

Ward Creek Line 1 - Quantities	Value	Unit	Remarks
8" Dia. Pipe	30,650	lf	Pressure Class 250 - PVC C-900
Tees	14	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	24	EA	
90 Degree Bend	5	EA	
Solid Sleeves	10	EA	
6" Dia. Pipe (Rozet Ranchettes Connection)	200	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	0	EA	
90 Degree Bend	0	EA	
Solid Sleeves	0	EA	
8" Dia. Pipe (Rozet Connection)	375	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	4	EA	
90 Degree Bend	0	EA	
Solid Sleeves	2	EA	
8" Connection to future 42" Transmission Line	1	EA	See connection detail
8" Connection to existing 30" Transmission Line	1	EA	See connection detail
4" Master Meter & Vault for Rozet Ranchettes - 6" Dia. Pipe	1	EA	See master meter vault detail
6" Master Meter & Vault for Rozet Distribution System- 8" Dia. Pipe	1	EA	See master meter vault detail
6" Master Meter & Vault-Ward Creek Land Owners Assoc - 8" Dia. Pipe	1	EA	See master meter vault detail
Air/Vac Valve Vault on 8" Dia. Pipe	5	EA	See vault installation detail
Altitude Valve on 8" Dia. Pipe	1	EA	See valve installation detail
Blowoff Assembly on 8" Dia. Pipe	11	EA	See blowoff installation detail
Chlorine Booster Station on 8" Dia. Pipe	1	EA	For Rozet connection
Steel Water Storage Tank	250,000	GAL	For Rozet
6" Gate Valves - MJ Nut Operator NRS w/Valve Box	1	EA	See valve installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	15	EA	See valve installation detail
8" line crossing future 42" Madison Parallel line at Sta. 0+60	1	EA	See conduit crossing detail
Connection to existing Rozet Ranchettes Tank at Sta. 1+00	1	EA	
8" line crossing future 42" Madison Parallel line at Sta. 21+50	1	EA	See conduit crossing detail
8" line crossing existing 30" Madison line at Sta. 21+90	1	EA	See conduit crossing detail
8" line crossing State Highway 51 & BNRR Single Track at Sta. 24+00	250	LF	16" casing pipe, see casing pipe detail - Jack & Bore
8" line crossing Donkey Creek Tributary at Sta. 79+10	110	LF	Concrete encasement, see encasement detail
Future Connection to Rozet Distribution System at Sta. 119+00	1	EA	
8" line crossing State Highway 51 & BNRR single track at Sta. 119+00	280	LF	16" casing pipe, see casing pipe detail - Jack & Bore
8" line crossing Donkey Creek at Sta. 143+00	75	LF	Concrete encasement, see encasement detail - Jack & Bore
8" line crossing Ward Creek at Sta. 155+75	80	LF	Concrete encasement, see encasement detail - Jack & Bore
8" line crossing Interstate 90 onramp at Sta. 164+60	170	LF	16" casing pipe, see casing pipe detail
8" line crossing Interstate 90 at Sta. 169+40	200	LF	16" casing pipe, see casing pipe detail - Jack & Bore
8" line crossing Interstate 90 offramp at Sta. 174+60	150	LF	16" casing pipe, see casing pipe detail
8" line crossing 12" Crude Oil Pipeline at Sta. 246+60	1	LF	See conduit crossing detail

<b>Ward Creek Line 1 - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
8" line crossing Donkey Creek Tributary at Sta. 258+40	90	LF	Concrete encasement, see encasement detail
8" line crossing Adon Road at Sta. 288+00	30	LF	16" casing pipe, see casing pipe detail
Connection to existing Ward Creek Tank at Sta. 306+50	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
Gravel Road replacement	50	SY	Gravel road at Sta. 20+50
Gravel Road replacement	50	SY	Svalina Road at Sta. 28+00
Gravel Driveway replacement	50	SY	at Sta. 125+50
Gravel Driveway replacement	50	SY	at Sta. 145+75
Gravel Driveway replacement	50	SY	at Sta. 160+50
Gravel Road replacement	50	SY	Svalina Road at Sta. 224+25
Gravel Driveway replacement	50	SY	at Sta. 250+40
Gravel Driveway replacement	20	SY	at Sta. 289+00
Gravel Driveway replacement	20	SY	at Sta. 295+15
Gravel Driveway replacement	20	SY	at Sta. 298+90
<b>Other Special Conditions:</b> Assume pipeline installation in Adon Road and Melvin Street is in shoulder with no asphalt replacement unless noted above; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;			

<b>Ward Creek Line 2 - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
6" Dia. Pipe (Madison Parallel Line Tap)	1,900	LF	Pressure Class 250 - PVC C-900
Tees	1	EA	
11 1/4 Degree Bend	2	EA	
22 1/2 Degree Bend	1	EA	
45 Degree Bend	4	EA	
90 Degree Bend	4	EA	
Solid Sleeves	2	EA	
6" Dia. Pipe (Madison Line Tap)	100	LF	Pressure Class 250 - PVC C-900
6" Connection to future 42" Transmission Line	1	EA	See connection detail
6" Connection to existing 30" Transmission Line	1	EA	See connection detail
4" Master Meter & Vault for Wessex Imp. Service District - 6" Dia. Pipe	1	EA	See master meter vault detail
Altitude Valve on 6" Dia. Pipe	1	EA	See valve installation detail
Chlorine Booster Station on 6" Dia. Pipe	1	EA	For Wessex Improvement Service District
6" Gate Valves - MJ Nut Operator NRS w/Valve Box	3	EA	See valve installation detail
6" line crossing existing 30" Madison Parallel line at Sta. 0+60	1	EA	See conduit crossing detail
6" line crossing State Highway 51 at Sta. 4+20	100	LF	12" casing pipe, see casing pipe detail - Jack & Bore
Connection to Existing Wessex Imp Service District Tank at Sta. 16+70	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
Gravel Road Replacement	30	SY	O'Neal Circle at Sta. 7+00
Gravel Road Replacement	30	SY	O'Neal Circle at Sta. 17+90
<b>Other Special Conditions:</b> Assume pipeline installation in O'Neal Circle is in shoulder with no asphalt replacement; Each valve shall have a marker post installed per detail;			

Meadow Springs Line 1 - Quantities	Value	Unit	Remarks
12" Dia. Pipe	7,225	LF	Pressure Class 250 - PVC C-900
Tees	5	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	6	EA	
45 Degree Bend	5	EA	
90 Degree Bend	2	EA	
Solid Sleeves	6	EA	
8" Dia. Pipe	3,775	LF	Pressure Class 250 - PVC C-900
Tees	3	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	1	EA	
90 Degree Bend	2	EA	
Solid Sleeves	4	EA	
6" Dia. Pipe	8,300	LF	Pressure Class 250 - PVC C-900
Tees	3	EA	
11 1/4 Degree Bend	4	EA	
22 1/2 Degree Bend	4	EA	
45 Degree Bend	5	EA	
90 Degree Bend	3	EA	
Solid Sleeves	2	EA	
8" Dia. Pipe (Freedom Hills Subdivision Connection)	50	LF	Pressure Class 250 - PVC C-900
6" Dia. Pipe (American Road Water and Sewer Connection)	760	LF	Pressure Class 250 - PVC C-900
12" Connection to future 42" Transmission Line	1	EA	See connection detail
12" Connection to existing 30" Transmission Line	1	EA	See connection detail
4" Master Meter & Vault for Freedom Hills Subdivision - 6" Dia. Pipe	1	EA	See master meter vault detail
4" Master Meter & Vault for American Road Water & Sewer- 4" Dia. Pipe	1	EA	See master meter vault detail
4" Master Meter & Vault for Meadow Springs Imp. & Serv. - 6" Dia. Pipe	1	EA	See master meter vault detail
Air/Vac Valve Vault on 12" Dia. Pipe	1	EA	See vault installation detail
Air/Vac Valve Vault on 8" Dia. Pipe	1	EA	See vault installation detail
Air/Vac Valve Vault on 6" Dia. Pipe	1	EA	See vault installation detail
Altitude Valve on 6" Dia. Pipe	2	EA	See valve installation detail
Altitude Valve on 8" Dia. Pipe	1	EA	See valve installation detail
Blowoff Assembly on 12" Dia. Pipe	2	EA	See blowoff installation detail
Blowoff Assembly on 8" Dia. Pipe	2	EA	See blowoff installation detail
Blowoff Assembly on 6" Dia. Pipe	3	EA	See blowoff installation detail
12" Gate Valves - MJ Nut Operator NRS w/Valve Box	5	EA	See valve installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	3	EA	See valve installation detail
6" Gate Valves - MJ Nut Operator NRS w/Valve Box	4	EA	See valve installation detail
12" line crossing future 42" Madison Parallel line at Sta. 2+00	1	EA	See conduit crossing detail
12" line crossing existing 30" Madison Parallel line at Sta. 2+20	1	EA	See conduit crossing detail
12" line crossing State Highway 51 at Sta. 1+80	200	LF	18" casing pipe, see casing pipe detail - Jack & Bore
12" line crossing Donkey Creek Tributary at Sta. 7+90	50	LF	Concrete encasement, see encasement detail
12" line crossing BNRR single track at Sta. 14+15	100	LF	18" casing pipe, see casing pipe detail - Jack & Bore
12" line crossing Interstate 90 at Sta. 17+10	350	LF	18" casing pipe, see casing pipe detail - Jack & Bore
12" line crossing Donkey Creek Tributary at Sta. 31+10	100	LF	Concrete encasement, see encasement detail
Connection to existing Freedom Hills Subdivision Tank at Sta. 72+20	1	EA	

