

UNITED STATES DEPARTMENT OF AGRICULTURE

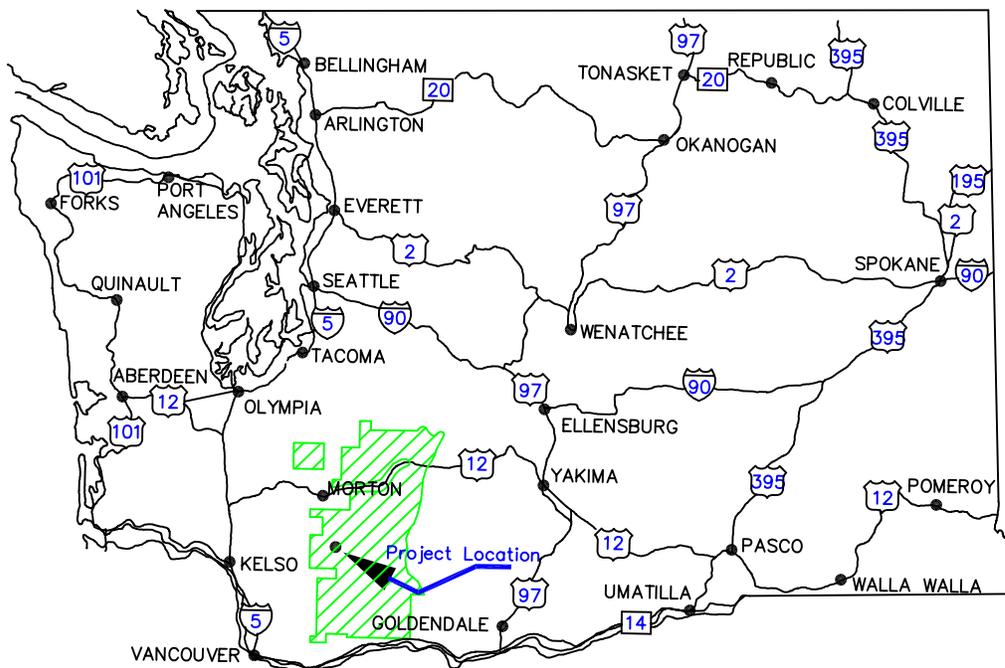
FOREST SERVICE – REGION SIX

GIFFORD PINCHOT NATIONAL FOREST



MT ST HELEN NATIONAL VOLCANIC MONUMENT  
DRAWINGS FOR PROPOSED  
99 ROAD MAINTENANCE

NAME



KEY MAP OF WASHINGTON SHOWING LOCATION OF PROJECT

DESIGNED BY:

DEAN LAWRENCE

DATE

FRED NETZEL

RECOMMENDED BY:

DATE

NAME COWLITZ VALLEY DISTRICT ENGINEER

DATE

NAME COWLITZ VALLEY DISTRICT RANGER

DATE

NAME MT. ST. HELENS MONUMENT MANAGER

DATE

APPROVED BY:

