A	0.82			P-1, P-2
52			B		0.82		
54			C			0.82	
56	20	1	A	1.00			BAS PANEL
58	20	1	B		0.75		P-5, RCP-1
60	20	1	C			1.00	P-3,4
62	20	1	A	0.00			SPARE
64	20	1	B		0.18		REC-202
66	20	1	C			0.18	REC 202
68	50	3	A	0.36			PANEL 2B5B
70			B		0.36		
72			C			0.72	
SUBTOTAL				10.20	11.11	10.74	

PANEL SCHEDULE ~ 2B5

VOLTAGE: 208/120V | MCB: 225A | AIC: 10KA
3-PHASE, 4-WIRE | LOCATION: MEZZANINE

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	1	A	0.90			REC 120,123,124,125
3	20	1	B		0.18		REC 123 COUNTER
5	20	1	C			0.18	REC 123 COUNTER
7	20	1	A	0.18			REC 123 COUNTER
9	20	1	B		1.26		REC 123
11	20	1	C			1.20	REC 120 COPIER
13	20	1	A	1.00			120 MECHANICAL CONTROL
15	20	1	B		1.26		REC 116
17	20	1	C			0.00	REC 121
19	20	1	A	1.26			REC 120,121
21	20	1	B		1.08		REC 121
23	20	1	C			1.26	REC 121
25	20	1	A	1.08			REC 114
27	20	1	B		0.90	0.00	REC 114
29	20	1	C			0.90	REC 114
31	20	1	A	1.08			REC 114
33	20	1	B		1.26		REC ST1, 110
35	20	1	C			0.72	REC 113
37	20	1	A	1.26			REC 113
39	20	1	B		1.08		REC 113
41	20	1	C			1.00	110 MECHANICAL CONTROL
43	20	1	A	1.20			REC 100 COPIER
45	50	2	B		4.00		111 RANGE
47	0	0	C			4.00	0
49	20	1	A	0.00			SPARE
51	20	1	B		0.36		112A, 112B FLOOR REC
53	20	1	C			1.00	100 MECHANICAL CONTROL
55	20	1	A	0.60			CUH-1,2,3
57	20	1	B		1.26		REC 113
59	20	1	C			0.00	112A, 112B MOTORIZED SHADES
61	20	1	A	0.00			SECURITY CAMERAS + DOORS
63	20	1	B		0.00		SECURITY PANEL 119
65	20	1	C			0.00	SPARE
67	20	1	A	0.00			SPARE
69	20	1	B		0.00		SPARE
71	20	1	C			0.00	SPARE
SUBTOTAL				8.56	12.64	10.26	
2	20	1	A	1.44			REC 116,117,118,JAN
4	20	1	B		0.72		REC 112 CEILING
6	20	1	C			1.26	REC 112A
8	20	1	A	0.90			REC 112A,112B
10	20	1	B		1.08		REC 112B
12	20	1	C			0.90	REC 111,111A
14	20	1	A	1.00			REC 111 REFRIG
16	20	1	B		1.00		REC 111 REFRIG
18	20	1	C			0.18	REC 111 COUNTER
20	20	1	A	0.18			REC 111 COUNTER
22	20	1	B		0.18		REC 111 COUNTER
24	20	1	C			0.18	REC 111 COUNTER
26	20	1	A	0.18			REC 111 COUNTER
28	20	1	B		0.72		REC 111
30	20	1	C			1.00	111 MECHANICAL CONTROL
32	20	1	A	1.46			REC 101,102
34	20	1	B		1.26		REC 102,103
36	20	1	C			1.08	REC 100,103
38	20	1	A	1.26			REC 100,104
40	20	1	B		1.26		REC 100,104,105
42	20	1	C			1.26	REC 105, CORRIDOR
44	20	1	A	1.26			REC 100,106
46	20	1	B		1.08		REC 100
48	20	1	C			1.08	REC 100
50	20	1	A	1.26			REC 100,1003
52	20	1	B		0.00		SPARE
54	20	2	C			1.56	SEP-1, SEWAGE PUMP
56			A	1.56			
58	20	2	B		0.00		SEP-2 SEWAGE PUMP
60			C			0.00	
62	20	1	A	1.00			SEWAGE PUMP CONTROL PANEL
64	20	1	B		0.00		SPARE
66	20	1	C			0.00	SPARE
68	50	3	A	0.36			PANEL 2B5C
70			B		0.36		
72			C			0.72	
SUBTOTAL				11.86	7.66	9.22	

