

Pole Attachment Application Package

February 2004

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Introduction

This package includes all of the necessary application materials and instructions to attach to PacifiCorp facilities. Hopefully, this document addresses most of the questions that you have. However, we are always here to answer your questions. Please call the regional Administrative Coordinator listed in this document and they will forward your request to the appropriate supervisor.

Prior to applying for attachments to poles, a current Pole Attachment Agreement must be on file. The regional Administrative Coordinator will forward your agreement request to the contracts department if needed. Once an agreement is on file, your company can apply for pole attachment agreements as required.

All attachments and/or modifications of attachments require a permit as specified in the current Pole Attachment Agreement between your company and PacifiCorp. These new and modification of attachments require pre-approval from PacifiCorp prior to performing work on the facilities. The installation of service drops require appropriate notice as identified in your agreement.

Applying for attachments to poles is often a multi-stepped process. Please see page 2 for a process flow of the steps PacifiCorp must take prior to approving any attachment. Inside there is information on PacifiCorp's Smart Numbering System, an application for attachment (please make additional copies as needed), a copy of PacifiCorp's Joint Use Standards. It should be noted that all attachments to PacifiCorp poles must meet the requirements of the National Electric Safety Code (NESC) and individual State and/or federal codes that may be applicable.

Sincerely,

PacifiCorp
T&D Infrastructure Management

Contact Information

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The T&D fax number is: 503-813-6005

How to Apply

OREGON AND WASHINGTON *

PacifiCorp is a sponsor and subscribes to the National Joint Use Notification System (NJUNS) for all pole notifications in Oregon and Washington. The system provides for web-based electronic notification between the Pole Owner and Pole Renter for communication on new applications for pole attachments, modifications of attachments, notification of pole transfers, and removal of attachments.

Additional information may be required in addition to the NJUNS notification. Design prints, Plan and Profiles for Transmission Poles, completed PacifiCorp applications will need to be forwarded to the appropriate Administrative Services Coordinator at our Portland office for distribution to the appropriate regional inspector.

NJUNS information can be found at: www.NJUNS.com Additionally, each member state also has an NJUNS user's group which meets periodically for training and discussion. The Executive Committee members listed on NJUNS can put you in contact with your local user's group.

