NOTES:

1) RAMPS TO BE DESIGNED IN ACCORDANCE WITH STANDARD DRAWING PC.F8.4 AND PC.F8.5.

2) NO PORTION OF FOUNDATION SHALL BE LOCATED WITHIN THE LANDING OR "WINGS" OF THE CURB RAMP.

3) FOR TYPE 2 CURB RAMPS, PLACE FOUNDATION AS CLOSE AS POSSIBLE TO THE BACK OF SIDEWALK.

SEE STANDARD DRAWING PC.J6.1 FOR JUNCTION BOX, UTILITY VAULT, UTILITY VALVE AND CONDUIT DETAILS

(NOT TO SCALE)
GROUT HEIGHT (FOR CONTROL ANCHOR BOLT) = NUT HEIGHT + 1 IN. MAX. 
NUT HEIGHT + 2 THREADS MIN.

SIDEWALK, IF APPLICABLE (SEE PLANS AND PC.F8.4)

GROUNDING LUG WITH NUT
SUPPLEMENTARY GROUND CONDUCTOR
(SEE CURRENT WSDOT STANDARD PLAN J-26.10-XX AND PC.J5.3 FOR GROUNDING DETAILS)

.mipmap

CONDUIT HEIGHT SAME AS BOLT HEIGHT
UPHILL ANCHOR BOLT IS CONTROL FOR PLACEMENT OF EACH POLE

GROUT PAD, WITH WEEP HOLE*

FOUNDATION DEPTH IN ACCORDANCE WITH PLAN

INSTALLATION TABLES

<table>
<thead>
<tr>
<th>ANCHOR BOLT Ø</th>
<th>ASSUMPTIONS</th>
<th>1.5 IN. Ø BOLT</th>
<th>1.75 IN. Ø BOLT</th>
<th>2.0 IN. Ø BOLT</th>
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</thead>
<tbody>
<tr>
<td>TOP THREADS</td>
<td>0.5 IN.</td>
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<tr>
<td>NUT HEIGHT X 2</td>
<td>3.0 IN.</td>
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<td>4.0 IN.</td>
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<td>WASHER X 2</td>
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<td>0.5 IN.</td>
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<tr>
<td>BASE PLATE</td>
<td>1.5 IN.</td>
<td>1.75 IN.</td>
<td>2.0 IN.</td>
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<tr>
<td>LEVELING THREADS</td>
<td>1.0 IN.</td>
<td>1.0 IN.</td>
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</tr>
<tr>
<td>SIDEWALK DEPTH (PC TO PT)</td>
<td>6.0 IN.</td>
<td>6.0 IN.</td>
<td>6.0 IN.</td>
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<tr>
<td>Y</td>
<td>12.5 IN.</td>
<td>13.25 IN.</td>
<td>14.0 IN.</td>
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INSTALLATION TABLES

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<th>2.0 IN. Ø BOLT</th>
</tr>
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<tr>
<td>TOP THREADS</td>
<td>0.5 IN.</td>
<td>0.5 IN.</td>
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<tr>
<td>NUT HEIGHT X 2</td>
<td>3.0 IN.</td>
<td>3.5 IN.</td>
<td>4.0 IN.</td>
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<tr>
<td>WASHER X 2</td>
<td>0.5 IN.</td>
<td>0.5 IN.</td>
<td>0.5 IN.</td>
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</tr>
<tr>
<td>BASE PLATE</td>
<td>1.5 IN.</td>
<td>1.75 IN.</td>
<td>2.0 IN.</td>
<td></td>
</tr>
<tr>
<td>LEVELING THREADS</td>
<td>1.0 IN.</td>
<td>1.0 IN.</td>
<td>1.0 IN.</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>6.5 IN.</td>
<td>7.25 IN.</td>
<td>8.0 IN.</td>
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</tbody>
</table>

NOTES:
* WEEP HOLE TO BE PLACED ON DOWNHILL SIDE OF FOUNDATION.
** CONTRACTOR IS RESPONSIBLE FOR VERIFYING DIMENSIONS, AFTER PIERCE COUNTY APPROVAL OF SHOP DRAWINGS AND PRIOR TO ANCHOR BOLT INSTALLATION.

(NOT TO SCALE)
NOTES:
1) ANCHOR BOLTS SHALL NOT BE LOCATED WITHIN THE SIDEWALK.
2) UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER, ALL AREAS WITH ILLUMINATION SHALL ALSO REQUIRE A SPARE 2-INCH SCHEDULE 80 PVC CONDUIT, WITH SEPARATE TYPE B JUNCTION BOXES, AND UNDERGROUND DETECTABLE WARNING TAPE.
3) WEEP HOLE TO BE PLACED ON DOWNHILL SIDE OF FOUNDATION.
* CONTRACTOR IS RESPONSIBLE FOR VERIFYING DIMENSIONS, AFTER PIERCE COUNTY APPROVAL OF SHOP DRAWINGS AND PRIOR TO ANCHOR BOLT INSTALLATION.

GROUNDS LUG WITH NUT
RMC CONDUIT HEIGHT
SAME AS BOLT HEIGHT
1 IN. MAX.,
0.5 IN. OR 2 THREADS MIN.
VARIATES - SEE TABLES
SUPPLEMENTARY GROUND CONDUCTOR (SEE CURRENT WSDOT STANDARD PLAN J-28.30-XX AND PC.J5.3 FOR GROUNDING DETAILS)
UPHILL ANCHOR BOLT IS CONTROL FOR PLACEMENT OF EACH POLE
GROUT PAD, WITH WEEP HOLE (NOTE 3)
4 IN. CONCRETE CAP ON TOP OF LIGHT STANDARD FOUNDATION, MATCH SIDEWALK GRADE
REBAR FOUNDATION DETAIL IN ACCORDANCE WITH CURRENT WSDOT STANDARD PLAN J-28.30-XX, TYPE A
INSTALLED IN SIDEWALK AREA*

ANCHOR BOLT Ø
ASSUMPTIONS
1.0 IN. Ø BOLT
TOP THREADS
0.5 - 1.0 IN.
NUT HEIGHT X 2
2.0 IN.
WASHER X 2
0.25 IN.
BASE PLATE
0.75 IN.
LEVELING THREADS
1.0 IN.
SIDEWALK DEPTH (PC TO PT)
4.0 IN.
Y
8.5 - 9.0 IN.

