



A R C H I T E C T U R E

T M P A R C H I T E C T U R E I N C  
1191 WEST SQUARE LAKE ROAD · BLOOMFIELD HILLS · MICHIGAN · 48302  
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# BINGHAM FARMS ELEMENTARY SCHOOL REMODELING

## BIRMINGHAM PUBLIC SCHOOLS

BINGHAM FARMS, MI 48025  
PROJECT NUMBER 15098  
BIDS

|  |                                     |   |  |  |  |  |  |
|--|-------------------------------------|---|--|--|--|--|--|
| <p>CONSULTANTS:</p> <p>MECHANICAL ENGINEER</p> <p><b>BERBIGLIA ASSOCIATES</b><br/><b>CONSULTING ENGINEERS</b><br/>36400 WEST 12 MILE ROAD<br/>FARMINGTON HILLS, MICHIGAN 48331<br/>PHONE: (248) 489-3161<br/>FAX: (248) 489-3161</p> <p>ELECTRICAL ENGINEER</p> <p><b>BERBIGLIA ASSOCIATES</b><br/><b>CONSULTING ENGINEERS</b><br/>36400 WEST 12 MILE ROAD<br/>FARMINGTON HILLS, MICHIGAN 48331<br/>PHONE: (248) 489-3161<br/>FAX: (248) 489-3161</p>  | <p>CONSULTANT</p> <p>CONSULTANT</p> | <p>LIST OF DRAWINGS</p> <p>GENERAL INFORMATION .....</p> <p>TS.1 COVER SHEET<br/>TG.1 GENERAL INFORMATION</p> | <p>ARCHITECTURAL .....</p> <p>AC1.1 COMPOSITE FLOOR PLAN</p> <p>AD1.1 DOOR AND FRAME SCHEDULE</p> <p>AD.1B FIRST LEVEL DEMOLITION PLAN - ZONE "B"<br/>AD.2B CLERESTORY DEMOLITION PLAN - ZONE "B"</p> <p>A1.1B FIRST LEVEL FLOOR PLAN - ZONE "B"<br/>A1.2B CLERESTORY LEVEL FLOOR PLAN - ZONE "B"</p> <p>A2.1B FIRST LEVEL REFLECTED CEILING PLAN - ZONE "B"</p> <p>AS.1 PLAN DETAILS</p> <p>AT.1 INTERIOR ELEVATIONS</p> <p>AB.1B FIRST LEVEL CASEWORK PLAN - ZONE "B"</p> <p>A10.1B FIRST LEVEL FINISH PLAN - ZONE "B"</p> | <p>ELECTRICAL .....</p> <p>EC1.1 FIRST LEVEL ELECTRICAL COMPOSITE PLAN, SHEET INDEX, SYMBOL LIST AND LIGHTING FIXTURE SCHEDULE</p> <p>EO.1A FIRST LEVEL ELECTRICAL DEMOLITION PLAN - ZONE "A"</p> <p>E1.1A FIRST LEVEL LIGHTING PLAN - ZONE "A"</p> <p>E2.1A FIRST LEVEL POWER AND SYSTEMS PLAN - ZONE "A"</p> <p>ES.1 MISCELLANEOUS DETAILS AND WIRING DIAGRAMS</p> <p>ES.2 MISCELLANEOUS DETAILS AND WIRING DIAGRAMS</p> |  | <p>PROJECT DATA:</p> <p>LOCATION MAP</p> <p>BINGHAM FARMS, MI NO SCALE</p>   | <p>BUILDING: .....</p> <p>BUILDING AREA(S) = 56,240 SQ. FT. (EXISTING)<br/>4,660 SQ. FT. (EXISTING ALTERED)</p> <p>CODE: .....</p> <p>GOVERNING CODES :<br/>- 1999 SCHOOL FIRE SAFETY RULES<br/>(1997 Life Safety Code, plus amendments and policy letters)<br/>- 2012 MICHIGAN BUILDING CODE<br/>- 2012 MICHIGAN PLUMBING CODE<br/>- 2012 MICHIGAN MECHANICAL CODE<br/>- 2008 MICHIGAN UNIFORM ENERGY CODE<br/>(ANSI/ASHRAE/ESNA Standard 90.1-2007)<br/>- 2014 MICHIGAN ELECTRICAL RULES (2014 NEC, plus Part 8 Rules)<br/>- 2010 MICHIGAN ELEVATOR RULES<br/>(ASME A17.1-2010, ASME A18.1-2011)<br/>- MICHIGAN BARRIER FREE CODE<br/>(Michigan Building Code 2012 and ICC A117.1-2009)<br/>- 2013 MICHIGAN BOILER CODE RULES<br/>(ASME Boiler and Pressure Vessel Code, 2010 edition, plus 2011a addenda)<br/>(National Board Inspection Code [NBIC], 2011 edition)</p> <p>CONSTRUCTION CLASSIFICATION :<br/>H.F.P.A. II(000)<br/>M.B.C. II B</p> <p>USE GROUP CLASSIFICATION:<br/>E (EDUCATION)</p> <p>.....<br/>.....<br/>.....<br/>02-15-2016 BP NO. 1 - BIDS<br/>DATE ISSUED FOR:</p> |
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|          |                             |
|----------|-----------------------------|
| NAT.     | NATURAL                     |
| N.S.     | NEAR SIDE                   |
| NEUT.    | NEUTRAL                     |
| NRC      | NOISE REDUCTION COEFFICIENT |
| NOM.     | NOMINAL                     |
| NOR.     | NORMAL                      |
| N        | NORTH                       |
| NOS.     | NOSING                      |
| N.I.C.   | NOT-IN-CONTRACT             |
| N.T.S.   | NOT-TO-SCALE                |
| NO. or # | NUMBER                      |

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|          |                             |
|----------|-----------------------------|
| NAT.     | NATURAL                     |
| N.S.     | NEAR SIDE                   |
| NEUT.    | NEUTRAL                     |
| NRC      | NOISE REDUCTION COEFFICIENT |
| NOM.     | NOMINAL                     |
| NOR.     | NORMAL                      |
| N        | NORTH                       |
| NOS.     | NOSING                      |
| N.I.C.   | NOT-IN-CONTRACT             |
| N.T.S.   | NOT-TO-SCALE                |
| NO. or # | NUMBER                      |

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|         |                     |
|---------|---------------------|
| INCAND. | INCANDESCENT        |
| INCH.   | INCH                |
| INCL.   | INCLINER            |
| INFL.   | INCLUDE INCLUDING   |
| I.F.O.  | INDIRECT WASTE      |
| I.D.    | INFORMATION         |
| I.D.    | INSIDE DIAMETER     |
| INS.    | INSIDE              |
| INST'L. | INSIDE INSTALLATION |
| INSUL.  | INSULATION          |
| INT.    | INTER               |
| INTER.  | INTERMEDIATE        |
| INT'L.  | INVERT              |
| I.E.    | INVERT ELEVATION    |

|          |                |
|----------|----------------|
| <b>J</b> |                |
| J.C.     | JANITOR CLOSET |
| J.T.     | JOINT          |
| JST      | JOIST          |
| J.B.     | JUNCTION BOX   |
| J.R.     | JUNIOR         |

|          |                 |
|----------|-----------------|
| <b>K</b> |                 |
| K.P.     | KICK PLATE      |
| K.L.     | KILOWATT        |
| KVA      | KILOVOLT AMPERE |
| KW       | KILOWATT        |
| KIP      | KIP (1000)      |
| K. RT.   | KNOT            |
| K.S.     | KNEE SPACE      |
| K. S.    | KNOCK DOWN      |
| K.O.P.   | KNOCK-OUT PANEL |

|          |       |
|----------|-------|
| <b>L</b> |       |
| L.B.     | LABEL |

LOG  
LOG LANDING  
LOGS AND/OR DRAWING-NONE  
LARGE  
LDRY LAUNDRY  
LDRY LAUNDRY  
L.W. LEFT HAND  
L.W.B. LEFT HAND REVERSE BEVEL  
L.W. LEFT HAND  
LUB LUBRICANT  
LVL LEVEL  
LVL LEVEL  
LVL LITERARY  
LVL LIGHT  
LPR LIGHTPROOF  
LPR LIGHTPROOF  
L.P. LIGHTING PANEL  
L.P. LIGHTING RECEPTACLE PANEL  
LMS LIGHTWEIGHT  
LMS LIGHTWEIGHT CONCRETE  
LMS LIMESTONE  
LMS LIME  
LIN, DIFF. LINEAR DIFFUSER  
LJ LINEAR FEET/SQ  
LJO LINEAR FEET/FOOT  
LJO LINEAR FEET/FOOT  
LJO LINEAR PROPANE GAS  
LJO LINEAR PROPANE GAS  
L.L. LINEAR LITHIUM GAS  
L.L. LINEAR  
L.L. LINEAR  
LOC LOCATION  
LOR LORRY  
LOR LONG  
LOR LONG LEGS HORIZONTAL  
L.V. LONG LEGS VERTICAL  
L.V. LONG LEGS  
L.O. LOWER OPENING  
L.O. LOWER  
L.P. LOW PRESSURE  
L.P. LOW PRESSURE  
LPRS LOW PRESSURE  
LRS POUNDS  
LRS or # POUNDS

W.B. MACHINE BOLT  
W.B. MACHINE NUT  
W.B. RM. WHEEL  
W.C. AIR-UP AIR UNIT  
W.C. AIR-UP PANEL  
W.S.B. MAIN SWITCH BOARD  
W.S. MANIFOLD  
W.H. MANIFOLD  
W.H. MANIFOLD  
W.M. MANUFACTURER  
W.M. MARK  
W.M. MARK  
W.M. MASONRY  
W.M. MAXIMUM OPENING  
W.O. MATERIAL  
W.O. MAXIMUM  
W.O. MECHANICAL  
W.O. MECHANICAL, DRAWING-N.O.  
W.O. MECHANICAL CABINET  
W.O. MEDIUM  
W.O. MEDIUM  
W.O. MEMORANDUM  
W.O. METAL  
W.O. METAL DODGE STRIP  
W.O. METAL EDGE STRIP  
W.O. METAL FISH  
W.O. METAL LATH AND LATH  
W.O. METAL SHEATH  
W.O. METALLIC WATERPROOFING  
W.O. METZGER  
W.O. MICHIGAN DEPARTMENT OF  
W.O. MINISTRATION  
W.W. MILLWORK  
W.W. MINISTRATION  
W.W. MIRROR  
W.W. MIRROR AND SHELF  
W.W. MISCELLANEOUS  
W.W. MISCELLANEOUS IRON  
W.W. MISCELLANEOUS  
W.W. MONUMENT  
W.W. MOP AND P. AND SHELF  
W.W. MOTO OPERATED METER  
W.O. MOTO  
W.O. MOTO  
W.O. MOUNTED  
W.O. MOUNTED  
W.O. MOUNTING  
W.O. MOVABLE  
W.O. MOVEMENT  
W.O. PARTN. MULLION  
W.O. MULLION  
W.O. MULLION (1000)

|          |                             |
|----------|-----------------------------|
| NAT.     | NATURAL                     |
| N.S.     | NEAR SIDE                   |
| NEUT.    | NEUTRAL                     |
| NRC      | NOISE REDUCTION COEFFICIENT |
| NOM.     | NOMINAL                     |
| NOR.     | NORMAL                      |
| N        | NORTH                       |
| NOS.     | NOSING                      |
| N.I.C.   | NOT-IN-CONTRACT             |
| N.T.S.   | NOT-TO-SCALE                |
| NO. or # | NUMBER                      |

|          |                     |
|----------|---------------------|
| O        | OBSCURE             |
| OSGL     | OBSCURE GLASS       |
| OFF      | OFF                 |
| O.C.     | ON CENTER           |
| OP       | OPEN                |
| OPN      | OPENING             |
| OPD      | OPENING             |
| OPR      | OPPOSITE            |
| OPR.HD.  | OPPOSITE HAND       |
| OR       | ORIGINAL            |
| ORNTL    | ORIENTAL            |
| OUN      | OUNCE               |
| O/O      | OUT-OUT             |
| O/O      | OUTSIDE AIR         |
| O/O      | OUTSIDE AIR         |
| O/O      | OUTSIDE FACE        |
| O.S.     | OUTER SCREW         |
| O/S      | OVERALL             |
| O/S      | OVERALL             |
| O/S      | OVERHEAD BOARD      |
| O/S      | OXYGEN              |
| P        |                     |
| PA       | PAINTED             |
| PAR      | PAIR                |
| PAR      | PAIR                |
| PA       | PANEL               |
| P.T.D.   | PANEL TOWEL DISPOSE |
| P.T.W.R. | PANEL TOWEL WASTE   |
| PRL      | PARALLEL            |
| PRL      | PARALLEL            |
| P.S.D    | PARTICLE BOARD      |
| PASS     | PASSAGE             |
| PASS     | PASSAGE             |
| PMT      | PUMP                |
| PMT      | PUMP                |
| PED.     | PEDESTAL            |
| PERM.    | PERMANENT           |
| PERM.    | PERMANENT           |
| PERM.    | PERMANENT           |
| P. of P. | PHOTOGRAPH          |
| P. of P. | PHOTOGRAPH          |

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|          |                               |
|----------|-------------------------------|
| STR.     | STRAIGHT                      |
| STR.     | STREET                        |
| STRUCT.  | STRUCTURAL                    |
| S        | STRUCTURAL DRAWING-NO.        |
| S.G.F.T. | STRUCTURAL GLAZED FACING TILE |
| S.STL    | STRUCTURAL STEEL              |
| S.S.D.   | SUBSOIL DRAIN                 |
| S.S.D.C. | SUBSOIL DRAIN CONNECTION      |
| SUB.     | SUBSTATION                    |
| S.A.G.   | SUPPLY AIR GRILLE             |
| S.D.     | SUPPLY DIFFUSER/ DUCT         |

|           |                       |
|-----------|-----------------------|
| S         | SWITCH                |
| SWBD      | SWITCHBOARD           |
| SWD       | SWITCH                |
| SYM       | SYMBOL/SYMBOLICAL     |
| SYN       | SYNCHRONOUS           |
| SUPP.     | SUPPORT               |
| SUPF.     | SUPPLEMENTARY         |
| SUSP.     | SUSPEND/SUSPENDING    |
| T         |                       |
| T.BSD     | TACKBOARD             |
| TAN       | TANGENT               |
| TECH.     | TECHNICAL             |
| TECH.     | TECHNICAL             |
| TEL. CAB. | TELEPHONE CABINET     |
| TEL.      | TELEVISION            |
| T.M       | TEMPERATURE           |
| T.M       | TEMPERATURE           |
| T.M. GL.  | TEMPERATURE GLASS     |
| TEM.      | TERMINAL UNIT         |
| T.B.      | TEST BORING           |
| T.B.      | TEST BORING           |
| T.H.      | THICK THICKNESS       |
| T.H.      | THICKNESS             |
| T.H.      | THREAD                |
| T.H.      | THROUGH               |
| THRESH.   | THROUGH               |
| THRU      | THROUGH               |
| T / TOIL  | TOILET                |
| T.M       | TOTAL                 |
| T.P.H.    | TYPED PAPER DISPENSER |
| T.P.H.    | TYPED PAPER HOLDERS   |
| T.B       | TOP AND BOTTOM        |
| T & B     | TOP AND BOTTOM        |
| T         | TOP OF CURB           |
| T/EVL     | TOP ELEVATION         |
| T         | TOP OF CURB           |
| T/M       | TOP OF GUTTER         |
| T         | TOP OF GUTTER         |
| T         | TOP OF PARAPET        |
| T         | TOP OF PAVEMENT       |
| T/S       | TOP OF WALL           |
| T/S       | TOP OF STEEL          |
| T/W       | TOP OF WALL           |

|              |                                 |
|--------------|---------------------------------|
| TRFR         | TRANSFER                        |
| TRN          | TRANS                           |
| TW           | TREAD                           |
| TX           | TRANCH DRAIN                    |
| TS           | TUBE SECTION                    |
| TURN         | TURNING VANE                    |
| T.V.T.       | TWIN TIE                        |
| TYP.         | TYPICAL                         |
| <br><b>U</b> |                                 |
| U.C.         | UNDERCUT                        |
| UG           | UNDER GROUND                    |
| UW           | UNDERWRITER'S LABORATORY        |
| ULT.         | ULTIMATE                        |
| UNFN.        | UNFINISHED                      |
| UNF          | UNFIT                           |
| U.SUB.       | UNIT SUGGESTION                 |
| UNIT         | UNIT VENTILATOR                 |
| USGS         | UNITED STATES GEOLOGICAL SURVEY |
| UT           | UNLESS OTHERWISE NOTED          |
| UR.          | URNAL                           |
| <br><b>V</b> |                                 |
| VAC.         | VACUUM                          |
| V.B.         | VACUUM BREAKER                  |
| V.B.O.       | VACUUM BREAKER OUTLET           |
| V. BARR.     | VAPOR BARRIER                   |
| VARN.        | VARNISH                         |
| VARN.        | VARNISH                         |
| V. PLAS.     | VENER PLASTER                   |
| VTR          | VENT THRU ROOF                  |
| V.V.         | VENTILATION VENTILATION         |
| V.F.         | VERIFY IN FIELD                 |
| V.S.         | VERSUS                          |
| VERT.        | VERTICAL / VERTICALLY           |
| VERT. C.     | VERTICAL CURVE                  |
| WESTBL       | WESTBL                          |

|            |                     |
|------------|---------------------|
| V.R.S.     | VINT, REDUCER STRIP |
| V.S.       | VINT, REDUCER STRIP |
| VCP        | VINTIFIED CLAY PIPE |
| V          | VOLUME              |
| V.D.       | VOLUME DAMPER       |
| V          | VOLTS               |
|            |                     |
| W          |                     |
| W.A.S.     | WAINSCOT            |
| W.C.B.     | WALL CABINET        |
| W.C.       | WALL CLICHÉ         |
| W.D.       | WALL DRYOUT         |
| W.D.       | WALL-TIE, WALL      |
| W.V.       | WALL VENT           |
| W          | WAREHOUSE           |
| W.F.       | WASH FOUNTAIN       |
| W          | WASTE/TRAFFIC       |
| W.B.V      | WASTE AND VENT      |
| W          | WASTE AND VENT      |
| W.C.       | WATER CLOSET        |
| W          | WATER CLOSET        |
| W.H.       | WATER HEATER        |
| W          | WATER HEATER        |
| W.R.F.R.P. | WEATHERPROOFING     |
| W          | WEATHERPROOFING     |
| W.F.       | WEIGHT              |
| W.F.F.     | WELODED FIRE FABRIC |
| W          | WET                 |
| W.B.       | WET BULB            |
| W          | WIDE FLANGE         |
| W.F.       | WIDE FLANGE SECTION |
| W          | WIND BREAK SECTION  |
| W          | WIND OPENING        |
| W          | WIRE GLASS          |
| W.M.       | WIRE MESH           |
| W          | WITH                |

|       |                |
|-------|----------------|
| W.P.  | WORK POINT     |
| W.L.  | WROUGHT IRON   |
| <hr/> |                |
| X     |                |
| <hr/> |                |
| Y     |                |
| <hr/> |                |
| YD    | YARD           |
| Y.P.  | YIELD POINT    |
| Y.S.  | YIELD STRENGTH |
| YR    | YEAR           |
| <hr/> |                |
| Z     |                |
| <hr/> |                |
| ZC    | ZINC           |

**MISCELLANEOUS ACCESSORIES, TOILET ACCESSORIES AND FIXTURES**

NOTE: MOUNTING HEIGHTS SHOWN ARE PROPOSED FOR ALL ACCESSORIES AND FIXTURES REQUIRED UNLESS OTHERWISE NOTED OR DIMENSIONED ON DRAWINGS FOR SPECIFIC CONDITIONS. (B.F. - DENOTES ACCESSIBLE BARRIER FREE REQUIREMENTS)

**SECTION 1: SINKS AND MIRRORS**

- SOAP DISH: 4" A.F.F. MAX.
- SOAP DISPENSER: 4" A.F.F. MAX.
- SANITARY NAPKIN RECEPTACLE: 4" A.F.F. MAX.
- SANITARY NAPKIN DISPENSER: 4" A.F.F. MAX.
- SEAT COVER DISPENSER: 4" A.F.F. MAX.
- TOWEL DISPENSER OR MULTIPURPOSE UNIT: 4" A.F.F. MAX.
- TOWEL DISPENSER AND WASTE RECEPTACLE: 4" A.F.F. MAX.
- WASTE RECEPTACLE: 4" A.F.F. MAX.
- FULL LENGTH MIRROR AND BARRIER FREE MIRRORS: 4" A.F.F. MAX.
- MIRROR, MIRROR AND SHELF, OR TILTED MIRROR: 4" A.F.F. MAX.
- MIRROR AND VANITY COUNTER: 4" A.F.F. MAX.
- BABY CHANGING STATION: 4" A.F.F. MAX.

**SECTION 2: TOWELS AND SHOWER CURTAINS**

- SHOWER CURTAIN: 4" A.F.F. MAX.
- HOOKS: 4" A.F.F. MAX.
- SHELF (Below) MAIL SLOT: 4" A.F.F. MAX.
- TOWEL BAR AND SHELF: 4" A.F.F. MAX.
- TOWEL BAR: 4" A.F.F. MAX.
- B.F. SHELF OR PURSE SHELF: 4" A.F.F. MAX.
- CLIP DISPENSER: 4" A.F.F. MAX.
- BARrier FREE HOOKS: 4" A.F.F. MAX.
- FACIAL TISSUE DISPENSER: 4" A.F.F. MAX.
- HAND DRYER: 4" A.F.F. MAX.
- ASH TRAY: 4" A.F.F. MAX.
- HAIR DRYER: 4" A.F.F. MAX.
- HANDRAIL EXTENSION: 4" A.F.F. MAX.

**SECTION 3: PAY TELEPHONE AND WALL MOUNTED OR EMERGENCY TELEPHONE**

- PAY TELEPHONE (B.F.-FRONT APPROACH): 4" A.F.F. MAX.
- TELEPHONE SHELF (B.F.-FRONT APPROACH): 4" A.F.F. MAX.
- WALL MOUNTED OR EMERGENCY TELEPHONE (B.F.-FRONT APPROACH): 4" A.F.F. MAX.
- E.W.C. OR DRINKING FOUNTAINS: 4" A.F.F. MAX.
- HIGH-LOW E.W.C. OR DRINKING FOUNTAIN: 4" A.F.F. MAX.
- FIRE EXTINGUISHER CABINET: 4" A.F.F. MAX.
- FIRE VALVE CABINET: 4" A.F.F. MAX.
- FIRE HOSE RACK OR VALVE: 4" A.F.F. MAX.
- FIRE EXTINGUISHER AND WALL BRACKET: 4" A.F.F. MAX.
- WALL CABINET: 4" A.F.F. MAX.
- ELECTRIC PANEL: 4" A.F.F. MAX.
- COAT ROD AND HAT SHELF: 4" A.F.F. MAX.
- BOOT RACK (Below): 4" A.F.F. MAX.

**SECTION 4: LIGHT SWITCHES AND THERMOSTATS**

- LIGHT SWITCH: 4" A.F.F. MAX.
- FIRE ALARM PULL BOX (Below) DUPLEX/STANDARD HEIGHT (Below): 4" A.F.F. MAX.
- THERMOSTAT: 4" A.F.F. MAX.
- ELEVATOR PUSH BUTTONS: 4" A.F.F. MAX.
- ELECTRIC DUPLEX, TELEPHONE, OR T.V. OUTLET WITH LIGHT SWITCH: 4" A.F.F. MAX.
- CLOCK: 4" A.F.F. MAX.
- WALL SPEAKER: 4" A.F.F. MAX.
- SIGNAGE OR PLAQUE: 4" A.F.F. MAX.
- CHALKBOARD OR TACKBOARD: 4" A.F.F. MAX.
- WALL AND BASE CABINETS: 4" A.F.F. MAX.
- DOOR HARDWARE: 4" A.F.F. MAX.

**SECTION 5: BARRIER FREE SEAT AND BARRIER FREE MEDICINE CABINET**

- BARRIER FREE SEAT: 4" A.F.F. MAX.
- BARRIER FREE MEDICINE CABINET: 4" A.F.F. MAX.
- MOP STRIP AND SHELF: 4" A.F.F. MAX.
- BARRIER FREE URINAL: 4" A.F.F. MAX.
- STANDARD URINAL: 4" A.F.F. MAX.
- SHOWER HEAD AND VALVES: 4" A.F.F. MAX.
- BARRIER FREE HAND FELD SHOWER HEAD AND CONTROLS: 4" A.F.F. MAX.
- WALL C.O.: 4" A.F.F. MAX.
- LAVATORY: 4" A.F.F. MAX.

**SECTION 6: LAVATORY, URINAL, WATER CLOSET, and TRANSFER-TYPE SHOWER**

- LAVATORY: 4" A.F.F. MAX.
- URINAL: 4" A.F.F. MAX.
- WATER CLOSET: 4" A.F.F. MAX.
- TRANSFER-TYPE SHOWER: 4" A.F.F. MAX.

**SECTION 7: MATERIAL DESIGNATIONS**

| ELEVATION | SECTION   | MATERIAL                             | ELEVATION | SECTION   | MATERIAL  | ELEVATION | SECTION   | MATERIAL   |
|-----------|-----------|--------------------------------------|-----------|-----------|---|-----------|-----------|--|
| [Pattern] | [Pattern] | BRICK                                | [Pattern] | [Pattern] | FINISH HARDWOOD   | [Pattern] | [Pattern] | GYPSUM DRYWALL (WALLBOARD)   |
| [Pattern] | [Pattern] | CONCRETE MASONRY UNITS (BLOCK)       | [Pattern] | [Pattern] | WOOD BLOCKING/ NALER (Continuous)                             | [Pattern] | [Pattern] | PLASTER OR VENEER PLASTER  |
| [Pattern] | [Pattern] | SOLID CONCRETE MASONRY UNITS         | [Pattern] | [Pattern] | WOOD BLOCKING/ NALER (Non-continuous)                         | [Pattern] | [Pattern] | CEMENT PLASTER AND METAL LATH  |
| [Pattern] | [Pattern] | PREFABRICATED CONCRETE MASONRY UNITS | [Pattern] | [Pattern] | PARTICLE BOARD (Large Scale)                                  | [Pattern] | [Pattern] | CERAMIC TILE (Large Scale)   |
| [Pattern] | [Pattern] | STRUCTURAL GLAZED FACING TILE        | [Pattern] | [Pattern] | PLYWOOD (Large Scale)   | [Pattern] | [Pattern] | TERRAZZO (Large Scale)   |
| [Pattern] | [Pattern] | CONCRETE                             | [Pattern] | [Pattern] | HARDWOOD VENEER PLYWOOD (Large Scale)                         | [Pattern] | [Pattern] | CARPET (Large Scale)   |
| [Pattern] | [Pattern] | STONE/ SLATE/ OR GRANITE             | [Pattern] | [Pattern] | PLASTIC LAMINATE CLAD PLYWOOD OR PARTICLE BOARD (Large Scale) | [Pattern] | [Pattern] | VINYL COMPOSITION TILE (V.C.T.)  |
| [Pattern] | [Pattern] | EARTH                                | [Pattern] | [Pattern] | BATT OR BLANKET INSULATION                                    | [Pattern] | [Pattern] | SEALANT AND BACKER ROD (Depth Equal to Joint Width)  |
| [Pattern] | [Pattern] | POROUS FILL (GRAVEL OR STONE)        | [Pattern] | [Pattern] | RIGID INSULATION  | [Pattern] | [Pattern] | JOINT FILLER MATERIAL OR ISOLATION JOINT FILLER (Large Scale)                                  |
| [Pattern] | [Pattern] | COMPACTED DRAINAGE FILL (SAND)       | [Pattern] | [Pattern] | ACOUSTICAL CEILING TILE OR PANEL                              | [Pattern] | [Pattern] | COLD FORMED METAL FRAMING  |
| [Pattern] | [Pattern] | MARBLE                               | [Pattern] | [Pattern] | GLASS (Large Scale)   | [Pattern] | [Pattern] | STRUCTURAL STEEL SHAPES (Continuous Sections Indicated or Solid, Non-continuous Sections Open) |

### DETAIL IDENTIFICATION

DETAIL IDENTIFICATION NUMBER  
(SAME NUMBER ON SHEET WHERE DRAWN OR REFERENCED)

**DETAIL TITLE**

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

SHEET IDENTIFICATION NUMBER  
(INDICATES SHEET NUMBER WHERE DETAIL IS DRAWN OR SHEET NUMBER(S) TO REFER TO WHEN REFERENCED ON THE SHEET WHERE THE DETAIL IS DRAWN)

### DETAIL LOCATION INDICATION

DETAIL IDENTIFICATION NUMBER

(WALL SECTIONS)

(PLAN SECTIONS)

SHEET IDENTIFICATION NUMBER  
(INDICATES SHEET NUMBER WHERE DETAIL IS DRAWN)

### DETAIL LOCATION INDICATION FOR ENLARGED PLANS

SHEET IDENTIFICATION NUMBER  
(INDICATES SHEET NUMBER WHERE DETAIL IS DRAWN)

### SECTION IDENTIFICATION

SECTION IDENTIFICATION NUMBER  
(SAME NUMBER ON SHEET WHERE DRAWN OR REFERENCED)

**SECTION TITLE**

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

SHEET IDENTIFICATION NUMBER  
(INDICATES SHEET NUMBER WHERE SECTION IS DRAWN OR SHEET NUMBER(S) TO REFER TO WHEN REFERENCED ON THE SHEET WHERE THE SECTION IS DRAWN)

### SECTION LOCATION INDICATION

SECTION IDENTIFICATION NUMBER

SHEET IDENTIFICATION NUMBER  
(INDICATES SHEET NUMBER WHERE SECTION IS DRAWN)

### ELEVATION IDENTIFICATION

ELEVATION IDENTIFICATION NUMBER  
(SAME NUMBER ON SHEET WHERE DRAWN OR REFERENCED)

**ELEVATION TITLE**

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

SHEET IDENTIFICATION NUMBER  
(INDICATES SHEET NUMBER WHERE ELEVATION IS DRAWN OR SHEET NUMBER(S) TO REFER TO WHEN REFERENCED ON THE SHEET WHERE THE ELEVATION IS DRAWN)

### ELEVATION INDICATION

ELEVATION IDENTIFICATION NUMBER(S)  
(SAME LETTER ON SHEET WHERE DRAWN OR REFERENCED)

(SOME DIRECTION OF VIEW OR MULTIPLE VIEWS)

SHEET IDENTIFICATION NUMBER  
(INDICATES SHEET NUMBER WHERE ELEVATION IS DRAWN)

### MATCH LINE INDICATION

SHEET IDENTIFICATION NUMBER  
(INDICATES SHEET NUMBER OF DRAWING)

ZONE 'A'  
ZONE 'B'

SHEET IDENTIFICATION NUMBER  
(INDICATES SHEET NUMBER WHERE DRAWING IS CONTINUED)

### DOOR INDICATION

DOOR SWING INDICATION—  
NEW DOOR

DOOR SWING INDICATION—  
EXISTING DOOR

DOOR SWING INDICATION—  
DOOR TO BE REMOVED

### ROOM NAME AND NUMBER INDICATION

**SAMPLE ROOM NAME**

[B101] 101

PLAN — ROOM IDENTIFICATION NUMBER

ROOM IDENTIFICATION BY FLOOR AND/OR ZONE SHALL BE AS FOLLOWS:

|                                |                 |
|--------------------------------|-----------------|
| BASEMENT LEVEL DOORS ..... 001 | ZONE A --- B101 |
| FIRST FLOOR DOORS ..... 101    | ZONE B --- A101 |
| SECOND LEVEL DOORS ..... 201   | ZONE C --- C101 |
| THIRD FLOOR DOORS ..... 301    |                 |

CONTINUES FOR AS MANY FLOORS REQUIRED.