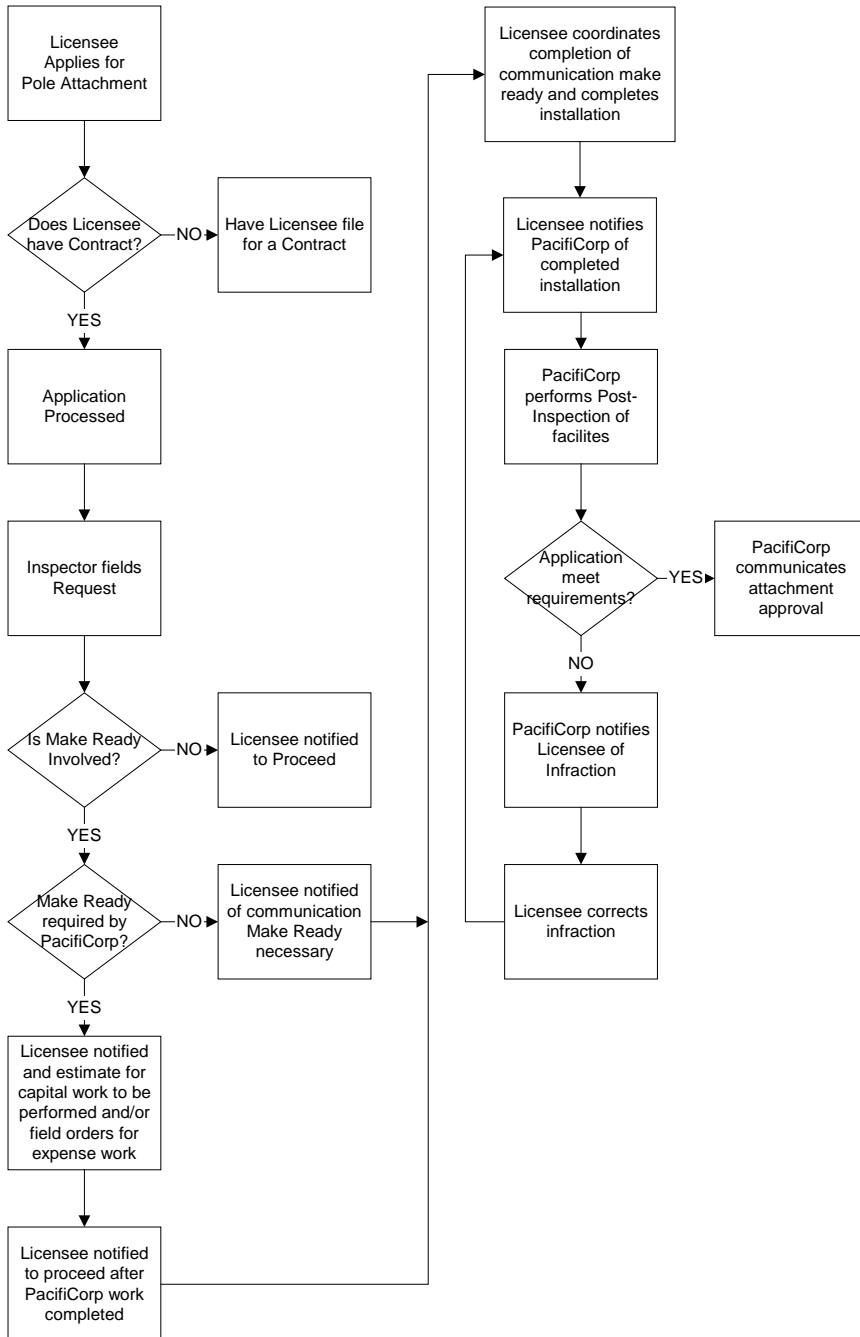
CALIFORNIA, IDAHO, UTAH, and WYOMING *

All notifications between PacifiCorp and Licensees may be communicated via fax, email, and postal services, and/or additional means as provided for in the Pole Attachment Agreement.

In addition to electronic sharing of information, additional supporting documents may be required to determine if an application can be approved. Design prints, Plan and Profiles for Transmission Poles, and completed PacifiCorp applications will need to be forwarded to the appropriate Administrative Services Coordinator at our Portland office for distribution to the appropriate regional inspector.

* All applications over 15 poles require a project spreadsheet in addition to the application. The spreadsheet will be e-mailed to you at your request.