INSTALLED IN AREA WITH NO SIDEWALK*

ANCHOR BOLT Ø
ASSUMPTIONS
1.0 IN. Ø BOLT
TOP THREADS
0.5 - 1.0 IN.
NUT HEIGHT X 2
2.0 IN.
WASHER X 2
0.25 IN.
BASE PLATE
0.75 IN.
LEVELING THREADS
1.0 IN.
Y
4.5 - 5.0 IN.
GROUT PAD HEIGHT SHALL BE 1.0 - 1.5 IN.

(SEE "LIGHT STANDARD AT BACK OF SIDEWALK" DETAIL THIS SHEET FOR FOUNDATION CONSTRUCTION INFORMATION)

(SEE STANDARD DRAWING PC.J6.1 FOR JUNCTION BOX, UTILITY VAULT, UTILITY VALVE, AND CONDUIT DETAILS)

Pierce County
Planning & Public Works
Office of the County Engineer

ALUMINUM LIGHT STANDARD FOUNDATION

01/21/2021

STANDARD DRAWING PC.J1.4
STREET LIGHTING SPECIFICATIONS

40-FOOT ALUMINUM LIGHT STANDARD

1) DIMENSIONS

LIGHT STANDARDS SHALL PROVIDE A FIXTURE MOUNTING HEIGHT OF 40 FEET PLUS OR MINUS 6 INCHES, WITH A MAST ARM AS SPECIFIED IN THE PLAN.

HAND HOLE (WITH GROUND LUG AND REMOVABLE COVER) CENTER SHALL BE LOCATED APPROXIMATELY 18 INCHES FROM THE BASE PLATE, ROTATED CLOCKWISE 90 DEGREES FROM MAST ARM.

2) STRENGTH

STANDARDS SHALL MEET ALL STRENGTH REQUIREMENTS OF THE CURRENT EDITION OF AASHTO FOR 115 MPH ISO TACH WHEN USED WITH A LUMINAIRE WEIGHING 48 POUNDS WITH E.P.A. OF 1.1 SQUARE FEET.

3) FINISH

THE STANDARDS AND LUMINAIRE ARMS SHALL BE MADE OF SPUN ALUMINUM, SATIN GROUND FINISH.

4) ALL ATTACHING BOLTS AND SCREWS THAT ARE NOT GALVANIZED SHALL BE STAINLESS STEEL. BOLTS THAT ATTACH THE BRACKET ARM TO THE POLE SHALL BE A MINIMUM OF 1.5 IN. LONG.

5) POLE (TOP) CAP SHALL BE FITTED ABOVE MAST ARM ATTACHMENT AND SHALL EXTEND OVER THE OUTSIDE DIAMETER OF THE POLE WITH A WATER RESISTANT FIT.

* CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF BOLT PATTERN PRIOR TO FOUNDATION CONSTRUCTION

(TOTALLY SCALE)
NOTES:

1) CLAMPING BOLTS SHALL BE TIGHTENED TO 50 FT-LBS MAX TORQUE. DO NOT OVER TIGHTEN.

2) SUPPLEMENTAL GROUNDING CONDUCTOR SHALL BE NON-INSULATED #4 AWG STRANDED COPPER, PROVIDE 3 FT. MINIMUM SLACK. CLAMP TO VERTICAL STEEL REINFORCING BAR WITH LISTED CONNECTOR SUITABLE FOR USE EMBEDDED IN CONCRETE.

3) JUNCTION BOX SERVING THE STANDARD SHALL PREFERABLY BE LOCATED 5 FT. FROM THE STANDARD (10 FT. MAXIMUM).

4) EQUIPMENT GROUNDING CONDUCTOR SHALL ATTACH TO GROUNDING LUG WITH A FULL CIRCLE CRIMP-ON CONNECTOR (CRIMPED WITH A MANUFACTURER-RECOMMENDED CRIPMER).

5) HAND HOLE/DOOR LOCATED AT 180 DEGREES FROM MAJOR ROADWAY.

6) FOUNDATION MAY BE CONSTRUCTED USING METHOD 1 OR METHOD 2, UNLESS OTHERWISE SHOWN IN THE PLANS. FULL-DEPTH PAPERBOARD FORM IS NOT ALLOWED. SEE CURRENT WSDOT STANDARD PLAN J-28.30-XX.

7) WEEP HOLE TO BE PLACED ON DOWNHILL SIDE OF FOUNDATION.

* CONTRACTOR IS RESPONSIBLE FOR VERIFYING BELOW DIMENSIONS, AFTER PIERCE COUNTY APPROVAL OF SHOP DRAWINGS AND PRIOR TO ANCHOR BOLT INSTALLATION.

