

# WEST TUALATIN VIEW ELEMENTARY SCHOOL REROOF

Beaverton School District  
16550 SW Merlo Road Beaverton, Oregon 97003

**owner**  
Beaverton School District  
16550 SW Merlo Road  
Beaverton, OR 97003  
t: (503) 591 8000

**architect**  
Dull Olson Weekes - IBI Group Architects, Inc.  
907 SW Harvey Milk Street  
Portland, Oregon 97205  
t: (503) 226 6950

**roof consultant**  
Professional Roof Consultants  
1108 SE Grand Avenue Suite 300  
Portland, OR 97214  
t: (503) 280 8759

**structural**  
James G. Pierson  
610 SW Alder Street Suite 918  
Portland, OR 97205  
t: (503) 226 1286

**cost consultant**  
Architectural Cost Consultants  
8060 SW Pfaffle Street  
Portland, OR 97223  
t: (503) 718 0075

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G1102 SITE PLAN (WASHINGTON COUNTY)

### roof consultant

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R200 ROOFING DETAILS  
R201 ROOFING DETAILS  
R202 ROOFING DETAILS  
R203 ROOFING DETAILS

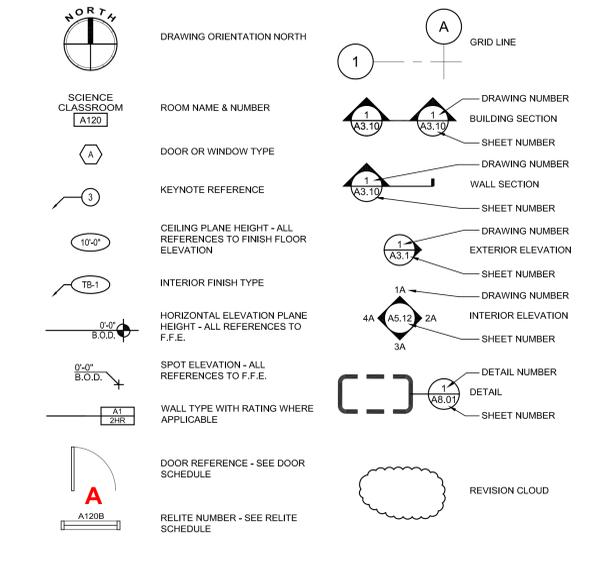
### architectural

A1201 FLOOR PLAN  
A1401 ROOF PLAN  
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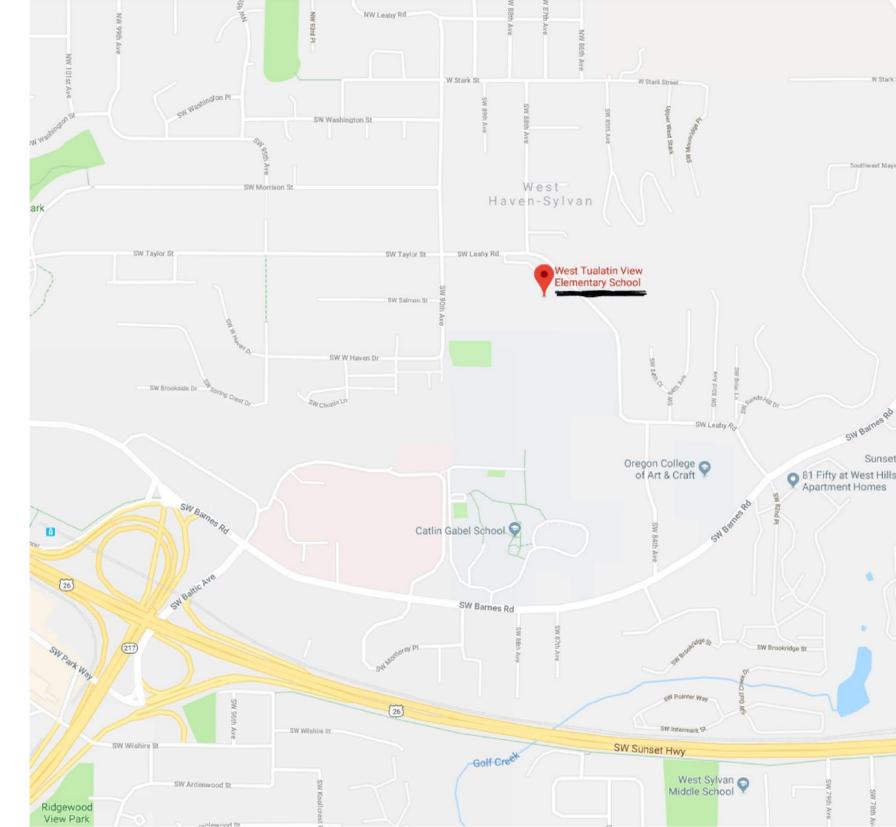
### structural

S1101 GENERAL INFORMATION  
S1401 ROOF PLAN  
S5301 STRUCTURAL DETAILS  
S5302 STRUCTURAL DETAILS  
S5303 STRUCTURAL DETAILS

## ARCHITECTURAL SYMBOLS



## VICINITY MAP



## ARCHITECTURAL ABBREVIATIONS

|        |                               |       |   |        |                         |
|--------|-------------------------------|-------|---|--------|-------------------------|
| ∠      | ANGLE                         | FDN   | FOUNDATION                                | O.D.   | OVERFLOW DRAIN          |
| AB     | ANCHOR BOLT                   | FE    | FIRE EXTINGUISHER                         | OD     | OUTSIDE DIAMETER        |
| ACT    | ACOUSTICAL CEILING TILE       | FEC   | FIRE EXTINGUISHER CABINET                 | OH     | OVERHEAD                |
| ADD    | ADDENDUM                      | FF    | FINISH FLOOR                              | OPNG   | OPENING                 |
| A.F.F. | ABOVE FINISH FLOOR            | FFE   | FINISH FLOOR ELEVATION                    | OPP    | OPPOSITE                |
| AHJ    | AUTHORITY HAVING JURISDICTION | FIN   | FINISH                                    | OS     | OUTSIDE                 |
| ALS    | AREA LIGHT STANDARD           | FL    | FLOOR                                     | OP     | POURED IN PLACE         |
| ALUM   | ALUMINUM                      | FO    | FACE OF                                   | PL     | PROPERTY LINE           |
| ANOD   | ANODIZED                      | FOC   | FACE OF CONCRETE                          | PLAS   | PLASTER                 |
| BC     | BOTTOM OF CURB                | FOF   | FACE OF FINISH                            | PLYWD  | PLYWOOD                 |
| BD     | BOARD                         | FOM   | FACE OF MASONRY                           | PSF    | PER SQUARE FOOT         |
| BLDG   | BUILDING                      | FOS   | FACE OF STUD                              | P.T.   | PRESSURE TREATED        |
| BLKG   | BLOCKING                      | FOC   | FURNISHED BY OWNER INSTALLED              | PVMT   | PAVEMENT                |
| B.M.   | BENCH MARK                    | FOIO  | FURNISHED BY OWNER INSTALLED              | R.D.   | RADIUS                  |
| BM     | BEAM                          | FRT   | FIRE RETARDANT TREATED                    | REF    | REFERENCE               |
| BOT    | BOTTOM                        | FTG   | FOOTING                                   | REFR   | REFRIGERATOR            |
| BTU    | BRITISH THERMAL UNIT          | FURR  | FURRING                                   | REQD   | REQUIRED                |
| BTWN   | BETWEEN                       | GA    | GAUGE                                     | REV    | REVISE OR REVISION      |
| COR C  | CHANNEL                       | GALV  | GALVANIZED                                | RM     | ROOM                    |
| CB     | CATCH BASIN                   | GB    | GRAB BAR                                  | R.O.   | ROUGH OPENING           |
| CCTV   | CLOSED CIRCUIT TV             | GC    | GENERAL CONTRACTOR                        | RCP    | REFLECTED CEILING PLAN  |
| CG     | CORNER GUARD                  | GL    | GLASS                                     | SC     | SOLID CORE              |
| CLG    | CEILING                       | GND   | GROUND                                    | SECT   | SECTION                 |
| CLR    | CLEAR                         | GVP   | GYP SUM VENEER PLASTER                    | SF     | SQUARE FOOT             |
| CJ     | CONTROL JOINT                 | GWB   | GYP SUM WALL BOARD                        | SHTG   | SHEATHING               |
| CMU    | CONCRETE MASONRY UNIT         | HB    | HOSE BIB                                  | SHWR   | SHOWER                  |
| CONT   | CONTINUOUS                    | HC    | HANDICAP                                  | SHT    | SHEET                   |
| CORR   | CORRIDOR                      | HDWR  | HARDWARE                                  | SIM    | SIMILAR                 |
| CS.J   | CONSTRUCTION JOINT            | HM    | HOLLOW METAL                              | SJ     | SEISMIC JOINT           |
| CSMT   | CASEMENT                      | HW    | HOT WATER                                 | SM     | SHEET METAL             |
| CT     | CERAMIC TILE                  | HVAC  | HEATING, VENTILATION AND AIR CONDITIONING | SS     | STAINLESS STEEL         |
| CTR    | CENTER                        | INSUL | INSULATION                                | STD    | STANDARD                |
| C      | CENTERLINE                    | INT   | INTERIOR                                  | STL    | STEEL                   |
| DBL    | DOUBLE                        | JAN   | JANITOR                                   | STOR   | STORAGE                 |
| DTL    | DETAIL                        | JOINT | JOINT                                     | STRUCT | STRUCTURAL              |
| DF     | DRINKING FOUNTAIN             | JST   | JOIST                                     | SUSP   | SUSPENDED               |
| DIA    | DIAMETER                      | L     | LENGTH                                    | T      | TEMPERED GLAZING        |
| DIAG   | DIAGONAL                      | LAV   | LAVATORY                                  | TC     | TOP OF CURB             |
| DIM    | DIMENSION                     | LB    | LAG BOLT                                  | TEL    | TELEPHONE               |
| DISP   | DISPENSER                     | LKR   | LOCKER                                    | T&G    | TONGUE AND GROOVE       |
| DN     | DOWN                          | LS    | LANDSCAPING                               | THK    | THICK                   |
| DP     | DAMP PROOFING                 | LVR   | LOUVER                                    | TJ     | TOOL JOINT              |
| DR     | DOOR                          | MATL  | MATERIAL                                  | TP     | TOP OF PAVEMENT         |
| DS     | DOWN SPOUT                    | MAX   | MAXIMUM                                   | TS     | TUBE STEEL              |
| DWG    | DRAWING                       | MECH  | MECHANICAL                                | TYP    | TYPICAL                 |
| EA     | EACH                          | MED   | MEDIUM                                    | TOD    | TOP OF (MATERIAL)       |
| EJ     | EXPANSION JOINT               | MEZZ  | MEZZANINE                                 | UNFIN  | UNFINISHED              |
| EL     | ELEVATION                     | MFR   | MANUFACTURER                              | UNO    | UNLESS NOTED OTHERWISE  |
| ELEC   | ELECTRICAL                    | MH    | MANHOLE                                   | VB     | VAPOR BARRIER           |
| E.O.S. | EDGE OF SLAB                  | MN    | MINIMUM                                   | VERT   | VERTICAL                |
| ENGR   | ENGINEER                      | MIR   | MIRROR                                    | VEST   | VESTIBULE               |
| EP     | ELECTRICAL PANEL              | MISC  | MISCELLANEOUS                             | VFY    | VERIFY                  |
| EO     | EQUAL                         | MTD   | MOUNTED                                   | W      | WITH                    |
| EQUIP  | EQUIPMENT                     | MTL   | METAL                                     | WC     | WATER CLOSET            |
| ES     | EACH SIDE                     | NA    | NOT APPLICABLE                            | WD     | WOOD                    |
| EW     | EACH WAY                      | NIC   | NOT IN CONTRACT                           | WF     | WIDE FLANGE             |
| EXST   | EXISTING                      | NOM   | NOMINAL                                   | WG     | WIRE GLASS              |
| (E)    | EXISTING                      | NS    | NELSON STUD                               | WH     | WATER HEATER            |
| EXP    | EXPANSION                     | NTS   | NOT TO SCALE                              | W/O    | WITHOUT                 |
| EXT    | EXTERIOR                      | OA    | OVERALL                                   | WP     | WATERPROOFING           |
| FA     | FIRE ALARM                    | OC    | ON CENTER                                 | WRB    | WATER RESISTIVE BARRIER |
| FBO    | FURNISHED BY OTHERS           |       |   | WT     | WEIGHT                  |
| FD     | FLOOR DRAIN                   |       |   |        |                         |

## SCHOOL ADDRESS

West Tualatin View Elementary School  
8800 SW Leary Road, Portland, OR 97225  
Phone: (503) 356-2510  
AHJ: Washington County  
Tax Lot #: 1S102AD00600

## DEFERRED SUBMITTAL

FALL PROTECTION







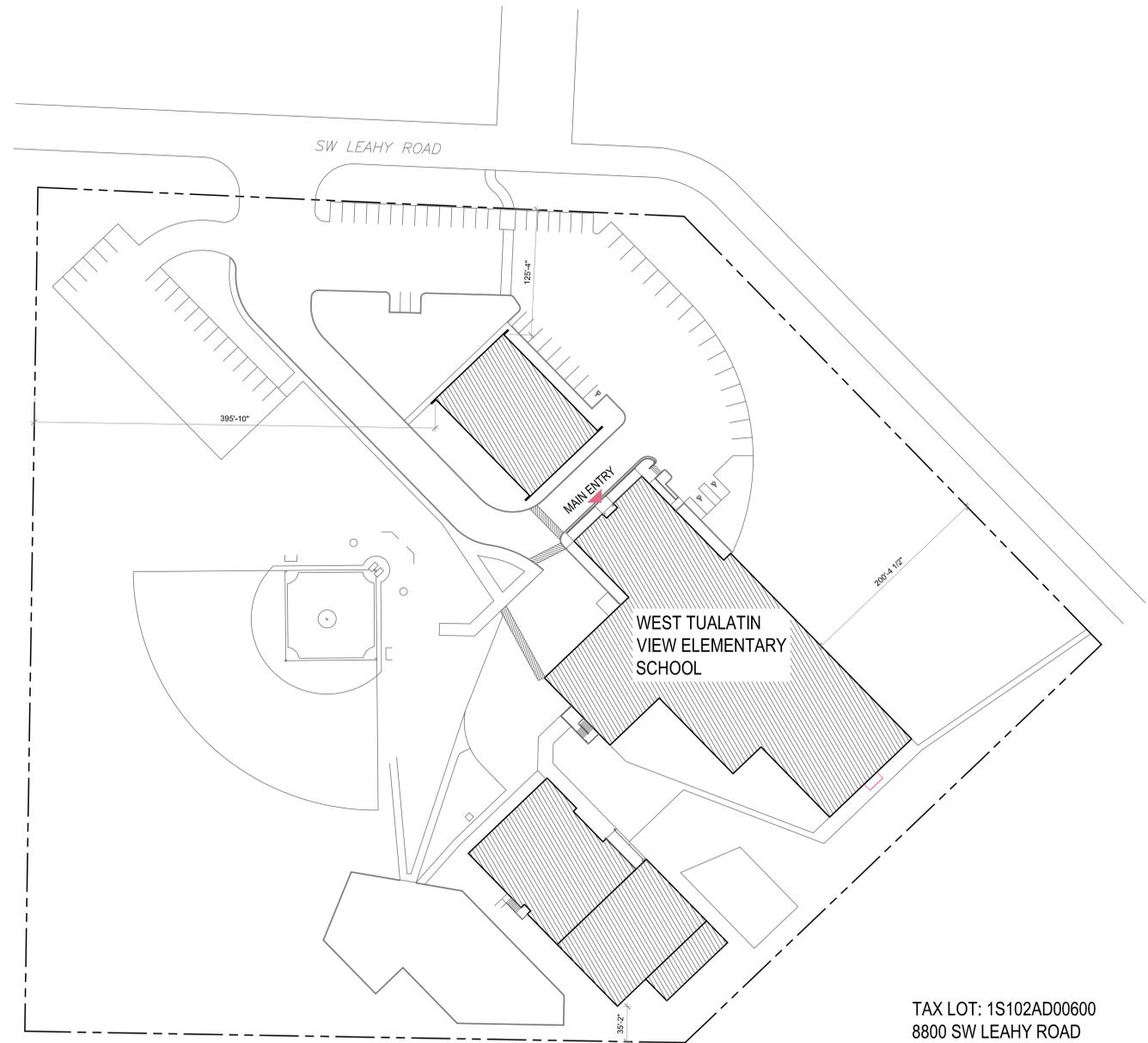
Dull Olson Weekes - IBI Group Architects, Inc.