<b>Meadow Springs Line 1 - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
8" line crossing Chickadee Road at Sta. 92+20	80	LF	16" casing pipe, see casing pipe detail
8" line crossing American Road at Sta. 96+00	200	LF	16" casing pipe, see casing pipe detail
Connection to existing American Road W & S Tank at Sta. 109+95	1	EA	
6" line crossing at Sta. 153+80	200	LF	14" casing pipe, see casing pipe detail
6" line crossing existing Natural Gas Pipeline at Sta. 182+95	1	LF	See conduit crossing detail
Connection to existing Meadow Springs Tank at Sta. 192+05	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
Gravel Road replacement	50	SY	at Sta. 15+50
Gravel Road replacement	100	SY	Moran Ranch Road at Sta. 37+00 to 38+00
Gravel Road replacement	50	SY	Partridge Drive at Sta. 41+10
Gravel Road replacement	50	SY	O Court at Sta. 69+00
Gravel Road replacement	50	SY	P Court at Sta. 75+50
Gravel Road replacement	50	SY	Meadowlark Road at Sta. 86+25
Gravel Road replacement	50	SY	Daisy Street at Sta. 101+75
Gravel Road replacement	50	SY	Quail Meadows Street at Sta. 109+65
Gravel Road replacement	50	SY	Willow Street at Sta. 119+60
Gravel Road replacement	50	SY	Ruby Street at Sta. 134+00
<b>Other Special Conditions:</b> Assume pipeline installation in Moran Ranch Road, Blackbird Road, Allard Road, Meadowlark Road, Chickadee Road, and American Road is in shoulder with no asphalt replacement unless a Pipe Bore is shown; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;			

<b>Meadow Springs Line 2 - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
8" Dia. Pipe	4,940	LF	Pressure Class 250 - PVC C-900
Tees	2	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	1	EA	
45 Degree Bend	0	EA	
90 Degree Bend	2	EA	
Solid Sleeves	2	EA	
8" Connection to Meadow Springs Line 1 Distribution Line	1	EA	See connection detail
6" Master Meter & Vault for Cedar Hills Water Association - 8" Dia. Pipe	1	EA	See master meter vault detail
Air/Vac Valve Vault on 8" Dia. Pipe	1	EA	See vault installation detail
Altitude Valve on 8" Dia. Pipe	1	EA	See valve installation detail
Blowoff Assembly on 8" Dia. Pipe	2	EA	See blowoff installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	4	EA	See valve installation detail
8" line crossing Silver Hills Court at Sta. 34+00	60	LF	16" casing pipe, see casing pipe detail
Connection to existing Cedar Hills Water Assoc. Tank at Sta. 53+25	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
Gravel Road replacement	50	SY	Greasewood Court at Sta. 12+25
Gravel Road replacement	50	SY	Yucca Court at Sta. 15+85
Gravel Road replacement	50	SY	Silver Hills Court at Sta. 39+50
<b>Other Special Conditions:</b> Assume pipeline installation in State Hwy 51 is in the Right-of-Way with no asphalt replacement; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;			

<b>Nickelson Farms Line 1 - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
8" Dia. Pipe	7,800	LF	Pressure Class 250 - PVC C-900
Tees	3	EA	
11 1/4 Degree Bend	2	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	2	EA	
90 Degree Bend	4	EA	
Solid Sleeves	6	EA	
12" Dia. Pipe	20,000	LF	Pressure Class 250 - PVC C-900
Tees	10	EA	
11 1/4 Degree Bend	2	EA	
22 1/2 Degree Bend	4	EA	
45 Degree Bend	0	EA	
90 Degree Bend	1	EA	
Solid Sleeves	6	EA	
8" Dia. Pipe (Future Connection for 20 Services)	100	LF	Pressure Class 250 - PVC C-900
8" Dia. Pipe (Future Connection for Moore Court Subdivision)	100	LF	Pressure Class 250 - PVC C-900
12" Connection to 42" New Madison Parallel Line	1	EA	See connection detail
6" Master Meter & Vault for Nickleson Farms Water Co. - 8" Dia. Pipe	1	EA	See master meter vault detail
Air/Vac Valve Vault on 8" Dia. Pipe	2	EA	See vault installation detail
Air/Vac Valve Vault on 12" Dia. Pipe	3	EA	See vault installation detail
Altitude Valve on 8" Dia. Pipe	1	EA	See valve installation detail
Blowoff Assembly on 8" Dia. Pipe	3	EA	See blowoff installation detail
Blowoff Assembly on 12" Dia. Pipe	7	EA	See blowoff installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	5	EA	See valve installation detail
12" Gate Valves - MJ Nut Operator NRS w/Valve Box	8	EA	See valve installation detail
New Package Pump Station	250	GPM	For East Gillette, See package pump station installation details
12" line crossing Drainage at Sta. 32+20	100	LF	Concrete encasement, see encasement detail
12" line crossing Drainage at Sta. 69+80	150	LF	Concrete encasement, see encasement detail
12" line crossing Union Chapel Road at Sta. 133+80	80	LF	18" casing pipe, see casing pipe detail
8" Connection Stub Out for Future Connection to 20 Services	1	EA	
8" Connection Stub Out for Future Connection to Moore Court Sub.	1	EA	
Connection to existing Nickleson Farms Water Co. Tank at Sta. 278+00	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
Gravel Driveway replacement	20	SY	at Sta. 62+20
Gravel Driveway replacement	20	SY	at Sta. 156+80
Gravel Driveway replacement	20	SY	at Sta. 161+00
Gravel Road replacement	50	SY	4 Corners Road at Sta. 173+00
Gravel Driveway replacement	20	SY	at Sta. 187+00
Gravel Driveway replacement	20	SY	at Sta. 195+80
Gravel Road replacement	50	SY	Samuel Adams Road at Sta. 200+00

<b>Nickelson Farms Line 1 - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
Asphalt Driveway replacement (4" HBP, 4" Base Course)	20	SY	at Sta. 206+00
Gravel Driveway replacement	20	SY	at Sta. 208+90
Gravel Driveway replacement	100	SY	at Sta. 213+00
Gravel Driveway replacement	20	SY	at Sta. 219+85
Gravel Driveway replacement	20	SY	at Sta. 221+45
Gravel Driveway replacement	20	SY	at Sta. 222+20
Gravel Driveway replacement	20	SY	at Sta. 226+25
Gravel Driveway replacement	20	SY	at Sta. 228+60
Gravel Road replacement	50	SY	Nathan Hale Road at Sta. 231+65
Gravel Driveway replacement	20	SY	at Sta. 234+20
Gravel Driveway replacement	30	SY	at Sta. 240+00
Gravel Driveway replacement	30	SY	at Sta. 242+50
Gravel Driveway replacement	20	SY	at Sta. 247+85
Gravel Road replacement	50	SY	Thomas Jefferson Road at Sta. 251+90
Gravel Driveway replacement	20	SY	at Sta. 256+50
Gravel Driveway replacement	20	SY	at Sta. 261+50
Gravel Driveway replacement	20	SY	at Sta. 262+20
Gravel Driveway replacement	20	SY	at Sta. 267+00
Gravel Driveway replacement	50	SY	at Sta. 268+00
Gravel Driveway replacement	20	SY	at Sta. 270+50
Gravel Road replacement	50	SY	Patrick Henry Road at Sta. 272+05
<b>Other Special Conditions:</b> Assume pipeline installation in Union Chapel Road, Fairview Road, Thomas Paine Road, Nathan Hale Road, Thomas Jefferson Road, and Patrick Henry Road is in shoulder with no asphalt replacement unless a Pipe Bore is shown; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;			

