

Metering And Customer Service Requirements



July 2020

For more information or if you have questions on these requirements please contact:

Engineering Department-509-582-1230
Jeff Vosahlo, Supervisor of Distribution Design-509-585-5390
Bob Roe, Distribution Designer-509-582-1242
Rick Sunford, Distribution Design Technician II -509-582-1271
Ken Klander, Distribution Design Technician I - 509-582-1241
Dave Smith, Distribution Design Technician I- 509-582-1231

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GENERAL INFORMATION



DRAWN BY: JAD

DRAW DATE: 03/05/04

TITLE:

GENERAL INFORMATION
Q-1 Series

REV BY: JWV

REV DATE: 10/01/13

REV NO: 1

DIR.
ENG.

[Signature]

SHT.

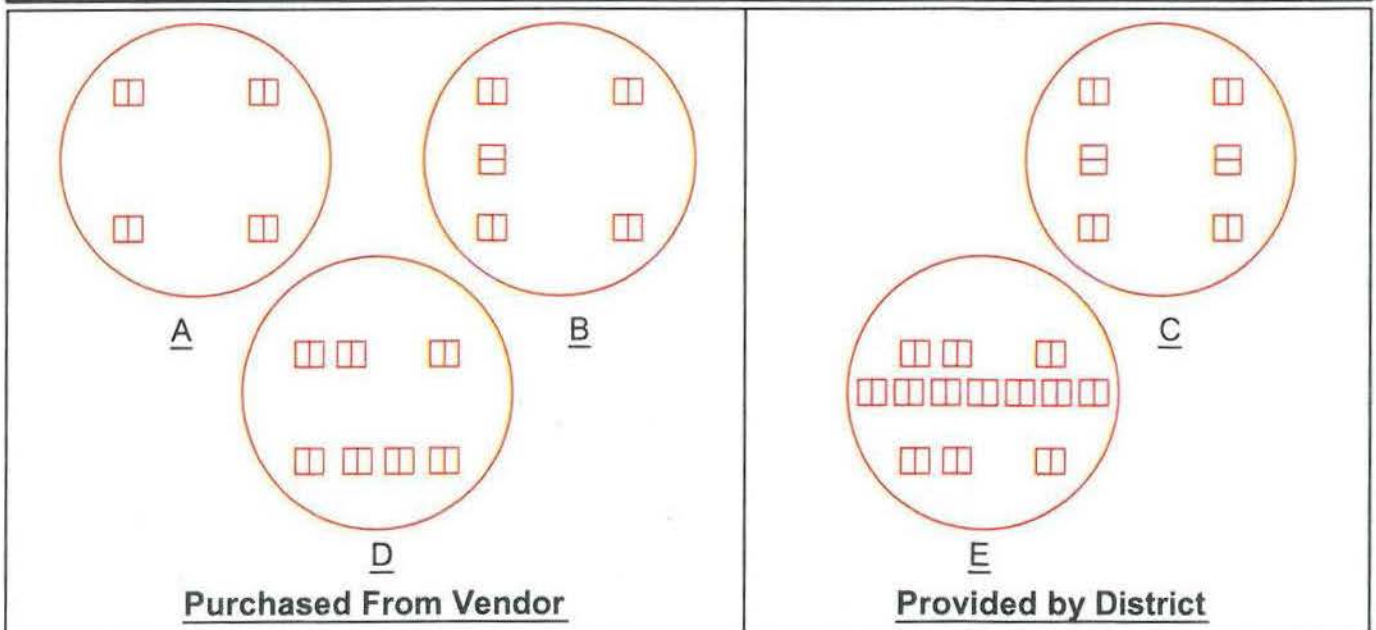
1 of 1

DATE: 1/14

DWG. NO.

Q-1

		Self Contained Meter Base (Furnished and provided by customer)			Current Transformer Meter Base (Provided by District)		
Voltage	Wires	Max Amp.	No. Clips	Socket	No. CT.	No. Clips	Socket
Single Phase							
120/240	3	200 Res / Comm'l	4	A	2	6	C/Test SW
120/240	3	320 Res / Comm'l	4	A			
240/480	3	200	4	A			
Network							
120/208	3	200	5	B			
Three Phase							
208/120	4	200	7	D	3	13	E/Test SW
240/120	4	200	7	D	3	13	E/Test SW
240/480	4	200	7	D	3	13	E/Test SW
480/277	4	200	7	D	3	13	E/Test SW

**Notes:**

1. Manual block by pass required on all 200 Amp non-residential installations, and all 320 Amp installations.
2. No automatic, plunger, or lever type by pass devices allowed.
3. Meters are required to be mounted external to the building. Exceptions will need to be approved by District Engineering and Metering Departments prior to construction.
4. Sockets A,B,D, will be provided by the customer.
5. Sockets C & E will be provided by the District for the customer to install.
6. The meter base for single phase, two wire service, shall be the same as a single phase, three wire service, with the upper right terminal tied to the neutral. Three phase, three wire service shall be metered as a three phase four wire service.
7. Socket B will have the 9 o'clock terminal position tied to the neutral.
8. For pedestal details see Q-4K and Q-4L.
9. Ringless meter base not allowed.



DRAWN BY: JAD
DRAW DATE: 02/16/01

TITLE:

Meter Socket Terminal Clip Configuration

REV BY: JWV
REV DATE: 10/01/13
REV No: 1
DIR. ENG. *[Signature]*
DATE: 1/14
DWG. NO.

SHT.
1 of 1

Q-1A

Service Conduit & Requirements

Residential UG Services	Meter Base Type	Minimum Conduit Size, Type	Maximum Service Length
200A	Self Contained	3" SCH 40	200 FT *
400A, (320A Class)	Self Contained	3" SCH 40	250 FT *
Over 400A	CT Contained	4" SCH 40	250 FT *

Service Conduit & Requirements

Commercial UG Services	Meter Base Type	Minimum Conduit Size, Type	Maximum Service Length
200A, 1Ø	Self Contained	3" , SCH 40	200 FT *
400A, 1Ø (320A Class)	Self Contained	3" , SCH 40	250 FT *
400A, 1Ø	CT Meter	See Note 3	See Note 3
Over 400A, 1Ø	CT Meter	See Note 3	See Note 3
200A, 3Ø	Self Contained	3" , SCH 40	200FT *
Over 200A, 3Ø	CT Meter	See Note 4	See Note 4

* Distances are based on measurements from the padmount transformer, subtract 50 feet from pole mount transformer installations.

Notes:

1. Locate meter base so the conduit run does not exceed maximum allowable length per this standard where it applies, or have more than 3 bends totaling 270 degrees. (This 270 degrees shall include 1-90 degree sweep at the meter base and one at the transformer or pole).
2. Details shown are minimum District requirements and are not intended to depict the Washington State Labor and Industries requirements.
3. Customer owned and installed service wires shall not exceed 500 kcmil copper or 500 kcmil aluminum and shall not exceed 4 sets of conductors.
4. Customer owned and installed service wires on large 3 phase commercial projects shall not exceed 750 kcmil copper or 750 kcmil aluminum and shall not exceed 6 conductors per phase.



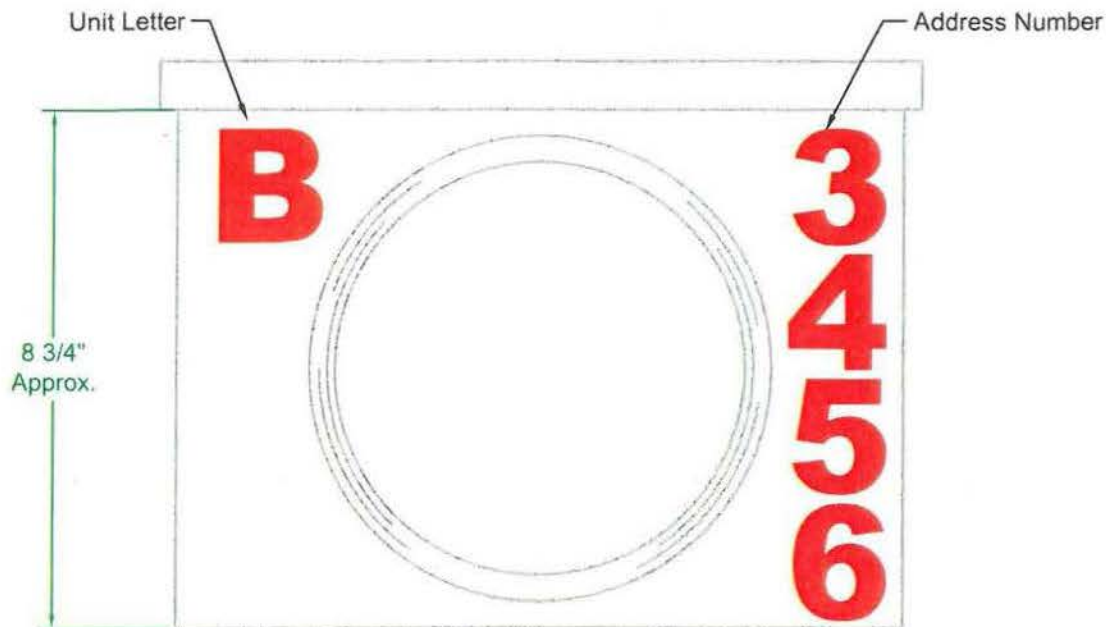
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DRAW DATE: 02/26/01

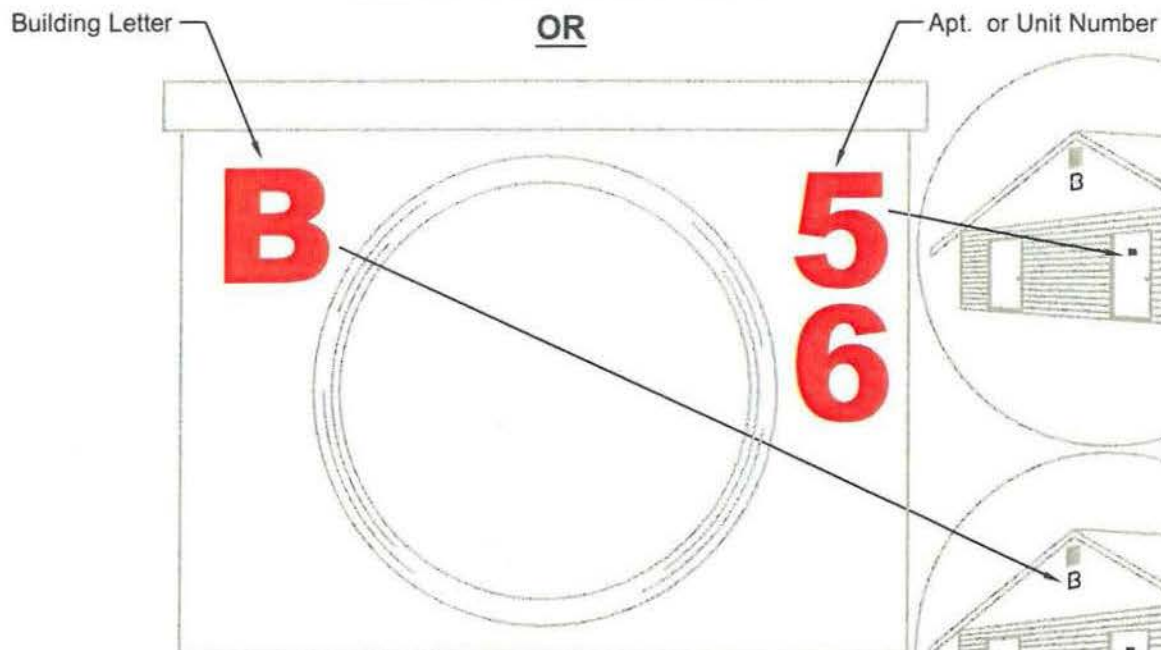
TITLE:

Residential & Commercial Services Maximum Lengths & Required Conduit Sizes

REV BY: TMA	SHT. 1 of 1
REV DATE: 9/27/2018	
REV No: 2	DIR. ENG. <i>JD</i> DATE: 1/29/20
DWG. NO. Q-1B	



Manufactured Home Type



Apartment / Multi-Family Buildings

Notes:

- 1.) Before permanent service is connected raised letters and numbers (1" min. height) or *engraved* placard as approved by the District must be permanently attached to the meter base, apartment door and apartment panel. No adhesive non-raised letters or numbers allowed.

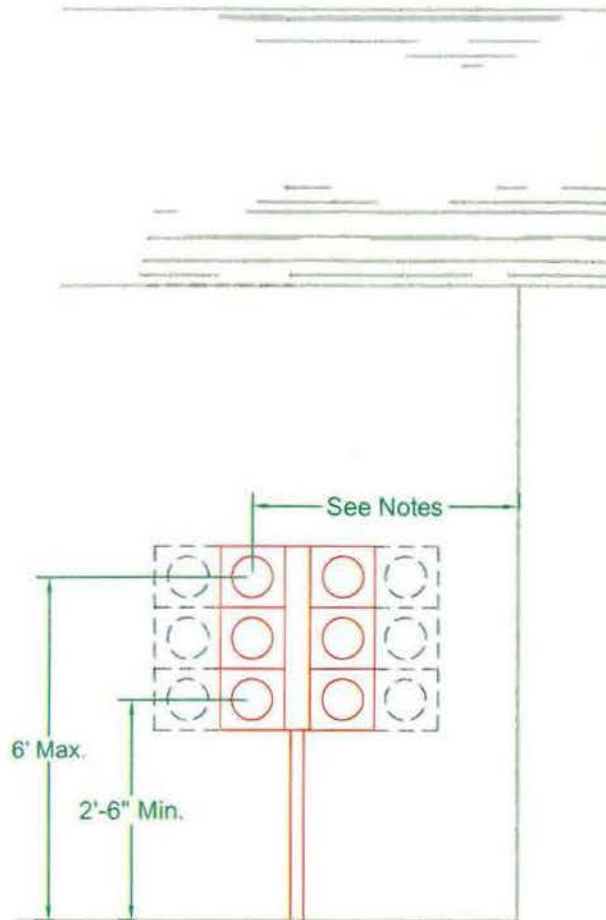


DRAWN BY: SWT
DRAW DATE: 03/27/01

TITLE: Multiple Meter Base Identification
Numbering Requirements for
Multi- Unit Mobile Home Parks
& Multi Unit Buildings

REV BY: JWV	SHT. 1 of 1
REV DATE: 10/01/13	
REV No: 1	DIR. ENG. <i>[Signature]</i> DATE: <i>1/1</i>
DWG. NO.	

Q-1C



Side Of Building

Acceptable
Installation

Notes:

1. Permanent service will not be connected without proper meter base identification, refer to Q-1C for meter base identification requirements.
2. Access to supply conductors must be capable of being sealed by the utility.
3. District approval must be obtained in writing for any of the following:
 - A. If any disconnect is installed on the delivery side of meters.
 - B. If meter installation is over 4' from the front, on the side of the building.
 - C. If other than outside installation.
4. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries Requirements.



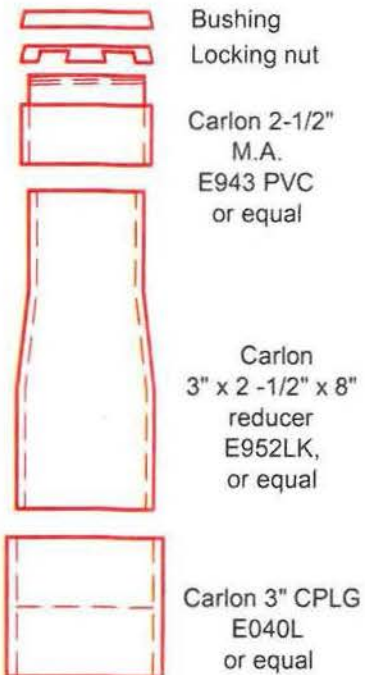
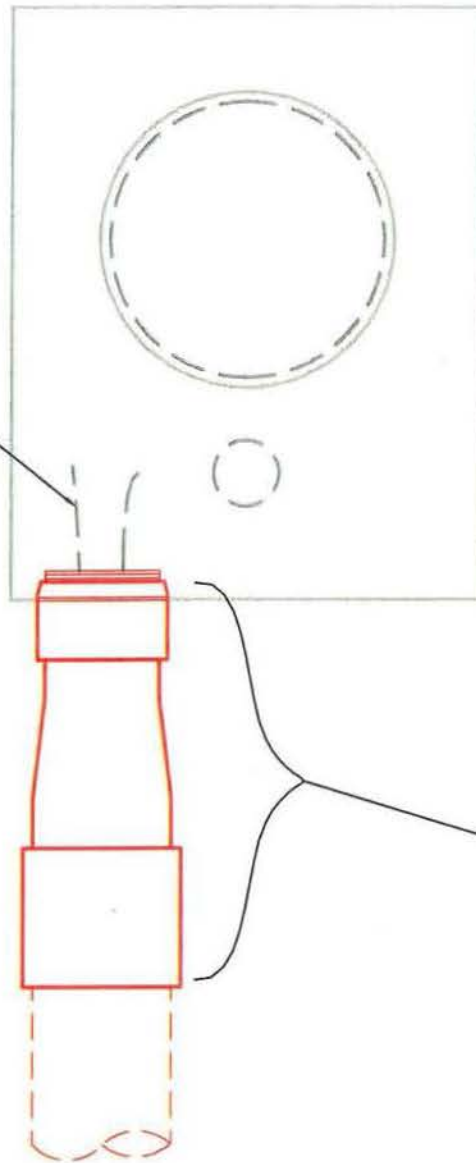
DRAWN BY: SWT
DRAW DATE: 02/25/01

TITLE:

Group Meter Base Installation
For Apartments, Strip Malls, etc.

REV BY: JWV	SHT. 1 of 1
REV DATE: 10/01/13	
REV No: 1	DIR. ENG. <i>[Signature]</i> DATE: 1/14
DWG. NO.	Q-1D

District conductor
to bottom of meter
base on left side



Notes:

1. Reducer (supplied by customer) 3" x 2-1/2" x 8" shall not have sharp internal edges.
2. Carlon adapters are supplied by customer and must be pre-approved to meet District requirements.



DRAWN BY: SWT
DRAW DATE: 12/20/00

TITLE:

2 1/2" x 3" Conduit Adapter
for 200 Amp Meter Base

REV BY: JWV	SHT.
REV DATE: 10/01/13	1 of 1
REV No: 1	DIR. <i>JS</i> DATE: 1/14
DWG. NO.	

Q-1E

TEMPORARY SERVICE



DRAWN BY: JAD

DRAW DATE: 03/05/04

TITLE:

TEMPORARY SERVICE
Q-2 Series

REV BY: JWV

REV DATE: 10/01/13

SHT.

1 of 1

REV NO: 1

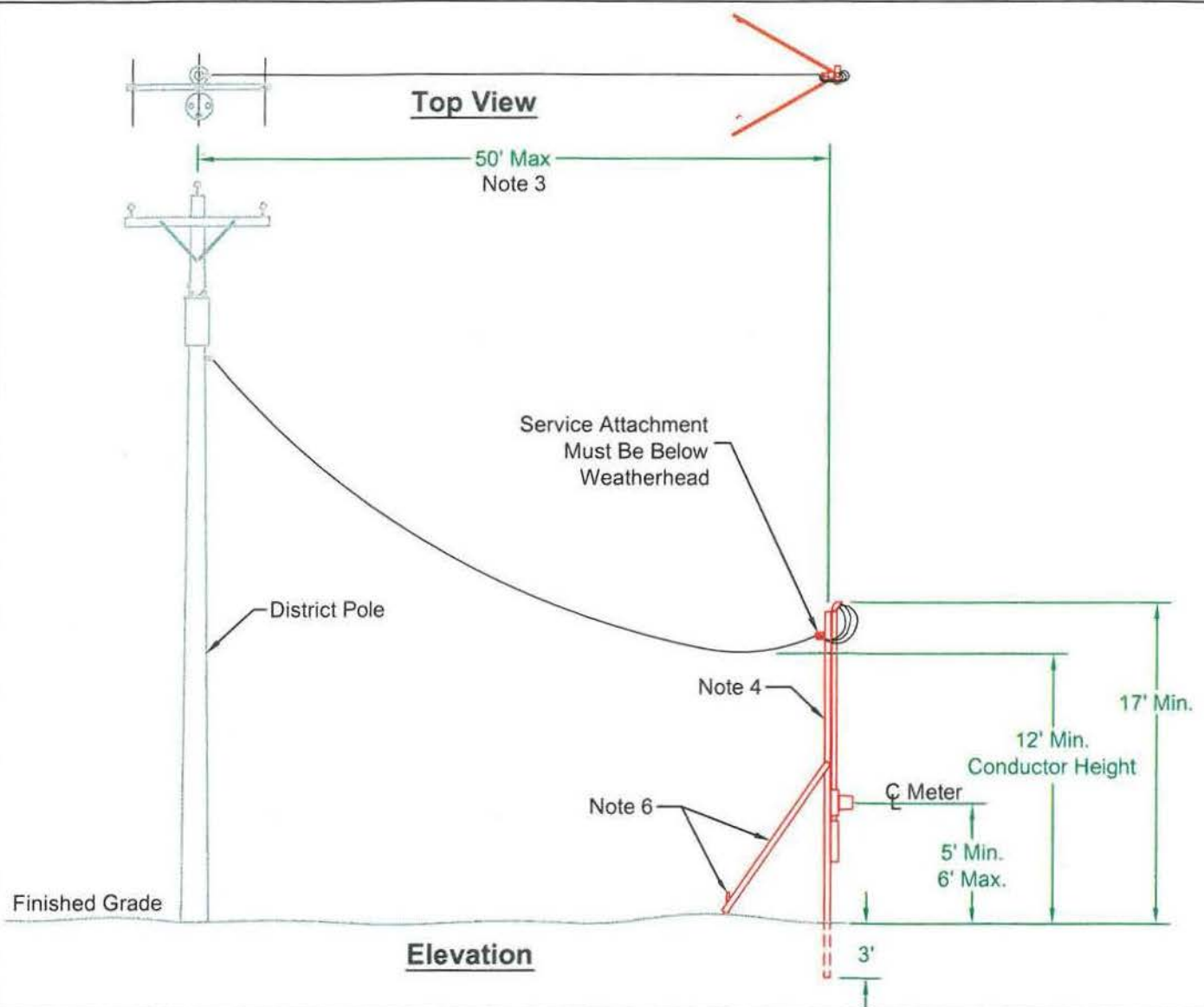
DIR.
ENG.

JD

DATE: 1/14

DWG. NO.

Q-2



Notes:

1. Application for temporary service is required by the District before service will be connected.
2. Metered temporary power installations **1 Year Maximum**.
3. Any service that exceeds the 50' maximum length must be reviewed by a District engineer on a case by case basis.
4. Customer's temporary service pole may be of 4" x 4" solid lumber or two 2" x 4".
5. Laminated together 4" x 4" overall will be the minimum acceptable.
6. Braces will consist of 2" x 4" lumber with stakes solidly driven into the ground and firmly attached to braces.
7. Temporary service arrangement and equipment to be "Approved For Service" by the state electrical inspector before the District will connect service.
8. The customer shall notify the District as to when service is requested.
9. Meter base may be required for 120 day temporary installations.
10. Meter base will be required for RV's, pumps, job shacks, and all commercial projects or similar applications.
11. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
12. Prior to any digging call UDIG or 811 for free cable locate prior to digging.
13. All clearances must meet or exceed the National Electrical Safety Code.



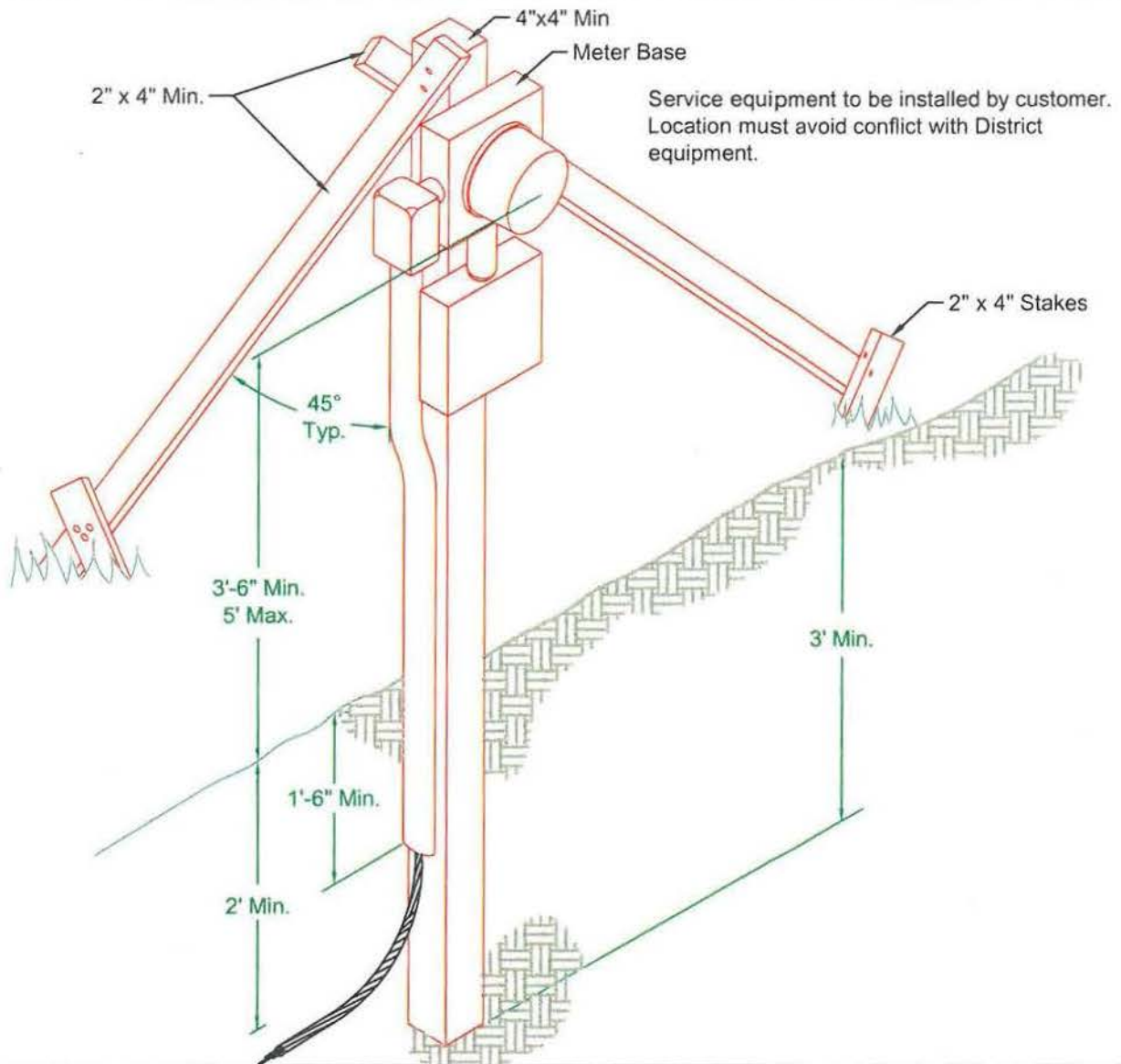
DRAWN BY: JAD
DRAW DATE: 3/28/01

TITLE:

Metered or Un-Metered Temporary Service Requirements Overhead Services

REV BY: JWV	SHT: 1 of 1
REV DATE: 10/01/13	
REV No: 1	DIR. ENG. <i>[Signature]</i> DATE: 1/14
DWG. NO.	