### COLUMN INDICATION

COLUMN IDENTIFICATION LETTER OR NUMBER FOR NEW CONSTRUCTION

COLUMN IDENTIFICATION LETTER OR NUMBER FOR EXISTING CONSTRUCTION

### WALL TYPE NOTATION

WALL CONSTRUCTION TYPE NUMBER AS LISTED IN "WALL TYPE LEGEND"

DESCRIPTION ORIGINATES AT WALL SURFACE DESIGNATED

### KEYED NOTE INDICATION

KEYED NOTE IDENTIFICATION NUMBER AS LISTED IN "NOTES" LEGEND.

(PLAN NOTATION)

KEYED NOTE IDENTIFICATION NUMBER AS LISTED IN "NOTES" LEGEND.

(DEMOTION NOTATION)

### STAIR DIRECTION NOTATION

STAIR DIRECTION TO FLOOR ABOVE (UP) OR BELOW (DOWN)

NUMBER OF HEADS (OR RESERS) IN STAIR RUN

10'-1 (11'-8)

### MATERIAL OR WORK DIVISION NOTATION

10'-0"

### DOOR IDENTIFICATION

DOOR TO ROOM SHALL REPEAT ROOM NUMBER ASSIGNED TO ROOM. MULTIPLE DOORS TO ROOM SHALL REPEAT ROOM NUMBER WITH A POSTSCRIPT LETTER FOR EACH ADDITIONAL DOOR REQUIRED.

DOOR IDENTIFICATION BY FLOOR AND/OR ZONE SHALL BE AS FOLLOWS:

|                              |                |
|------------------------------|----------------|
| BASEMENT DOORS ..... 001     | ZONE A --- A10 |
| FIRST FLOOR DOORS ..... 101  | ZONE B --- B10 |
| SECOND FLOOR DOORS ..... 201 | ZONE C --- C10 |
| THIRD FLOOR DOORS ..... 301  |                |

CONTINUES FOR AS MANY FLOORS REQUIRED.

### NORTH INDICATION

ASSUMED NORTH IF NOT TRUE NORTH OR PLAN NORTH WHERE TRUE NORTH IS INDICATED BY ARROW NOTATION

TRUE NORTH

### CASEWORK NOTATION

CASEWORK IDENTIFICATION NUMBER BASED ON MANUFACTURERS CATALOG NUMBERS AS NOTED IN SPECIFICATIONS OR "CASEWORK LEGEND"

A1-100-36

### ADDENDUM INDICATION

ADDENDUM NUMBER (CURRENT REVISIONS SHALL BE SHOWN ENCLOSED BY A FREEMOON LINE)

### BULLETIN INDICATION

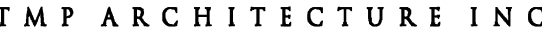
BULLETIN NUMBER (CURRENT REVISIONS SHALL BE SHOWN ENCLOSED BY A FREEMOON LINE)

### DRAWING DIMENSION LINE INDICATION

NOTE: DO NOT SCALE DRAWINGS WITHOUT GRAPHIC SCALE'S PROPORTIONS OF 1" = 1'

10'-0"

### DRAWING NOTATION INDICATION



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## REGISTRATION SEAL

## CONSULTANT

## PROJECT TITLE

**Bingham Farms  
Elementary School  
Remodeling**

**Birmingham Public Schools  
Bingham Farms, Michigan**

**DRAWING TITLE**

### General Information

## ISSUE DATES

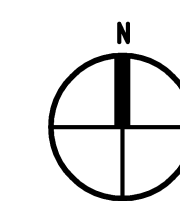
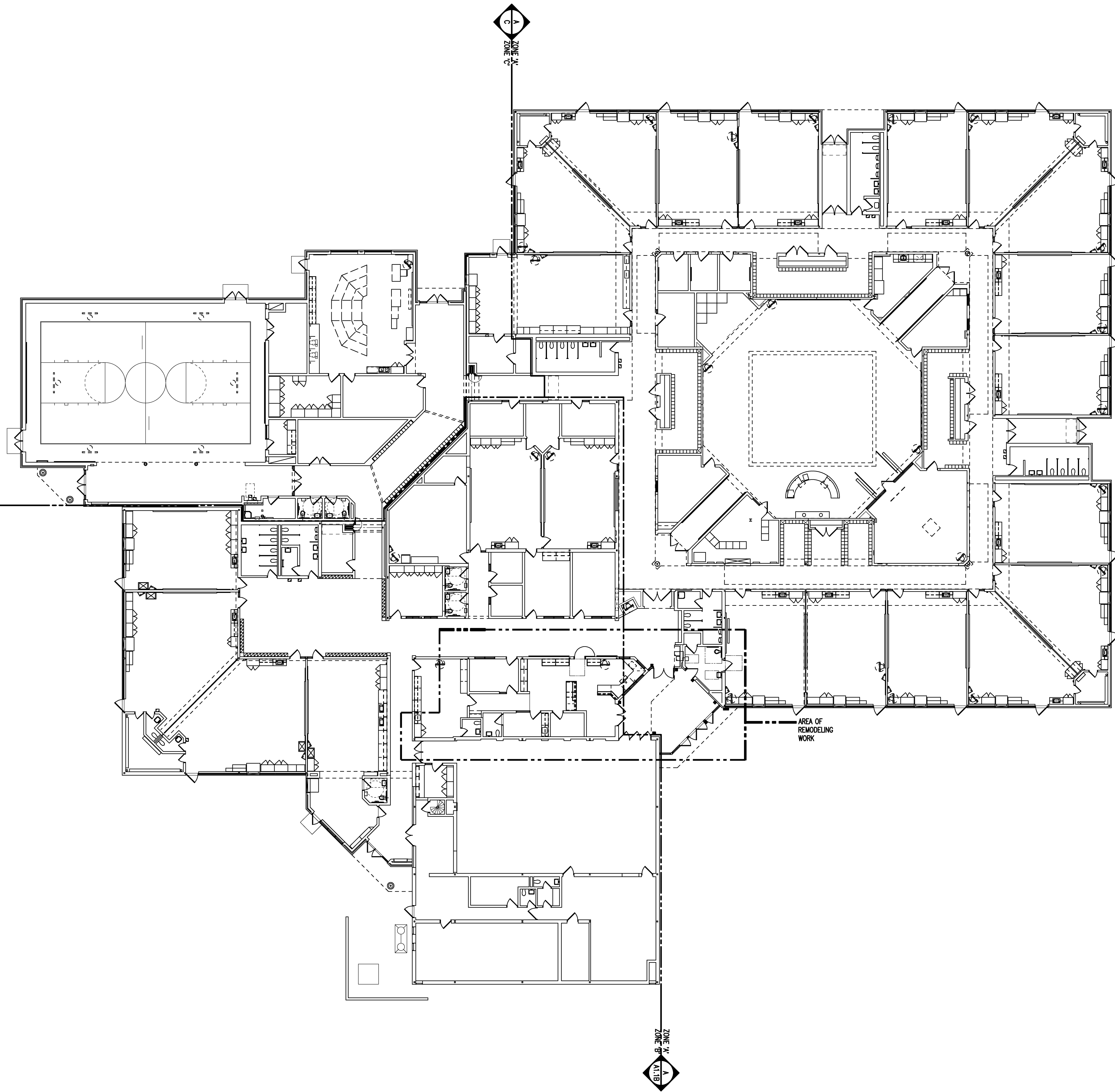
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PROJECT NO.

**15098**

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## TG.1



COMPOSITE FLOOR PLAN  
SCALE: 1/16" = 1'-0"



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REGISTRATION SEAL

CONSULTANT

PROJECT TITLE  
**Bingham Farms  
Elementary School  
Remodeling**

**Birmingham Public Schools  
Bingham Farms, Michigan**

DRAWING TITLE  
**Composite Floor Plan**

ISSUE DATES

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02-15-2016 BP NO. 1 - BIDS

DATE ISSUED FOR:

DRAWN AKW

CHECKED JMM

APPROVED JJC

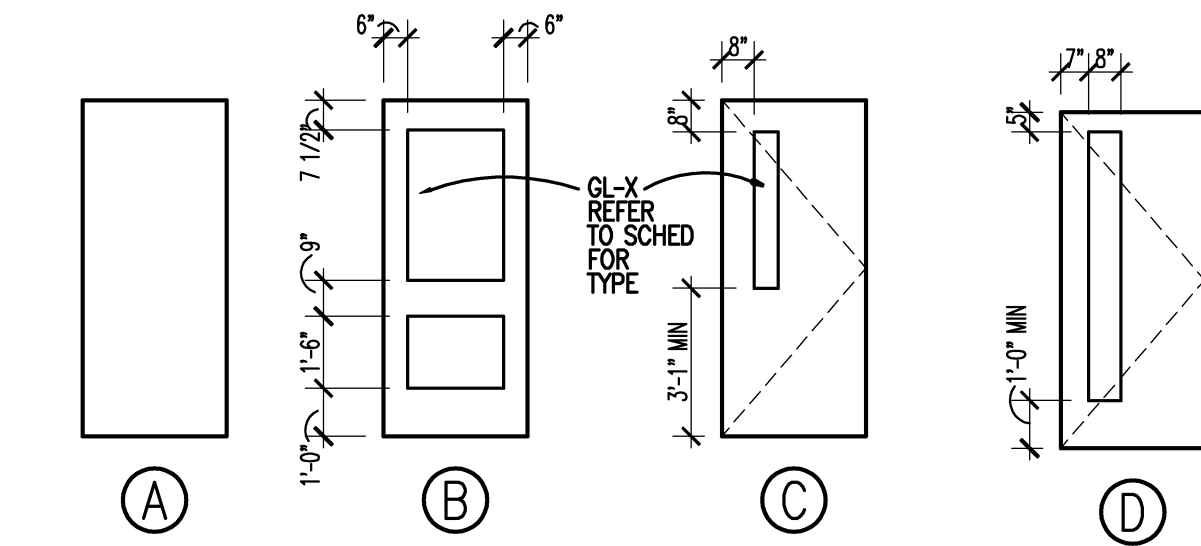
PROJECT NO.

**15098**

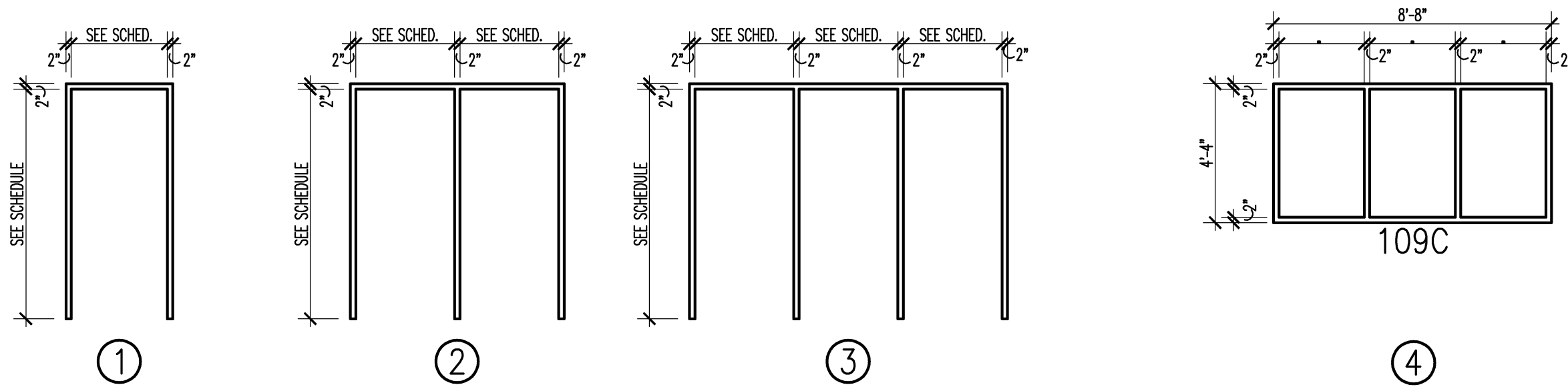
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**AC1.1**

| DOOR & FRAME SCHEDULE  |                                  |                |          |         |       |       |          |        |       |         |      |      |           |            |           |  |
|------------------------|----------------------------------|----------------|----------|---------|-------|-------|----------|--------|-------|---------|------|------|-----------|------------|-----------|--|
| Opening                |                                  | Door           |          |         |       | Frame |          |        |       | Details |      |      | Threshold | U.L. Label | Hdwe. Set | Remarks  |
| No.                    | Opening Size<br>(Width x Height) | Type           | Material | Finish  | Glass | Type  | Material | Finish | Glass | Head    | Jamb | Sill |           |            |           |  |
| Lower Level - Zone 'A' |                                  |                |          |         |       |       |          |        |       |         |      |      |           |            |           |  |
| A133A                  | 3'-0" x 7'-0" (V.I.F.) (EXIST)   | B              | EX. FRP  | EX. PFN | EX.*  | EX.   | EX. AL   | EX.    | EX.*  | -       | -    | -    | -         | -          | 06        | REFER TO ALTERNATE A-1: PROVIDE GL-12                                    |
| A133B                  | 3'-0" x 7'-0" (V.I.F.) (EXIST)   | B              | EX. FRP  | EX. PFN | EX.*  | EX.   | EX. AL   | EX.    | EX.*  | -       | -    | -    | -         | -          | 06        | REFER TO ALTERNATE A-1: PROVIDE GL-12                                    |
| A133C                  | 3'-0" x 7'-0" (V.I.F.) (EXIST)   | B              | EX. FRP  | EX. PFN | EX.*  | EX.   | EX. AL   | EX.    | EX.*  | -       | -    | -    | -         | -          | 06        | REFER TO ALTERNATE A-1: PROVIDE GL-12                                    |
| A133D                  | 3'-0" x 7'-0" (V.I.F.) (EXIST)   | B              | EX. FRP  | EX. PFN | EX.*  | EX.   | EX. AL   | EX.    | EX.*  | -       | -    | -    | -         | -          | 21        | REFER TO ALTERNATE A-1: PROVIDE GL-12                                    |
| A144A                  | 3'-0" x 7'-0"                    | B              | HM       | PTD     | GL-1  | 2     | HM       | PTD    | GL-1  | -       | -    | -    | -         | -          | 22        | REFER TO ALTERNATE A-1: PROVIDE GL-3                                     |
| A144B                  | 3'-0" x 7'-0"                    | B              | HM       | PTD     | GL-1  | 2     | HM       | PTD    | GL-1  | -       | -    | -    | -         | -          | 02        | REFER TO ALTERNATE A-1: PROVIDE GL-3                                     |
| Lower Level - Zone 'B' |                                  |                |          |         |       |       |          |        |       |         |      |      |           |            |           |  |
| B109A                  | 3'-0" x 7'-0" (V.I.F.) (EXIST)   | A              | EX. HM   | PTD     | EX.*  | EX.   | EX. HM   | EX.    | -     | -       | -    | -    | -         | -          | 03        | REFER TO ALTERNATE A-1: PROVIDE GL-3; A-2: PROVIDE ACCESS CONTROL SYSTEM |
| B109B                  | 3'-0" x 7'-0" (V.I.F.)           | A              | HM       | PTD     | EX.*  | EX.   | EX.      | EX.    | -     | -       | -    | -    | -         | -          | -         | REFER TO ALTERNATE A-1: PROVIDE GL-3                                     |
| B109C                  | 8'-8" x 4'-4"                    | WINDOW OPENING |          |         |       | EX.   | EX.      | EX.    | -     | -       | -    | -    | -         | -          | -         | REFER TO ALTERNATE A-1: PROVIDE GL-3                                     |
| B111                   | 3'-0" x 7'-0" (V.I.F.)           | C              | HM       | PTD     | -     | 1     | HM       | PTD    | -     | -       | -    | -    | -         | -          | 45 09     | ALTERNATE A-3.   |
| B114A                  | 3'-0" x 7'-0" (V.I.F.)           | C              | EX. HM   | EX. PTD | -     | EX.   | EX. HM   | EX.    | -     | -       | -    | -    | -         | -          | 07        | REFER TO ALTERNATE A-1: PROVIDE GL-3; ALTERNATE A-3                      |
| B116B                  | 3'-0" x 7'-0" (V.I.F.)           | C              | EX. HM   | EX. PTD | -     | EX.   | EX. HM   | EX.    | -     | -       | -    | -    | -         | -          | 07        | REFER TO ALTERNATE A-1: PROVIDE GL-3; ALTERNATE A-3                      |
| B122C                  | 3'-0" x 7'-0" (V.I.F.)           | D              | EX. WD   | EX.     | EX.*  | EX.   | EX. AL   | EX.    | -     | -       | -    | -    | -         | -          | -         | REFER TO ALTERNATE A-1: PROVIDE GL-3                                     |
| B122D                  | 3'-0" x 7'-0" (V.I.F.)           | D              | EX. WD   | EX.     | EX.*  | EX.   | EX. AL   | EX.    | -     | -       | -    | -    | -         | -          | -         | REFER TO ALTERNATE A-1: PROVIDE GL-3                                     |
| B122E                  | 3'-0" x 7'-0" (V.I.F.)           | D              | EX. WD   | EX.     | EX.*  | EX.   | EX. AL   | EX.    | -     | -       | -    | -    | -         | -          | 08        | REFER TO ALTERNATE A-1: PROVIDE GL-3                                     |



DOOR TYPES



FRAME TYPES

## DOOR SCHEDULE ABBREVIATIONS AND NOTES

(REFER TO SPECIFICATIONS FOR ADDITIONAL DOOR INFORMATION)

### DOOR SCHEDULE ABBREVIATIONS

|      |                                 |
|------|---------------------------------|
| AL   | ALUMINUM                        |
| ALGL | ALUMINUM AND GLASS              |
| HM   | HOLLOW METAL                    |
| WD   | SOLID CORE HARDWOOD             |
| PFN  | PREFINISHED BY MANUFACTURER     |
| PTD  | PAINTED                         |
| MAR  | SYNTHETIC MARBLE THRESHOLD      |
| WET  | METAL THRESHOLD                 |
| LAM  | PLASTIC LAMINATE CLAD           |
| FRP  | FIBERGLASS REINFORCED POLYESTER |
| STL  | STAINLESS STEEL                 |

### DOOR SCHEDULE GENERAL NOTES

1. GALVANIZED METAL TO BE PROVIDED FOR HOLLOW METAL DOOR AND/OR FRAME AT EXTERIOR LOCATION.
2. DOORS ARE 1-3/4" THICK UNLESS OTHERWISE NOTED.
3. DETAIL NUMBERS NOTED SIM. REFER TO DETAILS SHOWING HEAD, JAMB, AND/OR SILL DETAILS THAT REPRESENT CONDITIONS SIMILAR TO THOSE NOTED.
4. HOLLOW METAL FRAMES SET IN MASONRY WALLS ARE 5 3/4" WIDE (U.O.N.).
5. HOLLOW METAL FRAMES, SET IN GYPSUM BD./METAL STUD PARTITIONS, SHALL BE "DOUBLE BACK-BEND" FRAMES WITH A THROAT DIMENSION EQUAL TO THE PARTITION THICKNESS PLUS 8/16" RETURNS ON EACH SIDE OF THE PARTITION. PROVIDE EQUAL RABBETS.
6. AN ASTERISK (\*) CALLS ATTENTION TO THE REMARKS COLUMN OF THE SCHEDULE.

### U.L. DOOR LABEL DESIGNATIONS:

| U.L. LABEL** | MIN. OPENING PROTECTION ASSEMBLY |
|--------------|----------------------------------|
| 180          | 3 HR. FIRE RATING                |
| 90           | 1-1/2 HR. FIRE RATING            |
| 60           | 1 HR. FIRE RATING                |
| 45           | 3/4 HR. FIRE RATING              |
| 20           | 1/3 HR. FIRE RATING              |

\*\* ALL FIRE RATED DOORS SHALL BE SMOKE AND DRAFT CONTROL LABELED IN ADDITION TO U.L. LABELS INDICATED.

### GLAZING TYPES

| (REFER TO SPECIFICATIONS FOR ASSEMBLIES) |  |
|--|--|
| GL-1                                     | 1/4" CLEAR TEMPERED, MONOLITHIC GLASS        |
| GL-2                                     | 1/4" LAMINATED GLASS                         |
| GL-3                                     | INTERIOR LAMINATED SECURITY GLASS            |
| GL-6c                                    | 60 & 90 MINUTE FIRE RATED GLASS - DOORS      |
| GL-6d                                    | 60, 90 OR 120 MIN FIRE RATED GLASS           |
| GL-10                                    | TEMPERED INSULATING GLASS - CLEAR            |
| GL-11                                    | TEMPERED INSULATING GLASS - TINTED           |
| GL-12                                    | EXTERIOR INSULATING LAMINATED SECURITY GLASS |



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REGISTRATION SEAL

CONSULTANT

PROJECT TITLE

**Bingham Farms  
Elementary School  
Remodeling**

**Birmingham Public Schools  
Bingham Farms, Michigan**

DRAWING TITLE

**Door & Frame Schedule**

ISSUE DATES

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|---|---|
| - | - |
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02-15-2016 BP NO. 1 - BIDS

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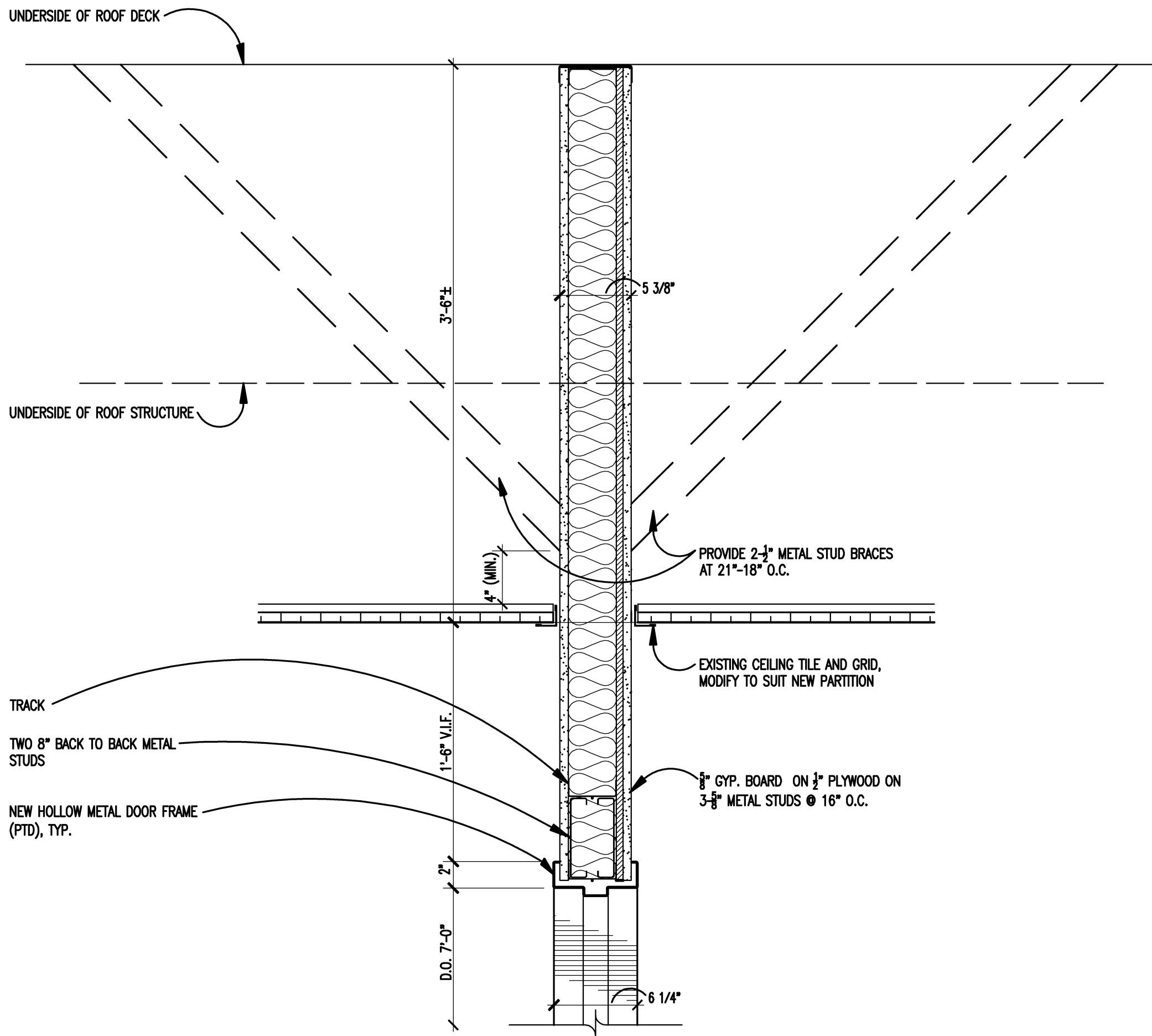
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PROJECT NO.