<b>Nickelson Farms Line 2 - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
6" Dia. Pipe	4,700	LF	Pressure Class 250 - PVC C-900
Tees	1	EA	
11 1/4 Degree Bend	1	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	1	EA	
90 Degree Bend	1	EA	
Solid Sleeves	2	EA	
6" Connection to 12" Nickleson Farms Line 1 Distribution Line	0	EA	See connection detail
4" Master Meter & Vault for Rodeo Flats Water Distribution - 6" Dia. Pipe	1	EA	See master meter vault detail
Air/Vac Valve Vault on 6" Dia. Pipe	1	EA	See vault installation detail
Altitude Valve on 6" Dia. Pipe	1	EA	See valve installation detail
Blowoff Assembly on 6" Dia. Pipe	1	EA	See blowoff installation detail
6" Gate Valves - MJ Nut Operator NRS w/Valve Box	2	EA	See valve installation detail
6" line crossing at Sta. 0+10	50	LF	14" casing pipe, see casing pipe detail
Connection to exist. Rodeo Flats Water Distriubtion Tank at Sta. 58+50	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of respose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
Gravel Road replacement	50	SY	4 Corners Road at Sta. 26+25
Gravel Driveway replacement	20	SY	at Sta. 56+75
<b>Other Special Conditions:</b> Assume pipeline installation in 4 Corners Road is in shoulder with no asphalt replacement unless a Pipe Bore is shown; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;			

Central Campbell County Line - Quantities	Value	Unit	Remarks
8" Dia. Pipe	1,550	lf	Pressure Class 250 - PVC C-900
Tees	0	ea	
11 1/4 Degree Bend	0	ea	
22 1/2 Degree Bend	0	ea	
45 Degree Bend	2	ea	
90 Degree Bend	1	ea	
Solid Sleeves	4	ea	
8" Connection to 42" New Madison Parallel Line	2	ea	See connection detail
6" Master Meter & Vault for Central Campbell County #1 - 8" Dia. Pipe	1	ea	See master meter vault detail
6" Master Meter & Vault for Central Campbell County #1 - 8" Dia. Pipe	1	ea	See master meter vault detail
Altitude Valve on 8" Dia. Pipe	2	ea	See valve installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	2	ea	See valve installation detail
8" line crossing Union Chapel Road at Sta. 0+05	100	lf	18" casing pipe, see casing pipe detail
8" line crossing Union Chapel Road at Sta. 0+05	100	lf	18" casing pipe, see casing pipe detail
Connection to existing Lower Water Storage Tank at Sta. 7+00	1	ea	
Connection to existing Upper Water Storage Tank at Sta. 8+50	1	ea	
Vertical Trench Depth	7.67	ft	
Depth of Bury	6.5	ft	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	ft	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
<b>Other Special Conditions:</b> Assume pipeline installation in Well Access Roads is in shoulder with no asphalt replacement unless a Pipe Bore is shown; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;			

Antelope Valley Line - Quantities	Value	Unit	Remarks
12" Dia. Pipe	11,100	LF	Pressure Class 250 - PVC C-900
Tees	5	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	13	EA	
90 Degree Bend	3	EA	
Solid Sleeves	6	EA	
8" Dia. Pipe (Connection for Antelope Valley Business Park)	930	lf	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	1	EA	
90 Degree Bend	0	EA	
Solid Sleeves	1	EA	
12" Connection to 42" New Madison Parallel Line	1	EA	See connection detail
6" Master Meter & Vault for Antelope Valley Business Park - 8" Dia. Pipe	1	EA	See master meter vault detail
8" Master Meter & Vault for Antelope Valley Subdivision - 12" Dia. Pipe	1	EA	See master meter vault detail
New Package Pump Station	500	GPM	See Package Pump Station installation detail
Air/Vac Valve Vault on 12" Dia. Pipe	2	EA	See vault installation detail
Altitude Valve on 12" Dia. Pipe	1	EA	See valve installation detail
Altitude Valve on 8" Dia. Pipe	1	EA	See valve installation detail
Blowoff Assembly on 12" Dia. Pipe	4	EA	See blowoff installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	1	EA	See valve installation detail
12" Gate Valves - MJ Nut Operator NRS w/Valve Box	7	EA	See valve installation detail
8" line crossing South Douglas Highway at Sta. 3+40	100	LF	16" casing pipe, see casing pipe detail - Jack & Bore
Connection to existing Antelope Valley Bus. Park Tank at Sta. 3+40	1	EA	
12" line crossing Antler Road at Sta. 28+00	100	LF	18" casing pipe, see casing pipe detail
12" line crossing Wolff Road at Sta. 41+00	100	LF	18" casing pipe, see casing pipe detail
12" line crossing Whitetail Street at Sta. 48+95	60	LF	18" casing pipe, see casing pipe detail
12" line crossing Whitetail Street at Sta. 89+40	30	SY	
Connection to existing Antelope Valley Subdivision Tank at Sta. 111+00	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
Gravel Driveway Replacement	50	SY	Water Tank Access Parking Lot

Antelope Valley Line - Quantities	Value	Unit	Remarks
<p><b>Other Special Conditions:</b> Assume pipeline installation in South Douglas Highway, Antler Road, and Wolff Road is in shoulder with no asphalt replacement unless a Pipe Bore is shown; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;</p>			

<b>Crestview Line - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
6" Dia. Pipe	1,150	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	4	EA	
90 Degree Bend	4	EA	
Solid Sleeves	2	EA	
8" Dia. Pipe	2,630	LF	Pressure Class 250 - PVC C-900
Tees	1	EA	
11 1/4 Degree Bend	2	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	2	EA	
90 Degree Bend	2	EA	
Solid Sleeves	0	EA	
8" Connection to 42" New Madison Parallel Line	1	EA	See connection detail
6" Master Meter & Vault for Crestview Subdivision - 8" Dia. Pipe	1	EA	See master meter vault detail
4" Master Meter & Vault for Hitching Post Trailer Court - 6" Dia. Pipe	1	EA	
Altitude Valve on 8" Dia. Pipe	1	EA	See valve installation detail
Altitude Valve on 6" Dia. Pipe	1	EA	See valve installation detail
6" Gate Valves - MJ Nut Operator NRS w/Valve Box	1	EA	See valve installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	2	EA	See valve installation detail
6" line crossing South Douglas Highway at Sta. 0+10	150	LF	12" casing pipe, see casing pipe detail - Jack & Bore
Connection to existing Crestview Estates Sub. Tank at Sta. 26+30	1	EA	
Connection to existing Hitching Post Trailer Court Tank at Sta. 11+50	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
Concrete Road replacement (6" thick)	400	SY	Sassick Street at Sta. 12+80 to 19+80
Gravel Driveway replacement	20	SY	at Sta. 20+00
<b>Other Special Conditions:</b> Assume pipeline installation in Gallery View Drive and Hitching Post Access Drive is in shoulder with no asphalt replacement unless a Pipe Bore is shown; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;			

Countryside Line - Quantities	Value	Unit	Remarks
6" Dia. Pipe	1,500	LF	Pressure Class 250 - PVC C-900
Tees	1	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	4	EA	
45 Degree Bend	0	EA	
90 Degree Bend	1	EA	
Solid Sleeves	0	EA	
8" Dia. Pipe	4,700	LF	Pressure Class 250 - PVC C-900
Tees	2	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	0	EA	
90 Degree Bend	2	EA	
Solid Sleeves	0	EA	
8" Dia. Pipe (Connection for Lemaster Enterprises #2)	310	LF	Pressure Class 250 - PVC C-900
8" Connection to existing 12" Distribution Line	1	EA	See connection detail
6" Master Meter & Vault for Lemaster Enterprises #2 - 8" Dia. Pipe	1	EA	See master meter vault detail
4" Master Meter & Vault for Countryside Water Users - 6" Dia. Pipe	1	EA	See master meter vault detail
Air/Vac Valve Vault on 6" Dia. Pipe	1	EA	See vault installation detail
Altitude Valve on 6" Dia. Pipe	1	EA	See valve installation detail
Altitude Valve on 8" Dia. Pipe	1	EA	See valve installation detail
Blowoff Assembly on 6" Dia. Pipe	1	EA	See blowoff installation detail
Blowoff Assembly on 8" Dia. Pipe	1	EA	See blowoff installation detail
6" Gate Valves - MJ Nut Operator NRS w/Valve Box	2	EA	See valve installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	3	EA	See valve installation detail
Connection to existing Lemaster Enterprises Tank #2 at Sta. 3+10	1	EA	
Connection to existing Countryside Water Users Tank at Sta. 62+00	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
Concrete Street to be replaced by County - Install new Pipe during Install	X	SY	Sta. 0+00 to Sta. 47+20 (Center of New Road)
Gravel Road replacement	850	SY	Hilltop Drive at Sta. 61+40 (Center of Road)

**Other Special Conditions:** Assume pipeline installation in North Garner Lake Road and Hilltop Drive is in center with replacements in kind as shown; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;