Application Process Flow



Application for Attachment



JOINT USE APPLICATION FOR ATTACHMENT AND/OR MODIFICATION

<u>NJUNS/Foreign App. #</u>	<u>Step #</u>	<u>Company</u>	<u>Date</u>
Contact Person	Phone #		
<u>Pole/Span/Attachment Information</u>	<u>Owner Map String</u>	<u>Owner Pole #</u>	
	<u>Other Utility Pole #</u>	<u>FS/TS Pole #</u>	
<u>GPS Coordinates</u>	Lat. <u>+</u>	Long <u>-</u>	
<u>Address</u>			
<u>City</u>	<u>State</u>	<u>Zip Code</u>	
<u>FS/TS Bearing</u>	<u>Deg</u>	<u>FS/TS Length</u>	<u>Ft</u>
<u>Proposed Attachment Height</u>		<u>Ft</u>	
<u>BS Bearing</u>	<u>1 8 0</u> <u>Deg</u>	<u>BS Length</u>	<u>Ft</u>
<u>Attachment Pole Bearing</u>		<u>Deg</u>	
<u>Attachment Offset (arms, crossarms, or swinging corners or midspan tap)</u>	<u>X</u>	<u>Ft</u>	<u>Y</u> <u>Ft</u> <u>Z</u> <u>Ft</u>
<u>Communication Attachment - Action</u>			
<input type="checkbox"/> New Attach	<input type="checkbox"/> Overlash	<input type="checkbox"/> Remove (no detail needed for removal)	
<u>- Attachment Point Method</u>			
<input type="checkbox"/> Pole Attached	<input type="checkbox"/> Messenger Attached	<input type="checkbox"/> Glass/Wood Arm	<input type="checkbox"/> Other
<u>- Type</u>			
<input type="checkbox"/> Messenger Wire	<input type="checkbox"/> SS Wire/Cable	<input type="checkbox"/> SS Fiber Optic Cable	<input type="checkbox"/> Down Guy & Anchor
<input type="checkbox"/> Lashed Cable	<input type="checkbox"/> Lashed Fiber	<input type="checkbox"/> Service Drop	<input type="checkbox"/> Other
<u>New & Lashed Cables Loading and Bundle Data</u>			
<u>New Cable Name</u>	<u>Diameter</u>	<u>in</u>	<u>Weight/ft</u> <u>Lbs</u>
<u>Bundle Name</u>	<u>Diameter</u>	<u>in</u>	<u>Weight/ft</u> <u>Lbs</u>
<u>Existing Attachments on Pole</u>			
List distance from existing attachment to ground or street surface.			
<u>Lowest Power Secondary</u>	<u>Height</u>	<u>ft & in</u>	<u>Telephone</u> <u>Height</u> <u>ft & in</u>
<u>Street Light Mast</u>	<u>Height</u>	<u>ft & in</u>	<u>Fiber</u> <u>Height</u> <u>ft & in</u>
<u>Street Light Conductor</u>	<u>Height</u>	<u>ft & in</u>	<u>Other</u> <u>Height</u> <u>ft & in</u>
<u>CATV</u>	<u>Height</u>	<u>ft & in</u>	<u>Lowest Comm. Midspan</u> <u>Height</u> <u>ft & in</u>
<u>Guy Information</u> (You must supply your own anchor unless you have made separate application to attach to PacifiCorp's anchor and have received prior approval.)			
<u>Type and Material</u>	<u>Size</u>		
<u>Atch Hgt</u>	<u>Ft</u>	<u>Lead Length</u>	<u>Ft</u>
<u>Bearing</u>	<u>Deg</u>	<u>PreLoad</u>	<u>Lbs</u>
<u>AncLoad</u>	<u>Lbs</u>		
<u>Other Communication Attachment Information</u>			
<input type="checkbox"/> Power Supply	<input type="checkbox"/> Equip/Junct Box	<input type="checkbox"/> Size (S, M, L)	<input type="checkbox"/> PA/ BA
<input type="checkbox"/> Telco Splice	<input type="checkbox"/> TV Amp	<input type="checkbox"/> Other	<input type="checkbox"/> F.O. Storage & Length
		<input type="checkbox"/> Comm Riser	<input type="checkbox"/> PA/ BA
		<input type="checkbox"/> Comm Riser Size	<u>in</u>
<u>Power Utility Attachment Type</u>			
<input type="checkbox"/> Primary	<u>Qty</u>	<input type="checkbox"/> Neutral	<input type="checkbox"/> Secondary
		<input type="checkbox"/> Service	<u>Qty</u>
<u>Power Attachment Information</u>			
<input type="checkbox"/> Transformer	<input type="checkbox"/> Primary Riser	<input type="checkbox"/> Secondary Riser	<u>Attach Bearing</u> <u>Deg</u>
<input type="checkbox"/> Street Light	<input type="checkbox"/> Control Eqp.	<input type="checkbox"/> Owner Guy/Anchor	<input type="checkbox"/> Other
<u>Comments and Make Ready Work</u> needed to accommodate your attachment in compliance with safety and construction standards.			
<u>Applicant Signature</u>	<u>Date</u>		
<input type="checkbox"/>	<u>Not Approved - Additional Information or Make Ready Required</u>	<u>Date</u>	<u>PacifiCorp Use Only</u>
<input type="checkbox"/>	<u>Application Approved</u>	<u>Date</u>	<u>Emp. ID</u>



