MOTOR CONTROL CENTER

ALL CONDUIT INSTALLED AS A PART OF THIS PROJECT SHALL BE RIGID METALLIC CONDUIT (RMC), RMC

ANY WORK THAT CONFLICTS WITH OTHER TRADES WITHOUT COORDINATION AS DESCRIBED ABOVE

ALL DEVICES INSTALLED OUTSIDE OR IN DAMP LOCATIONS SHALL BE APPROVED WEATHERPROOF. OUTDOOR

UNGROUNDED CONDUCTORS SHARING A COMMON NEUTRAL ARE SIMULTANEOUSLY DISCONNECTED.

ENGINEER AT THE COMPLETION OF THE PROJECT, SHOWING ALL CHANGES TO THE WORK PERFORMED

CONFLICTS BETWEEN TRADES AND PROPOSED RESOLUTION SHALL BE IDENTIFIED IN SUBMITTALS

DRAWINGS CONFORMING ROUTING OF EACH SYSTEM COMPONENT RESPECTIVE TO ITS TRADE AS

EQUIPMENT.

PLATE.

OUTLET BOX IN THE WALL, FLUSH WITH THE FINISH SURFACE AND SHALL BE COMPLETE BRACES

CONVENIENCE OUTLETS SHALL CONSIST OF A DUPLEX CONVENIENCE RECEPTACLE MOUNTED IN AN

WITH ALL CODE REQUIREMENTS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THAT THE

ENCLOSURE.

ALL EQUIPMENT TO BE FURNISHED SHALL BE DESIGNED, CONSTRUCTED AND INSTALLED IN ACCORDANCE

WITH THE SEISMIC ZONE IV REQUIREMENTS OF THE CALIFORNIA CODE, TITLE 24, SECTION 2312, AND THE

OTHERWISE.

600A

3P

XVA

T

J

DATA OUTLET WITH PORT RJ45 JACK.

WALL/EQUIPMENT SURFACE MOUNTED +6’-0” TOP OF SWITCH.

TRANSFORMER (SINGLE LINE DIAGRAM)

PROVIDE 6” CONCRETE PAD. (SEE SINGLE LINE DIAGRAM)

SURFACE MOUNTED PANEL +6’-6” TO TOP.

INSTALL SWITCHES ON SIDE OPPOSITE TO DOOR HINGE. VERIFY FINAL HINGE LOCATIONS IN

RECESSED FLUORESCENT FIXTURES SHALL BE SUPPORTED DIRECTLY FROM THE FIXTURE HOUSING TO THE

THE CONTRACTOR SHALL PROVIDE SUPPORT FOR ALL FIXTURES AND ELECTRICAL EQUIPMENT TO COMPLY

INSPECTION.

PRESCRIBES AND ESTABLISHES THE MOST COMPLETE JOB OR THE HIGHER STANDARD SHALL PREVAIL.

FOR ESTIMATING PROPERLY THE DIFFICULTY OR COST OF SUCCESSFULLY PERFORMING THE WORK.

COST THEREOF. FAILURE TO DO SO WILL NOT RELIEVE THE BIDDERS FOR SUCH RESPONSIBILITY

SPECIFIED.

ATTACHED TO THE STRUCTURE, BUT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL

THE ATTACHMENT OF THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY

PRESCRIBED IN THE 2013 CBC. SECTIONS 1615A.1.12 THROUGH 1645A.1.22 AND ASCE 7-05 CHAPTER 6 AND

BASED ON CONSTRUCTION CONDITIONS, AND BASED ON THE INTENT OF THESE PLANS.
### Electrical Panel Schedules Data Center

#### EMERGENCY GENERATOR AND DATA CENTER HVAC UPGRADES

**Rio Hondo College**  
3600 Workman Mill Rd.  
Whittier, CA 90601

#### Project Information
- **Project Number:** E003
- **File Name:** E003.DWG
- **File Type:** DWG
- **Scale:** 1/8" = A Foot

