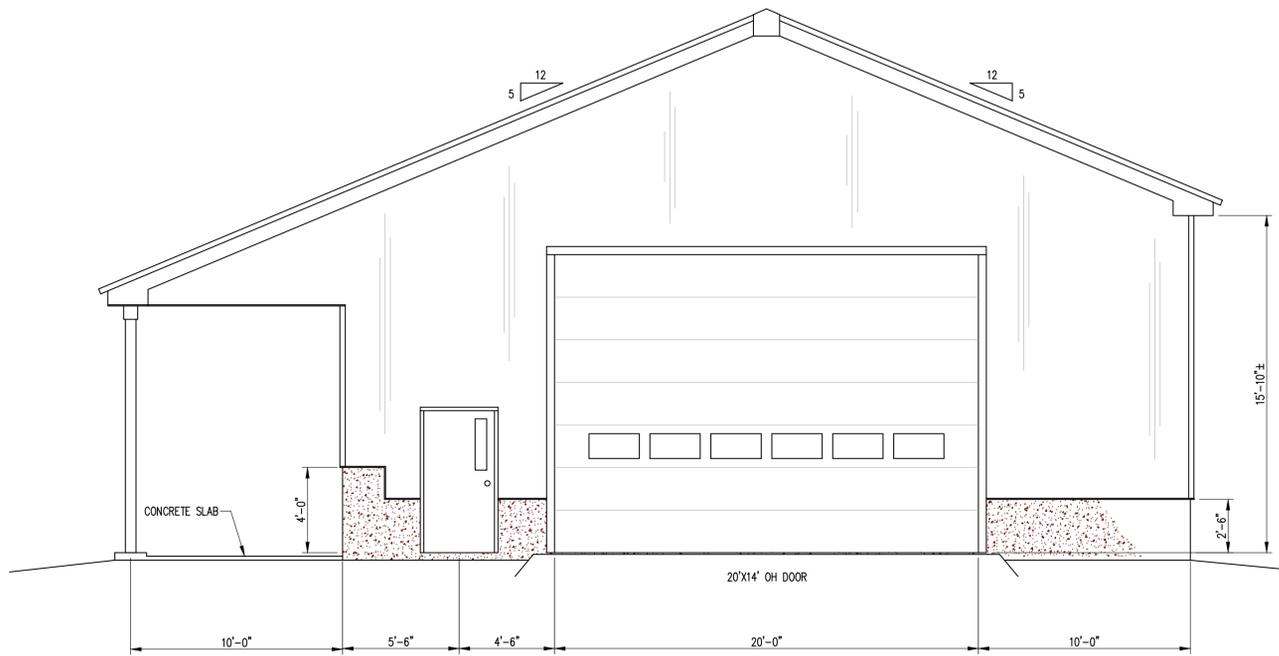


DESIGN NOTES:
 GROUND SNOW LOAD 100 PSF
 WIND LOAD 90 MPH
 WIND EXPOSURE "C"
 SEISMIC CLASS "D"
 BUILDING IS UNHEATED STORAGE
 DESIGNED TO MEET THE 2009 IBC

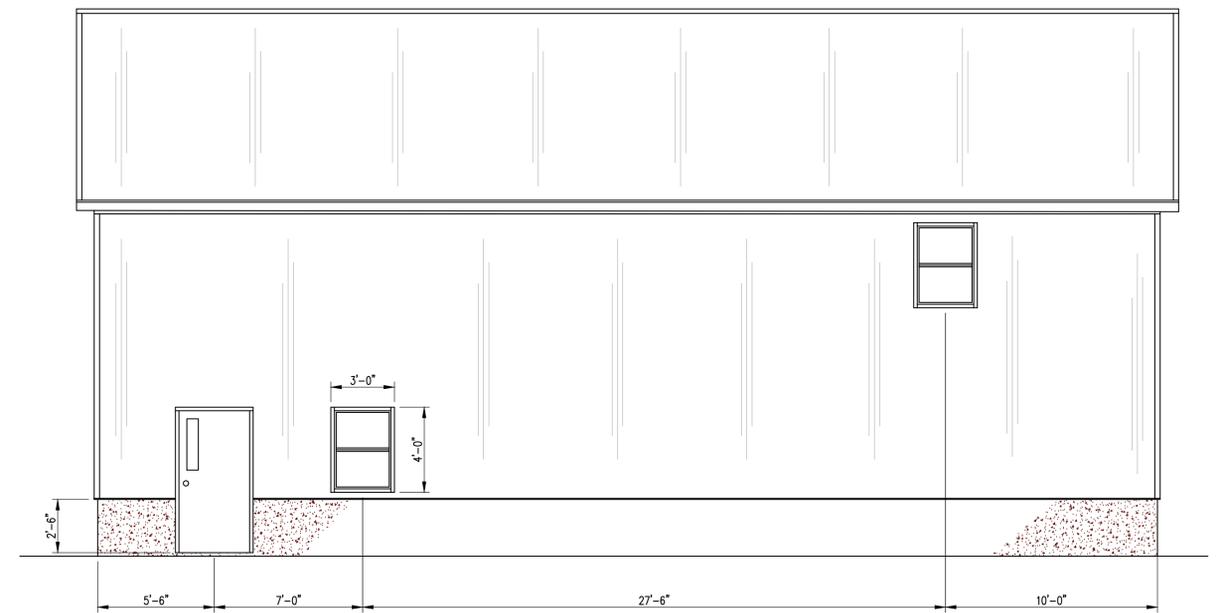
- NOTES:
- 12'x10' AND 20'x14' OVERHEAD DOORS AS SOLD BY OVERHEAD DOOR COMPANY, SERIES 592, INSULATED W/ ELECTRIC OPERATORS, 2" FULL FLOATING BEARING ROLLERS W/ HARDENED STEEL RACERS. (OR EQUAL)
 - (2) 3'-0" X 6'-8" THERMA-TRU SE100 (STEEL, FLUSH) DOOR W/ PANIC HARDWARE & DOOR CLOSER (OR EQUAL)
 - (2) MATHEWS BROTHERS, SPENCER WALCOTT 3648 VINYL DOUBLE HUNG WINDOWS W/ TEMPERED GLASS AND STD HARDWARE. (OR EQUAL)
 - SIDING & ROOFING TO BE EVERLAST II, 29 GAUGE, 38" WIDE W/ 1" OVERLAP. (OR EQUAL)
 - COLORS TO BE DETERMINED

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

NOT FOR CONSTRUCTION	C 04/04/16 MKL ISSUED FOR BIDS	
	NO. DATE	BY DESCRIPTION
	CURRENT REVISION	
ISSUED FOR BIDS	 MID-SOUTH ENGINEERING 1658 Malvern Ave. Hot Springs, Arkansas 71901 200 Mackenan Drive Cary, North Carolina 27511 70 Spring Street, Suite 3 Millinocket, Maine 04462 WWW.MSECO.COM	
	RECEIVING & STORAGE OVERALL AREA ARCHITECTURAL BUILDING STORAGE BUILDING FLOOR PLAN	
	BUREAU OF PARKS & LANDS 45 RADAR ROAD ASHLAND STATE ME	
SCALE	DRN.	SMG 02/29/2016
1/4" = 1' - 0"	CHKD.	RS 02/29/2016
	APP.	RS 02/29/2016
		DRAWING NO. 7073-2000-01-AR-001



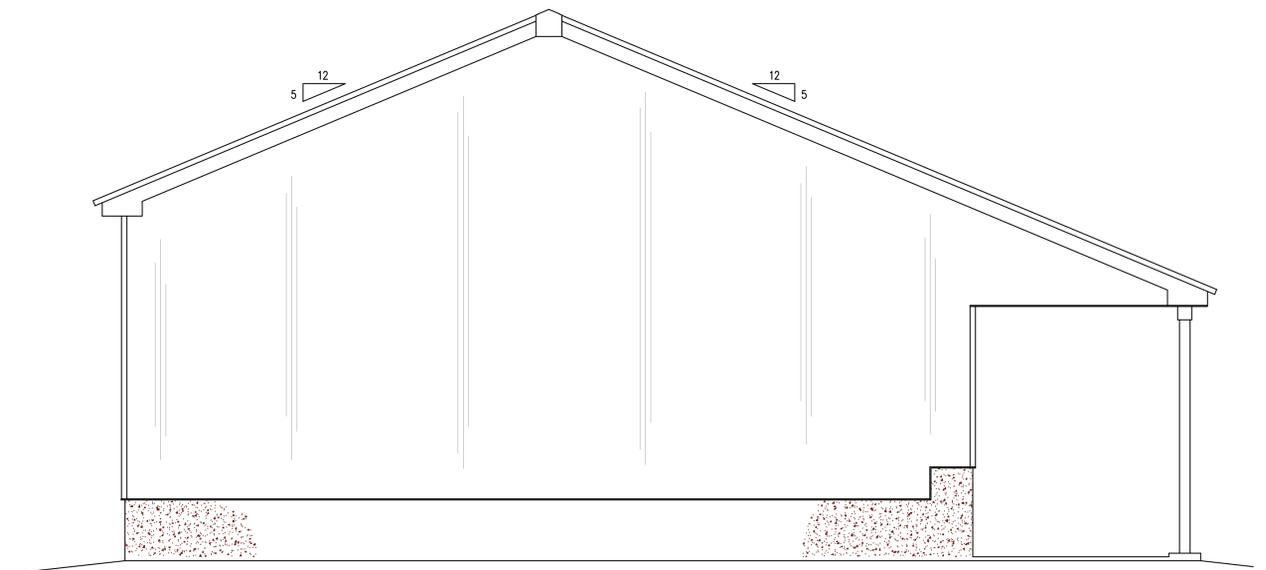
SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



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

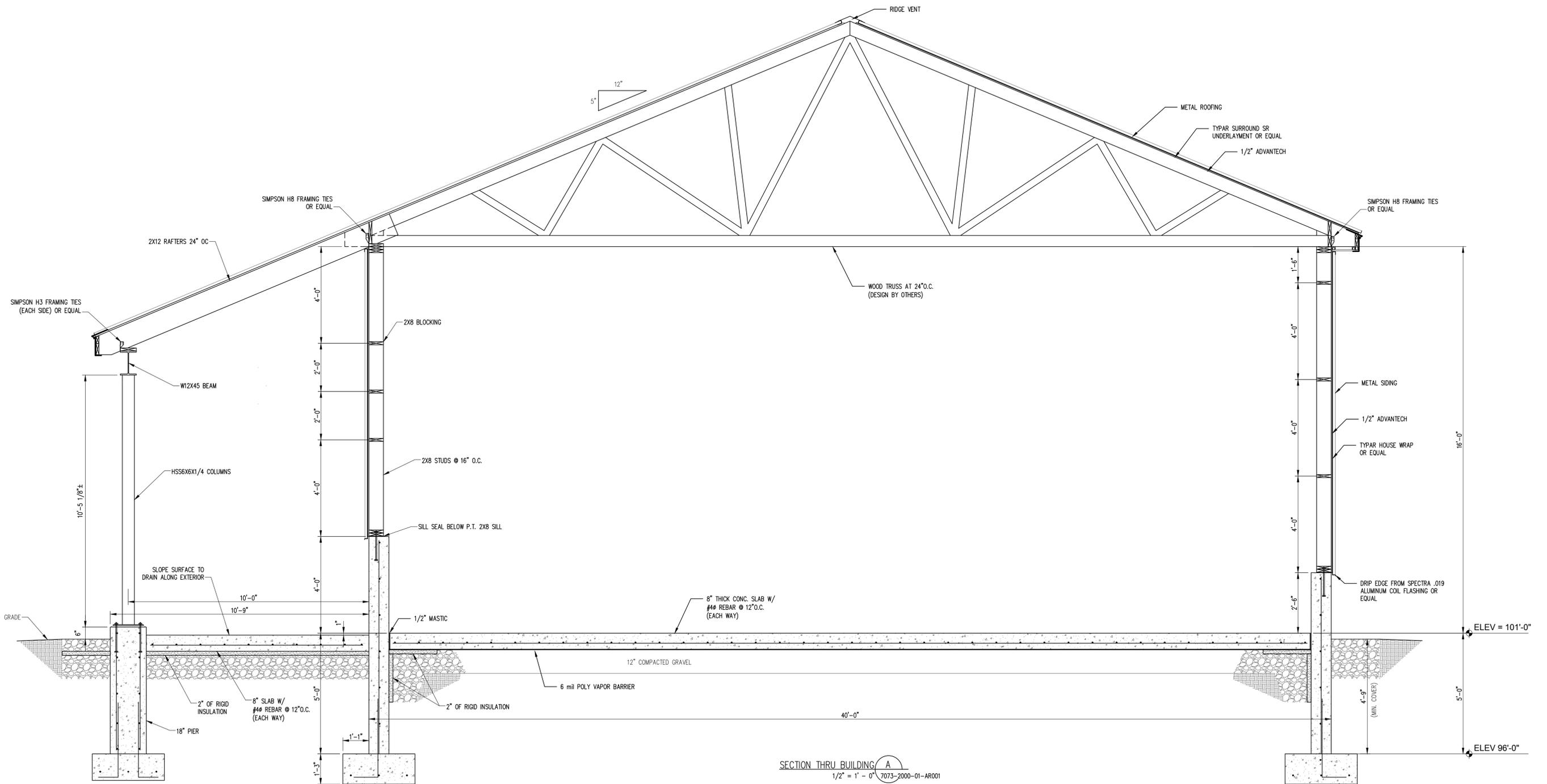


SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



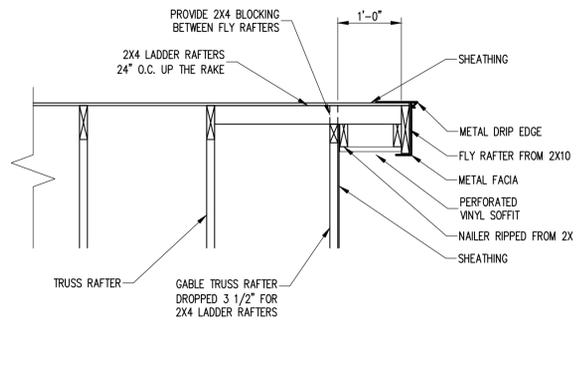
NORTH ELEVATION
SCALE: 1/4" = 1'-0"