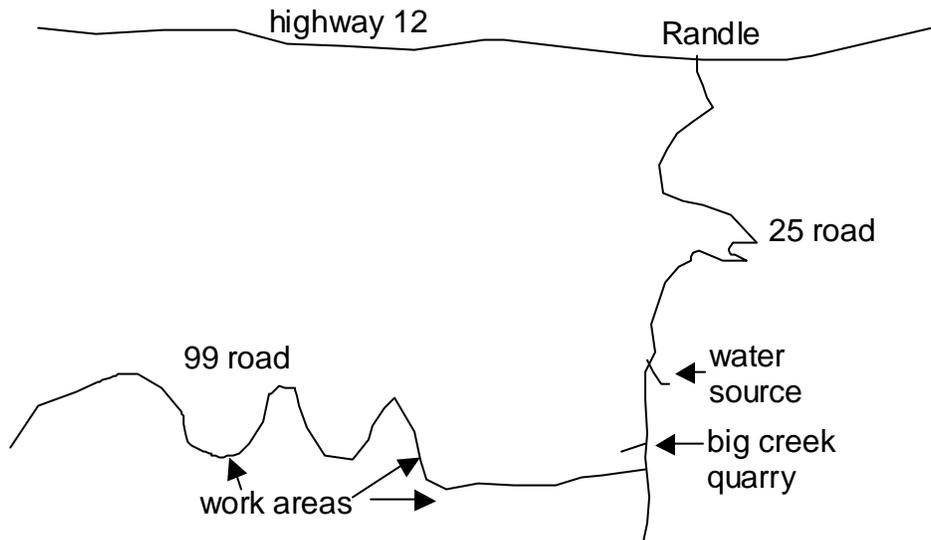
NAME

FOREST ENGINEER

DATE

<u>ROAD NO.</u>	<u>STATION/ KILOMETER</u>	<u>TRAFFIC SERVICE LEVEL</u>	<u>CONST/RECONSTR</u>	<u>TYPE OF WORK *</u>
99	7+725 – 7+816	B	MAINTENANCE	C,G,D,S
99	10+725 – 11+042	B	MAINTENANCE	C,G,D,S
99	11+816 – 11+869	B	MAINTENANCE	C,G,D,S
99	11+890 – 12+000	B	MAINTENANCE	C,G,D,S
99	24+005 – 24+090	B	MAINTENANCE	C,G,D,S

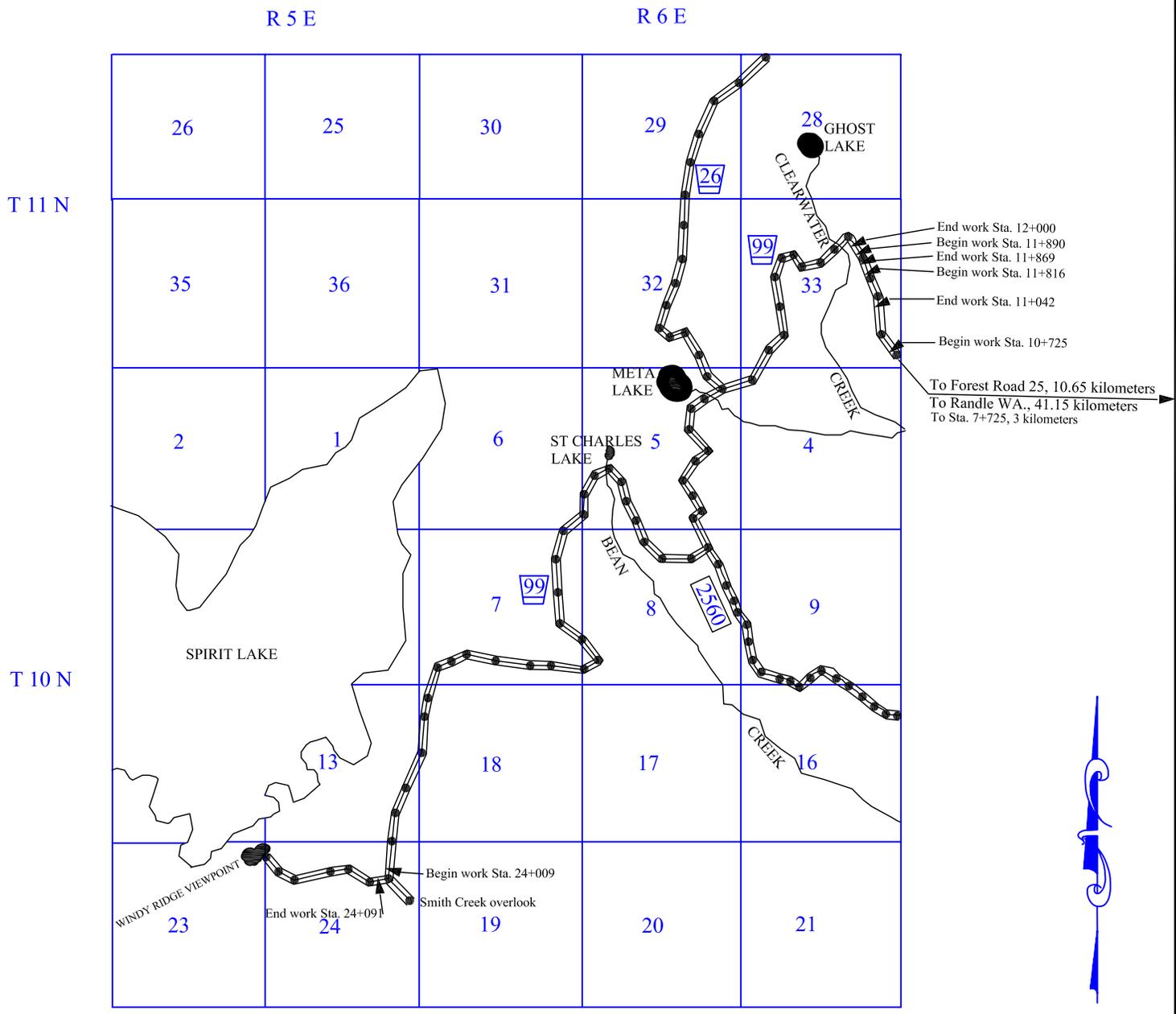
<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2	INDEX TO SHEETS
3	VICINITY MAP
4-5	ESTIMATE OF QUANTITIES
6	GENERAL NOTES
7-8	DESCRIPTION OF WORK
9-11	Hilficker wall Details
12	Item 170(03) Slope Staking Paln View Sta 24+074
13	Typical Section Sta 24+074
14	Remove Existing Guardrail
15 - 17	Typical Guardrail , Terminal Section Install Details
18	New Culvert, Drop Inlet Box Section
19 - 21	WashDOT Culvert Drop Inlet Box details
22	Material Source 304(10), 304(13) Disposal Area
23	Traffic Management Signs



