

22-Jul-05

VERA CRUZ AREA PROJECT
Private Plumbing Cost Estimates

To be installed by property owner's plumber

Typical Property Gravity (1)

| | | | | |
|--|-----|-----|----------|--------------------|
| Gravity House Connection Installation 4" PVC | L.F | 140 | \$ 21.00 | \$ 2,940.00 |
| Miscellaneous Sewer Related Work | EA | 1 | 200.00 | \$ 200.00 |
| Pump-out & Fill Septic Tank / Cesspool (3) | EA | 1 | 360.00 | \$ 360.00 |
| Total Estimated Cost - Typical Property Gravity | | | | \$ 3,500.00 |

Typical Property Low-Pressure (1)

| | | | | |
|---|-----|-----|----------|--------------------|
| Grinder Pump-Installation Only (2) | EA | 1 | 1,000.00 | \$ 1,000.00 |
| 1-1/2" Force Lateral | L.F | 140 | 20.00 | \$ 2,800 |
| Miscellaneous Electric & Sewer Related Work | EA | 1 | 300.00 | 300.00 |
| Pump-out & Fill Septic Tank / Cesspool (3) | EA | 1 | 360.00 | 360.00 |
| Total Estimated Cost - Low Pressure | | | | \$ 4,460.00 |

Commercial Properties Add

| | | | | |
|---|----|---|----------|--------------------|
| LCA Water Meter | EA | 1 | 129.00 | \$ 129.00 |
| Installation of meter by plumber | EA | 1 | 100.00 | \$ 100.00 |
| Grease Trap (if applicable) | EA | 1 | 1,260.00 | \$ 1,260.00 |
| Total Addition for Commercial Properties | | | | \$ 1,489.00 |

(1) Assumes septic system is in rear yard

(2) Grinder Pump Unit provided by Project. Unit installed by property owners plumber

(3) Richard Schmick, \$200 min up to 1,000 gallons + \$15.00 for each 100 gallons thereafter

(4) Monarch Septic Tank: Grease Traps Non-Traffic, 300 gal - \$460.00, 500 gal- \$560.00, 1,000 gal- \$775.00
add \$200.00 for frame & cover. Use 500 gal cost + \$ 500 for installation

08/29/05

Devault Property
3502 Main Road East
Estimated Private Plumbing Cost
Assume Grinder Pump L.P.

| | |
|-----------------------------|---|
| Septic System Status | <i>No Malfunction</i> |
| Property Status | <i>Ag-Easement, (sold development rights)</i> |

| | | | | |
|--|-----|-----|----------|---------------------|
| Gravity House Connection Installation 4" PVC | L.F | 560 | \$ 21.00 | \$ 11,760.00 |
| Miscellaneous Sewer Related Work | EA | 1 | 200.00 | \$ 200.00 |
| Pump-out & Fill Septic Tank / Cesspool (3) | EA | 1 | 360.00 | \$ 360.00 |
| Total Estimated Cost - Typical Property Gravity | | | | \$ 12,320.00 |

| Gravity Calculations | Feet |
|---|-------------|
| Est. FF Elevation | 560.00 |
| Est. Elevation of connection point @ home | 556.00 |
| 560 l.f. Lateral @ 2.08% (1/4"/per-ft) | 11.65 |
| Minimum Elevation of Public Lateral | 544.35 |
| Estimated Elevation of Public Lateral | 525.00 |

Ground =533.00' - 8.0' lateral depth=525.0

Conclusion: The house connection lateral can be raised immediately after connection to the public lateral connection after which 4' - 5" of should be maintained until connection to the home.