INSTALLED IN SIDEWALK AREA*

<table>
<thead>
<tr>
<th>ASSUMPTIONS</th>
<th>ANCHOR BOLT Ø</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOLT</td>
<td>0.75 IN. Ø</td>
</tr>
<tr>
<td>TOP THREADS</td>
<td>0.5 - 1.0 IN.</td>
</tr>
<tr>
<td>NUT HEIGHT X 2</td>
<td>1.5 IN.</td>
</tr>
<tr>
<td>WASHER X 2</td>
<td>0.5 IN.</td>
</tr>
<tr>
<td>BASE</td>
<td>0.5 IN.</td>
</tr>
<tr>
<td>LEVELING THREADS</td>
<td>1.0 IN.</td>
</tr>
<tr>
<td>SIDEWALK DEPTH</td>
<td>6.0 IN.</td>
</tr>
<tr>
<td>Y</td>
<td>10 - 11.5 IN.</td>
</tr>
</tbody>
</table>

GROUT PAD HEIGHT SHALL BE 1.0 - 2.5 IN. (NOT TO SCALE)
NOTES:

1) PC PPB TO BE INSTALLED ONLY WHEN REQUESTED BY THE COUNTY ENGINEER.

2) SUPPLEMENTAL GROUNDING CONDUCTOR SHALL BE NON-INSULATED #4 AWG STRANDED COPPER, PROVIDE 3 FT. MINIMUM SLACK. CLAMP TO VERTICAL STEEL REINFORCING BAR WITH LISTED CONNECTOR SUITABLE FOR USE EMBEDDED IN CONCRETE.

3) JUNCTION BOX SERVING THE STANDARD SHALL PREFERABLY BE LOCATED 5 FT. FROM THE STANDARD (10 FT. MAXIMUM).

4) EQUIPMENT GROUNDING CONDUCTOR AND BONDING CONDUCTOR SHALL ATTACH TO GROUNDING LUG WITH A FULL CIRCLE CRIMP-ON CONNECTOR (CRIMPED WITH A MANUFACTURER-RECOMMENDED CRIMPER).

5) HAND HOLE/DOOR LOCATED AT 180 DEGREES FROM MAJOR ROADWAY.

6) FOUNDATION MAY BE CONSTRUCTED USING METHOD 1 OR METHOD 2, UNLESS OTHERWISE SHOWN IN THE PLANS. FULL-DEPTH PAPERBOARD FORM IS NOT ALLOWED. SEE CURRENT WSDOT STANDARD PLAN J-28.30-XX.

7) WEEP HOLE TO BE PLACED ON DOWNHILL SIDE OF FOUNDATION.

8) TO INSTALL PEDESTRIAN PUSH BUTTON STATION, DRILL AND TAP POLE.

* CONTRACTOR IS RESPONSIBLE FOR VERIFYING BELOW DIMENSIONS, AFTER PIERCE COUNTY APPROVAL OF SHOP DRAWINGS AND PRIOR TO ANCHOR BOLT INSTALLATION.

INCLUDED IN DRAWING:

- 4.5 IN. O.D. POLE, ALUMINUM, 48 IN. LENGTH, UNLESS OTHERWISE NOTED IN PLANS (NOTE 8)
- ALUMINUM PEDESTAL BASE, 10 IN. HEIGHT, WITH ALUMINUM DOOR
- GROUNDING LUG WITH NUT (SEE CURRENT WSDOT STANDARD PLAN J-20.20-XX AND PC.J5.3 FOR GROUNDING DETAILS)
- HEX NUT, WITH FLAT WASHER, MINIMUM OF 2 THREADS ABOVE TOP OF NUT, TYP.
- SIDEWALK, IF APPLICABLE
- GROUT PAD, WITH WEEP HOLE (NOTE 7)
- GALVANIZED HEADED ANCHOR BOLT, 5/8 IN. X 24 IN., 6 IN. THREADED, TYP.
- SUPPLEMENTARY GROUND CONDUCTOR (NOTE 2 AND 4)
- CLAMP CONDUCTOR TO STEEL REINFORCING WITH CONNECTOR (NOTE 2)
- RMC CONDUIT IN ACCORDANCE WITH PLANS, DEPTH IN ACCORDANCE WITH CURRENT STANDARD SPECIFICATIONS

INSTALLATION SPECIFICATIONS:

<table>
<thead>
<tr>
<th>ASSUMPTIONS</th>
<th>ANCHOR BOLT Ø</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOP THREADS</td>
<td>5/8 IN. Ø</td>
</tr>
<tr>
<td>NUT HEIGHT X 2</td>
<td>BOLT</td>
</tr>
<tr>
<td>WASHER X 2</td>
<td>0.5 - 1.0 IN.</td>
</tr>
<tr>
<td>BASE</td>
<td>0.5 IN.</td>
</tr>
<tr>
<td>LEVELING THREADS</td>
<td>0.75 IN.</td>
</tr>
<tr>
<td>SIDEWALK DEPTH</td>
<td>6.0 IN.</td>
</tr>
<tr>
<td>GROUT PAD HEIGHT</td>
<td>9.5 - 10.5 IN.</td>
</tr>
</tbody>
</table>

GROUT PAD HEIGHT SHALL BE 1.0 - 2.0 IN.

(Note to scale)

PIERCE COUNTY PEDESTRIAN
PUSH BUTTON (PC PPB) POST
AND FOUNDATION

STANDARD DRAWING PC.J1.9

APPROVED BY:
COUNTY ENGINEER

Pierce County
Planning & Public Works
Office of the County Engineer

01/21/2021 DATE

01/21/2021
CABINET: NEMA 3R POLE MOUNTED WITH TOP OF CABINET FEED HINGED COVER, 2-STAINLESS STEEL DRAW HASPS "BEST" LOCK ON DOOR (BRASS, SPRING RETURN TAPERED BOLT)
FINISH: BARE, MILL FINISH ALUMINUM