\*  
**C- CLEARING**  
**G- GRADING**  
**D- DRAINAGE**  
**S- SURFACING**

<b>INDEX TO SHEETS</b>	<b>DEPARTMENT OF AGRICULTURE</b>	<b>99 ROAD MAINTENANCE</b>
	<b>FOREST SERVICE GIFFORD PINCHOT NATIONAL FOREST</b>	
	STANDARD DRAWING	800-GP1 (7/88)

**SHEET 2 OF 23**



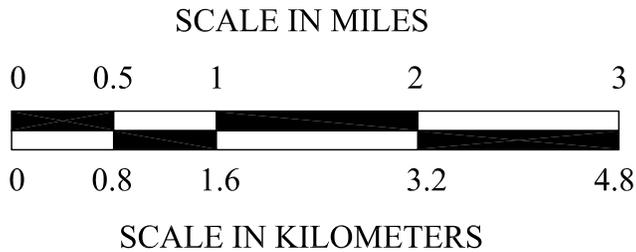
Ⓜ WATER SOURCE FOR PROJECT IS IRON CREEK, RD 7708 AT MP 0.1 SEE SHEET 22

SOURCE FOR ITEM 304(10) IS BIG CREEK QUARRY M.P. 0.2, ROAD 2500201 SEE SHEET 22

NOTE: ITEM 304(13) MATERIAL SOURCE USFS STOCKPILES LOCATED IN BIG CREEK QUARRY SEE SHEET 22

**LEGEND**

FOREST ROADS



VICINITY MAP	DEPARTMENT OF AGRICULTURE FOREST SERVICE GIFFORD PINCHOT NATIONAL FOREST	99 ROAD MAINTENANCE
	STANDARD DRAWING	800-GP2 (7/88) SHEET 3 OF 23

