No text provided.
CORTEZ SECTIONAL
RECOMMENDED HANDLING AND INSTALLATION INSTRUCTIONS

1. The Cortez sectional style building consists of two separate units to be placed and joined at the project site. Proper site preparation and handling is essential for the safe and proper installation of the building.
2. Provide shallow trenches with soil backfill along building joint lines to prevent trapping material between units being blown together.
3. Place units as close to each other as possible. Space between units should not exceed 1" at initiation of post-tensioning. Minimum allowable tension joint space between units shall be 2.5".
4. Post-tensioning to bring units into contact shall be accomplished with equipment provided by CXT by properly trained personnel. Instructions provided by CXT shall be carefully followed. All necessary safety precautions shall be taken by installation personnel. Stress tensioning to bring units together and to retain a normal effective force in each tendon at 2 feet after all losses.
5. After completion of building placement, blockouts at post-tensioning anchor points shall be filled with non-metallic, non-shrinking grout. Provide smooth, neat finish compatible with surrounding concrete surfaces. Match concrete color.
6. Provide utility connections (plumbing & electrical) as required and/or as called for by the engineer.
7. Fill blockouts after completion of utility hookups with concrete. Slice to drain.

CRANE LIFTING SCHEMATIC - UNITS A & B

<table>
<thead>
<tr>
<th>SECTION</th>
<th>WEIGHT</th>
<th>LENGTH</th>
<th>WIDTH</th>
<th>HEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (C/HD)</td>
<td>42,540</td>
<td>17'-0&quot;</td>
<td>10'-3&quot;</td>
<td>9'-10&quot;</td>
</tr>
<tr>
<td>B (C/HD)</td>
<td>40,600</td>
<td>17'-0&quot;</td>
<td>10'-3&quot;</td>
<td>9'-10&quot;</td>
</tr>
</tbody>
</table>

CRANE SECTIONAL BUILDING ALUMINUM CRS-109
Precast Products
4500 Industry Dr., Vernon, TX 76384

Handling Instructions

September 5, 2017

I hereby declare that the attached drawings and specifications are true and correct, and that the work was executed in strict conformity with the same.

William W. Healy, Architect

Handwritten Signature
NOTES:
1. ROOF THICKNESS = 4 1/2" MIN. + FINISH
2. EXCEPT R11, RAINWATER 30G & RAIN BAR, REINFORCING BARS
3. ALL OTHER BARS TO BE CENTERED IN PANEL
4. ALL OTHER BARS TO BE CENTERED IN PANEL.

September 5, 2017
NOTE

This factory assembled building, as constructed, provides a rigid box type structural system. Vertical loads are transferred primarily through shearwalls to the structural slab floor of the building. The vertical loads are then distributed through the reinforced concrete floor to the prepared granular non-dense susceptible soils sub-base which distributes the vertical loads in relatively uniform fashion to the native sub-grade. As with most construction, this does require the native sub-grade to be stripped of vegetation and top soil prior to placement of the prepared granular sub-base. Due to the inherent stiffness of the building, it will remain safe and structurally sound in the unlikely event of freezing action below the building regardless of material freezes/thaw cycles anticipated to be encountered in the State of Washington.

Lateral loads are transferred to the building through frictional resistance without sliding or shifting between the building floor slab and the prepared sub and grade sub-base on which the building rests. Seismic analysis are based on loads determined in accordance with the International Building Code using parameters which may or exceed the code minimum requirements for this installation.

This building as designed, resting on a properly prepared granular sub-base will be safe and structurally sound for vertical and lateral loads as discussed above. A full depth foundation wall at the building perimeters and an anchor plate system, typical for other types of building construction, are not required for this building.

The foundation for this structure is essentially the combination of the compacted sub-base material and the building's reinforced slab. The combination of the compacted sub-base material and the building's reinforced slab need to be at least 12" thick and the compacted sub-base material shall extend below the local frost depth.

Fill to that finished grade height (spreader subbase or 4x6 cinder block floor slab height)

Native Sub-Base

(1000 psi bearing capacity min)

Prior to placement of building properly prepared sub-base shall be provided. Sub-base shall be a minimum of 8" thick and covered by 6" of gravel sub-base porous (graded base material) compacted to 90% of optimum density in accordance with ASTD D 6917. Finished surface of sub-base shall be flat and level, with a maximum variation of 1/4" from a true horizontal plane, prior to placing members sheet for sub-base requirements shown. Existing placement of prepared sub-base not by CXT.

