

JOB # \_\_\_\_\_

# PAVER JOB INFORMATION SHEET

**JOB SITE ADDRESS:** \_\_\_\_\_ Phone # \_\_\_\_\_

Scheduled Date \_\_\_\_\_ Directions \_\_\_\_\_

**OWNERS NAME(s):** \_\_\_\_\_ Phone # (h) \_\_\_\_\_ (w) \_\_\_\_\_

**GENERAL CONTRACTOR:** \_\_\_\_\_ Contact \_\_\_\_\_ Phone # \_\_\_\_\_

**ARCHITECT:** \_\_\_\_\_ Contact \_\_\_\_\_ Phone # \_\_\_\_\_

**PLANS:** \_\_\_\_\_ Specs: \_\_\_\_\_ Date \_\_\_\_\_ # Pages \_\_\_\_\_

**UTILITY LOCATOR CONFIRMATION #:** \_\_\_\_\_ Date \_\_\_\_\_ Call placed by \_\_\_\_\_

**OTHER CONTRACTORS ON SITE:**

Company \_\_\_\_\_ Trade \_\_\_\_\_ Phone # \_\_\_\_\_

Company \_\_\_\_\_ Trade \_\_\_\_\_ Phone # \_\_\_\_\_

Company \_\_\_\_\_ Trade \_\_\_\_\_ Phone # \_\_\_\_\_

**ROAD RESTRICTIONS:** Location \_\_\_\_\_ Weight \_\_\_\_\_ Date \_\_\_\_\_

**DEMOLITION:** Yes / No Self/Others Company \_\_\_\_\_ Contact \_\_\_\_\_ Phone # \_\_\_\_\_

Concrete \_\_\_\_\_ Asphalt \_\_\_\_\_ Thickness \_\_\_\_\_ Sq. Ft. \_\_\_\_\_ Method \_\_\_\_\_

Dump Site Location: \_\_\_\_\_

**EXCAVATING CONTRACTOR:**

Company \_\_\_\_\_ Contact \_\_\_\_\_ Phone # \_\_\_\_\_

Excavation Depth \_\_\_\_\_ GEOTEXTILE Yes / No Type \_\_\_\_\_ Sq. ft. \_\_\_\_\_

Base Depth \_\_\_\_\_ Tons \_\_\_\_\_ Sand Depth \_\_\_\_\_ Tons \_\_\_\_\_

**TRUCKING COMPANY:** (scheduled Yes / No) When \_\_\_\_\_

Company \_\_\_\_\_ Contact \_\_\_\_\_ Phone # \_\_\_\_\_

**BASE MATERIAL SUPPLIER:**

Company \_\_\_\_\_ Contact \_\_\_\_\_ Phone # \_\_\_\_\_

**SAND MATERIAL SUPPLIER:**

Company \_\_\_\_\_ Contact \_\_\_\_\_ Phone # \_\_\_\_\_

**PAVER SUPPLIER:**

Name \_\_\_\_\_ Contact \_\_\_\_\_ Phone # \_\_\_\_\_

Order # \_\_\_\_\_ Delivery Schedule/Equipment \_\_\_\_\_

**PAVERS:**

Pattern to be laid \_\_\_\_\_ SOLDIER COURSE Yes / No Direction of pattern \_\_\_\_\_

Type/shape \_\_\_\_\_ Size/Height \_\_\_\_\_ Color \_\_\_\_\_ Qty \_\_\_\_\_

**PAVE EDGE:** Linear Ft. RIGID \_\_\_\_\_ Linear Ft. FLEXIBLE \_\_\_\_\_ # of SPIKES \_\_\_\_\_

**BONDING PAVERS:** Lineal ft. \_\_\_\_\_ Sq. ft. \_\_\_\_\_ Qty. of Adhesive \_\_\_\_\_ Type \_\_\_\_\_

**EQUIPMENT RENTAL:**

Company \_\_\_\_\_ Phone # \_\_\_\_\_ Type \_\_\_\_\_ Pick-Up / Delivery \_\_\_\_\_

Company \_\_\_\_\_ Phone # \_\_\_\_\_ Type \_\_\_\_\_ Pick-Up / Delivery \_\_\_\_\_