## ESTIMATE OF QUANTITIES

	ROAD	99	99	99	99	99	TOTALS
BEGIN END	UNITS M/M	STA 10+725 STA 11+042	STA 11+816 STA 11+869	STA 11+890 STA 12+000	STA 24+005 STA 24+090	STA 7+725 STA 7+816	
170(03)	km	0.32	0.053	0.11	0.124	0.091	0.7
Slope Staking, Prec. C 15 Meter Spacing	AQ						
202(02)	EACH				2		2
Removal of Culvert Disposal Method C	AQ						
202(03)	m						55
Removal of Guardrail Posts Disposal Mtd A Rails Disposal Mtd C	AQ					Sta. 24+131-24+140 Sta 24+475-24+512 Sta 24+662 -24+671	
203(01)A	M <sup>3</sup>				200		200
Excavation Pl. Mtd. 1	SQ						
203(10)A	m <sup>3</sup>	2488	465	718	0	744	4415
Unsuitable Excav, Pl. Mtd 1	SQ						
203(10)B	m <sup>3</sup>	25	10	25	0	10	70
Unsuitable Excav, Pl Mtd. 1	SQ						
203(13)	m <sup>2</sup>	7971	1333	2860	0	2439	14,603
Subgrade Treatment, Type Geotextile, Type III A	AQ						
207(01)	Ea						1
Developing water supply							
207(02)	kL	199	33	69	19	60	380
Water ( 5 % 304 Wt.))	DQ						
251(01)	M <sup>3</sup>				40		40
Placed Riprap, class Mtd Mach. Placed	SQ						
255(01)	m <sup>2</sup>			54			54
Mechanically Stabilized Earth Wall, Hilficker, 9 Ga Wire	AQ						
304(10)	m <sup>3</sup>	2050	383	698	150	660	3941
CRUSHED AGGREGATE, type, Base, Grading, C, Compaction B (Quantity measured in place as embankment)	DQ						
304(13)	m <sup>3</sup>	291	56	91	65	84	587
CRUSHED AGGREGATE, Placing aggregate, Compaction B (Gov furnished) (Quantity measured in place)	DQ						
<b>ESTIMATE OF QUANTITIES</b>	<b>DEPARTMENT OF AGRICULTURE FOREST SERVICE GIFFORD PINCHOT NATIONAL FOREST</b>		<b>99 ROAD MAINTENANCE SHEET 4 OF 23</b>				

## ESTIMATE OF QUANTITIES

	ROAD	99	99	99	99	99	TOTALS
BEGIN END	UNITS M/M	STA 10+725 STA 11+042	STA 11+816 STA 11+869	STA 11+890 STA 12+000	STA 24+005 STA 24+090	STA 7+725 STA 7+816	BEGIN END
<b>403(01)</b>	TON	281	51	80	65	100	577
Hot asphalt concrete plant mix	AQ						
<b>601(01)</b>	L.S.	1	-	-	-	-	1
MOBILIZATION	LSQ						
<b>601(02)</b>	LSQ	1					
EQUIPMENT CLEANING							
<b>603(01)</b>	m				13		13
600 mm Corrugated Metal Pipe, 1.63 mm thickness for steel, or 1.52 mm thickness for aluminum, Method C	AQ						
<b>603A(03)</b>	EA				1		1
Reinforced Concrete End Section (Drop Inlet, commercial item)							
<b>606(01)</b>	m						49
GUARDRAIL SYSTEM G4, type II, class B	AQ					Sta. 24+131-24+138 Sta. 24+475-24+510 Sta. 24+662 -24+669	
<b>606(02)</b>	EA						3
TERMINAL SECTION BCT	DQ					Sta. 24+138-24+140 Sta 24+510-24+512 Sta 24+669 -24+671	
<b>ESTIMATE OF QUANTITIES</b>		DEPARTMENT OF AGRICULTURE FOREST SERVICE GIFFORD PINCHOT NATIONAL FOREST				99 ROAD MAINTENANCE SHEET 5 OF 23	

## GENERAL NOTES

**ITEM 202(03)**– ANY TREATED WOODEN POSTS AND BLOCKS REMOVED FROM EXISTING GUARDRAIL SECTIONS TO BE REMOVED FROM FOREST LAND AND DISPOSED OF BY THE CONTRACTOR.