Q-2A



Notes:

1. Application for temporary service is required by the District before service will be connected.
2. Metered temporary power installations **1 year maximum**.
3. Prior to any digging, call UDIG or 811 for free cable locate prior to digging.
4. The customer shall provide all trench and backfill to the transformer, pedestal or hand hole. Contact District representative prior to trenching, for coordination.
5. The customer shall provide sufficient conductor to reach transformer plus 6 feet.
6. Temporary service arrangement and equipment to be "Approved For Service" by the State Electrical Inspector before the District will connect service.
7. The customer shall notify the District a minimum of 2 weeks prior to when service is required.
8. The District will install customer owned wire in transformer box and make connection.
9. Temporary power connections shall not be made through permanent service stub-outs.
10. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
11. One year renewal limit without re-inspection and approval by State Labor and Industries.



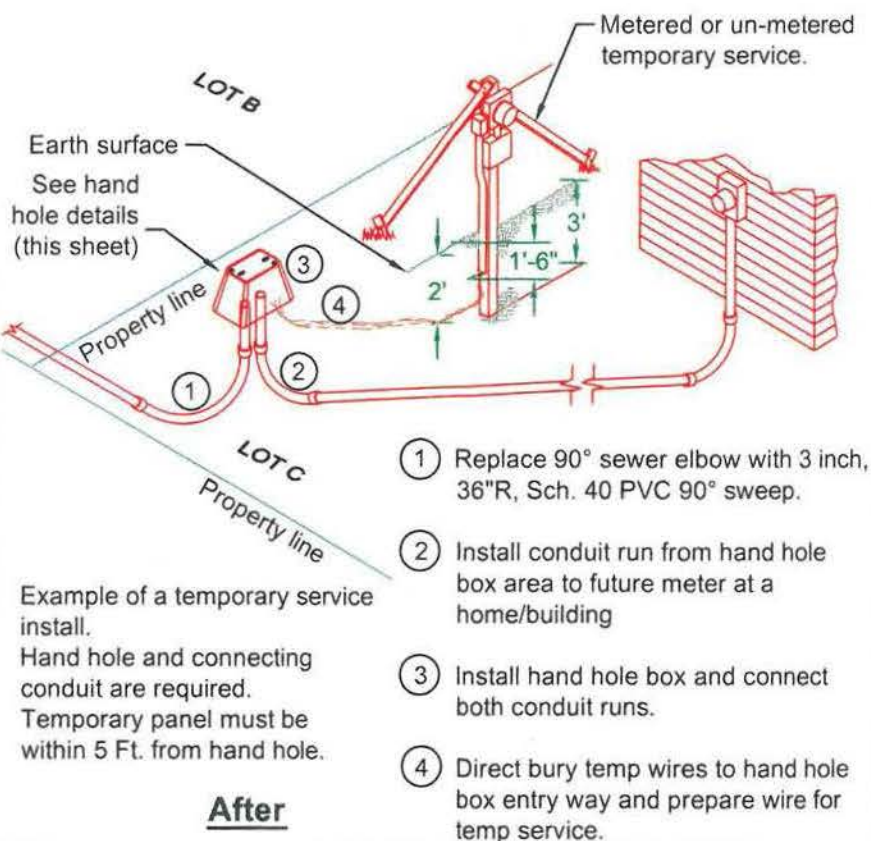
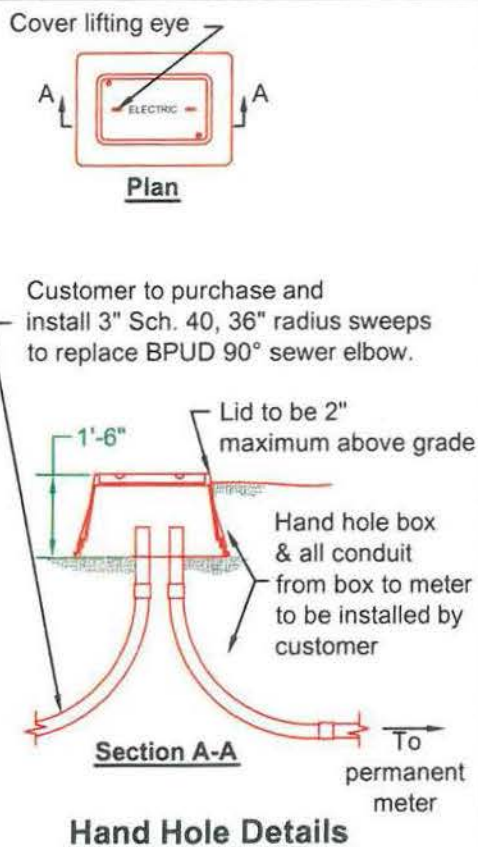
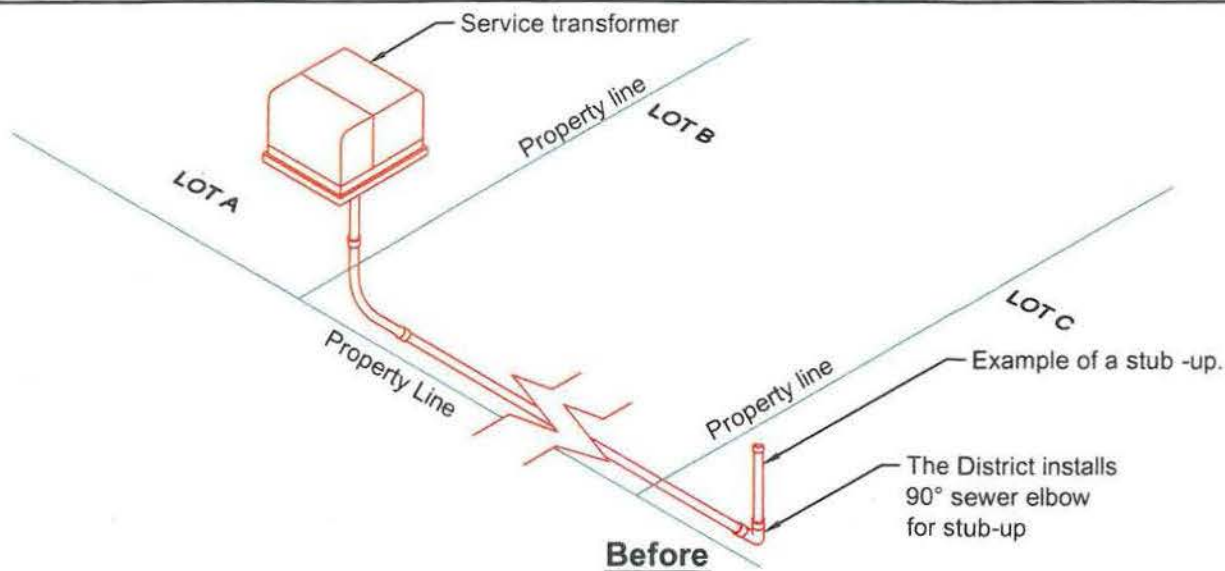
DRAWN BY: JAD
DRAW DATE: 4/10/12

TITLE:

Meterd or Un-Metered Temporary Service Requirements Underground Area

REV BY: JWV	SHT. 1 of 1
REV DATE: 10/01/13	
REV No: 1	DIR. ENG. PD DATE: 1/14
DWG. NO.	

Q-2B



- ① Replace 90° sewer elbow with 3 inch, 36"R, Sch. 40 PVC 90° sweep.
- ② Install conduit run from hand hole box area to future meter at a home/building
- ③ Install hand hole box and connect both conduit runs.
- ④ Direct bury temp wires to hand hole box entry way and prepare wire for temp service.

Notes:

1. Hand hole may be picked up at the District's warehouse located at 1500 S. Ely St. or a purchased approved equivalent and installed, after permanent service application is received by engineering.
2. Hand hole and all sweeps to be installed by customer prior to energizing a temporary service.



DRAWN BY: JWV
DRAW DATE: 10/01/13

TITLE:

Alternate Temporary Services Installation Guidelines

REV BY: JWV	SHT. 1 of 1
REV DATE: 10/01/13	
REV No: 0	DATE: 1/14
DWG. NO.	

Q-2C

OVERHEAD SERVICE



DRAWN BY: JAD

DRAW DATE: 03/05/04

TITLE:

OVERHEAD SERVICES
Q-3 Series

REV BY: JWV

REV DATE: 10/01/13

REV NO: 1

DIR.
ENG.

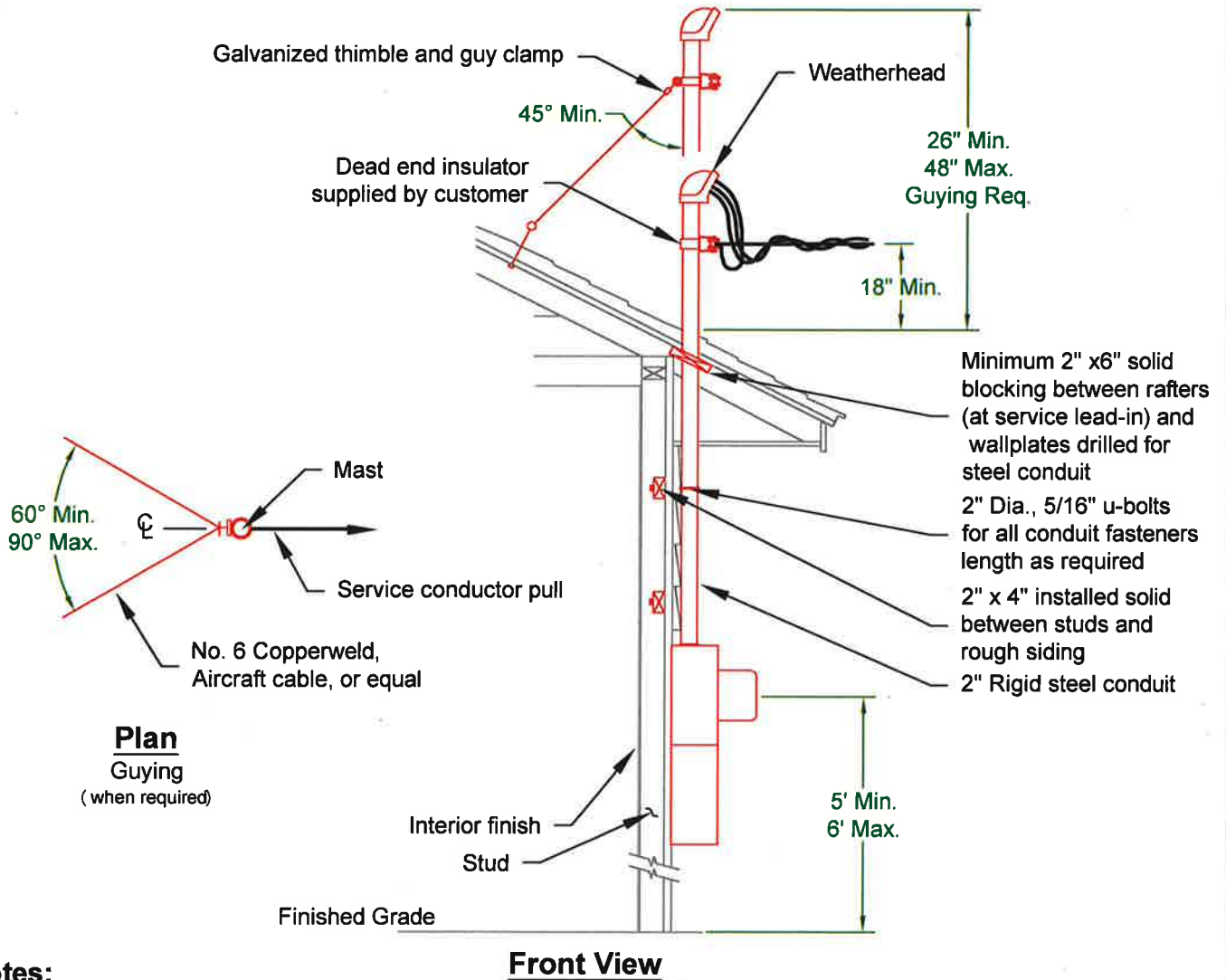
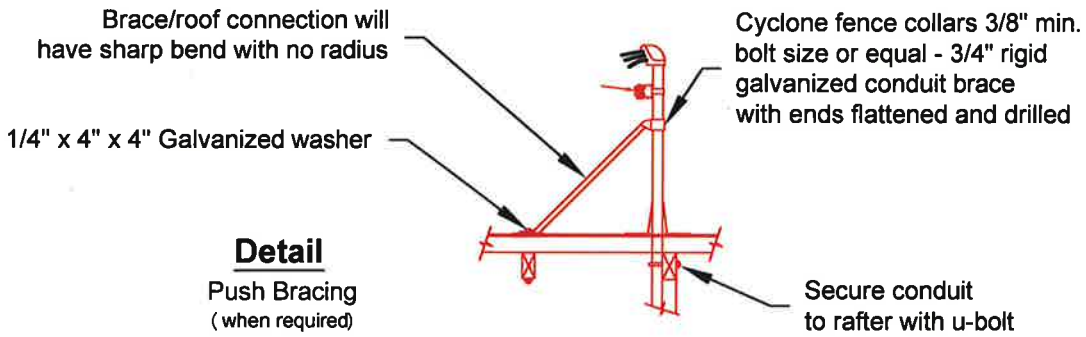
SHT.

1 of 1

DATE: 1/14

DWG. NO.

Q-3



Notes:

1. See Washington State Department of Labor and Industries WAC 296-46B-230-028.
2. Service drop must maintain 12 feet minimum clearance above grade at lowest point. See National Electrical Safety Code rule 232.
3. See WAC code regarding recessed Meter Base Installations.



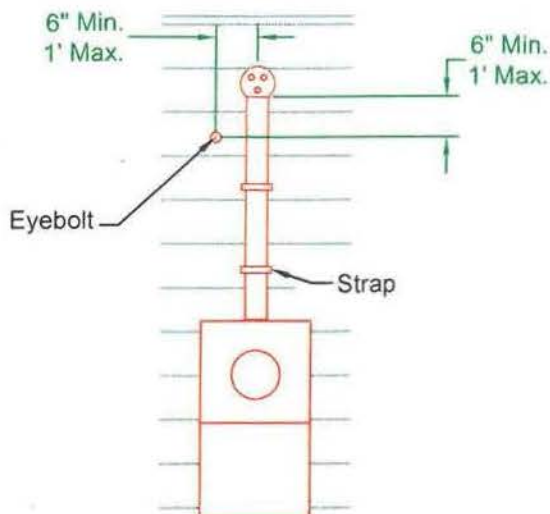
TITLE:

New and/or Altered Service
Through Roof
200 Amp or Less

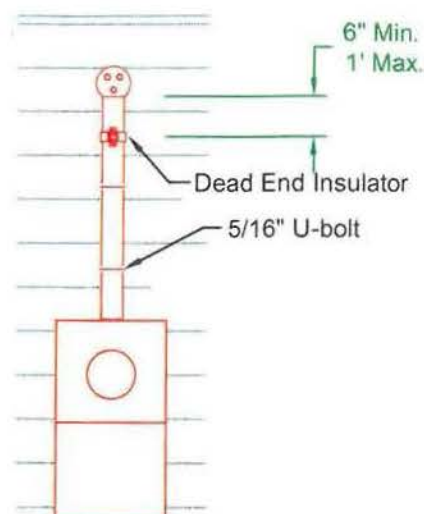
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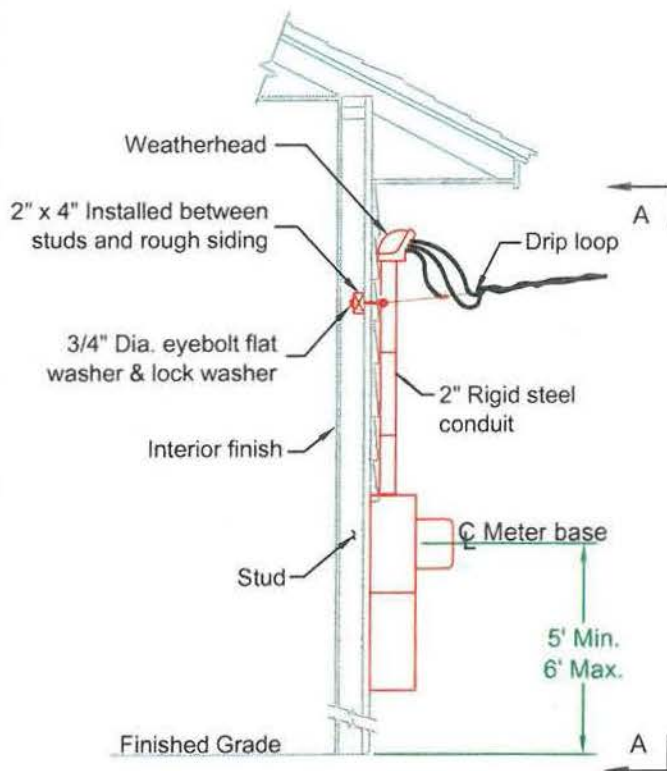
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REV DATE:	06/01/17		
REV No:	2	DIR. ENG. <i>JD</i>	DATE: 3/18
DWG. NO.	Q-3A		



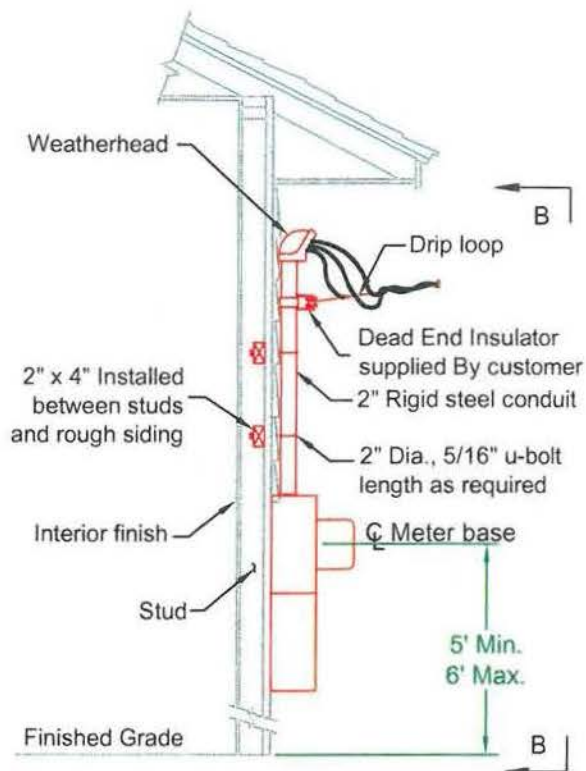
View A-A



View B-B



Elevation
Guy Attached To Eye bolt



Elevation
Guy Attached To Rigid Conduit

Notes:

1. Service drop must maintain 12 feet minimum clearance above grade at lowest point. See current National Electrical Safety Code Rule 232.
2. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.

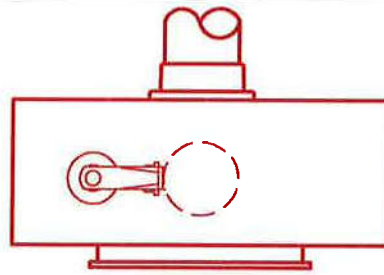
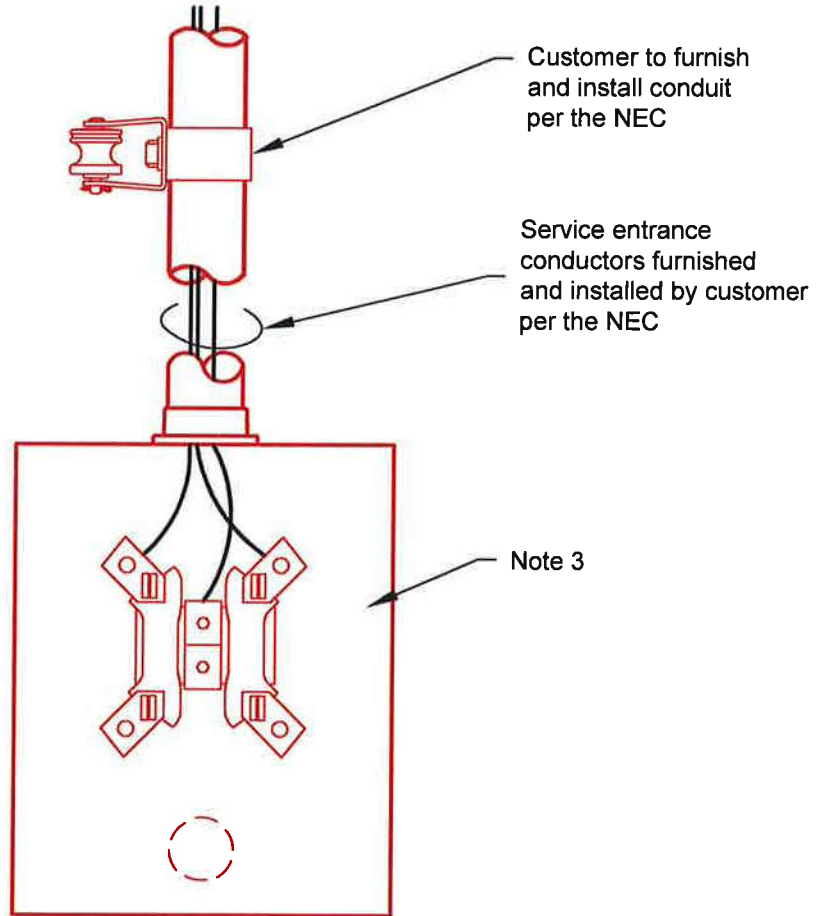


DRAWN BY: JAD
DRAW DATE: 03/27/11

TITLE: New and/or Altered Service
Below Roof Mast Installation
200 Amp or Less

REV BY: JWV	SHT. 1 of 1
REV DATE: 10/01/13	
REV No: 1	DATE: 1/14
DWG. NO.	

Q-3B

**Top View****Front View****Notes:**

1. Customer shall contact Customer Engineering before installation.
2. Customer shall supply and install meter base, mast, and conductors as shown above.
3. The meter base must be installed (plumb and solid) and bonded to customer neutral per the National Electrical Code, when required.
4. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
5. Ringless meter bases are not allowed.
6. For pre-approved meter bases, see document **Standard Q-4M**.



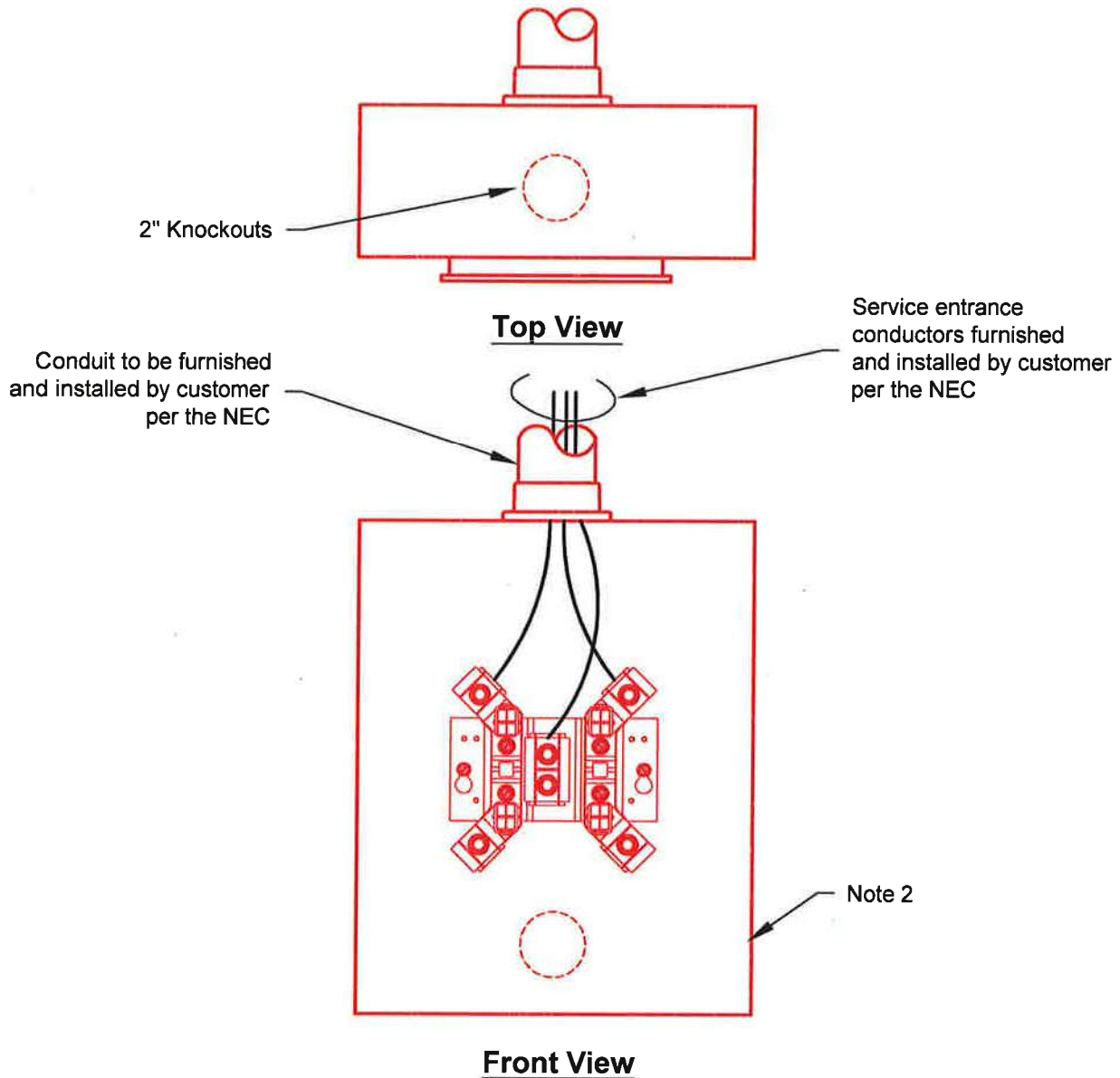
TITLE:

**Overhead Feed
Single Phase Meter Base
200 Amp, 240/480 Volt 3 Wire
Non-Typical**

DRAWN BY: JAD

DRAW DATE: 02/26/01

REV BY: TMA		SHT.
REV DATE: 03/28/2018		1 of 1
REV No: 2	DIR. ENG. <i>JD</i>	DATE: 1/29/20
DWG. NO.		
Q-3C		



Notes:

1. Customer shall supply and install meter base.
2. The meter base must be installed (plumb and solid) and bonded to customer neutral per the NEC, when required.
3. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
4. Ringless meter base not allowed.
5. For pre-approved meter bases, see document **Standard Q-4M**.