**15098**

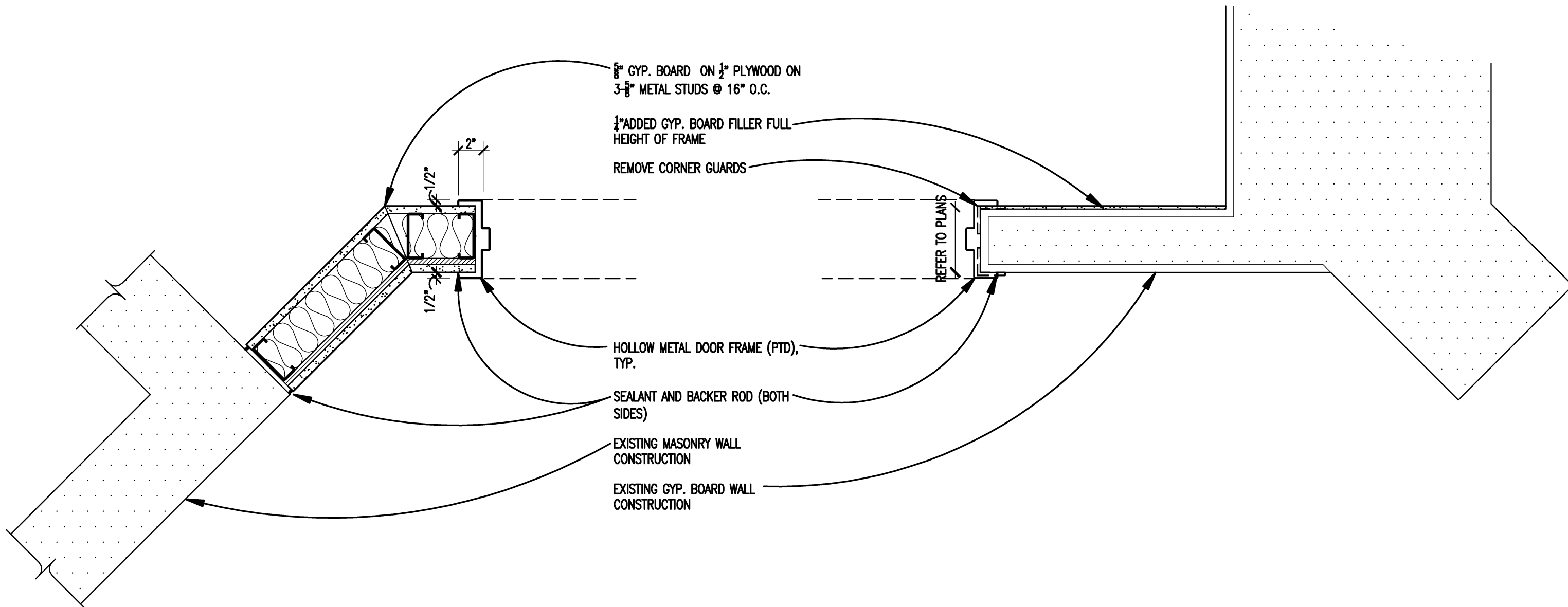
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**AD1.1**



**3 HOLLOW METAL DOOR FRAME HEAD**

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

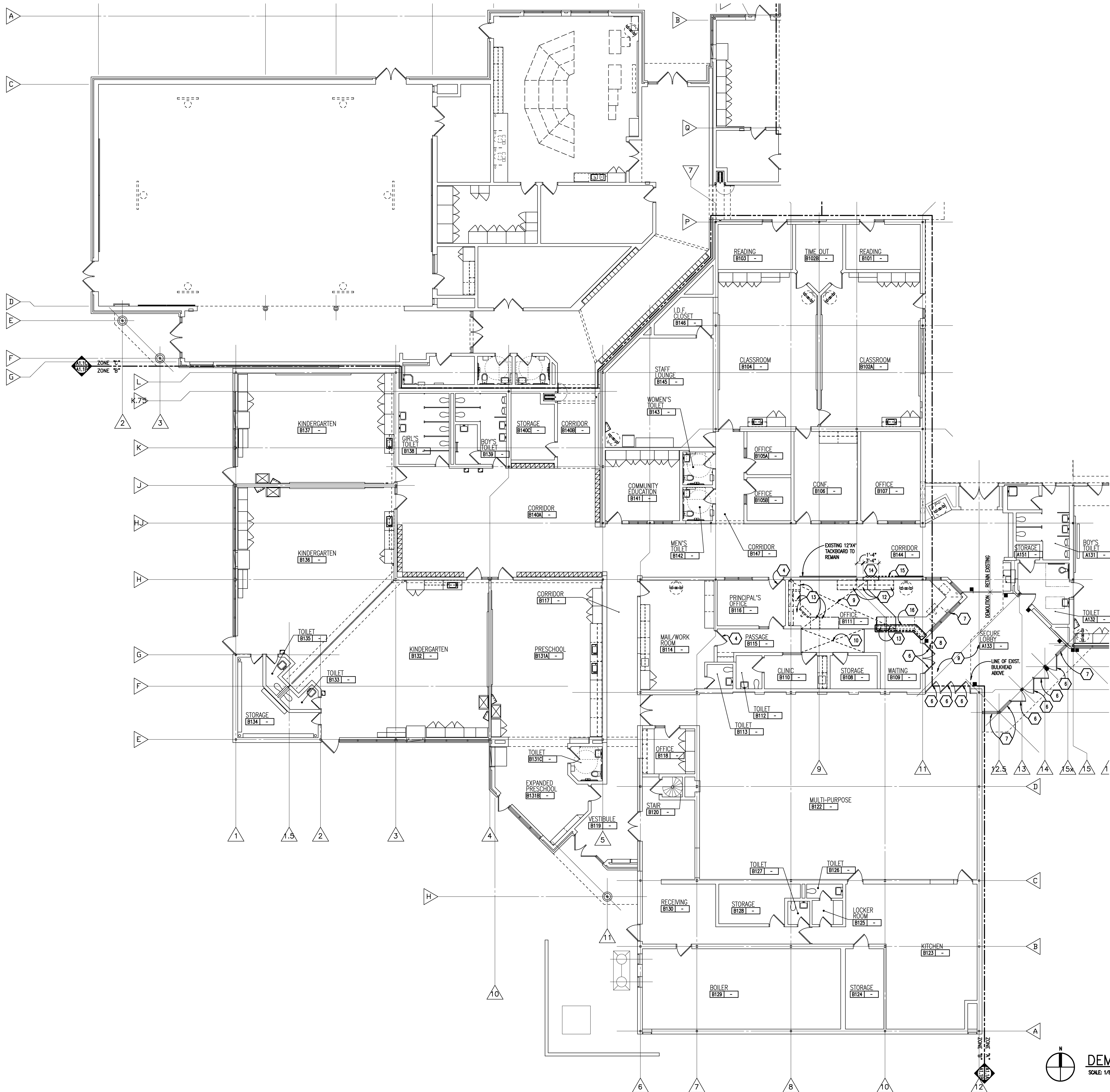


**2 HOLLOW METAL DOOR FRAME JAMB**

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

**1 HOLLOW METAL DOOR FRAME JAMB**

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



#### GENERAL NOTES

1. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR RELATED AND ADDITIONAL DEMOLITION AND PATCHING WORK BY MECHANICAL AND ELECTRICAL TRADES.
2. NOT USED.
3. SEE CIVIL DRAWINGS FOR SITE DEMOLITION AND PATCHING WORK.
4. SEE EXTERIOR ELEVATIONS FOR ADDITIONAL DEMOLITION AND PATCHING WORK AT EXTERIOR OF BUILDING, INCLUDING (BUT NOT LIMITED TO) DEMOLITION NOTES RELATED TO WINDOW REPLACEMENT.
5. WHERE REMOVAL OF CASEWORK, MILLWORK, CHALKBOARD, TACKBOARD, OR EQUIPMENT, IS INDICATED, FILL HOLES AND PATCH EXISTING WALLS, BASES AND CEILINGS WHICH ARE TO REMAIN EXPOSED.
6. UNLESS OTHERWISE INDICATED, TOOTH NEW MATERIAL INTO EXISTING WHEREVER INFILL REMAINS EXPOSED.
7. SEE SPECIFICATION SECTIONS 01731 AND 01732 FOR ADDITIONAL DEMOLITION AND PATCHING REQUIREMENTS.
8. REFER ALSO TO ARCHITECTURAL WALL SECTIONS FOR ADDITIONAL SELECTIVE DEMOLITION.

#### DEMOLITION KEYNOTES

1. REMOVE MECHANICAL EQUIPMENT, REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL NOTES AND DETAILS. PATCH, REPAIR AND/OR FILL EXPOSED ADJACENT SURFACES TO MATCH EXISTING (U.O.N.).
2. REMOVE EXTERIOR DOOR(S), FRAMING AND GLAZING, INCLUDING ADJACENT GLAZED-IN PANELS, ALUMINUM THRESHOLDS AND HARDWARE. TURN OVER DOORS AND HARDWARE TO THE OWNER, FOR THEIR STOCK, IF REQUESTED. MASONRY SILL WALLS BELOW TO REMAIN. PREPARE OPENING TO RECEIVE NEW FRAME.
3. REMOVE INTERIOR DOOR(S), FRAMING AND GLAZING, INCLUDING ADJACENT GLAZED-IN PANELS, ALUMINUM THRESHOLDS AND HARDWARE. TURN OVER DOORS AND HARDWARE TO THE OWNER, FOR THEIR STOCK, IF REQUESTED. MASONRY SILL WALLS BELOW TO REMAIN. PREPARE OPENING TO RECEIVE NEW FRAME.
4. REMOVE EXISTING LOCKSET, PREPARE DOOR TO RECEIVE NEW ELECTRONIC LOCKSET, AND RELATED HARDWARE. AS PART OF ALTERNATE NO. A-3. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
5. REMOVE EXISTING LOCKSET, PREPARE DOOR TO RECEIVE NEW ELECTRONIC LOCKSET, AND RELATED HARDWARE. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
6. REMOVE GLAZING FROM EXISTING DOOR AND PREPARE OPENING FOR NEW GLAZING AS PART OF ALTERNATE NO. A1.
7. REMOVE GLAZING FROM EXISTING FRAME AND PREPARE OPENING FOR NEW GLAZING AS PART OF ALTERNATE NO. A1.
8. REMOVE EXISTING FRAME STRIKE AND PREPARE FRAME TO RECEIVE NEW ELECTRONIC STRIKE AS PART OF ALTERNATE NO. A-2. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
9. REMOVE CARPET FLOOR FINISH AND PREPARE SUBSTRATE TO RECEIVE NEW FINISHES SCHEDULED. REFER TO FINISH DRAWINGS.
10. REMOVE RESILIENT TILE FLOOR FINISH AND PREPARE SUBSTRATE TO RECEIVE NEW FINISHES SCHEDULED. REFER TO FINISH DRAWINGS.
11. REMOVE EXISTING GLAZING ALUMINUM WINDOW FRAME FROM EXISTING OPENING. PREPARE OPENING TO RECEIVE NEW TRANSLUCENT PANEL SYSTEM AND FRAMING ASSEMBLY.
12. REMOVE EXISTING CASEWORK AND SALVAGE FOR REINSTALLATION, TYP.
13. REMOVE EXISTING CASEWORK AND TURN OVER TO OWNER, IF REQUESTED.
14. REMOVE PORTION OF EXISTING WALL AND PREPARE OPENING TO RECEIVE NEW FRAME.
15. REMOVE EXISTING 10'x4' TACKBOARD AND ADHESIVES. PATCH AND REPAIR WALL FOR NEW PAINT FINISH.
16. REMOVE EXISTING MILLWORK FRONT FULL LENGTH. RETAIN EXISTING ELECTRICAL WIRING AND BOXES FOR REINSTALLATION IN NEW MILLWORK FRONT.

#### SALVAGED ITEMS

- DOORS AND HARDWARE.
- 
- 
- 
- 



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#### REGISTRATION SEAL

#### CONSULTANT

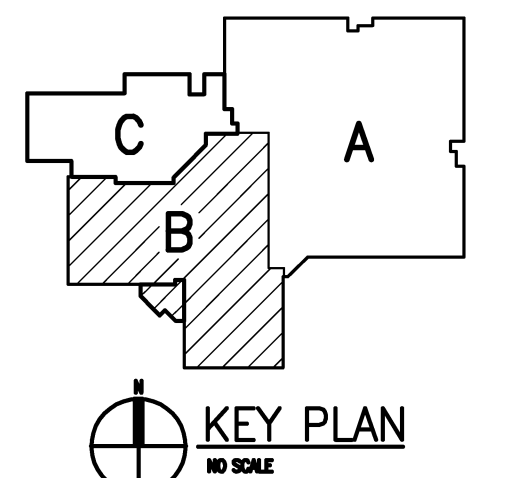
#### PROJECT TITLE

### Bingham Farms Elementary School Remodeling

#### Birmingham Public Schools Bingham Farms, Michigan

#### DRAWING TITLE

### Demolition Plan - Zone 'B'



#### ISSUE DATES

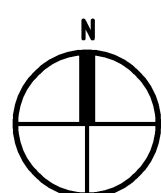
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| 02-15-2016 | BP NO. 1 - BIDS |
| DRAWN      | AKW, GAS        |
| CHECKED    | JJM             |
| APPROVED   | JJC             |

#### PROJECT NO.

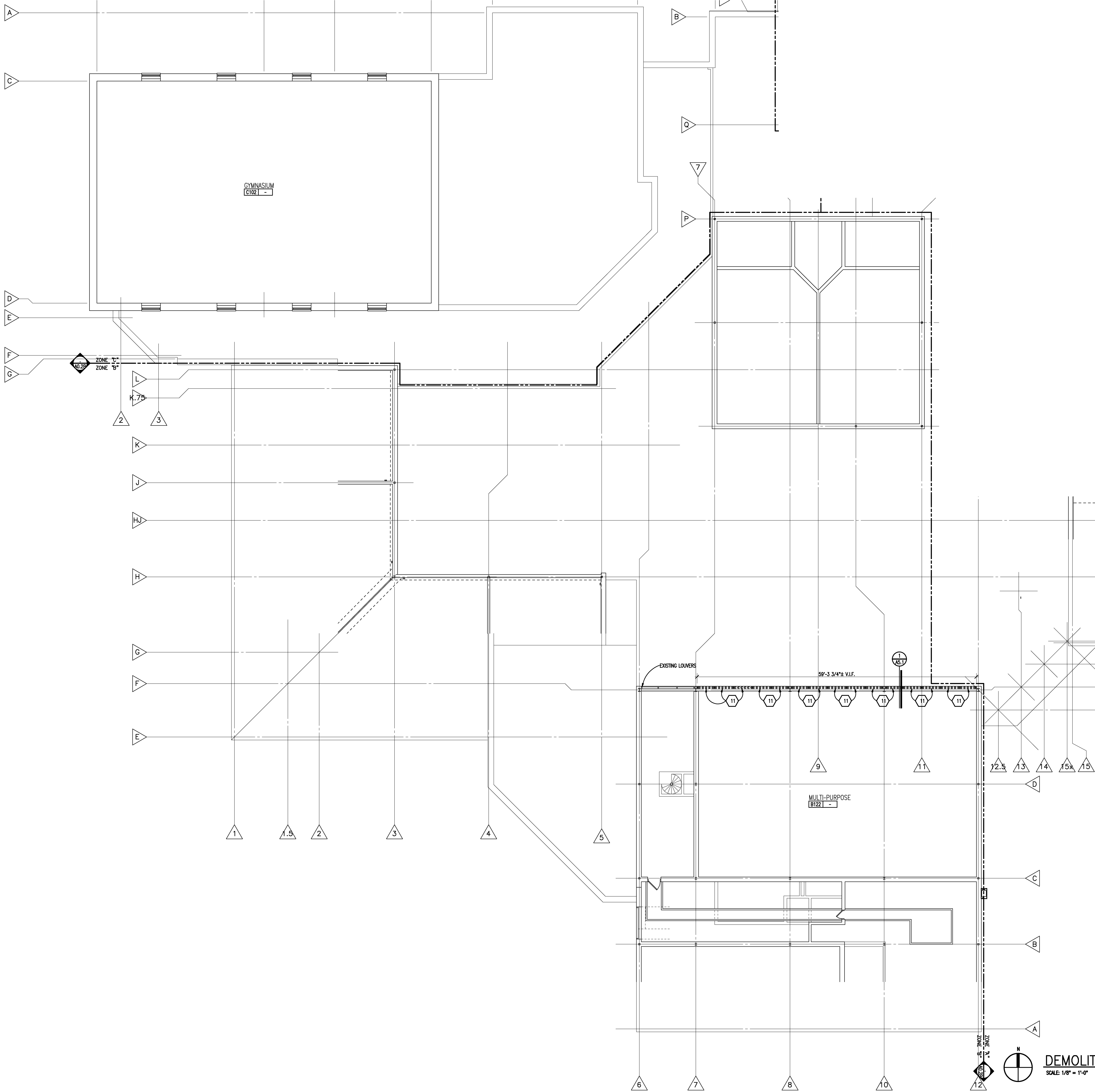
15098

#### DRAWING NO.

A0.1B



DEMOLITION PLAN - ZONE 'B'  
SCALE: 1/8" = 1'-0"



- GENERAL NOTES**
1. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR RELATED AND ADDITIONAL DEMOLITION AND PATCHING WORK BY MECHANICAL AND ELECTRICAL TRADES.
  2. NOT USED.
  3. SEE CIVIL DRAWINGS FOR SITE DEMOLITION AND PATCHING WORK.
  4. SEE EXTERIOR ELEVATIONS FOR ADDITIONAL DEMOLITION AND PATCHING WORK AT EXTERIOR OF BUILDING, INCLUDING (BUT NOT LIMITED TO) DEMOLITION NOTES RELATED TO WINDOW REPLACEMENT.
  5. WHERE REMOVAL OF CASEWORK, MILLWORK, CHALKBOARD, TACKBOARD, OR EQUIPMENT, IS INDICATED, FILL HOLES AND PATCH EXISTING WALLS, BASES AND CEILINGS WHICH ARE TO REMAIN EXPOSED.
  6. UNLESS OTHERWISE INDICATED, TOOTH NEW MATERIAL INTO EXISTING WHEREVER INFILL REMAINS EXPOSED.
  7. SEE SPECIFICATION SECTIONS 01731 AND 01732 FOR ADDITIONAL DEMOLITION AND PATCHING REQUIREMENTS.
  8. REFER ALSO TO ARCHITECTURAL WALL SECTIONS FOR ADDITIONAL SELECTIVE DEMOLITION.

- DEMOLITION KEYNOTES**
- 1 REMOVE MECHANICAL EQUIPMENT, REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL NOTES AND DETAILS. PATCH, REPAIR AND/OR FILL EXPOSED ADJACENT SURFACES TO MATCH EXISTING (U.O.N.).
  - 2 REMOVE EXTERIOR DOOR(S), FRAMING AND GLAZING, INCLUDING ADJACENT GLAZED-IN PANELS, ALUMINUM THRESHOLDS AND HARDWARE. TURN OVER DOORS AND HARDWARE TO THE OWNER, FOR THEIR STOCK, IF REQUESTED. MASONRY SILL WALLS BELOW TO REMAIN. PREPARE OPENING TO RECEIVE NEW FRAME.
  - 3 REMOVE INTERIOR DOOR(S), FRAMING AND GLAZING, INCLUDING ADJACENT GLAZED-IN PANELS, ALUMINUM THRESHOLDS AND HARDWARE. TURN OVER DOORS AND HARDWARE TO THE OWNER, FOR THEIR STOCK, IF REQUESTED. MASONRY SILL WALLS BELOW TO REMAIN. PREPARE OPENING TO RECEIVE NEW FRAME.
  - 4 REMOVE EXISTING LOCKSET. PREPARE DOOR TO RECEIVE NEW ELECTRONIC LOCKSET, AND RELATED HARDWARE. AS PART OF ALTERNATE NO. A-3. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
  - 5 REMOVE EXISTING LOCKSET. PREPARE DOOR TO RECEIVE NEW ELECTRONIC LOCKSET, AND RELATED HARDWARE. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
  - 6 REMOVE GLAZING FROM EXISTING DOOR AND PREPARE OPENING FOR NEW GLAZING AS PART OF ALTERNATE NO. A1.
  - 7 REMOVE GLAZING FROM EXISTING FRAME AND PREPARE OPENING FOR NEW GLAZING AS PART OF ALTERNATE NO. A1.
  - 8 REMOVE EXISTING FRAME STRIKE AND PREPARE FRAME TO RECEIVE NEW ELECTRONIC STRIKE AS PART OF ALTERNATE NO. A-2. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
  - 9 REMOVE CARPET FLOOR FINISH AND PREPARE SUBSTRATE TO RECEIVE NEW FINISHES SCHEDULED. REFER TO FINISH DRAWINGS.
  - 10 REMOVE RESILIENT TILE FLOOR FINISH AND PREPARE SUBSTRATE TO RECEIVE NEW FINISHES SCHEDULED. REFER TO FINISH DRAWINGS.
  - 11 REMOVE EXISTING GLAZING ALUMINUM WINDOW FRAME FROM EXISTING OPENING. PREPARE OPENING TO RECEIVE NEW TRANSLUCENT PANEL SYSTEM AND FRAMING ASSEMBLY.
  - 12 REMOVE EXISTING CASEWORK AND SALVAGE FOR REINSTALLATION, TYP.
  - 13 REMOVE EXISTING CASEWORK AND TURN OVER TO OWNER, IF REQUESTED.
  - 14 REMOVE PORTION OF EXISTING WALL AND PREPARE OPENING TO RECEIVE NEW FRAME.
  - 15 REMOVE EXISTING 10'X4' TACKBOARD AND ADHESIVES. PATCH AND REPAIR WALL FOR NEW PAINT FINISH.
  - 16 REMOVE EXISTING MILLWORK FRONT FULL LENGTH. RETAIN EXISTING ELECTRICAL WIRING AND BOXES FOR REINSTALLATION IN NEW MILLWORK FRONT.

- SALVAGED ITEMS**
- DOORS AND HARDWARE.
  - 
  - 
  - 
  -



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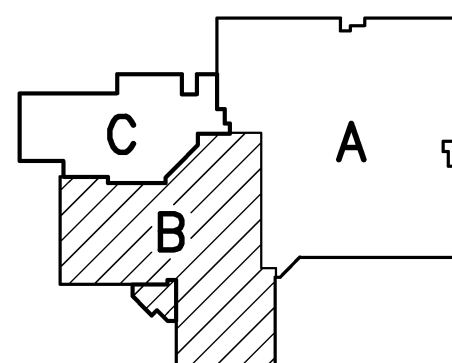
REGISTRATION SEAL

CONSULTANT

PROJECT TITLE  
**Bingham Farms  
Elementary School  
Remodeling**

Birmingham Public Schools  
Bingham Farms, Michigan

DRAWING TITLE  
**Demolition Clerestory  
Plan - Zone 'B'**



KEY PLAN  
NO SCALE

ISSUE DATES

|            |                 |
|------------|-----------------|
| DATE       | ISSUED FOR:     |
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| DRAWN    | AKW, GAS |
| CHECKED  | JMM      |
| APPROVED | JJC      |

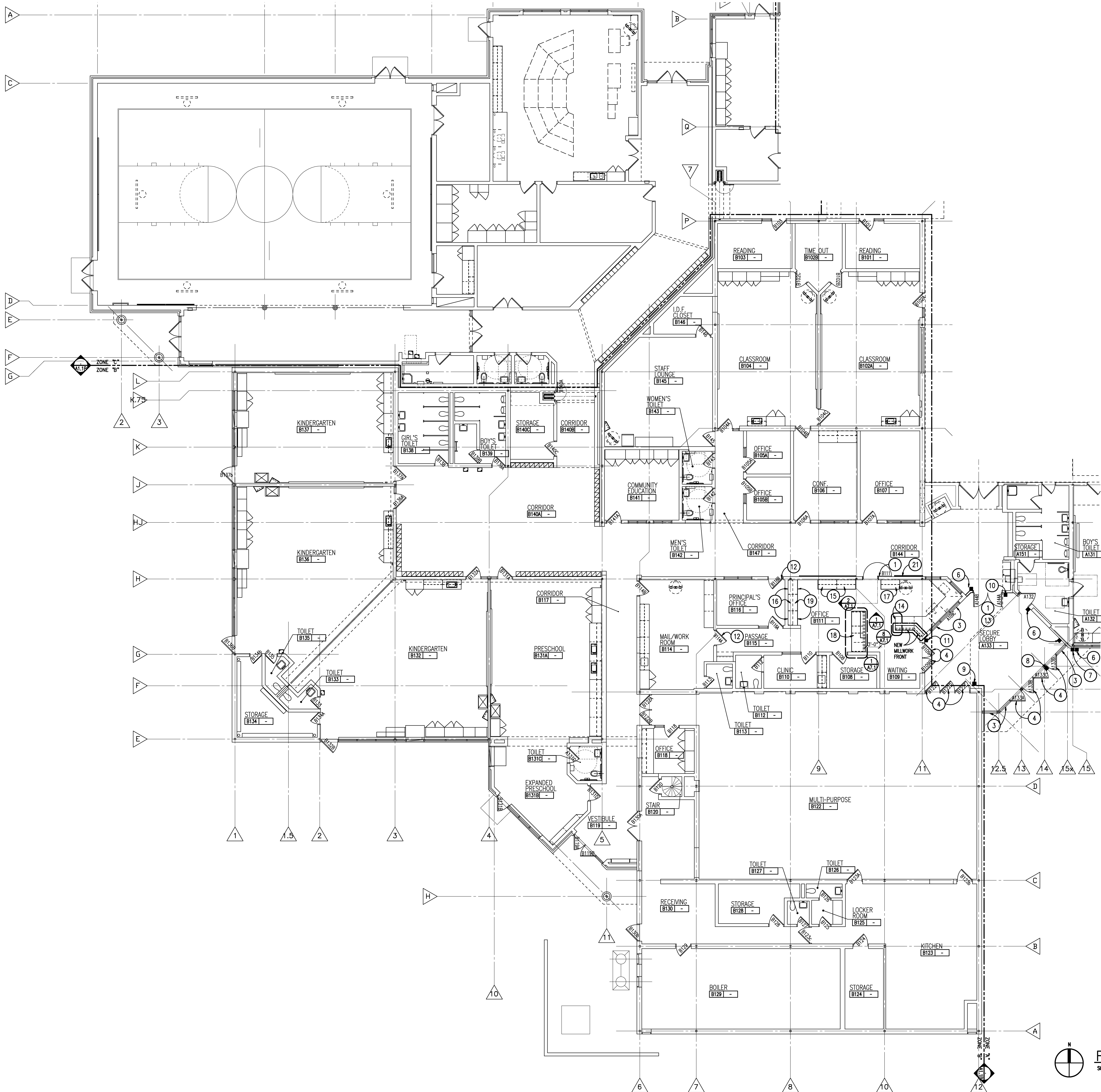
PROJECT NO.

**15098**

DRAWING NO.

**A0.2B**

**DEMOLITION CLERESTORY PLAN - ZONE 'B'**  
SCALE: 1/8" = 1'-0"



WALL / PARTITION KEY

EXISTING WALL CONSTRUCTION

METAL STUD PARTITION

CONCRETE MASONRY UNIT w/ HORIZONTAL JOINT REINFORCEMENT AT 16" O.C.

CAST-IN-PLACE CONCRETE WALL (REFER TO STRUCTURAL FOR REINFORCING REQUIREMENTS)

GENERAL NOTES

1. COORDINATE SIZE AND LOCATION OF ALL ACCESS PANELS WITH TRADE REQUIRING THE SAME. ACCESS PANELS ARE SPECIFIED ARCHITECTURALLY BUT ARE REQUIRED TO BE PROVIDED BY EACH TRADE. ALL LOCATIONS MUST BE COORDINATED AND APPROVED BY THE ARCHITECT'S FIELD REPRESENTATIVE.

2. CONTRACTORS SHALL VERIFY ALL EXISTING BUILDING DIMENSIONS, PARTITION AND WALL LOCATIONS, AND FLOOR ELEVATIONS IN THE FIELD AND NOTIFY THE ARCHITECT'S REPRESENTATIVE OF ANY DISCREPANCIES BEFORE START OF WORK.

3. FLOOR PLANS ARE DIMENSIONED TO NOMINAL WALL THICKNESS - TYPICAL.

4. DIMENSIONS FOLLOWED BY ± SHOULD BE REVIEWED AND ALL NECESSARY ADJUSTMENTS MADE PRIOR TO FABRICATION AND/OR INSTALLATION OF AFFECTED WORK. NOTIFY ARCHITECT'S REPRESENTATIVE IF DISCREPANCIES ARISE BEFORE PROCEEDING WITH THE WORK.

5. PROVIDE INTERIOR CMU AND GYPSUM BOARD CONTROL JOINTS AT BOTH JAMBS OF DOORS, WINDOWS, AND OPENINGS. PROVIDE AT HEAD AND SILL OF WINDOWS AND PASS THRU OPENINGS.

6. PROVIDE CONTROL JOINTS WHERE INTERIOR CMU (ON SLAB) ABUTS EXTERIOR/INTERIOR MASONRY (ON FOUNDATIONS OR FOOTINGS).

7. VERIFY QUANTITY, SIZE, AND LOCATION OF ALL FLOOR, ROOF, AND WALL OPENINGS FOR MECHANICAL AND ELECTRICAL WORK WITH THE APPROPRIATE TRADE. PROVIDE ALL OPENINGS SHOWN OR REQUIRED FOR THE COMPLETION OF THE WORK. PROVIDE ALL UNITS REQUIRED FOR THESE OPENINGS PER SPECIFICATIONS.

8. REFER TO REFLECTED CEILING PLANS FOR EXTENSION OF PARTITION WALLS TO FLOOR OR ROOF CONSTRUCTION ABOVE AND WALL FIRE RESISTANCE RATING REQUIREMENTS.

9. REFER TO A100\_ SERIES DRAWINGS FOR FLOOR FINISH PATTERNS AND ROOM FINISHES.

10. VERIFY ALL DIMENSIONS IN FIELD.

11. PROVIDE WOOD BLOCKING WITHIN STUD WALLS FOR WALL MOUNTED ITEMS I.e. GRAB BARS, TOWEL DISPENSERS, PENCIL SHARPENERS, WALL STOPS, ACCORDION PARTITION JAMBS, ETC. REFER ALSO TO A9\_ SERIES AND A6\_ SERIES DRAWINGS.

12. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF NEW FLOOR MOUNTED, LOW PROFILE RACEWAY ASSEMBLIES. REMOVE AND SALVAGE PORTIONS OF EXISTING CARPET IN AREA WHERE RACEWAY IS TO BE INSTALLED. ONCE RACEWAY IS INSTALLED, REINSTALL CARPET OVER CONCEALED SLOPED BLOCKING PORTION OF RACEWAY TERMINATING CARPET AT METAL EDGE TRIM OF RACEWAY.

13. WHERE SURFACE MOUNTED CONDUITS AND/OR RACEWAYS ARE INDICATED ON ELECTRICAL DRAWINGS, FINAL LOCATIONS AND CONFIGURATIONS ARE TO BE REVIEWED AND DETERMINED ON SITE WITH THE ARCHITECT PRIOR TO INSTALLATION.

PATCHING NOTES

1. REFER TO DEMOLITION PLANS FOR ADDITIONAL PATCHING NOTES.

2. FOR ALL FLOOR SURFACES RECEIVING NEW FLOOR FINISHES, PREPARE SUBSTRATE BY PROVIDING LEVELING AND PATCHING COMPOUNDS RECOMMENDED BY FINISH FLOORING MANUFACTURERS. CONTRACTOR'S BASE BID PROPOSAL SHALL ASSUME THAT ALL AREAS, INDICATED TO RECEIVE NEW FINISHES, WILL REQUIRE FLOOR PREPARATION.

3. PATCH AND REPAIR ALL FLOOR AND WALL SURFACES LEFT DAMAGED OR INCOMPLETE FROM REMOVAL OF EXISTING PARTITIONS, MILLWORK, CASEWORK, CHALKBOARDS, TACKBOARDS, DISPLAY CASES OR OTHER FIXED EQUIPMENT WITH MATERIALS TO MATCH EXISTING, AS ACCEPTABLE TO THE ARCHITECT.

4. MATCH EXISTING MASONRY COURSING ADJACENT IN EACH AREA AND TOOTH NEW WORK INTO EXISTING, UNLESS OTHERWISE INDICATED.

5. AT EXISTING FLOOR FINISHES TO REMAIN, THAT BECOME SUBSTRATES FOR NEW FLOOR FINISHES, PATCH AND FILL EXISTING AS REQUIRED TO PREPARE FOR NEW FLOOR FINISH UNTIL ACCEPTABLE TO NEW FLOOR FINISH CONTRACTOR.