ITEM 203(10) INCLUDES SILT FENCE TO BE INSTALLED AS STAKED BY COR TO REDUCE SEDIMENT RUNOFF AT THE DISPOSAL SITE.

ITEM 203(10) INCLUDES TRAFFIC MANAGEMENT SIGNING AND 2 CERTIFIED FLAGGERS AT EACH EXCAVATION SITE.

ITEM 207(01) DEVELOP WATER SUPPLY IN ACCORDANCE WITH THE WDFW HPA PROVISIONS.

**GENERAL  
NOTES**

**DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
GIFFORD PINCHOT NATIONAL FOREST**

**99 ROAD  
MAINTENANCE**

**SHEET 6 OF 23**

Station/ Kilometer	<u>Description of Work – Road 99</u>	<u>Pay Item</u>	<u>Estimated Quantity</u>
7+725 (MP 4.8)	Begin work area. Excavate unsuitable material and transport to disposal site. Import Item 304(10) and place in lifts of 300mm in depth per lift. Place geotextile (Item 203(13) below first lift and between each subsequent lift. Place surface course of crushed aggregate (Item 304(13) 200mm deep on top of last layer of geotextile . Place 100mm depth of asphalt on top of surface course.  Keep embankment con-current with excavation so that all excavated areas are returned to top of Item 304(10) before leaving project for the day	203(10)A 203(10)B 203(13) 304(10) 304(13) 403(01) 207(02) 170(03)	744 m <sup>3</sup> 10 <sup>3</sup> 2439 m <sup>2</sup> 660 m <sup>3</sup> 84 m <sup>3</sup> 100 t 60 k litres 0.091 km
7+816	End all work items		
10+725 (MP 6.66)	Begin work area. Excavate unsuitable material and transport to disposal site. Import Item 304(10) and place in lifts of 300mm in depth per lift. Place geotextile (Item 203(13) below first lift and between each subsequent lift. Place surface course of crushed aggregate (Item 304(13) 200mm deep on top of last layer of geotextile . Place 100mm depth of asphalt on top of surface course.  Keep embankment con-current with excavation so that all excavated areas are returned to top of Item 304(10) before leaving project for the day	203(10)A 203(10)B 203(13) 304(10) 304(13) 403(01) 207(02) 170(03)	2488 m <sup>3</sup> 25 <sup>3</sup> 7971 m <sup>2</sup> 2197 m <sup>3</sup> 291 m <sup>3</sup> 281 t 199 k liters 0.32 km
11+042	End all work items		
11+816 (MP 7.34)	Begin work area. Excavate unsuitable material and transport to disposal site. Import Item 304(10) and place in lifts of 300mm in depth per lift. Place geotextile (Item 203(13) below first lift and between each subsequent lift. Place surface course of crushed aggregate (Item 304(13) 200mm deep on top of last layer of geotextile. Place 100mm depth of asphalt on top of surface course.  Keep embankment con-current with excavation so that all excavated areas are returned to top of Item 304(10) before leaving project for the day	203(10)A 203(10)B 203(13) 304(10) 304(13) 403(01) 207(02) 170(03)	465 m <sup>3</sup> 10 <sup>3</sup> 1333 m <sup>2</sup> 409 m <sup>3</sup> 56 m <sup>3</sup> 51 t 33 k liters 0.053 km
11+869	End all work items		
11+890 (MP 7.34)	Begin work area. Excavate unsuitable material and transport to disposal site. Import Item 304(10) and place in lifts of 300mm in depth per lift. Place geotextile below first lift and between each subsequent lift. Place surface course of crushed aggregate (Item 304(13) 200mm deep on top of last layer of geotextile. Place 100mm depth of asphalt on top of surface course. Keep embankment con-current with excavation so that all excavated areas are returned to top of Item 304(10) before leaving project for the day	203(10)A 203(10)B 203(13) 304(10) 304(13) 403(01) 255(01) 207(02) 255(01) 170(03)	718 m <sup>3</sup> 25 <sup>3</sup> 2860 m <sup>2</sup> 627 m <sup>3</sup> 91 m <sup>3</sup> 80 t 42 m <sup>2</sup> 69 k liters 12 m <sup>2</sup> 0.11 k.m
11+903 to 11+938	Install 1200 mm high mechanically stabilized earth wall, Hilficker, w45 wire, 4.6 meter tie back mats. Hand place Item 304(10) at face of wall.		
11+959 to 11+969 12+000	Install 1200 mm high mechanically stabilized earth wall. See Sta 11+903 note.  End all work items		
DESCRIPTION OF WORK	<b>DEPARTMENT OF AGRICULTURE FOREST SERVICE GIFFORD PINCHOT NATIONAL FOREST</b>	99 ROAD MAINTENANCE SHEET 7 OF 23	

