APPENDIX C – WCPSS PROVIDED STANDARD DETAILS

2019 Edition
S988 STRIKE AND RUB STRIP INSTRUCTIONS

1-11/16 TO DOOR
1/8 REF
13/32
13/16
1-7/8 (CUT STOP)

3-3/4

DRILL AND TAP FOR #6-32 SCREWS FOR RUB STRIP (WHEN USED) (2 PLCS)
HORIZONTAL For DEVICE AND STRIKE
1-13/16

S988 STRIKE

LHRB APPLICATION SHOWN
S454 RUB STRIP

Stanley
Precision Hardware
a Division of Stanley Security Solutions, Inc.
www.stanleymysecuritysolutions.com
SECURE OPEN GATE TO POST

DRAWING INSTRUCTIONS:
1. White sign with black letters.
2. Sign to be installed on 1x4 post.
3. Sign to face inward towards appendix gate.

DRAWING SPECIFICATIONS:
1. Manufacturer: Thon & Company, Inc. (1 to 1x4-1/2, 2x4).
2. Material Type: Structural Steel.
4. Primer: Zypror 175 (field-covered) primer or 100 Galvanized Primer.
6. Construction to conform with local and/or special conditions.

NOTE:
1. All work shall be performed in accordance with the specifications.
2. Submittal Shop Drawings for review and approval prior to fabrication and assembly.
3. Ensure gate slides are properly spaced so locking device on guide latch assembly is tight.
4. If the specifications of the contractor do not remain the same, send notice to owner via E-mail.
U.L. SYSTEM NO. WL1052
METAL PIPE THROUGH 1-HR. GYPSUM WALL
F RATING = 1-HR.
T RATING = 0-HR.

1. 1-HR. FIRE-RATED GYPSUM WALL ASSEMBLY.
2. 10" DIA. (OR SMALLER) STEEL PIPE, 4" DIA. (OR SMALLER) COPPER PIPE, EMT OR CONDUIT.
3. MIN. 5/8" DEPTH HILTI FS 601.

NOTE: NOMINAL ANNULAR SPACE OF 1/4" TO 1" REQUIRED
SEE HILTI FIRESTOP INSTALLATION MANUAL FOR ADDITIONAL INSTRUCTIONS
HILTI, INC. TULSA, OK 1-800-879-8000

P1.01 1-HR GYPSUM WALL U.L. DETAIL
SCALE: NONE
1. A. MIN. 4-1/2" THICK CONCRETE FLOOR.
   B. MIN. 4-1/2" THICK CONCRETE WALL.
   C. ANY U.L. CLASSIFIED CONCRETE BLOCK WALL.
2. 4" DIA. (OR SMALLER) STEEL PIPE, COPPER PIPE, EMT, OR CONDUIT.
3. MIN. 3" THICK MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED.
4. MIN. 1/2" DEPTH HILTI FS 601 FIRESTOP SEALANT.
5. 1/2" BEAD HILTI FS 601 FIRESTOP SEALANT.

NOTE:
1. MAXIMUM DIAMETER OF OPENING = 6".
2. ANNULAR SPACE = MIN. 0" (POINT CONTACT), MAX. 2".
3. WALLS REQUIRE 1/2" OF SEALANT FLUSH WITH BOTH SIDES.

SEE HILTI FIRESTOP INSTALLATION MANUAL FOR ADDITIONAL INSTRUCTIONS
HILTI, INC. TULSA, OK 1-800-879-8000
UNISTRUT #P-2676 SWIVEL BEAM CLAMPS HANG FROM JOIST BOTTOM.

3/8"Ø MINIMUM THREADED ROD (TYPICAL)

MOUNTING AT BAR JOIST FRAMING

NOTE:
DO NOT SUPPORT PIPING FROM BAR JOIST BRIDGING.

HEAVY DUTY CLEVIS HANGER

VAPOR BARRIER INSULATION

16 GAUGE SHEET METAL SADDLE AT LEAST 12" LONG

NOTE: FOR ALL PIPE SIZES, PROVIDE PRESSURE TREATED WOOD BLOCKING AT HANGERS TO PREVENT CRUSHING OF INSULATION.

SINGLE HORIZONTAL RUNS
NO INSULATION

SINGLE HORIZONTAL RUNS
WITH VAPOR BARRIER INSULATION

HANGER ROD (TYPICAL)

LOCKING NUT (TYPICAL)

SUPPORT NUT (TYPICAL)

PIPE

P1.04

CLEVIS HANGER SUPPORT DETAIL

SCALE: NONE
HEAT TRACE SPECIFICATION:
HEAT-TRACING CABLES: 5 W/FT OUTPUT. SELF-REGULATING, ELECTRIC HEATING CABLES SUITABLE FOR FREEZE PROTECTION OF METAL PIPING. CABLES: PAIR OF PARALLEL NO. 16 AWG TINNED-COPPER BUS WIRES EMBEDDED IN CROSS-LINKED CONDUCTIVE POLYMER CORE, WHICH VARIES POWER OUTPUT IN RESPONSE TO TEMPERATURE ALONG ITS LENGTH. CABLE SHALL BE CAPABLE OF CROSSING OVER ITSELF WITHOUT OVERHEATING. HEAT OUTPUT: AT LEAST 90 PERCENT OF RATING OVER A TEMPERATURE RANGE FROM 40 TO 150 DEG F PIPE TEMPERATURE. CABLE COVER: FABRICATED OF CROSS-LINKED, MODIFIED, POLYOLEFIN DIELECTRIC JACKET; WITH ULTRAVIOLET INHIBITOR. PIPE THERMOSTAT: UNIT WITH ADJUSTABLE TEMPERATURE RANGE FROM 35 TO 50 DEG F SNAP ACTION; OPEN-ON-RISE, SINGLE-POLE SWITCH WITH 25-A RATING; AND REMOTE BULB FOR DIRECTLY SENSING PIPE-WALL TEMPERATURE.

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HEAT TRACE POWER CONNECTOR

PROVIDE WITH DISCONNECT SWITCH & CONNECT TO ELECTRICAL CIRCUIT

HEAT TRACE POWER CONNECTOR MOUNTING BASE

HEAT TRACE END SEAL KIT WITH L.E.D. PILOT LIGHT AND MOUNTING BASE

HEAT TRACE CABLE

SECURE MOUNTING BASE TO PIPING WITH PLASTIC CABLE TIE

SECURE HEAT TRACE TO PIPE WITH GLASS TAPE

ALL HEAT TAPE SHALL BE SPLICED OUTSIDE OF INSULATION

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P1.05 HEAT TRACE CABLE INSTALLATION DETAIL

SCALE: NONE
BRANCH CIRCUIT AND CONDUIT IN ELECTRICAL WORK. SEE PANELBOARD SCHEDULES FOR WIRE AND BREAKER SIZES TO HVAC AND PLUMBING EQUIPMENT.