NOT FOR CONSTRUCTION	C 04/04/16 MKL ISSUED FOR BIDS	
	NO.	DATE
	BY	
	DESCRIPTION	
ISSUED FOR BIDS	CURRENT REVISION	
	1658 Malvern Ave. Hot Springs, Arkansas 71901	
	200 Mackenan Drive Cary, North Carolina 27511	
	70 Spring Street, Suite 3 Millinocket, Maine 04462	
RECEIVING & STORAGE OVERALL AREA ARCHITECTURAL BUILDING STORAGE BUILDING ELEVATIONS		WWW.MSECO.COM
BUREAU OF PARKS & LANDS 45 RADAR ROAD ASHLAND		STATE ME
SCALE	DRN.	DATE
1/4" = 1' - 0"	SMG	02/29/2016
CHKD.	RS	02/29/2016
APP.	RS	02/29/2016
DRAWING NO.		7073-2000-01-AR002

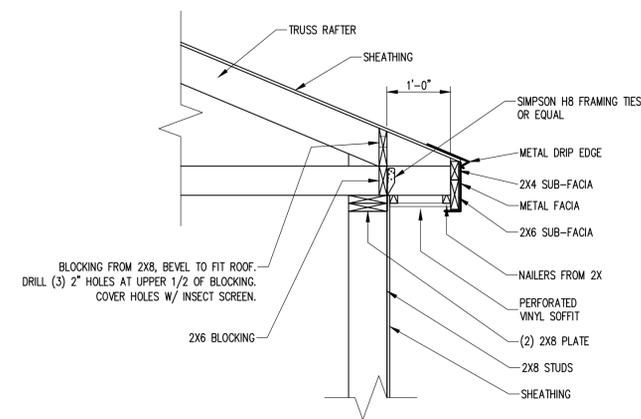


SECTION THRU BUILDING **A**
 1/2" = 1' - 0" 7073-2000-01-AR001

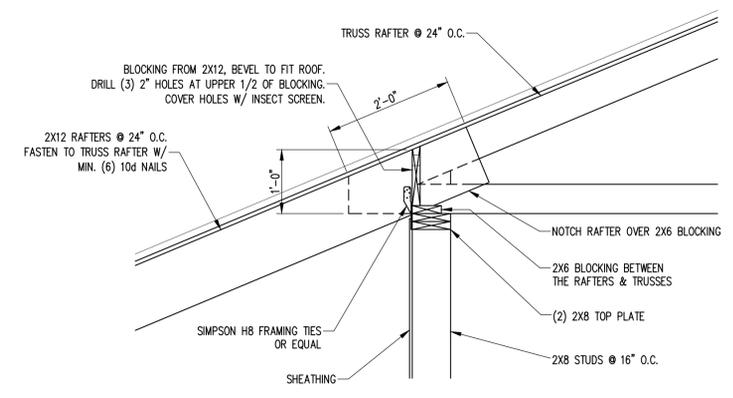
NOT FOR CONSTRUCTION	C. NO.	04/04/16	DATE	BY	MKL	ISSUED FOR BIDS
	CURRENT REVISION					
	 MID-SOUTH ENGINEERING					
	1658 Malvern Ave. Hot Springs, Arkansas 71901 200 Mackenon Drive Cary, North Carolina 27511 70 Spring Street, Suite 3 Millinocket, Maine 04462 WWW.MSECO.COM					
ISSUED FOR BIDS	RECEIVING & STORAGE OVERALL AREA ARCHITECTURAL BUILDING STORAGE BUILDING SECTION					
	BUREAU OF PARKS & LANDS 45 RADAR ROAD ASHLAND					
	STATE ME					
	SCALE	DRN.	SMC	02/29/2016	DRAWING NO.	
AS NOTED	CKD.	RS	02/29/2016	7073-2000-01-AR003		
	APP.	RS	02/29/2016			



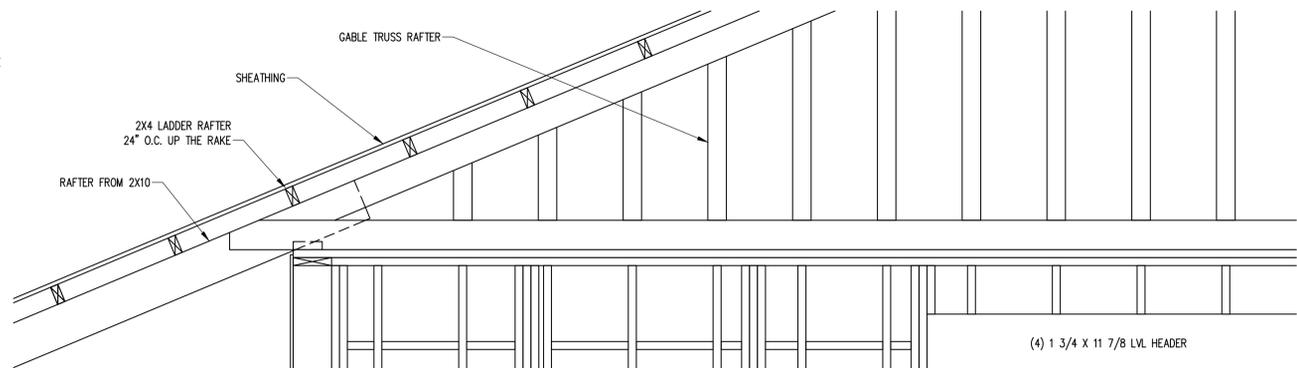
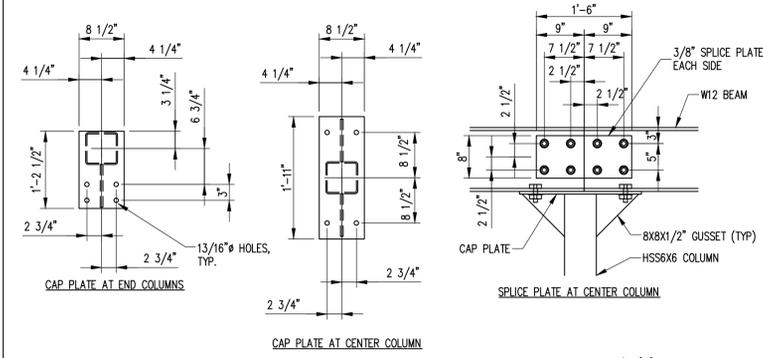
TYPICAL RAKE SECTION **A**
SCALE: 3/4"=1'-0" 7073-2000-01-AR001



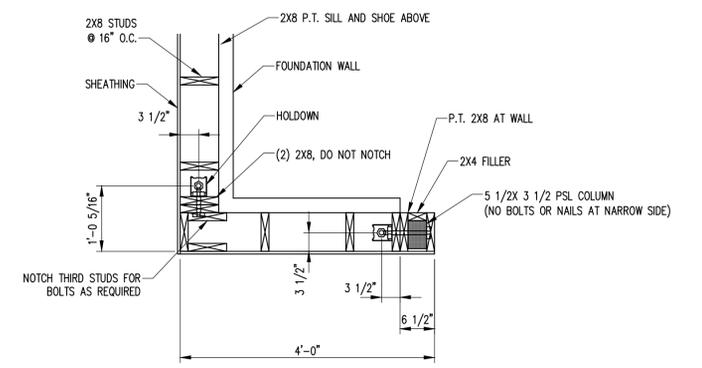
TYPICAL EAVE SECTION **B**
SCALE: 3/4"=1'-0" 7073-2000-01-AR001



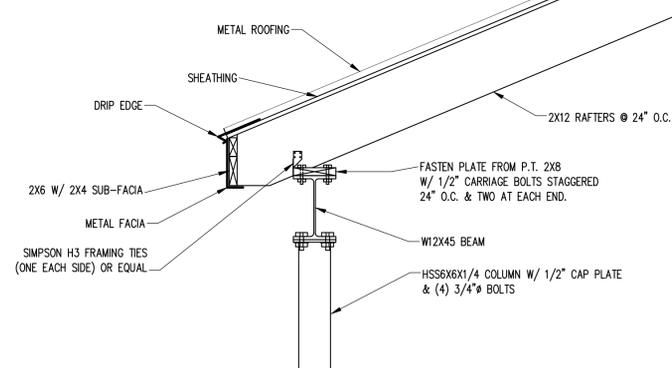
TYPICAL RAFTER TO TRUSS SECTION **C**
SCALE: 3/4"=1'-0" 7073-2000-01-AR001



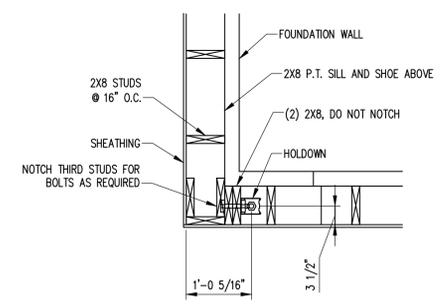
PARTIAL FRAMING ELEVATION **E**
SCALE: 3/4"=1'-0" 7073-2000-01-AR004