#### Sheet Title
- **Scalable Submit Date:** Sheet 1
- **Sheet Number:** Sheet 1

#### Addendum
- **Addendum 1:** 06/28/2016
- **Addendum 2:** 07/01/2016
- **Addendum 3:** 07/12/2016

#### Electrical Panel Schedule

<table>
<thead>
<tr>
<th>LOCATION LTG REC MIS BKR CKT</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>CKT BKR MIS REC LTG LOCATION</th>
</tr>
</thead>
</table>

### Load Classification

- **Demand Factor:**
  - Motor - Largest
  - Receptacle
  - L.C.L.
  - N.C.L.

- **Connected (VA) x Demand Factor = Demand (VA):**
  - \( \phi_C \) 115 VA
  - \( \phi_B \) 200 VA
  - \( \phi_A \) 360 VA

#### Total (AMPS)
- **Total (VA):**
  - 693 VA

### Electrical Panel

**PANEL AND DEVICE MINIMUM AIC RATING:**
- **Bus Rating:** 100 A

**Main Breaker:**
- 100 A

**Mounting:**
- Surface

**Panel:**
- PANEL #1

- **Location:** Computer Center
- **Voltage:** 120/208V

### Emergency Generator

- **Portable AC:**
  - 21
  - 22

### Existing Load

- **Portables:**
  - 23
  - 24

- **Exisiting Load:**
  - 25
  - 26

### Miscellaneous

- **Location LTG REC MIS BKR CKT:**
  - **A**
  - **B**
  - **C**

### Circuit Breaker

- **Location:**
  - 1
  - 2
  - 3

- **Heather:**
  - 15
  - 16

- **VCU-1:**
  - 7
  - 8

### Control Panel

- **Kiln/Dock Control Panel:**
  - **Location:** Kiln 3
  - **Voltage:** 277/480V 3Ø, 4W

### Additional Information

- **Revisions:**
  - 1
  - 2

---

### Table Example

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Location</th>
<th>Voltage</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel</td>
<td>Computer Center</td>
<td>120/208V</td>
<td>PANEL #1</td>
</tr>
<tr>
<td>Generator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Center HVAC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
EMERGENCY GENERATOR AND DATA CENTER HVAC UPGRADES
RIO HONDO COLLEGE
3650 WORKMAN MILL RD.
WHITTIER, CA 90601

ELECTRICAL DEMOLITION FLOOR PLAN - DATA CENTER

1. HATCHED PATTERN INDICATES ITEMS TO BE DEMOLISHED.
2. REMOVE (2) <E> SERVERS SHOWN INCLUDING ALL CONDUCTORS AND CONDUITS BACK TO SOURCE.
3. CAMPUS SHALL HAVE FIRST RIGHT OF REFUSAL OF ALL EQUIPMENT REMOVED AND DEMOLISHED.

GENERAL NOTES THIS SHEET:
1. REMOVE <E> MECHANICAL EQUIPMENT INCLUDING ALL CONDUCTORS AND CONDUITS BACK TO SOURCE.
2. CAMPUS SHALL HAVE FIRST RIGHT OF REFUSAL OF ALL EQUIPMENT REMOVED AND DEMOLISHED.

REVISIONS
1. NUMBER DESCRIPTION DATE
2.

KEYED NOTES THIS SHEET:

PROJECT
ED101

CAD FILE
ED101.DWG

FILE NAME
SM

CPT
PF

DATE DRAWN
06/28/2016

NOTE:
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

SCALESUBMITTAL DATE

1/4" = 1'-0"
1. Hatch pattern indicates items to be demolished. Completely remove and demolish (E) generator, including existing circuit breaker and associated conduit/wiring back to point of distribution.

2. Completely remove and demolish (E) conductors and conduit back to source panel for all (E) to remain receptacles located in this area. Prepare (E) to remain receptacles for powering via (N) conductors and conduit.