FILL TO THAT FINISHED GRADE HEIGHT
SPREADER SUB-BASE OR 4x6 CINDER BLOCK FLOOR SLAB HEIGHT

SUB-BASE THICKNESS VARIES 8" MINIMUM EXTEND TO FROST DEPTH

NATIVE SUB-BASE

(1000 PSI BEARING CAPACITY MIN)
**WASTE PIPING**

**KEY NOTES**

1. 2" FLOOR DRAIN, FIELD INSTALLED (NOT BY CXT)
2. 3" WASTE THROUGH FLOOR, FIELD INSTALLED (NOT BY CXT)
3. PROVIDE TEST PLUG IN END OF WASTE PIPE, CONTINUITY OF PIPING IS FIELD INSTALLED & NOT BY CXT.
4. FIELD INSTALLED DRAIN TRAP IF REQUIRED BY AUTHORITY HAVING JURISDICTION (NOT BY CXT)
5. 1 1/2" INVERT WASTE TO FLOOR SINK, LOCATED IN B.O. (FLOOR SINK IS FIELD INSTALLED NOT BY CXT).

**VENT PIPING**

**KEY NOTES**

1. 3" FLOOR DRAIN, FIELD INSTALLED (NOT BY CXT)
2. 4" VENT THROUGH ROOF.
3. 2" VENT WITH TEST PLUG.
4. FIELD INSTALLED 3" VENT PIPING FROM FLOOR DRAIN, (NOT BY CXT)
5. FIELD INSTALLED 2" VENT PIPING FROM FLOOR SINK P-5, (NOT BY CXT)

**WATER PIPING**

**KEY NOTES**

1. 2" FLOOR DRAIN, FIELD INSTALLED (NOT BY CXT)
2. FIELD INSTALLED 2" WATER SUPPLY WITH SHUT-OFF VALVE NEAR FLOOR, (NOT BY CXT)
3. CAPS OFF 1/2" SILL CONNECTION BETWEEN SIDE IS TO BE FIELD INSTALLER (NOT BY CXT)
4. 3/4" NIPPLE WITH VACUUM BREAKER AND WHEEL HANDLE.
5. WATER PIPING ALONG WALL, SEE DIAGRAM ON CRS-25.
6. WATER HEATER WITH SEISMIC BRACING.
7. HOT WATER PIPING AT CEILING INSTALL, TO BUSH LIGHT FIXTURE, INSULATE WITH 1" PRE-MOLDED PIPE INSULATION.

**PIPING LEGEND**

- **COLD WATER**
- **WASTE PIPING**
- **HOT WATER**
- **VENT PIPING**
- **FIELD PIPING (NOT BY CXT)**

**NOTES**

- CRSS-24
- WATER, WASTE & VENT PIPING PLANT & NOTES
- P-117
- TEI
- 9-05-15
- S-125
- Cortez Estructural
- 11/2016
- By Cortez Estructural
- PRECAST PRODUCTS
- 3665 W. 70th St., Chicago, IL 60629
- 312.699.1000
- 800.923.8204
- www.precastproducts.com

**STAMP**

- Prepared by Cortez Estructural
- September 5, 2015
- December 23, 2015
- P-117
- TEI
- 9-05-15
- S-125
- Cortez Estructural
- 11/2016
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**SIGNATURE**

- William Lopez, Ph.D., P.E.
- Principal Engineer
- Certified Structural Engineer
- September 5, 2015
ONE-LINE POWER DIAGRAM

INTERIOR SURFACE MOUNTED LOAD CENTER WITH MAIN BREAKER AND GROUND BAR. ALL EQUIPMENT INCLUDING BRANCH BREAKERS RATED AT 20,000 AC, 6000-OUT UNDER PANEL, PROVIDED FOR SERVICE LATERAL.

BOND BUILDING COLD WATER PIPING TO GROUND BUS PER NEC. (BY CETX).

NOTE: VERTICAL RODS SEPARATED BY A MINIMUM OF 12" APART (NOT BY CETX). PROVIDE GROUNDED ELECTRODE CONDUCTOR AND CLAMPS SUITABLE FOR DIRECT BURIAL PER NEC (NOT BY CETX).

GENERAL NOTES
1. RECESSED JONCTION BOXES FOR SINGLE DEVICES SHALL HAVE SINGLE GANG WALL-BOXES CAST IN CONCRETE WALLS.
2. ALL ACCEPTANCES SHALL BE GROUNDED BY CIRCUIT BREAKERS, OR BY OTHER GROUNDED RECEPTACLES.
3. ALL CONDUIT SHALL BE SIZED PER NEC (BY CETX). EXPOSED CONDUIT SHALL BE EMT/FMC, RECESSED SHALL BE PVC.