Wrangler Estates Line 1 - Quantities	Value	Unit	Remarks
8" Dia. Pipe	12,220	LF	Pressure Class 250 - PVC C-900
Tees	3	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	8	EA	
90 Degree Bend	6	EA	
Solid Sleeves	6	EA	
8" Connection to existing 12" Distribution Line	1	EA	See connection detail
6" Master Meter & Vault for Wrangler Estates - 8" Dia. Pipe	1	EA	See master meter vault detail
Air/Vac Valve Vault on 8" Dia. Pipe	1	EA	See vault installation detail
Altitude Valve on 8" Dia. Pipe	1	EA	See valve installation detail
Blowoff Assembly on 8" Dia. Pipe	3	EA	See blowoff installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	5	EA	See valve installation detail
8" line crossing Drainage at Sta. 25+00	100	LF	Concrete encasement, see encasement detail
8" line crossing Little Powder River Road at Sta. 27+00	50	LF	16" casing pipe, see casing pipe detail
8" line crossing Little Powder River Road at Sta. 61+45	50	LF	16" casing pipe, see casing pipe detail
8" line crossing Little Powder River Road at Sta. 87+00	50	LF	16" casing pipe, see casing pipe detail
8" line crossing existing 6" Natural Gas Pipeline at Sta. 84+00	1	LF	See conduit crossing detail
Connection to existing Wrangler Estates Tank at Sta. 102+20	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
Gravel Driveway replacement	20	SY	at Sta. 12+90
Gravel Driveway replacement	20	SY	at Sta. 13+90
Gravel Driveway replacement	20	SY	at Sta. 43+45
Gravel Driveway replacement	30	SY	at Sta. 52+00
Gravel Driveway replacement	20	SY	at Sta. 89+50
Gravel Driveway replacement	20	SY	at Sta. 92+00
Gravel Driveway replacement	20	SY	at Sta. 93+30
Gravel Driveway replacement	20	SY	at Sta. 95+90
Gravel Driveway replacement	20	SY	at Sta. 97+90
Gravel Road replacement	50	SY	Warrior Court at Sta. 101+00

**Other Special Conditions:** Assume pipeline installation in FNorth Gurley Avenue, Little Powder River Road, and Warrior Court is in shoulder with no asphalt replacement unless a Pipe Bore is shown; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;

<b>Wrangler Estates Line 2 - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
6" Dia. Pipe	2,600	LF	Pressure Class 250 - PVC C-900
Tees	1	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	0	EA	
90 Degree Bend	0	EA	
Solid Sleeves	0	EA	
6" Dia. Pipe (Connection to New Water Storage Tank	400	LF	Pressure Class 250 - PVC C-900
6" Connection to 8" Wrangler Estates Line 1 Distribution Line	1	EA	See connection detail
6" Connection to existing 6" Distribution Line	1	EA	See connection detail
4" Master Meter & Vault for Buckskin Meadows Sub. - 6" Dia. Pipe	1	EA	See master meter vault detail
New Water Storage Tank	36,000	GAL	For Buckskin Meadows Subdivision
New Package Pump Station	50	GPM	For Buckskin Meadows Subdivision
Altitude Valve on 6" Dia. Pipe	1	EA	See valve installation detail
Chlorine Booster Station on 6" Dia. Pipe	1	EA	See chlorine booster station installation detail
6" Gate Valves - MJ Nut Operator NRS w/Valve Box	3	EA	See valve installation detail
Connection to Buckskin Meadows Subdivision Tank at Sta. 19+20	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
Gravel Road replacement	50	SY	Buckskin Drive at Sta. 12+10
Gravel Road replacement	50	SY	PJ Road at Sta. 19+20
<b>Other Special Conditions:</b> Assume pipeline installation in Buckskin Drive and PJ Road is in shoulder with no asphalt replacement unless a Pipe Bore is shown; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;			

<b>Airport Line 1 - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
6" Dia. Pipe	1,500	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	0	EA	
90 Degree Bend	0	EA	
Solid Sleeves	0	EA	
12" Dia. Pipe	24,200	LF	Pressure Class 250 - PVC C-900
Tees	13	EA	
11 1/4 Degree Bend	1	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	12	EA	
90 Degree Bend	3	EA	
Solid Sleeves	8	EA	
6" Dia. Pipe (Connection for Lakeview Mobile Home Park)	520	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	0	EA	
90 Degree Bend	1	EA	
Solid Sleeves	0	EA	
6" Dia. Pipe (Connection for Section 4 Water System, Inc)	740	LF	Pressure Class 250 - PVC C-900
Tees	1	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	4	EA	
90 Degree Bend	0	EA	
Solid Sleeves	0	EA	
6" Dia. Pipe (Connection for Hoy Mobile Home Park)	440	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	0	EA	
90 Degree Bend	2	EA	
Solid Sleeves	0	EA	
12" Connection to existing 12" Distribution Line	1	EA	See connection detail
4" Master Meter & Vault for Lakeview Mobile Home Park - 6" Dia. Pipe	1	EA	See master meter vault detail
4" Master Meter & Vault for Hoy Mobile Home Park - 6" Dia. Pipe	1	EA	See master meter vault detail
4" Master Meter & Vault for Section 4 Water System - 6" Dia. Pipe	1	EA	See master meter vault detail
4" Master Meter & Vault for Airport Water System - 6" Dia. Pipe	1	EA	See master meter vault detail
Air/Vac Valve Vault on 12" Dia. Pipe	4	EA	See vault installation detail
Altitude Valve on 6" Dia. Pipe	4	EA	See valve installation detail

PASS 1, PASS 2, PASS 3

Airport Line 1 - Quantities	Value	Unit	Remarks
Blowoff Assembly on 12" Dia. Pipe	9	EA	See blowoff installation detail
6" Gate Valves - MJ Nut Operator NRS w/Valve Box	4	EA	See valve installation detail
12" Gate Valves - MJ Nut Operator NRS w/Valve Box	10	EA	See valve installation detail
12" Master PRV & Vault	1	EA	See PRV installation detail
12" line crossing East Warlow Drive at Sta. 1+00	100	LF	18" casing pipe, see casing pipe detail
12" line crossing existing 6" water distribution line at Sta. 1+85	1	LF	See conduit crossing detail
12" line crossing Drainage at Sta. 6+90	100	LF	Concrete encasement, see encasement detail
12" line crossing existing 16" water collection line at Sta. 27+05	1	LF	See conduit crossing detail
Connection to existing Lakeview Mobile Home Park Tank at Sta. 27+30	1	EA	
12" line crossing existing 6" Natural Gas Pipeline at Sta. 114+80	1	LF	See conduit crossing detail
12" line crossing Drainage at Sta. 118+90	100	LF	Concrete encasement, see encasement detail
12" line crossing US Highway 14 at Sta. 150+05	80	LF	18" casing pipe, see casing pipe detail - Jack & Bore
12" line crossing existing 6" Natural Gas Pipeline at Sta. 160+85	1	LF	See conduit crossing detail
12" line crossing Creek/Drainage at Sta. 168+90	100	LF	Concrete encasement, see encasement detail
Connection to existing Hoy Mobile Home Park Tank at Sta. 187+20	1	EA	
Connection to existing Section 4 Water System, Inc Tank at Sta. 187+20	1	EA	
12" line crossing US Highway 14 at Sta. 199+50	110	LF	18" casing pipe, see casing pipe detail - Jack & Bore
12" line crossing Creek/Drainage at Sta. 216+80	100	LF	Concrete encasement, see encasement detail
12" line crossing Airport Road at Sta. 224+75	80	LF	18" casing pipe, see casing pipe detail
6" line crossing Creek/Drainage at Sta. 247+50	100	LF	Concrete encasement, see encasement detail
Connection to existing Airport Tank at Sta. 257+00	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
Concrete Trail Replacement (4" thick)	10	SY	at Sta. 0+50
Concrete Driveway replacement (6" think)	30	SY	at Sta. 5+05
Concrete Driveway replacement (6" think)	20	SY	at Sta. 12+50
Concrete Road replacement (6" thick)	50	SY	Chandler Lane at Sta. 19+90
Concrete Road replacement (6" thick)	50	SY	Hillside Drive at Sta. 27+05
Gravel Driveway replacement	20	SY	at Sta. 37+90
Gravel Driveway replacement	20	SY	at Sta. 77+05
Gravel Driveway replacement	20	SY	at Sta. 86+10
Gravel Driveway replacement	20	SY	at Sta. 90+30
Gravel Driveway replacement	20	SY	at Sta. 92+25
Gravel Driveway replacement	20	SY	at Sta. 94+50
Gravel Road replacement	50	SY	Means Street at Sta. 96+10
Gravel Driveway replacement	20	SY	at Sta. 99+15