3. Campus shall have first right of refusal of all equipment removed and demolished.

4. Transferred circuits shall not be utilized by (E) panels and shall be blocked off from (E) breakers. Spare plate shall be installed to circuit breakers with the laminated affixed label: "Do not use or connect."
GENERAL NOTES:

1. ALL KEYED NOTES NOT USED ON THIS SHEET.
EMERGENCY GENERATOR AND DATA CENTER HVAC UPGRADES
RIO HONDO COLLEGE
3800 WORKMAN MILL RD., WHITTIER, CA 90601

GENERAL NOTES THIS SHEET:
1. ALL <E> AND <N> CONDUIT WHICH PASSES THROUGH A FIRE PARTITION SHALL BE PROVIDED WITH A FIRESTOP SYSTEM WHICH MAINTAINS THE FIRE RATING OF THE PARTITION. ALL <E> CONDUIT WHICH DO NOT CURRENTLY HAVE A CODE COMPLIANT FIRESTOP SYSTEM INSTALLED SHALL BE REPAIRED TO A CONDITION SUCH THAT THE FIRE RATING OF THE PARTITION IS MAINTAINED.
2. SEE SHEET E002 FOR ELECTRICAL SCHEDULES.
3. VERIFY ALL EXISTING UTILITIES PRIOR TO EXCAVATION OF NEW CONDUIT CONCRETE ENCASEMENT. SEE DETAIL 10/E501 FOR FURTHER DETAILS. (TYP. 2)
4. PERFORM (25) POTHOLE SOIL INVESTIGATIONS TO ASCERTAIN MAINTENANCE OF BARRICADE SHALL REQUIRE PERMANENT NO ADDITIONAL COST TO CAMPUS.
5. DEVIATE FROM EXISTING UTILITIES BY FORMING 4' MIN. WITHIN A PROXIMITY OF 2' FROM THE NEW ENCASED CONDUIT RADIUS DEVIATIONS IN CONCRETE ENCASED DUCTWORK AT PEDESTRIAN TRAFFIC.
6. DEVIATE FROM ANY UNDERGROUND UTILITY THAT MAY COME WITHIN A PROXIMITY OF 2' FROM THE NEW ENCASED CONDUIT RATING OF THE PARTITION IS MAINTAINED.
7. MAINTENANCE OF BARRICADE SHALL REQUIRE PERMANENT NO ADDITIONAL COST TO CAMPUS.
8. NOTIFY DIGALERT (811) BEFORE STARTING EXCAVATION WORK. FOR GENERATOR AND GENERATOR ACCESS PAD PROVIDE VAULT FOR GENERATOR CONDUIT. SEE DETAIL 5/E502 FOR FURTHER DETAILS. (TYP. 2)
9. KEYED NOTES THIS SHEET:
   A. PROVIDE NEW REMOVABLE TRAFFIC BOLLARD WITH PADLOCK. SEE DETAIL 1/E502 FOR FURTHER DETAILS. (TYP. 3)
   B. PROVIDE FIXED TRAFFIC BOLLARD. SEE DETAIL 1/E502 FOR FURTHER DETAILS. (TYP. 2)
   C. CONTROL SINGALLING BETWEEN <N> GENERATOR AND GENERATOR ROUTING EMERGENCY GENERATOR CONDUIT FOR GENERATOR VAULT OPENING. SUCH DEVIATIONS SHALL MAINTAIN A 4' RADIUS WITHIN A PROXIMITY OF 2' FROM THE NEW ENCASED CONDUIT MINIMUM OF THE INNER CONCRETE ENCASED DIAMETER.
   D. PROVIDE VAULT FOR GENERATOR CONDUIT. SEE DETAIL 5/E502 FOR FURTHER DETAILS. (TYP. 2)
   E. PROVIDE NEW REMOVABLE TRAFFIC BOLLARD WITH PADLOCK. SEE DETAIL 1/E502 FOR FURTHER DETAILS. (TYP. 3)
   F. KEY PLAN:
1. ALL <E> AND <N> CONDUIT WHICH PASSES THROUGH A FIRE RATED PARTITION SHALL BE PROVIDED WITH A FIRESTOP SYSTEM WHICH MAINTAINS THE FIRE RATING OF THE PARTITION. ALL <E> CONDUIT WHICH DO NOT CURRENTLY HAVE A CODE COMPLIANT FIRESTOP SYSTEM INSTALLED SHALL BE REPAIRED TO A CONDITION SUCH THAT THE FIRE RATING OF THE PARTITION IS MAINTAINED.