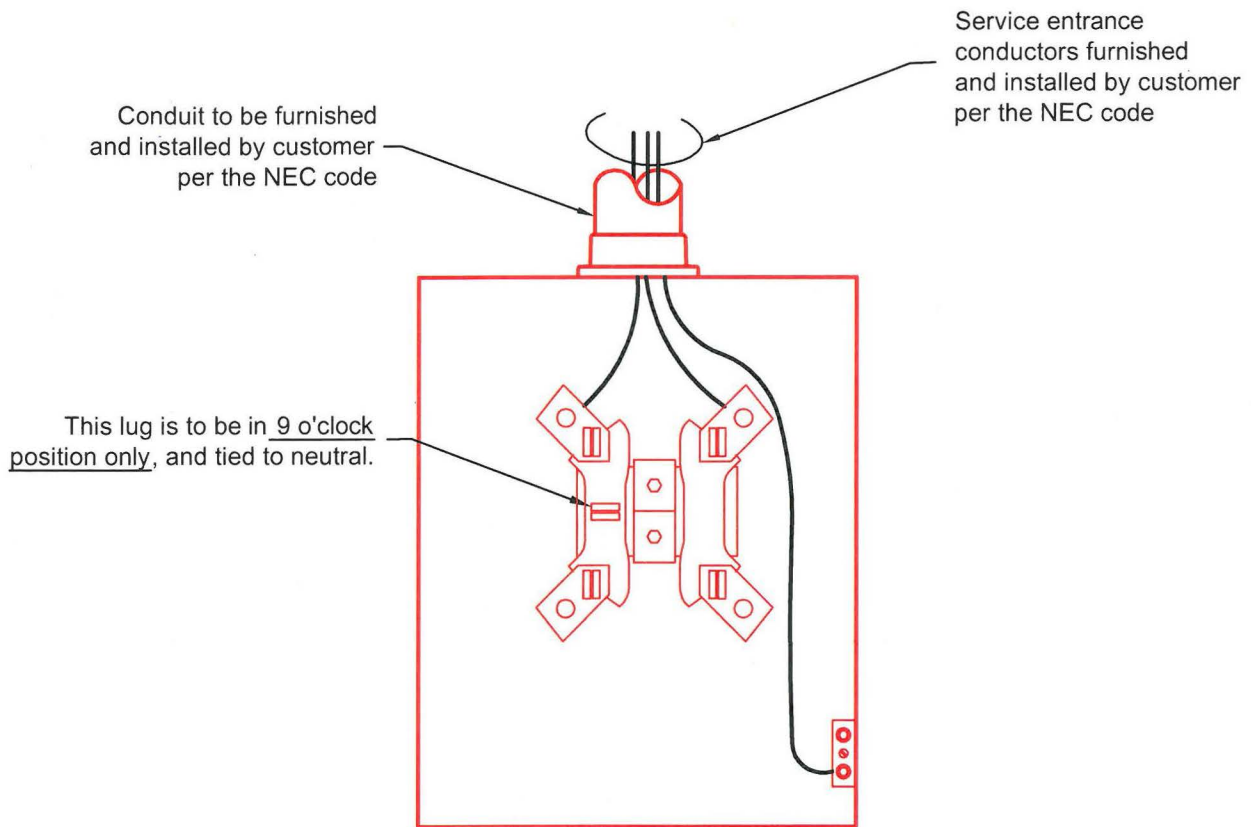
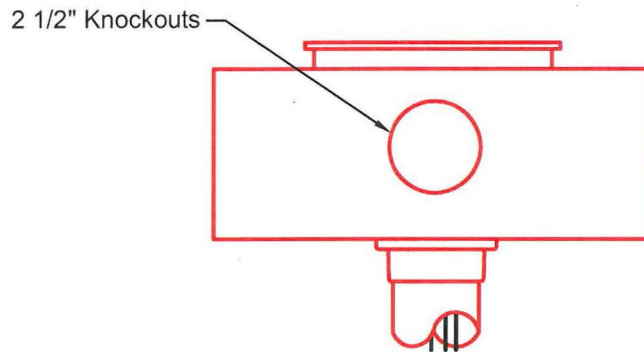
TITLE:

Overhead Feed
200 Amp or Less Meter Base
Single Phase, 120/240 Volt
Residential

DRAWN BY: JAD

DRAW DATE: 02/26/01

REV BY: TKS	SHT. 1 of 1
REV DATE: 11/7/2018	
REV No: 2	DIR. <i>JD</i> DATE: 1/17/20
DWG. NO.	Q-3D

**Front View****Bottom View****Notes:**

1. Customer shall supply and install meter base.
2. Lever by-pass not allowed, manual block by-pass allowed on District Standards Q-3F, G, H & J.
3. The meter base must be installed plumb and solid, and bonded to customer neutral per the National Electric Code.
4. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
5. Ringless meter base not allowed.
6. For pre-approval or equivalent meter bases, see document **Standard Q-4M**.



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TITLE:

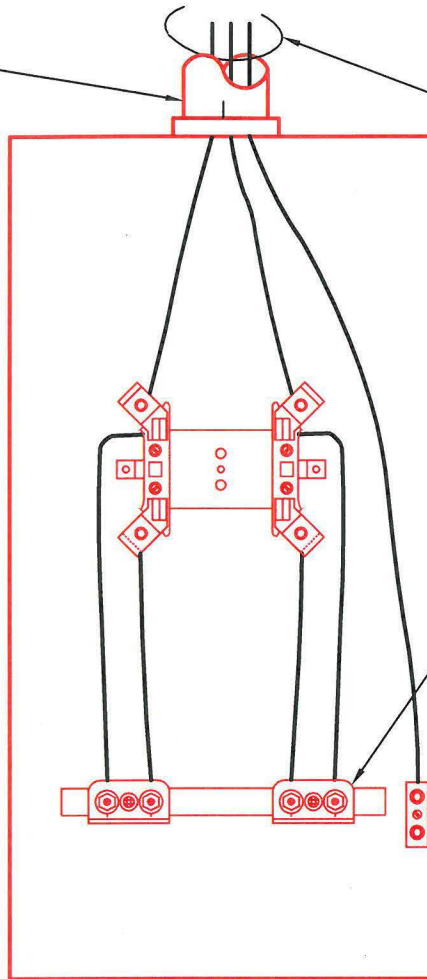
Overhead Feed
200 Amp or Less Meter Base
Network 120/208 Volt
Residential

REV BY: JWV	SHT.
REV DATE: 10/01/13	1 of 1
REV NO: 1	DIR. <i>JD</i> DATE: 2/14
DWG. NO.	

Q-3E

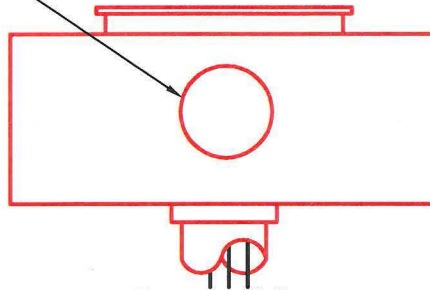
Conduit to be furnished
and installed by customer
per the NEC code

Service entrance
conductors furnished
and installed by customer
per the NEC code



Front View

2 1/2" Knockouts



Bottom View

Notes:

1. Meter base shall be supplied and installed (plumb & solid) by the customer.
2. Manual block type by-pass required for 200 Amp non-residential services. Lever by pass or safety socket style not allowed.
3. The meter base must be bonded to the customer neutral per the National Electric Code.
4. No conduit type fittings allowed in conduit containing un-metered conductors.
5. Ringless meter base not allowed.
6. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
7. For pre-approval or equipment meter bases, see document **Standard Q-4M**.



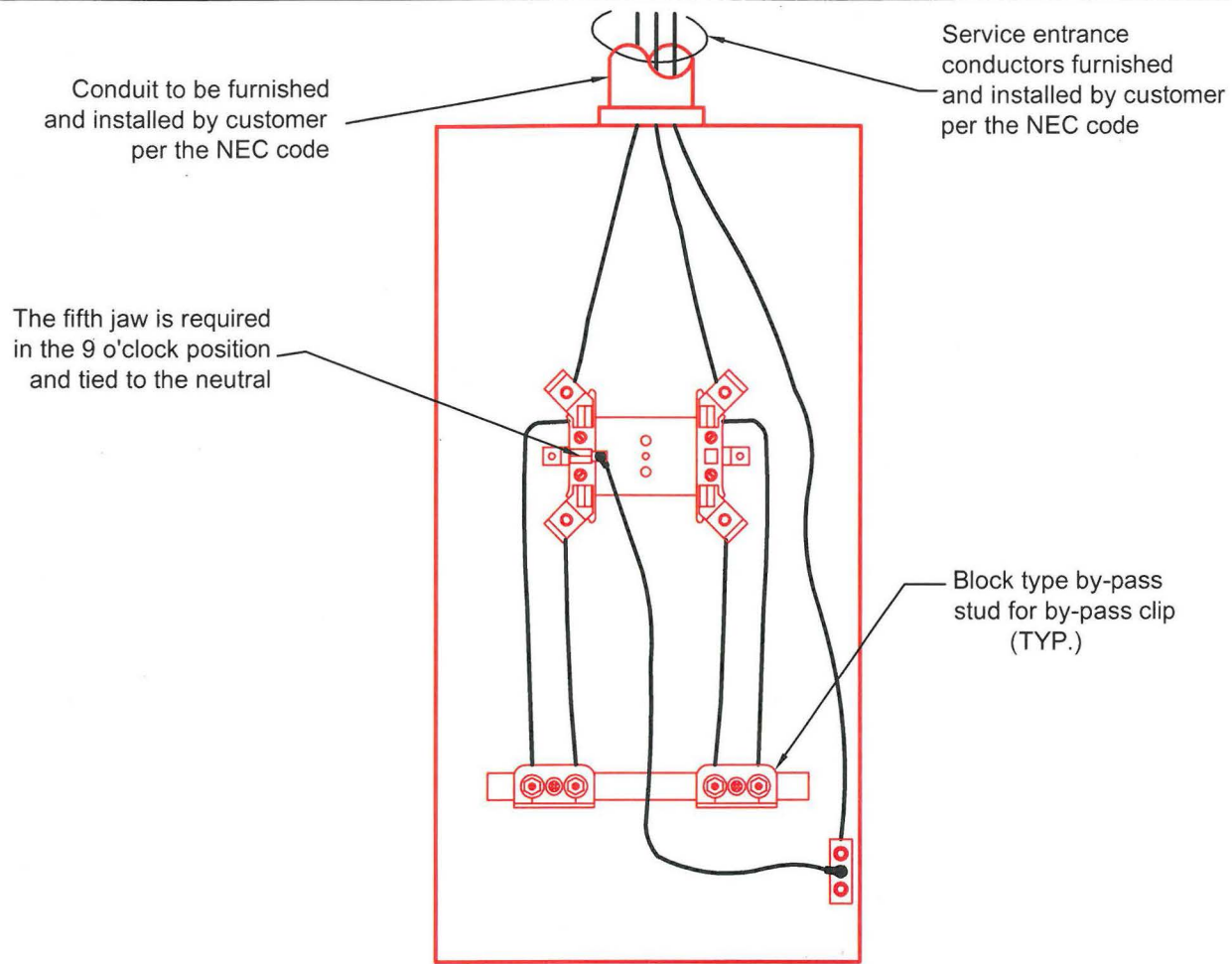
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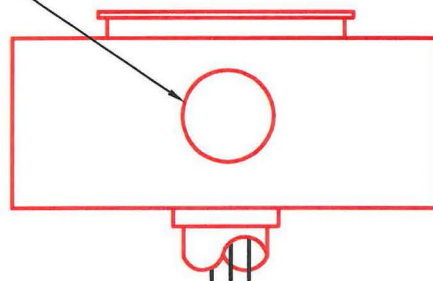
Overhead Feed
200 Amp Meter Base
Single Phase 120/240 Volt
Non-Residential

REV BY: JWV	SHT.
REV DATE: 10/01/13	1 of 1
REV NO: 1	DIR. <i>JD</i> DATE: 2/14
ENG. <i>JD</i>	
DWG. NO.	

Q-3F

**Front View**

2 1/2" Knockouts

**Bottom View****Notes:**

1. Meter base shall be supplied and installed (plumb & solid) by the customer.
2. Manual block type by-pass required for 200 Amp non-residential services. Lever by pass or safety socket style not allowed.
3. The meter base must be bonded to the customer neutral per the National Electric Code.
4. No conduit type fittings allowed in conduit containing un-metered conductors.
5. Ringless meter base not allowed.
6. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
7. For pre-approval or equipment meter bases, see document **Standard Q-4M**.



TITLE:

Overhead Feed
200 Amp Meter Base
Network 120/208 Volt
Non-Residential

REV BY: JWV	SHT.
REV DATE: 10/01/13	1 of 1
REV NO: 1	DIR. <i>FA</i> DATE: 2/14
DWG. NO.	

Q-3G

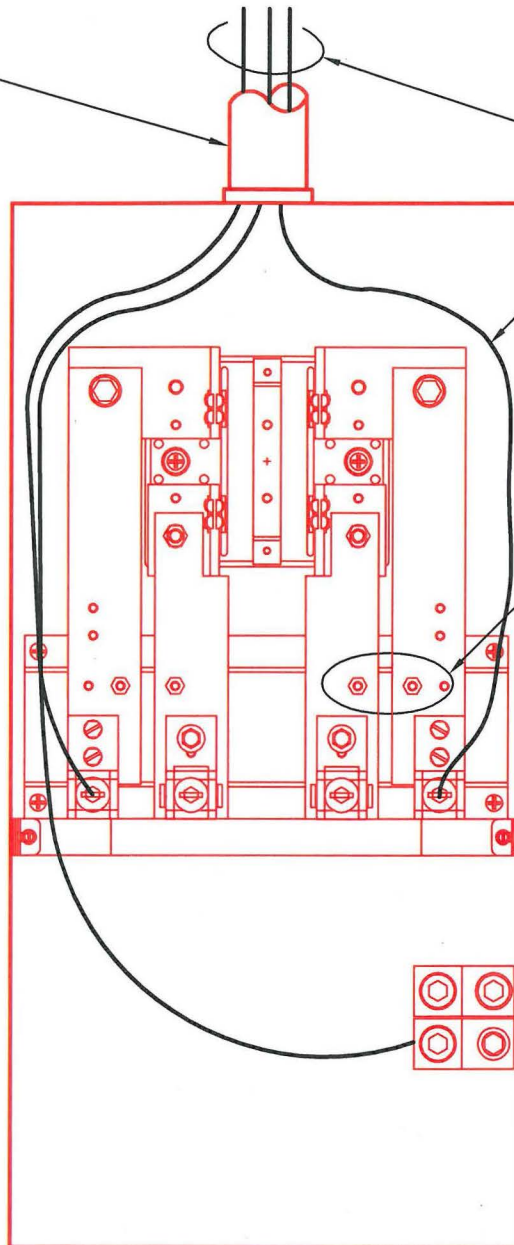
DRAWN BY: JAD
DRAW DATE: 02/26/01

Conduit to be furnished
and installed by customer
per the NEC code.

Service entrance
conductors furnished
and installed by customer
per the NEC code

Service conductors furnished
and installed by customer

Block type by-pass
stud for by-pass clip



Front View

Notes:

1. Doubling of wires allowed in factory provided, UL approved connectors, only when conductor type and size are the same.
2. Meter base shall be supplied and installed (plumb & solid) by the customer.
3. No conduit type fittings allowed in conduit containing un-metered conductors.
4. Lever by-pass not allowed, block by-pass only.
5. The meter base must be bonded to the customer neutral per the National Electric Code.
6. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
7. Ringless meter base not allowed.
8. For pre-approval or equipment meter bases, see document **Standard Q-4M**



DRAWN BY: JAD

DRAW DATE: 03/27/01

TITLE:

**Overhead Feed
320 Amp Meter Base
Single Phase, 120/240 Volt**

REV BY: JWV

REV DATE: 10/01/13

REV NO: 1

DWG. NO.

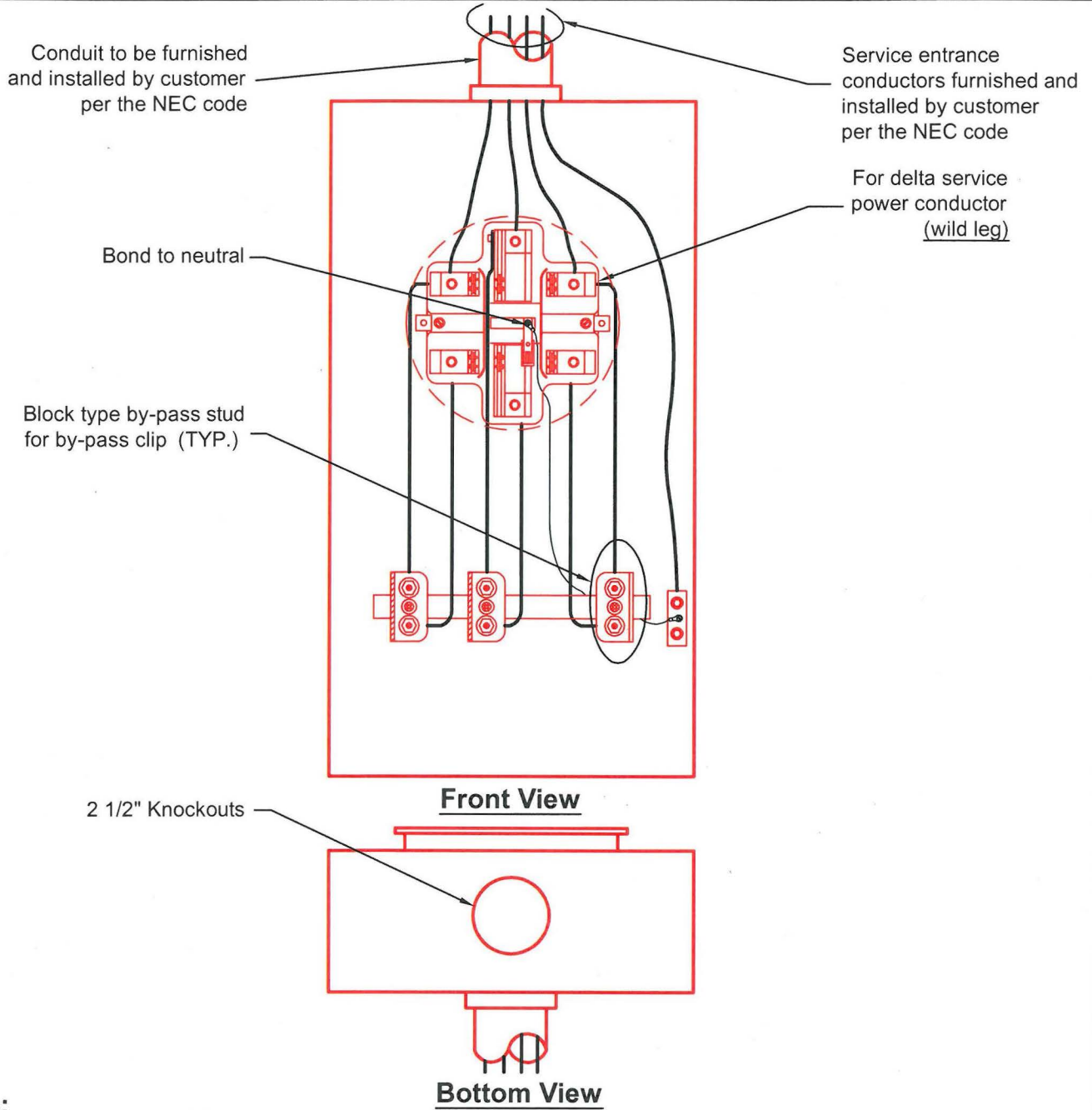
DIR. *AD*
ENG. *AD*

SHT.

1 of 1

DATE: *2/4*

Q-3H



Notes:

1. Meter base shall be supplied and installed (plumb & solid) by the customer.
2. Manual block type by-pass required for 200 Amp non-residential services.
3. The meter base must be bonded to the customer neutral per the National Electric Code.
4. No conduit type fittings allowed in conduit containing un-metered conductors.
5. Lever by-pass not allowed, block by-pass only.
6. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
7. For pre-approval or equipment meter bases, see document **Standard Q-4M**.
8. Power conductor (wild leg, color coded orange).
9. Ringless meter base not allowed.



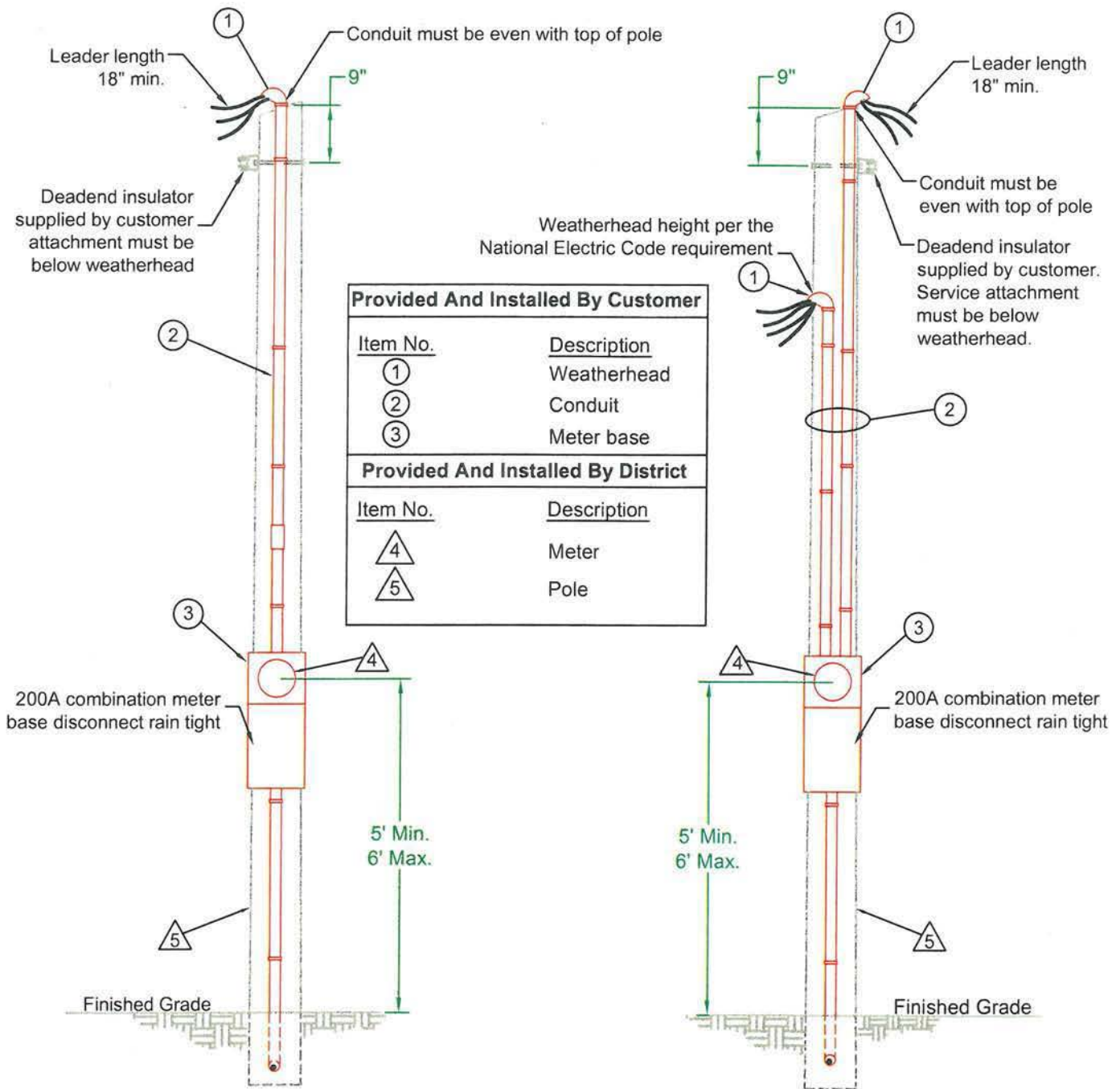
DRAWN BY: JAD
DRAW DATE: 02/26/01

TITLE:

Overhead Feed
200 Amp Meter Base
Three Phase
Non-Residential

REV BY: JWV	SHT.
REV DATE: 10/01/13	1 of 1
REV NO: 1	DIR. DATE: 2/19
DWG. NO.	

Q-3J



Overhead Feed To Underground Feed

Overhead Feed To Overhead Feed

Notes:

- Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements. Wiring must be approved for service by state inspector.
- The meter base must be bonded to customer neutral per the National Electric Code.
- Refer to standard Q-1C for numbering practice in mobile home and RV parks.
- Ringless meter base not allowed



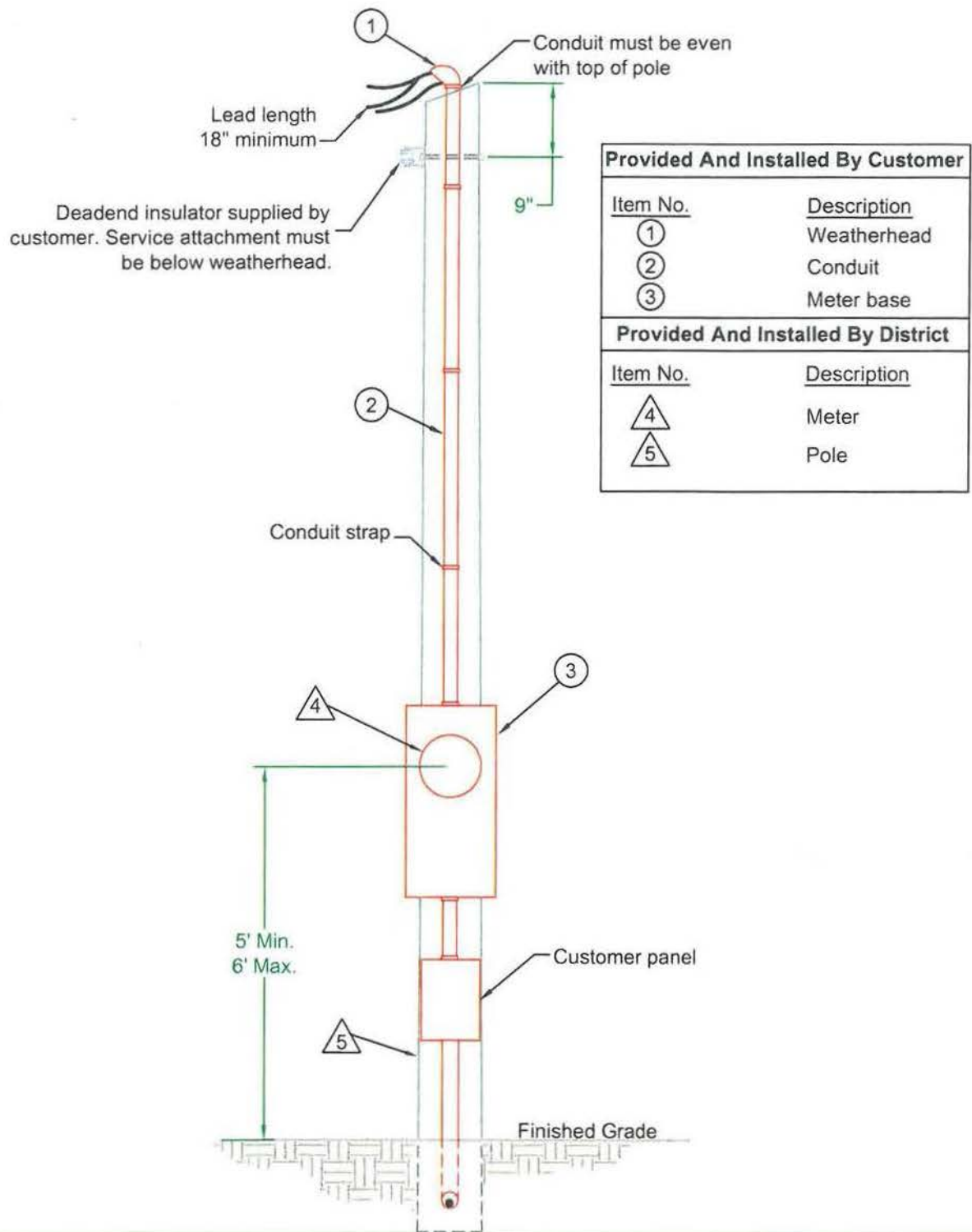
DRAWN BY: JAD
DRAW DATE: 02/26/01

TITLE:

200 Amp Service
Overhead Source for either
Underground to Overhead
Feed to Manufactured Home

REV BY: JWV	SHT. 1 of 1
REV DATE: 10/01/13	
REV NO: 1	DIR. ENG. DATE: 1/14
DWG. NO.	