**ELECTRICAL:** Fuse box location \_\_\_\_\_

110v / 220v In / Out / No Location \_\_\_\_\_

**WATER:** Yes / No In / Out Location \_\_\_\_\_

**TOILET:** On / Off Site Public / Private

Location \_\_\_\_\_

**PAVER JOB FOLLOW UP COSTING SHEET**

|           |                                                                                     | BID       | ACTUAL    | ± \$ DOLLARS | ± % PERCENT |
|-----------|-------------------------------------------------------------------------------------|-----------|-----------|--------------|-------------|
| <b>1</b>  | <b>ESTIMATING AND BID</b>                                                           |           |           |              |             |
|           | Labor                                                                               |           |           |              |             |
|           | Expenses                                                                            |           |           |              |             |
| <b>2</b>  | <b>MOBILIZE EQUIP/LABOR</b>                                                         |           |           |              |             |
|           | Labor                                                                               |           |           |              |             |
|           | Expenses                                                                            |           |           |              |             |
| <b>3</b>  | <b>DEMOLITION</b>                                                                   |           |           |              |             |
|           | Labor                                                                               |           |           |              |             |
|           | Equipment                                                                           |           |           |              |             |
|           | Trucking                                                                            |           |           |              |             |
| <b>4</b>  | <b>EXCAVATION (self)</b>                                                            |           |           |              |             |
|           | Layout & set grade                                                                  |           |           |              |             |
|           | Labor                                                                               |           |           |              |             |
|           | Equipment                                                                           |           |           |              |             |
|           | Trucking                                                                            |           |           |              |             |
| <b>5</b>  | <b>EXCAVATION</b>                                                                   |           |           |              |             |
|           | (sub-contract)                                                                      |           |           |              |             |
| <b>6</b>  | <b>CONCRETE CURB &amp; GUTTER</b>                                                   |           |           |              |             |
|           | (sub-contract)                                                                      |           |           |              |             |
| <b>7</b>  | <b>BASE PREP (self)</b>                                                             |           |           |              |             |
|           | Aggregates                                                                          |           |           |              |             |
|           | Geotextile                                                                          |           |           |              |             |
|           | Labor                                                                               |           |           |              |             |
|           | Equipment                                                                           |           |           |              |             |
|           | Trucking                                                                            |           |           |              |             |
| <b>8</b>  | <b>BASE PREP</b>                                                                    |           |           |              |             |
|           | (sub contract)                                                                      |           |           |              |             |
| <b>9</b>  | <b>PAVE EDGE Edging</b>                                                             |           |           |              |             |
|           | Labor                                                                               |           |           |              |             |
|           | Edging                                                                              |           |           |              |             |
|           | Spikes                                                                              |           |           |              |             |
| <b>10</b> | <b>SAND</b>                                                                         |           |           |              |             |
|           |                                                                                     |           |           |              |             |
| <b>11</b> | <b>PAVERS</b>                                                                       |           |           |              |             |
|           | Material                                                                            |           |           |              |             |
|           | Trucking                                                                            |           |           |              |             |
|           | Labor/Hours                                                                         |           |           |              |             |
|           | Equipment                                                                           |           |           |              |             |
|           | Cutting                                                                             |           |           |              |             |
|           | Bonding                                                                             |           |           |              |             |
| <b>12</b> | <b>CLEAN-UP</b>                                                                     |           |           |              |             |
|           | Labor/Hours                                                                         |           |           |              |             |
|           | Equipment                                                                           |           |           |              |             |
|           | Trucking                                                                            |           |           |              |             |
|           | Backfill material                                                                   |           |           |              |             |
|           | <b>OVERHEAD COST</b>                                                                |           |           |              |             |
|           | Note: (Take total annual overhead budget amount and divide by # of annual workdays) |           |           |              |             |
|           | <b>TOTALS</b>                                                                       | <b>\$</b> | <b>\$</b> | <b>± \$</b>  | <b>± %</b>  |

TOTAL (Gain/Loss ±) \$ \_\_\_\_\_

JOB # \_\_\_\_\_

# PAVER JOB ESTIMATING SHEET

**NOTE:** Equipment Costs and Labor Costs should be reduced to hourly or per square foot, or both. This will help facilitate your math.  
For metric conversions, substitute meters for feet and cubic meters for yards.

|                       | CATEGORY                                                                                                                                                                                                    |    | COST |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------|
| 1                     | ESTIMATING AND BID (labor and expenses)                                                                                                                                                                     | 1  |      |
| 2                     | MOBILIZE EQUIPMENT & LABOR (at start and end of job)                                                                                                                                                        | 2  |      |
| 3                     | DEMOLITION (use detail sheet)                                                                                                                                                                               | 3  |      |
| 4                     | EXCAVATION (self) (use detail sheet)                                                                                                                                                                        | 4  |      |
| 5                     | EXCAVATION (sub contract)                                                                                                                                                                                   | 5  |      |
| 6                     | CONCRETE CURB & GUTTER (sub-contract)                                                                                                                                                                       | 6  |      |
| 7                     | BASE PREPARATION (self) (use detail sheet)                                                                                                                                                                  | 7  |      |
| 8                     | BASE PREPARATION (sub contract)<br>NOTE: Be sure any BASE BID covers all items A-K as in #7 on Detail Sheet.<br>NOTE: Pavement square footage should include 4" to 10" around perimeter for base extension. | 8  |      |
| 9                     | PAVE EDGE® Edge Restraint<br>Edging \$_____ /ft. + Spikes \$_____ /ft. + Labor \$_____ /ft. X Total Job Lineal Ft.                                                                                          | 9  |      |
| 10                    | SAND (use detail sheet)                                                                                                                                                                                     | 10 |      |
| 11                    | PAVERS (use detail sheet)                                                                                                                                                                                   | 11 |      |
| 12                    | CLEAN-UP (use detail sheet)                                                                                                                                                                                 | 12 |      |
| DIRECT COST SUB-TOTAL |                                                                                                                                                                                                             |    | \$   |