2. <N> RECEPTACLE AND LIGHTING SHALL BE REWIRED TO THE NEW EMERGENCY POWER DISTRIBUTION ROOM IN THE EOC REMODEL PROJECT.
GROUND PULL BOX SHALL INCLUDE ONE ADDITIONAL IN-PULL BOX DETAIL (TYP.) - CONTRACTOR

PG&E CODE

12" RISER

04-3362

N.T.S.3 GROUND ROD DETAIL (TYP. OF 3)

CONNECTOR (TYP. 2)

CABLE Sized for "GK"

4/0 BARE COPPER STANDARD AS REQUIRED, RED PRIMER & ALUMINUM PAINT FINISH.

SC3048-TSRAL, ONE PIECE SLIP RESISTANT TRAFFIC COVER, MARKED OR EQUAL

10"W x 17"L x 12"D BROOKS, PRE-CAST CONCRETE BOX

ADDITIONAL GROUNDING BUSHING AS REQUIRED

BOND CONDUCTOR TO OPEN BOTTOM

5'-9'

1 EACH ROD MUST HAVE A SEPARATION DISTANCE OF 6 FT. AWAY FROM 3'-0"

IN ACCORDANCE WITH THIS DETAIL WITH ACCESSORIES AS SHOWN.

OTHER TWO RODS OF 6 FT. EACH OF THE THREE RODS MUST BE INSTALLED 1'

7"

3'-6"

5'-0"

764 X 1977

CAULKED COVER

LETTERING "GROUND"

COVER SHALL HAVE CAST STEEL GROUND ROD 3/4" X 10'-0" COPPER CLAD BURNDY TYPE "SK" T & B OR EQUAL WATER PIPE CLAMP

1 CUBIC FT MIN. 3/4" GRAVEL

GROUNDING BUSHING

SUBSTATION GROUND BUS EXTERNAL CONNECTION TO 12"

4'-1"

OVERALL MINIMUM HEIGHT 5'-6"

3'-9" 12" DIA. SUMP

14'-3" X 18'-6".

PADLOCK WITH SLEEVES (6)4"C & (4)2"C

ENCASEMENT CONCRETE ABOVE ENCASEMENT SACK SLURRY PIGMENTED TWO

36" MINIMUM

(E.N.I.C.) CONVERTED TO 12KV 4160 V WILL BE EXISTING TO REMAIN

7" 3" TYP.

43" 3" 5" 2" 1" 6" 30'-0" 45'-0" 6" ABOVE GROUND

PULLBOX 6" 7" 86" 96" 43" 52-1/2" 41-1/2" 102" 50'-0"

(3) CORE MTD. 7/8" DIA. x 3-3/8" GALV. PULL IRON, BOTTOM SECTION 7/8" DIA. x 3-3/8" GALV. PULL IRON, BOTTOM SECTION (3) CORE MTD.

(4) CORE MTD. (4) CORE MTD.

7/8" DIA. x 3-3/8" GALV. PULL IRON, BOTTOM SECTION (3) CORE MTD.

6" DIA. CONTERMS, BOTTOM SECTION (8) SHELL MTD.; TOP SHELL MTD.

6" DIA. CONTERMS, BOTTOM SECTION (8) SHELL MTD.; TOP SHELL MTD.