WIRE SIZE 1/2" EMT 3/4" EMT
14 TYPE BWN 12 MAX TYPE BWN 16 MAX
12 TYPE BWN 20 MAX TYPE BWN 16 MAX
10 TYPE BWN 30 MAX TYPE BWN 16 MAX
8 TYPE BWN 35 MAX TYPE BWN 16 MAX

LOADS: MAXIMUM ALLOWABLE AC IS 23X AMPS. PANEL Voltages WILL BE REQUIRED (NOT BY CETX) IF TRANSFORMER CAPACITY EXCEEDS 175 KVA.

LOAD TABLE

TOTAL CONNECTED VA LOAD 8100

CIRCUIT LOAD

1. CHASE LIGHTS 230/240V 50VA 56 0.5B
2. EXTERIOR LIGHTS 230/240V 80 0.5B
3. BATHROOM LIGHTS & FAN 230/240V 127 1.2A
4. WET BAR WATER TANK 230/240V 278 1.2A
5. BATHROOM & KITCHEN 

LOAD CONNECTED CALCULATED

CONTINUOUS 4,576 X 1.25 5,713 VA
(b) 115V 900 X 1.25 1,080 VA
EXCEPT FOR 230V 2,493 X 1.00 2,493 VA
LIGUOR 157 X 1.25 194 VA
TOTAL LOAD 8,100 VA 9,267 VA
30.8 AMPS

LIGHTING FIXTURE SCHEDULE

LIGHTING SCHEDULE

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<tr>
<th>FIXTURE NUMBER</th>
<th>WATTAGE</th>
<th>DESCRIPTION</th>
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<tr>
<td>A 120 28</td>
<td>LUMINARIE V1934 INTERIOR LIGHT FIXTURE</td>
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</tr>
<tr>
<td>B 190 14</td>
<td>LUMINARIE V1934 INTERIOR LIGHT FIXTURE</td>
<td></td>
</tr>
<tr>
<td>C 120 28</td>
<td>LUMINARIE V1934 INTERIOR LIGHT FIXTURE</td>
<td></td>
</tr>
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BASE: THE SOURCE OF EFFICACY OF EXTERIOR LIGHTING IS TO BE A VARIATION OF 45 LUMENS PER WATT.

EXHAUST FAN SCHEDULE

<table>
<thead>
<tr>
<th>SYM</th>
<th>WFR</th>
<th>MODEL</th>
<th>RPM</th>
<th>VOLS</th>
<th>AMPS</th>
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<tbody>
<tr>
<td>E7-1</td>
<td>FANTECH</td>
<td>RVR-4XSL</td>
<td>180</td>
<td>120</td>
<td>0.44</td>
</tr>
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</table>

NOTE: 1. WITH SPEED CONTROL MOUNTED IN CHASE.
2. FANS LISTED FOR WET LOCATIONS, CONTROL VIA OCCUPANCY SENSOR. LOCATE OXEN FACE BOX ON EXTERIOR SIDE OF PANEL.
3. BATHROOM EXHAUST FAN SPEED CONTROL SET BETWEEN 140 AND 210 RPM.
4. CAFETERIA EXHAUST FAN SPEED CONTROL SET BETWEEN 102 AND 153 RPM.
KEY NOTES

1. OCCUPANCY SENSOR CONTROLLED LIGHTS. EXHAUST FANS TO COME ON WITH RESTROOM LIGHTS.
2. LIGHTURE TO BE CONTROLLED BY PHOTOCELL, LOCATED IN BUFFER FUTURE.
   ROUTE WIRING IN CONCEALED CONDUIT
3. CIRCUIT AS NEEDED FOR LOAD OF THE EXHAUST FAN WIRE, THROUGH SWITCH (ON dissolve) AND OCCUPANCY SENSOR ISOLATED CONTACT PROVIDES FEEDING TO EACH RESTROOM.
4. CHASE LIGHTS ARE MOTION ACTIVATED.
5. CIRCUIT AS NEEDED FOR LOAD OF ELECTRIC WATER HEATER. INSTALL PER MANUFACTURER RECOMMENDATIONS.

SYMBOLS LEGEND

- NOTE REFERENCE
- FLUORESCENT FIXTURE
- LIGHT FIXTURE
- SURFACE MOUNTED CONDUIT
- CONCEALED CONDUIT
- FAN SPEED CONTROL
- HAND DRYER
- SAFETY DISCONNECT