6. TOOTH-IN MASONRY INTO EXISTING, U.O.N., INCLUDING JAMBS OF DOOR AND OTHER OPENINGS.

CONSTRUCTION KEY NOTES

1. INSTALL NEW DOORS, FRAMES, GLAZING AND HARDWARE. REFER TO DRAWING AD1.1 FOR ADDITIONAL INFORMATION.

2. INSTALL NEW DOOR, AND HARDWARE. REFER TO DRAWING AD1.1 FOR ADDITIONAL INFORMATION.

3. INSTALL NEW GLAZING IN EXISTING FRAMES AS PART OF ALTERNATE NO. A1

4. INSTALL NEW GLAZING IN EXISTING DOORS AS PART OF ALTERNATE NO. A1

5. EXISTING POWER DOOR OPERATOR ACTUATOR SWITCH TO REMAIN

6. NEW POWER DOOR OPERATOR ACTUATOR SWITCH

7. EXISTING INTERCOM BOX TO REMAIN

8. EXISTING KEYPAD/PROXIMITY READER TO REMAIN

9. NEW KEYPAD/PROXIMITY READER

10. NEW PROXIMITY READER

11. NEW PROXIMITY READER AND ELECTRONIC STRIKE (REFER TO ALTERNATE A-2)

12. PROVIDE NEW LOCKSET TIED INTO SECURITY SYSTEM AS PER ALTERNATE NO. A-3.

13. PROVIDE NEW SECURITY GLAZING IN LIEU OF SCHEDULED GLAZING IN NEW DOORS AND NEW FRAMING AS PER ALTERNATE NO. A-1.

14. PROVIDE NEW MILLWORK/ END PANEL (TO MATCH), TO END OF EXISTING CASEWORK.

15. REINSTALL SALVAGED CASEWORK.

16. EXISTING WALL CABINETS TO REMAIN.

17. EXISTING WALL AND BASE CABINET TO REMAIN. PROVIDE NEW COUNTERTOP.

18. PROVIDE NEW MILLWORK AND CASEWORK COMBINATION UNIT.

19. PROVIDE NEW CASEWORK BASE UNITS AND COUNTERTOP.

20. INSTALL NEW TRANSLUCENT PANELS AND FRAMING SYSTEM. PROVIDE SEALANT AND FLASHINGS TO ACHIEVE A WEATHER TIGHT SYSTEM.

21. INSTALL NEW 6'-0"x4'-0" TACKBOARD.

FLOOR PLAN - ZONE 'B'  
SCALE: 1/8" = 1'-0"

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REGISTRATION SEAL

CONSULTANT

PROJECT TITLE  
**Bingham Farms  
Elementary School  
Remodeling**

Birmingham Public Schools  
Bingham Farms, Michigan

DRAWING TITLE  
**Floor Plan -  
Zone 'B'**

ISSUE DATES

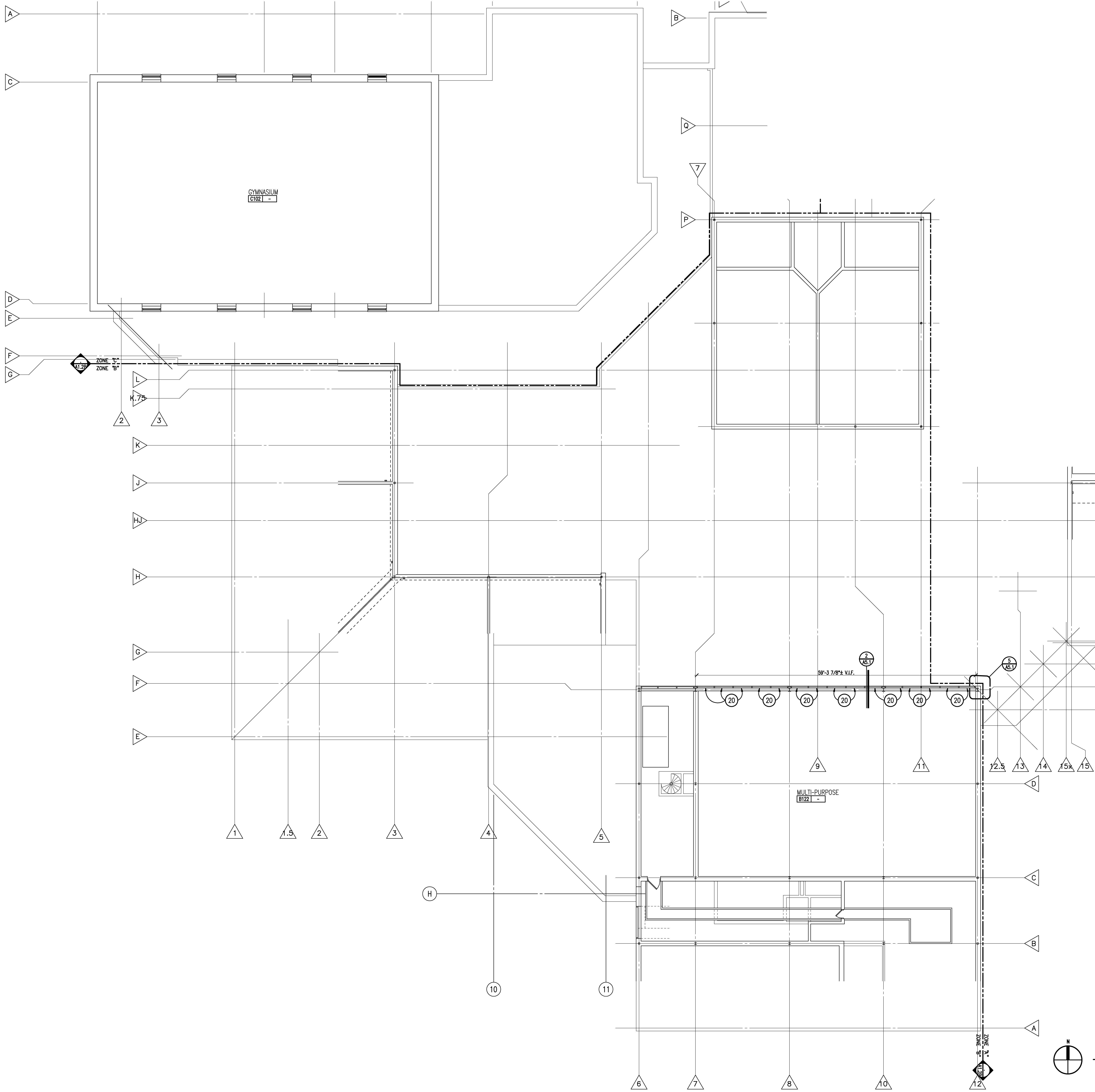
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| DATE:      | ISSUED FOR:     |
| DRAWN:     | AKW, GS         |
| CHECKED:   | JMM             |
| APPROVED:  | JJC             |

PROJECT NO.

**15098**

DRAWING NO.

**A1.1B**

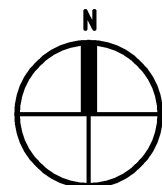


| WALL / PARTITION KEY |  |
|----------------------|--|
|                      | EXISTING WALL CONSTRUCTION   |
|                      | METAL STUD PARTITION   |
|                      | CONCRETE MASONRY UNIT WALL w/ HORIZONTAL JOINT REINFORCEMENT AT 16" O.C.       |
|                      | CAST-IN-PLACE CONCRETE WALL (REFER TO STRUCTURAL FOR REINFORCING REQUIREMENTS) |

- GENERAL NOTES**
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- INSTALL NEW DOORS, FRAMES, GLAZING AND HARDWARE. REFER TO DRAWING AD1.1 FOR ADDITIONAL INFORMATION.
  - INSTALL NEW DOOR, AND HARDWARE. REFER TO DRAWING AD1.1 FOR ADDITIONAL INFORMATION.
  - INSTALL NEW GLAZING IN EXISTING FRAMES AS PART OF ALTERNATE NO. A1
  - INSTALL NEW GLAZING IN EXISTING DOORS AS PART OF ALTERNATE NO. A1
  - EXISTING POWER DOOR OPERATOR ACTUATOR SWITCH TO REMAIN
  - NEW POWER DOOR OPERATOR ACTUATOR SWITCH
  - EXISTING INTERCOM BOX TO REMAIN
  - EXISTING KEYPAD/PROXIMITY READER TO REMAIN
  - NEW KEYPAD/PROXIMITY READER
  - NEW PROXIMITY READER
  - NEW PROXIMITY READER AND ELECTRONIC STRIKE (REFER TO ALTERNATE A-2)
  - PROVIDE NEW LOCKSET TIED INTO SECURITY SYSTEM AS PER ALTERNATE NO. A-3.
  - PROVIDE NEW SECURITY GLAZING IN LIEU OF SCHEDULED GLAZING IN NEW DOORS AND NEW FRAMING AS PER ALTERNATE NO. A-1.
  - PROVIDE NEW MILLWORK END PANEL (TO MATCH), TO END OF EXISTING CASEWORK.
  - REINSTALL SALVAGED CASEWORK.
  - EXISTING WALL CABINETS TO REMAIN.
  - EXISTING WALL AND BASE CABINET TO REMAIN. PROVIDE NEW COUNTERTOP.
  - PROVIDE NEW MILLWORK AND CASEWORK COMBINATION UNIT.
  - PROVIDE NEW CASEWORK BASE UNITS AND COUNTERTOP.
  - INSTALL NEW TRANSLUCENT PANELS AND FRAMING SYSTEM. PROVIDE SEALANT AND FLASHINGS TO ACHIEVE A WEATHER TIGHT SYSTEM.
  - INSTALL NEW 6'-0"x4'-0" TACKBOARD.



**CLERESTORY PLAN - ZONE 'B'**  
SCALE: 1/8" = 1'-0"



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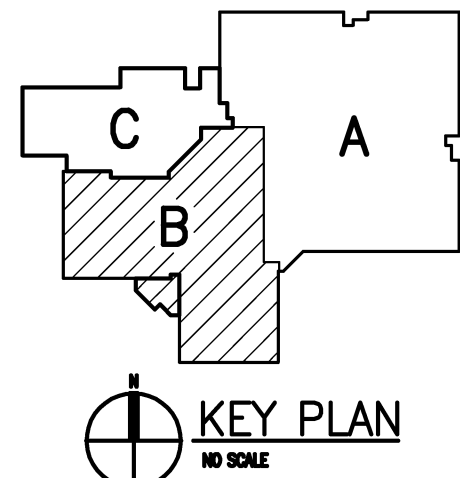
REGISTRATION SEAL

CONSULTANT

PROJECT TITLE  
**Bingham Farms  
Elementary School  
Remodeling**

Birmingham Public Schools  
Bingham Farms, Michigan

DRAWING TITLE  
**Clerestory Plan -  
Zone 'B'**



ISSUE DATES

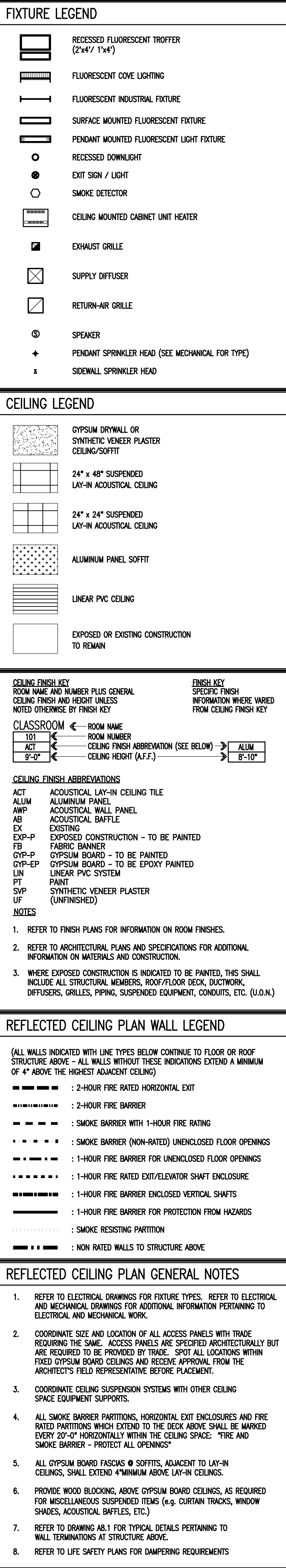
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| 02-15-2016 | BP NO. 1 - BIOS |
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DRAWING NO.

**A1.2B**





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REGISTRATION SEAL

CONSULTANT

PROJECT TITLE  
**Bingham Farms  
Elementary School  
Remodeling**

**Birmingham Public Schools  
Bingham Farms, Michigan**

DRAWING TITLE  
**Wall Sections &  
Plan Details**

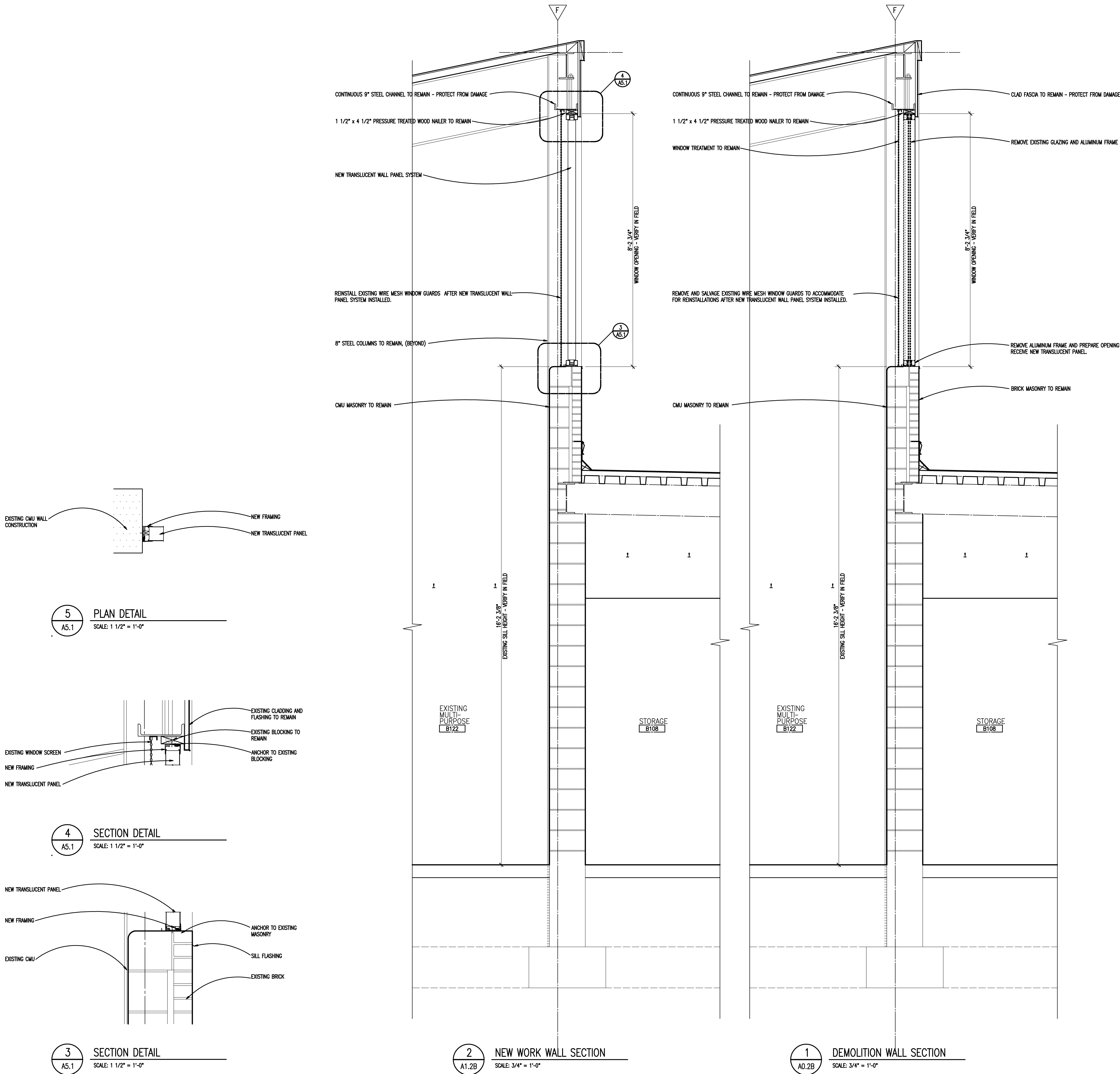
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| CHECKED     | JMM             |
| APPROVED    | JJC             |

PROJECT NO.

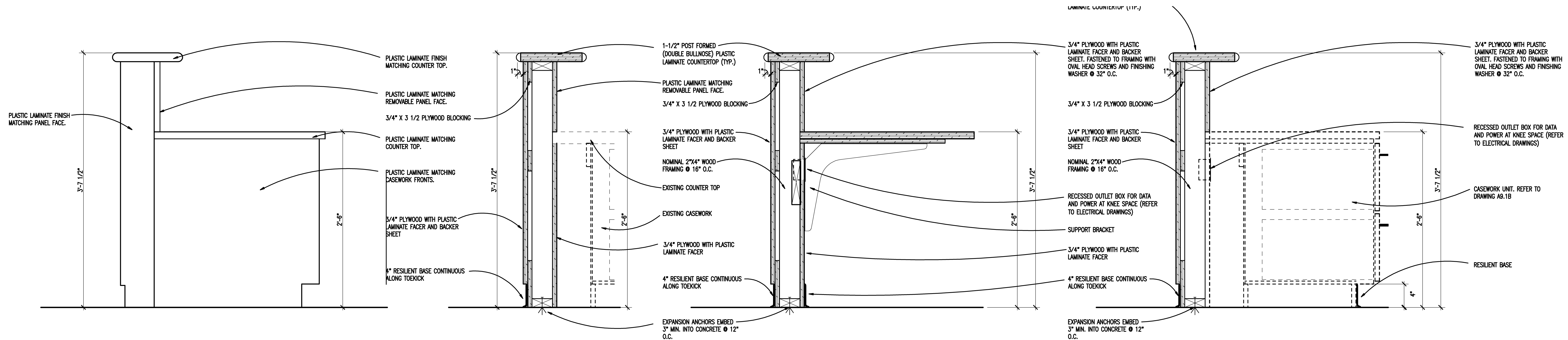
**15098**

DRAWING NO.

**A5.1**



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Feb 15, 2016 - 8:54am

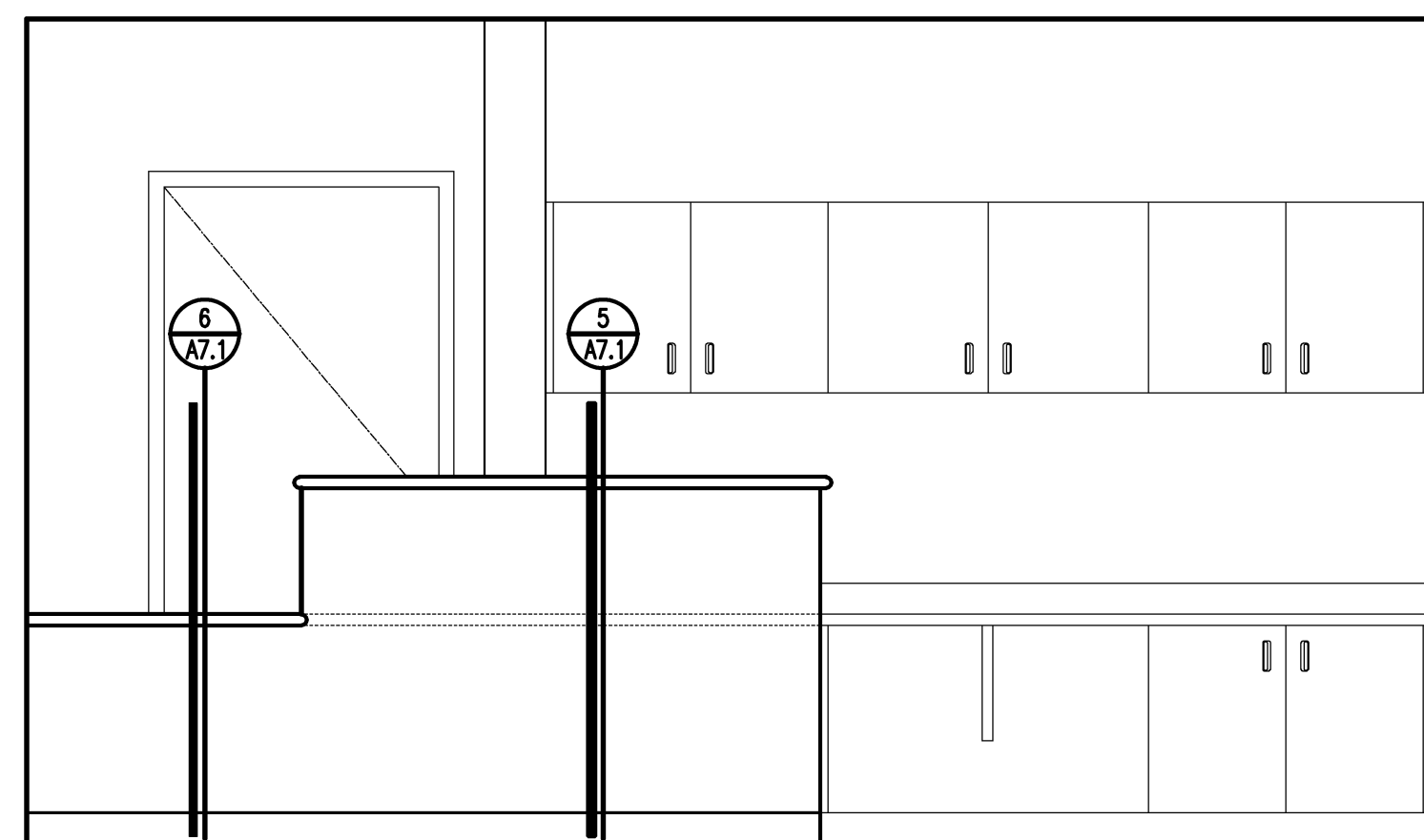


8 TRANSACTION COUNTER ELEVATION  
A1.1B SCALE: 1 1/2" = 1'-0"

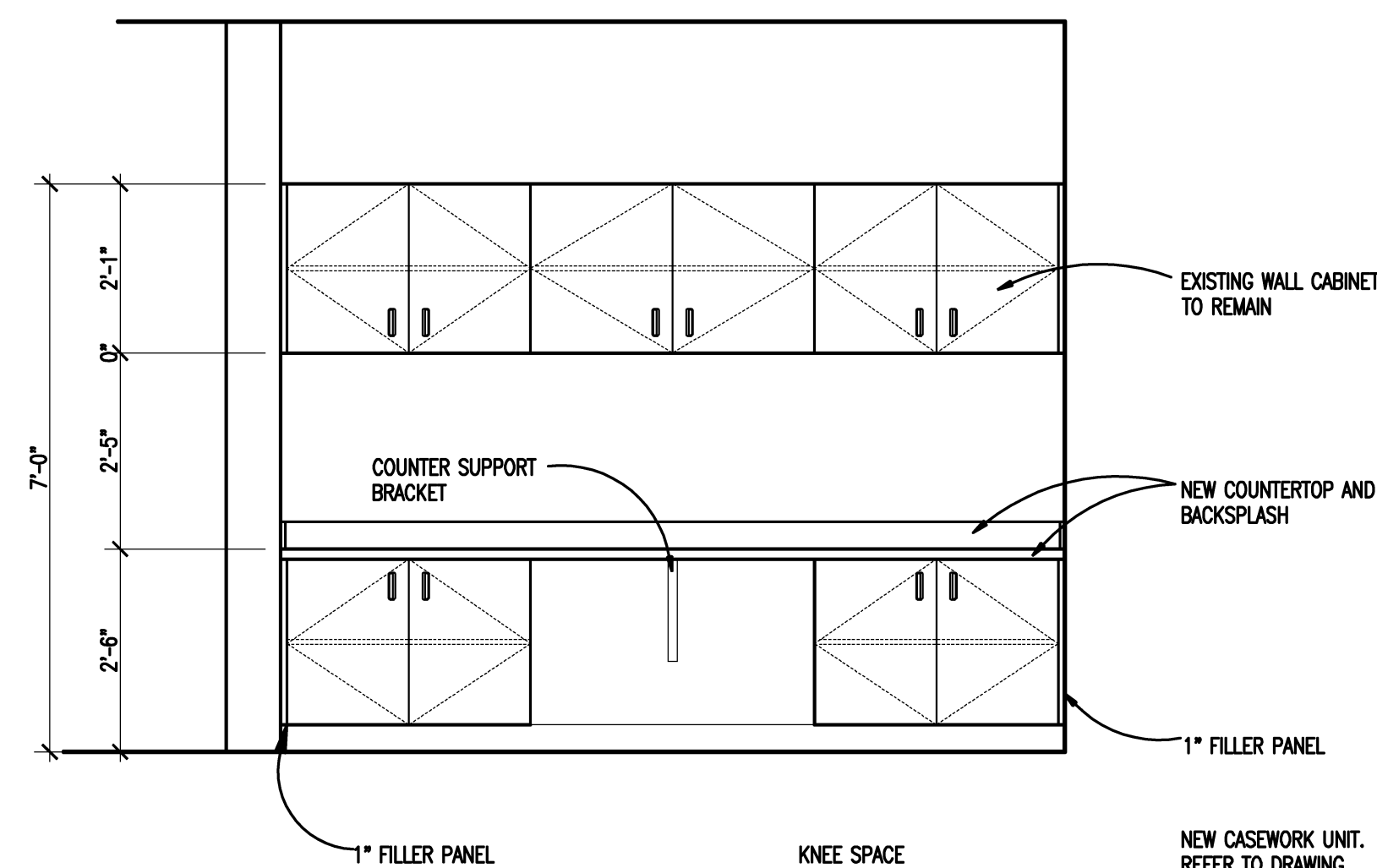
7 TRANSACTION COUNTER DETAIL - B111  
A7.1 SCALE: 1 1/2" = 1'-0"

6 TRANSACTION COUNTER DETAIL - B111  
A7.1 SCALE: 1 1/2" = 1'-0"

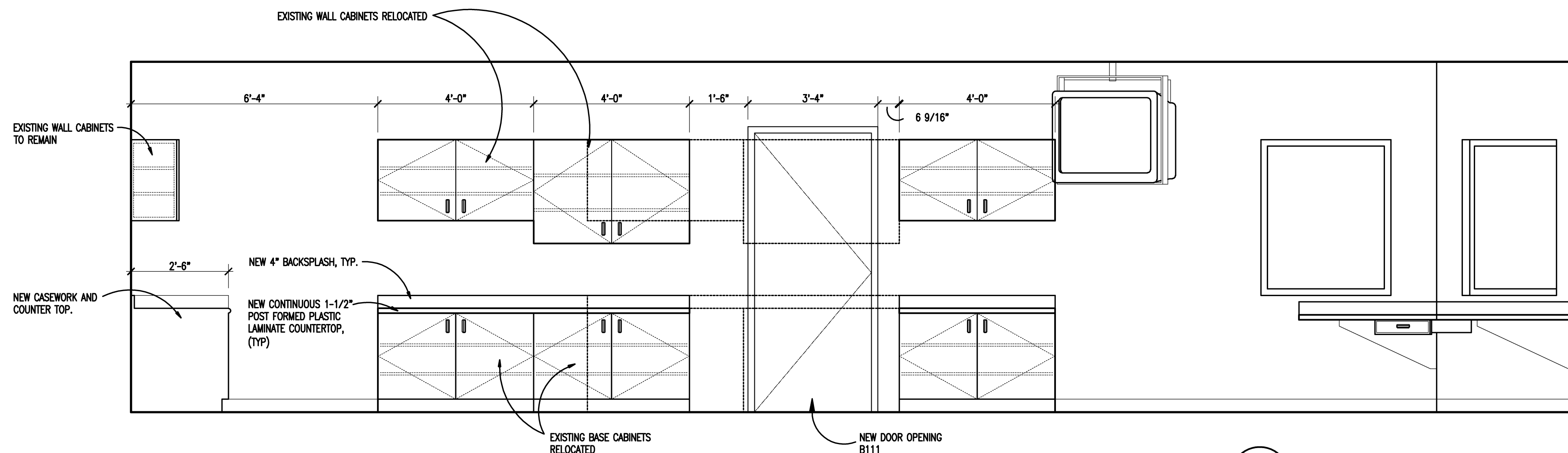
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A7.1 SCALE: 1 1/2" = 1'-0"