EXTERNALLY OR INTERNALLY MOUNTED DISCONNECT SWITCH FURNISHED UNDER DIV. 23 WORK, AND INSTALLED UNDER DIV. 26 WORK

EXTERNALLY MOUNTED STARTER FURNISHED UNDER DIV. 23 WORK. INSTALLED UNDER DIV. 26 WORK. LINE AND LOAD CONNECTIONS UNDER DIV. 26 WORK. CONTROL CONNECTIONS BY OTHERS.

JUNCTION MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT (NOT NECESSARY IF WIRING IS CONNECTED DIRECTLY TO STARTER OR DISCONNECT SWITCH.)

WIRING IN ELECTRICAL WORK

PANELBOARD

WIRING IN ELECTRICAL WORK

FINAL CONNECTIONS INSIDE EQUIPMENT TO BE MADE UNDER DIVISION 22 WORK.

EQUIPMENT IN HVAC OR PLUMBING WORK OR WORK OF OTHER TRADES. SEE HVAC, PLUMBING AND ARCHITECTURAL DRAWINGS FOR LOCATION OF ALL EQUIPMENT.

* A COMBINATION STARTER MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER.
PROVIDE EXTRA HEAVY PATTERN FULL OPENING IRON BODY TRAP SCREW FERRULE & ALL BRASS CLEANOUT WITH COUNTERSUNK HEAD

FINISH GRADE

12"x12"x8" Poured Conc. Block when cleanout is not in paved area

LONG SWEEP, USE SHORT SWEEP WHERE REQUIRES

PROVIDE EXTRA HEAVY PATTERN FULL OPENING IRON BODY TRAP SCREW FERRULE & ALL BRASS CLEANOUT WITH COUNTERSUNK HEAD

FINISH FLOOR MINIMUM 1"

SAME SIZE AS SEWER - MAX. SIZE 4"

COMBINATION "Y" & 1/8" BEND

STAINLESS STEEL COVER SCREWED TO THREADED C.O. PLUG

FACE OF WALL

EXTERIOR ELEVATION

INTERIOR ELEVATION

WALL-TYPE

P1.07 TYPICAL CLEANOUT DETAIL

SCALE: NONE
SEAL ALL AROUND WITH A SEALANT THAT WILL REMAIN FLEXIBLE (TYPICAL OF BOTH SIDES)

SEE DRAWINGS FOR NUMBER AND SIZE OF PIPING

WALL
SCHEDULE 40 PIPE SLEEVE

1" SPACE - PACK WITH MINERAL WOOL PACKING

NOTES:
1. THE VOID BETWEEN FIBROUS PACKING AND SLEEVE SHALL BE FILLED WITH CAULKING MATERIAL.
2. SEE FLOOR PLANS FOR LOCATION OF ALL RATED WALLS.
3. CHROME ESCUTCHEONS TO BE PROVIDED FOR ALL EXPOSED PENETRATIONS.
DOMESTIC WATER TO SYSTEM

PROVIDE PRESSURE REDUCER VALVE: BASIS OF DESIGN, FLOWMATIC C100 SERIES, 108 PSI–INLET, 80 PSI OUTLET

BUTTERFLY VALVE (TYP.)

FULL SIZE BY–PASS (NORMALLY CLOSED)

WATER SERVICE SHUT–OFF VALVE

FLOOR

DOMESTIC WATER SERVICE FROM SITE

NOTES:
MIN. CLEARANCE ON EITHER SIDE OF PRV SHALL BE 18".
MIN. CLEARANCE IN FRONT SHALL BE 36"

P1.10 TYPICAL DOMESTIC WATER RISER DETAIL
SCALE: NONE
NOTE:
1. INSTALLATION KITS VARY BASED ON PIPE MATERIAL AND APPLICATION. FOR INSTALLATIONS IN PRESSURIZED SYSTEMS, USE "HOT TAP" 1 1/4" INSTALLATION KIT AND DRILL HOLE USING A 1" WET TAP DRILL.
2. METER IS ACCEPTABLE TO INSTALL IN VERTICAL PIPE.
3. WATER METER SHALL BE ONICON, INC. MODEL F-1210, OR EQUAL. METER SHALL BE FURNISHED BY CONTROLS CONTRACTOR AND INSTALLED BY PLUMBING CONTRACTOR.
4. WATER METER SHALL BE INSTALLED IN AN ACCESSIBLE FASHION. CONTRACTOR SHALL MEET WITH ENGINEER AND INDICATE INSTALLATION LOCATION, PRIOR TO INSTALLING.

P1.11 TYPICAL BAS WATER METER INSTALLATION DETAIL
SCALE: NONE
### DDC Function Block Logic Symbols

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<th>Symbol</th>
<th>Description</th>
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<td><img src="image3.png" alt="Symbol 3" /></td>
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### Control Symbols

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### Abbreviations

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<tbody>
<tr>
<td>ABC</td>
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<tr>
<td>DEF</td>
<td>Abbreviation 2</td>
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<tr>
<td>GHI</td>
<td>Abbreviation 3</td>
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1. In the case of high static pressure devices, the design shall be done as shown on the flow of the page.

2. The logic sequence shall reference the design, with all available gates in the logic network. The logic sequence shall be referenced in the respective VAV diagram and shall be evidence as a separate VAV section. Legend notes the equipment layout.

DESIGNER NOTES:

1. USE WRITTEN SEQUENCES FOR CONSTRUCTION DOCUMENTS. LOGIC DIAGRAM IS FOR DESIGN REFERENCE ONLY.

2. IF EQUIPMENT DIAGRAM IS USED, EDIT POINTS SHOWN TO MATCH VERBIAGE OF SEQUENCE OF OPERATIONS.
DESIGNER NOTES:
1. USE WRITTEN SEQUENCES FOR CONSTRUCTION DOCUMENTS. LOGIC DIAGRAM IS FOR DESIGN REFERENCE ONLY.
2. IF EQUIPMENT DIAGRAM IS USED, EDIT POINTS SHOWN TO MATCH VERBAGE OF SEQUENCE OF OPERATIONS.
DESIGNER NOTES:
1. USE WRITTEN SEQUENCES FOR CONSTRUCTION DOCUMENTS. LOGIC DIAGRAM IS FOR DESIGN REFERENCE ONLY.
2. IF EQUIPMENT DIAGRAM IS USED, EDIT POINTS SHOWN TO MATCH VERBIAGE OF SEQUENCE OF OPERATIONS.
DESIGNER NOTES:
1. Use written sequences for construction documents. Logic diagram is for design reference only.
2. If equipment diagram is used, edit points shown to match verbiage of sequence of operations.
DESIGNER NOTES:
1. USE WRITTEN SEQUENCES FOR CONSTRUCTION DOCUMENTS. LOGIC DIAGRAM IS FOR DESIGN REFERENCE ONLY.
2. IF EQUIPMENT DIAGRAM IS USED, EDIT POINTS SHOWN TO MATCH VERBIAGE OF SEQUENCE OF OPERATIONS.
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2. IF EQUIPMENT DIAGRAM IS USED, EDIT POINTS SHOWN TO MATCH VERBAGE OF SEQUENCE OF OPERATIONS.
NOTES:
1. REFER TO SPECIFICATIONS FOR CONTROL AND BALANCING VALVE TYPES.
2. MANUAL BALANCING VALVE ON BYPASS IS NOT REQUIRED IF USING AUTOMATIC BALANCING VALVE
3. PROVIDE DRAIN PAN OVERFLOW SWITCH FOR COOLING COIL
SHUT OFF VALVE WITH HANDLE EXTENSION. (BALL OR BUTTERFLY AS SPECIFIED.)