SECTION AT 12X8 OH DOOR **G**
SCALE: 3/4"=1'-0" 7073-2000-01-AR004

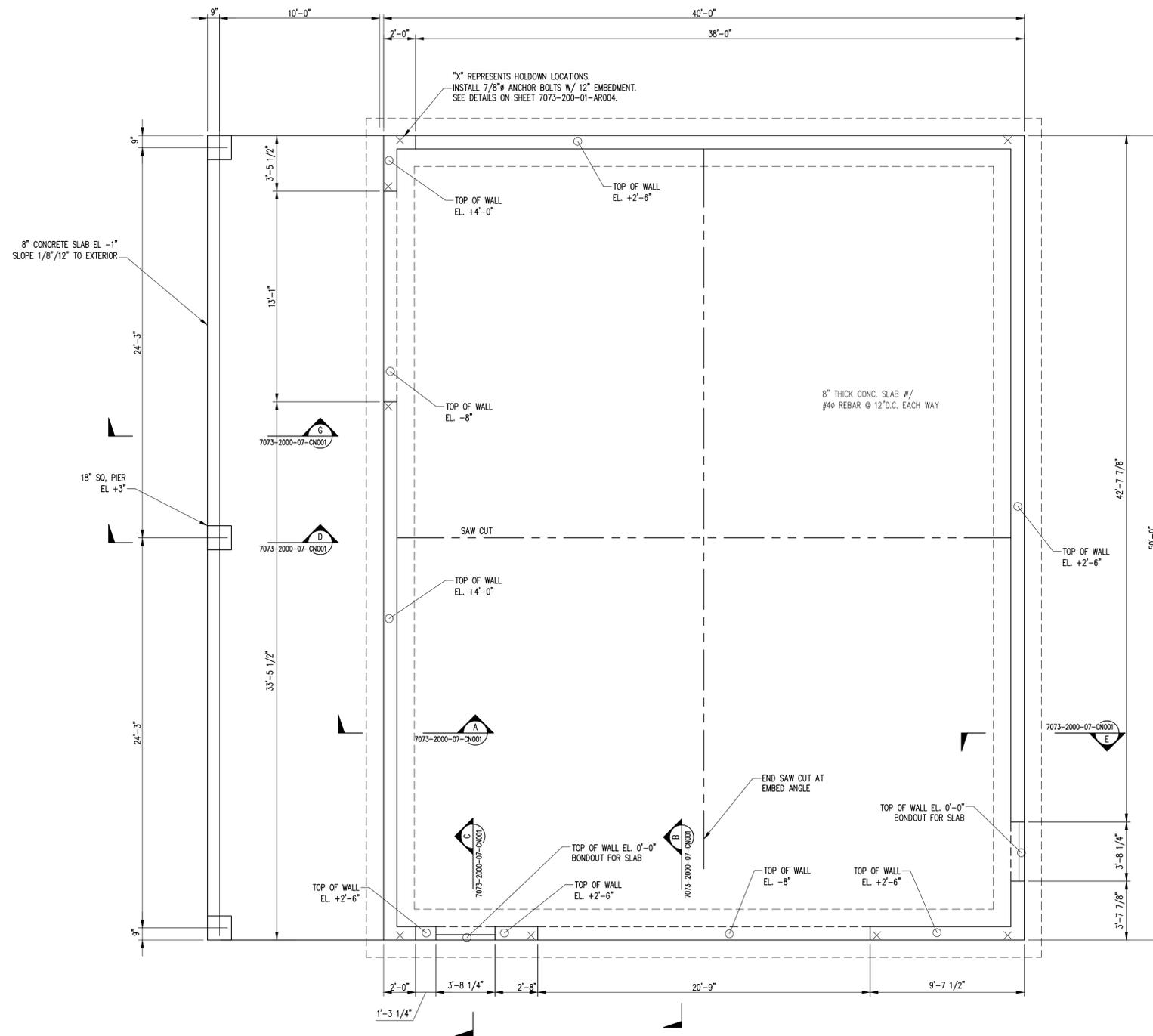


TYPICAL RAFTER TO BEAM SECTION **D**
SCALE: 3/4"=1'-0" 7073-2000-01-AR001



TYPICAL CORNER SECTION **F**
SCALE: 3/4"=1'-0" 7073-2000-01-AR004

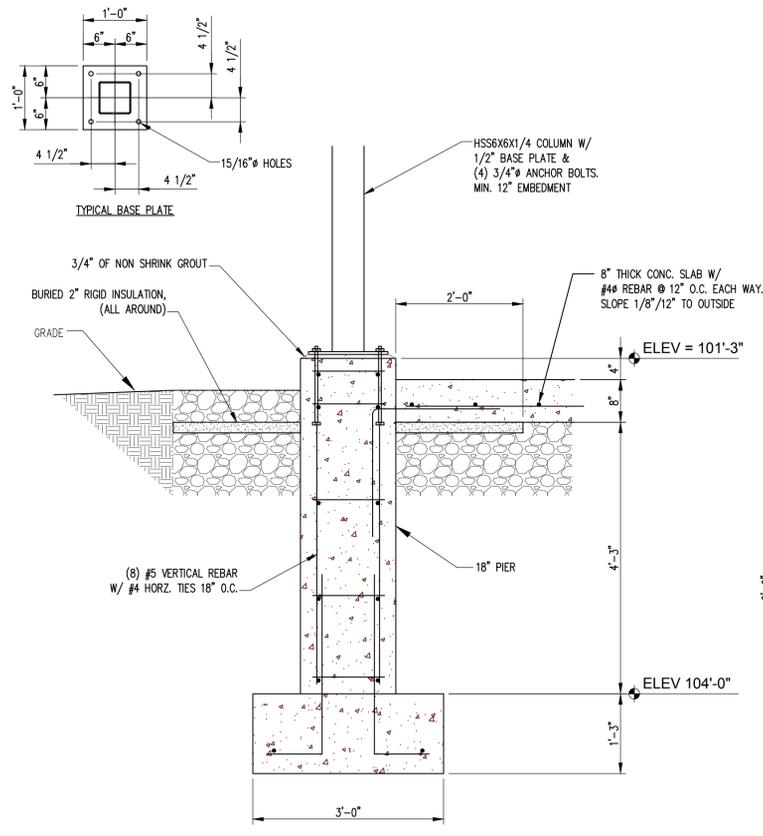
NOT FOR CONSTRUCTION	C 04/04/2016 MKL ISSUED FOR BIDS			
	NO.	DATE	BY	DESCRIPTION
	CURRENT REVISION			
ISSUED FOR BIDS	 MID-SOUTH ENGINEERING			
	RECEIVING & STORAGE OVERALL AREA ARCHITECTURAL BUILDING STORAGE BUILDING SECTIONS AND DETAILS BUREAU OF PARKS & LANDS 45 RADAR ROAD ASHLAND			
	SCALE	DRN.	SMC	02/29/2016
AS NOTED	OKD.	RS	02/29/2016	
	APP.	RS	02/29/2016	
DRAWING NO. 7073-2000-01-AR004				



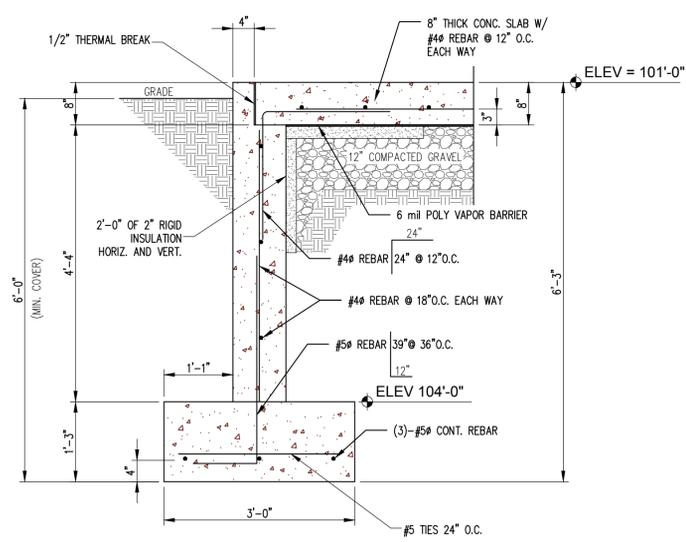
X REPRESENTS HOLDOWN LOCATIONS.
INSTALL 7/8" ANCHOR BOLTS W/ 12" EMBEDMENT.
SEE DETAILS ON SHEET 7073-200-01-AR004.

FOUNDATION PLAN
SCALE: 1/4" = 1'-0"
ELEVATIONS REFERENCE FROM
TOP OF SLAB EL. = 101'-0"

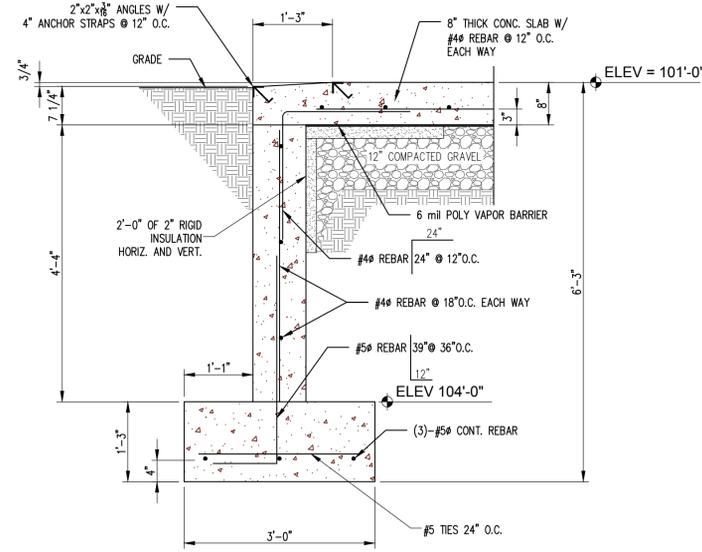
NOT FOR CONSTRUCTION	C NO.	04/04/16	MKL	ISSUED FOR BIDS
	DATE		BY	DESCRIPTION
ISSUED FOR BIDS	CURRENT REVISION			
	1658 Malvern Ave. Hot Springs, Arkansas 71901 200 Mackenon Drive Cary, North Carolina 27511 70 Spring Street, Suite 3 Millinocket, Maine 04462 WWW.MSECO.COM			
RECEIVING & STORAGE				
OVERALL AREA				
CONCRETE LAYOUT				
FOUNDATION PLAN				
BUREAU OF PARKS & LANDS				STATE
45 RADAR ROAD ASHLAND				ME
SCALE	DRN.	SMC	02/29/2016	DRAWING NO.
1/4" = 1' - 0"	OKD.	RS	02/29/2016	7073-2000-06-CN001
	APP.	RS	02/29/2016	



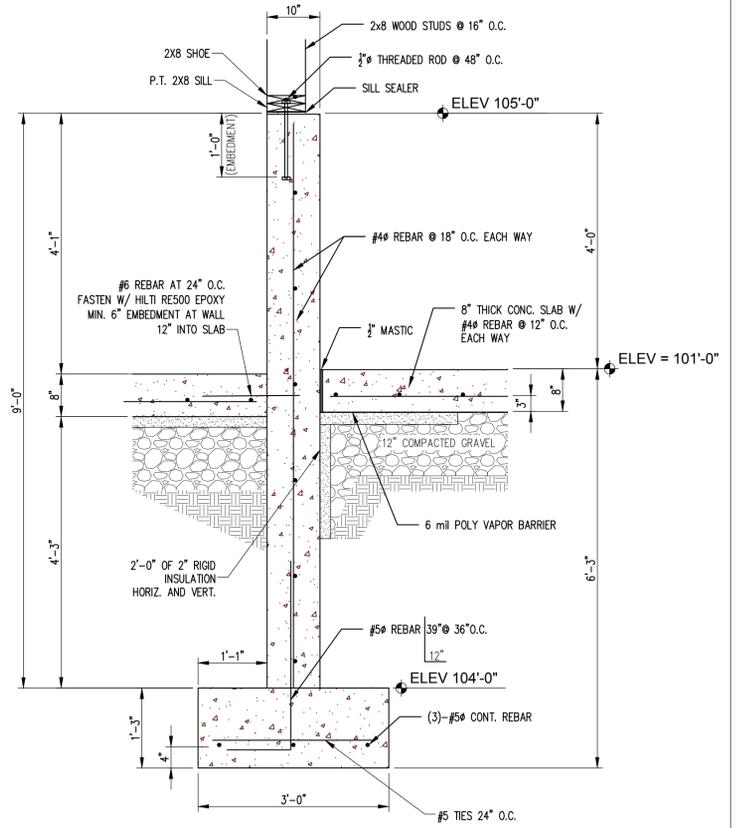
TYPICAL SECTION THRU PIER **D**
3/4" = 1' - 0" 7073-2000-06-CN001



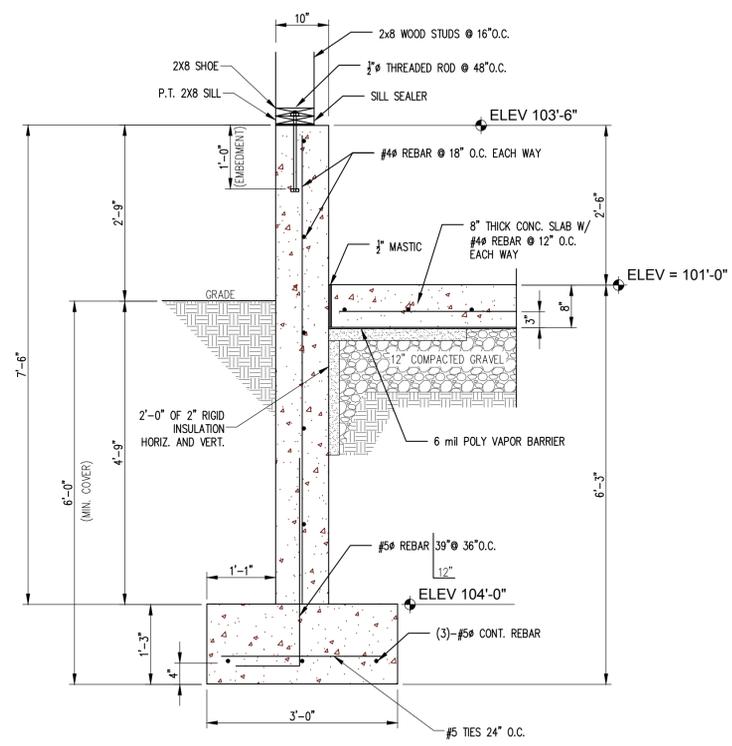
TYPICAL SECTION THRU THRESHOLD FOR PASS DOOR **C**
3/4" = 1' - 0" 7073-2000-06-CN001



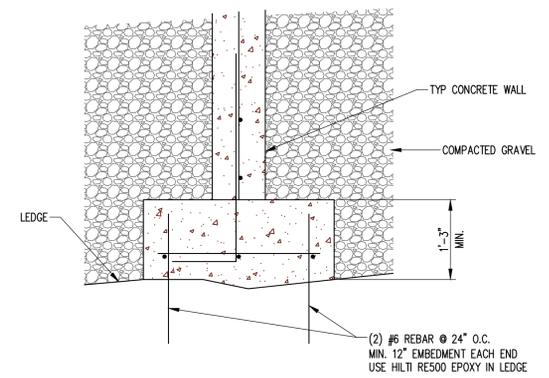
TYPICAL SECTION THRU THRESHOLD FOR O.H. DOOR **B**
3/4" = 1' - 0" 7073-2000-06-CN001



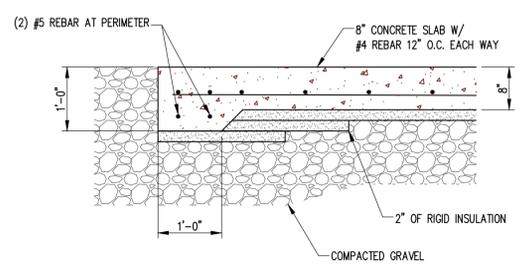
TYPICAL SECTION THRU END WALL **A**
3/4" = 1' - 0" 7073-2000-06-CN001



TYPICAL SECTION THRU END WALL **E**
3/4" = 1' - 0" 7073-2000-06-CN001



TYPICAL SECTION AT LEDGE **F**
3/4" = 1' - 0" 7073-2000-06-CN001



TYPICAL SECTION AT EDGE OF SLAB **G**
3/4" = 1' - 0" 7073-2000-06-CN001

NOT FOR CONSTRUCTION	<table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>ISSUED FOR BIDS</th> <th>DESCRIPTION</th> </tr> <tr> <td>C</td> <td>04/04/16</td> <td>MKL</td> <td>ISSUED FOR BIDS</td> <td></td> </tr> </table>	NO.	DATE	BY	ISSUED FOR BIDS	DESCRIPTION	C	04/04/16	MKL	ISSUED FOR BIDS					
	NO.	DATE	BY	ISSUED FOR BIDS	DESCRIPTION										
	C	04/04/16	MKL	ISSUED FOR BIDS											
	ISSUED FOR BIDS	<p style="text-align: center;">RECEIVING & STORAGE OVERALL AREA CONCRETE SECTIONS & DETAILS FOUNDATION SECTIONS & DETAILS</p> <p style="text-align: center;">BUREAU OF PARKS & LANDS 45 RADAR ROAD ASHLAND</p>													
<p style="text-align: center;">1658 Malvern Ave. Hot Springs, Arkansas 71901 200 Mackenon Drive Cary, North Carolina 27511 70 Spring Street, Suite 3 Millinocket, Maine 04462</p> <p style="text-align: center;">WWW.MSECO.COM</p>															
<table border="1"> <tr> <td>SCALE</td> <td>DRN.</td> <td>SMC</td> <td>02/29/2016</td> <td>DRAWING NO.</td> </tr> <tr> <td>3/4" = 1' - 0"</td> <td>RS</td> <td>RS</td> <td>02/29/2016</td> <td>7073-2000-07-CN001</td> </tr> <tr> <td></td> <td>APP.</td> <td>RS</td> <td>02/29/2016</td> <td></td> </tr> </table>		SCALE	DRN.	SMC	02/29/2016	DRAWING NO.	3/4" = 1' - 0"	RS	RS	02/29/2016	7073-2000-07-CN001		APP.	RS	02/29/2016
SCALE	DRN.	SMC	02/29/2016	DRAWING NO.											
3/4" = 1' - 0"	RS	RS	02/29/2016	7073-2000-07-CN001											
	APP.	RS	02/29/2016												