|                                                                                                                                                       |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| IN HOUSE COST (Combine #'s 1, 2, 3, 4, 7, 9, 10, 11, 12)                                                                                              | \$          |
| SUB CONTRACT COST (Combine #'s 3, 5, 6, 7)                                                                                                            | \$          |
| BID and/or PERFORMANCE INSURANCE BOND                                                                                                                 | \$          |
| OVERHEAD (Number of days for job. See OVERHEAD SHEET, FORM PMOS)<br>Take total annual overhead budget amount and divide by number of annual workdays. | \$          |
| JOB DISCOUNTS (Promo, Builder, Home Shows, etc.)                                                                                                      | \$          |
| SALES OR COMMISSION FEES                                                                                                                              | \$          |
| JOB COST GRAND TOTAL                                                                                                                                  | JOB COST \$ |
| CONTINGENCY (% OF JOB COST)                                                                                                                           | \$          |
| PROFIT (% OF COST)                                                                                                                                    | \$          |
| BID TOTAL                                                                                                                                             | \$          |

# PAVER JOB ESTIMATING DETAIL SHEET

JOB # \_\_\_\_\_

**NOTE:** Equipment Costs and Labor Costs should be reduced to either hourly or per square foot, or both. This will help facilitate your math. For metric conversions, substitute meters for feet and cubic meters for yards.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <h3 style="text-align: center; margin: 0;">3. DEMOLITION</h3> <p>a) EQUIPMENT (\$ per hour x # hours)      a) \$ _____</p> <p>b) LABOR      b) \$ _____</p> <p>c) TRUCKING      c) \$ _____<br/> <small>(tons of excavated material ÷ into truck capacity = # of loads x hrs. each load x # hrs.)</small></p> <p>d) DUMP FEES (# of loads or tons x fee)      d) \$ _____</p> <div style="text-align: right; border: 1px solid black; padding: 2px; margin-top: 10px;"> <b>SUB-TOTAL #3 \$ _____</b> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <h3 style="text-align: center; margin: 0;">10. SAND</h3> <p>a) MATERIAL (bedding &amp; jointing - coarse washed concrete sand)      a) \$ _____</p> <p>b) MATERIAL JOINTING (\$/ton or \$/bags # bags per # sq. ft.)      b) \$ _____</p> <p>c) TRUCKING      c) \$ _____</p> <p>d) PLACEMENT (move from pile to locations on base) (equipment &amp; labor hours)      d) \$ _____</p> <p>e) SCREEDING (sq. ft. &amp; labor hours)      e) \$ _____</p> <p>f) JOINT SWEEPING &amp; VIBRATING (Include cost of initial tamping here) (equipment &amp; labor &amp; # hours)      f) \$ _____</p> <p style="font-size: small;">Note: Sq. ft. x .003548 = for 1" loose screed base &amp; jointed sand = # yards x weight per ton.</p> <div style="text-align: right; border: 1px solid black; padding: 2px; margin-top: 10px;"> <b>SUB-TOTAL #10 \$ _____</b> </div> |
| <h3 style="text-align: center; margin: 0;">4. EXCAVATION (self)</h3> <p>a) LAYOUT + SET GRADE      a) \$ _____</p> <p>b) EQUIPMENT      b) \$ _____</p> <p>c) LABOR      c) \$ _____</p> <p>d) TRUCKING (tons of excavated material + into truck load = # of loads x hrs. each load x # hrs.)      d) \$ _____</p> <p>e) DUMP FEES (# of loads or tons x fee)      e) \$ _____</p> <div style="text-align: right; border: 1px solid black; padding: 2px; margin-top: 10px;"> <b>SUB-TOTAL #4 \$ _____</b> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <h3 style="text-align: center; margin: 0;">11. PAVERS</h3> <p>a) MATERIAL      a) \$ _____</p> <p>b) TRUCKING      b) \$ _____</p> <p>c) PLACEMENT (move to laying edge) (equipment &amp; labor)      c) \$ _____</p> <p>d) LAYING (labor, including layers &amp; feeders)      d) \$ _____</p> <p>e) CUTTING (per lineal foot x total lineal) (factor in Diamond blade life here)      e) \$ _____</p> <p>f) REPLACE DAMAGED OR DEFECTIVE PAVERS (labor)      g) \$ _____</p> <p>g) CUTS &amp; WASTE      g) \$ _____</p> <p>h) BONDING (Pave Tech Adhesive + labor/ft.)      h) \$ _____</p> <div style="text-align: right; border: 1px solid black; padding: 2px; margin-top: 10px;"> <b>SUB-TOTAL #11 \$ _____</b> </div>                                                                                                                                    |
| <h3 style="text-align: center; margin: 0;">7. BASE (self)</h3> <p>a) SUBGRADE COMPACTION (equipment &amp; labor per hour x # hours)      a) \$ _____</p> <p>b) GEOTEXTILE (material &amp; labor x 110% of job sq. ft.)      b) \$ _____</p> <p>c) AGGREGATES (pavement sq. ft. &amp; base extension sq. ft. = total sq. ft. x material x depth)      c) \$ _____</p> <p>d) TRUCKING (# hours or by load or by ton)      d) \$ _____</p> <p>e) PLACEMENT (including rough grading) (equipment &amp; labor x hours)      e) \$ _____</p> <p>f) UTILITY LINE SLEEVING (materials &amp; labor)      f) \$ _____</p> <p>g) COMPACTION (Initial) (equipment &amp; labor x hours)      g) \$ _____</p> <p>h) BASE WATERING (labor x hours)      h) \$ _____</p> <p>i) FINISH GRADING (equipment &amp; labor x hours)      i) \$ _____</p> <p>j) COMPACTION (finish) (equipment &amp; labor x hours)      j) \$ _____</p> <p>k) VERIFY ELEVATIONS (labor)      k) \$ _____</p> <div style="text-align: right; border: 1px solid black; padding: 2px; margin-top: 10px;"> <b>SUB-TOTAL #7 \$ _____</b> </div> | <h3 style="text-align: center; margin: 0;">12. CLEAN-UP</h3> <p>a) CONSOLIDATE EXCESS MATERIALS (equipment &amp; labor)      a) \$ _____</p> <p>b) BACKFILL &amp; GRADE (material &amp; equipment &amp; labor)      b) \$ _____</p> <p>c) PAVERS SWEEP OFF (labor)      c) \$ _____</p> <p>d) SITE CLEAN-UP (labor)      d) \$ _____</p> <p>e) MATERIALS REMOVED (labor &amp; trucking)      e) \$ _____</p> <div style="text-align: right; border: 1px solid black; padding: 2px; margin-top: 10px;"> <b>SUB-TOTAL #12 \$ _____</b> </div>                                                                                                                                                                                                                                                                                                                      |