907 SW Stark Street Portland OR 97205 USA  
tel: 503 226 6950 fax: 503 273 9192  
www.dowe-ibigroup.com www.ibigroup.com

WEST TUALATIN VIEW ELEMENTARY SCHOOL REROOF

Beaverton School District

16550 SW Merlo Road  
Beaverton, Oregon 97003  
t: (503) 591-8000



TAX LOT: 1S102AD00600  
8800 SW LEAHY ROAD  
PORTLAND, OR 97225

WEST TUALATIN VIEW ELEMENTARY SCHOOL - SITE PLAN

SCALE: 1"=60'-0"



|           |                   |
|-----------|-------------------|
| phase     | Bid Documents     |
| date      | February 22, 2019 |
| revisions |                   |
|           |                   |
|           |                   |
|           |                   |
| project # | 119190            |

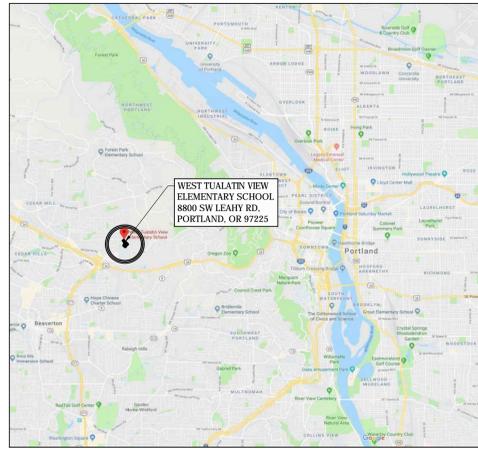
Site Plan  
Washington County

**G1102**

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# BEAVERTON SCHOOL DISTRICT WEST TUALATIN VIEW ELEMENTARY SCHOOL

## SITE MAPS



**1**  
**GI-1** LOCATION MAP  
SCALE: NTS



**2**  
**GI-1** VICINITY MAP  
SCALE: NTS



**3**  
**GI-1** CAMPUS PLAN  
SCALE: NTS

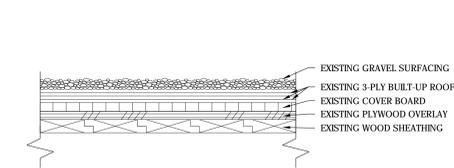
## DRAWING SCHEDULE

|      |  |
|------|--|
| GI-1 | GENERAL INFORMATION                    |
| R100 | OVERALL ROOF PLAN                      |
| R101 | PARTIAL ROOF PLAN AREAS A, B & I       |
| R102 | PARTIAL ROOF PLAN AREAS C, D, E, F & G |
| R200 | DETAILS                                |
| R201 | DETAILS                                |
| R202 | DETAILS                                |
| R203 | DETAILS                                |

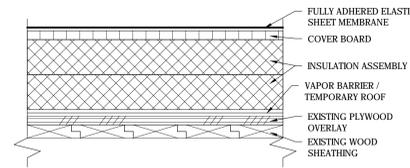
## GENERAL NOTES

- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS OF THE PROJECT, INCLUDING VERIFICATION OF EXISTING ROOF SYSTEM CONSTRUCTION AND MATERIALS.
- CONTRACTOR STAGING AND STORAGE AREAS SHALL BE AS DIRECTED BY THE OWNER'S REPRESENTATIVE AT THE PRE-CONSTRUCTION MEETING. CONTRACTOR SHALL ASSUME A REASONABLE AMOUNT OF STORAGE AND STAGING SPACE WILL BE MADE AVAILABLE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING BUILDING SURFACES, FINISHES, AND SYSTEMS FROM DAMAGE, DISCOLORATION, ETC. DURING THE COURSE OF ALL CONSTRUCTION ACTIVITIES.
- PERSONAL FALL PROTECTION DEVICES ARE NOT, NOR WILL BE, PROVIDED BY THE OWNER ON ANY ROOF AREA DESIGNATED TO RECEIVE WORK. PERSONAL FALL PROTECTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
- EXISTING MATERIALS AND CONSTRUCTION ARE NOTED ON THE DRAWINGS AS EXISTING OR EXIST. ALL OTHER NOTATIONS INDICATE NEW MATERIALS, PRODUCTS, AND CONSTRUCTION UNLESS OTHERWISE STATED OR INDICATED.
- ALL CONSTRUCTION SHALL CONFORM TO THE 2014 OREGON STRUCTURAL SPECIALTY CODE, AND ALL LOCAL GOVERNING BUILDING CODES AND ORDINANCES.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREIN OR NOT, AND TO PROTECT UTILITIES FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSES OF REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE EXECUTION OF THE WORK.
- THIS PROJECT INCLUDES A BASE BID FOR A ROOF REPLACEMENT PROJECT AT ROOF AREAS A AND B AND AN ALTERNATE BID FOR ROOF AREAS C, D, E AND F INCLUDING, BUT NOT LIMITED TO THE FOLLOWING: REMOVAL OF EXISTING GRAVEL SURFACED BUILT-UP ROOF ASSEMBLY DOWN TO EXISTING SHEATHING, SHEATHING REPAIRS, PERIMETER WOOD NAILERS AND WOOD FRAMED PARAPET WALLS, DEMOLITION OF EXISTING ATTC VENTILATION, ABANDONED UNITS AND DECOMMISSIONED MASSONRY CHIMNEY AND COVERING OF EXISTING OPENINGS, MODIFICATION OF THROUGH ROOF PENETRATIONS AND CURBS TO ESTABLISH REQUIRED CLEARANCES ABOVE FINISHED ROOF INCLUDING DISCONNECTION AND RE-CONNECTION OF MECHANICAL UNITS, REPLACEMENT OF UNIT SKYLIGHTS, INSTALLATION OF VAPOR BARRIER / TEMPORARY ROOF, INSTALLATION OF DECK LEVEL RIGID INSULATION AND COVER BOARD, INSTALLATION OF FULLY ADHERED 90-MIL EPDM SINGLE PLY ROOFING MEMBRANE, REMOVAL AND REPLACEMENT OF ROOF RELATED SHEET METAL FLASHINGS AND TRIM, REMOVAL AND REPLACEMENT OF EXTERIOR HANGING GUTTERS AND DOWNSPOUTS, INSTALLATION OF FALL PROTECTION ANCHORS, INSTALLATION OF ACCESS LADDERS, STUCCO AND METAL PANEL CLADDING ASSEMBLIES. WORK DOES NOT INCLUDE ANY INCREASE IN AREA OR CHANGES IN OCCUPANCY.
- ROOF ACCESS BY MEANS OF EXTERNAL STAIR TOWER / SCAFFOLDING, LADDERS, EXTERNAL LIFT, OR OTHER APPROVED DEVICE - PROVIDED BY CONTRACTOR.

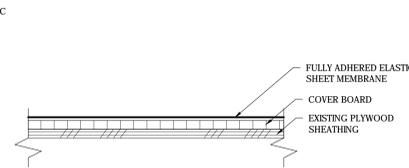
## ROOF SYSTEM ASSEMBLIES



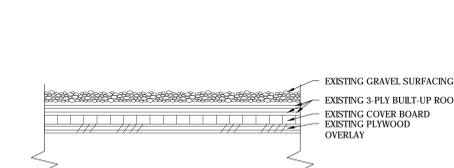
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**GI-1** EXISTING ROOF ASSEMBLY  
ROOF AREA A & B (BASE BID)  
SCALE: 3" = 1'-0"



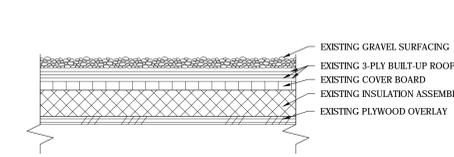
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**GI-1** NEW ROOF ASSEMBLY  
ROOF AREA A & B (BASE BID)  
SCALE: 3" = 1'-0"



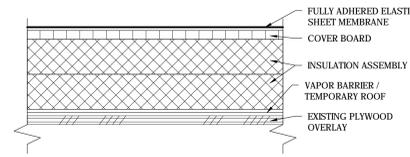
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**GI-1** NEW ROOF ASSEMBLY  
ROOF AREA C & D (ALTERNATE BID)  
SCALE: 3" = 1'-0"



**7**  
**GI-1** EXISTING ROOF ASSEMBLY  
ROOF AREA C & D (ALTERNATE BID)  
SCALE: 3" = 1'-0"



**8**  
**GI-1** EXISTING ROOF ASSEMBLY  
ROOF AREA E & F (ALTERNATE BID)  
SCALE: 3" = 1'-0"



**9**  
**GI-1** NEW ROOF ASSEMBLY  
ROOF AREA E & F (ALTERNATE BID)  
SCALE: 3" = 1'-0"

## PROJECT TEAM

**OWNER**  
Beaverton School District  
16550 SW Merlo Rd  
Beaverton Oregon 97006  
tel: (503) 591-4255 cell: (630) 726-2179  
fax: (503) 591-4475  
Contact: Michael Lamberty

**ARCHITECT**  
DOWA / IBI Group  
907 SW Harvey Milk St.  
Portland, Oregon 97205  
tel: (503) 226-6950  
Contact: Jim Fitzpatrick

**ROOF CONSULTANT**  
Professional Roof Consultants, Inc.  
1108 SE Grand Ave., Suite 300  
Portland, Oregon 97214  
tel: (503) 280-8759  
fax: (503) 280-8866  
Contact: Jose Ponce, RRO

## DRAWING SYMBOLS



DETAIL REFERENCE ON PLAN DRAWINGS - SIM. INDICATES SIMILAR CONSTRUCTION AS SHOWN ON DETAIL NOTED.



WEST TUALATIN VIEW ELEMENTARY SCHOOL REROOF

Beaverton School District  
16550 SW Merlo Road  
Beaverton, Oregon 97003  
t: (503) 591-8000



phase Bid Documents

date February 22, 2019

revisions

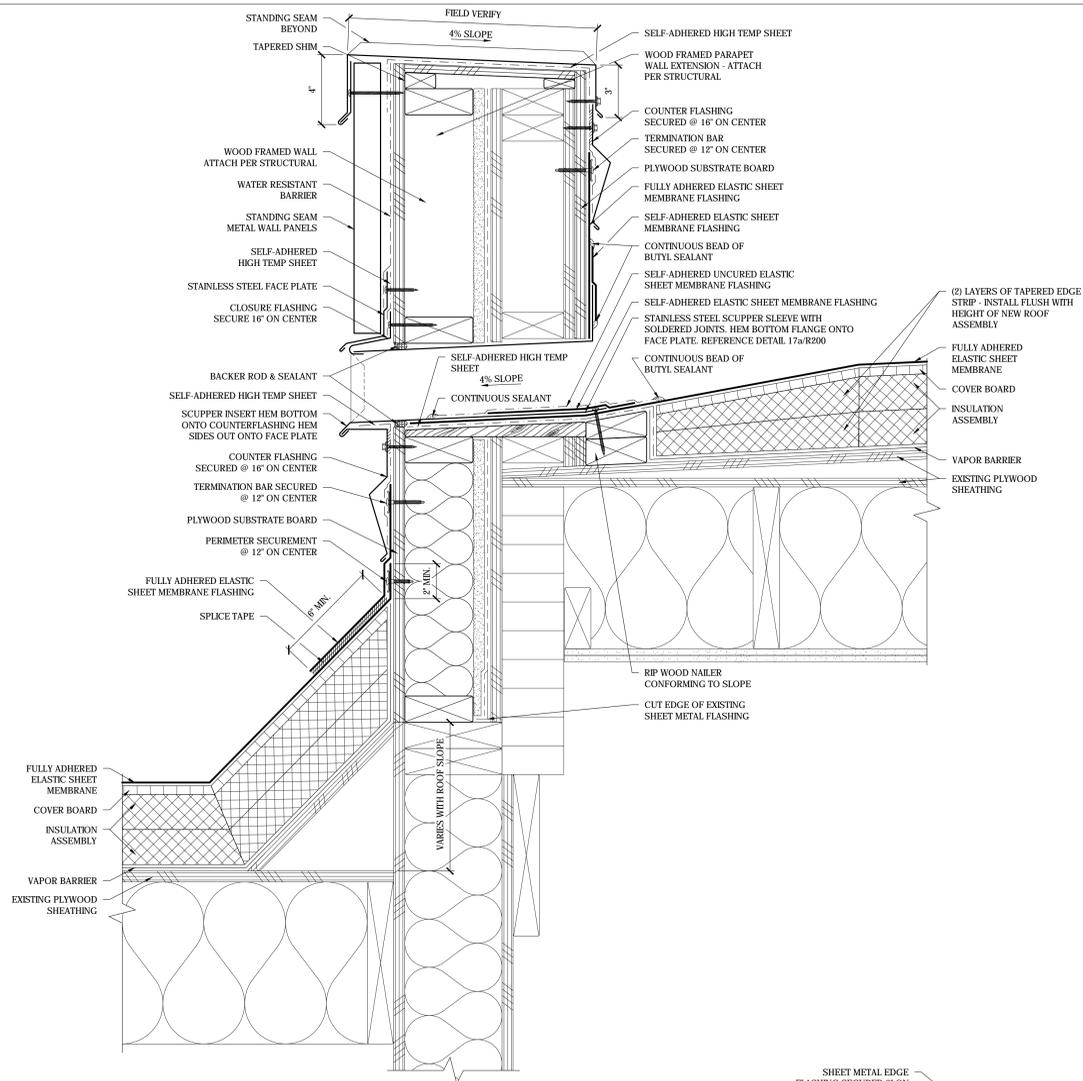
project # 119190

General Information

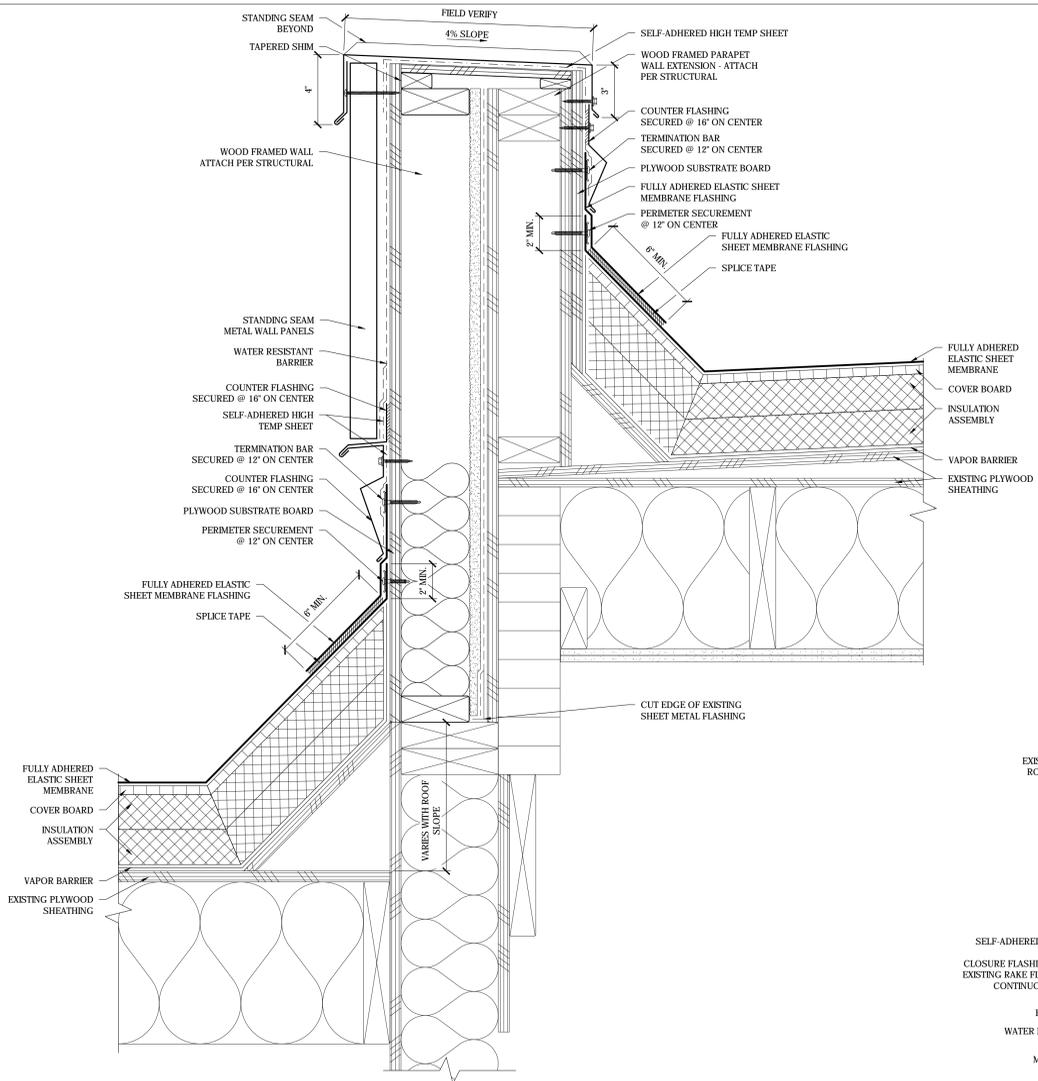
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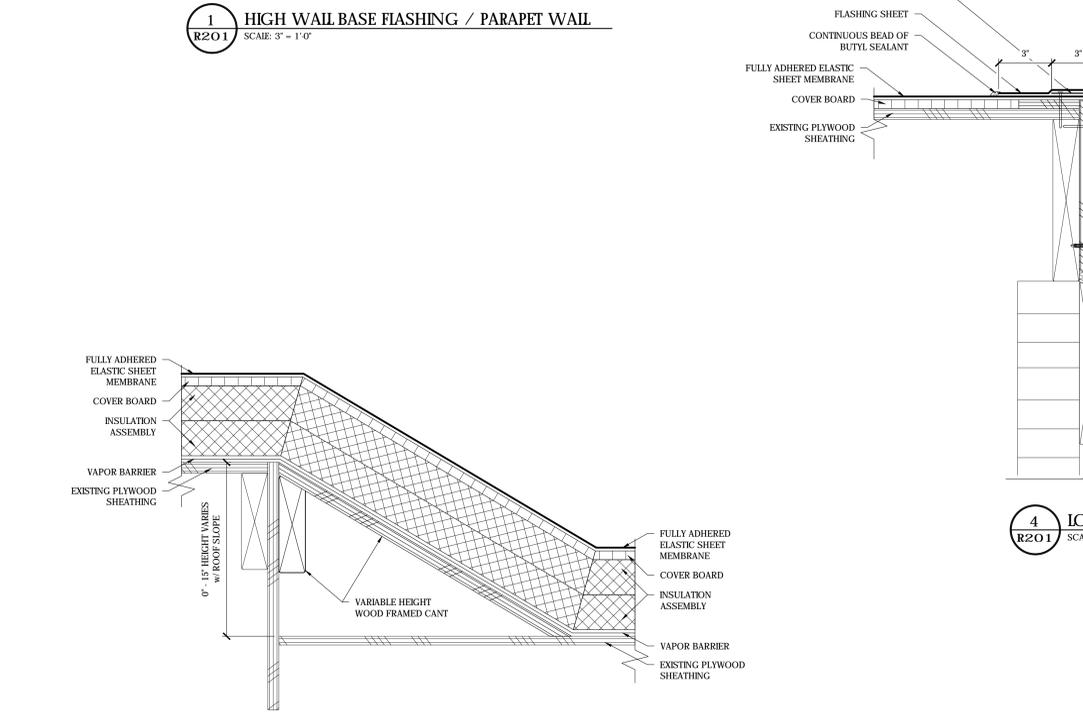