GENERAL NOTES

- THE STRUCTURAL DRAWINGS AND SPECIFICATIONS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS AND SPECIFICATIONS OF ALL OTHER DISCIPLINES AND THE SHOP DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATION AND INSTALLATION OF ALL SLEEVES, INSERTS, HANGERS, EMBEDMENTS OR OTHER ITEMS TO BE PLACED IN THE STRUCTURAL WORK.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO THE START OF WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- ALL STRUCTURES ARE DESIGNED TO BE STABLE AND SELF SUPPORTING AT THE COMPLETION OF CONSTRUCTION. TEMPORARY BRACES, GUYS, TIE-DOWNS, SHORING, ETC. DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- UNDERGROUND UTILITIES HAVE BEEN LOCATED TO THE EXTENT KNOWN. THE CONTRACTOR SHALL PROCEED WITH CAUTION DURING EXCAVATION ACTIVITIES.
- SHOP DRAWINGS AND OTHER ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. THE CONTRACTOR SHALL STAMP ALL DRAWINGS INDICATING THAT THE CONTRACTOR HAS REVIEWED THE DRAWINGS FOR CONTRACT COMPLIANCE PRIOR TO SUBMITTAL TO THE ENGINEER. SHOP DRAWINGS SUBMITTED WITHOUT THE CONTRACTORS STAMP MAY BE CAUSE FOR REJECTION. THE ENGINEER'S REVIEW IS FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS AND DOES NOT IMPLY CORRECTNESS OF DIMENSIONS OR DETAILS. THE ENGINEER'S REVIEW DOES NOT RELIEVE THE CONTRACTOR FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND SPECIFICATIONS. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS.
- SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER ELECTRONICALLY IN EITHER AUTOCAD OR PDF FORMAT.
- THE CONTRACTOR SHALL HAVE AND FOLLOW A COPY OF THE OWNERS STANDARD SPECIFICATIONS FOR MATERIAL, WORKMANSHIP AND CONSTRUCTION PROCEDURES NOT COVERED IN THESE NOTES.

FOUNDATION NOTES

- DESIGN OF FOUNDATIONS IS BASED ON AN ALLOWABLE SOIL BEARING PRESSURE OF 2500 POUNDS PER SQUARE FOOT.
- ALL DELETERIOUS MATERIALS FOUND WITHIN THE LIMITS OF THE STRUCTURE SHALL BE REMOVED AND REPLACED WITH COMPACTED SELECT FILL OR COMPACTED 3/4" STONE.
- NO FOUNDATIONS SHALL BE PLACED ON FROZEN GROUND OR IN WATER.
- FOUNDATION WALLS SHALL BE CURED FOR A MINIMUM OF 7 DAYS PRIOR TO BACKFILLING. THE BACKFILL MATERIAL SHALL BE BROUGHT UP TO GRADE EQUALLY ON BOTH SIDES OF FOUNDATION WALLS, WHERE REQUIRED.
- BACKFILL MATERIAL SHALL BE PLACED IN MAXIMUM 8" LIFTS. EACH LIFT SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY PER ASTM D-1557, MODIFIED PROCTOR TEST.
- BACKFILL MATERIAL SHALL BE SCREENED OR CRUSHED GRAVEL OF HARD DURABLE PARTICLES FREE FROM VEGETABLE MATTER, LUMPS, BALLS OF CLAY AND OTHER DELETERIOUS SUBSTANCES. BACKFILL SOILS SHALL HAVE A PLASTICITY INDEX OF LESS OR EQUAL TO 6 AND A LIQUID LIMIT OF LESS THAN OR EQUAL TO 15. BACKFILL SOILS SHALL CONTAIN LESS THAN 5 PERCENT ORGANIC MATTER. BACK FILL SOILS SHALL AS A MINIMUM MEET THE FOLLOWING GRADATION:

SIEVE SIZE	PERCENT PASSING
3/8"	100
#4	80-100
#10	65-95
#40	25-55
#200	0-20

- ON SITE MATERIALS GENERATED DURING EXCAVATION SHALL NOT BE USED AS BACKFILL MATERIAL.
- FILTER FABRIC PLACED BENEATH FOUNDATIONS AND USED IN FRENCH DRAINS SHALL BE NONWOVEN GEOTEXTILE (MIRAFI 140N OR EQUAL).
- CRUSHED AGGREGATE BASE COURSE (CABC) USED FOR ROADWAYS SHALL CONFORM TO THE FOLLOWING MDOT GRADATION REQUIREMENTS FOR 703.06 AGGREGATE FOR BASE AND SUBBASE, TYPE A.

SIEVE SIZE	PERCENT PASSING
1 1/2"	100
1/2"	45-75
1/4"	30-55
#40	0-20
#200	0-6.0

WOOD FRAMING NOTES

- WOOD FRAMING TO BE SPF [SPRUCE/PINE/FIR] WITH MINIMUM PROPERTIES AS FOLLOWS:
Fb = 875 PSI
Fv = 135 PSI
E = 1,400,000 PSI Mir.
- ALL TIMBER FRAMING SHALL BE IN ACCORDANCE WITH THE AITC TIMBER CONSTRUCTION MANUAL – LATEST EDITION, AND THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS), 2005 EDITION.
- SAWN LUMBER FRAMING SHALL BE VISUALLY GRADED, NO. 2 OR BETTER, SPRUCE-PINE-FIR KILN DRIED TO 19 PERCENT MAXIMUM MOISTURE CONTENT UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- LAMINATED VENEER LUMBER (LVL) SHALL BE AS SPECIFIED ON DRAWINGS AND AS MANUFACTURED BY GEORGIA PACIFIC CORPORATION (OR EQUAL). REFER TO MANUFACTURER'S LITERATURE FOR PROPER HANDLING AND INSTALLATION GUIDELINES.
- PRESSURE TREATED LUMBER SHALL BE USED FOR MEMBERS EXPOSED TO WEATHER OR IN DIRECT CONTACT WITH SOIL, MASONRY OR CONCRETE, OR WHERE SHOWN ON THE DRAWINGS. PRESSURE TREATED LUMBER OR TIMBER SHALL BE SOUTHERN YELLOW PINE TREATED IN ACCORDANCE AWA USE CATEGORY UC2.
- ADVANTECH SHEATHING SHALL BE APA PERFORMANCE RATED. PROVIDE 1/2" INCH THICK WALL SHEATHING AND 1/2" INCH THICK ROOF SHEATHING, MINIMUM. SHEATHING SHALL BE NAILED TO THE FRAMING AS FOLLOWS (LINO):
ROOFS: 8D NAILS AT 4" ON CENTER AT EDGES AND 6" ON CENTER AT INTERMEDIATE SUPPORTS.
WALLS: 8D NAILS AT 6" ON CENTER AT EDGES AND 6" ON CENTER AT INTERMEDIATE SUPPORTS.
SHEAR WALLS: 8D NAILS AT 4" ON CENTER AT EDGES AND INTERMEDIATE SUPPORTS.
ALL WALL STUDS SHALL BE BLOCKED AT 2', 4', 8', 10'.
- TRUSS MANUFACTURER TO SUPPLY TRUSSES TO MEET REQUIREMENTS FOR SNOW LOADING IN ASHLAND, MAINE. THESE DRAWINGS TO BE SEALED BY A MAINE LICENSED PROFESSIONAL ENGINEER. TRUSS DRAWINGS TO BE ISSUED TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
- ALL BUILT UP BEAMS AND COLUMNS SHALL BE NAILED AS FOLLOWS, MIN.:
BEAMS: 2-100 NAILS AT 12" ON CENTER IN EACH PIECE
COLUMNS: 100 NAILS AT 12" ON CENTER
LVL'S: PER MANUFACTURER'S RECOMMENDATIONS
- FASTENING NOT SPECIFIED SHALL CONFORM TO THE 2009 IBC TABLE 2304.9.1.
- ALL FLUSH FRAMING SHALL BE SUPPORTED USING METAL JOIST HANGERS, BEAM HANGERS, POST BASES, AND CAP PLATES AS MANUFACTURED BY SIMPSON STRONG-TIE CO., INC., OR APPROVED OTHER. REFER TO MANUFACTURER'S LITERATURE FOR PROPER HANDLING AND INSTALLATION GUIDELINES.

CONCRETE NOTES:

- ALL CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST EDITIONS OF ACI 318 AND ACI 301.
- ALL 3000 PSI CONCRETE SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:
2.1. MINIMUM COMPRESSIVE STRENGTH: 3000 PSI @ 28 DAYS
2.2. CEMENT: ASTM C150 TYPE 2
2.3. AGGREGATE: ASTM C33 OR C330
2.4. MAXIMUM AGGREGATE SIZE: 1 INCH
2.5. MAXIMUM WATER-CEMENT RATIO: 0.45
2.6. SLUMP: 2 TO 4 INCHES
2.7. AIR ENTRAINMENT: ASTM C260, 4 TO 6 PERCENT
2.8. WATER REDUCING ADMIXTURE: ASTM C494
2.81. ADMIXTURES SHALL BE USED IN ACCORDANCE WITH ACI AND THE MANUFACTURERS RECOMMENDATIONS.
2.82. USE OF CALCIUM CHLORIDE, CHLORIDE IONS OR OTHER SALTS IS NOT PERMITTED.
- REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED BARS. REINFORCING BARS ARE NOT TO BE WELDED.
- JOINT MATERIAL FOR EXTERIOR WALLS AND INTERIOR SLABS NOT EXPOSED TO VEHICULAR TRAFFIC SHALL BE A PREMIUM GRADE, HIGH PERFORMANCE 1 COMPONENT, POLYURETHANE BASED, NON-SAG ELASTOMERIC SEALANT WITH A TOOLED SURFACE.
- GROUT SHALL BE A NON-SHRINK, NON-METALLIC TYPE WITH A MINIMUM COMPRESSIVE STRENGTH OF 7000 PSI AT 28 DAYS.
- PROVIDE ALL NECESSARY CHAIRS, CHAIR BARS, SPACERS, ETC., WIRED SECURELY TO HOLD REINFORCEMENT IN POSITION. THESE ACCESSORIES SHALL BE PLASTIC BOOTED WHERE CONCRETE IS TO BE EXPOSED TO WEATHER OR MOISTURE.
- CONCRETE COVER TO REINFORCING STEEL SHALL CONFORM TO ACI 318 AS FOLLOWS:
7.1. CONCRETE CAST AGAINST EARTH: 3"
7.2. CONCRETE EXPOSED TO WATER FLOW: 3"
7.3. CONCRETE EXPOSED TO EARTH OR WEATHER: #3 THRU #5 1 1/2"
#6 THRU #11 2"
7.4. CONCRETE NOT EXPOSED TO WEATHER OR PLACED IN CONTACT WITH GROUND: SLABS/WALLS 3/4"
BEAMS/COLUMNS 1 1/2"
- REINFORCING BARS SHALL BE PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE CRSI "RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS".
- ALL LAP SPLICES SHALL BE ACI CLASS B SPLICES. THE FOLLOWING TABLES ARE BASED ON NORMAL WEIGHT CONCRETE WITH BARS 4 BAR DIAMETERS OR MORE APART AND CONCRETE COVER EQUAL TO 2 BAR DIAMETERS OR MORE (CATEGORY 5). TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE PLACED BELOW THE REINFORCEMENT.

3000 PSI CONCRETE		fy = 60,000 PSI									
BAR SIZE		#3	#4	#5	#6	#7	#8	#9	#10	#11	
LAP (N) – TOP BARS		18	24	30	36	42	51	64	82	100	
LAP (N) – OTHER BARS		16	19	23	28	33	39	50	63	77	

- WELDING SHALL ONLY BE ALLOWED IF SPECIFICALLY SHOWN ON DRAWINGS OR APPROVED IN ADVANCE BY ENGINEER OF RECORD.
- ALL OUTSIDE CONCRETE WEARING SURFACES SHALL RECEIVE A STEEL TROWEL AND A MEDIUM BROOM FINISH PERPENDICULAR TO THE TRAFFIC FLOW.
- ALL INSIDE CONCRETE WEARING SURFACES SHALL RECEIVE A SMOOTH STEEL TROWEL FINISH.
- PROVIDE A 3/8" CHAMFER TO ALL EXPOSED CONCRETE EDGES.
- WET CURE ALL CONCRETE SLABS FOR A MINIMUM OF 3 DAYS.
- CONTRACTOR SHALL COORDINATE LOCATIONS OF ALL FLOOR DRAINS, CONDUITS, PIPING, SLEEVES, INSERTS, GROUNDS, ETC WITH CONCRETE CONSTRUCTION.
- DO NOT PENETRATE BEAMS WHERE NOT SHOWN ON THE STRUCTURAL DRAWINGS WITHOUT APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW:
17.1. CONCRETE MIX DESIGNS INCLUDING ALL PROPOSED ADMIXTURES WITH THEIR DOSAGE RATES AND PAST COMPRESSION TEST RESULTS SHOWING THAT THE PROPOSED MIX MEETS OR EXCEEDS THE PROJECT REQUIREMENTS.
17.2. PROPOSED LOCATION OF ALL CONSTRUCTION AND CONTROL JOINTS NOT SHOWN ON THE PLANS PRIOR TO THE START OF CONSTRUCTION.
17.3. SHOP DRAWINGS SHOWING LOCATIONS, DIMENSIONS AND BENDS FOR REBAR.