<b>Airport Line 1 - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
Gravel Driveway replacement	20	SY	at Sta. 101+00
Gravel Driveway replacement	20	SY	at Sta. 102+75
Gravel Driveway replacement	20	SY	at Sta. 103+75
Gravel Driveway replacement	50	SY	at Sta. 105+15
Gravel Driveway replacement	20	SY	at Sta. 106+50
Gravel Road replacement	50	SY	Gold Drive at Sta. 109+90
Gravel Road replacement	50	SY	North Plains Drive at Sta. 116+10
Gravel Driveway replacement	50	SY	at Sta. 118+40
Gravel Driveway replacement	20	SY	at Sta. 121+35
Gravel Driveway replacement	20	SY	at Sta. 123+20
Gravel Driveway replacement	20	SY	at Sta. 130+00
Gravel Driveway replacement	20	SY	at Sta. 175+00
Gravel Driveway replacement	20	SY	at Sta. 176+00
Gravel Driveway replacement	30	SY	at Sta. 177+00
Gravel Driveway replacement	30	SY	at Sta. 179+00
Gravel Road replacement	50	SY	Hoy Drive at Sta. 181+10
Gravel Driveway replacement	100	SY	at Sta. 183+50
Gravel Road replacement	50	SY	Shasta Road at Sta. 187+20
Gravel Driveway replacement	20	SY	at Sta. 188+90
Gravel Driveway replacement	20	SY	at Sta. 191+00
Gravel Driveway replacement	20	SY	at Sta. 193+00
Gravel Driveway replacement	30	SY	at Sta. 198+90
Gravel Driveway replacement	30	SY	at Sta. 237+75

**Other Special Conditions:** Assume pipeline installation in Hannum Road and Airport Road is in shoulder with no asphalt replacement unless a Pipe Bore is shown; Assume pipeline installation along US Highway 14 is the be within the Right-of-Way; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;

<b>Airport Line 2 - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
8" Dia. Pipe	2,305	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	0	EA	
90 Degree Bend	1	EA	
Solid Sleeves	0	EA	
8" Connection to 12" Airport Line 1 Distribution Line	1	EA	See connection detail
6" Master Meter & Vault for Means W & S District Assoc - 8" Dia. Pipe	1	EA	See master meter vault detail
Altitude Valve on 8" Dia. Pipe	1	EA	See valve installation detail
Connection to existing Means Water & Sewer District Tank at Sta. 23+05	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench @ top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
<b>Other Special Conditions:</b> Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;			

<b>Fox Ridge Line - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
8" Dia. Pipe	24,900	lf	Pressure Class 250 - PVC C-900
Tees	9	ea	
11 1/4 Degree Bend	0	ea	
22 1/2 Degree Bend	0	ea	
45 Degree Bend	17	ea	
90 Degree Bend	2	ea	
Solid Sleeves	0	ea	
8" Connection to existing 12" distribution Line	1	ea	See connection detail
6" Master Meter & Vault for Fox Ridge - 8" Dia. Pipe	1	ea	See master meter vault detail
Air/Vac Valve Vault on 8" Dia. Pipe	4	ea	See vault installation detail
Altitude Valve on 8" Dia. Pipe	1	ea	See valve installation detail
Blowoff Assembly on 8" Dia. Pipe	9	ea	See blowoff installation detail
Chlorine Booster Pump Station on 8" Dia. Pipe	1	ea	See chlorine booster pump installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	11	ea	See valve installation detail
New Package Pump Station	150	GPM	See Package Pump Station installation detail
8" line crossing Drainage at Sta. 41+00	100	lf	Concrete encasement, see encasement detail
8" line crossing Drainage at Sta. 73+25	100	lf	Concrete encasement, see encasement detail
8" line crossing existing Natural Gas Pipeline at Sta. 75+25	1	lf	See conduit crossing detail
8" line crossing existing Natural Gas Pipeline at Sta. 88+35	1	lf	See conduit crossing detail
8" line crossing Drainage at Sta. 148+80	100	lf	Concrete encasement, see encasement detail
8" line crossing existing 6" Curde Oil Pipeline at Sta. 151+35	1	lf	See conduit crossing detail
8" line crossing Drainage at Sta. 153+25	100	lf	Concrete encasement, see encasement detail
8" line crossing existing 12" Natural Gas Pipeline at Sta. 160+20	1	lf	See conduit crossing detail
Connection to existing Fox Ridge Tank at Sta. 249+00	1	ea	
Vertical Trench Depth	7.67	ft	
Depth of Bury	6.5	ft	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	ft	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
Gravel Road replacement	50	SY	Southern Drive at Sta. 0+80
Gravel Driveway replacement	20	SY	at Sta. 11+40
Gravel Driveway replacement	30	SY	at Sta. 30+05
Gravel Driveway replacement	20	SY	at Sta. 38+20
Gravel Driveway replacement	20	SY	at Sta. 47+00
Gravel Driveway replacement	20	SY	at Sta. 61+35
Gravel Driveway replacement	20	SY	at Sta. 68+50
Gravel Driveway replacement	20	SY	at Sta. 76+60
Gravel Road replacement	50	SY	Barrett Road at Sta. 79+25
Gravel Road replacement	50	SY	at Sta. 89+60
Gravel Driveway replacement	20	SY	at Sta. 138+65
Gravel Driveway replacement	20	SY	at Sta. 169+00
Gravel Driveway replacement	20	SY	at Sta. 192+80
Gravel Driveway replacement	20	SY	at Sta. 204+20

Fox Ridge Line - Quantities	Value	Unit	Remarks
<b>Other Special Conditions:</b> Assume pipeline installation in State Highway 50 and Lewis Road is in shoulder with no asphalt replacement unless a Pipe Bore is shown; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;			

Eight Mile Line 1 - Quantities	Value	Unit	Remarks
West Gillette Pump Station	1,500	GPM	
12" Dia. Pipe	15,340	LF	Pressure Class 250 - PVC C-900
Tees	8	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	12	EA	
90 Degree Bend	0	EA	
Solid Sleeves	6	EA	
8" Dia. Pipe	9,675	LF	Pressure Class 250 - PVC C-900
Tees	6	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	2	EA	
45 Degree Bend	8	EA	
90 Degree Bend	1	EA	
Solid Sleeves	2	EA	
6" Dia. Pipe	1,765	LF	Pressure Class 250 - PVC C-900
Tees	1	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	2	EA	
45 Degree Bend	0	EA	
90 Degree Bend	1	EA	
Solid Sleeves	0	EA	
8" Dia. Pipe (Connection for Future Taps: Sta. 212+00)	100	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	0	EA	
90 Degree Bend	0	EA	
Solid Sleeves	0	EA	
6" Dia. Pipe (Connection for Rafter D HOA)	270	LF	Pressure Class 250 - PVC C-900
Tees	1	EA	(10" Connection for Existing Main)
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	1	EA	
90 Degree Bend	0	EA	
Solid Sleeves	2	EA	
6" Dia. Pipe (Connection for Overbrook Subdivision)	1,065	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	0	EA	
90 Degree Bend	1	EA	
Solid Sleeves	0	EA	
6" Dia. Pipe (Connection for Bennor Subdivision)	1,210	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	

Eight Mile Line 1 - Quantities	Value	Unit	Remarks
45 Degree Bend	0	EA	
90 Degree Bend	1	EA	
Solid Sleeves	2	EA	
6" Connection to existing 10" Distribution Line at Sta. -5+10	1	EA	See connection detail - Rafter D Homeowners Association
Connection to existing Rafter D Homeowners Assoc Tank at Sta. -5+10	1	EA	
4" Master Meter & Vault for Rafter D Homeowners Assoc - 6" Dia. Pipe	1	EA	See master meter vault detail
4" Master Meter & Vault for Overbrook Subdivision - 6" Dia. Pipe	1	EA	See master meter vault detail
4" Master Meter & Vault for Bennor Subdivision - 6" Dia. Pipe	1	EA	See master meter vault detail
4" Master Meter & Vault for Eight Mile Subdivision - 6" Dia. Pipe	1	EA	See master meter vault detail
12" Connection to existing 10" Distribution Line at Sta. 0+00	1	EA	See connection detail
Air/Vac Valve Vault on 12" Dia. Pipe	2	EA	See vault installation detail
Air/Vac Valve Vault on 8" Dia. Pipe	2	EA	See vault installation detail
Air/Vac Valve Vault on 6" Dia. Pipe	1	EA	See vault installation detail
Altitude Valve on 6" Dia. Pipe	4	EA	See valve installation detail
Blowoff Assembly on 12" Dia. Pipe	5	EA	See blowoff installation detail
Blowoff Assembly on 8" Dia. Pipe	4	EA	See blowoff installation detail
Blowoff Assembly on 6" Dia. Pipe	1	EA	See blowoff installation detail
12" Gate Valves - MJ Nut Operator NRS w/Valve Box	6	EA	See valve installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	4	EA	See valve installation detail
6" Gate Valves - MJ Nut Operator NRS w/Valve Box	5	EA	See valve installation detail
12" line crossing Stone Gate Road at Sta. 0+05	85	LF	18" casing pipe, see casing pipe detail
12" line crossing Drainage at Sta. 4+20	200	LF	Concrete encasement, see encasement detail
12" line crossing Stone Place Avenue at Sta. 28+00	85	LF	18" casing pipe, see casing pipe detail
12" line crossing Drainage at Sta. 41+75	200	LF	Concrete encasement, see encasement detail
12" line crossing existing Natural Gas Pipeline at Sta. 82+75	1	EA	See conduit crossing detail
12" line crossing Drainage at Sta. 90+75	100	LF	Concrete encasement, see encasement detail
12" line crossing existing Natural Gas Pipeline at Sta. 92+15	1	EA	See conduit crossing detail
12" line crossing existing 12" Natural Gas Pipeline at Sta. 99+20	1	EA	See conduit crossing detail
Connection to existing Overbrook Subdivision Tank at Sta. 114+00	1	EA	
12" line crossing Drainage at Sta. 117+20	100	LF	Concrete encasement, see encasement detail
12" line crossing Overbrook Subdivision Access Road at Sta. 121+00	85	LF	18" casing pipe, see casing pipe detail
12" line crossing Drainage at Sta. 125+75	100	LF	Concrete encasement, see encasement detail
6" line crossing Force Road at Sta. 147+85	85	LF	12" casing pipe, see casing pipe detail
Connection to existing Bennor Subdivision Tank at Sta. 147+85	1	EA	
12" line crossing existing Natural Gas Pipeline at Sta. 186+60	1	EA	See conduit crossing detail
8" line crossing Drainage at Sta. 191+20	100	LF	Concrete encasement, see encasement detail
8" line crossing Tongue River Road & Interstate 90 at Sta. 212+10	500	LF	16" casing pipe, see casing pipe detail - Jack & Bore
12" line crossing existing Natural Gas Pipeline at Sta. 226+20	1	EA	See conduit crossing detail
Connection to existing Eight Mile Subdivision Tank at Sta. 267+75	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		