Q-3K



Notes:

1. The meter base must be bonded to customer neutral per the National Electric Code.
2. Refer to District standard Q-1C for numbering practice in mobile home and RV parks.
3. Ringless meter base not allowed.



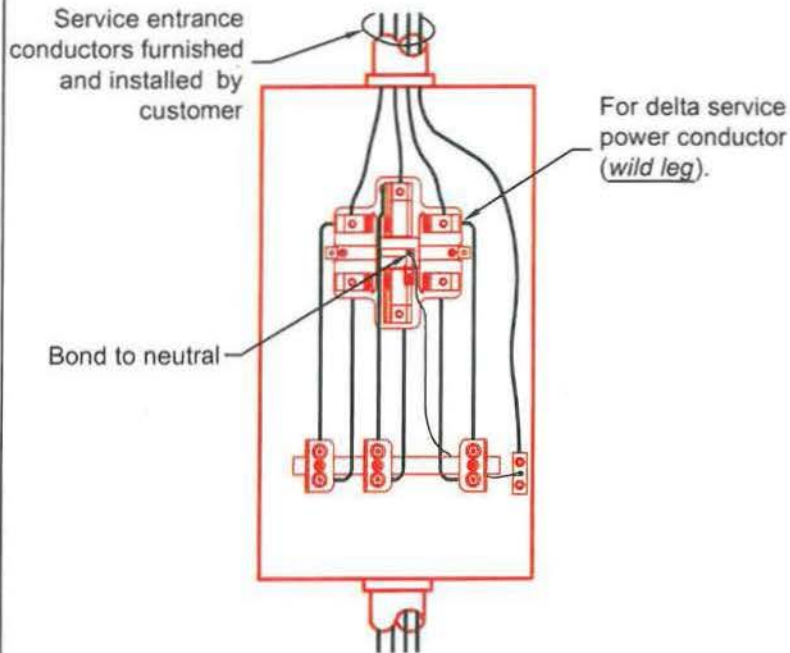
DRAWN BY: JAD
DRAW DATE: 03/27/01

TITLE:

Meter Pole Service Overhead Source with Receptacle

REV BY: JWV	SHT.
REV DATE: 10/01/13	1 of 1
REV NO: 1	DIR. ENG. <i>AD</i> DATE: 1/14
DWG. NO.	

Q-3L



Socket Wiring Diagram

Provided And Installed By Customer

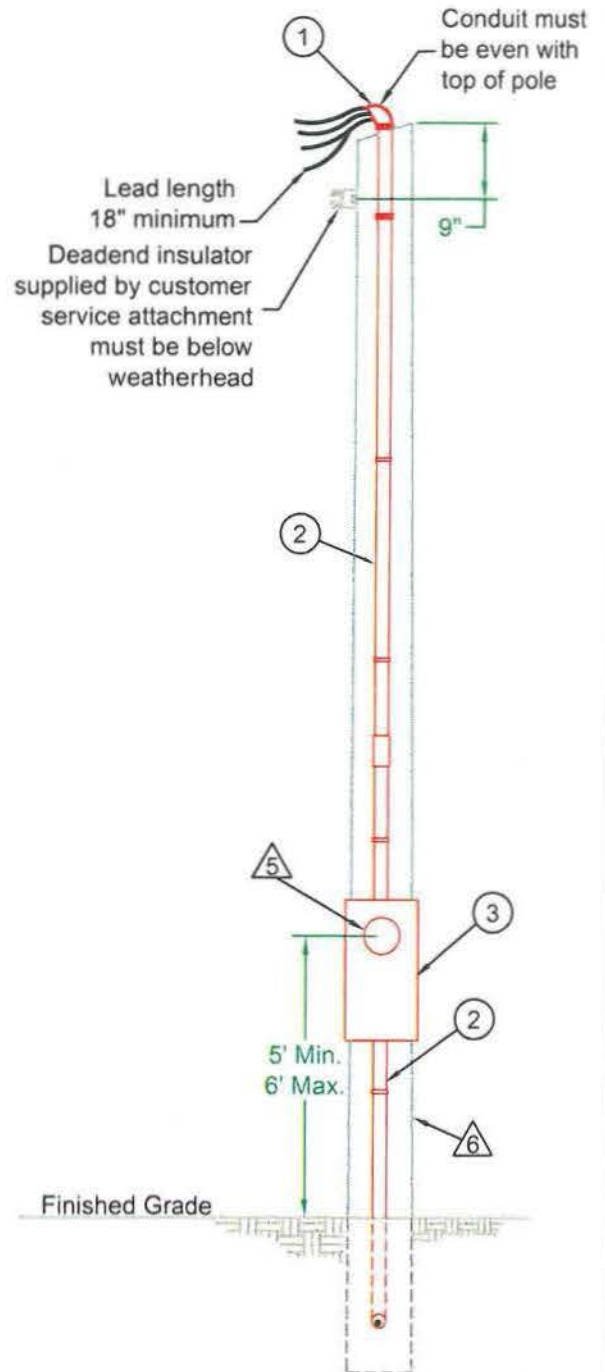
Item No.	Description
①	Weatherhead
②	Conduit
③	Meter base

Provided And Installed By District

Item No.	Description
⑤	Meter
⑥	Pole

Notes:

1. Line conductors, color code black.
2. Power conductor (wild leg), color coded orange.
3. Neutral conductor must be color coded white.
4. No conduit type fittings allowed in conduit containing un-metered conductors.
5. The meter base must be bonded to the customer neutral per the National Electric Code.
6. Manual block type by-pass required for three phase 200A services.
7. Lever by-pass or safety socket style not allowed.
8. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
9. Ringless meter base not allowed.



DRAWN BY: JAD
DRAW DATE: 03/27/01

TITLE: Overhead Feed to Underground Load Pole Mounted 200 Amp Socket Three Phase 4 Wire

REV BY: JWV
REV DATE: 10/01/13
REV No: 1
DIR. ENG. *PD*
DATE: 1/14

Q-3M

SHT. 1 of 1

UNDERGROUND SERVICES



DRAWN BY: JAD

DRAW DATE: 03/05/04

TITLE:

UNDERGROUND SERVICES
Q-4 Series

REV BY: JWV

SHT.

REV DATE: 10/01/13

1 of 1

REV NO: 1

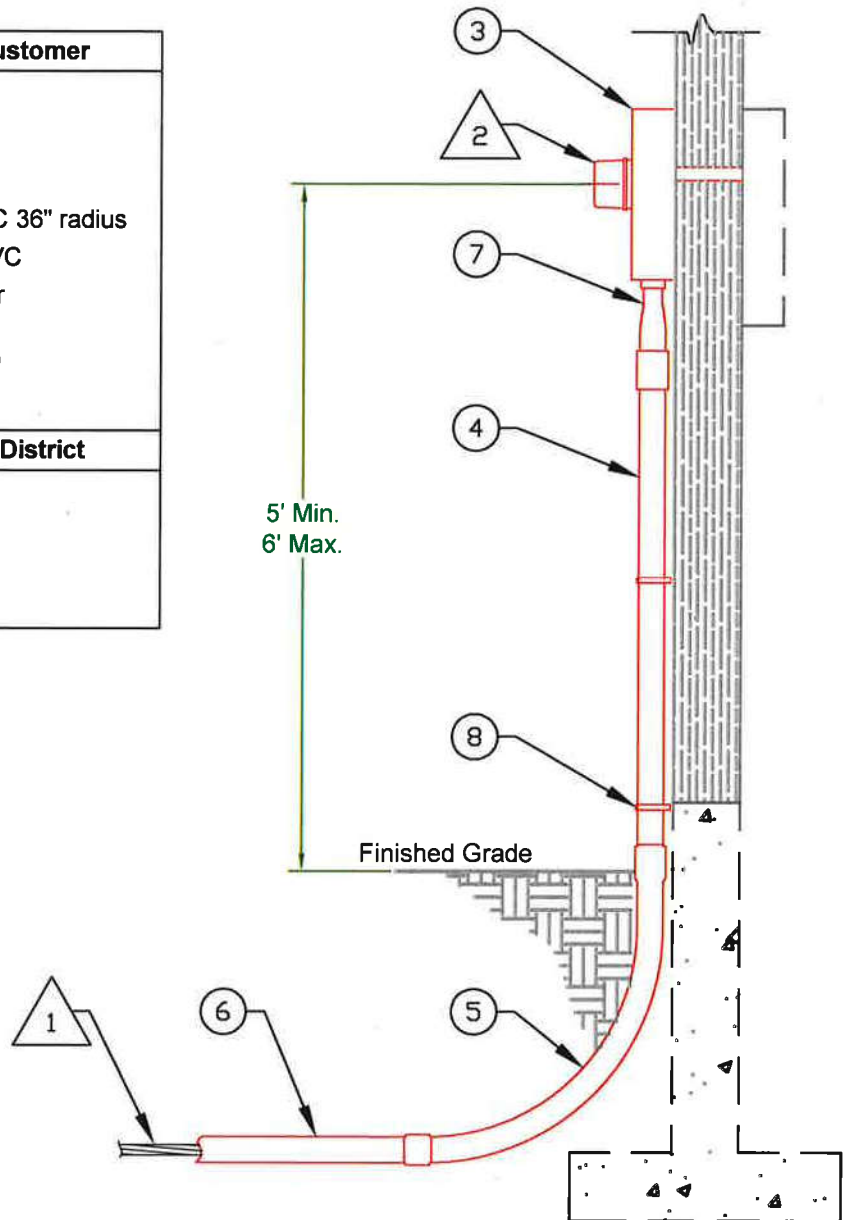
DIR.
ENG.

DATE: 1/14

DWG. NO.

Q-4

Provided And Installed By Customer	
Item No.	Description
③	Meter Base
④	3" Rigid PVC Conduit
⑤	Sweep 3" sch. 40 PVC 36" radius
⑥	Conduit-3" Sch. 40 PVC
⑦	3" to 2-1/2" adapter for 200A meter base only refer to Q-1E standard
⑧	Conduit Straps
Provided And Installed By District	
Item No.	Description
△1	Conductors
△2	Meter



Notes:

1. No conduit type fittings will be allowed in the conduit containing the District's un-metered conductors.
2. The District's service conductors will terminate at the meter socket line terminals.
3. The meter base must be bonded to customer neutral per the National Electric Code.
4. The 320 Amp meter base is for single phase installation only.
5. For trench details, see District standards Q-7A, Q-7B.
6. For meter base details, see District standards. Q-4C, D, E, F, G, H, and M.
7. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
8. Ringless meter base not allowed.



DRAWN BY: JAD

DRAW DATE: 03/22/01

TITLE:

Service Entrance Surface Mounted Underground 400 Amp or Less

REV BY: TMA

SHT:

REV DATE: 05/30/17

1 of 1

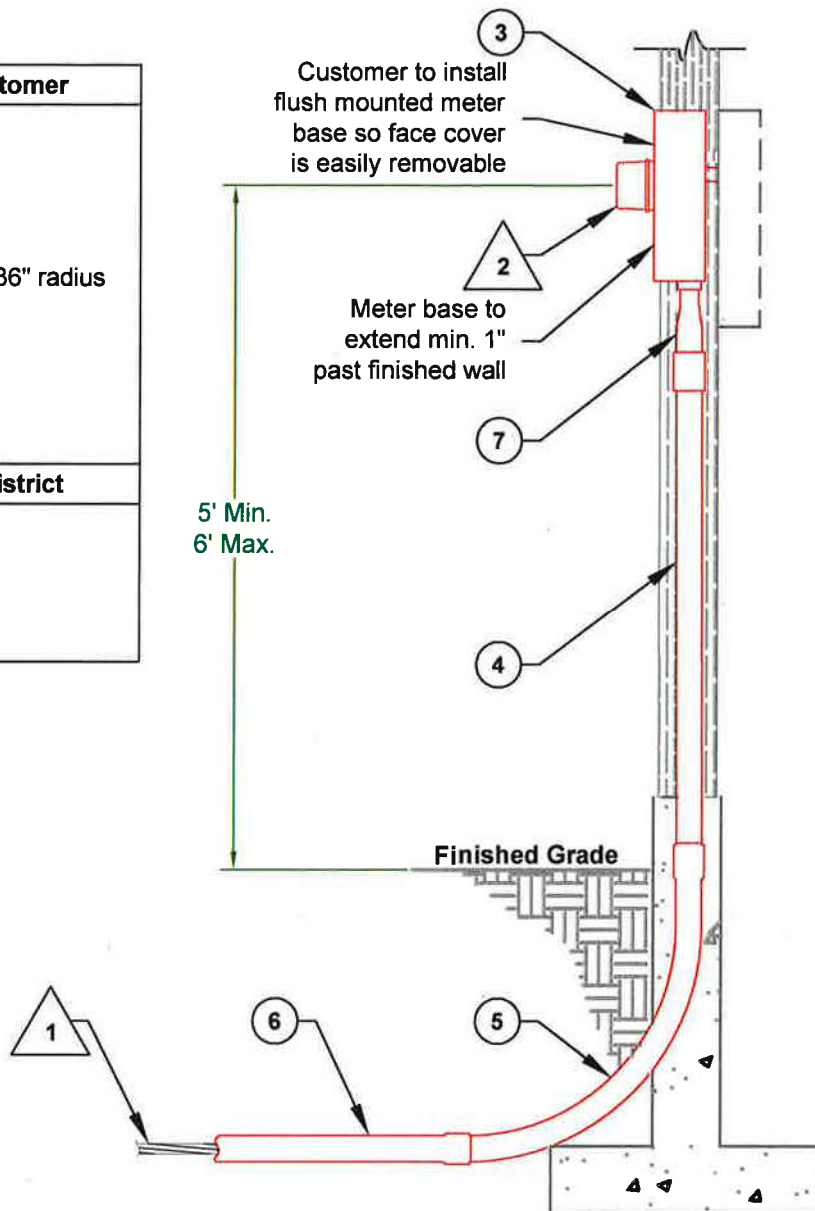
REV NO: 2


DIR. *AD*

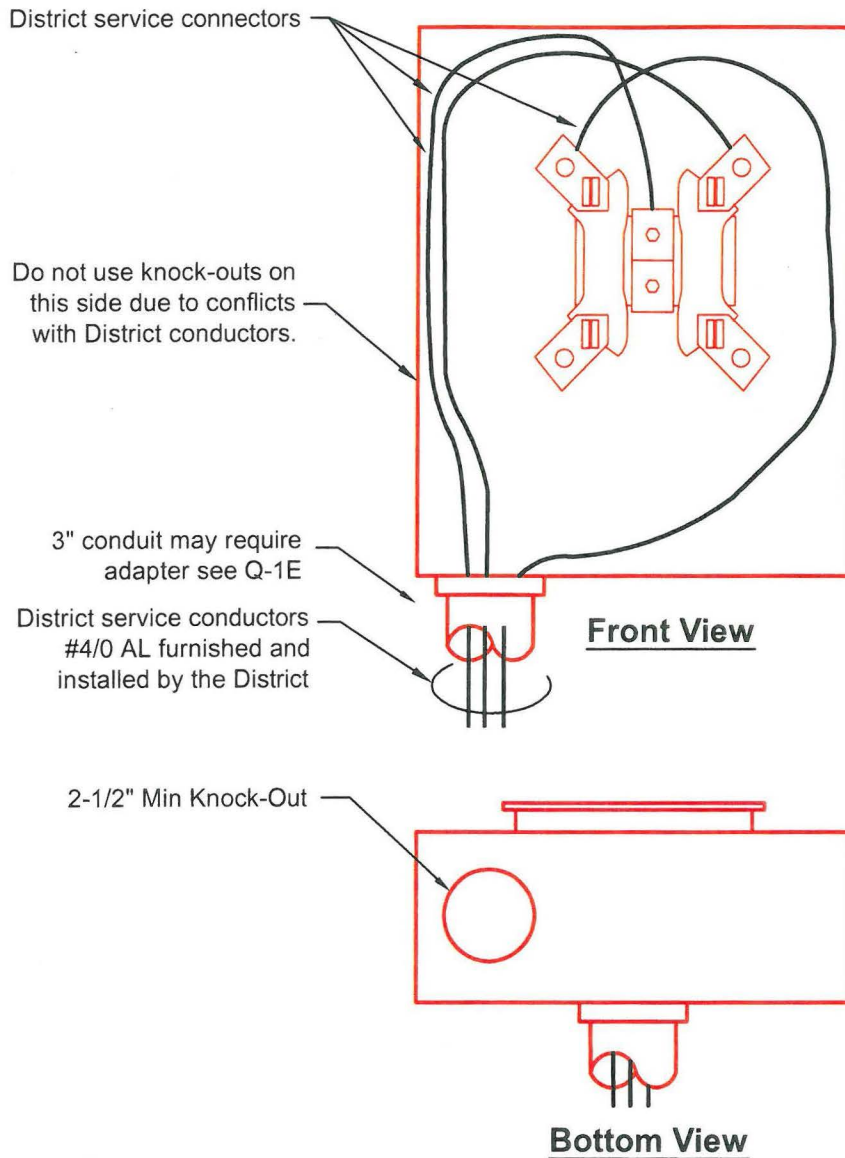
DATE: 3/18

DWG. NO.

Q-4A



	TITLE:	Service Entrance Flush Mounted Underground 400 Amp or Less	REV BY: TMA	SHT: 1 of 1
			REV DATE: 05/31/17	
			REV NO: 2	DIR ENG: <i>JAD</i> DATE: 3/18
			DWG. NO.	Q-4B
DRAWN BY: JAD				
DRAW DATE: 03/22/01				



Notes:

1. Meter base shall be supplied and installed (plumb and solid) by the customer.
2. Lever by-pass not allowed, manual block by-pass allowed under District standard Q-4E.
3. The meter base must be bonded to the customer neutral per the National Electric Code.
4. The District requires that all services 200 Amp and below (self-contained) use meter sockets rated for 200 Amp continuous duty.
5. Meter base must have lugs which accept #4/0 aluminum conductors.
6. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
7. For pre-approval or equipment meter bases, see document **Standard Q-4M**.
8. Ringless meter base not allowed.



DRAWN BY: JAD

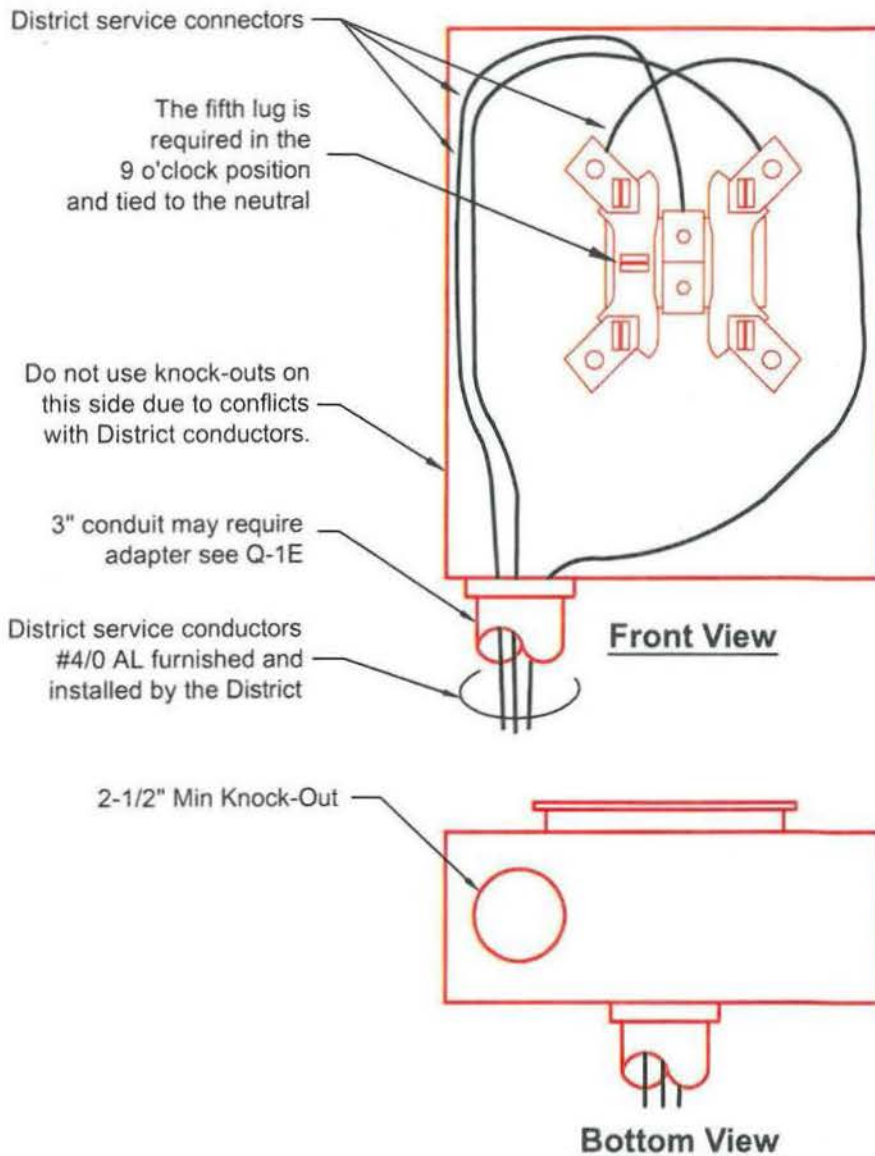
DRAW DATE: 07/10/03

TITLE:

Underground Feed
200 Amp Meter Base
Single Phase 120/240 Volt
Residential

REV BY: JWV	SHT. 1 of 1
REV DATE: 10/01/13	
REV NO: 1	DIR. ENG. <i>[Signature]</i> DATE: 2/14
DWG. NO.	

Q-4C



Notes:

1. Meter base shall be supplied and installed (plumb and solid) by the customer.
2. Lever by-pass not allowed, manual block by-pass allowed under Q-4F.
3. The meter base must be bonded to the customer neutral per the National Electric Code.
4. The District requires that all services 200 Amp and below (self-contained) use meter sockets rated for 200 Amp continuous duty.
5. Meter base must have lugs which accept #4/0 aluminum conductors.
6. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
7. For pre-approval or equipment meter bases, see document **Standard Q-4M**.
8. Ringless meter base not allowed.



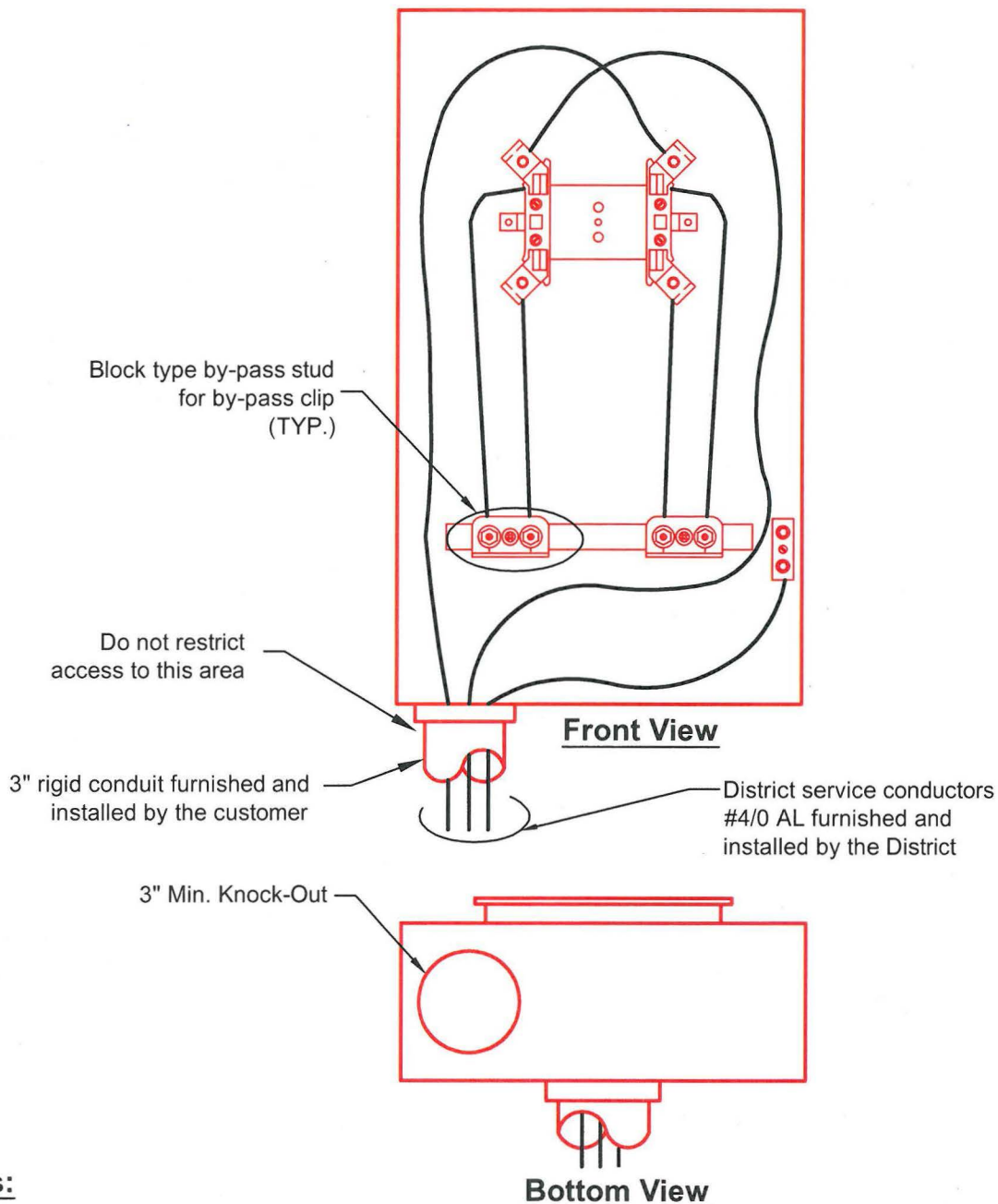
DRAWN BY: JAD
DRAW DATE: 02/26/01

TITLE:

Underground Feed
200 Amp Meter Base
Network, 120/208 Volt
Residential

REV BY: JWV	SHT:
REV DATE: 10/01/13	1 of 1
REV NO: 1	DIR. ENG. <i>AD</i> DATE: 1/14
DWG. NO.	

Q-4D



Notes:

1. Meter base shall be supplied and installed (plumb and solid) by the customer.
2. Manual block type by-pass required for 200 Amp non-residential services.
3. Lever by-pass Or Safety Socket Style Not Allowed.
4. The District requires that all services 200 Amp and below (self-contained) use meter sockets rated for 200 Amp continuous duty.
5. Meter base must have lugs which accept #4/0 aluminum conductors.
6. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements
7. For pre-approval or equipment meter bases, see document **Standard Q-4M**.
8. Ringless meter base not allowed.