Application for Service Drop Only



JOINT USE APPLICATION FOR SERVICE DROP ATTACHMENT AND/OR MODIFICATION

<u>NJUNS/Foreign App. #</u>	<u>Step #</u>	<u>Company</u>	<u>Date</u>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<u>Contact Person</u>		<u>Phone #</u>	<input type="text"/>
<input type="text"/>		<input type="text"/>	<input type="text"/>
<u>Pole / Location Information</u>	<u>Owner Map String</u>	<input type="text"/>	<u>Owner Pole #</u> <input type="text"/>
<input type="text"/>	<u>Other Utility Pole #</u>	<input type="text"/>	<u>FS/TS Pole #</u> <input type="text"/>
<u>GPS Coordinates</u>	<u>Lat.</u> + <input type="text"/> . <input type="text"/>	<u>Long</u> - <input type="text"/> . <input type="text"/>	
<u>Address</u>	<input type="text"/>		<u>Zip Code</u> <input type="text"/>
<hr/>			
<u>Service Drop Attachment Action</u>			
<input type="checkbox"/> New Attach <input type="checkbox"/> Modify Attachment <input type="checkbox"/> Remove (no detail needed for removal)			
<hr/>			
<u>Attachment Point Method</u>			
<input type="checkbox"/> Pole Attached <input type="checkbox"/> Messenger Attached <input type="checkbox"/> Glass/Wood Arm <input type="checkbox"/> Other <input type="text"/>			
<hr/>			
<u>Attachment Detail</u>			
<u>Attachment Height</u>	<input type="text"/>	<u>Svc Drop Length</u> <input type="text"/> Ft	<u>*Service Drop Bearing</u> <input type="text"/> Deg
<u>Name of Service Drop Conductor / Wire / Cable</u> <input type="text"/>			
** <u>Service Drop Sag or Tension</u> Sag <input type="text"/> Ft or Tension <input type="text"/> Lbs			
* (Magnetic North) Assumed to be worst case bearing to give maximum moment on the pole. ** Assumed default sag or tension for 100 ft. service drop with a 12 foot attachment height on customer's facilities with a 15.5 foot hot clearance 75 feet from pole.			
<hr/>			
<u>Sketch and Comments</u>			
<div style="border: 1px solid black; width: 100%; height: 100%;"></div>			
<hr/>		<hr/>	
<u>Applicant Signature</u> <input type="text"/>		<u>Date</u> <input type="text"/>	
<input type="checkbox"/>		PacifiCorp Use Only	
Not Approved - Additional Information or Make Ready Required		Date <input type="text"/>	
<input type="checkbox"/>		Date <input type="text"/>	
Application Approved		Emp. ID <input type="text"/>	