PANEL SCHEDULE ~ 2B4A

VOLTAGE: 208/120V | MLO: 100A | AIC: 10KA
3-PHASE, 4-WIRE

CIRCUIT BREAKER				CIRCUIT LOAD (KVA) CONNECTED			BRANCH CIRCUIT DESCRIPTION
CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	
1	20	1	A	1.44			TAG E71 FORKLIFT CHARGER
3	20	1	B		1.44		TAG E73 TIRE BALANCER
5	20	1	C			1.44	TAG E76 GRINDER
7	20	1	A	1.70			TAG E96 LATHE
9	20	2	B		1.77		TAG E79 VEHICLE LIFT (ROTARY 12,000 lb cap)
11			C			1.77	
13	20	2	A	1.67			TAG E83 VEHICLE LIFT (MOHAWK 16,000 lb cap)
15			B		1.67		
17	20	2	C			1.77	TAG E79 VEHICLE LIFT (ROTARY 14,000 lb cap)
19			A	1.77			
21	20	2	B		0.00		SPARE
23			C			0.00	
25	30	2	A	0.00			SPARE
27			B		0.00		
29	30	2	C			0.00	SPARE
31			A	0.00			
33	20	1	B		1.18		OIL PUMP REC
35	20	1	C			1.18	OIL PUMP REC
37	20	1	A	1.18			OIL PUMP REC
39	20	1	B		1.18		OIL PUMP REC
41	20	1	C			0.00	SPARE
SUBTOTAL				7.76	7.24	6.16	
2	20	1	A	1.44			TAG E30 TIRE MACHINE (HUNTER)
4	20	1	B		1.80		TAG E34 PARTS WASHER
6	20	1	C			0.00	TAG E39 DRILL PRESS (DELTA)
8	20	1	A	1.92			TAG E40 GRINDER
10	20	1	B		0.17		TAG E44 TRANS FLUSH MACH
12	20	1	C			1.44	170 SURFACE RACEWAY FOR CHARGERS
14	20	1	A	1.44			170 SURFACE RACEWAY FOR CHARGERS
16	20	1	B		1.08		160 COLUMN REC
18	20	1	C			1.08	160 COLUMN REC
20	20	1	A	0.00			TAG E47 TIRE HOIST
22	20	1	B		0.00		SPARE
24	20	1	C			0.00	SPARE
26	20	1	A	0.00			SPARE
28	20	1	B		0.00		SPARE
30	20	1	C			0.00	SPARE
32	20	1	A	0.00			SPARE
34	20	1	B		0.00		SPARE
36	20	1	C			0.00	SPARE
38	20	1	A	0.00			SPARE
40	20	1	B		0.00		SPARE
42	20	1	C			0.00	SPARE
SUBTOTAL				4.80	3.05	2.52	

ISSUED FOR BID
FEBRUARY 27, 2014

PROJECT KEY PLAN

PLAN NORTH

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
207.221.2266
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Allied Project No: 13057 Cad File: 13057_EP.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE
COMMISSIONER:
CHIEF ENGINEER:

STATE OF MAINE
CATHERINE A. FAUCHER
No. 7571
LICENSED
PROFESSIONAL ENGINEER

FEBRUARY 27, 2014

SIGNATURE
ARCH. LIN. NUMBER
DATE

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2

66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL SCHEDULES

SHEET NUMBER
EP607

N:\Projects\2013\13057 ~ BGS_MDOT Fleet Services Building\00 Drawing Files\13057_EPanels.dwg Mar 05, 2014 – 1:26pm

