Junction Boxes

- 8-20.3(6)
- 9-29.2 junction boxes
- 9-29.2(3) structure mounted JBs
- 9-29.2(4) cover markings
Type 2 Junction Box
Base Plate and JB
Type 3, 7, or 8
Type 7 JBs

12-inch Deep 18-inch Deep
Type 4 Junction Box
Type 4 JB
Type 6 Junction Box
Traffic Temporarily Placed Over Traffic Bearing Boxes
Pull Box With Section Out
JB Too High

When existing boxes need to be adjusted. Adjustments requiring raising or lowering JBs shall require conduit modification if the resultant clearance from conduit top, to the lid, becomes less than 6-inches or more than 10-inches. Special Provisions 8-20.3(6)
Secure the Boxes
JB with Rail Form Face in Place
JB Secured to Form Face
NW Region requires adjustable boxes to be installed in “Slip Form Barriers” with adjustment bolts available with the construction lid in place. Special Prov. 9-29.2
Hold the Box
Back to Let the Machine Start Over It
Holding the JB to Keep It Out Flush
A Close Watch Helps With a Good Product
Looking Good
Box Looks Good
There It Goes
Last Minute Adjustment
After the Machine Extrudes It
I Know There Is a Box Here Someplace
Just a Little Too Deep
Pull It Out Just a Little More
Ok Stuff It
Full of Mud
Now That Looks Great
After the Pour
Inside the Box
Ground Lug Inside the Box
Drain Hole Got Missed
Box Has Been Hit
Lid After It Takes a Direct Hit
Barrier Box With Extension Added
Extension Installed With Epoxy
Plexiglas spacer and SS lid removed
Plexiglas spacer with SS lid removed
NW Region requires boxes in the barrier to be parallel to barrier top within 1-degree. The face shall not be more than 1/8-inch recessed. Special Provisions 8-20.3(6)
Concrete Made to Fit
Surface Mount SS JB
Cable Vault Too High to Put on Traffic Bearing Lid
CV With Top 6 Inches Cut Off
Setting Traffic Bearing Lid
CV With Traffic Bearing Lid
Junction Box Inspection Checklist

Copy in your books
Messenger Cable Fittings

- 8-20.3(7)
- 9-29.4 messenger cable fittings
- 9.29.5 pole line hardware
Johnny Ball Insulator With Guy Wraps Installed
Johnny Ball Insulator
Aerial Terminal Box
Wiring

- 8-20.3(8)
- 9-29.3 conductors, cable
- 9-29.7 luminaire fusing and connections at light standards
- 9-29.12 electrical splice materials
- 9-29.12(1) illumination circuit splices
Mandrels
Pulling Wire

8-20.3(5) Conduit
NW Region

In conduit less than 2-inch pull ropes for wire installation shall be not less than \(\frac{1}{4}\)-inch. In conduits 2-inch diameter or larger, pull ropes shall be not less than \(\frac{1}{2}\)-inch.
Install Duct Seal
NW Region Requires Mechanical Conduit Plugs in All Cabinets
Make Sure They Are Ready Before The Pull Starts
Wire Connectors and Grounding Clamps
Burndy Crimp and Crimper
T & B Crimper
Crimping the Ground Wire
Epoxy Splice Kit
Heat Shrink
Heat Shrink Splice
Heat Shrink Splices
Camera Cable Termination

Properly done

Poorly Done

Corrosion Results
Use Caution Where You Drive
Dynamometer on Control Unit

Pulling pressures on copper

8-20.3(8)
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F.O. cable can be pulled at a maximum of 600 LBS. 9-29.3(1)
Setting Up
Pulling Cable With Ease
Cable Is Out and Pulling Around the Puller Wheel
Racking Fiber Optic Cable

NW Region Require Stainless Steel Hangers
Figure 8 Fiber Optic Rack in P.V.

NW Region Requires Stainless Steel Hangers