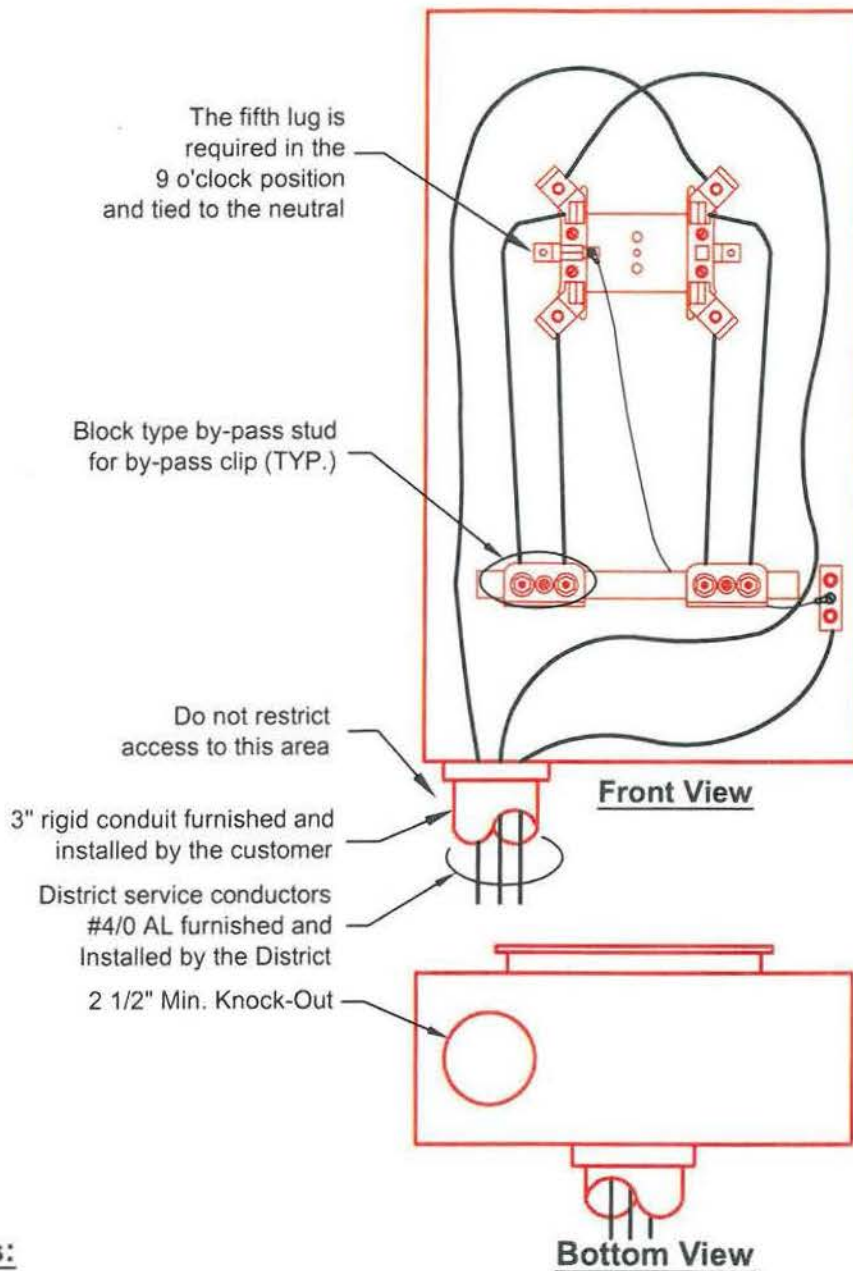


DRAWN BY: JAD
DRAW DATE: 02/26/01

TITLE:

Underground Feed
200 Amp Meter Base
Single Phase, 120/240 Volt
Non- Residential

REV BY: JWV	SHT.
REV DATE: 10/01/13	1 of 1
REV NO: 1	DIR. ENG. <i>[Signature]</i> DATE: 2/14
DWG. NO.	Q-4E



Notes:

1. Meter base shall be supplied and installed (plumb and solid) by the customer.
2. Manual block type by-pass required for 200 Amp **non-residential** services.
3. Lever type by-pass or safety socket style not allowed.
4. The meter base must be bonded to the customer neutral per the National Electric Code.
5. The District requires that all services 200 Amp and below (self-contained) use meter sockets rated for 200 Amp continuous duty.
6. Meter base must have lugs which accept #4/0 aluminum conductors.
7. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
8. For pre-approval or equipment meter bases, see document **Standard Q-4M**.
9. Ringless meter base not allowed.



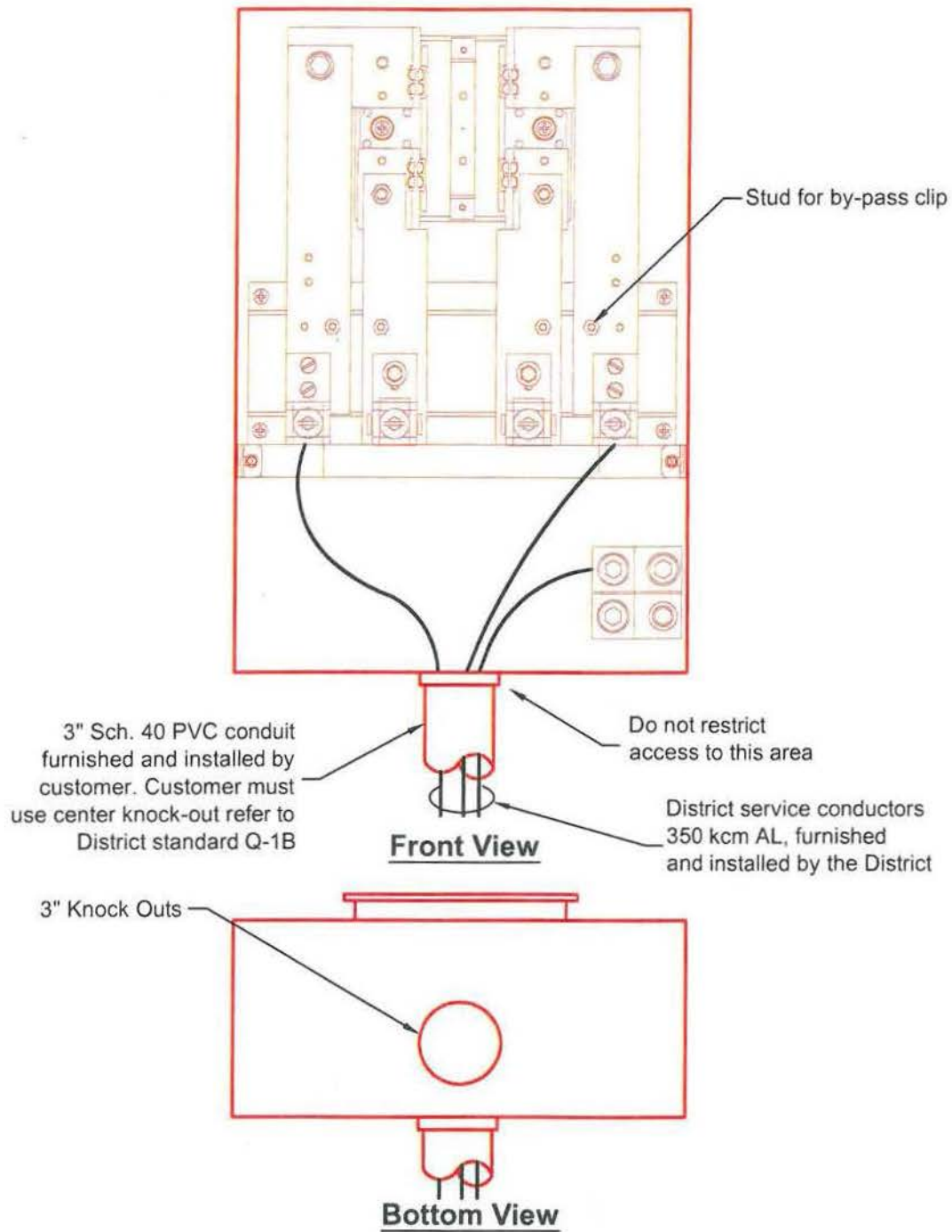
DRAWN BY: JAD
DRAW DATE: 02/26/01

TITLE:

Underground Feed
200 Amp Meter Base
Network, 120/208 Volt
Non - Residential

REV BY: JWV	SHT.
REV DATE: 10/01/13	1 of 1
REV NO: 1	DIR. ENG. <i>[Signature]</i> DATE: 1/14
DWG. NO.	

Q-4F



Notes:

1. Meter base shall be supplied and installed (plumb & solid) by the customer.
2. The meter base must be bonded to the customer neutral per the National Electric Code.
3. Lever by-pass not allowed, block by-pass only.
4. Details shown are minimum District requirements and are not intended to depict Washington State Department of Labor and Industries requirements.
5. For pre-approval or equipment meter bases, see document **Standard Q-4M**.
6. Ringless meter bases not allowed.



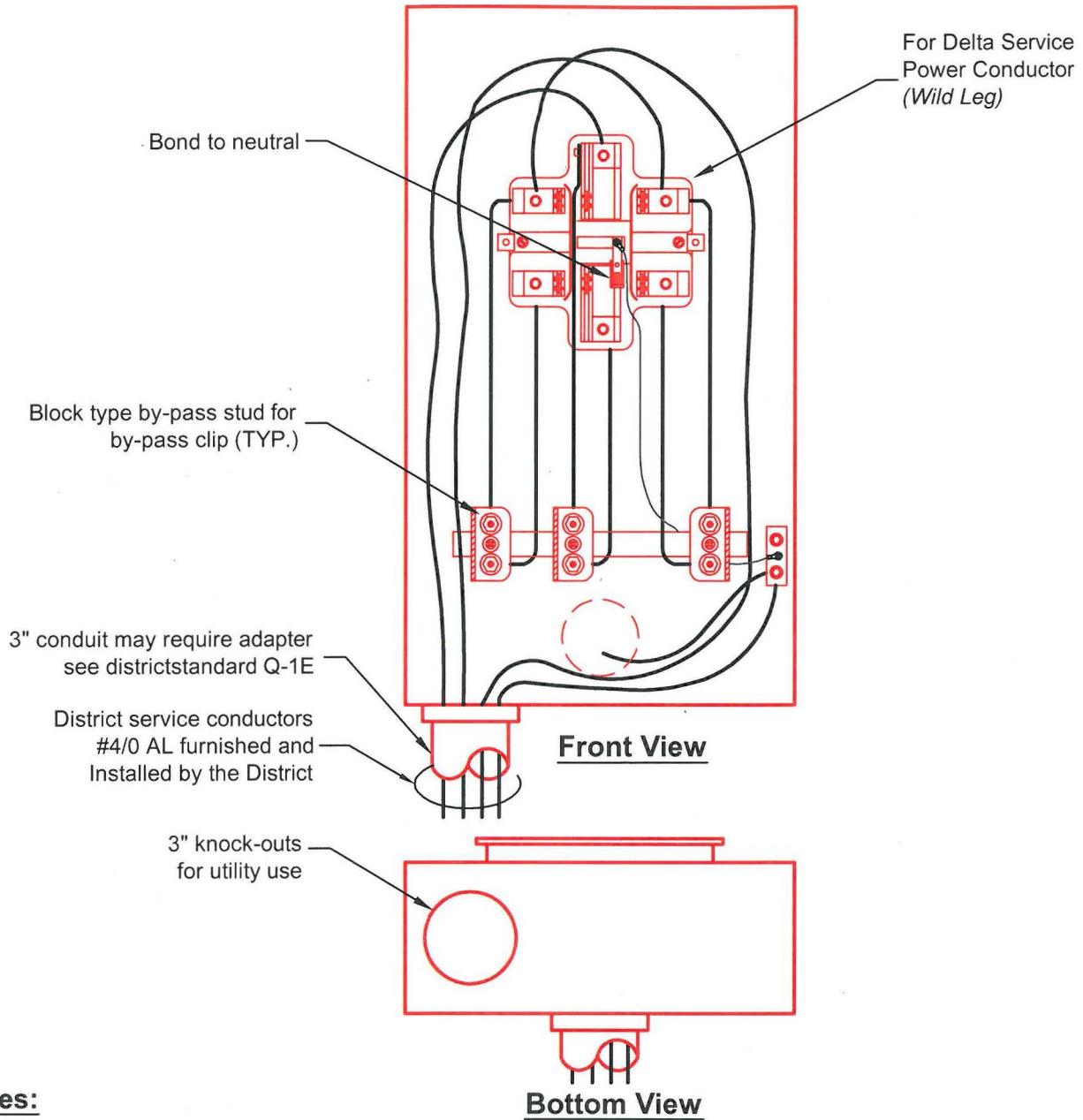
DRAWN BY: JAD
DRAW DATE: 04/10/01

TITLE:

Underground Feed
320 Amp Meter Base
Single Phase, 120/240 Volt
Residential or Commercial

REV BY: JWV	SHT.
REV DATE: 10/01/13	1 of 1
REV NO: 1	DIR. ENG. <i>[Signature]</i> DATE: 1/14
DWG. NO.	

Q-4G



Notes:

1. Meter base shall be supplied and installed (plumb & solid) by the customer.
2. Manual block type by-pass required for 200 Amp non-residential services.
3. Lever by-pass not allowed.
4. The meter base must be bonded to the customer neutral per the NEC.
5. The District requires that all services 200 Amp and below (self-contained) use meter sockets rated for 200 Amp continuous duty.
6. Meter base must have lugs which accept 4/0 aluminum conductors.
7. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
8. For pre-approval or equipment meter bases, see document **Standard Q-4M**.
9. Ringless meter base not allowed.
10. Power conductor (wild leg), color coded orange.



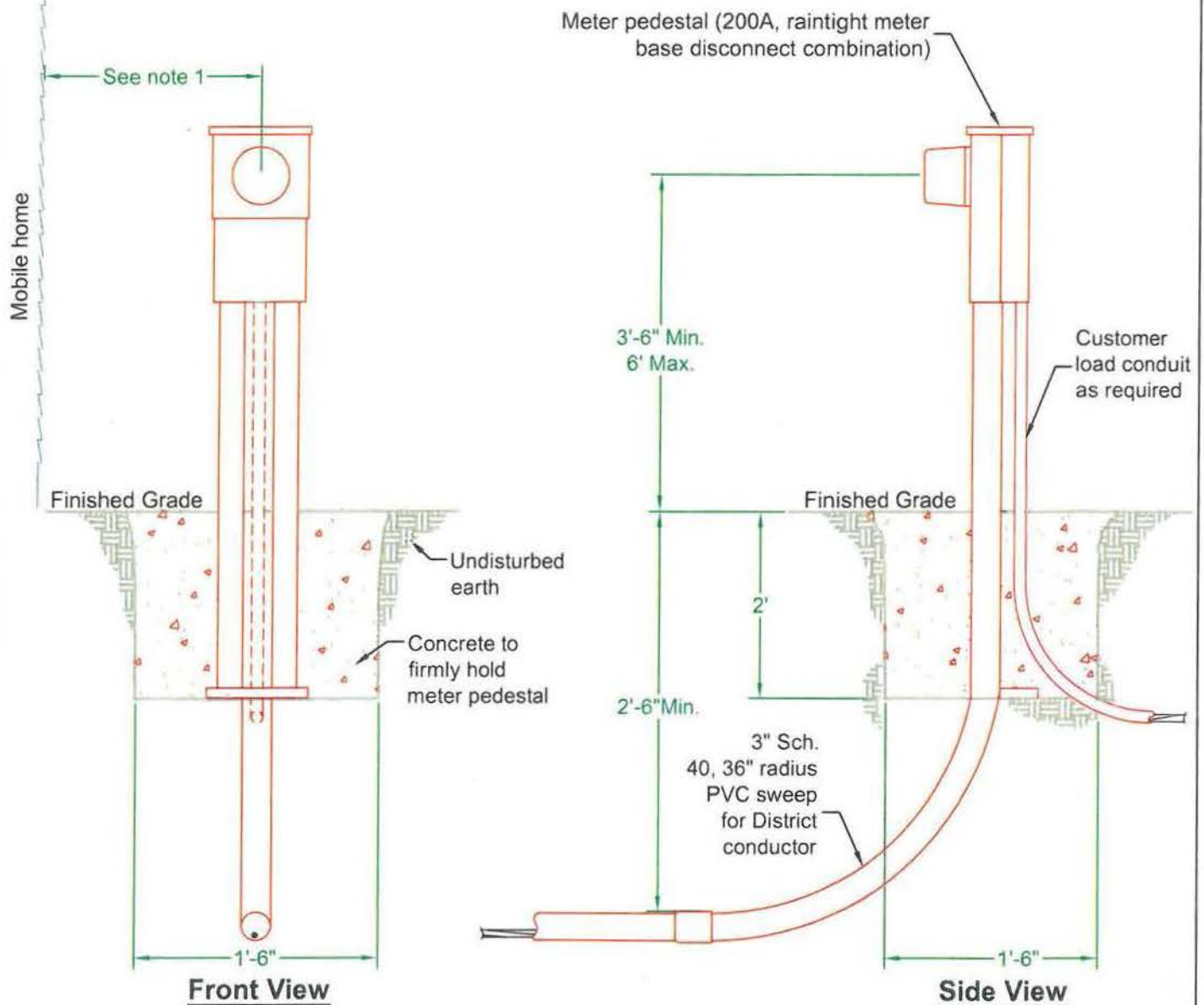
DRAWN BY: JAD
DRAW DATE: 02/26/01

TITLE:

Underground Feed
200 Amp Meter Base
Three Phase
Non - Residential

REV BY: JWV	SHT.
REV DATE: 10/01/13	1 of 1
REV NO: 1	DIR. <i>AD</i> DATE: 2/14
DWG. NO.	

Q-4H



Notes:

1. The disconnect distance between the manufactured (or mobile) home must meet the National Electric Code requirements.
2. Line termination lugs must accept #4/0 aluminum conductors.
3. Set pedestal plumb to finished grade. Set in concrete prior to District installation of service conductors.
4. Multi-unit mobile home parks and multi-unit buildings must have address identification permanently attached to the front of the meter base, per District standard Q-1C, before service will be connected.
5. The meter base must be bonded to the customer neutral per the National Electric Code.
6. Customer must provide all trench and backfill per District standard Q-7A or Q-7B.
7. Customer must provide all conduit per standard Q-1B.
8. Meter socket to be rated for 200 Amp continuous.
9. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
10. Ringless meter base not allowed.



DRAWN BY: JAD

DRAW DATE: 03/27/01

TITLE:

Underground Service 200 Amp Metered Pedestal

REV BY: JWV

REV DATE: 10/01/13

REV NO: 1

DIR.
ENG.

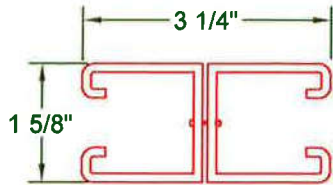
SHT.

1 of 1

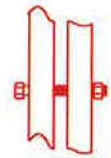
DATE: 1/14

DWG. NO.

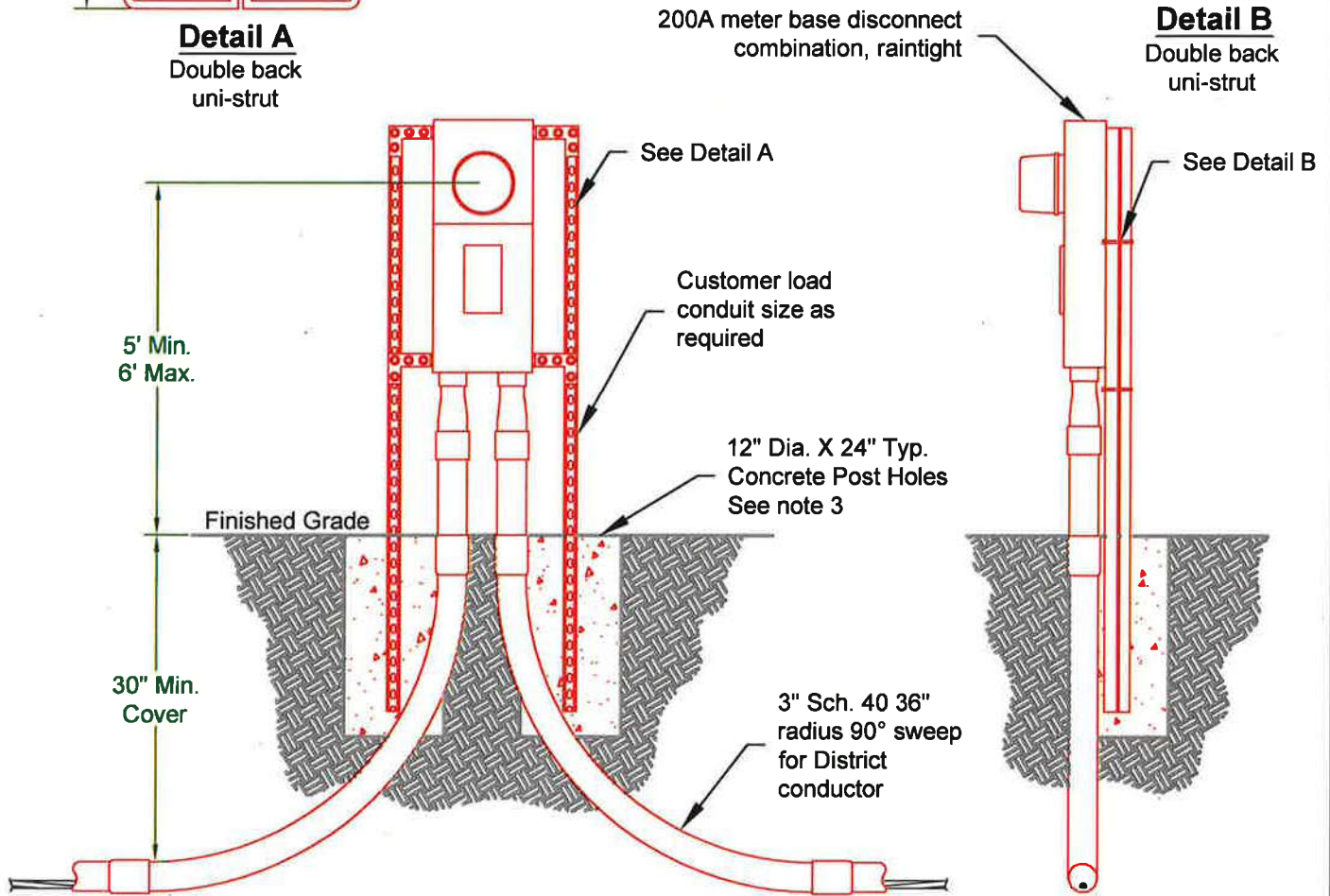
Q-4J



Detail A
Double back
uni-strut



Detail B
Double back
uni-strut



Front View

Side View

Notes:

1. The minimum distance between the pedestal and mobile home must meet the National Electric Code requirements.
2. Set pedestal plumb to finished grade. Set in concrete prior to the District installing service conductors.
3. All vertical structural components must be adequately encased in concrete.
4. Multi-unit mobile home parks and multi-unit buildings must have address identification permanently attached to the front of the meter base, per District standard Q-1C, before service will be connected.
5. The meter base must be bonded to the customer neutral per the National Electric Code.
6. Customer must provide all trench and backfill per District standard Q-7A or Q-7B
7. Customer must provide all conduit per standard Q-1B.
8. The meter socket will be rated for 200A continuous duty.
9. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
10. Ringless meter base not allowed.



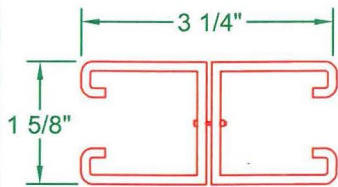
DRAWN BY: SWT

DRAW DATE: 03/27/01

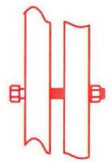
TITLE:

200 Amp Component
Meter Pedestal
(Mounted on Uni-Strut)

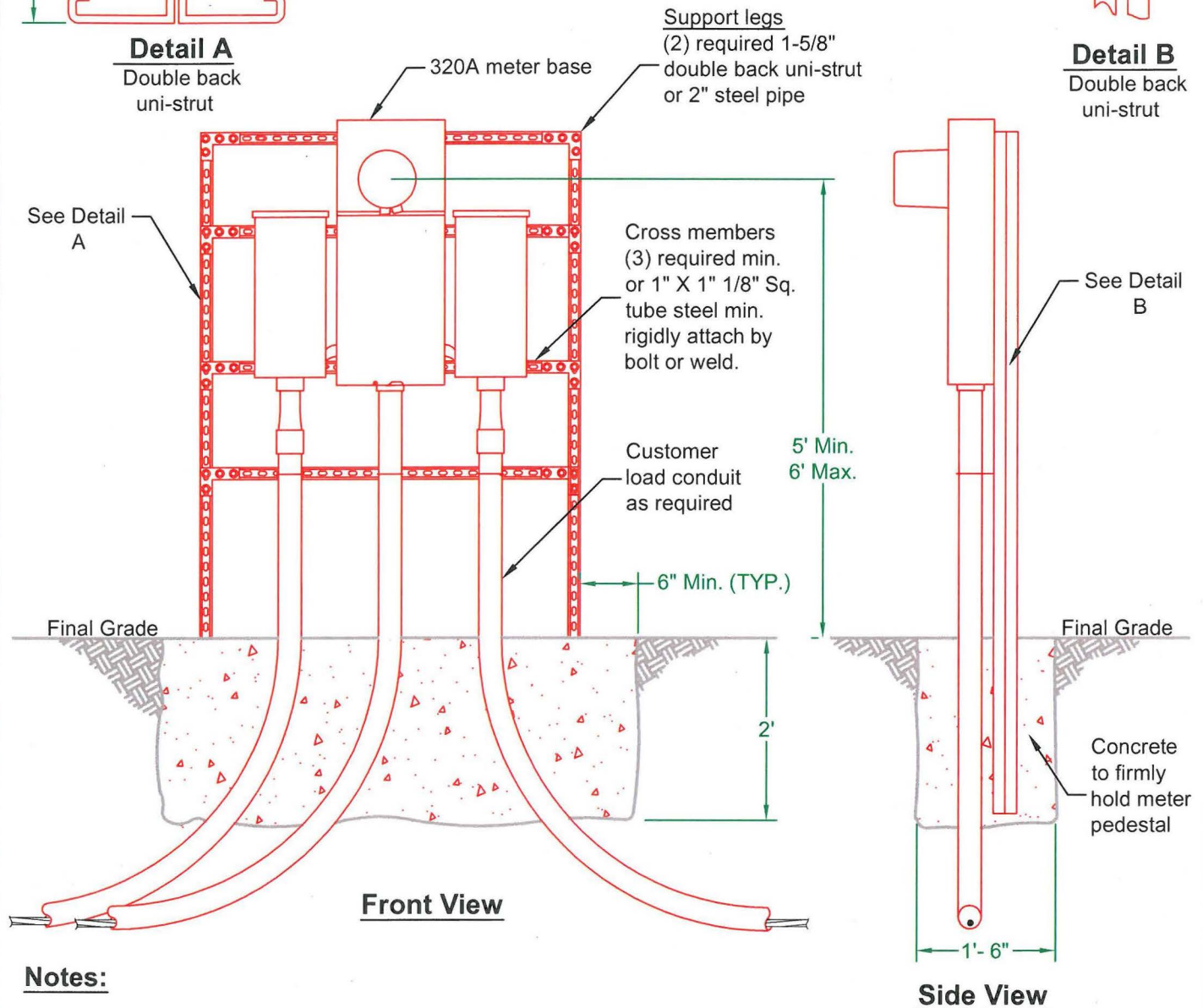
REV BY:	TMA	SHT.	1 of 1
REV DATE:	05/31/17		
REV NO:	2	DIR. ENG. <i>TD</i>	DATE: 3/8
DWG. NO.	Q-4K		



Detail A
Double back
uni-strut



Detail B
Double back
uni-strut



Notes:

1. Line termination lugs must accept 350 kcm aluminum conductors.
2. Set pedestal plumb to finished grade set in concrete prior to District installation of service conductors.
3. All vertical structural components must be adequately encased in concrete.
4. The meter base must be bonded to the customer neutral per the National Electric Code.
5. Customer must provide all trench and backfill per District standard Q-7A or Q-7B.
6. Customer must provide all conduit per District standard Q-1B.
7. The meter socket will be rated for 320 Amp continuous per District standard Q-4G.
8. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
9. Ringless meter base not allowed



DRAWN BY: DDB
DRAW DATE: 06/04/10

TITLE:

**320 Amp Component
Meter Pedestal
(Mounted on Uni-Strut)**

REV BY: JWV	SHT.
REV DATE: 10/01/13	1 of 1
REV NO: 1	DIR. ENG. DATE: 2/14
DWG. NO.	Q-4L

Q-3D

Pre-Approved Meter Bases
B-Line 204 MS68 (OH ONLY) Milbank U4517-DL-M4 (OH ONLY) Milbank U4518-XL-W (OH/UG)

Q-3E

Pre-Approved meter bases and 5th jaw kits
B-Line 204 MS68 (OH ONLY) 5th jaw kit #50365 Milbank U4517-DL-M4 (OH ONLY) W/ K5T (5th Jaw Kit) Milbank U4518-XL-W (OH/UG) W/ K5T (5th Jaw Kit)

Q-3F

Pre-Approved Meter Bases
B-Line U264 (OH/UG) Milbank U3514-XL (OH/UG)

Q-3G

Pre-Approved Meter Bases
B-Line U264 (OH/UG) W/ #50365 (5TH Jaw Kit) Milbank U3514-XL (OH/UG) W/ #K5T (5TH Jaw Kit)

Q-3H

Pre-Approved Meter Bases
B-Line 324N (OH/UG) Milbank U3548-X (OH/UG)

Q-3J

Pre-Approved Meter Bases
B-Line U267 (OH/UG) Milbank U3517-XL (OH/UG)

Q-4C

Pre-Approved Meter Bases
B-Line U204 (UG ONLY) Milbank U4518-O-W (UG ONLY) Milbank U4518-XL-W (OH/UG)

Q-4D

Pre-Approved Meter Bases
B-Line U204 W/50365 (5th Jaw Kit) (UG ONLY) Milbank U4518-O-W W/K5T (5th Jaw Kit) (UG ONLY) Milbank U4518-XL-W W/K5T (5th Jaw Kit) (OH/UG)

Q-4E

Pre-Approved Meter Bases
B-Line U264 (OH/UG) Milbank U3514-XL (OH/UG)

Q-4F

Pre-Approved Meter Bases
B-Line U264 (OH/UG) W/ #50365 (5TH Jaw Kit) Milbank U3514-XL (OH/UG) W/ #K5T (5TH Jaw Kit)

Q-4G

Pre-Approved Meter Bases
B-Line 324N (OH/UG) Milbank U3548-X (OH/UG)

Q-4H

Pre-Approved Meter Bases
B-Line U267 (OH/UG) Milbank 3517-XL (OH/UG)



TITLE:

Pre-Approved
Meter Bases

DRAWN BY: JVV

DRAW DATE: 10/01/13

REV BY: ECE

SHT.