8" POURED IN PLACE HOUSE-KEEPING PAD DIMENSION PER 5/E502.

GRAVEL AND OPEN TO BOTTOM SOIL.

14" DIA. DRY WELL, 10" DEEP FILLED WITH COARSE INTEGRAL J-HOOK RAILS TO SUPPORT POWER FEEDERS.

GENERATOR AND LINE IS 2 INCHES

WATER PIPE CLAMP

108" 108" 96" 6" 45'-0" 3600 WORKMAN MILL RD., WHITTIER, CA 90601
SHALL BE RESOLVED BY CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.

6. CONFLICTS BETWEEN TRADES AND PROPOSED RESOLUTION SHALL BE IDENTIFIED IN SUBMITTALS AND SHOP DRAWINGS AND CONFIRMING DETAILED INSTALLATION ROUTING AND COORDINATION BETWEEN TRADES.

7. CONTRACTOR SHALL PROVIDE ALL GRAPHICS PROGRAMMING AT BOTH THE OPERATOR WORKSTATION ACCESS USER ACCOUNT AND PASSWORD TO THE ENGINEER AS REQUIRED FOR CONTROLS TESTING AND ALL CONTROLS AND CONTROLS INSTALLATION SHALL BE ALERT ON PER CAMPUS STANDARD. CONTROLS DEVICES WILL NOT BE ALLOWED ON THIS PROJECT. COMMISSIONING DURING PROJECT STARTUP.

8. PIPING SHALL BE ROUTED ABOVE CEILING UNLESS NOTED OTHERWISE. SPECIALTIES (TYP)

9. ATTENTION OF THE DISTRICT SHALL CONFIRM THAT THE MOST STRINGENT REQUIREMENT HAS BEEN INCLUDED IN THE CONTRACTOR'S BID PRICE AND WILL NOT BE ALLOWED AS A CHANGE ORDER TO THE CONTRACTOR SHALL COMPLY AND ADHERE FULLY TO RESTRICTIONS AND LIMITATIONS OF WORK AFFECTED BY THIS WORK SHALL BE REFURBISHED TO AS-NEW CONDITION AND MATCH SURROUNDING DETAILS ON STRUCTURAL DRAWINGS, MUST BE APPROVED BY AUTHORITIES HAVING JURISDICTION. (TYP.)

10. THE EQUIPMENT. (TYP.)

11. MACHINERY, PADS, OR OTHER SUITABLE MEANS.

12. THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

NOT ALL SYMBOLS OR ABBREVIATIONS MAY BE USED ON ABBREVIATIONS DUCT TRANSITION.
<table>
<thead>
<tr>
<th>MFR MODEL</th>
<th>TON</th>
<th>SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>WC 1</td>
<td>TRANE 4TVW0007B100NC</td>
<td>3/4</td>
</tr>
<tr>
<td>TC 1</td>
<td>TRANE 4TVB0009B100NB</td>
<td>3/4</td>
</tr>
<tr>
<td>TC 2</td>
<td>TRANE 4TVB0009B100NB</td>
<td>3/4</td>
</tr>
<tr>
<td>TC 3</td>
<td>TRANE 4TVB0009B100NB</td>
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</tr>
<tr>
<td>TC 6</td>
<td>TRANE 4TVB0009B100NB</td>
<td>3/4</td>
</tr>
<tr>
<td>TC 7</td>
<td>TRANE 4TVB0009B100NB</td>
<td>3/4</td>
</tr>
<tr>
<td>TC 8</td>
<td>TRANE 4TVB0009B100NB</td>
<td>3/4</td>
</tr>
</tbody>
</table>
1. REMOVE <E> MECHANICAL EQUIPMENT AND DEMOLISH ALL ASSOCIATED DUCTWORK, DUCT ACCESSORIES, PIPING, AND PIPING ACCESSORIES UP TO THEIR SOURCE EQUIPMENT.

