Engineers Estimate

JASON LAMPLEY
INTERMOUNTAIN
Topics

- Resources
- Street Selection
- Material Selection and quantities
- Equipment
- Specifications
Resources and Budget

- What dollars do you have committed?
- Long term vision or band aid?
- Site visits from Industry Resources
- Pooling money with other local agencies
- Timing of bids and build (early work and in combination)
GROUPING/SCHEDULING OF WORK

- ADJACENT ROADS
- PERFORM WORK IN A GRID
- NEIGHBORHOODS
- CLOSURE LIMITATIONS? (SPLIT STREETS LENGTHS)
Quantities

- Be as accurate as possible (contractor take off vs bid documents)
- Over run/ Under run
- Tonnage or YD2?
- Lump Sum items?
AGG SOURCES AVAILABILITY

- AGGREGATE MANUFACTURE/GRADATIONS/LOGISTICS
- CA is pretty good
EMULSION/HOT APPLIED

- Emulsion Availability
- Hot Applied Chip Seal Logistics and Types
- Equivalent Products (Example Rubberized Slurry)
SPECIFICATIONS

- CLEAR SPECIFICATIONS/CLEAR EXPECTATIONS
  - Standard ISSA specifications for Guidelines
  - DOT (not always the best for locals)
  - Sharing of Local Specification
  - Restrictions- (daily maximums etc..)understand the cost of them
  - Larger work windows.
  - Enforcement of the Specifications
    - Calibrations
    - Get what you are paying for.
Specifications

- Scope (avoid change orders with clear scope)
- Working Days
- Liquidated Damages for smaller items
In addition, the Contractor shall pay the following sums for the associated liquidated damages:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure to provide and/or non-compliance to or violation of accepted construction scheduling and/or phasing, per 6-1 and 6-2</td>
<td>$250.00</td>
<td>per each calendar day</td>
</tr>
<tr>
<td>Failure to provide and/or non-compliance with accepted Traffic Control Plans per 6-1 and 7-10.3</td>
<td>$250.00</td>
<td>per each calendar day</td>
</tr>
<tr>
<td>Performance of unauthorized work, per 2-6</td>
<td>$150.00</td>
<td>per each incident</td>
</tr>
<tr>
<td>Performance of work outside of approved working hours without written approval</td>
<td>$150.00</td>
<td>per hour</td>
</tr>
<tr>
<td>Failure to provide adequate Project Site Maintenance 24/7, per 7-8</td>
<td>$150.00</td>
<td>per each calendar day</td>
</tr>
<tr>
<td>Storage of equipment and/or materials in public streets, per 7-10.2</td>
<td>$250.00</td>
<td>per each calendar day/incident</td>
</tr>
<tr>
<td>Failure to raise manholes within 3 working days of pavement completion, per 301-1.6 and 301-1.9</td>
<td>$250.00</td>
<td>per each incident</td>
</tr>
<tr>
<td>Failure to provide temporary layout lines (cat-tracks) within 24 hours and/or permanent markings installed within 3 working days of pavement completion, per 310-5.6.1</td>
<td>$250.00</td>
<td>per each calendar day</td>
</tr>
<tr>
<td>Failure to provide adequate street sweeping within 24-48 hours, per 302-4 and 302-2</td>
<td>$500.00</td>
<td>per each calendar day</td>
</tr>
</tbody>
</table>
EQUIPMENT

- Combine Slurry Seal and Micro Application if needed
- Gradation, Rut Fill, Leveling, etc....
- Chip Seal Equipment is also interchangeable between emulsion and hot applied.
Agency partnering with contractor is always better (contractors can red flag agencies)

Agency can also look at RFQ/RFP and multi year contracts (agencies can red flag contractors)

You can have efficient pricing and good quality with solid specifications, partnering, knowledge, and a good plan.
The Bitterness of Poor Quality Remains Long After the Sweetness of Low Price is Forgotten!
Questions

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