AUTOMATIC FLOW CONTROL VALVE WITH REPLACEABLE CARTRIDGE (GRISWOLD)

2-WAY TWO POSITION OR MODULATING VALVE IN RETURN.
UNION OR FLANGE AS SPECIFIED

MANUAL AIR VENT. EXTEND VENT FROM TOP OF COIL TO OUTSIDE OF UNIT HOUSING

COOLING COIL

SPLIT FACE COOLING COIL

PETE'S PLUG (TYPICAL)

1/2" HOSE BIBB COIL DRAIN (TYP)

FULL SIZE FLUSHING BYPASS

STRAINER W/ BLOWDOWN VALVE. BLOW DOWN AWAY FROM ALL PIPING AND INSULATION.

M1.02 SPLIT FACE COIL DETAIL
SCALE: NONE
NOTE: REFER TO SPECIFICATIONS FOR CONTROL AND BALANCING VALVE TYPES.

AUTO FLOW BALANCING VALVE

3-WAY CONTROL VALVE

PRESSURE DEPENDENT 2-WAY CONTROL VALVE

COIL BYPASS AND VALVE

SUPPLY

RETURN

MANUAL AIR VENT

AIR FLOW

COIL

UNION (TYPICAL)

DRAIN VALVE WITH SCREW CAP & CHAIN

P/T PORT & PLUG (TYPICAL)

STRAINER WITH BLOWDOWN VALVE, SCREW CAP & CHAIN

ISOLATION VALVE (TYPICAL) REFER TO SPECIFICATIONS FOR VALVE TYPE

M1.03 TERMINAL UNIT COIL DETAIL
SCALE: NONE
M1.04  THREE WAY COIL DETAIL

SCALE: NONE
NOTES:
1. PROVIDE LOUVERED PANELS AT CONDENSER FANS.
2. PPR PIPE AS SPECIFIED ON ALL PIPING BELOW GRADE.
1. PROVIDE PALL MODEL 18FM03-316L-2-IP OR EQUAL FILTER HOUSING FOR FILTRATION AND CHEMICAL FEED.

2. INSTALL FILTER AFTER CORROSION INHIBITOR IS IN SYSTEM

3. OPERATE WITH FLOW THROUGH FILTER

4. PROVIDE 3 SPARE FILTERS TURN OVER TO OWNERS REP AT TIME OF INITIAL FILTER INSTALLATION

- TOP CONSTRUCTION WITH OPENING FOR ADDITION OF TREATMENT AND FILTER INSTALLATION
- SWING BOLT ASSEMBLY
- FILTER CARTRIDGE
- FILTER HOUSING
- "SEE THRU" SIGHT GLASS
- BALL VALVE
- PIPE AROUND PERIMETER OF ROOM AND INTO NEAREST FLOOR DRAIN
- TEE IN PUMP SUCTION OR COMMON PIPING OF PARALLEL PUMPS
- BOLT STEEL TANK SUPPORTS DIRECTLY TO CONCRETE PAD
- 6" HIGH CONCRETE HOUSEKEEPING PAD

M1.13 CHEMICAL FEEDER DETAIL
SCALE: NONE
DUCTED COMBUSTION AIR. SEE PLANS FOR SIZE AND ROUTING.

BOILER BURNER CONTROLS

EQUIPMENT PAD

GAS PRESSURE REGULATOR (TYP) FOR EACH BOILER NEAR FLOOR. VERIFY INCOMING GAS PRESSURE AT METER. REDUCE TO 8.5" W.C.

DIAL THERMOMETER

HOT WATER SUPPLY

FLOW CONTROL VALVE

AL-294C STAINLESS STEEL VENT STACK.

ASME PRESSURE RELIEF VALVE

BYPASS PIPE WITH VALVE

CONDENSATE DRAIN TO FLOOR DRAIN. SEE M FOR LOCATION OF DRAIN.

HOT WATER RETURN

PIPE TO FLOOR DRAIN

TO GAS VALVE BY P.C. SEE M FOR LOCATION OF GAS VALVE.

6" DIRT LEG.

M1.16 LARGE CONDENSING BOILER DETAIL

SCALE: NONE
NOTES:
1. SEPERATE PRV STATION FOR EACH CHW AND HW SYSTEM
2. MOUNT PRV STATION MAX 6FT A.F.F.
DIRECT DRIVE MOTOR
EXCEPT WHERE SCHEDULED DIFFERENTLY

WIRING FROM DISCONNECT TO FAN MOTOR BY FACTORY

DISCONNECT PROVIDED WITH EQUIPMENT

ALUMINUM BIRD SCREEN

ALUMINUM HOUSING

CURB FURNISHED WITH EQUIPMENT BY M.C. COORDINATE REQUIREMENTS FOR CURB AND FLASHING

BACKDRAFT DAMPER

SEE PLANS FOR DUCT SIZE

WIRING AND CONDUIT FROM MOTOR STARTER TO DISCONNECT BY ELEC. CONTR.

8" MIN.
NOTES:

1. LOCATE TRAP SO AS TO BE ACCESSIBLE FOR CLEANING.

2. \( H = \text{FAN OUTLET PRESSURE (IN. W.C.)} + 1 \text{ IN. MINIMUM} \)

THREADED CAP WITH 2 1/8" HOLES DRILLED IN THE TOP

FLOW

THREADED CAP

UNION

PIPE FULL SIZE OF UNIT DRAIN CONNECTION (3/4" COPPER MINIMUM) UNIT

UNION

1" MIN

H MINIMUM
EXPANSION BOLT TO WALL

ANGLE STRUT BRACE AT 45 DEGREES.

ANGLE BRACKET

SUPPORT RING

DOUBLE WALL BOILER VENT STACK

ANGLE WALL BRACKET

ALL BRACING MATERIALS SHALL BE STAINLESS STEEL OR GALVANIZED STEEL

NOTE:
INSTALL AT JOINT DIRECTLY ABOVE TEE AT WALL PENETRATION AND EVERY 15'-0" O.C. VERTICAL. EXTEND BOILER VENT MINIMUM 3'-0" ABOVE ROOF / PARAPET.