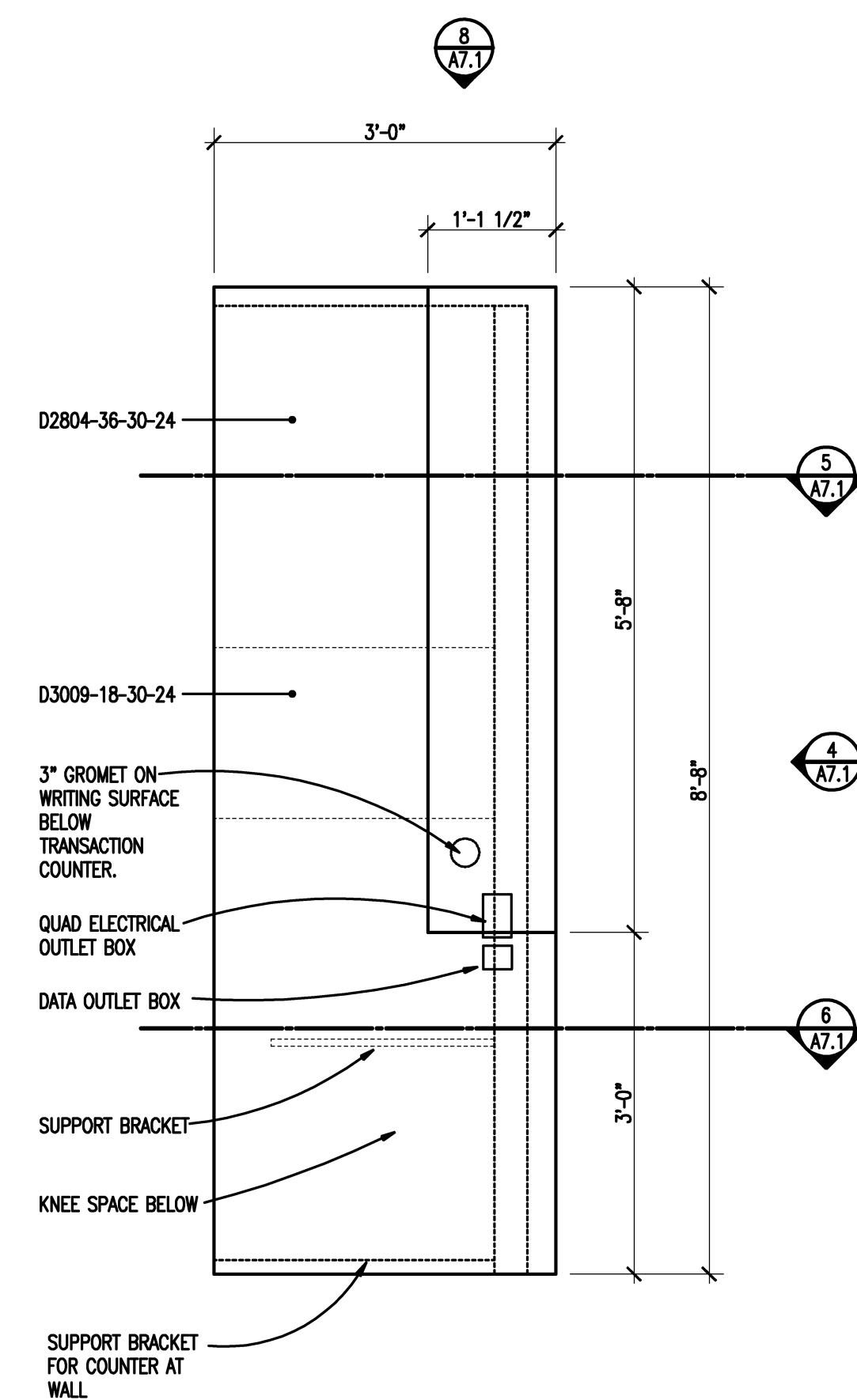
4 INTERIOR ELEVATION - B111  
A7.1 SCALE: 1/2" = 1'-0"



3 INTERIOR ELEVATION - B111  
A7.1 SCALE: 1/2" = 1'-0"



2 INTERIOR ELEVATION - B111  
A7.1 SCALE: 1/2" = 1'-0"



1 RECEPTION COUNTER PLAN  
A1.1B SCALE: 3/4" = 1'-0"  
A9.1



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REGISTRATION SEAL

CONSULTANT

PROJECT TITLE  
**Bingham Farms  
Elementary School  
Remodeling**

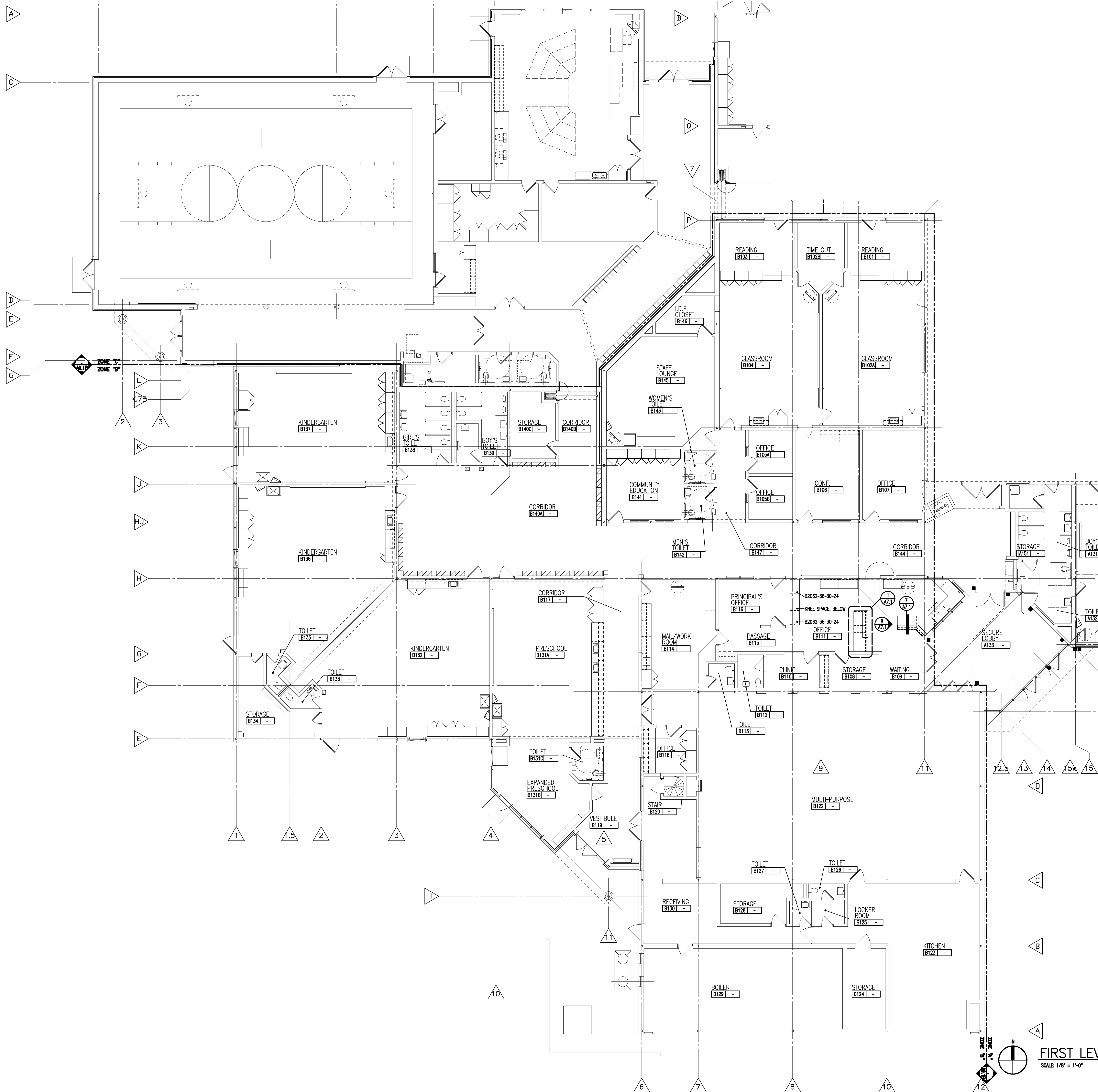
**Birmingham Public Schools  
Bingham Farms, Michigan**

DRAWING TITLE  
**Interior Elevations**

ISSUE DATES

|            |                 |
|------------|-----------------|
| 02-15-2016 | BP NO. 1 - BIDS |
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| DRAWN      | AKW             |
| CHECKED    | JMM             |
| APPROVED   | JJC             |

PROJECT NO.  
**15098**  
DRAWING NO.  
**A7.1**



**LEGEND**

T.V. MONITOR (N.I.C.) & OVERHEAD SUSPENDED MOUNT (N.I.C.), PROVIDE MISC. STEEL AS REQUIRED TO HANG FROM STRUCTURAL STEEL.

T.V. MONITOR (N.I.C.) ON MOBILE CART OR COUNTER. (SEE FURNISHINGS DRAWINGS)

WALL MOUNTED PENCIL SHARPENER (P.S.) @ 48" A.F.F. (FURNISHED BY OWNER, INSTALLED BY CONTRACTOR)

FIRE EXTINGUISHER ON WALL BRACKET (F.E.)

**MARKERBOARD/TACKBOARD NOTES**

TYPE OF BOARD: 6'-0" T.B.

NOTES:

1. C.B. = CHALK BOARD  
T.B. = TACKBOARD  
M.B. = MARKERBOARD
2. MOUNTING HEIGHTS OF T.B./M.B./C.B.:  
- 3'-0" A.F.F. CLASSROOMS  
- 3'-0" A.F.F. STAFF AREAS
3. MAP RAILS TO BE CONTINUOUS OVER MARKERBOARDS, CHALKBOARDS AND ADJACENT TACKBOARDS.
4. ALL MARKERBOARDS/ CHALKBOARDS TO BE PROVIDED WITH TRAYS (EXCEPT WHERE INDICATED THUSLY (X))

**CASEWORK NOTES**

1. ALL PREFABRICATED CABINETS INDICATED ARE BASED ON TMI STORAGE SYSTEMS CORPORATION PRODUCTS. REFER TO TMI CATALOG FOR TYPICAL NUMBERING FORMAT.
2. ALL TMI CABINETS ARE DESIGNATED USING THE TYPICAL TMI ELEVEN DIGIT NOTATION SYSTEM. THE FIRST FIVE DIGITS ARE THE MODEL NUMBER FOLLOWED BY THREE SETS OF TWO DIGIT NUMBERS FOR THE WIDTH, HEIGHT AND DEPTH.
3. WIDTH, HEIGHT AND DEPTH OF PREFABRICATED CABINETS IS INDICATED IN INCHES UNLESS NOTED OTHERWISE. MODEL DIMENSIONS ARE NOMINAL UNLESS SPECIFICALLY NOTED. "00000-00-00-00-0" INDICATES MODIFIED CASEWORK
4. PROVIDE PLASTIC LAMINATE COUNTERTOPS (WITH BACK/END SPLASHES) AT ALL BASE CABINETS RADIUS ALL OUTSIDE CORNERS (U.O.N.).
5. ALL EXPOSED SURFACES OF CASEWORK TO BE FINISHED-TYP.
6. WALL CABINETS (OVER COUNTERS) ARE TYPICALLY MOUNTED AT 7'-0" A.F.F. TO TOP (U.O.N.).
7. PROVIDE FINISHED END PANELS ON ALL EXPOSED CASEWORK ENDS.
8. PROVIDE RESTRAINING CHAINS ON ALL END BASE AND WALL CABINET DOORS WHICH OPEN AGAINST PERPENDICULAR WALLS.
9. WHERE CASEWORK IS HELD AWAY FROM WALLS, TO FLUSH-OUT WITH ADJACENT CABINETS, SCRIBE END/FILLER PANELS TO WALLS.
10. PROVIDE FILLER PANELS WHERE SHOWN AND/OR OTHERWISE REQUIRED FOR A COMPLETE INSTALLATION.
11. PROVIDE LOCKS AT ALL CABINETS AND DRAWERS (U.O.N.).
12. MODIFY SINK BASE CABINETS AS REQUIRED TO ACCOMMODATE OVERSIZED SINKS (SEE MECHANICAL)
13. WHERE B.F. 34" HIGH BASE CABINETS ARE INDICATED, MODIFY CABINET CONSTRUCTION BY REDUCING THE HEIGHT OF ALL COMPARTMENTS EQUALLY (INDICATE ON SHOP DWGS.)
14. PROVIDE INTERMEDIATE PLASTIC LAMINATE CLAD SUPPORT PANELS @ 4'-0" O.C. MAXIMUM AT ALL UNSUPPORTED COUNTER TOPS (U.O.N.).
15. PROVIDE GROMMETS AT ALL COUNTERS WITH KNEESPACES, WHERE POWER/DATA OUTLETS ARE LOCATED BELOW (REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS). PROVIDE (1) ONE GROMMET PER KNEESPACE (U.O.N.). FINAL LOCATION(S) WILL BE MARKED-UP ON THE SHOP DRAWING SUBMITTAL.
16. IN SCIENCE LABS ACID NEUTRALIZATION TANKS TO BE PROVIDED IN TEACHER DEMONSTRATION TABLES.
17. PROVIDE MOISTURE RESISTANT PARTICLE BOARD AT SINK BASE, COUNTERTOP, AND SPLASH WITHIN 18" OF SINK.
20. ALL TYPICAL MUSIC WING CABINETS INDICATED ARE BASED ON WENGER CORPORATION PRODUCTS. REFER TO WENGER CATALOG FOR TYPICAL NUMBERING FORMAT.
21. ALL WENGER CABINETRY IS DESIGNATED USING THE PREFIX "W-" AND THEN THE WENGER NUMBERING SYSTEM.
22. ALL TYPICAL PHOTOGRAPHY CABINETS/EQUIPMENT INDICATED ARE BASED ON KREOLAB CORPORATION PRODUCTS. REFER TO KREOLAB CATALOG FOR TYPICAL NUMBERING FORMAT.
23. ALL KREOLAB CABINETRY IS DESIGNATED USING THE PREFIX "K-" AND THEN THE KREOLAB NUMBERING SYSTEM.

**LOCKER LEGEND**

TYPE L-1 SINGLE-TIER STANDARD LOCKERS (12" x 15" x 72" HIGH) VENTILATED

TYPE L-2 DOUBLE-TIER CORRIDOR LOCKERS (12" x 15" x 72" HIGH) VENTILATED

TYPE L-3 SINGLE-TIER CORRIDOR LOCKERS (15" x 15" x 72" HIGH) VENTILATED

TYPE L-4 DOUBLE-TIER CORRIDOR LOCKERS (15" x 15" x 72" HIGH) VENTILATED

TYPE L-5 SINGLE-TIER ATHLETIC LOCKERS (12" x 12" x 72" HIGH) VENTILATED

TYPE L-6 DOUBLE-TIER ATHLETIC LOCKERS (15" x 15" x 72" HIGH) VENTILATED

TYPE L-7 SIX-TIER ATHLETIC LOCKERS (12" x 12" x 72" HIGH) VENTILATED

LOCKER NOTES:

1. PROVIDE CONTINUOUS SLOPED TOPS AT ALL CORRIDOR LOCKERS ONLY (UNLESS OTHERWISE INDICATED).
2. PROVIDE FILLER PIECES AT ENDS & CORNERS AS REQUIRED.

**PROJECTOR SCREEN LEGEND**

A - 7'-0" W x 7'-0" H MANUALLY OPERATED, WALL MOUNTED

B - 15'-0" W x 15'-0" H ELECTRICALLY OPERATED, SUSPENDED MOUNTED

C - 15'-0" W x 15'-0" H ELECTRICALLY OPERATED, RECESSED MOUNTED

D - 7'-0" W x 7'-0" H ELECTRICALLY OPERATED, RECESSED MOUNTED

E - 12'-0" W x 9'-0" H MANUALLY OPERATED, WALL MOUNTED

NOTES:

1. REFER TO ELECTRICAL PLANS FOR ALL ADDITIONAL INFORMATION.

**INTERIOR SIGNAGE**

THIS IS AN INTERIOR SIGNAGE IDENTIFICATION, REFER TO SPECIFICATIONS FOR INTERIOR SIGNAGE TYPE AND SCHEDULED INFORMATION

**TMP ARCHITECTURE**

TMP ARCHITECTURE INC.

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REGISTRATION SEAL

CONSULTANT

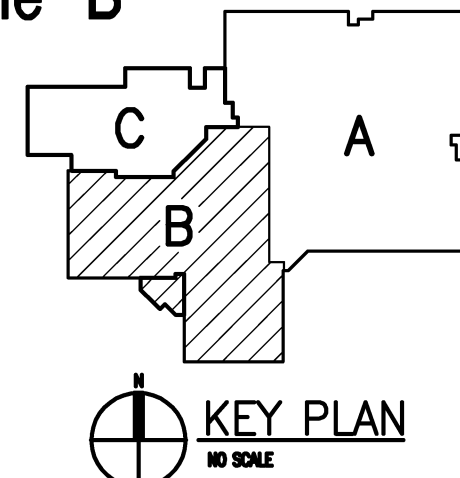
PROJECT TITLE

**Bingham Farms Elementary School Remodeling**

Birmingham Public Schools  
Bingham Farms, Michigan

DRAWING TITLE

**First Level Casework Plan - Zone 'B'**



ISSUE DATES

|            |                 |
|------------|-----------------|
| 02-15-2016 | BP NO. 1 - BIDS |
| DATE       | ISSUED FOR:     |
| DRAWN      | AKW             |
| CHECKED    | JMM             |
| APPROVED   | JJC             |

PROJECT NO.

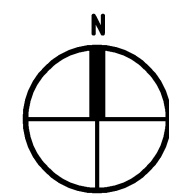
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DRAWING NO.

**A9.1B**

**FIRST LEVEL CASEWORK PLAN - ZONE 'B'**

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



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

## A10.1B

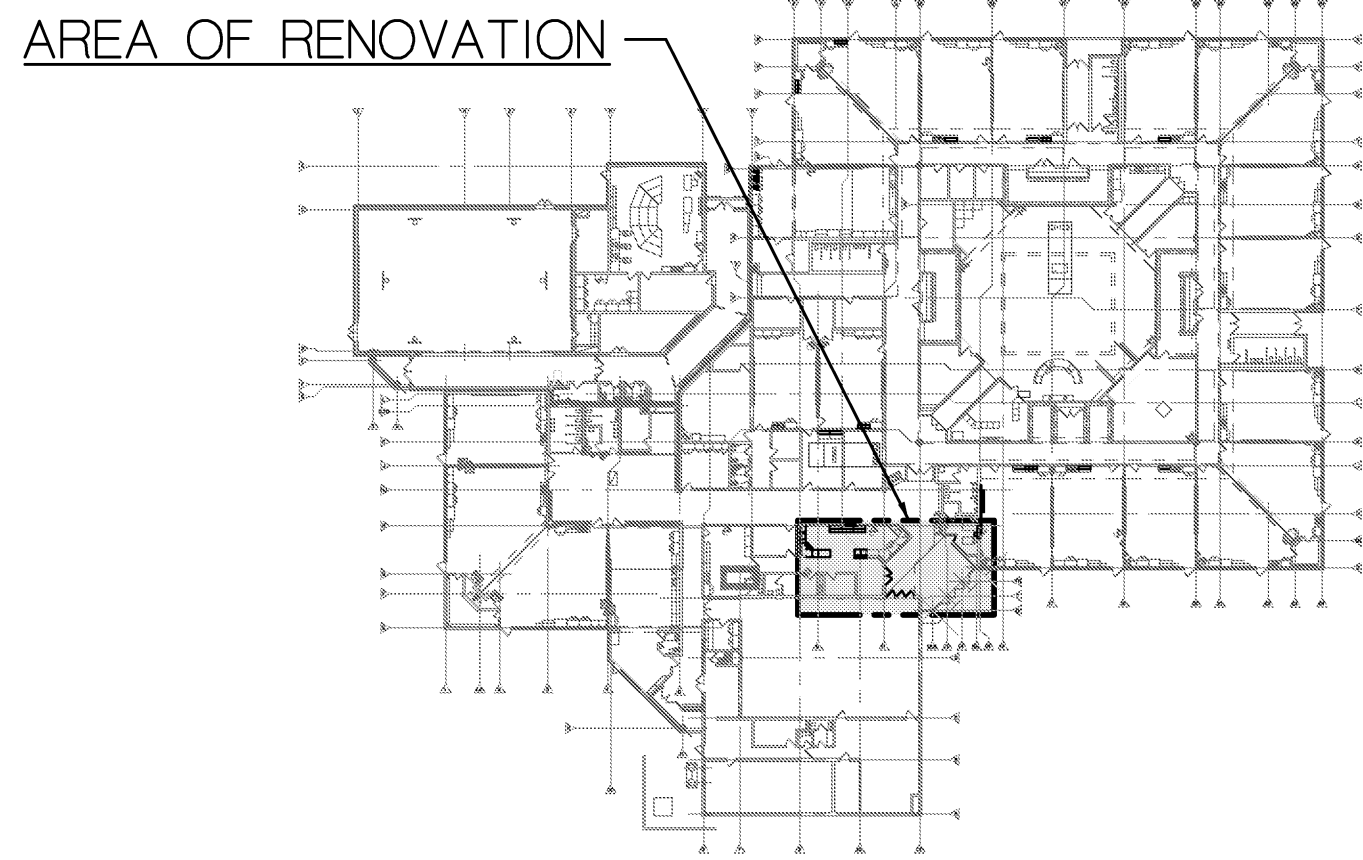
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Plot File: 15098-01.dwg Plot Date: 08/02/2016 Time: 10:00:00



**FIRST LEVEL ELECTRICAL DEMOLITION PLAN - ZONE 'A'**  
SCALE: 1/8" = 1'-0"

- DEMOLITION GENERAL NOTES:**
- 1 REFER TO SPECIFICATIONS FOR COMPLETE REQUIREMENTS.
  - 2 ELECTRICAL CONTRACTOR SHALL VISIT SITE AND VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING BID. INCLUDE ALL DEMOLITION WORK REQUIRED AND MAKE THE SPACE READY FOR THE INSTALLATION OF NEW SYSTEMS AND EQUIPMENT.
  - 3 ALL ELECTRICAL DEVICES, LIGHTING, MECHANICAL EQUIPMENT SERVICES, ETC. DOWNSTREAM OF DEVICES INTENDED TO BE DEMOLISHED OR REVISED SHALL REMAIN OPERATIONAL. PROVIDE ALL BRANCH CIRCUIT WIRING REVISIONS AS REQUIRED TO MAINTAIN OPERATION OF ALL DEVICES, LIGHTING, ETC. NOT INTENDED TO BE REVISED.
  - 4 ALL EXISTING LIGHTING FIXTURES, DEVICES, CONDUIT, WIRING, BOXES, ETC. SHOWN THIS PLAN SHALL BE DEMOLISHED UNLESS OTHERWISE INDICATED TO REMAIN OR INDICATED AS 'EXISTING TO REMAIN', IN CONTRACT DOCUMENTS.
  - 5 ELECTRICAL EQUIPMENT, DEVICES, BOXES, ETC. INDICATED ON ELECTRICAL DEMOLITION DRAWINGS ARE NOT INTENDED TO SHOW COMPLETE DEMOLITION REQUIREMENTS OR ALL ITEMS TO BE DEMOLISHED BUT IS INTENDED TO SHOW MAJOR COMPONENTS ONLY. THE ELECTRICAL DEMOLITION WORK SHALL BE COMPLETE IN ALL DETAILS AND REQUIREMENTS AND READY FOR THE INSTALLATION OF NEW SYSTEMS AND EQUIPMENT.
  - 6 UNLESS OTHERWISE INDICATED, ALL LOW VOLTAGE WIRING NOT REQUIRED TO REMAIN SERVING VOICE, DATA, COMMUNICATIONS, AND SECURITY SHALL BE REMOVED COMPLETE. VERIFY THE USAGE OF LOW VOLTAGE WIRING WITH THE DISTRICT TECHNOLOGY OFFICER PRIOR TO DEMOLITION DO NOT REMOVE EXISTING ACTIVE CABLING OR CABLING REQUIRED TO REMAIN.
  - 7 WHEN REMOVING AN ENCLOSURE, DEVICE, LIGHT FIXTURE, ETC. WIRING NOT REQUIRED SHALL BE REMOVED COMPLETE. NO UNUSED WIRING SHALL REMAIN. INCLUDE FIELD INVESTIGATIONS AND WIRE TRACING IN ORDER TO DETERMINE THE USE AND FUNCTION OF ALL EXISTING WIRING.
  - 8 ALL CONDUIT SHALL BE REMOVED COMPLETE EXCEPT THAT CONDUIT WHICH IS CONCEALED WITHIN EXISTING BUILDING CONSTRUCTION MAY BE ABANDONED IN PLACE ONCE WIRING IS REMOVED.
  - 9 REMOVED EQUIPMENT, CONDUIT, WIRE, RECEPTACLES, TOGGLE SWITCHES, LIGHTING FIXTURES, ETC. SHALL NOT BE REUSED UNLESS OTHERWISE NOTED. SHALL BECOME THE PROPERTY OF THIS CONTRACTOR AND HE/SHE SHALL REMOVE SAME FROM THE PREMISES. REMOVED EQUIPMENT AND MATERIALS SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH ALL ENVIRONMENTAL REQUIREMENTS.
  - 10 ALL WALL PENETRATIONS, CONDUITS OR CONDUIT SLEEVES NO LONGER REQUIRED, REGARDLESS OF THE SYSTEM SERVED, SHALL BE REMOVED COMPLETE WITH THE PENETRATION PATCHED TO MAINTAIN THE ORIGINAL FIRE RATING OR CONSTRUCTION OF THE WALL.

- DEMOLITION KEY NOTES:**
- ① RELOCATE. SEE NEW WORK PLANS FOR REVISED LOCATION.
  - ② REMOVE RECEPTACLE AND CONDUIT TO CEILING. BRANCH CIRCUIT TO BE REUSED TO SERVE NEW RECEPTACLE. SEE NEW WORK PLAN.



**FIRST LEVEL KEY PLAN**  
SCALE: 1/8" = 1'-0"

1/16" 0 2 4 6 8 10 20 40 80  
1/8" 0 1 2 3 4 5 10 20 40  
WHEN USING THIS DRAWING - PLOT OR PRINT FULL SIZE TO ENSURE CORRECT SCALE. NOTE REDUCED SIZE DRAWINGS ARE NOT TO SCALE



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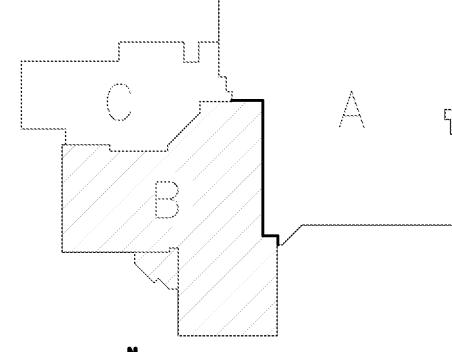
PROJECT TITLE

**Bingham Farms  
Elementary School  
Remodeling**

**Birmingham Public Schools  
Bloomfield Hills,, Michigan**

DRAWING TITLE

**First Level Electrical  
Demolition Plan - Zone 'A'**



**KEY PLAN**  
NO SCALE

ISSUE DATES

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02-15-2016 B.P.No. 1 - BIDS

DATE ISSUED FOR:

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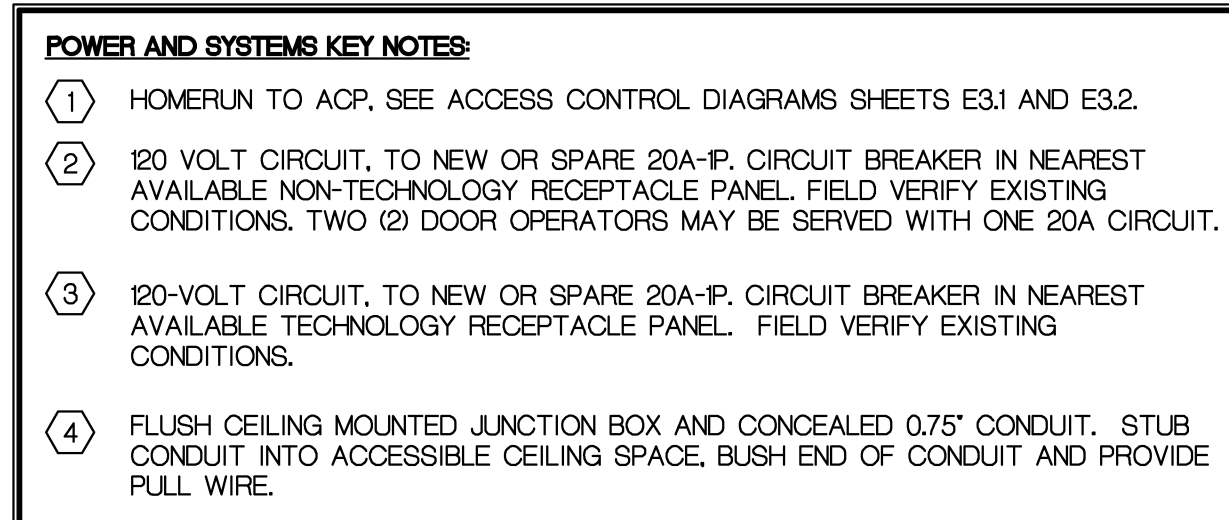
PROJECT NO.