08/29/05

**Keller Property
2946 Main Road East
Estimated Private Plumbing Cost
Assume Grinder Pump L.P.**

| | |
|----------------------|------------------------------|
| Septic System Status | <i>Suspected Malfunction</i> |
| Property Status | <i>ACT 519</i> |

| | | | | | |
|---|-----|-----|----------|----|--------------------|
| Grinder Pump-Installation Only (1) | EA | 1 | 1,000.00 | \$ | 1,000.00 |
| 1-1/2" Force Lateral | L.F | 275 | 20.00 | \$ | 5,500 |
| Miscellaneous Electric & Sewer Related Work | EA | 1 | 300.00 | | 300.00 |
| Pump-out & Fill Septic Tank / Cesspool | EA | 1 | 350.00 | | 350.00 |
| Creek/Ditch Crossing | LS | 1 | 2,000.00 | | 2,000.00 |
| Total Estimated Cost - Low Pressure | | | | | \$ 9,150.00 |

(1) Grinder Pump Unit provided by Project. Unit installed by property owners plumber

| <i>Rule-out Gravity Lateral</i> | |
|--|------|
| Gravity Calculations | Feet |
| Assumed depth connection point @ home | 4.00 |
| 275 l.f. Lateral @ 2.08% (1/4"/per-ft) | 5.72 |
| Min Required depth @ end of Public Lateral | 9.72 |
| Main not planned to be over 8' deep | |

29-Aug-05

**Dan Mohr residence, Father's residence & Farm
Additional infrastructure required to provide service to the 3 Mohr Properties.**

| | |
|----------------------|---|
| Septic System Status | Potential Malfunction (Both Dan & Father) |
| Property Status | Varies |

Public 8" Gravity Main

| Item | Unit | Quantity | Unit Price | Extension |
|--------------------------------------|------|----------|-------------|----------------------|
| 8" PVC | L.F. | 500 | 45 | \$ 22,500.00 |
| 6" PVC | L.F. | 20 | 45 | \$ 900.00 |
| Wyes | EA | 2 | 150 | \$ 300.00 |
| Manholes | EA | 3 | 3000 | \$ 9,000.00 |
| RR Boring- (Min 16" casing) | L.F. | 60 | 400 | \$ 24,000.00 |
| Stone Backfill | CY | 445 | 35 | \$ 15,575.00 |
| Rock @ 10% | CY | 45 | 75 | \$ 3,375.00 |
| Sub-Total Construction | | | | \$ 75,650.00 |
| Easement Acquisition | L.F. | 500 | \$ 10.00 | \$ 5,000.00 |
| Contingency | | 15% | | \$ 11,347.50 |
| Engineering/ ect. | | 15% | | \$ 11,347.50 |
| Allocation | | 2 | \$ 1,606.00 | \$ 3,212.00 |
| Total Estimated Cost- Gravity | | | | \$ 106,557.00 |

Public Low Pressure Force Main

| Item | Unit | Quantity | Unit Price | Extension |
|--|------|----------|-------------|---------------------|
| Low-Pressure Main | L.F. | 500 | 36 | \$ 18,000.00 |
| Low Pressure Laterals | L.F. | 20 | 36 | \$ 720.00 |
| Low-Pressure Tees, Valves, & Valve Box | EA | 2 | 275 | \$ 550.00 |
| Gravity Manholes | EA | 1 | 3000 | \$ 3,000.00 |
| LP Terminal & Clean-out Manholes | EA | 2 | 2500 | \$ 5,000.00 |
| RR Boring- Min 6" Casing | L.F. | 60 | 200 | \$ 12,000.00 |
| Stone Backfill | CY | 225 | 35 | \$ 7,875.00 |
| Rock @ 10% | CY | 23 | 75 | \$ 1,725.00 |
| Sub-Total Construction | | | | \$ 48,870.00 |
| Easement Acquisition | L.F. | 500 | \$ 10.00 | \$ 5,000.00 |
| Contingency | | 15% | | \$ 7,330.50 |
| Engineering/ ect. | | 15% | | \$ 7,330.50 |
| Allocation | | 2 | \$ 1,606.00 | \$ 3,212.00 |
| Total Estimated Cost- L.P | | | | \$ 71,743.00 |

| Contributions from the Mohr Properties | | |
|--|-------------|---------------------|
| Assesments | S.F | \$ 0.0176 |
| Dan | 40,849 | \$ 718.94 |
| Father | 35,066 | 617.16 |
| Farm | 905,534 | 15,937.40 |
| Sub-Total | | \$ 17,273.50 |
| Tapping Fees | EDUs | |
| Dan | 1 | \$ 3,250.00 |
| Father | 1 | 3,250.00 |
| Farm | 0 | 0 |
| Sub-Total | | \$ 6,500.00 |
| Total Contributions | | \$ 23,773.50 |

| Net Additional Project Cost to serve Mohr Properties | |
|--|--------------|
| For Gravity | \$ 82,783.50 |
| Additional for other properties per edu | \$ 267.04 |
| For L.P. | \$ 47,969.50 |
| Additional for other properties per edu | \$ 154.74 |