REV DATE: 1/30/2015

1 of 1

REV NO: 1

DIR. ENG. *AD*

DATE: 3/18

DWG. NO.

Q-4M

CURRENT TRANSFORMERS



DRAWN BY: JAD

DRAW DATE: 03/05/04

TITLE:

CURRENT TRANSFORMERS
Q-5 Series

REV BY: JWV

REV DATE: 10/01/13

REV NO: 1

DIR.
ENG.

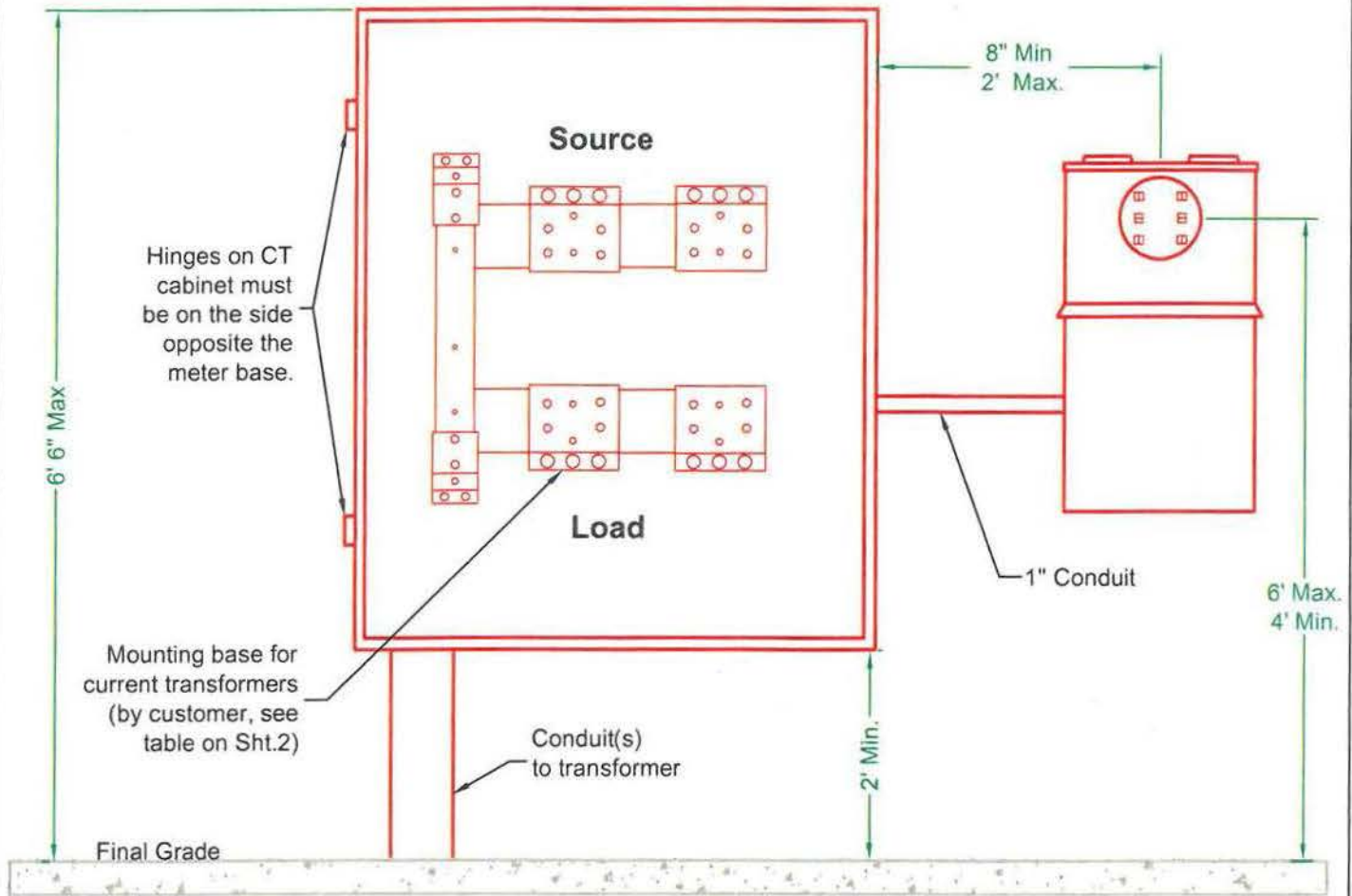
SHT.

1 of 1

DATE: 1/14

DWG. NO.

Q-5



DRAWN BY: JAD
DRAW DATE: 03/07/01

TITLE:

Current Transformer (CT)
Compartment Requirements for
Single Phase Services
201-800 Amps

REV BY: JWV	SHT. 1 of 2
REV DATE: 10/01/13	
REV NO: 0	DIR: <i>JD</i> DATE: 1/14
ENG: <i>JD</i>	
DWG. NO.	

Q-5B

Pre -approved Single Phase Current Transformer Cabinet & Mounting Bases

CT Service Type		Cabinet Dimensions			CT Cabinets		CT Mounting Bases		
Service Size	Number of Load Conductors	Width	Height	Depth	Cooper B-Line Part #	Milbank Part #	Cooper B-Line Part #	Milbank Part #	EUSERC Drawing #
201-400A	1-2	24" min	48"	11"	244811 HRTCT or 304811 HRTCT	CT244811HC or CT304811HC	6019HA or 6019HAL	K4797 or K4903	328A or 328B
201-800A	1-4	36"	48"	11"	364811 HRTCT	CT364811HC	6019HE or 6019HEL	K4797 or K4729	

Notes:

1. Current transformer cabinet and CT mounting base to be supplied by the customer.
2. Current transformers to be supplied and installed by District.
3. Estimated Load must be at least 25 KVA for CT metering to facilitate additional load growth and the customers request appears reasonable, customer must install Current Transformer Enclosure for the CT metering equipment.
4. The CT mounting base shall have a 50,000 Amp minimum fault current rating.
5. The cabinet will be raintight, with a sealable, hinged, cover.
6. District provides the service conductors to transformer on residential services.
7. The maximum number of load conductors per phase will be limited to four without prior District approval.
8. Customer shall ensure the load conductors are compatible with the connectors on the EUSERC 328B style CT mounting base. All mechanical cable termination blocks shall be provided by the customer.
9. The customer shall make up and terminate the load side connections in the CT compartment.
10. The customer service entrance conduits must exit the enclosure on the load side of the CT mounting base. The District will not allow customer conductors or conduit in the District's terminating and pull space.
11. The meter base shall be provided by District and installed by customer.
12. Bonding must be in accordance with the current National Electric Code requirements.
13. Meter sockets shall be installed within 24" of Non-Hinge side of CT compartment and not be located above CT cans due to safety of working in front of the energized equipment.
14. Maximum conductor size allowed is 500 kcm copper or aluminum.
15. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.



TITLE:

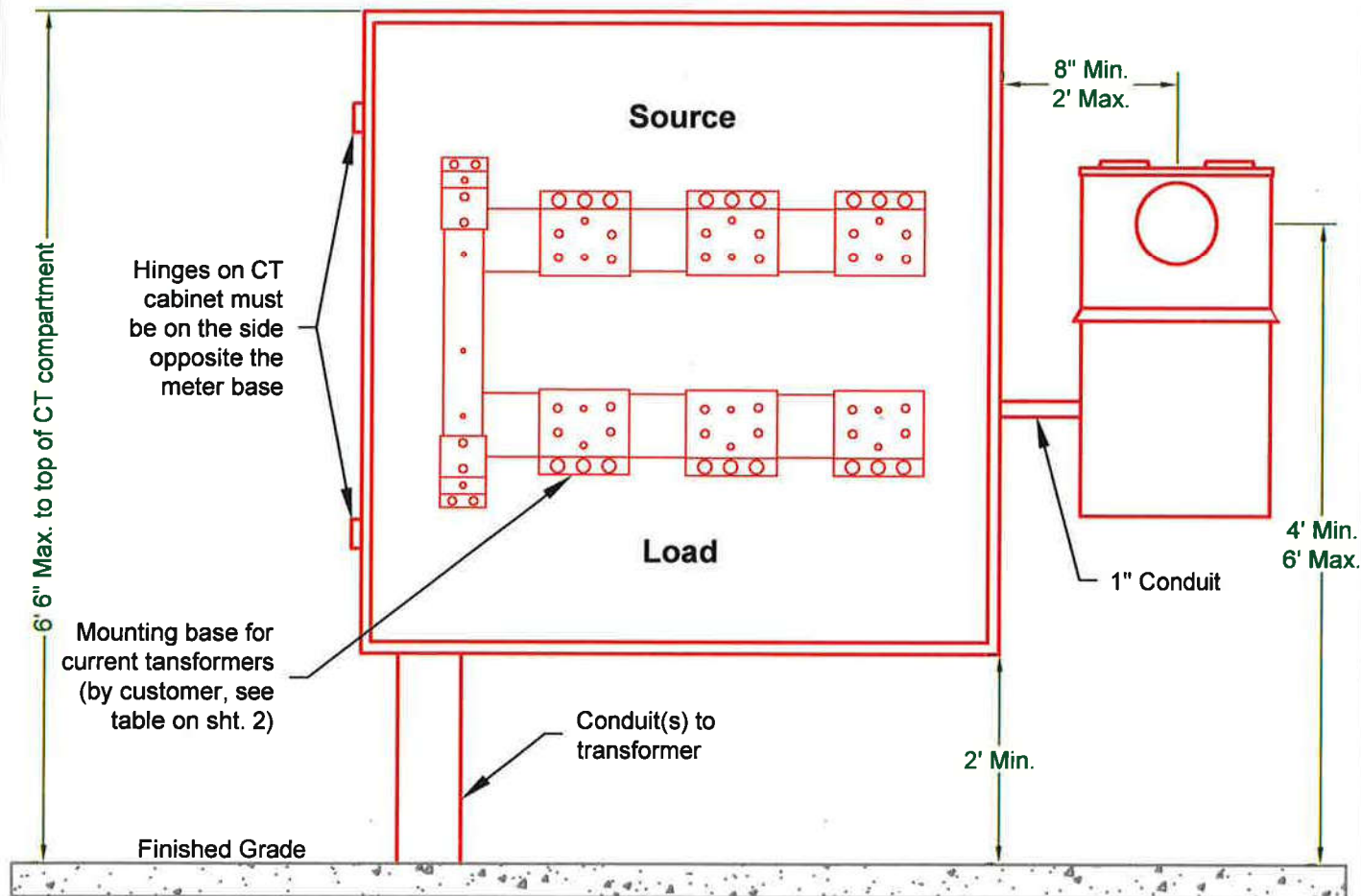
**Current Transformer (CT)
Compartment Requirement for
Single Phase Services
201-800 Amps (Cont.)**

DRAWN BY: JAD

DRAW DATE: 03/07/01

REV BY: JWV	SHT. 2 of 2
REV DATE: 10/01/13	
REV NO: 1	DIR. DATE: 2/1
DWG. NO.	

Q-5B (Cont.)



TITLE:

**Current Transformer (CT)
Compartment Requirements for
Three Phase Services
201-800 Amps**

REV BY: TMA

SHT.

REV DATE: 05/31/17

1 of 2

REV NO: 2

DIR. ENG. *FD*

DATE: 3/18

DWG. NO.

Q-5E

DRAWN BY: JAD

DRAW DATE: 03/26/10

Pre -approved Three Phase Current Transformer Cabinet & Mounting Bases

CT Service Type		Cabinet Dimensions			CT Cabinets		CT Mounting Bases		
Service Size	Number of Load Conductors	Width	Height	Depth	Cooper B-Line Part #	Milbank Part #	Cooper B-Line Part #	Milbank Part #	EUSERC Drawing #
201-400A	1-2	30"	48"	11"	304811HRTCT	CT304811-HC	6067HA or 6067HAL	K4798 or K4904	329A or 329B
201-800A	1-4	36"	48"	11"	364811HRTCT	CT364811-HC	6067HEE or 6067HEEL	K4798 or K4722	

Notes:

1. Current transformer cabinet and CT mounting base to be supplied and installed by the customer
2. Current transformers to be supplied and installed by District.
3. Estimated load must be at least 50 KVA for secondary compartment CT metering, specifically services which are fed by a District 45 KVA transformer must be metered within a Current Transformer Enclosure.
4. Estimated load must be at least 100 KVA to be metered in the secondary compartment of the transformer. CT metering, specifically for services which are fed by a District 75 KVA or smaller transformer shall be metered within a Current Transformer Enclosure.
5. The CT mounting base shall have a minimum 50,000A fault current rating.
6. The cabinet will be raintight, with a sealable, hinged, cover.
7. The customer shall provide and install the service conductors to the District transformer.
8. The maximum number of conductors per phase will be limited to four without prior District approval.
9. Customer shall ensure all the conductors are compatible with the connectors on the EUSERC 329B style CT mounting base. All mechanical cable termination blocks shall be provided by the customer.
10. The customer shall make up and terminate all connections in the CT compartment.
11. The customer service entrance conduits must exit the enclosure on the load side of the CT mounting base. The District will not allow customer conductors or conduit in the District's terminating and pull space.
12. The meter base shall be provided by the District and installed by the customer.
13. Bonding must be in accordance with latest issue of National Electric Code (Article 250 grounding).
14. Meter sockets shall be installed within 24" of Non-Hinged side of CT compartment and not be located above CT cans due to safety of working in front of the energized equipment.
15. Maximum conductor size allowed is 750 kcm copper or aluminum.
16. Details shown are minimum district requirements and are not intended to depict Washington State Labor and Industries requirements.



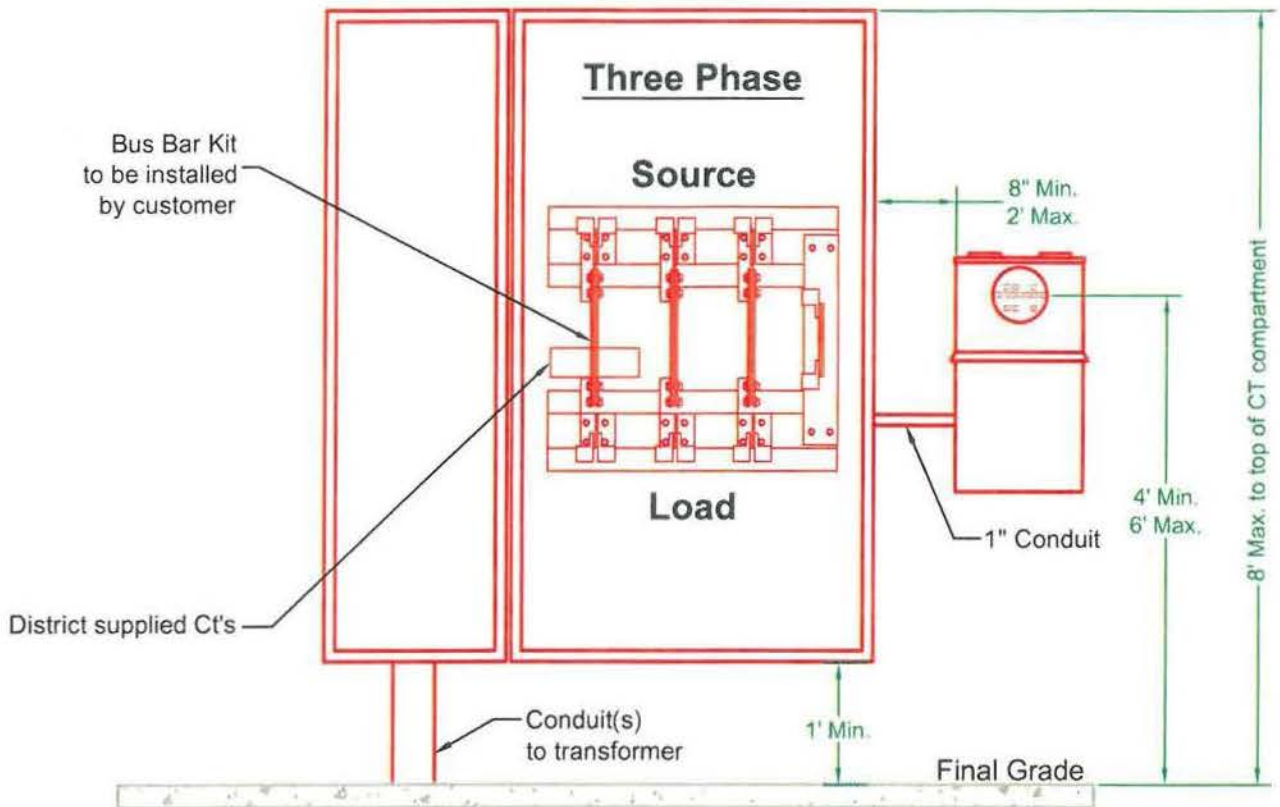
DRAWN BY: JAD

DRAW DATE: 03/26/10

TITLE:

**Current Transformer (CT)
Compartment Requirement for
Three Phase Services
201- 800 Amps**

REV BY: TMA	SHT. 2 of 2
REV DATE: 05/31/17	
REV NO: 0	DIR. DATE: 3/18
DWG. NO.	
Q-5E (Cont.)	



DRAWN BY: SWT
DRAW DATE: 05/12/10

TITLE:

Current Transformer (CT)
Compartment Requirements for
Commercial Three Phase Services
1200-2500 Amps

REV BY: JWV	SHT. 1 of 2
REV DATE: 10/01/13	
REV NO: 1	DIR. ENG. DATE: 1/14
DWG. NO.	

Q-5F

Pre -approved Three Phase Commercial Current Transformer Cabinet & Mounting Bases

CT Service Type		Cabinet Dimensions			CT Cabinets with Mounting Bases	
Service Size	Number of Load Conductors	Width	Height	Depth	Erickson Bulletin Numbers	Erickson Catalog Numbers
1200A	3	55"	64"	15"	BPCT-07A	CT-124-BP-SG
1600A	4	61"	64"	15"	BPCT-07A	CT-164-BP-SG
2000A	5	65"	64"	15"	BPCT-07A	CT-204-BP-SG**
2500A	7	65"	64"	15"	BPCT-07A	CT-254-BP-SG**

* INCLUDES SIDE GUTTER

** MUST CONTACT BENTON PUD PRIOR TO PURCHASE(NON-STANDARD)

Notes:

1. Current transformer cabinet and CT mounting base to be supplied and installed by the customer
2. Current transformers to be supplied and installed by the District.
3. The CT mounting base shall have a 85,000A minimum fault current rating.
4. The cabinet will be raintight, with a sealable, hinged, cover.
5. The customer shall provide and install the service conductors to the District transformer.
6. The maximum number of source conductors per phase will be limited to six without prior District approval.
7. Customer shall ensure all load conductors are compatible with the connectors on the EUSERC 328B Style CT mounting base. All mechanical cable termination blocks shall be provided by the customer.
8. The customer shall make up and terminate all connections in the CT compartment
9. The customer service entrance conduits must exit the enclosure on the load side of the CT mounting base, unless written permission is obtained from Engineering and the Meter Shop.
The District will not allow customer conductors or conduit in terminating and pull space.
10. The meter base shall be provided by the District and installed by the customer.
11. Bonding must be in accordance with latest issue of the National Electric Code (Article 250 grounding).
The code enforcing agency requires bonding connection to be visible when electrical inspection is made.
12. Meter sockets shall be installed within 2' of CT compartment and not be located above CT cans due to safety of working in front of the energized equipment.
13. Maximum conductor size allowed is 750 kcm copper or aluminum.
14. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.
15. Customer will install bus bar and CT perch for window style CT.

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Benton PUD Construction Standards & Property Construction Standards



DRAWN BY: SWT

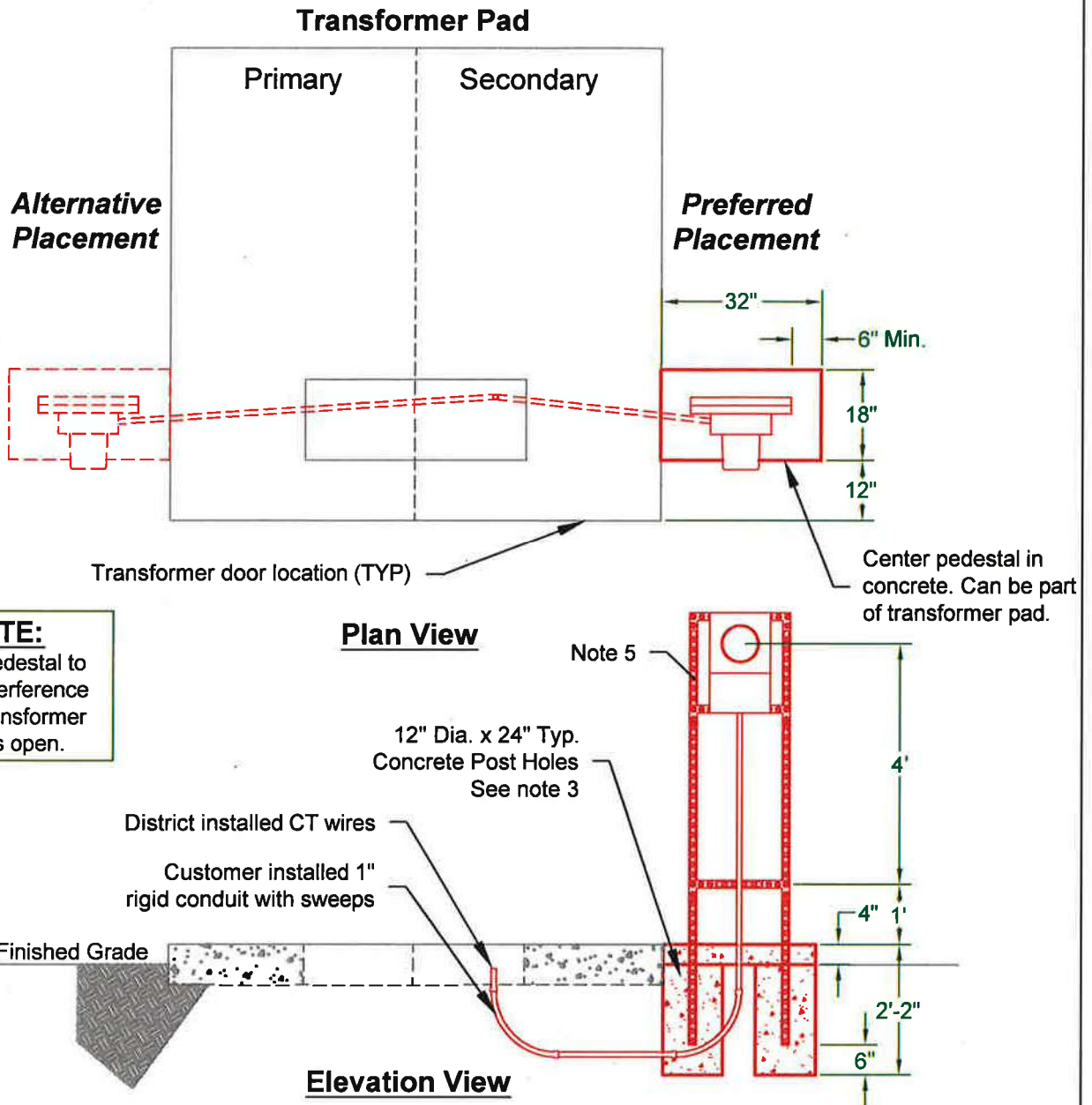
DRAW DATE: 05/12/10

TITLE:

Current Transformer (CT)
Compartment Requirements for
Commercial Three Phase Services
1200-2500 Amps

REV BY: JWV	SHT.
REV DATE: 10/01/13	2 of 2
REV NO: 1	DIR. ENG. DATE: 1/14
DWG. NO.	