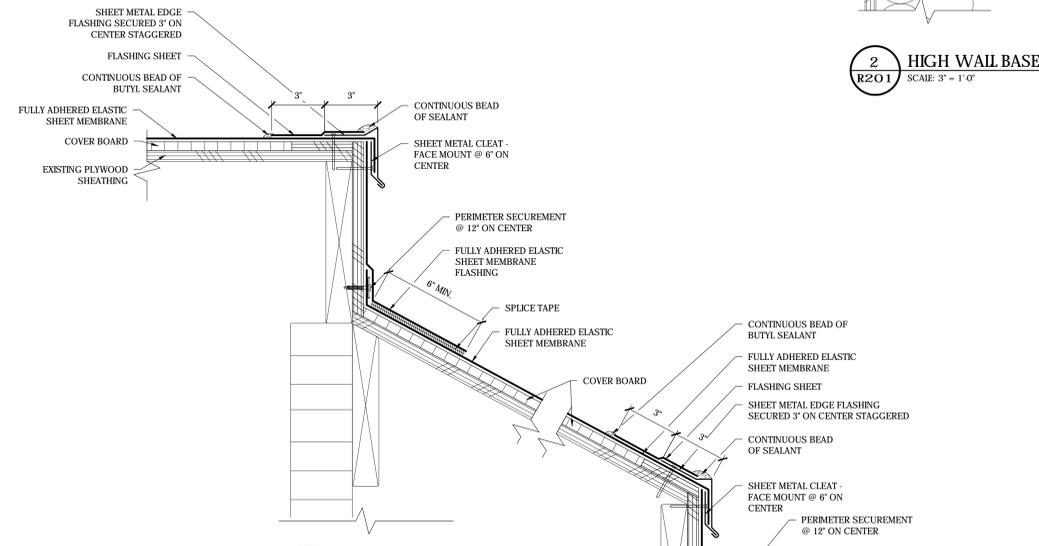
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 R201 HIGH WAIL BASE FLASHING / PARAPET WALL  
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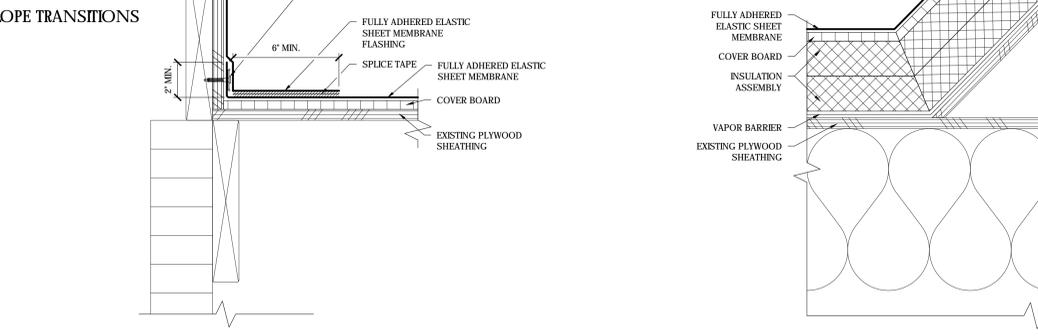
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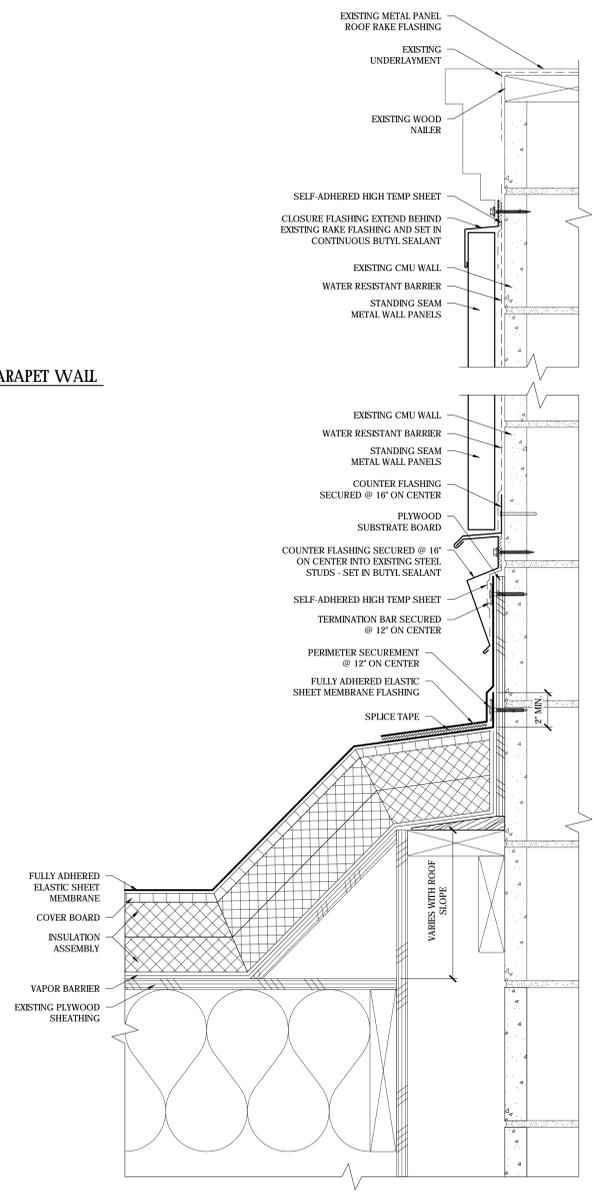
**3**  
 R201 TRANSITION  
 SCALE: 3" = 1'-0"



**4**  
 R201 LOW TO STEEP SLOPE TRANSITIONS  
 SCALE: 3" = 1'-0"



**5**  
 R201 LOW TO STEEP SLOPE TRANSITIONS  
 SCALE: 3" = 1'-0"

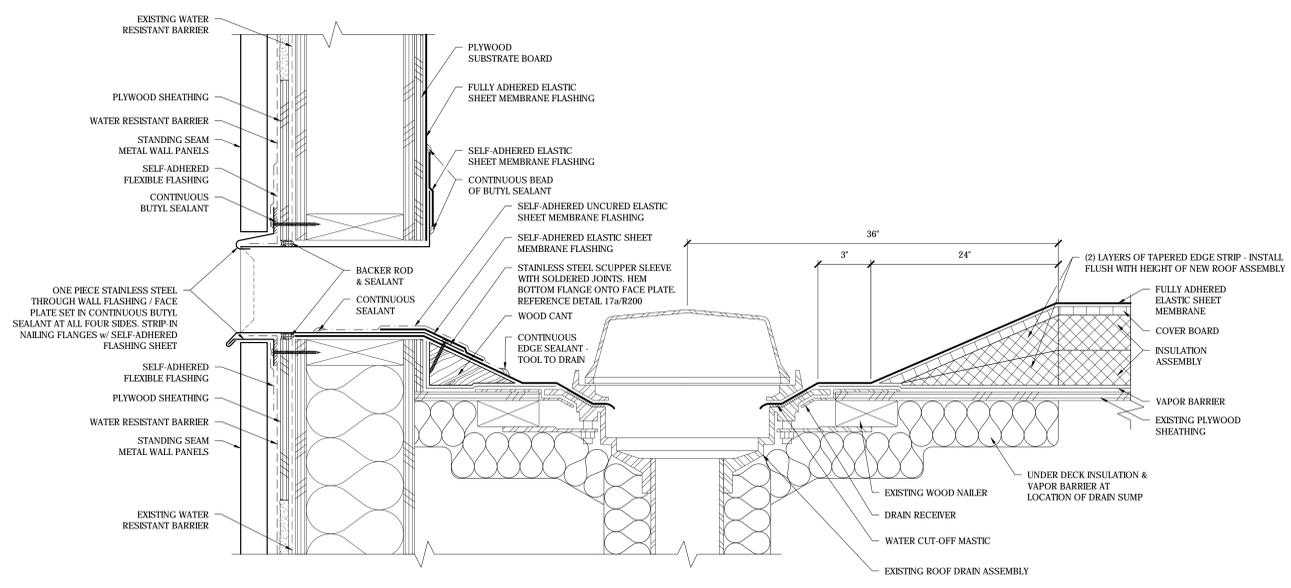


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 R201 HIGH WAIL BASE FLASHING  
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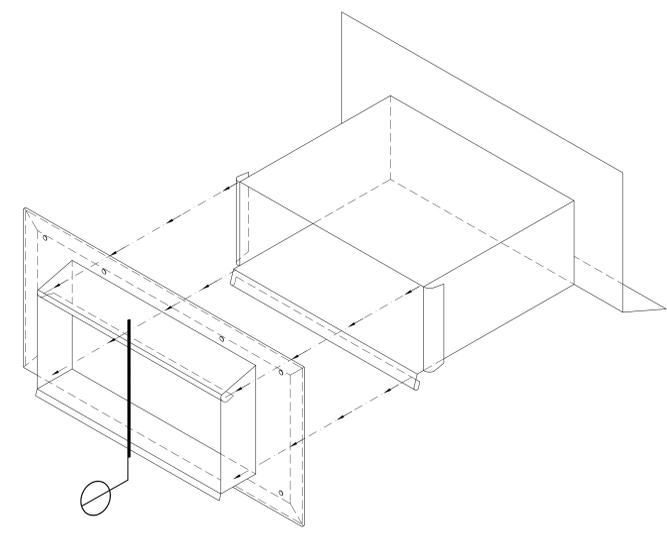
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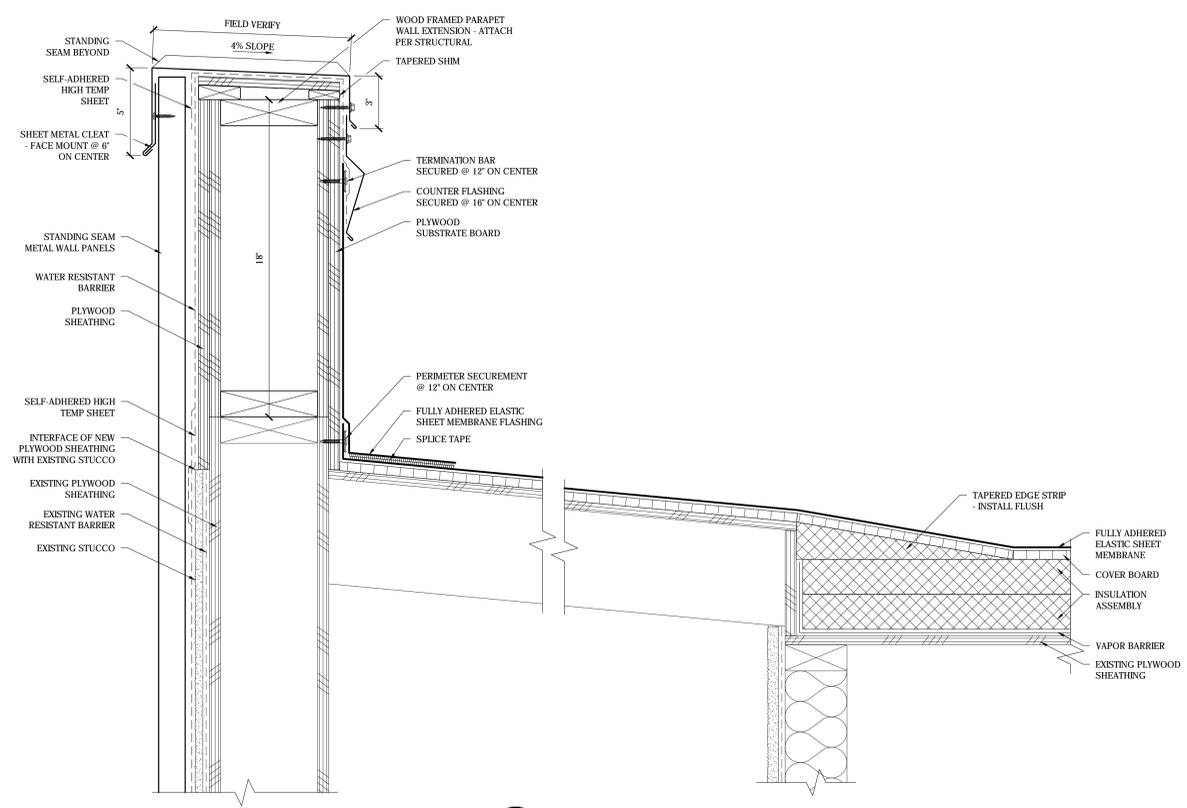
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| phase     | Bid Documents     |
| date      | February 22, 2019 |
| revisions |                   |
| project # | 119190            |
|           | Details           |