ITEM | COMPONENT SCHEDULE
--- | ---
1 | SERVICE CONNECTION PER UTILITY REQUIREMENTS CONTRACTOR TO VERIFY WITH SERVING UTILITY
2 | PANEL BOARD, 125A, 120/240 VAC., 3 PHASE 3W.
   | 50A 3P
   | CONTROL 15A 1P
   | SIGNAL 15A 1P (FOR FLASHER OPERATION)
   | LIGHTING 15A 2P
3 | CONTACTOR, 30A, 2-POLE, 600V, 120V COIL, 120VAC INRUSH, 60HZ
4 | CONTROL SWITCH, 15A, SPOT "HAND-OFF-AUTO" NAMEPLATE
5 | 3-POINT TERMINAL BLOCK FOR CONNECTION TO REMOTE PHOTOCELL
6 | COPPER NEUTRAL
7 | SOLID STATE NEMA SIGNAL FLASHER IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS; 4 PIN TYPE
8 | FLASHER TERMINAL BLOCK FOR FIVE #12AWG SIGNAL CONDUCTORS IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS

DETAIL A

POLE-MOUNTED FLASHER ELECTRICAL SERVICE PANEL

BRIAN D. STACY, P.E.
COUNTY ENGINEER

Pierce County
Public Works
Office of the County Engineer
Tacoma Mall Office Building
4301 South Pine Street, Suite 628
Tacoma, Washington 98409
An APWA Accredited Agency

PC.J2.1
CABINET: NEMA 3R-POLE MOUNTED WITH TOP OF CABINET FEED HINGED COVER, 2 STAINLESS STEEL DRAW HASPS "BEST" LOCK ON DOOR (BRASS, SPRING RETURN TAPERED BOLT) 
FINISH: BARE, MILL FINISH ALUMINUM

ITEM | COMPONENT SCHEDULE
--- | ---
1 | SERVICE CONNECTION PER UTILITY REQUIREMENTS CONTRACTOR TO VERIFY WITH SERVING UTILITY
2 | PANEL BOARD, 125A, 120/240 VAC., 1 PHASE 3W. MAIN 60A 2P
3 | CONTROL 15A 1P SIGNAL 40A 1P LIGHTING 15A 2P
4 | CONTACOR, 30A, 2-POLE, 600V, 120V COIL, 120VA INRUSH, 60HZ
5 | CONTROL SWITCH, 15A, SPDT "HAND-OFF-AUTO" NAMEPLATE
6 | 3-POINT TERMINAL BLOCK FOR CONNECTION TO REMOTE PHOTOCCELL
7 | COPPER NEUTRAL

Pierce County
Public Works
Office of the County Engineer
Tacoma Mall Office Building
4301 South Pine Street, Suite 628
Tacoma, Washington 98409
An APWA Accredited Agency

Brian D. Stacy, P.E.
COUNTY ENGINEER

POLE-MOUNTED SIGNAL ELECTRICAL SERVICE PANEL

Office of the County Engineer
PC-J2.2

(NOT TO SCALE)
COMPONENT SCHEDULE

METER BASE: (UP TO) 200 AMP, 4 JAW, SAFETY SOCKET TYPE, WITH BYPASS BLOCKS, LEVERS, AND/OR SHUNTS PER UTILITY COMPANY. METER BASE SHALL BE ADJUSTABLE TO ACCOMMODATE 2 IN. TO 8 IN. METER.

PANEL BOARD: 120/240 VAC, 200 AMP COPPER BUS, 1 PHASE, 3 WIRE, 18 CKT
- MAIN BREAKER: 125 AMP FRAME, 125 AMP TRIP, EATON BAB 2125 OR EQUIVALENT (BACK FED)
- BOLT-ON-BREAKERS: EATON TYPE BAB OR EQUIVALENT

CONTRACTORS: 30 A, 2-POLE OR 4-POLE, 600 VOLT, 120 VAC COIL, NEMA LIGHTING RATED

GROUND FAULT RECEPTACLE: 120 VAC, 20 A, DUPLEX

PHOTOCCELL BYPASS SWITCH: 15 A, SPDT, 277 VAC

TERMINAL BLOCK: THREE POINT FOR REMOTE-MOUNTED PHOTOCELL

CABINET

NEMA 3R, PADMOUNT, 1/8 IN. MILL FINISH ALUMINUM CONSTRUCTION, REMOVEABLE EQUIPMENT MOUNTING PAN, 2 SCREENED & GASKETED VENTS, HINGED DEADFRONT.

HOUSE SIDE DOOR: HEAVY DUTY CONCEALED HINGE, LIFT-OFF TYPE, STAINLESS STEEL VAULT HANDLES, BEST CX LOCK WITH BLUE CONSTRUCTION CORE, CLOSED CELL NEOPRENE GASKET. HINGES ON LEFT SIDE OF DOOR.

STREET SIDE DOOR: HEAVY DUTY CONCEALED HINGE, 3-SIDED TO FULLY EXPOSE METER WHEN OPENED, PADLOCKABLE, POLISHED WIRE 4 IN. X 4 IN. GLASS WINDOW. HINGES ON RIGHT SIDE OF DOOR.

FINISH: BARE, MILL FINISH ALUMINUM.

WIRED AND LABELED IN ACCORDANCE WITH UL STANDARD #508A, SUITABLE FOR USE AS SERVICE ENTRANCE.
CONDUIT INSTALLATION ZONE PLAN VIEW
(NOT TO SCALE)

CONCRETE PEDESTAL

SERVICE CONDUIT (SEE NOTE 7)

CONCRETE PAD

TYPICAL CONDUIT INSTALLATION ZONE. NO PART OF THE EXPOSED CONDUIT SHALL BE OUTSIDE THE CONDUIT INSTALLATION ZONE (SEE NOTES 6 AND 7).

NOTES:

1) 3/8 IN. @ PLASTIC DRAIN TUBE TO BE PROVIDED FROM BASE OF CABINET TO TOP OF CONCRETE PAD AT HOUSE SIDE OF CONCRETE PEDESTAL.