M1.32 BOILER STACK SUPPORT DETAIL
SCALE: NONE
M1.33  BOILER STACK THRU SLOPED ROOF DETAIL

SCALE: NONE
NOTES:
1. LOCATE TRAP SO AS TO BE ACCESSIBLE FOR CLEANING.
2. \[ H = \text{FAN INLET PRESSURE (IN. W.C.)} + 1 \text{ IN.} \]
NOTES:

1. GROUND SHIELD AT CONTROL PANEL ONLY.
2. PURGE AIR FROM TUBING PRIOR TO START-UP USING VENT VALVES ON TRANSMITTER.
3. OPEN EQUALIZATION VALVE TO BALANCE PRESSURE, CLOSE PRIOR TO SYSTEM START-UP.
4. PIPING SHALL BE TYPE L' RIGID COPPER ONLY WITH SOLDERED FITTINGS. NO SOFT COPPER ALLOWED.
18 GA. GALV. DUCT WELD ALL JOINTS TO BE WATERTIGHT – SEE PLANS FOR SIZE

CONTINUOUS MASTIC SEAL

20 GA. GALV. COUNTER FLASHING MECH CONTR.

FLASHING BY GEN. CONTR.

INSULATION BY GEN. CONTR.

INSULATED PRE-FABRICATED METAL CURB BY MECH CONTR.
HEAT TRACE SPECIFICATION:
HEAT-TRACING CABLES: 5 W/FT OUTPUT. SELF-REGULATING, ELECTRIC HEATING CABLES SUITABLE FOR FREEZE PROTECTION OF METAL PIPING. CABLES: PAIR OF PARALLEL NO. 16 AWG TINNED-COPPER BUS WIRES EMBEDDED IN CROSS-LINKED CONDUCTIVE POLYMER CORE, WHICH VARIES POWER OUTPUT IN RESPONSE TO TEMPERATURE ALONG ITS LENGTH. CABLE SHALL BE CAPABLE OF CROSSING OVER ITSELF WITHOUT OVERHEATING. HEAT OUTPUT: AT LEAST 80 PERCENT OF RATING OVER A TEMPERATURE RANGE FROM 40 TO 150 DEG F PIPE TEMPERATURE. CABLE COVER: FABRICATED OF CROSS-LINKED, MODIFIED, POLYOLEFIN DIELECTRIC JACKET; WITH ULTRAVIOLET INHIBITOR. PIPE THERMOSTAT: UNIT WITH ADJUSTABLE TEMPERATURE RANGE FROM 35 TO 50 DEG F SNAP ACTION; OPEN-ON-RISE, SINGLE-POLE SWITCH WITH 25-A RATING; AND REMOTE BULB FOR DIRECTLY SENSING PIPE-WALL TEMPERATURE.
NOTE:
FURNISH VENT ASSEMBLIES
AT ALL HIGH POINTS OF
WATER PIPING SYSTEMS AND
WHERE INDICATED ON DRAWINGS.

1/4" BRASS SCREW TYPE
SHUT-OFF COCK

3/4" NIPPLE 6" LONG

NIPPLE AND REDUCER
AS REQUIRED

3/4" X 1/4" REDUCING
ELBOW
WIRING AND CONDUIT IN ELECTRICAL WORK (TYP.)

JUNCTION BOX PROVIDED BY DIVISION 26 CONTRACTOR

ON/OFF SWITCH BY DIVISION 26 CONTRACTOR (LABEL AS "B.A.S." - SEE SPECS. FOR LABELING REQUIREMENTS)

DIVISION 26 WORK

CONTROL PANEL OR EQUIPMENT PROVIDED BY CONTROLS CONTR. - REFER TO MECHANICAL PLANS FOR ALL B.A.S. (DDC) CONTROL PANEL LOCATIONS

SURGE SUPPRESSOR FURNISHED BY CONTROLS CONTR. AND INSTALLED BY DIVISION 26 CONTR.

M1.45 POWER SUPPLY FOR CONTROLS DETAIL
SCALE: NONE
PIPE EXPANSION ANCHOR AND GUIDE DETAIL

SCALE: NONE

UNEQUAL LEG ANGLES 1.5 FEET LONG BY 1/2" THICK. LEG LENGTH AS REQD.

1/4" 2-4

3/4" ANCHOR STUDS 4 MIN. (REQUIRED WHERE IMBEDDED IN CONCRETE)

PIECE O.D. + 2"

3/16" 

GALVANIZED C6X8.2 WITH 1/2"X8"X8" PLATE, ATTACH TO WALL WITH 4-1/2" Ø X 6" LONG EXPANSION ANCHOR BOLTS AT EACH END.

1/4" 2-4 (TYPICAL)

ANCHOR STUD OR STEEL SUPPORT AS REQUIRED.

PIECE EXPANSION ANCHOR AND GUIDE DETAIL

SCALE: NONE

UNEQUAL LEG ANGLES 1.5 FEET LONG BY 1/2" THICK. LEG LENGTH AS REQD.

1/4" 2-4

3/4" ANCHOR STUDS 4 MIN. (REQUIRED WHERE IMBEDDED IN CONCRETE)

PIECE O.D. + 2"

3/16" 

GALVANIZED C6X8.2 WITH 1/2"X8"X8" PLATE, ATTACH TO WALL WITH 4-1/2" Ø X 6" LONG EXPANSION ANCHOR BOLTS AT EACH END.

1/4" 2-4 (TYPICAL)

ANCHOR STUD OR STEEL SUPPORT AS REQUIRED.

PIECE EXPANSION ANCHOR AND GUIDE DETAIL

SCALE: NONE

UNEQUAL LEG ANGLES 1.5 FEET LONG BY 1/2" THICK. LEG LENGTH AS REQD.

1/4" 2-4

3/4" ANCHOR STUDS 4 MIN. (REQUIRED WHERE IMBEDDED IN CONCRETE)

PIECE O.D. + 2"

3/16" 

GALVANIZED C6X8.2 WITH 1/2"X8"X8" PLATE, ATTACH TO WALL WITH 4-1/2" Ø X 6" LONG EXPANSION ANCHOR BOLTS AT EACH END.

1/4" 2-4 (TYPICAL)

ANCHOR STUD OR STEEL SUPPORT AS REQUIRED.
1" MINERAL WOOL PACKING

5/8" MINIMUM TO 7/8" MAXIMUM ANNULAR SPACE.

STEEL PIPE

2" MAX. GLASS FIBER PIPE INSULATION

1" DEPTH
3M FIRE BARRIER
CP 25WB CAULK OR APPROVED EQUAL.

SOLID CONCRETE or UL CLASSIFIED BLOCK WALL.