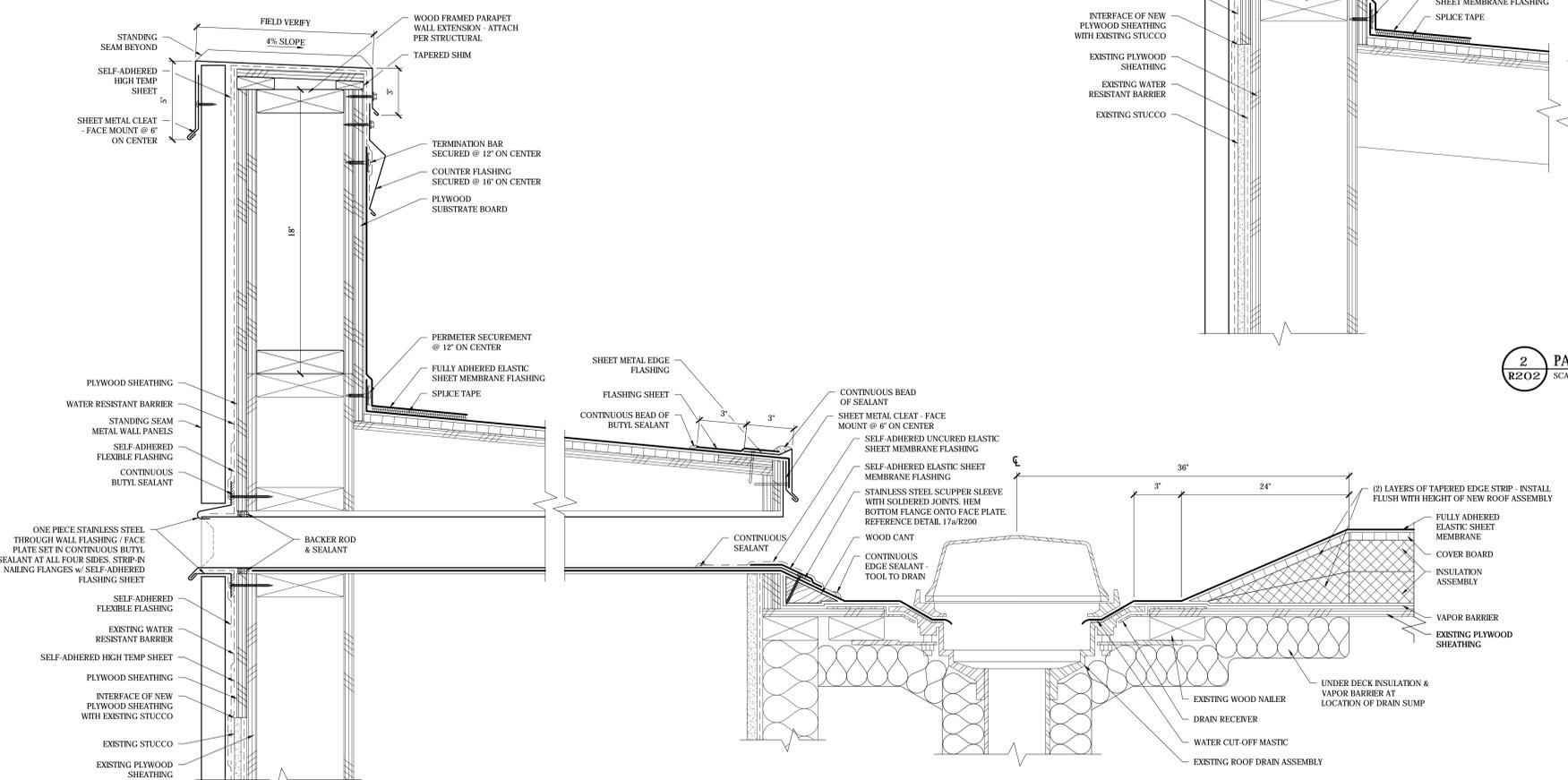
**1 ROOF DRAIN & OVERFLOW SCUPPER**  
 SCALE: 3" = 1'-0"



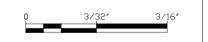
**1a SCUPPER ISOMETRIC VIEW**  
 SCALE: NOT TO SCALE



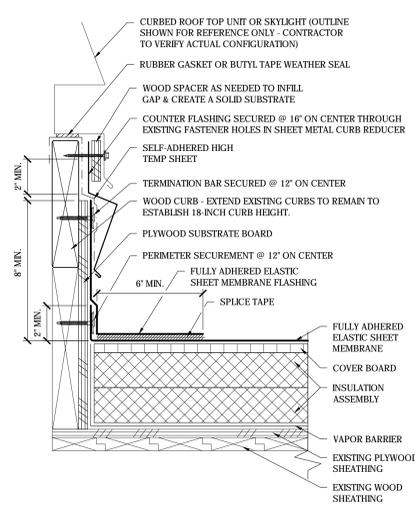
**2 PARAPET WALL**  
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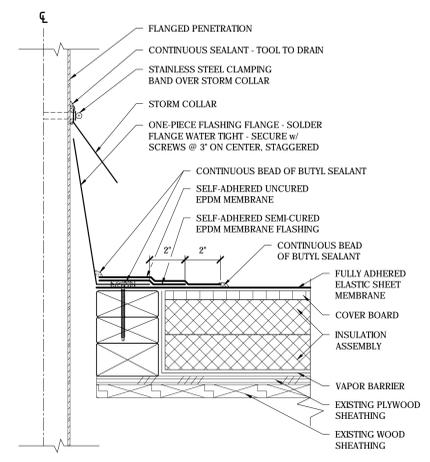
**3 ROOF DRAIN & OVERFLOW SCUPPER**  
 SCALE: 3" = 1'-0"



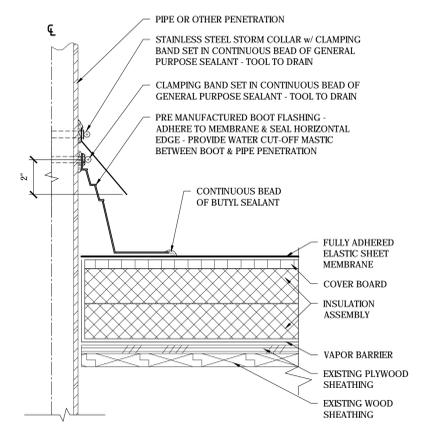
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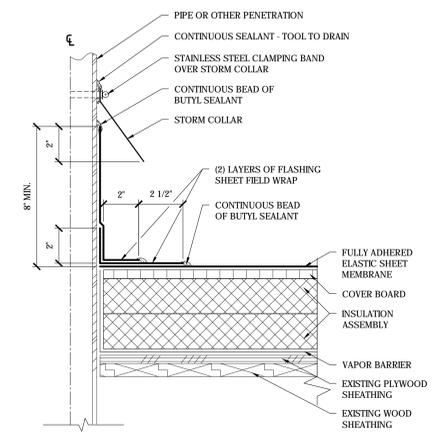
**1 CURB MOUNTED ROOF TOP UNIT**  
 R203 SCALE: 3" = 1'-0"



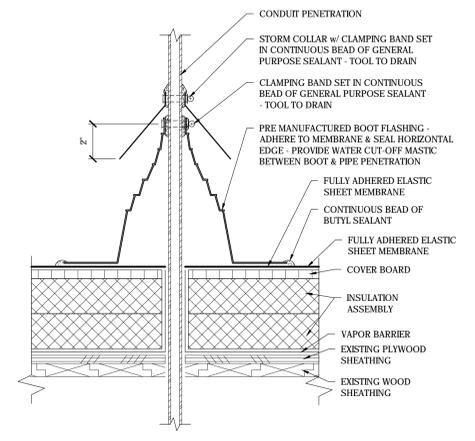
**2 HOT PIPE PENETRATION FLASHING**  
 R203 SCALE: 3" = 1'-0"



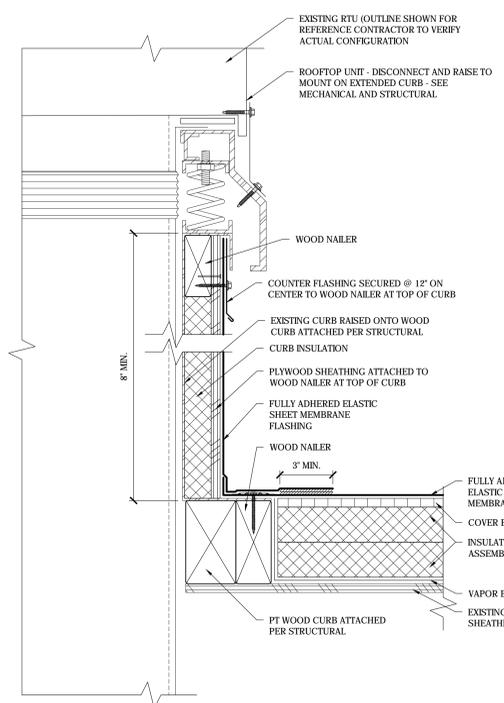
**3 PRE-FORMED PENETRATION FLASHING**  
 R203 SCALE: 3" = 1'-0"



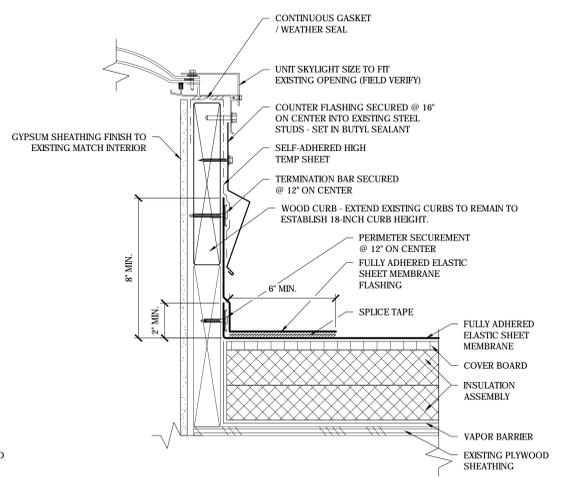
**4 FIELD WRAP PENETRATION FLASHING**  
 R203 SCALE: 3" = 1'-0"



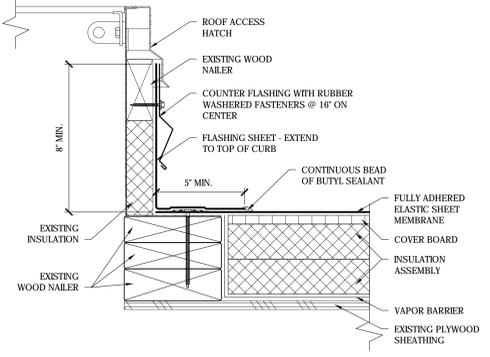
**5 ELECTRICAL PENETRATION**  
 R203 SCALE: 3" = 1'-0"



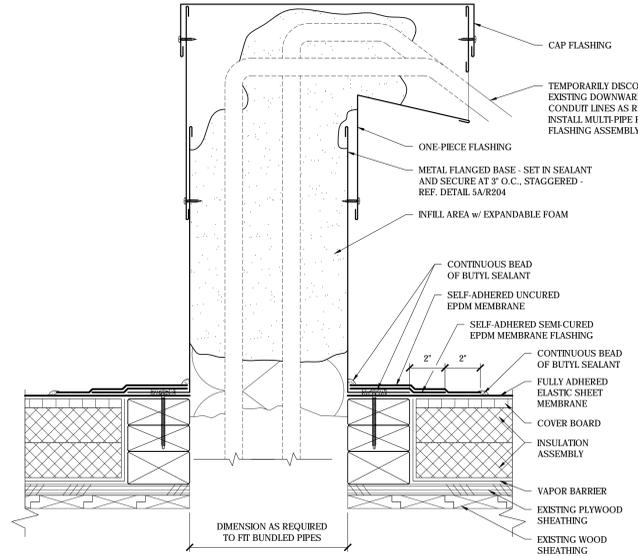
**6 CURB MOUNTED ROOF TOP UNIT**  
 R203 SCALE: 3" = 1'-0"



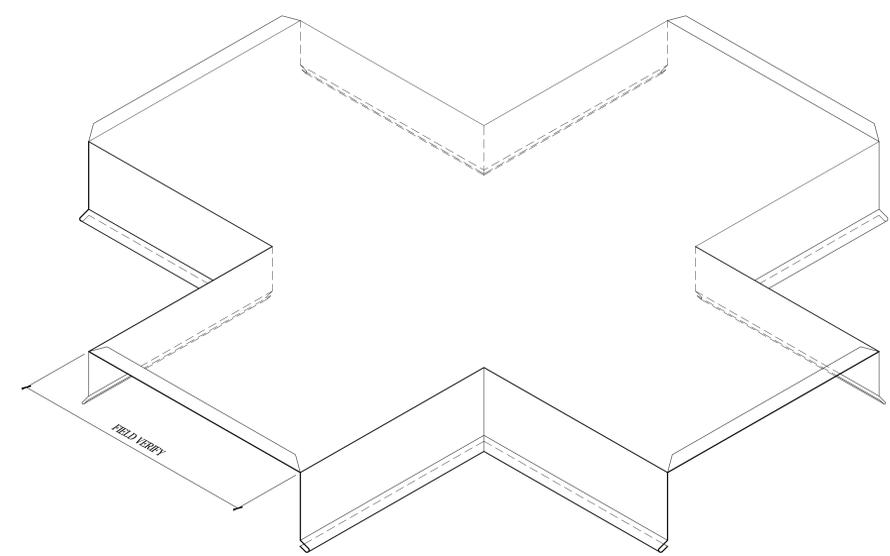
**7 CURBED SKYLIGHT**  
 R203 SCALE: 3" = 1'-0"



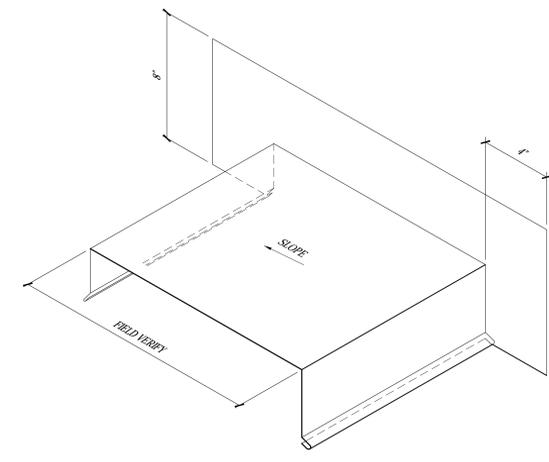
**8 ROOF HATCH**  
 R203 SCALE: 3" = 1'-0"



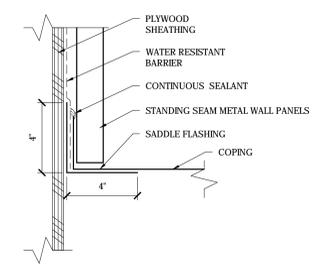
**9 MULTILINE PENETRATION**  
 R203 SCALE: 3" = 1'-0"



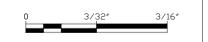
**10 4-WAY COPING INTERFACE**  
 R203 SCALE: N.T.S.



**11 SADDLE FLASHING**  
 R203 SCALE: N.T.S.



**WEST TUALATIN VIEW ELEMENTARY SCHOOL REROOF**  
**Beaverton School District**  
 16550 SW Merlo Road  
 Beaverton, Oregon 97003  
 t: (503) 591-8000



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| date      | February 22, 2019 |
| revisions |                   |