**PAVER CONTRACTOR MONTHLY OVERHEAD SHEET**

| ACCOUNTING CODE | OVERHEAD DESCRIPTION                                             | BUDGET    | ACTUAL    | OVER/UNDER BUDGET |
|-----------------|------------------------------------------------------------------|-----------|-----------|-------------------|
| 100             | Printing                                                         |           |           |                   |
| 110             | Postage/UPS                                                      |           |           |                   |
| 120             | Advertising, Yellow Pages, Newspaper, etc.                       |           |           |                   |
| 130             | Dues & Subscriptions                                             |           |           |                   |
| 140             | Professional Fees (Lawyer, Accountant)                           |           |           |                   |
| 150             | Telephone                                                        |           |           |                   |
| 155             | Rent Office                                                      |           |           |                   |
| 160             | Utilities                                                        |           |           |                   |
| 170             | Rent Warehouse                                                   |           |           |                   |
| 190             | Office Supplies                                                  |           |           |                   |
| 200             | Licenses                                                         |           |           |                   |
| 205             | Travel & Entertainment                                           |           |           |                   |
| 210             | Salary (Officers/Owners)                                         |           |           |                   |
| 220             | Office/Clerical Wages                                            |           |           |                   |
| 230             | Insurance (property, equip., health, liability, work comp, etc.) |           |           |                   |
| 240             | Depreciation (office machines, construction equipment)           |           |           |                   |
| 250             | Interest & Bank/Finance Charges                                  |           |           |                   |
| 260             | Education/Training (for self or employees)                       |           |           |                   |
| 510             | Bad Debts                                                        |           |           |                   |
| 520             | Uniforms & Safety Equipment                                      |           |           |                   |
| 530             | Downtime (Equipment)                                             |           |           |                   |
| 540             | Downtime (Labor Burden)                                          |           |           |                   |
| 555             | Equipment Maintenance                                            |           |           |                   |
| 560             | Equipment/Vehicle Lease                                          |           |           |                   |
| 565             | Vehicle & Equipment Expenses                                     |           |           |                   |
|                 |                                                                  |           |           |                   |
|                 |                                                                  |           |           |                   |
|                 |                                                                  |           |           |                   |
| <b>TOTALS</b>   |                                                                  | <b>\$</b> | <b>\$</b> | <b>\$</b>         |

**TOTAL OVERHEAD**SUB-TOTAL Gain (or Loss)  $\pm$  from Budget \$ \_\_\_\_\_

OVER/UNDER BILLING ADJUSTMENT \$ \_\_\_\_\_

**QUARTERLY (or bi-annual) ADJUSTMENT** \$ \_\_\_\_\_Accounting Code # \_\_\_\_\_  $\pm$  \$ \_\_\_\_\_**TOTAL ADJUSTED MONTHLY GAIN (or Loss)  $\pm$**  \$ \_\_\_\_\_**TOTAL ADJUSTED YEAR TO DATE GAIN (or Loss)  $\pm$**  \$ \_\_\_\_\_**ANNUAL OVERHEAD COMPUTATIONS****PROJECTED NUMBER OF WORKING DAYS THIS FISCAL YEAR** # \_\_\_\_\_**PROJECTED OVERHEAD COST PER WORKING DAY**

\$ \_\_\_\_\_/Day

NOTE: Take the number of projected working days this year and divide into projected annual budget. This gives you projected overhead cost per working day. Use this figure when filling in the overhead on the Estimating Sheet.