Pole Application Field Definitions

Field	Req'd	Description
<u>Application Data</u>		
NJUNS / Foreign App. # Step #	Y	PA NJUNS ticket serial number. Foreign utility application # if not using NJUNS.
	Y	Step row number from 1 (one) to 10 (ten) found on the PA NJUNS Ticket that the attachment's load data is related to. Number series of poles starting from 1 (one) when not using NJUNS.
Company Date	Y	Applying company name.
	Y	Date on NJUNS ticket or date of application.
<u>Pole/Span/Attachment</u>		
Owner Map String	Y	PacifiCorp's map string identified on the pole tag. Usually the upper number on pole tag 6 to 10 characters long. Indicates Meridian, quadrant, township, range, and an optional alpha/numeric indicator.
Pole Number	Y	PacifiCorp's pole number identified on the pole tag. Usually the lower number on the pole tag 6 characters long. Identifies section, section grid coordinates, and PacifiCorp's internal sequence number.
Other Utility Pole #		Other joint occupant's pole number found on the pole, or applicant's pole number.
BS Bearing		Backspan bearing is the reference bearing for the structure and is set at 180 deg. The back span bearing is normally in the direction of conductor/cable messenger source. The span direction of a one span dead-end as referenced from the end pole
BS Length		Back span length in feet.
FS/TS Bearing	Y	Front Span or Tap Span Bearing is the bearing angle of the conductor, cable going away from the pole to the next pole or customer structure using the back span bearing as reference direction. Service drops have only front span bearings.
FS/TS Length	Y	Front Span or Tap Span feet in length.
Attachment Height	Y	The height of the attachment point on the pole measured from ground line to the top attachment mounting hardware.
Att Pole Bearing		Attachment pole bearing is the bearing of the attachment hardware point on the pole as referenced from the back span.
Attachment Offsets		Offsets are distances in tenths of feet from the center of the pole attachment point of the cable, conductor, or messenger is located. Normally is used for attachments connected to standoff brackets, cross-arms, or swinging corners or mid span tap points. X off set is the vertical distance (height) of an attachment on pole. Y off set is the horizontal distance of an attachment from the pole. Z off set is distance from pole center to the tap point or equipment end closest to the pole on the messenger or self support cable (attachment points located on the back span are in a minnus (-) Z off set direction.
<u>Communication Attachment Action</u>		
New Attach		Required, choose one. You are placing a new attachment on the pole.
Overlash		You are overlashing your existing attachment.
Remove		You are removing your attachment.
<u>Attachment Point Method</u>		
Pole Attached		Required, choose one. Support will be provided by attaching a new messenger or new cable directly to pole.
Messenger Attached		Support will be provided by an existing messenger or strand.
Bracket / Xarm Attached		Support will be provided by utilizing a glass arm or wooden crossarm.
Other Attachment Method		List other method of attachment used.

Pole Application Field Definitions

Field	Req'd	Description
<u>Communication Attachment Type</u>		
Messenger Wire/Span Guy		Required, choose as many as apply to your application.
SS Wire or Cable		Support wire used to support lashed cable or cables, also used as a span guy to support pole load imbalance.
SS FO Cable		Self supporting wire or cable not requiring a messenger for span support.
Down Guy		Self supporting fiber optic cable not requiring a messenger for span support.
Service Drop		Wire or cable attached to a pole and to an anchor used to support pole moment imbalance.
Lashed Cable or Lashed Fiber		Single self supporting cable or wire that is the last span to a customer structure; may be attached to the pole, messenger close to the pole or as a mid span drop from a messenger wire or self supporting cable.
		Single or multiple wire/cable attached to a messenger by use of lashing wire or tie wraps to an existing cable or wire bundle.
<u>New & Lashed Cables Loading and Bundle Data</u>		
New Cable Name	Y	Please provide a sag chart based on the bundle characteristics you provide. Industry standard or company standard name of the messenger, self supporting cable, or service drop conductor.
Bundle Name	Y	Reference name of the total bundle including existing messenger and cable, plus the new cable or conductor.
Diameter	Y	Diameter of the messenger, self supporting cable, and service drop conductor. (See NESC Rule 251)
Lbs/ft	Y	Pounds per foot of the messenger, self supporting cable, or service drop conductor.
<u>Existing Attachments on Pole</u>		
Lowest Power Secondary	Y	Measurements are required for all attachments listed below. Distance from lowest power secondary to the ground or street surface in feet and inches. Lowest power secondary may include but is not limited to a drip loop, service service to customer, top of a power riser, etc.
Street Light Mast	Y	Distance from lowest point on street light hardware to the ground or street surface in feet and inches.
CATV	Y	Distance from cable tv attachment on pole to the ground or street surface in feet and inches.
Telephone	Y	Distance from telephone attachment on pole to the ground or street surface in feet and inches.
Fiber	Y	Distance from fiber attachment on pole to the ground or street surface in feet and inches.
Other 1 and Other 2	Y	Distance from other related attachment on pole to the ground or street surface in feet and inches.
Lowest Comm. Midspan	Y	Distance from the lowest communication midspan to the ground or street surface in feet and inches.
<u>Guy Information</u>		
Type and Material	Y	You are required to provide your own anchor and place a suitably rated strain insulator in your down guy. List type of guy (DE - dead end; BISEC - bisector guy for angles; SDWLK - side walk guy) and guy material (EHS; AWLD; OTHER).
Size	Y	List size for guy size in fractional inches. (1/4; 5/16; 3/8; etc.).
Attach Height	Y	Guy attachment height.
Lead Length	Y	Guy lead length from center of pole to anchor ground line.
Bearing		Guy bearing with the back span for the pole as the reference point.
PreLoad		Tension of the guy before installation of messenger, self supporting cable, or conductor.
AncLoad	Y	Maximum anchor loading for your proposed guy.