PENETRATION FIREDSTOP FOR A MAX. 6" DIA. INSULATED STEEL PIPE THROUGH A CONCRETE WALL. (TYPICAL FOR 2 HR RATED WALLS)

NOTE:
FOR NON-FIRE RATED WALL PENETRATIONS INSTALL AS DETAILED ABOVE AND SUBSTITUTE ACRYLIC SILICONE CAULK FOR FIRE BARRIER CAULK.
PROVIDE CHROME OR STAINLESS STEEL ESCUTCHEONS IN EXPOSED AREAS.

3M FIRE BARRIER FS-195 WRAP/STRIP OR APPROVED EQUAL.

2" MAXIMUM GLASS FIBER PIPE INSULATION.

1/4" BEAD OF 3M FIRE BARRIER CP 25N/S CAULK OR APPROVED EQUAL.

MAX 2 HR RATED GYPSUM BOARD WALL ASSEMBLY.

PENETRATION FIRESSTOP FOR A MAX. 12" DIA. INSULATED STEEL PIPE THROUGH A GYPSUM BOARD WALL. (UL SYSTEM WL1002 TYPICAL FOR 1 & 2 HR. RATED WALLS)

NOTE:
FOR NON-FIRE RATED WALL PENETRATIONS INSTALL AS DETAILED ABOVE AND SUBSTITUTE ACRYLIC SILICONE CAULK FOR FIRE BARRIER CAULK.
INSTALL BYPASS 6" ABOVE TOP OF MAIN PIPES

SUPPLY MAIN

MANUAL AIR VENT

UNION

BALL VALVE

1" OR 3/4" PIPE PER PLANS

RETURN MAIN

BYPASS PIPING SHALL BE INSTALLED WITH ADEQUATE SPACE FOR ACCESS AND ADJUSTMENT.
**M1.55**

**PIPING SUPPORT DETAIL**

**SCALE:** NONE
WIRING AND CONDUIT IN
ELECTRICAL WORK (TYP.)

JUNCTION BOX PROVIDED BY DIVISION
26 CONTRACTOR

ON/OFF SWITCH BY DIVISION 26 CONTRACTOR
(LABEL AS "B.A.S." - SEE SPECS. FOR LABELING
REQUIREMENTS)

DIVISION 26 WORK

CONTROL PANEL OR EQUIPMENT PROVIDED BY
CONTROLS CONTR. - REFER TO MECHANICAL PLANS
FOR ALL B.A.S. (DDC) CONTROL PANEL LOCATIONS

SURGE SUPPRESSOR FURNISHED BY CONTROLS
CONTR. AND INSTALLED BY DIVISION 26 CONTR.
MIN 4" TALL BLOCKS UNDER AIR HANDLER, RAIL AND BLOCKS SHALL BE OF SUFFICIENT HEIGHT TO ALLOW FOR PROPER DRAIN TRAP INSTALLATION

M2.03  CONSTANT VOLUME HORIZONTAL AHU WITH ECONOMIZER

SCALE: NONE
DIRECT DRIVE MOTOR
EXCEPT WHERE SCHEDULED
DIFFERENTLY.

WIRING FROM DISCONNECT
TO FAN MOTOR BY FACTORY.

DISCONNECT PROVIDED
WITH EQUIPMENT

ALUMINUM BIRD
SCREEN

ALUMINUM HOUSING

CURB FURNISHED WITH
EQUIPMENT BY MECH. CONTR.
COORDINATE REQUIREMENTS
FOR CURB AND FLASHING
WITH G.C.

BACKDRAFT
DAMPER

SEE PLANS FOR
DUCT SIZE

WIRING AND CONDUIT
FROM MOTOR STARTER
TO DISCONNECT BY E.C.

8" MIN.
BOLT FAN TO BRACKET

MOUNT ANGLE BRACKET TO WALL 2" X 2" X 1/4" STEEL ANGLE FABRICATED BRACKET

SEAL BETWEEN ANGLE BRACKET AND WALL
M2.11  EXPOSED DUCT PENETRATION DETAIL

SCALE: NONE

NOTES:
1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.

2. ALL STANDARD RADIUS ELBOWS SHOWN ON PLANS MAY BE MADE SHORT RADIUS ELBOW. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.
M2.12
DUCT TAKEOFF DETAIL
SCALE: NONE

\[ a_1 = \frac{CFM_1}{CFM} \times A \]

DETAIL A

NORMAL WHEN \( B = b \)

DETAIL C

WHEN \( B > b \)

\[ \frac{CFM_1}{CFM} \leq 0.1 \]
PROVIDE TRIM RING ON EXPOSED ROUND OR FLAT OVAL DUCT PENETRATIONS

WALL DUCT COLLAR NON RATED WALL PENETRATIONS

ROUND OR FLAT OVAL DUCTWORK

LAY-IN OR HARD CEILING
BAR JOIST OR BEAM

BEAM CLAMP

HANGER ROD OR STEEL STRAP CONNECTED TO BAR JOIST OR BEAM WITH BEAM CLAMP. DO NOT HANG DUCT OR PIPING FROM STRUCTURAL SHINGING ON ROOF DECK. TO HANG BETWEEN BALKEDTS PROVIDE SEPARATE STEEL ANGLE.

GALVANIZED COLLAR FITTING WITH MANUAL VOLUME DAMPER. FUSION NODE, MORSOT OR EQUAL, NOT TO EXTEND INTO TRUNK DUCT.

STEEL BAND DUCT HANGER, DO NOT CRIMP DUCTWORK WITH STRAP/BAND. MAXIMUM FLEXIBLE DUCT LENGTH 5'-0'', MINIMUM ONE HANGER PER DUCT; PROVIDE A HANGER AT DROP TO DIFFUSER.

M.C. TO PROVIDE STEEL WIRE HANGERS AT ALL FOUR CORNERS OF DIFFUSER.
COORDINATE WITH G.C. FOR ROOF PENETRATION. FLASHING BY G.C.

PROVIDE GOOSENECK ON 4" DRYER VENT ABOVE ROOF.

4" DRYER VENT UP FROM APPLIANCE BELOW

12" MIN
M.C. TO PROVIDE STEEL WIRE HANGERS AT (2) DIAGONAL CORNERS OF DIFFUSER.

LAY-IN CEILING DIFFUSER.
PLASTER RING INSTALLED TO ACCEPT LAY-IN STYLE DIFFUSER.

SQUARE OR ROUND NECK SEE PLANS FOR TYPE OF CONNECTION.

GYPSUM BOARD CEILING
12 GAUGE STEEL HANGER WIRES PROVIDED AND INSTALLED BY HVAC CONTRACTOR

INSULATED ENGINEERED PLENUM

ROUND FLEXIBLE DUCT - SEE FLOOR PLAN FOR SIZES. PROVIDE VOLUME DAMPER AT DUCT TAKE-OFF.

CUSTOM FLOW LINEAR JET SLOT DIFFUSER W/ 2 SLOTS, BLACK INTERIOR, 100% OPEN.