## Material Weights and Swell Factors

| Material                 | Per C.Y.<br>(Loose) | Per C.Y.<br>(In Place) | Percent of<br>Swell | Swell<br>Factors |
|--------------------------|---------------------|------------------------|---------------------|------------------|
| Cement, portland         | 2450                | 2950                   | 20                  | .83              |
| Clay, natural red        | 2700                | 3500                   | 30                  | .77              |
| Clay and gravel, dry     | 2300                | 3100                   | 34                  | .74              |
| Clay and gravel, wet     | 2600                | 3500                   | 34                  | .72              |
| Concrete                 | 2650                | 3700                   | 40                  | .72              |
| Concrete, wet mix        | 3600                | 3600                   | 40                  | .72              |
| Earth, dry loam          | 2300                | 2850                   | 25                  | .81              |
| Earth, wet loam          | 2750                | 3400                   | 24                  | .81              |
| Granite                  | 2800                | 4560                   | 65                  | .60              |
| Gravel, 1/4 to 2 in dry  | 2850                | 3200                   | 12                  | .89              |
| Gravel, 1/4 to 2 in. wet | 3200                | 3600                   | 13                  | .89              |
| Laterite                 | 3900                | 5200                   | 33                  | .75              |
| Limestone, blasted       | 2500                | 4250                   | 69                  | .59              |
| Limestone, crushed       | 2700                | 4500                   | 67                  | .60              |
| Limestone, marble        | 2700                | 4550                   | 69                  | .59              |
| Mud, dry                 | 2100                | 2550                   | 21                  | .82              |
| Mud, wet                 | 2650                | 3200                   | 21                  | .83              |
| Sand, dry                | 2750                | 3100                   | 13                  | .89              |
| Sand, wet                | 3150                | 3600                   | 14                  | .88              |
| Sandstone, shot          | 2700                | 4250                   | 58                  | .64              |
| Shale, riprap            | 2100                | 2800                   | 33                  | .75              |
| Slate                    | 3600                | 4700                   | 30                  | .77              |
| Coral, class No. 2, soft | 1760                | 2900                   | 65                  | .61              |
| Coral, class No. 1, hard | 2030                | 2900                   | 67                  | .60              |

Percent of swell times the bank (in place) cubic yards equals the loose cubic yards to be moved.

Swell factor times the loose cubic yards equals bank cubic yards being moved.

## Excavation Factors

| Depth  | Cubic Yards<br>per Square Foot |
|--------|--------------------------------|
| 2"     | .00617                         |
| 4"     | .01235                         |
| 6"     | .01852                         |
| 8"     | .02469                         |
| 10"    | .03086                         |
| 1'-0"  | .03704                         |
| 1'-6"  | .05555                         |
| 2'-0"  | .07407                         |
| 2'-6"  | .09259                         |
| 3'-0"  | .11111                         |
| 3'-6"  | .13333                         |
| 4'-0"  | .14815                         |
| 4'-6"  | .16667                         |
| 5'-0"  | .18519                         |
| 5'-6"  | .20370                         |
| 6'-0"  | .22222                         |
| 6'-6"  | .24074                         |
| 7'-0"  | .25926                         |
| 7'-6"  | .27777                         |
| 8'-0"  | .29630                         |
| 8'-6"  | .31481                         |
| 9'-0"  | .33333                         |
| 9'-6"  | .35185                         |
| 10'-0" | .37037                         |

Multiply the excavation factor by the area in square feet to find the cubic yards of soil to be excavated. **Example:** Assume an excavation 24 ft. x 30 ft. and 6 ft. deep.  $24 \times 30 = 720$ . In the table the 6 ft. depth has a factor of .22222 (the number of cu. yd. in an excavation 1 ft. square and 6 ft. deep).  $720 \times .22222 = 160$  Cu. Yds.

## Metric-U.S. Conversion Factors

(Based on National Bureau of Standards)

| AREA      |           |             |
|-----------|-----------|-------------|
| Sq. cm    | x 0.1550  | = sq. ins.  |
| Sq. ins.  | x 6.4516  | = sq. cm    |
| Sq. m     | x 10.7639 | = sq. ft.   |
| Sq. ft.   | x 0.0929  | = sq. m     |
| Ares      | x 1076.39 | = sq. ft.   |
| Sq. ft.   | x 0.00093 | = ares      |
| Sq. m     | x 1.1960  | = sq. yds.  |
| Sq. yds.  | x 0.8361  | = sq. m     |
| Hectare   | x 2.4710  | = acres     |
| Acre      | x 0.4047  | = hectares  |
| Sq. km    | x 0.3861  | = sq. miles |
| Sq. miles | x 2.5900  | = sq. km    |