STRUCTURAL STEEL NOTES

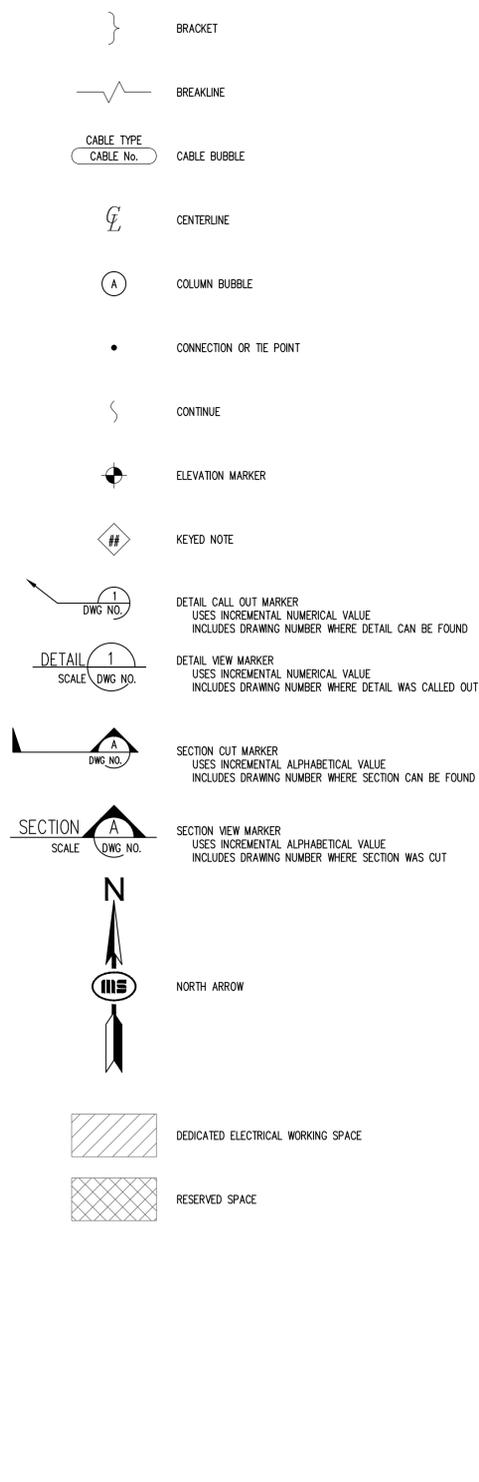
- ALL STRUCTURAL STEEL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION'S "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND THE "AISC CODE OF STANDARD PRACTICE."
- WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1, LATEST EDITION. WELDING ELECTRODES SHALL BE E70XX.
- ALL STRUCTURAL STEEL SHAPES AND PLATES SHALL CONFORM TO THE FOLLOWING:
3.1. W AND WT SHAPES: ASTM A992
3.2. SHAPES, CHANNEL, ANGLE & PLATE: ASTM A36
3.3. HOLLOW STRUCTURAL SECTIONS: ASTM A500, GRADE B
- BOLTED CONNECTIONS SHALL BE MADE WITH MINIMUM 3/4" DIAMETER ASTM A325N HIGH STRENGTH BOLTS.
- SHOP CONNECTIONS MAY BE WELDED OR BOLTED. FIELD CONNECTIONS SHALL BE BOLTED UNLESS NOTED OTHERWISE.
- THE DESIGN OF CONNECTIONS NOT SHOWN ON THE DRAWINGS SHALL BE BY THE FABRICATOR. IF BEAM REACTIONS ARE NOT SHOWN ON THE PLANS, THE CONNECTIONS SHALL BE DESIGNED FOR 50% OF THE TOTAL UNIFORM LOAD CAPACITY FOR THE MEMBER BASED ON ALLOWABLE STRESS DESIGN. IF AXIAL LOADS ARE NOT SHOWN ON THE PLANS FOR BRACING MEMBERS, THE END CONNECTIONS SHALL BE DESIGNED FOR 30% OF THE YIELD STRENGTH TIMES THE CROSS SECTIONAL AREA OF THE MEMBER. A MINIMUM OF 2 BOLTS SHALL BE USED FOR ANGLE MEMBERS AND 4 BOLTS SHALL BE USED FOR WT MEMBERS.
- ANGLES USED FOR CONNECTIONS SHALL BE A MINIMUM OF 3/8" THICK. MINIMUM GUSSET PLATE THICKNESS SHALL BE 3/8".
- ALL BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF 2 BOLTS PER CONNECTION. HOLES FOR BOLTED CONNECTIONS SHALL BE DRILLED OR PUNCHED. SLOTTED HOLES SHALL BE PROVIDED WITH SMOOTH EDGES. BURNING OF HOLES IN THE FIELD IS NOT PERMITTED.
- EXISTING STEEL SHALL BE CLEANED OF ALL PAINT, DIRT, GREASE, ETC. PRIOR TO WELDING ATTACHMENTS.
- WORK POINTS FOR VERTICAL BRACING SHALL INTERSECT AT THE CENTERLINES OF THE BEAMS AND COLUMNS UNLESS OTHERWISE NOTED.
- STEEL BEAMS AND COLUMNS SHALL BE CUT FROM FULL LENGTH STOCK. UNAUTHORIZED SPLICES WILL BE CAUSE FOR REJECTION.
- ALL STRUCTURAL STEEL SHALL BE PAINTED AS FOLLOWS, UNLESS OTHERWISE NOTED:
12.1. ALL STEEL SURFACES SHALL BE PREPARED BY MINIMUM POWER TOOL CLEANING IN ACCORDANCE WITH THE STEEL STRUCTURES PAINTING COUNCIL GUIDE SSPC-SP3
12.2. WITHIN 8 HOURS OF CLEANING, APPLY 1 COAT OF SHERWIN-WILLIAMS PRO-CRYL UNIVERSAL PRIMER TO ACHIEVE A DRY FILM THICKNESS OF 3.0 TO 4.0 MILS.
12.3. TOP COAT SHALL BE 1 COAT OF SHERWIN-WILLIAMS SPRAYLASTIC EXTERIOR WB DRYWALL ACRYLIC TO ACHIEVE A DRY FILM THICKNESS OF 5.0 MILS.
12.4. FIELD TOUCH UP ALL ABRASIONS, BURNS AND OTHER SIMILAR DEFECTS IN THE PAINT, PER MANUFACTURER'S REQUIREMENTS.
- FIELD PAINT ALL NEW AND EXISTING STRUCTURAL STEEL AT FIELD WELD LOCATIONS AND WHERE THE SHOP APPLIED COATING IS DAMAGED AS FOLLOWS:
13.1. ALL STEEL SURFACES SHALL BE PREPARED BY POWER TOOL CLEANING TO BARE METAL IN ACCORDANCE WITH THE STEEL STRUCTURES PAINTING COUNCIL GUIDE SSPC-SP11.
13.2. PRIMER COAT AND TOP COAT SHALL BE AS SPECIFIED ABOVE.
- GRATING SHALL BE GALVANIZED STEEL WITH 1 1/2" x 3/8" BEARING BARS SPACED AT 1 3/4" ON CENTER CONFORMING TO THE REQUIREMENTS OF THE METAL BAR GRATING DIVISION OF THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS. CROSS BARS SHALL BE WELDED AT RIGHT ANGLES TO THE BEARING BARS AT 4" ON CENTER. GRATING EDGES SHALL BE Banded. GALVANIZED GRATING SHALL NOT BE REQUIRED UNLESS SPECIFICALLY NOTED.
- HANDRAILS AND POSTS SHALL BE ASTM A53 TYPE E OR S, GRADE B, 1 1/2" NOMINAL PIPE SIZE. POSTS SHALL BE SCHEDULE 80 PIPE, HANDRAILS AND MIDRAILS SHALL BE SCHEDULE 40 PIPE. MAXIMUM POST SPACING SHALL BE 6'-0" ON CENTER UNLESS NOTED OTHERWISE AND SHALL BE COMPLETE WITH 1/4" x 4" HIGH TOE PLATE AT ALL PLATFORMS AND LANDINGS.
- ALL GROUT UNDER COLUMN BASE PLATES AND BEAM BEARING PLATES IF REQUIRED SHALL BE NON-SHRINK, NON-METALLIC, 7000 PSI MINIMUM COMPRESSIVE STRENGTH GROUT.
- THE CONTRACTOR SHALL SUBMIT THE FOLLOWING INFORMATION TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW:
17.1 SHOP DRAWINGS SHOWING LOCATIONS, DIMENSIONS AND ALL CONNECTION DETAILS FOR STRUCTURAL STEEL WORK.

NOT FOR CONSTRUCTION	B NO.	04/04/16	MKL	ISSUED FOR BIDS
	DATE	BY	DESCRIPTION	
	CURRENT REVISION			
	 1658 Malvern Ave. Hot Springs, Arkansas 71901 200 Mackenon Drive Cary, North Carolina 27511 70 Spring Street, Suite 3 Millinocket, Maine 04462 WWW.MSECO.COM			
ISSUED FOR BIDS	RECEIVING & STORAGE			
	OVERALL AREA			
	CIVIL SYMBOLS, NOTES & DETAILS			
	GENERAL NOTES			
BUREAU OF PARKS & LANDS				
RADAR ROAD ASHLAND				
STATE ME				
SCALE	DRN.	CB	02/24/2016	DRAWING NO.
N/A	RS	RS	02/24/2016	7073-2000-00-CV001
	APP.	RS	02/24/2016	

GENERAL NOTES

- ALL GENERAL NOTES, SYMBOL LISTS AND DETAILS SHALL BE CONSIDERED AS APPLICABLE TO ALL ELECTRICAL DRAWINGS FOR THIS PROJECT. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION IN THE DESIGN.
- ALL WORK SHALL BE PERFORMED ON THIS CONTRACT SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER AND SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF NFPA 70 NATIONAL ELECTRICAL CODE (NEC), OSHA AND ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES.
- THESE DRAWINGS ARE, IN GENERAL, MADE TO SCALE BUT ALL MEASUREMENTS SHALL BE TAKEN FROM FIGURED DIMENSIONS AND NOT FROM SCALING.
- THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER DISCIPLINES TO ENSURE THAT A PROPERLY TIMED EFFORT IS PROVIDED AS TO NOT AFFECT THE PROJECT SCHEDULE.
- THE LOCATION OF ALL PROCESS EQUIPMENT, MOTORS, VALVES, INSTRUMENTS, LIGHTING FIXTURES, WIRING DEVICES, ETC. SHOWN ON THE DRAWINGS ARE FOR DIAGRAMMATICAL PURPOSES ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL LOCATIONS AND DIMENSIONS PRIOR TO ACTUAL INSTALLATION WORK.
- ALL EQUIPMENT CONNECTIONS ARE SHOWN FOR BASIS-OF-DESIGN PRODUCTS. THE CONTRACTOR SHALL COORDINATE ALL EQUIPMENT CONNECTIONS - INCLUDING DISCONNECTING MEANS, OVERCURRENT PROTECTION, AND WIRE SIZING - WITH SELECTED MANUFACTURERS' RECOMMENDED INSTRUCTIONS, UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONDUIT, CABLE, TERMINATIONS AND APPURTENANCES ASSOCIATED WITH THE VENDOR PROVIDED EQUIPMENT NECESSARY FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM AS DESIGNED.
- THE CONTRACTOR SHALL PROVIDE ALL MOUNTING HARDWARE NECESSARY FOR A COMPLETE INSTALLATION. MOUNT EQUIPMENT AND ROUTE CONDUIT SO AS NOT TO INTERFERE WITH OPERATIONS SUCH AS OVERHEAD DOORS, DOOR SWINGS, PROCESS EQUIPMENT, ETC.
- ALL SLEEVES AND OTHER PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE SEALED AFTER CABLE INSTALLATION WITH AN APPROVED FIRE RATED COMPOUND.