2) SERVICE CABINET GROUNDING CONDUIT NOT SHOWN. CONDUIT SHALL BE RMC. SEE PC.J1.12 AND PC.J1.13 FOR TYPICAL GROUNDING DETAILS. NO GROUND RODS SHALL BE INSTALLED IN THE PEDESTAL.

3) DIMENSIONS TO SUIT CABINET; CONTRACTOR SHALL VERIFY ACTUAL CABINET MEASUREMENTS PRIOR TO FORMING CONCRETE PAD AND PEDESTAL.

4) CONCRETE PAD SHALL HAVE A BRUSHED FINISH. THE CONCRETE PEDESTAL TOP SHALL HAVE A SMOOTH, TROWEL FINISH, WITH 0.5 IN. ROUND FILLET ON OUTSIDE TOP EDGE.

5) SEAL CONCRETE PEDESTAL TOP WITH SILVER PAINT. APPLY ADEQUATE OUTDOOR SEALANT JUST PRIOR TO PLACING CABINET. SEAL CABINET TO CONCRETE PEDESTAL. APPLY DRESS BEADING AROUND CABINET TO COMPLETE SEAL. REFER TO SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

6) CONDUITS SHALL BE INSTALLED WITHIN THE FRONT HALF OF THE SERVICE CABINET. THE NEAREST EDGE OF THE EXPOSED CONDUIT SHALL BE SPACED 6 IN. MIN TO 9 IN. MAX MEASURED FROM THE HOUSE SIDE OF THE CONCRETE PEDESTAL. THE EXPOSED CONDUIT SHALL NOT INTERFERE WITH THE CABINET BASE.

7) SERVICE CONDUIT INTO THE SERVICE CABINET SHOULD FOLLOW LOCAL POWER UTILITY SPECIFICATIONS; PLACEMENT TO MATCH SERVICE CABINET CONSTRUCTION. SOME UTILITIES MAY REQUIRE A DATA CONDUIT.

NOT TO SCALE
NOTES:

1) SERVICE CABINET TO BE INSTALLED ON LEFT SIDE OF CONTROLLER CABINET. CONTROLLER CABINET DOOR TO OPEN OPPOSITE TO SERVICE CABINET LOCATION.

2) 3/8 IN. Ø PLASTIC DRAIN TUBE TO BE PROVIDED FROM BASE OF EACH CABINET TO TOP OF CONCRETE PAD AT HOUSE SIDE OF CONCRETE PEDESTAL.

3) SERVICE CABINET GROUNDING CONDUIT NOT SHOWN. CONDUIT SHALL BE RMC. SEE PC.J2.12 AND PC.J2.13 FOR TYPICAL GROUNDING DETAILS. NO GROUND RODS SHALL BE INSTALLED IN THE PEDESTAL.

4) DIMENSIONS TO SUIT CABINETS; CONTRACTOR SHALL VERIFY ACTUAL CABINET MEASUREMENTS PRIOR TO FORMING CONCRETE PAD AND PEDESTAL.

5) CONCRETE PAD SHALL HAVE A BRUSHED FINISH; THE CONCRETE PEDESTAL TOP SHALL HAVE A SMOOTH, TROWEL FINISH, WITH 0.5 IN. ROUND FILLET ON OUTSIDE TOP EDGE.

6) SEAL CONCRETE PEDESTAL TOP WITH SILVER PAINT. APPLY ADEQUATE OUTDOOR SEALANT JUST PRIOR TO PLACING CABINET. SEAL CABINET TO CONCRETE PEDESTAL. APPLY DRESS BEADING AROUND CABINET TO COMPLETE SEAL. REFER TO SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

7) CONDUITS SHALL BE INSTALLED WITHIN THE FRONT HALF OF THE CONTROLLER AND SERVICE CABINETS. THE NEAREST EDGE OF THE EXPOSED CONDUIT SHALL BE SPACED 6 IN. MIN TO 9 IN. MAX MEASURED FROM THE HOUSE SIDE OF THE CONCRETE PEDESTAL. THE EXPOSED CONDUIT SHALL NOT INTERFERE WITH THE CABINET BASE.

8) SERVICE CONDUIT INTO THE SERVICE CABINET SHOULD FOLLOW LOCAL POWER UTILITY SPECIFICATIONS. PLACEMENT TO MATCH SERVICE CABINET CONSTRUCTION. SOME UTILITIES MAY REQUIRE A DATA CONDUIT.
1) SERVICE CABINET TO BE INSTALLED ON LEFT SIDE OF CONTROLLER CABINET. CONTROLLER CABINET DOOR TO OPEN OPPOSITE TO SERVICE CABINET LOCATION. BATTERY BACKUP CABINET TO BE INSTALLED ON RIGHT SIDE OF CONTROLLER CABINET. BATTERY BACKUP CABINET DOOR TO OPEN TOWARD THE STREET SIDE.

2) 3/8 IN. Ø PLASTIC DRAIN TUBE TO BE PROVIDED FROM BASE OF EACH CABINET TO TOP OF CONCRETE PAD AT HOUSE SIDE OF CONCRETE PEDESTAL.

3) SERVICE CABINET GROUNDING CONDUIT NOT SHOWN. CONDUIT SHALL BE RMC. SEE PC.J1.12 AND PC.J1.13 FOR TYPICAL GROUNDING DETAILS. NO GROUND RODS SHALL BE INSTALLED IN THE PEDESTAL.

4) CONCRETE PAD SHALL HAVE A BRUSHED FINISH; THE CONCRETE PEDESTAL TOP SHALL HAVE A SMOOTH, TROWEL FINISH, WITH 0.5 IN. ROUND FILLET ON OUTSIDE TOP EDGE.