| LENGTH      |          |               |
|-------------|----------|---------------|
| Centimeters | x 0.3937 | = inches      |
| Inches      | x 2.5400 | = centimeters |
| Meters      | x 3.2808 | = feet        |
| Feet        | x 0.3048 | = meters      |
| Meters      | x 1.0936 | = yards       |
| Yards       | x 0.9144 | = meters      |
| Kilometers  | x 0.6214 | = miles       |
| Miles       | x 1.6093 | = kilometers  |

| PRESSURE                |           |                           |
|-------------------------|-----------|---------------------------|
| Tons (long) per sq. ft. | x 10940.0 | = kg per sq. m            |
| Kgs per sq. mm          | x .634973 | = tons (long) per sq. in. |
| Tons (long) per sq. in. | x 1.57494 | = kg per sq. mm           |
| Kgs per cu. m           | x .062428 | = lbs. per cu. ft.        |
| Lbs. per cu. ft.        | x 16.0184 | = kgs per cu. m           |
| Kgs per m               | x .671972 | = lbs. per ft.            |
| Lbs. per ft.            | x 1.48816 | = kgs per m               |
| Kg/m                    | x 7.233   | = ft. lbs.                |
| Ft. Lbs.                | x .13826  | = kg/m                    |

| WEIGHT       |             |                |
|--------------|-------------|----------------|
| Kgs          | x 2.2046    | = lbs.         |
| Lbs.         | x 0.4536    | = kg           |
| Kgs          | x 0.0011    | = tons (short) |
| Lbs.         | x 0.0004536 | = tons*        |
| Kgs          | x 0.00098   | = tons (long)  |
| Tons (short) | x 907.1848  | = kg           |
| Tons*        | x 1.1023    | = tons (short) |
| Tons (short) | x 0.9072    | = tons*        |
| Tons*        | x 2204.62   | = lbs.         |
| Tons (long)  | x 1016.05   | = kg           |
| *metric      |             |                |

| VOLUME   |           |            |
|----------|-----------|------------|
| Cu. m    | x 35.3145 | = cu. ft.  |
| Cu. ft.  | x 0.0283  | = cu. m    |
| Cu. m    | x 1.3079  | = cu. yds. |
| Cu. yds. | x 0.7646  | = cu. m    |