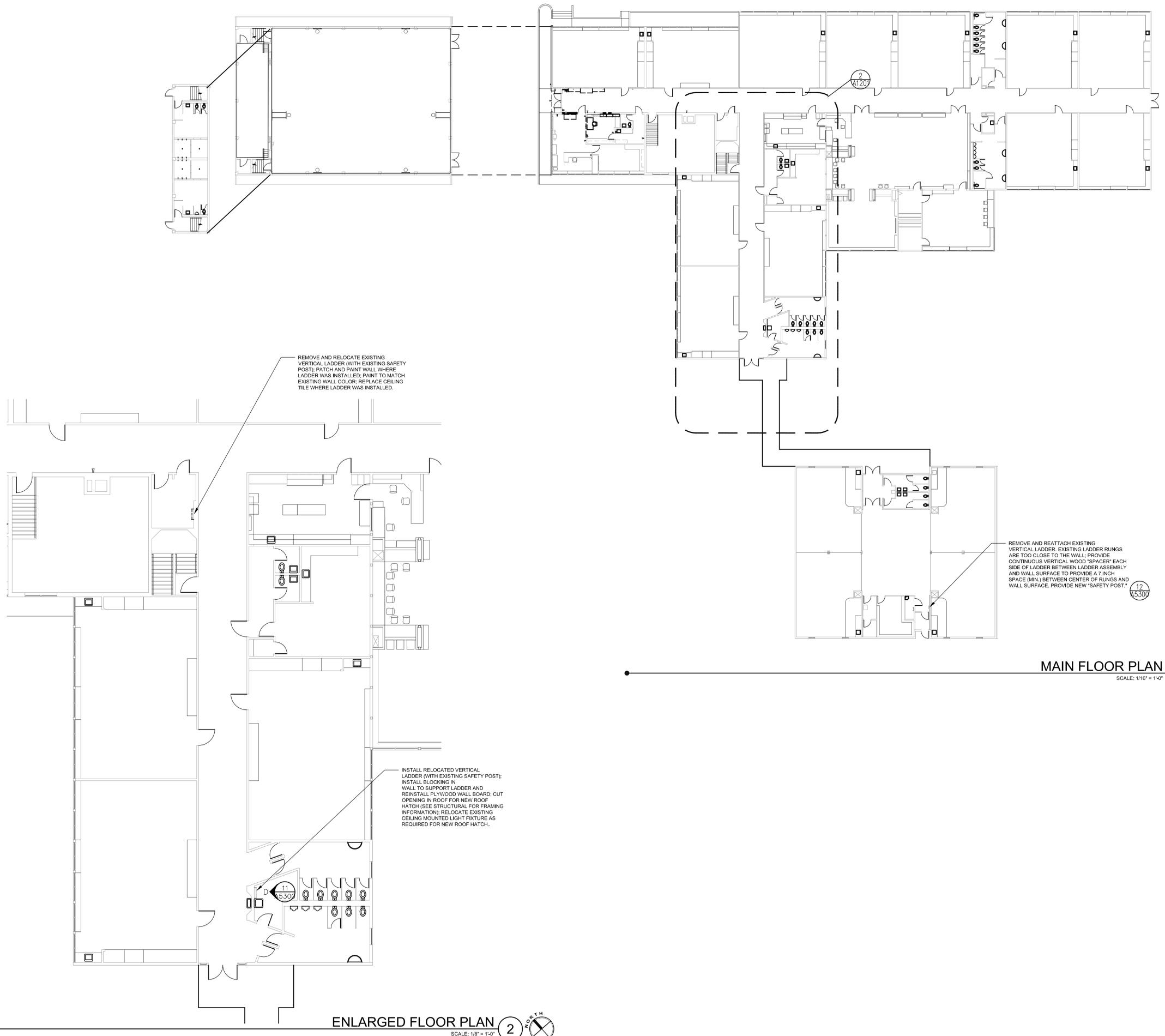
project # 119190  
 Details

**R203**

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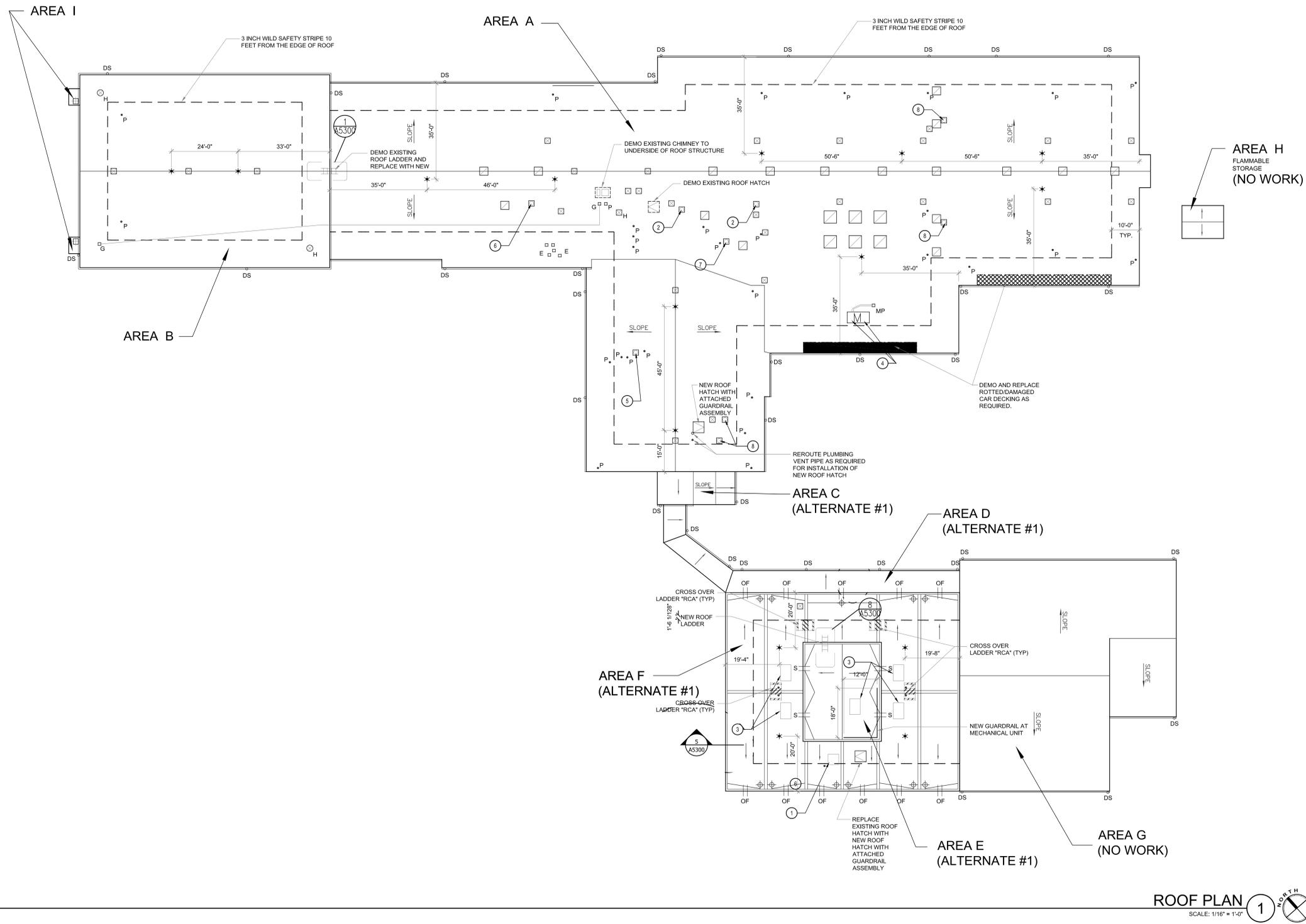


MAIN FLOOR PLAN 1  
 SCALE: 1/16" = 1'-0"

ENLARGED FLOOR PLAN 2  
 SCALE: 1/8" = 1'-0"

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Floor Plan  
**A1201**



**ROOF PLAN** 1  
 SCALE: 1/16" = 1'-0"

| SHEET KEY NOTES  | SHEET KEY NOTES   | GENERAL NOTES   | ROOF AREAS   | LEGEND  |
|--|---|---|--|---|
| <p>6. DEMOLISH EXHAUST FAN AND ROOF CURB COMPLETE. PROVIDE DESIGN BUILD SERVICES TO REPLACE IN-KIND, EXISTING EXHAUST FAN SIZED FOR 75 CFM AT 0.25" ON WOODEN ROOF CURB. PROVIDE ELECTRICAL AND CONTROL RECONNECTION TO UNIT TO OPERATE AS BEFORE.</p> <p>7. DEMOLISH EXHAUST FAN AND ROOF CURB COMPLETE. PROVIDE DESIGN BUILD SERVICES TO REPLACE IN-KIND, CURRENT EXHAUST FAN SIZED FOR 150 CFM AT 0.25" ON WOODEN ROOF CURB. PROVIDE ELECTRICAL AND CONTROL RECONNECTION TO UNIT TO OPERATE AS BEFORE.</p> <p>8. DEMOLISH EXHAUST FAN AND ROOF CURB COMPLETE. PROVIDE DESIGN BUILD SERVICES TO REPLACE IN-KIND, CURRENT EXHAUST FAN SIZED FOR 400 CFM AT 0.25" ON WOODEN ROOF CURB. PROVIDE ELECTRICAL AND CONTROL RECONNECTION TO UNIT TO OPERATE AS BEFORE.</p> | <p>1. CONFIRM CURB IS ABANDONED AND NOT REQUIRED FOR FUTURE USE WITH DISTRICT. UPON CONFIRMATION, DEMOLISH ROOF CURB, SUPPORTS, ELECTRICAL CONNECTIONS, AND ALL APPURTENANCES COMPLETE.</p> <p>2. CONFIRM EXHAUST FAN IS NOT REQUIRED FOR FUTURE USE WITH DISTRICT. UPON CONFIRMATION, DEMOLISH EQUIPMENT, ROOF CURB, CONTROLS AND ELECTRICAL CONNECTIONS, SUPPORTS, AND ALL APPURTENANCES COMPLETE. IF FAN IS REQUIRED, PROVIDE MECHANICAL, CONTROLS, AND ELECTRICAL DESIGN BUILD SERVICES TO REPLACE FAN ACCORDING TO DISTRICT'S REQUIREMENTS. INSTALL FAN ON WOODEN ROOF CURB. PROVIDE ELECTRICAL RECONNECTION TO UNIT, AND CONTROL TO OPERATE AS BEFORE.</p> <p>3. CAREFULLY DISCONNECT AND REMOVE RTU AND 21" ISOCURB, STORE FOR REUSE, AND REINSTALL WITH REROOFING. READJUST ISOLATOR SPRINGS TO OPERATE AS BEFORE. REPLACE ANY ELEMENTS OR EQUIPMENT DAMAGED DURING REMOVAL, STORAGE, OR REINSTALLATION PROCESSES.</p> <p>4. DEMOLISH ROOFTOP CONDENSING UNITS, CURB, SUPPORTS, CONTROLS AND ELECTRICAL WIRING, REFRIGERANT PIPING, ASSOCIATED INDOOR UNITS, AND ALL APPURTENANCES COMPLETE. PROVIDE MECHANICAL, CONTROLS, AND ELECTRICAL DESIGN BUILD SERVICES TO REPLACE INDOOR AND OUTDOOR UNITS IN-KIND. PROVIDE OUTDOOR UNITS WITH 18" HEAVY DUTY ALUMINUM ROOF STAND, IN LIEU OF WOOD ROOF CURB. BASIS OF DESIGN PRECISION ALUMINUM PRODUCTS. PROVIDE ELECTRICAL RECONNECTION TO UNIT AND CONTROL TO OPERATE AS BEFORE.</p> <p>5. DEMOLISH EXHAUST FAN, CURB, SUPPORTS, UNIT CONTROLS AND ELECTRICAL CONNECTIONS, AND ALL APPURTENANCES COMPLETE. PROVIDE DESIGN BUILD SERVICES TO REPLACE IN-KIND. PROVIDE ELECTRICAL AND CONTROL RECONNECTION TO UNIT TO OPERATE AS BEFORE.</p> | <p>1. SEE STRUCTURAL FOR ADDITIONAL FRAMING INFORMATION.</p> <p>2. ALL EXISTING CURBED SKYLIGHTS TO BE REPLACED WITH NEW.</p> <p>3. FALL ARREST ANCHORS TO BE ADDED TO ROOF AS SHOWN. THIS WILL BE A DEFERRED SUBMITTAL.</p> <p>4. UNLESS OTHERWISE INDICATED, CAREFULLY REMOVE ROOFTOP PASSIVE VENTS AS REQUIRED FOR REROOFING, STORE FOR REUSE, AND REINSTALL UPON COMPLETION OF REROOFING.</p> | <p>AREA A = 28,542 SF<br/>                 AREA B = 6,734 SF<br/>                 AREA C = 361 SF<br/>                 AREA D = 1,147 SF<br/>                 AREA E = 1,073 SF<br/>                 AREA F = 5,033 SF<br/>                 AREA G = 6,048 SF<br/>                 AREA H = 180 SF<br/>                 AREA I = 48 SF</p> | <p><b>LEGEND</b></p> <p>DS — GUTTER AT ROOF EDGE WITH DOWN SPOUT</p> <p>FD — FLANGED DOWNSPOUT ROOF DRAIN</p> <p>OF — THROUGH WALL SCUPPER OVER FLOW</p> <p>S — THROUGH WALL SCUPPER</p> <p>IR — INTERIOR ROOF DRAIN</p> <p>CF — CURBED FAN UNIT</p> <p>CP — CURBED PASSIVE VENT</p> <p>FL — FLANGED FLUE OR PIPE (HOT)</p> <p>P — PIPE PENETRATION</p> <p>MP — MULTIPLE PENETRATION</p> <p>E — ELECTRICAL PENETRATION</p> <p>NG — NATURAL GAS PENETRATION</p> <p>PP — PITCH PAN PENETRATION</p> <p>SE — SLEEPER CURBS W/ EQUIPMENT OVER ROOF</p> <p>M — CURBED MECHANICAL UNIT</p> <p>CO — CONDUIT OVER ROOF</p> <p>CR — CURBED ROOF ACCESS HATCH</p> <p>SK — CURBED SKYLIGHT</p> <p>RA — ROOF ACCESS LADDER</p> <p>CH — MASONRY CHIMNEY</p> <p>SW — SCREEN WALL</p> <p>FA — NEW FALL ARREST ANCHOR (TYPICAL OF 15)</p> <p>YS — YELLOW WARNING STRIP</p> |

**WEST TUALATIN VIEW ELEMENTARY SCHOOL REROOF**

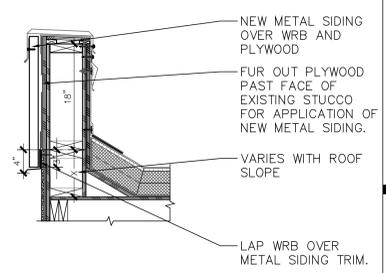
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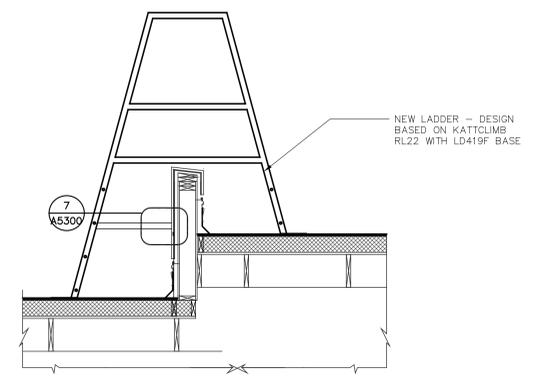
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| phase     | Bid Documents     |
| date      | February 22, 2019 |
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| project # | 119190            |

Roof Plan  
**A1401**

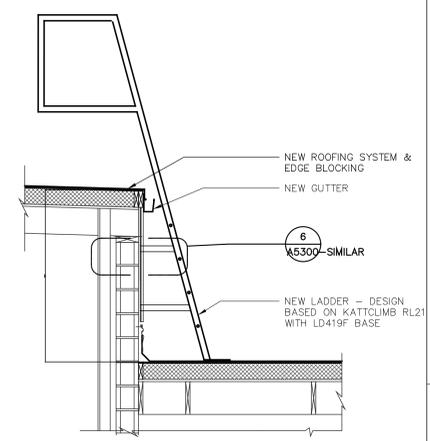
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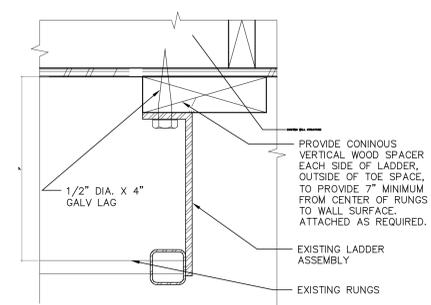
**PARAPET DETAIL 5**  
 SCALE: 1" = 1'-0"



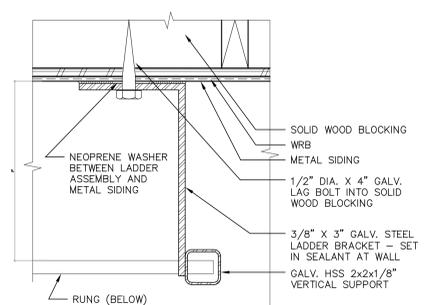
**LADDER SECTION 8**  
 1/2" = 1'-0"



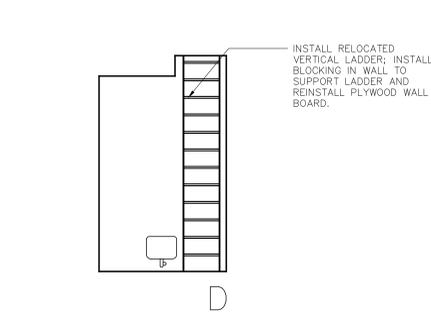
**LADDER SECTION 3**  
 1/2" = 1'-0"



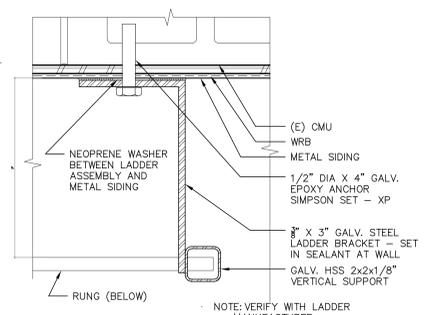
**ROOF LADDER DETAIL 12**  
 SCALE: 3" = 1'-0"



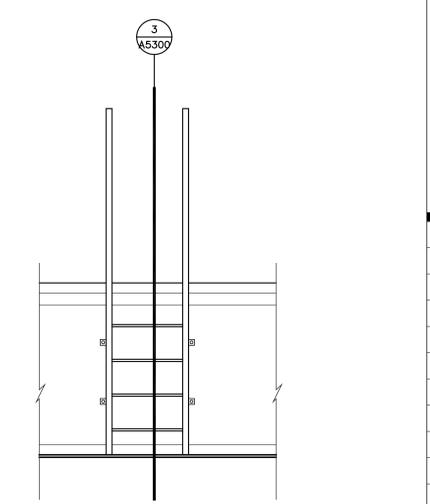
**ROOF LADDER DETAIL 7**  
 SCALE: 3" = 1'-0"



**CUSTODIAL 11**  
 1/4" = 1'-0"



**ROOF LADDER DETAIL 6**  
 SCALE: 3" = 1'-0"



**LADDER ELEVATION 1**  
 1/2" = 1'-0"

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| project # | 119190            |

**DETAILS**  
**A5300**

## GENERAL STRUCTURAL NOTES

THESE NOTES SHALL STIPULATE THE MINIMUM STANDARDS OF CONSTRUCTION, AND THE DRAWINGS SHALL GOVERN OVER THE NOTES IN ALL MATTERS SPECIFICALLY STATED. VERIFY DIMENSIONS AND EXISTING CONDITIONS AND NOTIFY ARCHITECT OR ENGINEER OF DISCREPANCIES BEFORE PROCEEDING. THE CONTRACTOR IS RESPONSIBLE FOR SAFE CONDITIONS AT THE JOBSITE, AND FOR TEMPORARY SUPPORT OF THE BUILDING PRIOR TO THE COMPLETION OF THE VERTICAL AND LATERAL LOAD SYSTEMS. ALL WORK SHALL CONFORM TO THE 2010 EDITION OF THE OREGON STRUCTURAL SPECIALTY CODE (OSSC).