2. DEMOLISH ALL EXISTING DUCTWORK, DUCT SUPPORTS, DUCT ACCESSORIES, DUCT FITTINGS, DIFFUSERS, HYDRONIC PIPING AND ACCESSORIES, AND ALL OTHER ASSOCIATED MECHANICAL ITEMS SERVING THIS AREA AND REMOVE BACK TO THEIR SOURCE EQUIPMENT.

Campus shall have first right of refusal of all equipment removed and demolished.

Hatcheted pattern indicates items to be demolished, including ceiling diffusers, grilles, and all associated rigid and flexible ductwork.

3. BLANK OFF ALL UNDERFLOOR SYSTEM DIFFUSERS IN THIS AREA WITH PANELS TO MATCH EXISTING FLOOR SYSTEM. AREA WILL BE CONDITIONED FROM NEW CEILING VRF UNIT.

4. DEMOLISH CONDENSATE UP TO P.O.R. AS INDICATED. PREPARE FOR CONNECTION OF <N> CONDENSATE LINE.

REMOVE ALL DUCTWORK AND ACCESSORIES OF SUSPENDED AC UNITS. THIS SHALL INCLUDE DUCTWORK FROM AC UNITS AND ALL IN CEILING DUCTWORK.

5. THE DATA CENTER SHALL REMAIN OPERABLE THROUGHOUT RENEWATION BY MEANS AND METHODS PROVIDED BY THE CONTRACTOR. AT THE VERY LEAST, (1) CRAC UNIT SHALL REMAIN OPERATIONAL UP AND UNTIL A SECOND UNIT IS FULLY OPERATIONAL.

4. THE EXISTING MOVINCOOL UNIT MAY BE UTILIZED TO AUGMENT CONTRACTOR MEANS AND METHODS TO MAINTAIN DATA CENTER FRONT OF IT RACKS AT 72°F AT ALL TIMES.
1. Hatch pattern indicates items to be demolished.

2. Campus shall have first right of refusal of all equipment removed and demolished.

3. Cap or install plug on natural gas connection to location outside building. Seal penetration in building.

4. Complete remove and demolish all associated ductwork, duct accessories, piping, and piping accessories connected to the emergency generator back to penetration into room. Cap and abandoned ductwork and piping at wall/ceiling penetration.

REVISIONS

1. [Description]

2. [Description]
As indicated
NOTES:

1. ALL DUCTWORK, PIPING, AND CONDUIT SHALL BE BRACED IN STRICT ACCORDANCE WITH SMACNA REQUIREMENTS, SEISMIC RESTRAINT MANUAL FOR MECHANICAL SYSTEMS, WITH SMACNA RECOMMENDATIONS AS SHOWN IN SEISMIC LOAD RATED LOAD RATED LOAD RATED LOAD RATED LOAD RATED.

2. PROVIDE AND INSTALL SUPPORT HANGERS AT ALL FITTINGS.

3. SEE TABLE BELOW FOR SMACNA TABLES.

4. PROVIDE DIAGONAL BRACING PER SMACNA (TYP.) LOAD RATED LOAD RATED LOAD RATED LOAD RATED LOAD RATED.

5. PRIOR TO INSTALLATION, BRACING SECURE TO STRUCTURE MUST FULLY WITHIN 2013 C.M.C. EMBEDMENT DECK MFR.S METAL DECK MFR.S "EPIC WEDGE NUT" APPROVED BY SMACNA (TYP.) LOAD RATED LOAD RATED LOAD RATED LOAD RATED LOAD RATED.