<b>Eight Mile Line 1 - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
Gravel Driveway replacement	20	SY	at Sta. 9+00
Gravel Driveway replacement	20	SY	at Sta. 16+65
Gravel Driveway replacement	20	SY	at Sta. 31+25
Gravel Road replacement	50	SY	Stone Lake Avenue at Sta. 53+50
Gravel Driveway replacement	20	SY	at Sta. 58+25
Gravel Road replacement	50	SY	Stone Ridge Court at Sta. 66+50
Gravel Driveway replacement	20	SY	at Sta. 75+90
Gravel Road replacement	50	SY	Stone Trail Avenue at Sta. 80+00
Gravel Driveway replacement	20	SY	at Sta. 93+50
Gravel Driveway replacement	20	SY	at Sta. 99+00
Gravel Road replacement	50	SY	Overbrook Subdivision Access Road at Sta. 114+00
Gravel Driveway replacement	20	SY	at Sta. 137+90
Gravel Driveway replacement	20	SY	at Sta. 141+50
Gravel Driveway replacement	20	SY	at Sta. 156+15
Gravel Road replacement	50	SY	Shober Road at Sta. 177+80
Gravel Driveway replacement	20	SY	at Sta. 202+75
Gravel Road replacement	50	SY	Force Road at Sta. 218+50
Gravel Driveway replacement	20	SY	at Sta. 224+80
Gravel Road replacement	50	SY	Access Road at Sta. 231+60
Gravel Driveway replacement	20	SY	at Sta. 233+20
Gravel Driveway replacement	20	SY	at Sta. 237+90
Gravel Road replacement	50	SY	Franklin Avenue at Sta. 243+35
<b>Other Special Conditions:</b> Assume pipeline installation in Force Road and Franklin Road is in shoulder with no asphalt replacement unless a Pipe Bore is shown; Assume pipeline installation along Interstate 90 is to be within the Right-of-Way; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;			

<b>Eight Mile Line 2 - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
8" Dia. Pipe	15,995	lf	Pressure Class 250 - PVC C-900
Tees	6	ea	
11 1/4 Degree Bend	0	ea	
22 1/2 Degree Bend	9	ea	
45 Degree Bend	27	ea	
90 Degree Bend	1	ea	
Solid Sleeves	6	ea	
8" Connection to 8" Eight Mile Line 1 Distribution Line	1	ea	See connection detail
6" Master Meter & Vault for Cook Road Water District - 8" Dia. Pipe	1	ea	See master meter vault detail
Air/Vac Valve Vault on 8" Dia. Pipe	3	ea	See valve installation detail
Altitude Valve on 8" Dia. Pipe	1	ea	See valve installation detail
Blowoff Assembly on 8" Dia. Pipe	6	ea	See blowoff assembly installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	8	ea	See valve installation detail
8" line crossing Force Road at Sta. 0+05	80	lf	16" casing pipe, see casing pipe detail
8" line crossing Intersate 90 at Sta. 17+50	300	lf	16" casing pipe, see casing pipe detail - Jack & Bore
8" line crossing existing 12" Natrual Gas Pipeline at Sta. 27+25	1	ea	See conduit crossing detail
8" line crossing existing 12" Natrual Gas Pipeline at Sta. 70+75	1	ea	See conduit crossing detail
8" line crossing Cook Road at Sta. 138+50	100	lf	16" casing pipe, see casing pipe detail
8" line crossing existing 12" Natrual Gas Pipeline at Sta. 145+60	1	ea	See conduit crossing detail
8" line crossing existing 6" Crude Oil Pipeline at Sta. 152+30	1	ea	See conduit crossing detail
Connection to existing Cook Road Water District Tank at Sta. 159+95	1	ea	
Vertical Trench Depth	7.67	ft	
Depth of Bury	6.5	ft	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	ft	
Trench Excavation Slope	1:1		Natural angle of respose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
Gravel Drive replacement	20	SY	at Sta. 4+25
Gravel Road replacement	50	SY	at Sta. 9+90
Gravel Drive replacement	20	SY	at Sta. 16+75
Gravel Road replacement	30	SY	at Sta. 54+75
Gravel Road replacement	50	SY	at Sta. 87+60
Gravel Drive replacement	20	SY	at Sta. 143+80
Gravel Drive replacement	20	SY	at Sta. 152+20
Gravel Road replacement	30	SY	at Sta. 157+25
<b>Other Special Conditions:</b> Assume pipeline installation in Bennor Subdivision Access Road, Cook Road, North Valley Avenue is in shoulder with no asphalt replacement unless a Pipe Bore is shown; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;			

<b>Eight Mile Line 3 - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
8" Dia. Pipe (Connection for Stone Gate Estates)	1,325	LF	Pressure Class 250 - PVC C-900
Tees	1	EA	(10" Tee Connection to Existing Main)
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	0	EA	
90 Degree Bend	1	EA	
Solid Sleeves	0	EA	
8" Dia. Pipe (Connection for Force Road Joint Powers Board)	2,700	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	1	EA	
90 Degree Bend	1	EA	
Solid Sleeves	0	EA	
8" Dia. Pipe (Connection for South Fork Estates)	2,165	LF	Pressure Class 250 - PVC C-900
Tees	1	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	0	EA	
90 Degree Bend	2	EA	
Solid Sleeves	0	EA	
6" Dia. Pipe (Connection for South Fork Estates)	1,010	LF	Pressure Class 250 - PVC C-900
Tees	1	EA	(10" Tee Connection to Existing Main)
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	0	EA	
90 Degree Bend	1	EA	
Solid Sleeves	0	EA	
6" Master Meter & Vault for Stone Gate Estates - 8" Dia. Pipe	1	EA	See master meter vault detail
4" Master Meter & Vault for South fork Estates - 6" Dia. Pipe	1	EA	See master meter vault detail
4" Master Meter & Vault for Force Road Joint Powers - 6" Dia. Pipe	1	EA	See master meter vault detail
Air/Vac Valve Vault on 6" Dia. Pipe	1	EA	See vault installation detail
Altitude Valve on 8" Dia. Pipe	1	EA	See valve installation detail
Altitude Valve on 6" Dia. Pipe	2	EA	See valve installation detail
Blowoff on 6" Dia. Pipe	1	EA	See blowoff installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	2	ea	See valve installation detail
6" Gate Valves - MJ Nut Operator NRS w/Valve Box	2	ea	See valve installation detail
8" Connection to existing 10" Distribution Line at Sta. 0+00	1	EA	See connection detail
Gravel Road replacement	50	SY	Stone Gate Avenue at Sta. 0+00
Gravel Drive replacement	20	SY	at Sta. 11+20
Connection to existing Store Gate Estates Tank at Sta. 13+25	1	EA	
6" Connection to existing 12" Distribution Line at Sta. 0+00	1	EA	See connection detail