Q-5F

**Notes:**

1. The District will provide the pre-fabricated meter base and frame. Contractor install pedestal in concrete, plumb and sound, and to finished grade as shown.
2. Refer to transformer pad detail, UG6-C, or UG6-C2.
3. All vertical structural components must be adequately encased in concrete.
4. Customer will supply and install the 1" conduit for the meter..
5. The meter must be located so the metering circuit conduit run does not exceed 25' in length or contain more than 4 bends totaling 360 degrees.
6. No condulets or junctions are allowed in metering circuit conduit.
7. Secondary circuit conductors: maximum number of wire-6 sets of 750 kcm copper or aluminum. Contact the District if in need of additional sets.
8. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.



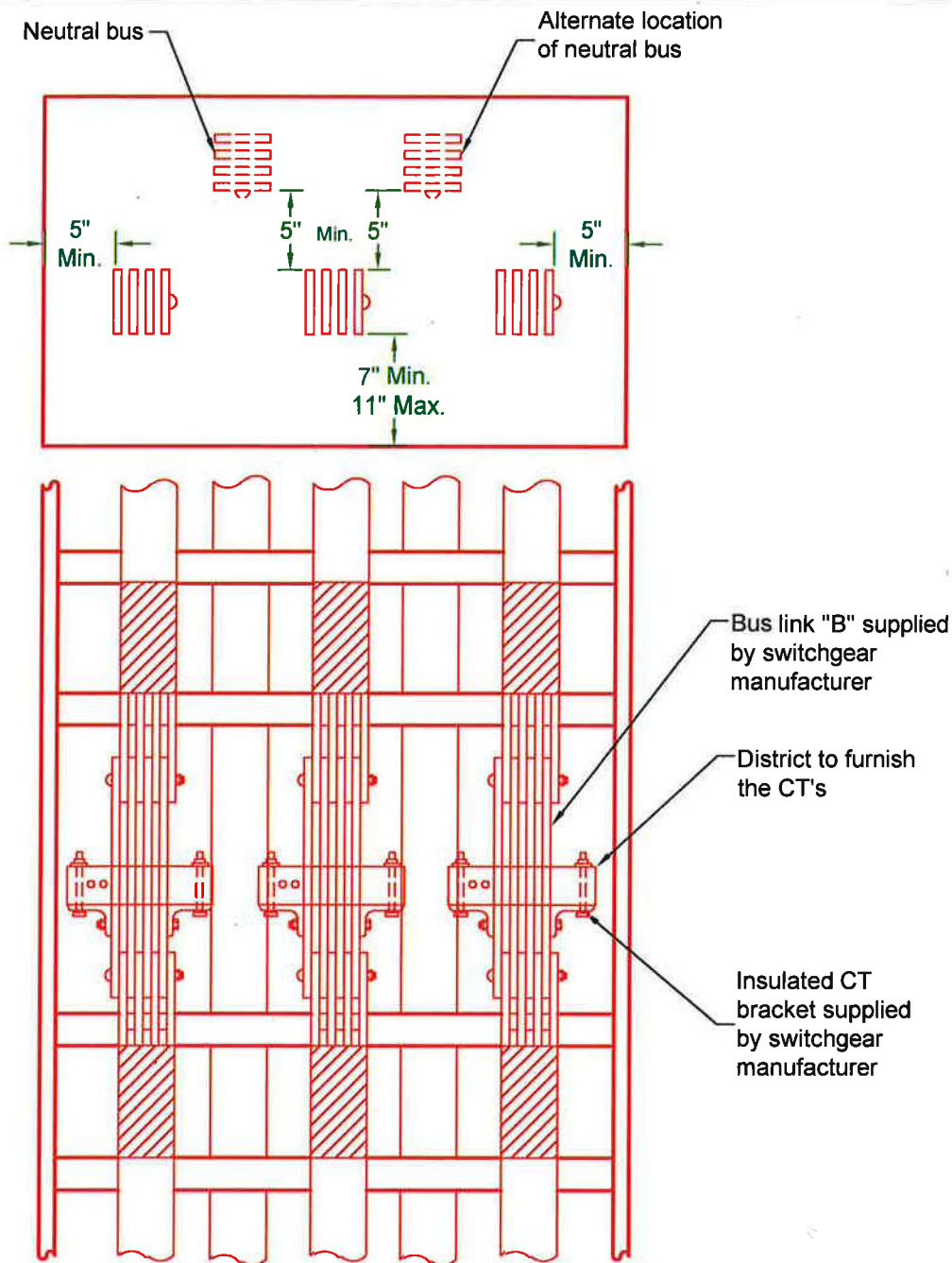
DRAWN BY: JAD

DRAW DATE: 03/27/01

TITLE:

**Self Supported CT
Meter Pedestal
with CT's Installed in Secondary
Side of District Transformer**

REV BY: TMA	SHT: 1 of 1
REV DATE: 06/01/17	
REV NO: 2	DIR. ENG. DATE: 3/8
DWG. NO.	Q-5G



Notes:

1. Contact Engineering regarding all switchgear installations for prior approval.
2. Busways must remain in position when the removable bus link "B" is removed.
3. Set the direction of feed from the top. No other customer conductors shall pass through this compartment.
4. Bus clearance dimension measured to inside edge of the compartment access opening.
5. Reference EUSERC 320 and 322.
6. Customer to install and terminate all conductors.
7. Current transformers to be supplied and wired by the District.
8. Customer shall remove bus links to facilitate CT installation and shall re-torque following completion.



DRAWN BY: SWT

DRAW DATE: 06/04/10

TITLE:

Current Transformer Compartment for Switch Gear/Switch Board 400-3000 Amps

REV BY:	TMA	SHT:	1 of 1
REV DATE:	03/19/2018		
REV NO:	2	DIR ENG:	DATE: 3/18
DWG. NO.	Q-5H		

TRANSFORMER PADS AND CLEARANCES



DRAWN BY: JAD

DRAW DATE: 03/05/04

TITLE:

TRANSFORMER PADS
& CLEARANCES
Q-6 Series

REV BY: JWV

REV DATE: 10/01/2013

REV NO: 1

DIR.
ENG.

[Signature]

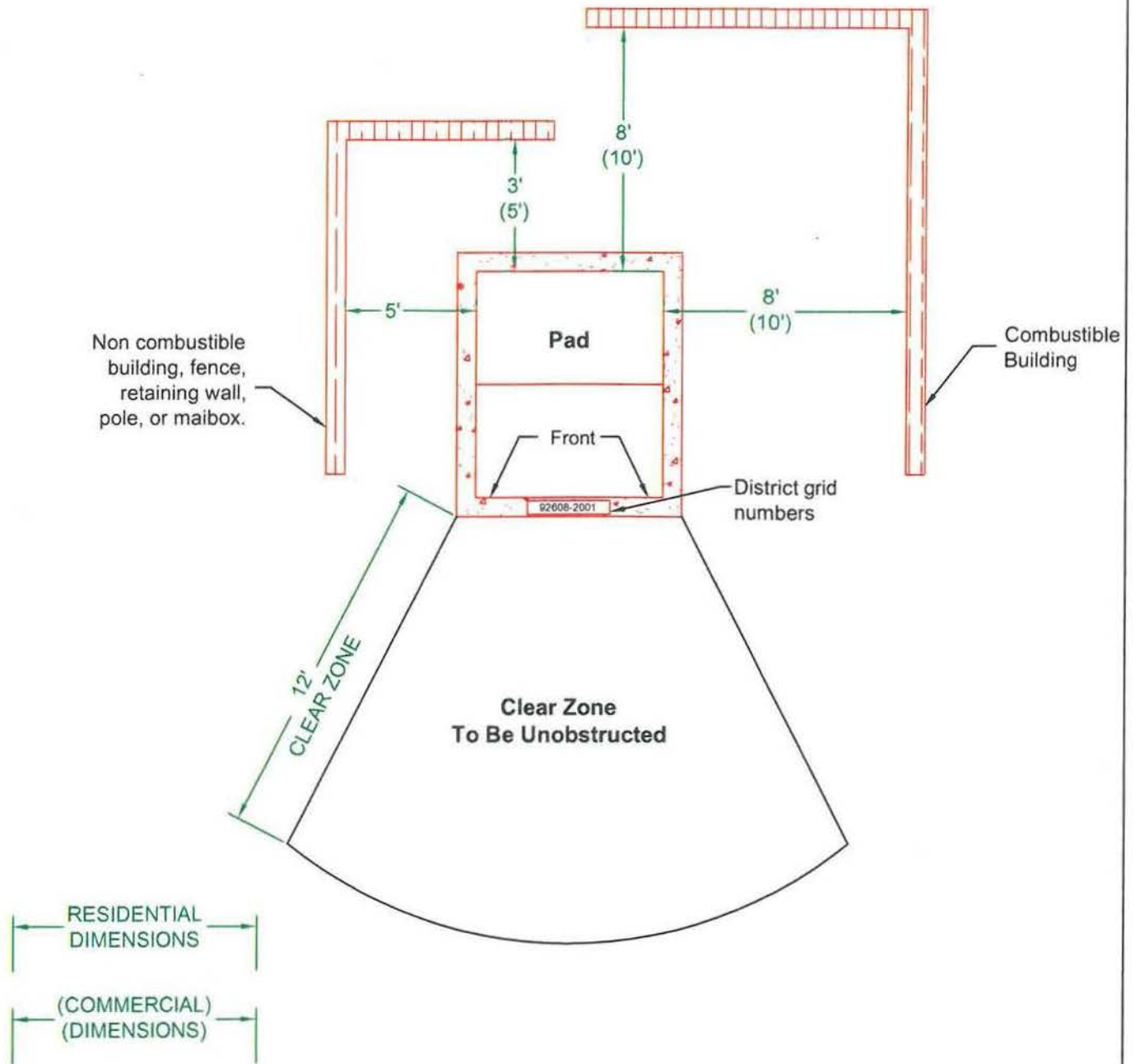
DATE: 1/14

SHT.

1 of 1

DWG. NO.

Q-6



Notes:

1. All dimensions are minimum
2. No obstructions are allowed over transformer.
3. Refer to District planting guide for landscaping.
4. Installation must not violate WAC-296-46B-450 transformers.

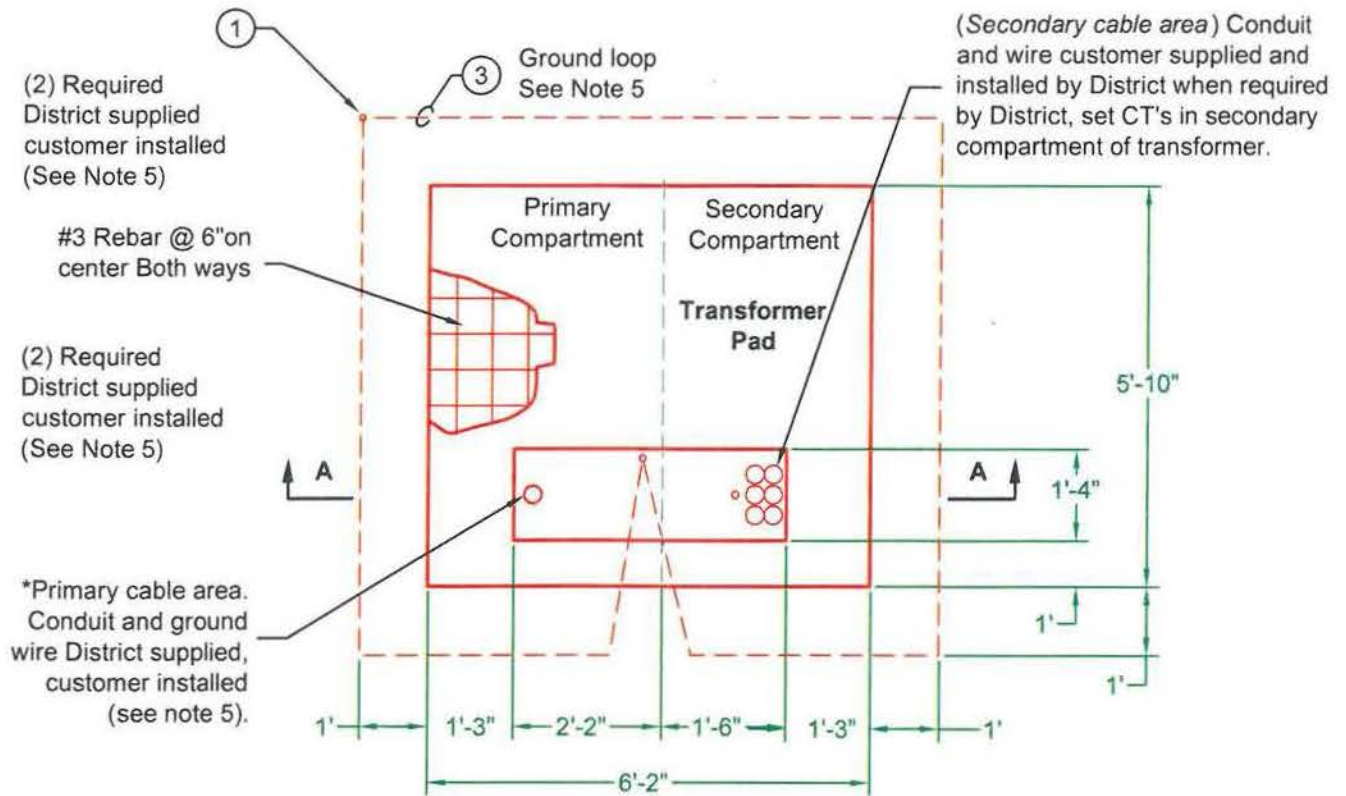
**BENTON
PUD**

DRAWN BY: JAD

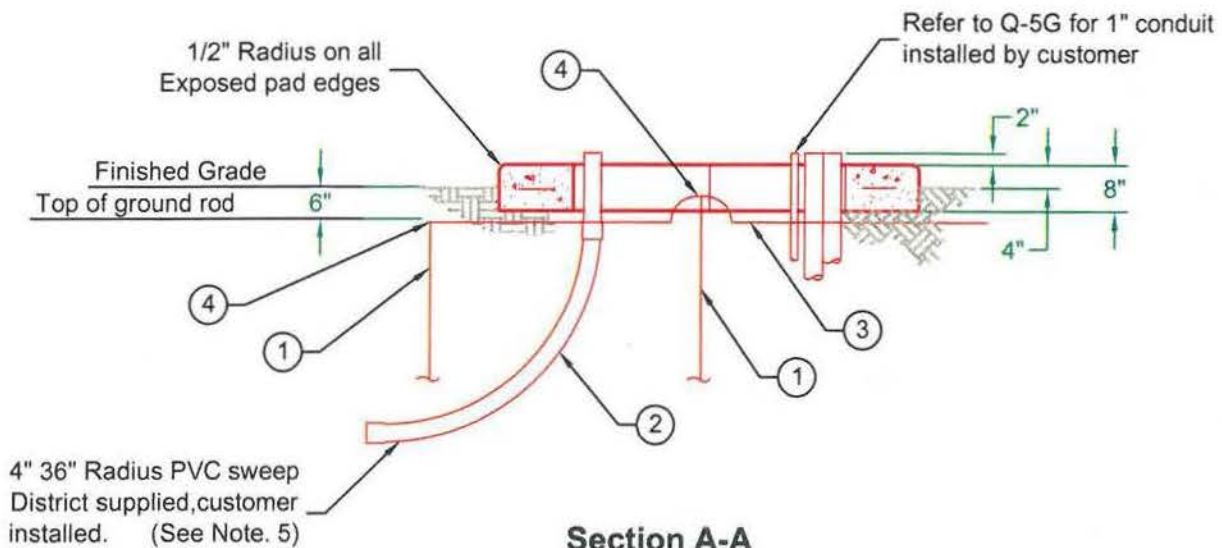
DRAW DATE: 03/27/01

TITLE: Installation Clearances
for
Commercial & Residential
Transformers

REV BY: JWV	SHT. 1 of 1
REV DATE: 10/01/2013	
REV NO: 1	DATE: 1/14
DWG. NO. Q-6C	



Plan View
Concrete Transformer Pad by Customer



Section A-A

UG6-C			
Item	Qty.	Description	Item Code
1	2	5/8" x8" Ground Rod	337381
2	1	4 " Diameter PVC Sch. 40 36" Radius Sweep	633651
3	50'	Wire #4 MHDB 7 Str.	400300
4	2	5/8" Ground Rod Clamp	327100

Notes:

1. Ground under pad must be 95% minimum compaction.
2. Concrete shall be Portland Cement concrete, 5 sack mix, attaining 3000 P.S.I. at 28 days.
3. Top of pad shall be level and finished smooth. Surface shall not contain honeycomb or segregation.
4. Barricade traffic bollards provided and installed by customer - contact District engineering to determine location of posts. When required, bollards must not interfere with swing of transformer doors.
5. Customer to pick up 4" primary conduit sweep, 2 ground rods, and #4 Str. bare CU. ground wire from the District warehouse located at 1500 S. Ely street, Kennewick.
6. Maximum number of wire-6 sets of 750 kcm copper or aluminum. Contact the District if in need of additional sets.
7. For pad location, reference District standard Q-6C for clearance to existing structures.



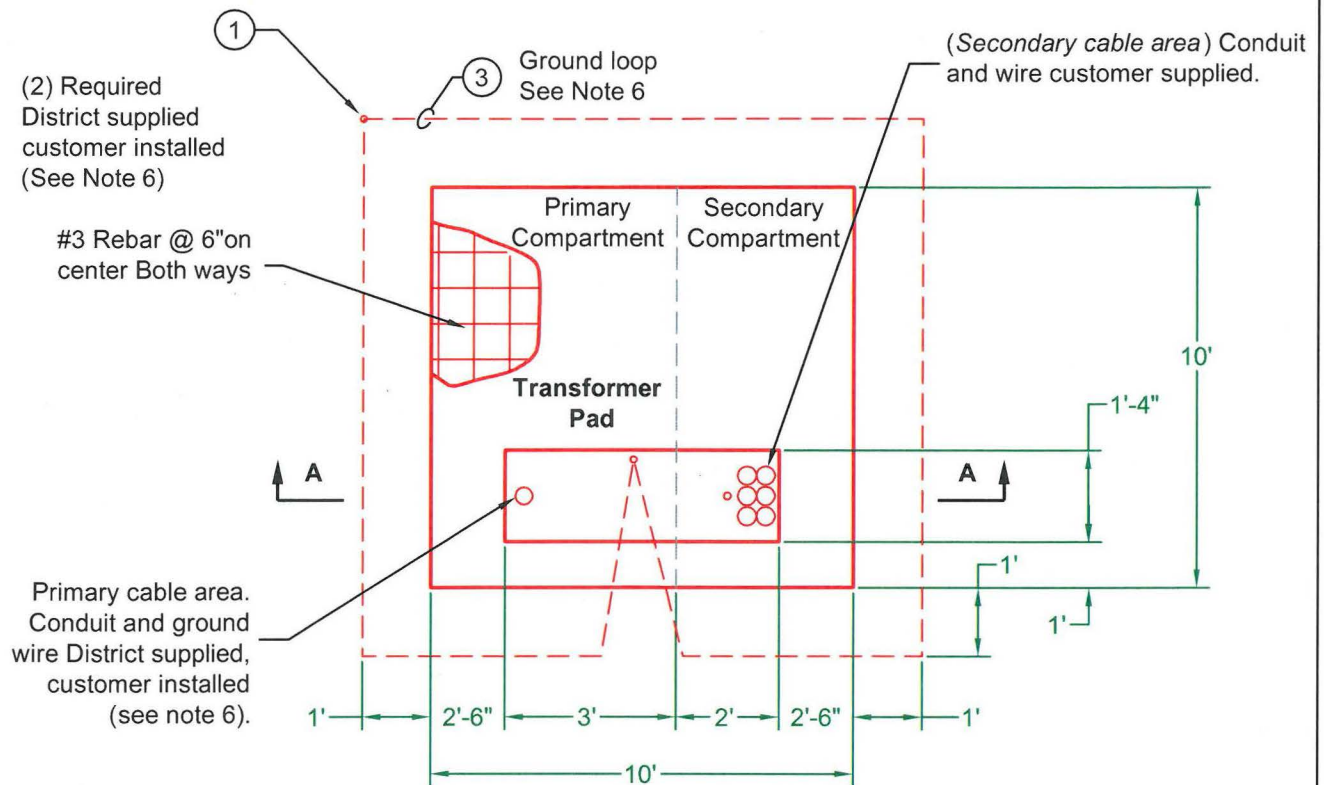
DRAWN BY: JAD
DRAW DATE: 11/01/01

TITLE:

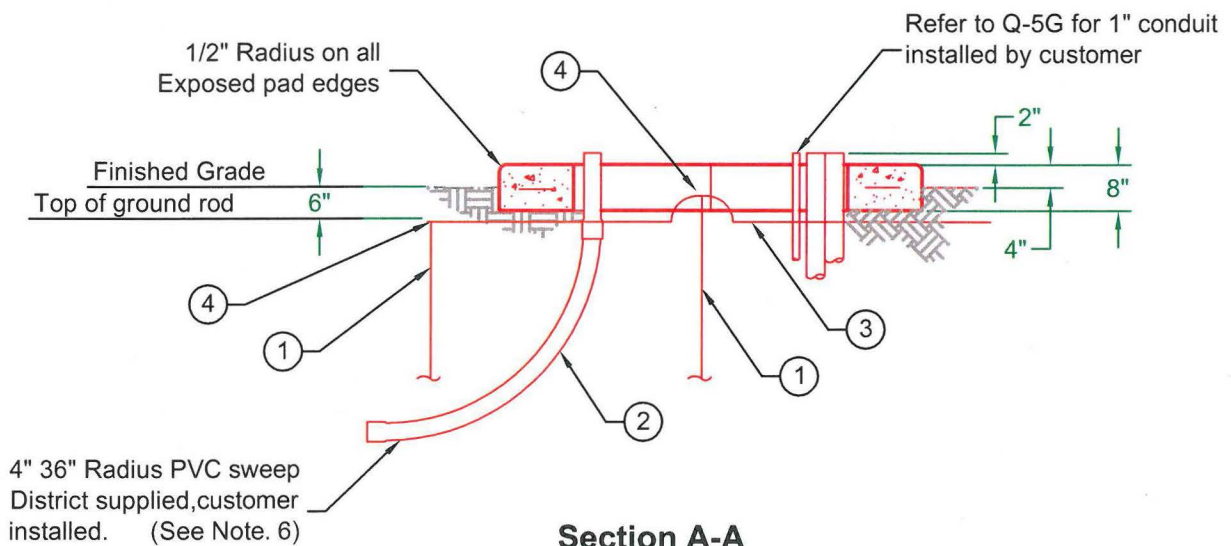
Transformer Pad Details
500 kVA & Below
Three Phase Pad

REV BY: JWV	SHT. 2 of 2
REV DATE: 10/01/2013	
REV NO: 1	DATE 1/14
DIR. ENG. <i>AD</i>	
DWG. NO.	

UG6-C



Plan View
Concrete Transformer Pad by Customer



DRAWN BY: JAD
DRAW DATE: 11/01/01

TITLE:

Transformer Pad Details
750 kVA & Above
Three Phase Pad

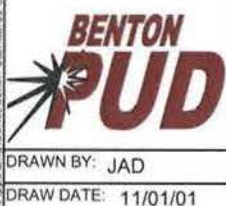
REV BY: JWV	SHT.
REV DATE: 10/01/2013	1 of 2
REV NO: 1	DIR. ENG. DATE: 2/14
DWG. NO.	

UG6-C2

UG6-C2			
Item	Qty.	Description	Item Code
1	2	5/8" x8" Ground Rod	337381
2	1	4 " Diameter PVC Sch. 40 36" Radius Sweep	633651
3	50'	Wire #4 MHDB 7 Str.	400300
4	2	5/8" Ground Rod Clamp	327100

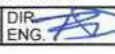
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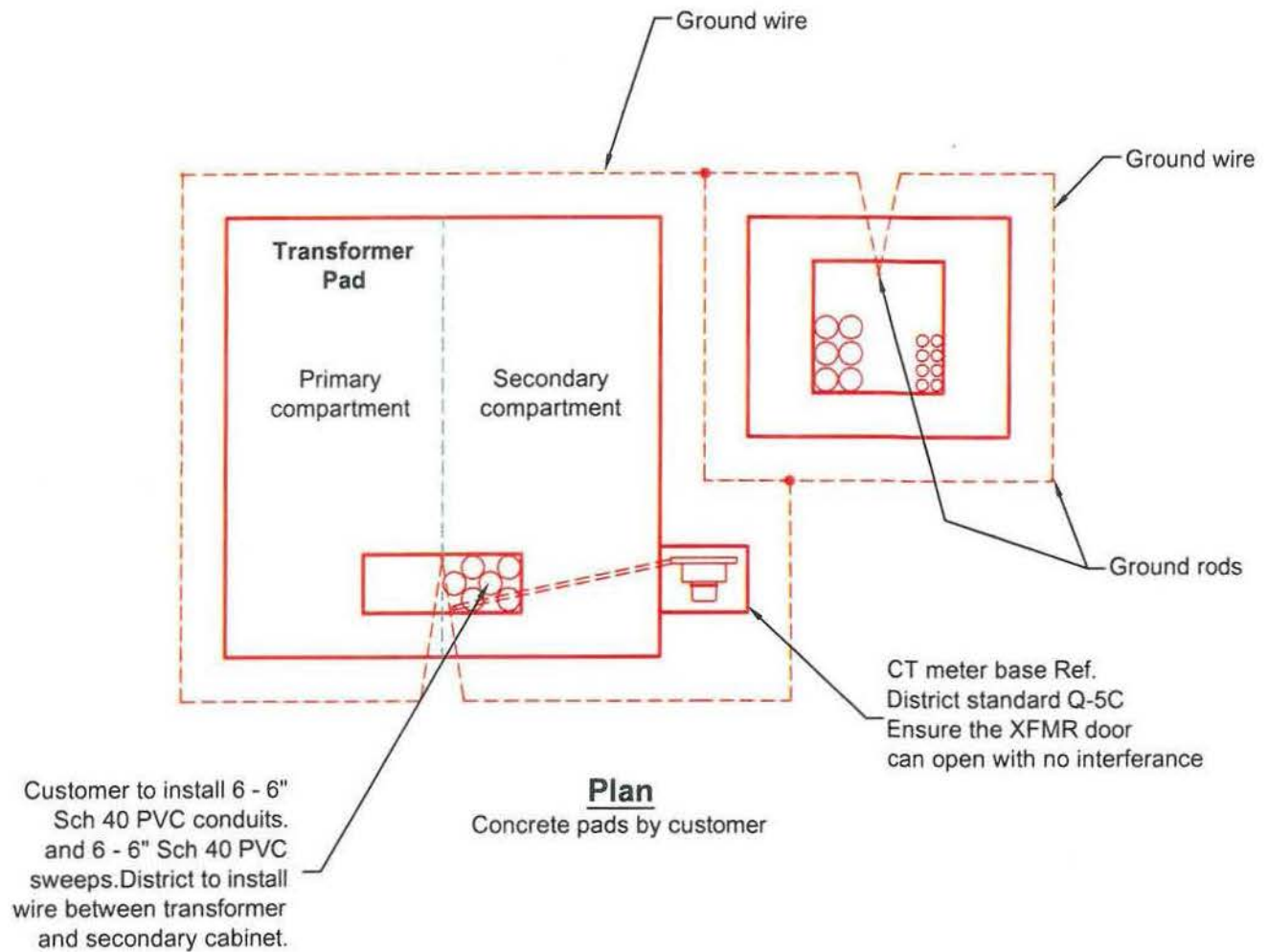
1. Ground under pad must be 95% minimum compaction.
2. Concrete shall be Portland cement concrete, 5 sack mix, attaining 3000 P.S.I. at 28 days.
3. Top of pad shall be level and finished smooth. Surface shall not contain honeycomb or segregation.
4. Barricade traffic bollards provided and installed by customer - contact District engineering to determine location of posts.
5. When required, bollards must not interfere with swing of transformer doors.
6. Customer to pick up 4" primary conduit sweep, 2 ground rods, and #4 Str. bare CU. ground wire from the District warehouse located at 1500 S. Ely street, Kennewick.
7. Maximum number of wire-6 sets of 750 kcm copper or aluminum. Contact the District if in need of additional sets.
8. For pad location, reference District standard Q-6C for clearance to existing structures.



