Lump Sum Temporary Traffic Control (TTC) is a method to consolidate temporary traffic control unit items into a single item. When used, Lump Sum TTC shall include all the man-hours, devices, and signing necessary for implementation and maintenance of the TTC; e.g. flaggers, traffic control maintenance, barricades, drums, and flashers. For bidding purposes and to assure safety is not compromised, a TTC plan sufficiently detailed to convey the State’s expectations and requirements shall be included in the bid package. The contractor submits a single lump sum bid for developing, implementing and maintaining TTC on a contract.

This method does not reduce inspection effort. The same level of field inspection and oversight is required. However, a lower level of paperwork is required from field inspectors because only one pay item is used. Lump sum TTC allows inspectors to focus on TTC quality and vehicle flow through the work zone rather than on the number of devices being used. This increased attention on quality assures greater worker safety and also assures the motorists safer and more efficient travel through the TTC zone.

An FHWA publication entitled “Guidelines on Payment for Temporary Traffic Control” summarizes the advantages of and disadvantages of Lump Sum versus Unit Price Pay Items:

**Lump Sum Pay Items**

**Advantages**
- Lowers the demands on agency staff to document item usage
- Simple for low-cost, small projects
- Can provide an incentive for well-organized contractors who can schedule work efficiently into the smallest work window possible

**Disadvantages**
- Makes the agency traffic control plan review contractual rather than approval related, since the plan is tied to the number of items that will be used
- An extra administrative burden can be created if changes to quantities are required

**Unit Price Pay Items**

**Advantages**
- Allows the agency to manage how much of a particular pay item is to be used at a work zone
- Allows for increased flexibility on high-cost, complex projects
- Administrative efforts to adjust quantities as work progresses is minimized
Disadvantages

- Requires significant agency staff effort to constantly monitor and document pay item usage for payment purpose
- May encourage overuse of devices

Criteria for using lump sum TTC are as follows:

1. Project is relatively simple with straightforward TTC requirements. If the project is staged, the staging is not complex, requiring only simple set ups and predictable work durations per stage.

2. Project is single-season in duration, so that winter maintenance and work to set and reset TTC during unworkable weather is not a concern.

3. Include in the bid documents, TTC plans sufficiently detailed to convey the State’s contract expectations and requirements.

4. A contingency item is provided to pay for items not contemplated in the original TTC but determined to be needed. In addition to resident engineer directed TTC modifications, the provisions of the contingency item should be clear that the item will also pay for project-wide damage to the work zone TTC caused by unplanned and/or natural events that were unanticipated by the contractor; e.g. severe wind storm sign damage and/or knockdowns, an errant vehicle crashes into an array of sand barrel crash cushions, trucks running down long stretches of tubular markers.

Lump sum TTC does not necessarily ease the burden on designers. It is imperative that TTC sheets and special provisions are clear on traffic management expectations, item exclusions, etc. to minimize contractor risk and avoid worst-case scenario bidding. Also identify that item quantities and/or TTC sheets provided are for estimating purposes only and that actual quantities will vary based on the contractor’s specific operations.

On the TTC sheets and special provisions provided for bidding purposes, clearly identify items included in the lump sum item and those excluded to be paid separately. Contract advertisement may need to be extended to allow contractors time to develop a TTC strategy for bidding purposes.

Attachment – Example Special Provisions and TTC sheets
S900-508 DIRECTED TRAFFIC CONTROL

Description. Directed traffic control includes all work and materials needed for changes and extra work as directed by the Engineer. Prior written authorization documenting the affected work and requirements is necessary before performing work under this item.

Temporary traffic control devices that are disturbed by an unanticipated event, Acts of God; a cataclysmic natural phenomenon (e.g., tornadoes, earthquakes, floods, and officially declared natural disasters); and/or a third party; an individual or group or individuals over whom neither the Department nor Contractor has control; and need to be repositioned will be addressed by this item.

Materials. Provide materials as directed meeting the requirements as specified in:
- Signs and Sign Supports .................................................................................. S615.02
- Temporary Traffic Control Devices .................................................................. S626.02
- Temporary Pavement Markings ....................................................................... S900-50A

Construction Requirements. All Directed Traffic Control shall comply with the requirements of the Manual on Uniform Traffic Control Devices (M.U.T.C.D.) as adopted by the State.

Method of Measurement. Directed Traffic Control will be measured by Force Account in accordance with Subsection 109.03.

Basis of Payment. Payment for accepted work will be made as follows:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contingency Amount Directed Traffic Control</td>
<td>CA</td>
</tr>
</tbody>
</table>
Description. Provide traffic control operations for work performed under this contract as shown in the plans, or as directed by the Engineer.

Materials. Use material as specified in 107.06 and 626.02. Materials shall be certified to meet the Manual on Uniform Traffic Control Devices (MUTCD), and/or NCHRP 350 or AASHTO MASH requirements.

Construction Requirements. Comply with the contract requirements specified in 626 and 630.

A. Construction Traffic Control and Maintenance. Furnish, install, maintain, reset, and remove traffic control devices used for the purpose of regulating, warning, or directing traffic at all work locations.
B. Comply with 105.14.
C. If the Contractor chooses to submit an alternate Temporary Traffic Control Plan, submittal shall include all authorities having jurisdiction over the local roads impacted by this project, and written approval by all jurisdictions is required before work that impacts traffic begins. Allow at least 10 working days for agency review. Traffic Control Plans are required to meet all standards of the Manual on Uniform Traffic Control Devices (MUTCD) as adopted by the State of Idaho. Include all sign placements, placement of flaggers, all channelizing and channelization devices, placement of all arrow boards, and placement of all Portable Changeable Message (PCM) signs for each phase of construction in the Traffic Control Plans. Include all measurements, sign and channelization device spacing, and lane widths. The Traffic Control Plan needs to be drawn in a form acceptable to the Engineer.

Work that impacts traffic is prohibited until the Traffic Control Plan has been approved.

Method of Measurement. The Engineer will measure acceptably completed work by the lump sum. This work includes, but is not limited to the following:

1. Construction signs
2. Drums
3. Barricades
4. Arrow boards
5. Temporary pavement markings
6. Miscellaneous traffic control items, including high visibility sign flags and flashing beacons.
7. Traffic control maintenance.
8. Flagger control.
10. Temporary Rigid Raised Reflective Markers
11. Tubular Markers

Basis of Payment. The Department will pay for accepted quantity at the contract unit price as follows:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP Temporary Traffic Control</td>
<td>Lump Sum</td>
</tr>
</tbody>
</table>