**15098**

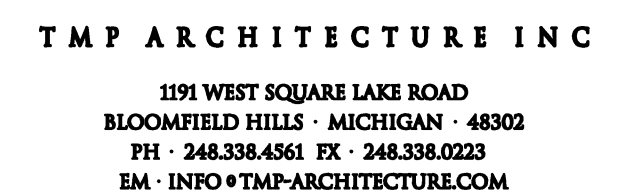
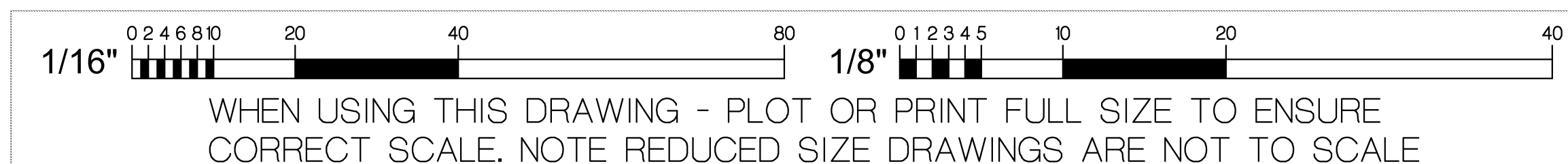
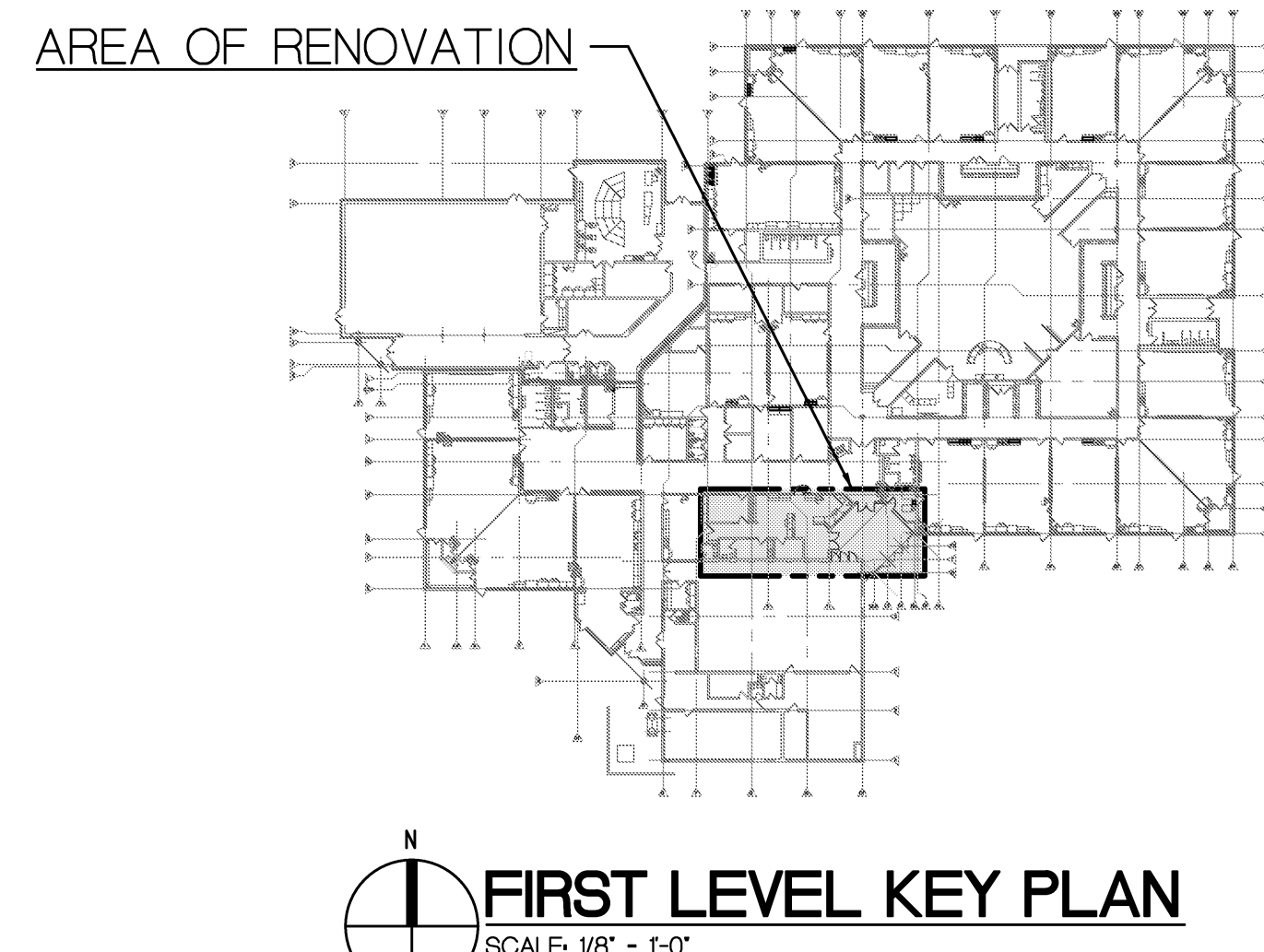
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**E0.1A**





- | POWER AND SYSTEMS GENERAL NOTES |  |
|---------------------------------|--|
| 1                               | REFER TO SPECIFICATIONS FOR COMPLETE REQUIREMENTS.   |
| 2                               | THE DISTRICT UTILIZES A VISITOR NOTIFICATION SYSTEM (VNS). THE VNS UTILIZES A NUMBER OF INTEGRATED BUILDING SYSTEMS INCLUDING CARD ACCESS, VIDEO SECURITY, TELEPHONE/INTERCOM, LOCK DOWN, ETC.   |
| 3                               | ALL CARD ACCESS REVISIONS SHALL BE PERFORMED BY A CARD ACCESS SYSTEM CONTRACTOR WHO SHALL BE A SUBCONTRACTOR TO THE ELECTRICAL CONTRACTOR. REFER TO SPECIFICATIONS FOR A LIST OF ACCEPTABLE SUBCONTRACTORS.  |
| 4                               | ALL CARD ACCESS SYSTEM REVISIONS SHALL BE COORDINATED WITH DOOR HARDWARE REVISIONS AND ARCHITECTURAL TRADES.   |
| 5                               | WIRING, CONNECTIONS AND REVISIONS FOR ALL DOOR HARDWARE COMPONENTS AND DEVICES SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS, WIRING DIAGRAMS AND INSTALLATION INSTRUCTIONS AND THE EQUIPMENT SHOP DRAWINGS.   |
| 6                               | ALL CARD ACCESS AND/OR VNS SYSTEM REVISIONS SHALL BE TESTED FOR PROPER OPERATION.  |
| 7                               | REFER TO CARD ACCESS/VNS SYSTEM WIRING DIAGRAMS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.  |
| 8                               | ALL CONDUIT AND WIRING SHALL BE CONCEALED IN ALL FINISHED AREAS, WHERE CONCEALING CONDUIT IS NOT FEASIBLE, A FINISHED SURFACE RACEWAY (WIREMOLD OR EQUAL) MAY BE USED. WHERE A FINISHED SURFACE RACEWAY IS USED, SURFACE MOUNTED JUNCTION BOXES SHALL ALSO BE A FINISHED SURFACE BOX (WIREMOLD OR EQUAL). REFER TO SPECIFICATIONS FOR COMPLETE REQUIREMENTS.   |
| 9                               | REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT MOUNTING HEIGHT AND LOCATION OF ALL RECEPTACLES AND OUTLETS ABOVE OR BELOW COUNTERS. REFER TO ARCHITECTURAL DRAWINGS, ELEVATIONS AND DETAILS FOR LOCATIONS AND MOUNTING HEIGHTS OF VARIOUS ELECTRICAL RECEPTACLES, OUTLETS AND DEVICES.  |
| 10                              | COORDINATE THE EXACT ROUGH-IN LOCATION OF JUNCTION BOXES OR RECEPTACLES OR OUTLETS, REQUIRED TO SERVE EQUIPMENT BENEATH COUNTERS.  |
| 11                              | REFER TO ARCHITECTURAL DRAWINGS FOR THE SCOPE OF CEILING SYSTEM REVISIONS INCLUDING CEILINGS BEING REPLACED, RAISED OR LOWERED, INCLUDE ALL ELECTRICAL WORK REQUIRED TO ACCOMMODATE CEILING SYSTEM REVISIONS INCLUDING RE-SUPPORTING OR RELOCATING CONDUIT BOXES, WIRING, ETC. REFER TO REMAIN AS REQUIRED FOR CODE CONFORMANCE, INCLUDE ALL CONDUIT, BOX AND WIRING REVISIONS REQUIRED AND COORDINATE ALL WORK WITH ARCHITECTURAL TRADES.   |
| 12                              | MAINTAIN SERVICE TO ALL LOADS NOT INTENDED TO BE REVISED, INTERRUPTED OR DEMOLISHED, PROVIDE ALL CONDUIT, BOX AND WIRING REVISIONS REQUIRED TO ACCOMPLISH SAME AND INCLUDE ALL COSTS IN THE ELECTRICAL BID.  |
| 13                              | MODIFY EXISTING PANELBOARD CIRCUIT BREAKERS AS REQUIRED TO ACCOMMODATE CIRCUITING REQUIREMENTS INDICATED ON PLAN. FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID.   |
| 14                              | LABEL ALL RECEPTACLES, JUNCTION BOXES, DOOR POWER SUPPLIES, ETC. WITH THE PANEL AND CIRCUIT FROM WHICH THEY ARE SERVED. UTILIZE (3" OR 4" DEPEND ON THE SIZE OF THE PANEL) AND LOCATE IT ON THE RECEPTACLE OR JUNCTION BOX COVERPLATE. WHERE RECEPTACLE IS SERVED WITH GENERATOR POWER, UTILIZE RED LETTERS. IN ADDITION, NEATLY WRITE WITH AN INDELEBIL MARKER THE PANEL AND CIRCUIT ON THE INSIDE OF THE RECEPTACLE OR JUNCTION BOX COVERPLATE.  |
| 15                              | USING AN INDELEBIL MARKER, NEATLY LABEL BY HAND, IN ALL UNFINISHED AREAS, JUNCTION BOXES TO INDICATE THE PANEL AND CIRCUIT(S) WHICH THE BOX SERVES.  |
| 16                              | PROVIDE ACCURATE TYPED DIRECTORIES IN ALL PANELBOARDS, TRACE EXISTING CIRCUITS AS REQUIRED TO DETERMINE LOADS SERVED FROM EXISTING CIRCUIT BREAKERS AND COMPLETE PANELBOARD DIRECTORIES ACCORDINGLY.   |
| 17                              | ALL 120 VOLT BRANCH CIRCUITS SHALL BE 2*12 + 1*12 GROUND - 3/4" C SERVED FROM A 20 AMP SINGLE POLE CIRCUIT BREAKER UNLESS OTHERWISE REQUIRED.  |
| 18                              | ALL 120 VOLT CIRCUITS GREATER THAN 90 FEET FROM CIRCUIT BREAKER TO LAST LOAD ON CIRCUIT SHALL BE WITH #10 AWG WIRE.  |
| 19                              | REFER TO MECHANICAL, HVAC AND PLUMBING DRAWINGS FOR MECHANICAL EQUIPMENT REQUIREMENTS, INCLUDE ALL WORK REQUIRED TO ACCOMMODATE MECHANICAL EQUIPMENT REVISIONS, COORDINATE ALL WORK WITH MECHANICAL TRADES AND INCLUDE ALL COSTS IN THE ELECTRICAL BID AS REQUIRED TO ACCOMMODATE MECHANICAL EQUIPMENT REVISIONS.  |
| 20                              | ALL 120-VOLT BRANCH CIRCUITS SHALL HAVE A DEDICATED NEUTRAL CONDUIT.   |
| 21                              | ALL CIRCUIT SERVING WIRING 120 VOLTS OR GREATER SHALL HAVE A GROUND WIRE.  |
| 22                              | PROVIDE ACCURATE TYPED DIRECTORIES IN ALL PANELBOARDS.   |
| 23                              | BRANCH CIRCUIT WIRING SHALL BE IN STRICT ACCORDANCE WITH NEC ARTICLE 30 AND TABLE 301.5 ADJUSTMENT FACTORS FOR MORE THAN THREE CURRENT CARRYING CONDUCTORS IN A RACEWAY. INSTALL A MAXIMUM OF THREE CIRCUITS IN A SINGLE CONDUIT, DERATE THE AMPACITY PER THE NEC WHERE THE NUMBER OF CONDUCTORS EXCEEDS THREE.  |
| 24                              | AS-BUILT DRAWINGS SHALL INDICATE ACTUAL CIRCUITING FOR ALL PROJECT PANELS.   |
| 25                              | ALL VOICE AND DATA CABLEING WILL BE FURNISHED AND INSTALLED BY THE DISTRICTS TECHNOLOGY CONTRACTOR.  |
| 26                              | ALL CAMERA CABLEING WILL BE FURNISHED AND INSTALLED BY THE DISTRICTS TECHNOLOGY CONTRACTOR.  |
| 27                              | PROVIDE A PULL WIRE IN ALL EMPTY CONDUIT.  |
| 28                              | ALL CONDUIT INSTALLED TO SERVE VOICE OR DATA CABLEING SHALL HAVE A BUSHED END STUBBED TO AN ACCESSIBLE CEILING LOCATION.   |
| 29                              | ALL CONDUIT SERVING THE CARD ACCESS SYSTEM SHALL BE CONCEALED WITHIN BUILDING CONSTRUCTION. UTILIZE A FINISHED SURFACE RACEWAY SUCH AS WIREMOLD WHERE CONCEALING CONDUIT IS NOT FEASIBLE AS A RESULT OF EXISTING MASONRY CONSTRUCTION. IN EXISTING DRYWALL CONSTRUCTION, CONCEAL THE CONDUIT.  |
| 30                              | ALL LOW VOLTAGE CARD ACCESS SYSTEM, FIRE ALARM SYSTEM WIRING, AND OTHER INSTALLED BY THIS CONTRACTOR SHALL BE INSTALLED IN CONDUIT OR A FINISHED SURFACE RACEWAY EXCEPT AS FOLLOWS:<br>A. WHERE INSTALLED ABOVE AN ACCESSIBLE LAY-IN CEILING.<br>B. WHERE INSTALLED IN A DOOR OR WINDOW FRAME MULLION  |
| 31                              | LOW VOLTAGE CABLEING SHALL BE INSTALLED AS FOLLOWS OR WHERE THE RACEWAY ONLY IS INSTALLED BY THE ELECTRICAL CONTRACTOR, RACEWAY SHALL BE INSTALLED TO PERMIT CABLEING TO BE INSTALLED AS FOLLOWS:<br>A. NOT INSTALLED WITHIN 18 INCHES OF LIGHT FIXTURE BALLASTS OR WITHIN 36 INCHES OF MOTORS OR TRANSFORMERS.<br>B. IN ACCORDANCE WITH MAXIMUM BENDING RADIUS AS RECOMMENDED BY THE MANUFACTURER.<br>C. INSTALLED PERPENDICULAR TO POWER CONDUIT RUNS UPON THEIR INTERSECTION WHEREVER POSSIBLE. |
| 32                              | WHEN TRANSITIONING FROM CONDUIT TO NO CONDUIT, UTILIZE A BUSHING ON THE END OF THE CONDUIT.  |
| 33                              | ALL JUNCTION BOXES PROVIDED TO SERVE FIRE ALARM PULL STATIONS, A READER, DOOR OPERATOR PUSH-BUTTON, ETC., SHALL BE APPROVED BY THE MANUFACTURER TO SERVE THAT DEVICE AND FOR THE INTENDED PURPOSE. SURFACE BOXES SHALL BE FINISHED, SMOOTH EDGED AND WITHOUT SHARP EDGES, BOX FINISH SHALL MATCH THE CONNECTED RACEWAY. BOXES SERVING FIRE ALARM PULL STATIONS SHALL BE RED.   |
| 34                              | INCLUDE ALL CONDUIT SLEEVES THROUGH WALLS AS REQUIRED FOR THE ROUTING OF LOW VOLTAGE CABLEING INCLUDING CABLEING INSTALLED BY THE DISTRICT. SLEEVES INSTALLED IN EXISTING WALLS SHALL UTILIZE A NEAT HOLE MADE WITH A CORING MACHINE OR FILE. W/ CORING IN MASONRY SURFACES SHALL BE CONTINUOUS FROM ONE WALL SURFACE TO THE OPPOSING WALL SURFACE WITHOUT SPALLING. NO CONDUIT LESS THAN 1" SHALL BE USED FOR SLEEVES.  |
| 35                              | FIRE PROOF INSIDE AND OUT ALL CONDUIT SLEEVES.   |
| 36                              | LOW VOLTAGE CABLEING SHALL BE INSTALLED AS REQUIRED FOR CONFORMANCE WITH THE CABLEING RECOMMENDATIONS OF THE CABLE MANUFACTURER, OBTAIN SAME FROM THE MANUFACTURER.  |
| 37                              | FIRE ALARM SYSTEM EQUIPMENT, DEVICES AND REVISIONS SHALL BE IN ACCORDANCE WITH CODE REQUIREMENTS.  |
| 38                              | THE EXISTING FIRE ALARM SYSTEM IS A NATIONAL TIME AND SIGNAL 902 SERIES ADDRESSABLE SYSTEM.  |
| 39                              | ALL FIRE ALARM SYSTEM DEVICES SHALL BE NATIONAL TIME AND SIGNAL, LATEST PRODUCT, COMPATIBLE WITH THE EXISTING SYSTEM.  |
| 40                              | WHERE FIRE ALARM SYSTEM REVISIONS ARE MADE, UPDATE THE GRAPHIC ANNUNCIATOR TO REFLECT THE REVISION.  |
| 41                              | FIRE ALARM SYSTEM TESTING SHALL INCLUDE THE PERCENTAGE OF EXISTING SYSTEM-UNALTERED DEVICES, WIRING AND EQUIPMENT AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.  |



**REGISTRATION SEAL**

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BAI No. 15-1606

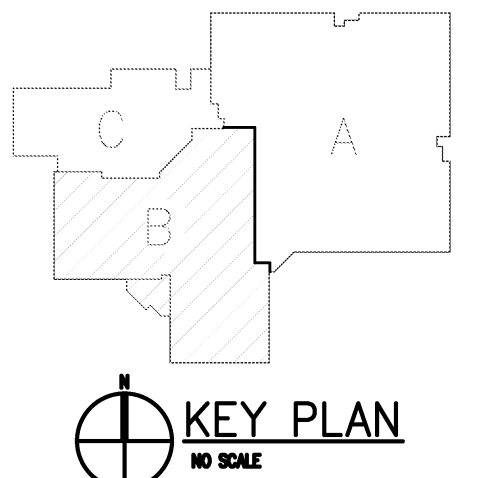
PROJECT TITLE

## Bingham Farms Elementary School Remodeling

**Birmingham Public Schools  
Bloomfield Hills,, Michigan**

**DRAWING TITLE**

### First Level Power and Systems Plan - Zone 'A'



## ISSUE DATES

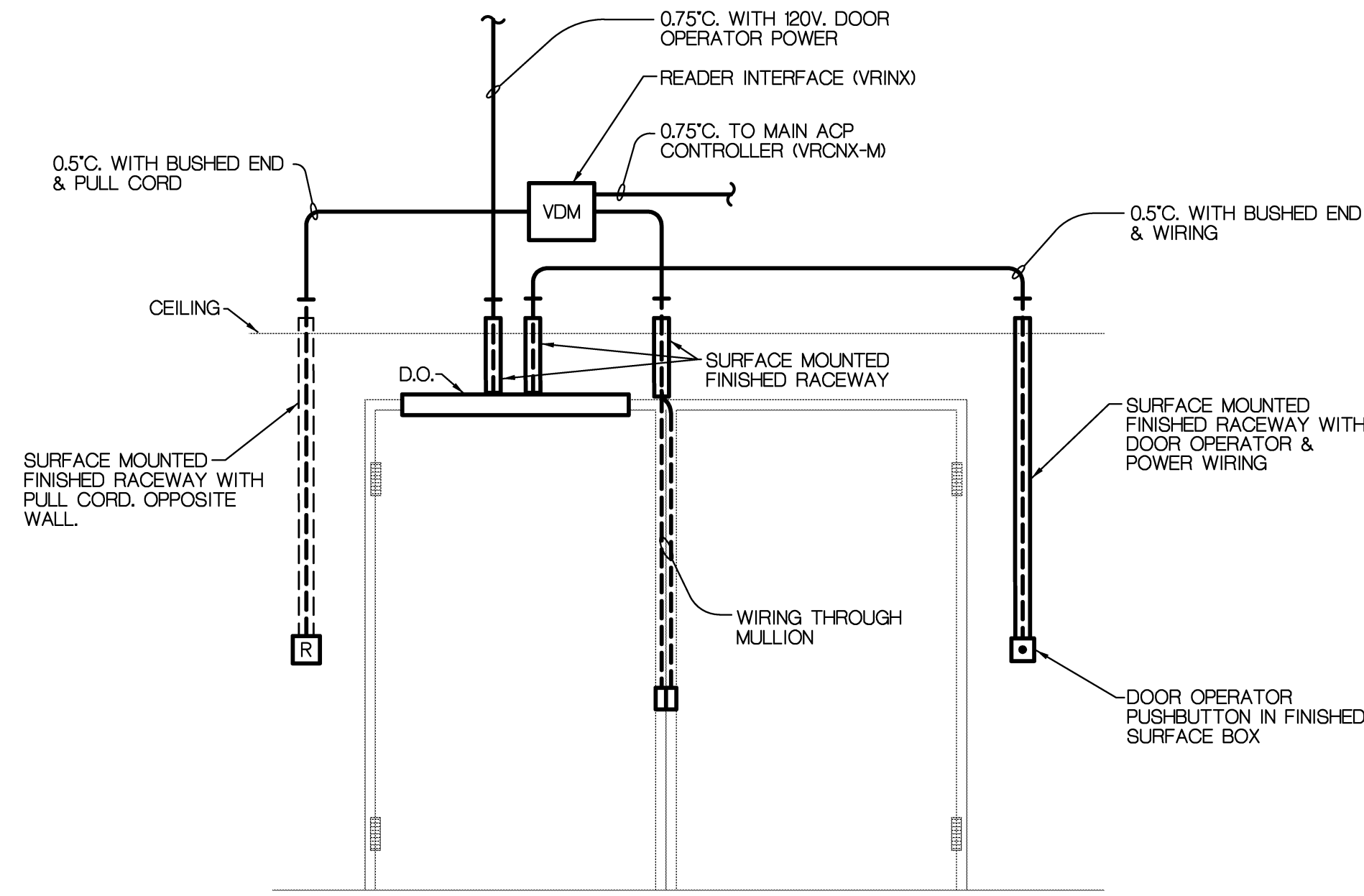
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| 02-15-2016      | B.P.No. 1 – BIDS   |
| <b>DATE:</b>    | <b>ISSUED FOR:</b> |
| <b>DRAWN</b>    | CC                 |
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| <b>APPROVED</b> | JB                 |

PROJECT NO.

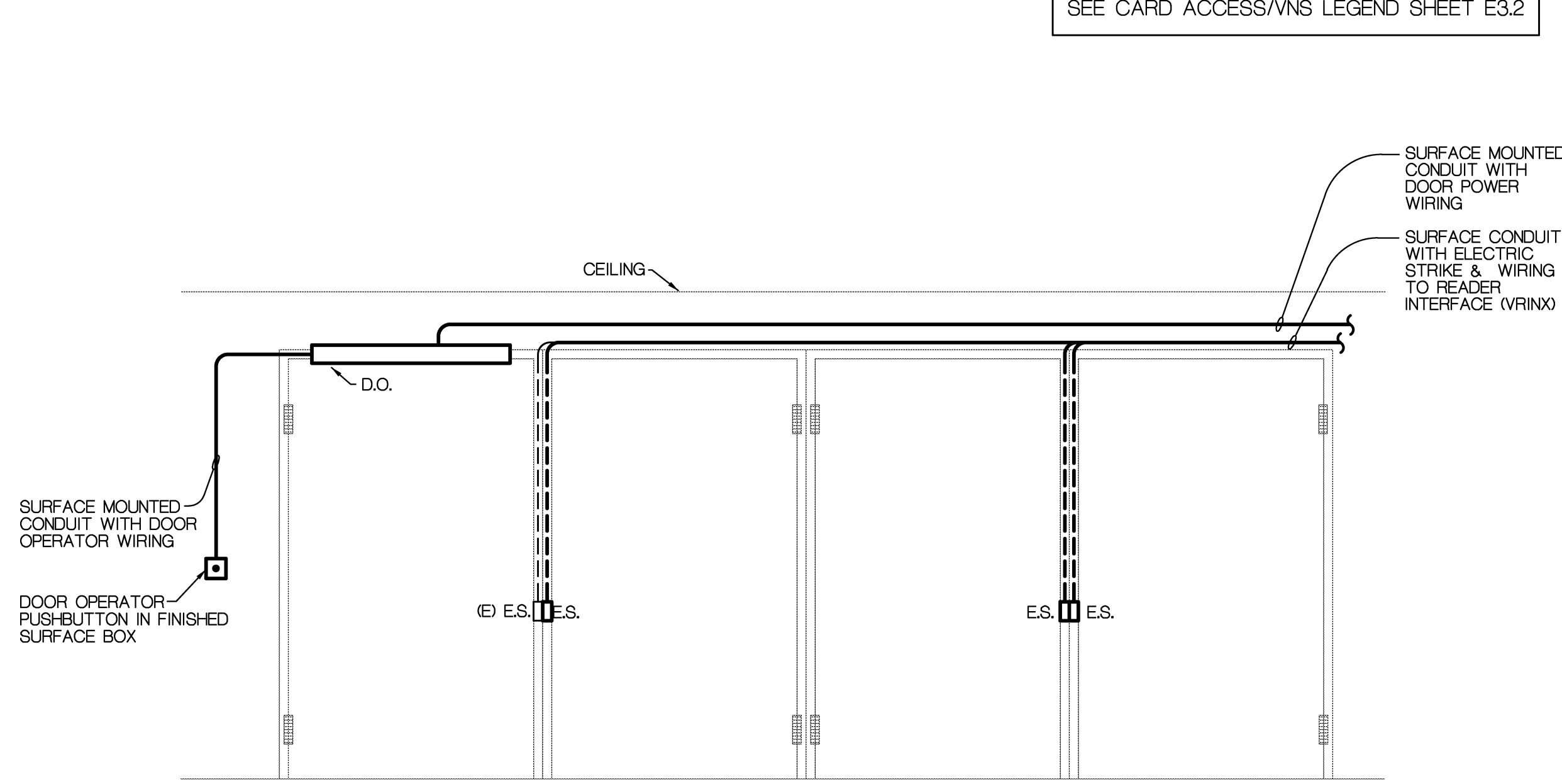
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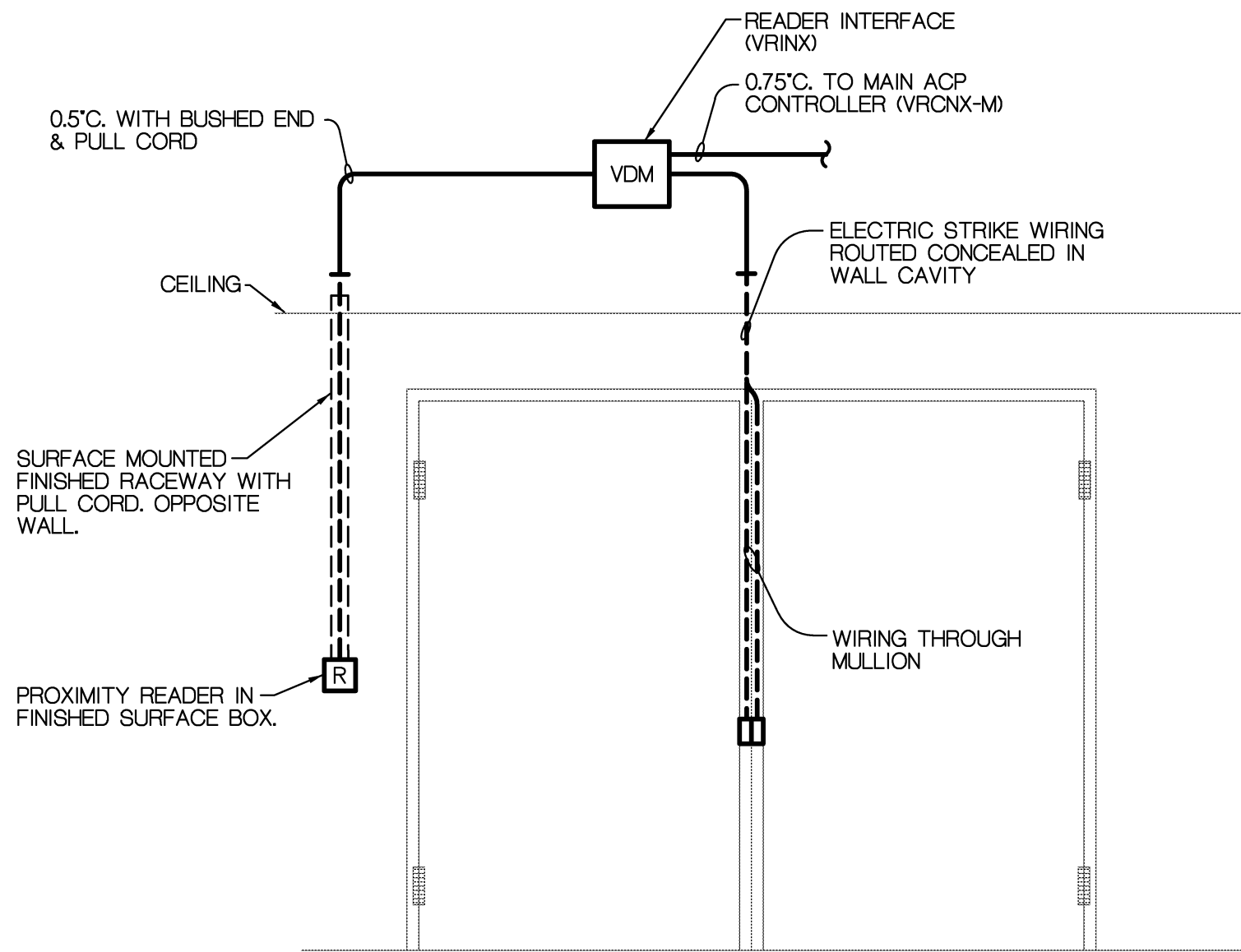
## E2.1A