TITLE:

Transformer Pad Details
750 kVA & Below
Three Phase Pad

REV BY: JWV		SHT.	
REV DATE: 10/01/2013		2 of 2	
REV NO: 1	DIR. 	DATE: 1/1/11	
DWG. NO.			
UG6-C2			



Notes:

1. Terminations of customer owned wire in secondary cabinet by customer.
2. Reference transformer pad details, District standard UG6-C or UG6-C2.
3. Reference CT meter base construction, District standard Q-5G.
4. Primary cable area conduit and ground wire District supplied, customer installed.
5. When required by District set CT's in secondary compartment of transformer.
6. Termination cabinet grounds shall be bonded with transformer pad grounds.
7. See UG6-C or UG6-C2 for XFMR pad details.



DRAWN BY: SWT
DRAW DATE: 06/21/10

TITLE:

600V Termination Cabinet Guideline

REV BY: JWV	SHT.
REV DATE: 10/01/2013	1 of 1
REV NO: 1	DIR. <i>[Signature]</i> DATE: 4/14
DWG. NO.	
Q-6G	

TRENCHING



DRAWN BY: JAD

DRAW DATE: 03/05/04

TITLE:

TRENCHING
Q-7 Series

REV BY: JWV

REV DATE: 10/01/2013

REV NO: 1

DIR.
ENG.

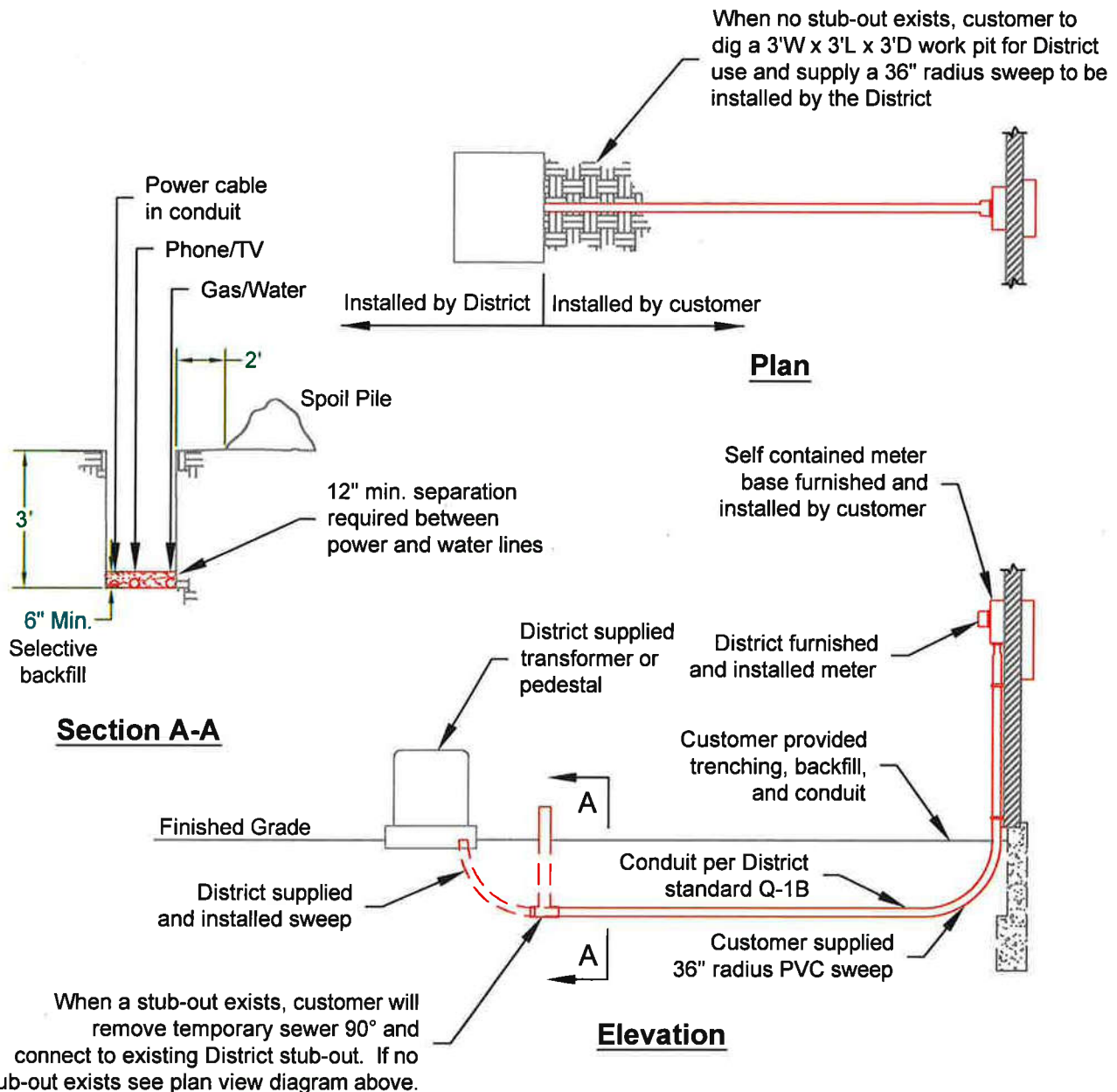
SHT.

1 of 1

DATE: 1/14

DWG. NO.

Q-7



Notes:

1. Cover open conduit with conduit cap or cloth to seal out dirt.
2. The District will inspect and approve all trenches prior to backfill.
3. When required, customer shall trench 2' away from power pole at time of trench inspection. Additional excavation maybe required prior to final connection.
4. Always call U-DIG before digging UDIG or 811.
5. Locate meter base so the conduit run does not exceed maximum allowed length per District standard Q-1B, or have more than 3 bends totaling 270 degrees including sweep at transformer.
6. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries Requirements.

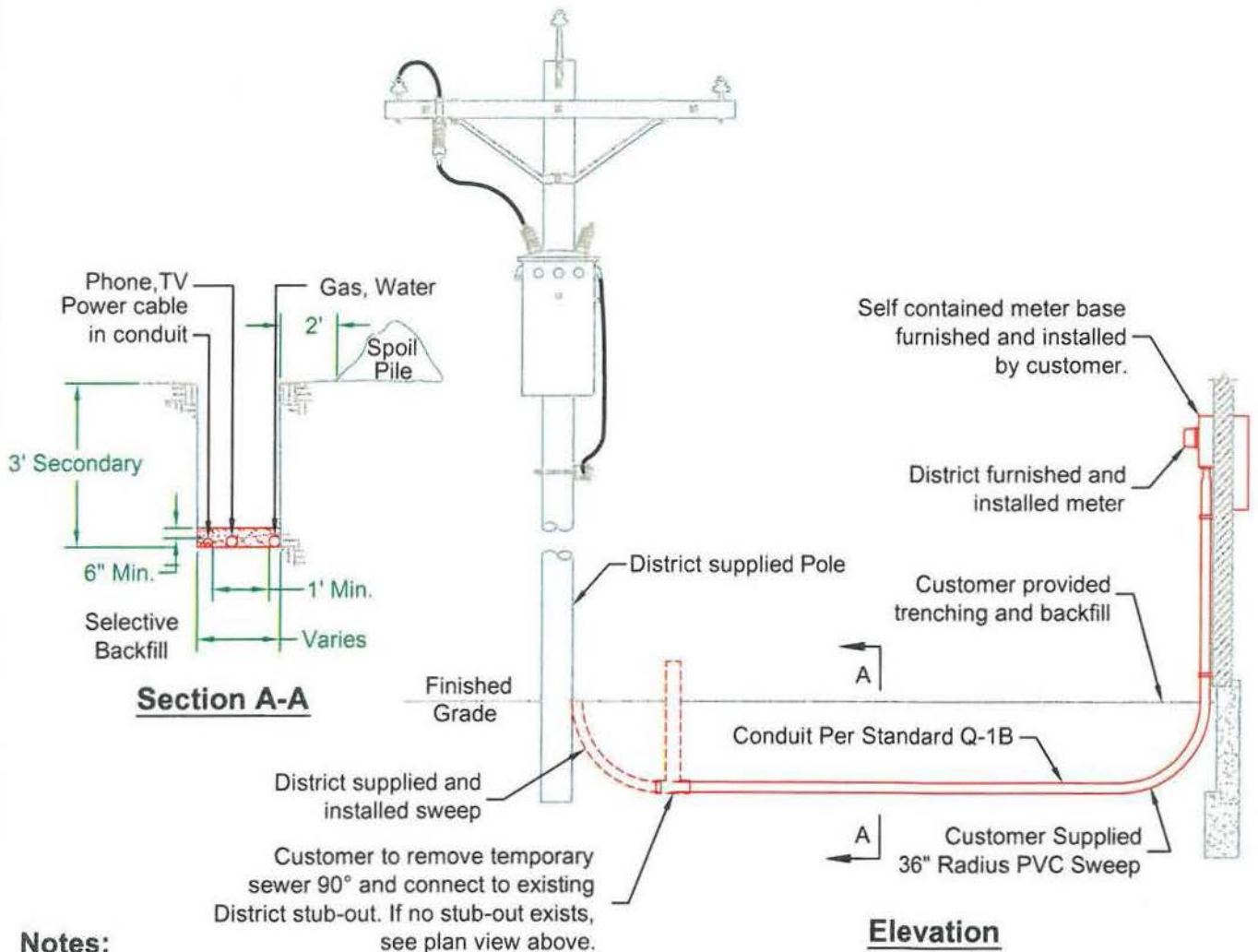
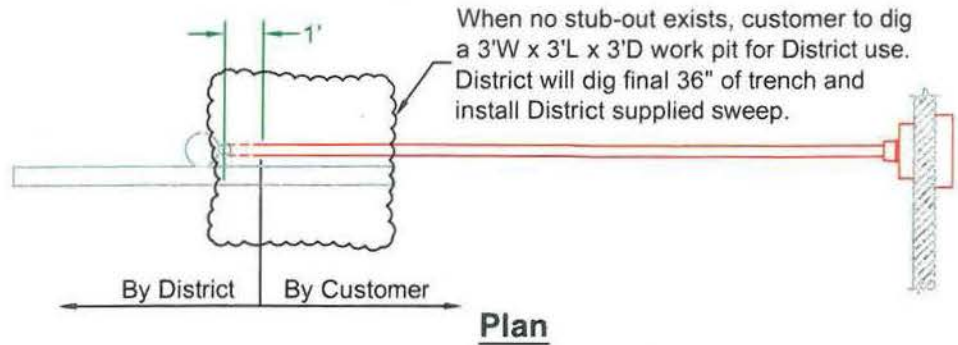


DRAWN BY: JAD
DRAW DATE: 3/27/01

TITLE:

Trenching & Conduit Details for Typical Underground Service Installation from Pad Mount Transformer

REV BY: TMA	SHT.
REV DATE: 06/01/17	1 of 1
REV NO: 2	DIR. <i>PD</i> DATE: 3/18
DWG. NO.	Q-7A



Notes:

1. The District will inspect and approve all trenches prior to backfill.
2. Cover open conduit with conduit cap or cloth to seal out dirt.
3. Always call U-DIG before digging UDIG or 811.
4. Locate meter base so the conduit run does not exceed maximum allowed length per District Standard Q-1B, or have more than 3 bends totaling 270 degrees.
5. Details shown are minimum District requirements and are not intended to depict Washington State Labor and Industries requirements.



DRAWN BY: JAD
DRAW DATE: 03/27/01

TITLE:

Trenching & Conduit Details
for Typical Underground, Service Installation
from Overhead Transformer

REV BY: JWV	SHT. 1 of 1
REV DATE: 10/01/2013	
REV NO: 1	DIR. ENG. DATE: 1/14
DWG. NO.	

Q-7B

NET METERING SERVICES



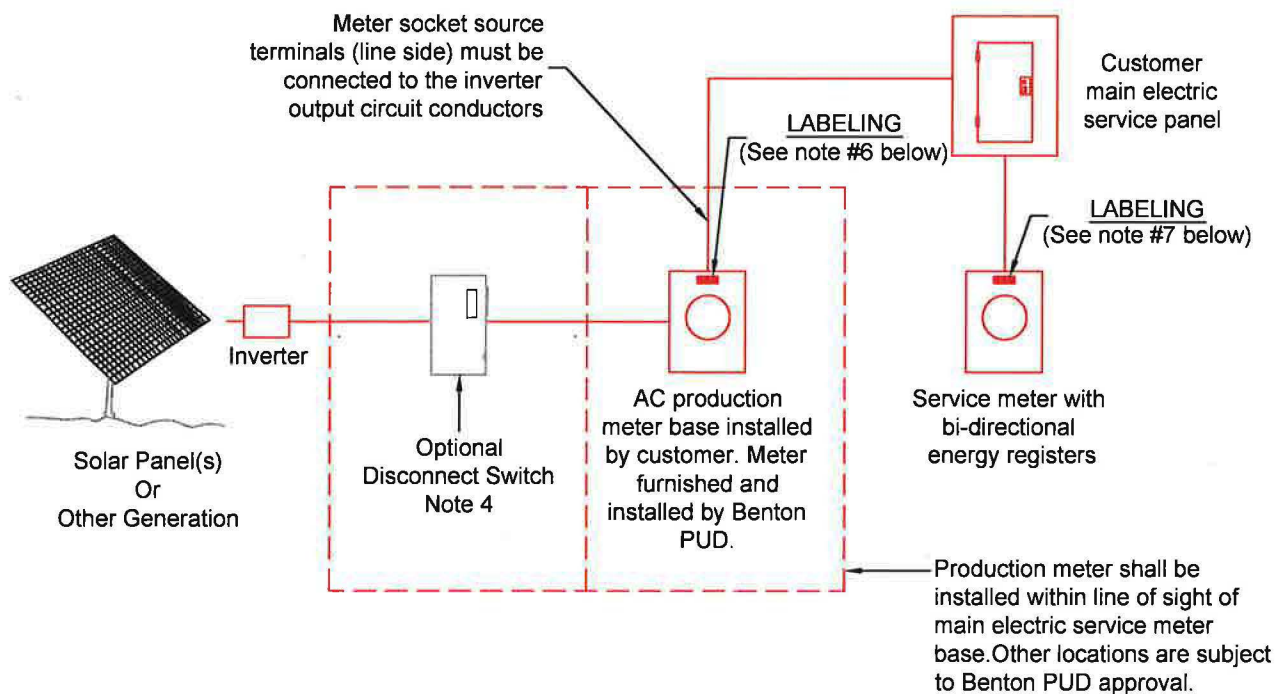
DRAWN BY: DDB

DRAW DATE: 03/22/12

TITLE:

NET METERING SERVICES
Q-8 Series

REV BY: JWV		SHT:
REV DATE: 10/01/2013		1 of 1
REV NO: 1	DIR. ENG. <i>[Signature]</i>	DATE: 1/14
DWG. NO.		
Q-8		



Notes:

1. Connecting customer generation equipment to the Benton PUD (BPUD) distribution system requires completion of a Net Metering Application and signing of a Net Metering Interconnection Agreement.
2. This standard represents a typical arrangement for a net metering installation. The details shown are not intended to depict Washington State Department of Labor and Industries (L&I) requirements. L&I approval of installation is required prior to customer receiving approval from BPUD for final interconnection of generator to the BPUD distribution system. Customer shall provide BPUD with a copy of the documentation of L&I approval.
3. Customer's must provide a one-line electrical schematic drawing to BPUD which is specific to the proposed installation.
4. BPUD does not require a utility disconnect switch for customer generation equipment utilizing Underwriter's Laboratory (UL) 1741 listed inverter equipment. Contact the BPUD engineering department for review and approval of other interconnection methods.
5. Upon receiving L&I approval, BPUD will complete a field inspection of the customer's net metering installation. Approved installations will be documented by BPUD's completion of a Generating Facility Certificate of Completion. This certificate represents the customer's authorization to energize their generation equipment and interconnect their net metering installation to the BPUD distribution system.
6. AC production meter base shall be labeled, "CUSTOMER GENERATOR, PRODUCTION METER", with engraved phenolic placards; 3/8" white capitalized lettering on a red background.
7. Main electric service (Net Meter) meter base shall be labeled "NET METER, CUSTOMER GENERATOR CONNECTED TO THIS SERVICE", with engraved phenolic placards; 3/8" white capitalized lettering on a red background.



TITLE:

Customer Generator Net Metering Installation

DRAWN BY: SWT

DRAW DATE: 06/02/10

REV BY: TMA

REV DATE: 03/28/2018

SHT.

1 of 1

REV NO: 2

DIR. ENG.

DATE

DWG. NO.

Q-8A

FIBER SERVICES



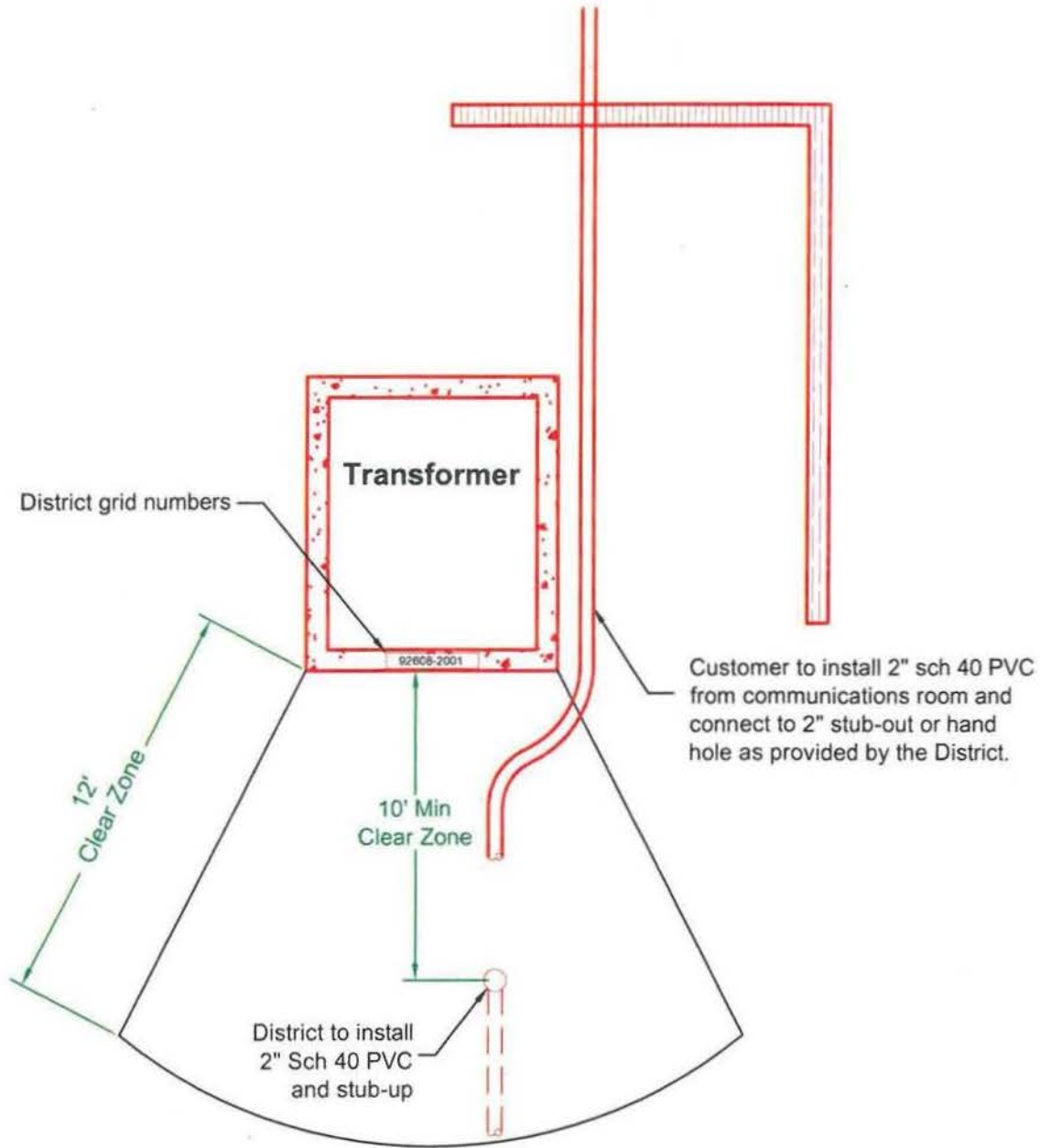
DRAWN BY: DDB

DRAW DATE: 03/22/12

TITLE:

FIBER SERVICES
Q-9 Series

REV BY: JWV		SHT.	
REV DATE: 10/01/2013		1 of 1	
REV NO: 1	DIR. ENG. <i>JD</i>	DATE: 1/14	
DWG. NO.			
Q-9			



Notes:

1. All dimensions are minimum.
2. No obstructions are allowed over transformer or fiber hand hole.
3. Refer to District planting guide for landscaping.



DRAWN BY: RPR
DRAW DATE: 07/02/07

TITLE:

Installation Practices for Customer Fiber Services

REV BY: JWV	SHT.
REV DATE: 10/01/2013	1 of 1
REV NO: 1	DIR. ENG. <i>[Signature]</i> DATE: 4/14
DWG. NO.	

Q-9A

WORK AREA CLEARANCES



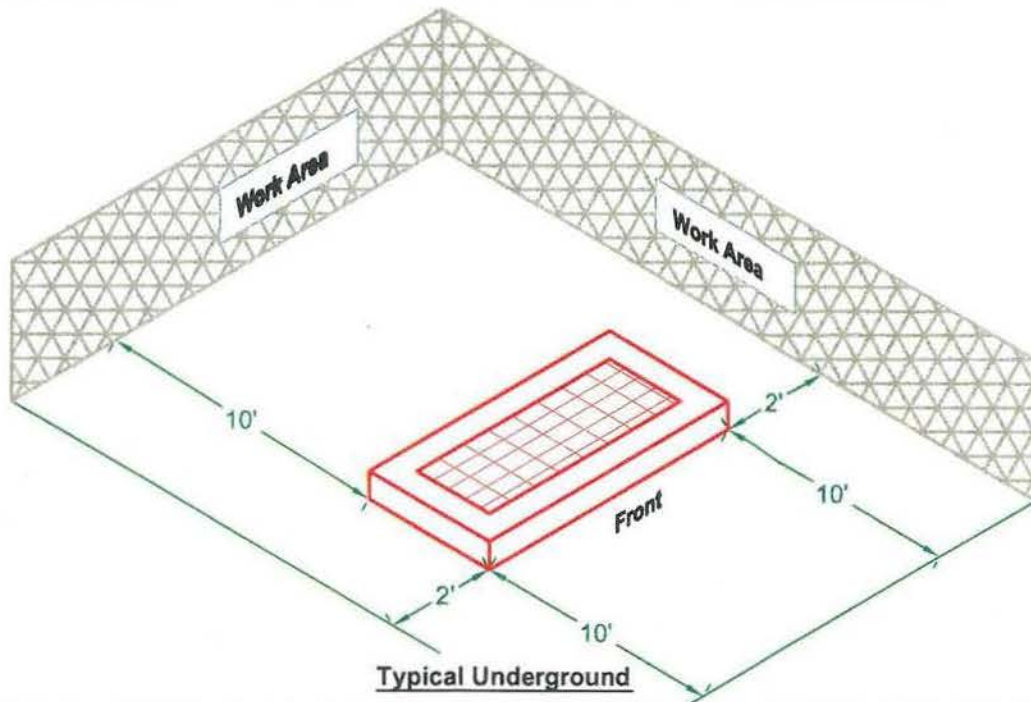
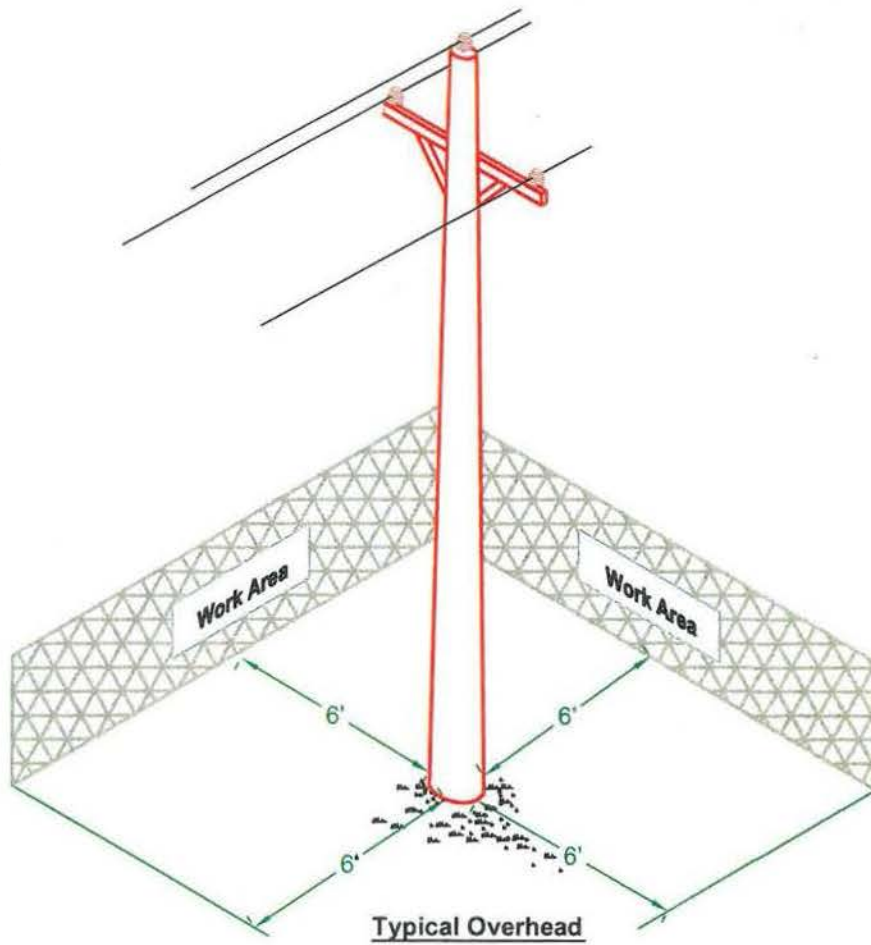
DRAWN BY: DDB

DRAW DATE: 03/22/12

TITLE:

WORK AREA CLEARANCES
Q-10 Series

REV BY: JWV		SHT:
REV DATE: 10/01/2013		1 of 1
REV NO: 1	DIR. ENG. <i>JD</i>	DATE: <i>1/14</i>
DWG. NO.		
Q-10		



DRAWN BY: DDB
DRAW DATE: 11/03/10

TITLE:

Work Area Clearance

REV BY: JWV	SHT. 1 of 1
REV DATE: 10/01/2013	
REV NO: 1	DIR. ENG. <i>[Signature]</i> DATE: 1/14
DWG. NO.	

Q-10A