Pole Application Field Definitions

Field	Req'd	Description
<u>Application Data</u>		
<u>Other Communication Attachment Types</u>		
Power Supply		A specialized equipment box supplying power to TV line amp equipment. Maximum size for pole mounted power supply is 26"h x26"w x 20"d
Equipment Box Size		An enclosed box used to protect junction terminals or other equipment. S--less than 8"h x 8"w x 4"d; M--between 8"h x 8"w x 4"d and 12"h x12"w x 6"d; L--larger than 12"h x12"w x 6"d but must be less than 26"h x26"w x 20"d
PA / BA		Equipment box is Pole Attached or Bracket Attached
Comm Riser Size		Indicates Communication conduit riser attached or pole. Diameter of conduit riser.
PA / BA		Conduit riser is Pole Attached or Bracket Attached
FO Storage & Length		Indicates fiber optic storage on strand and length of stored cable in feet.
Telco Splice		Telco splice enclosure usually located on messenger.
TV Amp		TV amplifier box usually located on messenger.
<u>Comments and Make Ready Work</u>		List comments and all make ready work required to accommodate your attachment in compliance with all applicable safety and construction standards. Make ready should indicate who needs to take corrective action, and what the corrective action should be taken to resolve existing violations, or to accomodate your proposed attachment.

Pole Numbering

PacifiCorp employs an intelligent numbering system for most of its service territory. This system is based on the meridian, quadrant, township, and range coordinate system combined with a numbering sequence. The pole plate consists of a top and bottom section. The top section contains a minimum of four digits that define the township and range, but may include numbers indicating the meridian and quadrant. There are six digits on the bottom. The first two indicate the section, the middle two indicate the grid, and the last two are the sequence numbers.*

Sequence numbers do not indicate further grid coordinates, however, they may indicate the ownership of the pole as follows: *

00 through 39: Company owned distribution poles.

40 through 59: Foreign owned utility poles contacted by PacifiCorp.

60 through 69: Transmission structures with distribution under-build.

70 through 79: Customer owned poles.

*** Utah, Idaho, and Western Wyoming sequence numbers do not reflect ownership or type of structure.**

Construction Standards

The National Electric Safety Code (NESC), National Electric Code (NEC), additional state and/or federal regulations, and PacifiCorp's Distribution Construction Standards will be applied to all attachments of PacifiCorp's poles. These codes specifically outline all of the necessary safety practices that must be adhered to for the protection of the employees that work on these facilities and the general public.

PacifiCorp's Joint Use Distribution Construction Standards are enclosed, and the Licensee will need to acquire the additional codebooks from a local technical bookstore or order them from the Internet. In addition to bookstores, the NESC and NEC code books can be ordered from the Institute of Electronic and Electrical Engineers through their Website at www.ieee.org.

PacifiCorp's standards and state or local standards may be more stringent than some of the codes listed in these sources. All attachments must meet the minimum requirements of the more stringent of the codes.

Regional Standards

State, county, municipal, and other local requirements or standards may apply to your attachments. You are obligated to comply with the all local standards for the area you are working in.