<b>Eight Mile Line 3 - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
Gravel Drive replacement	20	SY	at Sta. 1+75
Gravel Drive replacement	20	SY	at Sta. 4+90
Gravel Drive replacement	20	SY	at Sta. 5+90
Gravel Drive replacement	20	SY	at Sta. 9+20
Gravel Drive replacement	20	SY	at Sta. 11+80
Gravel Drive replacement	20	SY	at Sta. 14+75
Gravel Road replacement	50	SY	Brahama Street at Sta. 16+75
Gravel Drive replacement	20	SY	at Sta. 20+70
Gravel Drive replacement	20	SY	at Sta. 22+50
Gravel Road replacement	50	SY	Friday Street at Sta. 23+20
Gravel Drive replacement	20	SY	at Sta. 25+80
Gravel Road replacement	50	SY	Roany Road at Sta. 26+10
Connection to existing South Fork Estates Tank at Sta. 26+90	1	EA	
6" Connection to existing 8" Distribution Line at Sta. 0+00	1	EA	See connection detail
Gravel Drive replacement	20	SY	at Sta. 0+30
Gravel Drive replacement	20	SY	at Sta. 2+20
Gravel Road replacement	50	SY	Wagon Master Place at Sta. 6+25
Gravel Drive replacement	20	SY	at Sta. 7+15
Gravel Drive replacement	40	SY	at Sta. 8+00
Gravel Drive replacement	20	SY	at Sta. 8+90
Gravel Drive replacement	20	SY	at Sta. 12+80
Gravel Drive replacement	40	SY	at Sta. 15+00
Connection to existing Force Road Joint Powers Tank at Sta. 15+65	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		

**Other Special Conditions:** Assume pipeline installation in Stone Crest Drive, Roany Road, and Sundog Drive is in shoulder with no asphalt replacement unless a Pipe Bore is shown; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;

<b>Green Valley Line - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
8" Dia. Pipe	49,900	LF	Pressure Class 250 - PVC C-900
Tees	22	EA	
11 1/4 Degree Bend	1	EA	
22 1/2 Degree Bend	3	EA	
45 Degree Bend	20	EA	
90 Degree Bend	3	EA	
Solid Sleeves	14	EA	
6" Dia. Pipe	2,300	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	5	EA	
90 Degree Bend	1	EA	
Solid Sleeves	2	EA	
6" Dia. Pipe (Connection for RAG Coal West Inc)	1,300	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	1	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	0	EA	
90 Degree Bend	1	EA	
Solid Sleeves	2	EA	
6" Dia. Pipe (Connection for Glory Hole HOA)	2,200	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	5	EA	
90 Degree Bend	4	EA	
Solid Sleeves	2	EA	
6" Dia. Pipe (Connection for Future Pine Butte Ranchettes)	100	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	0	EA	
90 Degree Bend	0	EA	
Solid Sleeves	2	EA	
8" Connection to 12" Airport Line 1 Distribution Line	1	EA	See connection detail
4" Master Meter & Vault for Green Valley Estates - 6" Dia. Pipe	1	EA	See master meter vault detail
4" Master Meter & Vault for RAG Coal West Inc/Rawhide - 6" Dia. Pipe	1	EA	See master meter vault detail
4" Master Meter & Vault for Glory Hole Homeowner Assoc - 6" Dia. Pipe	1	EA	See master meter vault detail
New 25,000 gallon water storage tank	1	EA	See storage tank installation details
Air/Vac Valve Vault on 8" Dia. Pipe	9	EA	See vault installation detail
Altitude Valve on 8" Dia. Pipe	1	EA	See valve installation detail
Altitude Valve on 6" Dia. Pipe	2	EA	See valve installation detail
Blowoff Assembly on 8" Dia. Pipe	19	EA	See blowoff installation detail
Chlorine Booster Station for 6" Dia. Pipe	2	EA	See Chlorine Booster Pump installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	21	EA	See valve installation detail
6" Gate Valves - MJ Nut Operator NRS w/Valve Box	4	EA	See valve installation detail

<b>Green Valley Line - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
8" line crossing Drainage at Sta. 42+50	150	LF	Concrete encasement, see encasement detail
8" line crossing attached to Bridge and heat trace	500	LF	Concrete encasement, see encasement detail
8" line crossing Drainage at Sta. 129+50	100	LF	Concrete encasement, see encasement detail
8" line crossing concrete drive at Sta. 138+50	100	LF	16" casing pipe, see casing pipe detail
8" line crossing Prospector Parkway at Sta. 162+10	150	LF	16" casing pipe, see casing pipe detail
8" line crossing Stagecoach Drive at Sta. 173+20	100	LF	16" casing pipe, see casing pipe detail
Connection to existing RAG Coal West Inc/Rawhide Tank at Sta. 174+50	1	EA	
8" line crossing US Hwy 14 at Sta. 201+50	80	LF	16" casing pipe, see casing pipe detail
8" line crossing existing Natural Gas Pipeline at Sta. 201+75	1	EA	See conduit crossing detail
8" line crossing road at Sta. 224+55	50	LF	16" casing pipe, see casing pipe detail
8" line crossing existing utility Pipeline at Sta. 284+50	1	EA	See conduit crossing detail
8" line crossing Drainage at Sta. 292+10	100	LF	Concrete encasement, see encasement detail
8" line crossing Rawhide Creek at Sta. 306+00	150	LF	Concrete encasement, see encasement detail
8" line crossing County Road at Sta. 340+60	80	LF	16" casing pipe, see casing pipe detail
8" line crossing County Road at Sta. 343+50	80	LF	16" casing pipe, see casing pipe detail
8" line crossing Drainage at Sta. 362+00	100	LF	Concrete encasement, see encasement detail
8" line crossing existing 6" Natural Gas Pipeline at Sta. 376+90	1	EA	See conduit crossing detail
8" line crossing existing 6" Natural Gas Pipeline at Sta. 377+30	1	EA	See conduit crossing detail
8" line crossing County Road at Sta. 433+20	80	LF	16" casing pipe, see casing pipe detail
Connection to New 25000 Gal Glory Hole HOA Tank at Sta. 448+85	1	EA	
8" line crossing existing 18" Crude Oil Pipeline at Sta. 452+50	1	EA	See conduit crossing detail
Connection to Future Pine Butte Ranchettes at Sta. 461+40	1	EA	
8" line crossing Drainage at Sta. 477+80	100	LF	Concrete encasement, see encasement detail
8" line crossing US Hwy 14 at Sta. 498+20	80	LF	16" casing pipe, see casing pipe detail
8" line crossing existing Natural Gas Pipeline at Sta. 499+20	1	EA	See conduit crossing detail
Connection to existing Green Valley Estates Tank at Sta. 521+15	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
Gravel Road replacement	100	SY	at Sta. 49+85
Gravel Drive replacement	20	SY	at Sta. 149+00
Gravel Drive replacement	20	SY	at Sta. 175+00
Gravel Drive replacement	20	SY	at Sta. 182+00
Gravel Drive replacement	30	SY	at Sta. 183+15
Gravel Drive replacement	20	SY	at Sta. 267+95
Gravel Drive replacement	20	SY	at Sta. 312+00
Gravel Drive replacement	20	SY	at Sta. 379+20
Gravel Drive replacement	20	SY	at Sta. 382+00
Gravel Drive replacement	20	SY	at Sta. 407+90
Gravel Road replacement	20	SY	at Sta. 451+80
Gravel Road replacement	20	SY	at Sta. 454+45
Gravel Drive replacement	20	SY	at Sta. 497+15

Green Valley Line - Quantities	Value	Unit	Remarks
Gravel Access Road replacement	50	SY	at Sta. 519+00
<p><b>Other Special Conditions:</b> Assume pipeline installation in US Hwy 14, Arrow Blvd, and Harvard Drive is in shoulder with no asphalt replacement unless a Pipe Bore is shown; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;</p>			

Ridgeway Line - Quantities	Value	Unit	Remarks
6" Dia. Pipe	35,150	LF	Pressure Class 250 - PVC C-900
Tees	14	EA	
11 1/4 Degree Bend	4	EA	
22 1/2 Degree Bend	8	EA	
45 Degree Bend	14	EA	
90 Degree Bend	2	EA	
Solid Sleeves	6	EA	
6" Dia. Pipe (Connection for Future Tap: Sta. 95+00)	400	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	2	EA	
90 Degree Bend	1	EA	
Solid Sleeves	2	EA	
6" Connection to 12" Eight Mile Line 1 Distribution Line	1	EA	See connection detail
4" Master Meter & Vault for Ridgeway Community Assoc - 6" Dia. Pipe	1	EA	See master meter vault detail
Air/Vac Valve Vault on 6" Dia. Pipe	6	EA	See vault installation detail
Altitude Valve on 6" Dia. Pipe	1	EA	See valve installation detail
Blowoff Assembly on 6" Dia. Pipe	13	EA	See blowoff installation detail
6" Gate Valves - MJ Nut Operator NRS w/Valve Box	16	EA	See valve installation detail
6" line crossing Drainage at Sta. 29+80	100	LF	Concrete encasement, see encasement detail
6" line crossing existing 24" Natural Gas Pipeline at Sta. 43+40	1	LF	See conduit crossing detail
6" line crossing Drainage at Sta. 69+00	100	LF	Concrete encasement, see encasement detail
6" line crossing Force Road at Sta. 88+40	100	LF	12" casing pipe, see casing pipe detail
6" line crossing Drainage at Sta. 117+50	200	LF	Concrete encasement, see encasement detail
6" line crossing Drainage at Sta. 131+50	150	LF	Concrete encasement, see encasement detail
6" line crossing Drainage at Sta. 144+00	100	LF	Concrete encasement, see encasement detail
6" line crossing Road at Sta. 161+00	100	LF	12" casing pipe, see casing pipe detail
6" line crossing Drainage at Sta. 162+50	100	LF	Concrete encasement, see encasement detail
6" line crossing North Sage Hill Road at Sta. 203+25	100	LF	12" casing pipe, see casing pipe detail
6" line crossing Drainage at Sta. 210+00	100	LF	Concrete encasement, see encasement detail
6" line crossing Drainage at Sta. 232+00	100	LF	Concrete encasement, see encasement detail
6" line crossing Drainage at Sta. 239+00	150	LF	Concrete encasement, see encasement detail
6" line crossing Drainage at Sta. 246+00	100	LF	Concrete encasement, see encasement detail
6" line crossing Drainage at Sta. 262+50	100	LF	Concrete encasement, see encasement detail
Connection to existing Ridgeway Community Well Tank at Sta. 375+65	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
Gravel Driveway replacement	20	SY	at Sta. 15+50
Gravel Driveway replacement	50	SY	at Sta. 17+50
Gravel Driveway replacement	20	SY	at Sta. 19+80