Table 5-2 Minimum Hanger Sizes for Round Duct

<table>
<thead>
<tr>
<th>Duct Size (in.)</th>
<th>Strap (TYP.)</th>
<th>Nut (TYP.)</th>
<th>Bolt Size</th>
<th>Bolts</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-24&quot;</td>
<td>2-1/2&quot; x 12 GA.</td>
<td>2-1/2&quot;</td>
<td>3/8&quot;</td>
<td>2</td>
</tr>
<tr>
<td>25-30&quot;</td>
<td>2-1/2&quot; x 12 GA.</td>
<td>2-1/2&quot;</td>
<td>3/8&quot;</td>
<td>2</td>
</tr>
<tr>
<td>31-36&quot;</td>
<td>2-1/2&quot; x 12 GA.</td>
<td>2-1/2&quot;</td>
<td>3/8&quot;</td>
<td>2</td>
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<tr>
<td>37-42&quot;</td>
<td>2-1/2&quot; x 12 GA.</td>
<td>2-1/2&quot;</td>
<td>3/8&quot;</td>
<td>2</td>
</tr>
<tr>
<td>43-48&quot;</td>
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<td>2-1/2&quot;</td>
<td>3/8&quot;</td>
<td>2</td>
</tr>
<tr>
<td>49-54&quot;</td>
<td>2-1/2&quot; x 12 GA.</td>
<td>2-1/2&quot;</td>
<td>3/8&quot;</td>
<td>2</td>
</tr>
<tr>
<td>55-60&quot;</td>
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<td>2-1/2&quot;</td>
<td>3/8&quot;</td>
<td>2</td>
</tr>
<tr>
<td>61-66&quot;</td>
<td>2-1/2&quot; x 12 GA.</td>
<td>2-1/2&quot;</td>
<td>3/8&quot;</td>
<td>2</td>
</tr>
<tr>
<td>67-72&quot;</td>
<td>2-1/2&quot; x 12 GA.</td>
<td>2-1/2&quot;</td>
<td>3/8&quot;</td>
<td>2</td>
</tr>
<tr>
<td>73-78&quot;</td>
<td>2-1/2&quot; x 12 GA.</td>
<td>2-1/2&quot;</td>
<td>3/8&quot;</td>
<td>2</td>
</tr>
<tr>
<td>79-84&quot;</td>
<td>2-1/2&quot; x 12 GA.</td>
<td>2-1/2&quot;</td>
<td>3/8&quot;</td>
<td>2</td>
</tr>
<tr>
<td>85-90&quot;</td>
<td>2-1/2&quot; x 12 GA.</td>
<td>2-1/2&quot;</td>
<td>3/8&quot;</td>
<td>2</td>
</tr>
<tr>
<td>91-96&quot;</td>
<td>2-1/2&quot; x 12 GA.</td>
<td>2-1/2&quot;</td>
<td>3/8&quot;</td>
<td>2</td>
</tr>
</tbody>
</table>

HANGERS

- For Round Duct: Use Two 12 GA. or One 8 GA. strap, depending on duct size.
- For Rectangular Duct: Use Two 1" x 16 GA. or One 1" x 18 GA. strap, depending on duct size.

SUPPORT HANGERS

- Tube Size: 2-1/4" 2-3/4" 3-3/4" 4-3/4" 5-1/4" 6" 7" 8-1/2" 9-1/2"
- Nut: M503 M503 M503 M503 M503 M503 M503 M503 M503
- Bolt: 1/4" 3/8" 1/2" 5/8" 3/4" 1" 7/8" 1-1/4" 1-1/2"
- Coupling: HILTI KWIK BOLT II EMBEDMENT

THREADED ROD TO STRUCTURAL

- Rod Size: 3/4" 1/2" 5/8" 3/4" 1" 7/8" 1-1/4" 1-1/2"
- Rod Coupling: HILTI KWIK BOLT II

FILE NAME: 01/05/16 PF

PROJECT: RIO HONDO COLLEGE 3650 WORKMAN MILL RD., WHITTIER, CA 90601

M503
Tape moisture detectors to slab in data room underfloor system. Moisture detectors shall form a 2x3 grid with extremities at 10' from perimeter of data center floor. 200-1,000 PPM (transmitted as 0-10V signal).