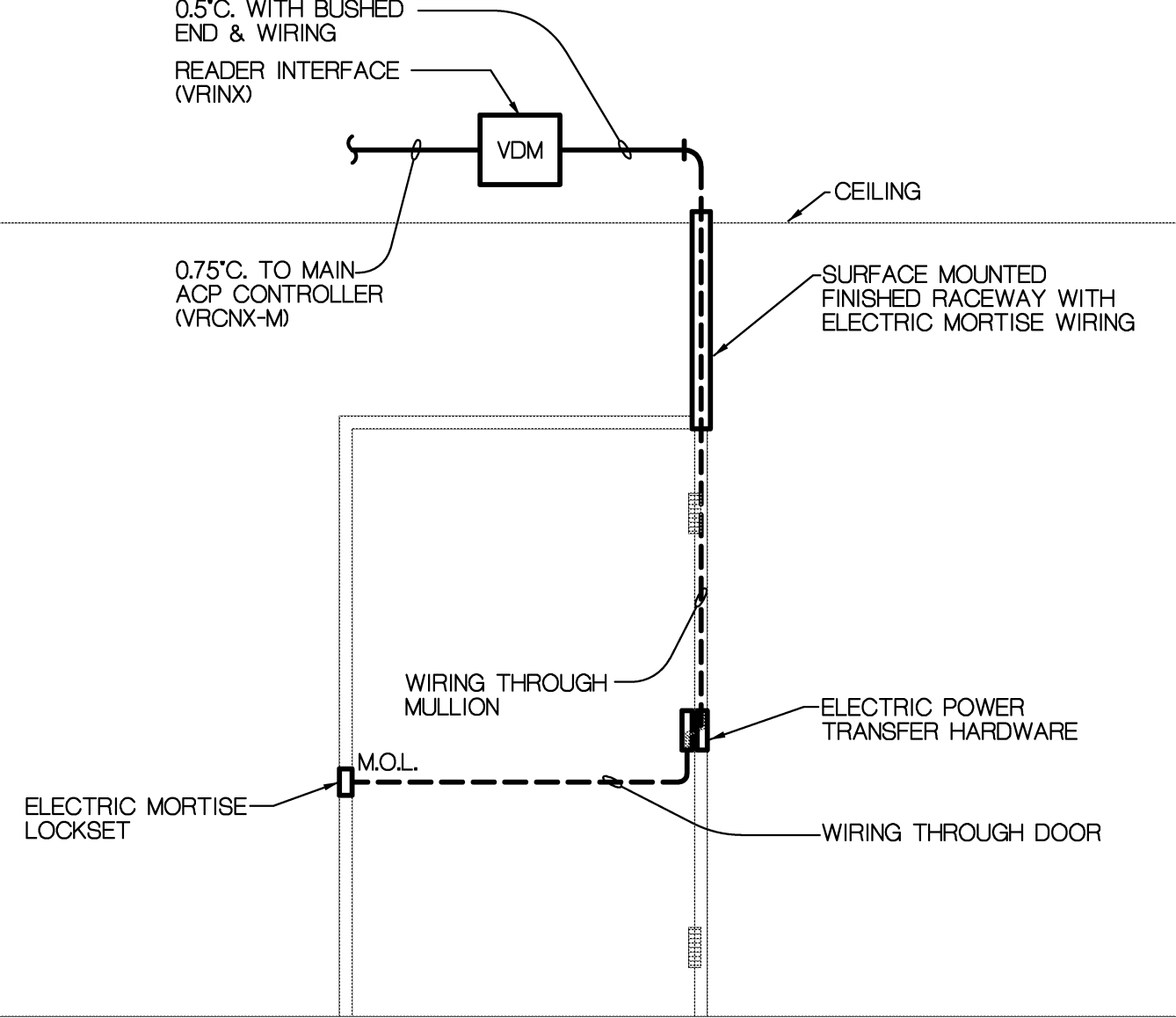
**DOOR DIAGRAM**  
NO SCALE  
NOTES:  
1. SEE DOOR WIRING DIAGRAM SHEET E3.2  
2. SEE FLOOR PLAN FOR ALL OPERATORS.  
3. DOORS A144A, A144B



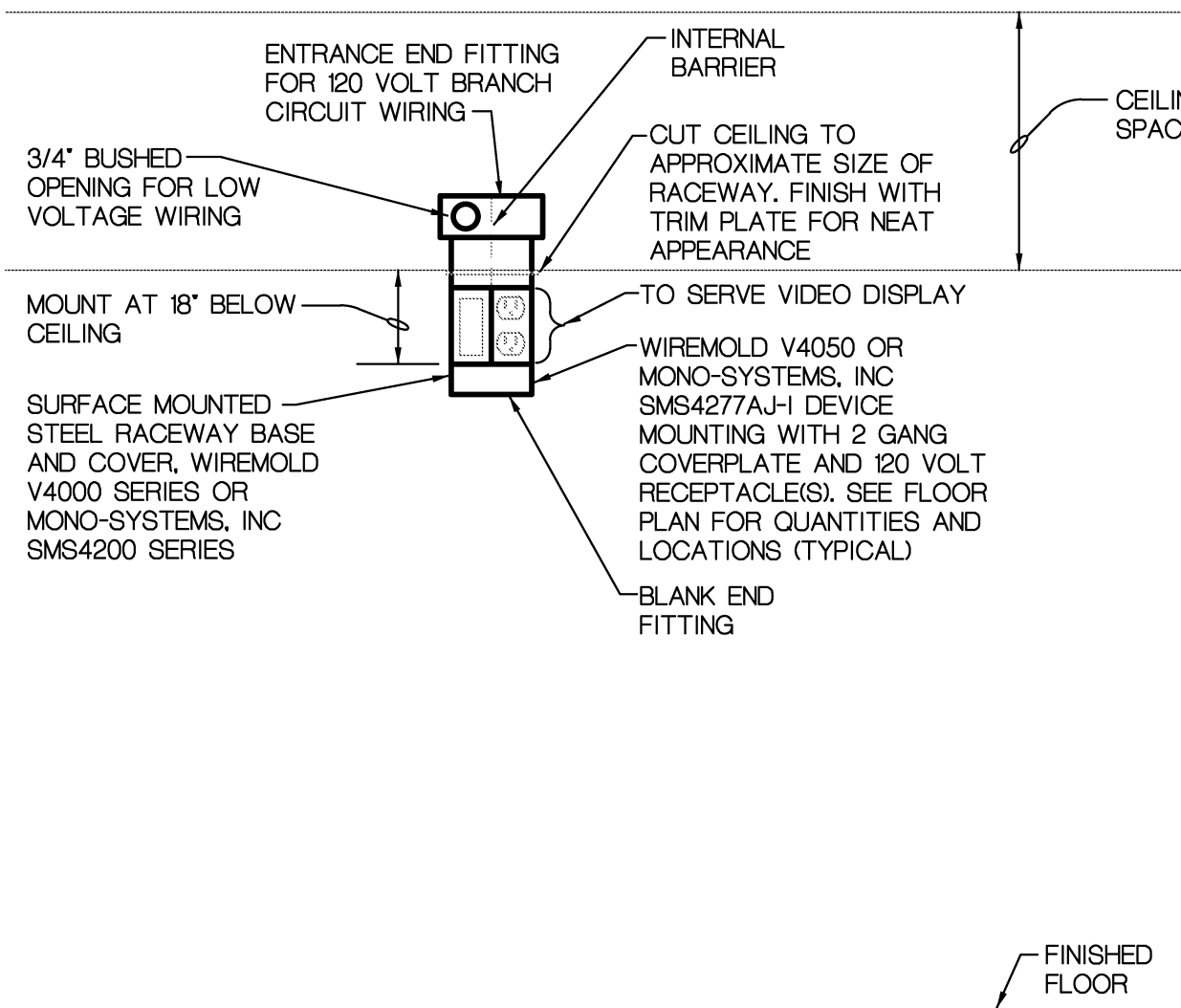
**DOOR DIAGRAM**  
NO SCALE  
NOTES:  
1. SEE DOOR WIRING DIAGRAM SHEET E3.2  
2. SEE FLOOR PLAN FOR ALL OPERATORS.  
3. DOORS A133A, A133B, A133C, A133D



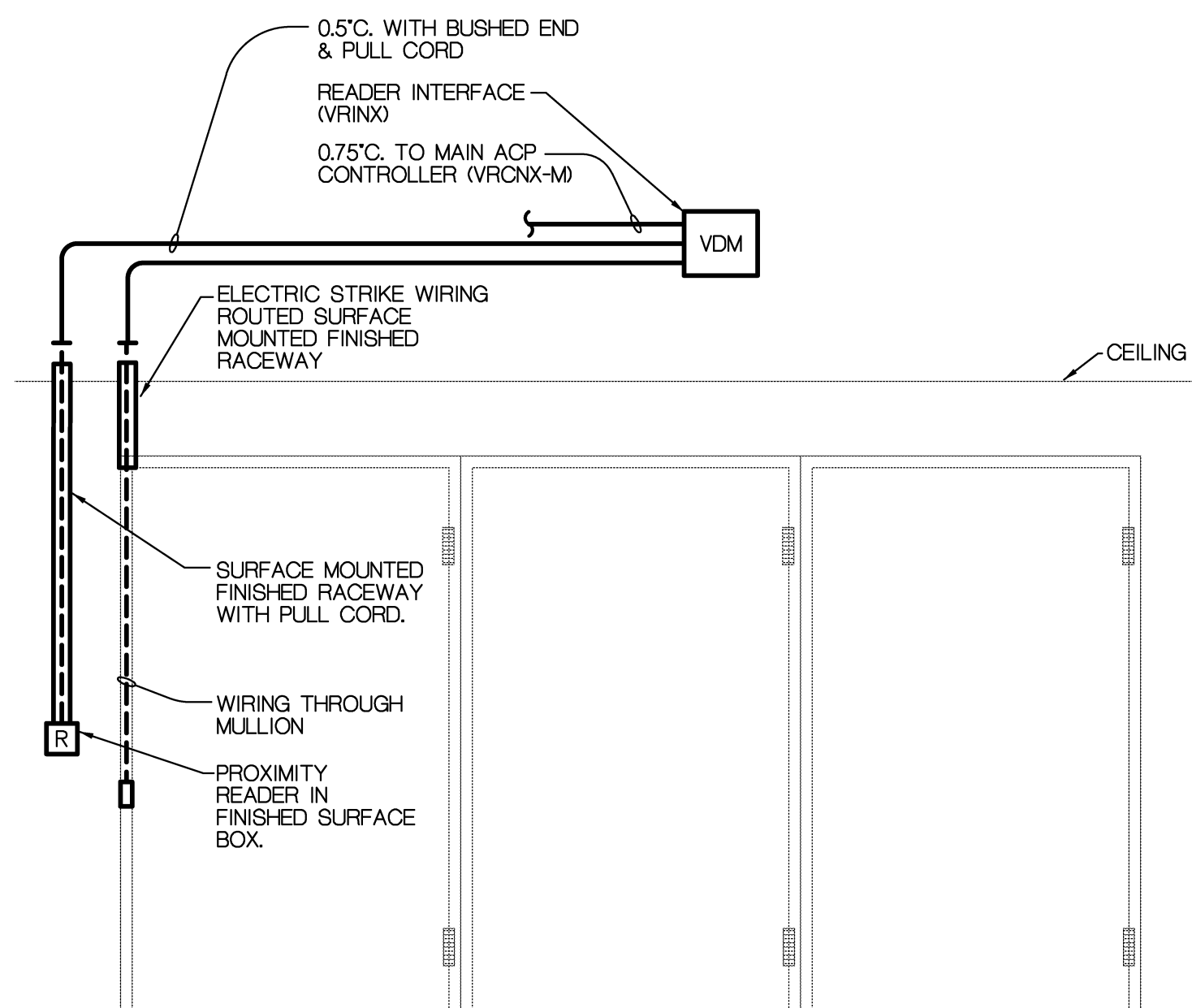
**DOOR DIAGRAM**  
NO SCALE  
NOTES:  
1. SEE DOOR WIRING DIAGRAM SHEET E3.2  
2. SEE FLOOR PLAN FOR ALL OPERATORS.  
3. DOORS B109A, B109B



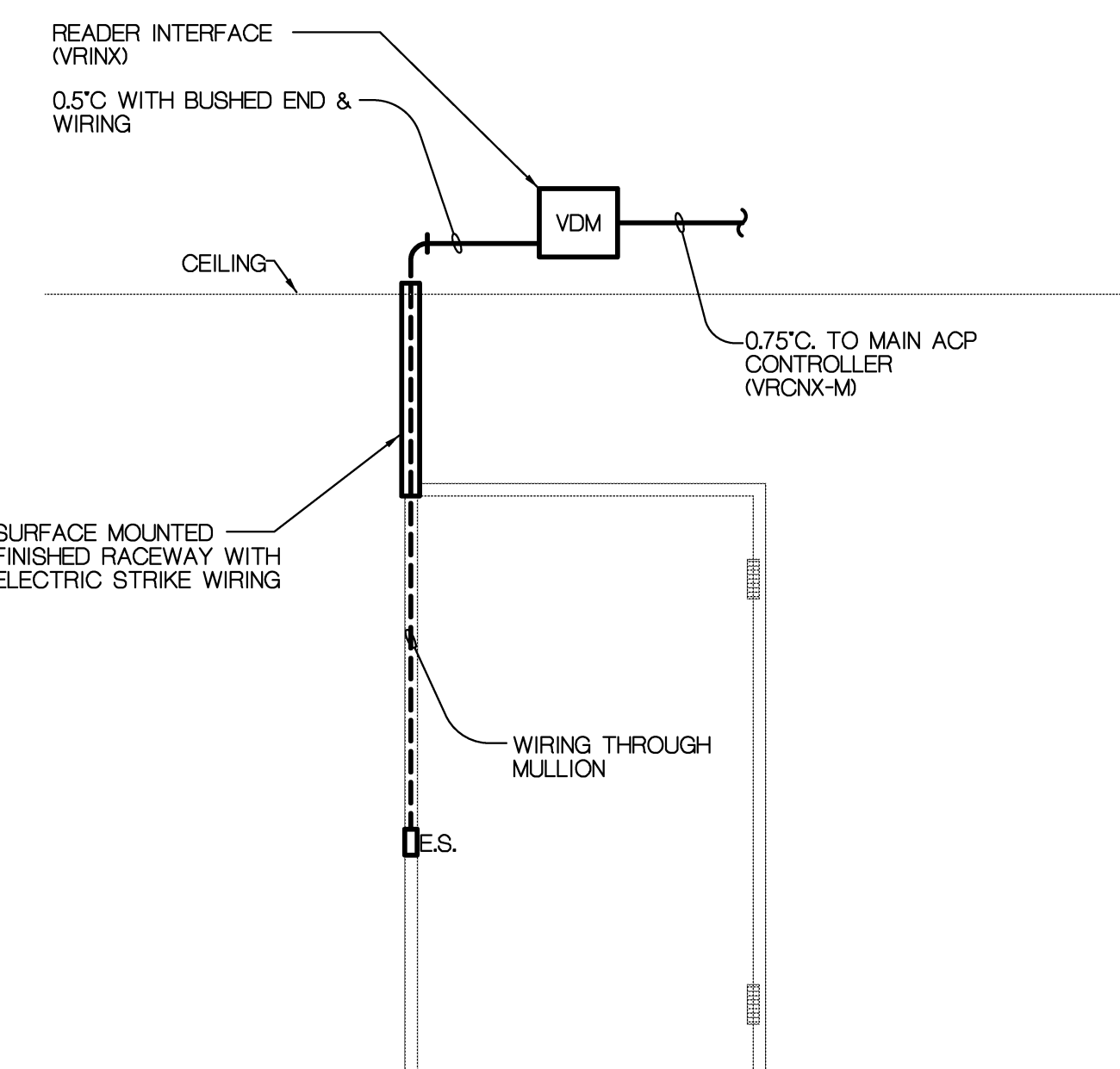
**DOOR DIAGRAM**  
NO SCALE  
NOTES:  
1. SEE DOOR WIRING DIAGRAM SHEET E3.2  
2. SEE FLOOR PLAN FOR ALL OPERATORS.  
3. DOOR B111



**SURFACE RACEWAY**  
NO SCALE



**DOOR DIAGRAM**  
NO SCALE  
NOTES:  
1. SEE DOOR WIRING DIAGRAM SHEET E3.2  
2. SEE FLOOR PLAN FOR ALL OPERATORS.  
3. DOORS B122C, B122D, B122E



**DOOR DIAGRAM**  
NO SCALE  
NOTES:  
1. SEE DOOR WIRING DIAGRAM SHEET E3.2  
2. SEE FLOOR PLAN FOR ALL OPERATORS.  
3. DOOR B116B, B116A

SEE CARD ACCESS/VNS LEGEND SHEET E3.2

**CARD ACCESS/VNS SYSTEM GENERAL NOTES:**

1. REFER TO SPECIFICATIONS FOR COMPLETE REQUIREMENTS.
2. REFER TO POWER AND SYSTEM GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.
3. THE DISTRICT UTILIZES A VISITOR NOTIFICATION SYSTEM (VNS). THE VNS UTILIZES A NUMBER OF INTEGRATED BUILDING SYSTEMS INCLUDING CARD ACCESS, VIDEO SECURITY, TELEPHONE/INTERCOM, LOOK DOWN, ETC.
4. ALL CARD ACCESS REVISIONS SHALL BE PERFORMED BY A CARD ACCESS SYSTEM CONTRACTOR WHO SHALL BE A SUBCONTRACTOR TO THE ELECTRICAL CONTRACTOR. REFER TO SPECIFICATIONS FOR A LIST OF ACCEPTABLE SUBCONTRACTORS.
5. ALL CARD ACCESS SYSTEM REVISIONS SHALL BE COORDINATED WITH DOOR HARDWARE REVISIONS AND ARCHITECTURAL TRADES.
6. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR THE SEQUENCE OF OPERATION AT EACH DOOR AND A DESCRIPTION OF THE INTENDED DOOR CONTROL SECURITY.
7. THE EXACT LOCATION OF ALL READERS, OPERATORS, PUSH-BUTTONS, ETC. SHALL BE COORDINATED WITH AND APPROVED BY ARCHITECTURAL TRADES AND DISTRICT STAFF PRIOR TO ROUGH-IN.
8. ALL READERS, OPERATORS, PUSH-BUTTONS, ETC. SHALL BE LOCATED AT 480 AFF UNLESS OTHERWISE NOTED OR INDICATED.
9. WIRING, CONNECTIONS AND REVISIONS FOR ALL DOOR HARDWARE COMPONENTS AND DEVICES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, WIRING DIAGRAMS AND INSTALLATION INSTRUCTIONS AND THE EQUIPMENT SHOP DRAWINGS. INSTALLER SHALL OBTAIN SAME PRIOR TO INSTALLATION.
10. ALL CARD ACCESS AND/OR VNS SYSTEM REVISIONS SHALL BE TESTED FOR PROPER OPERATION.
11. EXISTING DOOR POWER SUPPLIES MAY BE USED TO SERVE NEW LOAD PROVIDED THE POWER SUPPLY IS NOT LOADED MORE THAN 75% OF IT NAMEPLATE RATING.
12. LABEL ALL DOOR POWER SUPPLIES WITH THE PANEL AND CIRCUIT FROM WHICH THEY ARE SERVED. USE AN INDELEBIL MARKER. NEATLY LABEL BY HAND ON THE INSIDE OF THE POWER SUPPLY ENCLOSURE.
13. SUBMIT SHOP DRAWINGS ON ALL CARD ACCESS SYSTEM EQUIPMENT AND COMPONENTS, INCLUDE WITH SHOP DRAWINGS THE RATING AND LOADING OF ALL NEW POWER SUPPLIES.
14. ALL POWER SUPPLY LOADING SHALL BE BASED ON DOOR HARDWARE SHOP DRAWINGS.
15. ALL POWER SUPPLIES SHALL BE LABELED WITH THE PANEL AND CIRCUIT FROM WHICH IT IS SERVED.
16. PROVIDE NEW 120 VOLT BRANCH CIRCUIT WIRING TO SERVE ALL NEW DOOR POWER SUPPLIES. EXISTING 120 VOLT CIRCUITS SERVING EXISTING POWER SUPPLIES MAY BE USED TO SERVE NEW POWER SUPPLIES PROVIDED THE EXISTING 120 VOLT CIRCUIT IS NOT LOADED GREATER THAN 14 AMPS.
17. ALL NEW 120 VOLT CIRCUITS SERVING DOOR POWER SUPPLIES SHALL ORIGINATE FROM THE CIRCUIT BREAKER PANEL CURRENTLY SERVING POWER SUPPLIES IN THE AREA. TYPICALLY THIS WILL BE A PANELBOARD PROVIDED WITH TRANSIENT VOLTAGE SURGE SUPPRESSION AND SERVED FROM THE GENERATOR. ALL CARD ACCESS SYSTEM POWER MUST BE SERVED FROM A GENERATOR POWERED PANEL.
18. CARD ACCESS SYSTEM DETAILS AND DIAGRAMS ARE PROVIDED TO CONVEY THE SYSTEM OPERATION AND DESIGN INTENT. DETAILS AND DIAGRAMS ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATE OR TO REFLECT THE FINAL INSTALLATION REQUIREMENTS OR COMPLETE EXISTING CONDITIONS. FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING CEILING CONSTRUCTION, WALL CONSTRUCTION, ARCHITECTURAL CONDITIONS, ETC. AND ADJUST DETAILS AND DIAGRAMS AS REQUIRED. PROVIDE ALL ADDITIONAL OR MODIFY EXISTING AS REQUIRED. RACEWAYS, WIRING DEVICES, BOXES, CONNECTIONS, ETC. AND INCLUDE ALL COSTS FOR SAME. INCLUDE ALL PROGRAMMING, DIP SWITCH SETTINGS, ETC. AS REQUIRED FOR THE INTENDED SECURITY OPERATION AND INCLUDE ALL COSTS FOR SAME. BIDDER SHALL BE RESPONSIBLE FOR ANY ADDITIONAL ENGINEERING OR DESIGN REQUIRED, AND SHALL INCLUDE ALL COSTS FOR SAME AS REQUIRED FOR COMPLETE AND OPERATING SYSTEMS IN ACCORDANCE WITH THE DESIGN INTENT. IN BIDDING THIS PROJECT, BIDDER ACKNOWLEDGES THAT NO ADDITIONAL COSTS WILL BE APPROVED DURING CONSTRUCTION UNLESS A CHANGE IN SCOPE IS REQUESTED BY THE DISTRICT.
19. PROVIDE COMPLETE SYSTEM AS BUILT DRAWINGS REFLECTING THE SYSTEM INSTALLATION.

**CARD ACCESS/VNS SYSTEM RACEWAYS AND WIRING NOTES:**

1. REFER TO POWER AND SYSTEM GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.
2. REFER TO SPECIFICATIONS FOR COMPLETE REQUIREMENTS.
3. CONDUITS, BOXES, RACEWAYS, ETC. SHALL BE SUBJECT TO THE REQUIREMENTS OF THE SPECIFICATIONS.
4. WIRING, CONNECTIONS AND REVISIONS FOR ALL DOOR HARDWARE COMPONENTS AND DEVICES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, WIRING DIAGRAMS AND INSTALLATION INSTRUCTIONS AND THE EQUIPMENT SHOP DRAWINGS.
5. ONE VRINX DOOR MODULE ONBOARD RELAY SHALL SERVE A MAXIMUM OF 0.7 AMPS. RELAYS ARE RATED 1 AMP AT 30 VDC. PROVIDE ADDITIONAL RELAY WHERE REQUIRED TO SERVE MORE THAN 0.7 AMPS.
6. ALL CARD ACCESS AND/OR VNS SYSTEM REVISIONS SHALL BE TESTED FOR PROPER OPERATION.
7. ALL WIRING SERVING THE CARD ACCESS SYSTEM SHALL BE PLENUM RATED.
8. THE COLOR CODING OF ALL WIRING SERVING THE CARD ACCESS SYSTEM SHALL BE THE SAME THROUGHOUT AND SHALL MATCH EXISTING.
9. ALL CONDUIT SERVING THE CARD ACCESS SYSTEM SHALL BE CONCEALED WITHIN BUILDING CONSTRUCTION. UTILIZE A FINISHED SURFACE RACEWAY SUCH AS WIREMOLD WHERE CONCEALING CONDUIT IS NOT FEASIBLE AS A RESULT OF EXISTING MASONRY CONSTRUCTION. IN EXISTING DRYWALL CONSTRUCTION, CONCEAL THE CONDUIT.
10. ALL CARD ACCESS SYSTEM LOW VOLTAGE WIRING SHALL BE INSTALLED IN CONDUIT OR A FINISHED SURFACE RACEWAY EXCEPT AS FOLLOWS: WHERE INSTALLED ABOVE AN ACCESSIBLE LAY-IN CEILING, WHERE INSTALLED IN A DOOR OR WINDOW FRAME MULLION.
11. LOW VOLTAGE WIRING INSTALLED ABOVE A LAY-IN ACCESSIBLE CEILING AND NOT IN CONDUIT, SHALL BE SUPPORTED ON J-HOOKS INSTALLED AT MAXIMUM 4 FOOT ON CENTERS. EXISTING J-HOOKS MAYBE USED FOR NEW WIRING.
12. WHEN TRANSITIONING FROM CONDUIT TO NO CONDUIT, UTILIZE A BUSHING ON THE END OF THE CONDUIT.
13. ALL JUNCTION BOXES PROVIDED TO SERVE A READER, DOOR OPERATOR, PUSH-BUTTON, ETC. SHALL BE APPROVED BY THE MANUFACTURER TO SERVE THAT DEVICE AND FOR THE INTENDED PURPOSE. SURFACE BOXES SHALL BE FINISHED, SMOOTH EDGED AND WITHOUT SHARP EDGES. BOX FINISH SHALL MATCH THE CONNECTED RACEWAY.
14. INCLUDE ALL CONDUIT SLEEVES THROUGH WALLS AS REQUIRED FOR THE ROUTING OF LOW VOLTAGE CABLING. SLEEVES INSTALLED IN EXISTING WALLS SHALL UTILIZE A NEAT HOLE MADE WITH A CORING MACHINE OR HOLE SAW. CORING IN MASONRY SURFACES SHALL BE CONTINUOUS FROM ONE WALL SURFACE TO THE ADJOINING WALL SURFACE WITHOUT SPALLING. NO CONDUIT LESS THAN 10 SHALL BE USED FOR SLEEVES.
15. FIRE PROOF INSIDE AND OUT ALL CONDUIT SLEEVES.
16. LOW VOLTAGE CABLING SHALL BE INSTALLED AS REQUIRED FOR CONFORMANCE WITH THE CABLING RECOMMENDATIONS OF THE CABLE MANUFACTURER. OBTAIN SAME FROM THE MANUFACTURER.
17. LOW VOLTAGE CABLING SHALL BE INSTALLED AS FOLLOWS:
  - A. NOT INSTALLED WITHIN 18 INCHES OF LIGHT FIXTURE BALLASTS OR WITHIN 36 INCHES OF MOTORS OR TRANSFORMERS.
  - B. IN ACCORDANCE WITH MAXIMUM BENDING RADIUS AS RECOMMENDED BY THE MANUFACTURER.
  - C. INSTALLED PERPENDICULAR TO POWER CONDUIT RUNS UPON THEIR INTERSECTION WHEREVER POSSIBLE.