Sample Application



JOINT USE APPLICATION FOR ATTACHMENT AND/OR MODIFICATION

NJUNS/Foreign App. #	Step #	Company	Date
XYZ 0204 Node 3	001	XYZ Company	February 10, 2004
Contact Person	Joe Cable Guy	Phone #	(999) 111-4444
Pole/Span/Attachment	Owner Map String	05233079.0	Owner Pole # 191402
Information	Other Utility Pole #		FS/TS Pole # 191404
GPS Coordinates	Lat. +	Long -	
Address	123 W Columbus St, Townsville		Zip Code 91999
FS/TS Bearing	0 Deg	FS/TS Length 203 Ft	Proposed Attachment Height 21' 3" Ft
BS Bearing	1 8 0 Deg	BS Length 197 Ft	Attachment Pole Bearing
Attachment Offset (arms, crossarms, or swinging corners or midspan tap)	X	Y	Z
Communication Attachment - Action			
<input type="checkbox"/> New Attach	<input checked="" type="checkbox"/> Overlash	<input type="checkbox"/> Remove (no detail needed for removal)	
- Attachment Point Method			
<input type="checkbox"/> Pole Attached	<input checked="" type="checkbox"/> Messenger Attached	<input type="checkbox"/> Glass/Wood Arm	<input type="checkbox"/> Other
- Type			
<input type="checkbox"/> Messenger Wire	<input type="checkbox"/> SS Wire/Cable	<input type="checkbox"/> SS Fiber Optic Cable	<input type="checkbox"/> Down Guy & Anchor
<input type="checkbox"/> Lashed Cable	<input checked="" type="checkbox"/> Lashed Fiber	<input type="checkbox"/> Service Drop	<input type="checkbox"/> Other
New & Lashed Cables Loading and Bundle Data			
New Cable Name	24 Count Fiber	Diameter 0.5 in	Weight/ft 0.09 Lbs
Bundle Name	Strand, Existing .625, 24 Count Fiber	Diameter 1.5 in	Weight/ft 0.40 Lbs
Existing Attachments on Pole			
List distance from existing attachment to ground or street surface.			
Lowest Power Secondary	Height 25' ft & in	Telephone	Height 21' 3" ft & in
Street Light Mast	Height 23' 10" ft & in	Fiber	Height
Street Light Conductor	Height 23' 6" ft & in	Other	Height
CATV	Height 22' 3" ft & in	Lowest Comm. Midspan	Height 18' 9" ft & in
Guy Information (You must supply your own anchor unless you have made separate application to attach to PacificCorp's anchor and have received prior approval.)			
Type and Material		Size	
Atch Hgt	Ft	Lead Length	Ft
Bearing	Deg	PreLoad	Lbs
AnclLoad	Lbs		
Other Communication Attachment Information			
<input type="checkbox"/> Power Supply	<input type="checkbox"/> Equip/Junctn Box	<input type="checkbox"/> Size (S, M, L)	<input type="checkbox"/> PA/ BA
<input type="checkbox"/> Telco Splice	<input type="checkbox"/> TV Amp	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> Comm Riser
			<input checked="" type="checkbox"/> PA/ BA
			Comm Riser Size 2" in
Power Utility Attachment Type			
<input type="checkbox"/> Primary	Qty	<input type="checkbox"/> Neutral	<input type="checkbox"/> Secondary
			Qty
			<input type="checkbox"/> Service
			Qty
Power Attachment Information			
<input type="checkbox"/> Transformer	<input type="checkbox"/> Primary Riser	<input type="checkbox"/> Secondary Riser	Attach Bearing
			Deg
<input type="checkbox"/> Street Light	<input type="checkbox"/> Control Eqp.	<input type="checkbox"/> Owner Guy/Anchor	<input type="checkbox"/> Other
Comments and Make Ready Work needed to accommodate your attachment in compliance with safety and construction standards.			
Prior to overlash, XYZ will arrange for Telco to move down, making room for XYZ to relocate attachment for 40" clearance to Pacific Power secondary and 20" clearance to street light mast.			
Applicant Signature		Date	
<input type="checkbox"/>	Not Approved - Additional Information or Make Ready Required	Date	PacificCorp Use Only
<input type="checkbox"/>	Application Approved	Date	Emp. ID