Ridgeway Line - Quantities	Value	Unit	Remarks
Gravel Driveway replacement	50	SY	at Sta. 48+00
Gravel Driveway replacement	20	SY	at Sta. 57+50
Gravel Road replacement	50	SY	North Sage Hill Road at Sta. 202+50
Gravel Road replacement	50	SY	at Sta. 339+00
Gravel Road replacement	50	SY	State Route 5 at Sta. 353+50
<p><b>Other Special Conditions:</b> Assume pipeline installation in Force Road, Shober Road, and Ridgeway Road is in shoulder with no asphalt replacement unless a Pipe Bore is shown; Assume pipeline installation along Interstate 90 is the be within the Right-of-Way; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;</p>			

<b>Direct Connect System - Lemaster Enterprises - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
8" Dia. Pipe	860	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	2	EA	
90 Degree Bend	3	EA	
Solid Sleeves	2	EA	
Altitude Valve on 8" Dia. Pipe	1	EA	See valve installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	1	EA	See valve installation detail
8" Connection to existing Distribution Tap at 0+00	1	EA	See connection detail - Lemaster Enterprises
8" line crossing North Garner Lake Road at Sta. 0+20	100	LF	16" casing pipe, see casing pipe detail
Gravel Drive Replacement	30	SY	at Sta. 3+50
Connection to existing Lemaster Enterprises Tank at Sta. 8+60	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
<b>Other Special Conditions:</b> Assume pipeline installation in N Garner Lake Road is within the right-of-way with no asphalt or concrete replacement unless shown; Each valve shall have a marker post installed per detail;			

Direct Connect System - Antelope Mobile Home Park - Quantities	Value	Unit	Remarks
8" Dia. Pipe	100	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	0	EA	
90 Degree Bend	1	EA	
Solid Sleeves	0	EA	
Altitude Valve on 8" Dia. Pipe	1	EA	See valve installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	1	EA	See valve installation detail
8" Connection to existing 12" Distribution Line at 0+00	1	EA	See connection detail - Antelope Mobile Home Park
8" line crossing under concrete drive at Sta. 0+00 to 1+00	500	SF	Remove and replace in kind (5' wide section)
Connection to existing Antelope Mobile Home Park Tank at Sta. 0+90	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
<b>Other Special Conditions:</b> Assume pipeline installation in driveway is in concrete, replace all disturbed street necessary; Each valve shall have a marker post installed per detail;			

<b>Direct Connect System - Peoples Improvement District - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
6" Dia. Pipe	1,700	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	2	EA	
45 Degree Bend	2	EA	
90 Degree Bend	2	EA	
Solid Sleeves	2	EA	
Altitude Valve on 6" Dia. Pipe	1	EA	See valve installation detail
6" Gate Valves - MJ Nut Operator NRS w/Valve Box	1	EA	See valve installation detail
New Package Pump Station	50	GPM	for Peoples Improvement & Service District
6" Connection to existing 12" Distribution Line at 0+00	1	EA	See connection detail - Peoples Improvement & Service District
6" line crossing Southern Drive at Sta. 0+05	85	LF	12" casing pipe, see casing pipe detail
Gravel Road replacement	365	SY	at Sta. 1+00 to 6+50 (5' wide section)
Gravel Private Drive replacement	500	SY	at Sta. 6+50 to 15+50 (5' wide section)
Connection to existing Peoples Imp. Serv. Distict Tank at Sta. 17+00	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
<b>Other Special Conditions:</b> Assume pipeline installation in center of Antelope Valley Street and Private Drive as shown; Each valve shall have a marker post installed per detail;			

Direct Connect System - Stroup Trailer Court - Quantities	Value	Unit	Remarks
8" Dia. Pipe	300	LF	Pressure Class 250 - PVC C-900
Tees	0	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	0	EA	
90 Degree Bend	1	EA	
Solid Sleeves	2	EA	
Altitude Valve on 8" Dia. Pipe	1	EA	See valve installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	1	EA	See valve installation detail
8" Connection to existing 12" Distribution Line at Sta. 0+00	1	EA	See connection detail - Stroup Trailer Court
8" line crossing Garner Lake Road at Sta. 0+05	120	LF	16" casing pipe, see casing pipe detail
Connection to existing Stroup Trailer Court Tank at Sta. 3+00	1	EA	
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
<b>Other Special Conditions:</b> Assume pipeline installation in N Garner Lake Road is within the right-of-way with no asphalt or concrete replacement unless shown; Each valve shall have a marker post installed per detail;			

<b>Direct Connect System - Southside Well Improvement - Quantities</b>	<b>Value</b>	<b>Unit</b>	<b>Remarks</b>
8" Dia. Pipe	100	lf	Pressure Class 250 - PVC C-900
Tees	0	ea	
11 1/4 Degree Bend	0	ea	
22 1/2 Degree Bend	0	ea	
45 Degree Bend	0	ea	
90 Degree Bend	0	ea	
Solid Sleeves	0	ea	
Altitude Valve on 8" Dia. Pipe	1	ea	See valve installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	1	ea	See valve installation detail
8" Connection to existing 8" Distribution Line at Sta. 0+00	1	ea	See connection detail - Southside Well Imp. & Serv. District
Connection to existing Southside Well Imp. & Servicet Tank at Sta.1+00	1	ea	
Vertical Trench Depth	7.67	ft	
Depth of Bury	6.5	ft	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	ft	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		

**Other Special Conditions:** Each valve shall have a marker post installed per detail;

Direct Connect System - Mohan Subdivision - Quantities	Value	Unit	Remarks
8" Dia. Pipe	2,700	LF	Pressure Class 250 - PVC C-900
Tees	1	EA	
11 1/4 Degree Bend	0	EA	
22 1/2 Degree Bend	0	EA	
45 Degree Bend	2	EA	
90 Degree Bend	1	EA	
Solid Sleeves	0	EA	
8" Dia. Pipe (Connection for Mohan Subdivision)	80	LF	Pressure Class 250 - PVC C-900
Blowoff Assembly on 8" Dia. Pipe	1	EA	See blowoff installation detail
8" Gate Valves - MJ Nut Operator NRS w/Valve Box	4	EA	See valve installation detail
8" Connection to existing 12" Distribution Line at Sta. 0+00	1	EA	See connection detail - Mohan Subdivision
Gravel Drive Replacement	335	SY	at Sta. 0+50 to 6+50 (5' wide section)
Gravel Drive Replacement	30	SY	at Sta. 7+50
Gravel Drive Replacement	30	SY	at Sta. 9+30
Connection to future Mohan Subdivision connection at Sta. 16+60	1	EA	
Gravel Drive Replacement	20	SY	at Sta. 17+00
Gravel Road replacement	50	SY	Mohan Road at Sta. 16+60
Gravel Road replacement	60	SY	Swanson Road at Sta. 24+50
Gravel Road replacement	50	SY	Raymond Street at Sta. 26+75
8" Connection to existing 8" Distribution Line at Sta. 27+00	1	EA	See connection detail - Mohan Subdivision
Vertical Trench Depth	7.67	FT	
Depth of Bury	6.5	FT	To Top of Pipe
Bottom of Pipe to Bottom of Excavation	0.5	FT	
Trench Excavation Slope	1:1		Natural angle of repose from edge of trench at top of bedding
Is Pipe Bedding Required	Yes		
Is Pipe Bedding to Spring Line?	No		
Is Pipe Bedding to Top Of Pipe?	No		
Is Pipe Bedding to Above Pipe?	Yes		
<b>Other Special Conditions:</b> Assume pipeline installation in Mohan Road is in shoulder with no asphalt replacement unless a Pipe Bore is shown; Each valve shall have a marker post installed per detail; Each blowoff shall have protective bollards per detail; Each Air/Vac Vault shall have a vent pipe per detail;			