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BIA No. 15-1606

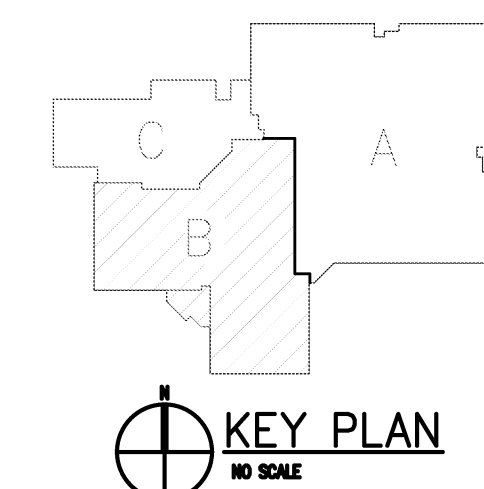
**PROJECT TITLE**

**Bingham Farms  
Elementary School  
Remodeling**

**Birmingham Public Schools  
Bloomfield Hills,, Michigan**

**DRAWING TITLE**

**Miscellaneous Details and  
Diagrams**



**ISSUE DATES**

|            |                   |
|------------|-------------------|
| 02-15-2016 | B.P.No. 1 -- BIDS |
| DATE:      | ISSUED FOR:       |

**DRAWN**

**CHECKED**

**APPROVED**

**PROJECT NO.**

**15098**

**DRAWING NO.**

**E3.1**

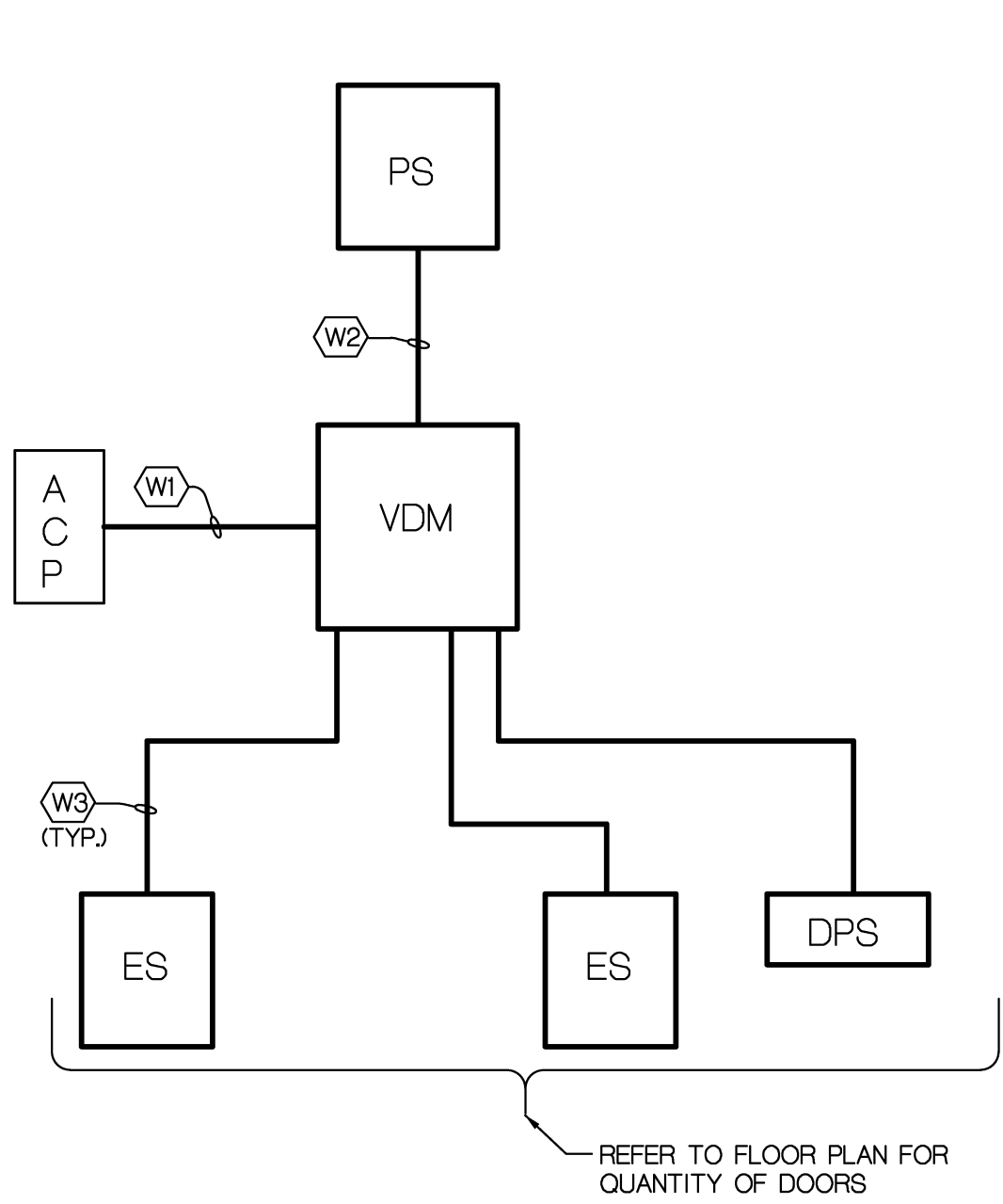
| DOOR CONTROL SCHEDULE                             |  |  |   |  |                           |  |  |                                     |   |
|---|--|--|---|--|---------------------------|--|--|-------------------------------------|---|
| 15098 - Bingham Farms                             |  |  |   |  |                           |  |  |                                     |   |
| Door Number (s) (refer to architectural drawings) | A133A, A133B, A133C                                    | A133D  | A144A   | A144B  | B122C, B122D, A132, B109B | B122E  | B109A  | B109A                               | B111  |
| Usage   | Exterior Entry   | Exterior Entry   | New Vestibule   | New Vestibule  | New Vestibule             | New Vestibule                                    | Vestibule to Office  | Alternate No. 2 Vestibule to Office | Office to School  |
| Control/ Sequence of Operation                    | New Electric Strike on timed locking and opening cycle | Existing Electric Strike, Existing Keypad & Prox Reader and NEW ADA Operator | New Electric Strike on timed locking and unlocking cycle, Prox Reader ONLY and ADA Operator | New Electric Strike on timed locking and opening cycle | Existing hardware         | New electric strike, Keypad and Proximity Reader | Existing mechanical lock remains. In Case of new door, new classroom lock function | Electric Strike, Prox Reader added  | New electronic lock to replace existing mechanical lock and tied into panic button to lock door from both sides |
| Refer to Wiring Diagram Indicated                 | 1  | 2  | 4   | 5  | N/A                       | 6  | N/A  | 7                                   | 8   |

| CARD ACCESS/VNS LEGEND |  |
|------------------------|--|
| ACP                    | ACCESS CONTROL PANEL, EXISTING, LOCATED IN TECHNOLOGY HEAD END OR IDF ROOM, VANDERBILT INDUSTRIES VRXNX SERIES                 |
| PS                     | POWER SUPPLY 120-24 VOLT DC (NEW OR EXISTING, REFER TO NOTES SHEET E3.1), VANDERBILT INDUSTRIES SMS SERIES, NEMA ONE ENCLOSURE |
| VDM                    | VANDERBILT INDUSTRIES VRXNX DOOR MODULE, NEMA ONE ENCLOSURE  |
| ES                     | ELECTRIC STRIKE, REFER TO DOOR HARDWARE SPECIFICATIONS/SHOP DRAWINGS   |
| MOL                    | MORTISE LOCK, REFER TO DOOR HARDWARE SPECIFICATIONS/SHOP DRAWINGS  |
| DO                     | DOOR OPERATOR  |
| R                      | READER   |
| R/K                    | COMBINATION READER KEY PAD   |
| DOCP                   | MOTORIZED DOOR OPERATOR CONTROL PANEL  |
| ELOC                   | OFFICE PANIC ELECTRIC DOOR LOCK DOWN PUSH-BUTTON   |

NOTE: REFER TO CARD ACCESS/VNS GENERAL AND WIRING NOTES SHEET E3.1

| WIRING LEGEND |   |
|---------------|---|
| (W1)          | 4/C, 18 AWG, TWISTED, SHIELDED, STRANDED  |
| (W2)          | 2/C, 18 AWG, TWISTED, SHIELDED, STRANDED  |
| (W3)          | 2/C, 18 AWG, TWISTED, SHIELDED, STRANDED, ONE VRXNX DOOR MODULE ONBOARD RELAY SHALL SERVE A MAXIMUM OF 0.7 AMPS. RELAYS ARE RATED 1 AMP AT 30 VDC. PROVIDE ADDITIONAL RELAY WHERE REQUIRED TO SERVE MORE THAN 0.7 AMPS. |
| (W4)          | NOT USED  |
| (W5)          | 6/C, 18 AWG, TWISTED, SHIELDED, STRANDED  |
| (W6)          | 2/C, 18 AWG, TWISTED, SHIELDED, STRANDED  |
| (W7)          | 2/C, 18 AWG, TWISTED, SHIELDED, STRANDED  |

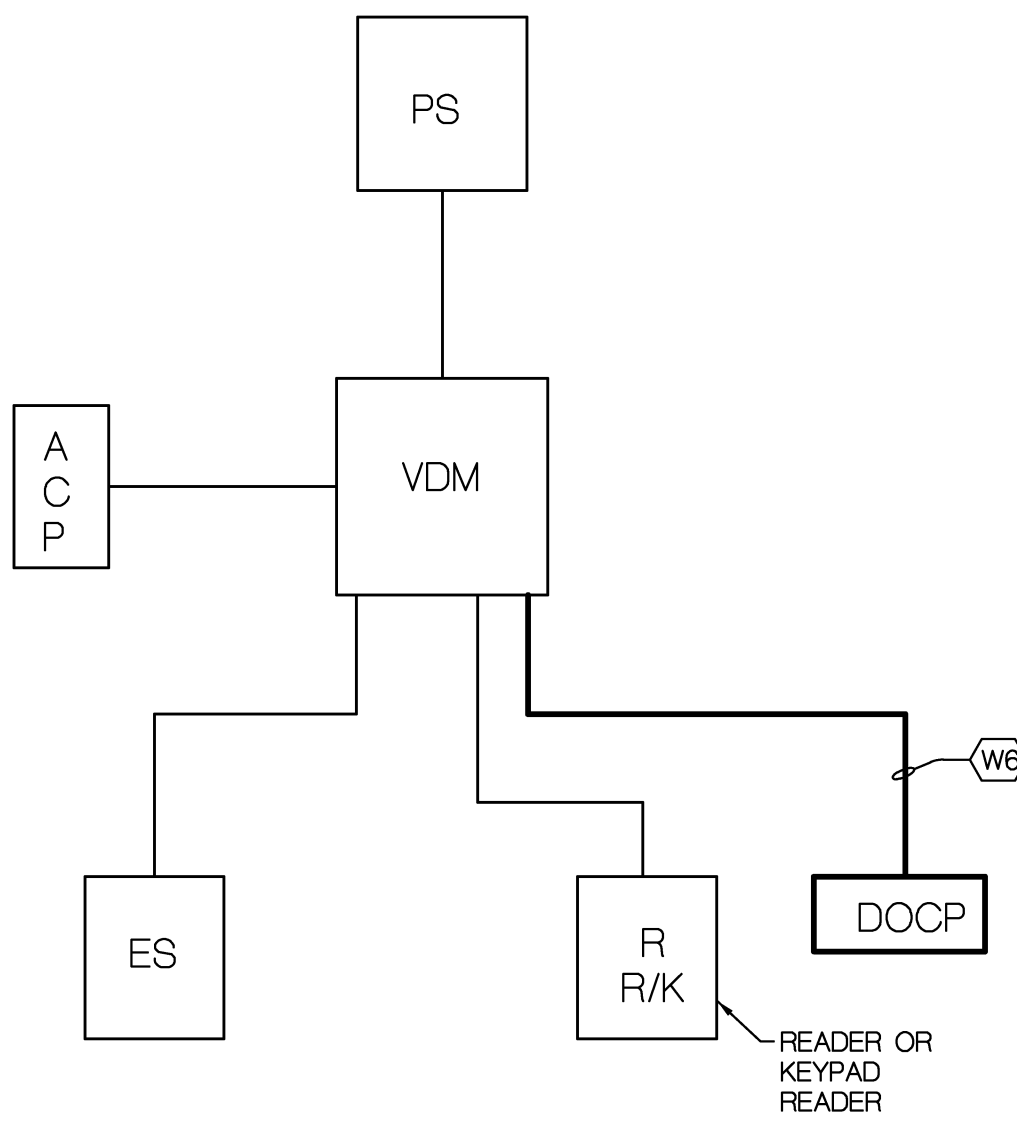
NOTE: REFER TO CARD ACCESS/VNS GENERAL AND WIRING NOTES SHEET E3.1



1  
E3.2

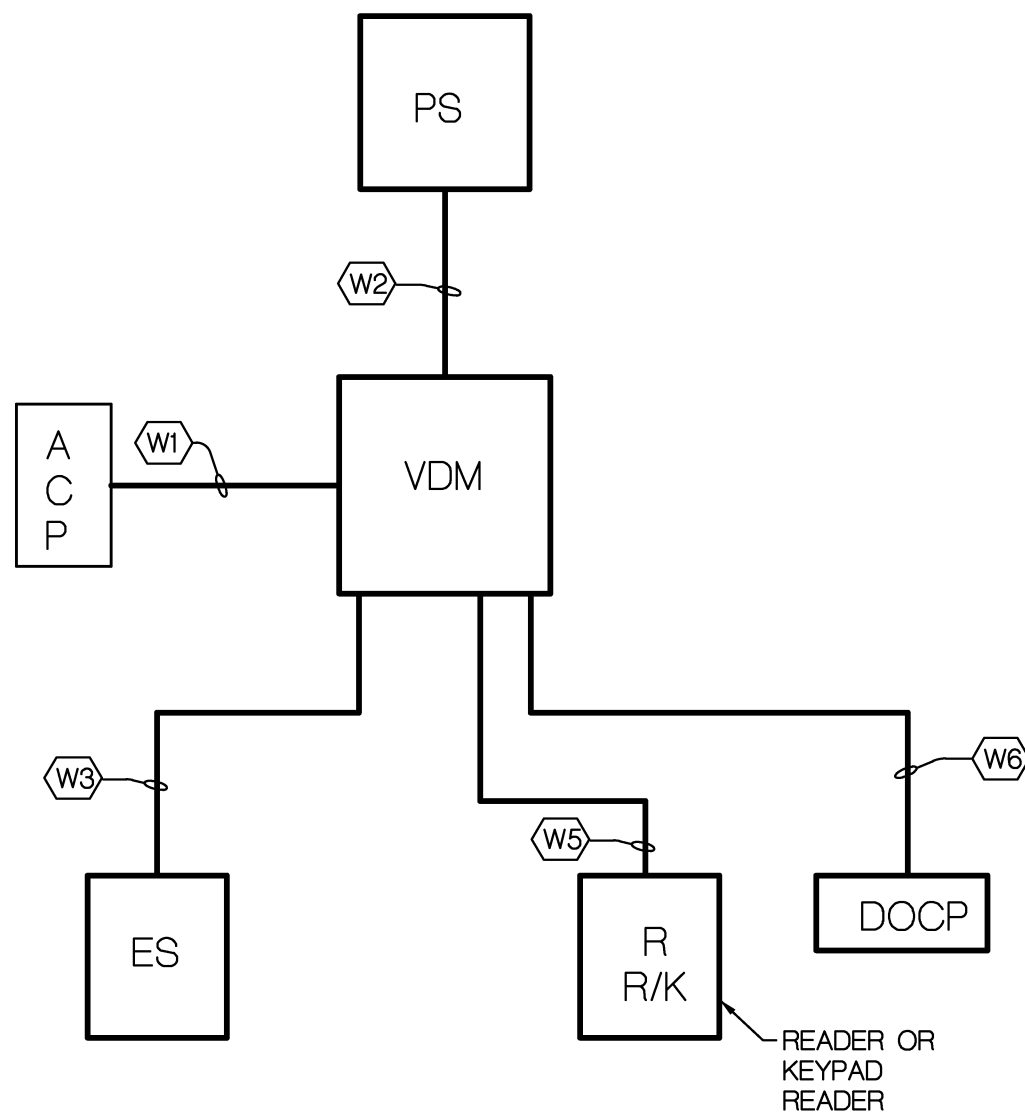
5  
E3.2

**NEW ACCESS CONTROLLED  
ELECTRIC STRIKE DOOR ON TIMED  
LOCKING AND OPENING CYCLE  
WIRING DIAGRAM**  
NO SCALE



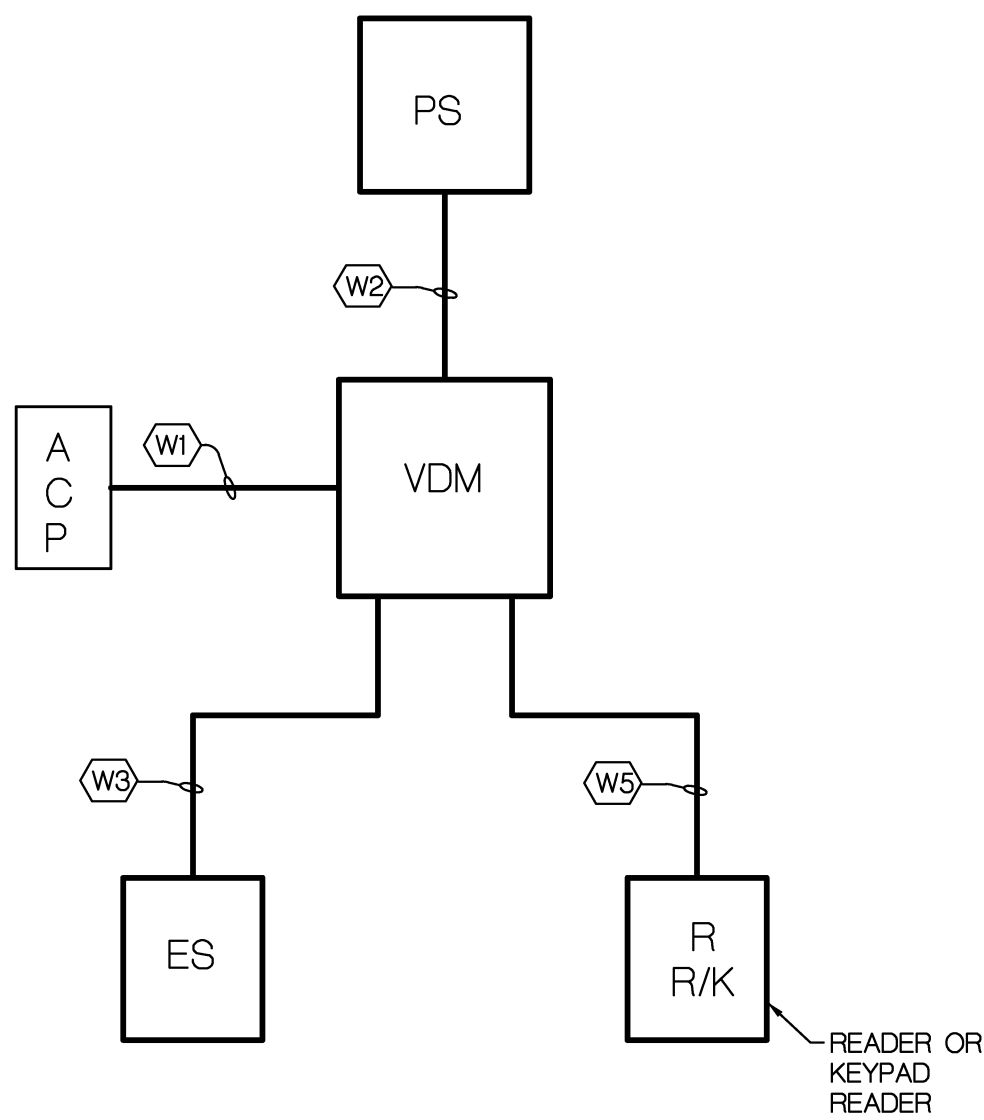
2  
E3.2

**EXISTING ACCESS  
CONTROLLED DOOR WITH NEW  
MOTORIZED DOOR OPERATOR  
WIRING DIAGRAM**  
NO SCALE



4  
E3.2

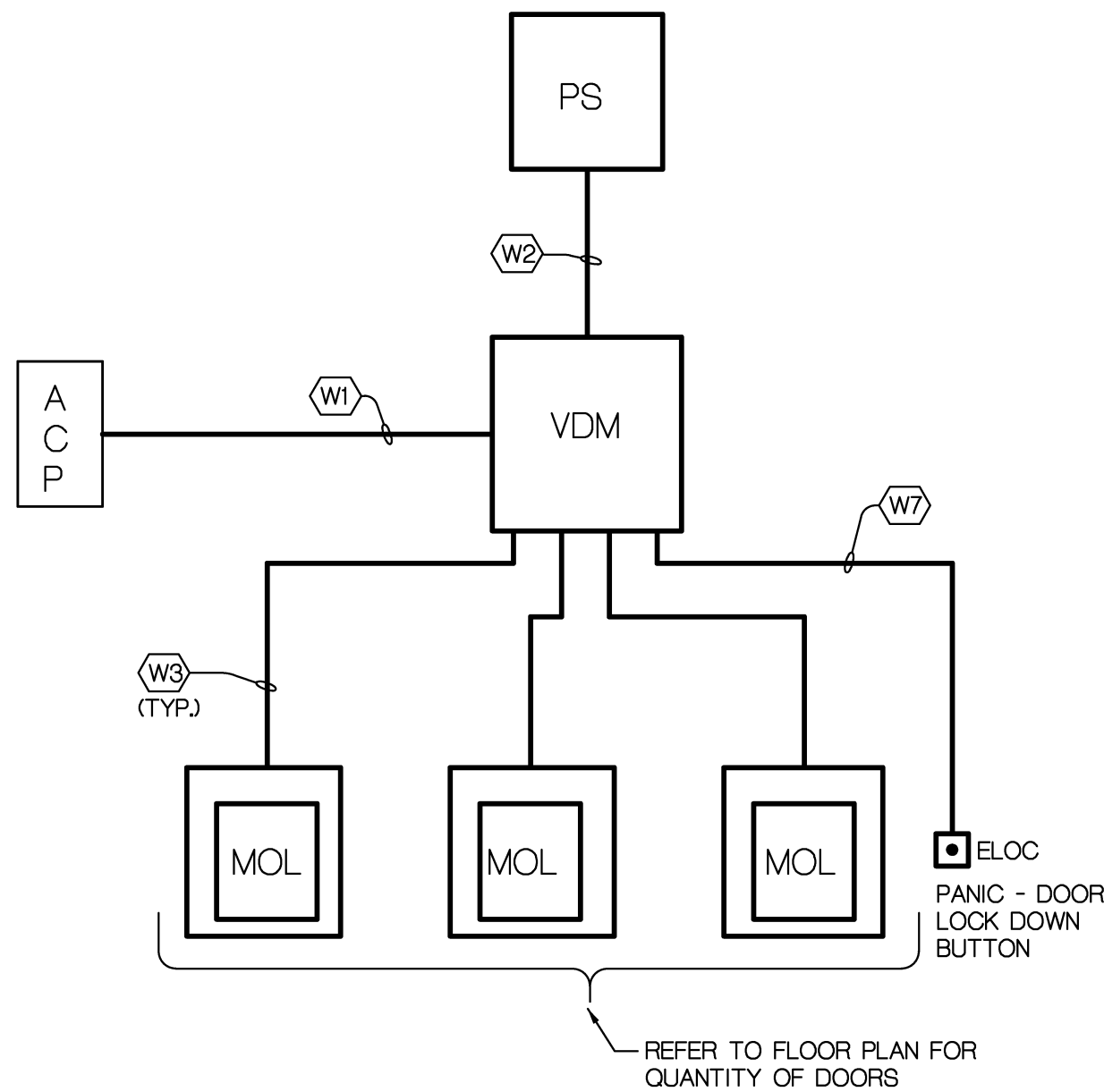
**NEW ACCESS CONTROLLED  
ELECTRIC STRIKE DOOR WITH  
MOTORIZED DOOR OPERATOR  
WIRING DIAGRAM**  
NO SCALE



6  
E3.2

7  
E3.2

**NEW ACCESS CONTROLLED  
ELECTRIC STRIKE DOOR  
WIRING DIAGRAM**  
NO SCALE



8  
E3.2

9  
E3.2

**OFFICE DOOR LOCK DOWN  
WIRING DIAGRAM**  
NO SCALE



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PROJECT TITLE  
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Remodeling**

Birmingham Public Schools  
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DRAWING TITLE  
**Miscellaneous Details and  
Diagrams**

ISSUE DATES

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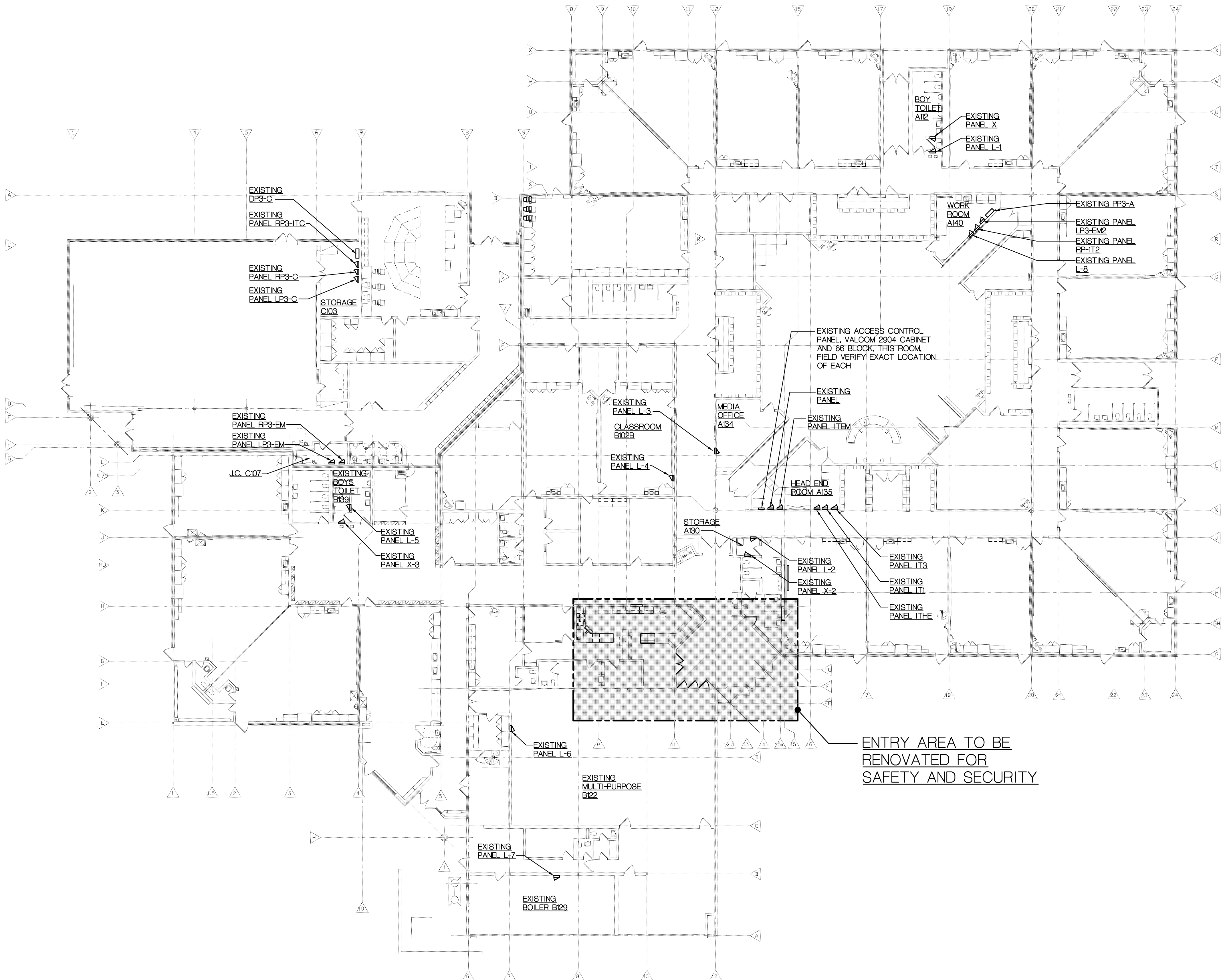
PROJECT NO.

**15098**

DRAWING NO.

**E3.2**

Drawing File: M:\PROJECTS\15098 BPS 2016\15098 BPS 2016.dwg  
Drawing Title: Bingham Farms Elementary School Remodeling  
Date: 02/15/2016  
Author: J. J. Jones



**FIRST LEVEL ELECTRICAL COMPOSITE PLAN**  
SCALE: 1/8" = 1'-0"

1/16" 0 2 4 6 8 10 20 40 80 1/8" 0 1 2 3 4 5 10 20 40  
WHEN USING THIS DRAWING - PLOT OR PRINT FULL SIZE TO ENSURE CORRECT SCALE. NOTE REDUCED SIZE DRAWINGS ARE NOT TO SCALE

| ELECTRICAL SHEET INDEX |   |
|------------------------|---|
| SHEET                  | DESCRIPTION   |
| EC1.1                  | FIRST LEVEL ELECTRICAL COMPOSITE PLAN, SHEET INDEX, SYMBOL LIST AND LIGHTING FIXTURE SCHEDULE |
| E0.1A                  | FIRST LEVEL ELECTRICAL DEMOLITION PLAN - ZONE 'A'   |
| E1.1A                  | FIRST LEVEL LIGHTING PLAN - ZONE 'A'  |
| E2.1A                  | FIRST LEVEL POWER AND SYSTEMS PLAN - ZONE 'A'   |
| E3.1                   | MISCELLANEOUS DETAILS AND DIAGRAMS  |
| E3.2                   | MISCELLANEOUS DETAILS AND DIAGRAMS  |

| ELECTRICAL SYMBOL LIST        |  |
|-------------------------------|--|
| SYMBOL                        | DESCRIPTION  |
| S <sup>3</sup>                | THREE WAY SWITCH   |
| S <sup>4</sup>                | FOUR WAY SWITCH  |
| 2x4                           | 2x4 LAY-IN FLUORESCENT FIXTURE, TYPE AS INDICATED  |
| EM                            | EMERGENCY LIGHT FIXTURE  |
| EXIT                          | EXIT LIGHT, (SHADED AREA INDICATED FACE OF FIXTURE), TYPE AS INDICATED   |
| PUSH-BUTTON                   | PUSH-BUTTON  |
| EXISTING PANELBOARD           | EXISTING PANELBOARD  |
| DISTRIBUTION PANEL            | DISTRIBUTION PANEL   |
| SMOKE DETECTOR                | SMOKE DETECTOR   |
| FIRE ALARM ANNUNCIATOR        | FIRE ALARM ANNUNCIATOR   |
| JUNCTION BOX                  | JUNCTION BOX   |
| EXISTING EQUIPMENT OR DEVICES | EXISTING EQUIPMENT OR DEVICES  |
| RELOCATED                     | RELOCATED  |
| ACP                           | ACCESS CONTROL PANEL, EXISTING, LOCATED IN TECHNOLOGY HEAD END OR IDF ROOM, VANDERBILT INDUSTRIES VRNXX SERIES                 |
| PS                            | POWER SUPPLY 120-24 VOLT DC (NEW OR EXISTING, REFER TO NOTES SHEET E3.0, VANDERBILT INDUSTRIES SMS SERIES, NEMA ONE ENCLOSURE) |
| VDM                           | VANDERBILT INDUSTRIES VRNXX DOOR MODULE, NEMA ONE ENCLOSURE  |
| ES                            | ELECTRIC STRIKE, REFER TO DOOR HARDWARE SPECIFICATIONS/SHOP DRAWINGS   |
| MOL                           | MORTISE LOCK, REFER TO DOOR HARDWARE SPECIFICATIONS/SHOP DRAWINGS  |
| DO                            | DOOR OPERATOR  |
| R                             | READER   |
| R/K                           | COMBINATION READER KEY PAD   |
| DOCP                          | MOTORIZED DOOR OPERATOR CONTROL PANEL  |
| ELOC                          | OFFICE PANIC ELECTRIC DOOR LOCK DOWN PUSH-BUTTON   |

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DRAWING TITLE

**First Level Elec. Comp. Plan,  
Sheet Index, Symbol List  
and Ltg. Fix. Sch.**

**KEY PLAN**  
NO SCALE

ISSUE DATES

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| DRAWN      | CC               |
| CHECKED    | AZ               |
| APPROVED   | JB               |

PROJECT NO.

**15098**

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**EC1.1**