## Area and Circumference of Circles (Inches)

| Dia.  | Area   | Cir.  | Dia.   | Area   | Cir.  | Dia.   | Area   | Cir.  | Dia. | Area   | Cir.  | Dia. | Area   | Cir.  | Dia. | Area   | Cir.  |
|-------|--------|-------|--------|--------|-------|--------|--------|-------|------|--------|-------|------|--------|-------|------|--------|-------|
| 1/8   | 0.0123 | .3926 | 4 1/2  | 15.904 | 14.13 | 16 1/2 | 213.82 | 51.83 | 32   | 804.24 | 100.5 | 56   | 2463.0 | 175.9 | 80   | 5026.5 | 251.3 |
| 1/4   | 0.0491 | .7854 | 5      | 19.635 | 15.70 | 17     | 226.98 | 53.40 | 33   | 855.30 | 103.6 | 57   | 2551.7 | 179.0 | 81   | 5153.0 | 254.4 |
| 3/8   | 0.1104 | 1.178 | 5 1/2  | 23.758 | 17.27 | 17 1/2 | 240.52 | 54.97 | 34   | 907.92 | 106.8 | 58   | 2642.0 | 182.2 | 82   | 5281.0 | 257.6 |
| 1/2   | 0.1963 | 1.570 | 6      | 28.274 | 18.84 | 18     | 254.46 | 56.54 | 35   | 962.11 | 109.9 | 59   | 2733.9 | 185.3 | 83   | 5410.6 | 260.7 |
| 5/8   | 0.3067 | 1.963 | 6 1/2  | 33.183 | 20.42 | 18 1/2 | 268.80 | 58.11 | 36   | 1017.8 | 113.0 | 60   | 2827.4 | 188.4 | 84   | 5541.7 | 263.8 |
| 3/4   | 0.4417 | 2.356 | 7      | 38.484 | 21.99 | 19     | 283.52 | 59.69 | 37   | 1075.2 | 116.2 | 61   | 2922.4 | 191.6 | 85   | 5674.5 | 267.0 |
| 7/8   | 0.6013 | 2.748 | 7 1/2  | 44.178 | 23.56 | 19 1/2 | 298.64 | 61.26 | 38   | 1134.1 | 119.3 | 62   | 3019.0 | 194.7 | 86   | 5808.8 | 270.1 |
| 1     | 0.7854 | 3.141 | 8      | 50.265 | 25.13 | 20     | 314.16 | 62.83 | 39   | 1194.5 | 122.5 | 63   | 3117.2 | 197.9 | 87   | 5944.6 | 273.3 |
| 1 1/8 | 0.9940 | 3.534 | 8 1/2  | 56.745 | 26.70 | 20 1/2 | 330.06 | 64.40 | 40   | 1256.6 | 125.6 | 64   | 3216.9 | 201.0 | 88   | 6082.1 | 276.4 |
| 1 1/4 | 1.227  | 3.927 | 9      | 63.617 | 28.27 | 21     | 346.36 | 65.97 | 41   | 1320.2 | 128.8 | 65   | 3318.3 | 204.2 | 89   | 6221.1 | 279.6 |
| 1 3/8 | 1.484  | 4.319 | 9 1/2  | 70.882 | 29.84 | 21 1/2 | 363.05 | 67.54 | 42   | 1385.4 | 131.9 | 66   | 3421.2 | 207.3 | 90   | 6361.7 | 282.7 |
| 1 1/2 | 1.767  | 4.712 | 10     | 78.54  | 31.41 | 22     | 380.13 | 69.11 | 43   | 1452.2 | 135.0 | 67   | 3525.6 | 210.4 | 91   | 6503.8 | 285.8 |
| 1 5/8 | 2.073  | 5.105 | 10 1/2 | 86.59  | 32.98 | 22 1/2 | 397.60 | 70.68 | 44   | 1520.5 | 138.2 | 68   | 3631.6 | 213.6 | 92   | 6647.6 | 288.9 |
| 1 3/4 | 2.405  | 5.497 | 11     | 95.03  | 34.55 | 23     | 415.47 | 72.25 | 45   | 1590.4 | 141.3 | 69   | 3739.2 | 216.7 | 93   | 6792.9 | 292.1 |
| 1 7/8 | 2.761  | 5.890 | 11 1/2 | 103.86 | 36.12 | 23 1/2 | 433.73 | 73.82 | 46   | 1661.9 | 144.5 | 70   | 3848.4 | 219.9 | 94   | 6939.7 | 295.3 |
| 2     | 3.141  | 6.283 | 12     | 113.09 | 37.69 | 24     | 452.39 | 75.39 | 47   | 1734.9 | 147.6 | 71   | 3959.2 | 223.0 | 95   | 7088.2 | 298.4 |
| 2 1/4 | 3.976  | 7.068 | 12 1/2 | 122.71 | 39.27 | 24 1/2 | 471.43 | 76.96 | 48   | 1809.5 | 150.7 | 72   | 4071.5 | 226.1 | 96   | 7238.2 | 301.5 |
| 2 1/2 | 4.908  | 7.854 | 13     | 132.73 | 40.84 | 25     | 490.87 | 78.54 | 49   | 1885.7 | 153.9 | 73   | 4185.3 | 229.3 | 97   | 7389.8 | 304.7 |
| 2 3/4 | 5.939  | 8.639 | 13 1/2 | 143.13 | 42.41 | 26     | 510.93 | 80.11 | 50   | 1963.5 | 157.0 | 74   | 4300.8 | 232.4 | 98   | 7542.9 | 307.8 |
| 3     | 7.068  | 9.424 | 14     | 153.93 | 43.98 | 27     | 532.55 | 81.82 | 51   | 2042.8 | 160.2 | 75   | 4417.8 | 235.6 | 99   | 7697.7 | 311.0 |
| 3 1/4 | 8.295  | 10.21 | 14 1/2 | 165.13 | 45.55 | 28     | 555.75 | 83.49 | 52   | 2123.7 | 163.3 | 76   | 4536.4 | 238.7 |      |        |       |
| 3 1/2 | 9.621  | 10.99 | 15     | 176.71 | 47.12 | 29     | 580.52 | 85.10 | 53   | 2206.1 | 166.5 | 77   | 4656.0 | 241.9 |      |        |       |
| 3 3/4 | 11.044 | 11.78 | 15 1/2 | 188.69 | 48.69 | 30     | 606.86 | 86.72 | 54   | 2290.2 | 169.6 | 78   | 4778.3 | 245.0 |      |        |       |
| 4     | 12.566 | 12.56 | 16     | 201.06 | 50.26 | 31     | 634.76 | 88.38 | 55   | 2375.8 | 172.7 | 79   | 4901.6 | 248.1 |      |        |       |