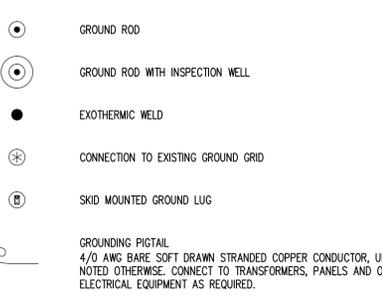
GENERAL SYMBOLS



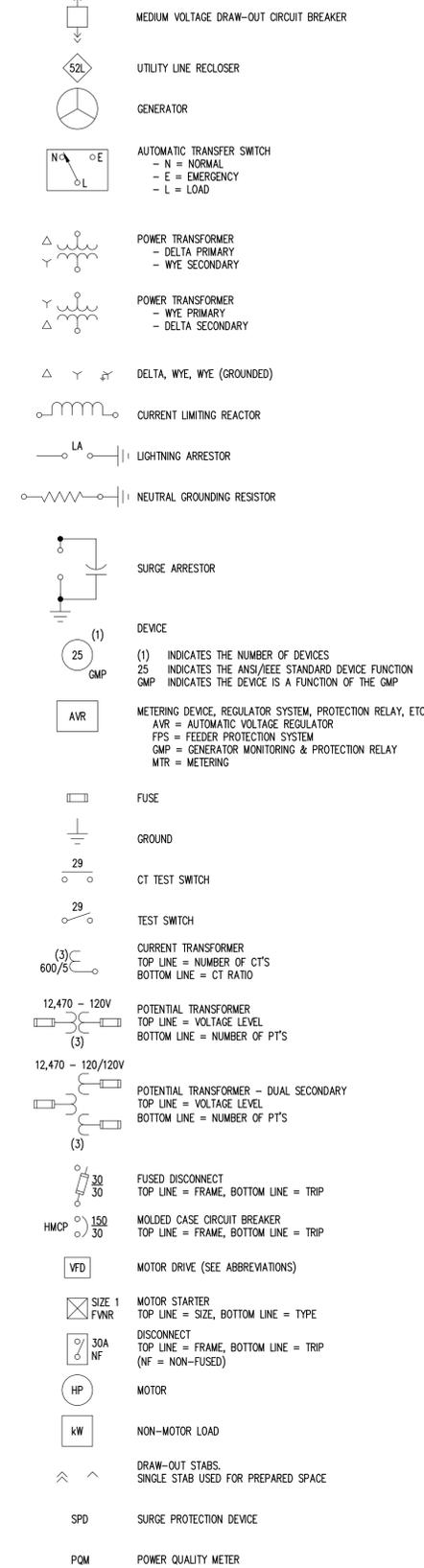
GENERAL NOTES FOR GROUNDING PLANS

- ALL GROUNDING SHOWN ON THE DRAWINGS IS DIAGRAMMATIC. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF GROUND RODS, BURIED GROUNDING CONDUCTORS AND ABOVE GRADE GROUNDING RISERS WITH THE OTHER TRADES. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF THE EQUIPMENT IN THE FIELD WITH THE OTHER TRADES TO PREVENT INTERFERENCES AND DAMAGE TO THE INSTALLATION.
- THE GROUNDING CONDUCTORS FOR ABOVE AND BELOW GRADE INSTALLATION SHALL BE ANNEALED, BARE, STRANDED COPPER WIRE CONFORMING TO ASTM SPECIFICATION B8, AS SHOWN ON THE DRAWINGS. THE ABOVE GRADE CONDUCTORS SHALL BE 4/0 AWG UNLESS NOTED OTHERWISE.
- THE GROUNDING CONDUCTORS FOR BELOW GRADE INSTALLATION SHALL HAVE A MINIMUM OF 1'-6" COVER BELOW FINISHED GRADE. THE BELOW GRADE GROUNDING CONDUCTORS SHALL NOT PENETRATE THE WALLS OR FLOOR OF CONTINENT AREAS. THE GROUNDING CONDUCTORS SHALL BE INSTALLED IN PVC CONDUIT WHERE CABLES PENETRATES FLOOR SLABS, FOUNDATIONS, EQUIPMENT SLABS, PAVING OR WHERE RUN LENGTHS EXCEED 3'-0" ABOVE GROUND. BARE COPPER CONDUCTORS SHALL BE RUN IN PVC CONDUIT WHERE WHERE INCASED IN CONCRETE.
- THE GROUND RODS SHALL BE 3/4" DIAMETER x 10' LONG COPPER CLAD STEEL. THE TOPS OF ALL GROUND RODS SHALL BE DRIVEN TO A DEPTH OF 1'-6" BELOW FINISHED GRADE.
- BOND THE WATER PIPING TO THE GROUND GRID PER THE REQUIREMENTS OF THE LATEST EDITION OF THE NEC. BOND TO A 20' PIECE OF REBAR WITHIN THE FOUNDATION PER THE NEC.
- ALL PARTS OF THE GROUNDING SYSTEM SHALL BE PROTECTED AGAINST MECHANICAL DAMAGE DURING THE CONSTRUCTION PERIOD.
- THE GROUNDING CONDUCTORS TO THE DISTRIBUTION PANELS AND TRANSFORMERS SHALL BE #6 BARE COPPER CONDUCTOR UNLESS NOTED OTHERWISE. INSTALL ONE GROUNDING CONDUCTOR FOR THE PANEL AND ONE FOR THE TRANSFORMER.
- THE GROUNDING CONDUCTORS TO THE VARIOUS CONTROL PANELS SHALL BE #6 BARE COPPER CONDUCTOR UNLESS NOTED OTHERWISE. RISERS FOR ISOLATED GROUNDS (IG) SHALL BE MADE WITH 4/0 AWG GREEN INSULATED STRANDED COPPER CONDUCTOR UNLESS NOTED OTHERWISE.
- A MINIMUM OF 15'-0" OF CABLE SHALL BE INSTALLED ABOVE FINISHED GRADE AT EACH PITTAIL OR EQUIPMENT LOCATION UNLESS NOTED OTHERWISE. THE CABLE SHALL BE CUT AT THE TIME OF CONNECTION.
- THE TIE-IN TO THE EXISTING GROUND GRID SHALL BE DONE IN SUCH A MANNER AS TO NOT DISTURB THE EXISTING GROUND GRID. THE CONTRACTOR SHALL REPAIR ANY EXISTING GROUNDING CONDUCTOR THAT IS BROKEN DURING CONSTRUCTION. BOND THE NEW WORK TO ANY EXISTING GROUNDING CONDUCTORS UNCOVERED DURING CONSTRUCTION.

GROUNDING SYMBOLS



ONE LINE SYMBOLS



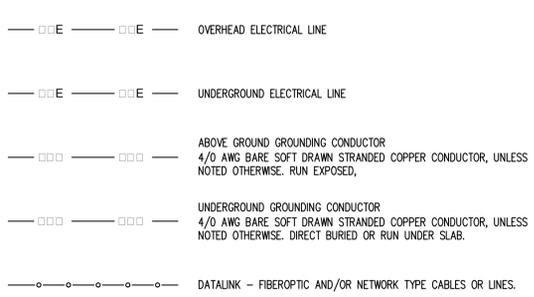
CONDUCTOR COLORS

B	BLACK	R/B	RED W/BLACK TRACE
R	RED	U/B	BLUE W/BLACK TRACE
U	BLUE	O/B	ORANGE W/BLACK TRACE
O	ORANGE	Y/B	YELLOW W/BLACK TRACE
Y	YELLOW	N/B	BROWN W/BLACK TRACE
N	BROWN	B/R	BLACK W/RED TRACE
DKG	DARK GRAY	U/R	BLUE W/RED TRACE
LTC	LIGHT GRAY	O/R	ORANGE W/RED TRACE
W	WHITE	Y/R	YELLOW W/RED TRACE
G	GREEN	N/R	BROWN W/RED TRACE

ABBREVIATIONS

3W	3-WIRE	L	LOAD
4W	4-WIRE	LA	LIGHTNING ARRESTER
A	AMPERE	LC	LIGHTING CONTACTOR
AC	ALTERNATING CURRENT	LF	LINEAR FEET
ACU	AIR CONDITIONING UNIT	LP	LIGHTING PANEL
AFF	ABOVE FINISHED FLOOR	LS	LIMIT SWITCH
AFG	ABOVE FINISHED GRADE	LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS GROUND
AHJ	AUTHORITY HAVING JURISDICTION	LTC	LIGHTING
AHP	ABOVE HIGH POINT (OF CONCRETE FLOOR)	MAX	MAXIMUM
AHU	AIR HANDLING UNIT	MC	METAL CLAD
AIC	AMPERE INTERRUPTING CAPACITY	MCB	MINOR CIRCUIT BREAKER
AMP	AMPERE	MCC	MOTOR CONTROL CENTER
ANN	ANNUNCIATOR	MCCB	MOLDED CASE CIRCUIT BREAKER
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	MD	MAIN DISCONNECT
ATS	AUTOMATIC TRANSFER SWITCH	MFR	MANUFACTURER
AVR	AUTOMATIC VOLTAGE REGULATOR	MH	MAN HOLE
AWG	AMERICAN WIRE GAUGE	MI	MINERAL INSULATED
BFG	BELOW FINISHED GRADE	MIN	MINIMUM
BLDG	BUILDING	MLO	MAIN LUG ONLY
BSF	BOTTOM OF FIXTURE	MO	MECHANICALLY OPERATED
BOS	BOTTOM OF STEEL	MOV	MOTOR OPERATED VALVE
BOT	BOTTOM OF TRAY	MRCT	MULTI-RATIO CURRENT TRANSFORMER
C	CONDUIT	MTD	MOUNTED
C&C	CONDUIT AND CABLE	MTR	METERING
CATV	CABLE TELEVISION	MTR	MOTOR
CB	CIRCUIT BREAKER	MTS	MANUAL TRANSFER SWITCH
CCTV	CLOSED CIRCUIT TELEVISION	MV	MEDIUM VOLTAGE
CL	CENTERLINE	N	NEUTRAL OR NORMAL
CLF	CURRENT LIMITING FUSE	NA	NOT APPLICABLE
CLG	CEILING	NC	NORMALLY CLOSED
CLR	CURRENT LIMITING REACTOR	NEC	NATIONAL ELECTRICAL CODE (NFPA-70)
CLX	METAL CLAD ARMORED CABLE	NEG	NEGATIVE
CMD	COMMAND	NEUT	NEUTRAL
CONT	CONTACTOR OR CONTINUED	NF	NON-FUSED
CP	CONTROL PANEL	NIC	NOT IN CONTRACT
CPT	CONTROL POWER TRANSFORMER	NO	NORMALLY OPEN
CT	CURRENT TRANSFORMER	No.	NUMBER
CU	CONDENSING UNIT OR COPPER	NOT	NOT TO SCALE
CUH	CABINET UNIT HEATER	OC	ON CENTER
CWP	CONDENSER WATER PUMP	OCB	OVERCURRENT DEVICE
DACT	DIGITAL ALARM COMMUNICATOR TRANSMITTER	OL	OVERLOAD
DB	DIRECT BURIED OR DIRECT BURIAL (CABLE)	PB	PULL BOX OR PUSHBUTTON
DC	DIRECT CURRENT	PC	PHOTOCELL
DCS	DISTRIBUTED CONTROL SYSTEM	PD	POWER DISTRIBUTION PANEL
DIA	DIAMETER	PE	PHOTOELECTRIC
DISC	DISCONNECT	PF	POWER FACTOR
DN	DOWN	PH	PHASE
DPM	DIGITAL POWER MONITOR	PLC	PROGRAMMABLE LOGIC CONTROLLER
DT	DUST TIGHT	PNL	PANEL
DWG	DRAWING	PP	POWER PANEL
E	EMERGENCY	PR	PAIR
EF	EXHAUST FAN	PRI	PRIMARY
EL	ELEVATION	PT	POTENTIAL TRANSFORMER
EMT	ELECTRICAL METALLIC TUBING	PVC	POLYVINYL CHLORIDE
EP	ELECTRICALLY OPERATED	QD	QUAD
EQ	EMERGENCY PANEL OR EXPLOSION PROOF	RAC	RIGID ALUMINUM CONDUIT
EOP	EQUIPMENT	RCP	RECEPTACLE
ES	EMERGENCY STOP	REF	REFERENCE
EUH	ELECTRIC UNIT HEATER	REG	REGULATOR
EWC	ELECTRIC WATER COOLER	REL	RELOCATED
EWH	ELECTRIC WATER HEATER	REQ'D	REQUIRED
EX	EXISTING	RES	RESISTOR
EXIST	EXISTING	RGC	RIGID GALVANIZED CONDUIT
FAA	FIRE ALARM ANNUNCIATOR	RM	ROOM
FAFP	FIRE ALARM CONTROL PANEL	RSC	RIGID STEEL CONDUIT
FBO	FURNISHED BY OTHERS	RTD	RESISTANCE TEMPERATURE DETECTOR
FLA	FULL LOAD AMPS	RTU	REMOTE TERMINAL UNIT
FLR	FLOOR	RVSS	REDUCED VOLTAGE SOFT STARTER
FO	FIBER OPTIC	SA	SURGE ARRESTOR
FPS	FEEDER PROTECTION SYSTEM	SCR	SELECTIVE CATALYTIC REDUCTION
FVNR	FULL VOLTAGE NON-REVERSING	SEC	SECONDARY
FVR	FULL VOLTAGE REVERSING	SHLD	SHIELD
FWE	FURNISHED WITH EQUIPMENT	SHT	SHEET
FU	FUSE	SN	SOLID NEUTRAL
G	GROUND	SOV	SOLENOID ACTIVATED VALVE
GA	GENERAL ARRANGEMENT	SPARE	SPARE
GEC	GROUNDING ELECTRODE CONDUCTOR	SPD	SURGE PROTECTION DEVICE
GEN	GENERATOR	SS	SELECTOR SWITCH
GFCI	GROUND FAULT CIRCUIT INTERRUPT	STP	SHIELDED TWISTED PAIR
GMP	GENERATOR MONITORING & PROTECTION RELAY	STT	SHIELDED TWISTED TRIPLET
GND	GROUND	SWBD	SWITCHBOARD
HH	HAND HOLE	SWGR	SWITCHGEAR
HMCP	HIGH INTERRUPTING MOTOR CIRCUIT PROTECTOR	SWYD	SWITCHYARD
HMI	HUMAN MODULE INTERFACE	TB	TERMINAL BLOCK
HOA	HAND-OFF-AUTO	TC	TRAY CABLE
HP	HORSEPOWER	TKX	THERMOCOUPLE CABLE, K = TYPE
HPU	HYDRAULIC POWER UNIT	TOC	TOP OF CONCRETE
HPCP	HEAT TRACE CONTROL PANEL	TOS	TOP OF SLAB OT TOP OF STEEL
HTP	HEAT TRACE PANEL	TR	TRIAD
HTR	HEATER	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
HZ	HERTZ	TYP	TYPICAL
I&C	INSTRUMENTATION AND CONTROL	UH	UNIT HEATER
IAC	INTERLOCKED ARMOR CABLE	UNO	UNLESS NOTED OTHERWISE
ID	IDENTIFICATION	UPS	UNINTERRUPTIBLE POWER SUPPLY
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS	V	VOLT
IG	ISOLATED GROUND	VA	VOLT-AMPERE
IL	INDICATING LIGHT	VAC	VOLTS ALTERNATING CURRENT
IMC	INTERMEDIATE METAL CONDUIT	VAR	VOLT-AMPERE REACTIVE
INTLK	INTERLOCK	VDC	VOLTS DIRECT CURRENT
JB	JUNCTION BOX	VFD	VARIABLE FREQUENCY DRIVE
k	KILO (ONE THOUSAND)	VP	VAPOR PROOF
KAIC	KILOAMP INTERRUPTING CAPACITY	VR	VOLTAGE REGULATOR
KOML	THOUSAND CIRCULAR MILS	W	WATTS
KV	KILOVOLT	WM	WATT METER
KVA	KILOVOLT-AMPERE	WP	WEATHER PROOF
KVAR	KILOVOLT-AMPERE REACTIVE	WR	WELDING RECEPTACLE
KW	KILOWATT	WT	WATERTIGHT (SUBMERSIBLE)
KWH	KILOWATT-HOUR	W/	WITH
		XDCR	TRANSUDER
		XFMR	TRANSFORMER
		XP	EXPLOSION PROOF