**DESIGN LOADS:**  
CLASSROOM AND RESTROOM AREAS FLOOR LIVE LOAD + 40 PSF  
CORRIDORS, STAIRS & EXITS LIVE LOAD + 100 PSF  
MINIMUM ROOF SNOW LOAD + 25 PSF UNIFORM  
BASIC WIND SPEED, Vult = 130 MPH 3-SECOND GUST AND EXPOSURE B

SEISMIC DESIGN CATEGORY D AND SITE CLASS D  
SEISMIC IMPORTANCE FACTOR, I<sub>s</sub> = 1.25  
OCCUPANCY CATEGORY III  
MAPPED SPECTRAL RESPONSE ACCELERATIONS S<sub>s</sub> + 1.009g AND S<sub>1</sub> + 0.436g  
SPECTRAL RESPONSE COEFFICIENTS SD<sub>s</sub> = 0.131g AND SD<sub>1</sub> = 0.455g  
SD<sub>s</sub> IN 5% + 0.131 AND 5% + 0.455  
SD<sub>1</sub> IN 5% + 1.006 AND 5% + 0.682  
BASIC SEISMIC FORCE RESISTING SYSTEMS:  
WOOD ROOF DIAPHRAGMS  
REINFORCED CONCRETE WALLS  
CONCRETE MASONRY BLOCK WALLS WITH MINIMAL REINFORCING

CONTRACTOR SHALL PREVENT OVERLOADING THE EXISTING ROOF SYSTEM BY EVENLY DISTRIBUTING NEW AND REMOVED MATERIALS. AVOID EXCESSIVE PILING OR STACKING OF MATERIALS BY OFF-LOADING FROM ONE ROOF LEVEL TO ANOTHER. WHERE MATERIALS MUST BE STACKED, CHOOSE AREAS OVER BEARING WALLS TO AVOID OVERLOADING FRAMING MEMBERS.

**SPECIAL INSPECTION REQUIRED:**  
SPECIAL INSPECTION ACCORDING TO THE REQUIREMENTS OF SECTION 1704 OF THE INTERNATIONAL BUILDING CODE SHALL BE REQUIRED AS SPECIFIED IN THE "REQUIRED SPECIAL INSPECTIONS" TABLE ON THIS SHEET.

### STRUCTURAL OBSERVATION

- STRUCTURAL OBSERVATIONS BY THE ENGINEER OF RECORD (EOR) OR THEIR REPRESENTATIVE SHALL BE REQUIRED AT THE FOLLOWING STAGES DURING CONSTRUCTION:  
- INSTALLATION OF THE PLYWOOD ROOF DIAPHRAGM  
- AFTER INSTALLATION OF BLOCKING, HARDWARE/CLIPS, PRIOR TO COVERING.  
- INSTALLATION OF ANCHOR BOLTS TO CONCRETE, ANGLES, AND STRAPS.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD (EOR) AT LEAST FOUR (4) CALENDAR DAYS IN ADVANCE OF COMPLETION REQUIRING SITE OBSERVATION.
- IF ADDITIONAL SITE VISITS OR DESIGN WORK IS REQUIRED BY THE ENGINEER BECAUSE OF INCOMPLETE OR UNACCEPTABLE WORK, THE ENGINEER SHALL BE REIMBURSED FOR ALL TIME AND EXPENSES INVOLVED.

### WOOD

LUMBER GRADES SHALL BE AS FOLLOWS, EXCEPT AS NOTED ON DRAWINGS:  
2x FRAMING & BLOCKING #2 GRADE DOUGLAS FIR  
4x FRAMING & BLOCKING #2 GRADE DOUGLAS FIR  
PLATES & SILLS ON CONCRETE FR, TR, DOUGLAS FIR

SHEATHING SHALL BE APA RATED SHEATHING EXPOSURE 1 OR CDX. SEE DRAWINGS FOR PANEL INDEX, INSTALLATION, AND NAILING REQUIREMENTS. NAILING INDICATED ON DRAWINGS TO BE WITH COMMON NAILS.

ALL CONNECTORS IN CONTACT WITH PRESERVATIVE TREATED WOOD MUST BE CORROSION PROTECTED.

FASTENERS AND HANGERS NOTED ON THE DRAWINGS ARE MODEL NUMBERS OF SIMPSON STRONG-TIE COMPANY, INC. AND MAY BE REPLACED WITH EQUIVALENT MODELS BY OTHER COMPANIES HAVING EQUIVALENT PROPERTIES AND STRENGTHS. INSTALL ALL CONNECTORS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS WITH NAILING IN ALL AVAILABLE HOLES. SIMPSON OR EQUIVALENT STEEL FASTENERS ATTACHED TO ACQ-TREATED WOOD SHALL HAVE GALVANIZING CONFORMING TO ASTM G95.  
- SIMPSON PRODUCTS WITH THIS GALVANIZING ARE NOTED AS "ZMAX".

EXISTING WOOD FRAMING MAY BE VERY DRY, HARD, AND EASY TO SPLIT. CONTRACTOR SHALL TAKE CARE NOT TO SPLIT THE EXISTING FRAMING WHEN ADDING FASTENERS AND CONNECTORS. PREDRILLING HOLES MAY BE REQUIRED.

### DRILLED ANCHOR BOLTS AND DOWELS

MECHANICAL ANCHORS IN CONCRETE: THREADED PORTION OF ANCHOR SHALL CONFORM TO ASTM A307 OR GREATER CAPACITY. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. MINIMUM DEPTH OF EMBEDMENT SHALL CONFORM TO MANUFACTURER'S REQUIREMENTS BUT SHALL NOT BE LESS THAN 45 BOLT DIAMETERS WITHOUT PRIOR APPROVAL. SEE DRAWINGS FOR DEEPER EMBEDMENT IF REQUIRED. APPROVED SCREW ANCHORS INCLUDE:  
HILTI HIT-KEE SCREW ANCHOR (ICC-ES EVALUATION REPORT ESR-3077)  
SIMPSON ITEN HD SCREW ANCHOR (ICC-ES EVALUATION REPORT ESR-2123)

ADHESIVE ANCHORS IN CONCRETE: THREADED ROD PORTION OF ANCHOR SHALL CONFORM TO ASTM A307 OR GREATER CAPACITY. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. MINIMUM DEPTH OF EMBEDMENT SHALL CONFORM TO MANUFACTURER'S REQUIREMENTS BUT SHALL NOT BE LESS THAN 8 BOLT DIAMETERS WITHOUT PRIOR APPROVAL. SEE DRAWINGS FOR DEEPER EMBEDMENT IF REQUIRED. APPROVED PRODUCTS INCLUDE:  
HILTI HIT-RE 300 SD ADHESIVE SYSTEM (ICC-ES EVALUATION REPORT ESR-2322)  
SIMPSON SET-XP ADHESIVE ANCHOR (ICC-ES EVALUATION REPORT ESR-2508)

ADHESIVE ANCHORS IN GROUTED MASONRY: THREADED ROD PORTION OF ANCHOR SHALL CONFORM TO ASTM A307 OR GREATER CAPACITY. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. MINIMUM DEPTH OF EMBEDMENT SHALL CONFORM TO MANUFACTURER'S REQUIREMENTS BUT SHALL NOT BE LESS THAN 8 BOLT DIAMETERS WITHOUT PRIOR APPROVAL. SEE DRAWINGS FOR DEEPER EMBEDMENT IF REQUIRED. ANCHORS SHALL BE INSTALLED ONLY IN FULLY GROUTED HOLLOW MASONRY CELLS. OBSERVE MINIMUM EDGE REQUIREMENTS OF ANCHOR FROM EDGE OF GROUTED ELEMENTS. APPROVED PRODUCTS INCLUDE:  
HILTI HIT-HY TO ADHESIVE ANCHOR (ICC-ES ESR-2682)  
SIMPSON SET-XP ADHESIVE ANCHOR (APPROVES ESR-265)

### STRUCTURAL STEEL

STRUCTURAL BEAMS SHALL CONFORM TO ASTM A992 GRADE 50 (BEAMS 21" AND DEEPER CAN BE ASTM A36). MISCELLANEOUS SHAPES AND PLATES SHALL CONFORM TO ASTM A36. PIPE COLUMNS SHALL CONFORM TO ASTM A53 GRADE B (35 KSI). STEEL TUBES SHALL CONFORM TO ASTM A500 GRADE B (44 KSI). BOLTS SHALL CONFORM TO ASTM A307 AND SHALL HAVE STANDARD CUT WASHERS WHERE BEARING ON WOOD (INCLUDING FOUNDATION ANCHOR BOLTS). DETAIL AND FABRICATE ALL STEEL MEMBERS ACCORDING TO AISC STANDARDS. ALL WELDING SHALL CONFORM TO AISC STANDARDS. PROVIDE ONE SHOP COAT OF PRIMER ON ALL STEEL MEMBERS AFTER FABRICATION. STEEL STUDS SHALL BE 50 KSI YIELD POINT STEEL CONFORMING TO REQUIREMENTS OF AISC SPECIFICATION FOR COLD-FORMED STEEL STRUCTURAL MEMBERS.

STEEL ERECTOR SHALL BE RESPONSIBLE TO CONFIRM THAT THE CONNECTIONS AND ERECTION METHODS COMPLY WITH OSMA STEEL ERECTION REQUIREMENTS.

### GALVANIZED STEEL

ALL STEEL MEMBERS NOTED AS GALVANIZED, OR WHERE EXPOSED (LOCATED OUTSIDE OF BUILDING SKIN) SHALL BE SHOP GALVANIZED AFTER FABRICATION WITH 2.0 MIL ZINC COATING IN ACCORDANCE WITH ASTM A123/A123M.

| SYSTEM OR MATERIAL  | REQUIRED STRUCTURAL SPECIAL INSPECTIONS |  |            |          | REMARKS  |
|---|---|--|------------|----------|--|
|   | IBC CODE REFERENCE                      | CODE or STANDARD REFERENCE                   | FREQUENCY  |          |  |
|   |   |  | Continuous | Periodic |  |
| <b>FABRICATORS</b>  |   |  |            |          |  |
| <b>STEEL</b>  |   |  |            |          |  |
| FABRICATION OF STRUCTURAL ELEMENTS  | 1704.2                                  |  | X          |          | REFER TO INSPECTION OF FABRICATOR REQUIREMENTS   |
| MATERIAL VERIFICATION OF STRUCTURAL STEEL   | 1704.3<br>2203.1                        | ASTM A6<br>AISC ASD A3.1a<br>AISC LRFD A3.1g | X          |          | GENERAL VERIFICATION OF STEEL TYPE USED  |
| MATERIAL VERIFICATION OF ANCHOR BOLTS AND THREADED RODS                             | 1704.3                                  | AISC ASD A3.5<br>AISC LRFD A3.4              | X          |          | MANUFACTURER'S CERTIFIED TEST REPORTS  |
| <b>WELDING</b>  |   |  |            |          |  |
| VERIFICATION OF WELD FILLER   | 1704.3                                  | AISC 360 A3.5                                |            |          | MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED  |
| MATERIAL VERIFICATION OF STRUCTURAL STEEL   | 1704.3                                  | AWS D1.1                                     | X          |          | SINGLE-PASS FILLET WELDS <= 5/16"  |
| <b>POST INSTALLED CONCRETE ANCHORS</b>  |   |  |            |          |  |
| INSTALLATION  | 1703.4.2<br>1704.13.3                   | ICC EVALUATION REPORT                        | X          |          | SPECIAL INSPECTIONS APPLY TO ANCHOR PRODUCT NAME, TYPE, AND DIMENSIONS, HOLE DIMENSIONS, COMPLIANCE WITH DRILL BIT REQUIREMENTS, CLEANLINESS OF THE HOLE AND ANCHOR/ADHESIVE INSTALLATION, ANCHOR EMBEDMENT, AND TIGHTENING TORQUE |
| <b>WOOD</b>   |   |  |            |          |  |
| MATERIAL VERIFICATION OF STRUCTURAL PANELS AND NAILS FOR DIAPHRAGMS AND SHEAR WALLS | 1704.6.1                                |  | X          |          | PRIOR TO COVER   |
| VERIFICATION OF FRAMING SIZE AT DIAPHRAGM AND SHEAR WALL PANEL EDGES                | 1704.6.1                                |  | X          |          | PRIOR TO COVER   |

## LEGEND

- BEARING WALL TYPE - SEE BEARING WALL SCHEDULE
- SHEARWALL TYPE - SEE SHEARWALL SCHEDULE
- FOOTING SIZE - SEE FOOTING SCHEDULE
- COLUMN SIZE - SEE COLUMN SCHEDULE

- REVISION NUMBER

- ELEVATION

- SECTION MARK

- DETAIL MARK

- FOOTINGS

- COLUMN SIZE

## ABBREVIATIONS

- |                       |                                    |
|-----------------------|------------------------------------|
| 1 - NUMBER OR POUNDS  | HORIZ. - HORIZONTAL                |
| 2 - AND               | HT. - HEIGHT                       |
| 3 - AT                | HYD. - HYDROGEN                    |
| 4 - CENTER LINE       | I.S.F. - INSIDE FACE               |
| 5 - LINTEL            | JT. - JOIST                        |
| 6 - PLATE             | JO. - JOINT                        |
| 7 - DIAMETER OR ROUND | Ks. - KNOTS                        |
| 8 - SQUARE            | LDGR. - LEDGER                     |
| (E) - EXISTING        | L5L - LAMINATED STRAND LUMBER      |
| (N) - NEW             | LVL - LAMINATED VENEER LUMBER      |
| AB. - ANCHOR BOLT     | L.H. - LOW HYDROGEN                |
| ADH. - ADHESIVE       | M.B. - MACHINE BOLT                |
| ANCH. - ANCHOR        | MEM. - MEMBER                      |
| ARCH. - ARCHITECT     | MANUF. - MANUFACTURER              |
| BD. - BOARD           | MAS. - MASONRY                     |
| BLDG. - BUILDING      | MAX. - MAXIMUM                     |
| BL'K. - BLOCKING      | MIN. - MINIMUM                     |
| BOT. - BOTTOM         | MISC. - MISCELLANEOUS              |
| Ø - DIAMETER OR ROUND | NTS - NOT TO SCALE                 |
| (E) - EXISTING        | NO. - NUMBER                       |
| (N) - NEW             | O/C - ON CENTER                    |
| AB. - ANCHOR BOLT     | OPP. - OPPOSITE                    |
| ADH. - ADHESIVE       | OPP. HB. - OPPOSITE HAND           |
| ANCH. - ANCHOR        | OPNG. - OPENING                    |
| ARCH. - ARCHITECT     | O.S.B. - ORIENTED STRAND BOARD     |
| BD. - BOARD           | O.S.F. - OUTSIDE FACE              |
| BLDG. - BUILDING      | PSL. - PARALLEL STRAND LUMBER      |
| BL'K. - BLOCKING      | PEN. - PENETRATION                 |
| BOT. - BOTTOM         | PLCS. - PLACES                     |
| Ø - DIAMETER OR ROUND | PLY. - PLYWOOD                     |
| (E) - EXISTING        | P.T. - PRESSURE TREATED            |
| (N) - NEW             | REF. - REFERENCE                   |
| AB. - ANCHOR BOLT     | REINF. - REINFORCING               |
| ADH. - ADHESIVE       | REQ'D. - REQUIRED                  |
| ANCH. - ANCHOR        | RF. - ROOF                         |
| ARCH. - ARCHITECT     | S.J. - SAUCUT JOINT                |
| BD. - BOARD           | SHT'G. - SHEATHING                 |
| BLDG. - BUILDING      | SIM. - SIMILAR                     |
| BL'K. - BLOCKING      | STD. - STANDARD                    |
| BOT. - BOTTOM         | STL. - STEEL                       |
| Ø - DIAMETER OR ROUND | T.B. - TOP AND BOTTOM              |
| (E) - EXISTING        | T&G. - TONGUE AND GROOVE           |
| (N) - NEW             | TIMBERSTRAND. - TIMBERSTRAND       |
| AB. - ANCHOR BOLT     | T.O.C. - TOP OF CONCRETE           |
| ADH. - ADHESIVE       | T.O.F. - TOP OF FOOTING            |
| ANCH. - ANCHOR        | T.O.S. - TOP OF STEEL              |
| ARCH. - ARCHITECT     | TOT. - TOTAL                       |
| BD. - BOARD           | T.O.W. - TOP OF WALL               |
| BLDG. - BUILDING      | T.A. - STRUCTURAL TUBE             |
| BL'K. - BLOCKING      | TYP. - TYPICAL                     |
| BOT. - BOTTOM         | UNO. - UNLESS NOTED OTHERWISE      |
| Ø - DIAMETER OR ROUND | VERT. - VERTICAL                   |
| (E) - EXISTING        | G.S.B. - GYPSUM SHEATHING BOARD    |
| (N) - NEW             | W/ - WITH                          |
| AB. - ANCHOR BOLT     | W/O - WITHOUT                      |
| ADH. - ADHESIVE       | W.P. - WEIGHT                      |
| ANCH. - ANCHOR        | WUF - WELDED WIRE FABRIC           |
| ARCH. - ARCHITECT     | H.S.S. - HOLLOW STRUCTURAL SECTION |