## Decimal Equivalents of Fractions

| Inch  | mms    | 1000s   | Inch  | mms    | 1000s   | Inch  | mms    | 1000s   | Inch  | mms    | 1000s   |
|-------|--------|---------|-------|--------|---------|-------|--------|---------|-------|--------|---------|
| 1/64  | .39687 | 015625  | 17/64 | 6.7469 | .265625 | 33/64 | 13.907 | .515625 | 49/64 | 19.447 | .765625 |
| 1/32  | .79375 | 03125   | 9/32  | 7.1437 | .28125  | 17/32 | 13.494 | .53125  | 29/32 | 19.844 | .78125  |
| 3/64  | 1.1906 | .046875 | 19/64 | 7.5406 | .296875 | 35/64 | 13.891 | .546875 | 51/64 | 20.241 | .796875 |
| 1/16  | 1.5875 | .09375  | 9/16  | 7.9375 | .3125   | 9/16  | 14.287 | .5625   | 13/16 | 20.637 | .8125   |
| 5/64  | 1.9844 | .078125 | 21/64 | 8.3344 | .328125 | 37/64 | 14.684 | .578125 | 53/64 | 21.034 | .828125 |
| 3/32  | 2.3812 | .09375  | 11/32 | 8.7312 | .34375  | 19/32 | 15.081 | .59375  | 27/32 | 21.431 | .84375  |
| 7/64  | 2.7781 | .109375 | 23/64 | 9.1281 | .359375 | 39/64 | 15.478 | .609375 | 55/64 | 21.828 | .859375 |
| 1/8   | 3.1750 | .125    | 3/8   | 9.5250 | .375    | 3/8   | 15.875 | .625    | 7/8   | 22.225 | .875    |
| 9/64  | 3.5719 | .140625 | 25/64 | 9.9219 | .390625 | 41/64 | 16.272 | .640625 | 57/64 | 22.622 | .890625 |
| 5/32  | 3.9687 | .15625  | 13/32 | 10.319 | .40625  | 21/32 | 16.669 | .65625  | 29/32 | 23.019 | .90625  |
| 11/64 | 4.3656 | .171875 | 27/64 | 10.716 | .421875 | 43/64 | 17.066 | .671875 | 59/64 | 23.416 | .921875 |
| 3/16  | 4.7625 | .1875   | 7/16  | 11.112 | .4375   | 17/16 | 17.462 | .6875   | 15/16 | 23.812 | .9375   |
| 13/64 | 5.1594 | .203125 | 29/64 | 11.509 | .453125 | 45/64 | 17.859 | .703125 | 61/64 | 24.209 | .953125 |
| 7/32  | 5.5562 | .21875  | 15/32 | 11.906 | .46875  | 23/32 | 18.256 | .71875  | 31/32 | 24.606 | .96875  |
| 15/64 | 5.9531 | .234375 | 31/64 | 12.303 | .484375 | 47/64 | 18.653 | .734375 | 63/64 | 25.003 | .984375 |
| 1/4   | 6.3500 | .25     | 1/2   | 12.700 | .5      | 3/4   | 19.050 | .75     |       |        |         |

## Miscellaneous Useful Information

- Area of circle: Multiply square of diameter by .7854.
- Area of rectangle: Multiply length by breadth.
- Area of triangle: Multiply base by 1/2 perpendicular height.
- Area of ellipse: Multiply product of both diameters by .7854.
- Area of sector of circle: Multiply arc by 1/2 radius.
- Area of segment of circle: Subtract area of triangle from area of sector of equal angle.
- Area of surface of cylinder: Area of both ends plus length by circumference.
- Area of surface of cone: Add area of base to circumference of base multiplied by 1/2 slant height.
- Area of surface of sphere: Multiply diameter by 3.1416.
- Circumference of circle: Multiply diameter by 3.1416.
- Cubic inches in ball or sphere: Multiply cube of diameter by .5236.
- Cubic contents of cone or pyramid: Multiply area of base by 1/3 the altitude.
- Cubic contents of cylinder or pipe: Multiply area of one end by length.
- Cubic contents of wedge: Multiply area of rectangular base by 1/2 height.
- Diameter of circle: Multiply circumference by .31831.



**JOB #** \_\_\_\_\_

# PAVER JOB DAILY REPORT SHEET

[illegible]

| TRUCK<br>LIC. # | LOAD SIZE<br>(Yards) | DRIVER | TYPE OF WORK      | # LOADS |     | HOURS | \$ / HR |
|-----------------|----------------------|--------|-------------------|---------|-----|-------|---------|
|                 |                      |        |                   | IN      | OUT |       |         |
|                 |                      |        | U.S. 800/728-3832 |         |     |       |         |
|                 |                      |        |                   |         |     |       |         |
|                 |                      |        | FAX 952/226-6406  |         |     |       |         |

| COMPANY | START TIME | STOP TIME | # WORKERS | COMMENTS |
|---------|------------|-----------|-----------|----------|
|         |            |           |           |          |
|         |            |           |           |          |
|         |            |           |           |          |
|         |            |           |           |          |

|                        |                |            |               |
|------------------------|----------------|------------|---------------|
| (2) Mobilize Equipment | (4) Excavation | (9) Edging | (11) Pavers   |
| (3) Demolition         | (7) Base Prep  | (10) Sand  | (12) Clean-up |

[illegible][illegible]

**ADDITIONAL MATERIALS, TOOLS, or EQUIPMENT REQUIRED**

| DESCRIPTION | SOURCE | QTY | COST |
|-------------|--------|-----|------|
|             |        |     |      |
|             |        |     |      |
|             |        |     |      |
|             |        |     |      |
|             |        |     |      |

**ADD / CHANGE WORK AUTHORIZATIONS** (Describe Work, provide copy of written and signed work order)

1).

2).

**PROBLEMS** (damage, personal injuries, equipment breakdown)

U.S. 800/728-3832

FAX 952/226-6406

**COMMENTS** (weather, personel, etc.)**DELAYS OR DAMAGE BY OTHERS** (describe in detail with names, times, location, quantities involved)