5) DIMENSIONS TO SUIT CABINETS; CONTRACTOR SHALL VERIFY ACTUAL CABINET MEASUREMENTS PRIOR TO FORMING CONCRETE PAD AND PEDESTAL.

6) SEAL CONCRETE PEDESTAL TOP WITH SILVER PAINT. APPLY ADEQUATE OUTDOOR SEALANT JUST PRIOR TO PLACING CABINET. SEAL CABINET TO CONCRETE PEDESTAL. APPLY DRESS READINGS AROUND CABINET TO COMPLETE SEAL. REFER TO SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

7) CONDUITS SHALL BE INSTALLED WITHIN THE FRONT HALF OF THE CONTROLLER, SERVICE, AND BATTERY BACKUP CABINETS. THE NEAREST EDGE OF THE EXPOSED CONDUIT SHALL BE SPACED 6 IN. MIN TO 9 IN. MAX MEASURED FROM THE HOUSE SIDE OF THE CONCRETE PEDESTAL. THE EXPOSED CONDUIT SHALL NOT INTERFERE WITH THE CABINET BASE.

8) SERVICE CONDUIT INTO THE SERVICE CABINET SHOULD FOLLOW LOCAL POWER UTILITY SPECIFICATIONS; PLACEMENT TO MATCH SERVICE CABINET CONSTRUCTION. SOME UTILITIES MAY REQUIRE A DATA CONDUIT.

9) COUNTY ENGINEER SHALL DETERMINE WHEN BATTERY BACKUP SYSTEM AND PEDESTAL SHALL BE USED.

10) CONCRETE PEDESTAL SHALL BE CONSTRUCTED LEVEL. CONCRETE PAD SHALL BE SLOPED TO THE HOUSE SIDE (2% SLOPE) TO FACILITATE WATER RUNOFF.
PERMISSIVE TURNS

(NOT TO SCALE)
PEDESTRIAN PUSH BUTTON STATION FOR TRAFFIC SIGNALS

ACCESSIBLE PEDESTRIAN SIGNAL PUSH BUTTON STATION WITH LED INDICATION, VIBRATING ARROW, AND AUDIBLE SOUNDS; GREEN, WITH LATCHING FEATURE

R10-2 SIGN, 9 IN. X 12 IN., WITH SIGN ADAPTER, GREEN

ALUMINUM SIGN WITH TYPE IV SHEETING (SEE PC.G1.5 - POST MOUNTED SIGNS FOR SIGN MATERIAL)

CROSS ONLY ON SIGNAL

4.7 IN. TO WALKWAY
GRADE (± 1 IN.)

2.4 IN.

5.1 IN.

01/21/2021

APPROVED BY:
COUNTY ENGINEER

01/21/2021

STANDARD DRAWING PC.J4.1
NOTES:

1) THIS IS A DETAIL FOR RRFB STANDARD PLACEMENT. THIS SHEET IS NOT INTENDED TO BE USED AS A ROADWAY DESIGN.

2) ILLUMINATION IS REQUIRED AT ALL RRFB LOCATIONS.

3) SEE PC.J4.6 AND PC.J4.7 FOR ADDITIONAL DETAILS.

4) DEPENDING ON RAMP DESIGN, PUSH BUTTON EXTENDERS MAY BE REQUIRED. ACCESSIBILITY GUIDELINES FOR REACH SHALL BE MET.

5) ROADWAY STRIPING MAY REQUIRE MODIFICATION WHEN THE RRFB SYSTEM IS INSTALLED. COORDINATE WITH TRAFFIC ENGINEERING.

RRFB STANDARD PLACEMENT FOR ROADWAYS WITHOUT A TWO-WAY LEFT-TURN LANE OR MEDIAN

(NOT TO SCALE)
NOTES:
1) THIS IS A DETAIL FOR RRFB STANDARD PLACEMENT. THIS SHEET IS NOT INTENDED TO BE USED AS A ROADWAY DESIGN.
2) ILLUMINATION IS REQUIRED AT ALL RRFB LOCATIONS.
3) SEE PC.J4.6 AND PC.J4.7 FOR ADDITIONAL DETAILS.
4) DEPENDING ON RAMP DESIGN, PUSH BUTTON EXTENDERS MAY BE REQUIRED. ACCESSIBILITY GUIDELINES FOR REACH SHALL BE MET.
5) ROADWAY STRIPING MAY REQUIRE MODIFICATION WHEN THE RRFB SYSTEM IS INSTALLED. COORDINATE WITH TRAFFIC ENGINEERING.

RRFB STANDARD PLACEMENT FOR ROADWAYS WITH A TWO-WAY LEFT-TURN LANE OR MEDIAN
NOTES:

1) THIS IS A DETAIL FOR RRFB STANDARD PLACEMENT. THIS SHEET IS NOT INTENDED TO BE USED AS A ROUNDABOUT DESIGN GUIDELINE.

2) RRFB AND ILLUMINATION ARE REQUIRED TO BE INSTALLED FOR ALL ROUNDABOUTS.

3) SEE PC.J4.6 AND PC.J4.7 FOR ADDITIONAL DETAILS.

4) DEPENDING ON RAMP DESIGN, PUSH BUTTON EXTENDERS MAY BE REQUIRED. ACCESSIBILITY GUIDELINES FOR REACH SHALL BE MET.

5) WHEN THE CROSSING THROUGH THE SPLITTER ISLAND EXCEEDS 18 FEET AT THE WIDEST POINT OF THE CROSSING, INSTALL TWO RRFB STANDARDS ON THE SPLITTER ISLAND, SEE PC.J4.5.

6) RRFB DESIGN FOR A MULTI-LANE ROUNDABOUT SHALL USE THE SAME CONFIGURATION.