## LINE DEFINITION

- (ON FRAMING PLANS)
- (SOLID WALL) - INDICATES WALLS ABOVE
  - (TINY DOTS) - INDICATES WALLS BELOW (NON-BEARING)
  - (DASHED) - INDICATES WALLS BELOW (BEARING)

## MATERIAL DEFINITION

- |  |                       |  |                                     |
|--|-----------------------|--|-------------------------------------|
|  | CONCRETE              |  | SAND OR GROUT                       |
|  | EARTH                 |  | CONC. MASONRY UNITS or BRICK VENEER |
|  | STEEL                 |  | GRAVEL                              |
|  | FOUNDATION INSULATION |  |                                     |

## DRAWING INDEX

- S1101 GENERAL STRUCTURAL NOTES
- S1401 OVERALL ROOF PLAN
- S5301 ROOF FRAMING DETAILS
- S5302 ROOF FRAMING DETAILS
- S5303 FALL PROTECTION AND GUARDRAIL DETAILS

## REROOFING NARRATIVE

THIS IS A REROOFING PROJECT FOR BEAVERTON SCHOOLS THAT ENCOMPASSES VARIOUS ROOF AREAS OF THIS SCHOOL. MINOR ROOF LEVEL ONLY LATERAL UPGRADES WERE ELECTED TO BE PERFORMED DURING THIS PROJECT. COMPLETE LOAD PATH FROM ROOF DIAPHRAGMS THROUGH SHEAR WALLS TO FOUNDATION HAVE NOT BEEN UPDATED AT THIS TIME. PROJECT ALSO INCLUDED SEISMIC ATTACHMENT OF MECHANICAL UNITS THAT ARE MOVED DURING THE PROCESS, NEW FALL PROTECTION DEVICES, AND ROOF LADDER UPGRADES.



Dull Olson Weekes - IBI Group  
Architects, Inc.

907 SW Stark Street Portland OR 97205 USA  
tel 503 226 6950 fax 503 273 9192  
www.dowa-ibigroup.com www.ibigroup.com

WEST TUALATIN VIEW ELEMENTARY SCHOOL REROOF

Beaverton School District

16550 SW Menlo Road  
Beaverton, Oregon 97003  
t: (503) 591-8000



Consulting Structural Engineers  
619 SW Alder Street, Suite 918  
Portland, Oregon 97205  
Tel: (503) 226-1286  
Fax: (503) 226-3150  
Email: mail@jgpierson.com  
Web: www.jgpierson.com



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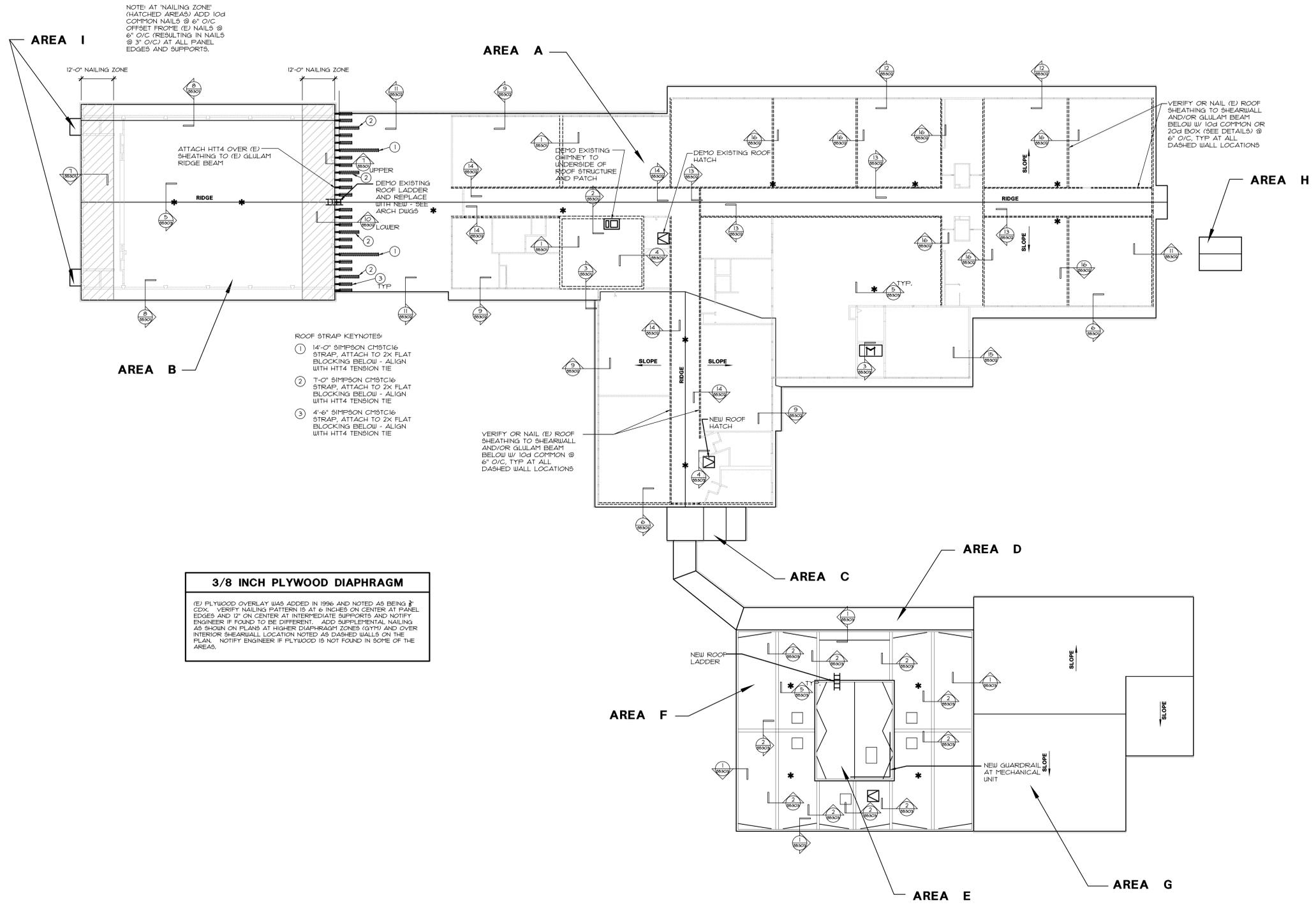
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**S1101**



Consulting Structural Engineers  
 610 SW Alder Street, Suite 908  
 Portland, Oregon 97205  
 Tel: (503) 226-1286  
 Fax: (503) 226-3150  
 Email: mail@jgpierson.com  
 Web: www.jgpierson.com



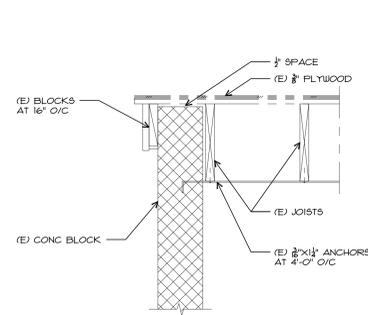
**ROOF PLAN**  
 SCALE: 1/16" = 1'-0"

| LEGEND |   |
|--------|---|
|        | SLEEPER CURBS W/ EQUIPMENT OVER ROOF                            |
|        | CURBED MECHANICAL UNIT  |
|        | CURBED ROOF ACCESS HATCH  |
|        | CURBED SKYLIGHT   |
|        | ROOF ACCESS LADDER - SEE ARCH DUGS                              |
|        | MASONRY CHIMNEY   |
|        | SCREEN WALL   |
|        | * NEW FALL ARREST ANCHOR (TYPICAL OF 15) SEE 5/95303 FOR DETAIL |

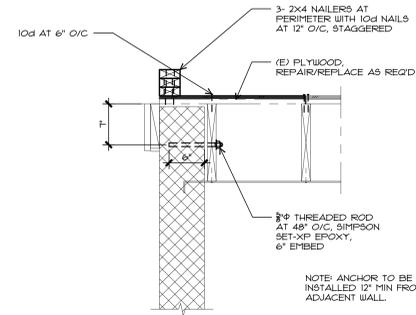
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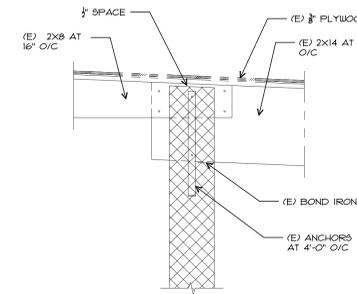
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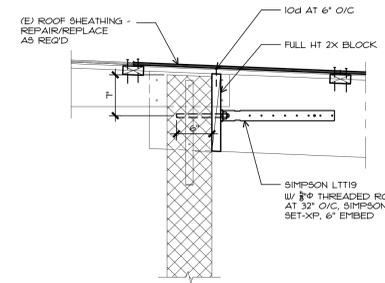
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 S5301



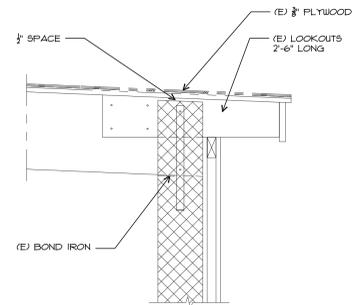
**1** N.W. WALL BLR. RM. MASONRY ANCHOR DETAIL  
 S5301



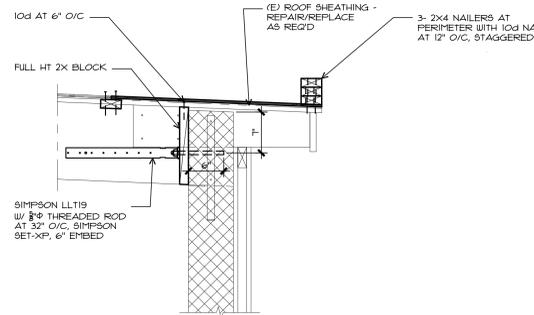
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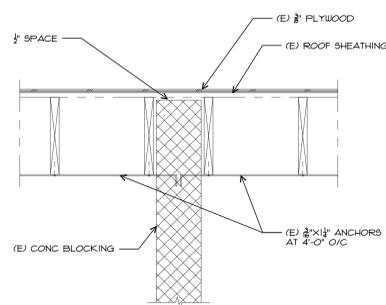
**2** N.E. WALL BLR. RM. MASONRY ANCHOR DETAIL  
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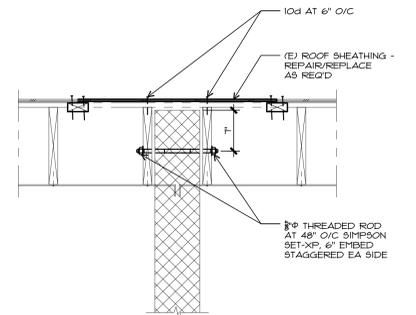
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 S5301



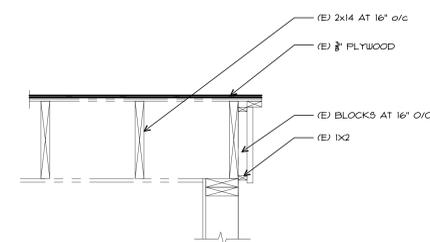
**3** S.W. WALL BLR. RM. MASONRY ANCHOR DETAIL  
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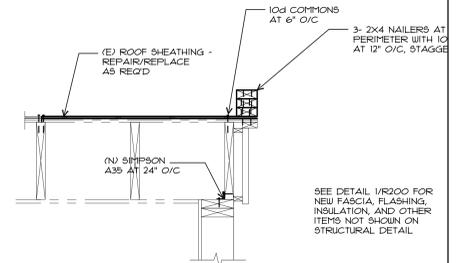
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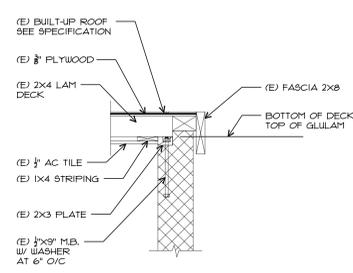
**4** S.E. WALL BLR. RM. MASONRY ANCHOR DETAIL  
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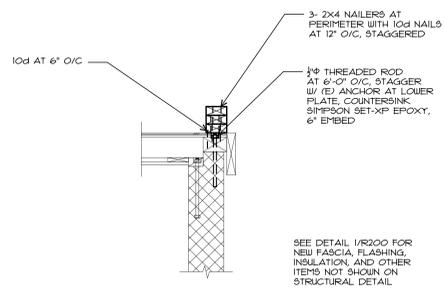
**6E** RAKE CORNICE  
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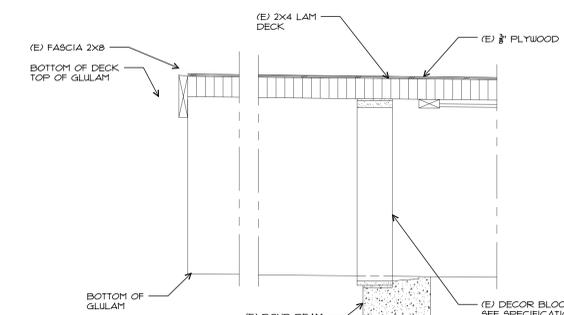
**6** RAKE CORNICE  
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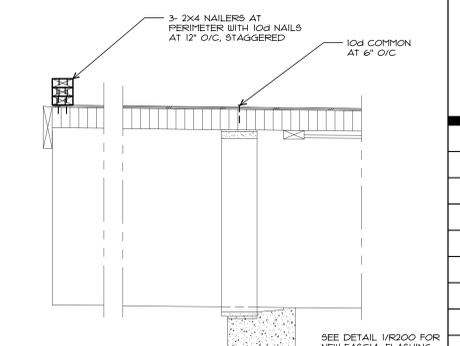
**7E** EAVE DETAIL  
 S5301