PANEL SCHEDULE ~ 2B5B

VOLTAGE: 208/120V | MLO: 100A | AIC: 10KA
3-PHASE, 4-WIRE | LOCATION: TEL/DATA 119

CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	BRANCH CIRCUIT DESCRIPTION
1	20	1	A	0.36			REC TELEPHONE ENTRANCE
3	20	1	B		0.36		REC CATV ENTRANCE
5	20	1	C			0.72	REC 119
7	20	1	A	0.00			SPARE
9	20	1	B		0.00		SPARE
11	20	1	C			0.00	SPARE
13	20	1	A	0.00			SPARE
15	20	1	B		0.00		SPARE
17	20	1	C			0.00	SPARE
19	20	1	A	0.00			SPARE
21	20	1	B		0.00		SPARE
23	20	1	C			0.00	SPARE
			SUBTOTAL	0.36	0.36	0.72	
2	20	1	A	0.00			SPARE
4	20	1	B		0.00		SPARE
6	20	1	C			0.00	SPARE
8	20	1	A	0.00			SPARE
10	20	1	B		0.00		SPARE
12	20	1	C			0.00	SPARE
14	20	1	A	0.00			SPARE
16	20	1	B		0.00		SPARE
18	20	1	C			0.00	SPARE
20	20	1	A	0.00			SPARE
22	20	1	B		0.00		SPARE
24	20	1	C			0.00	SPARE
			SUBTOTAL	0.00	0.00	0.00	

(CIRCUIT BREAKER: CKT NO, BRKR SIZE, NO OF POLES, PH; CIRCUIT LOAD (KVA) CONNECTED: A, B, C)

PANEL SCHEDULE ~ 3A1

VOLTAGE: 208/120V | MLO: 225A | AIC: 10KA
3-PHASE, 4-WIRE | LOCATION: ELECTRIC ROOM

CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	BRANCH CIRCUIT DESCRIPTION
1	20	2	A	1.84			181 - 230V CONVENIENCE OUTLET
3			B		1.84		
5	20	2	C			1.84	181 - 230V CONVENIENCE OUTLET
7			A	1.84			
9	20	2	B		1.84		181 - 230V CONVENIENCE OUTLET
11			C			1.84	
13	20	2	A	1.84			181 - 230V CONVENIENCE OUTLET
15			B		1.84		
17	30	3	C			2.78	TAG E19 DRILL (CINCINNATI-BICKFORD)
19			A	2.78			
21			B		2.78		
23	20	2	C			0.00	193 - 230V CONVENIENCE OUTLET
25			A	0.00			
27	30	2	B		0.00		193 - 230V CONVENIENCE OUTLET
29			C			0.00	
31	30	2	A	0.00			SPARE
33			B		0.00		
35	20	2	C			0.00	SPARE
37			A	0.00			
39	30	2	B		0.00		SPARE
41			C			0.00	
			SUBTOTAL	8.30	8.30	6.46	
2	125	3	A	13.26			E02 SHEAR (ALLSTEEL)
4			B		13.26		
6			C			13.26	
8	20	2	A	1.73			E10 SMALL BAND SAW
10			B		1.73		
12	20	2	C			1.73	E03 BURNING TABLE
14			A	1.73			
16	40	2	B		3.56		TAG E80 PRESSURE WASHER
18			C			3.56	
20	20	2	A	0.00			SPARE
22			B		0.00		
24	20	1	C			0.00	SPARE
26	20	1	A	0.00			SPARE
28	20	1	B		0.00		SPARE
30	20	1	C			0.00	SPARE
32	20	1	A	0.00			SPARE
34	20	1	B		0.00		SPARE
36	20	1	C			0.00	SPARE
38	20	1	A	0.00			SPARE
40	20	1	B		0.00		SPARE
42	20	1	C			0.00	SPARE
			SUBTOTAL	16.72	18.55	18.55	