ELECTRICAL LINETYPES



<p>NOT FOR CONSTRUCTION</p> <p>ISSUED FOR BIDS</p>	<p>B 04/04/16 GAG ISSUED FOR BIDS</p> <p>NO. DATE BY DESCRIPTION</p>
	<p style="text-align: center;">CURRENT REVISION</p> <p style="text-align: center;">1658 Malvern Ave. Hot Springs, Arkansas 71901 200 Mackenon Drive Cary, North Carolina 27511 70 Spring Street, Suite 3 Millinocket, Maine 04462</p> <p style="text-align: center;">WWW.MSECO.COM</p>
	<p>RECEIVING & STORAGE OVERALL AREA ELECTRICAL, SYMBOLS, NOTES & DETAILS LEGEND & GENERAL NOTES</p>
	<p>STATE OF MAINE BUREAU OF PARKS & LANDS STATE RADAR ROAD ASHLAND ME</p>
<p>SCALE 3/8" = 1' - 0"</p> <p>DRN. GAG 03/01/16 CHK. JSB 03/01/16 APP. JSB 03/03/16</p> <p>DRAWING NO. 7073-2000-00-EL 001</p>	

GENERAL NOTES FOR LIGHTING PLANS

1. THE MINIMUM SIZE LIGHTING AND POWER WIRING SHALL BE #12 AWG.
2. ALL INTERIOR DISTRIBUTION AND BRANCH WIRING SHALL BE 600V, COPPER WITH THHN/THWN INSULATION. ALL EXTERIOR DISTRIBUTION AND BRANCH WIRING SHALL BE 600V, COPPER WITH XHHW INSULATION.
3. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH EVERY FEEDER AND BRANCH CIRCUIT.
4. ALL LIGHTING TOGGLE SWITCHES SHALL BE COMMERCIAL SPECIFICATION GRADE 277/120V, SIDE WIRED AND PROVIDED WITH GROUNDING SCREW, LEVITON, PASS AND SEYMOUR OR APPROVED EQUAL.
5. ALL CONVENIENCE RECEPTACLES SHALL BE INDUSTRIAL GRADE GROUNDING TYPE NEMA 5-20R, SIDE WIRED, LEVITON, PASS AND SEYMOUR OR APPROVED EQUAL. ALL CONVENIENCE RECEPTACLES TO BE INSTALLED ON THE PLANT FLOOR, IN ELECTRICAL ROOMS OR IN/ON AUXILIARY BUILDINGS ON THE SITE SHALL BE GFCI PROTECTED.
6. ALL CONVENIENCE RECEPTACLES SHALL BE MOUNTED 18" AFF, ALL LAVATORY GFCI RECEPTACLES SHALL BE MOUNTED AT 48" AFF, ALL LIGHTING TOGGLE SWITCHES SHALL BE MOUNTED AT 48" AFF AND ALL TEL/DATA SYSTEM OUTLETS SHALL BE MOUNTED AT 18" AFF, UNLESS NOTED OTHERWISE.
7. COORDINATE THE COLOR OF ALL WIRING DEVICES WITH THE OWNER. PROVIDE MATCHING WALL PLATES FOR ALL WIRING DEVICES IN FINISHED AREAS. PROVIDE STAINLESS STEEL WALL PLATES FOR ALL WIRING DEVICES IN UNFINISHED AREAS.
8. THE MOUNTING HEIGHTS INDICATED FOR ALL LIGHTING FIXTURES SHALL BE TO THE BOTTOM OF FIXTURE (BOF) UNLESS NOTED OTHERWISE. ACTUAL LIGHTING FIXTURE LOCATIONS AND MOUNTING HEIGHTS MAY BE ADJUSTED IN THE FIELD TO AVOID PIPING, HANGERS AND OTHER ARCHITECTURAL APPURTENANCES.

GENERAL NOTES FOR POWER PLANS

1. THE MINIMUM SIZE POWER WIRING SHALL BE #12 AWG.
2. ALL CABLES SHOWN ON THE ELECTRICAL DRAWINGS SHALL BE TYPE TC (TRAY CABLE) UNLESS NOTED OTHERWISE.
3. ALL CABLES SHALL BE SUPPORTED BY CABLE TRAY, CONDUIT OR A COMBINATION OF RACEWAYS.
4. ALL CABLES SHALL BE SUPPORTED BY CONDUIT FOR THEIR ENTIRE LENGTH, FROM THE CABLE TRAY TO THE MOTOR OR FIELD DEVICE. CONDUIT MAY BE USED AS A RACEWAY FOR ANY SINGLE CONDUCTORS OR MULTICONDUCTOR CABLE.
5. ALL INTERIOR AND EXTERIOR CONDUIT SHALL BE RIGID GALVANIZED STEEL, EXCEPT FOR FLEXIBLE MOTOR CONNECTIONS. THE MINIMUM SIZE CONDUIT SHALL BE 3/4".
6. ALL FLEXIBLE CONNECTIONS TO MOTORS SHALL BE LIQUID TIGHT FLEXIBLE METAL CONDUIT UNLESS NOTED OTHERWISE.
7. ALL SPARE CONDUITS SHALL BE CAPPED 12" MINIMUM AFF OR AFG. ALL SPARE CONDUITS SHALL BE PROVIDED WITH A FISH WIRE.
8. ALL MOTOR SAFETY SWITCHES, DISCONNECTS AND MOTOR STARTERS SHALL BE PROVIDED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.
9. ALL PENETRATIONS THROUGH FLOORS, RATED WALLS AND PARTITIONS SHALL BE SEALED WITH UL APPROVED FIRE SEALANT MATERIAL TO MAINTAIN THE RATING OF SEPARATION. FLOOR PENETRATIONS FOR CABLE TRAYS OR CONDUITS SHALL HAVE CURBING OR GROUDED STAINLESS STEEL PIPE SLEEVES TO PREVENT THE FLOW OF LIQUIDS.
10. THE CONTRACTOR SHALL PROVIDE CONCRETE HOUSEKEEPING PADS FOR ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT INSTALLED. THE HOUSEKEEPING PADS SHALL HAVE A MINIMUM OF A 4" THICK PAD EXTENDING 2" BEYOND THE EXPOSED EDGE OF THE EQUIPMENT AND SHALL INCLUDE A 2" CHAMFERED CORNER.

GENERAL NOTES FOR I&C PLANS

1. THE MINIMUM SIZE CONTROL WIRING SHALL BE #14 AWG.
2. THE MINIMUM SIZE SHIELDED CABLE SHALL BE 2 PAIR #18 AWG.
3. THE WIRING FOR THE FOLLOWING CATEGORIES SHALL INSTALLED IN SEPARATE RACEWAYS AND SHALL NOT BE COMBINED IN A SINGLE CONDUIT.
 - 3.1. 120VAC POWER WIRING
 - 3.2. 120VAC CONTROL AND DISCRETE SIGNAL WIRING
 - 3.3. 24VDC CONTROL AND DISCRETE SIGNAL WIRING
 - 3.4. 4-20mADC ANALOG SIGNAL WIRING
4. PROVIDE ALL NECESSARY CONDUIT AND CABLES BETWEEN THE CONTROL PANELS AND FIELD INSTRUMENTS AS REQUIRED BY EQUIPMENT VENDORS AND AS INDICATED ON THE DRAWINGS. WHERE DISCREPANCIES ARE FOUND, THE STRICTER OF THE TWO SHALL GOVERN.

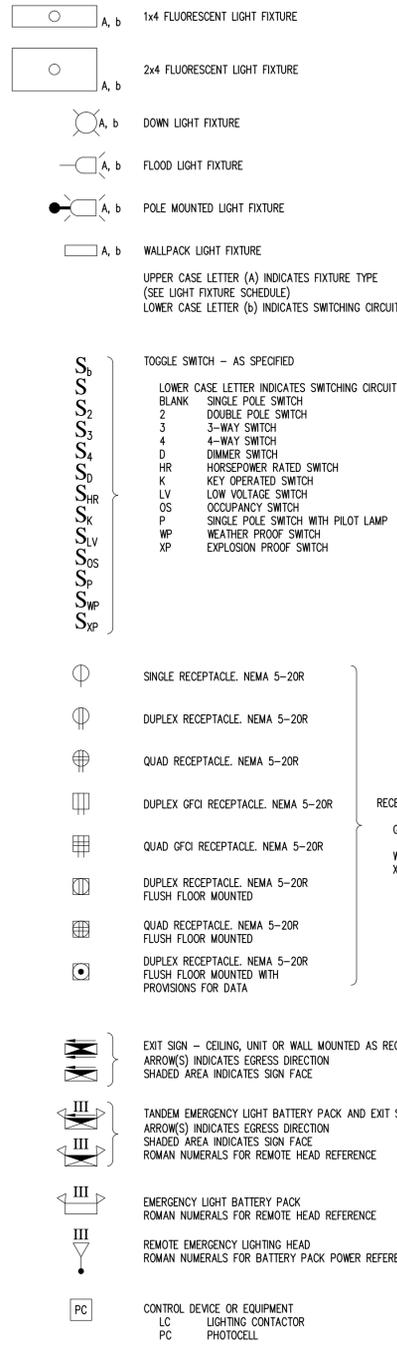
GENERAL NOTES FOR DEMOLITION PLANS

1. REMOVE ALL ELECTRICAL EQUIPMENT COMPLETELY WHERE INDICATED. REMOVE ALL CIRCUIT CONDUCTORS, SWITCHES, LIGHTING FIXTURES AND MISCELLANEOUS APPLIANCES BACK TO ENERGIZING SOURCE OR JUNCTION BOX WHERE MULTIPLE EQUIPMENT IS POWERED.