**7** EAVE DETAIL  
 S5301



**8E** EAVE DETAIL  
 S5301



**8** EAVE DETAIL  
 S5301

**James G. Pierson, Inc.**  
 Consulting Structural Engineers  
 919 SW Alder Street, Suite 918  
 Portland, Oregon 97205  
 Tel: (503) 226-1286  
 Fax: (503) 226-3150  
 Email: mail@jgpierson.com  
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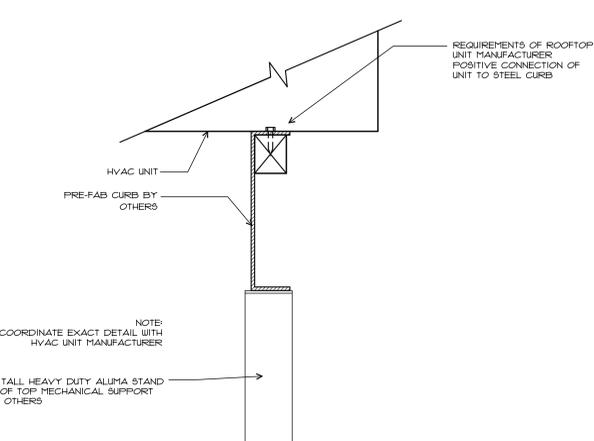
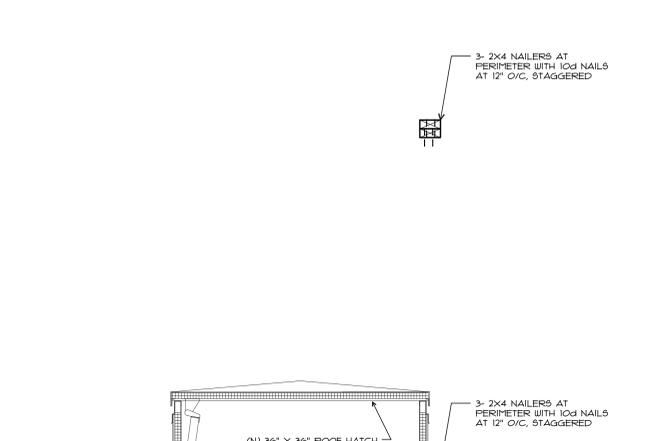
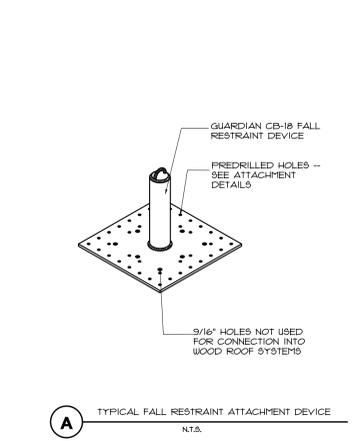
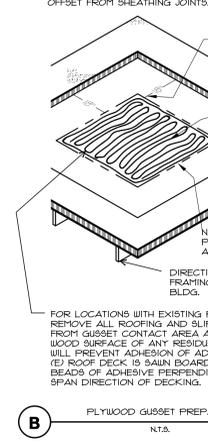
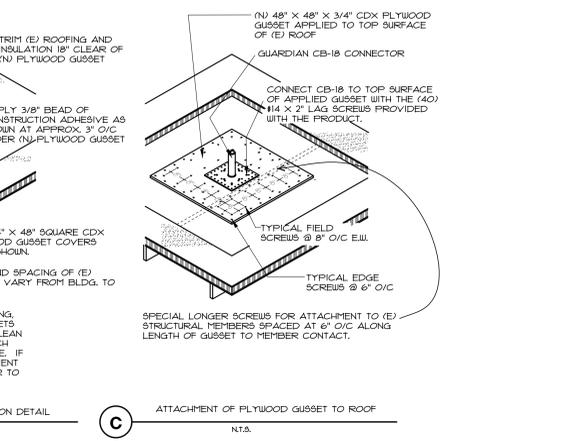
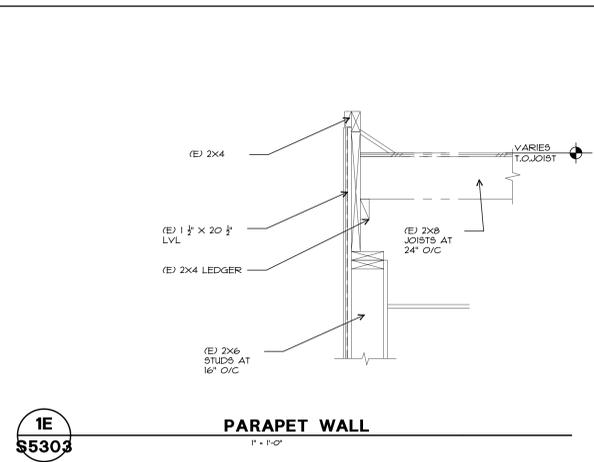
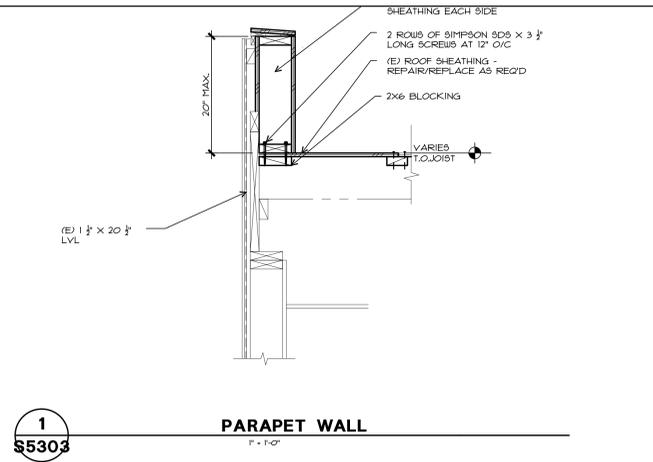
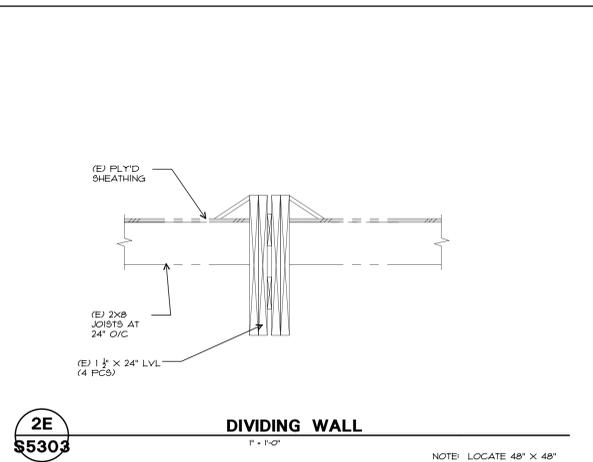
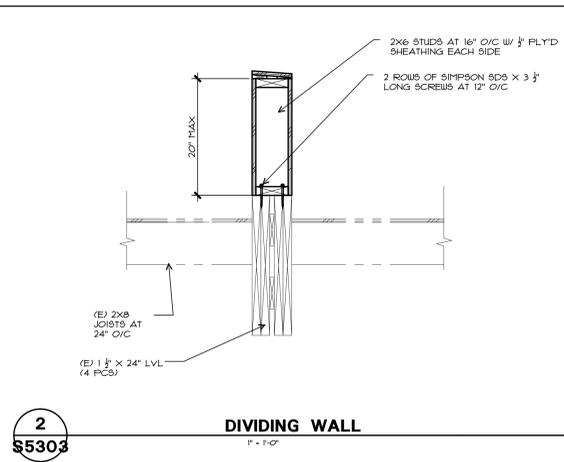
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| revisions |                  |
| project # | 119190           |

STRUCTURAL DETAILS  
**S5301**

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**GENERAL CONDITIONS AND DESIGN REQUIREMENTS**  
THIS DRAWING AND METHOD IS INTENDED FOR THE INSTALLATION OF A GUARDIAN CB-12 FALL ARREST DEVICE ONTO WOOD ROOFS OF EXISTING BUILDINGS IN THE SCHOOL DISTRICT. SEE ROOF PLAN FOR THE LOCATION OF THESE ATTACHMENT POINTS. EACH ATTACHMENT POINT IS INTENDED TO PROVIDE A FALL RESTRAINT CONNECTION POINT OF 5000LBS CAPACITY IN ACCORDANCE WITH OSHA STANDARD 1926.502 FALL PROTECTION CRITERIA AND PRACTICES.

FOR LOCATIONS WITH EXISTING ROOFING, REMOVE ALL ROOFING AND SLIP SHEETS FROM GUSSET CONTACT AREA AND CLEAN WOOD SURFACE OF ANY RESIDUE WHICH WILL PREVENT ADHESION OF ADHESIVE. IF (E) ROOF DECK IS SHAIN BOARD ORIENT BEADS OF ADHESIVE PERPENDICULAR TO SPAN DIRECTION OF DECKING.

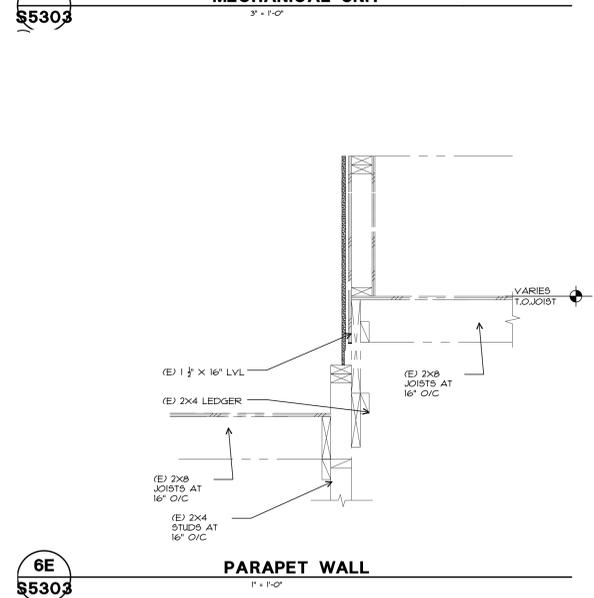
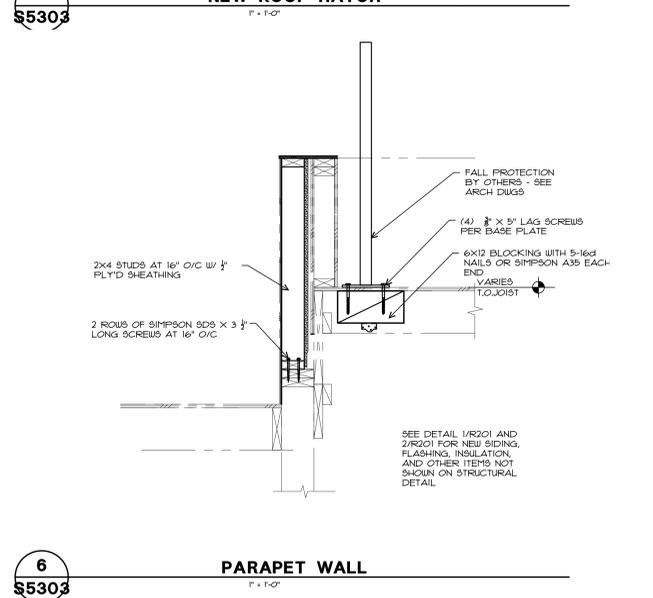
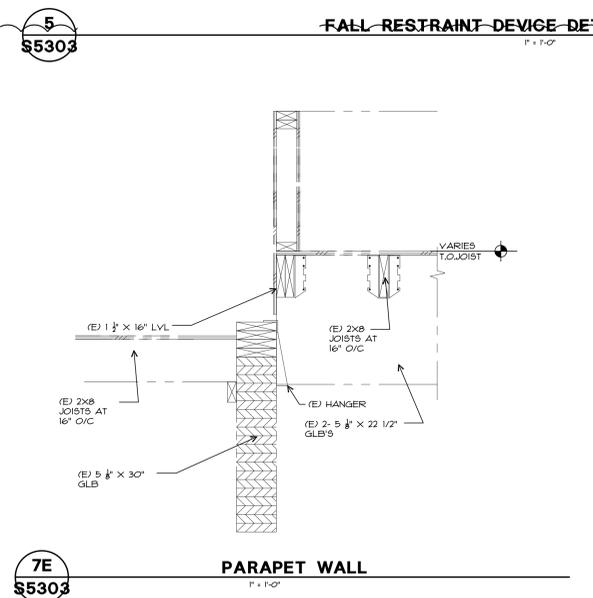
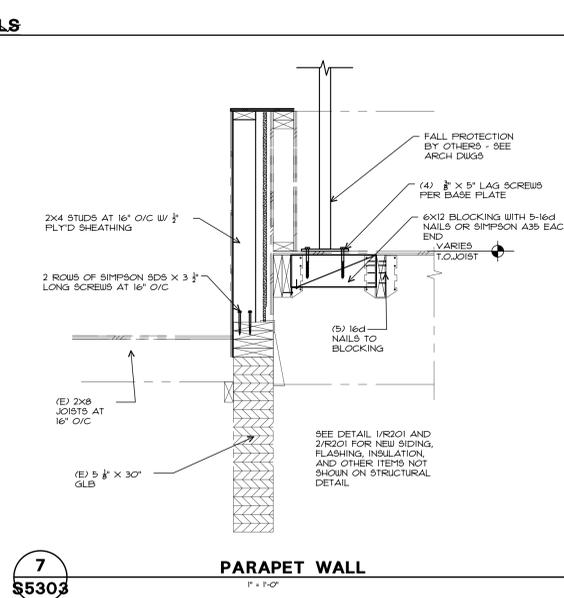
**SPECIFICATION FOR CONSTRUCTION ADHESIVE**  
APPLY CONSTRUCTION OR SUBFLOOR ADHESIVE IN ACCORDANCE WITH RECOMMENDATIONS OF MANUFACTURER. SELECTED PRODUCT SHALL CONFORM TO AMERICAN PLYWOOD ASSOCIATION STANDARD AFG-01 AND ASTM D-3498. APPROVED PRODUCTS INCLUDE THE FOLLOWING (GLUES BY OTHER MANUFACTURERS MAY BE APPROVED):  
GRABBER PROFESSIONAL STRENGTH SUBFLOOR ADHESIVE  
TIEBOND #5261 HEAVY DUTY CONSTRUCTION ADHESIVE  
LIQUID NAILS BC-149 OR BC-490  
SUBFLOOR/CONSTRUCTION ADHESIVE  
DAP 4000 SUBFLOOR AND DECK ADHESIVE  
LEVEL SUBFLOOR ADHESIVE  
OSI FL400 HEAVY DUTY STRUCTURAL AND SUBFLOOR ADHESIVE

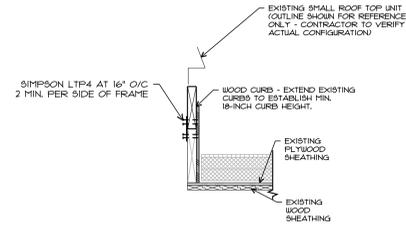
**ROOFING MEMBRANE AND FLASHING DETAILS**  
SEE ARCHITECTURAL DRAWINGS FOR DETAILS FOR FLASHING, CUTTING AND RESTORATION OF ROOF MEMBRANE, INSULATION AND FOR FLASHING DETAILS OF INDIVIDUAL CB-12 FALL PROTECTION DEVICES.

**SPECIAL LONGER SCREWS FOR ATTACHMENT INTO (E) STRUCTURAL FRAMING MEMBERS:**  
AT ALL LOCATIONS WHERE EXISTING ROOF STRUCTURAL MEMBERS OCCUR BENEATH SHEATHING WITHIN ZONE OF GUSSET COVERAGE, FASTEN GUSSET PLATE INTO STRUCTURAL FRAMING MEMBER USING LONGER #10 SCREWS SPACED AT 6" O/C. SELECT LENGTH OF SCREW TO PASS THROUGH EXISTING SHEATHING AND TO PENETRATE 1.5 INCHES INTO STRUCTURAL RAFTER OR TRUSS.

APPROVED SCREW PRODUCTS INCLUDE THE FOLLOWING (SIMILAR PRODUCTS BY OTHER MANUFACTURERS ARE ACCEPTABLE):  
GRABBER COARSE THREAD #10 SCREW  
QUICK-DRIVE 9330SC OR CB3BLG COARSE THREAD #10 SCREW

**STRUCTURAL CALCULATIONS FURNISHED BY THE MANUFACTURER SHOWING THE SUITABILITY OF THE GUARDIAN CB-12 DEVICE WHEN ATTACHED WITH (40) #14 X 2" LAG SCREWS FURNISHED BY THE MANUFACTURER ARE AVAILABLE FOR REVIEW AND SHOW THE DEVICE IS CAPABLE OF RESISTING A REQUIRED 5000LBS IMPACT FORCE FOR PERSONAL FALL ARREST SYSTEM LOADS AS REQUIRED BY OSHA 1926.502. THIS SYSTEM IS NOT INTENDED TO PROVIDE FALL ARREST FOR ANY PERSON USING THE SYSTEM AND HAVING A COMBINED PERSON AND TOOL WEIGHT EXCEEDING 310 POUNDS.**

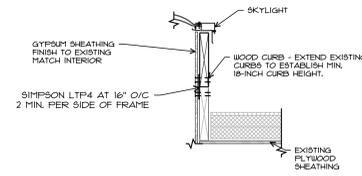




**1**  
**S5304**

**CURB MOUNT EXTENSION**

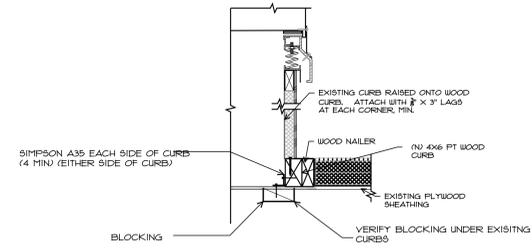
P + P-07



**2**  
**S5304**

**CURBED SKYLIGHT FRAMING**

P + P-07



**3**  
**S5304**

**CURB MOUNTED ROOF TOP UNIT**

P + P-07

**WEST TUALATIN VIEW ELEMENTARY SCHOOL REROOF**

**Beaverton School District**  
16550 SW Merlo Road  
Beaverton, Oregon 97003  
t: (503) 591-8000



**James G. Pierson, Inc.**  
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**S5304**