12-Jul-05

Vera Cruz Corridor Project
 Alternate #7 LP System Conceptual Cost Estimate

Basis: Assumes Open Cut Installation

| Item | Description | Unit | Quantity | Unit Price | Extension |
|---|--|------|----------|------------|---------------------|
| Construction | | | | | |
| 1. | Low-Pressure System- Mains, (Avg. all sizes 2'-6") | L.F. | 28,000 | 36.00 | 1,008,000.00 |
| 2. | Low-Pressure System Laterals | L.F. | 4,825 | 36.00 | 173,700.00 |
| 3. | Low-Pressure System Tees, Valves & valve box | L.F. | 282 | 275.00 | 77,550.00 |
| 4. | Low-Pressure System Terminal & Clean-out Manholes | EA. | 100 | 2,500.00 | 250,000.00 |
| 5. | Air/ Vacuum Release Manholes | EA. | 15 | 4,000.00 | 60,000.00 |
| 5. | LP Misc. Appurtenances | LS | 1 | 50,000.00 | 50,000.00 |
| 6. | Low Pressure Grinder Pumps | EA. | 270 (1) | 3,500.00 | 945,000.00 |
| 7. | 2A Stone Backfill LP Main-PADOT | CY. | 7,319 | 30.00 | 219,555.00 |
| 8. | 2A Stone Backfill LP Laterals-PADOT | CY. | 4,640 | 30.00 | 139,195.00 |
| 9. | 2A Stone Backfill LP Main-TWP | CY. | 1,089 | 30.00 | 32,674.95 |
| 10. | 2A Stone Backfill LP Laterals-TWP | CY. | 1,065 | 30.00 | 31,943.10 |
| 11. | 2A Stone Backfill LP Main-Other | CY. | - | 30.00 | - |
| 12. | 2A Stone Backfill LP Laterals- Other | CY. | - | 30.00 | - |
| 13. | Stream Crossings | L.F. | 4 | 7,500.00 | 30,000.00 |
| 13. | Railroad Boring Complete | L.F. | 75 | 400.00 | 30,000.00 |
| 14. | Rock Excavation | CY. | 2,100 | 75.00 | 157,500.00 |
| Restoration | | | | | |
| 15. | PADOT Type 6I Shoulder Complete (average width 4') LP Main | SY. | 6,889 | \$ 33.00 | 227,333.33 |
| 16. | PADOT Residual Pavement Restoration - LP Main | SY. | 2,583 | \$ 27.00 | 69,750.00 |
| 17. | PADOT Mill - Traffic Lane Adjacent to the LP Main | SY. | 18,944 | \$ 4.00 | 75,777.78 |
| 18. | PADOT Overlay - Traffic Lane Adjacent to the LP Main | SY. | 18,944 | \$ 6.60 | 125,033.33 |
| 19. | PADOT Pavement Trench Restoration - LP Laterals | SY. | 720 | \$ 45.00 | 32,413.27 |
| 20. | PADOT Mill -LP Lateral Area Opposite Lane | SY. | 2,913 | \$ 9.00 | 26,220.00 |
| 21. | PADOT Overlay - LP Lateral Area - Opposite lane | SY. | 2,913 | \$ 10.00 | 29,133.33 |
| 22. | PADOT Rolled Curb | L.F. | 5,000 | \$ 8.50 | 42,500.00 |
| 23. | TWP Pavement Restoration - LP Mains | SY. | 4,939 | \$ 22.00 | 108,668.02 |
| 24. | TWP Pavement Restoration - LP Laterals | SY. | 721 | \$ 35.00 | 25,237.05 |
| 25. | Misc Restoration | EA | 282 | \$ 400.00 | 112,800.00 |
| Conceptual Construction Costs | | | | | 4,079,984.17 |
| Contingencies 15.00% of Construction | | | | | 611,997.63 |
| Total Conceptual Construction Costs | | | | | 4,691,981.80 |
| Engineering, Permitting, Legal, CM, Inspection, Project Administration 15.00% of Construction | | | | | 611,997.63 |
| Land Purchase for Pump Stations (None Required) AC. - \$ 50,000.00 Per/AC. | | | | | - |
| Easement Rights (20' wide permanent) L.F. 3,000 \$ 10.00 Per/L.F. | | | | | 30,000.00 |
| Total New Public Facility Cost | | | | | 5,333,979.42 |
| Non-Project Allocation Costs EA. 310 \$ 1,606.00 Per/EDU \$ | | | | | 497,860.00 |
| TOTAL CONCEPTUAL PROJECT COST | | | | | 5,831,839.42 |