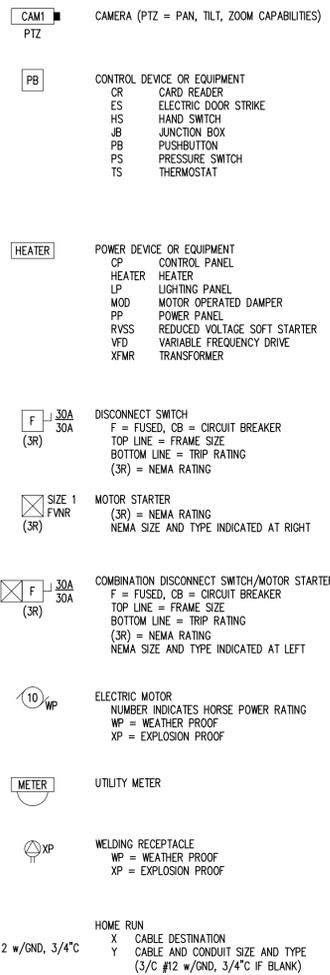
GENERAL NOTES FOR LIGHTNING PROTECTION PLANS

1. THE COMPLETED INSTALLATION SHALL MEET THE "INSTALLATION REQUIREMENTS FOR LIGHTNING PROTECTION SYSTEMS, UL96A" OF UNDERWRITERS LABORATORIES - CURRENT EDITION. A CERTIFICATE OF COMPLETION FROM AN AUTHORITY HAVING JURISDICTION SHALL BE FURNISHED TO THE OWNER UPON COMPLETION.
2. ALUMINUM LIGHTNING PROTECTION SYSTEM COMPONENTS SHALL NOT BE MOUNTED TO COPPER SURFACES. COPPER COMPONENTS SHALL BE USED TO AVOID ELECTROLYTIC CORROSION.
3. METAL BODIES WITHIN 6'-0" OF THE LIGHTNING PROTECTION SYSTEM SHALL BE BONDED TO THE SYSTEM IN ACCORDANCE WITH UL96A.
4. UNDERGROUND METALLIC PIPING ENTERING THE BUILDING SHALL BE BONDED TO THE NEAREST DOWN CONDUCTOR OR GROUND ELECTRODE.
5. ADHESIVE USED WITH ADHESIVE AIR TERMINAL BASES AND CONDUCTOR FASTENERS SHALL BE COMPATIBLE WITH ROOFING MEMBRANE - VERIFY WITH ROOFING CONTRACTOR.
6. AIR TERMINALS HAVE BEEN LOCATED ON THE ROOF TOP EQUIPMENT AS REQUIRED. IF THE METAL THICKNESS OF AN OBJECT IS 3/16" OR GREATER, AIR TERMINALS MAY BE ELIMINATED IF THE OBJECT IS PROPERLY CONNECTED TO THE SYSTEM.
7. ROOF TOP EQUIPMENT NOT SHOWN ON THIS DRAWING SHALL BE PROTECTED AS REQUIRED TO MEET THE REQUIREMENTS LISTED ABOVE INCLUDING THE INSTALLATION OF AIR TERMINALS AND OR BONDING. IF THE METAL THICKNESS OF AN OBJECT IS 3/16" OR GREATER, AIR TERMINALS MAY BE ELIMINATED IF THE OBJECT IS PROPERLY CONNECTED TO THE SYSTEM.
8. AIR TERMINALS ARE TO BE LOCATED AS SHOWN. THEY ARE TO BE A MAXIMUM OF 24" FROM THE ROOF EDGE AND PROJECT A MINIMUM OF 10" ABOVE THE PROTECTED EDGE. THE SPACING BETWEEN AIR TERMINALS ARE NOT TO EXCEED 20 FEET. AIR TERMINALS THAT EXTEND 24" OR ABOVE THE PROTECTED EDGE ARE NOT TO EXCEED A SPACING GREATER THAN 25', EXCEPT FOR MID-ROOF AIR TERMINALS (50' MAX SPACING).
9. ALL LIGHTING CONDUCTORS ARE TO MAINTAIN A HORIZONTAL OR DOWNWARD PATH. ALL BENDS IN THE CONDUCTOR SHALL HAVE A RADIUS BEND OF 8 INCHES OR GREATER, AND SHALL HAVE AN ANGLE BEND OF 90 DEGREES OR GREATER.
10. EACH INDIVIDUAL ITEM OF THE LIGHTING PROTECTION SYSTEM IS NOT LABELED FOR THE SAKE OF CLARITY. ITEMS ARE INDICATED AT RANDOM LOCATIONS ONLY, BUT A COMPLETE SYSTEM SHALL BE PROVIDED TO MEET MASTER LABEL REQUIREMENTS.
11. ROOF PADS, PAVERS, FLASHINGS OR ANY OTHER SPECIAL ROOFING MATERIALS REQUIRED FOR THE INSTALLATION OF THE LIGHTNING PROTECTION SYSTEM SHALL BE FURNISHED AND INSTALLED BY THE ROOFING CONTRACTOR.

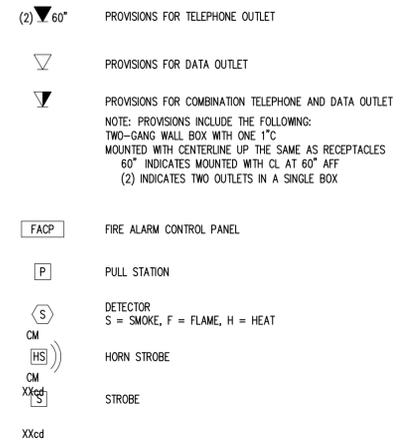
LIGHTING SYMBOLS



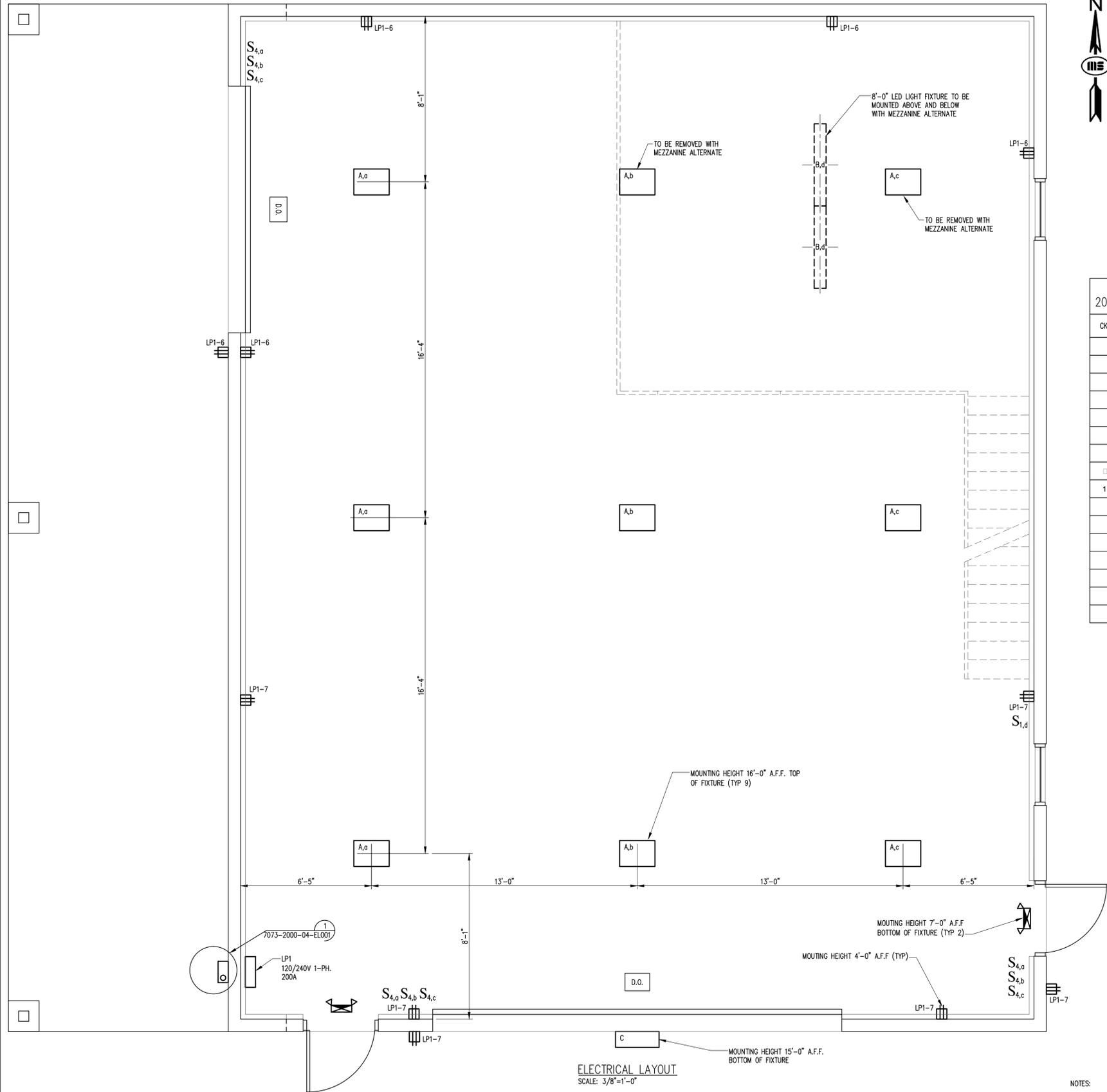
POWER SYMBOLS



COMMUNICATIONS & FIRE ALARM SYMBOLS



NOT FOR CONSTRUCTION	B	04/04/16	GAG	ISSUED FOR BIDS
	NO.	DATE	BY	DESCRIPTION
	CURRENT REVISION			
	 1658 Malvern Ave. Hot Springs, Arkansas 71901 200 Mackenon Drive Cary, North Carolina 27511 70 Spring Street, Suite 3 Millinocket, Maine 04462 WWW.MSECO.COM			
ISSUED FOR BIDS	RECEIVING & STORAGE OVERALL AREA ELECTRICAL, SYMBOLS, NOTES & DETAILS LEGEND & GENERAL NOTES			
	STATE OF MAINE BUREAU OF PARKS & LANDS			
	RADAR ROAD ASHLAND ME			
	SCALE	DRN.	GAG	03/01/16
3/8" = 1' - 0"	CHK.	JB	03/01/16	7073-2000-00-EL 002
	APP.	JB	03/03/16	



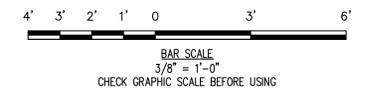
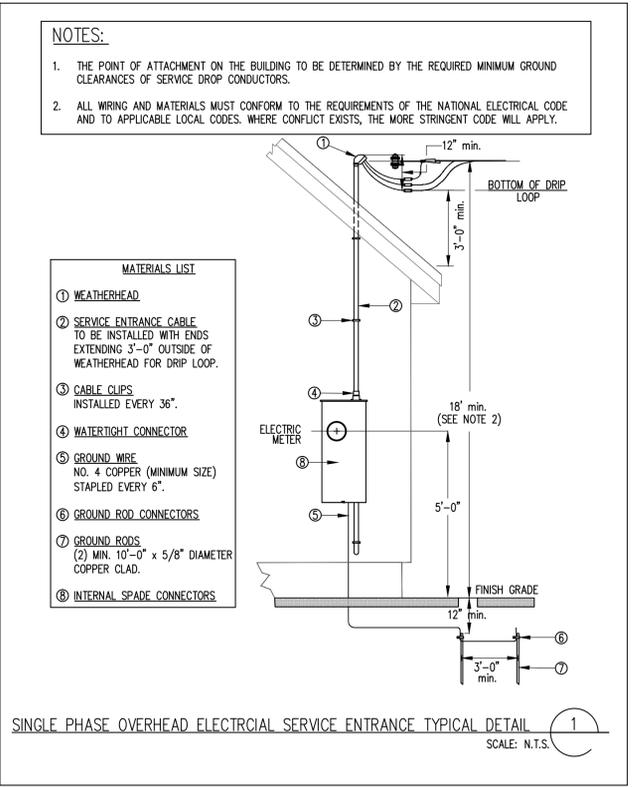
ELECTRICAL LAYOUT
SCALE: 3/8"=1'-0"

NOTES:
1. SEE DRAWING# 7073-2000-00-EL001 AND 7073-2000-00-EL002 FOR ELECTRICAL SYMBOLS, DETAILS, LEGEND AND GENERAL NOTES.

LIGHTING SCHEDULE					
FIXTURE TYPE	QTY	SYMBOL	DESCRIPTION	REF. MODEL No.	REMARKS
A	9		RAB RAIL95W, LED, EXTRUDED METAL HOUSING W/ HEAT SINK FINS, 256 LAMPS, 95W, 12K LUMEN LED HIGHBAY, 120V-277V	RAB RAILP95W OR EQUAL	
B	4		GE LUMINATION, DS SERIES LED LUMINAIR, 3K COOR RATING, 850 LM/FT, WHITE FIXTURE, 120V-277V	GE LUMINATION DS SERIES DS-X-04-0-B1-M-V-WHT-85-BC OR EQUAL	
	9	S ₄	FOUR POLE SWITCH, 20 AMP		
	1	S ₁	SINGLE POLE SWITCH, 20 AMP		
	2		ILLUMINATED LED EXIT SIGN WITH EMERGENCY LIGHTS BATTERY BACKUP	DUAL LIGHT HCKURW-03L OR EQUAL	
C	1		LED EXTERIOR WALL PACK LIGHT, WITH MOTION SENSOR	RAB WFLD2T50/D10/WS2 OR EQUAL	

LP1 PANEL SCHEDULE			
200 AMP MCB, 120/240V, 1 PHASE, 3 WIRE, 60 HERTZ			
CKT. NO.	NO. POLES	RATING	DESCRIPTION
1	1	.0	L00-000 L00000
0	1	.0	00000E L0000
0	1	.0	E0000000
0	1	.0	0VE00000 0000-00000
0	1	.0	0VE000E0 00000 E00
6	1	.0	0E00000LE0-00000 000E
0	1	.0	0E00000LE0-00000 000E
0010	0	.0	00000E
11010	0	.0	00000E
9	1	.0	ME00000E L000000
10	1	.0	00000E
10	1	.0	00000E
10	1	.0	00000E
16	1	.0	00000E
10	1	.0	00000E
10	1	.0	00000E

LEGEND	
	ILLUMINATED LED EXIT SIGN WITH EMERGENCY BATTERY BACKUP LIGHTS
S ₁	SINGLE POLE LIGHTING SWITCH
S ₄	FOUR POLE LIGHTING SWITCH
	DUPLEX RECEPTACLE, GFCI
D.O.	OVERHEAD GARAGE DOOR OPENER



NOT FOR CONSTRUCTION

ISSUED FOR BIDS

B	04/04/16	GAG	ISSUED FOR BIDS
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CURRENT REVISION			
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RECEIVING & STORAGE OVERALL AREA ELECTRICAL, GENERAL ARRANGEMENT ELECTRICAL LAYOUT			
STATE OF MAINE BUREAU OF PARKS & LANDS RADAR ROAD ASHLAND			
SCALE	DRN.	GAG	03/01/16
3/8" = 1' - 0"	OKD.	JB	03/01/16
	APP.	JB	03/03/16
			DRAWING NO. 7073-2000-04-EL 001