PANEL SCHEDULE ~ 3B2

VOLTAGE: 208/120V | MCB: 100A | AIC: 10KA
3-PHASE, 4-WIRE | LOCATION: SIGN SHOP

CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	BRANCH CIRCUIT DESCRIPTION
1	20	3	A	0.82			TAG 56 SCOTCHLITE MACHINE (3M)
3			B		0.82		
5			C			0.82	
7	20	3	A	0.00			SPARE
9			B		0.00		
11			C			0.00	
13	20	3	A	0.00			SPARE
15			B		0.00		
17			C			0.00	
19	30	3	A	0.00			SPARE
21			B		0.00		
23			C			0.00	
25	20	1	A	0.00			SPARE
27	20	1	B		0.00	0.00	SPARE
29	20	1	C			0.00	SPARE
31	20	1	A	0.00			SPARE
33	20	1	B		0.00		SPARE
35	20	1	C			0.00	SPARE
37	20	1	A	0.00			SPARE
39	20	1	B		0.00		SPARE
41	20	1	C			0.00	SPARE
			SUBTOTAL	0.82	0.82	0.82	
2	20	2	A	0.00			SPARE
4			B		1.84		
6	20	2	C			1.84	140 - 230V CONVENIENCE OUTLET
8			A	1.84			
10	20	2	B		2.80		142 - 230V BENCH OUTLET
12			C			2.80	
14	50	2	A	4.60			TAG E56A SCOTCHLITE MACHINE (CONTECH)
16			B		4.60		
18	20	2	C			0.00	SPARE
20			A	0.00			
22	20	2	B		0.00		SPARE
24			C			0.00	
26	20	2	A	0.00			SPARE
28			B		0.00		
30	30	2	C			0.00	SPARE
32			A	0.00			
34	30	2	B		0.00		SPARE
36			C			0.00	
38	20	1	A	0.00			SPARE
40	20	1	B		0.00		SPARE
42	20	1	C			0.00	SPARE
			SUBTOTAL	6.44	9.24	4.64	

PANEL SCHEDULE ~ 3B3

VOLTAGE: 208/120V | MLO: 225A | AIC: 10KA
3-PHASE, 4-WIRE | LOCATION: MACHINE SHOP

CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	BRANCH CIRCUIT DESCRIPTION
1	70	3	A	6.63			TAG E18 LATHE (WARNER & SWASEY)
3			B		6.63		
5			C			6.63	
7	15	3	A	1.09			TAG E21 GRINDER (ABRASIVE)
9			B		1.09		
11			C			1.09	
13	15	3	A	1.38			TAG E22 LARGE BRIDGEPORT (CINCINNATI-BICKFORD)
15			B		1.38		
17			C			1.38	
19	15	3	A	0.54			TAG E23 SMALL BRIDGEPORT (CINCINNATI-TOOLMASTER)
21			B		0.54		
23			C			0.54	
25	20	3	A	4.37			TAG E68 LARGE PARTS WASHER
27			B		4.37	0.00	
29			C				
31	30	3	A	2.65			TAG E64 BAND SAW (POWERMATIC)
33			B		2.65		
35			C			2.65	
37	30	3	A	0.00			SPARE
39			B		0.00		
41			C			0.00	
			SUBTOTAL	16.66	16.66	12.29	
2	20	2	A	1.84			180 - 230V CONVENIENCE OUTLET
4			B		1.84		
6	20	2	C			1.84	180 - 230V CONVENIENCE OUTLET
8			A	1.84			
10	20	2	B		1.84		180 - 230V CONVENIENCE OUTLET
12			C			1.84	
14	30	2	A	2.53			TAG E20 OVEN (THERMCRAFT)
16			B		2.53		
18	20	2	C			0.85	TAG E86 DRILL PRESS (POWERMATIC)
20			A	0.85			
22	20	2	B		1.38		TAG E63 DUST COLLECTOR (JET)
24			C			1.38	
26	20	2	A	0.00			SPARE
28			B		0.00		
30	30	2	C			0.00	SPARE
32			A	0.00			
34	20	1	B		0.00		SPARE
36	20	1	C			0.00	SPARE
38	20	1	A	0.00			SPARE
40	20	1	B		0.00		SPARE
42	20	1	C			0.00	SPARE
			SUBTOTAL	7.06	7.59	5.91	