7) THERE SHALL BE A MINIMUM OF 6 FEET BETWEEN THE TRUNCATED DOME PANELS ON THE SPLITTER ISLAND.

8) ROTATE SIGNS AND LIGHT BARS TO FACE TRAFFIC.

RRFB STANDARD PLACEMENT FOR ROUNDABOUTS WITH SMALLER SPLITTER ISLANDS

Pierce County
Planning & Public Works
Office of the County Engineer

APPROVED BY:
COUNTY ENGINEER

01/21/2021
DATE

RECTANGULAR RAPID FLASHING BEACON (RRFB) DETAILS

SHEET 3 OF 6

STANDARD DRAWING PC.J4.4
NOTES:

1) THIS IS A DETAIL FOR RRFB STANDARD PLACEMENT. THIS SHEET IS NOT INTENDED TO BE USED AS A ROADWAY DESIGN.

2) RRFB AND ILLUMINATION ARE REQUIRED TO BE INSTALLED FOR ALL ROUNDABOUTS.

3) SEE PC.J4.6 AND PC.J4.7 FOR ADDITIONAL DETAILS.

4) DEPENDING ON RAMP DESIGN, PUSH BUTTON EXTENDERS MAY BE REQUIRED. ACCESSIBILITY GUIDELINES FOR REACH SHALL BE MET.

5) WHEN THE CROSSING THROUGH THE SPLITTER ISLAND EXCEEDS 18 FEET AT THE WIDEST POINT OF THE CROSSING, INSTALL TWO RRFB STANDARDS ON THE SPLITTER ISLAND, AS SHOWN.

6) RRFB DESIGN FOR A SINGLE-LANE ROUNDABOUT SHALL USE THE SAME CONFIGURATION.

7) THERE SHALL BE A MINIMUM OF 6 FEET BETWEEN THE TRUNCATED DOME PANELS ON THE SPLITTER ISLAND.

8) ROTATE SIGNS AND LIGHT BARS TO FACE TRAFFIC.
NOTES:

1) RRFB SHALL BE AC-POWERED.
2) SEE PC.J1.8 FOR POLE, BASE, FOUNDATION, AND ANCHOR BOLT DETAILS.
3) THIS IS A GENERAL DETAIL. SEE PC.J4.2, PC.J4.3, PC.J4.4, AND PC.J4.5 FOR RRFB STANDARD LAYOUT, ORIENTATION, AND EQUIPMENT REQUIRED TO BE MOUNTED ON EACH STANDARD.
4) SEE PC.J4.7 FOR CROSSWALK PUSH BUTTON DETAILS.
5) MOUNT CONTROLLER CABINET(S) AT 180 DEGREES FROM THE ROADWAY. IF THE RRFB STANDARD IS ADJACENT TO A SIDEWALK (I.E., THERE IS A BUFFER PRESENT) OR IF RIGHT OF WAY IS CONSTRAINED ON THAT SIDE, MOUNT THE CONTROLLER CABINET(S) AT 180 DEGREES FROM THE CROSSWALK PUSH BUTTON.
6) USE STAINLESS STEEL MOUNTING CLAMPS AND BRACKETS TO MOUNT SIGNS, RRFB, LIGHT BARS, AND CONTROLLER CABINET TO STANDARD.
ACCESSIBLE PEDESTRIAN SIGNAL
CROSSWALK PUSH BUTTON STATION WITH LED INDICATION, LOCATING TONE, AND VOICE MESSAGE; YELLOW

PUSH BUTTON TO TURN ON WARNING LIGHTS

ALUMINUM SIGN WITH TYPE IV SHEETING
(SEE PC.G1.5 - POST MOUNTED SIGNS - FOR SIGN MATERIAL)

R10-25 SIGN, 9 IN. X 12 IN., WITH SIGN ADAPTER, GREEN

PEDESTRIAN PUSH BUTTON STATION
FOR RRFB

42 IN. TO WALKWAY GRADE (±1 IN.)

DATE
01/21/2021

APPROVED BY:
COUNTY ENGINEER
NOTES:

1) INSTALL END OF MOUNTING BRACKET APPROXIMATELY 6 INCHES FROM THE LUMINAIRE. SHORT SIDE OF THE BRACKET SHALL BE CLOSEST TO THE LUMINAIRE. THE CAMERA MOUNTING BRACKET SHALL BE ON THE HORIZONTAL PORTION OF THE LUMINAIRE ARM.

2) ADJUSTABLE WORM DRIVE HOSE CLAMPS SHALL BE STAINLESS STEEL WITH STAINLESS STEEL HARDWARE, 0.5-INCH WIDE, AND OF AN APPROPRIATE LENGTH FOR THE LUMINAIRE ARM DIAMETER. TUCK EXCESS HOSE CLAMP (TAIL) BACK INTO THE SLOT ON THE CAMERA MOUNT. EACH SLOT IN THE MOUNTING BRACKET SHALL HAVE ONE HOSE CLAMP. USE ALL SLOTS.

3) USE THREADED BUSHING (GALVANIZED STEEL) FOR POLE ENTRY. BUSHING SIZE TO BE DETERMINED BY THE CABLE SIZE. POLE ENTRY SHALL BE ON THE BOTTOM SIDE OF THE LUMINAIRE ARM.