(1) Supplied by project to property owner for installation by property owner's plumber.
 261 properties 7-9 with duplexes (261+9=270)

Benefit Property Assessment: Reflects the amount of benefit that the property received because of the availability of public sewer. The estimated assessment amount for each property will vary, ranging from a low of approximately \$40 to a high of \$18,000. All properties within the project area, except those exempted by law will pay this fee.

Table 4-2
 Property Assessment Estimates

| Example | Approximate Assessment |
|--------------|------------------------|
| Median Cost | \$ 430 |
| Average Cost | \$ 1,110 |
| 1/4 Acre Lot | \$ 195 |
| 1 Acre Lot | \$ 770 |
| 2 Acre Lot | \$ 1,535 |
| 4.5 Acre Lot | \$ 3,450 |
| 10 Acre Lot | \$ 7,670 |

Examples of Property Owner One-time Up-front Costs:

| Example Description | Lot Size (acre) | # of EDUs | Public Facility Fees | | Private Plumbing (Typical) | Total |
|---|--------------------|--------------|------------------------|-----------------|----------------------------------|-----------|
| | | | Property Assessment | Tapping Fees | | |
| Single family residence | 0.25 | 1 | \$ 195 | \$ 3,250 | \$ 3,500 | \$ 6,945 |
| Single family residence | 2.00 | 1 | \$ 1,535 | \$ 3,250 | \$ 3,500 | \$ 8,285 |
| Single family residence | 10.00 | 1 | \$ 7,670 | \$ 3,250 | \$ 3,500 | \$ 14,420 |
| Apartment building with four units | 4.50 | 4 | \$ 3,450 | \$ 13,000 | \$ 3,500 | \$ 19,950 |
| Duplex / Twin on one property | 1.50 | 2 | \$ 1,150 | \$ 6,500 | \$ 3,500 | \$ 11,150 |
| Single family residence with one apartment unit on the property | 1.00 | 2 | \$ 770 | \$ 6,500 | \$ 3,500 | \$ 10,770 |
| Commercial building assigned 2 Edus | 3.50 | 2 | \$ 2,700 | \$ 6,500 | \$ 3,500 | \$ 12,700 |
| Vacant Lot | 5.00 | 0 | \$ 3,835 | \$ - | \$ - | \$ 3,835 |

Private Plumbing costs are estimated between \$3,000 and \$5,000, with the typical property being approximately \$3,500.

Table 4-6
Estimated Annual User Charges

| Example | # of EDUs | Component | | Estimated Annual User Charge |
|---|-----------|-------------|-------------------|------------------------------|
| | | UMiT Common | Project Surcharge | |
| Single family residence | 1 | 451 | 927 | \$ 1,378 |
| Apartment building with four units | 4 | 1804 | 3708 | \$ 5,512 |
| Duplex / Twin on one property | 2 | 902 | 1854 | \$ 2,756 |
| Single family residence with one apartment unit on the property | 2 | 902 | 1854 | \$ 2,756 |
| Commercial building assigned 2 Edus | 2 | 902 | 1854 | \$ 2,756 |