PROVIDE W/ END CAP

LAY-IN CEILING TILE

M2.24 SLOT DIFFUSER DETAIL
SCALE: NONE
METAL ROOF PANELS BY G.C.

PITCHED ROOF CAP W/ 1/2"X 1/2" MESH, PAINTED TO MATCH ROOF. DO NOT INSTALL MESH WHERE ROOF CAP IS USED TO VENT DRYER.

COORDINATE REQUIREMENTS OF FLASHING AND COUNTER FLASHING WITH G.C.

ROOF SLOPE

DUCT UP FROM FAN OR APPLIANCE.
MAKE CONCRETE BASE PAD 4" LARGER ALL AROUND THAN EQUIPMENT BASE. CONSTRUCT FROM APPROVED SHOP DWGS.

FINISHED GRADE

#4 AT 12" EACH WAY. BEND DOWN INTO WALLS

SIDE ELEVATION

END ELEVATION
**NOTE:**
THIS DETAIL INDICATES MINIMUM INSTALLATION REQUIREMENTS. ACTUAL FASTENING AND INSTALLATION REQUIREMENTS SHALL BE IN ACCORDANCE WITH THIS DETAIL OR MANUFACTURER'S INSTALLATION INSTRUCTIONS, WHICHEVER IS MORE STRINGENT. ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH NFPA 90A AND UL555.

1. **1" MIN OVERLAP (FOUR SIDES)**
2. **1/4" MIN. CLEARANCE**
3. **1 1/2" x 1 1/2" x 14 GAGE MOUNTING ANGLE.**
4. **1 1/2 HOUR UL RATED, DYNAMIC TYPE FIRE DAMPER WITH BLADES OUT OF AIR STREAM. FUSIBLE LINK**
5. **PROVIDE REMOVABLE ACCESS DOOR OF APPROPRIATE SIZE TO ALLOW INSPECTION AND SERVICE OF DAMPER. PROVIDE FACTORY INSULATED DOOR IF DUCT IS INSULATED. SEE GENERAL NOTES FOR DOOR SIZE.**
6. **DAMPER SLEEVE 14 GAGE MIN.**
7. **6" MAX. ON ALL SIDES**
8. **SEAL JOINT ALL AROUND ON BOTH SIDES OF DUCT WALL.**
9. **DUCT INSULATION**
10. **2 HOUR FIRE RATED WALL.**

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**M2.52**
FIRE DAMPER DETAIL

**SCALE:** NONE
DRYER VENT COLLECTION BOX DETAIL

- 8"x8"x8" COLLECTION BOX WITH 4" DIA. DUCT COLLARS.
- BOX SHALL HAVE HINGED AND GASKETTED ACCESS DOOR WITH CAM LATCH.
- DRYER VENT. FOR RECESSED BOXES, PROVIDE RIGID DUCT WITHIN WALL CAVITY.

Scale: None
CHIP OUT BLOCK TO ALLOW 6" PVC PIPE

TO BLOWER

6" SOLID SCHEDULE 40 PVC PIPE

8" CONCRETE HOLLOW BLOCK-ON SITE

TOP VIEW

VAPOUR BARRIER

STONE BED MIN. 2" ABOVE

GALVANIZED METAL DECKING

FINISHED FLOOR

SIDE VIEW

6" SOLID SCHEDULE 40 PVC PIPE

8" CONCRETE HOLLOW BLOCK-ON SITE

V1.03 VAPOUR MITIGATION SYSTEM - SUCTION PIT DETAIL

SCALE: NONE
BRANCH CIRCUIT AND CONDUIT IN ELECTRICAL WORK. SEE PANELBOARD SCHEDULES FOR WIRE AND BREAKER SIZES TO HVAC AND PLUMBING EQUIPMENT.

EXTERNALLY OR INTERNALLY MOUNTED DISCONNECT SWITCH FURNISHED BY HVAC OR PLUMBING CONTRACTOR, OR OTHER TRADES AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

EXTERNALLY MOUNTED STARTER FURNISHED BY HVAC OR PLUMBING CONTRACTOR OR OTHER TRADES. INSTALLED BY ELECTRICAL CONTRACTOR. LINE AND LOAD CONNECTIONS BY ELECTRICAL CONTRACTOR. CONTROL CONNECTIONS BY CONTROLS CONTRACTOR.

EQUIPMENT IN HVAC OR PLUMBING WORK OR WORK OF OTHER TRADES. SEE HVAC, PLUMBING AND ARCHITECTURAL DRAWINGS FOR LOCATION OF ALL EQUIPMENT.

A COMBINATION STARTER MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER.

JUNCTION MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT (NOT NECESSARY IF WIRING IS CONNECTED DIRECTLY TO STARTER OR DISCONNECT SWITCH.)

WIRING IN ELECTRICAL WORK

FINAL CONNECTIONS INSIDE EQUIPMENT TO BE MADE BY THE HVAC OR PLUMBING CONTRACTOR OR OTHER TRADES.

PANELBOARD
NOTES:
1. WALL MOUNTED SPEAKERS REQUIRE A STANDARD 2-GANG BACKBOX THAT WILL ACCOMODATE A 2 1/2" DEEP DEVICE.
2. PROVIDE ALL COMPONENTS FOR A COMPLETE OPERATING SYSTEM.
3. PROVIDE ALL WIRING PER MANUFACTURERS SPECIFICATIONS.
4. PROVIDE SPEAKER-TO-SPEAKER, PUSH TO TALK CONNECTION WITH SPEAKER IN SPEECH ALWAYS RETURNING TO LISTEN.
5. CONNECT TO NEAREST RECEPTACLE CIRCUIT.

E1.03 OT/PT & SPEECH LOCAL INTERCOM SYSTEM DETAIL
PLATEFORM DIMMING RISER GENERAL NOTES:

1. THE PLATFORM DIMMING SYSTEM IS A PREFERRED BRAND ALTERNATE, REFER TO SPECIFICATIONS.

2. PROVIDE ALL NECESSARY PARTS, SUPPORTS, AND ACCESSORIES FOR A COMPLETE SYSTEM.

3. ALL WIRING SHALL BE IN CONDUIT (3/4" MINIMUM).

4. COORDINATE TRACK AND FIXTURE LOCATION WITH MANUFACTURER FOR OPTIMUM LOCATION.

5. REFER TO PLANS FOR EXACT EQUIPMENT LOCATION AND CIRCUIT INFORMATION.

6. DMX CABLES NOT SHOWN ON PLANS FOR CLARITY.
NOTE:
DETAIL IS TYPICAL FOR
SWITCHES INDICATED ON
LIGHTING PLAN BY "S2".

E1.05 BI-LEVEL DIMMING CONTROL DIAGRAM
SCALE: NONE
CABLE SCHEDULE

1. 1 - 4 PAIR Cat5e CABLE FOR DATA PER PORT.
2. MULTIPAIR Cat5e CABLE FOR VOICE DISTRIBUTION.
3. 1 - 2 STRAND MULTIMODE FIBER CABLE FOR DATA TO SWITCH ENCLOSURE.
4. MULTIPLE STRANDS OF MULTIMODE FIBER CABLE FOR DATA DISTRIBUTION TO MAIN BUILDING, SINGLEMODE TO ALL OUTBUILDINGS.
5. COPPER PATCH CORDS TO BE PROVIDED BY CONTRACTOR AND INSTALLED BY WCPS.
6. PATCH CORDS TO BE PROVIDED AND INSTALLED BY WCPS.
7. ACCESS POINT OR CAMERA DROP TERMINATED WITH A MODULAR RJ45 PLUG.
8. TYPICAL TOC - REFER TO 270000 FOR REQUIRED QUANTITY PER LOCATION.
9. TOC FOR WALL MOUNTED TELEVISION.
10. TYP FIRE PANEL DEMARCATION POINT.
11. TYP SECURITY DEMARCATION POINT.
12. TYP BUILDING SYSTEM CONTROL DEMARCATION POINT.
13. FOUR POST RACK (TWO RACKS FOR ELEMENTARY AND MIDDLE, THREE FOR HIGH SCHOOLS.) POSTS ARE TO BE INSTALLED WITH 3" FRONT TO BACK.
14. 24 PORT PATCH PANEL TO CROSS CONNECT "VOICE" CONNECTIONS FOR LIFE SAFETY, BUILDING CONTROL, SECURITY, AND INTERCOM SYSTEMS. PORTS SHOULD CONNECT TO PORTS 1 - 24 ON COPPER DATA PATCH PANEL.

MAIN TELECOMMUNICATIONS DISTRIBUTION ROOM TYPICAL DESIGN

SCALE: NONE

WAKE COUNTY PUBLIC SCHOOL SYSTEM
1429 Rock Quarry Road, Suite 116
Raleigh, NC 27610
(919) 558-3608
CABLE SCHEDULE

<table>
<thead>
<tr>
<th>MARKS</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>(1)</td>
<td>1 - 4 PAIR Cat6 CABLE FOR DATA PORT.</td>
</tr>
<tr>
<td>(2)</td>
<td>MULTIPAIR Cat5 CABLE FOR VOICE DISTRIBUTION.</td>
</tr>
<tr>
<td>(3)</td>
<td>1 - 2 STRAND MULTIMODE FIBER CABLE FOR DATA TO SWITCH ENCLOSURE.</td>
</tr>
<tr>
<td>(4)</td>
<td>1 - 6 STRAND MULTIMODE FIBER CABLE FOR DATA TO EACH REBOX CABINET IN COMPUTER LAB AND BUSINESS LABS.</td>
</tr>
<tr>
<td>(5)</td>
<td>MULTIPLE STRANDS ON MULTIMODE FIBER CABLE FOR DATA DISTRIBUTION.</td>
</tr>
<tr>
<td>(6)</td>
<td>COPPER PATCH CORDS TO BE PROVIDED BY CONTRACTOR AND INSTALLED BY WCPS.</td>
</tr>
<tr>
<td>(7)</td>
<td>PATCH CORDS TO BE PROVIDED AND INSTALLED BY WCPS.</td>
</tr>
<tr>
<td>(8)</td>
<td>ACCESS POINT OR CAMERA DROP TERMINATED WITH A MODULAR RJ45 PLUG.</td>
</tr>
<tr>
<td>(9)</td>
<td>TYPICAL TCO - REFER TO 270000 FOR REQUIRED QUANTITY PER LOCATION.</td>
</tr>
<tr>
<td>(10)</td>
<td>TCO FOR INTERACTIVE WHITE BOARD.</td>
</tr>
<tr>
<td>(11)</td>
<td>TYP FIRE PANEL DEMARCATION POINT</td>
</tr>
<tr>
<td>(12)</td>
<td>TYP SECURITY DEMARCATION POINT</td>
</tr>
<tr>
<td>(13)</td>
<td>TYP BUILDING SYSTEM CONTROL DEMARCATION POINT</td>
</tr>
<tr>
<td>(14)</td>
<td>TYP RE4 REBOX CABINET IN EACH COMPUTER AND BUSINESS LAB</td>
</tr>
</tbody>
</table>

TELECOMMUNICATIONS SUBCLOSET TYPICAL DESIGN

WAKE COUNTY PUBLIC SCHOOL SYSTEM
1429 Rock Quarry Road, Suite 116
Raleigh, NC 27610
(919) 589-3608
CABLE SCHEDULE

MARKS

(1) 1 - 4 PAIR Cat5e CABLE FOR DATA.

(2) 1 - 4 PAIR Cat5e CABLE FOR VOICE.

(3) MULTI-PAIR Cat3 INDOOR/OUTDOOR CABLE FOR VOICE DISTRIBUTION.

(4) 1 – 12 STRAND MULTIMODE FIBER CABLE FOR DATA TO OPEN 7 FT RACK IN SINGLE OR MODULAR COMPLEX TELECOMMUNICATIONS SUB CLOSET.

FOR CONTINUATION REFER TO 16740-1B

INTERCOM DISTRIBUTION CABLE

INTERCOM SYSTEM VOICE OVER PA

TYPICAL HUB CABINET

REFER TO ATTACHMENT 16740-2A FOR DETAILS

COAX CABLE FROM HC TO WIRELESS NETWORK ANTENNA TO BE INSTALLED BY WCPSS.

GENERAL PURPOSE CLASSROOM

WIRELESS NETWORK ANTENNA TO BE INSTALLED BY WCPSS

TYP DATA TCO FOR STUDENTS, REFER TO 16740 FOR REQUIRED QTY PER PROGRAM.

TYP TCO FOR TEACHER.

TYP DATA TCO FOR STUDENTS, REFER TO 16740 FOR REQUIRED QTY PER PROGRAM.

TYP VID TCO FOR TEACHER.