PANEL SCHEDULE ~ 3B4

VOLTAGE: 208/120V | MCB: 100A | AIC: 10KA
3-PHASE, 4-WIRE | LOCATION: HEAVY EQUIPMENT

CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	BRANCH CIRCUIT DESCRIPTION
1	30	2	A	2.30			TAG E31 TIRE BALANCER
3			B		2.30		
5	60	2	C			4.83	SPARE
7			A	4.83			
9	20	2	B		0.00		230V CONVENIENCE RECEPTACLE 170
11			C			0.00	
13	20	2	A	0.00			230V CONVENIENCE RECEPTACLE 170
15			B		0.00		
17	20	2	C			0.00	230V CONVENIENCE RECEPTACLE 170
19			A	0.00			
21	30	2	B		0.00		SPARE
23			C			0.00	
25	20	3	A	0.00			SPARE
27			B		0.00		
29			C			0.00	
			SUBTOTAL	7.13	2.30	4.83	
2	20	3	A	0.27			TAG E78 BELT SANDER
4			B		0.27		
6			C			0.27	
8	30	3	A	2.25			TAG E87 VEHICLE LIFT (ROTARY)
10			B		2.25		
12			C			2.25	
14	20	3	A	0.00			SPARE
16			B		0.00		
18			C			0.00	
20	30	3	A	0.00			SPARE
22			B		0.00		
24			C			0.00	
26	30	3	A	0.00			SPARE
28			B		0.00		
30			C			0.00	
			M	2.52	2.52	2.52	

PANEL SCHEDULE ~ 2B5C

VOLTAGE: 208/120V | MLO: 100A | AIC: 10KA
3-PHASE, 4-WIRE

CKT NO	BRKR SIZE	NO OF POLES	PH	A	B	C	BRANCH CIRCUIT DESCRIPTION
1	20	1	A	0.00			SPARE
3	20	1	B		0.00		SPARE
5	20	1	C			0.00	SPARE
7	20	1	A	0.00			SPARE
9	20	1	B		0.00		SPARE
11	20	1	C			0.00	SPARE
13	20	1	A	0.00			SPARE
15	20	1	B		0.00		SPARE
17	20	1	C			0.00	SPARE
19	20	1	A	0.00			SPARE
21	20	1	B		0.00		SPARE
23	20	1	C			0.00	SPARE
			SUBTOTAL	0.00	0.00	0.00	
2	20	1	A	0.00			SPARE
4	20	1	B		0.00		SPARE
6	20	1	C			0.00	SPARE
8	20	1	A	0.00			SPARE
10	20	1	B		0.00		SPARE
12	20	1	C			0.00	SPARE
14	20	1	A	0.00			SPARE
16	20	1	B		0.00		SPARE
18	20	1	C			0.00	SPARE
20	20	1	A	0.00			SPARE
22	20	1	B		0.00		SPARE
24	20	1	C			0.00	SPARE
			SUBTOTAL	0.00	0.00	0.00	

ISSUED FOR BID
FEBRUARY 27, 2014

PROJECT KEY PLAN

PLAN NORTH

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
207.221.2260
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www.allied-eng.com

Allied Project No: 13057 Cad File: 13057_EP.DWG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

COMMISSIONER:
CHIEF ENGINEER:

STATE OF MAINE CATHERINE A. FAUCHER No. 7575 LICENSED PROFESSIONAL ENGINEER

SIGNATURE –
ARCH. LIN. NUMBER
DATE FEBRUARY 27, 2014

PROJECT	INFORMATION
PROGRAM	
PROJECT MANAGER	
DESIGNER	ALLIED ENG., INC.
CONSULTANT	–
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	–

WIN: 020118.20

66 INDUSTRIAL DRIVE–PHASE 2
66 INDUSTRIAL DRIVE, AUGUSTA, MAINE
MAINE DEPARTMENT OF TRANSPORTATION

ELECTRICAL SCHEDULES

SHEET NUMBER
EP608

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