Station/ Kilometer	<u>Description of Work – Road 99</u>	<u>Pay Item</u>	<u>Estimated Quantity</u>
24+005  (MP 14.9)	Begin work area. Set slopes stakes Pay Item 170(03) utilizing templates and new centerline location as provided by COR. Excavate existing cutbank and haul material to disposal site. Excavate existing asphalt and base rock as shown in the drawings and haul to disposal area. Excavate existing embankment as shown in the drawings and haul to disposal area. Place Items 304(10), 304(13) and 403(01) as shown in the drawings. Keep embankment con-current with excavation so that all excavated areas are returned to top of Item 304(10) before leaving project for the day	170(03) 203(01)A  304(10) 304(13) 403(01) 207(02)	0.124 km 200 <sup>3</sup>  150 <sup>3</sup> 65 <sup>3</sup> 65 tons 19 k liters
24+044	Construct erosion apron as shown in the drawings	251(01)	30 <sup>3</sup>
24+067	Remove 2 existing culverts, bury in disposal site for Item 203(10)A. Install new culvert with drop inlet box as shown in the drawings. Construct riprap outlet apron	202(02) 603(01) 251(01) 603A(03)	2 ea 13 m 10 <sup>3</sup> 1 ea
24+090	End all work items		
24+131 to 24+140  (MP 14.99)	Remove damaged guardrail and posts Sta 24+131 to Sta 24+140. Haul rail to disposal area (quarry) and bury. Haul post to certified land fill. Install guardrail system G4, type 2, class B from sta. 24+131 to sta. 24+138. Breakaway cable terminal section is located from sta. 24+138 to sta. 24+140 and consists of posts, railing, hardware and anchorage assembly required to construct BCT terminal section. Use either steel tube or concrete anchor in the construction of the anchorage assembly for the BCT terminal section.	202(03) 606(01) 606(02)	9 m 7 m 1 Each
24+475 to 24+512  (MP 15.2)	Remove damaged guardrail and posts Sta 24+475 to Sta 24+512. Haul rail to disposal area (quarry) and bury. Haul post to certified land fill. Install guardrail system G4, type 2, class B from sta. 24+475 to sta. 24+510. Breakaway cable terminal section is located from sta. 24+510 to sta. 24+512 and consists of posts, railing, hardware and anchorage assembly required to construct BCT terminal section. Use either steel tube or concrete anchor in the construction of the anchorage assembly for the BCT terminal section.	202(03) 606(01) 606(02)	37 m 35 m 1 Each
24+662 to 24+671  (MP 15.32)	Remove damaged guardrail and posts Sta 24+662 to Sta 24+671. Haul rail to disposal area (quarry) and bury. Haul posts to certified land fill. Install guardrail system G4, type 2, class B from sta. 24+662 to sta. 24+669. Breakaway cable terminal section is located from sta. 24+669 to sta. 24+671 and consists of posts, railing, hardware and anchorage assembly required to construct BCT terminal section. Use either steel tube or concrete anchor in the construction of the anchorage assembly for the BCT terminal section.	202(03) 606(01) 606(02)	9 m 7 m 1 Each
DESCRIPTION OF WORK	<b>DEPARTMENT OF AGRICULTURE FOREST SERVICE GIFFORD PINCHOT NATIONAL FOREST</b>	99 ROAD MAINTENANCE SHEET 8 OF 23	