4) PROVIDE A SERVICE LOOP 6-8 INCHES IN DIAMETER, WITH ONE WRAP. FOR CAMERAS WITH SHIELDED COAX CABLE, ENSURE THE SHIELDING IS UNDER THE SHIELD GROUNDING CLAMP WHERE IT CONNECTS TO THE BACK OF THE CAMERA. IT MAY BE NECESSARY TO REMOVE THE OUTER JACKET FROM THE CAMERA TO THE BUSHING - FOLLOW THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

5) SUPPORT AND TIE WRAP VIDEO CABLE TO THE C-HOOK AT THE TOP OF THE SIGNAL STANDARD. TIE WRAP SERVICE LOOP TO MAST ARM. THERE SHOULD BE NO TENSION ON THE VIDEO CABLE BETWEEN THE C-HOOK AND THE CAMERA.
NOTES:

1) ONE FULL WRAP OF ALL ILLUMINATION CONDUCTOR IS REQUIRED, BOTH BEFORE AND AFTER THE SPLICE ENCLOSURES. THIS WILL BE APPROXIMATELY 4-10 FEET PER WRAP, DEPENDING ON JUNCTION BOX SIZE.

2) UFER GROUND SHALL PASS THROUGH THE GROUND BUSHING AND TERMINATE AT THE GROUND LUG.

3) ILLUMINATION CONDUCTOR SHALL BE #8 AWG, UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.

4) PROVIDE ENOUGH CONDUCTOR SLACK SO THAT FUSED QUICK-DISCONNECT KITS CAN BE COMPLETELY REMOVED FROM HAND HOLE FOR INSPECTION AND MAINTENANCE (APPROXIMATELY 24 INCHES BOTH BEFORE AND AFTER THE QUICK-DISCONNECT KIT)

5) MULTIPLE SPLICE KITS ARE NOT ALLOWED IN LIEU OF PROVIDING THE CORRECT NUMBER OF CONDUCTORS.

6) LOAD SIDE TOWARD LUMINAIRE; LINE SIDE TOWARD FOUNDATIONS.
NOTES:

1) THERE SHALL BE NO MORE THAN FOUR SPLICES BETWEEN THE SERVICE CABINET AND THE EQUIPMENT. EQUIPMENT ADDED TO AN EXISTING SERVICE SHALL ADD NO MORE THAN TWO SPLICES. NO MORE THAN TWO CONDUCTORS SHALL BE CONTAINED IN A CRIMP CONNECTION. IF GROUND CONDUCTORS ARE TO BE THROUGH-SPICED, A STANDARD NON-INSULATED BUTT SPLICE SHALL BE USED.

2) UFER GROUND IS CONTINUOUS FROM FOUNDATION REBAR TO GROUND LUG.

3) BONDING JUMPERS SHALL BE BARE. EQUIPMENT GROUNDING CONDUCTOR SHALL BE GREEN INSULATED. ALL GROUNDING AND BONDING CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (#8 AWG MINIMUM).

4) FOR A BRANCH EQUIPMENT GROUNDING CONDUCTOR SERVING MORE THAN ONE PIECE OF EQUIPMENT, INSTALL WITH TWO CRIMPS WHEN CONNECTING TO THE MAIN EQUIPMENT GROUNDING CONDUCTOR.

5) NOTHING SHALL BE CRIMPED TO THE BONDING STRAP.

6) INSTALL EQUIPMENT BOND CONDUCTOR DIRECTLY TO THE SERVICE CABINET GROUND BUS BAR. DO NOT ATTACH TO THE SUPPLEMENTARY BUS BAR/NEUTRAL BUS BAR.
NOTES:
1) SERVICE GROUND IS REQUIRED AT ALL ELECTRICAL SERVICE CABINETS.
2) GROUNDING ELECTRODE CONDUCTORS AND BONDING JUMPERS SHALL BE SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (#8 AWG MINIMUM).
3) GROUND ROD CLAMPS SHALL BE ACORN STYLE AND ON THE WSDOT QUALIFIED PRODUCT LIST.
4) GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS - NO SPLICES ARE ALLOWED.
JUNCTION BOX, UTILITY VAULT, UTILITY VALVE, AND CONDUIT PLACEMENT DETAIL

NOTES:

1) NO JUNCTION OR UTILITY BOXES, VAULTS, UTILITY APPURTENANCES, VALVES, LIDS OR COVERS SHALL BE INSTALLED IN THE LANDINGS OR RAMPS AS DESIGNATED BY CROSS HATCH.

2) FOR TRAFFIC SIGNAL SYSTEMS, THE JUNCTION BOXES MAY BE PLACED AT THE BACK OF SIDEWALK, AS SHOWN ABOVE.

3) USE 3/8 IN. PREMOLDED JOINT FILLER BETWEEN CONCRETE AND JUNCTION BOXES.

SEE STANDARD DRAWINGS PC.J1.2 AND PC.J1.3 FOR SIGNAL POLE FOUNDATION AND PLACEMENT DETAILS

SIDEWALK SECTION

JUNCTION BOXES SHALL BE FLUSH WITH FRONT OF SIDEWALK, PLACED WITHIN 10 FEET OF FOUNDATION. USE 3/8 IN. PREMOLDED JOINT FILLER BETWEEN CONCRETE AND JUNCTION BOXES.

CONDUIT SHALL BE PLACED WITHIN FRONT 2 FEET OF SIDEWALK AND IN ACCORDANCE WITH THE CURRENT WSDOT STANDARD SPECIFICATIONS.

Pierce County
Planning & Public Works
Office of the County Engineer

APPROVED BY: COUNTY ENGINEER 01/21/2021

JUNCTION BOX, UTILITY VAULT, UTILITY VALVE, AND CONDUIT PLACEMENT DETAIL

STANDARD DRAWING PC.J6.1
NOTES:

1) PROVIDE TACK WELD ON TWO OPPOSITE CORNERS OF THE JUNCTION BOX, BETWEEN THE LID AND FRAME.

2) AFTER WELDING, COLD GALVANIZE THE AREA TO PROTECT AGAINST CORROSION.

3) ONLY JUNCTION BOXES MARKED "LT" SHALL BE WELDED. DO NOT WELD "TS" BOXES UNLESS SPECIFICALLY REQUIRED IN THE CONTRACT DOCUMENTS.