INTERCOM DISTRIBUTION CABLE

FLOOR RACK MOUNTED PATCH PANEL

TO TYP BLDG INTERCOM SYSTEM
TO TYP BLDG SECURITY SYSTEM PANEL
TO TYP BLDG FIRE ALARM SYSTEM PANEL

WAKE COUNTY PUBLIC SCHOOL SYSTEM
1429 Rock Quarry Road, Suite 116
Raleigh, NC 27610
(919) 588-3608

E2.02 MODULAR UNIT TELECOMMUNICATIONS TYPICAL DESIGN SCALE: 1"=ONE
NOTES:
1. ALL CONDUIT AND OUTLET BOXES BY ELECTRICAL CONTRACTOR.
2. ALL CAMERA CABLEING SHALL BE GREEN AND PROVIDED AND INSTALLED BY STRUCTURED WIRING CONTRACTOR.
3. SEE SPECIFICATIONS FOR FURTHER INSTALLATION REQUIREMENTS.
4. PROVIDE 15'-0" SERVICE LOOP AT EACH CAMERA LOCATION.
5. PLEASE NOTE: BECAUSE THE CAMERAS ARE OWNER PROVIDED AND INSTALLED, THE CAMERAS MAY BE INSTALLED LATER. THE CONTRACTOR SHALL PLACE A YELLOW DOT ON CEILING WITH THE RESPECTIVE CABLE NUMBER. THE CABLE NUMBER SHALL BE TAGGED ON THE CABLE JACKET ABOVE THE CEILING. COORDINATE ALL WORK WITH THE OWNERS IT AND SECURITY DEPARTMENTS PRIOR TO INSTALLATION/ROUGH-IN.
6. CAMERAS CABLES SHALL BE TERMINATED ON SEPARATE PATCH PANEL IN DATA RACK AT MDF/IDF TELECOM CLOSETS. NETWORK POE SWITCHES SHALL BE PROVIDED AND INSTALLED BY THE OWNER.
7. PLENUM RATED CAT-6 CAMERA DATA CABLE LENGTHS SHALL NOT EXCEED 90 METERS. CONTRACTOR SHALL TAKE CARE IN MAINTAINING THESE LENGTHS.
8. ALL CAMERA CABLES SHALL BE TESTED IN COMPLIANCE WITH THE DATA CABLE REQUIREMENTS.
9. REFER TO ARCHITECT'S DIVISION 1 ALTERNATES SECTION.
**NOTES (REBOX - RE4 ONLY):**

1. **CABINET SHALL BE CONSTRUCTED FROM 16 GAUGE COLD ROLLED STEEL. HINGES SHALL BE FORMED STEEL TYPE OR EQUIVALENT AND SWING FROM SIDE. FRONT PANEL SHALL HAVE LOUVERS TO AID IN THE DISSIPATION OF HEAT. UNIT SHALL HAVE THUMB LATCH LOCKING DEVICE. UNIT SHALL HAVE A POLYESTER POWDER ENAMEL OR EQUIVALENT TYPE FINISH (GRAY IN COLOR). MOUNT CABINET WITH LOUVERS HORIZONTAL.**

2. **CABINET SHALL BE EQUIPPED WITH 2 SETS OF UNIVERSAL MOUNTING RAILS WITH EIA STANDARD HOLE PATTERN FOR MOUNTING UP TO FOUR (4) 19" BACK MOUNT DEVICES. CABINET SHALL PROVIDE HINGED MOUNTING FOR 19" PATCH PANEL TO ALLOW FRONT ACCESS TERMINATION. UNIT SHALL PROVIDE GROUND STUDS FOR PROPER GROUNDING OF DOOR AND BASE. CABINET SHALL BE CAPABLE OF RECEIVING AN OPTIONAL PAN FOR EXTRA HEAT DISSIPATION.**

3. **CABINET SHALL CONTAIN A MULTIMEDIA OUTLET BOX WITH SC–SC FIBER CONNECTOR ADAPTER PLATE.**

4. **CONTRACTOR SHALL TERMINATE FIBER WITH SC STYLE CONNECTORS.**

5. **CABINET SHALL BE MOUNTED TO WALL WITH FOUR (4) 1/4" BOLTS INTO WALL ANCHORS. USE TOGGLE BOLTS FOR HOLLOW WALL PARTITIONS AND LEAD ANCHORS FOR SOLID MASONRY WALLS. BOLTS SHALL PASS THROUGH THE CABINET AND INTO THE WALL ANCHOR.**

6. **CONTRACTOR TO SUPPLY CAT5e CABLE FROM REBOX TO DEVICES IN RACEWAY OR BOX. CABLE SHALL BE ROUTED TO CABINET AS FOLLOWS:**

7. **NEW CONSTRUCTION – (REBOX MUST BE FED WITH A MINIMUM OF ONE (1) 1" DIAMETER CONDUIT. ROUGHED IN WALL TO A DOUBLE GANG OUTLET BOX) CABINET SHALL HAVE A GROMMETED 4"x4" OPENING IN BACK AND BE MOUNTED DIRECTLY OVER THE OUTLET BOX IN SUCH A MANNER TO ALLOW FOR THE INSTALLATION OF THE STATION COPPER CABLES. THE FIBER CABLE MUST HAVE ONE (1) 1" DIAMETER CONDUIT FOR THE MULTIMEDIA OUTLET BOX.
NOTES: (HUB CABINET SURFACE MOUNTED)

1. CABINET SHALL BE CONSTRUCTED FROM 16 GAUGE COLD ROLLED STEEL. HINGES SHALL BE FORMED STEEL WROUGHT OR EQUIVALENT AND SWING FROM SIDE. FRONT PANEL SHALL HAVE LOUVERS TO ASSIST IN THE DISSIPATION OF HEAT. UNIT SHALL HAVE THUMB LATCH LOCKING DEVICE. UNIT SHALL HAVE A POLYESTER POWDER ENAMEL OR EQUIVALENT TYPE FINISH. MOUNT CABINET WITH LOUVERS HORIZONTAL.

2. CABINET SHALL BE MOUNTED TO WALL WITH FOUR (4) 1/4" BOLTS INTO WALL ANCHORS. USE TOGGLE BOLTS FOR HOLLOW WALL PARTITIONS AND LEG ANCHORS FOR SOLID MASONRY WALLS. BOLTS SHALL PASS THROUGH THE 1/2" PLYWOOD CABINET BACKBOARD, THE CABINET AND INTO THE WALL ANCHOR.

3. CABINET SHALL HAVE 1/2" PLYWOOD BACKBOARD TO MOUNT EQUIPMENT. CABINET SHALL HAVE SEALED RUBBER CABLE ENTRY GROMMETS WHERE REQUIRED. OWNER TO SUPPLY AND INSTALL ELECTRONICS ONLY.

4. CABINET SHALL CONTAIN A UTS INFORMATION OUTLET WITH SC–SC FIBER CONNECTOR ADAPTER PLATE.

5. CONTRACTOR SHALL TERMINATE FIBER WITH PRE–POLISHED, CRIMP–ON, SC STYLE CONNECTORS.

6. CABINET SHALL HAVE A 12 PORT VERTICAL CAT5e PATCH PANEL.

7. CONTRACTOR SHALL PROVIDE CAT5e 24" LONG STRANDED FACTORY MANUFACTURED PATCH CORDS ONE PER CABLE TERMINATED.

8. CONTRACTOR TO SUPPLY CAT5e CABLE FROM HUB CABINET TO ALL NEW OUTLETS.

9. HUB CABINET SHALL BE FED FROM SURFACE MOUNTED METAL RACEWAY FOR EXISTING WALL RENOVATION CONSTRUCTION.